



ACKNOWLEDGMENT OF RECEIPT

IFB #3469-2
Project #20.1403
PROJECT: **Building-A Remodel**
Phoenix College, Main Campus

Please provide the requested information below as acknowledgment that you have received our Invitation for Bid noted above. It is **required** that interested Bidders complete this acknowledgment and return via Fax to MCCCDC Purchasing Department at **(480) 731-8190** or email to purchasing@domail.maricopa.edu or by US Mail.

All addenda will to be posted on our website at <http://www.maricopa.edu/business/purchasing/>.

Failure to sign and return the “Acknowledgement of Receipt” will result in your company not being sent any addenda to this IFB.

Name of Firm: _____

Address: _____

Phone No.: () _____ Fax No.: () _____

Name:(Print) _____ Title: _____

E-Mail: _____

Signature: _____ Date: _____

PLEASE NOTE: Failure to respond to this acknowledgement **will** result in your company being removed from our bidders mailing list for this commodity.

() We will not be responding to this solicitation please retain us on the bidder’s mailing list.

CALENDAR OF EVENTS
Phoenix College Building-A Remodel
IFB #3469-2
PROJECT NO. 20.1403

PROJECT DESCRIPTION:

Building A was built in 1938 as part of the original campus construction. The entire building (approximately 26,400 square feet) will be impacted as part of this project. The scope of work includes the full replacement of the HVAC, electrical, plumbing, glazing, fire alarm system (including conduit & back-boxes), lighting and ceiling systems and design & installation of a new fire sprinkler system. Remodeling includes the consolidation of four existing faculty suites into two individual suites for each program. Interior finishes will be replaced or updated.

WORK THAT IS NOT PART OF THIS BID includes services direct to the Owner such as geo-technical reports and materials testing, any hazardous materials testing or abatement. Floor finishes, Restroom floor and wall tile and exterior brick repair will be contracted separately. (See Section 01010 Summary of the Work)

Structured cabling / equipment / racks / voice-data systems, audio-visual systems and building security systems (cameras & access control) will also be under separate contract and are not part of this bid. **However, conduit pathways and back-boxes for these systems ARE part of this bid.**

CONSTRUCTION COST ESTIMATE: \$4.0M to \$4.5M

PROJECT CONSTRUCTION TIME: Final Completion to be achieved not later than June 28, 2021.

CALENDAR OF EVENTS

ACTIVITY

1. Release Bid Documents: **September 24, 2020**

2. Pre-bid Conference

A **MANDATORY** pre-bid meeting will be held on Tuesday, October 6, 2020 at 9:00 a.m. in Bulpitt Auditorium (AU Bldg). A tour of Building A will be available immediately after the Pre-Bid Conference.

Visits to the project site may also be scheduled in by contacting Doug McCarthy, Director of Operations at Phoenix College. Ph: (602) 463-6565. Email: doug.mccarthy@phoenixcollege.edu

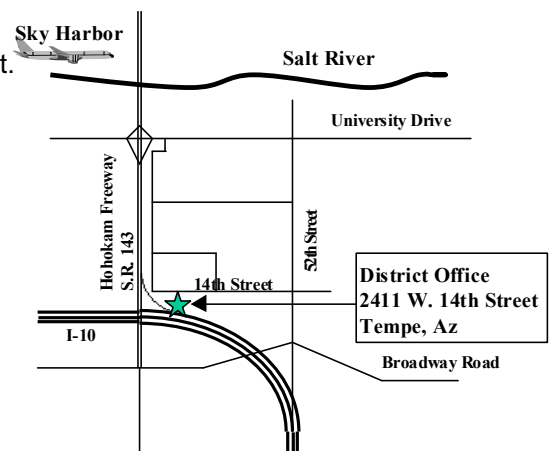
3. RFI's, Prior Approvals & Substitutions

Last day for receipt of requests for RFI's and for Prior Approvals & Substitution requests is 4:00pm, Monday, October 12, 2020. All requests must be submitted **directly to DFDG.**

4. Bids Due: **Tuesday, October 27, 2020, 3:00 p.m.**

Return all bids to the Lobby Reception Desk of the District Support Services Center, 2411 West 14th St. Tempe, Arizona. This is located between Broadway and University, west of 52nd Street, in Tempe. **When delivering your Bid/Proposal please allow for sufficient time for your Bid to be time stamped by the Security Desk.**

5. Notice of Award: (on or about) **November 25, 2020.**



6. Notice to Proceed: (on or about) December 14, 2020

The Purchase Order and the Notice to Proceed (NTP) will be issued upon return of the signed contract, along with Payment & Performance Bonds and Certificate of Insurance.

7. Substantial Completion: May 31, 2021

8. Final Completion: Not later than June 28, 2021



Advertisement
Invitation for Bid (IFB) #3469-2
Building Construction
Phoenix College Building-A Remodel
FP&D Project #20.1403

The Maricopa County Community College District is planning to remodel Building-A at Phoenix College in Phoenix, Arizona. The work includes minor selective demolition, new plumbing, mechanical & electrical systems, new interior partitions, fire sprinklers and fire alarm. The scope of work also includes partial exterior wall demo, and new exterior glazing. The estimated construction cost is \$4.0M to \$4.5M.

Bid documents for this construction project will be available for download on September 24, 2020, and can be obtained online at:

<https://procurement.maricopa.edu/bid-opportunities>

A MANDATORY Pre-Bid meeting will be held at Phoenix College, 1202 W. Thomas Rd., Phoenix, AZ, 85013, on Tuesday, October 6, 2020 at 9:00 a.m. in the Bulpitt Auditorium (AU Bldg). There will be an opportunity to visit the project site following the pre-bid meeting. Social distancing will be enforced and masks must be worn.

Written, sealed Bids will be received at Maricopa Community College District Office, Main Reception Desk, 1st Floor Lobby, 2411 West 14th Street, Tempe, Arizona 85281, no later than **3:00 P.M. (local time), Tuesday, October 27, 2020.**

For information regarding this opportunity, please contact: Ren Carlson, MCCCDC Procurement Department at 480-731-8519 or ren.carlson@domail.maricopa.edu.



BUILDING-A REMODEL

**Phoenix College, Main Campus
1202 W.Thomas Rd, Phoenix, AZ 85013**

MCCCD Project #20.1403

INVITATION FOR BID #3469-2

**MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT
District Support Services Center
2411 West 14th Street, Tempe, AZ 85281-6941**

PROJECT TEAM

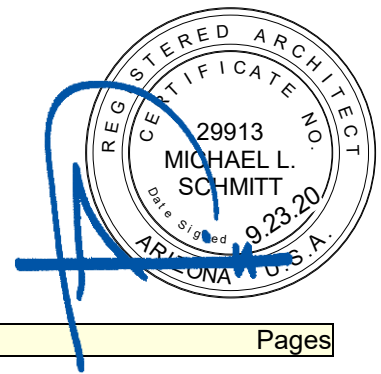
Consultant Contact: Michael Schmitt, DFDG Architects, 4545 E. McKinley Street, Phoenix, AZ 85008
Phone: (602) 954-9060

Phoenix College: Doug McCarthy, College Facility Director, 1202 W. Thomas Rd., Phoenix, AZ. 85013
Phone: (602) 286-8242.

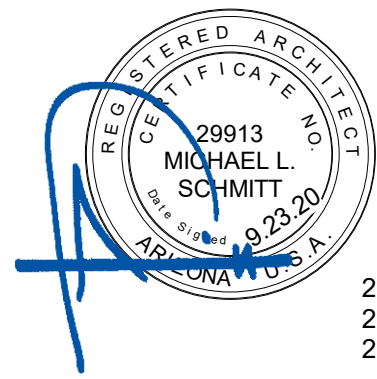
MCCCD: Gary Eberhard, District Director FP&D, 2411 W. 14th St., Tempe, AZ 85281, Phone: (480) 731-8568.

BIDS DUE: 3:00 P.M. Local Time, Tuesday, October 27, 2020

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SECTION 00100

INSTRUCTION FOR BIDDERS

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1.1 SUBMISSION OF BIDS AND BID OPENING:

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1.1.1 Bids will be received by Maricopa County Community College District and will be opened and read at the times and places set forth in the Advertisement for Bids. Bidders, or their representative, and other interested persons may be present at the opening of proposals. **When delivering your Bid/Proposal, allow for sufficient time to check in through the Security Desk.**

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1.1.2 The envelopes containing the bids must be sealed and addressed to Maricopa County Community College District and marked on the outside "Proposal for Construction of Contract "Bid #3469-2, Phoenix College Bldg-A Remodel" with name of the Bidder and his Arizona State Contractor's Registration Number.

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1.1.3 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

1.1.4 Subcontracts or partnerships with minority or women owned firms and businesses are encouraged.

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1.2 BIDDING DOCUMENTS:

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1.2.1 Bidding Documents include the Advertisement for Bids (if issued), Information for Bidders, Bid and Contract Forms, the Bid Bond and the proposed Contract Documents, including any Addenda issued prior to receipt of bids. All requirements and obligations of the Bidding Documents are hereby incorporated by reference into the Contract Documents and are binding on the Successful Bidder upon award of the contract.

1.2.2 Bidders may obtain complete set of the Bidding Documents from the issuing office designated in the Advertisement for Bids in the number and for the deposit, if any, stated therein.

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1.2.3 Bidders shall use complete sets of Bidding Documents in preparing Bids and the Bid will be considered to cover all work shown in the Documents; neither the Owner nor the Design Architect shall assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents, or from deletions; exclusions determined by plan services, bid depositories; or exclusions or qualified proposals made by sub-contractors to the Contractor. It is the Bidder's obligation to assure that prices have been received and included for all items shown or reasonably implied in the Documents.

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1.2.4 The Owner in making copies of the Bidding Documents available on the above terms does so only for the purpose of obtaining Bids on the Work and does not confer a license or grant for any other use.

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1.2.5 If refundable deposits are required to obtain bid documents, deposits for drawings and specifications not returned to the above address within 30 days from the bid date shall be forfeited.

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1.3 DEFINITIONS:

1.3.1 The Bid:

A bid is a complete and properly signed proposal to do the Work of designated portion thereof for the sums stipulated therein, submitted in accordance with the Bidding Documents.

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1.3.2 Base Bid:

The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which work may be added or from which work may be deleted for sums stated in Alternate Bids, if any.

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1.3.3 Alternates:

An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the Corresponding change in the Work, as described in the Bidding Documents, is accepted. (See Section 01030 Alternates)

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1.3.4 Allowances:

The Base Bid must include the cost of all allowances listed for this project. (See Section 01020 Allowances)

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1.4 **QUALIFICATION OF BIDDER:**

1.4.1 When specifically requested on the bid form, each Bidder shall submit along with his bid a completed statement of qualifications on the form provided herein. When requested by the District, each Bidder shall also submit a completed statement of qualifications for each of his proposed subcontractors within twenty-four (24) hours from the time the final list is submitted.

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1.4.2 Prior to Contract award or within seven (7) days of the Owner's request to do so, the successful Bidder shall be prepared to demonstrate that his present organization, direct labor force and prior work experience is of adequate size and development to maintain responsible control of the project and to schedule, coordinate and perform the work in an expeditious manner and in accordance with the Contract Documents.

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1.4.3 Bidders, whether residents or nonresidents in Arizona, may be required to show evidence of residency of registration before their bids will be considered. Each bidder shall be an Arizona licensed Contractor and be appropriately licenses for the intended work at the time of bid submission. It is the contractor's responsibility to assure that the State of Arizona Registrar of Contractor's license proposed for this project allow the contractor to perform the full scope of work if it is not a B-01 or B-02 General Commercial Contractor license. In general interpretation, a Specialty Commercial Contracting license will allow a minor amount of subcontracted work to trades outside the specialty license if that work is both directly related to the main work of the project, does not represent a significant percentage of the total contract value (usually 15% or less) and is, in itself, not significant. Examples of what has been allowed is subcontracting of concrete work for concrete patching or concrete pole bases for an exterior electrical lighting contract, or extension of or new electrical circuits from existing circuit breakers needed in an HVAC renovation project. (Examples of what has not been allowed to be subcontracted under a Specialty Commercial Contractor license would be providing new electrical panels in the same HVAC renovation project, installing new lay-in ceiling tile throughout a large area when only a small portion was needed in the immediate area of a small replacement air handler, etc.)

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1.4.4 The Owner and the Architect will consider, in determining the qualifications of a Bidder, his record in the performance of any contracts for construction work into which he may have entered with the Owner or with similar public or private bodies or corporations. The Owner expressly reserves the right to reject the bid of any Bidder if such record discloses that such Bidder, in the opinion of the Owner, has not properly performed such contracts, has received unacceptable references (whether from listed references or other owners or designers on recent work), or has habitually and without just cause neglected the payment of bills, or has otherwise disregarded his obligations to Subcontractors, material men, suppliers or employees.

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The Owner may make such investigation as they deem necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the Owner all such information and data for this purpose as they may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such Bidder, fails to satisfy the Owner that such Bidder is a responsive and responsible

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Bidder in accordance with the criteria set forth herein at the Owner's sole discretion. Conditional bids will not be accepted.

To meet minimum requirements, the Bidder shall furnish a minimum of five (5) references for which the bidder has provided services on a contract similar in scope (dollar amount, complexity and type of construction) to those described in this IFB. Prior to award, the references will be checked and verified. At the sole discretion of the District, a poor or bad reference(s) (whether from listed references or other owners or designers on recent work) may cause the bidder to be rejected as non-responsive. References shall be listed in **Section 00420 Bidders Qualifications**.

1.5 BIDDER'S REPRESENTATIONS:

Each Bidder by submitting his Bid represents that:

1.5.1 He has read and understands the Bidding Documents and his Bid is made in accordance therewith; and Bidder agrees to be bound by the terms and requirements set forth in the Bidding Documents, Contract Terms and Contract Documents and all applicable statutes;

1.5.2 He has visited the site, has familiarized himself with the local and job site conditions under which the Work is to be performed, and has correlated his observations with the requirements of the proposed Contract Documents;

1.5.3 His Bid is based upon the materials, systems and equipment required by the Bidding Documents without exception; and

1.5.4 He has the capability, in all respects, and the moral and business integrity, reliability, technical ability, financial resources, plant, management, superintendence, equipment and materials which will assure effective and efficient good faith performance in full compliance with the Contract Documents and with any and all schedules and Milestone and Completion dates, that he has made allowances for normal inclement weather indigenous to the Project Site, in his estimating, planning and scheduling of the Work. The Bidder further acknowledges that the Contract Documents are, in his opinion, appropriate and adequate for completing this project and for the construction of sound and suitable work, and that the Bid submitted is complete and covers all of the Work shown or reasonable inferred in the Contract Documents. The Bidder hereby certifies that the work shall be completed, in place, in full accordance with the Contract Documents, within the time limits specified.

1.5.5 For the purposes of the value of Alternate Bid prices proposed on the bid form, the Contractor certifies that the cost proposed represents the true and accurate cost of the proposed alternate work. The Alternate Bid value shown will appear on the Schedule of Values and can be used for any future change order or bond valuation adjustment based upon the scope of the work proposed within the Alternate Bid.

1.6 BID STRATEGY:

1.6.1 Each bid must be accompanied by a Cashier's Check or a Certified Check of the Bidder in an amount not less than ten percent (10%) of the bid, made payable to the **Maricopa County Community College District**; or a bidder's bond on the Bid Bond Form provided herein or on a similar form which in every respect materially complies with said Bid Bond, in the amount of ten percent (10%) his bid. For purposes of this provision, the amount of the bid shall be the Base Bid plus all positive amount alternates. The bidder's bond shall be issued by a surety company licensed to conduct business in Arizona and acceptable to the Owner.

1.6.2 Said bid security is given as a guarantee that the Bidder will enter into a contract if awarded the work and, in the case of refusal or failure to so enter into said contract, the security shall be declared forfeited to the Owner. Such security shall be returned to all but the three (3) lowest Bidders within three (3) days after the opening of bids and the remaining security will be returned within forty-eight (48) hours after the Owner and the successful Bidder have executed the Contract. If no Contract has been awarded or the Bidder has not been notified of the acceptance of his bid within **sixty (60)** days of the bid opening, the Bidder may withdraw his bid and request the return of his bid security.

5 **1.6.3** The surety of the bond shall be of such surety company as is approved by, and is authorized to transaction business in, the State of Arizona. Personal surety bonds are not acceptable to Maricopa County Community College District. The cost of this Bond shall be borne by the Contractor. **Failure to submit the required bond will be cause for rejection of the Bid.**

1.7 LIQUIDATED DAMAGES:

10 The Successful Bidder, upon his failure or refusal to execute the Contract within ten (10) days after he has received notice of the acceptance of his bid, shall forfeit to the Owner the security deposited with his bid, as liquidated damages for such failure or refusal.

1.8 SITE CONDITIONS AND CONDITIONS OF THE WORK:

15 **1.8.1** Each bidder must acquaint himself thoroughly as to the character and nature of the work to be done. Each bidder furthermore must make a careful examination of the site of the work and inform himself fully as to the difficulties to be encountered in the performance of the work, the facilities for delivering, stored and placing materials and equipment, delivery times for all material and equipment, and other conditions relating to construction and labor.

20 **1.8.2** The Successful Bidder assumes all risk as to the nature and behavior of the soil or subsurface conditions which underlie the work or are adjacent thereto, or difficulties that may be due to any unfavorable conditions that may be encountered in the work, which are apparent on surface inspection or shown in the geo-technical report, as may be seen or inferred from inspection of the site, or may be general knowledge within the construction community.

25 **1.8.3** No plea of ignorance of conditions that exist or may hereafter exist on the site of the work, or difficulties that may be encountered in the execution of the work, as a result of failure to make necessary investigation and examinations, will be accepted as an excuse for any failure or omission on the part of the successful Bidder to fulfill in every detail all the requirements of the Contract Documents and to complete the work for the consideration set forth therein, or as a basis for any claim whatsoever.

30 **1.8.4** Insofar as possible, the Successful Bidder, in carrying out his work, must employ such methods or means as will not cause interruption of or interference with the work, or ongoing operations of the Owner or any separate contractor.

1.9 BIDDER'S QUESTIONS, ADDENDA AND INTERPRETATIONS:

35 **1.9.1** Bidders and Sub-bidders shall promptly notify the Owner of any ambiguity, inconsistency or error which they may discover upon the examination of the Bidding and Contract Documents or of the site and location conditions. No interpretation of the meaning of the drawings, specifications or other contract documents will be made to any Bidder orally.

40 **1.9.2** Every request for such interpretation must be received at least **seven (7)** days prior to the date fixed for the opening of the bids.

45 **1.9.3** Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Bidding Documents which, if issued, will be made available for pick-up, mailed or sent via facsimile to all prospective Bidders (at the respective addresses or phone numbers furnished for such purposes). The Owner will not be responsible for any other explanations or interpretations of the proposed documents. Failure of any Bidder to receive any such addendum or interpretation shall not relieve any Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

50 **1.9.4** If the Bidder (or any person bidding to Bidder and/or subsequently in contract with the Bidder, relating to the subject project) knows, or should have known, that an ambiguity, discrepancy, error, omission or conflicting statement exists in the Bidding or Contract Documents, said Bidder (or sub-bidder) has an obligation to seek a clarification thereof from the Owner prior to bid. The Owner will welcome such a

clarification request, and, if necessary, a written addendum clarifying the matter in question will be issued. Should the Bidder fail to seek such a clarification prior to bid, Bidder thereby waives, and agrees to indemnify and hold the Owner harmless from, any claim, suit or cause or action arising out of or related to such ambiguity, discrepancy, error, omission or conflicting statement which the Bidder (and any person bidding to Bidder and/or subsequently in contract with Bidder, relating to the subject project) knew or should have known existed at the time of bid.

1.9.5 Each Bidder shall ascertain prior to submitting his bid that he has received all Addenda issued, and he shall acknowledge receipt and inclusion in his proposal of all Addenda, even if the effect of Addenda is no change to cost or time. **Failure to acknowledge addenda on the bid form will be cause for rejection of the Bid.**

1.10 SECURITY FOR FAITHFUL PERFORMANCE:

The Successful Bidder shall furnish a Performance Bond in an amount equal to one hundred percent (100%) of the Contract Sum as security for the faithful performance of this Contract and also a Labor and Material Payment Bond in an amount not less than one hundred percent (100%) of the Contract Sum, as security for the payment of all persons performing labor and furnishing materials under this Contract. The Performance Bond and the Labor and Material Payment Bond shall be in separate instruments acceptable to the Owner not later than the date of execution of the Contract. The cost of these Bonds shall be borne by the Contractor and should be included in his bid. Bonds shall be payable to the Maricopa County Community College District.

1.11 TIME FOR COMPLETION AND LIQUIDATED DAMAGES FOR NON-COMPLETION

The time for completion of this Contract and liquidated damages for non-completion within the stipulated time shall be as fixed in the Owner-Contractor Agreement.

1.12 LOCATION OF WORK:

The site of the proposed work is on Owner property, public streets, easements and/or other right-of-ways, as shown on the drawings.

1.13 LIABILITY INSURANCE AND WORKMEN'S COMPENSATION:

The Successful Bidder will be required to carry public liability and workmen's compensation and other insurance in the amount and under the terms stipulated under the Contract's General Conditions or other sections of the Specifications.

1.14 BIDDERS REFERRED TO LAWS:

1.14.1 The attention of Bidders is called to the provisions of all Municipal, County and State laws, regulations, ordinances and resolutions, including but not limited to the Human Rights Ordinance; the Equal Opportunity, Small and Minority Business Enterprises and the Construction Safety Resolutions; as well as laws, regulations, ordinance resolutions and permits relating to obstructing streets, maintaining signals, storing and handling of explosives, or affecting the Bidder, or his employees or his work hereunder in his relation to the Owner or any other person. The Bidder shall comply with, and require all subcontractors to comply with State of Arizona and City Contractor's License Laws. Contractor shall comply with the provision of "an Act to Regulate the Business of Contracting", Title 32, Chapter 10, Arizona Revised Statutes with latest adopted revisions and "Contractor's License Laws and Regulations" dated July, 1981, published by the Arizona State Registrar of Contractors, or the latest revision thereof adopted under the provision of A.R.S. 41-2574.

1.14.2 The provisions of this contract shall be interpreted in accordance with the laws of Arizona and in accordance with the laws, ordinances, regulations, permits and resolutions of Maricopa County.

1.14.3 Legal Worker Requirements: Contractors are reminded that as mandated by Arizona Revised Statutes § 41-4401, Maricopa is prohibited from awarding a contract to any contractor who fails, or whose

subcontractors fail, to comply with the requirements to verify the employment eligibility of their employees through the Federal E-verify system. Note that this also applies to all subcontractors and sub-consultants that you may use for this work. See General Conditions and Owner-Contractor Agreement for additional detail.

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1.15 TAXES:

10 All applicable Federal, State, Tribal and local Taxes shall be included in the Bidder's Base Bid proposal. Alternate Bids shall also include all applicable taxes.

1.16 RIGHT TO REJECT BIDS:

15 The Owner expressly reserves the right to reject any or all bids, to waive any informalities or irregularities in the bids received, and to accept that bid which in its judgement, best serves the interest of the Owner.

1.17 EQUAL PRODUCTS AND SUBSTITUTIONS:

20 **1.17.1 Substitutions:** Identification of material or equipment by manufacturer's name or trade name is not meant to give preference to any manufacturer but merely to establish a standard.

To obtain approval to use unspecified products, Bidders shall submit written requests at least eight (8) days before the bid date and hour. Requests received after this time will not be considered. Requests shall clearly describe the product for which approval is asked, including data necessary to demonstrate acceptability. The Owner and Architect shall consider and either approve or reject proposals submitted and shall comply with the following requirements:

30 If, by the close of the fifth day prior to the deadline for receiving bids, the Owner or Architect has approved any alternative products proposals, the Bidding Documents shall be modified to include the alternative products in an addendum issued to Prime Bidders of record at least five (5) days prior to the bid date.

1.17.2 Substitutions Prior to Bid Opening:

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1. To obtain such approval on makes or brands of material other than those specified in Contract Documents, the Bidder shall submit his requests with adequate supporting technical data, as required below, to the Architect not less than eight (8) days before the bid opening.

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2. The Bidder's request for approval of any substitution shall include:

a. Complete data substantiating compliance of the proposed substitution with the Contract Documents.

45 b. Product identification, including manufacturer's name, address and phone number.

c. Manufacturer's literature showing complete product description, performance and test data, and all reference standards.

50 d. Samples and colors in the case of articles or products, as appropriate.

e. Name and address of similar projects on which the product was used and date of installation.

55 f. For construction methods, include a detailed description for proposed method and drawings illustrating same.

g. Itemized comparison of proposed substitution with product or method specified.

3. Substitution requests shall be made on the "SUBSTITUTION REQUEST FORM" included with the Bid Forms.

5 **1.17.3** The decision of the Owner or Architect regarding the approval of items for which substitution is requested will be final. In the event an approved substitution is later determined by the Owner or Design Architect to be unacceptable for any reason, including the necessity to perform extended redesign or rework of the project in order to accommodate the substitution, or if it becomes apparent to the Design Architect that the substituted item will not perform or function as well as the specified item, the Bidder will be required
10 to furnish the original specified item or request approval to use another substitution. The Bidder will pay all costs, expenses or damages associated with or related to the unacceptability of a substitution and the resultant utilization of any item. The Bidder further understands and agrees that a time extension will not be granted due to delays associated with or related to the unacceptability of a substitution.

15 **1.17.4** If a substitution is approved, no subsequent change in brand or make will be permitted unless satisfactory written evidence is presented to the Design Architect and approved by the Owner that the manufacturer cannot make scheduled delivery of the approved substitute item.

20 **1.17.5** The Bidder may request approval for substitutions after award of the contract in accordance with the provisions of Section 01010 of the contract General Requirements.

25 **1.17.6** After the Contract has been executed, a formal request for the substitution of alternate products that have not received prior approval will be considered in place of those specified only under the following conditions:

1. Specified product cannot be delivered without project delay, or
2. Specified product has been discontinued, or
- 30 3. Specified product has been replaced by superior product, or
4. Specified product cannot be guaranteed as specified, or
5. Specified product will not fit within designated space, or
- 35 6. Substitution otherwise determined by the Owner to be in his best interest.

40 The request shall be accompanied by complete data on the proposed substitution substantiating compliance with the Contract Documents including product identification and description, performance and test data, references and samples where applicable, and an itemized comparison of the proposed substitution with the products specified or named by addenda, with data relating to contract time schedule, design and artistic effect where applicable, and its relationship to separate contract.

45 The request shall be accompanied by accurate cost data on the proposed substitution in comparison with the product specified, whether or not modification of the Contract Sum is to be a consideration.

Requests for substitution after the contract has been executed, as stated above, when forwarded by the Contractor to the Consultant, are understood to mean that the Contractor:

- 50 1. Represents that he has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified.
2. Will provide at least the same warranty for the substitution that he would for that specified.
- 55 3. Certifies that the cost data presented is complete and includes all related costs under this Contract, but excludes costs under separate contracts and the Consultant's redesign costs, and that he waives all claims for additional cost related to the substitution that subsequently become apparent.

4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the work to be completed in all respects.

Substitutions will not be considered if:

1. They are indicated or implied on shop drawing submissions without the formal request required in subparagraph under SUBSTITUTIONS above.
2. For their implementation they require a substantial revision of the Contract Documents in order to accommodate their use.

Substitutions, if acceptable to the Owner and Consultant, will be incorporated into the Contract Documents by means of a Change Order.

1.17.7 All provisions herein and in the General Conditions regarding the use of said substitution shall apply to all Bidders other than the bidder who requested a particular substitution who choose to utilize said substitution.

1.18 PREPARATION AND SUBMITTAL OF FORM OF BID:

1.18.1 Bids shall be submitted utilizing the form of bid as separately attached herein, or otherwise provided with the Contract Documents, and shall be complete in every respect. The total bid amount shall be entered in words and figures in the space provided. Where applicable, the unit price or lump sum items, and their extensions, shall be entered in figures in the respective columns provided for each bid item. All entries shall be typewritten or printed in ink. The signatures of all persons shall be in longhand. Any entry of amount that appears on the face of the bid to have involved an erasure, deletion, white-out and/or substitution or other such change or alternation, shall show by them the initials of the person signing bid and the date of the change or alteration. A failure to comply with this requirement may cause for disqualification of the bid.

1.18.2 For Lump Sum bids, in the event of a discrepancy between the bid amount in writing and that in figures, the written value shall govern.

1.18.3 Bids shall not contain any restatement or qualifications of work or contract terms to be done, and alternate bids will not be considered unless called for. No oral, telegraphic or telephonic bids or modifications will be considered.

1.18.4 Bids shall be delivered to the Owner on or before the day and hour set for the receipt of bids, enclosed in a sealed envelope and bearing the title of the work, name of Bidder and Bidder's registration number. The following Bid Forms shall be completed in their entirety:

1. Form of Proposal
2. Bid Bond
3. Statement of Bidders' Qualifications, when requested
4. Executive Order 2009-09
5. Non-Collusion Affidavit

1.18.5 Bid time shall be determined as the time stated, zero seconds (e.g., 2:30:00 p.m.). Bids received after that time (e.g., 2:30:01 or later) are considered late and will not be accepted. Bids must be in the Purchasing representative's hand by the submittal time stated to be considered as being properly "received". Bidders shall confirm the time and location of the official bid clock and coordinate their own clock or watch to assure themselves of timely delivery of the bid. Timely delivery of the bid into the representative's hand prior to bid submittal time is the obligation of the Bidder. Bids not delivered per these requirements will be rejected and will not be considered, even if inadvertently accepted, time stamped or read aloud at the Bid opening.

1.19 **MODIFICATION OR WITHDRAWAL OF BID:**

5 **1.19.1** A Bidder may withdraw his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgement mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of preparation of the bid sought to be withdrawn. The Bidder shall give notice in writing of his claim of right to withdraw his bid within two business days after the conclusion of the bid opening procedure.

15 **1.19.2** Prior to the time and date designated for receipt of bids, any bid submitted may be modified or withdrawn by notice to the party receiving bids at the place designated for receipt of bids. Such notice shall be in writing over the signature of the Bidder or by telegrams; if by telegram or facsimile, written confirmation over the signature of the Bidder shall be mailed and postmarked on or before the date and time set for receipt of bids, and it shall be so worded as not to reveal the amount of the original bid.

20 **1.19.3** Withdrawn bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with the Information for Bidders.

25 **1.19.4** Bid security, if any is required, shall be in an amount sufficient for the bid as modified or resubmitted.

30 **1.19.5** A decision denying withdrawal of bid pursuant to Article 1.19.1 herein shall be final and conclusive unless the Bidder appeals the decision within ten days after receipt of the decision.

35 **1.19.6** If, upon appeal, it is determined that the decision refusing withdrawal of the bid was arbitrary or capricious, the sole relief shall be withdrawal of the bid and return of his bid security.

40 **1.20 DETAILED BID BREAKDOWN:**

45 If the Owner or the Architect directs, the Bidder shall provide a detailed breakdown of his bid acceptable to the Owner. In addition to verifying accounting requirements, the breakdown may be used by the Owner to determine whether the Bidder has grossly misjudged the requirements of any area. Failure to provide the requested detailed breakdown may result in rejection of the bid proposal.

50 **1.21 AWARD OF CONTRACT:**

55 The contract will be awarded to the lowest responsive and responsible Bidder, and whose bid is considered to be in the best interest of the Owner.

1.21.1 The Lowest Bidder is determined by the aggregate amount of the unit prices set forth in the Form of Bid or the aggregate amount of the Base Bid, plus any Alternates selected by the Owner, including sales tax for each priced item.

1.21.2 A Responsive Bidder shall mean a Bidder who has submitted a bid that conforms, in all material respects, to the Bidding Documents.

1.21.3 A Responsible Bidder shall mean a Bidder who has the capability, in all respects, to perform fully the contract requirements and the moral and business integrity and reliability that will assure good faith performance. In determining responsibility, the following criteria will be considered:

1. The ability, capacity and skill of the Bidder to perform the contract or provide the service required;
2. Whether the Bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;

3. The character, integrity, reputation, judgement, experience and efficiency of the Bidder;
4. The quality of performance of previous contracts or services. For example the following information will be considered:
 - a. The administrative and Architect cost overruns incurred by Owners on previous contract with Bidder,
 - b. The Bidder's compliance record with contract general conditions on other projects,
 - c. The submittal by the Bidder of excessive and/or unsubstantiated extra cost proposals and claims on other projects,
 - d. The Bidders record for completion of the work within the Contract Time or within Contract Milestones and Bidders compliance with scheduling and coordinating requirements on other projects, including Contractor's propensity to run significantly behind schedule for most of a project,
 - e. The Bidder's demonstrated cooperation with the Owner or Design Architect and other contractors on previous contracts,
 - f. Whether the work performed and materials furnished on previous contracts was in accordance with the Contract Documents;
 - g. Whether the Contractor has received a written Notice of potential Default for cause or Termination for cause, whether or not termination or default actually occurred, on any prior District projects or projects for any other owner within the previous five years..
 - h. Whether the Contractor has defaulted, been terminated, or had projects taken over by the owner or surety, on any prior District projects or projects for any other owner within the previous five years.
5. The previous and existing compliance by the Bidder with laws and ordinances relating to contracts or services;
6. The proposed prices bid are materially unbalanced between line items. A bid is materially unbalanced when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated and there is a reasonable doubt that the bid will result in the lowest overall cost to Owner, even though it may be the low evaluated bid.
7. The sufficiency of the financial resources and ability of the Bidder to perform the contract or provide the service;
8. The quality, availability and adaptability of the goods or services to the particular use required;
9. The ability of the Bidder to provide future maintenance and service for the warranty period of the contract;
10. Whether the Bidder is in arrears to the Owner on debt or contract or is a defaulter on surety to the Owner;
11. Such other information as may be secured by the Owner having a bearing on the decision to award the contract, to include, but not limited to:
 - a. The ability, experience and commitment of the Bidder to properly and reasonably plan, schedule, coordinate and execute the work,

- b. Whether the Bidder has ever been debarred from bidding or found ineligible for bidding on any other projects, for this or other Owners.

5 **1.21.4** The purpose of the above is to enable the Owner, in its opinion, select the bid which is in the best interests of the Owner. The ability of the low Bidder to provide the required bonds will not of itself demonstrate responsibility of the Bidder.

10 **1.21.5** The Owner reserves the right to require from the Bidder: (1) submissions of references, within three (3) days of bid opening, to include a listing of previous and current projects, (2) financial statements indicating current financial status, prepared in accordance with generally accepted accounting principles, by a CPA licensed to do business in Arizona, and (3) compliance with all applicable Arizona State Statutes.

15 **1.21.6** The Owner reserves the right to defer award of this contract for the period defined in the bid form after the due date of bids. During this period time, the Bidder shall guarantee the prices quoted in his bid.

1.22 PRE-BID CONFERENCE:

20 A meeting will be held if noted on the Calendar of Events page. All General Contractors are required to attend the **MANDATORY Pre-Bid meeting**. Subcontractors are encouraged to attend but attendance is not mandatory.

25 Visits to the project site may also be scheduled in by contacting Doug McCarthy, Facility Director, at Phoenix College. Phone: (602) 286-8242. Email: doug.mccarthy@phoenixcollege.edu

1.23 COMPLIANCE WITH EXECUTIVE ORDER 2009-09:

30 The Contractor, to whom the contract is awarded, shall comply in full with executive order 2009-09, **PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS NONDISCRIMINATION IN EMPLOYMENT BY GOVERNMENT CONTRACTORS AND SUBCONTRACTORS**

35 **1.24 NON-COLLUSION AFFIDAVIT:**

All Bidders are required to sign a non-collusion affidavit on the form provided herein and to include it in the envelope with their bid.

40 END OF SECTION

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SECTION 00300

FORM OF PROPOSAL

5 Date _____

TO: Maricopa County Community College District Governing Board OWNER

10 2411 West 14th Street ADDRESS

Tempe, Arizona 85281 CITY/STATE

15 FROM: _____ BIDDER

_____ ADDRESS

20 _____ CITY/STATE

Operating as (strike out conditions that do not apply) an individual, a Company, a Corporation, an LC or LLC, organized and existing under the law of the State of Arizona, or a Proprietorship, a Partnership, or Joint Venture consisting

25 of _____

BASE BID PROPOSAL:

30 ***When delivering your Bid/Proposal please allow for sufficient time to check in through the Security Desk.***

1. Having become completely familiar with the local conditions affecting the cost of work at the place where work is to be executed, and having carefully examined the site conditions as they currently exist, and having carefully examined the bidding document for the following project:

Phoenix College, Bldg-A Remodel

40 (Bid Package Designation **IFB# 3469-2**) together with any addenda to such Bidding Documents as listed hereinafter, the undersigned hereby proposes and agrees to provide all labor, materials, plant, equipment, transportation taxes, allowances, and other facilities as necessary and/or required to execute all of the work described by the aforesaid Bidding Documents for the lump sum consideration of:

45 _____ Dollars (\$ _____)*

****(Including all applicable sales tax.)***

said amount being hereinafter referred to as the Base Bid or Bid Proposal.

- 50 2. If notified of acceptance of this proposal and contract award within **sixty (60)** calendar days after receipt of bids, the undersigned agrees to execute a contract for the above-named project work and the above-stated consideration on the form required, within ten (10) calendar days of such notification. The undersigned hereby designates the office address stated on the first page of this proposal as the address to which a Notice to Award of this construction contract may be delivered and to which all office
55 correspondence and notices be mailed, fax'd or electronically delivered unless the Owner is otherwise notified in writing.

3. The undersigned proposes to perform alternatives for stated resulting additions to or deductions from the Base Bid. Additions and deductions shall include any modifications of work or additional work that undersigned may be required to perform by reason for the acceptance of any alternative, and represent actual, not assigned, costs for the work described. (Note: Include all alternatives as required by Bidding Documents.)

Alternative Proposals: (See Section 01030 Alternate Bids)

Alt. No.	Dollars (written)	Base Bid Adjustment (including Sales Tax)	
		(Add)	(Deduct)
1.	Add: Electronically operated operable partition between Rooms A110 and A111		
	_____	_____	_____
2.	Add: Electronically operated operable partition between Rooms A111 and A112	(Add)	(Deduct)
	_____	_____	_____
3.	Add: Alum. framed wall with single track sliding glass door between Rooms A237 and A238	(Add)	(Deduct)
	_____	_____	_____
4.	Add: Alum. framed wall with single track sliding glass door between Rooms A238 and A239	(Add)	(Deduct)
	_____	_____	_____
5.	Pull unused existing conductors from existing conduit per E1.0	(Add)	(Deduct)
	_____	_____	_____

ADDENDA ACKNOWLEDGEMENT:

4. The undersigned acknowledges receipt of the following addenda: (List by number and date appearing on addenda.) **ALL ADDENDA MUST BE ACKNOWLEDGED, REGARDLESS OF IMPACT ON WORK.**

<u>Addendum No.</u>	<u>Date</u>	<u>Addendum No.</u>	<u>Date</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

TIME OF COMPLETION:

5. The undersigned agrees to substantially complete all work under this Contract within the dates specified in the milestone or specific date schedule, as set forth in the Owner-Contractor Agreement and the General Conditions.

CHANGES IN WORK:

6. The undersigned agrees that should changes in the work be ordered the cost, if any, shall be determined in accordance with appropriate sections of the Contract General Conditions.

BID SECURITY:

7. Bid security in the amount of ten percent (10%) of the sum of the Base Bid without endorsement, in the sum of:

_____ Dollars (\$ _____)

that is to become the property of the Owner in the event the Contract and Performance and Payment Bonds are not executed within the time set forth, as liquidated damages for the delay and additional work caused the Owner.

8. The undersigned agrees that upon receipt of the Notice of Acceptance of his bid, he will execute the formal Contract, and will deliver all bonds and proof of insurance coverage as may be required by the Specifications.

9. The undersigned further agrees to execute the formal Contract within ten (10) days from the date of Notice of Acceptance of this Proposal, and in case the undersigned fails or neglects to appear within the specified time to execute the Contract, and the Cashier's Check or Bid Bond accompanying this Proposal will be forfeited to the Owner by reason of such failure on the part of the undersigned.

10. The undersigned further agrees that the bid security may be retained by the Owner and that said proposal guaranty shall remain with the Owner until the Contract has been signed and Performance Bond has been made and delivered to the Owner.

GENERAL STATEMENT:

11. The undersigned has checked all of the above figures and understands that the Owner will not be responsible for any errors or omissions on part of undersigned in preparing this Proposal.

12. In submitting this Proposal, it is understood that the right is reserved by Owner to reject any or all bids and waive all informalities in connection therewith. It is agreed that this Proposal may not be withdrawn for a period from time of bid opening as noted in paragraph two above. Award of this bid is defined as approval by the District Capital Development Executive Council or District Governing Board, as appropriate.

13. The undersigned hereby acknowledges that he has read and understands the Drawings, Specifications, Addenda and all other Contract Documents pertaining to this project. The undersigned certifies that the Contract Documents are, in his opinion, adequate, feasible and complete for performing the Work and constructing the Work in a sound and suitable manner for the use specified and intended by the Contract Documents. The undersigned further certifies that he has, or has available, the equipment, personnel, materials, facilities and technical and financial ability necessary to complete the Work in accordance with the Contract Documents and within the time specified therein. The Bidder certifies that he has made allowances for normal inclement weather indigenous to the project site.

5

14. The following information is provided pursuant to the Contract Documents:

10

A. Legal Name of Firm: _____

1) If Firm is a corporation, state that corporation is organized under the laws of the

State of _____ Date Incorporated _____

15

Have your Articles of Incorporation ever been suspended or revoked? () Yes () No

If Yes, when, for what reason and when they were reinstated:

20

25

30

2) If Firm is an LC or LLC, state that firm is organized under the laws of the

State of _____ Date Organized _____

35

Have your Articles of Organization ever been suspended or revoked? () Yes () No

If Yes, when, for what reason and when they were reinstated:

40

45

50

3) If Firm is a partnership, state names of partners:

55

4) If Firm is an individual using a trade name, state name of individual:

5) If Firm is a joint venture, state name of joint ventures:

5

B. Has your firm, its parent or subsidiaries ever debarred or suspended from providing any goods or services to any public institution or governmental agency at the Federal, State or local level?

10

() Yes () No

If Yes, when, for what reason and when they were reinstated:

15

20

C. Signature of Person or Persons legally authorized to bind Bidder to a Contract. A bid submitted by an agent shall have a current Power of Attorney attached certifying the agent's authority to bind the Bidder.

25

1) Signature: _____ Date: _____

2) Name: (Type) _____

30

3) Title: _____ (Corporate Seal)

4) Address: _____

35

D. Licenses:

1) State of Arizona Contractor's License number(s): _____

40

2) License Classifications: _____

3) Business or Taxpayer I.D. number: _____

45

15. The undersigned declares that the person or persons signing this Proposal is/are fully authorized to sign on behalf of the firm listed and to fully bind the firm listed to all the Proposal's conditions and provisions thereof.

50

16. It is agreed that no person or persons or company other than the firm listed below or as otherwise indicated has any interest whatsoever in this Proposal or the contract that may be entered into as a result of the Proposal and that in all respects the proposal is legal and firm, submitted in good faith without collusion or fraud.

55

17. It is agreed that the undersigned has complied or will comply with all requirements of local, state, and national laws, and that no legal requirement has been or will be violated in making or accepting this Proposal, in awarding the contract to him and/or in the prosecution of the work required.

5

18. The following are names, titles and addresses of the Proprietor, all Partners, LC or LLC officers or three corporate officers:

(LIST)

10

15

20

19. The following bank reference is given:

Name of Bank: _____

Address: _____

25

Officer of Bank: _____

30

20. Please list five (5) current local **client** or **architect** (no more than three of either type) references and their current phone numbers for in-progress or recently completed projects. **Please reconfirm that phone numbers are current.** Contacts listed should not have a financial or legal interest in your construction firm or be related firms. Partners in any form (corporate, joint venture, financial, investment, etc. for this firm, related companies, or other investments) shall not be used as references

35

The listed projects should be like scope and/or value to this proposed project:

1. Contact Name: _____ Firm Name: _____

Project Name : _____

40

Contract Value: \$ _____ Actual/Projected Completion Date: _____

Address: _____

45

Phone Number: _____ Fax Number: _____

2. Contact Name: _____ Firm Name: _____

Project Name : _____

5 Contract Value: \$ _____ Actual/Projected Completion Date: _____

Address: _____

10 Phone Number: _____ Fax Number: _____

3. Contact Name: _____ Firm Name: _____

15 Project Name : _____

Contract Value: \$ _____ Actual/Projected Completion Date: _____

20 Address: _____

25 Phone Number: _____ Fax Number: _____

4. Contact Name: _____ Firm Name: _____

30 Project Name : _____

Contract Value: \$ _____ Actual/Projected Completion Date: _____

35 Address: _____

Phone Number: _____ Fax Number: _____

40 5. Contact Name: _____ Firm Name: _____

Project Name : _____

45 Contract Value: \$ _____ Actual/Projected Completion Date: _____

Address: _____

50 Phone Number: _____ Fax Number: _____

55

5 Respectfully submitted this _____ day of _____, 20 _____.

(Firm Name) _____

(Address) _____

10 (E-mail address) _____

(Telephone) _____ (FAX) _____

(Tax ID Number) _____

(Signature) _____

(Name Typed) _____

15 (Title) _____

(SEAL IF BIDDER IS A CORPORATION)

Enclosures:

- 1. Bid Bond
- 2. Statement of Bidder's Qualifications
- 20 3. Executive Order 2009-09
- 4. Non-Collusion Affidavit

25

30

35

40

SECTION 00410
BID BOND
(Sample)

5 KNOW ALL MEN BY THESE PRESENTS, that we, _____
(Bidder's Name)

_____ of _____
(Street Address) (City, State, Zip)

10 hereinafter called the Principal, and _____
(Surety's Name)

a corporation organized and existing under the Laws of the State of _____ and authorized to transact business in the State of _____, as Surety, hereinafter called Surety, are held and firmly bound unto the _____ hereinafter called Obligee, in the Penal sum

15 (Owner)

of ten percent (10%) of the amount bid, good and lawful money of the United States of America, for the payment of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

20 The Condition of this Obligation is such, that, WHEREAS the Principal had submitted a proposal to the Obligee on a contract for the construction of:

(Contract, Name and Number)

25 NOW THEREFORE, If the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the Bidding or Contract Documents with good and sufficient surety for the faithful performance of such construction for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void; otherwise to remain in full force and effect.

30 IN WITNESS WHEREOF, we have hereunto set our signatures and seal this _____ day of _____, 20_____, all pursuant to due authorization.

Principal: _____ Seal
By: _____

40 Surety: _____ Seal
Bond No. _____ By: _____
Attorney-in-fact in accordance with
the attached Power of Attorney

45 STATE OF _____)
(ss.
COUNTY OF _____)

50 I, _____, a Notary Public in and for the State and County aforesaid, do hereby certify that _____ and _____, whose names are signed to the foregoing bond, this day personally appeared before me in my State and County aforesaid and acknowledged the same.

55 Given under my hand seal this _____ day of _____, 20__.

Notary Public (Seal)

My commission expires: _____

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SECTION 00420

STATEMENT OF BIDDER'S QUALIFICATIONS

(Enclosure with Proposal)

5

The Owner and the Architect will consider, in determining the qualifications of a Bidder, his record in the performance of any contracts for construction work into which he may have entered with the Owner or with similar public or private bodies or corporations. The Owner expressly reserves the right to reject the bid of any Bidder if such record discloses that such Bidder, in the opinion of the Owner, has not properly performed such contracts, has received unacceptable references (whether from listed references or other owners or designers on recent work), or has habitually and without just cause neglected the payment of bills, or has otherwise disregarded his obligations to Subcontractors, material men, suppliers or employees. The Owner may make such investigation as they deem necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the Owner all such information and data for this purpose as they may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such Bidder, fails to satisfy the Owner that such Bidder is a responsive and responsible Bidder in accordance with the criteria set forth herein at the Owner's sole discretion.

10

15

20

To accompany bids submitted for Construction of _____
_____ at _____

25

Name of Bidder _____

Business Address _____

When Organized _____

30

Where Incorporated _____

How many years have you been engaged in the contracting business under the present firm name?

35

Contracts value now in hand, as of the date of this bid, Gross Amount \$ _____

Have you ever been declared in default on a contract? If yes, amount: \$ _____

40

Small Business Concern Certification: If your firm is a Small Business Concern, indicate (yes or no): _____

If yes, indicate either SBE and which certifying agency or self-certification

45

(Firms may qualify as an SBC either as an already designated Small Business Enterprise (SBE) by any Federal, State, or local governmental or public entity; or through self-certification, using a combination of firm size and/or annual revenue, as described in the MCCCCD Purchasing Procedures Manual, Chapter Eleven: Supplier Development Program

(<https://business.maricopa.edu/sites/default/files/New%20Purchasing%20Manual%20-%20100616.pdf>).

50

Additional information may be required by Purchasing to substantiate the self-stated criteria.)

Please list two (2) current local trade references, one current local financial/bank reference with contract name and five (5) current local owner references, all with current phone numbers:

55

Trade References:

1. Contact Name: _____ Firm Name: _____

Address: _____

60

Phone Number: _____ Fax Number: _____

2. Contact Name: _____ Firm Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Financial/Banking Reference:

1. Contact Name: _____ Firm Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Owner References:

Please list five (5) or more current local client references and current phone numbers for in-progress or recently completed projects. These projects should be **like scope and/or value** to this proposed project:

1. Contact Name: _____ Firm Name: _____

Project Name : _____

Contract Value: \$ _____ Actual/Projected Completion Date: _____

Address: _____

Phone Number: _____ Fax Number: _____

Architect/Engineer Name: _____ Phone Number: _____

2. Contact Name: _____ Firm Name: _____

Project Name : _____

Contract Value: \$ _____ Actual/Projected Completion Date: _____

Address: _____

Phone Number: _____ Fax Number: _____

Architect/Engineer Name: _____ Phone Number: _____

3. Contact Name: _____ Firm Name: _____

Project Name : _____

Contract Value: \$ _____ Actual/Projected Completion Date: _____

Address: _____

5

Phone Number: _____ Fax Number: _____

10

Architect/Engineer Name: _____ Phone Number: _____

4. Contact Name: _____ Firm Name: _____

Project Name : _____

5 Contract Value: \$_____ Actual/Projected Completion Date: _____

Address: _____

10 Phone Number: _____ Fax Number: _____

Architect/Engineer Name: _____ Phone Number: _____

15 5. Contact Name: _____ Firm Name: _____

Project Name : _____

20 Contract Value: \$_____ Actual/Projected Completion Date: _____

Address: _____

25 Phone Number: _____ Fax Number: _____

30 Other Remarks: _____

(The above statements must be subscribed and sworn to before a Notary Public.)

35 Date _____

Firm Name _____

40 By _____

Title _____

Subscribed and sworn to before me

45 this _____ day of _____, 200 _____ .

50 _____
Signature of Notary Public in and for the

County of _____

State of _____

55

My commission expires:

SECTION 00445
SUBSTITUTION REQUEST FORM

5 TO: **DFDG Architects** _____

PROJECT: **Building-A Remodel** _____

10 We hereby submit for your consideration the following product instead of the specified item for the above project:

<u>Section</u>	<u>Page</u>	<u>Paragraph/Line</u>	<u>Specified Item</u>
----------------	-------------	-----------------------	-----------------------

15 Proposed Substitution: _____

Attached complete product descriptions, drawings, photographs, performance and test data, and other information necessary for evaluation.

20 A. Will changes be required to building design in order to properly install proposed substitution?
Yes ___ No ___ . If Yes, explain: _____

25 B. Will the undersigned pay for changes to the building design, including engineering and drawing costs, caused by requested substitution? Yes ___ No ___.

C. What differences exist between proposed substitution and specified item?

30 D. Does substitution affect Drawing dimensions: Yes ___ No ___ . If yes, explain. _____

35 E. What affect does substitution have on other trades? _____

F. Does Manufacturer's warranty of proposed substitution differ from that specified?
Yes ___ No ___ If yes, explain. _____

40 G. Will substitution effect progress schedule? Yes ___ No ___ . If yes, explain:

45 H. Will substitution require more license fees or royalties than specified product?
Yes ___ No ___ . If Yes, explain _____

50 I. Will substitution cost more than specified product? Yes ___ No ___ If yes, explain how much _____

55 J. Will maintenance and service parts be locally available for substitution?
Yes ___ No ___ . If no, explain _____

K. Is there any change in the sustainability qualities or LEED points for the proposed product versus the original product?

Yes ___ No ___. If yes, explain _____

By making this request for substitution, the Contractor:

.1 represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified

2. represents that the Contractor will provide the same or longer warranty for the substitution that would have been for the originally specified product

3. certifies that the cost data presented is complete and includes all related costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and

4. will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be completed in all respects.

Submitted By:

Signature

Firm

Address

Date

Telephone

For Consultant's Use Only: Signature

___ Accepted

___ Accepted As Noted

___ Not Accepted

___ Received Too Late

By _____

Date _____

Remarks _____

SECTION 00480

* Executive Order 2009-09 *

**PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS NONDISCRIMINATION IN
EMPLOYMENT BY GOVERNMENT CONTRACTORS AND SUBCONTRACTORS
(Superseding Executive Order 99-4 and Amending Executive Order 75-5)**

WHEREAS, Executive Order 99-4 was effectuated to assure that persons or entities contracting with the State of Arizona or its political subdivisions comply with the provisions of Title VII of the Civil Rights Act of 1964 (42 U.S.C, § 2000e, et. seq.) and with Arizona's Civil Rights Act (Title 41, Chapter 9, Article 4);

WHEREAS, Executive Order 99-4 correctly states that various religious organizations are exempted from Arizona's Civil Rights Act;

WHEREAS, Executive Order 99-4 does not expressly state the federal and state exemptions for Indian tribes under both the federal and State Civil Rights Acts;

WHEREAS, 42 U.S.C, § 200e(b)(1) exempts tribes from the definition of employer;

WHEREAS, A.R.S. § 41-1461 4 (b)(i) also exempts Indian tribes from the definition of employers to whom the Arizona Civil Rights Act applies;

WHEREAS, Indian tribes across the State have recently begun to experience difficulty contracting with the State, often for money or services to which they are lawfully entitled, as a result of their exclusion from specified exemptions within Executive Order 99-4;

WHEREAS, the Attorney General's Office has in some cases interpreted the existing provisions as requiring tribes to waive rights guaranteed by both federal and State law;

WHEREAS, a modification is necessary to expressly provide that the exemptions found in federal and State law continue in full force and effect;

NOW, THEREFORE, I, Janice K. Brewer, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of this State, hereby order and direct as follows:

1. Executive Order 75-5 is hereby amended as follows:

PART I - Non-discrimination in employment by government contractors and subcontractors.

Unless otherwise exempted by federal or state civil rights laws, all government contracting agencies shall include in every government contract hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, age, color, religion, sex, or national origin. The contractor will take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, age, color, religion, sex or national origin. Such action shall include, but is not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting officer setting forth the provisions of this non-discrimination clause.

A continued Executive Order No. 75-5 is hereby amended to permit government contractors and subcontractors that are exempted from compliance under Title 41, chapter 9, article 4, Arizona Revised Statutes or 42 U.S.C. § 200e(b)(1), to provide employment preferences consistently with federal and state statutes;

Therefore, Executive Order 75-5 does not apply to Indian tribes. It likewise does not apply to religious organizations with respect to the employment of individuals of a particular religion to perform work connected with the activities of the employer. It also provides that religious organizations may provide employment preferences based upon religion when dealing with a bona fide occupational qualification reasonably necessary to the operation of the religious organization. This is consistent with the provisions of the Civil Rights Act of 1964 (42 U.S.C. 2000e, et seq.). In addition, in the Personal Responsibility and Work Opportunity Reconciliation Act, P.L. 104-193, Congress provided that religious organizations are eligible for the receipt of federal funds on the same basis as other private organizations.

Executive Order No. 75-5 prohibits all other government contractors and subcontractors from discriminating against any employee or applicant for employment because of race, age, color, religion, sex or national origin. Executive Order No. 75-5 further requires all government contractors and subcontractors to take action to insure that applicants are employed and employees are treated during employment without regard to their race, age, color, religion, sex or national origin.

- B. The contractor will in all solicitations or advertisement for employees placed by or on behalf of the contractor state that all qualified applicants will receive consideration for employment without regard of race, age, color, religion, sex or national origin.
- C. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under the Executive Order and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The contractor will furnish all information and reports required by the contracting agency and will permit access to his books, records, and accounts by the contracting agency and the Civil Rights Division for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- E. In the event of the contractor's noncompliance with the nondiscrimination clauses of the contract or with any such rules, regulations or orders of the Arizona Civil Rights Division said noncompliance will be considered a material breach of the contract and this contract may be cancelled, terminated or suspended, in whole or in part, and the contractor may be declared ineligible for future government contracts until said contractor has been found to be in compliance with the provisions of this order and the rules and regulations of the Arizona Civil Rights Division, and such sanctions may be imposed and remedies invoked as provided in Part II of this order, and the rules and regulations of the Arizona Civil Rights Division.
- F. The contractor will include the provisions of paragraphs A through E in every subcontractor purchase order so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to the subcontract or purchase orders the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance, provided, however, that in the event the contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the State of Arizona to enter into such litigation to protect the interest of the State of Arizona.
- G. Each contractor having a contract containing the provisions prescribed in this section shall file and shall cause each of his subcontractors to file compliance reports with the contracting agency or the Civil Rights Division, as may be directed. Compliance reports shall be filed within such times and shall contain such information as the practices, policies, programs and employment policies, programs and employment statistics of the contractor and each subcontract and shall be in form as the Arizona Civil Rights Division may prescribe.
- H. Bidders or prospective contractors of subcontractors shall be required to state whether they have participated in any previous contract subject to the provisions of this order or any preceding similar Executive Order and in such event to submit on behalf of themselves and the proposed subcontractors compliance reports prior to, or as an initial part of negotiation of a contract.
- I. Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers of providing or supervising

5 apprenticeship or training for such workers, the compliance report shall include such information from such labor unions or agency practices and policies affecting compliance as the contracting agency or Civil Rights Division may prescribe: provided that, to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify the contracting agency as part of its compliance report and shall set forth what efforts he has made to obtain such information.

- 10 J. The contracting agency or the Civil Rights Division shall require that the bidder or prospector contractor or subcontractor shall submit as part of his compliance report a statement in writing signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training with which the bidder or prospective contractor deals with supporting information to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purpose and provisions of this order. In the event that the union or the agency shall refuse to execute such a statement, the compliance shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the contracting agency or the Civil Rights Division may require.

PART II - Enforcement

- 25 A. Each contracting agency shall be primarily responsible for obtaining compliance with this Executive Order with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the rules of the Civil Rights Division in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this order and the rules and regulations and orders of the Civil Rights Division issued pursuant to this order. They are directed to cooperate with the Civil Rights Division and to furnish the Division such information and assistance as it may require in the performance of the Division's functions under this order. They are further directed to appoint or designate from among the agency personnel compliance officers. It shall be the duty of such officers to first seek compliance with the objective of this order by conference, conciliation, mediation or persuasion.
- 35 B. The Civil Rights Division may investigate the employment practices of any government contractor if subcontractor of initiate such investigation by the appropriate contracting agency or determine whether or not the contractual provisions specified in this order have been violated. Such investigations shall be conducted in accordance with the procedures established by the Civil Rights Division and the investigating agencies shall report to the Civil Rights Division any action taken or recommended. The Civil Rights Division may receive and investigate or cause to be investigated complaints by employees or prospective employees of a government contractor or subcontractor which alleges discrimination contrary to the contractual provisions specified in Part I of this order. If the investigation is conducted for the Civil Rights Division by a contracting agency, that agency shall report to the Civil Rights Division what action has been taken or it's recommendation with regard to such complaint.
- 45 C. The Civil Rights Division shall use its best efforts directly and through contracting agencies, other interested state and local agencies, contractors and all other available instrumentalities to cause any labor union engaged in work under government contracts or any agency referring workers or providing or supervising apprenticeship or training for it in the course of such work or cooperate in the implementation of the purposes of this order.
- 50 D. The Civil Rights Division or any agency, officer or employee in the executive branch of the government designated by rule, regulation or order of the Civil Rights Division may hold such hearings, public or private, as the Division may deem advisable for compliance, enforcement of educational purposes. The Civil Rights Division may hold or cause to be held hearings in accordance with rules and regulations issued by the Civil Rights Division prior to imposing, ordering or recommending the imposition of penalties and sanctions under this order.
- 55 E. No order for debarment of any contractor from further government contracts under this order shall be made without affording the contractor an opportunity for a hearing.
- F. Sanctions and Penalties. In accordance with such rules, regulations or orders as the Civil Rights Division may issue or adopt, the Civil Rights Division or the appropriate contracting agency may publish or cause to be published the

names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this order and with the rules, regulations and orders of the Civil Rights Division.

- 5 1. Contracts may be cancelled, in whole or in part, terminated, or suspended absolutely, or continuation of contracts may be conditioned upon a program for future compliance approved by the contracting agency or the Civil Rights Division: provided that any contracting agency shall refrain from entering into further contracts, extensions or other modifications of existing contracts with any noncomplying contractor until such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this order.
- 10
- 15 2. Under rules and regulations prescribed by the Civil Rights Division, each contracting agency shall make reasonable efforts within a reasonable time limitation to secure compliance with the contract provisions of this order by methods of conference, conciliation, mediation and persuasion before proceedings shall be instituted under this order of before a contract shall be cancelled or terminated in whole or in part under this order for failure of a contractor or subcontractor to comply with the contract provisions of this order.

G. This Executive Order shall become effective immediately of its issuance.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona.

Janice K. Brewer
GOVERNOR

DONE at the Capital in Phoenix, Arizona this 20th day of October In the Year Two Thousand and Nine and of the Independence of the United States of America the Two Hundred and Thirty-Third.

ATTEST:
Ken Bennett
Secretary of State

ACKNOWLEDGED as having read the above:

By: _____

Firm: _____

Address: _____

SECTION 00490

NON-COLLUSION AFFIDAVIT FORM

5

COMPANY NAME: _____

10

ADDRESS: _____

15

The persons, corporation, or company who makes the accompanying proposal, having first been duly sworn, deposes and says:

20

That such proposal is genuine and not sham or collusive, nor made in the interest or behalf of any person not herein named, and that Bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm, or corporation to refrain from bidding, and that the bidder has not in any manner sought by collusion to secure for itself an advantage over any other bidder.

25

Signed: _____

Name: _____

Title: _____

30

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SECTION 00500

OWNER-CONTRACTOR AGREEMENT

5 PROJECT: Phoenix College Building-A Remodel
PROJECT ADDRESS: 1202 W. Thomas Rd., Phoenix, AZ 85013
10 COLLEGE: Phoenix College
BID/RFP NO.: #3469-2 PROJECT NO.: 20.1403

15 THIS AGREEMENT is dated as of the _____ day of _____, in the year 20 __, by and between Maricopa County Community College District, ("Owner"), whose mailing address is:

MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT
2411 West 14th Street
20 Tempe, Arizona 85281

and

25 _____
("Contractor"), whose mailing address is:

30 <address _____
<city/state/zip _____
<phone _____
35 <contact name and e-mail _____

40 All correspondence, submittals and notices relating to or required under this Contract shall be sent in writing to the above addresses, unless either party is notified in writing by the other of a change in address.

WITNESSETH:

45 **WHEREAS**, it is the intention of the Owner to obtain the services of the Contractor to complete all Work as specified in the Contract documents in connection with the construction of:

Phoenix College Building-A Remodel

hereinafter referred to as the "Project" or the "Work" and

50 **WHEREAS**, the Contractor desires to perform such construction in accordance with the terms and conditions of this Agreement,

55 **NOW, THEREFORE**, in consideration of the promises made herein and other good and valuable consideration, the following terms, covenants and conditions are hereby mutually agreed to, by and between the Owner and Contractor:

Article 1
DEFINITIONS

5 1.1 All terms in this Agreement which are defined in the Information for Bidders and the General Conditions shall have the meanings designated therein.

1.2 The Contract Documents are as defined in the General and Conditions. Such documents form the Contract, and all are as fully a part thereof as if attached to this Agreement or repeated herein.

10
Article 2
STATEMENT OF WORK

15 2.1 The Contractor shall provide and pay for all materials, tools, transportation, equipment, temporary facilities and labor; and associated required management, supervision, coordination, professional and non-professional services; and shall perform all other acts and supply all other things necessary, to fully and properly perform and complete the Work, as required by the Contract Documents.

20 2.2 The Contractor shall further provide and pay for all related facilities described in any of the Contract Documents, including all work expressly specified therein and such additional work as may be reasonably inferred therefrom, saving and exception only such items of work as are specifically stated in the Contract Documents not to be the obligation of the Contractor. The totality of the obligations imposed upon the Contractor by this Article and by all other provisions of the Contract Documents, as well as the structures to be built and the labor to be performed, is herein referred to as the "Work."

25
Article 3
ARCHITECT

30 3.1 The Owner had retained the following professional services architectural or engineering firm ("Architect" or "Consultant") who is to act on behalf of the Owner, assume all duties and responsibilities of and have the rights and authority assigned to the Architect in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents. The Architect (as defined in the General Conditions) shall be:

35
DFDG

4545 E. McKinley

40
Phoenix AZ. 85008

(602) 954-9060

Michael Schmitt, Principal, (mschmitt@dfdg.com)

45 provided, however, that the Owner may, without liability to the Contractor, unilaterally amend this Article from time to time by designating a different person or organization to act as its Consultant and so advising the Contractor in writing, at which time the person or organization so designated shall be the Consultant for purposes of this Contract.

50 3.2 For the purposes of this Agreement, if no Architect is retained, all requirements and responsibilities of the Architect will be provided by the Owner.

Article 4
COMMENCEMENT, CONTRACT TIME AND COMPLETION

5 4.1 The Contractor shall commence the Work promptly upon the date established in the Notice to Proceed. If there is no Notice to Proceed, the date of commencement of the Work shall be the date of this Agreement or such other date as may be established herein.

4.2 **Time is of the essence**

10 The Contractor shall achieve Substantial Completion and Final Completion as defined in the General Conditions, within the time periods stated hereunder taken from the date of Notice to Proceed or the date otherwise established for the commencement of Work.

15 4.2.1 The entire Work shall be Substantially Complete on or before the following date in accordance with the requirements of the Contract Documents, General Conditions or Contract Conditions:

May 31, 2021

20 4.2.1.1 **Data Room(s):** Must reach Final Completion (including completion of any punch list items) and be ready for Owner occupancy at least 14 Days ahead of balance of the Work's Substantial Completion. This includes all permanent lighting, finishes, permanent air conditioning system, final cleaning and ability to secure the room.

25 4.2.2 The Work shall be complete and ready for Final Completion on or before the following date in accordance with the requirements of the Contract Documents, General Conditions or Contract Conditions:

June 28, 2021

30 The Contractor also shall consider that the Owner needs the complete use of these facilities as quickly as possible. If the Contractor proposes completion of the Work on an accelerated schedule, the requirements within the General Conditions shall be met with regard to early completion and any resulting adjustment to the Date of Substantial Completion.

4.3 **Liquidated Damages**

35 4.3.1 Owner and Contractor recognize that time is of the essence to this Agreement and that Owner will suffer financial loss if the Work does not reach Substantial Completion within the times specified in paragraph 4.2.1, above, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner, at the Owner's sole option,

One Thousand Dollars (\$1000)

45 for each consecutive calendar Day (Sundays and holidays included) that expires after the time specified in paragraph 4.2.1 for Substantial Completion of the Work, until the Work reaches Substantial Completion.

50 4.3.2. Owner and Contractor further recognize that **time is of the essence** to this Agreement and that Owner will suffer additional financial loss and adverse impact if the Work does not reach Final Completion within the times specified in paragraph 4.2.2 above, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss or adverse impacts suffered by Owner if the Work does not reach Final Completion on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner, at the Owner's sole option,

Five Hundred Dollars (\$500)

for each consecutive calendar Day (Sundays and holidays included) that expires after the time specified in paragraph 4.2.2 for Final Completion of the Work until the Work is Accepted.

4.4 Because the District is further damaged or adversely impacted in their ability to properly operate and maintain the Work due to late or incomplete Owner training, and failure to receive complete close out documents including O&M Manuals, as-constructed drawings and specifications. They also recognize the delays, expense and difficulties involved in proving the actual loss or adverse impacts suffered by Owner if the training and full close out of the Work per the Contract Documents is not completed on a timely basis. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as additional liquidated damages for delay (but not as a penalty) Contractor shall pay Owner, at the Owner's sole option, the following for each calendar day past 30 calendar days following the date of Substantial Completion that these items remain incomplete or absent:

Close-out Completion **\$ 50.00**

4.5 Items in Paragraph 4.4 that remain incomplete after providing a reasonable amount of time to complete past final close out of this Agreement shall result in a deduction of up to ONE PERCENT (1%) of the subcontract Schedule of Values amount for the particular trade or subcontractor. The Owner has sole discretion regarding a reasonable time limit to complete the close out requirements or the application of some or all of the allowed one percent reduction in Contract Price. Only the District Director of Facilities Planning and Development may waive collection of these damages.

4.6 The amount of liquidated damages set forth above shall be assessed cumulatively and independently of each other. Liquidated damages are agreed to because actual damages or adverse impacts in many areas will be difficult or impossible to ascertain. The Agreement also makes provision for recovery of certain known costs in addition to the liquidated damages. This provision for liquidated damages does not bar Owner's right to collect actual costs as stated in the General Conditions, or enforce other rights and remedies against Contractor, including but not limited to, specific performance or injunctive relief.

Article 5 CONTRACT PRICE

5.1 Provided that the Contractor shall strictly and completely perform all of its obligations under the Contract Documents, and subject only to additions and deductions by Change Order or as otherwise provided in the Contract Documents, the Owner shall pay to the Contractor, in current funds and at the times and in the installments hereinafter specified, which is a not-to-exceed amount for the construction phase the sum of

_____ Dollars \$

("Contract Sum") which includes all specific cash and contingency allowances which have been computed in accordance with the General Conditions, as well as all applicable sales tax.

Article 6 PROGRESS PAYMENTS and INTEREST

6.1 The Contractor hereby agrees that on or about the twenty-fifth day of the month for every month during the performance of the Work, he will deliver to the Architect an Application for Payment in accordance with the provisions of the General Conditions. This date may be changed upon mutual agreement, stated in writing, between the Owner and Contractor. Payment under this Contract shall be made as provided in the General Conditions.

6.2 All moneys not paid when due as provided in the General Conditions shall bear interest in accordance with Arizona Revised Statutes §41-2577.

Article 7
CONTRACTOR'S REPRESENTATIONS

In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

5 7.1. Contractor has examined and carefully studied the Contract Documents, including any Addenda, and all other related data identified in the Construction Documents including "technical data" and geo-technical reports.

10 7.2. Contractor has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.

15 7.3. Contractor is familiar with and is satisfied as to all Federal, State, and local Laws and Regulations which may affect cost, progress, performance and furnishing of the Work.

20 7.4. Contractor is aware of the general nature of work to be performed by Owner and others at the site that relates to the Work as indicated in the Contract Documents.

25 7.5. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.

30 7.6 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site which have been identified in the Contract Documents or been provided to the Contractor as supplemental information to the Contract Documents. Contractor accepts the extent of the data contained in such reports and drawings upon which Contractor is entitled to rely as provided in the General Conditions. Contractor acknowledges that, unless specifically included within or by reference into the Contract Documents, such reports and drawings are not Contract Documents and may not be complete for Contractor's purposes. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and underground features or utilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing all the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions an programs incident thereto. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.

40 7.6. Contractor has given Architect written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Architect is acceptable to Contractor, and the Contract Documents are sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 8
CONTRACT DOCUMENTS

50 The Contract Documents, which comprise the entire Agreement for construction services between Owner and Contractor concerning the Work, consist of the following:

8.1. Agreement

55 8.2. Any Addenda issued

8.3. Performance Bond and Payment Bond

8.4 Notice to Proceed

5 8.5. General Conditions of the Contract for Construction (*AIA Document A201-97 with Maricopa County Community College District modifications Included by reference*)

8.6 Project Manual and Specifications

10 8.7. Drawings consisting of a cover sheet and sheets listed in the Index of Drawings

8.8 Contractor's Bid Proposal Form

15 The Contract Documents may only be amended, modified or supplemented as provided in the General Conditions. The Contractor shall submit the Performance Bond, Labor and Material Payment Bond and Certification of Insurance as required by the Contract Documents.

Article 9

MISCELLANEOUS AND OTHER REQUIREMENTS

20 9.1. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

25 9.2. Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

30 9.3. Any provision or part of the Contract Documents held to be void or unenforceable under any Law of Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.4 **Affirmative Action Requirements**

35 9.4.1. Any Contractor in performing under this contract shall not discriminate against any worker, employee or applicant, or any member of the public, because of race, color, religion, gender, national origin, age or disability nor otherwise commit an unfair employment practice.

40 9.4.2. The Contractor will take affirmative action to ensure that applicants are employed, and employees are dealt with during employment without regard to their race, color, religion, gender or national origin, age or disability. Such action shall include but not be limited to the following: Employment, promotion, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rate of pay or other forms of compensation; and selection for training; including apprenticeship as well as all labor organizations furnishing skilled, unskilled and union labor, or who may perform any such labor or services in connection with this contract.

55

9.5 Sudan or Iran Scrutinized Business

9.5.1 Pursuant to Arizona Revised Statutes §35-391.06(A) and §35-393.06(B), Contractor certifies that it does not have a “scrutinized” business operation in either Sudan or Iran, as that term is defined in Arizona Revised Statutes §35-391(15) and §35-393(12) respectively.

9.6 Legal Worker Requirements

9.6.1 As required by Arizona Revised Statutes §41-4401, Owner is prohibited from awarding a contract to any contractor who fails, or whose subcontractors fail, to comply with the requirements to verify the employment eligibility of their employees through the Federal E-verify system. The undersigned entity warrants that it complies fully with all Federal immigration laws and regulations that relate to its employees, that it shall verify, through employment verification pilot programs as jointly administered by the U.S. Department of Homeland Security and the Social Security Administration or any of its successor programs, that the eligibility of each employee hired after December 31, 2007, and that it shall require its subcontractors to provide the same warranties to the Owner. Note that this also applies to all subcontractors and sub-consultants that Contractor may use for this work.

9.6.2 The undersigned acknowledges that a breach of this warranty by the Contractor or any subcontractor under any contract resulting from this Agreement shall be deemed a material breach of the Agreement, and is grounds for penalties, including termination, by the Owner. The Owner reserves the right to inspect records of the Contractor, subcontractors, and employees who perform work under the Contract, to conduct random verification of the employment records of the Contractor and any subcontractor who is part of the Work, to ensure that the Contractor and each subcontractor is complying with the warranties set forth above. Contractor shall be responsible for all costs associated with the compliance of such programs.

9.7 Security for Owner’s Sensitive Information

The Owner takes important steps to protect Sensitive Information, by treating Sensitive Information as confidential and encouraging the District’s employees and agents to take care in handling Sensitive Information. The Owner limits access to Sensitive Information to those who need it to perform their jobs. Few, if any, consultants, sub-consultants, contractors, subcontractors and/or their agents (Persons of Interest, “POI’s”) will have the need to have access to Sensitive Data or the Owner’s information technology systems. The Owner’s external service providers also must protect Sensitive Information, and use it to meet only the Owner’s business needs. The v takes steps to protect its computer systems and Sensitive Information from unauthorized access¹ and works diligently to comply with applicable information security, data privacy and related laws, rules and regulations.

Access may be achieved through *direct* physical connection into the Owner’s technology infrastructure and/or equipment through cabling and/or other direct physical connection, Personal Devices, and/or other Owner owned or operated networks. Access also may be achieved through *indirect* access to the Owner’s technology infrastructure, equipment and/or data through remote electronic access, such as the Internet, unsecured/public Wi-Fi networks provided by the Owner, or networks not owned and/or operated by the Owner.

PIO’s and other individuals that will require access to the Owner’s technology systems, either through direct physical connection or indirect access, and/or have access to Sensitive Information, will be required to undergo significant screening, reviews and training to assure the security and privacy of the Owner’s systems and information, as well as provide additional cyber-security insurance.

¹ Unauthorized access to Owner’s information technology systems and/or Sensitive Information includes incidental and/or unintended exposure and/or possession of, Sensitive Information, to and/or by an individual, due to their presence at an Owner location. Personnel and POIs, for example, may be inadvertently exposed to hardcopy and electronically formatted Sensitive Information that suffered improper disposal or was left unprotected in plain view in offices or other areas where the individual is visiting and/or working.

9.7.1 Definitions

5 .1 **Confidential Information** (including Owner data): Any and all information and data whose collection, disclosure, protection, and disposition is governed by federal, state, local or international law or regulation, but does not include (i) information and data that are already known by the receiving party, (ii) information and data that becomes generally available to the public except as a result of disclosure by the receiving party in violation of this Agreement, and (iii) information and data that become known to the receiving party from a source other than the disclosing party on a non-confidential basis. This information and data include, but are not limited to, Social Security Numbers, 10 student records, financial records regarding students (or their parents or sponsors), financial and personal information regarding college employees, personal health information (as defined by the Healthcare Information Protection Accountability Act) and other personally identifiable information protected by law or regulation.

15 .2 **Portable Devices:** Include, but are not limited to, CDs, DVDs, eReaders, external hard drives, Google Glasses, laptops, memory sticks, smart phones, tablets, thumb drives, and USB drives

20 .3 **Sensitive Information:** Information that is so deemed under applicable law. Personally identifiable information, personally identifiable education records, individually identifiable health information, personally identifiable financial information and payment card information are examples of MCCCCD Sensitive Information covered under the Arizona Revised Statutes (ARS), Family Educational Rights and Privacy Act (FERPA), Health Insurance Portability and Accountability Act of 1996 (HIPAA), Gramm–Leach–Bliley Act (GLBA aka Financial Services Modernization Act of 1999) and Payment Card Industry Data Security Standard (PCI DSS), respectively.

9.7.2 Applicable Administrative Regulations and Contact Information

4.4 *Technology Resource Standards*

30 <https://chancellor.maricopa.edu/public-stewardship/governance/administrative-regulations/4-auxiliary-services/4.4-technology-resource-standards>

4.22 *Statement on Privacy*

<https://chancellor.maricopa.edu/public-stewardship/governance/administrative-regulations/4-auxiliary-services/4.22-statement-on-privacy>

4.23 *Written Information Security Program*

35 <https://chancellor.maricopa.edu/public-stewardship/governance/administrative-regulations/4-auxiliary-services/4.23-written-information-security-program>

9.7.3 Contact for POI review and related questions

40 Willa F. Morgan, Esq.
Chief Privacy Officer and Assistant General Counsel
Maricopa County Community College District
2411 W. 14th Street
Tempe, Arizona 85014
45 (480) 731-8418
willa.morgan@domail.maricopa.edu

50 *(balance of this page intentionally left blank; the signature page follows)*

IN WITNESS WHEREOF, the parties, acting through their authorized signatories have set their hands as of the date first above.

5

OWNER: MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT

10

By: _____

Title: David Martin, Director of Auxiliary Services

15

Date: _____

20

CONTRACTOR: _____

By: _____

25

Title: _____

30

Date: _____

[CORPORATE SEAL]

35

Attest: _____

License No.: _____

Agent for service of process: _____

40

(If CONTRACTOR is a corporation, attach evidence of authority to sign.)

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SECTION 00610

PERFORMANCE BOND
(Sample)

5

STATUTORY PERFORMANCE BOND PURSUANT A.R.S. 41-2574
(Penalty of this bond must be 100% of the Contract Amount.)

10

KNOWN ALL MEN BY THESE PRESENTS:

15

That, _____(hereinafter called Principal), as
Principal, and _____, a corporation organized and
existing under the laws of the State of _____, with its principal office in the City of _____
_____ (hereinafter called the Surety), as Surety, are held and firmly bound unto _____
_____ (hereinafter called the Obligee) in the amount of _____
_____ Dollars (_____), for the payment whereof, the
said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and
assigns, jointly and severally, firmly by these presents.

20

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the ____ day of
_____, 20____, to _____
which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at
length herein.

25

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that is said Principal shall
faithfully perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said
contract during the original term of said contract and any extension thereof, with or without notice of the
Surety, and during the life of any guaranty required under the contract, and shall also perform and fulfill all
the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications
of said contract that may hereby be made notice, of which modifications to the Surety being hereby waived;
than the above obligation shall be void, otherwise to remain in full force and effect.

35

PROVIDE, HOWEVER, that this bond is executed pursuant to the provisions of A.R.S. 41-2574, and all
liabilities on this bond shall be determined in accordance with the provisions of said Title, Chapter, and
Article, to the extent as if it were copied at length herein.

40

The prevailing party in suit on this bond shall recover as a part of his judgement such reasonable
attorneys' fees as may be fixed by a judge of the Court. Witness our hands this _____
day of _____, 20_____.

45

Principal Seal

By:

Surety: Seal

Bond No.

By:

Agency of Record

Agency Address

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SECTION 00620

**PAYMENT BOND
(Sample)**

5

STATUTORY PAYMENT BOND PURSUANT TO A.R.S. 41-2574
(Penalty of this bond must be 100% of the Contract Amount.)

10

KNOWN ALL MEN BY THESE PRESENTS:

That, _____ (hereinafter called Principal), as Principal, and
_____, a corporation organized and existing under the laws of the State of _____, with
its principal office in the City of _____, (hereinafter called the Surety), are held and
firmly bound unto _____ (hereinafter called the Obligee, in the amount of
_____ Dollars (\$_____)) for the payment whereof, the said Principal and Surety
bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally,
firmly by these presents.

15

20

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the
_____ day of _____, 20____, to _____ which contract is
hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

25

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal shall
promptly pay all monies due to all persons, supply labor or materials to him or his subcontractors in the
prosecution of the work provided for in and said contract, then this obligation shall be void, otherwise to
remain in full force and effect;

30

PROVIDE, HOWEVER, that this bond having been required of the said Principal in order to comply
with the provisions of A.R.S. 41-2574, all rights and remedies on this bond shall insure solely to such
persons and shall be determined in accordance with the provisions, conditions, and limitations of said Title,
Chapter, and Article, to the same extent as if they were copied at length herein.

35

The prevailing party in a suit on this bond shall recover as a part of his judgement such reasonable
attorneys' fees as may be fixed by a judge of the Court.

Witness our hands this _____ day of _____, 20_____.

40

Principal Seal

By:

Surety Seal

By:

Agency of Record

Agency Address

45

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General Conditions of the Contract for Construction

Based upon AIA Document A201-97 with Maricopa County Community College District modifications

THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES: CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION.

This Agreement is based closely upon the American Institute of Architects 1997 Edition of AIA Document A201, "General Conditions of the Contract for Construction". AIA has not granted specific authorization for this use, nor has Maricopa Community Colleges requested such use. MCCCDC pays an annual license fee for unlimited use of all AIA documents. Our use is intended to be an edited version of the AIA standard documents and not intended to override or avoid copyright or other use of their documents.

*Words that are shown in normal font are the original words from AIA A201-97 document, in the order and numbering shown. Words that have been **italicized and bolded** (in this fashion) have been added to the original document and words that have been struck through (~~in this fashion~~) have been deleted from the original AIA Document A201 wording. No other editing or differences in the document are intended.*

Use of the AIA language and out edits in this document does not constitute approval or endorsement by the AIA of the modifications made to the original document.

TABLE OF ARTICLES

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Last revisions:

- 5-06 major update
- 7-06 Changes to termination and schedule provisions
- 8-06 Removed requirement in Section 5 for use of AIA subcontract form with State AG amendments
- 11-07 Added Allowance/Contingency Use Authorization Form requirement
- 11-07 Reworked Termination/Suspension and added Right to Withhold, revisions to Article 14, change order mark-ups for CMAR
- 6-08 Legal Worker/E-Verify requirements added to Articles 5 and 13
- 11-08 Interest on late payments reinstated; Schedule of Value is true value
- 10-09 Change order mark-ups corrected, change orders subject to audit adjustment, construction against drafting party added
- 2-10 Contractor must administer warranty program
- 5-10 Change in Stored Material (bond facility) and allowed labor rates for change order work
- 10-10 Geo-tech disclaimer added
- 12-10 Lack of a CPM schedule waived claims for excusable delays; requirement for lien releases at payments removed
- 6-11 and 1/13 Final payment does not waive recovery of improper or over charges or billings found through an audit; addition of .2 of "Cost of the Work"
- 1-12 Detailed listing of damages amount required as part of claims; Change to 7 days for initial notification of claims in 4.3.2
- 10-12 Cap on total mark ups for all levels in change orders
- 11-12 CCIP requirements added to insurance
- 8-13 ~~Duty to defend under 3.18.1 Indemnification removed-Reinserted 6-2017~~
- 2-16 Changes to assignment of subcontracts
- 3-16 Required Notice and accounting of Direct Damages
- 7-16 Change in time for claims to be filed changed to Contractor only within 7 days
- 7-16 Insurance for Cyber liability and Safe Harbor requirement added
- 10-16 Changes to Audit requirements- removed A.R.S references and added surety requirements
- 8-18 Contractor not entitled to a time extension related to a concurrent delay
- 9-18 Order of precedence among documents in case of conflict

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**ARTICLE 1
GENERAL PROVISIONS**

BASIC DEFINITIONS

1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Agreement between Owner and Contractor (hereinafter the Agreement), Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect pursuant to Paragraph 7.4. Unless specifically enumerated in the Agreement, the Contract Documents do not include other documents such as bidding requirements (advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or portions of Addenda relating to bidding requirements). *The geo-technical report is to be considered "Available Information". The geo-technical report is not a part of the Contract Documents and the Owner does not warrant the accuracy of the report's content. Contractors may read the report, draw their own conclusions, visit the site or perform their own testing as they deem necessary.*

1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Architect and Contractor, (2) between the Owner and a Subcontractor or Subsubcontractor, or Supplier (except as provided in Paragraph 5.4), (3) between the Owner and Architect or (4) between any persons or entities other than the Owner and Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations of the Contractor under the Contract intended to facilitate performance of the Architect's duties.

1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner or by separate contractors.

1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work generally including plans, elevations, sections, details, schedules and diagrams.

1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

1.1.7 THE PROJECT MANUAL

The Project Manual is a volume assembled for the Work that may include the bidding requirements, sample forms, Conditions of the Contract and Specifications.

1.1.8 "Architect"

The word "Architect" shall mean the registered design professional, Architect or Engineer, preparing the Contract Documents for this Work. The terms Architect, Engineer or Consultant may be used interchangeably. When the Owner provides the professional design services, the word "Architect" shall refer to the Owner.

1.1.9 MISCELLANEOUS DEFINITIONS

1.1.9.1 *The term 'Product' as used herein includes materials, systems and equipment.*

1.1.9.2 *The term "Addendum" or "Addenda" as used herein means a change to the Contract Documents issued by the Architect with the Owner's approval prior to the execution of the Agreement.*

1.1.9.3 *When used with a Construction Manager at Risk or Design-Build delivery method, the word "Contractor" shall refer to the Construction Manager at Risk (CMR) or Design-Builder (D-B), and the word "bid" shall mean guaranteed maximum price (GMP), fixed cost, cost plus fee, or other pricing arrangement between the Owner and Contractor, as appropriate to the context of the word use within this document.*

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1.2 EXECUTION, CORRELATION AND INTENT

5 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

10 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

15 1.2.3 Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. *Words and abbreviations that have well known local trade or technical meanings may be used in the Contract Documents in accordance with such recognized meanings.*

20 1.2.4 *The Contractor shall not make any changes from the Contract Documents without having first received permission from the Architect. Where detailed information is lacking, if work is required in a manner that makes it impossible to produce satisfactory work, or should discrepancies appear among Contract Documents, an interpretation should be requested in writing from the Architect and the Contractor shall obtain written information from the Architect before proceeding with the work.*

25 1.2.5 *In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:*

- .1 *Modifications.*
- .2 *The Agreement.*
- .3 *Addenda, with those of later date having precedence over those of earlier date.*
- .4 *The General Conditions of the Contract for Construction with Owner modifications.*
- .5 *Division 1 of the Specifications.*
- .6 *Drawings and Divisions 2-49 of the Specifications.*
- .7 *Other documents specifically enumerated in the Agreement as part of the Contract Documents.*

30 *In case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation. Where dimensions are not shown, measurements shall be verified with the Architect and by measuring actual conditions of the work already in place. Do not scale drawings.*

35 1.2.6 *Should conflicts occur in or between Drawings, Specifications, Soils Report, Addenda, etc., the Contractor is deemed to have estimated on the more expensive way unless he has asked for and obtained a written decision from the Architect before submission of his Proposal as to which method or materials will be required. Except as provided by Subparagraph 1.2.10, in the event of a discrepancy in the Contract Documents, the intent of the parties shall be determined by interpreting the Contract Documents as a whole. Anything shown in one part and not in another part, or any other ambiguity or conflict in the Contract Documents shall be brought to the attention of the Architect who will determine what was intended from the Contract Documents, and so notify the Owner and Contractor.*

40 1.2.7 *All work and material shall be the best of the respective kinds specified or indicated. Should any workmanship or materials be required which are not directly or indirectly called for in the Specifications and/or shown on the Drawings but are consistent with the Contract Documents and reasonably inferable by them or industry standard practice, said workmanship or materials shall be included in the bid and the same as similar parts that are detailed, indicated or specified, or shall match or exceed the quality of existing for remodeling and restoration work. The Contractor shall understand the same to be implied and provide for it in his work as fully as if it were particularly described or delineated.*

45 1.2.8 *When published local, State or national standards, codes or specifications are cited in the Construction Documents as a standard to govern materials or workmanship, such standards, codes or specifications, or portions thereof, shall be as binding and have the full force and effect as though copied fully into these Specifications. Unless otherwise specifically stated, the standards, codes or specifications referred to shall be the latest edition or revision that is in effect on the date of the completion of the Contract Documents.*

50 1.2.9 *The quality of workmanship or materials introduced into the Work pursuant to 1.2.3 or 1.2.10 shall be the same as similar parts that are detailed, indicated or specified.*

55 1.2.10 *The Contractor guarantees that the Work will conform to the Contract Documents. Buildings shall be weathertight, watertight, and leak-proof at every point in every area, except where leaks can be attributed to damage to the building by external forces beyond the Contractor's control. The Contractor also shall repair or replace any damaged material, finishes or fixtures damaged as a result of this water penetration. The Work shall be mold free at the time of Final Completion.*

60 1.3 CAPITALIZATION

65 1.3.1 Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles and identified references to Paragraphs, Subparagraphs and Clauses in the document or (3) the titles of other documents published by the American Institute of Architects.

70 1.4 INTERPRETATION

1.4.1 In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

1.5 EXECUTION OF CONTRACT DOCUMENTS

1.5.1 The Contract Documents shall be signed by the Owner and Contractor. If either the Owner or Contractor or both do not sign all the Contract Documents, the Architect shall identify such unsigned Documents upon request.

1.5.2 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents, including, but not limited to, Paragraph 3.2. In entering into this contract agreement, the Contractor certifies and confirms his ability to construct the Project, within the specified time, based on his detailed review of the plans and specifications and site visitation, from information available to him from the plans and specifications and applicable code, and the Contractor represents that the Contract Documents are full and complete, are sufficient to have enabled the Contractor to determine the cost of the Work therein, and to enter into the Contract and that the Contract Documents are sufficient to enable it to construct the Work outlined hereunder, and that Contractor has no knowledge of any discrepancies, omissions, ambiguities or conflicts in the Contract Documents, and Contractor will notify the Owner and Architect promptly if it becomes aware of any such discrepancies, omissions, ambiguities or conflicts in the Contract Documents.

1.6 OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

1.6.1 The Drawings, Specifications and other documents, including those in electronic form, prepared by the Architect and the Architect's consultants are furnished to the Contractor for the purpose of performing the Work and are instruments of Service. through which the Work to be executed by the Contractor is described. The Contractor may retain one record set. Neither the Contractor nor any Subcontractor, Sub-subcontractor or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications and other documents prepared by the Architect or the Architect's consultants, and unless otherwise indicated the Architect and the Architect's consultants shall be deemed the authors of them and will retain all common law, statutory and other reserved rights in addition to the copyrights. All copies of Instruments of Service, except the Contractor's record set, shall be returned or suitably accounted for to the Architect, on request, upon completion of the Work. The Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor, or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants. The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared for the Owner by the Architect and the Architect's consultants appropriate to and for use in the execution of their Work under the Contract Documents. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's, Owner's, Architect's consultants copyrights or other reserved rights.

1.6.1.1 The reuse, reproduction or publication by any method, in whole or in part, is prohibited. Title to the Drawings and Project Manual remains with the Architect without prejudice. Contact with these drawings and Project Manual shall constitute prima facie evidence of the acceptance of these restrictions.

1.7 SPECIFICATIONS

1.7.1 The misplacement, addition or omission of any letter, work or punctuation mark shall in no way damage or effect the true spirit, intent, or meaning of the Specifications.

1.7.2 The words "shown," "indicated," "noted," "scheduled," or words of like effect shall be understood to mean that reference is made to the drawings accompanying these specifications.

1.7.3 Where reference herein is made to products "as approved" or "as selected," selection or approval shall be by the Architect.

ARTICLE 2

OWNER

2.1 GENERAL

2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have the expressed authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. The Owner is the Maricopa County Community College District, designated as the "Owner" in the Owner Contractor Agreement and as referred to throughout the Contract Documents. Except as otherwise provided in Subparagraph 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

2.1.2 The Owner shall furnish to the Contractor within 15 days after receipt of a written request information necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

2.2.1 The Owner shall, at the written request of the Contractor, prior to commencement of the Work and thereafter, furnish to the Contractor reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract.

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Furnishing of such evidence shall be a condition precedent to commencement or continuation of the Work. After such evidence has been furnished, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

5 **2.2.2** Except for permits and fees, including those required under Subparagraph 3.7.1, which are the responsibility of the Contractor under the Contract Documents or as noted in the Contract Documents, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

10 **2.2.3** The Owner shall furnish surveys describing physical characteristics, legal limitations, and utility locations *and reports of industry standard investigations of subsurface characteristics* for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work. *The furnishing of these documents, or an industry standard investigation of subsurface conditions, shall not relieve the Contractor from its duties under the Contract Documents in general or in particular Subparagraph 1.5.2, 3.2.1 and 4.3.6, of these General Conditions.*

15 **2.2.4** Information or services required of the Owner by the Contract Documents shall be furnished by the Owner with reasonable promptness *to avoid unreasonable delay in orderly progress of the Work*. Any other information or services relevant to the Contractor's performance of the Work under the Owner's control shall be furnished by the Owner after receipt from the Contractor of a written request for such information or services.

20 **2.2.5** Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, such copies of Drawings and Project Manuals as are reasonably necessary for execution of the Work, *not to exceed the number of copies printed for bid purposes*.

25 **2.2.6** *The Owner shall promptly permit any actual or prospective Subcontractor or materialman to review and copy any and all surety bonds, and alternate securities for the project, pursuant to A.R.S. §39-121.01.*

2.3 OWNER'S RIGHT TO STOP THE WORK

30 **2.3.1** If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents as required by Paragraph 12.2 or ~~persistently~~ fails to carry out Work in accordance with the Contract Documents *or fails or refuses to provide a sufficient amount of properly supervised and coordinated labor, materials, or equipment so as to be able to complete the Work with the Contract Time or disregards the instructions of the Owner or Architect, when based upon the requirements of the Contract Documents*, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity. ~~except to the extent required by Subparagraph 6.1.3.~~

2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

40 **2.4.1** If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may ~~after such seven-day period give the Contractor a second written notice to correct such deficiencies within a three-day period. If the Contractor within such three-day period after receipt of such second notice fails to commence and continue to correct any deficiencies, the Owner may~~, without prejudice to other remedies the Owner may have, correct such deficiencies. *Should the Contractor:*

(a) *fail to achieve the Contract Dates of Substantial Completion or Final Completion, or*

50 (b) *within seven days of the Contract Date of Substantial Completion, appear in the Owner's and Architect's judgment be unable to achieve Substantial Completion by the Contract date,*

55 *the Owner, with certification by the Architect, may take over any or all of the Work with twenty-four (24) hours written notice.* In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services *and other expenses* made necessary by such default, neglect or failure. ~~Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect.~~ If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor *or his surety* shall pay the difference to the Owner.

ARTICLE 3

CONTRACTOR

3.1 DEFINITION

65 **3.1.1** The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Contractor" means the Contractor or the Contractor's authorized representative.

70 **3.1.2** The Contractor shall perform the Work in accordance with the Contract Documents.

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

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performed by persons other than the Contractor.

- 1 *1 The Contractor is responsible for quality control inspections of the Work to insure that it is being constructed in accordance with the Contract Documents. It is the express purpose of the Contract Agreement for the Contractor to provide to the Owner a fully constructed and operational facility built to the highest quality standards. The Contractor is responsible for construction in accordance with the Contract Documents to the highest quality standards, independent of observations by the Architect or Owner.*
- 2 *2 If the Contractor fails to provide timely or adequate quality control of the construction in progress, it may result in the performance of corrective work at a less opportune time. The time of discovery of a deficiency in the Work by the Owner or the Architect shall not negate the requirement for the Contractor to correct the deficiency to comply with the Contract Documents.*
- 3 *3 Should it become necessary for the Architect to incur additional costs during the course of construction, or subsequent to the final inspection, due to the Contractor's failure to maintain required quality control or schedule, or the Contractor's acts, omissions or negligence, the Architect will provide all necessary additional services at his standard rate and will charge the Owner as part of an Additional Service Request, and such costs will be reimbursed by the Contractor or deducted from monies still due the Contractor. These costs are in addition to any liquidated damages.*

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.2.1 Since the Contract Documents are complementary, before starting each portion of the Work, the Contractor shall carefully study and compare the various Drawings and other Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Subparagraph 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, any errors, inconsistencies or omissions discovered (or which reasonably should have been discovered) by the Contractor shall be reported promptly to the Architect as a request for information in such form as the Architect may require. *If the Contractor proceeds with work affected by such errors, inconsistencies or omissions without receiving interpretation or clarification from the Architect, he does so at his own risk, and all costs, expenses and/or damages arising therefrom shall be at the Contractor's sole expense. Execution of the Contract by the Contractor is a representation that the Contract Documents are full, complete and sufficient to enable the Contractor to: (1) determine the cost of the Work; (2) construct the Work outlined therein; and (3) otherwise to fulfill all of its obligations hereunder; including, but not limited to, Contractor's obligation to construct the Work for the Contract Sum on or before the date(s) of Substantial Completion and complete all punch work and deficiency corrections on or before the date(s) of Final Completion, established in the Contract. The Contractor further acknowledges and declares that it has had sufficient opportunity to visit and examine the site, examine all physical and other conditions effecting the Work and is fully familiar with all of the conditions affecting the same. In connection therewith, Contractor specifically represents and warrants to the Owner that it has, by careful examination of the site, the Contract Documents, the geo-technical report and any other data provided by the Owner, satisfied itself as to: (1) the nature, location and character of the Project and the site, including, without limitation, the surface and subsurface conditions and structures and obstruction, both natural and man-made, and all surface and sub-surface water conditions of the site and the surrounding area; (2) the nature, location and character of the general area in which the Project is located, including without limitation, its climatic conditions, available labor supply and labor costs, and available equipment supply and equipment costs; and (3) the quality and quantity of all materials, supplies, tools, equipment, labor and professional services necessary to complete the Work in a manner and within the cost and time required by the Contract Documents. Except as limited by A.R.S. Title 40, Chapter 2, Article 6.3 (Blue Stake), the Contractor shall be solely responsible for locating, prior to performing any work, all active public utility lines, telephone company cables and lines, sewer lines, water lines, gas lines, and electrical lines. The Owner will reasonably assist the Contractor in locating private utility lines within the Project area. The Contractor shall perform Work in such a manner as to avoid damaging any such lines, cables, pipes and pipelines. If the Contractor performs any construction activity knowing or when it reasonable should know that the activity involves a recognized an error, inconsistency or omission in the Contract Documents without such notice to the Architect, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction*

3.2.2 Any design errors or omissions noted by the Contractor during this review shall be reported promptly to the Architect but it is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations, but any nonconformity discovered by or made known to the Contractor shall be reported promptly to the Architect.

3.2.3 If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Architect in response to the Contractor's notices or requests for information pursuant to Subparagraphs 3.2.1 and 3.2.2, the Contractor shall make Claims as provided in Subparagraphs 4.3.6 and 4.3.7. If the Contractor fails to perform the obligations of Subparagraphs 3.2.1 and 3.2.2, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor performed such obligations. ~~The Contractor shall not be liable to the Owner or Architect for damage resulting from errors, inconsistencies or omissions in the Contract Documents or for differences between field measurements or conditions and the Contract Documents unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.~~

3.2.4 Neither the Owner nor the Architect assume any responsibility for an understanding or representation made by any of their agents or representatives prior to the execution of the Agreement unless: (1) such understandings or representations are expressly stated in the Agreement, and (2) the Agreement expressly provides that responsibility therefore is assumed by the Owner.

3.2.5 Failure of the Contractor to acquaint himself with all available information concerning conditions will not relieve him of the responsibility for properly estimating the difficulty, cost, effort or time of successfully and timely performing the Work.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

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5 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention, *including all required coordination between suppliers, trades and subcontractors. This coordination shall include as necessary, meetings with suppliers or subcontractors, additional coordination drawings or details, etc., as may be required to assure that all of the work fits within the spaces provided, allowing adequate service and maintenance clearances and access, etc.* The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any resulting loss or damage.

15 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

20 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

25 3.3.4 *The Contractor's Superintendent, and when specifically required by the Owner, the Contractor's Project Manager (if one is assigned to the Project), shall be in attendance at the Project site not less than eight (8) hours per day, five (5) days per week, unless the job is closed down due to a general strike or conditions beyond the control of the Contractor, or unless and until termination of the Contract in accordance with the Contract Documents. It is understood that such Project Manager and Superintendent shall be acceptable to the Owner, and shall be continued in that capacity for the duration of the Work, unless such substitutions are necessitated by an individual's sudden illness, death or termination of employment. Except on small projects with the Owner's prior written consent, the Superintendent shall not be employed on any other project for or by Contractor, or any other entity during the course of the Work. On small projects with intermittent work, the Superintendent or a responsible individual representing the Contractor expressly approved by the Owner in writing, shall be present on site at all times that work is in progress.*

30 3.3.5 *In the event any of the following conditions shall exist, the Contractor shall require that his Project Manager and Superintendent be at the Project Site not less than ten (10) hours per day, six (6) days per week, as well as increasing the presence and level of manpower in all appropriate building trades and subcontractors:*

- 35
1. *should Substantial Completion not be accomplished on schedule.*
 2. *should Final Completion not be accomplished on schedule.*
 - 40 3. *should the Progress Schedule indicate, in the opinion of the Owner, that the Contractor is fourteen (14) or more days behind schedule at any time during construction up until thirty (30) days prior to scheduled Substantial Completion.*
 4. *should the Progress Schedule indicate, in the opinion of the Owner, that the Contractor is seven (7) or more days behind schedule at any time during the last thirty (30) days prior to scheduled Substantial Completion.*

45 3.4 LABOR AND MATERIALS

50 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, roofs, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

55 3.4.2 The Contractor may make substitutions only with the *written* consent of the Owner, after evaluation by the Architect and in accordance with a Change Order. *Substitutions after award of contract shall be made only for reasons listed in the Instructions for Bidders.*

60 3.4.3 The Contractor shall *at all times* enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. ~~The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.~~ *Workers on the project and shall not employ or continue to employ any unfit person on the project or any person not skilled in the assigned work. The Contractor shall be responsible to the Owner for all acts and omissions of its employees, all tiers of its subcontractors, materials suppliers, and anyone whom the Contractor may allow to perform any Work, and their agents and employees, other than the Owner, the Architect and their officers, employees, agents and consultants, whom the Contractor may allow to come on the job site. In the event the Contractor personnel assigned to the Project are unable to construct the contract Work from the Contract Documents, the Contractor will replace those personnel, or request that his subcontractor replace those personnel, with individuals of sufficient ability, knowledge and experience to perform the Work if so requested by the Owner or his Representative. If the Contractor receives written notice from the Owner or Architect objecting to any Subcontractors or employees or anyone who is a hindrance to the proper or timely execution of the work, or is a disruption to Owner occupied areas adjacent to the Work, Contractor shall remedy such complaint by replacing personnel or Subcontractors without delay to the project and at no additional cost to the Owner. This provision shall be included in all contracts between the Contractor and the Subcontractor at all tiers.*

70 3.4.4 *All materials shall be shipped, stored and handled in a manner that will protect and ensure their new condition at the time of incorporation in the Work. After installation, all materials shall be properly protected against damage to ensure their being in the condition required by Subparagraph 3.5.1 when the Work is completed and accepted by the Owner.*

3.4.5 *The Contractor shall procure and furnish to the Owner all guarantees, warranties and spare parts or materials which are required either*

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expressly, by implication or standard practice, by the Contract Documents or that are normally provided by a manufacturer.

3.5 WARRANTY

5 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's 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 and normal usage, *unless the damage or defect occurs prior to fully completing all applicable and required training of Owner personnel and submittal of all relevant operating and maintenance documentation.* If required by the Architect the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

10 3.5.2 *The warranty provided in Paragraph 3.5 shall be in addition to and not in limitation of any other, or additional statutory, common law or manufacturer standard warranty which Owner may be entitled to and neither that warranty nor any other provision of this Construction Contract shall limit or impair Owner's ability to recover for damages which Owner may suffer as a result of the failure of Contractor to comply with the terms and conditions of the Construction Contract.*

15 3.5.3 *Neither the final payment nor any provision in the Contract Documents shall constitute an acceptance of Work not done in accordance with the Contract Documents, or relieve the Contractor or its Sureties from liability, with respect to any warranties or responsibility for faulty materials and workmanship, or incomplete work. If the Contractor fails to timely remedy any defects or damage to the satisfaction of the Owner, the Owner may correct the Work or repair the damages, and the cost and expense incurred in such event shall be paid by the Contractor or be recoverable from the Contractor or its Surety, or offset against any amounts owing to the Contractor of this or other projects with the Contractor. Final or complete payment to the Contractor or surety made in error for incomplete work shall not be interpreted as or represent a waiver of the right to make a later claim to complete this work at no additional cost to the Owner.*

20 3.5.4 *The Contractor shall manage the warranty process on behalf of the Owner. The Owner will send warranty requests to the Contractor who then shall be responsible for contacting all subcontractors and suppliers, coordinating their timely service calls, coordinating among multiple sub-contractors where required, etc. The Owner will not be responsible for initial contact with, tracking of or coordination between subcontractors required to resolve a warranty request.*

25 3.5.5 *Notwithstanding any other warranty or disclaimer of warranty in this contract, the Contractor warrants that all products delivered and all services rendered under this contract shall comply in all respects to performance and delivery requirements of the specifications and shall not be adversely affected by any time-related data Year 2000 issues. This warranty shall survive the expiration or termination date of this contract. In addition, the defense force majeure shall not apply to the Contractor's failure to perform specification requirements as a result of any date-related data Year 2000 issue.*

3.6 TAXES

30 3.6.1 The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor which are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect. *If tax rates change during the course of the contract, the contract shall be adjusted by change order to reflect the change in taxes for all work not billed and paid for as of the date of the new tax rate.*

3.7 PERMITS, FEES AND NOTICES

35 3.7.1 *All off-site improvements and off-site utilities are under the local municipal jurisdiction, including permits and reviews. On-site code jurisdiction, including plan review and construction inspection, is under the Arizona State Fire Marshal's Office, unless the local municipality has assumed jurisdiction under A.R.S. 34-461 for fire code enforcement only. This must be confirmed on a city by city basis for each project. The Salt River Pima-Maricopa Indian Community has full building code jurisdiction for Scottsdale Community College only. Unless otherwise provided in the Contract Documents, the As applicable, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required when bids are received or negotiations concluded.*

40 3.7.2 The Contractor shall comply with and give notices required by laws, regulations and lawful orders of public authorities applicable to performance of the Work.

45 3.7.3 *Subject to the other terms and conditions of the Contract Documents in general, and Paragraphs 1.2.1, 1.5.2, 3.1.2, and 3.2.1, it is not the Contractor's responsibility to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations. However, if the Contractor observes that portions of the Contract Documents are at variance therewith, the Contractor shall promptly notify the Architect and Owner in writing, and necessary changes shall be accomplished by appropriate Modification.*

50 3.7.4 If the Contractor performs Work *that he knows or should have known knowing it* to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Architect and Owner, the Contractor shall assume full responsibility for such Work and shall bear the costs attributable to correction *including all penalties and fines.*

3.8 ALLOWANCES AND CONTINGENCY(IES)

55 3.8.1 The Contractor shall include in the Contract Sum all allowances *and contingencies* stated in the Contract Documents *or GMP.* Items covered by allowances *and contingencies* shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to who the Contractor has reasonable objection. *All uses*

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of allowances and contingencies shall be reviewed and approved in advance by the Owner.

3.8.2 Unless otherwise provided in the Contract Documents:

- .1 allowances *and contingencies* shall cover the cost to the Contractor of materials, *labor and installation costs*, and equipment delivered at the site ~~and all required taxes~~, less applicable trade discounts;
- .2 *Unless otherwise noted in the allowance and contingencies description*, Contractor's costs for unloading and handling at the site, ~~labor, installation costs~~, overhead, profit, *all required taxes* and other expenses contemplated for stated allowance *and contingencies* amounts shall be included in the Contract Sum but not in the allowances *and contingencies*;
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Clause 3.8.2.1 and (2) changes in Contractor's costs under Clause 3.8.2.2.

3.8.3 Materials and equipment under an allowance shall be selected by the Owner in sufficient time to avoid delay in the Work. *Within Thirty (30) days of Notice to Proceed, the Contractor shall provide the Owner with deadline dates for each Owner- selected item in the allowance, or other Owner-supplied, Contractor-installed items.*

3.9 SUPERINTENDENT AND PROJECT MANAGER

3.9.1 The Contractor shall employ a competent superintendent, *project manager*, and necessary assistants who shall be in attendance at the Project site during performance of the Work *to provide appropriate supervision at all times during the progress of the Work. The superintendent and his assistants shall be fit and adequately experienced for their work and be capable of going to all locations where Work is being performed. The Owner shall have the right to require the Contractor to replace the project superintendent.* The superintendent and *project manager* shall represent the Contractor, and communications given to the superintendent *or project manager* shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

3.9.2 *Within ten (10) days of receipt of Notice of Award, Contractor shall submit the resume of the Contractor's Superintendent and project manager to the Owner. The Owner shall have seven (7) days upon receipt of the resume to disapprove the Superintendent. The Owner's acceptance or disapproval of the Superintendent and project manager shall not affect the bid. The Owner shall have the right to require the Contractor to replace the project superintendent or project manager. The Superintendent and project manager shall represent the Contractor and communications given to them shall be as binding as if given to the Contractor. When requested, the Contractor shall provide the Owner with complete work history profiles for other management staff to be accounted with this project for their review.*

3.9.3 *With the Owner's consent, a working foreman may be used in place of a full time superintendent on small projects. This foreman shall be on-site at all times that project Work is occurring.*

3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

3.10.1.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's Construction Schedule for the Work. The Schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work, *but at least monthly*, and Project shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work. *The purpose of this schedule is to assure adequate planning and execution of the Work, and to facilitate evaluation of the progress of the Work. If the required schedules in the required form are not submitted as noted below, the Owner may withhold progress payments. Regardless of any Owner or Architect review of the Contractor's Schedule, the Contractor remains responsible for development and execution of the means, method and timing of performance reflected in the Contractor's Schedule.*

- .1 *Unless otherwise noted in the Contract Documents, at the time of the pre-construction meeting, the contractor shall present a schedule for the first thirty (30) days of the work. By the time of the second pay application, a fully developed project schedule ("Project Schedule") incorporating the previously submitted 30 day schedule, and schedule of all shop drawings and submittals shall be provided to the Owner and Architect. Submittal by the Contractor and review by the Owner or Architect of this full schedule may be a precondition for further payment at the Owner's option. No individual activity shown on the schedule shall be of longer duration than two weeks nor value greater than \$50,000. Greater value or longer activities exceeding two weeks duration shall be subdivided into specific two-week or shorter segments of work for scheduling and progress monitoring purposes only.*
- .2 *Schedules for all projects greater than eight months length or more than \$1,000,000 construction value shall be in critical path format unless specifically approved in writing by the Owner. The schedule shall indicate the dates for starting and completing various aspects of the Work, including submittal, approval, procurement, fabrication and delivery of major items, materials and equipment as well as on-site construction activities. Where the Owner is supplying and/or installing items necessary for the Contractor's completion of his Work, these items shall be shown on the Contractor's schedule as well. Non-construction activities which impact the schedule, including submittals, inspections, procurement, etc., also shall be shown on the Schedule. Division One of the specifications may also spell out more detailed schedule requirements. Failure to submit a critical path schedule, whether or not officially waived by the Owner, waives the Contractor's right to time extensions based upon normally allowed excusable delays due to impacts created by the Owner or Owner's consultants, hidden conditions or any other factors that commonly extend the Substantial Completion date of the Work.*
- .3 *If the proposed Project Schedule is not detailed or formatted in a satisfactory form to the Owner or Architect, the schedule shall be revised by the Contractor in accordance with the recommendations of the Owner or Architect and re-submitted for acceptance.*

- 4 *An updated Project Schedule, including changes in the Critical Path as necessary, shall be submitted monthly in hard copy and electronic file in original software as a pre-requisite to approval of the Contractor's payment application at the Owner's option.*

5 **3.10.2** The Contractor shall prepare and keep current, for the Architect's approval, a schedule of submittals which is coordinated with the Contractor's construction schedule and allows the Architect reasonable time to review submittals. *The Contractor, upon award of the contract (or where Shop Drawings, Samples or the like are required, upon receipt of their approval), shall place orders for all materials, work, fabrication and equipment necessary to meet the submitted Progress Schedule. The Contractor shall keep the Architect and Owner informed and shall notify the Architect promptly in writing of any materials, work, fabrication or equipment which may not timely be available for the purposes of the Contract.*

10 **3.10.3** The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect. *The Contractor shall provide regular monitoring and updating of the Progress Schedule on a monthly basis, or more frequently as required by the Owner, or by the conditions of the Work.*

15 **3.10.4** *If the Contractor proposes an early completion to the Work, ahead of the project's contract date of Substantial Completion, the Contractor shall notify the Owner in writing of this intention within sixty days of Notice to Proceed. With the notification, the Contractor shall provide a proposed early completion schedule that must include a reasonable, feasible and accurate logic or sequencing of all activities, feasible and accurate allocation of resources required to complete the Work, and must represent an embodiment of the entire scope of the Work. The Owner and architect will review the submitted material and the Owner reserves the right to reject this request. In order to accept early completion, the following must be done:*

- 20
1. *At the time the revised project schedule is furnished to the Owner, the Contractor also shall report to the Owner all actions by the Owner that are necessary to accommodate the changes made necessary by the early finish proposal.*
 2. *The Owner also can accelerate the performance of his duties and be compensated for any inconvenience or additional expenses incident or arising out of such proposed early finish.*
- 25

30 *If early completion is accepted by the Owner, a change order will be written incorporating the new completion date into the Contract and moving the contractual Date of Substantial Completion to the revised completion date shown on the Contractor's proposed early completion schedule. The Owner shall not be liable to the Contractor for any costs or damages should the Contractor be unable to complete the Work before the original Contract Milestone or Substantial Completion date.*

35 **3.10.5** *The Contractor shall monitor the progress of the Work relative to the Contract Documents, and promptly advise the Owner and Architect or any delays or potential delays, and update the accepted Project Schedule. In the event that a schedule or report indicates delays, the Contractor shall propose an affirmative recovery plan per Subparagraph 8.4.1. In no event shall reporting a delay or showing a revised schedule constitute an adjustment in the Contract time or sum unless such adjustment is agreed to in writing by the Owner and authorized by a written change order as provided for in Paragraph 7.2.*

40 **3.10.6.** *The Contractor shall maintain a daily log of construction activities for each calendar day of the Contract time on which work occurs. The Contractor specifically shall status all activities shown on the project schedule that are to be underway or are late as of the date of the report (complete, in progress, on/ahead or behind schedule) and document all activities at the project site including, but limited to weather conditions (showing high and low temperatures, amounts and time of precipitation, and site related impacts of weather conditions); soil or site conditions which may adversely affect the Work; hours or operations by the Contractor and subcontractors; number of Contractor and subcontractor personnel present and working at the site, by subcontract and trade; quantity and location of work accomplished by each trade each day; equipment active or idle at the site; description of the Work being performed that day; any unusual or special occurrences at the site; materials received at the job site by type and approximate quantity; all materials or systems tests requested and provided, along with who provided or observed these items; a list of all outside visitors to the site. The Contractor shall provide copies of all daily logs to the Owner monthly, or more frequently as directed by the Owner. The inclusion of information in the daily logs does not satisfy those reports, communications or notices required by the Contract Documents or be construed to be constructive notice of any events, claims, delays or other matters.*

50 **3.11 DOCUMENTS AND SAMPLES AT THE SITE**

55 **3.11.1** *The Contractor shall maintain at the site for the Owner one record copy of the Drawings, Specifications, addenda, Change Orders and other Modifications, in good order and marked currently to record field changes and selections made during construction, and one record copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work.*

60 *The Contractor shall maintain at the site for use and inspection by the Owner and Architect, one copy of all Drawings, Specifications, bulletins, addenda, Change Orders, field orders, rejected and approved shop drawings, submittals or samples; Architect's Supplementary Instructions, Requests for Information and other Contract related documents, and their modifications, if any, in good order and marked promptly by the Contractor to record all approved changes made during construction. The field working set of drawings referenced by the contractor and subcontractors in their daily work, as well as a record set Drawings and Specifications, shall be annotated regularly by the Contractor to reference all addenda, RFI's, ASI's and Change Orders, in order to maintain a complete, accurate and up to date set of Contract Documents for daily use by the Owner, Architect s, Contractor or Subcontractors.*

65 **3.11.2** *All changes or interpretations to the Contract Documents shall be distributed promptly by the Contractor to all effected subcontractors or suppliers.*

70 **3.11.3** *The Contractor shall maintain on-site catalogue data, price lists, manufacturer's operating and maintenance instruction, schematics, certificates, warranties and guarantees as they relate to this Work.*

3.11.4 *The Contractor shall maintain as-built drawings and make them available with each monthly pay application for review by the Architect.*

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3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

5 **3.12.1** Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

10 **3.12.3** Samples are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

15 **3.12.4** Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required by the Contract Documents the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review by the Architect is subject to the limitations of Subparagraph 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

20 **3.12.5** The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals, which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor, may be returned by the Architect without action. *All shop drawings, submittals and samples shall be submitted to the greatest extent possible, within the first 60 days of the project. The Contractor shall allow a minimum of two reviews for each submittal, shop drawing or sample, allowing at least fourteen days for each review.*

25 **3.12.6** By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

30 **3.12.7** The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect. *The Contractor shall furnish approved Shop Drawings, Samples and Product Data to all Contractors, Subcontractors, and suppliers whose work is in any way related to the Shop Drawings, Samples or Product Data.*

35 **3.12.8** The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

40 **3.12.9** The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice the Architect's approval of a resubmission shall not apply to such revisions.

45 **3.12.10** The Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. If professional design services or certification by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Subparagraph 3.12.10, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents. *The Contractor and his consultant shall review all Owner or Architect provided performance or design criteria for completeness and accuracy, based upon their experience, local practice and custom, and common engineering or design practice, and inform the Architect in writing of any discrepancies or omissions.*

50 **3.12.11** *After delivery of samples and materials, the Architect may make such tests as he deems necessary, with samples required for such tests being furnished by and at the cost of the Contractor.*

55 **3.12.12** *If the Contractor is required to perform tests that due to climatic conditions must be delayed, the tests will be accomplished by the Contractor at the earliest possible date that the Contractor's guarantee of that item and other items dependent on its proper operation shall be gin upon satisfactory completion of the test. The responsibility of the Contractor under this subparagraph is not abrogated upon the Owner's election to initiate final payment. Tests made to determine whether a material is an acceptable substitute shall be paid for by the Contractor.*

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3.13 USE OF SITE

3.13.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

3.13.2 *The Contractor is responsible for complying with all federal, State and local requirements and laws for temporary construction related issues related to dust control and erosion control for the site related to his Work. This includes all necessary permits, notices, plans (including Storm Water Pollution Prevention Plans), and termination of coverage, along with enforcement of all of these requirements with sub-contractors and suppliers.*

3.14 CUTTING AND PATCHING

3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with *prior* written consent of the Owner and of such separate contractor. ~~such consent shall not be unreasonably withheld.~~ The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

3.14.3 *Any part of the finished Work damaged during installation or prior to Final Completion of the Work shall be repaired so as to be equal in quality, appearance, serviceability and other respects to an undamaged items or part of the Work. Where this cannot be fully accomplished to the satisfaction of the Owner, the damaged item or part shall be replaced by the Contractor at his expense.*

3.15 CLEANING UP

3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove from and about the Project waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials.

3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the cost thereof shall be charged to the Contractor.

3.16 ACCESS TO WORK

3.16.1 The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

3.17 ROYALTIES, PATENTS AND COPYRIGHTS

3.17.1 The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or **Architect**. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

3.18 INDEMNIFICATION

3.18.1 To the fullest extent permitted by law ~~and to the extent claims, damages, losses or expenses are not covered by Project Management Protective Liability insurance purchased by the Contractor in accordance with Paragraph 41.3,~~ the Contractor shall defend, indemnify and hold harmless the Owner, Architect, Architect's Consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, *court costs and the cost of appellate proceedings*, arising out of ~~or resulting from performance of the Work, provided that such claim, damage, loss or expense that is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the any~~ the negligent acts or omissions of the Contractor, ~~a~~ its Subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, ~~regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder.~~ Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to ~~a~~ any party or person described in this Paragraph 3.18.

3.18.2 ~~In claims against any person or entity indemnified under this Paragraph 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Subparagraph 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.~~

3.18.3 *The obligations of the Contractor under this Paragraph 3.18 shall not extend to the liability of the Architect, the Architect's consultants, and agents and employees of any of them arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the Architect, the Architect's Consultants, and agents and employees of any of them provided such giving or failure to give is the primary, cause of the injury or damage. This Paragraph*

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shall not limit the obligations of the Contractor to the Owner, State of Arizona, or any other political subdivision of the State of Arizona, when any one or more of the foregoing serves as the Architect or a sub-consultant to the prime Architect.

ARTICLE 4

ADMINISTRATION OF THE CONTRACT

4.1 ARCHITECT

4.1.1 The Architect is the person lawfully licensed to practice architecture or engineering or an entity lawfully practicing architecture or engineering identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term Architect means the Architect or the Architect's authorized representative.

4.1.2 ~~The duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents may be restricted, modified, extended or discontinued by the Owner and Architect after notice to the Contractor unless the Contractor raises reasonable and timely objection to such change. Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.~~

4.1.3 If the employment of the Architect is terminated, the Owner shall employ a new Architect ~~against whom the Contractor has no reasonable objection and~~ whose status under the Contract Documents shall be that of the former Architect.

4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents, and will be an Owner's representative (1) during construction, (2) until final payment is due and (3) with the Owner's concurrence, from time to time during the ~~one- two~~ year period for correction of Work described in Paragraph 12.2. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

4.2.2 The Architect, as a representative of the Owner, will visit the site at intervals appropriate to the stage of the Contractor's operations *and the status of the Work* (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will neither have control over or charge of, nor be responsible for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Subparagraph 3.3.1.

4.2.3 The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

4.2.4 Communications Facilitating Contract Administration. Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or related to the Contract. Communications by and with the Architect's *sub-consultants* shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Architect *and the* Owner.

4.2.5 Based on the Architect's *observations and* evaluations of the Work and of the Contractor's Applications for Payment, the Architect will review, ~~and certify,~~ *and recommend to the Owner* the amounts due the Contractor and will issue Certificates for Payment in such amounts *in accordance with the time frames set forth in A.R.S. § 41-2577.*

4.2.6 The Architect will have authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Subparagraphs 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

4.2.7 The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken with such reasonable promptness as to cause no *unreasonable* delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time in the Architect's professional judgment to permit adequate review. *Where multiple submittals are inter-related, the Architect may hold the submittals until all related items are received and may be reviewed and processed as a coordinated group.* Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under ~~Paragraphs 3.3, 3.5 and 3.12~~ *the Contract Documents.* The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods,

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techniques, sequences or procedures. The Architect approval of a specific item shall not indicate approval of an assembly of which the item is a component. *The Architect will require a minimum of ten (10) working days for review of submittals.*

5 **4.2.8** The Architect will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Paragraph 7.4.

10 **4.2.9** The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of Final Completion *in accordance with the requirements of the Contract Documents*, will receive, *review* and forward to the Owner, for the Owner's review, *acceptance*, and records, written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents.

15 **4.2.10** If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

20 **4.2.11** The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If no agreement is made concerning the time within which interpretations required of the Architect shall be furnished in compliance with this Paragraph 4.2, then delay shall not be recognized on account of failure by the Architect to furnish such interpretations until 15 days after written request is made for them.

25 **4.2.12** 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. When making such interpretations and initial decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions so rendered in good faith.

30 **4.2.13** *Subject to the Owner's review*, ~~and~~ the Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

30 **4.3 CLAIMS AND DISPUTES**

35 **4.3.1 Definition.** A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment ~~or interpretation of Contract terms~~, payment of money, extension of time or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes ~~and matters in question~~ between the Owner and Contractor arising out of or relating to the Contract. Claims must be initiated by written notice. The responsibility to substantiate Claims shall rest with the party making the Claim.

40 **4.3.2 Time Limits on Claims.** Claims by ~~either party~~ *the Contractor* must be initiated within ~~24~~ 7 days after occurrence of the event giving rise to such Claim or within ~~24~~ 7 days after the claimant first recognizes, *or reasonable should have recognized*, the condition giving rise to the Claim, whichever is later. Claims must be initiated by written notice to the Architect and the *Owner's Project Manager* ~~other party~~.

45 *.1 If the Contractor incurs damages related to expenses caused by a delay for which the Owner is responsible, which is unreasonable under the circumstances, and which was not reasonable contemplated by the parties at time of formation of this Contract, then the parties shall resolve the Contractor's claim pursuant to A.R.S. § 41-2617. The Contractor shall notify the Owner in writing within five working days of such delay, specifying why the Owner is believed by the Contractor to be responsible for the delay and the percentage extent to which the Contractor believes the Owner is responsible. Failure to provide such timely notice constitutes a waiver of all rights under A.R.S. § 41-2617.*

50 *.2 Any and all claims for extensions and damages because of a delay shall be made in writing to the Architect and Owner not more than 21 calendar days from the beginning of the delay or within 21 calendar days after the Contractor first should have recognized the condition giving rise to the delay. The notice shall conform to the requirements of Subparagraph 8.3.*

55 **4.3.3 Continuing Contract Performance.** Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Subparagraph 9.7.1 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments *on Work unrelated to the claim* in accordance with the Contract Documents.

60 **4.3.4 Claims for Concealed or Unknown Conditions.** If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents *or in the Geo-technical report* or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than ~~24~~ *three (3)* days after first observance of the conditions, *and in any case, prior to altering or removing the differing condition*. The Architect will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within 21 days after the Architect has given notice of the decision. If the conditions encountered are materially different, the Contract Sum and Contract Time shall be equitably adjusted, but if the Owner and Contractor cannot agree on an adjustment in the Contract Sum or Contract Time, the adjustment shall be referred to the Architect for initial determination, subject to further proceedings pursuant to Paragraph 4.4.

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4.3.5 **Claims for Additional Cost.** If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be received by the Owner within seven (7) days of occurrence or discovery of the change and shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Paragraph 10.6.

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4.3.6 If the Contractor believes additional cost is involved for reasons including but not limited to (1) a written interpretation from the Architect, (2) an order by the Owner to stop the Work where the Contractor was not at fault, (3) a written order for a minor change in the Work issued by the Architect, (4) failure of payment by the Owner, (5) termination of the Contract by the Owner, (6) Owner's suspension or (7) other reasonable grounds, Claim shall be filed in accordance with this Paragraph 4.3. All other claims shall be made per Paragraph 7.5.

4.3.7 Claims for Additional Time

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4.3.7.1 If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given received by the Owner within seven (7) days of occurrence or discovery of the change. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay only one Claim is necessary.

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4.3.7.2 If adverse and unusually severe weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction. Claims for extensions in time due to unusual or inclement weather, or related muddy or site conditions, shall be made in conformance with the requirements of Paragraph 8.3: Claims for time extensions due to unusual or abnormal weather conditions will be granted only where the unusual weather conditions prevented execution of Work activities on the critical path of the Work. Unusual or inclement weather as used herein means weather that results in a minimum of a five hour delay or loss of work for at least 75% of the labor force working on critical path Work that day. The contract project completion time includes the following number of rain days for the applicable months within the project's duration: January-2 days; February- 2 days; March- 2 days; April- 1 day; May- 1 day; June-1 day; July- 2 days; August- 2 days; September- 1 day; October- 1 day; November- 2 days; December- 2 days. Claims for rain days must be received by the Owner by 10:00 a.m. of the day that the rain or muddy condition occurs. The appropriate number of rain days shall be shown as single critical path activity with proper duration immediately preceding the Substantial Completion milestone on the critical path project schedule. The duration of this activity will be reduced by the approved rain days encountered. Unused rain days for a particularly month will roll forward as part of the unused total for the entire project.

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4.3.7.3 If an extension claim is made due to mud or other job site conditions related to the unusual weather, the Architect or other Owner's representative shall be notified on the day for which the site condition is being claimed to substantiate the condition(s). Claims for time extensions due to weather related mud or other site conditions will be granted only where the required notification is given and unusual weather conditions prevented execution of items within the critical path of the work or otherwise significantly hindered the accomplishment of work as defined in Paragraph 4.3.7.2. Partial day extensions may be granted when some portion of the daily work could be accomplished, though not at full efficiency or capacity.

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4.3.7.4 Inclement weather delays, regardless of where they occur during the Work schedule, may receive extension of contract time but are otherwise non-compensable.

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4.3.8 **Injury or Damage to Person or Property.** If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

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4.3.9 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are so changed in a proposed Change Order or Construction Change Directive that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

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~~4.3.10 **Claims for Consequential Damages.** The Contractor and Owner waive all claims against each other for all consequential damages arising out of or relating to this Contract. This mutual waiver includes:~~

~~1— damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons,~~

~~and~~

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~~2— damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit other than anticipated profits arising directly from the Work.~~

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~~This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Subparagraph 4.3.10 shall be deemed to preclude an award of liquidated direct damages, when applicable, in accordance with the requirements of the Contract Documents.~~

4.4 RESOLUTION OF CLAIMS AND DISPUTES

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4.4.1 ~~Decision of Architect.~~ Claims, including those alleging an error or omission by the Architect, but excluding those arising under Paragraphs 10.3 through 10.5, shall be referred initially to the Architect for decision. An initial decision by the Architect, shall be required as a condition precedent to filing a Claim pursuant to Paragraph 4.5 related to the Contract, mediation, arbitration or litigation of This Agreement is based closely upon the American Institute of Architects 1997 Edition of AIA Document A201, "General Conditions of the Contract for Construction". AIA has not granted specific authorization for this use, nor has Maricopa Community Colleges requested such use. MCCCDC pays an annual license fee for unlimited use of all AIA documents. Our use is intended to be an edited version of the AIA standard documents and not intended to override or avoid copyright or other use of their documents.

all Claim between the Contractor and Owner arising prior to the date final payment is due unless 30 days have passed after the Claim has been referred to the Architect with no decision having been rendered by the Architect. The Architect will not decide disputes between the Contractor and persons or entities other than the Owner.

5 **4.4.2** The Architect will review Claims and within ten days of the receipt of the Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Architect is unable to resolve the Claim if the Architect lacks sufficient information to evaluate the merits of the Claim or if the Architect concludes that, in the Architect's sole discretion, it would be inappropriate for the Architect to resolve the Claim.

10 **4.4.3** In evaluating Claims, the Architect may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise that may assist the Architect in rendering a decision. The Architect may request the Owner to authorize retention of such persons at the Owner's expense.

15 **4.4.4** If the Architect requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either provide a response on the requested supporting data, advise the Architect when the response or supporting data will be furnished or advise the Architect that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Architect will either reject or approve the Claim in whole or in part.

20 **4.4.5** The Architect will approve or reject Claims by written decision, which shall state the reasons therefor and which shall notify the parties of any change in the Contract Sum or Contract Time or both. The approval or rejection of a Claim by the Architect shall be final and binding on the parties but subject to ~~mediation and arbitration~~ *administrative resolution*.

25 ~~**4.4.6** When a written decision of the Architect states that (1) the decision is final but subject to mediation and arbitration and (2) a demand for arbitration of a Claim covered by such decision must be made within 30 days after the date on which the party making the demand receives the final written decision, then failure to demand arbitration within said 30 days' period shall result in the Architect's decision becoming final and binding upon the Owner and Contractor. If the Architect renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence, but shall not supersede arbitration proceedings unless the decision is acceptable to all parties concerned.~~

30 **4.4.7** Upon receipt of a Claim against the Contractor or at any time thereafter, the Architect or the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Architect or the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy *or taking over the Work*.

35 ~~**4.4.8** If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the Claim by the Architect, by mediation or arbitration.~~

40 ~~**4.4.9** When a written decision of the Architect states that the decision is final, a demand for administrative resolution of the demand or claim per Paragraph 4.5, covered by such decision must be made within 30 calendar days after the date which the party making the demand receives the final decision. The failure to demand administrative resolution within said 30 days' period shall result in the Architect's decision becoming final and binding upon the Owner and Contractor. If the Architect renders a decision after administrative resolution has been initiated, such decision may be entered as evidence but shall not supersede the administrative resolution proceedings unless a decision is acceptable to all parties concerned.~~

4.5 — MEDIATION

45 ~~**4.5.1** Any Claim arising out of or related to the Contract except Claims relating to aesthetic effect and except those waived as provided for in Subparagraphs 4.3.10, 9.10.4 and 9.10.5, shall, after initial decision by the Architect or 30 days after submission of the Claim to the Architect, be subject to mediation as a condition precedent to arbitration and the institution of legal or equitable proceedings by either party.~~

50 ~~**4.5.2** The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Request for mediation shall be filed in writing with the other party to the Contract and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.~~

55 ~~**4.5.3** The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.~~

4.5 ADMINISTRATIVE RESOLUTION OF CLAIMS AND DISPUTES

60 ~~**4.5.1** Any claim or dispute between the Contractor and the Owner arising out of or relating to this Contract, which has not been resolved by the Architect in a manner acceptable to both the Contractor and the Owner shall be resolved pursuant to the Maricopa County Community College District Purchasing Procedures Manual, Section 902, "Contract Claims and Dispute Resolution", with the addition that if there is any cost incurred in providing an outside hearing officer, the District and the Contractor will split the cost in proportion of the actual award made versus the value of the claim being made. A copy of this section can be found at <http://www.maricopa.edu/purchasing/pmanual/902.htm>.~~

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4.5.2 The parties agree that the Claims Procedures and Legal Remedies set forth or identified in this Paragraph shall be the exclusive means for resolving disputes arising under the Contract. Contractor acknowledges and understands that it must follow this process before instituting any judicial proceeding and that all decisions reached, along with their reasoning, shall become part of the legal record of any proceeding. In agreeing to this Contract Claims Process, all parties to the hearings and decisions agree that this process must be followed prior to any formal litigation and that all decisions reached, along with their reasoning, become part of the legal record of that litigation filing.

4.5.3 No suit or action shall be commenced hereunder by any claimant other than in the Arizona Superior Court for Maricopa County. The procedures described in this Paragraph for resolving claims shall be exhausted before any lawsuit may be filed.

4.5.4 Nothing in this Contract shall be construed to waive the requirements of Arizona Revised Statutes Sections 12-820 et seq. The Contractor shall file any notice of claim under this Contract within the time limits and in the manner specified in Arizona Revised Statutes Section 12-821.01.

4.5.5 Unless otherwise agreed in writing, the shall carry on the Work and maintain its progress during the resolution of any claim or controversy and the Owner shall continue to make payments that are due and owing to the Contractor in accordance with this Contract.

4.6 ARBITRATION

4.6.1 Any Claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those waived as provided for in Subparagraphs 4.3.10, 9.10.4 and 9.10.5, shall after decision by the Architect or 30 days after the submission of the Claim to the Architect, be subject to arbitration. Prior to arbitration, the parties shall endeavor to resolve disputes by mediation in accordance with the provisions of Paragraph 4.5.

4.6.2 Claims not resolved by mediation shall be decided by arbitration which unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect. The demand for arbitration shall be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy shall be filed with the Architect.

4.6.3 A demand for arbitration shall be made within the time limits specified in Subparagraphs 4.4.6 and 4.6.1 as applicable, and in other cases within a reasonable time after the Claim has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations as determined pursuant to Paragraph 13.7.

4.6.4 Limitation on Consolidation or Joinder. No arbitration arising out of or relating to the Contract shall include, by consolidation or joinder or in any other manner, the Architect, the Architect's employees or Consultants, except by written consent containing specific reference to the Agreement and signed by the Architect, Owner, Contractor and any other person or entity sought to be joined. No arbitration shall include, by consolidation or joinder or in any other manner, parties other than the Owner, Contractor, a separate contractor as described in Article 6 and other persons substantially involved in a common question of fact or law whose presence is required if complete relief is to be accorded in arbitration. No person or entity other than the Owner, Contractor or a separate contractor as described in Article 6 shall be included as an original third party or additional third party to an arbitration whose interest or responsibility is insubstantial. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described therein or with a person or entity not named or described therein. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

4.6.5 Claims and Timely Assertion of Claims. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

4.6.6 Judgment on Final Award. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

ARTICLE 5

SUBCONTRACTORS

5.1 DEFINITIONS

5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to *supply materials directly to the Contractor* or perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, *not more than thirty (30) days after the Notice to Proceed has been issued as soon as practicable after award of the Contract*, shall furnish in writing to the Owner through the Architect *his final subcontractor list showing the names, addresses, phone numbers and Arizona Contractor license numbers* of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion

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of the Work, ~~and verify that all subcontractors are under contract to him for this project.~~ The Architect will promptly reply to the Contractor in writing stating whether or not the Owner or the Architect, ~~after due investigation,~~ has reasonable objection to any such proposed person or entity. ~~Failure of the Owner or Architect to reply promptly shall constitute notice of no reasonable objection.~~

5 **5.2.2** The Contractor shall not contract with a ~~proposed~~ person or entity to whom the Owner or Architect has made ~~reasonable and timely~~ objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

10 **5.2.3** If the Owner or Architect has ~~reasonable~~ objection to a person or entity ~~proposed~~ listed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no ~~reasonable~~ objection. ~~If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.~~

15 **5.2.4** ~~The Contractor shall not change a Subcontractor, person or entity previously selected if the Owner or Architect makes reasonable objection to such substitute. The Contractor shall make no substitution of any Subcontractor, person or entity listed on the list of Subcontractors and materials suppliers submitted under Subparagraph 5.2.1, without the advance written consent of the Architect and Owner. The Contract Sum shall be decreased by the difference in cost occasioned by a substitution and an appropriate Change Order shall be issued. Upon request of the Owner, the Contractor shall furnish subcontract information, including contract values, for the original and proposed subcontractor. However, no increase in the Contract Sum shall be allowed for any substitution requested by the Contractor regardless of when this substitution occurs within the Contract period.~~

5.3 SUBCONTRACTUAL RELATIONS

25 **5.3.1** By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor *and each supplier, to the extent of the work provided*, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including responsibility for safety of the Subcontractor's Work, which the Contractor, ~~by these Documents,~~ assumes toward the Owner and Architect. Each subcontract agreement *and purchase order* shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, ~~unless specifically provided otherwise~~ in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of *every payment bond furnished by the Contractor as required by the Contract Documents and copies of* the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

40 **5.3.2** *Requirements within this Contract shall directly flow down to subcontractors, sub-subcontractors and suppliers, including, but not limited to, compliance with and knowledge of technical specifications and standards, change order documentation requirements, insurance, assignments, waivers and liens, rights and remedies for non-performance, warranties, notice requirements, Owner assumption of contracts and purchase orders, and audit provisions as defined in other sections of this Specification.*

5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

45 **5.4.1** Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner provided that:

- 50 .1 assignment is effective only after termination of the Contract by the Owner ~~for cause~~ pursuant to Paragraphs 14.2, 14.3 and 14.4; *Contractor's stopping or suspension of the Work for more than three days except for reasons expressly allowed by the General Conditions; or the Contractor's apparent or actual abandonment of the Work;* and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing; and
- 55 .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

60 **5.4.3** *If the Owner terminates the Contract, requests and accepts assignment of subcontractors or suppliers, immediately upon demand by the Owner, the Contractor shall provide the Owner with copies of all applicable subcontracts and modifications thereof, and current information on the status of all accounts with the assigned subcontractors or suppliers, including records of payment, outstanding invoices, and reasons, if any, why any funds have been withheld from any subcontractor or supplier within seven Days of the Owner's request. A complete subcontractor list shall be provided to the Owner within forty-eight hours of a request following any of the circumstances stated in Paragraph 5.4.1.1.*

65 **5.4** *Legal Worker Requirements: The provisions of Paragraph 13.11, as applicable, also shall be required of all subcontractors used in this Work. The Contractor shall inform all subcontractors of this provision and make it part of any sub-contractor agreement.*

ARTICLE 6

CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

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5 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Paragraph 4.3.

10 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

15 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules when directed to do so. The Contractor shall make any revisions to ~~his~~ the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised. *If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided elsewhere in the Contract Documents.*

20 ~~6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights which apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.~~

25 **6.2 MUTUAL RESPONSIBILITY**

30 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

35 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect *and Owner* apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, ~~except as to defects not then reasonably discoverable.~~

40 6.2.3 The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work or defective construction by a separate contractor.

45 6.2.4 The Contractor shall promptly remedy damage ~~wrongfully~~ caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors as provided in Subparagraph 10.2.5.

50 6.2.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Paragraph 3.14.

55 **6.3 OWNER'S RIGHT TO CLEAN UP**

6.3.1 If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7

CHANGES IN THE WORK

60 **7.1 CHANGES**

65 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, *only* by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone, *subject to final approval by the Owner.*

70 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

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7.2 CHANGE ORDERS

7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor and Architect, stating their agreement upon all of the following:

- .1 a change in the Work;
- .2 the amount of the adjustment, if any, in the Contract Sum; and
- .3 the extent of the adjustment, if any, in the Contract Time.

Claims for additional compensation, on account of extra work provided, will not be recognized unless such extra work has been authorized in advance and in writing by the Owner and the Architect.

~~7.2.2 Methods used in determining adjustments to the Contract Sum may include those listed in Subparagraph 7.3.3.~~

7.2.2 Change Orders - Ordinary: Contractor will be issued a proposed change order request describing intended change upon which, and within fourteen (14) days, he shall indicate his proposed price to be added or deducted from contract sum due to the change, supported by full and completely detailed estimates of cost by Contractor, subcontractor, vendor, or supplier, and any adjustment in time of final completion of the entire work which is directly attributable to changed work. Upon request by Owner, Contractor shall permit inspection of his and his subcontractor or supplier's original contract estimates, subcontract agreements or purchase orders relating to the change. If agreement is reached as to the adjustment in compensation for performance of changed work, but agreement is not reached as to the time adjustment for such work, then Contractor shall proceed with the work at the agreed price reserving to Contractor the right to further pursue his claim for time adjustment. If no claim or objection is made for the time extension at the time of the pricing agreement, no change in time will be granted or may be claimed.

7.2.3 When proposed change order contains deletion of any work and Owner and Contractor are unable to agree upon the cost thereof, the Owner's estimate shall be deducted from contract price unless within fifteen (15) days Contractor presents proof that the Owner's estimate is in error.

7.2.4 The Owner retains the right through a Construction Change Directive is issued pursuant to Paragraph 7.3, to order the Contractor to proceed with changes in the Work at any time. If the Contractor fails to submit his cost estimate within a seven (7) day period or more quickly if the Owner determines that the Work must proceed, or there is a failure to agree to such costs, the Owner has the right to order the Contractor, in writing, to commence work immediately and the contract price shall be adjusted in accordance with the Owner's estimate cost, unless, within fourteen (14) days following completion of changed work, Contractor presents proof that the Owner's estimate was in error.

7.2.5 The Contractor shall perform such extra work and charge the Owner at the reasonable and actual cost of labor and materials plus mark-ups as specified hereinafter. Such cost shall not exceed the local market cost for the same work. The cost to the Owner resulting from an increase in the Work shall be determined in one of the following ways:

- .1 *by unit prices stated in the Contract Documents; or*
- .2 *by cost, as defined below, properly itemized and supported by sufficient substantiating data to permit evaluation, plus a fee, as identified in this Paragraph. Such costs shall be itemized by crafts as defined within the schedule of values and limited to the following items directly attributable to the change in Work:*
 - .a actual costs of labor, including social security, unemployment insurance, fringe benefits required by agreement or custom, and worker's compensation insurance;*
 - .b actual costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;*
 - .c actual rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others, required to accomplish only the change order work.*
 - .d additional costs of supervision and field office personnel directly attributable to the increase in the Work; and*
 - .e costs of premiums for all bonds and insurance, permit fees and sale, use or similar taxes relating to the increase in the Work*
- .3 *Labor rates used for change order work shall be no greater than the labor rates used to create the original bid or GMP pricing proposals, with the exception of cost of living increases or authorized overtime premium. The mix or percentage split of trades (supervision, apprentice, skilled tradesman, etc.) used for change order work shall be the same as used to create the original proposal. Immediately upon request of the Owner or Architect to substantiate the proposed labor rates or mix, the Subcontractor shall provide his records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Work, along with their original bid or GMP cost proposal showing the detailed breakdown of materials and labor costs, including labor cost rates and mix of labor. Subcontractor shall preserve all such records for Audit purposes per Paragraph 13.10, or for such longer period as may be required by law. The Owner is entitled to audit Subcontractor's records pertaining to the direct costs of any Work performed on a cost-plus basis or unit price basis, including without limitation any proposals for extra work under this Article. In submitting pricing for change order work, the Contractor and Subcontractor certify that the prices, rates and information (Cost Data) used to price the change order are accurate, current and complete. Inaccurate, not current or incomplete Cost Data will result in a reduction of the contract price.*

7.2.6 For credits to the Owner, the Contractor shall delete such work and credit the Owner at the reasonable and actual cost of labor and materials plus mark-ups as specified hereinafter. The credit to the Owner, resulting from a decrease in the Work shall be determined in one of the following ways:

- .1 *by unit prices stated in the Contract Documents, or*

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.2 by cost, as defined below, properly itemized and supported by sufficient substantiating data to permit evaluation, plus a fee, as identified in 7.2.6 and less costs of preparation of the change order. Such costs shall be itemized by crafts as defined within the schedule of values and limited to the following items directly attributable to the change in Work:

- .a estimated costs of labor, including social security, unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .b estimated costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .c estimated rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others, required to accomplish the change order work;
- .d additional costs of supervision and field office personnel directly attributable to the increase in the Work; and
- .e costs of premiums for all bonds and insurance, permit fees and sale, use or similar taxes relating to the increase in the Work

.3 The costs for labor and materials used in change orders shall be the same in added work as they are for deleted work, modified only to include quantity discounts or similar adjustments for materials, and added charges for premium time for labor costs.

7.2.7 When both additions and credits are involved in a single change order, the additions and credits before mark-ups shall be separately determined and the adjustment in Contract Sum shall be computed on the basis of the net cost before mark-ups. The mark-ups below then will be applied to either the net credit or net additional cost. Taxes, bonds and insurance shall always be based upon the current Contract Amount whether more or less than the original Contract Amount.

7.2.8 The individual mark-ups (or combined impact of the individual mark-ups) for all additional or extended overhead plus the profit/fee shall not exceed the following percentages, based upon costs as defined in 7.2.5 through 7.2.7:

- .1 for each Subcontractor involved for any Work performed by its own forces, 10 percent of the cost of actual materials, installation labor and equipment rental to complete the work;
- .2 for each Subcontractor involved for any Work performed by its Sub-subcontractors or suppliers, 5 percent of the sub-Subcontractor's cost;
- .3 for the Contractor who is performing the Work under a competitive bid Agreement,
 - .a for any Work performed by its own forces, 10 percent of the Contractor's own cost;
 - .b for any Work performed by a Subcontractor, 5 percent of the Subcontractor's cost;
- .4 for the Contractor who is performing the Work under a Construction Manager at Risk Agreement, the combined mark-up for overhead and fee shall be the lesser of those stated in 7.2.8.3 above, as appropriate for the Work provided, or the combined mark-up for overhead and fee in the Contractor's original GMP proposal (Exhibit H)
- .5 The total of all mark-ups for all levels stated in .1 to .4 above shall not exceed 21% for subcontractor change orders in traditional bid project, 15% for change order work performed by the Contractor's own forces in traditional bid projects and 19% for change orders in GMP arrangements.
- .6 Sales Tax: Statutory amount based upon the net contract change;
- .7 Insurance: Actual premium cost of the net contract change, based upon the actual cost of labor, materials and equipment, applied at the same rate as the original contract sum;
- .8 Bond: Actual bond cost of the net contract change, based upon the actual cost of labor, materials and equipment, overhead, profit, and sales tax.

The markup for overhead listed above for the Contractor and subcontractors shall include the following areas: additional general conditions field costs including but not limited to job-site supervision time or supervision labor, project management (whether on-site or based in the office), superintendence, small tools, "consumables" and incidentals; field and all home office general and administrative expenses, including overhead of all kinds; project insurance; construction vehicles, equipment, trailers, etc., normally provided to or used by field personnel directly related to this change work; estimating, change order, as-built or other document preparation; warranty reserve; and all other indirect expenses.

Inferred additional costs such as "allocable home office overhead" (either by Eichleay, percentage or other mark-up methods) related to contract delays or extensions, home office costs that are not solely dedicated to the Work, "learning curves" and "productivity factors" are not allowable costs for change orders or damages related to termination of the Agreement.

7.2.9 In order to facilitate checking of quotations for additions or credits, all proposals shall be accompanied by a complete itemization of all proposed costs including labor, materials, equipment and subcontracts. Where significant cost items are subcontracts, their costs shall be itemized also. In no case will a change involving over \$2,500.00 be approved without such itemization.

7.2.10 If the Owner approves a change, a written Change Order shall be forwarded to the Contractor adjusting the Contract Time or the Contract Sum, or both, as approved. Except as modified by the Change Order, all terms and conditions of the Contract, as previously modified, remain unchanged and in full force and effect. With the exception listed at the end of this paragraph and within 7.2.2, all parties agree that this Change Order is a final and equitable adjustment of the Contract Time and Contract Sum, and constitutes a mutual accord and satisfaction of all claims, current and future, of whatever nature caused by or arising out of the facts and circumstances surrounding this Change Order including, but not limited to, direct, indirect and consequential costs; additional time for performance; and the impact of the change specified in this change order alone or taken with other changes, on the unchanged Work. Any such claim not presented by the Contractor for inclusion in the Change Order is irrevocably waived. Change orders will not be accepted "subject to later claims or adjustments" for either cost or time. Contractor agrees that if the Owner determines that the cost and pricing data submitted for a change order, whether approved or not, was inaccurate, incomplete not current or not in compliance with the terms of the General Conditions and Agreement, an appropriate price adjustment will be made. Such post-approval contract price adjustments also will apply to all levels of

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contractors and/or sub-contractors and to all types of change order proposals.

7.2.11 Procedure if Failure to Agree to Cost: If the Owner and Contractor fail to agree to the cost of proposed change order, the Contractor, upon written order or Construction Change Directive from the Owner, shall proceed immediately with the changed work. Contractor shall maintain daily job record in quadruplicate containing detailed summary of labor, materials, and equipment required for the changed work. Upon being signed and agreed to by Owner or Architect and Contractor at end of each day's performance, it will become the basis for payment for the changed work, but such agreement shall not preclude subsequent adjustment based upon later audit by Owner. Upon completion of the work under the change order, Contractor shall submit his invoice therefore containing only the items of labor, materials, and equipment that are in addition to requirements of the contract and as approved by both parties, together with allowable mark-ups.

7.2.12 Emergency Changes: Changes in the work made necessary due to unexpected or unforeseen site conditions, discovery of errors in Drawings or Specifications requiring immediate clarification in order to avoid serious work stoppage, or changes of a kind where extent cannot be determined until completed, or under any circumstances whatsoever when deemed necessary by Owner are types of emergency changes which may be authorized by Owner in writing to Contractor. Contractor shall commence performance of emergency change immediately upon authorization. Daily job records shall be maintained. After receiving emergency authorization, Contractor shall submit detailed estimate of cost and proposed extension in contract time based on daily job records in same manner as required above. Daily job record shall constitute the basis upon which Contract price shall be adjusted in same manner as set forth above. In the event agreement is not reached as to time adjustment, it shall not affect any agreement as to Contract price adjustment, but Contractor shall have the right to pursue claim for time extension.

7.2.13 Contract time shall not be adjusted unless a change affects the critical path of the Work, per the most recent approved critical path schedule. An analysis of the changes in the critical path of the Work schedule, using contemporaneous time impact analysis such as a "Time Impact Analysis", "fragnet" or similar analysis, must be submitted as part of the change request in order to consider a Contract time adjustment. If the Owner and Contractor do not agree with an adjustment in Contract Time or the method for determining it, the adjustment or the method shall be recommended by the Architect to the Owner for final resolution in accordance with the Contract Documents.

7.3 CONSTRUCTION CHANGE DIRECTIVES

7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods upon the methods outlined in Paragraph 7.2.

- 1 mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- 2 unit prices stated in the Contract Documents or subsequently agreed upon;
- 3 cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- 4 as provided in Subparagraph 7.3.6.

7.3.4 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

7.3.5 A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as incorporated into a Change Order.

7.3.6 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the Architect in accordance with Paragraph 7.2. on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such case, and also under Clause 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Subparagraph 7.3.6 shall be limited to the following

- 1 costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- 2 costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- 3 rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- 4 costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
- 5 additional costs of supervision and field office personnel directly attributable to the change.

7.3.7 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

7.3.8 Pending final determination of the total cost of a Construction Change Directive to the Owner, amounts not in dispute for such changes in the Work shall be included in Applications for Payment, accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such cost that remain in dispute, the Architect will make an interim determination for

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purposes of monthly certification for payment for those costs. That determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 4. *Payments for Construction Change Directive items, when added to contract work payment shall not exceed the authorized Contract Sum. Final payment on a Construction Change Directive shall not occur until incorporated in a Change Order.*

7.3.9 When the Owner and Contractor agree with the determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order.

7.4 MINOR CHANGES IN THE WORK

7.4.1 The Architect will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of 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 Owner and Contractor. The Contractor shall carry out such written orders promptly.

ARTICLE 8

TIME

8.1 DEFINITIONS

8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

8.1.2 The date of commencement of the Work is the date established in the Agreement.

8.1.3 The date of Substantial Completion is the date ~~certified~~ recommended by the Architect and agreed to by the Owner in accordance with Paragraph 9.8.

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

8.2 PROGRESS AND COMPLETION

8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work and any claim not timely made is barred.

8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance. ~~Unless the date of commencement is established by a notice to proceed given by the Owner, the Contractor shall notify the Owner in writing not less than five days or other agreed period before commencing the Work to permit the timely filing of mortgages, mechanic's liens and other security interests. The Owner will issue a Notice to Proceed that will establish the Date of Commencement for the Work. All required insurance shall be in effect by this date.~~

8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time. ~~employ, supply or cause to be supplied a sufficient force of workers, materials and equipment and shall prosecute the Work with such diligence so as to maintain the rate of progress indicated on the most recently reviewed Progress Schedule and as needed to achieve both Substantial and Final Completion within the Contract time. Failure to meet this requirement may be considered by the Owner to be default of the Contract by the Contractor.~~

8.2.4 *The Work shall commence on or before the tenth day after receipt of the 'Notice to Proceed' issued by the Owner. The Contractor agrees that said Work shall be prosecuted regularly, diligently, and without interruption at such rate of progress as will insure Substantial and Final Completion of the Project no later than the calendar days from the date of 'Notice to Proceed' as stated on the Calendar of Events or in the Contract.*

8.2.5 *It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning, rate of progress, and the time for completion of the Work to be done hereunder, are ESSENTIAL CONDITIONS of this Contract. The Contractor also shall consider that the Owner needs the complete use of these facilities as quickly as possible.*

8.3 CLAIMS FOR CHANGES IN COST, DELAYS AND EXTENSIONS OF TIME

8.3.1 *Except as otherwise expressly provided in the Contract Documents, if the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, or by delay authorized by the Owner pending mediation and arbitration, or by other causes which the Architect determines may justify delay are justifiable, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.*

8.3.2 Claims relating to cost or time shall be made in accordance with applicable following provisions: ~~of Paragraph 4.3~~

.1 If the Contractor wishes to make a claim for an increase in the Contract Sum and/or Time Extension, he shall give the Owner written notice thereof within seven (7) calendar days after the occurrence of the event giving rise to such delay claim. This notice shall be

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given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed. No claim shall be valid unless so made. Contractor hereby waives all claims and is barred from recovery if proper notice is not provided. Any change in the Contract Sum resulting from such claim shall be authorized by a Change Order. Resolution of Claims and Disputes shall comply with Section 4.5.

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2 In every such written claim, the Contractor shall provide the following information:

- a. Nature and cause of the delay;
- b. Date (or anticipated date) of commencement of delay;
- c. Activities on the progress schedule affected by the delay and/or new activities created by the delay and their relationship with existing activities;
- d. Identification of person(s) or organization(s) or events(s) responsible for the delay including weather reports;
- e. Anticipated extent of the delay;
- f. Recommended action to avoid or minimize the delay, including the contractor's efforts to resolve the issue, mitigate the damage, cost or other impact, or minimize the delays undertaken to the date of the extension request.
- g. Recommended solution or action required by the Contractor.

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20 .3 Any claims for extensions of time for delays in transportation or for failures of suppliers or subcontractors shall be supported by facts demonstrating that the delays are beyond the Contractor's control, including his efforts to overcome such delays.

25 .4 All costs related to delay claims by the Contractor must be supported by records and documentation demonstrating the actual cost directly related to the delay or time extension. The final claim must include an itemized statement of the details and amounts of the proposed damages claim. Extended, under-absorbed or unabsorbed home office overhead will not be allowed in cost adjustments to this Contract or as evidence of value of such adjustment, per Paragraph 7.2.8 or Article 14.

30 .5 In the event of concurrent delay, the Contractor would not be entitled to an extension of time.

35 **8.3.3** This Paragraph 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents. The Owner's exercise of any of its rights under the Contract Documents regarding changes in Work, regardless of the extent or number of changes, or the Owner's exercise of any of its remedies of suspension of the Work or requirements of correction or re-execution of any defective work shall not be construed under any circumstances as intentional interference with the Contractor's performance of the Work, or as creating a cardinal change in the Work.

40 **8.3.4** *Liquidated Damages: If the Contractor neglects, fails or refuses to Substantially Complete the Work within the contract time(s), or any extension granted by Change Order, then the Contractor and the Contractor's surety shall, as part of the consideration for the award of this contract, pay the Owner the liquidated damages, the amounts listed in the Owner Contractor Agreement, for breach of contract, for each and every calendar day that the Contractor fails to complete the Work.*

45 *For each consecutive calendar day that the Work remains incomplete after the date established for Final Completion, the Owner shall make a reduction in the Contract Sum as shown on the Owner-Contractor Agreement as liquidated damages, This amount is the minimum measure of damages and adverse impact that the Owner will sustain by failure of the Contractor to complete all remaining remedial work, correct deficient work, clean up the project and other miscellaneous tasks as required to complete all work specified. This amount is in addition to the primary liquidated damages for Substantial Completion prescribed above.*

50 *These sums are agreed upon as a reasonable and proper measure of damages which the Owner will sustain per day by failure of the Contractor to complete Work within time as stipulated; it being recognized by the Owner and the Contractor that the injury to the Owner that could result from a failure of the Contractor to complete on schedule is uncertain and cannot be computed exactly. In no way shall costs for liquidated damages be construed as a penalty on the Contractor. The liquidated damages shall not be the sole remedy for Contractor delays, and will be in addition to Architect costs or other Owner incurred direct costs or damages resulting from Contractor delays, improper workmanship, additional inspections, failure to complete close-out documents, etc., as described elsewhere in these General Conditions. Partial occupancy or partial Substantial Completion of areas not expressly specified and/or scheduled in the original Contract shall not obligate the Owner to pro-rate the liquidated damages assessed to the Project. The Owner shall make a reduction in the Contract for the liquidated damages assessed, which may, at the Owner's discretion, be deducted as incurred as an offset against any progress payments due.*

55 *If the Agreement provides liquidated damages associated with milestone dates in addition to Substantial Completion, and milestone activities remain incomplete beyond the respective milestone dates, the liquidated damages associated with each milestone date shall be additive from that date until completion of the milestone activity.*

60 **8.3.5** *In the event the time for construction extends beyond the time allowed by Contract through no fault of the Owner or Architect the Architect will charge the Owner at his standard hourly rate for time expended in administering the contract for construction as the Owner's Representative. The Owner may, at its option, deduct such costs from the moneys still due the Contractor, or recover as damages. These costs are in addition to any liquidated damages.*

65 **8.3.6** *The Owner and Contractor acknowledge that construction projects are complex and subject to questions and changes. The Contractor shall make provision for Requests for Information, Supplemental Instructions, submittals and resubmittals of material, change order requests, pricing and change orders, as well as the response and management time required for these items, will occur. Claims for impacts or extensions based upon the number of RFI's, etc., will not in and of itself constitute a valid claim for delays or extensions. An extension based upon this claim requires the Contractor to demonstrate that the number of documents, modifications or requests processed for this job is significantly in excess of the amount processed for other projects of like size, scope, budget, complexity or response time; and that they are not the result of Contractor negligence, improper work, failure to coordinate or adequately plan work, failure to locate information already in the Contract Documents, etc. The cost, time or effort to prepare and process these items shall be considered to be included the basic cost of the Work or overhead allowed in the change order work.*

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8.4 RESPONSIBILITY FOR COMPLETION

8.4.1 The Contractor shall furnish such manpower, materials, facilities, and equipment and shall work such hours, including night shifts, overtime operations and Sunday and holidays, as may be necessary to insure the prosecution and completion of the Work in accordance with the reviewed and currently updated progress schedule. If Work in place falls behind the currently updated and reviewed schedule by seven (7) days or more and it becomes apparent from the current schedule that the Work will not be completed within the Contract Time or that the performance of the Work is not satisfying the requirements of the accepted schedule, the Contractor agrees that he will, as necessary, take some or all of the following actions at no additional cost to the Owner to improve his progress and expedite the progress of the Work:

1. Increase manpower, equipment or facilities in such quantities and crafts as will substantially eliminate, in the judgment of the Architect, the backlog of work;
2. Increase the number of working hours per shift, shifts per working day, working days per week, the amount of equipment, or any combination of the foregoing, sufficient to substantially eliminate, in the judgment of the Architect, the backlog of Work; and,
3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.

Such measures shall continue until the progress of the Work complies with the state of completion required by the accepted Construction Schedule. In addition, the Architect may require the Contractor to submit additional information or a revised schedule demonstrating his program and proposed plan to make up lag in scheduled progress and to ensure completion of the Work within the Contract Time. If the Architect finds the proposed plan not acceptable, he may require the Contractor to submit a new plan. If the actions taken by the Contractor or the second plan proposed are not satisfactory, the Architect may require the Contractor to take any of the actions set forth in this paragraph 8.4 without additional cost to the Owner to make up the lag in scheduled progress. The Owner's right to require additional or extraordinary measures is solely for the purpose of ensuring the Contractor's compliance with the accepted Construction Schedule, and does not represent a constructive acceleration of the schedule or Work. In no event shall the Owner have any control over, charge of, or any responsibility for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, notwithstanding rights or authority granted elsewhere in these Specifications.

8.4.2 Failure of the Contractor to substantially comply with the requirements of this Paragraph 8.4 may be considered grounds for determination by the Owner, pursuant to Article 14, that the Contractor is failing to pursue the Work with the diligence required to ensure its completion within the time specified, and may result in default of this Contract.

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

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

9.2 SCHEDULE OF VALUES

9.2.1 Before the first Application for Payment, the Contractor shall submit to the Architect a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect shall be used as a basis for reviewing the Contractor's Applications for Payment. Where multiple buildings are under this single Contract, a separate, detailed Schedule of Values must be provided for each building within the Payment Application.

9.2.2 For the purposes of the Schedule of Values, the Contractor certifies that the cost or value listed for the line item represents the true and accurate cost of the proposed Work. The value shown can be used for any future change order or bond valuation adjustment based upon the scope of the work proposed within the line item.

9.3 APPLICATIONS FOR PAYMENT

~~9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for operations completed in accordance with the schedule of values. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and reflecting Retainage if provided for in the Contract Documents.~~

Except to the extent otherwise provided by Statute, including A.R.S. § 41-2577, payments on account of this Contract will be made monthly as Work progresses. The Contractor shall review with the Architect in the field, on or about the 25th day of the month, his tentative Application for Payment for that month. The form for application for payment shall be AIA Document G702 'Application and Certificate for Payment' supported by AIA Document G703 'Continuation Sheet,' and shall be submitted, after the above review, to the Architect on or before the first day of the following month. Such application shall be notarized and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, and reflecting retention if provided for elsewhere in the Contract Documents. If used, certificates of deposit shall be submitted along with the Pay Application. Requests for payment for stored materials shall be submitted per Subparagraph 9.3.2.

9.3.1.1 As provided in Subparagraph 7.3.8, such applications may include requests for payment on account of changes in the Work

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which have been properly authorized by Construction Change Directives, or by interim determination of the Architect, but not yet included in Change Orders *as long as such payment when added to the Contract work payment does not exceed the authorized Contract Sum.*

5 **9.3.1.2** Such applications may not include requests for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay. *The Contractor shall notify the Owner in writing at the time the Payment Application is submitted if this payment to an alternate sub-contractor or supplier is intended.*

10 **9.3.1.3** *Until final payment, the Owner will pay ninety-percent (90%) of the amount due the Contractor on account of Progress Payments.*

15 **9.3.1.4** *When the construction value of Work in place exceeds fifty percent completed, one-half of the amount retained, including any securities substituted under subparagraph 9.6.8, shall be released to the Contractor upon the Contractor's request and the Architect's and Owner's concurrence. This reduction in retention may be made provided the Contractor is making satisfactory progress on the Work and there are no specific causes or claims requiring that a greater amount be retained. After the contract value is fifty percent complete, five percent of the amount of any subsequent progress payments made under the Contract will be retained or covered through substitute securities, providing the Contractor continues to make satisfactory progress. If at any time the Owner determines that satisfactory progress is not being made or that new claims or causes have arisen, ten percent retention will be reinstated immediately and retroactively for all progress payments made under the Contract. No reduction in retention shall be made without the written consent of the Surety.*

20 **9.3.1.4** *At least monthly, and more often if requested, an "Allowance and Contingency Use Authorization" form shall be filled out and signed by the Owner, Architect and Contractor that describes every use of allowances and contingencies made that month. Use of any and all allowance or contingency funds, including those included in the Contractor's contract, require this three party approval. This form should be attached to the monthly payment application.*

25 **9.3.2** Unless otherwise provided in the Contract Documents, payments ~~shall~~ *may* be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site *in a bonded warehouse or location approved by the Owner.* ~~at a location agreed upon in writing.~~ Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures *listed below* and satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site. *Payments may be made on account of stored material or equipment not included in the Work but delivered and suitably stored on or off the site as follows:*

- 30
- 35 *.1 Payment for stored materials may be made only for materials, equipment or fabrications produced specifically for this Project. Off-the-shelf, generic or commonly stocked warehouse materials shall not be eligible for stored materials payments.*
- 40 *.2 All requests for payments on stored materials shall be accompanied by supplier invoices clearly showing the item(s) description and quantities being requested for stored materials. Evidence of payment by the subcontractor or contractor for the materials shall accompany the invoice. The Owner or Architect will review all items to confirm quantities and materials lists.*
- 45 *.3 Payments will be made for only the actual cost of the material, equipment or fabrication, less any early payments discounts, taken by the contractor or subcontractor. No additional costs or mark-ups, handling or storage, coverage or stowage, etc., costs will be approved.*
- 50 *.4 Material, equipment or fabrications paid for as stored materials either shall be stored on the Project site, protected from damage and weather, in covered or secured storage as needed; or stored in an off-site bonded warehouse. Other locations may be approved at the sole discretion of the Owner.*
- 55 *.5 All material and Work covered by paid partial payment shall thereupon become the sole property of the Owner. A letter passing title to the Owner with these conditions shall accompany the pay application. The Contractor's insurance shall continue to cover the stored materials, whether stored on or off site.*
- .6 Nothing in these subparagraphs shall be construed to relieve the Contractor of sole responsibility for the care and protections of materials, equipment, fabrications or Work upon which payments have been made, restoration of any damaged Work or materials, or as a waiver of the right of the Owner to require fulfillment of all terms of the Contract Documents subject to Article 11.*

60 **9.3.3** The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

65 **9.3.4 Pre-Payment and Deposits**

No prepayment or advance deposit will be made unless the prepayment or deposit is in the best interest of the Owner. The Owner has sole discretion to determine its "best interest" or other circumstances that may warrant pre-payment or deposits.

70 **9.3.5** *"Mobilization" or "start up" costs may be paid, or partially paid, at the sole discretion of the Owner and must represent actual Work or services provided.*

9.3.6 *Bonds and insurance will be paid for upon purchase. General Conditions will be paid either in equal amount each month over the Contract time for the Work or at the same percentage as the completion of the Work, at the Contractor's option. Once selected, the payment*

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approach for General Conditions will remain for the balance of the Work. Contractor Fee will be paid at the same percentage of completion of the Work for the month's payment application. Sales taxes will be paid in equal proportion to the total Work approved as of the date of the Pay Application.

5 **9.4 CERTIFICATES FOR PAYMENT**

10 **9.4.1** The Architect will within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect ~~determines~~ *recommends* is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Subparagraph 9.5.1.

15 **9.4.2** The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluations of the Work and the data comprising the Application for Payment, that the Work has progressed to the point indicated ~~and that, to the best of the Architect's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents and that the Contractor is entitled to payment in the amount recommended by the Architect.~~ *The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified.* However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum. *Submittal, review and approval of monthly status photographs, updated as-built drawings, updated project schedule and submittal of daily field reports, as required by other sections of the General Conditions or Specifications shall be a condition precedent to approval of the pay application.*

25 **9.5 DECISIONS TO WITHHOLD CERTIFICATION**

30 **9.5.1** The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary *and required by A.R.S. § 41-2577* to protect the Owner, if in the Architect's opinion the representations to the Owner required by Subparagraph 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Subparagraph 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence or subsequent observations, may nullify *or decertify* the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Subparagraph 3.3.2 because of:

- 40 .1 defective Work not remedied, *or failure to begin remedial action to repair defective work within five (5) working days following written notification;*
- 45 .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- 50 .5 damage to the Owner or another contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- 55 .7 persistent failure to carry out the Work in accordance with the Contract Documents.

9.5.2 When the above reasons for withholding certification are removed *to the satisfaction of the Architect, with the Owner's agreement*, certification will be made for amounts previously withheld.

60 **9.6 PROGRESS PAYMENTS**

9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

65 **9.6.2** *As required by A.R.S. § 41-2577*, the Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of such Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

70 **9.6.3** The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done

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by such Subcontractor, *including those amounts paid to the Contractor for Change Order work.*

~~9.6.4 Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor except as may otherwise be required by law.~~

9.6.5 Payment to material suppliers shall be treated in a manner similar to that provided in Subparagraphs 9.6.2, 9.6.3 and 9.6.4.

9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed the Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary duty or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

9.6.8 *At the Contractor's option, in lieu of the retention required in this section, the Owner will accept as a substitute an assignment of time certificates of deposits at banks licensed by this state, securities guaranteed by the United States of America, securities of this State, or shares of savings and loan institutions authorized to transact business in this State, as provided by A.R.S. § 35-155 or § 41-2576 and § 41-2577, in an amount equal to the retention required under Paragraph 9.3 of all payments, which shall be in the name of the Owner and be retained by the Owner as a guarantee for complete performance of this Contract. Copies of the certificates of deposit, securities or shares proposed for a particular Payment Application must be received by the Owner prior to the Owner's processing the Application for Payment, and the original must be received by the Owner prior to release of payment to the Contractor. Once an option has been selected by the Contractor- securities or retention- no change will be made through the balance of the Work.*

9.6.9 *In the event the Owner accepts substitute securities as described in this Paragraph in lieu of the retention required under Paragraph 9.3, the Contractor shall be entitled to receive all interest or income earned by such securities as it accrues, unless Owner claims and damages exceed the value of the securities. All costs or compensation associated with the set up or administration of the securities shall be paid from the interest accrued on those securities.*

9.6.10 *All such securities in lieu of retention shall be returned to Contractor by the agent within sixty (60) days after completion and final acceptance by the Owner of all material, equipment, work, Owner training, close-out documents and release processes covered by the contract if the contractor has furnished the agent satisfactory receipts for all labor and material billed and final waivers of liens from any and all persons holding claims against the Work. In no event shall the agent accept a time certificate of deposit of a bank or shares of a savings and loan institution in lieu of the retention specified unless accompanied by a signed and acknowledged waiver of the bank or savings and loan association of any right or power to set off against either the agent or the Contractor in relationship to the certificates or shares assigned.*

9.6.11 *In any instance where the agent has accepted substitute security as provided in paragraph 9.6.8., any subcontractor undertaking to perform any part of such public work shall be entitled to provide substitute security to the Contractor upon terms and conditions similar to those described in paragraph 9.6.8., and such security shall be in lieu of any retention under the subcontract.*

9.6.12 *When the Work has been fully completed in a satisfactory manner and the Architect has issued a final Certificate for Payment, the Contractor shall receive the full amount of funds remaining in the account, including the net balance of the interest paid to the account, but less any liquidated damages, interest, costs or claims that may have incurred by the Owner, which shall be retained by the Owner.*

9.6.13 *If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor, the Contractor shall be paid as provided in Subparagraph 9.10.3.*

9.6.14 *The Owner may offset any sum due from the Contractor for claims, liquidated damages or amounts from any other Contracts or agreements with the same Contractor.*

9.6.15 *The Owner retains the right to withhold and retain funds, as necessary to protect the Owner's or surety's interests, to offset the Contractor's defective or incomplete performance in the event that the Owner incurs, or may incur, additional costs to remedy this performance. The balance of payments and retention will be released following resolution of the performance issues, reduced by any costs incurred by the Owner to remedy the performance.*

9.6.16 *The Owner's initial notice to the Contractor of deductions made against payment applications or deductions assessed against remaining Contract payment balance resulting from assessment of direct damages or liquidated damages shall constitute continuing notice of claims or assessments. Additional claims or notices need not be provided for similar reductions, offsets or assessments. The Contractor may request information regarding the specific assessment or reduction, including total amounts, balances and back up information, but the Owner is not required to provide on-going accounting or supporting material to the Contractor lacking any request to do so.*

9.7 FAILURE OF PAYMENT

9.7.1 ~~If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Architect or awarded by arbitration, then the Contractor may, upon seven additional days' written notice to the Owner and Architect stop the Work until payment of the amount owing has been received. If through no fault of the Contractor, the Architect does not issue a Certificate for Payment within the time frames established by A.R.S. § 41-2577~~

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after the receipt of the Contractor's complete Application for Payment, accompanied by all required supporting materials or if the Owner does not pay the Contractor within twenty-one days after the Contractor's complete and approved Application is received by the Owner, or twenty-one days after a final decision is made pursuant to administrative resolution of claims and disputes, then the Contractor may, upon fourteen additional day's written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in by A.R.S. § 41-2577 ~~the Contract Documents~~.

9.8 SUBSTANTIAL COMPLETION

9.8.1 Substantial Completion is the stage in the progress of the Work when the Work, or designated portion ~~thereof~~ that the Owner agrees to accept separately, is sufficiently complete in accordance with the Contract Documents as recommended by the Architect so the Owner can occupy or utilize the Work for its intended use. Within seven days of the Contractor's written request for a Substantial Completion inspection, the Architect will notify the Contractor of the time and date that the inspection of the Work or designated portion will be held.

9.8.2 For the purposes of this Contract, the term "beneficial occupancy" is not recognized as having any meaning or impact on defining the meaning or Date of Substantial Completion. Full or partial occupancy or use of the facility by the Owner shall not, in and of itself, constitute or be sufficient for determining a date or state of Substantial Completion. All of the following are conditions precedent for Substantial Completion:

- .1 Inspection, approval, occupancy and other permits issued by regulatory agencies having jurisdiction and without conditions. Conditional permits do not satisfy Substantial Completion requirements.
- .2 All building systems in place, complete, functional and accepted by the Architects.
- .3 HVAC system is tested and balanced with a preliminary balance report submitted to, and accepted by, the Architect and the Owner.
- .4 Facilities are able to be secured by the Owner and any Contractor installed building security systems are complete and functioning.
- .5 Landscape and site work completed.
- .6 Odor and fume generating activities are complete. This includes work such as painting, staining, floor installation, etc. This also includes odor-generating activity that originates in non-occupied spaces, but could enter and impact occupied areas.
- .7 Final cleaning is complete and all construction air filters have been replaced with clean, permanent air filters.
- .8 All dust generating activity within occupied spaces has been completed. This includes dust-generating activity that originates in non-occupied spaces, but could enter and impact occupied areas.
- .9 Draft submittal of O & M manuals have been submitted and accepted by the Architect and Owner, and operation and maintenance training necessary for the Owner's personnel to maintain operation and occupancy of the facility has been completed. The draft manual shall include, but not be limited to, all required catalogue data, manufacturers' operating and maintenance instructions, manufacturers' specifications, schematics, certificates, warranties, guarantees, catalogues and price lists for any equipment, materials, supplied or parts used in the inspection, calibration, maintenance or repair or the equipment installed as part of the Work and other related documents required by this Contract. Contractor remains liable and responsible for any damage to systems or equipment until Owner receives this information and training.
- .10 All conveying systems, mechanical, plumbing, electrical, and life safety or other special systems and equipment are complete, operational, inspected and have received all required final operating permits, to the extent that the Owner can safely and legally use and occupy the facility.
- .11 Remaining punch-list items do not represent a hazard or create an adverse impact to the Owner and occupants in order for the contractor and his subcontractors to complete. Completion of punch-list items should not cause interruption or disruption to the Owner's functions due to noise, dust, odor, fumes, etc., or they must be undertaken and completed during off-hours convenient to the Owner's operations and at no added cost to the Owner.
- .12 The Owner is able to fully occupy and utilize all portions of the Work.

9.8.3 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment ("Punch List"). By submitting a request for Substantial Completion Inspection, the Contractor thereby certifies that the Work, or the designated portion, is functionally ready for occupancy by the Owner, per the requirements of Paragraph 9.8.2, and that the remaining incomplete or defective Work required by the Contract Documents shall be completed within the time specified in the Contract Documents for Final Completion. Failure to include an item on ~~such~~ the list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

9.8.4 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion ~~thereof~~ is substantially complete. If the Architect's, or Owner's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the requirements of the Contract Documents so that the Owner can fully occupy or utilize the Work or designated portion, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct ~~such~~ the item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to ~~determine~~ recommend Substantial Completion. The Owner must concur with the Architect's opinion in order for Substantial Completion to be granted.

5 **9.8.5** ~~4~~ When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion which shall establish ~~recommend to the Owner~~ the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, *attach the final punch list*, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. *Satisfactory completion of all incomplete work and items on the final punch list, completion of all Owner training, submittal of complete M&O manuals, submission of complete As-Built drawings and specifications shall be Final Completion of the Work in accordance with Subparagraph 8.3.4 except as further provided by Paragraph 9.10.* Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion *and except as may be specified in the Contract Documents.*

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15 **9.8.6** ~~5~~ The Certificate of Substantial Completion *and final punch list* shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in ~~such~~ the Certificate. *The Project shall not be deemed Substantially Complete until the Certificate is issued.* Upon *Final Completion*, such acceptance and consent of surety, ~~if any~~, the Owner shall make payment of retention *or release of securities held in lieu of retention*, applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

20 **9.8.7** *When the Contractor considers the Work complete, Contractor shall submit written certification that:*

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1. *Contract Documents have been reviewed.*
 2. *Contractor has inspected Work for compliance with Contract Documents.*
 3. *Work has been completed in accordance with Contract Documents and all punch list items corrected, and the Work is ready for final inspection.*
 4. *Equipment and systems have been tested in the presence of the Owner's representative and are operational.*
 5. *All final close out documentation has been submitted and all Owner training is complete.*
 6. *Work is complete and ready for final inspection.*

55 **9.8.8** *The Architect will inspect Work to verify completion status as soon as possible after receipt of the Contractor's certification.*

60 **9.8.9** *Should the Architect consider the Work incomplete or defective:*

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1. *The Architect will notify the Contractor in writing within seven (7) days, listing incomplete or defective work.*
 2. *The Contractor shall immediately remedy deficiencies, and send second request for inspection of the Work by the Architect.*
 3. *The Architect will re-inspect Work within fourteen days.*

75 **9.8.10** *When the Architect and the Owner find the Work acceptable under the Contract Documents, they will jointly notify the Contractor in writing.*

80 **9.8.11** *Should it become necessary for the Architect to conduct additional inspections subsequent to Substantial Completion or to Final Completion because of continued delays or failure to complete all punch list items by the Contractor, the Architect will conduct such inspections at his standard hourly rate and will charge the Owner, and such costs will be deducted from moneys still due the Contractor. These costs are in addition to any liquidated damages.*

9.9 PARTIAL OCCUPANCY OR USE

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9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under ~~Clause 11.4.1-5~~ *Article 11* and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Subparagraph 9.8.2 3. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

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

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

9.9.4 *In the event of partial or total occupancy before Substantial Completion, the Contractor shall cooperate with the Owner in making available for the Owner's use, with costs to be apportioned between the Owner and the Contractor, such building services as heating, ventilation, cooling, water, security and lighting for the portion or portions to be occupied. If the Work required to furnish such services is not entirely completed at the*

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time the Owner begins to occupy aforesaid portion or portions, the Contractor shall make every reasonable effort to complete such Work or make temporary provisions for such work as soon as possible so that these building services may be put into operation and use. The Contractor shall remain responsible for completion of the Work per the Contract Documents. The Contractor shall remain responsible and liable for operation, warranty and damage to any building systems until such time that they are turned over to the Owner, and required training and complete maintenance and operations documents are received by the Owner.

9.10 FINAL COMPLETION AND FINAL PAYMENT

9.10.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Subparagraph 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled. *The Owner must agree with the Architect's recommendation for Final Completion to be granted and final payment to be made.*

9.10.2—Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.10.2 Neither the final payment nor the remaining retention or substituted securities shall become due until the Contractor submits to the Architect, and the Owner receives:

- (1) *Affidavit of Payment of Debts and Claims, AIA Document G706 and attachments including Contractors Release or Waiver of Liens, showing that payrolls, bills for materials and equipment, and other indebtedness connected with the Work have been paid or otherwise satisfied,*
- (2) *Consent of Surety to Final Payment or release of substitute securities, or satisfaction of all such obligations such as receipts, releases and waivers or liens arising out of the Contract, to the extent and in such form as may be designated by the Owner,*
- (3) *All required close-out materials and Record Drawings and Specifications, including fully marked up as-built drawings and electronic files, warranties, operating manuals, and assignments as required, and*
- (4) *All specified training of Owner personnel.*
- (5) *A certificate evidencing that insurance required by the Contract Documents will remain in force through the warranty period and will not be cancelled or allowed to expire until at least 30 days prior written notice has been given to the Owner*

If any Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond or substitute security satisfactory to the Owner to indemnify him against any such claim. If any such claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

Failure to submit accurate and complete closeout materials and Record Drawings may result in a deduction from the Contract of up to one percent (1%) of the value of affected subcontract. This value shall be determined from the Schedule of Values for the entire trade's portion of the Work, or sub-contract value which the Contractor must release to the Owner, including the general contractor mark-ups, bond, insurance, profit, plus applicable change order amounts added to that Work. This amount shall not be considered a penalty but a reimbursement to the Owner for costs that will be incurred due to damage, additional cost, time or effort required during future construction or maintenance, resulting from a lack of complete or accurate information regarding equipment or assemblies provided or actual installed conditions.

9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:

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- .1 liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work, *or if applicable, the Cost of the Work*, to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents;
- .4 *faulty or defective Work appearing after preparation of the punch list for Substantial Completion; or*
- .5 *improper charges, overcharges, improper billing, over-payment or other errors or discrepancies identified by an audit following final payment.*

9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. *No existing main switches, circuit breakers or valves shall be operated by the Contractor. The College will provide personnel to operate, shut down or start up existing systems. When working within or adjacent to existing facilities, or when tying into existing utilities, the Contractor shall use and comply with College red tag permit systems, tag out procedures and hot work permit systems for cutting, welding, soldering, grinding, etc.*

10.2 SAFETY OF PERSONS AND PROPERTY

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

- .1 employees on the Work and other persons who may be affected thereby *as well as all students, employees or the general public who may be on or near the site of the Work;*
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property 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.

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

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

10.2.4 ~~When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. The Contractor shall not store any explosives or hazardous materials at the Work site without full disclosure to the Owner and obtain the Owner's prior written approval. The Contractor shall give the Architect and Owner ten days prior written notice of the times and places of the use of any explosives.~~

10.2.5 The Contractor shall promptly remedy damage and loss ~~(other than damage or loss insured under property insurance required by the Contract Documents)~~ to property referred to in Clauses 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Clauses 10.2.1.2 and 10.2.1.3, except damage or loss *solely* attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, *or solely attributable to the acts of anyone for whose acts either of them may be liable, and not attributable in any manner to the fault or negligence of the Contractor, any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under the terms of the Contract.* ~~or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor.~~ The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Paragraph 3.18. *The Contractor shall be liable for any and all damage caused by it or by any of its Subcontractors or Sub-subcontractors to the Owner's premises or to the Work. The Contractor shall hold and save the Owner and its agents, free and harmless from liability of any nature or kind arising from any use, trespass, or damage occasioned by the operations of the Contractor, its employees, agents, or any of its Subcontractors, Sub-subcontractors or suppliers.*

10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

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10.2.7 The Contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety.

10.2.8 *The Contractor shall provide and maintain pumping facilities, including power, for keeping the site, excavations and structure free from accumulations of water at all times, whether from underground seepage, flooding or surface run-off, rainfall, drainage or broken lines. The structure shall be enclosed and be protected from water or weather infiltration prior to installing any materials, finishes or equipment that may be damaged by weather or exposure.*

10.2.9 *The Contractor shall be responsible for all existing structures and/or improvements, both above and underground, including the finishes thereof (both exterior and interior) within the areas adjoining the Work, and shall provide adequate protection, either by barricades, covering or by temporary removal and replacement. Any existing structures and/or improvements damaged during construction shall be repaired or replaced with materials, workmanship, fixtures or equipment of the same kind, quality and size as required by the Contract Documents, or as pre-existed any adjacent building or site development so damaged. Any materials or equipment temporarily removed and damaged shall be re-erected or reinstalled in a manner approved by the Architect.*

10.3 HAZARDOUS MATERIALS

10.3.1 If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop work in the area affected and report the condition to the Owner and Architect in writing.

10.3.2 The Owner shall retain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to verify that it has been rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either have reasonable objection to a person or entity proposed by the Owner. If either the Contractor or Architect has an objection to the persons or entities proposed by the Owner, the Owner shall propose another to whom the Contractor and Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. The Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shutdown, delay and start-up, which adjustments shall be accomplished as provided in Article 7. *The rights and liabilities of the parties when a hazardous substance is encountered are specified by A.R.S §32-1129.03.*

10.3.3 ~~To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's Consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Subparagraph 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), and provided that such damage, loss or expense is not due to the sole negligence of a party seeking indemnity.~~

10.4 The Owner shall not be responsible under Paragraph 10.3 for materials or substances brought to the site by the Contractor, *Subcontractors or material suppliers* unless such materials or substances were required by the Contract Documents.

10.5 If, without negligence on the part of the Contractor, the Contractor is held liable for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all costs and expense thereby incurred.

10.6 EMERGENCIES

10.6.1 In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Paragraph 4.3 and Article 7.

ARTICLE 11

INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1 ~~The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations 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:~~

~~1 claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;~~

~~2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;~~

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~~3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;~~

~~4 claims for damages insured by usual personal injury liability coverage;~~

~~5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;~~

~~6 claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;~~

~~7 claims for bodily injury or property damage arising out of completed operations; and~~

~~8 claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18.~~

~~11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment.~~

~~11.1.3 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates and the insurance policies required by this Paragraph 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.~~

~~11.2~~ OWNER'S LIABILITY INSURANCE

~~11.2.1 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.~~

~~11.3~~ PROJECT MANAGEMENT PROTECTIVE LIABILITY INSURANCE

~~11.3.1 Optionally, the Owner may require the Contractor to purchase and maintain Project Management Protective Liability insurance from the Contractor's usual sources as primary coverage for the Owner's, Contractor's, and Architect's vicarious liability for construction operations under the Contract. Unless otherwise required by the Contract Documents, the Owner shall reimburse the Contractor by increasing the Contract Sum to pay the cost of purchasing and maintaining such optional insurance coverage, and the Contractor shall not be responsible for purchasing any other liability insurance on behalf of the Owner. The minimum limits of liability purchased by such coverage shall be equal to the aggregate limits required for Contractor's Liability Insurance under Clauses 11.1.1.2 through 11.1.1.5.~~

~~11.3.2 To the extent damages are covered by Project Management Protective Liability Insurance, the Owner, Contractor and Architect waive all rights against each other for damages, except such rights as they may have to the proceeds of such insurance. The policy shall provide for such waivers of subrogation by endorsement or otherwise.~~

~~11.3.3 The Owner shall not require the Contractor to include the Owner, Architect or other persons or entities as additional insureds on the Contractor's Liability Insurance coverage under Paragraph 11.1.~~

~~11.4~~ PROPERTY INSURANCE

~~11.4.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Paragraph 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Paragraph 11.4 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.~~

~~11.4.1.1 Property insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.~~

~~11.4.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance which will protect the interests of the Contractor, Subcontractors and Subsubcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure~~

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or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor, in writing, then the Owner shall bear all reasonable costs properly attributable thereto.

~~11.4.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles.~~

~~11.4.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.~~

~~11.4.1.5 Partial occupancy or use in accordance with Paragraph 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of Insurance.~~

~~11.4.2 Boiler and Machinery Insurance. The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Subsubcontractors in the Work, and the Owner and Contractor shall be named insureds.~~

~~11.4.3 Loss of Use Insurance. The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.~~

~~11.4.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.~~

~~11.4.5 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Subparagraph 11.4.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.~~

~~11.4.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Paragraph 11.4. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.~~

~~11.4.7 Waivers of Subrogation. The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Paragraph 11.4 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.~~

~~11.4.8 A loss insured under Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Subparagraph 11.4.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.~~

~~11.4.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or in accordance with an arbitration award in which case the procedure shall be as provided in Paragraph 4.5 and 4.6. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.~~

~~11.4.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved as provided in Paragraph 4.6. The Owner as fiduciary shall, in the case of arbitration, make settlement with insurers in accordance with directions of the arbitrators. If distribution of insurance proceeds by arbitration is required, the arbitrators will direct such distribution.~~

~~11.5~~ PERFORMANCE BOND AND PAYMENT BOND

~~11.5.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.~~

5 ~~11.5.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.~~

11.1 GENERAL REQUIREMENTS (revised 10/05)

MCCD requires that all insurers:

1. *Be licensed or approved to do business within the State of Arizona.*
- 10 2. *Write required insurance on a per occurrence basis, except that Professional Liability (required when the Contractor or any subcontractor performs any design work based upon information provided by the Architect) and Pollution Liability are acceptable written on a claims-made basis.*
- 15 3. *Contractor shall name MCCD, its and its agents, representatives, officers, directors, officials, employees, and volunteers as "Additional Insureds" for work that is being performed by the Contractor. Copies of endorsements must be attached on all policies, except the Workers' Compensation and the Professional Liability with regard to liability and defense of suits arising from operations by or on behalf of the Contractor with respect to the work or project at issue. Contractor shall provide a Certificate of Insurance and if requested, copies of all policies and/or endorsements before commencement of work.*
- 20 4. *Possess a minimum A.M. Best's Insurance Guide rating of A- VI.*
5. *Via Certified Mail, provide a minimum of 30 days advance written notice of cancellation or non-renewal of policies required under the contract to MCCD.*
6. *Provide a completed Certificate of Insurance containing the following information:*
 - *Name and address of agent, phone number and fax number*
 - *Name of insurance company(ies) and policy number(s)*
 - *Policy period*
 - 25 • *Name and address of insured*
 - *Description of coverage(s)*
 - *Name/Number of Project*
 - *Policy limits*
 - 30 • *Special instructions or terms of coverage (for example: addition of MCCD as additional insured, identification of project or operations with respect to certificate being issued). Provide copies of the specified endorsements with the Certificate of Insurance.*
 - *MCCD listed as the certificate holder*
 - *Signature of the insurer's agent or representative and date*
- 35 7. *MCCD requires that all policies of insurance be on a primary basis, non-contributory with any other insurance coverages and/or self-insurance carried by MCCD.*
8. *All liability policies must provide a Separation of Insureds clause, also known as cross liability coverage.*
9. *MCCD requires that the Contractor provide a renewal certificate at least 15 days prior to expiration.*
10. *MCCD also requires proof of professional liability (required for Design/Build Agreements only) and pollution liability coverages be provided for up to three (3) years after the completion of a project.*
- 40 11. *The Contractor agrees that the insurance requirements specified in the contract do not reduce the liability Contractor has assumed in the indemnification/hold harmless section of the contract.*
- 45 12. *MCCD reserves the right to approve the security of the insurance coverages provided by the insurance company (ies) terms, conditions, and the Certificate of Insurance. Failure of the Contractor to fully comply with these requirements during the term of the Contract will be considered a material breach of contract and will be cause for immediate termination of the Contract at the option of MCCD.*

13. At the execution of this Contract, Contractor shall furnish the MCCCDC Risk Manager with Certificates of Insurance, or formal endorsements as required by the Contract, issued by Contractor's insurer(s), as evidence that policies providing the required coverages, conditions, and limits required by this Contract are in full force and effect. Such Certificates and endorsements shall identify the Contract or Project. Each insurance policy required by this Contract shall be endorsed to state the coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the MCCCDC Risk Manager. Such notice shall be sent directly to:

Ren Carlson, Purchasing Department
Maricopa County Community College District
2411 W. 14th Street
Tempe, AZ 85281

.14 Any use of a Contractor Controlled Insurance Program (CCIP) shall require specific notice to and written acceptance by the Owner prior to signing the construction Agreement. Any insurance companies within the CCIP must meet or exceed the requirements of this Section 11.1. CCIP insurance shall be provided and charged at rates and costs no higher than would be incurred through a standard insurance policy issued by an independent insurer meeting the other requirements of Article 11.

11.2 INSURANCE AND RELATED REQUIREMENTS

11.2.1 Minimum Insurance Requirements

Contractor shall obtain and maintain the minimum insurance coverages set forth below. By requiring such minimum insurance, MCCCDC shall not be deemed or construed to have assessed the risk that may be applicable to Contractor under this Contract. Contractor shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverages. The Contractor is not relieved of any liability or other obligations assumed or pursuant to the Contract by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types. The insurance coverages stated below do not replace any surety (performance, payment, or maintenance) bonds as required by contract.

Contractor shall promptly advise MCCCDC in the event any general aggregates or other aggregate limits are reduced below the required per occurrence limit. At the Contractor's expense, Contractor will reinstate the aggregate limits to comply with the minimum requirements and shall furnish to MCCCDC a new certificate of insurance showing such coverage is in force.

11.2.2 Required Coverages

.1 Commercial General Liability—ISO CG 00001 or equivalent. Coverage to include:

a. Premises and Operations

b. Explosions, Collapse and Underground Hazards

c. Personal/Advertising Injury

d. Products/Completed Operations. Completed Operations coverage shall be carried for eight year, extendable for an additional year, per Arizona Statute, or the applicable statute of repose for the location of the Work.

e. Liability assumed under an Insured Contract (including defense costs assumed under contract)

f. Broad Form Property Damage

g. Independent Contractors

h. Limited Pollution Liability Extension Endorsement with required modification to f. (1)(a), ISO CG 2415 (1998 Edition)

i. Pollution Exclusion Limitation Endorsement—Overspray

j. Designated Construction Project(s) General Aggregate Limit, ISO CG 2503 (1997 Edition)

k. Additional Insured – Owners, Lessees or Contractors Endorsement, ISO Form 2010 (1997 Edition or equivalent)

l. Additional Insured – Owners, Lessees or Contractors—Completed Operations Endorsement, ISO Form CG 2037 (10/2001 Edition or equivalent)

.2 Automobile Liability including all:

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- a. *Owned Vehicles*
- b. *Non-owned Vehicles*
- c. *Hired Vehicles*
- d. *Personal Injury Protection (where applicable)*

5 *Endorsements CA9948 and MCS-90 are required if the Contractor is transporting any type of hazardous materials.*

.3 *Workers' Compensation*

- a. *Statutory Benefits (Coverage A)*
- b. *Employers Liability (Coverage B)*

.4 *Contractors Pollution Liability*

10 *MCCD requires this coverage whenever work at issue under this contract involves potential pollution risk to the environment or losses caused by pollution conditions (including asbestos) that may arise from the operations of the Contractor described in the Contractor's scope of services. Policy shall cover the Contractors completed operations. Such coverage shall include:*

- a. *Bodily Injury, sickness, disease, mental anguish or shock sustained by any person, including death.*
- 15 b. *Property Damage including natural resource damages, physical injury to or destruction of tangible property including resulting loss of use, clean up costs, and the loss of use of tangible property that has not been physically injured or destroyed.*
- c. *Defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages.*
- 20 d. *Cleanup costs, removal, storage, disposal, and or use of the pollutant; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims.*

25 *Coverage shall apply to sudden and gradual pollution conditions resulting from the escape of release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, natural gas, waste materials, or other irritants, contaminants, or pollutants (including asbestos). If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three years beginning from the time that work under this contract is completed.*

Provide Limited Pollution Liability Extension, modifying the Pollution Exclusion Wording as Required. Exclusion f. (1)(a) of Coverage A (Section I) is replaced with the following:

“At or from any premises, site or location that is or was at any time owned or occupied by, or rented or loaned to, the insured;”

30 .5 *Network Security and Privacy Liability coverage including costs of investigating and responding to a potential or actual breach of confidential information (e.g., computer forensic investigation, public relations response, outside counsel, notification mailing, call center, voluntary notification, credit monitoring and identity restoration costs, costs incurred in connection with any regulatory investigation, fines (including PCI fines), penalties assessed by regulator, and defense costs) with limit of not less than \$2 million per claim/\$2 million aggregate.*

Safe harbor:

40 *If the Contractor, its employees, and/or any tier of Contractor's agent(s) in the performance of this Contract hosts or maintains MCCCDC Confidential Information on its technology, Contractor warrants and confirms that the hosting or maintenance of that information meets applicable legal and industry security standards, including qualifying for “safe harbor” rules under applicable data breach laws.*

11.2.3 LIMITS OF LIABILITY

The Contractor shall carry the following limits of liability:

Commercial General Liability	
General Aggregate ¹	\$ 5,000,000
Products/Completed Operations Aggregate	\$ 5,000,000
Each Occurrence Limit	\$ 5,000,000
Personal/Advertising Injury	\$ 5,000,000
Fire Damage (Any One Fire)	\$ 50,000
Medical Payments (Any One Person)	\$ 5,000
Automobile Liability	
Bodily Injury/Property Damage (Each Accident)	\$ 1,000,000
Workers' Compensation	
Coverage A (Workers' Compensation)	Statutory
Coverage B (Employers Liability)	\$ 500,000/accident \$ 500,000/disease \$ 500,000/all disease
Contractors Pollution Liability	
Per Loss	\$ 5,000,000
Aggregate	\$ 5,000,000
MCCD requires Contractor to keep this policy in effect for three (3) years after completion of the project.	

¹ Designated Construction Project(s) General Aggregate (ISO Form CG2503, 1997 edition or equivalent.)

The required insurance coverages shall be maintained throughout the term of this contract and, except for Automobile Liability and Workers' Compensation, for a period of two (2) years after the date of substantial completion of the project, and three (3) years after the date of Substantial Completion of the Project for Professional Liability (required for Design/Build Agreements only) and Pollution Liability.

11.3 BUILDER'S RISK INSURANCE (NOT REQUIRED IF PROJECT IS 100% SITEWORK and NO WORK OCCURS WITHIN ANY BUILDING)

11.3.1 Unless otherwise provided, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the State of Arizona, Builder's Risk Insurance in the amount of the initial Contract Amount as well as subsequent modifications for the entire project at the site on a replacement cost basis without voluntary deductibles. Such Builder's Risk Insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than MCCD has insurable interest in the property to be covered, whichever is earlier. The Builder's Risk insurance shall include interests of MCCD, the General Contractor, subcontractors and sub-tier contractors in the project.

11.3.2 Builders' Risk Coverage shall be on a Special Covered Cause of Loss Form and shall include theft, vandalism, malicious mischief, collapse, false-work, temporary buildings and debris removal including demolition, increased cost of construction, design consultant's fees and expenses, flood and earthquake, and all below and above ground structures, water and sewer mains, and other utilities. Coverages shall be written for 100% of the completed value (replacement cost basis) of the work being performed. MCCD agrees to provide the necessary exposure base information for quotation by the Builder's Risk carrier. MCCD agrees to pay the premium associated with the Soft Costs coverage as a change order, if MCCD decides to purchase this coverage.

11.3.3 The Builder's Risk shall also include the follow amendments/provisions:

- a. Partial Occupancy Clause. The policy shall specifically permit partial occupancy at or before Substantial Completion or final acceptance of the entire Work. Partial occupancy or use of the Work shall not commence until the insurance company or companies providing insurance have consented to such partial occupancy or use. MCCD and Contractor shall take reasonable steps to obtain consent of the insurance company or companies, and agree to take no action, other than upon mutual written consent, with respect to occupancy or use of the work that could lead to cancellation, lapse or reduction of insurance.
- b. Deletion of Coinsurance Provisions
- c. Replacement Costs Basis - including modification of the valuation clause to cover all costs needed to repair the structure or work (including overhead and profits) and will pay based on the values figured at the time of rebuilding or repairing, not at the time of loss
- d. Deletion of any exclusions pertaining to Law, Ordinance or Regulation.
- e. Deletion of exclusions for design errors & omissions (for design-build contracts only)

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- f. *Modification of the electrical apparatus breakdown exclusions and the mechanical breakdown exclusion so that it does not apply to subsequent loss or damage*
- g. *Modify exclusion pertaining to damage to interior of building caused by any covered perils.*
- h. *Resultant Damage Extension including amendment of exclusion pertaining to design error, (for design-build contracts only)*
- 5 i. *Settling, cracking, shrinking or expansion (including coverage for loss resulting from settling, cracking, shrinking or expansion) of foundation walls, floors, or other parts of the structure,*
- j. *Other coverages may be required if provided in Contract Documents.*

11.3.4 *The deductible shall not exceed \$50,000 and shall be the responsibility of the Contractor.*

11.3.5 *The Policy shall be amended to show thirty (30) days notice of cancellation. Such notice shall be given to the MCCD and Contractor.*

10 11.3.6 *The Contractor shall pay subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require subcontractors to make payments to their sub-subcontractors in similar manner.*

15 11.3.7 *The Contractor shall file with MCCD a copy of the policy that includes the insurance coverages required in this section. The policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to the Project.*

20 11.3.8 *The Contractor shall purchase and maintain Equipment Breakdown Coverage (a.k.a. Boiler & Machinery) required by the Contract Documents or by law, which shall specifically cover insured equipment during installation and testing (including hot testing) and until final acceptance by the MCCD; this insurance shall include interests of MCCD, Contractor, subcontractors and sub-tier contractors in the work; all shall be named as additional insureds.*

11.3.9 *All deductibles will be assumed by the Contractor. If MCCD is damaged by the failure or neglect of the Contractor to purchase or maintain insurance as described above, then the Contractor shall bear all reasonable costs properly attributable thereto.*

25 11.3.10 *Contractors engaged in modifications of existing structures are required to secure a Partial Occupancy Endorsement as described in 11.3.3(a) that enables MCCD to occupy the facility during construction.*

11.4 *INSTALLATION FLOATER INSURANCE COVERAGE*

30 *If the Contractor is installing only materials and/or equipment in existing structures or installing infrastructure (i.e., roads, bridges, culverts, underground tunnels, machinery, equipment, etc.) separate from a building, then Contractor must provide Installation Floater Insurance Coverage. Coverage is to be written on a Special Covered Cause of Loss Form and is to include theft, faulty workmanship, mechanical or electrical damage during testing and labor costs to repair damaged work, soft costs (expediting expenses); deletion of any coinsurance provision is also required; any exclusions for underground exposures to be deleted. Flood and Earthquake coverages are also to be provided. Contractor is responsible for this coverage. Coverage shall end when the work is granted Substantial Completion. .*

11.5 *CONTRACT OBLIGATIONS*

40 *The insurance, as provided by the Owner for Contractors and Subcontractors under this Article 11 is not intended to, and shall not be construed to limit, qualify, or waive any liabilities or obligations of Contractor or Subcontractors, assumed or otherwise, under this Contract.*

11.6 *RIGHTS OF INSURED AGAINST OTHER INSUREDS*

45 *Inclusion of more than one insured, under such insurance, shall not operate to impair the rights of one insured against another insured, and except for the limits of liability, the coverages afforded by such insurance shall apply as though a separate policy had been issued to each insured.*

11.7 *PERFORMANCE OF CONTRACT TO EXCLUDE INSURANCE COST*

50 *Compensation payable to Contractor for the performance of the Work shall include all costs of insurance as it relates to the coverage required of the Contractor described and provided in this Article 11. Costs for overlapping insurance coverage maintained by Contractor shall not be reimbursable.*

11.8 *EFFECT OF SUBMISSION OF CERTIFICATES*

55 *The Owner shall review any Certificates of Insurance provided by the Contractor or to check or verify the Contractor's compliance with any and all requirements regarding insurance imposed by the Contract Documents. The Contractor is fully liable for the amounts and types of insurance required herein and is not excused should any policy or certificate of insurance provided by the Contractor not comply with any and all requirements regarding insurance imposed by the Contract Documents.*

11.9 *FAILURE OF COMPLIANCE*

60 *Should the Contractor fail to provide and maintain in force any and all insurance, or insurance coverage required by the Contract Documents or by law, or should a dispute arise between the Owner and any insurance company of Contractor over policy coverage or limits of liability as required herein, the Owner shall be entitled to recover from the Contractor all amounts payable, as a matter of law, to the Owner or any other parties, had the required insurance or insurance coverage been in force. Said recovery shall include, but is not limited to interest for the loss of use of such amounts of money, plus all attorney's fees costs and expenses incurred in securing such determination and*

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any other consequential damages arising out of the failure of the Contractor or insurance company to comply with the provisions of the Contract Documents, or any policy required hereby, or any other requirements regarding insurance imposed by law. Nothing herein shall limit any damages for which Contractor is responsible as a matter of law.

5 **11.10 SAFETY PROGRAM**

11.10.1 Contractor shall be responsible for initiating, maintaining, and supervising all safety programs in connection with this Work. Contractor shall take all necessary precautions for the safety of, and shall provide all necessary protection to prevent damage, injury, or loss to:

- 1. All employees on the Work site and all other persons who may be affected thereby.
2. All the Work, materials, and equipment to be incorporated therein, whether in storage on or off the site.
3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

11.10.2 Contractor shall comply with all applicable laws, ordinances, rules, and regulations of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. Contractor shall erect and maintain, as required by existing conditions and progress on the Work, all necessary safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent utilities.

11.10.3 Safety Warranty: Contractor warrants that Contractor is aware of, and understands the hazards which are presented to, persons, property, and the environment relating to, and arising out of, the Contractor's work or service, as described in this Contract's scope of work or service. In the event the Contractor or Contractor's Subcontractor is working or operating in an unsafe manner, the Contractor will immediately take full and appropriate steps to assure the safety of those working in the construction area or Work site.

11.11 PERFORMANCE BOND AND PAYMENT BOND

11.11.1 At the execution of this Contract, the Contractor shall file with MCCCD, a performance bond and a payment bond on MCCCD approved forms in the full amount of the Contract pursuant to A.R.S. § 41-2574. The cost of the bonds shall be included in the Contract Sum, and the bonds shall be payable to MCCCD. The Contractor shall require the attorney-in-fact that executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the Power of Attorney. The bonds required by this section shall be provided solely by one or more surety companies holding a Certificate of Authority to transact surety business in this State issued by the Director of the Department of Insurance pursuant to A.R.S. § 20, Chapter 2, Article 1. Individual surety or sureties shall not execute the surety bond or bonds, even if the requirements of A.R.S. § 7-101 are satisfied. Bonds shall be made payable to Maricopa County Community College District.

11.11.2 Upon request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit copies to be made.

ARTICLE 12

UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect, be uncovered for the Architect's observation and be replaced at the Contractor's expense without change in the Contract Time.

12.1.2 If a portion of the Work has been covered which the Architect has not specifically requested to observe prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

12.2 CORRECTION OF WORK

12.2.1 BEFORE OR AFTER SUBSTANTIAL OR FINAL COMPLETION

12.2.1.1 The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial or Final Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

12.2.2 AFTER SUBSTANTIAL COMPLETION

12.2.2.1 In addition to the Contractor's obligations under Paragraph 3.5, if, within ~~one year~~ two-years after the date of Substantial Completion of the Work or designated portion thereof, or after the date for commencement of warranties established under Subparagraph 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written

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notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. *During this warranty period, if any faulty or defective materials or workmanship is discovered, the Owner will provide notice to the Contractor requesting the Contractor repair or remedy the defect at the sole expense of the Contractor.* During the ~~one-year~~ two-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner ~~does not waive~~ the right to require correction by the Contractor or to make a claim for breach of warranty.

.1 *The Contractor agrees that he shall respond to the warranty request within forty-eight (48) hours, and then commence and diligently pursue remedy or repair within five work days. Warranty requests that adversely effect the operation of critical building systems or life safety issues shall be responded to immediately and corrected as quickly as possible. Neither final payment nor any other provision in this Contract shall relieve the Contractor of the sole responsibility to such corrective work.*

.2 *If the Contractor fails to timely commence the corrective work, the Owner, at his option, may perform the corrective work or have the same performed at the expense of the Contractor, with payment due to the Owner by the Contractor, or his surety, upon receipt for the expenses.*

12.2.2.2 The ~~one-year~~ two-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work, *or for a period of six months after completion of the corrective work, whichever is longer. During this warranty period, if any faulty or defective materials or workmanship is discovered, the Owner will provide notice to the Contractor requesting the Contractor repair or remedy the defect at the sole expense of the Contractor.*

12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Paragraph 12.2. Corrective Work shall be warranted to be free of defects for a period equal to the longer of six months after completion of the corrective Work or for the remainder of the warranty period otherwise applicable.

12.2.3 The Contractor shall remove from the site portions of the Work which are *defective or otherwise* not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

12.2.5 Nothing contained in this Paragraph 12.2 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 ~~one-year~~ two-year period for correction of Work as described in Subparagraph 12.2.2 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. *Only work supplied, installed and accepted at final completion shall be limited by the two-year warranty correction period. Work that was omitted or not installed per the Contract Documents shall be provided, repaired or replaced to meet Contract Document requirements within State contract law statute of limitations.*

12.3 ACCEPTANCE OF NONCONFORMING WORK

12.3.1 If the Owner prefers to accept Work that is *defective or otherwise* not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13

MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW

13.1.1 The Contract shall be governed by the law of the *State of Arizona*. ~~place where the Project is located.~~

13.1.2 *It shall be mandatory on the Contractor to whom the contract is awarded, and upon any subcontractor under him, to comply in every respect with the provisions of Titles 23, 32, and 34, Arizona Revised Statutes and with all other requirements of the State of Arizona, applicable to contract for the construction of Public Works, and with all applicable City, County, State and Federal laws and ordinances, including the Occupational Safety and Health Act (OSHA).*

13.2 SUCCESSORS AND ASSIGNS

13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to partners, successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in the Contract Documents. Except as provided in Subparagraph 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.2.2 ~~The Owner may, without consent of the Contractor, assign the Contract to an institutional lender providing construction financing for the Project. In such event, the lender shall assume the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.~~

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13.3 WRITTEN NOTICE

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

13.4 RIGHTS AND REMEDIES

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

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

13.4.3 REQUIRED NOTICES BY THE OWNER

13.4.3 Failure of the Owner to act or provide written notice to the Contractor regarding the Contractor's failure to comply with any specific requirement of the Contract or Contract Documents shall not constitute Owner's waiver of the requirement. The Owner's waiver of any requirement will occur only in writing which expressly states that it is a waiver of the specific requirement described in that writing.

13.5 TESTS AND INSPECTIONS

13.5.1 Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals, *except as provided for in the testing allowance or as directly paid for by the Owner.* The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections or approvals which do not become requirements until after bids are received or negotiations concluded. *Inspections and Tests required to establish compliance with the Contract Documents, except as otherwise provided in the Contract Documents, will be made by a pre-qualified, independent testing agency selected and paid for by the Owner. When the initial tests indicate variance to the Contract Documents, subsequent re-testing of the same work to establish compliance shall be performed by the same agency and the cost thereof borne by the Contractor. Representatives of the testing agency shall have access to the Work at all times. The Contractor shall provide facilities for such access in order that the agency may properly perform its functions.*

.1 Inspections or Tests required by codes or ordinances, or by a plan approval authority, and made by a legally constituted authority shall be the responsibility of, and paid for by, the Contractor, unless otherwise provided by the Contract Documents.

.2 Inspection or Testing performed exclusively for the Contractor's convenience shall be the sole responsibility and cost of the Contractor.

13.5.2 If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Subparagraph 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Subparagraph 13.5.3, shall be at the Owner's expense.

13.5.3 If such procedures for testing, inspection or approval under Subparagraphs 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses shall be at the Contractor's expense.

~~13.5.4 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.~~

The independent agency, employed by the Owner, will prepare the test reports, logs, and certificates applicable to the specific inspections and tests and promptly deliver the specified number of copies of same to the designated parties. Other required certificates of inspection, testing or approval shall be secured by the Contractor and delivered by him to the Architect, in such time as to not delay progress of the Work or final payment therefor.

13.5.5 If the Architect is to observe tests, inspections or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing. *Adequate notice of the time and place of tests, inspections and approvals shall be provided to the Architect.*

13.5.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

13.5.7 Required materials and equipment shall be inspected and tested under field operating conditions. The Owner and/or Architect reserve the right to be present at this testing and operation. Contractor shall give the Architect and Owner at least three work days advance notice by phone prior to scheduling these tests or operation. Neither the observations of the Architect, not inspectors, tests or approvals by persons other than the Contractor shall relieve him from obligations to perform the Work in accordance with the Contract Documents.

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13.5.8 If the Contractor is required to perform tests that due to climatic or other conditions must be delayed, the tests will be accomplished by the Contractor at the earliest possible date and that the Contractor's guarantee of that item and other items dependent on its proper operation shall begin upon satisfactory completion of the test. The responsibility of the Contractor under this Subparagraph is not abrogated upon the Owner's election to initiate final payment. Retention may be held until all necessary tests are provided and passed.

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13.6 INTEREST

13.6.4 Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due per Arizona State Statute requirements. ~~at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.~~

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13.7 COMMENCEMENT OF STATUTORY LIMITATION PERIOD

13.7.1 As between the Owner and Contractor:

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- .1 **Before Substantial Completion.** As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;
 - .2 **Between Substantial Completion and Final Certificate for Payment.** As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and
 - .3 **After Final Certificate for Payment.** As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any Warranty provided under Paragraph 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Paragraph 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

13.8 ASSIGNMENTS

13.8.1 The Owner and Contractor recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact borne by the ultimate purchaser. Therefore, the Contractor hereby assigns to the Owner any and all claims for such overcharges. The Contractor shall include this Subparagraph in all subcontracts, except subcontracts for standard commercial supplies or raw materials and shall require all Subcontractors at all tiers to likewise assign all claims for overcharges to the Owner.

13.8.2 The Contractor shall not assign any of the funds to be received or Work to be provided under this Contract unless the Contractor has given prior written notice to the Owner and the Owner has no reasonable objection to this assignment.

13.9 EQUAL OPPORTUNITY

13.9.1 The Contractor shall maintain policies of equal employment opportunity and non-discrimination in compliance with all applicable Federal, State and local laws, rules and ordinances, including but not limited to A.R.S. Title 41, Chapter 4, Executive Order 2009-09, and as follows:

13.9.1.1 The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, disability, disabled or Vietnam era veteran status. The contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, national origin, disability, disabled or Vietnam era veteran status. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of nondiscrimination.

13.9.1.2 The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, national origin, disability, disabled or Vietnam era veteran status.

13.10 INSPECTION AND AUDIT

13.10.1 The Contractor's records, and those records of any surety involved with takeover and/or completion of the Work, related to this Contract shall be subject to detailed audit. Neither the Contractor nor surety is allowed to limit which records may be produced or claim that partial production of records meets all of the audit requirements.

Such records shall include, but not be limited to, any and all contracts and subcontract agreements, purchase orders, financial accounting records, checking accounts, written policies and procedures, subcontractor files, original estimates, estimating work sheets, correspondence, change order files (including documentation covering negotiated settlements), back-charge logs and supporting documentation, general ledger entries related to this Work, insurance rebates and dividends, and any other Contractor records which may have a bearing on matters of interest to the Owner in connection with the Contractor's Work.

All of the foregoing is referred to as "Records" and shall be open for inspection and subject to audit and/or reproduction by the Owner's agent or

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its authorized representative to the extent necessary to adequately permit evaluation and verification of:

- (a) Contractor compliance with Contract requirements
- (b) Compliance with District and State business ethics Statutes and regulations
- (c) Compliance with provisions for pricing change orders, invoices or claims submitted by the Contractor or any of his payees.

13.10.2 Other specific records subject to audit, by the Owner or his designee, will include any and all other sources of information that may, in the Auditor's judgment, have any bearing on or pertain to matters, rights, duties or obligations covered by the Contract Documents, State Statute or Regulations. Computerized data shall be provided in a format requested by the Owner. When requested by the Owner or his designee, direct access to hard drives, business information software employed by the Contractor and subcontractors.

13.10.3 During construction of the Work, and for five years after Final Completion, or longer if required by law, the Contractor shall retain, and shall require all Subcontractors to retain, for inspection and audit, all books, accounts, reports, files and time cards, materials invoices, payrolls, and evidence of all other direct and indirect costs related to the bidding and performance of this Work. Upon request by the Owner, a legible copy or original or any or all such records shall be produced by the Contractor or his subcontractors or suppliers at the office of the Owner.

13.10.4 The Contractor shall require all payees receiving funds from this Work to comply with the provision of this Article by insertion of the requirements herein in their written agreements or purchase orders. Contractor shall fully cooperate and will cause all payees to cooperate fully in furnishing or making available to the Owner whenever requested in an expeditious manner any and all information, materials or data required by this Article.

13.10.5 The Owner's agent or its authorized representative shall have access to the Contractor's facilities and shall be allowed to interview current and former employees to discuss matters pertinent to the performance of this Contract, and shall have access to all necessary records, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with this Article.

13.10.6 If an audit inspection or examination in accordance with this Article discloses overpricing or overcharges of any nature by the Contractor to the Owner, the adjustment or repayment shall be made within a reasonable amount of time, not to exceed 90 days, from presentation of Owner's findings to the Contractor. If the audit or examination finds overcharges or overpricing in excess of one-half of one percent (0.5%) of the total contract billings, the reasonable and actual cost of the audit shall be reimbursed to the Owner by the Contractor.

13.11 Legal Worker Requirements: As mandated by Arizona Revised Statutes § 41-4401, MCCCCD is prohibited from awarding a contract to any contractor who fails, or whose subcontractors fail, to comply with Arizona Revised Statutes §23-214-A, which requires that employers verify the employment eligibility of their employees through the Federal E-verify system. An "employer" is an independent contractor, a self-employed person, the State of Arizona or any of its political subdivisions, or any individual or type of organization that transacts business in the State of Arizona, that has a licensed issued by an agency in the State and that employs one or more employees in the State. (See A.R.S. §23-211-4.) Therefore, in signing or performing any contract for MCCCCD, the Contractor fully understands that:

- a. It warrants that both it and any subcontractors it may use comply with all federal immigration laws and regulations that relate to their employees and with A.R.S. § 23-214-A;
- b. Any breach of that warranty is material and is subject to penalties up to and including immediate termination of the contract; and
- c. MCCCCD or its designee is authorized by law to randomly inspect the records relating to an employee of the Contractor or any of its subcontractors who works on the contract to ensure compliance with the warranty made in Paragraph A above.

13.11 RECORD DRAWINGS

13.11.1 The Record Drawings and Specifications shall consist of a set of electronic files and set of subsequent reproducible drawings that update the original Drawings, and marked up specifications that indicate all field changes that were made to adapt to field conditions, changes resulting from Supplemental Instructions or Contract Change Orders, and all concealed and buried installation of piping, conduits and utilities services installed or changed as part of this Work. All buried and concealed items both inside and outside the facility shall be accurately located on the Record Drawings as to the depth and in relationship to not less than two permanent features, such as interior or exterior wall faces or corners. Buried utilities or existing utilities that were altered or removed as part of the Work shall be located and plotted on an electronic file by a professional utility location firm or civil engineer. The Record Drawings shall be clean and all changes, corrections and dimensions shall be made in a neat and legible manner in contrasting color or bubble indicating the changes. All markings made shall be in a manner that allows the reproduction to be clearly and easily read. All RFI's, ASI's, Change Orders, etc. that are referenced in the Record Drawings shall be attached or included in the Drawings; cross referencing alone to an unattached document is not acceptable. Completion and acceptance of Record Drawings and Specifications are a condition precedent to final payment. Failure to provide complete and accurate Record Drawings may result in a deduction to the Contract as described in Paragraph 9.10.2.

13.12 Tobacco free facilities. The Maricopa County Community College District is dedicated to providing a healthy, comfortable, and educationally productive environment for students, employees, and visitors. In order to promote a healthy learning and work environment, the Maricopa County Community College District will become a total smoke free and tobacco free environment, effective July 1, 2012. Smoking (including the use of "e-cigs") or using tobacco products anywhere within the District's property is strictly prohibited. This includes all indoor areas and outdoor areas, such as parking lots (including inside vehicles in the parking lots), sports fields and sidewalks, and includes construction sites under the Contractor's control. Contractor shall be responsible for advising its officers, employees, subcontractors, suppliers and any other parties (Project Personnel) who come onto District property that they may not smoke or use tobacco products anywhere on Owner's property. Contractor's failure to advise Project Personnel of the prohibition or failure to address violations of the prohibition will result in corrective action, which may include directing the removal of Project Personnel from the project. A consistent violation of the prohibition may result in a suspension of Contractor from competing for other District projects.

13.13 NO CONSTRUCTION AGAINST DRAFTING PARTY

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Each party acknowledges that it has had an opportunity to review this Agreement with counsel, and such documents shall not be construed against any party that is determined to have been the drafter of the documents.

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ARTICLE 14

TERMINATION OR SUSPENSION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

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14.1.1 Except under the conditions of Paragraph 14.3.3, the Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

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- .1 issuance of an order of a court or other public authority having jurisdiction, which requires all Work to be stopped;
- .2 ~~an act of government, such as~~ a declaration of national emergency, which requires all Work to be stopped;
- .3 because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Subparagraph 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents;
- .4 the Owner has failed to furnish to the Contractor promptly, upon the Contractor's request, reasonable evidence as required by Subparagraph 2.2.1; *or*
- .5 *the Owner has persistently failed to fulfill the Owner's obligations under the Contract Documents with respect to the progress of the Work, and the Contractor has given seven days' written notice to the Owner and the architect of the details of such failure.*

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14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Paragraph 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for ~~completion the Project~~ or 120 days in any 365-day period, whichever is less.

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14.1.3 If one of the reasons described in Subparagraph 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, ~~including reasonable overhead, profit and damages and for the work stored or completed to date of the Notice, including mark-up and profit as described in Paragraph 7.5.~~

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14.1.4 Except under the conditions of Paragraph 14.3.4, if the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has persistently failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Subparagraph 14.1.3.

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14.2 TERMINATION BY THE OWNER FOR CAUSE

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~~14.2.1 The Owner may terminate the Contract if the Contractor:~~

- ~~1 persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;~~
- ~~2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;~~
- ~~3 persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or~~
- ~~4 otherwise is guilty of substantial breach of a provision of the Contract Documents.~~

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14.2.2 When any of the above reasons exist, the Owner, upon certification by the Architect that sufficient cause exists to justify such action, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

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~~.1 take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;~~

~~.2 accept assignment of subcontracts pursuant to Paragraph 5.4; and~~

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~~.3 finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.~~

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14.2.3 When the Owner terminates the Contract for one of the reasons stated in Subparagraph 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.

14.2.1 The Owner may terminate or default the Contractor upon actual or anticipated, persistent or repeated occurrence of, or failure to, correct any one or more of the following:

- 1** If the Contractor fails to supply, or fails to cause to supply, sufficient skilled workman or suitable materials or equipment required for the timely and proper progress and/or completion of the Work;
- 2** If the Contractor, upon payment by the Owner, fails to make prompt payment to Subcontractors or suppliers at any tier, for materials, labor or equipment due, or approved in the Application for Payment, in accordance with the respective agreements between the Contractor and the Subcontractors;
- 3** If the Contractor fails to comply with laws, ordinances, rules, codes, regulations, orders or similar requirements of any public entity having jurisdiction or specified by this Contract;
- 4** If the Contractor refuses or fails to prosecute the work, or any separable part, with such diligence as will ensure its completion within the agreed upon time; or if the Contractor fails to produce and pursue the required recovery schedules; or if the Contractor fails to complete the Work within contract dates of Substantial or Final Completion;
- 5** If the Contractor fails to follow any reasonable instruction by the Architect or Owner;
- 6** If the Contractor performs Work that deviates from the Contract Documents, or fails to remove, replace or repair improper or inadequate Work when directed by the Architect;
- 7** If the Contractor fails to obtain or maintain required bonds, insurance, licenses or permits;
- 8** If the Contractor has repeated or excessive safety violations, whether officially reported or not, or fails to remedy serious safety violations;
- 9** If the Contractor otherwise breaches or violates in any material way any provision or requirements of these Contract Documents or of any other contract between the Owner and Contractor.

14.2.2 Once the Owner determines that sufficient cause exists, the Owner may terminate or default the Contract without prejudice to any other right or remedy the Owner may have in the Contract Documents or in law. Once the Owner determines that sufficient cause exists, the Owner may terminate or default the Contract after giving the Contractor and its surety notice by issuing a written Declaration of Default. If Contractor fails to cure, or demonstrate reasonable effort to cure, such problem within three Days, and completely cure such problem within seven Days, then Owner may give a second written notice to Contractor and surety of its intent to terminate the Agreement within seven Days. If Contractor, within such second seven Day period, fails to cure such problem, then Owner may declare the Agreement immediately terminated for default by providing written notice to Contractor and surety of such declaration. After expiration of this seven day period, the Owner shall have the sole discretion to permit the Contractor to remedy the cause for the contemplated termination without waiving the Owner's right to terminate the Contract.

14.2.3 In the event that the Contract is terminated or defaulted, the Owner may take over the Work and prosecute to completion, by contract or otherwise, and may exclude the Contractor from the site. The Owner may take possession of the Work and all tools, construction equipment, machinery and plant which may be on site of the Work, and the use of same to the full extent that they can be used by the Contractor, and without liability to the Contractor except to return them undamaged, reasonable wear and tear excepted, at such time as any such item no longer has utility for completion of the Work. The Owner may also take possession of all material and appliances stored at the site and finish the Work as the Owner deems expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is completed.

14.2.4 Immediately upon Termination for Cause or Default, title to all completed work, work in progress and stored materials passes to the Owner. If the unpaid balance of the Contract Sum exceeds the Owner's direct and indirect cost and expenses of completing the Work, including compensation for the additional professional, consultant, internal or additional procurement costs, lost revenue, interest, legal or other required services and damages incurred by the Owner and not expressly waived, such excess shall be used to pay the Contractor for the Work it performed. If such costs exceed the unpaid balance, the Contractor or its surety shall pay the difference to the Owner, or at the sole discretion of the Owner, the difference due may be deducted from balances due on other contracts between the Owner and Contractor. In exercising the Owner's right to prosecute the completion of the Work, the Owner shall have the right to exercise its sole discretion as to the manner and methods of completing the Work. In the event that the Owner accepts bids for corrective Work or completion of the Project, or the Surety assumes responsibility for corrections or completion of the Work, the Contractor shall not be eligible for the award of such contracts or work at the Owner's sole option.

14.2.5 The Owner shall have the option of requiring any, all or none of the Subcontractors or suppliers to perform according to their subcontracts and purchase orders, and may assign any or all of the subcontracts to a general contractor selected to complete the Work.

14.2.6 If the Owner takes over the Work, unexecuted orders entered into by the Contractor for performance of any part of the Work will be effective upon acceptance by the Owner in writing, and only as to those subcontracts and purchase orders which the Owner designates in writing. The Owner may accept assignment at any time during the course of construction prior to Final Completion. All subcontracts and purchase orders shall provide

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that they are freely assignable by the Contractor to the Owner and its assigns. The assignment is part of the consideration to the Owner for entering into this Contract and may not be withdrawn prior to Final Completion of the Work.

14.2.7 In the event the Contract is terminated and it is determined for any reason that the Contractor was not in default, the termination shall be deemed a suspension for Convenience of the Owner and the rights and obligations of the parties shall be determined in accordance with Paragraph 14.3.

14.2.8 This Contract may be terminated by the Owner under the conditions stated in A.R.S. § 38-511.

14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

14.3.2 The Contract Sum and the Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption. Adjustment of the Contract Sum shall include *pro-rated profit for the Work completed at the time of the Suspension*. No adjustment shall be made to the extent:

- .1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

14.3.3 If funds approved by the Legislature, by public vote, or by the District Governing Board to perform this Work become unavailable for payment under this Contract, the Owner may delay the Work for a period up to six months, after which date if no approved or apportioned funds are made available, this Contract shall terminate at the option of the Owner. In the event of such delay or termination, the Owner shall pay the Contractor under the Contract through the date of Work stoppage, but only direct job site costs may be recovered by the Contractor for damages reasonably incurred after the date of Work stoppage.

14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

14.4.1 Upon seven days' written notice, the Owner may, at any time, terminate the Contract *in whole or in part* for the Owner's convenience and without cause. Such Termination shall be effective at the time and manner specified in the Notice. In such case, the Contractor shall be paid in accordance with Subparagraph 14.4.3. Such termination shall be without prejudice or limit to any other rights, remedies or claims which the Owner may have against the Contractor.

14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall:

- ~~.1 cease operations as directed by the Owner in the notice;~~
- ~~.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and~~
- ~~.3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.~~

14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, which shall be the unpaid progress payments from the Schedule of Values for completed work or work in progress plus the proportional overhead and profit from the Schedule of Values due on that Work only, materials and equipment stored on the site but not yet installed in the Work, plus the retention held to date, and along with reasonable, direct job site costs incurred by reason of such termination, substantiated in accordance with Paragraph 7.2.5 along with reasonable overhead and profit on the Work not executed.

14.4.4 Unless shown as a defined payment line on the Schedule of Values, non-recurring costs, such as project mobilization, or other indirect project start-up costs will not be paid or reimbursed. No payment will be made for items such as home office overhead and profit, anticipated profit, or profit on work not yet performed.

14.5 TERMINATION INFORMATION REQUIRED FROM THE CONTRACTOR

14.5 In the event of termination, for any reason, or default by the Contractor, the following shall be supplied to the Owner and bond company, or their representative, as requested, within seven calendar days of the request:

- .1 subcontract information, including copies of all subcontracts, and both successful and unsuccessful subcontract proposals, including all accounting information related to the subcontracts
- .2 purchase order information, including full copies of all purchase orders with all attachments, and all related correspondence, take-off sheets, change notice proposals, accounting and payment information, etc.
- .3 complete payroll information, including computations of labor burden chargeable to the project, for all personnel employed directly by the Contractor
- .4 complete information on all Contractor owned equipment or equipment rentals associated with this Work
- .5 other job cost or progress support information related to general conditions costs, insurance or bond coverage, daily job

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superintendent reports, etc.

6. *summaries of costs billed during the period and final/to-date detailed job cost history.*

7. *all drawings, manuals, submittals, narratives, tests, etc., associated with the Work.*

14.6. DEFAULT OR TERMINATION OF OTHER ON-GOING PROJECTS

In the event of termination or default of the Contractor, the Owner may terminate or default other on-going Contracts held with the same Contractor. Where termination or default occurs, the Contractor shall take action as described in Subparagraphs 14.7, and be entitled to payment for termination as described in Subparagraph 14.4.3, above, for other On-Going projects in good standing, only when the termination is for Owner's convenience.

14.7 PROTECTION AND SECURITY FOR WORK IN THE EVENT OF SUSPENSION, TERMINATION OR DEFAULT

Upon receipt of written notice from the Owner of suspension, termination or default, whether for the Owner's convenience or for cause, the Contractor shall:

.1 cease operations as directed by the Owner in the notice;

.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the completed Work and Work in progress, and property related to the Agreement that is in the possession of the Contractor and which the Owner has or may acquire an interest including stored materials;

.3 shall maintain site security until directed by the Owner or other arrangements are made by the Owner or Surety and the Contractor is notified in writing to discontinue such services;

.4 except for Work directed to be performed prior to the effective date of termination stated in the notice, and upon direction from the Owner, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

.5 The Contractor will be reimbursed for the reasonable and direct costs to maintain on-going security and protection as required above upon presentation and approval of supporting documentation. Estimated costs for these requirements shall be reviewed and approved in writing by the Owner in advance.

14.8. All requirements of Article 14 shall be included as flow-down requirements in all sub-contracts and supplier purchase orders.

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SECTION 01010

SUMMARY OF THE WORK

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WORK UNDER THIS CONTRACT

Includes all material, labor, tools, expendable equipment, utility and transportation services, and all incidental items necessary to perform and complete, in a workmanlike manner, the Work required:

10 Scope of the work includes, but is not limited to, demolition, new plumbing, mechanical & electrical systems, new interior partitions, fire sprinklers and fire alarm. The scope of work also includes partial exterior wall and roof demo, and new exterior glazing. The estimated construction cost is \$4.0M to 4.5M.

The Owner will furnish the following items which are to be installed by the contractor (OFCI):

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- A. Toilet paper dispensers (All other toilet accessories indicated or specified are CFCI)

The Owner will furnish and install the following work or items (OFOI):

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- A. Data and telecommunications systems (Contractor to provide conduit and raceways)

- B. Security cameras and access control systems (Contractor to provide conduit, raceways and power as indicated)

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- C. Loose furnishings and office equipment

- D. Restroom waste receptacles only

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- E. Free standing appliances (refrigerator, dishwasher, microwave, ice maker). Contractor shall make final hard wired or hard piped connections to the appliances

- F. Audio-Visual equipment and systems (Contractor to provide conduit, raceways and power as indicated)

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- G. External building signage, monument signs, interior roof identification signs, interior display signage and special graphics. The Contractor will provide and install all code-required signage as indicated.

- H. Vending machines

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- I. Modular workstations including internal electrical distribution. Contractor shall make final electrical connection between building power and electrically powered panels.

- J. Flooring and restroom floor & wall tile.

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Owner's Responsibilities:

1. Arrange for and deliver Owner reviewed Shop Drawings, Product Data, and Samples to Contractor for OFOI items.

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2. Arrange and pay for product delivery to site for OFOI items.

3. On delivery, inspect products jointly with Contractor.

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4. Submit claims for transportation damage and replace damaged, defective, or deficient items.

5. Arrange for Manufacturers' warranties, inspections and service.

Contractor's Responsibilities:

1. Provide the Owner with written notice stating dates when Owner-furnished items must be received at the job site to insure Project completion in accordance with established schedule.
2. Review Owner-reviewed Shop Drawings, Product data, and Samples as needed for coordination, installation, etc.
3. Receive and unload products at site; inspect for completeness or damage, jointly with Owner.
4. Handle, store, assemble, install, connect and finish such products, including furnishing lubricants and fluids and procedures required to render product serviceable and operative.
5. Coordinate and interface OFOI work with Work of this Contract to provide all required mechanical and electrical rough-ins, openings, supports, dimensions, etc., as required for a complete installation and include in the project schedule.

WORK PERFORMED UNDER SEPARATE CONTRACTS

The Owner will be letting separate contracts as follows:

1. Hazardous materials abatement and related interior demolition
2. Building security, cameras & access control.
3. Data/phone/computer, and audio/visual systems

PROJECT MANUAL

Purpose: This Project Manual has been prepared by the Architect for the Owner's use in the Owner's agreement with the Contractor. It is understood that the Contractor may have other or additional requirements in his agreement with his subcontractors or suppliers.

Segregation: In the preparation of this Project Manual, an effort has been made to segregate the various branches of the Work under headings, generally by trades. This is done only for the convenience of the Contractor and shall not relieve the Contractor of the responsibility of furnishing every item indicated or specified whether properly segregated for his benefit or not.

Arrangement: The CSI Project Manual arrangement and five-digit specification section designation is based on the CSI "MASTERFORMAT - Master List of Section Titles and Numbers".

Contractor's use of Project Manual: No responsibility will be assumed by the Owner or the Architect for omissions or duplications made by the Contractor in the completion of the Contract due to any alleged error in the arrangement of the material in this Project Manual, nor shall any such segregation of work and materials operate to make the Architect an arbiter in defining limits to the agreements between the Contractor and his subcontractors or suppliers.

CONTRACT DOCUMENTS

The work is defined by the Contract General Conditions and General Requirements which apply to all work, and the drawings, specifications and addenda, if any.

The misplacement, addition or omission of any letter, word or punctuation mark shall in no way damage the true spirit, intent or meaning of these Specifications or of the Drawings.

Reference to known standards within these Specifications and Drawings shall mean the latest edition or amendments published prior to date of these Specifications, unless specifically otherwise indicated, and to such portions of such standards as apply directly to the material or installation indicated or noted.

LABOR AND MATERIALS

Unless otherwise indicated, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, facilities and services necessary for the proper execution and completion of the work.

5 The Contractor shall enforce strict discipline and good order among his employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in the task assigned to them.

10 Mechanics whose performance is unsatisfactory or otherwise objectionable to the Owner or the Architect, or are considered by the Owner or Architect to be careless, incompetent, unskilled or otherwise objectionable shall be dismissed from work under the Contract upon written notice from the Consultant or Owner.

15 Any individual employed on the project, whose performance is unacceptable to the Architect or the Owner, shall be removed from the project upon written instruction from the Owner. The Owner will be the sole judge of performance acceptability. The written instruction from the Owner shall be sufficient grounds for removal of an individual from the project.

TAXES

20 The Contractor shall pay sales, consumer, use, and other similar taxes for the work or portions thereof provided by the Contractor which are legally enacted at the time bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

PERMITS, FEES AND NOTICES

25 The Contractor shall secure and pay for any necessary permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the work which are customarily secured after execution of the Contract and which are legally required at the time the bids are received or negotiations concluded. There will not be any building permit required for the Project except those at
30 Scottsdale Community College.

A review of the construction documents shall be performed by the Arizona State Fire Marshall for all applicable code adherences. The Owner will use a private plan review and inspection service for the
35 balance of the work. All off-site improvements, utilities and on-site enforcement of the applicable Fire Codes are under the City of Phoenix, including permits and reviews.

40 Maricopa County Storm Water Pollution and Prevention Plans, dust control ordinances and procedures are required for this work, as applicable, including filing the required plans and obtaining required permits. The County Health Department retains review and jurisdiction for food service areas.

The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authority bearing on the performance of the work.

45 It is not the responsibility of the Contractor to make certain that the Contract Documents are in accordance with applicable laws, statutes, building codes and regulations. If the Contractor observes that any of the Contract Documents are at variance therewith or with good construction practice in any respect, he shall promptly notify the Architect and Owner in writing, and any necessary changes shall be accomplished by appropriate Modification.

50 If the Contractor performs work knowing it to be contrary to such laws, ordinances, rules and regulations, or with good construction practice, and without such notice to the Architect and Owner, the Contractor shall assume full responsibility therefore and shall bear attributable costs.

55 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment. Access to the site, material storage areas and contractor office trailer location shall be as defined by the Owner.

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The Contractor shall not impede nor impair access to or from the adjacent buildings by students, customers, employees, or delivery personnel, except as pre-arranged and coordinated with the Owner.

CUTTING AND PATCHING OF WORK

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Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the work or to make its several parts fit together properly.

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Contractor shall not damage or endanger any portion of the work or the work of the Owner or any separate contractors by cutting, patching or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise alter the work of the Owner or any separate contractor except with the written consent of the Owner and of such separate contractor. The Contractor shall not unreasonably withhold from the Owner or any separate contractor his consent to cutting or otherwise altering the work.

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Hold any cutting, fitting or patching of new work to the absolute minimum. Should cutting, fitting or patching become necessary, it shall be performed to the minimum requirements as hereinafter stated and as stipulated elsewhere in the Contract Documents. Structural elements shall not be cut without the written consent of the Engineer.

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In all cases, exercise extreme care in cutting operations, and perform such operations under adequate supervision by competent mechanics skilled in the applicable trade. Openings shall be neatly cut and shall be kept as small as possible to avoid unnecessary damage. Careless and/or avoidable cutting, damage, etc., will not be tolerated, and the Contractor will be held responsible for such avoidable or willful damage.

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All replacing, patching and repairing of all materials and surfaces cut or damaged in the execution of the work shall be performed by experienced mechanics of the several trades involved. Such replacing, repairing and/or patching shall be done with the applicable materials, in such a manner that all surfaces so replaced, etc., will, upon completion of the work, match the surrounding similar surfaces.

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APPROVED APPLICATORS

Where specific instructions in the Specifications require that a particular product and/or material be applied and/or installed by an "approved applicator" it shall be the Contractor's responsibility to insure that any subcontractor or subsubcontractor used for such work is in fact currently certified by the particular manufacturer for this type of installation or application.

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APPROVED MANUFACTURERS

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Each section includes a list of manufacturers whose equipment is acceptable as to manufacture, subject to conformance with the Contract Documents. Careful checking must be made to verify that the equipment will meet all capacities, requirements, space allocations and is suitable to the intended purpose.

PRODUCT LIST

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Within ten (10) days after date of Contract, submit to the Architect five (5) copies of complete lists of all products which are proposed for installation. Also include a complete listing of shop drawing submittals. Products are generally specified by reference standard, manufacturer's name, model number, or trade name. When specified only by reference standard, the Contractor may select any product meeting this standard, by any manufacturer. When several products or manufacturers are specified as being equally acceptable, the Contractor has the option of using any product or manufacturer listed.

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SUBSTITUTIONS

After the Contract has been executed, a formal request for the substitution of alternate products, not prior approved, will be considered in place of those specified under the following conditions:

1. Specified product cannot be delivered without project delay, or
2. Specified product has been discontinued, or
3. Specified product has been replaced by superior product, or
4. Specified product cannot be guaranteed as specified, or
5. Specified product will not fit within designated space, or
6. Substitution otherwise determined by the Owner to be in his best interest.

The request shall be accompanied by complete data on the proposed substitution substantiating compliance with the Contract Documents including product identification and description, performance and test data, references and samples where applicable, and an itemized comparison of the proposed substitution with the products specified or named by addenda, with data relating to contract time schedule, design and artistic effect where applicable, and its relationship to separate contract.

The request shall be accompanied by accurate cost data on the proposed substitution in comparison with the product specified, whether or not modification of the Contract Sum is to be a consideration.

Requests for substitution after the contract has been executed, as stated above, when forwarded by the Contractor to the Architect, are understood to mean that the Contractor:

1. Represents that he has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified.
2. Will provide at least the same warranty for the substitution that he would for that specified.
3. Certifies that the cost data presented is complete and includes all related costs under this Contract but excludes costs under separate contracts and the Architect's redesign costs, and that he waives all claims for additional cost related to the substitution that subsequently become apparent.
4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the work to be completed in all respects.

Substitutions will not be considered if:

1. They are indicated or implied on shop drawing submissions without the formal request required in subparagraph under SUBSTITUTIONS above.
2. For their implementation they require a substantial revision of the Contract Documents in order to accommodate their use.

Substitutions, if acceptable to the Owner and Architect, will be incorporated into the Contract Documents by means of a Change Order.

REFERENCE DATA

Reference data made available to the Contractor is for the Contractor's information only, and neither the Owner nor the Architect assume any responsibility for the Contractor's conclusions. Reference data contained in the contract documents is based on "best available" information and therefore may be incomplete.

The Contractor shall establish and maintain all buildings and construction grades, lines, levels, and benchmarks. This work shall be performed by a licensed Civil Engineer or Surveyor under the employ of the Contractor, who shall certify to the Architect that he has performed this service.

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The Contractor shall not remove any property line markers, monuments or data established by the Owner.

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The licensed Engineer or Surveyor shall also certify that the building layout was completed and the building traverse was satisfactorily closed. If adjustment to design drawing layout information is required to obtain building closure, advise the Owner in writing with a copy to the Architect. Do not proceed with layout until Architect has provided revised layout information.

INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

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In general, addenda or bulletins to specifications take precedence over original specification or earlier addenda; dimensional figures take precedence over scaled measurements; large scale drawings and details take precedence over those of smaller scale; drawings of the latest data take precedence over earlier ones. Work indicated or required, but not expressly noted, detailed or specified, shall be made the same as similar or corresponding elements which are noted detailed or specified. The Contractor shall

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comply with the true intent and meaning of the drawings and specifications taken as a whole. Standards of quality and performance indicated on the drawings or described in the specifications shall be understood to be minimum requirements only. When building codes or other legal authority demand higher standards, such legal requirements shall be met. Where specified quality or performance criteria exceed building code or authority requirements, the specified criteria shall be met.

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Where a conflict arises among or between the Contract Documents the higher quality, the better workmanship, the more costly solution shall govern, unless directed otherwise by the Architect, whose decision shall be final.

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SAFETY REQUIREMENTS

These Construction Documents, and the joint and several phases of construction are to be governed at all times by applicable provisions of the Federal laws, including, but not limited to, the latest amendments of the following:

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1. Williams-Steiger Occupational Safety & Health Act of 1970, Public Law 91-596.
2. Part 1910 – Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.
3. Part 1518 – Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.
4. Arizona OSHA of 1972, and Federal OSHA 1970, as it applies to Arizona law, shall constitute the outline for the safety program to be adhered to during the course of the project. A copy of these specifications shall be available at the job site for reference.

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5. MCCCDCampus Construction COVID-19 Guidelines. (Following 2 pages)

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MCCCD Campus Construction Notice
COVID-19 Guidelines
(Updated June 11,2020)

We are updating our COVID-19 Construction Jobsite Notice to require all visitors on a project site have **face coverings** on their person and wear them anytime they are within 6-feet of someone. This policy is consistent with our District (MCCCD) policy requiring face masks be worn when entering a District or College facility.

Face coverings include bandanas, masks, etc..

Please help us enforce this policy at the project sites by educating subcontractors and other visitors about this requirement, posting our updated COVID-19 Campus Construction Notice.

All workers are required to observe the following:

1. No workers will be allowed onto the project site if they have any COVID-19 symptoms or are otherwise ill. Any workers that exhibits COVID-19 or other signs of illness will be ordered to leave the job site.
2. Report any COVID-19 symptoms or diagnosis experienced by you or someone you are in close contact with to your foreman or supervisor who should report all such information to the Colleges Facilities Department. Reporting should be done by phone before you come to work, and followed up in writing within 24 hours. Subcontractors shall inform the General Contractor if any person who has worked on a College project site in the previous 14-days reports COVID-19 symptoms or is diagnosed with COVID-19.
3. Workers that have exhibited COVID-19 symptoms or have been diagnosed with COVID-19 should not return to work and should self-quarantine for the CDC-recommended 14 days and at least 3 days (72 hours) have passed since you have had a fever without the use of fever reducing medications and have improved respiratory symptoms.
4. Workers should observe **social distancing** both at work as well as off-work. See below '**General Guidelines**' for additional criteria.
5. Do not share dishes, glasses, cups, utensils, or other eating items with others.
6. Wash hands regularly (at least 12 times a day) with soap and warm water for twenty (20) seconds. Wash hands immediately after removing gloves. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used but soap and water is preferable.
7. Cover your mouth and nose with your elbow or a tissue during a sneeze or cough. Immediately dispose of the tissue.

8. Avoid touching your eyes or face.
9. Perform daily augmented cleaning of the project area, tools, work-trucks etc. This includes, tables, hardbacked chairs, doorknobs, light switches, remotes, handles, desks, toilets, sinks, computer keyboards and mouse and phones, Cleaning should be performed with an EPA-Registered household or industrial disinfectant, an alcohol solution of at least 70% alcohol, or a bleach solution of 1/3 cup of bleach per gallon of water or 4 teaspoons bleach per quart of water.
10. Daily launder work clothes, rags, towels, etc. per manufacturer's directions at the warmest appropriate setting.
11. Educate your employees about COVID-19 and what they can do to safeguard themselves, their families and the workplace.
12. Comply with Arizona Governor Ducey's Stay Home Order away from work.
13. Familiarize yourself and comply with latest workplace safety guidance from the Center for Disease Control, OSHA and the Department of Labor.

General Guidelines

SOCIAL DISTANCING Employees and all those working on construction projects should avoid personal contact. In addition, this requires that all reasonable measures be taken to allow for the CDC-recommended six feet of distance to exist among people while on a worksite or office, including trailer offices. Signs must be posted on the exterior of all conference room or trailer doors indicating the maximum number of people who can be in that room or trailer. That number is based on how many people can be there while maintaining the six-foot guideline. While performing construction activities, workers should do what is reasonable (without compromising safety in a material way) to maintain six feet of distance from other people. Pre-tasks plans should involve a discussion about how to perform the task while maintaining appropriate social distance.

GATHERINGS Meetings: All meetings that can be done effectively through technology, e.g., Skype, Microsoft Teams, Zoom, etc., shall be done virtually. If they cannot, proper social distancing must be maintained and tables and chairs should be wiped down after each meeting. If any of these gatherings continue, they must be limited to 10 or fewer people.

SECTION 01020

ALLOWANCES

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Furnish and install the following listed portions of the Work for the cash allowance amounts stated. Include the total of the cash allowance amounts in the Contract Sum. Furnish materials by suppliers and/or contractors as directed by the Owner.

10

CASH ALLOWANCE COSTS:

The Contractor declares that the Contract Sum includes all costs related to the work to be provided on the basis of cash allowance. Where cash allowances are for materials only, allowances will include all costs of delivery to the job site and taxes.

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The Contractor is to include in his base bid all overhead and profit markups, and all markups related to bonds, insurance, taxes, etc., to include subcontractor markups, for performing allowance account work as directed by the Owner. Unused allowance account monies will be deducted from the contract amount by Change Order at project closeout.

20

ALLOWANCES LISTED:

The allowance item(s) described under the related specification section, and allowance amounts are as follows:

25

- | | |
|--|-----------------|
| 1. Owner Contingency (for misc. improvements as directed by Owner) | \$35,000 |
| 2. Energy Management System Controls (Johnson Controls) | <u>\$85,000</u> |

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Total \$120,000

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SECTION 01030

ALTERNATE BIDS

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GENERAL BUILDING PACKAGE

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See General Conditions, Supplementary Conditions and General Requirements, which apply to all work. All related work not specifically affected by the bid alternate shall be accomplished according to the basic specifications. See drawings and schedules for all items and construction covered by this section.

15

Each bidder shall submit on the form(s) provided alternate proposals stating the difference in price (additions or deletions) from the base bid for adding, deleting or substituting the materials and/or systems described hereunder. The difference in the alternate price shall include the related work of all trades.

ALTERNATES LISTED

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Alternate Bid No. 1:

Install one (1) electrically operated continuously hinged fabric wrapped operable partitions on Level 1 to divide New Lecture Rooms A110 and A111 in lieu of fixed metal stud frame walls. Install all components required for the proper operation of the folding partitions including, but not limited to: structural support, overhead tracks and metal stud framed walls to serve as storage pockets for the partitions when open. **Basis of Design:** Modernfold Acousti-Seal Encore series of continuously hinged flat panels, electrically operated, top supported with operable floor seals and automatic top seals.

25

Alternate Bid No. 2:

Install one (1) electrically operated continuously hinged fabric wrapped operable partitions on Level 1 to divide New Lecture Rooms A111 and A112 in lieu of fixed metal stud frame walls. Install all components required for the proper operation of the folding partitions including, but not limited to: structural support, overhead tracks and metal stud framed walls to serve as storage pockets for the partitions when open. **Basis of Design:** Modernfold Acousti-Seal Encore series of continuously hinged flat panels, electrically operated, top supported with operable floor seals and automatic top seals.

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Alternate Bid No. 3:

Install one (1) aluminum framed single track sliding glass wall partitions on Level 2 to separate Math Lecture A237 and Student Collaboration A238 in lieu of fixed metal stud frame walls. Install all components required for the proper operation of the sliding partitions including, but not limited to: structural support, overhead and floor tracks.

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Basis of design: NanaWall HSW60 with 1" glazing and surface mounted floor track

Alternate Bid No. 4:

Install one (1) aluminum framed single track sliding glass wall partitions on Level 2 to separate Student Collaboration A238 and Lecture A239 in lieu of fixed metal stud frame walls. Install all components required for the proper operation of the sliding partitions including, but not limited to: structural support, overhead and floor tracks.

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Basis of design: NanaWall HSW60 with 1" glazing and surface mounted floor track

Alternate Bid No. 5:

Remove the existing abandoned library feeder conductors from the existing electrical vault north of the library to the central plant per sheet E1.0. Removed cable to be returned to owner.

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END OF SECTION

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SECTION 01040

COORDINATION

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DIVISION OF SPECIFICATIONS AND DRAWINGS

The Contract Specifications and Drawings are divided into sections for the convenience of the Contractor. These divisions are not for the purpose of apportioning work or assigning responsibility among subcontractors, suppliers, and manufacturers, and shall not relieve the Contractor of the responsibility for fully coordinating the completion of all work as shown.

DESIGN CLARIFICATION, ERRORS AND OMISSIONS

Should the Contractor require clarification or interpretation of the Contract or become aware of any claimed error or omission he shall immediately inform the Architect in writing. The Architect shall promptly review the circumstances and determine the appropriate corrective action, if any, and so advise the Contractor.

MANUFACTURERS' SPECIFICATIONS

When no specification information is supplied, manufacturers' specifications and recommendations for installing materials, equipment and appurtenances as a part of this Contract shall govern the installation unless in conflict with other specified requirements or local conditions, in which case the approval of the Architect shall be obtained before proceeding.

EXAMINATION OF PREPARATORY WORK

Before starting a section of work, the responsible (sub-)contractor shall carefully examine all preparatory work that has been executed to receive his work. He shall check carefully, by whatever means are required, to ensure that his work and adjacent, related work will finish to proper contours, planes, and levels. He shall promptly notify the Contractor of any defects or imperfections in preparatory work which will in any way affect satisfactory completion of his work. Absence of such notification will be construed as an acceptance of preparatory work, and later claims of defects or delays therein will not be recognized. Under no condition shall a section of work proceed prior to preparatory work having been completed, cured, dried, and otherwise made satisfactory to receive such related work. Responsibility for timely installation of all materials rests solely with the Contractor, who shall maintain coordination control at all times.

FIELD MEASUREMENT & DRAWING DIMENSIONS

Before ordering any material or doing any work, the Contractor shall field-verify all dimensions and measurements with the Contract Documents. Any significant differences shall be promptly reported according to DESIGN CLARIFICATION, ERRORS AND OMISSIONS above. No claims for additional Contractor costs or time will be recognized for any conditions not so reported.

Actual dimensions or drawings or notes indicating dimensions shall be used instead of measurements of the drawings by scale, and shall be strictly complied with. No scaled measurements shall be used as dimensions to work to. Figures on drawings, as well as detail drawings themselves are subject in every case to measurements of adjacent or incorporated work. All such measurements necessary shall be made before undertaking any work dependent upon such data.

COORDINATION AND MEETINGS

A. General: The Architect and/or Contractor will prepare a written memorandum on required coordination activities, with such items as required notices, reports, and attendance at meetings; and will distribute this memorandum to each entity performing work at the project site.

B. Coordination Drawings: Each sub-contractor shall prepare coordination drawings where work by separate entities requires fabrication off-site of products and materials which must accurately interface. Coordination drawings shall indicate how work shown by separate shop drawings will interfere and shall indicate installation sequence.

1. Where coordination drawings cover primarily the work of one sub-contract, with only minor amounts of work by other sub-contractors, the sub-contractor with the predominant amount of work shall prepare coordination drawings.

2. Where coordination drawings cover substantial amounts of work of more than one contract, then the Contractor shall designate the sub-contractor responsible for the major part of the work as responsible for preparation of coordination drawings.

C. **Weekly Coordination Meetings:** The Architect or Contractor shall schedule and hold weekly general project coordination meetings at regularly scheduled times that are convenient for the attendance of sub-contractors and other parties involved. These meetings are in addition to specific meetings held for other purposes, such as regular project meetings and special pre-installation meetings. Required attendance includes each sub-contractor and every other entity identified by any sub-contractor as being currently involved in the coordination or planning for the work of the entire project. Conduct meetings in a manner that resolves coordination problems. The Contractor shall distribute copies of the meeting results to everyone in attendance and to others affected by the decisions and actions resulting from each meeting.

ADMINISTRATIVE/SUPERVISORY PERSONNEL

A. General:

1. **The General Contractor shall furnish a full-time general superintendent** along with other administrative and supervisory personnel required for performance of the work. Each sub-contractor shall provide specific coordinating personnel as reasonably required for interfacing work with other work of total project.

2. For the purpose of his provision, "interfacing" includes scheduling and sequencing of work, sharing of access to workspaces, installations, protection of each other's work, cutting and patching, tolerances, cleaning, selections for compatibility, preparation of coordination drawings, inspections, tests, and temporary facilities and services.

B. Project Coordinator: The Contractor shall provide a Project Manager who is experienced in administration and supervision of building construction, including mechanical and electrical work.

C. Submittal of Staff Names, Duties: At the Pre-Construction Meeting the Contractor shall submit a listing of Contractor's principal staff assignments, naming persons and listing their addresses and telephone numbers as well as a listing of his subcontractors.

SCHEDULING

Contractor will be responsible for his construction schedule.

LIMITATIONS ON USE OF THE SITE

General: Limitations on site usage as well as specific requirements that impact utilization are indicated on the drawings and by other contract documents. In addition to these limitations and requirements, the Owner shall administer allocation of available space equitably among the separate sub-contractors and other entities needing access and space, so as to produce the best overall efficiency in performance of the total work of the project. Each sub-contractor shall schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.

GENERAL INSTALLATION PROVISIONS

Pre-Installation Conferences: The Architect or Owner shall schedule and hold a pre-installation meeting at the project site well before installation of each unit of work which requires coordination with other units of work. Other sub-contractors involved in the unit of work as well as the installer and representatives of manufacturers and fabricators who are involved in or affected by that unit of work and with its coordination or integration with other work that has preceded or will follow shall attend this meeting. The Contractor shall advise the Architect of scheduled meeting dates.

At each meeting review progress of other work and preparation for the particular work under consideration including specific requirements for the following:

- 5 Contract Documents
- Options
- Related Change Orders
- Purchases
- Deliveries
- 10 Shop Drawings, Product Data and Quality Control Samples
- Possible Conflicts and Compatibility Problems
- Time Schedules
- Weather Limitations
- Manufacturers Recommendations
- Compatibility of Materials
- 15 Acceptability of Substances
- Temporary Facilities
- Space and Access Limitations
- Regulations
- Safety
- 20 Inspection and Testing Requirements
- Required Performance Results
- Recording Requirements
- Protection

- 25 The Contractor shall record significant discussions of each conference and shall record agreements and disagreements along with the final plan of action, and distribute the record of the meeting promptly to everyone concerned, including the Owner and Architect.

- 30 Contractor shall not proceed with the unit of work where the pre-installation conference cannot be successfully concluded. The Contractor shall initiate whatever actions are necessary to resolve impediments to performance of the work and shall reconvene pre-installation conference at the earliest feasible date.

- 35 Installer's Inspection of Conditions: The Contractor involved shall require the installer of each major unit of work to inspect the substrate to receive the work and the conditions under which the work is to be performed. The Installer shall report all unsatisfactory conditions in writing to the Contractor and the sub-contractor involved. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

- 40 Manufacturer's Instructions: Where installations include manufactured products, Contractor shall comply with the manufacturer's applicable instructions and recommendations for installation, to the extent that these instructions and recommendations are more explicit or more stringent than requirements indicated in the contract documents.

- 45 Inspection Prior to Installation: The Contractor shall, as applicable to his work, inspect each item of materials or equipment immediately prior to installation; reject damaged and defective items.

- 50 Provide attachment and connection devices and methods for securing work properly. Secure work through to line and level, and within recognized tolerances. Allow expansion and building movement. Provide uniform joint width in exposed work. Arrange joints in exposed work to obtain the best visual effect. Refer questionable visual-effect choices to the Architect for final decision.

- Recheck measurements and dimensions of the work, as an integral step of starting each installation.

- 55 Install each unit of work during weather conditions and project status which will ensure the best possible results in coordination with the entire work. Isolate each unit of work from incompatible work necessary to prevent deterioration.

- 60 Enclosure of the Work: The Contractor shall coordinate the closing-in of the work with required inspections and tests, so as to minimize the necessity of uncovering work for that purpose.

Mounting Heights: Where mounting heights are not indicated, mounting height choices shall be referred to the Architect for final decision.

5 CLEANING AND PROTECTION

10 General: During handling and installation of work at the project site, the Contractor shall clean and protect work in progress and adjoining work on the basis of continuous maintenance; and shall apply protective covering on installed work where it is required to endure freedom from damage or deterioration at the time of substantial completion.

15 The Contractor shall clean and perform maintenance on installed work as frequently as necessary through the remainder of the construction period, and adjust and lubricate operable components to ensure operability without damage.

15 The Contractor shall remove rubbish and waste material resulting from his work on a daily basis.

20 Limiting Exposure of Work: To the extent possible through reasonable control and protection methods, the Contractor shall supervise performance of the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period. Such exposure includes, where applicable, but not by way of limitation, the following:

- 25 Excessive static or dynamic loading
- Excessive internal or external pressures
- Excessively high or low temperatures
- Thermal shock
- Excessively high or low humidity
- 30 Air contamination or pollution
- Water or ice
- Solvents
- Chemicals
- Light
- 35 Radiation
- Puncture
- Abrasion
- Heavy traffic
- Soiling
- Bacteria
- 40 Insect infestation
- Combustion
- Electrical current
- High speed operation, improper lubrication, unusual wear or other misuse
- Incompatible interface
- 45 Destructive testing
- Misalignment
- Excessive weathering
- Unprotected storage
- Improper shipping or handling
- 50 Theft
- Vandalism

CONSERVATION AND SALVAGE

55 It is a requirement for each Contractor's supervision and administration of the work, which construction operations be carried out with the maximum possible consideration given to conservation of energy, water and materials. In addition, maximum consideration shall be given to salvaging materials and equipment involved in performance of the work, but not incorporated therein.

Contractor to advise the Owner of the removal and delivery items to be salvaged not less than forty-eight (48) hours in advance.

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SECTION 01050

FIELD ENGINEERING

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GENERAL

Each Contractor, as required for the execution of his work, shall engage a Registered Land Surveyor or Professional Engineer experienced and authorized to practice in land survey work, who is registered in the licensing jurisdiction where the project is located, to perform the services specified in this article.

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- 1. Working from lines and levels established by the drawings, the Surveyor shall establish and maintain bench marks and other dependable markers. These bench marks and markers are established to set lines and levels for work at each story of construction and elsewhere as needed to properly locate each element of the project. Each Contractor shall calculate and measure required dimensions as shown, within recognized tolerances. Drawings shall not be scaled to determine dimension. Advise entities performing work, of marked lines and levels provided for their use.

15

SURVEY AND LOCATION

The Contractor shall immediately upon entering the project site for purposes of beginning work, locate all survey reference points and take such action as is necessary to prevent their destruction; lay out his work and be responsible for all lines, elevations, and measurements of building, earthwork, site work, paving, utilities, and other work executed by him under the contract. He shall exercise proper precaution to verify figures shown on drawings before laying out work and will be held responsible for any error resulting from his failure to exercise such precaution. Contractor shall employ the services of a registered surveyor satisfactory to the Owner to set grade levels and line stakes in accordance with the drawings. Any survey data found to be in conflict with that shown on the contract documents shall be immediately forwarded to the Owner for clarification.

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SURVEY PROCEDURES

Before proceeding with the layout of actual work, each Contractor shall verify the layout information shown on the drawings, in relation to the existing bench marks. As the work proceeds, the Surveyor shall check every major element for line, level and plumb. Maintain a surveyor's log or record book of such checks. Make this log or record book available for the Architect or Engineer's reference. The Surveyor shall record deviations from required lines and levels, and shall, upon detection, promptly advise the Owner's Construction Administrator of deviations exceeding indicated or recognized tolerances. Each Contractor shall record deviations which are accepted, not corrected, on record drawings.

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FINAL PROPERTY SURVEY

Before substantial completion, the General Contractor shall have a Surveyor prepare a final property survey showing significant features (real property) that have resulted from construction of the project. On the survey shall be certification, signed by the Surveyor, to the effect that principal lines and levels of the project are accurately positioned as shown on the drawings.

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SECTION 01060

REGULATORY REQUIREMENTS

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CODES AND ORDINANCES

Applicable Codes: Compliance with all laws, ordinances, and regulations of authorities having jurisdiction is integral requirement of Contract Documents whether each code is mentioned or not in Contract Documents.

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Compliance: Comply with all applicable codes, ordinances and regulations in effect at time of bid opening including but not necessarily limited to the following:

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- Applicable local codes and ordinances
- International Building Code (IBC), Latest Edition
- Uniform Mechanical Codes (UMC), Latest Edition
- Uniform Plumbing Code (UPC), Latest Edition
- International Fire Code (IFC), Latest Edition
- NFPA 70 - National Electrical Code, Latest Edition

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- Maricopa Association of Governments "Uniform Standard of Specifications for Public Works Construction"
- Arizona State Fire Marshal Regulations
- Governing fire Marshall or fire department requirements
- Utility company requirements

25

- Arizona Revised Statues, Title 34, Public Buildings and Improvements
- State of Arizona Energy Standards
- State Department of Labor Requirements
- State Department of Health Requirements
- State and Federal Safety and Health Laws

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- Federal Handicap Regulations, Section 504, Rehabilitation Act, 1973
- Americans With Disabilities Act (ADA)
- Arizonans with Disabilities Act
- National Fire Protection Association Standards
- National Electrical Safety Code (NESC)

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Detailed Requirements: Be familiar with and verify detailed requirements of applicable codes to verify that items and their installation provided under Work of this Contract meet or exceed legal requirements.

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Discrepancies: If discrepancies occur between Contract Documents, local codes, local utility requirements, etc., most stringent requirements shall apply.

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SECTION 01070

ABBREVIATIONS AND SYMBOLS

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SPECIFICATION LANGUAGE

Abbreviated Language: These Specifications are of abbreviated, simplified, and streamlined type and include incomplete sentences.

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1. Omissions of words or phrases such as "the contractor shall", "in conformity therewith", "shall be", "as noted on the Drawings", "a", "the", are intentional.
2. Supply omitted words or phrases by inference in same manner as they are then "NOTE" occurs on Drawings.
3. Supply words "shall be" or "shall" by inference when colon is used within sentences or phrases.
4. Supply words "on the drawings" by inference when "as indicated" is used with sentences or phrases.

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Definitions: Following words shall have following meanings:

1. Furnish or Supply: Supply complete with all parts and accessories; does not include installation.
2. Install: Establish in place, condition, or status, complete and ready for use or service; does not include furnishing.
3. Provide: Furnish and install.
4. Concealed and Concealed Space: Embedded within construction, in trenches, in crawl space, space between finish ceiling and structure above; space between double walls and furred in areas.
5. Unfinished Space: Space not indicated or scheduled to be finished and spaces ordinarily only accessible to building maintenance personnel.
6. Finished Space: Space indicated or scheduled to be finished.
7. Exposed: Not installed underground or "concealed" as above.

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ASSOCIATION ACRONYMS

Reference in Contract Documents to trade associations, technical societies, recognized authorities and other institutions include following organizations which are sometimes referred to only by corresponding abbreviations:

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AA	Aluminum Association
AAMA	American Architectural Manufacturer's Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Movement and Control Association
ANSI	American National Standards Institute
APA	American Plywood Association
ARI	Air-Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers

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	ASTM	American Society for Testing and Materials
	AWI	Architectural Woodwork Institute
	AWPA	American Wood Preservers Association
	AWS	American Welding Society
5	AWWA	American Water Works Association
	BHMA	Builders Hardware Manufacturer's Association
	BIA	Brick Institute of America
	CAC	California Administrative Code
	CDA	Copper Development Association, Inc.
10	CGA	Compressed Gas Association
	CISPI	Cast Iron Soil Pipe Institute
	CRA	California Redwood Association
	CRSI	Concrete Reinforcing Steel Institute
	CS	Commercial Standard (See NBS)
15	CSMA	Chemical Specialties Manufacturing Association
	DFPA	Douglas Fir Plywood Association
	FGMA	Flat Glass Marketing Association
	FM	Factory Mutual Engineering Division
	FS	Federal Specification (General Services Administration)
20	GA	Gypsum Association
	HI	Hydraulic Institute
	IAPMO	International Association of Plumbing and Mechanical Officials
	ICBO	International Conference of Building Officials
	IEEE	Institute of Electrical and Electronics Engineers, Inc.
25	IES	Illuminating Engineering Society
	MIA	Marble Institute of America
	MIL	Military Specification
	MLMA	Metal Lath Manufacturer's Association
	MS	Military Specification (Naval Supply Depot)
30	MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
	NAAMM	National Association of Architectural Metal Manufacturers
	NBS	National Bureau of Standards
	NCMA	National Concrete Masonry Association
	NEBB	National Environmental Balancing Bureau
35	NEC	National Electric Code (of NFPA)
	NEMA	National Electrical Manufacturer's Association
	N FLUID PA	National Fluid Power Association
	NFPA	National Fire Protection Association
	NOMA	National Oak Flooring Manufacturer's Association
40	NPVLMA	National Paint, Varnish and Lacquer Manufacturer's Association
	NSF	National Sanitation Foundation
	NTMA	The National Terrazzo and Mosaic Association
	NWMA	National Woodwork Manufacturer's Association
	OSHA	Occupational Safety and Health Administration
45	PCA	Portland Cement Association
	PCI	Prestressed Concrete Institute
	PEI	Porcelain Enamel Institute
	PS	Product Standard (See NBS)
	DI	Steel Deck Institute
50	SJI	Steel Joist Institute
	SMACNA	Sheet Metal and Air Conditioning Contractors National Association
	SPA	Southern Pine Association
	SPI	The Society of the Plastics Industry, Inc.
	SSPC	Steel Structures Painting Council
55	SWI	Steel Window Institute
	TCA	Tile Council of America
	TIMA	Thermal Insulation Manufacturers Association
	UBC	Uniform Building Code (See ICBO)
	UL	Underwriters' Laboratories, Inc.

UMC	Uniform Mechanical Code (See IAPMO)
UPC	Uniform Plumbing Code (See IAPMO)
WCLA	West Coast Lumbermen's Association
WIC	Woodwork Institute of California
5 WRI	Wire Reinforcement Institute
WWPA	Western Wood Products Association

ABBREVIATIONS

Specifications: Following abbreviations are used in specification:

10	Alternating Current	AC	Fahrenheit	F
	Afternoon	PM	Feet per day	FT/DAY
	Ampere	AMP	Feet per hour	FT/Hr
	Ampere (with number 30A)	A	Feet per minute	FPM
			Feet per second	FPS
15	Before noon	AM	Foot-candle	FC
	Brake horsepower	BHP		
	British thermal unit	BTU	Gallons per day	GPD
			Gallons per minute	GPM
			Gallons per second	GPS
20	Carbon Dioxide	CO2		
	Critical path method	CPM		
	Cubic feet per day	CU FT/DAY	Heat Transfer	
	Cubic feet per hour	CU FT/HR	coefficient	U
	Cubic feet per minute	CFM	Hertz	HZ
	Cubic feet per second	CU FT/SEC	Horsepower	HP
25	Cubic foot (feet)	CU FT		
	Cubic inch (inches)	CU IN	Inches per second	IN/SEC
	Cubic yard	CU YD	Inside Diameter	ID
30	Decibels	DB	Kilovolt	KV
	Direct Current	DC	Kilovolt-ampere	KVA
	Dry bulb (temperature)	DB	Kilowatt	KWA
			Kips	K
	Lineal foot (feet)	LF	Kips per square inch	KSI
35	Miles per hour	MPH	Relative humidity	RH
			Revolutions per minute	RPM
	Noise reduction coefficient	NRC	Revolutions per second	RPS
	Number	NO.		
	Numbers	NOS.	Sound transmission class	STC
40	Numbers	NOS.	Square foot (feet)	SQ FT
			Square inch (inches)	SQ IN
			Square yard (yards)	SQ
	On Center	OC		
	Ounces per square foot	OZ/SQ FT		
45	Outside screw and yoke	OS&Y	Thermal conductivity	K
			Thermal resistance	R
	Polyvinylchloride	PVC	Tongue and groove	T&G
	Post meridian (afternoon)	PM		
	Pounds per cubic foot	PCF	U factor (coefficient	
	Pounds per lineal foot	PLF	of heat transfer)	U
50	Pounds per square foot	PSF	United States	US
	Pounds per square inch	PSI	United States Steel(gage)	USS
	Pounds per square inch			
	(gage)	PSIG	Volts (with number 120V)	V
			Wet bulb	Wb

SYMBOLS

Specifications: Following symbols are used in specifications:

+ for "plus or minus" (+ 2 percent)

x for "by" (2x4)

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/ for "per" (6 OZ/SQ FT)

\$ for "dollars" (\$5.00)

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' for "feet", and

" for "inches" when used in combination (6'-9")

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END OF SECTION

SECTION 01090

REFERENCE STANDARDS

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QUALITY ASSURANCE

Reference Standards: For products or workmanship specified or indicated by association, trade or Federal Standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.

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1. No provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change duties and responsibilities of Owner, Contractor or any of their consultants, agents or employees from those set forth in Contract documents, nor shall it be effective to assign to the Owner or any of the Owner's consultants, agents or employees any duty or authority to supervise or direct furnishing or performance of Work or any duty or authority to undertake responsibilities contrary to provisions of General Conditions and general requirements.

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2. Where wording of referenced standard is permissive, or where requirements of more than one reference standard apply, provide under more restrictive and higher requirement.

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3. Comply with recommendations of reference standards even though they are not mandatory in standard.

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4. Notify Consultant of any conflicts between referenced standards and requirements specified in Specifications or indicated on Drawings before proceeding with work.

Detailed Requirements: Be familiar with and verify detailed requirements of referenced standards to verify that items and their installation provided under Work of this Contract meet or exceed standard's requirements.

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1. Tolerances: Tolerances may vary from standards of different section. Make adjustments necessary to assure proper fitting of different elements. Tolerances may be plus or minus as indicated but in sum shall be compensating, not cumulative.

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Effective Date: Date of standard is that in effect as of date of the Invitation to Bid except when specific date is specified or when standard is part of applicable code which includes edition date.

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Copies: When required by individual sections, obtain copy of standard. Maintain copy at job site during work.

Certificates: When required by Contract Documents, or when requested in writing by Architect, submit Certificate of Compliance or Manufacturer's Certificate confirming that materials or workmanship, or both comply with requirements of referenced standard.

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MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for items of work in this Section. Full compensation for labor, material, tools, equipment, and incidentals required to provide all work items in this Section in place shall be considered as included in the lump sum prices stated in the Bid for the work to which the work items in this Section are attached or from a part.

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SECTION 01150

MEASUREMENT AND PAYMENT

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PROGRESS PAYMENTS

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Each progress payment will include four copies of the detailed reports as outlined in Section 01310 by the General Contractor outlining progress made for that period, status logs for that period, a report of all material in fabrication, along with a current status schedule.

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Each report will include a minimum of five ground level photographs (provided on CD-ROM as electronic files) that represent the work completed this month and work completed to date. Each pay application shall also include all Daily Field Reports processed by the General Contractor during this month.

SCHEDULE OF VALUES

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Before the first Application for Payment, the Contractor shall submit to the Owner a Schedule of Values allocated to the various portions of the Work, as set forth in Division 1, Section 01310 of the General Requirements entitled "Construction Schedules", and supported by such data to substantiate its accuracy as the Architect and the Owner may require. This schedule, unless objected to by the Owner shall be used only as a basis for the Contractor's Applications for Payment.

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APPLICATIONS FOR PAYMENT

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On or about the dates specified in the Contract Documents, Contractor shall meet with the Architect or Owner and submit a completed Progress Report, in accordance with the requirements of Contract Documents, supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require. Contractor shall also certify that he has paid all due and payable amounts for which previous certificates for payment were issued and payments received from the Owner.

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The submission and review of the Construction Schedule and monthly updates thereof as required by the Contract Documents shall be an integral part and basic element of the Application upon which progress payment shall be made. The Contractor shall be entitled to progress payments only upon substantial compliance with all requirements for the construction schedule. Compliance with this requirement shall be a condition precedent to the processing of Contractor's Applications.

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The Contractor's Application for Payment shall show percentage of work completed for each application, total percentage of work completed for each application, total percentage complete-to-date and balance of work remaining for each cost code of the sixteen division format.

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The Contractor shall promptly pay each Subcontractor (including suppliers, laborers and materialmen) performing labor or furnishing material for the Work upon receipt of payment from the Owner out of the amount paid to the Contractor on account of the Work of such Subcontractor, supplier, laborer, or materialman, the amount which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such Work. The Contractor shall, by an appropriate agreement with each Subcontractor, also require each Subcontractor to make payments to his Sub-subcontractors in similar manner.

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The Owner may, on request and at his discretion, furnish to any Subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Architect on account of Work done by such Subcontractors.

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Neither the Owner nor the Architect shall have any obligation to pay nor to see to the payment of any monies to any Subcontractor except as may otherwise be required by law.

No Certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the Owner, shall constitute an acceptance of any Work which is not in accordance with the Contract Documents.

5 PAYMENTS WITHHELD

10 The Architect may decline to certify payment and may withhold the Certificate in whole or in part, to the extent necessary to protect the Owner, if in the Architect’s opinion that the Certificate does not make correct and accurate representations to the Owner. If the Architect is unable to make representations to the Owner and to certify payment in the amount of the Application, he will notify the Contractor. If the Contractor and the Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment in the amount for which the Architect is able to make such representations to the Owner. The Architect may also decline to certify payment or any part thereof or, because of subsequent observations, they may nullify the whole or any part of any Certificate for Payment previously issued, to such extent as may be necessary in the Architect’s opinion to protect the Owner from loss because of:

- 15 1. Defective work not remedied;
- 20 2. Third party claims filed or reasonable evidence indicating probable filing of such claims;
- 25 3. Failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- 30 4. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- 35 5. Damage to the Owner or another Contractor;
- 6. Reasonable evidence that the Work will not be or has not been completed within the Contract Time or Specific Dates;
- 7. Failure to carry out the Work in accordance with the Contract Documents;
- 8. Liens or stop notices filed or reason to believe it is probable same will be filed for any portion of the Work; or
- 9. Failure or refusal of the Contractor to fully comply with the contract requirements.

40 STORED MATERIALS

45 Payment for stored materials shall be in accordance with the General Conditions requirements. At the time the schedule of values is developed the contractor shall submit a listing of those items proposed as stored equipment and materials for which payment will be requested. Payment will not be considered for items which are incorporated into the work on a continuing basis or for materials which are available as shelf or warehouse items. Materials must be properly stored and protected from the elements. Receipts must be provided substantiating that payment has been made for the materials and/or equipment.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

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WORK SPECIFIED HEREIN:

This section summarizes all meetings which the Contractor shall prepare for and attend as described below for the management and coordination of the Project.

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PROJECT MEETINGS:

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Attendees: Unless otherwise specified or required by the Owner or Owner's Representative, meetings shall be chaired by the Owner's Representative, or by the Owner if the Owner's Representative is not present. Subcontractors may attend project meetings when involved in matters to be discussed or resolved but only when requested by the Owner, Consultant, or Contractor.

20

Meeting Records: The Owner's Representative will record minutes of each meeting and furnish copies within a reasonable time thereafter to Owner, Contractor, and other attendees. Unless written objection to contents of the meeting minutes is received by the Owner's Representative within ten (10) days after presentation, it shall be understood and agreed that the minutes are a true and complete record of the meeting.

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Meeting Schedule: Dates, times, and locations for various meetings shall be agreed upon and recorded at pre-construction meeting. Thereafter, changes to the meeting schedule shall be agreed between the Owner and the Contractor, with appropriate written notice to all parties involved.

PRECONSTRUCTION MEETING:

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Before issuance of Notice to Proceed, a pre-construction meeting shall be held at the location, date and time designated by Owner. In addition to attendees named herein, this meeting shall be attended by representatives of the regulatory agencies having jurisdiction, if required, and such other persons the Owner may designate. Agenda: The matters to be discussed or resolved and the instructions and information to be furnished to or given by the Contractor at the preconstruction conference include:

35

1. Schedule of progress meetings.
2. Progress schedule and schedule of value forms will be reviewed. Completion dates for submittal of initial drafts for review will be established. Discussion of pay application procedures and monthly schedule updates.
3. Communication procedures between the parties.
4. Names and titles of all persons authorized by Contractor to represent and execute documents for Contractors, with samples of all authorized signatures. Review of organization and staffing of each work locations.
5. The names, addresses, and telephone numbers of all those authorized to act for the Contractor in emergencies.
6. Construction permit requirements, procedures, and posting.
7. Public notice of starting Work.
8. Forms and procedures for Contractor's submittals.
9. Change Order forms and procedures.

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- 10. Review of typical weekly project review agenda. Discussion of information and materials contractor is to provide at each meeting.
- 5 11. Contractor's designation of his organization's accident prevention member and his qualifications if other than the Superintendent.
- 12. Contractor's provisions for barricades, traffic control, utilities, sanitary facilities, and other temporary facilities and controls, site access and storage/office areas.
- 10 13. Consultants and professionals employed by Owner and their duties.
- 14. Construction surveyor and initiation of surveying services.
- 15 15. Testing Laboratory Agency, and testing procedures.
- 16. Procedures for payroll and labor cost reporting by the Contractor.
- 17. Procedures to ensure nondiscrimination in employment.
- 20 18. Warranties and guarantees.
- 19. Contractor quality control program and methods. Personnel responsible for quality control.
- 25 20. Review of forms to be used by the Owner, Owner's Representative and the Contractor.
- 21. Other administrative and general matters as needed.

Unless followed up in writing, verbal authorizations or acknowledgment by anyone present shall not be binding.

CONSTRUCTION PROGRESS MEETINGS:

Progress meetings shall be held weekly according to the agreed schedule. All matters bearing on progress and performance of the Work since preceding progress meeting shall be discussed and resolved including, without limitation, any previously unresolved matters, deficiencies in the Work or methods being employed for the Work, and problems, difficulties, or delays which may be encountered.

Unless followed up in writing, verbal authorizations or acknowledgments by anyone present shall not be binding.

SPECIAL MEETINGS:

After notice to other parties, special meetings may be called by the Owner, Consultant, or Contractor. Special meetings shall be held where and when designated by the Owner.

POST-CONSTRUCTION MEETING:

This meeting shall be held prior to the final inspection of the Work to discuss and resolve all unsettled matters. Bonds and insurance to remain in force, and the other documents required to be submitted by the Contractor will be reviewed and any deficiencies determined. Schedule and procedures for the final inspection and for final correction of defects and deficiencies shall be agreed.

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END OF SECTION

SECTION 01300

SUBMITTALS

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WORK SPECIFIED HEREIN:

This Section outlines, in general, as a convenience to the contractor, submittals required before commencing construction and during the course of construction of the Project.

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PROJECT IDENTIFICATION ON CORRESPONDENCE AND SUBMITTALS:

Correspondence and submittals to the Consultant shall bear the Project name and the Project number(s) as shown on the cover of the Contract Documents. Lack of proper identification may cause delay in processing and may be cause for rejection of submittals. Submittals which have not been reviewed by the contractor will not be accepted. Contractor is to stamp and initial drawing with his approval stamp. The contractor shall use his standard submittal form to transmit drawings. Drawings are to be delivered to and be picked up at the Consultant's office.

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SCHEDULE OF VALUES:

Before the first Application for Payment, the Contractor shall submit to the Consultant a Schedule of Values allocated to the various portions of the work. The Schedule of Values line items shall be identical to the construction schedule line items. Refer to the following section entitled "PROGRESS SCHEDULE" for the line item criteria. Complete breakdown of individual line items is to be provided.

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The Schedule of Values shall be submitted not later than twenty (20) days from date of "Notice to Proceed" on AIA Document G702A "Application for Payment Continuation Sheet", for the purpose of evaluating the work completed for each monthly payment. The Contractor shall attach a statement certifying that the Schedule of Values accurately portrays the actual value of the work indicated and that the amounts of the breakdown have not been "front end loaded." Monthly payment request shall be submitted on the Form with all data required.

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The Schedule of Values should include a line item for costs related to supervision and construction procedures, (General Conditions), if the Contractor will request the Owner to pay for these types of costs beyond the Contract Time in accordance with the General and Supplementary Conditions of the Contract.

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PROGRESS and CONSTRUCTION SCHEDULES:

Immediately after Award of Contract, prepare and submit for the Owner's and Consultant's information, an estimated progress schedule for the work, including an estimate of each projected monthly pay request. The progress schedule shall be related to the entire Project to the extent required by the Contract Documents. This schedule shall indicate the dates for the starting and completion of the various stages of construction and shall provide for expeditious and practicable execution of the work.

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The Construction Schedule shall be in Critical Path method. The Schedule shall consist of horizontal lines, or activity bars, plotted along a daily time scale. For projects with a construction value under \$1 million or shorter than eight months, a bar chart may be used with the Owner's permission. Each pay item designated in the Contractor's Schedule of Values shall be denominated as a separate activity and represented by a horizontal bar or bars on the chart. The time-scale shall indicate all required Milestone and Completion Dates as set forth in the Owner Contractor Agreement. The horizontal activity bar(s) shall indicate the start and finish dates as well as the total time period of performance for each pay item activity. The Contractor shall arrange the chart so as to show the pay item activities which are necessary to fulfill each and every Milestone and Completion Date requirement.

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Each work item on a bar chart will be correlated to the payment document and shall be broken into work segments/activities (where practicable) with individual starting and stopping dates. Individual work

segments and activities shall not exceed fourteen (14) days in duration. All items for which payment will be requested are to be shown on the progress schedule. As a minimum, work shall be segmented to demonstrate its relationship to the various trades and Milestone Dates. The segmented Work activities shall be cost loaded to show their dollar value as a part of the entire pay item. Activity titles shall be self-explanatory; abbreviations shall be shown in the legend.

Show submittal dates required for shop drawings, product data and samples and product delivery dates. A draft of the initial schedule shall be submitted within fourteen (14) days from the date of notice-to-proceed for review of overall form and content. A final, neatly drafted schedule shall be submitted for approval not later than thirty (30) days from the date of notice-to-proceed, and prior to any payment applications.

UPDATES AND REVISIONS:

The Construction Schedule shall be updated to show actual progress and the effect of modifications, delays and other events. A second activity bar for each work item, in a contrasting color or pattern, shall be drawn parallel to the proposed schedule to show actual progress and to forecast future progress. The actual start and stop dates shall be entered, as well as the actual dates of the Milestone events. Updates are to be submitted monthly to the Consultant with, and as a part of, each payment request.

The updated Construction Schedule submitted by the Contractor shall not show a completion date later than the Contract Time, subject to any time extensions approved by the Owner.

In the event the Contractor falls behind schedule fourteen (14) or more calendar days the contractor shall increase his work forces or extend his work hours, or both until such time as the work is back on schedule at no additional cost to the Owner.

If the Contractor believes he is entitled to an extension of the Contract under the Contract Documents, the Contractor shall submit to the Consultant, a separate schedule analysis (entitled "Requested Time Adjustment Schedule") indicating suggested adjustments in the Contract Time which should, in the opinion of the Contractor, be made by time extension, due to changes, delays or conditions occurring during the past month or previously, or which are expected or contemplated by Contractor (whether such conditions are excusable under the Contract or are allegedly due to Contractor or Owner fault); this separate schedule, if submitted, shall be accompanied or preceded by a formal time extension request as required by the Contract Documents and a detailed narrative justifying the time extension requested.

To the extent any time extension requests are pending at the time of any update in the Construction Schedule, the "Requested Time Adjustment Schedule" shall be up-dated also each month, to reflect any adjustments made by Contractor in the Construction Schedule, or any time extensions previously granted by Owner, and to reflect actual or expected progress. Neither the Consultant nor the Owner shall have any obligation to consider any time extension request unless the requirements of the Contract Documents, and specifically, but not limited to, the requirements set forth in this paragraph, are complied with; and neither the Consultant nor the Owner shall be responsible or liable to Contractor for any constructive acceleration due to failure of Owner to grant time extensions under the Contract Documents should Contractor fail to substantially comply with the submission requirements and the justification requirements of this Contract for time extension requests. Contractor's failure to perform in accordance with the Construction Schedule shall not be excused, nor be chargeable to Owner nor the Consultant because Contractor has submitted time extension requests or the "Requested Time Adjustment Schedule".

Neither the updating of Contractor's work schedule nor the submission, updating, change or revision of any other report or schedule submitted to Owner by Contractor under this Contract nor review or non-objection of the Owner or Consultant of any such report or schedule shall have the effect of amending or modifying, in any way, the Contract Completion Date, Milestone Dates or of modifying or limiting in any way Contractor's obligations under this Contract.

All of Contractor's detailed calculations and documents supporting all schedules, reports, and forecasts shall be available to the Owner and the Consultant on request.

Each monthly updated Construction Schedule submitted by Contractor with the pay application to the Owner Representative shall be accompanied by a narrative report which reflects the following:

1. Description of Work accomplished since submission of previous progress schedule;
2. Comparison of the actual status of the Work with Contractor's project schedule;
3. Status of equipment and material deliveries;
4. Personnel staffing schedule;
5. Revision of schedules (if any);
6. Action proposed to restore schedule.

SCHEDULE OF OFF-SITE ACTIVITIES

The Contractor shall include in his Construction Schedule all procurement related activities which lead to the delivery of materials so the site in a timely manner. The schedule of off-site activities shall include, but is not limited to the following:

1. Dates for submittals, ordering, manufacturing or fabricating and delivery of equipment and materials. Long lead items requiring more than one month between ordering and delivery to site shall be clearly noted;
2. All significant activities to be performed by the Contractor during the fabrication and erection/installation in a Contractor's plant or on a job site, including materials/equipment purchasing, delivery; and
3. Contractor's drawings, submittals and shop drawings to be prepared and submitted to the Consultant.
4. The Contractor shall be solely responsible for expediting the order and delivery of all material to be furnished by him, and that prepurchased by the Owner, so that the construction progress shall be maintained according to the current schedule for the Work as approved by the Owner.
5. The Owner shall be advised in writing by the Contractor whenever it is anticipated or determined by the Contractor that the delivery date of any material and/or equipment furnished by the Contractor for installation will be later than the delivery date shown on the schedule, subject to schedule updates.

PROGRESS REPORT:

The Contractor shall, with his Application for Payment, submit monthly, updated progress reports clearly indicating work completed during the preceding month and the proposed progress of the work for the forthcoming month. In addition to the statement of progress, the Contractor shall enumerate all orders placed for major equipment or materials with date of order and, if possible, date of anticipated delivery. The Contractor shall state the availability of all materials, work fabrication, and/or equipment specified.

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES:

Shop drawings are drawings, diagrams, schedules and other data specially prepared for the work by the Contractor or any subcontractor, manufacturer, supplier or distributor to illustrate some portion of the work.

Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the work.

5 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the work will be judged.

10 The Contractor shall review, approve and submit, with reasonable promptness and in such sequence as to cause no delay in the work or in the work of the Owner or any separate contractor, all shop drawings, product data and samples required by the Contract Documents. If submittal is not made in time, delays will be weighed against any claims for delays.

15 By approving and submitting shop drawings, product data and samples, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, or will do so, and that he has checked and coordinated the information contained within such submittals with the requirements of the work and of the Contract Documents.

20 The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Consultant's review of shop drawings, product data or samples under the General Conditions, unless the Contractor has specifically informed the Consultant in writing of such deviation at the time of submission and the Consultant has given written authorization to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the shop drawings, product data or samples by the Consultant's review thereof.

25 The Contractor shall direct specific attention, in writing or on resubmitted shop drawings, product data or samples, to revisions other than those requested by the Consultant on previous submittals.

30 No portion of the work requiring submission of a shop drawing, product data or sample shall be commenced until the submittal has been reviewed by the Consultant as provided in Subparagraph 2.2.14 of the General Conditions. Portions of the work shall be in accordance with reviewed submittals.

Submittal Procedure:

35 Shop drawings, product data, and samples shall be dated and marked to show the names of the Project, Consultant, Contractor, originating Subcontractor, manufacturer or supplier, and separate detailer if pertinent. All submittals shall be accompanied by a transmittal letter containing the Project name, Contractor's name, number of drawings, data and samples, titles, specification section and page number. All submittals are to be delivered to and may be picked up at the office of the Consultant. The Consultant will require a minimum of ten (10) working days for shop drawing review.

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Samples:

45 Submit three (3) samples of sufficient size to indicate general visual effect. Where a selection of color, texture, finish, graining, or other similar property will be made, submit six (6) sets of manufacturer's color or finish charts illustrating the full scope of this range. One (1) set of samples will be retained by the Consultant.

50 Samples and color or finish charts of all materials requiring color or finish selections shall be submitted, within twenty (20) days after receipt of "Notice to Proceed," in one submittal to facilitate preparation of the color schedule by the Consultant. No color or finish selection will be made until all samples or color or finish charts, as required, are received.

Shop Drawings:

55 Shop drawings shall completely identify Specification Section and locations at which materials or equipment are to be installed. Submit one reproducible sepia transparency and two (2) prints of each shop drawing, including fabrication, erection, layout and setting drawings and such other drawings as required under

various sections of the Specifications, until "No Exception Taken" or "Furnish as Corrected" stamp is obtained.

5 The Consultant will check the drawings and affix his stamp to the sepia, indicating the action taken, and will return same to the Contractor, retaining the prints for his records. Comments, if any, will be noted directly on the sepia. If a drawing is stamped: "No Exception Taken" or "Furnish as Corrected," no resubmittal is necessary. When stamped: "Rejected," "Submit Specified Item," "Make Corrections Noted," or "Revise and Resubmit," correct and resubmit as specified.

10 Contractor is responsible for obtaining and distributing required prints of shop drawings to his subcontractors and material suppliers after, as well as before, "No Exception Taken" or "Furnished as Corrected" stamp is obtained. Prints of reviewed shop drawings shall be made from transparencies which carry the Consultant's appropriate stamp. Mechanical and electrical equipment lay out drawings are to be submitted for review by the Consultant.

15 Unapproved shop drawings are not to be used. All drawings must have the contractor's and Consultant's approval stamp.

Product Data:

20 Submit five (5) copies of manufacturer's descriptive data including catalog sheets for materials, equipment and fixtures, showing dimensions, performance characteristics and capacities, wiring diagrams and controls, schedules, and other pertinent information as required. Where printed materials describe more than one product or model, clearly identify which is to be furnished.

25 If data is stamped: "No Exception Taken," or "Furnish as Corrected," two (2) copies will be returned. If stamped "Revise and Resubmit," "Rejected," "Submit Specified Item," or "Make Corrections Noted," one (1) marked copy will be returned. Corrected copies are to be resubmitted for review as per original submittal. If contractor requires additional copies for his distribution, he shall correct and mark those copies to match the Consultants marked copies at his own expense.

30 Submittals for all major items of mechanical, plumbing and electrical equipment and materials shall be made within thirty (30) days after receipt of "Notice to Proceed." Submit all items at one time in a neat and orderly manner. Partial submittals will not be accepted. Refer to specific submittal requirements in related technical sections.

35 Equipment submittals shall be complete including space requirements, weight, electrical and mechanical requirements, performance data and supplemental information requested by the Consultant.

40 Where equipment submitted requires space other than that indicated, submit large scale drawings showing floor space and service clearances.

WHEN SUBMITTALS ARE REQUIRED AND NOT REQUIRED:

General: The submittals required by the Specifications are those which the Consultant will review. The Contractor may, at the Contractor's discretion, require additional submittals from subcontractors and suppliers as may be necessary to construct the project.

Product Data Not Required: If the Contractor is furnishing the specified item, unless specifically requested.

Product Data Required: If specifically requested by the Project Manual, or, if the product being furnished is:

- 1) By another "Acceptable Manufacturer" listed in the Specification; or,
- 2) A Prior Approval Substitution; or,
- 3) Other approved substitution.

Shop Drawings Not Required: If the Contractor is furnishing the specified item which is of "standard manufacture" and not "custom fabricated" for the particular project, unless specifically requested.

Shop Drawings Required: If specifically requested by the Project Manual, or, if the product being furnished is:

- 1) "Custom fabricated" for the Project; or,
- 2) By another "Acceptable Manufacturer" listed in the Specification; or,
- 3) A Prior Approval Substitution; or,
- 4) Other approved substitution.

Samples Not Required: If the Contractor is furnishing the specified item which is of "standard manufacture" for which color, texture or other aesthetic required is included in the specification. If current product color samples are on file in Consultant's office, submittals for color selection are not required. Contractor shall verify if these samples are on file and if they are current samples.

Samples Required: If specifically requested by the Project Manual, or, if the product being furnished is:

- 1) "Custom fabricated" for the project; or,
- 2) Field finished; or,
- 3) By another "Acceptable Manufacturer" listed in the specification; or,
- 4) A prior approval substitution; or,
- 5) Other approved substitution; or,
- 6) Pattern, color or texture selection is to be made and current sample is not on file in Consultant's office.

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULES

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The work under this Section shall consist of furnishing a computerized Time Scaled Critical Path Method (CPM) Construction Schedule showing in detail how the Contractor plans to execute and coordinate the work. The Contract Schedule shall be based on and incorporate the Contract Milestones and Completion Dates specified in the Owner-Contract Agreement and shall show the order in which Contractor shall perform the work, projected dates for the start and completion of separate portions of the work, and any other information concerning Contractor's work scheduling as the Owner may request.

10

This construction Schedule shall be the basis for evaluating job progress, payment requests and time extension requests. The responsibility for developing the construction schedule, updating and monitoring actual progress as compared to the schedule rests with the Contractor. Contractor's suppliers and subcontractors shall provide the necessary information about their own activities to the Contractor.

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PART 1 - GENERAL DEFINITIONS AND REQUIREMENTS

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A. PRELIMINARY CONTRACT SCHEDULE

Definition: A draft Preliminary Contract Schedule providing details of the mobilization plan, sequence of early operations, procurement of materials and equipment through the first sixty calendar days of the Work, along with a draft plan of the general sequence and major divisions for the balance of the Work through Substantial Completion.

25

The Preliminary Contract Schedule shall be submitted within thirty calendar days after Notice to Proceed. For work performed as a Construction Manager at Risk (CMAR) in a Guaranteed Maximum Price (GMP) proposal, the Preliminary Contract Schedule is required to be submitted as part of the Contractor's GMP proposal package. The final Contract Schedule shall be submitted within 60 Days of Notice to Proceed.

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B. CONTRACT SCHEDULE

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1. Definition: The schedule submitted by Contractor representing the work plan in CPM for accomplishing the Work, showing the order in which the Contractor proposes to carry on the Work, the dates on which he will start the Work Activities, the contemplated days required for completing the same and the logical interrelationship between the Work Activities. The Contract Schedule must represent a feasible, reasonable plan for the sequence and duration of the Work, and once reviewed, be used to schedule the Work. Once the submitted Contract Schedule is reviewed by the Architect and Owner, it shall be the base line schedule document that forms the basis of all measurements of Contract Time in the Contract Documents.

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2. Related definitions:

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a. Work Activity: Any individual task of work shown on a submitted schedule which requires time and resources (manpower, equipment, materials, etc.) to be completed in a continuous operation.

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1. Work Activities shall be discrete items of Work that must be accomplished under the Contract and constitute definable, recognizable entities within the Project. All Work Activities shall have defined duration. All durations shall be in multiples of calendar days.

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2. All Work Activities shall have appropriate durations allowing measurement of their progress. In general, if a reasonable estimate of progress against a proposed Work Activity cannot be reasonably measured, a Work Activity shall be broken into multiple Work Activities such that monitoring of actual progress versus planned progress can be ascertained. All Work Activities shall be of sufficient detail to provide identification of all components utilized in executing, monitoring and evaluating progress of the Work.
 3. Work Activities shall have duration of fourteen calendar days or less with the exception of fabrication and delivery. Activities over larger work areas or time periods shall be broken down in reasonable, logical or practical smaller sub-areas or groups to meet the fourteen calendar day maximum duration.
 4. The Owner may approve use of longer Work Activity durations on non-construction activities, including the procurement and fabrication of materials and equipment, and review period for submittals.
 5. Work Activities shall include all Work and related work provided by the Owner, outside agencies and including outside utility company or college point-of connection installations and applications. In addition,
 6. Work Activities shall include all major submittals, shop drawings, and procurement of materials and equipment potentially impacting the critical path, fabrication of special materials and equipment and their installation and testing, and delivery of Owner-furnished items. Sufficient and reasonable time shall be provided to produce the submittals, Owner and Consultant reviews, resubmittal and additional reviews. Do not assume that submitted materials will be approved in their first review.
 7. Work Activities of the Owner shall include required delivery and installation dates, along with related Owner procurement and Owner submittals reviews, of "Owner-furnished, Contractor-installed" or "Owner-furnished and Owner-installed" equipment and materials, required work and connections (including required dates of meter installations and utility service availability) by public utilities and other similarly involved third parties associated with the Work that may become Critical Work Activities. The delivery date for Owner-furnished equipment shall be established in cooperation with the Owner and the material/equipment manufacturer and/or supplier.
 8. The Contract Schedule shall include Work Activities or Milestones for each Contract Phase and all contract close-out Work Activities such as Punch List, Final Completion milestone, Operation Manuals, Owner Training and Owner move-in.
- b. Constrained Work Activity: Shall be any earliest or latest start or finish date of a Work Activity or Milestone date that is manually set and not determined by a CPM forward or backward pass calculation. No work activities or milestones on the Contract Schedule, or any other submitted schedule shall utilize Constrained Work Activities, unless expressly identified by the Contractor and approved in writing by Owner.
 - c. Critical Work Activity: Work Activity which, if delayed, will delay the scheduled Substantial Completion of the Work (i.e. Work Activities which comprise the path of least total float). All other Work Activities are defined as non-critical and are considered to have float.
 - d. Milestone: An element on the schedule that reflects the planned single point in time for the start or finish of one or more Work Activities.

e. Float, Negative Float, and "Slack Time": The amount of time between the earliest finish date and the latest finish date of a chain of activities on the detailed construction network. Any such calculated float, which results in a "negative" number, is considered Negative Float and any submitted schedule showing negative float may be rejected by the Owner.

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1. The number of work days for adverse weather allowed under the Agreement's General Conditions shall be shown as a single critical path activity of float with proper duration immediately preceding the Substantial Completion milestone on the Critical Path. The duration of this float is reduced as adverse weather occurs and is properly documented.

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2. The Contractor's Construction Schedule shall begin with the issuance of Notice to Proceed and conclude with the Date of Final Completion of the Work. Float, or slack, time within the construction is not for the exclusive use or benefit of either the Owner or Contractor, but is a jointly owned, expiring project resource available to both parties as needed to meet Contract milestones and Contract complete dates. The Contractor acknowledges and agrees that delays affecting paths of activities containing float time will not have any affect upon Contract completion times, providing that the actual delay does not exceed the float time associated with those activities. Both Owner-created or Contractor-created time savings to Work Activities on or near the critical path will increase float. Such increase in float shall not be for the exclusive use or benefit of either Owner or Contractor.

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3. Contractor shall not sequester float through strategies including extending Work Activity duration estimates to consume available float, using preferential logic, using extensive or insufficient crew/resource loading, padding duration of construction activities, use of float suppression techniques, or special lead/lag logic constraints.

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4. Extensions of contract time for performance will be granted only to the extent that time adjustments for the activity or activities affected by any condition or event which entitles the Contractor to a time extension exceed the total float or slack along the path of activities affected at the time of Notice to Proceed of a Change Order, thus extending the Critical Path time for the Work.

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3. Schedule Creation

a. Within thirty days after Notice to Proceed Contract, furnish the Architect and Owner a draft of a Preliminary Contract Schedule. Prior to the Contractor's final drafting of the Contract Schedule, he shall review with the Owner and Architect a final rough draft to ensure that it is in an acceptable form and contains the required information.

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b. Any review by the Owner or Architect of the Contractor's detailed construction network and Schedule is advisory only and shall not relieve the Contractor of the responsibility for accomplishing the Work within each and every Contract-required Milestone and Completion Date. The Owner and Architect will review the draft Schedule and provide comments within ten work days of submittal by the Contractor, with a final Contract Schedule produced within an additional thirty work days.

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c. The following guidelines shall be followed in preparing the Schedule:

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1. The Schedule may not be modified other than as called for in this section.

2. Notice to Proceed, the Substantial Completion and Final Completion dates may not be changed except through a change order. Any intermediate milestone or completion dates listed in the Owner's specific date schedule may not be changed except by mutual agreement of the Owner, Contractor and any separate contractors in whose

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contract those dates appear. To the extent that a Contract requirements is not incorporated into the Schedule, it does not relieve the Contractor of their responsibility to adhere to the Contract requirements.

- 5 3. The Schedule shall be a time scale drawing indicating all significant activities with all items appearing on the breakdown for payment.
- 10 4. Normal holidays and other non-work periods over the duration of the contract shall be accounted for within the duration of each activity. All college holidays, start and ends of semester and summer sessions, and all exam periods shall be indicated as separate milestones or bars on the Contract Schedule.
- 15 5. Construction sequence dependencies between activities shall be indicated so that it may be established what affect the progress or delay of any one activity would have on the schedule.
- 20 6. Separate buildings and other independent project elements shall be individually shown in the network.
- 25 7. If the Owner has included specific constraints or sequences of Work embedded in the Contract Documents or Owner-Contractor Agreement, all such items shall be reflected in the schedule as they are called out in the Contract Documents, including specific operating constraints, logic or Work sequences, delivery windows, review times and/or interim milestone dates.
- 30 8. Activities or dates in the Schedule associated with Owner furnished materials or services shall not be modified without the Owner's written approval.

d. Activity Definition and Relationships

30 The detailed construction network shall indicate a late finish date for the Work that is no later than the Work's required completion date. All activity durations shall be given in **calendar days**. The network and/or computer report shall also indicate each of the following:

- 35 1. Description of activity including activity number/numbers
- 40 2. Estimated duration time for each activity
- 45 3. Early start date for each activity
- 50 4. Late start date for each activity
- 55 5. Early finish date for each activity
- 60 6. Late finish date for each activity
- 65 7. Float available for each path of activities containing float
- 70 8. Actual start date for each activity begun
- 75 9. Actual finish date for each activity completed
- 80 10. Visual identification of all critical path activities in the mathematical analysis.
- 85 11. The Critical Path for the project, with that path of activities being clearly and easily recognizable on the time-scaled network diagram. The relationship between all non-critical activities and activities on the critical path shall be clearly shown on the network diagram.

- 90 4 Review of the Contract Schedule will be a condition precedent to making any progress payment for Work performed. All Work Activities shall be of sufficient detail to provide identification of all

components utilized in executing, monitoring and evaluating progress of and payment for the Work.

- 5 5. The Contract Schedule shall be incorporated into all subcontractor and supplier pricing packages and agreements. Subcontractors also shall participate or provide input in the preparation of the original Contract Schedule and periodic updates.
- 10 6. The Owner shall receive electronic copies of all submitted schedules including the backup materials used to create the schedule, and all schedule updates. Back up materials shall contain a copy of the schedule in its native format/original software.

C. LOOK AHEAD SCHEDULE

- 15 1. Definition: A schedule based on the updated Progress Schedule which shows the current portion of the schedule, typically one week prior and two weeks ahead of the date that the schedule presented.
- 20 2. This schedule shall be presented and discussed at each construction meeting and may in any format acceptable to the project team and as appropriate for the Work. The schedule may be computer based or hand drawn, and may be either a bar chart, time scaled chart or portion of the Project Schedule that shows activities and which dates the work took place one week previous or is proposed to take place for two weeks in advance of the meeting.

D. AS-BUILT or RECORD SCHEDULE

- 25 1. Definition: A separate schedule document maintained by the Contractor that records the actual work activities, durations, and dependencies to all other work activities and shall reflect the actual as-built sequence and duration of the Work.
- 30 2. The As-Built schedule shall be updated on a weekly basis and submitted with the monthly Contract Schedule update and provided to the Owner at the completion of the Work.

E. TIME IMPACT ANALYSIS (“FRAGNET”) SCHEDULE

- 35 1. Definition: A schedule submitted each time a request is made by the Contractor for the adjustment in the Contract Time. The Contract Schedule shall be used by the Architect and Owner in review of requests by the Contractor for modification of the Contract Time in accordance with the Contract Documents.
- 40 2. At any time that the Contractor requests an extension of the Contract Time, in addition to other requirements in the Contract Documents, the Contractor shall submit a change order Fragnet Schedule. A condition precedent to obtaining a time extension under the Contract shall be timely submission of a Change Order Fragnet schedule.
- 45 3. The Change Order Fragnet Schedule shall be based on the applicable portion of the Contract Schedule, which is claimed to be impacted, that necessitates an extension of the Contract Time. All modifications to the Contract Schedule Work Activities, and their associated information (including duration, logic, manpower, etc.) shall be clearly identified, but the Contract Schedule information shall be left for clear comparison. The Change Order Fragnet Schedule shall have starting and ending Work Activities or Milestones from the Contract Schedule which are unchanged, (same logic constraints, duration, and resources) and shall clearly identify them.
- 50 4. Neither the Owner or the Architect shall have any obligation to consider any time extension request unless the requirements of the Contract Documents are complied with. The Owner shall not be responsible or liable to Contractor for any constructive acceleration due to failure of the Owner to grant time extensions under the Contract Documents should Contractor fail to substantially comply
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with the submission requirements and the justifications requirements of this Contract for time extension requests.

F. RECOVERY SCHEDULE

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1. Definition: A schedule produced by the Contractor if the Updated Progress Schedule forecasts that the Contractor will not finish the Work within the Contract Time or interim Milestones. Once the Recovery Schedule is reviewed and accepted by the Owner, it will be considered the Contract Schedule, and shall be the base line schedule document that forms the basis of all

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measurements of Contract Time.

2. If at any time the Owner or Architect determines that the progress of the Work, based on the Contract Schedule, would complete any critical interim Milestone dates or the Contract Time later than fourteen calendar days called for in the Contract Documents, the Contractor shall prepare and submit a Recovery Schedule within seven calendar days from notification from the Owner. The Recovery Schedule shall address a new work plan to accomplish the Work within the current Contract Time, and shall include and identify additional concurrent operations, logic and sequence changes, additional manpower, additional shifts, or overtime work.

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3. Once reviewed and approved by the Owner, the approved Recovery Schedule shall become the Contract Schedule.

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PART 2 - PRODUCTS

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None

PART 3 - EXECUTION

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A. An updated Schedule shall be submitted with each month's Pay Application showing actual progress and dates versus the originally planned Schedule.

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B. For all schedule submittals other than the Look Ahead Schedules (paper copy only), Contractor shall submit both paper copy and provide a electronic file copy in the original scheduling program software on CD clearly labeled as to submittal description and date, and containing an exact copy of paper submittal.

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C. All costs for preparing, printing, and distribution of any schedules called for by this section or the Contract Documents shall be part of the Contract Sum.

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D. Responsibility for developing the Contract Schedule and monitoring of actual progress in relation to the Contract Time rests solely with the Contractor. Failure of the Contractor to schedule any element of the Work, or any inaccuracy in the Contract Schedule, regardless whether the Owner has reviewed and approved such schedule, will not relieve Contractor from its obligation to complete the Work within the Contract Time. The Contractor warrants that the Contract Schedule is the Contractor's committed work plan to complete the Work within the Contract Time, and that the Contractor assumes full responsibility for the execution of the Work. The Owner's review of and response to schedule submissions shall not be construed as relieving the Contractor of its complete and exclusive control over the means, methods, sequences and techniques for execution of the Work.

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E. At any time the Owner or Architect determines that the Contractor is not currently following the approved Contract Schedule, within seven calendar days of notification by the Architect, the Contractor shall submit a new Preliminary Contract Schedule reflecting the Contractor's work plan for accomplishing the Work within the Contract Time.

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F. Network Revisions

5 1. After approval of the initial Detailed Construction Network, should the Contractor desire to change his plan of construction, he shall submit his requested revisions to the Owner along with a written statement of the revision(s) including a description of the logic for rescheduling the Work, methods of maintaining adherence to intermediate Milestones and Specific Dates, and the reasons for the revisions. The Contractor shall revise his schedule to include the effect of Changes, acts of God or other conditions or events which have affected the network. If the requested changes are acceptable to the Owner, they will be incorporated into the Detailed Construction Network in the next reporting period. Any change to the approved Detailed Construction Network must be approved in writing by the Owner.

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15 2. Neither the updating nor revision of Contractor's Detailed Construction Schedule nor the submission, updating changes or revisions of any report or schedule submitted to Owner by Contractor, nor the Owners review or lack of objection of any such report or schedule shall have the effect of amending or modifying, in any way, the Contract Time, any Contract Completion Date, or Contract Milestone Dates or of modifying or limiting in any way Contractor's obligations under this Contract.

20 G. Completion earlier than Contract Substantial Completion

25 If the original Contractor Schedule shows an early completion date, the Owner may write a no cost change order establishing the early date as the new Contract Completion Date. Whether or not a change order is issued, the Owner shall not be liable to the Contractor for any additional General Conditions or other costs or other damages should the Contractor be unable to complete the Work before the original Contract Milestone or Substantial Completion date unless a change order credit has been provided reducing the Cost of the Work by the early completed saved or avoided General Conditions costs.

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SECTION 01340

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

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SHOP DRAWINGS

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Preparation: Prepare each submittal complete including dimensions, design criteria, materials, connections, bases, foundations, anchors, and the like, and further including such technical and performance data as is necessary to confirm the information in the Shop Drawings. Prepare Shop Drawings of same size as the Drawings or an 8 1/2" by 11" 3-hole punched sheets suitable for photocopy reproduction. Copies of the Contract Drawings marked to show Shop Drawing information are not acceptable. Each Shop Drawing shall have an adequate title block giving: (1) Name and address of work; (2) Name and address of Contractor; (3) Name and address of each Subcontractor, manufacturer, or supplier, as applicable; (4) Name and address of the Consultant; (5) Date, scale of drawings, and identification number; and (6) Contractor's review and approval stamp, dated and signed.

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Initial and Resubmittals: Submit Shop Drawings in sets consisting of one (1) reproducible and three (3) prints. Submittals may be submitted, reviewed and returned electronically with the prior approval and process discussion with the Owner or Consultant.

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Multiple components of a single system or assembly: Where multiple submittals are inter-related, the Consultant may hold individual submittals until all related items are received, so that the entire related group is reviewed and processed in a coordinated manner.

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Review of Shop Drawings: Consultant will mark notations, corrections, exceptions, on submitted reproducibles for return to the Contractor. Contractor shall resubmit in the same manner if Shop Drawings are not accepted as submitted.

Final Distribution: Contractor shall furnish and distribute prints of the approved Shop Drawings as required for performance of the work.

SAMPLES

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Unless otherwise specified, each Sample submittal shall include not less than six (6) complete sets of Samples. One set of approved Samples and all disapproved Samples will be available for return to the contractor. Any Samples of value retained by the Consultant will be available for return to Contractor at completion of the work if Contractor's first transmittal for the Sample requests its return. Approval Samples returned to the Contractor may be installed in the work if location is recorded and Samples bear temporary identification as such.

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SIZES: Provide the following sample sizes unless otherwise specified:

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- a. Flat or sheet products: Minimum 6" square, maximum 12"x12".
- b. Linear products: Minimum 6" maximum, 12" long.
- c. Bulk products: Minimum one pint, maximum one gallon.

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PRODUCT DATA SUBMITTALS

These submittals shall include complete lists of materials, catalog data and brochures, performance and technical data including characteristics, service history, and similar information to fully describe the products covered by the submittal.

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Submittal Preparation: Bind each submittal copy with sturdy labeled cover and include typed index listing the contents. Loose unbound submittals will be returned without review. For each item listed, include the manufacturer's name and address, trade or brand name, all conditions of the manufacturer's guarantee and warranty, information to fully describe each item, and supplementary information as may be required for

approval. Mark cuts, brochures, and data to indicate the items proposed and intended use as required for transmittal.

Submittal Procedure: Unless otherwise specified, submittals shall consist of six bound copies; one copy will be returned to the Contractor marked to show required corrections or other actions. If corrections or changes are required, final submittal shall include four bound corrected or revised copies.

EQUIPMENT DATA SUBMITTALS

Equipment data submittals, including complete technical, performance, and catalog data, are required for every mechanical and electrical equipment item proposed for the work, each submittal bound, indexed, and containing information and data as specified "Product Data Submittals". Each submittal shall include information covering performance and operating curves, ratings, capacities, characteristics, power efficiency, each manufacturer's standard guarantees and warranties with the terms and conditions fully described, and all other information to fully illustrate and describe the items as may be specified or required for approval. Submit in sets which cover complete systems or functioning units. Unless otherwise specified or directed, submit equipment data as specified above under "Product Data Submittal Procedure". Where applicable, include the approved equipment data in and submit with the manuals specified in Section 01730.

WHEN SUBMITTALS ARE REQUIRED AND NOT REQUIRED:

General: The submittals required by the Specifications are those which the Consultant will review. The Contractor may, at the Contractor's discretion, require additional submittals from subcontractors and suppliers as may be necessary to construct the project.

Product Data Not Required: If the Contractor is furnishing the specified item, unless specifically requested.

Product Data Required: If specifically requested by the Project Manual, or, if the product being furnished is:

- 1) By another "Acceptable Manufacturer" listed in the Specification; or,
- 2) A Prior Approval Substitution; or,
- 3) Other approved substitution.

Shop Drawings Not Required: If the Contractor is furnishing the specified item which is of "standard manufacture" and not "custom fabricated" for the particular project, unless specifically requested.

Shop Drawings Required: If specifically requested by the Project Manual, or, if the product being furnished is:

- 1) "Custom fabricated" for the Project; or,
- 2) By another "Acceptable Manufacturer" listed in the Specification; or,
- 3) A Prior Approval Substitution; or,
- 4) Other approved substitution.

Samples Not Required: If the Contractor is furnishing the specified item which is of "standard manufacture" for which color, texture or other aesthetic required is included in the specification. If current product color samples are on file in Consultant's office, submittals for color selection are not required. Contractor shall verify if these samples are on file and if they are current samples.

Samples Required: If specifically requested by the Project Manual, or, if the product being furnished is:

- 1) "Custom fabricated" for the project; or,

- 2) Field finished; or,
- 3) By another "Acceptable Manufacturer" listed in the specification; or,
- 5 4) A prior approval substitution; or,
- 5) Other approved substitution; or,
- 10 6) Pattern, color or texture selection is to be made and current sample is not on file in Consultant's office.

MANUFACTURERS' DETAILED INSTRUCTIONS

15 For various materials specified by reference to standard or reference to type specifications, prepare and submit a list of such materials stating manufacturers' names and identifications to the extent requested by the Consultant or the Owner.

CERTIFICATES

20 Each certificate required by the Contract Documents shall be signed by an officer, agent, or individual lawfully authorized to execute the certificate and such authority shall be cited in the certificate by description, title, or other acceptable evidence. Certificates shall be sworn and notarized as to correctness and validity of the contents, and copies shall be notarized to be true copies.

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SECTION 01410

TESTING LABORATORY SERVICES

REQUIREMENTS INCLUDED

Inspection and testing as described below and required to establish compliance with Contract Document requirements, except as may be otherwise specified, shall be made by an independent professional testing agency or firm selected and paid by the Owner.

The cost of the initial services for testing and inspection described below will be paid by the Owner. If initial tests indicate non-compliance with Contract Document requirements, any subsequent testing shall be performed by the same inspection service and paid for by the Contractor. Schedule portions of the Work requiring testing and inspection services so that the time of the agency on the Work is as continuous and brief as possible.

RELATED REQUIREMENTS

Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders of approvals of public authorities.

Respective sections of Project Manual; certification of products.

QUALIFICATION OF LABORATORY

Meet "Recommended Requirements for Independent Laboratory Qualification", published by American Council of Independent Laboratories.

Meet basic requirements of ASTM E329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction."

Authorized to operate in the state in which the Project is located.

Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during the most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.

Testing Equipment: Calibrated at reasonable intervals by devices of accuracy traceable to either:

National Bureau of Standards
Accepted values of natural physical constants

LABORATORY DUTIES

Taking Specimens: Specimens and samples for testing, unless otherwise provided in the Contractor Documents, will be taken by the testing personnel. Sampling equipment and personnel will be provided by the testing laboratory. Deliveries of specimens and samples of the testing personnel. Sampling equipment and personnel will be provided by the testing laboratory. Deliveries of specimens and samples of the testing laboratory will be performed by the testing laboratory. When the testing laboratory is ready to test, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charge for testing attributable to the delay may be back-charged to the Contractor and shall not be borne by the Owner.

Test Reports: Reports shall include all tests made, regardless of whether such tests indicate that material is satisfactory. Samples taken but not tested shall also be reported. Reports shall state which requirements with which the material or materials were sampled and tested. Test reports shall show the indicated or

specified design strength(s) and state definitely whether or to the materials tested comply with the specification requirements.

Each report shall include:

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- Date issued.
- Project title and number.
- Testing laboratory name, address and telephone number
- Name and signature of laboratory inspector.
- 10 Date and time of sampling or inspection.
- Record of temperature and weather conditions.
- Date of test.
- Identification of product and Specification Section.
- Location of sample or test in the Project.
- 15 Type of inspection or test.
- Results of tests and compliance with Contract Documents.
- Interpretation of test results, when requested by Architect.

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Five (5) copies shall be issued to the Owner.

One copy shall be distributed to the Contractor at the job site.

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The inspection agency shall cooperate with the Contractor so as to cause no delay in the progress of the Work, but shall be directly responsible to the Owner for his actions. The inspection agency shall have no authority to direct the work of the Contractor.

Perform additional tests as required by Architect or the Owner.

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LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

Laboratory is not authorized to:

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- Release, revoke, alter or enlarge on requirements of Contract Documents.
- Approve or accept any portion of the work.
- Perform any duties of the Contractor.

CONTRACTOR'S RESPONSIBILITIES

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Cooperate with testing laboratory personnel, and provide access to the work to suppliers' or installers' operations.

Secure and deliver to Testing Laboratory adequate quantities of representative samples of materials proposed to be used and which require testing.

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Provide vendor certification that samples originate from and are representative of each lot proposed for use.

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Provide to Testing Laboratory preliminary design mix proposed to be used for concrete and other material mixes which require control by Testing Laboratory. Submit ticket for each batch and type of concrete delivered to jobsite. Ticket shall bear the following information.

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1. Design-mix number of contractor's concrete supplier.
2. Signature or initials of ready-mix technical representative.
3. Time of batching.
4. Weight of cement, aggregates, water, and admixtures in each batch with maximum aggregate size.
5. Total volume of concrete in each batch.

6. Indications that ingredients are as previously certified or approved for use in concrete.
7. Notation to indicate equipment was checked for contaminants prior to batching.

Furnish copies of product testing reports as required.

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Provide certification that materials meet requirements as specified.

Furnish incidental labor and facilities:

- 10 1. To provide access to work to be tested.
2. To obtain and handle samples, at project site or at source, on product to be tested.
3. To facilitate inspections and tests.
4. For storage and curing of test samples.

15 Notify Testing Laboratory not less than forty-eight (48) hours in advance of operations requiring tests and inspections, to allow for laboratory assignment of personnel and scheduling to tests.

20 When tests or inspections cannot be performed because of failure to provide adequate notice, or because of inability for tests or inspections to be performed due to Contractor's negligence, reimburse the Owner for Testing Laboratory personnel and travel expenses incurred.

Make arrangements with Testing Laboratory and pay for additional samples and tests made for Contractor's convenience, such as test of unidentified materials and welder qualification tests or retests.

25 Pay for additional tests or retests required because of unsatisfactory work.

When Contractor's methods of operation result in excessive test and inspection costs to the Owner, and if after a warning, costs remain excessive, Contractor shall defray costs attributable to his methods or operations.

30

Premium-time fees for testing performed after regular work hours or on Saturday, Sunday, or legal holidays, shall be paid by Contractor, except when such testing is required for the Owner-requested overtime work.

35 Completed work: Should the Owner require tests and inspections for work completed before final acceptance of entire work, furnish necessary facilities, labor and materials to uncover or remove work in question to extent necessary.

- 40 1. If work is found defective, Contractor shall pay for removal, tests, inspections, and satisfactory reconstruction. Time extensions may not be granted.
2. If work is found to conform with Contract Documents, reasonable time extension shall be granted. If inspection and testing was not required as part of Contract Documents, the Owner will reimburse costs for facilities, labor, and materials for removal and reconstruction.
- 45 3. All reimbursements to the owner will be handled in the form of a credit change order to the Contract.

50 Data: Furnish records, drawings, certificates, and similar data as may be required by the testing and inspection personnel to assure compliance with the Contract Documents.

Notification: Provide the Owner and Testing Laboratory with at least 48 hours advance notification of required testing.

55 Defective Work: Remove and replace any work found defective or not complying with Contract Document requirements at no additional cost to the Owner. Where testing personnel take cores or cut-outs to verify compliance, repair prior to acceptance.

- 5
1. Concrete: If test cylinders for concrete fail to meet design stresses, make core and load tests as may be directed by the Architect; make core tests in accordance with ASTM C42 and load tests in accordance with ACI 318. Correct all deficiencies found in forms, reinforcing steel and embedded items.
 2. Structural Steel: Should any weld or structural connection fail to meet design stresses, provide sonic or x-ray examination of all structural connections as directed by the Architect; replace or repair all defective connections as directed.
 - 10 3. Paving: Should cores indicate non-compliance, apply additional pass or lift of 2 asphalt at no additional cost to the Owner.

REQUIRED INSPECTIONS & TESTS:

15 The following are inspection services and tests required of the Inspection and Testing Agency <provided by the Owner. All other testing required by the Contract Documents shall be provided by the Contractor and be included in the Cost of the Work.

- 20
1. Sitework Inspections and Tests: Perform the following services as required to assure compliance with requirements of Division 2 of the technical specifications.
 2. Compaction and Bearing: Test and verify bearing capacity of all load-bearing earth, test compaction fills for compliance with required densities.
 - 25 3. Earthwork:
 - a. The Owner's Soils Engineers will inspect excavation when completed to depths and locations indicated.
 - 30 b. Sample and test fill material from source as required.
 - c. Continuously inspect and control site preparation, excavation, and placing and compacting of fill and backfill. Control will consist of tests and inspections deemed necessary to ensure compliance.
 - 35 d. Approve methods of compaction.
 - e. Density and moisture testing of trench backfill, field density tests of underslab fill and backfill.
 - 40 f. Issue final report on grading and certification of compliance.
 4. Asphalt Paving:
 - 45 a. Take cores through paving at locations selected by Architect upon completion of paving operations.
 - b. Smoothness tests
 - 50 5. Concrete Work Inspections and Tests: Perform the following services as required to assure compliance with requirements of Division 3 of the technical specifications.
 - 55 6. Cast-in-Place Concrete: Make slump tests for each batch delivered or at least one (1) test per hour during continuous pours in accordance with requirements of ASTM C143; check and verify batch consistency. Inspect forms and verify sizes and conditions. Inspect reinforcing and verify its proper placement. Furnish continuous inspection during placement, repair and patching operations, and curing of concrete. Make, cure, and test at least three (3) test cylinders of each strength of concrete for each one hundred fifty (150) cubic yards (144.68.3) placed or for each day's pour, whichever is greater. Report exact mix tested, minimum size aggregate, location of

pour in the Work, cylinder identification, date of receipt of cylinder in laboratory, slump data, cement brand and type, admixtures used, dates and records of test cylinders, names of inspectors and laboratory personnel, and evaluation or analysis of cause, in case of test failure, and recommendations for remedial action.

a. Cure specimens under laboratory conditions except when there is possibility of surrounding air temperature falling at project below 40F. In this case, additional specimens will be required to be cured under job conditions. For all tests unless otherwise directed, break one (1) cylinder at seven (7) days, two (2) at twenty-eight (28) days.

b. If seven (7) day tests appear to be marginal or fall below normal requirements, concrete shall be tested with an approved impact hammer. Should these readings verify low test cylinders, procedure of work beyond this point will be Contractor's responsibility under decision is reached as to removal of substandard concrete at each of twenty-eight (28) day period.

7. Cast-in-Place Concrete Floor Slabs:

a. Test floor flatness to verify compliance with specified requirements.

b. Calcium chloride moisture testing to verify compliance with specified requirements.

8. Masonry Work Inspections and Tests: Perform the following services as required to assure compliance with requirements of Division 4 of the technical specifications. Provide water penetration and leakage testing and prism testing.

9. Reinforced Masonry: Furnish inspection during placement of reinforcements,

10. Reinforced Masonry: Furnish inspection during placement of reinforcements, anchorages and grouting; other duties and responsibilities as may be noted on drawings or as specified. Make field strength test specimens of both mortar and grout materials, prior to start of masonry wall area work installed thereafter. Test specimens shall be made, cured and tested as specified in the technical sections. If test results fall below indicated required design strength, portion of structure in question is subject to further testing at Contractor's expense.

11. Metal Work Inspection and Tests: Perform the following services as required to assure compliance with requirements of Division 5 of the technical specifications.

12. Structural Steel Fabrication: Furnish visual inspection of all shop fabricated parts including joists and joist girders. This inspection may be done in shop or in field after delivery. Furnish inspection and testing of shop welds in accordance with requirements for welding specification hereinafter. Check shapes, sizes, classes, and types of steel. Verify conformance of structural steel materials with requirements of Contract Documents.

13. Structural Steel Field Inspection and Tests: Check location and fit of all anchorage and inserts. Verify adjustments to fit inaccuracies. Furnish visual inspection of erection of all structural steel components of the Work. Furnish inspection and testing of all field welding in accordance with requirements for welding specified hereinafter. Inspect and test all bolted connections in accordance with requirements for bolting specified hereinafter. Inspect and verify plumbness and tolerances of structural frame for compliance with AISC Code of Standard Practice and with requirements of the Contract Documents; of the duties and responsibilities as may be noted on drawings.

14. Welding Requirements: Furnish visual inspection of all field fillet welding. Furnish inspection of fillet welds in accordance with requirements of AWS D1.1 (Rev.1); allow for inspection of a minimum of fifteen percent (15%) of fillet welds by magnetic particle or dry penetrant methods.

15. Load-Bearing Metal Stud System: Steel framing properties, when required.

16. Bolting Requirements: Furnish visual inspection of structural joints where ASTM A307 bolts are used; verify that applicable requirements of AISC specifications are met.

17. Reinforcement: Reinforcement Inspection and Tests. Testing Laboratory will:

- a. Collect and identify reinforcing steel by heat numbers and certified mill test reports for each delivery made to the job site.
- b. If reinforcing steel cannot be identified, collect samples and test for tensile and bending strength for each size and grade in accordance with sub-paragraph 2.b.
- c. Inspect placement of reinforcing for conformance with approved construction documents and shop drawings.
- d. Provide inspection for field welding, including prior fit-up welding equipment weld quality, and procedure and welder certification in accordance with UBC Standard 26-8.

18. Roofing: Check deck surfaces prior to application of roofing materials and verify that substrate is in satisfactory condition to receive roofing. Furnish continuous inspection during application of roofing, including application of vapor barriers, sheet metal flashings, counter-flashings and reglets for satisfactory and waterproof installation. Test roofing materials for application rates, densities and thicknesses.

Testing Laboratory will take samples from bundles at fabricator's plant as required:

- a. When bundles are identified by heat number and accompanied by certified mill test reports, no testing is required.
- b. When bundles are not identified by heat number and not accompanied by certified mill test reports, testing is required no less than every three (3) tons for each size and each grade.
- c. Thermal and moisture protection work testing and inspection: Perform the following services as required to assure compliance with requirements of Division 7 of the specifications.

Roofing: Check deck surfaces prior to application of roofing materials and verify that substrate is in satisfactory condition to receive roofing. Furnish continuous inspection during application of roofing, including application of vapor barriers, sheet metal flashings, counterflashings and reglets for satisfactory and waterproof installation.

END OF SECTION

SECTION 01430

MOCK-UPS

5 REQUIREMENTS INCLUDED

Mock-ups and field assemblies as required by Contract Documents to allow review of appearance, quality of workmanship, coordination, compatibility, and relationships with other materials.

10 Special plumbing chase mock-ups, complete with piping, ductwork, and electrical components incorporated to establish coordination and relationships of materials.

RELATED REQUIREMENTS

15 Section 01300: Submittals.

Individual Specifications Sections: Mock-ups and field samples for specific materials and systems are specified in applicable sections.

20 DESCRIPTION

Maintain quality control over supervision, subcontractors, suppliers, manufacturers, products, services, workmanship, and site conditions, to produce mock-ups and field samples in accordance with Contract Documents.

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WORKMANSHIP

Comply with standards specified in Contract Documents.

30 Provide qualified personnel to produce mock-up of specified quality.

Secure mock-ups in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

Provide finishes to match approved samples.

35

MOCK-UPS

Standard Mock-ups: Install full-scale mock-up and field assemblies at Project site at approved location where required in individual Specifications sections.

40

Assemble and erect complete, with specified attachment and anchorage devices, flashings, seals and finishes.

Acceptable mock-ups in place may be retained in completed work.

45

Remove unacceptable mock-ups.

Clear area when mock-up is complete and approved; mock-up shall remain in place until sufficient acceptable work is completed, except where otherwise specified.

50

END OF SECTION

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SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

5

WORK SPECIFIED HEREIN:

10 Provide all labor, material, equipment, and services necessary to furnish, erect and maintain temporary facilities and controls and perform temporary work required in the performance of the Contract, including those indicated and specified. All utility and services described here and used by the Owner shall remain in service until Final Completion is obtained by the Contractor.

GENERAL REQUIREMENTS:

15 All temporary facilities specified hereafter shall comply with the requirements of the Occupational Safety and Health Act and all regulations, ordinances, laws and other requirements of any City, Municipality, County, State, Federal or other authorities having jurisdiction over the area in which the Project is constructed.

20 Where the minimum requirements specified hereafter are exceeded by the requirements of the governing authority, those requirements of the governing authority shall be binding.

The Owner will identify construction and storage areas allocated to the Contractor for the work.

25 **Unless otherwise modified below, "Provide" shall mean make all arrangements for, furnish, install, maintain, remove at the completion of the Work, and pay all associated costs, including temporary meters, utility protection (including backflow devices, electrical circuit breakers, etc.) devices, wiring, piping, valves or required elements to create fully functioning temporary systems, in compliance with applicable codes or ordinances, used to support the construction of the Work.**

TEMPORARY ENCLOSURES:

30 Provide all storage enclosures required for his operations. Limit storage of materials to areas indicated or agreed to by the Owner. All temporary storage areas shall be enclosed by a temporary fence at least six feet tall.

35

CONTRACTOR'S FIELD OFFICE TRAILER:

40 Provide a field office building adequate in size for all the Contractor's offices, files, and his job sites meetings.

STORAGE SHEDS:

45 Provide adequate storage space for his and his subcontractors' materials throughout the duration of the project, either in temporary facilities or in designated lockable space in the building itself. Storage facilities shall be secure, lockable and weather tight.

TOILET FACILITIES:

50 Provide adequate toilet and hand washing facilities for the use of all workmen employed on the Project, located where directed, and enforce their use by all personnel on the Project. Existing toilets shall not be used.

UTILITIES:

55 Temporary Telephone Service: Provide telephone service for the use of the Contractor, subcontractors, architect/engineers and trades employed on the work. The Contractor shall be responsible for the collection and payment of all charges in connection with toll and long distance calls.

5 Temporary Water: Provide all water required in the performance of the Contract. Provide and regularly test an approved backflow device at all connections to main water supplies. The Contractor shall provide all mains, laterals, branch lines and service piping and fittings to supply temporary water in sufficient quantity at required locations of the buildings. Temporary connections and piping shall be removed and all openings closed in a manner acceptable to the Owner at the end of the work.

10 Temporary Electrical Service: Provide all power required in the performance of the Work. The Contractor shall provide all temporary poles and overhead construction, transformers, meters, drops and other wiring and fittings for both light and power at locations required in the work and shall bear the cost of making the service connections. Temporary electrical service facilities installed by the Contractor shall remain at end of contract. Include copies of paid receipts for electrical service with Project Closeout Package.

15 Provide adequate lighting and convenience outlets in the temporary structures and elsewhere as may be necessary for proper performance and inspection of the work. If operations are carried on during hours of darkness, adequate floodlights, clusters and spot illumination shall be furnished and maintained during all hours that natural illumination is deemed by the Architect as being insufficient for the work being performed.

20 Temporary Heat: When required for proper installation or protection of any portion of the work, the Contractor shall provide approved temporary heating units; operate and maintain same; and remove them or relocate them as directed.

25 Drinking Water: Provide adequate cool, pure drinking water with individual drinking cups for the use of employees on the Project. The quality of the drinking water shall meet the standards for public water supplies specified in the County Health Department Sanitary Code.

TEMPORARY CONSTRUCTION EQUIPMENT AND PROTECTION:

30 Provide and maintain all fences, barricades, lights, shoring and other protective structures or devices necessary for the safety of workmen, equipment, the public and property as required by State or Municipal laws and regulations, and local ordinances. These shall conform to all regulations, ordinances, laws and other requirements of the City, State, Federal and other authorities having jurisdiction with regard to safety precautions, operation and fire hazards.

35 Temporary Fence and Barriers:

Provide a minimum six foot (6') high chain link fence and access gates around the construction sites, including opaque wind screen material at all fencing and gates.

40 Provide all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the Work shall be compliance with all pertinent safety and other regulations.

45 Protect existing structures, paving/paving surface, landscape, underground utilities, etc., as noted on the drawings and as may be otherwise located by the Contractor. Prior to substantial completion return any damaged conditions to the original conditions.

50 Provide all scaffold, staging, trestles, and planking necessary for the work in strict conformity with applicable laws and ordinances, and Occupational Safety and Health Act (OSHA), and maintenance of same so as not to interfere with or obstruct the work of other trades.

Provide pumping facilities, including power, for keeping the site, excavations and structure free from accumulations of water at all times, whether from underground seepage, rainfall, drainage or broken lines.

55 Provide provisions for closing and locking the Project at such time as possible to do so.

Protect the interior of the building by closing all openings with suitable materials when weather or job conditions require.

Temporary Use of Building Elevators: <<N/A>>

5

Protection for Work in Place: Work in place that is subject to injury because of operations being carried on adjacent thereto shall be covered, boarded up or substantially enclosed with adequate protection. Permanent openings used as thoroughfares for the introduction of work and materials to the structure shall have heads, jambs, and sills well blocked and boarded. All forms of protection shall be constructed in a manner such that, upon completion, the entire work will be delivered to the Owner in proper, whole and unblemished condition.

10

Provide adequate fire extinguishers on the premises during the course of construction, of the type and sizes recommended by the American Insurance Association to control fires resulting from the particular work being performed. Instruct employees in their use. Place extinguishers in the immediate vicinity of the work being performed, ready for instant use. In the use of especially hazardous types of equipment, such as acetylene torches, welding equipment, tar pots, kettles, salamanders, etc., no work shall be commenced or equipment used unless fire extinguishers of an approved type and capacity are placed in the working area and available for immediate use by the workmen using the above mentioned equipment.

15

20

SPECIAL CONTROLS:

Contractor shall take necessary precautions to minimize the dust, dirt, noise or odors arising from his operations by wetting the area or by other suitable methods as approved. Permits shall be obtained where required by local governing authorities.

25

The Owner's on-going operations shall not be disturbed by noise, vibration, odor, material staging, etc. All movement of new materials or waste/demolition materials through non-project areas shall occur prior to 7:30am. Dust, dirt or debris in areas outside of the project area shall be cleaned and vacuumed at the end of each work day. All material storage, etc. shall be limited to within the project area.

30

Contractor shall take reasonable precautions to minimize debris which could be carried by wind on the site or to adjoining property.

35

Contractor shall exercise maximum noise control efforts to minimize the nuisance of construction noise. Dependent on Owner operating requirement use of noisy equipment may be restricted.

ACCESS & TRAFFIC REGULATION:

40

Access shall be limited to the work, staging, delivery, and parking areas which have been approved by Owner.

Whenever the Contractor's activity affects college/public vehicular or pedestrian traffic the Contractor shall provide any and all traffic barriers, signals, separators, etc., necessary for the safety of the public. Maintain access for fire protection of buildings at all times.

45

50 END OF SECTION

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SECTION 01570

ACCESS and TRAFFIC LIMITATIONS

5 The Contractor shall have access to the work area seven (7) days per week from 5:00 AM to 10:00 PM. In
areas of the remodeling, access through non-project areas may be limited to early mornings, late
afternoons, or other off-hours as agreed to by the Owner. The Owner's on-going operations and use of
adjacent areas outside of the project area shall not be disturbed by noise, vibration, odor, material staging,
etc. Impact tools, core drilling, etc., and all other operations which introduce noise and vibration into the
10 floor slab and structure shall be accomplished only in off hours (evenings after 9:30 p.m., or Friday-
Sunday). All movement of new materials or waste/demolition materials through non-project areas shall
occur prior to 7:30 A.M. or after 2:30 P.M. Dust, dirt or debris in areas outside of the project area shall be
cleaned and vacuumed at the end of each work day. All material storage, etc. shall be limited to within the
project area. Utility shutdowns which may impact non-project areas shall be scheduled to off-hours as well.
15 Overtime for this work shall be included in the Contractor's bid.

Prior to beginning any remodeling work, the Contractor, in the presence of and with the cooperation of
District personnel, shall operate and inspect all building systems, including fire alarm, and observe
building finishes, within and immediately adjacent to the area of the project. This review will ascertain the
20 condition of and any operations problems with these systems, or existing damage to finishes, prior to
work beginning. A written list of any deficiencies or problems shall be produced by the Contractor and
acknowledged by the District. At the completion of the work, any problems or damage to the systems or
facilities will be assumed to be the result of the Contractor's work and must be corrected at the
Contractor's cost prior to final payment. Proceeding with the work indicates acceptance of the systems
25 and conditions and waives any future claim to the contrary.

Ductwork and other routes of air return shall be partitioned or closed off to avoid the spread of fumes,
odors or dust to other areas of the building. Fire alarm systems serving the project areas shall be
bypassed, and have dust covers placed on smoke and fire detectors, to allow the system in the balance
30 of the building to continue in operation during the construction work.

Access shall be limited to the work, staging, delivery, and parking areas indicated on the drawings or
designated by the Owner. Whenever the Contractor's activity affects college/public vehicular or pedestrian
traffic the Contractor shall install and maintain any and all traffic barriers, signals, separators, etc.,
35 necessary for the safety of the public. Maintain access for fire protection of buildings at all times.

The Contractor shall schedule and plan his work to allow the uninterrupted and safe use of the facilities by
the Owner during normal college operating hours of 7:00 AM to 9:00 PM, Monday through Saturday, from
mid-August to mid-May. The College is closed on Fridays from mid-May to mid- August and the Contractor
40 will be able to do any type of activity during that time.

END OF SECTION

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SECTION 01580

PROJECT IDENTIFICATION

5 Provide <one (1) <two (2) 32 square foot Project identification signs of wood frame and exterior grade plywood construction, painted, with exhibit lettering by professional sign painter or exterior rated vinyl cut or similar lettering, to Owner's design colors as indicated on Drawings.

- 10 1. Confer with Owner for confirmation of names prior to lettering signs.
2. Ground Clearance: Four (4) feet.
- 15 3. Materials: 3/4" Duraply or exterior grade plywood panel with properly sized support members of treated wood, installed to depth of 4 feet below grade.
Stringers: 2 x 2 stringers of dense #1 Douglas fir, located behind top, bottom, and center of sign panel.
- 20 4. Seal: Maricopa College logo. Obtain current logo from owner.
- 25 5. Paint: Sign panel and structural members shall be painted on all sides and edges with two coats of exterior type alkyd paint over suitable primer and professionally lettered, silk screened or other acceptable technology.
6. Typefaces: Helvetica Medium. Font sizes shall provide adequate readability for both distance away of the reader and taking into consideration vehicle traffic along the sign's street frontage traveling at the posted MPH speed
7. Project photo or rendering attached to each sign, as provided by the design firm.

30 Erect one (1) sign at street front site at location established by Owner. Position parallel with street and locate in area which will not interfere with construction activities.

Signs: Remain on site until the buildings permanent exterior signing is installed, or as otherwise directed by the Owner.

35 No other signs shall be permitted.

Signs shall include the following:

1. Name of Project.
2. Name of the District.
- 40 3. Names and positions of the seven Governing Board members of Maricopa Community Colleges.
4. Name of the College President and title/position.
5. Name of architect and consulting engineers.
6. Name of contractor and his license number.
7. Message: "The Maricopa County Community College District thanks you for your support."
- 45 8. A painted bar gauge which will indicate percent completion of the work. Gauge shall be updated each month of the Project to indicate actual completion percentage.

Include all proper titles (Dr. etc.) for all names.

50 The project sign must be erected within thirty (30) calendar days after Notice of Award of this contract. Provide submittal for sign appearance for Owner approval prior to fabrication.

55 END OF SECTION

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SECTION 01600

MATERIAL AND EQUIPMENT

5 WORK SPECIFIED HEREIN:

This Section outlines the requirements for delivery and storage of materials for the Project work.

10 PROCUREMENT:

The Contractor, immediately upon Award of the Contract (or where shop drawings, samples, etc., are required, immediately upon receipt of approval thereof), shall place orders for all materials, work, fabrication and/or equipment to be employed by him in that portion of the work contracted for. Contractor is responsible for timely and coordinated procurement of materials required for completion of the Work. Execute purchase orders and subcontracts in proper sequence for efficient installation and in accordance with dates required by the Progress Schedule. No extensions of time or substitutions of material will be allowed because of ill-timed procurement procedures, unless approved in writing.

20 TRANSPORTATION & HANDLING:

Shipping: Provide undamaged products, materials, and equipment; pack and crate all items while transporting to the site and during shipment from the plant of manufacture to the site; no damaged, scratched, bent, dented, chipped, marred, defaced, or discolored items will be accepted. Protect all items from adverse environmental conditions which might detrimentally affect their performance, quality, or intended purpose in the Work. Special protection requirements are specified in the appropriate technical specification. The Contractor will monitor and expedite the shipment of Owner prepurchased equipment based on initial information provided by the Owner.

Delivery: Deliver proprietary materials in original containers or packages with manufacturer's name and brand label or identifying quality marks thereon. Do not open containers or remove labels until ready for installation.

Deliver fabrications in as large assemblies as practicable, and where specified to be shop primed or shop finished, they shall be packaged or crated as required to preserve such priming or finish intact and free from abrasion.

STORAGE & PROTECTION:

Storage: Provide weatherproof, secure storage for all material and equipment until installation in the Work; do not mark in manner which will remain visible after installation or which will affect performance or after installation or which will affect performance or appearance of the product. Organize and arrange storage of products to furnish accessibility for inspection and for efficient and timely installation sequence. The Contractor shall inspect for damage, receive, unload and place into proper and secure storage all equipment and materials prepurchased by the Owner.

Store material at locations approved by the Owner so as to cause no obstructions, stored off sidewalks, roadways and underground services. The Contractor shall be responsible for protecting all material and equipment furnished under the Contract.

When any room in the project is used as a shop or store room, the Contractor shall be responsible for any repairs, patching or cleaning necessary due to such use. Location of such storage space shall be subject to approval of the Consultant.

Protection: The Contractor is responsible for the protection of all materials, products, and equipment from harm, including those items prepurchased by the Owner. Protection requirements specified herein set standards for the protection of all materials and products to be incorporated in the Work and are to be

applied where appropriate to the material, product, or piece of equipment. Store, support, stack, separate, cover, keep dry and warm, ventilate; protect from contamination and intrusion of foreign matter, from deterioration, deformation, defacement, discoloration, and damage of any kind.

5 Additional requirements for storage and protection of materials and equipment are identified under the individual Specification Sections. All materials are to be stored at the job site.

REFERENCE OR MANUFACTURER'S STANDARDS AND "INDUSTRY PRACTICE":

10 Nationally and regionally recognized Reference Standards are used throughout this Project Manual as requirements for materials and workmanship.

Reference Standards are incorporated into the Project Manual by reference to number, title or other designation in the Specification Sections. Provisions of Standards so referenced become a part of the Project Manual as though included in their entirety.

15 The date of the Standard shall be that which is in effect as of the Bid date, or date of Owner-Contractor Agreement when there are not Bids.

20 The requirements of the Contract take precedence over requirements of Reference Standards, Manufacturer's Standards, or local "Industry Practice", when the contract documents call for more stringent or greater requirements. No provision of Reference Standard specifications, manuals or codes, or manufacturer acceptance of work not meeting contract documents or his own standards, shall be effective to change the duties and responsibilities of the Contractor or Consultant, or any of their agents, consultants, 25 or employees from those set forth in the Contract Documents.

Clarification is to be received from the Consultant prior to material purchase, fabrication or installation when Referenced Standards conflict with information specified or indicated on Drawings. When there is a conflict or discrepancy between a Standard and the Contract Documents or with another Referenced Standard, the more stringent requirements shall apply.

30

UNDERWRITERS' LABORATORIES AND FACTORY MUTUAL LABEL:

Where applicable, all such materials and equipment for which Underwriters' Laboratories, Inc., and Factory Mutual standards have been established and their label services available shall bear the appropriate U.L. or FM label.

35

SUBSTITUTIONS:

40 During bidding the Project Manager and the Consultant will consider written requests for substitutions, received at least eight (8) days prior to bid date; requests received after that time will not be considered. Requests for substitutions shall be made only in writing.

45 In connection with the use of any substitute item accepted by the Consultant, it shall be the Contractor's responsibility to see that such items meet all space requirements, and that any alterations to connecting items necessitated by use of the alternate items are properly made, at no increase in cost to the Owner.

In making request for substitution, Bidder/Contractor represents that:

- 50
1. He has investigated the proposed product or method and determined that it is equal or better in all respects to that specified and that it fully complies with all requirements of the Contractor Documents.
 2. He will meet all contract obligations with regards to this substitution.
 - 55 3. He will coordinate installation of accepted substitutions into the work, making all such changes and any required schedule adjustments, at no additional cost to the Owner, as may be required for the work to be completed in all respects.

- 5
4. He waives all claims for additional costs and additional time related to substitutions which consequently become apparent. He also agrees to hold the Owner harmless from claims for extra costs and time incurred by other subcontractors and suppliers, or additional services which may have to be performed by the Design Consultant, for changes or extra work that may, at some time or date, be determined to be necessary in order for the Work to function in the manner intended in the Contract Documents.
- 10
5. He will provide the same warranty and guarantee, and perform any work required in accordance therewith, for the substitution that is applicable to the specified item for which the substitution is requested.
- 15
6. Material will be installed, handled, stored, adjusted, tested, and operated in accordance with the manufacturers' recommendation and as specified.
- 20
7. In all cases new materials shall be used unless this provision is waived by notice from the Owner, or the Consultant, or unless otherwise specified in the Contract Documents.
8. All material and workmanship shall in every respect be in accordance with that in the opinion of the Owner, or design Consultant is in conformity with approved modern practice.
9. Contractor is to provide a statement as to the advantages to the Owner if a substitution is permitted.

25

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SECTION 01700

PROJECT CLOSEOUT

5

WORK SPECIFIED HEREIN:

10

This section outlines requirements and procedures for submittal of pertinent data relating to closing out the Project upon completion of the Project Work; receipt and approval of all items specified in this Section is a prerequisite for Final Payment. Detailed instructions elsewhere in these Specifications may require that certain items listed herein be submitted prior to Substantial Completion of the Project.

EVIDENCE OF PAYMENT AND RELEASE OF LIENS:

15

The Contractor shall submit to the Owner's Representative the following:

20

1. Contractor's Affidavit of Payment of Debt and Claims (AIA Document G706, or similar form approved by the Project Manager and Owner).
2. Contractor's Affidavit of Release of Liens (AIA Document G706A or similar form approved by the Project Manager and Owner including the following:
 - a. Consent of Contractor's Surety to Final Payment (AIA Documents G707 or similar form approved by the Project Manager and Owner).
 - b. Contractor's Release or Waiver of Liens.
 - c. Separate releases or Waivers of Lien for each Subcontractor, supplier, and others with lien rights against Owner's property, together with list of those parties.

25

30

Duly sign and execute all submittals, before delivery to the Owner's Construction Administrator.

CONTRACTOR'S CLOSEOUT SUBMITTALS TO OWNER:

35

Submit the following as specified herein and as per the various Sections of the specifications.

40

1. **Project Record Documents.** Provide

- one paper set of updated/posted As-Built documents including posting of all applicable RFI's, ASI's and PR's that are referenced on the drawings (per description below)
- two CD/ROMs and one thumb/jump drive of including
 - posted/updated As-Built drawings including all applicable RFI's, ASI's and PR's that are referenced on the drawings, in .pdf format (per description below). The architect will provide their .dwg files in a separate close out submittal to the Owner.
 - updated site utilities plan (per description below)
 - architectural finishes schedule (per description below)
 - all final accepted record shop drawings and submittals
 - a complete set of all RFI's/ASI's/AUA's/PR's
 - copy of the Specifications (can be scanned or from the architect's original issued files)
 - copy of all M&O manuals and other close out information
 - copy of Certificate of Occupancy

45

50

55

2. **Extra materials.** Provide signed receipts for all extra materials or other items called out in sections of the Specifications to be turned over to the Owner. Unless a receipt is provided, another set of materials or items shall be provided.

3. **Finishes List.** Provide a complete list of all finishes used on this project including material, brand name, model/color/line/serial number, etc.
4. **Building Official's Certificate of Occupancy** (MUST BE RECEIVED IN TIME TO ALLOW OCCUPANCY ON DATE REQUIRED IN CONTRACT DOCUMENTS.)

FINAL ADJUSTMENT OF ACCOUNTS:

Submit final statement of accounting to the Architect, including the following:

1. Original Contract Sum.
2. Additions and deduction resulting from:
 - a. Previous Change Orders.
 - b. Deductions for uncompleted Work (if any).
 - c. Deductions for Liquidated Damages (if any).
 - d. Deductions for Re-inspection Payments (if any).
 - e. Adjustment of allowances (if any).
 - f. Return of unused Contractor construction phase contingency
3. Total Contract Sum, as adjusted.
4. Previous Payments.
5. Sum remaining due.

The Architect will prepare and issue a final Change Order reflecting approved adjustments to Contract Sum not previously made by Change Orders, if necessary.

Final Accounting of Small Business Concern (SBC) Expenditures

Provide a final accounting and record of the total amount of payments made to each SBC subcontractor and major supplier used for the Project. If the Contractor is an SBC, list both the total contract amount and the value of any self-performed work, general conditions and fee. Submit this report to the Owner within 30 days of Final Payment being received by the Contractor.

FINAL APPLICATION FOR PAYMENT:

Follow procedures specified in the General Conditions.

GENERAL

Maintain at the job site at least one copy of:

1. Contract Drawings
2. Specifications
3. Addenda
4. Submittals with Architect's stamp
5. Change Orders
6. Requests for Design Clarification/Variance
7. Requests for Proposal
8. Other Modifications to Contract
9. Field Test Records
10. Complete set of Contractor Daily Field Reports

Maintain documents in clean, dry, legible condition and do not use record documents for construction purposes. Make documents available at all times for inspection by Owner's Construction Administrator, Architect and Owner.

RECORDING AS-BUILT DRAWINGS

5 1. The Owner will furnish the Contractor one (1) complete set of new prints of the drawings at the beginning of the Work. The Contractor and/or Sub-contractor under his direction shall record each and every change from the Contract Documents at the time it is made. This includes any changes that are made in partitions, doors, or otherwise in arrangement of construction of buildings as well as a complete record of exact manner in which electrical and mechanical work, piping, etc., are installed. Dimensions shall be included where necessary to accurately locate piping and other items that will be concealed in the finished building and on the site that may later be necessary to service. Markings on reproducible materials shall be in dark ink or pencil. No "white out" or similar material should be used. Markings on paper drawings should be in red pencil, made dark and clear enough to reproduce via photocopy process.

10
15 2. Keep As-Built Drawings current on a weekly basis and available for inspection by the Owner's Construction Administrator on a monthly basis.

Failure to show evidence of current changes may delay processing of the Contractor's payment application.

20 Legibly mark to record the following, as they occur, transferring this information to final As-Built drawings:

- 25 a. Vertical location of underground utilities, including electrical, and appurtenance referenced to permanent surface improvements.
b. Field changes of dimensions and detail.
c. Change made by Change Order.
d. Details not on original Contract Drawings.
e. References to all RFI's, ASI's and change orders which, in any fashion, alter the information on the drawings or within the specifications.

30 All RFI's, ASI's or change orders referenced on the face of the drawings as part of the As-Built information either shall be taped to the drawing sheet with the reference (without covering or obscuring other information on the sheet) or taped to a separate blank drawing sheet that is the same size as the rest of the sheets and then bound into the drawing set. References to files or a separate binder are not acceptable.

35 3. Final CAD/D Record Drawings

40 The final Record Drawings consist of a set of electronic files and set of subsequent reproducible drawings that update the original Drawings indicating all field changes that were made to adapt to field conditions, changes resulting from Supplemental Instructions or Contract Change Orders, and all concealed and buried installation of piping, conduits and utilities services installed or changed as part of this Work. All buried and concealed items both inside and outside the facility shall be accurately located on the final Record Drawings as to the depth and in relationship to not less than two permanent features, such as interior or exterior wall faces or corners. Also include hard copies and electronic copies of all systems designed by subcontractors, such as fire sprinklers or fire alarm systems.

45 The Record Drawings shall be clean and all changes, corrections and dimensions shall be made in a neat and legible manner in contrasting color or bubble indicating the changes. All RFI's, ASI's, Change Orders, etc. that are referenced in the final Record Drawings shall be attached or included in the Drawings' electronic files; cross referencing alone to an unattached document is not acceptable. CAD/D drawings shall be in Auto-CAD format; confirm which release with the Owner. Provide two CD-ROM's and one set of reproducible drawings and one set of prints of the Final Record Documents.

50 The Contractor may work with or sub-contract this work to the Architect at his option and be responsible for any additional costs by the Architect.

55 4. Utilities Locations

5 Retain a professional utilities locating firm to identify, locate and record the locations of **all** new and modified site utilities on the project, beginning at the outside face of the building. This firm shall produce an electronic file in AutoCad format (confirm version with Owner). The Owner will provide information on colors, pen weights, symbols and nomenclature to be used so that this file can be inserted into existing electronic documents showing utilities. Utilities may be located either relative to a permanent site feature that existed prior to the construction associated with this project, or be located relative to the new work. If utilities are shown relative to the new project, the new building shall also be accurately located by locating at least two corners versus two other permanent site features that existed prior to this Work.

10 Accompany final submittal with transmittal letter to Owner containing:

1. Date
2. Project title and number
- 15 3. Contractor's name and address
4. Title and number of each record document
5. Certification that each document as submitted is completed and accurate.
6. Signature of Contractor, or his authorized representative.

20 **RECORDING SPECIFICATIONS AND BID ADDENDA**

Legibly mark up each section of the Specifications to record the following:

1. Changes made by Change Order and/or Bid Addenda items.
- 25 2. Other matters not originally specified.
3. Actual selections of the manufacturer or option when more than one choice is listed.

FINAL LISTING OF ARCHITECTURAL MATERIALS

30 For **all** architectural finishes provided in the Work, including those applied to a factory manufactured and finished item, provide the following:

1. Manufacturer
- 35 2. Local supplier(s)
3. Model(s), line(s), pattern(s), finish/sheen/luster (flat, semi-gloss, etc.), finish coat vehicle (latex, acrylic, alkyd, varnish, epoxy, etc.), and/or color(s) used. Paint colors shall include the manufacturer's pigment/color formulation for each color in addition to the name.

40 **END OF SECTION**

SECTION 01710

CLEANING

5

WORK SPECIFIED HEREIN:

This Section outlines requirements for cleaning and final adjustments of the Project work.

10

CLEANING UP GENERAL:

15

The Contractor, at all times, shall keep the premises free from accumulation of waste materials or rubbish caused by construction operations. At the completion of the work, remove all waste materials and rubbish from and about the Project, as well as tools, construction equipment, machinery and surplus materials. All public areas affected by the work shall have all debris and material picked up and broom clean at the end of each work shift.

20

If the Contractor fails to clean up the work, the Owner may do so as provided in the General Conditions, and the cost thereof shall be charged to the Contractor.

Remove all surplus material, falsework, temporary structures, and debris of every nature resulting from operations, and put site in a neat, orderly condition.

25

CLEANING - EXTERIOR

Clean surfaces of the construction and site including sidewalks, curbs and gutters, paved areas, and all like surfaces, and adjoining private and public property to the extent soiled by the Contractor's operations. Remove all debris from staging and construction areas and return the area to the original conditions.

30

FINAL ADJUSTMENTS

35

In conjunction with final cleaning of all surfaces and areas, the Contractor shall check operational pieces of equipment for proper functional operation and alignment. Final adjustments by qualified mechanics shall be made as required.

40

END OF SECTION

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SECTION 01730

OPERATIONS AND MAINTENANCE DATA AND OWNER TRAINING

5

As a pre-condition to obtaining Substantial Completion of this Work, the draft submittal of Operations and Maintenance manuals must be submitted and accepted by the Consultant and Owner, and operation and maintenance training necessary for the Owner's personnel to maintain operation and occupancy of the facility must be completed. The Contractor remains liable and responsible for any damage to systems or equipment, which may have been avoided by timely training or information submittal.

10

MANUALS

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General: Where manuals are required to be submitted covering items included in this work, prepare all such manuals in durable white plastic binders approximately 8 1/2 by 11 inches in size and with at least the following:

20

1. Identification on, or readable through, the front cover stating general nature of the manual.
2. Neatly typewritten index near the front of the manual, furnishing immediate information as to location in the manual of all data.
3. Copy of all guarantees and warranties issued.
4. Sample of proposed submittal to be reviewed and accepted by the prior to its submission.

25

Maintenance and Operation Instructions:

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1. Procure or prepare and include in manuals, operating and/or maintenance instruction for all equipment and/or materials that will require any adjustments, servicing, or attention for its proper operation or use.
2. These instructions shall set forth all the information necessary for the Owner to operate and make full and efficient use and perform such maintenance and servicing as would ordinarily be done by the Owner or his personnel.
3. Write instructions in simple, non-technical language when possible, with sufficient diagrams and explanation where necessary to be readily understandable by average layman. Possible hazards shall be particularly pointed out with instructions cautioning against mistakes that might result in damage or danger to equipment, building or personnel.

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Extraneous Data: Where contents of manuals include manufacturer's catalog pages, clearly indicate the precise items included in this installation and delete or otherwise clearly indicate all manufacturer's data with which this installation is not concerned.

45

MANUAL CONTENT

Neatly typewritten table of contents for each volume arranged in systematic order.

50

List:

1. Contractor, name of responsible principal, address and telephone number.

55

2. Each product including name, address and telephone number of:
 - a. Subcontractor or installer.
 - b. Recommended maintenance contractor.
 - c. Local source for replacement parts.
3. Product name and other identifying symbols as set forth in Contract Documents.
4. Product Data:
 - a. Include only those sheets which are pertinent to specific product, including:
 - b. Annotate each sheet to:
 - 1) Clearly identify specific product or part installed.
 - 2) Clearly identify data applicable to installation.
 - 3) Delete references to inapplicable data.
5. Drawings:
 - a. Supplement product data with drawings where necessary to clearly illustrate:
 - 1) Relations of component parts.
 - 2) Control of flow diagrams.
 - b. Do not use "Project Record Documents" as maintenance drawings.
6. Written Testing Procedures:
 - a. Provide where necessary to supplement Product Data and drawings.
 - b. Organize in consistent format under separate headings for different procedures.
 - c. Provide logical sequence of instructions for each procedure.
7. Warranties, Bonds, and Maintenance Contracts:

Provide copies of each of the following:

 - a. Proper procedures in event of failure.
 - b. Instances which might affect validity of warranties, bonds or contracts.
8. List of all extra materials provided to the Owner under the specific portion of the Specifications along with the signed receipts for by the Owner for all delivered materials

MANUAL FOR ARCHITECTURAL MATERIALS, FINISHES and EQUIPMENT

Include the following manufacturer's data:

1. Catalog number, size, composition.
2. Color and texture designations.
3. Required reordering information.
4. Recommended cleaning materials and methods.
5. Cautions against detrimental cleaning materials and methods.
6. Recommended cleaning and maintenance schedule

FINAL LISTING OF ARCHITECTURAL MATERIALS

For all architectural finishes provided in the Work, including those applied to a factory manufactured and finished item, provide the following:

1. Manufacturer
2. Local supplier(s)
3. Model(s), line(s), pattern(s), finish/sheen/luster (flat, semi-gloss, etc.), finish coat vehicle (latex, acrylic, alkyd, varnish, epoxy, etc.), and/or color(s) used. Paint colors shall include the manufacturer's pigment/color formulation for each color in addition to the name.

MANUAL FOR MECHANICAL EQUIPMENT AND SYSTEMS

Include the following manufacturer's data and information for Mechanical equipment specified in Division 15.:

1. Description of unit and component parts including:
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
2. Operating procedures including:
 - a. Start-up, break-in routine, and normal operating instructions.
 - b. Regulations, control, stopping, shut-down and emergency instructions.
 - c. Summer and winter operating instructions.
 - d. Special operating instructions.
3. Maintenance procedures including:
 - a. Routine operations.
 - b. Trouble-shooting guide.
 - c. Disassembly, repair and reassembly.
 - d. Alignment, adjusting and checking.
 - e. Servicing and lubricating schedule, including recommended lubrications.
4. Manufacturer's printed operating and maintenance instructions.
5. Control systems operations sequences.
6. Parts list, illustrations, assembly drawings and diagrams necessary for maintenance, including:
 - a. Life expectancy of parts subject to wear.
 - b. Items recommended to be stocked as spare parts.
7. As-installed control systems diagrams.
8. Color-code legend, if any.
9. Valve tag number chart, with location and function of each valve.

MANUAL FOR ELECTRICAL EQUIPMENT AND SYSTEMS:

5 Include the following manufacturer's data and information for electrical equipment specified in Division 15 and 16.:

1. Description of unit and component parts including:
 - 10 a. Function, normal operating characteristics and limiting conditions.
 - b. Performance curve, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
- 15 2. Panelboard circuit directories indicating:
 - a. Electrical service.
 - b. Controls.
 - c. Communications, if any.
- 20 3. As-installed wiring color-code legend, if any.
4. Operating procedures, including:
 - 25 a. Routine and normal operating instructions.
 - b. Sequences required.
 - c. Special operating instructions.
5. Maintenance procedures, including:
 - 30 a. Routine operations.
 - b. Trouble-shooting guide.
 - c. Disassembly, repair and reassembly.
 - d. Adjustment and checking.
- 35 6. Manufacturer's printed operating and maintenance instructions.
7. Parts list, including current prices, and recommend spare parts to be maintained in storage.

MANUAL OF UNIT AND COMPONENT PARTS INCLUDING:

- 40 1. Description of unit and component parts including:
 - a. Function, normal operating characteristics and limiting conditions.
 - b. Performance curve, engineering data and tests.
 - 45 c. Complete nomenclature and commercial number of replaceable parts.
2. Panelboard circuit directories indicating:
 - a. Electrical service.
 - b. Controls.
 - c. Communications, if any.
- 50 3. As-installed wiring color-code legend, if any.
4. Operating procedure including:
 - 55 a. Routine and normal operating instructions.
 - b. Sequences required.

- c. Special operating instructions.
- 5. Maintenance procedures, including:
 - a. Routine operations.
 - 5 b. Trouble-shooting guide.
 - c. Disassembly, repair and reassembly.
 - d. Adjustment and checking.
- 6. Manufacturer's printed operating and maintenance instructions.
- 10 7. Parts list, including current prices, and recommended spare parts to be maintained in storage.

Submit specified information for the following: Electrical equipment specified in Division 15 and 16.

15 ADDITIONAL DATA

Prepare and include the following:

- 20 1. Additional data when need becomes apparent during instruction of the Owner's personnel.
- 2. Additional data specified in other Sections of Specifications to be included.

SUBMITTAL SCHEDULE

25 Preliminary Draft:

- 1. Submit two copies of proposed format, approximately thirty (30) days before substantial completion.
- 30 2. Architect will review, and return one copy with comments.

Final Submittal:

- 35 1. Submit, in final form one copy of complete data fifteen (15) days prior to final inspection. Copy will be returned with comments.
- 2. Submit **four (4)** copies in approved final form prior to final inspection and acceptance.

40 INSTRUCTION OF THE OWNER'S PERSONNEL

Prior to final acceptance and payment, instruct the Owner's personnel in necessary operation, adjustment, and maintenance of products, equipment, and systems. The Contractor remains liable for damage to project systems, equipment or finishes which may have been avoided by proper instruction until that training and instruction has been completed.

45 Operating and maintenance manual shall constitute basis of instruction.

50 Review manual contents with the Owner's personnel in detail to explain all aspects of operations and maintenance. A listing of all personnel receiving instructions, complete with signature verifying same, dates of instruction, and other pertinent data shall be delivered to the Owner's Construction Administrator upon completion of instruction session(s).

55 END OF SECTION

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SECTION 03 30 00
CAST-IN-PLACE-CONCRETE

PART 1 GENERAL

1.1 SUMMARY

- A. Provide cast-in-place concrete, reinforcing and accessories.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Mix Design: Submit for approval mix design proposed for use.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Testing: Employ an independent testing agency acceptable to Owner to design concrete mixes and to perform material evaluation tests. Provide 7 and 28-day cylinder tests. Comply with ASTM C 143, C 173, C 31 and C 39.
- C. Standards:
1. ACI 301, Specifications for structural Concrete for Buildings.
 2. ACI 318, Building Code Requirements for Reinforced Concrete, and CRSI Manual of Standard Practice.
- D. Floor Flatness and Levelness Tolerances:
1. Subfloors Under Materials Such as Concrete Toppings, Ceramic Tile, and Sand Bed Terrazzo: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 15, floor levelness (Fl) of 13.
 2. Subfloors Under Materials Such As Vinyl Tile, Epoxy Toppings, Paint, and Carpet: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 20, floor levelness (Fl) of 17.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Cast-In-Place Concrete:
1. Application: footings and slab on grade.
 2. Finish for Surfaces to be Exposed to View or Covered with Resilient Flooring, Carpet Tile or Other Thin Finish System: Trowel finish.
 3. Finish for Surfaces to Receive Thin-set Ceramic or Quarry Tile: Trowel and fine broom finish.
 4. Finish for Exterior Concrete Platforms, Steps, Ramps and Sloped Walls: Non-slip broom finish.
 5. Cast-In-Place Concrete Reinforcing and Accessories:
 - a. Concrete Design Mixes: ASTM C 94, 28 day compressive strength 4000 PSI.
 - b. Formwork: Plywood or metal panel formwork sufficient for structural and visual requirements.
 - c. Reinforcing Bars: ASTM A 615 grade 60.
 - d. Steel Wire: ASTM A 82.

- e. Steel Wire Fabric: ASTM A 497, welded, deformed.
- f. Concrete Materials: ASTM C 150, Type I, Portland cement; potable water.
- g. Concrete Admixtures: Containing less than 0.1 percent chloride ions.
- h. Vapor Retarder: ASTM D 4397 polyethylene sheet, 10 mils.
- i. Liquid Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class A.
- j. Underlayment Compound: Free-flowing, self-leveling cement-based compound.
- k. Bonding Compound: Polyvinyl acetate or acrylic base.
- l. Epoxy Adhesive: ASTM C 881, two-component material.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Comply with ASTM C 94. Do not change mix design without approval. Calcium chloride admixtures are not permitted.
- B. Tolerance: Plus 1/8" in 10" for grade, alignment, and straightness.
- C. Construction Joints: Use keyways, continue reinforcement through joint.
- D. Isolation Joints: Provide between slabs and vertical elements such as columns and structural walls.
- E. Control Joints: Provide sawn or tooled joints or removeable insert strips; depth equal to 1/4 slab thickness. Spacing as required and approved.
- F. Slab Finishes: Obtain sample approval before beginning work.
 - 1. Scratch: For surfaces to receive mortar setting beds or cementitious flooring materials.
 - 2. Trowel: Hard, smooth, uniform surface for areas to receive resilient flooring, carpet, or other thin finish material.
 - 3. Broom: After trowel finishing, roughen surface by fine brooming perpendicular to traffic direction for exposed exterior walks, steps and ramps.
- G. Cure and protect work. Report defective work in writing.

END OF SECTION

SECTION 04 20 00
UNIT MASONRY

PART 1 GENERAL

1.1 SUMMARY

- A. Provide unit masonry construction.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
 - 1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the jurisdiction of the project.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.3 QUALITY ASSURANCE

- A. Fire Performance for Fire-Rated Brick and Concrete Block Assemblies: ASTM E 119.
- B. Testing: Independent Testing Laboratory.
- C. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.
- D. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Concrete Masonry Units:
 - 1. Application: Concrete masonry non-bearing partitions.
 - 2. Concrete Masonry Units: ASTM C 90, 1500 f'm compressive strength:
 - a. Light weight.
 - b. Medium weight.
 - c. Normal weight.
 - 3. Size: Face dimension of 7-5/8 inches high by 15-5/8 inches long by width required for application.
 - 4. Bond Pattern: Running Bond.
 - 5. Integral Water Repellent: Liquid polymeric admixture.
- B. Mortar and Grout for Brick and Concrete Masonry Unit Assemblies:
 - 1. Mortar Mix: ASTM C 270, Type S, for reinforced masonry, masonry below grade and masonry in contact with earth and ASTM C 270, Type N, for above-grade loadbearing and nonloadbearing walls and parapet walls and for interior loadbearing and nonloadbearing partitions.
 - 2. Mortar Materials: Portland cement, ASTM C 150, Type I or II.
 - 3. Mortar Aggregate: Natural color, ASTM C 144.

4. Grout Aggregate: ASTM C 404.
 5. Hydrated Lime: ASTM C 207, Type S.
 6. Color: Natural color.
- C. Reinforcing Steel:
1. Reinforcing Bars: ASTM A 615, Grade 60.
 2. Deformed Reinforcing Wire: ASTM A 496.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Installation of Masonry Assemblies:
1. Comply with PCA Recommended Practices for Laying Concrete Block, Brick Institute of America BIA Tech Notes, and NCMA TEK Bulletins.
 2. Comply with cold weather and warm weather protection procedures as recommended in BIA Tech Notes.
 3. Provide fire-rated assemblies complying with ASTM E 119.
 4. Sawcut units when required. Maintain uniform joint width. Provide full bed, head and collar joints except at weepholes.
 5. Install lintels and accessories in masonry construction.
 6. Coordinate installation of flashings.
 7. Comply with applicable codes and regulations for spacing of ties and horizontal reinforcing.
 8. Provide expansion and control joints in accordance with BIA and NCMA recommendations.
 9. Remove and replace damaged units.
 10. Clean brick using bucket and brush method, BIA Tech Note 20.
 11. Clean concrete masonry by dry brushing, NCMA TEK No. 28.

END OF SECTION

SECTION 05 12 00
STRUCTURAL STEEL FRAMING

PART 1 GENERAL

1.1 SUMMARY

- A. Provide structural steel assemblies and accessories.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Submit for approval test reports.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: AISC, Code of Standard Practice for Steel Buildings and Bridges, and applicable regulations.
- C. Architecturally Exposed Structural Steel: Comply with fabrication requirements, including tolerance limits, and installation tolerances of AISC's "Code of Standard Practice for Steel Buildings and Bridges" for structural steel identified as architecturally exposed structural steel.
- D. Testing: Independent testing laboratory.
- E. Erection Tolerances: AISC standards.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Structural Steel:
 - 1. Application: Building structure.
 - 2. Structural Steel Shapes: ASTM A992 Grade 50.
 - 3. Cold-Formed Steel Tubing: ASTM A 500, Grade B.
 - 4. Structural Steel Plates, Angles, Channels and Rods: ASTM A36.
 - 5. Steel Pipe: ASTM A 53, Type E or S, Grade B; or ASTM A 501.
 - 6. Steel Castings: ASTM A 27, Grade 65-35.
 - 7. Headed Stud-Type Shear Connectors: ASTM A 108, Grade 1015 or 1020.
 - 8. Anchor Bolts: ASTM A 307, nonheaded type.
 - 9. High-Strength Threaded Fasteners: ASTM A 325 or ASTM A 490, as applicable.
 - 10. Auxiliary Materials:
 - a. Direct Tension Indicators: ASTM A 959.
 - b. Electrodes for Welding: AWS Code.
 - 11. Structural Steel Primer Paint: SSPC - Paint 13, compatible with topcoats.
 - a. Cement Grout: Portland cement, sand.

- b. Metallic Shrinkage-Resistant Grout: Premixed ferrous aggregate grouting compound ASTM C 1107.
- c. Nonmetallic Shrinkage-Resistant Grout: Premixed nonmetallic grouting compound, ASTM C 1107.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Comply with AISC codes and specifications, and with AWS "Structural Welding Code".
- B. Employ a registered engineer to check elevations and plumb and level tolerances; certify that installed work is within AISC Standards. Owner may engage testing/inspection agency to inspect welded and bolted connections.
- C. Architecturally exposed steel: Fabricate with special care using materials carefully selected for best appearance. Store materials off ground and keep clean. Cut, fit and assemble work with surfaces smooth, square and with complete contact at joints. Set all cambers up. Weld all work continuously; grind smooth and flush to make seams not visible after priming. Prepare surfaces to comply with SSPC-SP6; apply prime coat within 24 hours after cleaning.
- D. Touch-up field welds and abraded areas with shop primer.

END OF SECTION

SECTION 05 51 00
METAL STAIRS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide metal stair systems.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
 - 1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the jurisdiction of the project.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Structural Performance: In accordance with applicable Building Code.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Metal Stairs:
 - 1. Application: Interior stairs.
 - 2. Treads: Steel plate treads.
 - 3. Auxiliary Materials:
 - a. Steel Plates, Shapes, and Bars: ASTM A 36.
 - b. Cold-Formed Steel Tubing: ASTM A 500.
 - c. Hot-Formed Steel Tubing: ASTM A 501.
 - d. Steel Pipe: ASTM A 53, standard weight (Schedule 40).
 - e. Rolled Steel Floor Plate: ASTM A 786.
 - f. Cold-Rolled Structural Steel Sheet: ASTM A 611, Grade A.
 - g. Hot-Rolled Structural Steel Sheet: ASTM A 570, Grade 30.
 - h. Cold-Rolled Steel Sheet: ASTM A 366.
 - i. Hot-Rolled Steel Sheet: ASTM A 569.
 - j. Fasteners: Plated fasteners, ASTM B 633, zinc-coated.
 - k. Grout: Factory-packaged, nonshrink, nonmetallic, ASTM C 1107.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Take field measurements prior to fabrication, where possible. Form to required shapes and sizes with true, straight edges, lines and angles. Provide light-tight, hairline joints.
- B. Coordinate with work of other sections; provide inserts and templates as needed. Install work plumb and level with uniform appearance.

- C. Stairs: Control access to and use of stair systems. Do not permit use of stairs until stairs and railing systems are complete and ready to assume design loading. Do not permit overloading of stair systems. Make connections lightproof tight by welding or bolting; conceal fastenings as much as possible. Grind flush and smooth all exposed welds. Fill pans with 3000 psi concrete with welded wire fabric and provide broom finish.
- D. Railings: provide sizes, profiles and dimensions indicated. Provide mitered joints at 90 degree turns and smooth sweeps at bends. Provide wall returns, end caps, brackets, fittings, and toe boards.
- E. Restore damaged finishes and protect work.

END OF SECTION

SECTION 05 52 00
METAL RAILINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide pipe and tube handrails and railing systems.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Handrail and Railing Structural Performance: In accordance with applicable Building Code.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Metal Railings:
 - 1. Application: Interior metal railings.
 - 2. Steel Pipe and Tube Railing Systems:
 - a. Steel Pipe, Black Finish: ASTM A 53.
 - b. Steel Pipe, Galvanized Finish: ASTM A 53.
 - c. Steel Tubing: ASTM A 500 or A 501.
 - d. Steel Plates, Shapes and Bars: ASTM A 36.
 - e. Gray Iron Castings: ASTM A 48, Class 30.
 - f. Malleable Iron Castings: ASTM A 47, Grade 32510.
 - 3. Steel Finish: Primed.
 - 4. Auxiliary Materials:
 - a. Nonshrink Nonmetallic Grout: CE CRD-C621.
 - b. Interior Anchoring Cement: Hydraulic expansion cement.
 - c. Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79, compatible with topcoats.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Take field measurements prior to fabrication, where possible. Form to required shapes and sizes with true, straight edges, lines and angles. Provide light-tight, hairline joints.
- B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections.

- C. Coordinate with work of other sections; provide inserts and templates as needed. Install work plumb and level with uniform appearance.
- D. Restore damaged finishes and protect work.

END OF SECTION

SECTION 061600
SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wall sheathing.

B. Related Requirements:

1. Section 072500 "Weather Barriers" for water-resistive barrier applied over wall sheathing.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WALL SHEATHING

A. Glass-Mat Gypsum Wall Sheathing: ASTM C 1177/1177M.

1. **Products:** Subject to compliance with requirements, provide one of the following:

- a. [CertainTeed Corporation; GlasRoc.](#)
- b. [G-P Gypsum Corporation; Dens-Glass Gold.](#)
- c. [National Gypsum Company; Gold Bond e\(2\)XP.](#)
- d. [Temple-Inland Inc.; GreenGlass](#)
- e. [United States Gypsum Co.; Securock.](#)

2. Type and Thickness: Type X, 5/8 inch thick.

3. Size: 48 by 96 inches for vertical installation.

2.2 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

B. Nails, Brads, and Staples: ASTM F 1667.

C. Screws for Fastening Gypsum Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing to be attached, with organic-polymer or other corrosion-protective coating having a salt-spray resistance of more than 800 hours according to ASTM B 117.

1. For steel framing less than 0.0329 inch thick, use screws that comply with ASTM C 1002.

2. For steel framing from 0.033 to 0.112 inch thick, use screws that comply with ASTM C 954.

2.3 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

A. Sealant for Glass-Mat Gypsum Sheathing: Elastomeric, medium-modulus, neutral-curing silicone joint sealant compatible with joint substrates formed by gypsum sheathing and other materials, recommended by sheathing manufacturer for application indicated and complying with requirements for elastomeric sealants specified in Section 079200 "Joint Sealants."

B. Sealant for Glass-Mat Gypsum Sheathing: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing and recommended by tape and sheathing manufacturers for use with glass-fiber sheathing tape and for covering exposed fasteners.

1. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch, of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.

B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.

C. Securely attach to substrate by fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's "International Building Code."

D. Coordinate wall and roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.

E. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

- F. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.2 GYPSUM SHEATHING INSTALLATION

- A. Comply with GA-253 and with manufacturer's written instructions.
 - 1. Fasten gypsum sheathing to cold-formed metal framing with screws.
 - 2. Install boards with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
 - 3. Install boards with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
- B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.
- C. Vertical Installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Attach boards at perimeter and within field of board to each stud.
 - 1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.

END OF SECTION 061600

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SECTION 06 40 23
INTERIOR ARCHITECTURAL WOODWORK

PART 1 GENERAL

1.1 SUMMARY

- A. Provide interior finish carpentry, architectural woodwork and countertops.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: Architectural Woodwork Institute (AWI) 'Architectural Woodwork Standards.'
- C. Preservative Treatment: Nonpressure method, exterior type, AWPA N1
- D. Fire-Retardant Treatment:
 - 1. Lumber: AWPA C20, non-corrosive type.
 - 2. Plywood: AWPA C27, non-corrosive type.
 - 3. Particleboard: ASTM E 84, flame spread 20 or less.
- E. Wood Products: Comply with the following:
 - 1. Hardboard: AHA A135.4.
 - 2. Medium-Density Fiberboard: ANSI A208.2, Grade MD-Exterior Glue.
 - 3. Particleboard: ANSI A208.1, Grade M-2-Exterior Glue.
 - 4. Softwood Plywood: DOC PS 1, Medium Density Overlay.
 - 5. Hardwood Plywood and Face Veneers: HPVA HP-1.
- F. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship of each type of finish carpentry.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Interior Plastic Laminate Clad Casework:
 - 1. Grade: Custom.
 - 2. Face Style: Flush overlay.
 - 3. Frame Fabrication: Frameless.
- B. Interior Casework Hardware and Auxiliary Materials:
 - 1. Hardware Finish and Base Metal: Satin chromium plated steel.

- C. Interior Plastic Laminate Clad Countertops:
 - 1. Grade: Custom.
 - 2. Core: As allowed by grade.
 - 3. Edge: Decorative.
- D. Interior Solid Surfacing Material Countertops:
 - 1. Grade: Custom.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Provide work to sizes, shapes, and profiles indicated. Install work to comply with quality standards referenced. Back prime work and install plumb, level and straight with tight joints; scribe work to fit.
- B. Quality Standard: Install woodwork to comply with AWI standards for the same grade specified for type of woodwork involved.
- C. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections.
- D. Comply with manufacturer's requirements for cutting, handling, fastening and working treated materials.
- E. Repair minor damage, clean and protect.

END OF SECTION

SECTION 07 21 00
THERMAL INSULATION

PART 1 GENERAL

1.1 SUMMARY

- A. Provide thermal insulation and vapor retarders.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Submit for approval test reports.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Board Insulation:
 - 1. Application: Exterior cavity walls, outboard of sheathing.
 - 2. Type: Extruded polystyrene, rigid.
 - a. Standard: ASTM C 578.
- B. Blanket/Batt Insulation:
 - 1. Application: Thermal insulation in studs in exterior walls.
 - 2. Type: Unfaced mineral fiber.
 - a. Standard: ASTM C 665, Type I (unfaced).
- C. Vapor Retarder (Not Integral with Insulation):
 - 1. Application: Exterior walls.
 - 2. Type: Reinforced 2-ply polyethylene, 6 to 10 mils.
 - a. Accessories: Seam tapes.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections. Provide full thickness in one layer over entire area, tightly fitting around penetrations.
- B. Pour loose insulation into cavities indicated; provide uniform coverage at correct density and thickness.
- C. Install vapor retarder over entire area of inside face of exterior walls and elsewhere as indicated. Seal all seams and around perimeter and penetrations with duct tape to form a continuous vapor retarder free of holes.

D. Protect installed insulation and vapor retarder.

END OF SECTION

SECTION 07250
WEATHER BARRIERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Building wrap.
2. Flexible flashing.

B. Related Requirements:

1. Section 061600 "Sheathing" for sheathing joint and penetration treatment.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 WATER-RESISTIVE BARRIER

- A. Building Wrap: ASTM E 1677, Type I air barrier; with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, when tested according to ASTM E 84; UV stabilized; and acceptable to authorities having jurisdiction.

1. **Products:** Subject to compliance with requirements, provide one of the following:

- a. [Dow Chemical Company \(The\)](#); Styrofoam Weathermate Plus Brand Housewrap.
- b. [DuPont \(E. I. du Pont de Nemours and Company\)](#); Tyvek CommercialWrap.
- c. [Ludlow Coated Products](#); Barricade Building Wrap.
- d. [Pactiv, Inc.](#); GreenGuard Ultra Wrap.
- e. [Raven Industries Inc.](#); Fortress Pro Weather Protective Barrier.

2. Water-Vapor Permeance: Not less than 20 perms per ASTM E 96/E 96M, Desiccant Method (Procedure A).
3. Air Permeance: Not more than 0.004 cfm/sq. ft. at 0.3-inch wg when tested according to ASTM E 2178.
4. Allowable UV Exposure Time: Not less than three months.

- B. Building-Wrap Tape: Pressure-sensitive plastic tape recommended by building-wrap manufacturer for sealing joints and penetrations in building wrap.

2.2 MISCELLANEOUS MATERIALS

- A. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch.
- B. Primer for Flexible Flashing: Product recommended by manufacturer of flexible flashing for substrate.
- C. Nails and Staples: ASTM F 1667.

PART 3 - EXECUTION

3.1 WATER-RESISTIVE BARRIER INSTALLATION

- A. Cover exposed exterior surface of sheathing with water-resistive barrier securely fastened to framing immediately after sheathing is installed.
- B. Cover sheathing with water-resistive barrier as follows:
 - 1. Cut back barrier 1/2 inch on each side of the break in supporting members at expansion- or control-joint locations.
 - 2. Apply barrier to cover vertical flashing with a minimum 4-inch overlap unless otherwise indicated.
- C. Building Wrap: Comply with manufacturer's written instructions.
 - 1. Seal seams, edges, fasteners, and penetrations with tape.
 - 2. Extend into jambs of openings and seal corners with tape.

3.2 FLEXIBLE FLASHING INSTALLATION

- A. Apply flexible flashing where indicated to comply with manufacturer's written instructions.
 - 1. Prime substrates as recommended by flashing manufacturer.
 - 2. Lap seams and junctures with other materials at least 4 inches except that at flashing flanges of other construction, laps need not exceed flange width.
 - 3. Lap flashing over water-resistive barrier at bottom and sides of openings.
 - 4. Lap water-resistive barrier over flashing at heads of openings.
 - 5. After flashing has been applied, roll surfaces with a hard rubber or metal roller to ensure that flashing is completely adhered to substrates.

END OF SECTION 072500

SECTION 079200
JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.
2. Urethane joint sealants.
3. Latex joint sealants.

B. Related Sections:

1. Section 088000 "Glazing" for glazing sealants.
2. Section 092900 "Gypsum Board" for sealing perimeter joints.
3. Section 093000 "Tiling" for sealing tile joints.

1.2 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch-wide joints formed between two 6-inch-long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

1.3 PROJECT CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer.
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.4 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

B. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:

1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
2. Mechanical damage caused by individuals, tools, or other outside agents.
3. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.2 SILICONE JOINT SEALANTS

- A. Mildew-Resistant, Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
 1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. [Pecora Corporation](#); 898.

2.3 URETHANE JOINT SEALANTS

- A. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
 1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. [BASF Building Systems](#); Sonolastic NP1.
 - b. [Pecora Corporation](#); Dynatrol I-XL.
 - c. [Sika Corporation, Construction Products Division](#); Sikaflex - 1a.
 - d. [Tremco Incorporated](#); Dymonic.

2.4 LATEX JOINT SEALANTS

- A. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
 1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

- a. [BASF Building Systems](#); Sonolac.
- b. [Pecora Corporation](#); AC-20+.
- c. [Tremco Incorporated](#); Tremflex 834.

2.5 JOINT SEALANT BACKING

- A. General: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) Type O (open-cell material) Type B (bicellular material with a surface skin) or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.6 MISCELLANEOUS MATERIALS

- A. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- B. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.

2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:
 - a. Concrete.
 - b. Masonry.
 3. Remove laitance and form-release agents from concrete.
 4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:
 - a. Metal.
 - b. Glass.
 - c. Porcelain enamel.
 - d. Glazed surfaces of ceramic tile.
- B. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 1. Do not leave gaps between ends of sealant backings.
 2. Do not stretch, twist, puncture, or tear sealant backings.
 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses in each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

1. Remove excess sealant from surfaces adjacent to joints.
2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
 - a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

3.4 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.6 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces – Type “A”.
 1. Joint Locations:
 - a. Construction joints in cast-in-place concrete.
 - b. Control and expansion joints in unit masonry.
 - c. Joints between different materials listed above.
 - d. Perimeter joints between materials listed above and frames of doors and windows.
 - e. Control and expansion joints in ceilings and other overhead surfaces.
 - f. Other joints as indicated.
 2. Urethane Joint Sealant: Single component, nonsag, Class 25.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- B. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces – Type “B”
 1. Joint Locations:
 - a. Perimeter joints of exterior openings where indicated.
 - b. Perimeter joints between interior wall surfaces and frames of interior doors and windows.
 - c. Other joints as indicated.
 2. Joint Sealant: Latex.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

- C. Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal nontraffic surfaces – Type “C”.
 - 1. Joint Sealant Location:
 - a. Joints between plumbing fixtures and adjoining walls, floors, and counters.
 - b. Tile control and expansion joints where indicated.
 - c. Other joints as indicated.
 - 2. Joint Sealant: Mildew resistant, single component, nonsag, neutral curing, Silicone.
 - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 079200

SECTION 08 11 13
HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.1 SUMMARY

- A. Provide steel doors and frames.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: ANSI/SDI-100, Recommended Specifications for Standard Steel Doors and Frames.
- C. Performance Standards:
 - 1. Fire-Rated Assemblies: NFPA 80, and acceptable testing agency listing.
 - 2. Thermal-Rated Assemblies at Exterior: ASTM C 236 or ASTM C 976.
 - 3. Sound-Rated Assemblies at Mechanical Rooms: ASTM E 1408, and ASTM E 413.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Interior Steel Frames:
 - 1. Type: Welded.
 - 2. Finish: Factory primed and field painted.
- B. Exterior Steel Doors:
 - 1. Finish: Factory primed and field painted.
- C. Exterior Steel Frames:
 - 1. Type: Welded.
 - 2. Finish: Factory primed and field painted.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Fabricate work to be rigid, neat and free from seams, defects, dents, warp, buckle, and exposed fasteners. Install doors and frames in compliance with SDI-100, NFPA 80, and requirements of authorities having jurisdiction.
- B. Provide thermally improved doors with maximum U-value of 0.24 BTU/hr./sq. ft. degree F (ASTM C 236) for all exterior doors and elsewhere as noted.

- C. Provide acoustically improved doors with minimum STC of 33 (ASTM E 90 and ASTM E 413) where indicated.
- D. Hardware: Prepare doors and frames to receive hardware on final schedule. Provide for 3 silencers on single doorframes; 2 on double doorframes.
- E. Shop Finish: Clean, treat and prime paint all work with rust-inhibiting primer comparable with finish paint specified in Division 9 section. Provide asphalt emulsion sound deadening coating on concealed frame interiors.
- F. Touch-up damaged coatings ready to receive finish painting.

END OF SECTION

SECTION 08 14 00
FLUSH WOOD DOORS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide flush wood doors.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- C. Warranty: Submit manufacturers standard warranty. Include labor and materials to repair or replace defective materials.
 - 1. Solid-Core Interior Doors: Life of installation.
 - 2. Hollow-Core Interior Doors: 2 years.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Quality Standards: AWI's 'Architectural Woodwork Standards.'
- C. Fire Rated Wood Doors: Meet NFPA 80 requirements.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Interior Flush Wood Doors:
 - 1. Type: Solid core.
 - 2. Thickness: 1-3/4 inches thick.
 - 3. Grade: Custom.
 - 4. Frames: Metal.
 - 5. Face: Match existing.
 - 6. Finish: Transparent.
 - 7. Finish Application: Factory finished.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Comply with NWMA I.S. 1A and specified quality standard.
- B. Prefit doors to frames. Premachine doors for hardware listed on final schedules. Factory bevel doors.
- C. Install doors with not more than 1/8 inch clearance at top and sides, 1/4 inch at bottom. Comply with NFPA 80 for rated assemblies.

D. Adjust, clean, and protect.

END OF SECTION

SECTION 08 31 00
ACCESS DOORS AND PANELS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide access doors and panels for walls and ceilings.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Access Doors:
 - 1. Manufacturers: MIFAB, Inc.
 - 2. Frames: 16-gauge (.0598 inch) sheet steel with flange.
 - 3. Doors: 14-gauge (.0625 inch) sheet steel.
 - 4. Door Type: Flush panel.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Install assemblies complete with all hardware, anchors, inserts, supports and accessories. Test and adjust operation.
- B. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

END OF SECTION

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SECTION 08 41 13
ENTRANCES AND STOREFRONTS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide entrances and storefront.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.
 - 1. Warranty Period: 5 years.
- D. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Manufacturer:
 - 1. Arcadia, Inc. 2301 East Vernon Ave, Vernon, CA 90058
- B. Aluminum Entrances and Storefront to match existing:
 - 1. Door Style: Medium stile and rail doors.
 - 2. Storefront Style: Aluminum framed.
 - 3. Glass and Glazing: Insulating glazing, tempered.
 - 4. Glazing Color: Clear with Low-e coating.
 - 5. Door Hanging Devices: Ball bearing butts.
 - 6. Closers: Surface mounted.
 - 7. Closer Operation: Single acting closers.
 - 8. Aluminum Finish: Clear anodized.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Take field measurements before fabrication where possible; do not delay job progress.
- B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

- C. Anchor securely in place; install plumb, level and in true alignment. Isolate dissimilar materials to prevent corrosion.
- D. Coordinate with glass and glazing work; install hardware and adjust for smooth, proper operation.
- E. Clean and protect completed system; repair damage.

END OF SECTION

SECTION 08 42 29
AUTOMATIC ENTRANCES

PART 1 GENERAL

1.1 SUMMARY

- A. Provide automatic entrance doors.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.
 - 1. Warranty Period: 5 years.
- D. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Manufacturer:
 - 1. Dormakaba USA Inc., (800) 523-8483, www.dormakaba.com
- B. Automatic Entrances:
 - 1. Door Operation: One-way swing doors with fixed sidelights and transoms.
 - 2. Door Style: Medium stile and rail doors.
 - 3. Door Control: Wall mounted push plate.
 - 4. Operator: Electromechanical operator.
 - 5. Glass and Glazing: Insulating glazing.
 - 6. Glazing Color: Clear glass with Low-E.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

END OF SECTION

SECTION 085113
ALUMINUM WINDOWS

PART 1 GENERAL

1.1 Summary

- A. Section includes:
 - 1. Aluminum Windows
 - a. Arcadia Inc., T200 Series (thermal) Heavy Commercial Fixed Windows, 2-inch depth.
- B. Related Sections:

1.2 References

- A. American Architectural Manufacturers Association (AAMA)
- B. American Society for Testing and Materials (ASTM)
- C. Aluminum Association (AA)
- D. National Wood Window & Door Association (NWWDA)
- E. California Association of Window Manufacturers (CAWM)

1.3 System Description

- A. General: In addition to requirements shown or specified, comply with:
 - 1. Applicable provisions of AAMA Windows and Sliding Glass Doors Manual for design, materials, fabrication and installation of component parts.
- B. Design Requirements: Arcadia T200 Series (thermal) Heavy Commercial Fixed Windows 2-inch depth. Hinged compression sealed aluminum windows. Suitable for outside or inside glazing.
- C. Performance Requirements: Each assembly shall be tested by a recognized testing laboratory or agency in accordance with specified test methods.
 - 1. Conformance to F-AW55, C-AW80, AP-AW80 specifications in AAMA/NWWDA 101/I.S. 2/A440-8.
 - a. Air Infiltration: Accordance with ASTM E 283 at a static air pressure difference of 6.24 psf. Air infiltration shall not exceed .30 cfm per square foot.
 - b. Water Resistance: Accordance with ASTM E 331/ASTM E 547 at a static air pressure difference of 12 psf. No water leakage.
 - c. Uniform Load Structural: Aluminum window systems comply with AAMA/WDMA/CSA 101/I.S.2/A440-08, Voluntary specifications for aluminum windows. Guidelines for specified AW rated product.
 - d. Component testing: Accordance with procedures described in AAMA/NWWDA 101/I.S. 2/A440-08.
 - e. Forced Entry Resistance: All windows shall conform to CAWM 301-90.
 - f. Condensation Resistance Test: (CRF) when tested in accordance with AAMA 1503.1-88, the condensation resistance factor shall not be less than 51.
 - g. Thermal Transmittance Test: Accordance with AAMA 1503.1-88, (U-Value) not more than .59 BTU/hr/sf/°F.
 - h. Thermal Movements: Allow thermal movement resulting from the following maximum change (range) in ambient temperature.
 - 1) 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material

surfaces.

1.4 Quality Assurance

- A. Single Source Responsibility:
 - 1. Obtain entrances, storefronts, ribbon walls, window walls, curtain walls, window systems, and finish through one source from a single manufacturer.
- B. Provide test reports from AAMA accredited laboratories certifying the performances as specified in 1.03.

1.5 Warranty

- A. Warranted against failure and/or deterioration of metals due to manufacturing process for a period of two (2) years.

PART 2 PRODUCTS

2.1 Manufacturers

- A. Basis of Design Manufacturers:
 - 1. Arcadia, Inc., 2301 E Vernon, Vernon, CA. Telephone 323/269-7300, Fax 323/269-7390.
- B. Basis of Design Products:
 - 1. Arcadia Inc., T200 Series (thermal)

2.2 Materials

- A. Extruded aluminum profiles 6063-T6 alloy and temper (ASTM B221 G.S. 10A-T6).
- B. All framing members .125 minimum wall thickness.
- C. At Casement, Awning, and Hopper windows provide heavy-duty four bar hinges shall be stainless steel only, with asymmetric end caps, and adjustable limit stops. Lock and latches cast white bronze, US-25D finish.
- D. Weatherstrip EPDM bulb type conforming to ASTM D2000 AA515 and shall be keyed into extruded grooves.
- E. Back glazing two-sided adhesive, 15 lbs./ft.3 density, polyethylene tape. Glazing wedges shall be EPDM or Santoprene.
- F. At operable windows provide screens made of extruded aluminum frame and screened with either 18 x 14 aluminum or fiber mesh.
- G. Thermal barrier material poured-in-place two part polyurethane.

2.3 Finish

- A. An Architectural Class II or I anodic coating conforming with AA-M12C22A31/AA-M12C22A41.
 - 1. Anodize finish color shall be Colornodic #11 Clear

2.4 Fabrication

- A. Frame components mitered, reinforced extruded corner key, hydraulically crimped, and "cold

welded.”

- B. All ventilator extensions tubular, each corner mitered, reinforced extruded corner key, hydraulically crimped, and “cold welded.”
- C. All corners weather sealed with an elastomeric sealant.

PART 3 EXECUTION

3.1 Examinations

- A. Examine conditions and verify substrate conditions are acceptable for product installation.

3.2 Installation

- A. Install in accordance with approved shop drawings and manufacturers installation instructions.

3.3 Field Quality Control

- A. Contractor’s responsibility to make all necessary final adjustments to attain normal operation of each window and its mechanical hardware.

END OF SECTION 085113

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SECTION 08 71 00
DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes: Finish Hardware for door openings, except as otherwise specified herein.
 - 1. Door hardware for steel (hollow metal) doors.
 - 2. Door hardware for aluminum doors.
 - 3. Door hardware for wood doors.
 - 4. Door hardware for other doors indicated.
 - 5. Keyed cylinders as indicated.

- B. Related Sections:
 - 1. Division 6: Rough Carpentry.
 - 2. Division 8: Aluminum Doors and Frames
 - 3. Division 8: Hollow Metal Doors and Frames.
 - 4. Division 8: Wood Doors.
 - 5. Division 26 Electrical
 - 6. Division 28: Electronic Security

- C. References: Comply with applicable requirements of the following standards. Where these standards conflict with other specific requirements, the most restrictive shall govern.
 - 1. Builders Hardware Manufacturing Association (BHMA)
 - 2. NFPA 101 Life Safety Code
 - 3. NFPA 80 -Fire Doors and Windows
 - 4. ANSI-A156.xx- Various Performance Standards for Finish Hardware
 - 5. UL10C – Positive Pressure Fire Test of Door Assemblies
 - 6. ANSI-A117.1 – Accessible and Usable Buildings and Facilities
 - 7. DHI /ANSI A115.IG – Installation Guide for Doors and Hardware
 - 8. ICC – International Building Code

- D. Intent of Hardware Groups
 - 1. Should items of hardware not definitely specified be required for completion of the Work, furnish such items of type and quality comparable to adjacent hardware and appropriate for service required.
 - 2. Where items of hardware aren't definitely or correctly specified, are required for completion of the Work, a written statement of such omission, error, or other discrepancy to be submitted to Architect, prior to date specified for receipt of bids for clarification by addendum; or, furnish such items in the type and quality established by this specification, and appropriate to the service intended.

- E. Allowances
 - 1. Refer to Division 1 for allowance amount and procedures.

- F. Alternates
 - 1. Refer to Division 1 for Alternates and procedures.

1.2 SUBSTITUTIONS:

- A. Comply with Division 1.

1.3 SUBMITTALS:

- A. Comply with Division 1.

- B. Special Submittal Requirements: Combine submittals of this Section with Sections listed below to ensure the "design intent" of the system/assembly is understood and can be reviewed together.

- C. Product Data: Manufacturer's specifications and technical data including the following:

- 1. Detailed specification of construction and fabrication.
- 2. Manufacturer's installation instructions.
- 3. Wiring diagrams for each electric product specified. Coordinate voltage with electrical before submitting.
- 4. Submit 6 copies of catalog cuts with hardware schedule.
- 5. Provide 9001-Quality Management and 14001-Environmental Management for products listed in Materials Section 2.2

- D. Shop Drawings - Hardware Schedule: Submit 6 complete reproducible copy of detailed hardware schedule in a vertical format.

- 1. List groups and suffixes in proper sequence.
- 2. Completely describe door and list architectural door number.
- 3. Manufacturer, product name, and catalog number.
- 4. Function, type, and style.
- 5. Size and finish of each item.
- 6. Mounting heights.
- 7. Explanation of abbreviations and symbols used within schedule.
- 8. Detailed wiring diagrams, specially developed for each opening, indicating all electric hardware, security equipment and access control equipment, and door and frame rough-ins required for specific opening.

- E. Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.

- 1. Templates, wiring diagrams and "reviewed Hardware Schedule" of electrical terms to electrical for coordination and verification of voltages and locations.

- F. Samples: (If requested by the Architect)

- 1. 1 sample of Lever and Rose/Escutcheon design, (pair).
- 2. 3 samples of metal finishes

- G. Contract Closeout Submittals: Comply with Division 1 including specific requirements indicated.

- 1. Operating and maintenance manuals: Submit 3 sets containing the following.
 - a. Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representative for each manufacturer.
 - d. Parts list for each product.

2. Copy of final hardware schedule, edited to reflect, "As installed".
3. Copy of final keying schedule
4. As installed "Wiring Diagrams" for each piece of hardware connected to power, both low voltage and 110 volts.
5. One set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

1.4 QUALITY ASSURANCE

A. Comply with Division 1.

1. Statement of qualification for distributor and installers.
2. Statement of compliance with regulatory requirements and single source responsibility.
3. Distributor's Qualifications: Firm with 3 years experience in the distribution of commercial hardware.
 - a. Distributor to employ full time Architectural Hardware Consultants (AHC) for the purpose of scheduling and coordinating hardware and establishing keying schedule.
 - b. Hardware Schedule shall be prepared and signed by an AHC.
4. Installer's Qualifications: Firm with 3 years experienced in installation of similar hardware to that required for this Project, including specific requirements indicated.
5. Regulatory Label Requirements: Provide testing agency label or stamp on hardware for labeled openings.
 - a. Provide UL listed hardware for labeled and 20 minute openings in conformance with requirements for class of opening scheduled.
 - b. Underwriters Laboratories requirements have precedence over this specification where conflict exists.
6. Single Source Responsibility: Except where specified in hardware schedule, furnish products of only one manufacturer for each type of hardware.

- ##### B. Review Project for extent of finish hardware required to complete the Work. Where there is a conflict between these Specifications and the existing hardware, notify the Architect in writing and furnish hardware in compliance with the Specification unless otherwise directed in writing by the Architect.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Packing and Shipping: Comply with Division 1.

1. Deliver products in original unopened packaging with legible manufacturer's identification.
2. Package hardware to prevent damage during transit and storage.
3. Mark hardware to correspond with "reviewed hardware schedule".
4. Deliver hardware to door and frame manufacturer upon request.

- ##### B. Storage and Protection: Comply with manufacturer's recommendations.

1.6 PROJECT CONDITIONS:

- ##### A. Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for the proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.

- B. Review Shop Drawings for doors and entrances to confirm that adequate provisions will be made for the proper installation of hardware.

1.7 WARRANTY:

- A. Refer to Conditions of the Contract
- B. Manufacturer's Warranty:
 1. Closers: Thirty years
 2. Exit Devices: Five Years
 3. Locksets & Cylinders: Ten years
 4. All other Hardware: Two years.

1.8 OWNER'S INSTRUCTION:

- A. Instruct Owner's personnel in operation and maintenance of hardware units.

1.9 MAINTENANCE:

- A. Extra Service Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals Section.
 1. Special Tools: Provide special wrenches and tools applicable to each different or special hardware component.
 2. Maintenance Tools: Provide maintenance tools and accessories supplied by hardware component manufacturer.
 3. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra service materials.
- B. Maintenance Service: Submit for Owner's consideration maintenance service agreement for electronic products installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. The following manufacturers are approved subject to compliance with requirements of the Contract Documents. Approval of manufacturers other than those listed shall be in accordance with Division 1.

<u>Item:</u>	<u>Manufacturer:</u>	<u>Approved:</u>
Hinges	Stanley	McKinney, Ives
Continuous Hinges	Stanley	ABH, Pemko
Locksets	Best	No Substitution
Cylinders	Best	No Substitution
Exit Devices	Von Duprin	No Substitution
Closers	LCN	No Substitution
Access Control System	by Owners Security Vendor	
Automatic Operators	Dorma	No Substitution
Push/Pull Plates	Trimco	Hager, Ives
Push/Pull Bars	Trimco	Hager, Ives
Protection Plates	Trimco	Hager, Ives
Overhead Stops	ABH	Rixson, Glynn Johnson

Door Stops	Trimco	Hager, Ives
Flush Bolts	Trimco	Hager, Ives
Coordinator & Brackets	Trimco	Hager, Ives
Threshold & Gasketing	National Guard	Reese, Pemko

2.2 MATERIALS:

A. Hinges: Shall be Five Knuckle Ball bearing hinges

1. Template screw hole locations
2. Bearings are to be fully hardened.
3. Bearing shell is to be consistent shape with barrel.
4. Minimum of 2 permanently lubricated non-detachable bearings on standard weight hinge and 4 permanently lubricated bearing on heavy weight hinges.
5. Equip with easily seated, non-rising pins.
6. Non Removable Pin screws shall be slotted stainless steel screws.
7. Hinges shall be full polished, front, back and barrel.
8. Hinge pin is to be fully plated.
9. Bearing assembly is to be installed after plating.
10. Sufficient size to allow 180-degree swing of door
11. Furnish five knuckles with flush ball bearings
12. Provide hinge type as listed in schedule.
13. Furnish 3 hinges per leaf to 7 foot 6 inch height. Add one for each additional 30 inches in height or fraction thereof.
14. Tested and approved by BHMA for all applicable ANSI Standards for type, size, function and finish
15. UL10C listed for Fire rated doors.

B. Geared Continuous Hinges:

1. Tested and approved by BHMA for ANSI A156.26-1996 Grade 1
2. Anti-spinning through fastener
3. UL10C listed for 3 hour Fire rating
4. Non-handed
5. Lifetime warranty
6. Provide Fire Pins for 3-hour fire ratings
7. Sufficient size to permit door to swing 180 degrees

C. Cylindrical Type Locks and Latchsets:

1. Provide locksets tested and approved by BHMA/ANSI A156.2, Series 4000, Operational Grade 1, Extra-Heavy Duty.
2. Provide locksets listed by Underwriters Laboratories for use on fire rated single or double swinging doors.
3. Provide locksets that meet the design and operation of the cylindrical lock to meet the accessible requirements of ANSI A117.1 and ADA–Americans with Disabilities Act.
4. Provide locksets that meet Florida Building Code and Miami-Dade County Code:
 - a. 9/16" latch throw – Listed by Florida Building Code and Miami-Dade County at ± 75 PSF for single doors.
 - b. 3/4" latch throw – Listed by Florida Building Code and Miami Dade County at ± 80 PSF for single doors and ± 50 PSF for double doors.
5. Provide locksets that are listed with the California State Fire Marshal.

6. Provide locksets made in a manufacturing facility to compliant with ISO 9001-Quality Management and ISO 14001-Environmental Management.
7. Provide locksets that meet or exceed 20 Million cycle test verified by third party testing agency.
8. Provide locksets with the following mechanical features
 - a. Locksets outside locked lever must withstand minimum 1400 inch-pounds of torque. In excess of that, a replaceable part will shear. Key from outside and/or inside lever will still operate lockset.
 - b. Locksets shall fit modified ANSI A115.2 door preparation.
 - c. 2-3/4 inch (70 mm) backset, standard.
 - d. 9/16 inch (14 mm) throw latchbolt.
 - e. Latch to have single piece tail-piece construction.
 - f. Chassis – Critical latch and chassis components to be brass or corrosion-treated steel.
 - g. Lock shall allow the lever handle to move 45 degrees from parallel to the horizontal plane without engaging the latchbolt assembly.
 - h. Hub, side plate, shrouded rose, locking pin to be a one-piece casting with a shrouded locking lug.
 - i. Locksets to have anti-rotational studs that are thru-bolted.
 - j. Provide sufficient curved strike lip to protect door trim at single doors. At pairs of doors, provide 7/8" Lip to Center Strike.
 - k. Each lever to have independent spring mechanism.
 - l. Lever springs to be contained in the main lock hub.
 - m. Outside lever sleeve to be seamless, of one-piece construction made of a hardened steel alloy.
 - n. Keyed lever to be removable only after core is removed, by authorized control key.
 - o. Abrasive lever handles to have a special abrasive strip on back of the hand grasp
 - p. Tactile lever handles to have grooves machined into the back of the hand grasp portion of the lever.
9. Locksets to have the capability of supporting manufacturers' conventional core as well as large and small interchangeable cores.
10. Provide core face with the same finish as the lockset.
11. Provide functions and design as indicated in the hardware groups.
12. Acceptable manufacturers and/or products:
 - a. dormakaba USA Inc. - Best 9K Series

D. Exit Devices shall:

1. Tested and approved by BHMA for ANSI 156.3, Grade 1
2. Provide 9001-Quality Management and 14001-Environmental Management.
3. Furnish UL or recognized independent laboratory certified mechanical operational testing to 10 million cycles minimum.
4. Provide a deadlocking latchbolt
5. Non-fire rated exit devices shall have cylinder dogging.
6. Touchpad shall be "T" style
7. Exposed components shall be of architectural metals and finishes.
8. Lever design shall match lockset lever design
9. Provide strikes as required by application.
10. Fire exit devices to be listed for UL10C
11. UL listed for Accident Hazard
12. Shall consist of a cross bar or push pad, the actuating portion of which extends across, shall not be less than one half the width of the door leaf.
13. Provide vandal resistant or breakaway trim
14. Aluminum vertical rod assemblies are acceptable only when provide with the manufacturers optional top and bottom stainless steel rod guard protectors.
15. Acceptable manufacturers and/or products:

a. Allegion. Von Duprin 99/33 Series

E. Cylinders:

1. Provide the necessary cylinder housings, collars, rings & springs as recommended by the manufacturer for proper installation.
2. Provide the proper cylinder cams or tail piece as required to operate all locksets and other keyed hardware items listed in the hardware sets.
3. Coordinate and provide as required for related sections.

F. Door Closers shall:

1. Tested and approved by BHMA for ANSI 156.4, Grade 1
2. UL10C certified
3. Provide 9001-Quality Management and 14001-Environmental Management.
4. Closer shall have extra-duty arms and knuckles
5. Conform to ANSI 117.1
6. Maximum 2 7/16 inch case projection with non-ferrous cover
7. Separate adjusting valves for closing and latching speed, and backcheck
8. Provide adapter plates, shim spacers and blade stop spacers as required by frame and door conditions
9. Full rack and pinion type closer with 1½" minimum bore
10. Mount closers on non-public side of door, unless otherwise noted in specification
11. Closers shall be non-handed, non-sized and multi-sized.
12. Acceptable manufacturers and/or products:
 - a. Allegion. – LCN 4040XP Series

G. Low Energy Operators shall:

1. Conform to ANSI/BHMA A156.19 as a low energy power opening device.
2. Be listed under UL228, UL325, UL10B, UL10C, UBC 7.2 and FCC listed.
3. Shall be non-handed.
4. Be rated for door panels weighing up to 350 lbs (160 kg).
5. The manual door closer within the Low Energy Operator shall be adjusted to meet Americans with Disabilities Act (ADA) 5 lbs opening force [Push-Side applications only]
6. Operator shall be isolated from mounting plate with rubber mounts to mitigate the transmission of forces between the door and the operator.
7. Shall have a position encoder to communicate with microprocessor.
8. Incorporate a resettable powered operation counter that tracks both powered and non-powered cycling of the Operator.
9. Incorporate the following adjustable settings:
 - i. Hold Open Timer, to 28 seconds
 - ii. Open Speed
 - iii. Backcheck Speed
 - iv. Vestibule Sequence Timer
10. Include DIP switch controls for:
 - i. On board diagnostics
 - ii. Power close
 - iii. Push and Go operation
 - iv. Time delay logic for electrified hardware components
11. Include terminals for auxiliary controls including:
 - i. Activation devices; provide two discrete inputs
 - ii. Vestibule sequencing
12. Control switches including:

- i. Day/Night open (illuminated)
 - ii. Power On-Off
 - 13. Includes adhesive Low Energy Operator mounting templates.
 - 14. R-14 Aluminum Allow Materials
 - 15. For non-powered operation, the unit shall function as a standard door closer with adjustable spring force size 1 thru 6.
 - 16. Acceptable manufacturers and/or products:
 - a. dormakaba USA Inc. ED900 Series
- H. Door Stops: Provide a dome floor or wall stop for every opening as listed in the hardware sets.
- 1. Wall stop and floor stop shall be wrought bronze, brass or stainless steel.
 - 2. Provide fastener suitable for wall construction.
 - 3. Coordinate reinforcement of walls where wall stop is specified.
 - 4. Provide dome stops where wall stops are not practical. Provide spacers or carpet riser for floor conditions encountered
- I. Over Head Stops: Provide a Surface mounted or concealed overhead when a floor or wall stop cannot be used or when listed in the hardware set.
- 1. Concealed overhead stops shall be heavy duty bronze or stainless steel.
 - 2. Surface overhead stops shall be heavy duty bronze or stainless steel.
- J. Push Plates: Provide with four beveled edges ANSI J301, .050 thickness, size as indicated in hardware set. Furnish oval-head countersunk screws to match finish.
- K. Pulls with plates: Provide with four beveled edges ANSI J301, .050 thickness Plates with ANSI J401 Pull as listed in hardware set. Provide proper fasteners for door construction.
- L. Push Pull Bars: Provide ANSI J504, .1" Dia. Pull and push bar model and series as listed in hardware set. Provide proper fasteners for door construction.
- M. Kickplates: Provide with four beveled edges ANSI J102, 10 inches high by width less 2 inches on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- N. Mop plates: Provide with four beveled edges ANSI J103, 4 inches high by width less 1 inch on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- O. Door Bolts: Flush bolts for wood or metal doors.
- 1. Provide a set of Automatic bolts, Certified ANSI/BHMA 156.3 Type 25 for hollow metal label doors.
 - 2. Provide a set of Automatic bolts, Certified ANSI/BHMA 156.3 Type 27 at wood label doors.
 - 3. Manual flush bolts, Certified ANSI/BHMA 156.16 at openings where allowed local authority.
 - 4. Provide Dust Proof Strike, Certified ANSI/BHMA 156.16 at doors with flush bolts without thresholds.
- P. Coordinator and Brackets: Provide a surface mounted coordinator when automatic bolts are used in the hardware set.
- 1. Coordinator, Certified ANSI/BHMA A1156.3 Type 21A for full width of the opening.
 - 2. Provide mounting brackets for soffit applied hardware.
 - 3. Provide hardware preparation (cutouts) for latches as necessary.

- Q. Surface mounted Door Loop Power Transfer: Armored flex conduit is to bring power from the frame to the door. The tube shall accept up to 1/4" wire bundle and is 18" long.
- R. Power Supply: Provide power supply PS900 series for Electric Latch Retraction exit devices. Provide the appropriate control circuit card necessary to operate the number of EL exit devices used at each opening. Example PS914
 - 1. UL Listed for class II output
 - 2. Include circuit breakers for protection of motherboard
 - 3. 120 Volt AC input at 1 Amp
 - 4. Control module shall include Fire alarm terminal contacts.
- S. Seals: All seals shall be finished to match adjacent frame color. Seals shall be furnished as listed in schedule. Material shall be UL listed for labeled openings.
- T. Weatherstripping: Provide at head and jambs only those units where resilient or flexible seal strip is easily replaceable. Where bar-type weatherstrip is used with parallel arm mounted closers install weatherstrip first.
 - 1. Weatherstrip shall be resilient seal of (Neoprene, Polyurethane, Vinyl, Pile, Nylon Brush, Silicone)
 - 2. UL10C Positive Pressure rated seal set when required.
- U. Door Bottoms/Sweeps: Surface mounted or concealed door bottom where listed in the hardware sets.
 - 1. Door seal shall be resilient seal of (Neoprene, Polyurethane, Nylon Brush, Silicone)
 - 2. UL10C Positive Pressure rated seal set when required.
- V. Thresholds: Thresholds shall be aluminum beveled type with maximum height of 1/2" for conformance with ADA requirements. Furnish as specified and per details. Provide fasteners and screws suitable for floor conditions.

2.3 FINISH:

- A. Designations used in Schedule of Finish Hardware - 3.05, and elsewhere to indicate hardware finishes are those listed in ANSI/BHMA A156.18 including coordination with traditional U.S. finishes shown by certain manufacturers for their products
- B. Powder coat door closers to match other hardware, unless otherwise noted.
- C. Aluminum items shall be finished to match predominant adjacent material. Seals to coordinate with frame color.

2.4 KEYS AND KEYING:

- A. Provide keyed brass construction cores and keys during the construction period. Construction control and operating keys and core shall not be part of the Owner's permanent keying system or furnished in the same keyway (or key section) as the Owner's permanent keying system. Permanent cores and keys (prepared according to the accepted keying schedule) will be furnished to the Owner.
- B. Cylinders, removable and interchangeable core system: Best PEAKS™ Patented 7-pin.

- C. Permanent keys and cores: Stamped with the applicable key mark for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped "Do Not Duplicate."
- D. Transmit Grand Masterkeys, Masterkeys and other Security keys to Owner by Registered Mail, return receipt requested.
- E. Furnish keys in the following quantities:
 - 1. 1 each Grand Masterkeys
 - 2. 4 each Masterkeys
 - 3. 2 each Change keys each keyed core
 - 4. 15 each Construction masterkeys
 - 5. 1 each Control keys
- F. The Owner, or the Owner's agent, will install permanent cores and return the construction cores to the Hardware Supplier. Construction cores and keys remain the property of the Hardware Supplier.
- G. Keying Schedule: Arrange for a keying meeting, and programming meeting with Architect Owner and hardware supplier, and other involved parties to ensure locksets and locking hardware, are functionally correct and keying and programming complies with project requirements. Furnish 3 typed copies of keying and programming schedule to Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of conditions: Examine doors, frames, related items and conditions under which Work is to be performed and identify conditions detrimental to proper and or timely completion.
 - 1. Do not proceed until unsatisfactory conditions have been corrected.

3.2 HARDWARE LOCATIONS:

- A. Mount hardware units at heights indicated in the following publications except as specifically indicated or required to comply with the governing regulations.
 - 1. Recommended Locations for Builder's Hardware for Standard Steel Doors and Frames, by the Door and Hardware Institute (DHI).
 - 2. Recommended locations for Architectural Hardware for flush wood doors (DHI).
 - 3. WDMA Industry Standard I.S.-1A-04, Industry Standard for Architectural wood flush doors.

3.3 INSTALLATION:

- A. Install each hardware item per manufacturer's instructions and recommendations. Do not install surface mounted items until finishes have been completed on the substrate. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- B. Conform to local governing agency security ordinance.
- C. Install Conforming to ICC/ANSI A117.1 Accessible and Usable Building and Facilities.

1. Adjust door closer sweep periods so that from the open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the landing side of the door.

- D. Installed hardware using the manufacturers fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use “Riv-Nuts” or similar products.

3.4 FIELD QUALITY CONTROL AND FINAL ADJUSTMENT

- A. Contractor/Installers, Field Services: After installation is complete, contractor shall inspect the completed door openings on site to verify installation of hardware is complete and properly adjusted, in accordance with both the Contract Documents and final shop drawings.

1. Check and adjust closers to ensure proper operation.
2. Check latchset, lockset, and exit devices are properly installed and adjusted to ensure proper operation.
 - a. Verify levers are free from binding.
 - b. Ensure latchbolts and dead bolts are engaged into strike and hardware is functioning.
3. Report findings, in writing, to architect indicating that all hardware is installed and functioning properly. Include recommendations outlining corrective actions for improperly functioning hardware if required.

3.5 SCHEDULE OF FINISH HARDWARE:

Manufacturer List

<u>Code</u>	<u>Name</u>
AB	ABH Manufacturing Inc.
AD	Adams Rite
BE	Best Access Systems
BY	By Others
DM	Dorma Door Controls
LC	LCN Closers
NA	National Guard
RC	RCI
ST	Stanley
TR	Trimco
VO	Von Duprin

Finish List

<u>Code</u>	<u>Description</u>
AL	Aluminum
626	Satin Chromium Plated
628	Satin Aluminum, Clear Anodized
630	Satin Stainless Steel
689	Aluminum Painted
US26D	Chromium Plated, Dull

Option List

<u>Code</u>	<u>Description</u>
CSK	Counter Sunk Screw Holes
QEL	Quiet Electric Latch Retraction
RX-2	Request to Exit Double Switch
B4E	Beveled 4 EDges
SCH	School Option

Hardware Sets

SET #1

Doors: A131F, A131I

6	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
2	Exit Device	QEL RX-2 9927NL-OP x 110MD-NL	US26D	VO
2	Rim Cylinder	12E-72 PEAKS	626	BE
2	Door Pull	1191-5	628	TR
1	Auto Operator	ED 900 J8	689	DM
1	Door Closer	4040 XP CUSH	AL	LC
2	Wall Switch	WS/RFT 1 LOGO	630	DM
1	RF Receiver	RFR 433		DM
1	Card Reader	by Owners Security Vendor		BY
1	Power Supply	PS914 900-2RS-FA		VO
2	Door Position Switch	MC4		DM
2	Door Loop	9509-18S		RC
1	Handicap Threshold	513A	AL	NA

NOTE: Doors are normally closed and locked. Exit devices are to be tied to the security timer to retract the devices during business hours. Door become a push/pull operation. Auto operator opens active door via touch plates. Egress through either door allowed at all times without use of key, credentials, special knowledge or effort. Access is gained after hours with authorized credentials which momentarily unlocks exit devices and activates the auto operator for assisted access. Egress via auto operator is available at all times by using touch plate. Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #2

Doors: A237J

2	Continuous Hinge	661HD UL SCH	AL	ST
2	Exit Device	QEL RX-2 3347A-NL-OP x 388	US26D	VO
2	Rim Cylinder	12E-72 PEAKS	626	BE
2	Door Pull	1191-5	628	TR
1	Door Closer	4040 XP CUSH	AL	LC
1	Auto Operator	ED 900 J8	689	DM
1	Adapter Plate	404XP-18PA (as needed)	AL	LC
1	Cush Shoe Support	4040XP-30 (as needed)	AL	LC
1	Parallel Arm Shoe	4040XP-62PA (as needed)	AL	LC
2	Door Loop	9509-18S		RC

2	Door Position Switch	MC4		DM
1	Power Supply	PS914 900-2RS-FA		VO
1	Card Reader	by Owners Security Vendor		BY
1	RF Receiver	RFR 433		DM
2	Wall Switch	WS/RFT 1 LOGO	630	DM
1	Integral Seals	by Door/Frame Mfg.		BY
1	Handicap Threshold	513A	AL	NA

NOTE: Doors are normally closed and locked. Exit devices are to be tied to the security timer to retract the devices during business hours. Door become a push/pull operation. Auto operator opens active door via touch plates. Egress through either door allowed at all times without use of key, credentials, special knowledge or effort. Access is gained after hours with authorized credentials which momentarily unlocks exit devices and activates the auto operator for assisted access. Egress via auto operator is available at all times by using touch plate. Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #3

Doors: A108A, A108B, A131B, A131C, A131D, A131K, A131L, A131M, A238A, A238B, A238C

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Intruder	9K3-7IN15D PEAKS	626	BE
1	Door Closer	4040 XP CUSH	AL	LC
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Gasketing	5050B Head & Jambs	NA	

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #4

Doors: A131J, A237C

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Storeroom	9K3-7D15D PEAKS	626	BE
1	Door Closer	4040 XP CUSH	AL	LC
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Gasketing	5050B Head & Jambs	NA	

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #5

Doors: A116A, A131E, A230B, A237F

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Pull Plate	1017-3B	630	TR
1	Push Plate	1001-9	630	TR
1	Auto Operator	ED 900 J8	689	DM
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Door Stop	as Required	626	TR

1	RF Receiver	RFR 433		DM
2	Wall Switch	WS/RFT 1 LOGO	630	DM
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #6

Doors: A131G

2	Continuous Hinge	661HD UL SCH	AL	ST
1	Deadlock	MS1850SN	628	AD
1	Mortise Cylinder	1E-74 PEAKS	626	BE
1	Turn Knob Mortise Cylinder	1EA-6A4	626	BE
2	Push/Pull Set	1747-1	628	TR
2	Door Closer	4040 XP CUSH	AL	LC
2	Adapter Plate	404XP-18PA (as needed)	AL	LC
2	Cush Shoe Support	4040XP-30 (as needed)	AL	LC
2	Parallel Arm Shoe	4040XP-62PA (as needed)	AL	LC
1	Two-Point Flushbolt	MS1880	628	AD
1	Integral Seals	by Door/Frame Mfg.		BY

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #7

Doors: A237A, A240A

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	EPLEX Push Button Lockset	E2031 B LL (SFIC)	626	DM
1	Permanent Core	1C-7A2 PEAKS	626	BE
1	Door Closer	4040 XP CUSH	AL	LC
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #8

Doors: A237B, A237D

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Office	9K3-7AB15D PEAKS	626	BE
1	Door Closer	4040 XP CUSH	AL	LC
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #9

Doors: A105A, A301A

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Storeroom	9K3-7D15D PEAKS	626	BE
1	Door Closer	4040 XP RW/PA	AL	LC
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Door Stop	as Required	626	TR
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #10

Doors: A133A

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Storeroom	9K3-7D15D PEAKS	626	BE
1	Overhead Stop	4420 Series	US32D	AB
1	Weatherstrip	160SA Head & Jambs		NA
1	Door Sweep	200NA		NA
1	Handicap Threshold	513A	AL	NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #11

Doors: A120A, A121A, A122A, A123A, A124A, A125A, A126A, A127A, A128A, A129A, A130A, A131H, A206A, A207A, A208A, A209A, A210A, A211A, A213A, A214A, A215A, A217A, A218A, A219A, A220A, A221A, A222A, A224A, A226A, A227A

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Office (if needed)	9K3-7AB15D PEAKS	626	BE
1	Door Closer	4040 XP RW/PA	AL	LC
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Door Stop	as Required	626	TR
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #12

Doors: A201A, A237G, A237H, A237I

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
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1	Lockset - Intruder (if needed)	9K3-7IN15D PEAKS	626	BE
1	Door Closer	4040 XP CUSH	AL	LC
1	Kick Plate	K0050 10" x 2" LDW B4E CSK	630	TR
1	Gasketing	5050B Head & Jambs	NA	

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #13

Doors: A115A, A237E

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Indicator Deadlock	D871	626	DM
1	Privacy Set	9K3-0L15D	626	BE
1	Door Stop	as Required	626	TR
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #14

Doors: A113A, A114A, A123B, A132A, A228A, A232A, A233A

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Storeroom	9K3-7D15D PEAKS	626	BE
1	Door Stop	as Required	626	TR
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #15

Doors: A230A

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
1	Lockset - Storeroom	9K3-7D15D PEAKS	626	BE
1	Overhead Stop	4420 Series	US32D	AB
1	Gasketing	5050B Head & Jambs		NA

NOTE: Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #16

Doors: A235A, A236A

3	Hinges	FBB179 4 1/2 x 4 1/2 (NRP @ outswing doors)	US26D	ST
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1	Passage Set	9K3-0N15D	626	BE
1	Door Stop	as Required	626	TR
1	Gasketing	5050B Head & Jambs		NA

NOTE: Verify locking function with owner. Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

SET #17

Doors: A131A, A131N, A131O, A301B

NOTE: All hardware is existing to remain. Field verify existing doors, frames and related items and condition prior to bid. Identify all conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

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SECTION 08 80 00
GLAZING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes glazing for the following products and applications, including those specified in other Sections where glazing requirements are specified by reference to this Section:
 - 1. Windows.
 - 2. Doors.
 - 3. Storefront framing.
 - 4. Glazed entrances.
 - 5. Interior borrowed lites.

1.2 DEFINITIONS

- A. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.
- B. Interspace: Space between lites of an insulating-glass unit.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.
- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

1.4 ACTION SUBMITTALS

- A. Product Data: For each glass product and glazing material indicated.
- B. Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches square.
- C. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

1.5 QUALITY ASSURANCE

- A. Source Limitations for Glass and Accessories: Obtain from single source from single manufacturer for each glass type.
- B. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
 - 1. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."
- C. Safety Glazing Labeling: Where safety glazing labeling is indicated, permanently mark glazing with certification label of the manufacturer. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
- D. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of IGCC.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.
- B. Comply with insulating-glass manufacturer's written recommendations for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.

1.8 WARRANTY

- A. Manufacturer's Special Warranty on Insulating Glass: Manufacturer's standard form in which insulating-glass manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.
 - 1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 GLASS PRODUCTS, GENERAL

- A. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass lites in thicknesses as needed to comply with requirements indicated.
 - 1. Minimum Glass Thickness for Exterior Lites: Not less than 6.0 mm.
- B. Strength: Where float glass is indicated, provide annealed float glass, Kind HS heat-treated float glass, or Kind FT heat-treated float glass. Where heat-strengthened glass is indicated, provide Kind HS heat-treated float glass or Kind FT heat-treated float glass. Where fully tempered glass is indicated, provide Kind FT heat-treated float glass.
- C. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
 - 1. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.
 - 2. U-Factors: Center-of-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F.
 - 3. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
 - 4. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

2.2 GLASS PRODUCTS

- A. Float Glass: ASTM C 1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.
- B. Heat-Treated Float Glass: ASTM C 1048; Type I; Quality-Q3; Class I (clear) unless otherwise indicated; of kind and condition indicated.
 - 1. For uncoated glass, comply with requirements for Condition A.
 - 2. For coated vision glass, comply with requirements for Condition C (other coated glass).
- C. One-way Mirror Vision Glass: Float glass with one-way mirror film applied.

2.3 INSULATING GLASS

- A. 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:
- B. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190, and complying with other requirements specified.
 - 1. Sealing System: Dual seal, with manufacturer's standard primary and secondary.
 - 2. Spacer: Manufacturer's standard spacer material and construction.
- C. Glass: Comply with applicable requirements in "Glass Products" Article as indicated by designations in "Insulating-Glass Types" Article.

2.4 GLAZING SEALANTS

A. General:

1. **Compatibility:** Provide glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
2. **Suitability:** Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
3. **Colors of Exposed Glazing Sealants:** As selected by Architect from manufacturer's full range.

B. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 25, Use NT.

1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. [Dow Corning Corporation; 799.](#)
 - b. [GE Advanced Materials - Silicones](#); UltraGlaze SSG4000.
 - c. [May National Associates, Inc.](#); Bondaflex Sil 200 GPN.
 - d. [Polymeric Systems, Inc.; PSI-631.](#)
 - e. [Tremco Incorporated](#); Proglaze SSG.

C. Glazing Sealant: Acid-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 25, Use NT.

2.5 GLAZING TAPES

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C 1281 and AAMA 800 for products indicated below:

1. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
2. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

B. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:

1. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

2.6 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

- B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
- C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.
- D. Spacers: Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
- E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

2.7 FABRICATION OF GLAZING UNITS

- A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

2.8 MONOLITHIC-GLASS TYPES

- A. Glass Type GL-1: Clear float glass.
 1. Thickness: 6.0 mm.
- B. Glass Type GL-2: Clear fully tempered float glass.
 1. Thickness: 6.0 mm.
 2. Provide safety glazing labeling.

2.9 INSULATING-GLASS TYPES

- A. Glass Type GL-3: Double Glazed Tinted Solar Control Insulating Glass Unit Solarban® 60 on Solexia® 6mm (2) | Air 1/2" (12.7mm) | Clear 6mm
 1. Conformance: ASTM E 2190
 2. Outdoor Lite: Solexia® Tinted float glass as manufactured by Vitro Architectural Glass
 - a. Conformance: ASTM C 1036, Type 1, Class 2, Quality q3.
 - b. Glass Thickness: 6mm (1/4")
 - c. Magnetic Sputter Vacuum Deposition Coating (MSVD): ASTM C 1376.
 - d. Coating: Solarban® 60 on Surface # 2
 - e. Heat-Treatment: Heat-strengthened, ASTM C 1048, Kind HS
 3. Interspace Content: Air 1/2" (12.7mm)
 4. Indoor Lite: Clear float glass as manufactured by Vitro Architectural Glass
 - a. Conformance: ASTM C 1036, Type 1, Class 1, Quality q3.
 - b. Heat-Treatment: Heat-strengthened, ASTM C 1048, Kind HS c. Glass Thickness: 6mm (1/4")
 5. Performance Requirements:

- a. Visible Light Transmittance: 61 percent minimum.
- b. Winter Nighttime U-Factor: 0.29 (Btu/hr* ft^2 *°F) maximum.
- c. Summer daytime U-Factor: 0.27 (Btu/hr* ft^2 *°F) maximum.
- d. Shading Coefficient: 0.37 maximum.
- e. Solar Heat Gain Coefficient: 0.32 maximum.
- f. Outdoor Visible Light Reflectance: 9 percent maximum.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
 - 1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
 - 2. Presence and functioning of weep systems.
 - 3. Minimum required face and edge clearances.
 - 4. Effective sealing between joints of glass-framing members.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.
- B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that will leave visible marks in the completed work.

3.3 GLAZING, GENERAL

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Adjust glazing channel dimensions as required by Project conditions during installation to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.
- C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.
- D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.

- E. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- G. Provide spacers for glass lites where length plus width is larger than 50 inches.
 - 1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
 - 2. Provide 1/8-inch minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
- H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.
- I. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.
- J. Set glass lites with proper orientation so that coatings face exterior or interior as specified.

3.4 TAPE GLAZING

- A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
- B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
- C. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
- D. Do not remove release paper from tape until right before each glazing unit is installed.
- E. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

3.5 CLEANING AND PROTECTION

- A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.

- C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains; remove as recommended in writing by glass manufacturer.
- D. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.
- E. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

END OF SECTION 088000

SECTION 08 92 00
LOUVERS AND VENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide louvers and vents.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Steel Wall Louvers:
 - 1. Blades: Horizontal drainable fixed blades.
 - 2. Blade Type: Fixed.
 - 3. Finish: Baked enamel.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Comply with AMCA Standard 500 and provide units with AMCA Certification rating seal. Comply with SMACNA Sheet Metal Manual except as otherwise indicated.
- C. Provide separate continuous sills where needed to prevent water penetration. Maintain equal blade-to-blade and blade-to-frame spacing for uniform appearance. Provide concealed vertical mullions and reinforcement as needed.
- D. Provide anchors, supports and accessories as needed. Provide gaskets, flashings and fillers as necessary to make installation watertight.
- E. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 09 21 13
PORTLAND CEMENT PLASTERING

PART 1 GENERAL

1.1 SUMMARY

- A. Provide Portland cement plastering.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Portland Cement Plaster:
1. Manufacturers:
 - a. [Plastic Components, Inc.](#)
 - b. [STO Corp.](#)
 - c. [Stuc-O-Flex.](#)
 2. Type: 3 coats over substrate.
 3. Cement: Portland cement, ASTM C 150, Type I or II.
 4. Finish Coat: Job-mixed finish coat.
 5. Finish: Troweled finish.
 6. Auxiliary Materials:
 - a. Corner beads, casing bead, and control joints.
 - b. Bonding compounds and agents.
- B. Lath and Plaster Support Systems:
1. Manufacturers:
 - a. [Plastic Components, Inc.](#)
 - b. [STO Corp.](#)
 - c. [Stuc-O-Flex.](#)
 2. Steel Studs and Runners, Non-Load (Axial) Bearing: ASTM C 645.
 3. Vertical Metal Furring: Channel furring and braces, Z-furring members, and furring brackets.
 4. Expanded Metal Lath: ASTM C 847, self-furring galvanized steel diamond mesh or rib lath.
 5. Auxiliary Materials:
 - a. Corner beads, casing bead, and control joints.
 - b. Bonding compounds and agents.
 - c. Acoustical sealant.
 - d. Sound attenuation blankets, mineral-fiber type.
 - e. Thermal insulation, mineral-fiber type.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Comply with ASTM C 754, ASTM C 842, ASTM C 84, ASTM C 844, ASTM C 926 and manufacturer's instructions and recommendations. Maintain environmental conditions within the limits prescribed by manufacturer.
- B. At plaster patching, prepare surface to sound substrate, apply bonding agent and patching materials in accordance with manufacturer's instructions.
- C. Install metal trims at perimeters and joints. At scratch coat form full keys. Ensure tight contact between coats. Tool edges at windows, doors, other openings to small vee to control spalling.
- D. Clean adjacent surfaces soiled during installation. Touch-up damaged surfaces. Protect work from damage.

END OF SECTION

SECTION 09 21 16
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.1 SUMMARY

- A. Provide gypsum board assemblies.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Tolerances: Not more than 1/16-inch difference in true plane at joints between adjacent boards before finishing. After finishing, joints shall be not be visible. Not more than 1/8 inch in 10 feet deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work.
- C. Fire Resistance for Fire-Rated Assemblies: ASTM E 119.
- D. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Gypsum Board:
 - 1. Application: Interior walls, partitions, and ceilings with tape and joint compound finish.
 - 2. Application: Installation of access panels in gypsum board assemblies.
 - 3. Type: Board for tape and joint compound finish.
 - a. Type: Regular, moisture-resistant and fire-rated types as required.
 - b. Typical Thickness: 1/2 inch.
 - c. Typical Thickness: 5/8 inch.
 - 4. Type: Water-resistant gypsum backing board.
 - a. Type: Regular and fire-rated types as required:
 - b. Typical Thickness: 1/2 inch.
 - c. Typical Thickness: 5/8 inch.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install gypsum board for tape and 3-coat joint compound finish in compliance with ASTM C 840 and GA 216, Level 4 finish. Install gypsum board assemblies true, plumb, level and in proper relation to adjacent surfaces.
- B. Provide fire-rated systems where indicated and where required by authorities having jurisdiction.

- C. Install boards vertically. Do not allow butt-to-butt joints and joints that do not fall over framing members.
- D. Where new partitions meet existing construction, remove existing cornerbeads to provide a smooth transition.
- E. Provide insulation full height and thickness in partitions at conference rooms, toilet rooms, between different occupancies, and where required.
- F. Provide acoustical sealant at both faces at top and bottom runner tracks, wall perimeters, openings, expansion and control joints.
- G. Install trim in strict compliance with manufacturer's instructions and recommendations.
- H. Repair surface defects. Leave ready for finish painting or wall treatment.

END OF SECTION

SECTION 09 21 17
GYPSUM BOARD SHAFT WALL ASSEMBLIES

PART 1 GENERAL

1.1 SUMMARY

- A. Provide gypsum board shaft wall assemblies.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Tolerances: Not more than 1/16-inch difference in true plane at joints between adjacent boards before finishing. After finishing, joints shall be not be visible. Not more than 1/8 inch in 10 feet deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work.
- C. Fire Resistance for Fire-Rated Assemblies: ASTM E 119.
- D. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship and level of finish.
- E. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Gypsum Shaftwall Board:
 - 1. Type: Fire-resistant shaftwall board.
 - a. Typical Thickness: 1 inch.
- B. Steel Framing for Shaftwall:
 - 1. Attachment: Standard.
 - 2. Stud Thickness: 20 gauge (.0329 inch).

PART 3 EXECUTION

3.1 INSTALLATION

- A. Provide fire-rated systems where indicated and where required by authorities having jurisdiction.
- B. Install boards vertically. Do not allow butt-to-butt joints and joints that do not fall over framing members.
- C. Where new partitions meet existing construction, remove existing cornerbeads to provide a

smooth transition.

- D. Provide insulation full height and thickness in partitions at conference rooms, toilet rooms, between different occupancies, and where required.
- E. Provide acoustical sealant at both faces at top and bottom runner tracks, wall perimeters, openings, expansion and control joints.
- F. Install trim in strict compliance with manufacturer's instructions and recommendations.
- G. Repair surface defects. Leave ready for finish painting or wall treatment.

END OF SECTION

SECTION 09 22 16
NON-STRUCTURAL METAL FRAMING

PART 1 GENERAL

1.1 SUMMARY

- A. Provide non-structural metal framing for gypsum board assemblies.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Tolerances: Not more than 1/8 inch in 10 feet deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work.
- C. Fire Resistance for Fire-Rated Assemblies: ASTM E 119.
- D. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Steel Framing for Walls and Partitions:
 - 1. Stud Thickness: 20 gauge (.0329 inch).
 - 2. Stud Depth, Typical: 2-1/2 inches.
 - 3. Stud Depth, Typical: 3-5/8 inches.
 - 4. Stud Depth, Typical: 4 inches.
 - 5. Stud Depth, Typical: 6 inches.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Provide fire-rated systems where indicated and where required by authorities having jurisdiction.
- B. Where new partitions meet existing construction, remove existing cornerbeads to provide a smooth transition.
- C. Provide acoustical sealant at both faces at top and bottom runner tracks, wall perimeters, openings, expansion and control joints.

END OF SECTION

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SECTION 09 29 00
GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior gypsum board.
2. Tile backing panels.

B. Related Requirements:

1. Section 061600 "Sheathing" for gypsum sheathing for exterior walls.
2. Section 092216 "Non-Structural Metal Framing" for non-structural framing and suspension systems that support gypsum board panels.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.3 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.4 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.2 INTERIOR GYPSUM BOARD

- A. **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:

1. [American Gypsum.](#)
2. [CertainTeed Corp.](#)
3. [Georgia-Pacific Gypsum LLC.](#)
4. [National Gypsum Company.](#)
5. [PABCO Gypsum.](#)
6. [USG Corporation.](#)

- B. Gypsum Board, Type X: ASTM C 1396/C 1396M.

1. Thickness: 5/8 inch.
2. Long Edges: Tapered.

- C. Gypsum Ceiling Board: ASTM C 1396/C 1396M.

1. Thickness: 1/2 inch.
2. Long Edges: Tapered.

- D. Moisture- and Mold-Resistant Gypsum Board: ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.

1. Core: 5/8 inch, Type X.
2. Long Edges: Tapered.
3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.3 TILE BACKING PANELS

- A. Glass-Mat, Water-Resistant Backing Board: ASTM C 1178/C 1178M, with manufacturer's standard edges.

1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

- a. [CertainTeed Corp.; GlasRoc Tile Backer.](#)
- b. [Georgia-Pacific Gypsum LLC; DensShield Tile Backer.](#)

2. Core: 5/8 inch, Type X.
3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

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.
 - b. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - c. L-Bead: L-shaped; exposed long flange receives joint compound.
 - d. U-Bead: J-shaped; exposed short flange does not receive joint compound.

2.5 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
 - 2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
- C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints 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 drying-type, all-purpose compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: For second coat, use drying-type, all-purpose compound.
 - 4. Finish Coat: For third coat, use drying-type, all-purpose compound.
- D. Joint Compound for Tile Backing Panels:
 - 1. Glass-Mat, Water-Resistant Backing Panel: As recommended by backing panel manufacturer.

2.6 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
- B. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
 - 1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
- C. Thermal Insulation: As specified in Section 072100 "Thermal Insulation."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. 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.
- E. Cover both faces of support 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. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch-wide joints to install sealant.
- F. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- G. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Type X: As indicated on Drawings.
 - 2. Ceiling Type: Ceiling surfaces.
 - 3. Moisture- and Mold-Resistant Type: At restrooms and janitor closet walls not receiving tile.

4. Glass-Mat Interior Type: At locations to receive tile.

B. Single-Layer Application:

1. On ceilings, apply gypsum panels before wall/partition board application to 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 panels.
3. On Z-furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

3.4 APPLYING TILE BACKING PANELS

- A. Glass-Mat, Water-Resistant Backing Panels: Comply with manufacturer's written installation instructions and install at locations indicated to receive tile. Install with 1/4-inch gap where panels abut other construction or penetrations.
- B. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

3.5 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. Interior Trim: Install in the following locations:
 1. Cornerbead: Use at outside corners unless otherwise indicated.
 2. LC-Bead: Use at exposed panel edges.
 3. L-Bead: Use where indicated.
 4. U-Bead: Use where indicated.

3.6 FINISHING GYPSUM BOARD

- 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 and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:

1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
 2. Level 2: Panels that are substrate for tile.
 3. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
- E. Glass-Mat Gypsum Sheathing Board: Finish according to manufacturer's written instructions for use as exposed soffit board.

3.7 APPLYING TEXTURE FINISHES

- A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.
- B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture free of starved spots or other evidence of thin application or of application patterns.
- 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.

3.8 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

SECTION 09 30 00
TILING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Porcelain tile.

B. Related Sections:

1. Section 079200 "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.
2. Section 092900 "Gypsum Board" for glass-mat, water-resistant backer board.

1.2 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 "American National Standard Specifications for Installation of Ceramic Tile."

C. Module Size: Actual tile size plus joint width indicated.

D. Face Size: Actual tile size, excluding spacer lugs.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples for Verification:

1. Full-size units of each type and composition of tile and for each color and finish required.
2. Full-size units of each type of trim and accessory for each color and finish required.

1.4 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.

1.5 QUALITY ASSURANCE

- A. Source Limitations for Tile: Obtain tile of each type and color or finish from one 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.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from one manufacturer and each aggregate from one source or producer.

1.6 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.
- E. Handle tile that has temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

1.7 PROJECT 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 PRODUCTS, GENERAL

- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics 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 TCA 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.

2.2 TILE PRODUCTS

A. Tile Type CT-1: Porcelain tile.

1. [Basis-of-Design Product](#): Subject to compliance with requirements, provide product indicated on Drawings by DalTile.
2. Composition: Porcelain.
3. Module Size: 12 by 24 inches
4. Finish: Rectified Polished.
5. Tile Color : Dove Grey.
6. Grout Color: Bostik EzPoxy Misty Grey H144.

2.3 SETTING MATERIALS

A. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4.

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. [Bostik, Inc.](#)
 - b. [C-Cure](#).
 - c. [Custom Building Products](#).
 - d. [Laticrete International, Inc.](#)
 - e. [MAPEI Corporation](#).
2. Provide prepackaged, dry-mortar mix containing dry, redispersible, vinyl acetate or acrylic additive to which only water must be added at Project site.
3. Provide prepackaged, dry-mortar mix combined with acrylic resin or styrene-butadiene-rubber liquid-latex additive at Project site.
4. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.

2.4 GROUT MATERIALS

A. Multiple component, chemical resistant, water cleanable, 100 percent epoxy grout: ANSI A118.3.

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. [Bostik, Inc.](#)
 - b. [C-Cure](#).
 - c. [Custom Building Products](#).
 - d. [Laticrete International, Inc.](#)
 - e. [MAPEI Corporation](#).

2.5 MISCELLANEOUS MATERIALS

- A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.
- B. 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. Do not clean with tap water to avoid hard water staining, use only distilled water.
- C. Grout Sealer: Manufacturer's standard product for sealing grout joints and that does not change color or appearance of grout.

2.6 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.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

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 installed tile.
 - 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 thin-set 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 thin-set mortar with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.
- B. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot 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 TILE INSTALLATION

- A. Comply with TCA's "Handbook for Ceramic Tile Installation" for TCA 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 TCA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
- 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. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.
- E. Grout Sealer: Apply grout sealer to grout joints according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.

3.4 CLEANING AND PROTECTING

- A. 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. Remove temporary protective coating by method recommended by coating manufacturer and that is acceptable to tile and grout manufacturer. Trap and remove coating to prevent drain clogging.

- B. 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.
- C. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.
- D. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

END OF SECTION 093000

SECTION 09 51 00
ACOUSTICAL CEILINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide acoustical ceilings and suspension systems.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- C. Extra Stock: Submit extra stock equal to 2 percent of amount installed.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities. Acoustical performance based on project requirements.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Mineral Fiber Acoustical Ceilings:
 - 1. Panel Size: 24 by 24 inches.
 - 2. Panel Size: 24 by 48 inches.
 - 3. Panel Edge: Square.
 - 4. Grid: Exposed flush grid.
 - 5. Suspension System: Intermediate duty.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and suspension systems in accordance with manufacturer's instructions and recommendations, and ASTM C 636. Coordinate installation with location of mechanical and electrical work to ensure proper locations and anchorage.
- B. Level ceiling to within 1/8 inch in 10 feet in both directions. Scribe and cut panels to fit accurately. Measure and layout to avoid less than half panel units.
- C. Removal and reinstallation at existing ceilings: Remove and store materials for reuse when allowed. Handle with white gloves and avoid damaging corners and edges. Clean tiles and grid system, which have been removed. Provide additional materials to complete the work and to replace damaged existing materials. New materials shall match existing materials as approved.

D. Adjust, clean, and touch-up all system components.

END OF SECTION

SECTION 09 81 16
ACOUSTIC BLANKET INSULATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide glass fiber acoustical blanket insulation for interior partitions.
- B. Related Sections:
 - 1. Section 07 21 00, Thermal Insulation.
 - 2. Section 09 21 16, Gypsum Board Assemblies.

1.2 REFERENCES

- A. Materials shall meet the property requirements of one or more of the following specifications as applicable to the specific product or end use:
 - 1. American Society for Testing of Materials (ASTM):
 - a. ASTM C423 Test Method for Sound Absorption Coefficient by the Reverberation Room Method.
 - b. ASTM C518 Test Method for Steady State Thermal Transmission Properties by Means of the Heat Flow Meter.
 - c. ASTM C665 Specification for Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
 - d. ASTM E36 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.
 - e. ASTM E84 Test Method for Surface Burning Characteristics of Building Materials.
 - f. ASTM E119 Test Methods for Fire Tests of Building Construction and Materials.

1.3 SUBMITTALS

- A. Product Data: Submit product characteristics, performance criteria, and limitations, including installation instructions, for each type of product indicated.
- B. Sustainable Design: Submit manufacturer's sustainable design certifications as specified.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's original packaging.
- B. Store and protect products in accordance with manufacturer's instructions. Store in a dry indoors location. Protect insulation materials from moisture and soiling.
- C. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.
- D. Do not install insulation that has been damaged or wet. Remove it from jobsite.
 - 1. An exception may be allowed in cases where the contractor is able to demonstrate that wet insulation when fully dried out (either before installation or afterward following exposure to system operating temperatures) will provide installed performance that is equivalent in

respects to new, completely dry insulation. In such cases, consult the insulation manufacturer for technical assistance.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Owens Corning Insulating Systems, LLC, Toledo, OH 43659; www.owenscorning.com.

2.2 ACOUSTIC BLANKET INSULATION (SOUND ATTENUATION BATTS), FIRE-RATED

- A. Type: Unfaced glass fiber acoustical insulation, complying with ASTM C665, Type I.

Thickness	Width	Length
3½" 89mm	16" 406mm - 24" 609mm	96" 2438mm

- B. Surface Burning Characteristics: ASTM E84.
 - 1. Maximum flame spread: 10
 - 2. Maximum smoke developed: 10
- C. Combustion Characteristics: Passes ASTM E136.
- D. Fire Resistance Ratings: Part of ASTM E119 fire tested wall assemblies.
- E. Sound Transmission Class: ASTM C423, STC 50
- F. Dimensional Stability: Linear Shrinkage less than 0.1%

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions under which the work of this Section is to be performed. Notify the Architect in writing of any unsatisfactory conditions. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Verify mechanical and electrical services within the partition have been tested and inspected.

3.2 INSTALLATION

- A. Comply with manufacturer's installation instructions.
- B. Friction-fit blanket insulation in place, until the interior finish is applied. Install batts to fill entire stud cavity, with no gaps, voids, or areas of compression. If stud cavity is less than 8 feet in height, cut lengths to friction fit against floor and ceiling tracks. Walls with penetrations require that insulation be carefully cut to fit around outlets, junction boxes, and other irregularities.
- C. Where walls are not finished on both sides or where insulation does not fill the cavity depth, install supplementary support to hold product in place.
- D. Where insulation must extend higher than 8 feet, provide temporary support to hold product in place, until finish material is applied.

3.3 PROTECTION

- A. Protect installed insulation as recommended by manufacturer.

END OF SECTION

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SECTION 09 91 23
INTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates.

1.2 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.6 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. **Manufacturers:** Subject to compliance with requirements, provide products by one of the following:
 - 1. [Benjamin Moore & Co.](#)
 - 2. [Dunn-Edwards Corporation.](#)
 - 3. [Frazee Paint.](#)
 - 4. [ICI Paints / Glidden Professional.](#)
 - 5. [PPG Architectural Finishes, Inc.](#)
 - 6. [Sherwin-Williams Company \(The\).](#)

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. Colors: As indicated in a color schedule.

2.3 PRIMERS/SEALERS

- A. Primer Sealer, Latex, Interior: MPI #50.

2.4 METAL PRIMERS

- A. Primer, Rust-Inhibitive, Water Based: MPI #107.

2.5 WATER-BASED PAINTS

- A. Latex, Interior, Flat, (Gloss Level 1): MPI #53.
- B. Latex, Interior, Eggshell (Gloss Level 3): MPI #52.
- C. Latex, Interior, Semi-Gloss, (Gloss Level 5): MPI #54.

2.6 FLOOR COATINGS

- A. Sealer, Water Based, for Concrete Floors: MPI #99.

2.7 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
 1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
 2. Testing agency will perform tests for compliance with product requirements.
 3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Concrete: 12 percent.
 2. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Spray-Textured Ceiling Substrates: Verify that surfaces are dry.

- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer.
- F. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 - 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

- C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Traffic Surfaces:
 - 1. Water-Based Clear Sealer System:
 - a. First Coat: Sealer, water based, for concrete floors, MPI #99.
 - b. Topcoat: Sealer, water based, for concrete floors, MPI #99.
- B. Steel Substrates:
 - 1. Water-Based Light Industrial Coating System:
 - a. Prime Coat: Primer, rust-inhibitive, water based MPI #107.
 - b. Intermediate Coat: Light industrial coating, interior, water based, matching topcoat.
 - c. Topcoat: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.
- C. Gypsum Board Substrates:
 - 1. Latex System:

- a. Prime Coat: Primer sealer, latex, interior, MPI #50.
- b. Intermediate Coat: Latex, interior, matching topcoat.
- c. Topcoat: Latex, interior, flat, (Gloss Level 1), MPI #53.
- d. Topcoat: Latex, interior, (Gloss Level 3), MPI #52.
- e. Topcoat: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.

END OF SECTION 099123

SECTION 09 96 00
HIGH-PERFORMANCE COATINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide high performance coatings and surface preparation.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- C. Extra Stock: Provide 2 unopened gallons of each coating and color used in the project.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Regulations: Compliance with VOC and environmental regulations.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Sealers for Concrete and Masonry:
 - 1. Type: Non-visible penetrating sealer.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Inspect surfaces, report unsatisfactory conditions in writing; beginning work means acceptance of substrate.
- B. Comply with manufacturer's instructions and recommendations for preparation, priming and coating work. Coordinate with work of other sections.
- C. At existing areas to be repainted, remove blistered or peeling paint to sound substrates. Remove chalk deposits and mildew and wash all surfaces with mild detergent. Perform related minor preparation including caulk and glazing compounds. Spot prime bare areas before priming and painting as specified.

END OF SECTION

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SECTION 10 11 00
VISUAL DISPLAY UNITS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Visual display wall coverings.

1.2 DEFINITIONS

- A. Visual Display Surface: Surfaces that are used to convey information visually, including surfaces of chalkboards, markerboards, tackboards, and surfacing materials that are not fabricated into composite panel form but are applied directly to walls.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for visual display surfaces.
- B. Samples for Verification: For each type of visual display surface indicated.
 - 1. Visual Display Surface: Not less than 8-1/2 by 11 inches, mounted on substrate indicated for final Work. Include one panel for each type, color, and texture required.
 - 2. Trim: 6-inch-long sections of each trim profile.
 - 3. Display Rail: 6-inch-long sections.
 - 4. Accessories: Full-size Sample of each type of accessory.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-built visual display surfaces completely assembled in one piece without joints, where possible. If dimensions exceed maximum manufactured panel size, provide two or more pieces of equal length as acceptable to Architect. When overall dimensions require delivery in separate units, prefit components at the factory, disassemble for delivery, and make final joints at the site.
- B. Store visual display surfaces vertically with packing materials between each unit.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install visual display surfaces until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Vinyl Fabric: Mildew resistant, washable, complying with FS CCC-W-408D, Type II, weighing not less than 13 oz./sq. yd.; with surface-burning characteristics indicated.
- B. Extruded Aluminum: ASTM B 221, Alloy 6063.

2.2 VISUAL DISPLAY WALL COVERINGS

- A. **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:
 - 1. Claridge
- B. Adhesive: Mildew-resistant, nonstaining adhesive, for use with specific wall covering and substrate application, as recommended in writing by wall covering manufacturer.

2.3 MARKERBOARD ACCESSORIES

- A. Aluminum Frames and Trim: Fabricated from not less than 0.062-inch-thick, extruded aluminum; of size and shape indicated on Drawings.
 - 1. Field-Applied Trim: Manufacturer's standard, snap-on trim with no visible screws or exposed joints.
- B. Chalktray: Manufacturer's standard, continuous.
 - 1. Solid Type: Extruded aluminum with ribbed section and smoothly curved exposed ends.
- C. Display Rail: Manufacturer's standard, display rail with plastic-impregnated-cork insert, end stops, designed to hold accessories.
 - 1. Map Hooks: Four map hooks for every 96 inches
 - 2. Flag Holder: One for each room.

2.4 FABRICATION

- A. Visual Display Boards: Field assemble visual display boards unless otherwise indicated.
- B. Aluminum Frames and Trim: Fabricate units straight and of single lengths, keeping joints to a minimum. Miter corners to a neat, hairline closure.
 - 1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display units at manufacturer's factory before shipment.

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, surface conditions of wall, and other conditions affecting performance of the Work.
- B. Examine roughing-in for electrical power systems to verify actual locations of connections before installation of motor-operated, sliding visual display units.
- C. Examine walls and partitions for proper preparation and backing for visual display surfaces.
- D. Examine walls and partitions for suitable framing depth where sliding visual display units will be installed.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions for surface preparation.
- B. Clean substrates of substances that could impair the performance of and affect the smooth, finished surfaces of visual display boards, including dirt, mold, and mildew.
- C. Prepare surfaces to achieve a smooth, dry, clean surface free of flaking, unsound coatings, cracks, defects, projections, depressions, and substances that will impair bond between visual display surfaces and wall surfaces.
 - 1. Prime wall surfaces indicated to receive visual display wall coverings and as recommended in writing by primer/sealer manufacturer and wall covering manufacturer.
 - 2. Prepare substrates indicated to receive visual display wall covering as required by manufacturer's written instructions to achieve a smooth, dry, clean, structurally sound surface that is uniform in color.

- a. Moisture Content: Maximum of 4 percent when tested with an electronic moisture meter.
- b. Gypsum Board: Prime with primer as recommended in writing by primer/sealer manufacturer and wall covering manufacturer.

3.3 INSTALLATION, GENERAL

- A. General: Install visual display surfaces in locations and at mounting heights indicated on Drawings, or if not indicated, at heights indicated below. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.

3.4 INSTALLATION OF VISUAL DISPLAY RAILS

- A. Display Rails: Install rails in locations and at mounting heights indicated on Drawings, or if not indicated, at height indicated below. Attach to wall surface with fasteners at not more than 16 inches o.c.

- 1. Mounting Height: 36 inches above finished floor to top of rail.

3.5 CLEANING AND PROTECTION

- A. Clean visual display surfaces according to manufacturer's written instructions. Attach one cleaning label to visual display surface in each room.
- B. Touch up factory-applied finishes to restore damaged or soiled areas.

END OF SECTION 101100

SECTION 10 21 13
TOILET COMPARTMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide toilet partitions and screens.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Toilet Compartments:
 - 1. Compartments: Floor-anchored, overhead braced.
 - 2. Screens: Wall-hung.
 - 3. Style: Standard privacy style.
 - 4. Material: Solid phenolic.
 - a. High-pressure melamine surface fused to solid phenolic core.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Limit openings between panels, doors and pilasters to less than 1/2".
- C. Adjust hardware, clean, and protect work.

END OF SECTION

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SECTION 10 22 26
OPERABLE PARTITIONS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide operable panel partitions and overhead tracks.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- D. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. System Performance:
 - 1. Sound Transmission Class: ASTM E 413.
 - 2. Noise Reduction Coefficient: ASTM C 423.
 - 3. Fire Rating: ASTM E219.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Operable Panel Partitions:
 - 1. Panel Type: Electrically operated, continuously hinged panel partitions.
 - 2. Sound Transmission Class: 50.
 - 3. Noise Reduction Coefficient: 0.75.
 - 4. Fire Rating: Not required.
 - 5. Frame: Steel.
 - 6. Finish: Fabric.
 - 7. Finish: Dry erase marker writable surface.
 - 8. Metal Trim Finish: Color anodized.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

- B. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

END OF SECTION

SECTION 10 28 00
TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Public-use washroom accessories.
 - 2. Childcare accessories.
 - 3. Custodial accessories.

- B. Owner-Furnished – Contractor Installed Material:
 - 1. Soap Dispenser
 - 2. Paper Towel Roll Dispenser
 - 3. Double Roll Toilet Paper Dispenser

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include the following:
 - 1. Construction details and dimensions.
 - 2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
 - 3. Material and finish descriptions.
 - 4. Features that will be included for Project.
 - 5. Manufacturer's warranty.

1.3 COORDINATION

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.031-inch minimum nominal thickness unless otherwise indicated.

- B. Brass: ASTM B 19, flat products; ASTM B 16/B 16M, rods, shapes, forgings, and flat products with finished edges; or ASTM B 30, castings.

- C. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.036-inch minimum nominal thickness.
- D. Galvanized-Steel Sheet: ASTM A 653/A 653M, with G60 hot-dip zinc coating.
- E. Galvanized-Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- F. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.
- G. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).
- H. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.
- I. ABS Plastic: Acrylonitrile-butadiene-styrene resin formulation.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

- A. **Basis-of-Design Product:** Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - 1. [American Specialties, Inc.](#)
 - 2. [Bobrick Washroom Equipment, Inc.](#)
 - 3. [Bradley Corporation.](#)
- B. Toilet Tissue (Roll) Dispenser:
 - 1. Basis-of-Design Product: Kimberly Clark KC 09602.
 - 2. Description: Roll-in-reserve dispenser with hinged front secured with tumbler lockset.
 - 3. Mounting: Surface mounted.
 - 4. Material and Finish: ABS plastic, gray.
- C. Grab Bar:
 - 1. Basis-of-Design Product: Bobrick Grab Bar B-6806.
 - 2. Mounting: Flanges with exposed fasteners.
 - 3. Material: Stainless steel, 0.05 inch thick.
 - a. Finish: Smooth, No. 4 finish (satin) on ends and slip-resistant texture in grip area.
 - 4. Outside Diameter: 1-1/2 inches.
 - 5. Configuration and Length: As indicated on Drawings.
- D. Mirror Unit:
 - 1. Basis-of-Design Product: Mirror.
 - 2. Frame: Stainless-steel channel.
 - 3. Hangers: Produce rigid, tamper- and theft-resistant installation, using method indicated below.
 - a. One-piece, galvanized-steel, wall-hanger device with spring-action locking mechanism to hold mirror unit in position with no exposed screws or bolts.
 - 4. Size: As indicated on Drawings.

- E. Sanitary Napkin / Tampon Vendor:
 - 1. Basis-of-Design Product: Bobrick B-370634 25 Semi-Recessed Napkin / Tampon Vendor, 25-Cent Operation.

2.3 CHILDCARE ACCESSORIES

- A. See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers. Retain one of first two paragraphs and list of manufacturers below. See Section 016000 "Product Requirements."
- B. 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:
- C. **Basis-of-Design Product:** Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - 1. [American Specialties, Inc.](#)
 - 2. [GAMCO Specialty Accessories; a division of Bobrick Washroom Equipment, Inc.](#)
 - 3. [Koala Kare Products; a division of Bobrick Washroom Equipment, Inc.](#)
- D. Diaper-Changing Station:
 - 1. Basis-of-Design Product: Koala Kare Surface Mounted Kb200.
 - 2. Description: Horizontal unit that opens by folding down from stored position and with child-protection strap.
 - a. Engineered to support a minimum of 250-lb static load when opened.
 - 3. Mounting: Surface mounted, with unit projecting not more than 4 inches from wall when closed.
 - 4. Operation: By pneumatic shock-absorbing mechanism.
 - 5. Material and Finish: HDPE in manufacturer's standard color.
 - 6. Liner Dispenser: Built in.

2.4 CUSTODIAL ACCESSORIES

- A. **Basis-of-Design Product:** Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - 1. [American Specialties, Inc.](#)
 - 2. [Bobrick Washroom Equipment, Inc.](#)
 - 3. [Bradley Corporation.](#)
- B. Mop and Broom Holder:
 - 1. Description: Unit with shelf, hooks, holders, and rod suspended beneath shelf.
 - 2. Length: 36 inches.
 - 3. Hooks: Three.
 - 4. Mop/Broom Holders: Four, spring-loaded, rubber hat, cam type.
 - 5. Material and Finish: Stainless steel, No. 4 finish (satin).
 - a. Shelf: Not less than nominal 0.05-inch-thick stainless steel.

- b. Rod: Approximately 1/4-inch-diameter stainless steel.

2.5 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
- B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to ASTM F 446.

3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 102800

SECTION 10 44 13
FIRE EXTINGUISHER CABINETS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Fire protection cabinets for the following:
 - a. Portable fire extinguishers.
 - 2. AED cabinets.
- B. Related Sections:
 - 1. Section 104416 "Fire Extinguishers."

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire protection cabinets.
 - 1. Fire Protection Cabinets: Include roughing-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type, trim style, and panel style.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.
- B. Transparent Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), 3 mm thick minimum, with Finish 1 (smooth or polished).

2.2 FIRE PROTECTION CABINET

- A. Cabinet Type: Suitable for fire extinguisher.
 - 1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. [J. L. Industries, Inc., a division of Activar Construction Products Group; Ambassador Series](#)
 - b. [Larsen's Manufacturing Company; Architectural Series.](#)

- c. [Modern Metal Products, Division of Technico Inc.](#); Series 100.
- B. Cabinet Construction: Nonrated.
- C. Cabinet Material: Steel sheet.
 - 1. Shelf: Same metal and finish as cabinet.
- D. Semirecessed Cabinet: Cabinet box partially recessed in walls of sufficient depth to suit style of trim indicated; with one-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge (backbend). Provide where walls are of insufficient depth for recessed cabinets but are of sufficient depth to accommodate semirecessed cabinet installation.
 - 1. Square-Edge Trim: 1-1/4- to 1-1/2-inch backbend depth.
- E. Cabinet Trim Material: Same material and finish as door.
- F. Door Material: Steel sheet.
- G. Door Style: Vertical duo panel with frame.
- H. Door Glazing: Acrylic sheet.
 - 1. Acrylic Sheet Color: Clear transparent acrylic sheet.
- I. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - 1. Provide projecting lever handle with cam-action latch.
 - 2. Provide manufacturer's standard hinge permitting door to open 180 degrees.
- J. Accessories:
 - 1. Door Lock: Cam lock that allows door to be opened during emergency by pulling sharply on door handle.
 - 2. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as directed by Architect.
 - a. Identify fire extinguisher in fire protection cabinet with the words "FIRE EXTINGUISHER."
 - 1) Location: Applied to cabinet door.
 - 2) Application Process: Pressure-sensitive vinyl letters.
 - 3) Lettering Color: Red.
 - 4) Orientation: Vertical.
- K. Finishes:
 - 1. Manufacturer's standard white baked-enamel paint for the following:
 - a. Exterior of cabinet , door, and trim except for those surfaces indicated to receive another finish.
 - b. Interior of cabinet and door.

2.3 FIRE PROTECTION CABINET

- A. Cabinet Type: Suitable for Owner provided AED device.
 - 1. **Products:** Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. [AED Max, Inc.](#); Semi Recessed AED Storage Cabinet 17"x17"
 - b. [Modern Metal Products, Division of Technico Inc.](#); Series 100.

2.4 FABRICATION

- A. Fire Protection Cabinets: Provide manufacturer's standard box (tub) with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated.
 - 1. Weld joints and grind smooth.
 - 2. Provide factory-drilled mounting holes.
 - 3. Prepare doors and frames to receive locks.
 - 4. Install door locks at factory.
- B. AED Cabinets: Provide manufacturer's standard box (tub) with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated.
 - 1. Weld joints and grind smooth.
 - 2. Provide factory-drilled mounting holes.
 - 3. Prepare doors and frames to receive locks.
 - 4. Install door locks at factory.
- C. Cabinet Doors: Fabricate doors according to manufacturer's standards, from materials indicated and coordinated with cabinet types and trim styles selected.
 - 1. Fabricate door frames with tubular stiles and rails and hollow-metal design, minimum 1/2 inch thick.
 - 2. Miter and weld perimeter door frames.
- D. Cabinet Trim: Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces of fire protection cabinets from damage by applying a strippable, temporary protective covering before shipping.
- C. Finish fire protection cabinets after assembly.
- D. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 STEEL FINISHES

- A. Surface Preparation: Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning".
- B. Factory Prime Finish: Apply manufacturer's standard, fast-curing, lead- and chromate-free, universal primer immediately after surface preparation and pretreatment.
- C. Baked-Enamel or Powder-Coat Finish: Immediately after cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat. Comply with coating manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils.
 - 1. Color and Gloss: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine walls and partitions for suitable framing depth and blocking where semirecessed cabinets will be installed.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare recesses for semirecessed fire protection cabinets as required by type and size of cabinet and trim style.

3.3 INSTALLATION

- A. General: Install fire protection cabinets in locations and at mounting heights indicated or, if not indicated, at heights indicated below:
 - 1. Fire Protection Cabinets: 54 inches above finished floor to top of cabinet.
- B. Fire Protection Cabinets: Fasten cabinets to structure, square and plumb.
- C. Identification: Apply vinyl lettering at locations indicated.

3.4 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as fire protection cabinets are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Adjust fire protection cabinet doors to operate easily without binding. Verify that integral locking devices operate properly.
- C. On completion of fire protection cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.

- D. Touch up marred finishes, or replace fire protection cabinets that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by fire protection cabinet and mounting bracket manufacturers.
- E. Replace fire protection cabinets that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 104413

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SECTION 10 44 16
FIRE EXTINGUISHERS

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 portable, fire extinguishers.
- B. Related Sections:
 - 1. Section 104413 "Fire Extinguisher Cabinets."

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher.

1.4 QUALITY ASSURANCE

- A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
- B. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS

- A. Fire Extinguishers: Type, size, and capacity for each fire protection cabinet 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. [J. L. Industries, Inc.; a division of Activar Construction Products Group.](#)
 - b. [Larsen's Manufacturing Company.](#)
 - 2. Valves: Manufacturer's standard.
 - 3. Handles and Levers: Manufacturer's standard.

4. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B.
- B. Multipurpose Dry-Chemical Type in Steel Container: UL-rated 4-A:80-B:C, 10-lb nominal capacity, with monoammonium phosphate-based dry chemical in enameled-steel container.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine fire extinguishers for proper charging and tagging.
 1. Remove and replace damaged, defective, or undercharged fire extinguishers.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install fire extinguishers in locations indicated and in compliance with requirements of authorities having jurisdiction.

END OF SECTION 104416

SECTION 12 21 13
HORIZONTAL LOUVER BLINDS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Horizontal louver blinds with perforated aluminum slats.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and texture specified, 12 inches long.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Deliver horizontal louver blinds in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.

1.4 FIELD CONDITIONS

A. Environmental Limitations: Do not install horizontal louver blinds until construction and wet and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

B. Field Measurements: Where horizontal louver blinds are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain horizontal louver blinds from single source from single manufacturer.

2.2 HORIZONTAL LOUVER BLINDS, ALUMINUM SLATS

- A. 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:
1. [Hunter Douglas Contract.](#)
 2. [Levolor Contract; a Newell Rubbermaid company.](#)
- B. Slats: Aluminum; alloy and temper recommended by producer for type of use and finish indicated; with crowned profile and radius corners.
1. Width: 1 inch.
 2. Thickness: Manufacturer's standard.
 3. Spacing: Manufacturer's standard.
 4. Finish: Ionized antistatic, dust-repellent, baked polyester finish.
 5. Features:
 - a. Lift-Cord Rout Holes: Minimum size required for lift cord and located near back (outside) edge of slat to maximize slat overlap and minimize light gaps between slats.
- C. Headrail: Formed steel or extruded aluminum; long edges returned or rolled. Headrails fully enclose operating mechanisms on three sides.
1. Capacity: One blind per headrail unless otherwise indicated.
 2. Ends: Manufacturer's standard.
 3. Manual Lift Mechanism:
 - a. Lift-Cord Lock: Variable; stops lift cord at user-selected position within blind full operating range.
 - b. Operator: Extension of lift cord(s) through lift-cord lock mechanism to form cord pull.
 4. Manual Tilt Mechanism: Enclosed worm-gear mechanism and linkage rod that adjusts ladders.
 - a. Tilt: Full.
 - b. Operator: Clear-plastic wand.
 - c. Over-Rotation Protection: Manufacturer's detachable operator or slip clutch to prevent over rotation of gear.
 5. Manual Lift-Operator and Tilt-Operator Lengths: Manufacturer's standard.
 6. Manual Lift-Operator and Tilt-Operator Locations: Manufacturer's standard unless otherwise indicated.
- D. Bottom Rail: Formed-steel or extruded-aluminum tube that secures and protects ends of ladders and lift cords and has plastic- or metal-capped ends.
1. Type: Manufacturer's standard.
- E. Lift Cords: Manufacturer's standard braided cord.
- F. Ladders: Evenly spaced across headrail at spacing that prevents long-term slat sag.
1. Type: Braided cord.

- G. Valance: Manufacturer's standard.
- H. Mounting Brackets: With spacers and shims required for blind placement and alignment indicated.
 - 1. Type: Two piece for pocket installation.
- I. Colors, Textures, Patterns, and Gloss:
 - 1. Slats: Match Architect's samples.
 - 2. Components: Provide rails, cords, ladders, and materials exposed to view matching or coordinating with slat color unless otherwise indicated.

2.3 HORIZONTAL LOUVER BLIND FABRICATION

- A. Product Safety Standard: Fabricate horizontal louver blinds to comply with WCMA A 100.1 including requirements for corded, flexible, looped devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F:
 - 1. Outside of Jamb Installation: Width and length as indicated, with terminations between blinds of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.
- C. Concealed Components: Noncorrodible or corrosion-resistant-coated materials.
 - 1. Lift-and-Tilt Mechanisms: With permanently lubricated moving parts.
- D. Mounting and Intermediate Brackets: Designed for removal and reinstallation of blind without damaging blind and adjacent surfaces, for supporting blind components, and for bracket positions and blind placement indicated.
- E. Installation Fasteners: No fewer than two fasteners per bracket, fabricated from metal noncorrosive to brackets and adjoining construction; type designed for securing to supporting substrate; and supporting blinds and accessories under conditions of normal use.
- F. Color-Coated Finish:
 - 1. Metal: For components exposed to view, apply manufacturer's standard baked finish complying with manufacturer's written instructions for surface preparation including pretreatment, application, baking, and minimum dry film thickness.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, and other conditions affecting performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install horizontal louver blinds level and plumb, aligned and centered on openings, and aligned with adjacent units according to manufacturer's written instructions.

3.3 ADJUSTING

- A. Adjust horizontal louver blinds to operate free of binding or malfunction through full operating ranges.

3.4 CLEANING AND PROTECTION

- A. Clean horizontal louver blind surfaces after installation according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions in a manner acceptable to manufacturer and Installer and that ensures that horizontal louver blinds are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged horizontal louver blinds that cannot be repaired in a manner approved by Architect before time of Substantial Completion.

END OF SECTION 122113

SECTION 12 24 13
ROLLER WINDOW SHADES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Manually operated roller shades with single rollers.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.

B. Samples: For each exposed product and for each color and texture specified, 10 inches long.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roller shades in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.

1.4 FIELD CONDITIONS

- A. Environmental Limitations: Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

- B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. 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:

1. [Draper Inc.](#)
2. [Lutron Electronics Co., Inc.](#)

3. [MechoShade Systems, Inc.](#)

- B. Source Limitations: Obtain roller shades from single source from single manufacturer.

2.2 MANUALLY OPERATED SHADES WITH SINGLE ROLLERS

- A. Chain-and-Clutch Operating Mechanisms: With continuous-loop bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted and lubricated.

1. Bead Chains: Manufacturer's standard.

- a. Loop Length: Full length of roller shade.
- b. Limit Stops: Provide upper and lower ball stops.

2. Spring Lift-Assist Mechanisms: Manufacturer's standard for balancing roller-shade weight and lifting heavy roller shades.

- a. Provide for shadebands that weigh more than 10 lb or for shades as recommended by manufacturer, whichever criteria are more stringent.

- B. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shadebands indicated without deflection. Provide with permanently lubricated drive-end assemblies and idle-end assemblies designed to facilitate removal of shadebands for service.

- 1. Roller Drive-End Location: Coordinate location with Architect.
- 2. Direction of Shadeband Roll: Regular, from back of roller.
- 3. Shadeband-to-Roller Attachment: Manufacturer's standard method.

- C. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location and conditions indicated.

- D. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers into a multiband shade that is operated by one roller drive-end assembly.

- E. Shadebands:

- 1. Shadeband Material: Light-filtering fabric.
- 2. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.
 - a. Type: Enclosed in sealed pocket of shadeband material.

2.3 SHADEBAND MATERIALS

- A. Shadeband Material Flame-Resistance Rating: Comply with NFPA 701. Testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

- B. Light-Filtering Fabric: Woven fabric, stain and fade resistant.

- 1. Source: Roller-shade manufacturer.
- 2. Type: To match MechoShade Thermoveil Vertical Privacy Weave 0900 Series (0-1% Open). Color 0911 Porcelain.

2.4 ROLLER-SHADE FABRICATION

- A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1, including requirements for flexible, chain-loop devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F:
 - 1. Outside of Jamb Installation: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.
- C. Shadeband Fabrication: Fabricate shadebands without battens or seams to extent possible except as follows:
 - 1. Vertical Shades: Where width-to-length ratio of shadeband is equal to or greater than 1:4, provide battens and seams at uniform spacings along shadeband length to ensure shadeband tracking and alignment through its full range of movement without distortion of the material.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 ROLLER-SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.

3.3 ADJUSTING

- A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

3.4 CLEANING AND PROTECTION

- A. Clean roller-shade surfaces after installation, according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that roller shades are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

END OF SECTION 122413