



# Request for Competitive Sealed Proposals

for the

**Roof Improvements to**

**Akins High School**

**AISD Project No. 20-0034-AKINS**





## **REQUEST FOR COMPETITIVE SEALED PROPOSAL**

**FOR**

**ROOF IMPROVEMENTS TO  
AKINS HIGH SCHOOL**

**PROJECT NO.: 20-0034-AKINS  
SOLICITATION NO.: 20CSP106**

**DATE ISSUED: 02/25/2020**

**DATE AND TIME DUE: 03/24/2020, 2:00pm**

**DELIVER TO:**

**Austin ISD  
Contract and Procurement  
4000 S. IH 35 Frontage Road  
Austin, TX 78704**

## Request for Competitive Sealed Proposals Roof Improvements to Akins High School

**PROJECT NO.: 20-0034-AKINS**  
**SOLICITATION NO.: 20CSP106**

Date	Event
February 11, 2020 February 18, 2020	Advertise/Issue Dates
February 25, 2020	Pre-Proposal Conference 10 AM, 10701 S 1 <sup>st</sup> Street, Austin TX 78748, Portable 315
February 27, 2020	Due Date for Questions by 5:00 pm
March 4, 2020	Questions and Answers and final addendum posted on our website
March 24, 2020	<b>CSP opening / due date at 2:00 pm CST</b>
April 27, 2020	AISD Board Meeting for review/approval

- Questions must be submitted via e-mail to the contact person listed below. In the **e-mail subject line**, type: **Questions 20CSP105 Roof Improvements at Akins High School**
- Q & A and Addenda will be posted on our website: <https://www.austinisd.org/cp/bids>
- Proposals are due no later than 2:00PM on the date indicated. Your proposals must be delivered by mail or hand delivery in a sealed envelope or carton. Proposals received after the specified time shall not be considered.
- Please submit the following:
  - One (1) hard copy marked "original" – include signed "required" forms.
  - One (1) digital copy on a flash drive – include signed "required" forms.
- FAX, e-mail or other electronic proposals **will not be accepted**.
- Proposals must be plainly marked with the name and address of offeror and the CSP number and Title above.

<p><b>Deliver Sealed Proposals to:</b>  <b>Austin ISD</b>  <b>Contract and Procurement</b>  <b>4000 S. IH 35 Frontage Road, 4<sup>th</sup> Floor</b>  <b>Austin, TX 78704</b>  <b>PLEASE PLAN TIME TO PARK</b></p>	<p>Contract and Procurement Contact:                  Sara Hildebrandt Gaspar  <a href="mailto:Sara.hildebrandtgaspar@austinisd.org">Sara.hildebrandtgaspar@austinisd.org</a></p> <p>HUB Coordinator Contact:                  Melfi Penn  <a href="mailto:Melfi.penn@austinisd.org">Melfi.penn@austinisd.org</a></p>
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**AISD Project No. 20-0034-AKINS**

**PROJECT MANUAL TABLE OF CONTENTS**

- 1. Project Title:** Roof Improvements to Akins High School
- 2. Description of Work:** Repair & Replacement of existing built-up roofing, insulation and roofing related accessories and components.
- 3. Architect/Engineer:** Hollon+Cannon Group, LLC  
11800 Highland Oaks Trail  
Austin, TX 78759

**4. Consultants:**

Structural Engineer: \_\_\_\_\_  
MEP Engineer(s): \_\_\_\_\_  
Electrical Engineer: \_\_\_\_\_  
Civil Engineer: \_\_\_\_\_

- 5. Drawings:** The Drawings are as follows and are dated February 14, 2020 unless a different date is shown below.

Drawing List:	R0	Cover Sheet
	R1	Wind Zone Plan, Schedules, Notes and Legends
	R2	Partial Roof Plan
	R3	Partial Roof Plan
	R4	Partial Roof Plan
	R5	Roof Details
	R6	Roof Details
	R7	Roof Details
	R8	Roof Details
	R9	Roof Details

The Addenda, if any, are as follows:

<u>Number</u>	<u>Date</u>	<u>Pages</u>
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**6. Specifications:**

The Specifications are as follows:

**DIVISION 01 – GENERAL REQUIREMENTS**

01 1100	Summary of Work	04
01 2200	Proposal Items	02
01 3110	Special Conditions	03
01 3150	Project Management and Coordination	06
01 3300	Submittal Procedures	06
01 4000	Quality Requirements	02
01 4200	Reference Standards	03
01 5000	Temporary Facilities and Controls	04
01 6100	Product Requirements	02
01 7329	Cutting and Patching	03
01 7800	Contract Closeout	06
01 7830	Roofing Installer's Warranty	02

**DIVISION 02 THROUGH DIVISION 05 (NOT USED)**

**DIVISION 06 – WOOD, PLASTICS AND COMPOSITES**

06 1050	Roof Carpentry	05
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**DIVISION 07 - THERMAL AND MOISTURE PROTECTION**

07 0151	Preparation for Re-Roofing	05
07 2200	Roof Insulation	06
07 4113	Metal Roof Panels	08
07 4120	Metal Soffit Panels	05
07 5216	Modified Bitumen Roof System	10
07 5600	Fluid Applied Flashing	07
07 6200	Flashing and Sheet Metal	09
07 7200	Roof Accessories	08

**DIVISION 08 – DOORS AND WINDOWS (NOT USED)**

**DIVISION 09 - FINISHES**

09 9100	Painting	04
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**DIVISION 10 THROUGH DIVISION 21 (NOT USED)**

**DIVISION 22 – PLUMBING**

22 0000	Common Work Results for Plumbing	12
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**DIVISION 23 – MECHANICAL**

23 0000	Common Work Results for Mechanical	10
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**DIVISION 24 THROUGH DIVISION 25 (NOT USED)**

**DIVISION 26 - ELECTRICAL**

26 0000	Common Work Results for Electrical	05
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**DIVISION 27 THROUGH DIVISION 49 (NOT USED)**

## LIST OF MEMBERS OF BOARD OF TRUSTEES

### **Austin Independent School District\***

Geronimo M. Rodriguez, Jr., President, District 6

Jayme Mathias, District 2

Ann Teich, District 3

Amber Elenz, District 5, Secretary

Yasmin Wagner, District 7

Cindy Anderson, At-Large Position 8, Vice President

LaTisha Anderson, District 1

Kristin Ashy, District 4

Arati Singh, At-Large Position 9

Paul Cruz, Ph.D., Superintendent

Nicole Conley, Chief Business Officer



# REQUEST FOR COMPETITIVE SEALED PROPOSALS INSTRUCTIONS TO OFFERORS

(Chapter 2269, Subchapter D of the Texas Government Code)

Austin Independent School District ("AISD") requests competitive sealed proposals for a Contractor to perform the construction of the Work described below in connection with AISD's **Roof Restoration and Replacement at Anderson High School** Project (the "Project"). AISD is interested in receiving proposals from General Contractors with experience in successfully completing projects that are similar in scope, size and complexity to the Work and meeting any specialized requirements set forth below.

## 1. PROJECT

- 1.1. **Scope of Work.** The selected Offeror must furnish all labor, materials and equipment required for the construction of the following improvements (the "Work"):

Roof Improvements to Akins High School

To be constructed at the following location ("Project Site"):

10701 S. 1<sup>st</sup> Street, Austin, Texas 78748

- 1.2. **Estimated Project Budget: \$3,200,000.00**

- 1.3. **Minimum Qualifications.** Because of the nature of the Work, the selected Offeror must meet the following qualifications and/or must have any licenses or certifications specified below (collectively, the "Minimum Qualifications"):

Refer to specific sections of the Specifications.

- 1.4. **Texas Education Code §22.0834 (Criminal History Record Information Review of Certain Contract Employees).** For purposes of the Project, those workers who will be performing Work on the Project Site will be "covered employees" as defined in Section 3.15 of the General Conditions. Thus, Texas Education Code §22.0834 is applicable to such covered employees, and the selected Offeror must comply with the provisions of Section 3.15 of the General Conditions with regard to such covered employees. The General Conditions can be found at the Austin ISD website under "CSP Front End Documents"- (<https://www.austinisd.org/cp/forms>).

## 2. DRAWINGS, SPECIFICATIONS, CONTRACT DOCUMENTS AND ADDENDA

- 2.1. The "Contract Documents" for this Request For Competitive Sealed Proposals include, without limitation, AISD's Agreement for Construction Contract ("Agreement for Construction"), AISD's General Conditions of the Contract for Construction ("General Conditions"), and AISD's Notice of Prevailing Wage Rates ("Notice of Prevailing Wage Rates"), collectively referred to in this Request For Competitive Sealed Proposals as the "Contract."
- 2.2. Copies of Drawings, Specifications, Contract Documents, and Addenda (if any) and other documents related to this Request For Competitive Sealed Proposals, are available at Miller Blueprint at the location indicated in Section 3.3 below for a deposit of \$100 per set. If deposit is paid by check, check must be made payable to Austin Independent School District. The deposit will be refunded upon return of all documents in good condition to Miller Blueprint at the location indicated in Section 3.3 below within 14 calendar days after the opening of Proposals. Drawings, Specifications, Contract Documents, and Addenda (if any) can also be downloaded Miller IDS Planroom at [www.planroom.millerids.com](http://www.planroom.millerids.com).

- 2.3. Printed copies of Drawings, Specifications, Contract Documents, and Addenda (if any) can be requested and picked up at the following location in accordance with Section 2.2 above:

**Miller IDS Planroom**  
**1000 East 7th Street**  
**Austin, Texas 78702**  
**Phone: (512) 381-5292**  
**Email: [planroom@millerids.com](mailto:planroom@millerids.com)**

### **3. FORMAT FOR PROPOSALS**

- 3.1. Each proposal ("Proposal") submitted by an offeror ("Offeror") must contain the documents listed on the submission checklist on page 2. Failure to submit and/or complete required documents may result in Offeror being deemed non responsive.
- 3.2. Additional forms required within 24 hours of Bid Proposal Deadline to **proconteam@austinisd.org** :
- The completed HUB documents pertaining to this project. It is at the discretion of AISD to accept or reject documents submitted outside of these parameters.
- 3.3. The Proposal information must be typed on the Proposal Form.
- 3.4. The Offeror information in Section D of the Proposal Form must be typed on Section D of the Proposal Form or on letter-size ("8½ x 11") paper if additional sheets are used. If preprinted materials, flyers or other information about the Offeror is used, it should be referenced in the submittal and included as labeled attachments.
- 3.5. The Proposal Form and other forms included in the Proposal should be stapled or bound together in a binder, so that that the pages can be easily opened and laid flat for copying.

### **4. METHOD OF SELECTING CONTRACTOR**

- 4.1. The bidder/proposer MUST submit required HUB documents in order to be evaluated. If the bidder/proposer does not meet or exceed all goals, then Good Faith Effort documentation is REQUIRED. A firm MUST be compliant with Austin ISD HUB Program regulations to be considered for contract selection.
- 4.2. Not later than the 45th day after the date on which Proposals are opened, AISD will evaluate and rank each Proposal submitted in relation to the Selection Criteria set out below. AISD will select the Offeror that, in the opinion of AISD, submits the Proposal that offers the best value for AISD based on the Selection Criteria and the weighted value for each Selection Criteria and on AISD's ranking evaluation. The Offeror that offers the best value may or may not be the Offeror that submits the lowest proposal for the cost of construction.
- 4.3. The AISD Construction Management Department will make a recommendation to the Board of Trustees as to the selection ranking of the Offerors. The Board of Trustees will select the Offeror that submits the Proposal that offers the best value for AISD and will authorize the negotiation and execution of the contract. If AISD is unable to negotiate a satisfactory contract with the selected Offeror, AISD shall, formally and in writing, end negotiations with that Offeror and proceed to the next Offeror in the order of the selection ranking until a contract is reached or all proposals are rejected. AISD reserves the right to reject any and all proposals. **Consistent with state law and district policy, this RFP does not commit the district to award a contract. The district reserves the right to accept or reject any or all proposals and/or award in whole or in part any proposal if the district determines it is in the best interest of the district to do so.**

**5. SELECTION CRITERIA**

5.1. Offerors will be evaluated based on the following selection criteria and weighted value for each criterion (collectively, "Selection Criteria"):

<u>Selection Criteria</u>	<u>Weighted Value</u>
<b>Construction Cost as Proposed</b>	<b>45%</b>
<b>Relevant Experience and Past Performance</b>	<b>30%</b>
<b>Proposed Personnel/Resources</b>	<b>10%</b>
<b>Financial Condition</b>	<b>8%</b>
<b>Safety Record</b>	<b>7%</b>

**6. QUESTIONS REGARDING THIS REQUEST FOR COMPETITIVE SEALED PROPOSALS**

6.1. Only those responses to inquiries which are made by formal written Addenda shall be binding. Oral and other interpretations or clarifications will be without legal effect, and shall not be binding on AISD. The Offeror must acknowledge receipt of all Addenda in its Proposal. However, each Offeror will be bound by the terms of all Addenda, and its Proposal will be construed to include the information contained in the Addenda, whether or not Offeror has received them or acknowledged receipt.

**7. PROPOSAL GUARANTY**

- 7.1. Each Proposal must be accompanied by a Proposal Guaranty in the amount of five percent (5%) of the largest possible total Proposal (i.e. the sum of the Base Proposal and all additive Alternates).
- 7.2. The Proposal Guaranty shall be in the form of a Proposal/Bid Bond found on the Austin ISD website under "CSP Front End Documents"- (<https://www.austinisd.org/cp/forms>) and shall be issued by a corporate surety authorized to do business in the State of Texas that is listed on the U.S. Treasury list of approved sureties.
- 7.3. The Proposal Guaranty will be held until the selected Offeror has signed the Contract and provided the required insurance and payment and performance bonds and Safety Program Manual and Safety Plan as provided in these instructions.
- 7.4. Should the selected Offeror fail or refuse to sign the Contract and/or provide the required insurance and payment and performance bonds and Safety Program Manual and Safety Plan as provided in these instructions, then the Offeror's Proposal Guaranty will be forfeited to AISD as liquidated damages and not as a penalty.

**8. SUBSTITUTION OF MATERIALS**

8.1. Offerors may request a substitution of materials or equipment specified in the Contract Documents. However, any such request must be submitted in writing to the Contact Person five days before the Proposal Deadline. If AISD approves the substitution, it will respond by Addendum. A failure to respond will constitute a denial of the request. Sufficient information should accompany the request to enable AISD to promptly render a decision on a proposed substitution of materials or equipment.

**9. BOND AND INSURANCE REQUIREMENTS**

- 9.1. Insurance meeting the requirements set out in the General Conditions must be furnished by the selected Offeror within 5 days after the Contract is signed by the Offeror.
- 9.2. If the Contract amount is over \$25,000, the selected Offeror must provide payment bond, and if the Contract amount is over \$100,000, the selected Offeror must provide a performance bond each in the amount of 100% of the Contract Price within 5 days after the Contract is signed by the Offeror. Bonds must be provided by a Treasury-listed corporate Surety authorized to do business in the State of Texas.
- 9.3. The Offeror's attention is directed to Subsection 10.4 of the General Conditions which expressly sets out the Worker's Compensation Insurance requirements for the Project. The Contractor and each subcontractor must maintain Worker's Compensation Insurance coverage as required in Subsection 10.4 and the Contractor is required to provide a certificate of coverage for each subcontractor prior to that subcontractor beginning Work on the Project Site, showing that coverage is being provided for all of its employees for the duration of the Work. Subsection 10.4 is incorporated herein for all purposes.

**10. SAFETY PROGRAM MANUAL AND PROJECT SAFETY PLAN REQUIREMENTS**

- 10.1. The selected Offeror must submit its Safety Program Manual in accordance with the requirements set out in the General Conditions not later than 5 days after the Offeror signs the Contract.
- 10.2. The selected Offeror must submit a Safety Plan for the Project meeting the requirements set out in the General Conditions not later than 5 days after the Offeror signs the Contract.

**11. PREVAILING WAGE RATES**

- 11.1. The Contractor and each Subcontractor who performs work under the Contract must pay, at a minimum, the applicable prevailing wage rates to a worker employed by it in the performance of the Work. The prevailing wage rates applicable to the Project, which shall be in effect for the duration of the Contract, are set forth in the Notice of Prevailing Wage Rates.

**12. EXAMINATION OF SITE AND CONTRACT DOCUMENTS**

- 12.1. Each Offeror is required to visit the Project Site and to fully acquaint itself with the conditions and limitations as they exist at the Project Site, including the effect that weather conditions may have on the Project Site. Each Offeror shall also fully acquaint itself with the existing and anticipated sources and supplies of labor and materials, and shall also thoroughly examine the Contract Documents. Failure of the Offeror to visit the Project Site and acquaint itself with the conditions of the Work and the Contract Documents shall in no way relieve the Offeror from any obligations with respect to its Proposal.

**13. PUBLIC INFORMATION**

- 13.1. AISD considers all information, documentation and other materials requested to be submitted in response to this solicitation to be of a non-confidential and/or non-proprietary nature and therefore shall be subject to public disclosure under the Texas Public Information Act (Tex. Gov't Code, Chapter 552.001, *et seq.*) after a contract is awarded.
- 13.2. Offerors are hereby notified that AISD strictly adheres to all statutes, court decisions, and opinions of the Texas Attorney General with respect to disclosure of public information.
- 13.3. The requirements of the Texas Public Information Act, Chapter 552 of the Texas Government Code, Subchapter J, may apply to this bid or contract if it is valued at more than \$1 million. The contractor or vendor agrees the contract can be terminated if the contractor or vendor

knowingly or intentionally fails to comply with a requirement of that subchapter, including the preservation of all "contracting information" (as defined in 552.003) and the provision, upon request of the governmental entity with whom you are contracting, of all contracting information. Contracting information includes, but is not limited to, records, communications and other documents related to the bid process, contract, payments, receipts, scope of work/services, and performance."

#### **14. DEADLINE FOR SIGNING CONTRACT AND AISD'S RIGHTS IF DELAY**

The timely completion of this Project is essential. AISD has the right to consider negotiations with the selected Offeror for the Contract incomplete until and unless the Contract is signed and the bonds, insurance, Safety Program Manual and Safety Plan are submitted in accordance with the following deadlines. In order to avoid unnecessary delays in the Project, the selected Offeror must:

- 1. Sign the Contract no later than 10 days after the selected Offeror has been notified that it is the successful Offeror, and**
- 2. Provide its Safety Program Manual and the Safety Plan for the Project and provide all required bonds within 5 days after the selected Offeror signs the Contract.**
- 3. Provide Certificate of Insurance before Work commences on the Project.**

14.1. If the selected Offeror fails to meet one or more of these deadlines, then in addition to any and all other rights and remedies to which AISD is entitled, AISD shall have the right to:

1. Terminate its negotiations with the selected Offeror and begin negotiations with the next ranked Offeror; or
2. Proceed with the Contract with selected Offeror, but treat each day beyond the 10-day deadline in which the Contract is unsigned by the Offeror, and/or each day beyond the 5 day deadline in which one or more of the required documents has not been submitted, as a day of unexcused delay under the Contract.

#### **15. WAIVER OF CLAIMS**

15.1. **EACH OFFEROR BY SUBMISSION OF A PROPOSAL TO THIS REQUEST FOR COMPETITIVE SEALED PROPOSALS WAIVES ANY CLAIMS IT HAS OR MAY HAVE AGAINST THE ARCHITECT, ITS CONSULTING ENGINEERS, OR ANY OTHER CONSULTANTS, AND THEIR RESPECTIVE EMPLOYEES, OFFICERS, MEMBERS, DIRECTORS AND PARTNERS, AND AISD, ITS EMPLOYEES, OFFICERS, AGENTS, REPRESENTATIVES, AND THE MEMBERS OF AUSTIN INDEPENDENT SCHOOL DISTRICT'S GOVERNING BODY, CONNECTED WITH OR ARISING OUT OF THIS REQUEST FOR COMPETITIVE SEALED PROPOSALS, INCLUDING, THE ADMINISTRATION OF THE REQUEST FOR COMPETITIVE SEALED PROPOSALS, THE PROPOSAL EVALUATIONS, AND THE SELECTION OF THE OFFEROR. SUBMISSION OF A PROPOSAL INDICATES OFFEROR'S ACCEPTANCE OF THE EVALUATION TECHNIQUE AND OFFEROR'S RECOGNITION THAT SOME SUBJECTIVE JUDGMENTS MUST BE MADE BY AISD DURING THE SELECTION PROCESS. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, EACH OFFEROR ACKNOWLEDGES THAT AISD SHALL DOCUMENT THE BASIS OF ITS SELECTION AND SHALL MAKE THE EVALUATIONS PUBLIC NOT LATER THAN THE 7TH DAY AFTER THE DATE THE CONTRACT IS AWARDED, AND EACH OFFEROR WAIVES ANY CLAIM IT HAS OR MAY HAVE AGAINST THE ABOVE-NAMED PERSONS, DUE TO INFORMATION CONTAINED IN SUCH EVALUATIONS.**

**16. CONFLICT OF INTEREST QUESTIONNAIRE**

- 16.1. Offeror is advised to determine if it is required under Chapter 176 of the Texas Local Government Code to file a completed conflict of interest questionnaire with AISD. If Offeror is required by law to complete the questionnaire, the Conflict of Interest Questionnaire (Form CIQ) should be completed and submitted online at: <https://www.austinisd.org/cp/ciq-online>

**17. DISCLOSURE OF INTERESTED PARTIES**

- 17.1. In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Texas Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency. The disclosure requirement applies to a contract entered into on or after January 1, 2016.
- 17.2. After the AISD Board of Trustees selects the Offeror, the successful Offeror will be required to complete an electronic Form 1295 ("Form 1295") on the Texas Ethics Commission website ([https://www.ethics.state.tx.us/whatsnew/elf\\_info\\_form1295.htm](https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm)) and submit the completed and executed Form 1295, including the certification of filing, to AISD prior to entering into a contract with AISD in accordance with this statute. Additional information is available on the Texas Ethics Commission website at [www.ethics.state.tx.us](http://www.ethics.state.tx.us). Submission of a response to this Request For Competitive Sealed Proposals indicates Offeror's acceptance and intended compliance with these requirements.

**18. FEEDBACK TO SUBCONTRACTORS/SUPPLIERS**

- 18.1. If requested by a subcontractor or material supplier who submitted a bid or proposal to Offeror in connection with this procurement but who is not listed as a proposed subcontractor or supplier on Offeror's completed Disclosure Statement, Offeror shall provide feedback to such subcontractor or supplier as to how its bid/proposal compared with the other bids/proposals received by Offeror for the same services or materials (e.g., bid was highest bid received, bid fell in the middle of bids received, etc.).

**19. SOLICITATION OF "COMPONENT" BIDS AND PROPOSALS FROM SUBCONTRACTORS**

- 19.1. In order to promote and encourage the involvement of small, local firms and firms owned or operated by minorities or women, Offeror must solicit and consider bids/proposals from subcontractors covering only certain components of the scope of the Work for which particular bids/proposals are solicited, in addition to soliciting and considering bids/proposals from subcontractors for complete scopes of the Work.

**20. RESTRICTED CONTACT PERIOD**

- 20.1. The restricted contact period shall begin upon the date of issuance of a solicitation and shall end upon execution of the awarded contract by all parties.

In an effort to demonstrate its commitment to ethical procurement and contracting standards, and to improve accountability and public confidence, all District purchases of goods and services through competitive methods as provided in CH(LEGAL) and CV(LEGAL) shall be subject to a restricted contact period. Except as provided in this policy communication between a vendor and vendor's representative, and a Board member, the Superintendent, assistant superintendent, chief, officer, executive director, principal, department head, director, manager, project manager, or any other District representative who has influence on or is participating in the evaluation or selection process is prohibited.

Please review the full board policies available [here](#).

**21. RETENTION OF PROPOSAL DOCUMENTATION**

- 21.1. All proposal materials and supporting documentation that are submitted in response to this proposal becomes the permanent property of AISD.

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## PROPOSAL FORM

To: The Board of Trustees  
Austin Independent School District  
Austin, Texas

Re: AISD CSP No.: 20CSP106

From: \_\_\_\_\_  
(Full legal name of firm, including DBA, if applicable)

Project Number: 20-0034-AKINS

Project Title: **Roof Improvements to Akins High School**

The undersigned offeror ("Offeror") submits this Proposal for the performance of the Work of construction, alteration or repair (the "Work") described as follows:

Repair and Replacement of existing built-up roofing, insulation and roofing related accessories and components at Akins High School.

The undersigned Offeror has carefully examined and considered the Project Site and relevant conditions and circumstances for the Work, information and requirements set out in the Request For Competitive Sealed Proposals, the Drawings and Specifications, and the requirements of the proposed Contract Documents, including the Agreement for Construction, the General Conditions and the Notice of Prevailing Wage Rates, in making this Proposal. Capitalized terms used but not otherwise defined in this Proposal Form shall have the same meanings as designated in the Request For Competitive Sealed Proposals.

**A.1 Pricing Schedule** (Express in words and numbers.)

Base Proposal \_\_\_\_\_  
\_\_\_\_\_  
(\$ \_\_\_\_\_ )

\*If applicable, indicate the amount of HAZMAT Abatement included in the Base Proposal.

\_\_\_\_\_  
\_\_\_\_\_  
(\$ \_\_\_\_\_ )

**A.2 Unit Prices:**

The Offeror agrees that the Base Proposal shall be adjusted by the amounts indicated below for each unit price indicated below:

- Unit Price No. 1: Install New Wood Nailers \$ \_\_\_\_\_ /bd ft
- Unit Price No. 2: Replace Wood Nailers \$ \_\_\_\_\_ /bd ft
- Unit Price No. 3: Install New Plywood \$ \_\_\_\_\_ 3/4"x4' x 8' sht.
- Unit Price No. 4: Metal Deck Repair (MDR-1) \$ \_\_\_\_\_ /100 sf

Unit Price No. 5: Metal Deck Repair (MDR-2) \$ \_\_\_\_\_ /100 sf

Unit Price No. 6: Metal Deck Repair (MDR-3) \$ \_\_\_\_\_ /ea.

**A.3 Substantial Completion Date**

All of the Work must be substantially completed no later than October 30, 2020.

**A.4 Liquidated Damages**

AISD shall have the right under the Contract to assess liquidated damages for each and every calendar day beyond the Substantial Completion Date set out in the Contract that the Work fails to be substantially complete in the following amount per day: \$500.

**B. Enclosed Documents**

The following are enclosed with this completed Proposal:

**B.1 Proposal Guaranty**

A Proposal Guaranty in the amount of 5% of the maximum total proposed Contract Amount (i.e. the sum of the Base Proposal and all additive Alternates) in the form of either a cashier's check payable to Austin Independent School District or a Proposal Bond on the required Proposal/Bid Bond Form.

**B.2 Other Documents Due**

The following are enclosed with this Proposal and **due NO MORE than 24 hours after** the Proposal Deadline:

**The required HUB documents requested for the project.**

**C. Offeror Representations and Certifications**

**C.1 By signing and submitting this Proposal, the undersigned Offeror and person signing on its behalf certifies and represents to the Austin Independent School District as follows:**

C.1.1 Offeror has not offered, conferred or agreed to confer any pecuniary benefit, as defined by Tex. Penal Code, Chapter 36, or any other thing of value, as consideration for the receipt of information or any special treatment or advantage relating to this Proposal;

C.1.2 Offeror has not offered, conferred or agreed to confer any pecuniary benefit or other thing of value as consideration for the recipient's decision, opinion, recommendation, vote or other exercise of discretion concerning this Proposal;

C.1.3 Offeror has not violated any state, federal or local law, regulation or ordinance relating to bribery, improper influence, collusion or the like, and Offeror will not in the future offer, confer, or agree to confer any pecuniary benefit or other thing of value to any officer, Trustee, agent or employee of the Austin Independent School District in return for the person's having exercised official discretion, power or duty with respect to this Proposal;

- C.1.4 Offeror has not now and will not in the future offer, confer or agree to confer a pecuniary benefit or other thing of value to any officer, Trustee, agent or employee of the Austin Independent School District in connection with information regarding this Proposal, the submission of this Proposal, the award of this Proposal, or the performance, delivery or sale pursuant to this Proposal;
- C.1.5 Offeror has neither coerced nor attempted to influence the exercise of discretion by any officer, Trustee, agent or employee of the Austin Independent School District concerning this Proposal on the basis of any consideration not authorized by law; and
- C.1.6 Offeror has not received any information not available to other offerors so as to give the undersigned a preferential advantage with respect to this Proposal.
- C.2** All information contained in this Proposal, including the information provided in Section D below is, to the best of the undersigned's knowledge and belief, true, complete and accurate.
- C.3** **OFFEROR WAIVES ANY CLAIM IT HAS OR MAY HAVE AGAINST THE ARCHITECT, ITS CONSULTING ENGINEERS, OR ANY OTHER CONSULTANTS, AND THEIR RESPECTIVE EMPLOYEES, OFFICERS, MEMBERS, DIRECTORS AND PARTNERS, AND AISD, ITS EMPLOYEES, OFFICERS, AGENTS, REPRESENTATIVES, AND THE MEMBERS OF AISD'S GOVERNING BODY, CONNECTED WITH OR ARISING OUT OF THIS REQUEST FOR PROPOSALS, INCLUDING, THE ADMINISTRATION OF THE REQUEST FOR PROPOSALS, THE PROPOSAL EVALUATIONS, AND THE SELECTION OF THE OFFEROR. SUBMISSION OF A PROPOSAL INDICATES OFFEROR'S ACCEPTANCE OF THE EVALUATION TECHNIQUE AND OFFEROR'S RECOGNITION THAT SOME SUBJECTIVE JUDGMENTS MUST BE MADE BY AISD DURING THE SELECTION PROCESS. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, OFFEROR ACKNOWLEDGES THAT AISD SHALL DOCUMENT THE BASIS OF ITS SELECTION AND SHALL MAKE THE EVALUATIONS PUBLIC NOT LATER THAN THE 7TH DAY AFTER THE DATE THE CONTRACT IS AWARDED, AND OFFEROR WAIVES ANY CLAIM IT HAS OR MAY HAVE AGAINST THE ABOVE-NAMED PERSONS, DUE TO INFORMATION CONTAINED IN SUCH EVALUATIONS.**
- C.4** Offeror has received the following Addenda to the Request for Proposals, but agrees and understands that it will be responsible for performing the Work in accordance with all terms and conditions in all Addenda issued in connection with the Request for Proposals, and that its Proposal will be construed to include all requirements of all such Addenda, whether or not identified here:  
Addenda No.(s) and dates:  
\_\_\_\_\_  
\_\_\_\_\_  
Offeror must print, date and sign all addenda cover sheets and attach them to their bid package.
- C.5** Offeror (or its subcontractors/suppliers, as applicable) meets all of the Minimum Qualifications specified in Section 1.3 of the Request for Proposals.
- C.6** The subcontractors/suppliers listed on the completed Disclosure Statement meet all of the qualifications for the Project set forth in AISD's Project Manual/Specifications.
- C.7** If requested by a subcontractor or material supplier who submitted a bid/proposal to Offeror in connection with the Work but who is not listed as a proposed subcontractor or supplier on Offeror's completed Disclosure Statement, Offeror will provide feedback to such subcontractor or supplier as to how its bid/proposal compared with the other bids/proposals received by

Offeror for the same services or materials in connection with the Work (e.g., bid was highest bid received, bid fell in the middle of bids received, etc.).

- C.8** To promote and encourage the involvement of small, local firms and firms owned or operated by minorities or women, Offeror will solicit and consider bids/proposals from subcontractors covering only certain components of the scope of the Work for which particular bids/proposals are solicited, in addition to soliciting and considering bids/proposals from subcontractors for complete scopes of the Work.

**D. Offeror Information**

All of the following information must be provided by Offeror. Use additional sheets if necessary. If additional sheets are used, clearly indicate the question number to which you are responding. Responses must be typed or printed neatly. Illegible responses will not be considered. The Offeror is also sometimes hereinafter referred to below as the "organization" or the "company."

**D.1 General Information**

D.1.1 Name of Offeror: \_\_\_\_\_

D.1.2 Name of Project: \_\_\_\_\_  
\_\_\_\_\_

D.1.3 Address of office from which Offeror will conduct the Work:  
\_\_\_\_\_

D.1.4 Offeror's Contact Person for this Work:  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_ Phone: \_\_\_\_\_

D.1.5 Offeror's Home Office Address:  
\_\_\_\_\_

D.1.6 Does any relationship exist between the Offeror, its officers, principals, or employees and any of AISD's officers, or Trustees?  YES  NO  
If yes, please explain. \_\_\_\_\_

D.1.7 Principal Business:  
 General Construction  Mechanical/Electrical/Plumbing  
 Roofing  Interior Finish-out  
 Other (Please specify) \_\_\_\_\_

D.1.8 Licensing/Certifications for Prime Contractors:  
List trade categories in which your organization is legally qualified to do business in Austin, Texas, and indicate registration or license numbers, as applicable.

If a Technology, Fire Alarm, Security or Roofing specialty contractor, please provide a list of each manufacturer with which your organization is authorized/certified to supply, service and install their products. Submit letters and certificates from the manufacturers, on manufacturers' letterheads, regarding the authorization to supply, service and install their products and, in addition, provide copies of certifications for the various personnel involved in the Project.

- D.1.9 Minimum Qualifications:  
To the extent not otherwise described in Section 1.8 above, describe your organization's compliance with all Minimum Qualifications set forth in Section 1.3 of the Request for Proposals and include all necessary attachments evidencing same.
- D.1.10 Work to be Performed on this Project by Offeror's Own Forces:  
List the general categories of work that your organization intends to perform on this Project using its own forces.
- \_\_\_\_\_

**D.2 Organization**

- D.2.1 How many years has your organization been in business as a contractor? \_\_\_\_\_
- D.2.2 How many years has your organization been in business under its present business name? \_\_\_\_\_
- D.2.3 Under what other or former names has your organization operated?  
Name: \_\_\_\_\_ Years: \_\_\_\_\_  
Name: \_\_\_\_\_ Years: \_\_\_\_\_
- D.2.4 If your organization is a corporation, answer the following:  
Date of incorporation: \_\_\_\_\_  
State of incorporation: \_\_\_\_\_  
President's name: \_\_\_\_\_
- D.2.5 If your organization is a limited liability company, answer the following:  
Date of organization: \_\_\_\_\_  
State of organization: \_\_\_\_\_  
President's, Manager's or Managing Member's name: \_\_\_\_\_
- D.2.6 If your organization is a partnership, answer the following:  
Date of organization: \_\_\_\_\_  
Type of Partnership: \_\_\_\_\_  
Name(s) of general partner(s): \_\_\_\_\_
- D.2.7 If your organization is individually owned, answer the following:  
Date of organization: \_\_\_\_\_  
Name of owner: \_\_\_\_\_
- D.2.8 For all business entities other than publicly held corporations, provide the following:  
Award to Nonresident Bidders  
Is your business organized under the laws of the State of Texas?  
 YES  NO  
What is the location of your principal place of business?  
\_\_\_\_\_  
Proposals from nonresident contractors shall be evaluated according to Tex. Gov. Code § 2252.002.
- D.2.9 Is your company currently for sale or involved in any transaction to expand or to become acquired by another business entity? If yes, please explain the impact both in organizational and directional terms. \_\_\_\_\_

**D.3 Relevant Experience**

- D.3.1 **On the attached Table A**, list all projects your company has in progress and provide all additional information requested.
- D.3.2 **On the attached Table B**, list all school projects that your company has completed in the past eight (8) years, beginning with AISD schools, and provide all additional information requested. As used herein, "school" means K-12 and higher education.
- D.3.3 **On the attached Table C**, list all non-school projects your company has completed in the past eight (8) years and provide all additional information requested.
- D.3.4 Describe the way in which your company develops and maintains project schedules. How often do you update schedules? **Limit your response to one page.**

**D.4 Past Performance**

- D.4.1 Claims and Suits. (If the answer to any of the questions below is yes, please attach details not to exceed one page for each of the following questions.)  
  
Has your organization ever failed to complete any work awarded to it? (If yes, attach details.)  
 YES  NO
- D.4.2 Are there any judgments, claims, arbitration proceedings or suits (past, pending or outstanding) against your organization or its officers arising out of or in connection with your company's performance under a contract for construction management and/or construction services? (If yes, attach details, including a description of how such suits or claims were resolved, if applicable.)  
 YES  NO
- D.4.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years? (If yes, attach details.)  
 YES  NO
- D.4.4 Has your organization been assessed liquidated damages on a project in the last eight (8) years? (If yes, attach details.)  
 YES  NO
- D.4.5 Within the last five years, has any officer or principal of your organization ever been an officer or principal of **another** organization when it failed to complete a construction contract? (If yes, attach details.)  
 YES  NO
- D.4.6 Trade References. Provide the following information for three trade references:  
  
Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_  
Address : \_\_\_\_\_ Telephone: \_\_\_\_\_  
  
Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_  
Address : \_\_\_\_\_ Telephone: \_\_\_\_\_

Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_  
Address : \_\_\_\_\_ Telephone: \_\_\_\_\_

**D.5 Personnel**

D.5.1 **On the attached Table D**, list the names of the key individuals [Project Manager, Construction Superintendent, Assistant Superintendent (if applicable), and Field Engineer(s)] of your organization which are proposed to be assigned to this Project and provide the additional information requested on Table D. For each key individual listed on Table D, provide a resume (not to exceed 2 pages) which includes the key individual's construction experience and a description of his/her qualifications and experience relative to the Project.

**D.6 Financial**

Bank References - Provide the following information for three Bank references:

Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_  
Address : \_\_\_\_\_ Telephone: \_\_\_\_\_

Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_  
Address : \_\_\_\_\_ Telephone: \_\_\_\_\_

Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_  
Address : \_\_\_\_\_ Telephone: \_\_\_\_\_

D.6.1 Surety:  
D.6.1.1 Name of your organization's bonding company:  
\_\_\_\_\_

D.6.1.2 Name, address and phone number of agent:  
  
Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_  
Address : \_\_\_\_\_ Telephone: \_\_\_\_\_

D.6.2 Financial Statement. All statements submitted will be used exclusively by AISD in the evaluation of the award of the contract on the underlying project. Statements will be kept confidential to the extent permitted by law.

**D.6.2.1 Attach an audited or reviewed financial statement, including an independent auditor's report, balance sheet, income statement, and the related notes to the financial statement. Financial statements that are more than one-year old are not acceptable.**

D.6.2.2 Name and address of firm preparing attached financial statement, and date thereof:  
  
Company name: \_\_\_\_\_  
Contact person: \_\_\_\_\_

Address : \_\_\_\_\_ Telephone: \_\_\_\_\_

- D.6.3 If financial statements for an affiliate of the organization are also attached, will such organization act as guarantor of the contract for construction?  
 YES  NO

State whether your company is currently in default on any loan agreement or financing agreement with any bank, financial institution, or other entity? (If yes, specify date(s), details, circumstances, and prospects for resolution.)

- D.6.4 State whether your company is currently contemplating or has pending a petition in bankruptcy for debt relief, or whether a creditor has threatened to file an involuntary petition against Offeror.

## D.7 Safety Record

- D.7.1 Please provide the following information in connection with your organization's safety record:

- 7.1.1 Your organization's OSHA (Occupational Safety and Health Administration) 300 Logs for the last three completed Calendar (3) years.

- OSHA log must be completed signed and dated. If no accidents, record "0" in appropriate column totals.

- 7.1.2 Loss run from your organization's insurance carrier or insurance agent covering your organization's workers' compensation insurance coverage. (Loss run is also referred to as "statement of claims" or SOC.) A loss analysis/loss summary may be submitted as long as it contains individual claims descriptions.

- Loss run must be provided by your organization's insurance carrier or insurance agent. Insurance carrier's company name or insurance agent (agency) must be clearly legible on documents provided.
- Names of claimants on loss run may be redacted/blackout.
- If there have been no losses, provide copy from your firm's insurance carrier stating no losses.
- Loss run/Loss Analysis/Loss Summary must be from the most recently completed policy year.
- This report must be produced and printed 60 calendar days or less before the bid due date.

- 7.1.3 Loss ratio from your organization's insurance carrier or insurance agent covering your organization's workers' compensation insurance coverage.

- Loss ratio must be provided by your organization's insurance carrier or insurance agent. Insurance carrier's company name or insurance agent (agency) must be clearly legible on documents provided.
- Time period corresponding to loss ratio must be provided for the most recent completed policy year.



- Typed or handwritten information concerning loss ratio prepared by your firm WILL NOT be accepted.
- Experience rating documents WILL NOT be accepted for this Paragraph 7.1.3.11
- If your Loss Run/Loss Analysis/Loss Summary for the most completed policy period indicates no losses, then a separate document showing 0 % loss ratio will not be required.
- This report must be produced and printed 60 calendar days or less before the bid due date.

7.1.4 Your organization's current experience modifier from your organization's workers' compensation insurance premiums provided by your organization's insurance carrier, insurance agent or rating agency.

- Experience modifier must be provided by your organization's insurance carrier, insurance agent or rating agency. Insurance carrier's company name or insurance agent (agency) must be clearly legible on documents provided.
- Experience modifier must clearly indicate time period/year covered.
- Hand-written experience modifiers WILL NOT be accepted.
- Experience rating documents indicating a calculated experience modifier will be accepted provided there is a final calculated experience modifier with applicable year indicated.
- This report must be produced and printed 60 calendar days or less before the bid due date.

Executed as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Offeror: \_\_\_\_\_  
(Full legal name of firm, including DBA, if applicable)

Address: \_\_\_\_\_  
\_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

**Table A - All Projects in Progress**

	<b>Project Name</b>	<b>Owner</b>	<b>Owner's Contact Person and Phone Number</b>	<b>Architect</b>	<b>Architect's Contact Person and Phone Number</b>	<b>Contract Amount</b>	<b>Percent Complete</b>	<b>Scheduled Completion Date</b>
1								
2								
3								
4								
5								
6								
Total Value of All Projects in Progress:     \$ _____								

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**Table B - All School (K-12 and higher education) projects completed in the past 8 years,  
 beginning with projects for AISD**

	Project Name	Owner	Owner's Contact Person and Phone Number	Architect	Architect's Contact Person and Phone Number	Original Contract Amount	Total Change Order Amount	Final Contract Amount	Date of Completion	% of work completed with Own Forces	Liquidated Damages (Yes or No)
1											
2											
3											
4											
5											
6											
Total Value of All School Projects Completed in the Past 8 Years: \$ _____											

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**Table C - All Non-School projects completed in the past 8 years**

	Project Name	Owner	Owner's Contact Person and Phone Number	Architect	Architect's Contact Person and Phone Number	Original Contract Amount	Total Change Order Amount	Final Contract Amount	Date of Completion	% of work completed with Own Forces	Liquidated Damages (Yes or No)
1											
2											
3											
4											
5											
6											
Total Value of All Non-School Projects Completed in the Past 8 Years:    \$ _____											

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**Table D – Personnel**

Key Individuals	Number of years with this Company	Commitment for duration of the Project (Yes or No)	Number of school projects this team of key individuals has completed together:  _____  Number of non-school projects this team of key individuals has completed together:  _____
Project Manager (Name):			
Construction Superintendent (Name):			
Assistant Superintendent (Name):			
Field Engineer (Name):			

List below the names of all school and non-school projects that at least two of the key individuals listed above have worked on together:	
1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
11.	12.
13.	14.
15.	16.
17.	18.
19.	20.
21.	22.
23.	24.

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**GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION**  
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  - 1.2 Correlation and Intent
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**GENERAL CONDITIONS OF THE CONTRACT  
FOR CONSTRUCTION**

**1. Article 1. GENERAL PROVISIONS**

**1.1 DEFINITIONS**

- A. "Agreement" means, as applicable, AISD's Agreement for Construction Contract between Owner and Contractor (Form AISD/Con), AISD's Agreement for Construction between Owner and Construction Manager-at-Risk (Form AISD/Con-CMR), AISD's Agreement Between Owner and Design/Build Contractor (AISD/Con-Design Build, hereinafter sometimes specifically referred to as a "Design/Build Agreement") or AISD's Job Order Contract between Owner and Contractor (Form AISD/Con-JOC), which incorporates each Task Order executed thereunder.
- B. "AISD" or "Owner" means the Austin Independent School District of Travis County, Texas.
- C. "Architect/Engineer" means the person or organization designated to perform the functions of Architect/Engineer or Project Architect, for this Contract, or in a separate writing signed by a Contracting Officer.
- D. "Change Order" means a written amendment to the contract mutually agreed to by the Owner and Contractor that is generally based on a Change Order Request.
- E. "Change Order Request" means a written document initiating a change in the Work. F. "Claim" means, as between the Owner and the Contractor, an assertion that the party making the claim is entitled, as a matter of right, to an adjustment in the Contract Amount, and/or the Contract Time, or is otherwise entitled to payment or damages. With regard to third persons, including subcontractors, a claim is an assertion of entitlement to payment or damages.
- G. "Contract" means the Contract Documents that 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 between the Architect/Engineer and Contractor, or between the Owner and a subcontractor.
- H. "Contract Amount" or "Proposal" means the amount identified in the Contract as the sum of the Cost of the Work and the Contractor overhead and profit, subject to adjustment as provided in the Contract Documents. The term Contract Amount shall have the same meaning as "Contract Sum" or "Contract Price." In Contracts

establishing a Guaranteed Maximum Price, the Contract Amount shall not exceed the Guaranteed Maximum Price.

- I. “Contract Documents” consist of the (i) Agreement, (ii) Special Conditions (if any), (iii) Supplemental Conditions (if any), (iv) Owner’s General Conditions of the Contract for Construction (“General Conditions”), (v) Owner’s Notice of Prevailing Wage Rates (the “Notice of Prevailing Wage Rates”), (vi) Drawings and Specifications, (vii) Owner’s Solicitation Documents and the Contractor’s response, to the extent not modified by the other Contract Documents, and any attachments and exhibits to any of the foregoing, and Modifications issued after execution of the Contract. In the event of a conflict between two or more of the Contract Documents, each shall prevail over the other in the order of preference listed above, unless otherwise provided by the terms of the Contract Documents. In the event of a conflict between the Drawings and the Specifications, the provisions of Section 1.2.B. shall apply.
- J. “Contract Time” means the time provided in the Contract Documents for substantial and final completion of the Work.
- K. “Contracting Officer” means a person authorized to bind Owner in matters relating to the Contract; specifically, the President of the Board of Trustees of AISD, the Superintendent of Schools of AISD, the Chief Financial Officer of AISD, the Executive Director of Facilities of AISD, the Executive Director of Construction Management of AISD, or such other person as may be authorized by resolution of the Board of Trustees of AISD to exercise the functions of a Contracting Officer for this Contract.
- L. The “Contractor” means “Contractor,” “Design/Build Contractor,” “Construction Manager-at-Risk,” “Proposer,” “Offeror,” or “Bidder” as identified in the Contract Documents.
- M. “Cost of the Work” shall mean the actual cost of all Work provided by Contractor under the Contract which is subject to payment or reimbursement by Owner, unless otherwise provided in the Agreement.
- N. “Day” means a calendar day unless the context indicates otherwise or the term “business day” is used. A business day shall mean weekdays but exclusive of Federal holidays.
- O. “Drawings” means the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams. The term “Drawings” does not include shop drawings.
- P. “Final Completion” means the date the Contract has been fully performed by the Contractor (except for the Contractor’s responsibility to correct defective or



nonconforming Work, and to satisfy other requirements, if any, which necessarily survive final payment), and a final Certificate for Payment approved by the Owner has been issued by the Architect/Engineer.

- Q. “Modification” is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) an Interim Change Authorization, or (4) a written order for a minor change in the Work issued by the Architect/Engineer or Owner.
- R. “Person” means an individual, sole proprietorship, corporation, limited liability company, partnership, limited partnership, or other entity.
- S. “Personal property” means any property that is not real estate.
- T. “Preconstruction” or “Preconstruction Phase” means the period after execution of the Contract but prior to the commencement of construction.
- U. 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.
- V. The “Project Manual” is a volume assembled for the Work which may include the bidding requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.
- W. “Solicitation Documents” means the documents issued by Owner to solicit construction services, including the Request for Bids, Request for Competitive Sealed Proposals, Request for Qualifications, the Instructions, the Forms, any Drawings, Specifications or other documents or information referred to therein, and all Addenda.
- X. “Solicitation Process” means the process by which the Owner advertises for and selects the Contractor for the performance of services and the Work.
- Y. “Specifications” means that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.
- Z. “Subcontractors” are those persons or organizations having a contract with the Contractor or another subcontractor to (i) perform labor, (ii) supply materials or equipment, or (iii) fabricate materials or equipment off-site.
- AA. “Submittals” means shop drawings, product data, and samples as defined in Article 3, Section 3.7A and B herein, and any other documents or items required to be submitted by Contractor to Architect/Engineer or Owner under the terms of the Contract Documents or in connection with the Contract.

- BB. “Substantial Completion” is that stage of completion, short of final completion, at which the Work, or a discrete portion thereof, is usable by the Owner for the purpose for which it is intended (any necessary Certificate of Occupancy having been obtained), and at which, in order to obtain possession and control of the Work or the particular discrete portion, it is advantageous to the Owner to assume the burden of maintenance and risk of loss thereof.
- CC. The “Work” means the construction and services defined in the Agreement and required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services to be provided by the Contractor to fulfill the Contractor’s obligations and labor, materials, equipment and services provided or to be provided by subcontractors, sub-subcontractors, material suppliers, or any other entity for whom the Contractor is responsible under or pursuant to the Contract. The Work may constitute the whole or part of the Project.

Any terms used in the General Conditions which are not expressly defined herein, or in the other Contract Documents, or which do not have a specific meaning inferable from the context in which they are used, shall have the meanings normally ascribed to them in the construction industry, particularly as those terms are used and understood in Austin, Texas or in the location where the Work is performed.

## 1.2 CORRELATION AND INTENT

- A. 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 any one Contract Document shall be as binding as if required by all. Omissions from the Drawings or Specifications, or the misdescription of details of Work which are evidently necessary to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the Work, but they shall be performed as if fully and correctly set forth and described in the Drawings and Specifications. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferable therefrom as being necessary to produce the intended results. In the event Contractor has any questions or concerns regarding the Drawings or Specifications, or the completeness, adequacy or constructability of any of the design documents, or if Contractor believes that there is an error or inconsistency in any of the design documents, Contractor shall notify Owner and Architect/Engineer as soon as possible, and shall request clarification or additional information from Architect/Engineer.
- B. In the case of an inconsistency between Drawings and Specifications, or within either document, and not clarified by addendum, or responses to requests for information, the better quality or greater quantity of Work described shall be provided in accordance with the Owner’s interpretation.

- C. Organization of the Specifications and arrangement of Drawings shall not control the Contractor in dividing the Work among subcontractors or in establishing the extent of what is to be performed by any trade.
- D. 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.
- E. The Specifications and the accompanying Drawings are the property of Owner and shall be returned to Owner upon request at the completion of the Work. The Contractor may retain one record set.
- F. Time is of the essence in this Contract.

### 1.3 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

- A. The Drawings, Specifications and other documents, including those in electronic form, prepared by the Architect/Engineer and the Architect/Engineer's consultants are Instruments of Service through which the Work to be executed by the Contractor is described. Neither the Contractor nor any subcontractor or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications and other documents prepared by the Architect/Engineer and the Architect/Engineer's consultants who shall be deemed the authors of them and will retain the rights provided in the Agreement between Owner and Architect/Engineer. All copies of Instruments of Service, except the Contractor's record set, shall be suitably accounted for to the Architect/Engineer and Owner, on request, upon completion of the Work. The Drawings, Specifications and other documents prepared by the Architect/Engineer and the Architect/Engineer's consultants, and copies thereof furnished to the Contractor, are solely for use with respect to this Project. The Contractor, subcontractors and material or equipment suppliers are authorized to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Architect/Engineer and the Architect/Engineer'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/Engineer and the Architect/Engineer'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/Engineer's or Architect/Engineer's consultants' copyrights or other reserved rights.
- B. Contractor shall restrict its Work to the designated areas of the Project site, and any other work areas which Contractor is permitted to use by Contract or lease. Contractor shall not trespass onto the property of any other person or conduct Work in areas prohibited by Owner. Contractor shall not permit vehicles, debris, materials or equipment to be placed or stored on the property of a third party or within public rights

of way, unless Contractor has obtained a permit, license or other written permission to do so, or is otherwise complying with applicable law. In using easements or rights of way, Contractor shall conform to all applicable usage requirements established by law or the documents creating the easement or right of way.

## **2. Article 2. RESPONSIBILITIES OF THE ARCHITECT/ENGINEER**

### **2.1 OWNER/ARCHITECT/ENGINEER RELATIONSHIP**

- A. All formal communications from the Contractor to Owner in connection with the Contract shall be in writing addressed to the attention of the Owner's Contracting Officer, with a copy to Owner's designated project manager ("Owner's Project Manager"), shall reference the Contract by project name and number, and shall be transmitted in duplicate. Any or all of the Owner's formal communications to Contractor will be issued by the Owner or through the Architect/Engineer. In the case of a Design/Build Agreement, formal communications from the Contractor to Owner in connection with the Design/Build Agreement shall be in writing addressed to the attention of the Owner and the Owner's Contracting Officer, with a copy to Owner's Consultant.
- B. The Owner's Project Manager and Owner's Consultant do not have the authority to execute Change Orders or agree to changes in the Work which affect the Contract Amount or the Contract Time. These changes must be approved by the appropriate Contracting Officer.
- C. The Architect/Engineer shall advise and consult with the Owner as is necessary for the proper administration of the Project.
- D. The Contracting Officer may delegate any part of his respective functions hereunder, but the Contractor will be notified in writing of any such delegation and the extent thereof.

### **2.2 CONTRACT ADMINISTRATION**

- A. Architect/Engineer will perform all obligations under the Agreement between Owner and Architect/Engineer, including those set forth below. The Architect/Engineer will inspect the Work for general compliance with the Contract Documents. The Architect/Engineer will initiate Change Orders Requests and evaluate the Contractor's proposed cost and related time. The Architect/Engineer will conduct inspections to determine the date or dates of Substantial Completion and the date of Final Completion. The Architect/Engineer will review, upon receipt from the Contractor, the as-built drawings, written warranties, owner's manuals and related documents required by the Contract. The Architect/Engineer will review requests for payment submitted by Contractor and will make recommendations to Owner on payment. In the case of a Design/Build Agreement, the parties' responsibilities will be governed

by the Construction Contract Administration provisions contained within the Design/Build Agreement.

### **3. Article 3. RESPONSIBILITIES OF THE CONTRACTOR**

#### **3.1 SUPERVISION AND DUTY**

- A. Contractor will provide all labor, equipment, and materials necessary to perform the Work in accordance with the terms of the Contract Documents and will supervise the performance of such Work and perform the other obligations set out in the Contract Documents within the time periods provided therein. Contractor will perform all Work in a good and workmanlike manner, free from negligence and defects in labor and materials, and in conformance with all applicable federal, state and local laws and the Contract Documents. The Contractor shall give adequate attention to the faithful prosecution and completion of this Contract and shall keep on the Project site at all times, skilled subcontractors and laborers sufficient in number and expertise to perform the Work in accordance with the Contract Documents, and within the Contract Time. Contractor shall be responsible for the performance and services of all subcontractors, suppliers, and persons providing labor or materials for the Work in connection with the Contract, and the acts and omissions of such persons in the performance of the Work shall be deemed to be those of Contractor.
  
- B. The Owner will furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site to the extent provided in the Agreement or otherwise agreed to by Owner and Contractor in writing. Owner shall decide what surveys, soil analyses and other studies by consultants are to be performed in accordance with the Work and the scope of such consulting services and shall provide Contractor with the results of all such surveys, studies and analyses, provided however that Owner does not warrant or guarantee the accuracy or completeness of any information so provided. Contractor shall have the full responsibility for determining the location of all utilities. Contractor shall confirm the location of each utility shall excavate and dispose of each on-site utility and shall cap each off-site utility as required by the Work and as may be included in the Specifications. The Contractor shall make available the results of any site investigation, test borings, analyses, studies or other tests conducted by, or in possession of the Contractor or any of its agents. The Contractor represents that it is generally familiar with the Project site. The Contractor shall exercise special care in executing subsurface work in proximity of known subsurface utilities, improvements and easements. Nothing in this subsection shall be read or construed as limiting the responsibilities of the Contractor or its subcontractors pursuant to the terms of these General Conditions, or under other terms of the Contract.
  
- C. Subject to Section 7.1.C hereof, 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/Engineer in the Architect/Engineer's administration of the

Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.

- D. Except as provided in the Contract Documents to the contrary, direct communications between Owner and Contractor that affect performance or administration of the Contract shall be made or confirmed in writing by Contractor with copies forwarded to Architect/Engineer.
- E. The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe or may otherwise be objectionable, the Contractor shall give timely written notice to the Owner and Architect/Engineer and shall not proceed with that portion of the Work without further written instructions from the Architect/Engineer. If the Contractor is then instructed by Owner to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Contractor shall not be responsible to Owner for any resulting loss or damage unless caused by the negligence or intentional misconduct of Contractor or persons performing Work under the Contract.
- F. 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.
- G. 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.
- H. All employees and subcontractors of the Contractor shall be qualified by training and experience to perform their assigned tasks. The Contractor shall not use in the performance of the Work or permit to be used any employee or subcontractor who is incompetent, careless, or unqualified to perform the Work assigned to it. Contractor shall engage sufficient workers on the Project at all times to perform the Work in a good and workmanlike manner and in the time periods required by the Contract Documents.
- I. The Contractor agrees that in the performance of the Work called for by this Contract, it will employ only such labor, and engage subcontractors that employ only such labor, with the requisite skills, expertise and experience to perform the Work required of

such persons in a good and workmanlike manner, and who will not delay or interfere with the lawful progress of the Project within the Contract Time, and will be acceptable to and work in harmony with all other workers employed on the Project site or on any other building, structure or other improvement which the Contractor or any other contractors may then be erecting or altering on behalf of Owner.

- J. In the event of a strike or stoppage of work resulting from a dispute involving or affecting the labor employed by the Contractor or any of its subcontractors, Owner, at its option and without demand, may terminate the Contract for convenience unless the Contractor shall remedy the strike or work stoppage or other disruption within twenty (20) calendar days after the dispute arises.
- K. Contractor shall furnish Owner, on request, resumes of Contractor's key personnel involved in the day-to-day Work on the Project.
- L. Contractor will not permit at any time alcohol, controlled substances or firearms to be present at the Project site. No smoking will be permitted in any area of the Project which is enclosed or in the finish-out stage of construction.
- M. Lot lines and permanent benchmarks have been established as shown on the Drawings. The Contractor shall be solely responsible for properly laying out the Work and the Project unless there are errors not reasonably discoverable by Contractor, and for all lines, elevations and measurements for all of the Work executed under the Contract Documents. Contractor shall verify the figures shown on the Drawings before laying out the Work and will be held responsible for all costs resulting from its failure to do so.
- N. The Contractor has the responsibility to ensure that all material suppliers and subcontractors, their agents, and employees adhere to the Contract Documents, and that they order materials on time, taking into account the current market and delivery conditions and times and that they provide materials on time. The Contractor shall coordinate its Work with that of all other persons or entities performing Work on the Project including deliveries, storage, installations and construction utilities. The Contractor shall be responsible for the space requirements, locations, and routing of all materials and equipment required under the Contract Documents. In areas and locations where the proper and most effective space requirements, locations, and routing cannot be made as indicated, the Contractor shall meet with all others involved, before installation, to plan the most effective and efficient method of overall installation.
- O. The Contractor shall employ at the Project site at all times during the progress of the Work a competent, English-speaking project manager ("Contractor's Project Manager"), a competent, English-speaking superintendent ("Superintendent") and any necessary English-speaking assistants to supervise and direct the Work. The list of all supervisory personnel, including the Contractor's Project Manager and Superintendent, that the Contractor intends to use on the Project and a chain-of-

command organizational chart shall be submitted to the Owner and Architect/Engineer for approval. The Contractor shall not engage supervisory personnel or utilize an organizational structure and chain-of-command other than as approved by Owner and Architect/Engineer, and shall not change such form or organizational structure without the written approval of the Owner and Architect/Engineer. The Contractor's Project Manager or Superintendent shall represent the Contractor in Contractor's absence and all communications given to the Contractor's Project Manager or Superintendent shall be as binding as if given to the Contractor. The Contractor shall not remove an approved Superintendent from the Work without written, timely notice to Owner of such Superintendent's removal and the proposed replacement having been approved by the Architect/Engineer and Owner. Owner and Architect/Engineer shall have the right to reasonably require Contractor to remove from the Project any Superintendent or on-site supervisor whose performance is not reasonably satisfactory to Owner and Architect/Engineer and replace such Superintendent or on-site supervisor with a Superintendent or on-site supervisor satisfactory to Owner and Architect/Engineer.

- P. The Contractor shall provide the Owner and Architect/Engineer access to the Work in preparation and progress wherever located at all times.

### 3.2 CONDITIONS AFFECTING THE WORK

- A. In agreeing to perform the Work within the Contract Time and for the Contract Amount as set forth in the Contract, including any Contract Time and Guaranteed Maximum Price established by amendment to a Construction Manager-at-Risk Contract, Contractor acknowledges, represents and warrants to Owner that it has thoroughly reviewed all of the Contract Documents, and has visited and examined the site as to visible surface conditions or conditions ascertainable from the results of any subsurface tests or information provided in connection with the Project, the Contract Documents, and reasonably examined all legal, physical, and other conditions affecting the Work, including without limitation, all soil, subsurface, water, survey and engineering reports and studies delivered to or obtained by the Contractor in connection therewith. Contractor specifically warrants and represents to the Owner that it has by such careful examination of such information and based thereon, satisfied itself as to: (1) the nature, location, and character of the Project and the Project site; (2) the nature, location, and character of the general area in which the Project is located; (3) the conditions prevailing at the Project site, including climactic and weather conditions that are normal for the area, and those that are currently prevailing at the Project site; (4) anticipated labor supply and costs; (5) sufficiency and completeness of the Contract Documents, including the Drawings and Specifications, and the (6) availability and costs of labor, materials, supplies, professional services and equipment, in order to complete the Work in accordance with the Contract Documents, within the Contract Time and for not more than the Contract Amount. Contractor represents that all subcontractors engaged or to be engaged in the performance of the Work will be familiar with the requirements for performance by them of their obligations. The Owner shall not be obligated to make any adjustment in the Contract Time, Contract Amount and/or Guaranteed Maximum Price (if any)



set out in the Contract, due to any failure by the Contractor to perform any of the foregoing examinations or determinations, or any misestimate or miscalculation of Contractor, or any subcontractor or supplier in connection therewith.

- B. 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 the Contract, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the Project site affecting it. The Contractor shall notify the Architect/Engineer of materials, systems, procedures or methods of construction, either shown on the Drawings or Specifications, that it believes are incorrect, inadequate, obsolete, unsuitable for the purpose intended, or which could have an adverse effect upon installation or completion by others under separate contracts. These services shall be performed during the Preconstruction Phase to the greatest extent possible, but in any event before the commencement of Work affected by such matters. Any errors, inconsistencies or omissions discovered by the Contractor shall be reported promptly to the Architect/Engineer and Owner as a request for information in the form as the Architect/Engineer and Owner may require. Any design errors or omissions noted by the Contractor during this review shall be reported promptly to the Architect/Engineer and Owner, 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/Engineer and Owner. All notifications required by this Section 3.2 shall be given no later than five (5) days after Contractor first becomes aware of the problem. If the Contractor fails to perform its obligations under this Section, or performs Work that it reasonably should have known to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Architect/Engineer and Owner, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction. In addition, if the Contractor fails to perform the obligations as provided in Subsections B and C, Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.
- C. If the Contractor believes that additional cost or time is involved in the Work because of matters noted during the Construction Phase which could not reasonably have been detected by the Contractor during the Preconstruction Phase, or because of clarifications or instructions issued by the Architect/Engineer as a result thereof, the Contractor shall promptly notify Architect/Engineer and Owner in writing as soon as possible after Contractor becomes aware of the need for additional time or cost, but in no event later than five (5) days thereafter, and shall subsequently make a request for Change Order as provided in this Contract in order to be entitled to additional compensation or an extension of the Contract Time. Contractor shall not be entitled

to any additional time or compensation for matters that it should have reasonably noted during the Preconstruction Phase, particularly where Contractor has performed Preconstruction Services for Owner as a Construction Manager-at-Risk. If Contractor's claim for additional time or additional cost is approved by Owner, the Contract Time and/or Contract Amount shall be equitably adjusted by Change Order.

- D. Any provision in the Contract Documents to the contrary notwithstanding, nothing in Sections 3.2 B and C shall reduce, diminish, limit or relieve Contractor from its obligations, representations and warranties contained in Section 3.2.A, and the Agreement.

### 3.3 DIFFERING SITE CONDITIONS

- A. The Contractor shall promptly, and before such conditions are disturbed, notify the Owner in writing of:
  - 1. Subsurface or latent physical conditions at the Work site differing materially from those indicated in the Contract Documents, or
  - 2. Unknown physical conditions at the Work site, of an unusual nature, differing materially from those which could reasonably be anticipated to be encountered at the Project site or generally recognized as inherent in work of the character provided for in the Contract Documents.

Notice must be given to Owner as soon as possible, but in no event later than 5 days after Contractor first becomes aware of the condition.

- B. The Owner and/or the Architect/Engineer shall promptly investigate the conditions, and if the Owner finds that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work under the Contract, an equitable adjustment shall be made and the Contract shall be modified by Change Order accordingly.
- C. No claim of the Contractor under this Section 3.3 shall be allowed unless the Contractor shall have given the notice required in Section 3.3.A above.

### 3.4 PERMITS, FEES, AND RESPONSIBILITIES

- A. The Contractor shall, at Contractor's expense as part of the cost of the Work, be responsible for obtaining all necessary licenses, fees, and permits, and for complying with any applicable Federal, State and municipal laws, codes and regulations, in connection with the prosecution of the Work. Contractor shall take proper safety and health precautions to protect the workers, the public, the Work and the property of others. Contractor shall be responsible for all materials delivered and work performed until final completion and acceptance of the entire Work.

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

### 3.5 PATENTS, COPYRIGHTS, AND LICENSES

- A. The Contractor shall be responsible for obtaining all consents and licenses required to perform the Work, and to pay all royalties and license fees arising in connection with the Work performed under the Contract Documents.
- B. The Contractor will defend suits or claims for infringement of intellectual property rights, patent rights, or breach of license agreements, and indemnify Owner, the Architect/Engineer and their respective officers, members of their governing body, agents and employees against all liability, loss and expense (including attorneys' fees) for such alleged infringement or breach arising out of the performance of the Contract, or out of the use or disposal by or for the account of Owner of supplies furnished, or construction Work performed under the Construction Documents. These obligations are in addition to any other indemnification obligations provided by the Contract Documents and shall survive termination of the Contract or completion of Contractor's obligations under the Contract as to events occurring prior to such termination or completion.

### 3.6 CONSTRUCTION SCHEDULE

- A. The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect/Engineer's review and approval a Contractor's Construction Schedule for the Work ("Construction Schedule") meeting the requirements set forth in this Section. In no event shall the Construction Schedule be submitted later than the time the Contractor submits its first Estimate for Partial Payment.
- B. The Construction Schedule shall show the dates for starting and completing the various component activities making up the Work, and the logical relationships between them, and shall be in a format and in sufficient detail to permit the Work to be competently managed and its progress monitored. The level of detail shall be appropriate to the complexity of the Project and as directed by Owner, and both the level of detail and the terminology used to describe the components must align with the Contractor's Schedule of Values. The Construction Schedule shall take account of the time required for the preparation and review of required Shop Drawings and other submittals and the time periods provided in the Contract Documents for review and approval of submissions by Architect Engineer and/or Owner. The Contractor shall utilize Microsoft Project scheduling program software or other scheduling program software as approved by Owner and shall employ the Critical Path Method ("CPM") of scheduling to develop the network logic diagrams, computer-produced schedules, and other schedule supporting data as required. The Contractor shall use

the CPM schedule to plan, coordinate and manage all construction activities of the subcontractors.

- C. The Construction Schedule shall be related to the entire Project, including the time period necessary for equipment, furnishings and other materials or work to be provided by Owner through its employees or through separate contracts to be performed, and shall provide for Substantial Completion of all of the Work within the Contract Time.
- D. In performing the Work, the Contractor shall comply with the most recent approved Construction Schedule. Contractor shall submit updated schedules monthly thereafter for the review and approval of the Architect/Engineer and Owner with each Estimate for Partial Payment, or more frequently if the schedule is impacted by events occurring in connection with the Work. Such submittal is a condition to Owner's obligation to make progress or other payments to Contractor under the Contract. The effect of all Change Orders and the onset of any adverse weather conditions or other events which impact the Construction Schedule or which are cited by Contractor as the basis for a request for a time extension shall be duly noted on the updated Construction Schedule and their effect on the Construction Schedule and the critical path shown. Failure to comply with this requirement may result in a denial of the Contractor's request or claim for an extension of time due to such delays. Contractor shall promptly notify Architect/Engineer and Owner as soon as it becomes aware that the Work is lagging behind the time frame shown on the latest approved Construction Schedule, regardless of the cause for such delay, and will notify them of the action that Contractor recommends or will take in order to bring the Project back on schedule, including, but not limited to, acceleration of the Work in accordance with the provisions of the Contract Documents.
- E. Submittal of the Construction Schedule, and successive updates or revisions, is for the information of the Owner and Architect/Engineer, to allow them to monitor progress and to permit the coordination of their activities with those of the Contractor. Owner and Architect/Engineer shall accept or reject the submittal of a schedule within the same period allowed for review of other submittals, or if no time period is expressly provided, within a reasonable time after receipt. Acceptance of a Construction Schedule, schedule update or revision indicating a completion prior to the end of the Contract Time does not give rise to an acceleration or delay claim by the Contractor for any time outside of the schedule but included in the Contract Time. Similarly, the Owner's acceptance of a Construction Schedule, update or revision, that depicts an event which Contractor asserts as the basis for a delay claim, or a request for a time extension or cost increase, does not constitute an agreement by Owner to such request or claim, and does not relieve the Contractor from pursuing the procedure for requesting a Change Order, time extension or claim for delay set forth in the Contract Documents. Acceptance of a Construction Schedule, update or revision does not indicate the approval by the Owner or Architect/Engineer of the Contractor's proposed sequences and duration. Acceptance of a Construction Schedule update or revision indicating late completion does not constitute the Owner's consent to a late finish, or

waive either the Contractor's responsibility for timely completion or the Owner's rights and remedies for the Contractor's failure to do so.

- F. The Contractor shall prepare and keep current, for the Architect/Engineer's approval, a separate schedule of submittals which is coordinated with the Contractor's Construction Schedule and allows the Architect/Engineer and/or Owner reasonable time to review submittals. It is understood and agreed that in establishing a reasonable time period for review of any submittals or requests, Owner shall be allowed a sufficient time period to submit any matter requiring Board approval to the AISD Board of Trustees at a regularly scheduled Board meeting.

### 3.7 SUBMITTALS

- A. "Shop Drawings" means drawings, diagrams, schedules, and other data, which are prepared for the Work by the Contractor or any subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work. "Product Data" means 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.
- B. "Samples" means physical examples furnished by the Contractor to illustrate materials, equipment or workmanship, and to assist in the establishment of standards by which the Work will be judged.
- C. The Contractor shall review and designate (stamp) its approval and submit, with reasonable promptness and in orderly sequence, all Shop Drawings, Product Data and Samples required by the Contract Documents, or subsequently by the Owner and/or Architect/Engineer as covered by a Change Order or Construction Change Directive.
- D. Shop Drawings, Product Data and Samples shall be properly identified, as specified, or as the Architect/Engineer may require. At the time of submission, the Contractor shall inform the Architect/Engineer in writing of any deviation in the Shop Drawings, Product Data or Samples from the requirements of the Work and of the Contract Documents.
- E. By approving and submitting Shop Drawings, Product Data and Samples, the Contractor thereby represents that Contractor has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so, and that Contractor has checked and coordinated each Shop Drawing, Product Data and Sample with the requirements of the Work and of the Contract Documents.
- F. The Contractor shall submit to the Architect/Engineer, with such promptness as to cause no delay in the Work or in the activities of the Owner or of separate contractors, the number of Contractor-approved copies of Shop Drawings, Product Data and Samples required for the Owner's, Architect/Engineer's and Contractor's use. The

review by the Architect/Engineer of the Shop Drawings, Product Data or Samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Architect/Engineer in writing of such deviation at the time of submission and the Architect/Engineer has given written approval to the specific deviation, nor shall the review of the Architect/Engineer relieve the Contractor from responsibility for errors or omissions in the Shop Drawings, Product Data or Samples.

- G. The Contractor shall make any corrections required by the Architect/Engineer and shall resubmit the required number of corrected copies of the Shop Drawings, Product Data or new Samples of materials until approved. The Contractor shall direct specific attention in writing to any new revisions other than the corrections requested by the Architect/Engineer on previous submissions. In the event Contractor resubmits Shop Drawings, Product Data or Samples of materials more than one time because not previously approved, and Architect/Engineer charges Owner for Additional Services for such multiple reviews under the provisions of the Agreement between Owner and Architect/Engineer, Contractor shall be responsible for paying for, or reimbursing Owner for, the cost of such Additional Services.
- H. No work requiring a Shop Drawing, Product Data or Sample submittal shall be commenced until the submittal has been reviewed and approved by the Architect/Engineer. All such Work shall be in accordance with reviewed and approved Shop Drawings, Product Data and Samples.
- I. The Contractor shall maintain at the site office for the Owner and Architect/Engineer, one copy of all reviewed Shop Drawings, Product Data, Samples and similar required submittals. These shall be delivered to the Architect/Engineer for submittal to the Owner upon completion of the Work.
- J. The Contractor shall submit all requests for information to the Architect/Engineer for resolution.
- K. The Contractor shall maintain at the Project 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/Engineer and shall be delivered to the Architect/Engineer for submittal to the Owner upon completion of the Work as provided in Section 3.9, signed by the Contractor, certifying that they show complete and “as-built” conditions, stating sizes, kind of materials, vital piping, conduit locations and similar matters.

3.8 MATERIALS AND WORKMANSHIP

- A. Contractor warrants that all materials and labor provided under this Contract shall be installed and performed in a good and workmanlike manner in accordance with the Contract Documents, and shall be free from defects and deficiencies.
- B. Unless otherwise specifically provided in the Contract, all equipment, material, and articles incorporated in the Work covered by the Contract shall be new and of the most suitable grade for the purpose intended. The Contractor shall furnish to the Architect/Engineer for its approval the name of the manufacturer, the model number, and other identifying data and information respecting the performance, capacity, nature, and rating of the machinery and mechanical and other equipment that the Contractor contemplates incorporating into the Work. When required by the Contract or when called for by the Owner or Architect/Engineer, the Contractor shall furnish the Architect/Engineer, for approval, full information concerning the material or articles the Contractor contemplates incorporating into the Work. When so directed by Owner or Architect/Engineer, samples shall be submitted for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, materials, and articles installed or used without required approval shall be at the risk of subsequent rejection.
- C. Architect/Engineer shall not call for lead based paint or asbestos containing materials to be used in connection with the Project. No lead based paint and no materials containing asbestos shall be incorporated into the Project. Contractor, subcontractors, and suppliers may be required to certify that these materials were not provided or installed as part of this Contract.
- D. All Work under the Contract shall be performed in a skillful and workmanlike manner. The Owner may, in writing, require the Contractor to remove from the Work any person the Owner deems incompetent, careless, or otherwise objectionable.
- E. Neither custom nor usage of trade shall require Owner to accept materials or workmanship not in strict and complete compliance with the Contract Documents.
- F. Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, electricity and other 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 into the Work.
- G. Should the Contract Documents require Work to be performed after regular working hours or should the Contractor elect to perform work after regular working hours, the additional cost of such Work shall be borne by the Contractor as part of the Contract Amount.
- H. Should the Owner, through no default of Contractor, desire to reduce the Contract Time and authorize overtime, the additional cost (premium portion only) shall be paid

by the Owner and the Contract Amount shall be adjusted accordingly, only if such work is authorized in writing by the Owner as a Change Order prior to performance.

- I. The Contractor shall 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, or who are disorderly or who fail to observe Owner's rules for Work on the Project site.
- J. The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.
- K. The Contractor shall not damage or endanger a portion of the Work of fully or partially completed construction of the Owner or separate contractors including damage or endangerment 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 written consent of the Owner and of such separate Contractor; such consent shall not be unreasonably withheld. Structural members shall not be cut except with written permission of the Architect/Engineer. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.
- L. After installation of the Work, Contractor shall carefully fit around, close up, repair, patch and point up such Work to match adjoining surfaces by use of proper tools and materials using workers skilled in the required trades.

### 3.9 AS-BUILT DRAWINGS

- A. During the performance of Work under the Contract, the Contractor shall record and delineate accurately on one set of prints of the Drawings, which will be furnished to Contractor by the Architect/Engineer, all changes in such Work which constitute significant departures from the original Drawings. The set of Drawings thus corrected and changed shall show the Work as actually constructed ("As-Built Drawings"). Such As-Built Drawings shall be delivered to the Architect/Engineer for review and approval at the earliest practicable date prior to completion of all Work under the Contract, but in any event not later than the date of final acceptance of the completed Work.
- B. The Contractor shall review said As-Built Drawings on site with the Architect/Engineer at monthly intervals to verify proper recording of data and shall incorporate such revised Drawings as may be furnished by the Architect/Engineer as the job progresses.
- C. The As-Built Drawings shall show sufficient detail to convey, among other pertinent information, the following:



1. Physical dimensions, relation to existing conditions, and horizontal and vertical location of all underground or hidden installations; and
  2. All modifications to the Work as recorded in Change Orders.
- D. With the As-Built Drawings, Contractor shall submit manufacturers' literature, including service manuals, schematic diagrams, control diagrams, maintenance charts, parts lists, etc., as required to provide complete equipment operation and maintenance information.

### 3.10 CLEANUP

- A. The Contractor shall keep the Project site and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract, and shall establish a regular maintenance program to minimize accumulation of dirt and dust. Contractor shall promptly remove any dirt or debris resulting from the Work which is on adjacent streets and shall with the consent of adjoining landowners, remove such dirt or debris from adjoining properties.
- B. At Substantial Completion, all interior floors shall be cleaned in accordance with Owner's directions, carpets shall be vacuumed, glass in doors and windows shall be cleaned, countertops, cabinets and other surfaces shall be free from debris, dirt and dust, landscaping shall be neat and plants and grass installed as part of the Work shall be healthy and in good condition, and exterior surfaces and walkways shall be free from dirt and debris. 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.
- C. Upon completion of the Work and before acceptance and final payment will be made, the Contractor shall clean and remove from the Work site all surplus and discarded materials, temporary structures and debris of every kind.. Surplus and waste materials removed from the Work site shall be disposed of in accordance with applicable laws and regulations. The Contractor shall remove from and about the Project site the Contractor's tools, construction equipment and machinery, and all spillage and tracking arising from the performance of the Work from such areas.
- D. If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the Project site and surrounding area free from waste materials and rubbish, the Owner may clean up and allocate the cost among those responsible.

### 3.11 WARRANTIES

- A. In addition to all other warranties provided in or pursuant to the Contract Documents, and without limitation or restriction on the rights and remedies of Owner arising in connection with the obligations of the Contractor under the Contract Documents, the

Contractor warrants the materials, workmanship and Work to be in conformance with the Contract Documents and to be free from defects in materials and workmanship for a period of one year. Unless (i) the terms of the Contract Documents call for the warranty period to begin at final completion, (ii) Owner expressly agrees to a warranty period for a component of the Work which runs from the date of Substantial Completion of the component, (iii) otherwise provided in the Contract Documents, (iv) otherwise agreed to by Owner and Contractor in writing, or (v) otherwise provided in Architect's Certificate of Substantial Completion for certain punch list items pursuant to Section 8.3.A hereof, the warranty provided by this Subsection 3.11.A will be deemed to run from the date of Substantial Completion of the Work as documented by the Architect/Engineer pursuant to the terms of the Contract. The warranty described herein binds the Contractor to repair or replace (at the option of Architect/Engineer or Owner) without cost to Owner, any Work that is out of compliance with the Contract Documents and any Work which during the one-year period described herein exhibits defects in workmanship or materials or which malfunctions or fails to work correctly or in the manner intended. The Contractor shall, at Contractor's own expense, correct any such defect or deficiency no later than thirty days after receiving written notice of such defect from the Owner or Architect/Engineer, or within such shorter period of time as Owner or Architect/Engineer may reasonably request. Contractor shall be obligated as part of its warranty obligation, to repair or replace any other portion of the Work damaged or destroyed by (i) the non-complying, malfunctioning or defective Work, or (ii) the process of repairing or replacing the non-complying, malfunctioning or defective Work. The warranty provided herein will be extended by any work performed by the Contractor (or performed by the Owner or Surety in the event Contractor fails to perform its warranty obligations) in repairing or replacing non-complying, malfunctioning or defective work or materials, so that all repaired or replaced work shall have, in addition to any manufacturer's warranty, a one-year warranty from Contractor from the date repairs or replacements are completed. In the event Contractor fails to comply with these provisions, Owner shall have, in addition to any other rights and remedies provided by law or the Contract Documents, the right to (i) perform the repair or replacement by its own employees or other contractor and demand reimbursement from Contractor for all amounts incurred by Owner, in which event Contractor shall pay said amounts to Owner within 30 days after demand, and/or (ii) make demand on Surety to perform Contractor's obligations. The Contractor's warranty excludes remedy for damage or defect caused by Owner's abuse, modifications not executed by the Contractor except as authorized herein, improper or insufficient maintenance by Owner, improper operation by Owner, or normal wear and tear and normal usage. If required by the Architect/Engineer or Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment used in the Work.

- B. Work not conforming to Contract requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor shall perform all work reasonably required to correct Work with errors, omissions, defects or deviations from what is required by the Contract Documents, at no cost to the Owner.

- C. All warranties required by the Contract Documents shall include labor and materials and shall be signed by the manufacturer and/or subcontractor as the case may be and countersigned by the Contractor. All warranties shall be delivered to the Architect/Engineer upon completion of the Work and before the submission of Contractor's Final Estimate for Partial Payment. At the time of final completion of the Work, the Contractor agrees to assign to the Owner any and all manufacturers' warranties relating to materials and labor used in the Work and further agrees to perform the Work in such manner so as to preserve any and all such manufacturers' warranties.
- D. In addition to the foregoing stipulations, the Contractor shall comply with all other warranties referred to in any portions of the Contract Documents, and where warranties overlap, the more stringent requirement shall govern.
- E. The Contractor represents, warrants and covenants to the Owner that it is fully authorized and qualified to enter into the Contract and that if all or any portion of the Work is required by law or by the Contract Documents to be performed by persons with special or specific licensure, certifications, training or qualifications, the employees and/or subcontractors selected to perform such Work shall be, and shall remain, fully licensed, certified, trained and qualified to perform such Work throughout the term of the Contract. Contractor will provide evidence of the same to the Owner upon request.
- F. The provisions of this Section 3.11 shall survive the termination of this Contract, howsoever caused, and no partial payment, or final payment by Owner, nor issuance of a certificate of Substantial Completion nor a certificate of final completion, nor acceptance of occupancy in whole or in part of the Work shall waive or release any of the provisions of this section or constitute an acceptance of defective Work or Work which does not comply with the Contract Documents.
- G. In the event items on the punch list (as defined in Section 8.3 below) at Substantial Completion are not completed within the period fixed by Architect/Engineer in the Certificate of Substantial Completion pursuant to Section 8.3.A hereof, the warranty on those items shall commence on the date of final acceptance of the Work or completion of those items to the reasonable satisfaction of Architect/Engineer and Owner, whichever is later.

### 3.12 INDEMNIFICATION

- A. To the fullest extent permitted by applicable law, the Contractor agrees to indemnify, defend and hold harmless Owner, its officers, trustees, agents, employees, and representatives from and against any liability, damages, costs, loss, expenses, claims, actions, proceedings, suits (including attorneys' fees, court costs and other expenses of suit), whether groundless or not, judgments and awards, arising out of, in connection with or related to the performance of Work by Contractor, its employees,

any subcontractor, or other person performing services or work on behalf of any of them, including a default by Contractor under the provisions of the Contract Documents or a failure to obtain or maintain insurance required by the Contract Documents. This indemnification shall apply to, but not be limited to, any damage to property or injury (including death) to person (including any damage or injury to property or person or any employee of the Contractor, its subcontractors, Owner, or the Architect/Engineer) which may occur or be alleged to have occurred in connection with the performance of this Contract. Contractor shall not be obligated to indemnify any of the indemnified parties against their own negligence; **however, to the fullest extent permitted by applicable law, Contractor shall be required to defend the indemnified parties against liability, damages, costs, loss, expenses, claims, actions, proceedings, or suits (including attorneys' fees, court costs and other expenses of suit), whether groundless or not, for the bodily injury or death of an employee of the Contractor, its agent or its subcontractor of any tier, regardless of whether the action giving rise to such liability, damages, costs, loss, expenses, claim, action, proceeding or suit (including attorneys' fees, court costs and other expenses of suit), is founded in whole or in part upon the alleged negligence of one or more parties indemnified hereunder.** The Contractor assumes all risk of damage or injury (including death) to the Contractor's own property or person or to the property or person of the Contractor's employees or subcontractors from any cause whatsoever. This indemnification shall survive termination of the Contract or completion by the Contractor of all of its obligations under this Contract, as to events arising prior to such termination or completion.

- B. In claims against any person or entity indemnified under this Section 3.12 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 this section shall not be limited by a limitation on amount or type of damages, insurance, compensation or benefits payable by or for the Contractor or a subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.
- C. The provisions of this indemnification and all other indemnification obligations set out in the Contract Documents, shall survive the termination of this Contract, howsoever caused, or completion of the Contract as to events occurring prior to such termination or completion, and no payment, partial payment, nor issuance of a certificate of Substantial Completion nor a certificate of Final Completion nor acceptance or occupancy in whole or in part of the Work shall waive or release any of the provisions of this section or of any other indemnification contained in the Contract Documents.

### 3.13 REPARATIONS FOR DAMAGED PROPERTY, IMPROVEMENTS AND WORK

- A. Should the Contractor cause damage to the property or improvements of the Owner or the work of any separate contractor to the Owner, or to the property of any third party,

Contractor shall, upon due written notice by the Owner, separate contractor, or third party, make timely reparations acceptable to the damaged party or parties.

3.14 SUBSTITUTIONS OF MATERIALS OR EQUIPMENT

- A. The Owner may refuse to accept substitutions of materials or equipment which were not requested by the Contractor and approved by Owner during the Solicitation Process.
- B. Owner may, in its discretion, agree to accept substitutions of materials or equipment after the Contract has been signed for good cause shown. The Contractor may make substitutions of materials or equipment only with the prior written consent of Owner after evaluation and approval by the Architect/Engineer and in accordance with a Change Order. A request for substitution constitutes a representation by Contractor that Contractor:
  - 1. Has investigated the proposed product and determined that it is equal or superior in all respects to the specified product;
  - 2. Shall provide identical warranties as those required for the specified product or any extended warranties required by Owner as a condition for approval of the substitution;
  - 3. Shall coordinate installation and make changes to other Work which may be required at no cost to Owner;
  - 4. Waives claims for additional costs or time extension which may subsequently become apparent;
  - 5. Certifies that the proposed product will not affect or delay the approved Construction Schedule; and
  - 6. Shall pay for changes to the design of the building, Work, or any components thereof, including architectural or engineering design, detailing and construction costs caused by or resulting from the requested substitution.

3.15 CRIMINAL HISTORY RECORD INFORMATION REVIEW AND IDENTIFICATION BADGES FOR COVERED EMPLOYEES

Contractor shall, at its sole cost and expense, comply and cause each subcontractor to comply with the provisions of this Section 3.15 and all provisions of Texas Education Code (“TEC”) §22.08341 regarding criminal history record information review and issuance of identification badges for all covered employees (hereafter defined) in connection with the Work. Contractor’s failure to comply with any of the terms and conditions of this Section 3.15 shall be a material default under the Contract.

- A. As used herein, the term “covered employee” shall mean an individual employed by or offered employment by Contractor or a subcontractor, or an individual subcontractor, who (i) has or will have continuing duties on the Project site related to the services to be performed in connection with the Work, and (ii) has or will have the opportunity for direct contact with students in connection with the individual’s continuing duties in connection with the Work. An individual does *not* have the opportunity for direct contact with students only if the appropriate conditions of TEC §22.08341(c) are satisfied. If the Solicitation Documents state that Texas Education Code (“TEC”) §22.08341 is applicable to workers, or if at any time during the Work it is determined by Owner that some or all of the workers on the Project are covered employees, Contractor and each affected subcontractor shall comply with this Section 3.15 with regard to their respective workers who are covered employees. If an individual employed by or offered employment by Contractor is not a covered employee, the Contractor shall make a reasonable effort to ensure that the conditions or precautions that resulted in that determination continue to exist throughout the time the contracted services are provided.
- B. In accordance with TEC §22.08341, Contractor shall, at its sole cost and expense: (i) send or ensure that the individual sends to the Department of Public Safety information that is required for obtaining national criminal history record information in accordance with TEC §22.08341, and (ii) obtain with regard to its covered employees and cause each subcontractor, at its sole cost and expense, to obtain with regard to its covered employees, the criminal history record information as required by TEC §22.08341 for each such covered employee,. **[Contact the Texas Department of Public Safety Crime Records Service at (512) 424-5079 for instructions on obtaining national criminal history record information.]**
- C. Contractor shall not assign to, permit, or allow on the Project site any covered employee who has a disqualifying criminal history. A covered employee has a “disqualifying criminal history” under this Section 3.15 if the covered employee has been convicted of one of the following offenses or crimes during the preceding 30 years and the victim was under 18 years of age or was enrolled in a public school: (i) a felony offense under Title 5 of the Texas Penal Code; (ii) an offense on conviction of which a defendant is required to register as a sex offender under Chapter 62 of the Texas Code of Criminal Procedure; (iii) an offense or crime (whether a felony or a misdemeanor) involving moral turpitude, including without limitation theft, bribery, fraud, perjury, sexual offenses, or offenses involving intentional acts of violence toward persons or property; or (iv) an offense under the laws of another state or federal law that is equivalent to an offense under (i), (ii) or (iii) above. Provided, however, Contractor or a subcontractor may assign to, permit or allow a covered employee on the Project site if the only convictions reported on the criminal history record information are crimes involving only misdemeanor theft offenses (other than theft of school district funds or property) occurring more than seven (7) years prior to the date the worker would commence work on the Project.

- D. Contractor shall maintain at all times a list of all covered employees on the Project (as updated from time to time by Contractor, the “List of Covered Employees”) which contains the following information for each covered employee: (i) full name; (ii) whether, in accordance with the applicable requirements of TEC §22.0834, national or state criminal history record information was obtained; (iii) the full name of the covered employee’s employer, if applicable; and (iv) Texas driver’s license or other identification number or such other information as Owner may request from time to time to enable Owner to obtain criminal history record information for the covered employee. The covered employees on the List of Covered Employees shall be grouped by employer.
- E. Prior to commencement of the Work, Contractor shall deliver to Owner, or its designee if directed by Owner:
- (a) an electronic copy in PDF format of the initial List of Covered Employees for all covered employees on the Project; and
  - (b) an electronic copy in PDF format of Contractor’s duly completed and executed certification on a form provided by Owner (“Contractor Certification”) by the terms of which Contractor certifies to Owner that
    - (i) all information on the List of Covered Employees is true and correct in all respects;
    - (ii) Contractor has obtained (with respect to its covered employees) and has caused to be obtained (with respect to all other covered employees on the Project) all required criminal history record information relating to each covered employee on the List of Covered Employees in accordance with TEC §22.08341;
    - (iii) each subcontractor providing any part of the Work, contracting directly with Contractor (each a “First Tier Subcontractor”), has duly completed and executed a First Tier Subcontractor Certification (hereafter defined) and each First Tier Subcontractor Certification is attached to the Contractor Certification;
    - (iv) each Sub-subcontractor (hereafter defined) on the Project has provided a duly completed and executed Sub-subcontractor Certification (hereafter defined) to the appropriate First Tier Subcontractor in accordance with these General Conditions; and
    - (v) none of the covered employees on the List of Covered Employees has a disqualifying criminal history under this Section 3.15. If it is determined that any statement in any Contractor Certification, First Tier Subcontractor Certification or Sub-subcontractor Certification is untrue or misrepresented when made, Contractor shall be in material default under the Contract.
- F. As used herein, “First Tier Subcontractor Certification” shall mean a duly completed and executed certification on a form provided by Owner by the terms of which First Tier Subcontractor certifies to Owner and Contractor that (i) all of the covered employees employed by First Tier Subcontractor on the Project are included on the List of Covered Employees and properly identified as employees of First Tier

Subcontractor; (ii) all information on the List of Covered Employees with respect to the covered employees employed by First Tier Subcontractor is true and correct in all respects; (iii) First Tier Subcontractor has obtained all required criminal history record information relating to each covered employee of First Tier Subcontractor on the List of Covered Employees in accordance with TEC §22.08341; (iv) none of the covered employees on the List of Covered Employees employed by First Tier Subcontractor has a disqualifying criminal history under this Section 3.15; and (v) if applicable, attached to the First Tier Subcontractor Certification is a duly completed and executed Sub-subcontractor Certification in the form provided by Owner obtained by First Tier Subcontractor from each subcontractor employed on the Project by or under First Tier Subcontractor (each a “Sub-subcontractor”) and employing one or more covered employees. As used herein “Sub-subcontractor Certification” shall mean a duly completed and executed certification in a form provided by Owner from each Sub-subcontractor that contains the certifications required in a First Tier Subcontractor Certification.

- G. Owner has notified Contractor that Owner has contracted with a provider of workforce screening services (the “Provider”) to perform certain criminal history record information reviews and drug tests and to issue identification badges for all covered employees employed in connection with the Work. Upon Provider’s receipt of a copy of the List of Covered Employees from Owner and a completed consent and authorization form as required by Provider for each covered employee requiring an initial or renewal AISD badge (defined below), Provider will perform for each such covered employee a name-based criminal history record information review (using criminal records and sex offender databases) (“Name-based Search”), and the covered employee must submit to a urine based drug test specified by Provider (“Drug Test”), scheduled through Provider. Contractor shall be responsible for paying or causing each subcontractor to pay, as applicable, to Provider all costs associated with the Name-based Searches, Drug Tests and issuance of AISD badges for the respective employees of each such employer.
- H. Each covered employee employed on the Project by Contractor or a subcontractor must wear a valid and unexpired Austin Independent School District identification badge issued by Provider (each an “AISD badge”) at all times while on the Project site. Provider will not issue an AISD badge for a covered employee and will revoke a previously issued AISD badge if such employee has a disqualifying criminal history under this Section 3.15 or has failed the Drug Test (based on Department of Transportation Guidelines). After the issuance of an AISD badge and until the AISD badge expires, Provider will repeat the Name-based Search on each active covered employee on the List of Covered Employees on a monthly basis. In addition, any covered employee involved in a safety incident on the Project site will be required to immediately submit to a new Drug Test. If Provider determines at any time that an employee on the List of Covered Employees has a disqualifying criminal history under this Section 3.15 or has failed a Drug Test (based on Department of Transportation guidelines), Provider will notify Contractor and the subcontractor employing such employee that an AISD badge will not be issued for such employee or is revoked (if



previously issued) effective immediately, whereupon such employee shall be marked as “inactive” on the List of Covered Employees and, if applicable, the previously issued AISD badge shall be immediately returned to Provider. If Provider does not issue an AISD badge for a covered employee or the AISD badge is revoked or has expired, the covered employee is prohibited from entering the Project site. Owner and/or its safety consultants may conduct periodic random checks of workers on the Project site to determine compliance with the badging requirements of this subsection.

- I. Contractor and each subcontractor shall, as the Work progresses, comply with the provisions of this Section 3.15 with respect to each new covered employee to be employed on the Project and not previously listed on the List of Covered Employees. Each new covered employee shall be added to the List of Covered Employees, with the name highlighted and the dated of such addition noted. In addition, as the Work progresses, each covered employee on the List of Covered Employees who is no longer employed on the Project shall be marked as “inactive” and the last date of such employee’s employment on the Project shall be noted, and for each covered employee previously designated as “inactive” and once again employed on the Project, the “inactive” designation shall be removed and the date of reemployment shall be noted. Each time Contractor makes a change to the List of Covered Employees, Contractor must submit to Owner, or its designee if directed by Owner, within five (5) business days of the date of such change, (i) an electronic copy in PDF format of the updated List of Covered Employees current as of the third (3rd) business day prior to the date of delivery, and (ii) a fully executed electronic copy in PDF format of the Contractor Certification dated within three (3) business days of the date of delivery.
- J. If, at any time as the Work progresses, Contractor, a subcontractor or Owner receives updated criminal history record information for a covered employee that includes a disqualifying criminal history under this Section 3.15, or it is determined that a covered employee is on the Project site in violation of this Section 3.15, then, notwithstanding anything contained in Section 13.3.A hereof to the contrary, Contractor shall immediately remove such employee from the Project site with no requirement of written notice from Owner, notify Provider in writing that such employee is prohibited from future entry on the Project site unless notice of same has been received from Provider, return the AISD badge to Provider, and mark such employee as “inactive” on the List of Covered Employees. All Work on the Project performed by the Contractor or any subcontractors shall stop (with no extension of the Contract Time or adjustment in the Contract Amount) until such worker is no longer on the Project site. Owner reserves the right to cause Owner’s police or other security personnel to remove such worker from the Project site.

### 3.16 CRIMINAL HISTORY RECORD INFORMATION REVIEW AND IDENTIFICATION BADGES FOR NON-COVERED EMPLOYEES

Contractor shall, at its sole cost and expense, comply and cause each subcontractor to comply with the provisions of this Section 3.16 regarding criminal history record information review and issuance of identification badges for all non-covered employees (hereafter defined) in

connection with the Work. Contractor's failure to comply with any of the terms and conditions of this Section 3.16 as to all non-covered employees shall be a material default under the Contract.

- A. As used herein, the term "non-covered employee" shall mean in connection with the Work an individual employed or offered employment by Contractor or a subcontractor or an individual subcontractor who is not a covered employee under Section 3.15 above. If workers employed on the Project in connection with the Work are non-covered employees, Contractor shall comply with the provisions of this Section 3.16 for such non-covered employees, and, if applicable, Contractor certifies and shall cause each subcontractor to certify that it shall maintain or cause to be maintained the conditions imposed and/or precautions taken on the Project site to ensure that such workers will not become covered employees and failure to do so shall be a material default under the Contract. If the Work involves construction, alteration, or repair of a new facility, Contractor shall comply with this Section 3.16 for so long as the individual is not a covered employee under the provisions of TEC §22.08341.
- B. Contractor shall, at its sole cost and expense, cause to be conducted a criminal history record information review in accordance with Subsection 3.16.E below for each non-covered employee employed in connection with the Work.
- C. Contractor shall not assign to, permit or allow on the Project site any non-covered employee who has a disqualifying criminal history. A non-covered employee has a "disqualifying criminal history" under this Section 3.16 if the non-covered employee has been convicted of one of the following offenses or crimes during the preceding 30 years and the victim was under 18 years of age or was enrolled in a public school: (i) a felony offense under Title 5 of the Texas Penal Code; (ii) an offense on conviction of which a defendant is required to register as a sex offender under Chapter 62 of the Texas Code of Criminal Procedure; (iii) an offense or crime (whether a felony or a misdemeanor) involving moral turpitude, including without limitation theft, bribery, fraud, perjury, sexual offenses, or offenses involving intentional acts of violence toward persons or property; or (iv) an offense under the laws of another state or federal law that is equivalent to an offense under (i), (ii) or (iii) above. Provided, however, Contractor or a subcontractor may assign to, permit or allow a non-covered employee on the Project if the only convictions reported are crimes involving only misdemeanor theft offenses (other than theft of school district funds or property) occurring more than seven (7) years prior to the date the worker would commence work on the Project.
- D. Contractor shall maintain at all times a list of all non-covered employees on the Project (as updated from time to time by Contractor, the "List of Non-covered Employees") which contains the following information for each non-covered employee: (i) full name; (ii) the full name of the non-covered employee's employer, if applicable; and (iii) Texas driver's license or other identification number. The non-covered employees on the List of Non-covered Employees shall be grouped by employer. Prior to commencement of the Work, Contractor shall deliver to Owner, or its designee if

directed by Owner, an electronic copy in PDF format of the initial List of Non-covered Employees for all non-covered employees on the Project.

- E. Owner has notified Contractor that Owner has contracted with Provider (as defined in Subsection 3.15.G above) to perform certain criminal history record information reviews and drug tests and to issue identification badges for all non-covered employees employed in connection with the Work. Upon Provider's receipt of a copy of the List of Non-covered Employees from Owner and a completed consent and authorization form as required by Provider for each non-covered employee requiring an initial or renewal AISD badge, Provider will perform for each such non-covered employee a name-based criminal history record information review (using criminal records and sex offender databases) ("Non-covered Employee Name-based Search"), and the non-covered employee must submit to a Drug Test (as defined in Subsection 3.15.G above), scheduled through Provider. Contractor shall be responsible for paying or causing each subcontractor to pay, as applicable, to Provider all costs associated with the Non-covered Employee Name-based Searches, Drug Tests and issuance of AISD badges for the respective employees of each such employer.
- F. Each non-covered employee employed on the Project by Contractor or a subcontractor must wear a valid and unexpired AISD badge (as defined in Section 3.15.H above) issued by Provider at all times while on the Project site. Provider will not issue an AISD badge for a non-covered employee and will revoke a previously issued AISD badge if such employee has a disqualifying criminal history under this Section 3.16 or has failed the Drug Test (based on Department of Transportation Guidelines). After the issuance of an AISD badge and until the AISD badge expires, Provider will repeat the Name-based Search on each active non-covered employee on the List of Non-covered Employees on a monthly basis. In addition, any non-covered employee involved in a safety incident on the Project site will be required to immediately submit to a new Drug Test. If Provider determines at any time that an employee on the List of Non-covered Employees has a disqualifying criminal history under this Section 3.16 or has failed a Drug Test (based on Department of Transportation Guidelines), Provider will notify Contractor and the subcontractor employing such employee that an AISD badge will not be issued for such employee or is revoked (if previously issued) effective immediately, whereupon such employee shall be marked as "inactive" on the List of Non-covered Employees and, if applicable, the previously issued identification badge shall be immediately returned to Provider. If Provider does not issue an AISD badge for a non-covered employee or the AISD badge is revoked or has expired, the non-covered employee is prohibited from entering the Project site. Owner and/or its safety consultants may conduct periodic random checks of workers on the Project site to determine compliance with the badging requirements of this subsection.
- G. Contractor and each subcontractor shall, as the Work progresses, comply with the provisions of this Section 3.16 with respect to each new non-covered employee to be employed on the Project and not previously listed on the List of Non-covered Employees. Each new non-covered employee shall be added to the List of Non-

covered Employees, with the name highlighted and the dated of such addition noted. In addition, as the Work progress, each non-covered employee on the List of Non-covered Employees who is no longer employed on the Project shall be marked as “inactive” and the last date of such employee’s employment on the Project shall be noted, and for each non-covered employee previously designated as “inactive” and once again employed on the Project, the “inactive” designation shall be removed and the date of reemployment shall be noted. Each time Contractor makes a change to the List of Non-covered Employees, Contractor must submit to Owner, or its designee if directed by Owner, within five (5) business days of the date of such change, (i) an electronic copy in PDF format of the updated List of Non-covered Employees current as of the third (3rd) business day prior to the date of delivery.

- H. If, at any time as the Work progresses, it is determined that a non-covered employee is on the Project site in violation of this Section 3.16, then notwithstanding anything contained in Section 13.3.A hereof to the contrary, Contractor shall immediately remove such employee from the Project site with no requirement of written notice from Owner, notify Provider in writing that such employee is prohibited from future entry on the Project site unless notice of such violation has been received from Provider, return the AISD badge to Provider, and mark such employee as “inactive” on the List of Non-covered Employees. All Work on the Project performed by the Contractor or any subcontractors shall stop (with no extension of the Contract Time or adjustment in the Contract Amount) until such worker is no longer on the Project site. Owner reserves the right to cause Owner’s police or other security personnel to remove such worker from the Project site.
- I. Notwithstanding any provision of this Section 3.16 to the contrary, if at any time during the Project, Owner determines (in its sole discretion) that some or all of the workers have or will become covered employees, Owner shall so notify Contractor and thereafter Contractor and all affected subcontractors, with regard to their respective covered employees, shall comply with the provisions of TEC §22.08341 and Section 3.15 above. In addition, if at any time during the Project, Contractor becomes aware that some or all of the workers employed in connection with the Work have or will become covered employees, Contractor shall immediately notify Owner in writing with specificity as to the conditions on the Project site resulting in such workers becoming covered employees and thereafter Contractor and all affected subcontractors, with regard to their respective covered employees, shall comply with the provisions of TEC §22.08341 and Section 3.15 above.

#### **4. Article 4. SUBCONTRACTORS.**

##### **4.1 AWARD OF SUBCONTRACTS FOR PORTIONS OF THE WORK**

- A. Contractor has submitted or will submit, as applicable, to Owner the Contractor’s list of proposed subcontractors and material suppliers, identifying their respective subcontract amounts, in connection with the Work on the form Disclosure Statement/HUB\* Utilization Report supplied by Owner or such other form required

by Owner (“Disclosure Statement”). Contractor shall not contract with any subcontractor or supplier in connection with the Work until the Architect/Engineer and the Owner have approved the selection in writing. If the Disclosure Statement has been submitted to Owner prior to Owner’s execution of the Agreement, then, unless Owner notifies Contractor in writing at the time of Owner’s execution of the Agreement that Owner does not approve a subcontractor or supplier listed on the Disclosure Statement, Owner and the Architect/Engineer shall be deemed to have approved each subcontractor and supplier on the Disclosure Statement and Contractor shall be obligated to contract with such subcontractors and suppliers in connection with the Work. If, in good faith, Contractor determines at any time during the Project that the replacement of an approved or deemed approved subcontractor or supplier is necessary, Contractor must obtain Owner’s and Architect/Engineer’s prior written approval of such replacement. Contractor shall submit a written request for such approval to Owner and Architect/Engineer, which shall include a detailed explanation of the reason(s) for Contractor’s proposed replacement, along with an amended Disclosure Statement reflecting the proposed replacement. Contractor shall submit an amended Disclosure Statement to reflect each approved change in subcontractors, suppliers, and/or value of subcontractor/supplier contracts resulting from change orders or other Project circumstances. Notwithstanding any provision of this Section

4.1.A to the contrary, Owner’s and Architect/Engineer’s approval or deemed approval of Contractor’s subcontractors and suppliers during the Project shall not be deemed verification by Owner or Architect/Engineer that an approved subcontractor or supplier meets the minimum qualifications of the Project as set forth in Owner’s Project Manual and Specifications. Contractor shall have an ongoing obligation during the Project to ensure that its subcontractors and suppliers on the Project meet all such applicable minimum qualifications. Contractor’s failure to comply with the provisions of this Section 4.1.A shall be a material default under the Contract. In the event of any conflict between this Section 4.1 and the provisions in the Agreement regarding subcontractor selection, the Agreement shall control.

- B. If requested by a subcontractor or material supplier who submitted a bid or proposal to Contractor during the Solicitation Process but is not listed by Contractor as a proposed subcontractor or supplier on Disclosure Statement, Contractor agrees to provide feedback to such subcontractor or supplier as to how its bid/proposal compared with the other bids/proposals received by Contractor for the same services or materials (e.g., bid was highest bid received, bid fell in the middle of bids received, etc.).

#### 4.2 SUBCONTRACTUAL RELATIONS

- A. All subcontracts shall be in writing.
- B. Nothing contained in the Contract Documents shall create any contractual relation between Owner and any subcontractor or supplier or any party with whom Owner or any of its subcontractors or suppliers contracts.

- C. By appropriate written agreement, the Contractor shall require each subcontractor, to the extent of the Work to be performed by the subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the subcontractor's Work which the Contractor, by the Contract Documents, assumes toward the Owner and Architect/Engineer.
- D. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect/Engineer under the Contract Documents with respect to the Work to be performed by the subcontractor, including Owner's rights to terminate for convenience, so that subcontracting thereof will not prejudice such rights. Where appropriate, the Contractor shall require each subcontractor to enter into similar agreements with subcontractors. The Contractor shall make available to each proposed subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the subcontractor will be bound, 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 Contract Documents available to their respective proposed subcontractors.
- E. Each such subcontract shall:
1. require that such Work be performed in accordance with the terms and requirements of the Contract Documents;
  2. require the subcontractor to carry and maintain insurance in accordance with the Contract Documents;
  3. require the subcontractor to furnish such reasonable certificates and waivers as the Owner may request;
  4. require that any subcontractor waive any rights it may have against the Owner for damage caused by fire or other perils covered by property or risk insurance maintained by the Contractor or subcontractor or required to be maintained by the Contractor's subcontractor in connection with the Project.
  5. provide that all warranties provided to Contractor, including material warranties, are fully assignable to the Owner;
  6. provide for contingent assignability of the subcontract as herein provided;
  7. require each subcontractor provide a certificate in writing to Owner that it provides workers compensation insurance coverage for each employee as required by law;

8. require subcontractor compliance with the prevailing wage rate requirements established by law and the Contract Documents; and
9. provide that the subcontract is subject to Owner's right to terminate or suspend work on the terms set forth herein.

All provisions required by the Contract to be set out in subcontracts shall be deemed incorporated by reference into each subcontract entered into pursuant to or in connection with the terms of this Contract, as if set out in full. Contractor shall be liable to Owner for any damages resulting from Contractor's failure to comply with the provisions of this Section 4.2.

#### 4.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

- A. Each subcontract agreement for a portion of the Work is hereby assigned by the Contractor to the Owner and the Surety; provided, however, that such assignment shall be effective as to Owner only after Owner's written termination of the Contract or of Contractor's right to proceed under terms of the Contract, and acceptance in writing by Owner of the particular subcontract.

### 5. **Article 5. CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

#### 5.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

- A. 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, and the Contractor shall cooperate fully with such other contractors and Owner's employees and carefully fit Contractor's own Work to such work as directed by the Owner or Architect/Engineer.
- B. If the Contractor believes that it has suffered or will suffer delay or additional costs or damages as a result of the work performed by Owner or a separate contractor, the Contractor shall notify Architect/Engineer and the Owner in writing as soon as possible, but in no event more than 5 days after Contractor becomes aware of such conditions, in order to give Owner an opportunity to avoid, reduce or mitigate such events. Any claim by Contractor for a time extension or additional costs shall be submitted as a request for Change Order.
- C. 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.
- D. 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 schedule deemed necessary after a joint review and mutual agreement. Contractor's construction schedule shall reflect such approved construction schedules, as amended from time to time. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised and approved by the Contractor, separate contractors and the Owner.

E. Time is of the essence of this Contract.

## 5.2 MUTUAL RESPONSIBILITY OF CONTRACTORS

- A. The Contractor shall indemnify Owner and its officers, trustees, employees and agents from all liability, loss or expense (including attorneys' fees) arising from alleged interference with or damage to the work or property of other contractors or Owner by Contractor, its subcontractors, or anyone performing Work under this Contract. This indemnification shall survive termination or completion of the Contract as to events occurring prior to such termination and completion, and shall be in addition to any other indemnification obligations set out in this Contract.
- B. 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 Owner's and/or Contractor's construction and operations with theirs as required by the Contract Documents.
- C. 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, prior to proceeding with that portion of the Work, shall look for and promptly report to the Architect/Engineer and Owner any discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Contractor shall notify them no later than five (5) days after it becomes aware of the problem or potential problem. Failure of the Contractor so to report in a timely manner 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.
- D. 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, to the extent not caused by the fault of the separate contractor. The Owner shall be liable to the Contractor for costs incurred by the Contractor because of delays or defective construction of a separate contractor of Owner, to the extent not resulting from the fault or breach by Contractor or Contractor's subcontractors or suppliers. Each party shall promptly notify the other as soon as it becomes aware of a delay, improperly timed activity or condition of defective construction which could result in damages to the other but in no event later



than five (5) days after first becoming aware of the problem. Contractor's claim shall be submitted as a request for a Change Order as provided herein.

- E. The Contractor shall promptly remedy damage caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors as provided in the Contract Documents.
- F. The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in the Contract Documents. If such separate contractor initiates legal or any other proceedings against the Owner on account of any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor, who shall defend such proceedings at its own expense, and hold harmless and indemnify the Owner, its officers, trustees, agents and employees from any and all Claims, causes of action, damages, loss, liability and expenses arising from Contractor's acts or omissions or the acts or omissions of Contractor's employees, subcontractors or parties for whom Contractor has liability. The Contractor shall pay or reimburse the Owner for all attorneys' fees and court or other costs which the Owner has incurred over and above those paid for directly by the Contractor. These obligations are in addition to all other defense and indemnification obligations under the Contract Documents, and shall survive termination or completion of the Contract.

## **6. Article 6. CHANGES IN THE WORK.**

### **6.1 CHANGE ORDERS**

- A. Owner and Contractor may at any time, without notice to or approval of the Surety, by written Change Order hereto, make changes in the Work, the Contract Amount, the Contract Time, or otherwise modify the Contract.
- B. Except for a Unilateral Change Order pursuant to Section 6.3.D. below, a Change Order is a written modification of the Contract between the Owner and Contractor, signed by the Owner, the Contractor, and the Architect/Engineer, which authorizes a change in the Scope of the Work or an adjustment in the Contract Amount or the Contract Time. Work performed under a Change Order is subject to all provisions of the Contract Documents. A Change Order will not be deemed fully executed until signed by Owner's Contracting Officer.
- C. All changes in the scope of the Work, the Contract Amount and the Contract Time shall be documented by a Change Order. Only the Contracting Officer has authority to sign and agree to a Change Order on behalf of Owner. Neither the Architect/Engineer nor the Owner's Project Manager has the authority to bind the Owner to the terms of a Change Order without the signature of the Contracting Officer.

### **6.2 THE CHANGE ORDER REQUEST PROCESS**

- A. If Owner initiates a change in the Work, Owner will request Architect/Engineer to promptly prepare a Change Order Request and deliver it to Contractor. The Change Order Request prepared by Architect/Engineer will include a description of the requested change and any related Drawings and Specifications developed and signed by the Architect/Engineer.
- B. Upon receipt of the Change Order Request, the Contractor shall determine whether the requested change will affect the Contract Amount or the Contract Time, and shall prepare and deliver to Architect/Engineer a time extension request, if applicable, and proposed pricing for the Change Order Request, with sufficient back-up, for self-performed work and work of subcontractors, as soon as possible, but in no event later than 15 days after the receipt by Contractor of the Change Order Request.
- C. Architect/Engineer will promptly review and evaluate with Owner the Contractor's proposed change to the Contract Time or Contract Amount, or both, as applicable.
- D. If Contractor's proposal is acceptable to Owner, or if Owner otherwise negotiates acceptable terms with the Contractor, Owner will prepare a Change Order which will be signed by Architect/Engineer and delivered to Contractor for signature. Contractor shall execute and return the Change Order showing the agreed-upon terms within 10 days after Contractor's receipt of it.
- E. Upon receipt of the Change Order signed by Owner, Contractor will promptly commence the requested work.
- F. If the Owner and Contractor do not agree on the terms of the Change Order, Owner may issue a Unilateral Change Order as provided in Section 6.3.D or may decide not to pursue a change to the Work at that time.

### 6.3 AGREED AND UNILATERAL CHANGE ORDERS

- A. A Change Order may be either an Agreed Change Order or a Unilateral Change Order.
- B. An Agreed Change Order is a Change Order jointly executed by the Owner and the Contractor, in which each agrees to all of the terms of the amendment.
- C. The execution of an Agreed Change Order by the Owner and the Contractor constitutes the full, final and complete settlement of all claims with regard to the modifications contained in the Change Order for impacts on the Contract Amount and/or the Contract Time; provided, however, that an Agreed Change Order may be reformed by a written modification signed by the Contractor and the Owner, for the limited purpose of correcting an error in computation. A Change Order is effective upon receipt by the Contractor, and entitles the Contractor to submit the adjusted cost of the Work on succeeding Pay Applications as it is completed.

- D. A Unilateral Change Order is a Change Order issued by the Owner without the agreement of the Contractor. The issuance of a Unilateral Change Order does not prejudice any of the Contractor's rights to relief otherwise available under the Contract Documents. The Contractor may preserve such rights by submitting a written objection to the Unilateral Change Order within 30 days after receipt of the Unilateral Change Order. If the Contractor does not submit a written objection within that time, Contractor shall be deemed to have accepted the terms of the Unilateral Change Order and the Unilateral Change Order shall have the full force and effect of an Agreed Change Order.

#### 6.4 INTERIM CHANGE AUTHORIZATION

- A. When the Owner determines that changes in the Work must be made promptly in order to prevent damage to the Work in place, to prevent significant delay in the Project or to maintain safety, the Owner may issue an Interim Change Authorization directing the Contractor to proceed with changes in the Work prior to completion of the Change Order process. The Interim Change Authorization shall provide for the work to be performed on the basis of cost and/or time not to exceed specified amounts.
- B. Upon receipt of the Interim Change Authorization, Contractor shall commence the Work and keep records on the time and cost incurred in the performance of the Work. Contractor shall be entitled to payment for work performed under an Interim Change Authorization in an amount not to exceed 50% of the "Additional cost not to exceed" amount stated in the Interim Change Authorization. Contractor shall not be entitled to receive the balance of payment for such work until the Change Order is fully executed.

#### 6.5 CHANGE ORDER REQUESTED BY CONTRACTOR

- A. A request for a Change Order may be initiated by the Contractor as provided in Section 6.5.B or C.
- B. If the Contractor believes that it will incur additional cost or time because of any written interpretation of the Contract Documents, or any written or oral instruction concerning the execution of the Work issued by the Owner or the Architect/Engineer, and constituting a change in the scope or character of the Work, the Contractor must promptly notify the Owner and Architect/Engineer of the Contractor's belief before beginning the requested work. Contractor shall provide Owner and Architect/Engineer with written notice that there will be a time extension and/or additional cost for the requested Work as soon as possible but in no event later than 5 days after Contractor receives the instructions from Owner or Architect/Engineer. In addition, Contractor must provide Owner and Architect/Engineer with a written proposal for the time and/or cost of the requested work, and a justification for such additional time or expense, within 15 days after Contractor receives the request for the change in Work.

1. If the Owner determines that the change in the Work should take place, the Owner will initiate the Change Order process, which will conclude in either an Agreed or Unilateral Change Order as provided herein.
  2. Except for a change in the Work due to an Emergency Condition, as provided in Section 9.9, the Contractor may not commence the requested change in the Work without a signed Change Order or Interim Change Authorization. Contractor shall not be entitled to an increase in the Contract Amount or an extension of the Contract Time if it performs a change in the Work without a signed Interim Change Authorization or Change Order, except as provided in Section 9.9 for an Emergency Condition.
  3. Except as herein provided, no order, statement or conduct of an Owner or the Architect/Engineer shall entitle the Contractor to an increase in the Contract Time or Contract Amount for work performed.
- C. The Contractor may request a Change Order for damages under the following circumstances only, provided that all notification and other requirements for Contractor's establishment of those rights as provided in the Contract Documents have been met:
1. Unanticipated physical conditions at the site, pursuant to Section 3.3 which the Architect/Engineer addresses by means of changes in the Drawings and Specifications, or unanticipated environmental conditions at the site as described in Section 9.7;
  2. The existence of errors, omissions and imperfections in the design documents which the Contractor could not reasonably have detected or brought to the attention of the Owner and Architect/Engineer in time to correct without a delay in the construction, as provided in Section 3.2;
  3. Unexcused Owner delays, including failure of the Owner or the Architect/Engineer to take timely actions required under the Contract Documents or to provide information required by the Contractor to proceed with the Work within the time period provided by the Contract, or if no time period is specified, within a reasonable period of time; and subject to the provisions of Section 7.1.C;
  4. Delays caused by Owner's separate contractor in performing work on the Project as provided in the Contract in Section 5.1 and Section 7.1.C;
  5. Additional cost or delays caused by emergency conditions, not due to the fault of Contractor or anyone for whom Contractor is liable, as provided in Section 9.9; or

6. Any other provision of the Contract that expressly permits Contractor to obtain an adjustment to the Contract Time and/or Contract Amount, in accordance with such provisions.

Contractor's request for a Change Order must be in writing, must describe the events authorizing the adjustment in the Contract Time and/or Contract Amount, and must provide a justification for the amounts requested. Contractor's request for a Change Order must be submitted to Owner within the time period provided by the Contract, or if no time period is provided, then no later than 15 days after the commencement of the event which gives rise to a claim for a Change Order. Contractor's failure to observe the notice requirements set forth in the Contract Documents which are intended to provide Owner with notice of a problem, potential problem or delay and an opportunity to investigate and take action to eliminate or ameliorate the problem, may constitute a failure to mitigate damages affecting the Contractor's right to an adjustment of the Contract Time and/or Contract Amount.

- D. The Contractor may request a time extension for excused delays as provided in Article 7. In order to request an extension of the Contract Time, Contractor must comply with the requirements of Article 7 and submit a Time Extension Request with its payment request, as provided therein.
- E. In evaluating a request for an adjustment of Contract Time in response to Contractor's request for a Change Order, in no event will an extension of time be granted for delays that merely extend the duration of non-critical activities, or which consume only float without delaying the Substantial or Final Completion date. Any extension of the Contract Time granted shall be net of any unexcused delays caused by or due to the fault of Contractor or anyone performing Work under the Contract. No delay days shall be given for time periods in which the delay complained of ran concurrently with excused delays or with other conditions which prevented performance. If more than one cause of delay is asserted for any given time period, only one extension of time will be permitted for such period.
- F. Except as expressly provided in this Section 6.5, and subject to the provisions of the Contract Documents, Contractor shall not be entitled to an increase in the Contract Sum or the Contract Time and shall bear full responsibility for all risks affecting the Contractor's cost of performance. Contractor's right and entitlement to adjustments in Contract Time or the Contract Amount are subject to applicable provisions in the Contract Documents establishing Contractor's rights or the waiver of those rights, including, without limitation, those set forth in Article 7. Nothing in this Section 6.5 is intended to enlarge the Contractor's rights, or to provide the Contractor with additional rights not otherwise granted under the terms of the Contract Documents.

## 6.6 BASIS FOR COMPENSATION FOR CHANGES

- A. Method of Compensation. The cost for extra work performed by Contractor or subcontractor will be determined by either (1) an agreed lump sum, (2) an agreed unit

price or (3) an actual field cost, as agreed to by Owner. The allowable mark-up percentages for extra work are described in Section 6.6.E below. Extra work will be subject to the following limitations and proposals will be submitted accordingly.

- B. Lump Sum. If the lump sum method is used, the Contractor shall submit appropriate supporting data as described herein. For general construction Work, the Contractor shall submit a breakdown consistent with Contractor's pay estimate breakdown, detailed with estimated quantities for both labor and materials. Unless otherwise provided in the Contract Documents, costs for the purposes of Article 6 shall be limited to the following, and the amounts charged shall only be those costs incurred as a direct result of the change in the Work:
1. costs of direct labor, including social security, old age and unemployment insurance, and workers' compensation insurance paid by Contractor. (Labor, as used in this subsection, shall mean labor or services performed by the Contractor's Superintendent and employees under the Superintendent, and all subcontractors and suppliers.);
  2. costs of materials, supplies and equipment, exclusive of all hand tools and such other machinery and equipment of the trade customarily owned by construction workers, including cost of transportation, whether incorporated or consumed;
  3. rental costs of machinery and equipment, exclusive of all hand tools and such other machinery and equipment of the trade customarily owned by construction workers, whether rented from the Contractor or others;
  4. costs of premiums for all bonds and insurance required by Owner to be provided and permit fees related to the Work; and
  5. field office expense where the Contractor's field office must be maintained primarily on account of the change in the Work.
- C. Unit Price: If the unit price method is used, the Contractor shall submit a proposal based on unit prices stated in the Bid Proposal or Contract Documents, or agreed upon by the Contractor and Owner subsequent to Contract Bids.
- D. Actual Field Cost: If actual field costs are used, the Contractor shall keep and submit, in such form as the Architect/Engineer and Owner may prescribe, an itemized accounting together with appropriate supporting data, of actual costs incurred as described in Article 6 above.
- E. Allowable Mark-ups.
1. Unless otherwise expressly provided by the Agreement, the Contractor and subcontractor will be allowed mark-up percentages for overhead and profit for

changes in the Work as described below. If the Agreement specifies allowed mark-up percentages for the Contractor, but not for the subcontractors, then the mark-up percentages provided in Section 6.6.E.2 below shall only apply to subcontractors, and the provisions of the Agreement shall control the mark-ups allowed to Contractor. All other provisions of this Section E regarding mark-ups, other than the allowed percentages, will apply to both Contractors and subcontractors, unless the Agreement expressly provides other terms and conditions. The percentage mark-up allowed the Contractor and subcontractor shall cover and compensate Contractor for Contractor's profit and overhead, which include home and field office expense, home and field office personnel, and all other expenses not embraced in the Method of Compensation defined in Article 6. No separate allowance for overhead shall be allowed. Where the Contractor's field office must be maintained primarily on account of the change in the Work, the cost to operate and maintain the same shall be included in the Method of Compensation before calculation of allowable markup. On changes involving deleted items, the Owner shall receive credit for overhead and profit on each deleted item.

2. For Work performed by Contractor's own employees, the maximum allowable mark-up percentage of the actual cost of the Work will be 20% on the first \$10,000, 15% on the next \$10,000 and 10% on the balance over \$20,000; however, the minimum total mark-up shall be not less than \$75. If subcontracted Work is involved, the Contractor will include with Contractor's cost proposal a detailed breakdown for the subcontractor in accordance with the above requirements for the Contractor. For Work performed by a subcontractor's own employees, the subcontractor will be allowed the same mark-up percentages as provided above for the Contractor. The Contractor will be allowed the following mark-up on subcontracted Work being performed by forces other than Contractor's own employees: a maximum of 10% on the first \$30,000, 7 1/2% on the next \$30,000 and 5% on the balance over \$60,000; however, the minimum total mark-up shall be not less than \$75. For subcontracted Work being performed by forces other than the subcontractor's own employees (e.g, subcontracted Work being performed by the employees of a subcontractor to the Contractor's subcontractor), such subcontractor whose employees are not performing the subcontracted Work will be allowed the same mark-up percentages as provided in the immediately preceding sentence for Contractor.
3. If the scope of Work is reduced by the Owner such that the Contractor will not incur costs for deleted Work, the Contractor will credit those costs to the Owner and retain only Contractor's overhead and profit incurred prior to notification of Owner's reduction of the scope of the Work. If extra Work is requested by the Owner, the Contractor will be allowed to add to Contractor's actual costs a percentage as noted above to cover Contractor's overhead and profit. When both additions and credits covering related Work or substitutions

are involved in any one change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

4. Contractor shall submit for payment of the Change Order Work as part of Contractor's regular submission of an Estimate for Partial Payment.

## 7. Article 7. TIME DELAY

### 7.1 CONTRACTOR EXCUSED DELAYS

The Contractor's right to proceed or perform the Work shall not be terminated for default, nor the Contractor charged with liquidated damages or other remedies for delay under the Contract Documents, due solely to delays that are excused under the provisions of this Section

7.1. In order to have a delay considered an excused delay under this Article 7, Contractor must provide all notices regarding the delay required by this Article 7 and by any other provisions of the Contract Documents in a timely manner, including the submission of Time Extension Request forms with its Estimate for Partial Payment as required under the terms of the Contract Documents. Any provision of the Contract Documents to the contrary notwithstanding, if Contractor fails to achieve Substantial Completion by the Substantial Completion Date set by the Contract, delays in the completion of the Work occurring after the Substantial Completion Date shall in no event be considered excused delays under this Article 7 and Contractor shall not be entitled to extensions of the Contract Time for any such delays.

#### A. Contractor Force Majeure.

1. A delay in the completion of the Work that arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor or any subcontractor, and which could not have been prevented through the exercise of reasonable care, including but not restricted to, acts of God, acts of the public enemy, acts of terrorism, acts of federal, state or local government in its sovereign capacity, fires, floods, epidemics, quarantines, restrictions, strikes, freight embargoes, unusually severe weather (excluding delays caused by above-average but not excessive rainfall) as described in B below, or delays of Owner as described in Section C below, shall be considered an excused delay provided that all notices are given as required by the Contract Documents. The failure of the Contractor or any subcontractor to order supplies, materials or equipment when shortages are known or expected, in time to perform the Work in accordance with the Contract Documents, is not an excused delay.
2. Within 5 days from the date that Contractor first becomes aware of a delay or the likelihood of delay from a force majeure event, Contractor must notify Owner, the Contracting Officer and Architect/Engineer in writing of the cause of delay and, if possible, Contractor's estimate of duration, to enable Owner to investigate and document the cause and duration of the delay. The Contractor shall submit with each Estimate for Partial Payment a "Time Extension Request" form (provided by the Owner) documenting any requests for



Contract time extension. If Contractor fails to provide the notice required by this subsection, and Owner is unable to adequately verify the cause or duration of the delay, or the impact of the force majeure event on the construction schedule, the delay will not be considered excused.

B. Delay for Weather Conditions.

1. The Contract Time set out in the Contract Documents, including Substantial Completion Date and Final Completion Date, are deemed to include normal weather conditions at the Project site. The Contractor may be entitled to an excused delay due to unusual and severe weather conditions if the weather conditions (i) are excessive and severe for the period of time, (ii) could not have been reasonably anticipated, and (iii) had an adverse effect on the scheduled construction and Contractor reasonably performed other Work on the Project in place of the scheduled work and still incurred a delay in the construction schedule. In order to be entitled to a delay on this basis, Contractor must provide Owner and Architect/Engineer with notice of the delay (as provided herein) and (ii) data substantiating the claim, including weather information issued by the National Oceanic and Atmospheric Administration (“NOAA”) for the city in which the Project site is located (or if such information is not available for the Project site location, then for the closest city) which shows that the weather conditions were in excess of those that are normal for the site, and job logs that indicate impacted work and estimated effect of the weather. Unless the parties agree to a different method of determining weather conditions, weather information produced by NOAA will be used to determine normal and abnormal weather conditions at the Project site.
2. In order to be entitled to a Time extension due to weather conditions, Contractor must provide Owner and Architect/Engineer with notice of the adverse condition and its impact on the construction schedule as soon as Contractor becomes aware that a delay will or is likely to occur, to enable Owner to investigate and document the conditions, but in no event later than 5 days after the date of the commencement of the weather condition giving rise to the claim for the delay. The Contractor shall submit with each Estimate for Partial Payment a “Time Extension Request” form (provided by the Owner) documenting any requests for Contract time extension. If Contractor fails to provide the notice required by this subsection, and Owner is unable to adequately verify the cause or duration of the delay, or the impact of the weather condition on the construction schedule, the delay will not be considered excused.

C. Delay Caused by Owner.

1. If the Contractor is delayed at any time in the construction of the Work through no fault of Contractor or any subcontractor, by an act of the Owner or

Architect/Engineer (other than an excused delay), or of a separate contractor employed by the Owner (other than an excused delay), then the Contractor shall promptly notify the Owner and Architect/Engineer, in writing, of such delay, to enable Owner and/or Architect/Engineer to take action to reduce or eliminate the delay. Contractor must notify Owner and Architect/Engineer in writing as soon as possible after it becomes aware of the condition that it believes has caused or will be likely to cause a delay, but in no event later than 5 days after it becomes aware of such condition. Contractor's failure to do so will constitute a failure to mitigate damages. Owner shall not be liable for damages or delays for the period before notice of the delay is given to Owner.

2. The Contractor shall submit with each Estimate for Partial Payment a "Time Extension Request" form (provided by the Owner) documenting any requests for Contract time extension. Owner's proper exercise of any of its rights or remedies under the Contract Documents, including, but not limited to, remedies of suspension of the Work or requirement for correction or re- execution of any defective Work, shall not under any circumstances be construed as constituting a delay to Contractor's performance of the Work.

## 7.2 OWNER EXCUSED DELAYS

- A. Owner shall not be deemed in default in its obligations under this Contract, nor shall Contractor be entitled to remedies, rights or damages as a result of a delay by Owner in the performance of its obligations under the Contract as a result of one or more of the following: unforeseeable causes beyond the control and without the fault or negligence of the Owner, its officers or employees, including but not restricted to, acts of God, acts of the public enemy, acts of terrorism, acts of federal, state or local government acting in its sovereign capacity, fires, floods, epidemics, quarantines, restrictions, strikes, freight embargoes, unusually severe weather, or acts of Architect/Engineer or its consultants or their respective employees or separate Contractors, at any time arising from unforeseeable causes beyond the control and without the fault or negligence of such parties, or delays caused by Contractor or any subcontractor. A delay described in this Section 7.2.A shall constitute an event of force majeure applicable to Owner.
- B. Owner shall use reasonable efforts to notify Contractor promptly after it becomes aware of the occurrence of an event giving rise to a delay. If Owner's performance is delayed through an event constituting an excused delay, Owner shall be entitled to an equitable extension of time in which to perform its obligations.

### 7.3 CONTRACTOR REMEDIES FOR DELAY

- A. In the event of an excused delay under Section 7.1 A, B or C. Owner will provide Contractor with such reasonable extension of the Contract Time as may be equitable, provided that all conditions for obtaining an extension are met, unless Owner determines to require acceleration of the Work, as provided in Section 7.3.C. The time extension will be set out in a Change Order as provided in Article 6. Any such extension of the Contract Time shall be net of any unexcused delays caused by or due to the fault of Contractor or anyone performing Work under the Contract, (including the financial condition of the Contractor or any subcontractor).
- B. Any provision of the Contract Documents to the contrary notwithstanding, it is expressly agreed that the extension of the Contract Time (or payment for acceleration of the Work as provided in Section 7.3.C) shall be Contractor's sole remedy for any delay unless the same shall have been caused by acts of the Owner which are a direct and unavoidable cause of damage to Contractor, and then only to the extent that such acts continue after Contractor's written notice to Owner of such delay as provided in Section 7.1 C.1 and Owner is not prevented from correcting the delay due to an event of force majeure.
- C. Any provision in the Contract Documents to the contrary notwithstanding, in the event Contractor would be entitled to an extension of the Contract Time under the provisions of the Contract Documents, Owner shall have the right, instead of awarding additional time, to require Contractor to accelerate the Work, as provided in Section 13.2, and Owner shall pay Contractor for the reasonable additional costs incurred by Contractor that are attributable to such acceleration, as provided by Change Order.

### 7.4 OWNER REMEDIES FOR DELAY

- A. Liquidated Damages: Time is of the essence in this Contract, it being important that this Project be quickly and timely completed. The Contractor and Owner acknowledge the difficulty of ascertaining actual damages for delay in performance, and therefore the Contractor and Owner understand and agree that for each and every day the Work or any portion thereof shall remain substantially incomplete after the Substantial Completion Date set by the Contract, Owner shall be entitled to liquidated damages as described in the Agreement. Liquidated damages may be withheld by Owner from amounts due to Contractor, or if not so withheld in full or in part, such amounts owing will be payable to Owner within 30 days after demand by Owner.
- B. Acceleration of the Work: In addition to any other rights and remedies available to Owner under the Contract Documents or available at law or equity, in the event the Work has been delayed due to unexcused delay by Contractor, or otherwise due to the fault of Contractor, its subcontractors, or anyone providing Work under this Contract, Owner may direct that the Work be accelerated by means of overtime, additional crews, additional shifts and/or resequencing of the Work in order to bring it back on schedule and/or to maintain it there as described in Section 13.2

## 8. Article 8. PAYMENTS AND COMPLETION

### 8.1 PROGRESS PAYMENTS

- A. Promptly following execution of the Contract by Owner and the Contractor, the Contractor shall submit a Schedule of Values to the Architect/Engineer for approval, consisting of a breakdown of the Contract Amount, itemizing material and labor for the various classifications of the Work and the costs allocated thereto, which shall be aligned with the subcontractor and supplier contract values reported on the Disclosure Statement, prepared in such form and supported by such data to substantiate its accuracy, as the Owner may require. The breakdown will be used as a basis for reviewing the Contractor's Estimate for Partial Payment. The descriptions of Work classifications and the level of detail of Work activities reported on the Schedule of Values shall align with such terminology and level of detail in the Construction Schedule to allow review of both documents in consideration of progress payments. The Contractor's Estimate for Partial Payment must be submitted on the AISD Estimate for Partial Payment Form provided by Owner with two (2) signed original counterparts. A Time Extension Request form shall be submitted with each Estimate for Partial Payment whether or not an extension of time is requested. If an extension of time is requested, Contractor must state in the Time Extension Request the number of days requested and the cause for delay. In addition, Contractor shall submit with each Estimate for Partial Payment a Disclosure Statement confirming payment amounts to HUB firms.
- B. Upon submission by the Contractor of its Estimate for Partial Payment accompanied by written invoices, and such other documentation as Owner or Architect/Engineer may require to substantiate the payment requested and Work performed, as well as any other documentation required to be submitted under the Contract Documents, Owner shall make payments not less frequently than monthly as the Work progresses, based upon percentage of the completion of the Work as determined from the Estimate for Partial Payment submitted by the Contractor, approved by the Architect/Engineer and approved by a Contracting Officer. The Contractor shall not submit the first Estimate for Partial Payment sooner than thirty days after commencement of the Work. No payment shall be made to the Contractor until all post-proposal or post-bid information, as applicable, has been submitted, approved and performance of Work begun. Payments will be made in accordance with the following provisions:
1. for Contract amounts of \$400,000 or more, payments will be made to the Contractor by the Owner within fifteen days from the date the Estimate for Partial Payment is approved by the Architect/Engineer and Contracting Officer (if the Estimate is undisputed and in proper order). Payment will be made in the amount of ninety-five percent (95%) of the value of all labor and materials fixed in proper position and all materials and equipment properly stored on the premises or other locations for which the Owner has expressed written approval.

2. for Contract amounts less than \$400,000, payments will be made to the Contractor by the Owner within fifteen days from the date the Estimate for Partial Payment is approved by the Architect/Engineer and Contracting Officer (if the Estimate is undisputed and in proper order). Payment will be made in the amount of ninety percent (90%) of the value of all labor and materials fixed in proper position and all materials and equipment properly stored on the premises or other locations for which the Owner has expressly approved in writing, subject to the following provisions: (a) 10% of each Estimate shall be retained until the Work is 50% complete based on the percentage that the value of all labor and materials fixed in proper position bears to the total value of the Work under the Contract; (b) after the Work is over 50% complete, Owner may, at its sole discretion, reduce the amount of retainage to 5%, provided that the Contractor is not in default, the Contract is bonded, the Work is on current schedule and there is no controversy regarding the acceptability of the workmanship and materials or products, and provided further that the Architect/Engineer determines that the Work is in conformance with the Contract Documents. If any of these conditions do not continue, Owner may, at its sole discretion, reinstate the full 10% retainage until such time as the above conditions are met, in addition to any other rights and remedies it may have under the Contract.
- C. When the Project is Substantially Complete, the retained amount may, at the Owner's discretion, be reduced to only that amount necessary to assure full performance of the Contract.
  - D. Owner shall not be bound to make Partial Payments if Performance and Payment Bonds are not required under the Contract. Owner shall have the right to make payment only on final completion of the Work.
  - E. All amounts withheld by Owner as retainage and which are payable to the Contractor after Owner has deducted out liquidated damages and/or any other amounts to which Owner is entitled under the terms of the Contract, are payable to the Contractor with the final payment.
  - F. All material and work covered by Partial Payments made shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which Payments shall have been made, or the restoration of any damaged work or as a waiver of the right of Owner to require strict fulfillment of all of the terms of the Contract. Payments to the Contractor shall not be construed to release the Contractor or its sureties from any obligation under this Contract.
  - G. Upon receipt of each payment from Owner, Contractor shall, in accordance with Section 2251.022 of the Texas Government Code, make appropriate payments due to its subcontractors not later than the 10<sup>th</sup> day after the date Contractor receives each such payment from Owner, and Contractor shall require each subcontractor receiving

payment from Contractor to make appropriate payments due to the subcontractor's respective subcontractors and suppliers not later than the 10<sup>th</sup> day after the date such subcontractor receives each such payment from Contractor in accordance with Section 2251.023 of the Texas Government Code. Pursuant to Section 2251.028 of the Texas Government Code, Contractor and each subcontractor shall pay interest as a payment is overdue. Interest shall be paid as set forth in Section 2251.025 of the Texas Government Code. If at any time Contractor or any subcontractor has questions concerning the process for payments by Owner under the Contract, such questions can be directed to the AISD Executive Director of Construction Management (or his/her designee) at 512-414-1715.

## 8.2 PAYMENTS WITHHELD OR NULLIFIED

- A. The Architect/Engineer or Owner may withhold or nullify any progress payment or final payment in whole or in part, to the extent necessary in the Architect/Engineer's or Owner's reasonable opinion to protect the Owner from loss for which the Contractor is responsible, including loss because of:
1. defective Work not remedied;
  2. third party claims threatened, 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 Amount;
  5. damage to the property of Owner, a third party, 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;
  7. failure to carry out the Work in accordance with the Contract Documents; or
  8. failure to provide any submittals or documentation required under the Contract Documents in a timely manner, including updated versions of Contractor's Construction Schedule, current Time Extension Request, and Disclosure Statement confirming payment amounts to HUB firms.
- B. If the above reasons for withholding payment are removed, and any defaults cured in a timely manner and prior to Owner exercising other rights or remedies, and no other condition of default or reason for withholding, offsetting or nullifying payment exists,

then payment will be made for amounts previously withheld. To the greatest extent permitted by applicable law, Owner shall not be deemed to be in breach of the Contract Documents by reason of the withholding of any payment which Owner is entitled to withhold pursuant to, or which it withholds in good faith in reliance on, any provision of the Contract Documents, and no interest shall accrue in connection with the withheld payment(s) determined to have been properly withheld. In determining whether amounts claimed for payment by Contractor, or any subcontractor, are in dispute, Owner shall have the right to consider amounts withheld under this provision, due to Contractor fault or in an attempt to protect the public from loss or overpayment of public funds, to be amounts in dispute. Nothing in this Section or in the Contract Documents shall limit or reduce any right of the Owner to offset amounts owed to Contractor by amounts Contractor owes to Owner, or to exercise any other rights or remedies provided by law or equity.

- C. In accordance with Section 2251.021 of the Texas Government Code, undisputed payments not paid by Owner to Contractor are overdue on the 31<sup>st</sup> day after the later of (1) the date Owner receives the goods under the Contract Documents; (2) the date the performance of the service under the Contract Documents is completed; or (3) the date the Owner receives an invoice for the goods or services. Provided, however, if the Board of Trustees of Owner meets only once a month, such undisputed payments not paid by Owner to Contractor are overdue on the 46<sup>th</sup> day after the later event described in (1) – (3) of the preceding sentence. A payment begins to accrue interest on the date the payment becomes overdue at the rate of interest set forth in Section 2251.025 of the Texas Government Code.

### 8.3 SUBSTANTIAL COMPLETION

- A. 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/Engineer for review and approval a comprehensive list of items to be completed or corrected and a schedule for completion (“Contractor’s List”) which is acceptable to the Owner. The Contractor shall proceed promptly to complete and correct items on the Contractor’s List, including any items added to the Contractor’s List by the Architect/Engineer during the Architect/Engineer’s review or the period thereafter prior to final acceptance of the Work (the Contractor’s List and any items added by Architect/Engineer prior to final acceptance of the Work are collectively called the “punch list”). Failure to include an item on the punch list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Upon receipt of the Contractor’s List, the Architect/Engineer will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If, upon such inspection, the Architect/Engineer determines that the Work or a designated portion thereof is not substantially complete, Contractor shall be charged with the cost to Owner of any and all additional inspections deemed necessary by the Architect/Engineer or Owner to determine that the Work or a designated portion thereof is substantially complete. When the Work or designated portion thereof is determined by Owner to be

substantially complete, the Architect/Engineer will prepare a Certificate of Substantial Completion which shall (i) establish the date of Substantial Completion, (ii) establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, (iii) fix the time within which the Contractor shall finish all items on the punch list accompanying the Certificate, and (iv) specify each item on such punch list for which the warranties required by the Contract Documents shall commence on the date Owner and Architect/Engineer determine that Contractor has finally completed such punch list item in full and strict conformity to the Contract Documents. If no time period for completion of the punch list is fixed in such Certificate of Substantial Completion, the Work, including all items on the punch list, must be completed within sixty (60) days after Substantial Completion. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless as otherwise provided in Section 3.11.A hereof. The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate.

- B. Upon Substantial Completion, Section 5 of the “Certification of Compliance” form [TEA §61.101(d)] must be executed by the Contractor and returned to the Architect/Engineer, who will forward same to Owner.

#### 8.4 FINAL ACCEPTANCE AND PAYMENT

- A. The Contractor shall notify the Architect/Engineer when the Work, including the punch list, is complete, and the Architect/Engineer will arrange a final inspection with the Contractor and the Owner. If, upon inspection, the Architect/Engineer or Owner determines that the Work, including the punch list, is not complete, Contractor shall be charged with the cost to Owner of any and all additional inspections deemed necessary by the Architect/Engineer or Owner to determine that the Work, including the punch list, is complete. If Contractor fails to complete the Work, including the punch list, within the time period for completion of the punch list fixed by the Architect/Engineer in the Certificate of Substantial Completion or within sixty (60) days after Substantial Completion, whichever is later, Owner may charge Contractor with the reasonable cost to Owner of additional Architect/Engineer services (including Project site visits) deemed necessary pending Contractor’s completion of the Work, unless such services relate only to new Work authorized by Change Order following the date of Substantial Completion. Upon completion of the Work, including the punch list, in full and strict conformity to the Contract Documents, final acceptance of the Work by a Contracting Officer, and Contractor’s satisfaction of its obligations for final payment, Owner shall pay the unpaid balance of the Contract Amount less any sum that may be necessary to settle any claim Owner may have against the Contractor or that may be necessary to settle any outstanding obligations of the Contractor or of its subcontractors arising out of or incidental to the performance of the Contract or which is otherwise withheld pursuant to the terms of the Contract Documents. Neither the Certificate of Substantial Completion, nor final acceptance payment, nor any other



provisions in the Contract Documents, shall relieve the Contractor of its obligations under the Contract Documents or under any warranty.

- B. Prior to final payment and as a condition thereto, Contractor shall furnish Owner with all warranties, instructions, lien releases, documents and other submittals required by the Contract Documents, or otherwise required by Architect/Engineer or Owner, a notarized Certificate of Satisfaction of Bills, stating that all bills and claims for labor, materials, equipment and otherwise, connected with the Work for which the Owner or the Owner's property might be responsible or encumbered, shall have been satisfied, or will be fully satisfied out of the final payment within 30 days of Contractor's receipt of such payment. Contractor shall also furnish a release of all claims against Owner, in form satisfactory to Owner, whether of Contractor, subcontractors or of others, arising under and by virtue of the Contract. In addition, the Contractor shall deliver to Owner all As-Built Drawings and three Owner's Manuals containing all Contractor and subcontractor names, addresses and phone numbers; all warranties and plumbing, electrical, and communication equipment/fixture product data; all special equipment product data; and all parts lists and operating, maintenance, and service manuals. In the event there are any (1) subcontractors, suppliers or other third-party claims against Contractor which will not be satisfied by Contractor after final payment is made, or (2) any claims which are not currently subject to dispute resolution procedures set out in the Contract but which Contractor does not deem to have been settled, the Contractor shall notify Owner in writing no later than the time of final Application for Payment. Owner shall have the rights with regard to such claims provided for in the Contract Documents. If Contractor does not expressly notify Owner of any and all specific claims against Owner which are not already pending and subject to negotiation or other claim resolution procedure as provided by this Contract, and which Contractor deems unsettled, then Contractor waives all such claims by Contractor's acceptance of final payment.
- C. Owner shall not be obligated to make any progress payment or the final payment if the Surety objects to such payment or refuses to consent to such payment, or withdraws its consent to such payment. If requested by the Surety, or if Owner determines that it is advisable to do so, Owner shall have the right to make payments jointly to Contractor and Surety, or to Contractor and any subcontractor, supplier, or other person claiming payment for labor or materials. In the event of a dispute between Contractor and/or the Surety or persons performing labor or supplying materials, or to a third party claimant, as to whom payment of amounts held by Owner should be made, Owner shall have the right to interplead the funds held by it in the registry of a court of competent jurisdiction, and to withhold from the amounts held by Owner all attorney's fees and other costs incurred by Owner in connection with such dispute.
- D. The Contractor shall arrange for a reasonable amount of instruction for the Owner's employees and representatives to insure proper operation of all equipment furnished. The Contractor and, in particular, the Fire Protection, Plumbing, Heating, Ventilating

and Air Conditioning, Building Automation and Automatic Temperature Control Systems, Electrical, and Electronic Security subcontractors shall not assume that the Owner's employees possess special expertise or have had any previous experience whatsoever in the operation and maintenance of sophisticated mechanical, electrical and electronic equipment. It is the intent of this Subparagraph to require the Contractor and the applicable subcontractors to furnish as much detailed instruction as is necessary to educate reasonably intelligent personnel in the proper use of equipment. The Manufacturer's representative shall provide this instruction for each item of equipment. In some cases, this may require several visits to the Project by those responsible for the instruction. Further, the Contractor shall establish an operating and maintenance training program for the Project for the Owner's employees as herein more particularly provided in the Contract Documents. Such training program shall include instruction courses with respect to all of the school facilities and building systems comprising the Project.

- E. Acceptance of final payment by the Contractor shall constitute a waiver of claims by the Contractor against Owner except those previously made in writing and identified by Contractor as unsettled at the time of final Estimate for Partial Payment. Final payment is considered to have taken place when Contractor or any of its representatives negotiates Owner's final payment check, whether labeled final or not, for cash, or deposits the check in any financial institution. The provisions of this Article shall not be altered, reduced or diminished by any notation, statement or reservation written on the check by Contractor in connection with its endorsement. Such notification, statement, or reservation shall be deemed an invalid attempt by Contractor to amend the provisions of this Contract without the Owner's written consent.

## **9. Article 9. PROTECTION OF PERSONS AND PROPERTY**

### **9.1 SAFETY PRECAUTIONS AND PROGRAMS**

- A. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. It shall be the duty and responsibility of the Contractor and all of its subcontractors to be familiar with and comply with all requirements of Public Law 91-596, 29 U.S.C. §§ 651 *et seq.*, the Occupational Safety and Health Act of 1970, (OSHA) and all amendments thereto, and to enforce and comply with all applicable provisions of OSHA. Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property to protect them from damage, injury or loss and shall erect and maintain all necessary safeguards for such safety and protection.
- B. Contractor shall notify owners of adjacent property and of underground facilities and utility owners when prosecution of the Work may affect them or their facilities, and shall cooperate with them in the protection, removal, relocation and replacement of their facilities and/or utilities.

- C. Contractor shall be responsible for coordinating the exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in connection with laws and regulations.
- D. Contractor shall be responsible for initiating and holding regular safety meetings at least once per week.
- E. On or before the 10<sup>th</sup> day of each calendar month, Contractor shall submit to Owner a monthly report in a form provided by Owner stating the total man-hours worked at the Project site by Contractor and all subcontractors each day during the immediately preceding calendar month. For purposes of completing this monthly man-hour report, Contractor's daily observation at the Project site of the number of workers and hours worked is sufficient.
- F. With respect to each injury on the Project site, Contractor shall furnish to Owner a copy of Contractor's first report of injury report within one (1) business day after Contractor's filing of such report with its insurance company, but in no event later than the sixth (6<sup>th</sup>) day after the date of such injury. In addition, Contractor shall notify the AISD/TASB Safety Department by telephone at 512-791-7662 immediately upon the occurrence of an injury at the Project site.

## 9.2 EMERGENCY FACILITIES

- A. Contractor shall maintain at all times free access to fire lanes and emergency and utility control facilities such as fire hydrants, fire alarm boxes, utility valves, manholes, junction boxes, etc.

## 9.3 SAFETY OF PERSONS AND PROPERTY

- A. The Contractor shall take all reasonable precautions for safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to:
  - 1. Students, faculty, employees and visitors at any school where construction or renovation activities are being conducted and neighboring property owners;
  - 2. Persons performing Work on the Project site and other persons who may be affected thereby;
  - 3. The Work and all materials and equipment to be incorporated therein, whether in storage or off site, under care, custody or control of Contractor or any of its subcontractors; and
  - 4. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, fences, roadways, structures and utilities not designed for removal, relocation or replacement in the course of construction.

- B. The Contractor shall comply with all applicable laws, ordinances, rules, regulations, policies of the Owner's Board of Trustees and lawful orders of any public authority having jurisdiction for safety of persons or property or to protect them from damage, injury or loss.
- C. For all excavation of trenches (as that term is defined in the regulations under the United States Occupational Safety and Health Act, 29 CFR Section 1926.650), as shown in the Solicitation Documents or Contract Documents, Contractor shall comply in all respects with the detailed plans and specifications set out in applicable OSHA regulations, and all other applicable laws. Specific Trenching Requirements, of the regulations of the Occupational Safety and Health Administration. Contractor shall assume full responsibility for compliance with the Occupational Safety and Health Administration regulations pertaining to trench safety systems. Contractor will be responsible for completion of additional detailed plans and specifications for trench safety to the extent that such detailed plans and specifications are necessary to supplement the provisions of these General Conditions.
- D. Neither explosives nor blasting shall be permitted on the Project, except with the approval of the Owner upon recommendation of the Architect/Engineer.
- E. Contractor shall designate in writing a qualified and experienced safety representative (the "Safety Representative") at the Project site whose duties and responsibilities shall include safety training; identifying and mitigating hazardous conditions and unsafe work practices; and developing, maintaining and supervising the implementation of safe work practices and safety programs as deemed necessary and appropriate for the Project. The Safety Representative shall exercise due diligence in the execution of all Project related safety duties. The Safety Representative shall report directly to an officer of the Contractor, not to Contractor's on site Project Manager or Superintendent. Upon request of Owner, Contractor shall provide certifications or other acceptable documentation of the Safety Representative's qualifications. The following requirements will be effective as of March 1, 2016:
  - 1. The Safety Representative shall present to Owner certification of completion for both the Safety Representative and Superintendent of the OSHA 30-hour Construction Industry Training Outreach Program described at: [http://www.osha.gov/dte/outreach/construction\\_generalindustry/construction.html](http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html)
  - 2. The Safety Representative shall verify that all construction workers (defined as persons covered by a prevailing wage determination) on the Project site, whether employed by the Contractor or subcontractors, have completed the OSHA 10-hour Construction Industry Training Outreach Program described at:

[http://www.osha.gov/dte/outreach/construction\\_generalindustry/construction.html](http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html). The Safety Representative must receive a certificate of training completion before allowing a worker on site and shall submit a copy of such certificate to the Owner in the form of a submittal.

3. The Safety Representative shall ensure that workers, including those designated competent persons, have completed all applicable OSHA specific or other training needed to perform their job assignments. Training topics applicable to the scope of the current Project may include, but are not limited to, scaffolds, fall protection, cranes, excavations, electrical safety, tools, concrete and masonry construction, steel erection, operation of motor vehicles and mechanized equipment.
4. The Safety Representative shall ensure that all required OSHA and Workers' Compensation notices to workers are posted in English and Spanish at one or more conspicuous locations on the work site.

#### 9.4 SCHOOL SAFETY REQUIREMENTS

- A. When Work is to be performed at a Project site in which school activities are being conducted, Contractor shall take special care, and shall require its subcontractors, and all persons performing Work at the site to take special care, to protect the safety and welfare of the students, teachers, employees, and visitors at the school, and to perform the Work with as little disruption to the learning environment and school activities as possible.
- B. When Work is to be performed at a Project site where school activities are being conducted, it is expressly understood and agreed that Contractor's and any subcontractor's employees and other persons performing Work at the Project site shall not engage in any inappropriate interaction of any nature whatsoever with students, teachers, employees and visitors at the school, including talking, touching, staring, or in any way contributing to a hostile or offensive environment. It is further expressly understood and agreed that there is to be no fraternization between Contractor's and any subcontractor's employees, and other persons performing Work at the site, and students, teachers, employees and visitors at the school. There shall be zero tolerance for violations of these provisions.
- C. The possession or use of tobacco products, alcoholic beverages, illegal drugs, and firearms or weapons on Owner's property is prohibited at all times, twenty-four hours a day. There shall be zero tolerance for violations of this provision.
- D. Contractor, subcontractors, and all other persons performing Work in connection with the Project shall strictly observe (i) all school bus safety laws and other written requirements, (ii) speed limits in the vicinity of the Project site, including, without limitation, school speed limits, and (iii) any posted speed limits on the Project site established by Owner. Contractor shall require strict compliance with this provision.

- E. Contractor, subcontractors and all other persons performing Work at the Project site shall use only such access to the site and facilities as are designated by Owner, and shall comply with all other rules and requirements established by Owner for use or occupancy of the Project site.
- F. Owner shall have the right to require the immediate removal from the Project site of any person performing Work who violates the provisions of this Section 9.4, and to prohibit such person from being allowed to perform Work at the Project site in the future.
- G. A Contractor who fails to enforce compliance with the provisions of this Section 9.4, or who suffers or allows an employee, subcontractor or other person performing Work at the Project site to violate any of these provisions, shall be in breach of this Contract.
- H. Contractor shall prominently post at the job site these requirements and any other rules or regulations required by law or established by Owner for the safety and protection of students, teachers, school employees and visitors or for the performance of Work at the Project site. Such rules or requirements shall constitute a part of the requirements under the Contract Documents for the performance of the Work, and the Contractor's failure to observe or enforce these requirements shall constitute a default under the Contract.

#### 9.5 LOCATION AND PROTECTION OF UTILITIES

- A. Notwithstanding any other provisions of the Contract, the Contractor shall be solely responsible for location and protection of any and all public lines and utility customer service lines in the Work area. Locations of utilities shown on plans are approximate only and do not necessarily indicate all utilities that may be encountered during construction or their exact location. Failure of a utility to be indicated or an incorrect location on information provided to Contractor by Owner or Architect/Engineer does not relieve the Contractor of responsibility to determine the locations of all lines and utilities and protect utility lines as provided herein. The Contractor shall notify "One Call" (1-800-344-8377), and exercise due care to locate and to mark, uncover or otherwise protect all such lines within the limits of construction and any of the Contractor's work or storage areas. Upon request, the Owner shall provide such information as known about the location and grade of water, sewer, gas, telephone, electric and other utilities in the work area, but such information shall not relieve the Contractor's obligation hereunder, which shall be primary and not delegable.

#### 9.6 ASBESTOS

- A. Contractor will not commence Work until Contractor has received from Owner information identifying the location(s) of asbestos containing materials within the areas of the Work at the Project site.

- B. In the event the Contractor encounters on the site material reasonably believed to be asbestos which has not been rendered harmless, the Contractor shall immediately stop work in the area affected and report the condition to the Owner and Architect/Engineer in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and Contractor if in fact the material is asbestos and has not been rendered harmless. The Work in the affected area shall be resumed, by written agreement of the Owner and Contractor, in the absence of asbestos or when it has been rendered harmless.
- C. The Contractor shall comply with all applicable provisions and requirements of federal, state and local laws and regulations on removal and/or encapsulation of asbestos in public schools, including 15 USCA sections 2641 *et seq.*; 40 CFR part 763; TEX. REV. CIV. STAT. art. 4477-3a; and 25 TEX. ADMIN. CODE § 295.31 *et seq.* as the same may be modified or amended from time to time or superseded by other laws.
- D. Remediation or removal of asbestos-containing materials shall only be conducted in accordance with all applicable laws, and performed by a licensed or certified asbestos abatement contractor. Such person must maintain insurance, including environmental liability insurance, in accordance with the requirements set forth herein.
- E. Contractor shall not knowingly install asbestos or asbestos containing materials into the Work.

#### 9.7 HAZARDOUS SUBSTANCES

- A. Prior to commencement of the Work, Owner will provide all reports in its possession or control relating to the environmental condition of the Project site and Contractor shall be responsible for determining whether any environmental condition impacts the Contractor's Work, and for promptly notifying Owner and Architect/Engineer of any such impact. Contractor shall notify Owner and Architect/Engineer in writing as soon as possible, but in no event later than 5 days after Contractor becomes aware that hazardous materials, or suspected hazardous materials are located on the Project site or in connection with the Work and that such materials may impact the Contractor's Work. Contractor shall not disturb asbestos-containing materials or any environmental condition, unless such Work is within the scope of services to be performed by Contractor, and is performed in accordance with applicable law by duly licensed or certified professionals.
- B. If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a hazardous material or 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 affected area and report the condition to the Owner and Architect/Engineer in writing. In the event the Contractor encounters on the site material that Contractor knows, or reasonably believes to be a hazardous substance which has not been rendered harmless, the Contractor shall immediately stop Work in

the area affected and report the condition to the Owner and Architect/Engineer in writing.

- C. The Owner shall obtain 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. When the material or substance has been rendered harmless, Work in the affected area shall resume. If Work is delayed by hazardous materials that were not known to be present at the Project site, the Contract Time and/or Contract Amount shall be equitably adjusted by Change Order in accordance with the provisions of the Contract, provided the hazardous material or substance or clean-up requirements were not caused by Contractor or any subcontractor or supplier, or person for whom Contractor is liable and notice of the conditions was timely given to Owner as provided herein.
- D. Contractor agrees that it shall not transport to, use, generate, dispose of or install at the Project site any hazardous substance (as defined herein), except in accordance with applicable Environmental Laws. Further, in performing the Work, the Contractor shall not cause any release of hazardous substances into, or contamination of, the environment, including the soil, the atmosphere, any water course or ground water, except in accordance with applicable Environmental Laws. In the event the Contractor engages in any of the activities prohibited in this Section, to the fullest extent permitted by law, the Contractor hereby indemnifies, defends and holds harmless Owner and all of its officers, trustees, directors, agents and employees from and against any and all claims, damages, losses, causes of action, suits and liabilities of every kind, including but not limited to, expenses of litigation, court costs, punitive damages and attorneys' fees, arising out of, incidental to or resulting from the activities prohibited in this Section. These obligations are in addition to any other indemnification obligations provided by the Contract Documents and shall survive termination of the Contract or completion of Contractor's obligations under the Contract as to events occurring prior to such termination or completion.
- E. For purposes of this Contract, the term "hazardous substance" or "hazardous materials" shall mean and include, but shall not be limited to, any element, constituent, chemical, substance, compound or mixtures, which are defined in or included under or regulated by any local, state or federal law, rule, ordinance, by-law or regulation pertaining to environmental regulation, contamination, clean-up or disclosure, including without limitation The Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), The Resource Conservation and Recovery Act ("RCRA"), The Toxic Substances Control Act ("TSA"), The Clean Water Act ("CWA"), The Clean Air Act ("CAA"), The Marine Protection Research and Sanctuaries Act ("MPRSA"), the Occupational Safety and Health Act ("OSHA"), The Superfund Amendments and Reauthorization Act of 1986 ("SARA"), or other state superlien or environmental clean-up or disclosure statutes, including all state and local counterparts of such laws (all such laws, rules and regulations, as amended from time to time, being referred to collectively as "Environmental Laws"). It is the



Contractor's responsibility to comply with this Section 9.7 based on the law in effect at the time its services are rendered and to comply with any amendments to those laws, for all services rendered after the effective date of any such amendments.

9.8 CONTRACTOR'S SAFETY PROGRAM MANUAL

- A. Prior to commencement of any Work on the Project site, Contractor shall deliver to Owner for review a copy of Contractor's written safety program manual ("Safety Program Manual"). The Safety Program Manual must describe in detail Contractor's entire safety program and the specific responsibilities of those involved, and shall include, without limitation, table of contents, safety rules/policies/procedures, references to all OSHA requirements and other applicable Federal, State and local safety laws, rules and regulations, Hazard Communication Program (but do not include Material Safety Data Sheets), method of providing safety training for all of Contractor's jobsite employees, subcontractor safety and requirements/enforcement. Prior to the commencement of any Work on the Project site, the Safety Program Manual must have been received and reviewed by Owner.

9.9 CONTRACTOR'S SAFETY PLAN

- A. Prior to commencement of any Work on the Project site, Contractor shall deliver to Owner for review a written safety plan for the Project ("Safety Plan") that will provide a safe environment for all workers, and which complies with, but is not limited to, the following guidelines. The Contractor is responsible for reviewing the specific requirements of the Contract, analyzing the planned methods of operation, and incorporating any additional specific or unique safety requirements in the written plan. The Contractor is solely responsible for ensuring that all applicable safety regulations are addressed as part of the Safety Plan. Prior to the commencement of any Work on the Project site (i) the Safety Plan must have been received and reviewed by Owner, and (ii) the Safety Plan must be in place and fully operational.
- B. General Provisions -- The Safety Plan shall include, but not be limited to, the following elements:
1. evacuation plans as may be required;
  2. emergency response procedures;
  3. identification of the Contractor's safety representative and all other designated individuals responsible for administering the Safety Plan;
  4. safety provisions developed by the Contractor for its normal operation of construction activities or any specific provisions being employed for special construction activities; and

5. all other provisions necessary to properly protect all workers, the school population, and the Owner's employees and representatives carrying out their normal activities and duties at the Project site.

#### 9.10 EMERGENCIES

- A. In an emergency affecting safety of persons or property, where Contractor does not have time to contact the Owner's Project Manager or Architect/Engineer, or where such persons cannot be reached, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation and/or extension of time claimed by the Contractor on account of its response to an emergency that is not due to Contractor fault or negligence of Contractor or persons performing the Work on Contractor's behalf shall be determined by Architect/Engineer and Owner as provided under the provisions of this Contract regarding Change Orders.

#### 9.11 OFFSITE WORK

- A. The Contractor and its subcontractors shall utilize appropriate safety measures in performing such offsite work in public ways and sidewalks including, without limitation, obtaining and establishing adequate traffic barriers and installing appropriate signage, having sufficient trained personnel to direct vehicular and pedestrian traffic and hiring police as required to properly and safely conduct such Work. Such measures shall be designed so as to allow the Contractor and its subcontractors to properly carry out the required work in public ways and sidewalks while minimizing safety problems and disruption to the public using such public ways and sidewalks, all in compliance with applicable laws and regulations.

### **Article 10. INSURANCE AND BONDS**

#### 10.1 REQUIRED INSURANCE COVERAGE

- A. Contractor shall provide insurance coverages and comply with the terms described in Subsections 10.1 through 10.6 (and 10.7 and/or 10.8 if applicable) for all Work required by the Contract through the end of the warranty period (with the exception of Builders' Risk). Contractor shall also maintain any extended coverage required herein for insurance coverage authorized to be provided on a claims made basis.
- B. Contractor shall require each subcontractor to provide the insurance coverage described in Subsection 10.4 in accordance with the provisions of Subsections 10.1 and 10.2, and to provide the certificate of coverage for worker's compensation insurance described in Subsection 10.4. Subcontractors performing environmental remediation or abatement or transportation of hazardous materials must provide the insurance required in Subsections 10.3 through 10.7 (except that Builders' Risk shall not be required if not available for the services performed by such subcontractor) and must comply with Subsections 10.1 and 10.2. Subcontractors performing professional

services as described in Subsection 10.8 must comply with the insurance coverage required by such subsection and with Subsections 10.1 and 10.2. All required insurance must be provided through the end of the warranty period (with the exception of Builders' Risk). Subcontractors must maintain such other insurance as Contractor may require. If Subcontractor is insured under a policy on a claims made basis, Contractor shall require such coverage to remain in effect for at least three (3) years.

- C. The required insurance must be provided prior to the commencement of services or Work under the Contract, and must be provided at all times throughout the term of the Contract, as herein provided.
- D. Contractor shall require each subcontractor to maintain commercially reasonable insurance coverage in connection with the Project as well as the insurance specifically required herein.
- E. The Contractor's and any subcontractor's failure to comply with any of these provisions constitutes a breach of contract by the Contractor which entitles Owner to pursue the rights and remedies set forth in the Contract Documents if the Contractor does not remedy the breach within ten days after receipt of notice of breach from Owner.

## 10.2 GENERAL REQUIREMENTS

- A. Contractor shall carry insurance in the types and amounts specified herein, which shall include coverage for items owned by Owner in the care, custody and control of Contractor prior to and during construction and warranty period.
- B. Contractor must complete and forward to Owner a certificate or certificates of insurance on forms approved or deemed approved by the Texas Department of Insurance under Chapter 1811 of the Texas Insurance Code and provided or approved by Owner ("Certificate of Insurance," whether one or more) and all required endorsements before the Contract is executed, as verification of all coverage required below. Contractor and subcontractors shall not commence Work until the required insurance is obtained and until such insurance has been reviewed and approved by Owner. Maintenance of insurance by the Contractor and approval of insurance by Owner shall not relieve or decrease the liability of Contractor hereunder and shall not be construed to be a limitation of liability on the part of Contractor. Contractor must also complete and forward a Certificate of Insurance to Owner whenever a previously identified policy period has expired as verification of continuing coverage. Contractor must provide the Certificate of Insurance to Owner showing the extended or replacement coverage prior to the date for expiration of the policy or policies shown on the Certificate of Insurance held by Owner.
- C. Contractor's and subcontractor's insurance coverage is to be written by companies licensed to do business in the State of Texas at the time the policies are issued and shall be written by companies with A.M. Best ratings of A VII or better unless

otherwise approved by the Owner. If an insurance company becomes insolvent or goes into receivership or liquidation, the Contractor or subcontractor affected shall provide the required insurance coverage from an alternate insurer that meets the requirements of this Contract.

- D. All endorsements naming the Owner as additional insured, waivers, and notices of cancellation endorsements as well as the Certificate of Insurance shall indicate the Owner as: Austin Independent School District, 1111 West 6th Street, Austin, Texas 78703 Attn: Executive Director, Department of Construction Management.
- E. If insurance policies are not written for amounts specified below, Contractor or subcontractor shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of the primary coverage.
- F. Owner shall be entitled, upon request and without expense, to receive certified copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modification of particular policy terms, conditions, limitations, or exclusions except where policy provisions are established by law or regulations binding upon either of the parties hereto or the underwriter on any such policies.
- G. Owner reserves the right to review the insurance requirements set forth during the effective period of this Contract and to make reasonable adjustments to insurance coverage, limits, and exclusions when deemed necessary and prudent by Owner based upon changes in statutory law, court decisions, the claims history of the industry or financial condition of the insurance company as well as Contractor.
- H. Contractor and subcontractors shall not cause any required insurance to be canceled nor permit any insurance to lapse during the term of the Contract or as required in the Contract Documents.
- I. Contractor and subcontractors shall be responsible for premiums, deductibles and self-insured retentions, if any, stated in policies. All deductibles or self-insured retentions shall be disclosed on the Certificate of Insurance.
- J. Contractor shall provide Owner thirty (30) days written notice of erosion of the aggregate limits below occurrence limits for all applicable coverages indicated within the Contract.
- K. If Owner owned property is being transported or stored off-site by Contractor, then the appropriate property policy will be endorsed for transit and storage in an amount sufficient to protect Owner's property.
- L. The insurance coverages required under this Contract are required minimums and are not intended to limit the responsibility or liability of Contractor, or to prevent

Contractor from maintaining greater coverage, or from requiring greater coverage from its subcontractors, should Contractor so choose.

- M. Contractor and each subcontractor shall use a Certificate of Insurance form provided or approved by Owner.
- N. If the Owner is damaged by the failure or neglect of the Contractor or a subcontractor to purchase or maintain insurance as required by the Contract Documents, then the Contractor shall bear all costs attributable to or resulting from such failure, and shall be liable to Owner for any loss or liability that Owner sustains as a result of such failure or neglect. This obligation shall survive termination or completion of the Contract as to any failure or neglect to obtain or maintain insurance during the period required by the Contract Documents.

### 10.3 BUSINESS AUTOMOBILE LIABILITY INSURANCE.

- A. Provide coverage for all owned, non-owned and hired vehicles. The policy shall contain the following endorsements in favor of Owner:
  - 1. Waiver of Subrogation endorsement in favor of Owner;
  - 2. 30 day Notice of Cancellation endorsement; and
  - 3. Additional Insured endorsement naming Owner as an additional insured.
- B. Provide coverage with a minimum combined single limit of \$1,000,000 per occurrence for bodily injury and property damage. Alternate acceptable limits are \$500,000 bodily injury per person, \$1,000,000 bodily injury per accident and at least \$250,000 property damage liability each accident.

### 10.4 WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE

- A. Coverage shall be consistent with statutory benefits outlined in the Texas Workers' Compensation Act (Title 5, Subtitle A, Texas Labor Code). Contractor shall assure compliance with this Statute by submitting two (2) copies of a standard certificate of coverage (e.g. ACCORD form) to Owner for every person providing services on the Project as acceptable proof of coverage. The Owner's Certificate of Insurance No. 104 must be presented as evidence of coverage for Contractor. Workers' Compensation Insurance coverage written by the Texas Mutual Insurance Company (f/k/a Texas Workers Compensation Insurance Fund) is acceptable to Owner. Contractor's policy shall apply to the State of Texas and include these endorsements in favor of Owner:
  - 1. Waiver of Subrogation in favor of Owner; and
  - 2. 30 day Notice of Cancellation.

- B. The minimum policy limits for Employers' Liability Insurance coverage shall be \$500,000 bodily injury each accident, \$500,000 bodily injury by disease policy limit and \$500,000 bodily injury by disease each employee.
- C. Definitions:
1. Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Department of Insurance ("TDI"), or a coverage agreement (DWC-81, DWC-82, DWC-83, or DWC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.
  2. Duration of the Project - includes the time from the beginning of the Work on the Project until the Project has been finally completed and accepted by Owner and any warranty period has terminated.
  3. Persons providing services on the Project ("subcontractor" in §406.096 of the Texas Labor Code) - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the Project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to the Project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.
- D. Workers' Compensation policies shall include waivers of subrogation as against Owner, its officers, trustees and employees.
- E. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the Contractor providing services on the Project, for the duration of the Project.
- F. The Contractor must provide a certificate of coverage to Owner prior to being awarded the Contract.
- G. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage

period, file a new certificate of coverage with Owner showing that coverage has been extended prior to the expiration date of the coverage.

- H. The Contractor shall obtain from each person providing services on the Project, and provide to Owner:
  - 1. a certificate of coverage, prior to that person beginning work on the Project, so Owner will have on file certificates of coverage showing coverage for all persons providing services on the Project; and
  - 2. no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.
- I. The Contractor shall retain all required certificates of coverage for the duration of the Project and for one year thereafter.
- J. The Contractor shall notify Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
- K. The Contractor shall post on each Project site a notice, in the text, form and manner prescribed by the TDI, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage. The required posting is set out below in Article 18.
- L. The Contractor shall contractually require each person with whom it contracts to provide services on the Project, to:
  - 1. provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of the Texas Labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;
  - 2. provide to the Contractor, prior to that person beginning work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
  - 3. provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

4. obtain from each other person with whom it contracts, and provide to the Contractor: (a) a certificate of coverage, prior to the other person beginning work on the Project; and (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown the current certificate of coverage ends during the duration of the Project;
  5. retain all required certificates of coverage on file for the duration of the Project and for one year thereafter;
  6. notify Owner in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and
  7. contractually require each person with whom it contracts to perform as required by items 1–6 of this Subsection 10.4.L, with the certificates of coverage to be provided to the person for whom they are providing services.
- M. By signing this Contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to Owner that all employees of the Contractor who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the TDI's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- N. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles Owner to pursue the rights and remedies set forth herein (including the right to declare the Contract void) if the Contractor does not remedy the breach within ten days after receipt of notice of breach from Owner.

#### 10.5 COMMERCIAL GENERAL LIABILITY INSURANCE.

- A. The Policy shall contain the following provisions:
1. Contractual liability coverage for liability assumed under the Contract and all contracts relative to the Project.
  2. Products/Completed Operations coverage for the duration of the warranty period.
  3. Contractors/Subcontractors Work coverage.



4. Aggregate limits of insurance per project endorsement.
  5. Additional Insured Endorsement naming Owner as an additional insured. Such coverage shall provide for Owner to be covered against claims arising out of construction operations and completed operations without further restriction and such coverage shall be endorsed to be primary and non-contributory insurance coverage to Owner.
  6. 30 day notice of cancellation, nonrenewal or substantial modification in favor of Owner.
  7. Waiver of Transfer of Recovery Against Others in favor of Owner.
- B. Provide coverage with a minimum combined bodily injury and property damage per occurrence limit of \$2,000,000, and a general aggregate limit of \$4,000,000, products/completed operations aggregate limit of \$4,000,000, and Personal and Advertising Injury limit of \$2,000,000. The policy shall be amended so that the completed operations/products aggregate shall apply on a per project basis.

#### 10.6 BUILDERS' RISK INSURANCE

- A. Contractor shall maintain Builders' Risk Insurance or Installation Insurance on an all risk physical loss form in the Contract Amount. Owner shall be a loss payee on the policy. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored. At Owner's election, such coverage shall continue in effect until the Work is accepted by Owner even if the Project is occupied and put to its intended use prior to such acceptance.

#### 10.7 HAZARDOUS MATERIALS INSURANCE

- A. For projects which include lead abatement instead of asbestos abatement, substitute "lead" for "asbestos" in the following paragraphs. For projects which include lead and asbestos abatement, change the word "asbestos" in the following paragraphs to read "lead and asbestos."
- B. For Work which involves asbestos or any hazardous materials or pollution defined as asbestos, Contractor or subcontractor responsible for the Work shall comply with the following insurance requirements in addition to those specified above:
1. Provide an asbestos abatement endorsement to the Commercial General Liability policy with minimum bodily injury and property damage limits of \$1,000,000 per occurrence and products/completed operations coverage with a separate aggregate of \$1,000,000. This policy shall not exclude asbestos or any hazardous materials or pollution defined as asbestos, and shall provide "occurrence" coverage without a sunset clause. The policy shall provide 30

day Notice of Cancellation and Waiver of Subrogation endorsements in favor of Owner.

2. Contractor or subcontractor responsible for transporting asbestos or any hazardous materials defined as asbestos shall provide pollution coverage as required by law and the Contract Documents. Federal law requires interstate or intrastate transporters of asbestos to provide an MCS 90 endorsement with a \$5,000,000 limit when transporting asbestos in bulk in conveyances of gross vehicle weight rating of 10,000 pounds or more. Interstate transporters of asbestos in non-bulk in conveyances of gross vehicle weight rating of 10,000 pounds or more must provide an MCS 90 endorsement with a \$1,000,000 limit. The terms "conveyance" and "bulk" are defined by Title 49 CFR 171.8. All other transporters of asbestos shall provide either an MCS 90 endorsement with minimum limits of \$1,000,000 or an endorsement to their Commercial General Liability Insurance policy which provides coverage for bodily injury and property damage arising out of the transportation of asbestos. The endorsement shall, at a minimum, provide a \$1,000,000 limit of liability and cover events caused by the hazardous properties of airborne asbestos arising from fire, wind, hail, lightening, overturn of conveyance, collision with other vehicles or objects, and loading and unloading of conveyances.
3. Contractor shall submit complete copies of the policy providing pollution liability coverage to Owner.

#### 10.8 PROFESSIONAL LIABILITY INSURANCE

- A. For Work or services which require professional engineering or professional survey services to meet the requirements of the Contract, including but not limited to trench safety systems, traffic control plans, and construction surveying, abatement plans, the Contractor or subcontractors responsible for performing the professional services shall provide Professional Liability Insurance with a minimum limit of \$1,000,000 per claim and in the aggregate to pay on behalf of the assured all sums which the assured shall become legally obligated to pay as damages by reason of any negligent act, error, or omission committed with respect to all professional services provided in due course of the Work of this Contract.
- B. The policy shall include a 30 day Notice of Cancellation endorsement in favor of Owner and shall be occurrence based. If the policy is claims made, the retroactive date shall coincide with the date of this Contract. The Certificate of Insurance shall state that this coverage is claims made and shall give the retroactive date. Coverage shall be continuous or contain an extended reporting period for not less than 12 months beyond the expiration of the warranty period.

10.9 BONDS

- A. Prior to commencement of Work hereunder, Contractor will (if the Contract amount exceeds \$25,000.00) provide a Performance Bond and a Payment Bond, each in the penal amount of 100% of the Contract Amount, conditioned that Contractor will faithfully perform all Contractor's undertakings in this Contract and will fully pay all persons furnishing labor and material in the prosecution of the Work provided for in this Contract. Such Performance Bond and Payment Bond shall be on forms supplied by Owner, issued by a corporate Surety licensed to do business in Texas that is listed on the U.S. Treasury list of approved sureties as provided in Subsection 10.9 B. If any surety upon any bond becomes insolvent, is in receivership, is unable to perform its obligations, or otherwise ceases to do business in this State, the Contractor shall promptly furnish Owner with substitute bonds or equivalent security satisfactory to Owner to protect the interests of Owner and of persons furnishing labor and materials in the prosecution of the Work.
  
- B. All bonds furnished by Contractor must comply with Chapter 2253, Texas Government Code, including the requirement that such bonds must be executed by a corporate surety licensed to do business in Texas in accordance with Article 7.19-1, Texas Insurance Code. Such bonds shall be on forms supplied or approved by Owner. Surety shall be listed as an approved surety by the U. S. Treasury Department, if the bond amount is \$400,000 or more or as required by Owner in accordance with applicable law. If any surety on any bond becomes insolvent or is unable to perform its obligations thereunder, the Contractor shall immediately furnish replacement bonds or equivalent security acceptable to Owner to protect the interests of Owner and persons furnishing labor and materials to the Project.

10.10 ADDITIONAL BOND REQUIREMENTS IF CONTRACT AMOUNT IS NOT ESTABLISHED WHEN CONTRACT IS SIGNED

- A. If a fixed Contract Amount or Guaranteed Maximum Price has not been determined at the time the Contract is signed by the Contractor, the penal sums of the Performance and Payment Bonds delivered to Owner must each be in an amount equal to the Estimated Project Budget, as specified for each project in the Owner's Solicitation Documents. The Contractor shall deliver the bonds to Owner not later than the 5<sup>th</sup> day after the date the Contractor executes the Contract, unless Owner expressly agrees in writing to accept from the Contractor a bid bond, proposal bond or other financial security acceptable to Owner to ensure that the Contractor will furnish the required Performance and Payment Bonds at the time the Contract Amount or Guaranteed Maximum Price is established.
  
- B. If Owner agrees to accept a bid bond, proposal bond or other financial security in lieu of Payment and Performance bonds in connection with Contractor's execution of the Contract, then Contractor must provide Payment and Performance Bonds at the same time Contractor executes and delivers to Owner an amendment to the Contract furnished by Owner establishing a Guaranteed Maximum Price for, as applicable, (i) the first phase of the Work described in such amendment, if the Project will be performed in two or more phases, or (ii) the final Guaranteed Maximum Price for the

Work described in such amendment, if the Project is not phased. The Payment and Performance Bonds must each be in the amount of 100% of the Contract Amount or Guaranteed Maximum Price as established in such amendment, or the Estimated Project Construction Budget, as specified in the Agreement, whichever is greater. If Payment and Performance Bonds are provided by Contractor before the final Guaranteed Maximum Price is established, Contractor will, as necessary, provide Owner with endorsements or replacement bonds so that the penal amount of each Bond is equal to 100% of the final Guaranteed Maximum Price, within 5 days after the final Guaranteed Maximum Price is agreed to by Owner and Contractor, as evidenced by the execution of an amendment to the Contract establishing the final Guaranteed Maximum Price.

#### 10.11 WAIVER OF SUBROGATION

- A. Contractor and Owner waive all rights of recovery against the other party and such party's employees, officers, agents and Board members, for damages resulting from fire, or other causes of loss, but only to the extent the damages are covered by insurance proceeds actually received and applied to the payment of such damages, from insurance coverage required to be maintained under this Contract or other insurance coverage which is available to respond to such loss. Nothing in this provision will be deemed to waive any party's right to insurance proceeds.

### 11. **Article 11. INSPECTIONS, TESTS AND CORRECTION OF WORK**

#### 11.1 TIMES AND PLACES

- A. Except as otherwise provided in this Contract, inspection and test by Owner of material and workmanship required by this Contract shall be made at reasonable times and at the site of the Work, unless the Owner upon consultation with the Architect/Engineer determines that such inspection or test of material which is to be incorporated in the Work shall be made at the place of production, manufacture, or shipment of such.

#### 11.2 CONTINUING RESPONSIBILITY

- A. Except as otherwise specified by the Owner upon advice of the Architect/Engineer at the time of determining to make an inspection or test, no inspection or test shall relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance, nor in any way affect the continuing rights of Owner after acceptance of the completed Work.

#### 11.3 INSPECTIONS AND TESTING

- A. All inspections and tests which may be required by the building codes and ordinances of the city where the Project site is located, or if in no city, the closest city, will be performed in conformance with applicable law, at Contractor's expense (except as

otherwise provided by applicable law), whether or not the Project site is within the corporate limits of that city.

- B. By law, Owner is required to provide or contract separately with a third party to provide for the construction materials engineering, testing, and inspection services and the verification testing services necessary for acceptance of the Work by Owner. Contractor shall not include costs for these services in the Cost of the Work.

#### 11.4 REJECTED MATERIAL OR WORK

- A. The Contractor shall, without charge, promptly replace any material or correct any workmanship found by Owner or Architect/Engineer not to conform to the Contract requirements, unless in the public interest Owner consents to accept such material or workmanship with an appropriate adjustment in Contract Amount. The Contractor shall promptly segregate and remove rejected material from the premises.
- B. The Contractor will be charged with the additional cost of any test or inspection of the replaced material or corrected workmanship.
- C. If the Contractor does not promptly replace rejected material or correct rejected workmanship, it shall be a material default under the Contract and Owner may (1) notwithstanding any provision of Section 13.3.A to the contrary, by contract or otherwise, immediately commence to replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) pursue its rights and remedies under the Contract in accordance with Article 13.

#### 11.5 COOPERATION

- A. The Contractor shall furnish promptly, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Architect/Engineer. All inspections and tests by Owner shall be performed promptly. Special, full-size, and performance tests shall be performed as described in this Contract. The Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.

## 11.6 COVERED WORK

- A. Should it be considered necessary or advisable by Owner at any time before acceptance of the entire Work to make an examination of Work already completed, by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor and material. If such Work shall have been covered without the approval of the Architect/Engineer, or if such Work is found to be defective or nonconforming in any material respect due to the fault of the Contractor, subcontractors or anyone furnishing labor or materials under this Contract, Contractor shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such Work is found to meet the requirements of the Contract, an equitable adjustment shall be made in the Contract Amount to compensate the Contractor for the additional services involved in such examination and reconstruction and, if completion of the Work has been delayed thereby, Contractor shall, in addition, be granted a suitable extension of time.

## Article 12. MISCELLANEOUS PROVISIONS

### 12.1 THIRD PARTIES

- A. All provisions of this Contract shall be binding upon and inure to the benefit of Owner, Contractor and their respective successors and assigns, but Contractor shall not assign this Contract in whole or in part, nor assign any monies due or to become due hereunder, without in each case the prior written consent of Owner. No provision of this Contract shall inure to the benefit of any third party that is neither an approved assignee nor a successor of Owner or of the Contractor.

### 12.2 BANKRUPTCY

- A. It is recognized that (i) if any order for relief is entered on behalf of or against the Contractor pursuant to Title 11 of the United States Code, (ii) if any other similar order is entered under any other debtor relief laws, (iii) if the Contractor makes a general assignment for the benefit of its creditors, or (iv) if a receiver is appointed for the benefit of creditors, or (v) if a receiver is appointed on account of its insolvency, any such event could impair or frustrate the Contractor's performance of the Contract Documents. Accordingly, it is agreed that upon the occurrence of any such event, the Owner, in addition to other rights and remedies hereunder, shall be entitled to request the Contractor or its successor in interest to provide adequate assurance of future performance in accordance with the terms and conditions of the Contract Documents. Failure to comply with such request within ten (10) days after delivery of the request shall entitle the Owner to terminate the Contract or Contractor's right to perform thereunder, to make demand on the Surety to perform the Contractor's obligations, and to any other enforceable rights set forth in the Contract Documents.
- B. In all events, pending receipt of adequate assurance of performance and actual performance in accordance therewith, the Owner shall be entitled to make demand on

the Surety or proceed with the Work with its own forces or with other contractors on a time and materials or other appropriate basis, the cost of which will be backcharged against the Contract Amount. If such costs and damages exceed the unpaid balance, the Contractor shall be obligated to 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/Engineer, upon application, and this obligation for payment shall survive termination of the Contract. To the extent the costs of completing the Work, including compensation for additional professional services (including but not limited to attorney's fees) and expenses, exceed those costs which would have been payable to the Contractor to complete the work except for the Contractor's default, the Contractor will pay the difference to the Owner, subject to any rights of the Surety, if the Surety performs Contractor's obligations, and this obligation for payment shall survive termination or completion of the Contract Documents. Such costs incurred by the Owner will be determined by the Owner and confirmed by the Architect/Engineer.

- C. Any provision in this Section 12.2 regarding the obligations of Contractor for the payment of amounts or the performance of obligations is subject to Contractor's rights under Federal law and nothing in this Section is intended to constitute an assertion of a debt in violation of any such rights.

### 12.3 NONWAIVER OF DEFAULT

- A. Any failure by Owner at any time, or from time to time, to require strict compliance with or to enforce any of the terms or conditions of this Contract shall not constitute a waiver of any such terms or conditions nor shall it affect or impair Owner's ability to require strict compliance with such terms or conditions in the future, or the right of Owner at any time to avail itself of such remedies as it may have for any breach or breaches of any such term or condition. An express waiver by Owner of any specific act of nonperformance or default shall not constitute a waiver of any subsequent acts of nonperformance or default.

### 12.4 SEVERABILITY

- A. If any provision of the Contract shall be determined to be invalid, unlawful or unenforceable, this Contract shall be reformed to the greatest extent necessary to make the offending provision valid and enforceable, or if this offending provision cannot be modified so as to be valid and enforceable, this Contract shall be reformed so as to exclude the offending provision from this Contract if it can be done without destroying the benefit of the bargain between the parties. As so reformed, the Contract shall be binding upon and enforceable by both Owner and the Contractor. No additional consideration shall be due to either party by reason of any such reformation.

### 12.5 CONSTRUCTION

- A. The Contract Documents shall not be construed more or less favorably between the parties by reason of authority or origin of language.

### **13. Article 13. TERMINATION OR SUSPENSION OF THE CONTRACT**

#### **13.1 SUSPENSION OF THE WORK FOR OWNER'S CONVENIENCE**

- A. Owner or the Architect/Engineer may order the Contractor in writing to suspend, delay or interrupt all or any part of the Work for such period of time as it may determine to be appropriate for the convenience of Owner.
- B. If the performance of all or any part of the Work is suspended by Owner for its convenience, through no fault of Contractor and for reasons other than an event of Force Majeure, by an act of a Contracting Officer in the administration of this Contract, for a cumulative period of time of more than 60 days during the term of this Contract, then Contractor shall be entitled to an equitable adjustment to the Contract Time and/or for any increase in the cost of performance of this Contract (excluding profit) necessarily caused by a suspension which is in excess of the 60 days herein provided, and the Contract modified in writing accordingly by Change Order.
- C. However, no adjustment shall be made under this clause for any suspension to the extent (1) that performance would have been suspended, delayed or interrupted by any other cause, including the fault or negligence of the Contractor, or (2) for which an equitable adjustment is provided for or excluded under any other provision of this Contract.

#### **13.2 RESPONSIBILITY FOR COMPLETION**

- A. The Contractor shall furnish such manpower, materials, facilities and equipment and shall work such hours, including night shifts, overtime operation and Sundays and holidays, as may be necessary to insure the progress of the Work in accordance with the approved Construction Schedule and the completion of the Work within the Contract Time. If Work falls behind the currently updated and approved Construction Schedule and it becomes apparent from the current schedule that the Work will not be completed within the Contract Time, the Contractor agrees that the Contractor will take some or all of the following actions as deemed necessary by the Owner to substantially eliminate the backlog of work and complete the Project within the Contract Time:
  - 1. Increase manpower in such quantities and crafts as will substantially eliminate, in the opinion of the Owner, the backlog of work;
  - 2. Increase the number of working hours per shift, shifts per working day, working days per week, or the amount of equipment, or any combination or the foregoing sufficient to substantially eliminate, in the opinion of the Owner, the backlog of work; and



3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- B. The Owner may require the Contractor to submit a recovery schedule demonstrating the Contractor's program and proposed plan to make up the lag in scheduled progress and to ensure completion of the Work within the Contract Time. If the Owner and Architect/Engineer find the proposed plan not acceptable, they 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 Owner may require the Contractor to take any or all of the actions set forth in Section 13.2.A to make up the lag in scheduled progress.
  - C. Failure of the Contractor to substantially comply with the requirements of this Section 13.2 may be considered grounds for a determination by the Owner, that the Contractor is failing to prosecute the Work with sufficient diligence to ensure its completion within the Contract Time as required by Section 3.1.A.
  - D. If Contractor's failure to meet the time periods provided in the approved Construction Schedule or other delay in the performance of the Work is due to Contractor's unexcused delay, the Contractor shall perform the services required by this Section 13.2 at no additional cost to Owner. If Owner determines that the failure or delay is due in part to Contractor's unexcused delay and in part to other causes which are not the fault of Contractor or for which Contractor is not responsible, the additional costs attributable to the acceleration of the Work required under this Section 13.2 shall be equitably allocated between Contractor and the Owner, provided however, that nothing in this provision is intended to waive or limit Owner's right to pursue claims against any third party for the additional cost of the Work allocated to Owner.
  - E. Any provision in the Contract Documents to the contrary notwithstanding, in the event Contractor would be entitled to an extension of time under the provisions of the Contract, Owner shall have the right, instead of awarding additional time, to require Contractor to accelerate the Work, as provided in this Section, and Owner shall pay Contractor for the reasonable additional costs incurred by Contractor that are attributable to such acceleration, as provided by Change Order.

### 13.3 EVENTS OF DEFAULT

- A. Contractor will be in default under this Contract if Contractor fails to prosecute the Work diligently, in a timely manner and in accordance with the Contract Documents, or fails to timely comply with or perform any other obligation(s) under the terms of the Contract, and such default continues after Owner provides Contractor with written notice of default and opportunity to cure as herein provided. Unless a longer notice period is required by law, Owner shall give Contractor 10 days written notice and opportunity to cure. In the event of an emergency condition, where the Contractor's breach or the failure to cure the default presents an imminent threat to the safety of persons or property, Owner may exercise its rights and remedies under this Contract

if Contractor does not cure the default within 3 days after notice of default is given, including the right to perform the curative work, and to charge Contractor for the costs incurred by Owner.

- B. Owner will be in default under this Contract if Owner commits a default under the terms of this Contract, and fails to cure such default within ten days after written notice by Contract or within such longer time period as may be provided by law. Provided, however, that if the default is one that cannot be reasonably cured within such time period, Owner shall not be deemed in default if Owner commences the cure within the stated notice period, and diligently pursues the cure to completion. The notice of default and time periods provided by this Section shall be in addition to any other notice and cure periods provided by the Contract Documents.
- C. Any provision in this Contract to the contrary notwithstanding, upon a default by Contractor, Owner shall have, in addition to any rights or remedies provided by the Contract Documents, all rights and remedies available at law or equity. All such rights and remedies are cumulative, and not exclusive, and may be exercised by Owner independently, concurrently or successively.
- D. Upon a default by Owner, Contractor will have the rights provided by law or equity, subject to the provisions of the Contract, including those set forth in Article 14.
- E. In the event either party files suit in connection with the Contract Documents or the Project, the prevailing party shall be entitled to Court costs and reasonable attorney's fees.

#### 13.4 TERMINATION FOR CONVENIENCE OF OWNER

- A. The performance of Work under this Contract may be terminated by Owner in whole, or from time to time in part, whenever Owner shall determine that such termination is in the best interest of Owner. Any such termination shall be effected by delivery to the Contractor of a written notice of termination ("Notice of Termination") specifying the extent to which performance of Work under the Contract is terminated and the date upon which such termination becomes effective.
- B. After receipt of a Notice of Termination, the Contractor shall cooperate fully with Owner in minimizing the cost to Owner of such termination and shall, as directed by a Contracting Officer, protect the Work accomplished and properties acquired for performance of the Work, terminate or cancel incomplete subcontracts and purchase orders, and dispose of surplus materials and other properties.
- C. In the event of such a termination, the Contract Amount shall be equitably adjusted to a sum which shall fairly compensate the Contractor for all Work completed and for all costs incurred (net of salvage) in part performance of the incomplete portions of the Work and for all costs incurred in connection with the termination, but exclusive of

profit on the incomplete portions of the Work. In no event shall such sum be less than the portion of the Contract Amount allotted to the completed portion of the Work.

- D. No amount shall be allowed the Contractor hereunder unless, within ninety-one days after all compensable costs of Contractor shall have become liquidated and determinable, and not thereafter, Contractor shall submit in writing to the Executive Director of Construction Management Contractor's claim in the amount stated with such supporting particulars as the Executive Director of Construction Management may request.

### 13.5 TERMINATION FOR CONTRACTOR'S DEFAULT

- A. If the Contractor is in default under this Contract, and the default has extended beyond the cure period provided in this Contract, then Owner may, by written notice to the Contractor and without notice to Contractor's Surety, terminate this Contract or terminate Contractor's right to proceed with the Work under the Contract. In such event Owner may take over the Work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completing the Work such materials, equipment, machinery, tools, and supplies as may be on the site of the Work and necessary therefore. Owner may also make demand on the Surety to perform Contractor's obligations under the Contract. Whether or not the Contractor's right to proceed with the Work is terminated, Contractor and Contractor's Surety shall remain liable for any damage to Owner resulting from Contractor's refusal or failure to complete the Work within the specified time.
- B. If Owner should so terminate the Contractor's right to proceed, or the Contract, the resulting damages recoverable by Owner will include liquidated damages for delay as may be specified in the Agreement or other Contract Documents until Substantial Completion of the Work, together with any increased cost or expenses incurred by Owner in so completing the Work or curing the default.
- C. If, after notice of termination of the Contract or Contractor's right to proceed under the provisions of this Section 13.5, it is determined for any reason that the Contractor was not in default under the provisions of the Contract, or that the delay was excusable under the provisions of Article 7 hereof, the rights and obligations of the parties shall be the same as if the Notice of Termination had been issued pursuant to Article 13 concerning termination for the convenience of Owner.

## 14. **Article 14. ADMINISTRATIVE PROCEDURE FOR CONTRACTOR CLAIMS**

### 14.1 ADMINISTRATIVE PROCEDURE FOR RESOLUTION OF CLAIMS

- A. No claim by the Contractor for additional time or for additional compensation (including damages) shall be allowed unless it is timely presented to Owner and Architect/Engineer in writing, together with appropriate detailed supporting

documentation, as provided by the terms of the Contract Documents and the provisions of this Article 14.

- B. Contractor must notify Owner and Architect/Engineer of its claim in writing (a) within 21 days (or such later period as may be required by law) after occurrence of the event giving rise to a claim or (b) within 21 days (or such later period as may be required by law) after the Contractor first recognizes, or should have recognized, the condition giving rise to the claim, whichever is later. Within 20 days of submitting a claim, Contractor must provide complete and detailed documentation concerning the nature and amount of the claim, to the extent that such information is reasonably available. Failure to comply with the requirements of this Subsection 14.01.B constitutes a waiver of Contractor's claim.
- C. Any claim by the Contractor for additional time or for additional compensation shall be presented by Contractor to Owner first as a request for a Change order to adjust the Contract Time and/or Contract Amount as provided in Article 6, and shall be approved or rejected by the Executive Director of Construction Management.
- D. If the Executive Director of Construction Management should reject a claim of the Contractor so presented, or if he should fail to approve it within sixty days after presentment by Contractor to the Executive Director of all required information and supporting documentation, the Contractor may appeal in writing to the Board of Trustees of AISD. The Decision of the Executive Director of Construction Management shall be final and binding unless the Contractor takes such an appeal within twenty days after the date of the decision by the Executive Director of Construction Management. Contractor shall comply with the terms of any written appeal procedure established by Owner.
- E. If the Board of Trustees of AISD should reject the Contractor's claim, or if the Board of Trustees should reject the Contractor's claim within ninety days after it is timely filed with the Board as specified in Subsection 14.01.D, the Contractor's administrative remedy under this Contract shall be deemed to be exhausted.
- F. No suit shall be brought by the Contractor upon this Contract, or for breach of this Contract, until the administrative remedy set forth herein shall have been exhausted, nor more than two years after exhaustion of the administrative remedy. In addition, the Contractor agrees to mediate any such claim with Owner, in good faith, prior to filing suit against Owner in connection with such matters.
- G. During the pendency of any claim, the Contractor shall proceed diligently with the work as directed by the Executive Director of Construction Management.
- H. This Contract shall be construed in accordance with the laws of the State of Texas, and venue for any case or controversy arising under or pursuant to this Contract or in connection therewith, shall lie in courts of competent jurisdiction in Travis County, Texas, and in the federal courts of Austin, Texas.

**15. Article 15. PARTIAL USE OR OCCUPANCY**

- A. The Owner shall have the right to use and occupy spaces or systems and other portions of the Work prior to completion and acceptance of all the Work (including occupancy by a tenant, operator or anyone else occupying or using the Project with the Owner's consent, or to install furnishings and equipment). In addition, the Owner shall have the right to accept and operate Project systems in advance of Substantial Completion.
- B. If the Owner desires to exercise its right of partial occupancy or use as provided herein, the Contractor shall cooperate with the Owner in making available for the Owner's use building services such as heating, ventilating, cooling, water, lighting, power, elevator and telephone for the proposed use and health, safety and comfort of the users or occupants of the space or spaces and other parties present on or entering or leaving the site. If the equipment required to furnish such services is not entirely completed at the time the Owner desires to use or occupy aforesaid space or spaces, the Contractor shall make every reasonable effort to complete the same as soon as possible so that the necessary equipment can be put into operation and use.
- C. Mutually acceptable arrangements shall be made between the Owner and Contractor for procedures, terms, and conditions governing the operation and maintenance of such services and facilities as may be utilized for the benefit of the Owner prior to Substantial Completion. The Owner will assume the proportionate and reasonable responsibility for operation and cost of the systems, equipment and/or utilities required to provide such services.
- D. The Owner's early occupancy or use of any portion of the Work as described in this Article 15 shall not constitute the Owner's acceptance of any Work, materials or equipment which are not in conformity with the requirements of the Contract Documents, nor relieve the Contractor from its obligations to complete the Work, or its responsibility for loss or damage due to or arising out of defects in, or malfunctioning of systems, equipment, material or any element of the Work, or from any unfulfilled obligations or responsibilities under the Contract Documents.
- E. The Contractor shall make no claim for delay or extension of the Contract Time or for damages of any kind arising directly or indirectly out of the exercise by the Owner of the rights reserved under this Article 15.

**16. Article 16. TAXES**

- A. The Contract Amount shall be deemed to include all taxes payable in connection with the Work.
- B. Owner is a tax exempt entity and Contractor shall take all steps required by applicable law to purchase materials, equipment and services free from sales and other taxes in accordance with law, including compliance with procedures established by the Texas

Comptroller. If Contractor fails to obtain such tax exemption on any materials and equipment, Contractor shall notify Architect/Engineer and Owner shall not be obligated to pay the amount of such taxes as part of the Cost of the Work.

- C. Unless otherwise provided by applicable law, the following items are exempt from tax in connection with this Contract:
1. The purchase of personal property, (including machinery or equipment and its accessories and repair and replacement parts) for use in the performance of a Contract for an improvement to realty if the personal property is incorporated into realty in the performance of the Contract;
  2. The purchase of property, other than machinery or equipment and its accessories and repair and replacement parts, for use in the performance of a contract for an improvement to realty if the personal property is (a) necessary and essential for the performance of the contract and (b) completely consumed at the job site. Personal property is completely consumed if after being used once for its intended purpose, it is used up or destroyed. Personal property that is rented or leased for use in the performance of the Contract is not deemed to be completely consumed.
  3. The purchase of a taxable service for use in the performance of a contract for an improvement to realty if the service is performed at the job site, and if (a) the Contract expressly requires the specific service to be performed or (b) the service is integral to the performance of the contract.

## **17. Article 17. NOTICE TO PARTIES**

- A. Unless otherwise provided in the Agreement, notice given under this Contract shall be in writing, and shall be deemed delivered upon deposit in the U. S. Mail (whether or not actually received) if addressed to the recipient at the address for notice set forth in the Contract Documents, and sent by registered or certified mail return receipt requested, postage prepaid, with copy sent concurrently by facsimile. Notice given in any other manner shall be deemed delivered if and when actually received. Contractor or Owner may change its address for notice by providing the other party with written notice of the change of address for notice given in the manner provided by Article 17. Such change of address shall be effective 14 days after delivery of the notice.

## **18. Article 18. NOTICES REQUIRED TO BE POSTED AT PROJECT SITE**

### **18.01 JOB SITE POSTINGS**

- A. Contractor shall post at the Project site in both English and Spanish, in a conspicuous place, any notices required by law to be posted there, and any notices required by the Owner in writing to be posted there, including the Notice of Prevailing Wage Rates, Important Information Notice regarding Owner contact for wage disputes or questions,

Contractor's Notice regarding pledge of Equal Opportunity Employment and the following notices:

1. Workers' Compensation Notice

Contractor must post at Project site. This notice must be printed with a title in at least 30 point bold type and text in at least 19 point normal type, and shall be in both English and Spanish and any other language common to Contractor's employee population.

NOTICE OF REQUIRED WORKERS' COMPENSATION COVERAGE

**REQUIRED WORKERS' COMPENSATION COVERAGE**

The law requires that each person working on this site or providing services related to this construction project must be covered by workers' compensation insurance. This includes persons providing, hauling, or delivering equipment or materials, or providing labor or transportation or other service related to the project, regardless of the identity of their employer or status as an employee.

Call the Division of Workers' Compensation at 512-804-4345 to receive information on the legal requirement for coverage, to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage.

**COBERTURA REQUERIDA DE COMPENSACIÓN PARA TRABAJADORES**

La ley requiere que cada persona que trabaja en este lugar o que proporciona servicios relacionados con este proyecto de construcción debe estar cubierta por un seguro de compensación para trabajadores. Esto incluye a personas que proporcionan, transportan, o entregan equipo o materiales, o que proporcionan mano de obra, u otros servicios relacionados con este proyecto, sin importar la identidad del empleador o el estado como empleado.

Comuníquese con la División de Compensación para Trabajadores al teléfono 512-804-4345 para recibir información referente a los requerimientos legales de cobertura, para verificar si su empleador ha proporcionado la cobertura requerida, o para reportar a un empleador que no proporciona cobertura.

2. Notice of AISD School Safety Rules

AISD SCHOOL SAFETY RULES

(CONTRACTOR MUST POST AT PROJECT SITE WHERE SCHOOL ACTIVITIES ARE  
BEING CONDUCTED)

The following School Safety Rules must be followed at all times:

1. When work is performed at a Project site in which school activities are being conducted, the Contractor, Subcontractors and all persons working at the Project site must take special care to protect the safety and welfare of the students, teachers, employees, and visitors at the school.
2. Work must be performed with as little disruption to the learning environment and school activities as possible.
3. When Work is to be performed at a Project site where school activities are being conducted, it is expressly understood and agreed that Contractor's and any subcontractor's employees and other persons performing Work at the Project site shall not engage in any inappropriate interaction of any nature whatsoever with students, teachers, employees and visitors at the school, including talking, touching, staring, or in any way contributing to a hostile or offensive environment. It is further expressly understood and agreed that there is to be no fraternization between Contractor's and any subcontractor's employees, and other persons performing Work at the site, and students, teachers, employees and visitors at the school. There shall be zero tolerance for violations of these provisions.
4. The possession or use of tobacco products, alcoholic beverages, illegal drugs, and firearms or weapons on AISD property is prohibited at all times, twenty-four hours a day. There shall be zero tolerance for violations of this provision.
5. All persons performing work at the Project site must strictly observe:
  - school bus safety laws and requirements
  - speed limits in the vicinity of the Project site, including, school speed limits, and
  - any posted speed limits on the Project site established by AISD.
6. All persons performing Work at the Project site must use only the access to the site and facilities as are designated by AISD, and must comply with all other rules and requirements established by AISD for use or occupancy of the Project site.
7. AISD has the right to require the immediate removal from the Project site of any person performing work that violates these rules and to prohibit such person from being allowed to perform work at the Project site in the future.



## **REGLAS ESCOLARES DE SEGURIDAD DE AUSTIN ISD**

**(EL CONTRATISTA DEBE COLOCAR ESTA NOTIFICACIÓN EN UN LUGAR VISIBLE DEL SITIO DEL PROYECTO EN DONDE SE REALIZAN ACTIVIDADES ESCOLARES.)**

Se deben seguir las siguientes Reglas Escolares de Seguridad en todo momento.

1. Cuando se realice algún trabajo en un sitio en el cual se llevan a cabo actividades escolares, el Contratista, los Subcontratistas y todo el personal que labore en el sitio de trabajo deben tomar medidas especiales para proteger la seguridad y bienestar de los estudiantes, maestros, empleados y visitantes de la escuela.
2. El trabajo se debe realizar con la menor interrupción posible al ambiente de aprendizaje y a las actividades escolares.
3. Cuando el trabajo se hará en un sitio en donde se llevan a cabo actividades escolares, se entiende y se establece expresamente que los empleados de los contratistas y de los subcontratistas, además de otras personas realizando el trabajo en el sitio, no entablarán ninguna interacción inapropiada de naturaleza alguna con estudiantes, maestros, empleados y visitantes de la escuela, incluyendo hablar, tocar, ver fijamente o que de alguna manera contribuyan a un ambiente hostil u ofensivo. Asimismo se entiende expresamente y se está de acuerdo que no habrá relaciones amistosas y fraternales entre ninguno de los empleados de los contratistas y de los subcontratistas, ni entre ninguna otra persona que realiza el trabajo en el sitio, con estudiantes, maestros, empleados y visitantes a la escuela. Habrá cero tolerancia a la violación de estas provisiones.
4. Se prohíbe en todo momento la posesión o uso de productos de tabaco, bebidas alcohólicas, drogas ilegales y armas de fuego o de algún otro tipo, las 24 horas del día. Habrá cero tolerancia a la violación de esta provisión.
5. Todas las personas que realizan algún trabajo en el sitio deben acatar estrictamente lo siguiente:
  - las reglas y requisitos de seguridad de los autobuses escolares
  - la velocidad máxima en el área del sitio, incluyendo, los límites de velocidad escolar y
  - cualquier otro límite de velocidad establecido por Austin ISD en el sitio del proyecto
6. Todas las personas que realizan trabajos en el sitio del proyecto deben usar el acceso al sitio y a las instalaciones (demás edificios) según lo determine Austin ISD, y deberán apegarse a cualquier otra regla y requisito establecido por Austin ISD para el uso u ocupación del sitio del proyecto.

7. Austin ISD tiene el derecho de solicitar la remoción inmediata del sitio del proyecto de cualquier persona que realiza un trabajo y quien viola estas reglas, y de prohibir que a dicha persona se le permita realizar algún trabajo en el sitio del proyecto en el futuro.

**19. Article 19. PREVAILING WAGE RATES**

- A. Contractor and each subcontractor are responsible for complying with the applicable provisions of Chapter 2258 of the Texas Government Code regarding the payment of prevailing wage rates. Contractor and each subcontractor must pay wages to persons performing labor in connection with this Contract in an amount that is not less than the prevailing wage rates, including fringe benefits, for such workers applicable to the Project (as used herein, the term “worker” or “workers” includes laborers and mechanics).
- B. The prevailing wage rates applicable to the Project are set forth in the Notice of Prevailing Wage Rates for each of various classifications of construction workers. Pursuant to Chapter 2258 of the Texas Government Code, the Board of Trustees of AISD has ascertained and does specify that the general prevailing rate of per diem wages (for eight hours of work during regular working hours on a day not a Saturday or Sunday or holiday), in the locality in which the Work is to be performed is eight times the hourly base wage rate so listed for each respective craft or type of worker needed to execute the Contract and that the prevailing wage rate for legal holidays and overtime work (in excess of forty hours in such workweek) shall be not less than one and one-half times the hourly base wage rate.
- C. The Contractor shall pay, as a penalty to Owner, sixty dollars (\$60.00) for each worker employed for each calendar day or part of the day that such worker is paid less than the stipulated rate for any work done under this Contract by the Contractor or by any subcontractor under Contractor. Owner may withhold additional funds as appropriate when confronted with wage rate violations.

**PROPOSAL/BID BOND**

KNOW ALL BY THESE PRESENTS: that the undersigned Principal and Surety are firmly bound to Austin Independent School District ("AISD") in the principal sum of:

\_\_\_\_\_ Dollars (\$\_\_\_\_\_).

Now the condition of this bond is this: that, whereas the undersigned principal has submitted to AISD a proposal or bid to enter into a certain contract whereunder principal undertakes to perform the following-described work of construction, alteration or repair for AISD Project No. \_\_\_\_\_:

NOW, THEREFORE, if the principal shall, within ten (10) days following acceptance by the Board of Trustees of AISD of such proposal or bid and award by said Board to said principal of said contract, execute and return such further contract documents as may be required by the terms of the proposal or bid accepted, and within five (5) days after execution of such contract documents, deliver its safety program manual, the safety plan for the Project, and the bonds and insurance documents, as required by the terms of the proposal or bid accepted, then this obligation shall be null and void, otherwise it shall remain in full force and the amount hereof shall be paid to and retained by AISD as liquidated damages for principal's failure to do so.

Principal: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Surety: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

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**SECTION C**  
**SELF-PERFORMANCE EXPLANATION / JUSTIFICATION**

Please complete the following to identify the scope of work required to fulfill your firm's contractual obligations to AISD and justify your firm's intention to self-perform all of the necessary work and duties required by the scope of the Project.

IDENTIFY THE REQUIRED SCOPE OF WORK FOR THE PROJECT		EXPLAIN HOW YOUR FIRM WILL SELF-PERFORM THE REQUIRED SCOPE

Authorized

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Date: \_\_\_\_\_

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## **FELONY CONVICTION NOTICE FORM**

Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code §44.034.

### **FELONY CONVICTION NOTIFICATION**

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony".

Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract".

**THIS NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION**

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

VENDOR'S NAME:

\_\_\_\_\_  
AUTHORIZED COMPANY OFFICIAL'S NAME:

A. My firm is a publicly-held corporation, therefore, this reporting requirement is not applicable.

**Signature of Company Official:**

\_\_\_\_\_

B. My firm is not owned nor operated by anyone who has been convicted of a felony.

**Signature of Company Official:**

\_\_\_\_\_

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony.

Name of Felon(s):

\_\_\_\_\_

(Attach additional sheet if necessary)

Details of Conviction(s):

---

(attach additional sheet if necessary)

**Signature of Company Official:**

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## **SUSPENSION AND DEBARMENT CERTIFICATION**

Federal Law (A-102 Common Rule and OMB Circular A-110) prohibits non-federal entities from contracting with or making subawards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement contracts for goods or services equal to or in excess of \$25,000 and all nonprocurement transactions (e.g., subawards to subrecipients).

Contractors receiving individual awards of \$25,000 or more and all subrecipients must certify that their organization and its principals are not suspended or debarred by a federal agency.

Before an award of \$25,000 or more can be made by your firm, you must certify that your organization and its principals are not suspended or debarred by a federal agency.

I, the undersigned agent for the firm named below, certify that neither this firm nor its principals are suspended or debarred by a federal agency.

VENDOR'S NAME:

\_\_\_\_\_

Signature of Company Official: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Printed name of company official signing above:

\_\_\_\_\_

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**AISD PROJECT NO. \_\_\_\_\_**

**AGREEMENT FOR CONSTRUCTION CONTRACT**

This Agreement for Construction Contract (“Agreement”) is

between the Owner:

Austin Independent School District  
4000 S. IH 35 Frontage Road  
Austin, Texas 78704  
Attn: Executive Director, Contract and Procurement Services  
Phone: 512-414-2161

and the Contractor:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

for the following Project:

**WITNESSETH:**

Article 1. Statement of Work. Contractor shall furnish all materials, supplies, labor, services and equipment required for the following-described Work of construction, alteration or repair for the Project:

Such Work is more particularly described in the other Contract Documents incorporated in this Agreement.

Article 2. Contract Documents. This Agreement includes Owner's General Conditions of the Contract for Construction dated \_\_\_\_\_ ("General Conditions"), which is incorporated herein for all purposes, and the Contract Documents as defined therein. Capitalized terms used but not otherwise defined in this Agreement shall have the same meanings as designated in the General Conditions.

Article 3. Contract Time.

3.1 Contractor will commence the Work within 10 days after the date specified in the Notice to Proceed issued by Owner (such date specified in the Notice to Proceed called the "Commencement Date") and will substantially complete the Work by \_\_\_\_\_ ("Substantial Completion Date"). Contractor will finally complete the Work no later than 30 days thereafter, unless a different time for Final Completion is specified by Architect/Engineer in the Certificate of Substantial Completion.

3.2 Contractor shall not commence the Work until Contractor has provided Owner with (i) a Certificate of Insurance showing that the required insurance coverage is in place, (ii) the required Payment and Performance Bonds, (iii) Contractor's Safety Program Manual, and (iv) Contractor's Safety Plan, and Owner has approved the insurance and bonds and has reviewed the Safety Program Manual and Safety Plan. Any review or approval process is for the benefit of Owner only, and does not relieve the Contractor from its obligation to comply with the requirements of the Contract Documents.

3.3 As provided in the Solicitation Documents, Contractor had a period of 10 days from the date Contractor was notified of the award of Contract to execute this Agreement, and 5 days after the date the Agreement was signed by Contractor in which to provide the insurance, bonds, Safety Program Manual and Safety Plan required by the Contract Documents. If Contractor failed to sign this Agreement within the 10 day time period, and/or to submit any of the required documentation within the 5 day time period, then Owner shall not be required to extend the Substantial Completion Date and Owner has the right to treat each day beyond the 10 day deadline in which this Agreement was unsigned, and/or each day beyond the 5 day deadline in which one or more of the required documents had not been submitted, as a day of unexcused delay under the Agreement, which in some circumstances will have the effect of reducing the number of calendar days in the Contract Time in Section 3.1 hereof to complete the Work.

Article 4. Contract Amount. For performance of the Work, Owner will pay to Contractor a Contract Amount of \$ \_\_\_\_\_ computed as shown in the following Pricing Schedule, but subject to adjustment as provided in the Contract Documents:

**Pricing Schedule**

Base Bid: \$ \_\_\_\_\_

Alternates: \_\_\_\_\_

The Contract Amount includes the following Addenda:

No \_\_\_\_\_ Date Issued: \_\_\_\_\_ Pages: \_\_\_\_\_

Unit Prices for this Agreement are:

\_\_\_\_\_

Total: \$ \_\_\_\_\_

Article 5. Payments. Owner will make payments to the Contractor in accordance with the provisions set out in the General Conditions. Retainage shall be withheld by Owner as provided in the General Conditions.

Article 6. Bonds and Insurance. Contractor is required to provide Payment and Performance Bonds and Insurance prior to commencing Work, in accordance with the requirements set out in the General Conditions.

Article 7. Other Obligations. Contractor will comply with all requirements set forth in the other Contract Documents.

Article 8. Liquidated Damages. Owner shall have the right to assess liquidated damages in the amount of \$ \_\_\_\_\_ per day for each and every calendar day beyond the Substantial Completion Date that Contractor fails to achieve Substantial Completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by Owner, estimated at or before the time of executing this Agreement. Any amounts due hereunder shall be paid by Contractor within ten (10) days following notice from Owner of the amount due. When the Owner reasonably believes that Substantial Completion will be inexcusably delayed, the Owner shall be entitled, but not required to, withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

Article 9. Notice. All notices required to be given under this Agreement must be in writing. Any notice required or permitted to be given under this Agreement shall be deemed delivered upon deposit in the U. S. Mail, when sent by certified mail, return receipt requested, postage prepaid, correctly addressed to the party as set forth below with a copy sent to such party by e-mail on the date of deposit into the mail:

If to Owner: Austin Independent School District  
4000 S. IH 35 Frontage Road  
Austin, Texas 78704  
Attn: Executive Director, Contract & Procurement Services  
Telephone: (512) 414-2161

With copy to Architect/Engineer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_  
Email: \_\_\_\_\_

If to Contractor:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_  
Email: \_\_\_\_\_

Notice given in any other manner will be deemed delivered if and when actually received. Either party may change its address for notice by providing notice to the other party as provided herein. Such change of address will be effective 14 days after it is delivered.

Article 10. Prevailing Wage Rates. Contractor shall comply with the prevailing wage rate requirements set forth in Chapter 2258 of the Texas Government Code, and shall require subcontractors to comply with the applicable provisions of said law. For the duration of this Agreement, Contractor and each subcontractor shall pay not less than the prevailing wage rates, including fringe benefits, [set forth in the Notice of Prevailing Wage Rates.](#)

Article 11. Worker's Compensation Insurance. Pursuant to Section 406.096 of the Texas Labor Code, by execution of the Agreement, Contractor certifies to Owner that it has Worker's Compensation Insurance coverage for each employee of the Contractor employed on this Project. Contractor shall obtain from each subcontractor a certificate which certifies that the subcontractor

has Worker's Compensation insurance coverage for each employee of the subcontractor employed on this Project and shall promptly provide Owner with all such certificates.

Article 12. Miscellaneous. Contractor certifies that it is not a company identified on the Texas Comptroller's list of companies known to have contracts with, or provide services to, a foreign organization designated as a Foreign Terrorist Organization by the U.S. Secretary of State under federal law.

Article 13. Miscellaneous. Contractor certifies and verifies that neither Contractor and Contractor Companies will not boycott Israel during the term of this Agreement. For purposes of this Agreement, the term "boycott" shall mean and include terminating business activities or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory.

Executed by Contractor on the date set forth below, but to be effective as of the \_\_\_\_\_ **day of** \_\_\_\_\_, **20**\_\_, which date shall be filled in by Owner at the time it executes this Agreement.

OWNER:

AUSTIN INDEPENDENT SCHOOL DISTRICT

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

CONTRACTOR:

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



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**NOTICE OF PREVAILING WAGE RATES**  
**AISD PROJECT NO.: \_\_\_\_\_**

**INFORMATION REGARDING PREVAILING WAGE RATES COMPLIANCE**

1. Contractor and each subcontractor employed on the Project are responsible for complying with the Contract and the applicable provisions of Chapter 2258 of the Texas Government Code regarding the payment of prevailing wage rates.
2. **Contractor and each subcontractor employed on the Project are responsible for identifying any trade classifications and wage rates that are not listed on the prevailing wage rates and submit in writing upon execution of contract to the Executive Director of Construction Management Department at Austin Independent School District for approval and inclusion in the Project's prevailing wage rates.**
3. The Austin Independent School District shall assess, as a penalty, \$60.00 for each worker employed on the Project for each calendar day or part of the day that the worker is paid less than the wage rates stipulated for the Project, and withhold additional funds as appropriate when confronted with wage and benefit violations.
4. The Austin Independent School District has the right to request random samples of Contractor and subcontractor payrolls without warning.
5. The Austin Independent School District has the right to conduct random interviews of workers across various trades at the Project site with no warning.
6. This Notice, including the attached prevailing wage rates for the Project as published by the United States Department of Labor in accordance with the Davis-Bacon Act, and its subsequent amendments, shall be posted on the Project site and shall remain in effect for the duration of the Contract.

**PREVAILING WAGE RATES FOR THE PROJECT**

**The applicable prevailing wage rates for the Project are attached to this Notice.**

The following shall be applicable to prevailing wage rates for the Project for apprentices and helpers:

- An apprentice may be charged at less than the journeyman wage stated in the applicable prevailing wage rates for the Project only if the apprentice is employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Department of Labor, or if the apprentice is employed within his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable prevailing wage rates.
- Helpers are not separately classified on the applicable prevailing wage rates for the Project. Thus, Contractors and subcontractors should assume that each worker will be classified under one of the existing job classifications on the attached. Contractors and subcontractors should not assume that any helper will be paid less than the journeyman wage for the most relevant job classification.

**AVISO DE TARIFAS SALARIALES VIGENTES**  
**NÚM. DEL PROYECTO DEL AISD \_\_\_\_\_**

**INFORMACIÓN SOBRE EL CUMPLIMIENTO CON LAS TARIFAS SALARIALES VIGENTES**

1. El contratista y cada subcontratista trabajando en el Proyecto son responsables de cumplir con el Contrato y las estipulaciones aplicables del Capítulo 2258 del Código Gubernamental de Texas tocante al pago de las tarifas salariales vigentes.
2. El contratista y cada uno de los subcontratistas empleados en el Proyecto son responsables de identificar las clasificaciones de oficios y las tarifas salariales que no estén listadas y enviarlas por escrito al llevar a cabo el contrato, al Director Ejecutivo del Departamento de Administración de la Construcción del Distrito Escolar Independiente de Austin para su aprobación e inclusión en las tarifas salariales vigentes del proyecto.
3. El Distrito Escolar Independiente de Austin deberá imponer, como una multa, \$60.00 por cada trabajador empleado en el Proyecto, por cada día o parte del día calendario donde al trabajador se le pague una cantidad menor que las tarifas salariales establecidas para el Proyecto, y se le retendrán fondos adicionales según corresponda cuando se encuentren violaciones de salarios y beneficios.
4. El Distrito Escolar Independiente de Austin tiene el derecho de solicitar al azar y sin previo aviso, muestras de nóminas de pago de Contratistas y subcontratistas.
5. El Distrito Escolar Independiente de Austin tiene el derecho de realizar al azar y sin previo aviso, entrevistas de trabajadores de varios oficios en el lugar del Proyecto.
6. Este Aviso, incluyendo las Tarifas Salariales Vigentes para el Proyecto según publicadas por el Departamento de Trabajo de los Estados Unidos bajo la Ley de Davis-Bacon, y sus enmiendas posteriores, deberán exhibirse en el lugar del Proyecto y permanecer vigentes el tiempo que dure el Contrato.

### TARIFAS SALARIALES VIGENTES PARA EL PROYECTO

#### **Las tarifas salariales vigentes para el Proyecto se adjuntan a este Aviso.**

Lo siguiente será aplicable a tarifas salariales prevalecientes del Proyecto para aprendices y ayudantes:

- Se puede cobrar por un aprendiz un salario más bajo que el salario de un empleado especialista, estipulado en las tarifas salariales prevalecientes para el proyecto, solo si se emplea a un aprendiz de acuerdo con un programa de aprendizaje fidedigno en el que esté inscrito individualmente y que el programa esté registrado en el Departamento de Trabajo de los EE. UU., Administración de Empleo y Capacitación, Oficina de Adiestramiento en aprendizaje, Empleador y Servicios Laborales, o en una Agencia reconocida por el Departamento del Trabajo, o bien si al aprendiz se le emplea dentro de sus primeros 90 días de empleo a prueba como aprendiz en esa clase de programa de aprendizaje. A todo aprendiz debe pagársele según una tarifa no menor que la especificada en el programa registrado para el nivel de progreso del aprendiz, expresado como porcentaje del salario por hora del empleado especialista, especificado en las tarifas salariales prevalecientes aplicables.

Los ayudantes no se clasifican por separado en las tarifas salariales prevalecientes aplicables al proyecto. Por lo tanto, los contratistas y subcontratistas deben presuponer que cada trabajador estará clasificado dentro de una de las clasificaciones de empleo existentes en el adjunto. Los contratistas y subcontratistas no deben presuponer que a cualquier ayudante se le pagará menos que el salario de empleado especialista para la clasificación de empleo más relevante.

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## NOTICE

### **NOTICE OF PROVIDER OF WORKFORCE SCREENING SERVICES**

As per Sections 3.15 and 3.16 of the General Conditions of the Contract for Construction (the "General Conditions"), notice is given that the Austin Independent School District ("AISD") has contracted with FC Background, LLC (the "Provider") to provide certain workforce screening services, including badging, for all workers on all construction projects, including both "covered employees" and "non-covered employees".

The anticipated costs of Texas Department of Public Safety ("DPS") and FC Background, LLC ("FCB") services are at the expense of the Contractor and are to be incorporated in your proposal/bid for AISD projects.

#### **DEPARTMENT OF PUBLIC SAFETY**

**NOTE: Screening services provided by FCB are separate from and in addition to the criminal history record information to be obtained from DPS by Contractor and each subcontractor for "covered employees" pursuant to Section 3.15.B of the General Conditions.**

**Contact the DPS Crime Records Service at (512) 424-5079 for instructions on obtaining national criminal history record information.**

#### **F C BACKGROUND, LLC**

**NOTE: FCB screening services regarding "covered employees" will commence only after FCB receives a copy of the required List of Covered Employees that is attached to the Contractor Certification provided by Contractor to FCB pursuant to Section 3.15.E of the General Conditions. FCB services regarding "non-covered employees" will commence only after FCB receives a copy of the required List of Non-covered Employees provided by Contractor to FCB pursuant to Section 3.16.D of the General Conditions.**

**Contact FC Background for Contractor and subcontractor screening, drug testing and badging instructions.**

**Contact Information for FCB (Monday – Friday 6:00am – 6:00pm CST):**

**Frank Childress, Program Manager | [frank.childress@fcbbackground.com](mailto:frank.childress@fcbbackground.com) | (832) 277-0719**

**FC Background, Customer Support | [customer.support@fcbbackground.com](mailto:customer.support@fcbbackground.com) | (800) 388-8827**

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**Austin Independent School District**

5622788  
 TEXAS DEPT. OF INSURANCE  
 AUSTIN, TEXAS  
 APPROVED  
 MAY 12 2016

**CERTIFICATE OF INSURANCE**

This Certificate shall be completed by a licensed insurance agent:

Name and Address of Agency: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

AISD Reference: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Mgr.: \_\_\_\_\_

Project No.: \_\_\_\_\_

Phone: \_\_\_\_\_ / Fax: \_\_\_\_\_

Name and Address of Insured: \_\_\_\_\_  
 \_\_\_\_\_

**Insurers Affording Coverages:**

Insurer A: \_\_\_\_\_

Phone: \_\_\_\_\_ / Fax: \_\_\_\_\_

Insurer B: \_\_\_\_\_

Vendor/Sole Proprietor: \_\_\_\_\_

Insurer C: \_\_\_\_\_

Type of Vendor (from Matrix): \_\_\_\_\_

Insurer D: \_\_\_\_\_

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS OF LIABILITY	
	<b>Commercial General Liability Policy</b> Does the Policy include coverage for:				Each Occurrence	\$
					General Aggregate	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Completed Operations/Products				Completed Operations/ Products – Aggregate	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Blanket Contractual Liability				Personal & Advertising Injury	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Explosion, Collapse, Underground				Deductible or Self Insured Retention	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Medical Payment					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Sex Molestation and Child Abuse (SAM)					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Contractors/Subcontractors Work					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Fire/Legal					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Aggregate Limits per Project					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Additional Insured					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation					\$
	Other Coverage					\$
					Occurrence	\$



Pollution/ Environmental Impairment Policy					Aggregate	\$
INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS OF LIABILITY	
	<b>Auto Liability Policy</b> Which of the following are provided coverage:				CSL	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Any Auto				Bodily Injury (Per Accident)	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- All Owned Autos				Bodily Injury (Per Person)	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Non-Owned Autos				Property Damage (Per Accident)	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Hired Autos					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Additional Insured					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- MCS 90					
	<b>Excess Liability</b> <input type="checkbox"/> Umbrella Form <input type="checkbox"/> Excess Liability Follow Form				Occurrence	\$
					Aggregate	\$
	<b>Workers' Compensation and Employers' Liability</b> Does the policy include the following endorsements:				<input type="checkbox"/> Statutory	
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation				Each Accident	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation				Disease – Policy Limit	\$
					Disease – Each Employee	\$
	<b>Is a Builder Risk/Property/IM/ Installation Insurance policy provided?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No				\$	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Is AISD shown as loss payee/mortgagee?					
	<b>Professional Liability</b> <input type="checkbox"/> 30 Day Notice of Cancellation Retroactive Date: _____				Each Claim	\$
					Deductible or Self Insured Retention	\$

This form is for informational purposes only and certifies that policies of insurance listed above have been issued to insured named above and **are in force at this time**. Notwithstanding any requirements, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, insurance afforded by policies described herein is subject to all terms, exclusions and conditions of such policies.

DATE ISSUED: \_\_\_\_\_

**CERTIFICATE HOLDER:**

Austin Independent School District  
 1111 West 6<sup>th</sup> Street

\_\_\_\_\_  
 AUTHORIZED REPRESENTATIVE SIGNATURE  
 Licensed Insurance Agent

Austin, Texas 78703

**PAYMENT BOND**

STATE OF TEXAS

Bond No. \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

Know All Men By These Presents: That \_\_\_\_\_  
of the City of \_\_\_\_\_, County of \_\_\_\_\_ and  
State of \_\_\_\_\_, as Principal, and

\_\_\_\_\_ a solvent corporation authorized under laws of the State of Texas to act as Surety on bonds for principals, are held and firmly bound unto \_\_\_\_\_ (Owner), and all Subcontractors, workers, laborers, mechanics and suppliers as their interests may appear, all of whom shall have right to sue upon this bond in the penal sum of \_\_\_\_\_ U.S. Dollars (\$ \_\_\_\_\_ U.S.),

for payment whereof, well and truly to be made, said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

Conditions of this Bond are such that, whereas, Principal has entered into a certain written contract with Owner; dated the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ to which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copied in length herein.

Now, therefore, condition of this obligation is such, that if the said Principal shall well and truly pay all Subcontractors, workers, laborers, mechanics, and suppliers, all monies to them owing by said Principals for subcontracts, work, labor, equipment, supplies and materials done and furnished for the construction of improvement of said Agreement, then this obligation shall be and become null and void; otherwise to remain in full force and effect.

Provided, however, that this bond is executed pursuant to provisions of Chapter 2253, Texas Government Code as amended and all liabilities on bond shall be determined in accordance with provisions of said Article to same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that any change in Contract Time or Contract Sum shall not in anywise affect its obligation on this bond, and it does hereby waive notice of any such change in Contract Time or Contract Sum.

In witness whereof, said Principal and Surety have signed and sealed this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Principal  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Surety  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-Mail Address: \_\_\_\_\_

Name and address of the Resident Agent of Surety:

\_\_\_\_\_  
\_\_\_\_\_

Note: Bond shall be issued by a solvent Surety company authorized to do business in Texas, and shall meet any other requirements established by law or by Owner pursuant to applicable law. A copy of surety agent's "Power of Attorney" must be attached hereto.

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**PERFORMANCE BOND**

STATE OF TEXAS

Bond No. \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

Know All Men By These Presents: That \_\_\_\_\_  
of the City of \_\_\_\_\_, County of \_\_\_\_\_, and  
State of \_\_\_\_\_, as Principal, and \_\_\_\_\_,  
a solvent company authorized under laws of the State of Texas to act as Surety on bonds for principals, are held and  
firmly bound unto \_\_\_\_\_ (Owner), in the penal sum of  
\_\_\_\_\_  
U.S. Dollars (\$ \_\_\_\_\_ U.S.) for payment whereof, well and truly to be made, said Principal and  
Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, by these  
presents:

Conditions of this Bond are such that, whereas, Principal has entered into a certain written contract with OWNER, dated  
the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, which Agreement is hereby referred to and made a part hereof  
as fully and to the same extent as if copied at length herein.

Now, therefore, the condition of this obligation is such, that if said Principal shall faithfully perform said Agreement and shall in all  
respects duly and faithfully observe and perform all and singular covenants, conditions and agreements in and by said contract  
agreed and covenanted by Principal to be observed and performed, and according to true intent and meaning of said Agreement  
hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect.

Provided, however, that this bond is executed pursuant to provisions of Chapter 2253, Texas Government Code as amended and  
all liabilities on this bond shall be determined in accordance with provisions of said Article to same extent as if it were copied at  
length herein.

Surety, for value received, stipulates and agrees that any change in Contract Time or Contract Sum shall not in anywise affect its  
obligation on this bond, and it does hereby waive notice of any such change in Contract Time or Contract Sum.

In witness whereof, said Principal and Surety have signed and sealed this instrument this \_\_\_\_\_  
day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Principal  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Surety  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-Mail Address: \_\_\_\_\_

Name and address of Resident Agent of Surety:  
\_\_\_\_\_  
\_\_\_\_\_

Note: Bond shall be issued by a solvent Surety company authorized to do business in Texas, and shall meet any other requirements established by law or by Owner pursuant to applicable law. A copy of surety agent's "Power of Attorney" must be attached hereto.

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**NOTICE OF REQUIRED WORKERS' COMPENSATION COVERAGE**  
**(Contractor Must Post at Project Site)**

**REQUIRED WORKERS' COMPENSATION COVERAGE**

The law requires that each person working on this site or providing services related to this construction project must be covered by workers' compensation insurance. This includes persons providing, hauling, or delivering equipment or materials, or providing labor or transportation or other service related to the project, regardless of the identity of their employer or status as an employee.

Call the Division of Workers' Compensation at 512-804-4345 to receive information on the legal requirement for coverage, to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage.

**COBERTURA REQUERIDA DE COMPENSACIÓN PARA TRABAJADORES**

La ley requiere que cada persona que trabaja en este lugar o que proporciona servicios relacionados con este proyecto de construcción debe estar cubierta por un seguro de compensación para trabajadores. Esto incluye a personas que proporcionan, transportan, o entregan equipo o materiales, o que proporcionan mano de obra, u otros servicios relacionados con este proyecto, sin importar la identidad del empleador o el estado como empleado.

Comuníquese con la División de Compensación para Trabajadores al teléfono 512-804-4345 para recibir información referente a los requerimientos legales de cobertura, para verificar si su empleador ha proporcionado la cobertura requerida, o para reportar a un empleador que no proporciona cobertura.

**(MUST BE POSTED ON PROJECT SITE)**



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## **AISD SCHOOL SAFETY RULES**

**AISD PROJECT NO. \_\_\_\_\_**

### **(CONTRACTOR MUST POST AT PROJECT SITE WHERE SCHOOL ACTIVITIES ARE BEING CONDUCTED)**

The following School Safety Rules must be followed at all times:

1. When work is performed at a Project site in which school activities are being conducted, the Contractor, Subcontractors and all persons working at the Project Site must take special care to protect the safety and welfare of the students, teachers, employees, and visitors at the school.
2. Work must be performed with as little disruption to the learning environment and school activities as possible.
3. When Work is to be performed at a Project site where school activities are being conducted, it is expressly understood and agreed that Contractor's and any subcontractor's employees and other persons performing Work at the Project site shall not engage in any inappropriate interaction of any nature whatsoever with students, teachers, employees and visitors at the school, including talking, touching, staring, or in any way contributing to a hostile or offensive environment. It is further expressly understood and agreed that there is to be no fraternization between Contractor's and any subcontractor's employees, and other persons performing Work at the site, and students, teachers, employees and visitors at the school. There shall be zero tolerance for violations of these provisions.
4. The possession or use of tobacco products, alcoholic beverages, illegal drugs, and firearms or weapons on AISD property is prohibited at all times, twenty-four hours a day. There shall be zero tolerance for violations of this provision.
5. All persons performing work at the Project site must strictly observe:
  - school bus safety laws and requirements
  - speed limits in the vicinity of the Project site, including, school speed limits, and
  - any posted speed limits on the Project site established by AISD.
6. All persons performing Work at the Project site must use only the access to the site and facilities as are designated by AISD, and must comply with all other rules and requirements established by AISD for use or occupancy of the Project site.
7. AISD has the right to require the immediate removal from the Project site of any person performing work who violates these rules and to prohibit such person from being allowed to perform work at the Project site in the future.

## **REGLAS ESCOLARES DE SEGURIDAD DE AUSTIN ISD**

**(EL CONTRATISTA DEBE COLOCAR ESTA NOTIFICACIÓN EN UN LUGAR VISIBLE DEL SITIO DEL PROYECTO EN DONDE SE REALIZAN ACTIVIDADES ESCOLARES.)**

Se deben seguir las siguientes Reglas Escolares de Seguridad en todo momento.

1. Cuando se realice algún trabajo en un sitio en el cual se llevan a cabo actividades escolares, el Contratista, los Subcontratistas y todo el personal que labore en el sitio de trabajo deben tomar medidas especiales para proteger la seguridad y bienestar de los estudiantes, maestros, empleados y visitantes de la escuela.
2. El trabajo se debe realizar con la menor interrupción posible al ambiente de aprendizaje y a las actividades escolares.
3. Cuando el trabajo se hará en un sitio en donde se llevan a cabo actividades escolares, se entiende y se establece expresamente que los empleados de los contratistas y de los subcontratistas, además de otras personas realizando el trabajo en el sitio, no entablarán ninguna interacción inapropiada de naturaleza alguna con estudiantes, maestros, empleados y visitantes de la escuela, incluyendo hablar, tocar, ver fijamente o que de alguna manera contribuyan a un ambiente hostil u ofensivo. Asimismo se entiende expresamente y se está de acuerdo que no habrá relaciones amistosas y fraternales entre ninguno de los empleados de los contratistas y de los subcontratistas, ni entre ninguna otra persona que realiza el trabajo en el sitio, con estudiantes, maestros, empleados y visitantes a la escuela. Habrá cero tolerancia a la violación de estas provisiones.
4. Se prohíbe en todo momento la posesión o uso de productos de tabaco, bebidas alcohólicas, drogas ilegales y armas de fuego o de algún otro tipo, las 24 horas del día. Habrá cero tolerancia a la violación de esta provisión.
5. Todas las personas que realizan algún trabajo en el sitio deben acatar estrictamente lo siguiente:
  - las reglas y requisitos de seguridad de los autobuses escolares
  - la velocidad máxima en el área del sitio, incluyendo, los límites de velocidad escolar y
  - cualquier otro límite de velocidad establecido por Austin ISD en el sitio del proyecto
6. Todas las personas que realizan trabajos en el sitio del proyecto deben usar el acceso al sitio y a las instalaciones (demás edificios) según lo determine Austin ISD, y deberán apegarse a cualquier otra regla y requisito establecido por Austin ISD para el uso u ocupación del sitio del proyecto.
7. Austin ISD tiene el derecho de solicitar la remoción inmediata del sitio del proyecto de cualquier persona que realiza un trabajo y quien viola estas reglas, y de prohibir que a dicha persona se le permita realizar algún trabajo en el sitio del proyecto en el futuro.

## **CONTRACTOR INSTRUCTIONS FOR ISSUANCE OF KEYS AND ACCESS**

1. General Contractors (GCs) or Construction Managers at Risk (CMs@Risk) shall give the Department of Construction Management (CM) Project Manager (PM) at least two (2) days prior notice of interest in obtaining a Single-School Master set, a District-wide Master set or Portable Master set for a project. AISD PM will notify AISD Service Center of contractor's need for keys at least two (2) days prior to contractor pickup.
2. Contractors can pick up and return keys Monday-Friday between **7:45 A.M. and 4:00 P.M. at the AISD Service Center, 5101 East 51<sup>st</sup> Street, phone #414-5476 or #414-3298.** (Call before arriving)
  - a. All contractors are required to fill out and sign a key contract form and contractor information form (giving the contractor's name, location, phone number and anticipated period of work, name, address, and emergency contact phone numbers of contractor supervisory personnel involved with the project, acknowledging receipt of keys and withholding penalty amounts.) As authorized by the Project Manager after the contract is executed, keys will be issued to GCs and CMs@Risk only – not to subcontractors.
  - b. At Project Close-Out, contractors will return all keys. If, in the assessment of the Service Center, any key is missing, the PM will calculate the *withholding penalty in the following amounts: Single-School Master keys are \$2,500 per set. Portable keys are \$1,000 per set. District-wide Master keys are \$5,000 per set.* All keys are required to be returned for Close-Out of the Project.

Contractors who will be working inside an AISD facility will be issued an intrusion alarm system code number by their AISD Project Manager, who will give instructions in how to disarm and rearm the alarm system by entering the code number in the keypad on site in the building. Contractor shall obtain the alarm code from the Project Manager, Monday through Friday, between 8:00 A.M. and 4:00 P.M. Contractor shall give the AISD Project Manager at least one day's prior notice of intention to get an alarm code. The contractor will be responsible for unlocking the door and disarming the alarm system when entering the building as well as for arming the alarm system and locking the exterior door when leaving the building. Contractor shall notify AISD Police at 414-1703 before entering a building and disarming the alarm system, and shall notify AISD Police again before leaving the building and rearming the alarm system. ***Failure to follow these procedures will require that a police officer be sent to the site, and withholding in the amount of \$50.00 will be charged for the cost of each such police call or failure to lock doors at the end of the workday.***

4. All Contractors & subcontractors working on AISD Property must wear an identification badge which includes the name, company and picture of the worker. Worker must have also completed a criminal background check.

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# IMPORTANT INFORMATION



**You can direct any wage disputes or questions to:**

**Austin Independent School District  
Department of Construction Management  
812 San Antonio, Suite 200  
Austin, Texas 78701 (512) 414-8940**

***According to Government Code Title 10, Chapter 2258, "The contractor who is awarded a contract by a public body or a subcontractor of the contractor shall pay not less than the rates determined under Section 2258 to a worker employed by it in the execution of the contract."***

# INFORMACION IMPORTANTE



**Puede dirigir sus preguntas o disputas sobre salario a:**

**Distrito Escolar Independiente, de Austin  
Departamento de Gerencia de Construcción  
812 San Antonio, Suite 200  
Austin, Texas 78701 (512) 414-8940**

***De acuerdo con el Título 10 del Código del Gobierno, Capítulo 2258, "El contratista al que le fue adjudicado un contrato por una entidad pública, o su subcontratista, deberán pagar a un trabajador contratado, un salario no menor que las tarifas determinadas bajo la Sección 2258, para la ejecución del contrato".***

AUSTIN INDEPENDENT SCHOOL DISTRICT

**ESTIMATE FOR PARTIAL PAYMENT**

(PROVIDE 2 COPIES OF ESTIMATE TO AISD)

PROJECT TITLE \_\_\_\_\_ PROJECT NO. \_\_\_\_\_

CONTRACTOR \_\_\_\_\_ (Firm Name) \_\_\_\_\_ (Mailing Address)

Original Contract Price \$ \_\_\_\_\_ Date \_\_\_\_\_

Change Order Add. Costs \$ \_\_\_\_\_ P.O. No. \_\_\_\_\_ Est. No. \_\_\_\_\_

Total \$ \_\_\_\_\_

Change Order Credits \$ \_\_\_\_\_

Total Contract to Date \$ \_\_\_\_\_ Contract No. \_\_\_\_\_

Estimate Period \_\_\_\_\_ to \_\_\_\_\_ Account Code \_\_\_\_\_

**SCHEDULE OF VALUES**

A ITEM NO.	B ITEM DESCRIPTION	C SCHEDULED VALUE	D PERCENT		F AMOUNT PREVIOUS ESTIMATE	G AMOUNT THIS ESTIMATE	H MAT'L'S. PRESENTLY STORED (NOT IN F OR G)	I TOTAL COMPLETED AND STORED TO DATE (F+G+H)	J BALANCE TO FINISH (C-I)
			THIS EST	TO DATE					

Prepared by: \_\_\_\_\_  
 CONTRACTOR'S REPRESENTATIVE / TITLE

Total amount of contract performed to date..... \$ \_\_\_\_\_

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

Less Retainage..... \$ \_\_\_\_\_

Signature \_\_\_\_\_ DATE \_\_\_\_\_

Amount due to date..... \$ \_\_\_\_\_

Approved: \_\_\_\_\_  
 CONSULTING FIRM

Amount paid on previous estimates..... \$ \_\_\_\_\_

By: \_\_\_\_\_

Amount due on this estimate..... \$ \_\_\_\_\_

Approved: \_\_\_\_\_  
 AISD PROJECT MANAGER DATE \_\_\_\_\_

Approved: \_\_\_\_\_  
 AISD ASSISTANT DIRECTOR, DATE \_\_\_\_\_  
 CONSTR. MGMT/CAMPUS SUPPORT.  
 SUPERVISOR

Approved: \_\_\_\_\_  
 AISD DIRECTOR, CONSTR. MGMT. DATE \_\_\_\_\_



AUSTIN INDEPENDENT SCHOOL DISTRICT  
**ESTIMATE FOR PARTIAL PAYMENT**  
**CONTINUATION SHEET**  
 (PROVIDE 2 COPIES OF ESTIMATE TO AISD)

PROJECT \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

**SCHEDULE OF VALUES**

A ITEM NO.	B ITEM DESCRIPTION	C SCHEDULED VALUE	D PERCENT		F AMOUNT PREVIOUS ESTIMATE	G AMOUNT THIS ESTIMATE	H MAT'L.S. PRESENTLY STORED (NOT IN F OR G)	I TOTAL COMPLETED AND STORED TO DATE (F+G+H)	J BALANCE TO FINISH (C-I)
			THIS EST	TO DATE					

# INTERIM CHANGE AUTHORIZATION NO.



Date: \_\_\_\_\_

\_\_\_\_\_  
Project Title

\_\_\_\_\_  
Project Architect/Engineer (A/E)

\_\_\_\_\_  
Project No.

**To Contractor:**

You are hereby directed to promptly execute this Interim Change Authorization which changes the Work, Contract Amount, and if required, Contract Time.

This Work shall be included in and become a part of a Change Order for this contract. Billings may be made for this work in an amount not to exceed 50% of the "Additional cost not to exceed" amount stated below. Billings shall not be made for the balance of the cost of this work until the related Change Order is processed and approved by all parties.

By copy of this Interim Change Authorization, the A/E named above is directed to immediately issue a Change Order Request on the appropriate form.

Additional cost not to exceed: \_\_\_\_\_

Additional days not to exceed: \_\_\_\_\_

Description of work:

Recommended: \_\_\_\_\_  
AISD Project Manager Date

Recommended: \_\_\_\_\_  
AISD Assistant Director, Constr.  
Mgmt/Campus Support Supervisor Date

Approved: \_\_\_\_\_  
AISD Director, Construction Management Date

XC:

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**AUSTIN INDEPENDENT SCHOOL DISTRICT**  
**CHANGE ORDER NO. \_\_\_\_\_**  
 (Submit 1 original)

Project Title \_\_\_\_\_

Project No. \_\_\_\_\_

<u>CONTRACT AMOUNT</u>	
ORIGINAL CONTRACT	_____
TOTAL PREVIOUS CHANGES	_____
TOTAL THIS CHANGE	\$ _____ -
TOTAL CONTRACT	\$ _____ -

<u>CONTRACT TIME (Calendar Days)</u>	
Original Contract Time	_____ 100
TOTAL PREVIOUS CHANGE	_____ 15
TOTAL THIS CHANGE	_____ 15
TOTAL CONTRACT	_____ 130

<u>PERCENT OF ORIGINAL CONTRACT PRICE</u>	
Previous Change Orders	0.0%
This Change Order	0.0%
Total % Change	0.0%

NTP Date: \_\_\_\_\_ 01/01/00  
 Original Completion Date: \_\_\_\_\_ 04/10/00  
 Existing Completion Date: \_\_\_\_\_ 04/25/00  
 Amended Completion Date: \_\_\_\_\_ 05/10/00  
 Orig. Contract Time is hereby extended **30** calendar days.

P.O. #: \_\_\_\_\_  PM Initial

<b>*Hazmat issues were considered during the development of this change order</b>					Calendar Days	Total Amount of Item
Item No.	Change Order Request	Item Title				
1						
<b>Item Description (including author and reason)</b>			<b>Reason Code:</b>			
2						
<b>Item Description (including author and reason)</b>			<b>Reason Code:</b>			
3						
<b>Item Description (including author and reason)</b>			<b>Reason Code:</b>			
<b>Page One Subtotal</b>					<b>0</b>	<b>\$ -</b>
<b>Page Two Sub-Total</b>					<b>0</b>	<b>\$ -</b>
<b>Change Order Total</b>					<b>0</b>	<b>\$ -</b>

\_\_\_\_\_  
 Contractor or Construction Management Company

By: \_\_\_\_\_  
 Signature Date

Recommended:

\_\_\_\_\_  
 AISD Project Manager, Construction Management  
 Date

\_\_\_\_\_  
 AISD Assistant Director, Construction  
 Management Date

Recommended by A/E:

\_\_\_\_\_  
 Architect/Engineering Firm

By: \_\_\_\_\_  
 Signature Date

Approved:

\_\_\_\_\_  
 AISD Director, Construction Management Date

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**AUSTIN INDEPENDENT SCHOOL DISTRICT**  
**CHANGE ORDER NO. \_\_\_\_\_**  
 (Submit 1 original)

Project Title			Project No.	
Item No.	Change Order Request	Item Title	Calendar Days	Total Amount of Item
4				
Item Description (including author and reason)		Reason Code:		
5				
Item Description (including author and reason)		Reason Code:		
6				
Item Description (including author and reason)		Reason Code:		
7				
Item Description (including author and reason)		Reason Code:		
8				
Item Description (including author and reason)		Reason Code:		
9				
Item Description (including author and reason)		Reason Code:		
10				
Item Description (including author and reason)		Reason Code:		
11				
Item Description (including author and reason)		Reason Code:		
<b>Page Two Subtotal</b>				\$ -

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**AUSTIN INDEPENDENT SCHOOL DISTRICT**  
**TIME EXTENSION REQUEST NO. \_\_\_\_\_ CHANGE ORDER NO. \_\_\_\_\_**  
 (Submit 1 original) (If approved by AISD)

Project Title _____	Project Number _____
<b>NOTES TO CONTRACTOR:</b>	
1. Below, list each day for which a time extension is requested in conformance with the Contract Documents. Also provide for each day requested the month, year, and justification including the cause(s) and related documentation.	
2. A Time Extension Request must be submitted with each progress payment submission. In the event no time extension is requested, submit the form and enter a statement in the Justification area below indicating no extension is requested.	
3. If more space is needed below to indicate all of the days, add extra pages as necessary.	

Month	Work Day	Year	Justification	A/E No. Days (By A/E)	Days Apprvd. (By AISD)
<b>Totals</b>					

	(This area to be filled in by A/E)
Contractor or Construction Manager Company	Recommended: _____ Architecture/Engineering Firm
By: _____ Signature Date	By: _____ Signature Date

(This area to be filled in by AISD)	
<b>Total No. Days Approved by AISD:</b> <span style="border: 1px solid black; display: inline-block; width: 50px; height: 15px;"></span>	
<u>Calendar Days</u>	
Original Contract Period _____	<b>Recommended:</b>
Previous Additions _____	
Previous Deductions _____	
<b>TOTAL PREVIOUS CHANGE</b> _____	
This TER Add _____	<b>Recommended:</b>
This TER Deduct _____	
<b>TOTAL THIS CHANGE</b> _____	
<b>TOTAL CONTRACT</b> _____	
<u>Dates</u>	
Work Start Date _____	AISD Project Manager _____ Date
Orig. Substantial Completion _____	AISD Asst. Dir. Const. Mgt. or Campus Support Super. _____ Date
Current Substantial Completion _____	<b>Approved:</b>
Amended Substantial Completion _____	





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**CERTIFICATION  
OF PROJECT  
COMPLIANCE**

Completion of this form is required under the provisions of §61.1036(c)(3)(F) TAC for all public school district construction projects. Instructions for completion of this form can be found on page 2.

**1. PROJECT INFORMATION**

**Facility:**

**DISTRICT:**

**Address:**

**ARCHITECT/ENGINEER:**

**City:**

**CONTRACTOR / CM:**

**CONTRACT DATE:**

**DATE DISTRICT AUTHORIZED PROJECT:**

**BRIEF DESCRIPTION OF PROJECT:**

**2. CERTIFICATION OF DESIGN AND CONSTRUCTION**

The intent of this document is to assure that the school district has provided to the architect/engineer the required information and the architect/engineer has reviewed the School Facilities Standards as required by the State of Texas, and used his/her reasonable professional judgment and care in the architectural/engineering design and that the contractor has constructed the project in a quality manner in general conformance with the design requirements and that the school district certifies to project completion.

**3. The District** certifies that the education program and the educational specifications of this facility along with the identified building code to be used have been provided to the architect/engineer:

**DISTRICT:**

**BY:**

**DATE:**

**4. The Architect/Engineer** certifies the above information was received from the school district, and that the building(s) were designed in accordance with the applicable building codes. Further the facility has been designed to meet or exceed the design criteria relating to space (minimum square footage), educational adequacy, and construction quality as contained in the School Facilities Standards as adopted by the Commissioner of Education, June 9, 2003, and as provided by the district.

**ARCHITECT/ENGINEER:**

**BY:**

**DATE:**

5. **The Contractor/CM** certifies that this project has been constructed in general conformance with the construction documents as prepared by the architect/engineer listed above.

**CONTRACTOR/CM:**

**BY:**

**DATE:**

---

6. **The District** certifies completion of the project (as defined by the architect/engineer and contractor).

**DISTRICT:**

**BY:**

**DATE:**

---

### INSTRUCTIONS FOR COMPLETION OF CERTIFICATION OF PROJECT COMPLIANCE” FORM

---

Section 1. Identify the following:

- name and address of the school facility
- name of the school district
- the Architect/Engineer and Contractor
- the date of execution of the construction contract
- the date that the school district authorized the superintendent to hire an architect/engineer
- scope of the project.

---

Section 2. This section outlines the intent of the document. No action required.

---

Section 3. This section is to be executed by the school district upon transmittal of the information (as listed) to the architect/engineer and is to remain in the custody of the school district throughout the entire project.

---

Section 4. This section is to be executed by the architect/engineer upon completion of the plans and specifications and in conjunction with the completion of the plan review for code compliance (ref. 19 TAC §61.1033 or §61.1036, School Facilities Standards) and returned to the school district’s files.

---

Section 5. This section is to be executed by the contractor upon substantial completion of the project and retained in the school district’s files.

---

Section 6. This section is to be executed by the school district upon acceptance and occupancy of the project.

---

**NOTE: DO NOT SUBMIT THIS DOCUMENT TO THE TEXAS EDUCATION AGENCY.** The school district will retain this document in their files indefinitely until review and/or submittal is required by representatives of the Texas Education Agency.





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**AISD PROJECT NO. \_\_\_\_\_**

**CONTRACTOR CERTIFICATION**

I, the undersigned authorized signatory for \_\_\_\_\_ (“Contractor”),  
certify to Austin Independent School District (“Owner”) that:

1. The List of Covered Employees dated as of \_\_\_\_\_, 20\_\_\_\_  
attached to this Certification (“List of Covered Employees”) includes (i) the names of all covered  
employees on the Project grouped by employer, and (ii) all information for each covered employee  
required by Section 3.15 of the General Conditions. All information on the List of Covered  
Employees is true and correct in all respects. An electronic copy in PDF format of the List of  
Covered Employees has also been delivered in accordance with the General Conditions.

2. Contractor has obtained (with respect to its covered employees) and has caused  
to be obtained (with respect to all other covered employees on the Project) all required criminal  
history record information relating to each covered employee on the List of Covered Employees  
in accordance with Texas Education Code (“TEC”) §22.0834.

3. Attached to this Contractor Certification is a duly completed and executed First  
Tier Subcontractor Certification in the form provided by Owner from each First Tier Subcontractor  
on the Project.

4. Each Sub-subcontractor on the Project has provided a Sub-subcontractor  
Certification to the appropriate First Tier Subcontractor in the form provided by Owner in  
accordance with the General Conditions.

5. None of the covered employees on the List of Covered Employees has a  
disqualifying criminal history under Section 3.15 of the General Conditions.

Capitalized terms used but not otherwise defined herein shall have the same meanings  
as designated in the Owner’s General Conditions of the Contract for Construction in connection  
with the Project (“General Conditions”). This Contractor Certification is delivered to Owner  
pursuant to Section 3.15 of the General Conditions and TEC §22.0834.

\_\_\_\_\_  
Date

\_\_\_\_\_  
*Signature of Authorized Signatory for Contractor*

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**ATTACHMENT #1**

**AISD PROJECT NO.** \_\_\_\_\_

**LIST OF COVERED EMPLOYEES**  
**[See Attached]**

**For** \_\_\_\_\_  
**(Contractor's Name)**



**ATTACHMENT #2**

**AISD PROJECT NO.** \_\_\_\_\_

**FIRST TIER SUBCONTRACTOR CERTIFICATIONS**

**[See Attached]**

**For the following First Tier Subcontractors:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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**AISD PROJECT NO. \_\_\_\_\_**

**FIRST TIER SUBCONTRACTOR CERTIFICATION**

I, the undersigned authorized signatory for \_\_\_\_\_ (“First Tier Subcontractor”), certify to \_\_\_\_\_ (“Contractor”) and Austin Independent School District (“Owner”) that:

1. First Tier Subcontractor has entered into a contract with Contractor to provide services in connection with the Project.

2. All covered employees employed by First Tier Subcontractor on the Project are included on the List of Covered Employees furnished to Owner by Contractor dated as of \_\_\_\_\_, 20\_\_ (“List of Covered Employees”) and properly identified as employees of First Tier Subcontractor. The portion of the List of Covered Employees listing First Tier Subcontractor’s covered employees is attached hereto.

3. All information on the List of Covered Employees with regard to the employees of First Tier Subcontractor is true and correct in all respects.

4. First Tier Subcontractor has obtained all required criminal history record information relating to each covered employee of First Tier Subcontractor on the List of Covered Employees in accordance with Texas Education Code (“TEC”) §22.0834.

5. None of the covered employees on the List of Covered Employees employed by First Tier Subcontractor has a disqualifying criminal history under Section 3.15 of the General Conditions.

6. If applicable, attached to this First Tier Subcontractor Certification is a duly completed and executed Sub-subcontractor Certification in the form provided by Owner obtained by First Tier Subcontractor from each subcontractor employed on the Project by or under First Tier Subcontractor as required by the General Conditions.

Capitalized terms used but not otherwise defined herein shall have the same meanings as designated in the Owner’s General Conditions of the Contract for Construction in connection with the Project (“General Conditions”). This First Tier Subcontractor Certification is delivered to Owner and Contractor pursuant to Section 3.15 of the General Conditions and TEC §22.0834.

\_\_\_\_\_  
Date

\_\_\_\_\_  
*Signature of Authorized Signatory for First Tier Subcontractor*  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**ATTACHMENT #1**

**AISD PROJECT NO.** \_\_\_\_\_

**APPLICABLE PORTION OF LIST OF COVERED EMPLOYEES**

**[See Attached]**

**For** \_\_\_\_\_  
**(First Tier Subcontractor's Name)**

**ATTACHMENT #2**

**AISD PROJECT NO.** \_\_\_\_\_

**SUB-SUBCONTRACTOR CERTIFICATIONS**

**[See Attached]**

**For the following Sub-subcontractors:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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AISD PROJECT NO. \_\_\_\_\_

**SUB-SUBCONTRACTOR CERTIFICATION**

I, the undersigned authorized signatory for \_\_\_\_\_ (“Sub-subcontractor”), certify to \_\_\_\_\_ (“First Tier Subcontractor”), \_\_\_\_\_ (“Contractor”) and Austin Independent School District (“Owner”) that:

1. Sub-subcontractor has entered into a contract with \_\_\_\_\_ to provide services in connection with the Project.

2. All covered employees employed by Sub-subcontractor on the Project are included on the List of Covered Employees furnished to Owner by Contractor dated as of \_\_\_\_\_, 20\_\_ (“List of Covered Employees”) and properly identified as employees of Sub-subcontractor. The portion of the List of Covered Employees listing Sub-subcontractor’s covered employees is attached hereto.

3. All information on the List of Covered Employees with regard to the employees of Sub-subcontractor is true and correct in all respects.

4. Sub-subcontractor has obtained all required criminal history record information relating to each covered employee of Sub-subcontractor on the List of Covered Employees in accordance with Texas Education Code (“TEC”) §22.0834.

5. None of the covered employees on the List of Covered Employees employed by Sub-subcontractor has a disqualifying criminal history under Section 3.15 of the General Conditions.

6. If applicable, attached to this Sub-subcontractor Certification is a duly completed and executed Sub-subcontractor Certification in the form provided by Owner obtained by Sub-subcontractor from each subcontractor employed on the Project by or under Sub-subcontractor as required by the General Conditions.

Capitalized terms used but not otherwise defined herein shall have the same meanings as designated in the Owner’s General Conditions of the Contract for Construction in connection with the Project (“General Conditions”). This Sub-subcontractor Certification is delivered pursuant to Section 3.15 of the General Conditions and TEC §22.0834.

\_\_\_\_\_  
Date

\_\_\_\_\_  
*Signature of Authorized Signatory for Sub-subcontractor*

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**ATTACHMENT #1**

**AISD PROJECT NO.** \_\_\_\_\_

**APPLICABLE PORTION OF LIST OF COVERED EMPLOYEES**  
**[See Attached]**

**For** \_\_\_\_\_  
**(Sub-subcontractor's Name)**



**ATTACHMENT #2**

**AISD PROJECT NO.** \_\_\_\_\_

**SUB-SUBCONTRACTOR CERTIFICATIONS**  
**[See Attached]**

**For the following Sub-subcontractors:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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**SUBMISSION CHECKLIST AND GUIDELINES**

<b>Check when Completed</b>	<b>Task to be Completed by Respondent</b>
	Request For Competitive Sealed Proposal Form (information typed in and <b>signed</b> )
	Table A – All Projects in Progress
	Table B – All School (K-12 and higher education) projects completed in the past 8 years, beginning with projects for AISD
	Table C – All Non-School projects completed in the past 8 years
	Table D – Personnel
	Proposal Guaranty
	Required HUB Documentation
	Print, sign and date AISD Addendum Cover Sheets
	<b><u>Hard Copy Submission</u></b> AISD requires one (1) marked “original”
	<b><u>Electronic Copy:</u></b> AISD requires submission of one (1) electronic PDF copy via USB

<b>Order for Submission</b>	<b>Document</b>
1	Cover Sheet
2	Table of Contents
3	Proposal Form
4	Table A – All Projects in Progress
5	Table B – All School (K-12 and higher education) projects completed in the past 8 years, beginning with projects for AISD
6	Table C – All Non-School projects completed in the past 8 years
7	Table D – Personnel
8	Proposal/Bid Bond (can be found at the Austin ISD website under “CSP Front End Documents”- <a href="https://www.austinisd.org/cp/forms">https://www.austinisd.org/cp/forms</a> )
9	Required HUB Documentation
10	Printed and signed AISD Addendum Cover Sheets

SECTION 01 1100

SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
  1. Work covered by the Contract Documents.
  2. Type of the Contract.
  3. Work under other contracts.
  4. Use of premises.
  5. Owner's occupancy requirements.
  6. Work restrictions.
  7. Specification formats and conventions.

1.3 PROJECT INFORMATION

- A. Project Identification: **Roof Replacement at Akins High School**  
10701 S. 1<sup>st</sup> Street, Austin, Texas 78748
- B. Owner: **Austin Independent School District**  
4000 S. IH 35 Frontage Road, Austin, Texas 78704
- C. Roof Consultant (Architect): **Hollon+Cannon Group, LLC**  
11800 Highland Oaks Trail  
Austin, Texas 78759  
Contact **Jon Cannon, RRC, RRO, REWO, CDT**  
Tel: (512) 300-0452  
Email: [jcannon@hollon-cannon.com](mailto:jcannon@hollon-cannon.com).

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of the Project is defined by the Contract Documents and consists of the following:
  1. Roof repair and roof removal and replacement for areas indicated in documents.
  2. Furnishing of all labor, materials, services, equipment and appliances as indicated in the Drawings and Specifications.
  3. Provision of all items required for complete operating systems, including items not necessarily shown in these documents, but that can be reasonably inferred as being required for the complete operating system.
- B. The Contract Documents (Drawings and Specifications):

1. Indicate the basic quality of materials and quality of construction required for the entire project.
2. Do not necessarily indicate or describe all Work required for completion of the Project. Contractor shall provide and install all incidentals reasonably inferable from the Contract Documents that are required for a complete Project.
3. Describe the essential elements sufficiently to determine the scope of the Project.

C. Type of Contract:

1. Project will be constructed under a single, prime contract.
2. Employ subcontractors for the disconnection, re-connection, and installation of all mechanical, electrical and gas line Work in conjunction with all Work required, or implied, to be performed by licensed mechanics of these disciplines:
3. Subcontractors of Contractor shall furnish to Contractor bonds covering faithful performance of subcontract Work and payment of all obligations thereunder, when Contractor is required to furnish such bonds to the Owner.
4. Subcontractors of Contractor shall purchase and maintain liability insurance that will protect him from claims, but not for less than limits of liability Contractor is required to provide to Owner.
5. The Contractor shall include in Contract Amount costs of supervision, coordination and monitoring of Work of his selected Subcontractors.

#### 1.5 WORK UNDER SEPARATE CONTRACTS

- A. Cooperate fully with separate contractors so Work on those contracts may be carried out smoothly, without interfering with or delaying Work under this Contract. Coordinate the Work of this Contract with Work performed under separate contracts.

#### 1.6 ACCESS TO SITE

- A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
1. Contractor shall be responsible for monitoring the use of premises by Contractor's employees and Subcontractors.
  2. Access routes for delivery of materials and equipment shall be as indicated by Owner. Do not use access routes other than those indicated, without written permission of the Owner.
  3. Assume full responsibility for the protection and safekeeping of Products under this Contract, stored on the site. Store materials and products only in those areas indicated for staging.
  4. Protect existing lawns, sidewalks, pavements, curbs and utilities subject to damage by Work under this Contract. Repair or replace any existing Work damaged by the Contractor.
  5. Parking areas for Contractor's personnel shall be on the project site to the extent it does not interfere with ongoing contract Work and is located in areas designated by the Owner.
- B. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weather-tight condition throughout construction period. Repair damage caused by construction operations.

## 1.7 COORDINATION WITH OCCUPANTS

- A. Owner Occupancy: Owner may occupy site and building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
  2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

## 1.8 WORK RESTRICTIONS

- A. On Site Work Hours: Work hours in general are between 7:00 am and 6:00 pm, Monday through Friday, unless an exception is granted by the Owner and Architect, or as otherwise defined by various Sections of these Specifications.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions, and then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify Owner and Roofing Consultant, in writing, not less than 72 hours in advance of proposed utility interruptions.
  2. Do not proceed with utility interruptions without Owner or Roof Consultant's written permission.
- C. Nonsmoking Building: Smoking is not permitted on school property.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors or other disruption to Owner occupancy with Owner.
- E. Controlled Substances: Use of tobacco products and other controlled substances is not permitted.
- F. Employee Screening: Comply with Owner's requirements for screening of Contractor personnel working on Project site.

## 1.9 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words and phrases when used in particular situations. These conventions are as follows:
1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be

interpreted as singular, where applicable, as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
  - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 1100

SECTION 01 2200

PROPOSAL ITEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

- A. **Base Proposal:** Roof replacement at all Roof Sections per Specifications, Plans and Details provided within the Contract Documents.
- B. Unit price is an amount proposed by bidders, stated on the Proposal Form and incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.



PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

<u>Unit Price No.</u>	<u>Description</u>	<u>Unit of Measure</u>
A. Unit Price No. 1	Install New Wood Nailers	Board Foot
B. Unit Price No. 2	Replace Wood Nailers	Board Foot
C. Unit Price No. 3	Install New Plywood	3/4"x4 ft.x8 ft. Sheet
D. Unit Price No. 4	Metal Deck Repair (MDR-1)	100 sq. ft.
E. Unit Price No. 5	Metal Deck Repair (MDR-2)	100 sq. ft.
F. Unit Price No. 6	Metal Deck Repair (MDR-3)	Per occurrence.

END OF SECTION 01 2200

SECTION 01 3110

SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 CONDITIONS

- A. For convenience of reference and to facilitate letting of subcontracts, these Specifications are separated into sections. Such separation shall not operate to make Owner an arbitrator to establish subcontract limits between subcontractors.
- B. Execute all Work per the Contract Documents. Changes shall not be made without having first received written permission from the Architect. Where detailed information is lacking, and before proceeding with Work, refer the matter to the Architect for clarification.
- C. All Work shall be executed by mechanics skilled in their respective trades. Mechanics whose Work is unsatisfactory to the Owner, and/or Architect, or who are considered by the Owner to be careless, incompetent, unskilled, or otherwise objectionable, shall be dismissed from Work upon notice from the Architect and/or Owner at no additional cost to the Owner.
- D. The Owner will provide temporary water and electrical power required for the Work at no cost to the Contractor. The Contractor shall make necessary connections to existing fire plugs and/or tap the existing water service, and to power transformer or other power sources at the building site as required to perform his/her Work. Coordinate all connections with the Owner's maintenance department.
- E. Contractor shall be responsible for furnishing storage buildings, construction office, temporary security fencing, temporary air-tight partitions, bulletin boards, temporary fire protection, telephones, etc., as may be required to carry out construction operations.
- F. Construction-related access to the site shall be via the designated entrance at each location, or as shown on the Drawings. It shall be the responsibility of the Contractor to prevent damage to the existing paving system and to repair any and all damages. Any loss or damage to the Owner's property caused by the Contractor or his forces shall be repaired or replaced at no cost to the Owner. Grounds shall be restored to their original condition at the completion of the Project. Remove all fences, barricades, etc. Replace all vegetation damaged by construction operations, including grass, shrubs, and trees, to the satisfaction of the Owner.

- G. The Contractor shall remove trash and rubbish from the Owner's premises at the end of each workday. These materials shall be cleaned from the grounds and not be left in areas or locations other than containers specified for this purpose. Burning of combustibles will not be permitted.
- H. The Contractor agrees to cooperate and Work with the Owner to protect and limit exposure of students and employees from exposure to construction traffic, noise, and other elements which may prove disruptive or dangerous. The Contractor agrees to limit his Work hours for specific elements of the Work to those specified within the Contract Documents.

1.3 SCHEDULES

- A. Work may not routinely be scheduled to occur on Saturday or Sunday, except in the case of an emergency or lost time during any given Work week. Saturday Work, when made necessary by the loss of weekdays due to weather or other unanticipated events must be approved in advance by the Owner and Architect. The Contractor under such conditions shall advise the Architect in writing, delivered via email no later than 1:00 p.m., on the Wednesday prior to the weekend in which Work is proposed to be performed. The Contractor may not Work on any weekend day until such written request is approved.
- B. In the event of rain or other injurious condition to the building as may reasonably have been caused by the actions of the Contractor, the Contractor agrees to mobilize and provide all necessary Workers at the site to assist in limiting damages and correcting the conditions regardless of the hour or day of the week when such condition(s) occurs.
- C. During the course of the Work the Owner, with a minimum of three (3) days prior notification, may suspend the Work for a period of up to five (5) working days without incurring additional cost. These days may be taken individually or in any grouping convenient to the Owner.

1.4 RAIN DAY DETERMINATION

- A. "Normal rainfall" compiled by the State climatologist, based on U.S. Weather Bureau Records for Austin, Texas, is considered a part of the Calendar Day Contract, and is not a justification for an extension of time. Listed below are the number of days in each month for which no compensatory days for rainfall events ("Rain Days") in such months may be claimed:
 

January	8 days
February	8 days
March	7 days
April	7 days
May	9 days
June	6 days
July	5 days
August	5 days
September	7 days
October	7 days

November 7 days  
December 7days

Rain days in addition to the baseline Rain Day determination described above will be considered by the Owner when submitted on the Owner’s Time Extension Request Form subject to General Conditions, Article 7.1.

1.5 CONTRACTOR’S DAILY REPORTS

- A. Contractor shall complete daily reports on form provided and submit to the Owner with Applications for Payment or at Owners request.

1.6 ADDITIONAL SUBMITTAL REVIEW, FIELD OBSERVATIONS OR INSPECTIONS BY ARCHITECT

- A. In the event that the Contractor exceeds the Substantial Completion date - for whatever reason - it shall be responsible for reimbursing the Owner through authorized change order for all costs of the Architect’s staff and expenses to carry on inspection duties at the rate performed during the project prior to that date. This method will also govern reimbursement to the Architect for additional “final” inspections necessitated by Contractor’s failure to correct all “Items to be Completed or Corrected” on Substantial Completion punch lists.

- B. In the event that submittals require review more than once past the initial submittal for each section or item, the Contractor shall be responsible for reimbursing the Architect for all costs of submittal review for the third and all subsequent submittal reviews prior to each. The Architect shall inform the Contractor of the anticipated time required for such review and the Contractor shall provide payment in the form of a check made payable to the Architect for the anticipated time and expenses required prior to the third and/or other subsequent reviews. All submittals which are found to be unacceptable shall be returned to the Contractor at the Contractor’s expense by common courier.

- C. The rate of reimbursement shall be as follows:

Architect / Consultant	\$135.00 per hour
Construction Observer	\$ 85.00 per hour
Mileage	\$ 0.58 per mile
Travel Expenses (lodging, meals, etc.)	Cost plus 10%
Architect’s Consultant Expenses	Cost plus 10%

- D. The above costs, if necessary, may be deducted from any payments remaining due to the Contractor upon completion of the Work by duly authorized change order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 3110

SECTION 01 3150

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Requests for Information (RFIs).
  - 3. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

1.3 DEFINITIONS

- A. RFI: Request from Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information:
  - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
  2. Preparation of the schedule of values.
  3. Installation and removal of temporary facilities and controls.
  4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Pre-installation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

#### 1.6 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
  2. Project number.
  3. Date.
  4. Name of Contractor.
  5. Name of Architect and Construction Manager.
  6. RFI number, numbered sequentially.

7. RFI subject.
  8. Specification Section number and title and related paragraphs, as appropriate.
  9. Drawing number and detail references, as appropriate.
  10. Field dimensions and conditions, as appropriate.
  11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  12. Contractor's signature.
  13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
    - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to the General Conditions of the Contract.
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log monthly along with payment applications.
1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect.
  4. RFI number including RFIs that were returned without action or withdrawn.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.



1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

## 1.7 PROJECT MEETINGS

- A. General: Architect will schedule and conduct meetings and conferences at Project site unless otherwise indicated.
  1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
  
- B. Preconstruction Conference: A preconstruction conference will be scheduled before starting construction, at a time convenient to Owner and Architect.
  1. Conduct the conference to review responsibilities and personnel assignments.
  2. Attendees: Authorized representatives of Owner, Construction Manager, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing and long-lead items.
    - d. Designation of key personnel and their duties.
    - e. Lines of communications.
    - f. Procedures for processing field decisions and Change Orders.
    - g. Procedures for RFIs.
    - h. Procedures for testing and inspecting.
    - i. Procedures for processing Applications for Payment.
    - j. Distribution of the Contract Documents.
    - k. Submittal procedures.
    - l. Preparation of record documents.
    - m. Use of the premises and existing building.
    - n. Work restrictions.
    - o. Working hours.
    - p. Owner's occupancy requirements.
    - q. Responsibility for temporary facilities and controls.
    - r. Procedures for moisture and mold control.
    - s. Procedures for disruptions and shutdowns.
    - t. Construction waste management and recycling.
    - u. Parking availability.
    - v. Office, work, and storage areas.
    - w. Equipment deliveries and priorities.

- x. First aid.
  - y. Security.
  - z. Progress cleaning.
- C. Progress Meetings: Conduct progress meetings at regular intervals.
1. Coordinate dates of meetings with preparation of payment requests.
  2. Attendees: In addition to representatives of Owner, Construction Manager, and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Interface requirements.
      - 2) Sequence of operations.
      - 3) Resolution of BIM component conflicts.
      - 4) Status of submittals.
      - 5) Deliveries.
      - 6) Off-site fabrication.
      - 7) Access.
      - 8) Site utilization.
      - 9) Temporary facilities and controls.
      - 10) Progress cleaning.
      - 11) Quality and work standards.
      - 12) Status of correction of deficient items.
      - 13) Field observations.
      - 14) Status of RFIs.
      - 15) Status of proposal requests.
      - 16) Pending changes.
      - 17) Status of Change Orders.
      - 18) Pending claims and disputes.
      - 19) Documentation of information for payment requests.
  4. Minutes: Architect will record and distribute the meeting minutes to each party present and to parties requiring information.
    - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

1.8 PROJECT SUPERINTENDENT

- A. In addition to other duties imposed by these Specifications the Project Superintendent shall meet the following requirements:
1. Show prior to the start of Work references from Owners of a minimum of five (5) previously completed jobs of similar size, complexity and construction cost.
  2. Show proficiency prior to the start of the Work that the Superintendent is fluent in the English language, or if not, provide a competent and approved interpreter for such purposes. The purpose of this clause is to assure adequate communications with all parties involved in the Work.
  3. The Project Superintendent shall be present at the project site at all times that any Work of this contract is underway. If the Project Superintendent must be away from the project site the Contractor shall first file written documentation of the absence with the Architect at least 48-hours in advance of the new replacement. The replacement, or acting Project Superintendent, shall meet the minimum requirements defined above and elsewhere in the Specifications for the Project Superintendent. The only exception to this shall be when the Contractor, an officer of the company with a majority share of ownership, shall be permitted to act as the Project Superintendent. A majority owner of the contracting company may act as the Project Superintendent for the entirety of the project.
  4. No Work shall be performed and no subcontractor(s) shall be permitted to Work at any time when the Project Superintendent is not present.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 3150

SECTION 01 3300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
  - 1. Procedures
  - 2. Construction Progress Schedule
  - 3. Shop Drawings
  - 4. Product Data
  - 5. Samples
  - 6. Manufacturer's Instructions
  - 7. Manufacturer's Certificates
  - 8. Schedule of Required Submittals

1.3 PROCEDURES - BEFORE PROPOSAL OPENING

No substitute systems or materials will be considered prior to bidding.

1.4 PROCEDURES - AFTER PROPOSAL OPENING

- A. Deliver submittals to: Hollon+Cannon Group, LLC  
11800 Highland Oaks Trail  
Austin, Texas 78759
- B. All submittals required for the project shall be submitted at the same time.
- C. Transmit each item under form acceptable to the Architect in this document. Identify Project, Contractor, Subcontractor and major suppliers. Identify pertinent drawing sheet and detail number, and specification section number as appropriate. Identify any and all deviations from Contract Documents. Provide separate 3-inch x 5-inch spaces for Contractor's certification stamp and for Architect's review stamp. Affix Contractor's certification stamp on all submittal sets.
- D. Submit submittal schedule at the same time as all other submittals.
- E. All submittals, including shop drawings, product data and samples for this project shall be submitted at the same time to the Architect and within ten (10) days after receipt of the Notice to Proceed.

- F. After Architect's review of submittal, revise and re-submit as required, identifying changes made since previous submittal.
- G. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.
- H. Bind sets of submittals in labeled three-ring binders identified on the outside with the project title, date, Contractor's, Architect's and Owner's names, and including a table of contents corresponding to the Specification format, with all contents correlated.

#### 1.5 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit horizontal bar chart with separate bar for each major trade or operation, identifying first work day of each week.
- B. Submittal Schedule: Show submittal dates required for Shop Drawings, product data and samples and product delivery dates including those, if any, identified to be furnished by the Owner.

#### 1.6 SHOP DRAWINGS

- A. Submit a minimum of four (4) sets, or a maximum of seven (7) sets of all shop drawings on opaque reproductions.
- B. Present in a clear and thorough manner. Title each Drawing with Project Name and the same information indicated for 1.4.H above. Identify each element of Drawings by reference to the corresponding sheet number and detail number in the Contract Documents.
- C. Identify field dimensions. Show relation to adjacent or critical features of Work.

#### 1.7 PRODUCT DATA

- A. Submit a minimum of seven (7) sets of all product data.
- B. Submit only pages which are pertinent. Mark each copy of standard printed data with yellow hi-liter or circling with red ink to identify pertinent products.
  - 1. Mark each item with the Specification Section number and Article number where it is specified in the Contract Documents.
  - 2. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
  - 3. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.
- C. Mark each proposed item in product data by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section.

- D. Modify manufacturer standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the Work. Delete information not applicable.
- E. Clearly identify any deviations from the Contract Documents when submitted. Any items not identified shall be deemed to be items specified in the Contract Documents.

#### 1.8 MANUFACTURER'S INSTRUCTIONS

When required in individual Specification Sections, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting and finishing in quantities specified for product data.

#### 1.9 SAMPLES

- A. Submit full range of manufacturer's standard colors, textures and patterns for Owner's selection. Submit a minimum of four (4) sets and a maximum of seven (7) sets of all samples unless otherwise indicated by these Specifications.
- B. Submit samples to illustrate functional characteristics of the product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing Work.
- C. Include identification on each sample, giving full information.
- D. Submit the number specified in respective Specification Section. Two (2) will be retained by the Architect. Reviewed samples which may be used in the Work are indicated in the Specification Section.

#### 1.10 FIELD SAMPLES

Provide field samples of finishes at the project site as required by individual Specification Sections. Install sample complete and finished. Acceptable samples in place may be retained in completed Work.

#### 1.11 CONTRACTOR REVIEW

- A. Review submittals prior to transmittal. Determine and verify field measurements, field construction criteria, manufacturer's catalog numbers and conformance of submittal with requirements of Contract Documents.
- B. Coordinate submittals with requirements of Work and of Contract Documents.
- C. Apply Contractor's stamp on each section of Shop Drawings and Product Data, and each sample label to certify compliance with requirements of Contract Documents. Notify Architect in writing at time of submittal, of any deviations from requirements of Contract Documents.
- D. The Contractor is encouraged not to fabricate products or begin Work which requires submittals until return of reviewed submittal with Architect's review stamp. Fabrication

of items and beginning of Work when submittals have not been reviewed will be at the Contractor's risk.

#### 1.12 SUBMITTAL REQUIREMENTS

- A. Transmit submittals in sequence to avoid delay in Work or Work of other contracts.
- B. Coordinate submittals into logical groupings to facilitate interrelation of the items.
- C. Submit under Architect approved transmittal letter. Identify Project by title and number. Identify Work and product by Specification Section and Article Number.

#### 1.13 RE-SUBMITTAL REQUIREMENTS

- A. Make re-submittals under procedures specified for initial submittals. Identify changes made since previous submittal.
- B. Re-submittals beyond the initial and a second will be reviewed by the Architect and/or his consultants at the Contractor's expense.

#### 1.14 ARCHITECT AND OWNER REVIEW

- A. The Architect and Owner and/or other authorized representative will review all submittals. Submittals will be returned to Contractor with Architect's review stamp affixed, and/or with the indication of any changes which may need to be made, shown thereon, or with disapproval.
- B. The Architect's review of any such Submittal shall not relieve the Contractor from responsibility for deviations from Drawings or Specifications, nor shall it relieve him from responsibility for errors of any sort in the Submittal, nor shall it in any way diminish the Contractor's obligation to conduct the Work in accordance with the Contract Documents.
- C. Approval of samples shall be for design and appearance only, and such approval shall not relieve Contractor from any obligation as provided in the Contract Documents.

#### 1.15 SCHEDULE OF REQUIRED SUBMITTALS

- A. The following is a list of the minimum submittals required for each section of the Specifications. This list is not intended to be comprehensive and is to be used only as a guide to the minimum requirements. It is intended that manufacturer's data sheets confirming the product to be used is required from the following listing. Where samples or shop drawings are required it is so indicated.
  - 1. **Section 06 1050 - Roof Carpentry**
    - a. Plywood.
    - b. Lumber treatment type and certification.
    - c. Stainless steel fasteners.
    - d. All other required fasteners.
  - 2. **Section 07 0151 - Roof Removal Procedures**
    - a. Demolition plan.

- b. Accurate (to scale) site plan showing locations of dumpsters, trash chutes, dust collection system, fencing, etc.
- 3. **Section 07 2200 - Roof Insulation**
  - a. Shop drawings for roofing system.
  - b. Polyisocyanurate insulation.
  - c. Roof cover board.
  - d. Mechanical fasteners.
  - e. Asphalt primer.
  - f. Low rise foam adhesive.
- 4. **Section 07 4113 - Metal Roof Panels**
  - a. Installer's and manufacturer's warranties.
  - b. Shop drawings for roofing system.
  - c. Manufacturer's roof system qualification statement.
  - d. Roof system design (calculations and fastener patterns).
  - e. Metal roof panels.
  - f. Fasteners and accessories.
  - g. Underlayment materials.
- 5. **Section 07 5216 – Modified Bitumen Roof System**
  - a. Installer's and manufacturer's warranties.
  - b. Manufacturer's roof system qualification statement.
  - b. Roof system design (calculations and fastener patterns).
  - b. Modified bitumen membranes and flashings.
  - c. Installer's and manufacturer's warranties.
  - d. Asphalt based products.
  - e. Fasteners.
- 6. **Section 07 5600 – Fluid Applied Flashing**
  - a. Membrane resin.
  - b. Flashing reinforcement.
- 7. **Section 07 6200 - Flashing and Sheet Metal**
  - a. Pre-finished Galvalume® metal.
  - b. Galvanized metal.
  - c. Stainless Steel metal.
  - d. Metal wall panels.
  - e. Solder and flux.
  - f. Polyurethane sealant.
  - g. Penetration Sealer System.
  - h. Fasteners - Include pop rivets, neoprene-head screws, stainless steel drive pins, drive pin washers, roofing nails, termination bars, straps and any other special fasteners.
- 8. **Section 07 7200 - Roofing Accessories**
  - a. Equipment support.
  - b. Small pipe support assembly.
  - c. Roller Assemblies.
  - d. Small conduit support assemblies (channels, corners, attachment, etc.)
  - e. Roof hatch safety railing.
  - f. Ladders.
- 9. **Section 09 9100 - Painting**
  - a. Primer
  - b. Topcoat
- 10. **Section 22 0000 – Common Work Results for Plumbing**



- a. All materials proposed for incorporation into the Work.
- b. Copy of permit from City of Austin, Texas.
- 11. **Section 23 0000 – Common Work Results for Mechanical**
  - a. All materials proposed for incorporation into the Work.
  - b. Copy of permit from City of Austin, Texas.
- 12. **Section 26 0000 – Common Work Results for Electrical**
  - a. All materials proposed for incorporation into the Work.
  - b. Copy of permit from City of Austin, Texas.
- 13. **Material Safety Data Sheets (MSDS)**

Provide three (3) bound sets of manufacturer's material safety data sheets (MSDS), separate from all other submittals. MSDS shall be provided for all materials associated with or employed in the Work at the project site. MSDS shall be categorized by specification section and include separate tabs for each section. Tables of contents shall be provided for the overall manual and contents within each individual section.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 3300

SECTION 01 4000

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
  - 1. General Quality Control
  - 2. Workmanship
  - 3. Manufacturer's Instructions
  - 4. Manufacturer's Certificates
  - 5. Field Samples
  - 6. Manufacturer's Field Services
  - 7. Testing Laboratory Services

1.3 QUALITY CONTROL - GENERAL

- A. Maintain quality control over supervision, subcontractors, suppliers, manufacturers, products, services, site conditions and workmanship to produce Work of specified quality.
- B. Perform all Work to the level of quality specified by Standards in individual Specification Sections.
- C. The Work will be observed by the Architect for compliance with approved submittals and level of quality specified.
- D. The Work, or any part thereof, deemed by the Architect to be unsuitable or below the required level of quality, shall be replaced or repaired by the Contractor at no additional cost to the Owner.

1.4 WORKMANSHIP

- A. Comply with industry standards for high quality commercial buildings, except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform Work using persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibrations, and racking.

1.5 MANUFACTURERS' INSTRUCTIONS

Comply with manufacturers' instructions in full detail, including each step in the sequence. Should instructions conflict with Contract Documents, request clarification from the Architect before proceeding with Work.

#### 1.6 MANUFACTURERS' CERTIFICATES

When required by individual Specification Sections, submit five (5) copies of manufacturers' certificates that state products meet or exceed specified requirements.

#### 1.7 QUALITY CONTROL MONITORING

Owner will retain quality control monitoring of the scheduled operations on a part-time basis.

#### 1.8 MANUFACTURER'S FIELD SERVICES

- A. When specified in respective Sections, require suppliers, manufacturers, or vendors to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, or testing, adjusting and balancing of equipment as applicable, and to make appropriate recommendations.
- B. When required by the individual Sections, manufacturer, supplier, or vendor representatives shall submit written reports to the Architect, listing observations and recommendations.

#### 1.9 TESTING LABORATORY SERVICES

- A. The Owner shall employ and pay for the services of an Independent Testing Laboratory to perform inspections, tests, and other services required by individual Specification Sections.
- B. Services will be performed in accordance with requirements of governing authorities and with specified standards.
- C. Reports of all testing will be submitted to the Architect. Reports shall reflect observations and results of testing and indicating compliance or non-compliance with specified standards and with the Contract Documents.
- D. The Contractor and all Subcontractors shall cooperate with testing laboratory personnel by furnishing safe access to the Work, tools, samples of materials, etc., and assistance as requested.
  - 1. Notify Owner and Testing Lab 48 hours prior to expected time for operations requiring testing and/or inspection services.
  - 2. Make arrangements with Testing Lab and pay for all additional samples and tests produced for the Contractor's convenience, and for all those that may have failed.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01 4000

## SECTION 01 4200

## REFERENCE STANDARDS

PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 through Division 26 Specification Sections, apply to this Section.

## 1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. “Approved”: When used to convey Architect's action on Contractor's submittals, applications, and requests, “approved” is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. “Directed”: A command or instruction by Architect. Other terms including “requested,” “authorized,” “selected,” “required,” and “permitted” have the same meaning as “directed.”
- D. “Indicated”: Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including “shown,” “noted,” “scheduled,” and “specified” have the same meaning as “indicated.”
- E. “Regulations”: Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. “Furnish”: Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation and similar operations.
- G. “Install”: Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. “Provide”: Furnish and install, complete and ready for the intended use.
- I. “Project Site”: Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

## 1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list, under Article 1.5.
- B. Names, telephone numbers and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

1.5 SCHEDULE OF REFERENCES

AISC	American Iron and Steel Institute
AISC	American Institute of Steel Construction, Inc.
ANSI	American National Standards Institute
APA	American Plywood Association
ASC	Adhesive and Sealant Council
ASCE	American Society of Civil Engineers
Engineers ASHRAE	American Society of Heating, Refrigeration and Air Conditioning
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing & Materials
AWPA	American Wood Preservers' Association
FM	Factory Mutual Corporation
FS	Federal Specifications and Federal Standards
NBS	National Bureau of Standards (U.S. Department of Commerce)
NEC	National Electric Code, NFPA 70-84
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIOSH	National Institute of Occupational Safety and Health
NRCA	National Roofing Contractor's Association
NSF	National Sanitation Foundation

OSHA	Occupational Safety and Health Administration and/or Act
PS	Product Standards of NBS
SDI	Steel Deck Institute
SMACNA	Sheet Metal and Air Conditioning Contractor's National Association - Architectural Sheet Metal Manual
UL	Underwriters Laboratories

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01 4200

SECTION 01 5000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
  - 1. Electricity and Lighting
  - 2. Ventilation and Temperature Controls
  - 3. Telephone Service
  - 4. Water
  - 5. Sanitary Facilities
  - 6. Barriers
  - 7. Enclosures
  - 8. Protection
  - 9. Water Control
  - 10. Cleaning During Construction
  - 11. Field Sheds
  - 12. Project Specific Conditions

1.3 ELECTRICITY AND LIGHTING

- A. Connect to existing service, provide branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords in accordance with NEC Art. 305. All power cords shall be fitted with ground fault breakers.
- B. In the event that night time construction is required provide minimum 30-foot candles of lighting for construction operations.
- C. Existing and permanent lighting may be used during construction. Maintain lighting and routine repairs.
- D. A reasonable amount of electricity will be provided by the Owner provided that, in the Owner's opinion no abuse of its use occurs.

1.4 VENTILATION AND TEMPERATURE CONTROLS

- A. Coordinate use of existing facilities with Owner. Extend and supplement facilities with temporary units as required to maintain specified conditions for construction operations and to protect materials and finishes from damage due to temperature or



humidity.

- B. Prior to operation of permanent facilities for temporary purposes, verify that installation is approved for operation, and that filters are in place. Provide and pay for operation, maintenance, final cleaning and adjusting.
- C. Provide ventilation of enclosed areas to cure materials, disperse humidity, and prevent accumulations of dust, mold, fumes, vapors and gases.

#### 1.5 TELEPHONE SERVICES

The Contractor will not be allowed to use Owner's telephones. The Contractor may, at his option, provide a land-based telephone at the project site. The project Superintendent shall be required to have in his possession at all times a functioning mobile telephone. The telephone shall be operative at all times and shall be answered by the Superintendent. All number(s) including a 24-hour emergency number shall be provided to the Owner and Architect.

#### 1.6 WATER CONTROL

- A. Connect to existing facilities. Extend branch piping with outlets located so water is available for use with hoses. Place a control device on each hose in order that water will not run freely and be wasted when left on. Patch all holes in hoses, lines, fittings, etc., and maintain in serviceable condition throughout the project.
- B. A reasonable amount of water will be provided by the Owner provided that, in the Owner's opinion, no abuse of its use occurs.

#### 1.7 SANITARY FACILITIES

Portable toilets shall be provided by the Contractor for use during the Work. Portable toilets shall be kept locked at all times and maintained in a sanitary condition, at a location on the site approved by the Architect and Owner. The Contractor's personnel shall not use facilities inside the existing building.

#### 1.8 BARRIERS

- A. Provide as required to prevent public entry to construction areas, to provide for Owner's use of site, and to protect existing facilities and adjacent properties from damage by construction operations.
- B. Provide barriers around trees and plants in affected areas. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuous running water.
- C. Provide six (6) foot high chain link fencing around all ground operations where hazardous materials or equipment are in operation. Containment area gates shall have padlocks with the combination or key provided to the Owner.

### 1.9 ENCLOSURES

- A. Provide temporary weather-tight enclosures of openings in exterior surfaces to provide acceptable working conditions and protection for materials, to allow for temporary heating, and to prevent entry of unauthorized persons. Provide doors with self-closing hardware and locks.
- B. Provide temporary partitions and ceilings as required to separate Work areas from Owner occupied spaces, to prevent product contamination penetration, of dust and moisture into Owner occupied areas, and to prevent damage to existing areas and equipment. Construction shall be wood or steel scaffold framing and plywood sheathing with closed joints and sealed edges at intersections with existing surfaces. Provide temporary partitions as required in accordance with provisions of local building codes and the latest edition of the Life Safety Code.

### 1.10 PROTECTION OF INSTALLED WORK

- A. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.
- B. Provide protective covering for walls, projections, jambs, sills, and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects and storage.
- C. Prohibit traffic and storage on waterproofed and roofed surfaces and on lawn and landscaped areas not previously identified by Owner for those purposes.

### 1.11 CLEANING DURING CONSTRUCTION

Control accumulation of waste, debris and rubbish on a daily basis and dispose of off the site. Clean interior areas prior to start of any finish Work and maintain all areas free of contamination.

### 1.12 FIELD SHEDS

Storage sheds for tools, materials and equipment, if provided, shall be weathertight with heat and ventilation for products requiring same.

### 1.13 REMOVAL

- A. Remove temporary materials, equipment, services and construction prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities. Restore existing construction to specified or original condition.
- C. All grounds shall be restored to a like-original condition. If the grounds contain Bermuda grass, seeding is permitted. If the grounds contain St. Augustine grass, it shall be re-sodded. All seeding and re-sodding operations and procedures shall be submitted in writing and be approved by the Architect prior to the Work beginning.

Any trees, shrubs or other plantings shall be restored or replaced to their existing condition prior to the Work.

1.14 PROJECT SPECIFIC CONDITIONS

- A. The chain link fence(s) at the staging area(s) shall be erected and maintained where shown on the Drawings and as otherwise occur for the entire course of construction in that location.
  
- B. A photographic or videotape survey shall be conducted of the interior and exterior of the building prior to any Work beginning. The survey shall be conducted in the presence of the Owner's or Architect's designated representative. Copies of the survey shall be submitted to the Architect within three (3) days of its creation. Failure to provide the survey shall result in the Contractor being held responsible for any and all damages observed thereafter which can reasonably be associated with the Work. The survey shall include the following:
  - 1. All ceiling and floor surfaces throughout the interior of the building. The Contractor shall comply with the Owner's restrictions where building contents are sensitive to light exposure.
  - 2. All sidewalks and paved surfaces outside the building.
  - 3. All current staining of any and all surfaces observed inside or outside the building.
  - 4. All plant life and grounds surrounding the building.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 5000

SECTION 01 6100

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
  - 1. Products
  - 2. Transportation
  - 3. Storage and Protection
  - 4. Product Options
  - 5. Products List
  - 6. Substitutions
  - 7. Systems Demonstration

1.3 PRODUCTS AND CERTIFICATIONS

- A. Products include material, equipment and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification Section shall be the same, and shall be interchangeable. Components and products within a Specification Section shall be from one manufacturer unless otherwise specified.
- D. Do not use materials and equipment removed from existing structure, except as specifically required or allowed by the Contract Documents.
- E. Submit an asbestos-free certification for all materials proposed for use in the project stating that no material proposed or intended for use contains asbestos. At project completion submit a certificate indicating that all materials installed in the project were asbestos free.

1.4 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid damage. Deliver in undamaged condition in manufacturer's unopened dry containers or packaging.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Promptly inspect shipments to assure that products comply with requirements,

quantities are correct, and products are undamaged.

#### 1.5 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering providing ventilation and any required heating to avoid condensation.
- C. Store loose granular materials on solid surfaces in well-drained areas. Prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged and maintained under required conditions.

#### 1.6 PRODUCT OPTIONS

- A. Only within ten (10) days after date established in the Notice to Proceed will Owner consider requests from the Contractor for substitutions. Subsequently, substitutions will be considered only when a product becomes unavailable due to no fault of the Contractor.
- B. Products specified by "Reference Standards" or by "Description Only" shall be any product meeting those standards.
- C. For products specified by naming one or more manufacturers with a provision for substitutions, submit a fully executed Request for Substitution form for any manufacturer not specifically named.
- D. No options or substitutions will be allowed where products are specified by naming of several manufacturers or when proposed substitution products do not exactly meet requirements of these Specifications.

#### 1.7 SYSTEMS DEMONSTRATION

- A. Prior to final inspection, demonstrate operation of each system to all parties concerned.
- B. Instruct Owner's personnel in maintenance of new roof system or modified mechanical items, etc.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 6100

SECTION 01 7329

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Submit written request in advance of cutting or alteration which affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather-exposed or moisture-resistant element.
  - 3. Efficiency, maintenance, or safety of any operational equipment.
  - 4. Visual qualities of sight-exposed elements.
  - 5. Work of Owner or separate contractor.
- B. Include in request:
  - 1. Identification of Project.
  - 2. Location and description of affected Work.
  - 3. Necessity for cutting or alteration.
  - 4. Description of proposed Work, and products to be used.
    - a. Scope of cutting, patching, alteration, or excavation.
    - b. Trades who will execute the Work.
    - c. Products proposed to be used.
    - d. Extent of re-finishing.
    - e. Cost proposal, only when applicable.
    - f. Suggested alternatives to cutting and patching.
  - 5. Effect on Work of Owner or separate contractor, if any
  - 6. Written permission of affected separate contractor, if any.
  - 7. Date and time Work will be executed.

1.5 QUALITY ASSURANCE

Requirements for Structural Work: Do not cut or alter any structural Work in a manner that would result in a reduction of load-carrying capacity or of load-deflection ratio.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Except as otherwise indicated, or as directed by the Owner, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect.
- B. Use materials for cutting and patching that will result in equal-or-better performance characteristics.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Execute cutting, fitting and patching, including excavation and fill, to complete Work and to:
  - 1. Fit the several parts together, to integrate with other Work.
  - 2. Uncover Work to install ill-timed Work.
  - 3. Remove and replace defective and non-conforming Work.
  - 4. Remove samples of installed Work for testing.
  - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

### 3.2 INSPECTION

- A. Before cutting, examine the surfaces to be cut and patched and the conditions under which the Work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with the Work.
- B. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- C. After uncovering, inspect conditions affecting performance of Work.
- D. Beginning of cutting or patching means acceptance of existing conditions.

### 3.3 PREPARATION

- A. Provide supports to assure structural integrity of surroundings, devices and methods to protect other portions of Work from damage.
- B. Provide protection from elements for areas which may be exposed by uncovering



Work; maintain excavations and openings free of water.

- C. Prevent debris from entering facility; do not permit product contamination.

### 3.4 PERFORMANCE

- A. Employ skilled workers to perform cutting and patching Work. Except as otherwise indicated or as approved by the Architect, proceed with cutting and patching at the earliest feasible time and complete without delay.
- B. Cut the Work using methods that are least likely to damage Work to be retained or adjoining Work. Where possible review proposed procedures with the original installer and comply with its recommendations.
- C. In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut through concrete and masonry using a cutting machine, such as a silicon carbide (carborundum) saw or core drill, to ensure a neat hole. Cut holes and slots neatly to size required, with a minimum disturbance of adjacent Work. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces. Temporarily cover openings when not used.
- D. Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the Work. Where feasible, inspect and test patched areas to demonstrate integrity of Work. Restore exposed finishes of patched areas and where necessary extend finish restoration into retained adjoining Work in a manner which will eliminate evidence of patching and re-finishing.
- E. Where removal of walls or partitions extends from one finished area into another finished area, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance. If necessary to achieve uniform color and appearance, remove existing floor and wall covering and replace with new materials.
- F. Where patch occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing patch, after patched area has received prime and base coat. Patch, repair or re-hang existing ceilings as necessary to provide an even plane surface of uniform appearance.
- G. Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through roof, wall, floor or other surfaces.
- H. At penetrations of fire-rated wall, ceiling, or floor construction, completely seal voids with fire rated material for the full thickness of the construction element.
- I. Do not leave facility open to contamination or the elements; close off at end of each work day.
- J. Thoroughly clean areas and spaces where Work is performed or used as access to Work. Remove completely paint, mortar, oils, putty and items of similar nature.

Thoroughly clean piping, conduit and similar features before painting or other finishing is applied.

END OF SECTION 01 7329

SECTION 01 7800

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  1. Substantial Completion procedures.
  2. Final completion procedures.
  3. Warranties.
  4. Final cleaning.
  5. Repair of the Work.

1.3 SUBSTANTIAL COMPLETION PROCEDURES

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
  1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  2. Advise Owner of pending insurance changeover requirements.
  3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  5. Prepare and submit Project Record Documents, operation and maintenance manuals.
  6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
  7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
  10. Complete final cleaning requirements, including touchup painting.
  11. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

- B. Inspection: Submit a written request for inspection to determine Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
  - 1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
  - 2. Results of completed inspection will form the basis of requirements for final completion.

#### 1.4 FINAL COMPLETION PROCEDURES

- A. Before requesting final inspection for determining final completion, complete the following:
  - 1. Submit a final Application for Payment.
  - 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  - 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Inspection: Submit a written request for final inspections. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
  - 1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

#### 1.5 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
  - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
  - 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file

with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

### 2.2 CLOSEOUT DOCUMENTS

- A. Prior to requesting a review of the fully completed punch list items submit the following documents to the Architect:
  1. Final Application and Certificate of Payment. Include back-up sheets showing all items to be 100% complete.
  2. Letter stating that all items of Work are complete, along with a "punch list" of any exceptions.
  3. Contractor's Affidavit of Bills Paid. (*AIA Document G706*)
  4. Contractor's Affidavit of Release of Lien. (*AIA Document G706A*)
  5. Consent of Surety to Final Payment.
  6. Two-year Warranty for Roofing per Section 01 7830.
  7. One-year Warranty from Window, Painting, Mechanical, Plumbing, Electrical and any other applicable subcontractor.
  8. Twenty-year manufacturer's warranty for the single ply roof system.
  9. Twenty-year pre-finished metal warranty.
  10. All warranties shall be dated no earlier than the Date of Substantial Completion.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual. Provide three (3) copies of all required closeout documents submitted in three (3) separate binders as described below.
  1. Bind documents in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  3. Identify each binder on the front and spine with the typed or printed title "CLOSEOUT DOCUMENTS," Project name, and name of Contractor.

### 2.3 RECORD DOCUMENT SUBMITTALS

- A. Specific requirements for Record Documents are indicated in individual sections of these Specifications. Other requirements are indicated in General Conditions. General submittal requirements are indicated in Section 01 3300. Do not use Record

Documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; and provide access to Record Documents for Architect's reference during normal Work hours.

B. Record Documents:

1. Maintain a blue-line or black-line print of Contract Documents and shop drawings in clean, undamaged condition, with mark-up of actual installations which vary substantially from the Work as shown.
  - a. Mark whichever drawing is most capable of showing "field" conditions fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at corresponding location on working drawings.
  - b. Mark with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of Work.
  - c. Mark-up new information which is recognized to be of importance to the Owner, but was for some reason not shown on either the contract drawings or shop drawings.
  - d. Give particular attention to concealed Work, which would be difficult to measure and record at a later date. Note related change order numbers where applicable.
2. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on cover of each set.
3. Upon completion of preparation of the as-built set have it reproduced and submit one (1) set along with two blue-line copies to the Architect.

C. Maintain one copy of Specifications, including all addenda, change orders and similar modifications issued in printed form during construction, and mark-up variations (of substance) in actual Work in comparison with text of Specifications and modifications as issued.

1. Give particular attention to substitutions, selection of options, and similar information on Work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation.
2. Note related record drawing information and product data, where applicable.
3. Upon completion of mark-up, submit to Architect for Owner's records.

D. Operations and Maintenance Manual: Provide Record Drawings and Specifications, warranty and maintenance instructions bound in book form for the Owner upon project completion. Provide three (3) copies of each.

### PART 3 - EXECUTION

#### 3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
  - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
  - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
  - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
  - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
  - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
  - g. Sweep concrete floors broom clean in unoccupied spaces.
  - h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
  - i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
  - j. Remove labels that are not permanent.
  - k. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - l. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - m. Leave Project clean and ready for occupancy.

### 3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
  1. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.

- a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
2. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.

END OF SECTION 01 7800



SECTION 01 7830

ROOFING INSTALLER'S WARRANTY

WHEREAS \_\_\_\_\_  
,  
of \_\_\_\_\_  
,

Herein called the "Contractor," has performed roofing and associated Work on the following project:

**Roof Improvements to Akins High School**  
10701 S. 1<sup>st</sup> Street, Austin, Texas 78748  
**AISD Project No. 20-0034-AKINS**

Owner: **AUSTIN INDEPENDENT SCHOOL DISTRICT**  
Address: 4000 S. IH 35 Frontage Road, Austin, Texas 78704

Area(s) of Work \_\_\_\_\_

Acceptance Date: \_\_\_\_\_ Warranty Period: **Two (2) Years**

Date of Expiration: \_\_\_\_\_

AND WHEREAS the Contractor has contracted with Owner to warrant said Work against leaks and faulty or defective materials and workmanship for designated Warranty Period.

NOW THEREFORE the Contractor hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period will at its own cost and expense, make or cause to be made such repairs to, or replacement of said Work as is necessary to correct faulty and defective Work, and as is necessary to maintain said Work in watertight condition.

This Warranty is made subject to the following terms and conditions:

1. Specifically excluded from this Warranty are damages to Work and other parts of the building, and to building contents, caused by: (a) lightning, windstorm, and other unusual phenomena of the elements; (b) fire; (c) failure of roofing system substrate including cracking, settlement, excessive deflection, deterioration, and decomposition; (d) faulty construction of vents, mechanical equipment, and other penetrations not installed as part of the Work; (e) repeated vapor condensation on bottom of roofing; and (f) activity on roofing by other persons including construction contractors and maintenance personnel, whether authorized or unauthorized by Owner.

2. When Work has been damaged by any of the foregoing causes, Warranty shall be null and void until such damage has been repaired by the Contractor, and until cost and expense thereof has been paid for by the Owner, or by another responsible party so designated.

3. The Contractor is responsible for Work covered by this Warranty, but is not liable for consequential damages to buildings or building contents resulting from leaks or faults or defects of the Work.

4. During Warranty Period, if the Owner allows alterations of Work by anyone other than the Contractor, including cutting, patching and maintenance in connection with penetrations, attachment of other Work, and positioning of anything on roof, this Warranty shall become null and void upon date of said alterations, but only to extent said alterations affect Work covered by this Warranty. If the Owner engages the Contractor to perform said alterations, Warranty shall not become null and void, unless the Contractor, before starting said Work, shall have notified the Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate the Work, thereby reasonably justifying a limitation or termination of this Warranty.

5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void upon date of said change, but only to extent said changes affect Work covered by this Warranty.

6. Owner shall promptly notify the Contractor of observed, known, or suspected leaks, defects or deterioration, and shall afford reasonable opportunity for the Contractor to inspect the Work, and to examine evidence of such leaks, defects or deterioration.

7. This Warranty is recognized to be the only Warranty of the Contractor on said Work, and shall not operate to restrict or cut off the Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve the Contractor of responsibility for performance of original Work.

IN WITNESS THEREOF, this instrument has been duly executed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Contractor Name and Address

\_\_\_\_\_  
Typed name and Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Fax Number

Notary Seal

SECTION 06 1050

ROOF CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Framing with dimension lumber.
  - 2. Rooftop equipment bases and support curbs.
  - 3. Wood blocking and nailers.
  - 4. Plywood sheathing.
  - 5. Isolation tape.
- B. Related Sections
  - 1. Section 07 2200 - Roof Insulation
  - 2. Section 07 5216 - Modified Bitumen Roof System
  - 3. Section 07 6200 - Flashing and Sheet Metal
  - 4. Section 07 7200 - Roofing Accessories

1.3 REFERENCES

- A. American Lumber Standards Committee (ALSC): National Design Specification for Wood Construction.
- B. American Wood Preservers' Association (AWPA): AWPA Book of Standards.
- C. American Wood Preservers Bureau (AWPB): APA Design Construction Guide.
- D. Product Standard of NBS (PS):
  - 1. PS 1 - Construction and Industrial Plywood.
  - 2. PS 20 - American Softwood Lumber Standard.

1.4 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.

- C. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
  - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
  - 2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
  - 3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.
- D. Submit product data and certificates under provisions of the appropriate Division 1 Section for the following:
  - 1. Dimensional treated lumber.
  - 2. CDX plywood.
- E. Submit product data for all wood fasteners, including their sizes, material, type and finish.
- F. Laboratory Test Reports:
  - 1. Provide documentation for adhesives and plywood, indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
  - 2. For each composite-wood product used, provide documentation indicating that the bonding agent contains no urea formaldehyde.
  - 3. For each adhesive used, provide documentation indicating that the adhesive contains no urea formaldehyde.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in bulk as necessary to provide continuous operations and no Work slow-down. Schedule and coordinate with Owner to cause the least inconvenience to Owner's daily activities. All deliveries and unloading or loading activities are the responsibility of the Contractor. Owner will not take responsibility for any delivery activities.
- B. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.
- C. Store materials in designated areas, out of the way of Owner's on-going operations.
- D. Store and handle materials to preclude damage and contamination with moisture or foreign matter.

### PART 2 - PRODUCTS

## 2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
  - 1. Factory mark each piece of lumber with grade stamp of grading agency.
  - 2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
  - 3. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 19% at time of dressing unless otherwise indicated.

## 2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWPA U1.
  - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat all miscellaneous carpentry unless otherwise indicated, items indicated on Drawings, and the following:
  - 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.

## 2.3 DIMENSION LUMBER FRAMING

- A. Southern Pine;
  - 1. Two-inch nominal dimension lumber: No. 1 common, stress rated Fb 1350.

## 2.4 PLYWOOD

- A. DOC PS 1, Exposure 1, C-D Plugged, thickness as shown on drawings. Do not further treat after manufacture.

## 2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.

1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.
- B. Provide fasteners in the sizes and of the type indicated.
  1. Screws, Nails and Small Bolts in Treated Wood: Stainless steel.
  2. Screws and Nails in Non-Treated Wood: Hot-dipped galvanized finish.
  3. ¼-inch and Larger Diameter Bolts: Hot-dip galvanized finish.
- C. Masonry Anchors:
  1. Masonry and/or Concrete Substrate Fasteners: Steel pin and zinc-jacketed fasteners; Zamac "Hammer Screw," ¼-inch x 1 1/2-inch, or approved equal.
  2. Masonry Substrate Fasteners: "Tapcon," or approved equal, in sizes and lengths dictated by existing conditions, and approved by the Architect.

## 2.6 MISCELLANEOUS MATERIALS

- A. Isolation Tape: Multi-Purposed Grade Duct Tape, with polyethylene-coated cloth backing, natural rubber-based adhesive, and silver in color, equal to DT-11 as produced by 3-M Corporation.
  1. Total Thickness: 11 mils, ASTM D3652.
  2. Peel Adhesion: 88oz/in, ASTM D3330.
  3. Tensile Strength: 464 oz/in, ASTM D3759.
  4. Maximum Performance Temperature: 200° F.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
  1. Securely attach carpentry Work to substrate by anchoring and fastening as shown and as required by recognized standards.
  2. Countersink nail heads on exposed carpentry Work and fill holes.
  3. Use common wire nails, except as otherwise indicated.
  4. Select fasteners of size that do not penetrate members where opposite sides are exposed to view or will receive finish materials.
  5. Make tight connections between members.
  6. Pre-drill holes when required to prevent splitting of wood.
- B. Where wood-preservative-treated lumber is installed adjacent to metal decking, metal curbs or other steel members, install continuous isolation tape between wood and metal or steel components.
- C. Discard units of material with defects which might impair quality of Work, and units which are too small to use in fabricating Work with minimum joints or optimum joint arrangement.

- D. Provide wood products to size and shape shown and coordinate closely with all other scheduled Work for continuous operation of all trades.
- E. Install wood nailers at perimeters and flanged penetrations, matching insulation in height.
- F. When securing wood blocking by nailing:
  - 1. Secure 3/4-inch and 1-inch materials with 8d stainless steel framing nails.
  - 2. Secure 1-1/2 inch or 2-inch materials with 16d stainless steel framing nails.
  - 3. Do not exceed nail spacing 12-inches on centers, or as detailed, and drive nails securely in place. Remove and dispose of bent or deformed nails or fasteners.
- G. Bolts at Perimeter Nailers:
  - 1. 5/8-inch diameter galvanized carriage bolts with washers, spaced at 36 inches on centers, with a minimum of 3 bolts per corner and one within 6 inches of each cut end of any lumber piece, corners and bends.
  - 2. Draw bolt heads flush with top of nailers by hammering or drawing by tightening of the nut below the perimeter steel angle.
- H. Plywood Decking over Metal Deck: Secure plywood through insulation or directly to steel decking with specified fasteners applied at the rate of thirty-three (33) fasteners per sheet. Fasteners shall be installed in a uniform pattern of alternating rows of seven (7) and six (6) fasteners per row laid parallel to the long edge of the sheet.
- I. Correlate locations of nailers, blocking, and similar supports to allow proper attachment of other Work necessary.
- J. Provide additional fasteners in existing perimeter wood blocking as necessary so fastener spacing does not exceed 24" on center staggered.

### 3.2 PROTECTION

- A. Protective Walkways: Install full sheets of 1/2-inch plywood over minimum 1-inch insulation board over areas of new roof surface to be trafficked by personnel and wheeled vehicles.

### 3.3 CLEANING

- A. Pick up spilled nails and fasteners from grounds and roof surface continually.

END OF SECTION 06 1050

SECTION 07 0151

PREPARATION FOR RE-ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Roof removal.
  - 2. Metal deck repair and replacement.
- B. Related Sections
  - 1. Section 01 7830 - Roofing Installer's Warranty
  - 2. Section 07 6200 - Flashing and Sheet Metal

1.3 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site

1.4 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Submit current catalogs/brochures describing products for review, coordination and final approval for use in this Project. Deliver submittals per requirements of Section 01 3300.
- D. Submit Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces that might be misconstrued as having been damaged by reroofing operations. Submit before Work begins.
- E. Provide a demolition plan indicating at a minimum the following:
  - 1. Schedule of demolition detailed to correspond to re-roofing operations.
  - 2. Requirements of staging including methods proposed for transport of materials from the roof to the ground.
  - 3. Submit containment fence layout, materials and support structure for all rooftop



and ground locations.

## 1.5 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
  - 1. Coordinate work activities daily with Owner so Owner can place protective dust or water leakage covers over sensitive equipment or furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below the work area.
  - 2. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below the affected area. Verify that occupants below the work area have been evacuated before proceeding with work over the impaired deck area.
- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- D. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
- E. Hazardous Materials: It is not expected that hazardous materials such as asbestos-containing materials will be encountered in the Work.
  - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.
- F. Perform pull tests on decking immediately upon completion of roofing demolition.
  - 1. Provide at the site for the duration of the demolition Work a calibrated, crank style pull tester for performing pull tests when directed by the Architect.
  - 2. Pull test locations shall be noted on the as-built drawings with a log of locations and results provided to the Architect.
  - 3. Minimum pull tests in metal decking shall be 250 lbs., or corrective action shall be required.
  - 4. A minimum of two (2) pull tests shall be performed for every 1,000 square feet of decking.
- G. The allowable weight distribution for all roof areas is 20 pounds per square foot.
  - 1. Remove demolished roofing products from the roof to the ground immediately with no stacking of materials permitted.
  - 2. Transfer materials direct from the ground into ground-based trash containers and remove from the project upon completion of demolition.
  - 3. Take precautions to prevent damage to surfaces by ground-based disposal units.
- H. In the event of the discovery of unanticipated substrates, or damaged or deteriorated structural components, immediately advise the Architect and await instructions prior to proceeding, unless otherwise directed. Repair and/or replace damaged or

deteriorated decking in strict compliance with this Section, or as otherwise directed by the Architect.

- I. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

## PART 2 - PRODUCTS

### 2.1 STEEL DECKING REPAIR OR REPLACEMENT

- A. Steel Decking: 22-gauge galvanized decking. Profile shall match existing.
- B. Deck Fasteners Screws: #12 self-drilling galvanized steel TEK 5 screws, 1.5 inch in length.
- C. Stitch Screws: #10 self-tapping galvanized steel sheet metal screws, 0.75 inch in length.

## PART 3 - EXECUTION

### 3.1 PREPARATION/DEMOLITION

- A. Completely remove all existing roofing materials and flashings to the existing decking over the entirety of the roof areas indicated by the Drawings. Replace or repair any decking so damaged that it is unable to hold new fasteners.
- B. Remove and properly dispose of existing roofing, insulation, flashings, unused accessories and other items as detailed on all areas shown. Coordinate all activities with Owner.
- C. Control dust as much as possible by lightly sprinkling the roof surface with clean water. Police the roof and grounds constantly to prevent debris blowing off the roof and around the site.
- D. Adhere to the following removal procedures, without deviation:
  1. Transport debris to the disposal vehicle/dumpster using a fully enclosed trash chute. The chute shall be designed to deposit debris a maximum distance of 12 inches above the sides of the container.
  2. Do not stack debris above the top edge of the container.
  3. Prior to removing the container from the site, cover it with a tarp and contain it so that no debris escapes during transport to the dump site.
  4. Cranes with fully enclosed buckets may be used for transport of materials from roof level.
  5. When in the Contractor's opinion high winds would be hazardous to the health and safety of its employees, or when debris cannot be controlled in conducting tear-off operations, suspend work and return the roof to a watertight condition.
- E. Leave the substrate completely free of debris or foreign matter. Inspect decks at this time. Where deteriorated conditions are found, report findings to Architect in writing for direction.

- F. Bring accessories which the Contractor may deem no longer necessary to the attention of the Architect.
1. Do not start removal and deck repair procedures until authorization is obtained from the Architect.
  2. Any and all removed accessories are to be considered the property of the Owner, who reserves the right to retain possession.
  3. Equipment and/or any materials removed, not used, and not claimed by the Owner, shall be removed and properly disposed of off site.

### 3.2 METAL DECK REMOVAL, REPLACEMENT AND/OR REPAIR

- A. Metal Deck Removal and Replacement. The following procedures shall be followed:
1. Where possible, the Architect shall be notified a minimum of 48-hours (weekdays only) in advance of the Contractor's intended deck replacement work.
  2. Following removal of the built-up roofing and insulation the Contractor shall broom and completely clean the deck and flutes of all debris, dust, etc.
  3. All welds shall be ground loose and the deck removed in sections. The use of cutting torches is prohibited. Caution shall be exercised to not damage the bar joists or other steel structural members during deck removal.
  4. Metal decking shall be moved from the roof to the storage or demolition area on the day it is removed. Stocking of removed panels on the roof surface overnight is prohibited. Deck panels shall be removed to the ground by controlled lift or crane.
  5. The top chords of each bar joist shall be inspected and repaired as required. Existing welds shall be ground smooth and flush with the top chord so as to prevent conflicts with the new decking. All ground surfaces shall be primed with one coat of red oxide primer.
  6. Lay metal deck panels perpendicular to the existing bar joists and fastened along each joist with specified TEK screws spaced at 6 inches on centers. Fully seat side laps in adjacent deck panels or set within 0.25-inch of other side stops. End laps shall be handled as shown in the manufacturer's shop drawings. End laps shall occur over existing bar joists only. Side laps shall be fastened with stitch screws spaced at 12 inches on centers.
  7. Installation of new insulation shall not occur until all decking is in place and has been observed by the Architect's representative.
  8. Debris dropped below the deck shall be removed in its entirety. Any damaged materials below the deck, occurring as a part of this work, shall be remedied to the Owner's and Architect's satisfaction.
- B. Metal Deck Repair No. 1 (MDR-1) - Large Sheet Replacement, **(Unit Price No. 4)**:
1. New metal decking shall match the existing profile.
  2. Sheet replacement shall cover a minimum of two spans.
  3. New decking shall extend a minimum of 6 inches over each end joist with the entire width of the sheets being replaced.
  4. New decking shall be fastened with specified screws spaced at 6 inches on centers along each bar joist.
  5. All laps shall have sheet metal stitch screws spaced at 12 inches on centers.
- C. Metal Deck Repair No. 2 (MDR-2) - Surface Rust Remediation, **(Unit Price No. 5)**:
1. Remove all rust by wire brushing and apply rust bonding red oxide metal primer.
- D. Metal Deck Repair No. 3 (MDR-3) - Hole Repair, **(Unit Price No. 6)**:

1. Hole repairs do not require prior notification to the Architect and may occur while classes are in session.
2. Holes through deck measuring less than 12-inches in diameter or sides shall be repaired by attaching one layer of 18-gauge galvanized metal with sheet metal screws spaced at 6 inches on centers, maximum.
3. The new repair metal shall lap over the existing decking by a minimum of 6 inches on all sides of the hole.

### 3.3 CLEANING

- A. Broom clean all walks, drives and other surfaces on a daily basis. Promptly pick up and dispose of all debris outside the containment fencing.

### 3.4 RECORDS

- A. Accurately record all structural element repairs on the Project Record Documents ("as-built" drawings).

END OF SECTION 07 0151

SECTION 07 2200

ROOF INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Polyisocyanurate board insulation.
  - 2. Roof cover board.
  - 3. Insulation fasteners.
  - 4. Insulation adhesive.
  - 5. Fiber cant strips.
- B. Related Sections
  - 1. Section 01 7830 - Roofing Installer's Warranty
  - 2. Section 06 1050 - Roof Carpentry
  - 3. Section 07 5216 - Modified Bitumen Roof System
  - 4. Section 07 6200 - Flashing and Sheet Metal

1.3 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Product List: Submit list of proposed Products and manufacturers, including all items specified in Part 2 – Products or otherwise required by the Work.
- D. Product Data: For each type of product indicated.
- E. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
  - 1. Tapered insulation, including slopes.
  - 2. Crickets, saddles, and tapered edge strips, including slopes.
  - 3. Insulation fastening patterns for corner, perimeter, and field-of-roof locations along with documented evidence that patterns meet wind uplift criteria from latest version of ASCE 7 and FM standards.
- F. Submit specified manufacturer's letters and certificates.

## 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
  - 1. Inspect for damage.
  - 2. Store products in weather protected environment, clear of ground and moisture.
  - 3. Deliver materials in quantities to allow continuity of application throughout the Project.
  - 4. Coordinate shipment receipt as necessary to cause Owner least amount of interference in Owner's operations. Owner will not take responsibility for product deliveries.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
  - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources.
  - 1. Store materials subject to water damage in fully enclosed, watertight storage trailers.
  - 2. Do not store insulation materials on the roof overnight.
  - 3. Store materials on the roof surfaces only on the morning they will be installed. Do not store more materials on roof overnight unless approved by the Architect.
  - 4. Maximum Allowable Loading on Roof: 20 pounds per square foot.
- D. Handle materials in a manner precluding damage and contamination by moisture or other harmful/foreign matter.
- E. Promptly mark, remove from the site, and discard any materials contaminated by moisture.

## 1.5 PERFORMANCE REQUIREMENTS

- A. General Performance: Provide installed insulation and/or base sheet that withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.
- C. Roof System Design: Provide a roofing system that meets or exceeds the wind uplift pressures shown on the drawings.
- D. Approval Standards: Meet testing standards of FM 4450 and FM 4470.

## 1.6 JOB CONDITIONS

- A. Do not apply any portion of the roof system or its accessories during precipitation, or start application in the event precipitation is threatening, unless proper precautions have been taken.

## 1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply insulation during inclement weather. Temperatures must be a minimum of 40° Fahrenheit and rising. Do not apply insulation material to damp or frozen deck or substrate.
- B. Do not apply insulation when the wind is determined to be detrimental to safe installation practices.

PART 2 - PRODUCTS

## 2.1 MATERIALS

- A. General: Preformed roof insulation boards manufactured or approved by roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated.
- B. Polyisocyanurate Insulation Board:
  - 1. Rigid flat and tapered polyisocyanurate foam insulation board, meeting ASTM C-1289, Type II, Class 2, Grade 2 with in-organic insulation board facers.
  - 2. Sizes:
    - a. 48 inches x 96 inches maximum where mechanically fastened.
    - b. 48 inches x 48 inches maximum where adhesively applied.
  - 3. Board thickness: As shown on the Drawings. Minimum base layer thickness shall be 2 inches.
  - 4. Tapered insulation slope: As shown on the Drawings.
  - 5. R-value: Minimum R-25
- C. Crickets: Provide factory tapered polyisocyanurate insulation boards with the same characteristics as Article 2.1.B above.
  - 1. Minimum 1/2-inch per foot slope. Widths of crickets and saddles shall not be less than 1/3 their lengths, unless otherwise shown on Drawings.
- D. Roof Cover Board:
  - 1. Acceptable Materials:
    - a. "DensDeck Prime," by Georgia-Pacific.
    - b. "Securock," by U.S. Gypsum.
  - 2. Thickness:
    - a. Over Field of Roof Insulation: 1/2-inch thickness.
    - b. Over Cants, Roof Curbs & Vertical Surfaces: 1/4-inch thickness.
  - 3. Board Size:
    - a. 48-inches x 96-inches where mechanically fastened.
    - b. 48-inches x 48-inches where adhesively applied.

4. Miter edges of ¼-inch roof board strips at tops and bottoms of cants.

E. Cant Strips:

1. Fire-retardant wood fiber or perlite, meeting ASTM C-728.
2. Size: 1.5 inches thick minimum x 4 inches face minimum.

## 2.2 RELATED MATERIALS

- A. General: Furnish roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with membrane roofing
- B. Asphalt Primer: Asphalt cut-back type primer manufactured in accordance with ASTM D-41 standards and without asbestos, for use on masonry, metal and other surfaces.
- C. Fasteners for Metal Decks: Coated steel insulation screws, using metal disks, and of sufficient length for proper penetration of roof deck in all instances.
- D. Insulation Adhesive: For use in adhering rigid insulation board, fiber cant strips and gypsum cover board in field of roof and at curbs and other vertical flashing surfaces:
  1. Olybond 500 or as recommended by roofing membrane manufacturer.

## 2.3 MANUFACTURERS

- A. The manufacturer of the insulation shall be approved in writing by the manufacturer of the roof membrane system. Submit manufacturer's letter.
- B. Include insulation as part of 20-year NDL warranty required for overall roofing system.

## PART 3 - EXECUTION

### 3.1 INSPECTION AND PREPARATION

- A. Verify that surfaces and site conditions are ready to receive work and that deck is supported and secured.
- B. Verify the deck is clean and smooth, free of depressions, waves, or projections, properly sloped to drains or eaves.
- C. Verify that deck surfaces are dry and free of snow or ice. Verify flutes of metal deck are clean and dry. Confirm deck dryness by moisture meter; maximum allowable: 12-percent.
- D. Verify that roof openings, curbs, pipes, sleeves, ducts, and vents through the roof are solidly set and wood nailing strips are in place.
- E. Beginning of installation means installer accepts existing surfaces.

### 3.2 INSULATION INSTALLATION

- A. Base Layer Application at Metal Decks: Install base layer of insulation with end joints staggered not less than 12 inches in adjacent rows and with long joints continuous at



right angles to the flutes.

1. Locate end joints over crests of decking.
2. Trim insulation neatly to fit around penetrations and projections, and to fit intersecting sloping roof decks.
3. Maximum joint width between adjacent boards shall be not more than 1/8-inch. Fill larger gaps with insulation.
4. Cut and fit insulation within 1/4-inch of nailers, projections and penetrations.
5. Do not install more board stock than can be covered during each day's operation.
6. Screws shall be of sufficient length to penetrate the existing or new metal deck by approximately 1 inch. Extra long screws are not permitted..
7. Mechanical fastening shall be in accordance with ASCE 7 and FM Class 90 requirements and approved shop drawings.

- B. Upper Layer Application: Install upper layers of insulation and cover board with longitudinal and transverse joints of each layer offset not less than 12 inches from previous layer.

1. Adhere each upper layer of insulation and cover board using adhesive.
2. Place, fit and trim upper layers of insulation as required for base layer.
3. Set each layer of insulation in ribbons of bead-applied insulation adhesive or full-spread adhesive, firmly pressing and maintaining insulation in place.
4. Space adhesive ribbons to achieve wind uplift pressures shown on the drawings and in accordance with ASCE 7 and FM Class 90 requirements and approved shop drawings.

- C. Cricket Installation:

1. Apply solidly in full embedment of low-rise foam adhesive.
2. Slope materials a minimum of twice the slope of the aggregate roof slope over which crickets and saddles are installed.
3. Extend cricket widths not less than 1/3 their lengths, unless otherwise detailed.

- D. All insulation shall be laid in full sheets wherever possible, and carefully fitted and pushed against adjoining sheets or nailers, to form a tight joint.

1. Butt insulation boards tightly together.
2. Walk-in all boards to ensure solid adhesion.
3. Stagger joints between adjacent boards and subsequent layers.
4. Fill open joints with tightly-fit pieces of matching roof insulation.
5. Miter edges of insulation boards at all ridges and elsewhere to prevent open or irregular joints.
6. Do not install more insulation than can be covered during each day's operation.

### 3.3 COVER BOARD INSTALLATION

- A. Cover boards shall be fit tight together. Gaps between board edges is not allowed.
- B. Over Field of Insulation: Fully adhere 1/2-inch thick roof cover board and comply with ASCE 7 and FM requirements stipulated for roof insulation.
- C. Miter cover board edges where ridges are formed at tops and bottoms of crickets, to prevent open or irregular joints.

- D. Cover cants, roof curbs and vertical surfaces where indicated with 1/4-inch roof cover board.
  - 1. Mechanically fasten to wood blocking with galvanized ring shank cap nails.
  - 2. Set in full embedment of low-rise foam adhesive at non-nailable substrates.
  
- E. Leave surfaces clean in preparation for roof membrane installation.

END OF SECTION 07 2200

SECTION 07 4113

METAL ROOF PANELS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Metal roof panels.
  - 2. Metal roofing accessories.
- B. Related Sections:
  - 1. Section 01 7830 - Roofing Installer's Warranty
  - 2. Section 07 2200 - Roof Insulation
  - 3. Section 07 6200 - Flashing and Sheet Metal

1.3 DEFINITIONS

- A. Metal Roof Panel Assembly: Metal roof panels, attachment system components, miscellaneous metal framing, thermal insulation, and accessories.
- B. Coordinate with Work of all other trades. Although such Work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

1.4 REFERENCES

- A. General: Any material or operation specified by reference to the published specification or standard of a manufacturer, trade association, technical organization or other published standard, shall comply with the requirements of the current specification or standard listed or enforced by the Authority Having Jurisdiction (AHJ).
- B. American Society for Testing and Materials (ASTM)
  - 1. ASTM A792 - Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
  - 2. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding System by Uniform Static Air Pressure Difference.
  - 3. ASTM E1680 - Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems.
  - 4. ASTM E1646 - Standard Test Method for Rate of Water Penetration Through Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.

5. ASTM E2140 - Standard Test Method for water penetration of metal roof panel systems by static water pressure head.
- C. American Society of Civil Engineers (ASCE)
  1. ASCE 7 – Minimum Design Loads for Buildings and Other Structures (Edition indicated on Drawings).
- D. Factory Mutual (FM)
  1. FM 1-28 – “Wind Design”.
  2. FM 1-31 – “Panel Roof Systems”.
  3. FM 4471 Appendix G- “Susceptibility to Leakage Test Procedure for Class 1 Panel Roofs”.
- E. International Code Council (ICC)
  1. International Building Code (IBC) – as enforced by AHJ. Without a local AHJ, the 2015 IBC shall be incorporated.
  2. International Existing Building Code (IEBC) – as enforced by AHJ. Without a local AHJ, the 2015 IEBC shall be incorporated.
- F. Sheet Metal and Air Conditioning Contractors’ National Association (SMACNA)
  1. Architectural Sheet Metal Manual.
- G. Underwriter’s Laboratories (UL)
  1. UL 580 – “Standard for Tests for Uplift Resistance of Roof Assemblies”.
  2. UL 1897 – “Standard for Uplift Tests for Roof Covering Systems”.

## 1.5 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Product Data: Manufacturer literature indicating product specifications, installation instructions, and standard construction details.
- D. Shop Drawings: To be prepared by metal roof system manufacturer or Engineer licensed in the State of Texas.
  1. Submit roof plan showing panel layout, gutters and downspouts as applicable.
  2. Provide metal roof flashing, gutter and downspout shop drawings.
    - a. Indicate gauge and finish of materials.
    - b. Indicate fastener type, finish and spacing.
    - c. Indicate locations of field applied sealant.
    - d. Indicate location size and gauge of all back up plates.
  3. Roof Panel Attachment:
    - a. Roof plan indicating roof clip spacing pattern at field, corner, perimeters and where panels are to be fixed from thermal movement.
- E. Samples:

1. Submit two samples, 12" long, full width panel, showing metal gage, seam and required finish.
2. Two samples each for roof panel clip, bearing plate and clip fastener.
3. Submit color samples for Architect's selection.
4. Submit sample warranties:
  - a. Coating Warranty.
  - b. Installer Warranty (Section 01 7830).

F. Certification:

1. Submit roof panel manufacturer's certification that fasteners, clips, backup plates, closures, roof panels and finishes meet specification requirements, wind uplift requirements.
2. Submit roof panel manufacturer's certification that installer meets requirements to install roof system and is qualified to obtain required warranties and has been certified for 3-years prior to proposal due date.
3. Test Reports –Certified test results that indicate roof system meets or exceeds design and performance criteria. Testing to include:
  - a. Static Water Testing Certification: The panel system shall be tested in accordance with FM4471 Appendix G, and pass with no leakage. The test specimen must successfully withstand being submerged under 6" of water for a minimum period of 7 days.
  - b. UL 580 – Submit UL 580/1897 test results for full assembly metal roof panel system as specified substantiating that the full assembly will meet the wind pressures with a safety factor of 2.0.
  - c. ASTM E1680 – Manufacturer's test data for air infiltration rates up to 20 pounds per square inch differential pressure.
  - d. ASTM E1646- Manufacturer's test data for water infiltration rates up to 20 pounds per square inch differential pressure.
  - e. ASTM E 1592. Submit ASTM E 1592 Test reports prepared by independent test laboratory substantiating that roof system will meet the applicable ultimate wind pressures with a safety factor of 2.0.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver panels to jobsite properly packaged to provide protection against transportation damage.
- B. Exercise care in unloading, storing and erecting panels to prevent bending, warping, twisting, and surface damage.
- C. Store all material and accessories above ground on well skidded platforms. Store under waterproof covering. Provide proper ventilation to panels to prevent condensation build-up between each panel.
- D. Remove from site panels which are damaged, or become water-stained during storage and handling. Remove, and replace materials, which are installed damage, or stained.

## 1.7 DESIGN AND PERFORMANCE CRITERIA

- A. Thermal Movement: Metal Roofing system, including flashing, shall accommodate unlimited thermal movement without buckling or excess stress on the structure.
- B. Roof panel and trim attachments will be designed to satisfy the requirements of the roof design (shown in shop drawings).
- C. Maximum wind uplift capacity of roof system shall be determined by ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference. Testing shall be reported by an independent ASTM accredited testing laboratory.
- D. Maximum wind uplift capacity of roof system shall be determined using certified results from UL 1897-98, Uplift Tests for Roof Covering Systems. Testing of the entire roof assembly shall be conducted in a UL-580 test chamber.
- E. Panel system installation shall be in accordance with ASCE 7 Wind Speed for project location with respect to appropriate Importance Factor, Exposure Category and Safety Factor.

#### 1.8 COORDINATION

- A. Coordinate Work, with installation of other associated Work, to ensure quality application.
- B. Coordinate Work with installation of associated metal flashings and building walls.
- C. Coordinate Work to minimize foot traffic and construction activity on installed finished surfaces.
- D. Coordinate location of pipe penetrations to allow centering of pipe in panel.
- E. Coordinate location of roof curbs, to allow proper integration with roof panel seams.

#### 1.9 PRE-ROOFING CONFERENCE

- A. Schedule meeting to discuss roof Work before start of work onsite.
- B. Comply with requirements of roof Specification Section(s).
- C. Required attendees: Contractor, metal deck & roof installer, metal roof system manufacturer's representative, and any other subcontractors who have equipment penetrating the roof or Work that requires roof access or traffic.

#### 1.10 QUALITY ASSURANCE

- A. Installer Qualifications: Installer ("roofer") to perform the Work of this Section, which firm has no fewer than 5 years of successful experience with installation metal roof systems similar to those required for this Project, and is qualified by the roof panel manufacturer, for installation of manufacturer-warranted systems and has been certified by the manufacturer for a minimum of 3-Years prior to proposal due date.

- B. Field Measurements: Prior to fabrication of panels, take field measurements of structure or substrates to receive panel system. Allow for trimming panel units, where final dimensions cannot be established prior to fabrication.
- C. Install a 30-foot wide, quality control area of metal roofing, for review by the Architect, to establish the quality of installation for the roof, and have approved prior to installing additional metal panels.

#### 1.11 WARRANTIES

- A. The installer shall warrant all materials and installation of roof and soffit systems for two (2) years against leaks and defects in materials and workmanship. Submit on form found in Section 01 7830.
- B. Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal roof panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Finish Warranty Period: 20 years from date of Substantial Completion.
- C. Single Source NDL Roof Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace metal roof panel assemblies and roof penetrations that fail to remain weather-tight, including leaks within specified warranty period.
  - 1. Warranty Period: 20 years from date of Substantial Completion.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURER

- A. Basis of Design: McElroy Metal, Inc., 1500 Hamilton Road, Bossier City, Louisiana 71111. Toll Free Phone (800) 950-6531. Website: [www.mcelroymetal.com](http://www.mcelroymetal.com).

#### 2.2 ROOF PANEL SYSTEM

- A. Type: 138T metal over metal roof overlay system, or approved substitute, meeting the following requirements:
  - 1. Factory-formed panel, width of 18 inches. Panels shall be symmetrical in design and shall be mechanically seamed with a field operated electric seaming machine provided by the manufacturer.
  - 2. Minimum seam height 2-3/8 inches. Integral seam, double lock and snap together type panels are not acceptable
  - 3. Seam cap matching panel finish with two rows of integral factory hot applied sealant.
  - 4. Galvalume coated sheet steel, Type AZ-50, Grade 50 as described in ASTM A792; 24 gauge.
  - 5. Finish:
    - a. 24-gauge Galvalume® sheet steel with a bare Galvalume Plus® finish and meeting ASTM A792-83-AZ55.

- b. Deliver pre-finished metal to site with factory-applied protective plastic film, to be removed immediately upon installation.
6. Roof panel system must allow individual roof panel removal and replacement from any point on the roof without damage to adjacent roof panel(s).
7. Panels must be furnished and installed in continuous lengths from ridge to eave with no overlaps. Panels too long to ship will be manufactured on site using manufacturers employees and equipment.
  - a. Panel surface: Plank and Pencil.
8. Roof panels proposed for substitution shall fully comply with specified requirements in appearance, assembly, and performance. Substitution request must comply with Division 1 requirements for submission.

## 2.2 FASTENERS AND ACCESSORIES

- A. Panel Clip Screw: screw required in wind uplift rating requirements for application, with corrosion-resistant coating, in length necessary to penetrate metal deck minimum 3/4 inch., as supplied by roof panel manufacturer.
- B. Roof Panels Clip:
  1. Intermittent Clip: 16 gage galvanized steel, one-piece, designed to allow roof panel thermal movement and not contact roof panel cap, as supplied by roof panel manufacturer, marking meeting wind uplift requirements of this Section.
  2. Intermittent Clip Bearing Plate: in gage, size and finish as supplied by and approved by roof panel manufacturer for use in roof panel manufacturer's full assembly warranted systems.
  3. Continuous Clip: as provided by roof panel manufacturer for full assembly warranted systems.
- C. Trim and flashing will be of the same gage and finish unless approved otherwise by the metal roof system manufacturer.
  1. All sheet metal valleys will be supplied in continuous lengths up to 32'.
  2. Ridge closures, consisting of metal channel surrounding factory precut closed cell foam, will not be secured through the field of the panel.
  3. Trim will be installed specifically as displayed in the manufacturer provided shop drawings. Proposed changes must be approved in writing by the metal roof system manufacturer.
- D. Concealed supports, angles, plates, accessories and brackets: in gage and finish as recommended, and furnished by manufacturer.
- E. Accessory Screw: Size and screw type as provided by panel manufacturer for each use, with prefinished hex washer head in color to match panels where exposed to view.
- F. Rivets: Full stainless steel, including mandrel, in size to match application.
- G. Field Sealant: Color coordinated primerless silicone, or high grade, non-drying butyl, as supplied by panel manufacturer.



- H. Sealant Tape: Non-drying, 100 percent solids, high grade butyl tape, as supplied by panel manufacturer, in sizes to match application.
- I. Pipe Penetration Flashings: Flexible boot type, with stainless steel compression ring, and stainless-steel pipe strap, Dektite by Buildex, or approved substitute. Secure flanges to roof panels in full beds of sealant, with neoprene-head screws at 2-inches on centers. Use silicone type at hot pipes.
- J. Metal Roof Curbs: Welded aluminum, or stainless steel, factory-insulated, with integral cricket, and designed to fit roof panel module, sized to meet application, by L.M. Curbs, or approved substitute.

### 2.3 UNDERLAYMENT MATERIALS

- A. Self-Adhering, High-Temperature Sheet: Minimum 30 to 40 mils thick, consisting of slip-resisting polyethylene-film top surface laminated to layer of butyl or modified asphalt adhesive, with release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.
  - 2. Thermal Stability: ASTM D 1970; stable after testing at 240 deg F.
  - 3. Low-Temperature Flexibility: ASTM D 1970; passes after testing at minus 20 deg F.
  - 4. Products: Subject to compliance with requirements, provide one of the following:
    - a. Carlisle Coatings & Waterproofing Inc.; CCW WIP 300HT.
    - b. Grace Construction Products, a unit of W. R. Grace & Co.; Ultra.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Ensure surfaces are ready for panel application.
- B. Inspect and ensure surfaces are free from objectionable warp, wave, and buckle before proceeding with installation of pre-formed metal roofing.
- C. Ensure substrate is ready to receive metal roofing. Report items for correction and do not proceed with metal roof panel system installation until resolved.

### 3.2 PREPARATION

- A. Miscellaneous Framing: Install eave angles, sub-purlins, and other miscellaneous roof panel support members and anchorage according to metal roof panel manufacturer's written instructions.

### 3.3 THERMAL INSULATION INSTALLATION

- A. General: Install insulation concurrently with metal panel installation, in thickness indicated to cover entire surface, according to manufacturer's written instructions.

### 3.4 INSTALLATION OF ROOF PANELS

- A. Comply with and install roofing and flashings in accordance with all details shown on manufacturer's approved shop drawings and manufacturer's product data and instructions, within specified erection tolerances.
  - B. Install field panels in continuous lengths, without endlaps. Remove and replace panels with endlaps.
  - C. Do not install panels damaged by shipment or handling.
  - D. Install intermittent clips with bearing plates and continuous clips according to pattern in wind uplift rating at field, corners and perimeter roof areas.
  - E. Fix panels at location depicted on reviewed shop drawing(s).
  - F. Breadpan roof panel at ridge, hip and headwalls.
  - G. Allow for 1-inch panel clearance at penetrations.
  - H. Install concealed supports, angles and brackets as furnished by manufacturer to form complete assemblies.
  - I. Remove roof panel and flashing protective film prior to extended exposure to sunlight, heat, and other weather elements.
  - J. Field-apply sealant tape and gun-grade sealant according to reviewed shop drawings and manufacturer's requirements for airtight, waterproof installation.
  - K. Ensure sealant beads and tape are applied prior to sheet metal installation to achieve a concealed bead. Neatly trim exposed portions of sealant without damaging roof panel or flashing finish.
  - L. Align pipe penetrations to occur at center of roof panel. Report and have corrected improperly-placed penetrations before proceeding with panel installation. Remove and replace roof panels which have improperly-placed penetration flashings.
  - M. Align roof curbs to fit roof panel module and overlap standing seam(s). Allow for proper drainage on both sides of curb.
  - N. Install sheet metal flashings according to manufacturer's recommendations, reviewed shop drawings and in accordance with provision of Section 07 6200.
- 3.5 CLEANING
- A. Clean exposed surfaces of Work promptly after completion of installation.
  - B. Clean mud, dirt, and construction-related debris from panels before panels are scratched or marred.
- 3.6 PROTECTION

- A. Protect Work as required to ensure roofing will be without damage at time of final completion.
- B. Do not allow excessive foot traffic over finished surfaces.
- C. Do not track mud, dirt, or construction-related debris onto panel surfaces.
- D. Replace damaged Work before final completion.

END OF SECTION 07 4113

SECTION 07 4120

METAL SOFFIT PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Metal soffit panels.
- B. Related Sections
  - 1. Section 01 7830 - Roofing Installer's Warranty
  - 2. Section 07 6200 - Flashing and Sheet Metal

1.3 DEFINITIONS

- A. Metal Soffit Panel Assembly: Metal soffit panels, attachment system components, miscellaneous metal framing and accessories.
- B. Coordinate with Work of all other trades. Although such Work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

1.4 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph numbers from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of roof panel and accessory.
- D. Shop Drawings:
  - 1. Submit complete shop drawings and erection details to the Architect for review. Shop drawings shall be prepared by metal panel manufacturer specifically for this project. Contractor prepared shop drawings are not acceptable.
  - 2. Show method of installation, sections and details, interfaces with all materials not supplied, and proposed identification of component parts and their finishes.
  - 3. Do not proceed with manufacture prior to Architect's review and approval of shop drawings.

- E. Submit complete manufacturer's literature for all materials required for completion of the project indicating compliance with all standards of these Specifications.
- F. Samples for Metal Soffit Panels: Submit two (2) 12-inch long samples by full width of specified panel.

#### 1.5 QUALITY ASSURANCE

- A. Installation of metal panels and all accessories shall be by installers with a minimum of three (3) years experience in Work of this nature. Installer must be able to show satisfactory evidence of completion of at least three (3) projects of similar size and complexity within an area of no more than 200-mile radius of the project site in the past five (5) years.
- B. Any material or operation specified by reference to the published specification or standard of a manufacturer, trade association, technical organization or other published standard, shall comply with the requirements of the current specification or standard listed:
  - 1. AISC: "Steel Construction Manual," American Institute of Steel Construction.
  - 2. AISI: "Cold Form Steel Design Manual," American Iron and Steel Institute (1986 edition).
  - 3. ASTM A792-83-A355: Specification for Steel Sheet, aluminum-zinc alloy coated (galvanized) by the hot dip process, general requirements (Galvalume®).
  - 4. SMACNA: "Architectural Sheet Metal Manual" Sheet Metal and Air Conditioning Contractors National Association, Inc.
  - 5. ANSI/ASTM A153: Zinc Coating (hot-dip) on Iron and Steel Hardware.
  - 6. ANSI/ASTM A446: Steel Sheet, Zinc-Coated (galvanized) by the hot-dip Process, Structural (physical) Quality.
  - 7. ASTM E84: Surface Burning Characteristics of Building Materials.
- C. The forming and installation of all sheet metal shall be as indicated on the Drawings and in accordance with the applicable details of the SMACNA Manual.
- D. In case of conflict between the referenced specifications or standard and the project specification, the Contractor shall be deemed to have assumed the more expensive method of accomplishing the Work, unless prior to signing of the Agreement, the Contractor shall have asked for and obtained a decision as to which method or material is intended.

#### 1.6 SYSTEM PERFORMANCE

- A. System shall accommodate movement of underlying structure and of metal soffit components, without buckling, failure of joint seals, undue stress on fasteners, or other detrimental effects, when subject to seasonal temperature ranges.
- B. Sheet metal soffit system including, but not limited to, metal soffit panels, anchors and fasteners, sheet metal flashing integral with sheet metal soffit, trim and accessories, shall comply with performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.

#### 1.7 PROJECT CONDITIONS

- A. Protect products and accessories against damage and discoloration. Inside dry storage is required to prevent condensation from forming between sheets and components.

## 1.8 WARRANTIES

- A. The installer shall warrant all materials and installation of soffit systems for two (2) years against leaks and defects in materials and workmanship. Submit on form found in Section 01 7830.
- B. Pre-finished metal panel manufacturer's standard 20-year finish warranties
- C. Warranties shall commence on the Date of Substantial Completion for the overall project.

## PART 2 - PRODUCTS

### 2.1 SOFFIT PANELS

- A. Acceptable Products:
  - 1. McElroy Metal; "Marquee-Lok."
  - 2. MBCI; "Artisan Series."
  - 3. PAC-CLAD, "Flush Soffit."
  - 4. Soffit panels shall be manufactured by the same manufacturer as approved for the metal roof panels.
- B. Type: Shop-formed, 12-inch wide flush liner panels of pre-finished metal sheet, used as soffit panels for low-sloped canopies.
- C. Style: Concealed fasteners, supplemented where required by blind rivets.
- D. Texture: "Vee" grooves at 4 inches on centers.
- E. Panel Length: Continuous, uninterrupted length.
- F. Construction: 24-gauge pre-finished Galvalume® sheet steel, treated, primed and finished under precision conditions
- G. Panel Finish:
  - 1. Exposed Finish: Kynar 500®.
  - 2. Unexposed Finish: Manufacturer's standard primer coat.
  - 3. Color: As selected by Owner.
- H. Protection: Deliver metal to the site with a factory-applied protective plastic film which shall be removed immediately upon installation.
- I. Closure & Trim: Minimum 24-gage pre-finished metal in the profiles where shown on the Drawings, or as required to provide a complete assembly.

## 2.2 UNDERLAYMENT MATERIALS

- A. Self-Adhering, High-Temperature Sheet: Minimum 30 to 40 mils thick, consisting of slip-resisting polyethylene-film top surface laminated to layer of butyl or modified asphalt adhesive, with release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.
  - 1. Thermal Stability: ASTM D 1970; stable after testing at 240 deg F.
  - 2. Low-Temperature Flexibility: ASTM D 1970; passes after testing at minus 20 deg F.
  - 3. Products: Subject to compliance with requirements, provide one of the following:
    - a. Carlisle Coatings & Waterproofing Inc.; CCW WIP 300HT.
    - b. Grace Construction Products, a unit of W. R. Grace & Co.; Ultra.

## 2.3 FASTENERS

- A. Panel Fasteners: Stainless steel pancake-head Phillips screws; #12 x length required.
- B. Miscellaneous Fasteners: See Section 07 6200.
- C. Compatibility: All fasteners shall be compatible with materials to be joined.

## 2.4 FLASHINGS AND TRIM

- A. Flashings shall not compromise the integrity of the soffit system by constricting movement due to thermal expansion and contraction.
- B. All trim and flashing shall be manufactured from minimum 24-gauge pre-finished sheet metal. See Section 07 6200.

## 2.5 TRIM PRODUCTION

- A. Corners: Same materials, thickness, and finish as soffit panels as detailed on the drawings, brake formed, shop cut and factory mitered to required angles.
- B. Miscellaneous trim: Same material, thickness, and where exposed, of same finish as sheet stock; brake formed to required profiles.
- C. On-site fabrication of component profiles must be with approved equipment intended for that purpose. Hand- or tong-braking of sheet metal components will not be permitted unless approved in advance.

## PART 3 - EXECUTION

### 3.1 SOFFIT PANEL INSTALLATION

- A. Install all accessory Work such as trim, cleats, etc., prior to installation of panels, as required.
- B. Install panels in accordance with the Drawings, the current edition of the specified standards and approved shop drawings.

- C. Install panels, plumb, level, and straight with seams and ribs parallel, conforming to design as indicated.
- D. Fabricate and install Work with lines and corners of exposed units true and accurate. Form exposed faces flat and free of buckles, excessive waves and avoidable tool marks, considering the temper and reflectivity of the metal. Provide uniform, neat seams. Except as otherwise shown, fold back the sheet metal to form a hem on the concealed side of exposed edges where required.
- E. When fitting panels and seams provide maximum care to prevent deformation of the metal.
- F. Install metal soffit panels mounted to furring channels and/or light gauge framing members. Furring and panels shall be installed in accordance with manufacturer's written instructions.
- G. Install panels continuous from major termination to major or natural termination. Transverse - or lap seams - are not permitted.
- H. Factory-cut panels to length. Field cutting of panel ends is discouraged. When field cutting is required, do so with snips or shears, and not with high speed saws.
- I. Install sheet metal trim at all terminations and as shown on the drawings. Provide neat rectangular or square escutcheons around all penetrations.

### 3.2 CLEANING AND PROTECTION

- A. Dispose of excess materials and remove all debris from site.
- B. Clean Work in accordance with standard NRCA industry recommendations.
- C. Protect Work against damage until final acceptance. Replace or repair to the satisfaction of the Architect and Owner any Work that becomes damaged prior to final acceptance.
- D. Do not use touch-up paint to repair scratched metal surfaces. Scratches unacceptable to the Architect shall result in replacement of the damaged metal. This determination shall be the Architect's alone.

END OF SECTION 07 4120



SECTION 07 5216

MODIFIED BITUMEN ROOF SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Qualifications, Standards and Materials for new roof assembly.
  - 2. Modified bituminous membrane roofing.
  - 3. Roof walkway pads.
- B. Related Sections
  - 1. Section 01 7830 - Roofing Installer's Warranty
  - 2. Section 06 1050 - Roof Carpentry
  - 3. Section 07 2200 - Roof Insulation
  - 4. Section 07 6200 - Flashing and Sheet Metal
  - 5. Section 07 7200 - Roof Accessories

1.3 DEFINITIONS

- A. Roofing Terminology: See ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

1.4 REFERENCES

- A. General: Any material or operation specified by reference to the published specification or standard of a manufacturer, trade association, technical organization or other published standard, shall comply with the requirements of the current specification or standard listed or enforced by the Authority Having Jurisdiction (AHJ).
- B. American Society of Civil Engineers (ASCE)
  - 1. ASCE-7 – "Minimum Design Loads for Buildings and Other Structures" (Edition indicated on Drawings).
- C. American Society for Testing and Materials (ASTM)
  - 1. ASTM D 41 - "Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing".
  - 2. ASTM D 4586 – "Standard Specification for Asphalt Roof Cement, Asbestos-Free".
  - 3. ASTM D 6163 – "Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements".

4. ASTM D 6298 – “Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheets with a Factory Applied Metal Surface”.
5. ASTM D 6222 – “Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using Polyester Reinforcements”.
6. ASTM D 6223 – “Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements”.
7. ASTM D 6509 – “Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Base Sheet Materials Using Glass Fiber Reinforcements”.

D. Factory Mutual (FM)

1. FM 1-SH – “Roof Assembly Classification for Severe Hail Exposure”.
2. FM 4450 – “Approval Standard for Class 1 Insulated Steel Roof Decks”.
3. FM 4470 – “Approval Standard for Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction”.

E. National Roofing Contractors Association (NRCA)

1. “Handbook of Accepted Roofing Knowledge”.
2. “Roofing and Waterproofing Manual”.

F. Underwriter’s Laboratories (UL)

1. UL 790 – “Standard for Standard Test Methods for Fire Tests of Roof Coverings”.

## 1.5 PERFORMANCE REQUIREMENTS

- A. General Performance: Provide installed membrane roofing and base flashings that withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.

## 1.6 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Product Data: For each type of product indicated, including all items specified in Part 2 – Products or otherwise required by the Work.
- D. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
  1. Base flashings and membrane terminations.
  2. Tapered insulation, including slopes.

3. Crickets, saddles, and tapered edge strips, including slopes.
  4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- E. Manufacturer's Certification: Provide current letter(s) on membrane manufacturer's letterhead, signed by an authorized employee or corporate officer attesting to following:
1. Products: Certify that roofing system complies with requirements specified in "Performance Requirements" Article.
  2. Submit evidence of meeting performance requirements, including that:
    - a. Roofing system components are physically and chemically compatible for installation as designed, and;
    - b. All proposed materials, including those by other manufacturer, are acceptable to membrane manufacturer for use in system, and;
    - c. Proposed system meets all criteria for issuance of required manufacturer's warranty.
    - d. Specifically identify and define any deviations.
- F. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
- G. Manufacturer's Field Reports: Summarize findings of each inspection. Indicate any discrepancies from recommended installation methods, corrective action recommended to installer, and any non-compliant or unsatisfactory conditions.
- H. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.
- I. Submit shop drawing indicating proposed walkway pad installation for renovated and new roofing systems.
- J. Project Record Documents: Accurately record exact location of all roof membrane penetrations and all authorized changes to Contract Documents.

## 1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: As listed in Article 2.1.
- B. Installer Qualifications: A qualified firm that has been continuously approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and specified roof system for minimum of three years prior to Bid Date, and that is eligible to receive manufacturer's NDL warranty; with minimum three years documented experience, including:
1. Certified by roofing materials manufacturer as an approved NDL applicator for minimum of three years prior to Bid Date, and qualified to provide specified warranty on selected systems and flashings.
  2. Successful completion of minimum five (5) projects of comparable size and specified systems during that time.
  3. All torching operations must be performed by CERTA (Certified Roofing Torch Applicator) trained applicators with up to date certifications.
- C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.

- D. Source Limitations: Obtain components for roofing system from or approved by roofing system manufacturer.
- E. Perform Work in accordance with NRCA Manual of Roof Maintenance and Roof Repair, NRCA Roofing and Waterproofing Manual, and manufacturer's instructions.
- F. Assign a qualified, full time, non-working supervisor to be on Project site at all times during installation of Work.
- G. Designate a responsible Project Manager or Superintendent to inspect all installed Work, particularly tie-ins and temporary flashings, at end of each working day and as otherwise required to ensure water-tightness.
  - 1. Verify Inspection by signature on approved Daily Inspection Form signifying installation is in accordance with specified requirements.
- H. Fire-Resistance Ratings: Where indicated, provide fire-resistance-rated roof assemblies identical to those of assemblies tested for fire resistance per ASTM E 119 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- I. Pre-Roofing Conference: Before starting roofing operations, conduct conference.
  - 1. Meet with Owner, Architect, roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
  - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
  - 3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 4. Review structural loading limitations of roof deck during and after roofing.
  - 5. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
  - 6. Review governing regulations and requirements for insurance and certificates if applicable.
  - 7. Review temporary protection requirements for roofing system during and after installation.
  - 8. Review roof observation and repair procedures after roofing installation.
- J. Do not allow materials which have not been approved through the submittal process to be brought onto the project site.
  - 1. Materials brought onto the site which have not been approved through the submittal process will be rejected and shall be removed immediately.
  - 2. Remove any materials incorporated into the Work, which have not been approved through the submittal process.
- K. The manufacturer's technical representative shall make a minimum of two (2) site visits to the project per month at critical stages of the roof installation, and forward to the Architect written reports of the observations and instructions given to the Contractor during these visits. Coordinate the visits to take place at the time of the Architect's visits, with one occurring at the monthly pay application meeting. Include at

the minimum the following information in manufacturer's representative's reports:

1. Prepare reports typewritten on the manufacturer's letterhead stationery, and submit to the Architect within seven (7) days of the site visit.
2. Document Work in progress and list all deficiencies, corrective actions and recommendations.
3. Failure of the manufacturer's representative to provide the required reports is cause for rejection of the Contractor's pay application.

#### 1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable local codes for roof assembly fire hazard requirements and application procedures.
- B. Provide certification of inspection confirming approval of design and installation by authority having jurisdiction.
- C. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
  1. Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and roof slopes indicated.
  2. Fire-Resistance Ratings: ASTM E 119, for fire-resistance-rated roof assemblies of which roofing system is a part.

#### 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
  1. Inspect for damage.
  2. Store products in weather protected environment, clear of ground and moisture.
  3. Stand and store roll materials on end.
- B. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.
  1. Do not store more materials on roof overnight unless approved by the Architect.
  2. Maximum Allowable Loading on Roof: 20 pounds per square foot.

#### 1.10 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.
  1. Do not apply roofing membrane during inclement weather.
  2. Do not apply roofing membrane to damp or frozen deck surface.
  3. Observe wind chill and other cold weather conditions for proper bituminous application.

## 1.11 SEQUENCING AND SCHEDULING

- A. Coordinate work under provisions of Division 01 Section "Administration Requirements."
- B. Coordinate with demolition work and with work of other trades to ensure sufficient materials and manpower are available to complete and make watertight all roofing Work each day.
- C. Coordinate installation of associated metal flashings, and roof-related items as work of this Section proceeds. Strip-in all flanged metal components to roof membrane on same day they are installed.
- D. Schedule work to avoid storage on and traffic over finished work.
- E. Upon completion of Work each day that torching operations occur, provide a full 1-hour fire watch by a competent person, trained to detect possible smoke or fire resulting from roofing operations. Should the competent person detect smoke or fire he shall immediately place a telephone call to the Fire Department through the 911 exchange.
- F. Mount and maintain a minimum of two (2) fully charged and workable 3A60BC class fire extinguishers at the roof level at all times Work is underway. Position fire extinguishers within 25 feet of torching operations. Train all workers in proper fire extinguisher use.

## 1.12 WARRANTIES

- A. Provide a two-year written warranty covering defects in the roofing materials and labor, on the form in Section 01 7830.
- B. Provide the roofing materials manufacturer's 20-year no-dollar-limit type warranty covering repair of defects in the insulation, roofing and composition flashings, and repair of interply blistering.
- C. Commence all warranties on the Date of Substantial Completion for the overall project.

PART 2 - PRODUCTS

## 2.1 MODIFIED BITUMEN MANUFACTURERS

- A. Siplast
- B. U.S. Ply
- C. Johns Manville
- D. Soprema

## 2.2 SHEET MATERIALS

- A. Modified Bitumen Base Ply: Fiberglass or polyester mat, coated with SBS modified asphalt.

- |    |                |                      |
|----|----------------|----------------------|
| 1. | Siplast        | Paradiene 20 HT TG   |
| 2. | U.S. Ply       | DuraFlex 190S TG SBS |
| 3. | Johns Manville | DynaWeld 180 S       |
| 4. | Soprema        | Elastophene Flam HS  |

- B. Modified Bitumen Cap Ply: Fiberglass or polyester reinforced SBS modified bitumen, with white granular surfacing.

- |    |                |                                 |
|----|----------------|---------------------------------|
| 1. | Siplast        | Paradiene 30 FR TG BW           |
| 2. | U.S. Ply       | DuraFlex G4FRTG SBS Ultra White |
| 3. | Johns Manville | Dynaweld Cap FR CR G            |
| 4. | Soprema        | Elastophene Flam GR FR SC       |

### 2.3 FLEXIBLE FLASHINGS

- A. Backer Ply: Fiberglass or polyester mat, coated with SBS modified bitumen, having a smooth surface.

- |    |                |                      |
|----|----------------|----------------------|
| 1. | Siplast        | Paradiene 20 HT TG   |
| 2. | U.S. Ply       | DuraFlex 190S TG SBS |
| 3. | Johns Manville | DynaWeld 180 S       |
| 4. | Soprema        | Elastophene Flam HS  |

- B. Base Flashing Finish Ply: Fiberglass or polyester mat coated with modified bitumen and metal foil surface. The flashing system is to be approved by the membrane manufacturer for use with its respective system.

- |    |                |                     |
|----|----------------|---------------------|
| 1. | Siplast        | Veral Aluminum      |
| 2. | U.S. Ply       | DuraFlex Alum SBS   |
| 3. | Johns Manville | DynaClad            |
| 4. | Soprema        | Sopralast 50 TV Alu |

### 2.4 AUXILIARY ROOFING MEMBRANE MATERIALS

- A. Asphalt Primer: ASTM D41.

- B. Plastic Cement: ASTM D4586, Type I, asbestos free.

- C. Flashing Cement: Compatible with modified bitumen membrane.

- D. Mechanical Fasteners for Flexible Flashing:

1. Masonry: 0.25-inch x 1.5-inch zinc-jacketed steel masonry drive pin; Zamac "Hammer Screw," or an approved equal.
2. Wood Blocking: Stainless steel (for fastening into ACQ treated lumber) or high carbon, zinc coated steel (for fastening into non- ACQ treated lumber); annular threaded 1-inch shank nails; with minimum 1-inch x 30 gage metal disk; Roofing Nail, manufactured by Simplex Nails, Inc.

- E. Roofing Nails:

1. Stainless steel for fastening into ACQ treated lumber.
2. Provide with annular rings, size as required to suit application; minimum 11-gage with 3/8-inch diameter head.

- F. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with 100 percent passing No. 8 sieve and 98 percent of mass retained on No. 40 sieve, color to match roofing membrane.
- G. Termination Bars: 12-ga. or 1/8-inch x 1-inch hot-dipped galvanized steel bar stock.
- H. Roof Walkway Pads: Standard roof walkway pads, consisting of modified bitumen asphaltic multi-ply panels and including an integral white/gray granule top surface. Roll walkway pads or pads cut from rolls are not acceptable unless listed below.
  - 1. Acceptable Products:
    - a. Whitewalk (3' x 4' x 1/2") as manufactured by W.R. Meadows.
    - b. APOC 5040 DEK-TOP (3' x 4' x 1/2") as manufactured by APOC.
    - c. Watco Roof Walkway Matting (3' x 33' x 9/16") as manufactured by Watco Industrial Flooring, Inc.
    - d. DynaTred Plus (2'6" x 2'6" x 1/3") as manufactured by Johns Manville.
  - 2. Pads shall be compatible with and acceptable to the roofing system manufacturer.
- I. Expansion Joint Filler:
  - 1. Flexible Vapor Retarder: Minimum 45 mil thick vinyl sheet, or approved equal.
  - 2. Compressible Insulation: Fiberglass batt insulation, or approved equal.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify the insulation is clean and smooth, free of depressions, waves, or projections, properly sloped to drains or eaves.
- C. Verify that roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly anchored and wood nailers are in place.
- D. Start of installation shall constitute Contractor's acceptance of existing conditions.

#### 3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing membrane installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove temporary closures or roof-drain plugs prior to leaving the job site each day.

#### 3.3 ROOFING MEMBRANE INSTALLATION - GENERAL

- A. Install roofing membrane system according to roofing system manufacturer's written instructions, these documents and as follows:



1. Deck Type: Insulated.
  2. Adhering Method: Torch.
  3. Number of Modified Asphalt Sheets: Two.
  4. Surfacing Type: Granule.
- B. Cooperate with testing agencies engaged or required to perform services for installing roofing system.
- C. Coordinate installing roofing system so components of the roofing membrane system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.
1. Provide tie-offs at end of each day's work to cover exposed roofing membrane sheets with a course of coated felt set in roofing cement or hot roofing asphalt with joints and edges sealed.
  2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
  3. Remove and discard temporary seals before beginning work on adjoining roofing.

### 3.4 APPLICATION OF ROOFING SYSTEM

- A. Torch-in-place base ply over specified roof board and insulation per manufacturer's written instructions. Fully-adhere the base ply to the substrate by continuous torching of the plies. Lightly trowel the edges of each sheet.
- B. Torch-seal one additional ply of base sheet around roof penetrations prior to installation of cap sheet.
- C. Apply cap ply parallel to base ply in accordance with manufacturer's instructions. Fully-torch cap ply to the previously-installed base ply.
1. Provide 4-inch side and end laps. Stagger lap joints between base ply and cap ply.
  2. Stagger lap joints between adjacent plies of cap ply sheet by a minimum of 12 inches.
  3. Where cap ply is applied over granule surface of previously installed ply, apply asphalt primer to surface of granular ply and allow it to dry prior to torching next ply.
  4. Limit modified bitumen bleed at ply laps to no more than 0.5 inch. Lightly trowel edges of ply while bitumen remains hot.
  5. Cover exposed bitumen per manufacturer's recommendations.

### 3.5 APPLICATION OF FLASHING

- A. Apply flexible base flashings over specified backer felt to seal membrane to vertical elements.
1. Torch-apply specified backer ply, followed by torch-applied base flashing.
  2. Apply both in strict accordance with manufacturer's written instructions and these Specifications.
  3. Secure top of flashing assembly to wood substrate with specified cap nails, at 8 in. on centers.
  4. Secure top of flashing assembly to masonry substrates with specified termination

- bar and masonry drive pins spaced at 8 inches on centers.
5. Cover bitumen bleed at per manufacturers recommendations, to avoid leaving black lines.
  6. Cut the toe of the base flashing straight on the scoring of the sheet, and ensure adjacent sheets have an even edge. Lightly trowel edge of each sheet while bitumen remains hot. Lap bleed shall not exceed 0.25 inch.
- B. Install roofing membrane cap-sheet stripping where metal flanges and edgings are set on membrane roofing according to roofing system manufacturer's written instructions. Install strip-in ply on the same day as the sheet metal penetration flashing or roof perimeter metal edge is installed.
- C. Coordinate installation of roof drains, sumps, and related flashings.

### 3.6 WALKWAY PAD INSTALLATION

- A. General Requirements:
1. Install walkway pads according to walkway manufacturer's written instructions.
  2. Set walkway pads in cold-applied adhesive or by torch application.
  3. Locations: Install pads to and from all roof hatches, ladders, full length of electrical disconnects and service sides of mechanical equipment.
  4. For modular pads, provide a minimum of two pads adjacent to each mechanical equipment access panel, electrical disconnect racks, roof ladder landings, and on three sides of each roof hatch.
  5. For roll pads, match the width of mechanical equipment access panels, electrical disconnect racks, roof ladder landings plus 12-inches each side. Provide continuous around three sides of each roof hatch.
  6. Modular pads shall be set with a 3-inch minimum gap for drainage.

### 3.7 FIELD QUALITY CONTROL

- A. Test Cuts: Test specimens may be removed to evaluate problems observed during quality-assurance inspections of roofing membrane. Assist in securing roof cuts and patch roof as required to finished condition at no added cost to the Owner.
- B. Promptly correct all identified defects and irregularities. Repair all membrane defects called to the attention of the Project Superintendent prior to the end of each day, unless directed otherwise.
- C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
1. Notify Architect and Owner 48 hours in advance of date and time of inspection.

### 3.8 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.
- D. Remove bituminous markings from all finished surfaces.
- E. In areas where finished surfaces are soiled by bitumen or any other source of soiling caused by Work of this Section, consult manufacturer of surfaces for cleaning advice, and conform to their documented instructions. Replace any materials or finishes which cannot be cleaned to the Owner's satisfaction.

END OF SECTION 07 5216

SECTION 07 5600

FLUID APPLIED MEMBRANE FLASHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Fluid applied membrane flashing.
  - 2. Preparation of substrate to receive flashing materials.
- B. Related Sections:
  - 1. Section 01 7830 - Roofing Installer's Warranty
  - 2. Section 07 5216 - Modified Bitumen Roof System
  - 3. Section 07 6200 - Flashing and Sheet Metal

1.3 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Letter from the manufacturer confirming that the bidder is an acceptable Contractor authorized to install the proposed flashing system.
- D. Provide product data for each material to be employed in the Work.

1.4 QUALITY ASSURANCE

- A. Product Quality Assurance Program: Flashing materials shall be manufactured under a quality management system that is monitored regularly by a third-party auditor under the ISO 9001:2000 audit process. A certificate of analysis for reporting/confirming the tested values of the actual material being supplied for the project will be required prior to project close-out.
- B. Agency Approvals: The proposed roof flashing system shall conform to the following requirements. No other testing agency approvals will be accepted.
  - 1. Underwriters Laboratories Class A acceptance of the proposed roofing system based upon testing performed in accordance with ASTM E 108 protocol.

- C. Project Acceptance: Submit a completed manufacturer's application for flashing guarantee form.
    - 1. The form shall contain all the technical information applicable to the project and materials proposed for installation.
    - 2. The form shall also contain accurate and complete information requested including proper names, addresses, zip codes and telephone numbers.
    - 3. The project must receive approval by the flashing manufacturer, through this process, prior to shipment of materials to the project site.
  
  - D. Scope of Work: Includes but is not limited to the following:
    - 1. Attend necessary job meetings.
    - 2. Furnish competent and full-time supervision, experienced roof mechanics, all materials, tools and equipment necessary to complete, in an acceptable manner, the flashing installation in accordance with this Specification.
    - 3. Comply with the latest written application instructions of the manufacturer of the primary roofing/flashing products.
  
  - E. Local Regulations: Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.
  
  - F. Manufacturer Requirements: The flashing system manufacturer shall provide direct trained company personnel to attend necessary job meetings, perform periodic inspections as necessary and conduct a final inspection upon successful completion of the project.
- 1.5 PRODUCT HANDLING, STORAGE AND DELIVERY
- A. Deliver packaged materials to site in manufacturer's original, unopened labeled containers in quantities required to allow continuity of application.
  
  - B. All solvents, cleaners and coatings shall be stored in a fenced or other fully secured area. No material is to be stored in any existing building under any condition.
    - 1. Lids shall be fully secured on the cans and materials shall not be allowed to mix with one another.
    - 2. Store closed containers in a cool, dry area away from heat, direct sunlight, oxidizing agents, strong acids, and strong alkalis.
    - 3. Do not store resins at temperatures below 32°F (0°C) or above 85°F (29°C). Keep away from open fire, flame or any ignition source.
    - 4. Store in a well-ventilated area. Resin products may auto-polymerize at temperatures greater than 140°F.
  
  - C. Handling:
    - 1. Handle all materials in such a manner as to preclude damage and contamination with moisture or foreign matter.
    - 2. Keep away from open fire, flame, or any ignition source. Vapors may form explosive mixtures with air.
    - 3. Avoid skin and eye contact with this material.
    - 4. Avoid breathing fumes when above the Threshold Limit Value (TLV).
    - 5. Do not eat, drink or smoke in the application area.

- D. Damaged Material: Any materials that are found to be damaged or stored in any manner other than stated above shall be automatically rejected, removed and replaced at the Contractor's expense.

## 1.6 JOB CONDITIONS

### A. Requirements Prior to Job Start:

1. Notification: Give a minimum of 5-days notice to the Owner and manufacturer prior to commencing any Work and notify both parties on a daily basis of any change in Work schedule.
2. Permits: Obtain all permits required by local agencies and pay all fees which may be required for the performance of the Work.
3. Safety: Familiarize every member of the application crew with all fire and safety regulations recommended by OSHA, NIOSH, NRCA and other industry or local governmental groups.
  - a. Workers shall wear a long sleeve shirt with long pants and Work boots.
  - b. Workers shall use only butyl rubber or nitrile gloves when mixing or applying fluid flashing products.
  - c. Safety glasses with side shields are required for eye protection.
  - d. Use local exhaust ventilation to maintain Worker exposure below the published Threshold Limit Value (TLV).
  - e. If the airborne concentration poses a health hazard, becomes irritating or exceeds recommended limits, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements published under 29 CFR 1910.134. The specific type of respirator will depend on the airborne concentration.
  - f. A filtering face piece or dust mask is not acceptable for use with this product if TLV filtering levels have been exceeded.

### B. Environmental Requirements:

1. Precipitation: Do not apply fluid flashing materials during precipitation or in the event there is a probability of precipitation during application. Take adequate precautions to ensure that materials and building interiors are protected from possible moisture damage or contamination.
2. Temperature Restrictions – Primer Resins: Do not apply primer resin if there is a threat of inclement weather. Apply the primer resin while air temperature is between 32°F (0°C) and 104°F (40°C), and while the substrate temperature is between 32°F (0°C) and 122°F (50°C). Do not apply resin materials when ambient or substrate temperatures exceed that indicted above.
3. Temperature Restrictions – Summer Grade Roofing Resins: Do not apply roofing resins if there is a threat of inclement weather. Apply membrane resin while air temperature is between 59°F (15°C) and 104°F (40°C), providing the substrate temperature is between 50°F (10°C) and 122°F (50°C). Do not apply materials when ambient or substrate temperatures exceed that indicted above.

### C. Protection Requirements:

1. Membrane Protection: Provide protection against staining and mechanical damage for newly applied roofing and adjacent surfaces.

## 1.7 REFERENCE STANDARDS

- A. References in these specifications to standards, test methods and codes, are implied to mean the latest edition of each such standard adopted. The following is an abbreviated list of associations, institutions and societies which may be used as references throughout these specifications:
1. ACI American Concrete Institute, Hills, MI
  2. ASTM American Society for Testing and Materials, Philadelphia, PA
  3. FM Factory Mutual Engineering and Research, Norwood, MA
  4. NRCA National Roofing Contractors Association, Rosemont, IL
  5. OSHA Occupational Safety and Health Administration, Washington, DC
  6. UL Underwriters Laboratories, Northbrook, IL

## 1.8 WARRANTY

- A. Provide a two-year written warranty against defects in materials and Workmanship, beginning on the date of Substantial Completion of the overall Project, and executed on the form found in Section 01 7830.
- B. New Roof System: Fluid Applied Flashing to be included in roof membrane manufacturer's 20-Year NDL Warranty.

## PART 2 - PRODUCTS

### 2.1 MEMBRANE / FLASHING SYSTEM

- A. Catalyst: A reactive agent used to induce curing of polymethylmethacrylate (PMMA) resins.
1. Siplast "Pro Catalyst"
  2. U.S. Ply Manufacturer's approved PMMA.
  3. Johns Manville Seamfree™ PMMA Catalyst
  4. Soprema ALSAN RS Catalyst Powder
- B. Resin for Membrane and Flashing Applications: A flexible, PMMA-based resin for use in combination with a polyester fabric to form a monolithic, reinforced roofing or flashing membrane.
1. Siplast "Parapro Roof Resin"
  2. U.S. Ply Manufacturer's approved PMMA.
  3. Johns Manville Seamfree™ PMMA Flashing Resin
  4. Soprema ALSAN RS 230 Flash
- C. Membrane and Flashing Reinforcement: A polyester fabric reinforcement as supplied by the membrane system manufacturer.
1. Siplast "Pro Fleece"
  2. U.S. Ply Manufacturer's approved PMMA product.
  3. Johns Manville Seamfree™ PMMA Scrim
  4. Soprema ALSAN Polyfleece

### 2.2 AUXILIARY MATERIALS

- A. **Elastomeric Sealant:** A moisture-curing, non-slump elastomeric sealant designed for roofing applications. The sealant shall be approved by the roof membrane manufacturer for use in conjunction with the roof membrane materials.
- B. **Cleaner/Solvent:** A clear solvent used to prepare metal and plastic surfaces prior to application of the catalyzed resin flashing membranes and to reactivate transition areas of in-place resin flashing membranes at tie-ins and between staged coats of resin.
- C. **Preparation Paste:** A multi-component, fast curing, PMMA-based paste used for remediation of depressions in substrate surfaces or other irregularities.
  - 1. Siplast: "Pro Paste Resin"
  - 2. U.S. Ply: Manufacturer's approved product
  - 3. Johns Manville: Seamfree™ PMMA Joint/Repair Paste
  - 4. Soprema: ALSAN RS Paste
- D. **Tape:** A white, flexible, coated cotton cloth tape designed for treatment of insulation panel joints and deck/wall transitions.
  - 1. Siplast: "Pro Tape"
  - 2. U.S. Ply: Manufacturer's approved product
  - 3. Johns Manville: Manufacturer's approved product
  - 4. Soprema: SOPRANATURE™ Seam Tape

### PART 3 - EXECUTION

#### 3.1 INSPECTION

- A. The Contractor shall examine the Contract Documents and all conditions which affect the quality of his Work. Deviations or unsatisfactory conditions shall be reported to the Owner's Representative in writing. No Work shall proceed until conditions are satisfactory to meet requirements of the Contract Documents.
- B. Conduct a pre-roofing conference with the manufacturer's technical representative, applicator and architect prior to ordering materials and starting Work.
  - 1. Discuss the products and application techniques.
  - 2. Written minutes shall be maintained and submitted by the Contractor to the Architect and Owner.
  - 3. The Work and products may be adjusted depending on recommendations of the manufacturer's technical representative.

#### 3.2 SUBSTRATE PREPARATION

- A. Preparation of roof penetrations to receive new membrane flashing: Grind and scrape away all loose dirt, rust, membrane and any other deleterious materials from the surfaces of the piping, conduit or other material scheduled to receive the new coating.
- B. Wipe down affected surfaces with specified cleaner/solvent as recommended by the manufacturer.



- C. Ply Sheet Application: Bond the modified bitumen ply sheet by adhesive application to the prepared substrate, utilizing minimum 3-inch side and end laps. Cut a dog ear angle at the end laps on overlapping selvage edges. Using a clean trowel, apply pressure to top seal T-laps immediately following sheet application. Stagger end laps a minimum of 3 feet. Follow manufacturer's specifications regarding maximum exposure periods prior to application of the liquid-applied finish membrane.

### 3.3 MIXING OF RESIN PRODUCTS

- A. Preparation/Mixing/Catalyzing Resin Products: Pour the desired quantity of resin into a clean container and using a spiral mixer or mixing paddle, stir the liquid for the time period specified by the resin manufacturer.
- B. Calculate the amount of catalyst powder needed using the manufacturer's guidelines and add the pre-measured catalyst to the primer. Mix again for the time period specified by the resin manufacturer, ensuring that the product is free from swirls and bubbles. It is imperative that air is not entrained into the product during the mixing process. To avoid aeration, do not use a spiral mixer unless the spiral section of the mixer can be fully contained in the liquid during the mixing process.
- C. Mix only enough product to ensure that it can be applied before expiration of resin pot life.

### 3.4 FLASHING AND FIELD MEMBRANE APPLICATION

- A. Using masking tape, mask the perimeter of the area to receive the flashing system. Apply resin primer to substrates requiring additional preparation and allow primer to set.
- B. Pre-cut reinforcing fabric to ensure a proper fit at transitions and corners prior to membrane application.
- C. Apply an even, generous base coat of flashing resin using a roller at the manufacturer's recommended rate to prepared surfaces requiring flashing coverage.
  1. Work the reinforcing fabric into the wet, resin using a brush or roller to fully embed the reinforcing fabric in the resin and remove trapped air.
  2. Lap reinforcing fabric layers a minimum of 2 inch (5 cm) and apply an additional coat of resin between layers of overlapping fleece.
  3. Again, using a roller, apply an even top coat of resin immediately following embedment of the reinforcing fabric, ensuring full saturation of the reinforcing fabric.
  4. Ensure that the flashing resin is applied to extend a 0.25 inch (6 mm) beyond the reinforcing fabric. Remove the tape before the resin sets.
  5. Make allowances for saturation of roller covers and application equipment.
- D. Should Work be interrupted for more than 12 hours or the surface of the resin becomes dirty or contaminated by the elements, wipe the surface to be lapped with new flashing resin using the specified cleaner/solvent. Allow the surface to dry for a minimum 20 minutes and a maximum 60 minutes before continuing Work.

### 3.5 FIELD QUALITY CONTROL AND INSPECTIONS

- A. Site Condition: Leave all areas around job site free of debris, roofing materials, equipment and related items after completion of job.
- B. Notification of Completion: Notify the manufacturer by means of manufacturer's printed Notification of Completion form of job completion in order to schedule a final inspection date.
- C. Post-Installation Meeting: Hold a meeting at the completion of the project, attended by all parties that were present at the pre-job conference. A punch list of items required for completion shall be compiled by the Contractor and the manufacturer's representative. Complete, sign, and mail the punch list form to the manufacturer's headquarters.
- D. Issuance of The Guarantee: Complete all post installation procedures and meet the manufacturer's final endorsement for issuance of the specified guarantee.

### 3.6 CLEANING

- A. Clean all roofing surfaces free of overspray materials. Remove all excess materials.
- B. Re-install materials which may have been removed during the Work and ensure all to be in working order.

END OF SECTION 07 5600

SECTION 07 6200

FLASHING AND SHEET METAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Qualifications, Standards and Materials for sheet metal flashing.
  - 2. Fasteners.
- B. Related Sections
  - 1. Section 01 7830 - Roofing Installer's Warranty
  - 2. Section 06 1050 - Roof Carpentry
  - 3. Section 07 5216 - Modified Bitumen Roof System
  - 4. Section 07 5600 - Fluid Applied Flashing
  - 5. Section 07 7200 - Roofing Accessories

1.3 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies as indicated shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Metal Edge Securement: Except gutter, shall be installed as tested in accordance with the most current version of the ANSI/SPRI ES-1, American National Standard for Edge Systems Used with Low-Slope Roofing Systems.
- C. Thermal Movements: Provide sheet metal roofing that allows for thermal movements resulting from ambient and surface temperatures by preventing buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects.
- D. Water Infiltration: Provide sheet metal roofing that does not allow water infiltration to building interior, with metal flashing and connections of sheet metal roofing lapped to allow moisture to run over and off the material.

1.4 SUBMITTALS

- A. Comply with provisions of Division 01.

- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- D. Shop Drawings: Show fabrication and installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work. Include the following:
1. Identification of material, thickness, weight, and finish for each item and location in Project.
  2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
  3. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.
  4. Details of termination points and assemblies, including fixed points.
  5. Details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction.
  6. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings as applicable.
  7. Details of special conditions.
  8. Details of connections to adjoining work.
  9. Detail formed flashing and trim at a scale of not less than 3 inches per 12 inches.
- E. In the event that the Contractor intends to comply – without deviation – with the Drawings, shop drawings will not be required as part of this Section. Contractor shall include with initial submittals a letter confirming Contractor's intent to comply with the Drawings, or:
1. Should any changes from the Drawings be anticipated – for whatever reason – submit detailed and accurate to-scale shop drawings, showing the changes and including all components.
  2. Include the date, project name and Drawing Detail number of the detail proposed for change.
- F. Samples and Color Charts for Initial Selection: For each type of sheet metal flashing, trim, and accessory indicated with factory-applied color finishes involving color selection.
- 1.5 QUALITY ASSURANCE
- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
- B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.

- C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
1. Build mockups including but not limited to, typical roof eave, fascia, gutter, coping, scupper, collector head and downspouts, approximately 10 feet long or per individual item, including supporting construction cleats, seams, attachments and accessories.
  2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- D. Pre-installation Conference:
1. Meet with Owner, Architect, Owner's insurer if applicable, Installer, and installers whose work interfaces with or affects sheet metal flashing and trim including installers of roofing materials, roof accessories, unit skylights, and roof-mounted equipment.
  2. Review methods and procedures related to sheet metal flashing and trim.
  3. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
  4. Review special roof details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect sheet metal flashing.
  5. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to the extent necessary for the period of sheet metal flashing and trim installation.

## 1.7 WARRANTY

- A. Warranty on Prefinished Metal: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
1. Exposed Finish: Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
    - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
  2. Finish Warranty Period: 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Sheet Metal Types:
  - 1. Galvanized Steel: Lock-forming quality G90, meeting ASTM A-653, in 24-gauge thickness, unless otherwise indicated below or on the Drawings.
  - 2. Stainless Steel: 24-gauge, ASTM A-240, Type 304, fully annealed for fabrication of receivers for rooftop mechanical equipment where shown on the drawings.
  - 3. Galvalume: 24-gauge Galvalume® sheet steel with a bare Galvalume Plus® finish and meeting ASTM A792-83-AZ55.
    - a. Provide metal with manufacturer's standard twenty (20) year finish warranty.

## 2.2 UNDERLAYMENT MATERIALS

- A. Self-Adhering, High-Temperature Sheet: Minimum 30 to 40 mils thick, consisting of slip-resisting polyethylene-film top surface laminated to layer of butyl or modified asphalt adhesive, with release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.
  - 1. Thermal Stability: ASTM D 1970; stable after testing at 240 deg F.
  - 2. Low-Temperature Flexibility: ASTM D 1970; passes after testing at minus 20 deg F.
  - 3. Products: Subject to compliance with requirements, provide one of the following:
    - a. Carlisle Coatings & Waterproofing Inc.; CCW WIP 300HT.
    - b. Grace Construction Products, a unit of W. R. Grace & Co.; Ultra.

## 2.3 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.
- C. Fastener Types:
  - 1. Blind Rivets: Stainless steel, Series 44. Rivet and mandrel: Stainless steel. Use stainless steel pop rivets for galvanized, stainless steel, copper and pre-finished metals.
  - 2. Exposed Fasteners: All exposed fasteners to receive metal-jacketed neoprene or EPDM washers.
    - a. All sheet metal fasteners shall be stainless steel.
    - b. Omit washers where fasteners attach counterflashing to receivers, straps to gutters and downspouts to walls.
    - c. Exposed horizontal surface fasteners are unacceptable.
    - d. Other cleats, screws, rivets, bolts, etc.: Matching material to which they attach, or be galvanically compatible to the surface to which they are secured.
  - 3. Neoprene-Head Screws: #10 or #12 stainless steel screws, with hexagonal heads and matching color metal jacketed neoprene rubber washer.
  - 4. Stainless Steel Masonry Nailer Washers: EPDM sealing washers bonded to

- Type 304 stainless steel jackets; Rawl EPDM Sealing Washers, or approved equal; 3/4-inch diameter.
5. Steel Masonry Nails: Steel pin and zinc-jacketed fastener; Zamac "Hammer Screw," or approved equal. Size: 1/4 inch x 1-1/2 inches.
  6. Roofing Nails:
    - a. Stainless steel for fastening into treated lumber.
    - b. Provide with annular rings, size as required to suit application; minimum 11-gauge with 3/8-inch diameter head.
- D. Miscellaneous Sheet Metal-Related Materials:
1. Lead Vent Flashings: 4# sheet lead preformed vent flashing with 4-inch wide roof flange, minimum finished height of 8 inches above roof surface, and minimum 1-inch turn down into top of pipe.
  2. Asphalt Roofing Cement: ASTM D4586, asbestos free, of consistency required for application.
  3. Sealant: Sonneborn NP-1, or an approved equal. One component urethane gun-grade sealant, meeting F.S. TT-S-00230-C, Type II, Class A and ASTM C-920-79.
  4. Solder: 50% pig lead and 50% black tin, as per ASTM B32.

## 2.4 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
- B. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
  1. Obtain field measurements for accurate fit before shop fabrication.
- C. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
  1. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
- D. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in SMACNA.
- E. Sealed Joints: Form non-expansion but movable joints in metal to accommodate elastomeric sealant.
- F. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with elastomeric sealant concealed within joints.
- G. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal or as shown in the drawings.

## 2.5 SHEET METAL FABRICATIONS

## A. Galvanized Sheet Metal Items:

1. General: Where applicable, match existing screw and nail attachments with fasteners that are one size larger than existing.
2. Counterflashings at Rooftop Units & Exhaust Fans: Where shown on the Drawings, attach counterflashings to receivers with sheet metal screws spaced at 12-inches on center.
3. Equipment Curb Caps: All joints fully soldered. Attach to curbs per Drawings.
4. Flanged Vents: All joints fully soldered.
  - a. Provide with minimum 4-inch wide flange for stripping into new roof assembly.
  - b. Attach flange to substrate wood blocking with stainless steel roofing nails spaced at 3-inches on center, staggered.
5. Hook Strips: Minimum 22-gauge. Nail at 8 inches on centers, with roofing nails.
6. Termination Bars: 12-gauge or 1/8-inch x 1 inch hot-dipped galvanized bar stock fastened with specified drive pins spaced at 12 inches on centers with minimum 3/4-inch embedment.
7. Metal Splash Pans: 24-gauge, galvanized steel, formed to shape shown on Drawings.
8. Downspout Boots: 12-gauge with continuous welded or seamed connection.
  - a. Anchor to walls with 12-gauge x 2-inch straps placed top and bottom of boot, and at mid-point when boots exceed 72 inches in length.
  - b. Anchor straps to masonry walls with 1/4-inch expansion sleeve bolts.
  - c. Anchor brackets to boot with four (4) stainless steel sheet metal screws, length as required, per bracket. Provide two (2) screws each side, anchoring bracket to boot.
  - d. Make boots 96-inches maximum length and include all required bends, changes in direction and other accompaniments as required by the Work.
  - e. Extend boots directly into transition piece portion of subgrade drainage system. (See Civil Engineering documents for transition piece and drainage system).
9. Downspout Drop: 24 gauge with all joints fully soldered.

## B. Stainless Steel Sheet Metal items:

1. General: Where applicable, match existing screw and nail attachments with fasteners that are one size larger than existing.
2. Counterflashing and Receivers at Rooftop Units: Where shown on the Drawings, attach counterflashings to receivers with sheet metal screws spaced at 12-inches on center.
3. Thru-Wall Flashing & Receiver: Form to shape and secure as shown on Drawings.

## C. Galvalume Sheet Metal Items:

1. General: Where applicable, match existing screw and nail attachments with fasteners that are one size larger than existing.
2. Copings: Hook at outside face on continuous 22-gauge galvanized cleat. Secure back leg with neoprene-head screws at 12-inches on centers. Provide 1-inch high standing seams at all corners and joints.
3. Counterflashings except at Rooftop Units & Exhaust Fans: Attach receivers as shown in Drawings and noted hereafter. Attach counterflashings to receivers



- with sheet metal screws spaced at 16 inches on centers.
4. Gutters: Fastened at 6 inches on center to substrate wood nailers with stainless steel wood screws and having 12-gauge x 1-inch galvanized steel straps spaced at 30 inches on centers. Straps shall be anchored with stainless steel sheet metal screws to gutter front edge and back face.
  5. Downspouts: Transition from downspout to gutter with 24-gauge galvanized fully soldered drops.
    - a. Attach downspouts to masonry walls with 12-gauge x 1-inch galvanized steel "U" shaped brackets with two (2) zinc-jacketed masonry drive pins per bracket.
    - b. Anchor brackets to downspouts with four (4) stainless steel sheet metal screws, 1/2-inch maximum length, per bracket. Provide two (2) screws each side, anchoring bracket to downspout. Space brackets uniformly at 60 inches on centers
    - c. Extend minimum 2-inches into downspout boots. Cover straps with prefinished metal.
  6. Downspout Boot Covers: Wrap new downspout boots with continuous sheet of pre-finished metal.
  7. Expansion Joint Covers.
  8. Expansion Joint Hook Strips (Cleats): Attach with neoprene-head screws spaced at 12 inches on centers.
  9. Fascia Metal Below Edge Metal: Hook at face on continuous 22-gauge galvanized cleat and nail upper flange at 12-inches on centers, with specified roofing nails. Lap joints 3 inches, with concealed sealant pressed between components. Do not rivet or otherwise fix laps.
  10. Edge Metal and Cover Plates: Hook at face on continuous 22-gauge galvanized cleat and nail flange at 3-inches on centers, staggered, with stainless steel roofing nails.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Coordinate all sheet metal Work with other roofing Work and other trades on this Project with correct sequencing of items making up the entire Project.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 UNDERLAYMENT INSTALLATION

- A. General: Install underlayment as indicated on Drawings.
- B. Self-Adhering Sheet Underlayment:
  1. Install self-adhering sheet underlayment, wrinkle free.
  2. Apply primer if required by underlayment manufacturer.
  3. Comply with temperature restrictions of underlayment manufacturer for installation; use primer rather than nails for installing underlayment at low temperatures.
  4. Apply in shingle fashion to shed water, with end laps of not less than 6-inches staggered 24-inches between courses.

5. Overlap side edges not less than 3-1/2 inches.
6. Roll laps with roller.
7. Cover underlayment within 14 days.

### 3.3 INSTALLATION

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
  1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
  2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
  3. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
  4. Install sealant tape where indicated.
  5. Torch cutting of sheet metal flashing and trim is not permitted.
- B. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10-feet with no joints allowed within 24-inches of corner or intersection. Expansion joint covers, expansion breaks or other devices needing these shall be fitted with watertight standing seam joints allowing for lateral expansion as dictated by gauge of metal, "stretch out" or exposure, and latest printed SMACNA guidelines and criteria.
- C. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets to be soldered to a width of 1-1/2 inches, except reduce pre-tinning where pre-tinned surface would show in completed Work.
- D. Rivets: Rivet joints connected by stainless steel rivets spaced at 2-inches on center where indicated and where necessary for strength.
- E. Splash Pans: Anchor to downspouts with 24 ga. X 1-inch galvanized straps with pop rivets. Adhere splash pan to granular surfaced traffic pad set in full bed of flashing cement.
- F. All metal flanges, flashings and other metal items in contact with bituminous roof assembly are to be completely primed with asphalt cut back type primer and, as applicable, set in uniform bed of plastic cement for horizontal surfaces or flashing cement for vertical surfaces.
  1. Strip-in metal flanges with specified stripping plies on the same day they are installed.
  2. When gutters are included in the roof edge assembly, the gravel guard metal must be installed simultaneously with the gutter and flashed with specified stripping plies on the same day they are installed.
- G. All joints, other than those receiving standing seam or cover and back plates, in galvanized sheet metal edgings, accessories, flanges and umbrellas, etc. shall be connected by stainless steel blind rivets spaced at 2 inches on center and fully

soldered completely watertight.

- H. Fabricate new metal in longest practical lengths up to ten feet, to minimize joints.
- I. Counter-flashing and receiver joints shall be lapped a minimum of 4 inches and have a ¼-inch bead of sealant pressed between the pieces.
  - 1. The sealant shall not be visible from the exterior.
  - 2. The bottom hemmed edge of the counter-flashing shall be neatly hooked in bayonet fashion.
  - 3. Metal counter-flashings shall completely cover all fasteners used to hold in place top terminations of composition base flashings.
- J. Install all sheet metal flashings and accessories in accordance with the latest printed SMACNA guidelines and in accord with recognized roofing and sheet metal industry standards.
  - 1. Fit flashings tightly in place using square and true mitered corners.
  - 2. Surfaces shall be true and straight and lines accurate to profiles encountered.
- K. Install new 6-inch wide cover and backer plates at all new edge metal.
  - 1. Fabricate of matching metal and suitable profile to ensure complete and permanent watertight integrity of metal joint.
  - 2. Fasten adjoining 10-foot metal gravel guard sections as per most current SMACNA requirements.
  - 3. New cover plates shall be set in specified sealant. Mastic shall not be used in the jointing of edge metal corners or cover and backer plates.
  - 4. Cover plates shall be neatly bent along the edges to hug the gravel guard over which they are installed. Gaps of more than 1/16 inch are not permitted.
  - 5. Nail edge metal in place not more than 3 inches on centers; in a staggered pattern.
  - 6. Cover plate joints shall be symmetrically laid out so that opposite end sticks of metal are of the same length with all lengths in between being the same. Prepare sample layouts in the field for the Architect's approval prior to proceeding with the Work.
- L. Lay out cover plate joints symmetrically, so that opposite end sticks of metal are of the same length with all lengths in between being the same. Provide sample layouts in the field for the Architect's approval.

### 3.3 CLEANING

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in Manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces.

- E. Do not use touch-up paint to cover any fasteners, metal or other component unless specifically approved in writing in advance of the Work. Any use of touch-up paint without prior approval shall result in affected components being removed and replaced at Contractor's expense.

END OF SECTION 07 6200

SECTION 07 7200

ROOF ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Pipe supports.
  - 2. Roof curbs.
  - 3. Equipment supports.
  - 4. Skylights.
  - 5. Roof hatch safety rail.
  - 6. Non-penetrating guardrail system.
  - 7. Exterior Aluminum Roof Ladders
- B. Related Sections
  - 1. Section 07 5216 - Modified Bitumen Roof System
  - 2. Section 07 6200 - Flashing and Sheet Metal
  - 3. Section 22 0000 - Common Work Results for Plumbing
  - 4. Section 23 0000 - Common Work Results for Mechanical
  - 5. Section 26 0000 - Common Work Results for Electrical

1.3 PERFORMANCE REQUIREMENTS

- A. General Performance: Roof accessories shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.
- B. Structural Performance of Aluminum Ladders: Ladders, including landings shall withstand the effects of loads and stresses within limits and under conditions specified in ANSI A14.3.

1.4 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.

- C. Product Data: For each type of roof accessory indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- D. Submit shop drawings for non-penetrating guardrail system.

#### 1.5 PRODUCT DELIVERY, STORAGE, HANDLING AND CONDITIONS

- A. Materials shall be delivered in bulk as necessary so as to provide continuous operations and without hindrance of the Work.
  - 1. Schedule and coordinate with Owner all necessary deliveries so as to cause the least amount of inconvenience to Owner's daily activities.
  - 2. All deliveries and unloading or loading activities shall be the responsibility of the Contractor. The Owner will not take any responsibility for Contractor's deliveries.
- B. Store all necessary materials in such a manner so as to keep from damage by elements or construction and other traffic at all times. Storage of materials on the roof surface is prohibited without adequate blocking to prevent damage to the existing or new roof surfaces.
- C. Fit accessory Work to other Work. Scribe and cope as required for accurate fit.

#### 1.6 WARRANTY

- A. Provide a one-year warranty covering defects in materials and workmanship for all products specified in this Section except exterior aluminum roof ladders.
- B. Exterior Aluminum Roof Ladder Warranty: Manufacturer shall provide a 5-year warranty covering defects in materials and workmanship, or deterioration of material and surface performance. Manufacturer shall, at its option, repair or replace the defective ladder. Refunding of original purchase price is not an acceptable alternative.

### PART 2 - PRODUCTS

#### 2.1 PIPE SUPPORTS

- A. Reuse of existing supports or support pads is not acceptable.
- B. All construction trades including plumbing, mechanical and electrical shall provide pipe supports from the same manufacturer.
- C. All piping supported on the roof surfaces shall be one of the following systems, with the hardware for each system being provided by this Contractor. Furnish and install all curbs and flashings, traffic support pads, sheet metal flashings, etc., as required for the proper installation of these systems.
- D. Pipe Support – Type "A": Provide for support of single condensate lines 1 inch outside diameter and less, and all PVC lines.
  - 1. Space supports at maximum distance of 8'-0" on center or less to prevent sag or deflection.

2. Place supports within 12 to 18 inches of all “ell” corners, pipe bends, tee intersections and below each pipe or conduit joint.
  3. Manufacturer/Model (Where positive slope is provided in structure / roofing system: OMG “Mini,” or an approved equal.
  4. Manufacturer/Model (Where positive slope is not provided in structure / roofing system: OMG “Height Adjustable Struct OMG Pipe Guard”, or an approved equal.
- E. Pipe Support – Type “B”: Provide for support of single gas lines / electrical conduit 2-inches outside diameter and less.
1. Space supports at maximum distance of 8'-0" on center or less to prevent sag or deflection.
  2. Space supports at maximum distance of 6'-0" on center or less to prevent sag or deflection where piping or conduit is greater than 1-1/4 inches outside diameter.
  3. Place supports within 12 to 18 inches of all “ell” corners, pipe bends, tee intersections and below each pipe or conduit joint.
  4. Provide retainer bracket to prevent pipe from lifting from the lower rollers.
  5. Manufacturer/Model: Portable Pipe Hanger “PP-10 with Roller,” or an approved equal.
- F. Pipe Support – Type “C”: Provide for support of single gas lines / electrical conduit greater than 2 inches outside diameter and less than 3-1/2” outside diameter.
1. Space supports at maximum distance of 8'-0" on center or less to prevent sag or deflection.
  2. Place supports within 12 to 18 inches of all “ell” corners, pipe bends, tee intersections and below each pipe or conduit joint.
  3. Manufacturer/Model: Portable Pipe Hanger “PS-1-2,” or an approved equal.
- G. Pipe Support – Type “D”: Provide for gas piping / electrical conduit in excess of 3-1/2 inches outside diameter.
1. Pipe Roller: Stainless Steel Rods and Axle with Cast Iron Roller and Galvanized Sockets as manufacturer by Cooper B-Line or an approved equal.
  2. Roller support assemblies are to be composed of a steel strut channel with 12-gauge galvanized brackets welded to strut and mounted with galvanized steel bolts through neoprene washers into metal-capped curb assemblies.
  3. Provide retainer bracket to prevent pipe from lifting from the lower rollers. Install upper and lower rollers so as to not bind pipe and prevent movement.
  4. Space supports at maximum distance of 8'-0" on center or less to prevent sag or deflection.
  5. Place supports within 12 to 18 inches of all “ell” corners, pipe bends, tee intersections and below each pipe or conduit joint.
- H. Small Electrical Lines:
1. All electrical lines of less than 1-inch outside diameter shall be placed in a run of galvanized steel Unistrut channel laid across the top of curbs or Type “B” pipe supports
  2. Ends of channels and corners shall be connected with bolted plates.
  3. Secure channels by 16-gauge galvanized steel straps to the curbs or pipe supports.

- I. Pipe Support Protection Pads:
  1. Type A: Protection pad below pipe support base.
    - a. U.S. Ply                      DuraFlex G4 FR SBS
    - b. Siplast                        Paradiene 30 FR
    - c. Johns Manville            DynaKap FR
    - d. Soprema                      Elastophene Flam FR
  2. Type B & C: Protection pad below pipe support base.
    - a. U.S. Ply                      USP SBS Walkboard
    - b. Siplast                        ParaTread
    - c. Johns Manville            DynaTred
    - d. Soprema                      Sentinel

## 2.2 ROOF CURBS

- A. Pre-manufactured Steel Curbs: Internally reinforced metal equipment supports capable of supporting superimposed live and dead loads, including equipment loads and other construction indicated on Drawings.
  1. Manufacturer: Thybar Corp., [www.thybar.com](http://www.thybar.com) or approved equal.
  2. Model: Model TC-3.
  3. Shop Fabrication: Shop fabricated curbs are not acceptable.
  4. Coordinate with Mechanical Contractor as to which mechanical equipment is being provided with pre-manufactured curbs. If so, those curbs shall be installed by the Mechanical Contractor; flashing, counterflashing and sealing of roof system to the curbs shall be by Roofing Contractor.
- B. Construction:
  1. Frames: 18-gauge G90 hot-dipped galvanized sheet steel and base plate with all joints fully welded complying with ASTM A653. Bolted connections are not acceptable.
  2. Wood Nailers: Factory installed; pressure treated. Size and width as suitable for support of mechanical equipment mounted on curbs.
  3. Reinforcement: Internally reinforce curbs exceeding 3-foot length and as required to support mechanical equipment.
  4. Gasketing: ¼-inch thick x 1-inch wide at rooftop units.
  5. Counterflashing: As indicated on the drawings.
  6. Insulation: 1-1/2" thick 3-pound density rigid insulation.
  7. Curb Height: Coordinate curb height to comply with roofing drawings. Minimum height above roof surface shall be measured from the highest side of sloped roof.
  8. Roof Slope: Curbs shall be constructed to match roof slope with plumb and level top surface for mounting mechanical equipment.

## 2.3 EQUIPMENT SUPPORTS

- A. Equipment Supports: Internally reinforced metal equipment supports capable of supporting superimposed live and dead loads, including equipment loads and other construction indicated on Drawings.
  1. Manufacturer: Thybar Corp., [www.thybar.com](http://www.thybar.com) or approved equal.
  2. Model: Model TEMS-3.



3. Size: Coordinate dimensions with roughing-in information or Shop Drawings of equipment to be supported.
4. Shop Fabrication: Shop fabricated equipment supports are acceptable if they meet the requirements of the specifications and drawings.
5. Coordinate with mechanical contractor to determine if any equipment supports are being furnished with respective equipment. If so, those curbs shall be installed by the Mechanical Contractor; flashing, counterflashing and sealing of roof system shall be by Roofing Contractor.

B. Construction:

1. Material: Galvanized steel sheet, 18 gauge with welded joints.
2. Insulation: Fill curb with fiberglass batt insulation.
3. Factory-installed continuous wood nailers at tops of equipment supports.
4. Provide a 24-gauge galvanized sheet metal cap with fully soldered or welded joints.
  - a. Secure caps with stainless steel screws with neoprene-head washers spaced at 16-inches on center max. with a minimum of two screws on each side.
  - b. Curb sides with dimensions of less than 8 inches require one fastener per side.
5. Fabricate equipment supports to minimum height of 12 inches above the finished high side roof surface unless otherwise indicated.
6. Roof Slope: Equipment supports shall be constructed to match roof slope with plumb and level top surface for mounting equipment.

## 2.4 SKYLIGHTS

- A. Skylights shall be factory assembled units, each consisting of two sealed pyramid-shaped domes of acrylic.
1. Manufacturer: Kingspan Light & Air (formerly, Bristolite Daylighting Solutions), [www.kingspan.com](http://www.kingspan.com), or an approved equal.
  2. Type: Bristol Acrylic Model ALT-SF-2-WTM-P-12-INS-WN-MF
  3. Glazing: Polycarbonate glazing.
  4. Outer Dome Color: Clear.
  5. Inner Dome Color: White.
  6. Frame Finish: Manufacturer's standard mill finish.
  7. Size: Match existing and as required to fit existing curbs.
- B. Skylights shall be completely sealed with neoprene gaskets and isobutylene/isoprene between domes and frame members and without weep holes to prevent air in-filtration and ex-filtration. Custom-size skylight(s) to fit existing openings.
1. Fall protection: Comply with OSHA 1910.23: 200 lb. load applied perpendicularly at any point will cause no glazing, disengagement or breakage of glazing material.
- C. Warranty: Warranty shall provide for repair or replacement of work which exhibits defects in materials and workmanship and guarantees weather-tight and leak free performance for a period of five (5) years from the date of substantial completion.

## 2.5 ROOF HATCH SAFETY RAIL

- A. Manufacturer: SafePro, [www.safeprosafety.com](http://www.safeprosafety.com).
- B. Provide new fall protection safety rail system, as follows:
  - 1. Mounting System: Integrated stanchions, no fittings. Rail shall be mounted to roof hatch cap flashing per manufacturer's instructions.
  - 2. Tubing: 1-1/2" OD .083 wall hot-rolled electric welded steel.
  - 3. Finish: Powder-coated safety yellow.
  - 4. Gate System: Gravity self-closing, non-collapsible full wrap-around 1-1/2" tubing grab hold. Heavy duty hinges with 5/8" hinge pin with built-in pinch-less gate stop and pull up full opening positioning. Standard left-hand swing.

## 2.6 NON-PENETRATING GUARDRAIL SYSTEM

- A. Manufacturer: CAI Safety Systems, [www.caisafety.com](http://www.caisafety.com) or an approved equal.
- B. Provide new non-penetrating guardrail system, as follows:
  - 1. Arrangement: Refer to Drawings.
  - 2. Meets OSHA Requirements 1910.29(b) and 1926.502(b)
  - 3. Materials:
    - b. Railings: 16 gage welded steel, powder coated safety yellow.
    - c. Baseplates: Weighted steel, galvanized.
    - d. Accessories as required for a complete system.
  - 4. Railings anchored into base plates with pins or bolts.
  - 5. Top rail height = 42 inches; mid-rail height = 20 inches.
  - 6. Narrow 3-1/4" space between railing sections to allow for 90° or 45° turns.
  - 7. Rail Lengths: Fixed or adjustable, no greater than 8-foot sections.
  - 8. Finishing Kit: Provide at each end of straight runs.

## 2.7 EXTERIOR ALUMINUM ROOF LADDERS

- A. General:
  - 1. Comply with ANSI A14.3 and OSHA 1910.27.
  - 2. Field Measurements: Verify dimensions by field measurement before fabrication.
- B. Manufacturer: O'Keeffe's, Inc.; 100 N Hill Drive, Suite 12, Brisbane, CA 94005. Toll Free Tel: (888) 653-3333. Tel: (415) 824-4900. Fax: (415) 824-5900. Email: [info@okeeffes.com](mailto:info@okeeffes.com). Web: <http://www.okeeffes.com> or an approved equal.
- C. Fixed Access Vertical Ladder:
  - 1. Tubular rail low-parapet access ladder with platform and return.
  - 2. Model 503 as manufactured by O'Keefe's Inc.
- D. Materials:
  - 1. Aluminum Plate and Sheet: ASTM B209, Alloy 5005-H34.
  - 2. Aluminum Extrusions: ASTM B221, Alloy 6063-T6.
  - 3. Aluminum Alloy Rolled Tread Plate: ASTM B632, Alloy 6061-T6.
  - 4. Aluminum Castings: ASTM B26, Alloy 443.0-F.

- E. Finish: Mill finish, as extruded.
- F. Fabrication:
  - 1. Rungs: Not less than 1-1/4 inches in section and 24 inches long, formed from tubular aluminum extrusions. Squared and deeply serrated on all sides.
    - b. Rungs shall withstand a 1,000-pound load without deformation or failure.
  - 2. Channel Side Rails: Not less than 1/8-inch wall thickness by 3 inches wide.
  - 3. Tubular Side Rails: Assembled from two interlocking aluminum extrusions no less than 1/8-inch wall thickness by 3 inches wide. Construction shall be self-locking stainless steel fasteners, full penetration TIG welds and clean, smooth and burr-free surfaces.
  - 4. Walk-Through Rail and Roof Rail Extension: Not less than 3 feet 6 inches above the landing and shall be fitted with deeply serrated, square, tubular grab rails.
  - 5. Landing Platform: 1-1/2 inches or greater diameter, tubular aluminum guardrails and decks of serrated aluminum treads.
- G. Anchorage:
  - 1. Notify manufacturer that top and bottom anchorage to the roof system differs from manufacturer's standard details and components.
  - 2. Provide anchorage materials to comply with the Drawings.
  - 3. Fasteners: Provide Type 316 stainless steel fasteners for exterior use as indicated on the Drawings.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION - GENERAL

- A. Inspect existing conditions to determine that all Work preceding this installation is as intended and is of sound construction. Proceeding with the Work of this Section indicates acceptance of all conditions.
- B. All installations shall be in accordance with the manufacturer's printed instructions and as shown on the Drawings.

#### 3.2 PIPE SUPPORT INSTALLATION

- A. Non-Penetrating Pipe Supports (Types A, B & C):
  - 1. Assemble pipe supports with protection pad as shown on the Drawings. Adhere supports solid to protection pads in specified sealant.
  - 2. Set pad assemblies on the modified bitumen roof membrane. Do not adhere to roof system.
  - 3. Securely strap electrical conduit or Unistrut carrying electrical conduit to supports with galvanized steel straps.
  - 4. Loosely strap gas piping to support with galvanized steel straps. Straps shall allow free movement of piping, but not allow piping to lift more than 1 inch from support.
- B. Penetrating Curbed Roller Pipe Supports (Type D):
  - 1. Anchor new curbs to existing deck or wood blocking using #12 coated insulation

- screws spaced at 8 inches on center, or a minimum of two per side.
- 2. Flash curbs to the roof per the respective Section.
- 3. Set new galvanized metal caps as shown on the Drawings.
- 4. Set new roller assemblies and anchor securely to curbs with neoprene-head screws.
- 5. Strap tops of pipes to roller assemblies.

### 3.3 OTHER ASSEMBLY INSTALLATION

- A. Equipment Supports and Curbs: Anchor supports and curbs to deck or wood blocking as shown on the Drawings using #12 coated insulation screws or lag bolts spaced at 8-inches on centers, or minimum of two per side.
- B. Non-Penetrating Guardrail System:
  - 1. Field assemble per manufacturer's instructions.
  - 2. Provide roofing pads below each baseplate as indicated on Drawings.
- C. Exterior Aluminum Ladders:
  - 1. Install according to manufacturer's instructions except for base mounting.
  - 2. Ladder base mounting indicated on Drawings differs from manufacturer's standard hardware. Provide alternative mounting brackets and anchors as indicated on Drawings.
- D. Other Assemblies: Install as indicated on the Drawings, as required by the manufacturer or as designated above.

### 3.4 CLEANING

- A. Clean all items of this Section in accordance with the respective manufacturer's instructions.

END OF SECTION 07 7200

SECTION 09 9100

PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes painting of the following items:
  - 1. Exterior:
    - a. Ferrous metal substrate.
    - b. Galvanized metal substrate.
    - c. Gas piping.

1.3 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Submit manufacturer's literature and letters attesting that the products used meet or exceed these Specifications. Submittals shall indicate Flame Spread Rating of all paint products proposed for use in accordance with ASTM E-84.

1.4 QUALITY ASSURANCE

- A. Supplier and Contractor: Firms of long-term operation, technically proficient and experienced in this trade.
- B. Primers and undercoats: From same manufacturer as finished coats.
- C. All paint shall be of the kind and brands hereinafter specified, or of a prior approved equal. All painting materials shall be of the highest quality and have identifying labels on the containers.

1.5 PRODUCT HANDLING, STORAGE AND DELIVERY

- A. Deliver paint to the site in manufacturer's sealed containers. Minimum contents of each manufacturer's label on each container: Manufacturer's name, type of paint, color of paint, and instructions for reducing. Thinning may be done only in accordance with directions given on the container. Job mixing or job tinting may be done only when

approved by the Architect. Mixing or thinning operations will not be conducted in the interior or on the roof of any existing building on the site.

- B. Store paint and other combustible materials to protect from the possibility of fire. Store paint in areas where spillage can be reduced and confined and not damage Work already in place. Do not store paint or other combustible material in the interior of any existing building on the site.

#### 1.6 JOB CONDITIONS

- A. Full coverage will be required for the application specified. Apply additional coats if required to produce full coverage.
- B. Make each coat slightly darker than the preceding coat, unless otherwise directed.
- C. Where new Work adjoins existing painted surfaces, match existing color and carry new painting to an appropriate stopping point along the existing painted surface. The stopping point will be approved by the Architect.
- D. Field painting: Not required on items specified completely finished at the factory, or on aluminum, pre-finished sheet metal, copper, brass, bronze, stainless steel or other non-ferrous metal. Do not paint over UL or FM labels.
- E. Prime coats specified herein will not be required on items delivered with primer or shop coats already applied; however, touch-up shall be required prior to final coats.

#### 1.7 WARRANTY

- A. Guarantee all Work performed under this Contract for a period of one (1) year from the date of Substantial Completion against all defects in materials and workmanship. Defective Work includes cracking, peeling, scaling of paint, water absorption or rusting.

### PART 2 - PRODUCTS

#### 2.1 SCHEDULE OF PAINTING

- A. Unless otherwise noted, all paints specified are either products of Sherwin-Williams, or approved equal products produced by Devoe/Kelly-Moore; no other manufacturers are permitted, unless the specified paint becomes unavailable.
- B. Exterior Ferrous Metal Substrate:
  - 1. Surface Preparation: Scrape and sand free of all loose paint, rust and foreign materials. Sand paint nicks to feather-smooth surface edges. Prepare structural metal surfaces per structural notes on Drawings.
  - 2. Water-Based Light Industrial Coating System
    - a. Prime Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series, water based, 5.0 to 10.0 mils wet, 2.0 to 4.0 mils dry.
    - b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
    - c. Topcoat: S-W Pro Industrial Acrylic Semi-Gloss Coating, B66-650

Series, water based, 2.5 to 4.0 mils dry per coat. Match existing color. [Note: Confirm intermediate and topcoat finish and color with a field mock-up.]

C. Exterior Galvanized Metal Substrate:

1. Surface Preparation: Clean entire surface of metal with cleaning solution of 1 gallon white vinegar to 3 gallons of water.
2. Water-Based Light Industrial Coating System
  - a. Prime Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series, water based, 5.0 to 10.0 mils wet, 2.0 to 4.0 mils dry.
  - b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
  - c. Topcoat: S-W Pro Industrial Acrylic Semi-Gloss Coating, B66-650 Series, water based, 2.5 to 4.0 mils dry per coat. Match existing color. [Note: Confirm intermediate and topcoat finish and color with a field mock-up.]

### PART 3 - EXECUTION

#### 3.1 INSPECTION

- A. Review the surfaces to be painted and coordinate with the responsible subcontractor to assure correctness of the surfaces. Report painting-related problems to Architect.
- B. Proceeding with the installation of painting shall be construed as evidence of acceptance of the conditions under which painting Work will be accomplished.

#### 3.2 PREPARATION

- A. Protect by drop cloth or other measures all interior floor and wall surfaces as well as exterior roof and wall surfaces against overspray and paint drippage. Immediately clean any spillage or overspray.
- B. Remove oils, grease, rust, scale and dust and touch-up any pitted or abraded places on items that have been shop coated. Where steel and iron have a heavy coating of scale or are coated with asphalt or other bituminous materials, removed such materials by wire-brushing or sandblasting if necessary to produce a satisfactory surface for painting.
- C. Before painting, remove hardware, accessories, plates, light fixtures, and similar items, or provide ample protection of such items. Upon completion of each area, replace above items in Working order. When necessary, disconnect convector covers to permit painting of surfaces behind them; replace and re-connect upon completion. Use only skilled mechanics for removal and connection items.

#### 3.3 PAINTING APPLICATION

- A. Comply with manufacturer's recommendations.
- B. Do not apply exterior paint or coatings in damp, rainy weather, or until the surface has

thoroughly dried from the effects of such weather. Do not paint when the temperature is below 50 degrees Fahrenheit.

- C. Ensure surfaces to be painted are clean, dry, smooth, and protected from dampness.
- D. Ensure each coat of paint is well-brushed on, worked out evenly and allowed to dry at least 48 hours before subsequent coats are applied.
- E. Provide finish work that is uniform, of approved color, smooth and free from runs, sags, defective brushing, clogging or excessive flooding. Make edges of paint adjoining other materials or colors sharp and clean by overlapping.

END OF SECTION 09 9100



SECTION 22 0000

COMMON WORK RESULTS FOR PLUMBING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. General: This Section is meant to be all encompassing for Plumbing Work within the building and on the roof. It may include materials, devices and equipment that are not required for the Project.
- B. Scope of Plumbing Work: Refer to Project Drawings and as follows:
  - 1. Relocation, disconnection and re-connection of plumbing piping and roof drains as applicable to the Project.
  - 2. Installation of new rooftop pipe supports.
- C. Section Includes:
  - 1. Domestic Water Piping, above grade within building.
  - 2. Sanitary and Storm Sewer Piping, above grade within building.
  - 3. Equipment drains and overflows.
  - 4. Unions and flanges.
  - 5. Roof Drains.
  - 6. Hangers and Supports.
  - 7. Plumbing Demolition.
  - 8. Accessory materials, devices and equipment as required and/or as indicated to insure proper operating systems.
- D. Related Sections
  - 1. Section 07 7200 – Roof Accessories (for premanufactured roof mounted pipe supports)
  - 2. Section 23 0000 – Common Work Results for Mechanical
  - 3. Section 26 0000 – Common Work Results for Electrical

1.3 REFERENCES

- A. General: Any material or operation specified by reference to the published specification or standard of a manufacturer, trade association, technical organization or other published standard, shall comply with the requirements of the current specification or standard listed or enforced by the Authority Having Jurisdiction (AHJ)
- B. International Code Council (ICC)
  - 1. International Mechanical Code (IMC) – as endorsed by AHJ. Without a local AHJ, the 2015 IMC shall be incorporated.
  - 2. International Plumbing Code (IPC) – as endorsed by AHJ. Without a local AHJ,

the 2015 IPC shall be incorporated.

- C. Occupational Safety and Health Administration (OSHA)

#### 1.4 QUALITY ASSURANCE

- A. The installation of Plumbing Work shall be performed by an experienced Contractor using materials produced by reputable manufacturers. This installation shall be in strict accordance with the State and Local Codes and the Authority Having Jurisdiction (AHJ), as well as with the published standards of the manufacturers of the materials.
- B. The Contractor shall be licensed by the State of Texas, provide proof of having such license prior to accessing the Work site, and properly display the appropriate license numbers where required in accordance with State law.
- C. Coordinate Plumbing Work with other trades.

#### 1.5 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements
- C. Submit product data for all materials to be used on the Project. Materials may include but not be limited to the following:
  - 1. Piping and fittings.
  - 2. Pipe insulation.
  - 3. Roof drains.
  - 4. Pipe hangers and supports.
- D. Building permits, as required by the Authority Having Jurisdiction (AHJ), for all Plumbing Work shall be submitted to the Architect by the Contractor per provisions of Division 01 prior to commencement of Work.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Schedule and coordinate with the Owner all necessary deliveries so as to cause the least inconvenience to the Owner's daily activities. All deliveries and unloading or loading activities shall be the responsibility of the Contractor. The Owner will not accept any responsibility for delivery activities.
- B. Cover and protect material in transit and at site. Material not properly protected and stored which is damaged or defaced during construction shall and will be rejected.
- C. Store materials in designated areas. For exterior storage of products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering. Provide ventilation and any required heating or cooling to avoid condensation.

- D. Store flammable products away from the building with all cans having lids sealed. Provide manufacturer's safety data sheets for all products delivered to the jobsite.
  - E. Band together all loose pipe sections and stack no more than one pallet high. Store all loose fittings in marked boxes by size and type.
  - F. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.
- 1.7 CLOSEOUT PROCEDURES AND WARRANTY
- A. Comply with provisions of Division 01, if applicable.
  - B. All Work provided under this Section shall be warranted for a period of not less than one year, beginning on the Date of Substantial Completion.
- 1.8 SCHEDULING
- A. Disconnects and outages of existing equipment and/or utility services shall be scheduled at times convenient to the Owner. Times for shutdowns will be coordinated with the Contractor's and Owner's schedules beginning at the pre-roofing conference and as needed during the course of the Work

## PART 2 - PRODUCTS

### 2.1 DOMESTIC WATER PIPING, ABOVE GRADE WITHIN BUILDING

- A. Steel Pipe: ASTM A53, Type E or S, Grade A or B, Schedule 40, galvanized. Include ends matching joining system.
  - 1. Steel Pipe Nipples: ASTM A733.
  - 2. Malleable Iron Unions: ASME B16.39, Class 150.
  - 3. Gray-Iron Threaded Fittings: ASME B16.4, Class 125, galvanized.
- B. Copper Tubing: ASTM B88, Type K, hard drawn.
  - 1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze..
  - 2. Joints: Solder, lead free, ASTM B32, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F. Braze, AWS A5.8 BCuP silver/phosphorous/copper alloy with melting range 1190 to 1480 degrees F.
- C. PVC Pipe: ASTM D1785, Schedule 40, polyvinyl chloride (PVC) material.
  - 1. Fittings: ASTM D2466, Schedule 40 PVC; ASTM D2467, Schedule 80 PVC, as required.
  - 2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.
  - 3. Fire Resistant Wrap: 3M Fire Barrier Plenum Wrap 5A, Thermal Ceramics PlenumWrap, or approved equivalent where required.

### 2.2 SANITARY AND STORM SEWER PIPING, ABOVE GRADE WITHIN BUILDING

- A. Hub-and-Spigot Cast Iron Pipe: ASTM A74, service class.
  - 1. Fittings: Cast iron, ASTM A74.

2. Joints: ASTM C564, rubber.
3. Caulking Materials: ASTM B29, pure lead and oakum or hemp fiber.

B. Hubless Cast Iron Pipe: CISPI 301.

1. Fittings: Cast iron, CISPI 301.
2. Joints: CISPI 310, neoprene gasket and four-band stainless steel clamp and shield assemblies, all stainless steel construction and ASTM C564, rubber sleeve with integral, center pipe stop.

C. PVC Pipe: ASTM F891, Sewer and Drain Series, PS 50 minimum stiffness, PVC cellular-core pipe with plain ends for solvent cemented joints.

1. Fittings: ASTM D3034, SDR 35, PVC socket-type fittings.
2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.
3. Fire Resistant Wrap: 3M Fire Barrier Plenum Wrap 5A, Thermal Ceramics PlenumWrap, or approved equivalent where required.

## 2.3 EQUIPMENT DRAINS AND OVERFLOWS

A. Copper Tubing: ASTM B88, Type K, hard drawn.

1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze.
2. Joints: Solder, lead free, ASTM B32, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F. Braze, AWS A5.8 BCuP silver/phosphorous/copper alloy with melting range 1190 to 1480 degrees F.

## 2.4 UNIONS AND FLANGES

A. Unions for Pipe 2 inches and Smaller:

1. Steel Piping: Class 150, malleable iron, threaded.
2. Copper Piping: Class 150, bronze unions with soldered brazed joints.
3. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.
4. PVC Piping: PVC.

B. Flanges for Pipe 2-1/2 inches and Larger:

1. Steel Piping: Class 150, forged steel, slip-on flanges.
2. Copper Piping: Class 150, slip-on bronze flanges.
3. PVC Piping: PVC flanges.
4. Gaskets: 1/16-inch thick preformed neoprene gaskets.

C. PVC Pipe Materials: For connections to equipment and valves with threaded connections, furnish solvent-weld socket to screwed joint adapters and unions, or ASTM D2464, Schedule 80, threaded, PVC pipe.

## 2.5 ROOF DRAINS

A. General:

1. If required by roof construction, furnish extension/flange and drain extension. Refer to Drawings for roof construction details and location of roofing membrane.
2. Furnish all drains with factory applied coating.

- B. New Roof Drains: Furnish a coated cast iron roof drain, equivalent to Zurn Z100 or approved equivalent, including:
  - 1. Flashing flange
  - 2. Combination membrane flashing ring/clamp with gravel stop
  - 3. Bottom outlet type
  - 4. Underdeck clamp
  - 5. Stainless steel, locking nuts to secure clamping ring to drain assembly.
  - 6. Extension ring sized to accommodate insulation thickness
  - 7. Coated cast iron, vandal proof mushroom dome.
- C. Field Applied Coating: Rustoleum Professional Flat Gray Cold Galvanizing Compound.

## 2.6 HANGERS AND SUPPORTS

- A. General: Pipe hangers and supports shall be of a type suitable for each use. Perforated straps shall not be used in any work. Provide materials listed herein as required for the Project.
- B. Rooftop Pipe Supports:
  - 1. Refer to Project Drawings and provisions of Section 07 7200.
  - 2. Reuse of existing rooftop pipe supports or support pads is not acceptable.
  - 3. All construction trades including plumbing, mechanical and electrical shall provide rooftop supports from the same manufacturer.
- C. Pipe Hanger and Support Devices:
  - 1. Vertical Piping: Riser clamps.
  - 2. Individual, Straight, Horizontal Piping Runs: According to the following:
    - a. 100 Feet (30 m) and Less: MSS Type 1, adjustable, steel clevis hangers.
    - b. Longer Than 100 Feet (30 m): MSS Type 43, adjustable roller hangers.
    - c. Longer Than 100 Feet (30 m), if Indicated: MSS Type 49, spring cushion rolls.
  - 3. Multiple, Straight, Horizontal Piping Runs 100 Feet (30 m) or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
  - 4. Base of Vertical Piping: MSS Type 52, spring hangers.
- D. Hanger Rod Attachments:
  - 1. Steel Turnbuckles: For adjustment up to 6 inches for heavy loads.
  - 2. Steel Clevises: For 120 to 450 degrees F piping installations.
  - 3. Swivel Turnbuckles: For use with MSS Type 11, split pipe rings.
  - 4. Malleable-Iron Sockets: For attaching hanger rods to various types of building attachments.
  - 5. Steel Weldless Eye Nuts: For 120 to 450 degrees F piping installations.
- E. Building Attachments:
  - 1. Top-Beam C-Clamps: For use under roof installations with bar-joist construction to attach to top flange of structural shape.
  - 2. Side-Beam or Channel Clamps: For attaching to bottom flange of beams, channels, or angles.
  - 3. Center-Beam Clamps: For attaching to center of bottom flange of beams.
  - 4. C-Clamps: For structural shapes.
  - 5. Side-Beam Clamps For bottom of steel I-beams.
  - 6. Side-Beam Brackets: For sides of steel or wooden beams.

- F. Saddles and Shields:
  - 1. Steel Pipe-Covering Protection Saddles: To fill interior voids with insulation that matches adjoining insulation.
  - 2. Protection Shields: Of length recommended by manufacturer to prevent crushing insulation.
- G. Expansion bolts and epoxy anchors shall be Hilti or approved equal.
- H. All exterior pipe support systems shall be hot-dipped galvanized, G90.
- I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Pipe Hangers:
    - a. Cooper B-Line
    - b. Grinnell Corp.
    - c. GS Metals Corp.
    - d. PHD Manufacturing, Inc.
    - e. PHS Industries, Inc.
    - f. Piping Technology & Products, Inc.
  - 2. Channel Support Systems:
    - a. Cooper B-Line
    - b. Grinnell Corp.; Power-Strut Unit.
    - c. Unistrut Corp.
  - 3. Thermal-Hanger Shield Inserts:
    - a. PHS Industries, Inc.
    - b. Pipe Shields, Inc.
    - c. Rilco Manufacturing Co., Inc.

## 2.7 PIPE INSULATION

- A. General: Where existing piping systems are insulated, insulate new piping to match existing materials, thickness and jacketing unless otherwise noted. Seal all insulation joints and terminations in accordance with manufacturer's recommendations.

## 2.8 MISCELLANEOUS MATERIALS

- A. Grout: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
  - 1. Characteristics: Post-hardening, volume-adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
  - 2. Design Mix: 5000 psi, 28-day compressive strength.
  - 3. Packaging: Premixed and factory packaged.
- B. Metals:
  - 1. Steel Plates, Shapes and Bars: ASTM A36.
  - 2. Stainless Steel Sheet, Strip and Plate: ASTM A240 or ASTM A666, Type 304.
  - 3. Stainless Steel Bars and Shapes: ASTM A276, Type 304.
  - 4. Steel Tubing: ASTM A500, cold-formed steel tubing.
  - 5. Steel Pipe: ASTM A53, Standard Weight (Sch. 40) unless otherwise indicated.
  - 6. Cast Iron: Either gray, ASTM A48 or malleable iron, ASTM A47, unless otherwise indicated.
  - 7. Aluminum Plate and Sheet: ASTM B209, Alloy 6061-T6.

8. Aluminum Extrusions: ASTM B221, Alloy 6063-T6.

### PART 3 - EXECUTION

#### 3.1 PLUMBING DEMOLITION

- A. Refer to Division 01 Sections for general demolition requirements and procedures.
- B. Disconnect, demolish, and remove plumbing systems, equipment, and components indicated to be removed.
  1. Piping to Be Removed: Remove portion of piping for the scope of work and cap or plug remaining piping with same or compatible piping material.
  2. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
  3. Equipment to Be Removed: Disconnect and cap services and remove equipment.
  4. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
  5. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
- C. If pipe, insulation, or equipment to remain is damaged in appearance or is unserviceable, remove damaged or unserviceable portions and replace with new products of equal capacity and quality.

#### 3.2 PIPING SYSTEMS – COMMON REQUIREMENTS

- A. Contractor shall visit the site before submitting a bid and familiarize himself with the areas in which Plumbing Work is to be performed.
- B. Existing conditions such as pavements, sidewalks, interior and exterior finishes and other Work shall be restored to their original or better condition where disturbed by Work of this Section.
- C. Any Work installed without regard to the Work of other trades which must, in the opinion of the Architect, be relocated to permit the installation of other Work, shall be moved and reinstalled as a part of this Work without additional cost to the Owner.
- D. Hoist all materials and equipment to be furnished, modified, relocated or installed under this Section. Hoisting shall be compliant with all OSHA, state and federal codes and regulations.
- E. Installation - General:
  1. Install piping in concealed locations except in equipment rooms and service areas.
  2. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
  3. Install piping to permit valve servicing.
  4. Install piping free of sags or bends.
  5. Install fittings for changes in direction and branch connections.

6. Install piping to allow application of insulation, if required.
  7. Select system components with pressure rating equal to or greater than system operating pressure.
- F. Escutcheon Installation: Install escutcheons for penetrations of walls, ceilings, and floors according to the following:
1. New Piping:
    - a. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type.
    - b. Insulated Piping: One-piece, stamped-steel type with spring clips.
    - c. Bare Piping in Unfinished Service Spaces: One-piece, stamped-steel type with concealed or exposed-rivet hinge and set screw or spring clips.
    - d. Bare Piping in Equipment Rooms: One-piece, stamped-steel type with set screw or spring clips.
    - e. Bare Piping at Floor Penetrations in Equipment Rooms: One-piece, floor-plate type.
  2. Existing Piping:
    - a. Chrome-Plated Piping: Split-casting, cast-brass type with chrome-plated finish.
    - b. Insulated Piping: Split-plate, stamped-steel type concealed or exposed-rivet hinge and spring clips.
    - c. Bare Piping at Wall and Floor Penetrations in Finished Spaces: Split-plate, stamped-steel type with concealed hinge and spring clips.
    - d. Bare Piping in Unfinished Service Spaces: Split-plate, stamped-steel type with concealed or exposed-rivet hinge and set screw or spring clips.
    - e. Bare Piping in Equipment Rooms: Split-plate, stamped-steel type with set screw or spring clips.
    - f. Bare Piping at Floor Penetrations in Equipment Rooms: Split-casting, floor-plate type.
- G. Sleeve Installation: Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, and concrete floor and roof slabs according to the following:
1. Cut sleeves to length for mounting flush with both surfaces.
    - a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 4 inches above finished floor level. Extend cast-iron sleeve fittings below floor slab as required to secure clamping ring if ring is specified.
  2. Install sleeves that are large enough to provide  $\frac{1}{4}$  inch annular clear space between sleeve and pipe or pipe insulation. Use the following sleeve materials:
    - a. Steel Pipe Sleeves: For pipes smaller than NPS 6.
    - b. Steel Sheet Sleeves: For pipes NPS 6 and larger, penetrating gypsum-board partitions.
    - c. Stack Sleeve Fittings: For pipes penetrating floors with membrane waterproofing. Secure flashing between clamping flanges. Install section of cast-iron soil pipe to extend sleeve to 2 inches above finished floor level.
      - 1) Seal space outside of sleeve fittings with grout or fireproof sealant and backer material.
  3. Sleeves are not required for core-drilled holes.
  4. Permanent sleeves are not required for holes formed by removable sleeves.



- H. Aboveground, Exterior-Wall Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
  - 1. Install steel pipe for sleeves smaller than 6 inches in diameter.
  - 2. Install cast-iron "wall pipes" for sleeves 6 inches and larger in diameter.
  - 3. Mechanical Sleeve Seal Installation: Select type and number of sealing elements required for pipe material and size. Position pipe in center of sleeve. Assemble mechanical sleeve seals and install in annular space between pipe and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.
- I. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials.
- J. Pipe Routing and Slope:
  - 1. Route piping in orderly manner and maintain gradient.
    - a. Route parallel and perpendicular to walls.
    - b. Diagonal runs are prohibited.
  - 2. Make changes in direction for piping using appropriate branches, bends, and long-sweep bends. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.
  - 3. Install sanitary and storm sewer piping at the following minimum slopes, unless otherwise indicated:
    - a. All Horizontal Sanitary Sewer Piping: 2 percent downward in the direction of flow.
    - b. All Horizontal Storm Sewer Piping: 1 percent downward in direction of flow.
- K. Do not enclose, cover, or put piping into operation until it is inspected and approved by the AHJ.

### 3.3 PIPING INSTALLATION

- A. Copper Piping: Install in accordance with ASME B31.9.
- B. PVC Water-Service Piping: Install in accordance with ASTM D2774 and ASTM F1668.
- C. PVC Sewer Piping: Install in accordance with ASTM D2321 and ASTM F1668.
- D. Hub-and-Spigot Cast Iron Piping: Install in accordance with CISPI's "Cast iron Soil Pipe and Fittings handbook."
- E. Hubless Cast Iron Piping: Install in accordance with CISPI 310 and CISPI's "Cast iron Soil Pipe and Fittings Handbook."

### 3.4 ROOF DRAIN INSTALLATION

- A. Install components in accordance with Drawings, manufacturer's instructions and approved product data submittals.
- B. Set roof drains plumb, level, and rigid.

- C. Water test new and/or existing roof drains in accordance with the authority having jurisdiction, inserting plug below level of new drain to existing pipe connection. Notify Architect a minimum of two (2) days prior to test and provide report of test results to Architect for review.

3.5 HANGER AND SUPPORT INSTALLATION

A. General:

1. Comply with MSS Standards. Install hangers, supports, clamps, and attachments as required to properly support piping from building structure.
2. Hangers and supports shall be installed to permit free expansion and contraction in the piping systems.
3. Hangers shall permit vertical adjustment to maintain proper pitch.
4. Where necessary to control expansion and contraction, the piping shall be guided and firmly anchored.
5. No piping shall be self-supporting; nor shall it be supported from equipment connections.
6. There shall be a hanger within two feet (2') of each elbow or tee.
7. Additional supports shall be provided for valves, strainers, etc.
8. Pipe/tubing shall have not less than one hanger per length of pipe.
9. Vertical risers shall be supported by approved riser clamps.
10. Vertical pipes within a space shall have not less than two (2) supports.
11. Support vertical piping and tubing at base and at each floor.
12. All domestic cold water piping, condensate drain piping, and sewer piping receiving cold condensate shall have hangers sized to go around the insulation with saddles being provided to protect the insulation.
13. Install hangers and supports complete with necessary inserts, bolts, rods, nuts, washers, and other accessories.

- B. Hanger Rods: All hanger rods shall be double nutted. Hanger rod sizes shall conform to the following schedule:

Pipe up to and including 2"	3/8" rods
Pipe 2½", 3" and 3½"	1/2" rods
Pipe 4" and 5"	5/8" rods
Pipe 6"	3/4" rods

1. Rod diameter may be reduced 1 size for double-rod hangers, with 3/8-inch (10-mm) minimum rods

- C. Steel Piping Support:

1. Unless otherwise shown on the Plans, all horizontal runs of steel piping shall be suspended from the floor or roof construction, as the case may be, by means of hangers with the following maximum spacing:

Pipe up to and including 1¼"	7 feet
Pipe 1½"	9 feet
Pipe 2"	10 feet
Pipe 2½"	11 feet

Pipe 3" and up	12 feet
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2. Install supports for vertical steel piping every 15 feet.

D. Copper Tubing Support:

1. Unless shown otherwise on the Plans, all horizontal runs of copper tubing shall be suspended from the floor or roof construction, as the case may be, by means of hangers with the following maximum spacing:

Pipe up to ¾" in size	5 feet
Pipe 1" and 1¼"	6 feet
Pipe 1½" and 2"	8 feet
Pipe 2 ½"	9 feet
Pipe 3" and up	10 feet

2. Install supports for vertical copper tubing every 10 feet.

E. PVC Piping Support:

1. Unless shown otherwise on the Plans, all horizontal runs of PVC piping shall be suspended from the floor or roof construction, as the case may be, by means of hangers at a maximum spacing of 4 feet for all pipe sizes.
2. Install supports for vertical PVC piping equal to and less than 2" every 5 feet; greater than 2" every 10 feet.

F. Cast-Iron Piping Support:

1. Unless shown otherwise on the Plans, all horizontal runs of cast-iron piping shall be suspended from the floor or roof construction, as the case may be, by means of hangers at a maximum spacing of 5 feet for all pipe sizes. Maximum spacing of hangers may be increased to 10 feet where 10-foot lengths of pipe are installed.
2. Install supports for vertical cast-iron piping every 15 feet.

3.6 CONNECTIONS

- A. Connect new piping to existing piping. Use transition fitting to join dissimilar piping materials.
- B. Connect storm sewer piping to roof drains and storm sewer specialties.

3.7 FIELD QUALITY CONTROL

- A. Clean and disinfect domestic water piping.
- B. During installation, notify authorities having jurisdiction at least 24 hours before inspection must be made. Perform tests in presence of authorities having jurisdiction.
  1. Roughing-in Inspection: Arrange for inspection of piping before concealing or closing-in after roughing-in and before setting fixtures.
  2. Final Inspection: Arrange for final inspection by authorities having jurisdiction to observe tests specified below and to ensure compliance with requirements.
- C. Reinspection: If authorities having jurisdiction find that piping will not pass test or inspection, make required corrections and arrange for reinspection.

- D. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.
- E. Test piping according to procedures of authorities having jurisdiction or, in absence of published procedures, as follows:
  - 1. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit separate report for each test, complete with diagram of portion of piping tested.
  - 2. Leave uncovered and unconcealed new, altered, extended, or replaced storm drainage piping until it has been tested and approved. Expose work that was covered or concealed before it was tested.
  - 3. Test Procedure: Test piping on completion of roughing-in. Close openings in piping system and fill with water to point of overflow, but not less than 10-foot head of water (30 kPa). From 15 minutes before inspection starts to completion of inspection, water level must not drop. Inspect joints for leaks.
  - 4. Repair leaks and defects with new materials and retest piping, or portion thereof, until satisfactory results are obtained.
  - 5. Prepare reports for tests and required corrective action.

### 3.8 CLEANING

- A. Clean interior of piping. Remove dirt and debris as work progresses. Protect drains during remainder of construction period to avoid clogging with dirt and debris and to prevent damage from traffic and construction work.
- B. Place plugs in ends of uncompleted piping at end of day and when work stops.

### 3.9 ADJUSTING

- A. Hanger Adjustment: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.

### 3.10 PAINTING

- A. Touching Up: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting.
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM Standards

END OF SECTION 22 0000

## SECTION 23 0000

## COMMON WORK RESULTS FOR MECHANICAL

PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. General: This Section is meant to be all encompassing for Mechanical Work within the building and on the roof. It may include materials, devices and equipment that are not required for the Project.
- B. Scope of Mechanical Work: Refer to Project Drawings and as follows:
  - 1. Relocation, movement, disconnection and re-connection of mechanical equipment, gas lines, condensate lines, ductwork, etc. as applicable to the Project.
  - 2. Pre-checking of all existing roof mounted HVAC, ventilation, and related equipment. Owner will verify that all mechanical equipment is in working order prior to Work starting. The Contractor shall pre-check each unit prior to the Work and provide a written report to the Architect prior to any disruption of the units.
  - 3. Modification of existing gas lines, if applicable, with matching sizes, configuration, valves, support system, etc., as required. The Contractor shall test all gas lines in the presence of the Owner prior to the start of Work. Repair of any leaks or anomalies identified during this pre-check will be made by the Owner or by change order issued to the Contractor.
  - 4. Replacement of exterior and interior ductwork, fittings, insulation, sealants, gaskets and flexible connections where indicated.
  - 5. Testing of condensate roof drains in the presence of the Owner prior to the start of Work. Required repairs or opening of blockages identified during this process shall be performed by the Owner or by change order issued to the Contractor.
  - 6. Lifting, moving, re-setting and/or modifications to existing roof curbs and equipment supports, whether shown on the Drawings or not.
  - 7. Installation of new rooftop pipe supports.
  - 8. Installation of all sleeves and the cutting and patching of all holes necessary for the convenient and proper installation or disconnects and reconnections of the Work. Refer to Division 01 for requirements related to cutting and patching.
- C. Related Sections
  - 1. Section 07 7200 – Roof Accessories (for premanufactured roof mounted pipe supports, roof curbs and equipment support).
  - 2. Section 26 0000 – Common Work Results for Electrical.

## 1.3 REFERENCES

- A. General: Any material or operation specified by reference to the published specification or standard of a manufacturer, trade association, technical organization or other published standard, shall comply with the requirements of the current specification or standard listed or enforced by the Authority Having Jurisdiction (AHJ).
- B. International Code Council (ICC)
  - 1. International Fuel Gas Code (IFGC) – as endorsed by AHJ. Without a local AHJ, the 2015 IFGC shall be incorporated.
  - 2. International Mechanical Code (IMC) – as endorsed by AHJ. Without a local AHJ, the 2015 IMC shall be incorporated.
  - 3. International Plumbing Code (IPC) – as endorsed by AHJ. Without a local AHJ, the 2015 IPC shall be incorporated.
- C. National Fire Protection Association (NFPA)
  - 1. NFPA 54 – National Fuel Gas Code.
- D. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)
  - 1. HVAC Duct Construction Standards.
- E. Occupational Safety and Health Administration (OSHA)

#### 1.4 QUALITY ASSURANCE

- A. The installation of Mechanical Work shall be performed by an experienced Contractor using materials produced by reputable manufacturers. This installation shall be in strict accordance with the State and Local Codes and the Authority Having Jurisdiction (AHJ), as well as with the published standards of the manufacturers of the materials.
- B. The Contractor shall be licensed by the State of Texas, provide proof of having such license prior to accessing the Work site, and properly display the appropriate license numbers where required in accordance with State law.
- C. Coordinate Mechanical Work with other trades.

#### 1.5 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Submit product data and certificates, if applicable, for all materials to be used on the Project. Materials may include but not be limited to the following:
  - 1. Piping and fittings.
  - 2. Pipe insulation.
  - 3. Pipe sealers, adhesives and insulation.
  - 4. Ductwork.
  - 5. Duct insulation.
  - 6. Hangers and fasteners for piping and ductwork.

7. Pipe supports.
  - D. If applicable, where significant relocation of mechanical equipment is anticipated submit shop drawings indicating the following at a minimum. Shop drawings shall be to scale and shall show all materials, fittings, new and/or existing equipment, and all incidentals to the Work required.
    1. Layout of ductwork and/or piping.
    2. Riser diagrams.
    3. Hanger diagrams indicating proposed attachment and locations.
    4. Ductwork jointing and all special sheet metal and insulating conditions.
    5. Mechanical curb extensions.
  - E. Submit a schedule, indicating proposed time of disconnection and reconnection of existing condition, and proposed time each piece of equipment is proposed to be out of operation.
  - F. Submit a plan of equipment removal and reinstallation indicating all procedures including method of evacuation and capture of fluorocarbons, controls maintenance, start-up after reinstallation, hoisting and lifting, and any other items specific to the equipment being affected.
  - G. Building permits, as required by the Authority Having Jurisdiction (AHJ), for all Mechanical Work shall be submitted to the Architect by the Contractor per provisions of Division 01 prior to commencement of Work.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Schedule and coordinate with the Owner all necessary deliveries so as to cause the least inconvenience to the Owner's daily activities. All deliveries and unloading or loading activities shall be the responsibility of the Contractor. The Owner will not accept any responsibility for delivery activities.
- B. Cover and protect material in transit and at site. Material not properly protected and stored which is damaged or defaced during construction shall and will be rejected.
- C. Store materials in designated areas. For exterior storage of products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering. Provide ventilation and any required heating or cooling to avoid condensation.
- D. Store flammable products away from the building with all cans having lids sealed. Provide manufacturer's safety data sheets for all products delivered to the jobsite.
- E. Band together all loose materials and stack no more than one pallet high. Store all loose fittings in marked boxes by size and type.
- F. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

#### 1.7 CLOSEOUT PROCEDURES AND WARRANTY

- A. Comply with provisions of Division 01, if applicable.

- B. All Work provided under this Section shall be warranted for a period of not less than one year, beginning on the Date of Substantial Completion.

## 1.8 SCHEDULING

- A. Disconnects and outages of existing equipment and/or utility services shall be scheduled at times convenient to the Owner. Times for shutdowns will be coordinated with the Contractor's and Owner's schedules beginning at the pre-roofing conference and as needed during the course of the Work.

## PART 2 - PRODUCTS

### 2.1 HVAC WATER PIPING

- A. Steel Pipe: ASTM A53, Type E or S, Grade A or B, Schedule 40, galvanized. Include ends matching joining system.
  - 1. Steel Pipe Nipples: ASTM A733.
  - 2. Malleable Iron Unions: ASME B16.39, Class 150.
  - 3. Gray-Iron Threaded Fittings: ASME B16.4, Class 125, galvanized.
- B. Copper Tubing: ASTM B88, Type K, hard drawn.
  - 1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze..
  - 2. Joints: Solder, lead free, ASTM B32, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F. Braze, AWS A5.8 BCuP silver/phosphorous/copper alloy with melting range 1190 to 1480 degrees F.

### 2.2 EQUIPMENT DRAINS AND OVERFLOWS

- A. Copper Tubing: ASTM B88, Type K, hard drawn.
  - 1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze..
  - 2. Joints: Solder, lead free, ASTM B32, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F. Braze, AWS A5.8 BCuP silver/phosphorous/copper alloy with melting range 1190 to 1480 degrees F.
- B. PVC Pipe: ASTM D1785, Schedule 40, polyvinyl chloride (PVC) material.
  - 1. Fittings: ASTM D2466, Schedule 40 PVC; ASTM D2467, Schedule 80 PVC, as required.
  - 2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

### 2.3 NATURAL GAS PIPING

- A. Steel Pipe: ASTM A53, black steel, Schedule 40, Type E or S, Grade B.
  - 1. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
  - 2. Wrought Steel Welding fittings: ASTM A234, for butt and socket welding.
  - 3. Unions: ASME B16.39, Class 150, malleable iron with brass-to-iron seat, ground joint, and threaded ends.
  - 4. Forged Steel Flanges and Flanged Fittings: ASME B16.5, minimum Class 150, including bolts, nuts and gaskets.



- B. Corrugated, Stainless-Steel Tubing (CSST): Comply with ANSI/IAS LC 1.
  - 1. Tubing: ASTM A240, corrugated, Series 300 stainless steel.
  - 2. Coating: PE with flame retardant.
  - 3. Shielding: Metallic, dual.
  - 4. Fittings:
    - a. Copper-alloy mechanical fittings with brazing socket or threaded ends complying with ASME B1.20.1.
    - b. Fittings shall be acceptable to the tubing manufacturer.
  - 5. Material shall be acceptable to the AHJ and gas utility service provider.
  - 6. Maximum operating pressure: 5 psig

## 2.4 REFRIGERANT PIPING

- A. Copper Tube: ASTM B88, Type K or L; ASTM B280, Type ACR.
  - 1. Wrought-Copper Fittings: ASME B16.22.
  - 2. Wrought-Copper Unions: ASME B16.22.
  - 3. Solder Filler Metals: ASTM B32. Use 95-5 tin antimony.
  - 4. Brazing Filler Metals: AWS A5.8.

## 2.5 UNIONS AND FLANGES

- A. Unions for Pipe 2 inches and Smaller:
  - 1. Steel Piping: Class 150, malleable iron, threaded.
  - 2. Copper Piping: Class 150, bronze unions with soldered brazed joints.
  - 3. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.
  - 4. PVC Piping: PVC.
- B. Flanges for Pipe 2-1/2 inches and Larger:
  - 1. Steel Piping: Class 150, forged steel, slip-on flanges.
  - 2. Copper Piping: Class 150, slip-on bronze flanges.
  - 3. PVC Piping: PVC flanges.
  - 4. Gaskets: 1/16-inch-thick preformed neoprene gaskets.
- C. PVC Pipe Materials: For connections to equipment and valves with threaded connections, furnish solvent-weld socket to screwed joint adapters and unions, or ASTM D2464, Schedule 80, threaded, PVC pipe.

## 2.6 DUCTWORK

- A. General:
  - 1. Except for systems specified otherwise, construct ducts, casings, and accessories of galvanized sheet steel, ASTM A653, coating G90.
  - 2. New ductwork shall be minimum 24-gauge; heavier gauge, if required by existing conditions.
  - 3. Ductwork shall be manufactured and sealed air and watertight.
  - 4. Ductwork construction shall be strictly in accordance with provisions of SMACNA.
  - 5. Duct pressure classification shall be determined by field testing.
  - 6. Round duct: Provide duct and fittings made by the same manufacturer.
- B. Sealants: Elastomeric compound, gun or brush grade, maximum 25 flame spread and

50 smoke developed compounded specifically for sealing ductwork as recommended by the manufacturer.

- C. Tape: Interior joints only – Use tape specifically designated by the sealant manufacturer and apply over wet sealant.
- D. Gaskets: Soft neoprene in flanged joints.
- E. Negative Pressure Ductwork (up to 3-inch W.G.):
  - 1. Round Duct: Galvanized steel, spiral lock seam construction with standard slip joints. Elbows shall be full radius and premanufactured (not shop or field fabricated). Match existing gauge.
  - 2. Rectangular Duct: Galvanized steel, minimum 20-gauge, Pittsburgh lock seam, with companion angle joints 1-1/4 by 1/8 inch minimum at not more than 8 feet spacing. Approved pre-manufactured joints are acceptable in lieu of companion angles.
- F. Flexible Duct Connections:
  - 1. Where exterior duct connections are made to fans, air terminal units, and air handling units, provide a non-flammable flexible connection of 29-ounce minimum Hypalon coated fiberglass fabric approximately 6 inches wide.
  - 2. Burning characteristics shall conform to NFPA 90A.
  - 3. Securely fasten flexible connections to round ducts with stainless steel or zinc-coated iron draw bands with worm gear fastener.
  - 4. For rectangular connections, crimp fabric to sheet metal and fasten sheet metal to ducts with screws 2 inches on center.
  - 5. Allow at least 1-inch slack to ensure that no vibration is transmitted.

## 2.7 INSULATION

- A. Piping Insulation: Where existing piping systems are insulated, insulate new or relocated piping to match existing materials, thickness and jacketing unless otherwise noted. Seal all insulation joints and terminations in accordance with manufacturer's recommendations.
- B. Ductwork Insulation: Where existing ductwork systems are insulated, insulate new or relocated ductwork to match existing materials, thickness and jacketing unless otherwise noted. Seal all insulation joints and terminations in accordance with manufacturer's recommendations.
  - 1. Duct liner is only permitted to be used for relief and general exhaust ducts. Duct liner is not permitted for outside air ducts, return air ducts, supply air ducts or any other positive pressure ductwork (provide exterior insulation only or double wall duct construction).

## 2.8 EQUIPMENT CURBS AND ROOFTOP PIPE SUPPORTS

- A. Equipment Curbs and Extensions:
  - 1. Refer to Project Drawings and provisions of Section 07 7200.
  - 2. Where unit curbs must be extended provide 18-gauge curb extensions with fully welded joints. Seal curb extensions to existing curb and to HVAC unit to prevent air leakage. Insulate to match existing curb.

- B. Rooftop Pipe Supports:
  - 1. Refer to Project Drawings and provisions of Section 07 7200.
  - 2. Reuse of existing rooftop pipe supports or support pads is not acceptable.
  - 3. All construction trades including plumbing, mechanical and electrical shall provide rooftop supports from the same manufacturer.

## 2.9 MISCELLANEOUS MATERIALS

- A. Grout: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
  - 1. Characteristics: Post-hardening, volume-adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
  - 2. Design Mix: 5000 psi, 28-day compressive strength.
  - 3. Packaging: Premixed and factory packaged.
- B. Metals:
  - 1. Steel Plates, Shapes and Bars: ASTM A36.
  - 2. Stainless Steel Sheet, Strip and Plate: ASTM A240 or ASTM A666, Type 304.
  - 3. Stainless Steel Bars and Shapes: ASTM A276, Type 304.
  - 4. Steel Tubing: ASTM A500, cold-formed steel tubing.
  - 5. Steel Pipe: ASTM A53, Standard Weight (Sch. 40) unless otherwise indicated.
  - 6. Cast Iron: Either gray, ASTM A48 or malleable iron, ASTM A47, unless otherwise indicated.
  - 7. Aluminum Plate and Sheet: ASTM B209, Alloy 6061-T6.
  - 8. Aluminum Extrusions: ASTM B221, Alloy 6063-T6.

## PART 3 - EXECUTION

### 3.1 MECHANICAL DEMOLITION

- A. General:
  - 1. Comply with provisions of Division 01 for general demolition requirements and procedures.
  - 2. All mechanical equipment, wiring, copper components and controls determined to not be reused remain the property of the Owner and shall be delivered to its designated storage location on the day of removal. Any materials lost in transit shall have its value restored to the Owner.
  - 3. Any mechanical equipment designated to be removed and not returned to the Owner and any conduit or steel piping not reused by the Contractor shall be disposed of as part of this contract.
- B. Disconnect, demolish, and/or remove mechanical systems, equipment, and components indicated to be removed or as required for the scope of roofing work.
  - 1. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
  - 2. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
  - 3. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
  - 4. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material.

5. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.

C. If pipe, ductwork, insulation, or equipment to remain is damaged in appearance or is unserviceable, remove damaged or unserviceable portions and replace with new products of equal capacity and quality.

### 3.2 MECHANICAL SYSTEMS – COMMON REQUIREMENTS

A. Contractor shall visit the site before submitting a bid and familiarize himself with the areas in which Mechanical Work is to be performed.

B. Existing conditions such as pavements, sidewalks, interior and exterior finishes and other Work shall be restored to their original or better condition where disturbed by Work of this Section.

C. Any Work installed without regard to the Work of other trades which must, in the opinion of the Architect, be relocated to permit the installation of other Work, shall be moved and reinstalled as a part of this Work without additional cost to the Owner.

D. Hoist all materials and equipment to be furnished, modified, relocated or installed under this Section. Hoisting shall be compliant with all OSHA, state and federal codes and regulations.

### 3.3 PIPING INSTALLATION - GENERAL

A. Install piping as indicated on the Drawings or where it currently exists and as is necessitated by the moving of associated mechanical units. The location of rooftop lines may be shown schematically on the Drawings. The Contractor shall be responsible for variances of up to 5'-0" from the locations shown on the Drawings, and for any and all additional bends, fittings and supports that may be required for a complete project. The Contractor shall be responsible for determining the extent of Work required above and below the deck for any piping relocation or modifications.

B. All systems shall be straight and true and properly graded for correct flow of contained materials, and to provide drainage. Cut pipes accurately to measurements established at the building and Work into place without forcing or springing.

C. Make all changes in pipe sizes with reducing fittings. Do not use long screws or bushings.

### 3.4 GAS PIPING

A. General:

1. Purge, test and install piping in accordance with provisions of NFPA 54, International Fuel Gas Code and Authorities Having Jurisdiction.
2. Precautions shall be taken at all times to prevent the entry of dirt or debris into new gas lines or existing parts of the system.
3. Cut pipe accurately to measurements established at the site and Work into place without springing or forcing.

4. Fittings are required for all changes in direction. Install piping with sufficient pitch to ensure adequate drainage and venting.
  5. Piping connections to equipment shall be provided with unions or flanges.
- B. Welder's Qualifications (if required): Provide written certification that every welder employed on the job has passed qualification tests for the piping systems to be installed as prescribed by the National Certified Pipe Welding Bureau or other reputable testing laboratory using ASME or American Welding Society procedures. Any defect found as a result of Owner directed testing shall be cause for dismissal of the welder from the project. All costs of such tests shall be borne by the Owner unless welder's test coupon or coupons fails such test, and then costs shall be paid by the Contractor.
- C. Unions and Flanges: Provide unions or flanges as applicable in piping systems at points of connection to items of equipment and elsewhere as indicated or required to permit proper connections. Locate unions or flanges so that equipment may be removed without disturbing piping system.
- D. Expansion of Piping: Provide approved anchors and suitable swing joints to control the movement of all piping subject expansion, contraction, vibration, and flow forces.
- E. Testing: Following completion of the gas system on each side of the building the Contractor shall, without additional cost to the Owner, test the gas piping installation per these Specifications. All leaks shall be immediately remedied and the testing reapplied. Testing shall be repeated until all leaks are repaired.

### 3.5 DUCTWORK INSTALLATION – GENERAL

- A. Fabricate and install ductwork and accessories in accordance with SMACNA Standards.
- B. Remove, reinstall or replace duct transitions, offsets and connections as required.
- C. Install duct hangers and supports in accordance with SMACNA Standards.
- D. Reattach and reconnect all duct mounted HVAC control and fire alarm/damper devices disturbed during the Work.
- E. Seal all joints and duct penetrations.

### 3.6 ACOUSTICS AND VIBRATION

- A. All items, new or reinstalled under this Section, which are a source of noise and/or mechanical vibration generation, shall be installed with proper attenuation provision, including absorbers, isolators or mufflers as required to prevent objectionable noises and vibrations within the building.
- B. Where absorbers or isolators are found to be deteriorated or damaged prior to equipment relocation, such conditions shall be called to the attention of the Architect and Work shall not proceed until such time as the issue is addressed. Where these devices are determined to be in good condition, they shall be reinstalled in working

order.

### 3.7 TESTING OF RELOCATED/REINSTALLED MECHANICAL EQUIPMENT AND LINES

- A. All mechanical equipment which is moved or disturbed shall be tested prior to its removal and again following re-installation. Testing shall be performed prior to the equipment being disturbed. A written report containing all procedures and deficiencies identified shall be provided to the Architect prior to disturbing or moving the equipment. The Contractor shall be solely responsible for the proper operation of all roof mounted equipment following completion of the Work, with the exception of items noted in the initial inspection report.
- B. Condensate Roof Drain Testing and Procedures:
1. Prior to start of Work all condensate roof drains shall be tested by the Contractor in the presence of the Owner. If testing shows leakage of a drain line or blockage the Contractor will immediately provide a letter to the Architect documenting the condition. Once Work begins responsibility for the roof drains regarding any leakage and blockages shall rest with the Contractor.
  2. The Contractor shall be responsible for the watertight integrity of all condensate roof drains to drain lines.
  3. All missing condensate roof drain strainers and drain bolts shall be replaced at no additional cost to the Owner, whether noted in the Drawings or not.
- C. Refrigerant Piping (Split-Systems Only):
1. Pressure Testing:
    - a. The refrigerant piping shall be tested before any covering is applied, using carbon dioxide or dry nitrogen, and Freon under pressure as hereinafter specified.
    - b. Tests shall be accomplished in accordance with procedures recommended by the equipment manufacturer. The Owner shall be notified 24-hours in advance of any testing.
    - c. If any leaks are found, the pressure shall be relieved from the system; the leaking joint shall be disassembled, thoroughly cleaned, and remade as a new joint. Tests shall then be conducted again in the same order as listed above.
    - d. After the system is found to be leak-free by the specified process, Freon shall be introduced with an inert gas at the same pressures. After the system is found to be tight, it shall be allowed to stand under test pressure, disconnected from the pressure source, for a period of 24-hours.
  2. Evacuation & Charging:
    - a. After completion of the above pressure tests, the system shall be evacuated using an approved auxiliary vacuum pump.
    - b. Connections for evacuation shall be in accordance with the specific equipment Manufacturer's recommendations.
    - c. Charging of the systems shall be given through the charging valve in the high side passing all liquid refrigerant through a charging dehydrator.
  3. Keep accurate records of all testing and charging of the refrigerant system(s) and deliver the records to the Owner upon completion of the charging of each unit.

END OF SECTION 23 0000

## SECTION 26 0000

## COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 through Division 26 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. General: This Section is meant to be all encompassing for Electrical Work within the building and on the roof. It may include materials, devices and equipment that are not required for the Project.
- B. Scope of Electrical Work: Refer to Project Drawings and as follows:
  - 1. Electrical disconnection and re-connection of all mechanical equipment and electrical devices affected by the roofing work.
  - 2. Pre-checking of all existing energized mechanical equipment, devices, light fixtures, controls and related equipment. Owner will verify that all energized equipment, devices, light fixtures and controls are in working order prior to Work starting. The Contractor shall pre-check each mechanical unit prior to the Work and provide a written report to the Architect prior to any disruption of the units.
  - 3. Removal of unused or abandoned conduits and wiring back to the source or nearest junction box.
  - 4. Electrical Work includes disconnecting and reconnecting low voltage and/or line voltage control and fire alarm device wiring related to mechanical equipment.
  - 5. Modifications to existing communications cables (fiber optics), if any, will be accomplished by the Owner.
  - 6. Procedures and certification requirements for Lightning Protection Systems removal and reinstallation, if any.
  - 7. Installation of new rooftop conduit pipe supports and electrical equipment racks.
  - 8. Installation of all sleeves and the cutting and patching of all holes necessary for the convenient and proper installation or disconnects and reconnections of the Work. Refer to Division 01 for requirements related to cutting and patching.
- C. Related Sections
  - 1. Section 07 7200 – Roof Accessories (for premanufactured roof mounted conduit and equipment supports).
  - 2. Section 23 0000 – Common Work Results for Mechanical.

## 1.3 REFERENCES

- A. General: Any material or operation specified by reference to the published specification or standard of a manufacturer, trade association, technical organization or other published standard, shall comply with the requirements of the current specification or standard listed or enforced by the Authority Having Jurisdiction (AHJ).



- B. Institute of Electrical and Electronics Engineers (IEEE)
  - 1. IEEE C2 – National Electrical Safety Code.
- C. National Electrical Contractors Association (NECA)
- D. National Electrical Manufacturers Association (NEMA)
- E. National Fire Protection Association (NFPA)
  - 1. NFPA 70 – National Electrical Code.
  - 2. NFPA 70E – Standard for Electrical Safety in the Workplace.
- F. Occupational Safety and Health Administration (OSHA)

#### 1.4 QUALITY ASSURANCE

- A. The installation of Electrical Work shall be performed by an experienced Contractor using materials produced by reputable manufacturers. This installation shall be in strict accordance with the State and Local Codes and the Authority Having Jurisdiction (AHJ), as well as with the published standards of the manufacturers of the materials.
- B. The Contractor shall be licensed by the State of Texas, provide proof of having such license prior to accessing the Work site, and properly display the appropriate license numbers where required in accordance with State law.
- C. Coordinate Electrical Work with other trades.

#### 1.5 SUBMITTALS

- A. Comply with provisions of Division 01.
- B. Mark each product data cut-sheet by circling or highlighting, and affix the corresponding Article and Paragraph designations from this Specification Section. Product data not so marked will be returned without review, for re-submittal complying with the above requirements.
- C. Submit product data and certificates, if applicable, for all materials to be used on the Project. Materials may include but not be limited to the following:
  - 1. Conduit and fittings – interior and exterior.
  - 2. Line voltage wiring.
  - 3. Low voltage wiring.
  - 4. Weatherproof junction boxes.
  - 5. Conduit supports.
- D. Building permits, as required by the Authority Having Jurisdiction (AHJ), for all Electrical Work shall be submitted to the Architect by the Contractor per provisions of Division 01 prior to commencement of Work.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Schedule and coordinate with the Owner all necessary deliveries so as to cause the least inconvenience to the Owner's daily activities. All deliveries and unloading or loading activities shall be the responsibility of the Contractor. The Owner will not

accept any responsibility for delivery activities.

- B. Cover and protect material in transit and at site. Material not properly protected and stored which is damaged or defaced during construction shall and will be rejected.
- C. Store materials in designated areas. For exterior storage of products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering. Provide ventilation and any required heating or cooling to avoid condensation.
- D. Store flammable products away from the building with all cans having lids sealed. Provide manufacturer's safety data sheets for all products delivered to the jobsite.
- E. Band together all loose materials and stack no more than one pallet high. Store all loose fittings in marked boxes by size and type.
- F. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

#### 1.7 CLOSEOUT PROCEDURES AND WARRANTY

- A. Comply with provisions of Division 01, if applicable.
- B. All Work provided under this Section shall be warranted for a period of not less than one year, beginning on the Date of Substantial Completion.

#### 1.8 SCHEDULING

- A. Disconnects and outages of existing equipment and/or utility services shall be scheduled at times convenient to the Owner. Times for shutdowns will be coordinated with the Contractor's and Owner's schedules beginning at the pre-roofing conference and as needed during the course of the Work.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Where mechanical and/or electrical items must be disconnected and re-connected as necessary by the re-roofing of specified areas of the Project, all wires, conduits, panels, motor starters, raceways, switches, stations, etc., shall be replaced or renewed to match existing if damaged, cut or needing extension, etc. All materials shall meet the minimum standards of the National Electrical Code; latest edition adopted by the Authority Having Jurisdiction (AHJ).
- B. Conduit and Fittings:
  - 1. Exterior: Rigid (RC) or Intermediate (IMC) with threaded and sealed fittings.
  - 2. Interior: Electrical Metallic Tubing (EMT) with set-screw fittings.
  - 3. Prohibited: EMT with sealed fittings for exterior applications.
- C. Wiring:

1. Line Voltage: Type THW, THHN or as required for application/service.
2. Low Voltage: Match existing for service application.

D. Junction Boxes:

1. Exterior: Weatherproof with sealed outlets and gasketed covers.
2. Interior: Set-screw outlets and standard covers.

## 2.2 HANGERS AND SUPPORTS

- A. General: Conduit hangers and supports shall be of a type suitable for each use. Perforated straps shall not be used in any work. Provide materials as required for the Project.
- B. Rooftop Conduit Supports:
1. Refer to Project Drawings and provisions of Section 07 7200.
  2. Reuse of existing rooftop conduit supports or support pads is not acceptable.
  3. All construction trades including plumbing, mechanical and electrical shall provide rooftop supports from the same manufacturer.

## 2.3 MISCELLANEOUS MATERIALS

- A. Grout: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
1. Characteristics: Post-hardening, volume-adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
  2. Design Mix: 5000 psi, 28-day compressive strength.
  3. Packaging: Premixed and factory packaged.
- B. Metals:
1. Steel Plates, Shapes and Bars: ASTM A36.
  2. Stainless Steel Sheet, Strip and Plate: ASTM A240 or ASTM A666, Type 304.
  3. Stainless Steel Bars and Shapes: ASTM A276, Type 304.
  4. Steel Tubing: ASTM A500, cold-formed steel tubing.
  5. Steel Pipe: ASTM A53, Standard Weight (Sch. 40) unless otherwise indicated.
  6. Cast Iron: Either gray, ASTM A48 or malleable iron, ASTM A47, unless otherwise indicated.
  7. Aluminum Plate and Sheet: ASTM B209, Alloy 6061-T6.
  8. Aluminum Extrusions: ASTM B221, Alloy 6063-T6.

## PART 3 - EXECUTION

### 3.1 ELECTRICAL DEMOLITION

A. General:

1. Comply with provisions of Division 01 for general demolition requirements and procedures.
2. All electrical equipment, wiring, copper components and controls determined to not be reused remain the property of the Owner and shall be delivered to its designated storage location on the day of removal. Any materials lost in transit shall have its value restored to the Owner.
3. Any electrical equipment designated to be removed and not returned to the

Owner and any conduit or wiring not reused by the Contractor shall be disposed of as part of this contract.

- B. Disconnect, demolish, and/or remove electrical systems, equipment, and components indicated to be removed or as required for the scope of roofing work.
  - 1. Conduit and Wiring to Be Removed: Remove conduit and wiring back to the nearest junction box or other connection point in both directions. Cap and seal conduit system watertight.
  - 2. Conduit to Be Abandoned in Place: Remove wiring back to disconnect source and ensure conduit system is sealed watertight.
  - 3. Equipment to Be Removed and Reinstalled: Disconnect and cap electrical services and remove, clean and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.

### 3.2 ELECTRICAL SYSTEMS – COMMON REQUIREMENTS

- A. Contractor shall visit the site before submitting a bid and familiarize himself with the areas in which Electrical Work is to be performed.
- B. Existing conditions such as pavements, sidewalks, interior and exterior finishes and other Work shall be restored to their original or better condition where disturbed by Work of this Section.
- C. Any Work installed without regard to the Work of other trades which must, in the opinion of the Architect, be relocated to permit the installation of other Work, shall be moved and reinstalled as a part of this Work without additional cost to the Owner.
- D. Hoist all materials and equipment to be furnished, modified, relocated or installed under this Section. Hoisting shall be compliant with all OSHA, state and federal codes and regulations.
- E. Verify need and extent of all repairs.
- F. Seal all exterior connections watertight, including those between new and existing materials.

END OF SECTION 26 0000