

PROJECT MANUAL

General Documents
General Requirements
Technical Specifications

**VAN ZANDT COUNTY
RE-ROOFING PROJECT
AT
VAN ZANDT COUNTY JAIL

CANTON, TEXAS**

DRG ARCHITECTS, LLC
13300 OLD BLANCO RD, STE 175
SAN ANTONIO, TEXAS 78216

June 2019

SET NUMBER _____

**VAN ZANDT COUNTY RE-ROOFING PROJECT AT COUNTY JAIL
CANTON, TEXAS
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TITLE OF THE WORK:

**VAN ZANDT COUNTY RE-ROOFING AT COUNTY JAIL
1220 W. DALLAS ST.
CANTON, TEXAS 75103**

OWNER:

**VAN ZANDT COUNTY, TEXAS
by and through
THE VAN ZANDT COUNTY COMMISSIONERS COURT
121 E. DALLAS ST., RM. 206
CANTON, TEXAS 75103**

PROJECT LOCATION:

**VAN ZANDT COUNTY JAIL
1220W. DALLAS ST.
CANTON, TEXAS 75103**

ARCHITECT:

**DRG ARCHITECTS, LLC
13300 OLD BLANCO RD., SUITE 175
SAN ANTONIO, TEXAS 78216
PHONE: (210) 349-7950**

**ENUMERATION OF CONTRACT DOCUMENTS
VAN ZANDT COUNTY RE-ROOFING AT COUNTY JAIL
CANTON, TEXAS**

GENERAL DOCUMENTS

REQUEST FOR PROPOSALS
INSTRUCTIONS TO PROPOSERS
WAGE RATE DETERMINATION
FORM OF PROPOSAL
PRODUCTS AND SUBSTITUTIONS
FORM OF AGREEMENT
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PAYMENT BOND
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*** END OF SECTION ***

INVITATION TO PROPOSE

1.01 GENERAL

A. VAN ZANDT COUNTY, TEXAS (hereinafter referred to as "Owner") request lump sum competitive sealed proposals from ROOFING Contractors capable of performing all work described herein or GENERAL Contractors for the following referenced project:

1. Project:

**VAN ZANDT COUNTY
RE-ROOFING PROJECT
AT
VAN ZANDT COUNTY JAIL
CANTON, TEXAS**

2. Address:

1220 W. Dallas St.
Canton, Texas 75103

3. Owner:

Van Zandt County, a political subdivision of the State of Texas

4. Architect:

DRG ARCHITECTS, LLC
13300 Old Blanco Road, Suite 175
San Antonio, Texas 78216
Contact: Wayne Gondeck, AIA
Phone 210-349-7950
Fax 210-366-0847

6. Proposals shall be addressed to and received at:

MS. SANDY HILL
VAN ZANDT COUNTY AUDITOR
VAN ZANDT COUNTY COURTHOUSE
121 E. DALLAS ST., RM. 102
CANTON, TEXAS 75103

7. Proposal Opening Date, Time and Location: Proposals will be received at the place listed above until **2:00PM CDT, Thursday, July 25, 2019** at which time the proposals will be opened and read aloud in the Commissioners Courtroom, Van Zandt County Courthouse, Canton, Texas.

1.02 SUMMARY OF WORK

A. The Project consists of tear-off of existing roof and insulation and re-roof of existing County Jail building.

Existing building has substantial amount of existing roof mounted mechanical equipment, exposed ductwork, electrical conduit, gas piping, plumbing vents, communication equipment, and other devices and equipment that will need to be protected, manipulated, moved, and/or anchored/re-anchored, during the progress of the work.

- B. The work consists of, but is not limited to: selective demolition, protection of equipment, temporary enclosures, insulation, re-roofing, electrical, mechanical, and plumbing work, as indicated on the drawings and described in the specifications. Electrical, mechanical, and plumbing work is limited to the movement, removal, and replacement of existing equipment and devices of previously engineered systems that are to remain in-place, as is and does not include Mechanical, Electrical or Plumbing Engineering work. The re-work of any existing equipment or systems is not anticipated.

1.03 INFORMATION FOR PROPOSERS

- A. No oral, telephonic, telegraphic or facsimile transmitted proposal(s) will be considered. Proposals shall be delivered to the place stated above in a sealed envelope clearly identifying the proposal as specified in Section 00100 - INSTRUCTIONS TO PROPOSERS.
- B. The Owner reserves the right to hold all proposals for up to and including sixty (60) days from date of receipt without action, to reject any and all proposals, to waive irregularities, and to require statements of evidence of proposer's qualifications.
- C. Not Used.
- D. Statutory Bonds for performance of the contract and for payment of mechanics and materials will be required in an amount equal to 100% of the accepted proposal. Proposers shall refer to Supplemental Conditions for Bond requirements.

1.04 AVAILABILITY OF DOCUMENTS

- A. Documents may be examined at:
 - 1. DRG ARCHITECTS, LLC
13300 Old Blanco Road, Suite 175
San Antonio, Texas 78216
Phone 210-349-7950
Fax 210-366-0847
 - 2. Associated General Contractors
10806 Gulfdale
San Antonio, TX 78216
(210) 349-4921 Fax (210) 349-4017
 - 3. Van Zandt County Judge's Office
Van Zandt County Courthouse
121 E. Dallas St., Rm. 206
Canton, TX 75103
(325) 392-2965
 - 4. Virtual Builders Exchange
4047 Naco Perrin Blvd #100

San Antonio, Texas 78217
(877) 221-6418

- B. Electronic sets of the Contract Documents may be obtained on-line from DRG Architects, LLC, 13300 Old Blanco Road, Suite 175, San Antonio, Texas 78216, (210) 349-7950, in accordance with the Instruction to Proposers.
- C. Only complete sets of Contract Documents will be issued.

1.05 PROPOSAL EVALUATION CRITERIA

A. Following receipt of Proposals, each Proposal will be ranked according to the selection criteria listed in paragraph 1.05 B within 45 days of the opening date. Owner will select Offeror that demonstrates the best value for the Owner based on the evaluation criteria. The Owner will first attempt to negotiate a contract with the selected Offeror. Negotiations may include options for scope or time modification and any related price change. If the Owner is unable to negotiate a contract with the selected Offeror, the Owner will, formally and in writing, end negotiations with that Offeror and proceed to the next ranked Offeror until a contract is reached or all proposals are rejected. The Owner may select representatives to assist in ranking and negotiations. Award of Contract, if any, will be made by formal action of the Van Zandt County Commissioners Court.

B. Proposal Evaluation Criteria:

1. Amount of Proposal	70%
2. Proposed Construction Time	10%
3. Company Experience on Similar Projects (Scope/Value)	10%
4. Quality of References from Past Customers	<u>10%</u>
TOTAL	100%

1.06 PREVAILING WAGE REQUIREMENTS

- A. The determination of minimum wage requirements shall not be construed to prohibit the payment of wages greater than those of the named rates. Under no condition shall any laborer, workman or mechanic employed on this Project be paid less than the determined minimum wage scale.
- B. In the execution of the Contract for this Project, the Roofing Contractor and all subcontractors must comply with all applicable State and Federal laws, including, but not limited to, laws concerned with labor, equal employment opportunity, safety and minimum wage.
- C. Contractor shall comply with all provisions of Texas Government Code, Chapter 2258, *Prevailing Wage Rates*.
- D. Certified Payrolls for all contractors performing work on the Project shall be maintained by the Prime Contractor and be made available to the Owner, upon request.
- E. Wage Rate Determination: TX187 01/04/2019 (5 pages total).

*** END OF SECTION ***

General Decision Number: TX190187 01/04/2019 TX187

Superseded General Decision Number: TX20180219

State: Texas

Construction Type: Building

County: Van Zandt County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019

* ASBE0087-002 01/01/2018

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 22.72	10.02

BOIL0587-003 01/01/2017

	Rates	Fringes
Boilermaker.....	\$ 28.00	22.35

IRON0263-017 06/01/2017

	Rates	Fringes
Ironworker, reinforcing.....	\$ 23.25	7.32

LABO0154-022 05/01/2008

	Rates	Fringes
Laborers: (Mason Tender - Cement/Concrete).....	\$ 14.25	2.90

SUTX2009-074 04/20/2009

	Rates	Fringes
BRICKLAYER.....	\$ 20.00	0.00
CARPENTER, Includes Acoustical Ceiling Installation, and Hardwood Floor Installation.....	\$ 14.30	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 13.29	0.00
ELECTRICIAN.....	\$ 18.06	4.87
IRONWORKER, STRUCTURAL.....	\$ 15.48	0.00
LABORER: Common or General.....	\$ 9.73	0.00
LABORER: Landscape & Irrigation.....	\$ 8.50	0.22
LABORER: Mason Tender - Brick...	\$ 12.02	0.00
LABORER: Mortar Mixer.....	\$ 12.00	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 11.00	0.00
OPERATOR: Bulldozer.....	\$ 13.00	0.31
OPERATOR: Crane.....	\$ 21.33	0.00
OPERATOR: Forklift.....	\$ 14.58	0.00
OPERATOR: Loader (Front End)....	\$ 10.54	0.00
PAINTER: Brush, Roller and Spray.....	\$ 13.50	0.00
PLUMBER.....	\$ 20.38	4.74
ROOFER.....	\$ 13.64	1.80

SHEET METAL WORKER.....	\$ 17.00	0.00
TILE SETTER.....	\$ 15.00	0.00
TRUCK DRIVER.....	\$ 12.52	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198

indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
 Wage and Hour Division
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

1.01 REQUEST FOR PROPOSALS

- A. The Owner requests lump sum competitive sealed proposals from Roofing Contractors for construction of the VAN ZANDT COUNTY RE-ROOFING PROJECT AT COUNTY JAIL, 1220 W. Dallas St., Canton, Texas, 75103, in accordance with Texas Government Code, Section 2269.151 et seq.
- B. Proposals will be accepted at the place and time stated in the Request for Proposals.
- C. Proposals shall be plainly marked showing the Project for which the Proposal is intended and the name and address of the Offeror.
- D. LATE PROPOSALS: Owner is not responsible for lateness of mail, carrier, etc. and the time / date stamp in the Owner's office shall be the official time of receipt. Late proposals will not be accepted, opened or considered.
- E. **PROPOSALS SUBMITTED BY FAX WILL NOT BE ACCEPTED**

1.02 METHOD OF PROPOSAL

- A. PROPOSAL DOCUMENTS: Complete sets of Proposal Documents must be used in preparing Proposals; neither the Owner nor DRG Architects, LLC assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Proposal Documents.
- B. ETHICS: The Offeror shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official or agent of the Owner.
- C. EQUAL EMPLOYMENT: All contracts will be awarded without consideration to race, religion, national origin or disability of the Offeror. Successful Offeror(s) are required to adhere to the provisions of 42 USCA Sec. 12101 et seq., Americans with Disabilities Act.
- D. CONFLICT OF INTEREST: No public official shall have a personal interest in this Proposal, or any resulting contract, in accordance with Texas Local Government Code Title 5, Subtitled C, Chapter 171.
- E. INDEMNIFICATION: Successful Offeror(s) shall defend, indemnify and save harmless the Owner and the Architect, and all their officers, agents and employees from all suits, actions or other claims of any character, name and description brought for, or on account of, any injuries or damages received or sustained by any person, persons or property on account of any negligent act or fault of the successful Offeror, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any Contract which may result from a Proposal award. The successful Offeror shall pay any judgment costs that may be obtained against the Owner, the Owner's Agent and / or the Architect growing out of such injury or damages.
- F. PROPOSAL COMPLIANCE: The Proposal must comply with all Federal, State, County and local laws. The Contractor shall not hire nor work any illegal alien.
- G. EXAMINATION OF CONTRACT DOCUMENTS AND SITE: Each bidder, prior to submitting a proposal, shall have fully examined and acquainted himself/herself with the Contract Documents and the site of the proposed Project. He/she shall make such investigation as he/she may see fit to be fully informed of the existing conditions, facilities, difficulties, restrictions and requirements for completion of the Project under the terms of the Contract. Bidder are strongly advised to make their own measurements prior to bidding. Failure of bidder to acquaint himself/herself with the site and such

conditions, facilities, difficulties, restrictions and requirements shall not relieve him/her of his/her obligation to perform the entire Contract at the price set forth in his/her proposal.

- H. **COORDINATION AND PHASING OF THE WORK:** Bidders are advised that the facilities where the work is to take place are in operation twenty-four hours a day. Out of necessity, the work will need to be coordinated and/or phased, so as to cause a minimum of disruption to the day-to-day activities of County personnel. In no case will more roof be removed at any time than can be replaced or dried in within the same day.

1.03 PREPARATION OF PROPOSAL

- A. Submit Proposal on forms furnished in Section 00300 – FORM OF PROPOSAL.
- B. All blanks are to be filled out in ink or be typewritten. If the Proposal is revised prior to opening, Offeror must sign and date the change.
- C. Make the Proposal in the name of the principal and if Offeror is a co-partnership, give the names of all parties.
- D. Give Offeror’s complete address.
- E. If the Proposal is being submitted by an agent, provide satisfactory evidence of the agency’s authority.
- F. Fill in all the Proposal prices in both words and figures.
- G. Proposal(s) must be received prior to the opening time. Any Proposal received after the designated Proposal opening date and time listed herein will be considered void and unacceptable.
- H. **Each Proposal shall be accompanied with a fully completed Contractors Qualification Statement, AIA Form A305 and a Proposal Security in an amount not less than five percent (5%) of the largest total amount of proposal meeting the requirements set forth in the Request for Proposals.**

1.04 WITHDRAWAL OR REVISION OF PROPOSAL

- A. A Proposal may be withdrawn or revised prior to the scheduled time for opening, under following terms:
 - 1. The Offeror may, without prejudice to itself, withdraw the Proposal after it has been deposited, provided the request for such withdrawal is received in writing before the time set for opening.
 - 2. After opening, no Proposal may be withdrawn for the period indicated.
 - 3. Any interlineations, alterations or erasures made before the receiving time must be initialed and dated by a person given such authority by the signer of the Proposal, guaranteeing authenticity.

1.05 NON-RESPONSIVE PROPOSAL

- A. Proposal(s) are considered NON-RESPONSIVE and may be rejected for the following reasons, unless otherwise provided for by law:
 - 1. If the form furnished is not used or is altered in any way;
 - 2. If there are unauthorized additions, conditional proposals or irregularities of any kind which may tend to make the Proposal incomplete, indefinite or ambiguous;
 - 3. If the Offeror adds any provisions reserving the right to accept or reject the award, or to enter into a

Contract pursuant to an award.

- B. The Owner reserves the right to reject any, or all, Proposals, and to waive irregularities or informalities as may be deemed by the Owner to be in the Owner's best interest.

1.06 ADDENDA INTERPRETATIONS AND SUBSTITUTIONS PRIOR TO PROPOSAL

- A. If the Offeror for the proposed work is in doubt as to the true meaning or intent of the Proposal Documents or, if the Offeror wishes to substitute materials prior to proposal, they must submit a written request to, and obtain a written interpretation, or approval, etc., from:

DRG Architects, LLC
13300 Old Blanco Road, Suite 175
San Antonio, Texas 78216
Attn: Wayne Gondeck, AIA, wayneg@drgarchitects.com

Such requests are subject to the following terms and provisions:

- B. To obtain approval to use unspecified products in the Proposal, Offeror shall comply with these instructions.
- C. The Offeror submitting the request is responsible for its prompt and actual delivery.
- D. Requests for interpretations, etc. must be received on or before seven (7) days prior to the date set for receipt of Proposals.
- E. All interpretations or clarifications considered necessary by DRG Architects, LLC and approved by the Owner, in response to the Offeror's request, will be issued by written Addenda. **The sole issuing authority of Addenda shall be vested in the Architect.**
- F. Oral and other interpretations or clarifications will be without legal effect. Only questions answered by formal written Addenda will be binding.
- G. The Owner and the Architect are not responsible for any other explanation or interpretations that anyone presumes to make.
- H. Addenda will be mailed or delivered to all who are known to have been issued, or to have purchased, a complete set of Proposal Documents.
- I. Offeror(s) shall acknowledge receipt of all Addenda.
- J. It is the obligation of each Offeror to determine that it has received all Addenda prior to submitting its Proposal. Failure to receive such Addenda does not relieve the Offeror from any obligation under its Proposal as submitted.
- K. All formal, written Addenda become a part of the Proposal Documents.

1.07 BASE PROPOSAL, ALTERNATES AND ALLOWANCES

- A. General: Proposal must include Base Proposal, Unit Prices and all Alternates (if any).

- B. Absence of any entry will be assumed to indicate a zero (\$0.00) price or time change.
- C. Description of Alternates: NONE (See Section 01030 – ALTERNATES.)
- D. NOT USED

1.08 METHOD OF AWARD

- A. In evaluating the Proposals, the Owner will consider whether or not the Proposals comply with the prescribed requirements, completion time and other data, as may be requested in the Proposal Documents. Selection of Offerors and negotiation of contract will be in accordance with the Proposal Evaluation Criteria stated in Section 00020 – REQUEST FOR PROPOSALS.

MINIMUM STANDARDS FOR RESPONSIBLE OFFEROR(S): Offerors are required to affirmatively demonstrate their responsibility by meeting the following minimum requirements:

1. Have adequate financial resources;
 2. Be able to comply with the required or proposed schedules;
 3. Have a satisfactory record of performance;
 4. Have a satisfactory record of integrity and ethics;
 5. Be otherwise qualified and eligible to receive an award.
- B. The Owner may require any other information sufficient to determine Offeror's ability to meet these minimum standards listed above or conduct such investigations as the Owner deems necessary to assist in the evaluation of any Proposal and to establish the responsibility, qualifications and financial ability of Offeror, proposed subcontractors, suppliers and other persons and organizations to perform and furnish the Work in accordance with the Proposal Documents to Owner's satisfaction within the prescribed time.
 - C. If a Contract is to be awarded, it will be awarded based on the requirements of Texas Government Code, Section 2269.151 et seq.
 - D. Evaluation of Alternates: Any and / or all / none of the alternates may be considered in evaluation. Owner may award Contract on Base Proposal plus any and / or all / none of the alternates.
 - E. Owner anticipates award within ninety (60) days after proposal opening.
 - F. CONTRACT: The Proposal and any subsequent agreed negotiated aspect, when properly accepted by the Owner, shall constitute a Contract equally binding between the successful Offeror and the Owner. Following award of a Contract, if any, no different or additional terms will become part of this Contract with the exception of a Change Order accepted in writing by Owner.
 - G. Owner may accept or reject any particular proposal.
 - H. It is the Owner's intent to employ as much local labor as possible on this project. Offeror(s) are encouraged to employ qualified skilled and unskilled laborers who reside in Bastrop County, Texas and to contract with companies that are located in Bastrop County, Texas. Owner may give preference in the award of the Contract for Construction to Offeror(s) who demonstrate use of local labor.

1.09 SALES TAX EXEMPTION

- A. Materials and equipment incorporated into the work for this Project are exempt from the payment of State of Texas (or any other) Sales Tax by virtue of Article 20.01 (T) of the Texas Limited Sales Tax Law, provided that:
 - 1. The Contract is drawn segregating the cost of material and installed equipment from the cost of labor, Contractor's equipment, overhead, profit or other costs of the Contract.
- B. Contractors shall procure a Limited Sales Tax Permit from the Comptroller of Public Accounts, State of Texas.
- C. Owner shall issue an Exemption Certificate to the Contractor for the Project.
- D. The Contractor shall deliver to his suppliers a Resale Certificate in lieu of paying a State (or any other) Sales Tax for any item of material or equipment purchased for incorporation in the Work, which becomes part of the Work, or otherwise the property of the Owner.
- E. Subcontractors shall follow these same procedures in purchasing materials or equipment for incorporation into the Work.
- F. Tools, scaffolding, form lumber, fuel, and all other items related to, but which do not actually become a permanent part of the Work, are not exempt from the payment of State Sales Tax. Owner will issue an Exemption Certificate for the Project, but in doing so, Owner does not accept any responsibility for the proper performance by the Contractor or his Subcontractors of the procedures necessary to insure compliance with State Law or to insure exemption of payment of any Tax.

1.10 VENUE

- A. THIS AGREEMENT WILL BE GOVERNED AND CONSTRUED ACCORDING TO THE LAWS OF THE STATE OF TEXAS. THIS AGREEMENT IS PERFORMABLE AT THE PROJECT SITE IN VAN ZANDT COUNTY, TEXAS, AND THE PARTIES AGREE THAT VENUE SHALL BE IN VAN ZANDT COUNTY, CANTON, TEXAS.**

*** END OF SECTION ***

_____, 2019

Ms. Sandy Hill, County Auditor
Van Zandt County, Texas
121 E. Dallas St., Rm. 102
Canton, Texas 75103

Pursuant to published REQUEST FOR PROPOSALS and INSTRUCTIONS TO PROPOSERS, heretofore made known,

I (We) the Undersigned Proposer hereby propose to do all work and furnish all necessary materials, tools, equipment, machinery, labor, superintendence and whatever else is required to complete the work as included in this Proposal, and as indicated and shown on the Drawings and as required by the Specifications, titled Van Zandt County Re-Roofing at County Jail, Canton, Texas, dated June 2019, as prepared by DRG Architects, LLC; and in accordance with the Contract Documents, including this PROPOSAL, the ENUMERATION OF CONTRACT DOCUMENTS, the REQUEST FOR PROPOSALS, the INSTRUCTIONS TO PROPOSERS, the BID BOND, the FORM OF AGREEMENT, the OWNER'S PROTECTIVE BONDS (Performance and Payment), the GENERAL CONDITIONS OF THE CONTRACT, the SUPPLEMENTAL GENERAL CONDITIONS, the DRAWINGS (architectural), the SPECIFICATIONS, all of which have been heretofore duly approved by the Commissioner's Court and are on file in the office of the County Judge, Van Zandt County, Canton, Texas, and are incorporated herein by reference; be it known that the Undersigned Proposer(s) bind(s) himself (themselves) on acceptance of this Proposal to execute, within the required time, a Contract and Owner's Protective Bonds (Performance and Payment) in the form heretofore approved and contained in Contract Documents on file aforesaid and to perform and complete all construction work within the time stated as follows:

A. BASE PROPOSAL

To do all work as required, including all TEAR-OFF, REMOVAL, HAUL-OFF, AND RE-ROOFING AT COUNTY JAIL, complete in every respect as shown on the Drawings and as required by the Specifications for the lump sum of:
_____ DOLLARS

(\$ _____)

BETTERMENT ALLOWANCE: The Base Proposal sum listed above shall include a Betterment Allowance of \$25,000.00 to be used at the direction of the Architect for substrate repairs and equipment repairs discovered during the re-roofing process. Any unused balance shall be refunded to Owner.

Roofing Contractor agree(s) to substantially complete the work under this Base Proposal within _____ calendar days as provided by the Contract Documents.

B. ALTERNATE PROPOSALS: NONE

C. UNIT PRICES

To remove and replace existing substrate where damaged or saturated, to include existing lightweight insulating concrete, a square foot cost of (existing insulation to be fully removed in base proposal tear-off):
_____ DOLLARS

(\$ _____)

D. PROPOSAL ACCEPTANCE PERIOD

If written notice of the acceptance of this Proposal is delivered to the Undersigned Bidder within 60 days subsequent to

the date of opening of the Proposals for the work herein before bid upon, the Undersigned agrees that he will execute a Contract and Owner's Protective Bonds, in the form as required by the Commissioner's Court of Crockett County, in strict accordance with the Statutes of the State of Texas, within ten (10) days after the date forms are delivered to him.

E. PROPOSAL SECURITY

Enclosed with this Proposal is a Bid Bond, Certified Check or Cashier's Check as required under the Instructions to Proposers in the sum of:

_____ DOLLARS
(\$ _____)

which is an amount not less than five percent (5%) of the largest amount bid (Base Proposal). Said Bidder's bond, Certified Check or Cashier's Check is submitted as evidence of good faith and a guarantee that the Undersigned, if awarded the Contract for Re-roofing construction, will execute Contract and Owner's Protective Bonds (Performance and Payment) as herein above described. In the event the Undersigned shall fail, neglect or refuse to execute said Contract and Bonds as required, it is agreed that aforesaid Bidder's Bond, Certified Check or Cashier's Check shall be collected and its proceeds retained by the County of Van Zandt, Texas as liquidated damages.

F. ADDENDA

We acknowledge receipt of the following addenda, issued by the Architect during the bidding period:

_____ DATED _____, # _____ DATED _____, # _____ DATED _____.

Each ADDENDUM is considered to be a part of the Contract Documents.

G. CONTRACTOR'S QUALIFICATION STATEMENT

Attached herewith is a completed CONTRACTOR'S QUALIFICATION STATEMENT, AIA Form A305 for Owners review.

H. **WAIVER OF CLAIMS: BY SUBMISSION OF THIS PROPOSAL, THE UNDERSIGNED OFFEROR 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 THE OWNER, ITS EMPLOYEES, OFFICERS, AGENTS, REPRESENTATIVES, AND THE MEMBERS OF OWNER'S GOVERNING BODY, CONNECTED WITH OR ARISING OUT OF THE REQUEST FOR PROPOSALS ("RFP"), INCLUDING, THE ADMINISTRATION OF THE RFP, THE RFP EVALUATION AND THE SELECTION OF THE CONTRACTOR. SUBMISSION OF A PROPOSAL INDICATES OFFEROR'S ACCEPTANCE OF THE EVALUATION TECHNIQUE AND OFFEROR'S RECOGNITION THAT SOME SUBJECTIVE JUDGMENTS MUST BE MADE BY THE OWNER DURING THE EVALUATION OF PROPOSALS. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, THE UNDERSIGNED OFFEROR ACKNOWLEDGES THAT THE BASIS OF SELECTION AND THE EVALUATIONS SHALL BE MADE PUBLIC AFTER THE CONTRACT IS AWARDED, AND WAIVES ANY CLAIM IT HAS OR MAY HAVE AGAINST THE ABOVE-NAMED PERSONS AND ENTITIES, DUE TO INFORMATION CONTAINED IN SUCH EVALUATIONS.**

Respectfully Submitted,

Roofing or General Contractor

By: _____
Chief Executive
(Duly Appointed) Officer

SEAL OF CORPORATION

(If Bidder is a Corporation)

Address

ATTEST _____
Secretary

Telephone

(EXECUTED IN DUPLICATE)

STATE OF TEXAS
COUNTY OF VAN ZANDT

THIS AGREEMENT made the ___ day of ___ in the year TWO THOUSAND NINETEEN, by and between ___, hereinafter called the Roofing Contractor, and VAN ZANDT COUNTY, TEXAS acting herein by and through its Commissioners' Court, hereinafter called the Owner.

WITNESSETH, that the Roofing Contractor and the Owner for the considerations hereinafter named agree as follows:

ARTICLE 1 - SCOPE OF THE WORK

A. The Roofing Contractor shall furnish all materials, tools, equipment, machinery, labor, superintendence and whatever else is required to perform all the Re-Roofing Work, furnished and installed complete and as contracted for, in accordance with the Drawings, Specifications, and General Documents for Van Zandt County Re-Roofing at County Jail, Canton, Texas, dated June 2019, as prepared by DRG Architects, LLC, and under the observation of said Architect; and shall do everything required by the ENUMERATION OF CONTRACT DOCUMENTS, the REQUEST FOR PROPOSALS, the INSTRUCTIONS TO PROPOSERS, the GENERAL CONDITIONS OF THE CONTRACT, the SUPPLEMENTAL GENERAL CONDITIONS, the PROPOSAL, the LETTER OF ACCEPTANCE OF PROPOSAL, this AGREEMENT, the OWNER'S PROTECTIVE BONDS (Performance and Payment), the DRAWINGS and SPECIFICATIONS, and the ADDENDA.

ARTICLE 2 - TIME OF COMPLETION

A. The Work to be performed under this Agreement shall be commenced within ten (10) days after the date of execution of this FORM OF AGREEMENT, and substantially completed in the judgement of the Architect on or before the ___ day of ___, 2019.

ARTICLE 3 - THE CONTRACT PRICE

A. The Owner agrees to pay to the Roofing Contractor for the full performance of this Contract, subject to additions and/or deductions provided for in the GENERAL CONDITIONS OF THE CONTRACT, as modified by the SUPPLEMENTAL GENERAL CONDITIONS, in current funds the amount of:

_____ Dollars
(\$_____).

Cost Breakdown:

For Skills and labor \$ _____
For Materials \$ _____
Total Contract Price \$ _____

ARTICLE 4 - PAYMENTS

- A. During the progress of the work, the Roofing Contractor may make application each month for payment of ninety-five percent (95%) of the value, based on the contract price of materials and labor incorporated in the work and of materials suitably stored up to the last day of the previous month less the aggregate of previous payments, to be reviewed and certified by the Architect, and authorized by an Order of the Commissioners' Court. Upon substantial completion of the entire work, application may be made for payment of up to ninety-five percent (95%) of the Contract Price, subject to additions and deductions, as authorized by Order of the Commissioners' Court, all subject to all payment provisions of the Contract Documents.

ARTICLE 5 - ACCEPTANCE AND FINAL PAYMENT

- A. The Final Payment shall be due and payable within ten (10) days after the Architect certifies to the final completion of the work, provided the work be then fully completed and has been approved and accepted by the Owner and the Contractor's Surety, subject to all submission requirements and payment provisions of the Contract Documents.
- B. Upon receipt of written notice from the Roofing Contractor, addressed to the Architect, that the work has been completed and is ready for final inspection and acceptance, the Architect with a properly authorized representative of the Owner, shall with reasonable promptness make such requested inspection. When the work is found acceptable and all requirements of the Contract Documents have been fully performed, the Architect will promptly issue the final certificate of payment, over his signature, stating that to the best of his knowledge and belief the work required under this Contract has been completed and is acceptable under the terms and conditions thereof, and that the remaining balance has been found to be due and payable, and is recommended for proper action by the Commissioners' Court to accept the work and authorize the final payment of the Contract Price as herein agreed.
- C. As a prior condition to issuance of the Final Certificate of Payment, the Roofing Contractor shall submit evidence, satisfactory to the Architect and Owner, together with an affidavit, to the effect that all payrolls, material bills, and all other indebtedness connected with the work have been paid in full, and that the monies due to be issued in payment of the Contract Price are free from all claims. Further the Roofing Contractor shall provide all written material and water tightness warranties required by the Contract Documents.

ARTICLE 6 - THE CONTRACT DOCUMENTS

- A. The CONTRACT DOCUMENTS which include the ENUMERATION OF CONTRACT DOCUMENTS, the REQUEST FOR PROPOSAL, the INSTRUCTIONS TO PROPOSERS, the GENERAL CONDITIONS OF THE CONTRACT, the SUPPLEMENTAL GENERAL CONDITIONS, the PROPOSAL, the LETTER OF ACCEPTANCE OF PROPOSAL, this AGREEMENT, the DRAWINGS, the SPECIFICATIONS, and the GENERAL DOCUMENTS, and ADDENDA NO. _____, as issued during the Bidding Period; the OWNER'S PROTECTIVE BONDS (Performance-Payment), and any subsequent CHANGE ORDERS that may be issued during construction, are all part of, and form the basis of, this AGREEMENT.

ARTICLE 7 - LOCATION OF PERFORMANCE

- A. This contract is to be performed in Van Zandt County, Canton, Texas, and all work is to be done, all money paid, and all documents delivered there.

IN WITNESS WHEREOF the Parties hereto have executed this Agreement the day and year first above written.

OWNER
VAN ZANDT COUNTY, TEXAS

By Hon. Don Kirkpatrick, Van Zandt County Judge

SEAL OF
COMMISSIONERS' COURT

County Clerk
Van Zandt County

By _____
County Clerk of Van Zandt County,
Texas and Ex-Officio Clerk
of the Commissioners' Court

ROOFING CONTRACTOR

If Contractor is a Corporation

(Name)

(Address)

ATTEST _____
Secretary

BY _____

(Printed Name and Title)

SEAL OF
CORPORATION

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are held and firmly bound unto VAN ZANDT COUNTY, TEXAS, hereinafter called OWNER, in the total aggregate penal sum of _____ DOLLARS

(\$ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain AGREEMENT with the OWNER, dated the _____ day of _____, 2013, a copy of which is hereto attached and made a part hereof for the construction of: VAN ZANDT COUNTY RE-ROOFING AT COUNTY JAIL, CANTON TEXAS..

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform his duties, all the undertakings, covenants, terms, conditions, and agreements of said CONTRACT during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the SURETY, and during the one-year warranty period, and if the PRINCIPAL, shall satisfy all claims and demands incurred under such CONTRACT, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that if the PRINCIPAL shall default in performing his duties under the CONTRACT for any reason whatsoever, then the SURETY, for value received, hereby stipulates and agrees to assume the duties of the PRINCIPAL, and to complete the CONTRACT according to all the covenants, terms, conditions, and agreements thereof, for the benefit of the OWNER, and shall fully indemnify and save harmless the OWNER from all costs and damages which OWNER may suffer by reason of default by the PRINCIPAL.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the CONTRACT or to WORK to be performed thereunder or the SPECIFICATIONS accompanying same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that the BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the CONTRACT not increasing the contract price more than 25 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND, and whether referring to this BOND or the CONTRACT, shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDE, FURTHER, that the OWNER is the only beneficiary hereunder.

This BOND shall be performed in VAN ZANDT COUNTY, TEXAS.

IN WITNESS WHEREOF, this instrument is executed in four counterparts, each one of which shall be deemed an original, this the _____ day of _____, 2019.

ATTEST: _____
(Principal) Secretary

(SEAL)

(Witness as to Principal)

(Address)

ATTEST

Witness to Surety

(Address)

(Address)

Approved as to form

Date _____

Principal
BY _____ (s)

(Address)

(Address)

Surety

Attorney-in-Fact

(Address)

(Address)

(Owner)

NOTE: Date of BOND must not be prior to date of CONTRACT. If CONTRACTOR is a partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Texas.

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are held and firmly bound unto VAN ZANDT COUNTY, TEXAS, hereinafter called OWNER, and unto all persons, firms and corporations who or which may furnish labor, or who furnish materials to perform as described under the contract and to their successors and assigns in the total aggregate penal sum of _____ DOLLARS (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain AGREEMENT with the OWNER, dated the _____ day of _____ 2018, a copy of which is hereto attached and made a part hereof for the construction of: VAN ZANDT COUNTY RE-ROOFING AT COUNTY JAIL, CANTON TEXAS..

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment to all persons, firms, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such CONTRACT, and any authorized extensions or modification thereof, including all amounts due for materials, fuel, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and for all labor cost incurred in such WORK including that by a SUBCONTRACTOR, and to any mechanic or material man lienholder whether he acquires his lien by operation of State or Federal Law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the SUBCONTRACTORS, and persons, firms, and corporations having a direct contract with the PRINCIPAL or its SUBCONTRACTORS.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the CONTRACT or to WORK to be performed thereunder or the SPECIFICATIONS accompanying same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) Unless claimant, other than one having a direct contract with the PRINCIPAL, shall have given written notice to any two of the following: The PRINCIPAL, the OWNER, or the SURETY above named within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the PRINCIPAL, OWNER, or SURETY, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of Texas, save that such service need not be made by a public

officer. (b) After the expiration of one (1) year following the date of which PRINCIPAL ceased work on said CONTRACT, it being understood; however, that if any limitation embodied in the BOND is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, FURTHER, that it is expressly agreed that the BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the CONTRACT not increasing the contract price more than 25 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND, and whether referring to this BOND or the CONTRACT, shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDE, FURTHER, that no final settlement between the OWNER and the PRINCIPAL shall abridge the right of any other beneficiary hereunder, whose claim may be unsatisfied.

This BOND shall be performed in VAN ZANDT COUNTY, TEXAS.

IN WITNESS WHEREOF, this instrument is executed in four counterparts, each one of which shall be deemed an original, this the _____ day of _____, 2019.

ATTEST: _____
(Principal) Secretary

Principal

(SEAL)

BY _____(s)

(Witness as to Principal)

Address

(Address)

(Address)

ATTEST _____

Surety

Witness to Surety

Attorney-In-Fact

(Address)

(Address)

Approved as to form

Date _____

(Owner)

NOTE: Date of BOND must not be prior to date of CONTRACT. If CONTRACTOR is a partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Texas.

SECTION 00700

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

A.I.A. Document A201 1997, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, Fifteenth Edition, The American Institute of Architects, constitutes the General Conditions of this Contract, and shall have the same force and effect as though set forth here in full.

Copies of this document are on file in the Architect's offices and may be reviewed upon request.

*** END ***

GENERAL CONSIDERATIONS

1. "The General Conditions of the Contract for Construction" AIA Document No. A201 - 1997, standard form of the American Institute of Architects, Fifteenth Edition, copyrighted, 14 articles, 44 pages herein referred to as the "AIA General Conditions", and the following supplements and amendments are hereby made a part of the Contract Documents and shall apply to all contractors and subcontractors providing work for this project.
2. The following Supplemental General Conditions contain changes, additions and / or modifications to AIA Document A201, "General Conditions" or the "AIA General Conditions". Where any part of the AIA General Conditions is supplemented hereby, the provisions of the AIA General Conditions shall remain in effect and the supplemental provisions shall be considered as added thereto. Where any part of the AIA General Conditions is amended, voided or superseded hereby, the part of the AIA General Conditions not so specifically amended, voided or superseded shall remain in effect.
3. Reference hereinafter is made by number to specific articles of the AIA General Conditions.

ARTICLE 1 - GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 THE CONTRACT DOCUMENTS

Add the following sentence to the end of subparagraph 1.1.1:

The Agreement takes precedence over all other Contract Documents.

Add the following subparagraph:

1.1.8 MISCELLANEOUS DEFINITIONS

- 1.1.8.1 OWNER: Wherever the term "Owner" appears, it shall refer to the COUNTY OF CROCKETT, a political subdivision of the State of Texas, or its duly authorized representatives.
- 1.1.8.2 ARCHITECT or ARCHITECTS: Wherever the terms "Architect" or "Architects" appears, it shall refer to DRG Architects, LLC, 13300 Old Blanco Road, Suite 175, San Antonio, Texas 78216.
- 1.1.8.3 CIVIL ENGINEER: Wherever the terms "Civil Engineer" occurs in the Contract Documents, it shall refer to SKG Engineering, Inc., 706 South Abe Street, San Angelo, Texas, 76903.
- 1.1.8.4 MECHANICAL and / or ELECTRICAL ENGINEERS: Not used.
- 1.1.8.5 STRUCTURAL ENGINEER: Not used.
- 1.1.8.6 ROOFING CONTRACTOR: Wherever the term "UTILITY CONTRACTOR", or "CONTRACTOR" occurs in the Contract Documents, it shall refer to the Individual, Firm, Partnership or Corporation with whom the Owner enters into a Contract to perform the work complete as shown on the Drawings and as specified, or his or their duly authorized representative.
- 1.1.8.7 DETENTION EQUIPMENT CONTRACTOR: Not used.

- 1.1.8.8 **SUBCONTRACTOR:** Whenever the term "Subcontractor" occurs in the Contract Documents, it shall refer to the Individual, Firm, Partnership or Corporation with whom the ROOFING CONTRACTOR enters into an agreement for certain subdivision of work or their duly authorized representative.
- 1.1.8.9 **OFFEROR:** Upon the execution of a Contract, the Successful Offeror shall become the ROOFING CONTRACTOR and all references to the "Offeror" throughout the Specifications shall mean and apply to the ROOFING CONTRACTOR with whom the Owner enters into a Contract to do the work.
- 1.1.8.10 **GENERAL:** Construction industry technical terms not defined in the Contract Documents shall have the meanings given in AIA Document "Glossary of Construction Industry Terms", 1991 edition. Those not specifically defined in either place shall have the meanings commonly attributed to them by the particular trade involved.
- 1.1.8.11 **ADDENDUM:** A change in the Specifications, Drawings and / or related documents issued prior to the execution of the Agreement.
- 1.1.8.12 **AGREEMENT:** The Contract between the Owner and the ROOFING CONTRACTOR for the performance of the work.
- 1.1.8.13 **PROVIDE:** Shall be understood to mean "Furnishing of all labor, materials, equipment, transportation and services referred to and installation of the materials, equipment and other items referred to, all in compliance with the requirements of the Contract Documents and applicable federal, state and local laws and ordinances, as well as requirements of federal, state and local authorities having jurisdiction at the Site of the Work."
- 1.1.8.14 **REQUIRED:** Shall be understood to refer to the requirements of the Contract Documents unless its use in a sentence clearly implies a different interpretation.
- 1.1.8.15 Where "as shown", "as indicated", "as detailed" and other words of similar import are used, it shall be understood that reference to the Drawings accompanying this Specification is made unless stated otherwise. Where "as directed", "as required", "as permitted", "approved", "acceptance" or words of similar import are used, it shall be understood that the direction, requirements, permission, approval or acceptance of the Architect is intended unless stated otherwise.
- 1.1.8.16 **OCCURRENCE:** Is defined as follows for purpose of Insurance: An event which occurs during the policy period, or a continuous or repeated exposure to conditions which result, during the policy period in bodily injury, sickness or disease, or injury to, or destruction of, property, excluding injuries intentionally caused by the insured. Any number of bodily injuries or deaths or cases of sickness or disease or injuries to, or destruction of, property of one or more persons or organizations, including loss of use thereof, resulting from a common cause or from exposure to substantially the same general condition existing at, or emanating from, each location shall be deemed to result from one occurrence.
- 1.1.8.17 **ALTERNATE:** A variation to the Base Bid to cover a variation in Contract requirements. If an alternate is accepted by Owner, the variation is then part of the Contract and the amount quoted to be added or deducted from the Base Bid is taken into account in determining the Contract Sum.
- 1.1.8.18 **BASE BID:** A bid before any Alternates are considered.
- 1.1.8.19 **DAY:** A calendar day beginning at midnight.

- 1.1.8.20 WORKING DAY: A calendar day except Saturday, Sunday and legal holidays at the place of construction.
- 1.1.8.21 NOT IN CONTRACT, N.I.C.: Work not included in this Contract.
- 1.1.8.22 PROJECT MANUAL: Volume that includes Bidding Documents, Conditions of the Contract and Specifications.
- 1.1.8.23 AND / OR: Shall mean both "and" and "or" and shall be enforceable by Owner when read in either manner.
- 1.1.8.24 TIMELY CHANGE: A change in the work that can be arranged before the particular item of work has required the expenditure of some nonrecoverable costs after required shop drawings, samples and schedules have been reviewed and found acceptable.
- 1.1.8.25 LATE CHANGE: A change in the work that cannot be performed before the particular item of work has required the expenditure of some nonrecoverable costs after required shop drawings, samples and schedules have been reviewed and found acceptable.

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Add the following subparagraph:

- 1.2.4 In case of discrepancy concerning dimensions, quantities and location, the ROOFING CONTRACTOR shall, **in writing**, call to the attention of the Architect any such discrepancies between Specifications, Drawings, Details and Schedules. The Architect will then inform the ROOFING CONTRACTOR, **in writing**, which document takes precedence. Correction of such discrepancies shall be made by the ROOFING CONTRACTOR at no additional cost to Owner.
- 1.2.4.1 OMISSIONS OR DUPLICATIONS: ROOFING CONTRACTOR shall be solely responsible for omissions or duplications by ROOFING CONTRACTOR or Subcontractors due to real, or alleged, error, either direct or implied, in arrangement of matter in the Contract Documents.
- 1.2.4.2 RELATION OF SPECIFICATIONS AND DRAWINGS: To be of equal authority and priority. Should they disagree in themselves, or with each other, bids shall be based on most expensive combination of quality and quantity of work indicated. In event of above-mentioned disagreements, the appropriate combination of quality and quantity of the work shall be determined by the Architect.
- 1.2.4.3 ENUMERATION OF ITEMS: Lists of "work included" and "work excluded" and similar wordings are not intended to enumerate each and every item of work or appurtenance required, but shall be used in conjunction with all other portions of the Contract Documents.
- 1.2.4.4 CURRENT EDITIONS: When the work is governed by reference to standards, building codes, manufacturer's instructions and other reference documents, the latest issue in effect at time of the original issue date of the Drawings and Specifications shall apply whether or not the proper edition is noted.
- 1.2.4.5 REFERENCE GUARANTEES: When reference standards are made part of the requirements, the guarantees they contain shall apply, except for the portions that:

Are less stringent than those given in the Contract Documents.

Imply exclusions, limitations or waivers that are inconsistent with the Contract Documents.

ARTICLE 2 - OWNER

2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Delete subparagraph 2.2.5 and substitute, in lieu thereof, the following:

- 2.2.5 The ROOFING CONTRACTOR may download and print complete sets of drawings and specifications without charge from electronic document link. Printing of documents will be at contractor's expense.

Add the following subparagraph:

- 2.2.6 The Owner reserves the right to observe the work at any time, whether it is in preparation or progress.

2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

Add the following subparagraph:

- 2.4.2 The Owner reserves the right to make emergency repairs to the work during the warranty period to prevent further damages. ROOFING CONTRACTOR shall pay for such repairs when necessitated by defects in his work.

ARTICLE 3 - CONTRACTOR

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

Add the following subparagraphs:

- 3.3.4 The ROOFING CONTRACTOR expressly recognizes that the Architect does not owe him any duty to supervise or direct his work as to protect the ROOFING CONTRACTOR from the consequences of his own acts or omissions.

- 3.3.5 The ROOFING CONTRACTOR shall have the sole and total responsibility to coordinate the entire Work to achieve a complete, workmanlike and acceptable installation in conformance with the design and intent of the Contract Documents. He shall be solely responsible for determining the starting date and progress of each subcontract, as well as the conditions and coordination of the work of adjacent trades.

- 3.3.6 The ROOFING CONTRACTOR and Subcontractors shall coordinate their work to avoid conditions which may cause interference among various trades and to clearances. If interferences develop, Architect's decision as to which trade shall relocate its work without additional cost shall be final.

- 3.3.7 The ROOFING CONTRACTOR and each Subcontractor shall provide, or arrange to have others provide, necessary chases, holes, openings or other arrangements to permit proper coordination and installation of his work.

- 3.3.8 Not used.

3.4 LABOR AND MATERIALS

Add the following subparagraph:

- 3.4.4 The ROOFING CONTRACTOR and Subcontractors shall conform to the labor laws of the State of Texas and the various acts amendatory and supplementary thereto, and to all other laws, ordinances and legal requirements applicable thereto. Applicable federal laws shall be complied with.

3.5 WARRANTY

Add the following subparagraphs:

- 3.5.2 The ROOFING CONTRACTOR shall execute and deliver, before final payment, a written warranty in an approved form, that labor and materials furnished and work performed are in accordance with the Contract Documents and authorized alterations and additions thereto; and that, should any defect develop during the Contract warranty period, as defined, due to improper or defective materials, workmanship or arrangement, the same, together with all work affected in correcting such defect, shall upon written notice from the Owner, be satisfactorily repaired or replaced by the ROOFING CONTRACTOR at no additional cost to the Owner. Such warranty shall include water-tightness warranty required by the technical specifications.

- 3.5.3 TIME OF WARRANTY: The warranty shall be for a period of twenty (20) years from date of Substantial Completion of the work. Should any warranty required under any Section of the Specifications be for a period of more than twenty (20) years, ROOFING CONTRACTOR's warranty with respect to such work shall be for such longer period.

- 3.5.4 PARTIAL OCCUPANCY: Not used.

- 3.5.5 WORK COVERED BY WARRANTY: ROOFING CONTRACTOR's warranty shall cover all work under the Contract, whether or not any portion or trade has been assigned or sublet. In the event any portion of the work is performed by Assignees or Subcontractors, the ROOFING CONTRACTOR shall obtain from such Assignees and Subcontractors, their written warranty to Owner covering their respective portions of the work for the periods required and shall deliver them, together with his own warranty, to the Owner. Assignees' and Subcontractors' warranties shall expressly provide that the same shall be enforceable directly by the Owner, if he so elects, and shall run concurrently with the ROOFING CONTRACTOR's warranty. Warranty shall be in writing and shall include water-tightness guarantee for the duration of the warranty.

- 3.5.6 OBJECTIONABLE PROCESS: Where any material, process, method, operation or application procedure is required, which, in the opinion of ROOFING CONTRACTOR, would render finished work unsuitable for required warranty, then, before a bid is submitted, such unsuitable material, process, method, operation or application method shall be objected to in writing to the Architect, stating reasons therefore and recommending other alternate materials or methods so that the work, when completed, will be suitable for required warranty. In the event the ROOFING CONTRACTOR's recommendations are approved, the work shall be installed in accordance therewith and all changes in cost resulting therefrom shall be included in the Contract price.

- 3.5.7 THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR:

- 3.5.7.1 Damages to the site and surroundings when damages result from his use of faulty materials or negligent workmanship.

3.5.7.2 Warranting that modifications suggested by him will give satisfactory results.

3.5.7.3 Warranting that substitutions will be equal, or superior, to the specified item or method unless he specifically lists shortcomings in his request for making substitution.

3.6 TAXES

Add the following subparagraph:

3.6.2 ROOFING CONTRACTOR shall pay all taxes and insurance required by State and Federal laws.

3.7 PERMITS, FEES AND NOTICES

Delete subparagraph 3.7.2 and substitute, in lieu thereof, the following:

3.7.2 Contractor and subcontractors shall comply with all Federal, State and local laws, codes and ordinances applicable to the Work and all requirements of the National Board of Fire Underwriters applicable to the Work. If such laws, codes, ordinances or requirements conflict with Drawings or Specifications, then the laws, codes, ordinances and requirements shall govern, except where Drawings or Specifications exceed them in quality or quantity of materials or labor. If the ROOFING CONTRACTOR observes that any of the Contract Documents are at variance in any respect with laws, codes, ordinances or requirements, he shall promptly notify Architect in writing.

Add the following subparagraphs:

3.7.5 Upon completion of the work, the ROOFING CONTRACTOR shall deliver to the Owner through the Architect, all required Certificates of Inspection.

3.7.6 A Construction permit may be required for portions of this project by the City of Canton. Cost of all permits and fees shall be paid by the ROOFING CONTRACTOR. ROOFING CONTRACTOR shall be responsible for fulfilling all requirements and conditions of permit approval.

3.7.7 The ROOFING CONTRACTOR shall issue to Owners of adjacent or nearby properties any notices required by law or ordinance and arrange for and pay costs or fees involved if entry on such property becomes necessary in connection with the Work, or if use of, obstruction of, or encroachment on a public way becomes similarly necessary. Architect shall be notified in advance of such action.

3.10 ROOFING CONTRACTOR'S CONSTRUCTION SCHEDULES

Add the following to subparagraph 3.10.1:

3.10.1.1 Within fifteen (15) days after the issuance of the "Notice to Proceed", and prior to the first application for payment, the ROOFING CONTRACTOR shall present a "Progress and Operations Schedule", in graphic form, setting up the sequence of operations and timetable for each principal item of work. This Schedule will be reviewed in conference by Owner, Architect, ROOFING CONTRACTOR and principal Subcontractors, to determine the completeness and viability of the Schedule. The Schedule as accepted by all concerned, shall be furnished as a guide to all parties engaged on the project and shall be binding on them in their respective work. The Schedule shall not be modified or varied from except on mutual agreement of Owner, Architect and the ROOFING CONTRACTOR.

- 3.10.1.2 The ROOFING CONTRACTOR shall update the Schedule monthly to indicate actual progress as a condition of the application for payment.
- 3.10.1.3 The ROOFING CONTRACTOR shall furnish each Subcontractor a copy of the Schedule and each shall prosecute his work so that progress is maintained in accordance with the Schedule and shall not cause delays to other Subcontractors engaged on the project.
- 3.10.1.4 Should a Contractor, either in person or through a Subcontractor, fail to maintain progress according to the approved Operations Schedule or cause delay to another Subcontractor, HE SHALL FURNISH SUCH ADDITIONAL LABOR AND/OR SERVICES OR WORK SUCH OVERTIME AS MAY BE NECESSARY TO BRING HIS OPERATIONS UP TO SCHEDULE. Failure to maintain the Schedule or to take the above steps to regain the agreed Operations Schedule timetable shall constitute default within the terms of the Contract and grounds on which the Owner may have recourse to the ROOFING CONTRACTOR's Surety for remedial action.

3.11 DOCUMENTS AND SAMPLES AT THE SITE

Add the following sentence to the end of subparagraph 3.11.1:

These documents, as well as all permits and certificates issued for the work, shall be delivered before the final payment certificate will be paid.

Add the following to subparagraph 3.11.1:

- 3.11.1.1 The ROOFING CONTRACTOR and each Sub-Contractor shall clearly record changes made to their respective work during construction on a clear and clean set of Contract Drawings provided at the site by the ROOFING CONTRACTOR at no additional cost to the Owner.
- 3.11.1.2 Mechanical and electrical drawings shall show changes in:
1. Size, type, capacity, etc., of each material, device or piece of equipment.
 2. Location of each device or piece of equipment.
 3. Location of each outlet or source in building service systems.
 4. Location of concealed water and electrical services, water piping, sewers, wastes, vents, ducts, conduit and other piping by indication of measured dimensions to such line from readily identifiable and accessible walls, columns or corners of building.
 5. Drawings shall also show invert elevations of sewers and top of water lines.
- 3.11.1.3 Prior to Final Acceptance, ROOFING CONTRACTOR shall arrange and pay for the transfer of all red-penciled changes and modifications to one set of reproducible drawings for the Architect's review. Upon approval by the Architect, the reproducible plans and the red-penciled set of prints shall be delivered to the Owner through the Architect.

3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Add the following to subparagraph 3.12.5:

- 3.12.5.1 Shop drawings that contain excessive errors or that are incomplete will be returned unchecked, and any delay

caused thereby shall be the responsibility of the ROOFING CONTRACTOR.

Delete subparagraph 3.12.9 and substitute, in lieu thereof, the following:

- 3.12.9 The ROOFING CONTRACTOR shall make all revisions as noted by the Architect and shall resubmit the required number of corrected copies of shop drawings and, where applicable, new samples until no exceptions are taken. The ROOFING CONTRACTOR shall direct specific attention, in writing on resubmitted shop drawings, to all revisions made in addition to those requested by the Architect on previous submissions.

Add the following subparagraph:

3.12.11 ADDITIONAL REQUIREMENTS:

- 3.12.11.1 Follow manufacturer's instructions. Where such instructions are in conflict with the Contract Documents, notify the Architect for clarification before proceeding. Keep a copy of appropriate manufacturer's instructions at the job site and make same available to the Architect.
- 3.12.11.2 Stop the work affected when notified of a proposed change and/or when unsatisfactory results are anticipated. Proceed only after receiving additional instructions from the Architect.
- 3.12.11.3 Establish and maintain benchmarks and all other grades, lines and levels necessary for the work. Report errors and inconsistencies to the Architect, in writing, before commencing work affected. The ROOFING CONTRACTOR shall be responsible for the placement of the project work and shall make all corrections necessary to achieve an accurate layout of the project work.
- 3.12.11.4 Make all arrangements to accommodate N.I.C. work. When, and where, information is inadequate, request further instructions from the Architect before proceeding.

3.14 CUTTING AND PATCHING

Add the following to subparagraph 3.14.1:

- 3.14.1.1 When it is necessary to cut or alter completed work, the erector of the work in place shall do such cutting and repairing.
- 3.14.1.2 The cost of cutting and repairs necessitated by fault or negligence, or for other reasons, shall be borne by the Contractor or Subcontractor at fault or requiring such work.

Add the following to subparagraph 3.14.2:

- 3.14.2.1 The cutting of structural members will not be permitted without written approval from the Architect and Engineer.

Add the following subparagraph:

- 3.14.3 If a Contractor fails to do the necessary cutting, or fails to have restored any work of others damaged by him, for a period of time causing delay in project construction, the Owner may do so, and cost thereof shall be charged to the Contractor or Subcontractor at fault as provided herein.

3.15 CLEANING UP

Add the following sentence to the end of subparagraph 3.15.1:

The ROOFING CONTRACTOR is fully responsible for all costs, arrangements for, and implementation of, facilities and provisions for removal and disposition of roofing materials, removed roofing, rubbish and waste and surplus materials resulting from the Construction operations.

Add the following to subparagraph 3.15.1:

- 3.15.1.1 Flammable and combustible materials shall be stored outside, and remotely from, any building or structure and, when used inside in the course of the Work, kept in metal cans with tight covers and removed from building at the end of each working day.

Delete subparagraph 3.15.2 and substitute, in lieu thereof, the following:

- 3.15.2 Should the ROOFING CONTRACTOR or any Subcontractor allow rubbish or waste material to accumulate on any portion of the site or in any portion of the building to such an extent that the accumulation constitutes a hazard or obstructs the prosecution of the work in any way, the Architect or Owner may, if the Contractor at fault fails to remove such after written notice to clear up the accumulation, engage proper labor or services of another Contractor to make the necessary removal and disposition, and charge the cost against monies due the Contractor at fault.

Add the following to subparagraph 3.15.2:

- 3.15.2.1 The ROOFING CONTRACTOR and each Subcontractor shall remove and dispose of all tools, equipment, surplus material and rubbish pertaining to his work, and cooperate fully in the final cleaning of the Project by the ROOFING CONTRACTOR.

Insert this new paragraph, including the following subparagraphs:

3.19 SUBSTITUTIONS

- 3.19.1 The materials, products and equipment described and defined in the Contract Documents establish a minimum standard of required function, dimension, appearance and quality acceptable in the Project.
- 3.19.2 Where manufacturers or products are named in the specifications without the qualification "**or equivalent**", the selection of materials shall be confined to the manufacturers or products named.
- 3.19.3 Where the phrases "**or equivalent**", "**or equal**" or "**approved equal**" appear, the ROOFING CONTRACTOR may offer products of other manufacturers for consideration. Submittals shall be made to the Architect such that no delays are caused by the substitution. Refer to Section 01630 for requirements and time frame.

ARTICLE 4: ADMINISTRATION OF THE CONTRACT:

4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

Delete subparagraph 4.2.10 and substitute, in lieu thereof the following:

- 4.2.10 The Architect's, or Architect's representative's, presence at the Project site shall not imply concurrence or approval of the work. The ROOFING CONTRACTOR shall call specific items to the Architect's attention, in writing, if he wishes to obtain the Architect's opinion.

4.3 CLAIMS AND DISPUTES

Delete subparagraph 4.3.3 and substitute, in lieu thereof, the following:

- 4.3.3 Unless otherwise agreed in writing, the ROOFING CONTRACTOR shall carry on the work and maintain its progress during any legal proceedings, and Owner shall continue to make payments to the ROOFING CONTRACTOR in accordance with Contract Documents.

Delete subparagraph 4.3.10 in its entirety.

4.4 RESOLUTION OF CLAIMS AND DISPUTES

Change subparagraph 4.4.1 to read as follows:

- 4.4.1 Decision of Architect. Claims, including those alleging an error or omission by the Architect, but excluding those arising under Paragraphs 10.0 through 10.5, shall be referred initially to the Architect for decision. An initial decision by the Architect shall be required as a condition precedent to litigation of all Claims between the ROOFING CONTRACTOR and Owner arising prior to the date final payment is due, unless thirty (30) days have passed after the Claim has been referred to the Architect with no decision having been rendered by the Architect. The Architect will not decide disputes between the ROOFING CONTRACTOR and persons or entities other than the Owner.

Change subparagraph 4.4.5 to read as follows:

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

Delete subparagraph 4.4.6 and substitute, in lieu thereof, the following:

- 4.4.6 If the Architect renders a decision after litigation proceedings have been initiated, such decision may be entered as evidence, but shall not supersede litigation proceedings unless the decision is acceptable to all parties concerned.

Change subparagraph 4.4.8 to read as follows:

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

4.6 ARBITRATION

Delete this section in its entirety and substitute, in lieu thereof, the following:

4.6 SETTLEMENT OF CLAIMS AND DISPUTES

- 4.6.1 All claims, disputes and other matters in question between the ROOFING CONTRACTOR and the Owner arising out of, or relating to, the Contract Documents or the alleged breach thereof, except as provided in Subparagraph 4.2.13 with respect to Architect's decisions on matters relating to artistic effect and for claims which have been waived by the making or acceptance of final payment as provided by Subparagraphs 9.10.3 and 9.10.4, shall, within ten (10) days of commencement of dispute, be presented in writing to the Owner for decision, and Owner shall, with reasonable promptness, render to the ROOFING CONTRACTOR its decision in writing.
- 4.6.2 If ROOFING CONTRACTOR does not agree with any decision of the Owner and provided he has (a) given written notice of the dispute involved, (b) taken exception to Owner's decision in his release, and (c) brought suit within one hundred twenty (120) days after receipt of final payment under this Contract or within six (6) months of a written request by the Owner that he submit a final voucher and release, whichever time is the lesser, then the Owner's decision shall not be final and conclusive but the dispute shall be tried in court on its merit. In event all of the above conditions precedent have not been met, the ROOFING CONTRACTOR hereby agrees that his noncompliance with conditions precedent constitutes a waiver of his right to assert said claim.

ARTICLE 5 - SUBCONTRACTORS

5.3 SUBCONTRACTUAL RELATIONS

Add the following to subparagraph 5.3.1:

- 5.3.1.1 The contracts and proposals of Subcontractors shall be based on complete sets of Contract Documents, to the maximum extent possible. Minimally, each bid package shall be subject to the requirements of the Contract, the General Conditions, these Supplemental General Conditions and Specification Section 01010 – SPECIAL CONDITIONS.

ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

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

Add the following subparagraph:

- 6.1.5 Certain products may be either furnished or furnished and installed by the Owner (under separate Contract or such other method as he may elect) and these products may be indicated on the drawings to show extent or the space they will occupy and the location with reference to other work. Work not specifically excluded shall be included in the Work under this Contract.
- 6.1.5.1 The ROOFING CONTRACTOR shall provide rough-in and final connections for these products as required, if the required trades are included in the Work under this Contract, and he shall include the cost therefore in the Contract Sum.

ARTICLE 7: CHANGES IN THE WORK

7.3 CONSTRUCTION CHANGE DIRECTIVES

Add the following to subparagraph 7.3.3:

- 7.3.3.5 The allowance for overhead and profit combined, included in the total cost to Owner, shall be based on the following schedule:

For the ROOFING CONTRACTOR (for any work performed by his own forces) 15% of the cost;

For each Subcontractor involved (for work performed by his own forces) 15% of the cost;

For the ROOFING CONTRACTOR (for work performed by his Subcontractor) 5% of the amount due the Subcontractor.

Cost shall be limited to the following: Cost of material, including cost of delivery; cost of labor, including Social Security, Medicare and Unemployment Insurance (labor cost may include a pro rata share of foremen's time only in case an extension of Contract Time is granted on account of the change); Workmen's Compensation Insurance; and rental value of power tools and equipment.

Overhead shall include the following: Bond premiums, dues, supervision, management, wages of timekeepers, watchmen and clerks, small tool expense, incidentals, general office expense (including product and project documentation costs), and all other expenses not included in "Cost."

If the net value of a change results in a credit from the ROOFING CONTRACTOR or Subcontractor, the credit given shall be the net cost without overhead or profit. The cost as used herein shall include all items of labor, materials and equipment.

- 7.3.6 Delete the words on lines 4 and 5 reading "a reasonable allowance for overhead and profit" and substitute the following: "an allowance for overhead and profit as described in Subparagraph 7.3.3.5".

Delete subparagraph 7.4.1 and substitute, in lieu thereof, the following:

- 7.4.1 The Architect will have the authority to order minor changes and / or additions to the Work not inconsistent with the intent of the Contract Documents. Such changes and / or additions shall be effected by issuance of Architect's Supplemental Instructions (ASI), when not involving adjustments to Project Allowance funds or Contract Time; or Architect's Proposal Request (APR), when disbursements from the Project Allowances or extensions to the Contract Time are required. Such changes and / or additions shall be binding on the Owner and ROOFING CONTRACTOR. The ROOFING CONTRACTOR shall carry out Architect's Supplemental Instructions and approved Architect's Proposal Requests promptly. If any of the costs submitted by the Contractor for an Architect's Proposal Request are deemed excessive by the Architect or Owner, the work in question is to be performed as requested so as not to impede the Project Schedule. The work will be paid for as determined by accepted standards (i.e. RSMMeans Construction Cost Data, latest addition) using actual labor man-hours and submitted material bills.

ARTICLE 8 - TIME

8.1 DEFINITIONS

Delete subparagraph 8.1.2 in its entirety and substitute, in lieu thereof, the following:

- 8.1.2 The date of commencement of the Work shall be within ten (10) calendar days subsequent to the date of

signing of the Contract.

8.3 DELAYS AND EXTENSIONS OF TIME

Revise subparagraph 8.3.1 as follows:

8.3.1 On line 5, delete the words "**pending mediation and arbitration**" immediately following the words "**authorized by the Owner**".

Add the following subparagraphs:

8.3.2.1 No such extension of time shall be made for delays, unless the ROOFING CONTRACTOR shall notify the Architect in writing of the commencement of such delay and intention to request an extension of time within seven (7) days after the commencement of a delay, and that he shall make a written request for extension of time of completion within forty-eight (48) hours after termination of such period of delay. A copy of such notice or request shall, within respective aforesaid period of time, be delivered to the Owner.

8.3.2.2 The time stipulated in the Bid Proposal for completion of the Work shall include the number of calendar days for anticipated delays due to normal weather conditions. No time extensions for delays due to adverse weather conditions will be allowed until, and unless, such delays exceed the normal monthly average, based on local weather data from the previous five (5) years. In case of claims for extension of time because of adverse weather conditions, such extension of time shall be granted only because weather conditions prevented the execution of major items of work on normal working days. For purposes of this Contract "adverse weather conditions" will be interpreted as the number of days in excess of the normal on which rainfall exceeds 0.01 inch or snow/ice pellets exceed 1.0 inch. The Architect shall be the sole judge in determining the source of the data used to establish the normal monthly average of adverse weather conditions.

Add the following subparagraphs:

8.4 TIME OF COMPLETION

8.4.1 The ROOFING CONTRACTOR shall state, in space provided in the "FORM OF PROPOSAL", the number of calendar days within which period he proposes to substantially complete his work in the judgement of the Architect, exclusive of extensions of time, as authorized in writing, if he is awarded a Contract on the basis of his "BASE PROPOSAL".

8.4.2 In case of delays of the work due to actions, or inactions, by the ROOFING CONTRACTOR or its subcontractors, which extend the Contract Time, the ROOFING CONTRACTOR shall compensate Owner for actual cost of additional services required of the Architect and Engineer. The Owner will deduct this sum from money due the ROOFING CONTRACTOR and pay it to the Architect or Engineer.

8.4.3 Not used.

8.5 SUPPLEMENT TO ARTICLE 8 - TIME

8.5.1 The effect of this supplement to ARTICLE 8 of the GENERAL CONDITIONS, is to control all language of

the agreement in case of any conflict.

- 8.5.2 The Architect shall be the sole judge of the justification for any delay and of any extensions granted and the length thereof.
- 8.5.3 There cannot be "Substantial Completion" of the Contract, or of any portion thereof, so long as there is any material or substantial departure from the Plans, Drawings, Specifications and / or Contract Documents.
- 8.5.4 Any sums owed by the ROOFING CONTRACTOR to the Owner shall be deducted from any payments due from the Owner to the ROOFING CONTRACTOR, so long as any claim, dispute or lawsuit is pending which, in the sole judgement of the Architect, adversely affects ability of any Contractor to complete any portion of the overall project of which this work is part, or which hinders, delays or interrupts any part of the overall project of which this work is a part. The Architect shall have discretion to direct that the Owner withhold from any payments due hereunder sums sufficient to insure that such delays, interruptions, hindrances or adverse affects are paid for by the ROOFING CONTRACTOR.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.3 APPLICATIONS FOR PAYMENT

Add the following subparagraph:

- 9.3.1.3 The ROOFING CONTRACTOR, if requested, shall provide with each Application for Payment, the following:
1. Waiver and Subordination of Mechanic's Lien Claims or Affidavits of Payments of Debts and Claims;
 2. Certified Payrolls; on such forms as are acceptable to the Owner and the Architect from any/all contractors performing work covered by the previous month's application.

9.4 CERTIFICATES FOR PAYMENT

Add the following subparagraphs:

- 9.4.3 Upon the ROOFING CONTRACTOR's application for payment being received by the Architect on, or before, the first (1st) day of each month, the Owner will make payments on account of the Contract as follows:
- 9.4.3.1 Each month, a progress payment of ninety-five percent (95%) of the value, based on the Contract Price of labor and materials incorporated into the Work and of the materials suitably stored at site thereof up to the twenty-fifth (25th) day of the preceding month, as approved by Architect, less the aggregate of previous payments.
- 9.4.3.2 The cost of materials stored off the construction site may be included in ROOFING CONTRACTOR's request for progress payment, **IF** the following submittals are made and conditions are met:
1. Submit a statement from the Material Supplier, or other written evidence deemed acceptable to the Architect, that early delivery and off-site storage is essential to the successful completion of the project within the Contract Time for construction;
 2. Submit a written narrative giving the location of the stored materials, provisions for protection of same and arrangements for transportation of the materials to the job site;

3. Submit separate Bills of Sale or Invoices on all materials stored off site;
4. Submit suitable written evidence that materials stored off site are covered by insurance protection adequate to cover the Owner's interests;
5. Submit a written statement from the ROOFING CONTRACTOR's Bonding Company approving the payment for materials stored off site.
6. Store materials in facilities that are suitable to protect same from loss and deterioration. Materials shall be separated from other stored materials and shall be clearly labeled as to DESCRIPTION, OWNERSHIP and PROJECT destination. Access to stored materials shall be made convenient for inspections that will be made by the Architect's representative prior to the issuance of EACH CERTIFICATE OF PAYMENT that includes payment for materials stored off site.
7. Payment for materials stored off site shall not affect warranty period for such materials, which period shall commence upon the date of Substantial Completion of the Work.

9.4.3.3 IF THE WORK IS COMPLETED IN LESS THAN 60 DAYS, PROGRESS PAYMENTS WILL NOT BE MADE. Upon Substantial Completion, if achieved prior to the Contract Date of Completion, a payment of NINETY-FIVE (95%) OF THE VALUE, based on the Contract Price of labor and materials incorporated into the Work and of any materials suitably stored up to the date of Substantial Completion shall be made, less the aggregate of previous payments.

9.4.3.4 FINAL PAYMENT shall be due THIRTY (30) DAYS after the Architect certifies to Final Completion of the Work, PROVIDED the Work be then fully completed and approved and accepted by the Owner and the ROOFING CONTRACTOR's Surety, subject to all payment and submission provisions of the Contract Documents. The ROOFING CONTRACTOR shall furnish to the Architect before final payment notarized original CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS (AIA Document G706), CONTRACTOR'S AFFIDAVIT OF RELEASE OF LIENS (AIA Document G706A) and CONSENT OF SURETY TO FINAL PAYMENT (AIA Document G707) and ALL WRITTEN WARRANTIES.

9.4.3.5 AIA Standard Documents G702 and G703 shall be used by the ROOFING CONTRACTOR in submitting applications for payments.

9.4.3.6 NO CERTIFICATE FOR PAYMENT WILL BE ISSUED BY THE ARCHITECT DURING THE PERIOD BETWEEN THE CONTRACT DATE OF COMPLETION AND THE ACTUAL DATE OF SUBSTANTIAL COMPLETION.

9.6 PROGRESS PAYMENTS

Delete subparagraph 9.6.7 in its entirety.

9.7 FAILURE OF PAYMENT

Delete subparagraph 9.7.1 in its entirety and replace it with the following:

9.7.1 If the Architect does not issue a Certificate for Payment, through no fault of the ROOFING CONTRACTOR, within seven (7) days after receipt of the ROOFING CONTRACTOR's Application for Payment, or if the Owner does not pay the ROOFING CONTRACTOR within thirty (30) days after the date established in the Contract Documents the amount certified by the Architect, then the ROOFING CONTRACTOR may, upon seven (7) additional days' written notice to the Owner and the Architect, stop the Work until payment of the

amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the ROOFING CONTRACTOR's reasonable costs of shut-down, delay and start-up, which shall be accomplished as provided in the Contract Documents.

ARTICLE 10: PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

Delete Paragraph 10.1.1 in its entirety and replace it with the following:

10.1.1 The ROOFING CONTRACTOR shall incorporate safety precautions and programs to insure safety in accordance with all applicable Federal, State and local statutes, ordinances and regulations.

Add the following subparagraphs:

10.1.2 The ROOFING CONTRACTOR shall coordinate safety precautions and programs of any other Contractor and all Subcontractors, and shall have sole responsibility for providing a safe place to work and for full compliance with all applicable Federal, State and local statutes, ordinances and regulations.

10.1.3 The ROOFING CONTRACTOR and each Subcontractor shall cooperate and take every precaution reasonably required by custom of the trade and required by law or ordinance to protect the safety of persons and property.

10.1.4 The ROOFING CONTRACTOR and each Subcontractor performing work at the site shall comply with provisions of the Manual of Accident Prevention for Construction as published by Associated General Contractors of America, Inc. He shall cooperate with safety engineers of the Owner and insurance carrier.

10.3 HAZARDOUS MATERIALS

Delete Paragraph 10.3.3 in its entirety.

ARTICLE 11 - INSURANCE AND BONDS

11.1 ROOFING CONTRACTOR'S LIABILITY INSURANCE

Add the following subparagraphs:

11.1.2.1 The ROOFING CONTRACTOR shall not commence Work under this Contract until he has obtained all the insurance required hereunder and certificates of such insurance have been filed with and accepted by the Owner. Insurance coverage shall provide for a thirty (30) day notice of cancellation or material change to the policy coverage and / or limits. Acceptance of the insurance certificates by the Owner shall not relieve or decrease the liability of the Contractor.

11.1.2.2 Unless otherwise provided in the Special Conditions, the ROOFING CONTRACTOR shall provide and maintain, until the Work included in the Agreement is completed and accepted by the Owner, the minimum insurance coverages that follow, provided that the limits of liability may be met in part by the use of umbrella or excess policies. The insurance policies required herein shall not contain the word "endeavor to" or similar wording which would fail to provide a binding obligation to provide such notice to the Owner of the cancellation of a policy or a material change to an insurance policy.

11.1.2.3 The insurance required by Subparagraph 11.1.1 shall be written for not less than any limits of liability indicated below; or greater if required by law:

Minimum Insurance Coverages

<u>Type of Coverage</u>	<u>Minimum of Liability</u>
1. Worker's Compensation statutory	
2. Employer's Liability	
a. Bodily Injury by Accident	\$500,000 Each Accident
b. Bodily Injury by Disease	\$500,000 Disease, policy limit
c. Bodily Injury by Disease	\$500,000 Disease, each employee
3. Commercial General Liability (Combined Bodily Injury & Property Damage)	
	\$1,000,000 Aggregate
	\$1,000,000 Products/Completed Operations
	\$1,000,000 Personal & Advertising Liability
	\$1,000,000 ea. occurrence
	\$ 50,000 Fire Damage
	\$ 5,000 Medical Expense
4. Comprehensive Auto Liability	\$1,000,000 Combined Single limit
5. Owner's Protective Liability Insurance Policy:	

The ROOFING CONTRACTOR shall obtain at his expense an Owner's Protective Liability Insurance Policy naming the County as named insured, and the Architect / Engineer named as Additional insured, with the following limit:

a. Bodily Injury	\$1,000,000 Each Occurrence
	\$1,000,000 Aggregate

6. Builder's Risk Insurance:

a. The ROOFING CONTRACTOR shall obtain, at his expense, on an All-Risk of physical loss basis, Builder's Risk Insurance coverage, including workmanship, acceptable to the Owner, in the amount of insurance equal at all times to 100% of the insurable value of materials delivered and labor performed. The policy so issued in the name of the ROOFING CONTRACTOR shall also name his Subcontractors and the Owner as additional insured, as their respective interests may appear. The policy shall have an endorsement as follows:

"This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises."

b. For Renovation Projects and / or Work: The Owner waives subrogation for damage by fire to existing building structure(s), if building structure(s) is (are) in care, custody or control of the Contractor, and the Builder's Risk Policy shall be endorsed to include coverage for existing building structure(s).

7. When applicable, the ROOFING CONTRACTOR shall provide insurance coverage as specified in the

Special Conditions for Asbestos Abatement Work and/or Demolition contracts or Work.

8. Umbrella Coverage:

The ROOFING CONTRACTOR may provide the following minimum Coverage limits, as recommended by the advice and counsel of the ROOFING CONTRACTOR's insurance provider:

- a. When Contract Amount equals less than \$5,000,000.
Excess or Umbrella Policy of \$1,000,000.
- b. When Contract Amount exceeds \$5,000,000.
Excess or Umbrella Policy of \$5,000,000.

11.1.2.4 The coverage listed above shall be subject to the following conditions:

1. Owner's Protective Liability and ROOFING CONTRACTOR's Protective Policy shall be by the same carrier.
2. All policies shall contain special endorsements to include:
 - a. The Owner as additional insured (except Worker's Compensation and Employer's liability).
 - b. Notice of cancellation to Owner.

11.1.2.5 It is particularly noted that the above insurance requirements are not intended to be compounded with the ROOFING CONTRACTOR's standing insurance policies. If the ROOFING CONTRACTOR already has in force insurance policies that provide the required coverage, there is no need to purchase duplicate coverage for these Projects. Provide riders to such existing policies to cover these Projects.

11.1.2.6 To the fullest extent permitted by law, the ROOFING CONTRACTOR shall indemnify and hold harmless the Owner, the Architect/Engineer and their agents and employees from and against all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out of, or resulting from, the performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to, or destruction of, tangible property (other than Work itself) including the loss of use resulting therefrom, and (2) is caused in whole, or in part, by any negligent act or omission of the ROOFING CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in whole, or in part, by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right or obligation of indemnity that would otherwise exist as to any party or person described in this Paragraph.

11.1.2.7 In any and all claims against the Owner and / or the Architect/Engineer or any of their agents or employees by any employee of the ROOFING CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 11.1.2.6 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by, or for, the ROOFING CONTRACTOR or any Subcontractor under Worker's or workmen's compensation acts, disability benefit acts or employee benefit acts.

11.1.2.8 The obligation of the contractor under this Paragraph shall not extend to the liability of the Architect/Engineer, and/or the Owner, their agents or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the

giving of, or the failure to give, directions or instructions by the Architect / Engineer and / or the Owner, their agents or employees provided such giving, or failure to give, is the primary cause of the injury or damage.

Add the following to subparagraph 11.1.3:

Furnish three (3) copies of certificates herein required for each copy of the agreement; specifically set for the evidence of all coverage required by subparagraph 11.1.

Add the following subparagraph:

- 11.1.4 The form of the certificate shall be AIA Document G715 or an approved Insurance Company form. Furnish to the Owner copies of any endorsement that are subsequently issued amending coverage limits.

11.4 PROPERTY INSURANCE

Revise subparagraph 11.4.1 as follows:

- 11.4.1 On line 1, delete the words, "**Unless otherwise provided, the Owner**" and substitute "**The ROOFING CONTRACTOR** "

Delete subparagraph 11.4.1.2 in its entirety.

Delete subparagraph 11.4.1.3 in its entirety.

Revise subparagraph 11.4.2 as follows:

- 11.4.2 On line 1, delete the phrase "**The Owner shall purchase**" and substitute "**The ROOFING CONTRACTOR shall purchase**".

Delete subparagraph 11.4.4 in its entirety.

Delete subparagraph 11.4.6 in its entirety and substitute, in lieu thereof, the following:

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

Delete subparagraph 11.4.8 in its entirety and substitute, in lieu thereof, the following:

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

Delete subparagraph 11.4.9 in its entirety and substitute, in lieu thereof, the following:

11.4.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or as provided in Paragraph 4.6. If after such loss, no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the ROOFING CONTRACTOR after notification of a Change in the Work in accordance with Article 7. Delete subparagraph 11.4.10 in its entirety and substitute, in lieu thereof, the following:

11.4.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five (5) days after the occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved as provided in Paragraph 4.6.

11.5 PERFORMANCE BOND AND PAYMENT BOND

Delete subparagraph 11.5.1 and substitute, in lieu thereof, the following:

11.5.1 The ROOFING CONTRACTOR shall furnish Performance and Payment Bonds, as may be required by Texas Government Code, Chapter 2253, a **Performance Bond** in an amount equal to one hundred (100%) percent of the Contract Sum as security for the faithful performance of this Contract, **if the contract is in excess of \$100,000.00** and also a one hundred (100%) percent Labor and Material **Payment Bond**, as security for the payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract, **if the contract is in excess of \$25,000.00**. The Performance Bond and the Labor and Material Payment Bond shall be executed on the forms provided in the Project Manual and shall be delivered to the Owner not later than 10 days following the date of execution of the Contract. Surety companies executing BONDS must be authorized to transact business in the State of Texas.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

12.2 CORRECTION OF WORK

12.2.2 AFTER SUBSTANTIAL COMPLETION

Amend subparagraph 12.2.2.1 as follows:

12.2.2.1 Where guarantees are specified in any Section of the Specifications for longer periods, such longer periods shall apply.

12.3 ACCEPTANCE OF NON-CONFORMING WORK

Add the following subparagraph:

12.3.2 When any such work is found, the entire area of work involved shall be corrected unless the ROOFING CONTRACTOR can completely define the limits to the Architect's satisfaction. Additional testing, sampling or inspecting needed to define non-conforming work shall be at the ROOFING CONTRACTOR's expense. He shall employ the testing laboratory selected by the Owner if such services are required. All corrected work shall be retested at the ROOFING CONTRACTOR's expense. The ROOFING CONTRACTOR, at no additional expense to the Owner, shall pay for any extra architectural or engineering services required by the

ROOFING CONTRACTOR to analyze nonconforming work.

Add the following Articles:

ARTICLE 15 - LIENS

15.1 ACQUIRING OF LIENS

The ROOFING CONTRACTOR's attention is called to the following quotation from the STATE OF TEXAS CIVIL STATUTES – PROPERTY CODE, TITLE 5: EXEMPT PROPERTY AND LIENS, CHAPTER 43, SECTION 43.002, relative to the acquiring of liens:

"The real property of the state, including the real property held in the name of state agencies and funds, and the real property of a political subdivision of the state are exempt from attachment, execution and forced sale. A judgment lien or abstract of judgment may not be filed or perfected against the state, a unit of state government, or a political subdivision of the state on property owned by the state, a unit of state government, or a political subdivision of the state; any such judgment lien or abstract of judgment is void and unenforceable.

Added by Acts 1997, 75th Legislature, ch. 159, Section 1, effective May 20, 1997."

- 15.1.1 The foregoing quotation does not preclude the filing of liens for any payments due against the ROOFING CONTRACTOR engaged on the Project in accordance with the Lien Laws of the State of Texas.

ARTICLE 16 - EQUAL OPPORTUNITY

16.1 EQUAL OPPORTUNITY

- 16.1.1 During the performance of this Contract, the ROOFING CONTRACTOR shall comply with the following:

The ROOFING CONTRACTOR will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The ROOFING CONTRACTOR will take affirmative action to ensure that applicants are employed and that employees are treated equally during employment without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and, selection for training, including apprenticeship. The ROOFING CONTRACTOR agrees to post in conspicuous places, available to employee and applicants for employment, notices to be provided by an appropriate agency of the Federal Government setting forth the requirements of the Equal Opportunity clause.

The ROOFING CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the ROOFING CONTRACTOR, state that all qualified applicants will receive considerations for employment without regard to race, religion, color, sex or national origin.

*** END OF SECTION ***

1.01 CONTRACTOR'S RESPONSIBILITY

- A. The Roofing Contractor shall be entirely responsible for the execution of the work of his trade(s) included under this Contract. The Utility Contractor shall specifically, and distinctly, assume, and does so assume, all risks of damage or injury from any cause to property or persons used or employed on, or in connection with, his work, and of all damage or injury to any persons or property wherever located, resulting from any action or operation under his Contract or in connection with his work and undertakes and promises to protect and defend the Owner against all claims on account of such damage or injury.
- B. The Roofing Contractor will be held responsible for the execution of a satisfactory and complete piece of work in accordance with the true intent of the Drawings, Specifications and Addenda.
- C. At the completion of his work, the Roofing Contractor shall remove all implements and appurtenances of construction and all debris and surplus materials occasioned by his work, leaving the building and grounds in a clean and orderly condition ready for use. It shall be the responsibility of the Roofing Contractor to clean up and repair or replace all items that have been damaged, soiled or otherwise made unsightly as a result of the work as contracted under the Contract, all to the satisfaction of, and as directed by, the Architect.
- D. The Roofing Contractor shall at all times allow the Architect and his authorized representatives, the Owner and anyone employed directly or indirectly by Owner, and other contractors and their authorized representatives with whom the Owner enters into Contracts to perform services or other work, access to the building or premises. The Roofing Contractor shall provide all necessary facilities for easy and safe access to all parts of building for use of all concerned with the operation.

1.02 DEFINITIONS

- A. References: References to known standard specifications in the Specifications shall mean and intend the latest edition of such specification adopted and published at the date of the invitation to submit Proposals, unless otherwise indicated.
- B. Reference to technical society, organization or body is made in the Specifications in accordance with the following abbreviations:

AIA	American Institute of Architects
ACI	American Concrete Institute
AIEE	American Institute of Electrical Engineers
AISC	American Institute of Steel Contractors
AISI	American Iron and Steel Institute
ANSI(USASI)(ASA)	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWSC	American Welding Society Code
FS	Federal Specification
NBFU	National Board of Fire Underwriters
NEC	National Electric Code
UL	Underwriters Laboratory, Inc.

1.03 COOPERATION WITH BUILDING OFFICIALS

- A. The Roofing Contractor shall cooperate with all State, local and other governmental officials and

inspectors at all times. If such official or inspector deems a special inspection is necessary, provide assistance and facilities that will expedite his inspection.

1.04 MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS

- A. The Roofing Contractor shall install all manufactured items, materials and equipment in strict accordance with manufacturer's recommended specifications except that the Specifications herein, where more stringent, shall be complied with.
- B. The Roofing Contractor shall, at completion of the Project and prior to final acceptance by the Owner, provide the Owner with three (3) complete sets of maintenance instructions and manuals and fully demonstrate to him all procedures for proper maintenance of all installed items and finishes.

1.05 MEASUREMENTS

- A. Before doing any work or ordering any materials, the Roofing Contractor and subcontractors shall verify all measurements of existing and new work and shall be responsible for their correctness. Any differences that may be found shall be submitted to Architect for consideration before proceeding with work. No extra compensation will be allowed because of differences between actual dimensions and measurements indicated on the Drawings.

1.06 JOB MAINTENANCE

- A. During the course of the Work, all crafts and trades shall protect all work that precedes theirs from damage and shall make repairs or replacement of any damage caused either directly or indirectly by them.
- B. Site housekeeping and final cleaning shall be done in accordance with the requirements of Section 01700 and within the individual specification sections.
- C. **The project site is to be considered fully tobacco-free at all times. The use of tobacco products is expressly prohibited on the grounds.**

1.07 TEMPORARY FACILITIES

- A. **STORAGE FACILITIES** – The Roofing Contractor shall provide weathertight storage for materials requiring protection from the weather. The location of such storage, if on site, shall be subject to approval by Architect and Owner.
- B. **SANITARY FACILITIES FOR WORKMEN**
 - 1. The Roofing Contractor shall provide and maintain outside toilet facilities for the use of all those employed or otherwise involved in performing the Work for the entire construction period.
 - 2. The Roofing Contractor and his employees shall keep toilet facilities clean at all times.
 - 3. If any new construction surfaces or finishes in the project are soiled by urine or feces at any time, the entire area soiled shall be removed completely from the Project and rebuilt by the Roofing Contractor at no additional expense to the Owner.
- C. **WEATHER PROTECTION**
 - 1. The Roofing Contractor shall at all times provide protection against weather, so as to maintain all work, materials, apparatus and fixtures free from injury and damages. At the end of a working day, all

new work likely to be damaged shall be covered or otherwise protected. Roofing Contractor shall not remove more existing roof at any time than can be properly protected by temporary or permanent re-roofing.

- D. When any temporary facility is no longer needed for proper conduct of the Work as determined by the Architect, the Roofing Contractor shall remove it from project site and shall repair or replace all materials, equipment and finished surfaces damaged in doing so.

1.08 SCAFFOLDS AND RUNWAYS

- A. The Roofing Contractor shall furnish, erect and maintain for the duration of the Work as required, all scaffolds, runways, guardrails, platforms and similar temporary construction, as may be necessary for the performance of the Contract. Such facilities shall be of a type and arrangement as required for their specific use; shall be substantially constructed throughout, strongly supported, well secured; and, shall comply with all applicable rules and regulations of Federal, State and local codes. Contractors shall comply with all applicable provisions of the National Occupational Safety and Health Act (NOSHA), latest edition.

1.09 LOADS AND STRESSES FROM CONSTRUCTION OPERATIONS

- A. The Roofing Contractor shall have full responsibility for preventing overstress of any parts of the existing structure during all construction operations.
- B. The Roofing Contractor shall provide all temporary supports and connections necessary to assure safety and stability of all work-in-place and to prevent overstress of any part thereof.

1.10 APPROVAL OF WORKING SURFACE

- A. Beginning of work by the Roofing Contractor or any Subcontractor shall constitute full acceptance of the previous worksurface or sub-surface.

1.11 ACCIDENTS

- A. The Roofing Contractor shall provide at the site, such equipment and medical facilities as are necessary to supply first aid service to anyone who may be injured in connection with the Work.
- B. The Roofing Contractor shall report promptly, in writing, to the Owner through the Architect, all accidents arising out of, or in connection with, performance of the Work, whether on, or adjacent to, the site, which caused death, personal injury or property damage, giving full details and statements of all witnesses. In addition, if death, serious injury or serious damage is caused, the accident shall be reported immediately by telephone or messenger.

1.12 TEMPORARY SERVICES

- A. UTILITIES – The ROOFING CONTRACTOR may use water and electricity that is available at the site as required to complete the construction.
- B. DUMPSTER – The ROOFING CONTRACTOR shall provide and pay for regular trash removal.

1.13 SUPERVISION

- A. The Roofing Contractor shall supervise the Work continually, either in person or through an acceptable superintendent who shall be at the jobsite at all times during performance of any work. The superintendent shall have full authority to act for the Roofing Contractor and shall be authorized to receive instructions from the Architect.
- B. Supervisory personnel may not be changed without the Architect's approval unless such change is proven to be beyond the control of the Roofing Contractor.

1.14 SAFETY PRECAUTIONS AND PROGRAMS

- A. During the entire construction program, the Roofing Contractor, and each Subcontractor, is to use every precaution practicable, looking toward safety of employees, Owner personnel and any other person within the construction area. Roofing Contractor shall employ fire watch actions required by the specifications and by industry standards. In no case shall the work site be left unattended until after four hours using of a torch on the roof area.
- B. It shall be the duty of the Roofing Contractor and each Subcontractor to be familiar and comply with all of the requirements of Public Law 91-596, 29 U.S.C. Secs. 651 et seq., the Occupational Safety and Health Act of 1970 (OSHA), and all amendments thereto, and to enforce and comply with all of the provisions of this Act.
- C. The Roofing Contractor shall assign a responsible employee the general duty of checking the grounds just before quitting time each day and removing materials, equipment, or other obstructions which might cause injury or provide contraband.
- D. The Roofing Contractor shall be responsible for checking rigidity and safety of all shoring, supports, scaffolds and ladders being used.

1.20 ADHERENCE TO APPLICABLE CODES

The Roofing Contractor shall enforce adherence to all federal, state and local codes and ordinances having governance over the Project, giving special attention to the following:

- A. The Texas Accessibility Standards (TAS) of the Architectural Barriers Act, Article 9102, Texas Civil Statutes, latest edition.
- B. The International Building Code, latest edition.

1.21 SECURITY CHECKS AND BACKGROUND CHEKS

- A. The Van Zandt County Sheriff may require security checks or background checks of any worker at the County Jail construction site. Roofing Contractor shall provide the Sheriff with identification information of each worker to be on site.
- B. Roofing Contractor and workers shall not interact or communicate with any prisoners at any time. All construction tools shall be inventoried and accounted for while on site.

*** END OF SECTION ***

PART 1 - GENERAL1.01 DESCRIPTION

A. Work includes:

1. Furnish all labor, materials, tools, equipment and services for furnishing, processing, delivery, reproduction and other functions for scheduling and handling of submittals as indicated, in accord with the Contract Documents.
2. Completely coordinate with the work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to, or necessary for, completion of the work under this section.

B. Related sections:

1. Section 01630 – PRODUCTS AND SUBSTITUTIONS (after execution of the Contract).
2. Section 01700 – PROJECT CLOSEOUT.
3. Divisions 2 – 16.

C. See the General, Supplemental and Special Conditions for additional requirements.

1.02 DEFINITIONS

- A. Shop Drawing Submittals are drawings, diagrams, schedules and other data specially prepared for the Work by the Roofing Contractor, Subcontractor(s), manufacturer(s), supplier(s) or distributor(s) to illustrate some portion of the Work. Do not reproduce portions of the Contract Documents as the basis for Shop Drawings.
- B. Product Data Submittals are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, test data and other information furnished by the Roofing Contractor to illustrate materials, products or systems for some portion of the Work.
- C. Sample Submittals are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.
 1. Samples also include job site mockups.
- D. Project Information Submittals are items pertaining to quality control and Owner information that do not require review or response by the Architect and are to be retained for the Project file only.
 1. The Architect may review at his sole discretion project information for compliance with the Contract Documents only.
 2. Review will not constitute a detailed check of submitted design calculations.
 3. Appropriateness and accuracy of calculations is the responsibility of the Roofing Contractor (and Contractor's professional engineer when such calculations are required to be professionally sealed).
 4. Examples:
 - a. Test reports.
 - b. Certifications.
 - c. Design calculations.

- E. Contract Closeout Information Submittals are items pertaining to quality control and Owner information which are required at Substantial or Final Completion and do not require review or response by the Architect.
1. Architect may review at his sole discretion project information for compliance with the Contract Documents only.
 2. Examples:
 - a. Test reports.
 - b. Warranties.
 - c. Operation and maintenance data.
 - d. Owner instruction reports.
- F. Submittals for Substitutions should follow procedures outlined in Section 01630 – PRODUCTS AND SUBSTITUTIONS.

1.03 TRANSMITTAL – GENERAL

- A. Submit items to the Architect at the following address:

DRG Architects, LLC
13300 Old Blanco Road, Suite 175
San Antonio, TX 78216

The Utility Contractor and Architect/Engineer may agree on protocols for electronic transmission of submittals.

- B. The Roofing Contractor is responsible for making all submissions.
1. Submit to address indicated above.
 2. Transmit Submittal items with Submittal Transmittal Form.
 3. Transmittal Form to clearly identify the Specification Section under which the submitted item is required.
 4. **Transmittal Form to include items from one (1) specification section only.**
- C. Provide all information required for complete review of each item in one (1) submittal.
- D. DO NOT SUBMIT INFORMATION ON A PORTION OF A SUBMITTAL.
- E. Make submittals sufficiently in advance of the date required to allow the Architect reasonable time for review, and re-submission, if necessary.
1. Allow a minimum of three (3) weeks, excluding mailing.
 2. Items not submitted in accordance with provisions of this section will be returned, without action, for re-submission.
 3. Submissions on items not approved for use by Contract Documents will be rejected.

1.04 SHOP DRAWINGS AND PRODUCT DATA

- A. Shop drawing and product data submittals are required as called for by specification section submittal

paragraph.

- B. Submit Shop Drawings and Product Data in the sequence shown on the Submittal Schedule and Construction Schedule as required herein.
- C. Identify drawings with manufacturer, item, use, type, project designation, specification section or drawing detail reference.
- D. Product Data is to be highlighted to clearly identify the item submitted for compliance with the Construction Documents.
- E. Submit four (4) copies of each shop drawing until review is complete.
 - 1. PRINTS ALONE ARE NOT ACCEPTABLE.
 - 2. Submit in mailing tube.
 - 3. Do not fold.
 - 4. Submit drawings 24" x 36" or not larger than 30" x 42".
 - 5. Allow clear space, approximately 2" x 2", for review stamp on right hand side.
 - 6. No contract drawing with changed title block will be accepted.
- F. Submit four (4) copies of product data items such as equipment brochures, cuts of fixtures, standard catalog items, etc.
 - 1. Indicate exact item or model and all proposed options. Highlight item intended for use on the project.
 - 2. Include scale details, sizes, dimensions, performance characteristics, capacities, wiring diagrams, controls and other pertinent data.
 - 3. Submit in envelope.
 - 4. Do not fold.

1.05 SAMPLES

- A. Sample submittals are required as called for by specification section submittal paragraph.
- B. Identify samples with manufacturer's name, item, use, type, project designation, specification section or drawing detail reference, color, range, texture, finish and other pertinent data.
- C. Submit samples to address indicated or construction site, if required.
- D. The Architect may, at his option, retain samples for comparison purposes.
- E. Field mockups: Fabricate on site in accord with specification section requiring them.

1.06 PROJECT INFORMATION AND CONTRACT CLOSEOUT INFORMATION

- A. Submit project and contract closeout information as called for by individual specification section submittal paragraph or as required by the Contract Documents.
- B. Submit three (3) copies of project and contract closeout information items to the Architect.
 - 1. Include pertinent data, as required by the Contract Documents.

2. Submit information in an envelope.
3. Do not fold.
4. Submit 8 ½" x 11" or 8 ½" x 14" maximum copy.

1.07 CONTRACTOR ACTION

- A. Review, approve, stamp and sign items prior to submission to the Architect.
- B. Stamp indicates the Contractor has:
 1. Verified all field dimensions and quantities.
 2. Verified all field construction criteria, materials, catalog numbers and similar data.
 3. Reviewed and coordinated all submittal data with requirements of the Work and the Contract Documents.
 4. Certified that submittals comply with the Contract Documents.
- C. The Contractor shall reproduce and distribute approved submittals to subcontractor(s) / vendor(s).
- D. Resubmit items stamped "Revise and Resubmit" or "Not Approved" until approval is received.
 1. Add letter suffix to previous transmittal number, to indicate re-submission, for example 10000-1R.
 2. The Contractor shall direct specific attention, in writing, on re-submitted Shop Drawings, Product Data or Samples to revisions other than those requested by the Architect on previous submittals.
- E. The Contractor shall direct specific attention, in writing, or on Shop Drawings, Product Data or Samples, to deviations from the Contract Documents.
 1. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data and / or Samples unless the Contractor has specifically informed the Architect, in writing, of such deviation at the time of submission and the Architect has given written approval to the specific deviation. Such deviations shall require the Owner's agreement unless it is considered a minor change in the Work and does not involve any adjustment in the Contract Sum or Contract Time.
- F. The Contractor shall not be relieved from responsibility for errors or omissions in Shop Drawings, Product Data or Samples by the Architect's approval thereof.

1.08 SUBMITTALS

- A. Project information:
 1. Schedule of Values: Submit prior to first application for payment in a form acceptable to the Architect.
 2. Contractor's Project Construction Schedule: Submit within fifteen (15) days after issuance of Notice to Proceed, or prior to first application for payment in a form acceptable to the Architect.
 3. Schedule of Submittals: Submit prior to first application for payment in a form acceptable to the Architect.

1.09 SCHEDULE

- A. Provide a complete schedule of required submittals indicating proposed submittal dates.

1. Include all shop drawings, product data, samples, project information and contract closeout information.
- B. Schedule submittals requiring the Architect's approval and project information during first quarter of the construction period.
 1. Schedule submittals requiring the Architect to make a color selection during first thirty (30) days of the construction period.
- C. **Progress payment requests will not be approved until a satisfactory schedule of submittals has been received.**

1.10 ARCHITECT APPROVAL: SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- A. Approval is only for conformance with the design concept of the project and compliance with the intent of the information given in the Contract Documents. It does not relieve the Contractor of the responsibility of providing the Owner a fully operational facility, complete in every respect with regards to the intent of the Contract Documents.
- B. The Contractor is responsible for confirmation and correlation of dimensions at the job site; for information that pertains solely to fabrication processes or to techniques of construction; and, for coordination of the work of all trades.
- C. All completed work will strictly conform to the approved samples, whether submitted or constructed on site.
- D. Do not start work that requires approved submittals prior to the return of those submittals with the Architect's stamp indicating such approval.

*** END OF SECTION ***

1.01 DESCRIPTION

- A. Applicable provisions of the General Conditions, Supplemental General Conditions and Special Conditions govern work under this Section.

1.02 REQUIREMENTS INCLUDED

- A. Products – General.
- B. Workmanship.
- C. Manufacturer’s Instructions.
- D. Transportation and Handling.
- E. Storage and Protection.
- F. Product Options.
- G. Substitutions.

1.03 PRODUCTS – GENERAL

- A. Products include materials, equipment and systems.
- B. Products, in general, shall:
 - 1. Conform to applicable specifications and standards.
 - 2. Comply with size, make, type and quality specified, or be as specifically approved in writing by the Architect.
- C. Manufactured and Fabricated Products:
 - 1. Design, fabricate and assemble in accord with the best engineering and shop practices available.
 - 2. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - 3. Two (2) or more items of the same kind shall be identical, by the same manufacturer.
 - 4. Products shall be suitable for service conditions.
 - 5. Equipment capacities, sizes and dimensions, as shown and as specified, shall be adhered to unless variations are specifically approved in writing by the Architect.

1.04 WORKMANSHIP

- A. Comply with industry standards except where more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of quality equal to that specified.
- C. Secure products in place with positive anchorage devices designed and sized to withstand anticipated stresses, vibration and racking.

1.05 MANUFACTURER'S INSTRUCTIONS

- A. When work is specified to comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to all parties involved in the installation, including two (2) copies to the Architect at least two (2) weeks prior to start of such work.
 - 1. Maintain one (1) set of such manufacturer's instructions at the jobsite during installation and until completion.
 - 2. Handle, install, connect, clean, condition and adjust all products in strict accord with such instructions and in conformity with specified requirements.
 - 3. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Architect for final instructions before proceeding with such work.
 - 4. Do not proceed with any work without clear instructions.

1.06 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accord with submitted construction schedules and in ample time to facilitate inspection prior to installation.
- B. Coordinate product deliveries to avoid conflict with work and conditions at site.
- C. Deliver products in undamaged conditions, in manufacturer's original containers or packaging, with identifying labels intact and legible.
- D. Immediately upon delivery, inspect each shipment to assure compliance with specification requirements and to confirm that products are properly protected and undamaged.
- E. Provide equipment and personnel to handle products by the best methods to prevent damage to products, packaging and project work.

1.07 STORAGE AND PROTECTION

- A. Store products in accord 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; provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged and are maintained under required conditions.

E. PROTECTION AFTER INSTALLATION

- 1. Control construction traffic to prevent damage to materials, equipment and surfaces.
- 2. Provide approved coverings to protect finished surfaces from damage as follows:
 - a. Protect projections, corners, jambs, sills and soffits in areas used for traffic and / or for passage of products to subsequent work.
 - b. Protect finished floors and stairs from dirt and damage as follows:

1. In areas subject to foot traffic, secure heavy paper, sheet goods or other approved materials in place.
2. For movement of heavy products, lay planking or similar approved materials in place.
3. Waterproofed and Roofed Surfaces:
 - a. Prohibit use of surfaces for traffic of any kind and for storage of products.
 - b. When some activity must take place in order to carry out project work, obtain recommendations of material manufacturer for protection of surface and:
 1. Install recommended protection; remove upon completion of activity.
 2. Restrict use of adjacent unprotected areas.

1.08 PRODUCT OPTIONS

- A. Within thirty (30) days after the date of the Contract, submit a complete list of major products proposed for use, with the name of manufacturer, trade name and model number, when applicable.
- B. UTILITY CONTRACTOR'S OPTIONS:
 1. For products specified only by reference standards, select only products meeting the specified standard.
 2. For products specified by naming several products or manufacturers, select any one of the products or manufacturers named which complies with the specifications.
 3. For products specified by naming one (1) or more products or manufacturers and "or approved equal", the Roofing Contractor must submit a written request for approval for any product or manufacturer not specifically named. The use of products or manufacturers that have not been approved, or acknowledged by published addendum, will not be acceptable.
 4. For products specified by naming only one (1) product and manufacturer, there is no option without approval by published addendum prior to receipt of bids.

1.09 SUBSTITUTIONS

- A. After the date of the Contract, substitutions will be considered only when a product becomes unavailable beyond the control of the Contractor. Delays by the Contractor in the ordering of material(s) will be not considered just cause for a substitution request.
- B. Submit a separate request for each product proposed for substitution, supported with complete data, drawings and samples as appropriate, including:
 1. Comparison of the qualities of the proposed substitution with the item specified.
 2. Changes required in other details and features of the Work because of the substitution.
 3. Effect on the project construction schedule.
 4. Cost data comparing the proposed substitution with the product specified.
 5. Availability of maintenance service, if applicable, and the source of replacement materials.
- C. A request for substitution constitutes a representation that the Roofing Contractor:
 1. Has investigated the proposed product and has determined that it is equal, or superior, in all respects to that specified.

2. Will provide the same warranties and bonds for the substitution as for the product specified.
 3. Will coordinate installation of an accepted substitution into the Work and make such other changes as may be required to make the Work complete in all aspects.
 4. Waives all claims for additional costs related to substitution that may subsequently become apparent.
 5. Will provide, at no cost to the Owner, the specified item if any failure of the substituted item occurs within the warranty period.
- D. Substitute products shall not be ordered or delivered to the jobsite prior to the Architect's written approval of the substitution.
- E. Substitutions will not be considered when they are indicated or implied on shop drawings or product data submittals without a separate written request or when acceptance would require a substantial revision of the Contract Documents.
- F. The Architect will determine the acceptability of a proposed substitution and notify the Utility Contractor of the acceptance or rejection, in writing, within a reasonable time.

*** END OF SECTION ***

1.01 GENERAL

- A. Applicable provisions of the General Conditions, Supplemental General Conditions and Special Conditions govern work under this Section.

1.02 DESCRIPTION OF REQUIREMENTS

- A. DEFINITIONS – Project Closeout is hereby defined to include all general requirements near the end of the Contract Time, in preparation for final acceptance, final payment, normal termination of contract, and similar actions evidencing completion of the work.

1.03 PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. GENERAL – Prior to requesting the Architect's inspection for Certification of Substantial Completion (for either the entire work or portions thereof), complete the following:
1. Include supporting documentation for completion as required by the Contract Documents.
 2. In the progress payment request coincident with, or first following, the date claimed, show either 100% completion for the portion of work claimed as "Substantially Complete" or list incomplete items, the value of the incomplete items and the reasons the items are incomplete.
 3. Submit a statement showing all accounting of changes to the Contract Sum.
 4. Advise the Owner, in writing, of pending insurance change-over requirements.
 5. Submit specific warranties, workmanship / maintenance bonds, maintenance agreements, final certifications and similar documents.
 6. Obtain and submit releases enabling the Owner's full and unrestricted use of the work and access to all services and utilities, including (as required) occupancy permits, operating certificates and similar releases.
 7. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, final property survey and similar final record information.
 8. Deliver tools, spare parts, extra stocks of materials and similar physical items to the Owner. Provide complete listing of "attic stock", referencing each specification section where the items are noted.
 9. Provide full and complete instruction of the Owner's personnel in the operation and maintenance of all systems. Discontinue (or change over) and remove from the project site all temporary facilities and services, along with all construction tools and facilities, mock-ups and similar elements.
 10. Complete final cleanup requirements.
 11. Repair, re-paint and fully restore all defective exposed finishes to the Architect's satisfaction. Spot touch-up of surfaces will not be accepted.
 12. **Submit the Roofing Contractor's comprehensive punch list, indicating the current status of each item listed.**
- B. INSPECTION PROCEDURES – After completion of the Roofing Contractor's own final punch list items and upon receipt of the Roofing Contractor's request, the Architect/Engineer will either proceed with his inspection or advise the Contractor of any prerequisites not currently fulfilled. **Any observation of sight-apparent deficiencies will be sufficient cause to cancel the inspection.** Following the successful initial inspection, the Architect/Engineer will either prepare the Certificate of Substantial Completion or advise the Roofing Contractor of the work which must be performed prior to issuance of the certificate; and schedule a repeat inspection when requested and assured, in writing, that the work has been substantially completed. The results of the completed inspection will form the **initial** punch list for Final Acceptance.
1. PREPARATION FOR ACCEPTANCE – It shall be the duty of the Roofing Contractor or his project superintendent to personally make a careful walk-through of all areas of the building as a whole,

assuring himself the work on that part of the project is ready for a Substantial Completion inspection and to notify the Architect and Owner, in writing, to schedule such an inspection.

1.04 PREREQUISITES TO FINAL ACCEPTANCE

- A. GENERAL – Prior to requesting the Architect's final inspection for the Certificate of Final Acceptance and Final Payment, as required by the General Conditions, complete the following, and list all known exceptions (if any) in the request:
1. Submit final Payment Request with final releases and supporting documentation not previously submitted and accepted. Include Certificates of Insurance for all products and completed operations where required.
 2. Submit an updated final statement, accounting for all additional (final) changes to the Contract Sum.
 3. Submit for acceptance a copy of the Architect's final punch list of any itemized work to be completed or corrected, certifying that each item has been completed or otherwise resolved to the Architect's and Owner's satisfaction. Upon acceptance the punch list is to be endorsed and dated by the Architect.
 4. Submit Consent of Surety.
 5. Submit final originals of all Waiver and Subordination of Mechanic's Lien Claims in a form acceptable to the Architect and Owner.
 6. Submit final liquidated damages settlement statement in a form acceptable to the Architect and Owner.
 7. Revise and submit all evidence of final, continuing insurance coverage complying with all insurance requirements.
 8. Submit final Project Record Documents for approval.
- B. REINSPECTION PROCEDURE – Upon the Architect's receipt of the Roofing Contractor's notice that all work has been completed, including all punch list items resulting from earlier inspections, and excepting incomplete items delayed because of acceptable circumstances, the Architect will schedule a re-inspection of the work. Upon completion of the re-inspection, the Architect will either prepare the Certificate of Final Acceptance or advise the Roofing Contractor of any work not complete, or any obligations not fulfilled, as required for Final Acceptance.
1. If additional re-inspections are required of the Architect, beyond initial Substantial Completion and Final Acceptance, the Roofing Contractor shall reimburse the Owner for the Architect's time required to complete the re-inspections based on an hourly rate to be determined by the Architect.

1.05 PROJECT RECORD DOCUMENTS SUBMITTALS

- A. GENERAL – Specific requirements for the Project Record Documents are indicated in individual sections of these Specifications. Other requirements are indicated in the General Conditions and Divisions 1, 15 and 16. Do not use Project Record Documents for construction purposes; protect them from deterioration and loss in a secure, fire-resistive location; provide access to the Project Record Documents for the Architect's reference during normal working hours.
- B. RECORD DRAWINGS – Refer to Paragraphs 3.11.1.1 and 3.11.1.2 of the Supplemental General Conditions for requirements of "AS BUILT" drawings.
- C. RECORD SPECIFICATIONS – Maintain one (1) copy of the Specifications, including all Addenda, approved Architect's Proposal Requests, Architect's Supplemental Instructions, Change Orders and similar modifications issued in printed form during construction. Mark-up variations in the actual work in comparison with the text of the Specifications and modifications as issued. 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. Upon completion of mark-up, submit to

the Architect/Engineer for the Owner's records.

- D. RECORD PRODUCT DATA – Maintain one (1) copy of each product data submittal. Mark-up all significant variations in the actual work in comparison with the submitted information. Include both variations in the product as delivered to the site and variations from the manufacturer's instructions and recommendations for installation. Give particular attention to all concealed products and portions of the work that cannot otherwise be readily discerned at a later date by direct observation. Make note all related change orders and mark-ups of the Record Drawings and Specifications. Upon completion of mark-up, submit the complete set to the Architect for the Owner's records.
- E. RECORD SAMPLE SUBMITTAL – Immediately prior to Substantial Completion, the Architect will meet with the Contractor at the jobsite and will determine which submitted samples maintained by the Contractor during the progress of the work are to be transmitted to the Owner for record purposes. Comply with the Architect's instructions for packaging, identification marking and delivery to the Owner as directed, at no additional expense to the Owner.
- F. MISCELLANEOUS RECORD SUBMITTALS – Refer to other Sections of the Specifications for all requirements of miscellaneous record keeping and submittals in connection with the actual performance of the work. Immediately prior to the date of Substantial Completion, complete all miscellaneous records and place in good order, properly identified, bound or filed and ready for continued use and reference. Submit to the Architect for the Owner's records.
- G. MAINTENANCE MANUALS – Organize the maintenance and operations manual information into suitable sets of manageable size and bind into individual binders properly identified on both the front and the spine of the binder. Indexes (thumb-tabs) are to be organized by Specification Section (name and number). The contents of each section shall include the following, and be arranged in the following sequence:
1. Title page, listing as follows:
 - a. Section Number;
 - b. Section Name;
 - c. Subcontractor's or Supplier's Name, Contact, Address, Telephone and Fax Numbers;
 - d. A brief description of the Work performed.
 2. A copy of the Specification Section marked and posted with any record changes (ASI, RFI, APR, etc.) made during construction;
 3. Approved Submittals and Shop Drawings marked with any variations in the actual work performed, with complete performance and technical data;
 4. Manufacturer's installation brochure and / or instructions;
 5. Manufacturer's operating and maintenance brochure, including recommended turnaround cycles for replaceable items;
 6. Manufacturer's wiring installation diagrams;
 7. Contractor's field wiring diagrams, if they are different from the manufacturer's recommendations;
 8. Manufacturer's brochure listing replacement part numbers, part descriptions and supplier's name, phone number and address;
 9. List of spare parts or attic stock provided to the Owner, including quantities;
 10. Emergency procedure instructions;
 11. Troubleshooting and Inspection procedures;
 12. If applicable, a sheet indicating the Date and Time of the operations and maintenance instruction session, with the signatures of the Owner's personnel witnessing the instruction;

13. A **copy** of the written Warranties; including water-tightness warranty.
14. Similar applicable information as may be required by the Architect.

Bind each manual of each set in a heavy-duty 3-ring, vinyl-covered binder, and include pocket folders for folded sheet information. **Provide three (3) complete sets of manuals.** Provide a separate binder containing all of the **original** Warranties indexed by Specification Section. Provide any additional manuals as required by the individual Specification Sections or as may be requested by the Architect.

2.01 CLOSEOUT PROCEDURES

- A. GENERAL OPERATING / MAINTENANCE INSTRUCTIONS – Arrange for each installer of work requiring continuing maintenance and/or operation to meet with the Owner's personnel at the project site to provide basic instructions as required for proper operation and maintenance of the work and / or equipment. Provide the Architect with the proposed scope of training and instruction schedule for review and approval at least thirty (30) days prior to the scheduled completion of the project. A mutually agreeable date for training must be arranged with the Owner and Architect, but the training must be completed before final acceptance of the facility.

2.02 FINAL CLEANING

- A. GENERAL – The Roofing Contractor shall coordinate with all Subcontractors the responsibility of final cleaning included under this Section.
- B. REMOVAL OF PROTECTION – Remove all temporary protection devices and facilities that were installed during the course of the work to protect previously completed work during the remainder of the construction period.
- C. COMPLIANCES – Comply with all safety standards and governing regulations for cleaning operations. Do not burn any waste materials at the jobsite or bury any debris and / or excess materials on the Owner's property. Any discharge of volatile and other harmful and dangerous materials into the drainage systems shall be expressly prohibited. Remove such waste materials from the site and dispose of them in a lawful manner at no expense to the Owner.
- D. Where extra materials of value remaining after completion of the associated work have become the Owner's property, dispose of these to the Owner's best advantage as directed by the Architect.
- E. PROCEDURES:
 1. Solid debris, such as pallets, brick, mortar and plaster droppings, and excess concrete shall not be dumped on the grounds about the site.
 2. All scrap from roofing material, insulation sheet metal, lumber, crating, packing materials, paper and similar types of trash shall be removed from the site. Trash shall not be allowed to accumulate for periods longer than one (1) week. There must be a thorough cleanup of the site every week.

*** END OF SECTION ***

PART 1 - GENERAL**1.01 REFERENCED DOCUMENTS**

- A. Applicable provisions of the General Conditions, Supplemental Conditions and Special Conditions govern work under this Section.

1.02 DESCRIPTION

- A. The types of carpentry work specified in this section include, but are not limited to, the following:
 - 1. Wood framing.
 - 2. Wood furring.
 - 3. Wood grounds, nailers, blocking and sleepers.
 - 4. Miscellaneous wood framing.
 - 5. Sheathing and substrates for applied finishes.

1.03 SUBMITTALS

- A. Material Certificates: Where dimensional lumber is provided to comply with minimum allowable unit stresses, submit listing of species and grades selected for each use. Submit evidence of compliance with specified requirements. Compliance may be in the form of a signed copy of applicable portion of lumber producer's grading rules showing design values for selected species and grade. Design values shall be as approved by the Board of Review of American Lumber Standards Committee.
- B. Certification:
 - 1. Preservative Treatment: For each type specified, include certification by treating plant stating type of preservative solution and pressure process used, net amount of preservative retained and conformance with applicable standards.
 - 2. For water-borne treatment include statement that moisture content of treated materials was reduced to levels indicated prior to shipment to project site.
 - 3. Fire-Retardant Treatment: Submit certification by treating plant that fire-retardant treatment materials comply with governing ordinances and that treatment will not bleed through finished surfaces.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Store materials a minimum of 6" above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation.
- B. Do not store seasoned materials in wet or damp portions of building.
- C. Protect fire-retardant materials against high humidity and moisture during storage and erection.
- D. Protect sheet materials from corners breaking and damaging surfaces while unloading.

1.05 JOB CONDITIONS

- A. Coordinate location of furring, nailers, blocking, grounds and similar supports so that attached work will comply with design requirements as detailed in the Contract Documents and specified in various sections of the specifications.

PART 2 - PRODUCTS2.01 MATERIALS

A. Lumber, General:

1. Grade Stamps: Factory-mark each piece of lumber with grade stamp of inspection agency evidencing compliance with grading rule requirements and identifying grading agency, grade, species, and moisture content at time of surfacing and milling.
 - a. For exposed lumber apply grade stamps to ends or back of each piece or omit grade stamps entirely and issue certificate of grade compliance from inspection agency in lieu of grade stamp.
2. Nominal sizes are indicated, except as shown by detail dimensions. Provide actual sizes as required by PS 20, for moisture content specified for each use.
3. Provide dressed lumber, S4S, unless otherwise indicated.
4. Provide kiln-dried lumber with 15% maximum moisture content at time of dressing.

B. Light Framing Lumber 2" x 2" through 4" x 6" wide

1. Stud Framing: 2" x 2" through 4" x 6"
 - a. Lengths of 10' and shorter, stud grade
 - b. Lengths greater than 10', construction grade
2. Other light framing (less than 6" wide):
 - a. Construction grade, any species
3. Species
 - a. Douglas Fir or Douglas Fir-Larch graded, respectively, under WCLIB or WWPA rules
 - b. Hem-Fir graded under WWPA rules
 - c. Spruce-Pine-Fir graded under NLGA rules

C. Structural Light Framing (2" to 4" wide, 2" to 4" thick):

1. Provide the following grade:
 - a. No. 2
2. Species:

- a. Douglas Fir or Douglas Fir-Larch graded, respectively, under WCLIB or WWPA rules
 - b. Hem-Fir graded under WWPA rules
 - c. Southern Pine graded under SPIB rules
 - d. Spruce-Pine-Fir graded under NLGA rules
- D. Structural Framing (2" to 4" thick, 5" and wider through 4" x 16"):
1. Provide the following grade:
 - a. No. 1
 2. Species
 - a. Douglas Fir or Douglas Fir-Larch graded, respectively, under WCLIB or WWPA rules
 - b. Hem-Fir graded under WWPA rules
 - c. Southern Pine graded under SPIB rules
 - d. Spruce-Pine-Fir graded under NLGA rules
- E. For exposed framing lumber, provide material complying with the following requirements:
1. Definition: Exposed framing refers to dimensioned and non-dimensioned lumber that is not concealed by other work and is indicated to receive a stained or natural finish.
 2. Grading: Hand select material at factory from lumber of species and grade indicated below for compliance with "Appearance" grade requirements of ALSC National Grading Rule; issue inspection certificate of inspection agency for selected material.
 - a. Douglas Fir, Select Structural Grade per WWPA rules
 - b. Hem-Fir, Select Structural Grade per WWPA rules
 - c. Southern Pine, Select Structural Grade per SPIB rules
 - d. Spruce Pine-Fir, Select Structural Grade per NLGA rules
 - e. Inland Red Cedar, No. 1 Grade
- F. Boards less than 2" thick:
1. Exposed Boards: Where boards will be exposed in the finished work, provide the following:
 - a. Moisture Content: 15% maximum, "MC-15"
 - b. Where transparent or natural finish or no finish is indicated, provide No. 1 Grade or clear as indicated.
 - c. Where painted finish is indicated, provide Common Boards and better per WWPA rules.
 2. Concealed Boards: Where boards will be concealed by other work, provide lumber of 19% maximum moisture content (S-DRY) and of following species and grade:
 - a. Any species graded Standard or No. 3 Common Boards (WCLIB or WWPA).
- G. Miscellaneous Lumber:

1. Provide wood for support or attachment of other work including cant strips, bucks, nails, blocking, furring, grounds, stripping and similar members. Provide lumber of sizes indicated, worked into shapes shown and as follows:
 - a. Moisture Content: 15% maximum for lumber items not specified to receive wood preservative treatment.
 - b. Grade: Standard Grade light framing size lumber of any species or board size lumber as required. No. 3 Common or Standard grade boards per WCLIB or WWPA rules or No. 3 boards per SPIB rules.

H. Plywood:

1. Trademark: Identify each plywood panel with appropriate APA trademark.
2. Roof Sheathing (APA Rated Sheathing):
 - a. Exposure Durability Classification: Exterior.
 - b. Span Rating: As required to suit rafter spacing indicated.
 - c. Thickness: As indicated.
 - d. Edge: Tongue and groove.
3. Plywood Backing Panels: For mounting electrical or telephone equipment, provide fire-retardant treated plywood panels with grade designation, APA C-D PLUGGED INT with exterior glue, in thickness indicated or, if not otherwise indicated, not less than $\frac{3}{4}$ ".

I. Concrete Backer Board:

1. $\frac{1}{2}$ " thick prefabricated panel consisting of an expanded shale, lightweight concrete core with both faces surfaced with high density Portland cement over glass fiber reinforcement.
2. Fiber Glass Tape: Coated glass fiber tape, two inches wide as recommended by the manufacturer of the concrete backer board.

J. Building Paper:

1. Asphalt-saturated organic felt: ASTM D226, Type I, non-perforated, 15 lb. type.

K. Miscellaneous Materials:

1. Fasteners and Anchorages: Provide size, type, material and finish as indicated and as recommended by applicable standards, complying with applicable Federal Specifications for nails, staples, screws, bolts, nuts, washers and anchoring devices. Provide metal hangers and framing anchors of the size and type recommended by the manufacturer for each use including recommended nails.
 - a. Where rough carpentry work is exposed to weather, in ground contact or in areas of high relative humidity, provide fasteners and anchorages with a hot dip zinc coating (ASTM A 153).

2.02 FABRICATION

A. Fire-Retardant Treated Products:

1. Where fire-retardant lumber or plywood is specified or otherwise indicated, provide materials which comply with AWP standards for pressure impregnation with fire-retardant chemical, having a flame spread rating of not more than 25 when tested in accordance with UL Test 723 or ASTM E 84, showing no increase in flame spread and significant progressive combustion upon continuation of test for additional 20 minutes.
2. Where treated items are exposed to exterior or to high humidity, or are to have a transparent finish in the form of stain or sealer, provide materials which show no change in fire-hazard classification when subjected to standard rain test (UL 790 or ASTM B 2898).
3. Use fire-retardant treatment that will not bleed through or adversely affect type of finish indicated and which does not require brush treatment of field-made end cuts to maintain fire-hazard classification.
4. Where transparent finish is indicated, use type of treatment and species which permits milling of lumber after treatment without altering indicated fire-hazard classification, as determined by fire testing.
5. Kiln-dry treated items to maximum moisture content of 15%.
6. Provide UL label on each piece of fire-retardant lumber or plywood.

B. Preservative Treated Wood Products:

1. Wood shall be treated to comply with applicable requirements of AWP Standards C2 (lumber) and C9 (plywood) and of AWPB Standards listed below. Mark each treated item with the AWBP Quality Mark Requirements.
2. Pressure-treat above-ground items with water-borne preservatives complying with AWBP LP-2. After treatment, kiln-dry lumber and plywood to a maximum moisture content of 15%. On site drying is not acceptable. Treat indicated items and the following:
 - a. Wood cants, nailers, curbs, blocking, stripping and similar members in connection with roofing, flashing, vapor retarders and waterproofing.
 - b. Wood sills, sleepers, blocking, furring, stripping and similar concealed members in contact with masonry or concrete.
 - c. Wood framing members less than 18" above grade.
 - d. Wood decks and handrails, as indicated.
 - e. Ornamentation, light standards and fencing, as indicated.
 - f. Other locations, as indicated.
3. Pressure-treat the following with water-borne preservatives for ground contact use complying with AWPB LP-22:
 - a. Wood members in contact with ground.
 - b. Wood members in contact with fresh water.
4. Complete fabrication of treated items prior to treatment, when possible. If cut after treatment, coat cut surfaces with heavy brush coat of same chemical used for treatment and to comply with AWP M4.
5. For all treated wood items use galvanized or stainless-steel fasteners. Galvanized fasteners

should be hot dipped.

PART 3 - EXECUTION

3.01 GENERAL

- A. Discard units of material which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned or too small to fabricate work with a minimum number of joints or optimum jointing arrangement.
- B. Fit carpentry work to all other work. Scribe and cope for accurate fit. Set accurately to required lines, with members plumb and true, unless otherwise indicated.
- C. Shim with metal, nylon or slate for bearing on concrete and masonry substrates. Where indicated, grout with 1:3 Portland cement-sand grout for full-bearing.
- D. Securely attach carpentry work to substrates by anchoring and fastening as shown and as required by recognized standards.
 - 1. Provide washers under bolt heads and nuts in contact with wood.
 - 2. Nail plywood in accordance with recommendations of the American Plywood Association.
- E. Fasteners: Use common wire nails, except as otherwise shown or specified herein. Do not wax or lubricate fasteners that depend on friction for holding power. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting of wood; pre-drill as required. Do not drive threaded friction type fasteners; turn into place. Tighten bolts and lag screws at installation and retighten as required for tight connections prior to closing in, or at completion of, work. Nailing and spiking shall be done in a thorough manner with nails of ample size, using spikes larger than 20d where practicable.

3.02 WOOD FRAMING, GENERAL

- A. Provide framing members of sizes and on spacings shown and frame openings as shown, or if not shown, comply with recommendations of "Manual for House Framing" of National Forest Products Association. Do not splice structural members between supports.
- B. Anchor and nail as shown, and to comply with "Recommended Nailing Schedule" of "Manual for House Framing" and "National Design Specifications for Wood Construction" published by N.F.P.A.
- C. Fire-stop concealed spaces of wood framed walls and partitions at each floor level and at the ceiling line of the top story. Where firestops are not automatically provided by the framing system used, use closely-fitted wood blocks of nominal 2" thick lumber of the same width as framing members.
- D. Installation of Plywood:
 - 1. General: Comply with applicable recommendations contained in Form No. E 304, "APA Design / Construction Guide - Residential & Commercial," for types of plywood products and applications indicated.

2. Fasten panels as indicated below:
 - a. Sub-flooring: Glue and nail to framing.
 - b. Sheathing: Nail or staple to framing.

3.03 WOOD GROUNDS, NAILERS, BLOCKING AND SLEEPERS

- A. Coordinate location with other work; refer to shop drawings of such work.
- B. Attach to substrates securely with anchor bolts or other attachment devices as shown and as required to support applied loading. Countersink bolts and nuts flush with surfaces. Build into masonry as work progresses, cutting to fit masonry unit size involved. Anchor to formwork before concrete placement.
- C. Provide grounds of dressed, key-beveled lumber not less than 1½" wide and of thickness required to bring face of ground to exact thickness of finish material involved. Remove temporary grounds where no longer required. Where indicated as permanent grounds, provide treated lumber.
- D. The Contractor shall accomplish blocking, as required, to hold the work in proper position, including wood nailers and blocking in connection with the roof construction. Blocking shall be concealed when the finished work is in place. Blocking for supporting members for hanging plumbing fixtures and "in-wall" blocking for securing toilet accessories shall be provided.

3.04 TEMPORARY BRACING AND CENTERING

- A. The Contractor shall furnish and set temporary bracing, closures, guardrails and centering as is required to complete the work of all trades. Temporary protection devices for workmen shall be in complete compliance with OSHA regulations. Centering shall be maintained until the masonry is thoroughly set, then shall be removed by the Contractor.

3.05 NAILING AND BOLTING

- A. Bolts shall be used at locations shown in the Contract Documents or as specified. Where bolts are used, holes shall be bored only slightly larger than the size of the bolts. Where non-coated metal bolts are exposed, the threads shall be trimmed off after the nuts are firmly tightened.
- B. Galvanized bolts shall be of the proper lengths so that they will not need to be cut off for appearance where exposed. Galvanized bolts shall be used at any location subject to weathering, unless noted otherwise and when used in conjunction with preservative treated wood.
- C. Nails and screws used in conjunction with preservative treated wood shall be hot dipped galvanized and sized to provide maximum holding strength.

3.06 ROUGH HARDWARE

- A. Provide and install rough hardware and metal fasteners as shown on drawings, as specified herein or required for proper installation of carpentry and architectural woodwork. Nails, spikes, screws, bolts and other fastenings shall be of sizes and types required to rigidly secure members in place.

3.07 CONCRETE BACKER BOARD

- A. Provide board in maximum available lengths.
- B. Secure backer board with screws spaced not more than 12" on center each way and not closer than ½" from the edge. Pre-drill board and install screws with a conventional screw gun so that heads are flush with the surface of the board.
- C. Joint Treatment:
 - 1. Fill space between edge of board and receptor with latex-Portland cement mortar.
 - 2. Fill horizontal and vertical joints and corners with latex-Portland cement mortar.
 - 3. Center and embed fiberglass tape in a skim coat of the same mortar at all joints and corners.

*** END OF SECTION ***

PART 1 - GENERAL**1.01 DESCRIPTION OF WORK**

- A. Tear-off and removal of existing roof
- B. Protection, manipulation, and reinstallation of existing roof top equipment
- C. Preparation of existing Substrate to Receive Roofing Materials
- D. Base Sheet Application to Prepared Substrate
- E. Installation of new rigid insulation
- F. Roof Membrane Application
- G. Installation of walktreads
- H. Roof Flashing Application
- I. Incorporation of Sheet Metal Flashing Components and Roofing Accessories into the Roof System
- J. Provision of written Manufacturer's and Contractor's warranties

1.02 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Sheet Metal Flashing and Trim
- B. Sheet Metal Roofing Specialties

1.03 RELATED SECTIONS

- A. Section 06101 - Rough Carpentry
- B. Section 07220 – Lightweight Insulating Concrete Roof Insulation (Not used)
- C. Section 07600 - Sheet Metal Work

1.04 REFERENCE STANDARDS

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 this specification section.

ASTM American Society for Testing and Materials

2. Letter from the primary roofing manufacturer stating that the proposed application will comply with the manufacturer's requirements in order to qualify the project for the specified guarantee.

B. Submittals Prior to Project Close-out:

1. Certificate Of Analysis from the testing laboratory of the primary roofing materials manufacturer, confirming the physical and mechanical properties of the roofing membrane components. Testing shall be in accordance with the parameters published in ASTM D 5147 and ASTM D 7051 and indicate Quality Assurance/Quality Control data as required to meet the specified properties. A separate Certificate Of Analysis for each production run of material shall indicate the following information:
 - a) Material type
 - b) Lot number
 - c) Production date
 - d) Dimensions and Mass (indicate the lowest values recorded during the production run);
 - Roll length
 - Roll width
 - Selvage width
 - Total thickness
 - Thickness at selvage (coating thickness)
 - Weight
 - e) Physical and Mechanical Properties;
 - Low temperature flexibility
 - Peak load
 - Ultimate Elongation
 - Dimensional stability
 - Compound Stability
 - Granule embedment
 - Resistance to thermal shock (foil faced products)
2. Manufacturer's printed recommendations for proper maintenance of the specified roof system including inspection frequencies, penetration addition policies, temporary repairs, and leak call procedures.

1.07 QUALITY ASSURANCE

- A. Acceptable Products: Primary roofing products, including each type of sheet, all manufactured in the United States, shall be supplied by a single manufacturer which has been successfully producing the specified types of primary products for not less than 10 years. The primary roofing products shall have maintained a consistent composition for a minimum of five years.
- B. Product Quality Assurance Program: Primary roofing materials shall be manufactured under a quality management system that is monitored regularly by a third party auditor under the

ISO 9001 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.

- C. Agency Approvals: The proposed roof 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 (including mopping asphalt or cold adhesive) without additional requirements for gravel or coatings.
 2. Factory Mutual Approval Standard 4470 listing for the proposed membrane system. The roof membrane configuration shall be approved by FM for Class 1-SH (severe hail) exposure. The roof configuration (including fastening of base sheet or insulation) shall be approved by FM for minimum 1-195 windstorm construction (RoofNav Assembly No. 73612-73634-73618).
- D. Acceptable Contractor: Contractor shall have a minimum of 2 years experience in successfully installing the same or similar roofing materials and be certified in writing by the roofing materials manufacturer to install the primary roofing products.
- E. Scope of Work: The work to be performed under this specification shall include but is not limited to the following: Attend necessary job meetings and furnish competent and full time supervision, experienced roof mechanics, all materials, tools, and equipment necessary to complete, in an acceptable manner, the roof installation in accordance with this specification. Comply with the latest written application instructions of the manufacturer of the primary roofing products. In addition, application practice shall comply with requirements and recommendations contained in the latest edition of the Handbook of Accepted Roofing Knowledge (HARK) as published by the National Roofing Contractor's Association, amended to include the acceptance of a phased roof system installation.
- F. Local Regulations: Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.
- G. Manufacturer Requirements: Ensure that the primary roofing materials manufacturer provides direct trained company personnel to attend necessary job meetings, perform periodic inspections as necessary, and conducts a final inspection upon successful completion of the project.

1.08 PRODUCT DELIVERY STORAGE AND HANDLING

- A. Delivery: Deliver materials in the manufacturer's original sealed and labeled containers and in quantities required to allow continuity of application.
- B. Storage: Store materials out of direct exposure to the elements on pallets placed over clean, flat and dry surfaces. Storage of pallets over dirt, grass-covered ground or newly placed concrete may result in upward moisture transpiration and contamination of product. Store rolls of roofing on end. For roof-top storage, avoid overloading of deck and building structure. Factory packaging is not intended for job site protection. Slit factory packaging

immediately upon arrival at the job site to prevent build-up of condensation and cover materials using a breathable cover such as a canvas. Polyethylene or other non-breathable plastic coverings shall not be used. Store flammable or temperature sensitive materials away from open flame, ignition sources or excessive heat.

- C. Handling: Handle all materials in such a manner as to preclude damage and contamination with moisture or foreign matter. Handle rolled goods to prevent damage to edges or ends.
- D. Damaged Material: Any materials that are found to be damaged or stored in any manner other than stated above will be automatically rejected, removed and replaced at the Contractor's expense.

1.09 PROJECT/SITE 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, NRCA and other industry or local governmental groups.

B. Environmental Requirements

- 1. Precipitation: Do not apply roofing materials during precipitation or in the event there is a probability of precipitation during application. Take adequate precautions to ensure that materials, applied roofing, and building interiors are protected from possible moisture damage or contamination.

C. Protection Requirements

- 1. Membrane Protection: Provide protection against staining and mechanical damage for newly applied roofing and adjacent surfaces throughout this project.
- 2. Torch Safety: Crew members handling torches shall be trained by an Authorized Certified Roofing Torch Applicator (CERTA) Trainer, be certified according to CERTA torch safety guidelines as published by the National Roofing Contractor's Association (NRCA), and follow torch safety practices as required by the contractor's insurance carrier. Designate one person on each crew to perform a daily fire watch. The designated crew member shall watch for fires or smoldering materials on all areas during roof construction activity, and for the minimum period required by CERTA guidelines after roofing material application has been suspended for the day.

3. Limited Access: Prevent access by the public to materials, tools and equipment during the course of the project.
4. Debris Removal: Remove all debris daily from the project site and take to a legal dumping area authorized to receive such materials.
5. Site Condition: Complete, to the owner's satisfaction, all job site clean-up including building interior, exterior and landscaping where affected by the construction.

1.10 GUARANTEE/WARRANTY

A. Roof System Guarantee: Upon successful completion of the project, and after all post installation procedures have been completed, furnish the Owner with the roof system manufacturer's 20 year labor and materials roof system guarantee. The roof system guarantee shall include both the roofing and flashing membranes, patented-pre-formed polystyrene panels, and base sheet fasteners. All repair or replacement costs covered under the guarantee shall be borne by the roofing membrane manufacturer. The guarantee shall be a term type, without deductibles or limitations on coverage amount, and be issued at no additional cost to the Owner. Specific items covered under the roof system guarantee include:

1. The actual resistance to heat flow through the roof insulation will be at least 80% of the design thermal resistance, provided that the roofing membrane is free of leaks;
2. Should a roof leak occur, the insulating performance of the roof insulation will be at least 80% of the design thermal resistance within a 2 year period following repair of the leak.
3. The roof insulation will remain in a reroofable condition should the roof membrane require replacement (excluding damage caused by fastener pullout during removal of the old membrane.)
4. The roof insulation material will not cause structural damage to the building as a result of expansion from thermal or chemical action.
 - a. Siplast 20 Year Roof System Guarantee
 - b. Contractor's Water-tightness warranty for same period.

PART 2 - PRODUCTS

2.01 ROOFING SYSTEM ASSEMBLY/PRODUCTS

2.01 ROOFING SYSTEM ASSEMBLY/PRODUCTS

A. Base Sheet

1. Base Sheet: A fiberglass reinforced, asphalt coated sheet with a polyolefin film backing, having a minimum weight of 20 lb/sq. The sheet shall conform to ASTM D 4601, Type II requirements:

Parabase FS by Siplast; Irving, TX

- B. Rigid Roof Insulation: Roof insulation shall be UL and FM approved. Insulation shall be approved in writing by the insulation manufacturer for intended use and for use with the specified roof assembly. Maintain a maximum panel size of 4 feet by 4 feet where polyisocyanurate / fiberboard insulation is specified to be installed in hot asphalt or insulation adhesive.

1. Polyisocyanurate: A closed cell, rigid polyisocyanurate foam core material, integrally laminated between polymer bonded glass fiber facers, in full compliance with ASTM C 1289, Type II, Class 2, Grade 2 (20 psi). Panels shall have a nominal thickness of 1 1/2 inches. Acceptable types are as follows:

Paratherm by Siplast; Irving, TX

2. Polyisocyanurate Tapered Roof Insulation (at roof drains and similar conditions): Tapered panels and standard fill panels composed of a closed cell, rigid polyisocyanurate foam core material, integrally laminated between polymer bonded glass fiber facers, in full compliance with ASTM C 1289, Type II, Class 2, Grade 2 (20 psi). The tapered system shall provide for a roof slope of 1 inch per foot. Acceptable types are as follows:

Tapered Paratherm by Siplast; Irving, TX

3. Fiberboard: A high density panel composed of interlocking wood fibers and waterproofing binders, having a top surface that is pre-treated with a paraffin-based coating. Fiberboard panels shall be in full compliance with ASTM C 208, Type II, Grade 2, and ASTM C 209 (water absorption - 10% volume maximum) requirements. Panels shall have a nominal thickness of 1/2 inch. Acceptable types are as follows:

Knight-Celotex Structodek by Blue Ridge Fiberboard, Inc.; Danville, VA

G-P Roof Fiberboard by Georgia Pacific Corp.; Atlanta, GA

FiberBase HD by Temple-Inland.; Austin, TX

4. Perlite Tapered Edge Panels: A tapered panel composed of expanded volcanic minerals combined with waterproofing binders. The top surface shall be pre-treated with an asphalt based coating. The panels shall have a dimension sufficient to provide for a smooth transition and provide proper support for the membrane layer or subsequent layer of insulation when there are transitions of 1/4 inch or greater.

2.02 DESCRIPTION OF SYSTEMS

- A. Roofing Membrane Assembly: A roof membrane assembly consisting of two plies of a prefabricated, reinforced, homogeneous Styrene-Butadiene-Styrene (SBS) block copolymer modified asphalt membrane, applied over a prepared substrate. Reinforcement mats shall be impregnated/saturated and coated each side with SBS modified bitumen blend. The modified bitumen base ply shall be coated with factory applied asphalt-adhesive strips staggered diagonally on the back surface of the sheet to provide a bonded area of 50% of the total surface area. The modified bitumen finish ply shall be coated on one side with a high quality torch grade SBS bitumen blend. The asphalt-adhesive strips of the base ply and the adhesive layer of the finish ply shall be manufactured using a process that embosses the surface with a grooved pattern to provide optimum burn-off of the plastic film and to maximize application rates. The cross sectional area of the sheet material shall contain no oxidized or non-SBS modified bitumen. The roof system shall pass 500 cycles of ASTM D 5849 Resistance to Cyclic Joint Displacement (fatigue) at 14°F (-10°C). Passing results shall show no signs of membrane cracking or interply delamination after 500 cycles. The roof system shall pass 200 cycles of ASTM D 5849 after heat conditioning performed in accordance with ASTM D 5147. The assembly shall possess waterproofing capability, such that a phased roof application, with only the modified bitumen base ply in place, can be achieved for prolonged periods of time without detriment to the watertight integrity of the entire roof system. Basis of system design is:

Siplast Paradiene 20 HT TS/30 FR TG torchable roof system.

1. Modified Bitumen Base Ply

- a) Thickness (avg): 91 mils (2.3 mm) (ASTM D 5147)
- b) Thickness (min): 87 mils (2.2 mm) (ASTM D 5147)
- c) Weight (min per 100 ft² of coverage): 76 lb (3.7 kg/m²)
- d) Maximum filler content in elastomeric blend - 35% by weight
- e) Low temperature flexibility @ -15°F (-26°C): PASS (ASTM D 5147)
- f) Peak Load (avg) @ 73°F (23°C): 80 lbf/inch (5.3 kN/m) (ASTM D 5147)
- g) Peak Load (avg) @ 0°F (-18°C): 150 lbf/inch (12.3 kN/m) (ASTM D 5147)
- h) Ultimate Elongation (avg.) @ 73°F (23°C): 50% (ASTM D 5147)
- i) Dimensional Stability (max): 0.1% (ASTM D 5147)
- j) Compound Stability (min): 250°F (121°C)
- k) Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
- l) Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria

> Siplast Paradiene 20 HT TS

2. Modified Bitumen Stripping Ply

- a) Thickness (avg): 114 mils (2.9 mm) (ASTM D 5147)
- b) Thickness (min): 110 mils (2.8 mm) (ASTM D 5147)
- c) Weight (min per 100 ft² of coverage): 76 lb (3.7 kg/m²)
- d) Maximum filler content in elastomeric blend: 35% by weight
- e) Low temperature flexibility @ -15°F (-26°C): PASS (ASTM D 5147)

- f) Peak Load (avg) @ 73°F (23°C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
- g) Peak Load (avg) @ 0°F (-18°C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
- h) Ultimate Elongation (avg.) @ 73°F (23°C): 50% (ASTM D 5147)
- i) Dimensional Stability (max): 0.1% (ASTM D 5147)
- j) Compound Stability (min): 250°F (121°C) (ASTM D 5147)
- k) Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
- l) Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria

> Siplast Paradiene 20 - torchable grade

3. Modified Bitumen Finish Ply

- a) Thickness (avg): 138 mils (3.5 mm) (ASTM D 5147)
- b) Thickness at selvage (coating thickness) (avg): 118 mils (3.0 mm) (ASTM D 5147)
- c) Thickness at selvage (coating thickness) (min): 114 mils (2.9 mm) (ASTM D 5147)
- d) Weight (min per 100 ft² of coverage): 112 lb (5.4 kg/m²)
- e) Maximum filler content in elastomeric blend: 35% by weight
- f) Low temperature flexibility @ -15°F (-26°C): PASS (ASTM D 5147)
- g) Peak Load (avg) @ 73F (23C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
- h) Peak Load (avg) @ 0F (-18C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
- i) Ultimate Elongation (avg.) @ 73F (23C): 55% (ASTM D 5147)
- j) Dimensional Stability (max): 0.1% (ASTM D 5147)
- k) Compound Stability (min): 250F (121 C) (ASTM D 5147)
- l) Solar Reflectance: = 0.70% (ASTM D 1549)
- m) Thermal Emittance: = 0.80% (ASTM D 1371)
- n) Approvals: UL Class listed (product shall bear seals of approval)
- o) Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria
- p) Surfacing: No. 11 White ceramic granules

> Siplast Paradiene 30 FR - torchable grade

B. Flashing Membrane Assembly: A flashing membrane assembly consisting of a prefabricated, reinforced, Styrene-Butadiene-Styrene (SBS) block copolymer modified asphalt membrane with a continuous, channel-embossed metal-foil surfacing. The finish ply shall conform to ASTM D 6298 and the following physical and mechanical property requirements.

> Siplast Veral flashing system, aluminum finish

1. Cant Backing Sheet and Flashing Reinforcing Ply

- a) Thickness (avg): 102 mils (2.6 mm) (ASTM D 5147)
- b) Thickness (min): 98 mils (2.5 mm) (ASTM D 5147)
- c) Weight (min per 100 ft² of coverage): 72 lb (3.5 kg/m²)
- d) Maximum filler content in elastomeric blend: 35% by weight

- e) Low temperature flexibility @ -15° F (-26° C) - PASS (ASTM D 5147)
 - f) Peak Load (avg) @ 73°F (23°C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
 - g) Peak Load (avg) @ 0°F (-18°C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
 - h) Ultimate Elongation (avg.) @ 73°F (23°C): 50% (ASTM D 5147)
 - i) Dimensional Stability (max): 0.1% (ASTM D 5147)
 - j) Compound Stability (min - sheet): 250°F (121°C) (ASTM D 5147)
 - k) Compound Stability (min – adhesive coating): 212°F (100°C) (ASTM D 5147)
 - l) Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
 - m) Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria
 - n) Back Surfacing: polyolefin film
- > Siplast Paradiene 20 SA

2. Metal-Clad Modified Bitumen Flashing Sheet

- a) Thickness (avg): 142 mils (3.6 mm) (ASTM D 5147)
 - b) Thickness (min): 138 mils (3.5 mm) (ASTM D 5147)
 - c) Weight (min per 100 ft² of coverage): 92 lb (4.5 kg/m²)
 - d) Coating Thickness – back surface (min): 40 mils (1 mm) (ASTM D 5147)
 - e) Low temperature flexibility @ 0° F (-18° C): PASS (ASTM D 5147)
 - f) Peak Load (avg) @ 73°F (23°C): 85 lbf/inch (15 kN/m) (ASTM D 5147)
 - g) Peak Load (avg) @ 0°F (-18°C): 180 lbf/inch (31.7 kN/m) (ASTM D 5147)
 - h) Ultimate Elongation (avg) @ 73°F (23°C): 45% (ASTM D 5147)
 - i) Tear-Strength (avg): 120 lbf (0.54 kN) (ASTM D 5147)
 - j) Dimensional Stability (max): 0.2% (ASTM D 5147)
 - k) Compound Stability (min): 225°F (107°C) (ASTM D 5147)
 - l) Cyclic Thermal Shock Stability (maximum): 0.2% (ASTM D 7051)
 - m) Approvals: UL Approved, FM Approved (products shall bear seals of approval)
 - n) Reinforcement: fiberglass scrim mat or other meeting the performance and dimensional stability criteria
 - o) Surfacing: aluminum metal foil
- > Siplast Veral Aluminum
- C. Catalyzed Acrylic Resin Flashing System: A specialty flashing system consisting of a liquid-applied, fully reinforced, multi-component acrylic membrane installed over a prepared or primed substrate. The flashing system consists of a catalyzed acrylic resin primer, basecoat and topcoat, combined with a non-woven polyester fleece. The resin and catalyst are pre-mixed immediately prior to installation. The use of the specialty flashing system shall be specifically approved in advance by the membrane manufacturer for each application.
- > Parapro 123 Flashing System by Siplast; Irving, TX

2.03 ROOFING ACCESSORIES

A. Bituminous Cutback Materials

1. Primer: An asphalt, solvent blend conforming to ASTM D 41 requirements.
 - > Siplast PA-1125 Asphalt Primer by Siplast; Irving, TX
 2. Primer for Self-Adhesive Sheets: A quick drying, low-VOC, water-based, high-tack primer specifically designed to promote adhesion of roofing and waterproofing sheets to approved substrates. Primer shall meet South Coast Air Quality District and Ozone Transport Commission requirements.
 - > Siplast TA-119 Primer by Siplast; Irving, TX
 3. Mastics: An asphalt cutback mastic, reinforced with non-asbestos fibers, used as a base for setting metal flanges conforming to ASTM D 4586 Type II requirements.
 - > Siplast PA-1021 Plastic Cement by Siplast; Irving, TX
- B. 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. Acceptable types are as follows:
- > Siplast PS-304 Elastomeric Sealant by Siplast; Irving, TX
- C. No. 11 Ceramic granules White #93
- D. Perlite Cant Strips: A cant strip composed of expanded volcanic minerals combined with waterproofing binders. The top surface shall be pre-treated with an asphalt based coating. The face of the cant shall have a nominal 4 inch dimension.
- E. Fasteners
1. Flashing Reinforcing Sheet Fasteners for Wood/Plywood Substrates to Receive Flashing Coverage: Fasteners shall be approved by the manufacturer of the primary roofing products. Acceptable fasteners for specific substrate types are listed below.
 - a) Wood/Plywood Substrates
 - A 12 gauge, spiral or annular threaded shank, zinc coated steel roofing fastener having a minimum 1 inch head.
 - > Square Cap by W.H. Maze Co.; Peru, IL
 - > 12 Gauge Simplex Nail by the Simplex Nail and Manufacturing Co., Americus, GA

a layout for walktreads that includes locations at rooftop equipment and walk paths between equipment. Submit to Architect for approval.)

1. Thickness: 0.217 in (5.5 mm)
2. Weight: 1.8 lb/ft² (8.8 kg/m²)
3. Width: 30 in (76.2 cm)

> Paratread Roof Protection Material by Siplast; Irving, TX

PART 3 - EXECUTION

3.01 PREPARATION

- A. Roofing Contractor shall remove complete all existing roofing and rigid insulation to the point of the existing substrate. Sweep or vacuum all surfaces, removing all loose aggregate and foreign substances prior to commencement of roofing. Roofing tear off and replacement activities shall be planned by the contractor to allow for permanent or temporary re-roofing of the area each day. The entire roof surface shall be watertight at the end of each work day. Roofing Contractor shall be responsible for the repair of all damage caused by water penetration through roof area during the re-roofing project.
- B. Provide temporary supports for all existing rooftop equipment during the re-roofing process, Properly support all ductwork. Reuse duct support units. Provide new support blocking for gas piping where existing support has been removed. Properly support all condensate drains to maintain flow. Protect all electrical devices, conduit, and connections.

3.02 SUBSTRATE PREPARATION

- A. It is believed that existing substrate is lightweight insulating concrete. Roofing contractor shall verify composition of substrate during initial tear off process. Where the substrate is found to be saturated or damaged, Roofing Contractor shall notify Architect and determine the amount of substrate to be replaced. Basis of design for replacement substrate will be: Insulcel RT Lightweight Insulating Concrete Roof Insulation.

3.03 ROOF MEMBRANE INSTALLATION

- A. Base Sheet Securement to Prepared Substrate: Lay the base sheet over entire area to be roofed, lapping sides 3 inches and ends 6 inches. Using the specified fasteners, fasten each sheet every 7 1/2 inches through laps and stagger fasten the remainder of the sheet in 2 rows on nominal 12 inch centers with fasteners in each row on 10 inch centers. Increase the fastening pattern by 70% at the perimeter of the roof and 160% at the corners.
- B. Insulation: Install insulation panels with end joints offset; edges of the panels shall be in moderate contact without forcing applied in strict accordance with the insulation manufacturer's requirements and the following instructions. Where insulation is installed in two or more layers, stagger joints between layers. Maintain a maximum panel size of 4 feet by 4 feet for *polyisocyanurate* / *fiberboard* insulation applied in hot asphalt or insulation

adhesive. Install only as much insulation as can be made watertight within the same work day.

- C. Membrane Application: Apply roofing in accordance with roofing system manufacturer's instructions and the following requirements. Application of roofing membrane components shall immediately follow application of base sheet and/or insulation as a continuous operation.
- D. Aesthetic Considerations: Construction of an aesthetically pleasing overall appearance of the finished roof application is a standard requirement for this project. Make necessary preparations, utilize recommended application techniques, apply the specified materials including synthetic chips, and exercise care in ensuring that the finished application is acceptable to the Owner.
- E. Priming: Prime metal and concrete and masonry surfaces with a uniform coating of the specified asphalt primer.
- F. Bitumen Consistency: Cutting or alterations of bitumen, primer, and sealants will not be permitted.
- G. Roofing Application: Apply all layers of roofing free of wrinkles, creases or fishmouths. Exert sufficient pressure on the roll during application to ensure prevention of air pockets.
 - 1. Apply all layers of roofing perpendicular to the slope of the deck.
 - 2. Torch apply the base ply to the primed concrete deck surface, utilizing minimum 3 inch side laps. Place a 12-inch wide strip of the specified base sheet centered beneath the area where adjoining sections of base ply will be seamed. The specified base sheet can be partially attached using lightweight insulating concrete fasteners or adhered using dollops of elastomeric sealant. Abut adjoining ends of the base ply. Do not lap. Fully torch a minimum 12 inch wide strip of stripping ply centered over the joints of the base ply. Probe "T" laps to ensure full adhesion.
 - 3. Fully bond the finish ply to the base ply, utilizing minimum 3 inch side and end laps. Apply each sheet directly behind the torch applicator. Stagger end laps of the finish ply a minimum 3 feet. Cut a dog ear angle at the end laps on overlapping selvage edges. Using a clean trowel, apply top pressure to top seal T-laps immediately following sheet application. Stagger side laps of the finish ply a minimum 12 inches from side laps in the underlying base ply. Stagger end laps of the finish ply a minimum 3 feet from end laps in the underlying base ply.
 - 4. Maximum sheet lengths and special fastening of the specified roof membrane system may be required at various slope increments where the roof deck slope exceeds 1/2 inch per foot. The manufacturer shall provide acceptable sheet lengths and the required fastening schedule for all roofing sheet applications to applicable roof slopes.

- H. Synthetic Chip Embedment: Broadcast synthetic chips over bitumen/adhesive overruns on the finish ply surface.
- I. Flashing Application: Cut the cant backing sheet into 12 inch widths and peel the release film from the back of the sheet. Set the sheet into place over the primed substrate extending 6 inches onto the field of the roof area and 6 inches up the vertical surface utilizing minimum 3 inch laps. Set the non-combustible cant into place dry prior to installation of the roof membrane base ply. Flash walls and curbs using the reinforcing sheet and the metal foil flashing membrane. After the base ply has been applied to the top of the cant, prime the base ply surfaces to receive the reinforcing sheet. Fully adhere the reinforcing sheet, utilizing minimum 3 inch side laps onto the primed base ply surface and up the primed wall or curb to the desired flashing height. After the final roofing ply has been applied to the top of the cant, prepare the surface area that is to receive flashing coverage by torch heating granular surfaces or by application of asphalt primer; allowing primer to dry thoroughly. Torch apply the metal foil-faced flashing into place using three foot widths (cut off the end of roll) always lapping the factory selvage edge. Stagger the laps of the metal foil flashing layer from lap seams in the reinforcing layer. Extend the flashing sheet a minimum of 4 inches beyond the toe of the cant onto the prepared surface of the finished roof and up the wall or curb to the desired flashing height. Exert pressure on the flashing sheet during application to ensure complete contact with the vertical/horizontal surfaces, preventing air pockets; this can be accomplished by using a damp sponge or shop rag. Check and seal all loose laps and edges. Nail the top edge of the flashing on 9 inch centers. (See manufacturer's schematic for visual interpretation).
- J. Loose Chip Removal: Broom the surface of the finish ply in both machine and cross-machine direction using a stiff nylon bristle broom. Remove excess chips from the roof area.
- K. Catalyzed Acrylic Resin Flashing System: Install the liquid-applied primer and flashing system in accordance with the membrane system manufacturer's printed installer's guidelines and other applicable written recommendations as provided by the manufacturer.
- L. Water Cut-Off: At end of day's work, or when precipitation is imminent, construct a water cut-off at all open edges. Cut-offs can be built using asphalt or plastic cement and roofing felts, constructed to withstand protracted periods of service. Cut-offs must be completely removed prior to the resumption of roofing.

3.04 ROOF SYSTEM INTERFACE WITH RELATED COMPONENTS

- A. Roof Moisture Relief Vents - vented lightweight insulating concrete substrates: The installation of the topside vents must be completed daily, immediately following the application of the Paradiene 20 TS sheet, and in accordance with the most recent version of the technical bulletin for venting Siplast roof membrane and roof insulation systems. Completely prime the metal flanges and allow to dry prior to installation. After the base ply has been applied, mark the venting designations. Cut a 2 inch diameter core from the roof membrane assembly. Set the vent flange in mastic, centered over the core cut. Strip-in the flange using the stripping-ply material, extending a minimum of 4 inches beyond the edge of

the flange. Terminate the finish ply at the flange-throat juncture of the vent. SEE ITEM: SEALANT for finish of this detail.

- B. Walktread: Cut the walktread into maximum 5 foot lengths and allow to relax until flat. Adhere the sheet using the specified plastic cement. Apply the specified cement in a 3/8 inch thickness to the back of the product in 5 inch by 5 inch spots in accordance with the pattern as supplied by the walktread manufacturer. Walk-in each sheet after application to ensure proper adhesion. Use a minimum spacing of 2 inches between sheets to allow for proper drainage.
- C. Sealant: Apply a smooth continuous bead of the specified sealant at the exposed finish ply edge transition to metal flashings incorporated into the roof system.

3.05 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. Final Inspection
 - 1. 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.

END OF SECTION

PART 1 - GENERAL1.01 REFERENCED DOCUMENTS

- A. Applicable provisions of General Conditions, Supplementary Conditions, and Special Conditions govern work under this Section.

1.02 DESCRIPTION OF WORK

- A. Metal flashing, counterflashing and thru-wall flashing.
- B. Metal edge flashing, pitch pans, gutters and downspouts.
- C. Miscellaneous sheet metal accessories.
- D. This section is written as an adjunct to Section 07550 - Roofing.

1.03 QUALITY ASSURANCE

- A. APPLICATOR - Shall be a firm specializing in roofing sheet metal work with at least 5 years experience showing successful installation of work similar to that required for this project.

1.04 SUBMITTALS

- A. Prior to start of any sheet metal work submit:
 - 1. Complete list of all materials proposed for use giving manufacturer's brand name or number designation or applicable standard.
 - 2. Samples of sheet metal work items, if requested by Architect.
 - 3. Shop drawings, showing layout, joining, profiles and anchorages for sheet metal work. Furnish layouts at 1/8 inch scale, and details at 3 inches scale or full size.

1.05 PRODUCT HANDLING

- A. Comply with material manufacturer's published recommendations as approved by Architect.

1.06 JOB CONDITIONS

- A. Coordinate work of this Section with interfacing and adjoining work for proper sequencing of each installation.

PART 2 – PRODUCTS2.01 QUALITY STANDARDS

- A. SHEET METAL - ASTM B-370, 24 gauge, zinc coated, galvanized steel, 1.25 oz. coating class or refer to Drawings for details and locations of conductor head, downspouts and flashings.
- B. SOLDER - ASTM B - 32, half and half virgin lead and tin.

- C. FASTENERS - 24 gauge galvanized steel of approved design for conditions of use.
- D. REGLETS AND COUNTERFLASHING
 - 1. Reglets and counterflashing shall be Cheney Type B snap-lock, two-piece flashing, with Type B reglet insert for masonry joint.
 - 2. Counter flashing shall be made of 26 ga galvanized steel. Provided factory corner section and accessories.
 - 3. Install according to manufacturers recommendations.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Perform work in accordance with recommended procedures of SMACNA "Architectural Sheet Metal Manual", latest edition.
- B. Avoid joints and seams as much as possible. Overlap seams in direction of flow of water. Make proper provisions for expansion in all work.
- C. At soldered seams and joints, tin metal for full area contact. Soak singlelocked seams with solder. Do soldering with well heated coppers, thoroughly heating seams and completely fill with solder.
- D. Make sheet metal work, water and weather tight, with lines, arises and angles sharp and true. Plain surfaces should be free from waves and buckle.
- E. Use bitumastic material between dissimilar metals to prevent electrolysis.
- F. Exposed edges of sheet metal work shall be provided with 1inch hemmed edges unless otherwise approved by Architect.
- G. Furnish and install 24 ga galvanized sheet metal gutters, conductor heads and downspouts where existing are damaged or where re-roofing activities damage existing. Securely anchor downspouts to adjacent surfaces. All Gutters and downspouts shall be painted to match existing

*** END OF SECTION ***