



**Roof Replacement
Juvenile Detention Center
4700 Community Ave.
McKinney, Texas 75071**

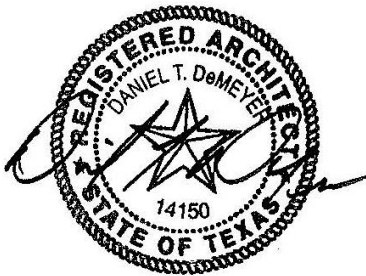
PROJECT MANUAL

For

Roof Replacement
Collin County Juvenile Detention
4700 Community Drive
McKinney, Texas 75071

Architect:

DRYTEC Moisture Protection Technology Consultants, Inc.
8750 North Central Expressway
Suite 725
Dallas, Texas 75231
(214) 363-2192



Date of Signing: 13 May 2024

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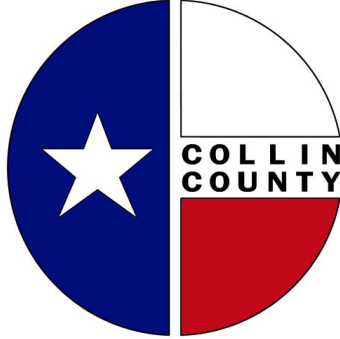
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Date of Signing: 13 May 2024



Collin County, TX

INVITATION FOR BID

2024-425

JUVENILE DETENTION ROOF REPLACEMENT

RELEASE DATE: November 26, 2024

RESPONSE DEADLINE: January 16, 2025, 2:00 pm

Please refer to the project timeline in this document for all important deadlines.

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001116 Advertisement for Bids

1 SCOPE OF WORK

SCOPE OF WORK INCLUDES all materials, labor, equipment and services to produce or be incorporated in such construction. Contract will be a general contract for the replacement of an existing modified bituminous roof at the Collin County 900 Juvenile Detention Center located at 4300 Community Ave., McKinney, Texas 75071.

Payment for the contract work shall be made pursuant to the terms of the Contract Documents.

2 PROBABLE CONSTRUCTION COST

The opinion of probable construction cost for this contract is \$350,000 to \$400,000

3 BID INFORMATION

Collin County uses OpenGov Procurement for the notification and dissemination of all solicitations for commodities and services. The receipt of solicitations through any other company may result in your receipt of incomplete specifications and/or addenda which could ultimately render your bid non-compliant. Collin County accepts no responsibility for the receipt and/or notification of solicitations through any other company.

COLLIN COUNTY APPRECIATES your time and effort in preparing a bid. Collin County prefers to receive all bids electronically through <https://procurement.opengov.com/portal/collincountytx>, however the County will accept hard copy bids. Hard copy paper bid must be in a separate sealed envelope, manually signed in ink by a person having the authority to bind the firm in a contract and marked clearly on the outside as outlined above. Please note that all bids must be received at the designated location by the deadline shown. Bids received after deadline shall be considered void and unacceptable. Collin County is not responsible for lateness of mail, carrier, etc. and time/date stamp clock in the Collin County Purchasing Department shall be the official time of receipt. All bid forms provided in this Invitation for Bid must be completed prior to submission. Failure to complete the forms shall render your bid null and void. We would appreciate you indicating on your "NO BID" response any requirements of this bid request which may have influenced your decision to "NO BID".

BIDS WILL BE publicly opened in the Office of the Purchasing Agent, 2300 Bloomdale Rd, Suite 3160, McKinney, TX 75071, at the date and time indicated above.

No oral, telegraphic, telephonic or facsimile bids will be considered. **Bids submitted via email, CD-ROM, or Flash Drive will not be accepted.** Bids may be submitted in electronic format via Collin County eBid located at <https://procurement.opengov.com/portal/collincountytx>

4 PRE-BID INFORMATION

A MANDATORY PRE-BID MEETING & SITE-WALK will be held by Collin County at Collin County Juvenile Detention Center, 4700 Community Drive, McKinney, Texas 75071, on **Tuesday, December 10, 2024 at 10:00 am and Wednesday, December 11, 2024 at 1:30 pm** in order for bidders to ask questions regarding the proposed work. **All Bidders desiring to bid the work must attend ONE of the two meetings, but do not have to attend both (same sites will be viewed at both meetings).** It is the bidder's responsibility to review the site and documents to gain a full understanding of the requirements of the bid.

5 BID SECURITY

BID SECURITY: All Bidders must submit, prior to the bid opening time, a Certified Check, Cashier's Check or acceptable Bid Bond payable without recourse to Collin County in the amount of not less than five percent (5%) of the total bid plus alternates as submitted.

- A. Bid Bond, certified check or Cashier's Check may be mailed or hand delivered to the Office of the Collin County Purchasing Agent, Collin County Administration Building, 2300 Bloomdale Road, Ste 3160, McKinney, TX 75071 and shall be delivered in an envelope, marked plainly on the outside with the Bid Name and Number.
- B. Bidders submitting a bid via Collin County eBid shall upload a Bid Bond at <https://procurement.opengov.com/portal/collincountytx>

Regardless of delivery method, all Bid Bonds shall be received prior to the bid opening time to be considered. **Failure to submit a copy of bid security prior to bid opening shall be cause for rejection of bid.**

The original Bid Bond shall be received in the Collin County Purchasing Department **no later than** close of business on the third working day after the bid opening. **Late receipt of or failure to submit original Bid Bond shall be cause for rejection of bid.**

6 BONDS

Contractor must furnish a performance bond, payment bond and one (1) year maintenance bond within ten (10) consecutive calendar days following award of contract. The bonds shall be issued by a corporate surety in accordance with all Texas Law, including but not limited to, Chapter 2253 of the Texas Government Code and Chapter 3503 of the Texas Insurance Code, for public works projects.

002113 Instructions to Bidders

1.01 RELATED DOCUMENTS

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

1.02 DEFINITIONS

- A. All definitions set forth in the General Conditions of the Contract for Construction or in other Contract Documents are applicable to these Bidding Documents.
- B. Bidding Documents include the Advertisement or Invitation for Bids, Instructions to Bidders, the bid form, other sample bidding and contract forms and the proposed Contract Documents including any Addenda issued prior to receipt of bids.
- C. Addenda are written or graphic instruments issued prior to the opening of the Bidding Documents, which modify or interpret the Bidding Documents, including Drawings and Specifications, by additions, deletions, clarifications or corrections. Addenda will become part of the Contract Documents when the Construction Contract is executed.
- D. DRYTEC Moisture Protection Technology Consultants will be hereafter referred to in the Project Manual as “Engineer” and all correspondence shall be addressed to: Daniel T. DeMeyer, DRYTEC Moisture Protection Technology Consultants, 8750 N. Central Expressway, Suite 725 Dallas, TX 75231.
- E. “Rickeye Harris” will be hereinafter referred to in this Project Manual as “Project Manager”.
- F. “Collin County” will be hereafter referred to in this Project Manual as “Owner”.
- G. A Bid is a complete and properly signed submittal to do the Work for designated portion thereof for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- H. The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which work may be added or from which work may be deleted for sums stated in Alternate Bids.
- I. An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid in the corresponding change in the Work, as described in the Bidding Documents or in the proposed Contract Documents.
- J. A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials or service as described in the Bidding Documents or in the proposed Contract Documents.
- K. A Bidder is a person or entity who submits a Bid.

- L. A Sub-Bidder is a person or entity who submits a bid to a Bidder for materials or labor for a portion of the work.
- M. A Contractor is a person or entity who is determined to be the lowest responsible and responsive bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.
- N. The Bid Requirements and Other General Conditions, as provided under the Division of the North Central Texas Council of Governments Standard Specifications for Public Works Construction will be applicable to this project, unless noted otherwise in the Contract Documents

1.03 EXAMINATION OF DOCUMENTS AND SITE

- A. Each bidder, by making his/her Bid, represents that he/she has read and understands the Bidding Documents.
- B. Each Bidder, by making his/her Bid, represents that he/she has visited the site, performed investigations and verifications as he/she deems necessary, and familiarized himself/herself with the local conditions under which the Work is to be performed and will be responsible for any and all errors in his/her bid resulting from his/her failure to do so.
- C. The location and elevations of the various utilities and pipe work included within the scope of the work are offered as a general guide only, without guarantee as to accuracy. The Contractor shall verify and investigate to his/her own satisfaction the location and elevation of all utilities, pipe work, and the like and shall adequately inform himself/herself of their relation to the work before submitting a bid.
- D. Before submitting a bid each bidder will, at bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information (surface, subsurface, and underground facilities) at or contiguous to the site, or otherwise which may affect cost, progress, performance or furnishing of the work and which bidder deems necessary to determine its bid for performing and furnishing the work in accordance with the time, price and other terms and conditions of the Contract Documents. Bidder will rely solely on its own site investigation and assumes the risk of any site conditions not discovered that may result in additional costs and all errors in the bid.
- E. On request in advance, Owner will provide each bidder access to the site to conduct explorations and tests as each bidder deems necessary for submission of a bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.
- F. The lands upon which the work is to be performed, right-of way and easement for access thereto and other lands designated for use by Contractor in performing the work are identified in the Contract.
- G. Each bidder by making his/her bid represents that his/her bid is based upon the materials, systems, and equipment required by the Bidding Documents without exception.

1.04 BIDDING DOCUMENTS

- A. Complete sets of Bidding Documents shall be used in preparing bids; neither County, nor Engineer assume any responsibility for errors or misinterpretations resulting from use of incomplete sets of Bidding Documents.
- B. County or the Engineer, in making copies of the Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

1.05 BIDDING PROCEDURES

- A. All bids shall be prepared on the forms provided by the Engineer and submitted in accordance with the Instruction to Bidders. The Engineer or owner will furnish bidders with bid forms which will provide for the following bid items. Bidders shall provide all requested information. Prices bid/proposed shall only be considered if they are provided in the appropriate space(s) on the Collin County bid form(s). For consideration, any additions or deductions to the bid/proposal prices offered must be shown under the exceptions section of the bid/proposal in the case of electronic submittal, ONLY in the case of a hard copy submittal will an additional attachment be allowed. Extraneous numbers, prices, comments, etc. or bidder/offeror generated documents appearing elsewhere on the bid or as an additional attachment shall be deemed to have no effect on the prices offered in the designated locations.
 - 1. A single contract price for each bid item as detailed and described in these specifications.
 - 2. Acknowledgment of Addenda.
 - 3. Number of consecutive calendar days to complete project.
 - 4. Alternate bids.
 - 5. Unit prices.
- B. A bid (electronic or hard copy) is invalid if it has not been deposited at the designed location prior to the time and date for receipt of bids indicated in the Advertisement or Invitation For Bid, or prior to any extension thereof issued to the bidders. Bids received in County Purchasing Department after submission deadline shall be returned unopened and will be considered void and unacceptable. Owner is not responsible for lateness of mail, carrier, etc. and time/date stamp clock in County Purchasing Department shall be the official time of receipt.
- C. Unless otherwise provided in any supplement to these Instructions to Bidders, no bidder shall modify, withdraw or cancel his/her bid or any part thereof for ninety (90) consecutive calendar days after the time designated for the receipt of bids in the Advertisement or Invitation For Bid.
- D. Bids shall not contain any recapitulation of the Work to be done.

- E. The Bidder shall make no additional stipulations on the Bid Form nor limit or qualify his/her bid in any other manner. Bids so qualified will be subject to disqualification.
- F. Collin County is by statute exempt from the State Sales Tax and Federal Excise Tax; therefore, the prices submitted shall not include taxes.

1.06 DISCREPANCIES AND AMBIGUITIES

Any interpretations, corrections and/or changes to an Invitation for Bid and related Specifications or extensions to the opening/receipt date will be made by addenda to the respective document by the Collin County Purchasing Department. Questions and/or clarification requests must be submitted no later than the date specified in the solicitation. Those received at a later date may not be addressed prior to the public opening. Sole authority to authorize addenda shall be vested in Collin County Purchasing Agent as entrusted by the Collin County Commissioners Court. Addenda may be transmitted electronically via Collin County eBid, by facsimile, E-mail transmission or mailed via the US Postal Service.

- A. Addenda will be transmitted to all that are known to have received a copy of the IFB and related Specifications. However, it shall be the sole responsibility of the Bidder to verify issuance/non-issuance of addenda and to check all avenues of document availability (i.e. OpenGov Procurement at <https://procurement.opengov.com/portal/collincountytx>, telephoning Purchasing Department directly, etc.) prior to opening/receipt date and time to insure Bidder's receipt of any addenda issued. Bidder shall acknowledge receipt of all addenda.

1.07 SUBSTITUTIONS

- A. Each bidder represents that his/her bid is based upon the materials and equipment described in the Bidding Documents.
- B. No substitution will be considered unless written request has been submitted to the Engineer for approval by December 10 , 2024. Submit substitution request forms to gsnodderly@co.collin.tx.us.
- C. If the Engineer and Owner approves a proposed substitution, such approval will be set forth in an Addendum.

1.08 QUALIFICATION OF BIDDERS

- A. Within seven (7) consecutive calendar days following bid opening, the apparent low bidder shall submit with a properly executed Contractor's Qualification Statement as evidence to establish bidder's financial responsibility, experience and possession of such equipment as may be needed to prosecute the work in an expeditious, safe and satisfactory manner. This Statement shall include:
 - 1. List of current projects.
 - 2. List of projects completed within the past five years.

3. Experience of key individuals of the organization.
 4. Trade and Bank references.
 5. A recent financial statement to confirm that the bidder has suitable financial status to meet obligations incidental to performing the work. Audited financial statements are not mandatory. Unaudited financial statements will be accepted. If bidder's firm does, however, have audited statements, please include a copy with your bid.
 6. A statement of cost for each major item of Work included in the Bid.
 7. A designation of the Work to be performed by the Bidder with his/her own forces.
 8. A list of names of the Subcontractors or other persons or organizations (including those who are to furnish materials or equipment fabricated to a special design) proposed for each portion of the Work. The Bidder will be required to establish to the satisfaction of the Engineer and Owner the reliability and responsibility of the proposed Subcontractors. Prior to the award of the Contract, the Engineer will notify the Bidder in writing if either the County or the Engineer, after due investigation, has reasonable and substantial objection to any person or organization on such lists. If Owner or Engineer has a reasonable and substantial objection to any person or organization on such list, and refuses in writing to accept such person or organization, the Bidder may, at his/her option, withdraw his/her Bid without forfeiture of Bid Security or provide an acceptable substitute. Subcontractors and other persons and organizations proposed by the Bidder and accepted by Owner and Engineer must be used on the Work for which they were proposed and accepted, and shall not be changed except with the written approval of Owner and the Engineer.
- B. Bidders may be disqualified and their bids not considered for any of the following specific reasons:
1. Reason for believing collusion exists among bidders.
 2. The bidder being interested in any litigation against Owner.
 3. The bidder being in arrears on any existing contract or having defaulted on a previous contract.
 4. Lack of competency as revealed by the financial statement, experience and equipment, questionnaires, or qualification statement.
 5. Uncompleted work which in the judgment of Owner will prevent or hinder the prompt completion of additional work if awarded.
- C. Minimum Standards For Responsible Prospective Bidders: A prospective Bidder must meet the following minimum requirements. Collin County may request representation and other information sufficient to determine Bidder's ability to meet these minimum standards listed below.
1. have adequate financial resources, or the ability to obtain such resources as required;

2. be able to comply with the required or proposed delivery/ completion schedule;
 3. have a satisfactory record of performance;
 4. have a satisfactory record of integrity and ethics; and
 5. be otherwise qualified and eligible to receive an award.
- D. In determining to whom to award the contract, the Owner may consider;
1. the purchase price;
 2. the reputation of the bidder/contractor/vendor and of the bidder/contractor/vendor's goods or services;
 3. the quality of the bidder/contractor/vendor's goods or services;
 4. the extent to which the goods or services meet the Owner's needs;
 5. the bidder/contractor/vendor's past relationship with the Owner;
 6. the total long-term cost to the Owner to acquire the bidder/contractor/vendor's goods or services; and
 7. any other relevant factors specifically listed in the Instruction to Bidders.

1.09 PREPARATION OF BID

- A. Bidder shall submit his/her bid on the forms furnished by the Engineer. All blank spaces in forms shall be correctly filled in and the bidder shall state the prices, written in words and in figures. Where there is discrepancy between the price written in words and the price written in figures, the price written in words shall govern. If bid is submitted by an individual, his/her name must be signed by him/her or his/her duly authorized agency. If the bid is submitted by a firm, association or partnership, the name and address of each member must be given, and the bid must be signed by an official or duly authorized agent. Powers of attorney authorizing agents or others to sign bids must be properly certified and must be in writing and submitted with the bid.
- B. Bidder shall bear any/all costs associated with its preparation of any bid, proposal or submittal.
- C. Public Information Act: Collin County is governed by the Texas Public Information Act, Chapter 552 of the Texas Government Code. All information submitted by prospective bidders during the bidding process is subject to release under the Act.
- D. The Bidder shall comply with Commissioners Court Order No. 2004-167-03-11, County Logo Policy.

1.10 BID SECURITY

- A. Each bid must be accompanied by Bid Security (in accordance with instructions set forth in section 001116-Advertisement For Bids) made payable to Owner in an amount of five percent (5%) of the bidder's maximum bid price and in the form of a Cashier's Check or a Bid Bond, duly executed by bidder as principal and having as surety thereon, a corporate surety authorized and admitted to do business in the State of Texas and licensed to issue such bond, as a guarantee that the bidder will enter into a Contract and execute required Performance, Payment, and two (2) year Maintenance Bonds within ten (10) consecutive calendar days of Collin County Commissioners Court award of Contract.
- B. The Bid Security of the contractor will be retained until such bidder has executed the Contract Agreement and furnished the required Contract Security, whereupon, the Bid Security will be returned. If the contractor fails to execute and deliver the Agreement and furnish the required Contract Security within ten (10) consecutive calendar days of Collin County Commissioners Court award of Contract, Owner may annul the award of contract and the Bid Security of that bidder will be forfeited. The Bid Security of the other bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh (7th) consecutive calendar day after the effective date of the Agreement or the ninety-fifth (95th) consecutive calendar day after the bid opening, whereupon, the Bid Security furnished by such bidders will be returned. Bid Security with bids which are not competitive will be returned within seven (7) consecutive calendar days after the contract award.
- C. Should the bidder to whom the Contract is awarded refuse or neglect to execute and file the contract and bonds within ten (10) consecutive calendar days of Collin County Commissioners Court award of Contract, Owner may annul award of Contract and the Bid Security filed with the bid shall become the property of Owner, not as a penalty, but as liquidated damages. Owner reserves the right to award canceled Contract to next responsible, lowest and best bidder as it deems to be in the best interest of the County.
- D. Owner will have the right to retain the bid security of all bidders until either:
 - 1. the Contract has been executed and the bonds have been furnished, or
 - 2. the specified time has elapsed so that bids may be withdrawn, or
 - 3. all bids have been rejected.

1.11 PERFORMANCE BOND, LABOR & MATERIAL PAYMENT BOND, MAINTENANCE BOND

- A. The Contractor shall post with Owner, not later than ten (10) consecutive calendar days of Collin County Commissioners Court award of Contract, a Performance Bond in the amount of one hundred percent (100%) of the total contract price in such form as is satisfactory to Owner, in compliance with Chapter 2253 of the Texas Government Code and all other applicable Texas Law, and on the form

specified in the Contract Documents. This bond shall be executed by a corporate surety company duly authorized and admitted to do business in the State of Texas and licensed to issue such a bond in the State of Texas. The Contractor shall notify its corporate surety of any Contract changes.

- B. The Contractor shall post with Owner, not later than ten (10) consecutive calendar days of Collin County Commissioners Court award of Contract, a Payment Bond in the amount of one hundred percent (100%) of the total contract price in such form as is satisfactory to Owner, in compliance with Chapter 2253 of the Texas Government Code and all other applicable Texas Law, and on the form specified in the Contract Documents. This bond shall be executed by a corporate surety company duly authorized and admitted to do business in the State of Texas and licensed to issue such a bond in the State of Texas. The Contractor shall notify its corporate surety of any Contract changes.
- C. The Contractor shall post with Owner, not later than ten (10) consecutive calendar days of Collin County Commissioners Court award of Contract, a two (2) year Maintenance Bond in the amount of ten percent (10%) of the total contract price in such form as is satisfactory to Owner, in compliance with Chapter 2253 of the Texas Government Code and all other applicable Texas Law, and on the form specified in the Contract Documents. This bond shall be executed by a corporate surety company duly authorized and admitted to do business in the State of Texas and licensed to issue such a bond in the State of Texas. The Contractor shall notify its corporate surety of any Contract changes.
- D. The Contractor must demonstrate to Owner that it can secure the required performance and payment bonds, issued by a corporate surety company authorized and admitted to do business in the State of Texas and licensed to issue such a bond in the State of Texas. Contractor must also demonstrate that the bond is not in excess of ten percent (10%) of the corporate surety company's capital and surplus. To the extent the amount of the bond exceeds ten percent (10%) of the corporate surety company's capital and surplus, such bond will not be accepted unless bidder provides written certification that the corporate surety company has reinsured the portion of the risk that exceeds ten percent (10%) of the corporate surety company's capital and surplus with one or more insurers who are duly authorized, accredited or trusted to do business in the State of Texas. The amount reinsured by any reinsurer must not exceed ten percent (10%) of the reinsurer's capital and surplus.
- E. The Contractor must file with the performance bond and payment bond, all documents and information necessary to establish that the agent signing the bond is authorized to write the bond in the amount requested, and if applicable, that reinsurance requirements, have been met, including limits and ratings or other evidence of company solvency.
- F. If the corporate surety company on any bond furnished by Contractor to Owner is declared bankrupt or becomes insolvent or such corporate surety company's right to do business in the State of Texas is revoked, the Contractor shall within five (5) consecutive calendar days thereafter substitute another bond and corporate surety company, both of which shall be acceptable to Owner.

1.12 FILING BID

- A. All Bids, proposals, or submittals submitted in hard copy paper form shall be submitted in a sealed envelope, plainly marked on the outside with the Invitation for Bid (IFB) number and name. A hard copy paper form bid, proposal, or submittal shall be manually signed in ink by a person having the authority to bind the firm in a contract. Submittals, bids or proposals shall be mailed or hand delivered to the Collin County Purchasing Department.
- B. No oral, telegraphic or telephonic submittals will be accepted. Bids, proposals, or submittals may be submitted in electronic format via Collin County eBid at <https://procurement.opengov.com/portal/collincountytx>.
- C. All Bids, submittals or proposals submitted electronically via OpenGov Procurement at <https://procurement.opengov.com/portal/collincountytx> shall remain locked until official date and time of opening as stated in the Special Terms and Conditions of the IFB.
- D. For hard copy paper form bids, proposals, or submittals, any alterations made prior to opening date and time must be initialed by the signer of the bid, proposal, or submittal, guaranteeing authenticity. Bids, proposals, or submittals cannot be altered or amended after submission deadline.
- E. No bid, proposal, or submittal will be considered unless it is filed with the Owner Purchasing Department within the time limit for receiving bids as stated in the Advertisement for Bids or IFB. Each hard copy paper bid shall be in a sealed envelope plainly marked with the word "BID", and the name and bid number of the project as designated in the Advertisement for Bids or IFB.

1.13 MODIFICATION AND WITHDRAWAL OF BID

- A. No bid, proposal, or submittal may be withdrawn or modified after the bid opening except where the award of the contract has been delayed beyond ninety (90) consecutive calendar days after date of bid opening or as per Texas Local Government Code, Title 8, Chapter 262, Subchapter C., Section 262.0305. Modifications after Award.

1.14 IRREGULAR BID

- A. It is understood that Collin County, Texas reserves the right to accept or reject any and/or all Bids, proposals, or submittals for any or all products and/or services covered in an Invitation For Bid (IFB) and to waive informalities or defects in submittals or to accept such submittals as it shall deem to be in the best interest of Collin County.

1.15 REJECTION OF BID

- A. The bidder acknowledges the right of Owner to reject any or all bids and to waive any informality or irregularity in any bid received. In addition, the bidder recognizes the right of Owner to reject a bid if

the bidder failed to furnish any required Bid Security, or to submit the data required by the Bidding Documents, or if the bid is in any way incomplete or irregular.

1.16 METHOD OF AWARD

- A. In evaluating bids, Owner will consider whether or not the bids comply with the prescribed requirements, base prices, any alternates, unit pricing, completion time, bidder's qualifications, bidder's proposed subcontractors, suppliers, etc., and other data as may be requested in the Bid Documents.
- B. Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any bid and to establish the responsibility, qualifications and financial ability of bidder, proposed subcontractors, suppliers and other persons and organizations to perform and furnish the Work in accordance with the Bidding Documents to Owner's satisfaction within the prescribed time.
- C. If the contract is to be awarded, it will be awarded to the lowest and best responsible bidder whose evaluation, by Owner, indicates to be in the best interests of the project. If no alternates are selected by Owner, the Owner may award the contract to a responsible bidder who submits the lowest and best bid.
- D. Evaluation of Alternates - Any and/or all or none of the alternates may be considered in evaluation. Owner may award Contract on base bid plus any and/or all or none of the alternates.
- E. Owner anticipates award within ninety (90) consecutive calendar days after bid opening.
- F. The bid, when properly accepted by the County, shall constitute a Contract equally binding between the contractor and Owner. No different or additional terms will become part of this Contract with the exception of a written Change Order, signed by both parties.
- G. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing by Collin County Purchasing Agent.

1.17 EXECUTION OF CONTRACT

- A. The person or persons, partnership, company, firm, association or corporation to whom a contract is awarded shall within ten (10) consecutive calendar days after such award, sign the necessary contract agreements and submit the required bonds entering into the required Contract with Owner. No contract shall be binding on Owner until it has been executed by Owner or his/her duly authorized representative, and delivered to the Contractor.

1.18 FAILURE TO EXECUTE CONTRACT

- A. The failure of the Bidder to execute the required bonds or to sign the required Contract within ten (10) consecutive calendar days after the Contract is awarded, shall be considered by Owner as abandonment of his/her Bid, and Owner may annul the award, at the Owner's sole discretion.

1.19 PURCHASE ORDER

- A. A purchase order(s) shall be generated by Owner to the contractor. The purchase order number **must** appear on all itemized invoices. Collin County will not be responsible for any orders placed or delivered without a valid purchase order number.

1.20 NOTICE TO PROCEED

- A. Upon the execution and delivery of Bonds, Executed Contract by Contractor, progress schedule, proof of insurance, and all other documents required prior to commencing work herein, Owner will issue a written Notice to Proceed to the Contractor requesting that he/she proceed with construction, and the Contractor shall commence work within ten (10) consecutive calendar days after the date of Notice to Proceed.

1.21 PAYMENT PROCEDURES

- A. Contractor shall submit Applications for Payment in accordance with the Contract, and payments shall be made in accordance with the Contract Documents.
- B. Final Payment: Upon final completion and acceptance of the work, Owner shall pay the remainder of the contract price as recommended by Engineer, in accordance with Texas Government Code, Title 10, Subtitle F., Chapter 2251. Contractor(s) is required to pay subcontractors within ten (10) days after the contractor has received payment from the County.
- C. The Contractor understands, acknowledges and agrees that if the Contractor subcontracts with a third party for services and/or material, the primary Contractor (awardee) accepts responsibility for full and prompt payment to the third party. Any dispute between the primary Contractor and the third party, including any payment dispute, will be promptly remedied by the Contractor. Failure to promptly render a remedy or to make prompt payment to the third party (subcontractor) may result in the withholding of funds from the primary Contractor by Collin County for any payments owed to the third party.

1.22 AFFIDAVIT OF BILLS PAID

- A. Prior to final acceptance of this project by Owner, the Contractor shall execute an affidavit that all bills for labor, materials, and incidentals incurred in the project construction have been paid in full, and that there are no claims pending.

1.23 EXEMPTION FROM STATE OF TEXAS AND LOCAL SALES TAX ON MATERIALS

- A. Owner qualifies for exemption from State and Local Sales Tax pursuant to the provisions of Chapter 151, Section 151.309 of the Texas Limited Sales, Excise and Use Tax Act. The Contractor performing this Contract may purchase all materials, supplies, equipment consumed in the performance of this Contract by issuing to his/her suppliers an exemption certificate in lieu of the tax.

1.24 CONFLICT OF INTEREST

- A. No public official shall have interest, direct or indirect, in this contract, in accordance with Texas Local Government Code Title 5, Subtitle C, Chapter 171.

1.25 ETHICS

The bidder/contractor shall comply with Commissioners Court Order No. 96-680-10-28, Establishment of Guidelines & Restrictions Regarding the Acceptance of Gifts by County Officials & County employees.

1.26 BID COMPLIANCE

- A. Bid must comply with all federal, state, county and local laws concerning this type of project and the fulfillment of all ADA (Americans With Disabilities Act) requirements.
- B. Design, strength, quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practice.
- C. All products must be new and unused, unless otherwise specified, in first-class condition and of current manufacture.

1.27 DRUG FREE

- A. All bidders shall provide any and all notices as may be required under the Drug-Free Work Place Act of 1988, 41 U.S.C. 701, and Collin County Commissioners Court Order No. 90-455-06-11, to its employees and all sub-contractors to insure that Owner maintains a drug-free work place. The use, possession or being under the influence of drugs and/or alcohol while working on this bid project or while on County property is prohibited and may result in removal of an individual from the project and/or immediate termination of contract. The County reserves the right to review drug testing records of any personnel involved in this bid project. The County may require, at contractor's expense, drug testing of contractor's personnel if no drug testing records exists or if such test results are older than six (6) months.
- B. Substances and cut-off levels are as follows:

SUBSTANCE	MAXIMUM LEVEL
Amphetamines	1000 NG/ML
Barbiturates	300 NG/ML
Benzodiazepines	300 NG/ML
Cocaine Metabolite	300 NG/ML
Opiates	300 NG/ML
Phencyclidine (PCP)	25 NG/ML
THC (Marijuana) Metabolite	100 NG/ML
Methadone, Urinary	300 NG/ML
Methaquaone, Urine	300 NG/ML
Propoxyphene	300 NG/ML

1.28 INDEMNIFICATION

- A. To the fullest extent permitted by law, the CONTRACTOR and his sureties shall indemnify, defend and hold harmless the OWNER and all of its, past, present and future, officers, agents and employees from all suits, cause of action, claims, liabilities, losses, fines, penalties, liens, demands, obligations, actions, proceedings, of any kind, character, name and description brought or arising, on account of any injuries or damages received or sustained by any person, destruction or damage to any property on account of, in whole or part, the operations of the CONTRACTOR, his agents, employees or subcontractors; or on account of any negligent act or fault of the CONTRACTOR, his agents, employees or subcontractors in the execution of said Contract; failing to comply with any law, ordinance, regulation, rule or order of any governmental or regulatory body including those dealing with health, safety, welfare or the environment; on account of the failure of the CONTRACTOR to provide the necessary barricades, warning lights or signs; and shall be required to pay any judgment, with cost, which may be obtained against the OWNER growing out of such injury or damage. In no event shall OWNER be liable to CONTRACTOR for indirect or consequential damages or loss of income or profit irrespective of the cause, fault or reason for same. CONTRACTOR’S duty to indemnify herein shall not be limited by any

limitation on the type or amount of damages payable by or for CONTRACTOR or any Subcontractor under workman's compensation acts, disability benefit acts or any other employee benefit acts.

In addition, the CONTRACTOR likewise covenants and agrees to, and does hereby, indemnify and hold harmless the OWNER from and against any and all injuries, loss or damages to property of the OWNER during the performance of any of the terms and conditions of this Contract, arising out of or in connection with or resulting from, in whole or in part, any and all alleged acts or omissions of officers, agents, servants, employees, contractors, subcontractors, licenses or invitees of the CONTRACTOR.

The rights and responsibilities provided in this indemnification provision shall survive the termination or completion of this Contract.

1.29 CONSTRUCTION SCHEDULE

- A. The time for completion is set forth herein and will be included in the Contract. All work shall be completed within the consecutive calendar day count shown in the Contractor's bid. The calendar day count shall commence ten (10) consecutive calendar days after the date of the Notice to Proceed.
- B. Prior to the issuance of the Notice to Proceed by Owner, the Contractor shall submit a detailed progress and schedule chart to Owner for review. This chart will be used to assure completion of the job within the number of consecutive calendar days stated in bid documents.

1.30 DELAYS AND EXTENSIONS OF TIME

- A. If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Engineer, or of an employee of either, or of a separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, or by delay authorized by the Owner pending mediation and arbitration, or by other causes which the Engineer determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Engineer may determine.
- B. If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that the weather conditions had an adverse effect on the scheduled construction.
- C. Contractor's sole remedy for any delays in the project, which are not the fault of the Contractor, shall be an equitable extension of time to perform the work, required by the Contract. In no event shall the Contractor be entitled to make a claim for delay, impact or acceleration damages against the Owner.

1.31 DAMAGES

Should the contractor fail to complete the project within the specified completion schedule the sum of 500 per calendar day will be deducted from the moneys due the contractor for the work. This sum shall not be considered as a penalty, but rather as reasonable liquidated damages, since it would be impracticable or extremely difficult to fix the actual damages. An extension of time may be allowed for delays beyond the control of the contractor at the discretion of Owner.

1.32 TERMINATION

This contract shall remain in effect until any of the following occurs:

- A. completion of project;
- B. acceptance of work ordered; or
- C. termination by either party pursuant to the terms of the Contract with a thirty (30) days written notice prior to cancellation that must state therein the reasons for such cancellation.
- D. breach of the contract by the Contractor for failure
 - 1. to meet completion schedules, or
 - 2. otherwise perform in accordance with these specifications.

Breach of contract or default authorizes the County to purchase elsewhere and charge the full increase in cost and handling to the defaulting Contractor.

1.33 PATENTS - COPYRIGHTS

- A. The contractor agrees to protect Owner from any claims involving infringements of patents and/or copyrights. In no event shall Owner be liable to a contractor for any/all suits arising on the grounds of patent(s) or copyright(s) infringement.

1.34 VENUE; GOVERNING LAW

- A. This contract will be governed by the laws of the State of Texas. Should any portion of this contract be in conflict with the laws of the State of Texas, the State laws shall invalidate only that portion. The remaining portion of the contract shall remain in effect. This contract is performable in Collin County, Texas.

1.35 ASSIGNMENT

- A. The contractor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written approval from Collin County Commissioners Court.

1.36 SILENCE OF SPECIFICATION

- A. The apparent silence of any part of the specification as to any detail or to the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of the specification shall be made on the basis of this statement.

1.37 PROVISION CONCERNING ESCALATOR CLAUSES

- A. Bid(s) containing any condition which provides for changes in the stated bid prices due to increase or decrease in the costs of materials, labor, or other items required for this project, will be rejected and returned to the bidder without being considered.

1.38 ESTIMATES OF QUANTITIES

- A. The quantities listed in the Bid Form will be considered as approximate and will be used for the comparison of bids. Payments will be made to the Contractor only for the actual quantities of work performed or materials furnished in accordance with the contract. The quantity of work to be done and the materials may be increased or decreased as provided for in the Contract Documents.

1.39 TREE PROTECTION OUTSIDE LIMITS OF WORK

- A. The Contractor will be required to obtain written authorization from Owner for the removal of any tree three inches (3") in diameter or greater for any area outside the limits of the street right-of-way or slope easement. It is the intent of Owner to preserve as much as possible the natural condition of the floodplains.

1.40 EXCAVATION/TRENCH SAFETY

A. TRENCH SAFETY

1. The CONTRACTOR shall be responsible for complying with state laws and federal regulations relating to trench safety, including those which may be enacted during the performance under this contract. The CONTRACTOR shall be responsible for selecting an appropriate method of providing trench safety after due consideration of the job conditions, location of utilities, pavement conditions and other relevant factors. Slope-back methods which may result in unnecessary displacement of utilities and/or destruction of pavement may not be used without permission from the OWNER. The CONTRACTOR shall be responsible for providing to the OWNER an acceptable trench safety plan signed and sealed by a Professional Engineer qualified to do such work and registered in Texas. Devices used to provide trench safety such as trench shields and shoring systems will be likewise certified by professional Engineers registered in the State of Texas or by a professional Engineer registered in the state of manufacture of the shield.

B. PAYMENT FOR TRENCH SAFETY

1. Payment for trench safety shall be by the lineal feet of trench exceeding a depth of five (5) ft. Excavation for slope-back methods shall be subsidiary to the trench safety pay item including replacement and recompaction. Excess excavation for other trench safety methods is also subsidiary to the trench safety pay item. Costs relating to the preparation of the trench safety plan including geotechnical investigation, testing and report preparation fees are all subsidiary to the pay item for trench safety. Should trench safety measures be required during contract performance where no pay item has been provided, then the CONTRACTOR shall immediately notify the OWNER and, if directed to do so, provide trench safety under the provisions of the contract. Should the OWNER fail to authorize the work, then the CONTRACTOR shall proceed under the provisions of the Contract. Trench safety requirements are mandatory and may not be waived.

C. PAYMENT FOR SPECIAL SHORING

1. Payment for special shoring, if any, shall be based on the square feet of shoring used.

- D. The Contractor must be made aware that on construction projects in which trench excavation will exceed a depth of five feet (5'), the uniform set of general conditions must require that the bid documents and the contract include detailed plans and specifications for adequate safety systems that meet Occupational Safety and Health Administration standards that will be in effect during the period of construction of the project. The Contractor shall provide a separate pay item for trench excavation safety in accordance with the Texas Health & Safety Code Chapter 756. The Contractor shall verify that these plans and specifications include a pay item for these same trench excavation safety systems, in accordance with Texas Government Code, Title 10, Section 2166.303, Uniform Trench Safety Conditions. The contractor shall insure that drainage from adjacent properties is not blocked by his/her excavations. Measurement and payment for excavation/trench safety systems will not be made directly, but considered subsidiary to the work.
- E. The Contractor shall be responsible for obtaining and paying for all surveys and testing, including geotechnical surveys and testing, necessary to insure it can comply with all laws regarding adequate trench excavation safety.

1.41 CONSTRUCTION STAKING

- A. Engineer will provide the Contractor with primary horizontal and vertical control to consist of one construction baseline and two benchmarks.
- B. The Contractor shall take all necessary precautions to preserve any and/or all markings and staking. Payment for costs of restaking shall be the responsibility of the Contractor.

1.42 PERMITS

- A. Contractor shall be responsible for obtaining all necessary permits.

1.43 MATERIALS TESTING

- A. Owner will be responsible for all materials testing.

1.44 STORM WATER PROTECTION

- A. The Contractor shall perform, track, participate, implement, and comply with storm water pollution prevention minimum control measures, protocols, and best management practices (BMP) and ensure that water quality standards are not violated in accordance with all regulations and policies as they apply to the Texas Pollutant Discharge Elimination System general permits. Applicable permits include:
 - 1) Texas Construction General Permit (TXR150000).
- B. Contractors will obtain permit coverage for construction activities disturbing over one acre of land (total acreage is cumulative across all portions of the project). BMPs include, but are not limited to:
 - 1. Preparing and implementing a site-specific Storm Water Pollution Prevention Plan (SWPPP) as outlined in the permit and prior to any soil disturbance.
 - 2. Installing and managing erosion and sediment control.
 - 3. Make available, upon request, permit associated documentation.
 - 4. Practicing spill prevention and good housekeeping.
 - 5. Meeting the requirements of the MS4 permit.

1.45 WAGE SCALE

- A. In accordance with Texas Government Code, Title 10, Section 2258, Prevailing Wage Rates, the general prevailing wage rate has been determined for this locality for the craft or type of workman needed to execute work of a similar character of the project listed herein. The Contractor shall pay the prevailing wage rate in this locality to all his/her employees and subcontractors performing work on this project, and in no event shall the Contractor pay less than the rate shown in the following schedule.
- B. Wage Determination: Building Construction, <https://sam.gov/wage-determination/TX20240239/1>
- C. Except for work on legal holidays, the “General Prevailing Rate of Per Diem Wage” for the various crafts or type of workers or mechanics is the product of (a) the number of hours worked per day, except for overtime hours, times (b) the above respective rate per hour.
- D. For legal holidays, the “General Prevailing Rate of Per Diem Wage” for the various crafts or type of workers or mechanics is the product of (a) one and one-half times the above respective rate per hour, times (b) the number of hours worked on the legal holiday.

- E. For overtime work, the “General Prevailing Rate of Per Diem Wage” for the various crafts or type of workers or mechanics is the product of (a) one and one-half times the above respective rate per hour, times (b) Under the provisions of Texas Government Code, Title 10, Section 2258, Prevailing Wage Rates, the contractor or subcontractor of the contractor shall forfeit as a penalty to the entity on whose behalf the contract is made or awarded, sixty dollars (\$60.00) for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the contract.
- F. If the construction project involves the expenditure of Federal funds in excess of \$2,000, the minimum wages to be paid various classes of laborers and mechanics will be based upon the wages that will be determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics employed on the project of a character similar to the contract work.

1.46 CONTRACT ADMINISTRATOR

- A. Collin County Purchasing Department shall serve as Contract Administrator or shall supervise agents designated by Collin County.

1.47 WARRANTIES

- A. All warranties shall be stated as required in the Uniform Commercial Code.

1.48 UNIFORM COMMERCIAL CODE

- A. The Contractor and Collin County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

1.49 ADVERTISEMENT OF CONTRACT

- A. Contractor shall not fraudulently advertise, publish or otherwise make reference to the existence of a contract between Collin County and Contractor for purposes of solicitation. As exception, Contractor may refer to Collin County as an evaluating reference for purposes of establishing a contract with other entities.

1.50 DIAGNOSTIC TOOLS

- A. Contractor shall provide Collin County with diagnostic access tools at no additional cost to Collin County, for all Electrical and Mechanical systems, components, etc., procured through this contract.

1.51 CRIMINAL HISTORY BACKGROUND CHECK

- A. If required, ALL individuals may be subject to a criminal history background check performed by Collin County prior to access being granted to Collin County facilities. Upon request,

Vendor/Contractor/Provider shall provide list of individuals to Collin County Purchasing Department within five (5) working days.

1.52 IMMIGRATION AND REFORM ACT OF 1986

- A. Vendors/Contractors/Providers must be in compliance with the Immigration and Reform Act of 1986 and all employees specific to this solicitation must be legally eligible to work in the United States of America.

1.53 CERTIFICATION OF ELIGIBILITY

- A. This provision applies if the anticipated Contract exceeds \$100,000.00 and as it relates to the expenditure of federal grant funds. By submitting a bid or proposal in response to this solicitation, the Bidder/Quoter/Offeror certifies that at the time of submission, he/she is not on the Federal Government's list of suspended, ineligible, or debarred contractors. In the event of placement on the list between the time of bid/proposal submission and time of award, the Bidder/Quoter/Offeror will notify the Collin County Purchasing Agent. Failure to do so may result in terminating this contract for default.

1.54 NOTICE TO CONTRACTORS (IF APPLICABLE)

- A. The Collin County Detention Facility houses persons who have been charged with and/or convicted of serious criminal offenses. When entering the Detention Facility, you could:
 1. hear obscene or graphic language;
 2. view partially clothed male inmates;
 3. be subjected to verbal abuse or taunting;
 4. risk physical altercations or physical contact, which could be minimal or possibly serious;
 5. be exposed to communicable or infectious diseases;
 6. be temporarily detained or prevented from immediately leaving the Detention Facility in the case of an emergency or "lockdown; and
 7. subjected to a search of your person or property.

While the Collin County Sheriff's Office takes every reasonable precaution to protect the safety of visitors to the Detention Facility, because of the inherently dangerous nature of a Detention Facility and the type of the persons incarcerated therein, please be advised that the possibility of such situations exist and you should carefully consider such risks when entering the Detention Facility. By entering the Collin County Detention Facility, you acknowledge that you are aware of such potential risks and willingly and knowingly choose to enter the Collin County Detention Facility.

1.55 E-Verify

- A. Contractors doing business with OWNER agree to comply with Federal Executive Order 13465 E-Verify. It is OWNER's intention and duty to comply and support the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification and non-discrimination. According to the INA, contractors/employers may hire only persons who may legally work in the United States. Subsequently, contractors and subcontractors doing business with OWNER must confirm their enrollment in the E-Verify system which verifies employment eligibility through completion and checking of I-9 forms. OWNER reserves the right to audit contractors' process to verify enrollment compliance.

1.56 INSURANCE REQUIREMENTS

A. CONTRACTOR'S INSURANCE

1. Everything that follows under insurance requirements is applicable to all subcontractors. Contractor will have discretion to determine coverage limits for its subcontractors for the required insurances.
2. Before commencing work, the CONTRACTOR shall be required to furnish the Collin County Purchasing Agent with certified copies of all insurance certificate(s) required by Texas Law, and the coverages required herein, indicating the coverage is to remain in force throughout the term of this Contract. CONTRACTOR shall also be required to furnish the Collin County Purchasing Agent with certified copies of subcontractor's insurance certificates required by the Texas Department of Insurance, Division of Workers' Compensation, section 406.096(b), and coverages required herein in section 4.2. Without limiting any of the other obligations or liabilities of the CONTRACTOR, during the term of the Contract the CONTRACTOR and each subcontractor at their own expense shall purchase and maintain the herein stipulated minimum insurance with companies duly approved to do business in the State of Texas and satisfactory to the OWNER. Certificates required of each policy for the CONTRACTOR and each subcontractor shall be delivered to the OWNER before any work is started, along with a written statement from the issuing company stating that said policy shall not be canceled, nonrenewed or materially changed without 30 days advance written notice being given to the OWNER.
3. In addition to any coverage required by Texas Law, the CONTRACTOR shall provide the following coverages at not less than the specified amounts:
 - a. Workers Compensation insurance required by Texas Law at statutory limits, including employer's liability coverage of not less than \$1,000,000. In addition to these, the CONTRACTOR must comply with all the requirements of the Texas Department of Insurance,

Division of Workers' Compensation; section 406.096(b); (Note: If you have questions concerning these requirements, you are instructed to contact the DWC.)

- i. By signing this contract or providing or causing to be provided a certificate of coverage, the CONTRACTOR is representing to the OWNER that all employees of the CONTRACTOR and its subcontractors who will provide services on the Project will be covered by workers compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the CONTRACTOR to administrative penalties, criminal penalties, civil penalties, or other civil actions.
 - ii. The CONTRACTOR'S failure to comply with any of these provisions is a breach of Contract by the Contractor which entitles the OWNER to declare the Contract void if the CONTRACTOR does not remedy the breach within ten (10) days after receipt of notice of breach from the OWNER.
- b. Broad form commercial general liability insurance, including independent contractor's liability, completed operations and contractual liability, written on an occurrence form, covering, but not limited to, the liability assumed under the indemnification provisions of this contract, fully insuring CONTRACTOR'S and its subcontractors liability for injury to or death of OWNER'S employees and third parties, extended to include personal injury liability coverage with damage to property, with minimum limits as set forth below:
- i. General Aggregate \$2,000,000
 - ii. Products — Components/Operations Aggregate \$2,000,000
 - iii. Personal and Advertising Injury \$ 1,000,000
 - iv. Each Occurrence \$ 2,000,000
 - v. Contractor's Pollution Liability \$1,000,000/\$3,000,000 (Occurrence Form)
 - vi. The policy shall include coverage extended to apply to completed operations, asbestos hazards (if this project involves work with asbestos) and XCU (explosion, collapse and underground) hazards. The completed operations coverage must be maintained for a minimum of one year after final completion and acceptance of the work, with evidence of same filed with OWNER.
- c. Comprehensive automobile and truck liability insurance, covering owned, hired and non-owned vehicles, with a combined bodily injury and property damage minimum limit of \$1,000,000 per

occurrence; or separate limits of \$1,000,000 for bodily injury (per person), \$1,000,000 for bodily injury (per accident) and \$1,000,000 for property damage. Such insurance shall include coverage for loading and unloading hazards.

d. OWNER'S PROTECTIVE LIABILITY INSURANCE

i. CONTRACTOR shall obtain, pay for and maintain at all times during the prosecution of the work under this contract an OWNER'S protective liability insurance policy naming the OWNER as insured for property damage and bodily injury, which may arise in the prosecution of the Work or CONTRACTOR'S operations under this Contract. Coverage shall be on an "occurrence" basis, and the policy shall be issued by the same insurance company that carries the CONTRACTOR'S liability insurance with a combined bodily injury and property damage minimum limit of \$1,000,000 per occurrence and \$2,000,000 aggregate. Owner's Protective Liability Insurance required by Contractor only is acceptable.

e. "UMBRELLA" LIABILITY INSURANCE

i. CONTRACTOR shall obtain, pay for and maintain umbrella liability insurance (over Workers Comp, Auto, and General Liability) during the contract term, insuring CONTRACTOR for an amount of not less than \$2,000,000 per occurrence/\$2,000,000 aggregate limit combined limit for bodily injury and property damage that follows from and applies in excess of the primary liability coverages required hereinabove. The policy shall provide "drop down" coverage where underlying primary insurance coverage limits are insufficient or exhausted. OWNER shall be named as an additional insured. Contractor can adjust to lower limits on umbrella liability insurance for its subcontractors.

f. RAILROAD PROTECTIVE INSURANCE

i. When required in the Special Provisions, CONTRACTOR shall obtain, maintain and present evidence of railroad protective insurance (RPI). The policy shall be in the name of the railroad company having jurisdiction over the right-of-way involved. The minimum limit of coverage shall meet the specifications provided by the railroad company. The OWNER shall specify the amount of RPI necessary.

g. BUILDER'S RISK

i. CONTRACTOR shall obtain, pay for, and maintain builders risk insurance during the contract term, insuring CONTRACTOR for an amount of not less than the total contract amount.

4. POLICY ENDORSEMENTS AND SPECIAL CONDITIONS

a. Each insurance policy to be furnished by CONTRACTOR shall include the following conditions by endorsement to the policy:

- i. each policy shall name the OWNER as an additional insured as to all applicable coverage
 - ii. each policy shall require that 30 days prior to the cancellation, nonrenewal or any material change in coverage, a notice thereof shall be given to OWNER by certified mail;
 - iii. the term "OWNER" shall include all past, present or future, authorities, boards, bureaus, commissions, divisions, departments and offices of the OWNER and individual members, elected official, officers, employees and agents thereof in their official capacities and/or while acting on behalf of the OWNER;
 - iv. the policy phrase "other insurance" shall not apply to the OWNER where the OWNER is an additional insured on the policy;
 - v. all provisions of the contract concerning liability, duty and standard of care together with the indemnification provision, shall be underwritten by contractual liability coverage sufficient to include such obligations within applicable policies;
 - vi. each policy shall contain a waiver of subrogation in favor of OWNER, and its, past, present and future, officials, employees, and volunteers; and
 - vii. each certificate of insurance shall reference the Project and Contract number, contain all the endorsement required herein, and require a notice to the OWNER of cancellation.
- b. Insurance furnished by the CONTRACTOR shall be in accordance with the following requirements:
- i. any policy submitted shall not be subject to limitations, conditions or restrictions deemed inconsistent with the intent of the insurance requirements to be fulfilled by the CONTRACTOR. The OWNER'S decision thereon shall be final;
 - ii. all policies are to be written through companies duly licensed to transact that class of insurance in the State of Texas with a financial ratings of A+ VII or better as assigned by BEST Rating Company or equivalent; and
 - iii. Surplus lines insurance carriers will be acceptable when surplus lines companies meet all financial requirements and be licensed in their home state. Collin County will take an extra step if a bid comes in to include coverage from a surplus lines carrier to verify if that company is approved by TDI to do business in the state of Texas. Please verify with TDI at the phone number list in below link if your or your proposed surplus lines company is approved before you submit your bid.
<https://www.tdi.texas.gov/pubs/consumer/cb015.html>; and (d) All liability policies required herein shall be written with an "occurrence" basis coverage trigger.
- c. CONTRACTOR agrees to the following:

- i. CONTRACTOR hereby waives subrogation rights for loss or damage to the extent same are covered by insurance. Insurers shall have no right of recovery or subrogation against the OWNER, it being the intention that the insurance policies shall protect all parties to the Contract and be primary coverage for all losses covered by the policies;
- ii. Companies issuing the insurance policies and CONTRACTOR shall have no recourse against the OWNER for payment of any premiums or assessments for any deductibles, as all such premiums and deductibles are the sole responsibility and risk of the CONTRACTOR;
- iii. Approval, disapproval or failure to act by the OWNER regarding any insurance supplied by the CONTRACTOR (or any subcontractors) shall not relieve the CONTRACTOR of full responsibility or liability for damages and accidents as set forth in the Contract Documents. Neither shall the bankruptcy, insolvency or denial of liability by the insurance company exonerate the CONTRACTOR from liability; and
- iv. No special payments shall be made for any insurance that the CONTRACTOR and subcontractors are required to carry; all are included in the Contract Price and the Contract unit prices. Any of such insurance policies required under this section may be written in combination with any of the others, where legally permitted, but none of the specified limits may be lowered thereby.

1.57 BUSINESS WITH A FOREIGN ENTITY

- A. Vendors/Contractors/Providers must be in compliance with the provisions of Section 2252.152 and Section 2252.153 of the Texas Government Code which states, in part, contracts with companies engaged in business with Iran, Sudan, or Foreign Terrorist Organizations are prohibited. A governmental entity may not enter into a contract with a company that is listed on the Comptroller of the State of Texas website identified under Section 806.051, Section 807.051 or Section 2253.253 which do business with Iran, Sudan or any Foreign Terrorist Organization. This Act is effective September 1, 2017.

1.58 FORCE MAJEURE

- A. No party shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement, when and to the extent such failure or delay is caused by or results from acts beyond the affected party's reasonable control, including, without limitation: acts of God; flood, fire or explosion; war, invasion, riot or other civil unrest; actions, embargoes or blockades in effect on or after the date of this Agreement; or national or regional emergency (each of the foregoing, a "Force Majeure Event"). A party whose performance is affected by a Force Majeure Event shall give notice to the other

party, stating the period of time the occurrence is expected to continue and shall use diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

004113 Pricing Table

Line Items

BID GRAND TOTAL

Total Material Cost and Total Labor Cost incorporated in Project. The contract award will be based on the total bid price.

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
1	Bid Grand Total per plans and specifications	1	Lump-Sum		
TOTAL					

UNIT PRICES

Ref. Section 01 27 00. Each unit price shall be total cost or credit to Owner. Unit prices will not be included in total bid response.

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
2	Metal Deck Renovation: Unit price per sq. ft. for renovating existing metal decking as specified in Section 07 56 50. Unit prices will not be included in total bid price.	1	SQ FT		
3	Metal Deck Replacement: Unit price per sq. ft. for replacing existing metal decking as specified in Section 07 56 50. Unit prices will not be included in total bid price.	1	SQ FT		
4	Unsurfaced Modified Bitumen Base Ply: Unit price per sq. ft. for adding base ply to areas that pond water as specified in Section 07 52 00 Unit prices will not be included in total bid price.	1	SQ FT		
Replacement of Deteriorated Wood Nailers: Unit price per lineal foot for replacing deteriorated wood nailers as specified in Section 07 56 50.					

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
5	L.F. of 2x4 wood nailer including all fastening	1	LF		
6	L.F. of 2x6 wood nailer including all fastening	1	LF		
7	L.F. of 2x8 wood nailer including all fastening	1	LF		
8	L.F. of 2x10 wood nailer including all fastening	1	LF		
TOTAL					

004513 Vendor Submissions

1. OpenGov Notice*

Collin County exclusively uses OpenGov Procurement for the notification and dissemination of all solicitations. The receipt of solicitations through any other means may result in your receipt of incomplete specifications and/or addendums which could ultimately render your bid/proposal non-compliant. Collin County accepts no responsibility for the receipt and/or notification of solicitations through any other means. Please initial.

*Response required

2. Contact Information*

List the contact name, email address and phone number of the main person(s) Collin County should contact in reference to this solicitation. Contact(s) shall be duly authorized by the company, corporation, firm, partnership or individual to respond to any questions, clarification, and or offers in response to this solicitation.

*Response required

3. Exceptions*

If you take any exceptions to the specifications, you must submit the exception/s as a Question via the public eBid portal before the Question Cutoff Date for County consideration. The County will review and publish a response via eBid. If you would like to offer any substitutions, please review the Instruction to Bidders Document 002113, Section 1.07 and submit by separate attachment. Please initial.

*Response required

4. Calendar Days Bid*

Please state the consecutive calendar days bid from notice to proceed through completion of project.

*Response required

5. Insurance Acknowledgement*

I understand that the insurance requirements of this solicitation are required and are included in the submitted pricing. The Contractor shall furnish certificates of insurance for both the Contractor and any subcontractor to the Purchasing department if awarded all or a portion of the resulting contract. Please initial.

*Response required

6. Bid Bond Acknowledgement*

I understand that accompanying this bid, is a certified check, cashier's check or Bid Bond in the amount of five percent (5%) of the total amount bid. Bidders submitting a bid via OpenGov Procurement shall upload a Bid Bond at <https://procurement.opengov.com/portal/collincountytx>. Regardless of delivery method, all Bid Bonds shall be received prior to the bid opening time to be considered.

I understand that the **original** Bid Bond shall be received in the Collin County Purchasing Department no later than close of business on the third working day after the bid opening. **Late receipt of original Bid Bond shall be cause for rejection of bid.** Please initial.

*Response required

7. Bid Bond

Part 1 (Scanned and Upload)

Cashier's check, certified check, or bid bond payable to the order of the Collin County, TX, of not less **five percent (5%)** of the bid in said amount, payable to the Collin County, TX and signed by the bidder as well as a corporate surety, shall accompany the bid

Please scan and upload a copy of your bid bond/cashier's check.

or

Part 2 (Mail or Hand Deliver)

Bidder must also MAIL or hand deliver bid guarantee with a postmarked date no later than 2:00 pm on Thursday, January 16, 2025 addressed to:

Collin County Purchasing
2300 Bloomdale Road, **Ste. 3160**
McKinney, TX 75071

Please have the following listed clearly on the outside of the envelope:

- A. Bidder Name,
- B. Bid Bond" for Juvenile Detention Roof Replacement
- C. Contract Number 2024-425
- D. Date/time of the bid opening
- E. "DO NOT OPEN WITH REGULAR MAIL"

*****The Bid shall include the bid bond both uploaded into OpenGov Procurement and hard copy original mailed or hand delivered to the purchasing office no later than the close of business on the third working day after the bid opening, otherwise the bid will be deemed non-responsive.*****

8. Bonding Requirement Acknowledgement*

I understand that the bonding requirements of this solicitation are required and are included in the submitted pricing. A bond certificate (payment, performance, and/or maintenance) as stated in the specification document shall be submitted to the Purchasing department if I am awarded all or a portion of the resulting contract. Please initial.

*Response required

9. Subcontractors*

State the business name of all subcontractors and the type of work they will be performing under this contract. If you are fully qualified to self-perform the entire contract, please respond with "Not Applicable-Self Perform".

*Response required

10. Reference No. 1*

List a company or governmental agency, other than Collin County, where these same/like products/services, as stated herein, have been provided. Texas references are preferred. Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail. It is the responsibility of the Bidder/Proposer to ensure submitted references will be responsive to the County's requests. The County reserves the right to contact references other than those listed, and to consider any information acquired from all references during the evaluation process.

*Response required

11. Reference No. 2*

List a company or governmental agency, other than Collin County, where these same/like products/services, as stated herein, have been provided. Texas references are preferred. Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail. It is the responsibility of the Bidder/Proposer to ensure submitted references will be responsive to the County's requests. The County reserves the right to contact references other than those listed, and to consider any information acquired from all references during the evaluation process.

*Response required

12. Reference No. 3*

List a company or governmental agency, other than Collin County, where these same/like products/services, as stated herein, have been provided. Texas references are preferred. Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail. It is the responsibility of the Bidder/Proposer to ensure submitted references will be responsive to the County's requests. The County reserves the right to contact references other than those listed, and to consider any information acquired from all references during the evaluation process.

*Response required

13. Preferential Treatment*

The County of Collin, as a governmental agency of the State of Texas, may not award a contract to a nonresident bidder unless the nonresident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is

located or a state in which the nonresident is a resident manufacturer.(Government Code, Title 10, Chapter 2252, Subchapter A).

1. Is your principal place of business in the State of Texas?
2. If your principal place of business is not in Texas, in which State is your principal place of business?
3. If your principal place of business is not in Texas, does your state favor resident bidders (bidders in your state) by some dollar increment or percentage?
4. If your state favors resident bidders, state by what dollar amount or percentage.

*Response required

14. Debarment Certification*

I certify that neither my company nor an owner or principal of my company has been debarred, suspended or otherwise made ineligible for participation in Federal Assistance programs under Executive Order 12549, "Debarment and Suspension," as described in the Federal Register and Rules and Regulations. Please initial.

*Response required

15. Immigration and Reform Act*

I declare and affirm that my company is in compliance with the Immigration and Reform Act of 1986 and all employees are legally eligible to work in the United States of America. I further understand and acknowledge that any non-compliance with the Immigration and Reform Act of 1986 at any time during the term of this contract will render the contract voidable by Collin County. Please initial.

*Response required

16. Information Regarding Conflicts of Interests*

During the 79th Legislative Session, House Bill 914 was signed into law effective September 1, 2015, which added Chapter 176 to the Texas Local Government Code. Recent changes have been made to Chapter 176 pursuant to HB23, which passed the

84th Legislative Session. Chapter 176 mandates the public disclosure of certain information concerning persons doing business or seeking to do business with Collin County, including family, business, and financial relationships such persons may have with Collin County officers or employees involved in the planning, recommending, selecting and contracting of a vendor for this procurement.

For a copy of Form CIQ and CIS: <https://www.ethics.state.tx.us/forms/conflict/>

The vendor acknowledges by doing business or seeking to do business with Collin County that they have been notified of the requirements under Chapter 176 of the Texas Local Government Code and that they are solely responsible for complying with the terms and conditions therein. Furthermore, any individual or business

entity seeking to do business with Collin County who does not comply with this practice may risk award consideration of any County contract.

For a listing of current Collin County Officers: <https://www.collincountytx.gov/Contact/county-officials>

At the time of this solicitation being released, the following are known to be involved in the planning, recommending, selecting, and/or contracting for the attached procurement:

Construction and Projects:

Yoon Kim - County Administrator

Sandeep Kathuria - Director of Building Projects

Rickee Harris - Building Projects Coordinator

Purchasing:

Michelle Charnoski, NIGP-CPP, CPPB – Purchasing Agent

Marci Chrismon, CPPB – Assistant Purchasing Agent

Glenn Snodderly - Senior Buyer

Commissioners Court:

Chris Hill – County Judge

Susan Fletcher – Commissioner Precinct No. 1

Cheryl Williams – Commissioner Precinct No. 2

Darrell Hale – Commissioner Precinct No. 3

Duncan Webb – Commissioner Precinct No. 4

*Response required

17. Disclosure of Certain Relationships*

Chapter 176 of the Texas Local Government Code requires that any vendor considering doing business with a local government entity disclose the vendor's affiliation or business relationship that might cause a conflict of interest with a local government entity. Subchapter 6 of the code requires a vendor to file a conflict of interest questionnaire (CIQ) if a conflict exists. By law this questionnaire must be filed with the records administrator of Collin County no later than the 7th business day after the date the vendor becomes aware of an event that requires the statement to be filed. A vendor commits an offense if the vendor knowingly violates the code. An

offense under this section is a misdemeanor. By submitting a response to this request, the vendor represents that it is in compliance with the requirements of Chapter 176 of the Texas Local Government Code. Please send completed forms to the Collin County County Clerk's Office located at 2300 Bloomdale Rd., Suite 2104, McKinney, TX 75071. Please initial.

*Response required

18. Anti-Collusion Statement*

Bidder certifies that its Bid/Proposal is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Bid/Proposal for the same materials, services, supplies, or equipment and is in all respects fair and without collusion or fraud. No premiums, rebates or gratuities permitted; either with, prior to, or after any delivery of material or provision of services. Any such violation may result in Agreement cancellation, return of materials or discontinuation of services and the possible removal from bidders list. Please initial.

*Response required

19. Disclosure of Interested Parties*

Section 2252.908 of the Texas Government Code requires a business entity entering into certain contracts with a governmental entity to file with the governmental entity a disclosure of interested parties at the time the business entity submits the signed contract to the governmental entity. Section 2252.908 requires the disclosure form (Form 1295) to be signed by the authorized agent of the contracting business entity, acknowledging that the disclosure is made under oath and under penalty of perjury. Section 2252.908 applies only to a contract that requires an action or vote by the governing body of the governmental entity before the contract may be signed or has a value of at least \$1 million. Section 2252.908 provides definitions of certain terms occurring in the section. Section 2252.908 applies only to a contract entered into on or after January 1, 2016. Please initial.

*Response required

20. Notification Survey*

In order to better serve our offerors, the Collin County Purchasing Department is conducting the following survey. We appreciate your time and effort expended to submit your bid. Should you have any questions or require more information please call (972) 548-4165. How did you receive notice of this request?

- OpenGov Notification
- Plano Star Courier
- Plan Room
- Collin County Website
- Other

*Response required

21. Critical Infrastructure Affirmation*

Pursuant to section 2274.0102 of the Texas Government Code, Respondent certifies that neither it nor its parent company, nor any affiliate of Respondent or its parent company, is: (1) majority owned or controlled by citizens or governmental entities of China, Iran, North Korea, Russia, or any other country designated by the Governor under Government Code Section 2274.0103, or (2) headquartered in any of those countries. Please initial.

*Response required

22. Energy Company Boycotts*

Pursuant to Section 2274.002 of the Texas Government Code, should the contract have a value of \$100,000 or more and the company employs 10 or more full-time employees, Respondent represents and warrants that: (1) it does not, and will not for the duration of the contract, boycott energy companies, and (2) will not boycott energy companies during the term of the contract. If circumstances relevant to this provision change during the course of the contract, Respondent shall promptly notify Agency. Please initial.

*Response required

23. Firearm Entities and Trade Associations Discrimination*

Pursuant to section 2274.002 of the Texas Government Code, should the contract have a value of \$100,000 or more and the company employs 10 or more full-time employees, Respondent verifies that: (1) it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and (2) will not discriminate during the term of the contract against a firearm entity or firearm trade association. If circumstances relevant to this provision change during the course of the contract, Respondent shall promptly notify Agency. Please initial.

*Response required

24. Construction Acknowledgement*

Bidder, declares that the only person or parties interested in this bid are those principals named herein, that his/her bid is made without collusion with any other person, firm or corporation, that he/she has carefully examined the Contract Documents including the Advertisement for Bids, Instruction to Bidders, Construction Agreement, Specifications and the Drawings, therein referred to and has carefully examined the locations, conditions and classes of materials for the proposed work, and agrees that he/she will provide all the necessary labor, machinery, tools, equipment, apparatus and other items incidental to construction and will do all the work and furnish all the materials called for in the Contract Documents in the manner prescribed therein. Bidder hereby declares that he/she has visited the site of the Work and has carefully examined the Contract Documents pertaining to the Work covered by the above Bid, and he/she further agrees to commence work within ten (10) consecutive calendar days after date of written Notice to Proceed and to substantially complete the work on which he/she has bid within the number of days specified subject to such extensions of time allowed by Specifications. Bidder certifies that the bid prices contained in this bid have been carefully checked and are submitted as correct and final. The prices have been shown in words and figures for each item listed in this bid and it is understood that in the event of a discrepancy, the words shall govern. Please initial.

Invitation For Bid #2024-425
Title: Juvenile Detention Roof Replacement

***Response required**

SECTION 01 10 00

SUMMARY

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS:

- A. Work consists of the replacement of an existing modified bituminous roof at the Collin County Juvenile Detention Center, located at 4700 Community Drive, McKinney, Texas 75071.

1.02 CONTRACTS:

- A. Construct work under direction and control of the Contractor. Construct work under single Lump-sum Contract.

1.03 WORK SEQUENCE:

- A. Sequence and stage roofing work in accordance with roofing phasing plans approved by Owner.

1.04 CONTRACTOR'S USE OF PREMISES:

- A. Confine operations at site to areas permitted by Law, Ordinances and Permits and to Limits of Contract as shown on Contract Documents.
- B. Do not unreasonably encumber site with materials or equipment.
- C. Do not load structure with weight that will endanger structure.
- D. Assume full responsibility for protection and safekeeping of products stored on premises.
- E. Move stored products which interfere with operations of Owner.
- F. Obtain and pay for use of additional storage or work areas needed for operations.
- G. Coordinate use of premises under direction of Owner's representative.
- H. Limit use of each site for Work and storage as follows:
 - 1. Restrict Work to areas approved by Owner.
 - 2. Store materials off site except for approved materials which may be stored at designated staging area as approved by Owner.
 - 3. Access sites in areas approved by Owner.
 - 4. Restrict parking to specific areas of existing parking lots as approved by Owner.
- I. Maintenance of Access and Operations:
 - 1. Do not perform operations that would interrupt or delay Owner's daily operations.
 - 2. Maintain access to existing building, facilities, parking, streets and walkways; especially fire lanes. Do not obstruct entrances or loading docks.
 - 3. Schedule operations with Owner in such a manner as to allow Owner operations to continue with minimum interruption.
 - 4. During period of construction, do not obstruct in any manner existing exit ways of Owner-occupied areas.
- J. Maintenance of Existing Services:
 - 1. Do not disrupt existing utility services to existing buildings.
- K. Building Access:
 - 1. Contractor will not have access to building interior except as necessary to perform work and check for leaks, unless otherwise approved by Owner. Access to the interior of the facility will be coordinated with the designated Collin County representative.
 - 2. Access to roof construction areas shall be by way of exterior ladder on face of building as designated by Owner.

3. Access to roof construction areas for delivery of materials shall be as designated by Owner.

1.05 OWNER OCCUPANCY:

- A. Owner will occupy premises during entire period of construction for the conduct of Owner's normal, daily operations. Cooperate with Owner's representative in all construction operations to minimize conflict and to facilitate Owner usage.
- B. Contractor shall conduct his operations to insure least inconvenience to Owner's operation.
- C. Contractor shall take precautions to avoid excessive noise or vibration that would disturb Owner's operations. When directed by Owner, Contractor shall perform certain operations at designated time of day or night in order to minimize disturbance to Owner's operations.
- D. Contractor shall take all necessary precautions to assure a watertight condition in the operating portion of the building during construction.

1.06 OVERTIME WORK:

- A. Contract shall include necessary overtime work on weekends and other times as required to complete the work within the Contract Time.

END OF SECTION

SECTION 01 27 00

UNIT PRICES

PART 1 - GENERAL

1.01 GENERAL:

- A. Where unit prices are stated in the Contract Documents, the unit price shall include, except as otherwise noted, the providing of all costs required for the complete construction of the specified unit of work, including: cost of materials and delivery; cost of installation labor, including social security, insurance and other required fringe benefits; workman's compensation insurance; bond premiums; rental value of equipment and machinery; taxes; incidental expenses; and supervision.
- B. Each unit price shall be total cost or credit to Owner.
- C. Materials and methods for unit prices shall be in accordance with applicable product specifications included in this Project Manual.

1.02 METHOD OF ADJUSTMENT:

- A. Unit prices stated in the Contract Documents are for adjusting the Cost of Work in case of variations of quantities from the Work described in the Contract Documents.
- B. Except as otherwise specified, unit prices stated shall apply to both deductive and additive variations of quantities.
- C. Unit prices included in the Agreement shall remain in effect until date of final completion of entire Work.
- D. Adjustment to Cost of the Work will be by Change Order on basis of net accumulative change for each category.

1.03 SCHEDULE OF UNIT PRICES:

- A. Metal Deck Renovation: Unit price per sq. ft. for renovating existing metal decking as specified in Section 07 56 50.
- B. Metal Deck Replacement: Unit price per sq. ft. for replacing existing metal decking as specified in Section 07 56 50.
- C. Replacement of Deteriorated Wood Nailers: Unit price per lineal foot for replacing deteriorated wood nailers as specified in Section 07 56 50.
 - 1. L.F. of 2x4 wood nailer including all fastening
 - 2. L.F. of 2x6 wood nailer including all fastening
 - 3. L.F. of 2x8 wood nailer including all fastening

PART 2 – NOT APPLICABLE

PART 3 – NOT APPLICABLE

END OF SECTION

SECTION 01 31 40

PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRE-CONSTRUCTION CONFERENCE:

- A. A pre-construction conference will be held the site at a time and date to be designated by the Collin County Project Manager.
- B. Representatives of the Contractor and roofing subcontractor shall meet with Collin County Project Administrator, Collin County representatives and Consulting Architect.
- C. As a minimum, the following items will be on meeting agenda:
 - 1. Review of Contract, insurance and Schedule of Values.
 - 2. Designation of key personnel.
 - 3. Communications.
 - 4. Construction Schedule and phasing plan.
 - 5. Job site conditions and requirements:
 - a. Use of site and restrictions.
 - b. Temporary services and controls.
 - c. Existing facilities and maintenance of operation, use of site.
 - d. Construction procedures.
 - e. Daily completion procedures.
 - f. Weather restrictions.
 - g. Notification procedures.
 - h. Quality control.
 - i. Project record documents procedures.
 - j. Final inspection.
 - 6. Submittals Review.

1.02 WEEKLY PROGRESS MEETINGS:

- A. Weekly construction progress meetings will be held as designated by the Collin County Project Manager.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 GENERAL:

- A. Submit to the Consulting Architect Shop Drawings, Product Data and Samples required by Specification sections.

1.02 RELATED REQUIREMENTS:

- A. Project Record Documents - Section 01 70 00.

1.03 SHOP DRAWINGS:

- A. Original drawings, prepared by Contractor, subcontractor, supplier or distributor, which illustrate some portion of the Work, showing fabrication, layout, setting or erection details, prepared by a qualified detailer. Reproduction and use of Contract Drawings are prohibited.
- B. Format for Review: Electronic.

1.04 PRODUCT DATA:

- A. Manufacturer's standard schematic drawings:
 - 1. Modify drawings to delete information which is not applicable to project.
 - 2. Supplement standard information to provide additional information applicable to project.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data:
 - 1. Clearly mark each copy to identify pertinent materials, products or models.
 - 2. Show dimensions and clearances required.
 - 3. Show performance characteristics and capacities.
 - 4. Show wiring diagrams and controls.

1.05 SAMPLES:

- A. Physical examples to illustrate materials, equipment and workmanship, and to establish standards by which completed Work is judged.

1.06 CONTRACTOR RESPONSIBILITIES:

- A. Review Shop Drawings, Product Data and Samples prior to submission. Initial, sign or stamp, certifying to review of submittal.
- B. Verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
- C. Coordinate each submittal with requirements of Work and of Contract Documents.
- D. Contractor's responsibility for errors and omissions in submittals is not relieved by the Consulting Architect's review of submittals.
- E. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by the Consulting Architect's review of submittals.
- F. Notify the Consulting Architect, in writing at time of submission, of deviations in submittals from requirements of Contract Documents.
- G. Begin no work which requires submittals until return of submittals with Consulting Architect's stamp and initials or signature indicating review and indication to proceed as noted.

H. After Consulting Architect's review, distribute copies.

1.07 SUBMISSION REQUIREMENTS:

- A. Schedule submissions to Consulting Architect immediately after Contract Award.
- B. Submit 2 of each Sample, unless otherwise specified.
- C. Accompany submittals with transmittal letter, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. The number of each Shop Drawing, Product Datum and Sample submitted.
 - 5. Notification of deviations from Contract Documents.

1.08 RE-SUBMISSION REQUIREMENTS:

- A. Shop Drawings:
 - 1. Revise initial drawings as required and re-submit as specified for initial submittal.
 - 2. Indicate on drawings any changes which have been made, other than those requested by the Owner.
- B. Product Data and Samples: Submit new datum and samples as required for initial submittal.

1.09 DISTRIBUTION OF SUBMITTALS AFTER REVIEW:

- A. Consulting Architect will provide electronic copies of Shop Drawings and Product Datum to Contractor and Owner.
- B. Contractor shall distribute copies of Shop Drawings and Product Datum which carry Architect's stamp, as required for construction and shall maintain a copy of such at the jobsite.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 35 50

ALTERATIONS PROJECT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Procedural requirements for alterations work.
- B. Selective demolition.

1.02 DESCRIPTION:

- A. Summary: The procedures and administrative requirements of this Section apply to all of the following Sections of the Specifications which are involved in alterations to the existing building.
- B. Extent Notes: Cut into or partially remove portions of the existing building as necessary to make way for new construction. Include such work as:
 - 1. Cutting and removing of items shown to be cut or removed.
 - 2. Cutting or removing of items not shown to be cut or removed, but which must be cut or removed to allow the new work to proceed. Work or items which are to remain in the finished work shall be patched or reinstalled after their cutting or removing, and their joints and finishes made to match adjacent or similar work.
 - 3. Removal of existing surface finishes as needed to install new work and finishes.
 - 4. Removal of abandoned items and removal of items serving no useful purpose.
 - 5. Repair or removal of dangerous or unsanitary conditions resulting from alterations work.

1.03 ALTERATIONS, CUTTING AND PROTECTION:

- A. Extent:
 - 1. Cutting and removing work shall be performed so as not to cut or remove more than is necessary and so as not to damage adjacent work.
 - 2. Conduct work in such a manner as to minimize noise and to minimize accumulation and spread of dirt and dust.
- B. Protection:
 - 1. Protect remaining finishes, equipment, and adjacent work from damage caused by cutting, removing and patching operations. Protect surfaces which will remain a part of the finished work.
 - 2. Cover existing walls where necessary to prevent damage from products delivery and construction operations.
 - 3. After materials are installed, properly protect Work until final acceptance.
 - 4. Any damage resulting from construction operations shall be repaired by the Contractor without cost to the Owner.
- C. Debris:
 - 1. Remove debris promptly from the site each day in accordance with Section 01 50 00. Removed material becomes property of the Contractor. Load removed material directly on trucks for removal from site. Dispose of removed material legally. Do not allow debris to enter sewers.

1.04 PATCHING, EXTENDING AND MATCHING:

- A. Patching:
 - 1. In areas where any portion of an existing finished surface is damaged, lifted, stained, or otherwise made to be imperfect, patch or replace the imperfect portion of the surface with matching material.
 - 2. Provide adequate support or substrate for patching.

- B. Quality:
 - 1. In the Sections of the product and execution Specifications which follow these General Requirements, no concerted attempt has been made to describe each of the various existing products that must be used to patch, match, extend or replace existing work. Obtain all such products in time to complete the Work on schedule. Such products shall be provided in quality which is in no way inferior to the existing products.
 - 2. The quality of the products that exist in the building, as apparent during prebid site visits, shall serve as the Specification requirement for strength, appearance, and other characteristics.
- C. Transitions:
 - 1. Where new work abuts or finishes flush with existing work, make the transition as smooth and uniform as possible. Patched work shall match existing adjacent work in texture and appearance so as to make the patch or transition invisible to the eye at a distance of 3 ft.
 - 2. Where finished surfaces cut are in such a way that a smooth transition with new work is not possible, terminate the existing surface in a neat manner along a straight line at a natural line of division and provide trim appropriate to the finished surface.
- D. Matching: Restore existing work that is damaged during construction to a condition equal to its condition at the time of the start of the Work.

1.05 REPAIR:

- A. Replace work damaged in the course of alterations.
- B. Where full removal of extensive amounts of almost-suitable work would be needed to replace damaged portions, then filling, straightening, and similar repair techniques, followed by finishing, will be permitted.
- C. If the repaired work is not brought up to the standard for new work, the Collin County Project Manager will direct that it be cut out and replaced with new work.

1.06 SELECTIVE DEMOLITION:

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chipping.
 - 2. Dispose of demolished items and materials promptly. On-site storage or sale of removed items is prohibited.

END OF SECTION

SECTION 01 42 50

DEFINITIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Definitions for construction terminology not otherwise defined in Contract Documents.
- B. Definitions for special terminology used for this Project.

1.02 RELATED SECTIONS:

- A. Conditions of the Contract (Definitions contained therein).
- B. Section 01 35 50 - Alterations Project Procedures
- C. Section 01 60 00 - Materials and equipment

1.03 EXISTING - (PRESENTLY THERE):

- A. Also may be noted "original". Present conditions and assumed locations, if known, as of the Date of Contract Documents.

1.04 ABANDONED - (NO LONGER NECESSARY OR IN USE):

- A. "Remove" items so noted, or later defined, as an all-inclusive responsibility within this contract. Pay for all work in connection with removal of these items, including municipal, disposal, utility and service charges. Dispose of all "Excess".

1.05 ABANDON - (TO BECOME ABANDONED):

- A. Protect and allow to remain as "existing" until such other work makes them "abandoned", such as relocation or discontinuation of service. Upon determination of abandonment, work shall proceed in accordance with "Abandoned".

1.06 SALVAGE - (TO BE REMOVED AS IS):

- A. "Remove", protect, "preserve" in complete material condition as found "existing". Also to "Save". Determine suitability for incorporation in this Contract. Store at a location mutually agreed upon. Dispose of all "Excess".

1.07 UNKNOWN - (NOT SHOWN ON DRAWINGS):

- A. Products beneath surfaces indicated by drawings and encountered during the Work. Immediately support, shore and protect. Immediately notify the Architect and authority having jurisdiction. Allow free access for inspection. "Preserve" in proper condition until the Architect determines definition and interpretation of Work. Take such measures as required for protection, reinforcement or adjustment.

1.08 NEW - (TO BE INCORPORATED) NOT EXISTING:

- A. Refer to various specification sections for requirements of Work to be incorporated.

1.09 ADDITION - (TO ADD TO AND BE INCORPORATED) ALSO TO "ADD":

- A. Work supplementary to that indicated to accomplish that which is required by the Contract Documents. To bring to a new condition; to extend, fasten, patch and match to that which is existing.

1.10 REMAIN - (TO LEAVE WHERE IT IS EXISTING):

- A. The final location of an item in its "existing" position, however, this shall not mandate the fact that this item will not move during this contract, specifically in order to "Preserve" or "Rework".

1.11 RENOVATE - (TO REPAIR AND MAKE NEW):

- A. The process required to bring an item to a present new standard of condition required by the Contract Documents; e.g., to "rework" "existing" "suitable" "salvage" "products" and perform "new" work and "additions" required. (Syn. rehabilitate, recondition, repair.)

1.12 REMOVE - (TO TAKE FROM EXISTING LOCATION):

- A. Work required to extract a portion or whole by one or a combination of methods and moved to a new location.
 - 1. "Abandoned": Remove items by dismantling or extraction and may be by demolition, if acceptable.
 - 2. Salvage: Remove by disassembly. "Relocate".
 - 3. Products: Where a specific portion of component of an assembly or whole is to be removed, take all precautions to prevent damage, defacement and displacement to the "existing" to remain i.e., mortar, bricks, and finishes.

1.13 REINSTALL - (TO INCORPORATE AS WAS ONCE DONE):

- A. "Remove" and "salvage" existing from its location, if it does exist.
 - 1. "Restore", "Renovate" or "Remodel" and "Reinstall" in its existing location. Reincorporate and "re-work" the original work to the extent required by the Contract Documents.
- B. If the "Existing" item, so indicated, is missing, defective, or unsuitable as "Existing", then "Reconstruct" only that portion with "New" products and incorporate as was original. Syn. Replace.

1.14 REPLACE - (TO TAKE THE PLACE OF):

- A. "Remove" "existing" unserviceable product and provide "new" product in place of unserviceable product.

1.15 RELOCATE - ("REINSTALL" IN A NEW LOCATION):

- A. "Reinstall" in a new location as indicated on Drawings.

1.16 REUSE - (TO USE AS ONCE WAS):

- A. The use of "suitable" "salvage" for incorporation or reincorporation in the Work. "Remove", "Relocate" and "Reinstall" as required for "Reuse".

1.17 DEFECTIVE - (NOT ACCEPTABLE):

- A. Refer to Conditions of the Contract, that which does not conform to the Contract Documents. As it applies to "Salvage", in addition to the above, shall mean "Unsuitable".

1.18 EXCESS - (NOT REQUIRED):

- A. More quantity than required to conform to the Contract Documents and not desired by the Owner. Debris shall be considered "Excess" and not be buried on this site. Remove "Excess" from the site and legally dispose. "Excess" "Suitable" "Salvage" shall be property of Contractor unless otherwise specified.

END OF SECTION

SECTION 01 43 00

QUALITY ASSURANCE

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED:

- A. General Quality Control.
- B. Manufacturers' Field Services.
- C. Reroofing Daily Completion Checklist.

1.02 RELATED REQUIREMENTS:

- A. Conditions of the Contract: Inspection and testing required by governing authorities.

1.03 QUALITY CONTROL, GENERAL:

- A. Maintain quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce work of specified quality.

1.04 MANUFACTURERS' FIELD SERVICES:

- A. When specified in respective Specification section, require manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, and to make appropriate recommendations.
- B. Notify manufacturer's technical representative a minimum of 1 week prior to date of Final Inspection. The manufacturer's technical representative shall attend the Final Inspection.
- C. Representative shall submit written report to Architect and Contractor listing items to be addressed for roofing work to achieve final completion.

1.05 REROOFING DAILY COMPLETION CHECKLIST:

- A. At end of each day's work, Contractor shall complete a Reroofing Daily Completion Checklist verifying that night seal procedures have been completed and inspected.
- B. Checklist shall include following information:
 - 1. Verification of procedures and inspection.
 - 2. Name of project.
 - 3. Date and time of shut-down.
 - 4. Weather conditions at time of shut-down.
 - 5. Predicted weather conditions for that night.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS:

- A. Use of site - Section 01 35 50.
- B. Maintenance of existing services - Section 01 35 50.
- C. Demolition, cutting, dust control - Section 01 35 50.

1.02 SANITARY FACILITIES:

- A. Provide adequate temporary chemical toilets at each site at time Work is commenced.
- B. Maintain facilities in compliance with applicable health laws and regulations. Keep clean and unobtrusive.
- C. Upon completion of Work, remove these facilities and all traces thereof.

1.03 STORAGE OF MATERIALS:

- A. Store materials in areas approved by Owner and local governing requirements.
- B. Cover and protect materials subject to damage by weather, including during transit.
- C. Do not use building as storage facility with the exception of roofing materials which can be stored on the roof.
- D. Provide additional storage at no cost to Owner in the event that additional storage area is required beyond approved areas.
- E. Stored materials shall be available for inspection by Architect and Owner at all times.
- F. Store flammable and volatile liquids in sealed containers located a minimum of 30 ft. from existing buildings.
- G. Flammable or volatile liquids shall be transported in and used from U.L. listed safety cans.

1.04 TEMPORARY WATER:

- A. Contractor shall make arrangements with Owner for water required for construction.
- B. Owner will pay for costs of water.
- C. Contractor shall provide hoses for conveyance.

1.05 TEMPORARY ELECTRICAL ENERGY:

- A. Contractor shall make arrangements with Owner for temporary electrical service for completion of the Work.
- B. Owner will pay energy charges for temporary power and lighting.
- C. Contractor shall provide all necessary temporary wiring, extensions and temporary lighting devices.

1.06 TEMPORARY LADDERS, SCAFFOLDS, HOISTS:

- A. Furnish and maintain temporary ramps, scaffolds, hoists or chutes as required for proper execution of Work.
- B. Such apparatus, equipment and construction shall be of noncombustible construction and meet requirements of applicable Federal, State and Local Safety and Labor Laws.

1.07 GUARDRAILS, BARRICADES AND TEMPORARY COVERINGS:

- A. Provide barricades as required to protect natural resources, site improvements, existing property, adjacent property and passers-by.
- B. Where pedestrian traffic is adjacent to work areas, provide necessary guardrails and barricades to protect pedestrians and to prevent pedestrian access to Work areas.
- C. At completion of construction, remove guardrails and barricades.
- D. Provide suitable temporary watertight coverings over windows and roof openings as necessary to protect interior equipment from water damage.

1.08 PROTECTION:

- A. Protect existing buildings and property, including trees, lawns and plants.
 - 1. Contractor is responsible for repairing lawn areas and/ or repairing lawn irrigation lines damaged due to construction activity such as driving lifts over the lawn. Please note that there are is no irrigation system in between the buildings, the irrigation lines are only around the outside perimeter.
- B. Refer to Section 01 35 50 for additional protection requirements of existing building.
- C. Existing dishes on roofs are to be carefully moved for re-roofing work and replaced in their exact locations after re-roofing is completed. If exact alignment is not reestablished, Contractor is responsible for realignment, including contacting the service provider and having them realign the dishes for proper reception if required.

1.09 TEMPORARY FIRE PROTECTION:

- A. During construction, Contractor and his subcontractors and sub-subcontractors and their agents and employees shall comply with fire safety practices as outlined in NFPA Pamphlet 241 and local fire protection codes.
 - 1. During entire construction period, provide one U.L. listed 2A:20BC dry chemical fire extinguisher, or one standard U.L. listed 1-1/2 ga. water (E-10) and one U.L. listed 10BC carbon dioxide fire extinguisher mounted together, in each of following areas:
 - a. Each 3,000 sq. ft. of roof work area or fraction thereof.
 - b. Each temporary storage shed.
 - c. Do not use 2A:20BC dry chemical type fire extinguisher in confines of telephone equipment areas for purposes of suppression.
 - 2. Contractor's superintendent, or other assistant superintendents, shall be appointed as project fire warden for entire construction period.
 - 3. Train workmen in proper use of each type fire extinguisher.
 - 4. Post telephone number of fire department, specific information on location of on-site firefighting equipment and procedures to be followed in event of fire.
 - 5. Maintain free access at all times to fire extinguisher equipment, street fire hydrants and outside connections for standpipe hose systems.
 - 6. Maintain all exit facilities and access thereto, free of material and other obstructions.
 - 7. Refer 07 52 00 3.04 B. for Fire Watch information.

1.10 CLEANING DURING CONSTRUCTION:

- A. Oversee cleaning and ensure that building and grounds are maintained free from accumulations of waste materials and rubbish.
- B. At not less than every day during progress of work, clean work areas and access, and dispose of waste materials, rubbish and debris.
- C. Dump containers may be used for collection of waste materials, rubbish and debris. Locate containers in areas approved by Owner and local governing requirements. Remove containers when filled.

- D. Do not allow waste materials, rubbish and debris to accumulate and become an unsightly or hazardous condition.
- E. Remove waste materials, rubbish and debris from site, and legally dispose of at public or private dumping areas off Owner's property.
- F. Lower waste materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.

1.11 EMPLOYEE CONTROL:

- A. Do not allow construction employees to enter Owner occupied areas except when approved and escorted for secured spaces and for access to roof and as required to perform work.

1.12 PARKING FACILITIES:

- A. Contractor shall be responsible for parking of construction personnel vehicles at locations approved by Owner.

1.13 LEAK (WATER) DAMAGE CONTROL:

- A. In the event of rain during reroofing construction operations, immediately inspect interior of building for leaks. This shall occur on a 24 hour basis.
- B. If leaks are discovered during rains, immediately cover interior improvements and furnishing and immediately notify Owner of leak condition.
- C. Perform emergency repairs on roofing to stop leaks.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 GENERAL:

- A. Material and equipment incorporated into Work:
 - 1. Conform to applicable specifications and standards.
- B. Do not use material or equipment for purposes other than that for which it is designed or is specified.

1.02 RELATED REQUIREMENTS:

- A. Summary of Work - Section 01 10 00.
- B. Alterations Project Procedures - Section 01 35 50.
- C. Submittal Procedures - Section 01 33 00.
- D. Storage of Materials - Section 01 50 00.

1.03 REUSE OF EXISTING MATERIAL:

- A. Except as specifically indicated on Drawings, or as specified in Section 01 3550, materials and equipment removed from existing structure shall not be used in completed Work.

1.04 MANUFACTURER'S INSTRUCTIONS:

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in installation, including copy to Consulting Architect.
 - 1. Maintain one set of complete instructions at jobsite during installation and until completion.
- B. Perform work in accord with manufacturer's instructions. Do not omit preparatory steps or installation procedures unless specifically modified or exempted by Contract Documents.

1.05 TRANSPORTATION AND HANDLING:

- A. Arrange deliveries of products in accord with construction schedules, coordinate to avoid conflict with work and conditions at site.
 - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and reviewed submittals, and that products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.06 SUBSTITUTIONS AND PRODUCT OPTIONS:

- A. Contractor's Options:
 - 1. For products specified only by reference standard, select any product meeting that standard, by any manufacturer.
 - 2. For products specified by naming several products or manufacturers, select any product and manufacturer named.
 - 3. Products specified by naming only one product and manufacturer: No substitutions allowed.
- B. Substitutions: Not allowed where indicated

PART 2 - NOT APPLICABLE
PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 70 00

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED:

- A. Closeout Procedures and Submittals.
- B. Final Cleaning.
- C. Project Record Documents.
- D. Maintenance Data.
- E. Instruction of Owner's Personnel.
- F. Warranties.

1.02 RELATED REQUIREMENTS:

- A. Time of Final Payment: The Agreement.
- B. Completion; Waiver of Claims: General Conditions.
- C. Cleaning during construction - Section 01 50 00.
- D. Roof system closeout submittals - Section 07 54 19.

1.03 CLOSEOUT PROCEDURES:

- A. Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.
- B. When Contractor considers Work has reached final completion, submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Project has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. Project is completed, and ready for final inspection.
- C. Consulting Architect and Collin County Project Manager will make final inspection within 7 days after receipt of certification.
- D. Should Consulting Architect consider Work finally complete in accordance with requirements of Contract Documents, he will request Contractor to prepare Contract Closeout submittals.
- E. Should Consulting Architect consider Work not finally complete:
 - 1. He will notify Contractor, in writing, stating reasons.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies and send second written notice to Consulting Architect certifying that Work is complete.
 - 3. Consulting Architect will re-inspect Work.

1.04 FINAL CLEANING:

- A. Execute prior to final inspection at each building.
- B. Clean roofs, glazing, construction staging areas, etc.
- C. Remove grease, mastics, adhesives and other foreign materials from sight-exposed exterior surfaces.
- D. Repair, patch and touch up marred surfaces to match adjacent finishes.
- E. Remove waste and surplus materials, rubbish, and construction facilities from the project and from the site.

- F. Prior to final completion, conduct an inspection of sight-exposed exterior surfaces in work areas, to verify that entire Work is clean.

1.05 CLOSEOUT SUBMITTALS:

- A. Evidence of compliance with requirements of governing authorities.
- B. Manufacturer's Field Reports; Roof System Closeout Submittals to requirements of Section 07 54 19.
- C. Project Record Documents: To requirements of this Section.
- D. Maintenance Data: To requirements of this Section.
- E. Warranties: To requirements of this Section.
- F. Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.
- G. Final Adjustment of Accounts: To requirements of this Section.

1.06 WARRANTIES AND BONDS:

- A. Provide duplicate, notarized copies of warranty. Execute Contractor's submittals and assemble documents executed by subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.
- B. Submit material prior to final request for payment.

1.07 PROJECT RECORD DOCUMENTS:

- A. Store documents apart from other documents used for construction.
- B. Label each document, "PROJECT RECORD" in two-inch-high printed letters.
- C. Keep Record Documents current with construction progress.
- D. Do not permanently conceal any work until required information is recorded.
- E. Contract Drawings: Legibly mark Drawings of each building to record actual construction:
 - 1. Field changes of dimension and details.
 - 2. Changes made by Change Order or Field Order.
 - 3. Details not on original Contract Drawings.
- F. Specifications and Addenda: Legibly mark each section to record:
 - 1. Manufacturer, trade name, catalog number of each product and item of equipment actually installed, if different than that specified.
 - 2. Changes made by Change Order or Field Order.
- G. At Contract closeout, submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

1.08 OPERATING AND MAINTENANCE DATA:

- A. Provide data for maintenance of roofing system for each type of system and for each building.
- B. Submit 2 copies, before final inspection, in three-ring 8-1/2 x 11 in. binders with durable plastic covers.
- C. Provide a separate index tab section in manual for each system, with a table of contents for each system.
- D. Supplier Directory: Suppliers and principal subcontractors, with name, address and telephone number of each.

- E. Roof Maintenance Data: Recommendations for inspections, maintenance and repair in accordance with Section 07 54 19.

1.09 INSTRUCTION OF OWNER'S PERSONNEL:

- A. Fully instruct Owner's designated maintenance personnel in proper maintenance of systems.
- B. Schedule instructions at times agreed upon by Owner.
- C. Use maintenance manual as basis of instruction.
- D. Review contents of manual with Owner's personnel in full detail to explain all aspects of maintenance.

1.10 EVIDENCE OF PAYMENTS, AND RELEASE OF LIENS:

- A. Contractor's Affidavit of Payment of Debts and Claims: AIA G706.
- B. Contractor's Affidavit of Release of Liens: AIA G706A, with:
 - 1. Consent of Surety to Final Payments: AIA G707.
 - 2. Contractor's release of waiver of liens.
 - 3. Separate releases of waivers or liens for subcontractors, suppliers, and others with lien rights against property of Owner, together with list of those parties.
- C. Submittals shall be duly executed before delivery to Owner.

1.11 FINAL ADJUSTMENT OF ACCOUNTS:

- A. Submit final statement of accounting to Owner.
- B. Statement shall reflect all adjustments.
 - 1. Original Contract Sum.
 - 2. Additions and Deductions resulting from:
 - a. Previous Change Orders.
 - b. Deductions for uncorrected Work.
 - c. Deductions for Re-inspection Payments.
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- C. Owner will prepare final Change Order, reflecting approved adjustments to Contract Sum not previously made by Change Orders.

1.12 FINAL APPLICATION FOR PAYMENT:

- A. Submit final application in accordance with requirements of General Conditions.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 075419

POLYVINYL-CHLORIDE (PVC) ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Polyisocyanurate Insulation.
 - 2. Dens-Deck® Prime.
 - 3. Fully adhered polyvinyl-chloride (PVC) roofing system.
- B. Related Requirements:
 - 1. Section 075650 "Minor Roof Renovation Work" for wood nailers, curbs, and blocking.
 - 2. Section 076200 "Sheet Metal Flashing and Trim".
 - 3. Section 079200 "Joint Sealants".

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Roofing Conference: Conduct conference at Project site.
 - 1. Meet with Owner, Architect, Owner's insurer if applicable, and roofing system manufacturer's representative.
 - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
 - 3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Discuss deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
 - 5. Review structural loading limitations of roof deck during and after roofing.
 - 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
 - 7. Review governing regulations and requirements for insurance and certificates if applicable.
 - 8. Review temporary protection requirements for roofing system during and after installation.
 - 9. Review roof observation and repair procedures after roofing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work, including:
 - 1. Base flashings and membrane terminations.
 - 2. Tapered insulation, including slopes.
 - 3. Roof plan showing orientation of steel roof deck and orientation of roofing, fastener spacing, and patterns for mechanically fastened roofing.
 - 4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
 - 1. Sheet roofing, of color required.
 - 2. Walkway pads or rolls, of color required.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - 1. Submit evidence of compliance with performance requirements.
- C. Product Test Reports: For components of roofing system, for tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Research/Evaluation Reports: For components of roofing system, from ICC-ES.
- E. Field quality-control reports.
- F. Sample Warranties: copy of Thirty (30)-year (NDL) Full System manufacturer's warranty stating obligations, remedies, limitations, and exclusions of warranty.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation. Manufacturer's plastic wrapper is not adequate to prevent damage due to moisture or other sources.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

- A. General Warranty: The warranties specified in this Article shall not deprive the Owner of other rights of the Owner may have under other provisions of the Contractor Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

- B. Roofing Manufacturer's Warranty: Submit a written warranty, without monetary limitation, with all available options, including flashing endorsement, manufacturer's roof insulation and roofing manufacturer's accessories, signed by roofing system manufacturer's agreeing to promptly repair leaks resulting from defects in materials or workmanship for the following warranty period:
 - 1. A Thirty (30)-Year Full Systems Warranty shall be issued upon completion of the roofing project. Warranty Period shall be 30 years from date of Substantial Completion.
 - 2. The warranty shall guarantee the entire roof system and associated work against defective materials and workmanship of installation, with NO exclusions for ponding of water. Warranty includes membrane roofing, base flashings, roof insulation, fasteners, roofing accessories, and other components of roofing system.
 - 3. Warranty shall include a wind speed warranty for 60 mph.
- C. Contractor's Warranty: Submit roofing Installer's workmanship warranty, on a notarized written warranty form, signed by Installer, covering Work of this Section, including membrane roofing, sheet flashing, roof insulation, fasteners, and air or vapor retarders, if any, for the following warranty period:
 - 1. Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain components including roof insulation, fasteners for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
 - 1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 - 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 5602 or ASTM D 5635.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. Roofing System Design: Tested by a qualified testing agency to resist the following uplift pressures:
 - 1. Field Uplift Pressure: 64.1 lbf/sq. ft.
 - 2. Perimeter Uplift Pressure: 97.3 lbf/sq. ft.
 - 3. Corner Uplift Pressure: 138.6 lbf/sq. ft.
- D. Energy Performance: Roofing system shall have an initial solar reflectance of not less than 0.80 and an emissivity of not less than 0.75 when tested according to CRRC-1.
- E. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- F. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.3 PVC ROOFING

- A. PVC Sheet: ASTM D 4434/D 4434M, Type III, fabric reinforced.
 - 1. Thickness: 80 mil.

2. Exposed Face Color: White (SRI 78 min.).
 - a. Sarnafil: Sarnafil G410 fully adhered.
 - b. CarlisleSynTec: Sure-Flex KEE HP fully adhered in full spread adhesive.

2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's standard sheet flashing of same material, type, reinforcement, thickness, and color as PVC sheet.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Slip Sheet: Manufacturer's standard, of thickness required for application.
- E. Metal Termination Bars: Manufacturer's standard, predrilled at 6 inches on center, stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- F. Metal Battens: Manufacturer's standard, aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch wide by 0.05 inch thick, prepunched.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion resistance provisions in FM Global 4470, designed for fastening roofing to substrate, and acceptable to roofing system manufacturer.
- H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.5 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured by PVC roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces. Thickness to match existing.
- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/2 inch per 12 inches unless otherwise indicated for use in forming crickets.

2.6 COVER BOARD

- a. Furnish auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing materials.
 1. Type and Thickness: Gypsum board with a fiberglass facer, 1/2-inch.
 2. R-value: 0.67.
 3. Product: Subject to compliance with requirements, provide "Dens-Deck® Prime" as manufactured by Georgia-Pacific Corp. and supplied by PVC manufacturer.

2.7 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads or rolls, approximately 3/16-inch-thick and acceptable to roofing system manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 - 3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements to resist uplift forces specified above.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Remove existing membrane and insulation to the metal deck. Inspect deck for deterioration. Refer to Section 07 56 50 – Minor Roof Renovation Work for repair.

3.3 WOOD NAILER INSTALLATION

- A. Install new continuous wood nailers at the perimeter, i.e. metal edge or metal coping caps, of the roof and around roof projections and penetrations.
- B. Where applicable, existing wood nailers may remain in place and to be re-used; provided the existing wood nailer is not in a deteriorating condition. Before any replacement of any deteriorated wood nailers, the owner's representative must approve the replacement. The wood nailer replacement cost will be based upon the unit cost, which was established in the roofing contractor's re-roofing proposal.
- C. All Wood Nailers shall be anchored to resist a minimum force of 300 pounds per lineal foot in any direction. Individual nailer lengths shall not be less than 3 feet long. Nailer fastener spacing shall be at 12 inches on center or 16 inches on center if necessary to match the structural framing. Fasteners shall be staggered 1/3 the nailer width and installed within 6 inches (0.15 m) of each end. Two fasteners shall be installed at ends of nailer lengths. Nailer attachment shall meet this requirement and that of the current Factory Mutual Loss Prevention Data Sheet 1-49.
- D. Thickness shall be as required to match insulation height to allow a smooth transition.
- E. New wood is to be fire retardant treated as required in Section 07 56 50.

3.4 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Install roofing and auxiliary materials to tie into existing roofing to maintain weathertightness of transition until work is resumed.

3.5 TAPERED INSULATION INSTALLATION

- A. General Criteria:
1. Install the specified insulation per the required ASCE-7 Windstorm Resistance Classification, to the insulation manufacturer and/or to the roofing systems manufacturer's written installation instructions.
 2. Warped or bent insulation boards are not acceptable.
 3. Single Base Layer of Insulation: Stagger end joints of the insulation board layer a minimum of 1/3 of overall insulation board length.
 4. Additional Layers of Flat Stock or Tapered Insulation: Two layers of insulation shall be installed when the thickness of the insulation exceeds 2.5 inches. Additional layers of flat or tapered insulation shall be laid transverse to the first layer, with joints staggered at least 1/3 of overall length from those of the first layer. All layers and tapered boards of the specified insulation shall be adhered to the insulation base or first layer with the manufacturer's approved low-rise polyurethane adhesive.
 5. Insulation shall be neatly cut to fit around penetrations and projections.
 6. Do not install more insulation board than can be covered with the specified roofing system by the end of the day, or onset of inclement weather. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Install insulation to match approved taper plan, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
- C. Installation of the Polyisocyanurate Insulation on Steel Decks: Mechanically Attached and Adhered Insulation
1. Base Layer of Insulation: All edges of insulation boards shall be supported on the top rib of the steel deck. Board edges shall be as close as practical to the center of the rib, with a minimum of 1½-(1.5) inches bearing on the rib. Stagger end joints of the insulation board layer a minimum of 1/3 of overall insulation board length. Secure insulation with fasteners and metal insulation plates with a pattern as required to meet uplift requirements. Fasteners shall be long enough to reach the top deck flute and penetrate 3/4 inch, but shall not be long enough to reach the bottom flute.
 2. Additional Layers of Flat Stock or Tapered Insulation: Two layers of insulation shall be installed when the thickness of the insulation exceeds 2.5 inches. Additional layers of flat or tapered insulation shall be laid transverse to the first layer, with joints staggered at least 1/3 of overall length from those of the first layer. Second and subsequent layers shall be adhered with low-rise foam using 3/4 inch beads and spaced 12 inches on center in the field of the roof, 8 inches on center at the perimeter of the roof, and 4 inches on center in the corners of the roof. Perimeter zones shall be 8 feet wide minimum and corners shall be 8 feet by 8 feet.

3.6 COVER BOARD INSTALLATION

- A. Adhere Dens-Deck Prime according to requirements of FM's "Approval Guide" for specified Windstorm Resistance Classification and to the insulation and roofing systems manufacturer's written instructions. Cover boards shall be adhered with the same fastening pattern as the insulation.
- B. Warped or bent cover boards are not acceptable.
- C. Single Layer of Dens-Deck Prime: The Dens-Deck Prime shall be laid in parallel courses with end joints staggered. The layer of Dens-Deck shall be laid transverse to the top layer of the insulation board, with joints staggered at least 1/3 of overall length from those of the insulation layer. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
- D. Dens-Deck Prime shall be neatly cut to fit within 1/4 inch (6 mm) of nailers, penetrations and projections.

- E. Trim surface of Dens-Deck Prime where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Dens-Deck Prime shall be a maximum of 4' x 4' in size.
- G. Attachment of Dens-Deck Prime over the specified polyisocyanurate insulation shall be of the following application:
 - 1. The Dens-Deck Prime shall be adhered to the rigid insulation, which is mechanically attached to the steel deck with PVC manufacturer's approved metal fasteners and plates per the projects ASCE-7 requirements.

3.7 PVC SHEET INSTALLATION

- A. General: Install in strict accordance with manufacturer's latest published requirements, instructions, specifications, details and approved shop drawings.
- B. Install sheet according to ASTM D 5082 and per ASCE-7 wind uplift requirements for the referenced project.
- C. Install PVC membrane sheet per manufacturer's requirements in order to obtain manufacturer Thirty (30)-year full system (NDL) warranty.
- D. The surface of the substrate shall be inspected prior to installation of the PVC roof membrane. The substrate shall be clean, dry and smooth with no excessive surface roughness, contaminated surfaces or unsound surfaces such as broken, delaminated, or damaged boards. Any wet, broken, delaminated, or damaged boards shall be replaced with new.
- E. Install in strict accordance with manufacturer's latest published requirements, instructions, specifications, details and approved shop drawings.
- F. Start installation of sheet in presence of roofing system manufacturer's technical personnel.
- G. Contractor shall use the following adhesive type to adhere the PVC membrane to specified cover board substrate:
 - 1. Sarnacol 2170 Adhesive:
 - a. No adhesive shall be applied in seam areas. All membrane shall be applied in the same manner.
 - b. Care must be taken to insure that the adhesive has not dried before the membrane is laid in place. This is especially important during hot temperatures. Adjustments may be needed in the application technique to insure a wet lay in. It is recommended that only 6-10 feet at a time is coated out ahead of the membrane to prevent dry laid membrane.
- H. The means of application and the quantities of the membrane adhesive to be used shall be per the recommendations of the manufacturer. Consult manufacturer on proper application rates and acceptable substrates for the membrane adhesives.
- I. Use caution to ensure adhesive fumes are not drawn into the building.
 - 1. The Applicator shall count the amount of pails of adhesive used per area per day to verify conformance to the specified adhesive rate.
 - 2. Adhesives shall not be used if temperatures below 40° F (5° C) are expected during application or subsequent drying time.
 - 3. No adhesive shall be applied in seam areas. All membrane field sheets shall be applied in the same manner.
- J. Mechanically fasten sheet securely at all vertical to horizontal transitions, at points of terminations, at the corners, and at the perimeter of roof to meet the ASCE-7 wind uplift requirements and /or as required by the PVC manufacturer.
- K. Spread sealant bed over deck drain flange at deck drains and securely seal roofing sheet in place with drain clamping ring.

- L. Field-seam according to "Seam Installation" Article.
- M. Securement Around Perimeter and Rooftop Penetrations
 1. Around all perimeters, at the base of walls, drains, curbs, vent pipes, or any other roof penetrations, manufacturer's fasteners and metal bar shall be installed. Fasteners and securement bar shall be installed accord to the manufacturer's instructions. Fasteners shall be installed using the fastener manufacturer's recommended fastening tools with depth locators.
 2. PVC membrane flashings shall extend a minimum of 3 inches past the securement bar or plates and is hot air welded to the PVC deck sheet.

3.8 SEAM INSTALLATION

- A. General
 1. All seams shall be hot air welded. Seam overlaps should be 3 inches (75 mm) wide when automatic machine-welding and 4 inches (100 mm) wide when hand-welding, except for certain details.
 2. Welding equipment shall be provided by or approved by the roofing manufacturer. All mechanics intending to use the equipment shall have successfully completed a training course provided by a Manufacturer's Technical Representative prior to welding.
 3. All membrane to be welded shall be clean and dry.
- B. Hand-Welding:
 1. Hand-welded seams shall be completed in two stages. Hot-air welding equipment shall be allowed to warm up for at least one minute prior to welding.
 2. The back edge of the seam shall be welded with a narrow but continuous weld to prevent loss of hot air during the final welding.
 3. The nozzle shall be inserted into the seam at a 45-degree angle to the edge of the membrane. Once the proper welding temperature has been reached and the membrane begins to "flow," the hand roller is positioned perpendicular to the nozzle and pressed lightly. For straight seams, the 1½-inch (40-mm) wide nozzle is recommended for use. For corners and compound connections, the ¾ inch (20 mm) wide nozzle shall be used.
- C. Machine Welding
 1. Machine welded seams are achieved by the use of automatic welding equipment. When using this equipment, PVC Manufacturer's instructions shall be followed and local codes for electric supply, grounding and over current protection observed. Dedicated circuit house power or a dedicated portable generator is recommended. No other equipment shall be operated off the generator.
 2. Metal tracks may be used over the deck membrane and under the machine welder to minimize or eliminate wrinkles.
- D. Quality Control of Welded Seams
 1. The Applicator shall check all welded seams for continuity using a rounded screwdriver. Visible evidence that welding is proceeding correctly is smoke during the welding operation, shiny membrane surfaces, and an uninterrupted flow of dark grey material from the underside of the top membrane. On-site evaluation of welded seams shall be made daily by the Applicator at locations as directed by the Owner's Representative or PVC Manufacturer's representative. One inch (25-mm) wide cross-section samples of welded seams shall be taken at least three times a day. Correct welds display failure from shearing of the membrane prior to separation of the weld. Each test cut shall be patched by the Applicator at no extra cost to the Owner. Test strip shall
 2. Repair tears, voids, and lapped seams in roofing that does not meet requirements.
 3. All seams of the field membrane shall be hot air welded on a daily basis. **NO EXCEPTIONS.**

3.9 FLASHING INSTALLATION

- A. General: All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the

Owner's Representative and the manufacturer. Approval shall only be for specific locations on specific dates. Flashing shall be adhered to compatible, dry, smooth, and solvent-resistant surfaces. Use caution to ensure adhesive fumes are not drawn into the building.

- B. Contact adhesive shall be used to adhere the PVC membrane flashing to acceptable wall and equipment curb substrates. No bitumen shall be in contact with the PVC membrane. If bitumen exists, then the manufacturer's asphalt resistant membrane shall be use for the membrane flashing.
- C. Contact Adhesive for Membrane Flashings: Sarnacol 2170 Adhesive
 - 1. Over the properly installed and prepared flashing substrate, contact adhesive shall be applied according to instructions found on the Product Data Sheet. The contact adhesive shall be applied in smooth, even coats with no gaps, globs or similar inconsistencies. Only an area that can be completely covered in the same day's operations shall be flashed. The bonded sheet shall be pressed firmly in place with a hand roller.
 - 2. No adhesive shall be applied in seam areas that are to be welded. All panels of membrane shall be applied in the same manner, overlapping the edges of the panels as required by welding techniques.
 - 3. All flashing membranes shall be consistently adhered to substrates. All interior and exterior corners and miters shall be cut and hot-air welded into place. Where applicable, manufacturer's pre-fabricated corners shall be used.
- D. All flashings shall extend a minimum of 8 inches above roofing level unless otherwise accepted in writing by the Owner's Representative and Manufacturer's Technical Department.
- E. All flashings that exceed 30 inches (0.75 m) in height shall receive additional securement. Consult PVC manufacturer for securement methods.
- F. All PVC membrane flashings shall be mechanically fastened along the counter-flashed top edge with securement bar; fastened 6 inches on center. Seal the top edge and backside of the membrane flashing with Multi-Purpose Sealing Tape and approved sealant. Complete termination per manufacturer's requirements. Provide a metal counterflashing to protect the sealant and multi-purpose sealant tape.
- G. Only an area, which can be completely covered in the same day's operations, shall be flashed.
- H. Test lap edges with probe to verify seam weld continuity of all membrane flashings.
- I. Complete all membrane flashing and metal details on a daily basis. No temporary flashings shall be allowed. If any water is allowed to enter under the completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.

3.10 PVC COATED CLAD PERIMETER AND METAL BASE FLASHINGS

- A. General: All flashings shall be installed concurrently with the roofing membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and the manufacturer. Acceptance shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.
- B. PVC coated metal flashings shall be formed to match existing conditions and installed per the Detail Drawings.
- C. PVC coated metal shall be installed to provide adequate resistance to bending and allow for normal thermal expansion and contraction.
- D. Install Multi-purpose sealant tape and termination bar as indicated on project details. The Multi-purpose sealant tape must be applied to clean and dry surfaces.

- E. Secure the PVC coated metal over the PVC field membrane and the multi-purpose sealant tape. Fastened the PVC coated metal with approved stainless steel nails or other acceptable fastener. Fasteners shall be fastened 3 inches on center and staggered 3 inches on center.
- F. Adjacent sheets of PVC coated metal shall be spaced ¼ inch (6 mm) apart. The joint shall be covered with 2-inch (50-mm) wide aluminum tape. A 4-inch minimum wide strip of PVC membrane flashing membrane shall be hot air welded over the joint. Check all coverstrip welds with a rounded screwdriver prior to installation of eight-inch coverstrip. Re-weld any inconsistencies before eight-inch coverstrip installation.
- G. An 8 inch minimum wide strip of the 60 mil PVC membrane flashing shall be hot air welded to the 4 inch wide flange of the PVC coated metal and to the field membrane. Check all coverstrip welds with a rounded screwdriver. Re-weld any inconsistencies.

3.11 METAL FLASHINGS, COPINGS, EDGE TRIM AND ACCESSORIES INSTALLATION

- A. General: Secure metal flashings accessories at roof edges and perimeters according to FM Loss Prevention Data Sheet 1-49 for specified wind zone.
- B. All metal flashings, gutters, downspouts, and perimeter metal edging shall be fabricated and install per current SMCA requirements and as required in Section 07 60 00.
- C. Complete all metal work in conjunction with roofing and flashings so that a watertight condition exists daily.
- D. Metal shall be installed to provide adequate resistance to bending to allow for normal thermal expansion and contraction.

3.12 WALKWAY INSTALLATION

- A. Walkways: Install PVC walk pad or walkway at 3 side of the roof hatch and around all four sides of all serviceable type equipment. Install walk pad or walkway accord to PVC manufacturer's written instructions.
 - 1. Clean all dirt and debris from the deck membrane in areas where the walkway will be installed. Important: Check all deck membrane welds with a rounded screwdriver prior to installation of walkway. Re-weld any inconsistencies before walkway installation.
 - 2. Roofing membrane to receive walkway shall be clean and dry. Place chalk lines on deck sheet to indicate location of walkway. Apply a continuous coat of contact adhesive to the deck sheet and to the back of Walkway in accordance with manufacturer's technical requirements. Press walkway into place with a water-filled, foam-covered lawn roller. Hot-air weld the entire perimeters of the walk pad or walkway to the PVC deck sheet.
 - 3. Check all walkway seam welds with a rounded screwdriver. Re-weld any inconsistencies found in the walkway seams.

3.13 PREFABRICATED SUPPORTS INSTALLATION

- A. Install the supports in accordance to manufacturer's recommendations.
- B. Pipe Supports shall be installed at all locations where existing piping or electrical conduit runs across the roof area.
- C. Place wear pad under each pipe support and weld to roof membrane.
- D. Pipe Supports shall be located within 24 inches of any change in direction and not greater than 8 feet on center.

3.14 FIELD QUALITY CONTROL

- A. Roofing Applicator: the contractor shall make On-site evaluation of welded seams to locations as directed by the owner's representative or PVC manufacturer's technical representative. One-inch wide cross-sections samples shall be taken three times a day minimum through completed seams. Correct welds shall display failure from shearing the membrane prior to separation of

weld. The contractor at no extra charge to owner shall patch each test cut. Test seam samples shall be label with locations of seam cut, date of seam cut, and retain for owner' representative or PVC manufacturer's technical representative for test cut inspections. At the close of project, all seam test cuts are to be submitted to the owner's representative for review.

- B. Manufacturer's Quality Control Inspection: The Manufacturer's Technical Representative shall review the on-going work one time each week of production. All defects noted non-compliance with the specifications or the recommendations of the thermoplastic manufacturer should be itemized in a punch list. These items must be corrected immediately by the contractor to the satisfaction of the owner's representative and the thermoplastic manufacturer.
- C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion of the roofing project.

3.15 PROTECTING AND CLEANING

- A. Protect sheet membrane roofing from damage and wear during remainder of construction period. Installer is to inspect the completed roofing system for any damage. Should there be any damage resulting from "other" trades, the roofing contractor shall document the damage and report the damage to the owner's representative.
- B. Correct deficiencies in or remove roofing that does not comply with requirements, repair substrates, reinstall roofing, and repair sheet flashings to a condition free of damage and deterioration at the time of Substantial Completion and according to warranty requirements.
- C. Upon completion of the Work of this Section, dispose of, away from the Site, all debris, trash, containers, residue, roofing remnants and scraps which results from the Work of this Section.
- D. Clean overspray and spillage from adjacent construction using cleaning agents and procedures required by manufacturer of affected construction.

3.16 ACCEPTANCE

- A. Prior to demobilization from the site, the owner/project manager, manufacturer technical representative and installer shall review the completed work. All defects noted noncompliance with the specifications or the recommendations of the PVC manufacturer should be itemized in a punch list. These items must be corrected immediately by the contractor prior to demobilization to the satisfaction of the owner/project manager, and the PVC manufacturer.
- B. All warranties as required for the project of this specification shall be submitted for approval prior to final payment.

3.14 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
 - 1. Owner: <Insert name of Owner>.
 - 2. Address: <Insert address>.
 - 3. Building Name/Type: <Insert information>.
 - 4. Address: <Insert address>.
 - 5. Area of Work: <Insert information>.
 - 6. Acceptance Date: _____.
 - 7. Warranty Period: <Insert time>.
 - 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made

such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding 90 mph;
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
 6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
 7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION

SECTION 07 56 50

MINOR ROOF RENOVATION WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Required minor demolition for reroofing work.
- B. Required minor renovation for reroofing work.

1.02 RELATED SECTIONS:

- A. Section 01 10 00 - Summary
- B. Section 01 27 00 - Unit Pricing
- C. Section 01 35 16 - Alterations Project Procedures
- D. Section 07 54 19 – Polyvinyl-Chloride (PVC) Roofing
- E. Section 07 72 00 - Roof Accessories
- F. Section 07 92 00 - Joint Sealants

1.03 SUBMITTALS:

- A. Product Data: Submit manufacturer's product data sheets for each product in accordance with Section 01 33 00.

1.04 PROTECTIONS:

- A. Prior to starting minor demolition operations, provide necessary protections as specified in Section 01 50 00.

1.05 COORDINATION:

- A. Sequence minor demolition and renovation with work sequence of reroofing work.
- B. Coordinate with reroofing work so that no more existing items are removed in one day than can be replaced along with new roofing work in same day.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Wood Nailers and Blocking:
 - 1. No. 2 or better Southern Yellow Pine.
 - 2. Fire-retardant treated with Osmose Flame Proof LHC, bearing UL Label FR-S.
 - 3. Dimensions to match existing 2x4's, 2x6's, 2x8's and 2x10's.
- B. Fasteners:
 - 1. Screws: Hot-dip galvanized wood screws.
 - 2. Nails: Non-ferrous, cement-coated, or hot-dip galvanized nails.
- C. Metal Paint:
 - 1. Rust-Inhibitive Paint: 1500 System Speedy-Dry 1573 Rust-Inhibitive Primer as manufactured by Rust-Oleum or similar approved product.
- D. Metal Decking: Match existing, 22 ga. minimum.

PART 3 - EXECUTION

3.01 PREPARATION:

- A. Verify that required barricades and other protective measures are in place.

3.02 MINOR DEMOLITION OPERATIONS:

- A. General:
 - 1. Comply with precautions and procedures specified in Section 01 35 16.
 - 2. Cut and remove materials as designated on Drawings.
 - 3. Execute demolition in a careful and orderly manner with least possible disturbance or damage to adjoining surfaces and structure.
 - 4. Avoid excessive vibrations in demolition procedures that would be transmitted through existing structure and finish materials.

3.03 DISPOSAL:

- A. Materials, equipment and debris resulting from demolition operations shall become property of Contractor. Remove demolition debris in accordance with applicable City, State and Federal Laws, and in accordance with requirements of Section 01 35 16 and 01 50 00.
- B. Legally dispose of demolition debris.

3.04 MINOR RENOVATION WORK:

- A. Replacement of Wood Nailers:
 - 1. Replace deteriorated wood blocking where present with new blocking anchored or fastened to substrate in a similar manner to existing. Base Bid shall include the replacement of the following with variations in quantities between the scheduled allowance and the amount actually used will be adjusted by Change Order on Unit Price basis as set forth in Section 01 27 00.
 - a. 400 l.f. of 2x4 wood nailer including all fastening
 - b. 400 l.f. of 2x6 wood nailer including all fastening
 - c. 400 l.f. of 2x8 wood nailer including all fastening
 - d. 400 l.f. of 2x10 wood nailer including all fastening
- B. Metal Painting – Existing metal decking with light formations of rust.
 - 1. Prepare substrates in accordance with paint manufacturer's recommendations
 - 2. Apply rust-inhibitive paint in accordance with manufacturer's requirements
 - 3. Spray application not permitted

3.05 METAL ROOF DECK RENOVATION:

- A. Examine metal roof decking for rust and deterioration at locations where existing roofing is being removed down to metal decking.
 - 1. Coat areas of metal roof decking that have surface rust with a rust-inhibitive paint coating.
 - 2. Remove areas of metal roof decking that are severely rusted, damaged or deteriorated beyond use.
- B. Replace removed areas with new metal deck to match existing. Secure deck to surrounding metal deck with #10 Tek screws at 6inches on center parallel to the flutes, and at every third flute into structural member. Deck shall lap 2 flutes on the side parallel to the flutes and 12 inches on the ends perpendicular to the flutes.
- C. Include in the Contract Amount 2,000 s.f. for metal deck renovation (coating of metal roof decking with a rust-inhibitive paint coating). Variations in quantities between the scheduled allowance and that amount actually used will be adjusted by Change Order on Unit Price basis.
- D. Include in the Contract Amount 1,000 s.f. for removal and replacement of metal roof decking. Variations in quantities between the scheduled allowance and that amount actually used will be adjusted by Change Order on Unit Price basis.

- E. Patch minor voids and damages in existing metal deck from removal of existing penetrations with such work being completed as a part of the Base Bid.

END OF SECTION

SECTION 07 60 00

SHEET METAL WORK

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Shop or field-formed sheet metal work for moisture protection
- B. Accessories.

1.02 RELATED SECTIONS:

- A. Section 07 52 00 – Modified Bituminous Membrane Roofing
- B. Section 07 92 00 - Joint Sealants.

1.03 REFERENCES:

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels; 1998.
- B. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2000.
- C. FS FF-S-325 - Shield Expansion; Nail, Expansion; and Nail, Drive-Screw.
- D. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 2012.

1.04 SUBMITTALS:

- A. Procedures for Submittals: Section 01 33 00.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Samples: Submit two samples 6 x 6 inch in size illustrating metal finish color.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA Architectural Sheet Metal Manual requirements and standard details, except as otherwise indicated.
- B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.
- C. Pre-Installation Conference:
 - 1. Attend roofing pre-installation conference at the project site.
 - 2. Attendance: Owner, Contractor, project superintendent, sheet metal fabricator and applicator.
 - 3. Agenda: As specified in Section 07 52 00.

1.06 DELIVERY, STORAGE, AND HANDLING:

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials which may cause discoloration or staining.

1.07 WARRANTY:

- A. Provide Owner a written warranty which shall warrant sheet metal work to be free of leaks and defects in materials and workmanship for 5 years after date of Substantial Completion.

PART 2 PRODUCTS

2.01 SHEET MATERIALS:

- A. Galvanized Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; thickness as scheduled, minimum 24 gage base metal.
- B. Pre-Finished Galvanized Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; shop pre-coated with PVDF coating, color as selected.
 - 1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system; color as selected by Owner from manufacturer's standard colors.

2.02 ACCESSORIES:

- A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers.
 - 1. Nails: Flathead, wire, barbed, slating type.
 - 2. Screws: Self-tapping sheet metal type with rubber washer made of EPDM.
 - 3. Rivets: Type and size as recommended by sheet metal manufacturer.
 - 4. Concrete Fasteners: Round-head stainless steel screw and neoprene washer with lead expansion anchor, FS FF-S-325, Group IV, Type 2. Powers Rawl Screw Type Nailins.
- B. Sealant: Type silicone sealant specified in Section 07 92 00.
- C. Non-Shrink Grout (For installation in multiple pipe penetration flashing hoods where shown): CRYSTEX RAPID START as manufactured by L&M Construction Chemicals, Inc. or similar approved product.
- D. Pourable Sealer: Firestone Building Products Co. – Pourable Sealer S-10 Part A and Part B or similar approved product.

2.03 FABRICATION:

- A. Form sections as detailed; true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet, minimum 3 inches wide, interlocking with sheet.
- C. Form pieces in longest possible lengths.
- D. Make angle bends and folds for interlocking metal with full regard for expansion and contraction to avoid buckling or fullness in metal after installation.
- E. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- F. Form material with scheduled or specified seams. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- G. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- H. Fabricate sheet metal items out of sheet metal and gauge as noted on plans.

2.04 FABRICATED ITEMS:

- A. Counter Flashings:
 - 1. One piece system as detailed.
 - 2. Fabricated as shown similar to SMACNA Figure 4-4D.
- B. Multiple Pipe Penetration Flashing:
 - 1. Sheet metal as indicated similar to SMACNA Figure 8-9A.
 - 2. Sheet metal flashing hood as indicated.
 - 3. Solder all joints.
- C. Multiple Pipe Penetration Flashing:
 - 1. Sheet metal as indicated similar to SMACNA Figure 3-1, Detail 1.

- D. Copings:
 1. Sheet metal as indicated similar to SMACNA Figure 3-4A.
 2. Form in maximum lengths as possible.
 3. Provide Butt + Backup Plates per SMACNA Table 3-1, J2 at joints.
- E. Hung Gutters:
 1. Prefinished sheet metal formed in minimum 10 ft lengths. Lap joints 1 inch and rivet and seal.
 2. Profile as indicated similar to SMACNA Figure 1-2, Style A.
 3. Provide butt type expansion joints where indicated and detailed similar to SMACNA Figure 1-7.
 4. Install prefinished sheet metal, 1-inch wide gutter brackets, hemmed and riveted to top edge of gutter as shown installed at 36 inches on center.
 5. Provide outlet thimble to fit downspouts similar to SMACNA Figure 1-33, Detail 1.
- F. Downspouts:
 1. Prefinished sheet metal with upper sections telescoped into lower sections 1-1/2 inch and riveted and sealed fabricated similar to SMACNA Figure 1-32B.
 2. Provide 3 evenly spaced 2 inch wide hemmed prefinished sheet metal wall brackets for each downspout.

PART 3 EXECUTION

3.01 EXAMINATION:

- A. Verify roofing termination and base flashings are in place, sealed, and secure.
- B. Verify that substrates are smooth and clean to extent needed for sheet metal work.
- C. Do not start sheet metal work until conditions are satisfactory.

3.02 INSTALLATION - GENERAL

- A. Install work watertight, without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction.
- B. Install fabricated sheet metal items as detailed and in general accordance with SMACNA Architectural Sheet Metal Manual.
- C. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.

3.03 INSTALLATION - FABRICATED ITEMS:

- A. Counter Flashings:
 1. Install where shown with fasteners installed as indicated.
 2. Overlap counter flashing 4 inches over base flashing, lap ends of sheets 3 inches.
 3. Solder joints in galvanized sheet metal counter flashings.
- B. Multiple Pipe Penetration Flashing:
 1. Install over base ply of modified bitumen roof membrane setting flanges in roofing cement.
 2. Install where indicated with soldered joints.
 3. Solder all joints.
 4. Seal openings in metal decking with non-combustible material prior to installing non-shrink grout.
 5. Install non-shrink grout in bottom of penetration dam.
 6. Install pourable sealer over non-shrink grout after the non-shrink grout has fully cured.
 7. Install flashing hood as detailed, securing such in place with sheet metal fasteners.
- C. Cleats:
 1. Install as required to allow for the bottom edge of the exterior side of the coping to match the existing elevation.

2. Anchor to suitable substrate.
- E. Coping:
1. Install high temperature self-adhering rubberized asphalt underlayment over top of parapet walls as shown in accordance with manufactures written recommendations.
 2. Secure front edge to cleat as shown.
 3. Install fasteners on back side of coping as shown.
 4. Install backup plates at all joints
 5. Miter corners if applicable, pop rivet and seal.
 6. Installed end caps, riveted and sealed.
- E. Hung Gutters:
1. Install plumb and level, attached to substrate with nails installed at 6 inches on center.
 2. Install butt type expansion joints where indicated.
 3. Install outlet thimbles at downspouts.
- F. Downspouts:
1. Install plumb and level, attached to wall with gutter brackets anchored to substrate with expansion anchors.
 2. Provide 3 evenly spaced 2 inch wide hemmed prefinished sheet metal wall brackets for each downspout.

3.04 CLEANING:

- A. Leave work clean and free of stains, scrap, and debris.

3.05 MOUNTING OF WARRANTY:

- A. Mount professionally framed in close proximity to the door providing access to the roof a copy of the specified warranty.

END OF SECTION

SECTION 07 72 00

ROOF ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Pipe supports.
- B. Prefabricated roof curbs.

1.02 RELATED SECTIONS

- A. Section 07 52 00 - Modified Bituminous Membrane Roofing
- B. Section 07 60 00 - Sheet Metal Work

1.03 SUBMITTALS

- A. Procedures for Submittals: Section 01 33 00.
- B. Product Data: Provide manufacturer's product data sheets, including installation instructions.
- C. Shop Drawings: Indicate following.
 - 1. Prefabricated Roof Curbs: Indicate inside and outside dimensions of curbs, height of curbs (at high side and at low side), weights of units being supported, gauge of metal selected to support scheduled load, location and size of fasteners and correlation to adjacent construction.

PART 2 PRODUCTS

2.01 PIPE/DUCT SUPPORTS:

- A. Type 1:
 - 1. Qualities: Base 100% recycled rubber, UV resistant, 4" Height X 6" Width X 9.6" Length (Over all Height 8" or 12"). 14 gage galvanized steel Channel Strut designed to support conduit and condensate pipes above roof. Two ½" electro zinc plated all thread rod risers.
 - 2. Source: Mifab CE10-8.
- B. Type 2:
 - 1. Base 100% recycled rubber, UV resistant, 6" Length of X 9.6". Roller width – 3", 4' or 6" with total height 6" or 7".
 - 2. Source: Mifab CR10-4.
- C. Type 3:
 - 1. Base 100% recycled rubber, UV resistant, 4" Height X 6" Width X 9.6" Length (Over all Height 8" or 12"). 12 gage galvanized steel telescoping crossbeams and hot-rolled, zinc plated carbon steel vari-angle brackets.
 - 2. Source: Mifab DSA10.

2.02 PREFABRICATED ROOF CURB:

- A. Qualities: Prefabricated insulated curb for mechanical equipment support fabricated from galvanized sheet steel, 18 ga. minimum, welded construction designed to support weight of unit being supported. Provide with preservative treated wood nailer.
 - 1. Fabricate curbs to compensate for roof slope at location of each curb unit.
 - 2. Fabricate curbs with minimum 16 inch height above roof deck, unless otherwise detailed.
 - 3. Fabricate curbs to width and length of unit being supported, less 1-1/2 in. overall to allow for membrane flashing installation.
- B. Source:
 - 1. Model CRC-3 by Custom Curb, Inc.
 - 2. Model TC-3 by ThyCurb.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrates are smooth and clean to extent needed for roof accessories work.
- B. Do not start work until conditions are satisfactory.

3.02 INSTALLATION

- A. General:
 - 1. Install work watertight, without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction.
 - 2. Coat contact surfaces of dissimilar metals with asphalt coating compound or zinc chromate paint.
 - 3. Install curbs in accordance with manufacturer's instructions.
- B. Pipe/Duct Supports:
 - 1. Install Pipe Support - Type 1 under single small piping and conduit, other than gas piping.
 - 2. Install Pipe Support - Type 2 under gas piping and piping and conduit 2 to 4 inch in diameter.
 - 3. Install scheduled pipe supports at 8 ft. o.c. and within 2 ft. of each change of direction.
 - 4. Secure pipe and conduit loosely in pipe support using metal strap fastened with two 1/2 in. No. 10 screws and provide pipe sleeves to prevent contact with dissimilar metals.
 - 5. All pipe supports are to be placed on wear pads.
- C. Prefabricated Roof Curbs:
 - 1. Install prefabricated roof curbs beneath rooftop equipment and fans requiring curbs.
 - 2. Set level and square on roof deck; securely fasten curb flanges to roof deck with appropriate fasteners for type of deck material. Seal bolt heads with flashing cement.
 - 3. Install foam gasket continuously on top of curb frame immediately prior to setting units on curbs.

3.03 CLEANING

- A. Leave work clean and free of stains, scrap, and debris.

END OF SECTION

SECTION 07 92 00

JOINT SEALANTS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Installation of sealant where indicated.

1.02 RELATED SECTIONS:

- A. Section 01 35 50 - Alterations Projects Procedures
- B. Section 07 56 50 - Minor Roof Renovation Work
- C. Section 07 60 00 - Sheet Metal Work

1.03 REFERENCES:

- A. ASTM C920 - Elastomeric Joint Sealants.
- B. ASTM D2240 - Rubber Property - Durometer Hardness.
- C. ASTM D412 - Rubber Properties in Tension.
- D. ASTM D903 - Peel or Stripping Strength of Adhesive Bonds.

1.04 SUBMITTALS:

- A. Procedures for Submittals: Section 01 33 00.
- B. Product Data: Manufacturer's product data sheets for each product.
- C. Samples: Manufacturer's standard color samples of sealant for Architect's selection of colors.
- D. Quality Control Submittals: For information only.
 - 1. Manufacturer's installation instructions.
 - 2. Test Reports: Certified independent laboratory test reports or test reports of sealant manufacturer of field adhesion tests of sealants.

1.05 QUALITY ASSURANCE:

- A. Applicators: Qualified applicators thoroughly skilled and specially trained in application techniques of sealant products.
- B. Job Mock-up:
 - 1. Prepare a maximum of 3 sample applications of sealant, 24 in. length, in location directed by Architect.
 - 2. Mock-up will be used for final approval of color and as standard of workmanship for application.
- C. Source Quality Control:
 - 1. Conduct independent laboratory adhesion tests of proposed sealant using actual sample of sealant supplied to project as test specimen.
 - 2. Prepare and test specimens in accordance with ASTM C920. Use 3/4 in. wide test joints. Prepare one set of test specimens with primer and one set without primer.
 - 3. Test specimens for dry adhesion and wet adhesion.
 - 4. Indicate test results of strength in psi and percent of adhesion failure.

1.06 DELIVERY, STORAGE AND HANDLING:

- A. Deliver materials in unopened containers as packaged by manufacturer.
- B. Store in a manner to protect materials from weather.

1.07 WARRANTY:

- A. Manufacturer: Provide Owner a written warranty for a period of 10 years from date of Substantial Completion against following defects in sealant materials.
 - 1. Loss of flexibility.
 - 2. Adhesive or cohesive failure due to weathering or material failure.
 - 3. Discoloration of adjacent concrete surfaces.
 - 4. Excessive and continuous dirt accumulation due to exuded oil.
 - 5. Hardening beyond Shore A durometer of 50.

PART 2 - PRODUCTS

2.01 SILICONE BUILDING SEALANT:

- A. Qualities: Single component, neutral cure, silicone rubber formulation with medium modulus, high elongation characteristics, capable of obtaining strong, durable bond strength and with \pm 50% movement capability. Sealant shall be specially formulated to reduce or eliminate dirt pickup and substrate staining from plasticizer bleed.
 - 1. Hardness, Type A Durometer: 27, ASTM D2240.
 - 2. Tensile Strength: 295 psi, ASTM D412.
 - 3. Peel Strength, Unprimed Concrete: 39lb./100% cohesive failure, ASTM D903.
 - 4. Color: Manufacturer's standard color selected by Architect.
- B. Standard: ASTM C920, Type S, Class 50, Grade NS.
- C. Source: SilPruf NB, SCS9000 Silicone Sealant by GE Silicones or similar approved products by Tremco or Pecora.

2.02 HIGH TEMPERATURE SILICONE BUILDING SEALANT:

- A. Qualities: High temperature, single component, neutral cure, silicone rubber formulation with medium modulus, high elongation characteristics, capable of obtaining strong, durable bond strength and with \pm 50% movement capability. Sealant shall be specially formulated to reduce or eliminate dirt pickup and substrate staining from plasticizer bleed.
 - 1. Hardness, Shore A Hardness, ASTM C661.
 - 2. Tensile Strength: 175-200 psi, ASTM D412.
 - 3. Color: Manufacturer's standard color selected by Architect.
- B. Source: TremPro 644 HT, High Temperature Silicone Sealant by Tremco or similar approved products by GE Silicones or Pecora.

2.03 RELATED MATERIALS:

- A. Bond-preventive Materials (where required by manufacturer): Polyethylene tape, pressure-sensitive adhesive.
- B. Primer: As recommended by sealant manufacturer for each type of working surface.

PART 3 - EXECUTION

3.01 PREPARATION:

- A. Cleaning Surfaces to Receive Sealant:
 - 1. Clean joint surfaces free of dust, dirt, oil, grease, moisture and coatings.
 - 2. Remove residual dust and other foreign substances by blowing with high-pressure air.
 - 3. Thoroughly wipe surfaces with a heavy solvent wash using toluene or xylene on clean, lint-free cloths.
 - 4. Mask areas adjacent to joints as required protecting adjacent surfaces.
- B. Priming: Prime joint substrate surfaces as recommended by sealant manufacturer. Apply specified primers in strict accordance with sealant manufacturer's written recommendations. Use correct primer for each substrate. Exercise care to prevent staining of surfaces.

3.02 APPLICATION:

- A. Install bond-preventive material prior to installation of sealant in accordance with manufacturer's requirements.
- B. Sealant:
 - 1. Apply sealant within 8 hours after primer has dried.

3.03 CLEANING:

- A. Remove excess sealant and caulking materials from adjacent surfaces as work progresses. Use xylol or toluol solvent to remove sealant.
- B. Remove debris from site.

END OF SECTION

004313 BID BOND

STATE OF TEXAS §
COUNTY OF COLLIN §

KNOW ALL MEN BY THESE PRESENTS:

THAT _____, a corporation organized and existing under the laws of the State of _____, and fully authorized to transact business in the State of Texas, whose address is _____ of the City of _____ County of _____, and State of _____, (hereinafter referred to as "Principal"), and _____ (hereinafter referred to as "Surety", a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (hereinafter referred to as "Owner") and unto all persons, firms and corporations who may furnish materials for or perform labor upon the buildings, structures or improvements referred to in the attached Contract, in the penal sum of _____ Dollars (\$ _____) in lawful money of the United States, for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

SIGNED, SEALED and DATED this _____ day of _____ 202_____.

WHEREAS, the Principal is herewith submitting its proposal for IFB 2024-425, Juvenile Detention Roof Replacement

The condition of the above obligations are such that if the aforesaid Principal shall be awarded the Contract, the said Principal will, within the time required, enter into a Contract and give Bonds, if required, for the faithful performance of the Contract and the prompt payment for labor and materials in the prosecution thereof, then this obligation shall be null and void; otherwise the Principal and Surety will pay unto the OWNER the full penal sum hereof, as liquidated damages, it being difficult and impractical to determine accurately the actual amount of damages occurring to OWNER by reason of Principal's failure to execute said Contract and Bonds.

PROVIDED FURTHER, that if any legal action be filed on this Bond, venue shall lie in _____ County, Texas.

The Resident Agent of the Surety for delivery of notice and service of process is:
Name: _____
Address: _____
Phone Number: _____

WITNESS

PRINCIPAL

Printed/Typed Name _____
Title: _____
Company: _____

Address: _____

WITNESS

SURETY

Printed/Typed Name _____
Title: _____
Company: _____

Address: _____

NOTE: CERTIFIED COPY OF POWER-OF-ATTORNEY SHOULD BE ATTACHED HERETO.

SECTION 004325 - PRODUCT SUBSTITUTION REQUEST FORM

(Must be submitted by date specified in solicitation)

Bidder: _____

Project No: **IFB 2024-425**

Project: **Juvenile Detention Roof Replacement**

Section: _____

Article/ Paragraph: _____

Proposed Substitution: _____

Manufacturer: _____ Address: _____

Telephone: _____ Proposed Model No.: _____

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

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

The undersigned warrants and represents:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by substitution.

Submitted By: _____

Signed: _____

Firm: _____

Address: _____

Phone: _____

REVIEW & ACTION (Initial)

_____ Substitution approved - Make submittals in accordance with Project Manual requirements.

_____ Substitution approved as noted - Make submittals in accordance with Project Manual requirements.

_____ Substitution rejected - Use specified materials.

_____ Substitution Request received too late - Use specified materials.

Signature: _____

Date: _____

Supporting Data Attached: ___ Drawings ___ Product Data ___ Samples ___ Tests ___ Reports ___ Other

END OF REQUEST FORM

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

2 Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

Yes No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

Yes No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

Signature of vendor doing business with the governmental entity

Date

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed;
or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

005213 CONSTRUCTION AGREEMENT

THIS CONSTRUCTION AGREEMENT is made and entered into by and between _____, a _____ corporation (hereinafter referred to as “Contractor”), and COLLIN COUNTY, TEXAS, a political subdivision of the State of Texas (hereinafter referred to as “County” or “OWNER”), to be effective from and after the date hereinafter provided.

For and in consideration of the covenants and agreements contained herein, and for the mutual benefits to be obtained hereby, the parties hereto agree as follows:

CONTRACT SUM

The County shall pay the Contractor in current funds for the performance of the work, subject to additions and deductions by Change orders as provided in the Contract Documents. The contract sum shall be the amount of _____ (\$_____).

EFFECTIVE DATE

This Construction Agreement, having been previously approved by the Commissioners’ Court of Collin County, Texas, shall be effective upon the date of delivery and execution by Contractor, provided the County executes the same within five (5) consecutive calendar days after said delivery and execution by Contractor.

I. CONTRACT GENERAL PROVISIONS

1.1 DEFINITIONS

Words which have well-known technical or construction industry meanings shall have their commonly understood meanings in the Contract Documents, unless a different meaning is stated in the Contract Documents. The following words and expressions, or pronouns used in their place, shall wherever they appear in this contract be construed as follows, unless a different meaning is clear from the context:

Addendum, Bulletin or Letter of Clarification: Any additional contract provisions, or change, revisions or clarification of the Contract Documents issued in writing by the OWNER, to prospective bidders prior to the receipt of bids.

Contract or Contract Documents: The written agreement covering the performance of the work. The Contract and Contract Documents include this written Construction Agreement between OWNER and CONTRACTOR, Advertisement for Bids, Instructions to Bidders, Requests for Proposal, all Addenda, the Specifications, including the general and supplemental special and technical conditions, Drawings, provisions, plans or working drawings — and any supplemental changes or agreements pertaining to the Work or materials therefor; and bonds and any additional documents incorporated by reference in the above.

CONTRACTOR: The person, persons, partnership, firm, corporation, association or organization, or any combination thereof, entering into the contract for the execution of the work, acting directly or through a duly authorized representative.

Other CONTRACTORS: Any contractor, other than the CONTRACTOR or his subcontractors, who has a direct contact with the OWNER for work on or adjacent to the site of the work.

Contract Work or Work: Everything expressly or impliedly required to be furnished and done by the CONTRACTOR by the Contract Documents.

Engineer: The term “Engineer” means the Engineer or his duly authorized representative. The Engineer shall be understood to be the Engineer of the OWNER, and nothing contained in the Contract Documents shall create any contractual or agency relationship between the Engineer and the CONTRACTOR.

Extra Work: Work other than that which is expressly or impliedly required by the Contract Documents at the time of the execution of the contract.

Change Order: A written order to the CONTRACTOR authorizing and directing an addition, deletion or revision in the work within the general scope of the Contract Documents, or authorizing an adjustment in the Contract Price or the Contract time.

Contract Price: The total amount of money payable to the CONTRACTOR under the terms and conditions of the Contract Documents. When used in such context, it may also mean the unit price of an item of work under the Contract terms.

OWNER’S Representative: The Engineer or other duly authorized assistant, agent, engineer, inspector or superintendent acting within the scope of their particular duties.

Drawings or Contract Drawings: Those drawings that are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, including but not limited to, the plans, elevations, sections, details, schedules, diagrams, any bulletin, or any detailed drawing furnished by the OWNER, pertaining or supplemental thereto.

Specifications: Those portions of the Contract Documents that specify the requirements for materials, equipment, systems, standards and workmanship for performance of the Work, and related services.

Inspector: Any representative of the OWNER designated to inspect the work.

Materialman or Supplier: Any subcontractor contracting with the CONTRACTOR, or any of his subcontractors, to fabricate or deliver or who actually fabricates or delivers materials, supplies or equipment to be consumed or incorporated into the Work.

Notice: Written notice effective the date of the postmark thereon, or if hand delivered, effective the date of hand delivery.

OWNER: COLLIN COUNTY, TEXAS, a political subdivision of the State of Texas. The term OWNER means the OWNER or its authorized representative.

Payment Bond: A bond in the amount of the Contract executed by a corporate surety in accordance with all Texas Law, including but not limited to, Chapter 2253 of the Texas Government Code and Chapter 3503 of the Texas Insurance Code, for public works projects as security furnished by the CONTRACTOR and his sureties solely for the protection of payment bond beneficiaries supplying labor and materials in the prosecution of the Contract Work.

Performance Bond: A bond in the amount of the Contract executed by a corporate surety in accordance with all Texas Law, including but not limited to, Chapter 2253 of the Texas Government Code and Chapter 3503 of the Texas Insurance Code, for public works projects as security furnished by the CONTRACTOR and his sureties solely for the protection of the Owner, conditioned on the faithful performance of the Contract Work in accordance with the plans, specification, and Contract Documents.

Maintenance Bond: A bond executed by a corporate surety for 10% of the Contract Price that complies with all Texas Laws, including but not limited to, Chapter 3503 of the Texas Insurance Code, guaranteeing the prompt, full and faithful performance of the general guaranty and warranty contained in the Contract Documents, and Texas Law.

Project: The total construction of the work described in the Contract Documents performed by the Contractor, Other Contractor or the Owner in whole or part.

Proposal: The written statement or statements duly submitted to the OWNER by the person, persons, partnership, company, firm, association or corporation proposing to do the Work contemplated, including the approved form on which the formal bids for the Work are to be proposed.

Plan, or Plans: The plans are the drawings or reproductions therefrom made by the Owner or Owner's Representative and approved by the Owner showing the dimensions, location, design and position of the various elements of the Project and Work, including plans, elevations, sections, details, schedules, diagrams, working drawings, preliminary drawings, and such supplemental drawings as the Owner may issue to clarify other drawings or for the purpose of showing changes in the Contract Work authorized by the Owner, or for showing details not shown therein.

Special Provisions or Conditions: The special clauses of the Contract, or Contract Documents, setting forth conditions or requirements peculiar to the specific Project involved, supplementing the standard or general specifications and taking precedence over any conditions or requirements of the standard or general specifications with which they are in conflict.

Specifications or Contract Specifications: All of the general, special and technical conditions or provisions, and all addendum or supplements thereto consisting of

written requirements for materials, equipment, systems, standards and performance of the work.

Site: The area upon or in which the CONTRACTOR'S operations are carried on, and such other areas adjacent thereto as may be designated as such by the OWNER.

Subcontractors: Any persons, firm or corporation, other than employees of the CONTRACTOR, who or which contracts with the CONTRACTOR to furnish, or who actually furnishes, labor and/or materials and equipment at or about the site.

Sureties: The corporate bodies which are bound by such bonds as are required with and for the CONTRACTOR. The sureties engaged to be responsible for the entire and satisfactory fulfillment of the Contract and for any and all requirements as set out in the specifications, Contract or plans.

The Work: All work including the furnishing of all labor, materials, tools, equipment, required submittals and incidentals to be performed by the CONTRACTOR under the terms of the Contract.

Directed, Required, Approved and Words of Like Import: Whenever they apply to the Work or its performance, the words "directed," "required," "permitted," "ordered," "designated," "established," "prescribed" and words of like import used in the Contract, specifications or upon the drawings shall imply the direction, requirement, permission, order, designation or prescription of the OWNER; and "approved," "acceptable," "satisfactory" and words of like import shall mean approved by, acceptable to or satisfactory to the OWNER.

Equal: Materials, articles or methods which are of equal or higher quality than those specified or shown on the drawings and as further defined in the "or equal" clause. Substitution of Materials shall be determined by the Engineer at his or her discretion, and approved by the Owner.

Working Time, Completion Time or Contract Time: The time set forth in the Contract for the performance and completion of the Work contracted for. The time may be expressed as calendar days, working days or a specific date.

Calendar Day or Days: Any successive days of the week or month, no days being excepted.

Working Day: A working day is defined as a calendar day not including Saturdays, Sundays or those legal holidays as specified in the list prepared by the OWNER for contract purposes. Nothing in this definition shall be construed as prohibiting the CONTRACTOR from working on Saturdays if he so desires, however permission of the OWNER shall be necessary if the CONTRACTOR chooses to work on Saturday. Work on Sundays shall not be permitted without the written permission of the OWNER. If Saturday or Sunday work is permitted, working time shall be charged on the same basis as week days. Where the working time is expressed as calendar days

or a specific date, the concept of working days shall no longer be relevant to the contract.

CONTRACT DOCUMENTS

1.2 The parties agree that the Contract Documents shall consist of the following documents in addition to any other documents referenced or incorporated herein:

- A. This written Construction Agreement, including any changes or modifications;
- B. All addenda including the following listed and numbered addenda:
Addendum No. 1 dated _____ Received _____
Addendum No. 2 dated _____ Received _____
- C. Advertisement for Bids, Instructions to Bidder, the Invitation to Bid and Bid Form;
- D. The Special/Supplemental Conditions;
- E. The Specifications and the Project Drawings (if any);
- F. The Construction Details shown on plans;
- G. The Standard Specifications and Standard Drawings from the Public Works Construction Standards-North Central Texas Council of Governments, 2004 edition and all subsequent addendums;
- H. The Performance Bond in the sum of ONE HUNDRED PERCENT (100%) of the total Contract Price;
- I. The Payment Bond in the sum of ONE HUNDRED PERCENT (100%) of the total Contract Price; and,
- J. The Maintenance Bond in the sum of TEN PERCENT (10%) of the total Contract Price.

1.2.1 PRIORITY OF THE CONTRACT DOCUMENTS

These Contract Documents (A through J above) form the Construction Agreement and are a part of this Construction Agreement as if fully set forth herein. In the event of an inconsistency in any of the provisions of the Contract Documents, the inconsistency shall be resolved by giving precedence to the Contract Documents in the order in which they are listed above.

1.2.2 THE CONTRACT

The Contract Documents form the Contract. The Contract represents the entire integrated agreement between the OWNER and the CONTRACTOR and supersedes all prior negotiations, and representations by either party.

1.3 CORRELATION AND INTENT OF DOCUMENTS

The Contract Documents are complementary and what is called for by any one shall be as binding as if called for by all. The intent of the documents, unless otherwise specifically provided, is to produce complete and finished work, which the CONTRACTOR undertakes to do in full compliance with the Contract Documents. It is not intended to mention every item of work in the specifications which can be

adequately shown on the drawings nor to show on the drawings all items of work described or required by the specifications. All materials or labor for work shown on the drawings or reasonably inferable therefrom as being necessary to produce a finished job shall be provided by the CONTRACTOR whether or not same is expressly covered in the specifications. No verbal conversation, understanding or agreement with any officer or employee or agent of the OWNER, either before or after the execution of the Contract, shall affect or modify any of the terms, conditions or obligations contained in the Contract Documents.

1.3.1 CONTRACT DRAWINGS AND SPECIFICATIONS

The OWNER shall furnish the CONTRACTOR one copy of the Contract Drawings and any supplemental drawings and specifications reasonably necessary for the proper execution of the work. At least one copy of all drawings and specifications shall be accessible at all times to the OWNER at the job site.

1.3.2 SUPPLEMENTAL DRAWINGS AND SPECIFICATIONS

In order to carry out the intent of the Contract Documents and to assist the CONTRACTOR in performing its work, the OWNER, after the execution of the Contract, may, by supplemental drawings, specifications or otherwise, furnish additional information or instructions as may be necessary for construction purposes.

All such supplemental drawings, specifications or instructions are intended to be consistent with the Contract Documents and reasonably inferable therefrom. Therefore, no extra costs shall be allowed by the OWNER on a claim that particular supplemental drawings, specifications or instructions differ from the requirements of the Contract Documents, incurring extra costs, unless the CONTRACTOR has first brought the matter, in writing, to the OWNER'S attention for adjustment before proceeding with the work covered by such.

If the OWNER decides that there is no departure from the requirements of the Contract Documents, the CONTRACTOR shall then proceed with the work as shown, specified or directed. If the OWNER shall decide that Extra Work is involved, he shall so modify the supplemental drawings, specifications or instructions to eliminate the Extra Work, or cause a written Change Order to be issued in accordance with the Contract Documents.

1.3.3 ERRORS AND CORRECTIONS IN DRAWINGS AND SPECIFICATIONS

The CONTRACTOR shall not take advantage of any apparent errors, omissions or discrepancies in the drawings or specifications; and the Engineer shall be permitted to make such corrections or interpretations

asos3Documents. In case of any errors, omissions or discrepancies in the drawings or specifications, the CONTRACTOR shall promptly submit the matter to the OWNER or OWNER'S Representative in writing who, in turn, shall promptly make a determination and issue the necessary instructions in writing. Any adjustment by the CONTRACTOR without this determination and instructions shall be at the CONTRACTOR'S own risk and expense. The Work is to be made complete as intended by the Contract Documents.

1.3.4 EXISTING STRUCTURES

The plans show the general locations of some known surface and subsurface structures. The locations of many gas mains, water mains, conduits, sewers, other utilities, etc., however, are unknown, and the OWNER assumes no responsibility for failure to show any or all of these structures on the plans or to show them in their exact locations. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for Extra Work or for increasing the pay quantities in any manner whatsoever. The CONTRACTOR shall be sole responsible for locating all gas mains, water mains, conduits, sewers, other utilities etc., so as to perform the Work without damaging the same.

II. THE WORK

2.1 SCOPE OF WORK

Contractor shall provide all labor, supervision, materials, and equipment necessary to perform all work required by the Contract Documents in connection with **IFB 2024-425, Juvenile Detention Roof Replacement.**

2.2 CHANGE OR MODIFICATION OF CONTRACT

2.2.1 ALTERATION OF PLANS AND SPECIFICATIONS

The OWNER reserves the right to make such changes in the plans and specifications and in the character of the work as may be necessary or desirable to insure completion in the most satisfactory manner, provided such changes do not materially alter the original plans and specifications or change the general nature of the Work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the Contract or bonds. Such changes shall be issued by the Engineer.

2.2.2 INCREASED OR DECREASED QUANTITIES OF WORK

The OWNER reserves the right and may from time to time, by written order, and without notice to any surety, make changes in the quantity or time of performance of the Work, as may be considered necessary or desirable and such changes shall not be considered as waiving or invalidating any conditions or provisions of the Contract or bonds. The CONTRACTOR

shall perform all the Contract Work in strict compliance with the Contract Documents, and shall not make any changes to the Work without prior written authorization from the OWNER, in the form of a written Change Order. If such changes increase or decrease either the cost or the time necessary for the performance of the Work, then the parties will mutually agree upon an equitable adjustment to the price or time to perform the Work pursuant to the terms of the Contract.

2.2.3 EXTRA WORK/CHANGE ORDERS

When any work is necessary to the proper completion of the Project and for which no prices are provided for in the Bid or Proposal and Contract, the CONTRACTOR shall do such work, but only when and as ordered in writing by the OWNER. The OWNER may order changes in the Work without invalidating Contract. Payment for Extra Work shall be made as provided herein. Contractor agrees that overhead and profit for Extra Work shall not exceed 10% of the total cost of the Extra Work. The Contractor shall not be entitled to any additional funds for any work or Extra Work performed on the Project, unless a Change Order is issued and signed by the Owner. The CONTRACTOR shall perform the work as altered, whether increased or decreased, and no allowances shall be made for anticipated profits. Nothing in this section shall give rise to any claims for any delay or acceleration damages, and the CONTRACTORS sole remedy for any delays in the Project shall remain an equitable extension of time as provided for in the Contract Documents. CONTRACTOR acknowledges and agrees to waive all rights or claims for compensation for any additional or other work not specifically authorized by the OWNER.

2.3 DISPUTED WORK AND CLAIMS FOR ADDITIONAL COMPENSATION

If the CONTRACTOR is of the opinion that (a) the work necessary or required to accomplish the result intended by this Contract, or (b) any work ordered to be done as Contract Work by the OWNER is Extra Work and not Contract Work, or (c) any determination or order of the OWNER violates the terms and provisions of this Contract, the CONTRACTOR shall promptly, either before proceeding with such work or complying with such order or determination, notify the OWNER in writing of his contentions with respect thereto and request a final determination thereof.

Such determination of the OWNER shall be given in writing to the CONTRACTOR. If the OWNER determines that the work in question is Extra Work and not Contract Work, or that the order complained of requires performance by the CONTRACTOR beyond that required by the Contract or violates the terms and provisions of the Contract, thereupon the OWNER shall cause either (a) the issuance of a written Change Order covering the Extra Work as provided herein, or (b) the determination or order complained of to be rescinded or so modified so as to not require performance beyond that required by the terms and provisions of the Contract.

If the OWNER determines that the work in question is Contract Work and not Extra Work, or that the determination or order complained of does not require performance by the CONTRACTOR beyond that required by the Contract or violate the terms and provisions of the Contract, he shall direct the CONTRACTOR to proceed, and the CONTRACTOR must promptly comply. In order to reserve his right to claim compensation for such work resulting from such compliance, however, the CONTRACTOR must, within 20 calendar days after receiving the OWNER'S determination and direction, notify the OWNER in writing that the work is being performed, or that the determination and direction is being complied with, under protest.

If the CONTRACTOR fails to so appeal to the OWNER for a determination or, having so appealed, should the CONTRACTOR thus fail to notify the OWNER in writing of his protest, the CONTRACTOR shall be deemed to have waived any claim for extra compensation or damages therefore. No oral appeals or oral protests, no matter to whom made, shall be deemed even substantial compliance with the provisions of this item.

In addition to the foregoing requirements, the CONTRACTOR shall, upon notice from the OWNER, produce for examination for a minimum period of three (3) years following final payment or termination of contract and audit at the CONTRACTOR'S office, by the representatives of the OWNER, all his books and records showing all of his acts and transactions in connection with contractual performance as well as relating to or arising by reason of the matter in dispute. At such examination a duly authorized representative of the CONTRACTOR may be present.

Unless the aforesaid requirements and conditions are complied with by the CONTRACTOR, the OWNER shall be released from all claims arising under, relating to or by reason of disputed work or Extra Work. It is further stipulated and agreed that no conduct on the part of the OWNER or any agent or employee of the OWNER shall ever be construed as a waiver of the requirements of this section, when such requirements constitute an absolute condition precedent to any approval of any claim for extra compensation, notwithstanding any other provisions of the Contract Documents; and in any action against the OWNER to recover any sum in excess of the contract amount, the CONTRACTOR must allege and prove strict compliance with the provisions of this section. The CONTRACTOR ASSUMES THE RISK OF NONPAYMENT, for failing to comply with any of the requirements of this section.

III. CONTRACTORS RESPONSIBILITIES

3.1 CONTRACTOR'S REPRESENTATIONS, WARRANTIES AND ASSURANCES.

In consideration of, and to induce the award of this contract to him, the CONTRACTOR represents and warrants: (a) That he is financially solvent, and sufficiently experienced and competent to perform the work; (b) That the facts

stated in the proposal and the information given by him pursuant to the bidding documents are true and correct in all respects; (c) That he has read, understood and complied with all the requirements set forth in the bidding documents; (d) That he is familiar with and understands all laws and regulations applicable to the work; and (e) unless otherwise specifically provided for in the Contract Documents, the CONTRACTOR shall do all the Work and shall furnish all the tools, equipment, machinery, materials, labor and appliances, except as herein otherwise specified, necessary or proper for performing and completing the work required by this Contract, in the manner and within the time herein prescribed.

By executing the contract, the CONTRACTOR represents that he has visited the site of Work, has fully familiarized himself with the local and on-site conditions under which the work is to be performed and has correlated his observation with the requirements of the Contract Documents. In addition, the CONTRACTOR represents that he has satisfied himself as to subsurface conditions at the site of the Work. Information, data and representations contained in the Contract Documents pertaining to the conditions at the site, including subsurface conditions, are for information only and are not warranted or represented in any manner to accurately show the conditions at the site of the Work. The CONTRACTOR agrees that he shall make no claims for damages, additional compensation or extension of time against the OWNER because of encountering actual conditions in the course of the Work which vary or differ from conditions or information contained in the Contract Documents. All risks of differing subsurface conditions shall be borne solely by the CONTRACTOR.

The CONTRACTOR shall carefully study and compare the Contract Documents and shall at once report to the OWNER any error, inconsistency or omission he may discover. The CONTRACTOR shall perform no portion of the Work at any time without Contract Documents or, where required, approved shop drawings, product data or samples for such portion of the work.

3.1.1 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. Shop drawings are drawings, diagrams, schedules and other data specially prepared for the work by the CONTRACTOR or any subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

B. Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the CONTRACTOR to illustrate a material, product or system for some portion of the work.

C. Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the work shall be judged.

D. the CONTRACTOR shall provide, review, approve and submit to the Engineer with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the OWNER or any separate contractor, all shop drawings, product data and samples required by the Contract Documents. The Work will be performed in accordance with submittals approved by the Engineer. The CONTRACTOR shall not be relieved responsibility for deviations from the requirements of the Contract Documents by errors or omissions by the OWNER or Engineer in approving Shop Drawings, Product Data, samples or any other submittals.

E. By approving and submitting shop drawings, product data and samples, the CONTRACTOR represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, or shall do so, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

F. As the Engineer's review is only for general conformance with the requirements of the Contract Documents, the CONTRACTOR shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Engineer's approval of shop drawings, product data or samples unless the CONTRACTOR has specifically informed the Engineer in writing of such deviation at the time of submission and the Engineer have given written approval to the specific deviation. The CONTRACTOR shall not be relieved from responsibility for errors or omissions in the shop drawings, product data or samples by the Engineer's approval thereof. The CONTRACTOR shall direct specific attention, in writing or on resubmitted shop drawings, product data or samples, to revisions other than those requested by the Engineer on previous submittals.

G. The CONTRACTOR shall be responsible for delays caused by rejection of the submittal of inadequate or incorrect shop drawings, product data or samples. The CONTRACTOR shall be responsible for seeing that any "approved" copies of shop drawings bearing the approval of the Engineer are allowed on the job site. The CONTRACTOR shall be responsible for providing all copies of approved shop drawings necessary for the construction operations.

H. The CONTRACTOR shall keep adequate records of submittal and approvals so that an accurate up-to-date record file is maintained at the job site at all times.

I. No portion of the work requiring submission of a shop drawing, product data or sample shall be commenced until the submittal has been approved by the Engineer. All such portions of the work shall be in accordance with approved submittals.

3.1.2 SURETY BONDS

With the execution and delivery of the contract, the CONTRACTOR shall furnish and file with the OWNER in the amounts herein required, the surety bonds specified hereunder. Without exception, the OWNER'S bond forms, attached hereto as Section 00610 and 00611 must be used, and exclusive venue for any lawsuit in connection with such bonds shall be specified as the county in which the OWNER'S principal office is located. Such surety bonds shall be in accordance with Texas Law, including but not limited to, the provisions of Chapter 2253 of the Texas Government Code and Chapter 3503 of the Texas Insurance Code. These bonds shall automatically be increased by the amount of any change order or supplemental agreement which increases the contract price with or without notice to the surety, but in no event shall a change which reduces the contract amount reduce the penal amount of such bonds.

A. Performance Bond. A good and sufficient bond in an amount not less than 100 percent (100%) of the total amount of the Contract Price guaranteeing the full and faithful execution of the Work and performance of the Contract in accordance with the plans, specifications and Contract Documents, including any extensions thereof, for the protection of the OWNER. This bond shall provide for the repair and/or replacement of all defects due to faulty materials and workmanship that appear within a period of one year from the date of completion and acceptance of the improvement by the OWNER or such lesser or greater period as may be designated in the Contract Documents.

B. Payment Bond. A good and sufficient bond in an amount not less than 100 percent (100%) of the total amount of the Contract Price guaranteeing the full and proper protection of all payment bond beneficiaries and claimants supplying labor and material in the prosecution of the work provided for in said Contract and for the use of each claimant.

C. Maintenance Bond. A good and sufficient bond in an amount not less than ten percent (10%) of the total amount of the Contract Price guaranteeing the project against defects.

D. Sureties. No sureties shall be accepted by the OWNER who are now in default or delinquent on any bonds or who are interested in any litigation against the OWNER. All bonds shall be made on forms furnished by the OWNER and shall be executed by not less than one corporate surety authorized to do business in the State of Texas and acceptable to the OWNER. The sureties shall be listed in the most current Federal Register Treasury List. Each bond shall be executed by the CONTRACTOR and surety. Each surety shall designate an agent resident in the OWNER'S jurisdictional area acceptable to the OWNER to whom any requisite notices may be delivered and on whom service of process may be had in matters

arising out of such suretyship. The OWNER reserves the right to reject any and all sureties.

E. Additional or Substitute Bonds. If at any time the OWNER is or becomes dissatisfied with any surety, then upon the performance or payment bond, the CONTRACTOR shall, within five days after notice from the OWNER to do so, substitute an acceptable bond (or bonds), or provide an additional bond, in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such bonds shall be paid by the CONTRACTOR without recourse to the OWNER. No further payments under the contract shall be deemed due or payable until the substitute or additional bonds shall have been furnished and accepted by the OWNER.

3.1.3 PERMITS AND FEES

The CONTRACTOR shall secure and pay for all building permits and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are normally and legally required for the construction of similar projects in the State of Texas. The CONTRACTOR will give all notices required by laws, ordinances, rules, regulations and lawful orders of authorized public authorities required for the proper and legal performance of the Work.

3.14 CONTRACT DOCUMENTS AT SITE

The CONTRACTOR shall keep and maintain at the Project site one record copy of the Contract Documents, including but not limited to, the Drawings, Specifications, addenda, Change Orders, submittals, Product Data, Samples and other modifications, in good order and marked to show the current construction of the Project. These documents shall be available to the OWNER or Engineer to review at any time and shall be submitted to the OWNER upon completion of the Project, along with a complete set of as built drawings.

3.2 CONTRACTOR'S RESPONSIBILITIES

3.2.1 PERFORMANCE OF THE WORK

In addition to those matters elsewhere expressly made the responsibility of the CONTRACTOR, the CONTRACTOR shall have the full and direct responsibility for the performance and completion of the Work under this Contract and for any act or neglect of the CONTRACTOR, his agents, employees or subcontractors. He shall bear all losses, if any, resulting on account of the amount and character of the Work, or because the conditions under which the work must be done are different from what were estimated

or anticipated by him, or because of weather, floods, elements or other causes.

3.2.2 MEANS AND METHODS OF CONSTRUCTION

Unless otherwise expressly provided in the contract drawings, specifications or bulletins, the means and methods of construction shall be such as the CONTRACTOR may choose; subject, however, to the OWNER'S right to prohibit means and methods proposed by the CONTRACTOR which in the OWNER'S judgment:

- A. shall constitute a hazard to the Work, or to persons or property, or shall violate express requirements of applicable laws or ordinances; or
- B. shall cause unnecessary or unreasonable inconvenience to the public; or
- C. shall not produce finished work in accordance with the requirements of the Contract Documents; or
- D. shall not assure the Work to be completed within the time allowed by the contract.

The OWNER'S approval of the CONTRACTOR'S means or methods of construction, or the OWNER'S failure to exercise his right to prohibit such means or methods, shall not relieve the CONTRACTOR of his responsibility for the Work or of his obligation to accomplish the result intended by the Contract Documents; nor shall the exercise or non-exercise of such rights to prohibit create a cause of action for damages or provide a basis for any claim by the CONTRACTOR against the OWNER. The CONTRACTOR shall be solely responsible for, the construction means and methods, techniques, sequences, procedures, and for the safety precautions and programs in connection with the Work or the Project.

If the Contract Documents specify any means, methods, techniques, sequences or procedures, the CONTRACTOR shall evaluate said specifications and determine that they are safe for the proper prosecution of the Work. The CONTRACTOR shall be solely responsible for the job site safety of such means, methods, techniques, sequences or procedures. If the CONTRACTOR determines the specified means, methods, techniques, sequences or procedures may not be safe, the CONTRACTOR shall immediately notify the OWNER and Engineer and shall not proceed without further instructions.

3.2.3 CONSTRUCTION SCHEDULE

The CONTRACTOR, immediately after being awarded the contract, shall prepare and submit for the OWNER, and Engineer's information an estimated progress schedule for the work. The progress schedule shall be

related to the entire Project to the extent required by the Contract Documents and shall provide for expeditious and reasonable execution of the work, not to exceed the time limits for completion provided in the Contract Documents. The progress schedule shall be updated as the Work proceeds or the schedule changes and immediately upon request by the OWNER. The CONTRACTOR shall also prepare a schedule of submittals that allows for a reasonable time for the OWNER or Engineer to review the submittals so as not to delay the Project.

3.2.4 TIME OF PERFORMANCE OF THE WORK

The CONTRACTOR shall begin the work to be performed under this Contract not later than 10 days from the date specified in the purchase or work order and shall conduct the work in such a manner and with sufficient equipment, material and labor as is necessary to insure its completion within the working time. It is the intent of this specification to provide a continuous construction operation without delay except as occasioned by unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, and it shall be the CONTRACTOR's responsibility to execute the work in the most expeditious manner.

Work shall be done only during the regular and commonly accepted and prescribed working hours. No work shall be done on nights, Sundays or regular holidays unless permission is given by the OWNER

Time is of the Essence for the performance of the Work by the CONTRACTOR. CONTRACTOR agrees that the time allotted for the performance of the Work is reasonable.

3.2.5 PERFORMANCE OF EXTRA OR DISPUTED WORK

While the CONTRACTOR or his subcontractor is performing Extra Work in accordance with the OWNER'S written order, the cost of which is to be determined on a time and material basis, or is performing disputed work or complying with a determination or order under protest, the CONTRACTOR shall, on the Monday following the performance of the work, furnish the OWNER'S representative at the site with three copies of verified statements showing:

A. the name, address and telephone number of each workman employed on such Extra Work or engaged in complying with such determination or order, the character of Extra Work each is doing and the wages paid to him, including the rate and amount of payroll taxes, contributions for insurance, and federal social security; and

B. the nature, cost and quantity of any materials, plant equipment or construction equipment furnished or used in connection with the

performance of such Extra Work or in complying with such determination or order, and from whom purchased or rented, along with copies of invoices for such materials, plant equipment or construction equipment.

The CONTRACTOR and his subcontractors, when required by the OWNER, must also produce for inspection for a minimum period of three (3) years following final payment or termination of contract, produce for examination and audit by designated OWNER representatives, any and all of his books, vouchers, records, daily job diaries and reports, canceled checks, etc. showing the nature and quantity of labor, materials and equipment actually used in the performance of the Extra Work; the amounts expended therefore; and the costs incurred for insurance premiums and other items of expense directly chargeable to such Extra Work. The CONTRACTOR must permit the OWNER'S representatives to make extracts therefrom or copies thereof as may be desired.

Failure of the CONTRACTOR to comply strictly with the requirements of this section shall constitute a waiver of any claim for extra compensation on account of the performance of such Extra Work.

3.3 QUALITY OF WORK

3.3.1 INSPECTION AND TESTS

The CONTRACTOR shall furnish the OWNER with every reasonable accommodation and opportunity to ascertain whether or not the work performed is in accordance with the requirements and intent of the plans and specifications. Any work done or materials used without suitable inspection by the OWNER may be ordered removed and replaced at the CONTRACTOR'S expense. The CONTRACTOR shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the OWNER in his administration of the contract, or by inspections, tests or approvals required or performed by persons other than the CONTRACTOR.

Unless otherwise provided, the CONTRACTOR shall make arrangements for all tests, inspections and approvals with an independent testing laboratory or entity required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction over the Work or items to be tested, inspected or approved. If additional testing or inspection is required they shall be performed at the CONTRACTOR'S expense.

3.3.2 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

All work which has been rejected or condemned shall be repaired, or if it cannot be repaired satisfactorily, it shall be removed and replaced at the CONTRACTOR'S expense. Defective materials shall be immediately removed from the site of the work. Work done without line and grade having been given, work done beyond the lines or not in conformity with the grades shown on the plans or as given, save as herein provided, work done without written authority and prior agreement in writing as to process, shall be done at the CONTRACTOR'S risk and shall be considered unauthorized and at the option of the OWNER may be ordered removed at the CONTRACTOR'S expense.

Upon failure of the CONTRACTOR to repair satisfactorily or to remove and replace, if so directed, rejected, unauthorized or condemned work or materials immediately after receiving notice from the OWNER, the OWNER shall, after giving written notice to the CONTRACTOR, have the authority to cause defective work to be remedied or removed and replaced, or to cause unauthorized work to be removed and to deduct the cost thereof from any monies due or to become due the CONTRACTOR. Alternatively, the OWNER may, at its option, declare the CONTRACTOR in default.

3.3.3 WORKING AREA; COORDINATION WITH OTHER CONTRACTORS; FINAL CLEANUP

The CONTRACTOR shall confine his equipment, storage of materials and construction operations to the area shown on the contract drawings or stated in the specifications, prescribed by ordinance, laws, or permits or as may be directed by the OWNER, and shall not unreasonably encumber the site or public right-of-way with his construction equipment, plant or materials.

Such area shall not be deemed for the exclusive use of the CONTRACTOR. Other contractors of the OWNER may enter upon and use such portions of the area and for such items as determined by the OWNER are necessary for all purposes required by their contracts. The CONTRACTOR shall give to such other contractors all reasonable facilities and assistance to the end that the work on this and other contracts shall not be unduly or unreasonably delayed. Any additional areas desired by the CONTRACTOR for his use shall be provided by him at his own cost and expense.

The CONTRACTOR is responsible for cutting, fitting or patching any parts of the Work where such work is necessary to make the Work complete, for parts to fit together, or for any damage to the Work prior to Final Acceptance.

The CONTRACTOR shall keep the Project and the surrounding area clean and free from the accumulation of waste materials or trash. Upon

completion of the work and before final acceptance and final payment shall be made, the CONTRACTOR shall completely clean and remove from the site of the work surplus and discarded materials, temporary structures and debris of every kind. He shall leave the site of the work in a neat and orderly condition equal to that which originally existed, or as called for in the Contract Documents. Surplus and waste materials removed from the site of the work shall be disposed of at locations satisfactory to the OWNER, and at the CONTRACTOR'S sole cost.

3.4 LEGAL RESPONSIBILITIES

3.4.1. PATENTS AND COPYRIGHTS

The CONTRACTOR shall pay all royalties and license fees and shall provide, by suitable legal agreement with the patentee or owner, for the use of any design, device, material or process covered by letters, patent or any copyright. The CONTRACTOR shall indemnify, defend, hold and save the OWNER and its officers, employees and agents harmless from all liability and claims for infringement of any patent or copyright.

In the event that any claims, suit or action at law or in equity of any kind whatsoever is brought against the OWNER, or its officers, employees or agents involving any such patents, copyrights or license rights, then the OWNER shall have the right to and may retain from any money due or to become due to the CONTRACTOR such sum deemed necessary by the OWNER for its protection until such claim or suit shall have been settled and satisfactory evidence to that effect shall have been furnished the OWNER.

3.4.2 INDEMNIFICATION

To the fullest extent permitted by law, the CONTRACTOR and his sureties shall indemnify, defend and hold harmless the OWNER and all of its, past, present and future, officers, agents and employees from all suits, cause of action, claims, liabilities, losses, fines, penalties, liens, demands, obligations, actions, proceedings, of any kind, character, name and description brought or arising, on account of any injuries or damages received or sustained by any person, destruction or damage to any property on account of, in whole or part, the operations of the CONTRACTOR, his agents, employees or subcontractors; or on account of any negligent act or fault of the CONTRACTOR, his agents, employees or subcontractors in the execution of said Contract; failing to comply with any law, ordinance, regulation, rule or order of any governmental or regulatory body including those dealing with health, safety, welfare or the environment; on account of the failure of the CONTRACTOR to provide the necessary barricades, warning lights or signs; and shall be required to pay any judgment, with cost, which may be obtained against the OWNER growing out of such

injury or damage. In no event shall OWNER be liable to CONTRACTOR for indirect or consequential damages or loss of income or profit irrespective of the cause, fault or reason for same. CONTRACTOR'S duty to indemnify herein shall not be limited by any limitation on the type or amount of damages payable by or for CONTRACTOR or any Subcontractor under workman's compensation acts, disability benefit acts or any other employee benefit acts.

In addition, the CONTRACTOR likewise covenants and agrees to, and does hereby, indemnify and hold harmless the OWNER from and against any and all injuries, loss or damages to property of the OWNER during the performance of any of the terms and conditions of this Contract, arising out of or in connection with or resulting from, in whole or in part, any and all alleged acts or omissions of officers, agents, servants, employees, contractors, subcontractors, licenses or invitees of the CONTRACTOR.

The rights and responsibilities provided in this indemnification provision shall survive the termination or completion of this Contract.

3.5 SUPERVISION AND CONSTRUCTION PROCEDURES

3.5.1. SUPERVISION BY CONTRACTOR

The status of the CONTRACTOR is that of an independent CONTRACTOR under Texas law and the work under this Contract shall be under the direct charge and superintendence of the CONTRACTOR. Except where the CONTRACTOR is an individual and gives his personal superintendence to the work, the CONTRACTOR shall provide a competent superintendent or general foreman on the work site at all times during progress with full authority to act for the CONTRACTOR. The CONTRACTOR shall also provide an adequate staff for the coordination and expediting of the Work.

The superintendent and staff shall be satisfactory to the OWNER. The superintendent or general foreman shall not be changed during this Contract except with the written consent of the OWNER or unless the superintendent or general foreman proves unsatisfactory to the CONTRACTOR and ceases to be in his employ.

If the superintendent should be or become unsatisfactory to the OWNER, he shall be replaced by the CONTRACTOR upon written direction of the OWNER, and in such event, the CONTRACTOR shall not be entitled to file a claim for any additional working time or money from the OWNER.

3.5.2 EMPLOYEES

The CONTRACTOR shall employ only competent, efficient workmen and shall not use on the work any unfit person or one not skilled in the work assigned to him and shall at all times maintain good order among its employees. Whenever the OWNER shall inform the CONTRACTOR in writing that, in his opinion, any employee is unfit, unskilled, disobedient, or is disrupting the orderly progress of the work, such employee shall be removed from the work and shall not again be employed on it. Under urgent circumstances, the OWNER may orally require immediate removal of an employee for cause, to be followed by written confirmation.

The CONTRACTOR shall supervise and direct all the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences, procedures and safety procedures and for coordinating all portions of the Work under the Contract. The CONTRACTOR shall be responsible to the OWNER for the acts and omissions of his employees, subcontractors and their agents, employees and subcontractors performing any of the work under a contract with the CONTRACTOR.

3.5.3 LABOR AND MATERIALS

Unless otherwise provided in the Contract Documents, the CONTRACTOR shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation and other facilities and services necessary for the proper execution and completion of the work, whether temporary or permanent and whether or not incorporated or to be incorporated into the work.

The CONTRACTOR shall at all times enforce strict discipline and good order among his employees and shall not employ on the work site any unfit person or anyone not skilled in the task assigned to him.

The rate of progress shall be such that the whole work shall be performed and the premises cleaned up in accordance with the Contract within the working time established in the Contract, unless an extension of time is made in the manner hereinafter specified.

3.5.4 WAGE SCALE

In accordance with Texas Government Code, Title 10, Section 2258, Prevailing Wage Rates, the general prevailing wage rate has been determined for this locality for the craft or type of workman needed to execute work of a similar character of the project listed herein. The Contractor shall pay the prevailing wage rate in this locality to all his/her employees and subcontractors performing work on this project, and in no event shall the Contractor pay less than the rate shown in the following schedule.

“General Decision Number: TX20240239 01/05/2024

General Decision Number: TX20230239

State: Texas

Construction Type: Building

County: Collin County in Texas.

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

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: 	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 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 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: 	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination,

	if it is higher) for all
	hours spent performing on
	that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024

ASBE0021-011 06/01/2023

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Duct, Pipe and Mechanical System Insulation).....	\$ 31.32	7.52

BOIL0074-003 07/01/2023

	Rates	Fringes
BOILERMAKER.....	\$ 37.00	24.64

CARP1421-002 02/01/2023

	Rates	Fringes
MILLWRIGHT.....	\$ 30.12	41.45

ELEV0021-006 01/01/2023

	Rates	Fringes
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ELEVATOR MECHANIC.....\$ 47.60 37.335+a+b

FOOTNOTES:

A. 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked.

B. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Veterans Day.

 ENGI0178-005 06/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
(1) Tower Crane.....	\$ 32.85	13.10
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above.....	\$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under.....	\$ 32.35	13.10

 IRON0263-005 06/01/2023

	Rates	Fringes
IRONWORKER (ORNAMENTAL AND STRUCTURAL).....	\$ 27.89	7.93

 PLUM0100-005 11/01/2022

	Rates	Fringes
HVAC MECHANIC (HVAC Unit Installation Only).....	\$ 35.73	13.07
PIPEFITTER (Excludes HVAC Pipe Installation).....	\$ 35.73	13.07

 SUTX2014-015 07/21/2014

	Rates	Fringes
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BRICKLAYER.....	\$ 21.06		0.00
CARPENTER, Excludes Drywall Hanging, Form Work, and Metal Stud Installation.....	\$ 15.78 **		0.00
CAULKER.....	\$ 15.16 **		0.00
CEMENT MASON/CONCRETE FINISHER....	\$ 13.04 **		0.00
DRYWALL HANGER AND METAL STUD INSTALLER.....	\$ 13.00 **		0.00
ELECTRICIAN (Alarm Installation Only).....	\$ 20.93		3.86
ELECTRICIAN (Communication Technician Only).....	\$ 15.35 **		1.39
ELECTRICIAN (Low Voltage Wiring Only).....	\$ 17.04 **		1.39
ELECTRICIAN, Excludes Low Voltage Wiring and Installation of Alarms/Sound and Communication Systems.....	\$ 20.01		2.69
FORM WORKER.....	\$ 11.89 **		0.00
GLAZIER.....	\$ 16.46 **		3.94
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine).....	\$ 10.04 **		2.31
INSTALLER - SIDING (METAL/ALUMINUM/VINYL)	\$ 14.74 **		0.00
INSTALLER - SIGN.....	\$ 15.50 **		0.00
INSULATOR - BATT.....	\$ 13.00 **		0.00
IRONWORKER, REINFORCING.....	\$ 12.29 **		0.00

LABORER: Common or General.....	\$ 10.52 **	0.00
LABORER: Mason Tender - Brick....	\$ 10.54 **	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 10.93 **	0.00
LABORER: Pipelayer.....	\$ 13.00 **	0.35
LABORER: Plaster Tender.....	\$ 12.22 **	0.00
LABORER: Roof Tearoff.....	\$ 11.28 **	0.00
LABORER: Landscape and Irrigation.....	\$ 10.55 **	0.00
LATHER.....	\$ 16.00 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 12.83 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 13.93 **	0.00
OPERATOR: Bulldozer.....	\$ 18.29	1.31
OPERATOR: Drill.....	\$ 15.69 **	0.50
OPERATOR: Forklift.....	\$ 13.21 **	0.81
OPERATOR: Grader/Blade.....	\$ 13.03 **	0.00
OPERATOR: Loader.....	\$ 13.46 **	0.85
OPERATOR: Mechanic.....	\$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 18.44	0.00
OPERATOR: Roller.....	\$ 15.04 **	0.00
PAINTER (Brush, Roller and Spray), Excludes Drywall Finishing/Taping.....	\$ 13.35 **	5.10

PAINTER: Drywall Finishing/Taping Only.....	\$ 14.24 **	3.83
PIPEFITTER (HVAC Pipe Installation Only).....	\$ 20.45	4.00
PLASTERER.....	\$ 16.58 **	0.00
PLUMBER, Excludes HVAC Pipe Installation.....	\$ 22.46	4.06
ROOFER.....	\$ 17.19 **	0.00
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 21.13	4.79
SHEET METAL WORKER, Excludes HVAC Duct Installation.....	\$ 24.88	5.97
SPRINKLER FITTER (Fire Sprinklers).....	\$ 37.50	0.00
TILE FINISHER.....	\$ 11.22 **	0.00
TILE SETTER.....	\$ 14.25 **	0.00
TRUCK DRIVER: 1/Single Axle Truck.....	\$ 16.00 **	0.81
TRUCK DRIVER: Dump Truck.....	\$ 12.39 **	1.18
TRUCK DRIVER: Flatbed Truck.....	\$ 19.65	8.57
TRUCK DRIVER: Semi-Trailer Truck.....	\$ 12.50 **	0.00
TRUCK DRIVER: Water Truck.....	\$ 12.00 **	4.11

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

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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 National Office because National Office has 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"

Except for work on legal holidays, the "General Prevailing Rate of Per Diem Wage" for the various crafts or type of workers or mechanics is the product of (a) the number of hours worked per day, except for overtime hours, times (b) the above respective rate per hour.

For legal holidays, the "General Prevailing Rate of Per Diem Wage" for the various crafts or type of workers or mechanics is the product of (a) one and one-half times the above respective rate per hour, times (b) the number of hours worked on the legal holiday.

For overtime work, the "General Prevailing Rate of Per Diem Wage" for the various crafts or type of workers or mechanics is the product of (a) one

and one-half times the above respective rate per hour, times (b) the number of hours worked on overtime.

Under the provisions of Texas Government Code, Title 10, Chapter 2258, Prevailing Wage Rates, the contractor or subcontractor of the contractor shall forfeit as a penalty to the entity on whose behalf the contract is made or awarded, sixty dollars (\$60.00) for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the contract.

If the construction project involves the expenditure of Federal funds in excess of \$2,000, the minimum wages to be paid various classes of laborers and mechanics will be based upon the wages that will be determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics employed on the project of a character similar to the Contract Work.

3.5.5 Contractors doing business with OWNER agree to comply with Federal Executive Order 13465 E-Verify. It is OWNER'S intention and duty to comply and support the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification and non-discrimination. According to the INA, contractors/employers may hire only persons who may legally work in the United States. Subsequently, contractors and subcontractors doing business with OWNER must confirm their enrollment in the E-Verify system which verifies employment eligibility through completion and checking of I-9 forms. OWNER reserves the right to audit contractors process to verify enrollment compliance.

3.5.6 COMPLIANCE WITH LAWS

The CONTRACTOR shall fully comply with all local, state and federal laws, including all codes, ordinances and regulations applicable to this Contract and the Work to be done thereunder, which exist or which may be enacted later by governmental bodies having jurisdiction or authority for such enactment.

All work required under this Contract is intended to comply with all requirements of law, regulation, permit or license. If the CONTRACTOR finds that there is a variance, he shall immediately report this to the OWNER for resolution.

3.5.6.1 EQUAL EMPLOYMENT OPPORTUNITY

The CONTRACTOR shall comply with all local, state and federal employment and discrimination laws and shall not discriminate against any employee or applicant for Employment because of race, color, religion, sex, age, national origin or any other class protected by law.

3.5.7 RAILWAY CROSSINGS

Where the Work encroaches upon any right-of-way of any railway, the OWNER shall secure the necessary easement for the work. Where railway tracks are to be crossed, the CONTRACTOR shall observe all the regulations and instructions of the railway company as to methods of doing the work or precautions for safety of property and the public. All negotiations with the railway company, except for right-of-way, shall be made by the CONTRACTOR. The railway company shall be notified by the CONTRACTOR not less than five days prior to commencing the work. The CONTRACTOR shall not be paid separate compensation for such railway crossing but shall receive only the compensation as set out in the proposal.

3.5.8 OTHER CONTRACTORS; OBLIGATION TO COOPERATE

The OWNER reserves the right to perform construction on the Project with its own forces or may award other contracts for additional work on this Project, and the CONTRACTOR shall fully cooperate with such other contractors and shall coordinate and fit his work to be done hereunder to such additional work as may be contracted by the OWNER. The CONTRACTOR shall not commit or permit any act which shall interfere with the performance of work by any other contractor.

Upon receiving written notice from the CONTRACTOR that the OWNER or another contractor is failing to coordinate his work with the Work under this Contract as directed by the OWNER, the OWNER shall promptly investigate the charge and take such necessary action as the situation may require. However, the OWNER shall not be liable to the CONTRACTOR for damages suffered by the CONTRACTOR due to the fault or negligence of another contractor or through failure of another contractor to carry out the directions of the OWNER. Should any interference occur between contractors, the Engineer may furnish the CONTRACTOR with written instructions designating priority of effort, whereupon the CONTRACTOR shall immediately comply with such direction. In such event, the CONTRACTOR shall be entitled to an extension of working time only for unavoidable delays verified by the Engineer; however, no increase in the Contract Price shall be due the CONTRACTOR.

3.5.9 SUBCONTRACTS

The CONTRACTOR shall not make any subcontract for performing any portion of the Work included in the contract without written notice to the OWNER. This contract having been made pursuant to the bid submitted by the CONTRACTOR and in reliance with the CONTRACTOR'S personal qualifications and responsibility, the OWNER reserves the right to withhold

approval of any subcontractor which the OWNER may deem would not be in the OWNER'S best interest.

The CONTRACTOR shall, as soon as practicable after signing the Contract, submit a separate written notice to the OWNER identifying each proposed subcontractor. Upon request of the OWNER, the CONTRACTOR shall promptly furnish additional information tending to establish that any proposed subcontractor has the necessary facilities, skill, integrity, past experience and financial resources to perform the work in accordance with the terms and conditions of this Contract.

If the OWNER determines that any proposed subcontractor is unacceptable, he shall so notify the CONTRACTOR, who may thereupon submit another proposed subcontractor unless the CONTRACTOR decides to do the work himself. Disapproval by the OWNER of any proposed subcontractor shall not provide a basis for any claim by the CONTRACTOR.

If an approved subcontractor fails to properly perform the work undertaken, he shall be removed from the job upon request of the OWNER, following notification to the CONTRACTOR in writing of the request for removal and the reasons therefore.

Each subcontract entered into shall provide that the provisions of this Contract shall apply to such subcontractor and his officers and employees in all respects as if he and they were employees of the CONTRACTOR. The OWNER'S decision not to disapprove of any subcontract shall not relieve the CONTRACTOR of any of his responsibilities, duties and liabilities hereunder. The CONTRACTOR shall be solely responsible for the acts, omissions, negligence or defaults of his subcontractors and of such subcontractor's officers, agents and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the CONTRACTOR to the extent of his subcontract.

The CONTRACTOR agrees to bind each subcontractor and each subcontractor agrees to be bound by the terms of the Contract Documents insofar as applicable to his work. The CONTRACTOR and each subcontractor jointly and severally agree that nothing in the Contract Documents or otherwise shall create or be deemed to create any rights in favor of a subcontractor against the OWNER; nor shall be deemed or construed to impose upon the OWNER any obligation, liability or duty to a subcontractor; or to create any contractual relation whatsoever between a subcontractor and the OWNER.

The provisions contained herein shall likewise apply to any sub-subcontracts.

3.6 PROTECTION OF WORK AND OF PERSONS AND PROPERTY

3.6.1 PROTECTION OF WORK

During performance and up to date of final acceptance, the CONTRACTOR shall be under the absolute obligation to protect the finished work against any damage, loss or injury. In the event of such damage, loss or injury, the CONTRACTOR shall promptly replace or repair such work, whichever the OWNER shall determine to be preferable. The obligation to deliver finished work in strict accordance with the Contract prior to final acceptance shall be absolute and shall not be affected by the OWNER'S approval of or failure to prohibit means and methods of construction used by the CONTRACTOR. All risk of loss or damage to the work shall be borne solely by the CONTRACTOR until final completion and acceptance of all work by the OWNER, as evidenced by the OWNER'S issuance of a certificate of acceptance.

3.6.2 PROTECTION OF PERSONS AND PROPERTY

The CONTRACTOR shall have the responsibility to provide and maintain all warning devices and take all precautionary measures required by law or otherwise to protect persons and property while said persons or property are approaching, leaving or within the work site or any area adjacent to said work site. No separate compensation shall be paid to the CONTRACTOR for the installation or maintenance of any warning devices, barricades, lights, signs or any other precautionary measures required by law or otherwise for the protection of persons or property.

The CONTRACTOR shall assume all duties owed by the OWNER to the general public in connection with the general public's immediate approach to and travel through the work site and the area adjacent to said work site.

Where the work is carried on in or adjacent to any street, alley, sidewalk, public right-of-way or public place, the CONTRACTOR shall at his own cost and expense provide such flagmen and watchmen and furnish, erect and maintain such warning devices, barricades, lights, signs and other precautionary measures for the protection of persons or property as may be prudent or necessary, or as are required by law. The CONTRACTOR'S responsibility for providing and maintaining flagmen, watchmen, warning devices, barricades, signs and lights and other precautionary measures shall not cease until the project shall have been completed and accepted by the OWNER, and shall cease when the certificate of acceptance is issued by the OWNER pursuant to the Contract Documents.

If the OWNER discovers that the CONTRACTOR has failed to comply with the applicable federal and state law (by failing to furnish the necessary flagmen, warning devices, barricades, lights, signs or other precautionary

measures for the protection of persons or property), the OWNER may order the CONTRACTOR to take such additional precautionary measures as required by law to be taken to protect persons and property.

In addition, the CONTRACTOR shall be held responsible for all damages to the work and other public or private property due to the failure of warning devices, barricades, signs, lights or other precautionary measures in protecting said property; and whenever evidence is found of such damage, the OWNER may order the damaged portion immediately removed and replaced by and at the cost and expense of the CONTRACTOR.

3.6.3 SAFETY; TRENCH SAFETY; UNDERGROUND UTILITY SAFETY; PUBLIC CONVENIENCE AND SAFETY;

The CONTRACTOR shall be responsible for complying with state laws and federal regulations relating to safety, trench safety, and underground utility safety, including those which may be enacted during the performance under this Contract. The CONTRACTOR shall comply with the provisions of the Standard Specifications and Standard Drawings from the Public Works Construction Standards-North Central Texas Council of Governments, 2004 edition and all subsequent addendums and the Instructions to Bidders regarding trench safety, public convenience and safety, and sanitary provisions. The CONTRACTOR shall be solely responsible for, the construction means and methods, techniques, sequences, or procedures, or for the safety precautions and programs in connection with the Work and the Project.

3.6.4 STORM WATER PROTECTION

The Contractor shall perform, track, participate, implement, and comply with storm water pollution prevention minimum control measures, protocols, and best management practices (BMP) and ensure that water quality standards are not violated in accordance with all regulations and policies as they apply to the Texas Pollutant Discharge Elimination System general permits. Applicable permits include: 1) Texas Construction General Permit (TXR150000).

Contractors will obtain permit coverage for construction activities disturbing over one acre of land (total acreage is cumulative across all portions of the project). BMPs include, but are not limited to:

- Preparing and implementing a site-specific Storm Water Pollution Prevention Plan (SWPPP) as outlined in the permit and prior to any soil disturbance.
- Installing and managing erosion and sediment control.
- Make available, upon request, permit associated documentation.
- Practicing spill prevention and good housekeeping.
- Meeting the requirements of the MS4 permit.

- 3.7 MATERIALS AND WORKMANSHIP; WARRANTIES AND GUARANTEES
Unless otherwise expressly provided in the contract drawings or specifications, the work shall be performed in accordance with the best modern practice with materials and workmanship of the highest quality and suitable for their purpose. The OWNER shall judge and determine the CONTRACTOR'S compliance with these requirements.

3.7.1 MATERIALS AND EQUIPMENT

The CONTRACTOR shall be free to secure the approved materials, equipment and articles from sources of his own selection. However, if the OWNER finds that the work shall be delayed or adversely affected in any way because a selected source of supply cannot furnish a uniform product in sufficient quantity and at the time required and a suitable source does exist, or the product is not suitable for the Work, the OWNER shall have the right to require the original source of supply changed by the CONTRACTOR. The CONTRACTOR shall have no claim for extra cost or damage because of this requirement.

The CONTRACTOR warrants to the OWNER that all materials and equipment furnished under this contract shall be new unless otherwise specified in the Contract Documents and that same shall be of good quality and workmanship, free from faults and defects and in conformance with the Contract Documents. All materials and equipment not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective and shall be promptly repaired or replaced by the CONTRACTOR at the CONTRACTOR's sole cost upon demand of the OWNER. If required by the OWNER, the CONTRACTOR shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

3.7.1.1 "OR EQUAL" CLAUSE

A. Whenever a material or article required is specified or shown on the plans, by using the name of a proprietary product or of a particular manufacturer or vendor, any material or article which the Engineer determines shall perform adequately the duties imposed by the general design or which the Engineer deems to be of similar appearance (in cases where appearance is of importance) shall be considered equal and satisfactory, provided the material or article so proposed is of equal substance and function. Authorization for any substitution of materials or articles must be obtained by the CONTRACTOR from the Engineer before proceeding with such substitution.

B. Should an authorized substitution require redesign of a portion of the work or alterations to the plans or specifications in order for the materials or articles which are to be substituted to properly fit or in other ways to be satisfactory, the Engineer shall accomplish such redesigns and alterations. The CONTRACTOR shall bear all reasonable costs associated with redesign and alteration efforts performed by the Engineer.

3.7.2 WORKMANSHIP

The CONTRACTOR shall promptly correct or replace all work rejected by the OWNER as defective or as failing to conform to the Contract Documents whether observed before or after substantial completion and whether or not fabricated, installed or completed. The CONTRACTOR shall bear all costs of correcting such rejected work, including costs incurred for additional services made necessary thereby.

3.8 WARRANTIES

3.8.1 SPECIAL WARRANTY

If within one year after final acceptance of the work by the OWNER, as evidenced by the final certificate of acceptance or within such longer or shorter period of time as may be prescribed by law or by the terms of any other applicable special warranty on designated equipment or portions of work as required by the Contract Documents, any of the work is found to be defective or not in accordance with the Contract Documents, the CONTRACTOR shall correct it promptly after receipt of a written notice from the OWNER to do so. This obligation shall survive termination or completion of the Contract. The OWNER shall give such notice promptly after discovery of the condition.

The CONTRACTOR shall remove from the site all portions of the work which are defective or nonconforming and which have not been corrected unless removal is waived in writing by the OWNER.

3.8.2 SUBCONTRACTORS' AND MANUFACTURERS' WARRANTIES

All subcontractors', manufacturers' and suppliers' warranties and guarantees, express or implied, respecting any part of the work and any materials used therein, shall be obtained and enforced by the CONTRACTOR for the benefit of the OWNER without the necessity of separate transfer or assignment thereof.

3.8.3 CORRECTED WORK WARRANTY

Any work repaired or replaced, pursuant to this section, shall be subject to the provisions of this section to the same extent as work originally performed.

3.8.4 RIGHTS AND REMEDIES

The rights and remedies of the OWNER provided in this section are in addition to, and do not limit, any rights or remedies afforded to the OWNER by law or any other provision of the Contract Documents, or in any way limit the OWNER'S right to recovery of damage due to default under the Contract. No action or inaction by the OWNER shall constitute a waiver of a right or duty afforded it under the Contract.

IV. INSURANCE

4.1 CONTRACTOR'S INSURANCE

Before commencing work, the CONTRACTOR shall be required, to furnish the Collin County Purchasing Agent with certified copies of all insurance certificate(s) required by Texas Law, and the coverages required herein, indicating the coverage is to remain in force throughout the term of this Contract. CONTRACTOR shall also be required to furnish the Collin County Purchasing Agent with certified copies of subcontractor's insurance certificates required by the Texas Department of Insurance, Division of Workers' Compensation, section 406.096(b), and coverages required herein in section 4.2. Without limiting any of the other obligations or liabilities of the CONTRACTOR, during the term of the Contract the CONTRACTOR and each subcontractor, at their own expense, shall purchase and maintain the herein stipulated minimum insurance with companies duly approved to do business in the State of Texas and satisfactory to the OWNER. Certificates of each policy for the CONTRACTOR and each subcontractor shall be delivered to the OWNER before any work is started, along with a written statement from the issuing company stating that said policy shall not be canceled, nonrenewal or materially changed without 30 days advance written notice being given to the OWNER.

In addition to any coverage required by Texas Law, the CONTRACTOR shall provide the following coverages at not less than the specified amounts:

- 4.2 Workers Compensation insurance required by Texas Law at statutory limits, including employer's liability coverage at \$1,000,000. In addition to these, the CONTRACTOR and each subcontractor must comply with all the requirements of the Texas Department of Insurance, Division of Workers' Compensation, section 406.096(b); (Note: If you have questions concerning these requirements, you are instructed to contact the DWC.)

By signing this contract or providing or causing to be provided a certificate of coverage, the CONTRACTOR is representing to the OWNER that all employees of the CONTRACTOR and its subcontractors who will provide services on the

Project will be covered by workers compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the CONTRACTOR to administrative penalties, criminal penalties, civil penalties, or other civil actions.

The CONTRACTOR'S failure to comply with any of these provisions is a breach of Contract by the Contractor which entitles the OWNER to declare the Contract void if the CONTRACTOR does not remedy the breach within ten (10) days after receipt of notice of breach from the OWNER.

- 4.3 Broad form commercial general liability insurance, including independent contractor's liability, completed operations and contractual liability, written on an occurrence form, covering, but not limited to, the liability assumed under the indemnification provisions of this contract, fully insuring CONTRACTOR'S and its subcontractors liability for injury to or death of OWNER'S employees and third parties, extended to include personal injury liability coverage with damage to property, with minimum limits as set forth below:

Per Project Aggregate \$2,000,000

Products — Components/Operations Aggregate \$2,000,000

Personal and Advertising Injury \$1,000,000

Each Occurrence \$2,000,000

Contractor's Pollution Liability \$1,000,000/\$3,000,000 (Occurrence Form)

4.3.1 The policy shall include coverage extended to apply to completed operations, asbestos hazards (if this project involves work with asbestos) and XCU (explosion, collapse and underground) hazards. The completed operations coverage must be maintained for a minimum of one year after final completion and acceptance of the work, with evidence of same filed with OWNER.

- 4.4 Comprehensive automobile and truck liability insurance, covering owned, hired and non-owned vehicles, with a combined bodily injury and property damage minimum limit of \$1,000,000 per occurrence; or separate limits of \$1,000,000 for bodily injury (per person), \$1,000,000 for bodily injury (per accident) and \$1,000,000 for property damage. Such insurance shall include coverage for loading and unloading hazards.

4.5 OWNER'S PROTECTIVE LIABILITY INSURANCE

CONTRACTOR shall obtain, pay for and maintain at all times during the prosecution of the work under this contract an OWNER'S protective liability insurance policy naming the OWNER as insured for property damage and bodily injury, which may arise in the prosecution of the Work or CONTRACTOR'S operations under this Contract. Coverage shall be on an "occurrence" basis, and the

policy shall be issued by the same insurance company that carries the CONTRACTOR'S liability insurance with a combined bodily injury and property damage minimum limit of \$1,000,000 per occurrence and \$2,000,000 aggregate.

4.6 "UMBRELLA" LIABILITY INSURANCE

CONTRACTOR shall obtain, pay for and maintain umbrella liability insurance during the contract term, insuring CONTRACTOR for an amount of not less than \$2,000,000/\$2,000,000 aggregate limit combined limit for bodily injury and property damage that follows from and applies in excess of the primary liability coverages required hereinabove. The policy shall provide "drop down" coverage where underlying primary insurance coverage limits are insufficient or exhausted. OWNER shall be named as an additional insured.

4.7 RAILROAD PROTECTIVE INSURANCE

When required in the Special Provisions, CONTRACTOR shall obtain, maintain and present evidence of railroad protective insurance (RPI). The policy shall be in the name of the railroad company having jurisdiction over the right-of-way involved. The minimum limit of coverage shall meet the specifications provided by the railroad company. The OWNER shall specify the amount of RPI necessary.

4.8 POLICY ENDORSEMENTS AND SPECIAL CONDITIONS

All policies to be furnished by CONTRACTOR shall include the following conditions by endorsement to the policy:

- A. each policy shall name the OWNER as an additional insured as to all applicable coverage;
- B. each policy shall require that 30 days prior to the cancellation, nonrenewal or any material change in coverage, a notice thereof shall be given to OWNER by certified mail;
- C. the term "OWNER" shall include all past, present or future, authorities, boards, bureaus, commissions, divisions, departments and offices of the OWNER and individual members, elected official, officers, employees and agents thereof in their official capacities and/or while acting on behalf of the OWNER;
- D. the policy phrase "other insurance" shall not apply to the OWNER where the OWNER is an additional insured on the policy;
- E. all provisions of the contract concerning liability, duty and standard of care together with the indemnification provision, shall be underwritten by contractual liability coverage sufficient to include such obligations within applicable policies;
- F. each policy shall contain a waiver of subrogation in favor of OWNER, and its, past, present and future, officials, employees, and volunteers; and,

G. each certificate of insurance shall reference the Project and Contract number, contain all the endorsement required herein, and require a notice to the OWNER of cancellation.

Insurance furnished by the CONTRACTOR shall be in accordance with the following requirements:

- A. any policy submitted shall not be subject to limitations, conditions or restrictions deemed inconsistent with the intent of the insurance requirements to be fulfilled by the CONTRACTOR. The OWNER'S decision thereon shall be final;
- B. all policies are to be written through companies duly licensed to transact that class of insurance in the State of Texas with a financial ratings of A-VII or better as assigned by BEST Rating Company or equivalent; and
- C. All liability policies required herein shall be written with an "occurrence" basis coverage trigger.

CONTRACTOR agrees to the following:

- A. CONTRACTOR hereby waives subrogation rights for loss or damage to the extent same are covered by insurance. Insurers shall have no right of recovery or subrogation against the OWNER, it being the intention that the insurance policies shall protect all parties to the Contract and be primary coverage for all losses covered by the policies;
- B. Companies issuing the insurance policies and CONTRACTOR shall have no recourse against the OWNER for payment of any premiums or assessments for any deductibles, as all such premiums and deductibles are the sole responsibility and risk of the CONTRACTOR;
- C. Approval, disapproval or failure to act by the OWNER regarding any insurance supplied by the CONTRACTOR (or any subcontractors) shall not relieve the CONTRACTOR of full responsibility or liability for damages and accidents as set forth in the Contract Documents. Neither shall the bankruptcy, insolvency or denial of liability by the insurance company exonerate the CONTRACTOR from liability; and
- D. No special payments shall be made for any insurance that the CONTRACTOR and subcontractors are required to carry; all are included in the Contract Price and the Contract unit prices. Any of such insurance policies required under this section may be written in combination with any of the others, where legally permitted, but none of the specified limits may be lowered thereby.

V. OWNERS RIGHTS AND RESPONSIBILITIES

MONTHLY ESTIMATE, PARTIAL PAYMENTS AND FINAL PAYMENTS

- 5.1 Progress and final payments shall be paid to the Contractor based upon the progress of the Project as indicated by the approved Applications for Payment, certificates of acceptance, or Certificates for Payment, that include an approved Schedule of

Values that will be submitted by the CONTRACTOR to the OWNER prior to the commencement of the Work and in accordance with the following:

5.2 MONTHLY ESTIMATES

The CONTRACTOR shall deliver to the OWNER an itemized Application for Payment that shall include the work completed, materials stored at the Project site but not incorporated into the work, materials ready to be installed and stored at another agreed location, and the percentage of Work completed, through the 20th day of each month, on an Application for Payment with a schedule of values previously submitted by the Contractor and approved by the Owner. Prior to release of funds in connection with any Application for Payment, the Owner may request, and the Contractor must provide, properly executed statements of full or partial releases of claims acceptable to Owner in form and content, for all persons or entities supplying labor or materials to the Project.

5.2.1 The Application for Payment is a representation by the CONTRACTOR to the OWNER that the construction has progressed to the point indicated, the quality of the Work covered by the application is in accordance with the Contract Documents, and the Contractor is entitled to payment in the amount requested.

5.2.2 INSPECTION AND PARTIAL PAYMENTS

Whenever the CONTRACTOR shall submit an Application for Payment to the OWNER for work performed by the CONTRACTOR, the CONTRACTOR shall notify the Engineer that the improvement is ready for inspection. The Engineer shall then make such inspection, and will have the authority to reject work that does not conform to the Contract Documents. If the work is satisfactory and in accordance with the specifications and Contract Documents, the Engineer shall issue a Certificate for Payment.

5.2.3 Within thirty (30) days of the Owner's receipt of a properly submitted and correct Application for Payment, and the issuance of a Certificate for Payment, the Owner shall make payment to the Contractor, in the amount approved by the Owner less 5% retainage. Such payment shall be adjusted for work that is incomplete or not in accordance with the Contract Documents or that is the subject of a separate contract, or subcontract or supplier claim or lien against the Contractor or the payment bonds for the project.

5.2.4 No partial or final payment or the entire use or occupancy of the Project by the OWNER shall be considered acceptance of work that does not strictly comply with the Contract Documents or release the CONTRACTOR of any of his responsibilities under the Contract.

5.2.5 PAYMENT FOR LABOR AND MATERIAL; NO LIENS

The CONTRACTOR for himself or any of his subcontractors shall pay all indebtedness which may become due to any person, firm or corporation having furnished labor, material or both in the performance of this Contract. It shall be the responsibility of each person, firm or corporation claiming to have furnished labor, materials or both, in connection with this Contract, to protect his or its interest in the manner prescribed by applicable laws of the State of Texas, provided, however, that as this Contract provides for a public works project, no lien of any kind shall ever exist or be placed against the Work or any portion thereof, or any public funds or retainage held by the OWNER; and any subcontractor shall look solely to the CONTRACTOR and the payment bond surety, and not the OWNER, for payment of any outstanding amounts due for labor, materials or any other indebtedness in connection with the Work. However, the OWNER may, at any time prior to making final payment, require the CONTRACTOR to furnish a Consent of Surety to any payment due the CONTRACTOR for completed work and may, at the discretion of the OWNER or the request of the Surety, make the check jointly payable to the CONTRACTOR and the Surety. The Owner shall have no obligation under this Agreement to pay or to be responsible in any way for payment to any Engineer, another design professional, contractor, subcontractor or supplier performing portions of the Work, pursuant to a contract with the Contractor.

5.2.6 PAYMENT WITHHELD

In addition to express provisions elsewhere contained in the contract, the OWNER may withhold from any payment otherwise due the CONTRACTOR such amount as determined necessary to protect the OWNER'S interest, or, if it so elects, may withhold or retain all or a portion of any progress payment or refund payment on account of:

- A. unsatisfactory progress of the Work not caused by conditions beyond the CONTRACTOR'S control,
- B. defective work not corrected,
- C. CONTRACTOR'S failure to carry out instructions or orders of the OWNER or his representative,
- D. a reasonable doubt that the Contract can be completed for the balance then unpaid,
- E. work or execution thereof not in accordance with the Contract Documents,
- F. claim filed by or against the CONTRACTOR or reasonable evidence indicating probable filing of claims,
- G. failure of the CONTRACTOR to make payments to subcontractor or for material or labor,
- H. damage to another contractor,
- I. unsafe working conditions allowed to persist by the CONTRACTOR,

J. failure of the CONTRACTOR to provide work schedules as required by the OWNER,

K. use of subcontractors without the OWNER'S approval or,

L. failure of the CONTRACTOR to keep current as-built record drawings at the job site or to turn same over in completed form to the OWNER.

When the above grounds are removed, payment shall be made for amounts withheld because of them, and OWNER shall never be liable for interest on any delayed or late payment.

5.2.7 PAYMENT FOR EXTRA WORK

The Extra Work done by the CONTRACTOR as authorized and approved by the Engineer shall be paid for in the manner hereinafter described, and the compensation thus provided shall be accepted by the CONTRACTOR as payment in full for all labor, materials, tools, equipment and incidentals and all superintendents' and timekeepers' services, all insurance, bond and all other overhead expense incurred in the performance of the Extra Work.

Payment for Extra Work shall be made by one of the following methods:

A. Method "A" — by unit prices agreed on in writing by the OWNER and CONTRACTOR before said Extra Work is commenced, subject to all other conditions of the contract.

B. Method "B" — by lump sum price agreed on in writing by the OWNER and the CONTRACTOR before said Extra Work is commenced, subject to all other conditions of the contract.

5.2.8 SUBSTANTIAL COMPLETION

The Project will be considered substantially complete when the OWNER can utilize the Project for its intended purpose and the Work is in conformance with the Contract Documents.

5.3 APPLICATION FOR FINAL PAYMENT.

Upon full performance of all the Contract Work and the full performance of all the provisions of the Contract, the CONTRACTOR shall submit a final application for payment to the OWNER, the CONTRACTOR shall notify the Engineer that the improvement is ready for inspection. All warranties and guaranties required of the CONTRACTOR by the Contract Documents shall be assembled and delivered by the CONTRACTOR to the OWNER as Part of the final Application for Payment. The Contractor will assign to the Owner all manufacturer's warranties relating to materials and labor used in the work and will perform the Work in such a manner as to preserve all such manufacturer's warranties. The CONTRACTOR will deliver a certificate evidencing that insurance and bonds required by the Contract Documents will remain in full force and effect pursuant to the requirements of the

Contract. The final Certificate for Payment will not be issued until all such warranties and guaranties have been received and accepted by the Owner, and a Certificate of Acceptance is issued by the Engineer.

5.3.1 FINAL INSPECTION AND ACCEPTANCE

Whenever the improvements provided for by the Contract shall have been completely performed on the part of the CONTRACTOR, the CONTRACTOR shall notify the OWNER, and Engineer that the improvement is ready for final inspection. The Engineer shall then make such final inspection, and if the work is satisfactory and in accordance with the specifications and Contract Documents, the CONTRACTOR shall be issued a certificate of acceptance.

5.3.2 FINAL PAYMENT

Whenever the improvements provided for by the Contract shall have been completely performed on the part of the CONTRACTOR, as evidenced in the certificate of acceptance, and all required submissions provided to the OWNER, a final estimate showing the value of the work shall be prepared by the Engineer as soon as the necessary measurements and computations can be made. All prior estimates upon which payments have been made are subject or necessary corrections or revisions in the final payment. The amount of this final estimate, less any sums that have been previously paid, or deducted under the provisions of the Contract, shall be paid the CONTRACTOR within 30 days after the final acceptance, provided that the CONTRACTOR has furnished to the OWNER a consent of surety and an affidavit or other satisfactory evidence that all indebtedness connected with the Work and all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished for and used in the performance of the work have been paid or otherwise satisfied, or that the person or persons to whom the same may respectively be due have consented to such final payment.

The acceptance by the CONTRACTOR of the final payment as aforesaid shall operate as and shall be a release to the OWNER from all claims or liabilities under the Contract, including all subcontractor claims, for anything done or furnished or relating to the Work under the Contract or for any act or neglect of said OWNER relating to or connected with the Contract.

All warranties and guarantees shall commence from the date of the certificate of acceptance. No interest shall be due the CONTRACTOR on any partial or final payment or on the retainage.

5.3 MODIFICATIONS TO CONTRACT WORK OR TIME OF PERFORMANCE

5.3.1 OWNER'S RIGHT TO TEMPORARILY SUSPEND WORK

5.3.2 REASONS FOR SUSPENSION

The OWNER shall have the right by written order to temporarily suspend the work, in whole or in part, whenever, in the judgment of the OWNER, such temporary suspension is required:

- A. in the interest of the OWNER generally,
- B. due to government or judicial controls or orders which make performance of this contract temporarily impossible or illegal,
- C. to coordinate the work of separate contractors at the job site,
- D. to expedite the completion of a separate contract even though the completion of this particular Contract may be thereby delayed,
- E. because of weather conditions unsuitable for performance of the Work, or
- F. because the CONTRACTOR is proceeding contrary to contract provisions or has failed to correct conditions considered unsafe for workmen.

The written order of the OWNER to the CONTRACTOR shall state the reasons for suspending the work and the anticipated periods for such suspension. Upon receipt of the OWNER'S written order, the CONTRACTOR shall suspend the work covered by the order and shall take such means and precautions as may be necessary to properly protect the finished and partially finished work, the unused materials and uninstalled equipment, including the providing of suitable drainage about the work and erection of temporary structures where necessary. The CONTRACTOR shall not suspend the Work without written direction from the OWNER and shall proceed with the work promptly when notified by the OWNER to resume operations.

5.3.3 NO ADDITIONAL COMPENSATION

No additional compensation shall be paid to the CONTRACTOR for a temporary suspension of the Work by the OWNER or otherwise where same is caused by the fault of the CONTRACTOR. Where such temporary suspension is not due to the fault of the CONTRACTOR, he shall be entitled to:

- A. an equitable extension of working time for the completion of the work, not to exceed the delay caused by such temporary suspension, as determined by the OWNER; and
- B. the actual and necessary costs of properly protecting the finished and partially finished work, unused materials and uninstalled

equipment during the period of the ordered suspension as determined by the OWNER as being beyond the Contract requirements, such costs, if any, to be determined pursuant to the terms of the Contract; and

C. where the CONTRACTOR elects to move equipment from the job site and then return it to the site when the work is ordered resumed, the actual and necessary costs of these moves, in an amount determined by the OWNER pursuant to the terms of the Contract.

5.3.4 USE OF COMPLETED PORTIONS OF WORK

The OWNER may, after written notice to the CONTRACTOR, and without incurring any liability for increased compensation to the CONTRACTOR, take over and use any completed portion of the Work prior to the final completion and acceptance of the entire work included in the Contract, and notwithstanding that the time allowed for final completion has not expired. The OWNER and CONTRACTOR agree that occupancy of portions of the Work by the OWNER shall not in any way evidence the substantial completion of the entire work or signify the OWNER's acceptance of the Work.

The CONTRACTOR shall not object to, nor interfere in any way with, such occupancy or use after receipt of the OWNER'S written notice. Immediately prior to such occupancy and use, the OWNER shall inspect such portion of the Work to be taken over and shall furnish the CONTRACTOR a written statement of the work, if any, still to be done on such part. The CONTRACTOR shall promptly thereafter complete such unfinished work to permit occupancy and use on the date specified in the OWNER'S written order, unless the OWNER shall permit specific items of work to be finished after the occupancy and use by the OWNER.

In the event the CONTRACTOR is unreasonably delayed by the OWNER exercising its rights under this section, the CONTRACTOR may submit a request for an extension of time; CONTRACTOR'S sole remedy for an unreasonable delay shall be an extension of time and shall not be entitled to any additional compensation.

5.4 COMMENCEMENT; TIME OF COMPLETION; DELAYS; EXTENSION OF TIME; LIQUIDATED DAMAGES

5.4.1 COMMENCEMENT; TIME OF COMPLETION

Contractor shall commence work within ten (10) consecutive calendar days after receiving from County a notice to proceed. Contractor agrees and

covenants that the number of consecutive calendar days allowed to complete all work following a notice to proceed shall be as follows:

5.4.2. LIQUIDATED DAMAGES FOR FAILURE TO COMPLETE ON TIME

Time is of the essence in the progress and completion of this Contract. For each calendar day that any Work shall remain uncompleted after the time specified in the proposal and the Contract, or the increased time granted by the OWNER, or as equitably increased by additional work or materials ordered after the Contract is signed, the sum per day given in the following schedule, unless otherwise specified in the special provisions, shall be deducted from the monies due the CONTRACTOR:

_____ (\$ _____)

The sum of money thus deducted for such delay, failure or noncompletion is not to be considered as a penalty, but shall be deemed, taken and treated as reasonable liquidated damages, per calendar day that the CONTRACTOR shall be in default after the time stipulated in the Contract for completing the Work. The said amounts are fixed and agreed upon by and between OWNER and CONTRACTOR because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER in such event would sustain; and said amounts are agreed to be the amount of damages which the OWNER would sustain and which shall be retained from the monies due, or that may become due, the CONTRACTOR under this Contract; and if said monies be insufficient to cover the amount owing, then the CONTRACTOR or his surety shall pay any additional amounts due.

5.4.3 EXTENSIONS OF TIME

The CONTRACTOR shall be entitled to an extension of working time under this Contract only when claim for such extension is submitted to the OWNER in writing by the CONTRACTOR within seven days from and after the time when any alleged cause of delay shall occur, and then only when such time is approved by the OWNER. In adjusting the Contract working time for the completion of the Project, unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including, acts of God or the public enemy, acts of the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or delays of subcontractors due to such causes beyond their control shall be taken into consideration.

If the satisfactory execution and completion of the Contract should require work and materials in greater amounts or quantities than those set forth in the Contract, requiring more time for completion than the anticipated time,

then the contract working time shall be equitably increased, but not more than in the same proportion as the cost of the additional work bears to the cost of the original work contracted for. No allowances shall be made for delays or suspension of the performance of the Work due to the fault of the CONTRACTOR.

No adjustment to working time shall be made if, concurrently with the equitable cause for delay, there existed a cause for delay due to the fault or negligence of the CONTRACTOR, his agents, employees or subcontractors; and no adjustment shall be made to the Contract Price and the CONTRACTOR shall not be entitled to claim or receive any additional compensation as a result of or arising out of any delay resulting in adjustment to the working time hereunder, including delays caused by the acts or negligence of the OWNER. Notwithstanding any other provision of the Contract Documents, all claims for extension of working time must be submitted in accordance with the provisions of this Contract, and no act of the OWNER shall be deemed a waiver or entitlement of such extension.

5.5 TERMINATION FOR CONVENIENCE OF THE OWNER

5.5.1 NOTICE OF TERMINATION

The performance of the Work under this Contract may be terminated by the OWNER in whole or from time to time in part, in accordance with this section, whenever the OWNER shall determine that such termination is in the best interest of the OWNER. Any such termination shall be effected by mailing a notice of termination to the CONTRACTOR specifying the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective. Receipt of the notice shall be deemed conclusively presumed and established when the letter is placed in the United States Mail by the OWNER. Further, it shall be deemed conclusively presumed and established that such termination is made with just cause as therein stated; and no proof in any claim, demand or suit shall be required of the OWNER regarding such discretionary action.

5.5.2 CONTRACTOR ACTION

After receipt of a notice of termination, and except as otherwise directed by the OWNER or Engineer, the CONTRACTOR shall:

- A. stop work under the Contract on the date and to the extent specified in the notice of termination;
- B. place no further orders or subcontracts for materials, services or facilities except as may be necessary for completion of such portion the Work under the Contract as is not terminated;
- C. terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the notice of termination;

D. transfer title to the OWNER and deliver in the manner, at the times, and to the extent, if any, directed by the OWNER or Engineer:

1. the fabricated or unfabricated parts, work in process, completed work, supplies and other material produced as a part of, or acquired in connection with the performance of, the work terminated by the notice of termination; and
2. the completed or partially completed plans, drawings, information and other property which, if the Contract had been completed, would have been required to be furnished to the OWNER.

E. complete performance of such part of the work as shall not have been terminated by the notice of termination; and

F. take such action as may be necessary, or as the Engineer may direct, for the protection and preservation of the property related to its Contract which is in the possession of the CONTRACTOR and in which the OWNER has or may acquire an interest.

At a time not later than 30 days after the termination date specified in the notice of termination, the CONTRACTOR may submit to the OWNER a list, certified as to the quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorized by the Engineer. Not later than 15 days thereafter, the OWNER shall accept title to such items and remove them or enter into a storage agreement covering the same, provided that the list submitted shall be subject to verification by the Engineer upon removal of the items, or, if the items are stored, within 45 days from the date of submission of the list, and provided that any necessary adjustments to correct the list as submitted shall be made prior to final settlement.

5.5.3 TERMINATION CLAIM

Within 60 days after notice of termination, the CONTRACTOR shall submit his termination claim to the Engineer and the OWNER in the form and with the certification prescribed herein. Unless one or more extensions in writing are granted by the OWNER upon request of the CONTRACTOR, made in writing within such 60-day period or authorized extension thereof, any and all such claims shall be conclusively deemed waived. The termination claim shall (1) list all Contract Work which the CONTRACTOR has completed but for which the CONTRACTOR asserts it has not been paid, including any retainage; (2) list of all fabricated or unfabricated parts, work in process, completed work, supplies and other material produced as a part of, or acquired in connection with the performance of the Contract and the itemized cost for each such fabricated or unfabricated part, work in process, completed work, supplies and other material; (3) list all costs and expenses saved as a result of the termination of the Contract. The termination claim must include a copy of all invoices for fabricated or unfabricated parts, supplies and other material produced as

a part of, or acquired in connection with the performance of the Contract for which the CONTRACTOR seeks compensation; all invoices for any subcontractors providing services related to the Contract; and (3) evidence of payment of all material suppliers and subcontractors, together with CONTRACTOR's certification that all such-material suppliers and subcontractors have been fully paid together with executed lien releases from each such material supplier and subcontractor. The termination claim may not include any request for payment of Extra Work for which a Change Order has not been issued or for which the CONTRACTOR has not fully and timely complied with the provisions of section 2.3 of this Contract.

5.5.4 AMOUNTS

The CONTRACTOR and OWNER may agree upon the whole or any part of the amount or amounts to be paid to the CONTRACTOR by reason of the total or partial termination of work pursuant hereto, provided that such agreed amount or amounts shall never exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract Price of work not terminated. The contract shall be amended accordingly, and the CONTRACTOR shall be paid the agreed amount. No amount shall be due for lost or anticipated profits. Nothing prescribing the amount to be paid to the CONTRACTOR in the event of failure of the CONTRACTOR and the OWNER to agree upon the whole amount to be paid to the CONTRACTOR by reason of the termination of work pursuant to this section, shall be deemed to limit, restrict or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the CONTRACTOR pursuant to this paragraph.

5.5.5 FAILURE TO AGREE

In the event of the failure of the CONTRACTOR and the OWNER to agree, as provided herein, upon the whole amount to be paid to the CONTRACTOR by reason of the termination of work pursuant to this section, the OWNER shall determine, on the basis of information available to it, the amount, if any, due to the CONTRACTOR by reason of the termination and shall pay to the CONTRACTOR the amounts determined. No amount shall be due for lost or anticipated profits.

5.5.6 DEDUCTIONS

In arriving at the amount due the CONTRACTOR under this section, there shall be deducted (a) all unliquidated advance or other payments on account theretofore made to the CONTRACTOR, applicable to the terminated portion of this contract; (b) any claim which the OWNER may have against the CONTRACTOR in connection with this Contract; and (c) the agreed price for or the proceeds of sale of any materials, supplies or other things

kept by the CONTRACTOR or sold, pursuant to the provisions of this clause, and not otherwise recovered by or credited to the OWNER.

5.5.7 ADJUSTMENT

If the termination hereunder be partial prior to the settlement of the terminated portion of this Contract, the CONTRACTOR may file with the Owner a request in writing for an equitable adjustment of the price or prices specified in the Contract relating to the continued portion of the Contract (the portion not terminated by the notice of termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices; nothing contained herein, however, shall limit the right of the OWNER and the CONTRACTOR to agree upon the amount or amounts to be paid to the CONTRACTOR for the completion of the continued portion of the Contract when said contract does not contain an established contract price for such continued portion.

5.5.8 NO LIMITATION OF RIGHTS

Nothing contained in this section shall limit or alter the rights which the OWNER may have for termination of this Contract under any other provision of this Contract or any other right which OWNER may have for default or breach of contract by CONTRACTOR.

5.6 CONTRACTOR DEFAULT: OWNER'S RIGHT TO SUSPEND WORK AND ANNUL CONTRACT

The Work or any portion of the Work under contract shall be suspended immediately on written order of the OWNER declaring the CONTRACTOR to be in default. A copy of such notice shall be served on the CONTRACTOR'S surety. The contract may be annulled by the OWNER for any good cause or causes, among others of which special reference is made to the following:

- A. failure of the CONTRACTOR to start the work within 10 days from date specified in the written work order issued by the OWNER to begin the work;
- B. evidence that the progress of the work being made by the CONTRACTOR is insufficient to complete the work within the specified working time;
- C. failure of the CONTRACTOR to provide sufficient and proper equipment, materials or construction forces for properly executing the Work;
- D. evidence that the CONTRACTOR has abandoned the Work or discontinuance of the performance of the Work or any part thereof and failure to resume performance within a reasonable time after notice to do so;
- E. evidence that the CONTRACTOR has become insolvent or bankrupt, or otherwise financially unable to carry on the Work;

- F. deliberate failure on the part of the CONTRACTOR to observe any requirements of the specifications or to comply with any orders given by the Engineer as provided for in the specifications;
- G. failure of the CONTRACTOR to promptly make good any defects in materials or workmanship, or any defects of any nature, the correction of which has been directed in writing by the OWNER;
- H. evidence of collusion for the purpose of illegally procuring a contract or perpetrating fraud on the OWNER in the construction of work under contract;
- I. repeated violations of safe working procedures;
- J. the filing by the CONTRACTOR of litigation against the OWNER prior to final completion of the Work. When the Work is suspended for any of the causes itemized above, or for any other cause or causes, the CONTRACTOR shall discontinue the Work or such part thereof as the OWNER shall designate, whereupon the surety may either at its option assume the Contract or that portion thereof which the OWNER has ordered the CONTRACTOR to discontinue and perform the same or, with the written consent of the OWNER, sublet the same, provided, however, that the surety shall exercise its option within two weeks after the written notice to discontinue the work has been served upon the CONTRACTOR and upon the surety or its authorized agents. The surety in such event shall assume the CONTRACTOR'S place in all respects and shall be paid by the OWNER for all work performed by it in accordance with the terms of the Contract, but in no event shall such payments exceed the contract amount, regardless of the cost to the surety to complete the Work.

In the event that the surety assumes the CONTRACTOR'S place, duties and responsibilities in the Contract, all monies remaining due the CONTRACTOR at the time of his default shall thereupon become due and payable to the surety as the work progresses, subject to all terms of the Contract. In case the surety does not, within the hereinabove specified time, exercise its obligation to assume the Contract or that portion thereof which the OWNER has ordered the CONTRACTOR to discontinue, then the OWNER shall have the power to complete by contract or otherwise, as it may determine, the Work herein described or such part thereof as it may deem necessary; and the CONTRACTOR hereto agrees that the OWNER shall have the right to take possession of or use any or all of the materials, plans, tools, equipment, supplies and property of every kind provided by the CONTRACTOR for the purpose of the Work and to procure other tools, equipment and materials for the completion of the same and to charge to the account of the CONTRACTOR the expense of said contract for labor, materials, tools, equipment and expenses incident thereto. The expense so charged shall be deducted by the OWNER out of such monies as may be due or may at any time thereafter become due the CONTRACTOR under and by virtue of the Contract or any part thereof.

The OWNER shall not be required to obtain the lowest bid for the work of completing the Contract, but the expenses to be deducted shall be the actual cost of

such work. In case such expense is less than the sum which would have been payable under the contract if the same had been completed by the CONTRACTOR, then in such case the OWNER may pay the CONTRACTOR the difference in the cost, provided that the CONTRACTOR shall not be entitled to any claim for damages or for loss of anticipated profits.

In case such expense shall exceed the amount which would have been payable under the Contract if the same had been completed by the CONTRACTOR, the CONTRACTOR and his surety shall pay the amount of the excess to the OWNER on notice from the OWNER for excess due including any costs incurred by the OWNER, such as inspection, legal fees and liquidated damages. When any particular part of the Work is being carried out by the OWNER by contract or otherwise under the provisions of this section, the CONTRACTOR shall continue the remainder of the Work in conformity with the terms of the contract and in such manner as not to hinder or interfere with the performance of workmen employed as above provided by the OWNER or surety.

5.7 SUSPENSION BY COURT ORDER AGAINST THE OWNER

The CONTRACTOR shall suspend such part or parts of the Work pursuant to a court order issued against the OWNER and shall not be entitled to additional compensation by virtue of such court order; neither shall the CONTRACTOR be liable to the OWNER in the event the Work is suspended by such court order, unless such suspension is due to the fault or negligence of the CONTRACTOR. A delay of the CONTRACTOR due to a court order against the OWNER, or due to the OWNER'S failure to secure right-of-way at the time required or because of a conflict of a utility with the Work, shall not be cause for additional compensation for damages sustained by the CONTRACTOR, but may be a cause for extension of contract working time only. The CONTRACTOR'S sole remedy for any suspensions of the Work is an equitable extension of time to perform the Work.

5.8 NO WAIVER OF RIGHTS OR ESTOPPEL

The OWNER, or any officer or agent thereof, shall not be precluded at any time, either before or after final completion and acceptance of the Work and final payment therefore from:

- A. showing the true and correct amount, classifications, quality and character of the Work done and materials furnished by the CONTRACTOR or any other person under this Contract, or from showing at any time that any determination, return, decision, approval, order, letter, payment or certification is untrue and incorrect or improperly made in any particular, or that the Work or the materials or any parts thereof do not in fact conform to the contract requirements; and (b) demanding the recovery from the CONTRACTOR of any overpayments made to him, or such damages as the OWNER may sustain by reason of the CONTRACTOR'S failure to perform

each and every part of this Contract in strict accordance with its terms; or both.

VI. AUTHORITY OF THE ENGINEER

6.1 All work shall be performed in a good and workmanlike manner and to the satisfaction of the Engineer. The Engineer shall decide all questions which arise as to the quality and acceptability of materials furnished, work performed, manner of performance, rate of progress of the work, sequence of the construction, interpretation of the plans and specifications, acceptable fulfillment of the Contract, compensation, mutual rights between contractors under these specifications and suspension of the Work. He shall determine the amount and quality of work performed and materials furnished, and his decisions and estimates shall be final. His estimate in such event shall be a condition precedent to the right of the CONTRACTOR to receive money due him under the Contract.

6.2 OWNER'S REPRESENTATIVES

Where the Contract Documents indicate that determinations, directions or approvals shall be made by the OWNER or "Owner's representatives," this shall mean the OWNER acting directly, or through duly authorized persons acting within the limit of authority delegated to them. Any determination, direction or approval of such authorized representatives shall be subject to review by the OWNER. For purposes of administering the schedule or the payment provisions of this Contract the Engineer may act as the Owner's representative for purposes of approving payments, changes, scheduling, or acceptance of the Work, at the OWNER'S discretion.

6.3 INSPECTIONS OF WORK PROGRESS

The Engineer shall visit the site at during construction of the Project as necessary as the Owner's Representative to verify that the Work is being performed in compliance with the Contract Documents and shall be given total access to the Project by the CONTRACTOR. Site visits or inspections by the Engineer shall in no way relieve the CONTRACTOR of any of its responsibilities or duties pursuant to the Contract Documents. The Engineer will neither have control over, nor be responsible for, the construction means and methods, techniques, sequences, or procedures, or for the safety precautions and programs in connection with the Work or the Project. The CONTRACTOR shall be solely responsible for, the construction means and methods, techniques, sequences, or procedures, or for the safety precautions and programs in connection with the Work or the Project.

6.4 CONSTRUCTION STAKES

Engineer will provide the Contractor with primary horizontal and vertical control to consist of one construction baseline and two benchmarks.

The Contractor shall take all necessary precautions to preserve any and/or all markings and staking. Payment for costs of restaking shall be the responsibility of the Contractor.

6.5 APPROVAL OF SUBMITTALS

The Engineer shall review and approve or take other appropriate action the CONTRACTOR's submittals such as Shop Drawings, Product Data and Samples, for the purpose of checking for conformance with the Contract Documents. The Engineers review of the submittals shall not relieve the CONTRACTOR of any of its obligations to perform the Work in strict compliance with the Contract Documents. The Engineer's review shall not be considered approval of safety precautions, means and methods, techniques, sequences or procedures that are the responsibility of the CONTRACTOR.

VII. CLAIMS OR DISPUTES

7.1 CLAIMS AGAINST OWNER AND ACTION THEREON.

No claim against the OWNER under the Contract or for breach of the Contract or additional compensation for extra or disputed work shall be made or asserted against the OWNER under the Contract or in any court action, unless the CONTRACTOR shall have strictly complied with all requirements relating to the giving of notice and information with respect to such claim as required by the Contract.

7.2 CLAIM AGAINST OFFICERS, EMPLOYEES OR AGENT OF THE OWNER.

No claim whatsoever shall be made by the CONTRACTOR against any, past, present or future, officer, employee or agent of the OWNER for or on account of, anything done or omitted to be done in connection with this Contract.

VIII. MISCELLANEOUS PROVISIONS

8.1 FINANCIAL INTEREST IN ANY CONTRACT BY OWNER'S OFFICERS, EMPLOYEES OR AGENTS

No officer, employee or agent of the OWNER shall have a financial interest, direct or indirect, in any contract with the OWNER or be financially interested, directly or indirectly, in the sale to the OWNER of any land, materials, supplies or services, except on behalf of the OWNER as an officer or employee. Any willful violation of this article shall constitute malfeasance in office, and any officer or employee guilty thereof shall thereby forfeit his office or position. Any violation of this article with the knowledge, expressed or implied, of the persons, partnership, company, firm, association or corporation contracting with the OWNER shall render the contract involved voidable by the OWNER.

8.2 SERVICE OF NOTICES

The OWNER and the CONTRACTOR shall each designate addresses where all notices, directions or other communication may be delivered or to which they may be mailed.

Notices to the surety or sureties on contract bonds shall be directed or delivered to the home office, or to the agent or agents who executed the bonds on behalf of the surety or sureties, or to their designated agent for delivery of notices.

Actual delivery of any such notice, direction or communication to the aforesaid places or depositing it in a postpaid wrapper addressed thereto in any post office regularly maintained by the United States Postal Service shall be conclusively deemed to be sufficient service thereof upon the above persons as of the date of such delivery or deposit.

The designated addresses may be changed at any time by an instrument in writing executed by the party changing the addresses and delivered to the other party.

Nothing herein contained shall, however, be deemed to preclude or tender inoperative the service of any notice, direction or communication upon the above parties personally or, if the CONTRACTOR be a corporation, upon any officer or director thereof.

8.3 UNLAWFUL PROVISIONS DEEMED STRICKEN

In the event a term, condition, or provision of this Agreement is determined to be void, unenforceable, or unlawful by a court of competent jurisdiction, then that term, condition, or provision shall be deleted and the remainder of the Agreement shall remain in full force and effect.

8.4 ALL LEGAL PROVISIONS INCLUDED

It is the intent and agreement of the parties to this contract that all legal provisions of law required to be inserted herein shall be and are inserted herein. If through mistake or oversight, however, any such provision is not herein inserted, or is not inserted in proper form, then upon application of either party, the contract shall be amended so as to strictly comply with the law and without prejudice to the rights of either party hereunder.

8.5 ASSIGNMENTS

The CONTRACTOR shall not assign, transfer, convey or otherwise dispose of this contract, or his right to execute it, or his right, title or interest in it or any part thereof without the previous written consent of the surety company and the written approval of the OWNER.

The CONTRACTOR shall not assign, either legally or equitably, by power of attorney or otherwise, any of the monies due or to become due under this Contract or its claim thereto without the prior written consent of the surety company and the written approval of the OWNER.

The approval of the OWNER of a particular assignment, transfer or conveyance shall not dispense with such approval to any further or other assignments.

The approval by the OWNER of any assignment, transfer or conveyance shall not operate to release the CONTRACTOR or surety hereunder from any of the Contract and bond obligations, and the CONTRACTOR shall be and remain fully responsible and liable for the defaults, negligent acts and omissions of his assignees, their agents and employees, as if they were his own.

8.6 STATE AND LOCAL SALES AND USE TAXES

The OWNER qualifies for exemption from the state and local sales and use taxes, pursuant to the provisions of Section 151.309 of the Texas Limited Sales, Excise and Use Tax Act. Therefore, the CONTRACTOR shall not pay such taxes which would otherwise be payable in connection with the performance of this Contract.

The CONTRACTOR shall issue an exemption certificate in lieu of the tax on the purchase, rental or lease of:

- A. all materials, supplies, equipment and other tangible personal property incorporated into the real property being improved; and
- B. all materials, supplies, equipment and other tangible personal property used or consumed by the CONTRACTOR in performing the Contract with the OWNER. Materials and supplies "used in the performance of a contract" include only those materials actually incorporated into the property being improved and those supplies directly used to incorporate such materials into the property being improved. Overhead supplies and supplies used indirectly or only incidental to the performance of the Contract with the OWNER are not included in the exemption.

Under "reasons said purchaser is claiming this exemption" in the exemption certificate, the CONTRACTOR must name the OWNER and the project for which the equipment, material and supplies are being purchased, leased or rented.

8.7 VENUE AND GOVERNING LAW

The parties agree that the laws of the State of Texas shall govern the interpretation, validity, performance and enforcement of this Construction Agreement, and that the exclusive venue for any legal proceeding involving this Construction Agreement shall be in Collin County, Texas.

8.8 NO WAIVER OF LEGAL RIGHTS

Inspection by the Engineer or OWNER; any order, measurement, quantity or certificate by the Engineer; any order by the OWNER for payment of money; any payment for or acceptance of any work; or any extension of time or any possession taken by the OWNER shall not operate as a waiver of any provisions of the contract or any power therein reserved to the OWNER of any rights or damages therein provided. Any waiver of any breach of contract shall not be held to be a waiver of any other or subsequent breach. The OWNER reserves the right to correct any error that may be discovered in any estimate that may have been paid and to adjust the same to meet the requirements of the Contract Documents. The OWNER reserves the right to recover by process of law sums as may be sufficient to correct any error or make good any deficiency in the Work resulting from such error, dishonesty or collusion by the CONTRACTOR or his agents, discovered in the Work after the final payment has been made.

Neither final acceptance of the Work, nor final payment shall relieve the CONTRACTOR of responsibility for faulty materials or workmanship, and the CONTRACTOR shall promptly remedy any defects due thereto and pay for any damage to other work resulting therefrom. Likewise, neither final acceptance nor final payment, nor partial or entire use or occupancy of the work by the OWNER shall constitute acceptance of work not done in accordance with the Contract Documents or relieve CONTRACTOR of liability with respect to any expressed or implied warranties or responsibility for faulty materials or workmanship, whether same be patently or latently defective.

8.9 OBLIGATION TO PERFORM FUNCTIONS

Any failure or neglect on the part of OWNER or Engineer or inspectors to enforce provisions herein dealing with supervision, control, inspection, testing or acceptance and approval of the work shall never operate to relieve CONTRACTOR from full compliance with the Contract Documents nor render OWNER liable to CONTRACTOR for money damages, extensions of time or increased compensation of any kind.

8.10 SUCCESSORS AND ASSIGNS

Subject to the limitations upon assignment and transfer herein contained, this contract shall be binding upon and inure to the benefit of the parties hereto, their respective successors and assigns.

8.11 HEADINGS

The title and headings contained in the Contract Documents and the subject organization are used only to facilitate reference, and in no way define or limit the scope of intent of any of the provisions of this Contract.

8.12 ENTIRE AGREEMENT; AMENDMENTS; BINDING EFFECT

This Construction Agreement, including the Contract Documents and all the documents incorporated therein represents the entire and integrated agreement between the OWNER, Collin County, and the CONTRACTOR, and supersedes all

prior negotiations, representations, or agreements, either written or oral. This Construction Agreement may be amended only by written instrument signed by both, the OWNER, Collin County, and the CONTRACTOR. CONTRACTOR acknowledges that no representations have been made to it, upon which it is relying in entering into this Contract, which are not expressly set forth in the Contract Documents.

8.13 INTERPRETATION

Although this Agreement is drafted by the OWNER, Collin County, should any part be in dispute, the parties agree that this Construction Agreement shall not be construed more favorable for either party. No rule of construction requiring that ambiguities in this Contract shall be construed more favorably for either party shall apply.

8.14 EXPENSES FOR ENFORCEMENT

In the event either Party hereto is required to employ an attorney to enforce the provisions of this Agreement or is required to commence legal proceedings to enforce the provisions hereof, the prevailing Party shall be entitled to recover from the other, reasonable attorney's fees and court costs incurred in connection with such enforcement, including collection.

8.15 FORCE MAJEURE

No party shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement, when and to the extent such failure or delay is caused by or results from acts beyond the affected party's reasonable control, including, without limitation: acts of God; flood, fire or explosion; war, invasion, riot or other civil unrest; actions, embargoes or blockades in effect on or after the date of this Agreement; or national or regional emergency (each of the foregoing, a "Force Majeure Event"). A party whose performance is affected by a Force Majeure Event shall give notice to the other party, stating the period of time the occurrence is expected to continue and shall use diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

IN WITNESS WHEREOF, the parties have executed this Construction Agreement upon the year and date indicated beneath their signatures hereto.

CONTRACTOR:

By: _____

Date: _____

ATTEST:

Secretary

COLLIN COUNTY, TEXAS:

By: _____
Michelle Charnoski, NIGP-CPP, CPPB, Purchasing Agent

Date: _____

Collin County Commissioners Court Order No.

ATTEST:

Secretary

ACKNOWLEDGMENTS

STATE OF TEXAS §

COUNTY OF _____ §

BEFORE ME, _____ on this day personally appeared _____
_____, of _____, a _____ corporation,
known to me (or proved to me on the oath of) _____ or
through _____ (description of identity card or other document) to be the
person whose name is subscribed to the foregoing instrument and acknowledged to me that
he/she executed the same as the act and deed of the corporation, for the purposes and
consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the ___ day of _____, 20__

Notary Public, State of Texas

Printed Name

My Commission expires on the ___ day of _____, _____.

STATE OF TEXAS §

COUNTY OF COLLIN§

BEFORE ME, _____ on this day personally appeared _____
_____, Purchasing Agent of COLLIN COUNTY, TEXAS, a political subdivision
of the State of Texas, known to me (or proved to me on the oath of) _____
_____ or through _____ (description of identity card or other document) to be
the person whose name is subscribed to the foregoing instrument and acknowledged to me
that he/she executed the same as the act and deed of COLLIN COUNTY, TEXAS, for the
purposes and consideration therein expressed and in the capacity therein stated.

GIVEN under my hand and seal of office this the _____ day of _____
_____, 20__

Notary Public, State of Texas

Printed Name

My Commission expires on the ___ day of _____, _____.

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type.
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ▶ _____ <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
6 City, state, and ZIP code	
7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
				-			-		
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶	Date ▶

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

006111 PERFORMANCE BOND

STATE OF TEXAS §
COUNTY OF COLLIN §

KNOW ALL MEN BY THESE PRESENTS:

That _____, a corporation organized and existing under the laws of the State of _____, and fully authorized to transact business in the State of Texas, whose address is _____ of the City of _____ County of _____, and State of _____, (hereinafter referred to as "Principal"), and _____ (hereinafter referred to as "Surety", a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (hereinafter referred to as "Owner") and unto all persons, firms and corporations who may furnish materials for or perform labor upon the buildings, structures or improvements referred to in the attached Contract, in the penal sum of _____ Dollars (\$ _____) (not less than 100% of the approximate total amount of the Contract as evidenced in the proposal plus 10-percent of the stated penal sum as an additional sum of money representing additional court expenses, attorneys' fees, and liquidated damages arising out of or connected with the below identified Contract) in lawful money of the United States, for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the _____ day of _____, 202____, to which said Contract is hereby referred to and made a part hereof and as fully and to the same extent as if copied at length herein for the construction of _____.

CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal fully and faithfully executes the work and performance of the Contract in accordance with the plans specifications, and Contract Documents, including any extensions thereof which may be granted with or without notice to Surety, during the original term thereof, and during the life of any guaranty required under the Contract, and according to the true intent and meaning of said Contract and the plans and specifications hereto annexed, if the Principal shall repair and/or replace all defects due to faulty materials or workmanship that appear within a period of one year from the date of final completion and final acceptance of the work by OWNER; and if the Principal shall fully indemnify and save harmless the OWNER from all costs and damages which OWNER may suffer by reason of failure to so perform herein and shall fully reimburse and repay OWNER all outlay and expense which the OWNER may incur in making good any default or deficiency, then this obligation shall be void; otherwise, to remain in full force and effect; and in case said CONTRACTOR shall fail to do so, it is agreed that the OWNER may do said work and supply such materials and charge the same against said CONTRACTOR and Surety on this obligation. Provided further, that if any legal action be filed on this Bond, venue shall lie in Collin County, Texas.

"PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions Texas Government Code, Chapter 2253, as amended, and Chapter 3503 of the Texas Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said articles to the same extent as if they were fully copied at length herein.

Surety, for value received, stipulates and agrees that the bond shall automatically be increased by the amount of any Change Order or supplemental agreement which increases the Contract price with or without notice to the Surety, but in no event shall a Change Order or Supplemental Agreement which reduces the Contract price decrease the penal sum of the Bond. And further that no change, extension of time, alteration, or addition to the terms of the Contract, or to the work performed thereunder, or the plans, specifications, or drawings accompanying the 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 to be performed thereunder.

Surety agrees that the bond provides for the repairs and/or replacement of all defects due to faulty materials and workmanship that appear within a period of one (1) year from the date of completion and acceptance of the improvement by the OWNER.

The undersigned and designated agent is hereby designated by Surety herein as the agent resident to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____ 202____.

WITNESS

PRINCIPAL

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

SURETY

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

WITNESS

The Resident Agent of the Surety for delivery of notice and service of process is:

Name: _____

Address: _____

Phone Number: _____

Note: Date of Bond must NOT be prior to date of contract.

006113 PAYMENT BOND

STATE OF TEXAS §
COUNTY OF COLLIN §

KNOW ALL MEN BY THESE PRESENTS:

That _____, a corporation organized and existing under the laws of the State of _____, and fully authorized to transact business in the State of Texas, whose address is _____ of the City of _____ County of _____, and State of _____, (hereinafter referred to as "Principal"), and _____ (hereinafter referred to as "Surety", a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (hereinafter referred to as "Owner") and unto all persons, firms and corporations who may furnish materials for or perform labor upon the buildings, structures or improvements referred to in the attached Contract, in the penal sum of _____ Dollars (\$ _____) (not less than 100% of the approximate total amount of the Contract as evidenced in the proposal) in lawful money of the United States, for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the _____ day of _____, 202____, to which said Contract is hereby referred to and made a part hereof and as fully and to the same extent as if copied at length herein for the construction of _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that the bond guarantees the full and proper protection of all claimants supplying labor and material in the prosecution of the work provided for in said Contract and for the use of each claimant, and that conversely should the Principal faithfully perform said Contract and in all respects duly and faithfully observe and perform all and singular the covenants, conditions, and agreements in and by said Contract, agreed to by the Principal, and according to the true intent and meaning of said Contract and the claims and specifications hereto annexed, and any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modification to Surety being hereby waived, then this obligation shall be void; otherwise, to remain in full force and effect. Provided further, that if any legal action be filed on this Bond, venue shall lie in Collin County, Texas.

"PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions Texas Government Code, Chapter 2253, as amended, and Chapter 3503 of the Texas Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said articles to the same extent as if they were fully copied at length herein.

Surety, for value received, stipulates and agrees that the bond shall automatically be increased by the amount of any Change Order or supplemental agreement which increases the Contract price with or without notice to the Surety and that no change, extension of time, alteration or addition to the terms of the Contract, or to the work performed thereunder, or the plans, specifications, or drawings accompanying the same, shall in anyway 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 to be performed thereunder.

The undersigned and designated agent is hereby designated by Surety herein as the agent resident to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____ 202____.

WITNESS

PRINCIPAL

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

WITNESS

SURETY

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

The Resident Agent of the Surety for delivery of notice and service of process is:
Name: _____
Address: _____
Phone Number: _____

Note: Date of Bond must NOT be prior to date of contract.

006119 MAINTENANCE BOND

STATE OF TEXAS §
COUNTY OF COLLIN §

KNOW ALL MEN BY THESE PRESENTS:

That _____, a corporation organized and existing under the laws of the State of _____, and fully authorized to transact business in the State of Texas, whose address is _____ of the City of _____ County of _____, and State of _____, (hereinafter referred to as "Principal"), and _____ (hereinafter referred to as "Surety", a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (hereinafter referred to as "Owner") and unto all persons, firms and corporations who may furnish materials for or perform labor upon the buildings, structures or improvements referred to in the attached Contract, , in the penal sum of _____ Dollars (\$ _____) in lawful money of the United States, for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the _____ day of _____, 202____, to which said Contract is hereby referred to and made a part hereof and as fully and to the same extent as if copied at length herein for the construction of _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that the bond guarantees the full and proper maintenance and repair of the work herein contracted to be done and performed for a period of _____ year(s) from the date of acceptance and Principal will do all necessary backfilling that may arise on account of sunken conditions in ditches, or otherwise, and do and perform all necessary work and repair any defective condition growing out of or arising from the improper laying or construction of same, or on account of any breaking of same caused by said CONTRACTOR in construction of same , or on account of any defect arising in any of said work laid or constructed by said CONTRACTOR or on account of improper excavation or backfilling, it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, work or labor performed by said CONTRACTOR, then this obligation shall be void; otherwise, to remain in full force and effect; and in case said CONTRACTOR shall fail to do so, it is agree that the OWNER may do said work and supply such materials and charge the same against said CONTRACTOR and Surety on this obligation. Provided further, that if any legal action be filed on this Bond, venue shall lie in Collin County, Texas.

"PROVIDED, HOWEVER, that said Surety, for value received, stipulates and agrees the bond shall automatically be increased by the amount of any Change Order or supplemental agreement which increases the Contract price with or without notice to the Surety and that no change, extension of time, alteration or addition to the terms of the Contract, or to the work performed thereunder, or the plans specifications, or drawings accompanying the 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 to be performed thereunder.

The undersigned and designated agent is hereby designated by Surety herein as the agent resident to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____ 202____.

WITNESS

PRINCIPAL

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

SURETY

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

WITNESS

The Resident Agent of the Surety for delivery of notice and service of process is:
Name: _____
Address: _____
Phone Number: _____

Note: Date of Bond must NOT be
prior to date of contract.

SECTION 01 10 00

SUMMARY

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS:

- A. Work consists of the replacement of an existing modified bituminous roof at the Collin County Juvenile Detention Center, located at 4700 Community Drive, McKinney, Texas 75071.

1.02 CONTRACTS:

- A. Construct work under direction and control of the Contractor. Construct work under single Lump-sum Contract.

1.03 WORK SEQUENCE:

- A. Sequence and stage roofing work in accordance with roofing phasing plans approved by Owner.

1.04 CONTRACTOR'S USE OF PREMISES:

- A. Confine operations at site to areas permitted by Law, Ordinances and Permits and to Limits of Contract as shown on Contract Documents.
- B. Do not unreasonably encumber site with materials or equipment.
- C. Do not load structure with weight that will endanger structure.
- D. Assume full responsibility for protection and safekeeping of products stored on premises.
- E. Move stored products which interfere with operations of Owner.
- F. Obtain and pay for use of additional storage or work areas needed for operations.
- G. Coordinate use of premises under direction of Owner's representative.
- H. Limit use of each site for Work and storage as follows:
 - 1. Restrict Work to areas approved by Owner.
 - 2. Store materials off site except for approved materials which may be stored at designated staging area as approved by Owner.
 - 3. Access sites in areas approved by Owner.
 - 4. Restrict parking to specific areas of existing parking lots as approved by Owner.
- I. Maintenance of Access and Operations:
 - 1. Do not perform operations that would interrupt or delay Owner's daily operations.
 - 2. Maintain access to existing building, facilities, parking, streets and walkways; especially fire lanes. Do not obstruct entrances or loading docks.
 - 3. Schedule operations with Owner in such a manner as to allow Owner operations to continue with minimum interruption.
 - 4. During period of construction, do not obstruct in any manner existing exit ways of Owner-occupied areas.
- J. Maintenance of Existing Services:
 - 1. Do not disrupt existing utility services to existing buildings.
- K. Building Access:
 - 1. Contractor will not have access to building interior except as necessary to perform work and check for leaks, unless otherwise approved by Owner. Access to the interior of the facility will be coordinated with the designated Collin County representative.
 - 2. Access to roof construction areas shall be by way of exterior ladder on face of building as designated by Owner.

3. Access to roof construction areas for delivery of materials shall be as designated by Owner.

1.05 OWNER OCCUPANCY:

- A. Owner will occupy premises during entire period of construction for the conduct of Owner's normal, daily operations. Cooperate with Owner's representative in all construction operations to minimize conflict and to facilitate Owner usage.
- B. Contractor shall conduct his operations to insure least inconvenience to Owner's operation.
- C. Contractor shall take precautions to avoid excessive noise or vibration that would disturb Owner's operations. When directed by Owner, Contractor shall perform certain operations at designated time of day or night in order to minimize disturbance to Owner's operations.
- D. Contractor shall take all necessary precautions to assure a watertight condition in the operating portion of the building during construction.

1.06 OVERTIME WORK:

- A. Contract shall include necessary overtime work on weekends and other times as required to complete the work within the Contract Time.

END OF SECTION

SECTION 01 27 00

UNIT PRICES

PART 1 - GENERAL

1.01 GENERAL:

- A. Where unit prices are stated in the Contract Documents, the unit price shall include, except as otherwise noted, the providing of all costs required for the complete construction of the specified unit of work, including: cost of materials and delivery; cost of installation labor, including social security, insurance and other required fringe benefits; workman's compensation insurance; bond premiums; rental value of equipment and machinery; taxes; incidental expenses; and supervision.
- B. Each unit price shall be total cost or credit to Owner.
- C. Materials and methods for unit prices shall be in accordance with applicable product specifications included in this Project Manual.

1.02 METHOD OF ADJUSTMENT:

- A. Unit prices stated in the Contract Documents are for adjusting the Cost of Work in case of variations of quantities from the Work described in the Contract Documents.
- B. Except as otherwise specified, unit prices stated shall apply to both deductive and additive variations of quantities.
- C. Unit prices included in the Agreement shall remain in effect until date of final completion of entire Work.
- D. Adjustment to Cost of the Work will be by Change Order on basis of net accumulative change for each category.

1.03 SCHEDULE OF UNIT PRICES:

- A. Metal Deck Renovation: Unit price per sq. ft. for renovating existing metal decking as specified in Section 07 56 50.
- B. Metal Deck Replacement: Unit price per sq. ft. for replacing existing metal decking as specified in Section 07 56 50.
- C. Replacement of Deteriorated Wood Nailers: Unit price per lineal foot for replacing deteriorated wood nailers as specified in Section 07 56 50.
 - 1. L.F. of 2x4 wood nailer including all fastening
 - 2. L.F. of 2x6 wood nailer including all fastening
 - 3. L.F. of 2x8 wood nailer including all fastening

PART 2 – NOT APPLICABLE

PART 3 – NOT APPLICABLE

END OF SECTION

SECTION 01 31 40

PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRE-CONSTRUCTION CONFERENCE:

- A. A pre-construction conference will be held the site at a time and date to be designated by the Collin County Project Manager.
- B. Representatives of the Contractor and roofing subcontractor shall meet with Collin County Project Administrator, Collin County representatives and Consulting Architect.
- C. As a minimum, the following items will be on meeting agenda:
 - 1. Review of Contract, insurance and Schedule of Values.
 - 2. Designation of key personnel.
 - 3. Communications.
 - 4. Construction Schedule and phasing plan.
 - 5. Job site conditions and requirements:
 - a. Use of site and restrictions.
 - b. Temporary services and controls.
 - c. Existing facilities and maintenance of operation, use of site.
 - d. Construction procedures.
 - e. Daily completion procedures.
 - f. Weather restrictions.
 - g. Notification procedures.
 - h. Quality control.
 - i. Project record documents procedures.
 - j. Final inspection.
 - 6. Submittals Review.

1.02 WEEKLY PROGRESS MEETINGS:

- A. Weekly construction progress meetings will be held as designated by the Collin County Project Manager.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 GENERAL:

- A. Submit to the Consulting Architect Shop Drawings, Product Data and Samples required by Specification sections.

1.02 RELATED REQUIREMENTS:

- A. Project Record Documents - Section 01 70 00.

1.03 SHOP DRAWINGS:

- A. Original drawings, prepared by Contractor, subcontractor, supplier or distributor, which illustrate some portion of the Work, showing fabrication, layout, setting or erection details, prepared by a qualified detailer. Reproduction and use of Contract Drawings are prohibited.
- B. Format for Review: Electronic.

1.04 PRODUCT DATA:

- A. Manufacturer's standard schematic drawings:
 - 1. Modify drawings to delete information which is not applicable to project.
 - 2. Supplement standard information to provide additional information applicable to project.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data:
 - 1. Clearly mark each copy to identify pertinent materials, products or models.
 - 2. Show dimensions and clearances required.
 - 3. Show performance characteristics and capacities.
 - 4. Show wiring diagrams and controls.

1.05 SAMPLES:

- A. Physical examples to illustrate materials, equipment and workmanship, and to establish standards by which completed Work is judged.

1.06 CONTRACTOR RESPONSIBILITIES:

- A. Review Shop Drawings, Product Data and Samples prior to submission. Initial, sign or stamp, certifying to review of submittal.
- B. Verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
- C. Coordinate each submittal with requirements of Work and of Contract Documents.
- D. Contractor's responsibility for errors and omissions in submittals is not relieved by the Consulting Architect's review of submittals.
- E. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by the Consulting Architect's review of submittals.
- F. Notify the Consulting Architect, in writing at time of submission, of deviations in submittals from requirements of Contract Documents.
- G. Begin no work which requires submittals until return of submittals with Consulting Architect's stamp and initials or signature indicating review and indication to proceed as noted.

H. After Consulting Architect's review, distribute copies.

1.07 SUBMISSION REQUIREMENTS:

- A. Schedule submissions to Consulting Architect immediately after Contract Award.
- B. Submit 2 of each Sample, unless otherwise specified.
- C. Accompany submittals with transmittal letter, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. The number of each Shop Drawing, Product Datum and Sample submitted.
 - 5. Notification of deviations from Contract Documents.

1.08 RE-SUBMISSION REQUIREMENTS:

- A. Shop Drawings:
 - 1. Revise initial drawings as required and re-submit as specified for initial submittal.
 - 2. Indicate on drawings any changes which have been made, other than those requested by the Owner.
- B. Product Data and Samples: Submit new datum and samples as required for initial submittal.

1.09 DISTRIBUTION OF SUBMITTALS AFTER REVIEW:

- A. Consulting Architect will provide electronic copies of Shop Drawings and Product Datum to Contractor and Owner.
- B. Contractor shall distribute copies of Shop Drawings and Product Datum which carry Architect's stamp, as required for construction and shall maintain a copy of such at the jobsite.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 35 50

ALTERATIONS PROJECT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Procedural requirements for alterations work.
- B. Selective demolition.

1.02 DESCRIPTION:

- A. Summary: The procedures and administrative requirements of this Section apply to all of the following Sections of the Specifications which are involved in alterations to the existing building.
- B. Extent Notes: Cut into or partially remove portions of the existing building as necessary to make way for new construction. Include such work as:
 - 1. Cutting and removing of items shown to be cut or removed.
 - 2. Cutting or removing of items not shown to be cut or removed, but which must be cut or removed to allow the new work to proceed. Work or items which are to remain in the finished work shall be patched or reinstalled after their cutting or removing, and their joints and finishes made to match adjacent or similar work.
 - 3. Removal of existing surface finishes as needed to install new work and finishes.
 - 4. Removal of abandoned items and removal of items serving no useful purpose.
 - 5. Repair or removal of dangerous or unsanitary conditions resulting from alterations work.

1.03 ALTERATIONS, CUTTING AND PROTECTION:

- A. Extent:
 - 1. Cutting and removing work shall be performed so as not to cut or remove more than is necessary and so as not to damage adjacent work.
 - 2. Conduct work in such a manner as to minimize noise and to minimize accumulation and spread of dirt and dust.
- B. Protection:
 - 1. Protect remaining finishes, equipment, and adjacent work from damage caused by cutting, removing and patching operations. Protect surfaces which will remain a part of the finished work.
 - 2. Cover existing walls where necessary to prevent damage from products delivery and construction operations.
 - 3. After materials are installed, properly protect Work until final acceptance.
 - 4. Any damage resulting from construction operations shall be repaired by the Contractor without cost to the Owner.
- C. Debris:
 - 1. Remove debris promptly from the site each day in accordance with Section 01 50 00. Removed material becomes property of the Contractor. Load removed material directly on trucks for removal from site. Dispose of removed material legally. Do not allow debris to enter sewers.

1.04 PATCHING, EXTENDING AND MATCHING:

- A. Patching:
 - 1. In areas where any portion of an existing finished surface is damaged, lifted, stained, or otherwise made to be imperfect, patch or replace the imperfect portion of the surface with matching material.
 - 2. Provide adequate support or substrate for patching.

- B. Quality:
 - 1. In the Sections of the product and execution Specifications which follow these General Requirements, no concerted attempt has been made to describe each of the various existing products that must be used to patch, match, extend or replace existing work. Obtain all such products in time to complete the Work on schedule. Such products shall be provided in quality which is in no way inferior to the existing products.
 - 2. The quality of the products that exist in the building, as apparent during prebid site visits, shall serve as the Specification requirement for strength, appearance, and other characteristics.
- C. Transitions:
 - 1. Where new work abuts or finishes flush with existing work, make the transition as smooth and uniform as possible. Patched work shall match existing adjacent work in texture and appearance so as to make the patch or transition invisible to the eye at a distance of 3 ft.
 - 2. Where finished surfaces cut are in such a way that a smooth transition with new work is not possible, terminate the existing surface in a neat manner along a straight line at a natural line of division and provide trim appropriate to the finished surface.
- D. Matching: Restore existing work that is damaged during construction to a condition equal to its condition at the time of the start of the Work.

1.05 REPAIR:

- A. Replace work damaged in the course of alterations.
- B. Where full removal of extensive amounts of almost-suitable work would be needed to replace damaged portions, then filling, straightening, and similar repair techniques, followed by finishing, will be permitted.
- C. If the repaired work is not brought up to the standard for new work, the Collin County Project Manager will direct that it be cut out and replaced with new work.

1.06 SELECTIVE DEMOLITION:

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chipping.
 - 2. Dispose of demolished items and materials promptly. On-site storage or sale of removed items is prohibited.

END OF SECTION

SECTION 01 42 50

DEFINITIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Definitions for construction terminology not otherwise defined in Contract Documents.
- B. Definitions for special terminology used for this Project.

1.02 RELATED SECTIONS:

- A. Conditions of the Contract (Definitions contained therein).
- B. Section 01 35 50 - Alterations Project Procedures
- C. Section 01 60 00 - Materials and equipment

1.03 EXISTING - (PRESENTLY THERE):

- A. Also may be noted "original". Present conditions and assumed locations, if known, as of the Date of Contract Documents.

1.04 ABANDONED - (NO LONGER NECESSARY OR IN USE):

- A. "Remove" items so noted, or later defined, as an all-inclusive responsibility within this contract. Pay for all work in connection with removal of these items, including municipal, disposal, utility and service charges. Dispose of all "Excess".

1.05 ABANDON - (TO BECOME ABANDONED):

- A. Protect and allow to remain as "existing" until such other work makes them "abandoned", such as relocation or discontinuation of service. Upon determination of abandonment, work shall proceed in accordance with "Abandoned".

1.06 SALVAGE - (TO BE REMOVED AS IS):

- A. "Remove", protect, "preserve" in complete material condition as found "existing". Also to "Save". Determine suitability for incorporation in this Contract. Store at a location mutually agreed upon. Dispose of all "Excess".

1.07 UNKNOWN - (NOT SHOWN ON DRAWINGS):

- A. Products beneath surfaces indicated by drawings and encountered during the Work. Immediately support, shore and protect. Immediately notify the Architect and authority having jurisdiction. Allow free access for inspection. "Preserve" in proper condition until the Architect determines definition and interpretation of Work. Take such measures as required for protection, reinforcement or adjustment.

1.08 NEW - (TO BE INCORPORATED) NOT EXISTING:

- A. Refer to various specification sections for requirements of Work to be incorporated.

1.09 ADDITION - (TO ADD TO AND BE INCORPORATED) ALSO TO "ADD":

- A. Work supplementary to that indicated to accomplish that which is required by the Contract Documents. To bring to a new condition; to extend, fasten, patch and match to that which is existing.

1.10 REMAIN - (TO LEAVE WHERE IT IS EXISTING):

- A. The final location of an item in its "existing" position, however, this shall not mandate the fact that this item will not move during this contract, specifically in order to "Preserve" or "Rework".

1.11 RENOVATE - (TO REPAIR AND MAKE NEW):

- A. The process required to bring an item to a present new standard of condition required by the Contract Documents; e.g., to "rework" "existing" "suitable" "salvage" "products" and perform "new" work and "additions" required. (Syn. rehabilitate, recondition, repair.)

1.12 REMOVE - (TO TAKE FROM EXISTING LOCATION):

- A. Work required to extract a portion or whole by one or a combination of methods and moved to a new location.
 - 1. "Abandoned": Remove items by dismantling or extraction and may be by demolition, if acceptable.
 - 2. Salvage: Remove by disassembly. "Relocate".
 - 3. Products: Where a specific portion of component of an assembly or whole is to be removed, take all precautions to prevent damage, defacement and displacement to the "existing" to remain i.e., mortar, bricks, and finishes.

1.13 REINSTALL - (TO INCORPORATE AS WAS ONCE DONE):

- A. "Remove" and "salvage" existing from its location, if it does exist.
 - 1. "Restore", "Renovate" or "Remodel" and "Reinstall" in its existing location. Reincorporate and "re-work" the original work to the extent required by the Contract Documents.
- B. If the "Existing" item, so indicated, is missing, defective, or unsuitable as "Existing", then "Reconstruct" only that portion with "New" products and incorporate as was original. Syn. Replace.

1.14 REPLACE - (TO TAKE THE PLACE OF):

- A. "Remove" "existing" unserviceable product and provide "new" product in place of unserviceable product.

1.15 RELOCATE - ("REINSTALL" IN A NEW LOCATION):

- A. "Reinstall" in a new location as indicated on Drawings.

1.16 REUSE - (TO USE AS ONCE WAS):

- A. The use of "suitable" "salvage" for incorporation or reincorporation in the Work. "Remove", "Relocate" and "Reinstall" as required for "Reuse".

1.17 DEFECTIVE - (NOT ACCEPTABLE):

- A. Refer to Conditions of the Contract, that which does not conform to the Contract Documents. As it applies to "Salvage", in addition to the above, shall mean "Unsuitable".

1.18 EXCESS - (NOT REQUIRED):

- A. More quantity than required to conform to the Contract Documents and not desired by the Owner. Debris shall be considered "Excess" and not be buried on this site. Remove "Excess" from the site and legally dispose. "Excess" "Suitable" "Salvage" shall be property of Contractor unless otherwise specified.

END OF SECTION

SECTION 01 43 00

QUALITY ASSURANCE

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED:

- A. General Quality Control.
- B. Manufacturers' Field Services.
- C. Reroofing Daily Completion Checklist.

1.02 RELATED REQUIREMENTS:

- A. Conditions of the Contract: Inspection and testing required by governing authorities.

1.03 QUALITY CONTROL, GENERAL:

- A. Maintain quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce work of specified quality.

1.04 MANUFACTURERS' FIELD SERVICES:

- A. When specified in respective Specification section, require manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, and to make appropriate recommendations.
- B. Notify manufacturer's technical representative a minimum of 1 week prior to date of Final Inspection. The manufacturer's technical representative shall attend the Final Inspection.
- C. Representative shall submit written report to Architect and Contractor listing items to be addressed for roofing work to achieve final completion.

1.05 REROOFING DAILY COMPLETION CHECKLIST:

- A. At end of each day's work, Contractor shall complete a Reroofing Daily Completion Checklist verifying that night seal procedures have been completed and inspected.
- B. Checklist shall include following information:
 - 1. Verification of procedures and inspection.
 - 2. Name of project.
 - 3. Date and time of shut-down.
 - 4. Weather conditions at time of shut-down.
 - 5. Predicted weather conditions for that night.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS:

- A. Use of site - Section 01 35 50.
- B. Maintenance of existing services - Section 01 35 50.
- C. Demolition, cutting, dust control - Section 01 35 50.

1.02 SANITARY FACILITIES:

- A. Provide adequate temporary chemical toilets at each site at time Work is commenced.
- B. Maintain facilities in compliance with applicable health laws and regulations. Keep clean and unobtrusive.
- C. Upon completion of Work, remove these facilities and all traces thereof.

1.03 STORAGE OF MATERIALS:

- A. Store materials in areas approved by Owner and local governing requirements.
- B. Cover and protect materials subject to damage by weather, including during transit.
- C. Do not use building as storage facility with the exception of roofing materials which can be stored on the roof.
- D. Provide additional storage at no cost to Owner in the event that additional storage area is required beyond approved areas.
- E. Stored materials shall be available for inspection by Architect and Owner at all times.
- F. Store flammable and volatile liquids in sealed containers located a minimum of 30 ft. from existing buildings.
- G. Flammable or volatile liquids shall be transported in and used from U.L. listed safety cans.

1.04 TEMPORARY WATER:

- A. Contractor shall make arrangements with Owner for water required for construction.
- B. Owner will pay for costs of water.
- C. Contractor shall provide hoses for conveyance.

1.05 TEMPORARY ELECTRICAL ENERGY:

- A. Contractor shall make arrangements with Owner for temporary electrical service for completion of the Work.
- B. Owner will pay energy charges for temporary power and lighting.
- C. Contractor shall provide all necessary temporary wiring, extensions and temporary lighting devices.

1.06 TEMPORARY LADDERS, SCAFFOLDS, HOISTS:

- A. Furnish and maintain temporary ramps, scaffolds, hoists or chutes as required for proper execution of Work.
- B. Such apparatus, equipment and construction shall be of noncombustible construction and meet requirements of applicable Federal, State and Local Safety and Labor Laws.

1.07 GUARDRAILS, BARRICADES AND TEMPORARY COVERINGS:

- A. Provide barricades as required to protect natural resources, site improvements, existing property, adjacent property and passers-by.
- B. Where pedestrian traffic is adjacent to work areas, provide necessary guardrails and barricades to protect pedestrians and to prevent pedestrian access to Work areas.
- C. At completion of construction, remove guardrails and barricades.
- D. Provide suitable temporary watertight coverings over windows and roof openings as necessary to protect interior equipment from water damage.

1.08 PROTECTION:

- A. Protect existing buildings and property, including trees, lawns and plants.
 - 1. Contractor is responsible for repairing lawn areas and/ or repairing lawn irrigation lines damaged due to construction activity such as driving lifts over the lawn. Please note that there are is no irrigation system in between the buildings, the irrigation lines are only around the outside perimeter.
- B. Refer to Section 01 35 50 for additional protection requirements of existing building.
- C. Existing dishes on roofs are to be carefully moved for re-roofing work and replaced in their exact locations after re-roofing is completed. If exact alignment is not reestablished, Contractor is responsible for realignment, including contacting the service provider and having them realign the dishes for proper reception if required.

1.09 TEMPORARY FIRE PROTECTION:

- A. During construction, Contractor and his subcontractors and sub-subcontractors and their agents and employees shall comply with fire safety practices as outlined in NFPA Pamphlet 241 and local fire protection codes.
 - 1. During entire construction period, provide one U.L. listed 2A:20BC dry chemical fire extinguisher, or one standard U.L. listed 1-1/2 ga. water (E-10) and one U.L. listed 10BC carbon dioxide fire extinguisher mounted together, in each of following areas:
 - a. Each 3,000 sq. ft. of roof work area or fraction thereof.
 - b. Each temporary storage shed.
 - c. Do not use 2A:20BC dry chemical type fire extinguisher in confines of telephone equipment areas for purposes of suppression.
 - 2. Contractor's superintendent, or other assistant superintendents, shall be appointed as project fire warden for entire construction period.
 - 3. Train workmen in proper use of each type fire extinguisher.
 - 4. Post telephone number of fire department, specific information on location of on-site firefighting equipment and procedures to be followed in event of fire.
 - 5. Maintain free access at all times to fire extinguisher equipment, street fire hydrants and outside connections for standpipe hose systems.
 - 6. Maintain all exit facilities and access thereto, free of material and other obstructions.
 - 7. Refer 07 52 00 3.04 B. for Fire Watch information.

1.10 CLEANING DURING CONSTRUCTION:

- A. Oversee cleaning and ensure that building and grounds are maintained free from accumulations of waste materials and rubbish.
- B. At not less than every day during progress of work, clean work areas and access, and dispose of waste materials, rubbish and debris.
- C. Dump containers may be used for collection of waste materials, rubbish and debris. Locate containers in areas approved by Owner and local governing requirements. Remove containers when filled.

- D. Do not allow waste materials, rubbish and debris to accumulate and become an unsightly or hazardous condition.
- E. Remove waste materials, rubbish and debris from site, and legally dispose of at public or private dumping areas off Owner's property.
- F. Lower waste materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.

1.11 EMPLOYEE CONTROL:

- A. Do not allow construction employees to enter Owner occupied areas except when approved and escorted for secured spaces and for access to roof and as required to perform work.

1.12 PARKING FACILITIES:

- A. Contractor shall be responsible for parking of construction personnel vehicles at locations approved by Owner.

1.13 LEAK (WATER) DAMAGE CONTROL:

- A. In the event of rain during reroofing construction operations, immediately inspect interior of building for leaks. This shall occur on a 24 hour basis.
- B. If leaks are discovered during rains, immediately cover interior improvements and furnishing and immediately notify Owner of leak condition.
- C. Perform emergency repairs on roofing to stop leaks.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 GENERAL:

- A. Material and equipment incorporated into Work:
 - 1. Conform to applicable specifications and standards.
- B. Do not use material or equipment for purposes other than that for which it is designed or is specified.

1.02 RELATED REQUIREMENTS:

- A. Summary of Work - Section 01 10 00.
- B. Alterations Project Procedures - Section 01 35 50.
- C. Submittal Procedures - Section 01 33 00.
- D. Storage of Materials - Section 01 50 00.

1.03 REUSE OF EXISTING MATERIAL:

- A. Except as specifically indicated on Drawings, or as specified in Section 01 3550, materials and equipment removed from existing structure shall not be used in completed Work.

1.04 MANUFACTURER'S INSTRUCTIONS:

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in installation, including copy to Consulting Architect.
 - 1. Maintain one set of complete instructions at jobsite during installation and until completion.
- B. Perform work in accord with manufacturer's instructions. Do not omit preparatory steps or installation procedures unless specifically modified or exempted by Contract Documents.

1.05 TRANSPORTATION AND HANDLING:

- A. Arrange deliveries of products in accord with construction schedules, coordinate to avoid conflict with work and conditions at site.
 - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and reviewed submittals, and that products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.06 SUBSTITUTIONS AND PRODUCT OPTIONS:

- A. Contractor's Options:
 - 1. For products specified only by reference standard, select any product meeting that standard, by any manufacturer.
 - 2. For products specified by naming several products or manufacturers, select any product and manufacturer named.
 - 3. Products specified by naming only one product and manufacturer: No substitutions allowed.
- B. Substitutions: Not allowed where indicated

PART 2 - NOT APPLICABLE
PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 01 70 00

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED:

- A. Closeout Procedures and Submittals.
- B. Final Cleaning.
- C. Project Record Documents.
- D. Maintenance Data.
- E. Instruction of Owner's Personnel.
- F. Warranties.

1.02 RELATED REQUIREMENTS:

- A. Time of Final Payment: The Agreement.
- B. Completion; Waiver of Claims: General Conditions.
- C. Cleaning during construction - Section 01 50 00.
- D. Roof system closeout submittals - Section 07 54 19.

1.03 CLOSEOUT PROCEDURES:

- A. Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.
- B. When Contractor considers Work has reached final completion, submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Project has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. Project is completed, and ready for final inspection.
- C. Consulting Architect and Collin County Project Manager will make final inspection within 7 days after receipt of certification.
- D. Should Consulting Architect consider Work finally complete in accordance with requirements of Contract Documents, he will request Contractor to prepare Contract Closeout submittals.
- E. Should Consulting Architect consider Work not finally complete:
 - 1. He will notify Contractor, in writing, stating reasons.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies and send second written notice to Consulting Architect certifying that Work is complete.
 - 3. Consulting Architect will re-inspect Work.

1.04 FINAL CLEANING:

- A. Execute prior to final inspection at each building.
- B. Clean roofs, glazing, construction staging areas, etc.
- C. Remove grease, mastics, adhesives and other foreign materials from sight-exposed exterior surfaces.
- D. Repair, patch and touch up marred surfaces to match adjacent finishes.
- E. Remove waste and surplus materials, rubbish, and construction facilities from the project and from the site.

- F. Prior to final completion, conduct an inspection of sight-exposed exterior surfaces in work areas, to verify that entire Work is clean.

1.05 CLOSEOUT SUBMITTALS:

- A. Evidence of compliance with requirements of governing authorities.
- B. Manufacturer's Field Reports; Roof System Closeout Submittals to requirements of Section 07 54 19.
- C. Project Record Documents: To requirements of this Section.
- D. Maintenance Data: To requirements of this Section.
- E. Warranties: To requirements of this Section.
- F. Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.
- G. Final Adjustment of Accounts: To requirements of this Section.

1.06 WARRANTIES AND BONDS:

- A. Provide duplicate, notarized copies of warranty. Execute Contractor's submittals and assemble documents executed by subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.
- B. Submit material prior to final request for payment.

1.07 PROJECT RECORD DOCUMENTS:

- A. Store documents apart from other documents used for construction.
- B. Label each document, "PROJECT RECORD" in two-inch-high printed letters.
- C. Keep Record Documents current with construction progress.
- D. Do not permanently conceal any work until required information is recorded.
- E. Contract Drawings: Legibly mark Drawings of each building to record actual construction:
 - 1. Field changes of dimension and details.
 - 2. Changes made by Change Order or Field Order.
 - 3. Details not on original Contract Drawings.
- F. Specifications and Addenda: Legibly mark each section to record:
 - 1. Manufacturer, trade name, catalog number of each product and item of equipment actually installed, if different than that specified.
 - 2. Changes made by Change Order or Field Order.
- G. At Contract closeout, submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

1.08 OPERATING AND MAINTENANCE DATA:

- A. Provide data for maintenance of roofing system for each type of system and for each building.
- B. Submit 2 copies, before final inspection, in three-ring 8-1/2 x 11 in. binders with durable plastic covers.
- C. Provide a separate index tab section in manual for each system, with a table of contents for each system.
- D. Supplier Directory: Suppliers and principal subcontractors, with name, address and telephone number of each.

- E. Roof Maintenance Data: Recommendations for inspections, maintenance and repair in accordance with Section 07 54 19.

1.09 INSTRUCTION OF OWNER'S PERSONNEL:

- A. Fully instruct Owner's designated maintenance personnel in proper maintenance of systems.
- B. Schedule instructions at times agreed upon by Owner.
- C. Use maintenance manual as basis of instruction.
- D. Review contents of manual with Owner's personnel in full detail to explain all aspects of maintenance.

1.10 EVIDENCE OF PAYMENTS, AND RELEASE OF LIENS:

- A. Contractor's Affidavit of Payment of Debts and Claims: AIA G706.
- B. Contractor's Affidavit of Release of Liens: AIA G706A, with:
 - 1. Consent of Surety to Final Payments: AIA G707.
 - 2. Contractor's release of waiver of liens.
 - 3. Separate releases of waivers or liens for subcontractors, suppliers, and others with lien rights against property of Owner, together with list of those parties.
- C. Submittals shall be duly executed before delivery to Owner.

1.11 FINAL ADJUSTMENT OF ACCOUNTS:

- A. Submit final statement of accounting to Owner.
- B. Statement shall reflect all adjustments.
 - 1. Original Contract Sum.
 - 2. Additions and Deductions resulting from:
 - a. Previous Change Orders.
 - b. Deductions for uncorrected Work.
 - c. Deductions for Re-inspection Payments.
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- C. Owner will prepare final Change Order, reflecting approved adjustments to Contract Sum not previously made by Change Orders.

1.12 FINAL APPLICATION FOR PAYMENT:

- A. Submit final application in accordance with requirements of General Conditions.

PART 2 - NOT APPLICABLE

PART 3 - NOT APPLICABLE

END OF SECTION

SECTION 075419

POLYVINYL-CHLORIDE (PVC) ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Polyisocyanurate Insulation.
 - 2. Dens-Deck® Prime.
 - 3. Fully adhered polyvinyl-chloride (PVC) roofing system.
- B. Related Requirements:
 - 1. Section 075650 "Minor Roof Renovation Work" for wood nailers, curbs, and blocking.
 - 2. Section 076200 "Sheet Metal Flashing and Trim".
 - 3. Section 079200 "Joint Sealants".

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Roofing Conference: Conduct conference at Project site.
 - 1. Meet with Owner, Architect, Owner's insurer if applicable, and roofing system manufacturer's representative.
 - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
 - 3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Discuss deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
 - 5. Review structural loading limitations of roof deck during and after roofing.
 - 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
 - 7. Review governing regulations and requirements for insurance and certificates if applicable.
 - 8. Review temporary protection requirements for roofing system during and after installation.
 - 9. Review roof observation and repair procedures after roofing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work, including:
 - 1. Base flashings and membrane terminations.
 - 2. Tapered insulation, including slopes.
 - 3. Roof plan showing orientation of steel roof deck and orientation of roofing, fastener spacing, and patterns for mechanically fastened roofing.
 - 4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
 - 1. Sheet roofing, of color required.
 - 2. Walkway pads or rolls, of color required.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - 1. Submit evidence of compliance with performance requirements.
- C. Product Test Reports: For components of roofing system, for tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Research/Evaluation Reports: For components of roofing system, from ICC-ES.
- E. Field quality-control reports.
- F. Sample Warranties: copy of Thirty (30)-year (NDL) Full System manufacturer's warranty stating obligations, remedies, limitations, and exclusions of warranty.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation. Manufacturer's plastic wrapper is not adequate to prevent damage due to moisture or other sources.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

- A. General Warranty: The warranties specified in this Article shall not deprive the Owner of other rights of the Owner may have under other provisions of the Contractor Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

- B. Roofing Manufacturer's Warranty: Submit a written warranty, without monetary limitation, with all available options, including flashing endorsement, manufacturer's roof insulation and roofing manufacturer's accessories, signed by roofing system manufacturer's agreeing to promptly repair leaks resulting from defects in materials or workmanship for the following warranty period:
 - 1. A Thirty (30)-Year Full Systems Warranty shall be issued upon completion of the roofing project. Warranty Period shall be 30 years from date of Substantial Completion.
 - 2. The warranty shall guarantee the entire roof system and associated work against defective materials and workmanship of installation, with NO exclusions for ponding of water. Warranty includes membrane roofing, base flashings, roof insulation, fasteners, roofing accessories, and other components of roofing system.
 - 3. Warranty shall include a wind speed warranty for 60 mph.
- C. Contractor's Warranty: Submit roofing Installer's workmanship warranty, on a notarized written warranty form, signed by Installer, covering Work of this Section, including membrane roofing, sheet flashing, roof insulation, fasteners, and air or vapor retarders, if any, for the following warranty period:
 - 1. Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain components including roof insulation, fasteners for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
 - 1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 - 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 5602 or ASTM D 5635.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. Roofing System Design: Tested by a qualified testing agency to resist the following uplift pressures:
 - 1. Field Uplift Pressure: 64.1 lbf/sq. ft.
 - 2. Perimeter Uplift Pressure: 97.3 lbf/sq. ft.
 - 3. Corner Uplift Pressure: 138.6 lbf/sq. ft.
- D. Energy Performance: Roofing system shall have an initial solar reflectance of not less than 0.80 and an emissivity of not less than 0.75 when tested according to CRRC-1.
- E. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- F. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.3 PVC ROOFING

- A. PVC Sheet: ASTM D 4434/D 4434M, Type III, fabric reinforced.
 - 1. Thickness: 80 mil.

2. Exposed Face Color: White (SRI 78 min.).
 - a. Sarnafil: Sarnafil G410 fully adhered.
 - b. CarlisleSynTec: Sure-Flex KEE HP fully adhered in full spread adhesive.

2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's standard sheet flashing of same material, type, reinforcement, thickness, and color as PVC sheet.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Slip Sheet: Manufacturer's standard, of thickness required for application.
- E. Metal Termination Bars: Manufacturer's standard, predrilled at 6 inches on center, stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- F. Metal Battens: Manufacturer's standard, aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch wide by 0.05 inch thick, prepunched.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion resistance provisions in FM Global 4470, designed for fastening roofing to substrate, and acceptable to roofing system manufacturer.
- H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.5 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured by PVC roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces. Thickness to match existing.
- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/2 inch per 12 inches unless otherwise indicated for use in forming crickets.

2.6 COVER BOARD

- a. Furnish auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing materials.
 1. Type and Thickness: Gypsum board with a fiberglass facer, 1/2-inch.
 2. R-value: 0.67.
 3. Product: Subject to compliance with requirements, provide "Dens-Deck® Prime" as manufactured by Georgia-Pacific Corp. and supplied by PVC manufacturer.

2.7 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads or rolls, approximately 3/16-inch-thick and acceptable to roofing system manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 - 3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements to resist uplift forces specified above.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Remove existing membrane and insulation to the metal deck. Inspect deck for deterioration. Refer to Section 07 56 50 – Minor Roof Renovation Work for repair.

3.3 WOOD NAILER INSTALLATION

- A. Install new continuous wood nailers at the perimeter, i.e. metal edge or metal coping caps, of the roof and around roof projections and penetrations.
- B. Where applicable, existing wood nailers may remain in place and to be re-used; provided the existing wood nailer is not in a deteriorating condition. Before any replacement of any deteriorated wood nailers, the owner's representative must approve the replacement. The wood nailer replacement cost will be based upon the unit cost, which was established in the roofing contractor's re-roofing proposal.
- C. All Wood Nailers shall be anchored to resist a minimum force of 300 pounds per lineal foot in any direction. Individual nailer lengths shall not be less than 3 feet long. Nailer fastener spacing shall be at 12 inches on center or 16 inches on center if necessary to match the structural framing. Fasteners shall be staggered 1/3 the nailer width and installed within 6 inches (0.15 m) of each end. Two fasteners shall be installed at ends of nailer lengths. Nailer attachment shall meet this requirement and that of the current Factory Mutual Loss Prevention Data Sheet 1-49.
- D. Thickness shall be as required to match insulation height to allow a smooth transition.
- E. New wood is to be fire retardant treated as required in Section 07 56 50.

3.4 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Install roofing and auxiliary materials to tie into existing roofing to maintain weathertightness of transition until work is resumed.

3.5 TAPERED INSULATION INSTALLATION

- A. General Criteria:
1. Install the specified insulation per the required ASCE-7 Windstorm Resistance Classification, to the insulation manufacturer and/or to the roofing systems manufacturer's written installation instructions.
 2. Warped or bent insulation boards are not acceptable.
 3. Single Base Layer of Insulation: Stagger end joints of the insulation board layer a minimum of 1/3 of overall insulation board length.
 4. Additional Layers of Flat Stock or Tapered Insulation: Two layers of insulation shall be installed when the thickness of the insulation exceeds 2.5 inches. Additional layers of flat or tapered insulation shall be laid transverse to the first layer, with joints staggered at least 1/3 of overall length from those of the first layer. All layers and tapered boards of the specified insulation shall be adhered to the insulation base or first layer with the manufacturer's approved low-rise polyurethane adhesive.
 5. Insulation shall be neatly cut to fit around penetrations and projections.
 6. Do not install more insulation board than can be covered with the specified roofing system by the end of the day, or onset of inclement weather. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Install insulation to match approved taper plan, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
- C. Installation of the Polyisocyanurate Insulation on Steel Decks: Mechanically Attached and Adhered Insulation
1. Base Layer of Insulation: All edges of insulation boards shall be supported on the top rib of the steel deck. Board edges shall be as close as practical to the center of the rib, with a minimum of 1½-(1.5) inches bearing on the rib. Stagger end joints of the insulation board layer a minimum of 1/3 of overall insulation board length. Secure insulation with fasteners and metal insulation plates with a pattern as required to meet uplift requirements. Fasteners shall be long enough to reach the top deck flute and penetrate 3/4 inch, but shall not be long enough to reach the bottom flute.
 2. Additional Layers of Flat Stock or Tapered Insulation: Two layers of insulation shall be installed when the thickness of the insulation exceeds 2.5 inches. Additional layers of flat or tapered insulation shall be laid transverse to the first layer, with joints staggered at least 1/3 of overall length from those of the first layer. Second and subsequent layers shall be adhered with low-rise foam using 3/4 inch beads and spaced 12 inches on center in the field of the roof, 8 inches on center at the perimeter of the roof, and 4 inches on center in the corners of the roof. Perimeter zones shall be 8 feet wide minimum and corners shall be 8 feet by 8 feet.

3.6 COVER BOARD INSTALLATION

- A. Adhere Dens-Deck Prime according to requirements of FM's "Approval Guide" for specified Windstorm Resistance Classification and to the insulation and roofing systems manufacturer's written instructions. Cover boards shall be adhered with the same fastening pattern as the insulation.
- B. Warped or bent cover boards are not acceptable.
- C. Single Layer of Dens-Deck Prime: The Dens-Deck Prime shall be laid in parallel courses with end joints staggered. The layer of Dens-Deck shall be laid transverse to the top layer of the insulation board, with joints staggered at least 1/3 of overall length from those of the insulation layer. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
- D. Dens-Deck Prime shall be neatly cut to fit within 1/4 inch (6 mm) of nailers, penetrations and projections.

- E. Trim surface of Dens-Deck Prime where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Dens-Deck Prime shall be a maximum of 4' x 4' in size.
- G. Attachment of Dens-Deck Prime over the specified polyisocyanurate insulation shall be of the following application:
 - 1. The Dens-Deck Prime shall be adhered to the rigid insulation, which is mechanically attached to the steel deck with PVC manufacturer's approved metal fasteners and plates per the projects ASCE-7 requirements.

3.7 PVC SHEET INSTALLATION

- A. General: Install in strict accordance with manufacturer's latest published requirements, instructions, specifications, details and approved shop drawings.
- B. Install sheet according to ASTM D 5082 and per ASCE-7 wind uplift requirements for the referenced project.
- C. Install PVC membrane sheet per manufacturer's requirements in order to obtain manufacturer Thirty (30)-year full system (NDL) warranty.
- D. The surface of the substrate shall be inspected prior to installation of the PVC roof membrane. The substrate shall be clean, dry and smooth with no excessive surface roughness, contaminated surfaces or unsound surfaces such as broken, delaminated, or damaged boards. Any wet, broken, delaminated, or damaged boards shall be replaced with new.
- E. Install in strict accordance with manufacturer's latest published requirements, instructions, specifications, details and approved shop drawings.
- F. Start installation of sheet in presence of roofing system manufacturer's technical personnel.
- G. Contractor shall use the following adhesive type to adhere the PVC membrane to specified cover board substrate:
 - 1. Sarnacol 2170 Adhesive:
 - a. No adhesive shall be applied in seam areas. All membrane shall be applied in the same manner.
 - b. Care must be taken to insure that the adhesive has not dried before the membrane is laid in place. This is especially important during hot temperatures. Adjustments may be needed in the application technique to insure a wet lay in. It is recommended that only 6-10 feet at a time is coated out ahead of the membrane to prevent dry laid membrane.
- H. The means of application and the quantities of the membrane adhesive to be used shall be per the recommendations of the manufacturer. Consult manufacturer on proper application rates and acceptable substrates for the membrane adhesives.
- I. Use caution to ensure adhesive fumes are not drawn into the building.
 - 1. The Applicator shall count the amount of pails of adhesive used per area per day to verify conformance to the specified adhesive rate.
 - 2. Adhesives shall not be used if temperatures below 40° F (5° C) are expected during application or subsequent drying time.
 - 3. No adhesive shall be applied in seam areas. All membrane field sheets shall be applied in the same manner.
- J. Mechanically fasten sheet securely at all vertical to horizontal transitions, at points of terminations, at the corners, and at the perimeter of roof to meet the ASCE-7 wind uplift requirements and /or as required by the PVC manufacturer.
- K. Spread sealant bed over deck drain flange at deck drains and securely seal roofing sheet in place with drain clamping ring.

- L. Field-seam according to "Seam Installation" Article.
- M. Securement Around Perimeter and Rooftop Penetrations
 1. Around all perimeters, at the base of walls, drains, curbs, vent pipes, or any other roof penetrations, manufacturer's fasteners and metal bar shall be installed. Fasteners and securement bar shall be installed accord to the manufacturer's instructions. Fasteners shall be installed using the fastener manufacturer's recommended fastening tools with depth locators.
 2. PVC membrane flashings shall extend a minimum of 3 inches past the securement bar or plates and is hot air welded to the PVC deck sheet.

3.8 SEAM INSTALLATION

- A. General
 1. All seams shall be hot air welded. Seam overlaps should be 3 inches (75 mm) wide when automatic machine-welding and 4 inches (100 mm) wide when hand-welding, except for certain details.
 2. Welding equipment shall be provided by or approved by the roofing manufacturer. All mechanics intending to use the equipment shall have successfully completed a training course provided by a Manufacturer's Technical Representative prior to welding.
 3. All membrane to be welded shall be clean and dry.
- B. Hand-Welding:
 1. Hand-welded seams shall be completed in two stages. Hot-air welding equipment shall be allowed to warm up for at least one minute prior to welding.
 2. The back edge of the seam shall be welded with a narrow but continuous weld to prevent loss of hot air during the final welding.
 3. The nozzle shall be inserted into the seam at a 45-degree angle to the edge of the membrane. Once the proper welding temperature has been reached and the membrane begins to "flow," the hand roller is positioned perpendicular to the nozzle and pressed lightly. For straight seams, the 1½-inch (40-mm) wide nozzle is recommended for use. For corners and compound connections, the ¾ inch (20 mm) wide nozzle shall be used.
- C. Machine Welding
 1. Machine welded seams are achieved by the use of automatic welding equipment. When using this equipment, PVC Manufacturer's instructions shall be followed and local codes for electric supply, grounding and over current protection observed. Dedicated circuit house power or a dedicated portable generator is recommended. No other equipment shall be operated off the generator.
 2. Metal tracks may be used over the deck membrane and under the machine welder to minimize or eliminate wrinkles.
- D. Quality Control of Welded Seams
 1. The Applicator shall check all welded seams for continuity using a rounded screwdriver. Visible evidence that welding is proceeding correctly is smoke during the welding operation, shiny membrane surfaces, and an uninterrupted flow of dark grey material from the underside of the top membrane. On-site evaluation of welded seams shall be made daily by the Applicator at locations as directed by the Owner's Representative or PVC Manufacturer's representative. One inch (25-mm) wide cross-section samples of welded seams shall be taken at least three times a day. Correct welds display failure from shearing of the membrane prior to separation of the weld. Each test cut shall be patched by the Applicator at no extra cost to the Owner. Test strip shall
 2. Repair tears, voids, and lapped seams in roofing that does not meet requirements.
 3. All seams of the field membrane shall be hot air welded on a daily basis. **NO EXCEPTIONS.**

3.9 FLASHING INSTALLATION

- A. General: All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the

Owner's Representative and the manufacturer. Approval shall only be for specific locations on specific dates. Flashing shall be adhered to compatible, dry, smooth, and solvent-resistant surfaces. Use caution to ensure adhesive fumes are not drawn into the building.

- B. Contact adhesive shall be used to adhere the PVC membrane flashing to acceptable wall and equipment curb substrates. No bitumen shall be in contact with the PVC membrane. If bitumen exists, then the manufacturer's asphalt resistant membrane shall be use for the membrane flashing.
- C. Contact Adhesive for Membrane Flashings: Sarnacol 2170 Adhesive
 - 1. Over the properly installed and prepared flashing substrate, contact adhesive shall be applied according to instructions found on the Product Data Sheet. The contact adhesive shall be applied in smooth, even coats with no gaps, globs or similar inconsistencies. Only an area that can be completely covered in the same day's operations shall be flashed. The bonded sheet shall be pressed firmly in place with a hand roller.
 - 2. No adhesive shall be applied in seam areas that are to be welded. All panels of membrane shall be applied in the same manner, overlapping the edges of the panels as required by welding techniques.
 - 3. All flashing membranes shall be consistently adhered to substrates. All interior and exterior corners and miters shall be cut and hot-air welded into place. Where applicable, manufacturer's pre-fabricated corners shall be used.
- D. All flashings shall extend a minimum of 8 inches above roofing level unless otherwise accepted in writing by the Owner's Representative and Manufacturer's Technical Department.
- E. All flashings that exceed 30 inches (0.75 m) in height shall receive additional securement. Consult PVC manufacturer for securement methods.
- F. All PVC membrane flashings shall be mechanically fastened along the counter-flashed top edge with securement bar; fastened 6 inches on center. Seal the top edge and backside of the membrane flashing with Multi-Purpose Sealing Tape and approved sealant. Complete termination per manufacturer's requirements. Provide a metal counterflashing to protect the sealant and multi-purpose sealant tape.
- G. Only an area, which can be completely covered in the same day's operations, shall be flashed.
- H. Test lap edges with probe to verify seam weld continuity of all membrane flashings.
- I. Complete all membrane flashing and metal details on a daily basis. No temporary flashings shall be allowed. If any water is allowed to enter under the completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.

3.10 PVC COATED CLAD PERIMETER AND METAL BASE FLASHINGS

- A. General: All flashings shall be installed concurrently with the roofing membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and the manufacturer. Acceptance shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.
- B. PVC coated metal flashings shall be formed to match existing conditions and installed per the Detail Drawings.
- C. PVC coated metal shall be installed to provide adequate resistance to bending and allow for normal thermal expansion and contraction.
- D. Install Multi-purpose sealant tape and termination bar as indicated on project details. The Multi-purpose sealant tape must be applied to clean and dry surfaces.

- E. Secure the PVC coated metal over the PVC field membrane and the multi-purpose sealant tape. Fastened the PVC coated metal with approved stainless steel nails or other acceptable fastener. Fasteners shall be fastened 3 inches on center and staggered 3 inches on center.
- F. Adjacent sheets of PVC coated metal shall be spaced ¼ inch (6 mm) apart. The joint shall be covered with 2-inch (50-mm) wide aluminum tape. A 4-inch minimum wide strip of PVC membrane flashing membrane shall be hot air welded over the joint. Check all coverstrip welds with a rounded screwdriver prior to installation of eight-inch coverstrip. Re-weld any inconsistencies before eight-inch coverstrip installation.
- G. An 8 inch minimum wide strip of the 60 mil PVC membrane flashing shall be hot air welded to the 4 inch wide flange of the PVC coated metal and to the field membrane. Check all coverstrip welds with a rounded screwdriver. Re-weld any inconsistencies.

3.11 METAL FLASHINGS, COPINGS, EDGE TRIM AND ACCESSORIES INSTALLATION

- A. General: Secure metal flashings accessories at roof edges and perimeters according to FM Loss Prevention Data Sheet 1-49 for specified wind zone.
- B. All metal flashings, gutters, downspouts, and perimeter metal edging shall be fabricated and install per current SMCA requirements and as required in Section 07 60 00.
- C. Complete all metal work in conjunction with roofing and flashings so that a watertight condition exists daily.
- D. Metal shall be installed to provide adequate resistance to bending to allow for normal thermal expansion and contraction.

3.12 WALKWAY INSTALLATION

- A. Walkways: Install PVC walk pad or walkway at 3 side of the roof hatch and around all four sides of all serviceable type equipment. Install walk pad or walkway accord to PVC manufacturer's written instructions.
 - 1. Clean all dirt and debris from the deck membrane in areas where the walkway will be installed. Important: Check all deck membrane welds with a rounded screwdriver prior to installation of walkway. Re-weld any inconsistencies before walkway installation.
 - 2. Roofing membrane to receive walkway shall be clean and dry. Place chalk lines on deck sheet to indicate location of walkway. Apply a continuous coat of contact adhesive to the deck sheet and to the back of Walkway in accordance with manufacturer's technical requirements. Press walkway into place with a water-filled, foam-covered lawn roller. Hot-air weld the entire perimeters of the walk pad or walkway to the PVC deck sheet.
 - 3. Check all walkway seam welds with a rounded screwdriver. Re-weld any inconsistencies found in the walkway seams.

3.13 PREFABRICATED SUPPORTS INSTALLATION

- A. Install the supports in accordance to manufacturer's recommendations.
- B. Pipe Supports shall be installed at all locations where existing piping or electrical conduit runs across the roof area.
- C. Place wear pad under each pipe support and weld to roof membrane.
- D. Pipe Supports shall be located within 24 inches of any change in direction and not greater than 8 feet on center.

3.14 FIELD QUALITY CONTROL

- A. Roofing Applicator: the contractor shall make On-site evaluation of welded seams to locations as directed by the owner's representative or PVC manufacturer's technical representative. One-inch wide cross-sections samples shall be taken three times a day minimum through completed seams. Correct welds shall display failure from shearing the membrane prior to separation of

weld. The contractor at no extra charge to owner shall patch each test cut. Test seam samples shall be label with locations of seam cut, date of seam cut, and retain for owner' representative or PVC manufacturer's technical representative for test cut inspections. At the close of project, all seam test cuts are to be submitted to the owner's representative for review.

- B. Manufacturer's Quality Control Inspection: The Manufacturer's Technical Representative shall review the on-going work one time each week of production. All defects noted non-compliance with the specifications or the recommendations of the thermoplastic manufacturer should be itemized in a punch list. These items must be corrected immediately by the contractor to the satisfaction of the owner's representative and the thermoplastic manufacturer.
- C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion of the roofing project.

3.15 PROTECTING AND CLEANING

- A. Protect sheet membrane roofing from damage and wear during remainder of construction period. Installer is to inspect the completed roofing system for any damage. Should there be any damage resulting from "other" trades, the roofing contractor shall document the damage and report the damage to the owner's representative.
- B. Correct deficiencies in or remove roofing that does not comply with requirements, repair substrates, reinstall roofing, and repair sheet flashings to a condition free of damage and deterioration at the time of Substantial Completion and according to warranty requirements.
- C. Upon completion of the Work of this Section, dispose of, away from the Site, all debris, trash, containers, residue, roofing remnants and scraps which results from the Work of this Section.
- D. Clean overspray and spillage from adjacent construction using cleaning agents and procedures required by manufacturer of affected construction.

3.16 ACCEPTANCE

- A. Prior to demobilization from the site, the owner/project manager, manufacturer technical representative and installer shall review the completed work. All defects noted noncompliance with the specifications or the recommendations of the PVC manufacturer should be itemized in a punch list. These items must be corrected immediately by the contractor prior to demobilization to the satisfaction of the owner/project manager, and the PVC manufacturer.
- B. All warranties as required for the project of this specification shall be submitted for approval prior to final payment.

3.14 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
 - 1. Owner: <Insert name of Owner>.
 - 2. Address: <Insert address>.
 - 3. Building Name/Type: <Insert information>.
 - 4. Address: <Insert address>.
 - 5. Area of Work: <Insert information>.
 - 6. Acceptance Date: _____.
 - 7. Warranty Period: <Insert time>.
 - 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made

such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding 90 mph;
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
 6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
 7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION

SECTION 07 56 50

MINOR ROOF RENOVATION WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Required minor demolition for reroofing work.
- B. Required minor renovation for reroofing work.

1.02 RELATED SECTIONS:

- A. Section 01 10 00 - Summary
- B. Section 01 27 00 - Unit Pricing
- C. Section 01 35 16 - Alterations Project Procedures
- D. Section 07 54 19 – Polyvinyl-Chloride (PVC) Roofing
- E. Section 07 72 00 - Roof Accessories
- F. Section 07 92 00 - Joint Sealants

1.03 SUBMITTALS:

- A. Product Data: Submit manufacturer's product data sheets for each product in accordance with Section 01 33 00.

1.04 PROTECTIONS:

- A. Prior to starting minor demolition operations, provide necessary protections as specified in Section 01 50 00.

1.05 COORDINATION:

- A. Sequence minor demolition and renovation with work sequence of reroofing work.
- B. Coordinate with reroofing work so that no more existing items are removed in one day than can be replaced along with new roofing work in same day.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Wood Nailers and Blocking:
 - 1. No. 2 or better Southern Yellow Pine.
 - 2. Fire-retardant treated with Osmose Flame Proof LHC, bearing UL Label FR-S.
 - 3. Dimensions to match existing 2x4's, 2x6's, 2x8's and 2x10's.
- B. Fasteners:
 - 1. Screws: Hot-dip galvanized wood screws.
 - 2. Nails: Non-ferrous, cement-coated, or hot-dip galvanized nails.
- C. Metal Paint:
 - 1. Rust-Inhibitive Paint: 1500 System Speedy-Dry 1573 Rust-Inhibitive Primer as manufactured by Rust-Oleum or similar approved product.
- D. Metal Decking: Match existing, 22 ga. minimum.

PART 3 - EXECUTION

3.01 PREPARATION:

- A. Verify that required barricades and other protective measures are in place.

3.02 MINOR DEMOLITION OPERATIONS:

- A. General:
 - 1. Comply with precautions and procedures specified in Section 01 35 16.
 - 2. Cut and remove materials as designated on Drawings.
 - 3. Execute demolition in a careful and orderly manner with least possible disturbance or damage to adjoining surfaces and structure.
 - 4. Avoid excessive vibrations in demolition procedures that would be transmitted through existing structure and finish materials.

3.03 DISPOSAL:

- A. Materials, equipment and debris resulting from demolition operations shall become property of Contractor. Remove demolition debris in accordance with applicable City, State and Federal Laws, and in accordance with requirements of Section 01 35 16 and 01 50 00.
- B. Legally dispose of demolition debris.

3.04 MINOR RENOVATION WORK:

- A. Replacement of Wood Nailers:
 - 1. Replace deteriorated wood blocking where present with new blocking anchored or fastened to substrate in a similar manner to existing. Base Bid shall include the replacement of the following with variations in quantities between the scheduled allowance and the amount actually used will be adjusted by Change Order on Unit Price basis as set forth in Section 01 27 00.
 - a. 400 l.f. of 2x4 wood nailer including all fastening
 - b. 400 l.f. of 2x6 wood nailer including all fastening
 - c. 400 l.f. of 2x8 wood nailer including all fastening
 - d. 400 l.f. of 2x10 wood nailer including all fastening
- B. Metal Painting – Existing metal decking with light formations of rust.
 - 1. Prepare substrates in accordance with paint manufacturer's recommendations
 - 2. Apply rust-inhibitive paint in accordance with manufacturer's requirements
 - 3. Spray application not permitted

3.05 METAL ROOF DECK RENOVATION:

- A. Examine metal roof decking for rust and deterioration at locations where existing roofing is being removed down to metal decking.
 - 1. Coat areas of metal roof decking that have surface rust with a rust-inhibitive paint coating.
 - 2. Remove areas of metal roof decking that are severely rusted, damaged or deteriorated beyond use.
- B. Replace removed areas with new metal deck to match existing. Secure deck to surrounding metal deck with #10 Tek screws at 6 inches on center parallel to the flutes, and at every third flute into structural member. Deck shall lap 2 flutes on the side parallel to the flutes and 12 inches on the ends perpendicular to the flutes.
- C. Include in the Contract Amount 2,000 s.f. for metal deck renovation (coating of metal roof decking with a rust-inhibitive paint coating). Variations in quantities between the scheduled allowance and that amount actually used will be adjusted by Change Order on Unit Price basis.
- D. Include in the Contract Amount 1,000 s.f. for removal and replacement of metal roof decking. Variations in quantities between the scheduled allowance and that amount actually used will be adjusted by Change Order on Unit Price basis.

- E. Patch minor voids and damages in existing metal deck from removal of existing penetrations with such work being completed as a part of the Base Bid.

END OF SECTION

SECTION 07 60 00

SHEET METAL WORK

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Shop or field-formed sheet metal work for moisture protection
- B. Accessories.

1.02 RELATED SECTIONS:

- A. Section 07 52 00 – Modified Bituminous Membrane Roofing
- B. Section 07 92 00 - Joint Sealants.

1.03 REFERENCES:

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels; 1998.
- B. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2000.
- C. FS FF-S-325 - Shield Expansion; Nail, Expansion; and Nail, Drive-Screw.
- D. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 2012.

1.04 SUBMITTALS:

- A. Procedures for Submittals: Section 01 33 00.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Samples: Submit two samples 6 x 6 inch in size illustrating metal finish color.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA Architectural Sheet Metal Manual requirements and standard details, except as otherwise indicated.
- B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.
- C. Pre-Installation Conference:
 - 1. Attend roofing pre-installation conference at the project site.
 - 2. Attendance: Owner, Contractor, project superintendent, sheet metal fabricator and applicator.
 - 3. Agenda: As specified in Section 07 52 00.

1.06 DELIVERY, STORAGE, AND HANDLING:

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials which may cause discoloration or staining.

1.07 WARRANTY:

- A. Provide Owner a written warranty which shall warrant sheet metal work to be free of leaks and defects in materials and workmanship for 5 years after date of Substantial Completion.

PART 2 PRODUCTS

2.01 SHEET MATERIALS:

- A. Galvanized Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; thickness as scheduled, minimum 24 gage base metal.
- B. Pre-Finished Galvanized Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; shop pre-coated with PVDF coating, color as selected.
 - 1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system; color as selected by Owner from manufacturer's standard colors.

2.02 ACCESSORIES:

- A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers.
 - 1. Nails: Flathead, wire, barbed, slating type.
 - 2. Screws: Self-tapping sheet metal type with rubber washer made of EPDM.
 - 3. Rivets: Type and size as recommended by sheet metal manufacturer.
 - 4. Concrete Fasteners: Round-head stainless steel screw and neoprene washer with lead expansion anchor, FS FF-S-325, Group IV, Type 2. Powers Rawl Screw Type Nailins.
- B. Sealant: Type silicone sealant specified in Section 07 92 00.
- C. Non-Shrink Grout (For installation in multiple pipe penetration flashing hoods where shown): CRYSTEX RAPID START as manufactured by L&M Construction Chemicals, Inc. or similar approved product.
- D. Pourable Sealer: Firestone Building Products Co. – Pourable Sealer S-10 Part A and Part B or similar approved product.

2.03 FABRICATION:

- A. Form sections as detailed; true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet, minimum 3 inches wide, interlocking with sheet.
- C. Form pieces in longest possible lengths.
- D. Make angle bends and folds for interlocking metal with full regard for expansion and contraction to avoid buckling or fullness in metal after installation.
- E. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- F. Form material with scheduled or specified seams. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- G. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- H. Fabricate sheet metal items out of sheet metal and gauge as noted on plans.

2.04 FABRICATED ITEMS:

- A. Counter Flashings:
 - 1. One piece system as detailed.
 - 2. Fabricated as shown similar to SMACNA Figure 4-4D.
- B. Multiple Pipe Penetration Flashing:
 - 1. Sheet metal as indicated similar to SMACNA Figure 8-9A.
 - 2. Sheet metal flashing hood as indicated.
 - 3. Solder all joints.
- C. Multiple Pipe Penetration Flashing:
 - 1. Sheet metal as indicated similar to SMACNA Figure 3-1, Detail 1.

- D. Copings:
 1. Sheet metal as indicated similar to SMACNA Figure 3-4A.
 2. Form in maximum lengths as possible.
 3. Provide Butt + Backup Plates per SMACNA Table 3-1, J2 at joints.
- E. Hung Gutters:
 1. Prefinished sheet metal formed in minimum 10 ft lengths. Lap joints 1 inch and rivet and seal.
 2. Profile as indicated similar to SMACNA Figure 1-2, Style A.
 3. Provide butt type expansion joints where indicated and detailed similar to SMACNA Figure 1-7.
 4. Install prefinished sheet metal, 1-inch wide gutter brackets, hemmed and riveted to top edge of gutter as shown installed at 36 inches on center.
 5. Provide outlet thimble to fit downspouts similar to SMACNA Figure 1-33, Detail 1.
- F. Downspouts:
 1. Prefinished sheet metal with upper sections telescoped into lower sections 1-1/2 inch and riveted and sealed fabricated similar to SMACNA Figure 1-32B.
 2. Provide 3 evenly spaced 2 inch wide hemmed prefinished sheet metal wall brackets for each downspout.

PART 3 EXECUTION

3.01 EXAMINATION:

- A. Verify roofing termination and base flashings are in place, sealed, and secure.
- B. Verify that substrates are smooth and clean to extent needed for sheet metal work.
- C. Do not start sheet metal work until conditions are satisfactory.

3.02 INSTALLATION - GENERAL

- A. Install work watertight, without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction.
- B. Install fabricated sheet metal items as detailed and in general accordance with SMACNA Architectural Sheet Metal Manual.
- C. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.

3.03 INSTALLATION - FABRICATED ITEMS:

- A. Counter Flashings:
 1. Install where shown with fasteners installed as indicated.
 2. Overlap counter flashing 4 inches over base flashing, lap ends of sheets 3 inches.
 3. Solder joints in galvanized sheet metal counter flashings.
- B. Multiple Pipe Penetration Flashing:
 1. Install over base ply of modified bitumen roof membrane setting flanges in roofing cement.
 2. Install where indicated with soldered joints.
 3. Solder all joints.
 4. Seal openings in metal decking with non-combustible material prior to installing non-shrink grout.
 5. Install non-shrink grout in bottom of penetration dam.
 6. Install pourable sealer over non-shrink grout after the non-shrink grout has fully cured.
 7. Install flashing hood as detailed, securing such in place with sheet metal fasteners.
- C. Cleats:
 1. Install as required to allow for the bottom edge of the exterior side of the coping to match the existing elevation.

2. Anchor to suitable substrate.
- E. Coping:
1. Install high temperature self-adhering rubberized asphalt underlayment over top of parapet walls as shown in accordance with manufactures written recommendations.
 2. Secure front edge to cleat as shown.
 3. Install fasteners on back side of coping as shown.
 4. Install backup plates at all joints
 5. Miter corners if applicable, pop rivet and seal.
 6. Installed end caps, riveted and sealed.
- E. Hung Gutters:
1. Install plumb and level, attached to substrate with nails installed at 6 inches on center.
 2. Install butt type expansion joints where indicated.
 3. Install outlet thimbles at downspouts.
- F. Downspouts:
1. Install plumb and level, attached to wall with gutter brackets anchored to substrate with expansion anchors.
 2. Provide 3 evenly spaced 2 inch wide hemmed prefinished sheet metal wall brackets for each downspout.

3.04 CLEANING:

- A. Leave work clean and free of stains, scrap, and debris.

3.05 MOUNTING OF WARRANTY:

- A. Mount professionally framed in close proximity to the door providing access to the roof a copy of the specified warranty.

END OF SECTION

SECTION 07 72 00

ROOF ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Pipe supports.
- B. Prefabricated roof curbs.

1.02 RELATED SECTIONS

- A. Section 07 52 00 - Modified Bituminous Membrane Roofing
- B. Section 07 60 00 - Sheet Metal Work

1.03 SUBMITTALS

- A. Procedures for Submittals: Section 01 33 00.
- B. Product Data: Provide manufacturer's product data sheets, including installation instructions.
- C. Shop Drawings: Indicate following.
 - 1. Prefabricated Roof Curbs: Indicate inside and outside dimensions of curbs, height of curbs (at high side and at low side), weights of units being supported, gauge of metal selected to support scheduled load, location and size of fasteners and correlation to adjacent construction.

PART 2 PRODUCTS

2.01 PIPE/DUCT SUPPORTS:

- A. Type 1:
 - 1. Qualities: Base 100% recycled rubber, UV resistant, 4" Height X 6" Width X 9.6" Length (Over all Height 8" or 12"). 14 gage galvanized steel Channel Strut designed to support conduit and condensate pipes above roof. Two ½" electro zinc plated all thread rod risers.
 - 2. Source: Mifab CE10-8.
- B. Type 2:
 - 1. Base 100% recycled rubber, UV resistant, 6" Length of X 9.6". Roller width – 3", 4' or 6" with total height 6" or 7".
 - 2. Source: Mifab CR10-4.
- C. Type 3:
 - 1. Base 100% recycled rubber, UV resistant, 4" Height X 6" Width X 9.6" Length (Over all Height 8" or 12"). 12 gage galvanized steel telescoping crossbeams and hot-rolled, zinc plated carbon steel vari-angle brackets.
 - 2. Source: Mifab DSA10.

2.02 PREFABRICATED ROOF CURB:

- A. Qualities: Prefabricated insulated curb for mechanical equipment support fabricated from galvanized sheet steel, 18 ga. minimum, welded construction designed to support weight of unit being supported. Provide with preservative treated wood nailer.
 - 1. Fabricate curbs to compensate for roof slope at location of each curb unit.
 - 2. Fabricate curbs with minimum 16 inch height above roof deck, unless otherwise detailed.
 - 3. Fabricate curbs to width and length of unit being supported, less 1-1/2 in. overall to allow for membrane flashing installation.
- B. Source:
 - 1. Model CRC-3 by Custom Curb, Inc.
 - 2. Model TC-3 by ThyCurb.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrates are smooth and clean to extent needed for roof accessories work.
- B. Do not start work until conditions are satisfactory.

3.02 INSTALLATION

- A. General:
 - 1. Install work watertight, without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction.
 - 2. Coat contact surfaces of dissimilar metals with asphalt coating compound or zinc chromate paint.
 - 3. Install curbs in accordance with manufacturer's instructions.
- B. Pipe/Duct Supports:
 - 1. Install Pipe Support - Type 1 under single small piping and conduit, other than gas piping.
 - 2. Install Pipe Support - Type 2 under gas piping and piping and conduit 2 to 4 inch in diameter.
 - 3. Install scheduled pipe supports at 8 ft. o.c. and within 2 ft. of each change of direction.
 - 4. Secure pipe and conduit loosely in pipe support using metal strap fastened with two 1/2 in. No. 10 screws and provide pipe sleeves to prevent contact with dissimilar metals.
 - 5. All pipe supports are to be placed on wear pads.
- C. Prefabricated Roof Curbs:
 - 1. Install prefabricated roof curbs beneath rooftop equipment and fans requiring curbs.
 - 2. Set level and square on roof deck; securely fasten curb flanges to roof deck with appropriate fasteners for type of deck material. Seal bolt heads with flashing cement.
 - 3. Install foam gasket continuously on top of curb frame immediately prior to setting units on curbs.

3.03 CLEANING

- A. Leave work clean and free of stains, scrap, and debris.

END OF SECTION

SECTION 07 92 00

JOINT SEALANTS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Installation of sealant where indicated.

1.02 RELATED SECTIONS:

- A. Section 01 35 50 - Alterations Projects Procedures
- B. Section 07 56 50 - Minor Roof Renovation Work
- C. Section 07 60 00 - Sheet Metal Work

1.03 REFERENCES:

- A. ASTM C920 - Elastomeric Joint Sealants.
- B. ASTM D2240 - Rubber Property - Durometer Hardness.
- C. ASTM D412 - Rubber Properties in Tension.
- D. ASTM D903 - Peel or Stripping Strength of Adhesive Bonds.

1.04 SUBMITTALS:

- A. Procedures for Submittals: Section 01 33 00.
- B. Product Data: Manufacturer's product data sheets for each product.
- C. Samples: Manufacturer's standard color samples of sealant for Architect's selection of colors.
- D. Quality Control Submittals: For information only.
 - 1. Manufacturer's installation instructions.
 - 2. Test Reports: Certified independent laboratory test reports or test reports of sealant manufacturer of field adhesion tests of sealants.

1.05 QUALITY ASSURANCE:

- A. Applicators: Qualified applicators thoroughly skilled and specially trained in application techniques of sealant products.
- B. Job Mock-up:
 - 1. Prepare a maximum of 3 sample applications of sealant, 24 in. length, in location directed by Architect.
 - 2. Mock-up will be used for final approval of color and as standard of workmanship for application.
- C. Source Quality Control:
 - 1. Conduct independent laboratory adhesion tests of proposed sealant using actual sample of sealant supplied to project as test specimen.
 - 2. Prepare and test specimens in accordance with ASTM C920. Use 3/4 in. wide test joints. Prepare one set of test specimens with primer and one set without primer.
 - 3. Test specimens for dry adhesion and wet adhesion.
 - 4. Indicate test results of strength in psi and percent of adhesion failure.

1.06 DELIVERY, STORAGE AND HANDLING:

- A. Deliver materials in unopened containers as packaged by manufacturer.
- B. Store in a manner to protect materials from weather.

1.07 WARRANTY:

- A. Manufacturer: Provide Owner a written warranty for a period of 10 years from date of Substantial Completion against following defects in sealant materials.
 - 1. Loss of flexibility.
 - 2. Adhesive or cohesive failure due to weathering or material failure.
 - 3. Discoloration of adjacent concrete surfaces.
 - 4. Excessive and continuous dirt accumulation due to exuded oil.
 - 5. Hardening beyond Shore A durometer of 50.

PART 2 - PRODUCTS

2.01 SILICONE BUILDING SEALANT:

- A. Qualities: Single component, neutral cure, silicone rubber formulation with medium modulus, high elongation characteristics, capable of obtaining strong, durable bond strength and with \pm 50% movement capability. Sealant shall be specially formulated to reduce or eliminate dirt pickup and substrate staining from plasticizer bleed.
 - 1. Hardness, Type A Durometer: 27, ASTM D2240.
 - 2. Tensile Strength: 295 psi, ASTM D412.
 - 3. Peel Strength, Unprimed Concrete: 39lb./100% cohesive failure, ASTM D903.
 - 4. Color: Manufacturer's standard color selected by Architect.
- B. Standard: ASTM C920, Type S, Class 50, Grade NS.
- C. Source: SilPruf NB, SCS9000 Silicone Sealant by GE Silicones or similar approved products by Tremco or Pecora.

2.02 HIGH TEMPERATURE SILICONE BUILDING SEALANT:

- A. Qualities: High temperature, single component, neutral cure, silicone rubber formulation with medium modulus, high elongation characteristics, capable of obtaining strong, durable bond strength and with \pm 50% movement capability. Sealant shall be specially formulated to reduce or eliminate dirt pickup and substrate staining from plasticizer bleed.
 - 1. Hardness, Shore A Hardness, ASTM C661.
 - 2. Tensile Strength: 175-200 psi, ASTM D412.
 - 3. Color: Manufacturer's standard color selected by Architect.
- B. Source: TremPro 644 HT, High Temperature Silicone Sealant by Tremco or similar approved products by GE Silicones or Pecora.

2.03 RELATED MATERIALS:

- A. Bond-preventive Materials (where required by manufacturer): Polyethylene tape, pressure-sensitive adhesive.
- B. Primer: As recommended by sealant manufacturer for each type of working surface.

PART 3 - EXECUTION

3.01 PREPARATION:

- A. Cleaning Surfaces to Receive Sealant:
 - 1. Clean joint surfaces free of dust, dirt, oil, grease, moisture and coatings.
 - 2. Remove residual dust and other foreign substances by blowing with high-pressure air.
 - 3. Thoroughly wipe surfaces with a heavy solvent wash using toluene or xylene on clean, lint-free cloths.
 - 4. Mask areas adjacent to joints as required protecting adjacent surfaces.
- B. Priming: Prime joint substrate surfaces as recommended by sealant manufacturer. Apply specified primers in strict accordance with sealant manufacturer's written recommendations. Use correct primer for each substrate. Exercise care to prevent staining of surfaces.

3.02 APPLICATION:

- A. Install bond-preventive material prior to installation of sealant in accordance with manufacturer's requirements.
- B. Sealant:
 - 1. Apply sealant within 8 hours after primer has dried.

3.03 CLEANING:

- A. Remove excess sealant and caulking materials from adjacent surfaces as work progresses. Use xylol or toluol solvent to remove sealant.
- B. Remove debris from site.

END OF SECTION