Water Utility Vehicle Storage Garage, Contract 3-2023, City of Whitewater, Wisconsin (#8608953)

Owner: City of Whitewater

Solicitor: Strand Associates, Inc.

08/21/2023 01:00 PM CDT

						RR Walton & Company LTD		Gilbank Construction Inc.	uction Inc.
			Item						
Section Title   Line Item   Item Code   Descri	Line Item	Item Code	Description UofM	UofM	Quantity Unit Price		Extension	Unit Price	Extension
Water Utility Vehicle Storage Garage	Vehicle Stor	rage Garage					\$824,500.00		\$948,700.00
	1	LS .	Lump Sum Bid LS	LS	1	\$824,500.00   \$824,500.00   \$948,700.00	\$824,500.00	\$948,700.00	\$948,700.00
Base Bid Total:	:						\$824,500.00		\$948,700.00

12.11 All Bids shall be signed in the presence of and be notarized by a Notary Public or other Officer authorized to administer oaths.

#### ARTICLE 13-BASIS OF BID

# 13.01 Lump Sum

- A. Bidders shall submit a Bid on a Lump Sum basis as set forth in the Bid Form.
- 13.02 Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- 13.03 For Cash Allowances the Contract Price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of Cash Allowances, if any, named in the Contract Documents as provided for in Paragraph 13.02.B of the General Conditions. The final Contract Price will be adjusted to reflect actual costs on account of Cash Allowances.

# 13.04 The following Cash Allowances shall be included in the Bid for Contract(s).

New Service for Electric Utility	Section 26 21 00–Electric Service System
Unsuitable Foundation Material for Structures and Roads	Section 31 23 00–Excavation, Fill, Backfill, and Grading
Unsuitable Foundation Material for Utility Trenches	Section 31 23 00–Excavation, Fill, Backfill, and Grading
Geotextile Below Pavement Subgrade Stabilization for Unsuitable Material for Roads	Section 31 32 19–Geotextiles
New Service for Gas Utility	Section 33 52 16-Fuel Gas Distribution Utilities

# ARTICLE 14-SUBMITTAL OF BID

- 14.01 Bids will be received for all divisions of the Specifications and all other provisions of the Bidding Documents.
- 14.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid.
- 14.03 Bids received after the date and time prescribed for the opening of Bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

#### ARTICLE 15-MODIFICATION AND WITHDRAWAL OF BIDS

15.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time set for receiving Bids.

RR Walton 8	& Compa	anv LTD
-------------	---------	---------

BIDDER:

# **BID FORMS**

CITY OF WHITEWATER
WHITEWATER, WISCONSIN
WATER UTILITY VEHICLE STORAGE GARAGE
CONTRACT 3-2023

Prepared by:

STRAND ASSOCIATES, INC.® 910 West Wingra Drive Madison, WI 53715 www.strand.com

> Issued for Bid August 3, 2023



#### **SECTION 00 41 00**

#### BID

# CITY OF WHITEWATER WHITEWATER, WISCONSIN WATER UTILITY VEHICLE STORAGE GARAGE CONTRACT 3-2023

# A. <u>Table of Contents</u>

AKTIOLE I. DID REGIFIEN	ARTICLE 1. BI	D RECIPIENT
-------------------------	---------------	-------------

ARTICLE 2. BIDDER'S ACKNOWLEDGEMENTS

ARTICLE 3. BIDDER'S REPRESENTATIONS

ARTICLE 4. BIDDER'S CERTIFICATIONS

ARTICLE 5. BASIS OF BID

ARTICLE 6. TIME OF COMPLETION

ARTICLE 7. ATTACHMENTS TO THIS BID

ARTICLE 8. DEFINED TERMS

ARTICLE 9. COMMUNICATIONS

ARTICLE 10. BID SUBMITTAL

# ARTICLE 1-BID RECIPIENT

- 1.01 Bids to be received until 1 P.M., local time, Monday, August 21, 2023.
- 1.02 Online electronic Bidding through QuestCDN.com is the only way the Bid will be accepted. To access the electronic Bid Form, download the Project Documents and click the Online Bidding button.
- 1.03 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

# ARTICLE 2-BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

#### 2.01 Bid Acceptance Period

A. This Bid will remain subject to acceptance for 85 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.

#### 2.02 Instructions to Bidders

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.
- 2.03 In submitting this Bid, Bidder represents the following:
- A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the addenda.

2.04 Bidder will sign and deliver the required number of counterparts of the Agreement with the bonds, insurance certificates, and other documents required by the Bidding Requirements within 15 days after the date of OWNER's Notice of Award.

# **ARTICLE 3-BIDDER'S REPRESENTATIONS**

# 3.01 Bidder's Representations

- A. In submitting this Bid, Bidder represents the following:
- 1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
- 2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- 3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
- 4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
- 5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
- 6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as CONTRACTOR; and (c) Bidder's (CONTRACTOR's) safety precautions and programs.
- 7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- 8. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.
- 9. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- 10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

# ARTICLE 4-BIDDER'S CERTIFICATIONS

# 4.01 Bidder certifies the following:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
  - C. Bidder has not solicited or induced any individual or entity to refrain from Bidding.
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the Bidding process.
  - 2. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the Bidding process to the detriment of OWNER, (b) to establish Bid prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition.
  - 3. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of OWNER, a purpose of which is to establish Bid prices at artificial, non-competitive levels.
  - 4. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the Bidding process or affect the execution of the Contract.

# ARTICLE 5-BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

The following abbreviations may be used in this Bid:

CIP	_	Complete in Place	LS	_	Lump Sum
CY	_	Cubic Yard	LT	_	Left
DI	-	Ductile Iron	MBF	-	Thousand Board Feet
DIA	-	Diameter	MFOB	_	Thousand Freight-On-Board
EA	-	Each	MH	-	Manhole
EST	-	Estimate(d)	RCP	-	Reinforced Concrete Pipe
EXCL	-	Excluding	RT	-	Right
FT	-	Feet	SF	-	Square Foot
GAL	-	Gallon	STA	-	Station
HERCP	-	Horizontal Elliptical RCP	SY	-	Square Yard
HRS	-	Hours	Т		Ton
IN	-	Inch	VLF	-	Vertical Linear Foot
INCL	_	Including	W/	-	With
LBS	-	Pounds	W/O	-	Without
LF	-	Linear Foot			

BIDDERS SHOULD NOT ADD ANY CONDITIONS OR QUALIFYING STATEMENTS TO THIS BID OR THE BID MAY BE DECLARED IRREGULAR AS NOT BEING RESPONSIVE TO THE INSTRUCTIONS TO BIDDERS.

# BID

# CITY OF WHITEWATER WHITEWATER, WISCONSIN WATER UTILITY VEHICLE STORAGE GARAGE CONTRACT 3-2023

LUMP SUM BID:	
	_Dollars \$_
(Words)	(Numbers)

See Section 01 29 00–Contract Considerations for discussion of Cash Allowances to include in the Bid.

#### BID

# CITY OF WHITEWATER WHITEWATER, WISCONSIN WATER UTILITY VEHICLE STORAGE GARAGE CONTRACT 3-2023

#### **CASH ALLOWANCES**

The following Cash Allowances shall be included in the Lump Sum Base Bid. The Cash Allowances for non-Lump Sum items shall be equal to the product of the quantity included in the Lump Sum Base Bid and the Unit Price. The Cash Allowances will be adjusted in the event that estimated quantities to be included in the Lump Sum Base Bid are different from final measured quantities. A single Unit Price shall be bid for each item. Failure to include one or more of the following Unit Price items may result in rejection of the entire Bid as nonconforming. For items with a quantity of 1, the Cash Allowance shall be adjusted based on actual final costs.

Item Number	Description	Estimated Quantity Included in the Lump Sum Base Bid	Unit	Bid Unit Price	Total Bid Price Included in the Lump Sum Base Bid
1.	New Service for Electric Utility Section 26 21 00–Electrical Service System	1	LS	\$5,000	\$5,000
2.	Unsuitable Foundation Material for Structures and Roads Section 31 23 00–Excavation, Fill, Backfill, and Grading	430	CY	\$ 40.00	\$ 17,200.00
3.	Unsuitable Foundation Material for Utility Trenches Section 31 23 00– Excavation, Fill, Backfill, and Grading	50	CY	\$ 40.00	\$ 2,000.00
4.	Geotextile Below Pavement Subgrade Stabilization for Unsuitable Material for Roads Section 31 32 19—Geotextiles	940	SY	\$ 2.98	\$ 2,801.20
5.	New Serivce for Gas Utility Section 33 52 16-Fuel Gas Distribution Utilities	1	LS	\$5,000	\$5,000

Total = \$32,001.20

- A. For all Work, at the prices stated in CONTRACTOR's Bid, attached hereto as an exhibit.
- B. All specific Cash Allowances are included in the Contract Price and have been computed in accordance with Paragraph 13.02 of the General Conditions.

# Article 6. PAYMENT PROCEDURES

- 6.01 Submittal and Processing of Payments
- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.
- 6.02 Progress Payments; Retainage
- A. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as established at the preconstruction conference during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established in Paragraph 2.05.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:
  - 1. Prior to Substantial Completion, OWNER will retain an amount equal to 5% of each progress payment application until 50% of the Work has been completed. At 50% completion, further progress payment applications shall be paid in full to CONTRACTOR and no additional amounts will be retained unless ENGINEER certifies to OWNER that the job is not proceeding satisfactorily. Amounts previously retained shall not be paid to CONTRACTOR until substantial completion of the Work. At 50% completion of the Work, or any time thereafter when the character and progress of the Work is not satisfactory to OWNER on recommendation of ENGINEER, additional amounts may be retained, but in no event shall the total retainage be more than 10% of the value of the work completed.
  - 2. Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 98% of the Work completed, less such amounts as ENGINEER shall determine in accordance with Paragraph 15.01.C.5 and 15.01.C.6 of the General Conditions and less 100% of ENGINEER's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

# 6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Paragraph 15.06.

# 6.04 Consent of Surety

A. OWNER will not make final payment unless CONTRACTOR submits written consent of the surety to such payment, return, or release.

- Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.
- E. Documentation and Audit: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

#### 13.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. Cash Allowances: Contractor agrees that:
  - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  - Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. Owner's Contingency Allowance: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

#### 13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

#### **SECTION 01 29 00**

# **CONTRACT CONSIDERATIONS**

# PART 1-GENERAL

#### 1.01 SUMMARY

- A. Work Included:
  - 1. Cash Allowances.
  - 2. Measurement and Payment-Lump Sum.

# 1.02 CASH ALLOWANCES

- A. See Paragraph 13.02 of the General Conditions for costs to be included in allowances.
- B. Refer to sections of the specifications identified in the Bid Form for specific information on use of cash allowances.
- C. The Bid shall include the amount equal to the specified quantity times the unit price.

# 1.03 MEASUREMENT AND PAYMENT-LUMP SUM

- A. Payment for Lump Sum projects will be based on the accepted schedule of values for the project.
- B. An acceptable schedule of values will include the following features:
  - Schedule shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction. Schedule shall be subdivided as necessary by specification section and work area.
  - 2. Identify each line item with the number and title of the respective Specification Section.
  - 3. For each major line item list sub-values of major products or operations under the item.
  - 4. For the various portions of the work:
    - a. Each item shall include a directly proportional amount of CONTRACTOR's overhead and profit.
    - b. For items on which progress payments will be requested for stored materials, break down the value into:
      - (1) The cost of the materials, delivered and unloaded, with taxes paid. Paid invoices are required for materials upon request by ENGINEER.
      - (2) The total installed value.
  - 5. The sum of all values listed in the schedule shall equal the total Contract Sum.
  - 6. Schedule shall include a separate listing of general items such as bonds, insurance, mobilization, demobilization, field supervision, and record documents.
- C. Once a schedule of values is accepted, it shall not be revised, except for changes associated with subsequently executed change orders.
- D. No separate measurement for payment will be performed for Lump Sum Work.
- E. CONTRACTOR shall estimate percentage of Work completed. ENGINEER will review CONTRACTOR's estimate of quantity of Work completed.

#### **SECTION 26 21 00**

# **ELECTRICAL SERVICE SYSTEM**

#### PART 1-GENERAL

# 1.01 SUMMARY

- A. Work Included:
  - 1. Utility company.
  - 2. Secondary service characteristics.
  - Definitions.
  - 4. Underground electrical service.
- B. Allowances: CONTRACTOR shall include in the Bid the cost of the following items specified in this Section. Refer to the individual sections listed below for a complete description of the Work required. Electric Utility Service Entrance, Paragraph 1.07–Underground Electrical Service.
- C. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.
- D. See Division 01 for temporary service requirements. This section applies to permanent services only.

#### 1.02 UTILITY COMPANY

A. The Utility Company is WE Energies.

# 1.03 SECONDARY SERVICE CHARACTERISTICS

A. The secondary service will be 120/208-volt, 4-wire, three-phase.

# 1.04 DEFINITIONS

- A. Service: As defined in the NEC, Article 100.
- B. Primary Voltage: Above 600 volts.
- C. Secondary Voltage: 600 volts and below.

#### 1.05 UNDERGROUND ELECTRICAL SERVICE

- A. Provide complete underground electrical service except for items provided by the Utility Company.
- B. Provide electrical service system, except the Utility Company will provide:
  - 1. Transformer (pad by CONTRACTOR).
  - 2. Cable from transformer to building.
  - 3. Primary conduit and cabling.

C. Coordinate the new electrical service with the Utility. An allowance of \$5,000 shall be included in the Lump Sum Bid for the work provided by the Utility and will be adjusted at final payment in accordance with actual Utility charges. All other costs for the electrical service shall be included in the Lump sum Bid.

# PART 2-PRODUCTS

NOT APPLICABLE

# PART 3-EXECUTION

#### 3.01 UTILITY COORDINATION

- A. Division 26 Contractor shall obtain all required permits and licenses, pay all charges and fees, and give all notices necessary for utilities to perform the Work. Division 26 Contractor shall comply with all permit requirements whether the permit is issued to CONTRACTOR, the state, or the maintaining authority.
- B. Division 26 Contractor shall complete all required electrical service applications and forms based on the Drawings and Division 26 Contractor's means and methods for the work required.

**END OF SECTION** 

#### **SECTION 31 23 00**

# EXCAVATION, FILL, BACKFILL, AND GRADING

# PART 1-GENERAL

#### 1.01 SUMMARY

- A. Work Included: Excavating, filling, backfilling, and grading for this work includes, but is not necessarily limited to:
  - 1. Excavating for footings, foundations, roads, utilities, sidewalks, driveways, parking lots, restoration, and miscellaneous areas.
  - 2. Furnishing and placing all fill and backfill.
  - 3. Provide compaction of all fill and backfill.
  - 4. Furnishing and placing vapor barrier and granular cushion below interior slabs on grade.
  - 5. Furnishing and placing of crushed stone mat below structures where required.
  - 6. Rough and finish grading prior to paving, seeding, etc.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

# C. Allowances:

- 1. CONTRACTOR shall <u>INCLUDE</u> in the Bid the cost of replacing 430 cubic yards of unsuitable foundation material for structures and roads as defined in this section. The unit price shall include the cost of dewatering and slope stabilization and other incidental items associated with this work. Payment to CONTRACTOR for unsuitable foundation material for structures and roads will be adjusted, add or deduct, based upon the actual unsuitable material excavated (more or less than 430 cubic yards) and the unit price for replacing unsuitable foundation material. Volume shall be as measured in the ground. Extra payment will not be made for specified undercutting and filling or gravel bedding material required for placing concrete above water level as required under the concrete specifications. The Bid shall include any removal and replacement of excavated material so indicated on the Drawings or specified herein.
- 2. CONTRACTOR shall <u>INCLUDE</u> in the Bid the cost of replacing 50 cubic yards of unsuitable foundation material for utility trenches as defined in this section. The unit price shall include the cost of dewatering and slope stabilization and other incidental items associated with this work. Payment to CONTRACTOR for unsuitable foundation material for utility trenches will be adjusted, add or deduct, based upon the actual unsuitable material excavated (more or less than 50 cubic yards) and the unit price for replacing unsuitable foundation material. Volume shall be as measured in the ground. Extra payment will not be made for specified undercutting, filling, or bedding. The Bid shall include any removal and replacement of excavated material so indicated on the Drawings or specified herein.
- D. Payment: Common excavation shall be included in the Lump Sum Price Bid and shall include all excavation specified, undercutting, fill, backfill and grading, including rock excavation but not including unsuitable foundation material, as hereinafter described.

#### **SECTION 31 32 19**

#### **GEOTEXTILES**

#### PART 1-GENERAL

# 1.01 SUMMARY

- A. Work Included: Geotextiles for pavement subgrade stabilization.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

# 1.02 PAYMENT

A. CONTRACTOR shall INCLUDE in the Bid a cash allowance for the cost of 940 square yards of geotextile below pavement subgrade stabilization for unsuitable material for roads as defined in this section. The unit price shall include the cost of all incidental items associated with this work. Payment to CONTRACTOR for geotextile below pavement subgrade stabilization for unsuitable material for roads will be adjusted, add or deduct, based upon the actual geotextile used (more or less than 940 square yards) and the unit price for the geotextile.

# PART 2-PRODUCTS

#### 2.01 MATERIALS

A. Geotextile below pavement subgrade stabilization for unsuitable material for roads shall be Tensar Biaxial BX Geogrid BX1100, or equal. Use allowance as specified.

# PART 3-EXECUTION

# 3.01 INSTALLATION

- Geotextile shall be installed in accordance with manufacturer's recommendations.
- B. Geotextile shall be lapped a minimum of 24 inches.
- C. CONTRACTOR shall protect the construction fabric from exposure to the sun until installation. Construction fabric shall be covered with stone or soil immediately upon placement.

**END OF SECTION** 

- C. The secondary service pressure after the utility provided meter will be 2 psig, 500 MBH minimum, for the space heating.
- D. The tertiary service pressure and demand supplied to individual buildings shall be as shown on the Drawings.
- E. An allowance of \$5,000 shall be included by CONTRACTOR in the Lump Sum Bid for the scope of work provided by the Utility. Coordinate the natural gas service with the Utility. This allowance shall be adjusted by change order (up or down), based on the actual cost of the natural gas service from the Utility to CONTRACTOR.

#### PART 2-PRODUCTS

#### 2.01 NATURAL GAS-ABOVEGROUND

A. See Section 23 11 23–Facility Fuel Gas Piping for specifications.

#### 2.02 BURIED NATURAL GAS PIPING

- A. Manufacturers: Performance Pipe, a division of Chevron Phillips Chemical Company LP, JM Eagle, or equal.
- B. Buried natural gas pipe tubing, fittings, and joints shall be PE 2708 (PE 2406) polyethylene, SDR-11 or less, ASTM D2513 and D3350 pipe and fittings. Provide butt-weld fittings conforming to ASTM D3261 or socket-type fittings conforming to ASTM D2683.
- C. Polyethylene pipe tubing, fitting, and joint materials shall be compatible and by same manufacturer. Fabricated fittings shall not be used. Match fittings to service rating of pipe.
- D. Provide an anodeless riser connection between buried plastic gas service piping and metallic riser in accordance with the local codes. Provide a metallic riser consisting of HDPE fused coating on steel pipe for connection to aboveground building distribution piping. Underground horizontal metallic portion of riser shall be at least 24 inches in length before connecting to the plastic service pipe. An approved transition fitting or adaptor meeting design pressure rating and plastic pipe manufacturers recommendations shall be used where the plastic joins the metallic riser. Provide Elster, George Fischer Central Plastics, or equal.
- E. Gas Transition Fittings: Provide manufactured steel transition fittings approved for joining steel and polyethylene pipe, conforming to AGA XR0603 requirements for transition fittings. Transition fittings shall be manufactured by Continental, Elster, George Fischer Central Plastics, or equal.
- F. Underground installation of piping shall conform with ASTM D2774.
- G. Provide tracer wire as specified.

#### 2.03 VENTS AND RELIEF VALVES

A. Use pipe and pipe fittings as specified for the system to which the relief valve or vent is connected.