

COMPLEX PROJECTS REQUIRE RESOLVE **THRASHER'S GOT IT**

PEA RIDGE PUBLIC SERVICE DISTRICT CABELL COUNTY, WEST VIRGINIA

CONTRACT #4 – ROUTE 2 SOUTH SANITARY SEWER EXTENSION

ADDENDUM #2

JULY 24, 2023

THRASHER PROJECT #020-1392

TO WHOM IT MAY CONCERN:

The following are clarifications and responses to questions posed by Contractors for the above referenced project.

A. **GENERAL**

- 1. <u>The bid date has been moved. The new bid date is Thursday, August 3, 2023 at</u> 2:00 pm at the Pea Ridge Public Service District Operations Building located at 500 Nova Street, Huntington, WV 25705.
- 2. The last day for Questions will be COB Wednesday July 26, 2023.
- 3. The bid form has been revised. <u>YOU MUST USE THE ATTACHED BID FORM</u> <u>INCLUDED WITH THIS ADDENDUM # 2 WHEN PREPARING YOUR BID</u> <u>PACKAGE.</u>
- 4. Wage Rates will be included with the final Addendum.

B. <u>SPECIFICATIONS</u>

1. **INSERT** Section 400578.23 included with this Addendum #2.

C. <u>DRAWINGS</u>

- 1. **REMOVE** Index and **REPLACE** with Index included with this Addendum #2.
- 2. **REMOVE** Sheet 1 and **REPLACE** with Sheet 1 included with this Addendum #2.
- 3. **REMOVE** Sheet 2 and **REPLACE** with Sheet 2 included with this Addendum #2.
- 4. **REMOVE** Sheet 3 and **REPLACE** with Sheet 3 included with this Addendum #2.
- 5. **REMOVE** Sheet 3A and **REPLACE** with Sheet 3A included with this Addendum #2.
- 6. **REMOVE** Sheet 6 and **REPLACE** with Sheet 6 included with this Addendum #2.
- 7. **REMOVE** Sheet 7 and **REPLACE** with Sheet 7 included with this Addendum #2.
- 8. **REMOVE** Sheet 8 and **REPLACE** with Sheet 8 included with this Addendum #2.
- 9. **REMOVE** Sheet 8A and **REPLACE** with Sheet 8A included with this Addendum #2.

REMOVE Sheet 10 and REPLACE with Sheet 10 included with this Addendum #2.
 REMOVE Sheet 11 and REPLACE with Sheet 11 included with this Addendum #2.
 REMOVE Sheet 16 and REPLACE with Sheet 16 included with this Addendum #2.
 INSERT Sheet DET-6 included with this Addendum #2.

D. <u>QUESTIONS AND RESPONSES</u>

1. QUESTION

Will you add a bid item and detail for the 2.5" inline cleanout found on pages 8, 10, and 11 of the contract drawings?

RESPONSE

The line size has been revised. A 2.5" to 3" cleanout is not needed.

2. QUESTION

Will you add a bid item and detail for the 2" inline cleanout found on page 16 of the contract drawings?

RESPONSE

Bid item 20b has been added for the 2" inline cleanout. The detail is located on sheet DET-6 included with this Addendum #2.

3. QUESTION

Will you add a bid item and detail for the 3" inline cleanout found on pages 1, 2, 6, 7, and 8 of the contract drawings?

RESPONSE

Bid item 20a has been added for the 3" inline cleanout. It is described in the Standard Detail on Sheet DET-4.

4. QUESTION

Will all of these be paid for bases on bid item 20?

RESPONSE

The bid form has been revised to account for various cleanout sizes.

E. <u>CLARIFICATIONS</u>

NOT APPLICABLE.

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If you have any questions or comments, please feel free to contact me at your earliest convenience. As a reminder, bids will be received until 2:00 p.m. on Thursday, August 3, 2023 at Pea Ridge Public Service District Operations Building, 500 Nova Street, Huntington, WV 25705. Good luck to everyone and thank you for your interest in the project.

Sincerely, UP, INC. THE T 15425 STATE OF JON ER, P.E. Principal "IIIIII

BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Pea Ridge Public Service District 500 Nova Street Huntington, WV 25701

1.02 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—ATTACHMENTS TO THIS BID

- 2.01 The following documents are submitted with and made a condition of this Bid:
 - A. Bid Opening Requirements

Note: Bid Opening Requirements (BOR-9) includes the American Iron and Steel Certification which needs to be filled out and signed by the Contractor.

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

GENERAL

The Bidder shall take notice of and shall be responsible for any local or state taxes levied and applicable, and the cost for the same shall be included as part of the submitted Bid.

The total Bid cost stated includes a complete operating installation including furnishing and installation of any and all changes or additions in plans, piping, mechanical work, additional electrical work, accessories, controls, etc. necessary to accommodate alternative equipment systems or materials used in construction.

BID PROPOSAL

The Bidder agrees to perform all required Work described in the detailed Specifications and as shown on the Plans for the complete construction and placing in satisfactory operation the Contract #4 – Route 2 South Sanitary Sewer Extension. The Project "Sequence of Construction" has been detailed in the Drawings and Specification Division 1, Project Summary, Section 011000. The Bidder agrees to perform all the Work proposed for the total of the following Bid prices.

- 3.01 *Lump Sum Bids*
 - A. Bidder will complete the Work in accordance with the Contract Documents for the lump sum (stipulated) price(s), together with any Unit Prices indicated in Paragraph 3.02 and shown in the bid schedule.
 - B. Lump Sum Bids may be one of the following:
 - 1. Lump Sum Price (Single Lump Sum)
 - 2. Lump Sum Price (Base Bid and Alternates)
 - 3. Lump Sum Price (Sectional Lump Sum Bids)
 - C. All specified cash allowance(s) are included in the price(s) set forth in the bid schedule, and have been computed in accordance with Paragraph 13.02 of the General Conditions.
 - D. All specified contingency allowances are included in the price(s) set forth in the bid schedule, and have been computed in accordance with Paragraph 13.02 of the General Conditions.

3.02 Unit Price Bids

- A. Bidder will perform the following Work at the indicated unit prices as shown in the Bid Schedule.
- B. Bidder acknowledges that:
 - 1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
 - 2. estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.
- 3.03 *Total Bid Price (Lump Sum and Unit Prices)*

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BID SCHEDULE

PROPOSED CONTRACT #4 – ROUTE 2 SOUTH SANITARY SEWER EXTENSION FOR THE

PEA RIDGE PUBLIC SERVICE DISTRICT CABELL COUNTY, WEST VIRGINIA

NOTE: Bid PRICE amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern. Bids shall include sales tax and all other applicable taxes and fees.

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
1	1	LS	Mobilization/Demobilization			
2	1	LS	Videotaping of Project Area			
3	1	LS	Erosion and Sediment Control			
4a	125	LF	12" PVC SDR-35 Gravity Sewer Line (0'-6')			

EJCDC® C-410, Bid Form for Construction Contract.

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
4b	500	LF	12" PVC SDR-35 Gravity Sewer Line (6'-9')			
4c	450	LF	12" PVC SDR-35 Gravity Sewer Line (9'-12')			
4d	2,550	LF	12" PVC SDR-35 Gravity Sewer Line (12'+)			
5a	3,850	LF	10" PVC SDR-35 Gravity Sewer Line (0'-6')			
5b	1,100	LF	10" PVC SDR-35 Gravity Sewer Line (6'-9')			
5c	1,400	LF	10" PVC SDR-35 Gravity Sewer Line (9'-12')			
5d	850	LF	10" PVC SDR-35 Gravity Sewer Line (12'+)			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
6a	2,700	LF	8" PVC SDR-35 Gravity Sewer Line (0'-6')			
6b	3,350	LF	8" PVC SDR-35 Gravity Sewer Line (6'-9')			
6с	2,050	LF	8" PVC SDR-35 Gravity Sewer Line (9'-12')			
6d	4,600	LF	8" PVC SDR-35 Gravity Sewer Line (12'+)			
7a	2,000	LF	6" PVC SDR-35 Gravity Sewer Line (0'-6')			
7b	500	LF	6" PVC SDR-35 Gravity Sewer Line (6'-9')			
7c	125	LF	6" PVC SDR-35 Gravity Sewer Line (9'-12')			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
7d	10	LF	6" PVC SDR-35 Gravity Sewer Line (12'+)			
8a	1,300	LF	8" DIP Gravity Sewer Line (0'-6')			
8b	500	LF	8" DIP Gravity Sewer Line (6'-9')			
8c	300	LF	8" DIP Gravity Sewer Line (9'-12')			
8d	700	LF	8" DIP Gravity Sewer Line (12'+)			
9a	175	LF	6" DIP Gravity Sewer Line (0'-6')			
9Ь	100	LF	6" DIP Gravity Sewer Line (6'-9')			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
10	1,900	LF	4" PVC SDR-17 Forcemain			
11	2,775	LF	3" PVC SDR-17 Forcemain			
12	735	LF	2" PVC SDR-17 Forcemain			
13	650	LF	1-1/2" HDPE DR-11 Forcemain			
14	5,900	LF	4" PVC SDR-17 Forcemain (Same Trench as Gravity Sewer)			
15	1,050	LF	3" PVC SDR-17 Forcemain (Same Trench as Gravity Sewer)			
16	500	LF	2" PVC SDR-17 Forcemain (Same Trench as Gravity Sewer)			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
17	6	EA	1" Combination Vacuum/Air Release Valves			
18a	16	EA	4" Forcemain Pressure Inline Cleanouts			
18b	10	EA	3" Forcemain Pressure Inline Cleanouts			
18c	1	EA	2" Forcemain Pressure Inline Cleanouts			
19	3,600	LF	4" PVC Customer Service Lateral			
20	150	LF	24" Steel Casing (Bore and Jack)			
21	175	LF	20" Steel Casing (Bore and Jack)			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
22	100	LF	8" Steel Casing (Bore and Jack)			
23	100	LF	6" Steel Casing (Bore and Jack)			
24	7	EA	Grinder Pump Stations			
25	160	EA	48" Dia. Manhole Base, Cone Top, Regular Casting			
26	10	EA	48" Dia. Drop Manholes			
27	600	VF	48" Dia. Manhole Riser Pipe			
28	20	EA	12"x4" PVC Wye Connection			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
29	35	EA	10"x4" PVC Wye Connection			
30	60	EA	8"x4" PVC Wye Connection			
31	15	EA	6"x4" PVC Wye Connection			
32	10	EA	8"x4" D.I. Wye Connection			
33	6	EA	6"x4" D.I. Wye Connection			
34	6	EA	8" Gravity Terminal Line Cleanout			
35	6	EA	6" Gravity Terminal Line Cleanout			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
36	150	EA	4" Gravity Service Line Cleanout			
37	450	LF	2" Concrete Overlay			
38	3,650	LF	2" HMA Overlay			
39	400	LF	WVDOH Type "B" Trench Repair			
40	2,050	LF	WVDOH Type "C" Trench Repair			
41	22,800	LF	WVDOH Inspection Fees	\$3.37	Three dollars and thirty-seven cents	\$76,836.00
42	1,150	LF	Driveway Repair (Concrete)			

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Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
43a	750	LF	Driveway Repair (HMA)			
43b	700	LF	Driveway Repair (Gravel)			
43c	25,600	LF	Reclamation of Disturbed Area			

(Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.)

NOTE: THE CONTRACTOR'S UNIT PRICES SHALL INCLUDE PURCHASE AND INSTALLATION, COMPLETE IN PLACE, PER BID ITEM IN ACCORDANCE WITH THE DETAILED SPECIFICATIONS.

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

3.04 *Method of Award*

If at the time this contract is to be awarded, the lowest total bid submitted by a qualified, responsive, responsible Bidder does not exceed the amount of funds then estimated by the Owner, as available to finance the contract, the construction contract will be awarded. If such bids exceeds such amount, the owner may reject all bids.

- A. Unit prices have been computed in accordance with paragraph 13.03.A of the General Conditions.
- B. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

3.05

ARTICLE 4 BASIS OF BID COST-PLUS FEE

- 4.01 The Contract Price will be the Cost of the Work, determined as provided in Paragraph 13.01 of the General Conditions, together with the following fee, and subject to the Guaranteed Maximum Price.
- 4.02 *Contractor's Fee*
 - A. Contractor's fee will be **[number]** percent of the Cost of the Work. No fee will be payable on the basis of costs itemized as excluded in Paragraph 13.01.C of the General Conditions.
 - 1. The maximum amount payable by Owner as a percentage fee (Guaranteed Maximum Fee) will not exceed \$[insert cap amount], subject to increases or decreases for changes in the Work.
 - B. Contractor's fee will be determined by applying the following percentages to the various portions of the Cost of the Work as defined in Article 13 of the General Conditions. No fee will be payable on the basis of costs itemized as excluded in Paragraph 13.01.C of the General Conditions:

Costs	Percent
Payroll costs (See Paragraph 13.01.B.1, General Conditions)	
Materials and Installed Equipment cost (GC-13.01.B.2)	
Amounts to be paid to Subcontractors (GC-13.01.B.3)	

Amount to be paid to special consultants (GC-13.01.B.4)	
Other costs (GC-13.01.B.5)	

- 1. The maximum amount payable by Owner as a percentage fee (Guaranteed Maximum Fee) will not exceed **\$[insert cap amount]**, subject to increases or decreases for changes in the Work.
- C. Contractor's fee will be the fixed sum of **\$[number]**.
- 4.03 *Guaranteed Maximum Price*
 - A. The Guaranteed Maximum Price to Owner of the Cost of the Work including Contractor's Fee will not exceed \$[Bidder fill in GMP].

Deleted

ARTICLE 5 PRICE-PLUS-TIME BID

- 5.01 Price-Plus-Time Contract Award (Stipulated Price Contract)
 - A. The Bidder to which an award of the Contract will be made will be determined in part on the basis of the Total Bid Price and the total number of calendar days to substantially complete the Work, in accordance with the following:

	Description		Amount
A	1. Total Bid Price		\$[number]
	 Total number of calendar days to substantially complete the Work 	[number] days	
	3. Liquidated Damages Rate (from Agreement)	<pre>\$[number]/day</pre>	
B	4. Adjustment Amount (2 x 3)		\$[number]
A+B	5. Amount for Comparison of Bids		\$[number]

- B. The purpose of the process in the table above is only to calculate the lowest price plus-time (A+B) bid amount for bid comparison purposes. The price for completion of the Work (the Contract Price) is the Total Bid Price.
- C. Bonds required under Paragraph 6.01 of the General Conditions will be based on the Contract Price.
- 5.02 *Price-Plus-Time Contract Award (Cost Plus Fee with Guaranteed Maximum Price Contract)*
 - A. The Bidder to which an award of Contract will be made will be determined in part on the basis of the Guaranteed Maximum Price and the total number of calendar days to substantially complete the Work, in accordance with the following:

	Description		Amount
A	1. Guaranteed Maximum Price		\$[number]
	2. Total number of calendar days to substantially	[number] days	
	complete the Work		
	3. Liquidated Damages Rate (from Agreement)	<pre>\$[number]/day</pre>	
B	4. Adjustment Amount (2 x 3)		\$[number]
A+B	5. Amount for Comparison of Bids		\$[number]

- B. The purpose of the process in the table above is only to calculate the lowest price plus time (A+B) bid amount for bid comparison purposes. The price for completion of the Work (the Contract Price) is based on the cost of the Work, plus a fee, subject to a guaranteed maximum price, as set forth in the Agreement.
- C. Bonds required under Paragraph 6.01 of the General Conditions will be based on the Contract Price.

Deleted

ARTICLE 6—TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder agrees that the Work will be substantially complete on or before [Bidder inserts date], and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before [Bidder inserts date].

Deleted

6.03 Bidder agrees that the Work will be substantially complete within [Bidder inserts number] calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within [Bidder inserts number] calendar days after the date when the Contract Times commence to run.

Deleted

6.04 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

- 7.01 Bid Acceptance Period
 - A. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 7.02 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.
- 7.03 *Receipt of Addenda*
 - A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 8—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

8.01 *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, including all American Iron and Steel requirements.
 - 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.
- 8.02 *Bidder's Certifications*
 - A. The Bidder certifies the following:

- 1. 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.
- 2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
- 3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
- 4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. 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.
 - b. 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.
 - c. 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.
 - d. 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.

BIDDER hereby submits this Bid as set forth above:

Bidder:

Bv	(typed or printed name of organization)
By.	(individual's signature)
Name:	(typed or printed)
Title:	
Date	(typed or printed)
Date.	(typed or printed)
If Bidder is	a corporation, a partnership, or a joint venture, attach evidence of authority to sign.
Attest:	(in dividualla signature)
Name:	(inaiviauai s signature)
	(typed or printed)
Title:	(typed or printed)
Date:	
Address for	(typea or printea)
Bidder's (Contact:
Name:	(turned our printed)
Title:	(typea or printea)
	(typed or printed)
Phone:	
Address:	
11441000	
Bidder's C applicable	Contractor License No.: (if

SECTION 400578.23 - AIR/VACUUM VALVES FOR WASTEWATER SERVICE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Air release/vacuum breaker valves for wastewater treatment facilities.
- B. Related Requirements:
 - 1. Section 099010 Coating Systems for Wastewater Treatment Plants: Preparing, priming, and painting surfaces, including field-applied and equipment finishing.
 - 2. Section 400507 Hangers and Supports for Process Piping: Anchors and supports.

1.2 REFERENCE STANDARDS

- A. American Water Works Association:
 - 1. AWWA C512 Air-Release, Air/Vacuum, and Combination Air Valves for Waterworks Service.
- B. ASME International:
 - 1. ASME B16.1 Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250.
- C. ASTM International:
- D. SSPC The Society for Protective Coatings:
 - 1. SSPC-SP 6 Commercial Blast Cleaning

1.3 SUBMITTALS

- A. Section 013300 Submittal Procedures: Requirements for submittals.
- B. Product Data: Submit manufacturer catalog information.
 - 1. Include AIS Certification for iron and steel products.
- C. Shop Drawings: Indicate materials, dimensions, weights, and end connections on assembly drawings.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Qualifications Statements:

AIR/VACUUM VALVES FOR WASTEWATER SERVICE

1. Submit qualifications for manufacturer.

1.4 CLOSEOUT SUBMITTALS

- A. Section 017000 Execution and Closeout Requirements: Requirements for submittals.
- B. Project Record Documents: Record actual locations of air release/vacuum breaker valves.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three (3) years' documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
- C. Store materials according to manufacturer instructions.
- D. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Furnish temporary end caps and closures on piping and fittings and maintain in place until installation.
 - 3. Provide additional protection according to manufacturer instructions.

1.7 EXISTING CONDITIONS

- A. Field Measurements:
 - 1. Verify field measurements prior to fabrication.
 - 2. Indicate field measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 AIR/VACUUM VALVES FOR WASTEWATER SERVICE

A. <u>Manufacturers</u>:

- 1. DeZurik.
- 2. Flomatic.
- 3. Val-Matic.
- 4. Engineer's Approved Equal

B. Description:

- 1. Type: Fully automatic, float operated.
- 2. Comply with AWWA C512.
- 3. Size: As indicated on Drawings.
- 4. Suitable for sewage service.
- 5. Valve Body Connections: Furnish two (2) inch NPT cleanout and one (1) inch NPT drain.
- 6. Pressure Rating: 740 psig.
- 7. Materials: Body and Cover: Comply with ASTM A536, ductile iron.

C. Connections:

- 1. End Connections:
 - a. Size three (3) Inches and Smaller: Threaded, NPT.
 - b. One (1) Inch Valves: Furnish two (2) inch inlet.
 - c. Size four (4) Inches and Larger: Flanged, ASME B16.1.
- 2. Valve Body Connections: Threaded, NPT.
- 3. Cleanout: two (2) inches.
- 4. Drain: one (1) inch.
- D. Accessories:
 - 1. Backwash accessories: Furnish three (3) additional NPT connections, including the following:
 - a. Inlet shutoff valve
 - b. Blowoff valve
 - c. Rubber supply hose
 - d. Quick-disconnect couplings.
 - 2. Epoxy lining.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 017000 - Execution and Closeout Requirements: Requirements for installation examination.

- B. Verify that field dimensions are as indicated on Drawings.
- C. Inspect existing flanges for nonstandard bolt hole configurations or design and verify that new pipe and flanges mate properly.

3.2 PREPARATION

- A. Section 017000 Execution and Closeout Requirements: Requirements for installation preparation.
- B. Thoroughly clean end connections before installation.
- C. Surface Preparation:
 - 1. Touch up shop-primed surfaces with primer as specified in Section 099010 Coating Systems for Wastewater Treatment Plants.
 - 2. Solvent-clean surfaces that are not shop primed.
 - 3. Clean surfaces to remove loose rust, mill scale, and other foreign substances by commercial sand blasting; SSPC-SP 6.
 - 4. Prime surfaces as specified in Section 099010 Coating Systems for Wastewater Treatment Plants.

3.3 INSTALLATION

- A. According to AWWA C512 and manufacturer instructions.
- B. Provide access for operation, removal, and maintenance, and to avoid discharge to occupied areas or other equipment.

3.4 FIELD QUALITY CONTROL

- A. Section 014000 Quality Requirements: Requirements for inspecting and testing.
- B. Inspection:
 - 1. Inspect for damage to valve lining or coating and for other defects that may be detrimental as determined by Engineer.
 - 2. Repair damaged valve or provide new, undamaged valve.
 - 3. After installation, inspect for proper supports and interferences.
- C. Testing: Demonstrate operation without undue noise or vibration.

3.5 CLEANING

A. Section 017000 - Execution and Closeout Requirements: Requirements for cleaning.

- B. Keep interior of air release valves clean as installation progresses.
- C. After installation, clean valve interior of soil, grit, loose mortar, and other debris.

END OF SECTION 400578.23

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	r			
	1	<u>WVDOH GENERAL NOTES</u> ALL CONSTRUCTION ON THE DIVISION OF HIGHWAYS RIGHT OF WAY WILL CONFORM TO THE FOLLOWING: THE FOLLOWING NOTES APPLY TO ALL PROJECT PLAN SHEETS NOTIFICATION OF PROPOSED EXCAVATION DEMOLITION OF ANY OTHER FARTH	1.)	EXISTING UTILITIES A.) EXISTING UTILIT PROVIDED BY LOCA
	2.	DISTURBING ACTIVITIES ARE REQUIRED TO BE PLACED TO MISS UTILITY OF WEST VIRGINIA (1-800-245-4848) NOT LESS THAN FORTY EIGHT (48) BUSINESS HOURS BEFORE ANY SUCH WORK IS TO BEGIN. BEDDING SHALL BE PLACED ON ASPHALT SURFACE TO PROTECT THE PAVEMENT WHEN A TRENCHER OF TRACKED VEHICLE IS USED.		NOT KNOWN. CONT BY CONTACTING MI COMPANIES AS LIS B.) CONTRACTOR TO JACKING.
	3.	THE WEST VIRGINIA DIVISION OF HIGHWAYS PUBLICATIONS "STANDARD SPECIFICATIONS ROADS AND BRIDGES" AND "ACCOMMODATIONS OF UTILITIES ON HIGHWAY RIGHT OF WAY" LATEST EDITION ARE PART OF THE PROJECT SPECIFICATIONS AND WILL BE ADHERED TO BY THE CONTRACTOR.	2.)	RIGHT-OF-WAYS A.) PRIVATE PROPE EITHER SIDE OF CE SIDE OF CENTERLIN
	4. 5.	ALL DAMAGE TO ROAD SURFACE SHALL BE REPAIRED ACCORDING TO THE WEST VIRGINIA DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS AND DETAILS. ALL EXISTING DUMP ROCK OR RIP RAP DITCHES DISTURBED BY THE UTILITY LINE CONTRACTOR SHALL BE RESTORED WITH THE SAME SIZE, GRADE AND QUALITY OF ROCK AFTER THE WATER LINE HAS BEEN INSTALLED. NEW DUMP ROCK (RIP RAP) IS TO DE DI ACED IN ALL LOCATIONS WHERE THE DITCH LINE CRADE IS COPATED THAN 5%		B.) D.O.H. ROADWAY DEPARTMENT OF H FLOW, UNLESS OTH C.) PROPERTY LINE INFORMATION SHO
	6.	BE PLACED IN ALL LOCATIONS WHERE THE DITCH LINE GRADE IS GREATER THAN 5% AND THERE IS NO EXISTING RIP RAP. TRAFFIC CONTROL SHALL CONFORM TO THE W.V.D.O.H. PUBLICATION "TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE" OPERATION LATEST EDITION	3.)	WATER AND SEWER A.) HORIZONTAL SE B.) VERTICAL SEPAR
	7.	ALL BACKFILL MATERIAL AND COMPACTION REQUIREMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THE ACCOMMODATION OF UTILITIES ON HIGHWAY RIGHT OF WAY AND ADJUSTMENT AND RELOCATION OF UTILITY FACILITIES ON HIGHWAY PROJECTS AND SUBJECT TO D.O.H. APPROVAL, EVIDENCE OF PROPER	4.)	IN THE EVENT OF A SHALL BE TAKEN U PROCEEDING WITH
		COMPACTION BY TESTING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TESTING SHALL BE ONE (1) PER DAY OR EVERY 500 LINEAL FEET OR AS DETERMINED BY THE DISTRICT MANAGER (ENGINEER) OR HIS AUTHORIZED REPRESENTATIVE.	5.)	ALL CONSTRUCTIO SPECIFICATIONS PR
evin phillips	8. 9.	UTILITY LINES OR OTHER LINES SHALL BE PLACED EITHER AROUND, UNDER OR OVER DRAINAGE CULVERTS AS SHOWN ON PLANS AGGREGATE SHOULDER STONE IS TO BE PLACED ON THE SHOULDER AT A THICKNESS EQUAL TO 6" OR ITS ORIGINAL THICKNESS WHICHEVER IS GREATER. PAVED	6.) 7.)	CONTRACTOR SHAL PRIOR TO CONNECT
USER: k	10.	SHOULDERS WILL BE PAVED. MAGNETIC MARKING TAPE SHALL BE INSTALLED AT A DEPTH OF 12" TO 18" BELOW THE SURFACE AND DIRECTLY ABOVE ALL LINES OR PIPE. REPAIR TO DRIVEWAYS ON W V D O H RIGHT OF WAYS SHALL CONFORM TO THE	7.)	ANY KOAD WAYS NO ARE DAMAGED BY 1 EXPENSE.
: INDEX	11.	APPROPRIATE W.V.D.O.H. TYPICAL REPAIR DETAIL. CLEANUP WILL BE ACCOMPLISHED DAILY. RIGHT OF WAYS SHALL CONFORM TO THE APPROPRIATE W.V.D.O.H. REPAIR. ALL CULVERTS AND DRAINAGE DITCHES SHALL BE OPEN AND MAINTAINED DURING CONSTRUCTION. SHOULDERS WILL BE RESTORED AND		
ГЛОЛ	13.	STABILIZED WITH STONE DAILY WITH APPROPRIATE STONE AT THE DISCRETION OF W.V.D.O.H. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITHIN SEVEN DAYS OF COMPLETION OF BACK FILL OPERATION.		COVER COVEL
46 PM	14. 15.	NO EXCESS EXCAVATION MATERIAL SHALL BE WASTED ON W.V.D.O.H. RIGHT OF WAYS WITHOUT THE AGREEMENT OF THE W.V.D.O.H. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING UTILITY COMPANIES, PRIOR TO CONSTRUCTION TO OBTAIN UTILITY LOCATIONS AND PERFORMING EXPLORATORY		INDEX INDEX L SHEET 1 PLANA
24/2023 1:4	16.	WORK TO DETERMINE SUBSURFACE MATERIALS AND STRUCTURES THAT MAY AFFECT ITS WORK. PRIOR TO THE START OF ANY WORK WITHIN STATE HIGHWAY RIGHT-OF-WAY, THE CONTRACTOR SHALL CIVE THE WEST VIRCINIA DEPARTMENT OF TRANSPORTATION 48		1APROFIL2PLAN A3PLAN A3APROFIL
E/TIME: 7/	17.	HOURS NOTICE. THE CONTRACTOR IS RESPONSIBLE FOR ANY OFFSITE DISPOSAL REQUIRED. DISPOSAL SHALL BE TO AN ACCEPTABLE LEGAL SITE CONTRACTOR IS RESPONSIBLE FOR EROSION		4PLAN #5PLAN #5APROFI6PLAN #
РLОТ DAT	18. 19.	ALL ELEVATION GRADES AND DISTANCES SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE PRIOR TO CONSTRUCTION ALL CONSTRUCTION SHALL MAINTAIN 5' FROM EDGE OF PAVEMENT OR BOTTOM OF		7PLAN A8PLAN A8APROFIL9PLAN A
þwþ	20. 21.	DITCH UNLESS NO OTHER PRACTICAL MEANS OF CONSTRUCTION EXISTS. PERFORM ACCEPTABLE REPAIR OF ANY AND ALL SUB-BASE FAILURES THAT ARE CAUSED BY THE CONTRACTOR'S OPERATION ON A DAILY BASIS. PERFORM TOTAL REPAIR AND/OR REPLACEMENT OF ANY DAMAGED ASPHALT SURFACE		10 PLAN # 10A PROFID 11 PLAN # 12 PLAN #
-001-Index.	22.	AS DETERMINED BY THE W.V.D.O.H REPRESENTATIVE. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL MAKE A COMPLETE VIDEO SHOWING THE ROAD SURFACE OF THE ENTIRE PROJECT OF ROADS TO BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT AND PRESENT IT TO UTILITY SUPERVISOR		13 PLAN # 14 PLAN # 15 PLAN # 154 PROFU
2 South\C4	23. 24.	W.V.D.O.H. REMOVE DITCH-LINE OBSTACLES AND/OR RECONSTRUCTION OF THE DITCH-LINE. IN THE CASE OF MANHOLES OR VALVES IF AT ALL POSSIBLE BE PLACED OUTSIDE THE ROADWAY, SHOULDER, OR DITCH LINE IF PLACED IN THE SHOULDER THERE IS TO BE A		13AFROFIL16PLAN A16APROFIL17PLAN A18PLAN A
4 - Route	25.	MINIMUM OF 6 INCHES OF COVER IN THE DITCH LINE THERE IS TO BE 12 INCHES OF COVER BETWEEN THE MANHOLE AND THE INVERT OF THE OF THE DITCH. ANY MANHOLES OR VALVES OR VALVE BOXES PLACED IN THE ROADWAY WILL BE ON THE SAME PLANE AS THE DOADWAY AND SET ELUSID WITH DOADWAY		18 PLAN # 19 PLAN # 20 PLAN # 21 PLAN #
ıg∖Contract	26. 27.	ANY ROADS REQUIRING AN H.L.B.C. OVERLAY, FULL WIDTH OR PARTIAL, SHALL HAVE SHOULDER STONE FROM AN APPROVED SOURCE PLACED AS PER D.O.H. SPECIFICATIONS. THE DEPARTMENT OF HIGHWAYS REQUIRES THERE BE NO WORK WITHIN THE		22PLAN A22APROFIL23PLAN A23APROFIL
-Chas\Drawir		DEPARTMENT'S RIGHT-OF-WAY DURING SNOW AND ICE REMOVAL. THERE MAY BE EXCEPTIONS FOR EMERGENCY AND CASE BY CASE SITUATIONS WITH NOTIFICATION TO THE DEPARTMENT.		24 PLAN A
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92 Pea Ridg				
<u>,</u> 020\020—13		1 KMP 7/24/23 ADDENDUM #2 – ADDED DETAIL SHEET TO INDEX SHEET		
AD FILE: R: \	THE SOLE REPF OR I WRIT COP	INFORMATION CONTAINED HEREIN IS THE E PROPERTY OF THE THRASHER GROUP INC. RODUCTION OF THESE DOCUMENTS IN WHOLE IN PART, FOR ANY REASON WITHOUT PRIOR TEN PERMISSION, IS STRICTLY PROHIBITED. YRIGHT © 2022 THE THRASHER GROUP INC.		
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NO. BY DATE

DESCRIPTION

GENERAL NOTES

FILITIES GUTILITIES SHOWN ON PLANS WHERE EVIDENCE HAS BEEN FOUND OR BY LOCAL UTILITIES. EXACT DEPTH AND LOCATION OF UTILITY LINES N. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CROSSING TING MISS UTILITY AT 811 OR (1-800-245-4848) AND LOCAL UTILITY AS LISTED AND/OR NOT LISTED ON THIS SHEET.

CTOR TO LOCATE WATER AND UTILITY SERVICES BEFORE BORING AND

- PROPERTY TEMPORARY CONSTRUCTION EASEMENTS TO BE 25' (12.5' C OF CENTERLINE) PERMANENT RIGHT-OF-WAY TO BE 15' (7.5' EITHER TERLINE).
- ADWAYS CONSTRUCTION RIGHT-OF-WAY TO BE HELD TO THE NT OF HIGHWAYS RIGHT-OF-WAY AND STILL MAINTAIN A SAFE TRAFFIC ESS OTHERWISE SHOWN.
- **FY LINES SHOWN ON PLANS ARE APPROXIMATE LOCATION AND** ON SHOWN WAS TAKEN FROM TAX MAPS.
- SEWER SEPARATION
- NTAL SEPARATION 10' MIN.
- L SEPARATION 18" MIN.

NT OF AN ERROR WITH THE PLANS SEEMS APPARENT, THE MATTER AKEN UP WITH THE ENGINEER FOR CAREFUL REVIEW BEFORE G WITH CONSTRUCTION.

RUCTION SHALL CONFORM TO THE APPLICABLE STANDARDS AND IONS PROVIDED IN A SEPARATE BOUND VOLUME.

DR SHALL FIELD VERIFY EXISTING PIPE TYPES AND OUTSIDE DIAMETER ONNECTION.

WAYS NOT SCHEDULED FOR REPAIRS AS SHOWN ON BID SCHEDULE AND ED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS

EROSION & SEDIMENT CONTROL NOTES

- 1. ALL EROSION AND SEDIMENT MEASURES TO BE IN ACCORDANCE WITH WEST VIRGINIA ONLINE BMP MANUAL FOR STANDARD GUIDELINES AND **SPECIFICATIONS AVAILABLE AT:**
- HTTP://WWW.DEP.WV.GOV/WWE/PROGRAMS/STORMWATER/CSW/PAGES/ESC BMP.ASPX 2. EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN SHOWN ON PLANS AND DETAILED IN **SPECIFICATIONS.**
- **3.** DISTURBED AREA TO BE STABILIZED WITH TEMPORARY AND FINAL SEEDING AS DESCRIBED IN SPECIFICATIONS.
- WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN **ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD** THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE FOURTH DAY AFTER **CONSTRUCTION ACTIVITIES HAVE TEMPORARILY** CEASED. AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL **VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RESEEDED IMMEDIATELY, OR A SOON AS WEATHER CONDITIONS ALLOW. INSPECTION FREQUENCY 4 DAYS &** WITHIN 24 HOURS OF PRECIPITATION EVENT 0.25" OR **GREATER.**
- 5. **TEMPORARY CONSTRUCTION RIGHT OF WAY LINE REPRESENTS LIMITS OF DISTURBANCE.**
- WHERE PLANS DEPICT SEWER ALIGNMENT AS A SINGLE 6. LINE, THE LOD IS ASSUMED TO BE 10-FEET WIDE.
- **STORMWATER INLETS & DRAINS MUST BE PROTECTED** 7. WITH APPROPRIATE BMP'S.
- 8. IN AREAS WHERE STORMWATER DRAINAGE WILL NOT FLOW INTO DESIGNATED ROAD SIDE DITCH, PERIMETER **BMP'S MUST BE INSTALLED DOWN SLOPE OF** DISTURBANCE.
- 9. ALL BORE PITS OUTSIDE OF CONCRETE OR ASPHALT SURFACES SHALL HAVE BELTED SILT RETENTION FENCE. REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEETS.

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JONATHAN C. CARPENTER, P.E. NO. 15425 DATE

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	LEGEND
σ	EXISTING SIGN
-0-	EXISTING TELEPHONE/ELECTRIC POLE
	EXISTING GUARDRAIL
A	EXISTING FIRE HYDRANT
WM ())	EXISTING WATER METER WITH EXISTING SERVICE LINE
S S	EXISTING SEPTIC TANK
S S S	EXISTING GRAVITY SEWER
W W W	EXISTING WATER LINE
G	EXISTING GAS LINE
XXX	EXISTING FENCE
	EXISTING STREAM/DITCHES/PONDS
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	EXISTING TREE LINE
1660	EXISTING CONTOUR
RESIDENCE	RESIDENCE TO RECEIVE NEW SERVICE
	EXISTING PAVED/CONCRETE ROAD AND DRIVEWAYS
======	EXISTING GRAVEL ROAD
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F.F.E. 1652.2	EXISTING BASEMENT FINISHED FLOOR ELEVATION
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$5-95.2$ \downarrow	PARCEL NUMBERPROPOSED WATER LINEPROPOSED WATER METER WITH NEW SERVICE LINEPROPOSED AIR RELEASE VALVEPROPOSED FIRE HYDRANTPROPOSED POST FLUSHING HYDRANTPROPOSED BORE PITPROPOSED LOW PRESSURE METER SERVICEPROPOSED LOW PRESSURE METER SERVICEPROPOSED CASINGSPROPOSED PERMANENT RIGHT OF WAYPROPOSED TEMPORARY CONSTRUCTION EASEMENT/LODPROPOSED BELTED SILT RETENTION FENCEPROPOSED BELTED SILT RETENTION FENCEPROPOSED USER NUMBERPROPOSED GRAVITY SEWERPROPOSED GRAVITY MANHOLEPROPOSED GRAVITY CLEANOUTPROPOSED FORCEMAIN AIR/VACRELEASE VALVEPROPOSED FORCEMAIN AIR/VACRELEASE VALVEPROPOSED FORCEMAIN AIR/VACRELEASE VALVEPROPOSED FORCEMAIN PRESSUREINLINE CLEANOUTPROPOSED UNDERGROUND ELECTRIC
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UTILITY AGENCIES SERVING PROJECT AREA

TELEPHONE **COMCAST/XFINITY** 51 6TH AVENUE, W HUNTINGTON, WV 25701 1-888-266-2278

WATER WET VIRGINIA **AMERICAN WATER** 1-888-685-8660

MISS UTILITY 811 OR (1-800-245-4848)

ELECTRIC **APPALACHIAN POWER** 1-800-956-4237

GAS: **MOUNTAINEER GAS COMPANY 2401 SISSONVILLE DRIVE** CHARLESTON, WV 25387 1-800-834-2070

SEWER PEA RIDGE PSD **500 NOVA STREET** HUNTINGTON, WV 25701 1-304-736-6711

WEST VIRGINIA DIVISION **OF HIGHWAYS** DISTRICT TWO **801 MADISON AVENUE** HUNTINGTON, WV 25712 1-304-558-5630

RESPONSE TEAMS NATIONAL RESPONSE CENTER FOR REPORTING **CHEMICAL OR OIL SPILLS** 1-800-424-8802 STATE EMERGENCY SPILL **NOTIFICATION** 1-800-642-3074 AMBULANCE, FIRE, LAW **ENFORCEMENT**

ADDEND	
PEA RIDGE PUBLIC SERVICE DISTRICT	SHEET No.
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APPROVED: J. CARPENTER	DATE: AUGUST 2022				
SURVEY DATE:			CHARLESTON WV 25311		
SURVEY BY:			www.thrashereng.com	FAY	PROJE
FIELD BOOK No.:		(304)-343-7601	-	(304)-343-7604	020-

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