UNIONCOUNTY
north carolina

Invitation for Bid No. 2024-046

Project SW111 - Crooked Creek Interceptor Improvements Phase 2

ADDENDUM No. 02

ISSUE DATE: January 3, 2024

Responding Offerors on this project are hereby notified that this Addendum shall be made a part of the above named IFB document.

The following items add to, modify, and/or clarify the IFB documents and shall have the full force and effect of the original Documents. This Addendum shall be acknowledged by the Offeror in the IFB document.

ADDENDUM

January 3, 2024

Reference: Project Name: SW111 - Crooked Creek Interceptor Improvements Phase 2
Project Location: Union County NC
Invitation for Bid No.: 2024-046
Package Description: Bidding Documents

Addendum No. **Description**
No. 02 Clarifications and Additional Information

This Addendum provides additional or revised documents and/or clarifications to the original RFP as indicated below. This Addendum forms a part of the Bid Documents and modifies the original Bid Documents and previously issued Addenda. Please review this Addendum and any attachments referenced herein and incorporate them into your Bid.

1. **RFI:** Do you have any flows on 8", 10" 12" sanitary sewer sidelines?

   Response: See updated, attached specification 33 01 30.50 Sewer Bypassing and Dewatering, which includes a map and additional details of the estimated sewer flows. The Contractor is responsible for obtaining current flow condition information at the time of construction. The Owner is not responsible for any deviations in quantity of sewage flow at any time during the construction period. Higher flows may be encountered depending on weather and other upstream conditions.

2. **RFI:** The mainline we will bypass has 8", 12", 15", 18", 21" lines, trying to determine what flow you want us to bypass on each size line because the specs say the flow is listed as 1.6 average daily flow and peak flow of 7.5 MGD. What flow is that 7.5 MGD based on, out of MH33129, after the 21" and 18" SS lines have combined into the outgoing 30" SS line?

   Response: See response to question #1.

3. **RFI:** Will you require 24-7 pump watch, or can contractor use a remote auto dialer?

   Response: Bidders should use technical specifications in Project Manual in preparing bids. Alternative forms of system monitoring may be considered in the submittal process, including cost savings for the Owner.

4. **RFI:** For lines with flow greater than 2.5 MGD pipe we must use fused pipe. For example, if flow was 2 MGD our bypass would need to be rated for the pumps and pipe to handle 5 MGD with a backup pump. It also calls for 2 discharge line, I assume each line needs to be able to carry the 5 MGD, you don't want that flow split between the 2 discharge lines?

   Response: The criterion listed in Section 33 01 35.50 refer to the peak flow used for design. Regarding the need for a spare pipeline, refer to Section 30 01 35.50 Subsection 2.01 C(b). The specification calls for multiple discharge lines and a spare pipeline sized for the largest pipe in the bypass setup.

5. **RFI:** There are multiple power poles and guy wires in conflict with the proposed sewer alignment. Has contact been made with Duke Power or Union Power to discuss temporary relocating or supporting their infrastructure for the sewer installation? Can an allowance be added to the bid sheet for this work? Will additional time be added to the contract if there are delays from utility relocations?

   Response: Power utility has been contacted and made aware of project but no details on permanent or temporary utility relocation have been established. See additions to the bidding documents described below. With regards to additional time, refer to the General Conditions.

   Via this addendum, add the following items to the Project Manual:

   - Replace the bid tab under Article 5 – Basis of Bid with the revised attached, which includes the addition of an allowance for electrical utility pole relocation, new item 52.
   - Add the following text to Section 01 12 50 Measurement and payment:

     "1.29 Utility Pole Relocation Allowance

A. MEASUREMENT

This bid item is an allowance to provide payment for resolution of utility pole relocations (temporary or permanent) needed to complete the work. The Contractor shall be responsible for coordination with utility owner and payment of any fees or relocation costs. This item will not be used for other utility relocations included in the Work.

B. PAYMENT

This allowance will be paid based on actual costs for relocation, as determined by invoices/receipts from the relevant utility. Proposed costs for relocation must be approved in writing before proceeding with work."

6. **RFI:** The bid sheet only has 5SY of asphalt. There is an open cut roadway crossing and numerous asphalt parking lots. Please update the quantity and provide a cross section of the pavement for the businesses' parking lots. It appears the cross section on the plans with 100% flowable fill backfill is for the roadway open cut crossing? Please consider adding a milling and resurfacing item to repair pavement outside of the trench but within the easement or clarify where these costs should be included.

   Response: Yes, flowable fill is required as shown. The asphalt paving line item is intended only for new paved areas as indicated on the drawings. Per 01 12 50 Measurement and Payment Subsection 1.21, there will be no additional payment for restoration of existing areas to preconstruction condition – see response to question #7 for additional information.

7. **RFI:** There are a couple of concrete driveways/parking lots and also concrete sidewalks that will need to be removed and replaced. Please state how this work will be paid and please provide a cross section.

   Response: Refer to Section 01 73 29 Cutting and Patching of the restoration of roads, streets, and other paved areas. This work should be included in the unit costs for the casing pipe and/or gravity sewer as applicable.

   Via this addendum, the following change should be made to 01 12 50 Measurement and Payment

   "Subsection 1.11 B 1: add "restoration of streets, roads, paving or other existing improvements" in the last sentence following "…spiders for pipe casing,."

   Via this addendum, the following change should be made to 01 12 50 Measurement and Payment

   "Subsection 1.16 A 1: add "of streets, roads, paving or other existing improvements" in the second sentence following "…restoration,."

8. **RFI:** Should the restoration of all the gravel parking lots be included in the cost of the pipe? What cross section should be used for gravel parking lot repairs?

   Response: See response to RFI #7. For pricing, assume 8 inches of compacted ABC gravel over a subgrade, compacted to 95% of modified proctor, with a 16 oz. bi-axial fabric woven polyester geotextile between the gravel and sub-base.

9. **RFI:** Can an item for select fill be added to be used under the parking lots/etc?

   Response: No. See response to RFI #7.

10. **RFI:** There appear to be pedestrian bridges within the alignment. Can you provide a detail for the bridges to be rebuilt? Will they need to be ADA compliant?

    Response: Review Keynote 5 on sheet C-302 that addresses the greenway culvert crossing and Keynote 12 on sheet C-307 that addresses the cart path. See response to RFI #7.

11. **RFI:** Can you provide the type of pipe for the existing sewer?

    Response: See General Note #2 on plan sheet C-001.

12. **RFI:** Was a ground survey performed for the proposed sewer and easements?

    Response: Survey performed by LDSI on February 26, 2021. See General Note #2 on sheet C-002.

13. **RFI:** Can you provide the wall thickness of the tank adjacent to the proposed sewer in the WRF facility?

Response: Will attempt to provide this information prior to bid openning.

14. **RFI:** On the bid sheet, the contingency allowance is (10% of item 46), Should this be 10% of item 47?

    Response: Correct, this has been updated, the contingency allowance should be 10% of Item 47. See updated bid form per response to question #5.

15. **RFI:** Was the elevation and alignment of the existing casing near station 136+00 installed by others verified by a licensed surveyor?

    Response: Elevation from record drawings; refer to Keynote 10 on C315. Elevation and alignment has not been surveyed beyond the information provided in the record drawings. Contractor to verify existing utilities.

16. **RFI**: Can an allowance be added for the preblast surveys?

    Response: No, preblast surveys should be included in Rock Excavation.

17. **RFI**: Will the wait period for sewer pipe and manhole testing be waived in order to make connections to the existing line and turn the flow to the new line?

    Response: No. However, testing may be staged so that sections of pipe can be tested, approved and activated in stages. This needs to be planned by the Contractor and included in the project schedule.

18. **RFI:** Please confirm that the casing installations are guaranteed?

    Response: The contractor is responsible for installation of the casing and carrier pipes. Payment for these items will be as described in 01 12 50 Measurement and Payment. Note that no additional payment will be made to address obstructions or voids encountered in the installation of the casing as described in Section 33 05 23.16 Subsection 3.02. The details and design of the jacked pipe installation shall be prepared as described in Section 33 05 23.16 Subsection 1.02. Also, per Section 01 12 50, no additional payment will be made for failed bores or associated work for abandonment.

    Via this addendum, make the following change to Section 01 12 50 Measurement and Payment Subsection 1.06 A: Change "…installing the casing as specific in Section 33 05 07.24 …" to " To "…installing the casing as specified in the Section 33 05 07.24 Casing Pipe and Section 33 05 23.16 Bored and Jacked Pipe Installation…"

    Via this addendum change the specification reference in Table for Contents for Casing Pipe from to "33 05 04.24" to "33 05 07.24."

19. **RFI:** Section 33 05 07.24, is PVC acceptable as the carrier pipe in road crossings?

    Response: Yes, PVC carrier pipe at roadways is acceptable.

20. **RFI:** Are there special provisions for any of the parcels? Have the businesses been informed about the loss of space and/or access to parts of their property? In some cases loading docks for deliveries may be blocked by the sewer installation? Will any of the businesses require temporary fencing? Is the pet crematorium aware that they will be unable to use their concrete driveway for an extended period of time?

    Response: Specific special provisions are shown on the drawings; for example see Keynote 10 on sheet C304 and C305. However, contractor shall maintain access to businesses and private property throughout construction.

21. **RFI:** Has CCTV been performed to identify a quantity and approximate location of existing sewer laterals? Does a cleanout need to be added at the edge of the easement for each lateral, then they can be connected after each section is tested and activated? It is our understanding that laterals on larger sewer lines are required to be installed into manholes. Will manholes be added to accommodate this? If so, please adjust the manhole quantity on the bid sheet. In general, please consider adding a line item for sewer laterals and please clarify if they need to be in a manhole, a tee, or a saddle, and if they need a new cleanout or clarify the quantity.

    Response: A bid line item has been added for lateral replacement to the bid tab in the event lateral replacement is needed. It should be assumed that all laterals will connect back to a manhole. Add the following text to Section 01 12 50 Measurement and payment:

    "1.30 Lateral Relocation/Replacement

A. MEASUREMENT

This bid item is an allowance to provide payment for replacement or repair of sewer laterals, if needed, to provide service connections. This work will include all labor and materials needed for the installation of the new lateral as well as any temporary facilities needed to ensure sewer service for the customer per the Project Manual. This will also include all costs for restoration of paving or other improvements to pre-construction conditions. This item will not be used for other utility relocations included in the Work.

B. PAYMENT

This allowance will be paid based on the provided unit costs and final installed length."

22. **RFI:** What is the engineer's estimate for this project?
Response: $16,200,000

23. **RFI:** Due to funding source for the project, are there any "Buy American" clauses for this project?
Response: No.

24. **RFI:** Quantities for carrier pipe bid items 4, 8, and 11 appear to be underestimated.
Response: See attached updated Section C-410 Bid Form for revised quantities for items 4, 8, and 11.

25. **RFI:** Bid item 49, contingency allowance, dictates a value of 10% of item 46. Please confirm the intention is to be 10% of item 47 instead.
Response: See response to question #14.

26. **RFI:** Measurement and payment dictates 2/3 of mobilization is due at beginning of project, and 1/3 at end of project. Is this firm? Or can all be collected at start of project as is typically allowed on contracts?
Response: No this cannot all be collected at the start of the project. The latter 34% of the line item is for demobilization.

27. **RFI:** For the manhole base items 15, 17, and 19, please confirm payable heights include the base structure itself. For example, for item 15, a theoretical 6' diameter manhole totaling 20 VF (5 VF base and 15 VF riser) would be payable 1 base and 8 additional VF. And not payable only 1 base and 5 additional VF.
Response: Refer to manhole base and associated bid item descriptions in 01 12 50 Measurement and Payment.

28. **RFI:** 2:1 limits of SR-1008 are not shown on plans. Do any of the bore pits for items 33 or 34 fall within the theoretical 2:1, and thus require active shoring?
Response: Yes, active shoring is anticipated at this location.

29. **RFI:** General note 3 on the plans states that all shoring is to be submitted to engineer for review/approval. Please confirm if this is the case, as that is atypical for standard excavation practices and can be considered contractor means and methods. Such practice is typically reserved for only deep or extreme shoring circumstances.
Response: Refer to Specification 31 41 00 Shoring for specific submittal requirements.

30. **RFI:** Are the jack and bores guaranteed?
Response: See response to RFI #18.

31. **RFI:** Is HUB the only allowable certifying agency of MSWBE firms with regards to project participation? Or would other similar agencies, such as City of Charlotte CBI program, be acceptable as well?
Response: Minority firms must be certified by HUB.

32. **RFI:** Is preconstruction photography/videography required to be submitted to engineer for entire route? Even the majority of alignment that falls within a wooded outfall area?
Response: Yes, in accordance with specification 01 32 33 in the Project Manual.

33. **RFI:** Are all newly installed manholes required to be vacuum-tested? Would a lesser, representative percentage be allowed?

    Response: Yes, all manholes must be tested.

34. **RFI:** Please confirm that existing adjacent sewer trunk line is to be abandoned in place, and not removed/demolished.

    Response: Keybote 5 on sheet C-306 and Keynote 14 on sheet C-311 are examples of specific abandonment conditions. Review keynotes on proposed plan sheets.

    Via this addendum add general note 17 to C-001: "17. Unless otherwise specified in the construction documents, existing sewers shall be abandoned in place in accordance with NCDOT standards when within NCDOT Right-Of-Way and in accordance with Union County Public Work standards and specifications in other areas."

35. **RFI:** Detail I on C-803 calls for Restrained Joint PVC through casings. My supplier is saying they do not make factory-restrained PVC. So restraint would have to be accomplished via a bell-joint clamp at each joint. Please confirm if this is acceptable.

    Response: Push on or fused pipe is preferred restraint. If mechanical coupling is used, the assembled fitting must fit within the casing pipe diamter.

36. **RFI:** I am reaching out with a question pertaining to the PVC pipe specifications on the project.

    2.02 PIPE

    A. Pipe shall conform to the requirements of ASTM D 3034 - Type PSM PVC Sewer Pipe and Fittings, standard dimension ratio (SDR) 26 or ASTM F 679 - PVC Large-Diameter Plastic Gravity Sewer Pipe and Fittings, PS 46.

    Is PS46 is required on the 18" and larger pipe, and SDR26 is required on the smaller diameter pipe. Can you confirm?

    Response: Materials must meet the standards referenced.

37. **RFI:** Would the owner allow fiberglass pipe to bid on this project?

    Response: Fiberglass pipe will not be approved as an equivalent.

38. **RFI:** Please note on page C-310 from Station 86+00 to 96+00 should measure to an even 1,000 LF but is measuring at 1,016 LF. There seems to be an issue between station 204+00 to 90+50 where it is adding in an additional 16LF. Please advise.

    Response: There are station notes at MHs 1048 and 1050 on sheet C-310 indicating stationing changes. 1,016 LF is correct.

39. **RFI:** Please confirm only bypass location required is at Sta 1+50 to 4+20.

    Response: The Contractor is responsible for developing the bypass plan in accordance with the requirements in Specification 33 01 30.50.

40. **RFI:** Please advise where restoration costs are to be included in bid items.

    Response: See response to question #7.

41. **RFI:** Where does asphalt restoration go when cutting through parking lots/driveways.

    Response: See response to question #7.

42. RFI: Please advise for any relocation of tension wires/poles if the town can include an allowance bid item for this work.

    Response: See response to question #5.

43. **RFI:** Please advise what type of restoration is required at any wood/wetlands clearing. Is it just soil and seed?

Response: Seed mixes and restoration notes are on sheets C-120 and C-121.

44. **RFI:** Please confirm the project material type for the gravity sewer falls under class C and therefore the subsequent backfill material can be existing excavated material per the detail.

    Response: Native excavated materials that meet the specification, may be used for subsequent backfill. Initial backfill must be per specification.

    Via this addendum make the following change to sheet C806: Delete detail "08A Sewer Bedding."

    Via this addendum make the following change to Detail J Typical Trench Section on Sheet C803: Change Revise call out "Initial Backfill, See Note 2" to "Initial Backfill See Note 1."

45. **RFI:** Bid Item 49 on the Crooked Creek Interceptor Improvements Phase 2 project states that the Contingency Allowance will be 10% of Bid Item 46. Shouldn't this be 10% of Bid Item 47?

    Response: See response to question #14.

46. **RFI:** On the Article 7 - "Attachments to this bid Sheet"...B and C, List proposed subcontractors and suppliers, there is no separate form for those two to attach, do we just put those in a Word Documents and attach those to the other bid documents?

    Response: Yes.

47. **RFI:** Are their any Domestic material requirements this ARPA funded project?

    Response: No.

48. **RFI:** Bid items 1-3 and 5-7 specify 30" and 24" PVC installed by open cut. Can 30" and 24" Vylon PS115 Gravity Sewer, per ASTM F 1803 be approved as an equal to the specified PVC?

    Response: Vylon will not be approved as an equivalent.

49. **RFI:** I came across the Crooked Creek Interceptor Improvements Phase 2 project and checking to see if Union County would consider FRP on this project. Our FRP pipe has been used throughout North Carolina on multiple larger sewer interceptor projects. TPG-FRP is very competitive with PVC in the 18"-30" size. We can also provide a restraint joint.

    Response: FRP will not be approved as an equivalent.

The Bid Due Date **has not** been revised with Addendum No. 2 and Bids are due on **January 9, 2023 by 2:00 pm EST**.

All other terms and conditions of the original RFP remain unchanged. If there are any questions regarding the Bid Set and/or this Addendum, please contact Vicky Watts at vicky.watts@unioncountync.gov. All information herein shall be made part of any Agreement resulting from the RFP.

Sincerely,

Brown and Caldwell

Ryan F. LeBlanc, P.E.
Project Manager

Attachments:

- Section C-410 Bid Form, Revised January 3, 2024
- Specification 33 01 30.50 Sewer Bypass and Dewatering, Revised January 3, 2024

BID FORM

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

UNION COUNTY
Attention: Vicky Watts
Procurement Department
500 N. Main Street, Suite 709
Monroe, NC 28112

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 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

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 following Addenda:

Addendum No.	**Addendum, Date**

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. 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 any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. 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.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and 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 CERTIFICATION

4.01 Bidder certifies that:

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; and

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 any thing 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; and

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 e 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):

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	30” PVC Gravity Sewer, 0-12’ Cut	LF	1743		
2	30” PVC Gravity Sewer, 12-18’ Cut	LF	3134		
3	30” PVC Gravity Sewer, 18-24’ Cut	LF	603		
4	30” PVC Gravity Sewer, Inside 42” Steel Casing	LF	497		
5	24” PVC Gravity Sewer, 0-12’ Cut	LF	3562		
6	24” PVC Gravity Sewer, 12-18’ Cut	LF	2192		
7	24” PVC Gravity Sewer, 18-24’ Cut	LF	26		
8	24” PVC Gravity Sewer, Inside Steel Casing	LF	723		
9	18” PVC Gravity Sewer, 0-12’ Cut	LF	1431		
10	18” DIP Gravity Sewer, 0-12’ Cut	LF	293		
11	18” PVC Gravity Sewer, Inside Steel Casing	LF	242		
12	12” PVC Gravity Sewer, 0-14’ Cut	LF	138		
13	10” PVC Gravity Sewer, 0-14’ Cut	LF	98		
14	8” PVC Gravity Sewer, 0-12’ Cut	LF	93		
15	6’ Diameter Pre-Cast Manhole Base (base and 12’ of manhole riser)	EA	6		
16	6’ Diameter Pre-Cast Manhole Riser	VF	28		
17	5’ Diameter Pre-Cast Manhole Base (base and 10’ of manhole riser)	EA	29		
18	5’ Diameter Pre-Cast Manhole Riser	VF	151		
19	4’ Diameter Pre-Cast Manhole Base (base and 6’ of manhole riser)	EA	29		
20	4’ Diameter Pre-Cast Manhole Riser	VF	249		
21	Manhole MH 1015	EA	1		
22	8” Outside Drop	EA	2		
23	10” Outside Drop	EA	4		
24	12” Outside Drop	EA	4		
25	42” Steel Casing Jack and Bore (STA 24+77 through 25+57)	LF	80		
26	42” Steel Casing Jack and Bore (STA 35+00 through 36+70)	LF	172		
27	42” Steel Casing Jack and Bore (STA 57+67 through 59+35)	LF	168		
28	42” Steel Casing Jack and Bore (STA 59+67 through 60+44)	LF	77		
29	36” Steel Casing Jack and Bore (STA 72+56 through 73+32)	LF	76		
30	36” Steel Casing Jack and Bore (STA 86+60 through 87+44)	LF	85		

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
31	36" Steel Casing Jack and Bore (STA 93+12 through 94+89)	LF	177		
32	36" Steel Casing Jack and Bore (STA 117+78 through 119+50)	LF	172		
33	36" Steel Casing Jack and Bore (STA 121+19 through 122+61)	LF	143		
34	36" Steel Casing Jack and Bore (STA 122+95 through 123+65)	LF	70		
35	36" Steel Casing Jack and Bore (STA 130+05 through 131+37)	LF	131		
36	36" Steel Casing Jack and Bore (STA 132+86 through 133+97)	LF	111		
37	10" Force Main Connection at MH 1082, STA 143+29	LS	1		
38	High Performance Protective Coatings for Manholes	EA	5		
39	Erosion and Sediment Control	LS	1		
40	Bypass Pumping	LS	1		
41	Anti-Seep Collars	EA	25		
42	Asphalt Paving	SY	50		
43	Rock Excavation and Removal	CY	15500		
44	Trench Stabilization	TN	15600		
45	Traffic Control and Construction Area Signage	LS	1		
46	Clearing and Grubbing	LS	1		
47	Lateral Relocation/Replacement	LF	500		
48	Sub-total of Items 1-47			$	
49	Mobilization/Demobilization Allowance (5% of Item 48)			$	
50	Contingency Allowance (10% of Item 48)			$	
51	Soils and Materials Testing Allowance				$ 20,000.00
52	Blasting Monitoring Allowance				$ 20,000.00
53	Utility Pole Relocation Allowance				$ 150,000.00
54	Total Bid (Total of Items 48-53)			$	

Total Bid (Total of Items 48-53 in Words):

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.

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 14.07 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

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

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;

B. List of Proposed Subcontractors;

C. List of Proposed Suppliers;

D. List of Project References;

E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;

F. Contractor's License No.: _____ **[or]** Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;

G. Required Bidder Qualification Statement with supporting data;

H. Non-Collusion Affidavit;

I. Minority Participation Forms:

1. Identification of Minority Participation Form;

2. Affidavit A or B; and

J. Appendix A, 31 C. F. R. Part 21 – Certification Regarding Lobbying.

ARTICLE 8 – DEFINED TERMS

8.01 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 9 – BID SUBMITTAL

BIDDER:

_____

By:
Signature _____

Printed name _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
Signature _____

Printed name _____

Title: _____

Submittal Date: _____

Address for giving notices:

_____

_____

_____

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

_____

Bidder's License No.: _____
(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

SECTION 33 01 30.50

SEWER BYPASSING AND DEWATERING

PART 1 GENERAL

1.01 DESCRIPTION

A. Scope: This section describes the existing conditions for temporary bypassing and dewatering of sewers during the removal of existing sanitary sewer facilities and the construction of new sewer mains and structures.

B. Requirements:

1. Contractor shall provide labor, materials, and supervision to temporarily bypass flow around the Contractor's work in accordance with the specific needs of the rehabilitation method being utilized and dewater the pipelines in preparation for cleaning and rehabilitation. All references to the bypass pumping and/or bypass pumping system include, but are not limited to, all pumps, piping, valves and other equipment needed to move the intended flow from one location to another.
2. The actual design of the bypass arrangement and alignment shall be prepared by the Contractor, and shall be submitted to the Engineer to determine conformance to project objectives. Means and methods of accomplishing the bypassing shall be the responsibility of the Contractor.
3. Sanitary sewer mains shall remain in service at all times throughout the duration of the project. Contractor shall be responsible for diverting flow away from the limits of construction through the use of bypass pumping or flow diversions with prior written approval by the Engineer.
4. Service to laterals shall be disrupted for a period of no more than 8 hours. Laterals within residential areas shall only be out of service between the hours of 8:00 am to 5:00 pm, Monday through Friday. Laterals within business areas shall be addressed on a case by case basis. If Contractor feels that it is necessary to disrupt lateral services for a period longer than 8 hours, Contractor shall provide alternate means of service without disrupting use of the service by the owner/resident.
5. Contractor shall maintain pedestrian and vehicular traffic and comply with ADA regulations for access to all residential and commercial property unless written approval is otherwise obtained from the property owner allowing for reduced access.
6. It is the Contractor's responsibility to arrange all necessary access and temporary construction agreements with all affected parties for the location of the bypass pumping system.
7. The bypass pumping system shall be designed to normally maintain the wastewater flow below the top of the pipe, without surcharging.
8. The Contractor shall have the complete bypassing system in place and successfully pressure tested at 1.5 times the maximum operating pressure of the system before bypassing any sewage.
9. The Contractor shall notify the Engineer 48 hours prior to shutting down or bypassing the pipeline.
10. The bypassed flow shall be continuously monitored.
11. Contractor is responsible for immediate and proper cleanup should any spill occur, regardless of amount.

C. Experience: Contractor shall utilize staff and/or a subcontractor that has been directly responsible for completion of a CIPP project that required the bypass pumping of sewage flows in excess of (insert project upper limit) mgd.

1.02 SUBMITTALS

A. At the Preconstruction Conference the Contractor shall submit, in accordance with Section 01 33 00, drawings and complete design data showing methods and equipment he proposes to utilize in sewer bypassing for approval by the Engineer. The submittal shall include the following information:
   1. Drawings indicating the scheme and location of temporary sewer plugs and bypass discharge lines. The drawings shall also show the method and location for discharging the bypass lines.
   2. Capacities of pumps, prime movers, and standby equipment.
   3. Design calculations proving adequacy of the system and selected equipment.
   4. Standby power source.
   5. Staffing plan.
   6. Show suction and discharge points with elevations & stationing on the design plans.
   7. Provide pump performance curves.
   8. Submit calculations to verify suction lift of pumps has not been exceeded.
   9. Contractor shall submit proposed noise control and exhaust control plans for pumping equipment.
   10. Contractor shall submit a proposed plan for disruption of sewer service laterals.
   11. Contractor shall submit bypass piping inspection plan.

B. The actual design of the bypass arrangement shall be prepared by the Contractor or Subcontractor performing the work, and shall be submitted to the Engineer to determine conformance to project objectives. The Contractor shall be responsible for any Subcontractors design (if used) on this Project. Means and methods of accomplishing the bypassing shall be the responsibility of the Contractor.

C. Approval of submitted plans for sewer connection and temporary rerouting shall in no way relieve the Contractor of their responsibility for the protection of adjacent properties, downstream drainage systems and water tributaries against sewage spill. Any litigation, claims, fines, etc. associated with any sewage spill shall be the responsibility of the Contractor.

1.03 JOB CONDITIONS

A. Available Flow Data:
   1. Available flow data for the sewers to be rehabilitated at the project site is located in Paragraph 3.01 of this section. Flow data for the service laterals is not available. The Contractor shall determine the flow in the service laterals.

B. Protection:
   1. In areas where flows are bypassed, all bypass flows shall be discharged as approved by the Engineer. No bypassing to the ground surface, receiving waters, storm drains, or bypassing which results in soil or groundwater contamination or any potential health hazards shall be permitted.

C. Scheduling:
   1. The bypassing system shall not be shut down between shifts, on holidays or weekends, or during work stoppages without written permission from the Engineer. The bypass system will have an attendant around the clock whose only duty is to maintain the bypass pumping system until the bypassing of that specific pipeline is no longer required.

PART 2 PRODUCTS

2.01 PUMPING SYSTEMS

A. Two different bypass pumping system criteria have been identified for this project. These criteria are identified below. Projects that are in environmentally sensitive areas or that have a high sewage flows will require one or more of these criteria as specified herein.

B. Criterion 1 - Bypass Pumping System with flows equal to or less than 2.5 MGD
   1. Contractor shall maintain on site, the following minimum requirements for all bypass pumping systems:
      a. Sufficient equipment and materials to ensure continuous and successful operation of the bypass and dewatering systems. The COMPLETE bypass system, including all piping, shall be continuously monitored by Contractor personnel.
      b. A system of pumps and piping operating on site to maintain a minimum 50% over capacity of the anticipated maximum flow (as determined by the Contractor). In addition, the Contractor shall have a standby pump, equal in capacity to the largest pump in the system, piped, plumbed and ready for operation. Standby pumps shall be fueled and operational at all times.
      c. The Contractor shall maintain on site a sufficient number of valves, tees, elbows, connections, tools, sewer plugs, piping, hoses and other parts of system hardware to ensure immediate repair or modification of any part of the system as necessary.

C. Criterion 2 - Bypass Pumping System with flows greater than 2.5 MGD
   1. In addition to the requirements identified under Criterion 1, Contractor shall design construct, operate and maintain the bypass system specified herein:
      a. All bypass piping shall be fused HDPE piping.
      b. The bypass piping system shall include multiple pipelines to convey 150% of the maximum anticipated flow (as determined by the Contractor). A minimum of one additional (spare) pipeline will be constructed and plumbed for immediate operation that is equal in diameter to the largest pipe size in use for the bypass setup. All other requirements shall be the same as identified under Criterion 1 of these specifications.

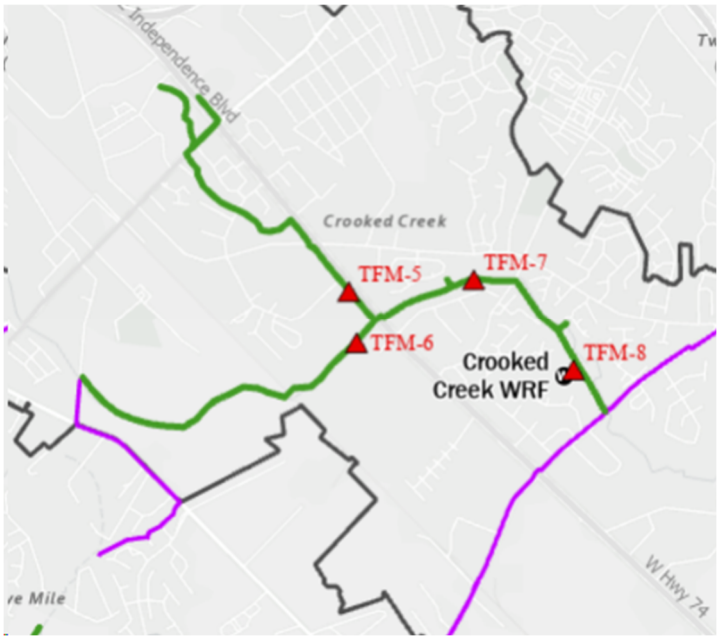
Project Name	Criterion
Crooked Creek Interceptor Improvements Phase 2	1 & 2

PART 3 EXECUTION

3.01 ESTIMATED FLOWS AND SEWER CAPACITY PROJECT PIPELINE

A. Flow Data

1. The following paragraph provides observed daily flow information for the project pipeline. The information was obtained from the data provided by Union County Public Works. For additional information contact Union County Public Works, during normal business hours. Use of this flow data in no way relieves the Contractor from his responsibilities for design, construction and operation of an adequate and properly functioning bypass system. Any additional monitoring or gathering of flow data is the responsibility of the Contractor.
2. The projected average daily and peak flows from the the year 2025 in the most recent Union County Wastewater Master Plan for the Project are presented below; note that the locations indicated on the map are from temporary flow monitors used in the development of the flows.



Map: Temporary Flow Monitor Location Map

Metered Average Day And Peak Hour Sewage Flows

Location	Average Daily Flow (mgd)	Peak Hour Flow (mgd)
TFM-5	0.38	1.62
TFM-6	0.52	2.93
TFM=7	1.04	4.78
TFM-8	1.61	7.49

Abbreviations: mgd – million gallons per day

B. Flow Conditions:
1. The Contractor is responsible for obtaining current flow condition information at the time of construction. The Owner is not responsible for any deviations in quantity of sewage flow at any time during the construction period. Higher flows may be encountered depending on weather and other upstream conditions.

3.02 INSPECTION

A. The Contractor shall inspect the entire bypass pumping and piping system for leaks for spills on an hourly basis. The Contractor shall also create an inspection log and shall enter the time of the inspections and the condition of the piping and the name of the inspector into the log for review by the Engineer.

3.03 DAMAGES

A. The Contractor shall repair, without cost to the owner, any damage that may result from his negligence, inadequate or improper installation, maintenance and operation of bypassing system, including mechanical or electrical failures.

END OF SECTION

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