Addendum 2
Kings Bluff Raw Water Transmission Main
August 16, 2019

BID DATE: Tuesday, August 27, 2019 at 11:00 AM (as originally advertised)

DEADLINE FOR QUESTIONS: TUESDAY, AUGUST 20, 2019 AT 3:00PM

Inquiries concerning the bid shall be directed to the CFPUA Purchasing Division by email to bids@cfpua.org. Deadline for questions is Tuesday, August 20, 2019 at 3:00PM. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. (00211-6.01)

TO ALL BIDDERS:

Below are changes and or clarifications to the bid documents for this project. This Addendum forms a part of the Contract Documents and modifies the original bidding documents as noted below. Acknowledge receipt of this Addendum as required in the bid documents. Failure to do so may subject Bidder to disqualification.

BID FORM REVISIONS:

1. A revised Bid Tab is attached. Bids must be submitted on the revised Bid Tab.

DRAWINGS:

Revised drawing C-50 is attached.

Revised "Typical Pipe Embedment Detail" Sheet D-5 is attached.

SPECIFICATIONS:

Section 01025 – Measurement and Payment

Remove:

Bid Item 22 – Restore Tennis Court

1) Measurement and payment shall be lump sum for the completed work. Price shall include all labor, equipment, materials, etc. as required to restore the tennis court indicated on plan sheet C-41. Line item shall include replacement of fencing, nets, net posts, benches, landscaping, paving, resurfacing, and all miscellaneous items impacted by construction.

Replace with:

Bid Item 22 – Removal of Tennis Court

1) Measurement and payment shall be lump sum for the completed work. Price shall include all labor, equipment, materials, etc. as required for complete removal of the existing tennis court, existing fence, netting, net post, benches, and light pole.

Existing ground shall be restored to match surrounding or existing grade.

Add:

Bid Item 7a – Additional Pile Lengths

1) Measurement and payment shall be per linear foot for the completed work. Work shall include additional pile lengths **including splices** in excess of that indicated based on net addition to total pile length as indicated on drawings and measured to nearest 12 inches.

Section 02458 – Steel H Piles – Remove section 1.3 in its entirety and replace with:

1.3 UNIT PRICES

A. Contract Sum: Base Contract Sum on number and dimensions of piles indicated from tip to cutoff, plus not less than 12 inches (305 mm) of overlength for cutting piles at cutoff elevations.

B. Work of this Section is affected as follows:

1. Additional payment for pile lengths **including splices** in excess of that indicated based on net addition to total pile length as indicated on drawings and measured to nearest 12 inches (305 mm).

3. Unit prices include labor, materials, tools, equipment, and incidentals for furnishing, driving, cutting off, capping, and disposing of cutoffs.

4. Test piles that become part of permanent foundation system are considered as an integral part of the Work.

5. No payment is made for rejected piles, including piles driven out of tolerance, defective piles, or piles damaged during handling or driving.

QUESTIONS RECEIVED:

Q1. Do both pipe materials get bedded below the pipe with 12 inches of NCDOT 57 or 67 Stone?

A1. Yes, both pipe materials require a minimum 12 inches of washed stone below the pipe. See revised typical pipe embedment detail provided with this addendum.

Q2. Does NCDOT 57 or 67 Stone get placed above the bedding to the spring line of the pipe in the "haunching" zone for steel pipe?

A2. Yes, both pipe materials require stone to be placed to the spring line of the pipe for haunching. See revised typical pipe embedment detail provided with this addendum.

Q3. Does NCDOT 57 or 67 Stone get placed above the bedding to the spring line of the pipe in the "haunching" zone for ductile iron pipe?

A3. Yes. See revised typical pipe embedment detail provided with this addendum.

Q4. Is the native material in its present state approved to be used in the initial trench backfill zone for ductile iron pipe?

A4. Steel and ductile iron pipe backfill requirements are the same. Refer to the geotechnical report for soil classification and compaction requirements for each zone.

Q5. The GT Report declares that a lot of the native material does not meet CFPUA Class II or Class III Soils and also defines the native soils as having a high plasticity level. Soils with a high plasticity level present a risk for lateral movement of the trench walls away from the embedment material over time after the project is finished. Such lateral movement presents a direct risk to interior coatings with pipe deflection. Should the Owner consider putting 57 stone up the pipe in the initial trench backfill zone to at least the top of the pipe to account for trench wall movement over time for pipe materials where interior coatings are required?

A5. The specifications require stone to the spring line of the pipe and the use of Class II or Class III soils from the spring line up to 12" above the top of pipe with certain compaction requirements. Whether this material is insitu material or imported material will depend on how the contract elects to manage any re-use of on-site materials. The contractor may also elect to use stone in lieu of compacted Class II or III material for initial trench backfill at no additional expense to the owner.

Q6. For steel pipe, the contractor has to compact the initial trench backfill above the haunching zone in 6 to 8 inch lifts to 95% and use an imported material that meets USCS SM, SC, SP,SW (please clarify)?

A6. For both pipe materials, the compaction and soil requirements for the initial trench backfill are the same and are listed in the geotechnical report. Imported material is not required, but there are portions of the right of way where geotechnical investigations found no Class II or Class III material. For these areas, the contractor may elect to re-use material from other portions of the right of way or use imported material.

Q7. SP4-4 page 7 "Subaqueous ductile iron pipe shall be ball and socket pipe". Some of the pipe on the Kings Bluff project will technically be "subaqueous" but to us not to the extent that "ball and socket" pipe should be required. Will fastite or flex-ring ductile iron pipe be allowed in the creek crossings?

A7. Ball and socket pipe is not required for any portion of the project. Fastite and flex-ring ductile iron pipe are acceptable for creek crossings.

Q8. The Specs seem to contradict themselves relative to the pile driving. Section 1.6 refers to static pile test (and seems pretty specific) and Section 3.4 refers to dynamic testing. 1.6 says to have one pile tested per bent (effectively 50%). Can you please verify method and quantities?

A8. The contractor may provide a static test or a dynamic test. It is their option. Piles shall have a F.S. of 2.0 as noted in project specifications. If static test is chosen note the following procedure:

- Add load gradually increasing from 0% to 25%, 50%, 75%, 100%, 150%, 175% & 200% of the design load.
- Load increments are increased after 5 minute time intervals.
- At each load increment record load, settlement & time @ 1 minute and 5 minute marks w/ settlement recorded to at least 0.01 mm.
- After the 200% load increment test & time interval, reduce loads by 25% increments & hold at 5 minute intervals & record load, settlement & time as previously noted.
- After 0% load rebound movement (if any) will be recorded at 1, 2, 4, 8, 15, 30, 40, 60 minutes $ every hour thereafter until no further settlement is exhibited.

The design intent was for (1) of (4) piles for each pipe support assembly.

Q9. Does the 54" steel or ductile iron carrier pipe need to be polyurethane coated for pipe in casings since the void will be grouted? It is not unusual to supply bare carrier pipe in casings as the cementious grout will provide corrosion protection.

A9. The carrier pipe should be coated as well to provide an extra layer of protection for this critical area of the pipeline.

Q10. Can interlocking joint steel casing pipe per ASTM A1097 (Permalok or equal) be used as alternate to butt welded casing pipe for the bores on the project. Advantage to interlocking joints is there is no welding cost and the bore does not have to stop while the 72" casing is butt welded. This will particularly advantageous under the IP rail yard where the 72" casing is 1" thick.

A10. Interlocking joint steel casing pipe per ASTM A1097 (Permalok or equal) may be used as an alternative to butt welded casing pipe. Steel casing pipe must meet NCDOT and AREMA requirements.

Q11. In addendum #1 Q10 There still is not a clear interpretation of the bedding, it now sounds like you are only requiring a min 12" of bedding stone under the pipe, you do not mention haunching of 50% of the pipe which the detail shows on the D-5 which you reference. Please clarify if your intention is the bed and Haunch to 50% of the pipe.

A11. Bedding and haunching of the pipe will require the use of stone and shall be a minimum of 12" below the pipe up to the spring line of the pipe (50%). See revised detail provided with this addendum.

Q12. What is the existing pipe material?

A12. Prestressed Concrete Cylinder Pipe

Q13. Page 140 A.4.b. states "when necessary the contractor shall provide watchmen and appropriate lighting between twilight and sunrise, and shall erect and maintain barriers". Where and when does this apply?

A13. This applies to any night work on any portion of the project.

Q14. Can trench spoils be sidecast and stockpiled within the wetland ROW during the daily installation of the pipe process? Page 161 SPC-19 would indicated that we could not.

A14. Material intended to be placed back in the trench may be temporarily side cast and stockpiled **within the limits of disturbance shown on the plans**. Excess material shall be removed from the ROW promptly per permit requirements.

Q15. Page 163, SPC-28 states that the contractor is responsible for all temporary fence. The plans do call out for temporary fence periodically. Is all the temporary fence required for the project indicated on the plan sheets?

A15. Owner/Engineer identified on the design plans areas where temporary fencing will be required.

Q16. Page 163, SPC-29 states that the contractor is responsible for all damaged storm drain. Could the Owner/Engineer provide a line item for this work so it can be identified by schedule of values and billed out accordingly?

A16. No line item will be added for replacing damaged storm drain and it shall be included in the cost of the work. Existing storm drains are depicted on the contract documents. Contractor is responsible for protection of existing utilities and any utilities damaged during construction shall be replaced at the contractor's expense.

Q17. Page 164, SPC-31 Can the PLS use information obtained by the field operations non PLS personnel during the daily installation operation and provide the submittal of the As Built survey or will that information need to be obtained by the PLS real time?

A17. The contractor shall provide a final as-built survey sealed by a professional land surveyor.

Q18. Please explain SPC-6 on page 159 more clearly so we fully understand what construction limitations we have around the existing 36" line.

A18. There is no existing 36" line. The **existing 48" PCCP raw water main** is a critical water source for the entire South East region of NC. The intent it to eliminate any large point loads on top of the pipe. Any heavy equipment traversing the existing raw water main will require additional means of protection (ex. matting). The plans and specifications require the contractor to submit a plan of how heavy equipment and material will be stored or traversed across the portion of the ROW.

Q19. Please provide an allowance for "Landscaping Restoration" outside the permanent stabilization as it is not clear what the contractor may encounter in the field.

A19. The contractor is required to restore the right of way to pre-construction conditions unless otherwise stated on the plans and specifications, which shall be included in the cost of the work and no separate payment shall be made. Therefore, an allowance will not be provided for this item. Any landscaping or other impacts outside of the right of way shall be restored to pre-construction conditions at no additional cost to the owner.

Q20. On page 432, Lime Treated Soils, please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by the Square Yard and Ton.

A20. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q21. On page 437, Aggregate Subgrade, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Shallow Undercut" by the Cubic Yard and "Class IV Subgrade Stabilization" by the Ton

A21. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q22. On page 438, Aggregate Stabilization, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Stabilizer Aggregate" by the Ton

A22. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q23. On page 439, Aggregate Base Course, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Aggregate Base Course" by the Ton.

A23. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q24. On page 442, Conditioning Existing Base, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Conditioning Existing Base" by the 1,000 Square Yards.

A24. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q25. On page 443, Cement Treated Base Course, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Aggregate for Cement Treated Base" and Portland Cement for Cement Treated Base Course". Payment each by the Ton

A25. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q26. On page 448, Soil Cement Base, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by Soil Cement Base" (by the Square Yard), "Portland Cement for Cement Treated Base Course" (by the Ton) and "Aggregate for Cement Treated Base" (by the Ton).

A26. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q27. On page 452, Asphalt Curing Seal, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Asphalt Curing Seal" by the Gallon. It also states that the Blotting Sand is paid under Article 818-4.

A27. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q28. On page 454, Incidental Stone Base, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Incidental Stone Base" by the Ton.

A28. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q29. On page 455, Shoulder Construction, Please explain where this is used and where is the Bid Item? The Measurement and Payment section says it is to be paid by "Shoulder Construction" by the Cubic Yard.

A29. All measurement and payment items listed in NCDOT specifications are not applicable. Please refer to section 01025 “Measurement and Payment”.

Q30. Page 514 Line 12, States "Use Class III, IV, V, or VI select material for foundation conditioning and bedding". However the detail shown on page 624 upper left corner indicates that a bedding and haunching a minimum of 12" below the pipe up to the spring line (mid point). Then, Initial Trench Backfill to 12" over the pipe. The detail does not call out material type(s) for these 2 separtely labeled zones. The recommendation of SM&E in the geotechnical portion of the documents states on page 544 that #57 or #67 stone to a depth of 12" be used as bedding. Additional undercut of

soft soils should be undercut as determined in the field. Please clarify if this detail requires aggregate stone (either #57 or #67 stone) to be installed or if the Select Material (Class III, IV, V, or VI) can be used in the Bedding/Haunching and Initial Backfill Zone.

A30. Aggregate stone is required for bedding and haunching. Select material or insitu material meeting the specifications may be used for initial backfill zone. See revised typical pipe embedment detail provided with this addendum.

Q31. Page 515 Line 34 (F) Backfilling states that we are to backfill in accordance with Article 300-7. Please provide Article 300-7 for review and costing

A31. Please refer to the ductile iron and steel pipe specifications for backfilling. See revised typical pipe embedment detail provided with this addendum.

Q32. Page 544 "Trench Backfill" describes in detail the use of the Class II or Class III material in the "Initial Trench Backfill" Is the "Final Trench Backfill" zone material, indicated on the detail on sheet 624, required to be Class II or Class III material as well? If not, what are the compaction requirements for this material as the requirement only pertains to the Initial Backfill?

A32. Material classification and compaction requirements are given for each zone in the geotechnical report. See revised typical pipe embedment detail provided with this addendum.

Q33. Page 624 Indicates the installation of Thrust Blocks. Will this be required with the use of Steel Pipe and welded joints?

A33. No thrust blocking will be required for steel pipe with welded joints.

Q34. Please provide the detailed bore report by SM&E. This information was requested the day of the mandatory pre-bid on July 24th and it very important to the costing of the project. This information is extensive and will need time to review and understand its impact to the project.

A34. Detailed bore reports were issued with Addendum 1 on August 8th, 2019.

Q35. Please provide a bid date extension equal to the days between the Mandatory Pre bid date and the distribution of the SM&E complete soils report.

A35. No extension for the bid date will be provided.

Q36. Please describe means and methods for the "Leak Test" after the installation of the tunnel liner/casing as indicated on sheet 358 T.

A36. “Leak Test” shall ensure minimal leakage from casing pipe joints. Any leakage shall be measured from the lower end of the casing pipe and shall not exceed the allowable leakage requirement.

Q37. Page 624, Typical Pipe Embedment Detail (lower right corner of plan sheet) indicates that tone wrapped in geotextile fabric. Note 1 states that it is for trench stabilization as determined by the engineer. Where is the pay item(s) for this work that may be directed by the engineer?

A37. Page 624 refers to a plan sheet in a permit document that is not “Issued for Bid”. Please refer to the “Issued For Bid” plans.

Q38. Please provide the specifications, details, and requirements for Bid Item 22 "Restore Tennis Court (Sheet C-41)

A38. The tennis court shall no longer be replaced. It shall be removed and the existing ground restored to match surrounding or existing grade. See revised measurement and payment item.

Q39. Is the annular space between the carrier pipe and the casing pipe to be grout filled?

A39. Yes, the annular space will be filled for grout.

Q40. Page 175 Bid Item 5-2) states that all pipe exclusive of the bore and jacks and Livingston Creek Ariel Crossing will be paid here. Then, same page 175 Bid Item 5-5) Installation inside steel casing pipe states that the same bid price will be paid for pipe installed inside the casing pipe as in an open trench. Which Bid Item should the cost of material, labor, and equipment be placed for the installation of the carrier pipe in the casing pipe of the tunnel?

A40. Bid Item 5 shall include the cost of installing the carrier pipe inside of the casing pipe.

Q41. Will augering holes for the installation of the H pile for the foundation of the piers affect the bearing capacity of that pile requiring longer pile which will exceed the depth indicated in the specs? Please advise on how to proceed with our costing.

A41. In accordance with the project Geotech Report, pre-augering is allowed for piles in the vicinity of Boring W-12D. Contractor shall confirm with S&ME there will be no pile reduction and/or verify pre-augered piles will require a maximum depth of 47’.

Q42. Plan sheets C-24 and C-25 show an existing pond but the limits of the pond are not indicated in the profile.

A42. Pond limits are shown on the plan view and in profile view where applicable.

Q43. On plan sheet C-50 the plan, profile and inset are not congruent. The profile shows 2 pig retrievers and does not call out the tee for the interconnect. Please clarify.

A43. See revised sheet C-50

Q44. SPC-16 calls for materials to be on-hand for repairs. There are 4 megalugs for the 48" called for. Shouldn't there be a total of 10 megalugs for the 4 sleeves and 1 each per PCCP to DIP adapter?

A44. Revise SPC-16 to include a total of 10 48-inch Mega-Lug Restraints.

Q45. Will perma- lock pipe be allowed in the bore at IP bore, save time on the welding process

A45. Yes.

Q46. There are (22) valves called out on the bid form but there is actually (25) 3 additional at 2 at the PRV site which measurement and payment doesn't include valves and also at the Brunswick Meter. Please clarify.

A46. Measurement and payment for Bid Item 26 shall include the 3 – 36" gate valves shown. See revised M&P. Measurement and payment for Bid Item 27 includes gate valves.

Q47. Are flanged gate valves for 24", 30", 36" and or 48" acceptable in lieu of mechanical joint valves?

A47. No.

Q48. As mentioned at the pre-bid, in order to look at the project from station 750+00 (Rattlesnake Branch) to 833+31 (EOL) we will need access to the gate at the Brunswick County Treatment Plant. We would like to have access through that gate next Tuesday through Thursday (August 13 through 15) in order to walk the section from 750+00 to 833+31. Please provide the protocol or contact information for this access.

A48. Please request site visit through bids@cfpua.org.

Q49. A "high risk" item during the construction of the Kings Bluff Project will be the pre and post construction condition of the existing 48 Inch Water Line. Has there been an assessment on the existing 48 Inch Line (such as "Smart Ball")? If so, would the Owner be willing to share the results of that assessment prior to the bid?? The specs discuss "special care" in regard to the existing line and in fact the contractor will lose a significant portion of the working easement during construction because of the layout of the existing line. The 48 Inch Line was installed between 1989 and 1994 - making

it +/-30 years old. Understanding the current condition of the line will be important to assessing the risk of construction/vibration impact to the diapered joints, interior/exterior concrete coating, etc…

A49. Reference the Smart Ball report provided in Addendum 1.

Q50. With reference to specification 01025 (Measurement and payment), BI 5 a, b, & c quantities are exclusive of the bore and jack installations (BI 6, a, b, c & d), Livingston Creek aerial crossing (BI 7) and other items provided elsewhere in the bid form and are not included in the BI 5 count (BI 12 is for the 48"). However, BI 5 a, b, & c quantities appear to include the 54" bore and jack carrier pipe and the 48" main line pipe. (note that BI 6 a, b, c & d are for casing pipe only (per the M&P section). Please advise if BI 5 a, b & c quantities are supposed to include the 54" carrier pipe inside the jack and bores (BI 6). Also please confirm the 300' of 48" pipe in BI 12 is not also included in BI 5 as it appears the 48" could be double counted. If it is double counted, please update the bid item quantities affected. Please advise.

A50. Bid Item 5 includes installing the carrier pipe inside of the casing pipe. Bid Item 12 is for 48" pipeline and is not included in Bid Item 5. Bid Item 5 is to pay for the installation of the 54" pipeline with no linear foot deductions for fittings, reducers, valves, spool pieces of 48" pipe near the valves, etc. (except for Livingston Creek).

Q51. Please refer to drawing sheet no C-50. Please advise if the new pig retriever, indicated on the 54" at approx. station 832+20, in the profile view, is required. This item is not indicated in the plan view.

A51. See revised sheet C-50

Q52. Will you require certified payroll on this project?

A52. No.

Q53. What is the Ultimate Load on each pile?

A53. Ultimate Load Capacity / pile = 50.0 k.

Q54. The Geotech Report, paragraph 6.5 recommends piles be driven to a depth 35 feet below ground level. Specification 02458 Steel H Piles, 1.3 A state's Base Contract Sum to include "…piles indicated from tip to cutoff, plus not less than 12"…" 1.3 B.1. states "additional payment for pile lengths in excess of that indicated…" The bid form does not include an item for additional pile length.

A54. See revised Steel H Pile specification this addendum.

Q55. Does Geotechnical Report, paragraph 6.5 refer to 80 kips load on a single four (4) pile support tower, for a 20 kip load per pile?

A55. In accordance with Section 6.5.1. of the project Geotech Report, “Foundations” note 3.3 on M&C drawing S-1 & Plan Note 4.b on M&C drawing S-2 the axial pile capacity of a single W12x53 H-Pile is 25.0 k. In accordance with project specification Section 02458-1.8-F a F.S. of 2 is required. Ultimate Load Capacity / pile = 50.0 k.

Q56. Spec 02458 calls out a test pile per pile bent. This seems excessive for such a short pipe bridge.

A56. The contractor is allowed to use a test pile as a production pile provided required capacities are achieved.

Q57. Is Statnamic Testing an acceptable alternative to static testing?

A57. Yes.

Q58. Please provide soil boring logs for W-17A thru W-17H.

A58. Provided in addendum 1.

Q59. Please advise the correct air release valve size or sizes and locations of each size.

A59. All air release valves are 6 inch.

Q60. Is the site accessible for test digging?

A60. No.

ACKNOWLEDGEMENT BY BIDDER. Bidder shall acknowledge receipt of this Addendum No. 1 in the space provided in the Bid Form.

All other terms & conditions remain unchanged.

Julia Faircloth
Cape Fear Public Utility Authority
Procurement Manager

Craig Wilson
Cape Fear Public Utility Authority
Project Manager

End of Addendum 2

BID FORM

CFPUA Project Name:	Kings Bluff Raw Water Transmission Main
Bid Opening Date/Time:	Tuesday, August 27, 2019 t 11:00 AM
Bid Opening Location:	Engineering Conference Room
Bids may be submitted and received prior to the Bid opening at this location:	Cape Fear Public Utility Authority 235 Government Center Drive Wilmington, NC 28403

1. GENERAL

1.01 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 complete 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 Bidding Documents.

1.02 Terms contained in the Bidding Documents, including this Bid Form, have the same meaning as defined in the general and supplementary conditions made part of the Bidding Documents.

1.03 Bidder accepts all the terms and conditions of the Advertisement for Bid and Instruction to Bidders, including without limitation those dealing with the disposition of Bid Security. This bid will remain open and valid for one hundred twenty (120) calendar days after the day of the Bid opening. Bidder will sign the Agreement and submit insurance, bonding and other documents required by the Contract Documents within ten (10) calendar days from the date Owner gives notice to apparent lowest, responsive responsible Bidder.

2. PROJECT EXPECTATIONS

2.01 In submitting this Bid, Bidder represents, as fully set forth in the Agreement, that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

B. The undersigned Bidder agrees that Bidder has carefully examined and become familiar with the expectations of the Work described in the Bidding Documents, and agrees that he/she has met the bidding responsibilities stated in Section 4 of the Instructions to Bidders.

3. NON-COLLUSION, NON-SUSPENSION, AND NON-CONVICTION

3.01 Bidder represents that this Bid is genuine and is non-collusive.

3.02 Bidder further represents that he/she is not suspended or debarred from bidding on this Work, and that Bidder has not been convicted of any charges or engaged in any unlawful act of trade in Federal or any state jurisdiction.

3.03 Bidder is fully aware that Bid is not considered responsive, if CFPUA's Affidavit and Certificate of Non-Collusion, Non-Suspension and Non-Conviction is not properly executed and submitted with Bid Form.

4. CONTRACT TIMES

4.01 Bidder agrees to the contract times and liquidated damages stated in the Agreement made part of the Bidding Documents.

5. BID AMOUNT

5.01 Bidder agrees to perform all the work described in the Bidding Documents for the unit and/or lump sum prices found in the Bid tabulation. *(Bid tabulation to be completed by Bidder can be found on next page. If Bid tabulation intentionally excluded by Owner and Owner is requesting one lump sum price for the complete Work, Bidder shall write out the lump sum amount in both word format and number format at the bottom of this page. Ex: one hundred twenty-five and 12/100 dollars; $125.12)*

KINGS BLUFF RAW WATER TRANSMISSION MAIN BID FORM

SCHEDULE I

Item No.	Description	Unit	Estimated Quantity	Unit Cost		Total Cost
1	**Mobilization (3% Maximium)**	LS	1	$_____	/LS	$_____
2	**Construction Surveying and Staking**	LS	1	$_____	/LS	$_____
3	**Revised After Construction Surveying and Record Drawings**	LS	1	$_____	/LS	$_____
4	**Clearing and Grubbing**	LS	1	$_____	/LS	$_____
5	**54-inch Diameter Raw Water Main Pipe**					
a	STA 100+03+/- to STA 393+00+/- (Excludes Bore & Jack Installations)	LF	29,300	$_____	/LF	$_____
b	STA 393+00+/- to STA 488+43+/- International Paper Property (Excludes Bore & Jack Installation)	LF	9,600	$_____	/LF	$_____
c	STA 490+07+/- to STA 833+71+/- (Excludes Bore & Jack Installations & Livingston Creek Aerial Crossing)	LF	34,400	$_____	/LF	$_____
6	**Bore & Jack 72-inch Steel Encasement Pipe**					
a	Sheet C-54 NC Highway 11 (Min. 0.625-inch Wall Thick.)	LF	160	$_____	/LF	$_____
b	Sheet C-54 SR 1817 John Reigel Road (Min. 0.625-inch Wall Thick.)	LF	90	$_____	/LF	$_____
c	Sheet C-56 SR 1426 Mt. Misery Road (Min. 0.625-inch Wall Thick.)	LF	145	$_____	/LF	$_____
d	Sheet C-57 International Paper Rail Yard (Min 1.0" Wall Thick.)	LF	300	$_____	/LF	$_____
7	**Sheet C-27 Livingston Creek Aerial Crossing**	LS	1	$_____	/LS	$_____
7a	**Additional Pile Lengths**	LF	200	$_____	/LF	$_____
8	**Raw Water Main Fittings (Ductile Iron Pipe ONLY)**	LBS	280,000	$_____	/LB	$_____
9	**Pigging Facilities**					
a	Pig Launcher (Sheet C-1)	LS	1	$_____	/LS	$_____
b	Pig Retriever (Sheet C-50)	LS	1	$_____	/LS	$_____
10	**48-inch Raw Water Main Valves**	EA	22	$_____	/EA	$_____
11	**Raw Water Main Connections**					
a	Sheet C-1 Connection to Existing Raw Water Main Stub-Out at STA 100+03	LS	1	$_____	/LS	$_____
b	Sheet C-50 Connections (Two Total) to Existing 48-Inch Raw Water Main	LS	1	$_____	/LS	$_____
12	**48-inch Diameter Raw Water Main Pipe**	LF	300	$_____	/LF	$_____
13	**Combination Air Vaccum/ Air Release Valve and Vault**	EA	25	$_____	/EA	$_____
14	**Blow-Off / Drain Assembly**	EA	8	$_____	/EA	$_____
15	**30-inch Raw Water Main Pipe Replacement (Sheet C-2)**	LS	1	$_____	/LS	$_____
16	**Roadway Repair & Restoration**					
a	Ashpalt Roadway Trench Repair	LF	250	$_____	/LF	$_____
b	Asphalt Overlay	SY	2,400	$_____	/SY	$_____
c	Temporary Access Road (Reference Sheets C-51, C-52, C-53)	EA	5	$_____	/EA	$_____
17	**Cathodic Protection Installation and Testing (Complete)**	LS	1	$_____	/LS	$_____
18	**Utility Marker**	EA	13	$_____	/EA	$_____
19	**Subgrade Stabilization Stone As Required (Per LF Per 6-Inch Lift)**	LF	125,000	$_____	/LF	$_____
20	**Modify/Relocate 12" Raw Water Main Stub-Out & Valve (Sheet C-2)**	LS	1	$_____	/LS	$_____
21	**Sheeting/Shoring at Duke Energy Transmission Structure (Sheet C-44)**	LS	1	$_____	/LS	$_____
22	**Removal of Tennis Court (Sheet C-41)**	LS	1	$_____	/LS	$_____
23	**Erosion and Sedimentation Control**					
a	Temorpary Silt Fence	LF	86,000	$_____	/LF	$_____
b	Check Dam	EA	50	$_____	/EA	$_____
c	Silt Curtains	EA	25	$_____	/EA	$_____
d	Seeding and Restoration	LF	75,000	$_____	/LF	$_____
24	**Replacement/Restoration of Driveways**					
a	Asphalt Driveway	EA	1	$_____	/EA	$_____
b	Concrete Driveway	EA	2	$_____	/EA	$_____
c	Gravel Driveway	EA	5	$_____	/EA	$_____
d	Compacted Soil Driveway	EA	30	$_____	/EA	$_____
25	**Geotechnical Instrumentation and Monitoring**					
a	Existing Structure	EA	15	$_____	/EA	$_____
b	IP Rail Yard Crossing	LS	1	$_____	/EA	$_____
				TOTAL BASE BID AMOUNT SCHEDULE I (ITEMS 1 THROUGH 25)		$_____

KINGS BLUFF RAW WATER TRANSMISSION MAIN BID FORM

SCHEDULE II						
Item No.	**Description**	**Unit**	**Estimated Quantity**	**Unit Cost**		**Total Cost**
26	**Sheet C-60 Connection to Brunswick Service Main and Meter to include Meter Installation, Valves Vault, Electrical, Controls, Bypass Piping, Fencing, and all Miscellaneous Appurtenances for a Complete Installation (STA. 809+50)**	LS	1	$_____	/LS	$_____
27	**Pressure Reducing Valve Assemblies**					
a	Sheet C-59 30" Pressure Reducing Valve on Existing 48" PCCP Raw Water Main	EA	1	$_____	/EA	$_____
b	Sheet C-59 24" Pressure Reducing Valve on Existing 48" PCCP Raw Water Main	EA	1	$_____	/EA	$_____
28	**Raw Water Main Connections**					
a	Sheet C-10 Connection to Existing 48-inch Raw Water Main at STA 243+25	LS	1	$_____	/LS	$_____
b	Sheet C-22 Connection to Existing 48-inch Raw Water Main at STA 416+35	LS	1	$_____	/LS	$_____
c	Sheet C-36 Connection to Existing 48-inch Raw Water Main at STA 636+65	LS	1	$_____	/LS	$_____
29	**New Fences at Interconnections**					
a	6' Chain link Fence	LF	600	$_____	/LF	$_____
b	Double Hinge Access Gate	EA	3	$_____	/EA	$_____
c	6" Stone and Geofabric inside fenced area	SY	900	$_____	/SY	$_____
30	**Bollards**	EA	12	$_____	/EA	$_____
	TOTAL BASE BID AMOUNT SCHEDULE II (ITEMS 26 THROUGH 30)					$_____
	TOTAL BASE BID AMOUNT SCHEDULE I AND SCHEDULE II (ITEMS 1 THROUGH 30)					$_____

Raw Water Main Pipeline Material (Circle One) : **Ductile** **Steel**

Pipe Supplier: _____

Gate Valve Supplier: _____

6. SUBCONTRACTS

6.01 Bidder shall list all the subcontractors they have selected to perform the following subdivisions of work: Jack & Bore, Cathodic Protection, Welding, Welded Steel Pipe Supplier. Bidder shall also list the Work/Service to performed, amount the subcontractor shall be paid, the percent of the total bid amount the subcontractor shall perform and the subcontractor's NC license permitting them to perform this type of work (if applicable). Bidders shall only list one subcontractor for each work/service to be performed.

6.02 Subcontractor Summary Table

Subcontractor Name or indicate self-performing	Work/Service to be Performed	Amount to be Paid	Percentage of Total Bid	License Number (If applicable)
	Jack & Bore			
	Cathodic Protection			
	Welding			

Bidder acknowledges by signing below that all subcontractors performing the subdivisions of work as described in 6.01 are listed above in 6.02 the Subcontractor Summary Table. A contractor whose bid is accepted shall not substitute any person as a subcontractor in the place of the subcontractor listed in the original bid unless approved by CFPUA with justification from the contractor. Failure to comply with these terms may result in the bid being rejected based on non-responsiveness.

BIDDER SIGNATURE: _____

7. BIDDER LICENSE

7.01 The bidder must have the following North Carolina General Contractor's License to be qualified to perform the work associated with this bid. Bidder must list License number below and provide copy of North Carolina General Contractors Certificate.

Limitation: Unlimited

Classification(s): Public Utilities or Unclassified

NC License Number: _____ License Expiration Date: _____

8. BIDDER QUALIFICATIONS

8.01 Other Qualifications: None

9. BIDDER CONTACT

9.01 Communications concerning this Bid shall be sent to the Bidder at the following:

Name: _____

Address: _____

Phone: _____ Email: _____

BIDDER SIGNATURE

Please see Section 9 of the Instruction to Bidder for additional information.

If a Corporation:

Bidder Name: _____
(As it appears on NC General Contractor's License)

By: _____ Date: _____
(Officer as registered with the NC Secretary of State, or authorized person and provide evidence of authority to sign)

Printed Name: _____ Title: _____

Business Address: _____

Phone: _____ Email: _____

Bidder is conducting Business under an Assumed Name (DBA) ____Yes _____No

If the above answer is Yes, please provide the Corporate Name as filed with the NC Secretary of State, and Provide Certificate of Assumed Name:

_____
(Corporate Name as filed with NC Secretary of State)

If a Limited Liability Company

Bidder Name: _____
(As it appears on NC General Contractor's License)

By: _____ Date: _____
(Member-Manager)

Printed Name: _____ Title: _____

Business Address: _____

Phone: _____ Email: _____

Bidder is conducting Business under an Assumed Name (DBA) ____Yes _____No

If the above answer is Yes, please provide the Company Name as filed with the NC Secretary of State, and Provide Certificate of Assumed Name:

_____
(Name as filed with NC Secretary of State)

If a Partnership

Bidder Name: _____
(As it appears on NC General Contractor's License)

By: _____ Date: _____
(Partner)

Printed Name: _____ Title: _____

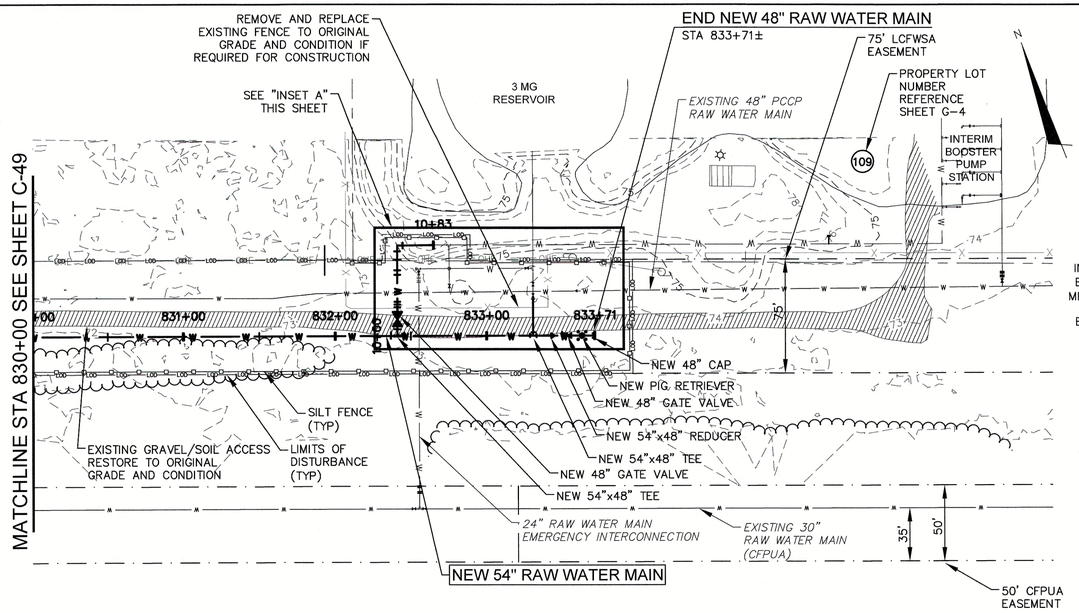
Business Address: _____

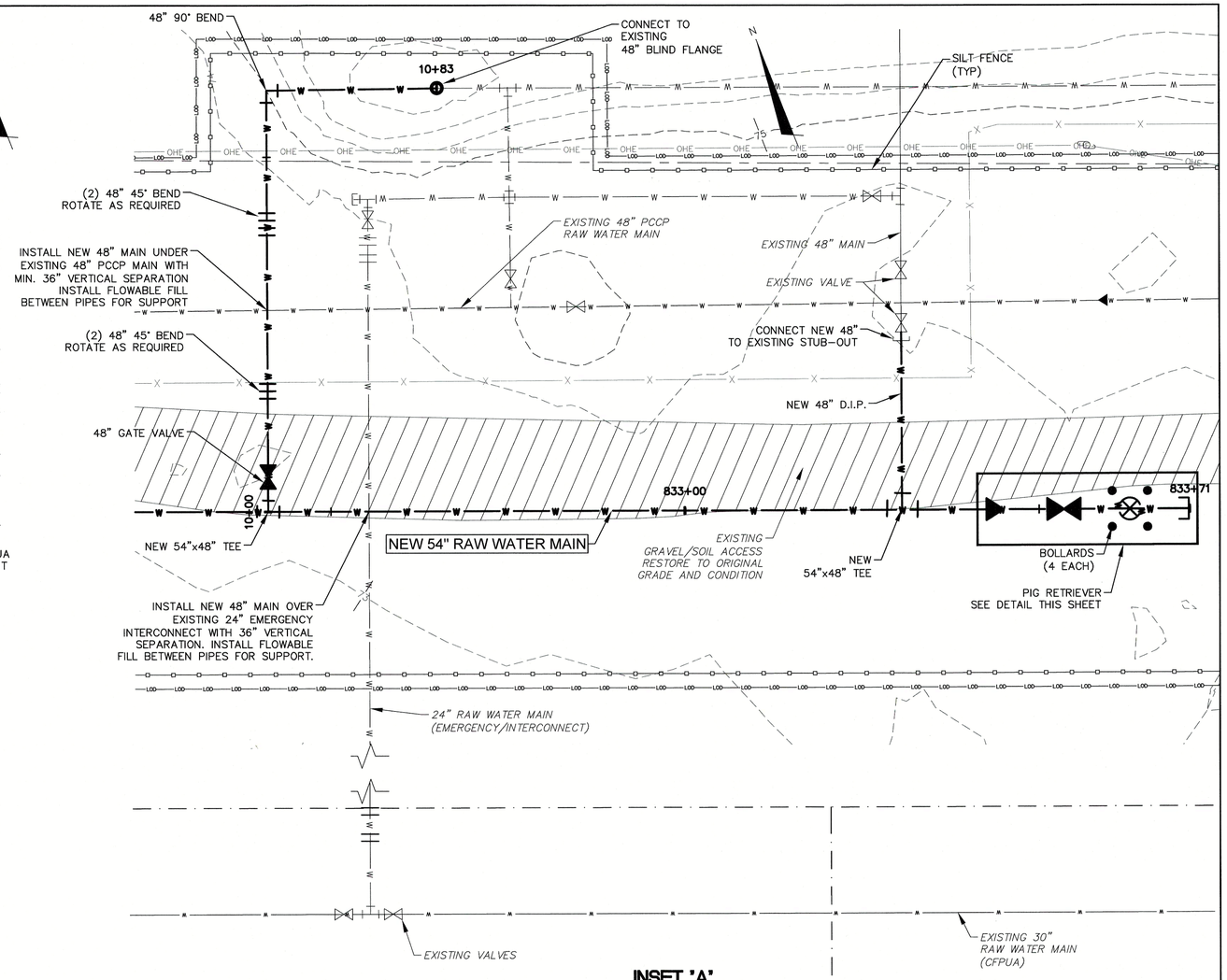
Phone: _____ Email: _____

Bidder is conducting Business under an Assumed Name (DBA) ____Yes _____No

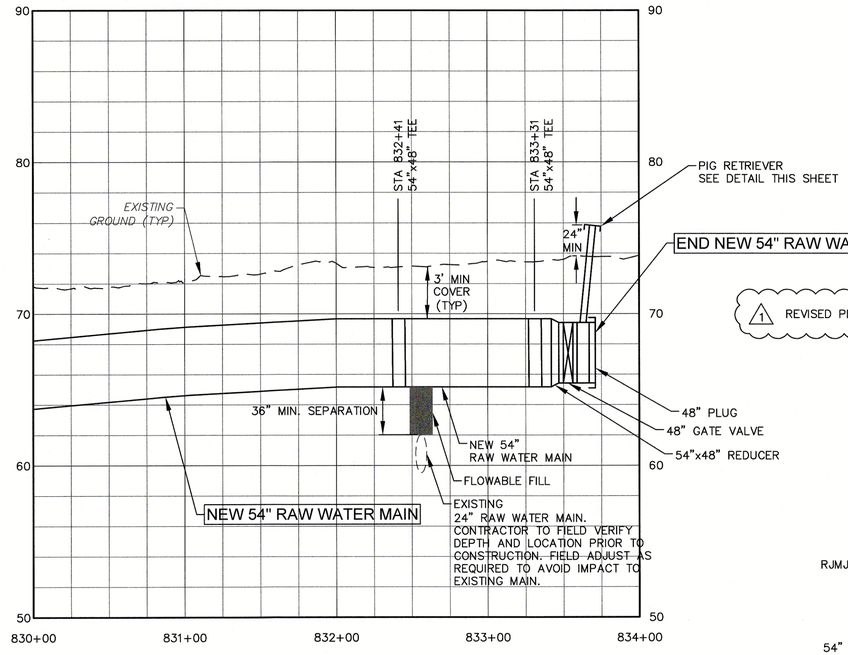
If the above answer is Yes, please provide the Partnership Name as filed with the NC Secretary of State, and Provide Certificate of Assumed Name:

_____
(Name as filed with NC Secretary of State)

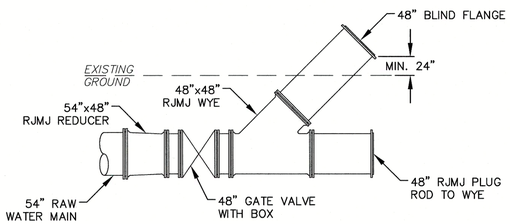




INSET "A"
1" = 20'



1 REVISED PER ADDENDUM 2



PIG RETRIEVER DETAIL
N.T.S.

GENERAL NOTES:
1. LAYOUT BASED ON STANDARD FITTING SIZES USING MAXIMUM JOINT DEFLECTION OF 2 DEGREES AND MINIMUM RADIUS OF 700 FT.
2. CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE EXISTING 48" RAW WATER MAIN.
3. ALL EXCAVATIONS (TRENCHING, BORING, BORE PITS, ETC) ARE UNCLASSIFIED. GEOTECHNICAL REPORT AND BORING LOGS HAVE BEEN PROVIDED IN PROJECT SPECIFICATIONS.
4. SITE SURVEY WAS PERFORMED BY MCKIM AND CREED IN 2017. ALL COORDINATES ARE TIED TO THE NORTH CAROLINA STATE PLAN COORDINATE SYSTEM (NAD 83 FEET).
5. THE LOCATION OF ALL EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY LOCATIONS.
6. NEW 54" RAW WATER MAIN SHALL BE WELDED STEEL PIPE (THICKNESS MIN = 0.22, LINING = CEMENT MORTAR, COATING = POLYURETHANE) OR DUCTILE IRON PIPE (PC 150, LINING = CEMENT MORTAR, COATING = ZINC). CONTRACTOR SHALL UTILIZE ONLY ONE MATERIAL UNLESS APPROVED BY ENGINEER OR MATERIAL IS SHOWN ON PLANS.

MCKIM&CREED
243 NORTH FRONT ST
WILMINGTON, NORTH CAROLINA 28401
TELE: (910) 343-1048
FAX: (910) 251-8282
LICENSE: F-1222

Cape Fear Public Utility Authority
Stewardship. Sustainability. Service.

REV:	DESCRIPTION	DATE:
1	REVISED PER ADDENDUM 2	AUG 2019
0	ISSUED FOR BID – NOT FOR CONSTRUCTION	JUN 2019

50' 0 50' 100'
SCALE: 1"=50' (Horiz.)
5' 0 5' 10'
SCALE: 1"=5' (Vert.)

54" RAW WATER MAIN PLAN AND PROFILE STA 830+00 TO STA 833+71±

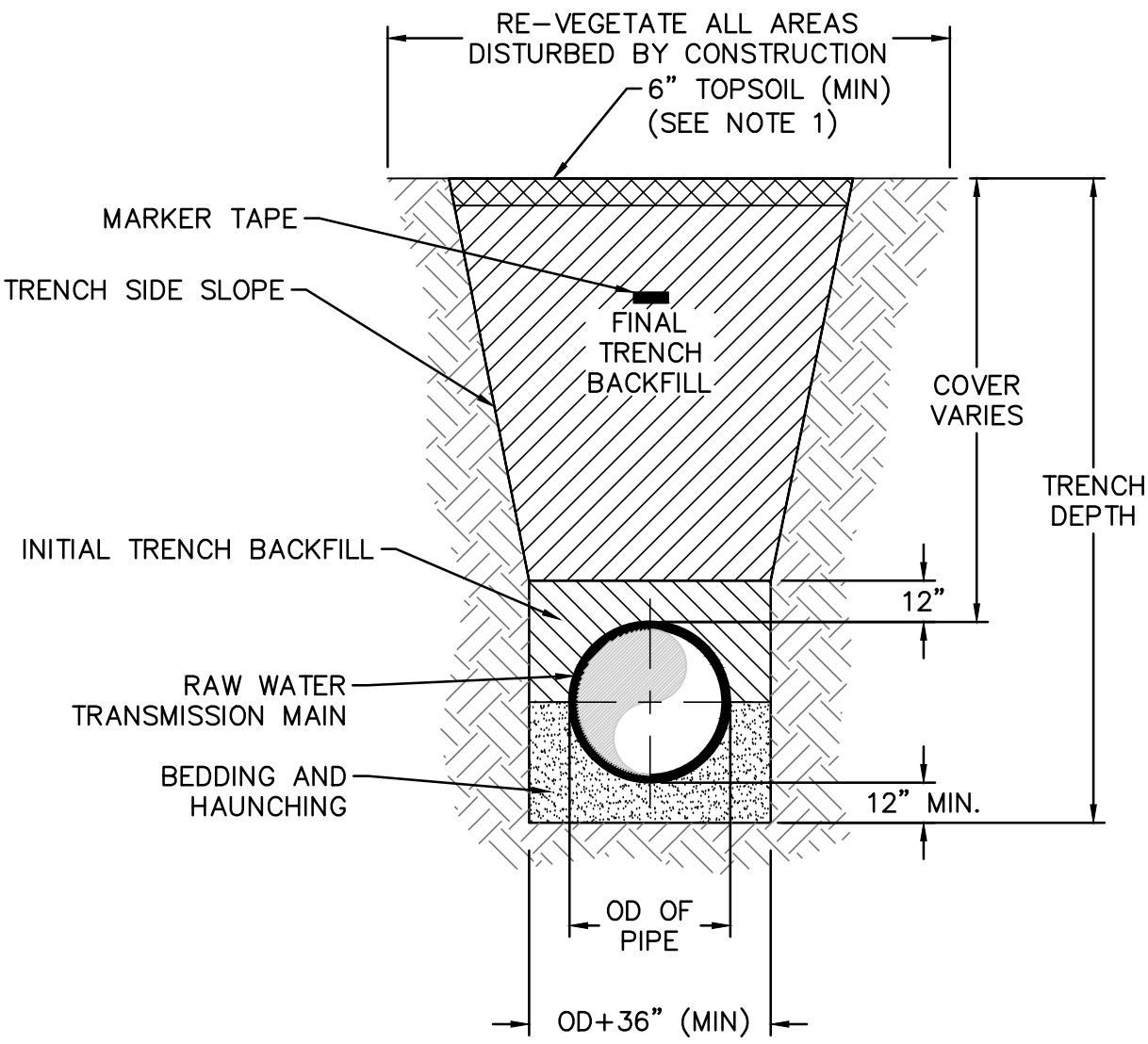
NORTH CAROLINA PROFESSIONAL SEAL 025512 ENGINEER ANTHONY W. BOHAN
8-16-19

CAPE FEAR PUBLIC UTILITY AUTHORITY
KINGS BLUFF RAW WATER TRANSMISSION MAIN

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560

DATE: AUG 2019
SCALE: AS SHOWN
DRAWN BY: JPV
CHECKED BY: AWB
PROJECT NO. : 5367-0038

SHEET NO: C-50



ZONE	DIMENSIONS	MATERIALS
BEDDING & HAUNCHING	12" BELOW PIPE TO SPRING LINE	WASHED STONE NO. 57 OR 67
INITIAL TRENCH BACKFILL	SPRING LINE TO 12" ABOVE TOP OF PIPE	CLASS II OR III (GW, GP, SW, SP, GC, SM, SC)
FINAL TRENCH BACKFILL	12" ABOVE TOP OF PIPE TO TOPSOIL	NO. CLASS V SOILS (OH, OL) EXCEPT IN WETLANDS

NOTES:

1. CONTRACTOR MAY ELECT TO STRIP AND STOCKPILE TOPSOIL AND REINSTALL UPON COMPLETION OF PIPE INSTALLATION.
2. REFER TO GEOTECHNICAL REPORT FOR SOIL CLASSIFICATION AND REQUIREMENTS FOR FINAL BACKFILL, INITIAL BACKFILL, BEDDING AND HAUNCHING.
3. CONTRACTOR MAY ELECT TO USE WASHED STONE FOR INITIAL TRENCH BACKFILL. NO ADDITIONAL PAYMENT WILL BE MADE FOR IMPORTED MAERIAL.
4. COMPACTION REQUIREMENTS FOR EACH ZONE ARE LISTED IN THE GEOTECHNICAL REPORT SECTION 6.3
5. REFER TO SECTION 6.3.1 FOR REUSE OF ON–SITE SOILS AND OFF–SITE BORROW MATERIAL REQUIREMENTS.

TYPICAL PIPE EMBEDMENT DETAIL

NOT TO SCALE