

ADDENDUM NO. 1

TO

**BIDDING AND CONTRACT
REQUIREMENTS AND SPECIFICATIONS**

FOR THE

**GUILFORD, CONNECTICUT
WATER MAIN EXTENSION
MULBERRY POINT, TUTTLES POINT, AND LONG COVE
WP Project No. 13675A
Town of Guilford Re-Bid No. 13-1718**

**Issued
October 11, 2018**

BID OPENING: October 30, 2018 AT 2:00 PM



Prepared By:

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**WATER MAIN EXTENSION
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As a point of clarification, it should be understood that the Contract Documents govern all aspects of the project. Discussions held during the Pre-Bid Conference or over the telephone are informal and informational only. All official changes to the Contract Documents are made only by addenda. The following changes and additional information are hereby made a part of the Contract Documents:

A mandatory pre-bid conference will be held on Monday, October 15, 2018 at 10:00 am (local time). A copy of the Agenda, and a question/answer section will be included in an additional addendum to follow.

SPECIFICATIONS

1. Section 00310, "Bid Form", **DELETE** in its entirety and **INSERT** the new Section 00310, "Bid Form" included as Attachment A to this Addendum.
2. Section 00510 "Suggested Form of Agreement Between Owner and Contractor", page 00510-1, paragraph 4.02.A, line 1, **DELETE** the number "390" and **INSERT** the new number "670". This extends the construction period.
3. Section 00510 "Suggested Form of Agreement Between Owner and Contractor", page 00510-1, paragraph 4.02.A, line 4, **DELETE** the number "450" and **INSERT** the new number "730". This extends the construction period.
4. Section 01150 "Measurement and Payment", **DELETE** in its entirety and **INSERT** the new Section 01150 "Measurement and Payment" included as Attachment B to this Addendum.
5. Section 01570 "Traffic Regulation", page 01570-1, immediately following paragraph 1.1.C **ADD** the following new paragraph 1.1.D:
"D. The following is a list of allowable road closures and use of flagmen:
 - Sheets C-4 and C-5
Lower Rd.
No flaggers.
Closed to through traffic. Local traffic only.
 - Sheet C-6
Daniel Ave.
2 flaggers.
Maintain one lane traffic.
 - Sheets C-6 and C-7

- Mulberry Point Rd. (Daniel Ave. to Tuttle Point Rd.)
2 flaggers.
Maintain one lane traffic.
- Sheet C-8
Tuttle Point Rd. (Mulberry Point Rd. to White Top Ln.)
2 flaggers.
Maintain one lane traffic.
- Sheet C-9
Tuttle Point Rd., Faulkner Dr.
No flaggers.
Closed to through traffic at Tuttle Point Rd./White Top Ln. Local traffic only
- Sheet C-10
Faulkner Dr./Spring St./Meriden St./Highland St.
No flaggers.
Closed to through traffic at Faulkner Dr./Sagamore St. Local traffic only.
- Sheet C-11
White Top Ln./Rock Ln./Sagamore St.
No flaggers.
Close to through traffic. Local traffic only.
- Sheet C-12
Tuttle Point Rd. (Dead End)
No flaggers.
Closed to through traffic. Local traffic only.
- Sheet C-13
Mulberry Point Rd. (Lower)
No flaggers.
Closed to through traffic at Mulberry Point Rd./Tuttle Point Rd. Local traffic only.
- Sheet C-14
Marshall Ave.
No flaggers.
Closed to through traffic at Marshall Ave./Tuttle Point Rd. Local traffic only.
- Sheet C-15
Charles St. (Mulberry Point Rd. to Decatur Ave.)
1 flagger at Mulberry Point
Maintain one lane traffic.
- Sheets C-15, C-16 and C-17
Charles St., Marshall Ave., Decatur Ave., Brown St., Ruth Ln.
No flaggers.
Closed to through traffic at Charles St./Decatur Ave. Local traffic only.

DRAWINGS

1. Sheet C-1, Construction Note No. 21, **DELETE** in its entirety and **INSERT** the following new Note 21:
“21. After construction activities have been completed for the day, the work area(s) shall be cleaned. Trenches shall be backfilled daily. Steel plates may be used in areas that will need access the following work day, if approved by the controlling authority. Between

April 1 and November 15 roads do not need temporary pavement, however all roads need to be temporarily paved before December 1. Temporary pavement will be required weekly between December 1 and April 1, unless inclement weather is forecasted in which case temporary pavement is required daily.”

2. Sheet C-1, Construction Note No. 27, **DELETE** the sentence “Also, clean spoils can be brought to the Town’s Waste Transfer Station at 1900 Boston Post Rd.”
3. Sheet C-1, Construction Note No. 33, immediately following the word “Contractor’s” **ADD** the word “piping”.
4. Sheet C-1, immediately following Construction Note No. 35, **ADD** the following new Construction Notes:

“36. The following is a list of storage sites that are available for the Contractor’s use at no cost to the contractor. The Contractor assumes sole responsibility and liability for the safety of personnel and persons on the storage site, and for any equipment or materials stored. The Contractor shall restore the site to its original condition to the satisfaction of the property owner upon construction completion.

 - Sheets C-3 and C-4 (Easement Area outside of the 100’ wetland upland review areas) – materials and equipment allowed
 - Sheet C-4 (Cul-de-sac at north end of Lower Rd.) -materials and equipment allowed
 - Sheet C-6 (Gravel parking area on Daniel Ave. Sta. 34+50 Left) – equipment only
 - Sheet C-12 (Tuttles Point Rd. paper street at the north end) - materials and equipment allowed
 - Sheet C-14 (Marshal Ave. - Map10/Lot100 - Sta. 702+25 Right) - materials and equipment allowed
 - Sheet C-15 (A potential staging/storage area has been identified on Charles St. Sta. 802+00. The Town has not secured this site. It is the Contractor’s responsibility to coordinate with the property owner (permission for use). - materials and equipment allowed

37. No vehicle or construction equipment can be left on the road overnight. Access on all roads must be available for passage of fire trucks and emergency vehicles.

38. The Town will work with the Contractor to serve as a liaison to residents, keeping them informed of upcoming construction activities through weekly email updates, and fielding questions and concerns that may arise during construction.

39. The number of residents is reduced to approximately one-half in the Tuttles Point area in the winter time due to seasonal occupancy.
5. Sheet C-8, **DELETE** in its entirety and **INSERT**, therefore, the new Sheet C-8 included as Attachment C to this Addendum.

ATTACHMENTS

1. Revised specification Section 00310, “Bid Form” is provided as Attachment A to this addendum.
2. Revised specification Section 01150 “Measurement and Payment” is provided as Attachment B to this addendum.

3. Revised plan Sheet C-8 is provided as Attachment C to this addendum.

END OF ADDENDUM No.1

Attachment A
Section 00310
Bid Form

SECTION 00310

BID FORM

PROJECT IDENTIFICATION: Water Main Extension for Mulberry Point, Tuttle Point, and Long Cove

THIS BID IS SUBMITTED TO: Town of Guilford
Office of the First Selectman
Town Hall, Second Floor
31 Park Street
Guilford, CT 06437

ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to the Owner, as identified above.
- 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 90 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:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

- 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.
- K. Bidder understands that the Owner reserves the right to reject any or all bids.
- L. Bidder understands that, if the contract is to be awarded, it will be awarded to the lowest responsive, qualified, responsible bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.
- M. Bidder acknowledges that his Bid will be rejected unless the Issuing Office has a record that the Bidder has purchased at least one set of paper Bidding Documents from the Issuing Office.

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 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):

BID SCHEDULE

Item No.	Quantity	Brief Description of Item with Unit Bid Price in Words	Unit Bid In Figures	Amount In Figures
1	1	Mobilization (Maximum 2.5% of Total Base Bid) The Sum of \$ _____ _____	\$ _____	\$ _____
Per Lump Sum				
2	9,700	Install Town Provided 8-inch Ductile Iron Water Main and Fittings The Sum of \$ _____ _____	\$ _____	\$ _____
Per Linear Foot				
3	4,150	Install Town Provided 12-inch Ductile Iron Water Main and Fittings The Sum of \$ _____ _____	\$ _____	\$ _____
Per Linear Foot				

Item No.	Quantity	Brief Description of Item with Unit Bid Price in Words	Unit Bid In Figures	Amount In Figures
4	1	Install 12-inch x 12-inch Tapping Sleeve and Valve The Sum of \$ _____ _____ Per Each	\$ _____	\$ _____
5	41	Install Town Provided 8-inch Gate Valves The Sum of \$ _____ _____ Per Each	\$ _____	\$ _____
6	7	Install Town Provided 12-inch Gate Valves The Sum of \$ _____ _____ Per Each	\$ _____	\$ _____
7	19	Install CT Water Co. Supplied Hydrant Assemblies The Sum of \$ _____ _____ Per Each	\$ _____	\$ _____
8	9	Furnish and Install Blow Off Assembly The Sum of \$ _____ _____ Per Each	\$ _____	\$ _____
9	3	Furnish and Install Air Release Assembly The Sum of \$ _____ _____ Per Each	\$ _____	\$ _____
10	2,400	Furnish and Install Water Services The Sum of \$ _____ _____ Per Linear Foot	\$ _____	\$ _____

Item No.	Quantity	Brief Description of Item with Unit Bid Price in Words	Unit Bid In Figures	Amount In Figures
11	3,750*	Ledge Excavation, Disposal and Replacement Backfill (Min. \$40/CY, Max. \$150/CY) The Sum of \$ _____ _____ Per Cubic Yard	\$ _____	\$ _____
12	350*	Earth Excavation Below Grade and Replacement Backfill (Min. \$5/CY, Max. \$30/CY) The Sum of \$ _____ _____ Per Cubic Yard	\$ _____	\$ _____
13	750*	Replacement of Unsuitable Material Above Pipe Bedding and Initial Backfill (Min. \$5/CY, Max. \$30/CY) The Sum of \$ _____ _____ Per Cubic Yard	\$ _____	\$ _____
14	2,600	Processed Aggregate Road Base The Sum of \$ _____ _____ Per Cubic Yard	\$ _____	\$ _____
15	975	Temporary (Initial) Bituminous Concrete Pavement The Sum of \$ _____ _____ Per Ton	\$ _____	\$ _____
16	465	Final (Permanent) Trench Pavement The Sum of \$ _____ _____ Per Ton	\$ _____	\$ _____

Item No.	Quantity	Brief Description of Item with Unit Bid Price in Words	Unit Bid In Figures	Amount In Figures
17	14,750	Reclaimed Existing Pavement The Sum of \$ _____ _____ Per Square Yard	\$ _____	\$ _____
18	100*	Additional Bituminous Concrete The Sum of \$ _____ _____ Per Ton	\$ _____	\$ _____
19	1,300	Final (Permanent) Edge to Edge Pavement The Sum of \$ _____ _____ Per Ton	\$ _____	\$ _____
20	350	Driveway Repair The Sum of \$ _____ _____ Per Square Yard	\$ _____	\$ _____
21	1	Erosion Control The Sum of \$ _____ _____ Per Lump Sum	\$ _____	\$ _____
22	1	Clearing and Grubbing The Sum of \$ _____ _____ Per Lump Sum	\$ _____	\$ _____
23	10	Test Pit Excavation, Backfill and Restoration The Sum of \$ _____ _____ Per Each	\$ _____	\$ _____

Item No.	Quantity	Brief Description of Item with Unit Bid Price in Words	Unit Bid In Figures	Amount In Figures
24	1	Tree Removal The Sum of \$ _____ _____ Per Lump Sum	\$ _____	\$ _____
25	1	Stream Crossing – Sheet C-4 The Sum of \$ _____ _____ Per Lump Sum	\$ _____	\$ _____
26	1	Elevated Water Main – Daniel Ave. The Sum of \$ _____ _____ Per Lump Sum	\$ _____	\$ _____
27	1	36” Storm Drain Crossing – Tuttles Point Rd. The Sum of \$ _____ _____ Per Lump Sum	\$ _____	\$ _____
28	1	Allowance for Utility Companies The Sum of \$ <u>Five Thousand Dollars</u> <u>and no cents</u> Allowance	<u>\$5,000.00</u>	<u>\$5,000.00</u>
29	1	Traffic Control The Sum of \$ _____ _____ Per Lump Sum	\$ _____	\$ _____
30	150	Traffic Flaggers The Sum of \$ _____ _____ Per Man Day	\$ _____	\$ _____

* Indeterminate quantities assumed for comparison of bids. Quantities are not guaranteed. Payment will be based on actual quantities constructed.

TOTAL BID: Total of Items 1 through 30 above.

_____ (\$ _____
(use figures)
_____ (use words)

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 accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

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

- A. This Bid Form in its entirety.
- B. Required Bid security;
- C. Certificate of Authority to Sign (Section 00302);
- D. Required Bidder Qualification Statement with supporting data (Section 00405);
- E. Signed Compliance Statement (Section 00406);
- F. Non-Collusion Affidavit of Prime Bidder (Section 00408);
- G. Signed Understanding Statement of MBE/WBE Participation (Section 00800, SC-20)
- H. Bidders Department of Administrative Services Prequalification Certificate
- I. Bidder’s Department of Administrative Services Update (Bid) Statement
- J. A tabulation of Subcontractors, Suppliers and other persons and organizations required to be identified in this Bid.
- K. CT Water Co. Contractor Qualification and Licensing Requirements Form (Appendix G)
- L. CHRO Bidder Contract Compliance Monitoring Report (Section 00412)

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.

BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

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)

Attachment B
Section 01150
Measurement and Payment

SECTION 01150MEASUREMENT AND PAYMENTPART 1 - GENERAL1.1 DESCRIPTION

- A. For lump sum items, payment shall be made to the contractor in accordance with an accepted progress schedule and schedule of values on the basis of actual work completed.
- B. For unit-price items, payment shall be based on the actual amount of work accepted and for the actual amount of materials in place, as shown by final measurements.
 - 1. All units of measurement shall be standard United States convention as applied to the specific items of work by tradition and as interpreted by the Engineer.
 - 2. At the end of each day's work, the Contractor's Superintendent or other authorized representative of the Contractor shall meet with the Resident Project Representative and determine the quantities of unit price work accomplished and/or completed during the work day.
 - 3. Once each month the Resident Project Representative will prepare two "Monthly Progress Summation" forms from the month's accumulation of "Daily Progress Reports" which shall also be signed by both the Resident Project Representative and Contractor's Representative.
 - 4. These completed forms will provide the basis of the Engineer's monthly quantity estimate upon which payment will be made. Items not appearing on both the Daily Progress Reports and Monthly Progress Summation will not be included for payment. Items appearing on forms not properly signed by the Contractor will not be included for payment.
 - 5. After the work is completed and before final payment is made, the Engineer will make final measurements to determine the quantities of various items of work accepted as the basis for final settlement.

1.2 SCOPE OF PAYMENT

- A. Payments to the Contractor will be made for the actual quantities of the Contract items performed and accepted in accordance with the Contract Documents. Upon completion of construction, if these actual quantities show either an increase or decrease from the quantities given in the Proposal Form, the Contract Unit Prices will still prevail, except as provided hereinafter.
- B. The Contractor shall accept in compensation, as herein provided, in full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the Contract; also for all loss or damage arising from the nature of the Work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work and until its final acceptance by the Engineer, and for all risks of every description connected with the prosecution of the work, except as provided herein, also for all expenses incurred in consequence of the suspension of the Work as herein authorized.
- C. The payment of any partial estimate or of any retained percentage except by and under the approved final invoice, in no way shall affect the obligation of the Contractor to repair or renew any defective parts of the construction or to be responsible for all damage due to such defects.

1.3 PAYMENT FOR INCREASED OR DECREASED QUANTITIES

- A. When alterations in the quantities of work not requiring supplemental agreements, as hereinbefore provided for, are ordered and performed, the Contractor shall accept payment in full at the Contract price for the actual quantities of work done. No allowance will be made for anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as stipulated in such agreements.

1.4 OMITTED ITEMS

- A. Should any items contained in the bid form be found unnecessary for the proper completion of the work contracted, the Engineer may eliminate such items from the Contract, and such action shall in no way invalidate the Contract, and no allowance will be made for items so eliminated in making final payment to the Contractor.

1.5 PARTIAL PAYMENTS

- A. Partial payments shall be made monthly as the work progresses. Partial payments shall be made subject to the provisions of the Supplemental and General Conditions.
- B. No monthly payment shall be required to be made when, in the judgment of the Owner, the Work is not proceeding in accordance with the provisions of the Contract Documents, or when in his judgment the total value of the Work performed since the last payment amounts to less than \$1,000.00.
- C. Retained amounts shall be as provided for in the Agreement and/or General Conditions.

1.6 PAYMENT FOR MATERIAL DELIVERED

- A. When requested by the Contractor and at the discretion of the Owner, payment may be made for all or part of the value of acceptable, non-perishable materials and equipment which are to be incorporated into bid items, have not been used and have been delivered to the construction site, or placed in storage places acceptable to the Owner. Payment shall be subject to the provisions of the General and Supplemental Conditions. Such payment will also be contingent upon the Contractor providing receipted invoices and insurance coverage acceptable to the Owner, as well as providing right-of-entry to the Owner and Owner's representative for inspection of the stored materials and equipment. Prior to payment being made, submit to the Owner original invoices accompanied by receipted bills as proof of payment of all the value of the material and/or equipment under consideration. Materials and equipment, when so paid for by the Owner, shall become the property of the Owner, and in the event of default on the part of the Contractor, the Owner may use, or cause to be used, these materials and equipment in the construction of the Work. The Contractor shall be responsible for any damage to, or loss of, these materials and equipment. The amount thus paid by the Owner shall reduce the estimated amounts due the Contractor as the material is used in the work.
- B. No payment shall be made upon fuels, supplies, lumber, false work, or other materials, or on temporary structures of any kind which are not a permanent part of the Contract.

1.7 FINAL PAYMENT

- A. The Engineer will make, as soon as practicable after the entire completion of the project, a final quantity invoice of the amount of the Work performed and the value of such Work and the Owner will then pay the entire sum found to be due, after deducting from all previous payments. All amounts to be retained or deducted under the provisions of the Contract may be held by the Owner for a period of thirty (30) days after the completion of the final quantity invoice, or until such time as the Contractor submits satisfactory evidence that all bills for

labor and materials used under this Contract have been paid and all required documents have been submitted to the Owner.

1.8 INCIDENTAL WORK

- A. Incidental work items for which separate payment will not be made includes, but is not limited to, the following items:
1. Pre-Construction photographs and videos.
 2. Traffic control plan.
 3. On-site and other facilities acceptable to the Owner for storage of materials, supplies and equipment to be incorporated into the Work.
 4. Construction schedules, bonds, insurance, shop drawings, warranties, guarantees, certifications, Contract administration, and other submittals required by the Contract Documents.
 5. Quality assurance testing.
 6. Materials testing.
 7. Permits not otherwise paid for or provided by the Owner.
 8. Visits to the project site or elsewhere by personnel or agents of the Contractor, including manufacturer's representatives, as may be required.
 9. Cooperation and coordination with other Contractors and utility companies including related inspection costs and other costs (Refer to Section 01050).
 10. Weather protection, winter equipment, and fuel.
 11. Temporary construction necessary for construction sequencing and other facilities not permanently incorporated into the work.
 12. Temporary utility services to buildings, as required to maintain service during construction.
 13. Temporary utilities for construction and to maintain existing service during construction.
 14. Contractor's Field Office.
 15. Potable water for cleaning, disinfection and testing.
 16. All excavation except the test pits specifically shown or ordered by the Engineer to establish sewer line and water line locations, earth excavation below grade and rock excavation.
 17. Removal and disposal of existing pipes and structures.
 18. Utility crossings and relocations, unless otherwise paid for.
 19. Trench boxes, steel and/or wood sheeting as required, including that left in place.
 20. Maintenance of all existing sewer and storm flows and repair of existing pipes.
 21. Dewatering.
 22. Dust control.
 23. Minor Items--such as relocation of sign posts, fences, guard rails, rock wall, mail boxes, curbs, traffic loop detectors, pavement markings, etc., damaged or disturbed as a result of construction activities.
 24. Repair and replacement of utilities damaged by construction activities and corresponding proper disposal of removed materials unless otherwise paid for.
 25. Clean-up and restoration of property, unless otherwise paid for.
 26. Loam, seeding, grading, liming, fertilization, mulching, and watering.

27. Final cleaning of sewers and storm drains.
28. Facilities startup services required.
29. Demobilization
30. Project record documents.

1.9 ALLOWANCES

- A. The Bid Documents contain one or more contract cost item entitled "ALLOWANCES". Allowances are noncompetitive cost items the Bidder shall carry in his Bid for the purpose of permitting the Owner to estimate the total Contract cost. The number, type and value of the ALLOWANCES has been predetermined by the Owner and contained in the Bid documents. There is no markup allowed by the Contractor for ALLOWANCES.
- B. "ALLOWANCES" is the means that will be used by the Owner to reimburse an entity for those specifically itemized project related incurred costs that are outside the scope of the work to be performed directly by the Contractor, and that are essential to the overall completeness of the project, but are to some degree, beyond the direct control of the Contractor.
- C. It is understood that the Bidder has included in his total bid quote the ALLOWANCES contained in the Bid.

1.10 DESCRIPTION OF PAY ITEMS

- A. The following sections describe the measurement of and payment for the work to be done under the respective items listed in the Bid Form.
- B. Each unit or lump-sum price stated in the Bid Form shall constitute full compensation, as herein specified, for each item of the work completed.

Item No. 1 - Mobilization

Payment of the lump sum amount for Item No.1 in the Bid Schedule shall be full compensation for mobilization costs. The amount bid for Item No. 1 shall not exceed 2.5% of the Total Base Bid.

Items No. 2 and 3 – Install Town Provided (Size) Ductile Iron Water Main and Fittings

- A. Method of Measurement: Water main measured for payment shall be the actual length in feet as measured along the center line of the pipe as laid through all fittings and valves.
- B. Basis of Payment:
 1. Install Town Provided Ductile Iron Water Main and Fittings shall be paid for at the unit price per linear foot stated in the Bid Schedule. Said unit price shall be full compensation for furnishing all materials (except ductile iron pipe, fittings, and Megalug joint restraints – these materials will be provided by the Owner), labor, equipment and tools required for the installation of the complete pipelines; for dewatering; for installing the pipes, fittings, and appurtenances (including pipe, fittings, and Megalug joint restraints provided by the Owner, and additional fittings required); for furnishing and installing chlorination inlets; for excavating (except rock excavation), for furnishing and installing a concrete mud slab where shown on the drawings, (if required); laying, setting, and proper jointing all pipes and fittings; for furnishing and installing polyethylene pipe encasement; for furnishing and placing all bedding, haunching and initial backfill; for backfilling; for furnishing and placing all gravel required in areas of gravel shoulder; for compaction; for miscellaneous concrete for thrust blocks, etc.; for furnishing and placing all temporary and/or permanent sheeting and bracing; for all labor, tools and construction equipment; for testing; for cleaning and flushing including temporary flushing connections; for chlorination, for furnishing and installing temporary taps and fittings required for testing; and for all other work and expenses incidental thereto, including record drawings (as-builts) as specified

in Contract Documents Section 01720 Project Record Documents. Also included is the coordination with the Town of Guilford and The Connecticut Water Company for the delivery of the Town provided materials. The Contractor is responsible for the off-loading of all Town provided materials at a site to be determined by the Town, and transporting the materials from the storage site to the project site.

2. Only ninety (90%) of the price per lineal foot of pipe shall be paid for upon its installation, the balance shall be withheld until such time as the pipe has been successfully tested and chlorinated and ready to be incorporated into the existing system. The above percentages are prior to the specified retainage to be withheld.
- C. All temporary items and labor necessary to properly protect work, test and chlorinate mains shall be covered under this item.

Item No. 4 – Install (Size) Tapping Sleeve and Valve

- A. Method of Measurement: Tapping sleeve and valve measured for payment shall be the actual number of tapping sleeves and valves installed complete in place.
- B. Basis of Payment: Install Town Provided (Size) Tapping Sleeve and Valve shall be paid for at the unit price per each stated in the Bid Schedule. Said unit price shall be full compensation for furnishing all materials (except the tapping sleeve and valve, valve box, and Megalug joint restraints – these materials will be provided by the Owner), installing tapping sleeve and valve, valve box; for all materials, labor, equipment, and tools; for installing, setting, and jointing; for restraining joints; for testing all valves; and for all other work and expenses incidental thereto.

Items No. 5 and 6 – Install Town Provided (Size) Gate Valves

- A. Method of Measurement: Install Town Provided (Size) Gate Valves measured for payment shall be the actual number of valves and valve boxes installed complete in place.
- B. Basis of Payment: Install Town provided (Size) Gate Valves shall be paid for at the unit price per each as stated in the Bid Schedule. Said unit price shall be full compensation for furnishing all materials (except the valves, gaskets, valve boxes, and Megalug joint restraints – these materials will be provided by the Owner), labor, equipment and tools required for the installation of the valves; for installing, setting, and jointing of gate valves (including valves and appurtenances provided by the Owner); for restraining joints; for installing valve boxes; for testing all valves and valve boxes; and for all other work and expenses incidental thereto.

Item No. 7 – Install CT Water Co. Supplied Hydrant Assemblies

- A. Method of Measurement: Hydrant assemblies measured for payment shall be the actual number installed complete in place.
- B. Basis of Payment: Install CT Water Co. Supplied Hydrant Assemblies shall be paid for at the unit price each as stated in the Bid Schedule. Said unit price shall be full compensation for coordination with the Connecticut Water Company, loading, unloading, transport and storage from Town's storage yard to Contractor's selected storage yard and/or project areas; for all materials, labor, equipment, and tools required for the installation of the hydrant assemblies; for clearing and grubbing; for dewatering; for installing setting and jointing the hydrant assemblies; for excavating (except rock excavation); for furnishing and placing all bedding, haunching and initial backfill; for backfilling; for furnishing and placing all road base materials; for compaction; for all thrust blocks; for restraining joints; for furnishing and placing all temporary and/or permanent sheeting and bracing; for testing; and for all other work and expenses incidental thereto.

Item No. 8 – Furnish and Install Blow Off Assembly

- A. Method of Measurement: Blow off assemblies measured for payment shall be the actual number of valves and valve boxes installed complete in place.
- B. Basis of Payment: Furnish and Install Blow Off Assembly will be paid for at the unit price per each as stated in the Bid Schedule. Said unit price shall be full compensation for all materials, labor, equipment, and tools necessary for the furnishing and installing of the blow off assembly and appurtenances including galvanized nipples, gate valves and boxes, main line restrained plug, couplings and fittings; for trench excavation (excluding ledge excavation), dewatering, bedding, backfill, compaction; for laying, setting, and jointing all pipes and fittings; for cleaning, testing, and disinfecting; and for all other incidental work, except other such items specifically included in the Bid Schedule.

Item No. 9 – Furnish and Install Air Release Assembly

- A. Method of Measurement: Air release assemblies measured for payment shall be the actual number of valves and valve boxes installed complete in place.
- B. Basis of Payment: Furnish and Install Air Release Assembly will be paid for at the unit price per each as stated in the Bid Schedule. Said unit price shall be full compensation for all materials, labor, equipment, and tools necessary for the furnishing and installing of the air release assembly and appurtenances including copper pipe, curb stops and boxes, corporation stops, couplings and fittings; for trench excavation (excluding ledge excavation), dewatering, bedding, backfill, compaction; for tapping the main; for laying, setting, and jointing all pipes and fittings; for cleaning, testing, and disinfecting; and for all other incidental work, except other such items specifically included in the Bid Schedule.

Item No. 10 – Furnish and Install Water Services

- A. Method of Measurement: Water services will be measured for payment per linear foot as measured along the center line of the pipe from the corporation valve forming the beginning of the work to the curb stop constituting the end of the work, measured through all fittings.
- B. Basis of Payment:
 - 1. Furnish and Install Water Services will be paid for at the unit price per linear foot as stated in the Bid Schedule. Said unit price shall be full compensation for all materials, labor, equipment, and tools necessary for the furnishing and installing of the water services and appurtenances including copper service pipe, curb stops and boxes, corporations, couplings and fittings; for trench excavation (excluding ledge excavation), dewatering, bedding, backfill, compaction; for tapping the main; for laying, setting, and jointing all pipes and fittings; for installing the curb stop; for cleaning, testing, and disinfecting; and for all other incidental work, except other such items specifically included in the Bid Schedule.

Item No. 11 - Ledge Excavation, Disposal and Replacement Backfill

- A. Method of Measurement:
 - 1. Ledge excavation measured for payment shall be the number of cubic yards of ledge removed during construction. This quantity shall be determined by:
 - a. Exposing the ledge profile for measurement. Excavation and backfill of the earth overburden shall be considered incidental, and no separate payment shall be made therefore.
 - b. Should the Contractor elect to pre-drill and blast ledge without exposing the ledge surface for measurement, ledge depths shall be determined by the Resident Project Representative at the time of drilling or, when direct drilling observation is not conducted, the ledge profile shall be measured after excavation, and 20% of the ledge volume thus measured shall be deducted due to ledge expansion caused by the blasting operation.
 - 2. The payment limit for trench width shall be between vertical planes which are a distance apart equal to the sum of 18 inches plus 1-1/3 times the nominal outside diameter of pipe which is to be installed in the trench (min. of 3 feet) and extending from the top of the ledge surface to a

depth of 6 inches below the invert grade of the pipe. Where two pipes are installed in the same trench, trench ledge excavation shall be measured as the actual volume of ledge removed between vertical planes which are a distance apart equal to the sum of 3 feet plus the sum of the pipes nominal outside diameter. Where three pipes are installed in the same trench, trench ledge excavation shall be measured as the actual volume of ledge removed between vertical planes which are a distance apart equal to the sum of 4.5 feet plus the sum of the pipes nominal outside diameter.

3. Ledge excavation for structures shall be measured as 18 inches outside the structure and extending to a depth of 6 inches below the base of the structure indicated on the Drawings.
4. Rocks or boulders greater than two cubic yards volume shall be considered as ledge excavation. Volume of rocks shall be determined from their average length, width, and depth as measured by the Engineer.

B. Basis of Payment:

1. The contract unit price per cubic yard for ledge excavation shall be full compensation for all labor, materials, tools and equipment necessary to complete the excavation including conducting the pre-blast survey, drilling, blasting, excavating, loading and disposing of the ledge and the excess or unusable material outside the work limits, suitable replacement backfill, for repairing all overblast, and all else incidental thereto for which payment is not provided under other items.
2. Not all the potential ledge locations are identified on the Drawings and ledge could be encountered anywhere within the limits of work. Such ledge, if encountered, is not considered a Differing Subsurface or Physical Condition. The unit price in the bid form shall apply to all ledge encountered and removed.

Item No. 12 - Earth Excavation Below Grade and Replacement Backfill

A. Method of Measurement: Quantity to be paid for under this item shall be the number of cubic yards of material removed and replaced below the pipe or structure bedding with materials from off-site as authorized by the Engineer. The payment limit for this item shall be between vertical planes that are a distance apart equal to the sum of 18 inches plus 1-1/3 times the nominal inside diameter of pipe to be installed (minimum 3 feet) extending from the typical excavation depth called out in the contract drawings (bottom of bedding layer) to the depth accepted by the Engineer for the length of the excavation as directed by the Engineer.

B. Basis of Payment:

1. Excavated unsuitable materials below the bedding elevation shall be paid for at the unit price per cubic yard stated in the Bid Schedule. Said unit price shall be full compensation for furnishing all labor, equipment, and tools necessary for the excavation of unsuitable material including the disposal of materials; and including furnishing installing and compacting replacement suitable backfill, and filter fabric (if required), and for all other work and expenses incidental thereto for which payment is not provided under other items.
2. Material excavated below pipe bedding grade that could have, in the opinion of the Engineer, remained in place through the use of adequate dewatering efforts shall be replaced by the Contractor at no additional cost to the Owner.

Item No. 13 – Replacement of Unsuitable Material Above Pipe Bedding and Initial Backfill

A. Method of Measurement: Quantity to be paid for under this item shall be the number of cubic yards of material removed and replaced with materials from off-site as authorized by the Engineer. The payment limit for this item shall be between vertical planes that are a distance apart equal to a maximum of 5-foot extending from the top of the initial backfill layer to the bottom of the aggregate subbase layer as called out in the contract drawings for the length of the excavation as directed by the Engineer.

B. Basis of Payment:

1. Excavated unsuitable materials shall be paid for at the unit price per cubic yard stated in the Bid Schedule. Said unit price shall be full compensation for furnishing all labor, equipment, and tools necessary for the excavation of unsuitable material including the disposal of materials; furnishing installing and compacting replacement suitable backfill, and for all other work and expenses incidental thereto for which payment is not provided under other items.
2. Material excavated that could have, in the opinion of the Engineer, remained in place through the use of adequate dewatering efforts shall be replaced by the Contractor at no additional cost to the Owner.
3. Excess backfill material may be available during the Contract. This item shall be used to pay for excavation of unsuitable materials above the initial backfill layer only if no suitable backfill material previously excavated under this Contract is available.

Item No. 14 – Processed Aggregate Road Base

- A. Method of Measurement: Aggregate base for roadway pavement, accepted for payment, shall be measured by the cubic yard of aggregate base surface, to the limits shown on the plans or as ordered by the Owner and after verification of the proper depth of aggregate base thickness by the Owner. Aggregate base outside of pavement payment limits indicated on the drawings will not be measured for payment.
- B. Basis of Payment: Aggregate base for roadway pavement shall be paid for at the Contract unit price per cubic yard, complete in place, which price shall include furnishing and placing all aggregate base materials, compaction, tools, equipment and labor and all other costs and appurtenant work incidental and necessary to complete the item as specified, as indicated and as directed by the Owner.

Item No. 15 – Temporary (Initial) Bituminous Concrete Pavement

- A. Method of Measurement – Temporary (Initial) Bituminous Concrete Pavement accepted for payment shall be the number of tons of pavement placed at the direction of the Engineer, calculated as described below, within the payment limits shown on the Drawings. Pavement outside of pavement limits indicated on the drawings will not be measured for payment.
 1. Actual widths will be used in computing area wherever the width of pavement removed and replaced is less than the limits indicated on the Drawings.
 2. The conversion factor to change volume of bituminous concrete pavement measured in place to tons will be 0.0575 tons per square yard per inch of thickness.
- B. Basis of Payment: Temporary (Initial) Bituminous Concrete Pavement shall be paid for at the Contract unit price per ton as stated in the Bid Schedule. Said unit price shall be full compensation for furnishing all materials, labor, equipment and tools necessary for the placement of pavement; for saw cutting pavements, furnishing and applying tack coats, temporary pavement repair, and pavement markings.

Item No. 16 – Final (Permanent) Trench Pavement

- A. Method of Measurement: Final (Permanent) Trench Pavement accepted for payment shall be the number of tons of pavement placed at the direction of the Engineer, calculated as described below, within the payment limits shown on the Drawings. Pavement outside of pavement limits indicated on the drawings will not be measured for payment.
 1. Actual widths will be used in computing area wherever the width of pavement removed and replaced is less than the limits indicated on the Drawings.
 2. The conversion factor to change volume of bituminous concrete pavement measured in place to tons will be 0.0575 tons per square yard per inch of thickness.
- B. Basis of Payment: Final (Permanent) Trench Pavement shall be paid for at the Contract unit price per ton as stated in the Bid Schedule. Said unit price shall be full compensation for furnishing all materials, labor, equipment and tools necessary for the placement of pavement; for saw cutting pavements, furnishing and applying tack coats, removing defective temporary pavement, and pavement markings.

Item No. 17 – Reclaimed Existing Pavement

- A. Method of Measurement: The Reclaimed Existing Pavement work shall be measured for payment by the number of square yards of reclaimed pavement installed within the payment limits shown on the Drawings or as directed by the engineer.
- B. Basis of Payment: Reclaimed Existing Pavement will be paid for at the Contract unit price bid per square yard as listed in the bid, complete in place and accepted, which price and payment shall be full compensation for all reclaiming work, excavation, backfill, disposal of surplus material, furnishing and installing the reclaimed material, compaction, fine grading, and all equipment, tools, labor and materials incidental thereto.

Item No. 18 – Additional Bituminous Concrete

- A. Method of Measurement: Additional Bituminous Concrete, necessary for the edge to edge pavement base when the reclaimed pavement quantity is insufficient, accepted for payment, shall be the number of tons of pavement placed at the direction of the Engineer, calculated as described below. Pavement not authorized by the Engineer will not be measured for payment.
 - 1. Actual widths will be used in computing areas.
 - 2. The conversion factor to change volume of bituminous concrete pavement measured in place to tons will be 0.0575 tons per square yard per inch of thickness.
- B. Basis of Payment: Additional Bituminous Concrete shall be paid for at the Contract unit price per ton as stated in the Bid Schedule. Said unit price shall be full compensation for furnishing and placing all materials, labor, equipment and tools necessary for the placement and rolling of pavement.

Item No. 19 – Final (Permanent) Edge to Edge Pavement

- A. Method of Measurement: The quantity of Final (Permanent) Edge to Edge Pavement to be paid for under this item shall consist of the tons of edge of existing road to edge of existing road pavement installed within the payment limits shown on the Drawings or as directed by the engineer.
- B. Basis of Payment: The contract unit price per ton Final (Permanent) Edge to Edge Pavement shall be full compensation for all labor, materials, tools and equipment necessary to complete this work including furnishing and installing bituminous concrete for surface course, tack coating surfaces, placing and rolling the mix, broom cleaning existing reclaimed surfaces prior to paving, and all else incidental thereto for which payment is not provided under other items.

Item No. 20 – Driveway Repair

- A. Method of Measurement – Driveways, of varying types, shall be measured for payment by the number of square yards of driveway installed and accepted in place.
- B. Basis of Payment - Driveways will be paid for at the Contract unit price bid per square yard as listed in the bid, complete in place and accepted, which price and payment shall be full compensation for all excavation, backfill, disposal of surplus material, furnishing and installing the base, compaction, fine grading, furnishing and installing the various types of driveway surfaces and aprons, jointing, and all equipment, tools, labor and materials incidental thereto. Types of surfaces include, but are not limited to, bituminous concrete, concrete, brick, pavers, gravel, and crushed sea shells.

Item No. 21 - Erosion Control

- A. Method of Measurement: Erosion Control will be paid for at the lump sum unit price as stated in the Bid Schedule.
- B. Basis of Payment: Erosion Control shall be paid for at the Contract per lump price as stated in the Bid Schedule. Said lump sum price shall be full compensation for installation, maintenance and removal of the type and quantity of erosion and sedimentation control devices as required and shown on the drawings.

Item No. 22 – Clearing and Grubbing

- A. Method of Measurement: Tree Removal will be paid for at the lump sum price as stated in the Bid Schedule.
- B. Basis of Payment: Clearing and Grubbing shall be paid for at the Contract lump sum price as stated in the Bid Schedule. Said lump sum price shall be full compensation for all labor, equipment, tools, supplies, materials, handling, hauling, removal and disposal and work incidental and necessary to complete the clearing and grubbing operation and related work as detailed above, all in accordance with the provisions of the drawings and specifications and as directed.

Item No. 23 - Test Pit Excavation, Backfill and Restoration

- A. Method of Measurement - Test pit excavation measured for payment shall be per each unit completed as ordered by the Engineer and/or as indicated on the Drawings.
- B. Basis of Payment – Test Pit Excavation, Backfill and Restoration shall be paid for at the Contract unit price per each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, tools and equipment necessary to complete this work including cutting existing pavement, hand and machine excavation, repairing damage to pipes, utilities, structures and property, backfilling, compaction, and surface restoration.

Item No. 24 – Tree Removal

- A. Method of Measurement: Tree Removal will be paid for at the lump sum price as stated in the Bid Schedule.
- B. Basis of Payment: Tree Removal shall be paid for at the Contract lump sum price as stated in the Bid Schedule. Said lump sum price shall be full compensation for the felling of all trees within the easement required for the installation of the water main, including removal of the stumps and the disposal off-site of all felled trees and stumps.

Item No. 25 – Stream Crossing – Sheet C-4

- A. Method of Measurement: Stream Crossing – Sheet C-4 will be paid for at the lump sum price as stated in the Bid Schedule.
- B. Basis of Payment:
 - 1. The contract lump sum for Stream Crossing – Sheet C-4 at the location and to the limits shown on the Contract Drawings shall be full compensation for furnishing all materials (except ductile iron pipe, fittings, and Megalug joint restraints – these materials will be provided by the Owner), labor, equipment and tools required for the installation of the complete pipelines; for dewatering; for installing the pipes, fittings, and appurtenances (including pipe, fittings, and Megalug joint restraints provided by the Owner); for excavating (except rock excavation), laying, setting, and proper jointing all pipes and fittings; for furnishing and installing polyethylene pipe encasement; for furnishing and placing all bedding, haunching and initial backfill; for backfilling; for removal, disposal and replacement of unsuitable material outside of the wetlands; for compaction; for miscellaneous concrete for thrust blocks, etc.; for furnishing and placing all temporary and/or permanent sheeting and bracing; for all labor, tools and construction equipment; for testing; for cleaning and flushing; for chlorination, for furnishing and installing temporary taps and fittings required for testing; and for all other work and expenses incidental thereto necessary for providing a complete installation within the lump sum limits indicated on the drawings, including record drawings (as-builts) as specified in Contract Documents Section 01720 Project Record Documents.
 - 2. Also included shall be, but not limited to, coordination and field meetings with the regulatory agencies, submittals, the pre-existing condition documentation, flowable fill trench dams, flowable fill excavation lining (if required), restoration of the wetlands and stream bed, post-construction survey of the vernal pool, and all environmental regulatory agencies' requirements.

3. Progress payments for this item will be based on percent completeness of the various parts of this item as listed in the approved schedule of values, including but not limited to, restoration of the wetlands and stream bed to the satisfaction of the regulatory agencies.

Item No. 26 – Elevated Water Main – Daniel Avenue

A. Method of Measurement: Elevated Water Main – Daniel Avenue will be paid for at the lump sum price as stated in the Bid Schedule.

B. Basis of Payment:

1. The contract lump sum for Elevated Water Main – Daniel Avenue at the location and to the limits shown on the Contract Drawings shall be full compensation for furnishing all, materials (except ductile iron pipe, fittings, and Megalug joint restraints – these materials will be provided by the Owner), labor, tools and equipment necessary to complete this work; performing all operations in connection with providing the water main as shown on the plans, including but not limited to, all necessary excavations (except rock excavation), bedding, backfills, refills, grading and compactions; for the satisfactory removal, disposal and replacement of all unsuitable materials; for the satisfactory removal and disposal of all surplus materials; for temporary and permanent sheeting and shoring; clearing and grubbing; dewatering; for installing the water main piping, fittings, joint restraints, air valves, insulation, protective steel sleeve, piles, cofferdams, concrete mud slab, pile caps and accessories; testing of pipelines; material tests; jointing materials; for bollards and gravel parking restoration; for furnishing the services of manufacturer’s representatives; for the replacing or restoring of all existing items of work removed or disturbed as a result of the Contractor’s operations; for the furnishing, installing, maintaining and removal of all temporary construction and work required by contract operations, construction and controlling authorities; for providing all work and precautionary measures necessary to protect persons, property and the work from injury or damage; for providing all work necessary for compliance with requirements of the Connecticut Water Company; and for all costs in connection with the construction of the work included under this Item and all other related and appurtenant work, complete in place and accepted, in accordance with the specifications and drawings, and as directed by the Owner; and all materials, equipment, tools, labor and work incidental to or necessary for the completion of the Item as specified to the satisfaction of and as directed by the Owner; and for all other work and expenses incidental thereto necessary for providing a complete installation within the lump sum limits indicated on the drawings.
2. Also included shall be, but not limited to, coordination and field meetings with the regulatory agencies, submittals, and all environmental regulatory agencies’ requirements.

Item No. 27 – 36” Storm Drain Crossing – Tuttle Point Road

A. Method of Measurement: 36” Storm Drain Crossing – Tuttle Point Road will be paid for at the lump sum price as stated in the Bid Schedule.

B. Basis of Payment:

1. The contract lump sum for 36” Storm Drain Crossing – Tuttle Point Road at the location and to the limits shown on the Contract Drawings shall be full compensation for furnishing all materials (except ductile iron pipe, fittings, and Megalug joint restraints – these materials will be provided by the Owner), labor, tools and equipment necessary to complete this work; performing all operations in connection with providing the entire water main pipe crossing within a steel pipe sleeve under the 36” storm drain pipe, as shown on the plans, and including all necessary excavations (excluding rock excavation), bedding, backfilling, refills and compactions; for cutting, removing and repairing a portion of the existing wood plank pipe support; for the satisfactory removal, disposal and replacement of all unsuitable materials; for the satisfactory removal and disposal of all surplus materials; for temporary and permanent sheeting and shoring; clearing and grubbing; dewatering; removing and resetting riprap; for filling pipe sleeve; for installing pipe

sleeve, 8" ductile iron water main, fittings and appurtenances; joint restraints; spacer assemblies; flowable fill; polywrap; geo fabric; testing of water main; material tests; jointing materials; services of manufacturer's representatives; for the replacing or restoring of all existing items of work removed or disturbed as a result of the Contractor's operations; for the furnishing, installing, maintaining and removal of all temporary construction and work required by contract operations, construction and controlling authorities; for providing all work and precautionary measures necessary to protect persons, property and the work from injury or damage; for providing all work necessary for compliance with requirements of the Connecticut Water Company; and for all costs in connection with the construction of the work included under these items and all other related and appurtenant work, complete in place and accepted, in accordance with the specifications and drawings and the requirements of the Owner, and as directed by the Owner; and for all other work and expenses incidental thereto.

2. Also included shall be, but not limited to, coordination and field meetings with the regulatory agencies, submittals, and all environmental regulatory agencies' requirements.

Item No. 28 – Allowance for Utility Companies

- A. Method of Measurement: An allowance is included for all work, relocations, supports, etc. required to be performed by a utility company during the installation of the water main.
- B. Basis of Payment: Allowance for Utility Companies work shall be paid for the actual amount invoiced by the utility company. Adjustment to the final cost for this item will be made in accordance with Paragraph 11.02 of the General Conditions.

Item No. 29 – Traffic Control

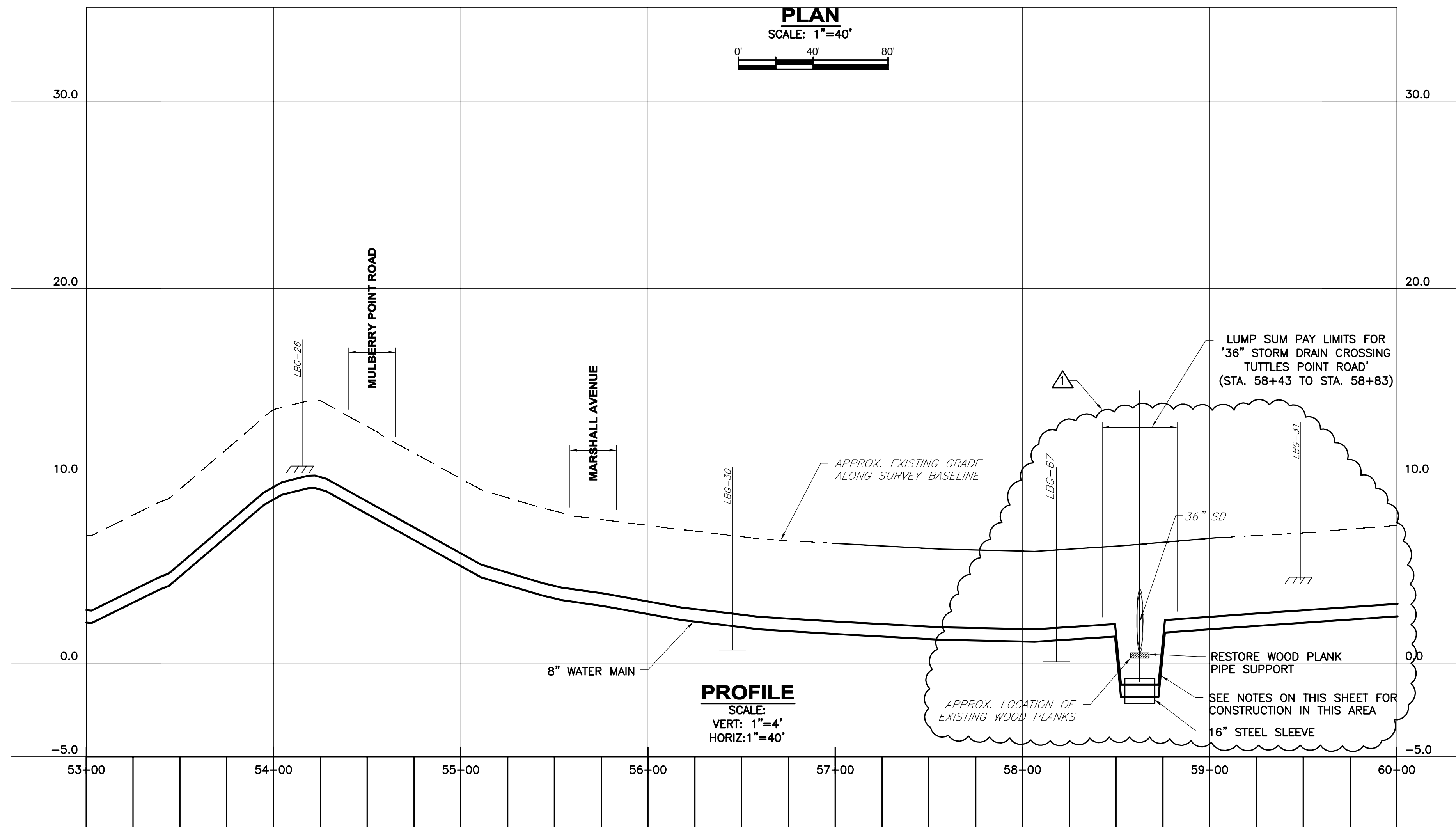
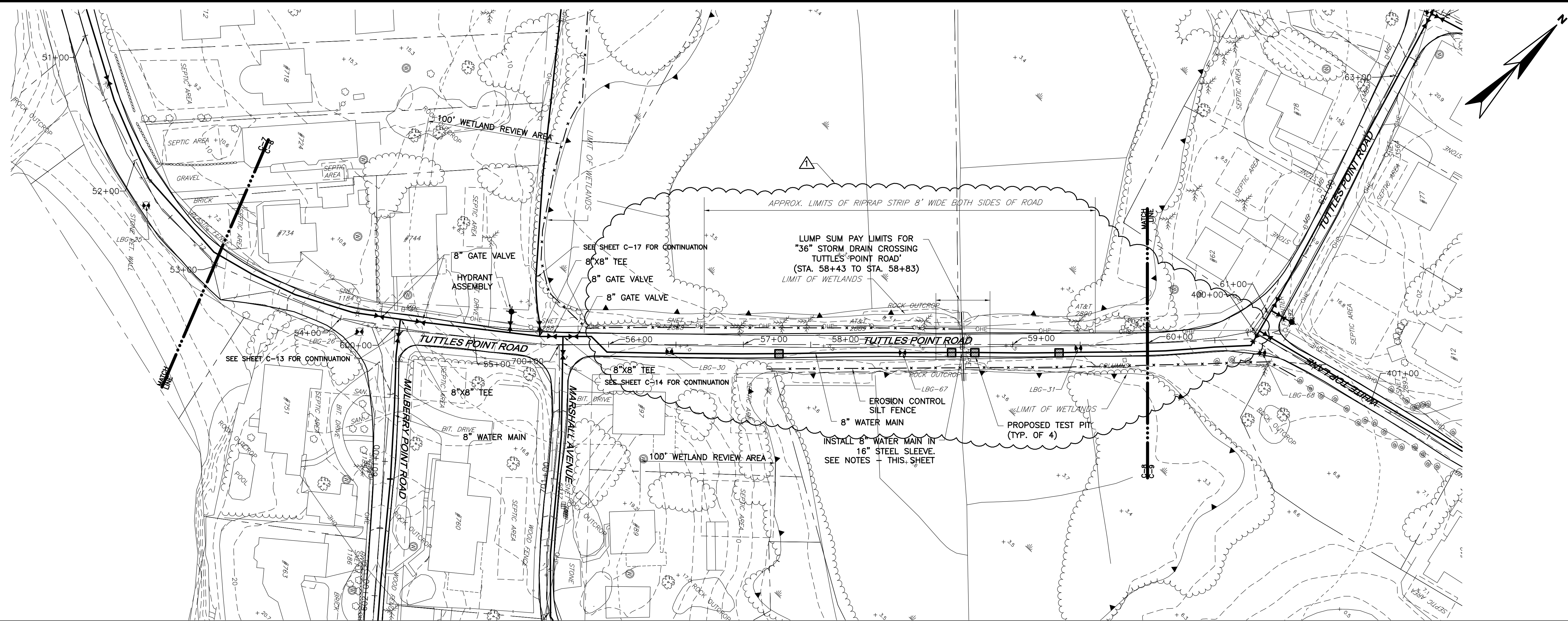
- A. Method of Measurement: Traffic Control will be paid for at the Lump Sum unit price as stated in the Bid Schedule.
- B. Basis of Payment: Payment for Traffic Control shall constitute full compensation for all traffic regulation and control efforts (excluding traffic flaggers), and includes all labor, materials, equipment, signage and supervision required to provide comprehensive and professional traffic regulation and control at all project locations. Also included is the handling and services involved in furnishing, erecting, maintaining, moving, adjusting, relocating and storing signs, barricades, traffic cones and traffic delineators as well as all cost of labor and equipment involved in the maintenance of traffic lanes, detours, and road closures ordered and included in the approved plan for traffic control. The traffic control plan, temporary pavement markings for traffic re-routing and pedestrian safety are included in this item. The lump sum shall be paid in partial payments over the course of the project, where the percentage paid is equal to the percentage of completion of the entire Contract.

Item No. 30 – Traffic Flaggers

- A. Method of Measurement: Traffic Flaggers will be paid for at the man day unit price as stated in the Bid Schedule. One man day is defined as an eight hour work day for one flagger.
- B. Basis of Payment: Payment for Traffic Flaggers shall constitute full compensation for traffic flaggers necessary to perform the work under this contract.

Attachment C

Plan Sheet C-8



- NOTES:**
1. PRIOR TO CONSTRUCTION OF THE CULVERT CROSSING SUBMIT FOR REVIEW AND APPROVAL BY THE ENGINEER A COMPLETE SHOP DRAWING PACKAGE INCLUDING, BUT NOT LIMITED TO, MATERIALS, WORKING DRAWINGS, SCHEDULE, AND PROPOSED SEQUENCE OF CONSTRUCTION. SEE SPEC. SECTION 01340 'SUBMITTALS' FOR ADDITIONAL INFORMATION.
 2. CONTRACTOR SHALL STRICTLY ADHERE TO ALL REQUIREMENTS OF THE REGULATORY AGENCIES HAVING JURISDICTION REGARDING WORK WITHIN THE VICINITY OF WETLANDS.
 3. PRIOR TO ANY CONSTRUCTION OF THE CULVERT CROSSING THE CONTRACTOR SHALL COORDINATE A PRE-INSTALLATION MEETING BETWEEN THE CONTRACTOR, TOWN, ENGINEER, AND REGULATORY AGENCIES.

- SUGGESTED WORK SEQUENCE:**
1. DOCUMENT EXACT CONFIGURATION/LOCATION/EXTENT OF EXISTING RIPRAP PRIOR TO ANY DISTURBANCE.
 2. PERFORM TEST PITS AS DIRECTED.
 3. PUSH 20' LONG 16" STEEL SLEEVE UNDER THE EXISTING 36" HDPE CULVERT. CENTER SLEEVE ON CULVERT. MAINTAIN 12" CLEAR TO EXISTING WOOD PLANK PIPE SUPPORT. SLEEVE TO BE 0.375 INCH MIN. WALL THICKNESS PIPE AND CASING PIPE AS MANUFACTURED BY NORTHWEST PIPE COMPANY OR EQUAL.
 4. INSTALL FULL LENGTH 8" WATER MAIN IN SLEEVE CENTERED ON CULVERT. 8" WATER MAIN TO BE SUPPORTED IN CENTER OF SLEEVE AND POLY WRAPPED.
 5. ONCE THE WATER MAIN IS TESTED AND APPROVED, BACKFILL TO INVERT OF HDPE CULVERT WITH EXCAVATABLE FLOWABLE FILL TO ASSURE STABLE BEDDING.
 6. FILL ANNULAR SPACE IN SLEEVE WITH FLOWABLE FILL.
 7. BACKFILL WITH CRUSHED STONE WRAPPED IN GEOFABRIC.

NO.	ISSUED FOR	DATE
	ISSUED FOR BID	MDJ 9-18
	ADDENDUM NO. 1	MDJ 10-18

DESIGNED BY:	RIC
CAD CORP.:	DXS
CHECKED BY:	RIC
DATE:	9-18
APPROVED BY:	MDJ
DATE:	9-18
PROJECT NO.:	13675



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 TUTTLES POINT ROAD STA 53+00 TO STA 60+00

DRAWING
 C-8