

**INVITATION TO BID
TOWN OF SIMSBURY
(EQUAL OPPORTUNITY EMPLOYER)**

Project: **SANITARY SEWER IMPROVEMENTS
MASSACO STREET
Project No. WPCA/DPW 2018-2**

Sealed bids, endorsed "**Sanitary Sewer Improvements – Massaco Street**" will be received at the office of the Finance Director, 933 Hopmeadow St., (Route 10/202), Simsbury, Connecticut, until **Thursday, June 14, 2018 at 11:00 a.m. (EST)** at which time they will be opened in public by the Director of Finance. Bids received after the time set for the opening may be rejected.

"NONDISCRIMINATION IN EMPLOYMENT"

Bidders on this work will be required to comply with the President's EXECUTIVE ORDER NO. 11246. The requirements for Bidders and Contractors under this Order are explained in the Specifications.

Included in this work is the installation of approximately 945 linear feet of 8" sanitary sewer, 235 linear feet of 6" sanitary sewer, eight (8) manholes and related work.

Copies of the contract documents, drawings and specifications may be obtained from the Town Website at: www.simsbury-ct.gov finance pages public-bids-and-rfp.

The right is reserved to reject any or all bids or to waive defects in same if it be deemed in the best interest of the Town of Simsbury. The Town of Simsbury is an Equal Opportunity Employer.

Thomas J Roy, P.E.
Director of Public Works

**SPECIFICATION FOR
SANITARY SEWER IMPROVEMENTS
MASSACO STREET**

SIMSBURY, CONNECTICUT

May 2018



PREPARED FOR: Town of Simsbury Water Pollution Control Authority
and Department of Public Works

PREPARED BY: Simsbury Water Pollution Control Authority

PROJECT NO: WPCA/DPW 2018-2

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SANITARY SEWER IMPROVEMENTS

MASSACO STREET

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INFORMATION FOR BIDDERS

1. Sealed BIDS will be received by the Director of Finance, for the Town of Simsbury (Herein called the "OWNER"), at the Town Office, 933 Hopmeadow St., Simsbury, CT 06070 until **11:00 a.m.** prevailing time on **Thursday, June 14, 2018**, and then publicly opened and read aloud.
2. Each BID must be submitted in a sealed envelope, addressed to the Director of Finance, designated on the outside as BID for: "**Town of Simsbury, Sanitary Sewer Improvements – Massaco Street**".

Each envelope should also bear, on the outside, the name of the BIDDER and his address. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER, at the above address.

3. Each BID must be made on attached Bid Forms and returned intact. BIDDERS will state, both in writing and in figures, the proposed price for each separate item of the work called for in the annexed blank, by which prices will be compared. If any price is omitted, the blank may be filled with the highest price named by any BIDDER for that item or the BID may be rejected. Only one copy of the BID form is required.
4. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 30 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.
5. Each BID must be accompanied by a certified check or bank draft, payable to the Town of Simsbury, or a satisfactory BID Bond executed by the bidder and an acceptable surety, in an amount equal to five (5%) percent of the total Base Bid. The certified check, bank draft, or Bid Bond shall be retained as a guarantee that if the proposal is accepted, the Bidder will post with the OWNER, a Performance, Labor and Material Bond in the full amount of the contract, submit the required insurance certificates, and to sign a contract. Attorneys-in-fact who sign Bonds must file with each Bond a certified and effective dated copy of their Power of Attorney.
 - a. As soon as the Bid prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the agreement is executed, the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the Performance, Labor, and Material Bond have been submitted and the required insurance certificates have been filed, after which it will be returned. If a BIDDER refuses to sign a contract or cannot obtain satisfactory Bonds, the Owner will retain his Bid security as liquidated damages, but not as a penalty.
 - b. The OWNER reserves the right to waive any informality in, or to reject any or all proposals or to accept any proposal which, in their opinion, is in the best interest of the Town of Simsbury whether or not such proposal is the lowest bid. The contractor must be responsible and qualified and have previously done work of a similar nature.

- c. The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.
 - d. A conditional qualified Bid will not be accepted.
6. The Contractor to whom the contract shall be awarded must file the requisite Bonds, and certificate of INSURANCE as specified in the General Conditions, and execute said contract in triplicate within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER, and in case of failure to do so, the person or firm will be considered to have abandoned the contract, and the CERTIFIED CHECK or BID BOND shall be forfeited to the Town of Simsbury.
 7. BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done. The failure of omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from obligation in respect to his BID.
 8. Should a BIDDER find any discrepancy or omission in the Plans or Specifications or is in doubt as to the meaning of any portion of them, he shall notify the ENGINEER, who will then instruct all BIDDERS in writing regarding the points in question.
 9. The OWNER, within ten (10) days of receipt of the requisite Bonds, acceptable Insurance Certificates and Agreement signed by the party to whom the Agreement was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE, withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notices by the OWNER.
 10. The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER AND CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.
 11. The Contractor to whom this contract shall be awarded will be required to commence work on the ground within ten days from the date of the NOTICE TO PROCEED from the OWNER notifying the Contractor to begin work, exclusive of Final Pavement Restoration, and shall complete the work in 60 calendar days. The BIDDER, if he accepts the contract and fails to complete the contract within the allotted time, must pay the sum of \$250.00 as liquidated damages for each consecutive calendar day until the completion of the contract.

12. The OWNER will be responsible for payment in accordance with the terms of the Contract. The OWNER reserves the right to retain five percent (5%) of the final contract price for a period not to exceed 6 months from the date of the acceptance of the project.
13. The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the Contract.
14. Further, the BIDDER agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provisions of the equal opportunity clause set forth in the SUPPLEMENTAL GENERAL CONDITIONS.
15. The LOW BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when requested to do so by the OWNER.
16. The BIDDER'S attention is directed to the fact that all applicable Federal and State law, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.
17. No amount shall be included in the BID for Connecticut State Sales Tax or for Federal Excise Tax.

BIDDER'S PROPOSAL

Place _____

Date _____

TO: Director of Finance
933 Hopmeadow Street
Simsbury, Connecticut 06070

Sir:

1. Proposal of _____

(hereinafter called BIDDER), organized and existing under the laws of the State of _____

doing business as _____

In compliance with your Invitation to Bid, dated May 22, 2018, Bidder hereby proposes to perform all work for the construction of **SANITARY SEWER IMPROVEMENTS – MASSACO STREET** in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices shown for each bid item on the Bid Schedule. Any total cost found inconsistent with the unit cost when the bids are examined will be deemed in error and corrected to agree with the unit cost which shall be considered correct.

2. The undersigned BIDDER does hereby declare and stipulate that this proposal is made in good faith, without collusion or connection with any other person or persons bidding for the same work; that no person or persons other than those named herein are interested in this proposal or in the contract proposed to be taken; that no person acting for or employed by the Town of Simsbury is directly interested therein, or in the supplies or works to which it relates, or in any portion of the profits thereof contrary to the ordinances of said Town and laws of the State of Connecticut; that it is made in pursuance of and subject to all the terms and conditions of the Notice and Instructions to Bidders, the Construction Contract, the Detailed Specifications, and the Plans pertaining to the work to be done, all of which have been examined by the undersigned; that the site of the work has been examined; that it is understood that the town, its agents and employees are not to be in any manner held responsible for the accuracy of, or bound by, any estimates, subsurface information or plan of borings relative to the work and appearing on plans or in the foregoing notice; and that all such estimates, etc., are to be considered solely for the purpose of filling out and comparing the several proposals.

* Insert "a corporation", "a partnership", or "an individual" as applicable

3. The undersigned further agrees, in case of a corporation or fictitious trade name, that an acceptable certificate will be filed showing the proper officer or person authorized to sign said contract.

4. And the undersigned agrees to furnish satisfactory bonds and insurance, and to execute within ten (10) days after notice of the award, a formal contract with the Town of Simsbury, for the fulfillment of this proposal, and it is agreed that in case of failure on the part of the undersigned to do so, the certified check or bid bond deposited herewith shall be forfeited to the Town of Simsbury as liquidated damages for such failure.

Enclosed herewith find Certified Check, or Bid Bond in amount of _____

_____ Dollars (\$ _____) made payable to the Town of Simsbury as a proposal guarantee which it is understood will be forfeited in the event the Form of Contract is not executed, if awarded to the undersigned.

5. The undersigned BIDDER agrees to abide by the requirements of EXECUTIVE ORDER NO. 11246, as amended.
6. All the various phases of work enumerated in the Detailed Specifications with their individual jobs and overhead, whether specifically mentioned, included by implication or appurtenant thereto, are to be performed by the BIDDER under one of the items listed in the Bid Schedule, irrespective of whether it is named in said list.
7. Payment for work performed will be in accordance with the Bid Schedule, subject to changes as provided for in the Construction Contract. The total of the Bid is for comparison of proposals only. The Unit Prices, as applied to the quantities of work actually completed, will govern for actual payment. The Bidder acknowledges that the unit price will be applied and the final quantities may increase or decrease by up to 25%. If quantities for an item vary by more than 25% pricing may be adjusted by a mutual agreement in the form of a Change Order.
8. It is understood that time is of the essence in this contract and the BIDDER agrees to commence within 14 days after the NOTICE TO PROCEED and complete work within 60 calendar days.

BIDDER _____

Seal, (if a corporation) BY _____

TITLE _____

BUSINESS ADDRESS _____

TELE. (_____) _____

If a Partnership, the partners are:

Full Name

Residence

_____	_____
_____	_____
_____	_____

If a Corporation, the officers are:

Full Name

Residence

_____	President	_____
_____	Treasurer	_____
_____	Directors	_____
_____		_____
_____		_____

(I/We have)

*(I/We have not) previously performed work subject to the President’s Executive Order Number 11246 or any preceding Executive Order.

Signed _____

*Cross out words not applicable

NOTE:

Bidder is reminded that in addition to completing and signing the above proposal and bid form, he/she shall also complete and return with the bid:

- Bid Security
- Non-Collusion Affidavit
- Legal Status Form
- Statement of Bidder’s Qualifications

TOWN OF SIMSBURY, CONNECTICUT

BIDDER'S LEGAL STATUS DISCLOSURE

Please fully complete the applicable section below, attaching a separate sheet if you need additional space.

For purposes of this disclosure, "permanent place of business" means an office continuously maintained, occupied and used by the bidder's regular employees regularly in attendance to carry on the bidder's business in the bidder's own name. An office maintained, occupied and used by a bidder only for the duration of a contract will not be considered a permanent place of business. An office maintained, occupied and used by a person affiliated with a bidder will not be considered a bidder's permanent place of business.

IF A SOLELY OWNED BUSINESS:

Bidder's Full Legal Name _____

Mailing Address _____

Owner's Full Legal Name _____

Does the bidder have a "permanent place of business" in Connecticut, as defined above?

_____ Yes _____ No

If yes, please state the full street address (not a post office box) of that "permanent place of business."

IF A CORPORATION:

Bidder's Full Legal Name _____

Mailing Address _____

State in which Legally Organized _____

State Business ID # _____

Current Officers

President

Secretary

Chief Financial Officer

TOWN OF SIMSBURY

BIDDER'S NON-COLLUSION AFFIDAVIT

The undersigned bidder, having fully informed himself/itself regarding the accuracy of the statements made herein, certifies that:

- (1) the bid is genuine; it is not a collusive or sham bid;
- (2) the bidder developed the bid independently and submitted it without collusion with, and without any agreement, understanding, communication or planned common course of action with, any other person or entity designed to limit independent bidding or competition;
- (3) the bidder, its employees and agents have not communicated the contents of the bid to any person not an employee or agent of the bidder and will not communicate the bid to any such person prior to the official opening of the bid; and
- (4) no elected or appointed official or other officer or employee of the Town of Simsbury is directly or indirectly interested in the bidder's bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.

The undersigned bidder further certifies that this statement is executed for the purpose of inducing the Town of Simsbury to consider its bid and make an award in accordance therewith.

Legal Name of Bidder

(signature)
Bidder's Representative, Duly Authorized

Name of Bidder's Authorized Representative

Title of Bidder's Authorized Representative

Date

Subscribed and sworn to before me this ____ day of _____, 20__.

Notary Public

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions shall be answered and information given shall be clear and comprehensive. This statement shall be notarized. If additional room is required to answer questions, please attach additional sheet(s) with the supplemental information. The bidder's name shall appear on the top of the supplemental sheets to avoid confusion. The bidder may submit additional information as it deems necessary to enable the Town to judge the bidder's ability to perform the proposed Contract.

A complete statement of Bidders Qualifications shall be submitted for any Subcontractor that will be utilized to satisfy Item 13 of this Statement of Bidders Qualifications.

1. Bidder's full legal name:
2. Permanent main office address:
3. Contact person for this Invitation:
4. Phone and fax numbers and e-mail address of the contact person during normal business hours:
5. Date of organization:
6. Date of incorporation, if applicable:
7. Number of years bidder has been engaged in business under present firm or trade name:
8. Contracts on hand (dollar value, anticipated completion date):
9. General character or type of work performed by the bidder:
10. Has the bidder ever failed to complete any work awarded to it? If so, please explain in detail the circumstances:
11. Has the bidder ever defaulted on a contract? If so, please explain in detail the circumstances:

PROJECT: MASSACO STREET SANITARY SEWER IMPROVEMENTS

ITEM NO.	PAYMENT CLAUSE*	ITEMS OF WORK	ESTIMATED QUANTITIES	UNIT PRICES BID		AMOUNT **
				WORDS	FIGURES	
1	1.3	Test Pit	4 EA.			
2	3.21	Air and Camera Testing	Lump Sum			
3		CONN DOT Permit	(NIC)			
4	5.10	Tree and Stump Removal	(NIC)			
5	7.3	Survey and Layout	Lump Sum			
6	4.6	Sawcut Trench Pavement	1740 L.F.			
7	3.27	Doghouse Manhole, Supply and install 4-6' DEEP	(NIC)			
8	3.25	Manhole, Supply and install 4-6' DEEP	2 EA.			
9	3.25	Manhole, Supply and install 6-8' DEEP	4 EA.			
10	3.25	Manhole, Supply and install 8-10' DEEP	1 EA.			
11	3.25	Manhole, Supply and install 10-12' DEEP	1 EA.			

PROJECT: MASSACO STREET SANITARY SEWER IMPROVEMENTS

ITEM NO.	PAYMENT CLAUSE*	ITEMS OF WORK	ESTIMATED QUANTITIES	UNIT PRICES BID		AMOUNT **
				WORDS	FIGURES	
12	3.25	Manhole, Supply and install 12-14' DEEP	(NIC)			
13	3.25	Manhole, Supply and install 14-16' DEEP	(NIC)			
14	3.25	Manhole, Supply and install 16-18' DEEP	(NIC)			
15	3.25	Manhole, Supply and install 18-20' DEEP	(NIC)			
16	3.16	2" PCV, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 4-6' DEEP	(NIC)			
17	3.16	8" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 4-6' DEEP	569 L.F.			
18	3.16	8" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 6-8' DEEP	315 L.F.			
19	3.16	8" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 8-10' DEEP	61 L.F.			
20	3.16	8" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 10-12' DEEP	(NIC)			
21	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 4-6' DEEP	(NIC)			
22	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 6-8' DEEP	(NIC)			

PROJECT: MASSACO STREET SANITARY SEWER IMPROVEMENTS

ITEM NO.	PAYMENT CLAUSE*	ITEMS OF WORK	ESTIMATED QUANTITIES	UNIT PRICES BID		AMOUNT **
				WORDS	FIGURES	
23	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 8-10' DEEP	(NIC)			
24	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 10-12' DEEP	(NIC)			
25	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 12-14' DEEP	(NIC)			
26	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 14-16' DEEP	(NIC)			
27	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 16-18' DEEP	(NIC)			
28	3.16	10" SDR-35 PVC, including excavation, bedding, fabric, stone cover, disposal of excess material, dust control and trench compaction. 18-20' DEEP	(NIC)			
29	3.16	1 1/4" PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 4-6' DEEP	(NIC)			
30	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 2-4' DEEP	38 L.F.			
31	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 4-6' DEEP	61 L.F.			

PROJECT: MASSACO STREET SANITARY SEWER IMPROVEMENTS

ITEM NO.	PAYMENT CLAUSE*	ITEMS OF WORK	ESTIMATED QUANTITIES	UNIT PRICES BID		AMOUNT **
				WORDS	FIGURES	
32	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 6-8' DEEP	69 L.F.			
33	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 8-10' DEEP	67 L.F.			
34	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 10-12' DEEP	(NIC)			
35	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 12-14' DEEP	(NIC)			
36	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 14-16' DEEP	(NIC)			
37	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 16-18' DEEP	(NIC)			
38	3.16	6" SDR-35 PVC, including excavation, bedding, fabric, stone cover, bends, fittings, disposal of excess material, dust control and trench compaction, and restoration of disturbed areas including but not limited to lawn, driveway, walkway, retaining wall and landscaping. 18-20' DEEP	(NIC)			
39	3.17	8"x6" SDR-35 PVC WYE	8 E.A.			

PROJECT: MASSACO STREET SANITARY SEWER IMPROVEMENTS

ITEM NO.	PAYMENT CLAUSE*	ITEMS OF WORK	ESTIMATED QUANTITIES	UNIT PRICES BID		AMOUNT **
				WORDS	FIGURES	
40	3.18	8"x6" Saddle Tap Connection	1 E.A.			
41	3.31	PVC Cleanout	(NIC)			
42	4.4 4.11	Trench Repair (Town Road): Box-out trench area, supply and place process aggregate base, supply and place bituminous concrete material, including compaction and disposal of excess material.	600 S.Y.			
43	4.5 4.13	Trench Repair (State Road): Box-out trench area, supply and place process aggregate base, supply and place bituminous concrete material, including compaction and disposal of excess material.	(NIC)			
44	4.17	Trench Repair (Driveway): Box-out trench area, supply and place process aggregate base, supply and place bituminous concrete material, including compaction and disposal of excess material.	4 S.Y.			
45	4.7	Milling (Town Road)	(NIC)			
46	4.8	Milling (State Road)	(NIC)			
47	4.15	Temporary Patch	1 S.Y.			
48	4.11	Final Overlay (Town Road) - Per Division No. 4.10	(NIC)			
49	4.13	Final Overlay (State Road) - Per Division No. 4.13	(NIC)			
50	4.14	Bituminous Concrete Lip Curbing	442 L.F.			

PROJECT: MASSACO STREET SANITARY SEWER IMPROVEMENTS

ITEM NO.	PAYMENT CLAUSE*	ITEMS OF WORK	ESTIMATED QUANTITIES	UNIT PRICES BID		AMOUNT **
				WORDS	FIGURES	
51	5.09	Lawn Repair, including erosion control and hay mulch.	Lump Sum			
52	3.35	Remove Existing Manhole	3 E.A.			
53	3.37	Cap and Seal abandoned line	9 SEC.			
54	6.6	Remove and Replace Concrete Walk	1 S.Y.			
55	8.8	Catch Basin Reconstruction	(NIC)			
			TOTAL BID:			

CONTRACTOR'S SIGNATURE

* The number given is the clause number in the Specifications which defines the payment for the ITEM

** The Bidder is requested to fill in computed "Amount": In cases of discrepancy between Unit Prices Bid written in words and the Unit Prices Bid written in figures, the Unit Prices Bid written in words will govern. In case of a discrepancy between the unit prices bid and amount, the Unit Prices will govern.

PROJECT: MASSACO STREET SANITARY SEWER IMPROVEMENTS

ITEM NO.	PAYMENT CLAUSE*	ITEMS OF WORK	ESTIMATED QUANTITIES	<u>UNIT PRICES BID</u> WORDS	AMOUNT **
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ALTERNATE ITEM PRICES

ITEM	PAYMENT	ITEMS OF WORK	ESTIMATED	<u>UNIT PRICES BID</u>	AMOUNT **

TOWN OF SIMSBURY
SAMPLE OF CONTRACT THAT IS TO BE EXECUTED BETWEEN THE TOWN OF
SIMSBURY AND THE LOWEST RESPONSIBLE BIDDER

THIS AGREEMENT, made this ___ day of _____ by and between THE TOWN OF SIMSBURY, 933 Hopmeadow Street, Simsbury, Connecticut hereinafter referred to as the OWNER and LOWEST RESPONSIBLE BIDDER with an address at ADDRESS OF LOWEST RESPONSIBLE BIDDER hereinafter referred to as the CONTRACTOR

WITNESSETH:

That for and in consideration of the mutual covenants and promises between the parties hereto, it is hereby agreed that:

1. The CONTRACTOR will furnish all of the materials and supplies, equipment, and labor and other services necessary in conformance with these contract documents for the construction and completion of the project described in general as follows: SANITARY SEWER IMPROVEMENTS, MASSACO STREET, as defined in the Standard Instruction for Bidders.

2. COMPLETION OF WORK. The Contractor shall commence the work covered by this contract within ten (10) calendar days after the date of receipt of the Notice to Proceed and shall complete the same within 60 calendar days unless the period for completion is extended as provided for in the General Conditions.
 - a) **Liquidated Damages:** If CONTRACTOR fails to achieve Substantial Completion of the Work by 60, CONTRACTOR shall be responsible for payment of liquidated damages in the amount of \$250.00 per day that the Work has failed to achieve Substantial Completion. It is agreed and understood between the parties that while actual damages sustained by OWNER in the event of a CONTRACTOR delay would be difficult to quantify, the foregoing liquidated damage amounts represent fair and reasonable estimated of such damages and are not (and shall not be deemed to be) penalties. The parties further agree that in lieu of actual payment of liquidated damages to OWNER from CONTRACTOR, OWNER may withhold the amount of liquidated damages to OWNER by CONTRACTOR from the balance of any monies owned to CONTRACTOR from OWNER.

3. CONTRACT SUM. The Owner shall pay the Contractor for the performance of said work the sum of \$_____, subject to additions or deductions provided herein in conformity with the bid schedule of prices.

4. The Contract Documents include the following:

- (a) Notice and Instructions to Bidders dated _____
- (b) Bidder's Proposal dated _____
- (c) Notice of Award dated _____
- (d) Contract
- (e) General Conditions
- (f) Supplemental General Conditions
- (g) Plans prepared by: Simsbury Department of Water Pollution Control entitled:
Sanitary Sewer Extension, Oakhurst Road and Bushy Hill Road
- (h) Technical Specifications prepared or issued by the Town of Simsbury Department
of Water Pollution

- 5. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions and in such amounts as required by the Contract Documents.
- 6. This Contract shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Contract in duplicate, on the date first above written.

OWNER:

Signed, Sealed and Delivered
in the presence of:

Town of Simsbury
BY: Maria E. Capriola
Town Manager

CONTRACTOR:

BY: _____

Printed Name: _____

Title: _____

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PROJECT:

**Information Needed for
Communications on the Project**

Name of Company: _

Location of Company Office:

Street _

City/State _

Zip Code _

Mailing Address of Company Office (if different than

location): Street _

City/State _

Zip Code _

Phone No. of Company's Office (include area code)

Phone No. of Company's Project Office (if
applicable) _ Company Official Responsible for this
Project:

Name _

Title _

Phone No. _()_

Project Supervisor or Foreman:

Name _

Phone No. _ ()_

Person to be Contacted in Emergencies after Work Hours:

Name _ Phone

No. ()_

Person to be Contacted in Emergencies on Weekends and

Holidays: Name _____

Phone No. _()_

If any changes to the above information occur during the progress of the work, the Public Works Director shall be immediately notified.

Town of Simsbury

SUPPLEMENTAL CONTRACT SECTION

CODE OF ETHICS

Chapter 13 of the Code of Ordinances, the Simsbury Code of Ethics, is hereby incorporated by reference as if fully set forth, and is made a part of the Contract Documents. All Contractors shall sign the Acknowledgement Form.

TOWN OF SIMSBURY

**Acknowledgement Form
and**

Charter Section 1003 Code of the Town of Simsbury

ACKNOWLEDGEMENT FORM

I have read Section 1003 of the Charter of the Town of Simsbury, the Code of Ethics Ordinance, and the Guidelines issued thereunder. I understand my responsibilities as a Contractor retained by the Town of Simsbury, and I am in compliance with the Charter and the Code of Ethics. I have indicated in the space below any areas of conflict should they arise in matters before our board, commission, agency or department, and I agree to report any future conflicts under the provisions of Section 1003 of the Charter.

Areas of Exception

**CONFLICTS OF INTEREST
SECTION 1003**

CONFLICTS OF INTEREST. It is hereby declared to be the policy of the Town that any elected or appointed officer, any member of any board or commission or any employee of the Town who has a financial interest, direct or indirect, in any contract, transaction or decision of any officer or agent of the Town or any board or commission, shall disclose that interest to the Board of Selectmen, which shall record such disclosure upon the official record of its meetings. Such disclosure of a financial interest, direct or indirect, in any contract, transaction or decision of any officer or agent of the town or of any board or commission shall disqualify such elected or appointed official or such member of a board of commission or such town employee from participation in the awarding, assignment or discussion of said contract, transaction or decision. Violation by any such official, board or commission member or employee of the provisions of this section shall be grounds for his/her removal.

Signature

Name (Please Print)

Date

CONTRACTOR'S EXEMPT PURCHASE CERTIFICATE

I hereby certify, under penalties of perjury, that I am engaged in the performance of a construction contract on a project for the following named exempt agency or organization:

Town of Simsbury

Full Name of Agency of Organization

**933 Hopmeadow Street
Simsbury, CT. 06070**

Address of Same

That such agency is, to the best of my knowledge and belief, exempt from the Sales and Use Tax because it is a

Town

(Town, School, Fire or Police Department, Library etc.,
or other branch of State or Federal Government)

in accordance with Regulation No. 16 of Sales and Use Tax.

That this certificate is issued to cover all purchases of materials and supplies, designated by me, for use of the project referred to above.

Permit No. _ (if any) (signed) _ Contractor

Date: _

Place: _

 Firm Name

Address: _

GENERAL CONDITIONS

1. DEFINITIONS

- 1.1 Wherever used in the CONTRACT DOCUMENTS, The following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof.
- 1.2 ADDENDA - Written or Graphic Instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications, by additions, deletions, clarifications or corrections.
- 1.3 BID - The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.
- 1.4 BIDDER -Any person, firm, or corporation submitting a BID for the WORK.
- 1.5 BONDS - Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR in accordance with the CONTRACT DOCUMENTS.
- 1.6 CHANGE ORDER - A written order to the CONTRACTOR authorizing an addition, deletion, or revision in the WORK within the general scope of the CONTRACT TIME.
- 1.7 CONTRACT DOCUMENTS - The contract including Advertisement for Bids, information for Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, AND ADDENDA.
- 1.8 CONTRACT PRICE - The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.
- 1.9 CONTRACT TIME - The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.
- 1.10 CONTRACTOR - The person, firm, or corporation with whom the OWNER has executed the Agreement.
- 1.11 DRAWINGS - The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.
- 1.12 ENGINEER - The Director of Public Works for the Town of Simsbury, Connecticut.

- 1.13 FIELD ORDER - A written order affecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- 1.14 INSPECTOR - The person appointed by the Town of Simsbury, Conn. to supervise the WORK and shall extend to and include any assistant whom he/she may designate to act in the premises.
- 1.15 NOTICE OF AWARD - The written notice of the acceptance of the Bid from the OWNER to the successful BIDDER.
- 1.16 NOTICE TO PROCEED - Written communication issued by the OWNER to the CONTRACTOR authorizing him/her to proceed with the WORK and establishing the date of commencement of the work.
- 1.17 OWNER - The Town of Simsbury, Connecticut (A Public Body) for whom the WORK is to be performed.
- 1.18 PROJECT - The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- 1.19 SHOP DRAWINGS - All Drawings, Diagrams, Illustrations, Brochures, Schedules, and other data which are prepared by the CONTRACTOR, A SUBCONTRACTOR, manufacturer SUPPLIER or Distributor which illustrate how specific portions of the WORK shall be fabricated or installed.
- 1.20 SPECIFICATIONS - A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.
- 1.21 SUBCONTRACTOR - An individual firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the work at the site.
- 1.22 SUBSTANTIAL COMPLETION- That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.
- 1.23 SUPPLEMENTAL GENERAL CONDITIONS - Special provisions required by the funding program or Agency (Federal, State, or

Local) for participation in the PROJECT and included in the CONTRACT DOCUMENTS. Also such requirements that may be imposed by Applicable State Laws and special characteristics of the PROJECT.

- 1.24 SUPPLIER - Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.
- 1.25 WORK - All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, all construction tools, machinery, and equipment, and all materials and equipment incorporated or to be incorporated in the PROJECT.
- 1.26 WRITTEN NOTICE - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by Mail to the said party at his/her last given address or delivered in person to said party or his/her authorized representative on the WORK.

2. PAYMENT

- 2.1 On the first of each month, the Contractor may submit an itemized estimate of work completed up to that time, including an estimate of the portion of lump sum items completed.
He/she must, if requested by the Director of Public Works, submit satisfactory evidence that he/she has paid in full for all labor, materials and equipment included in the monthly estimate. The estimates shall be made on forms furnished by the Town and the Contractor shall certify that the estimate is correct and the work performed is in conformity with the plans and specifications. No later than 31 days after submission by the Contractor, and acceptance by the Town, of the estimate, the Town will pay the estimated cost, less five percent (2%) retained by the Town.

After completion of the project and acceptance by the Town, the Contractor shall submit an itemized final estimate. No later than 31 days after acceptance of the final estimate by the Town, the Town shall pay ninety-five (98%) percent of the Contract price. No later than 12 months after acceptance of the final estimate the Town will pay the five (2%) retained, unless in that time the materials or workmanship in the project shall have been found to be defective.

3. PERMITS DURATION

- 3.1 The Contractor must obtain all necessary permits and pay the fee

for them. (Town portion of permit fees are waived. The State of Connecticut portion of building permits will not be waived.)

- 3.2 Should the Town be prevented or enjoined from proceeding with work either before or after the start of construction by reason of any litigation or other reason beyond the control of the Town, the Contractor shall not be entitled to or assert claim for damage by reason of said delay; but time for completion of the work will be extended to such reasonable time as the Owner may determine will compensate for time lost by such delay with such determination to be set forth in writing.

4. SUPERVISION

- 4.1 The Town will be represented at all times by the TOWN DIRECTOR OF PUBLIC WORKS or an employee authorized by the TOWN DIRECTOR OF PUBLIC WORKS to represent him/her; and the DIRECTOR OF PUBLIC WORKS or his/her authorized representative shall have sole authority in the interpretation and execution of the contract.
- 4.2 The Contractor must have a competent Field Supervisor on the job during all working hours and notify the Town of his/her name and address in writing, and where he/she may be reached normally after working hours. In the event of the absence of the Field Supervisor, the Contractor must appoint a second in command to take responsible charge of the job. The actual performance of work and superintendence shall be performed by the Contractor but the owner shall, at all times, have access to the premises for the purpose of observing or inspecting the work performed by the Contractor.

5. LAYOUT

- 5.1 The Town will provide line and grade by means of offset points. However, the Contractor will protect these offset points and may be charged for replacing of same. Any additional field work required to reestablish these offset points to facilitate construction will be paid for by the Contractor.

6. SITE WORK

- 6.1 The Contractor will be responsible for maintenance of adequate barricades, signs, and warning systems to protect the job and the public.
- 6.2 The Contractor shall properly protect all underground and above

ground utilities from damage. No interruption shall be caused to any utility without the knowledge of the TOWN DIRECTOR OF PUBLIC WORKS.

7. STANDARDS

7.1 Whenever a material, article, or piece of equipment is identified on the plans or in the specifications by reference to manufacturers' or vendors' names, trade names, catalogue numbers, etc., it is intended merely to establish a standard and, any material, article, or equipment of other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article, or equipment so proposed, is, in the opinion of the Town, of equal substance and function. It shall not be purchased or installed by the Contractor without written approval.

8. CHANGES IN WORK

8.1 The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly.

9. CORRECTION OF WORK AFTER FINAL PAYMENT

9.1 Neither the final Certificate nor payment nor any provision in the Contract Documents shall relieve the contractor of responsibility for faulty materials or workmanship and, unless otherwise specified, he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of substantial completion.

9.2 The Owner shall give notice of observed defects with reasonable promptness. All questions arising under this article shall be decided by the DIRECTOR OF PUBLIC WORKS subject to mediation.

10. INSURANCE REQUIREMENTS

The Contractor must carry insurance under which the Town is named as an assured, as follows:

Such insurance must be by insurance companies licensed to write such insurance in Connecticut against the following risks with the following minimum amounts and minimum durations.

A. Workman's Compensation, as required by State Statute.

B. Public Liability, Bodily Injury Liability and Property Damage Liability as follows:

Injury or death of one person:	\$2,000,000
Injury to more than one person in a single accident:	\$1,000,000
Property damage in one accident:	\$1,000,000
Property damage in all accidents:	\$1,000,000

C. Automobile and Truck (Vehicular) Public Liability, Bodily Injury Liability, and Property Damage Liability as follows:

Injury or death of one person:	\$1,000,000
Injury to more than one person in a single accident:	\$1,000,000
Property damage in one accident:	\$1,000,000
Property damage in all accidents:	\$1,000,000

D. Builders Risk including Fire and Extended coverage:
In an amount equal to the value of construction completed plus materials delivered to the site.

Insurance under B, C, and D above must provide for a 30 day notice to the Town of cancellation/or restrictive amendment.

Insurance under B and C above must be for the whole duration of the contract and for twelve (12) months after acceptance of the project by the Town.

Insurance under D above must be carried for the whole duration of the project and until acceptance by the Town.

Subcontractors must carry A, B and C in the same amounts as above for the duration of the project and until acceptance by the Town.

Certificates of insurance must be submitted to the Director of Public Works prior to the signing of the contract and within ten days of notification of award of contract. Should any insurance expire or be terminated during the period in which the same is required by this contract, the Director of Public Works shall be notified and such expired or terminated insurance must be replaced with new insurance and a new certificate furnished to the Director of Public Works.

Failure to provide the required insurance and certificates may, at the option of the Town, be held to be a willful and substantial breach of this contract.

NOTE: Coverage under "B" shall include XCU coverage as necessary, Collapse and Underground shall be provided for ALL Contracts. Explosion will be provided if specified, or prior to any blasting being performed under the Contract.

11. OWNER'S RIGHT TO DO WORK

If the Contractor fails to prosecute the work properly or fails to perform any provisions of this contract, the Owner, after three days written notice to the Contractor may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor. Provided, however, that the Public Works Director shall approve both such action and the amount charged to the Contractor.

12. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

The acceptance by the Contractor of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance BOND and Payment BONDS.

13. CONTRACT SECURITY

The Contractor shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a performance BOND and a payment BOND in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions, and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and shall be in a Form acceptable to the Town Director of Finance. When Surety Company Bonds are used, the corporate bonding company shall be licensed to transact such business in the State of Connecticut and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such bond is declared as bankrupt or loses its right to do business in the State in which the WORK is to be performed or is removed from the list of surety

companies accepted on FEDERAL BONDS, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the CONTRACTOR shall have furnished an acceptable BOND to the OWNER.

14. ASSIGNMENT

Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign, or otherwise dispose of the CONTRACT or any portion thereof, or of his/her right title or interest therein, or his obligations there under, without written consent of the other party.

15. DRAWINGS AND SPECIFICATIONS

- 15.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner ready for use, occupancy, or operation by the OWNER.
- 15.2 In case of conflict between the DRAWINGS AND SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.
- 15.3 Any discrepancies found between the DRAWINGS AND SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the Director of Public Works, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his/her discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.
- 15.4 The OWNER will furnish free of charge to the contractor up to three (3) copies of the DRAWINGS and SPECIFICATIONS as necessary for the proper execution of the WORK.

16. MATERIALS, WORKMANSHIP, SERVICES, AND FACILITIES

- 16.1 It is understood that except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, tools, equipment, sanitary conveniences, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.
- 16.2 All materials furnished shall be new and of the best quality customarily used in or furnished for work of the character of that herein proposed. Many features of the proposed work are described in detail herein, but the failure to so describe any part of the proposed work or any details or appurtenance thereof shall not be an exception to the above rule. The absence of requirements in drawings or specifications covering details usually included in first class installations of this kind shall not excuse the contractor for their omission in this work.
- 16.3 All workmanship shall be of the best quality for WORK of the character of that herein proposed. The CONTRACTOR shall employ only competent employees to do the WORK required.
- 16.4 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.
- 16.5 Materials, supplies, or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.
- 16.6 Drinking water furnished for the employees on the job shall comply with O.S.H.A. regulations.

17. PROTECTION OF WORK AND PROPERTY

- 17.1 The CONTRACTOR will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the WORK--he/she will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the site and other persons

who may be affected thereby, all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

- 17.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction. He/she will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He/she will notify owners of adjacent utilities when prosecution of the work may affect them. The CONTRACTOR will remedy all damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, and SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or the acts or omissions, of the OWNER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.
- 17.3 The CONTRACTOR will notify the OWNER at least one week prior to the start of construction.
- 17.4 The CONTRACTOR shall be responsible for verifying the location of any existing utilities. The CONTRACTOR shall notify "Call Before You Dig" at 1-800-922-4455 such that any utility lines can be marked.
- 17.5 In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the OWNER, shall act to prevent threatened damage, injury or loss. He/she will give the DIRECTOR OF PUBLIC WORKS prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

18. CHANGES IN CONTRACT PRICE

The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for

increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved
- (b) An agreed lump sum
- (c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the WORK to cover the cost of general overhead and profit.

19. TIME FOR COMPLETION

- 19.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.
- 19.2 The CONTRACTOR will proceed with the work at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.
- 19.3 If the CONTRACTOR is delayed at any time in the progress of the WORK by changes ordered in the WORK, by labor disputes, fire, unusual delay in transportation, unavoidable casualties, causes beyond the CONTRACTOR'S control, or by any cause which the Director of Public Works may determine justifies the delay, then the CONTRACT TIME shall be extended by CHANGE ORDER for such reasonable time as the Director of Public Works may determine.

20. SUSPENSION OF WORK, TERMINATION AND DELAY

- 20.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days, or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the Director of Public Works which notice shall fix the date on which work shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

- 20.2 If the CONTRACTOR is adjudged as bankrupt or insolvent, or if he/she makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he/she files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he/she repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he/she repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials, or equipment or if he/she disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he/she disregards the authority of the Director of Public Works, or if he/she otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his/her surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment, and machinery thereon owned by the CONTRACTOR and finish the WORK by whatever method he/she may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the Director of Public Works and incorporated in a CHANGE ORDER.
- 20.3 OWNER may terminate this Agreement in whole or in part solely for OWNER's convenience upon written notice to the CONTRACTOR, without regard to any fault or failure to perform by CONTRACTOR or any other party. In the event of a Termination for Convenience, Contractor shall be paid for all Work performed in accordance with the Contract Documents up to the date of such notice, plus an additional amount for reasonable, unavoidable and direct costs of demobilization for a maximum of ten (10) days following receipt of the notice.
- 20.4 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from

compliance with the CONTRACT DOCUMENTS.

- 20.5 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained to date.
- 20.6 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, fails to act on any request for payment within thirty (30) days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within (30) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon Ten (10) Days written notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.
- 20.7 OWNER shall have no liability to CONTRACTOR for compensation, expenses, additional fees or anticipated profits for unperformed Work, lost business opportunities, impaired bonding capacity, or and overhead or general conditions costs attributable to a termination by OWNER. All amounts payable by OWNER shall be subject to OWNER's right of audit and offset. Notwithstanding anything to the contrary in this Agreement (i) OWNER's liability hereunder shall be limited to OWNER's interest in the Project (i.e., Contractor shall not have recourse to any other assets of OWNER); and (ii) OWNER shall under no circumstances be liable for and consequential, indirect, punitive or special damages in connection with OWNER's obligation under this Agreement; and (iii) neither OWNER, its property manager, its project manager, not their respective parents, affiliates, members, officers, directors, shareholders, agents and employees shall have any personal liability hereunder.

21. INDEMNIFICATION

- 21.1 The CONTRACTOR will indemnify and hold harmless the OWNER and their agents and employees from and against all Claims, Damage, Loss, or Expense including Attorney's fees arising out of or resulting from the performance of the WORK, provided that any such Claims, Damage, Loss or Expense is attributed to Bodily Injury, Sickness, Disease or Death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.
- 21.2 In any and all claims against the OWNER or any of their agents or employees, by any employee of the CONTRACTOR or SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the INDEMNIFICATION OBLIGATION shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under Workmen's Compensation Acts, Disability Benefit Acts or other Employee Benefits Acts.

22. SEPARATE CONTRACTS

- 22.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR's WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the Director of Public Works any defects in such WORK that render it unsuitable for such proper execution and results.
- 22.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other Contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are Parties to such CONTRACTS (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

- 22.3 If the performance of Additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a Claim therefore as provided in Sections 22 and 23.

23. SUBCONTRACTING

- 23.1 CONTRACTOR may engage subcontractors and vendors to perform all or any portion of the Work, provided that CONTRACTOR shall be responsible for payment to any and all such subcontractors and vendors. CONTRACTOR shall be responsible for the performance of its subcontractors and vendors of every tier to the same extent as if such subcontracted work was performed by CONTRACTOR directly. Prior to entering into subcontracts, CONTRACTOR shall provide OWNER with a written list of the names of CONTRACTOR's proposed subcontractors and vendors for each portion of the Work for review and consent by OWNER, which consent shall not be unreasonably withheld, conditioned or delayed. CONTRACTOR acknowledges that all duties and responsibilities set forth in this Agreement flow-down and shall be an integral part of each and every subcontract entered into by Contractor
- 23.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(s) in excess of Fifty (50) Percent of the CONTRACT PRICE, without prior written approval of the OWNER.
- 23.3 The CONTRACTOR shall be fully responsible to the OWNER for the Acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by him.
- 23.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS, as applicable to the WORK OF SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise of the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

23.5 Nothing contained in this CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

24. GUARANTY

The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the PROJECT that the completed PROJECT is free from all defects due to faulty materials or WORKMANSHIP and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the PROJECT resulting from such defects. The

OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The PERFORMANCE BOND or a MAINTENANCE BOND shall remain in force at a value of 25% of the completed WORK through the GUARANTEE PERIOD.

25. DISPUTE RESOLUTION

25.1 All claims, disputes and other matters in questions arising out of, or relating to, the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by the making and acceptance of Final Payment as provided by Section 16, shall be decided by litigation in the Superior Court of the State of Connecticut.

26. TAXES

The CONTRACTOR will pay all consumer, use, and other similar taxes required by the Law of the Place where the WORK is performed. This WORK is being performed for a Municipal Government and is exempt from Sales Tax.

SUPPLEMENTAL GENERAL CONDITIONS

1. PA 86-87, AAC Workers' Compensation Insurance Requirements for Contractors on Public Works projects and State licenses, prohibits municipalities from entering into a public works contract with an employer without receiving sufficient evidence from the employer that he has workers' compensation insurance and a statement from the state treasurer that the employer does not owe the Second Injury and Compensation Assurance Fund any money.
2. The Town of Simsbury Public Works Department shall be notified at least five (5) days prior to beginning work.
3. Prior to beginning work, the "Call Before You Dig" service shall be notified by the Contractor by calling 811 or 1-800-922-4455, or, if the contractor is registered, by e-ticket entry, such that any underground utilities in the immediate vicinity of the work can be marked.
4. All staking and surveying will be the responsibility of the Contractor.
5. All road monuments and lot pins shall be PRESERVED. Cost of resetting will be back charged to the Contractor.
6. Sales and Use Tax Exempt Purchase Certificate/ The Contractor's attention is called to Regulation 18 as amended promulgated by the Sales and Use Tax Division of the State Tax Department, which provided for the Exemption of the sales and use tax on the purchase of such materials and supplies as are to be physically incorporated in and become a permanent part of the project being performed under this contract. The Contractor or Subcontractor shall furnish his suppliers with a completed certificate, in the prescribed form; a copy of which is attached to these specifications
7. Upon completion or termination of the work, the Contractor shall remove from the vicinity of the work all equipment and all temporary structures, waste materials and rubbish resulting from its operations, leaving the premises in a neat and acceptable condition. In the event of failure to do so, the same may be done by the Owner at the expense of the Contractor.
13. The Contractor shall pay for any broken utility lines, except where the utility company may be liable under the "Call Before You Dig" law. The Owner will only pay for relocations necessary to complete the work of this project.
14. In accordance with Executive Order 11246, the Contractor is obliged not to discriminate against any employee or applicant for employment because of race, color, creed, or national origin. This obligation not to discriminate in employment includes, but is not limited to, the following: hiring, placement, upgrading, transfer, demotion, recruitment, advertising, solicitation for employment training during employment, rates of pay or other forms of compensation, selection for training including apprenticeship, layoff, or

termination.

15. For all new underground facilities installed after January 1, 1989 which is practicable and for all repairs, replacements or modifications involving an exposure of existing underground facilities at least 100 feet longitudinally after January 1, 1989, of which the utility has knowledge of such exposure, the utility shall install a warning tape located above the facility, and keep appropriate records thereof. The minimum separation between the facility and the warning tape shall be 12 inches unless the depth, other underground facilities or other engineering considerations make the minimum separation infeasible. The warning tape shall be durable, designed to withstand extended underground exposure, be of color assigned to the type of facility for surface markings in Section 16-345-5 (h) and durable imprinted with an appropriate warning or message.

SPECIAL PROVISIONS

1. **Cleaning Up:** The Contractor shall at all times keep the site and work free from accumulations of waste material or rubbish caused by his employees or work, or the employees or work of any of his subcontractors.

On completion of the work, the Contractor except as otherwise expressly directed or permitted in writing, shall tear down and remove all temporary structures built by him; shall remove all rubbish and abandoned materials of all kinds from all Contract structures and from any grounds, and shall leave all the grounds which may have been affected by his/her operations in a neat and satisfactory condition. Except as noted, all materials salvaged shall be the property of the Contractor.

7. **Act, Or Failure To Act, On Part Of Engineer Does Not Reduce Liability Of Contractor:** Giving notice or failure to give notice; or acting as authorized in the preceding sections, or failure to so act, on the part of the Engineer; or any question as to the adequacy of the notice by the Engineer, or of his/her acts, as provided in those sections, shall not in any way relieve the Contractor from any part of his responsibility or liability for performing any and all of the acts and assuming any and all of the risks, duties and liabilities which the Contractor is obligated to perform or assume.

8. **Disposal of Surplus Materials:** The Contractor shall be responsible for the removal and satisfactory disposal of all surplus materials unless otherwise specified in the Detail Specifications. Town properties shall not be used for such disposal unless specifically authorized by the Engineer in writing. Property owners adjacent to the work may have indicated to the Town that their land might be available for disposal of surplus fill and this fact may be noted on the Contract Drawings. The Contractor shall, however, make his own arrangements for the use of such private lands and shall, if requested by the Engineer, evidence that such arrangements have been made before such use. Any required local permits shall be the responsibility of the Contractor.

11. **Utility Notification Prior to Excavation:** In accord with Public Act 77-350, the Contractor is required to notify any utility with facilities in the vicinity of the excavation at least two full days prior to excavation. Notification may be given by using the "Call Before You Dig" state wide, toll free telephone number, 811 or 1-800-922-4455., or if the contractor is registered, by e-ticket entry. Responsibility for proper notification of all utilities shall rest with the Contractor.

The Contractor shall contact the appropriate Town authorities concerning any public or semi- public events that may occur during the construction period and that may have an effect on his construction. The contractor alone shall be responsible for arranging his construction sequence to conform to any restrictions these events may impose on his schedule.

No claims for extras will be allowed because of any delays, caused by the imposed restrictions; however, additional time may be granted for completion of the work to compensate for any delays caused by said restrictions.

12. **The State of Connecticut, Department of Environmental Protection and other involved State agencies** shall have access and inspection rights to all parts of the work on this project.
13. **Quantities of work** may be increased or decreased by up to 30% with payment to be based on actual quantities of work completed and the bid unit prices.

SANITARY SEWER IMPROVEMENTS

MASSACO STREET

INDEX TO SPECIFICATIONS

Technical Specifications

Division I	Test Pits
Division II	Excavation
Division III	Sewer Pipe Installation
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Division VII	Survey & Layout
Division VIII	Drainage
Division IX	Maintenance and Protection of Traffic

**DIVISION I
TEST PITS**

1.1 GENERAL

- A. All applicable requirements of the General Conditions shall govern all work of this Division.
- B. The Contractor shall furnish all labor, material, equipment and incidentals necessary to complete the work of this Division as shown in the Drawings and/or specified herein.

1.2 TEST PIT EXCAVATION

- A. Test pits shall be excavated in the locations shown on the contract drawings, or as directed by the Director of Public Works or their agent.
- B. The purpose of the pits is to locate the exact horizontal and vertical location of existing utility and/or depth to rock, as directed.
- C. Hand excavation shall be utilized, to the extent necessary, in order to avoid damaging the existing infrastructure.
- D. The work shall be closely coordinated with the Simsbury Water Pollution Control Department. The Department shall be notified one (1) day prior to doing the excavation.
- E. Any changes to the Drawings which may be required by the information obtained from the pits will be provided by the Water Pollution Control Department.
- F. Pits shall be backfilled and compacted after the necessary information is obtained. Temporary patch shall be placed.
- G. Test pits that are conducted in advance of and incorporated in the work will be paid as part of the work.

1.3 PAYMENT FOR TEST PITS

- A. The number of pits excavated shall be paid for under Item No. 1 in the Schedule of Prices. The price includes full compensation for all labor, tools, construction equipment and expense incidental to the excavation of the test pits. The price stated includes the cost of backfilling, compaction and temporary patch.

DIVISION II EXCAVATION

2.1 GENERAL

- A. Applicable requirements of the General, Special and Supplemental Conditions shall govern all work of this Division.
- B. The Contractor shall furnish all labor, materials, equipment and incidentals necessary to complete the work of this Division shown on the Drawings and/or specified herein.
- C. When excavation takes place in dry weather, reasonable precautions shall be taken by the Contractor to ensure that the inhabitants in the vicinity of the excavation are not unnecessarily inconvenienced by or caused discomfort by dust raised from construction operations. Dust may be stabilized by water spray, or if approved by the Director of Public Works, by chemical means such as calcium chloride.
- D. Where dewatering is required, the Contractor shall implement dewatering and discharge measures that follow best management practices, are protective to the waters of the State and provide for protection of public health and safety.
- E. Requirements of the Simsbury Water Pollution Control Authority shall govern installation of Sanitary Sewer lines and appurtenances.

2.2 WORK INCLUDED

Work of this Division shall include the following:

- Saw-cutting, removing and stockpiling existing pavement/curbs from trench cuts
- Excavation for pipes and structures
- Rock excavation/removal
- Dewatering
- Incidental construction
- Traffic control
- Dust control
- Temporary sediment and erosion control

2.3 REFERENCE

- A. Reference to "Form 817" shall mean the publication entitled "State of Connecticut, Department of Transportation, Standard Specifications for Road, Bridges and Incidental Construction" dated 2016, and any subsequent amendments.

- B. Reference to “MDC Spec” shall mean the specifications set forth in the MDC Project Manual (Version 2015), and Sanitary Sewer and Storm Drain Connection Manual, WPCA (current edition). Where conflict exists between MDC Spec and project specifications herein, the project specifications shall govern.

2.4 TRENCH AND OTHER EXCAVATION

- A. Trench and other excavations shall be of sufficient width and depth at all points to allow all pipe to be laid, joints formed, and other construction to be placed or built in the most thorough and workmanlike manner, and to allow for trench side protection, dewatering and draining, and for removing and replacing any unsuitable material.
- B. When trenching in existing pavement, the pavement shall be cut with a pavement saw to provide a straight, clean cut. The existing pavement and base, to a total depth of 8 ½ inches, shall be removed and disposed of by the Contractor. The Director of Public Works may authorize, in writing, disposal of existing pavement at the Simsbury Highway Garage on Town Forest Road. Other surplus material shall be removed by the Contractor and disposed of at the Contractor’s cost. NOTE: The Contractor may pulverize the pavement and base on the trenched where existing pavement and base are to be saved, prior to the Contractor beginning work. (NOTE: The Contractor, at no additional cost, may dispose of old pavement and base, and use other recycled base or processed aggregate base.)
- C. Sewer trenched shall be of a depth necessary to provide minimum pipe bedding and cover as shown on the Contract Drawings and provided herein.
- D. Excavations in earth (soil materials) and rock shall be normally twelve (12) inches wider than the outside dimensions of the structure or pipe they are to contain. In earthen materials, the bottom of the pipe trench shall be excavated to six (6) inches below the bottom grade of the pipe. Whenever the bottom of trench or other excavation is advanced in rock or boulders, excavations shall be advanced to twelve (12) inches below bottom grade of the pipe or structure.
- E. Excavated material, unless deemed to be unsuitable by the Director of Public Works, shall be utilized for backfill and grading. Excess material and waste material shall be disposed of by the contractor at an off-site location. Town properties may not be used for disposal unless specifically authorized, in writing, by the Director of Public Works. Excavated material deemed to be suitable by the Director of Public Works or authorized Agent shall be utilized as backfill.
- F. Payment for earth excavation to design depths and disposal of excess/surplus material for the various parts of the work is included in the prices bid for the several items of the work in the Schedule of Prices and will not be paid for under a separate item. Excavations below grade and rock excavation will be paid for under separate items.

2.5 ROCK EXCAVATION (TRENCH)

- A. Rock excavation shall mean boulders exceeding one (1) cubic yard in volume or solid ledge rock which, in the opinion of the Director of Public Works, requires for its removal drilling and blasting or wedging or sledging, or barring. No hardpan, no soft or disintegrated rock which can be removed with a pick, no loose, shaken or previously blasted rock or broken stone in rock filling or elsewhere, and no rocks exterior to the maximum limits of excavation approved by the Director of Public Works, which may fall into the trench, will be measured or allowed as rock excavation. Excavated rock shall be removed and disposed of off-site by the Contractor.
- B. In rock excavation, it is especially required that all blasting shall be executed by experienced powder men in strict accordance with lawful regulations and shall be conducted with all possible care so as to avoid injury to persons and property, that the rock shall be covered, and that all sufficient warnings shall be given to all persons in the vicinity of the work before blasting, and that care shall be taken to avoid injury to electric and telephone lines, drains and other structures, and that caps or other exploders shall not be kept in the same place in which dynamite or other explosives are stored. Explosives in sufficient quantity to avoid delay of the work shall be kept on hand by the Contractor. The Contractor shall be held responsible for all claims for damage caused by blasting.
- C. The Contractor, in addition to observing all laws and ordinances relating to the storage and handling of explosives, shall also comply with and further regulations which the Director of Public Works or Fire Marshall may deem necessary in this respect.
- D. Pre-blast survey – It is not anticipated that blasting will be required. However, if blasting is planned, the Contractor shall have a pre-blast survey conducted for all structures that are located on abutting properties, in the vicinity of the blasting, as well as any additional homes that the pre-blast survey reconnaissance indicates necessary.

2.6 PAYMENT FOR ROCK EXCAVATION (TRENCH) (NIC)

- A. The quantity of rock excavation to be paid for under Item No. in the Schedule of Prices is the number of cubic yards of ledge, rock or boulders in place, as measured before excavation that would have been removed if the excavation had been made everywhere to a depth of twelve (12) inches below the underside of the pipe or structure and to a width of twelve (12) inches on each side of said pipe or structure,
- B. The price stated under Item No. is full compensation for furnishing all material, labor, tools and equipment, and for all work and expense incidental thereto. The price includes removal from trench and disposal of rock; price includes cost of pre-blast survey.

2.7 EXCAVATION BELOW GRADE

- A. Whenever, in the opinion of the Director of Public Works, the material at or below grade line is unsuitable for foundations, it shall be excavated to such additional depths as directed by the Director of Public Works and shall be replaced with approved material, well compacted in place.

2.8 PAYMENT FOR EARTH EXCAVATION BELOW GRADE (NIC)

- A. The quantity of earth excavation below grade to be paid for under Item No. in the Schedule of Prices is the number of cubic yards of material excavated and disposed of, as measured in place by the Director of Public Works.
- B. The price stated under Item No. is full compensation for furnishing all material, labor, tools and equipment, and for all work and expense incidental thereto.

2.9 SELECTED MATERIAL

- A. Clean bank gravel or other selected material of a quality satisfactory to the Director of Public Works shall be furnished to replace unsuitable excavated soil material or ledge or rock removed below subgrade, when directed by the Director of Public Works. The material shall be placed and well compacted in suitable lifts.

2.10 PAYMENT FOR FURNISHING AND PLACING SELECTED MATERIAL (NIC)

- A. The quantity of Selected Material to be paid for under Item No. in the Schedule of Prices is the number of cubic yards ordered by the Director of Public Works, as measured in place for the work. The material placed to fill unauthorized excavations shall not be paid for.
- B. The price stated under Item No. is full compensation for furnishing all material, labor, tools and equipment, and for all other work and expense incidental thereto.
- C. Material delivery slips shall be provide to the Director of Public Works for all selected material delivered.

2.11 UNAUTHORIZED EXCAVATION

- A. If the bottom of any excavation has been removed below grades indicated on the Contract Drawings, or required by the specifications or that prescribed by the Director of Public Works, it shall be brought to grade by backfilling with gravel or other selected material by placing and compacting in suitable lifts, at the Contractor's expense.

2.12 DE-WATERING

- A. The contractor shall remove by pumping, draining, bailing or otherwise any water which may accumulate or be found in the trench and other excavations made under this Contract, and shall form all sumps and build drains or other works necessary to keep them entirely clear of water while the pipe lines and other structures are being built. Newly made masonry shall be protected from injury, resulting from dewatering work. The Contractor shall at all times have upon the work sufficient pumping machinery, filtration devices and discharge devices satisfactory to the Director of Public Works.
- B. Water from the trenches and excavations shall be disposed of in such a manner as will not adversely impact water of the State, cause injury to the public health nor to public or private property, nor to the work completed or in progress, nor to the surface of the roadways/highways, nor cause any interference with the use by the public of the roadways/highways or other traveled ways. Best management practices for filtration and discharge shall be employed in managing dewatering wastewaters.
- C. Payment for all necessary pumping, draining or bailing, etc. is included in the prices stated for several items in the Schedule of Prices and will not be paid for under a separate item to cover this work only.

2.13 TEMPORARY GRADING AND DUST CONTROL

- A. During pipe and structure construction, the Contractor shall temporarily grade and compact all disturbed areas, on a daily basis. In vehicular traffic areas, this includes placement and compaction of a temporary processed-stone surface, transition graded to adjacent paved surfaces to facilitate vehicle traffic.
- B. The Contractor shall apply dust control measures during construction, as needed, but at least every Friday. Measures shall include street sweeping of all paved areas and use of water or calcium chloride (as approved by the Director of Public Works) in all disturbed areas where soils are exposed.
- C. Payment for temporary grading and dust control is included in the prices bid for the several items of work in the Schedule of Prices and will not be paid for under a separate item.

2.14 TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES

- A. The Contractor shall implement temporary sediment and erosion control measures to prevent discharge of sediments from excavation activities to the waters of the State. Such measures shall include, as a minimum:

1. Use of catch basin filter inserts in all catch basins down-gradient of work area and within catchment area of the active work/disturbance. Inserts shall be manufactured devices designed to capture and trap sediment such as Silt Sack, Enpac Storm Sentines, Flo-Gard, or other approved by the Director of Public Works.
 2. Use of silt fence erosion control or straw wattles at the base of all disturbed slopes. Materials shall be those approved by the Director of Public Works.
 3. Use of Erosion Control Blankets on all disturbed slopes 3:1 (H:V) and steeper. Erosion Control Blankets shall be Curlex I Erosion Control Fabric or similar product approved by the Director of Public Works.
- B. Erosion control measures shall be maintained throughout the duration and after completion of all excavated and earth disturbance activities until all disturbed areas are stabilized.
- C. Payment for implementation and maintenance of temporary sediment and erosion control is included in the prices bid for the several items of work in the Schedule of Prices and will not be paid for under a separate item.

2.15 PROTECTION TO THE PUBLIC

- A. The work area and all open excavations shall be carefully protected with temporary signs, message boards, cones, barricades, barrels, construction fencing, or other appropriate means to prevent accident to the public or to workman, as required by all state and local permits. When necessary, barricades or other traffic control devices shall be lighted from sunset to sunrise.
- B. No excavations shall remain open after work hours.
- C. Construction plant materials and any obstruction placed on roads by the Contractor or caused by their operations shall be carefully marked and protected, including flashers, as may be needed.
- D. The Contractor shall dispose their plant, construction materials and excavated material so as not to obstruct roads. No portion of any road shall be closed to traffic unless written permission is obtained from the Director of Public Works.
- E. Payment for protection of the public, including, but not limited to placing signs, cones, flashers and barricades, and flagmen is included in the prices stated for the several items in the Schedule of Prices and will not be paid for under a separate item.

**DIVISION III
SANITARY SEWER**

3.1 GENERAL

- A. Applicable requirements of the General, Special, and Supplemental Conditions shall govern all work of this division.
- B. The Contractor shall furnish all labor, materials, equipment, and incidentals necessary to complete the work of this Division shown on the Drawings and/or specified herein.
- C. When excavation takes place in dry weather, reasonable precautions shall be taken by the Contractor to ensure that the inhabitants in the vicinity of the excavation are not unnecessarily inconvenienced by or caused discomfort by dust raised from construction operations. Dust may be stabilized by water spray or chemical means, such as calcium chloride (as approved by the Director of Public Works).
- D. Requirements of the Town of Simsbury Water Pollution Control Authority shall govern installation of Sanitary Sewer lines and appurtenances.
- E. Special attention shall be given to mechanical compaction of all trenches, as specified herein.

3.2 WORK INCLUDED

Work of this Division shall include the following:

- Placing and compacting bedding and backfill
- Supplying and installing sanitary sewer and manholes
- Supplying and installing wyes and sanitary sewer laterals
- Incidental construction

3.3 REFERENCE

- A. Reference to "Form 817" shall mean the publication entitled "State of Connecticut. Department of Transportation, Standard Specifications for Road, Bridges, and Incidental Construction" dated 2016, and any subsequent amendments.
- B. Reference to "MDC Spec" shall mean the specifications set forth in the MDC Project Manual (Version 2015), and Sanitary Sewer and Storm Drain Connection Manual, WPCA (current edition). Where conflict exists between MDC Spec and project specifications herein, the project specifications shall govern.

3.4 UNDERGROUND OBJECTS, SOILS, ETC.

If any contract document or drawing or similar source of information furnished to prospective bidders or to contractors purports to show underground objects or conditions, or pipes, ducts or similar structures, or observations or indications of soils, rock, ground water, etc., made from borings, test pits or prior excavations, such information must be considered as only approximately correct and complete, having been obtained, made and plotted for the information of the Director of Public Works. Bidders and Contractors must recognize that, by reason of the methods commonly used for obtaining and expressing such data this information and data may be limited and subject to error or misunderstanding. The terms used to describe soils, ground water, etc., and subject to local usage and to the individual opinion of the person making the records. Groundwater conditions vary from time to time. The locations, sizes, depths, etc., of underground pipes, ducts and structures are usually obtained from records of others and such data, when shown on plans of the owner, and subject to possible errors in the source of the information and also errors in transcription. The Town, together with its agents, does not warrant or represent that the indications on Contract Drawings or other documents or underground conditions, objects, etc., as described above, are either approximately correct or complete, and any party making use of such indications or basing estimates or proposals thereon must agree that he or it shall have no claim or right of action against either the owner or any person or party acting for or under it for the consequences, delays, expense or losses which may occur or have occurred in event that such indications shall be found to have been incomplete, incorrect or misleading. Bidders must make such investigations as they deem necessary and form their own opinions of the materials, conditions, and difficulties or obstacles likely to be encountered.

3.5 TRENCH AND OTHER EXCAVATION

- A. Trench and other excavations shall be of sufficient width and depth at all points to allow all pipe to be laid, joints to be formed, and other construction to be placed or built in the most thorough and workmanlike manner, and to allow for trench side protection, pumping and draining, and for removing and replacing any unsuitable material. When trenching in existing pavement, the paving shall be cut with a pavement saw to provide a straight, clean cut.
- B. Sanitary sewer trenches shall be of a depth necessary to cover pipes as shown on the Contract Drawings.
- C. Excavations shall be in accordance with Sections 2.4, 2.5, 2.7, 2.5 and Division IX of these specifications.
- D. Trench width: The strength and type of pipe called for on the plans is designed to carry the dead and live loads on it with the following maximum widths of trench below a point one (1) foot above the top of pipe, which maximum width shall not be exceeded:

Size Sewer Norman Inside Diameter	Maximum Width of Trench
6"	4.0 feet
8"	6.0 feet

3.6 ROCK EXCAVATION (TRENCH)

Shall be in accordance with Section 2.5 of these specifications.

3.7 EXCAVATION BELOW GRADE

Shall be in accordance with Section 2.7 of these specifications.

3.8 SELECT MATERIAL

Shall be in accordance with Section 2.9 of these specifications.

3.9 UNAUTHORIZED EXCAVATION

Shall be in accordance with Section 2.11 of these specifications.

3.10 DEWATERING

Shall be in accordance with Section 2.12 of these specifications.

3.11 BEDDING, BACKFILLING AND DISPOSAL OF SURPLUS MATERIAL

A. After trench bottom is prepared to design grade, place $\frac{3}{4}$ inch crushed stone meeting the requirements of CT DOT 817, M.01.01 - No. 6 to form pipe bedding. Haunch stone to fit shape of pipe bottom.

Schedule: 6 inches in soil excavation
 12 inches in rock excavation

B. Install sewer pipe in accordance with Simsbury Water Pollution Control Authority standards and section 3.14.

C. After installation of the sewer line, a crushed stone hunching, $\frac{3}{4}$ inch trap rock, shall be brought to a level to the top of the pipe and out to the trench wall at this elevation. The crushed stone shall be covered in filter fabric which shall be overlapped at the ends. Screened sand shall be placed to one (1) foot over the pipe. This material shall be tamped in place. The remaining fill shall be compacted in one (1) foot lifts. No stones weighing over 50 pounds

shall be backfilled into the pipe trench or against structures, In lieu of compacting in one (1) foot lifts, a max four (4) foot lift may be used. Single pass Ho-Pac compaction depth shall not exceed four (4) feet. **Methods to achieve a minimum 96% Proctor Density shall be used by the Contractor.**

- D. Filter fabric shall conform to the requirements of Section M.08.01-26 of the DOT specifications. Geotextiles shall be approved for subsurface use, Class A.
- E. A durable warning tape, designed to withstand extended underground exposure shall be installed within the trench backfill directly over the pipe line. The elevation of the warning tape shall be approximately two (2) feet above the top of the pipe, or as directed by the Director of Public Works. The warning tape shall be of the color assigned to the type of facility for surface marking and durable imprinted with an appropriate warning or message.
- F. The Contractor shall remove all excess material and shall dispose of it. Town properties may not be used for disposal without the written approval of the Director of Public Works. Within the project area, the Director of Public Works may require surplus material to be stockpiled, transported and or placed as fill.
- G. Payment for backfilling, filter fabric wrap, warning tape, stockpiling, and for disposal of surplus material as directed for the various parts of the work is included in the prices bid for the several items of work in the Schedule of Prices and will not be paid for under a separate item.

3.12 TEMPORARY GRADING AND DUST CONTROL

Shall be in accordance with Section 2.13 of these specifications.

3.13 SEWER PIPE MATERIALS

- A. Pipe of the size indicated on the drawings shall meet the following quality specifications:
 - 1. ASTM Specification D3034 – Type PSM Polyvinylchloride Sewer Pipe and Fittings
 - 2. ASTM Specification D3212 – Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
- B. Polyvinylchloride (PVC) pipe shall conform to the requirements of ASTM D3034, Standard Specification for Type PSM PVC Sewer Pipe and Fittings. The pipe shall have a pipe diameter to wall thickness ratio (SDR) to a minimum of 35.
- C. Straight pipe shall be furnished in lengths not more than twenty (20) feet.

- D. No single piece of pipe shall be laid unless it is generally straight. The centerline of the pipe shall not deviate from a straight line drawn between the centers of the openings at the ends of the pipe by more than 1/16 inches per foot of length. If a piece of pipe fails to meet the requirements for straightness, it shall be rejected and removed from the site.
- E. Any pipes or fittings showing a crack and any other fitting or pipe which has received a severe blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed from the site.
- F. Joints for PVC pipe shall be push-on bell and spigot joints using elastomeric ring gaskets. The gaskets shall be securely fixed into place in the bells so that they cannot be dislodged during joint assembly. The gaskets shall be of a composition and texture which is resistant to common ingredients of sewage and industrial wastes, including oil and groundwater, and which will endure permanently under the conditions of the proposed use. The joints shall conform to the requirements of the latest revision of ASTM D3201.

3.14 SEWER PIPE INSTALLIATION

- A. Trench excavation and backfill shall be done in accordance with the applicable Sections of this Division.
- B. All pipes shall be laid true to lines and grades indicated on the drawings. The pipe shall not be laid in water or when trench or weather conditions are unsuitable for the work, except by permission of the Director of Public Works. Water shall be kept out of the trench until joints have been completed and the trench backfilled and tamped to at least twelve (12) inches above the top of the pipe.
- C. When work is not in progress, the open ends of the pipe shall be closed in such a manner as to prevent the entry of groundwater, earth, or foreign materials.
- D. All pipes shall be carefully laid with hubs upgrade and with spigot ends fully entered into adjacent hubs.
- E. All traffic control measures stated in Section 2.15 and Division IX shall be followed.

3.15 MARKERS AT LATERALS

- A. Markers at the end of service laterals shall be 2x6 lumber, extending one (1) foot above the finish ground surface. The end of the lumber shall be painted green. The marker shall extend to the pipe cap. The lumber shall be left in place.
- B. The cost of furnishing and placing such markers shall be included in the various items of work. No separate payment will be made for markers.

3.16 PAYMENT FOR SEWER PIPE

- A. The quantity of furnished and installed pipe to be paid under the various items in the Schedule of Prices is the number of lineal feet of pipe installed as measured from exterior face of manhole. The prices are full compensation for all labor tools, construction equipment, materials, and expense incidental to the construction of the pipe line, complete as shown on the Drawings and specified here, including joint material, stone bedding, stone cover, compaction, erosion control, dust control, removing of existing pavement and base, repairing driveways and lawns, placing wood marker, end caps, coring of existing manholes, boot installation and the cost of disposing and excess excavated material, as directed by the Director of Public Works. (If the Contractor chooses to pulverize and/or save existing pavement and base, such work shall be at the Contractor's cost.)
- B. 6" PCV, SDR35 shall be paid under Item No. 30, 31, 32, 33
8" PVC, SDR35 shall be paid under Item No. 17, 18, 19
10" PVC, SDR35 shall be paid under Item No.

3.17 PAYMENT FOR PVC WYE CONNECTIONS

- A. The quantity for furnished and installed Wyes under Item No. 39 in the Schedule of Prices is the number of Wyes installed. The price is full compensation for all labor, tools, equipment, materials, and expense incidental to the installation of the Wyes.
- B. 8" x 6" Wye Connections shall be paid under Item No. 39.

3.18 PAYMENT FOR SEWER TAP SADDLE CONNECTIONS

- A. The quantity for furnished and installed Saddles under Item No. 40 in the Schedule of Prices is the number of Saddles installed. The price is full compensation for all labor, tools, equipment, materials, and expense incidental to the installation of the Saddles.
- B. 8" x 6" Saddle Connections shall be paid under Item No. 40

3.19 MANHOLE INSIDE DROP CONNECTIONS

- A. Inside Drop Connections shall be installed as shown on the Drawings.
- B. Payment for Inside Drop Connections will not be paid for as a separate item. The cost shall be included in the various items in the Schedule of Prices.

3.20 LOW PRESSURE AIR TESTING AND CAMERA INSPECTION

- A. All sewer lines shall pass a low pressure air test and camera inspection prior to acceptance.

- B. The test shall be performed using the below stated equipment, according to stated procedures and under the supervision of the Inspector.
1. Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be inspected.
 2. Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be inspected.
 3. All air used shall pass through a single control panel.
 4. The individual hoses shall be used for the following connection:
 - a) From control panel to pneumatic plugs for inflation
 - b) From control panel to sealed line for introducing the low-pressure air
 - c) From sealed line to control panel for continually monitoring the air pressure rise in sealed line
- C. All pneumatic plugs shall be sealed tested before being used in the actual test installation. One (1) length of pipe shall be laid on the ground and sealed at both ends with pneumatic plugs to be checked. Air shall be introduced into the plugs to 24 psig. The sealed pipe shall be pressurized to 5 psig. The plugs shall hold against this pressure without bracing and without movement of the plugs out of the pipe.
- D. After a manhole to manhole reach of pipe has been backfilled and cleared, and the pneumatic plugs are checked by the above procedure, the plugs shall be placed in the line at each manhole and inflated to 25 psig. Low pressure air shall be introduced into this sealed line until the internal air pressure reached 4 psig greater than the average back pressure of any groundwater that may be over the pipe. At least two (2) minutes shall be allowed for the air pressure to stabilize.
- E. After the stabilization period (3.5 psig minimum pressure in the pipe), the air hose from the control panel to the air supply shall be disconnected. The portion of line being tested shall be termed "Acceptable" if the time required in minutes for the pressure to decrease from 3.5 to 2.5 psig, (greater than the average back pressure of any groundwater that may be over the pipe), shall not be less than 3.0 minutes for six (6) inch pipe and 14.0 minutes for thirty (30) inch pipe.
- F. When one (1) or more laterals are connected to the main, the allowable time in the table above will be decreased 30 seconds or one-half minute.

G. If the installation fails to meet this requirement, the Contractor shall, at his own expense, determine the source of leakage. He shall then repair or replace all defective materials and/or workmanship.

H. The air tester shall provide a report on each section tested.

3.21 PAYMENT FOR AIR TESTING AND CAMERA TESTING

A. Air and camera testing for the complete sanitary sewer installation shall be paid as a lump sum under Item No. 2 in the Schedule of Prices.

B. The price shall include all labor, materials, equipment and incidental items to perform the air and camera tests.

3.22 SANITARY MANHOLES

A. Manholes shall be installed in locations shown on the Contract Drawings.

B. The following quality standards apply:

1. ASTM Specification C139 – Concrete Masonry Units for Construction of Catch Basins and Manholes.
2. ASTM Specification C478 – Precast Reinforced Concrete Manhole Sections
3. ASTM Specification C443 – Joints for Circular Concrete Sewer and Culvers Pipe
4. ASTM Specification C32 – Sewer and Manhole Brick
5. ASTM Specification A48 – Gray Iron Castings

C. Precast concrete units, brick and metal items shall be stored in a manner that will prevent chipping and breakage. All damaged items shall be removed from the site when directed by the Director of Public Works.

D. Precast manhole sections shall be similar or equal to that shown on the plans and shall conform to ASTM C-478; and C-443 (joint). Precast concrete masonry units shall conform to ASTM C-139.

E. Manhole frame and cover shall be heavy duty, conforming to the dimensions shown on the plans, and shall be cast iron conforming to ASTM A-48, Class 25. Frames and covers shall have hot-dipped bitumastic coating. The word “SEWER” shall be cast in the cover.

- F. Manhole steps shall be similar or equal to ALCOA Aluminum #12643A or steel reinforced polypropylene plastic as manufactured by M.A. Industries, model PS-2-PF-SL. The portions of aluminum steps to be imbedded in concrete shall have a protective coating of zinc chromate or approved bitumastic material.
- G. Concrete shall conform to Article M.03 of Form 817 and shall be Class A.
- H. Brick shall conform to ASTM C-32, Grade SS for shelves and inverts. All other brick may be Grade MS.
- I. Mortar shall be composed of one (1) part Portland cement and two (2) parts by volume of clean sand. No lime shall be added to the mortar.
- J. Flexible joints shall be used for all manhole to pipe connections and shall be similar or equal to "Press Wedge II" as manufactured by Press Seal Gasket Corp., Fort Wayne, Indiana or "Lock Joint Flexible Manhole Sleeve" as manufactured by Interpace Corp., Parsippany, New Jersey.

3.23 PIPE CONNECTIONS

- A. All joints between pipes and walls shall be a flexible joint, such as formed by "Lock Joint Flexible Manhole Sleeve" or "Press Wedge II". An approved equivalent flexible joint may be used. These flexible joints shall be used in all sanitary manholes unless otherwise directed by the Director of Public Works.
- B. Stubs shall be of the types shown on the drawings and shall be short pieces cut from the bell ends of pipe with stoppers or plugs of the same material as the pipe and sealed with gasketed joints.
- C. Payment for plugs will not be paid for as a separate item. The cost shall be included in the various items in the Schedule of Prices.

3.24 MANHOLE CONSTRUCTION

- A. Excavation and backfilling shall conform to the applicable requirements of the section "Trench Excavation and Backfill" herein.
- B. The Contractor's attention is directed to the requirement for rubber gaskets or pre-molded sealer strips for joints, which shall be installed in accordance with manufacturer's recommendations. After assembly of all sections is completed, the joints shall be pointed with mortar on both inside and outside surfaces of the manhole. All lifting holes shall be filled with mortar.

- C. Invert channels may be formed in the concrete of the base or brickwork upon the base. The inverts shall conform accurately to the size of the adjoining pipes. Side inverts shall be curved and main inverts, where direction changes, shall be laid out in smooth curves of the longest possible radius which is tangent, within the manhole, to the center-lines of the adjoining pipelines.
- D. Manhole frames shall be set with the tops conforming to the finished grade of the pavement or ground surface or as directed by the Director of Public Works. Bricks shall be used as required to adjust the manhole to this grade as shown on the Drawings. Frames shall be set concentric with the top of the masonry and in a full bed of mortar so that the space between the top of the manhole masonry and the bottom flange of the frame shall be completely filled and made watertight. A thick ring of mortar extending to the outer edge of the masonry shall be smoothly finished and have a slight slope to shed water away from the frame. Frames shall be set to grade specified by the Owner. A minimum of two (2) courses up to a maximum of five (5) courses of brick shall be used between the precast unit and the manhole frame.

3.25 PAYMENT FOR MANHOLES

- A. The quantity of furnished and installed manholes to be paid in the Schedule of Prices is the number of manholes installed. The prices stated are full compensation for all materials, labor, tools, construction equipment, and expense incidental to the construction of the manholes, including frame, cover, invert, rungs, and pipe flexible couplings. In the case of drop manholes, the price includes inside piping. The price stated includes the cost of excavation, bedding, backfilling, and the cost of disposing of any excess excavated material.
- B. Manholes shall be paid under Items No. 8, 9, 10, 11.

3.26 DOGHOUSE MANHOLES

- A. Where shown on the plans, sewers shall be connected to existing sewer by installing a “doghouse” manhole over the existing sewer line.
- B. The doghouse manhole shall be pre-cast and meet the same requirements as a standard manhole. No field-modified manholes (jack-hammered) shall be allowed.
- C. After completion of the new sewer line, a table shall be formed in the doghouse manhole.
- D. The top section of the existing sewer line may be removed and the bottom section allowed to remain to form the invert through the manhole.
- E. If it is determined that the existing sewer pipe is not suitable for the invert, the existing sewer line shall be removed from inside the manhole and a proper invert formed across the manhole using brick and mortar in the standard manner.

3.27 PAYMENT FOR DOGHOUSE MANHOLES (NIC)

- A. The quantity of furnished and installed doghouse manholes to be paid in the Schedule of Prices is the number of doghouse manholes installed. The prices stated are full compensation for all materials, labor, tools, construction equipment, and expense incidental to the construction of the doghouse manholes, including frame, cover, invert, rungs, and pipe flexible couplings. In the case of drop manholes, the price includes inside piping. The price stated includes the cost of excavation, bedding, removal of existing sewer pipe, diversion and or maintenance of sewage flows, inverts, backfilling, and the cost of disposing of any excess excavated material.
- B. Doghouse manholes shall be paid under Item No.

3.28 EXISTING MANHOLE CORING AND BOOT

- A. The existing manhole shall be cored and a boot drop installed as shown on the Drawings.
- B. The work paid under Item No. 17 of the Schedule of Prices includes work related to core and boot installation for connecting to existing manholes and will not be paid for under a separate item.

3.29 MAINTENANCE OF SEWER FLOW

- A. The Contractor shall schedule and use methods to perform the work such that sewer flow is maintained at all times.
- B. Payment for maintaining flow is included in the prices stated for the several items in the Schedule of Prices and will not be paid for under a separate item.

3.30 PVC PIPE BENDS AND CLEANOUTS

- A. The Contractor shall supply and install PVC pipe fitting bends to provide connections for the new six (6) inch PVC lateral pipes to the existing sewer laterals, and cleanout placements in accordance with Water Pollution Control Standards.
- B. Materials shall conform to Section 3.13 of these Specifications.
- C. The size and type fittings shall be based on the conditions found on the site.

3.31 PAYMENT FOR PVC PIPE BENDS AND CLEANOUTS

- A. Payment for pipe bends are included in the prices stated for the several items in the Schedule of Prices and will not be paid for under a separate item.

- B. The quantity of furnished and installed cleanouts to be paid under Item No. in the Schedule of Prices is the number of cleanouts installed. The prices stated are full compensation for all materials, labor, tools, construction equipment, and expense incidental to the construction of the cleanouts, including pipe bends and caps. The price stated includes the cost of excavation, bedding, backfilling and the cost of disposing of any excess excavated material.

3.32 FLEXIBLE COUPLINGS

- A. Flexible couplings, as manufactured by Fernco, or equal, shall be furnished and installed to provide a coupling between the new PVC laterals and the existing sewer laterals.
- B. Couplings shall be selected from the manufacture's catalog in order to provide the proper size and pipe material match.
- C. Stainless steel clamps, as provided by the manufactures, shall be used to connect the flexible couplings to the pipes.
- D. Manufacture's product sheets may be required for submission as requested by the Director of Public Works.

3.33 PAYMENT FOR FLEXIBLE COUPLINGS

- A. Payment for flexible couplings are included in the prices stated for the several items in the Schedule of Prices and will not be paid for under a separate item.

3.34 REMOVE EXISTING MANHOLES

- A. Where shown on the Drawings, unless otherwise noted, existing manholes outside of the roadway shall be removed by carefully lifting off the existing cover and frame, removing the structure for a depth of two (2) feet below the bottom of the frame, plugging the pipes and backfilling the manhole.
- B. Where shown on the Drawings, unless otherwise noted, existing manholes within the roadway shall be removed by carefully lifting off the existing cover and frame, removing the entire structure, plugging the pipes and backfilling the hole in accordance with Section 3.11.
- C. The Contractor is responsible for proper disposal of demolition material.
- D. The existing pipes shall be plugged with masonry and mortar.
- E. The manhole shall be backfilled and compacted in two (2) foot lifts, or in accordance with section 3.11 for manholes within the roadway.

3.35 PAYMENT FOR REMOVING EXISTING MANHOLES

- A. The quantity for removed manholes under Item No. 52 in the Schedule of Prices is the number of manholes removed. The price is full compensation for all labor, tools, equipment, materials and expenses incidental to the removal of the manholes, including lifting off the frame and cover, removing the structure (if applicable), disposing of demolished material, plugging pipes and backfilling.
- B. Removing existing manholes shall be paid under Item No 52.

3.36 PLUGGING OF ABANDONED PIPES

- A. Wherever the existing sewer pipe, which is to be abandoned, is crossed and broken, each end of the pipe shall be plugged with masonry and mortar or capped as indicated on the Drawings. Two (2) pipe ends shall equal one (1) section.

3.37 PAYMENT FOR PLUGGING OF ABANDONED PIPES

- A. The quantity for plugging of abandoned pipes under Item No. 53 in the Schedule of Prices is the number of pipe sections sealed. The price is full compensation for all labor, tools, equipment, materials and expenses incidental to the removal of the existing pipe and sealing, including saw cutting ends, backfilling and compacting.
- B. Plugging of abandoned pipes shall be paid under Item No. 53

**DIVISION IV
REPLACING BASE & PAVEMENT**

4.1 GENERAL

- A. Applicable requirements of the General and Supplemental Conditions shall govern all work of this Division.
- B. The Contractor shall furnish all labor, materials, equipment and incidentals necessary to complete the work of this Division as shown on the Drawings and specified herein.
- C. All areas of existing streets and driveways where pavement was removed shall have the pavement base replaced in accordance with this Division.
- D. The maximum width of pavement cuts and replacements shall be kept to a maximum of six (6) feet. Greater widths, unless authorized, shall be repaired in accordance with this Division, at the Contractor's expense.
- E. The Contractor shall be responsible for following all CONN DOT Permit requirements while working within the DOT right of way.

4.2 WORK INCLUDED

Work of this Division shall include the following:

- Base materials
- Bituminous concrete pavement repair
- Milling
- Bituminous concrete curb repair

4.3 REFERENCES

- A. Reference to "Form 817" shall mean the publication entitled "State of Connecticut. Department of Transportation, Standard Specifications for Road, Bridges, and Incidental Construction" dated 2016, and any subsequent amendments.

4.4 PROCESSED AGGREGATE ROAD BASE ON PIPE TRENCHES (TOWN ROAD)

- A. The Contractor shall box trench areas and haul, place, grade and compact processed aggregate base/pavement. (Note: The Contractor may substitute recycled base material provided it meets specifications and is approved by the Director of Public Works.) All materials shall meet Form 817 Specifications.

- B. The surface of the compacted base shall be 3 ½ inches below the existing pavement surface.
- C. Payment to box trench areas and haul, place, and compact the base material will be paid under Item No. 42 in the Schedule of Prices. The quantity of base to be paid in the Schedule of Prices is the number of square yards placed, graded, and compacted.
- D. The price shall include all labor, materials, equipment, and incidental work for the road base.
- E. Disposal of material from boxing out trench areas shall be paid in accordance with Section 3.11.
- F. Up to a maximum trench width of six (6) feet will be paid for, unless a wider width is authorized.

**4.5 PROCESSED AGGREGATE ROAD BASE ON PIPE TRENCHES (STATE ROAD)
(NIC)**

- A. The Contractor shall box trench areas and haul, place, grade and compact process aggregate base. All materials shall meet Form 817 Specifications.
- B. The surface of the compacted base shall be a minimum of nine (9) inches below the existing pavement surface, **subject to CONN DOT permit requirements.**
- C. Payment to box trench areas and haul, place, and compact the base material will be paid under Item No. in the Schedule of Prices. The quantity of base to be paid in the Schedule of Prices is the number of square yards placed, graded, and compacted.
- D. The price shall include all labor, materials, equipment, and incidental work for the road base.
- E. Disposal of material from boxing out trench areas shall be paid in accordance with Section 3.11.
- F. Up to a maximum trench width of six (6) feet will be paid for, unless a wider width is authorized.

4.6 SAWCUT EXISTING PAVEMENT

- A. All trench areas shall be saw cut prior to excavating.
- B. Payment for saw cutting pavement will be paid under Item No. 6 in the Schedule of Prices. The quantity to be paid is the number of lineal feet cut. The price shall include all labor, equipment and incidental work.

4.7 MILLING OF TRENCH AREA (TOWN ROAD) (NIC)

- A. Prior to placing 1 ½ inches of Class 2 bituminous concrete surface, the trench area shall be milled to a depth of 1 ½ inches and a width extending a minimum of three (3) feet on each side of the trench.
- B. Payment for milling of trench area will be paid under Item No. in the Schedule of Prices. The price shall include all labor, equipment, dust control, picking up milled material and sweeping, and incidental work. The quantity to be paid will be a lump sum amount.

4.8 MILLING OF TRENCH AREA (STATE ROAD) (NIC)

- A. Prior to placing 1 ½ inches of Class 1 bituminous concrete surface, the trench area shall be milled to a depth of 1 ½ inches and a width extending a minimum of three (3) feet on each side of the trench, **or as required by the CONN DOT Permit.**
- B. Payment for milling of trench area will be paid under Item No. in the Schedule of Prices. The price shall include all labor, equipment, dust control, picking up milled material and sweeping, and incidental work. The quantity to be paid will be a lump sum amount.

4.9 MILLING FULL WIDTH OF ROAD

- A. Prior to placing 1 ½ inches in Class 2 bituminous concrete surface, the road area shall be milled from zero (0) inches at six (6) feet from edge of road, to 1 ½ inches at the road edge.
- B. Payment for milling of trench area will be paid under Item No. in the Schedule of Prices. The price shall include all labor, equipment, dust control, picking up milled material and sweeping, and incidental work. The quantity to be paid will be a lump sum amount.

4.10 BITUMINOUS CONCRETE TRENCH REPAIR & OVERLAY (TOWN ROAD)

- A. The trench shall be repaired, after compaction and placement of the base, with a single course of Bituminous Concrete pavement. The cross slope shall meet existing grades, unless otherwise directed by the Director of Public Works.
- B. A maximum trench width for six (6) feet will be paid, unless a wider trench is authorized.
- C. Binder course shall be two (2) inches, compacted depth.
- D. A base conforming to the requirements of section 4.04 of these Specifications shall be placed in the trench and rolled to full compaction with a seven (7) to ten (10) ton roller or vibratory roller of equal capability to within two (2) inches of the existing road surface.

- E. The bituminous concrete materials shall be Class 1 Bituminous Concrete conforming to Form 817, Article M.04.01. The materials shall be handled and placed in accordance with Form 817, Section 4.07.01 through 4.07.03.
- F. After trench pavement, the trench shall be allowed to settle for a period of one (1) year. After expiration of the one year period, the existing road shall be milled back three (3) feet on each side of the trench to a depth of 1 ½ inches (*NOT INCLUDED*).
- G. The bituminous concrete overlay shall be Class 2 Bituminous Concrete, conforming to Form 817, Article M.04.01. (*NOT INCLUDED*).
- H. The new pavement shall be blended into the existing pavement such that cross slopes will be uniform.
- I. The contact surfaces of existing pavements, valve boxes, and other structures in the pavement shall be painted thoroughly with a thin uniform coating of bitumen, specification RC-70 or RS-1 just before the new paving mixture is placed against them.
- J. The edges of paving placed around valve boxes or other structures, if necessary, shall be hand tamped before being compacted by rolling.
- K. All joints shall then be sealed with a hot bituminous asphalt sealer conforming to the requirements of Article M.04.02 of CONN DOT Form 817 (*NOT INCLUDED*).

4.11 PAYMENT FOR BITUMINOUS CONCRETE TRENCH REPAIR & OVERLAY (TOWN ROAD)

- A. Payment for bituminous concrete trench repair (Town Road) is to be paid under Item No. 42 in the Schedule of Prices is the number of square yards placed. Payment is for furnishing and placing the pavement trench repair as indicated in the Drawings. The price shall be inclusive of compensation for furnishing all materials, labor, tools and equipment, and all other work and expense incidental thereto.
- B. Payment includes base material, bituminous concrete, adjusting manholes, placing tack coats on manholes, placing tack coat on existing pavement, sealing joints and line striping.
- C. Delivery slips shall be provided to the Director of Public Works.

4.12 BITUMINOUS CONCRETE TRENCH REPAIR & OVERLAY (STATE ROAD)

- A. The trench shall be repaired, after compaction and placement of the base, with a minimum of nine (9) inches Class 4 Bituminous Concrete pavement. The cross slope shall meet existing grades, unless otherwise directed by the Director of Public Works.

- B. A maximum trench width of six (6) feet will be paid, unless a wider trench is authorized.
- C. After trench pavement, the trench shall be allowed to settle for a period of one (1) year. After expiration of the one year period, the existing road shall be milled back three (3) feet on each side of the trench to a depth of three (3) inches.
- D. The bituminous concrete binder shall be Class 1 Bituminous Concrete conforming to Form 817, Article M.04.01. The materials shall be handled and placed in accordance with Form 817, Section 4.07.01 through 4.07.03.
- E. The bituminous concrete overlay shall be Class 1 Bituminous Concrete, conforming to Form 817, Article M.04.01.
- F. The new pavement shall be blended into the existing pavement such that cross slopes will be uniform.
- G. The contact surfaces of existing pavements, valve boxes, and other structures in the pavement shall be painted thoroughly with a thin uniform coating of bitumen, specification RC-70 or RS-1 just before the new paving mixture is placed against them.
- H. The edges of paving placed around valve boxes or other structures, if necessary, shall be hand tamped before being compacted by rolling.
- I. All joints shall then be sealed with a hot bituminous asphalt sealer conforming to the requirements of Article M.04.02 of CONN DOT Form 817.

4.13 PAYMENT FOR BITUMINOUS CONCRETE TRENCH REPAIR & OVERLAY (STATE ROAD) (NIC)

- A. Payment for bituminous concrete trench repair (State Road) is to be paid under Item No. in the Schedule of Prices is the number of square yards placed. Payment is for furnishing and placing the pavement trench repair as indicated in the Drawings. The price shall be inclusive of compensation for furnishing all materials, labor, tools and equipment, and all other work and expense incidental thereto.
- B. Payment includes base material, bituminous concrete, adjusting manholes, placing tack coats on manholes, placing tack coat on existing pavement, sealing joints and line striping.
- C. Delivery slips shall be provided to the Director of Public Works.

4.14 BITUMINOUS CONCRETE LIP CURBING

- A. Bituminous Concrete Lip Curbing shall consist of matching laid bituminous concrete, constructed on the pavement to the dimensions and details shown on the Drawings.
- B. Materials for this work shall conform to the requirements of Form 817, Article M.04.01, Class 3.
- C. Construction Methods shall conform to Form 817, Section 8.15.03.
- D. Payment for furnishing and placing the Bituminous Concrete Curb to be paid under Item No. 50 in the Schedule of Prices is the number of lineal feet placed. The price stated under Item No. 50 is full compensation for furnishing all materials, labor, tools and equipment and all work and expense incidental thereto.

4.15 TEMPORARY BITUMINOUS CONCRETE PATCH (TOWN ROAD)

- A. If directed by the Director of Public Works, a 1 inch to 1 ½ inch Class 2, or equivalent material, patch shall be paced at the end of each day.
- B. Payment for furnishing and placing the temporary patch to be paid under Item No. 47 in the Schedule of Prices is the number of square yards placed. The price under Item No. 47 is full compensation for all materials, labor, tools and equipment, and all other work and expenses included thereto.
- C. Delivery slips shall be provided to the Director of Public Works.

4.16 BITUMINOUS CONCRETE DRIVEWAY REPAIR

- A. Where existing bituminous concrete driveways are removed or damaged during sewer installation, the driveways shall be repaired with a 1 ½ inch bituminous concrete Class 1 binder and a 1 ½ inch Class 2 bituminous concrete top course on an eight (8) inch processed aggregate base.
- B. The Contractor shall box trench areas and haul, place, grade and compact processed aggregate base/pavement. The surface of the compacted base shall be three (3) inches below the existing pavement surface.
- C. Processed aggregate shall conform to Form 817, Section M.05.01.
- D. Bituminous Concrete shall be Class 2, conforming to Form 817.
- E. Saw cut all broken edges.

- F. Disposal of material from boxing out trench areas shall be paid in accordance with Section 3.11.
- G. Up to a maximum trench width of six (6) feet will be paid for, unless a wider width is authorized.
- H. The Bituminous Concrete surface shall be constructed in accordance with the requirements of Form 817, Section 4.06, except that material may be spread by hand and compacted by a roller weighing not less than 500 pounds.

4.17 PAYMENT FOR BITUMINOUS CONCRETE DRIVEWAY REPAIR (NIC)

- A. Payment for bituminous concrete driveway repair is to be paid under Item No. 44 in the Schedule of Prices is the number of square yards placed. The price under Item No. 44 is full compensation for all materials, labor, tools and equipment, and all other work and expenses included thereto.

**DIVISION V
LANDSCAPING**

5.1 GENERAL

- A. All applicable requirements of the General and Supplemental Conditions shall govern all work of this Division.
- B. The Contractor shall furnish all labor, materials, equipment, and incidentals necessary to complete the work of this Division as shown in the Drawings and/or specified herein.
- C. All disturbed areas not restored by paving or drives shall be top soiled, fertilized, and seeded. The intent is to restore areas where laterals end in front yards. All other areas, unless authorized, shall be restored in accordance with this Division at the Contractor's expense.
- D. All other work shall be completed before undertaking the work of this Division, such that planted areas will not be disturbed.

5.2 WORK INCLUDED

Work of this Division shall include the following:

- Stripping loam
- Spreading and supplying loam
- Finish grading
- Fertilizing
- Seeding
- Temporary sediment and erosion control measures
- Tree and stump removal

5.3 STRIPPING LOAM

- A. From areas which are to be excavated and are presently covered with loam, the loam shall be removed from the full width of the excavation and kept separate from the rest of the excavated material.
- B. The loam shall be stockpiled in a location within the project area designated by the Director of Public Works.

5.4 SPREADING THE LOAM

- A. In areas requiring loaming and seeding, loam shall be placed to a depth of six (6) inches after the rest of the backfill has been compacted.

- B. Where sufficient material is not available from the stripping operation, the Contractor shall furnish suitable loam from other sources.
- C. After spreading the loam, it shall be graded and raked to conform to existing grades. Care shall be taken to assure that the natural drainage of surface storm water is maintained and that ponding will not occur.
- D. If weeds grow on topsoil surface before fertilizing and seeding, the Contractor shall remove the weeds and again prepare the surface by raking.

5.5 FERTILIZING AND SEEDING

- A. Scarify surface of all areas to be top soiled and place a minimum of six (6) inches of topsoil on all areas to be seeded.
- B. Apply lime at a rate of two (2) tons of ground limestone per acre (100 lbs./1000 sq. ft.).
- C. Fertilize
 - For spring seeding, apply 10-10-10 fertilizer at a rate of three hundred (300) pounds per acre (7 lbs./1000 sq. ft.) and work into soil. Six (6) to eight (8) weeks later, apply additional three hundred (300) pounds per acre on the surface.
 - For fall seeding, apply 10-10-10 fertilizer at a rate of six hundred (600) pounds per acre (14 lbs./1000 sq. ft.) and work into soil.
- D. Smooth and firm seedbed, apply seed uniformly at the rate specified for the seed type and cover seed with not more than ¼ inch of soil.
- E. Mulch immediately with hay free from weed seeds, at a rate of three (3) bales per 1000 sq. ft.
- F. Permanent seedlings, where an area will be exposed for more than one year, or where final grading is complete:

<u>Area Where Seeding Mix Applies</u>	<u>Seeding Mixture By Weight</u>	<u>Rate Per. 1000 sq. ft.</u>	<u>Reseeding Dates*</u>
All Lawn Areas	Red Fescue 70% Kentucky Bluegrass 20% Perennial Ryegrass 10%	5 Lbs.	Sept. 1 – Oct. 1 April 1 – June 1
Road Cuts and Fills	Kentucky Tall Fescue 80% Annual Ryegrass 20%	3 Lbs.	Sept. 1 – Oct. 1 April 1 – June 1

Initial seeding shall be done upon project completion. (Note: Hydro-seeding methods may be used)

5.6 SEDIMENT AND EROSION CONTROL

- A. The Contractor shall implement temporary sediment and erosion control measures to prevent discharge of sediments from loam stripping and spreading activities and lawn establishment activities to the waters of the State. Such measures shall include, as a minimum:
1. Use of silt fence erosion control, hay bale erosion checks, straw wattles or erosion control fabric. Materials used shall be approved by the Director of Public Works.
 2. Implementation shall be in accordance with 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as published by the CT Department of Energy and Environment Protection.

5.7 PAYMENT SEDIMENT AND EROSION CONTROL

- A. Payment for implementation and maintenance of temporary sediment and erosion control measures related to loam stripping and spreading activities and lawn establishment activities, as specified, is included in the prices bid for the several items of work in the Schedule of Prices and will not be paid for under a separate item.

5.8 MAINTENANCE AND GUARENTEE

- A. All seeded areas shall be thoroughly watered when required to ensure germination and proper establishment. They shall be maintained by the Contractor until permanently established and shall be subject to the one (1) year guarantee of his work.

5.9 PAYMENT FOR LOAMING AND SEEDING

- A. Payment for loaming and seeding, as specified, to be paid under Item No. 51 in the Schedule of Prices, a lump sum amount. The price stated under Item No. 51 is full compensation for materials, labor, equipment, and incidental work of this item. The price includes stripping loam, supplying and grading loam, fertilizing, seeding, any mulching, and required maintenance.

5.10 PAYMENT FOR TREE AND STUMP REMOVAL (NIC)

- A. Payment for tree and stump removal to be paid under Item No. in the Schedule of Prices, a lump sum amount. The price stated under Item No. is full compensation for materials, labor, equipment, and incidental work of this item. The price includes clearing all trees, stumps and vegetation needed for the project. Price is to include removal of all debris and regrade as necessary to restore grade to previous conditions at the Contractor's location and expense.

**DIVISION VI
CONCRETE SIDEWALKS**

6.1 GENERAL

- A. Applicable requirements of the General and Supplemental Conditions shall govern all work of this Division.
- B. The Contractor shall furnish all labor, materials, equipment and incidentals to complete the work of this Division as shown on the Drawings and specified herein.

6.2 WORK INCLUDED

Work of this Division shall include the following:

- Excavation
- Base materials
- Concrete
- Sidewalk

6.3 REFERENCES

- A. References to “Form 817” shall mean the publication entitled “State of Connecticut Standard Specifications for Roads, Bridges and Incidental Construction, Form 817” and any subsequent amendments or issues thereof.

6.4 BASE

- A. The Contractor shall excavate the area for concrete sidewalk replacement to a depth of thirteen (13) inches below finish walk grade. The subgrade base shall be smooth and compacted.
- B. Eight (8) inches of process aggregate, conforming to Form 817, Section M.05.01, shall be placed and compacted.
- C. Payment for excavations, providing and placing process aggregate base, compaction, and for disposal of surplus materials is included in the price bid for concrete sidewalk in the Schedule of Prices and will not be paid for under a separate item.

6.5 CONCRETE SIDEWALK

- A. The Contractor shall supply materials, forms and construction of concrete sidewalks to replace any sections removed for sewer installation. Materials shall conform to Form 817, Section 9.21.02. Walk depth shall be five (5) inches.

- B. Construction methods shall conform to Form 817. Section 9.21.03.
- C. Edges of existing concrete walks shall be saw cut such that new concrete walks are placed in the same size squares as existing walks. The payment for saw cutting is included in the price bid for concrete sidewalk in the Schedule of Prices and will not be paid under a separate item.

6.6 PAYMENT FOR CONCRETE SIDEWALKS

- A. The number of square yards of concrete sidewalks completed shall be paid under Item No. 54 in the Schedule of Prices. This price is full compensation for all labor, tools, construction equipment, materials and expense incidental to the concrete sidewalks.
- B. The price included the cost of excavation, aggregate base material, compaction, forms, disposal of surplus materials and clean-up.

**DIVISION VII
SURVEY AND LAYOUT**

7.1 GENERAL

- A. Applicable requirements of the General and Supplemental Conditions shall govern all work of this division.
- B. The Contractor shall furnish all labor, equipment and incidentals to complete the work of this Division as specified herein.

7.2 SURVEY AND LAYOUT

- A. The Contractor shall supply all surveys for construction layout and reference staking necessary for the proper control and satisfactory completion of all work on the project, except property lines.
- B. The Owner shall provide bench marks, as shown in the Drawings.

7.3 PAYMENT FOR SURVEY AND LAYOUT

- A. All work associated with Survey and Layout shall be paid under Item No. 5 in the Schedule of Prices. The work paid under Item No. 5 shall be a lump sum amount.

DIVISION VIII STORMWATER

8.1 GENERAL

- A. Applicable requirements of the General and Supplemental Conditions shall govern all work of this Division.
- B. The Contractor shall furnish all labor, materials, equipment and incidentals to complete the work of this Division as shown on the Drawings and specified herein.

8.2 WORK INCLUDED

Work under this Division shall include the following:

- Removal and disposal of existing structure
- Placing and compacting bedding and backfill
- Supplying and installing structures
- Incidental construction

8.3 REFERENCE

- A. Reference to “Form 817” shall mean the publication entitled “State of Connecticut. Department of Transportation, Standard Specifications for Road, Bridges, and Incidental Construction” dated 2016, and any subsequent amendments.

8.4 EXCAVATION

- A. Excavation shall be sufficient in width and depth at all points to allow the new structure to be placed, existing pipes connected, backfill to be compacted and other construction to be placed or built in the most thorough and workmanlike manner, and to allow for side protection, pumping and draining and for removal and replacing of any unsuitable material. All saw cuts shall be straight and clean.
- B. Materials shall conform to the requirements of Article M.08.02 of the DOT Specifications.
- C. Mortar: Article M.11.04 of the DOT Specifications.
- D. Pervious Material: Article M.02.05 of the DOT Specifications.

8.6 BEDDING, BASE, COVER AND BACKFILL MATERIALS

- A. Crushed stone for bedding shall be sound, tough and durable; it shall be free from soft, thin elongated or laminated pieces and vegetable or other deleterious substances. Grading Article M.01.01, DOT Specifications. Size: No. 6 – $\frac{3}{4}$ inch Stone.
- B. Suitable Backfill Material: Onsite material.

8.7 CONSTRUCTION OF CATCH BASINS

- A. When conditions at the bottom of the excavation are satisfactory to the Owner, place and compact the granular fill base. Bring the top of the granular base to the proper grade. Make granular base flat to uniformly support catch basin.
- B. Construct catch basins, manholes, etc. and join pipes to structures in accordance with the requirements of Article 5.07.03 of the DOT Specifications. Those requirements include:
 - 1. Lay masonry units and metal frames in full mortar beds. In addition to the requirements of Article 5.07.03, apply a field coat of SS-1 emulsion to metal frames, grates and covers immediately before installation.
 - 2. Plan to backfill with pervious material to extent indicated; provide a drainage opening in each wall immediately above the bottom of the pervious material, as indicated.
 - 3. If cast-in-place concrete is used for tops, use bar reinforcement and apply protective compound material as directed. Comply with the applicable requirements of Article 5.07.03.
- C. When structures are constructed in sandy soil, apply damp proofing to outside wall surfaces.
- D. Coordinate the backfilling work using suitable backfill material where indicated and pervious backfill material where indicated. Conform to Division II requirements.

8.8 PAYMENT FOR DRAINAGE STRUCTURES (NIC)

- A. The quantity of furnished and installed catch basins under Item No. in the Schedule of Prices is the number of basins installed. The price is full compensation for all labor, tools, equipment, materials and expense incidental to the installation of the structure including restoration of all surfaces disturbed.
- B. Catch Basin Reconstruction shall be paid under Item No.

**DIVISION IX
MAINTENANCE AND PROTECTION OF TRAFFIC**

9.1 GENERAL

- A. All applicable requirements of the General Conditions shall govern all work of this Division.
- B. The Contractor shall furnish all labor, material, equipment, and incidentals necessary to complete the work of this Division as shown in the Drawings and/or specified herein.
- C. The work area and all open excavations shall be carefully protected with temporary signs, barricades, barrels, construction fencing, or other appropriate means to prevent accident to the public or to workman. When necessary, barricades or other traffic control devices shall be lighted from sunset to sunrise.
- D. No excavations shall remain open after work hours.
- E. Construction plant and materials and any obstruction placed on roads by the Contractor or caused by their operations shall be carefully marked and protected, including flashers, as may be needed.
- F. The Contractor shall dispose their plant, construction materials and excavated material so as not to obstruct roads. No portion of any road shall be closed to traffic unless written permission is obtained from the Director of Public Works.

9.2 WORK INCLUDED

Work of this Division shall include the following:

- Identifying safety hazards
- Traffic control
- Supplying and installing traffic control devices

9.3 REFERENCE

- A. Reference to “MUTCD” shall mean the publication entitled “Manual of Uniform Traffic Control Devices” dated 2009 and any subsequent amendments.

9.4 SCOPE OF WORK

- A. This technical specification shall include identifying safety hazards and furnishing all necessary labor, materials, testing, submittals, tools, and equipment including but not limited to signs, barricades, traffic drums, cones, flashers, construction fencing, flaggers, warning

devices, temporary pavement markings, delineators, etc., to control vehicular and pedestrian traffic through and adjacent to the project areas. These measures and actions shall safely maintain the accessibility of public and construction traffic by preventing potential construction hazards. This work shall also include all costs associated with the erecting, maintaining, moving, adjusting, cleaning, relocating, and storing the aforementioned materials as is necessary to ensure safe movement of vehicular and pedestrian traffic throughout the project area.

- B. The Contractor may request that the Town approve the detouring of traffic around the construction area if it is in the best interest of public safety and the Town. Detouring shall be limited to normal construction hours and two way traffic patterns shall be re-established at the end of each work day.

9.5 MATERIALS

- A. All materials under this item including any warning devices, such as signs, barricades, flashers, cones, drums, vests, paddle signs, delineators, and other incidentals necessary to protect the work area and maintain vehicular and pedestrian traffic through and adjacent to the project area shall be in accordance with the MUTCD, as amended, or as approved by the Director of Public Works.

9.6 TRAFFIC CONTROL

- A. The Contractor shall keep the roadway under construction open to vehicular and pedestrian traffic for the full length of the project. Traffic is to be maintained on one section of existing pavement, proposed pavement, or a combination thereof. Alternating one way traffic may be utilized and limited to a maximum length of five hundred (500) feet during construction hours. Lane width for alternating one-way traffic shall be kept to a minimum width of ten (10) feet, or as directed by the Director of Public Works. A sufficient number of travel ways and pedestrian pass ways shall be provided to move that traffic ordinarily using the roadway. The travel lanes and pedestrian pass ways shall be drained and kept reasonably smooth, and in a suitable condition at all times in order to provide minimum interference to traffic consistent with the prosecution of the work. Suitable ingress and egress shall be provided at all times where required for all intersections, driveways and for all abutting properties having legal access.
- B. Traffic patterns shall conform to the Connecticut Department of Transportation Special Provisions Item 0971001A – Traffic Control Plans & Typical Materials.
- C. The Contractor shall use Certified Flaggers as necessary to provide traffic control. Unless the use of uniformed officers is ordered by the Chief of Police, all costs associated with the use of uniformed officers will be borne by the Contractor.

- D. For such instances where detouring is unavoidable, the Contractor shall provide the Director of Public Works a proposed detour route that will be subject to the Town's approval prior to the beginning of construction activities. For any instance when the Contractor proposes to detour traffic, the Director of Public Works shall be provided a minimum of seventy two (72) hours notice. The right to detour traffic is not implied and the decision to do so will be the sole responsibility of the Town.
- E. Where flashers or other warning devices are used, all signs shall be erected and placed in accordance with the MUTCD as amended.
- F. The Contractor shall furnish a sufficient number of traffic control devices such as signs, barricades, traffic drums, cones, flashers, construction fencing, flaggers, warning devices, temporary pavement markings, and delineators to forewarn traffic of the impending construction and to guide the traveling public through the construction safely.
- G. All signs in any one signing pattern shall be mounted the same height above the roadway. The Contractor shall keep all signs in proper position, clean and legible at all times. Care shall be taken so that weeds, shrubbery, construction materials, equipment and soil are not allowed to obscure and sign, light, or barricade. Signs that do not apply to construction conditions should be removed or adjusted so that the legend is not visible to approaching traffic.
- H. All proposed construction area traffic control is subject to the review and approval by the Director of Public Works, or Simsbury Police Department. If the traffic control is deemed unacceptable or hazardous, construction operations may be suspended until the Contractor corrects the traffic control issue. The construction suspension shall be at the Contractor's expense.

9.7 PAYMENT FOR TRAFFIC CONTROL

- A. Payment for maintenance and protection of traffic including, but not limited to placing signs, message boards, cones, flashers and barricades, and flagmen is included in the prices stated for the several items in the Schedule of Prices and will not be paid for under a separate item. No additional payments for uniformed traffic officers will be made.