



---

Northwestern Water and Sewer District  
Northwood Sewer Rehabilitation  
SS-200H

---

**ADDENDUM 1**

---

June 2, 2023

Planholders of the Northwestern Water and Sewer District, Northwood Sewer Rehabilitation, SS-200H, project are hereby notified of the following amendments to the Contract Documents. This Addendum is hereby made a part of the Contract Documents.

**SPECIFICATIONS**

***Page C-410-6-8***

Remove Specification C-410 pages 6 through in their entirety and replace with the attached C-410-6, C-410-7, and C-410-8.

***Page 01010***

Remove Specification 01010 in its entirety and replace with the attached 01010.

***Page 01043, A-1***

Remove Page 01043A-1 General Summary in its entirety and replace with the 01043A-1.

***Page 01330-2, 3.01, a***

Remove bullet "a" in its entirety and replace with the following:

- a. <https://tinyurl.com/e2pteckf>

***Page 01330-3, 3.02, A, 3***

Remove bullet "3" in its entirety and replace with the following:

3. <https://tinyurl.com/5xsws6h9>



**Northwestern Water & Sewer District  
Northwood Sewer Rehabilitation  
Addendum 1**

Page 2

Attachments:

Revised Bid Form

Revised 01010

Revised General Summary

**RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON PAGE C-410 - 1 OF THE BID.**

UNIT PRICE BID

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

ITEM NO.	ITEM DESCRIPTION	ESTIMATED AMOUNT	UNIT	UNIT PRICE IN NUMBERS		UNIT PRICE IN WORDS	MATERIAL UNIT PRICE IN NUMBERS		LABOR UNIT PRICE IN NUMBERS		TOTAL ESTIMATED COST OF ITEM IN WORDS	TOTAL ESTIMATED COST OF ITEM	
1	Mobilization and Demobilization	1	LS										
2a	8-inch x 48-inch CIPP Sectional Liner	19	EA										
2b	8-inch x 72-inch CIPP Sectional Liner	10	EA										
2c	10-inch x 48-inch CIPP Sectional Liner	5	EA										
2d	10-inch x 72-inch CIPP Sectional Liner	6	EA										
2e	12-inch x 48-inch CIPP Sectional Liner	1	EA										
2f	15-inch x 48-inch CIPP Sectional Liner	2	EA										
3a	12-inch Cured-in-Place Pipe Repairs (Steam Inversion)	173	LF										
3b	24-inch Cured-in-Place Pipe Repairs (Steam Inversion)	259	LF										
4a	8-inch x 6-inch Cured-in-Place Main and Lateral Sewer Connection Rehabilitation	3	EA										
4b	10-inch x 6-inch Cured-in-Place Main and Lateral Sewer Connection Rehabilitation	1	EA										
5a	8-inch Sanitary Sewer Pipe Point Repair, Type B	30	LF										
5b	15-inch Sanitary Sewer Pipe Point Repair, Type B	10	LF										
5c	6-inch Sanitary Sewer Lateral, Types B and C	225	LF										
5d	Wye Replacement	4	EA										
6a	Lateral Heavy Cleaning	10	EA										
6b	Lateral Root Cutting	100	LF										
6c	Removal of Protruding Taps	1	EA										
6d	Lateral Sewer Cleaning,Testing and Preconstruction Televising	312	LF										
6e	8-inch Sewer Cleaning,Testing and Preconstruction Televising	13825	LF										
6f	10-inch Sewer Cleaning,Testing and Preconstruction Televising	5333	LF										

ITEM NO.	ITEM DESCRIPTION	ESTIMATED AMOUNT	UNIT	UNIT PRICE IN NUMBERS		UNIT PRICE IN WORDS	MATERIAL UNIT PRICE IN NUMBERS		LABOR UNIT PRICE IN NUMBERS		TOTAL ESTIMATED COST OF ITEM IN WORDS	TOTAL ESTIMATED COST OF ITEM	
6g	12-inch Sewer Cleaning,Testing and Preconstruction Televising	2025	LF										
6h	15-inch Sewer Cleaning,Testing and Preconstruction Televising	1461	LF										
6i	24-inch Sewer Cleaning,Testing and Preconstruction Televising	255	LF										
6j	Sewer Root Cutting or Cleaning Addition	50	LF										
7a	Sewer Pipe Joint Grouting	11296	GAL										
7b	Lateral Pipe Joint Grouting	20	GAL										
8a	Manhole Grouting	70	GAL										
8b	Casting Adjustment	4	EA										
9	Relocation of Lateral Connection to Manhole Inside Drop	3	LS										
10a	Post Construction CCTV Inspection of Tested and Grouted Sewers	22643	LF										
10b	Post Construction CCTV Inspection of CIPP Lined Sewers	422	LF										
10c	Post Construction CCTV Inspection of Lateral Sewers	211	LF										
10d	Post Construction CCTV Inspection of Sectional Liners	40	EA										
11a	ODOT Item 202 Pavement and Base Removed	100	SY										
11b	ODOT Item 202 Driveway and Sidewalk Pavement Removed	60	SY										
12a	Flexible Pavement Trench Repair - Heavy Roadway	30	SY										
12b	Flexible Pavement Trench Repair - Residential Roadway	80	SY										
12c	Temporary Pavement Repair	90	SY										
12d	ODOT Item 411 Stabilized Crushed Aggregate (Berm and Drive)	30	SY										
12e	3-inch ODOT Item 301 Asphalt Concrete Base Course	152	SY										

ITEM NO.	ITEM DESCRIPTION	ESTIMATED AMOUNT	UNIT	UNIT PRICE IN NUMBERS		UNIT PRICE IN WORDS	MATERIAL UNIT PRICE IN NUMBERS		LABOR UNIT PRICE IN NUMBERS		TOTAL ESTIMATED COST OF ITEM IN WORDS	TOTAL ESTIMATED COST OF ITEM	
13	6-inch ODOT Item 452 Non-Reinforced Concrete Pavement, Class MS (Residential Drive Approach)	40	SY										
14a	Curb Removed	30	LF										
14b	Concrete Curb	30	LF										
15	Storm Sewer Repair (18-inch Diameter or Less)	25	LF										
16	Video Recording of the Zone of Influence	1	LS										
17	Storm Water Pollution Prevention	1	LS										
18	Maintenance of Traffic	1	LS										
19a	New Cleanouts on Laterals (Non-Paved Areas)	2	EA										
19b	New Cleanouts on Laterals (Paved Areas)	2	EA										
Allowance	Mailbox Removal and Replacement	1	LS	\$3,000	.00						Three thousand dollars and zero cents	\$3,000	.00
Allowance	Fence Removal and Replacement	1	LS	\$10,000	.00						Ten thousand dollars and zero cents	\$10,000	.00
Allowance	Landscaping Restoration	1	LS	\$15,000	.00						Fifteen thousand dollars and zero cents	\$15,000	.00
Allowance	Tree Removal	1	LS	\$20,000	.00						Twenty thousand dollars and zero cents	\$20,000	.00
Total Bid Amount:													

Item No.	Plan Quantity	Contingency Quantity	Grand Total	Unit	Description	Northwood (east i-280)	Northwood (west i-280)	Eastpointe
1	1	0	1	LS	Mobilization and Demobilization	0	0	0
2a	17	2	19	EA	8-inch x 48-inch CIPP Sectional Liner	7	9	1
2b	9	1	10	EA	8-inch x 72-inch CIPP Sectional Liner	5	4	0
2c	5	0	5	EA	10-inch x 48-inch CIPP Sectional Liner	0	4	1
2d	6	0	6	EA	10-inch x 72-inch CIPP Sectional Liner	0	4	2
2e	1	0	1	EA	12-inch x 48-inch CIPP Sectional Liner	0	0	1
2f	2	0	2	EA	15-inch x 48-inch CIPP Sectional Liner	0	0	2
3a	168	5	173	LF	12-inch Cured-in-Place Pipe Repairs (Steam Inversion)	0	0	168
3b	254	5	259	LF	24-inch Cured-in-Place Pipe Repairs (Steam Inversion)	254	0	0
4a	3	0	3	EA	8-inch x 6-inch Cured-in-Place Main and Lateral Sewer Connection Rehabilitation	2	0	1
4b	1	0	1	EA	10-inch x 6-inch Cured-in-Place Main and Lateral Sewer Connection Rehabilitation	0	0	1
5a	16	14	30	LF	8-inch Sanitary Sewer Pipe Point Repair, Type B	6	0	10
5b	10	0	10	LF	15-inch Sanitary Sewer Pipe Point Repair, Type B	0	0	10
5c	191	34	225	LF	6-inch Sanitary Sewer Lateral, Types B and C	165	26	0
5d	4	0	4	EA	Wye Replacement	1	3	0
6a	2	8	10	EA	Lateral Heavy Cleaning	1	1	0
6b	80	20	100	LF	Lateral Root Cutting	80	0	0
6c	1	0	1	EA	Removal of Protruding Taps	0	0	1
6d	262	50	312	LF	Lateral Sewer Cleaning, Testing and Preconstruction Televising	58	204	0
6e	13824	0	13824	LF	8-inch Sewer Cleaning, Testing and Preconstruction Televising	9052	3784	989
6f	5333	0	5333	LF	10-inch Sewer Cleaning, Testing and Preconstruction Televising	0	4139	1193
6g	2025	0	2025	LF	12-inch Sewer Cleaning, Testing and Preconstruction Televising	0	0	2025
6h	1461	0	1461	LF	15-inch Sewer Cleaning, Testing and Preconstruction Televising	0	0	1461
6i	254	0	254	LF	24-inch Sewer Cleaning, Testing and Preconstruction Televising	254	0	0
6j	0	50	50	LF	Sewer Root Cutting or Cleaning Addition	0	0	0
7a	10796	500	11296	GAL	Sewer Pipe Joint Grouting	3920	3580	3296
7b	15	5	20	GAL	Lateral Pipe Joint Grouting	2	13	0
8a	60	10	70	GAL	Manhole Grouting	40	20	0
8b	1	3	4	EA	Casting Adjustment	0	0	1
9	3	0	3	LS	Relocation of Lateral Connection to Manhole Inside Drop	0	0	3
10a	22642	0	22642	LF	Post Construction CCTV Inspection of Tested and Grouted Sewers	9052	7923	5668
10b	422	0	422	LF	Post Construction CCTV Inspection of CIPP Lined Sewers	254	0	168
10c	211	0	211	LF	Post Construction CCTV Inspection of Lateral Sewers	175	26	10
10d	40	0	40	EA	Post Construction CCTV Inspection of Sectional Liners	12	21	7
11a	72	28	100	SY	ODOT Item 202 Pavement and Base Removed	44	28	0
11b	33	27	60	SY	ODOT Item 202 Driveway and Sidewalk Pavement Removed	11	22	0
12a	11	19	30	SY	Flexible Pavement Trench Repair - Heavy Roadway	0	11	0
12b	61	19	80	SY	Flexible Pavement Trench Repair - Residential Roadway	44	17	0
12c	72	18	90	SY	Temporary Pavement Repair	44	28	0
12d	11	19	30	SY	ODOT Item 411 Stabilized Crushed Aggregate (Berm and Drive)	0	11	0
12e	72	80	152	SY	3-inch ODOT Item 301 Asphalt Concrete Base Course	44	28	0
13	22	18	40	SY	6-inch ODOT Item 452 Non-Reinforced Concrete Pavement, Class MS (Residential Drive Approach)	11	11	0
14a	10	20	30	LF	Curb Removed	0	0	10
14b	10	20	30	LF	Concrete Curb	0	0	10
15	5	20	25	LF	Storm Sewer Repair (18-inch Diameter or Less)	5	0	0
16	1	0	1	LS	Video Recording of the Zone of Influence	0	0	0
17	1	0	1	LS	Storm Water Pollution Prevention	0	0	0
18	1	0	1	LS	Maintenance of Traffic	0	0	0
19a	1	1	2	EA	New Cleanouts on Laterals (Non-Paved Areas)	0	0	0
19b	1	1	2	EA	New Cleanouts on Laterals (Paved Areas)	0	6	0
Allowance	1	0	1	LS	Mailbox Removal and Replacement	0	0	0
Allowance	1	0	1	LS	Fence Removal and Replacement	0	0	0
Allowance	1	0	1	LS	Landscaping Restoration	0	0	0
Allowance	1	0	1	LS	Tree Removal	0	0	0

**SECTION 01010  
DEFINITION OF CONTRACT ITEMS**

**ITEM 0 GENERAL**

**0.01 FOREWORD**

This Section describes the various Contract Items listed in the Bid.

**0.02 WORK INCLUDED**

Under each Item the Contractor shall furnish all labor, materials, tools, plant equipment, supplies, maintenance of equipment, heating, lighting and power, insurance and bonds, coordination, and all Work and in accordance with the Specifications Parts A, B, and Divisions 1 through 16 of Part C and necessary to complete the Work in accordance with the obvious or expressed intent of the Contract Documents.

The removal and proper disposal of debris generated by work under each Item shall be included in that corresponding Item.

**0.03 WORKMANSHIP AND MATERIALS**

The quality of workmanship and materials entering into any and all of the Items and the Work included shall conform to pertinent sections, paragraphs, sentences, and clauses, both directly and indirectly applicable thereto, contained in the Contract Documents, whether or not direct reference to such occurs under each Item in this Section.

**0.04 PAYMENT**

The lump sum and unit prices stated in the Bid shall be payment in full for the completion of all Work specified and described or required to be included in the Contract, complete, and ready for use.

**0.05 CONTRACT ITEMS**

- A. The contract items are defined on the following pages.
- B. The alternate bid items are identified by the suffix -alt on the bid form. Alternate Bid Items shall be measured and paid in accordance with their corresponding Base Bid Item number. The Owner may award the Alternate Bid Items at the Owner's discretion and contingent upon available funding for the work.

**ITEM 1**

**MOBILIZATION AND DEMOBILIZATION**

**1.01 DESCRIPTION**

- A. This Item is intended to pay non-recurring cost to the Contractor not recovered under other pay Items of the Contract.
- B. This Item shall include, but not be limited to, the cost for moving equipment in and out, performance and payment bonds, insurance, permits, utility connection cost, and other expenses associated with preparation for construction in accordance with the requirements of the Contract Documents.
- C. This item is intended to be in accordance with the Supplemental Conditions SC 15.01A.

**1.02 WORK NOT INCLUDED**

- A. Any Work specifically included under other Bid Items.

**1.03 DEFINITION OF ITEM**

- A. Item 1 - Mobilization and Demobilization.

**1.04 MEASUREMENT & PAYMENT**

- A. The lump sum stated in the Bid shall be full compensation for all Work required under Item 1.
- B. The Contractor is reminded of the requirements of Supplemental Conditions Section 15.01.A regarding Mobilization and Demobilization costs as a percentage of the total project cost.
- C. Payment shall be in accordance with Supplemental Conditions 15.01 A. The Engineer may reduce the amount to be paid under Item 1 if the percentage requested is not represented by the actual amount performed.

**ITEM 2**

**CURED-IN-PLACE PIPE MAIN AND LATERAL SECTIONAL LINERS**

**2.01 DESCRIPTION**

- A. Under these Items, the Contractor shall repair existing sewer mains as scheduled or shown in the Project Database, Specification Section 01330, in conformance with relevant Sections of the Specifications using a CIPP Sectional Liner.
- B. The work includes the sectional lining of existing sewer mains and laterals. These Items shall include all work to install the CIPP sectional liner, including but not limited to the following: CIPP materials, and related work such as material and acceptance testing of



CIPP sections.

- C. The furnishing and installing any plugs required to control sewer flow during the sectional lining operation or by bypass pumping that might be required to prevent the backup of sewage into buildings and residents shall be paid for under these Items.

## **2.02 WORK NOT INCLUDED**

- A. Replacement of damaged surface structures as a result of Contractor's operations shall be replaced at the Contractor's expense.
- B. Removal of deposits, debris, and sewer cleaning required for lining operations are included under other Items.
- C. The television inspection of sectional liner repaired sewer mains is included in other Items.
- D. The installation of cleanouts required to permit the installation of lateral liners is included under other Items.

## **2.03 DEFINITION OF ITEMS**

- A. Item 2a - 8-inch x 48-inch CIPP Sectional Liner.
- B. Item 2b - 8-inch x 72-inch CIPP Sectional Liner.
- C. Item 2c - 10-inch x 48-inch CIPP Sectional Liner.
- D. Item 2d - 10-inch x 72-inch CIPP Sectional Liner.
- E. Item 2e - 12-inch x 48-inch CIPP Sectional Liner.
- F. Item 2f - 15-inch x 48-inch CIPP Sectional Liner.

## **2.04 MEASUREMENT & PAYMENT**

- A. The quantities to be measured for payment under Items 2a, 2c , 2e and 2f shall be measured by each CIPP sectional liner installed. These Items shall include up to 4-feet of sectional liner to be installed at each location.
- B. The quantities to be measured for payment under Items 2b and 2d shall be measured by each CIPP sectional liner installed. These Items shall include up to 6-feet of sectional liner to be installed at each location.
- C. If more than one minimum length sectional liner is used at a location, the Contractor will be compensated for the actual number of sectional liners used.
- D. Payment will not be made until the review of the post construction video inspection has been completed by the Engineer.

**ITEM 3  
CURED-IN-PLACE PIPE REPAIRS**

**3.01 DESCRIPTION**

- A. Under these Items, the Contractor shall furnish and perform all work necessary for the installation of all cured-in-place pipes (CIPP) repairs as specified in conformance with relevant sections of the specifications.
- B. These Items shall include all work to install the CIPP, including but not limited to the following: CIPP materials, waterstops, hydrophilic end seals, removal of protrusions, reinstating service connections and related work such as acceptance testing, and Pre- and Post-Video Inspections of CIPP sections. Pre-Video Inspection may be omitted if the inspection performed following the sewer grouting work is acceptable to the Engineer to serve as a Pre-Video Inspection.
- C. Termination of new CIPP in existing or new manholes shall be included under these Items.
- D. These Items include the installation of the CIPP using steam inversion and curing methods.
- E. Maintaining existing sewers in operation and bypass pumping operations is included under these Items.
- F. Public Notification is included under these Items.

**3.02 WORK NOT INCLUDED**

- A. Removal of deposits, debris and sewer cleaning required for CIPP operations are included under other Items.

**3.03 DEFINITION OF ITEMS**

- A. Item 3a - 12-inch Cured-in-Place Pipe Repairs (Steam Inversion).
- B. Item 3b - 24-inch Cured-in-Place Pipe Repairs (Steam Inversion).

**3.04 MEASUREMENT & PAYMENT**

- A. The quantities to be paid for under Items 3a and 3b shall be the measured length of CIPP sewer of the specified size. Payment shall be to the inside face of beginning and ending manholes. No deduction will be made for manholes on continuous straight run of pipe of the same size.
- B. Payment will not be made until the review of the post construction video inspection has been performed by the Engineer.

**ITEM 4**

**CURED-IN-PLACE LATERAL SEWER AND MAIN CONNECTION REHABILITATION**

**4.01 DESCRIPTION**

- A. Under these Items, the Contractor shall furnish and perform all work necessary for the installation of all cured-in-place pipe (CIPP) repairs to existing lateral sewers and connections to main sewers as specified in conformance with relevant Sections of the Specifications.
- B. These Items shall include all work to install the CIPP repair section, including but not limited to the following: CIPP materials, hydrophilic end seals, and related work such as material and acceptance testing of CIPP sections.
- C. The furnishing and installing any plugs required to control sewer flow during liner installation or any bypass pumping that might be required to prevent the backup of sewage into buildings and residents shall be paid for under these Items.
- D. Also included in these Items is the installation of main and connection liners in manhole drop pipes.

**4.02 WORK NOT INCLUDED**

- A. Replacement of damaged surface structures as a result of Contractor's operations shall be replaced at the Contractor's expense.
- B. The installation of cleanouts required to permit the installation of liner materials is included under other Items.
- C. Post Construction Television Inspection of Sewers rehabilitated shall be included under other Items.

**4.03 DEFINITION OF ITEMS**

- A. Item 4a - 8-inch x 6-inch Cured-in-Place Lateral Sewer and Main Connection Rehabilitation.
- B. Item 4b - 10-inch x 6-inch Cured-in-Place Lateral Sewer and Main Connection Rehabilitation.

**4.04 MEASUREMENT & PAYMENT**

- A. The quantities to be paid under Items 4a through 4b shall be each lateral and main connection liner installed and shall include 5 feet of liner extending up the lateralsewer.

**ITEM 5**  
**SEWER MAIN AND LATERAL SEWER POINT REPAIR**

**5.01 DESCRIPTION**

- A. Under these Items, the Contractor shall furnish and perform all work necessary for the installation of the sewer pipe for point repairs as scheduled, shown on the Drawings and specified, in conformance with relevant sections of the Specifications.
- B. These Items shall include all work incidental to the construction of point repairs unless specifically included for payment under other Items.
- C. These Items shall include all work to install the sewers, including but not limited to the following: bedding; pipe materials; fittings; maintenance of trenches; connections to existing sewers; and related work such as traffic maintenance or driveway access.
- D. Pipe bedding material shall extend to 12-inches above, 12-inches adjacent to and 6-inches below the sewer pipe.
- E. Maintaining existing sewers in operation and making connections to new sewer systems is included under these Items.
- F. All repair of existing utilities damaged during sewer construction is included under these Items.

**5.02 WORK NOT INCLUDED**

- A. Pavement replacement within Contract limits is included for payment under other Items.
- B. Closed circuit television inspection of new sewers 8-inches in diameter and larger installed as part of the work are included under other Items.
- C. Sewers installed to convey sewage around or through the work during construction will not be measured for payment.
- D. Open-cut lateral sewers exceeding 10 feet in length shall be included for payment under Item 2.

**5.03 DEFINITION OF ITEMS**

- A. Item 5a - 8-inch Sanitary Sewer Pipe Point Repair, Type B.
- B. Item 5b - 15-inch Sanitary Sewer Pipe Point Repair, Type B.
- C. Item 5c - 6-inch Sanitary Sewer Lateral Point Repair, Types B and C.
- D. Item 5d - Wye Replacement.

**5.04 MEASUREMENT & PAYMENT**

- A. The quantities to be paid under Items 5a through 5c will be the measured horizontal length of sewers of the specified sizes. A minimum of 5 feet of length will be measured

at each location.

- B. The quantity to be paid under Item 5d shall be each Wye replaced.

**ITEM 6**  
**SEWER CLEANING, ROOT CUTTING AND PREPARATION**

**6.01 DESCRIPTION**

- A. Under these Items, the Contractor shall perform the required heavy cleaning and root cutting of the specified main and lateral sewers. This work shall also include the removal of hardened concrete protrusions and/or mineral deposits requiring more effort than chain cutting.
- B. This work shall include the removal of any roots in the sewers as necessary to complete the televising, grouting, and lining of the sewers.
- C. These Items shall include the removal and disposal of debris generated by the cleaning and root removal operations.
- D. These Items shall also include the removal of protruding lateral connections at the sanitary sewer main.
- E. The furnishing and installing any plugs required to control sewer flow during television inspection, locating and cleaning or any bypass pumping that might be required to prevent the backup of sewage into buildings and residents shall be paid for under these Items.

**6.02 WORK NOT INCLUDED**

- A. Sewer cleaning prior to the installation of cured-in-place pipe repairs in sewer mains shall be included in other Items.

**6.03 DEFINITION OF ITEMS**

- A. Item 6a - Lateral Heavy Cleaning.
- B. Item 6b - Lateral Root Cutting.
- C. Item 6c - Removal of Protruding Taps.
- D. Item 6d - 8-inch Sewer Cleaning, Testing and Preconstruction Televising.
- E. Item 6e - 24-inch Sewer Cleaning, Testing and Preconstruction Televising.
- F. Item 6f - Sewer Root Cutting or Cleaning Addition.

**6.04 MEASUREMENT & PAYMENT**

- A. The quantity to be paid under Item 6a shall be full compensation for each lateral sewer heavy cleaned.

- B. The quantity to be paid under Item 6b shall be full compensation for each linear foot of lateral sewer root cutting. The footage shall be measured using the contractor's television equipment reel.
- C. The quantity to be paid under Item 6c shall be each protruding tap removed.
- D. The quantities to be paid under Items 6d and 6e shall be full compensation for each linear foot of sewer requiring cleaning, testing and preconstruction televising. The footage shall be measured using the contractor's television equipment reel. Sewer main cleaning shall be measured from center of manhole to center of manhole.
- E. The quantity to be paid under Item 6f is intended to provide the Contractor a mechanism for additional compensation associated with heavy root cutting or cleaning requiring the use of chain cutting. A minimum of 5-feet of length shall be measured at all locations requiring heavy root cutting or cleaning.

**ITEM 7**  
**SEWER PIPE & LATERAL CHEMICAL JOINT GROUTING**

**7.01 DESCRIPTION**

- A. Under these Items, the Contractor shall furnish and install sanitary sewer chemical grout in all failed joints identified under Items 7a through 7b on sewer main and lateral connections shown in the Project Database discussed in Section 01330 of the Specifications, specified or ordered.
- B. Testing of grouted joints after grout installation is included under these Items.
- C. The performance of specified warranty inspection and testing is included under these Items.
- D. The furnishing and installing any plugs required to control sewer flow during the grouting operation or any bypass pumping that might be required to prevent the backup of sewage into buildings and residents shall be paid for under these Items.

**7.02 WORK NOT INCLUDED**

- A. Replacement of damaged surface structures as a result of Contractor's operations shall be replaced at the Contractor's expense.

**7.03 DEFINITION OF ITEMS**

- A. Item 7a - Sewer Pipe Joint Grouting.
- B. Item 7b - Lateral Pipe Joint Grouting.

**7.04 MEASUREMENT & PAYMENT**

- A. The unit prices stated in the Bid for Items 7a and 7b shall be full compensation for each gallon of grout installed as specified, so measured.
- B. Payment will not be made until the review of the post construction video inspection has been completed by the Engineer.

**ITEM 8  
MANHOLE REHABILITATION**

**8.01 DESCRIPTION**

- A. Under these Items, the Contractor shall provide all labor, equipment, materials required to rehabilitate the manholes as shown in the Project Database discussed in Section 01330 of the Specifications and scheduled and in conformance with relevant Sections of the Specifications. Some manholes may require a combination of protective coatings and grouting.
- B. Under these Items, the Contractor shall provide grouting of manhole structures and pipe connection as directed by the Engineer.
- C. Under these Items, the Contractor shall plug noted inverts in manholes.
- D. Under these Items, the Contractor shall provide the specified manhole protective coating including all specified manufacturer recommended preparation work including repairs or patching of the manhole.
- E. These Items shall include the adjustment of manhole castings to grade.

**8.02 WORK NOT INCLUDED**

- A. Manholes damaged as a result of Contractor's operations shall be replaced at the Contractor's expense.
- B. Maintaining traffic around Contractor's equipment is included under other Items.
- C. The repair of pavement areas disturbed for the purpose of manhole rehabilitation shall be included under other Items.
- D. Restoration of landscape surface improvements including seeding, mulching, and fertilizing all disturbed lawn areas shall be included under other Items.
- E. Restoration of paved areas disturbed shall be included under other Items.

**8.03 DEFINITION OF ITEMS**

- A. Item 8a - Manhole Grouting.
- B. Item 8b - Casting Adjustment.

**8.04 MEASUREMENT & PAYMENT**

- A. The unit price stated in the Bid for Item 8a shall be full compensation for each gallon of grout installed as specified, so measured.
- B. The unit price stated in the Bid for Item 8b shall be full compensation for each manhole casting adjusted to grade.

**ITEM 9**

**RELOCATION OF LATERAL CONNECTION TO MANHOLE INSIDE DROP**

**9.01 DESCRIPTION**

- A. Under this Item, the Contractor shall furnish and perform all work necessary for the relocation of the sewer lateral connection from the sewer main to the specified manhole, shown on the map and specified, in conformance with relevant sections of the Specifications.
- B. This Item shall include all work incidental to the construction of relocation unless specifically included for payment under other Items.
- C. This Item shall include all work to relocate the sewers, including but not limited to the following: bedding; pipe materials; fittings; maintenance of trenches; connections to existing sewers; coring of the specified manhole; inside drop pipe installation; and related work such as traffic maintenance or driveway access.
- D. This Item shall include the installation of 20 feet of lateral sewer to extend from the existing lateral location to the new connection at the specified manhole. All repairs exceeding the included 20 feet shall be included in other Items.
- E. Pipe bedding material shall extend to 12-inches above, 12-inches adjacent to and 6-inches below the sewer pipe.
- F. Maintaining existing sewers in operation and making connections to new sewer systems is included under these Items.
- G. All repair of existing utilities damaged during sewer construction is included under these Items.

**9.02 WORK NOT INCLUDED**

- A. Pavement replacement within Contract limits is included for payment under other Items.
- B. Closed circuit television inspection of new sewers laterals installed as part of the work are included under other Items.
- C. Sewers installed to convey sewage around or through the work during construction will not be measured for payment.
- D. Lateral sewers exceeding 20 feet included in this Item shall be included for payment under Item 5c.



**9.03 DEFINITION OF ITEMS**

- A. Item 9 - Relocation of Lateral Connection to Manhole Inside Drop.

**9.04 MEASUREMENT & PAYMENT**

- A. The quantity to be paid for under Item 9 shall be a lump sum for each lateral sewer relocated to connect to an inside drop to the specified manhole.

**ITEM 10  
POST-CCTV INSPECTION OF SEWERS**

**10.01 DESCRIPTION**

- A. Under these Items, the Contractor shall perform closed circuit television inspection of new sewers , sewer repairs and existing main and lateral sewers rehabilitated with a CIPP liner as part of the work, as specified herein.
- B. The preparation and submittal of video records and submission to the Owner and Engineer shall be included under these Items.

**10.02 WORK NOT INCLUDED**

- A. Video Recording of the Zone of Influence is included under other Items.

**10.03 DEFINITION OF ITEMS**

- A. Item 10a - Post Construction CCTV Inspection of Tested and Grouted Sewers.
- B. Item 10b - Post Construction CCTV Inspection of CIPP Lined Sewers.
- C. Item 10c - Post Construction CCTV Inspection of Lateral Sewers.
- D. Item 10d - Post Construction CCTV Inspection of Sectional Liners.

**10.04 MEASUREMENT & PAYMENT**

- A. The quantities to be paid for under Items 10a and 10b shall be full compensation for each linear foot inspected as measured.
- B. The quantity to be paid for under Item 10c shall be full compensation for each linear foot of sewer lateral inspected as measured. No compensation shall be made for the length of the mainline sewer to reach the lateral to be inspected.
- C. The quantity to be paid for under Item 10d shall be full compensation for each sectional liner inspected. No compensation shall be made for the length of the mainline sewer to reach the sectional liner to be inspected.

**ITEM 11**  
**PAVEMENT REMOVAL**

**11.01 DESCRIPTION**

- A. Under these Items, the Contractor shall remove existing pavement material including flexible or rigid pavement, roadway base material, intermediate or surfaces courses, sidewalk or pavement base for pipeline construction as scheduled, shown on the Drawings and specified herein.
- B. The saw-cutting and preparation of the trench excavation both prior to the removal pavement for trench construction and for new pavement placement is included in these Items.
- C. The disposal of debris generated by work performed under these Items is included in these Items.

**11.02 WORK NOT INCLUDED**

- A. Pavement replacement required beyond specified pay limits for construction of manholes and chambers is included for payment under other Items.
- B. Pavement restoration is included in other sections.

**11.03 DEFINITION OF ITEMS**

- A. Item 11a - ODOT Item 202 Pavement and Base Removed.
- B. Item 11b - ODOT Item 202 Driveway and Sidewalk Pavement Removed.

**11.04 MEASUREMENT**

- A. Quantities to be paid for under these Items shall be the actual quantity constructed, measured in place within the limits as defined below, and scheduled on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits. When uniform courses are specified, the volume to be paid for shall not exceed the quantity calculated from plan lines and dimensions. Bituminous materials will be measured in gallons at 60 degrees F applied at the specified rates and within the pay limits.
- B. Pay Limits:
  - 1. Depth - As specified, scheduled, or directed by the Engineer.
  - 2. Length - The actual length measured.
  - 3. Width:
    - a. Except as otherwise scheduled on the Drawings, the width of replacement over pipe trenches shall not exceed the nominal diameter of the pipe plus 2-1/2 feet on each side for trench depths of 16 feet and

less; and 4 feet on each side for trench depths greater than 16 feet. No additional width will be allowed for precast manholes or manhole chamber construction.

- C. The removal of areas marked for replacement with Items 12a and 12b shall be measured under Item 11a.

#### **11.05 PAYMENT**

- A. The unit prices stated in the Bid for Items 11a and 11b shall be full compensation for each square yard of pavement removed within the prescribed limits provided in accordance with the Specifications and Drawings.

### **ITEM 12 FLEXIBLE PAVEMENT REPAIR**

#### **12.01 DESCRIPTION**

- A. Under these Items, the Contractor shall construct aggregate base, flexible pavement base and surface courses to replace pavement removed for pipeline construction as scheduled, shown on the Drawings and specified herein.
- B. The preparation of subgrade material prior to the placement of roadway base is included in these Items.
- C. The provision of the specified compaction testing is included in these Items.
- D. Bonding coats of prime or tack coats as specified are included in these Items.
- E. The provision of temporary pavement to maintain traffic is included in these Items.
- F. The repair of pavement markings damaged by the Work is included in these Items.

#### **12.02 WORK NOT INCLUDED**

- A. Pavement replacement required beyond specified pay limits for construction of manholes and chambers is included for payment under other Items.
- B. The removal of pavement is included under other Items.

#### **12.03 DEFINITION OF ITEMS**

- A. Item 12a - Flexible Pavement Trench Repair - Heavy Roadway.
- B. Item 12b - Flexible Pavement Trench Repair - Residential Roadway.
- C. Item 12c - Temporary Pavement Repair.
- D. Item 12d - ODOT Item 411 Stabilized Crushed Aggregate (Berm and Drive).
- E. Item 12e - 3-inch ODOT Item 301 Asphalt Concrete Base Course.

#### 12.04 MEASUREMENT

- A. Quantities to be paid for under these Items shall be the actual quantity constructed, measured in place within the limits as defined below, and scheduled on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits. When uniform courses are specified, the volume to be paid for shall not exceed the quantity calculated from plan lines and dimensions. Bituminous materials will be measured in gallons at 60-degrees F applied at the specified rates and within the pay limits.
- B. Pay Limits:
  - 1. Depth - As specified, scheduled, or directed by the Engineer. To differentiate from special backfill material provided to backfill pipes and appurtenance excavations, aggregate base shall only be measured for the thickness shown on the Drawings or directed by the Engineer.
  - 2. Length - The actual length measured.
  - 3. Width:
    - a. Except as otherwise scheduled on the Drawings, the width of replacement over pipe trenches shall not exceed the nominal diameter of the pipe plus 2-1/2 feet on each side for trench depths of 16 feet and less; and 4 feet on each side for trench depths greater than 16 feet. No additional width will be allowed for precast manholes or manhole chamber construction.
  - 4. Trench depth as used herein shall mean the distance from the original surface of the pavement to the invert grade of the main line pipe.

#### 12.05 PAYMENT

- A. The unit prices stated in the Bid for Items 12a, 12b, and 12d shall be full compensation for each square yard of roadway or driveway repaired with flexible pavement including all specified pavement materials down to the bottom of the aggregate base course and with lift thicknesses defined by typical Sections, provided in accordance with the Specifications and Drawings.
- B. The unit price stated in the Bid for Item 12c shall be full compensation for each square yard of temporary pavement placed with the prescribed limits provided in accordance with the Specifications and Drawings.
- C. The unit price stated in the Bid Item 12e shall be measured for each square yard of asphalt base material placed (3-inch lift thickness) as directed by the Engineer to replace flexible pavement in areas where the existing pavement is discovered to be thicker than the provided typical sections provided in accordance with the Specifications and Drawings.

**ITEM 13**  
**RIGID PAVEMENT REPAIR**

**13.01 DESCRIPTION**

- A. Under this Item, the Contractor shall construct aggregate base, rigid pavement base and surface courses to replace pavement removed for pipeline construction as scheduled, shown on the Drawings and specified herein.
- B. The preparation of subgrade material prior to the placement of roadway base is included in this Item.
- C. The provision of the specified compaction testing is included in this Item.
- D. Any concrete pavement or base discovered will be measured and paid as approach.

**13.02 WORK NOT INCLUDED**

- A. Pavement replacement required beyond specified pay limits.
- B. The replacement of non-rigid pavement base, intermediate and surface courses is included under other Items.
- C. The replacement of curbs is included under other Items.

**13.03 DEFINITION OF ITEMS**

- A. Item 13 - 6-inch ODOT Item 452 Non-Reinforced Concrete Pavement, Class MS (Residential Drive Approach).

**13.04 MEASUREMENT**

- B. The quantity to be paid for under these Items shall be the actual quantity constructed, measured in place within the limits as defined below, and/or scheduled on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits. When uniform courses are specified, the volume to be paid for shall not exceed the quantity calculated from plan lines and dimensions.
- B. Pay Limits:
  - 1. Depth - As specified, scheduled, or ordered. Trench depth as used herein shall mean the distance from the original surface of the pavement to the invert grade of the main line pipe.
  - 2. Length - The actual length ordered.
  - 3. Width - Except as otherwise scheduled on the Drawings, the width of replacement over pipe trenches shall not exceed the nominal diameter of the pipe plus 2-1/2 feet on each side for trench depths 16 feet and less and 4 feet on each side for trench depths greater than 16 feet. No additional width will be allowed for precast manholes or manhole chamber construction.

**13.05 PAYMENT**

- A. The unit price stated in the Bid for Item 13 shall be full compensation for each square yard of rigid pavement placed within the prescribed limits down to the bottom of the aggregate base course provided in accordance with the Specifications and Drawings.

**ITEM 14  
REPLACEMENT OF CONCRETE CURBS**

**14.01 DESCRIPTION**

- A. Under these Items, the Contractor shall remove and replace concrete curbs and gutters as scheduled, shown on the Drawings and specified herein.

**14.02 WORK NOT INCLUDED**

- A. Curbs and gutters damaged or destroyed beyond the specified limits shall be replaced at the Contractor's expense.
- B. All pavement, driveways and sidewalks made of rigid pavement or aggregate shall be included under other Items.

**14.03 DEFINITION OF ITEMS**

- A. Item 14a - Curb Removed.
- B. Item 14b - Concrete Curb.

**14.04 MEASUREMENT & PAYMENT**

- A. The quantities to be paid for under Items 14a and 14b shall be the length measured along the front of the curb or curb and gutter replaced provided in accordance with the Specifications and Drawings.

**ITEM 15  
STORM SEWER REPAIR**

**15.01 DESCRIPTION**

- A. Under this Item, the Contractor shall furnish and perform all work necessary for the replacement of the storm sewer pipe encountered as part of the work, in conformance with relevant sections of the Specifications. The weekly inspection and reporting of all Storm Water Pollution Prevention measures shall be included under this item.
- B. This Item shall include all work to install the sewers, including but not limited to the following: excavation; hauling excess spoil material from project site; backfill;

compaction; bedding; pipe materials; fittings; maintenance of trenches; temporary pavement; and connections to existing sewers.

- C. Maintaining existing sewers in operation and temporary flow stoppage, diversions and sewer flow by-pass connections shall be included under this Item.
- D. The furnishing and placing of special backfill up to the bottom of the pavement cross section in areas specified under Section 02200 is included under this Item.

#### **15.02 WORK NOT INCLUDED**

- A. Pavement replacement within the Contract limits is included under other Items.
- B. Sewers installed to convey sewage around or through the work during construction will not be measured for payment.
- C. Damage to existing utilities shall be the responsibility of the Contractor.

#### **15.03 DEFINITION OF ITEM**

- A. Item 15 - Storm Sewer Repair (18-inch Diameter or Less).

#### **15.04 MEASUREMENT & PAYMENT**

- A. The quantities to be paid under Item 15 shall be full compensation for each linear foot of horizontal length of pipe measured parallel to the axis of the line along the surface of the ground, with no deduction for laying length of fittings for the specified sizes and trench detail.

### **ITEM 16 VIDEO RECORDING**

#### **16.01 DESCRIPTION**

- A. Under this Item, the Contractor shall produce and deliver to the Owner, color video recordings of existing topography within the zone of influence along all sewer routes and video recordings of designated buildings and dwellings as specified and directed.

#### **16.02 WORK NOT INCLUDED**

Not used.

#### **16.03 DEFINITION OF ITEM**

- A. Item 16 - Video Recording of the Zone of Influence.

**16.04 MEASUREMENT & PAYMENT**

- A. The quantities to be paid for under Item 16 shall be a lump sum for video recording of the defined zone of influence along specified routes.

**ITEM 17  
STORM WATER POLLUTION PREVENTION**

**17.01 DESCRIPTION**

- A. This Item shall include all Work specified in the SWPPP including preparation of a Storm Water Pollution Prevention Plan, installation, maintenance, and removal of all Storm Water Pollution Prevention measures.
- B. The weekly inspection and reporting of all Storm Water Pollution Prevention measures shall be included under this item.

**17.02 WORK NOT INCLUDED**

Not used.

**17.03 DEFINITION OF ITEM**

- A. Item 17 - Storm Water Pollution Prevention.

**17.04 MEASUREMENT & PAYMENT**

- A. The lump sum stated in the Bid shall be full compensation for all Work required under Item 17.
- B. Payment shall be made in the amount of 20% of the lump sum Bid price for Item 17 for the first monthly estimate and 5% for each monthly estimate thereafter until the lump sum Bid amount for Item 17 has been paid.
- C. The Engineer may reduce the amount to be paid under Item 17 if the percentage requested is not represented by the actual amount performed.

**ITEM 18  
MAINTENANCE OF TRAFFIC**

**18.01 DESCRIPTION**

- A. This Item shall include the furnishing and maintaining of measures required to maintain traffic through or around the proposed Work.
- B. This Item shall include detour routes as specified in the Contract Documents.



**18.02 WORK NOT INCLUDED**

Not used.

**18.03 DEFINITION OF ITEM**

A. Item 18 - Maintenance of Traffic.

**18.04 MEASUREMENT & PAYMENT**

A. The quantity to be paid for under Item 18 shall be lump sum for all maintenance of traffic measures.

**ITEM 19  
SEWER CLEANOUTS ON NEW LATERALS**

**19.01 DESCRIPTION**

- A. Under these Items, the Contractor shall install new cleanouts on existing lateral sewers. The work shall include all excavation, installation of cleanouts, backfilling the excavation made to install cleanouts in accordance with the requirements of the Specifications and Drawings or as ordered.
- B. The work includes the specified testing required for each cleanout installed.
- C. Restoration of landscape surface improvements including seeding, mulching, and fertilizing all disturbed lawn areas is included under these Items. Restoration beyond seeding, mulching and fertilizing disturbed lawn areas as specified in Section 02800 shall be compensated out of the Allowance Item for such work.

**19.02 WORK NOT INCLUDED**

Not used.

**19.03 DEFINITION OF ITEMS**

- A. Item 19a - New Cleanouts on New Laterals (Non-Paved Areas).
- B. Item 19b - New Cleanouts on New Laterals (Paved Areas).

**19.04 MEASUREMENT & PAYMENT**

- A. The quantities to be measured for payment under Items 19a and 19b shall be measured by each cleanout installed in locations as directed by the Owner or Engineer.

END OF SECTION