



## Sewer Repair and Water Valve Installation Program

### RFB ADDENDUM NO. 04

Date of Addendum: October 1, 2020

#### NOTICE TO ALL POTENTIAL RESPONDENTS

The Request for Bid (RFB) is modified as set forth in this Addendum. The original RFB Documents and any previously issued addenda remain in full force and effect, except as modified by this Addendum, which is hereby made part of the RFB. Respondent shall take this Addendum into consideration when preparing and submitting its bid.

#### 1.0 - BID SUBMITTAL DEADLINE

The Bid submittal deadline remains the same and is not changed by this Addendum.

#### 2.0 - RFB – CHANGES

Item	Section	Description of Change
2.1	RFB	<p>REPLACE – Pages 01 and 02 of the original bid document with the attached pages 01 and 02.</p> <p>CHANGE – The bid due date was changed from 10/02/2020 to 10/06/2020.</p>
2.2	RFB – Base Bid Sheet & Alternate Bid Sheets	<p>REPLACE – Pages 09-11 of Addendum 02 with the attached page 09-11.</p> <p>CHANGE – LMT Line Main Taps were replaced with Inserta Tee. <b>The Inserta Tee will replace the LMT Saddles for both the 18" and 24" sewer mains on Central Ave.</b></p>
2.3	Attachment Four Special Provisions	<p>REPLACE – Attachment Four in its entirety with the attached Attachment Four.</p> <p>CHANGE – The LMT Lined Main Tap special provisions on page 54.16 of the attached were deleted and replaced with the Inserta Tee special provisions on page 54.15.</p>
2.4	Attachment Nine	<p>INSERT – The attached page 61.23 at the end of Attachment Nine as amended by Addendum One and Addendum Two.</p>



**Sewer Repair and Water Valve Installation Program**

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**Date of Addendum: October 1, 2020**

**3.0 - QUESTIONS AND ANSWERS**

The following questions and answers are provided as a matter of information to clarify issues raised about the RFB. To the extent that changes to the RFB are required based on the questions received, the RFB has been modified as noted above in the RFB section of this Addendum.

Item	Questions and Answers
<p><b>3.1</b></p>	<p><u>Question:</u> Per the manufacturer of the saddles for this job, the vendor states that they no longer make the 24" product. This will need to be addressed prior to the bid opening.</p> <p>Also, regarding the cure time for the adhesive.....there is nothing in your spec on this. Per the below they are suggesting the adhesive cure for 24 hours. Does this mean that we cannot backfill the excavation during this cure time? Or can we do the work and backfill like we would normally do? If we have to leave the excavation open for curing, what to do with the open holes in the middle of your road?</p> <p><u>Answer:</u> See items 2.2 through 2.4 above.</p>
<p><b>3.2</b></p>	<p><u>Question:</u> "Unfortunately we are unable to provide pricing for the 24" saddle. When we requested price and lead time from our supplier, they informed us that their engineer would not clear the manufacture of the 24" and will no longer sell the item. At this time we have not been able to source the saddle elsewhere. I apologize but we will not be able to provide the saddle at this time."</p> <p><u>Answer:</u> See items 2.2 through 2.4 above.</p>

**4.0 - INFORMATION**

The following item(s) are provided as a matter of information only to all respondents and do not modify or become part of the bid.

Item	Description
<p><b>4.1</b></p>	<p>None</p>



**REQUEST FOR BID # 20067  
FOR  
Sewer Repair and Water Valve Installation Program**  
<https://www.wilmette.com/government/bids-rfps/>

<b>Last Date/Time for Questions</b>	09/25/2020 10:00 am local time
<b>Last Addendum Issued</b>	09/29/2020 2:00 pm local time
<b>Bids Due and Opened on DemandStar.com</b>	10/06/2020 2:00 pm local time

**ILLINOIS PREVAILING WAGE ACT APPLIES TO THIS WORK**

**Submit Questions To:**  
[purchase@wilmette.com](mailto:purchase@wilmette.com)

**Submit Bids At:**  
[www.DemandStar.com](http://www.DemandStar.com)

**Note:** This cover sheet is an integral part of the bid documents and is, as are all of the following documents, part of any contract executed between the Village of Wilmette and any successful Bidder.

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**Bidder Company Name** *(please print)*

## VILLAGE OF WILMETTE NOTICE TO BIDDERS

Notice is hereby given that the Village of Wilmette (“Village”) will receive bids on DemandStar.com until 10/06/2020 at 2:00 pm, local time for Sewer Repair and Water Valve Installation Program.

### **Pre-Bid Meeting**

None

### **Bid Bond**

All bids must be accompanied by a bid bond in the form as provided in the RFB documents equal to ten (10%) percent of the total amount of the bid (base bid and alternate bid amounts).

### **Description of Work**

Base Bid: The proposed work consists of furnishing all labor, material, and equipment necessary for sewer point repairs at various locations throughout the Village, repair of sewer service connections with the installation of LMK saddles (or Village approved equivalent) on 18 and 24” lined sewer main (on Central Avenue 3RD Street to 9TH Street) and 6” water valve replacements, as identified on the location map at various locations throughout the Village.

Alternate Bid: The proposed Work consists of the Base Bid Work PLUS one (1) additional valve installation and four (4) additional point repairs.

### **Availability and Clarification of Documents**

This RFB and any addendums will be posted on the Village’s website at:  
<https://www.wilmette.com/government/bids-rfps/>.

Any questions related to this RFB should be submitted in writing to Cliff Ruemmler, Purchasing Manager, at [Purchase@wilmette.com](mailto:Purchase@wilmette.com). Questions received by the Village, including the Village’s responses will be consolidated and posted on the Village’s website.

The deadline for submitting questions is 10:00 am local time on 09/25/2020. Bidders will provide written acknowledgment of each addendum issued with their submitted bid. Oral explanations will not be binding. No clarifications, interpretations or addenda shall be issued after 2:00 pm local time on 09/29/2020.

It is the sole responsibility of the Bidder to check the Village’ website to determine if an addendum has been posted.

### **Confidentiality**

Submissions, in its entirety, are subject to the Illinois Freedom of Information Act and no part of the bid will be considered confidential by the Village.

## BASE BID SHEET

NO.	ITEM	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL
1	TRENCH BACKFILL	350	CY		\$
2	PCC SIDEWALK R & R, 5" & 6", SPECIAL	50	SF		\$
3	COMBINATION CONCRETE CURB AND GUTTER (B-4.12, B-6.12, B-6.18) R & R, SPECIAL	25	LF		\$
4	CLASS D PATCH, 3-INCH, SPECIAL	135	SY		\$
5	CLASS D PATCH, 4-INCH, SPECIAL	18	SY		\$
6	CLASS D PATCH, 8-INCH, SPECIAL	16	SY		\$
7	PAVEMENT PATCHING, COMPOSITE (9" PCC WITH HMA OVERLAY), SPECIAL	18	SY		\$
8	SAN/STM/COM SEWER R & R, SPECIAL, 10" PVC, SDR-26 [ASTM D-3034] (REPAIR 5'-90' LENGTH)	22	LF		\$
9	INSERTA TEE, 8" DIAM., 18" MAIN	15	EA		\$
10	INSERTA TEE, 8" DIAM., 24" MAIN	7	EA		\$
11	SEWER SERVICE R & R	1	EA		\$
12	ADDITIONAL SAN/STM/COM SEWER PIPE R&R, 8" OR 10" OR 12" PVC, SPECIAL	20	LF		\$
13	NEW GATE 6" VALVE WITH 48" VAULT, SPECIAL	4	EA		\$
14	WATER MAIN LINE STOP, 6", SPECIAL	1	EA		\$
15	REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES, NON-SPECIAL WASTE, SPECIAL	25	CY		\$
16	SOIL DISPOSAL ANALYSIS	1	EA		\$
17	BYPASS PUMPING, SPECIAL	1	LS		\$
18	EXPLORATORY EXCAVATION, SPECIAL	2	HR		\$
19	STORM DRAIN INLET PROTECTION, SPECIAL	1	LS		\$
20	TREE PROTECTION, SPECIAL	1	LS		\$
21	SEEDING, SPECIAL	20	SY		\$
22	SODDING, SPECIAL	20	SY		\$
23	TRAFFIC CONTROL AND PROTECTION, SPECIAL	1	LS		\$
24	PRE- AND POST SEWER VIDEO INSPECTION	1	LS		\$
<b>TOTAL BASE BID:</b>					<b>\$</b>
					To Page 08

## ALTERNATE BID SHEET

NO.	ITEM	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL
1	TRENCH BACKFILL	475	CY		\$
2	PCC SIDEWALK R & R, 5" & 6", SPECIAL	125	SF		\$
3	COMBINATION CONCRETE CURB AND GUTTER (B-4.12, B-6.12, B-6.18) R & R, SPECIAL	38	LF		\$
4	BRICK DRIVEWAY, R & R	25	SF		\$
5	CLASS D PATCH, 3-INCH, SPECIAL	150	SY		\$
6	CLASS D PATCH, 4-INCH, SPECIAL	67	SY		\$
7	CLASS D PATCH, 8-INCH, SPECIAL	16	SY		\$
8	PAVEMENT PATCHING, COMPOSITE (9" PCC WITH HMA OVERLAY), SPECIAL	64	SY		\$
9	SAN/STM/COM SEWER R & R, SPECIAL, 10" PVC, SDR-26 [ASTM D-3034] (REPAIR 5'-90' LENGTH)	40	LF		\$
10	SAN/STM/COM SEWER R & R, SPECIAL, 12" PVC, SDR-26 [ASTM D-3034] (REPAIR 5'-90' LENGTH)	69	LF		\$
11	SAN/STM/COM SEWER R & R, SPECIAL, 15" PVC, SDR-26 [ASTM D-3034] (REPAIR 5'-90' LENGTH)	25	LF		\$
12	INSERTA TEE, 8" DIAM., 18" MAIN	15	EA		\$
13	INSERTA TEE, 8" DIAM., 24" MAIN	7	EA		\$
14	SEWER SERVICE R & R	7	EA		\$
15	ADDITIONAL SAN/STM/COM SEWER PIPE R&R, 8" OR 10" OR 12" PVC, SPECIAL	20	LF		\$
16	NEW GATE 6" VALVE WITH 48" VAULT, SPECIAL	5	EA		\$
17	WATER MAIN LINE STOP, 6", SPECIAL	1	EA		\$
18	REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES, NON-SPECIAL WASTE, SPECIAL	25	CY		\$
19	SOIL DISPOSAL ANALYSIS*	1	EA		\$
20	BYPASS PUMPING, SPECIAL	1	LS		\$
21	EXPLORATORY EXCAVATION, SPECIAL	2	HR		\$
22	STORM DRAIN INLET PROTECTION, SPECIAL	1	LS		\$

*Continued on next page*

## ALTERNATE BID SHEET (CONTINUED)

NO.	ITEM	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL
23	TREE PROTECTION, SPECIAL	1	LS		\$
24	SEEDING, SPECIAL	30	SY		\$
25	SODDING, SPECIAL	30	SY		\$
26	LANDSCAPING ALLOWANCE	1	LS		\$
27	TRAFFIC CONTROL AND PROTECTION, SPECIAL	1	LS		\$
28	PRE- AND POST SEWER VIDEO INSPECTION	1	LS		\$
<b>TOTAL ALTERNATE BID:</b>					<b>\$</b>
					<b>To Page 08</b>

## WILMETTE AND IDOT DISTRICT NO. 01 SPECIAL PROVISIONS

### FAILURE TO COMPLETE THE WORK ON TIME

Article 108.09 of the Standard Specifications shall be revised to state the following:

“Should the Contractor fail to complete the work on or before the completion date as specified in the Special Provision, or within such extended time as may have been allowed by the Village, the Contractor shall be liable to the Village in the amount of \$1,275, not as a penalty but as liquidated damages, for each calendar day or a portion thereof overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the Village’s actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Village’s actual loss and fairly takes into account the loss of use of the roadway if the project is delayed in completion. The Village shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four (24) hours later.”

### PRE-CONSTRUCTION MEETING

The Contractor is required to attend a pre-construction meeting with representatives from the Village and other entities prior to the start of work. The Contractor shall submit a schedule of work, list of subcontractors, and list of material sources to the Village at least **three (3) working days** prior to the scheduled pre-construction meeting for review and approval.

### CONSTRUCTION NOISE RESTRICTIONS

Add the following to Article 107.35 of the Standard Specifications:

“All Work shall be performed between the hours of 7:00 AM and 5:00 PM, Monday through Friday, and between 9:00 AM and 5:00 PM on Saturday, except in the case of urgent necessity as determined by the Village Engineer. The Contractor shall notify the Engineer at least 48 hours in advance of Saturday work. All work on Saturdays must be pre-approved by the Engineer. No work shall be performed on Sundays or legal holidays.”

### DIRT ON PAVEMENT OR STRUCTURES

Add the following to Article 107.15 of the Standard Specifications:

“Excess spoils and construction debris shall be removed by the end of each day, and the pavement surface shall be clean as not to generate dust from vehicular traffic. The Engineer may require the Contractor to utilize a mechanical street sweeper AND/OR watering truck to more thoroughly clean streets affected by the Contractor's operations to limit dust emitted into the air. The street sweeper shall be a full-sized municipal-type sweeper having dust collection and street washing capabilities. The slurry resulting from the saw cutting work shall be immediately washed away using water to prevent tracking by vehicles or pedestrians to the satisfaction of the Engineer.”

## **EQUIPMENT AND MATERIALS STAGING**

In addition to the requirements of Article 107.16 of the Standard Specifications, the Specifications shall be modified to include the following:

“The Contractor shall not place any equipment or materials on the job site without prior approval from the Village. All staging locations for equipment and materials must be pre-approved by the Village.”

## **VALVE OPERATION**

Under no condition shall the Contractor operate any Village valves. The Contractor shall notify the Engineer at least 48 hours prior to beginning any construction requiring water main shutdowns. The Contractor shall coordinate all water main shut downs with the Engineer. The Public Works Water & Sewer Division will be responsible for all main shut downs.

## **USE OF FIRE HYDRANTS**

Add the following to Article 107.18 of the Standard Specifications:

The Contractor may use certain Village fire hydrants under the following conditions:

The Contractor may fill a non-potable water tanker truck using the hydrant located at the Village Public Works Yard, located at 711 Laramie Avenue, Wilmette, Illinois on weekdays between the hours of 7:00 AM and 2:30 PM. The Contractor’s truck must be equipped with a hydrant hose connection (2.5” port). The Contractor will be required to record water usage in a logbook maintained by staff at the Public Works Yard.

To utilize a hydrant other than the hydrant located at the Public Works Facility, the Contractor must have prior approval from the Village. If approved, the Contractor must pick up a Village issued water meter and RPZ device at the Village Public Works Yard, located at 711 Laramie Avenue, Wilmette, Illinois, on weekdays between 7:00 AM and 2:00 PM. A \$2,500 refundable deposit (cash, check, Visa, MC) and a meter loan permit are required in order to obtain a Village meter and RPZ device will be issued. The meter loan permits are available at the Village Hall, 1200 Wilmette Avenue, Wilmette, Illinois on weekdays between 7:30 AM and 4:30 PM. The \$2,500 deposit will be cashed upon receipt and refunded upon return of the meter and RPZ device, minus any damages to the hydrant or the meter and RPZ device.

The Village has a limited number of meters and RPZ devices. If none are available, the Contractor will be responsible for supplying its own meter and RPZ device certified in the past year and approved for use by the Village. The Contractor shall report initial and final meter readings to the Village for all Wilmette water used daily.

## **CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD)**

In regard to the Illinois Environmental Protection Agency (IEPA) Clean Construction Demolition Debris (CCDD) uncontaminated soil certification requirements, the Village of Wilmette will provide the required IEPA CCDD Uncontaminated Soil Certification Form LPC-662 and LPC-663 to the Contractor for their use. This shall only be used for the Village of Wilmette 2020 Sewer Repair and Valve Installation Program (20067).

## **PARKING**

Add the following to Article 701.18(j) (1) of the Standard Specifications:

“Where on-street parking exists within the work zone, the Contractor shall place ‘No Parking’ signs a minimum of two (2) calendar days prior to construction operations. The ‘No Parking’ signs will be furnished by the Village **at no cost to the Contractor**. All ‘No Parking’ signs shall indicate the date enforcement begins and must have the approval of, affixed, and displayed to the satisfaction of the Engineer. The ‘No Parking’ signs shall be removed when work is not scheduled to occur for a period of 72 hours and shall be reposted as required herein when work is to resume.”

## DRIVEWAY ACCESS

The Contractor must notify the Village at least one (1) day in advance of any anticipated driveway closures. The Village will notify the affected parties by distributing notices and/or posting signs.

All driveways disturbed by construction must be repaired, or have access restored, within five (5) working days from the date of removal. Failure to return access will result in a penalty of \$100.00 per **calendar** day for each disturbed driveway.

## JOB SITE DAILY CLEANUP

The Contractor shall maintain a clean work area daily. All materials not needed for the construction process shall be removed from the job site at the end of each day. This includes, but is not limited to: old vaults, piping, old cables, removed pavement, wood scrapes, old curb & gutter, paint cans, litter, broken tree branches, etc. The Contractor shall maintain clean water, sewer, and drainage structures throughout the work. Failure to maintain a clean work area at the end of each day and to the satisfaction of the Engineer will result in a penalty of \$500.00 per incident. This provision includes all work covered under the "Maintenance of Roadways" Special Provision.

## PRIVATE UTILITIES CONTACT INFORMATION

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility. No conflicts with private utilities are anticipated.

Agency/Company Responsible to Resolve Conflict	Name of Contact	Address	Phone	E-mail Address
<b>AT&amp;T (Distribution) Local</b>	Steve Larson	1000 Commerce Drive, Oak Brook, IL 60523	630-573-5450	<a href="mailto:g11629@att.com">g11629@att.com</a>
<b>AT&amp;T (TCG) Teleport Communications</b>	Bobby Akhter	4513 Western Avenue, Lisle, IL 60532	630-810-6274	<a href="mailto:ba3817@att.com">ba3817@att.com</a>
<b>Comcast</b>	Martha Gieras	688 Industrial Drive, Elmhurst, IL 60126	630-600-6352	<a href="mailto:martha_gieras@cable.comcast.com">martha_gieras@cable.comcast.com</a>
<b>Commonwealth Edison</b>	Terri Bleck	1500 Franklin Boulevard, Libertyville, IL 60048	847-816-5239	<a href="mailto:nora.fernandez@comed.com">nora.fernandez@comed.com</a>
<b>G4S Technology</b>	Doug Gones	565 Willowbrook Centre Pkwy, Willowbrook, IL 60527	630-343-2826	<a href="mailto:douglas.gones@usa.g4s.com">douglas.gones@usa.g4s.com</a>
<b>MCI</b>	Investigations Team	2400 North Glenville Richardson, TX 75082	972-729-6322	<a href="mailto:investigations@verizon.com">investigations@verizon.com</a>
<b>MWRD-GC</b>	Joseph Schuessler	100 E. Erie Street, Chicago, IL 60611	312-751-3236	<a href="mailto:joseph.schuessler@mwrld.org">joseph.schuessler@mwrld.org</a>
<b>Nicor Gas</b>	Bruce Koppang	1844 Ferry Road, Naperville, IL 60563	630-388-3046	<a href="mailto:bkoppan@aglresources.com">bkoppan@aglresources.com</a>
The above represents the best information available to the Village and is included for the convenience of the Contractor.				

The days required for conflict resolution should be taken into account in the bid as this information has also been factored into the timeline identified for the project when setting the completion date. The applicable portions of the Standard Specifications for Road and Bridge Construction shall apply.

Estimated duration of time provided in the action column for the first conflicts identified will begin on the date of the executed contract regardless of the status of the utility relocations. The responsible agencies will be working toward resolving subsequent conflicts in conjunction with contractor activities in the number of days noted.

The estimated relocation dates must be part of the progress schedule submitted by the contractor. If requested by the Contractor, a utility kickoff meeting will be scheduled between the Village, the Contractor, and the Utility Companies. The Contractor is responsible for contacting J.U.L.I.E. prior to any and all excavation work.

**AVAILABILITY OF REPORTS**

- No project specific reports were prepared.

When applicable, the following checked reports and record information is available in the Bid Attachments:

- Record structural plans
- Preliminary Site Investigation (PSI)
- Preliminary Environmental Site Assessment (PESA)
- X Soils / Geotechnical Report
- X Boring Logs
- X Pavement Cores
- Location Drainage Study (LDS)
- Hydraulic Report
- X Sewer Televising Reports
- Noise Analysis
- Other:

## **PRECONSTRUCTION VIDEO INSPECTION OF ROADWAY**

Description. The Contractor shall prepare pre-construction audio-video documentation of all physical features in the area affected by construction.

Construction Requirements. All video cameras, recorders, tapes, accessories, and related equipment shall be of high resolution, color, and digital format. Each street shall be submitted to the Village individually in MP4 format. Each video shall begin with current date, project name, and Owner, followed by descriptions of the general location, street names, addresses, and data that describes location and subject of viewing. The pertinent features within the construction zone of influence shall be shown, including but not limited to; pavements, curbs, driveways, sidewalks, buildings, landscaping, trees, shrubbery, fences, light posts, equipment, etc. A rudimentary view orientation shall be included in the audio commentary of each video segment to help clarify what is being viewed. The pre-construction audio-video documentation shall be completed and copies submitted to the Village on a USB flash drive prior to commencing any construction activity.

Method of Measurement and Basis of Payment. This work will not be paid for separately but shall be included in the cost of this work.

## **TREE PROTECTION**

Description. The Contractor shall make every effort to preserve trees and shrubs within the working area. This work shall consist of furnishing and installing tree protection, including temporary construction fence in accordance with Section 201 of the Standard Specifications except as noted herein.

Construction Requirements. All trees to be retained shall be fenced, boxed, root pruned, or otherwise protected prior to the commencement of work. It shall be the responsibility of the Contractor to assemble and install this protection. The tree protection must be approved by the Engineer prior to the commencement of any work. Tree protection shall not be removed without prior approval of the Engineer.

There shall be no construction activity or storage of any material within the enclosure or within the drip line of any tree. All trees to be preserved within the construction zone shall be root pruned prior to any construction activity by the Contractor. The Contractor shall trim tree canopies for clearance, as necessary and as approved by the Engineer. The Contractor shall notify the Engineer at least three (3) working days in advance of tree canopy trimming work.

The Contractor shall erect a temporary fence around all trees within the construction area to establish a "tree protection zone" before any work begins or any material is delivered to the jobsite. The exact location and establishment of the fence shall be approved by the Engineer prior to placement. The fence shall be erected on three sides of the tree at the drip-line of the tree, or as determined by the Engineer. No work is to be performed (other than root pruning), materials stored, or vehicles driven or parked within the "tree protection zone". The grade within the "tree protection zone" shall not be changed unless approved by the Engineer.

The temporary fence shall be 48" high, orange plastic poly-type in a large open-weave pattern, supported using metal T-Post style fence posts with a maximum spacing of three (3) feet. T-posts must be at least six (6) feet in length, two (2) feet of which must be set in the ground. The fence shall be attached to posts with a minimum of three nylon locking ties per post. Utilizing re-bar as a fence post will not be permitted.

This fence shall be properly maintained and remain up until final restoration, unless the Village directs removal otherwise. Failure to maintain the temporary fencing during the work will result in a penalty of \$100 per calendar day for each location.

All trees with a six (6) inch diameter or less and all shrubs not specifically indicated for removal which are removed or damaged beyond repair as determined by the Engineer shall be replaced by the Contractor with a plant material equivalent in size and species. All removal and planting costs as a result of Contractor damage shall be paid for by the Contractor. All replacement tree planting will be done by the Village.

All trees larger than six (6) inch in diameter and not specifically designated for removal which are damaged or removed during construction shall be assessed a penalty by the Engineer. Each tree damaged shall incur a penalty per the latest Village ordinance.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price LUMP SUM for TREE PROTECTION, which price shall include furnishing, installing, maintaining and removing temporary fencing, tree trunk protection and all other labor, material, and equipment necessary to complete this work as specified herein.

The labor, material, and equipment necessary to prune roots will be paid under the item for TREE ROOT PRUNING.

## **STORM DRAIN INLET PROTECTION**

Description This work shall consist of protecting storm drain inlets prior to any work commencing at a given location. The CONTRACTOR shall be responsible for protection of all storm drain inlets within the project limits with, the installation of pre-manufactured sediment control, storm drain inlet protection at locations shown on the plans.

Construction Requirements. Inlet filter baskets shall be furnished and supplied for each location before commencement of any work activities, including stockpiling material and removals. Silt fence fabric shall not be used for inlet protection.

The contractor shall inspect inlet protection weekly at a minimum and within 24 hours after a precipitation event of 0.5-inches or greater.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price LUMP SUM for STORM DRAIN INLET PROTECTION, which price shall be full compensation for all labor, equipment, and material to complete the work as specified in these special provisions.

## **PROTECTION OF EXISTING INFRASTRUCTURE AND PROPERTY**

Description. This work shall consist of protecting existing sidewalks, curb and gutters, driveways, pavers, trees, private property and underground utilities from damage caused by the Contractor's trucks, excavating equipment, placement of bituminous material, and any other equipment used by the Contractor during construction. This work shall be in accordance with Section 107.20 Protection and Restoration of Property.

Construction Requirements. When removing pavement, curb and gutter, shoulder, and/or any other structures, the use of hydraulic impact/air hammers must be used to initiate pavement openings. The use of excavator buckets to strike the pavement or any other means which may damage underground public or private utilities is strictly prohibited. The Contractor shall take every precaution necessary to ensure that there will be no damages to private/public underground utilities or property.

The Contractor shall take all necessary precautions when working near or above existing sewers in order to protect these pipes during construction from any damage resulting from his operations. Existing sewers damaged because of noncompliance with this provision shall be replaced as directed by the Engineer, in accordance with Section 551 and 561 of the Standard Specifications and at the Contractor's own expense, and no extra compensation will be allowed.

Existing drainage facilities shall remain in use during the period of construction, unless otherwise noted in the Contract.

The Contractor shall use plywood sheets, wood planks, or other approved material to protect the existing sidewalk and aprons from damage by the Contractor's equipment and trucks. Sand shall be used to protect concrete pavers and concrete crosswalks in the roadway. The Contractor shall provide sufficient planking or other approved materials needed to protect the existing concrete surfaces from damage during construction.

If any asphalt or bituminous materials are required, the Contractor shall place protection over all concrete pavers and concrete crosswalks within the vicinity of the job or as requested by the Engineer.

Cleaning afterward with environmentally safe chemicals, if required or as directed by the Engineer, shall not be paid for separately but shall be at the Contractor's own expense.

During construction, if the CONTRACTOR encounters or otherwise becomes aware of any sewers, underdrains or field drains within the right of way other than those shown on the plans; he shall so inform the ENGINEER who shall direct the work necessary to maintain or replace the facilities in service and protect them from damage during construction if maintained. Existing facilities to be maintained that are damaged because of noncompliance with this provision shall be replaced at the CONTRACTOR'S own expense.

Should the ENGINEER have directed the replacement of the facility, the necessary work and payment shall be done in accordance with Section 551 or 601 and Article 104.02 respectively of the Standard Specifications.

Method of Measurement and Basis of Payment. The cost to furnish, place, move, and dispose of plywood, planking, or other approved materials needed to continually protect and clean the existing roadways, concrete sidewalk, aprons and curb and gutter will not be paid for separately but shall be considered included in the cost of the various pay items.

## **SAW CUTTING**

Description. The Contractor shall perform full depth saw cuts for the removal of existing curb, sidewalk, underground utility and structure work, and pavement removal and patching work.

Construction Requirements. The concrete saw shall be equipped with a diamond blade of sufficient size to saw pavements full-depth and be capable of accurately maintaining cutting depth. All saw cuts shall be parallel or perpendicular to the curb & gutter, edge of sidewalk, or the edge of pavement, with vertical straight, clean, edges, to the satisfaction of the Engineer. It is Contractor's responsibility to determine the thickness of the existing pavement and whether it contains reinforcement. The slurry resulting from the saw cutting work shall be immediately washed away using water to prevent tracking by vehicles or pedestrians to the satisfaction of the Engineer.

If additional surface is damaged or removed due to negligence on the part of the Contractor, the additional work will not be measured for payment but shall be done at the Contractor's expense.

Method of Measurement and Basis of Payment. This work will not be paid for separately but shall be included in the cost of the removal, concrete, and patching items.

## **CONCRETE WASHOUT FACILITY**

Description. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, reservoirs, and wetlands with fuels, oils, bitumens, calcium chloride, or other harmful materials according to Article 107.23 of the Standard Specifications and as noted herein.

Construction Requirements. To prevent pollution by residual concrete and/or the by-product of washing out the concrete trucks, concrete washout facilities shall be constructed and maintained at any location which includes cast-in-place concrete items. The concrete washout shall be constructed, maintained, and removed according to this Special Provision. The concrete washout facility shall be constructed on the job site in accordance with Illinois Urban Manual practice standard for Temporary Concrete Washout Facility (Code 954). The Contractor may elect to use a pre-fabricated portable concrete washout structure. The Contractor shall submit a plan for the concrete washout facility to the Engineer for approval a minimum of five (5) working days before the first concrete pour.

The working concrete washout facility shall be in place before any delivery of concrete to the site. The Contractor shall ensure that all concrete washout activities are limited to the designated area. Under no circumstances is concrete washout allowed to enter the sewer system.

The concrete washout facility shall be located no closer than 50 feet from any environmentally sensitive areas, such as water bodies, wetlands, and/or other areas indicated on the plans. Adequate signage shall be placed at the washout facility and elsewhere as necessary to clearly indicate the location of the concrete washout facility to the operators of concrete trucks.

The concrete washout facility shall be adequately sized to fully contain the concrete washout needs of the project. The contents of the concrete washout facility shall not exceed 75% of the facility capacity. Once the 75% capacity is reached, concrete placement shall be discontinued until the facility is cleaned out. Hardened concrete shall be removed and properly disposed of outside the Right-of-Way. Slurry shall be allowed to evaporate, or shall be removed and properly disposed of outside the Right-of-Way.

The Contractor shall immediately replace damaged basin liners or other washout facility components to prevent leakage of concrete waste from the washout facility. Concrete washout facilities shall be inspected by the Contractor after each use. Any and all spills shall be reported to the Engineer and cleaned up immediately. The Contractor shall remove the concrete washout facility when it is no longer needed.

Method of Measurement and Basis of Payment. This work will not be paid for separately but shall be included in the cost of concrete work.

## **VALVE OPERATION**

Under no condition shall the Contractor operate any Village valves. The Contractor shall notify the Engineer at least 48 hours prior to beginning any construction requiring water main shutdowns. The Contractor shall coordinate all water main shut downs with the Engineer. The Public Works Department Water & Sewer Division will be responsible for all main shut downs.

## **STRUCTURE PROTECTION**

Description. Shields, covers or other suitable equipment shall be provided by the Contractor to protect all structures during placement of tack coat and surface course. All frames and lids shall be clean and free from material after placement of the surface course.

Method of Measurement and Basis of Payment. This work will not be paid for separately but shall be included in the cost of the tack coat and HMA paving items.

## **SIGN REPLACEMENT**

Description. The Contractor shall remove and replace all street signs, located in or near the construction zone, in the same location as directed by the Engineer. The Contractor shall be responsible for replacing any signs damaged or lost during the course of construction, including the operation of removing and replacing any signs, at his expense. The Contractor must do a sign inventory for all signs removed and replaced at the beginning of the project. Removal and replacement of signs shall conform to the Manual on Uniform Traffic Control Devices, latest edition.

Method of Measurement and Basis of Payment. The removal, relocation, or replacement of existing signs shall not be paid for separately but shall be included in the contract.

## **TRENCH BACKFILL**

Description. This work shall consist of furnishing, transporting, and placing aggregate for use as backfilling material for all trenches made in the subgrade of the proposed improvement and all trenches outside of the subgrade where the inner edge of the trench is less than or equal to two (2) feet to the edge of the proposed

pavement, stabilized shoulder, curb or sidewalk. This work shall be done in accordance with Section 208 of the Standard Specifications, except as modified herein.

Construction Requirements. Material used for trench backfill shall be of CA-6 gradation and shall meet the requirements of Article 1004.04 of the Standard Specifications. Slag will not be allowed for trench backfill. The trench backfill shall be compacted in accordance with Method 1 described in Article 550.07 of the Standard Specifications. Method 2 (ponding) and Method 3 (jetting) will not be allowed.

Method of Measurement and Basis of Payment. This work shall be measured and paid for in accordance with Article 208.03 of the Standard Specifications at the contract unit price per CUBIC YARD for TRENCH BACKFILL, which price shall include all labor, material, and equipment necessary to complete the work as specified herein.

Sheeting, bracing, shoring, and other safety measures will not be paid for separately but shall be considered included in the unit price for TRENCH BACKFILL.

**SEEDING, SPECIAL**

Description. This work shall consist of preparing the ground surface, furnishing and applying topsoil to minimum a depth of 4", fertilizing the areas to be seeded as specified in the plans and as directed by the Engineer, and furnishing and placing the seed. All work shall be in accordance with the applicable portions of Sections 250 of the Standard Specifications except as noted herein.

Construction Requirements. In addition to applicable portions of Section 107 of the Standard Specifications, all other areas shall be restored to their conditions prior to construction. The Contractor shall grade all ditch lines which are disturbed during construction to ensure proper drainage exists after construction. Restoration at all locations of underground construction shall take place after the trench has settled.

When seed is specified, a minimum width of 6" shall be replaced as part of the restoration along curb and gutter, sidewalk, aprons, and at other locations as directed by the Engineer.

When fertilizer is specified, 270 pounds of fertilizer nutrients per acre (300 kilograms per hectare) shall be applied at a 1:1:1 ratio as follows:

Nitrogen Fertilizer Nutrients	90 lbs/acre (100 kg/ha)
Phosphorus Fertilizer Nutrients	90 lbs/acre (100 kg/ha)
Potassium Fertilizer Nutrients	90 lbs/acre (100 kg/ha)

The seed mixture shall be Class 1 or Class 1A, unless directed otherwise by the Engineer.

The Contractor shall guarantee that a stand of grass is obtained and acceptable to the Engineer.

- Seeding done after May 15 and before June 1 shall have an acceptable stand of grass by July 15.
- Seeding done after June 1 and before August 15 shall have an acceptable stand of grass by October 15.

If a stand of grass is not accepted by the Engineer, the Contractor will prepare the location for sod. All work at the location, up to and including furnishing and placing sod, will be paid for by SODDING, SPECIAL and not SEEDING, SPECIAL.

Method of Measurement and Basis of Payment. This work shall be paid at the contract price per SQUARE YARD for SEEDING, SPECIAL. This price shall include all costs for shaping, trimming, grading transitions, furnishing and placing topsoil, fertilizing, furnishing and placing seed, disposing of excess materials, and all other labor, equipment, and materials used to complete the work as specified in these Special Provisions.

**SODDING, SPECIAL**

Description. This work shall consist of preparing the ground surface, furnishing and applying topsoil to a minimum depth of 4”, fertilizing the areas to be sodded as specified in the plans and as directed by the Engineer, and furnishing and placing the sod. All work shall be in accordance with the applicable portions of Sections 211 and 252 of the Standard Specification except as noted herein.

Construction Requirements. In addition to applicable portions of Section 107 of the Standard Specification, all other areas shall be restored to their conditions prior to construction. The Contractor shall grade all ditch lines which are disturbed during construction to ensure proper drainage exists after construction. Restoration at all locations of underground construction shall take place after the trench has settled.

When sod is specified, a minimum width of 24” shall be replaced as part of the restoration along curb and gutter, sidewalk, aprons, and at other locations as directed by the Engineer.

When fertilizer is specified, 180 pounds of fertilizer nutrients per acre (210 kilograms per hectare) shall be applied at a 1:1:1 ratio as follows:

Nitrogen Fertilizer Nutrients	60 lbs/acre (70 kg/ha)
Phosphorus Fertilizer Nutrients	60 lbs/acre (70 kg/ha)
Potassium Fertilizer Nutrients	60 lbs/acre (70 kg/ha)

All sod shall be salt tolerant, unless directed otherwise by the Engineer.

Initial watering shall be applied within two hours after the sod placement at a rate of 5 gal/sq yd. Required additional watering shall be done in accordance with Articles 252.08 and 252.09 of the Standard Specification and as shown on the following table.

Sod Placement	Additional Watering	Applied Every	Application Rate
Sept. 1 – May 30	7	5 Days	3 gal/sq yd
June 1 – Aug. 31	15	3 Days	3 gal/sq yd

Method of Measurement and Basis of Payment. This work shall be paid at the contract price per SQUARE YARD for SODDING, SPECIAL. This price shall include all costs for shaping, trimming, grading transitions, furnishing and placing topsoil, fertilizing, furnishing and placing sod, sod watering, disposing of excess materials, and all other labor, equipment, and materials used to complete the work as specified in these Special Provisions.

Supplemental watering, if conducted within 30 days of sod placement, will not be paid for separately but shall be considered included in the unit price for SODDING, SPECIAL.

**LANDSCAPING ALLOWANCE**

Description. This is a set allowance in the amount not to exceed \$5,000 for landscaping replacement, including shrubs and stone markers, at the Leyden valve installation location. This item will be paid per Time & Material (T&M).

**PCC SIDEWALK R & R, 5” AND 6”, SPECIAL**

Description. This work shall consist of constructing Portland Cement Concrete Sidewalk at the depth specified in accordance with Section 424 of the Standard Specifications except as noted herein.

Construction Requirements. The CONTRACTOR shall machine-saw a perpendicular clean joint between that portion of the sidewalk to be removed and that which is to remain in place. If the CONTRACTOR removes or damages the existing sidewalk outside the limits designated by the ENGINEER for removal and replacement, he will be required to remove and replace that portion at the CONTRACTOR’S expense to the satisfaction of the ENGINEER.

In addition, the CONTRACTOR shall be responsible to provide personnel to protect his work from third party damage. Should any of the new work be damaged, it shall be removed and replaced at the CONTRACTOR’S

expense. The CONTRACTOR shall schedule his work so that the concrete placed, takes its initial set during daylight hours. Claims of darkness shall not be reason to relieve the CONTRACTOR from responsibility.

Where sidewalk has been removed, the area shall be properly protected with lighted barricades. Areas less than 25 square feet shall require one barricade. Areas larger than 25 square feet shall have barricades located at the end of existing sidewalks and spaced within the area where sidewalk has been removed.

If unsuitable material is present at the subgrade, the unsuitable material shall be removed to a minimum of five (5) inches below the subgrade and replaced with approved and properly compacted CA-6 crushed stone or crushed concrete.

The thickness of the sidewalk shall be a minimum of five (5) inches or equal to the thickness of the existing sidewalk whichever is greater. Sidewalks within the limits of existing or proposed driveways shall have a minimum thickness of six (6) inches. Wood form boards must be minimum 2 x 6. The use of metal forms will be permitted if such forms meet the same depth criteria outlined above and the section of sidewalk is less than ten feet in length.

The areas adjacent to sidewalk work shall be backfilled with appropriate backfill and four (4) inch of topsoil within five working days of concrete placement. Barricades shall remain in place until all grading has been completed and the adjacent area no longer poses a hazard to pedestrians.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per SQUARE FOOT for PCC SIDEWALK, 5" & 6", R & R, SPECIAL. This price shall include all costs for setting forms, providing expansion material, placing PCC sidewalk, and all other materials, labor and equipment necessary to complete the work as specified herein and to the satisfaction of the ENGINEER.

#### **COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT**

Description. This work shall consist of constructing combination concrete curb and gutter in accordance with Section 606 of the Standard Specifications except as noted herein. The type of curb and gutter shall match adjacent existing curb and gutter sections, unless otherwise directed by the Engineer.

Construction Requirements. The Contractor shall maintain driveway and sidewalk access with temporary stone during construction, except during and up to three days after pouring the concrete.

The CONTRACTOR shall machine-saw full-depth, a clean joint at the gutter face along all sections of curb and gutter removal and a perpendicular joint between that portion of the curb, gutter or curb and gutter to be removed and that which is to remain in place for non-monolithic streets. On streets which are monolithic concrete pavement and curb, the pavement shall be saw cut six (6) inch from the new gutter face, or eighteen (18) inch from back of curb, to allow space for framing of new curb and gutter.

The CONTRACTOR will be prohibited from using a pavement breaker or other highly destructive means as defined by the ENGINEER for removing the curb and gutter. All material excavated under this item shall be immediately loaded and hauled away and shall not be stored in the street or parkway area. If the CONTRACTOR removes or damages the existing curb, gutter or curb and gutter outside the limits designated by the ENGINEER for removal and replacement, CONTRACTOR will be required to remove and replace that portion at his own expense to the satisfaction of the ENGINEER. New curb will consist of B-4.12, B-6.12 and B-6.18 to be determined by the ENGINEER.

New curb shall be placed within 72 hours of removing the existing curb and gutter. Failure by the CONTRACTOR to place the new curb within this time frame shall be cause for the ENGINEER to stop work on the project until the curb and gutter is placed.

When a structure exists within the section of curb to be replaced, doweled expansion joints are to be placed five (5) feet on each side of the structure. The cost of the expansion joint and dowels shall be included with this pay item.

All replacement curb shall have a minimum gutter flag thickness of nine (9) inches or meet existing thickness, whichever is greater. The use of metal forms will be permitted as a back form only for sections of curb less than ten feet long and if such forms are a minimum of twelve (12) inches deep.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per FOOT for COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT. This price shall include all costs for excavating existing curb sections, disposing of the excess excavated material, furnishing and placing the aggregate base material (CA-6), backing filling, and all other labor, material, and equipment necessary to furnish and install this item.

The labor, material, and equipment necessary to maintain driveway and sidewalk access during construction with temporary stone shall be included in the cost of COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT and will not be paid for separately.

### **HMA DRIVEWAY REMOVAL AND REPLACEMENT, 4", SPECIAL**

Description. This work shall consist of removing and replacing existing Hot-Mix Asphalt (HMA) driveway pavement at the locations shown on the plans and directed by the Engineer. This work shall be in accordance with Sections 301, 351, and 440 of the Standard Specifications except as noted herein.

Construction Requirements. The existing HMA driveway shall be removed and disposed of by the Contractor to the limits marked out by the Engineer during construction. The driveway shall be saw cut full depth for creating butt joints. All butt joints shall be cut vertically, straight, and shall be free of debris. Jack hammering of butt joints shall not be permitted. Any damages to areas outside the limits of removal shall be replaced by the Contractor at his/her own expense.

The Contractor shall remove the existing base and install a minimum 6" compacted aggregate base course, Type B (CA-6). The Contractor shall excavate deeper or place embankment, in accordance with Sections 202 and 205 of the Standard Specifications, in order to achieve the finished grades as shown on the plans. Where the driveway asphalt is an overlay of a concrete driveway, no extra compensation shall be given for the removal of the concrete base. Where the new driveway will be wider than existing driveway, the Contractor shall excavate and dispose of existing topsoil and other material to provide the full pavement section. The payment for this work shall be considered included in the unit price for this item.

The Contractor shall maintain driveway access with temporary stone (no pavement grindings) during construction in accordance with Section 402.10 of the Standard Specification, except while paving the asphalt.

The Contract shall then install a 4" HMA surface course, Mix "D", N50. The HMA driveway shall be constructed in two lifts in accordance with Section 423 of the Standard Specifications insofar as applicable.

Method of Measurement and Basis of Payment. This work will be measured in place and paid for at the contract unit price per SQUARE YARD for HMA DRIVEWAY REMOVAL AND REPLACEMENT. This price shall include removing and disposing of the existing excavated material, furnishing and placing aggregate base course (CA-6), furnishing and paving HMA, and all other materials, labor, and equipment necessary to complete this item.

The labor, material, and equipment necessary to maintain driveway access with temporary stone during construction shall be included in the cost of HMA DRIVEWAY REMOVAL AND REPLACEMENT and will not be paid for separately.

### **BRICK DRIVEWAY REMOVAL AND REPLACEMENT**

Description. This work shall consist of removing the existing brick pavers and base material and placing the brick pavers as described below upon replacement of the existing base. Pavers shall be in accordance with Article 1041.03 of the Standard Specifications except as noted herein.

Construction Requirements. This item includes removing and properly disposing of failed sand, aggregate, bituminous, or concrete base material after the bricks have been removed. The Engineer shall determine the thickness of base course to be removed and replaced in the field after the bricks have been removed. The maximum thickness of the existing base course to be removed shall be considered to be 9”.

Removing brick from the project limits will not be allowed. Cleaning shall consist of removing all debris, mud, markings, etc. with water and a brush. In accordance with the typical sections, a three-quarter inch (3/4”) layer of sand, gradation FA-2, shall be constructed and compacted with a hand compactor so that the finish is free of all undulations, ruts, tire mark and depressions. Prior to placing the brick pavers, the Engineer shall visual inspect the driveway. The Contractor shall repair any area deemed necessary by the Engineer by adding additional sand and compacting the area. The pattern of the brick pavers shall be identical to the existing driveway pattern prior to construction. Any damaged brick pavers or non-brick pavement shall be disposed of offsite.

Any brick pavers deemed unsuitable for installation shall be properly disposed of offsite by the Contractor at no additional expense to the Village. No additional compensation will be made for transporting and installing additional brick pavers required, but it shall be included in the unit cost for BRICK DRIVEWAY REMOVAL AND REPLACEMENT.

If base course removal is required by the Village or Engineer, the depth of CA-6 shall be determined by the Engineer and placed in two lifts, or as directed by the Engineer, and compacted with a hand compactor so that the finish is free of all undulations, ruts, tire mark and depressions. Upon completion of the stone base layer, a three-quarter inch (3/4”) layer of sand, gradation FA-2 shall be placed and compacted with a hand compactor so that the finish is free of all undulations, ruts, tire mark and depressions. Prior to the placement of the brick pavers the Engineer shall visually inspect the portion of driveway to receive the brick pavers. The Contractor shall repair any area deemed necessary by the Engineer by adding additional sand and compacting the area.

The pattern of the brick pavers shall be identical to the pre-existing condition of the driveway prior to construction. The Contractor shall take a minimum of two photographs of each driveway prior to removing the brick pavers. Any damaged brick pavers shall be disposed of and will not be permitted to be installed. If a shortfall of brick pavers is encountered, the Contractor shall provide additional material as necessary and install any additional required brick pavers to complete the limits as noted on the plans. The additional brick pavers must match the existing material and be approved by the Engineer before installation. No additional compensation will be made for supplying and installing additional brick pavers required, but it shall be included in the unit cost for BRICK DRIVEWAY REMOVAL AND REPLACEMENT.

After the brick pavers have been removed, the driveway shall remain accessible at all time. Access to the existing driveways shall be maintained for the duration of the contract.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per SQUARE FOOT for BRICK DRIVEWAY REMOVAL AND REPLACEMENT, which price shall be payment in full for removing, cleaning, stacking, saw-cutting, and installing the brick pavers; supplying, transporting, and installing additional brick pavers supplied by the Contractor, if required, removing and disposing of base material, furnishing and installing the bedding layers of stone and sand, and all labor and all equipment and materials necessary to complete the work as specified herein. The payment area shall be the final installed width of only the driveway area where work was performed.

#### **CLASS D PATCHES, SPECIAL**

Description. This work shall consist of removing and replacing the existing HMA pavement at the locations identified by the Village. This work shall be done in accordance with Section 442 of the Standard Specifications except as noted herein.

Construction Requirements. Type I, Type II, Type III and Type IV have been combined under the pay item CLASS D PATCHES, SPECIAL.

All HMA patches related to sewer repairs are permitted to be full depth binder course material. Material shall be placed in lifts per Section 442. All HMA patches for water valve replacement locations must include both binder and surface course material as follows:

Placing for 3-Inch Patch: Shall be 3-inches of binder, and 2-inches of bituminous surface as specified in Section 406.

Placing for 8-Inch Patch: Shall be two layers of 3-inches of binder, and 2-inches of bituminous surface as specified in Section 406.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per SQUARE YARD for CLASS D PATCH, SPECIAL, of the thickness specified. This price shall include excavating and removing existing material, furnishing and placing tack coat and asphalt, and all other labor, material, and equipment necessary to complete this item.

Removal and disposal of granular backfill and/or temporary asphalt for Patches will not be measured for payment separately but shall be considered as included in the bid price for Pavement Patches.

### **PAVEMENT PATCHING, COMPOSITE (9" PCC WITH HMA OVERLAY), SPECIAL**

Description. This work shall consist of installing a composite high early PCC patch with an HMA overlay at the locations identified by the Village. This work shall be done in accordance with Section 353 and 442 of the Standard Specifications except as noted herein.

Construction Requirements. Type I, Type II, Type III and Type IV have been combined under the pay item PAVEMENT PATCHING, COMPOSITE (9" PCC WITH HMA OVERLAY), SPECIAL

Portland Cement Concrete Class PP-1 shall be installed to 9 inch depth as specified in Section 1020.

Bituminous Hot-Mix Asphalt shall be overlaid as a surface course as specified in Section 406 matching the thickness of the existing HMA overlay as shown in the plans.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per SQUARE YARD for PAVEMENT PATCHING, COMPOSITE (9" PCC WITH HMA OVERLAY), SPECIAL, which price shall include all saw cutting, removing existing material, installing dowel bars and PCC base, installing HMA and all other labor, material, and equipment necessary to complete this item.

### **SANITARY/STORM/COMBINED SEWER REMOVAL AND REPLACEMENT, SPECIAL**

Description. This work shall consist of the removing a section of existing combined sewer and replacing it with polyvinyl chloride pipe (PVC) at the locations shown in the plans and as directed by the Engineer in accordance with Section 550 of the Standard Specifications. All work shall comply with the Manual of Procedures for the Administration of the Sewer Permit Ordinance. The Contractor must contact the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Inspector at least 48 hours prior to all repair of combined sewer systems at 708-588-4055.

Construction Requirements. The PVC pipe for 12" diameters shall be SDR-26 and conform to ASTM D-3034, with rubber gasket joints that conform to ASTM D-3212. The PVC pipe for 18" diameters shall be SDR-26 and conform to ASTM F-679 (F/DY=46), with rubber gasket joints that conform to ASTM D-3212.

When water main quality PVC pipe is specified, the pipe shall be SDR-26 and conform to ASTM D-2241 or AWWA C-900/C-905, with rubber gasket joints that conform to ASTM D-3139.

The PVC pipe shall be joined to the existing sewer pipe at each end with a non-shear "band seal" coupling with stainless steel non-shear rings. The replacement pipe shall have the same inside diameter as the existing sewer.

CA-7 or CA-11 shall be used for pipe bedding and must also be placed and compacted one foot above the new pipe.

The remainder of the trench shall be backfilled using properly compacted CA-6 granular material, which shall be paid for separately under TRENCH BACKFILL.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per FOOT for SANITARY/STORM/COMBINED SEWER REPAIR R & R, SPECIAL of the diameter indicated on the plans and as directed by the Engineer. This price shall include all the costs for saw cutting, excavating, disposing of pavement and excess material, removing existing sewer, furnishing and placing pipe bedding material and continuing up to 1' above the top of pipe, installing new sewer, connecting to existing structures with non-shear "band-seal" couplings, and all other labor, material, and equipment necessary to complete the work.

The labor, material, and equipment necessary to backfill the trench will be paid under the item for TRENCH BACKFILL.

The labor, material, and equipment necessary to make sewer service connections will be paid under the item for SEWER SERVICE REMOVAL AND REPLACEMENT.

The labor, material, and equipment necessary to install HMA patching above the trench will be paid under CLASS D PATCH at the depth specified by the Engineer.

The labor, material, and equipment necessary to install composite patching above the trench will be paid under PAVEMENT PATCHING, COMPOSITE (9" PCC WITH HMA OVERLAY), SPECIAL

#### **INSERTA TEE®**

Description. This work shall consist of rehabilitation of existing sewer service connections to a rehabilitated mainline pipe with CIPP lining using an Inserta Tee®.

Construction Requirements. Remove the existing sewer service connection. The host pipe must be broken away from the CIPP lining around the existing sewer service hole in the liner approximately 2 inches on each side or sufficient enough to expose the liner. Care must be taken not to damage the CIPP lining inside the host pipe.

The existing host pipe material is VCP for 18" diameter and brick for 24" diameter main. The CIPP lining thickness is 9 mm and 12.5 mm for 18" and 24" pipe, respectively.

The service hole in the liner shall be cut using a hole saw or diamond bit to increase the diameter to allow installation of an 8" Insert Tee®, installed per the manufacturer's instructions. In no circumstance is a new hole to be cut into the liner other than to expand the current hole diameter or bring the existing hole into round (circular shape). Once the Inserta Tee is installed, the 8" shall be reduced to the existing 6" diameter service using appropriate fittings and Fernco non-shear coupling. A minimum of 3' of service line shall be replaced with 6" SDR 26 PVC sewer pipe to make the new connection.

The new fitting and host pipe will be properly bedded. A hydraulic cement/mortar cap shall be installed to encase the Inserta Tee® and liner connection. The encasement shall extend above the host pipe no less than 4" and extend beyond the opening of host pipe no less than 4". The excavation shall be back filled taking care not to disturb the new connection.

A CCTV video of the main and lateral (from the main) shall be supplied to the Engineer for inspection. The post lining video shall pause at each tap connection to thoroughly inspect each new connection with the Inserta Tee® installed.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for INSERTA TEE®, as directed by the Engineer. This price shall include all the costs for removing host pipe, removing existing service, furnishing and installing the Inserta Tee® and all fittings, installing up to 8' of new sewer pipe for sanitary service, connecting to existing service with non-shear "band-seal" couplings, installing concrete cap, and all other labor, material, and equipment necessary to complete the work.

The cost of the post inspection of the main with new lateral connection shall be included in the cost of PRE- AND POST SEWER VIDEO INSPECTION and shall not be paid for separately.

The labor, material, and equipment necessary to backfill the trench will be paid under the item for TRENCH BACKFILL.

### **LMT™ LINED MAIN TAP**

Description. This work shall consist of rehabilitation of existing sewer service connections by installing a sewer lateral main lined tapping saddle to a rehabilitated mainline pipe with CIPP lining.

Construction Requirements. The surface crown of the pipe shall be cleaned with high pressure water leaving the surface free of debris. The original host pipe must be broken away from the lining around the entire circumference of the lining and beyond the saddle length by 2 inches on each side. Care must be taken not to damage the CIPP lining inside the host pipe.

The saddle riser shall be connected to the new section of PVC pipe (4" or 6" SDR 26 or SDR 35) utilizing a solvent weld or a push gasket joint. The LMK proprietary adhesive/sealant will be applied to the underside of the saddle and smoothed out with the supplied applicator.

The saddle/PVC pipe assembly will be snapped onto the exposed CIPP Lining. The saddle is attached to the host pipe encompassing more than fifty percent (50%) of the pipe diameter. The LMT™ saddle shall be a self-supporting component, which allows the resin to cure without affecting the integrity of the seal to the host pipe.

Two quick bands (four total) that are provided in the kit shall be attached to each end of the saddle around the circumference of the pipe to ensure no slippage during the curing process or during backfilling while the adhesive completely cures. Once secure, the adhesive will be smoothed out around the new service opening and the host lining or pipe ensuring an optimal finished product.

The new PVC lateral service pipe shall be connected to the existing lateral pipe using a non-shear coupling.

The saddle fitting and host pipe will be properly bedded. A concrete cap shall be installed to encompass the saddle and liner connection. The excavation shall be back filled taking care not to disturb the saddle connection.

A CCTV video of the main/lateral shall be supplied to the Engineer for inspection. The post lining video shall pause at each tap connection to thoroughly inspect each connection with the LMT saddle installed.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for LMT™ LINED MAIN TAP, of the diameter indicated on the plans and as directed by the Engineer. This price shall include all the costs for removing host pipe, removing existing service, furnishing and installing the LMT™ Saddle by LMK and all fittings, installing up to 8' of new sewer pipe for sanitary service, connecting to existing service with non-shear "band-seal" couplings, installing concrete cap, and all other labor, material, and equipment necessary to complete the work.

The cost of the post inspection of the LMT main to lateral connection shall be included in the cost of PRE- AND POST SEWER VIDEO INSPECTION and shall not be paid for separately.

## **SEWER SERVICE REMOVAL AND REPLACEMENT**

Description. This item shall consist of removing a section of existing sanitary, storm, or combined service sewer and replacing it with PVC SDR-26 pipe at the locations shown on the plans and as directed by the Engineer. Replacement pipe shall have the same inside diameter as the existing service sewer. All work shall comply with Section 563 of the Standard Specifications, except as noted herein.

Construction Requirements. If a sewer service is encountered in the section of sewer main being replaced, a PVC factory wye shall be installed. The wye connection to the existing service shall be completed with minimal replacement of the existing service. The replacement service pipe and non-shear "band-seal" couplings shall meet the same criteria as listed above.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price EACH for SEWER SERVICE REMOVAL AND REPLACEMENT. This price shall include all costs for excavation, existing service pipe removal, disposal of excess excavated material, replacement of up to 8' of sewer service pipe, saw cuts, the non-shear "band-seal" couplings, and factory wyes.

The labor, material, and equipment necessary to backfill the trench will be paid under the item for TRENCH BACKFILL.

## **REBUILD MANHOLE BENCH**

Description. Contractor shall furnish all labor, supervision, materials, equipment, and testing necessary to complete the Work including removal of the existing defective bench, and installation and sealing of the replacement bench.

~~This item is for reconstruction beyond the standard rehabilitation provided under the cementitious wall coating.~~

Construction Requirements. ~~This work item shall consist of the complete removal and reconstruction of the entire manhole bench. The existing deteriorated bench area shall be completely removed to a minimum depth of 12 inches below the existing invert. Care must be taken to avoid damaging other areas of the manhole structure. Loose and broken concrete shall be routinely removed from the manhole to eliminate the possibility of pieces entering the sewer lines. After removal of loose and broken concrete, CA-7, (¾ inch – 1 inch) washed limestone with no fines shall be installed to a depth of (8) eight inches as a base for the new bench to be formed using Portland Cement Concrete, (PCC). Sanitary sewer service shall be maintained during bench replacement. Minimum bench thickness shall be 4 inches in depth.~~

~~All inverts shall be formed to the diameter of the incoming and outgoing pipe diameter up to the pipe centerline and vertical beyond that point. The invert shall be formed to a depth of one-half to two-thirds the pipe diameter. Inverts shall be formed with a PCC mortar material and steel trowel to produce a dense, smooth finish and shape to form a "U" shaped channel connecting the pipelines. The new invert shall provide smooth transitions for pipes of different sizes, different elevations, and/or at different angles. The Contractor shall form benches to provide self-cleaning by sloping normally two (2) inches from manhole wall to edge of "U" channel with a smooth finish. Care shall be taken to prevent the degradation of freshly poured benches.~~

~~The bench shall be furnished in such a manner so that a watertight seal exists between the manhole walls, pipe, and bench/trough area. The finished bench shall be cleaned of silt, debris or foreign matter of any kind.~~

Method of Measurement and Basis of Payment. ~~This work shall be measured and paid for at the contract unit price EACH for REBUILD MANHOLE BENCH. This price shall include costs for removal of existing bench, removal of excavated material and debris, installation of washed aggregate (CA-7), supply of PCC to form the bench, and all other labor, material and equipment required to complete the work.~~

## **ADDITIONAL SANITARY/STORM/COMBINED SEWER PIPE REMOVAL AND REPLACEMENT, PVC, SPECIAL**

Description. This item shall consist of removing a section of existing sewer and replacing it with PVC pipe at the location of a new catch basin, inlet, or manhole installation and sewer service or lateral pipe requiring replacement which is greater than 8' in length shown on the plans or as directed by the ENGINEER. All work shall comply with Section 563 of the Standard Specifications, except as modified herein.

Construction Requirements. The PVC pipe shall be polyvinyl chloride (PVC) sewer pipe conforming to ASTM D-3034 with rubber gasket joints conforming to ASTM D-3212. The Standard Dimension Ratio (SDR) for the PVC sewer pipe shall be 26. The PVC pipe shall be joined to the existing sewer pipe at each end with a band-seal coupling with stainless steel shear rings. Replacement pipe shall be the same inside diameter as the existing sewer.

When water main quality PVC pipe is specified on the plans, the material shall be polyvinyl chloride (PVC) SDR-26 conforming to ASTM D-2241 OR AWWA C-900/C-905 as specified on the plans. Joints shall be rubber gasket joints conforming to ASTM D-3139 for water main quality PVC.

Method of Measurement and Basis of Payment. Any sewer service pipe, lateral pipe or connection to a new structure requiring replacement which is greater than 8' in length shall be measured and paid for at the contract unit price per FOOT for ADDITIONAL SEWER PIPE R&R, SPECIAL, of the diameter indicated and meeting the same requirements as listed above.

## **CATCH BASINS, MANHOLES, INLETS, VALVE VAULTS**

Description. This work shall consist of constructing catch basins, manholes, inlets, and valve vaults, together with the necessary cast iron frames and lids, in accordance with Section 602 of the Standard Specifications, except as specified herein.

Construction Requirements. All catch basins, manholes, or inlets shall be provided with flexible rubber boots for all pipes to ensure a watertight seal between the pipe and catch basin, manhole, or inlet. The flexible rubber boots shall conform to ASTM C-923.

Catch basins, manholes, or inlets constructed in a location where an existing structure was removed shall include five feet of pipe for each existing pipe location. Sewer pipe shall be PVC SDR-26, RCCP, or ductile iron in accordance with the Standard Specifications, and connections to the existing sewer shall be made using non-shear, "band-seal" couplings with stainless steel shear rings. All half-trap pipes installed inside catch basins, manholes, or inlets shall be considered incidental to this pay item.

All closed lids shall have the words "COMBINED", "STORM", "SANITARY", or "WATER" cast into them, as shown in the plans and as directed by the Engineer.

Adjusting the frames on new drainage structures in the pavement to final grade, prior to paving the HMA surface course, will not be paid separately.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for CATCH BASINS, MANHOLES, INLETS, or VALVE VAULTS of the type and size specified, with the specified frame and grates or lids, which price shall include all labor, material, and equipment necessary to complete the work as specified herein.

The labor, material, and equipment necessary to install the rubber boots shall be included in the cost of CATCH BASINS, MANHOLES, INLETS, or VALVE VAULTS and will not be paid for separately.

The labor, material, and equipment necessary to connect existing sewer(s) to the new structure, including the removal and installation of up to 5 feet of new sewer pipe and couplings, shall be included in the cost of CATCH BASINS, MANHOLES, or INLETS and will not be paid for separately.

The labor, material, and equipment necessary to install the rubber boots shall be included in the cost of CATCH BASINS, MANHOLES, INLETS, or VALVE VAULTS and will not be paid for separately.

The labor, material, and equipment necessary to backfill the trench shall be included in the cost of CATCH BASINS, MANHOLES, INLETS, or VALVE VAULTS and will not be paid for separately.

### **DRAINAGE STRUCTURE TO BE RECONSTRUCTED**

Description. This work shall consist of replacing the existing (brick or block) cone and barrel sections on drainage structures with concrete cone, or flat top, and barrel sections. This work shall be in accordance with Section 602 of the Standard Specification, except as noted herein.

Construction Requirements. The word DRAINAGE STRUCTURE shall be understood to mean catch basin, manhole, inlet, valve vault, and valve box inclusive.

All structures shall be provided with flexible rubber boots for all pipes to ensure watertight seal between the pipe and structure. The flexible rubber boots shall conform to ASTM C-923, and shall be included in the cost of this pay item and will not be paid for separately.

Connections to existing sewer shall be made using non-shear, flexible couplings with stainless steel shear rings. Couplings and pipe shall be included in the cost of this pay item and will not be paid for separately.

The space between the sides of the excavation and the outer surfaces of the catch basin, manhole, inlet or valve vault shall be backfilled with coarse aggregate.

New frames and grates or lids shall be included in the cost for this pay item and will not be paid separately.

Adjusting the frames on reconstructed drainage structures in the pavement to final grade, prior to paving the HMA surface course, will not be paid separately.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per EACH for DRAINAGE STRUCTURE TO BE RECONSTRUCTION, which price shall include all labor, materials, and equipment necessary to complete this work as specified herein.

### **NEW GATE VALVES WITH 48" VAULT, SPECIAL**

Description. This work shall be in accordance with Section 602 of the Standard Specifications and as specified in AWWA C500 and AWWA C509. All materials used in the manufacture of waterworks gate valves shall conform to the AWWA standards designed for each material list.

Construction Requirements. Gate Valves shall have replaceable resilient seats or wedges, and shall be manufactured by "Waterous", "American Flow Control", or approved equal. Gate Valves shall be installed using stainless steel bolts.

Valve Vaults shall be constructed of precast concrete sections. Frames and lids shall be 4" or 7" heavy duty type frame, such as Neenah R-1538 or R-1772 frame or approved equal, and solid 'self-sealing' lid with neoprene gasket and the cover shall bear the marking "WATER".

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per EACH for NEW GATE VALVES, WITH VALVE VAULTS of the size indicated and with the frame and lid indicated. The price shall include the cost for pavement removal, removal of the existing gate valve and vault, aggregate bedding, new gate valve, DI water main replacement up to 5' if needed, new 48" Type I Valve Vault, frame and lid, fittings, and all other materials, labor, tools, equipment and incidentals necessary.

HMA pavement patching will be paid for separately at the contract unit price per SQUARE YARD for CLASS D PATCH.

### **WATER MAIN LINE STOP, SPECIAL**

Description. This work shall include installation of a line stop in accordance with AWWA standards.

Construction Requirements. The line stop installation, which is also referred to as line plugging, will be at the valve location indicated on the plans. The specific location will be such that it enables the temporary shut-off of water for the water valve installation while allowing the businesses and residents west of 3<sup>RD</sup> Street to remain in service.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for WATERMAIN LINE STOP, SPECIAL, of the size indicated. The price shall include the cost for line stop installation, water shutoff, and all other fittings, materials, labor, tools, equipment and incidentals necessary to complete the work herein.

### **REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES, NON-SPECIAL WASTE AND SPECIAL WASTE, SPECIAL**

Description. This work shall consist of REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES, NON-SPECIAL WASTE DISPOSAL and SPECIAL WASTE DISPOSAL, in accordance with Section 669 of the "Standard Specifications for Road and Bridge Construction"

Method of Measurement and Basis of Payment. This work shall be measured and paid for unit price per CUBIC YARD for REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES, NON-SPECIAL WASTE AND SPECIAL WASTE

### **SOIL DISPOSAL ANALYSIS**

Description. This work shall consist of SOIL DISPOSAL ANALYSIS, in accordance with Section 669 of the "Standard Specifications for Road and Bridge Construction"

Construction Requirements. The sample results will be compared to the Maximum Allowable Concentrations (MACs) to determine suitability for disposal at a CCDD or Landfill and use within the LPC-663 form documentation. This activity shall include the consultant preparing LPC-662 Form documentation and any other documentation that may be needed.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per EACH.

### **EXPLORATORY EXCAVATION, SPECIAL**

Description. When requested by ENGINEER, CONTRACTOR shall perform exploratory excavations to uncover utility lines or otherwise investigate existing conditions within the proposed construction limits.

Construction Requirements. Where utility lines are uncovered, the elevation of the utility lines shall be determined by ENGINEER, and the utility companies advised by ENGINEER for any adjustments required. CONTRACTOR shall be responsible for any required backfilling with excavated materials and restoration.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price HOURS for EXPLORATORY EXCAVATION, which price shall be full compensation for all labor, equipment, and material to complete the work as specified in these special provisions.

### **BYPASS PUMPING, SPECIAL**

Description. When pumping and bypass pumping is required, the Contractor shall supply all necessary pumps, conduits, and other necessary equipment to divert the flow around the pipe section or manhole in which work is to be performed.

Construction Requirements. The bypass system shall be of sufficient capability to handle existing dry-weather flow plus additional flow that may occur during wet-weather (i.e. rainfall or snowmelt events). The Contractor shall be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypassing system. Pumps and equipment shall be continuously monitored by the Contractor during the periods that pumping and bypassing are required.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price LUMP SUM for BYPASS PUMPING, SPECIAL, which price shall include all labor, equipment, and material to complete the work as specified in these Special Provisions.

## **TRAFFIC CONTROL AND PROTECTION**

Description. This work shall be done in accordance with applicable portions of Section 701 of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", and any details and Highway Standards contained in the Plans and Special Provisions, and the Special Provisions contained herein, except as modified herein. This work shall consist of planning, furnishing, installation, maintenance, relocation, and removal of all traffic control devices as required to complete the work specified in the contract.

Construction Requirements. Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Recurring Local Roads and Streets Special Provisions, and Special Provisions contained herein, relating to traffic control.

HIGHWAY STANDARDS 701301, 701311, 701501, 701801, 701901

### **DETAILS:**

Traffic Control and Protection for Side Roads, Intersections, and Driveways (TC-10)

### **SPECIAL PROVISIONS (Included in these Special Provisions by reference):**

Maintenance of Roadways  
Work Zone Traffic Control Surveillance (LRS 3)  
Flaggers in Work Zones (LRS 4)

The Contractor shall contact the Village at least 72 hours in advance of beginning work. Construction operations shall be conducted in a manner such that streets will be open to emergency traffic and accessible as required to local traffic. 72 hours advanced notice shall be provided to residents, police, fire, school districts and trash haulers when access to any street will be temporarily closed or limited. Not complying with these notification requirements will be grounds for the Village to stop construction activities and the Contractor to be fined \$200 per violation. Removal and replacement of curb and gutter and driveways shall be planned so as to cause a minimum of inconvenience to the abutting property owners.

The contractor shall provide the Village, at the preconstruction meeting, a proposed plan for traffic control and protection throughout the duration of the project. The proposal shall include "Road Construction Ahead" signs at the beginning, end and all adjacent roadways to the project. The streets adjacent to the alleys shall be open to local traffic at all times. If, at the discretion of the Engineer, a road closure is necessary, the contractor shall submit a proposed traffic control plan no less than three days prior to the day of the closure. The contractor shall also notify all local authorities and emergency services no less than 24 hours prior to the day of the closure.

At the preconstruction meeting, the Contractor shall furnish the name of the individual in his direct employ who is to be responsible for the installation and maintenance of the traffic control for this project. If the actual installation and maintenance are to be accomplished by a subcontractor, consent shall be requested of the

Engineer at the time of the preconstruction meeting in accordance with Article 108.01 of the Standard Specifications. This shall not relieve the Contractor of the requirement to have a responsible individual in his direct employ supervise the work.

Revise Article 701.19 to read:

**“701.19 Method of Measurement.** Traffic control and protection will be measured for payment on a LUMP SUM basis.”

Revise Article 701.20 to read:

**“701.20 Basis of Payment.** Traffic control and protection will be paid for at the contract LUMP SUM price for TRAFFIC CONTROL AND PROTECTION, which price shall include all of the above listed details, standards, and special provisions.”

## **PRE- AND POST-SEWER VIDEO INSPECTION**

Description. It is the Contractor’s responsibility to televise the sewers prior to beginning any work on the sewers to capture the existing sewer system’s condition and after work is completed to provide video inspection of the completed work.

### Construction Requirements.

#### ***Pre- Video Inspection:***

The existing sewer main pipe condition and sewer service pipe locations indicated on engineering drawings have been determined from the available video records. Upon request, the CONTRACTOR will be provided with the available video records and reports.

It is the CONTRACTOR's responsibility to re-inspect the condition of the existing sewer system prior to the start of construction. The purpose of the sewer pipe condition re-evaluation is to determine existing service locations, services within the area of work that are abandoned and are not to be reconnected, and the final location and the quantity of the necessary sewer pipe repairs as indicated in the plans.

The Village Engineer shall be allowed three (3) business days to review the video prior to commencement of sewer repair work.

The CONTRACTOR shall use an experienced licensed professional trained in the use of closed circuit television in existing sewer systems, which shall furnish the necessary labor, tools, equipment, and appurtenances to clean sewer lines prior to televising and perform the sewer televising services as specified. The television inspection equipment and procedures used shall comply, but are not limited, by the following:

1. The sewer inspections shall be recorded digitally by DVD. The function of the recording shall be to supply a visual and audio record of the condition of the sewer pipes. Recording playback shall be at the same speed that it was recorded. Cost of supplying one DVD copy to the Village shall be included in the bid’s unit price.
2. Each sewer shall be televised from manhole to manhole to cover the entire segment length. A run starting at the opposite manhole shall be necessary when a break or blockage prevents the camera from advancing the entire length. A complete recording shall be made of each line televised from manhole to manhole.
3. Location of sewer lines inspected using basin ID, street name, and manhole numbers
4. Quadrant location of all leaks and cracks.
5. Size (diameter) of sewer line televised.
6. Location of building service connections
7. The footage and manhole numbers shall appear on the screen at all times.
8. Television Inspection logs shall be reported in the sequence as they appear on the DVD’s.

9. The sewer televising camera shall have the capability of a rotating lens. While televising the sewer pipe, the CONTRACTOR will rotate the camera so as to look in the service and determine if the service is capped or active (in service). This shall also be reflected in the reports. (i.e. capped or live)
10. The CONTRACTOR will increase the skids on the camera to the proper size so that camera is in the center of the sewer pipe.
11. Deep sags are to be dewatered so that proper television inspection can be performed.
12. Clean sewer line prior to televising. Cleaning of existing sanitary sewer to conditions necessary for proper televising, including root cutting, removal of debris, etc.
13. The CONTRACTOR shall submit DVD in Windows Media based format.

Any deviation from the location and/or quantity indicated on engineering drawings shall be noted and brought to the attention of the ENGINEER, so that the bid quantities may be adjusted prior to commencing with any sewer repair work. All sewer televising shall be completed and documentation submitted to the ENGINEER prior to commencement of any underground utility work. The Contractor shall allow the Village two (2) business days to complete review.

***Post Video Inspection:***

After completing the sewer repairs and backfilling, CONTRACTOR shall video tape the completed work using the current NASSCO PACP® (Pipeline Assessment and Certification Program) standards. This work includes full line video of all sewer mains (MH to MH) within the projects scope of work. Payment for the sewer repair work will not be issued until a final video inspection is provided by the CONTRACTOR, and reviewed and approved by the ENGINEER.

***CCTV Equipment***

The CONTRACTOR shall provide a closed circuit television (CCTV) and audio-video recording system for internal inspection of mainline sewers capable of producing picture quality to the satisfaction of the VILLAGE.

Operators performing CCTV and software shall have current certification by NASSCO.

***Preparatory Cleaning***

The CONTRACTOR shall provide preparatory cleaning of the sewer section to permit unobstructed passage of the television camera and clean enough for the camera to discern structural defects, misalignment, and service lateral connections, points of infiltration and to the satisfaction of the ENGINEER.

***Inspection Report***

Reporting must follow NASSCO standards. NASSCO certification number must be provided for the person performing the assessment.

The CONTRACTOR shall ensure that a minimum of 90% of the internal pipe diameter is viewable for inspection and:

- 1) Move the camera at a speed no greater than 30 feet per minute and stopping at all defects and points of infiltration and pan as necessary to permit proper documentation of the sewer's condition.
- 2) When encountered the CONTRACTOR shall stop and thoroughly inspect each of the following:
  - Change in pipe material and/or sewer repair locations
  - Collapsed pipe, obstructions
  - Stop at all service connections
  - Missing portion of pipe wall
  - Sag, excessively deflected joint

- Missing, damaged pipe
  - Protruding and break-in connections, and manufactured wyes or tees.
- 3) Stop televising if the camera becomes submerged and use high-pressure jetting or other means to lower water level within the sewer to a point below camera or provide temporary plugs or by-pass pumping as directed by the VILLAGE.
  - 4) If the camera is unable to pass an obstruction even though flow is unobstructed, the CONTRACTOR shall also approach the obstruction from the other direction in order to obtain complete video on both sides of the obstruction. The CONTRACTOR shall notify the ENGINEER whenever an obstruction is encountered. The ENGINEER WILL DETERMINE IF THE OBSTRUCTION MUST BE REMOVED.

The CONTRACTOR shall:

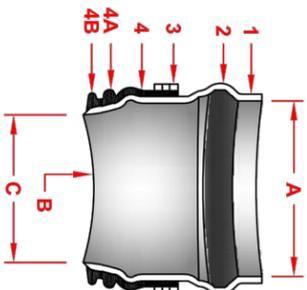
- 1) Begin each recording with the current date and project name followed by general locations, manhole basin and number, manhole invert depth, direction of viewing and beginning footage count superimposed on the video signal. The recording shall also provide a continuous footage counter and manhole segment identifier on all video recordings.
- 2) Label all disks with the Wilmette, date, basin, manhole number and type of sewer. Electronic file names shall include the street names and manholes that were on the segment televised.
- 3) Provide inspection logs with:
  - a. CONTRACTOR'S name
  - b. Inspector's name
  - c. Date
  - d. Basin #
  - e. From MH #\_\_\_
  - f. To MH #\_\_\_\_\_
  - g. Direction of flow
  - h. Type of pipe material
  - i. Joint spacing
  - j. Manhole conditions
  - k. Section length
  - l. Diameter Pipe size
  - m. Depth of upstream and downstream invert
  - n. Direction of inspection (camera movement)
  - o. Surface conditions (parkway or street)
- 4) Document the footage and clock orientation of all pipe defects, change in pipe material, infiltration, building service connections and any other abnormal conditions
- 5) Use NASSCO Standards for coding defects

- 6) Provide computer generated entries on inspection logs
- 7) Complete inspection log in the field
- 8) Provide audio track describing all information documented in the inspection log.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price LUMP SUM for PRE- AND POST SEWER VIDEO INSPECTION, SPECIAL which price shall be full compensation for all labor, equipment, and material to complete the work in these special provisions.

**SDR 26 HWS GASKETED BELL GRAVITY APPLICATIONS**

- A.** BELL END ACCEPTS PIPE WITH SDR 26, ASTM D3034 OR EQUIVALENT O.D. SPECIFICATION IN 8", 10", 12", 15" AND 18" SIZES (FOR 4" AND 6" SIZES, REFER TO FATBOY SPECIFICATIONS)
- B.** CURVATURE VARIES WITH MAINLINE DIAMETERS.
- C.** SPIGOT END PVC SDR 26, ASTM D3034 DIAMETERS: 8", 10", 12", 15", AND 18"



PART	PART NAME
1	HUB ADAPTOR
2	RUBBER GASKET
3	SECURING CLAMP*
4	RUBBER SLEEVE (AVAILABLE IN NITRILE AND EPDM BY SPECIAL ORDER)
4A	UPPER SEGMENT**
4B	LOWER SEGMENT***

**MATERIALS**  
 PVC SDR 26 ASTM D3034  
 ASTM F477  
 BAND SS #301  
 SCREW SS #305  
 HOUSING SS #301  
 ASTM F477

\*\*OPTIONAL: #316 STAINLESS STEEL BAND, SCREW AND HOUSING  
 \*\*DISTANCE BETWEEN 4A AND 4B WILL VARY BY PRODUCT TYPE  
 \*\*\* WILL NOT APPEAR ON RUBBER SLEEVES FOR CONCRETE OR CLAY PIPE

INSERTA TEE SIZE	HOLE DIAMETER
8" (200 mm)	8 3/4" (222mm)
10" (250 mm)	10 7/8" (276mm)
12" (300 mm)	12 7/8" (327mm)
15" (375 mm)	15 13/16" (402mm)
18" (450 mm)	19 3/16" (503mm)

NOTE: RECOMMENDED METHOD OF CUTTING HOLE IS WITH HOLE SAW FOR PVC AND OTHER PLASTICS, AND DIAMOND BIT FOR CONCRETES, CLAY, FRP AND D.I. (SEE INSTALLATION INSTRUCTIONS. HOLE SAWS ARE AVAILABLE FOR PURCHASE OR RENT.)

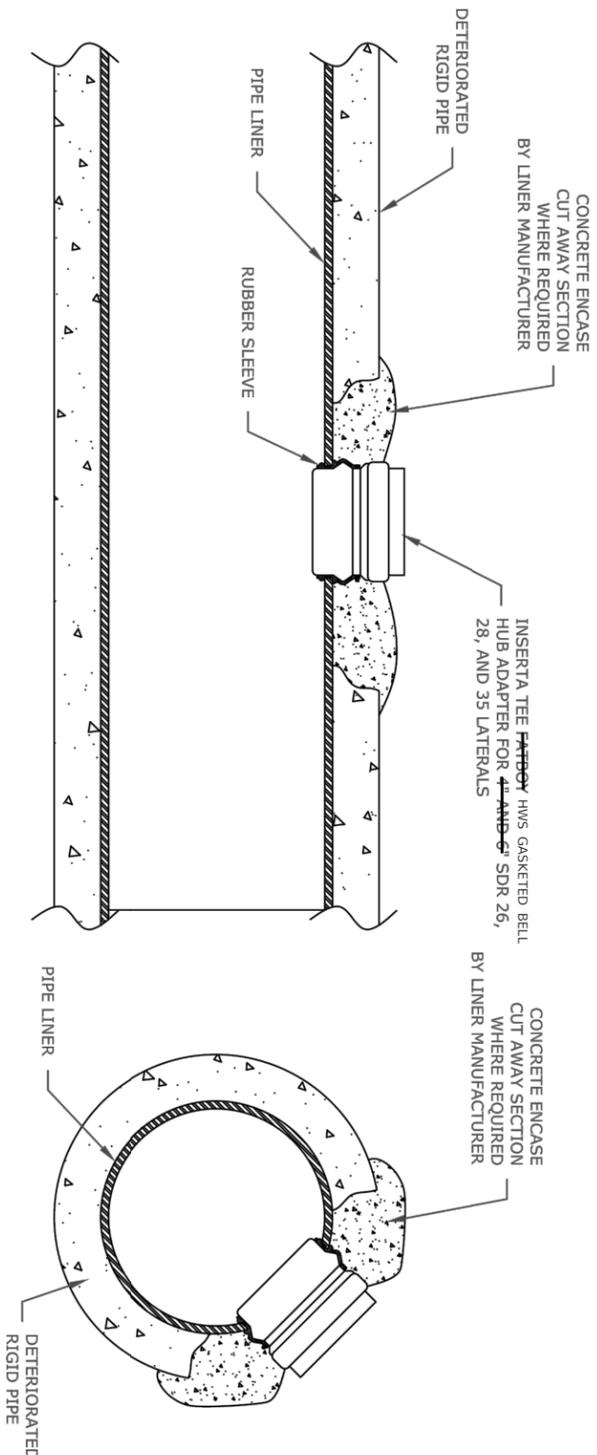


INSERTA TEE | PO BOX 714  
 CORNELIUS, OR 97116  
 PH: (503) 357-2110 FAX: (503) 359-5417  
 SALES@INSERTATEE.COM

SDR 26 HWS GASKETED BELL GRAVITY APPLICATION SPECIFICATIONS	
SCALE:	NTS
DATE:	9/12/2013
DRAWN BY:	KLJ

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**INSTALLATION DETAIL FOR TAPPING LINED RIGID PIPE USING INSERTA TEE FATBOY®**



- INSTALLATION INSTRUCTIONS:
1. MARK AREA TO BE TAPPED ON SURFACE OF RIGID PIPE. WORKING AREA SHOULD BE 2-INCHES WIDER THAN DIAMETER OF INSERTA TEE.
  2. BREAK AWAY RIGID PIPE SECTION TO BE TAPPED AND EXPOSE NEW LINER SECTION.
  3. BRUSH AND CLEAN PIPE LINER SURFACE AND REMOVE DAMAGED SECTIONS OF RIGID PIPE.
  4. CORE HOLE INTO LINER WITH APPROPRIATE INSERTA TEE HOLE SAW.
  5. INSTALL INSERTA TEE FATBOY® TAP CONNECTION PER PROVIDED INSTALLATION INSTRUCTIONS.
  6. ENCASE CUT OUT SECTION OF RIGID PIPE WITH CONCRETE WHERE REQUIRED BY LINING MANUFACTURER.

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 ADVANCED PIPELINE SYSTEMS, INC. (APSS) HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO APSS. THE DRAWING IS INTENDED TO BE USED AS A GENERAL GUIDE AND NOT A SUBSTITUTE FOR THE DESIGN ENGINEER'S OR DESIGN SERVICES FOR THIS PROJECT. NOR HAS APSS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

AWM	TAPPING LINED RIGID PIPE WITH INSERTA TEE	PH: 503/357-2110 FX: 503/359-5417
	DRAWING NUMBER	Email: sales@insertatee.com

DATE	11/10/10
SCALE	NTS
BY	NTS
DATE	