



HOFFMAN ESTATES

GROWING TO GREATNESS

June 3, 2026

**SUBJECT: VILLAGE OF HOFFMAN ESTATES
HAMPTON LIFT STATION IMPROVEMENTS
ADDENDUM NO. 3**

To Whom It May Concern:

Please make reference of the following clarifications and changes to the above contract:

Response to Bidder's Questions:

1. Can you clarify which structures will require interior coating as detailed under 09 90 00 (2.07).
The wet well and valve vaults will require interior coating system. All other structures (manholes, storm structures, etc.) should be provided an exterior coating and have all joints sealed in accordance to notes on the plans.
2. How will the bollards (shown on sheet 18) and the gate valves (shown on sheet 19) be paid for?
The Schedule of Prices has been updated to include dedicated pay items.
3. The Sherwin-Williams Macropoxy 646 is being specified for corrosive and non-corrosive environment, while Tnemec has two different options for corrosive and non-corrosive environments. The Macropoxy is not a comparable product to Tnemec's Epoxytech/Perma system.
The specification has been revised to remove the Sherwin Williams product. The Tnemec product was used to line the last lift station wet well and valve vault structures, and the Village would like a similar result.
4. Would Certa-Lok PVC Pipe be acceptable for the directional drilling of the forcemain instead of HDPE pipe? There doesn't seem to be much room to fuse and layout the HDPE pipe without blocking driveways. If it has to stay HDPE pipe can the spec be changed to a DR11 instead of DR17 pipe? The DR17 is not a directional drill rated pipe.
The Village would prefer that HDPE pipe be used. Temporary blocking of the driveways will be allowed for installation pipe given the minimal length to be installed for the project. All work should be coordinated with the Engineer and homeowners to reduce impacts to residents.
We have no objection to installing DR11 pipe in lieu of DR17. The Contractor will be responsible for confirming that the wall thickness is appropriate for the pipe depth and installation.

Revisions to Bid Documents:

1. BLR 12201 – Schedule of Prices
 - a. The following pay items were added to the Schedule of Prices
 - i. 32 39 14 – Bollard with Cover
 - ii. 33 12 16-02 – 8” Gate Valve
 - iii. 33 12 16-03 – 10” Gate Valve
2. Section 09 90 00 – Paintings and Coatings
 - a. The specification has been revised to eliminate Sherwin Williams product listed under the Coatings Systems Part 2.03(B) Concrete Structures-Interior.
3. Section 32 39 14 – Bollard
 - a. The specification was added for payment of concrete bollards detailed on the plans.
4. Section 33 12 16 – Utility Piping Valves
 - a. The Section was updated to include the following pay items:
 - i. 8” GATE VALVE
 - ii. 10” GATE VALVE

Attachments:

Attachment A – Revised Technical Special Provisions Sections

THESE CHANGES TO THE ABOVE DOCUMENTS MUST BE REFLECTED IN THE BIDS SUBMITTED TO THE VILLAGE.

PLEASE SIGN BELOW TO VERIFY RECEIPT OF THE ADDENDUM AND RETURN WITH YOUR BID.

Company/Bidder: _____ Date: _____

Name & Title: _____ Signature: _____

Please direct any questions to Katrina Lopez at Ciorba Group by email at klopez@ciorba.com or phone at (773) 355-2958.

Sincerely,



Katrina Lopez, P.E., LEED AP
Senior Project Manager

A. REVISIONS TO BID DOCUMENT



Schedule of Prices



Print Form Print With Instructions Reset Form

Contractor's Name

[Empty text box for Contractor's Name]

Contractor's Address

[Empty text box for Contractor's Address]

City

[Empty text box for City]

State

[Empty text box for State]

Zip Code

[Empty text box for Zip Code]

Local Public Agency

Village of Hoffman Estates

County

Cook

Section Number

[Empty text box for Section Number]

Route(s) (Street/Road Name)

1869 Hampton Road

Schedule for Multiple Bids

Table with 3 columns: Combination Letter, Section Included in Combinations, Total. Contains 8 rows with alternating + and - signs in the first column.

Schedule for Single Bid

(For complete information covering these items, see plans and specifications.)

Table with 6 columns: Item Number, Items, Unit, Quantity, Unit Price, Total. Lists various construction items like VIDEO DOCUMENTATION, TEMPORARY FACILITIES, etc.

Local Public Agency		County	Section Number		Route(s) (Street/Road Name)	
Village of Hoffman Estates		Cook			Hampton Road	
Item Number	Items	Unit	Quantity	Unit Price	Total	
+26 29 20	PUMP CONTROLLER ENCLOSURE	LSUM	1			
+26 32 13	ENGINE GENERATOR	LSUM	1			
+26 36 00	AUTOMATIC TRANSFER SWITCH	EACH	1			
+26 42 00	CATHODIC PROTECTION	LSUM	1			
+26 60 20-01	ELECTRIC SERVICE	LSUM	1			
+26 60 20-02	ELECTRIC SERVICE UTILITY FEE	ALLOWANCE	1	\$5,000	\$5,000	ADD#1
+27 51 25	SCADA SYSTEM	ALLOWANCE	1	\$60,000	\$60,000	ADD#1
+31 11 00-01	SITE CLEARING	LSUM	1			
+31 11 00-02	TREE REMOVAL (OVER 15 UNITS DIA)	UNIT	95			
+31 11 00-03	TREE TRUNK PROTECTION	LSUM	1			
+31 20 00	EARTH EXCAVATION	LSUM	1			
+31 23 19	DEWATERING	LSUM	1			
+31 25 15-01	EROSION CONTROL FENCE	FOOT	109			
+31 25 15-02	INLET PROTECTION	EACH	8			
+31 25 15-03	DEWATERING FILTER PAD	LSUM	1			
+31 25 15-04	BMP MAINTENANCE	LSUM	1			
+31 25 15-05	CONCRETE WASHOUT	LSUM	1			
+31 25 15-06	TEMPORARY EROSION CONTROL SEEDING	POUND	20			
+31 25 15-07	TEMPORARY EROSION CONTROL BLANKET	SQ YD	946			
+31 41 00-01	EARTH RETENTION SYSTEM	LSUM	1			
+32 39 14	BOLLARD WITH COVER [ADD#3]	EACH	2 [ADD#3]			
+33 11 00-01	DIP PUMP DISCHARGE PIPING AND FITTINGS	LSUM	1			
+33 11 00-02	FORCEMAIN	LSUM	1			
+33 11 00-03	SANITARY SEWER 6"	FOOT	5			
+33 11 00-04	SANITARY SEWER 8"	FOOT	203			
+33 11 00-05	SANITARY SEWER 10"	FOOT	23			
+33 12 16-01	DISCHARGE VALVES AND FITTINGS	LSUM	1			
+33 12 16-02	8" GATE VALVE [ADD#3]	EACH	1 [ADD#3]			
+33 12 16-03	10" GATE VALVE [ADD#3]	EACH	1 [ADD#3]			
33 42 00	SEWAGE PUMPS AND ACCESSORIES	LSUM	1			
33 43 00	TEMPORARY BYPASS SYSTEM	LSUM	1			
20800150	TRENCH BACKFILL	CU YD	617			
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	946			
25200110	SODDING, SALT TOLERANT	SQ YD	946			
25200200	SUPPLEMENTAL WATERING	UNIT	2			
31101100	SUBBASE GRANULAR MATERIAL, TYPE B	CU YD	82			

40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	4		
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	70		
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1,769		
42400800	DETECTABLE WARNINGS	SQ FT	70		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	100		
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	481		
44000600	SIDEWALK REMOVAL	SQ FT	1,698		
44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SQ YD	199		
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	59		
550A0380	STORM SEWERS, CLASS A, TYPE 2 18"	FOOT	164		
55100400	STORM SEWER REMOVAL 10"	FOOT	13		
55100700	STORM SEWER REMOVAL 15"	FOOT	31		
55100900	STORM SEWER REMOVAL 18"	FOOT	49		
60255500	MANHOLES TO BE ADJUSTED	EACH	2		
60500040	REMOVING MANHOLES	EACH	1		
60500050	REMOVING CATCH BASINS	EACH	2		
60500305	FILLING INLETS	EACH	1		
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	100		
66900530	SOIL DISPOSAL ANALYSIS	EACH	1		
Z0056612	STORM SEWER (WATER MAIN REQUIREMENTS) 18 INCH	FOOT	57		
X5509900	ABANDON AND FILL EXISTING STORM SEWER	FOOT	217		
X5510011	PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE	EACH	1		
X6022712	CATCH BASINS, TYPE A, 4'-DIAMETER, WITH SPECIAL FRAME AND GRATE	EACH	1		
X6022810	MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2		
X6022820	MANHOLES, SANITARY, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3		
X6022930	MANHOLES, TYPE A, 5'-DIAMETER, WITH SPECIAL FRAME AND GRATE	EACH	1		
X6023102	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID (SPECIAL)	EACH	1		
X6023508	INLETS, TYPE A, WITH SPECIAL FRAME AND GRATE	EACH	1		
X6025604	PROPOSED MANHOLE/CATCH BASIN CONNECTION OVER EXISTING STORM SEWER	EACH	2		
X6060079	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-3.12 (SPECIAL)	FOOT	481		
				Bidder's Total Proposal	

- Each pay item should have a unit price and a total price.
- If no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity, the unit price shall govern.
- If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.

4. A bid may be declared unacceptable if neither a unit price or total price is shown.

SECTION 09 90 00
PAINTING AND COATINGS

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes:

1. Painting.

1.02 RELATED SECTIONS

A. Applicable sections of the following:

1. Division 1 – General Requirements.
2. Section 03 00 00 – Cast-in-Place Concrete.
3. Section 03 40 00 – Precast Concrete Structures.
4. Section 33 11 00 – Utility Piping.

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM)
- B. Army Corps of Engineers (CRD)
- C. NSF International (NSF)
- D. Society for Protective Coatings (SSPC)
- E. National Association of Corrosion Engineers
- F. American Concrete Institute (ACI)
- G. Local codes and ordinances

1.04 SUBMITTALS

A. Submit in accordance with Section 01 33 00 – Submittal Procedures.

B. Shop drawings shall include:

1. Manufacturer's Data: Submit copies of manufacturer's technical information including paint label analysis, application instructions for each material proposed for use, and paint color charts.

2. Project schedule.
3. Surface preparation, including pipe identification schedule.
4. Submit complete listing of proposed products for each system, including primer and finish coat.
5. Application instructions for each type of coating to be used.
6. Color samples for selection.

1.05 SYSTEM DESCRIPTION

- A. This Section includes all labor, materials, equipment and related services necessary to provide finishes indicated on the Drawings or specified herein.
- B. Complete finishes of all areas and items shown on drawings and/or specified herein, including, but not limited to:
 1. Ductile iron piping, valves and appurtenances. Do not paint the stainless steel rodding or fasteners – if painted, the paint will be required to be removed. All piping proposed in wet well shall be factory or shop painted to finish coat.
- C. Coordinate painting specified herein with shop and prime coats on materials specified under applicable Sections.
- D. Operating Parts and Labels: Moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, linkages, sending devices, motor and fan shafts will not require finish painting, unless otherwise indicated.
- E. Do not paint over any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.
- F. Stainless steel components shall not be painted.

1.06 ABBREVIATIONS

- A. The term "coating", as used herein, includes emulsions, enamels, paints, stains, varnishes, sealers, and other coatings, whether used as prime, intermediate, or finish coats.

1.07 QUALITY ASSURANCE

- A. Only Licensed Installers will be allowed to apply these products. The installer shall be responsible for all preparation of the surfaces to receive this coating and shall comply with Part 3 of these specifications and in accordance with

manufacturer's recommendations. Coating shall be applied to the walls and base of the structure.

1.08 DELIVERY AND STORAGE

- A. Deliver materials in original, new and unopened packages and containers bearing manufacturer's name and label, and the following information:
 - 1. Name of title of the material
 - 2. Manufacturer's stock number and date of manufacture
 - 3. Manufacturer's name
 - 4. Color, name and number
 - 5. Application instructions
- B. Store materials as recommended by the manufacturer and as necessary to protect against adverse conditions. Mix and store materials in designated areas only. Provide safety precautions as necessary to prevent fire or injury to persons or property.

1.09 JOB CONDITIONS

- A. Apply paint only within the manufacturer's limitations for temperature, humidity and other weather conditions.

1.10 SPARE PAINT

- A. The Contractor shall provide the Owner with one spare unopened container of each paint furnished for the Work.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Acceptable paint:
 - 1. Tnemec - Tnemec Co., Inc. – North Kansas City, MO
 - 2. Sherwin Williams – Cleveland, OH
 - 3. PPG Protective & Marine Coatings – Alsip, IL
 - 4. Engineer approved equal.

2.02 PRODUCT MATERIALS

- A. All materials used in the work except oils, thinners and driers, shall be of the brands and qualities specified.
- B. All cleaners, thinners, driers, and other additives and surface pretreatment materials shall only be those approved for use by the manufacturer of the coatings.

C. Do not dilute paints except as recommended by the paint manufacturer.

2.03 COATING SYSTEMS

A. Galvanized and Non-Ferrous Metals

1. Used for non-galvanized, ferrous metals, in non-potable water applications, including but not limited to the following:

- a. Submerged piping and piping subject to splashing.
- b. Piping located in below grade structures.
- c. Exposed above grade piping.
- d. Submerged miscellaneous metal, equipment, etc. without a factory-applied final finish.

2. Surface Preparation:

- a. None if primer is applied by pipe manufacturer.
- b. Or SSPC SP 16 if field applied primer is used.

3. Above grade or exposed pipe:

Sherwin Williams:

- a. Prime Coat: Pipe manufacturer primer
- b. Intermediate: Macropoxy 646 Epoxy at 4-8 mils
- c. Finish Coat: Hi Solids Polyurethane at 2-3 mils

Tnemec:

- a. Prime Coat: Pipe manufacturer primer
- b. Intermediate: Series N69 HB Epoxoline at 2-3 mils
- c. Finish Coat: Series 73 Endura-Shield at 2-3 mils

4. Below grade pipe located within structures:

Sherwin Williams:

- a. Prime Coat: Pipe manufacturer primer
- b. Intermediate: Sherglass FF Epoxy at 8-12 mils
- c. Finish Coat: Sherglass FF Epoxy at 8-12 mils

Tnemec:

- a. Prime Coat: Pipe manufacturer primer
- b. Intermediate: Series N69 Hi-Build Epoxoline II Primer at 2-3 mils
- c. Finish Coat: Series N69 Hi-Build Epoxoline II Primer at 2-3 mils

B. Concrete Structures - Interior

1. Used for cast-in-place and precast concrete structures, including but not limited to the following:
 - a. Wet Well.
 - b. Valve Vault.
2. Surface Preparation:
 - a. Allow concrete to cure for 28 days.
 - b. Then Prepare in accordance with SSPC SP 13, Surface Profile CSP 1-3.

Sherwin Williams: [ADD#3]

- ~~a. Prime Coat: Macropoxy 646 Epoxy at 5 mils~~
- ~~b. Intermediate: Macropoxy 646 Epoxy at 5 mils~~
- ~~c. Finish Coat: Macropoxy 646 Epoxy at 5 mils~~

Tnemec (Corrosive Environments):

- a. Prime Coat: Epoxytech Mortartec Ceramico minimum 1/8"
- b. Intermediate: Series 434 Perma-Shield at 125 mils
- c. Finish Coat: Series G435 Perma-Glaze at 15 to 20 mils

Tnemec (Non-Corrosive Environments):

- a. Prime Coat: Epoxytech Mortartec Ceramico minimum 1/8"
- b. Finish Coat: Epoxytech CPP minimum 125 mils

C. Concrete Structures - Exterior

1. Used for precast concrete structures, including but not limited to the following:
 - a. Wet Well.
 - b. Valve Vault.
2. Surface Preparation: SSPC SP 13, Surface Profile CSP 1-3

Sherwin Williams:

- a. Prime Coat: Hi Mil Sher Tar at 8 mils
- b. Finish Coat: Hi Mil Sher Tar at 8 mils

Tnemec:

- a. Prime Coat: Series 46-465 H.B. Tnemcol at 8 mils
- b. Finish Coat: Series 46-465 H.B. Tnemcol at 8 mils

D. Aluminum Equipment and Electrical Conduits

1. Used for aluminum equipment as indicated on the plans and electrical conduits located below grade in concrete structures.
2. Surface Preparation: Clean surface, solvent clean (SSPC SP 16), and allow to dry.

Sherwin Williams:

- a. Prime Coat: Macropoxy 646 Epoxy at 2 mils
- b. Intermediate: Macropoxy 646 Epoxy at 2 mils
- c. Finish Coat: Macropoxy 646 Epoxy at 2 mils

Tnemec:

- a. Prime Coat: Series N69 Hi-Build Epoxoline II at 2 mils
- b. Finish Coat: Series Series 73 Endura-Shield at 2-3 mils

E. Ferrous Metals

1. Used for ferrous metals, in non-potable water applications, including but not limited to the following:
 - a. Submerged piping and piping subject to splashing.
 - b. Piping located in below grade structures.
 - c. Exposed above grade piping.
 - d. Submerged miscellaneous metal, equipment, etc. without a factory-applied final finish.
2. Surface Preparation:
 - a. Steel – Immersion SSPC SP-10 Near White Metal Blast Cleaning. Scarify if shop applied epoxy primer is more than 60 days old.
 - b. Steel – Non-Immersion SSPC SP-6 Commercial Blast Cleaning
 - c. Ductile Iron Pipe NAPF 500-03-04.
 - d. Cast Ductile Fittings NAPF 500-03-05.
 - e. Scarify shop applied prime coat if more than 60 days old.

3. Above grade or exposed pipe:

Tnemec:

Interior, Not exposed to UV:

- a. Shop applied prime Coat: Series N140 Pota-Pox Plus at 4 to 6 mils
- b. 1st coat: Series N69 HB Epoxoline II at 4 to 6 mils

c. 2nd coat: Series N69 HB Epoxoline at 4 to 6 mils

Exterior:

a. Shop applied prime Coat: Series N140 Pota-Pox Plus at 4 to 6 mils

b. 1st coat: Series N69 HB Epoxoline II at 4 to 6 mils

c. 2nd coat: Series 73 Endura-Shield 3 to 5 mils

Immersion Service

a. Shop applied prime Coat: Series N140 Pota-Pox Plus at 4 to 6 mils

b. 1st coat: Series N69 HB Epoxoline II at 6 to 8 mils

c. 2nd coat: Series N69 HB Epoxoline at 6 to 8 mils

2.04 EQUIPMENT

- A. The Contractor shall provide all containment materials and rigging equipment to safely access the work area and control the escape of dust and debris generated during surface preparation, application of lining system and clean-up activities. This shall include, but not be limited to, dust collectors, vac trucks, commercial vacuums equipped with High Efficiency Particulate Air (HEPA) filtration, containment materials and ground covers, scaffolds, and staging. All containment material shall be fire retardant.
- B. Specific containment requirements when disturbing protective coatings containing lead and other toxic metals are found in other sections.
- C. All cleaning and application tools and equipment shall be provided by the Contractor, including but not limited to, compressors, blast pots, hand tools, power tools, brushes, rollers, and spray equipment.
- D. All necessary personal protective clothing and equipment shall be provided by the Contractor to assure that all installers are protected from hazards during all phases of Work. This includes any special equipment and respirators, monitors, and hand wash/shower facilities that may be needed when disturbing existing protective coatings containing lead or other toxic materials.
- E. The Contractor shall provide all inspection and testing equipment need to perform quality control inspections of the surface preparation and protective coatings process.

2.05 WASTE CONTAINERS

- A. The Contractor shall provide and label all containers required for the collection, handling storage, transportation, and disposal of hazardous and non-hazardous waste generated by the Work.

PART 3 – EXECUTION

3.01 GENERAL

- A. Do not proceed with the application of paint until the manufacturer recommended conditions are met for the following:
 - 1. Temperature
 - 2. Humidity
 - 3. Dust free spaces
 - 4. Surface Preparation
- B. Handle and store materials in accordance with the provisions of the Flammable and Combustible Liquids Code, NFPA 30. All materials shall be handled and stored to avoid fire and explosion.
- F. Furnish inspection devices, in good working condition, for the detection of holidays on inside wetted surfaces, and the measurement of coating film thickness (wet and dry). Inspect surfaces to be painted and conditions of the area before starting Work. Report any defects that render any area or surface unfit to receive paint.
- G. Provide masks, gloves, and other protective materials or clothing and furnish special ventilation as necessary or recommended by the paint manufacturer.

3.02 DELIVERY TO SITE

- A. All materials furnished shall be labeled. Each label shall indicate the manufacturer's name, the brand name, the type of material as specified, the class of flammability or combustibility if applicable, the color, and the mixing and application instructions. Each container shall be stenciled or embossed at the factory with the product number and name as it appears in the manufacturer's catalog. Deliver materials to the site in unbroken, unopened containers, with labels affixed on each container by the manufacturer.

3.03 VENTILATION

- A. Provide adequate ventilation for safe application and for proper drying of coatings on interior surfaces.

3.04 CURING

- A. General: Coating systems shall be allowed to cure in accordance with manufacturer's recommendations.
- B. Air Circulation: Do not lay plastic sheeting directly on the coating as air contact/ventilation is required for proper curing. If poor circulation exists in treated areas, it may be necessary to provide fans or blown air to aid in curing of coating system.

- C. Protection: During the curing period, protect treated surfaces from damage by wind, sun, rain and temperatures below 36°F (2°C). If plastic sheeting is used for protection, it must be raised off coating to allow sufficient air circulation.

3.05 INTERFACE WITH OTHER MATERIALS

- A. Backfilling: Do not backfill for 36 hours after application. If backfill takes place within seven days after application, then backfill material shall be moist so as not to draw moisture from coating.
- B. Paint, Epoxy or Similar Coatings: Do not apply paint or other coatings until coating system has cured and set for a minimum of 28 days.

3.06 APPLICATION OF PAINT

- A. All work shall be performed by skilled painters. Surfaces shall be free of drops, ridges, waves, laps and brush marks. Edges of paint adjoining other colors or materials shall be sharp and true.
- B. Do not apply coating in temperatures below 50 degrees F, except where manufacturer allows lower temperatures. No exterior painting shall be done during inclement weather when relative humidity exceeds 85%, or under conditions identified by the manufacturer as unsuitable.
- C. The average rate of application shall not exceed the theoretical rate of coverage recommended by the coating manufacture for the type of surface involved, less an allowance for losses. Average dry film thickness shall not be less than thickness set forth under Painting Systems. Not more than 10-20% of points inspected may be less than 90% of the specified thickness. Deficiencies shall be corrected by application of additional coating.
- D. Each coat shall be uniform in coverage and color. Successive coats shall perceptibly vary in color. Each coat shall be carefully examined, and faulty material, poor workmanship, holidays, damaged areas and other imperfections shall be touched up prior to applying succeeding coats. Comply with coating manufacturer's recommendations for drying time between coats.
- E. Items to be attached to similar or dissimilar materials shall be back coated as specified for the exposed surfaces of those items. Mask or protect finished surfaces in area being coated. Remove, replace, and protect finished items adjacent to surfaces to be coated. Reinstall items when painting is complete.
- F. Protect adjacent walls, floors, and ceilings against splash or overspray. Remove materials from surfaces not designated to receive such materials.
- G. In the event that the finished surfaces are not acceptable, completely refinish entire unit areas or sections as necessary in order to eliminate visible laps or other indications of repairs.

- H. Remove waste rags and coating debris on a daily basis. Keep storage spaces and work areas neat and clean.

3.07 DRY FILM THICKNESS

- A. Dry film thickness shall be measured in accordance with current SSPC PA2, "Procedure for Determining Conformance to Dry Coating Thickness Requirements".
- B. Measurements shall be made with a Type 1 magnetic gage, or Type 2 electronic gage.
- C. The number of areas to be selected and measured shall be as follows, or in accordance with latest SSPC PA2:
 - a. Less than 30 m² (~300 ft²): Measure each 10 m² (~100 ft²) area.
 - b. 30 m² (~300 ft²) to 100 m² (~1,000 ft²): Arbitrarily select and measure three 10 m² (~100 ft²) areas.
 - c. Exceeding 100 m² (~1,000 ft²): Arbitrarily select and measure the first 100 m² (~1,000 ft²) as stated in bullet 2. For each additional 100 m² (~1,000 ft²) coated area (or increment thereof), arbitrarily select and measure one additional 100 m² (~1,000 ft²) area.
- D. Dry film thickness shall be measured in the presence of Engineer or City Staff.

3.08 COLOR SELECTION

- A. The color of the finished painted surface shall be as chosen by Owner. Color selection chart to be provided for standard colors.
- B. Following are some of the colors need to be used:
 - 1. Painting of fall protection plate-Safety Yellow.
 - 2. Painting of exposed piping located above grade – Fairway Green.
 - 3. For any other items that colors are not provided in 3.08, contact Owner.

3.09 TESTING AND INSPECTION

- A. A final visual inspection shall be made by the Inspector and the manufacturer's representative. Any deficiencies in the finished coating shall be marked and repaired according to the procedures set forth herein by Applicator.
- B. Visual inspection shall also be done by the Village (confined space entry) for all structures.

3.10 CLEAN-UP

- A. Clean spillage and soiling from adjacent surface using appropriate cleaning agents and procedures.

- B. Remove from the premises all rubbish and accumulated material and leave the work in clean orderly condition, acceptable to the Engineer.

PART 4 – MEASUREMENT AND PAYMENT

Work specified in this Section will not be measured or paid for as a separate item but shall be considered as included in the prices bid for the various pay items of work involved.

-- END OF SECTION ---

SECTION 32 39 14^[ADD#3]

BOLLARD

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Cast-in-place concrete bollard
 - 2. Bollard cover

1.02 RELATED SECTIONS

- A. Applicable sections of the following:
 - 1. Section 03 00 00 – Cast-in-Place Concrete

1.03 REFERENCE

- A. All work shall conform to applicable provisions of the Standard Specifications, local codes, and Special Provisions, as specified herein, and as shown on the plans.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Inspect materials upon receipt to ensure that the correct materials have been received and that they are in good condition.
- B. If not installing immediately, store units to avoid damage from the other construction activities and elements.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Ideal Shield
2525 Clark Street
Detroit, MI 48209-1355
Phone: (877) 325-0769
- B. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.

2.02 MATERIALS

- A. Bollards supplied should be free from surface blemishes and defects where exposed to view in the finished installation.
- B. Steel Tube: 6" diameter schedule 40 steel pipe, in accordance with ASTM A500.
- C. Concrete: Steel tube shall be filled with concrete in accordance with Standard Specification Section 1020.
- D. 1/8" Plastic Bollard Cover: Polyethylene Thermoplastic (HDPE) tubes having ultra-violet resistance and anti-static properties, and nominal thickness 0.125 inches. Color shall be OSHA yellow unless otherwise noted. Bollard covers shall be sized for 6" steel pipe diameter and 60 inch height. Surface of sleeve shall be smooth with round top, no ribbed or two piece systems accepted.
- E. Bollard and base plate covers shall be supplied by the same manufacturer to provide consistent quality in appearance and performance.

2.03 FABRICATION

- A. After fabrication all units are prepared by removing scale and slag through the sand blasting process.

2.04 FINISHES

- A. All surfaces are primed with rust & corrosion resistant, zinc rich primer w/ 5,000-hour salt spray performance.
- B. Standard finish, RAL1028 Yellow.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Comply with manufacturer installation recommendations and drawings.
- B. Install concrete in accordance with applicable requirements under Section 03 30 00 – Cast-in-Place Concrete.

3.02 SITE STORAGE AND PROTECTION

- A. Upon receipt of bollard unit(s) all materials should be thoroughly inspected to ensure that all parts have been received in good condition.
- B. Store units in a dry location away from possible damage until the time of installation.

PART 4 – MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. Measurement will be per each bollard installed.

4.02 PAYMENT

- A. Payment for the Work specified in this Section will be made at the unit price each for BOLLARD WITH COVER.
- B. These prices shall be full compensation for furnishing all materials; for all preparation and placing of the materials; and for all labor, equipment, tools, and incidentals necessary to complete the items.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain to.

--- END OF SECTION ---

SECTION 33 12 16

UTILITY PIPING VALVES

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Plug valve.
2. Rubber flap valve.
3. Ball valve.
4. Gate valve.
5. Check valve.
6. Air release valves.
7. Air vacuum valves.
8. Valve boxes.
9. Flap gates.
10. Flow switch.
11. Flow meter.

1.02 RELATED SECTIONS

A. Applicable sections of the following:

1. **Section 08 10 10 – Access Hatches and Boxes**^[ADD#3]
2. Section 09 90 00 – Paintings and Coatings
3. **Section 26 42 00 – Cathodic Protection**^[ADD#3]
4. Section 33 11 00 – Utility Piping
5. Section 33 42 00 – Sewage Pumps and Accessories

1.03 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM A48: Specification for Gray Iron Castings.
2. ASTM A126: Standard Specification for Gray Iron Castings for Valves, Flanges and Pipe Fittings.
3. ASTM A536: Specification for Ductile-Iron Castings.

B. American National Standards Institute (ANSI):

1. ANSI B2.4: Hose Coupling Screw Threads.

2. ANSI B16.1: Cast-Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800.
3. ANSI B16.4: Cast-Iron Threaded Fittings, Class 125 and 250.
4. ANSI B16.10: Face-to-Face and End-to-End Dimensions of Ferrous Valves.

C. Standard Specifications for Water and Sewer Main Construction in Illinois

D. American Water Work Association (AWWA)

1.04 SUBMITTALS

A. Shop Drawings: Submit the following in accordance with Section 01 03 00 – Submittal Procedures.

B. Shop drawings shall include:

1. Manufacturer's certificates of conformance.
2. Certified copies of test reports.
3. Piping layouts in full detail.
4. Location of pipe hangers and supports.
5. Location and type of backup block or device to prevent joint separation.
6. Large scale details of wall penetrations and fabricated fittings.
7. Schedules of all pipe, fittings, special castings, flexible connectors, adapters, couplings, expansion joints, and other appurtenances.
8. Reports as required for welding certifications per ANSI B31.1 Paragraph 127.6.
9. Catalog cuts of joints, couplings, harnesses, expansion joints, gaskets, fasteners and other accessories.
10. Brochures and technical data on coatings and linings and proposed method for application and repair.
11. Manufacturer's descriptive literature and technical data on insulation and proposed method of installation.
12. Accessory items.
13. Manufacturer's literature as needed to supplement certified data.
14. Special tools.
15. Shop and field testing procedures and equipment to be used.
16. The most recent ISO 9000 series certification or quality system plan.
17. Material Certification:
 - a. Provide certification from the equipment manufacturer that the materials of construction specified are recommended and suitable for the service conditions specified and as indicated. If materials other than those specified are proposed based on incompatibility with the service conditions, provide technical data and certification that the proposed materials are recommended and suitable for the service conditions

specified. And indicated including an installation list of a minimum of five (5) installations in operation for a minimum of five (5) years. Provide proposed materials at no additional cost to the Authority.

- b. Where materials are not specified, provide technical data and certification that the proposed materials are recommended and suitable for the service conditions specified and indicated.

1.05 SYSTEM DESCRIPTION

- A. Provide valves and appurtenances as shown on the Drawings, between the pumps and the forcemain.
- B. Provide valves along the forcemain as shown on the Drawings.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. In accordance with Section 01 60 00 – Material and Equipment.
- B. Shipping:
 - 1. Ship equipment, material and spare parts complete except where partial disassembly is required by transportation regulations or for protection of components.
 - 2. Pack spare parts in watertight containers bearing labels clearly designating contents and pieces of equipment for which intended.
 - 3. The Contractor shall obtain spare parts from the manufacturer at the same time as pertaining equipment. The Contractor shall maintain possession of spare parts until Substantial Completion, at which time all spare parts shall be turned over to the Owner.
- C. Receiving:
 - 1. Inspect and inventory items upon delivery to site.
 - 2. Store and safeguard equipment, material and spare parts in accordance with manufacturers written instructions.

PART 2 - PRODUCTS

2.01 PLUG VALVES

- A. Manufacturers:
 - 1. Mueller
 - 2. DeZurik.
 - 3. VAG GA Industries.

4. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.
- B. Minimum wall thickness for ductile iron pipe shall not be less than Class 52, unless otherwise shown.
- C. Type: Non-lubricated, eccentric.
- D. Body Working Pressure:
1. Cast Iron, ASTM A126 Class B or Ductile Iron, ASTM A536, Grade 64-45-12.
 - a. Valves 4-in. through 12-in: 175 psi.
- E. Ends:
1. Grooved: ANSI/AWWA C606 for ductile iron valves.
 2. Flanged: ANSI B16.1 125-lb for cast iron valves.
 3. Flanged: B16.5 150-lb for carbon steel and stainless steel valves.
 4. Buried Valves: Mechanical joint.
- F. Valve Ports:
1. Provide rectangular or circular except for pigging services.
 2. Valves 20-in and smaller: Not less than 80 percent of pipe area.
- F. Valve Seats:
1. Coat plug with seat material or hold by means of Type 316 stainless steel seat ring and attach to the valve with self-locking Type 316 stainless steel screws.
 2. Seat Material: Neoprene or Buna-N synthetic rubber.
 3. Provide valves with coated plugs with mating seats of 90 percent, minimum, pure nickel welded into the body of valves.
 4. Provide valves with seats clamped to valve with mating seat of 90 percent, minimum, pure nickel welded to the valve body.
- G. Upper and Lower Plug Journal Bearings:
1. Removable, permanently lubricated stainless steel bushings for valves 20-in and smaller.
 2. Provide grit seals for upper and lower plug shafts for all valves.
- H. Stem Seals:
1. Adjustable multiple V-packing or multiple point contact rubber rings.
 2. Replaceable without valve disassembly.

3. Provide valves with two sets of packing rated for vacuum service for all pump suction isolation service and for services where a vacuum is specified and indicated.

I. Operators for Valves 4-in and larger:

1. Manual Operators:

- a. Gear shall be operated with handwheels. Levers are not acceptable.
- b. Operators shall be mounted as shown on the plans.
- c. Provide gear operators rated for bi-directional shutoff at the valve working pressure rating as specified herein.
- d. Gear operators: Totally enclosed worm gear, traveling nut type is not acceptable. Provide permanently lubrication, watertight and dustproof, with adjustable open and closed stops and plug position indicator.
- e. Provide all work gears designed and certified to withstand input loads up to 300-ft-lbs minimum at the stops without damage.
- f. Buried or submerged valves: Provide watertight gear operator with handwheel operated floorstand as indicated. Gear operator to be totally enclosed and gasketed with Type 316 stainless steel hardware.
- g. Chainwheels: Provide where required as specified herein.
- h. Where indicated provide Type 316 stainless steel stem extension to operating floor elevation as indicated and provide the bevel gear operator with a fabricated steel floorstand and handwheel.

J. Shop Testing:

1. Provide all plug valves tested and certified bubble tight in both directions at the full rated working pressure as specified herein.

K. Shop Painting:

1. Provide fusion bonded epoxy, 12 mils inside and out.
2. For valves installed in glass lined and ceramic epoxy lined piping systems, provide glass lined valves with epoxy paint coating as specified herein.

2.02 RUBBER FLAPPER CHECK VALVES

A. Manufacturers:

1. Mueller.
2. DeZurik.
3. APCO.
4. Val-Matic.

5. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.

B. Materials:

1. Body and Cover: Ductile Iron ASTM A536 Grade 65-42-12
2. Removable Body Seat: ASTM A276, Type 304 stainless steel
3. Rubber Flapper: Buna N 70 Durometer ASTM 2000-BG encapsulating an ASTM A36 steel plate.
4. Hinge Pin: AISI 1018
5. Disc arm and external levers shall be ductile iron.

C. Provide valves with a full pipe size flow area.

D. Provide valves 4-in and larger capable of passing a 3-inch sphere.

E. Provide a threaded connection with bronze plug on cover and on the bottom of the valve

F. Working Pressure: 250 psi for 2-in thru 24-in

G. Ends: Flanged ANSI B16.1, Class 125 (125 pound).

H. Provide seating surface at a 45 degree angle such that the flapper travels a maximum of 35 degrees from full closed to full open position.

I. Provide valve with cover designed for removal of the valve internals without removing the valve from the pipeline.

J. Lever and weight: Valve shall include a lever and weight assembly. The lever shall be equipped with three holes for adjusting the bolted weight assembly. When the valve is closed, the lever and weight shall be located 30 degrees below horizontal. Lever and weight shall be mounted on the side of the valve and in the direction as shown on the plans.

K. Position Indicator:

1. Provide a mechanical indicator to provide disc position for valves 4-in and larger.
2. Provide the indication with continuous contact with the disc

L. Limit Switch: A pre-wired limit switch shall be provided to indicate open/closed position to a remote location. The mechanical type limit switch shall be activated by the external arm and rated for NEMA 4 and shall have U.L. rated 5 amp, 125 VAC contacts.

2.03 SWING FLEX CHECK VALVES

A. Manufacturers:

1. Mueller.
2. DeZurik.
3. APCO.
4. Val-Matic.
5. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.

C. Comply with AWWA C508.

D. Check valves shall permit free flow of sewage forward and provide a positive check against backflow.

E. Materials:

1. Body: Iron.
2. Disc: Stainless steel reinforced disc with rubber EDPM coating to provide a non-slam closing action.

F. Working Pressure: 250 psi for 2-in thru 24-in.

G. Ends: Flanged ANSI B16.1, Class 125 (125 pound).

H. Directly cast on body manufacturer's name, initials, or trademark size of valve, working pressure, and direction of flow.

I. Backflow actuator: A manual backflow actuator shall be provided to allow the check valve to be backflushed.

J. Position Indicator:

1. Provide a mechanical indicator to provide disc position.
2. Provide the indication with continuous contact with the disc.

K. Limit Switch: A pre-wired limit switch shall be mounted to position indicator to allow the check valve position to be monitored at a remote location. The switch shall be a mechanical type limit switch, rated 5 amp, 125 VAC contacts.

2.04 BALL VALVES

B. Manufacturers:

1. Jamesbury

2. KF
3. Inline
4. Kitz
5. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.

A. Valves ½-in thru 4-in

1. Materials:

- a. Body and End Cap: Three piece, ASTM A351 Grade CF8M.
- b. Body Seal: PTFE.
- c. Seat: RTFE.
- d. Ball: Type 316 stainless steel.
- e. Stem: Type 316 stainless steel.
- f. Pressure Rating: 1000 psi at 100 deg F for ½-in thru 2-in.

2. Ends: 2-in and Smaller: Screwed or flanged.

B. Actuators: None, unless otherwise shown.

1. Manual: Provide lever operator.

2.05 GATE VALVES

A. Manufacturers:

1. Mueller.
2. DeZurik.
3. Pratt.
4. Clow.
5. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.

B. Gate valves for buried service and valve vaults shall be resilient wedge, non-rising stem (NRS), 2-inch square nut operated with mechanical joints applicable to the pipe or installation.

C. Furnish buried valves with extension stems comprising socket, extension stem and operating nut, and be of an appropriate length to bring operating nut to within six (6) inches of grade.

D. Furnish one 10-foot "T" handle valve wrench for each quantity of six (6) buried valves.

- E. Gate valves that are exposed or installed inside a structure shall be outside resilient wedge, non-rising stem, handwheel operated with flange ends, unless otherwise shown on the Drawings.
- F. Gate valve operating nuts and handwheels shall have an arrow and word "OPEN" cast in raised letters to indicate direction of opening.
- G. Gate valves 14 inches and larger shall be provided with gearing to reduce operating effort.
- H. Gate valves 14 inches and larger installed in horizontal lines in horizontal position with stems horizontal with bronze track, roller, and scrapers, shall be supported the full length of the valve body.
- I. Fit gate valves 14 inches and larger installed in vertical pipe lines with stems with slides to assist travel of gate assembly.
- J. Gate valves shall be provided with cathodic protection at locations indicated on the Drawings. [ADD#3]**

2.06 AIR RELEASE AND AIR/VACCUM VALVES

- A. Manufacturers:
 1. Vent-Tech.
 2. Apco.
 3. Dezurick.
 4. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.
- B. Design to permit release of air from an empty pipe during filling and provide capability of discharging accumulated air in line while line is in operation and under pressure.
- C. Attach valves by means of threaded pipe connections.
- D. Vent valves to atmosphere.
- E. Provided with backflush kits.
- F. Manual Air Release Valves:
 1. Manual air release valves shall consist of a minimum of a 3- inch gate valve and 3-inch ductile iron pipe and fittings.
 2. Install valve with its line of flow in horizontal position.

G. Automatic Air Release Valve:

1. Compound lever type capable of withstanding operating pressures of 150 psi.
2. Valve shall have a 1/2-inch outlet.
3. Fabricate body and cover of valve of iron with a stainless steel float.
4. Internal parts shall be stainless steel or bronze.
5. Valve shall be specifically adapted for use with sewage.
6. Each valve shall be complete with hose and blow-off valves to permit backflushing without dismantling valve.

2.07 VALVE BOXES

- A. Valve boxes shall be cast iron or concrete, except only install concrete boxes in locations not subject to vehicular traffic.
- B. Cast iron boxes shall be extension type with slide type adjustment and flared base.
- C. Minimum metal thickness shall be 3/16 inch.
- D. Box length shall be adaptable, without full extension, to depth of cover over pipe at valve locations.
- E. Concrete boxes shall be standard product of a manufacturer of precast concrete equipment. Cast word "SEWER" in cover, as otherwise shown on the Drawings.

2.08 FLAP GATES

A. Manufacturers:

1. Plasti-Fab.
2. Fontaine.
3. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.

- B. Product Description: Flexible flap gate shall be constructed of 1 ¼" thick neoprene with a durometer of 50-65, with stainless steel frame and stainless steel reinforcing channels. Mounting shall be standard 125 lb. flange. All fasteners shall be stainless steel.

2.09 FLOW SWITCH

A. Manufacturers:

1. Harwil.
2. Substitutions will be allowed in accordance with Section 01 25 00 – Substitution Procedures.

- B. Flow switch consists of a normally open, SPDT reed switch.
- C. Switch shall be provided with power cord, with epoxy/urethane potted housing, and have an IP-66 rating. Contractor shall coordinate cable lengths and splicing with manufacturer to ensure rating.

2.10 FLOW METER (If Specified)

- A. Manufacturers:
 - 1. Krohne.
 - 2. No Substitutions.
- B. Flow meter shall be an electromagnetic flow sensor (Krohne Optiflux 2000) for wastewater applications and be IP 68 rated for continuous submergence.
- C. Flow meter shall be provided with manufacturer power and signal cables. Splicing of power and signal cables shall not be allowed; Contractor shall coordinate cable lengths with manufacturer accordingly. All components shall be supplied by one manufacturer.
- D. Flow meter shall be provided with IFC wall-mounted converter. The converter shall be mounted in the pump controller cabinet.
- E. Contractor shall be responsible for furnishing all necessary signal converters, cables, accessories, grounding rings and connections for a fully operating flow meter.
- F. Flow meter shall be furnished with manufacturer ground rings and grounded in accordance with manufacturer recommendations.

PART 3 - EXECUTION

3.01 GENERAL:

- A. Prior to installation, protect stored valves and appurtenances from damage due to exposure to sunlight, heat, dirt, debris, freezing and thawing, vandalism, etc.
- B. Clean all debris, dirt, gravel, etc, from inside of piping before placing valves in place.
- C. Erect and support valves in respective positions free from distortion and strain on appurtenances during handling and installation. Inspect material for defects in workmanship and material. Clean out debris and foreign material from valve openings and seats, test operating mechanisms to check functioning, and

check nuts and bolts for tightness. Repair, valves and other equipment which do not operate easily or are otherwise defective at no additional cost to the Owner.

- D. Set plumb and support valves in conformance with instructions of manufacturer. Shim valves mounted on face of concrete vertically and grout in place. Install valves in control piping for access.
- E. Provide bolted split sleeve coupling or flexible type grooved coupling on downstream side of buried valves to assist in valve removal.
- F. Where indicated provide Type 316 stainless steel stem extension to operating floor elevation as indicated and provide the bevel gear operator with a fabricated steel floorstand and handwheel.

3.02 GATE VALVES

- A. Install gate valve stem as shown on the Drawings, or with stems between vertical and 45 degrees above the horizontal. Valves installed with stems below horizontal are not acceptable.
- B. Plug valves used for bypass connections shall be installed in the vertical position and provided with gearing to allow the 2" nut valve to be accessible in from the top of the structures, as shown on Drawings.
- C. **Cathodic protection shall be installed on gate valves at locations indicated on the Drawings. Cathodic protection shall be installed in accordance with Section 26 42 00 – Cathodic Protection.** ^[ADD#3]

3.03 CHECK VALVES

- A. Install swing check valves horizontally in pipelines.

3.04 PLUG VALVES

- A. Install valves in horizontal piping with shaft horizontal such that in open position, plug is located in upper part of valve body. Orient valves so that in closed position, flow is against the face of the plug.
- B. Plug valves used for bypass connections shall be installed in the vertical position and provided with gearing to allow the 2" nut valve to be accessible in from the top of the structures, as shown on Drawings.

3.05 VALVE BOXES

- A. Provide valve box for each buried valve, or as shown on the Drawings.

- B. Set box so top is flush with finished surface and so box does not bear on valve, or pipe.
- C. Center valve box over the 2" nut operator.

3.06 THRUST RESTRAINT

- A. Provide thrust restraint in accordance with Section 33 11 00 – Utility Piping.

3.07 TOUCH-UP FIELD PAINTING

- A. Repair or replace damaged or defective coating areas.
- B. Remove damaged or defective coatings by sand-blast cleaning in accordance with SSPC-SP-6, Commercial Grade, immediately prior to priming.
- C. Before priming, provide surfaces dry and free of dust, oil, grease and other foreign material.
- D. Apply approved coating in accordance with valve manufacturer's printed recommendations.
- E. When small areas of coating need touch up, surface preparation may be done with suitable power needle gun to match specified blast cleaning.

PART 4 – MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. Measurement for items specified in this section shall be made as follows:[ADD#3]**

- 1. Lump sum for the discharge valves and fittings. [ADD#3]**
- 2. Per each direct buried gate valve (including extension). [ADD#3]**

4.2 PAYMENT

- A. Payment for the Work specified in this Section will be made for the following: [ADD#3]**

- 1. DISCHARGE VALVES AND FITTINGS.**
- 2. 8" GATE VALVE. [ADD#3]**
- 3. 10" GATE VALVE. [ADD#3]**

- B. These prices shall be full compensation for furnishing all materials; for all preparation and placing of the materials; and, for all labor, equipment, tools, and incidentals necessary to complete the items.

C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices bid for the various items they pertain to.

--- END OF SECTION ---