


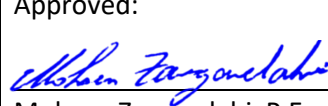


Department of Design and Construction

SPECIFICATION BULLETIN

SB
21-002

Title: **HYDRANTS**

Prepared:		2/18/2021	Approved:		2/18/2021
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Executive Director, Specifications			Associate Commissioner – Infrastructure Design		

APPLICABILITY:

- This Specification Bulletin (SB) is effective for projects advertised on or after 3/1/2021.

SUPERSEDEENCE:

- This SB supersedes the following SBs: **NONE**

ATTACHMENTS:

- Attachment 1: Section 62.11 – FURNISHING AND DELIVERING HYDRANTS (2 pages)
- Attachment 2: Section 62.12 – SETTING HYDRANTS (5 pages)
- Attachment 3: Section 62.13 – REMOVING HYDRANTS (1 page)
- Attachment 4: Section 62.14 – FURNISHING, DELIVERING, AND INSTALLING HYDRANT FENDERS (2 pages)
- Attachment 5: NYC Department of Environmental Protection Water Main Standard Drawings (36 pages)

REVISIONS TO THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD SEWER AND WATER MAIN SPECIFICATIONS, DATED 7/1/14:

All references contained below are to the New York City Department of Environmental Protection Standard Sewer and Water Main Specifications, Dated July 1, 2014. Said Standard Sewer and Water Main Specifications are hereby revised as follows:

- Refer** to Page VI-56, Section 62.11 – FURNISHING AND DELIVERING HYDRANTS;
Replace the Section with Attachment 1 to this SB.
- Refer** to Page VI-57, Section 62.12 – SETTING HYDRANTS;
Replace the Section with Attachment 2 to this SB.
- Refer** to Page VI-62, Section 62.13 – REMOVING HYDRANTS;
Replace the Section with Attachment 3 to this SB.
- Refer** to Page VI-63, Section 62.14 – FURNISHING, DELIVERING, AND INSTALLING HYDRANT FENDERS;
Replace the Section with Attachment 4 to this SB.



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REVISIONS TO THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION WATER MAIN STANDARD DRAWINGS, DATED 11/1/2010:

The New York City Department of Environmental Protection Water Main Standard Drawings are hereby replaced with the drawing set in Attachment 5, dated 12/9/2020. Changes are as follows:

Revised Sheets:

1. Cover Sheet
2. List of Water Main Standard Drawings

Removed Sheets:

1. 10241-A-Z (Hydrant Valve Box, Cast Iron)
2. 22809-Z (Hydrant Drain Base)
3. 31050-Z (Standard Methods for Hydrant Drainage)
4. 45161-A-Z (Standard Steel Hydrant Fender)

Added Sheets:

1. WM0020 (Hydrant Setting Methods & Drain Base)
2. WM0030 (Hydrant Fenders)
3. WM0031 (Oversize Hydrant Fenders)
4. WM0040 (Hydrant Valve Box)

SECTION 62.11 – FURNISHING AND DELIVERING HYDRANTS

62.11.1 DESCRIPTION

This section describes furnishing and delivering of new fire hydrants.

62.11.2 MATERIALS

Fire hydrants must be in accordance with **Section 20.08 - Standard Specifications For Dry-Barrel Fire Hydrants And Extension Kits.**

62.11.3 CONSTRUCTION METHODS

Prior to ordering any hydrants, the Contractor must submit a vendor list for the Engineer's approval. Within five (5) consecutive calendar days after receiving vendor approval, the Contractor must submit evidence to the Department of Design and Construction of having ordered the material from an acceptable foundry.

All hydrants must be manufactured at least ten (10) consecutive calendar days before delivery to the site to allow for proper inspection, acceptance and recording of the hydrants.

After the completion of manufacture and inspection of the hydrants to be furnished by the Contractor (but prior to the shipment thereof), the Contractor must furnish a detailed schedule of the hydrants that constitutes the content of each shipment. This schedule must be delivered to the Engineer. The schedule must give, in numerical order, the description and number of each and every article constituting the shipment. The Contractor must not make shipments until the schedule has been checked and approved in writing by the Engineer.

The Engineer must approve storage of hydrants and appurtenances within the project limits. On-site storage is limited to hydrants and appurtenances projected for use within seven (7) calendar days, as per the Contractor's approved schedule. The Engineer reserves the right to limit the storage of on-site materials to three (3) calendar days in business or congested areas.

Hydrants must be supported upon wooden blocks of sufficient size to prevent injury to the pavement.

The Contractor is responsible for the hydrants until they are finally accepted and incorporated in the work.

During any suspension of the work, all materials delivered upon but not placed in the work, must be neatly piled so as not to obstruct public travel, or must be removed from the work site at the direction of the Engineer; hydrants, if directed, must be temporarily stored at a site designated by the Contractor and approved in writing by the Engineer.

Unless so removed by the Contractor, within ten (10) calendar days of written notice from the Engineer, the Engineer may have the materials moved at the expense of the Contractor.

62.11.4 MEASUREMENT

The quantity of fire hydrants to be measured for payment must be the number of hydrants supplied by the Contractor as ordered and approved by the Engineer.

62.11.5 PRICE TO COVER

The contract price for "FURNISHING AND DELIVERING HYDRANTS" must be the unit price bid per each hydrant furnished and delivered, and must cover the cost of all labor, equipment, materials, plant, samples, tests and insurance required and necessary to furnish and deliver hydrants in the manner specified herein. No separate or additional payment will be made for any costs associated with the work of furnishing and delivering hydrants. Payment for furnishing and delivering hydrants will be made under the bid item(s) labeled "FURNISHING AND DELIVERING HYDRANTS" as contained in the Bid Schedule.

Payment for Furnishing And Delivering Hydrants will be made under the Item Number as calculated below:

The Item Numbers for Furnishing And Delivering Hydrants have seven characters. (The decimal point is considered a character, the third character.)

(1) The first five characters must define Furnishing And Delivering Hydrants:

62.11

(2) The sixth and seventh characters must define the Type of Hydrants Furnished and Delivered:

SD - All NYC DEP Approved Type Hydrants

SS - Smith Type Hydrant (S-2-LP) Only (Historical Districts)

(3) The Item Numbers together with Description and Pay Unit as provided in the Bid Schedule are provided below:

Item No.	Description	Pay Unit
62.11SD	FURNISHING AND DELIVERING HYDRANTS	EACH
62.11SS	FURNISHING AND DELIVERING HYDRANTS - SMITH TYPE (S-2-LP)	EACH

SECTION 62.12 – SETTING HYDRANTS

62.12.1 DESCRIPTION

This section describes the setting of fire hydrants.

62.12.2 MATERIALS

All new hydrants ordered installed or required to replace existing hydrants; and, existing hydrants ordered retained and adjusted to new grade, removed and reset, or reconnected to new or existing water mains must be two-piece "Breakaway" hydrants, Types S-2-LP or D-2-LP, as shown on the latest revisions of BWSO **Standard Drawing Nos. 43250-Z or 43142-Z**, respectively, and as specified in accordance with **Section 20.08 - Standard Specifications For Dry-Barrel Fire Hydrants And Extension Kits**.

In addition, existing hydrants ordered retained must be less than ten (10) years old from date of casting, and must be in good working order as determined by the Engineer.

62.12.3 CONSTRUCTION METHODS

(A) GENERAL CONSTRUCTION PROVISIONS - The requirements of **DIVISION IV - GENERAL CONSTRUCTION PROVISIONS** apply to the work to be done hereunder.

(B) HYDRANT INSTALLATION - Hydrants must be installed at the location shown on the drawings or where directed by the Engineer and in accordance with AWWA Standard C600, entitled "Installation of Ductile Iron Water Mains, and Their Appurtenances", and as described herein or ordered by the Engineer.

All hydrants must stand plumb and straight, each of their nozzles facing the curb at an angle of 45-degrees.

Hydrants must be set to final grade, as ordered by the Engineer, so that the break-away coupling system is accessible, and not restrained in any manner to prevent proper operation or hinder its replacement. (See **Standard Drawing Nos. 43250-Z or 43142-Z**) If street grades are adjusted to new grades, existing hydrant heights must be adjusted in accordance with **Subsection 62.12.3(H)** and as ordered by the Engineer. Extension kits are not to be used on new hydrants.

Each hydrant must be connected to the main with a 6-inch diameter branch controlled by a 6-inch valve installed with valve box and appurtenances as shown on the latest revision of BWSO **Standard Drawing No. WM0020**, "Standard Methods for Hydrant Drain Base".

Drainage must, in general, be provided at the base of the hydrant by one of the following methods that may be ordered by the Engineer:

- (a) by setting the hydrant upon a cast iron drain base and connecting it to the latter with 3/4-inch diameter brass pipe, Tubeloy or soft-temper copper tubing, and brass fittings, as shown on the latest revision of BWSO **Standard Drawing No. WM0020**.
- (b) by connecting the hydrant by means of a 3/4-inch diameter Tubeloy or soft-temper copper tubing, and all necessary brass fittings, to a cast iron drain base, as shown on the latest revision of BWSO **Standard Drawing No. WM0020**.

Hydrants set in accordance with method (b) must be set upon a stone or concrete block base not less than one (1) foot square and six (6) inches thick.

The hydrants, in general must be set according to the method described under (a). Method (b) may be used only when required due to site conditions and ordered by the Engineer.

When the drain outlets of hydrants are set below the ground water level, the above-specified drainage facilities must be omitted, the drain outlet of the hydrant suitably plugged, as directed by the Engineer, and the hydrant set upon a stone or concrete block not less than one (1) foot square and six (6) inches thick. On the roadway face of the hydrant, there must be stenciled, in white paint the letter "P", "four (4) to six (6) inches in height, matching the main size stencil. The quality of paint is hereinafter specified.

(C) RECESS VAULTS FOR HYDRANTS - Where sidewalk or building vaults occupy the space needed for hydrant setting, recess vaults will be required for the setting of the hydrant.

Where the Contractor is ordered to construct recess vaults in existing sidewalk or building vaults, to allow for the installation of hydrants, the Contractor must construct it in accordance with designs furnished by the NYCDDC.

Where recess vaults are constructed by others, the hydrant must be set therein by the Contractor and no adjustment in payment other than herein allowed for the hydrant drainage will be made to the Contractor.

(D) LAYING DRAIN PIPE – When the hydrant is not set on the cast iron hydrant drain, the drain pipe from the hydrant to the cast iron hydrant drain must, in general, be laid in the trench made for laying the hydrant branch and must be uniformly sloped to meet the top of the cast iron hydrant drain. Care must be taken to avoid kinking the pipe or tubing where bending is required.

(E) PAINTING COLORS AND NUMERALS - After the hydrants have been set and adjusted, all hydrants, whether new, reset, or adjusted, must be field painted as follows:

1. The hydrant above the ground line must be thoroughly cleaned, all rust removed, and the existing paint scuffed for overcoating.
2. The hydrants must receive two coats of field paint.
 - a. The field paint must be a quick drying enamel.
 - b. The field paint must be applied by brush.
 - c. The paint color must be as follows:
 - i. The standpipe, barrel, and nozzle above the ground line:
 1. When connected to a water main less than 24": Black
 2. When connected to a water main 24" or greater: Safety Red
 - ii. Dome/Bonnet: bright aluminum
3. The water main size must be stenciled on the hydrant's roadway face.
 - a. The paint for the size stencil must be white exterior oil-type paint.
 - b. The numeral must be between 4" to 6" high.
 - c. The stencil must be applied in one coat and must cover completely and solidly.

All painting must meet the following requirements:

1. Shop paints must be as specified in **Section 20.08 – Standard Specifications for Dry-Barrel Fire Hydrants and Extension Kits**.
2. Field paints to be used must be approved by the Engineer.
3. No painting must be done in wet or freezing weather, on surfaces with visible moisture, or on previously painted surfaces before the paint has thoroughly set.
4. The Contractor must furnish and put up conspicuous signs around the hydrant warning "WET PAINT".

(F) RESETTING CURBING - All curbing disturbed or removed in the course of installing the hydrants must be reset by the Contractor in accordance with the specifications of the Agency, Department, or Bureau having jurisdiction. If the Contractor damages the existing curbing, the Contractor must furnish, at the Contractor's own cost and expense, new curbing to replace the damaged curbing.

(G) ADJUSTING ORDERED RETAINED EXISTING HYDRANT TO NEW GRADE

- (1) Adjusting To A Higher New Grade: Existing hydrants ordered retained by the Engineer and which require adjustment at the same location to a higher new grade must be raised to the height specified by the Engineer by the use of an extension kit.
- (2) Adjusting To A Lower New Grade: Existing hydrants ordered retained by the Engineer and which require adjustment to a lower new grade at the same location must be excavated, removed, and stored so as to not cause any damage to the existing hydrants. The existing hydrant must then be reset at the same location to the lower new grade and reconnected to the existing branch as required and directed by the Engineer.

(H) RELOCATING AND RESETTING EXISTING HYDRANTS ORDERED RETAINED - Existing hydrants ordered retained by the Engineer and which require relocation and resetting at another location must be excavated, removed, and stored so as to not cause any damage to the existing hydrants. The existing

hydrants must then be reset at the locations specified by the Engineer and reconnected to the branches or to the water mains as required and directed by the Engineer.

(I) **DAMAGE TO EXISTING HYDRANTS ORDERED RETAINED** - Any existing hydrant ordered retained that is damaged as a result of the Contractor's construction operations must be replaced with a new hydrant at the Contractor's sole expense.

Where damage is caused only to the drain base due to the Contractor's construction operations, the drain base must be replaced by the Contractor at the Contractor's sole expense.

If the Contractor elects to furnish a new hydrant after removal of an existing hydrant ordered retained, no payment will be made for the new hydrant and its cost must be at the sole expense of the Contractor.

Replacement hydrants must be furnished at the correct size, without the use of extension kits, at the sole expense of the Contractor.

62.12.4 HYDRANT COLLARS

62.12.4.1 DESCRIPTION

All hydrants must be provided with concrete collars.

62.12.4.2 MATERIALS

Concrete must be in accordance with **General Specification 11 - Concrete, as modified in Section 23.01**, Class B-32, Type IA or Type IIA, as specified.

62.12.4.3 CONSTRUCTION METHODS

Concrete collar around hydrant and hydrant fenders must be in accordance with the layout, dimensions, and methods shown on **Standard Drawing No. WM0030** or as approved by the Engineer.

(A) Where the hydrant, which is to be connected to a new main, is located in an unpaved area, a square-shaped concrete collar, two (2) feet in the least dimension measured from the outer perimeter of the hydrant barrel, six (6) inches thick, and flush with the finished or existing surface, must be placed around the hydrant.

(B) Where the hydrant and fenders are installed in an unpaved area such as between existing or proposed sidewalk and curb, the concrete collar must be installed in accordance with the layout, dimensions, and methods shown on **Standard Drawing No. WM0030**.

62.12.5 MEASUREMENT

The quantity to be measured for payment must be the number of hydrants actually installed, reinstalled, and adjusted to new grade as required or ordered, complete, in-place.

62.12.6 PRICE TO COVER

(1) The contract price for Item No. 62.12SG - SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS must be the unit price bid per each hydrant installed and must cover the cost of all labor, equipment, materials, plant, samples, tests, and insurance required and necessary to install hydrants in the manner specified herein and must include the earth excavation of all materials of whatever nature encountered (See **Section 40.03 - Earth Excavation**); backfilling; drain pipe and cast iron hydrant drain; and all other work necessary to complete this work and do all work incidental thereto, all in accordance with the plans and specifications and as directed by the Engineer. Payment for installing hydrants must be made under bid Item No. 62.12SG - SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS as contained in the Bid Schedule.

In addition, included in the price for Item No. 62.12SG - SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS must be the cost for the protection and storage of existing hydrants ordered removed and retained.

(2) Payment will be made to the Contractor for each recess vault constructed under the applicable items: Item No. 65.51PC - FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50, Item No. 65.61SS - FURNISHING, DELIVERING AND PLACING STRUCTURAL, REINFORCING AND MISCELLANEOUS STEEL, and Item No. 73.11AB - ADDITIONAL

BRICK MASONRY. Payment will be made for the actual quantity placed as directed and approved by the Engineer.

The cost of all necessary waterproofing and all other work incidental to the vault construction must be included in the prices bid for the above items. No separate or additional payments will be made for this work.

- (3) Payment for the cost of all labor, materials, and equipment required and necessary to adjust at the same location existing hydrants ordered retained by the Engineer to a higher new grade by the use of an extension kit must be made under Item No. 62.12SE - SETTING HYDRANTS TO NEW GRADE USING EXTENSION KITS.
- (4) Payment for the cost of all labor, materials, and equipment required and necessary to adjust at the same location existing hydrants ordered retained by the Engineer to a lower new grade must be made under the respective items: Item No. 62.13RH - REMOVING HYDRANTS, Item No. 62.12SG - SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS, Item No. 60.11R606 - FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56), Item No. 60.12D06 - LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.13M0A24 - FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS, Item No. 61.11DMM06 - FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND, Item No. 61.12DMM06 - SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND, and/or Item No. 63.11VC - FURNISHING AND DELIVERING VARIOUS CASTINGS.
- (5) Payment for the cost of all labor, materials, and equipment required and necessary to relocate and reset at another location existing hydrants ordered retained by the Engineer must be made under the respective items: Item No. 62.13RH - REMOVING HYDRANTS, Item No. 62.12SG - SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS, Item No. 60.11R606 - FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56), Item No. 60.12D06 - LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.13M0A24 - FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS, Item No. 61.11DMM06 - FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND, Item No. 61.12DMM06 - SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND, and/or Item No. 63.11VC - FURNISHING AND DELIVERING VARIOUS CASTINGS.
- (6) Concrete sidewalks, including expansion joints and finishing thereof, must conform to the requirements of NYCDOT Highway item(s) labeled "4" CONCRETE SIDEWALK (UNPIGMENTED)" or "4" CONCRETE SIDEWALK (PIGMENTED)", as applicable. Payment for placing that portion of the concrete collar that exceeds the thickness of the proposed sidewalk will be made under the prices bid for Item No. 62.12SG - SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS, and Item No. 62.12SE - SETTING HYDRANTS TO NEW GRADE USING EXTENSION KITS, and the balance will be paid for under the appropriate items specified above for placing 4" thick concrete sidewalks.

Payment for Setting Hydrants will be made under the Item Number as calculated below:

The Item Numbers for Setting Hydrants have seven characters. (The decimal point is considered a character, the third character.)

- (1) The first five characters must define Setting Hydrants:

62.12

- (2) The sixth and seventh characters must define the Kind of Hydrant Setting:

SG - Setting Hydrants Complete With Wedge Type Retainer
Glands

SE - Setting Hydrants To New Grade Using Extension Kits

(3) The Item Numbers together with Description and Pay Unit as provided in the Bid Schedule are provided below:

Item No.	Description	Pay Unit
62.12SG	SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	EACH
62.12SE	SETTING HYDRANTS TO NEW GRADE USING EXTENSION KITS	EACH

SECTION 62.13 – REMOVING HYDRANTS

62.13.1 DESCRIPTION

This section describes the removal of fire hydrants.

62.13.2 CONSTRUCTION METHODS

(A) GENERAL CONSTRUCTION PROVISIONS - The requirements of **DIVISION IV - GENERAL CONSTRUCTION PROVISIONS** apply to the work to be done hereunder.

(B) REMOVAL OF HYDRANTS - Unless ordered retained, the Contractor must remove hydrants found on the existing mains that are designated by the Engineer to be removed or abandoned. All hydrants removed will become the Contractor's property. Cast Iron drain bases are deemed to be part of the hydrants. Any hydrant specified, shown or ordered retained must be connected to the new main or to an existing main to be kept in service as directed by the Engineer.

(C) All openings made by removing hydrants must have temporary pavement placed by the Contractor as soon as the openings have been backfilled, and then the Contractor must permanently restore all pavements and sidewalks, that are disturbed.

(D) RESETTING CURBING - All curbing disturbed or removed in the course of removing the hydrants must be reset by the Contractor in accordance with the specifications of the Agency, Department or Bureau having jurisdiction. If the Contractor damages the existing curbing, the Contractor must furnish at the Contractor's own cost and expense new curbing to replace the damaged curbing.

62.13.3 MEASUREMENT

The quantity to be measured for payment must be the number of hydrants removed as required.

62.13.4 PRICE TO COVER

The contract price for Item No. 62.13RH - REMOVING HYDRANTS must be a unit price bid per each kind of hydrant removed together with drain base and must cover the cost of all labor, materials, plant, equipment and insurance required to complete the work, including the earth excavation of all materials of whatever nature encountered (See **Section 40.03 - Earth Excavation**); backfilling; cleaning up; hauling away and disposing of all removed materials (except as otherwise specified herein), together with all other items necessary to complete this work and do all work incidental thereto, all in accordance with the plans, specifications and standards, and as directed by the Engineer and the Department of Environmental Protection.

Included in the price hereunder must be the cost of all labor and materials necessary to remove all required existing hydrant fenders, hydrant valves, branch pipe and castings including drain basins.

Payment for Removing Hydrants will be made under the Item Number as calculated below:

The Item Number for Removing Hydrants has seven characters. (The decimal point is considered a character, the third character.)

(1) The first five characters must define Removing Hydrants:

62.13

(2) The sixth and seventh characters must define Removing Hydrants:

RH - Removing Hydrants

(3) The Item Number together with Description and Pay Unit as provided in the Bid Schedule is provided below:

Item No.	Description	Pay Unit
62.13RH	REMOVING HYDRANTS	EACH

SECTION 62.14 – FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS

62.14.1 DESCRIPTION

This section describes the furnishing, delivering, and installing of hydrant fenders

62.14.2 MATERIALS

All hydrant fenders installed or replaced must be 5-inch steel pipe Schedule 80, as shown on **Standard Drawing No. WM0030**.

62.14.3 CONSTRUCTION METHODS

(A) GENERAL CONSTRUCTION PROVISIONS - The requirements of **DIVISION IV - GENERAL CONSTRUCTION PROVISIONS** apply to the work to be done hereunder.

(B) Steel pipe hydrant fenders must be installed where required, encased in concrete collars, and painted in accordance with the applicable layout and method, and other pertinent details shown on the latest revision of **Standard Drawing No. WM0030** or as directed.

(C) Hydrant fenders must be cleaned and field painted, matching the quality requirements species in **Section 20.08**. All field paint must be applied by brush, with a minimum of two coats applied per the manufacturer's recommendations. Fenders supplied under Item 62.14FS must be painted a bright aluminum color, and fenders supplied under Item 62.14FD must be painted black. After painting, reflective tape must be applied to the fender per **Standard Drawing No. WM0030** or as directed.

62.14.4 MEASUREMENT

The quantity to be measured for payment must be the number of each hydrant fender installed as approved by the Engineer.

62.14.5 PRICE TO COVER

The contract price for "FURNISHING, DELIVERING, AND INSTALLING HYDRANT FENDERS" must be a unit price bid per each kind of hydrant fender furnished, delivered, and installed and must cover the cost of all labor, materials, plant, equipment, and insurance required to complete the work, including the earth excavation of all materials of whatever nature encountered (See **Section 40.03 - Earth Excavation**); backfilling; cleaning up; hauling away of all removed materials, together with all other items necessary to complete this work and do all work incidental thereto, all in accordance with the plans, specifications, and standards, and as directed by the Engineer and the Department of Environmental Protection.

Concrete sidewalks, including expansion joints and finishing thereof, must conform to the requirements of NYCDOT Highway item(s) labeled "4" CONCRETE SIDEWALK (UNPIGMENTED)" or "4" CONCRETE SIDEWALK (PIGMENTED)", as applicable. Payment for placing that portion of the concrete collar that exceeds the thickness of the proposed sidewalk will be made under the prices bid for item(s) labeled "FURNISHING, DELIVERING, AND INSTALLING HYDRANT FENDERS", and the balance will be paid for under the appropriate items specified above for placing 4" thick concrete sidewalks.

Payment for Furnishing, Delivering, And Installing Hydrant Fenders will be made under the Item Number as calculated below:

The Item Numbers for Furnishing, Delivering, And Installing Hydrant Fenders have seven characters. (The decimal point is considered a character, the third character.)

- (1) The first five characters must define Furnishing, Delivering And Installing Hydrant Fenders:

62.14

- (2) The sixth and seventh characters must define the Kind of Hydrant Fenders:

FS - Hydrant Fenders (Standard)

FD - Hydrant Fenders With Decorative Caps (Black) (Historical Districts)

- (3) The Item Numbers together with Description and Pay Unit as provided in the Bid Schedule are provided below:

Item No.	Description	Pay Unit
62.14FS	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	EACH
62.14FD	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS WITH DECORATIVE CAPS (BLACK)	EACH