

ITEM 472

INLETS

472.1 Description. This item shall govern for the construction of inlets of the type designated on the plans including but not limited to all frames, plates, grates and lids.

472.2 Materials. Reinforcing steel shall conform to the Item, "Reinforcing Steel". Concrete shall conform to the Item, "Structural Concrete". Precast concrete inlets shall be manufactured in accordance with the Item, "Concrete Structures".

Cement mortar shall conform to ASTM C270, Type M. Aggregate for mortar shall conform to ASTM C144.

Cast iron for frames, plates, I-beams and grates shall be in accordance with ASTM A48, Class 30 and shall be free from sand, blow holes or other defects. Alternative galvanized steel beam sizes such as S6x17.5 and W6x16 are also acceptable. Machine bearing surfaces of frames and grates shall obtain even bearing. Manhole covers for type "C" inlets shall be 23-1/2".

472.3 Construction. All sections of the inlets will be constructed of reinforced concrete.
Prior to setting and/or casting of the inlet, the Contractor shall provide a base/bedding of 6" thick cement stabilized sand.

After construction/installation of the Inlet, backfill with a minimum thickness of 6 inches of cement stabilized sand that completely circumvents the outside wall of the inlet, up to the elevation of the subgrade of the pavement. Then complete the backfill of the excavated hole, with material that's in accordance with Harris County Spec. Item 430, Section 430.5.

Inlets that are constructed/installed adjacent to and flush to the elevation of concrete pavement shall be constructed with a minimum 3/4" expansion joint material, that's in accordance with Harris County Spec. Item 360, Section 360.2.

Use non-shrink grout (applied per manufacturers recommendation) to attain a water tight seal at the wall opening of the inlet with the pipe.

For box culvert and arch-pipe (all non-circular applications) connections, use non-shrink grout to ensure a water tight seal.

Neatly cut off inlet leads at inside face of inlet wall and point up with mortar. Shape floor with mortar as shown on the attached detail.

472.4 Measurement. Measure depth of inlets as the vertical distance from the flow line of inlet lead to the top of curb beam and/or top of concrete slab. For inlets constructed with 18-inch leads, the "Type B Inlet" is 3.60 feet deep, standard "Type B-B Inlet" is 4.00 feet deep. A standard "Type F Inlet" is 4.50 feet deep.

For inlets constructed with 24-inch leads, the standard depth for "Type B Inlet" is 4.10 feet deep, standard "Type B-B Inlet" is 4.51 feet deep, a standard "Type C Inlet" is 4.50 feet deep. A standard "Type E Inlet" is 5.50 feet deep and a standard "Type F Inlet" is 4.50 feet deep.

Any portion of the inlet exceeding the above depth is to be measured per vertical foot of depth.

472.5 Payment

A. Payment for Standard Type Inlets.
Payment for inlets with a standard depth shall be made at the contract unit price for each individual standard type inlet (includes non-shrink grout, cement stab. sand backfill, & expansion joint material).

B. Payment for Inlets with an Additional Depth Up to 5 Feet. When the depth of the inlet specified is greater than the standard depth by 5 feet or less, payment shall be at the contract unit price for each individual inlet (includes non-shrink grout, cement stab. sand backfill, & expansion joint material) as follows:

"Type B Inlet with an Additional Depth Up To 5 Feet"

"Type B-B Inlet with an Additional Depth Up To 5 Feet"

"Type C Inlet with an Additional Depth Up To 5 Feet"

"Type E Inlet with an Additional Depth Up To 5 Feet"

"Type F Inlet with an Additional Depth Up To 5 Feet"

C. Payment for Inlets with an Additional Depth Greater Than 5 Feet. When the depth of the inlet specified is greater than the standard depth by more than 5 feet, payment shall be at the contract unit price for each individual inlet (includes non-shrink grout, cement stab. sand backfill, & expansion joint material) as follows:

"Type B Inlet with an Additional Depth Greater than 5 Feet"

"Type B-B Inlet with an Additional Depth Greater than 5 Feet"

"Type C Inlet with an Additional Depth Greater than 5 Feet"

"Type E Inlet with an Additional Depth Greater than 5 Feet"

"Type F Inlet with an Additional Depth Greater than 5 Feet"

Note: This specification requires drawings that shall be incorporated into the proposed standard construction drawings.

There are line code(s), description(s), and unit(s) for this item.

END OF ITEM 472