

**ITEM 605.2010 17 – HORIZONTAL DRAINS**

**DESCRIPTION**

The work consists of installing horizontal drains at the locations shown on the plans or specified by the Engineer.

**MATERIALS**

The molded or extruded pipe to be used shall conform to ASTM Designation D1785 for “Poly (Vinyl Chloride) (PVC) Plastic Pipe,” Schedule 80 which conforms to the following dimensions and tolerances:

<b>Nominal Pipe Size (mm)</b>	<b>Outside Diameter (mm)</b>	<b>Wall Thickness Schedule 80 (mm)</b>
40	50 ± 0.15	5 ± 0.6

The solvent cement shall meet the requirements of ASTM Designation: D2564-76 for “Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.”

The pipe shall be flush coupled and continuously slotted. The slots shall be 0.25 mm wide with between 325 to 650 slots per meter in a tri-slot configuration, i.e., three individual slots around the perimeter of the pipe. The last 6 m of each drain at the outlet end shall be solid, unslotted pipe.

Basis of Acceptance. All pipe, fittings and solvent cement shall be accepted on the basis of the Manufacturer’s certification that the material conforms to this specification.

**CONSTRUCTION DETAILS**

The angle of inclination of each drain will be specified by the Engineer at the time of installation. The casing shall be advanced using only air or water. Admixtures to the air or water will not be permitted without the written approval of the Deputy Chief Engineer (Technical Services).

Prior to removing the casing, the slotted horizontal drain pipe shall be inserted into the cased hole. The first section shall be plugged with a stopper. Each successive length of pipe shall be cemented to the previous section. The section of pipe at the outlet end shall be unslotted. A minimum of 0.6 m of pipe shall remain exposed after the casing has been removed.

**METHOD OF MEASUREMENT**

The quantity of horizontal drains to be paid is the number of linear meters of drain pipe satisfactorily installed and approved by the Engineer.

**BASIS OF PAYMENT**

Include in the unit price bid per linear meter the cost of furnishing all labor and materials necessary to satisfactorily complete the work.