

SECTION 33 40 01
STORM DRAINAGE SYSTEM

(Sentences and/or paragraphs that are double underlined indicate revisions that were made from the 2008 specification.)

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This Specification includes the general description of the Storm Drainage System and the components included in that system.
- B. This is a general specification which applies to the furnishing of all plant, labor, equipment, appliances and materials and in performing all operations in connection with the construction of storm drainage systems, together with the inlets, storm drain manholes, headwalls, safety end treatments, cleanout structures and other incidentals, in accordance with the plans and these specifications.

1.2 MEASUREMENT AND PAYMENT

Payment shall be made at the price bid per unit item for furnishing and installing pipe, which bid price will include all costs for the complete pipe installation, including trenching and backfill, embedment, compaction or tamping, testing, final cleanup, and all other work not otherwise provided for in the Proposal.

A. Pipe

Payments will be made at the price bid per foot for furnishing and installing pipe, which bid price will include all costs for the complete pipe installation, including line fittings, trenching, and backfill, embedment, compaction or tamping, and all other work not otherwise provided for in bid proposal. Pipe will be measured (by horizontal distance) from the inside face of the inlet or junction box or end of pipe without adjustment for the slope of the pipe. The length of the inlet or junction box shall not constitute a payable quantity.

B. Manholes/Junction Boxes

Payment will be made at the unit price bid per each for manhole. Manholes will be measured per each.

C. Inlets

Payment will be made at the unit price bid per each for inlet by length and type. Inlets will be measured per each.

D. Headwalls

Payment will be made at the unit price bid per each for headwall by type. Headwalls will be measured per each.

E. Rock Rubble Rip Rap

Rock Rubble Rip Rap shall be measured by area as provided for in the bid proposal form.

F. Channel Grading

Channel Grading shall be measured by area as provided for in the bid proposal form.

1.3 SUBMITTALS

All submittal requirements are listed with the material specifications

PART 2 – PRODUCTS

2.1 MATERIALS

See:

SECTION 31 78 00 - PIPE BORING, JACKING AND TUNNELING

SECTION 31 23 33 - EXCAVATING, TRENCHING, AND BACKFILLING

SECTION 03 30 00 - CONCRETE

SECTION 33 40 02 - REINFORCED CONCRETE PIPE

SECTION 33 40 03 - STANDARD STORM SEWER INLETS

SECTION 33 40 05 - REINFORCED CONCRETE HEADWALLS

SECTION 33 42 16 - PRECAST BOX CULVERTS

SECTION 33 40 04 - REINFORCED CONCRETE RIPRAP

HDPE Storm Drain Pipe (to be specified by design engineer)

2.2 TESTING REQUIREMENTS

All storm pipe and storm drain systems shall be televised at the end of construction. If it is determined that the storm pipe contains foreign material (i.e. construction material, gravel, soil, etc.) the line will be required to be cleared of this foreign material and televised again.

PART 3 – EXECUTION

3.1 GENERAL

Construction methods for each material are specified in the material specifications.

A. Minimum Cover

The minimum cover for class III storm drain pipe (12” through 60”) (See SECTION 33 40 02 – REINFORCED CONCRETE PIPE) shall be two feet (2’) in areas subject to vehicular loads and one foot in non-vehicular areas as measured from the outside top of pipe vertically to finished ground or pavement surface elevation.

END OF SECTION