

Notes:

- 1. Maximum pipe size shall be 24" diameter.
- 2. Grading back of sidewalk varies and shall be done as directed by the Engineer.
- 3. Concrete quantities shown are for maximum wall heights, and shall be basis for estimate and payment.
- 4. Riprap quantities shown are for estimate purposes only. Cost of riprap to be included in cost of the endwall.
- 5. Endwalls to be paid for under the contract unit price for Concrete Class I (Endwalls), CY. Handrail to be paid for under the contract unit price for Pipe Handrail, (Material), LF.

Pipe Size (in)	С	Concrete Class I (CY)	Sand-Cement Riprap (CY)
15	4'-9"	2.3	1.1
18	5'-3"	2.6	1.3
24	6'-3"	3.3	1.8

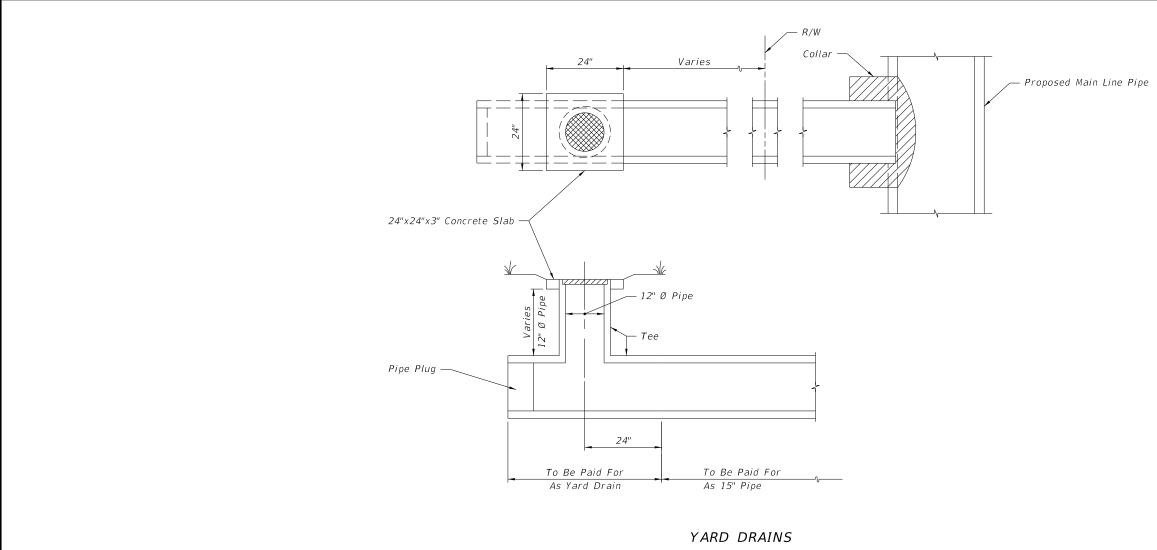
SPECIAL CONCRETE ENDWALL

LAST REVISION 07/01/09

DESIGN STANDARDS

BACK OF SIDEWALK DRAINAGE

NO. SHEET NO. NO. 282 2 of 3

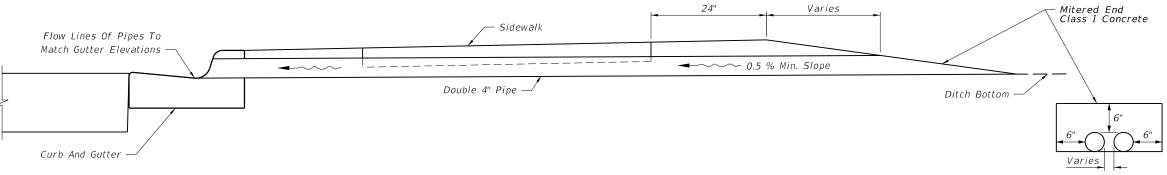


YARD DRAIN ITEM INCLUDES:

- 1. 15" x 15" x 12" Concrete or PVC Tee 4' long.
- 2. Grate diameter = $14-\frac{1}{4}$ " Thickness = $2-\frac{1}{2}$ " Flow area = 45 sq in min. Light Duty Cast Iron, see Specification Section
- 3. 12" pipe as necessary.
- 4. 0.04 Cubic yards concrete for slab.

Notes:

- 1. Yard drains to be located outside the R/W. Drainage area should not exceed 750 SF (grate flow 0.1 Cfs).
- 2. Yard drains may be constructed at the option of the property owner as shown on the plans.
- 3. Cost of plugs and collars to be included in the cost for 15" pipe. For collar and plug details see Index No. 280.
- 4. Yard drains to be paid for under the contract unit price for Yard Drains, EA.



SHALLOW DITCHES

- 1. To be constructed at locations as directed by the Engineer.
- 2. Either cast iron pipe or PVC rigid conduit, U.L. listed for direct sunlight exposure, Schedule 40, may be used.
- 3. Pipe and Mitered End to be paid for under the contract unit price for either Cast Iron Soil Pipe (Standard) (4"), LF or PVC Pipe For Back Of Sidewalk Drainage (4"), LF.

LAST

2015 DESIGN STANDARDS

BACK OF SIDEWALK DRAINAGE

INDEX

NO.

282

Note:

Miter to slope.

SHEET NO. 3 of 3

≥ DESCRIPTION: