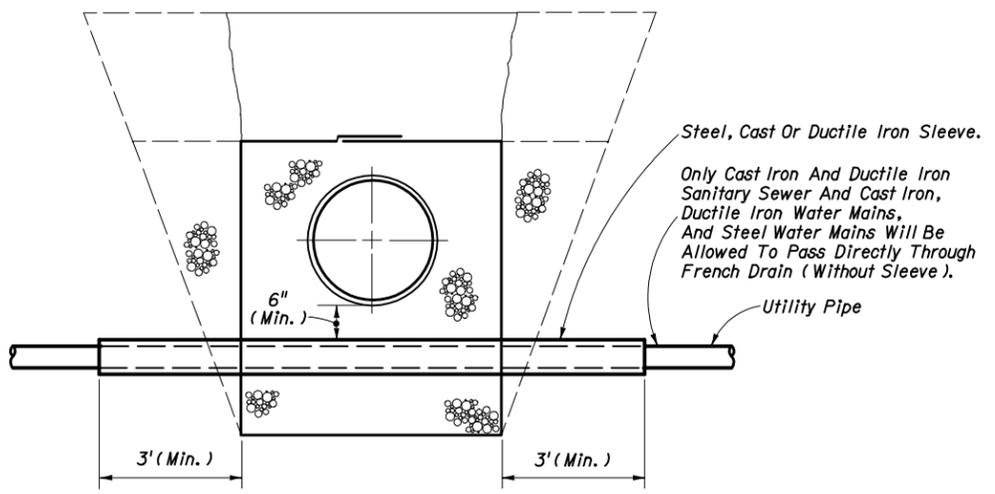
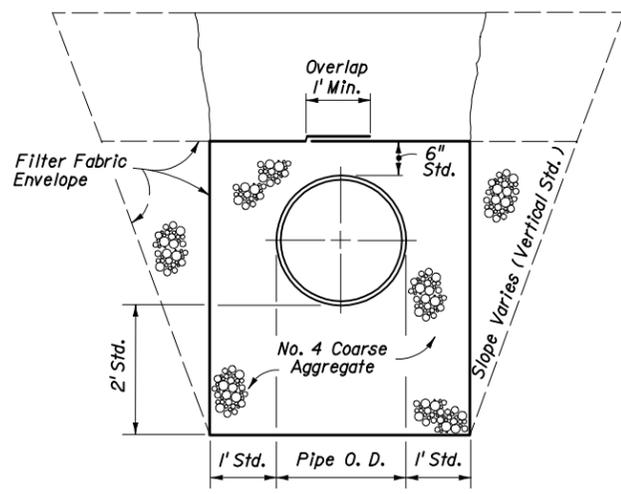


LONGITUDINAL SECTION



ROUND PIPE SHOWN
UTILITY PIPES THRU FRENCH DRAIN



ROUND PIPE SHOWN
STANDARD CROSS SECTION (ENLARGED)

FRENCH DRAIN SYSTEM

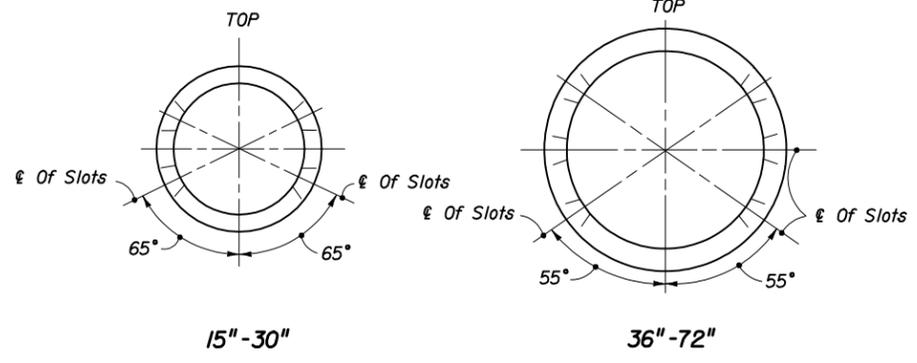
GENERAL NOTES

1. Pipe shall be any of the optional types permitted in Section 443 of the Specifications unless otherwise restricted in the plans. Dissimilar types of pipe will not be permitted in a continuous run of pipe.
 2. Concrete pipe shall be placed with the slots positioned on sides.
 3. Alignment joints are standard (gaskets not required). Recorrugation of metal pipe ends not required.
 4. The contractor may submit other methods of providing slots having equal or greater area of opening, for approval by the Engineer.
 5. Filter fabric shall be Subsurface Drainage type meeting the requirements of Section 985. All filter fabric joints shall lap a minimum of one (1) foot.
 6. The standard cross section shall be constructed unless other section(s) described or detailed in the plans.
 7. For supplemental details see Index No. 280.
 8. The contractor shall take the necessary precautions to prevent contamination of the trench with sand, silt and foreign materials.
 9. The 1/2" diameter weep hole shall be eliminated, when the bottom of the inlet is below the normal water table, unless otherwise shown in the plans.
 10. French drains following the typical cross section shall be paid for under the contract unit price for French Drains, LF. The unit price shall include the cost of pipe, pipe plugs, pipe fittings, coarse aggregate and filter fabric in place, and the cost for trench excavation, backfill and compaction. The unit price shall also include the cost for disposal of surplus excavated materials and cost for restoration of pavement removed or damaged by french drain construction, but shall not include payments for items paid for elsewhere.
- French drains with a significantly different cross section shall be paid for under the contract unit prices for separate items as follows:
- (a) Slotted or Perforated Pipe Culvert, LF. Unit price shall include cost for pipe, pipe plugs and fittings in place.
 - (b) Ballast Rock (French Drain Aggregate), CY. Unit price shall include cost for coarse aggregate in place, and cost for trench excavation, backfill and compaction. The unit price shall also include the cost for disposal of surplus excavated materials and cost for restoration of pavement removed or damaged by french drain construction, but shall not include payment for items paid for elsewhere.
 - (c) Plastic Filter Fabric (Subsurface), SY. Unit price shall be for cost of fabric in place. Quantity shall be determined by plan neat dimensions of the fabric envelope.

DESIGN NOTES

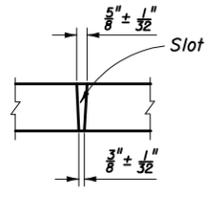
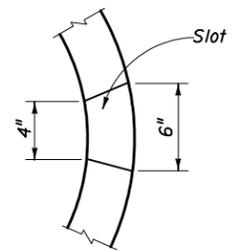
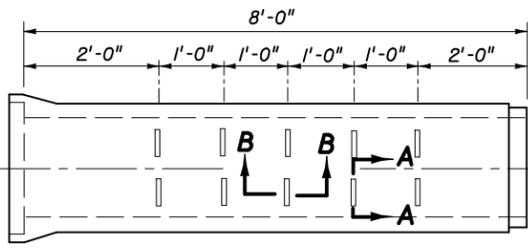
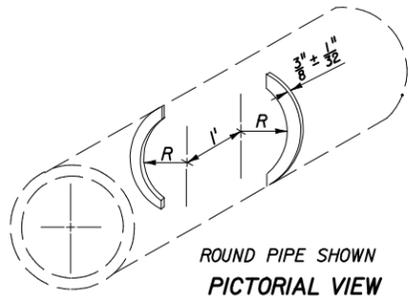
1. Pipe invert should be at or above the water table whenever possible.
2. French drains with minor dimensional changes or otherwise different from the standard cross-section shall be either described or detailed in the plans. French drains with significantly different cross-sections shall be detailed in the plans.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
FRENCH DRAIN				
Names	Dates	Approved By		
Designed By	MFS	09/83	 State Drainage Engineer	
Drawn By	RWR	09/83	Revision	Sheet No.
Checked By	EGR	09/83	00	1 of 2
				Index No. 285



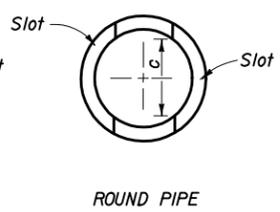
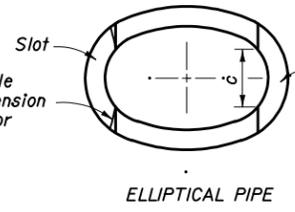
ELLIPTICAL PIPE		
Pipe Size	Slot Cut	
	Opening c	
	Min.	Max.
14"x23"	10"	12"
19"x30"	14"	16"
24"x38"	14"	16"
29"x45"	20"	22"
34"x53"	20"	22"
38"x60"	20"	22"

ROUND PIPE		
Pipe Size	Slot Cut	
	Opening c	
	Min.	Max.
15"	12"	14"
18"	12"	14"
24"	16"	18"
30"	16"	18"
36"	22"	24"
42"	22"	24"
48"	22"	24"
54"	24"	26"
60"	24"	26"
66"	24"	26"
72"	24"	26"

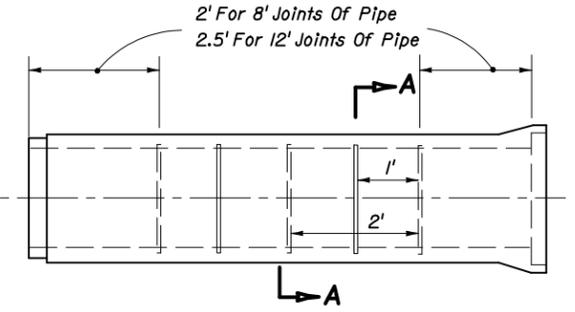


SIDE VIEW
SECTION AA
SECTION BB
OPTION A - ROUND PIPE

A curved cut is acceptable provided the control dimension is maintained (Typical For Elliptical & Round Pipe)



ELLIPTICAL PIPE
ROUND PIPE
SECTION AA
OPTION B - ROUND OR ELLIPTICAL PIPE



SLOTTED PIPE OPTIONS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
FRENCH DRAIN				
Designed By	Names	Dates	Approved By <i>S. A. McHenry</i>	
Drawn By			State Drainage Engineer	
Checked By	Revision	Sheet No.	Index No.	
	00	2 of 2	285	