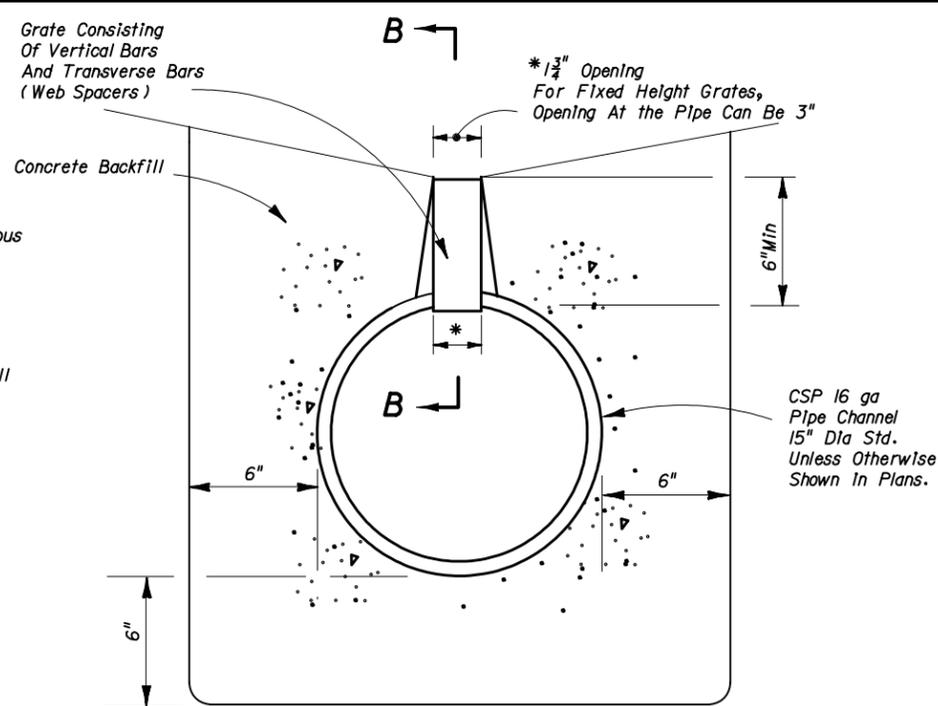
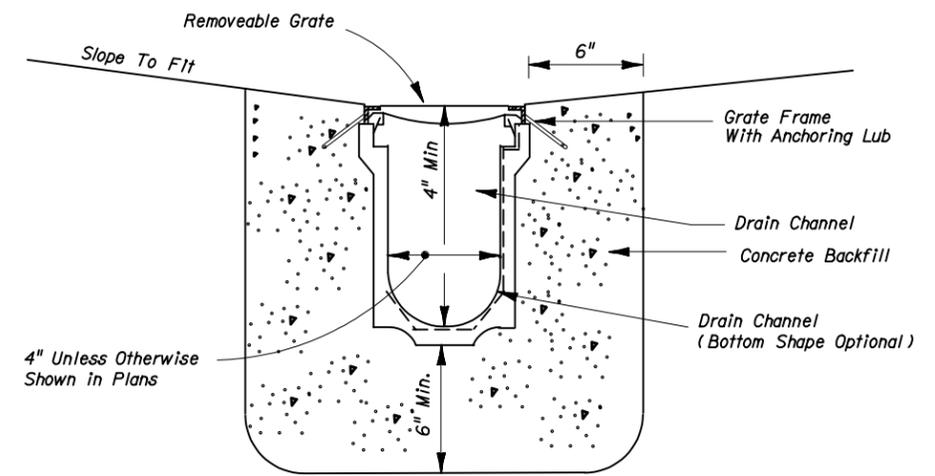


PREFORMED POLYETHYLENE ALTERNATE



ROUND CSP ALTERNATE



PREFORMED CHANNEL WITH REMOVABLE GRATE

SEE SHEET 2 FOR TYPICAL LOCATIONS

**TYPE I (NON- REMOVABLE- GRATE)**

SEE SHEET 2 FOR TYPICAL LOCATIONS

**TYPE II**

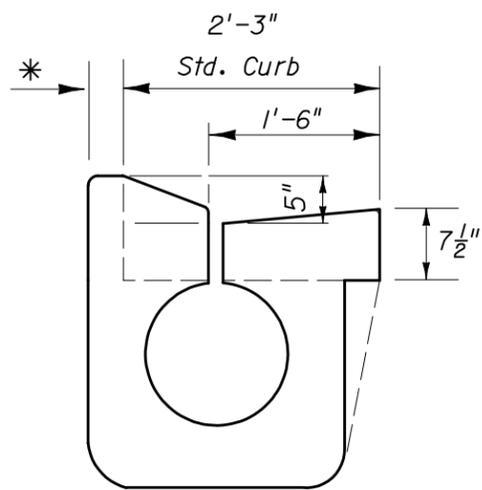
**GENERAL NOTES**

- Trench drain is intended for use in gutters and driveways as shown on the typical locations on Sheet 2. Type I is intended for use in Type E and F curbing, and adjacent to traffic separators and standard barrier walls, without grate. Grate is required across driveway openings in valley gutter and drop curb. Type II is intended for use across driveway openings in valley gutter and drop curb. Trench drain shall not be placed in designated pedestrian paths unless ADA compliant grates are used.
- Unless shown in the plans, outlet pipes and pre-formed channel inverts shall be sloped 0.6% or steeper toward the outlet regardless of the surface slope.
- Trench drain may be stubbed directly into drainage structures, or outlet pipes may be used to connect trench drain to drainage structures.
- A cleanout port compatible with the manufactured system shall be provided for Type I drains at the upstream end and at intervals not to exceed 50 feet. The cleanout port shall provide an opening 6" to 10" wide (transverse to the trench drain length) and 18" to 24" long. Where cleanouts are placed adjacent to raised curb or separator, the curb or separator shall be formed around the cleanout. The cleanout shall have a removable load resistant cover or grate.
- Trench excavation must allow for a minimum of 6 inches of concrete to be placed under and alongside the trench drain channel system. Under round CSP Concrete backfill shall meet the requirements of Section 347. At the end of all units (Type I or II), the concrete backfill shall extend 6" minimum past the end of the drain opening.
- Traverse bars for Type I trench drain shall be spaced 4 to 6 inches on center.
- Whenever the work disturbs existing conditions or work already completed, restore the same to its original condition in every detail. All such repair and replacement shall meet the approval of the Engineer.
- For payment and channel materials see specification Section 436.

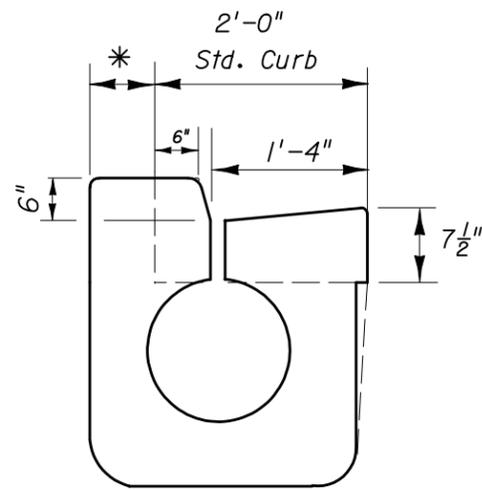
**DESIGN NOTES**

- Where placed adjacent to reinforced concrete barrier wall or median barrier wall, the designer shall detail in the plans the position of the drain relative to the wall to avoid conflicts with the L-wall and cantilever wall of the barrier wall. See Index 410.
- The designer shall identify the following in the plans:
  - The type of drain at each location,
  - The begin and end locations of the trench drain
  - The location of the outlet pipe if the trench drain is not stubbed directly into a drainage structure.
- Capture efficiency for Type I trench drain may be computed using the equations for slotted drain in FHWA's HEC 12 & 22.
- Round pipe alternate is available in 12, 18, 24, 36 inch CSP.

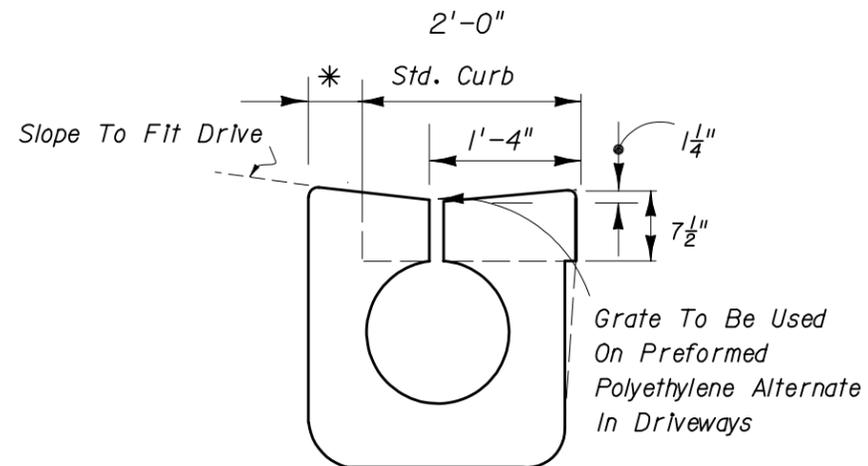
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN				
<b>TRENCH DRAIN</b>				
Designed By	CH	02/01	Approved By <i>[Signature]</i> State Drainage Engineer	
Drawn By	JD/T	02/01	Revision	Sheet No.
Checked By	CDP	02/02	04	1 of 2
				Index No. 206



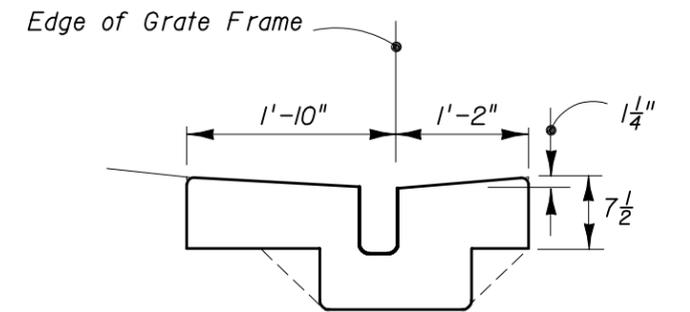
WITHIN TYPE E CURB



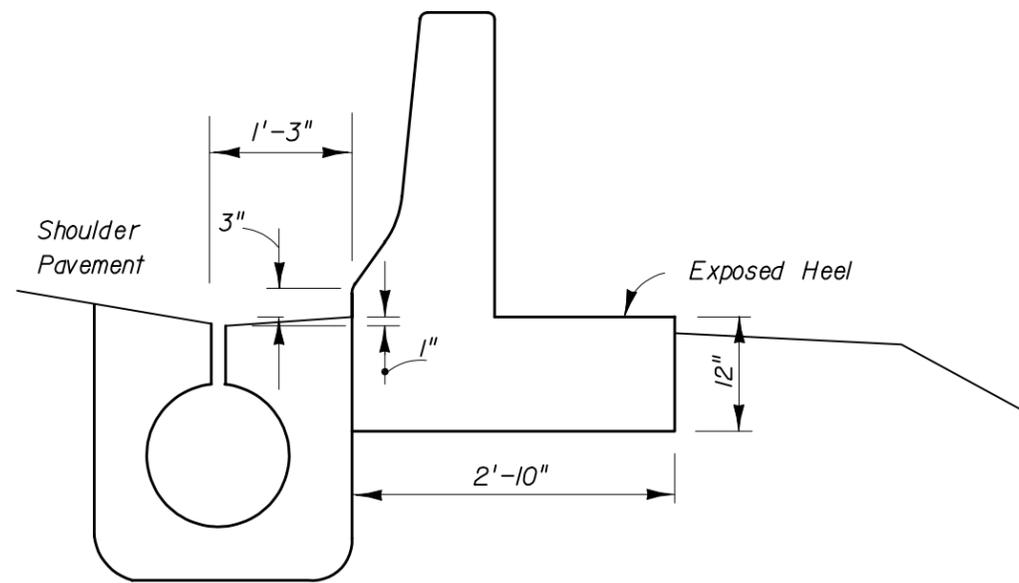
WITHIN TYPE F CURB



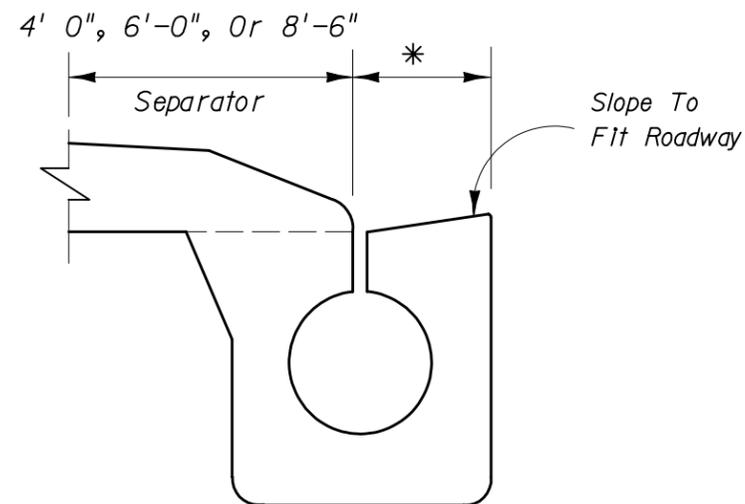
WITHIN DROP CURB



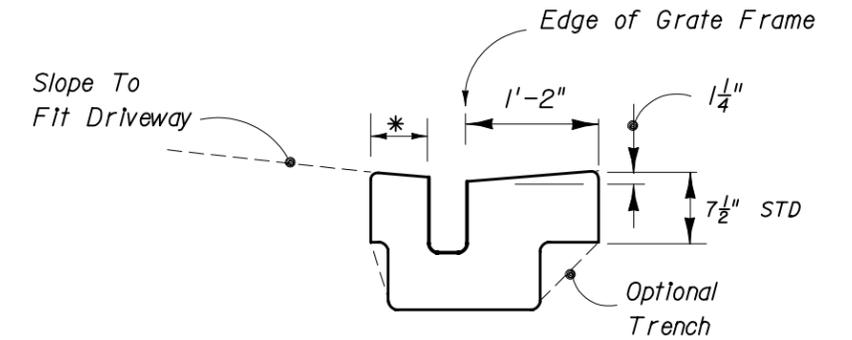
WITHIN VALLEY GUTTER



ADJACENT TO STANDARD BARRIER WALL



ADJACENT TO TRAFFIC SEPARATOR



WITHIN DROP CURB  
TYPICAL LOCATIONS FOR TYPE II

\* As Necessary To Provide 6" Of Concrete On This Side Of Drain

ROUND PIPE ALTERNATE SHOWN, BUT PREFORMED POLYETHYLENE ALTERNATE ACCEPTABLE

TYPICAL LOCATIONS FOR TYPE I

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TRENCH DRAIN

Names			Dates			Approved By		
Designed By	CR	02/01	 State Drainage Engineer			Revision	Sheet No.	Index No.
Drawn By	JDZ	02/01				04	2 of 2	206
Checked By	CDP	02/02						