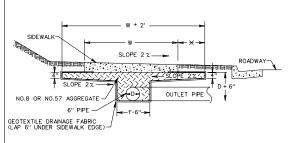
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DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	PEDERAL AID		STATE	SHEET NO.
		PROJECT	ROUTE	PROJECT	SHEET NO.
	VA.				



imes This portion to be deleted when sidewalk is adjacent to curb or curb and gutter with no buffer strip.

NOTES:

UD-3

- WHERE THE LONGITUDINAL PERFORATED PIPE ALIGNS WITH A DRAWAGE STRUCTURE (DROP NULT, MANHOLE, ETC.), A NON-PERFORATED OUTLET PIPE IS NOT REQUIRED. INSTEAD, THE PERFORATED PIPE IS TO BE CONNECTED DIRECTLY TO THE DRAWAGE STRUCTURE. WHERE THE LONGITUDINAL PERFORATED PIPE IS CONTINUOUS, IT SHALL BE CONNECTED TO EACH SIDE OF THE DRAWAGE STRUCTURE.
- INVERT ELEVATION AT OUTLET END OF OUTLET PIPE TO BE A MINIMUM OF 1'-0" ABOVE INVERT ELEVATION OF RECEIVING DRAINAGE DITCH OR STRUCTURE.
- 3. ALL CONNECTIONS (ELBOWS, WYES, ETC.) WITHIN PAY LIMITS FOR OUTLET PIPE ARE TO BE OF THE SAME CRUSHING STRENGTH AS THE OUTLET PIPE.
- 4. OUTLET PIPE ARE TO BE INSTALLED ON 2 % MIN. (3 % DESIRABLE) GRADE.
- 5. OUTLET PIPE TO BE SECURELY CONNECTED TO EW-12 OR OTHER DRAINAGE STRUCTURE.
- 6. SIDEWALK UNDERDRAIN IS TO BE USED WHEN THE SIDEWALK LONGITUDINAL GRADERT IS 3% OR MORE AND WHEN THE UNDERLYING SOIL HAS 34 % OR MORE PASSING THE NO. 200 SIEVE, AND HAS A PIOF 13 OR LESS, AND THE AREA HAS A HISTORY OF SIDEWALK UNDERWINDS.
- 7. SIDEWALK UNDERDRAINS SHOULD BE TIED INTO THE STORM SEWER SYSTEM AT POINTS APPROXIMATILEY A CITY BLOCK APART. UNDERDRAIN RUNS MUST NOT EXCEED 1,000 FEET IN LENGTH WITHOUT DISCHARGING INTO THE STORM DRAIN SYSTEM OR INTO AN OPEN DRAIN.
- 8. WITHIN THE LIMITS OF A COMMERCIAL ENTRANCE, NON-PERFORATED PIPE SHALL BE UTILIZED IN LIEU OF PERFORATED PIPE.

LONGITUDINAL PERFORATED PIPE

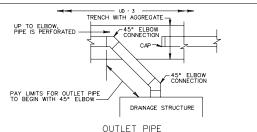
TYPE OF PIPE	CRUSHING STRENGTH			
THE OF THE	¥ w.T. 6" NOMINAL DIAMETER			
SMOOTH WALL PVC	0.153			
CORRUGATED PE	AASHTO M-252			

NON-PERFORATED PIPE FOR USE UNDER COMMERCIAL ENTRANCES AND FOR OUTLETS

TYPE OF PIPE	CRUSHING STRENGTH		
1112 01 1112	* W.T. 6" NOMINAL DIAMETER		
SMOOTH WALL PVC	0.153		
SMOOTH WALL PE	70 PSI X X X		

* WALL THICKNESS (MIN) - INCHES

*** TESTED ACCORDING TO ASTM D-2412 AT 5% DEFLECTION.



PERFORATED UNDERDRAIN ETRENCH WITH AGGREGATE

SIDEWALK OR UNPAYED SPACE

TRENCH WITH AGGREGATE

UNDERDRAIN PIPE

ST'D, CURB
& GUTTER

MAINLINE ROADWAY

UNDERDRAIN BETWEEN THE LIMITS OF COMMERCIAL ENTRANCE CURB RETURNS
WILL BE NON-PERFORATED PIPE.

SPECIFICATION REFERENCE		
232		
501		
701		

STANDARD SIDEWALK UNDERDRAIN

VIRGINIA DEPARTMENT OF TRANSPORTATION

REV. 2/06 108.03

REV. 2/06

SPECIAL DESIGN SECTION DRAWING NO. A-55

PLAN NO.	PROJECT	FILE NO.	SHEET NO.