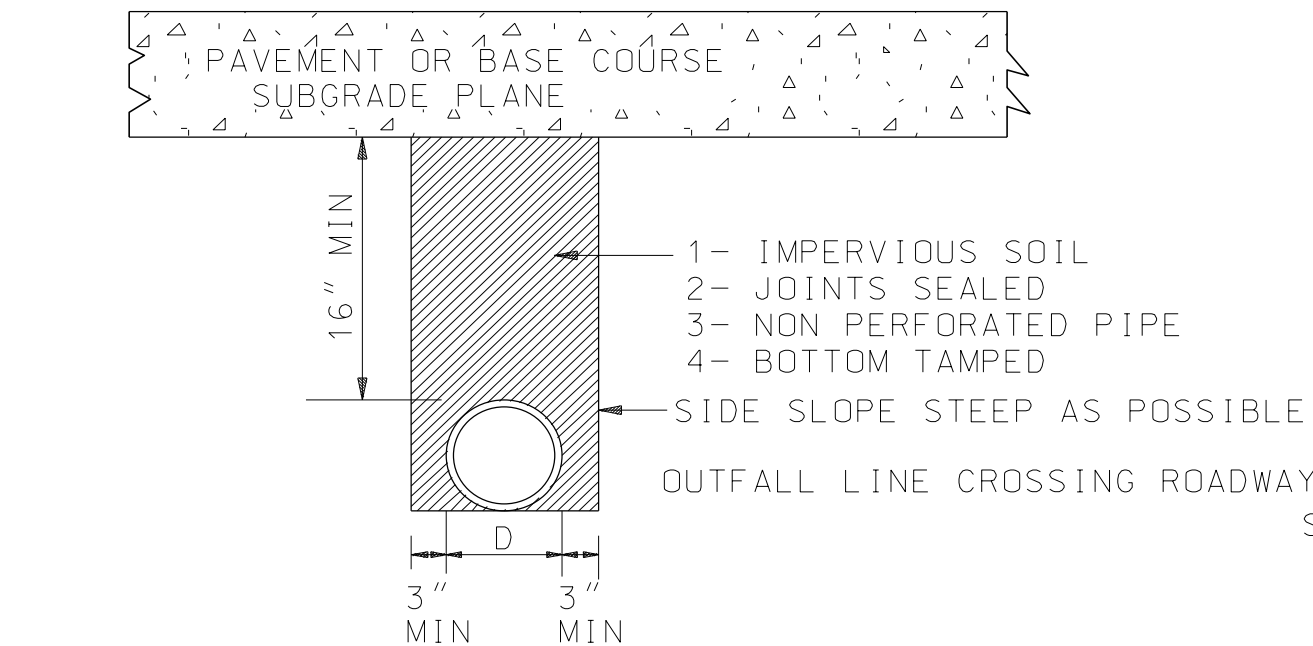
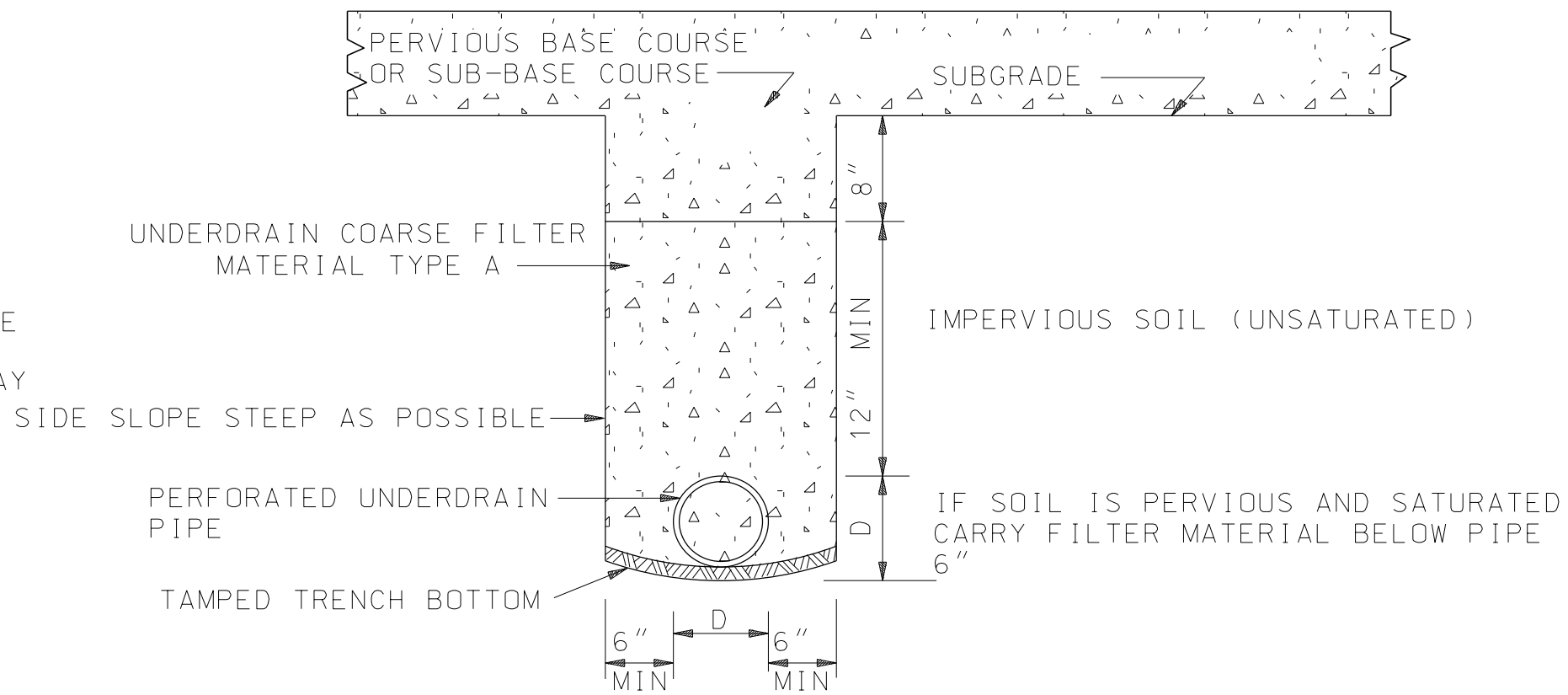


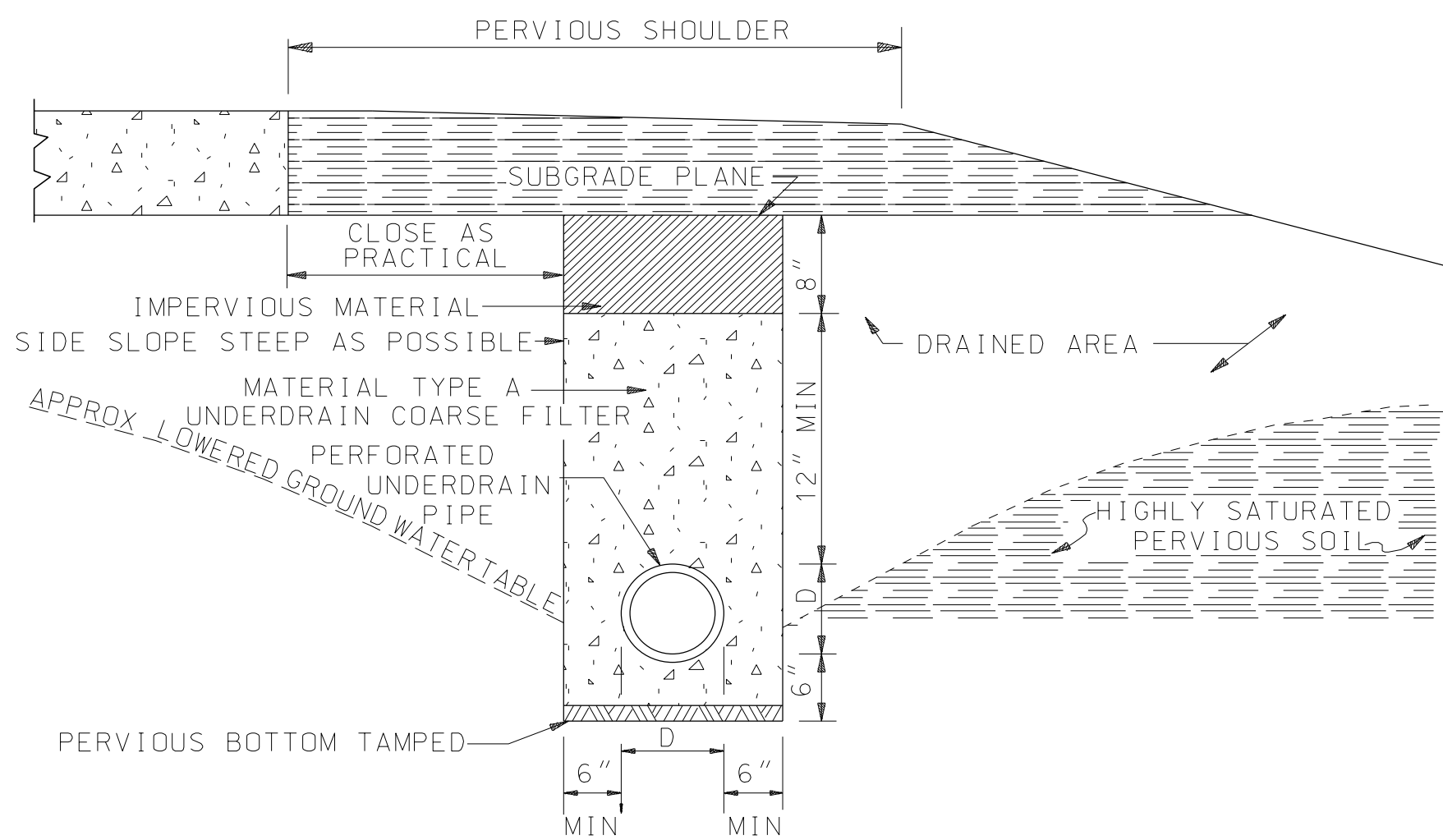
INTERCEPTING PIPE UNDERDRAIN



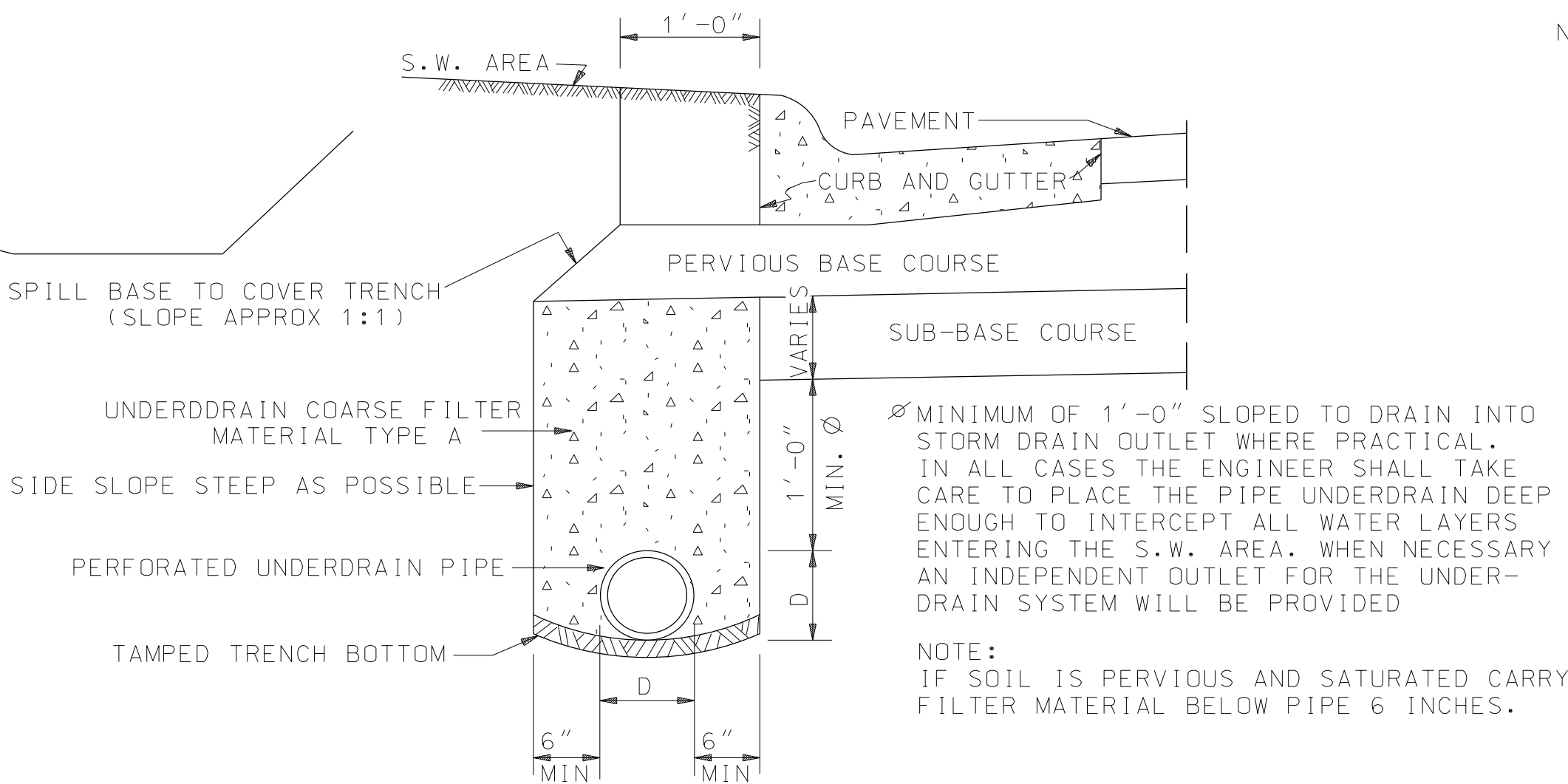
PIPE UNDERDRAIN OUTFALL LINES



SUBGRADE DRAINING OR LATERAL TYPE PIPE UNDERDRAIN



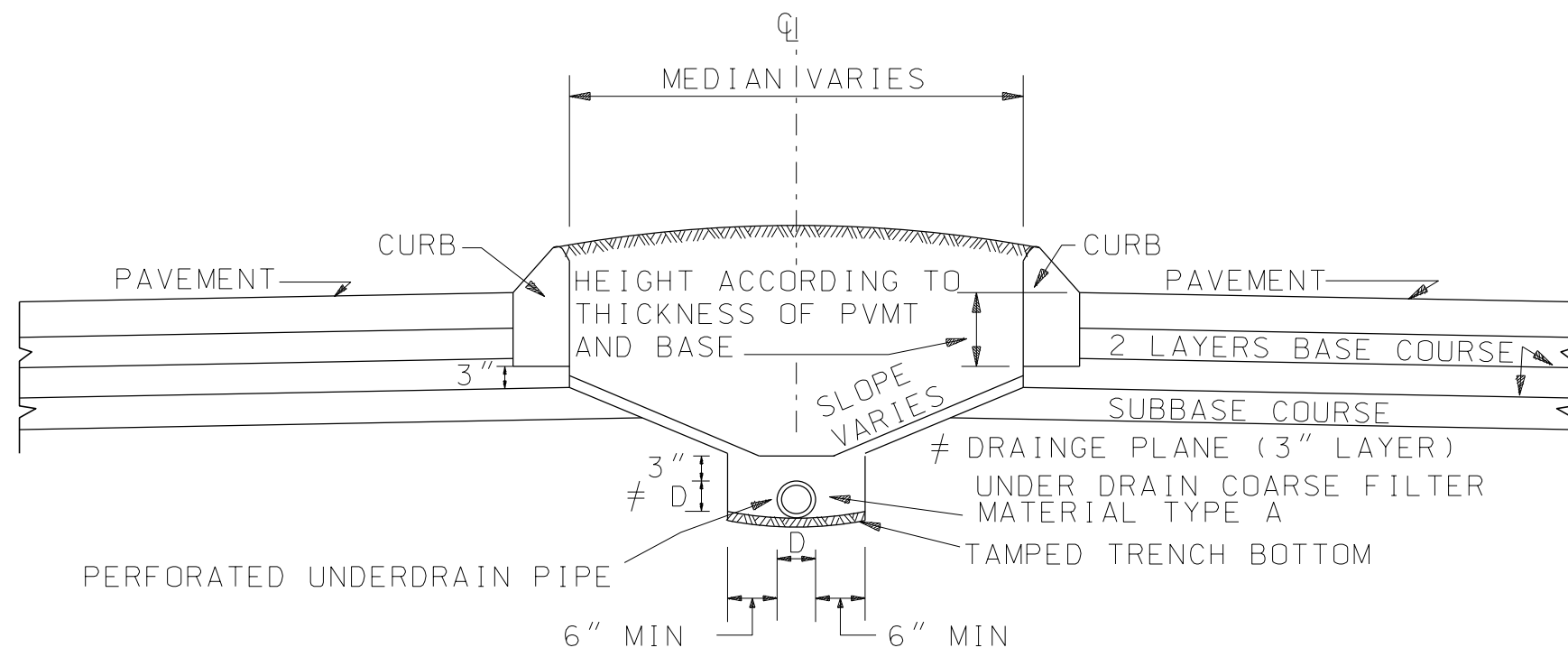
SUBDRAINING PIPE UNDERDRAIN



DETAIL OF PIPE UNDERDRAIN WHERE COMBINATION CURB AND GUTTER IS USED

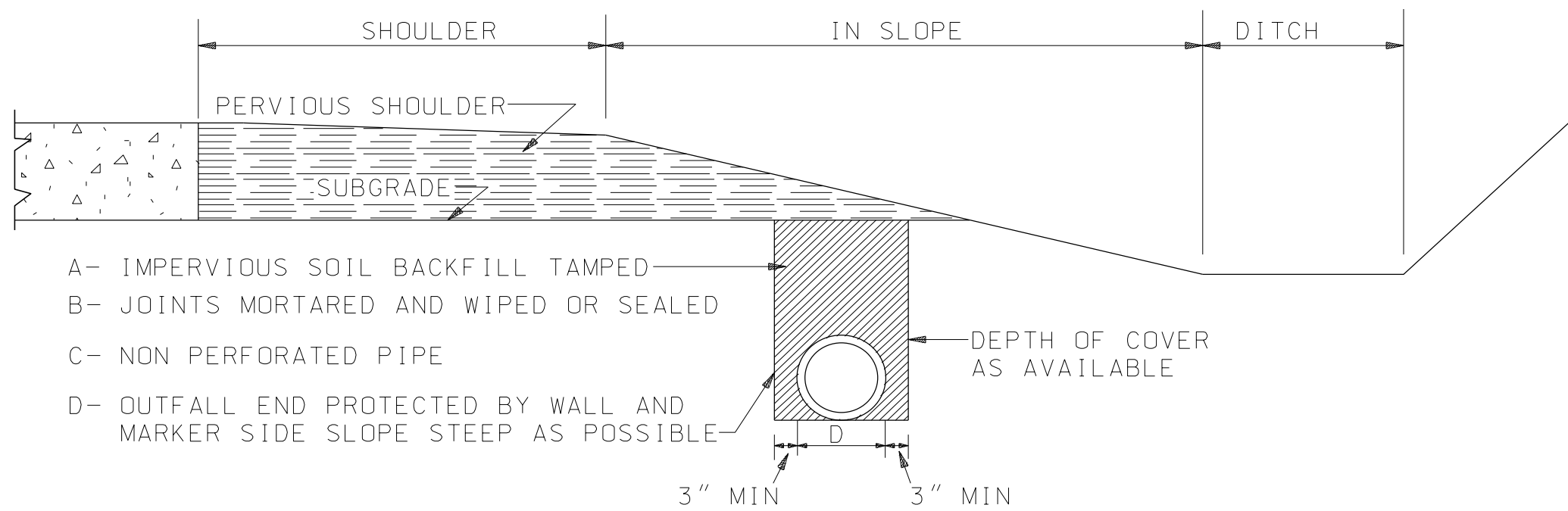
NOTE: ACROSS INTERSECTIONS AND IN CASE WHERE INDEPENDENT OUTLETS FOR PIPE UNDERDRAIN ARE NECESSARY, THE CONTRACTOR SHALL INSTALL THE PIPE WITH SEALED JOINTS, THEREBY ELIMINATING THE NEED FOR FILTER MATERIAL

# NOTE: IN ALL CASES THE ENGINEER SHALL TAKE CARE TO PLACE THE PIPE UNDERDRAIN DEEP ENOUGH TO INTERCEPT ALL WATER LAYERS ENTERING THE MEDIAN. WHEN NECESSARY AN INDEPENDENT OUTLET FOR THE UNDERDRAIN SHALL BE PROVIDED.

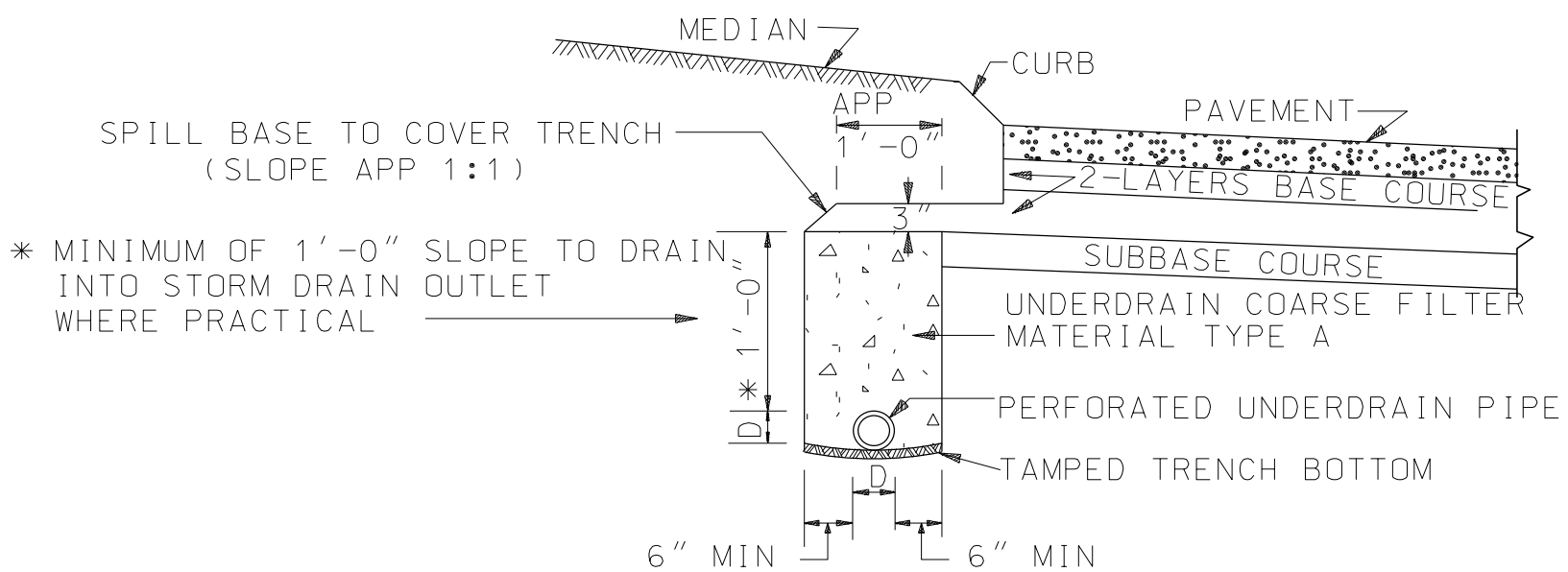


DETAIL OF PIPE UNDERDRAIN IN CENTER OF RAISED MEDIAN SECTION


# NOTE: ON PROJECTS WHERE DRAINAGE PLANE IS NOT LISTED AS A PAY ITEM BUT IS REQUIRED IN MEDIAN AS SHOWN ON THIS SKETCH, NO DIRECT PAYMENT WILL BE MADE FOR THIS ITEM, WHICH SHALL BE INCLUDED IN THE BID PRICE OF PIPE UNDERDRAIN PER LIN FT.

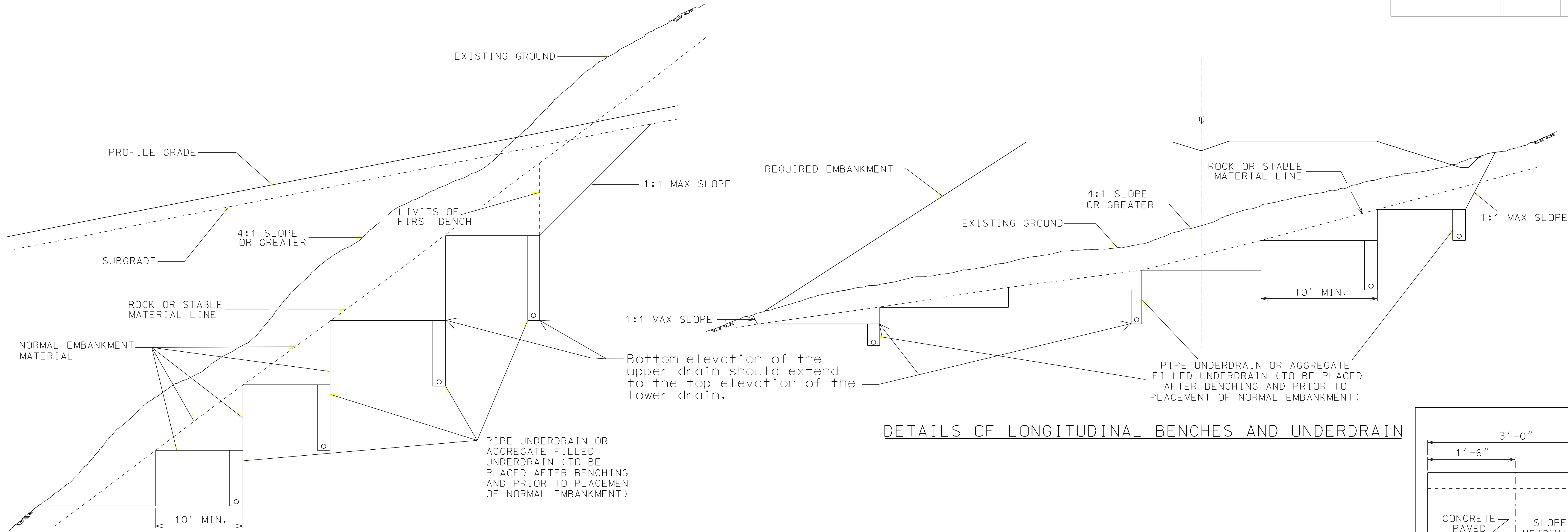


OUTFALL LEADING THROUGH FIRM SOIL TO DISCHARGE INTO CROSS DRAIN STRUCTURE OF SIDE DITCH



DETAIL OF PIPE UNDERDRAIN IN RAISED MEDIAN SECTION

--SPECIFICATIONS--		
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION		
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REVISIONS 1. Added to CADD on 06-21-99 by J.F.T.		 <b>ALABAMA DEPARTMENT OF TRANSPORTATION</b> 1409 COLISEUM BOULEVARD MONTGOMERY, AL 36130-3050
Bureau Std Engr: D.J.W. DRAWN BY: _____ DATE DRAWN: 03-01-88		
DESIGN BUREAU SPECIAL DRAWING		INDEX NO 60601
DETAILS OF PIPE UNDERDRAIN (U.D.) INSTALLATION		
SPECIAL DRAWING NO PU-606		

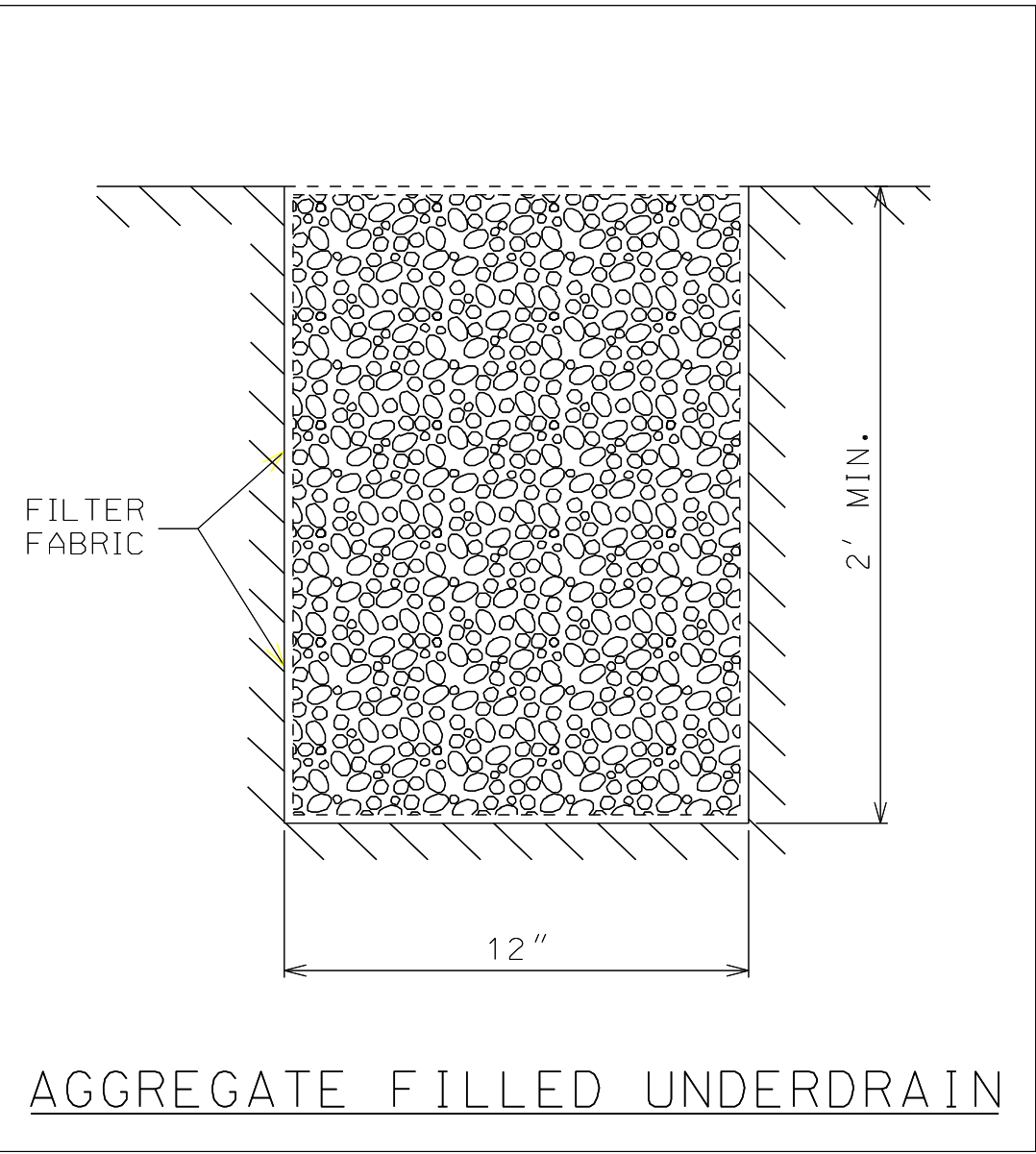


DETAILS OF TRANSVERSE BENCHES AND UNDERDRAIN

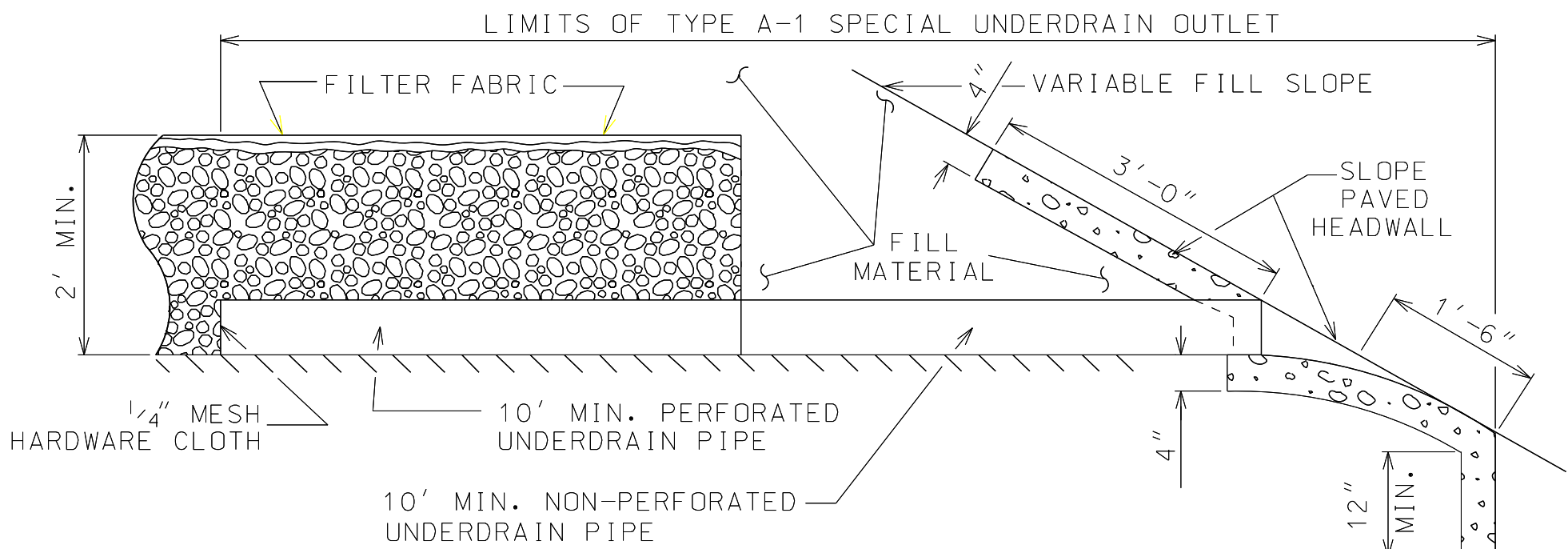
DETAILS OF LONGITUDINAL BENCHES AND UNDERDRAIN

GENERAL NOTES

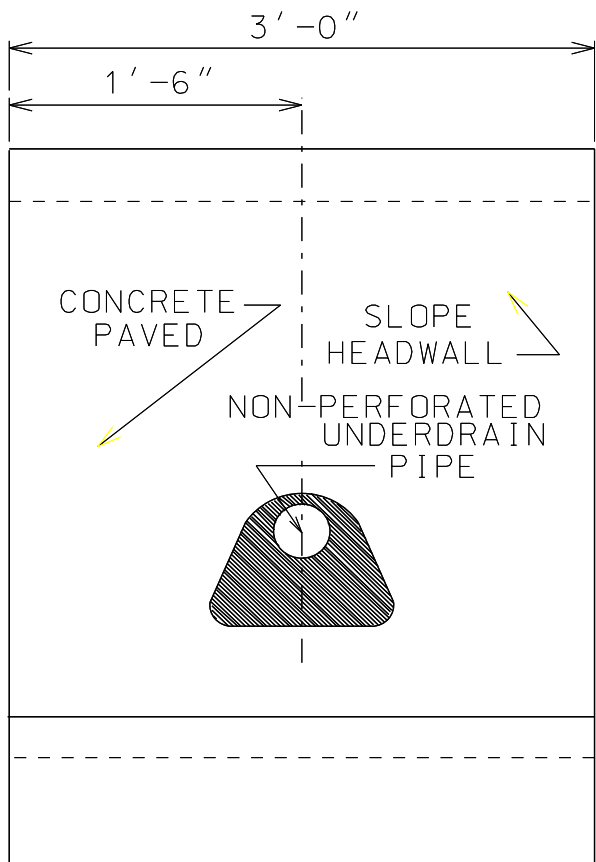
1. THE TRANSVERSE AND LONGITUDINAL BENCHES SHALL BE USED AT LOCATIONS AS DIRECTED BY THE ENGINEER. THE EXCAVATION NECESSARY FOR THE BENCHING SHALL BE CLASSIFIED AND PAID FOR UNDER ITEM FOR UNCLASSIFIED EXCAVATION.
2. PIPE UNDERDRAIN OR AGGREGATE FILLED UNDERDRAINS SHALL BE PLACED IN AREAS OF HEAVY SEEPAGE OR IN AREAS OF EXPECTED SEEPAGE AS DIRECTED BY THE ENGINEER.
  - (a) WHEN PIPE UNDERDRAIN IS USED, THE CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH SPECIAL DRAWING FOR DETAILS OF PIPE UNDERDRAIN INSTALLATION, AND PAID FOR AS UNDERDRAIN PIPE.
  - (b) WHEN AGGREGATE FILLED UNDERDRAINS ARE USED, THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS SHEET AND THE SPECIFICATIONS. PAYMENT SHALL BE MADE UNDER ITEM FOR AGGREGATE FILLED UNDERDRAIN.
3. THE SPECIAL UNDERDRAIN OUTLETS FOR THE AGGREGATE FILLED UNDERDRAIN INSTALLATIONS SHALL BE PAID FOR UNDER ITEM 605-B, SPECIAL UNDERDRAIN OUTLET, TYPE A-1.
4. SEE SPECIAL DRAWING FOR DETAILS OF UNDERCUTTING AT GRADE POINTS.



AGGREGATE FILLED UNDERDRAIN



DETAILS OF SPECIAL UNDERDRAIN OUTLET TYPE A-1



DETAILS OF SLOPE  
PAVED HEADWALL

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<div>REVISIONS</div> <div>1. Added to CADD on 10-12-00 by J.F.T.</div> <div>2. The bottom elevation of the upper drains should extend to the top elevation of the lower drains in both the Details of the Transverse and Longitudinal Benches and Underdrain on 11-08-12 by J.F.T.</div>		
<div>ALABAMA DEPARTMENT OF TRANSPORTATION</div> <div>1409 COLISEUM BOULEVARD</div> <div>MONTGOMERY, AL 36130-3050</div> <div>DESIGN BUREAU SPECIAL DRAWING</div> <div>DETAILS OF LONGITUDINAL AND TRANSVERSE BENCHES AND UNDERDRAIN UNDER HEAVY EMBANKMENT</div>		<div>INDEX NO</div> <div>60604</div>
<div>Bureau Std Engr: D.J.W.</div> <div>DRAWN BY: _____ DATE DRAWN: 03-11-91</div>		<div>SPECIAL DRAWING NO</div> <div>BUD-210</div>

NOT TO SCALE