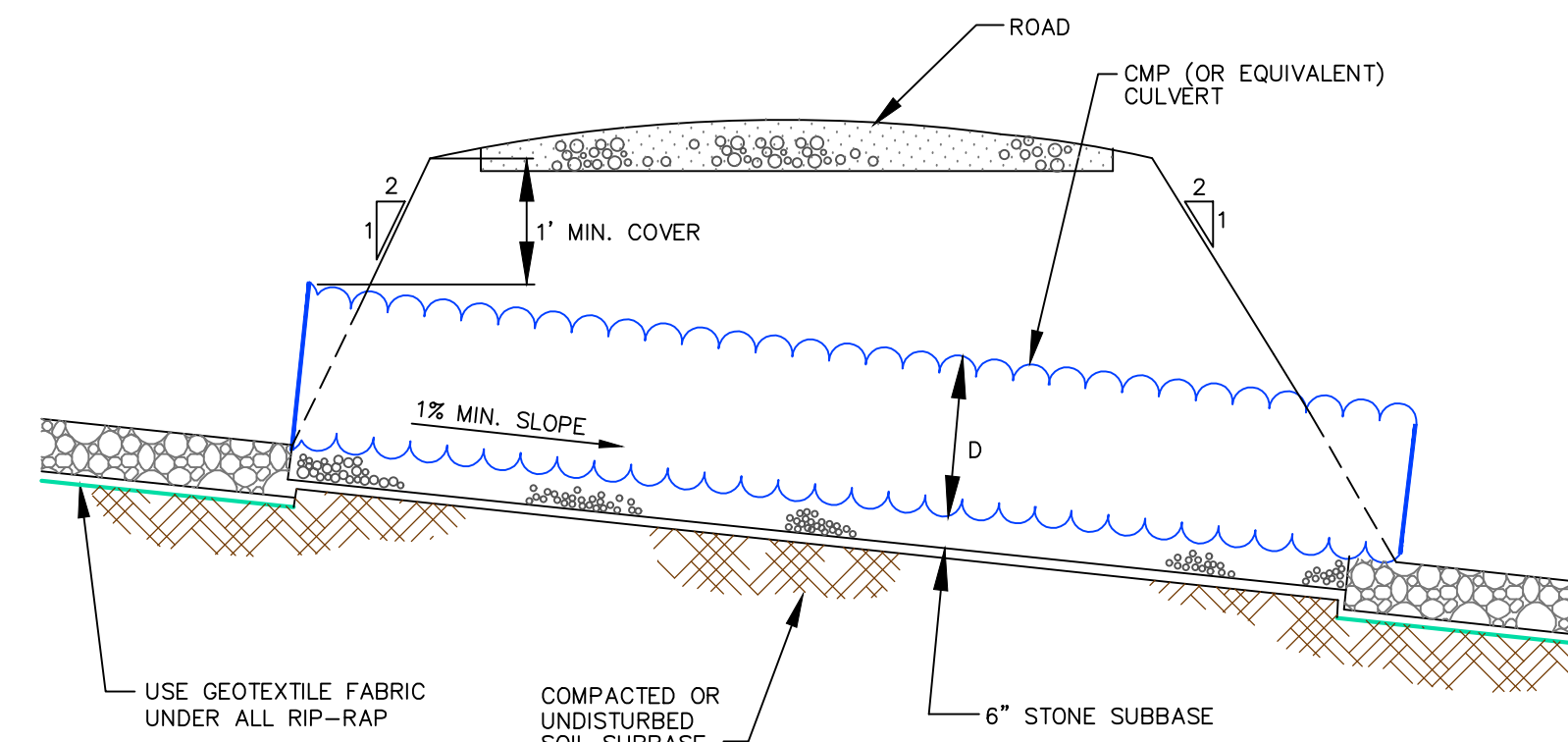


**1** TRAPEZOIDAL ROCK-LINED CHANNEL  
10E NOT TO SCALE



**2** TYPICAL HAUL ROAD CULVERT DETAIL  
10E NOT TO SCALE

EXISTING TRIANGULAR AND TRAPEZOIDAL CHANNEL SCHEDULE

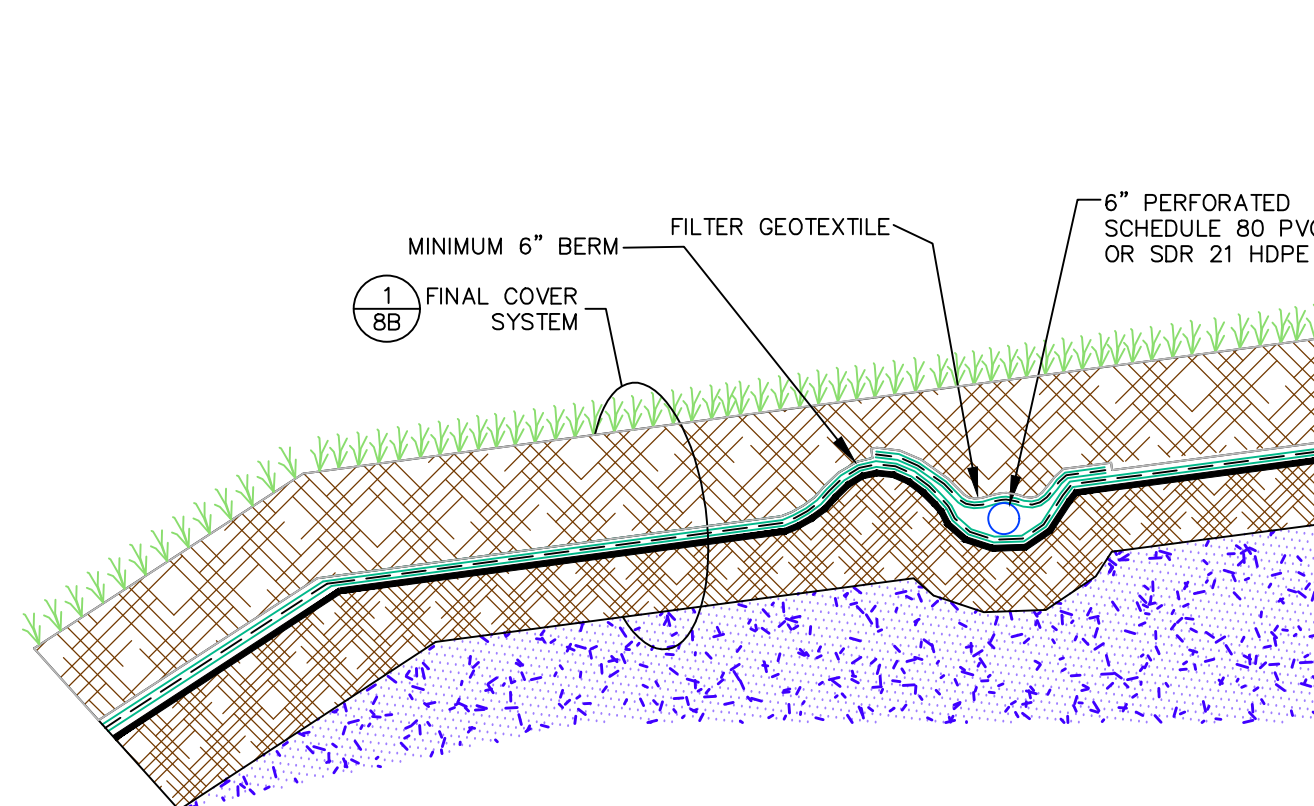
CHANNEL I.D.	ACRES DRAINED (cfs)	MIN. GRADE (%)	Q REQ'D (cfs)	Q' AVAIL (cfs)	V MAX (fps)	V (fps)	LINING	SIDE SLOPES (Z1/Z2)	B (ft.)	FINAL DIMEN. (D' X T')	OUTLET STRUCTURE
T5-1	5.87	0.04	15.41	58.6	17.0	12.7	USM	2.5/2.5	8.0	0.5 X 10.5	BASIN 5
T5-2	34.41	0.06	90.53	145.1	17.0	14.9	FPM	2.0/2.0	10.0	0.83 X 13.32	BASIN 5
T6-2	35.88	0.05	94.19	97.6	17.0	13.8	FPM	2.0/2.0	8.0	1.0 X 12.0	BASIN 6
T6-3	35.98	0.06	94.45	97.6	17.0	13.8	FPM	2.0/2.0	8.0	1.0 X 12.0	BASIN 6

- NOTES:
- EROSION CONTROL MATTING (CM) FOR GRASS LINED CHANNELS WILL BE A SINGLE NET STRAW BLANKET MANUFACTURED BY EAST COAST EROSION CONTROL, OR EQUIVALENT, WITH A MINIMUM ALLOWABLE OF 6.8 FPS.
  - TURF REINFORCED MATTING (TRM) WILL BE A POLYPROPYLENE TRM MANUFACTURED BY EAST COAST EROSION CONTROL, OR EQUIVALENT WITH A MINIMUM ALLOWABLE UNVEGETATED VELOCITY OF 9 FPS.

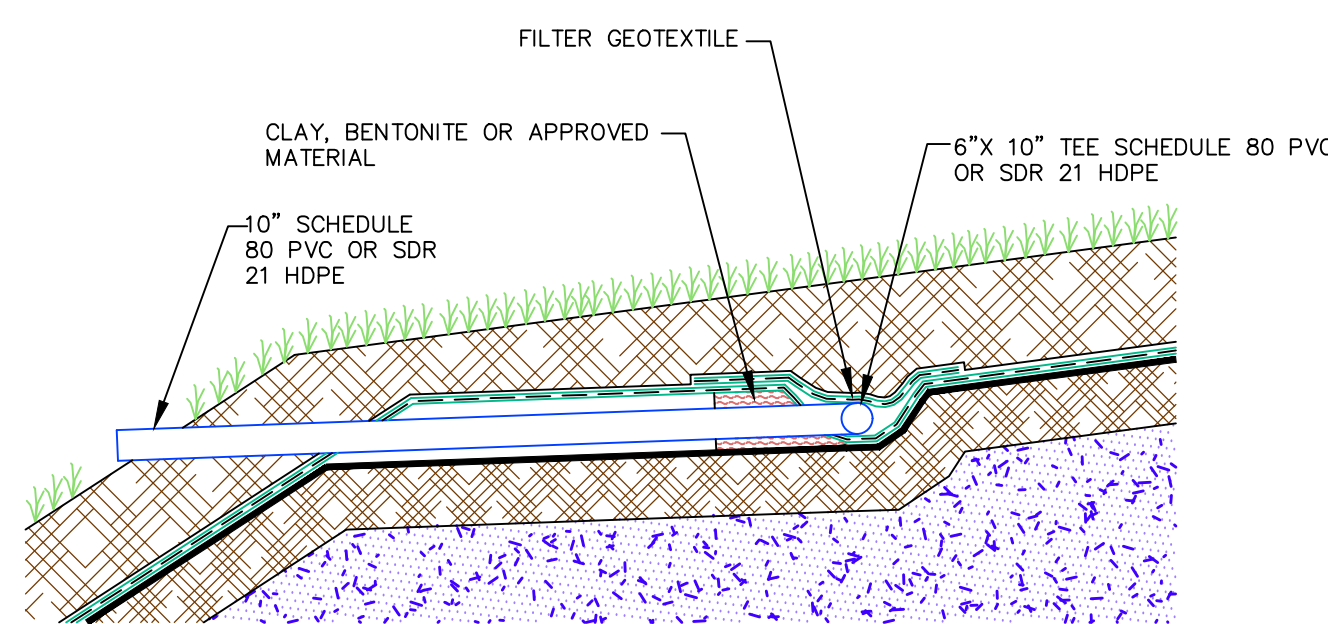
OPTIONAL CULVERT SCHEDULE

PIPE DIA. (IN.)	1 PIPE	2 PIPES	3 PIPES
12	2.4 ACRES	4.9 ACRES	7.3 ACRES
18	4.93 ACRES	9.85 ACRES	14.78 ACRES
24	12.57 ACRES	25.15 ACRES	37.72 ACRES
36	23.31 ACRES	46.63 ACRES	69.95 ACRES
48	56.68 ACRES	113.35 ACRES	170.04 ACRES
	107.93 ACRES	215.82 ACRES	317.90 ACRES

- NOTES:
- SCHEDULE IS TO BE USED TO SELECT CULVERT SIZES AND NUMBER OF BARRELS TO BE USED FOR A GIVEN DRAINAGE AREA OR FLOW RATE WITHOUT SUBMITTING A FORMAL DESIGN.
  - BARRELS SHALL BE PLACED AT A MINIMUM 1% SLOPE.
  - COMBINATIONS OF DIFFERENT SIZE CULVERTS MAY BE USED AS LONG AS THE REQUIRED DRAINAGE AREA/FLOW RATE IS LESS THAN THE COMBINED DRAINAGE AREA/FLOW RATE OF THE CULVERTS.

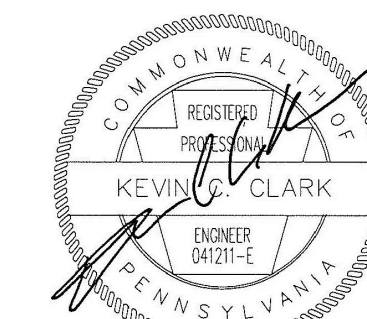


**3** SUBSURFACE CAP DRAIN  
10E NOT TO SCALE



- NOTE: THE CLAY PLUG IS INTENDED TO PREVENT DRAINAGE COLLECTING IN THE SUBSURFACE CAP DRAIN FROM DRAINING AROUND THE PIPE OUTLET AND CAUSING A FAILURE DOWNGRADIENT. ALTERNATIVE METHODS OF PREVENTING DRAINAGE FROM TRAVELING OUTSIDE THE PIPE AT THE OUTLET MAY BE UTILIZED SUBJECT TO APPROVAL BY THE QUALITY ASSURANCE ENGINEER.

**4** SUBSURFACE CAP DRAIN OUTLET  
10E NOT TO SCALE



	REVISIONS	
	DATE:	09/25/17
<b>DELAWARE COUNTY SOLID WASTE AUTHORITY</b> <b>ROLLING HILLS LANDFILL</b> <b>SOUTHERN AREA LANDFILL EXPANSION</b>		DRAWN BY:
EARL TOWNSHIP BERKS COUNTY PENNSYLVANIA		CHECKED:
<b>STORMWATER MANAGEMENT CHANNEL AND MISCELLANEOUS DETAILS - SHEET 2 OF 2</b>		BAI DRAWING NO:
State College Office (814) 238-2060		DCSWA-107D018E
Delaware Valley Office (610) 495-5585		SHEET NO.
		10E OF 11