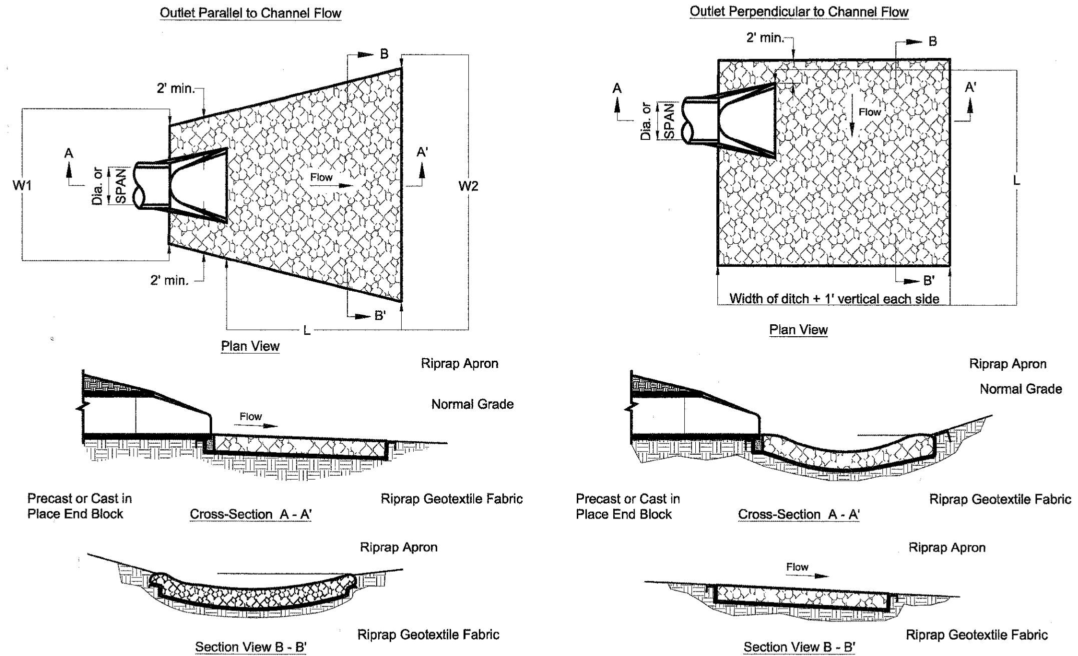
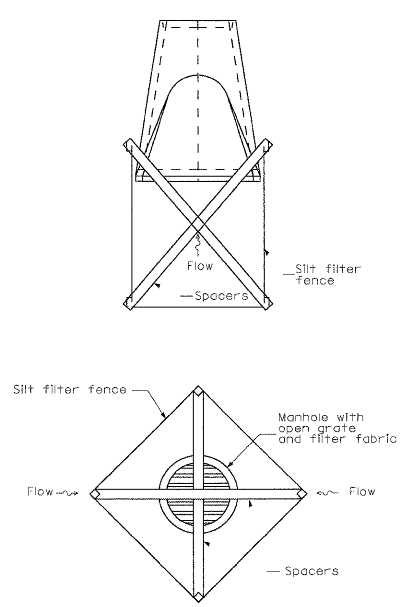


ROCK OUTLET PROTECTION DETAIL

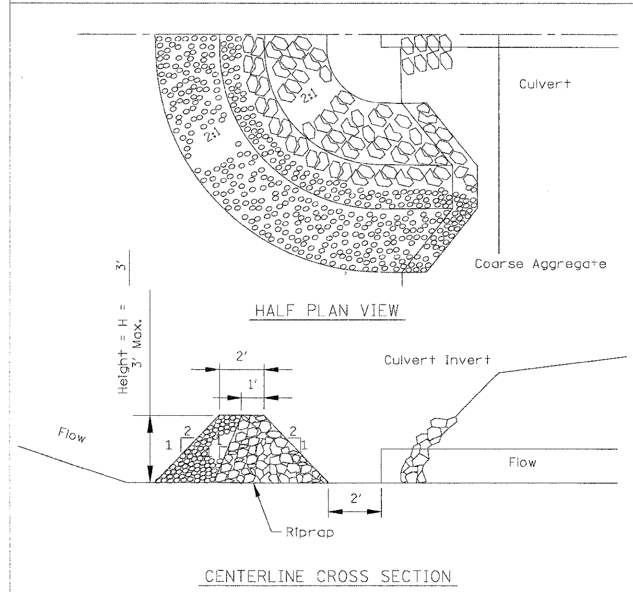
N.T.S.

DIA. OF ROUND INLET PIPE (in)	IDOT RIPRAP GRADATION (RR)	RIPRAP BED THICKNESS (in)	APRON LEGNTH (ft)	APRON WIDTH UPSTREAM (ft)	APRON WIDTH DOWNSTREAM (ft)	DEPTH BELOW NORMAL GRADE
		T	L	W1	W2	D
12	RR-3	15.0	12.0	5.0	11.0	6.0
15	RR-3	15.0	14.0	5.0	12.0	6.0
18	RR-3	15.0	16.0	5.5	13.5	7.0
24	RR-4	15.0	20.0	6.0	16.0	10.0
30	RR-4	20.0	22.0	6.0	17.0	11.0
36	RR-4	20.0	24.0	7.0	19.0	11.0



INLET AND PIPE PROTECTION DETAIL

CULVERT INLET PROTECTION - STONE



CENTERLINE CROSS SECTION

Notes:
1. Sediment shall be removed when the sediment has accumulated to one-half the height of the stone berm.
2. Coarse aggregate shall meet one of the following IDOT coarse aggregate gradations, ~~CA-1~~, ~~CA-2~~, CA-3 or ~~CA-4~~.
3. Riprap shall meet IDOT gradation RR-3 or ~~RR-4~~.
4. Any permanent riprap, such as for the culvert headwall, shall meet IDOT Quality Designation A.
5. Coarse aggregate and riprap shall be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
6. The maximum drainage area to the culvert being protected is 3 acres.
7. See plans for H dimension. Tie the stone berm into the culvert embankment a minimum of 1 foot above the design elevation of the stone berm.
8. Pay Items: XX006722 and XX006723

REFERENCE		NRCS	STANDARD DWG. NO.
Project	RED GATE ROAD	Natural Resources Conservation Service	IL-508ST
Designed	Date		SHEET 1 OF 1
Checked	Date		
Approved	Date		DATE 1-29-99

PLOT SCALE: 1:50
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FILE NAME =	DESIGNED - MAC	REVISED -	benesch engineers · scientists · planners	ST. CHARLES	CITY OF ST. CHARLES
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USER NAME = tblank	CHECKED - RMT	REVISED -			
PLOT DATE = 11/9/2011	DATE - 10/23/2011	REVISED -			

EROSION CONTROL DETAILS

SCALE: NTS | SHEET NO. 20 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	04-00092-00-BR	KANE	440	121
		CONTRACT NO. 63650		
	ILLINOIS	FED. AID PROJECT		