## **GENERAL NOTES**

- 1 If underdrain outlet-pipe elevations are not shown on Underdrain Table, the minimum outlet-pipe slope shall be 0.3%. The minimum freeboard between the outlet-pipe outfall and the ditch line shall be 1'-0 for median ditches and 2'-0 for side ditches.
- (2) See Standard Drawing E 718-UNDR-06 for rodent screen details.
- 3 The #4 transverse bars in the upslope lug may be field cut to accommodate the outlet pipe or pipes. The 404 bars in the upslope lug may be moved to accommodate the outlet pipe or pipes.

APPROXIMATE OUTLET PROTECTEOR QUANTITIES			
TYPE	CONCRETE, CLASS A (cys)	REINFORCING BARS (lb)	SODDING (sys)
1	0.8	29	4.9
2	0.6	25	4.0
3	0.3	22	3.2

## INDIANA DEPARTMENT OF TRANSPORTATION UNDERDRAIN NOTES SEPTEMBER 2009 STANDARD DRAWING NO. E 718-UNDR-07 /s/Richard L. VanCleave 09/01/09 DESIGN STANDARDS ENGINEER DATE /s/Mark A. Miller 09/01/09 CHIEF HIGHWAY ENGINEER DATE