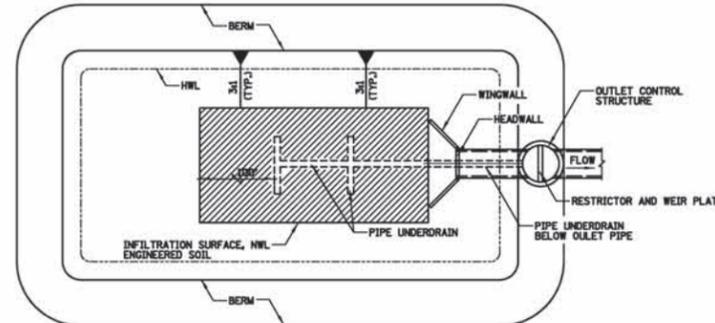
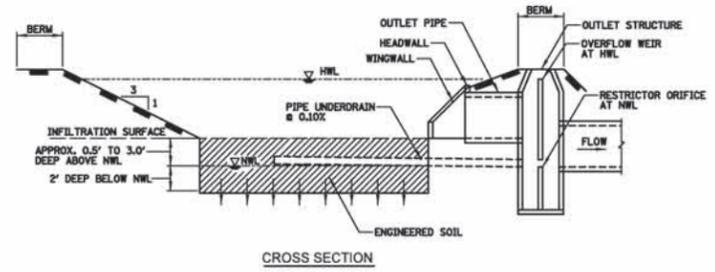


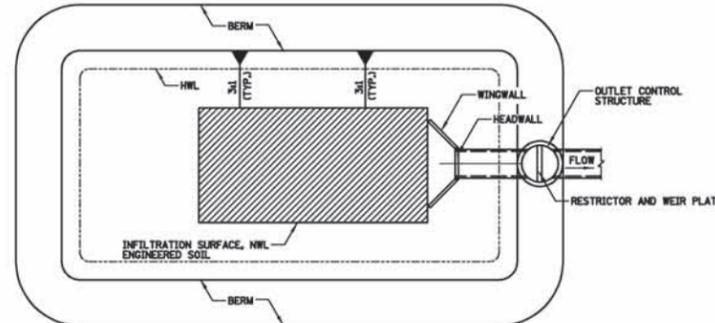
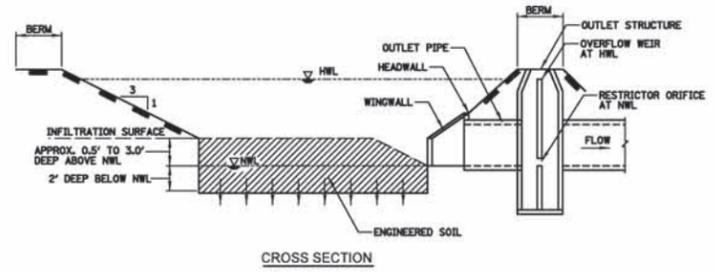
**Attachment 3**  
**Conceptual BMP Details**

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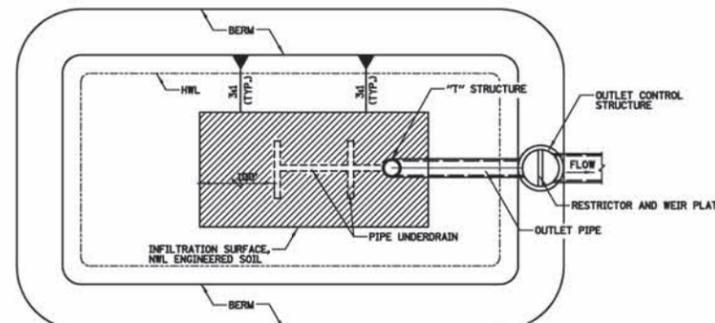
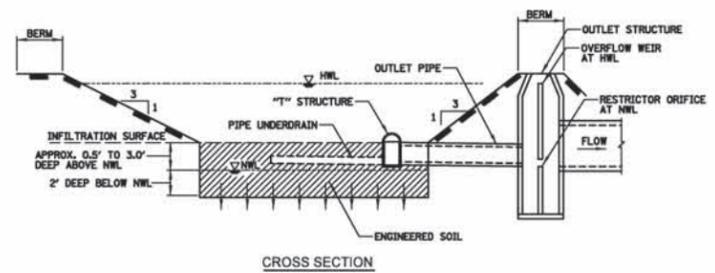


NOTE: UNDERDRAIN SYSTEM TO START WITHIN 100 FEET OF FARTHEST END FROM OUTLET CONTROL STRUCTURE. LATERAL UNDERDRAINS NECESSARY WHERE SIDES ARE GREATER THAN 100 FEET FROM MAIN UNDERDRAIN.

PLAN VIEW  
 TYPICAL CONCEPTUAL BMP DETENTION BASIN DETAIL, TYPE 1  
 (CLAY SOILS)

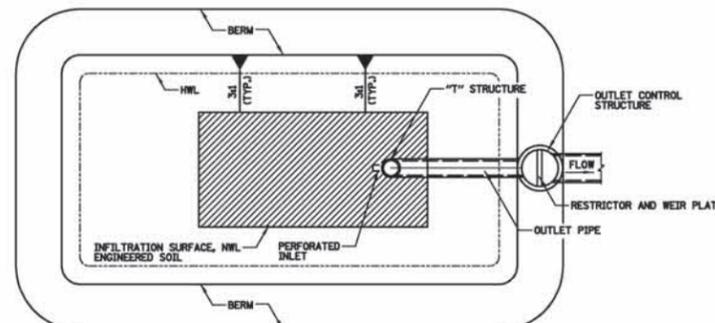
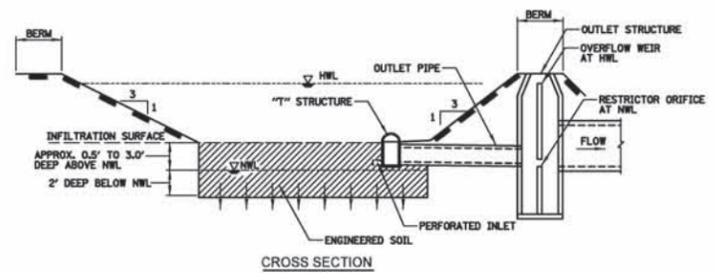


PLAN VIEW  
 TYPICAL CONCEPTUAL BMP DETENTION BASIN DETAIL, TYPE 1A  
 (SANDY SOILS)



NOTE: UNDERDRAIN SYSTEM TO BE PLACED WITHIN 100 FEET OF PERIMETER. LATERAL UNDERDRAINS AREA NECESSARY WHERE SIDES ARE GREATER THAN 100 FEET FROM MAIN UNDERDRAIN.

PLAN VIEW  
 TYPICAL CONCEPTUAL BMP DETENTION BASIN DETAIL, TYPE 2  
 (CLAY SOILS)



PLAN VIEW  
 TYPICAL CONCEPTUAL BMP DETENTION BASIN DETAIL, TYPE 2A  
 (SANDY SOILS)

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PLOT DATE = 5/14/2012	

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ELGIN O'HARE WEST BYPASS  
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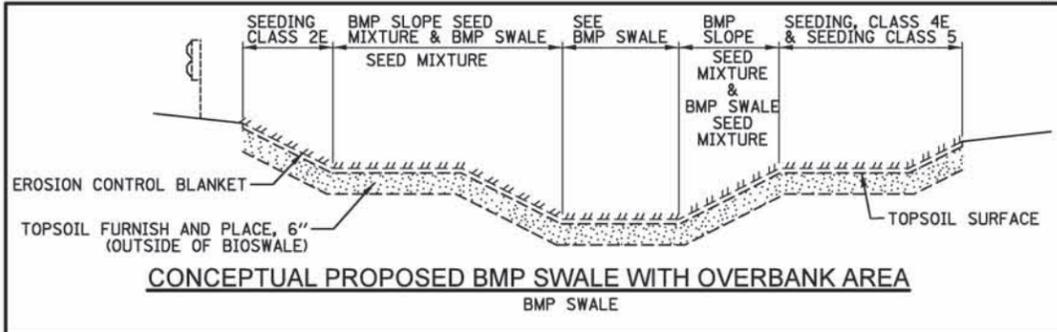
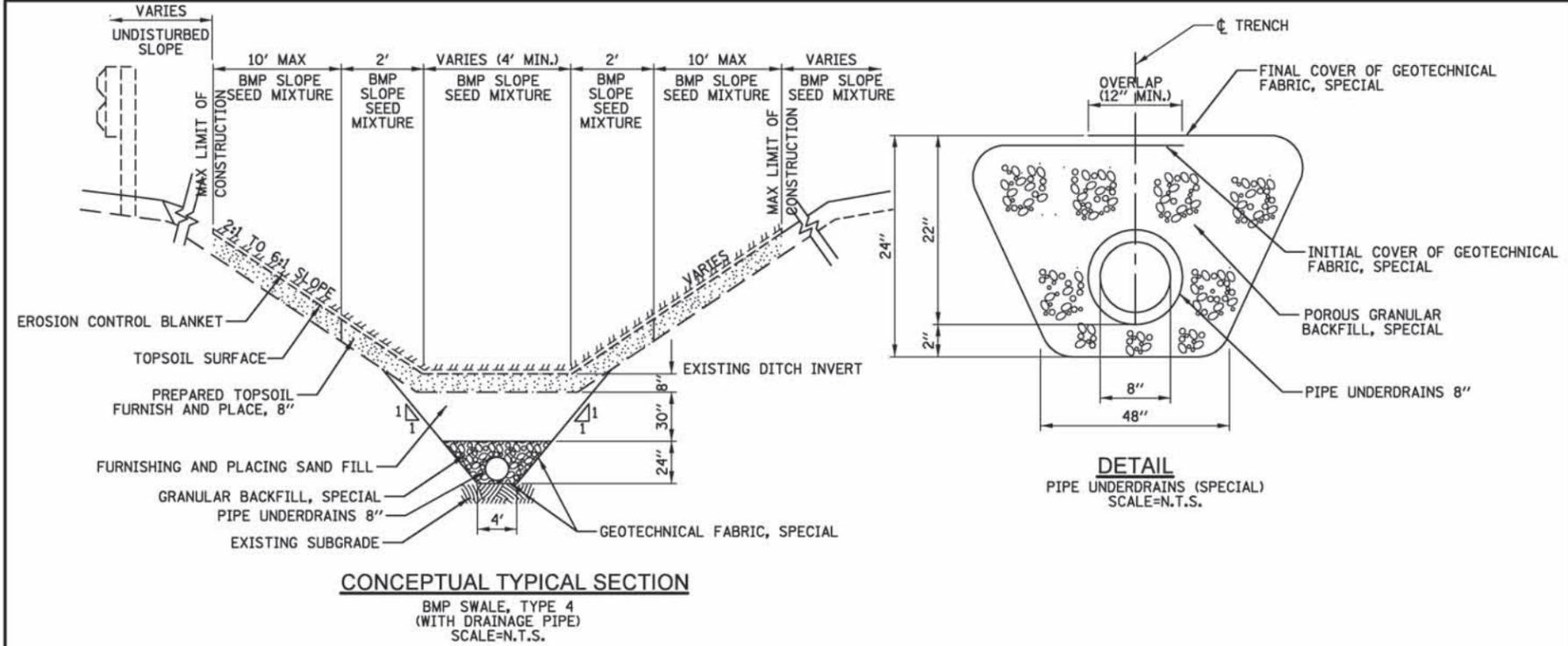
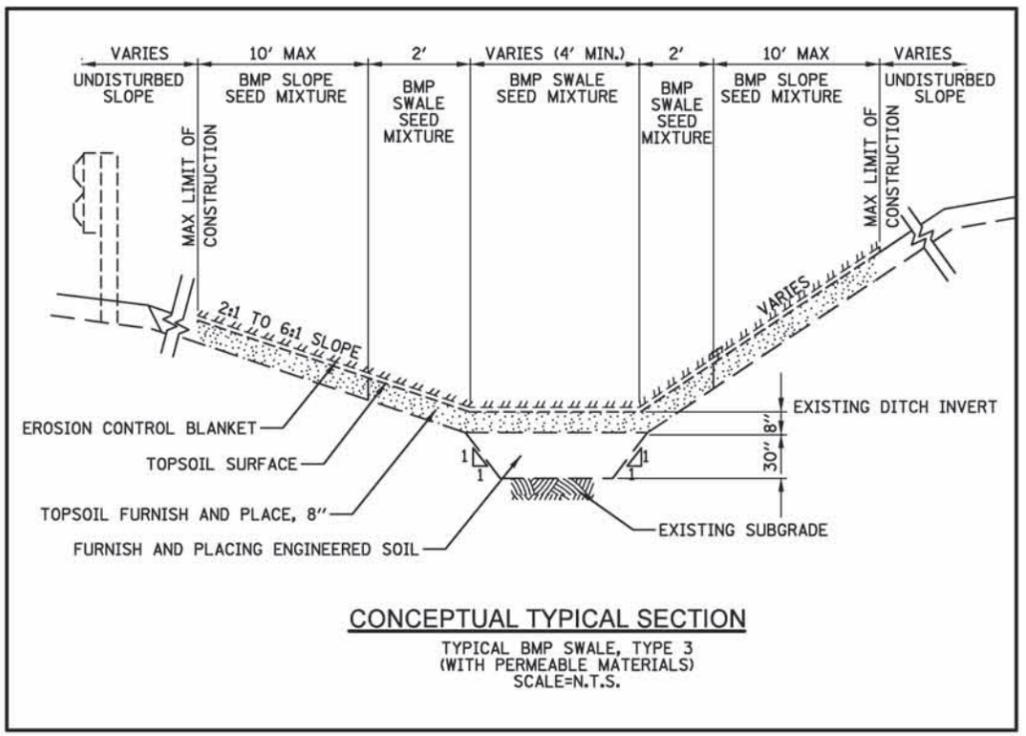
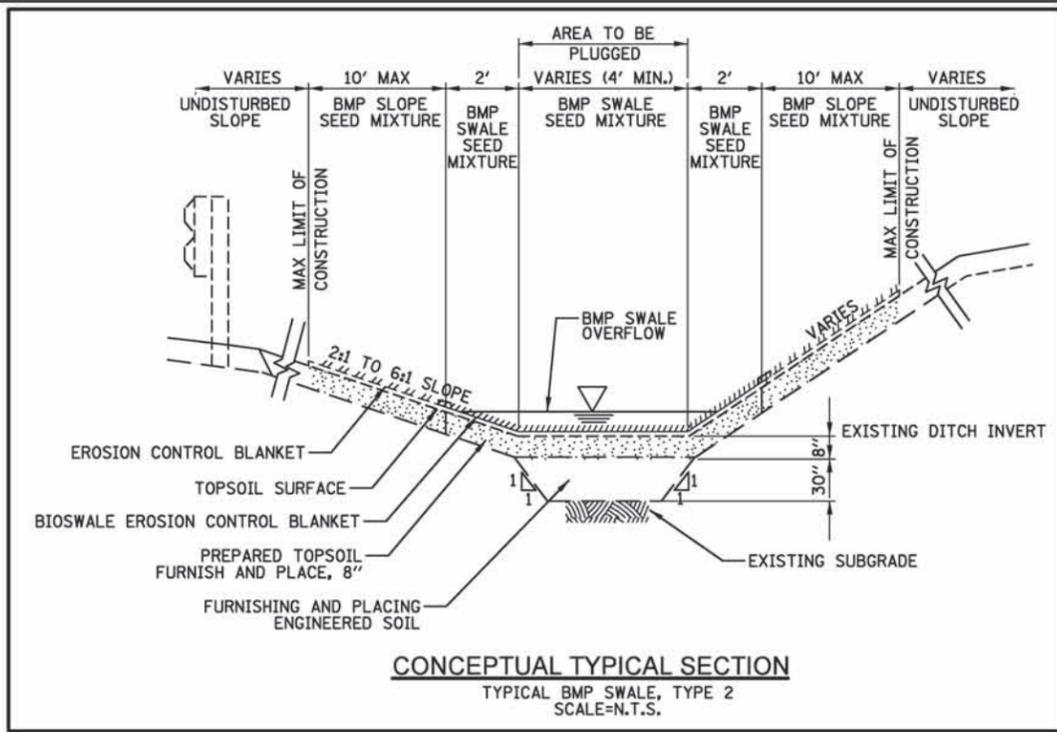
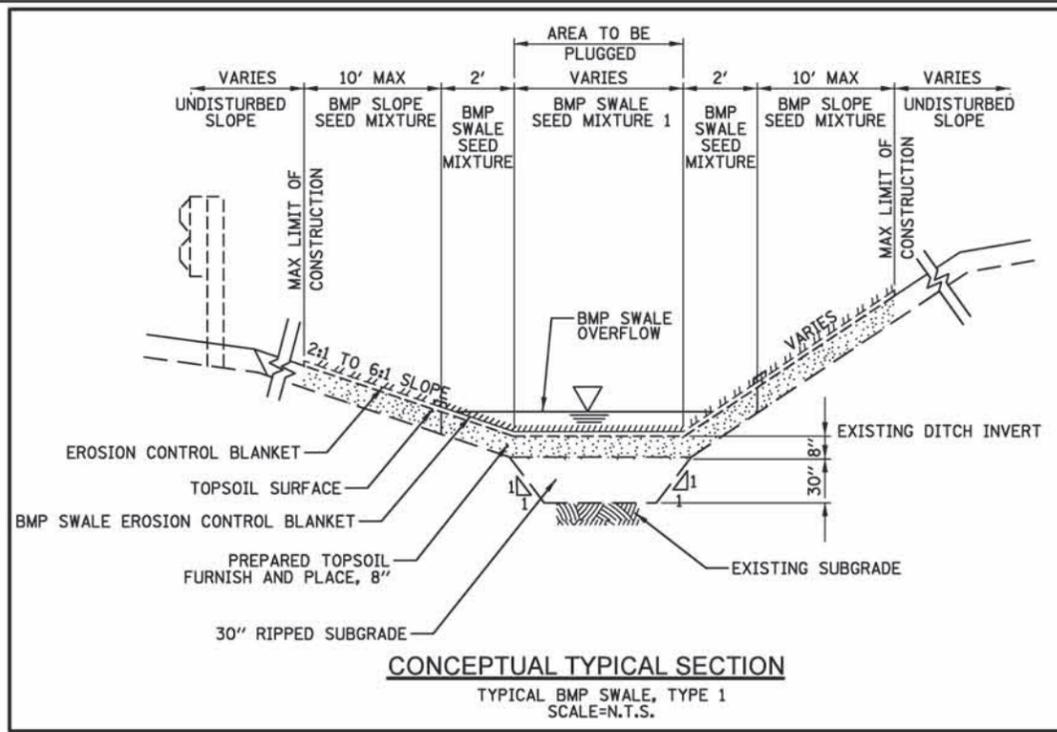


PROPOSED BMP PLAN  
 CONCEPTUAL DETAILS  
 ELGIN O'HARE EXPRESSWAY

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK, DuPAGE	169	166
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				





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		CHECKED CW	REVISED -
		DATE -	REVISED -


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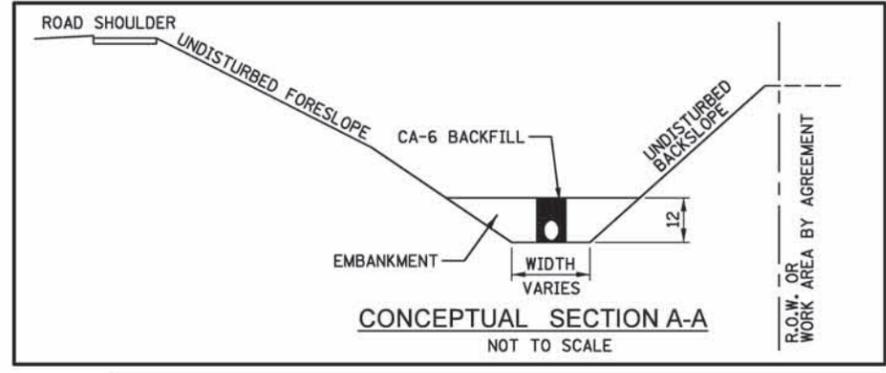
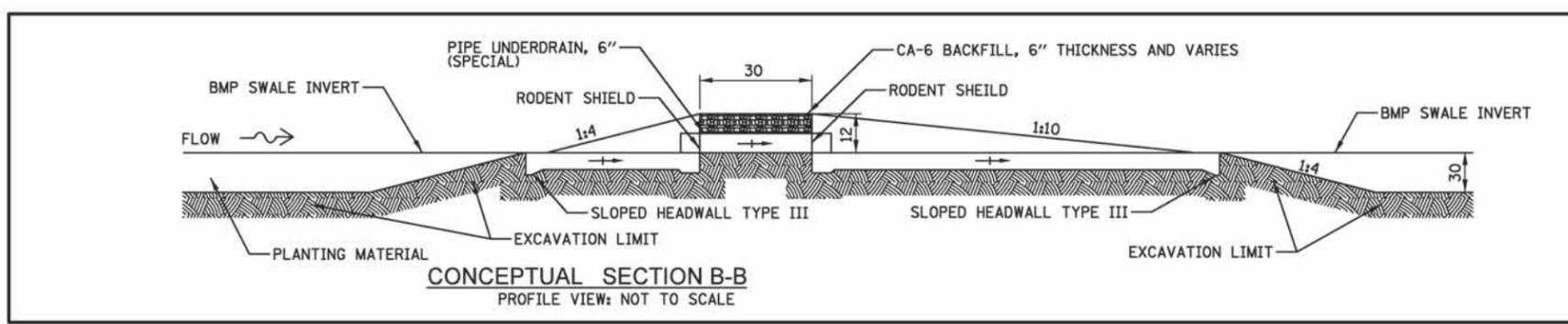
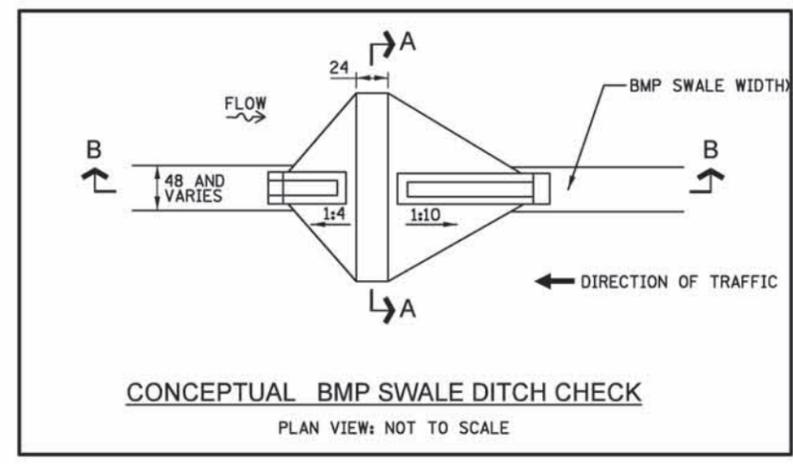
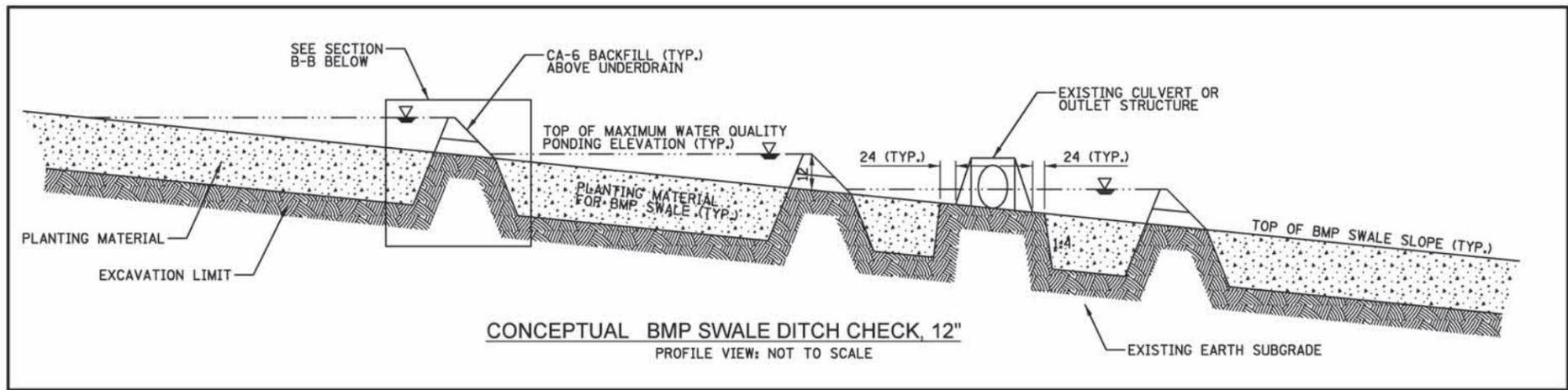
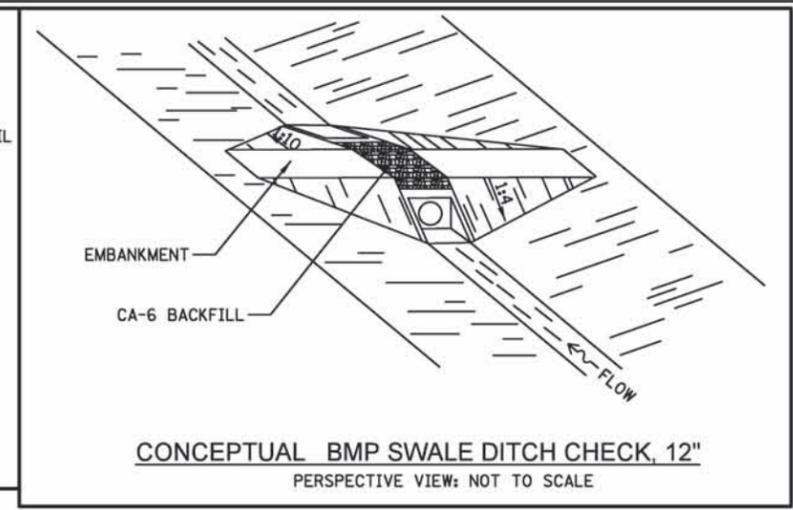
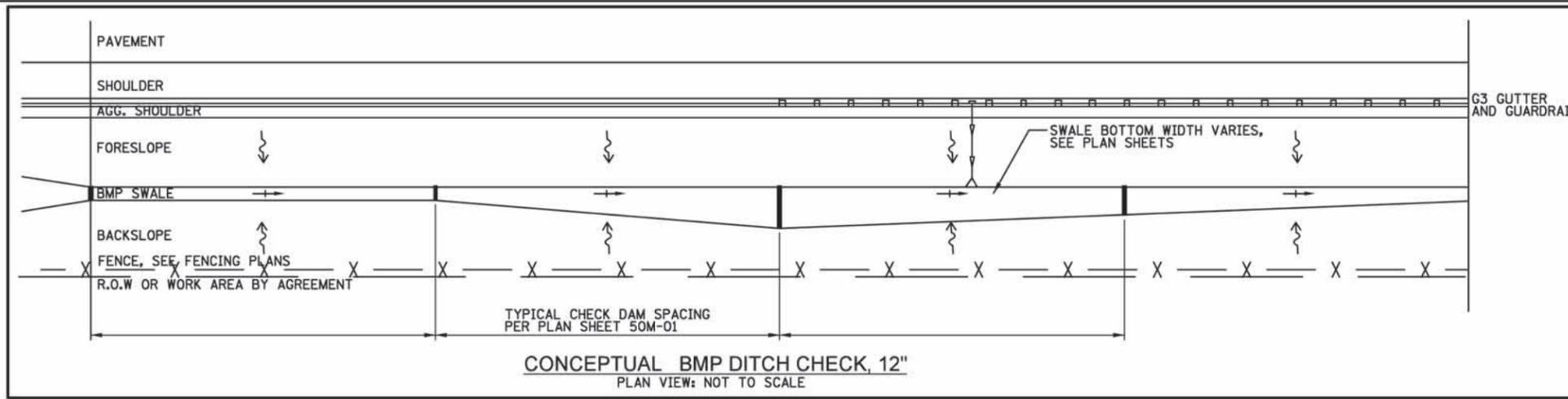

 Illinois Department of Transportation  

 CHRISTOPHER & BURKE  
 ENGINEERING, INC.

**PROPOSED BMP PLAN CONCEPTUAL DETAILS ELGIN O'HARE EXPRESSWAY**

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

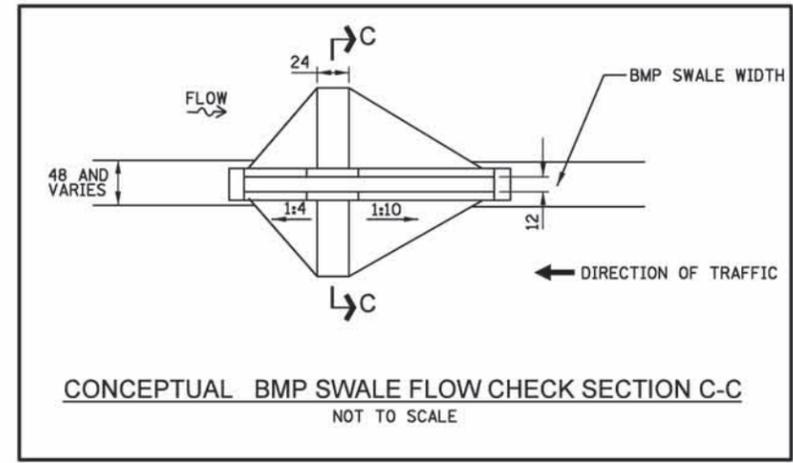
RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			169	168
CONTRACT NO.			ILLINOIS FED. AID PROJECT	



MODIFIED SLOPED HEADWALL TYPE III DIMENSIONS AND QUANTITIES

	PIPE DIA/ CHANNEL WIDTH	DIMENSIONS											PRE-CAST CONC. CU. YD.	CAST-IN- PLACE CU. YD.	WELDED WIRE FABRIC SQ. YD.	NO. OF #4d BARS	REINF. STEEL LBS.
		A	B	C	N	M	P	S	L	V	W						
DITCH CHECK, 12"	1:10	6"	6"	0"	1'-4"	0"	1'-8"	5'-1/2"	5'-0"	11'-8 1/2"	1'-0"	3'-6"	0.22	0.78	6.23	16	11
FLOW CHECK, 12"	4:1	6"	6"	0"	1'-4"	0"	1'-8"	2'-1"	2'-0"	5'-9"	1'-0"	3'-6"	0.11	0.42	2.92	10	6.7
	10:1	12"	12"	0"	1'-10"	0"	1'-8"	5'-1/2"	10'-0"	16'-8 1/2"	1'-0"	4'-0"	0.65	1.27	12.30	26	17
	4:4	12"	12"	0"	1'-10"	0"	1'-8"	2'-1"	4'-0"	7'-9"	1'-0"	4'-0"	0.31	0.72	5.99	14	9.3

- NOTE:
- ALL SLOPE RATIOS ARE EXPRESSED AS UNIT OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
  - ALL DIMENSION ARE IN INCHES UNLESS OTHERWISE SHOWN.
  - PLACE BMP SWALE EROSION CONTROL BLANKET OVER THE BMP SWALE DITCH CHECK, 12".
  - SEE ALSO STANDARD DRAWING FOR SLOPED HEADWALL TYPE III DETAILS NOT SHOWN.
  - THE ENDS OF THE PIPE UNDERDRAIN (SPECIAL) SHALL BE PROTECTED BY A PERMANENT RODENT SHIELD. THE RODENT SHIELD SHALL HAVE THE CONFIGURATION SHOWN IN STANDARD 601101 AND BE CONSTRUCTED FROM HOT DIP GALVANIZED STEEL INDUSTRIAL WIRE CLOTH 3X3 MESH, 0.063"x0.063" WIRE SIZE IN ACCORDANCE WITH ASSHTO M232 (ASTM A153). THE COST OF THE RODENT SHIELD IS INCLUDED IN CLASS SI CONCRETE.
  - TRENCH FOR PIPE UNDERDRAIN 6" (SPECIAL) SHALL BE BACKFILLED WITH CA-6.
  - 10:1 SLOPE SHALL ALWAYS FACE TRAFFIC. REVERSE DESIGN ACCORDINGLY.



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