

METHOD 1

EXISTING BOX		A	B	T*	EACH COLLAR				POUNDS
W FT	H FT				CLASS SI	REINFORCEMENT BARS		STRAIGHT BARS	
					CU YD	X	Y	NO.	
2	2	4'-0"	4'-0"	4"	0.55	3'-4"	2'-2"	8	48
3	2	5'-0"	5'-0"	4"	0.63	4'-4"	2'-2"	8	53
3	3	5'-0"	5'-0"	4"	0.71	4'-2"	2'-8"	8	58
4	4	6'-2"	6'-2"	5"	0.9	5'-6"	3'-3"	12	75
4	6	6'-2"	8'-2"	5"	1.07	5'-6"	4'-3"	14	88
6	6	8'-6"	8'-6"	7"	1.28	7'-10"	4'-5"	16	103
6	8	8'-8"	10'-8"	8"	1.47	8'-0"	5'-6"	18	118

METHOD 2

EXISTING BOX		A	B	T*	EACH COLLAR				
W FT	H FT				CLASS SI	REINFORCEMENT BARS		EXPAN. BOLTS	
					CU YD	X	Y	POUNDS	NO.
2	2	4'-0"	4'-0"	4"	0.27	3'-4"	2'-2"	19	8
3	2	5'-0"	5'-0"	4"	0.32	4'-4"	2'-2"	24	8
3	3	5'-0"	5'-0"	4"	0.36	4'-2"	2'-8"	23	8
4	4	6'-2"	6'-2"	5"	0.45	5'-6"	3'-3"	31	12

CONCRETE COLLAR BILL OF MATERIAL						
LOCATION	CULVERT SIZE	METHOD 1	METHOD 2	CONC. COLLAR CU YD	REINF. BARS POUNDS	EXPAN. BOLTS 3/4" EACH
RT STA. 36+05.86	3' X 2'		2	0.64	24	16
LT STA. 71+06.15	2' X 2'	1		0.55	48	
RT STA. 71+06.15	2' X 2'	1		0.55	48	
LT STA. 94+15.99	2' X 2'	1		0.55	48	
RT STA. 94+15.99	2' X 2'	1		0.55	48	
LT STA. 98+00	4' X 6'	1		1.07	88	
RT STA. 98+00	4' X 6'	1		1.07	88	
RT STA. 112+47.90	3' X 3'	1	1	1.07	81	8
LT STA. 124+21.91	6' X 8'	1		1.47	118	
RT STA. 124+21.91	6' X 8'	1		1.47	118	
LT STA. 153+74.76	4' X 4'	1		0.9	75	
RT STA. 153+74.76	4' X 4'	1	1	1.35	106	12
LT STA. 155+19.78	6' X 6'	1		1.28	103	
RT STA. 155+19.78	6' X 6'	1		1.28	103	
LT STA. 178+23.90	3' X 3'	1		0.71	58	
RT STA. 178+23.90	3' X 3'	1	1	1.07	81	8
LT STA. 184+00.12	2' X 2'	1		0.55	48	
RT STA. 184+00.12	2' X 2'	1	1	0.82	67	8
TOTAL				17.0	1350	52

NOTES

1. THE COLLAR SHALL BE CONSTRUCTED ENTIRELY OF CLASS SI CONCRETE AND IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 503 OF THE STANDARD SPECIFICATIONS. REINFORCEMENT BARS SHALL CONFORM TO SECTION 508.
2. EXPANSION BOLTS SHALL CONSIST OF APPROVED EXPANSION ANCHORS, AND 3/4 HOOK BOLTS WHICH CONFORM TO SECTION 1006.08. THESE BOLTS SHALL EXTEND AT LEAST 8 INCHES INTO THE NEW CONCRETE.
3. REINFORCEMENT BARS SHALL CONFORM TO SECTION 508 OF THE STANDARD SPECIFICATION.

DRAWING NOT TO SCALE

FILE NAME = d-randetail.dgn	USER NAME = ghadineam	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COLLAR DETAIL FOR BOX CULVERT EXTENSIONS SHEET 2 OF 2	F.A.P. RTE. 665	SECTION (136.137)W&RS-3(136R)09BR-1	COUNTY HENDERSON	TOTAL SHEETS 154	SHEET NO. 154	
PLOT SCALE = 1/8" = 1'-0"	PLotted DATE = 1/20/2009	DRAWN -	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO. 88773			
		CHECKED -	REVISED -								
		DATE -	REVISED -								