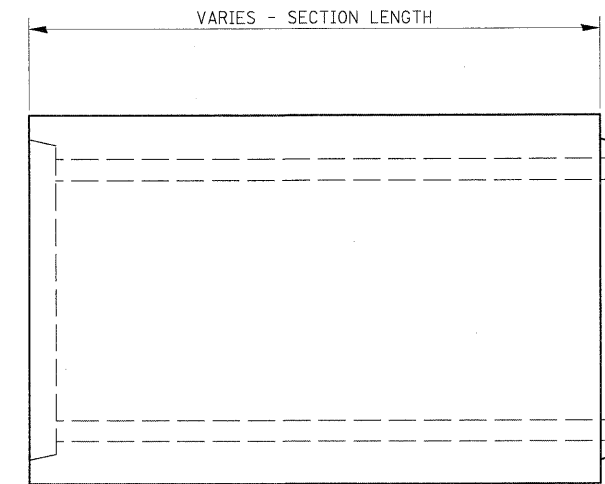


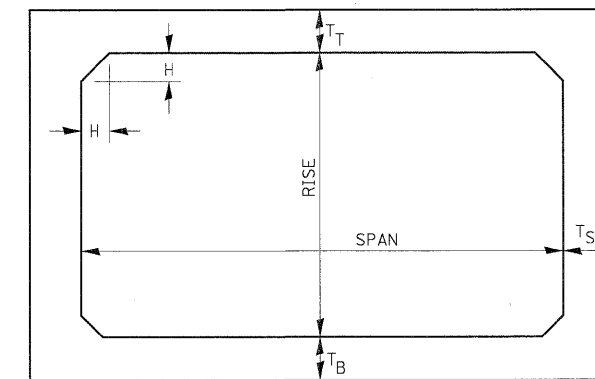
SECTION A-A

**PLAN AT CULVERT EXTENSIONS**

540-13



**ELEVATION**



NOTE: THE HAUNCH DIMENSION H, IS EQUAL TO THE WALL THICKNESS T<sub>S</sub>.

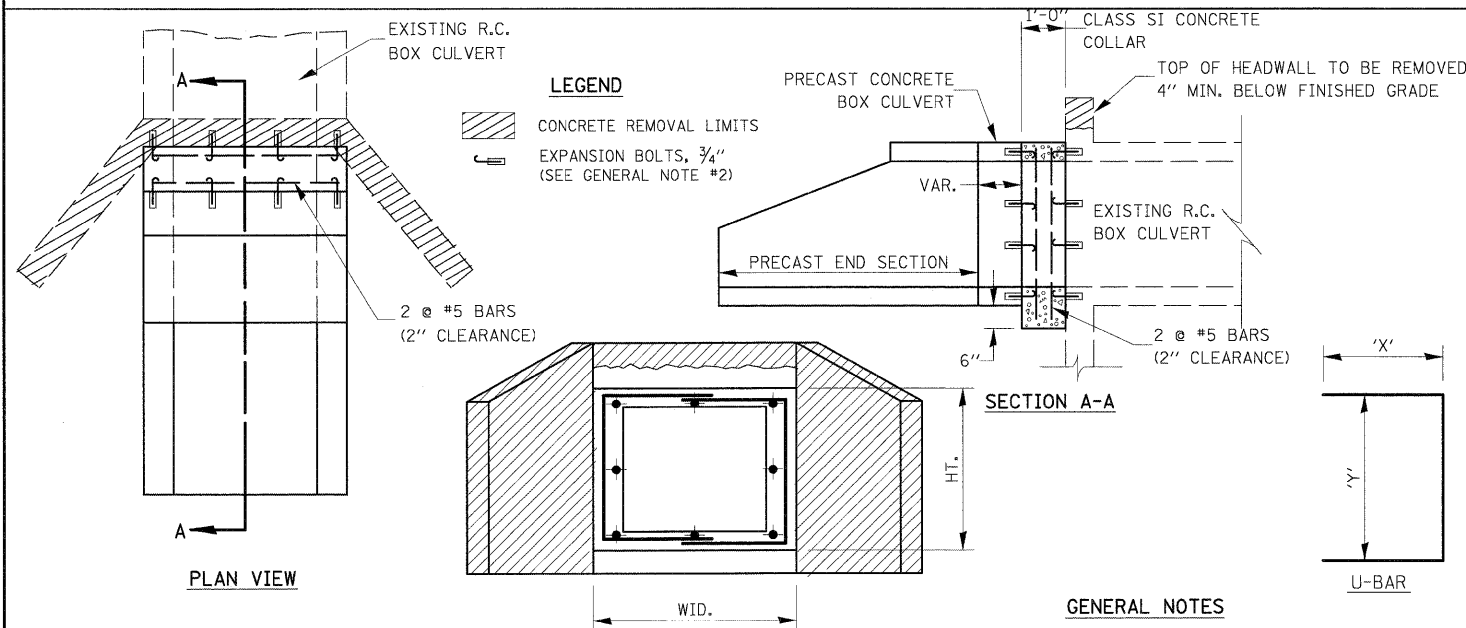
**TYPICAL BOX SECTION**

SPAN, FEET	T <sub>T</sub> , INCHES		T <sub>B</sub> , INCHES		T <sub>S</sub> , INCHES	
	M 259	M 273	M 259	M 273	M 259	M 273
3	4	7	4	6	4	4
4	5	7 1/2	5	6	5	5
5	6	8	6	7	6	6
6	7	8	7	7	7	7
7	8	8	8	8	8	8
8	8	8	8	8	8	8
9	9	9	9	9	9	9
10	10	10	10	10	10	10
11	11	11	11	11	11	11
12	12	12	12	12	12	12

**TYPICAL THICKNESSES**

**PRECAST CONCRETE BOX SECTION DETAIL**

540-15



PLAN VIEW

SECTION A-A

U-BAR

**GENERAL NOTES**

- 1.) CLASS SI CONCRETE SHALL BE USED THROUGHOUT. THE INSIDE DIMENSIONS OF THE CLASS SI CONCRETE COLLAR SHALL BE THE SAME AS THE NEW PRECAST CONCRETE BOX CULVERT.
- 2.) EXPANSION BOLTS SHALL CONSIST OF SELF DRILLING EXPANSION SHIELDS AND 3/4" HOOKED BOLTS. HOOKED BOLTS SHALL EXTEND A MINIMUM OF 9" INTO NEW CONCRETE. BOLTS SHALL BE PLACED IN EACH CORNER AND AT 18" MAXIMUM CENTERS. MINIMUM CERTIFIED PROOF LOADING = 4,080 LBS.

LOCATION	EXISTING CULVERT SIZE		PRECAST CULV. EXTENSION		U-BAR		CONC. COLLAR	REINFORCEMENT BARS	3/4" DIA. EXPANSION BOLTS
	FT. x FT.	FT. x FT.	IN.	IN.	'X'	'Y'			
①	3'x2'	3'x2'	26"	28"	0.5	30		8	
②	3'x2'	3'x2'	26"	28"	0.5	30		8	

**COLLAR DETAIL (PRECAST BOX CULVERT EXTENSION OF BOX CULVERT)**

540-6

GENERAL NOTES:  
MINIMUM COVER FOR BOX CULVERTS SHALL BE 6".

FILE NAME = I:\0\gr\sheseta\du31.dgn	USER NAME = EricG	DESIGNED - JWM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE DETAILS				F.A.I. RTE. = 57	SECTION = (46-2) I, HBR, VBR	COUNTY = KANKAKEE	TOTAL SHEETS = 558	SHEET NO. = 163
	PLOT SCALE = 1:1	DRAWN - JWM	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 66409			
	PLOT DATE = 12/22/2010	CHECKED - EJG	REVISED -		FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT								
		DATE = 12/17/10	REVISED -										