DESIGN		
INT.	DATE	REASON

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

CHECKS		
INT.	DATE	REASON

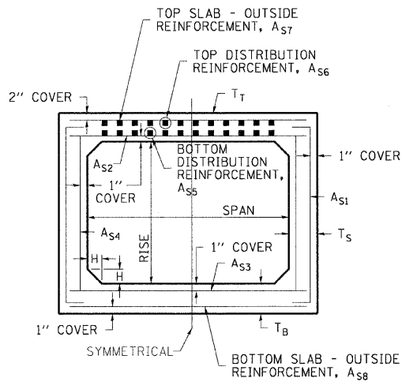
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
95	•	JASPER	546	298
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

•(5,6)Y,RS-2,6BR-7
CONTRACT NO. 94437

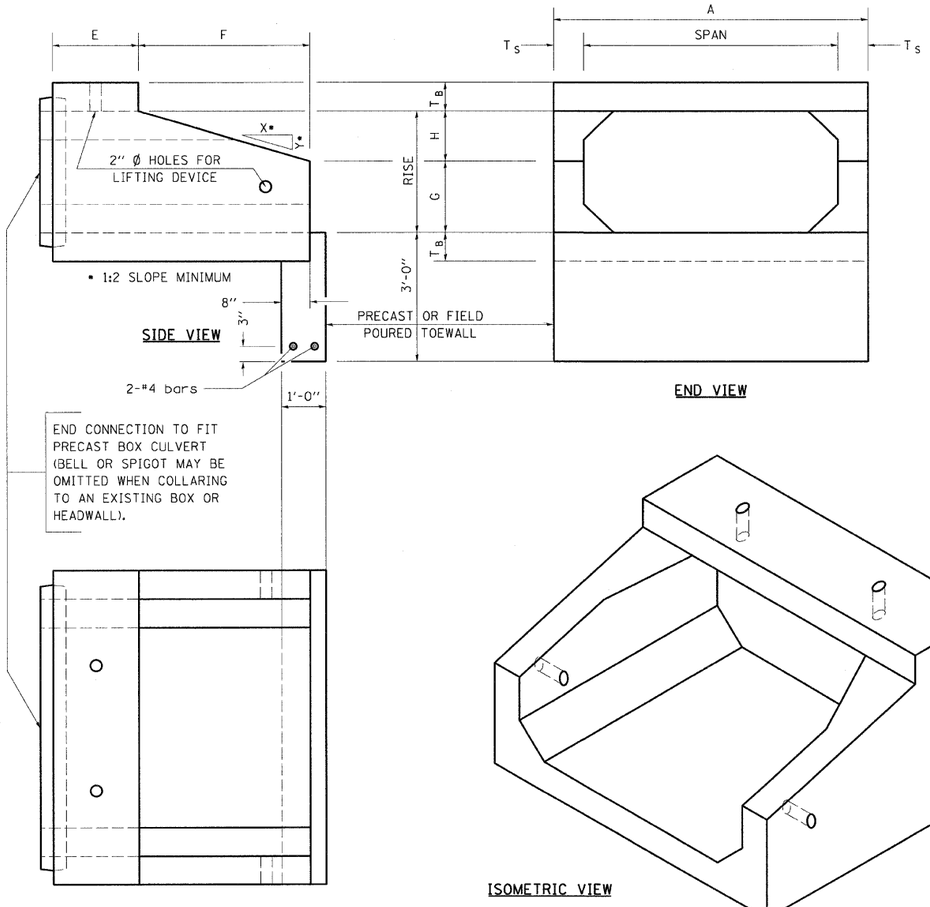
DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION

AASHTO DESIGNATION M273 (WITH LESS THAN 2' OF COVER)

DESIGN LOADING:
TABLE 1 = HS20
TABLE 2 = INTERSTATE LOADING



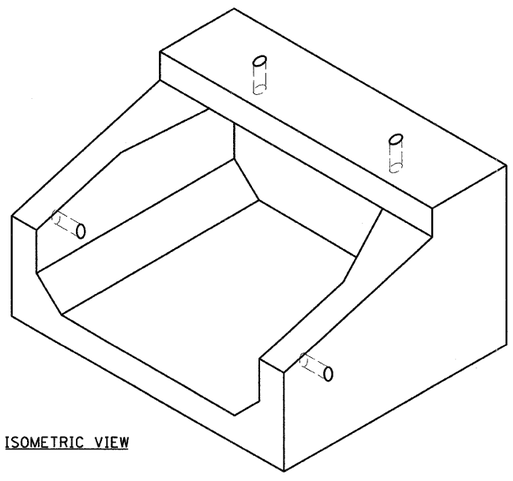
CROSS SECTION



SIDE VIEW

END VIEW

PLAN



ISOMETRIC VIEW

CULVERT SIZE BOX SECTION S x R (FT)	DIMENSIONS•								
	THICKNESS			A	B	E	F	G	H	SLOPE
	Tt	Tb	Ts	FT - IN	FT - IN	FT - IN	FT - IN	FT - IN	FT - IN	Y: X
3 x 2	7	6	4	3 - 8	3 - 1	3 - 0	3 - 0	1- 0	1 - 0	1:3
3 x 3	7	6	4	3 - 8	4 - 1	2 - 0	4 - 0	1 - 8	1 - 4	1:3
4 x 2	7.5	6	5	4 - 10	3 - 1.5	3 - 0	3 - 0	1 - 0	1 - 0	1:3
4 x 3	7.5	6	5	4 - 10	4 - 1.5	2 - 0	4 - 0	1 - 8	1 - 4	1:3
4 x 4	7.5	6	5	4 - 10	5 - 1.5	2 - 0	4 - 0	2 - 0	2 - 0	1:2
5 x 3	8	7	6	6 - 0	4 - 3	2 - 0	4 - 0	1 - 8	1 - 4	1:3
5 x 4	8	7	6	6 - 0	5 - 3	2 - 0	4 - 0	2 - 0	2 - 0	1:2
5 x 5	8	7	6	6 - 0	6 - 3	2 - 0	4 - 0	3 - 0	2 - 0	1:2
6 x 3	8	7	7	7 - 2	4 - 3	2 - 0	4 - 0	1 - 8	1 - 4	1:3
6 x 4	8	7	7	7 - 2	5 - 3	2 - 0	4 - 0	2 - 0	2 - 0	1:2
6 x 5	8	7	7	7 - 2	6 - 3					
6 x 6	8	7	7	7 - 2	7 - 3	2 - 0	6 - 0	3 - 0	3 - 0	1:2
7 x 4	8	8	8	8 - 4	5 - 4	2 - 0	4 - 0	2 - 0	2 - 0	1:2
7 x 5	8	8	8	8 - 4	6 - 4					
7 x 6	8	8	8	8 - 4	7 - 4					
7 x 7	8	8	8	8 - 4	8 - 4					
8 x 4	8	8	8	9 - 4	5 - 4	2 - 0	4 - 0	2 - 0	2 - 0	1:2
8 x 5	8	8	8	9 - 4	6 - 4					
8 x 6	8	8	8	9 - 4	7 - 4					
8 x 7	8	8	8	9 - 4	8 - 4					
8 x 8	8	8	8	9 - 4	9 - 4					
9 x 5	9	9	9	10 - 6	6 - 6					
9 x 6	9	9	9	10 - 6	7 - 6					
9 x 7	9	9	9	10 - 6	8 - 6					
9 x 8	9	9	9	10 - 6	9 - 6					
9 x 9	9	9	9	10 - 6	10 - 6					
10 x 5	10	10	10	11 - 8	6 - 8					
10 x 6	10	10	10	11 - 8	7 - 8					
10 x 7	10	10	10	11 - 8	8 - 8					
10 x 8	10	10	10	11 - 8	9 - 8					
10 x 9	10	10	10	11 - 8	10 - 8					
10 x 10	10	10	10	11 - 8	11 - 8					
11 x 4	11	11	11	12 - 10	5 - 10					
11 x 6	11	11	11	12 - 10	7 - 10					
11 x 8	11	11	11	12 - 10	9 - 10					
11 x 10	11	11	11	12 - 10	11 - 10					
11 x 11	11	11	11	12 - 10	12 - 10					
12 x 4	12	12	12	14 - 0	6 - 0					
12 x 6	12	12	12	14 - 0	8 - 0					
12 x 8	12	12	12	14 - 0	10 - 0					
12 x 10	12	12	12	14 - 0	12 - 0					
12 x 12	12	12	12	14 - 0	14 - 0					

• "T" MAY BE LARGER THAN SHOWN ON TABLE, PER AASHTO SPECIFICATIONS.

GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 540.06 OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED IN ACCORDANCE WITH ARTICLE 504.06 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS A_{S1}, A_{S2}, A_{S3}, ETC. DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN AASHTO M273.

REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO SPECIFICATIONS M55 OR M221. LONGITUDINAL DISTRIBUTION REINFORCEMENT MAY CONSIST OF WELDED WIRE FABRIC OR DEFORMED BILLET STEEL BARS CONFORMING TO AASHTO M31, GRADE 60, AND SHALL BE A706 STEEL.

LIFTING HOLES SHALL BE FILLED IN ACCORDANCE WITH 540.02 OR PROJECT SPECIAL PROVISIONS.

DESIGN FILL HEIGHT (F):

MAXIMUM FILL HEIGHT (fmax) AND MINIMUM FILL HEIGHT (fmin) ARE MEASURED BETWEEN THE EXTREME EDGES OF SHOULDER.

fmax/fmin (FT)	F (FT)	AASHTO
fmin < 2'	< 2'	M273
2' ≤ fmin < 3'	2'	M259
3' ≤ fmin < 4'	3'	M259
fmin ≥ 4'	fmax	M259

DESIGN FILL HEIGHTS APPLY TO ENTIRE CULVERT, INCLUDING EXTENSIONS AND END SECTIONS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAIL OF PRECAST CONCRETE BOX CULVERT SECTION

FAP ROUTE 95 (IL RTE. 33)
SECTION (5,6)Y,RS-2,6BR-7
JASPER COUNTY

SCALE: VERT.
HORIZ.
DATE: 09/18/02

DRAWN BY: BISHOP
DESIGNED BY: COLBROOK
CHECKED BY: COLBROOK

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
FOR CONSTRUCTION SERVICES
SPRINGFIELD, ILLINOIS 62701
PROFESSIONAL DESIGN FIRM NO. 184-001579
PROFESSIONAL & STRUCTURAL ENGINEERING CORPORATION
(217) 793-3646, (217) 753-5621 FT.L.WAL. - colbrook@greene-bradford.com

COMPUTER FILE NO. PRECAST - 50

PROJECT 01256
2/26/10-FAV

IDOTPL-50 1"=50' 8/07/00