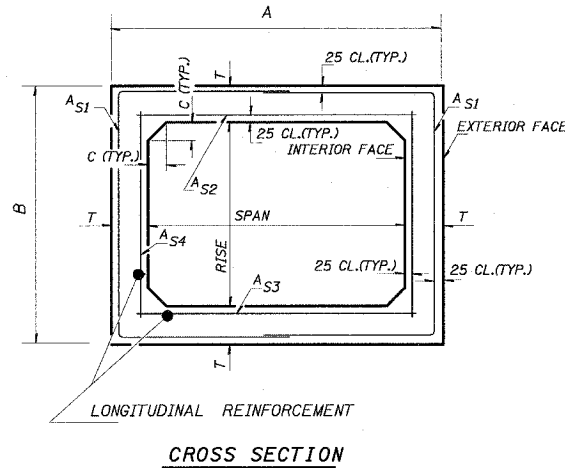


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	176
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

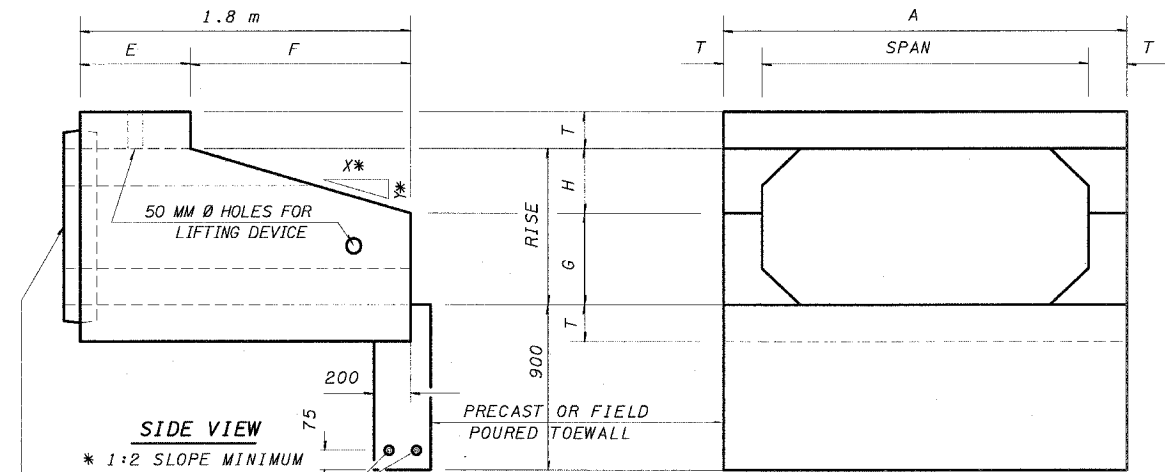
DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION

AASHTO DESIGNATION M259M
(ASTM DESIGNATION C-789M)
DESIGN LOADING = MS18

** NOTE: THE DIMENSIONS INDICATED ARE FOR END SECTIONS THAT ARE TO BE USED WITH PRECAST BOX CULVERT SECTIONS DESIGNED FOR 600 MM OR MORE OF FILL. THE DIMENSIONS MUST BE MODIFIED FOR THE END SECTION TO BE COMPATIBLE WITH PRECAST CULVERT SECTIONS DESIGNED FOR LESS THAN 600 MM OF FILL.



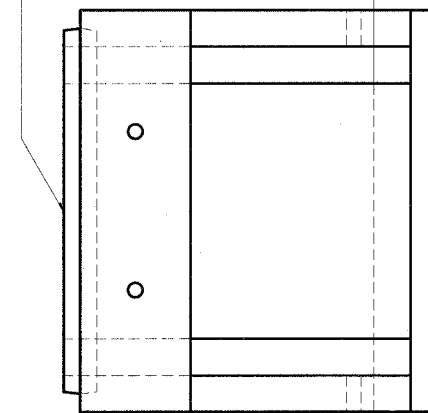
CROSS SECTION



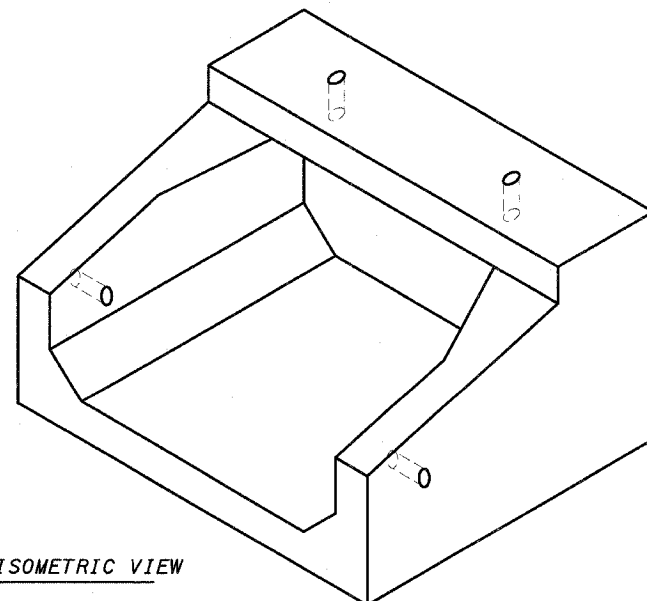
SIDE VIEW
* 1:2 SLOPE MINIMUM
2 - #15 bars

END VIEW

END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX OR HEADWALL).



PLAN



ISOMETRIC VIEW

CULVERT SIZE		DIMENSIONS **								
NOMINAL	ACTUAL	T	A	B	C	E	F	G	H	SLOPE
SPANxRISE (METER)	SPANxRISE (METER)	(MM)	(METER)	(METER)	(MM)	(METER)	(METER)	(METER)	(METER)	(Y:X)
0.6x0.6	0.610x0.610	100	0.810	0.810	100	0.900	0.900	0.310	0.300	1:3
0.9x0.6	0.914x0.610	100	1.114	0.810	100	0.900	0.900	0.310	0.300	1:3
0.9x0.9	0.914x0.914	100	1.114	1.114	100	0.600	1.200	0.514	0.400	1:3
1.2x0.6	1.219x0.610	125	1.469	0.860	125	0.900	0.900	0.310	0.300	1:3
1.2x0.9	1.219x0.914	125	1.469	1.164	125	0.600	1.200	0.514	0.400	1:3
1.2x1.2	1.219x1.219	125	1.469	1.469	125	0.600	1.200	0.619	0.600	1:2
1.5x0.6	1.524x0.610	125	1.774	0.860	150	0.900	0.900	0.310	0.300	1:3
1.5x0.9	1.524x0.914	150	1.824	1.214	150	0.600	1.200	0.514	0.400	1:3
1.5x1.2	1.524x1.219	150	1.824	1.519	150	0.600	1.200	0.619	0.600	1:2
1.5x1.5	1.524x1.524	150	1.824	1.824	150	0.600	1.200	0.924	0.600	1:2
1.8x0.6	1.829x0.610	175	2.179	0.960	175	0.900	0.900	0.310	0.300	1:3
1.8x0.9	1.829x0.914	175	2.179	1.264	175	0.600	1.200	0.514	0.400	1:3
1.8x1.2	1.829x1.219	175	2.179	1.569	175	0.600	1.200	0.619	0.600	1:2
1.8x1.5	1.829x1.524	175	2.179	1.874						
1.8x1.8	1.829x1.829	175	2.179	2.179						
2.1x1.2	2.134x1.219	200	2.534	1.619	200	0.600	1.200	0.619	0.600	1:2
2.1x1.5	2.134x1.524	200	2.534	1.924						
2.1x1.8	2.134x1.829	200	2.534	2.229						
2.1x2.1	2.134x2.134	200	2.534	2.534						
2.4x1.2	2.438x1.219	200	2.838	1.619	200	0.600	1.200	0.619	0.600	1:2
2.4x1.5	2.438x1.524	200	2.838	1.924						
2.4x1.8	2.438x1.829	200	2.838	2.229						
2.4x2.1	2.438x2.134	200	2.838	2.534						
2.4x2.4	2.438x2.438	200	2.838	2.838						
2.7x1.5	2.743x1.524	225	3.193	1.974						
2.7x1.8	2.743x1.829	225	3.193	2.279						
2.7x2.1	2.743x2.134	225	3.193	2.584						
2.7x2.4	2.743x2.438	225	3.193	2.888						
2.7x2.7	2.743x2.743	225	3.193	3.193						
3.0x1.5	3.048x1.524	250	3.548	2.024						
3.0x1.8	3.048x1.829	250	3.548	2.329						
3.0x2.1	3.048x2.134	250	3.548	2.634						
3.0x2.4	3.048x2.438	250	3.548	2.938						
3.0x2.7	3.048x2.743	250	3.548	3.243						
3.0x3.0	3.048x3.048	250	3.548	3.548						
3.3x1.2	3.353x1.219	275	3.903	1.769						
3.3x1.8	3.353x1.829	275	3.903	2.379						
3.3x2.4	3.353x2.438	275	3.903	2.988						
3.3x3.0	3.353x3.048	275	3.903	3.598						
3.3x3.3	3.353x3.353	275	3.903	3.903						
3.6x1.2	3.658x1.219	300	4.258	1.819						
3.6x1.8	3.658x1.829	300	4.258	2.429						
3.6x2.4	3.658x2.438	300	4.258	3.038						
3.6x3.0	3.658x3.048	300	4.258	3.648						
3.6x3.6	3.658x3.658	300	4.258	4.258						

GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04(d) OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 35 MPa AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH ACCORDANCE WITH ARTICLE 542.04(d) OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS AS1, AS2, AS3, AND AS4 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN AASHTO M259M. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO SPECIFICATIONS M55M.

ALL DIMENSIONS ARE DETAILED IN MILLIMETERS UNLESS OTHERWISE NOTED.

LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE END SECTIONS ARE IN PLACE.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION
SCALE NO SCALE		DRAWN BY KOJ
DATE MARCH 20, 2008		CHECKED BY RGH

PLOT DATE = 3/20/2008
FILE NAME = HY4420\78169_detail.dgn