STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

METRIC STANDARD DRAWING FOR

CONCRETE ENDWALL FOR SINGLE & DOUBLE PIPE CULVERTS

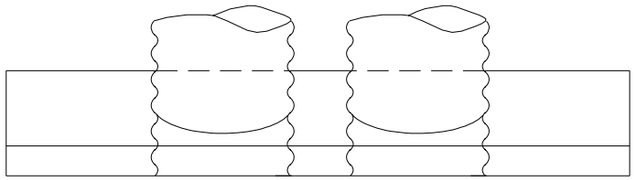
1016mm X 787mm THRU 1676mm X 1295mm PIPE

ARCH 76mm X 25mm CORRUGATIONS - 90° SKEW

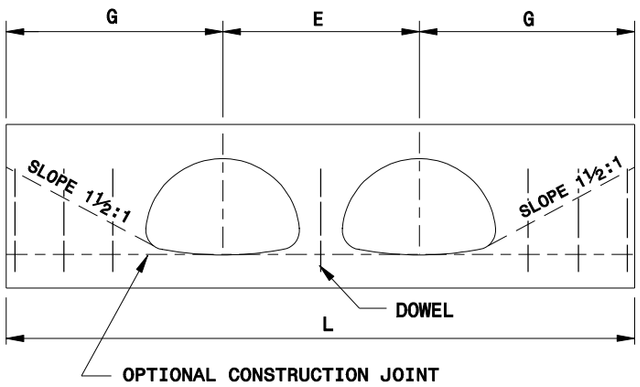
SHEET 1 OF 1

838.07

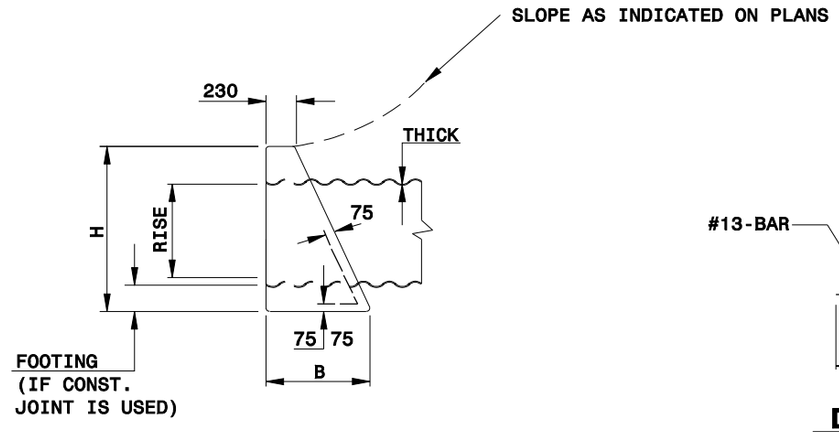
GENERAL NOTES:
- CHAMFER ALL CORNERS 25mm. USE CLASS "B" CONCRETE.
- PLACE 2 #19 "Y" BARS IN THE TOP OF ALL ENDWALL FOR PIPE CULVERTS 1050mm AND OVER WITH A MINIMUM OF 75mm COVER AND A LENGTH OF 150mm LESS THAN ENDWALL LENGTH.
- CONSTRUCT BOTTOM SLAB WITH FORMS.
- WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE, PLACE BAR "X" DOWELS IN THE BASE AS SHOWN ON PLANS. SPACE BARS APPROXIMATELY ON 300mm CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE AND POUR THE BASE SEPARATELY LEAVE THE POUR ROUGH.
- DO NOT INTERPRET WALL THICKNESS (T) SHOWN FOR THE THICKNESS ACCEPTABLE, BUT IS USED IN COMPUTING ENDWALL QUANTITIES.



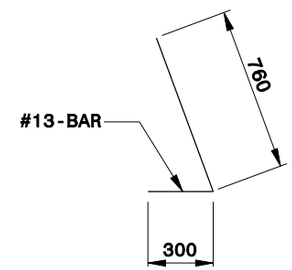
PLAN



ELEVATION



END ELEVATION



DOWEL

BAR-"X"

DOWELS IN ENDWALL

LOC.	PIPE SPAN	SINGLE PIPE 1016	1168	1346	1524	1676	DOUBLE PIPE 1016	1168	1346	1524	1676
	BARS	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"
G	QTY.	4	4	4	5	5	4	4	4	5	5
M	QTY.	-	-	-	-	-	1	2	2	2	2
G	QTY.	4	4	4	5	5	4	5	5	5	5
TOTAL kg.		8	8	8	11	11	10	12	12	13	13

Note:
This drawing is dimensioned in millimeters unless otherwise depicted within the drawing.

DIMENSIONS AND CONCRETE QUANTITIES

COMMON DIMENSIONS USING C.S. ARCH PIPE							SINGLE PIPE		DOUBLE PIPE	
SPAN	RISE	THICK.	H	B	G	E	L	m^3	L	m^3
1016	787	2.01	1295	660	1676	1346	3353	1.7	4699	2.2
1168	914	2.77	1422	711	1905	1549	3810	2.2	5359	2.8
1346	1041	2.77	1549	787	2159	1778	4318	2.9	6096	3.7
1524	1168	2.77	1676	838	2413	2083	4826	3.6	6909	4.8
1676	1295	2.77	1803	914	2667	2235	5334	4.6	7569	5.9

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