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

METRIC DETAIL DRAWING FOR  
**CONCRETE ENDWALL FOR SINGLE AND  
 DOUBLE PIPE CULVERTS**  
 375mm THRU 1200mm PIPE

SHEET 2 OF 2  
**838d02s1**

**GENERAL NOTES:**

- \* ALL CORNERS TO BE CHAMFERED 25mm.
- \* THE CONTRACTOR WILL BE REQUIRED TO PLACE 2 - #19 BARS "y" IN THE TOP OF ALL ENDWALLS FOR PIPE CULVERTS 1050mm AND OVER WITH A MINIMUM OF 75mm COVER AND A LENGTH OF 150mm LESS THAN ENDWALL.
- \* FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
- \* WALL THICKNESS (T) SHOWN IS NOT TO BE INTERPRETED TO MEAN THE THICKNESS ACCEPTABLE, BUT ARE USED ONLY IN COMPUTING ENDWALL QUANTITIES.
- \* IF CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE, BAR X (DOWELS SHALL BE PLACED IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS TO BE APPROXIMATELY 300mm CENTER UNLESS ENGINEER DIRECTS OTHERWISE.
- \* WHEN CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE AND POURS BASE SEPARATELY, THE TOP BASE SHALL BE LEFT ROUGH.
- \* WHEN SKEW ANGLE OF PIPE IS OVER/UNDER 30° USE G-1 DIMENSION FOR 30° PLUS/MINUS 152mm FOR EACH 5° OVER/UNDER 30°.
- \* G2 DIMENSION WILL BE THE NEW DIMENSION DIVIDED BY THE COSINE OF THE ANGLE OF PIPE SKEW.
- \* CLASS "B" CONCRETE SHALL BE USED.

**Note:**  
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 millimeters unless otherwise  
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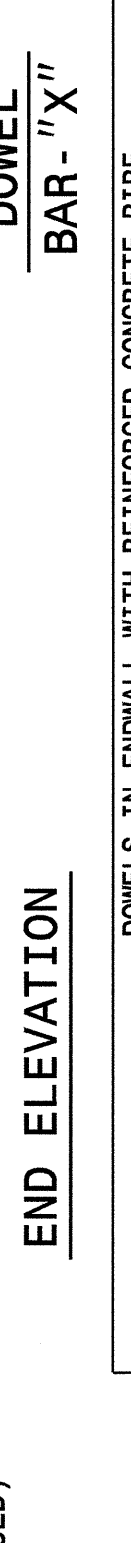
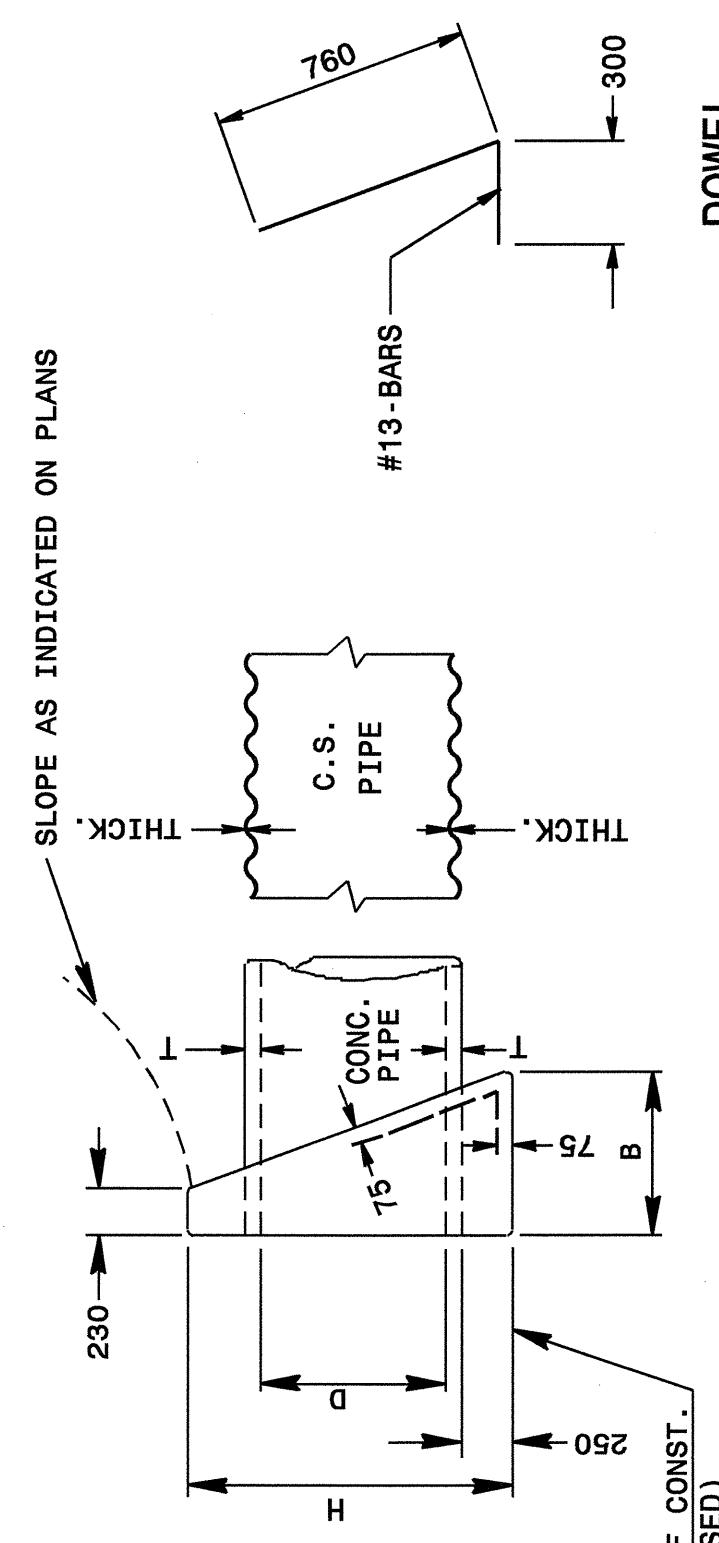
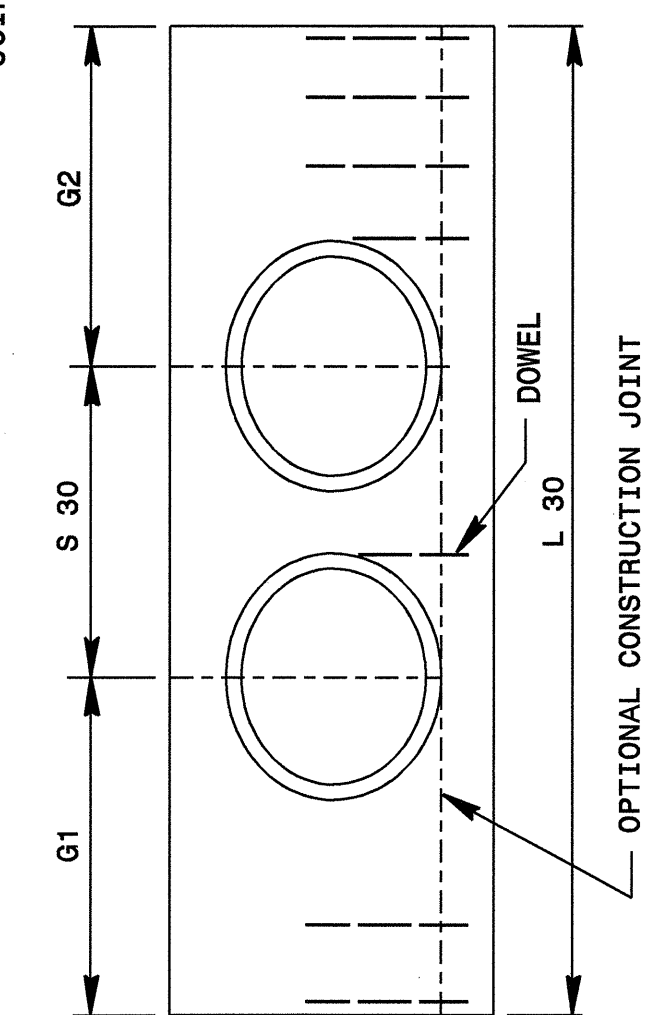
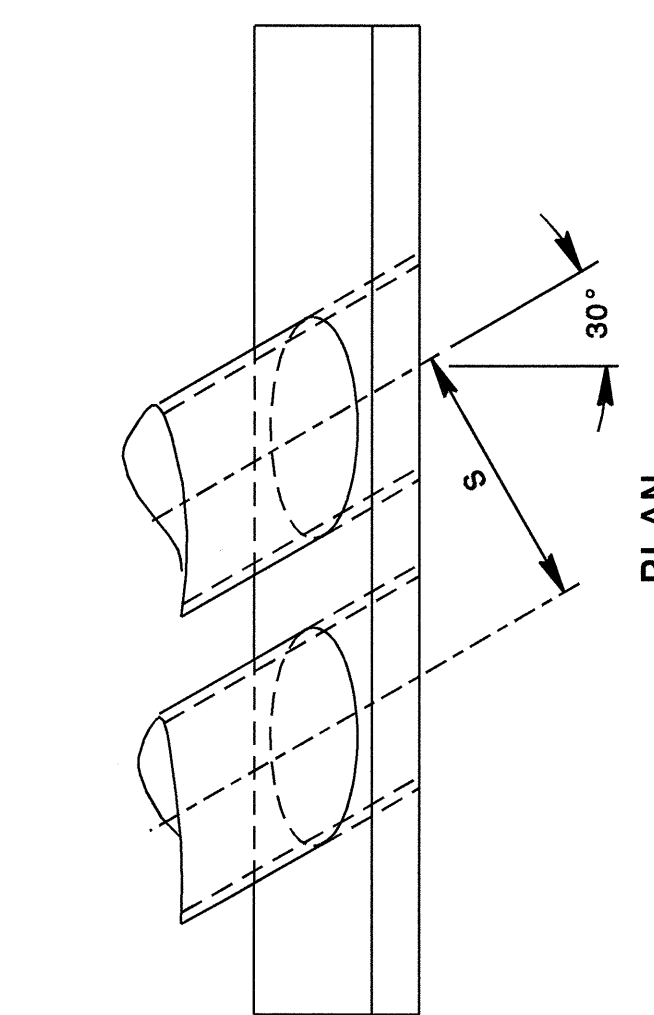
METRIC DETAIL DRAWING FOR  
**CONCRETE ENDWALL FOR SINGLE AND  
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 375mm THRU 1200mm PIPE

SHEET 2 OF 2  
**838d02s1**

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METRIC DETAIL DRAWING FOR  
**CONCRETE ENDWALL FOR SINGLE AND  
 DOUBLE PIPE CULVERTS**  
 375mm THRU 1200mm PIPE 60° OR 120° SKEW

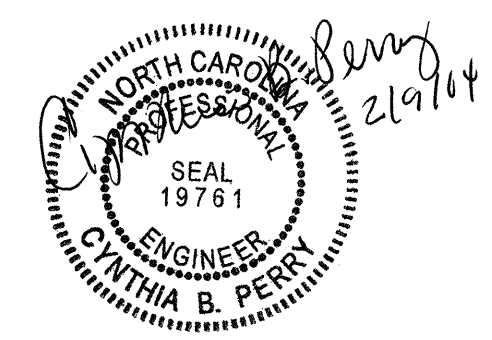
SHEET 1 OF 2  
**838d02s1**



LOC.	DIMENSIONS AND CONCRETE QUANTITIES																								
	USING CONCRETE PIPE				SINGLE CORRUGATED STEEL PIPE				DOUBLE PIPE																
PIPE DIA.	D	H	B	G1	G2	L 30	m³	G1	G2	L 30	m³	G1	G2	L 30	m³										
375	450	600	750	900	1050	1200	0.598	838	965	660	762	2585	0.806	914	457	762	889	1651	0.471	762	889	610	711	2362	0.648
450	1092	559	51	965	1118	2083	0.782	968	1121	787	908	2997	1.063	991	508	889	1016	1905	0.624	892	1019	699	806	2718	0.848
600	1270	635	63	1219	1422	2642	1.233	1219	1422	1041	1206	3881	1.687	1143	584	1116	1295	2413	0.980	1124	1302	914	1054	3480	1.336
750	1448	737	70	1397	1626	3023	1.750	1397	1626	1295	1492	4521	2.436	1295	660	1346	1549	2896	1.428	1349	1553	1118	1289	4191	1.935
900	1600	813	76	1676	1930	3607	2.462	1686	1940	1524	1789	5385	3.400	1448	737	1575	1829	3404	2.004	1584	1888	1372	1581	5004	2.749
1050	1778	889	89	1830	2235	4166	3.345	1930	2235	1778	2051	6223	4.597	1600	813	1903	2083	3886	2.688	1807	2086	1600	1848	5740	3.685
1200	1956	991	102	2184	2515	4689	4.266	2191	2521	2032	2343	7081	6.164	1753	889	2032	2337	4369	3.510	1991	2296	1829	2115	6602	4.832
TOT. kgs.	5.3	6.3	6.3	7.4	8.4	26.1	30.4	5.3	6.3	7.4	8.4	26.1	30.4	5.3	6.3	7.4	8.4	26.1	30.4	5.3	6.3	7.4	8.4	26.1	30.4

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