
 DATE: 5/14/99
 USERNAME: *****

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

ENGLISH DETAIL DRAWING FOR
**MINIMUM DEPTH
 CONCRETE CATCH BASIN**
 12" THRU 84" PIPE

SHEET 1 OF 2
840D02

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GENERAL NOTES:

1. USE CLASS "B" CONCRETE THROUGHOUT.
2. PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
3. OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
4. USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
5. IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
6. USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.
7. FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
8. CONSTRUCT WITH PIPE CROWNS MATCHING.
9. CHAMFER ALL EXPOSED CORNERS 1".
10. ** FOR STRUCTURES WITH PIPE LARGER THAN 54", MAKE THE TOP SLAB 8" THICK.

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DETAIL SHOWING METHOD OF RISER CONSTRUCTION

SECTION X-X
 TOP ELEVATION

SECTION Y-Y
 TOP ELEVATION

SECTION J-J
 TOP ELEVATION

SECTION M-M
 TOP ELEVATION

PLAN

PLAN OF TOP SLAB

SECTION S-S

SECTION R-R

DOWEL

ELEVATION

ELEVATION

PIPE D	SPAN A	WIDTH B	WIDTH C	SPAN G	MIN. H	HEIGHT H	COVER E	F	BARS-U NO.	LENGTH V	BARS-V NO.	LENGTH W	BARS-W NO.	TOTAL LBS.	CU. YDS. CONCR. IN BOX FOR MINIMUM HEIGHT	REDUCTIONS ONE PIPE
12"	3'-0"	2'-2"	--	--	2'-0"	2'-0"	--	--	--	--	--	--	--	--	0.235	0.015
15"	3'-0"	2'-2"	--	--	2'-3"	2'-3"	--	--	--	--	--	--	--	0.235	0.023	0.026
18"	3'-0"	2'-2"	--	--	2'-6"	2'-6"	--	--	--	--	--	--	--	0.235	0.033	0.049
24"	3'-0"	2'-2"	--	--	3'-1"	3'-1"	1'-2"	4'-4"	4	1'-5"	2	4'-1"	3	39	0.123	0.059
30"	3'-0"	2'-2"	--	--	3'-10"	3'-4"	1'-8"	4'-10"	4	1'-11"	3	4'-7"	3	43	0.161	0.127
36"	3'-0"	2'-2"	--	--	4'-5"	4'-6"	2'-2"	5'-5"	5	2'-5"	3	5'-2"	4	47	0.200	0.178
42"	3'-0"	2'-2"	--	--	5'-0"	4'-11"	2'-10"	6'-0"	5	3'-1"	4	5'-9"	3	51	0.235	0.243
48"	3'-0"	2'-2"	--	--	5'-0"	5'-6"	2'-10"	6'-7"	6	3'-8"	5	6'-4"	3	56	0.289	0.317
54"	3'-0"	2'-2"	--	--	5'-7"	6'-3"	4'-1"	7'-3"	6	4'-4"	3	7'-0"	3	61	0.340	0.401
60"	3'-0"	2'-2"	--	--	6'-3"	6'-6"	4'-9"	7'-11"	7	5'-0"	6	7'-8"	3	66	0.391	0.440
66"	3'-0"	2'-2"	--	--	6'-11"	7'-6"	5'-3"	8'-6"	7	5'-6"	6	8'-3"	3	72	0.442	0.655
72"	3'-0"	2'-2"	--	--	7'-6"	8'-1"	5'-11"	9'-1"	8	6'-2"	7	9'-10"	3	78	0.493	0.774
78"	3'-0"	2'-2"	--	--	8'-1"	8'-9"	6'-7"	9'-9"	8	6'-10"	7	9'-6"	3	84	0.544	0.893
84"	3'-0"	2'-2"	--	--	8'-9"	8'-6"	6'-7"	9'-9"	8	6'-10"	7	9'-6"	3	84	0.544	1.010

* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H, WITH NO RISER) *

3/3/2016

NORTH CAROLINA
 PROFESSIONAL
 SEAL
 022966
 J. S. Howerton
 ENGINEER

DocuSigned by:
 Jael Howerton
 87593D1D3DC65F

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**CONTRACT STANDARDS
 AND DEVELOPMENT UNIT**
 Office 919-707-6950 FAX 919-250-4119

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