

\\SEP-2017 1155\projects\Special Details\howerton\840D17 Minimum Depth Type A.dgn
At CSD-262595
howerton

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

ENGLISH DETAIL DRAWING FOR
CONCRETE GRATED DROP INLET TYPE 'A'
12" THRU 72" PIPE

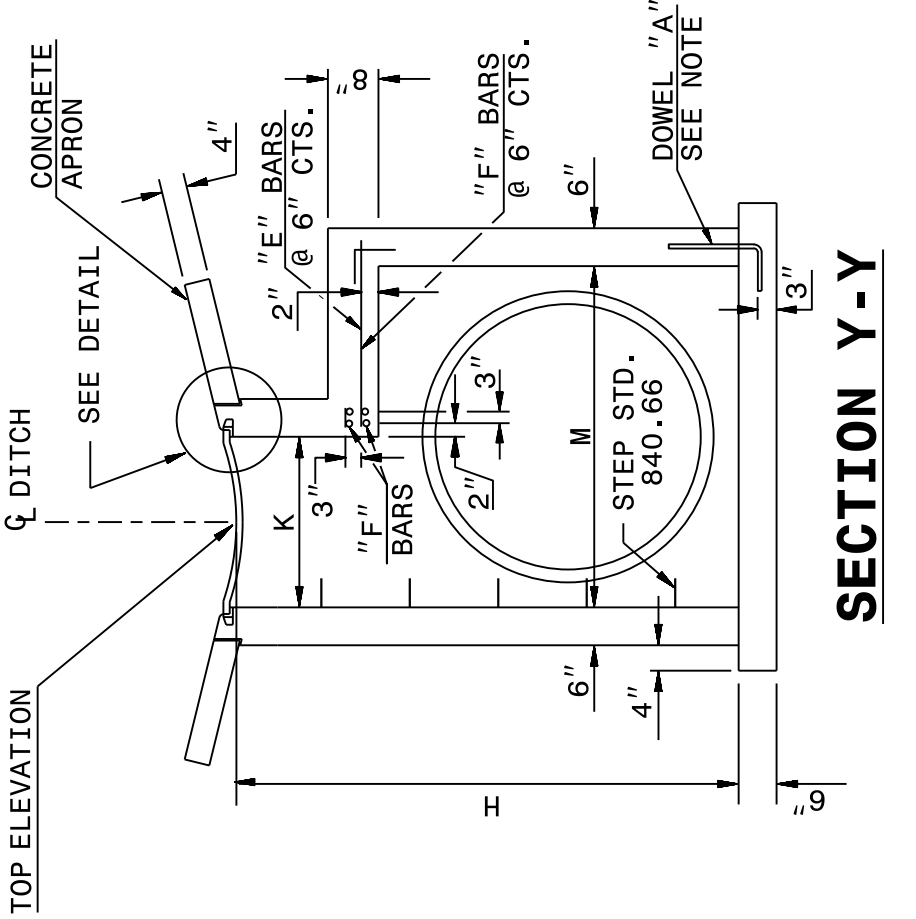
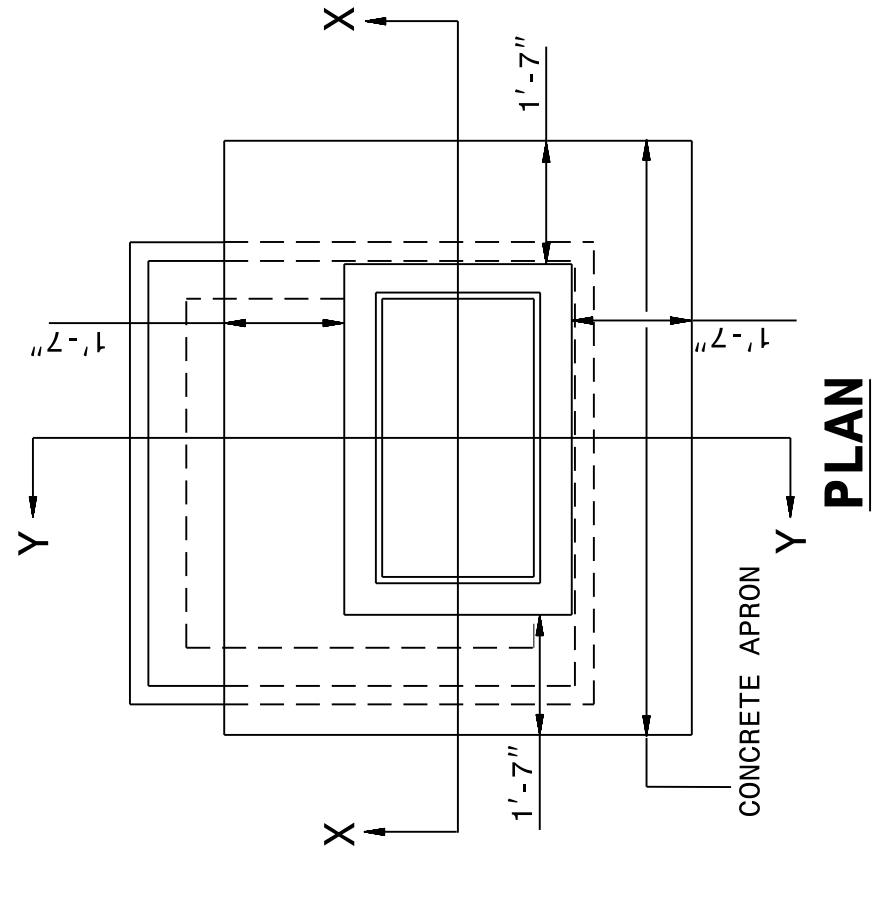
SHEET 1 OF 2
840d17

GENERAL NOTES:
USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL GRATED DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
CONSTRUCT WITH PIPE CROWNS MATCHING.
USE STANDARD FRAMES AND GRATES 840.22 (SHOWN), 840.24 (SHOWN), 840.20 (NOT SHOWN) OR 840.29 (NOT SHOWN).
SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.
MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12 FEET.

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12" THRU 72" PIPE

SHEET 1 OF 2
840d17



DETAIL
(APRON SUPPORT NOTCH)

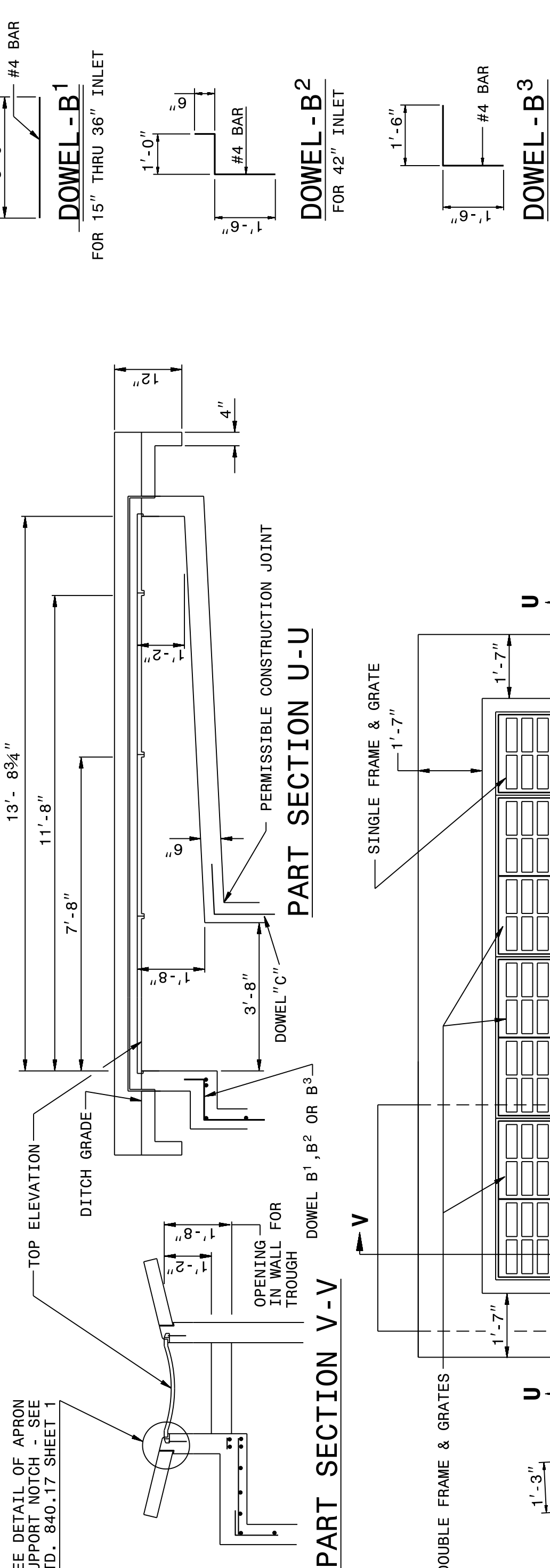
SECTION Y-Y

SECTION X-X

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ENGLISH DETAIL DRAWING FOR
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SHEET 2 OF 2
840d17



QUANTITY TO BE ADDED FOR EACH 2' INCREMENT INLET OPENING						
ADDITIONAL INLETS	2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"
CONCRETE CU. YDS.	0.191	0.417	0.665	0.897	1.145	1.380
CONCRETE APRON CU. YDS.	0.074	0.148	0.222	0.296	0.370	0.444

MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE GRATED DROP INLET (BASED ON MIN. HEIGHT, H)									
DIMENSIONS OF BOX AND PIPE					REINFORCING STEEL - NO. 4 BARS				
PIPE	SPAN	WIDTH	DEPTH	HEIGHT	BARS E	BARS F	BARS G	BARS H	TOTAL
D	J	K	L	M	NO.	LENGTH	NO.	LENGTH	NO.
12"	3'-8"	2'-0"	2'-0"	2'-3"	—	—	—	—	—
15"	3'-8"	2'-0"	2'-0"	2'-5"	—	—	—	—	—
18"	24"	—	2'-0"	2'-8"	—	—	—	—	—
24"	—	—	2'-10"	3'-3"	8	4'-9"	—	—	27
30"	—	—	3'-8"	3'-10"	8	2'-0"	7	4'-9"	33
36"	—	—	4'-0"	4'-4"	8	2'-5"	8	4'-11"	47
42"	—	—	4'-10"	5'-0"	10	3'-1"	9	5'-7"	67
48"	—	—	5'-4"	5'-6"	11	3'-7"	10	6'-1"	87
54"	—	—	6'-0"	6'-0"	12	4'-1"	11	6'-7"	107
60"	—	—	6'-6"	6'-7"	13	4'-9"	12	7'-3"	135
66"	—	—	7'-2"	7'-1"	14	5'-4"	14	7'-10"	168
72"	—	—	7'-8"	7'-8"	15	5'-11"	15	8'-5"	199

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

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