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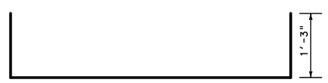
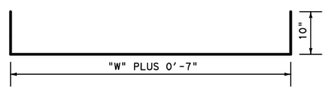
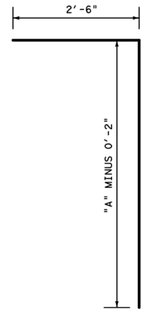


BARS A & BARS A2



BARS D2

BARS D



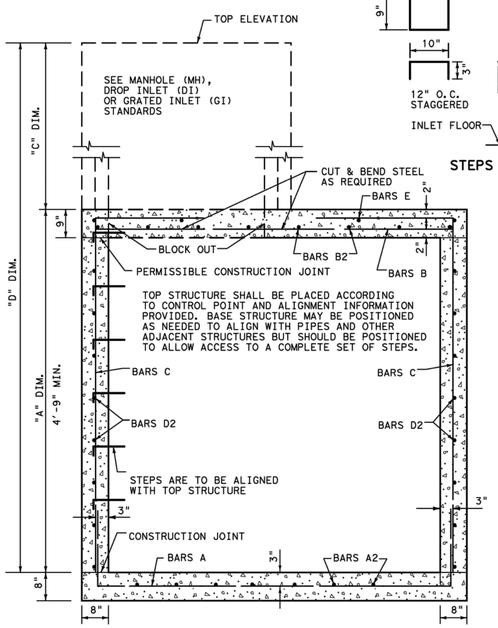
BARS C

PIPE DIA.	CONC. REDUCTION ONE PIPE C.Y.
15	0.05
18	0.07
21	0.10
24	0.12
27	0.15
30	0.18
33	0.22
36	0.26
39	0.30
42	0.35
45	0.40
48	0.45
54	0.57
60	0.70
66	0.84
72	1.00
78	1.16

TABLE OF QUANTITIES WITH NO DEDUCTIONS FOR PIPES OR INLET OPENINGS

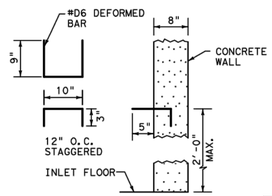
BILL OF #4 REINFORCING STEEL

MAX. PIPE DIA.	HEIGHT OF STR. "A"	LENGTH OF STR. "L"	WIDTH OF STR. "W"	STEPS # 6, 12" ± No.	STEPS # 6, 12" ± LENGTH	BARS A 12" ± No.	BARS A 12" ± LENGTH	BARS A2 12" ± No.	BARS A2 12" ± LENGTH	BARS B 12" ± No.	BARS B 12" ± LENGTH	BARS B2 12" ± No.	BARS B2 12" ± LENGTH	BARS C 6" ± No.	BARS C 6" ± LENGTH	BARS D 12" ± No.	BARS D 12" ± LENGTH	BARS D2 12" ± No.	BARS D2 12" ± LENGTH	BARS E ~ No.	BARS E ~ LENGTH	REINF. STEEL LB.	CLASS A CONC. * C.Y.
42"	4'-9"	4'-4"	4'-4"	2	2'-10"	6	7'-4"	6	7'-4"	6	4'-10"	6	4'-10"	40	7'-1"	10	4'-11"	10	6'-7"	4	4'-10"	384	3.66
48"	5'-3"	4'-11"	"	3	"	"	7-'11"	7	"	"	5'-5"	"	"	42	7'-7"		5'-6"		"	"	"	430	4.21
54"	5'-9"	5'-6"	"	-	"	"	8'-6"	-	"	"	6'-0"	"	"	44	8'-1"	12	6'-1"	12	"	"	"	480	4.79
60"	6'-3"	6'-1"	"	4	"	"	9'-1"	8	"	"	6'-7"	"	"	46	8'-7"		6'-8"		"	"	"	528	5.40
66"	6'-9"	6'-8"	"	-	"	"	9'-8"	-	"	"	7'-2"	"	"	48	9'-1"	14	7'-3"	14	"	"	"	583	6.03
72"	7'-3"	7'-3"	"	5	"	"	10'-3"	9	"	"	7'-9"	"	"	50	9'-7"		7'-10"		"	"	"	640	6.70
78"	7'-9"	7'-10"	"	-	"	"	10'-10"	-	"	"	8'-4"	"	"	52	10'-1"	16	8'-5"	16	"	"	"	695	7.39
48"	5'-3"	4'-11"	4'-11"	3	2'-10"	7	7-'11"	7	7'-11"	7	5'-5"	7	5'-5"	44	7'-7"	10	5'-6"	10	7'-2"	4	4'-10"	458	4.53
54"	5'-9"	5'-6"	"	-	"	"	8'-6"	-	"	"	6'-0"	"	"	46	8'-1"	12	6'-1"	12	"	"	"	506	5.14
60"	6'-3"	6'-1"	"	4	"	"	9'-1"	8	"	"	6'-7"	"	"	48	8'-7"		6'-8"		"	"	"	561	5.78
66"	6'-9"	6'-8"	"	-	"	"	9'-8"	-	"	"	7'-2"	"	"	50	9'-1"	14	7'-3"	14	"	"	"	618	6.45
72"	7'-3"	7'-3"	"	5	"	"	10'-3"	9	"	"	7'-9"	"	"	52	9'-7"		7'-10"		"	"	"	672	7.15
78"	7'-9"	7'-10"	"	-	"	"	10'-10"	-	"	"	8'-4"	"	"	54	10'-1"	16	8'-5"	16	"	"	"	724	7.87
54"	5'-9"	5'-6"	5'-6"	3	2'-10"	7	8'-6"	7	8'-6"	7	6'-0"	7	6'-0"	48	8'-1"	12	6'-1"	12	7'-9"	4	4'-10"	532	5.50
60"	6'-3"	6'-1"	"	4	"	"	9'-1"	8	"	"	6'-7"	"	"	50	8'-7"		6'-8"		"	"	"	583	6.17
66"	6'-9"	6'-8"	"	-	"	"	9'-8"	-	"	"	7'-2"	"	"	52	9'-1"	14	7'-3"	14	"	"	"	642	6.87
72"	7'-3"	7'-3"	"	5	"	"	10'-3"	9	"	"	7'-9"	"	"	54	9'-7"		7'-10"		"	"	"	692	7.60
78"	7'-9"	7'-10"	"	-	"	"	10'-10"	-	"	"	8'-4"	"	"	56	10'-1"	16	8'-5"	16	"	"	"	762	8.36
60"	6'-3"	6'-1"	6'-1"	4	2'-10"	8	9'-1"	8	9'-1"	8	6'-7"	8	6'-7"	52	8'-7"	12	6'-8"	12	8'-4"	4	4'-10"	616	6.55
66"	6'-9"	6'-8"	"	-	"	"	9'-8"	-	"	"	7'-2"	"	"	54	9'-1"	14	7'-3"	14	"	"	"	677	7.29
72"	7'-3"	7'-3"	"	5	"	"	10'-3"	9	"	"	7'-9"	"	"	56	9'-7"		7'-10"		"	"	"	734	8.05
78"	7'-9"	7'-10"	"	-	"	"	10'-10"	-	"	"	8'-4"	"	"	58	10'-1"	16	8'-5"	16	"	"	"	801	8.84
66"	6'9"	6'-8"	6'-8"	4	2'-10"	8	9'-8"	8	9'-8"	8	7'-2"	8	7'-2"	56	9'-1"	14	7'-3"	14	8'-11"	4	4'-10"	701	7.70
72"	7'-3"	7'-3"	"	5	"	"	10'-3"	9	"	"	7'-9"	"	"	58	9'-7"		7'-10"		"	"	"	760	8.50
78"	7'-9"	7'-10"	"	-	"	"	10'-10"	-	"	"	8'-4"	"	"	60	10'-1"	16	8'-5"	16	"	"	"	827	9.32
72"	7'-3"	7'-3"	7'-3"	5	2'-10"	9	10'-3"	9	10'-3"	9	7'-9"	9	7'-9"	60	9'-7"	14	7'-10"	14	9'-6"	4	4'-10"	798	8.95
78"	7'-9"	7'-10"	"	-	"	"	10'-10"	-	"	"	8'-4"	"	"	62	10'-1"	16	8'-5"	16	"	"	"	868	9.80
78"	7'-9"	7'-10"	7'-10"	5	2'-10"	9	10'-10"	9	10'-10"	9	8'-4"	9	8'-4"	64	10'-1"	16	8'-5"	16	10'-1"	4	4'-10"	893	10.29

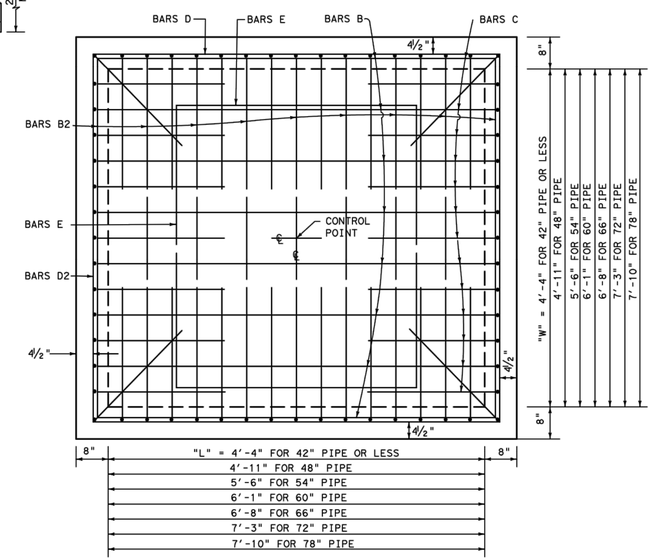


TYPICAL SECTION - LENGTH VIEW

WIDTH VIEW SIMILAR



STEPS



PLAN - TOP SLAB

(BLOCK OUT NOT SHOWN)

NOTE:

FOR 36" DIAMETER INLET OPENING DEDUCT 0.20 C.Y. CONCRETE.
FOR 48" DIAMETER INLET OPENING DEDUCT 0.35 C.Y. CONCRETE.
FOR 3' X 2' INLET OPENING DEDUCT 0.17 C.Y. CONCRETE.
FOR 3' X 3' INLET OPENING DEDUCT 0.25 C.Y. CONCRETE.
FOR 3'- 4"X 3' INLET OPENING DEDUCT 0.28 C.Y. CONCRETE.

GENERAL NOTES:

1. ALL CONCRETE SHALL BE CLASS "A".
2. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
3. FIELD CUT AND BEND BARS AS REQUIRED TO ACCOMMODATE PIPES AND INLET EXTENSIONS.
4. CONSTRUCTION JOINT AT FLOWLINE MAY BE RAISED A MAXIMUM OF 6" AT OPTION OF THE CONTRACTOR. ADJUST LENGTH OF VERTICAL STEEL AS REQUIRED WITH A 20 DIAMETER LAP.
5. WHERE IT IS CONSIDERED NECESSARY, BARS CUT OUT TO PROVIDE OPENINGS FOR PIPE MAY BE BENT AND USED TO PROVIDE A BETTER TIE FOR EXTENSIONS AND PIPE AS DIRECTED BY THE ENGINEER.
6. WHEN STRUCTURE IS COMBINED WITH UPPER STRUCTURE, THE STRUCTURE LOCATION SHOWN IN THE PLANS REFERS TO THE CONTROL POINT OF THE UPPER STRUCTURE. WHEN STRUCTURE IS NOT COMBINED WITH UPPER STUCTURE, THE LOCATION SHOWN IN THE PLANS REFERS TO THE CONTROL POINT SHOWN ON THIS SHEET.
7. WHEN USED WITH INLET OR MANHOLE, MEASURE AND PAY FOR JUNCTION BOX AND INLET OR MANHOLE SEPARATELY.

REVISIONS: 12/98-added note to pay for inlet or manhole separately

Texas Department of Transportation
FORT WORTH DISTRICT
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JUNCTION BOX STRUCTURE
TYPE 1
JB-1-02 (FW)

ORIG DRAW DATE: 8/02	DESIGN:	FED. REG.	STATE	PROJ NO.			HIGHWAY
	CHECKED:	6	TEXAS				
	DRAWN:	DISTRICT	COUNTY	CONTROL	SECTION	JOB	SHEET
	CHECKED:	FTW					

LEVELS DISPLAYED: 1 2 3 5 7 R3

http://www.dot.state.tx.us/ftw/specinfo/standard.htm jb102fw.dgn

ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

AS-BUILT

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Maria C. Bonilla — 10-19-2016
WINKELMANN AND ASSOCIATES, INC. — DATE

No.	DATE	REVISION	APPROV.
1.	03/25/2016	RESPONSE TO RFI 032	M.B.
2.			
3.			
4.			
5.			
6.			

LAST SAVED BY: MAULHOLLAND October 20, 2016

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS ■ SURVEYORS
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DALLAS, TEXAS 75230 (972) 490-1099 FAX
Texas Engineers Registration No. F-2966
Texas Surveyors Registration No. 10088600
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Maria C. Bonilla
STATE OF TEXAS
MARIA C. BONILLA-NICHOLLS
100106
LICENSED
PROFESSIONAL ENGINEER
10-19-2016
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MARIA C. BONILLA-NICHOLLS P.E. # 100106

CIVIL DETAILS
SEC N. GOLIAD ST. AND E.QUAIL RUN RD.
ROCKWALL, TEXAS

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