

ESTIMATE OF QUANTITIES - FLUME BELL JOINTS

JUNCTION BELL JOINT		6' x 3'		6' x 4'		6' x 5'		6' x 6'		6' x 7'		6' x 8'		
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT
6x1	WALLS & FLOOR		4	20'-0"	120	4	17'-7"	106	4	17'-7"	106	4	17'-9"	107
6x3	WALLS VERT.		---	---	---	8	4'-4"	52	8	4'-4"	64	8	7'-4"	88
6y1	WALLS HORIZ.		10	6'-2"	93	12	6'-2"	111	14	6'-2"	130	16	6'-2"	148
6y2	FLOOR VERT.		8	7'-3"	87	8	7'-3"	87	8	7'-3"	87	8	7'-3"	87
6z1	FLOOR VERT.		8	3'-3"	39	8	3'-3"	39	8	3'-3"	39	8	3'-3"	39
TOTAL WEIGHT (LBS.)			339		395		426		456		487		521	
CONCRETE (CY)		FOOTING	1.3		1.3		1.3		1.3		1.3		1.3	
		WALLS	0.6		0.8		1.0		1.2		1.4		1.6	
		TOTAL	1.9		2.1		2.3		2.5		2.7		2.9	

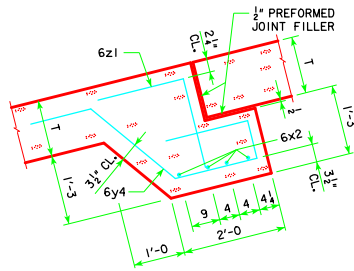
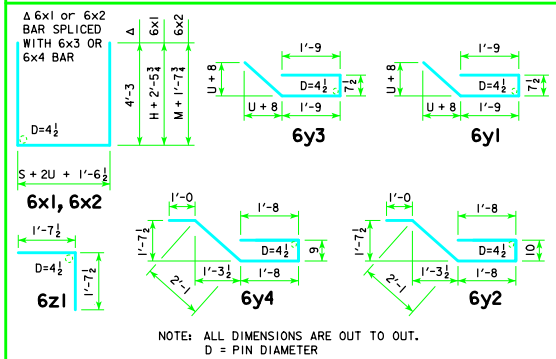
CHUTE BELL JOINT		6' x 3'		6' x 4'		6' x 5'		6' x 6'		6' x 7'		6' x 8'		
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT
6x2	WALLS & FLOOR		4	16'-10"	101	4	18'-4"	110	4	17'-10"	119	4	17'-7"	106
6x4	WALLS VERT.		---	---	---	---	---	---	8	4'-0"	48	8	4'-9"	57
6y3	WALLS HORIZ.		6	6'-2"	56	8	6'-2"	74	10	6'-2"	93	12	6'-2"	111
6y4	FLOOR VERT.		8	7'-2"	86	8	7'-2"	86	8	7'-2"	86	8	7'-2"	86
6z1	FLOOR VERT.		8	3'-3"	39	8	3'-3"	39	8	3'-3"	39	8	3'-3"	39
TOTAL WEIGHT (LBS.)			282		309		337		390		399		429	
CONCRETE (CY)		FOOTING	1.3		1.3		1.3		1.3		1.3		1.3	
		WALLS	0.3		0.5		0.6		0.8		0.9		1.0	
		TOTAL	1.6		1.8		1.9		2.1		2.2		2.3	

BARREL & CHUTE DIMENSIONS

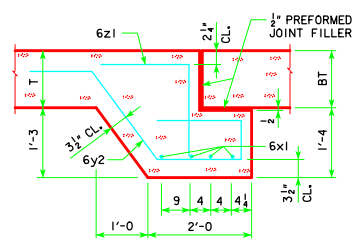
S x H	M	T	U	BT	BU
6' x 3'	2'-3"	0'-11"	0'-9"	0'-10"	0'-9"
6' x 4'	3'-0"	0'-11"	0'-9"	0'-10"	0'-9"
6' x 5'	3'-9"	0'-11"	0'-9"	0'-10"	0'-9"
6' x 6'	4'-6"	0'-11"	0'-9"	0'-10"	0'-9"
6' x 7'	5'-3"	0'-11"	0'-9"	0'-10"	0'-9"
6' x 8'	6'-0"	0'-11"	0'-10"	0'-10"	0'-9"

S = CULVERT SPAN
H = CULVERT HEIGHT

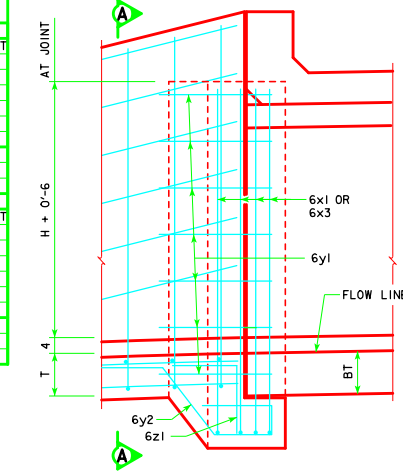
BENT BAR DETAILS



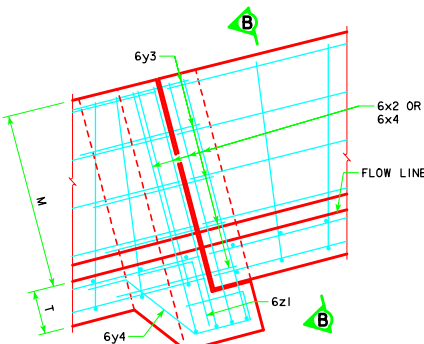
CHUTE FOOTING



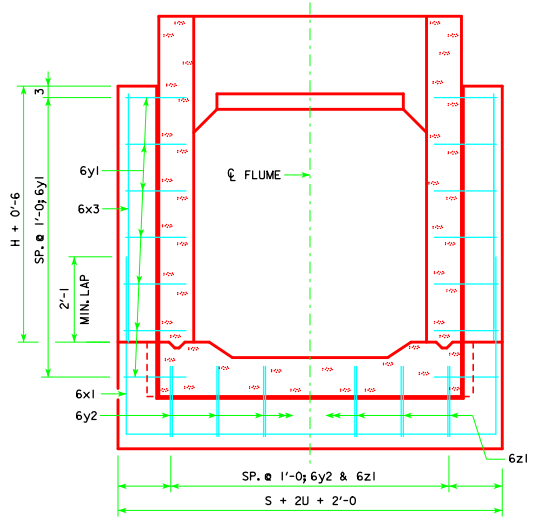
JUNCTION FOOTING



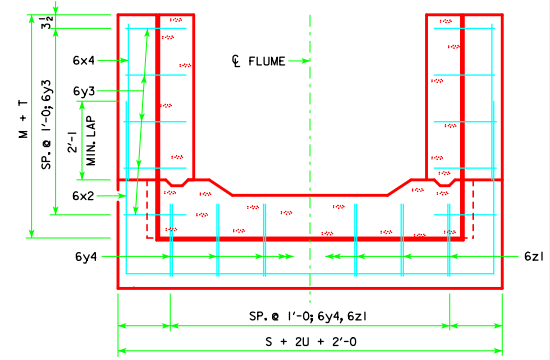
PART ELEV. - JUNCTION BELL JT.



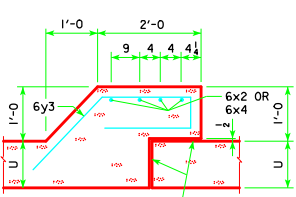
PART ELEVATION - CHUTE BELL JT.



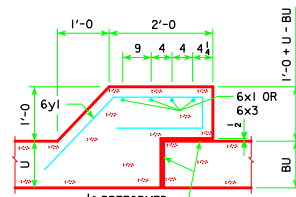
SECTION A-A



SECTION B-B



CHUTE WALLS



JUNCTION WALLS

NOTES:

- DIMENSIONS AND QUANTITIES SHOWN BASED ON 'U' FLUME WALLS, 'BU' BARREL WALLS, 'T' FLUME FLOOR AND 'BT' BARREL FLOOR THICKNESSES.
- CHANGE LENGTHS OF BARS 6x1 AND ADJUST REINFORCING STEEL AND CONCRETE QUANTITIES ACCORDINGLY FOR WALL AND FLOOR THICKNESSES OTHER THAN SHOWN.
- FLOOR BARS MUST BE SHORTENED 6" AT BELL JOINTS.
- SEE STANDARD SHEET RCF-01-12 FOR GENERAL INFORMATION.

LATEST REVISION DATE	 IOWA Department of Transportation Highway Division	STANDARD DESIGN REINFORCED CONCRETE BOX CULVERTS APRIL, 2012
APPROVED BY BRIDGE ENGINEER THOMAS E. MCQUINN		FLUME BELL JOINT DETAILS 6' SPAN
		FBJ-02-12

ENGLISH/SHEDDEN/ELIMES.DGN - FBJ-02-12 - THIS SHEET ISSUED 04-12.