

Note to Designer:
 The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

NO.	DESCRIPTION OF REVISIONS	DATE	MADE BY	CHKD. BY
1	Original Issue	7-12		
2				
3				
4				

		STEEL LIST																			
Mark	Bero	90" Dia.		96" Dia.		102" Dia.		108" Dia.		114" Dia.		120" Dia.		126" Dia.		132" Dia.		138" Dia.		144" Dia.	
		No	Size Lgth	No	Size Lgth	No	Size Lgth	No	Size Lgth	No	Size Lgth	No	Size Lgth	No	Size Lgth	No	Size Lgth	No	Size Lgth	No	Size Lgth
a1	A	6	*5 9'-6	6	*5 10'-0	6	*5 10'-3	6	*5 10'-9	7	*5 11'-3	7	*6 11'-9	7	*5 12'-3	7	*6 12'-6	7	*6 13'-3	8	*7 13'-6
a2	A	6	*5 10'-0	6	*5 10'-6	6	*5 10'-6	6	*5 11'-0	6	*6 11'-9	7	*6 12'-3	7	*6 12'-9	7	*6 13'-0	7	*7 13'-9	7	*7 14'-0
a3	A	5	*5 10'-3	6	*5 10'-9	6	*5 11'-0	6	*6 11'-6	6	*6 12'-3	6	*6 12'-9	7	*6 13'-3	7	*7 13'-6	7	*7 14'-3	7	*7 14'-6
a4	A	5	*5 10'-9	5	*6 11'-3	6	*6 11'-6	6	*6 12'-0	6	*7 12'-9	7	*7 13'-0	7	*7 13'-6	7	*7 14'-0	7	*7 14'-9	7	*7 15'-0
a5	A	5	*5 11'-3	5	*6 11'-9	6	*6 12'-0	6	*7 12'-6	6	*7 13'-3	6	*7 13'-6	6	*7 14'-0	7	*7 14'-6	7	*7 15'-3	7	*8 15'-9
a6	A	5	*6 11'-6	5	*6 12'-0	5	*6 12'-6	6	*7 13'-0	6	*7 13'-9	6	*7 14'-0	6	*7 14'-6	6	*7 15'-0	7	*8 15'-9	7	*8 16'-3
a7	A	5	*6 12'-0	5	*6 12'-6	5	*7 13'-0	5	*7 13'-6	6	*7 14'-3	6	*7 14'-6	6	*7 15'-0	6	*8 15'-6	7	*8 16'-3	7	*8 16'-9
a8	A	4	*5 9'-3	4	*5 9'-6	4	*5 9'-9	5	*5 10'-3	5	*5 10'-9	5	*5 11'-0	5	*5 11'-3	5	*5 11'-9	6	*6 12'-3	6	*6 12'-6
a9	A	4	*5 10'-0	4	*5 10'-3	4	*5 10'-6	4	*5 11'-0	5	*6 11'-6	5	*6 11'-9	5	*6 12'-3	5	*6 12'-6	5	*6 13'-3	6	*7 13'-6
a10	A	4	*5 10'-6	4	*5 11'-0	4	*6 11'-6	4	*6 11'-9	4	*6 12'-3	5	*7 12'-9	5	*7 13'-0	5	*7 13'-6	5	*7 14'-0	5	*7 14'-6
a11	A	3	*6 11'-3	4	*6 11'-9	4	*6 12'-3	4	*7 12'-6	4	*7 13'-3	4	*7 13'-6	5	*7 14'-0	5	*7 14'-3	5	*7 15'-0	5	*8 15'-6
a12	A	3	*6 12'-0	3	*6 12'-6	4	*7 13'-0	4	*7 13'-3	4	*7 14'-0	4	*7 14'-6	4	*7 15'-0	5	*8 15'-3	5	*8 16'-0	5	*8 16'-6
b1	str	2	*4 36'-0	2	*4 37'-6	2	*4 39'-0	2	*4 40'-6	2	*4 42'-0	2	*4 43'-6	2	*4 45'-0	2	*4 46'-6	2	*4 48'-0	2	*4 49'-6
b2	str	8	*4 36'-0	10	*4 37'-6	10	*4 39'-0	10	*4 40'-6	10	*4 42'-0	12	*4 43'-6	12	*4 45'-0	12	*4 46'-6	14	*4 48'-0	14	*4 49'-6
b3	str	2	*4 32'-0	2	*4 19'-0	2	*4 25'-0	2	*4 32'-0	2	*4 37'-0	2	*4 25'-0	2	*4 32'-0	2	*4 39'-6	2	*4 27'-0	2	*4 36'-0
b4	str	2	*4 11'-0			2	*4 6'-0	2	*4 13'-0	2	*4 18'-6	2	*4 5'-0	2	*4 12'-0	2	*4 19'-0	2	*4 6'-6	2	*4 14'-0
b5	str																				
b6	str																				
b7	str	2	*4 17'-0	2	*4 18'-0	2	*4 19'-0	2	*4 20'-0	2	*4 21'-0	2	*4 22'-0	2	*4 23'-0	2	*4 24'-0	2	*4 25'-0	2	*4 26'-0
b8	str	8	*4 17'-0	8	*4 18'-0	8	*4 19'-0	10	*4 20'-0	10	*4 21'-0	10	*4 22'-0	10	*4 23'-0	10	*4 24'-0	12	*4 25'-0	12	*4 26'-0
b9	str	2	*4 12'-6	2	*4 16'-0	2	*4 18'-0	2	*4 13'-0	2	*4 16'-0	2	*4 19'-0	2	*4 21'-3	2	*4 23'-6	2	*4 19'-0	2	*4 21'-3
b10	str	2	*4 4'-0	2	*4 7'-0	2	*4 10'-6	2	*4 4'-6	2	*4 8'-0	2	*4 11'-0	2	*4 13'-0	2	*4 15'-3	2	*4 10'-6	2	*4 13'-3
b11	str					2	*4 1'-6					2	*4 3'-0	2	*4 5'-0	2	*4 7'-3	2	*4 2'-3	2	*4 5'-0
b12	str																				
c	str	4	*4 10'-6	4	*4 11'-0	4	*4 11'-6	4	*4 12'-0	4	*4 12'-6	4	*4 13'-0	4	*4 13'-6	4	*4 14'-0	4	*4 14'-6	4	*4 15'-0
d	A	6	*6 12'-3	6	*6 12'-9	6	*6 13'-3	6	*7 13'-9	6	*7 14'-6	6	*7 15'-0	6	*7 15'-6	6	*8 16'-0	6	*8 16'-6	6	*8 17'-0
e1	C	8	*5 4'-3	7	*5 4'-3	7	*5 4'-6	7	*5 4'-9	6	*5 4'-9	7	*5 5'-0	7	*5 5'-3	7	*6 5'-3	7	*6 5'-6	8	*6 5'-9
e2	C	7	*5 4'-6	7	*5 4'-6	7	*5 4'-9	7	*5 5'-0	6	*5 5'-0	7	*5 5'-3	7	*6 5'-6	7	*6 5'-9	7	*6 6'-0	7	*6 6'-3
e3	C	7	*5 4'-9	6	*5 4'-9	7	*5 5'-0	7	*5 5'-3	6	*5 5'-3	6	*6 5'-6	7	*6 6'-0	7	*6 6'-3	7	*7 7'-0	7	*7 7'-3
e4	C	7	*5 5'-0	6	*5 5'-0	6	*5 5'-3	7	*6 5'-6	6	*6 5'-6	6	*6 5'-9	6	*6 6'-3	7	*7 7'-6	7	*7 7'-6	7	*7 7'-9
e5	C	7	*5 5'-3	6	*5 5'-3	6	*6 5'-6	7	*6 5'-9	6	*6 6'-0	6	*6 6'-3	6	*7 7'-3	7	*7 7'-9	7	*7 8'-3	7	*7 8'-0
e6	C			6	*6 5'-6	6	*6 5'-9	6	*6 6'-0	6	*6 6'-3	6	*7 7'-3	6	*7 7'-9	6	*7 8'-0	7	*8 8'-6	7	*8 8'-9
e7	C									6	*7 7'-3	6	*7 7'-6	6	*7 8'-0	6	*7 8'-3	6	*8 8'-9	7	*8 9'-0
e8	C	2	*5 5'-3	2	*6 5'-6	2	*6 6'-0	2	*6 6'-3	2	*7 7'-6	3	*7 8'-0	3	*7 8'-3	3	*7 8'-6	3	*8 9'-0	3	*8 9'-6
e9	C	12	*5 5'-3	13	*6 5'-6	13	*6 6'-0	14	*6 6'-3	14	*7 7'-6	15	*7 8'-0	15	*7 8'-3	16	*7 8'-6	16	*8 9'-0	17	*8 9'-6
e10	C	5	*5 5'-3	5	*6 5'-6	5	*6 6'-0	6	*6 6'-3	6	*7 7'-6	6	*7 8'-0	6	*7 8'-3	7	*7 8'-6	7	*8 9'-0	7	*8 9'-6
e11	C	3	*5 5'-3	3	*5 5'-6	3	*5 5'-9	4	*6 6'-0	4	*6 6'-6	4	*6 6'-9	4	*6 7'-0	4	*6 7'-3	5	*7 8'-6	5	*7 8'-9
e12	C	3	*5 5'-0	3	*5 5'-3	4	*5 5'-6	4	*5 5'-9	4	*6 6'-0	4	*6 6'-3	4	*6 6'-6	5	*6 6'-9	5	*6 7'-3	5	*6 7'-6
e13	C	3	*5 4'-9	4	*5 4'-9	4	*5 5'-0	4	*5 5'-3	4	*5 5'-9	4	*5 6'-0	5	*5 6'-3	5	*6 6'-6	5	*6 6'-6	5	*6 6'-9
e14	C	4	*5 4'-6	4	*5 4'-6	4	*5 4'-9	4	*5 5'-0	4	*5 5'-3	5	*5 5'-6	5	*5 5'-9	5	*5 5'-9	5	*5 6'-0	5	*5 6'-3
e15	C	4	*5 4'-3	4	*5 4'-3	4	*5 4'-6	4	*5 4'-9	5	*5 4'-9	5	*5 5'-0	5	*5 5'-3	5	*5 5'-3	5	*5 5'-6	6	*5 5'-9
f1	str	6	*4 7'-9	7	*4 8'-0	7	*4 8'-6	7	*4 9'-0	7	*4 9'-3	8	*4 9'-9	8	*4 10'-3	8	*4 10'-6	8	*4 11'-0	9	*4 11'-6
f2	str	6	*4 8'-6	6	*4 8'-9	7	*4 9'-3	7	*4 9'-9	7	*4 10'-0	7	*4 10'-6	8	*4 11'-0	8	*4 11'-6	8	*4 11'-9	8	*4 12'-3
f3	str	6	*4 9'-3	6	*4 9'-9	6	*4 10'-0	7	*4 10'-6	7	*4 11'-0	7	*4 11'-6	7	*4 12'-0	8	*4 12'-3	8	*4 12'-9	8	*4 13'-3
f4	str	6	*4 10'-0	6	*4 10'-6	6	*4 10'-9	6	*4 11'-3	7	*4 11'-9	7	*4 12'-3	7	*4 12'-9	7	*4 13'-3	8	*4 13'-6	8	*4 14'-0
f5	str	3	*4 7'-3	3	*4 7'-9	4	*4 8'-0	4	*4 8'-3	4	*4 8'-9	4	*4 9'-0	4	*4 9'-3	4	*4 9'-9	5	*4 10'-0	5	*4 10'-3
f6	str	3	*4 8'-3	3	*4 8'-9	3	*4 9'-0	4	*4 9'-3	4	*4 9'-9	4	*4 10'-0	4	*4 10'-6	4	*4 10'-9	4	*4 11'-3	5	*4 11'-6
f7	str	3	*4 9'-0	3	*4 9'-6	3	*4 10'-0	3	*4 10'-6	3	*4 11'-0	4	*4 11'-3	4	*4 11'-6	4	*4 12'-0	4	*4 12'-3	4	*4 12'-9
f8	str	3	*4 10'-0	3	*4 10'-6	3	*4 11'-0	3	*4 11'-6	3	*4 12'-0	3	*4 12'-3	4	*4 12'-9	4	*4 13'-0	4	*4 13'-6	4	*4 14'-0
g	str	6	*4 11'-6	6	*4 12'-3	6	*4 12'-9	6	*4 13'-6	6	*4 14'-3	6	*4 15'-0	6	*4 15'-6	6	*4 16'-3	6	*4 17'-0	6	*4 17'-9
m1	str	4	*4 37'-9	4	*4 39'-3	4	*4 40'-9	5	*4 42'-6	5	*4 44'-0	5	*4 45'-6	5	*4 47'-0	6	*4 48'-6	6	*4 50'-3	6	*4 51'-9
m2	str	1	*4 37'-9	1	*4 39'-3	1	*4 40'-9	1	*4 42'-6	1	*4 44'-0	1	*4 45'-6	1	*4 47'-0	1	*4 48'-6	1	*4 50'-3	1	*4 51'-9
m3	str	4	*4 22'-3	4	*4 23'-6	4	*4 24'-9	5	*4 26'-3	5	*4 27'-6	5	*4 28'-9	5	*4 30'-0	6	*4 31'-3	6	*4 32'-9	6	*4 34'-0
m4	str	1	*4 22'-3	1	*4 23'-6	1	*4 24'-9	1	*4 26'-3	1	*4 27'-6	1	*4 28'-9	1	*4 30'-0	1	*4 31'-3	1	*4 32'-9	1	*4 34'-0
n1	str	4	*4 18'-0	4	*4 19'-0	4	*4 20'-3	5	*4 21'-3	5	*4 22'-6	5	*4 23'-6	5	*4 24'-9	6	*4 25'-9	6	*4 26'-9	6	*4 28'-0
n2	str	1	*4 18'-0	1	*4 19'-0	1	*4 20'-3	1	*4 21'-3	1	*4 22'-6	1	*4 23'-6	1	*4 24'-9	1	*4 25'-9	1	*4 26'-9	1	*4 28'-0
p	str	4	*5 13'-9	4	*5 14'-6	4	*5 15'-3	4	*5 16'-0	4	*5 16'-9	4	*5 17'-6	4	*5 18'-3	4	*5 19'-3	4	*5 20'-0	4	*5 20'-9
q	str	2	*6 15'-9	2	*6 16'-6	2	*6 17'-3	2	*6 18'-0	2	*6 18'-9	2	*6 19'-6	2	*6 20'-3	2	*6 21'-3	2	*6 22'-0	2	*6 22'-9
u	B	88	*4 7'-0	92	*4 7'-0	96	*4 7'-0	100	*4 7'-0	104	*4 7'-0	108	*4 7'-0	112	*4 7'-0	116	*4 7'-0	120	*4 7'-0	124	*4 7'-0
v	str	6	*4 36'-0	6	*4 37'-6	6	*4 39'-0	6	*4 40'-6	6	*4 42'-0	6	*4 43'-6	6	*4 45'-0	6	*4 46'-6	6	*4 48'-0	6	*4 49'-6
w	str	6	*4 17'-0	6	*4 18'-0	6	*4 19'-0	6	*4 20'-0	6	*4 21'-0	6	*4 22'-0	6	*4 23'-0	6	*4 24'-0	6	*4 25'-0	6	*4 26'-0

		PIPE DIAMETER									
		90"	96"	102"	108"	114"	120"	126"	132"	138"	144"
		A	0'-3	0'-3	0'-3	0'-3	0'-3	0'-3	0'-3	0'-3	0'-3
B	2'-2	2'-2	2'-3	2'-3	2'-4	2'-4	2'-5	2'-5	2'-6	2'-6	
C	2'-4	2'-6	2'-7	2'-9	2'-10	3'-0	3'-1	3'-3	3'-4	3'-6	
D	1'-2	1'-4	1'-6	1'-8	1'-10	2'-0	2'-2	2'-4	2'-6	2'-8	
E	5'-8	6'-0	6'-4	6'-8	7'-0	7'-4	7'-8	8'-0	8'-4	8'-8	
F	36'-0	37'-6	39'-0	40'-6	42'-0	43'-6	45'-0	46'-6	48'-0	4	