



STEEL BANDS										BOLTS & NUTS	
SIZE OF BAND	DIMENSIONS										NO. BAND
	A	B	C	D	E	F	G	H	J	L	
2	1 1/2	3/8	1 1/2	1 1/2	2 1/2	7/8	1 1/4	2	1	5/8	4 1/2
3	2 1/2	3/8	1 1/2	1 1/2	2 1/2	1	1 1/2	2	1	6 1/2	5 1/2
4	3 1/2	3/8	1 1/2	1 1/2	2 1/2	1	1 1/4	2	1	7 1/2	5 1/2
6	4 3/4	9/16	1 1/2	1 1/2	2 1/2	1	1 1/2	2	1	8 1/2	5 1/2
10	6 5/8	9/16	1 1/2	1 1/2	2 1/2	1	1 1/2	2	1	11 1/2	5 1/2
14	8 3/8	9/16	1 1/2	1 1/2	2 1/2	1	1 1/2	2	1	13 1/2	5 1/2
16	10 3/8	9/16	1 1/2	1 1/2	2 1/2	1	1 1/2	2	1	15 1/2	5 1/2
-	12 1/2	9/16	1 1/2	1 1/2	2 1/2	1	1 1/2	2	1	17 1/2	5 1/2
8	10 5/8	3/8	1 1/2	1 1/2	2 1/2	1	1 1/2	2	1	8 1/2	5 1/2

Note : Bolt holes  $\frac{1}{16}$  larger than bolts.  
Bolt holes to be drilled not punched.

PLATE WASHERS									
SIZE OF BAND	DIMENSIONS								
	Y	X	K	N	P	R	S	T	U
2	3	1/2	2 1/2	5	3/4				
3	4	1/2	2 1/2	5	3/4				
4	6	1/2	2 1/2	5	3/4				
6	8	1/2	2 1/2	5	3/4				
10	12	5/8	3 1/2	5	1				
14	16	7/8	3 1/2	5	1				
16	18	1	3 1/2	5	1				
-	2	9/16	2 1/2	5	3/4				
8	10	5/8	2 1/2	5	3/4				

GENERAL NOTES  
All dimensions are in inches. Assumptions in design: Allowable tensile strength of Bands and Washers is 15,000 lbs per square inch. Allowable tensile strength of Tie Bolts is 10,000 lbs per square inch. Maximum internal water pressure is 100 pounds per square inch. One half of total load is taken by pipe joint and earth, the balance is taken by the Tie Bolts.

Bolt holes to be drilled not punched.

**NOTE:**  
BOLTS, NUTS, BANDS, AND WASHERS SHALL BE STAINLESS STEEL TYPE 304 OR 316



San Francisco  
**Water  
Power  
Sewer**

Services of the San Francisco Public Utilities Commission

### WATER ENTERPRISE - CITY DISTRIBUTION DIVISION STANDARD PLANS

### MISCELLANEOUS PLAIN & BELL BANDS / PLATE WASHERS & TIE BOLTS

DATE	10/1/2016	REV.	DRAWING NO.	SHEET
SCALE	N.T.S.	0	CDD-LP-302	94