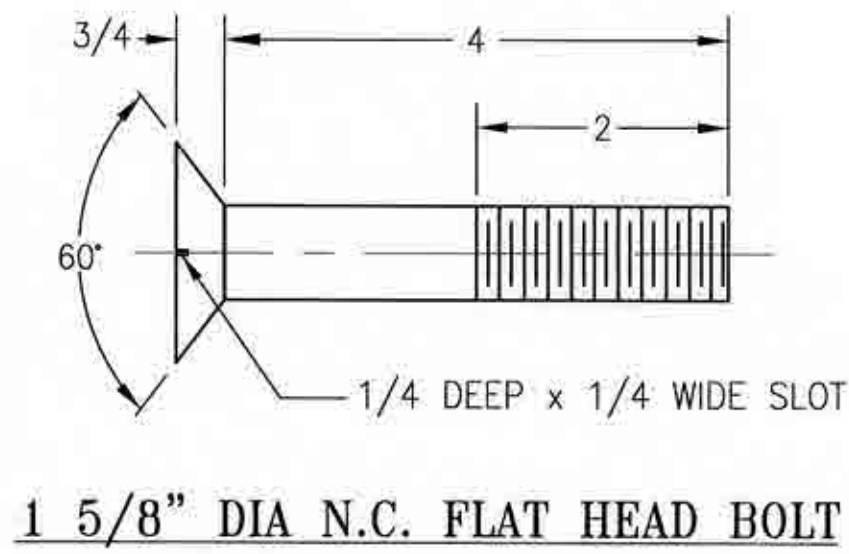
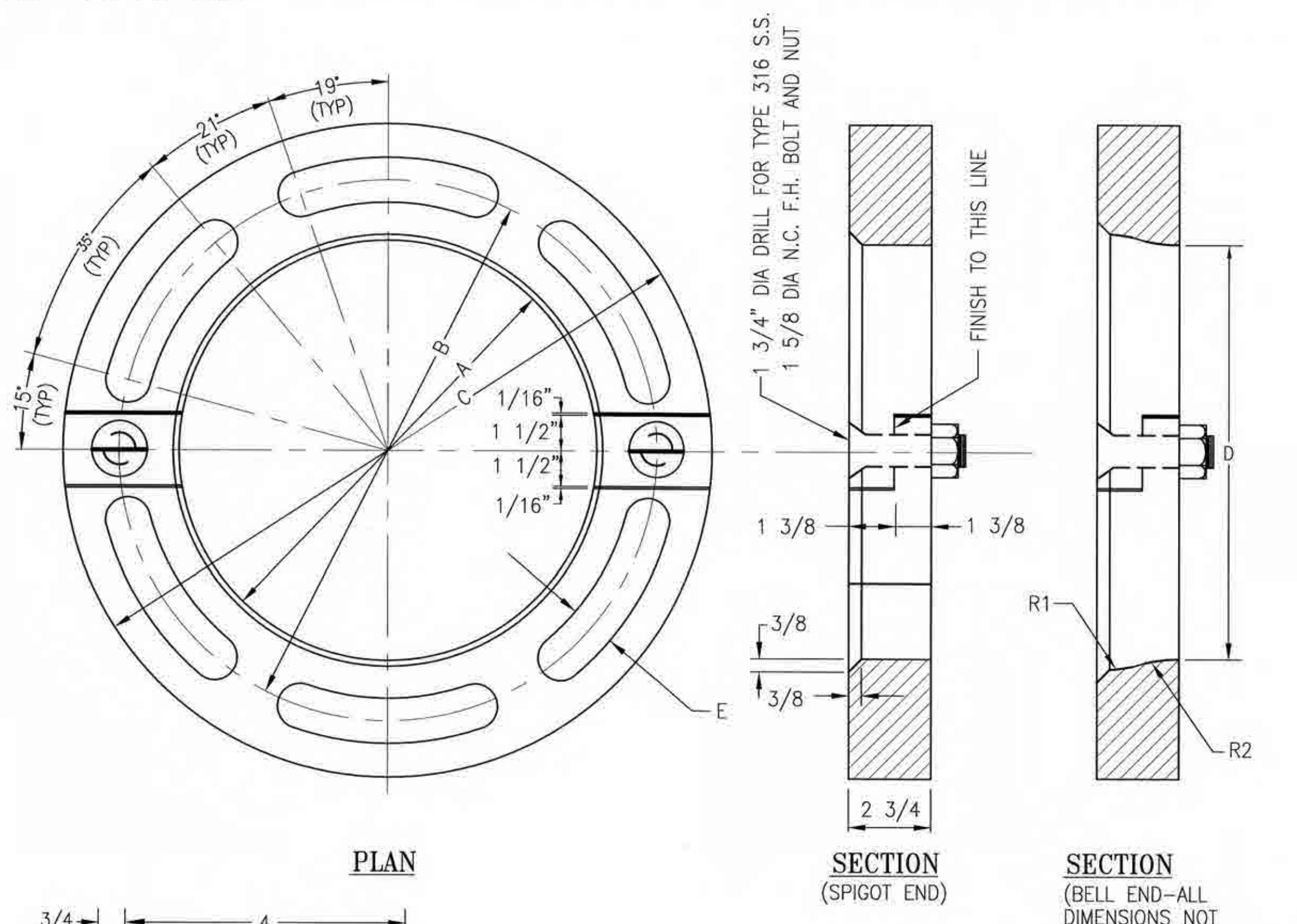
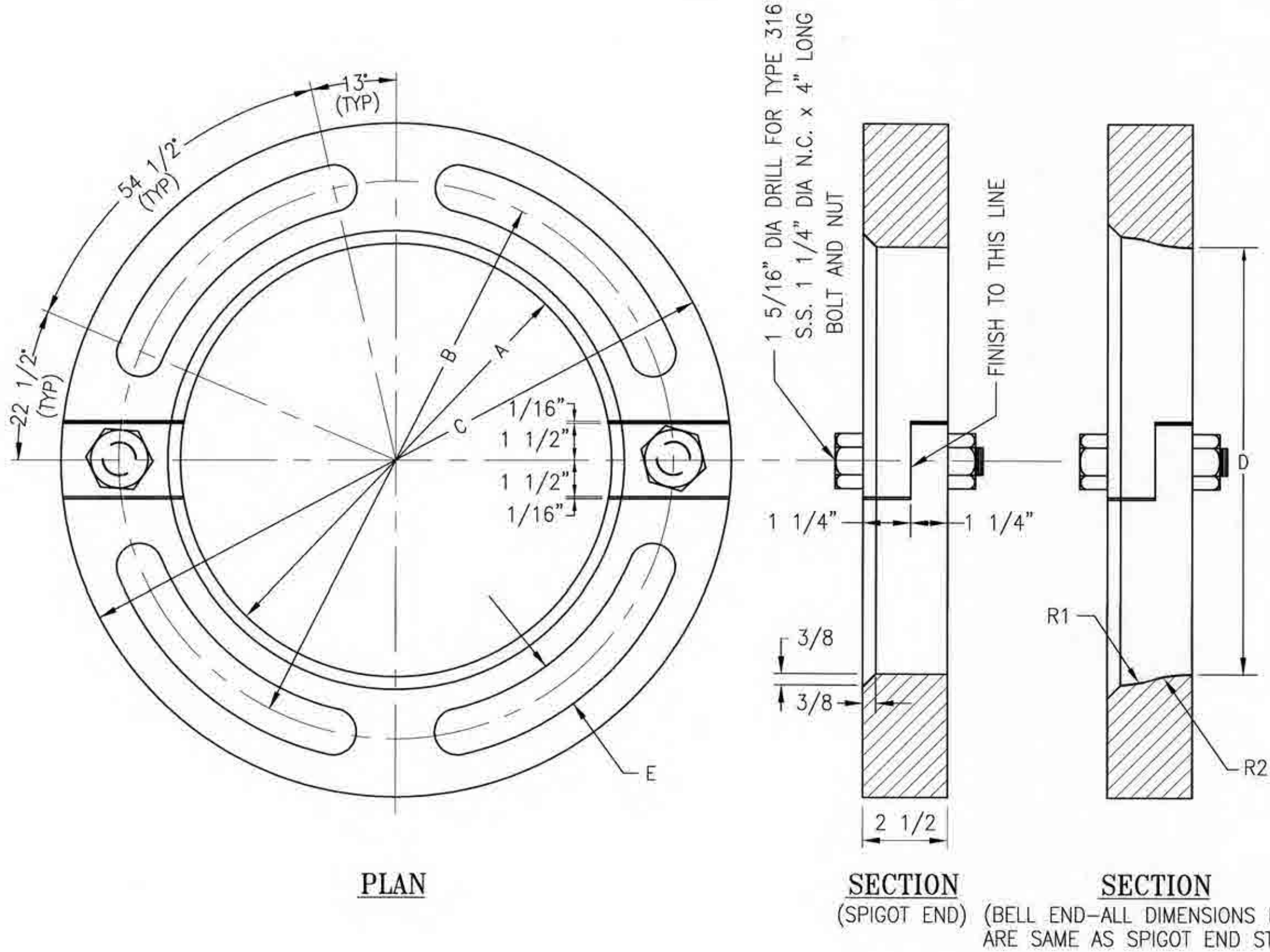


FILE: NAME\\v\\2652\\19th_avenue_combined_city_project\\2_Design\\working_drawings\\EME\\current_aws\\MA-D12.dwg
SAVE: Monday, December 10, 2018 2:18:15 PM
PLOT: EXTENTS
SCALE: 1:1
BORDER:
22,34
COLOR: No.
RED 0.70MM
YELLOW 0.20MM
GREEN 0.25MM
CYAN 0.40MM
BLUE 0.50MM
MAGENTA 0.20MM
WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.50MM
210 0.50MM

NOMINAL DI PIPE SIZE	DIMENSIONS (INCHES) — SEE NOTES 3 AND 4							
	TYPE	A	B	C	D	E	R1	R2
8"	A	9.30	15.75	18.75	9.37	1.37	6	6
10"	A	11.35	18.37	21.62	11.42	1.50	6	6
12"	A	13.45	21.12	24.87	13.52	1.75	6	6
14"	B	15.55	23.62	28.37	15.65	1.62	8	8
16"	B	17.65	26.37	30.12	17.84	1.75	8	8
18"	B	19.75	29.0	32.75	20.00	2.00	8	8
20"	B	21.85	31.87	37.62	22.10	2.12	8	8

NOTES:

- MATERIAL TO BE CAST STEEL (IN ACCORDANCE WITH A.S.T.M. SPEC. A-27-24) AND ALL SUBSEQUENT REVISIONS THERETO, OR PLATE STEEL. MARK PATTERN IN RAISED LETTERS NOT LESS THAN 5/8" HIGH AND NOT LESS THAN 1/8" IN RELIEF; WITH THE LETTERS "SFFD AWSS", THE DATE OF MANUFACTURE, AND THE MANUFACTURER'S INITIALS. CASTINGS TO BE COATED IN A SIMILAR MANNER TO THAT SPECIFIED IN THE STANDARD SPECIFICATIONS FOR CAST STEEL SPECIALS. PLATE STEEL STRONG BACKS SHALL HAVE THE ABOVE INFORMATION BEAD WELDED ONTO THE OUTSIDE CIRCUMFERENCE. THE WELD BEAD SHALL BE A MINIMUM OF 1/8" HIGH. THE PIPE MANUFACTURER SHALL FURNISH THE MANUFACTURER OF THE STRONG BACK WITH THE NECESSARY BELL CONTOUR DIMENSIONS AND ANY PROJECTION ON BEARING SURFACES SHALL BE GROUND SMOOTH.
- DIMENSIONS A, D, R1, R2 SHALL HAVE A TOLERANCE OF ± 0.00 . ALL OTHER DIMENSIONS SHALL HAVE A TOLERANCE OF ± 0.06 .
- INSIDE DIAMETER DIMENSIONS GIVEN IN THE TABLE ARE BASED ON THOSE AS PROVIDED BY THE DUCTILE IRON PIPE MANUFACTURERS. THE CONTRACTOR SHALL FIELD VERIFY THE PIPE WHERE THE STRONG BACK IS TO BE INSTALLED PRIOR TO FABRICATION, AND ADJUST THE INSIDE, OUTSIDE, AND SLOT TO SUIT.
- THE CONTRACTOR SHALL FIELD VERIFY THE OUTSIDE DIAMETERS OF THE BODY AND BELL END OF THE EXISTING CAST IRON PIPE PRIOR TO FABRICATING THE STRONG BACKS. ADJUST THE INSIDE DIAMETER AND RADIUS DIMENSIONS ACCORDINGLY AND SUBMIT SHOP DRAWINGS TO THE CITY REPRESENTATIVE FOR REVIEW PRIOR TO FABRICATION. THE FINAL STRONG BACK DIMENSIONS SHALL ALLOW THE TIE RODS TO SIT IN THE SLOT WITH 1" MINIMUM CLEARANCE WITH THE GREATEST DIAMETER OF THE CI PIPE BELL.



TOLERANCES (UNLESS OTHERWISE NOTED)

DECIMALS: ± 0.003
FRACTIONS: $\pm 1/32$

HIGH PRESSURE SYSTEM STRONG BACK FABRICATION DETAILS
SCALE: NONE

PLAN APPROVAL DATE	CONTRACT No.	PROJECT ID	DISTRICT	COUNTY	ROUTE	POST MILES TOTAL PROJECT
	04-0G3501	0400000325	04	SF	1	R0.94/4.05

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REFERENCES
GATE BOOK PAGES, PLANS,
SURVEY NOTES, ETC. USED
GATE BOOK PAGES
NO.



CITY AND COUNTY OF SAN FRANCISCO SAN FRANCISCO PUBLIC WORKS BUREAU OF DESIGN AND ENGINEERING			
SECTION MANAGER <i>Engel</i> 12/7/18	DRAWN MM/WC	01/2019	
DEPUTY BUREAU MANAGER <i>482000</i> 12/19/18	DESIGNED MBS	01/2019	
BUREAU MANAGER <i>12/24/18</i>	CHECKED EL	01/2019	
NO.	DATE	DESCRIPTION	BY APPR'D
REVISIONS			

CITY AND COUNTY OF SAN FRANCISCO PUBLIC UTILITIES COMMISSION WATER ENTERPRISE CITY DISTRIBUTION DIVISION 19TH AVENUE (STATE ROUTE 1) COMBINED CITY PROJECT AUXILIARY WATER SUPPLY SYSTEM WORK DETAILS VI			
APPROVED <i>[Signature]</i> ENGINEERING MANAGER	APPROVED <i>[Signature]</i> MANAGER, CITY DISTRIBUTION DIVISION	SCALE NONE	DATE 01/2019
SHEET 289 OF 356	PLAN NO. MA-D12	FILE NO. 111,587	REVISION NO. 0