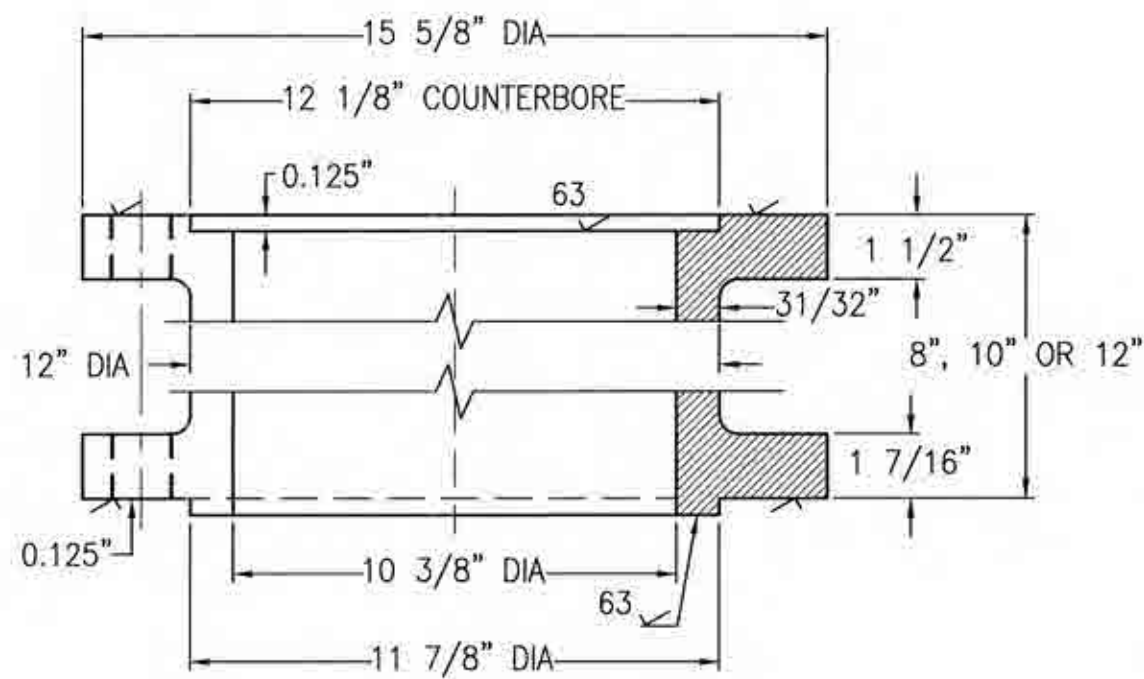
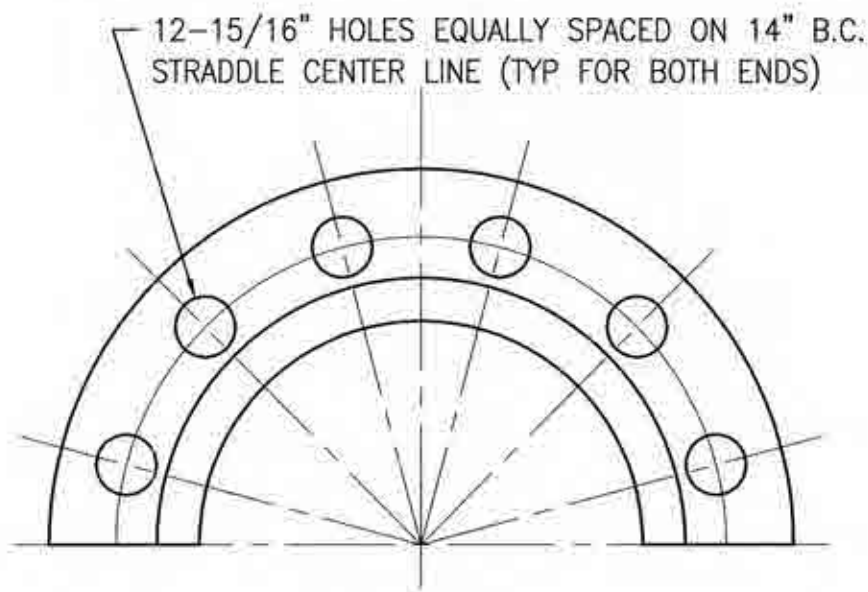


FILE NAME: \\na2652_j_19th_avenue_combined_city_project\2_Design\Working Drawings\ENR\current\awss\2652J_AWSS_MA-D10.dwg

SAVE Monday, December 10, 2018 3:20:20 PM



TOLERANCES (UNLESS OTHERWISE NOTED)

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

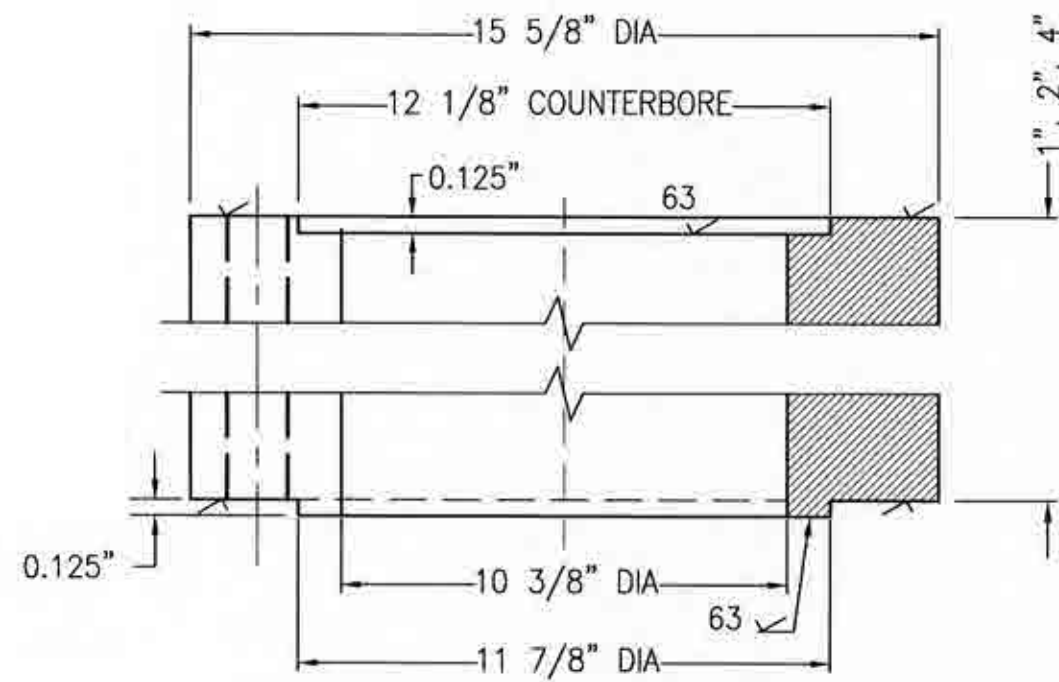
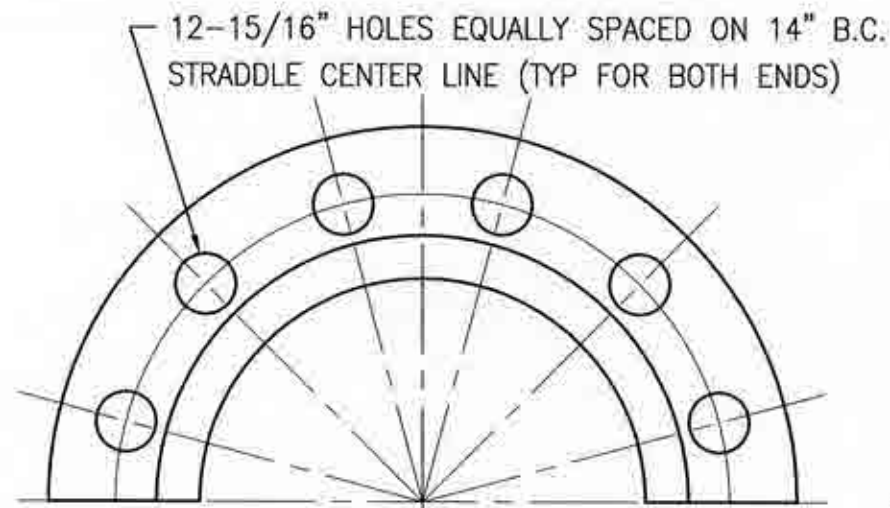
FINISH SYMBOLS

250 ☒ UNLESS OTHERWISE INDICATED

SCALE: NONE

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC WORKS - DESIGN AND ENGINEERING
DUCTILE IRON RISER FOR HIGH PRESSURE HYDRANT

BY: DEM	APP'D _____ MANAGER, GES DIVISION	DATE: 01/23/06
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 0
		DETAIL: HPL-39,417A



TOLERANCES (UNLESS OTHERWISE NOTED)

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

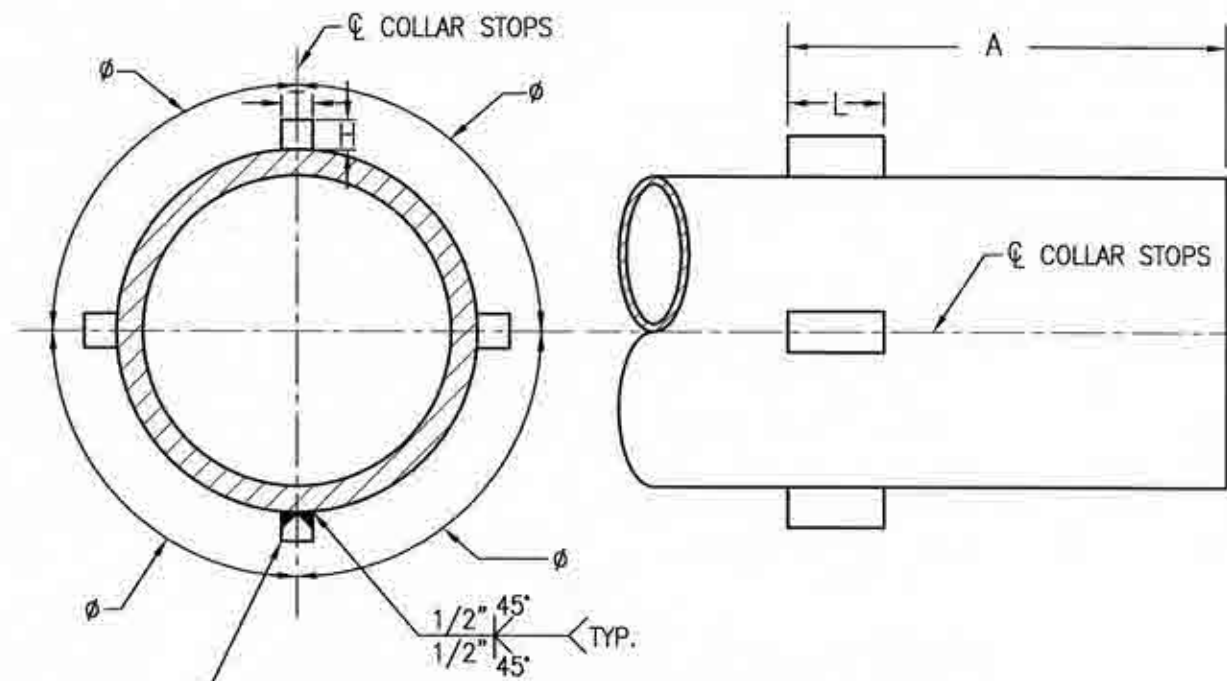
FINISH SYMBOLS

250 ☒ UNLESS OTHERWISE INDICATED

SCALE: NONE

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC WORKS - DESIGN AND ENGINEERING
DUCTILE IRON RISER FOR HIGH PRESSURE HYDRANT

BY: DEM	APP'D _____ MANAGER, GES DIVISION	DATE: 01/23/2006
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 0
		DETAIL: HPL-39,417B



GENERALIZED LOCATIONS OF WELDED STEEL STOPS
(SHOWN FOR 8" THRU 12" PIPE ONLY
SEE TABLE BELOW)

NOMINAL PIPE SIZE IN.	NUMBER OF STOPS	ANGLE BETWEEN STOPS DEG. ϕ	HEIGHT IN.	WIDTH IN.	LENGTH IN.	DISTANCE FROM PIPE END, IN.
8	4	90	H	T	L	A
10	4	90	1	1	3.5	12
12	4	90	1	1	3.5	15
14	6	60	1	1	3.5	16.5
16	6	60	1	1	4.5	18
18	9	40	1.5	1	4.5	19.5
20	9	40	1.5	1	4.5	21

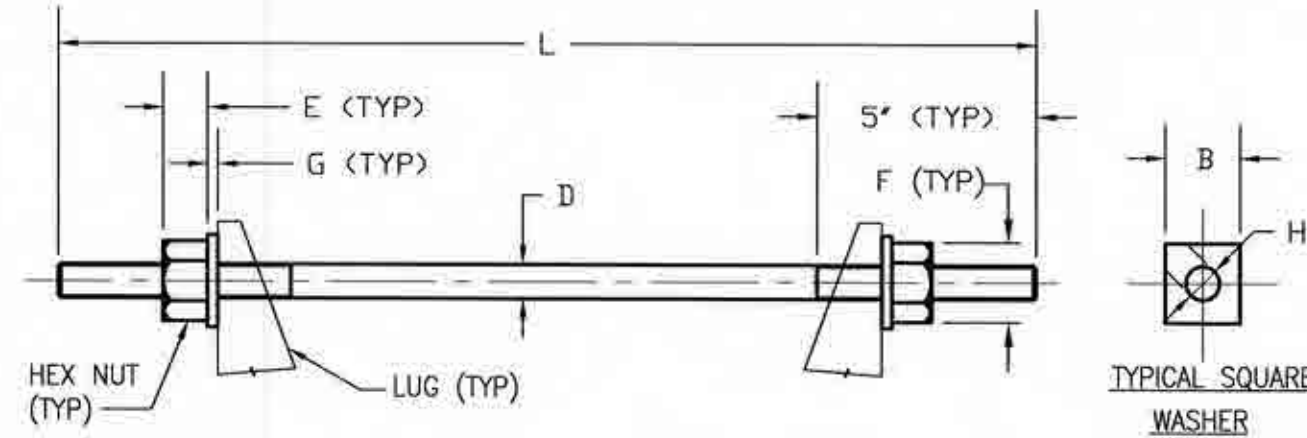
NOTES:

1. COLLAR STOP MATERIAL SHALL BE MILD STEEL & WELDING ROD SHALL BE NI-ROD 55.
2. AREAS TO BE WELDED SHALL BE THOROUGHLY CLEANED & FREE OF PAINT, RUST OR SCALE BEFORE STOPS ARE WELDED ONTO PIPE.
3. THE WELDED STOPS & ADJACENT AREAS SHALL BE SANDBLASTED & COATED AS PER THE SPECIFICATIONS.
4. THE PIPE COLLARS SHALL BE SLID ONTO THE PIPE PRIOR TO WELDING OF THE COLLAR STOPS.
5. THE CONTRACTOR SHALL USE A STOP COLLAR OR OTHER POSITIONING DEVICE ON THE PIPE TO ENSURE THAT THE COLLAR STOPS ARE POSITIONED SO AS TO HAVE UNIFORM CONTACT WITH THE STOP COLLAR.
6. STEEL STOPS SHALL BE BEVELED PRIOR TO WELDING.

SCALE: NONE

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC WORKS - DESIGN AND ENGINEERING
WELDS STEEL COLLAR STOPS FOR DUCTILE IRON PIPE

BY: DEM	APP'D _____ MANAGER, GES DIVISION	DATE: 03/10/2005
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 1 OF 1
		DETAIL: HPL-A-5975.1



DIMENSIONS IN INCHES							STANDARD BOLT & SPACER JOINTS	STANDARD SLEEVE JOINTS
PIPE SIZE	D	E	F	G	H	B	L	
8	1-1/8"	1	1-3/16"	1/4"	1-7/16"	2-1/2"	22	32
10	1-1/4"	1-1/8"	2	1/4"	1-9/16"	2-3/4"	24	36
12	1-3/8"	1-1/4"	2-3/16"	5/16"	1-11/16"	3-1/4"	26	40
14	1-3/8"	1-1/4"	2-3/16"	5/16"	1-11/16"	3-1/2"	20"	41
16	1-1/2"	1-3/8"	2-3/8"	5/16"	1-11/16"	3-1/2"	29	47
18	1-3/4"	1-5/8"	2-3/4"	3/8"	2-1/16"	3-3/4"	31	51
20	1-7/8"	1-3/4"	2-15/16"	7/16"	2-3/16"	4	33	54

GENERAL NOTES

1. THREADS SHALL CONFORM TO THE ANSI FOR SCREW THREADS B1.1 COARSE THREAD SERIES WITH CLASS 2A TOLERANCE FOR BOLTS AND CLASS 2B FOR NUTS. 1-5/8 ϕ THREADS MAY BE BUN.
2. BOLTS, TIE RODS, NUTS AND WASHERS SHALL BE OF AUSTENITIC STAINLESS STEEL CONFORMING TO AMERICAN IRON AND STEEL INSTITUTE (ANSI) AND AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) SPECIFICATIONS. ALL BOLTS SHALL CONFORM TO ASTM A-193, SYMBOL B8M (ANSI TYPE 316). ALL NUTS AND SLEEVES SHALL CONFORM TO ASTM 194, SYMBOL 8M (ANSI TYPE 316). ALL TIE RODS, THREADED RODS AND WASHERS SHALL CONFORM TO ANSI TYPE 316.
3. EXACT BOLT LENGTHS REQUIRED FOR OTHER JOINTS SHALL BE DETERMINED IN THE FIELD.
4. CONTINUOUSLY THREADED RODS MAY BE SUBSTITUTED.

SCALE: NONE

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC WORKS - DESIGN AND ENGINEERING
STAINLESS STEEL BOLTS, NUTS AND WASHERS

BY: DEM	APP'D _____ MANAGER, GES DIVISION	DATE: 02/23/2005
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 3
		DETAIL: HPL-49,102

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

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PERMISSION OF THE SFPUC.

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	DESIGNED	DATE
DESIGNER	DESIGNED	DATE
BUREAU MANAGER	CHECKED	DATE

NO.	DATE	DESCRIPTION	BY	APP'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 IV

APPROVED	APPROVED	SCALE
ENGINEERING MANAGER	MANAGER, CITY DISTRIBUTION DIVISION	NONE
DATE	DATE	DATE
01/2019	01/2019	01/2019
287 OF 356	MA-D10	111,585
		0

FILE: FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3 4

SFPW JOB ORDER NO. 2652J