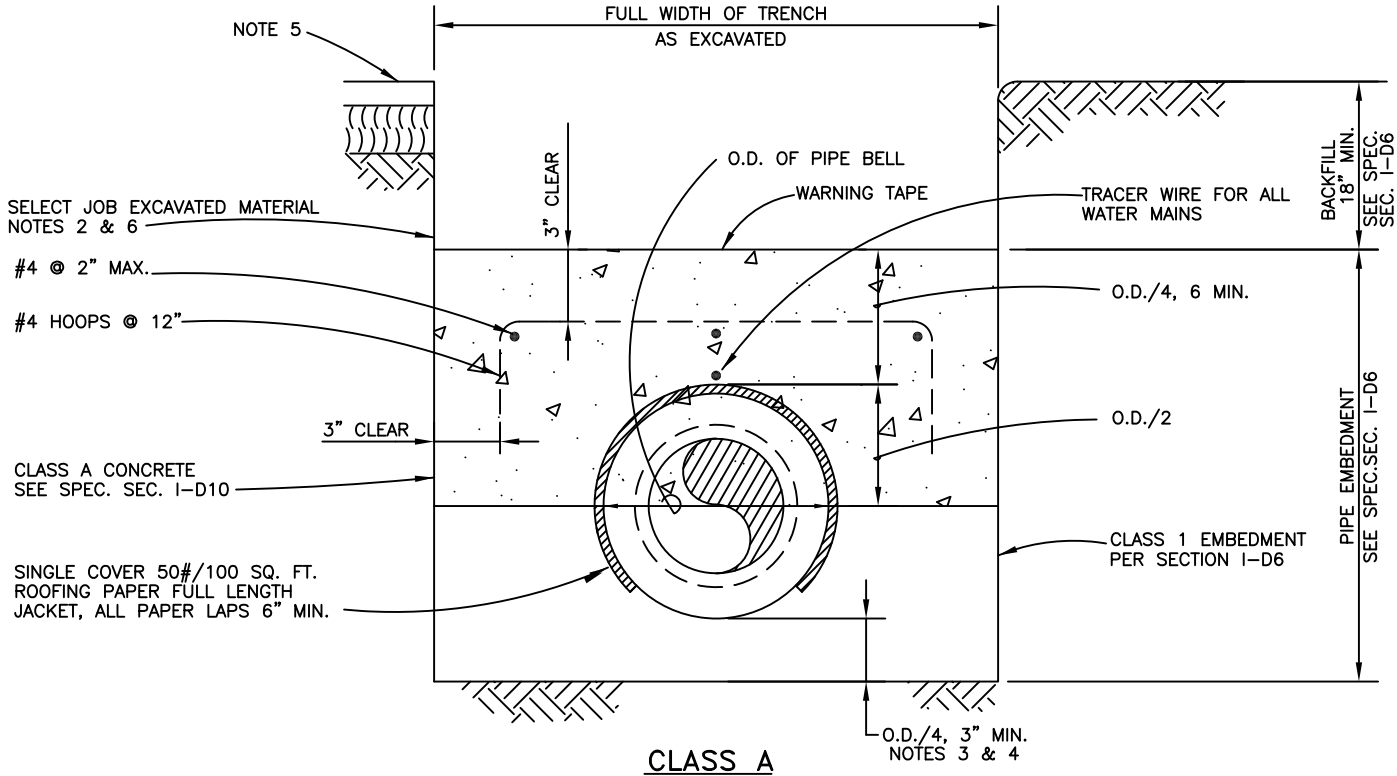
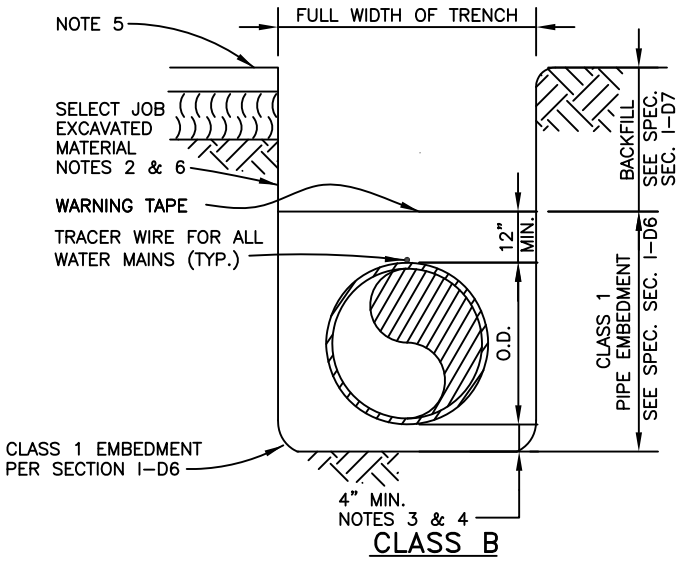


CLASS A

(NOTE 1)

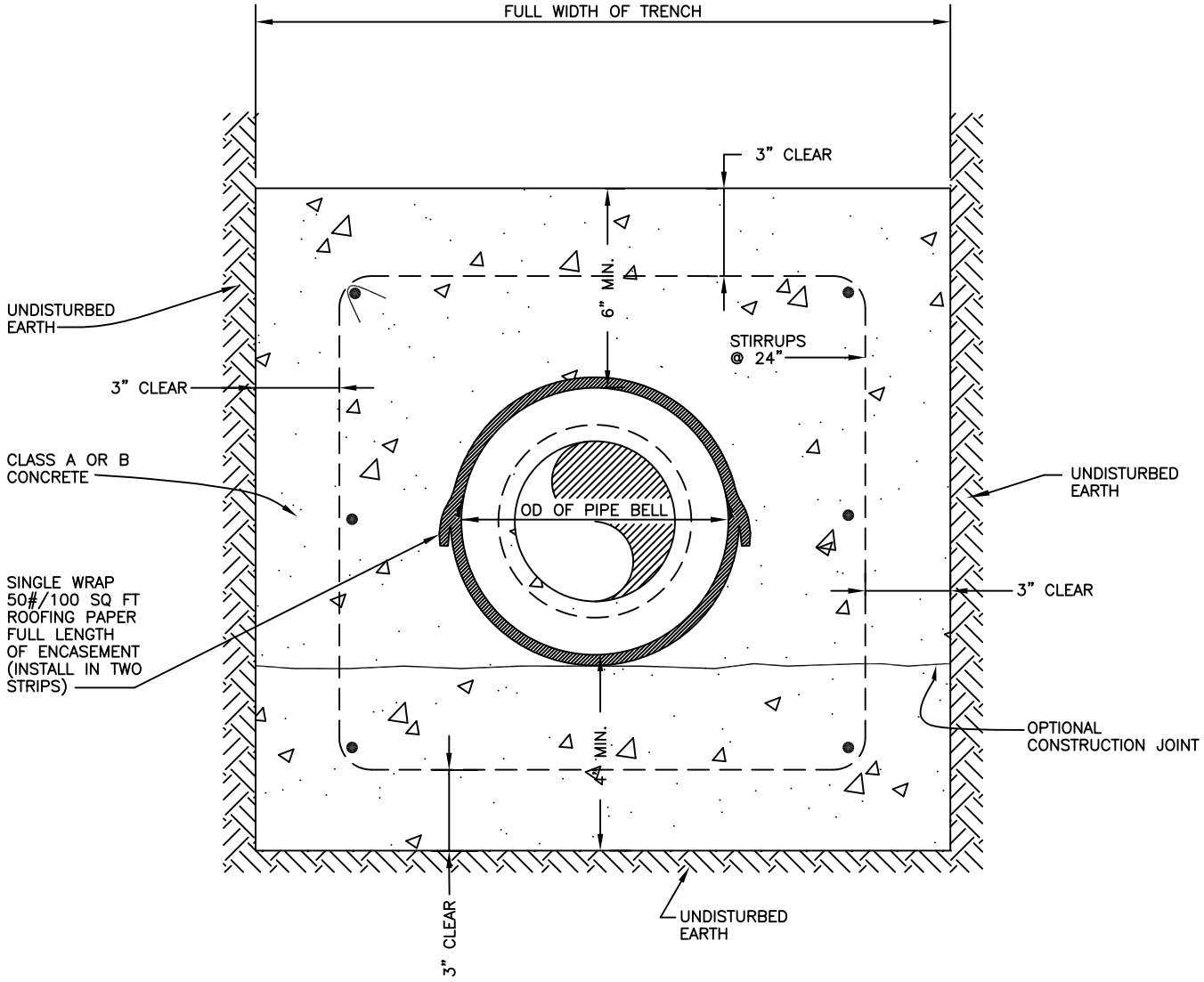


CLASS B

NOTES

1. REQUIRED IN SPECIAL CASES SUCH AS WHERE LESS THAN MINIMUM COVER CAN BE ATTAINED.
2. IMPORTED MATERIAL SHALL BE USED WHEN NATIVE MATERIAL IS UNSUITABLE AS PER SPEC. SEC. I-D7.
3. SHALL BE 5 INCHES MIN. WHEN TRENCH BOTTOM IS UNSUITABLE AS PER SPEC. SEC I-D4-5.
4. ADDITIONAL EXCAVATION REQUIRED AT BELL ENDS TO MAINTAIN MIN. DEPTH OF AGGREGATE BELOW PIPE BELL.
5. FOR RESURFACING AND RESTORATION REQUIREMENTS, SEE SPEC. I-D9.
6. BACKFILL REQUIREMENTS ABOVE THE PIPE EMBEDMENT ZONE IN THESE STANDARD SPECIFICATIONS AND DRAWINGS APPLY ONLY WHEN THERE ARE NO GOVERNING CITY OR AGENCY REQUIREMENTS.
7. FOR TRENCH BOTTOMS WITH SOFT OR UNSTABLE MATERIAL, REFERENCE SPEC. SEC. I-D4-5.
8. PIPE EMBEDMENT MATERIAL SHALL BE FREE OF VEGETABLE MATTER, RECYCLED MATERIAL (INCLUDING RECYCLED AGGREGATE BASE), AND OTHER DELETERIOUS SUBSTANCES.

Dublin San Ramon Services District	DATE DEC 2019
STANDARD TRENCH SECTION FOR WATER AND SEWER MAINS AND SIDE SEWER INSTALLATIONS	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G-1



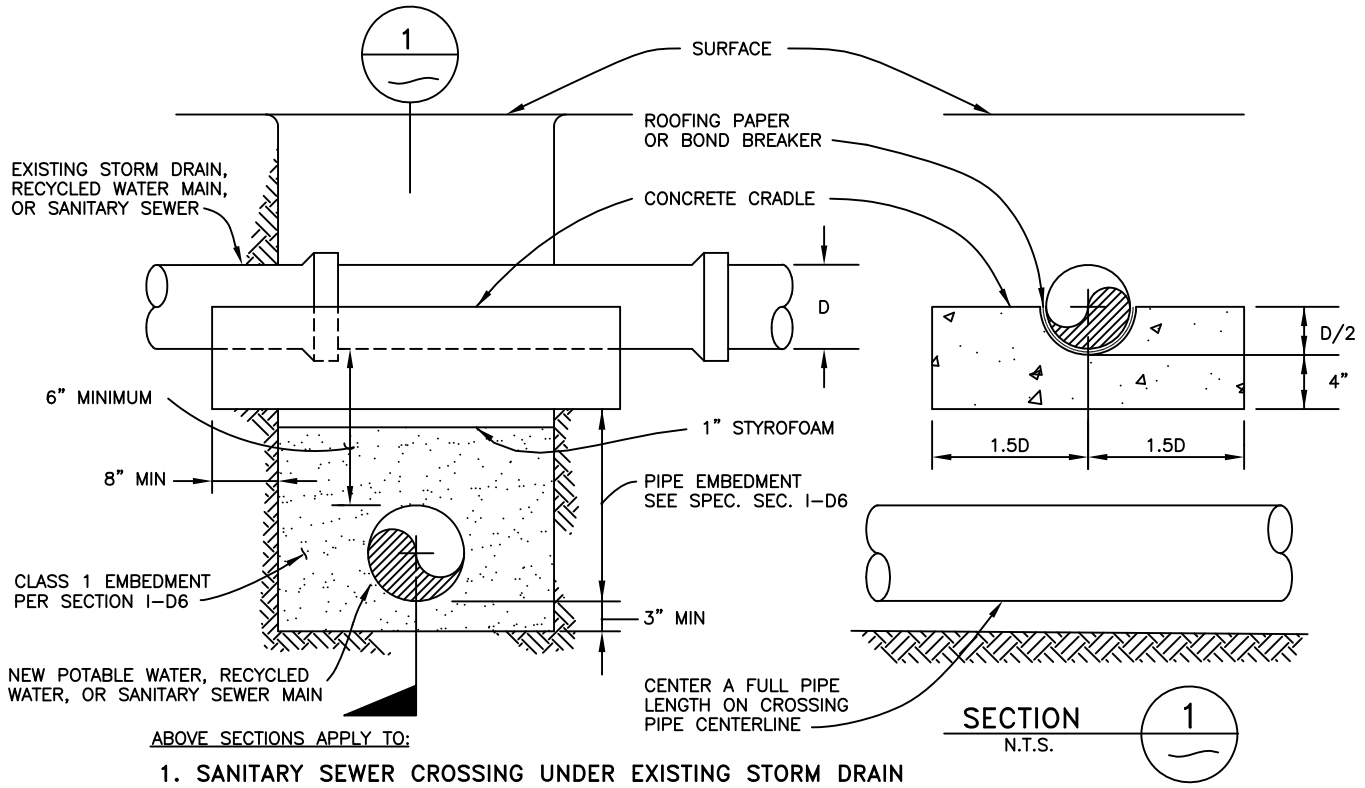
NOTES

1. ALL REINFORCING. #4 BARS AS SHOWN.

2. EACH JOINT SHALL BE TIED DOWN TO PREVENT FLOATING USING A METHOD APPROVED BY THE DISTRICT ENGINEER.

3. APPROVAL REQUIRED FROM THE DISTRICT ENGINEER PRIOR TO USE OF THE ABOVE DETAIL.

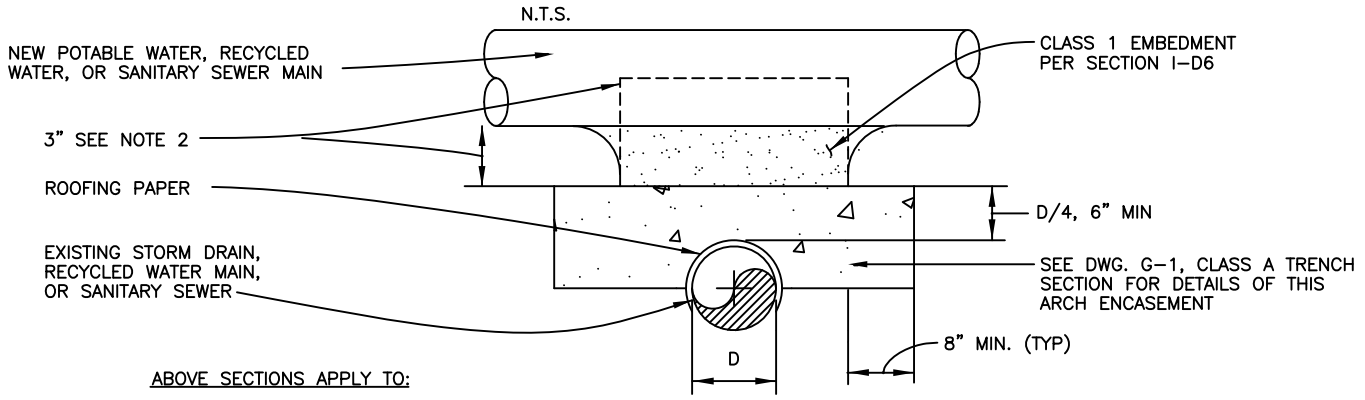
Dublin San Ramon Services District	DATE DEC 2019
CONCRETE ENCASEMENT SECTION	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G–2



ABOVE SECTIONS APPLY TO:

1. SANITARY SEWER CROSSING UNDER EXISTING STORM DRAIN OR SANITARY SEWER
2. RECYCLED WATER CROSSING UNDER EXISTING STORM DRAIN OR RECYCLED WATER
3. POTABLE WATER CROSSING UNDER EXISTING STORM DRAIN

N.T.S.



ABOVE SECTIONS APPLY TO:

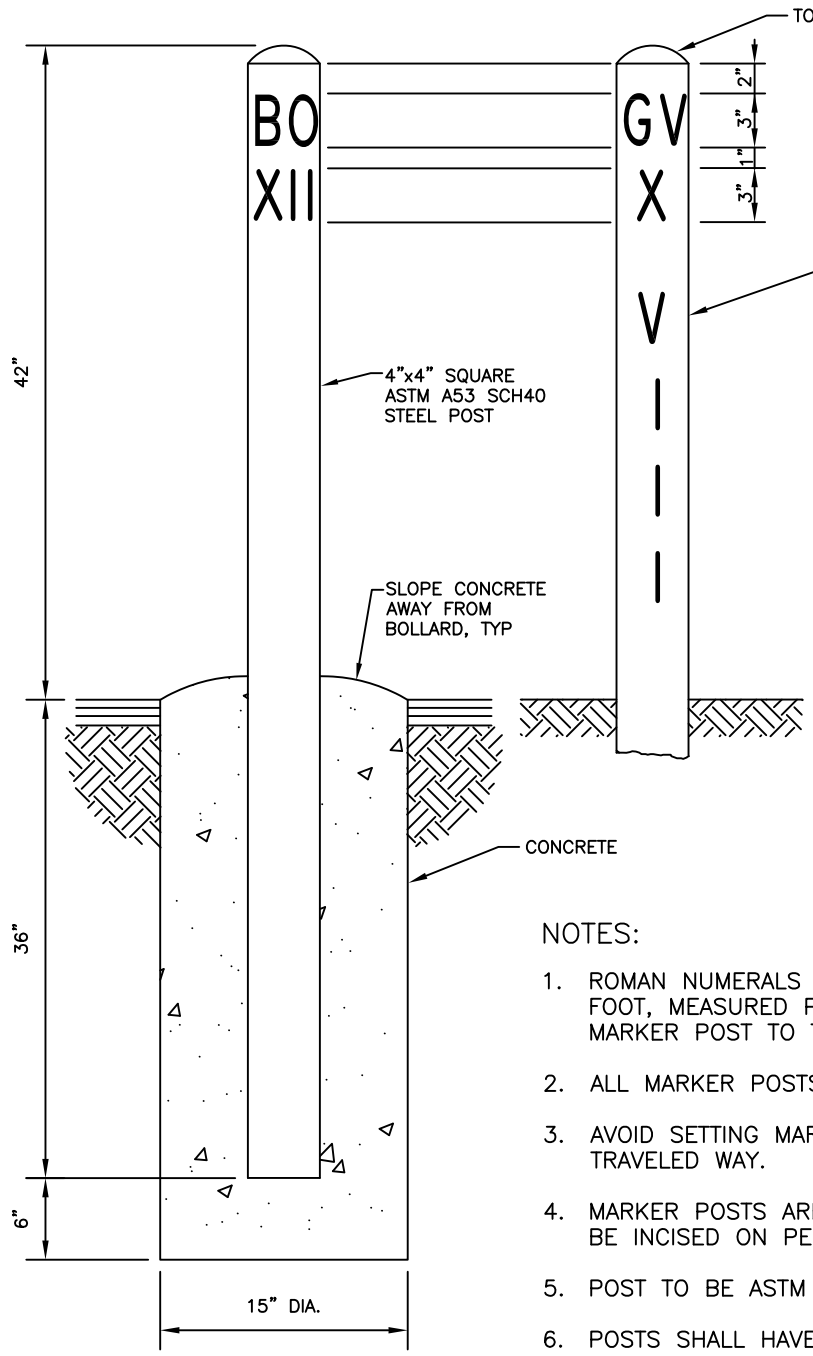
1. SANITARY SEWER CROSSING OVER EXISTING STORM DRAIN OR SANITARY SEWER
2. RECYCLED WATER CROSSING OVER EXISTING STORM DRAIN OR RECYCLED WATER
3. POTABLE WATER CROSSING OVER EXISTING STORM DRAIN

N.T.S.

NOTES:

1. CROSSING OF POTABLE WATER MAINS, RECYCLED WATER MAINS, AND SANITARY SEWERS: SEPARATION, CONSTRUCTION, AND PIPE CRITERIA SHALL BE AS REQUIRED BY SECTION I–C5 AND THE STATE WATER RESOURCES CONTROL BOARD (APPENDIX C).
2. IF CLASS 2 AGGREGATE BASE MATERIAL CANNOT BE ATTAINED, THEN RAISE PIPE CRADLE TO CONTACT LOWER HALF OF NEW PIPE. PROVIDE ROOFING PAPER OR BOND BREAKER BETWEEN NEW PIPE AND CONCRETE AS SHOWN IN SECTION 1 ABOVE.
3. APPROVAL OF THE DISTRICT ENGINEER REQUIRED TO USE ABOVE DETAILS.

Dublin San Ramon Services District	DATE MAY 2022
CLOSE CROSSING DETAIL	DESIGNED RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G–3



LETTERS	FACILITY
BO	BLOW OFF
GV	GATE VALVE
AV	AIR VALVE

THE IDENTIFICATION FOR BY PASS VALVES SHALL CARRY THE ADDITIONAL LETTERS "BP"

WM	WATER MAIN
RW	RECYCLED WATER MAIN
SM	SEWER MAIN
LS	LATERAL SEWER
MH	MANHOLE
CO	CLEANOUTS

NOTES:

1. ROMAN NUMERALS REPRESENT THE DISTANCE TO THE NEAREST FOOT, MEASURED PERPENDICULAR, FROM THE FACE OF THE MARKER POST TO THE CENTER OF THE FACILITY.
2. ALL MARKER POSTS MUST BE SET TRUE, FACING THE FACILITY.
3. AVOID SETTING MARKER POSTS ON PRIVATE PROPERTY OR IN TRAVELED WAY.
4. MARKER POSTS ARE NOT REQUIRED WHERE REFERENCES CAN BE INCISED ON PERMANENT CURBS.
5. POST TO BE ASTM A53 SCH 40 STEEL FILLED WITH CONCRETE.
6. POSTS SHALL HAVE FACTORY APPLIED PRIMER COAT AND FIELD APPLIED EPOXY TOP COAT. TOP COAT SHALL BE WHITE WITH RED LETTERS AND NUMERALS.
7. MARKER POSTS FOR RECYCLED WATER SHALL BE AS PER NOTE 5, EXCEPT POSTS SHALL BE PAINTED PURPLE.
8. SEE DRAWING G–4A FOR ROMAN NUMERAL CHART.

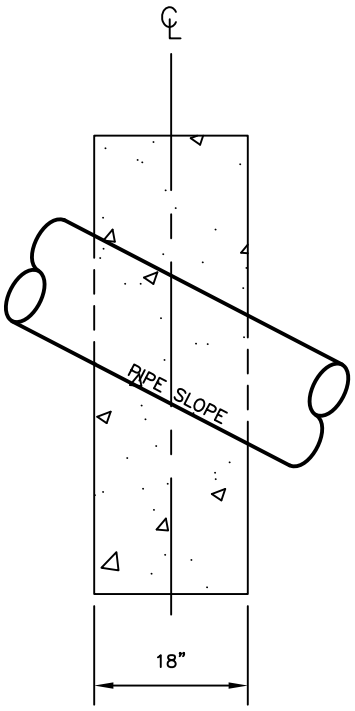
REV. 04/07

Dublin San Ramon Services District	DATE DEC 2019
MARKER POST (4" x 4")	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G–4

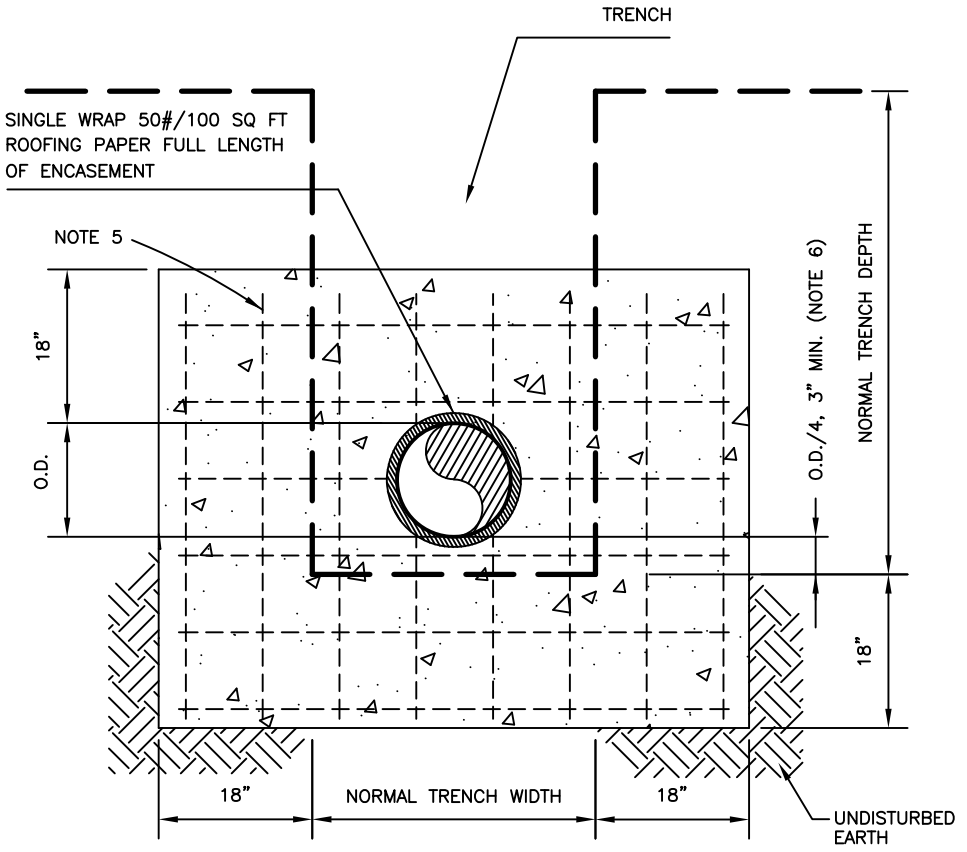
1	I	32	XXXII	63	LXIII	94	XCIV
2	II	33	XXXIII	64	LXIV	95	XCV
3	III	34	XXXIV	65	LXV	96	XCVI
4	IV	35	XXXV	66	LXVI	97	XCVII
5	V	36	XXXVI	37	LXVII	98	XCVIII
6	VI	37	XXXVII	38	LXVIII	99	XCIX
7	VII	38	XXXVIII	69	LXIX	100	C
8	VIII	39	XXXIX	70	LXX	500	D
9	IX	40	XL	71	LXXI		
10	X	41	XLI	72	LXXII		
11	XI	42	XLII	73	LXXIII		
12	XII	43	XLIII	74	LXXIV		
13	XIII	44	XLIV	75	LXXV		
14	XIV	45	XLV	76	LXXVI		
15	XV	46	XLVI	77	LXXVII		
16	XVI	47	XLVII	78	LXXVIII		
17	XVII	48	XLVIII	79	LXXIX		
18	XVIII	49	XLIX	80	LXXX		
19	XIX	50	L	81	LXXXI		
20	XX	51	LI	82	LXXXII		
21	XXI	52	LII	83	LXXXIII		
22	XXII	53	LIII	84	LXXXIV		
23	XXIII	54	LIV	85	LXXXV		
24	XXIV	55	LV	86	LXXXVI		
25	XXV	56	LVI	87	LXXXVII		
26	XXVI	57	LVII	88	LXXXVIII		
27	XXVII	58	LVIII	89	LXXXIX		
28	XXVIII	59	LIX	90	XC		
29	XXIX	60	LX	91	XCI		
30	XXX	61	LXI	92	XCII		
31	XXXI	62	LXII	93	XCIII		

REV. 01/04

Dublin San Ramon Services District	DATE JAN. 2004
ROMAN NUMERAL CHART	DESIGNED ATJ
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G-4A



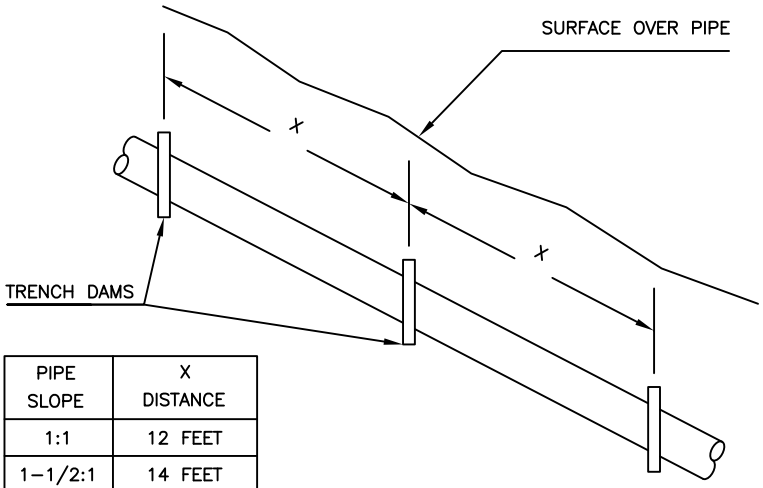
SIDE VIEW
NTS



FRONT VIEW
NTS

NOTES

1. TRENCH DAM MATERIAL SHALL BE CLASS B CONCRETE.
2. BEARING AREA OF TRENCH DAM SHALL BE RESTING ON UNDISTURBED EARTH.
3. NO FITTINGS OR BELL SHALL BE LOCATED WITHIN 5' OF TRENCH DAM.
4. REMOVE ALL ORGANIC MATERIAL PRIOR TO POURING CLASS B CONCRETE.
5. TRENCH DAM SHALL HAVE #4 REBAR MAT PLACED 1' ON CENTER.
6. SHALL BE 5 INCHES MIN. WHEN TRENCH BOTTOM IS UNSUITABALE AS PER SPEC. SEC I–D4–5.
7. TRENCH DAMS REQUIRED ON ALL SLOPES OF 10% OR STEEPER AS DETERMINED BY THE DISTRICT ENGINEER.

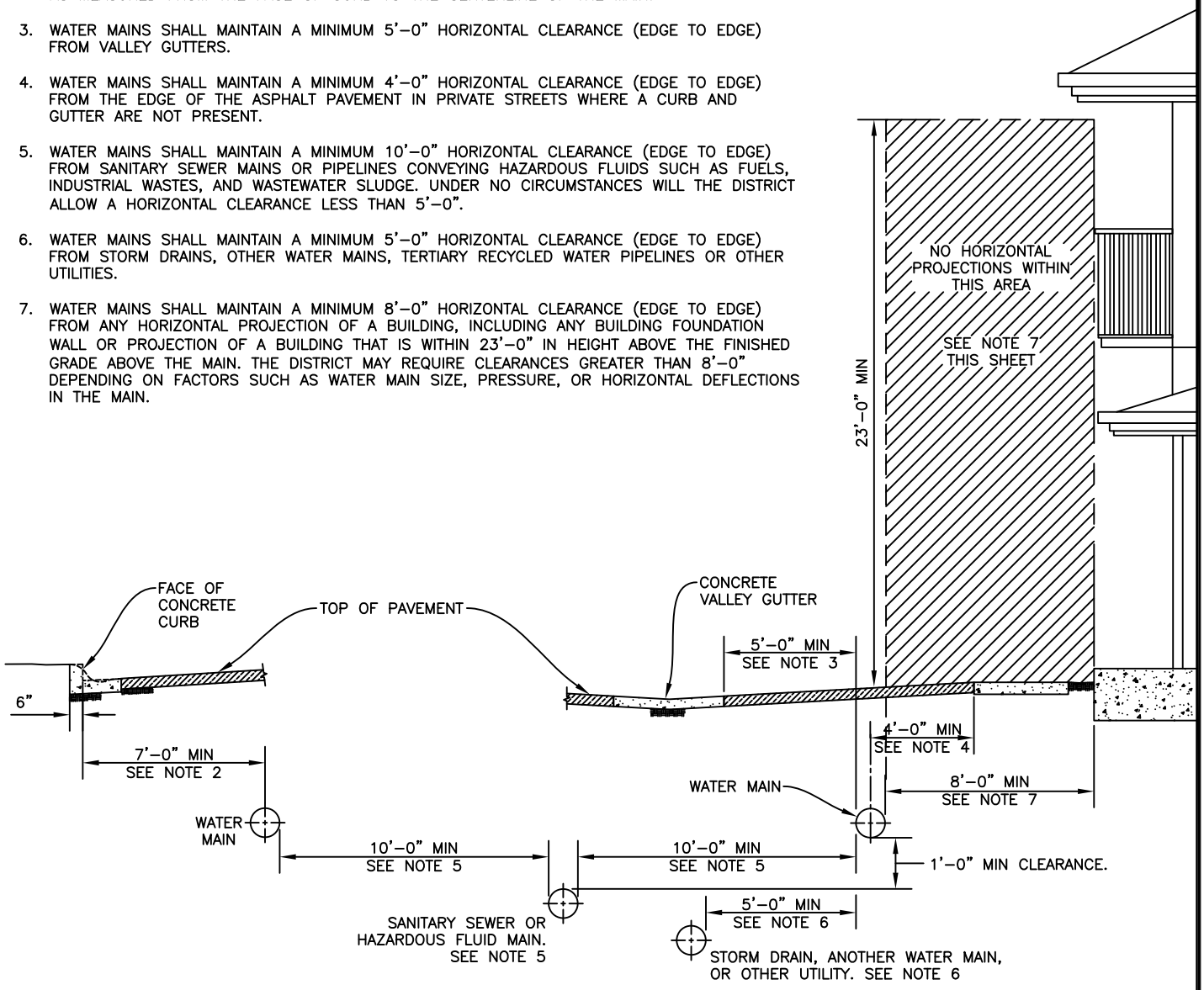


PIPE SLOPE	X DISTANCE
1:1	12 FEET
1–1/2:1	14 FEET
2:1	16 FEET
2–1/2:1	18 FEET
3:1	20 FEET

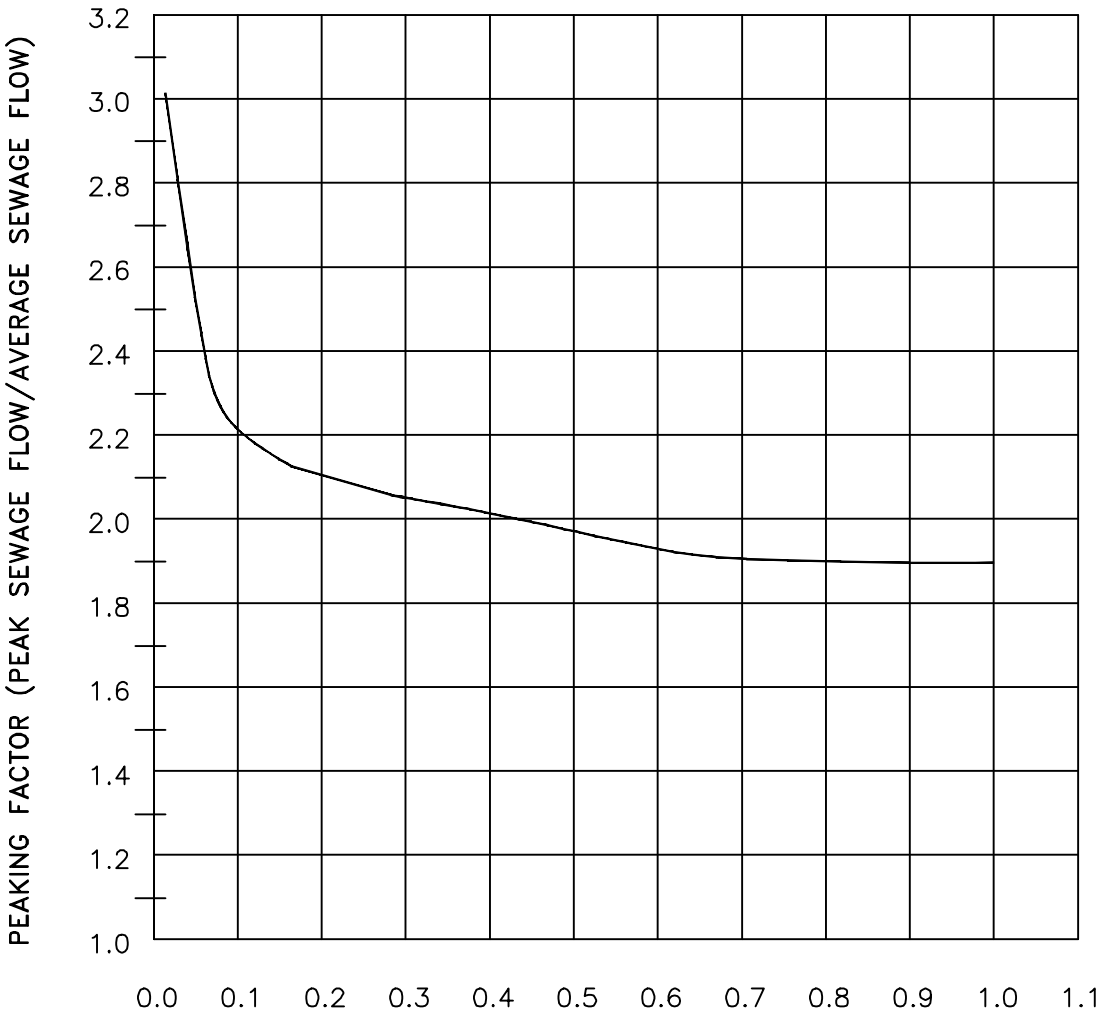
Dublin San Ramon Services District	DATE DEC 2019
STANDARD TRENCH DAM FOR WATER AND SEWER MAINS AND SIDE SEWER INSTALLATIONS	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G–5

NOTES:

1. THIS IS A GRAPHICAL REPRESENTATION OF APPENDIX C OF SEPARATION OF WATER MAINS AND NON–POTABLE PIPELINES, EXCEPT FOR NOTE 6.
2. WHERE A WATER MAIN SHALL BE INSTALLED IN THE SAME SIDE OF THE STREET AS ON–STREET PARKING, THE WATER MAIN SHALL BE 7'–0" FROM THE FACE OF CURB. ON STREETS WITHOUT ON–STREET PARKING, THE WATER MAIN SHALL BE AT LEAST 5'–0" FROM THE FACE OF CURB, AS MEASURED FROM THE FACE OF CURB TO THE CENTERLINE OF THE MAIN.
3. WATER MAINS SHALL MAINTAIN A MINIMUM 5'–0" HORIZONTAL CLEARANCE (EDGE TO EDGE) FROM VALLEY GUTTERS.
4. WATER MAINS SHALL MAINTAIN A MINIMUM 4'–0" HORIZONTAL CLEARANCE (EDGE TO EDGE) FROM THE EDGE OF THE ASPHALT PAVEMENT IN PRIVATE STREETS WHERE A CURB AND GUTTER ARE NOT PRESENT.
5. WATER MAINS SHALL MAINTAIN A MINIMUM 10'–0" HORIZONTAL CLEARANCE (EDGE TO EDGE) FROM SANITARY SEWER MAINS OR PIPELINES CONVEYING HAZARDOUS FLUIDS SUCH AS FUELS, INDUSTRIAL WASTES, AND WASTEWATER SLUDGE. UNDER NO CIRCUMSTANCES WILL THE DISTRICT ALLOW A HORIZONTAL CLEARANCE LESS THAN 5'–0".
6. WATER MAINS SHALL MAINTAIN A MINIMUM 5'–0" HORIZONTAL CLEARANCE (EDGE TO EDGE) FROM STORM DRAINS, OTHER WATER MAINS, TERTIARY RECYCLED WATER PIPELINES OR OTHER UTILITIES.
7. WATER MAINS SHALL MAINTAIN A MINIMUM 8'–0" HORIZONTAL CLEARANCE (EDGE TO EDGE) FROM ANY HORIZONTAL PROJECTION OF A BUILDING, INCLUDING ANY BUILDING FOUNDATION WALL OR PROJECTION OF A BUILDING THAT IS WITHIN 23'–0" IN HEIGHT ABOVE THE FINISHED GRADE ABOVE THE MAIN. THE DISTRICT MAY REQUIRE CLEARANCES GREATER THAN 8'–0" DEPENDING ON FACTORS SUCH AS WATER MAIN SIZE, PRESSURE, OR HORIZONTAL DEFLECTIONS IN THE MAIN.



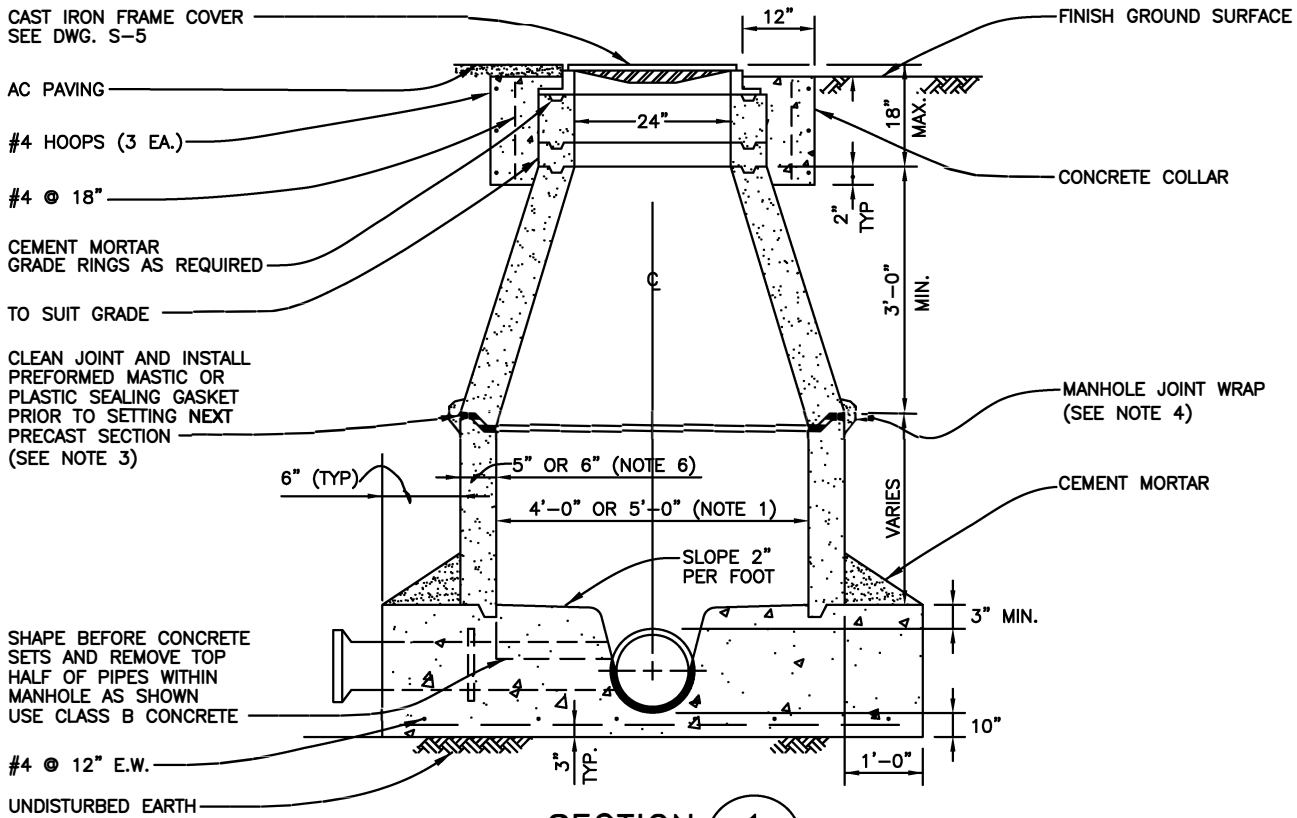
Dublin San Ramon Services District	DATE JAN 2021
CLEARANCE REQUIREMENTS FOR WATER MAINS FROM OTHER UTILITIES AND STRUCTURES	DRAWN BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G–6



ADWF,MGD	PF
.01	3.00
.05	2.40
.07	2.29
.08	2.25
.12	2.17
.14	2.14
.15	2.13
.16	2.12
.22	2.09
.40	2.02
.46	2.00
.57	1.96
.84	1.91

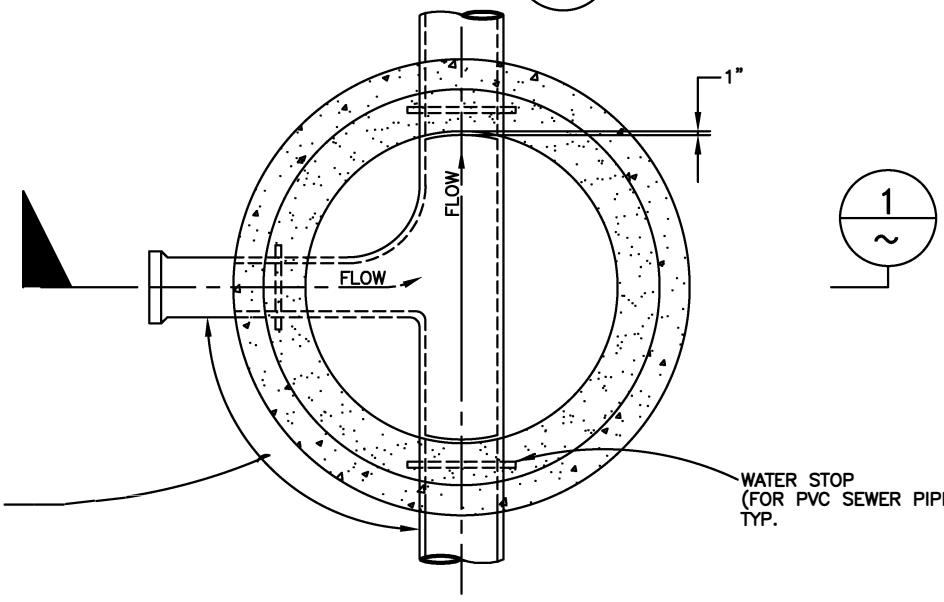
REV. 04/07

Dublin San Ramon Services District	DATE MAY 1987
PEAKING FACTOR VERSUS AVERAGE DAILY FLOW	DESIGNED DJM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-1



SECTION 1

NTS



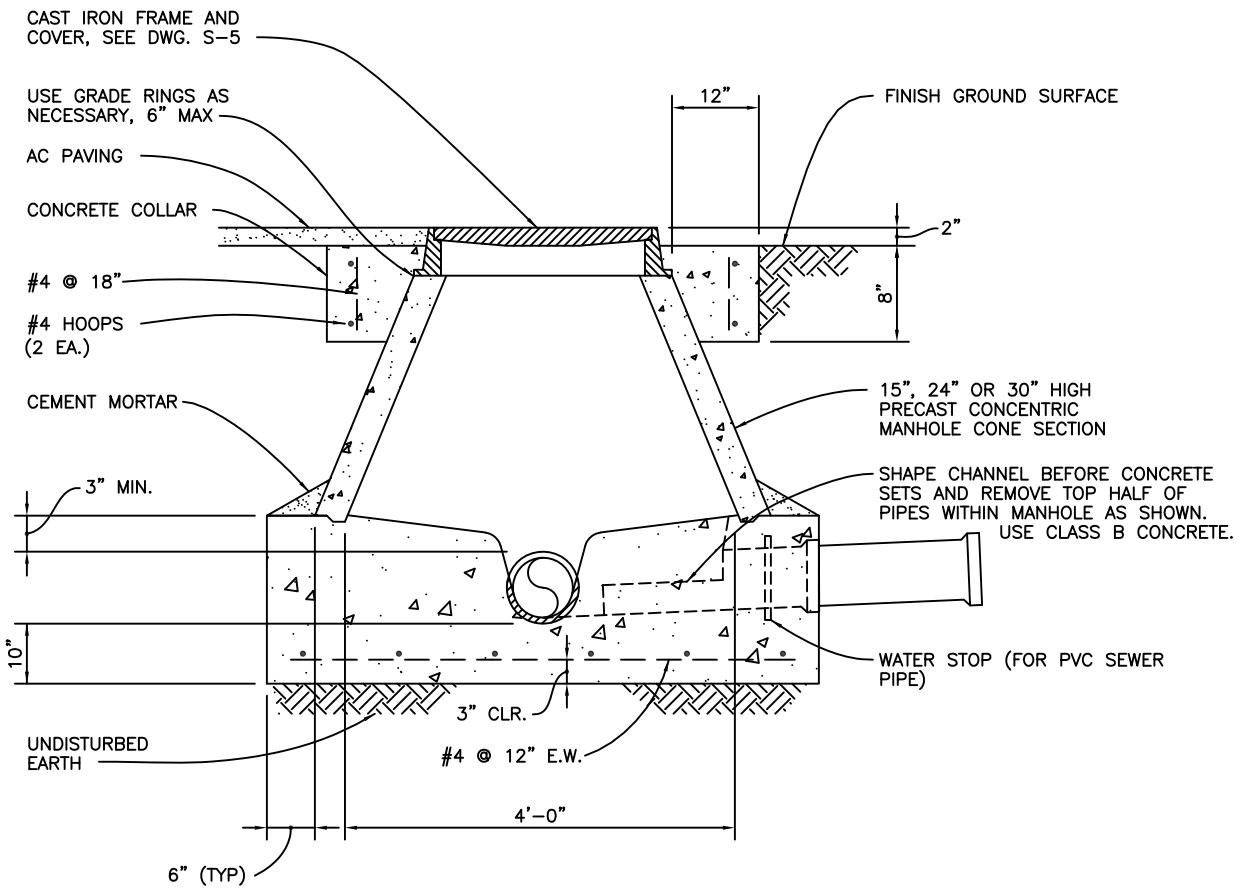
PLAN

NTS

NOTES:

1. SEE SPEC. SEC. III-A5-7 FOR CRITERIA ON MANHOLE SIZING.
2. MANHOLE SHALL HAVE NO STEPS.
3. USE JOINT SEALANT FROM APPROVED MATERIALS LIST BETWEEN JOINTS. TRIM ALL JOINTS AFTER COMPLETION.
4. JOINTS SHALL BE WRAPPED WITH 9-INCH EXTERNAL CONCRETE JOINT WRAP FROM APPROVED MATERIALS LIST.
5. 5" WALL THICKNESS FOR MANHOLES UP TO 4-FT DIAMETER AND 6" WALL THICKNESS FOR 5-FT DIAMETER MANHOLES.

Dublin San Ramon Services District	DATE DEC 2020
STANDARD MANHOLE	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-2

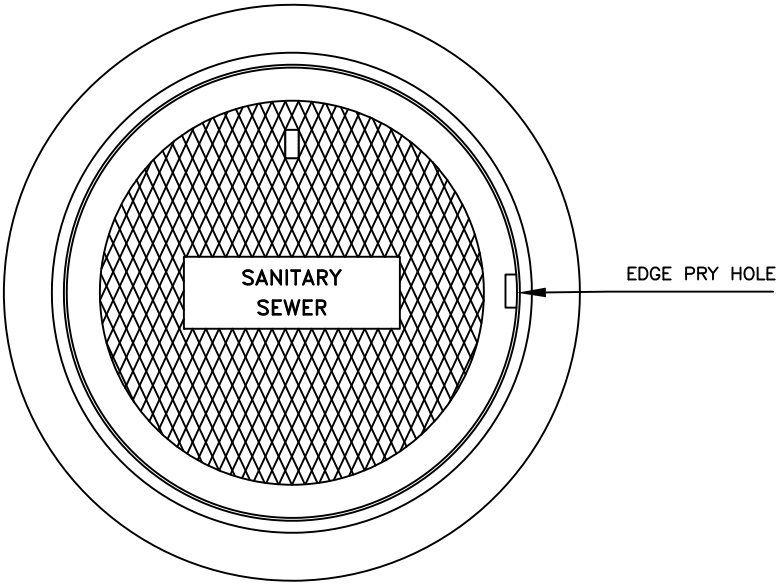


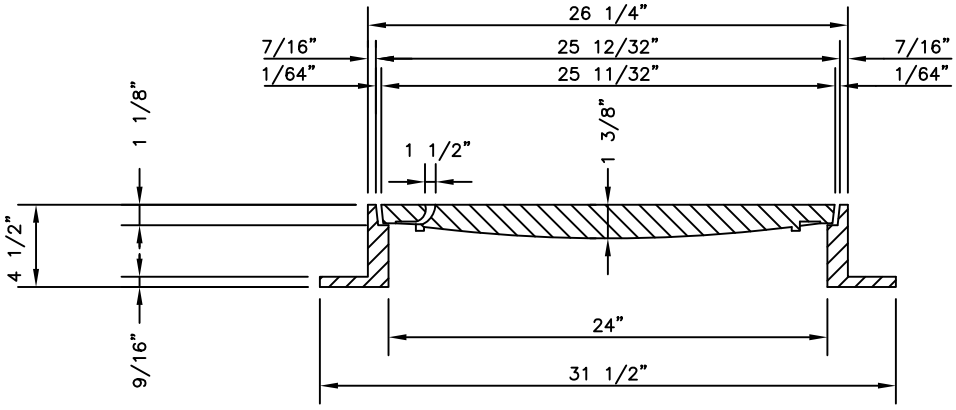
NOTES:

1. TO BE USED WHERE DISTANCE FROM TOP OF BASE TO BOTTOM OF COVER FRAME IS BETWEEN 15" AND 30".
2. MANHOLE SHALL HAVE NO STEPS.
3. JOINTS, IF USED, SHALL BE WRAPPED WITH 9-INCH RUB'R-NEK EXTERNAL CONCRETE JOINT WRAP, OR APPROVED EQUAL.

Dublin San Ramon Services District	DATE DEC 2019
STANDARD SHALLOW MANHOLE	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-4

STANDARD 24" HEAVY DUTY NON-ROCKING MANHOLE FRAME AND COVER

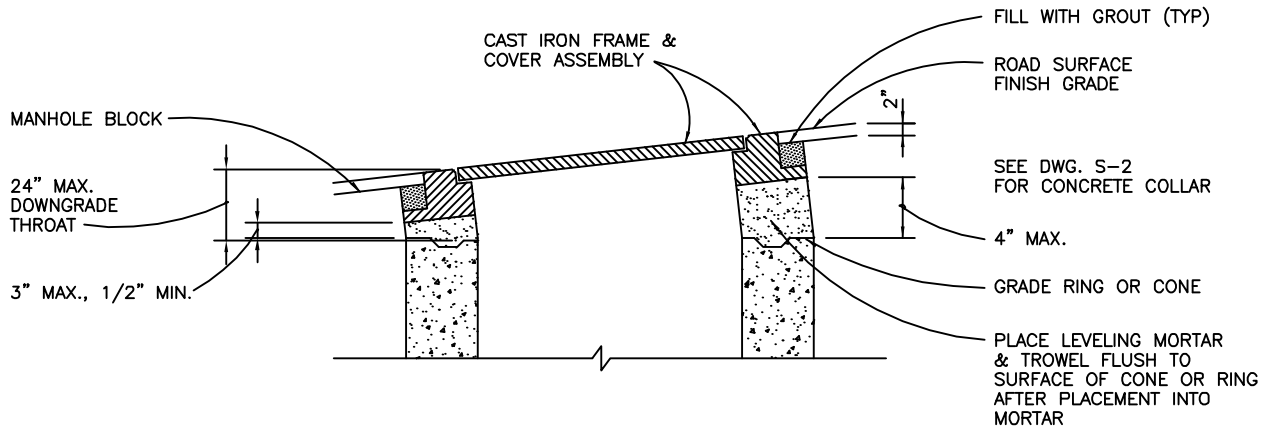




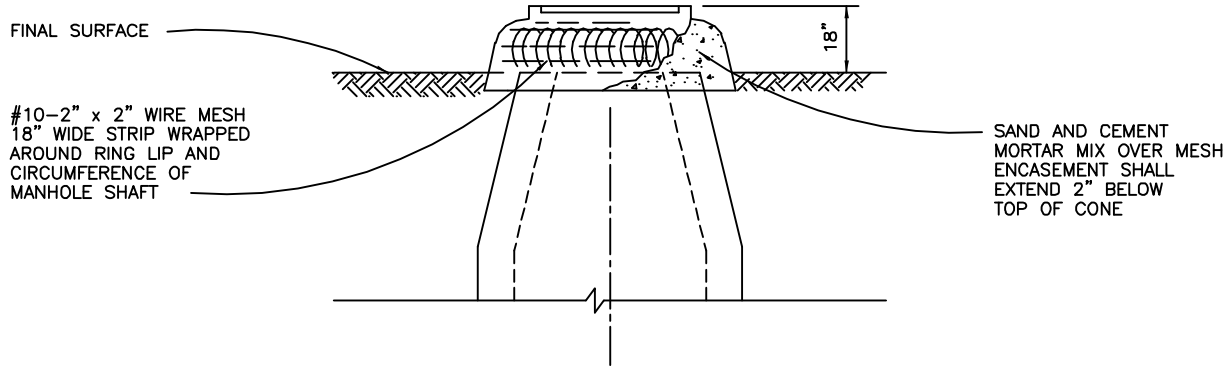
NOTES:

1. SPECIFY SANITARY SEWER WHEN ORDERING CASTINGS DIPPED IN ASPHALT PAINT.
2. WHERE THE DISTRICT ENGINEER DEEMS NECESSARY FOR HEIGHTENED PROTECTION OF THE PUBLIC OR ITS FACILITIES, PARMEX MANHOLE FRAME AND COVER, OR APPROVED EQUAL MAY BE REQUIRED.
3. FRAME AND COVER SHALL BE ON APPROVED MATERIALS LIST, OR APPROVED EQUAL.

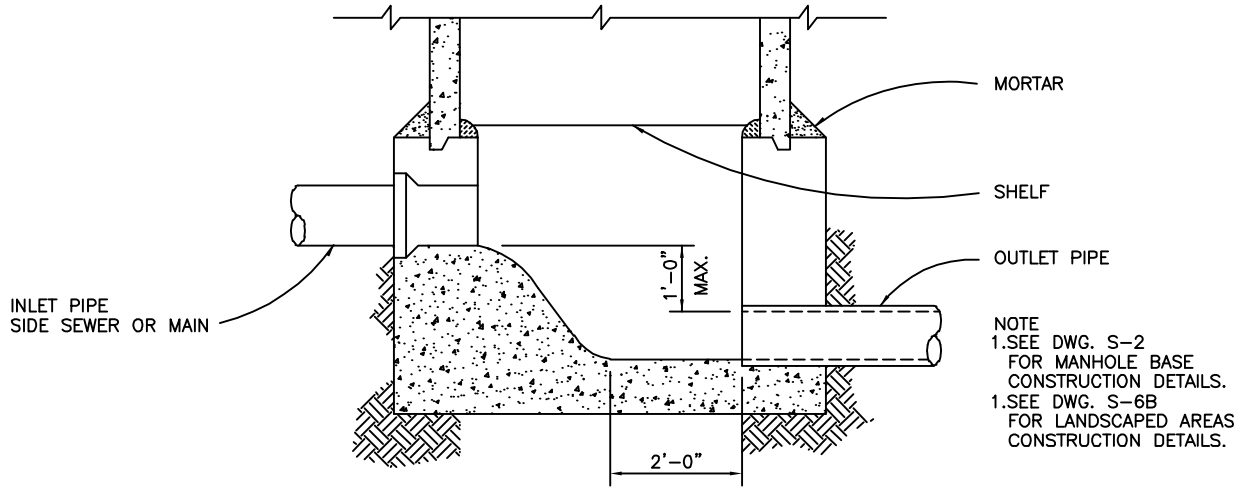
Dublin San Ramon Services District	REVISION DATE DEC 2019
STANDARD MANHOLE FRAME AND COVER	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-5



ADJUSTMENT TO FINISH GRADE DETAIL



MANHOLE SECURING DETAIL FOR UNDEVELOPED AREA

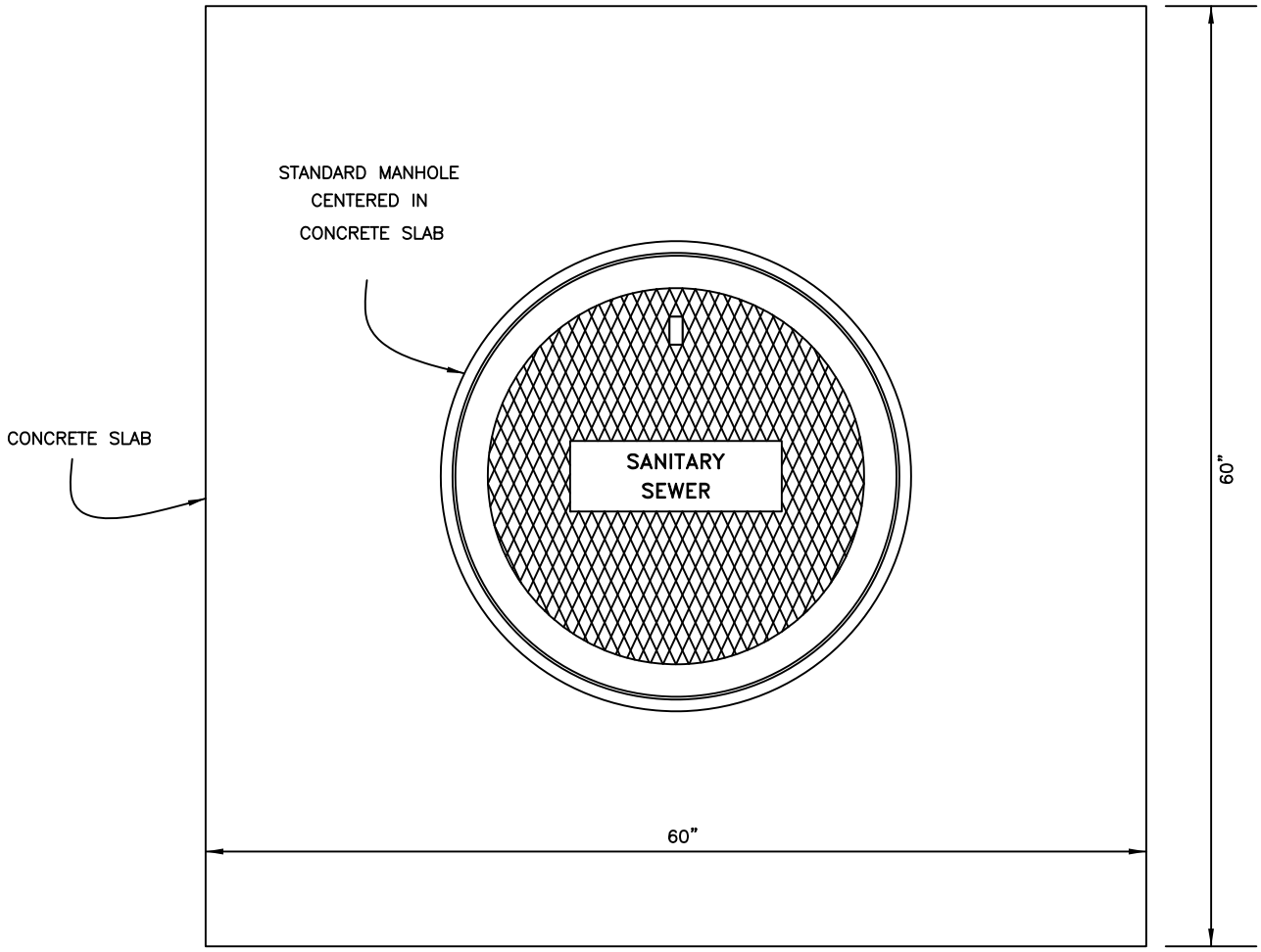


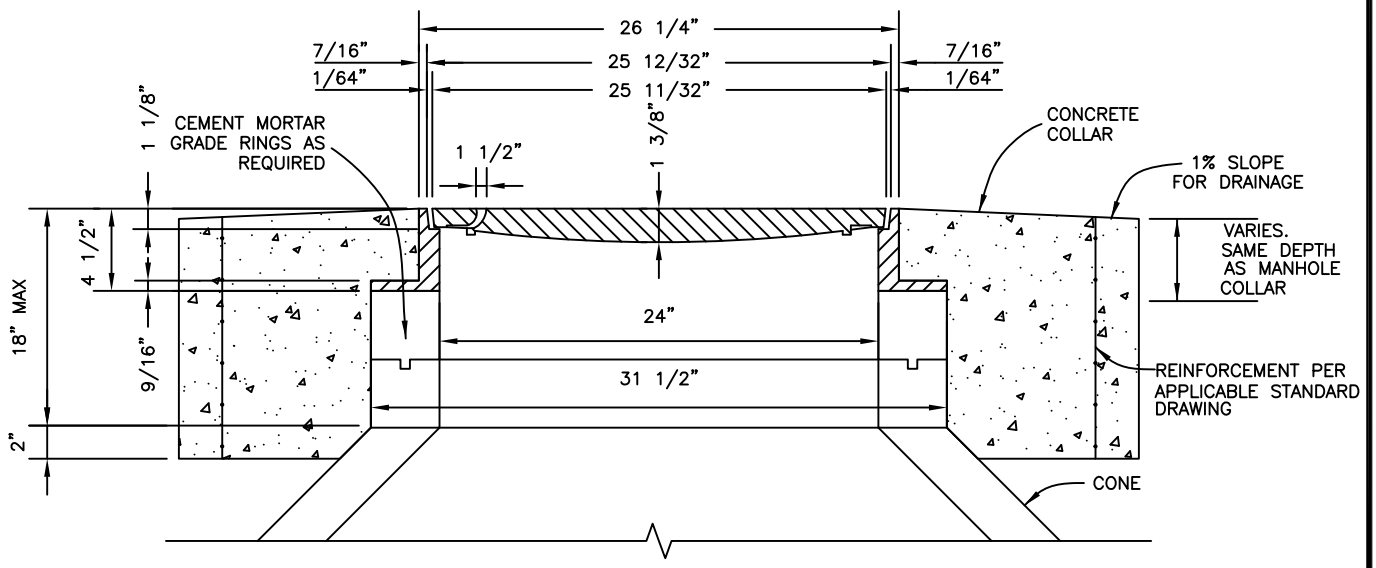
ALLOWABLE DROP IN MANHOLES

REV. 05-14-2018

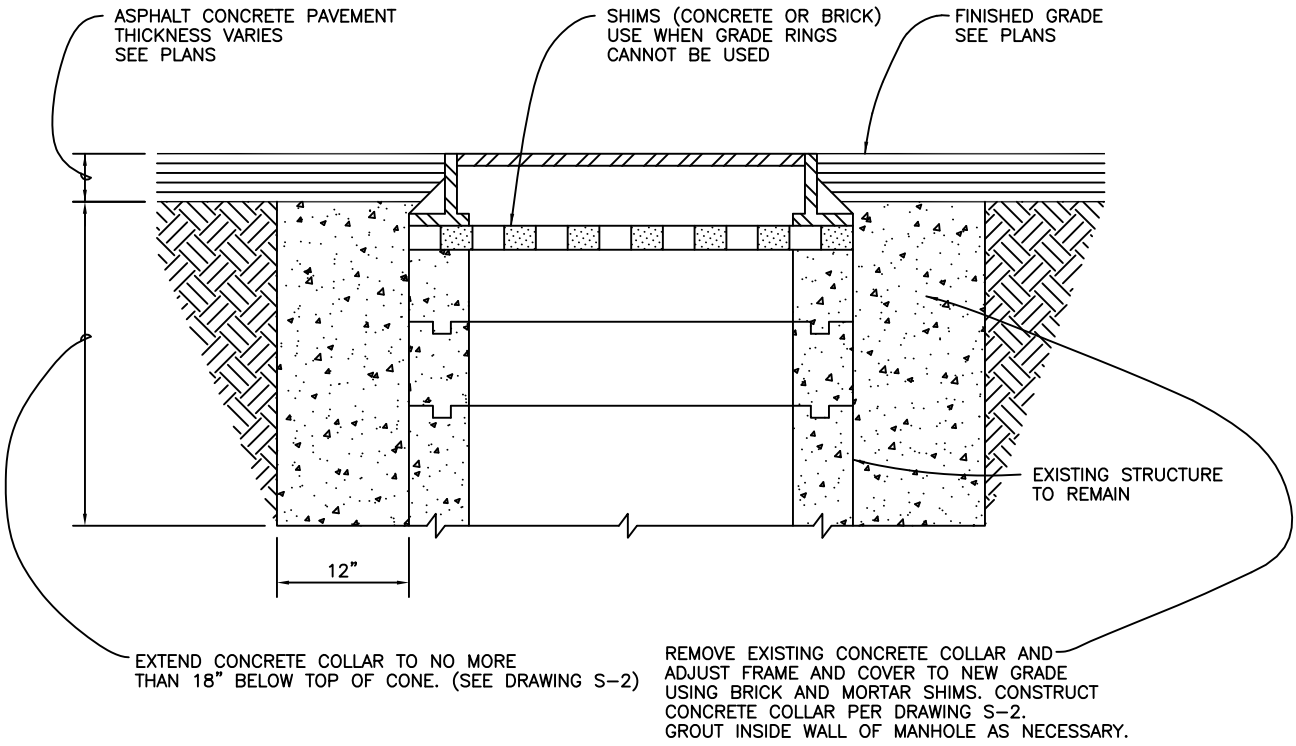
Dublin San Ramon Services District	DATE DEC 2019
MISCELLANEOUS MANHOLE DETAILS	DESIGNED KP
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-6

UNPAVED AND LANDSCAPED AREAS



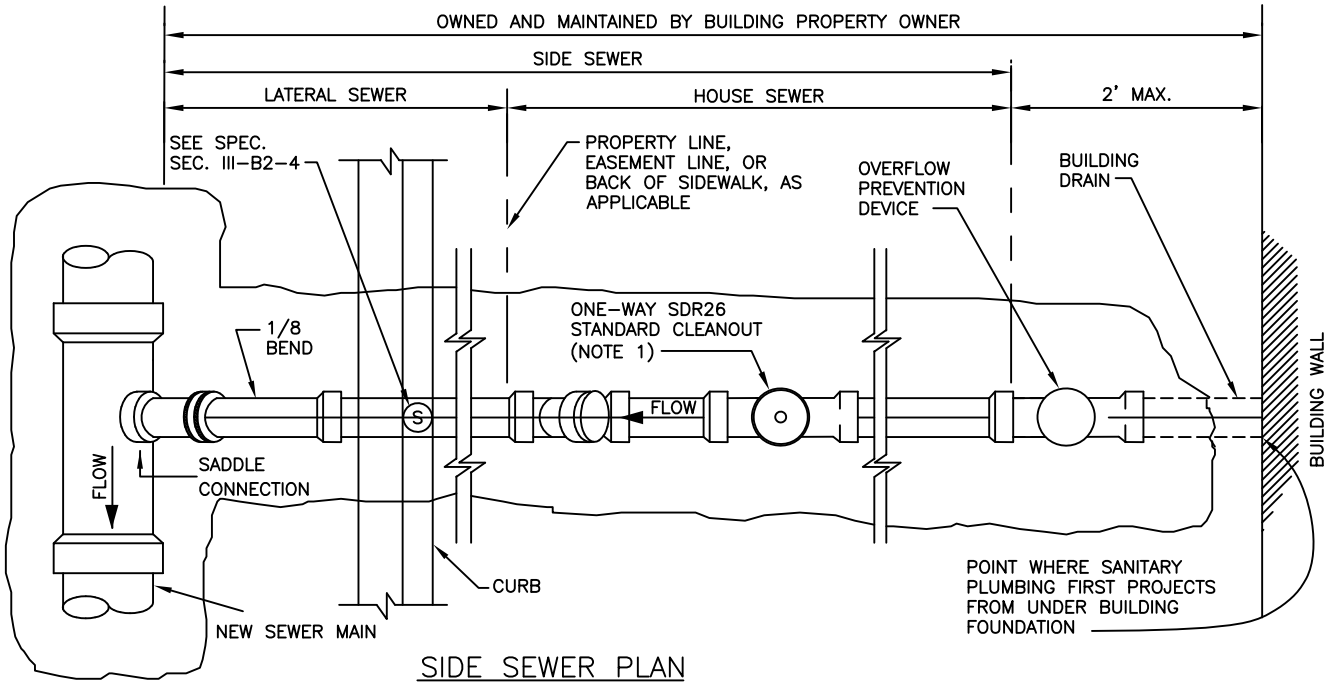


Dublin San Ramon Services District	DATE DEC 2019
MANHOLE PAD DETAIL	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-6A

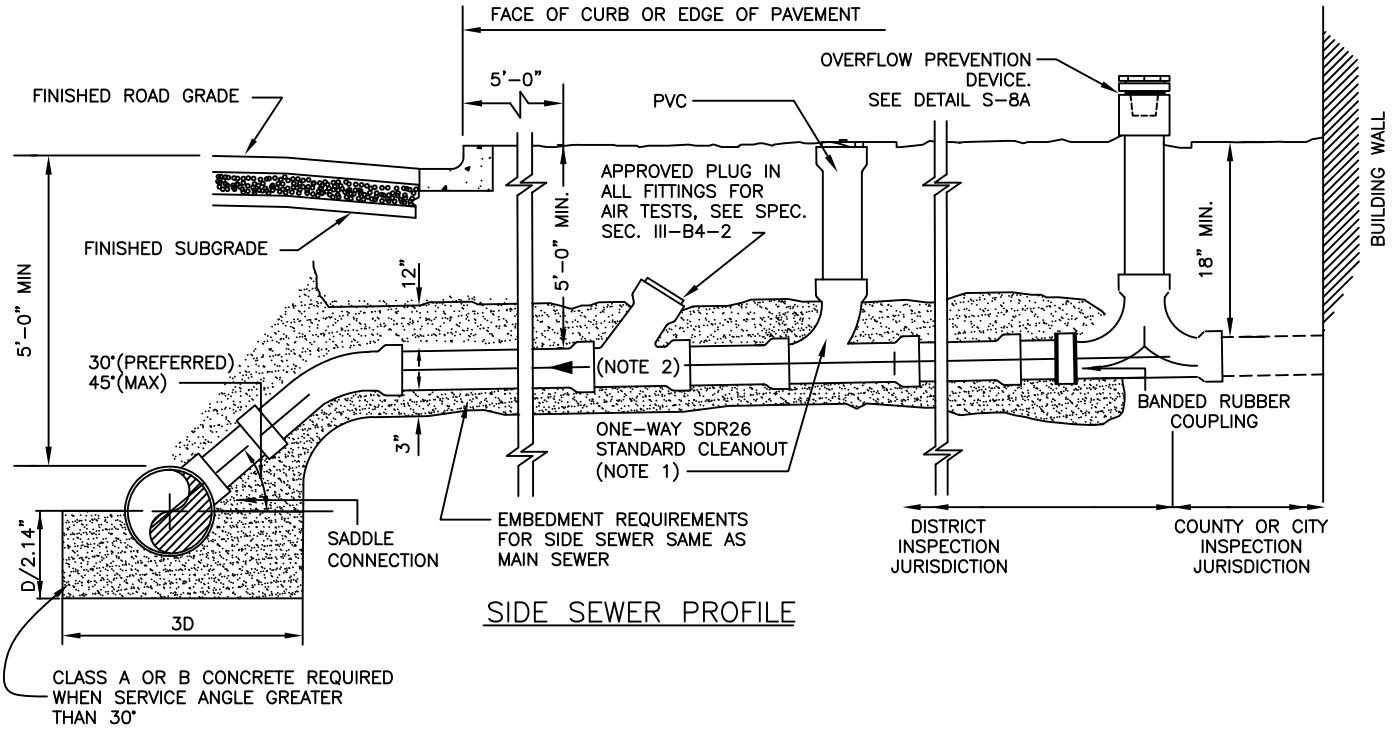


TYPICAL SECTION THROUGH STRUCTURE

Dublin San Ramon Services District	DATE DEC 2019
MANHOLE FRAME AND COVER ADJUSTMENT DETAILS	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-7



SIDE SEWER PLAN

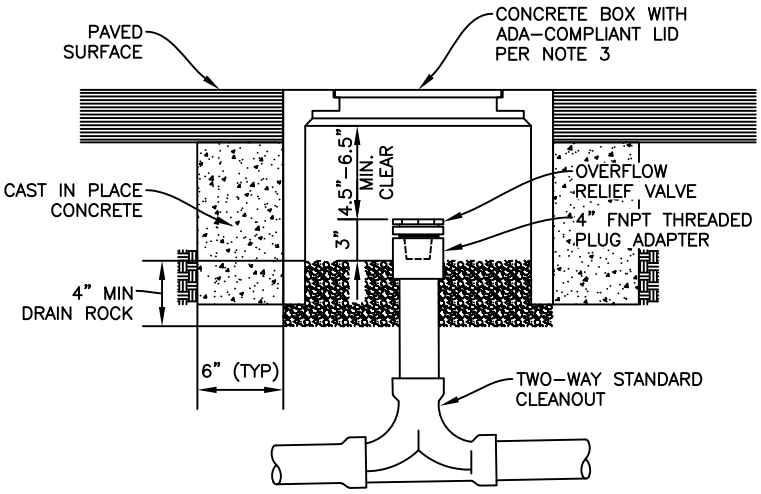


SIDE SEWER PROFILE

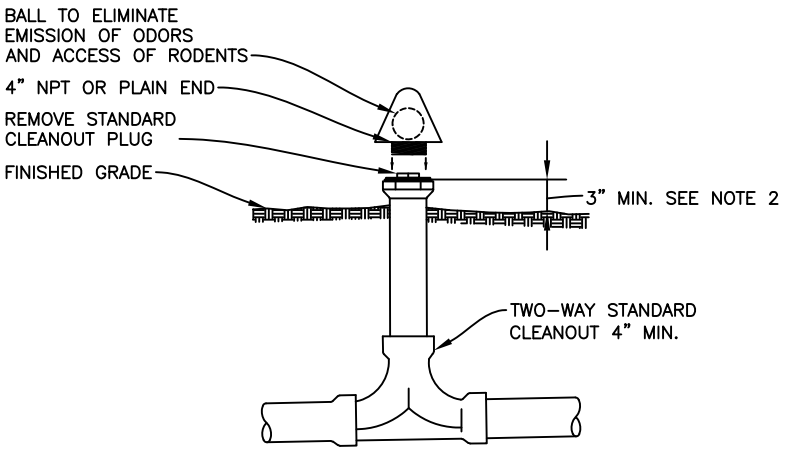
NOTE:

1. CLEANOUT SHALL BE EQUAL IN SIZE TO SIDE SEWER. SEE SECTION III-A6 FOR LOCATION.
2. MIN. SLOPE SHALL BE 0.02 FT/FT (S=0.02).
3. SIDE SEWER, INCLUDING LATERAL SEWER AND HOUSE SEWER, IS OWNED AND MAINTAINED BY THE OWNER OF THE PROPERTY IT SERVES.
4. INSTALL SEWER OVERFLOW PREVENTION DEVICE ON ALL LATERALS. SEE DRAWING S-8A.
5. FOR SIDE SEWER REPLACEMENTS, AIR TEST REQUIRED AT 3 PSI FOR 3 MINUTES.
6. FOR SIDE SEWER REPAIRS, STAINLESS STEEL ADJUSTABLE REPAIR COUPLINGS ARE REQUIRED.

Dublin San Ramon Services District	DATE FEB 2021
TYPICAL SIDE SEWER INSTALLATION	DESIGNED RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-8



(TYPE 1–TYPICAL INSTALLATION)



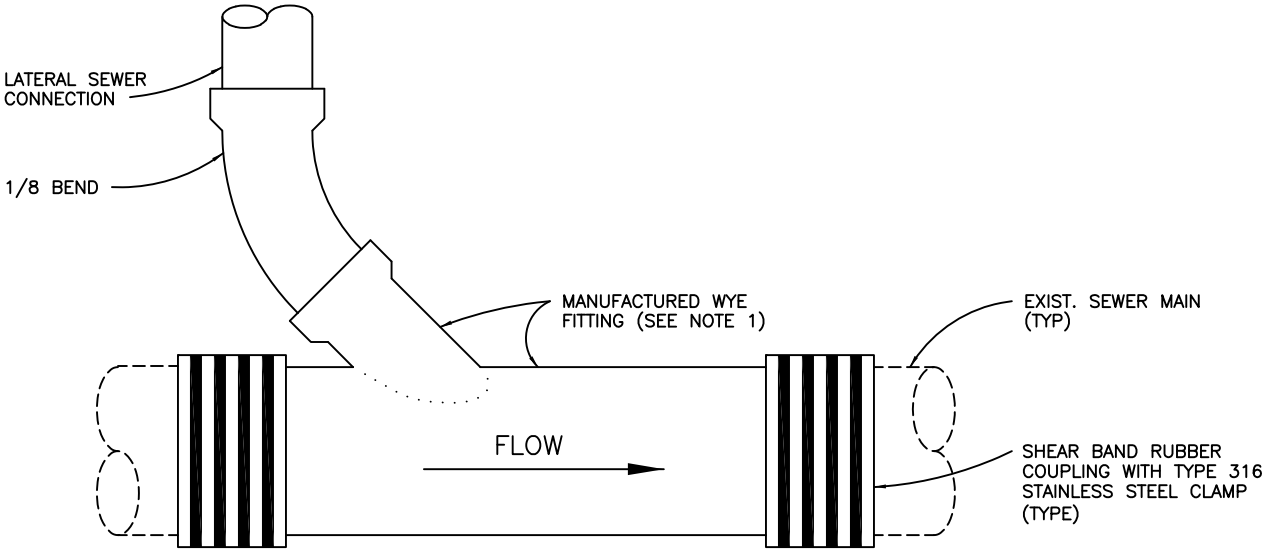
FINISHED GRADE SHALL SLOPE AWAY FROM THE BUILDING

(TYPE 2–ALTERNATIVE OPTION)

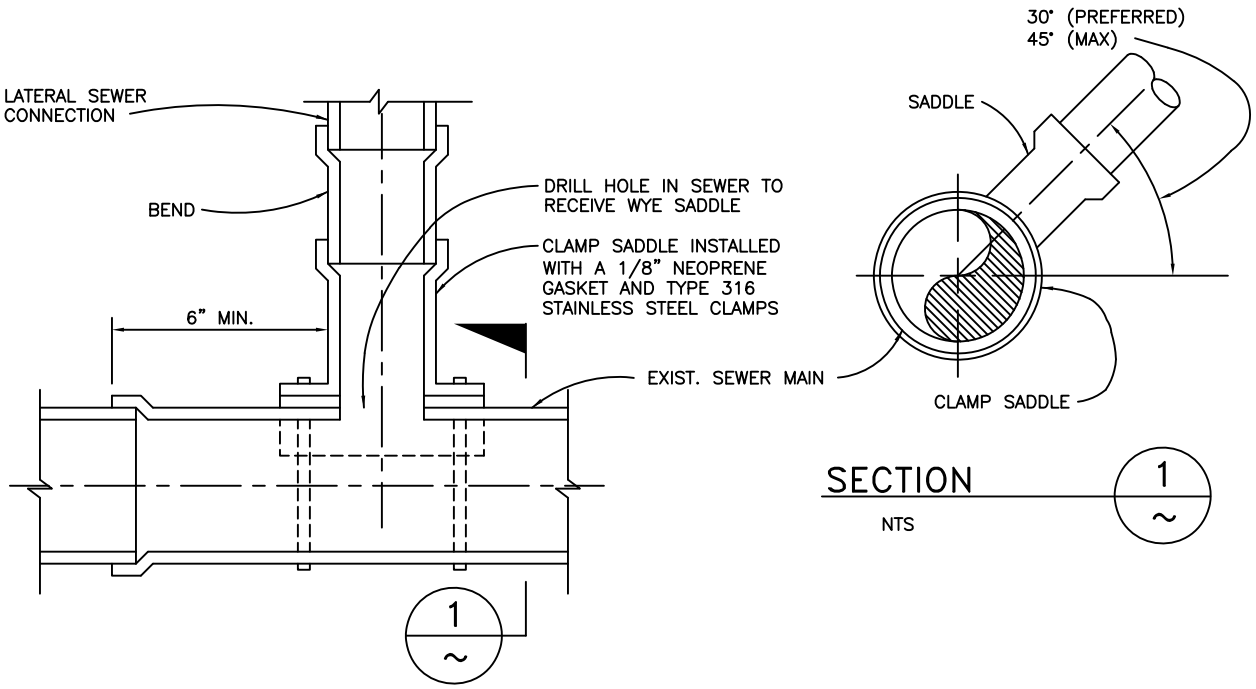
NOTE:

1. AN OVERFLOW RELIEF VALVE PER DSRSD APPROVED MATERIALS LIST IS REQUIRED ON ALL NEW SIDE SEWER CONNECTIONS, REPAIRS AND ALTERATIONS TO EXISTING SIDE SEWERS.
2. SPECIFIC LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AND THE PROPERTY OWNER SUCH THAT THE TOP ELEVATION OF THE OVERFLOW DEVICE IS A MINIMUM OF SIX INCHES BELOW THE LOWEST FINISHED FLOOR ELEVATION OF THE CONNECTED BUILDING.
3. IN TRAFFIC AREAS USE 12"x12" TRAFFIC–RATED CONCRETE DRAIN BOX WITH G–5 CAST IRON, ADA–COMPLIANT GRATE. IN NON–TRAFFIC AREAS USE 8" ROUND CONCRETE BOX WITH CAST–IRON, ADA–COMPLIANT GRATED LID (F–8 BOX). BOX AND GRATE SHALL BE AS LISTED IN THE DSRSD APPROVED MATERIALS LIST OR APPROVED EQUAL.

Dublin San Ramon Services District	DATE FEB 2021
TYPICAL OVERFLOW RELIEF VALVE INSTALLATION	DESIGNED RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S–8A



DRY CONNECTION



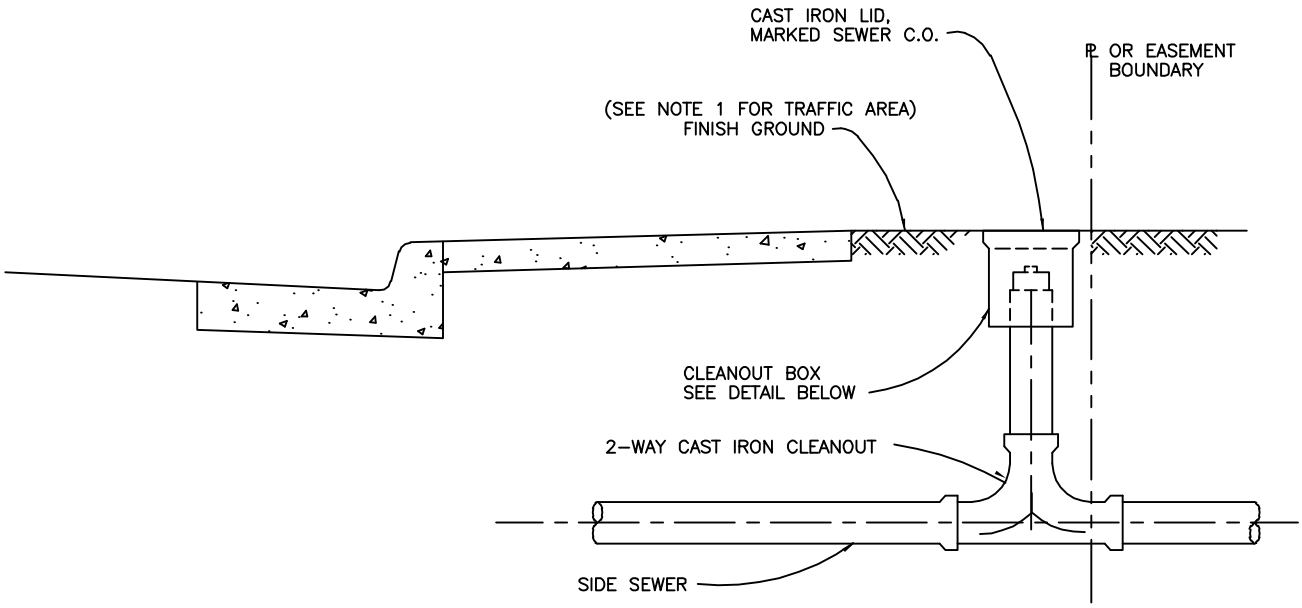
WET TAP CONNECTION

(SEE NOTE 2)

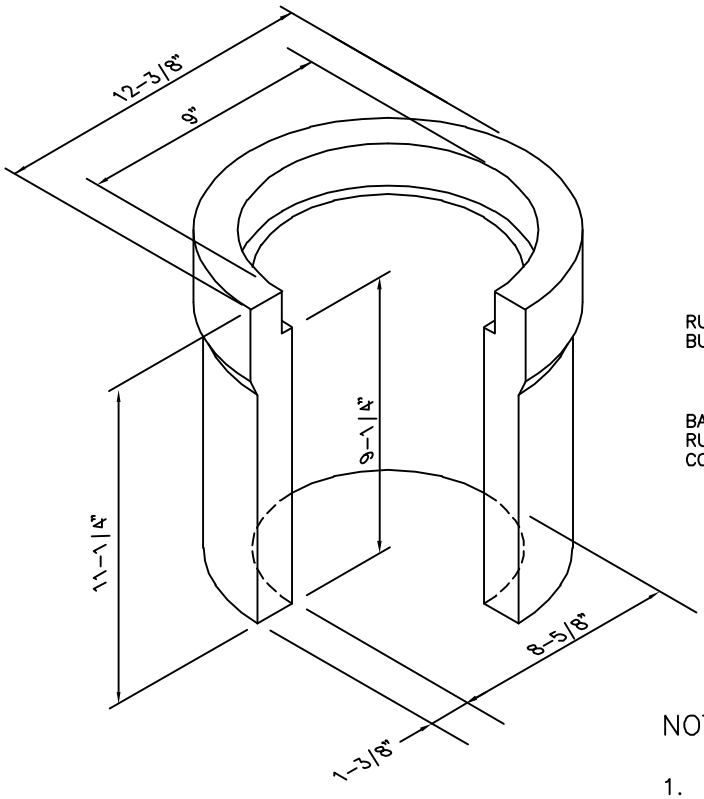
NOTES:

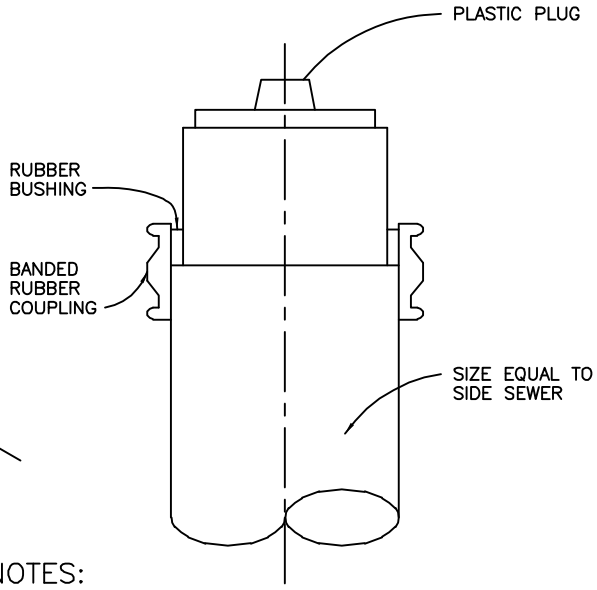
1. MANUFACTURED WYE SADDLE INSTALLED ON SEWER SECTION WITH PLAIN ENDS.
2. APPROVAL OF DISTRICT ENGINEER REQUIRED FOR WET CONNECTION.
3. PRE-CONSTRUCTION AND POST-CONSTRUCTION TELEVISION INSPECTION REQUIRED IN THE PRESENCE OF DSRSD CONSTRUCTION INSPECTOR.

Dublin San Ramon Services District	DATE DEC 2019
LATERAL SEWER CONNECTION TO EXISTING SEWER MAIN	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-9



CLEANOUT RISER





NOTES:

1. IN STREETS OR PARKING LOTS, CLEAN-OUT BOX MUST BE A G-5 (CHRISTY) BOX WITH METAL LID MARKED "SEWER".

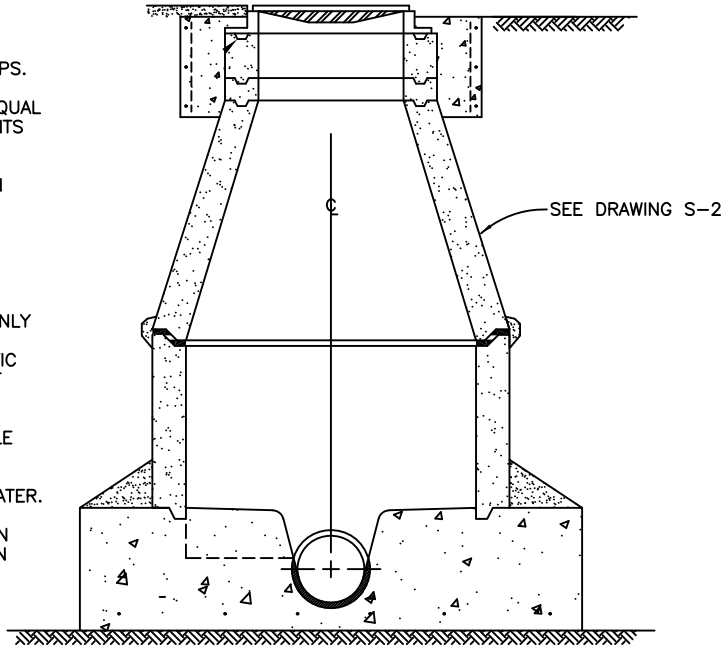
REV. 08/11

Dublin San Ramon Services District	DATE DEC 2019
SIDE SEWER CLEANOUT RISER	DESIGNED KP
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-10

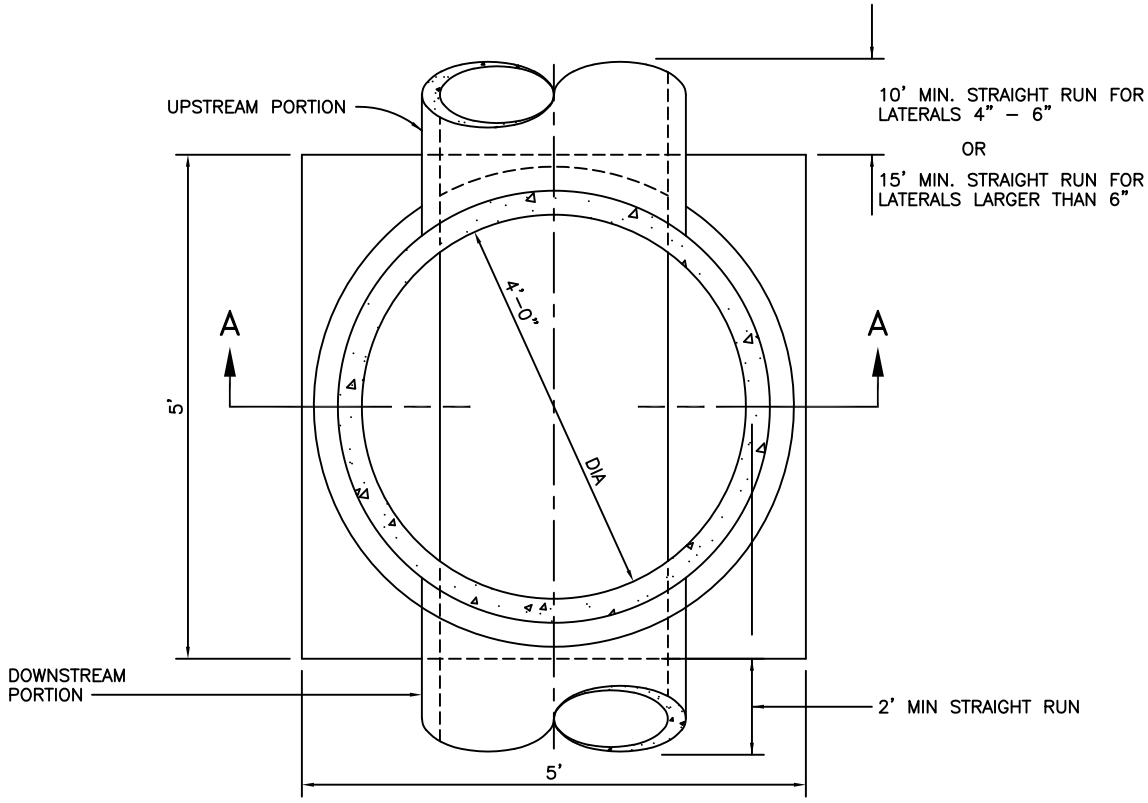
NOTES:

1. MANHOLES SHALL HAVE NO STEPS.
2. USE RAMNECK OR APPROVED EQUAL BETWEEN JOINTS. TRIM ALL JOINTS AFTER COMPLETION.
3. THERE SHALL BE NO ANGLES IN MANHOLE. IT SHALL ONLY BE A STRAIGHT THRU FLOWLINE.
4. MAINTAIN CONSTANT SLOPE UPSTREAM AND THRU MANHOLE.
5. SAMPLING MANHOLE ALLOWED ONLY FOR NONRESIDENTIAL BUILDING SERVICE LATERALS IN NONTRAFFIC AREAS AND UPON APPROVAL OF DISTRICT ENGINEER.
6. LOCATION OF SAMPLING MANHOLE SHALL BE DESIGNATED BY THE DISTRICT PRIOR TO APPROVAL AND ISSUANCE OF THE WASTEWATER.

   WASTE INSPECTOR FOR LOCATION OF SAMPLING WELL, IF LOCATION IS NOT SHOWN ON APPROVED DRAWINGS.
7. JOINTS SHALL BE WRAPPED WITH 9–INCH RUB'R–NEK EXTERNAL CONCRETE JOINT WRAP, OR APPROVED EQUAL.

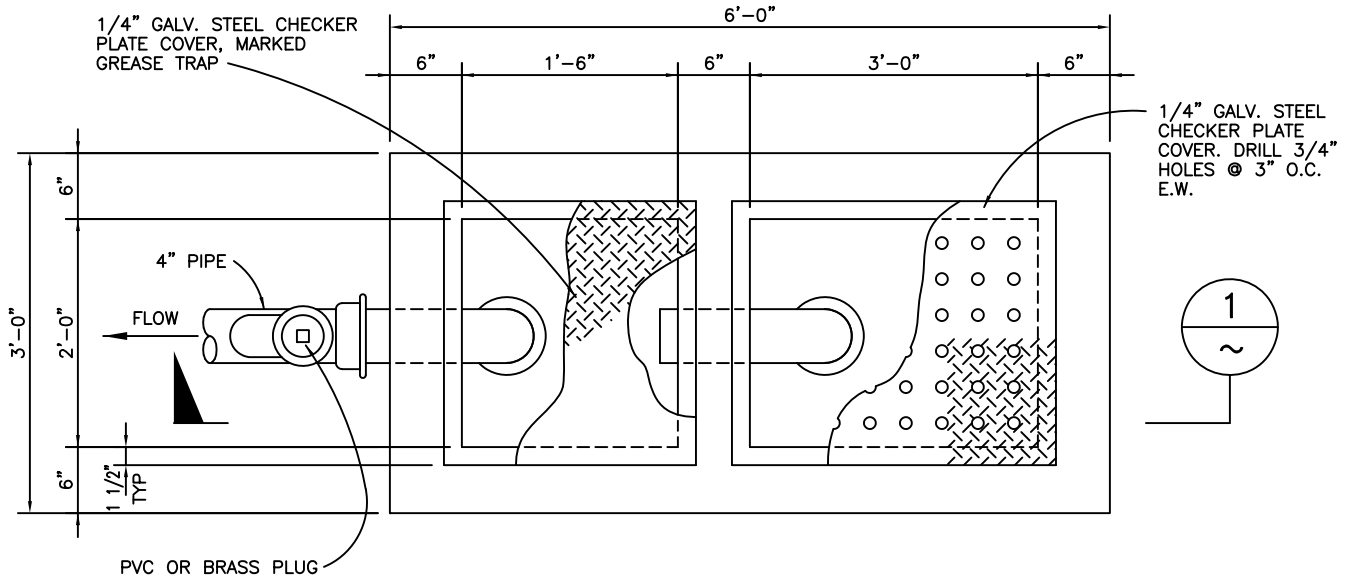


SECTION A–A

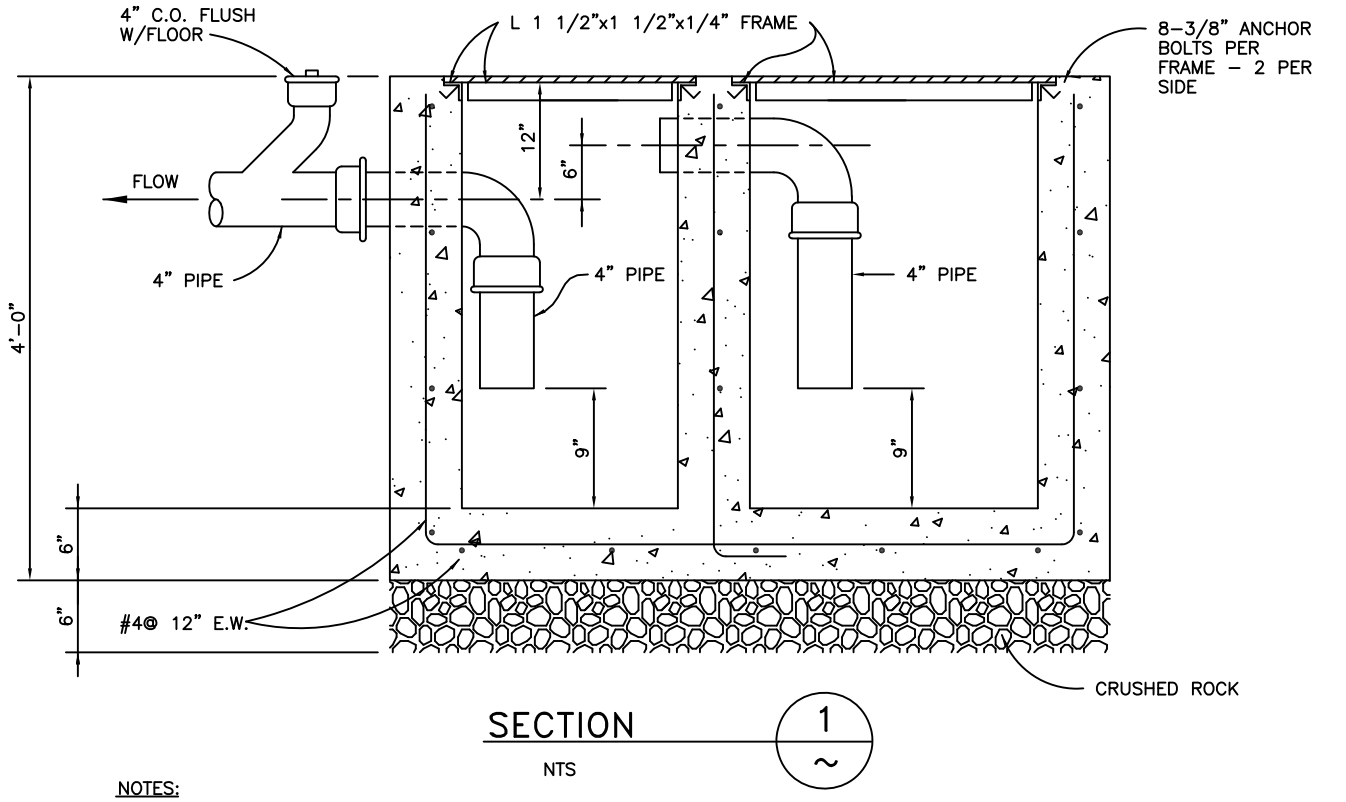


PLAN OF BASE

Dublin San Ramon Services District	DATE DEC 2019
SAMPLING MANHOLE	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S–11



PLAN



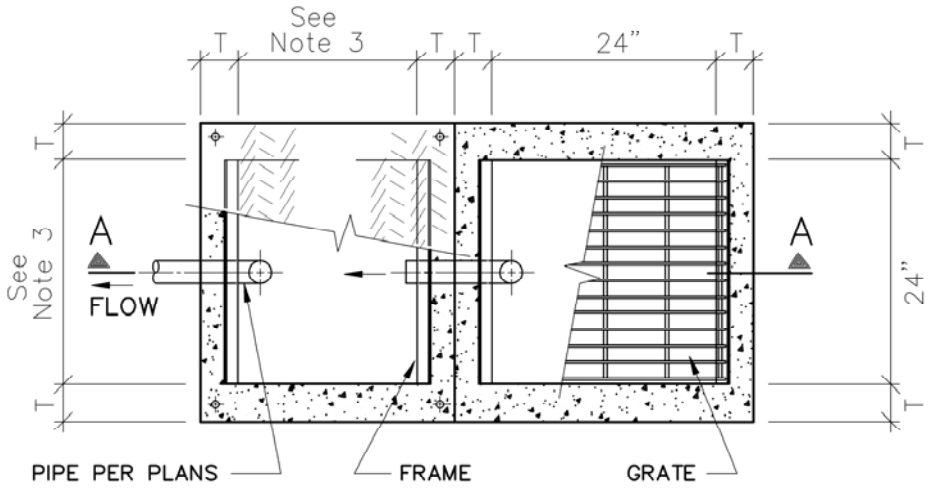
SECTION

NTS

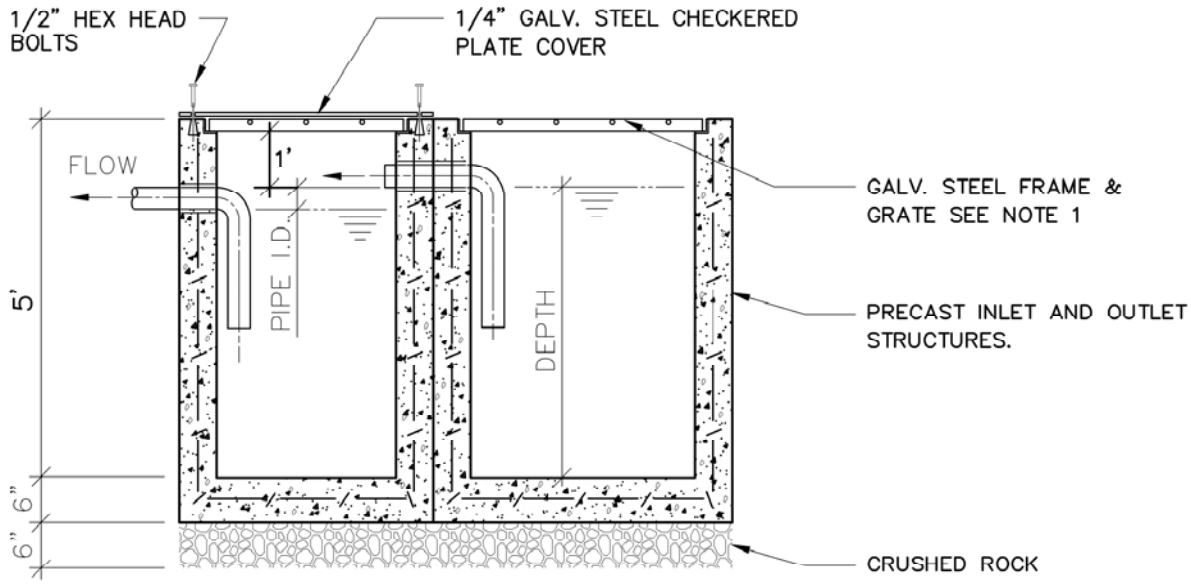
NOTES:

1. FLOOR SHALL DRAIN TO DRILLED PLATE COVER.
2. PIPES SHALL BE DIP, OR PVC (CAST IRON IS NOT ALLOWED).
3. TWO 18" DRAIN INLETS MAY BE SUBSTITUTED FOR CAST IN PLACE TRAP.

Dublin San Ramon Services District	DATE DEC 2019
GREASE AND SAND TRAP	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-12



PLAN VIEW



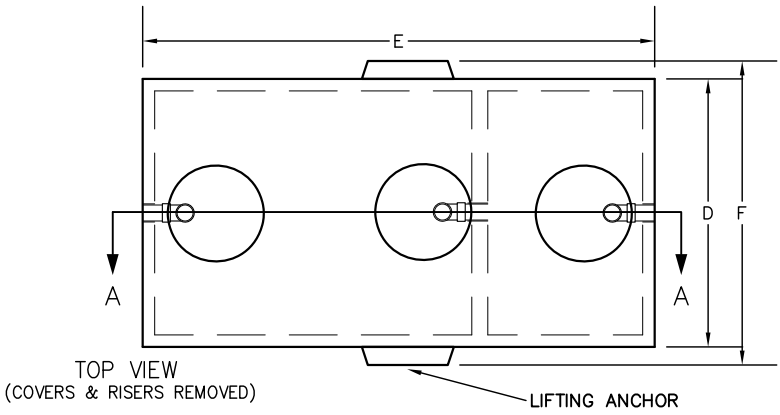
OUTLET INLET

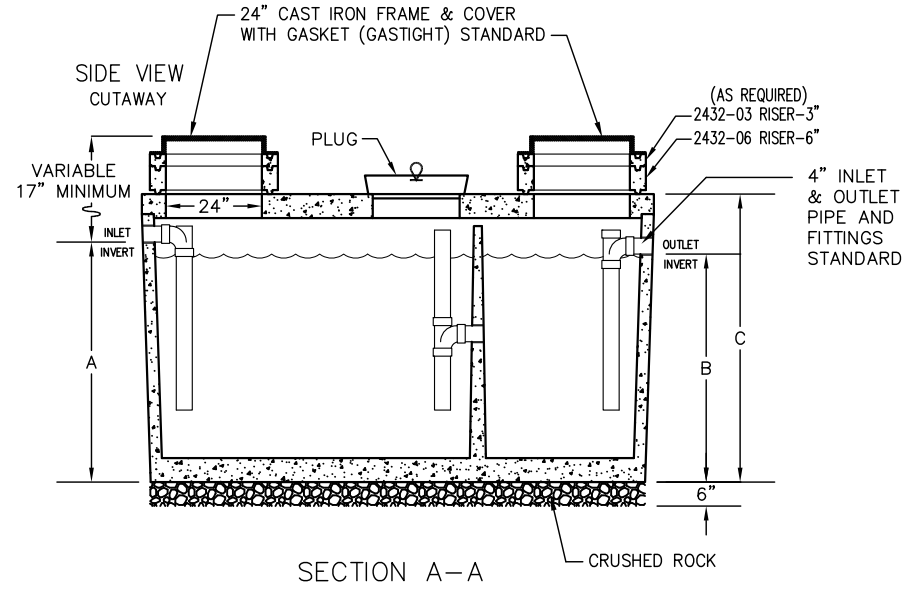
SECTION A–A

NOTES :

1. FRAMES, GRATES, AND CHECKER PLATE COVER SHALL BE RATED FOR H20 HWY. LOADING.
2. PIPE OPENINGS SHALL BE CAST INTO INLETS.
3. EITHER A 16"x16" OR 24"x24" CONCRETE BOX CAN BE USED PER DSRSD APPROVAL.

Dublin San Ramon Services District	REVISION DATE DEC 2019
GREASE AND SAND TRAP FOR TRASH ENCLOSURES	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S–12A





SECTION A–A

1. CONCRETE GREASE INTERCEPTOR SHALL BE AS LISTED ON THE APPROVED MATERIALS LIST, OR APPROVED EQUAL.
2. THE GREASE INTERCEPTOR SHALL BE LOCATED AND INSTALLED OUTSIDE OF THE BUILDING.
3. THE GREASE INTERCEPTOR SHALL BE LOCATED AND/OR CONSTRUCTED IN SUCH A MANNER AS TO EXCLUDE THE ENTRANCE OF SURFACE, STORM, OR RAINWATER.
4. SIZE OF GREASE INTERCEPTOR SHALL BE APPROVED BY THE DISTRICT ENGINEER.
5. BOX DESIGN LOAD IS H20 TRAFFIC LOADING WITH 1' TO 6' OF SOIL COVER.
6. ALL EXPOSED EXTERIOR COUPLINGS SHALL BE "NO–HUB" COUPLINGS ALL INTERIOR FITTINGS SHALL BE "NO–HUB" CAST IRON OR APPROVED EQUAL.
7. INSTALL SAMPLING BOX WITHIN 3' OF THE OUTLET OF THE GREASE INTERCEPTOR.
8. GREASE INTERCEPTOR SHALL BE SET ON DRAIN ROCK.

CAPACITY IN GALLONS	REFERENCE MODEL (JENSEN)	A	B	C	D	E	F
750	JP750EPE–G	5'–0"	4'–9"	6'–3"	4'–0"	8'–1"	4'–3"
1000	JP1000EPE–G	5'–0"	4'–9"	6'–3"	5'–1"	8'–2"	5'–4"
1200	JP1200EPE–G	5'–0"	4'–9"	6'–6"	5'–9"	8'–6"	6'–0"
1500	JP1500EPE–G	5'–0"	4'–9"	6'–3"	5'–7"	10'–8"	5'–10"

Dublin San Ramon Services District

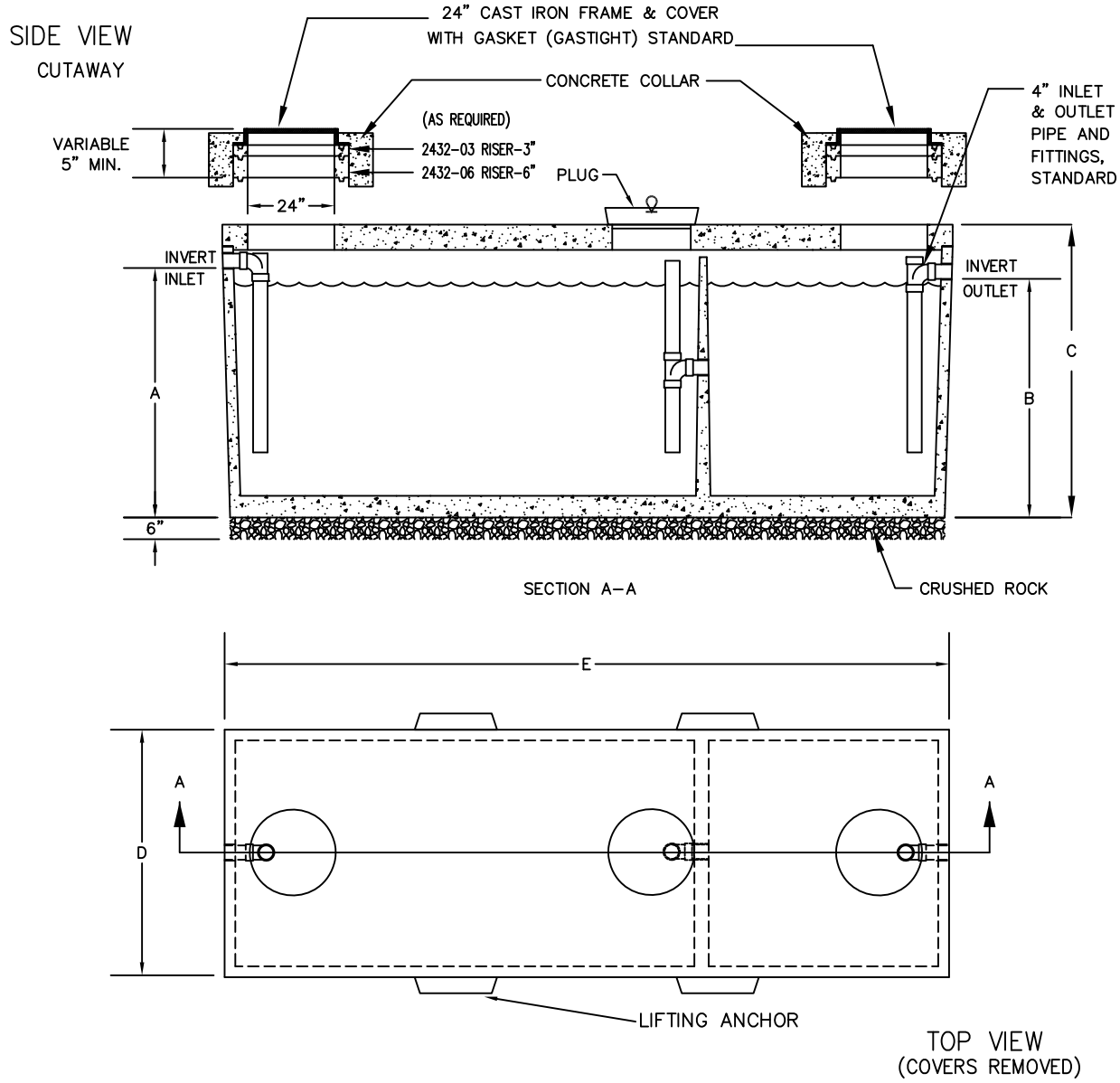
REVISION DATE
DEC 2019

GREASE INTERCEPTOR
750 – 1500 GALLON CAPACITY

REVISED BY
BD

SIGNED COPY ON FILE AT DISTRICT OFFICE

DRAWING
S–13



1. CONCRETE GREASE INTERCEPTOR SHALL BE AS LISTED ON THE APPROVED MATERIALS LIST, OR APPROVED EQUAL.
2. THE GREASE INTERCEPTOR SHALL BE LOCATED AND INSTALLED OUTSIDE OF THE BUILDING.
3. THE GREASE INTERCEPTOR SHALL BE LOCATED AND/OR CONSTRUCTED IN SUCH A MANNER AS TO EXCLUDE THE ENTRANCE OF SURFACE, STORM, OR RAINWATER.
4. SIZE OF GREASE INTERCEPTOR SHALL BE APPROVED BY THE DISTRICT ENGINEER.
5. BOX DESIGN LOAD IS H20 TRAFFIC LOADING WITH 1' TO 6' OF SOIL COVER.
6. ALL EXPOSED EXTERIOR COUPLINGS SHALL BE "NO-HUB" COUPLINGS ALL INTERIOR FITTINGS SHALL BE "NO-HUB" CAST IRON OR APPROVED EQUAL.
7. INSTALL SAMPLING BOX WITHIN 3' OF THE OUTLET OF THE GREASE INTERCEPTOR.
8. GREASE INTERCEPTOR SHALL BE SET ON DRAIN ROCK.

CAPACITY IN GALLONS	REFERENCE MODEL (JENSEN)	A	B	C	D	E
2000	JP2000EPE-G	5'-0"	4'-9"	6'-0"	4'-11"	15'-11"
2500	JZ2500EPE-G	5'-0"	4'-9"	6'-0"	5'-9"	16'-10"
3000	JZ3000EPE-G	5'-9"	5'-6"	6'-9"	5'-9"	16'-10"

Dublin San Ramon Services District

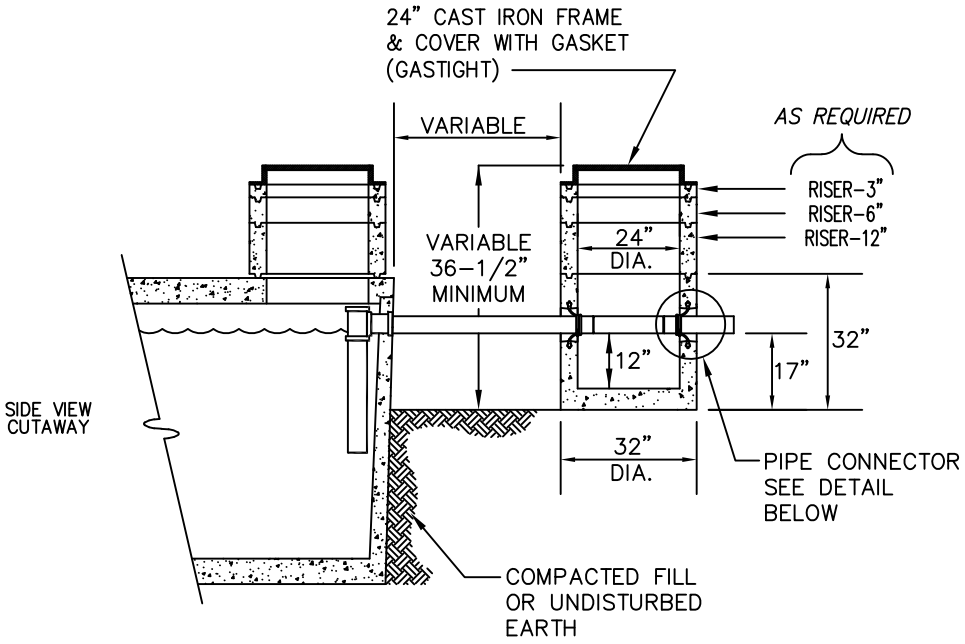
REVISION DATE
DEC 2019

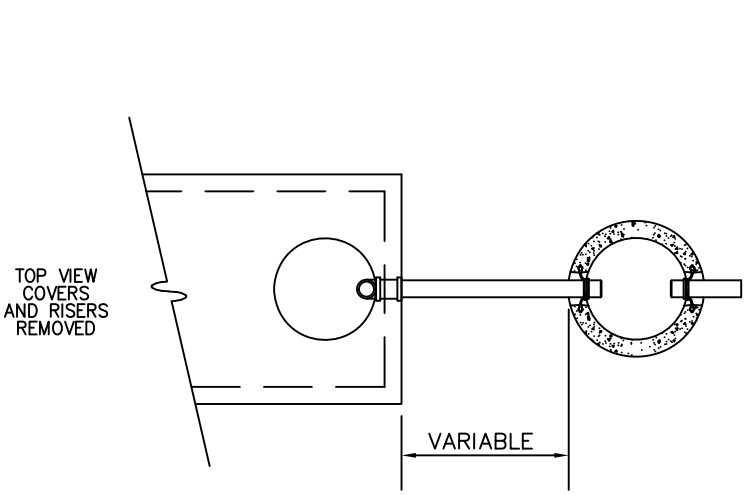
GREASE INTERCEPTOR
2000 - 3000 GALLON CAPACITY

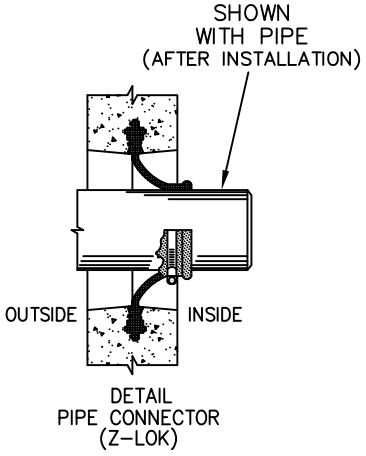
REVISED BY
BD

SIGNED COPY ON FILE AT DISTRICT OFFICE

DRAWING
S-14







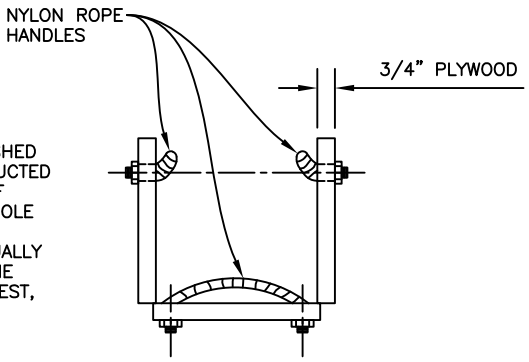
NOTES:

1. SAMPLE BOX SHALL BE LISTED ON THE APPROVED MATERIAL LIST, OR APPROVED EQUAL.
2. THIS SAMPLE BOX IS NOT INTENDED FOR THE INTRODUCTION OF DOMESTIC SEWAGE. LOCATION AND TRIBUTARY DISCHARGE SOURCES SHALL BE APPROVED BY THE DSRSD INSPECTOR.

Dublin San Ramon Services District	REVISION DATE OCT 2017
SAMPLING BOX	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-15

INSTALLATION

FALSE MANHOLE BOTTOM SHALL BE FURNISHED AND INSTALLED IN ALL MANHOLES CONSTRUCTED IN ADVANCE OF PAVING OR IN ADVANCE OF PROPERTY DEMOLITION. THESE FALSE MANHOLE BOTTOMS WILL BE INSTALLED AT A TIME DIRECTED BY THE ENGINEER BUT WILL USUALLY BE AFTER ALL WORK IS COMPLETED ON THE WASTEWATER SYSTEM INCLUDING THE AIR TEST, BUT PRIOR TO THE FINAL INSPECTION.

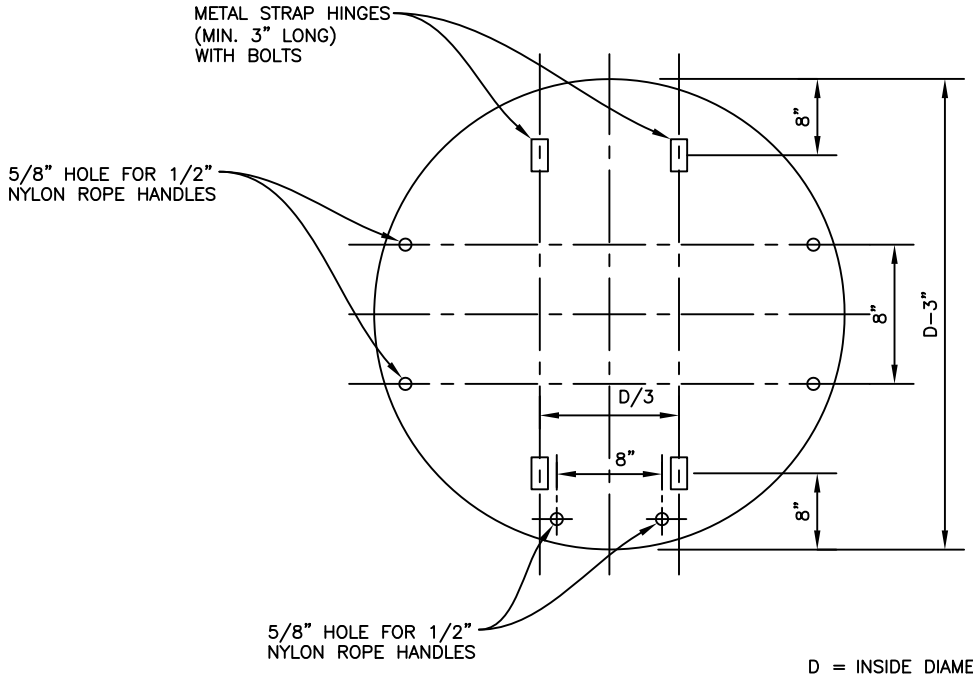


REMOVAL

FALSE MANHOLE BOTTOM SHALL BE REMOVED AFTER THE FINAL APPURTENANCE ADJUSTMENT INSPECTION. THE PAVING CONTRACTOR AND OWNER'S REPRESENTATIVE WILL COORDINATE THE REMOVAL OF THE FALSE MANHOLE BOTTOMS. CONTRACTOR SHALL REMOVE DEBRIS CAUGHT ON THE FALSE BOTTOM AND NOT ALLOW IT TO DROP INTO MANHOLE.

INSTALLATION AND REMOVAL POSITION

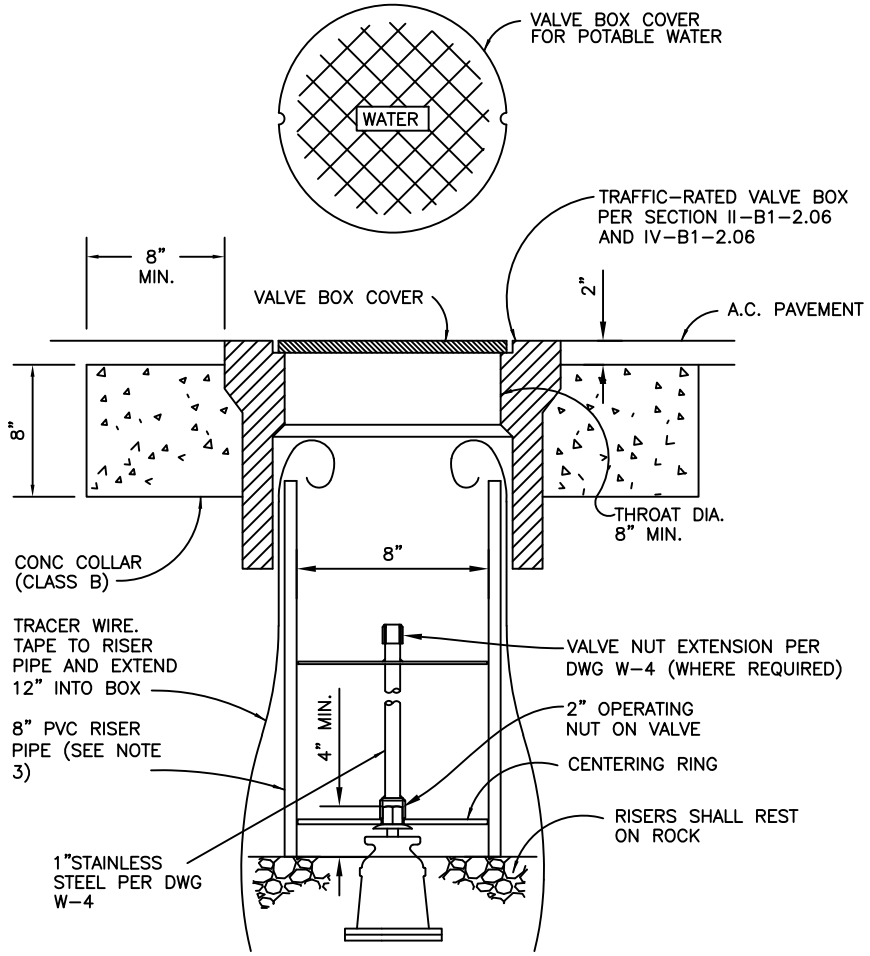
NOT TO SCALE

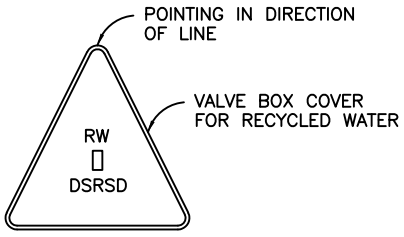


PLAN VIEW

NOT TO SCALE

Dublin San Ramon Services District	DATE DEC 2019
MANHOLE: FALSE BOTTOM	DESIGNED RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING S-16



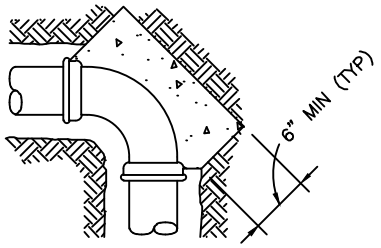


VALVE BOX WITH CAST IRON TRAFFIC LID

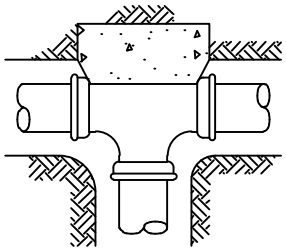
NOTES:

1. A.C. PAVEMENT TO COMPLY WITH STREET PAVEMENT REQUIREMENTS.
2. FOR VALVE BOXES INSTALLED IN NON–TRAFFIC AREAS, CONCRETE COLLAR SHALL BE EXTENDED TO FINISH GRADE. SLOPE COLLAR TO DRAIN AWAY FROM LID.
3. RISER PIPE TO BE ONE CONTINUOUS PIECE OF PVC.
4. VALVE BOX COVERS FOR RECYCLED WATER MAINS SHALL BE TRIANGULAR WITH "RW–DSRSD" INSCRIPTION CAST ON THE TOP SURFACE.
5. VALVE BOX COVERS FOR RW WATER MAINS SHALL BE POWDER COATED.

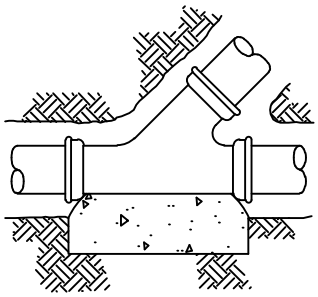
Dublin San Ramon Services District	REVISION DATE JUN 2020
VALVE BOX INSTALLATION	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–1



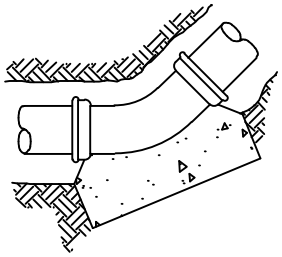
90° BEND



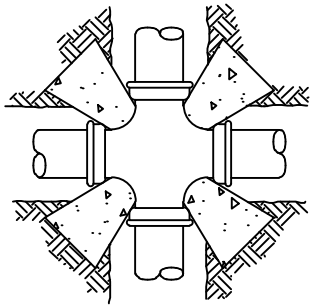
TEE



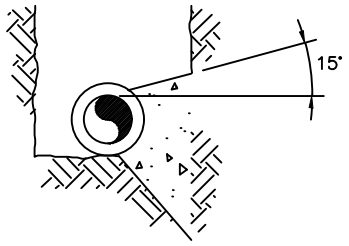
WYE



45° BEND



CROSS



TYPICAL SECTION
THROUGH THRUST BLOCK

REQUIRED AREA FOR THRUST BLOCK (SQ. FT.)
BASED ON ALLOW. SOIL BEARING VALUE OF 2000 psf

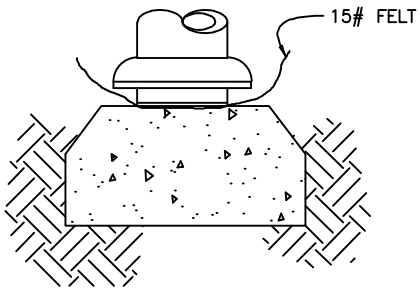
PIPE DIA.	90°	45° & WYE	22 1/2°	11 1/4°	B.O. & PLUG	TEE	CROSS
4	1.5	1.0	0.5	–	1.0	1.0	1.0
6	4.0	2.5	1.5	1.0	3.0	3.0	2.5
8	7.5	4.0	2.0	1.0	5.0	5.0	2.55
10	11.5	6.5	3.5	2.0	8.0	8.0	4.0
12	16.0	9.0	4.5	2.5	11.5	11.5	6.5
16	29.0	16.0	8.0	4.0	20.0	20.0	11.0
18	37.0	29.0	10.0	5.0	26.0	26.0	13.0

MULTIPLIERS FOR THRUST BLOCK AREAS

ACTUAL SOIL BEARING VALUE	MULTIPLIER
1000 psf	2.0
1500 psf	1.33
2000 psf	1.0
2500 psf	0.8
3000 psf	0.67

EXAMPLE

ACTUAL SOIL BEARING VALUE = 1000 psf
FOR 8" BLOW OFF
REQUIRED AREA IS (2.0)(5.0 SQ. FT.) = 10.0 SQ. FT.



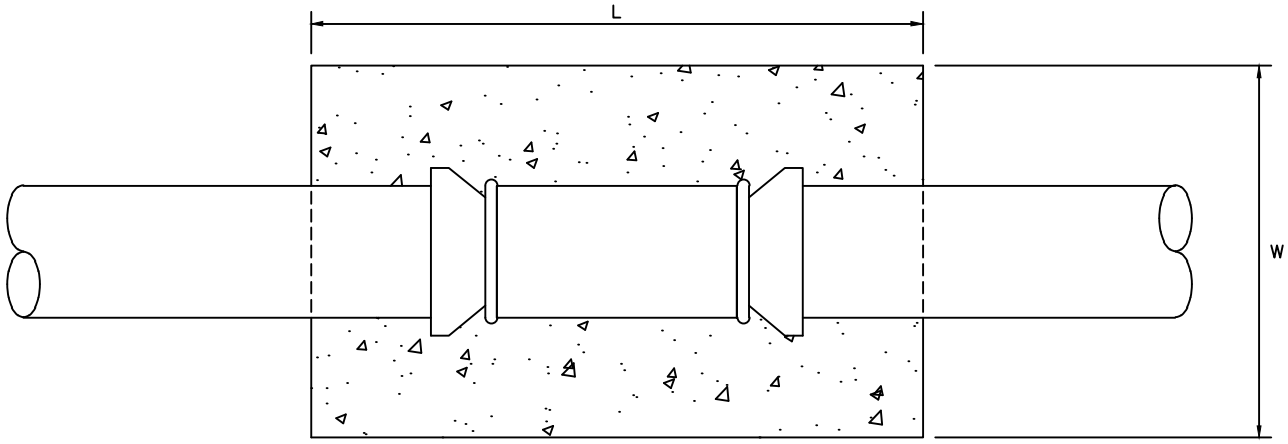
PLUG

NOTES:

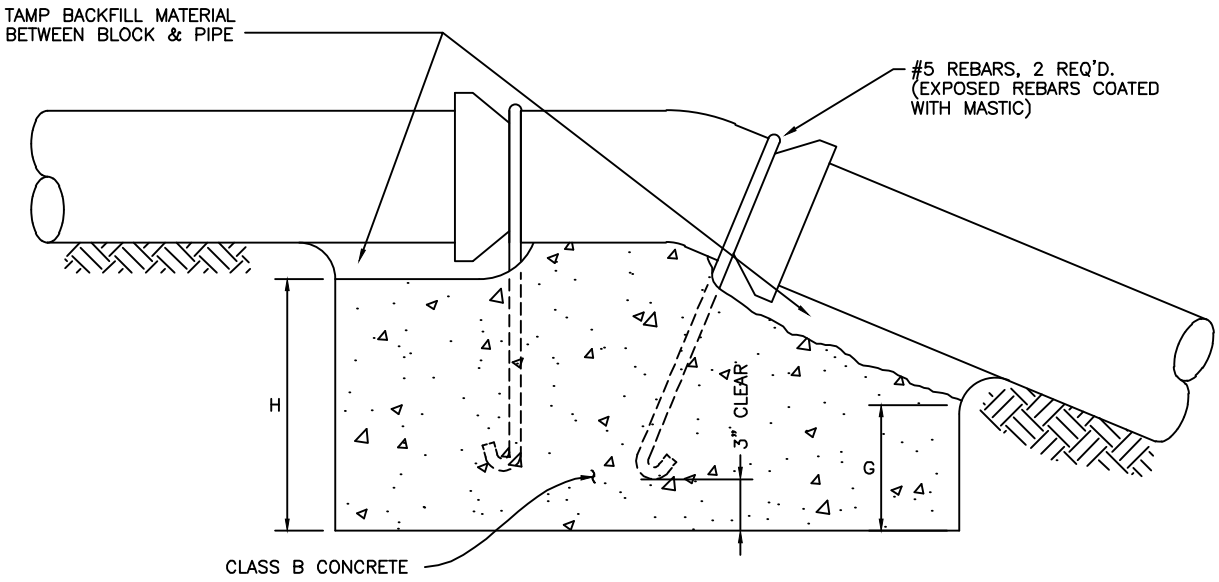
1. ALL THRUST BLOCKS TO BE PLACED AGAINST UNDISTURBED EARTH.
2. THRUST BLOCKS SHALL BE CLASS B CONCRETE.
3. 15# ROOFING FELT TO BE PLACED BETWEEN PLUG AND THRUST BLOCK CONCRETE.
4. SEVEN DAY CURE TIME REQUIRED PRIOR TO FILLING OR PRESSURING MAINS.
5. THRUST BLOCKS SHALL BE FORMED BEYOND UNDISTURBED EARTH.

REV. 09/06

Dublin San Ramon Services District	DATE MAY 1987
CONCRETE THRUST BLOCKS	DESIGNED RMR
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–2



PLAN



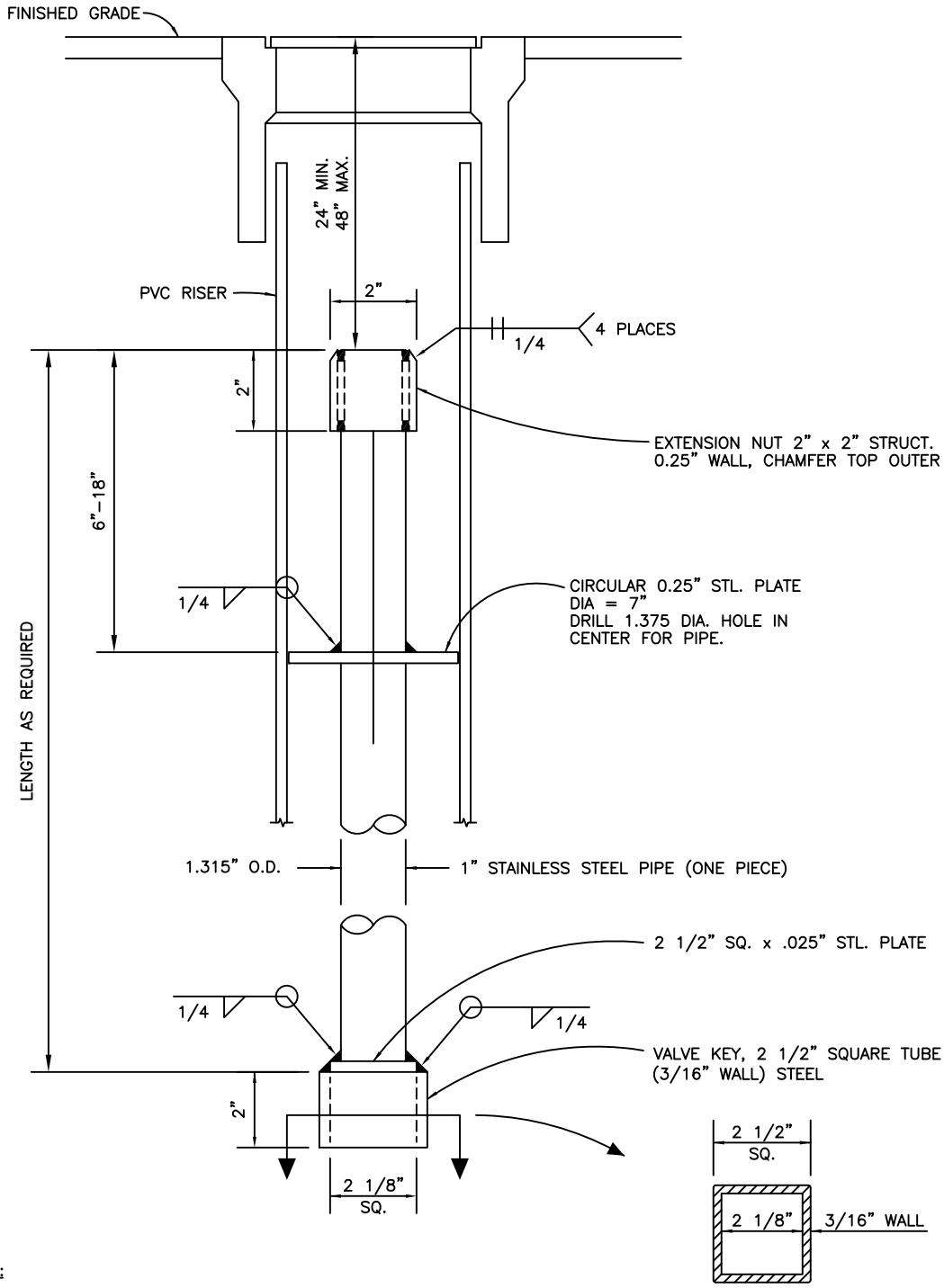
ELEVATION

THRUST BLOCK DIMENSIONS ~ UPWARD THRUST

PIPE SIZE	11-1/4° BEND				22 1/2° BEND				45° BEND			
	L	W	H	G	L	W	H	G	L	W	H	G
4"	2'-0"	2'-0"	1'-0"	9"	2'-0"	2'-0"	1'-0"	9"	2'-0"	2'-0"	2'-0"	6"
6"	2'-0"	2'-0"	1'-0"	9"	2'-0"	2'-0"	2'-0"	1'-0"	3'-0"	2'-0"	2'-0"	6"
8"	2'-0"	2'-0"	1'-0"	9"	3'-0"	2'-0"	2'-0"	1'-0"	4'-6"	2'-0"	3'-0"	6"
10"	3'-0"	2'-0"	2'-0"	1'-8"	5'-0"	3'-0"	2'-0"	1'-0"	6'-0"	2'-0"	3'-8"	8"
12"	3'-0"	2'-0"	2'-0"	1'-8"	5'-0"	3'-0"	2'-0"	1'-0"	7'-0"	2'-6"	4'-0"	8"

REV. 08/01

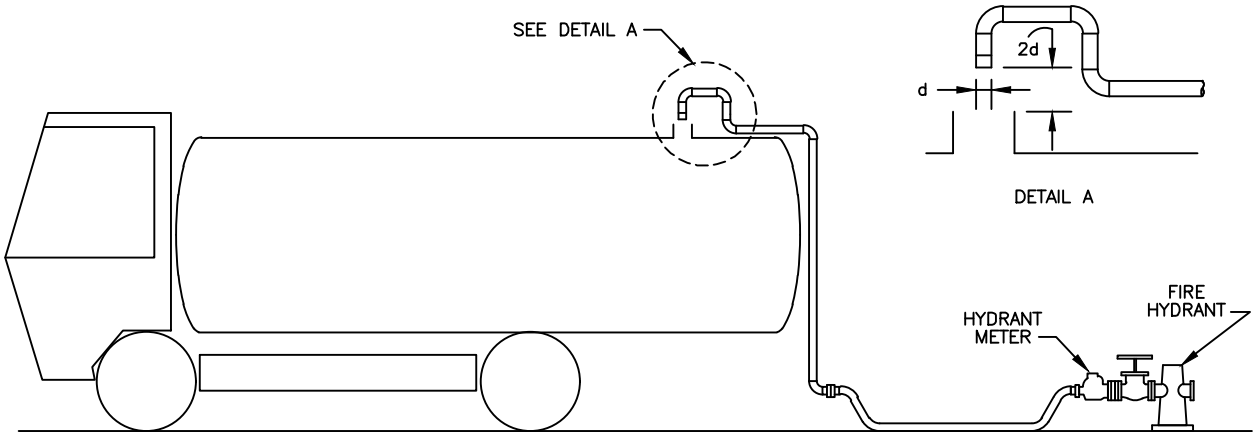
Dublin San Ramon Services District	DATE MAY 1987
CONCRETE THRUST BLOCKS FOR VERTICAL BENDS	DESIGNED SAD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-3



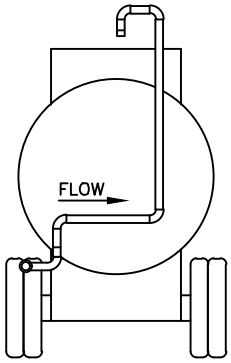
NOTES:

1. VALVE NUT EXTENSION SHALL BE PROVIDED WHERE DEPTH TO TOP OF VALVE IS 4' OR MORE.
2. LENGTH OF EXTENSION IN INCHES SHALL BE INSCRIBED WITH AN ARC WELD BEAD (MIN. OF 2" IN HEIGHT) ON TOP FACE OF CIRCULAR PLATE.
3. VALVE KEY SHALL FIT OVER STANDARD 2" VALVE OPERATING NUT.
4. EXTENSION NUT AND VALVE KEY TO BE IN ALIGNMENT WITH EACH OTHER.

Dublin San Ramon Services District	REVISION DATE DEC 2019
VALVE NUT EXTENSION	REVISED BY KP
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–4



AIR GAP SEPARATION

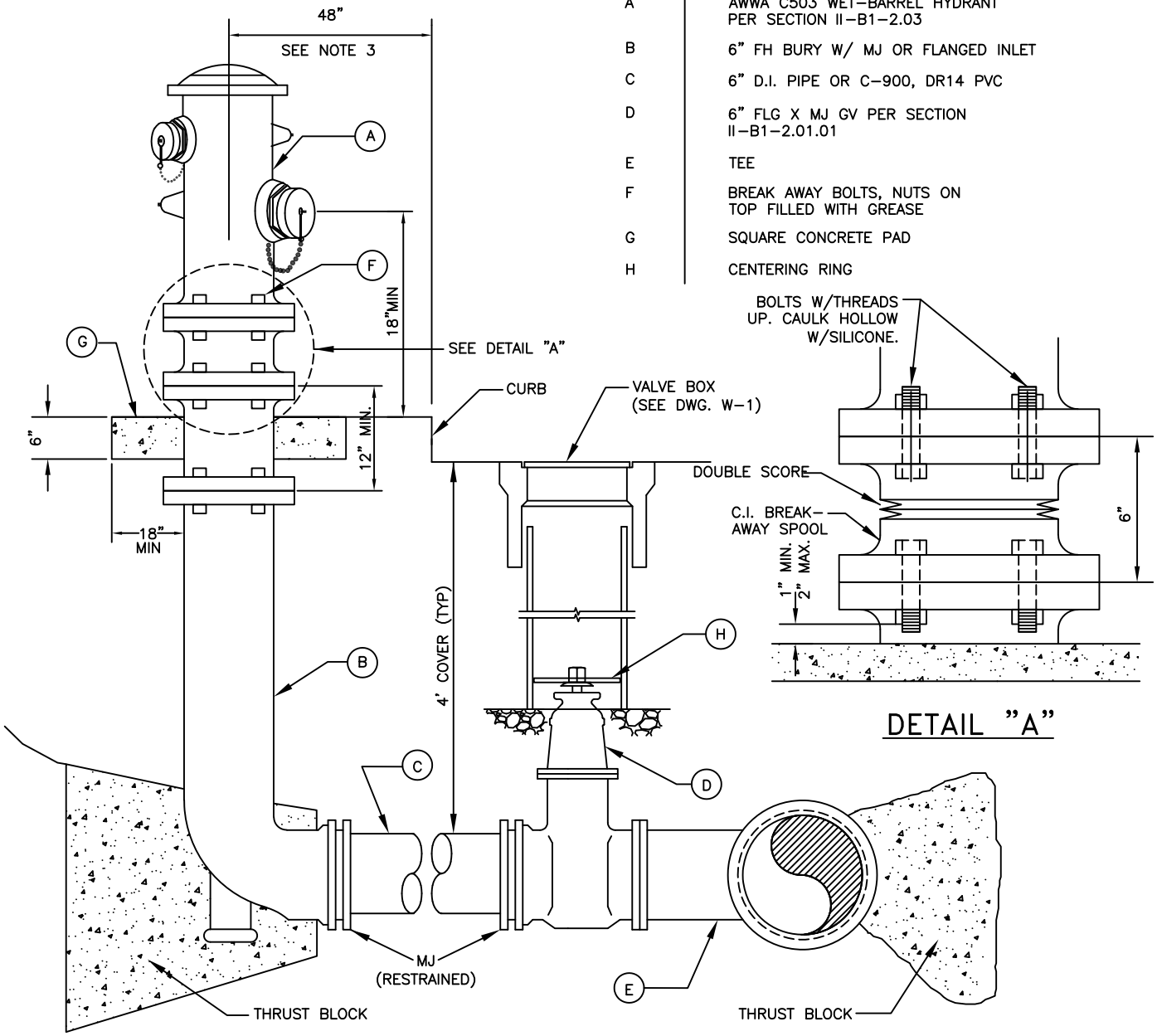


NOTES:

1. ALL PIPING PRIOR TO AIR GAP MUST BE MOUNTED PERMANENTLY TO THE EXTERIOR OF THE TANK, AND CLEARLY VISIBLE.
2. AIR GAP MUST BE AT LEAST (2) TIMES THE FILL PIPE DIAMETER FROM THE OVERFLOW RIM BUT IN NO CASE LESS THAN A (1) INCH MINIMUM GAP. (SEE DETAIL A)
3. NO INTERNALLY MOUNTED AIR GAP PIPING IS PERMITTED.
4. OBTAIN HYDRANT METER FROM DSRSD.

Dublin San Ramon Services District	REVISION DATE MAR 2012
BACKFLOW PREVENTION METHOD FOR TANKER TRUCKS AND PORTABLE SPRAY RIGS	REVISED BY BCD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-5

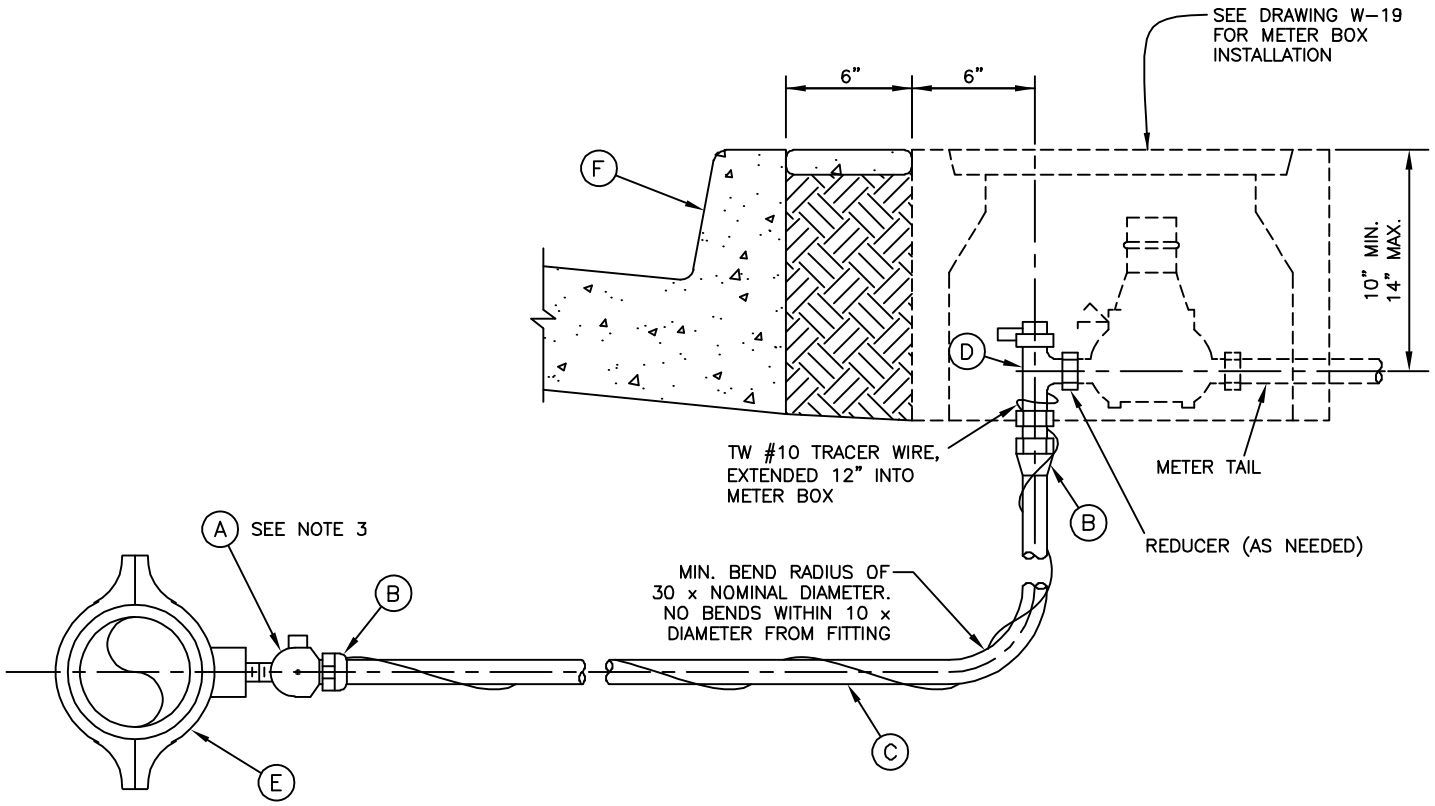
ITEM	DESCRIPTION
A	AWWA C503 WET-BARREL HYDRANT PER SECTION II-B1-2.03
B	6" FH BURY W/ MJ OR FLANGED INLET
C	6" D.I. PIPE OR C-900, DR14 PVC
D	6" FLG X MJ GV PER SECTION II-B1-2.01.01
E	TEE
F	BREAK AWAY BOLTS, NUTS ON TOP FILLED WITH GREASE
G	SQUARE CONCRETE PAD
H	CENTERING RING



NOTES:

1. ON MAINS WHERE VALVES ARE TO BE INSTALLED ADJACENT TO TEES OR CROSSES, THE VALVES SHALL BE FLANGED X MJ WITH FLANGED END BOLTED DIRECTLY TO THE TEE OR CROSS.
2. VALVE DISTANCE IN FEET TO BE MARKED ON CURB.
3. SEE PLANS AND SPECIFICATIONS FOR LOCATION OF HYDRANTS. REFER TO SECTION II-B2-5.01 FOR PLACEMENT OF FIRE HYDRANTS BEHIND CURBS AND SIDEWALKS.
4. REFER TO SECTION II-A7 FOR CLEARANCE BETWEEN HYDRANT AND FIXED OBJECTS.
5. REFER TO SECTION II-B1-2.03 FOR HYDRANT EXTERIOR PAINT REQUIREMENTS.
6. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.
7. TRACER WIRE SHALL BE INSTALLED ON ALL FIRE HYDRANT RUNS.

Dublin San Ramon Services District	REVISION DATE JUN 2020
FIRE HYDRANT INSTALLATION	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-6



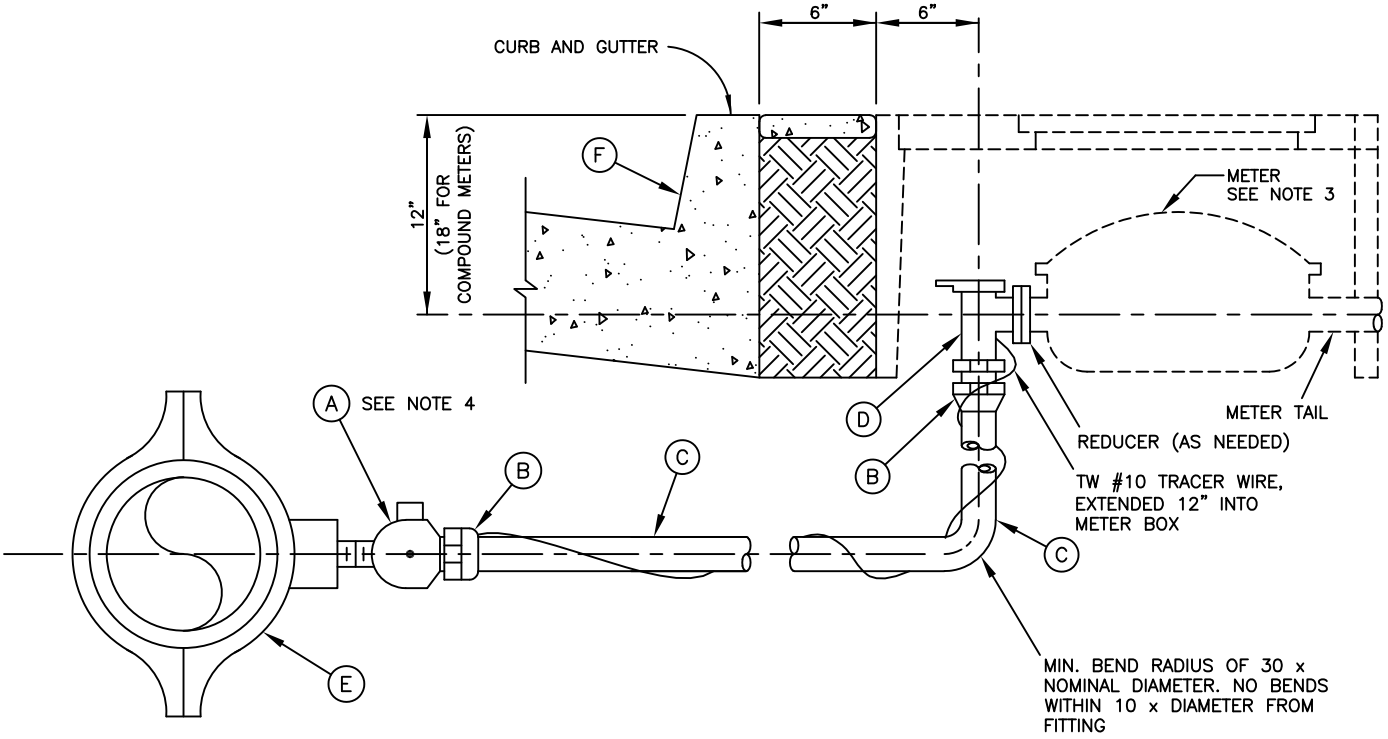
SERVICE WITH 90° TAP W/ POLYETHYLENE

ITEM	DESCRIPTION
A	BRONZE CORPORATION STOP
B	BRONZE COMPRESSION JOINT
C	POLYETHYLENE TUBING WITH TRACER WIRE (BLUE HDPE FOR POTABLE AND PURPLE HDPE FOR RECYCLED WATER)
D	BRONZE ANGLE CURB STOP W/WING LOCK
E	BRONZE SERVICE SADDLE PER SECTION II-B1-2.08
F	FACE OF CURB MARKED "W" FOR POTABLE WATER AND "RW" FOR RECYCLED WATER.

NOTES:

1. THE SERVICE LINE SHALL REST ON UNDISTURBED EARTH IN THE BOTTOM OF THE TRENCH WITH A 36" MINIMUM COVER IN THE RUN BETWEEN THE MAIN AND THE CURB.
2. FOR METER BOX INSTALLATION SEE DWG W-19.
3. STAINLESS STEEL INSERT STIFFENERS SHALL BE USED AT CORP. AND ANGLE STOPS IN POLYETHYLENE SERVICE LINES WHEN RECOMMENDED BY THE FITTING MANUFACTURER.
4. COLOR OF POLYETHYLENE TUBING SHALL BE:
   BLUE FOR POTABLE WATER SERVICE
   PURPLE FOR RECYCLED WATER SERVICE

Dublin San Ramon Services District	REVISION DATE NOV 2019
1" SERVICE INSTALLATION	REVISED BY KP
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-7



SERVICE WITH 90° TAP

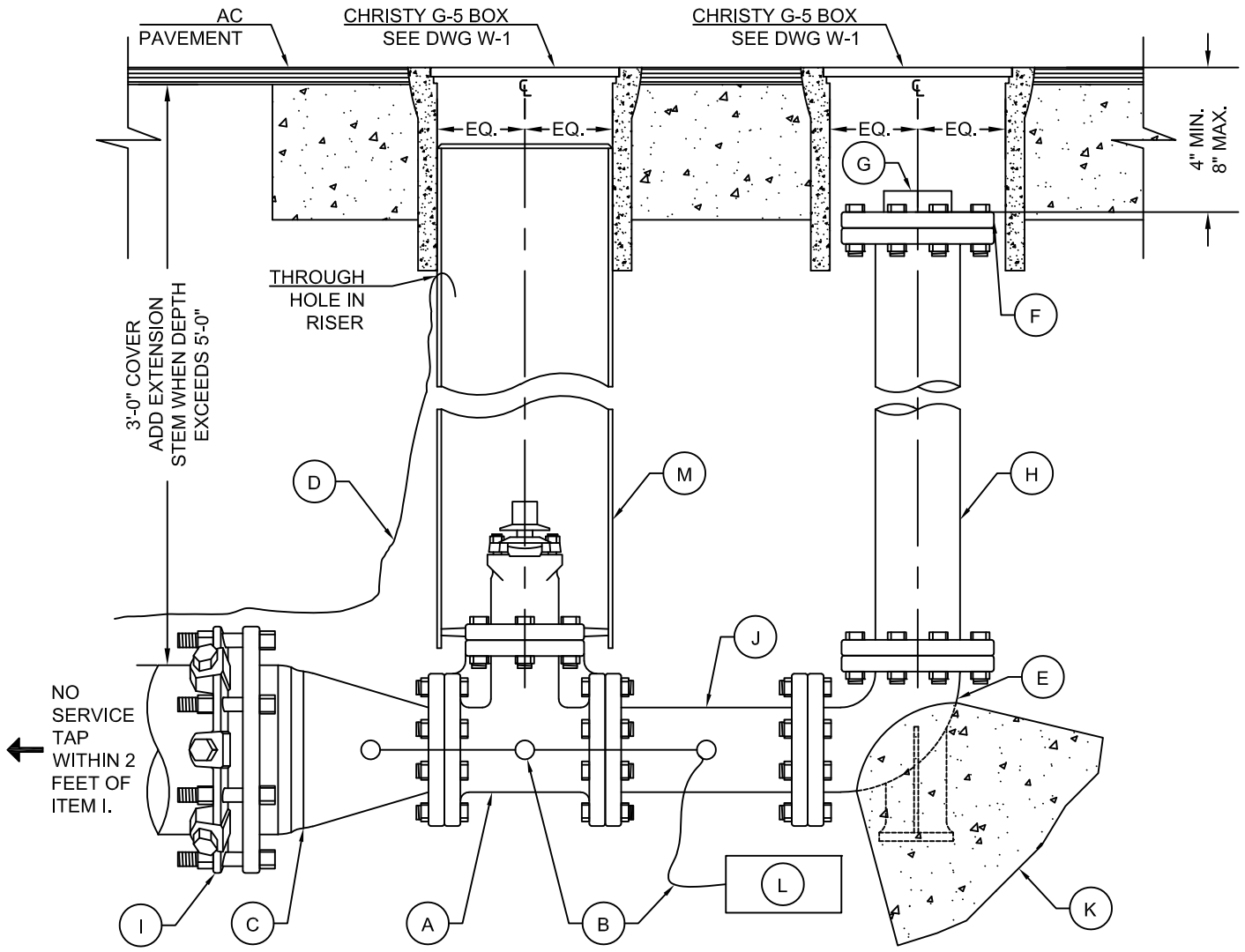
SERVICE ASSEMBLY

ITEM	DESCRIPTION
A	BRONZE CORP. STOP
B	BRONZE COMPRESSION JOINT
C	POLYETHYLENE TUBING WITH TRACER WIRE (BLUE HDPE FOR POTABLE AND PURPLE HDPE FOR RECYCLED WATER)
D	BRONZE ANGLE CURB STOP, FLANGE W/WING LOCK
E	BRONZE SADDLE PER SECTION II–B1–2.08
F	FACE OF CURB TO BE MARKED "W" FOR POTABLE WATER AND "RW" FOR RECYCLED WATER.

NOTES:

1. THE SERVICE LINE SHALL REST ON UNDISTURBED EARTH IN THE BOTTOM OF THE TRENCH WITH A 36" MINIMUM COVER IN THE RUN BETWEEN THE MAIN AND THE CURB.
2. FOR METER BOX INSTALLATION SEE DWG W–19.
3. STAINLESS STEEL INSERT STIFFENERS SHALL BE USED AT CORP. AND ANGLE STOPS IN POLYETHYLENE SERVICE LINES WHEN RECOMMENDED BY THE FITTING MANUFACTURER.
4. COLOR OF POLYETHYLENE TUBING SHALL BE:
   BLUE FOR POTABLE WATER SERVICE
   PURPLE FOR RECYCLED WATER SERVICE

Dublin San Ramon Services District	REVISION DATE DEC 2019
1 1/2" – 2" SERVICE INSTALLATION	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–8

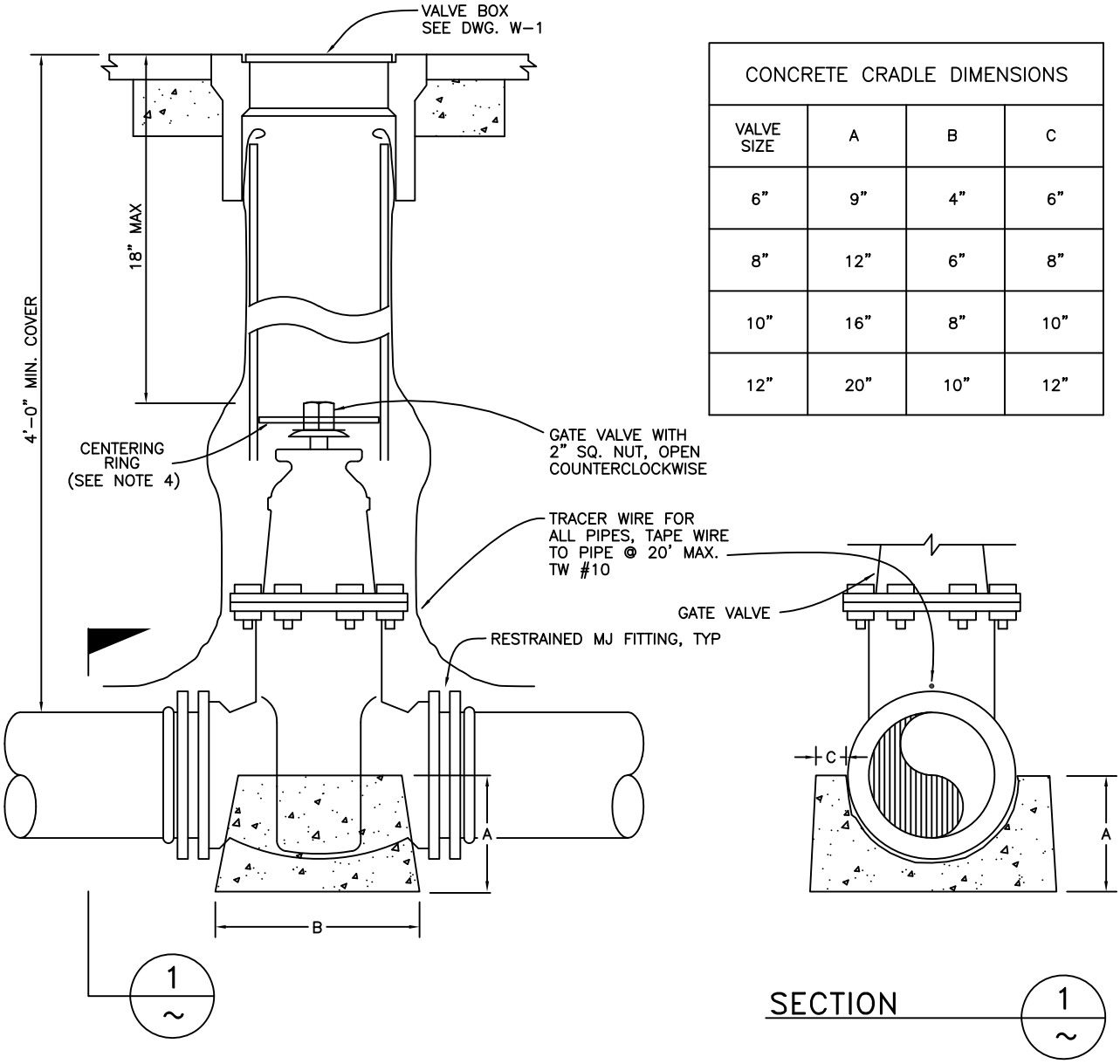


ITEM	DESCRIPTION
A	4" EPOXY-COATED FLG RESILIANT SEATING G.V. WITH 2" SQ. NUT, CLOSE CLOCKWISE
B	CATHODIC PROTECTION (INCLUDING VALVE) - (2 SETS) A.W.G. NO. 2 WIRES WITH EXOTHERMIC WELD AT 3 O' CLOCK AND 9 O' CLOCK POSITIONS WITH MASTIC AND PROTECTIVE CAP BONDED TO REDUCER, VALVE, AND SPOOL.
C	REDUCER - 4" X MAIN SIZE
D	TRACER WIRE FOR PVC PIPE ONLY, TW TYPE #10
E	4" FLANGE X FLANGE, TABBED DUCTILE IRON 90° ELL (BASE 90)
F	4" COMPANION FLANGE
G	4" ABS SCREWED PLUG WITH SQ. HEAD
H	4" DUCTILE IRON RISER (1 LENGTH TO PROPER HEIGHT)
I	RESTRAINED MECHANICAL JOINT
J	4" DUCTILE IRON PIPE - 12" SPOOL LENGTH
K	THRUST BLOCK
L	32# PREPACKAGED MAGNESIUM ANODE 8" - 12" FROM PIPE
M	8" RISER SDR 35

NOTES:

1. FOR SIZE OF BLOW-OFF ON MAINS LARGER THAN 12", CONSULT DISTRICT ENGINEER.
2. TO BE USED ONLY AT THE DIRECTION OF DISTRICT ENGINEER.
3. RECYCLED WATER BLOW OFF ASSEMBLIES SHALL BE IDENTIFIED AS RECYCLED WATER FACILITIES AS PER SPECIFICATION SECTION IV-B1-2.06.
4. ALL BOLTS SHALL BE STAINLESS STEEL, 3/16" - TYPE 316 OR APPROVED EQUAL. MASTIC COVER BOLTS AND ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE ENCASED IN EIGHT (8) MIL POLYETHYLENE WRAP. POLYETHYLENE WRAP SHALL BE MANUFACTURED AND INSTALLED IN CONFORMANCE WITH ANSI A 21.5. (SPECIFICATION SECTION II-B2-2.06)

Dublin San Ramon Services District	REVISION DATE DEC 2019
4" BLOW-OFF ASSEMBLY 6", 8", 10" AND 12" MAINS	REVISED BY RM/BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-9



CONCRETE CRADLE DIMENSIONS			
VALVE SIZE	A	B	C
6"	9"	4"	6"
8"	12"	6"	8"
10"	16"	8"	10"
12"	20"	10"	12"

NOTES:

1. COAT ALL BONNET BOLTS, GLAND, GLAND BOLTS AND STEM WITH BITUMINOUS PAINT, SEE SPECS.
2. ON MAINS WHERE VALVES ARE TO BE INSTALLED ADJACENT TO TEES OR CROSSES, THE VALVES SHALL BE FLG x MJ WITH FLANGED END BOLTED DIRECTLY TO THE TEE OR CROSS.
3. IN-LINE VALVES SHALL HAVE RESTRAINED MJ ENDS, WHERE NOT CONNECTING TO A FLANGED FITTING.
4. CENTERING RING PER SECTION II-B1-2.06 OF THESE STANDARDS.
5. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.
6. CONCRETE CRADLE FOR VALVE SHALL BE FORMED AND NOT ENCASE FITTINGS.
7. CATHODIC PROTECTION IS REQUIRED.

Dublin San Ramon Services District	REVISION DATE DEC 2019
GATE VALVE INSTALLATION 12" GATE VALVE AND SMALLER	REVISED BY KP/BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-13

SIGNED COPY ON FILE AT DISTRICT OFFICE

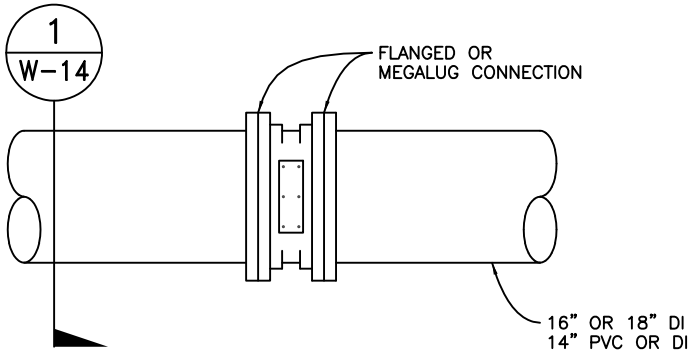
DRAWING W-14

REVISED BY BD

REVISION DATE DEC 2019

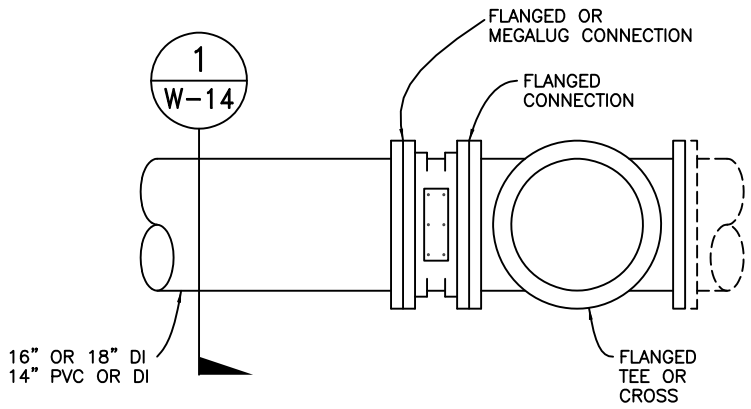
Dublin San Ramon Services District

BUTTERFLY VALVE INSTALLATION
14" TO 18" BFV



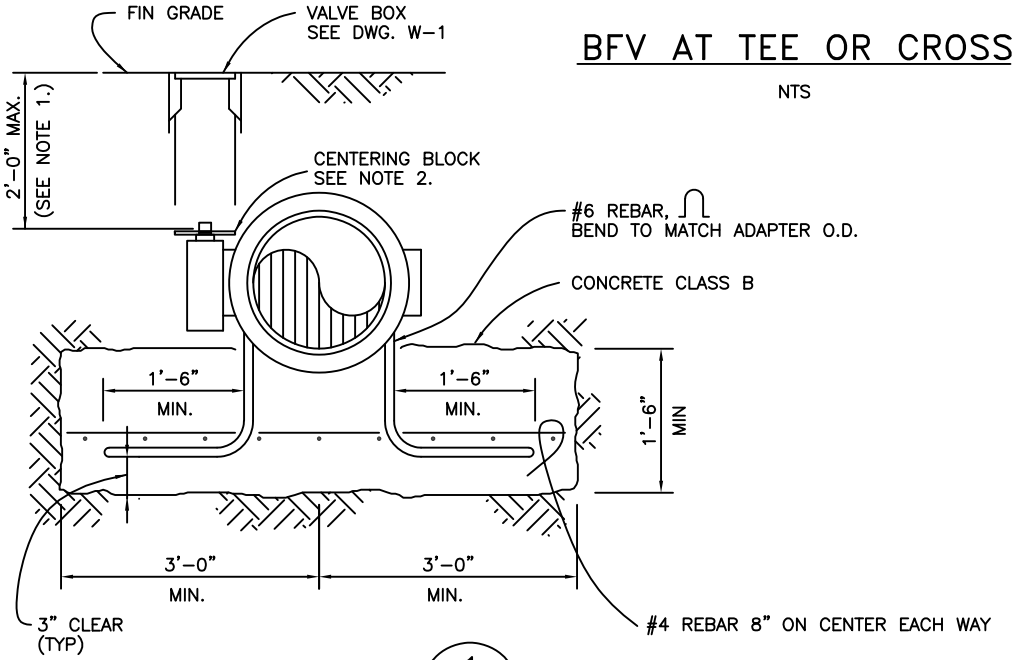
IN-LINE BFV

NTS



BFV AT TEE OR CROSS

NTS



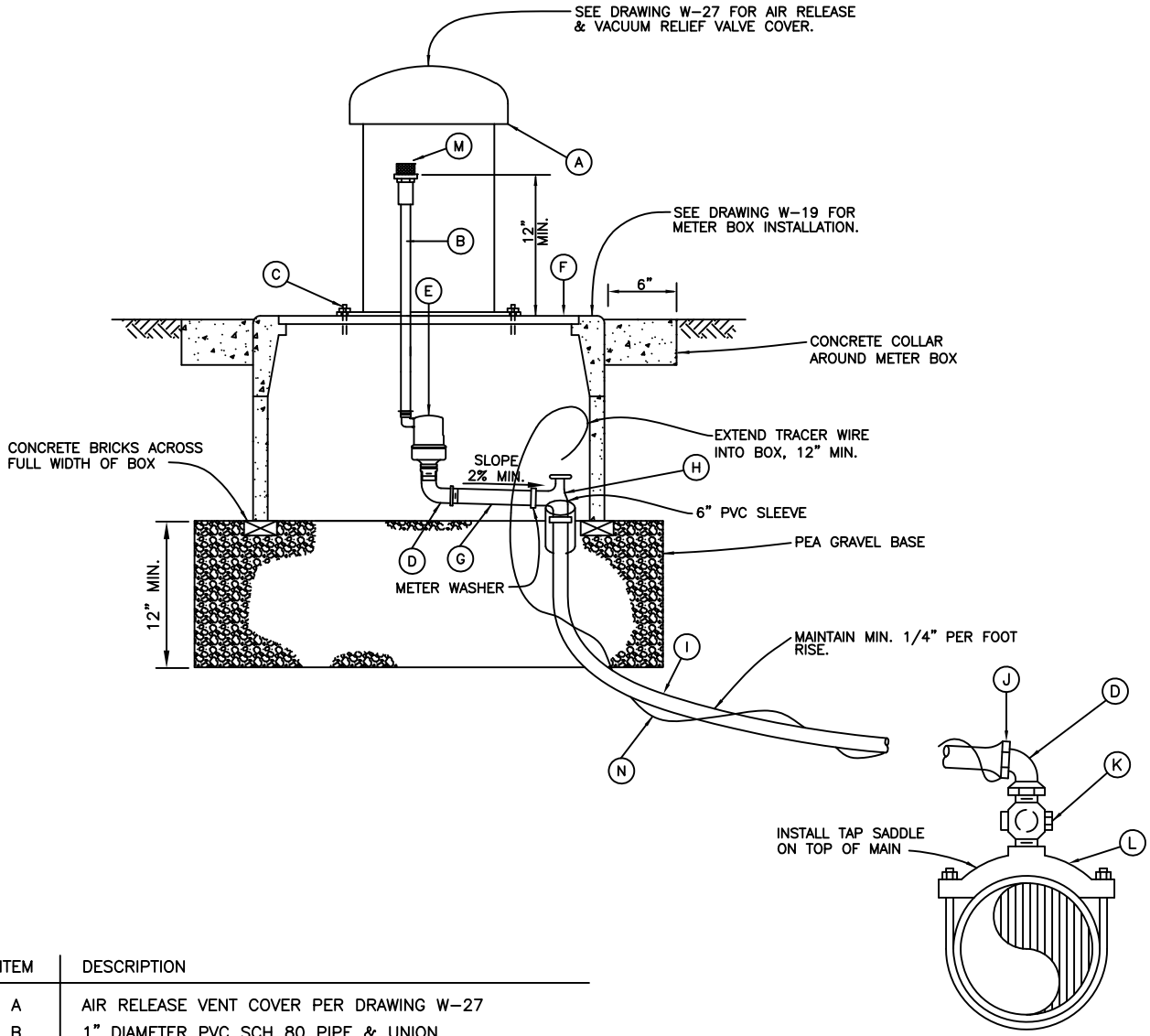
SECTION

NTS

1
W-14

NOTES:

1. ADD EXTENTION SLEEVE WHEN DEPTH EXCEEDS 2'0".
2. CENTERING RING PER SECTION II-B1-2.06 OF THESE STANDARDS.
3. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.
4. USE OF THIS DETAIL REQUIRES DISTRICT ENGINEER APPROVAL.

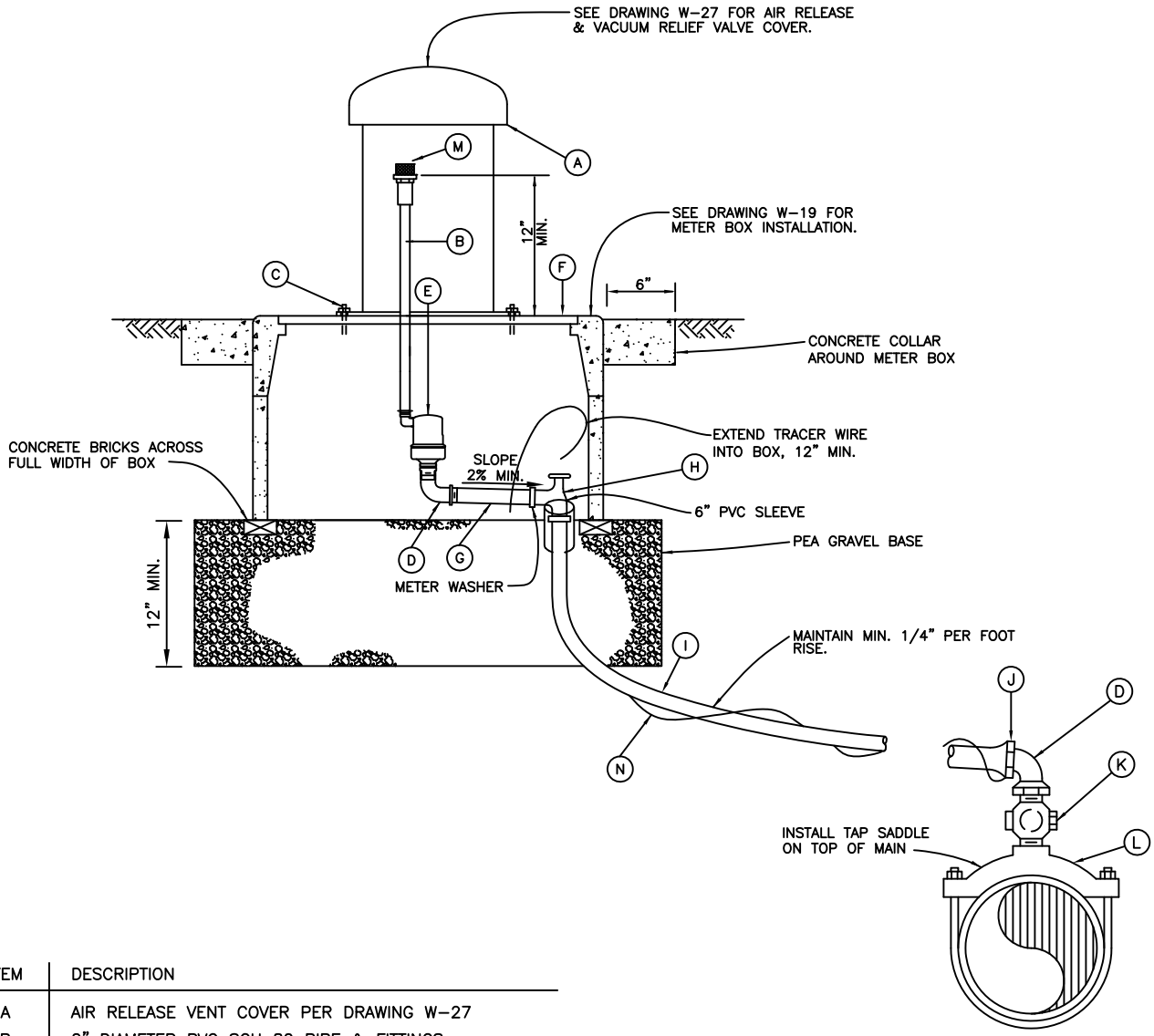


ITEM	DESCRIPTION
A	AIR RELEASE VENT COVER PER DRAWING W-27
B	1" DIAMETER PVC SCH 80 PIPE & UNION
C	ANCHOR BOLT
D	1" BRONZE STREET ELL
E	1" COMBINATION AIR VALVE. SEE NOTE 4.
F	24" TRAFFIC-RATED METER BOX. SEE NOTE 4.
G	1" BRONZE NIPPLE
H	ANGLE METER STOP FLARE OR COMPRESSION. SEE NOTE 4.
I	1" POLYETHYLENE TUBING (BLUE COLOR FOR POTABLE OR PURPLE FOR RECYCLED WATER)
J	1" BRONZE COMPRESSION JOINT
K	1" CORP. STOP. SEE NOTE 4
L	ALL BRONZE DOUBLE STRAP SADDLE. SEE NOTE 4
M	THREADED AIR VENT CAP WITH STAINLESS STEEL SCREEN. SEE NOTE 4.
N	TW#10 TRACER WIRE

NOTES:

1. FOR RECYCLED WATER, COMPONENTS SHALL BE PURPLE.
2. TW#10 TRACER WIRE SHALL BE SPIRALED AROUND POLYETHYLENE TUBING FROM CORP STOP TO THE METER BOX.
3. SEE DRAWING W-19 FOR METER BOX INSTALLATION.
4. ITEM SHALL BE ON APPROVED MATERIAL LIST, OR AN APPROVED EQUAL.

Dublin San Ramon Services District	REVISION DATE JUN 2020
1" AIR RELEASE & VACUUM RELIEF VALVE INSTALLATION 6"-10" POTABLE WATER AND RECYCLED WATER MAINS	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-15

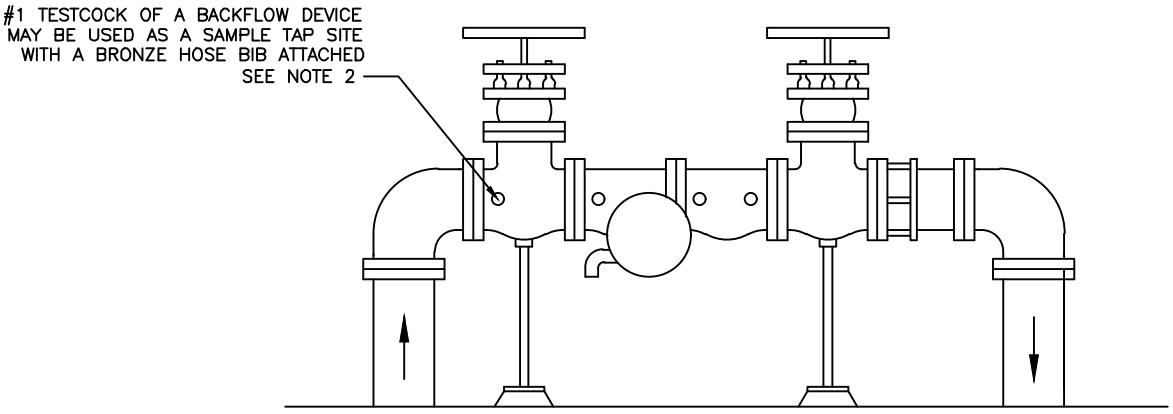


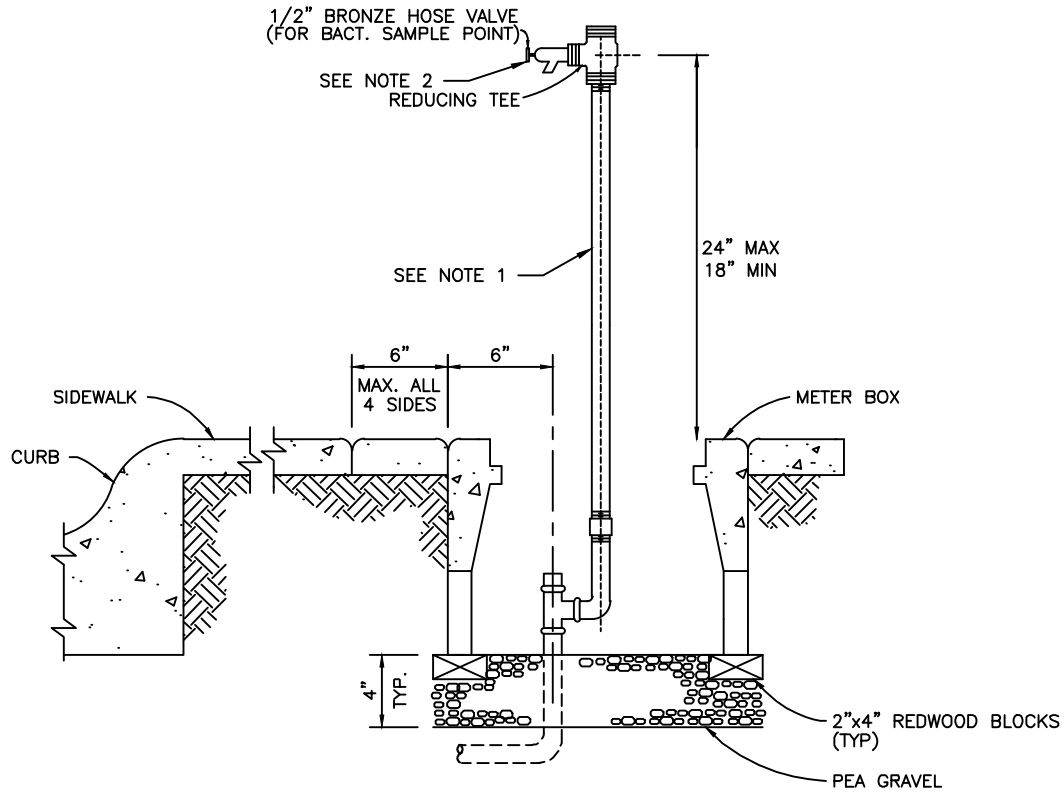
ITEM	DESCRIPTION
A	AIR RELEASE VENT COVER PER DRAWING W-27
B	2" DIAMETER PVC SCH 80 PIPE & FITTINGS
C	ANCHOR BOLT
D	2" BRONZE STREET ELL
E	2" COMBINATION AIR VALVE. SEE NOTE 4.
F	24" TRAFFIC-RATED METER BOX. SEE NOTE 4.
G	2" BRONZE NIPPLE
H	2" ANGLE METER STOP. SEE NOTE 4.
I	2" POLYETHYLENE TUBING (BLUE COLOR FOR POTABLE OR PURPLE FOR RECYCLED WATER)
J	2" BRONZE COMPRESSION JOINT
K	2" CORP. STOP. SEE NOTE 4
L	ALL BRONZE DOUBLE STRAP SADDLE. SEE NOTE 4
M	THREADED AIR VENT CAP WITH STAINLESS STEEL SCREEN. SEE NOTE 4.
N	TW#10 TRACER WIRE
P	2" METER FLANGE ADAPTER AND GASKET. SEE NOTE 4.

NOTES:

1. FOR RECYCLED WATER, COMPONENTS SHALL BE PURPLE.
2. TW#10 TRACER WIRE SHALL BE SPIRALED AROUND POLYETHYLENE TUBING FROM CORP STOP TO THE METER BOX.
3. SEE DRAWING W-19 FOR METER BOX INSTALLATION.
4. ITEM SHALL BE ON APPROVED MATERIAL LIST, OR AN APPROVED EQUAL.

Dublin San Ramon Services District	REVISION DATE JUN 2020
2" AIR RELEASE & VACUUM RELIEF VALVE 12" POTABLE WATER MAIN OR LARGER INSTALLATION	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-16

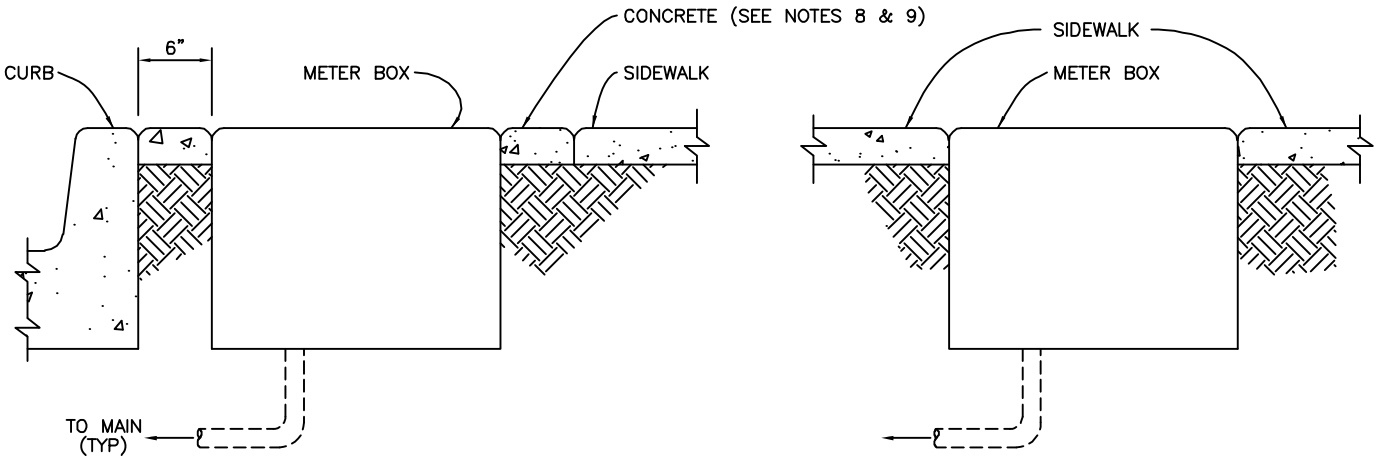




NOTES:

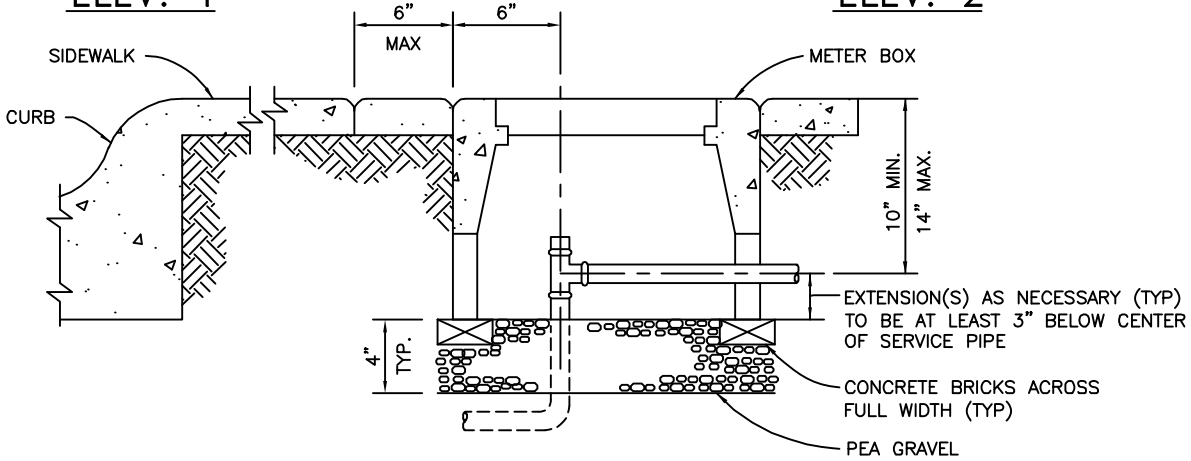
1. PIPING MUST BE RIGID.
2. HOSE BIB SPOUT MUST FACE BELOW HORIZONTAL AND FACE STREET.

Dublin San Ramon Services District	DATE DEC 2005
TEMPORARY SAMPLE TAPS FOR NEW CONSTRUCTION	DESIGNED ATJ
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–18



ELEV. 1

ELEV. 2

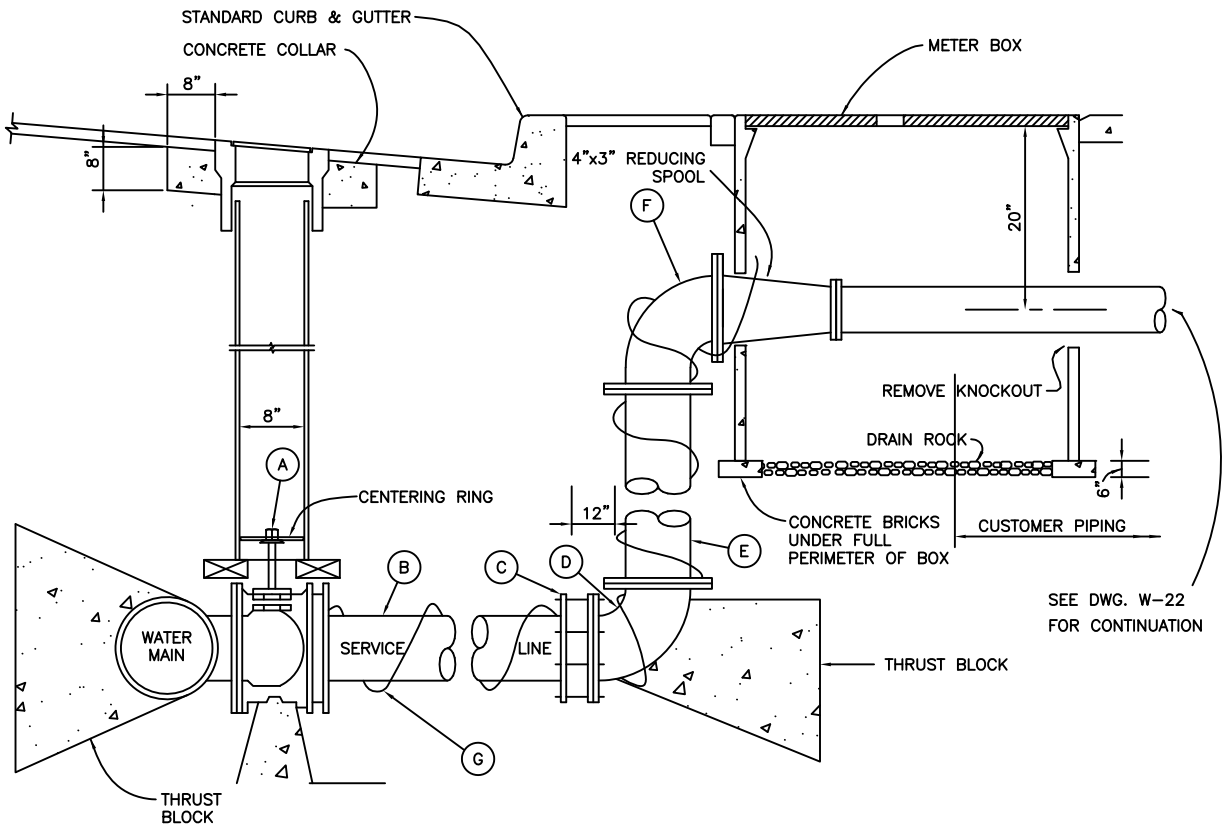


ELEV. 3

NOTES:

1. SEE THE APPROVED MATERIAL LIST FOR METER BOX SCHEDULE
2. H20 TRAFFIC LOAD RATED BOXES & LIDS TO BE USED IN TRAFFIC AREAS.
3. ALL METER BOXES MUST BE SET TRUE, PERPENDICULAR TO STREET, AND FLUSH WITH SIDEWALK.
4. SPACE BETWEEN BOXES IN MULTIPLE METER INSTALLATIONS SHALL BE 2".
5. DO NOT SET METER BOXES ON PRIVATE PROPERTY.
6. LID TO BE ONE PIECE, MARKED WATER, AND TOUCH-READ READY WITH 2" PROBE HOLE.
7. IN SLOPED AREA METER BOX MAY REQUIRE REDWOOD RETAINING WALLS.
8. METER BOXES AND LIDS IN TRAFFIC AREAS SHALL BE H-20 TRAFFIC RATED. INSTALL 6" CONCRETE COLLAR (6" DEEP) AROUND TRAFFIC-RATED METER BOXES.
9. METER BOXES OUTSIDE OF TRAFFIC AREAS AND NOT IN SIDEWALK SHALL HAVE 6" WIDE COLLAR (4" DEEP).
10. RECYCLED WATER METER BOX INSTALLATION SHALL BE IDENTIFIED AS RECYCLED WATER FACILITIES PER SECTION IV-B1-2.04.

Dublin San Ramon Services District	REVISION DATE NOV 2019
METER BOX INSTALLATIONS 5/8 INCH TO 2 INCH	REVISED BY KP
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-19

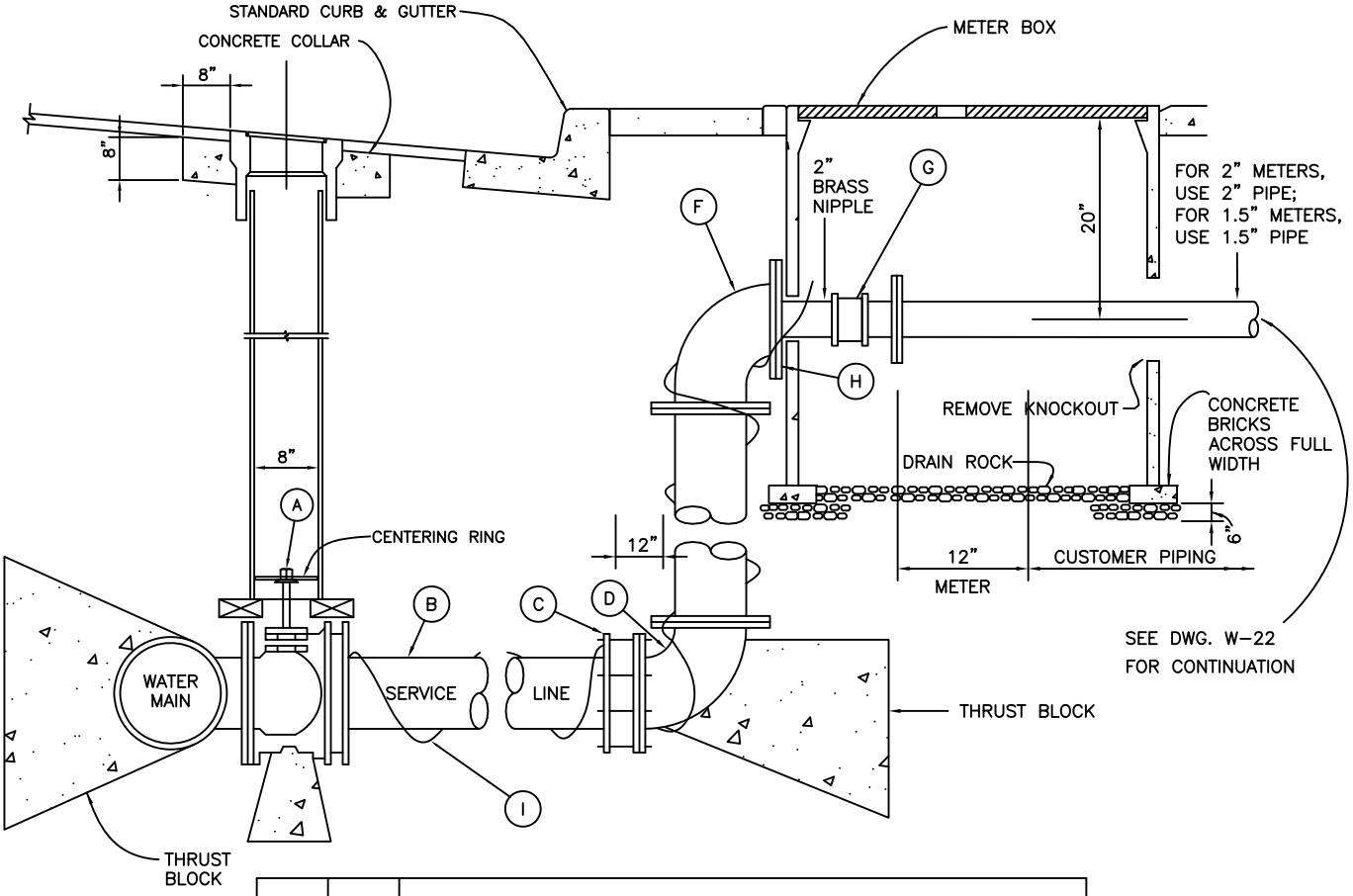


KEY	QTY	MATERIALS
A	1	4" GATE VALVE, FLANGE BY RESTRAINED MJ PER SECTION II–B1–2.02
B	1	4" DIP OR PVC
C	1	4" FLANGED COUPLING ADAPTER
D	1	4"x4" DIP ELL, FLG. x RESTRAINED MJ
E	1	4" DIP SPOOL, FLG. x FLG.
F	1	4"x4" DIP ELL, FLG. x FLG.
G	1	TW#10 TRACER WIRE, EXTEND INTO VALVE BOX

NOTES:

1. ALL THRUST BLOCKS SHALL CONFORM TO STANDARD DRAWINGS W–2 AND W–3.
2. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, ANTI–SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.
3. METER TO BE INSTALLED BY DSRSD.

Dublin San Ramon Services District	REVISION DATE JAN 2021
3" METER INSTALLATION	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–20

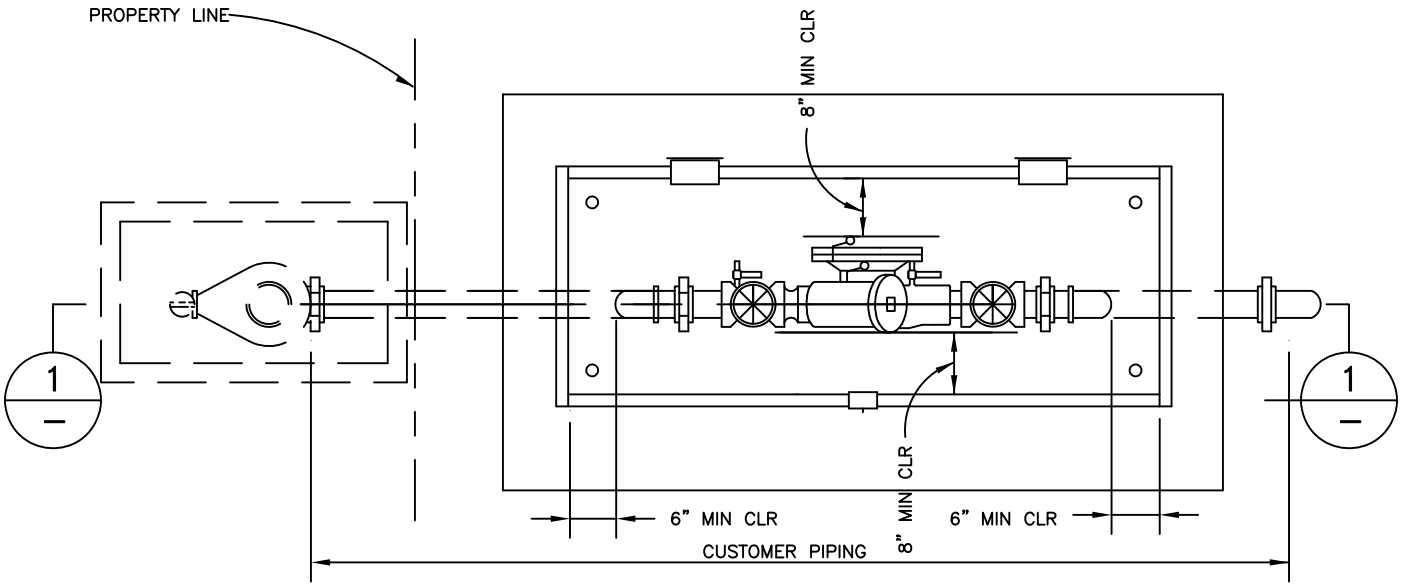


KEY	QTY	MATERIALS
A	1	4" GATE VALVE, FLANGE BY RESTRAINED MJ PER SECTION II-B1-2.02
B	1	4" DIP OR PVC
C	1	4" FLANGED COUPLING ADAPTER
D	1	4"x4" DIP ELL, FLG. x RESTRAINED MJ
E	1	4" DIP SPOOL, FLG. x FLG.
F	1	4"x4" DIP ELL, FLG. x FLG.
G	1	2" ANGLE STOP ADAPTER
H	1	4"x2" COMPANION FLANGE
I	1	TW#10 TRACER WIRE, EXTEND INTO VALVE BOX

NOTES:

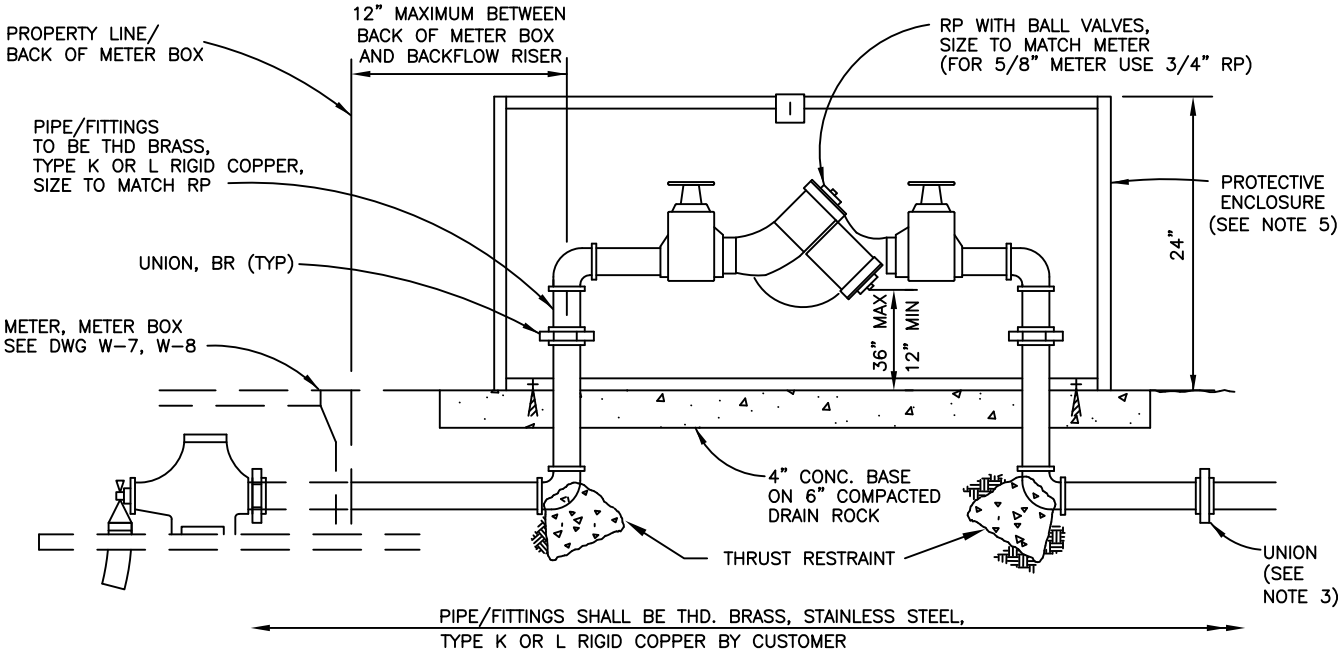
1. ALL THRUST BLOCKS SHALL CONFORM TO STANDARD DRAWINGS W-2 AND W-3.
2. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.
3. USE OF THIS DETAIL REQUIRES DISTRICT ENGINEER APPROVAL.
4. METER TO BE INSTALLED BY DSRSD.

Dublin San Ramon Services District	REVISION DATE JAN 2021
4-INCH SERVICE W/ 2-INCH METER INSTALLATION	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-20A



PLAN

NTS



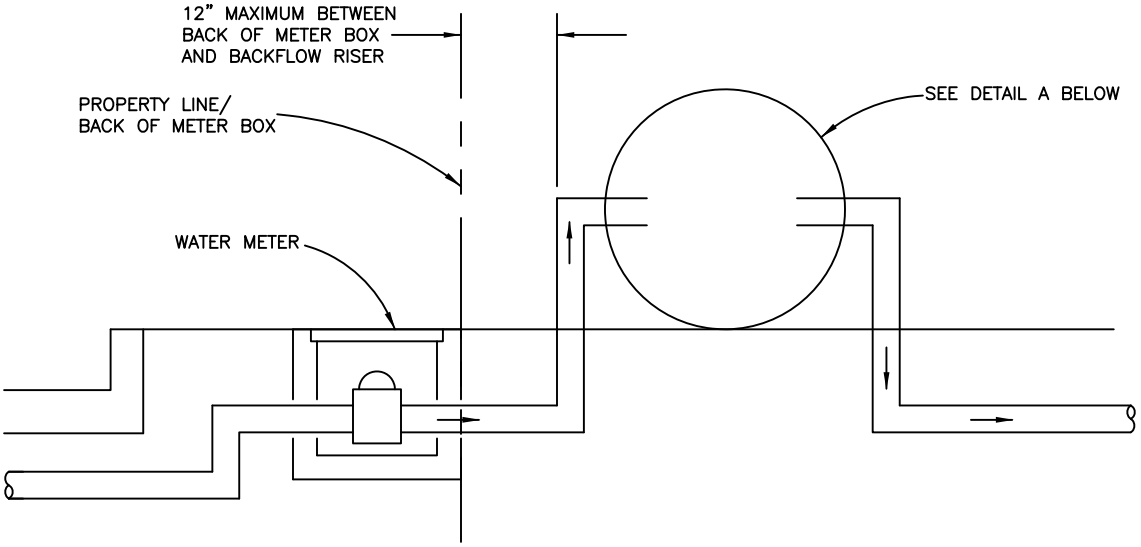
SECTION 1/–

NTS

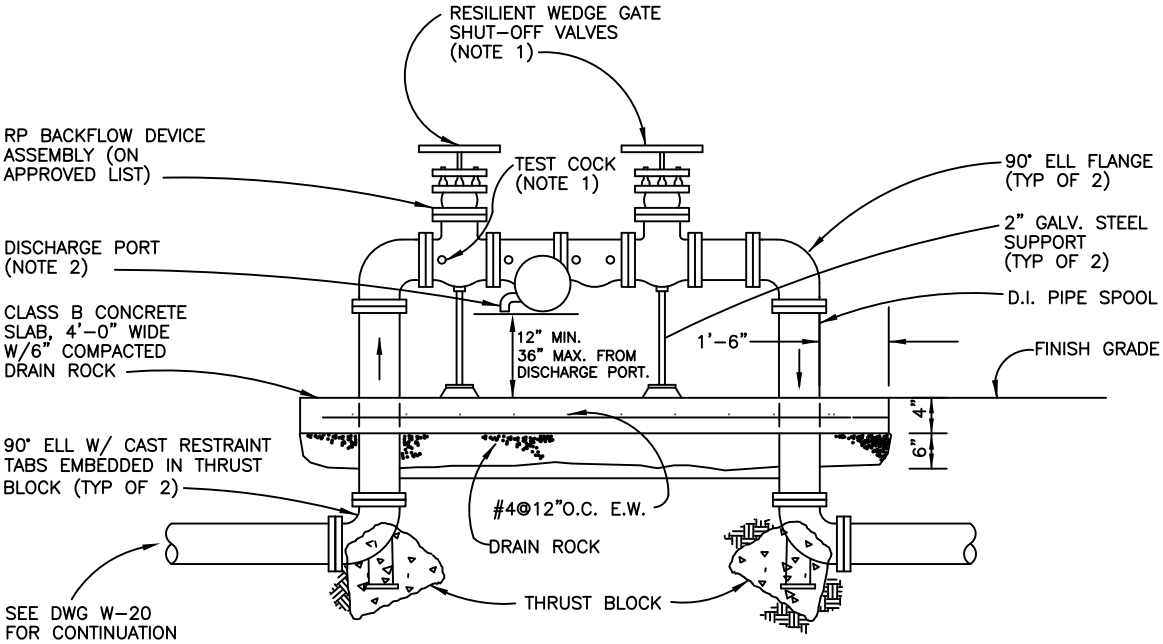
NOTES:

1. SET RP ON PRIVATE PROPERTY.
2. IF RP IS LOCATED NEAR TRAFFIC AREA, A MIN. OF TWO 4" GALVANIZED STEEL GUARD POSTS SHALL BE PROVIDED. POSTS SHALL BE 42" HIGH, EMBEDDED 36" BELOW GROUND IN CONCRETE, AND FILLED WITH CONCRETE.
3. FITTING SHALL BE DIELECTRIC WHERE JOINING DISSIMILAR METALS.
4. 3/4" TO 2" MUST HAVE BALL VALVE SHUT OFF VALVES.
5. PROVIDE LOCKABLE ENCLOSURE WITH FOAM INSULATION LINING, OR BLANKET (SEE DRAWING W–25).
6. DIMENSION OF CONCRETE PAD TO BE AS RECOMMENDED BY ENCLOSURE MANUFACTURER.
7. DEVICE SHALL BE TESTED BY CERTIFIED TESTER. TEST REPORT SHALL BE SUBMITTED TO DSRSD.
8. THE CONCRETE PAD SHALL ACCOMODATE ENCLOSURES. SEE W–25 FOR ENCLOSURE DETAILS.

Dublin San Ramon Services District	REVISION DATE JUN 2020
BACKFLOW PREVENTER INSTALLATION 3/4" TO 2"	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–21



ELEVATION

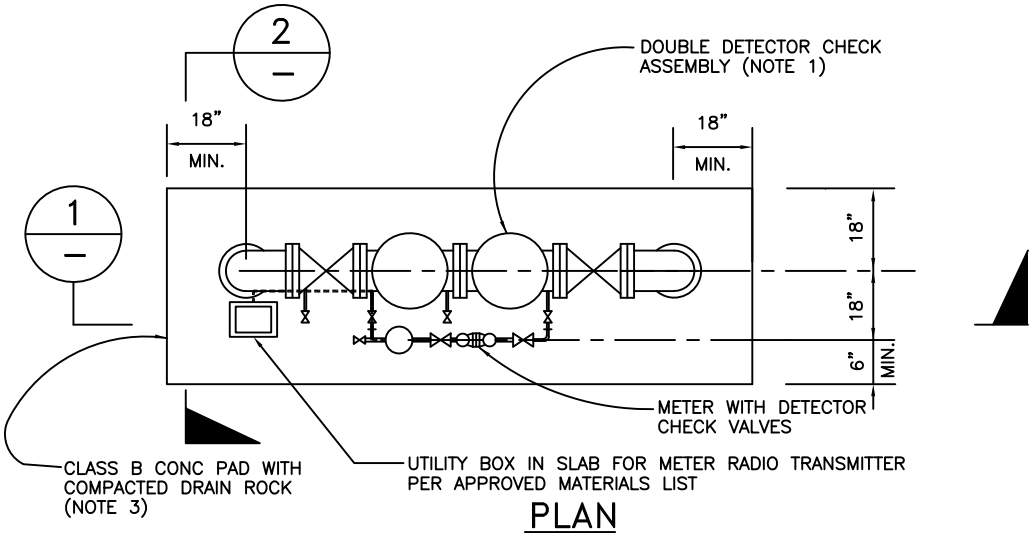


DETAIL A

NOTES:

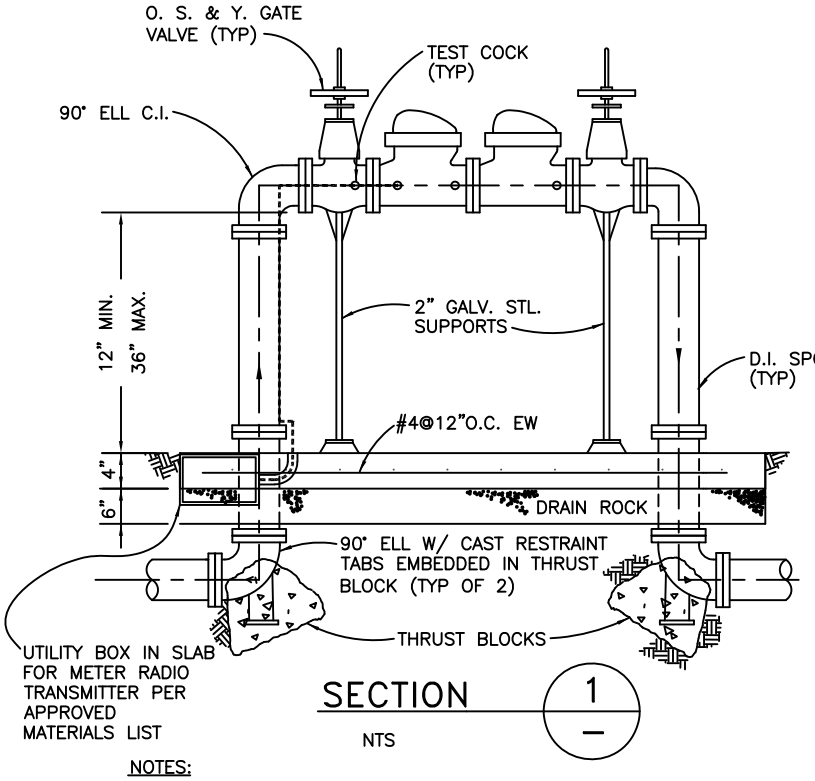
1. TEST COCKS AND SHUT-OFF VALVES MUST BE SUPPLIED AS SHOWN.
2. DISCHARGE PORT MUST BE KEPT CLEAR OF OBSTRUCTION AT ALL TIMES.
3. 2 1/2 THR 10" MUST HAVE RESILIENT SEAT WEDGE SHUT-OFF VALVES.
4. DEVICE SHALL BE TESTED BY CERTIFIED TESTER. TEST REPORT SHALL BE SUBMITTED TO DSRSD.
5. PROTECTIVE ENCLOSURE NOT SHOWN. REFER TO SECTION II-B2-7 AND DRAWING W-25 FOR ENCLOSURE REQUIREMENTS.
6. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.

Dublin San Ramon Services District	REVISION DATE DEC 2020
2 1/2" TO 10" REDUCED PRESSURE BACKFLOW PREVENTION DEVICE	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-22



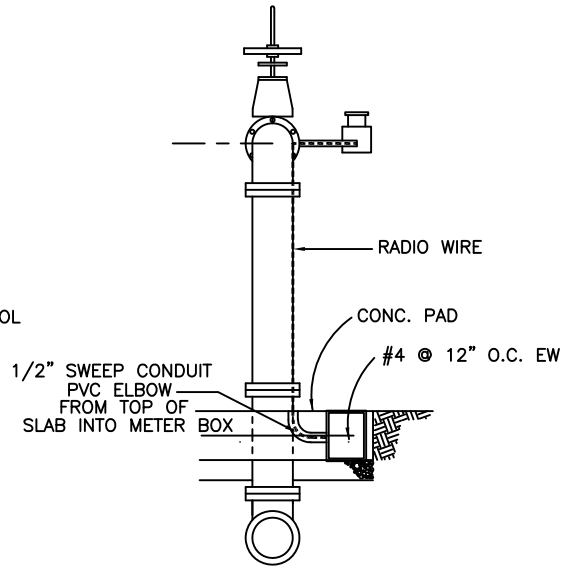
PLAN

NTS



SECTION 1 —

NTS



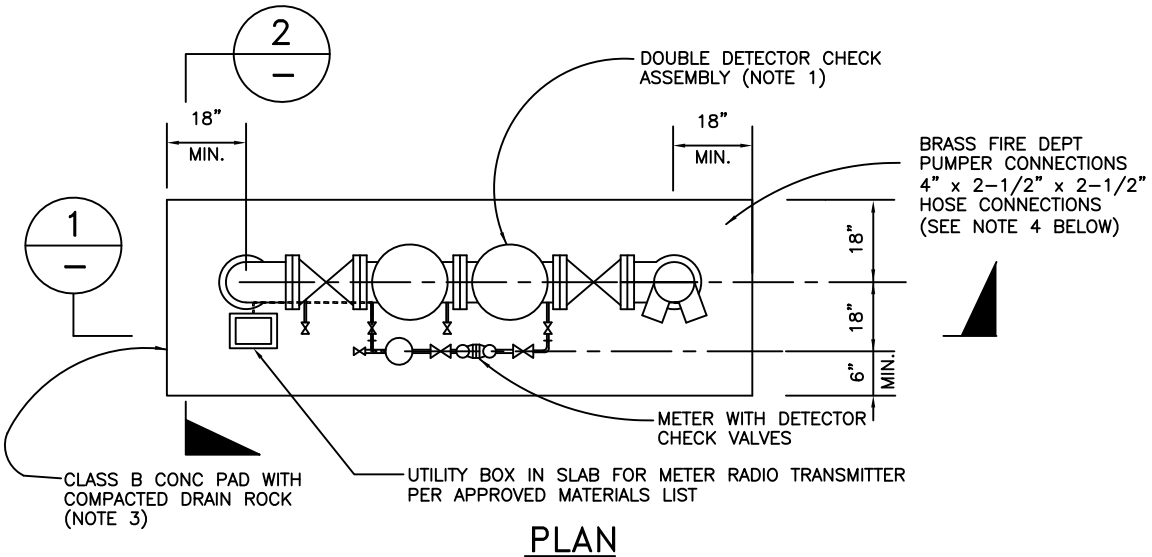
SECTION 2 —

NTS

NOTES:

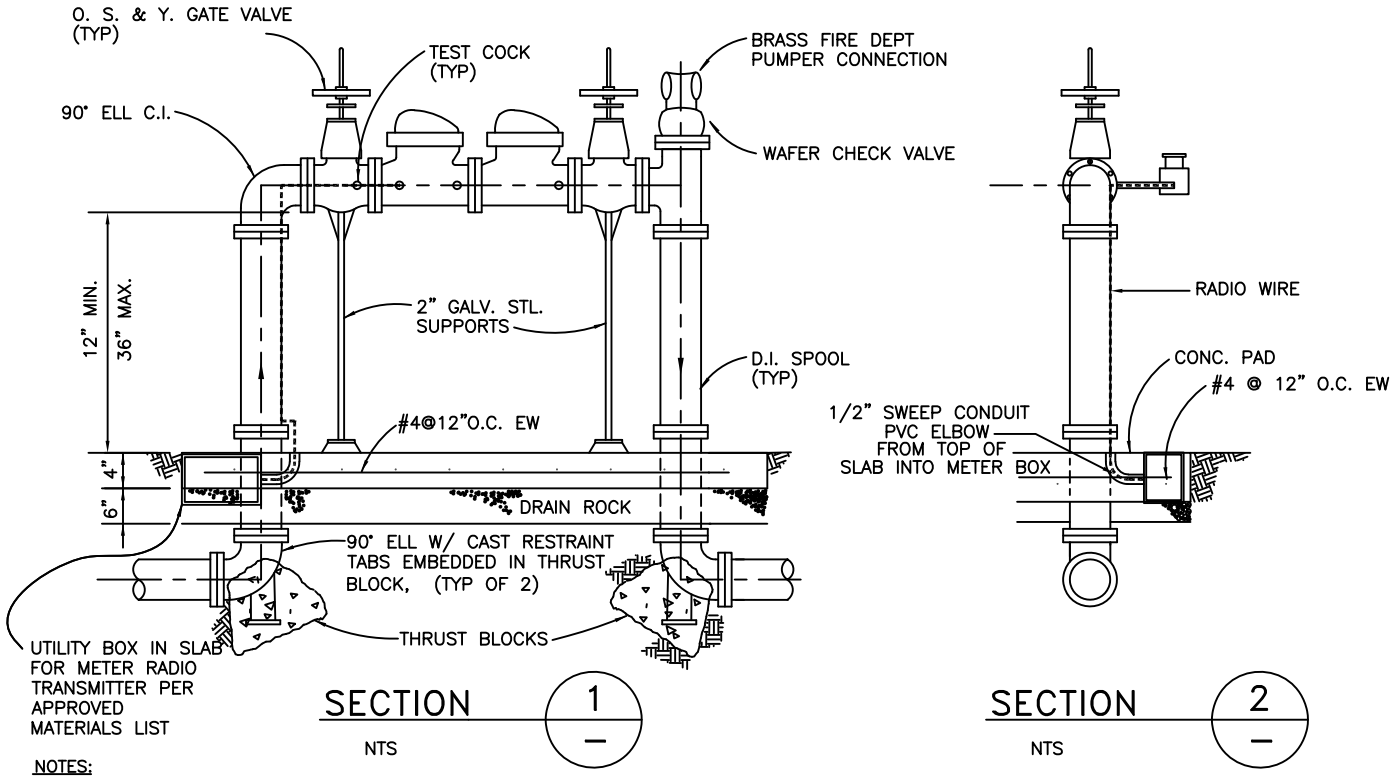
1. DOUBLE DETECTOR CHECK ASSEMBLY SHALL BE FACTORY ASSEMBLED COMPLETE, WITH METER AND DETECTOR CHECKS AND SHALL BE ON DISTRICT APPROVED LIST. THE DETECTOR METER SHALL BE SUPPLIED WITH A RADIO-READ NEPTUNE OR SENSUS METER. THE METER INTERFACE UNITS SHALL BE DATAMATIC FIREFLY METER INTERFACE UNITS FOR AMR SYSTEMS USING ENCODED REGISTERS WITH PROFILE PLUS LOAD PROFILING CAPABILITY.
2. INSTALL AS REQUIRED.
3. RADIO WIRE TO BE FIRMLY AFFIXED TO PIPING WITH WIRE TIES.
4. TRANSMITTER TO BE SPLICED TO INCOMING WIRES WITH WATER PROOF CONNECTORS.
5. METER SHALL BE SET TO READ IN CUBIC FEET.
6. DEVICE SHALL BE TESTED BY CERTIFIED TESTER. TEST REPORT SHALL BE SUBMITTED TO DSRSD.
7. PROTECTIVE ENCLOSURE NOT SHOWN. REFER TO SECTION II-B2-7 AND DRAWING W-25 FOR ENCLOSURE REQS.
8. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.

Dublin San Ramon Services District	REVISION DATE DEC 2020
DOUBLE DETECTOR CHECK FOR 2" – 10" FIRE LINES ABOVE GROUND INSTALLATION	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-23



PLAN

NTS



SECTION 1 —

NTS

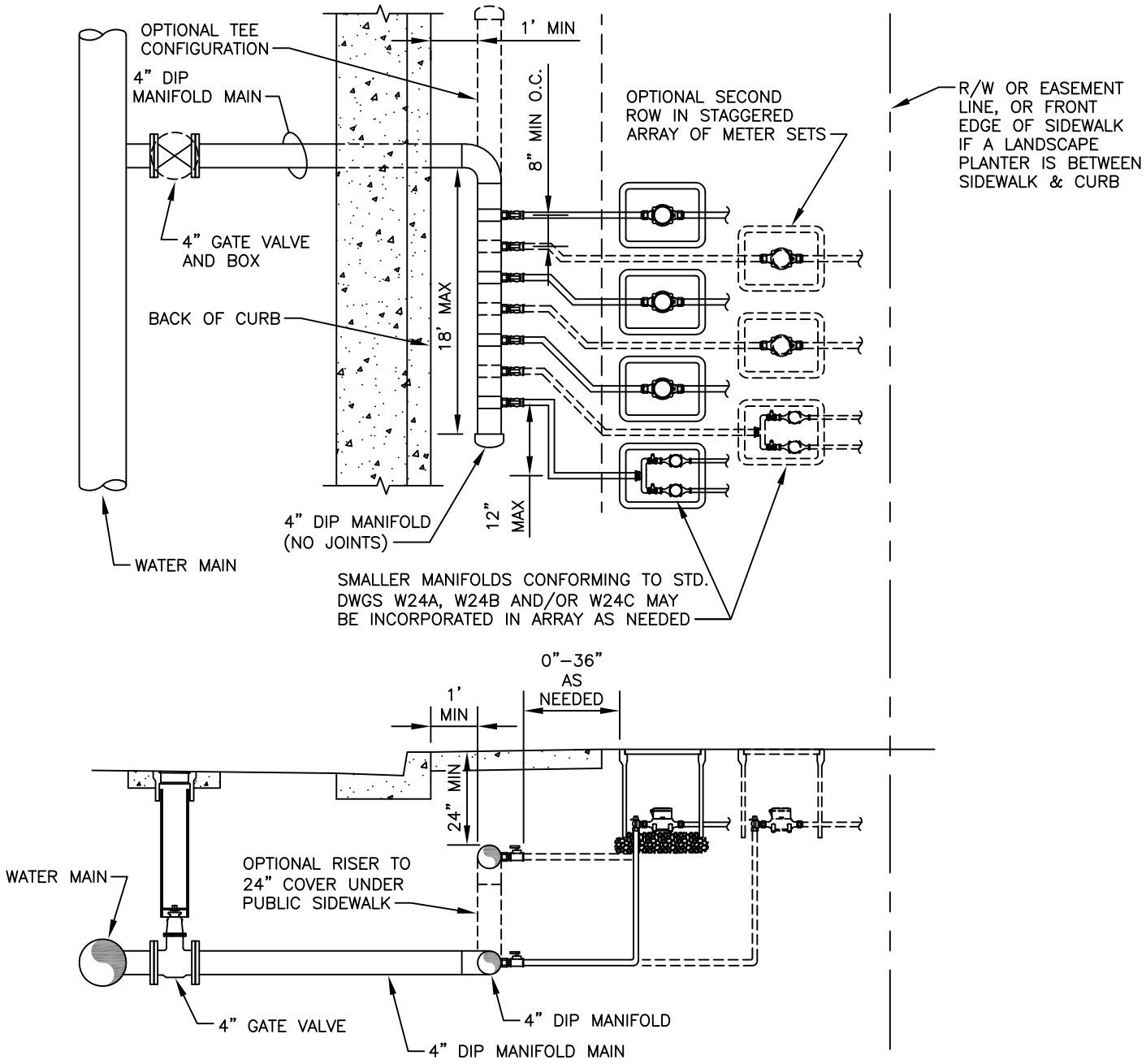
SECTION 2 —

NTS

NOTES:

1. DOUBLE DETECTOR CHECK ASSEMBLY SHALL BE FACTORY ASSEMBLED COMPLETE. WITH METER AND DETECTOR CHECKS AND SHALL BE ON APPROVED MATERIALS LIST. THE DETECTOR METER SHALL BE SUPPLIED WITH A RADIO-READ METER. THE METER INTERFACE UNITS SHALL FOR AMR SYSTEMS USING ENCODED REGISTERS WITH PROFILE PLUS LOAD PROFILING CAPABILITY AND SHALL BE ON APPROVED MATERIALS LIST OR APPROVED EQUAL.
2. HOSE THREADS SHALL MATCH FIRE DEPT HOSE CONNECTORS (NST/NH).
3. INSTALL AS REQUIRED.
4. PUMPER CONNECTION MUST BE INSTALLED FACING STREET WITHOUT OBSTRUCTION.
5. THIS ARRANGEMENT REQUIRES FIRE DEPT APPROVAL.
6. RADIO WIRE TO BE FIRMLY AFFIXED TO PIPING WITH WIRE TIES.
7. TRANSMITTER TO BE SPLICED TO INCOMING WIRES WITH WATER PROOF CONNECTORS.
8. METER SHALL BE SET TO READ IN CUBIC FEET.
9. DEVICE SHALL BE TESTED BY CERTIFIED TESTER. TEST REPORT SHALL BE SUBMITTED TO DSRSD.
9. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.

Dublin San Ramon Services District	REVISION DATE DEC 2019
DOUBLE DETECTOR CHECK FOR 2" – 10" FIRE LINES ABOVE GROUND INSTALLATION (OPTIONAL)	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-23A

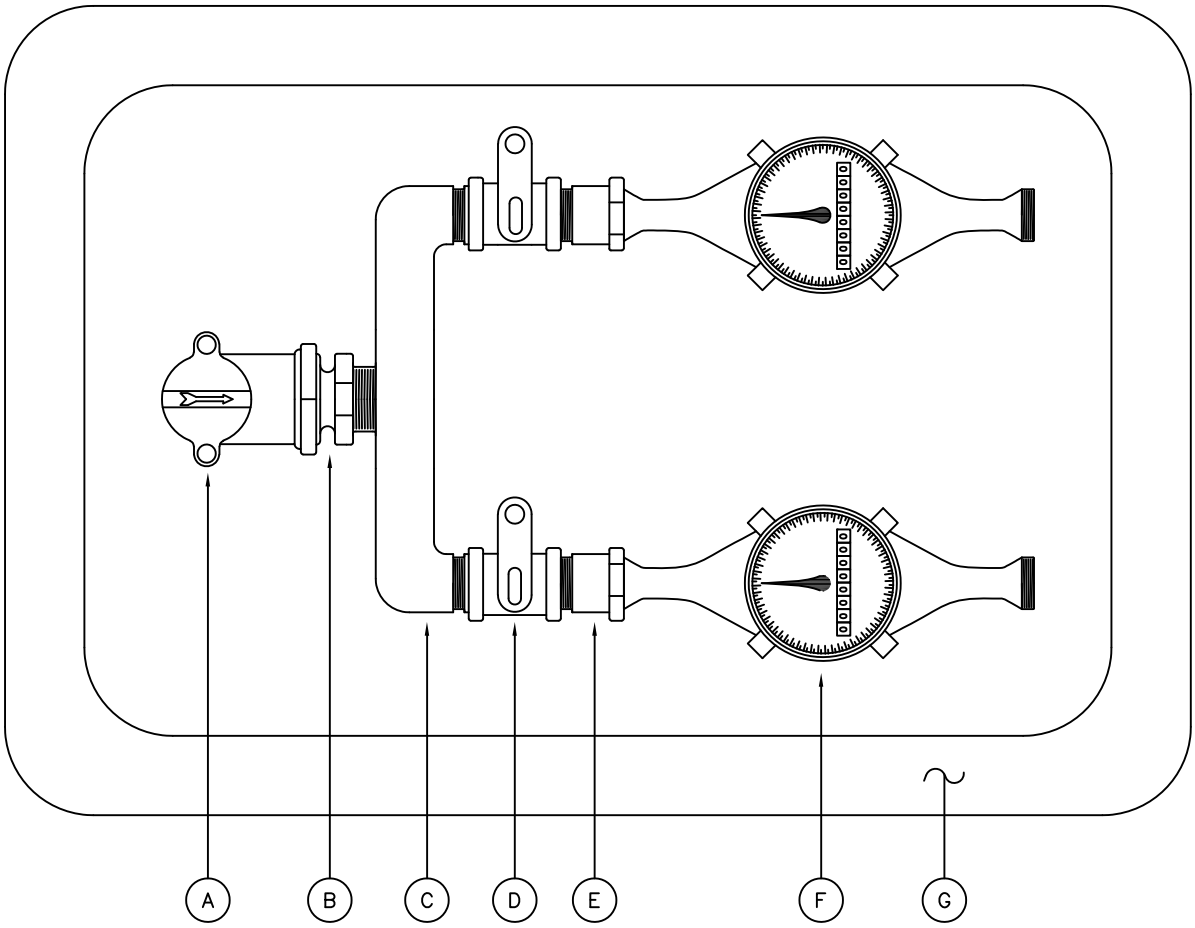


SERVICE DIA. IN INCHES	MAX QTY OF SERVICES ON 4"
3/4"	28
1"	16
1–1/4"	10
1–1/2"	7
2"	4

NOTES:

1. MULTIPLE SERVICES SIZES MAY BE CONNECTED TO A MANIFOLD MAIN, BUT TOTAL SECTIONAL FLOW AREA OF SERVICES SHALL NOT EXCEED SECTIONAL AREA OF 4" MANIFOLD MAIN.
2. MANIFOLD MAINS MAY BE PLACED IN PLANTER STRIPS BEHIND CURB AT 36" MINIMUM COVER. COORDINATE LANDSCAPE PLANTING PLAN. NO TREES SHALL BE PLANTED WITHIN 8 FEET OF MANIFOLD MAIN.
3. THE USE OF THIS DETAIL REQUIRES DISTRICT ENGINEER APPROVAL.

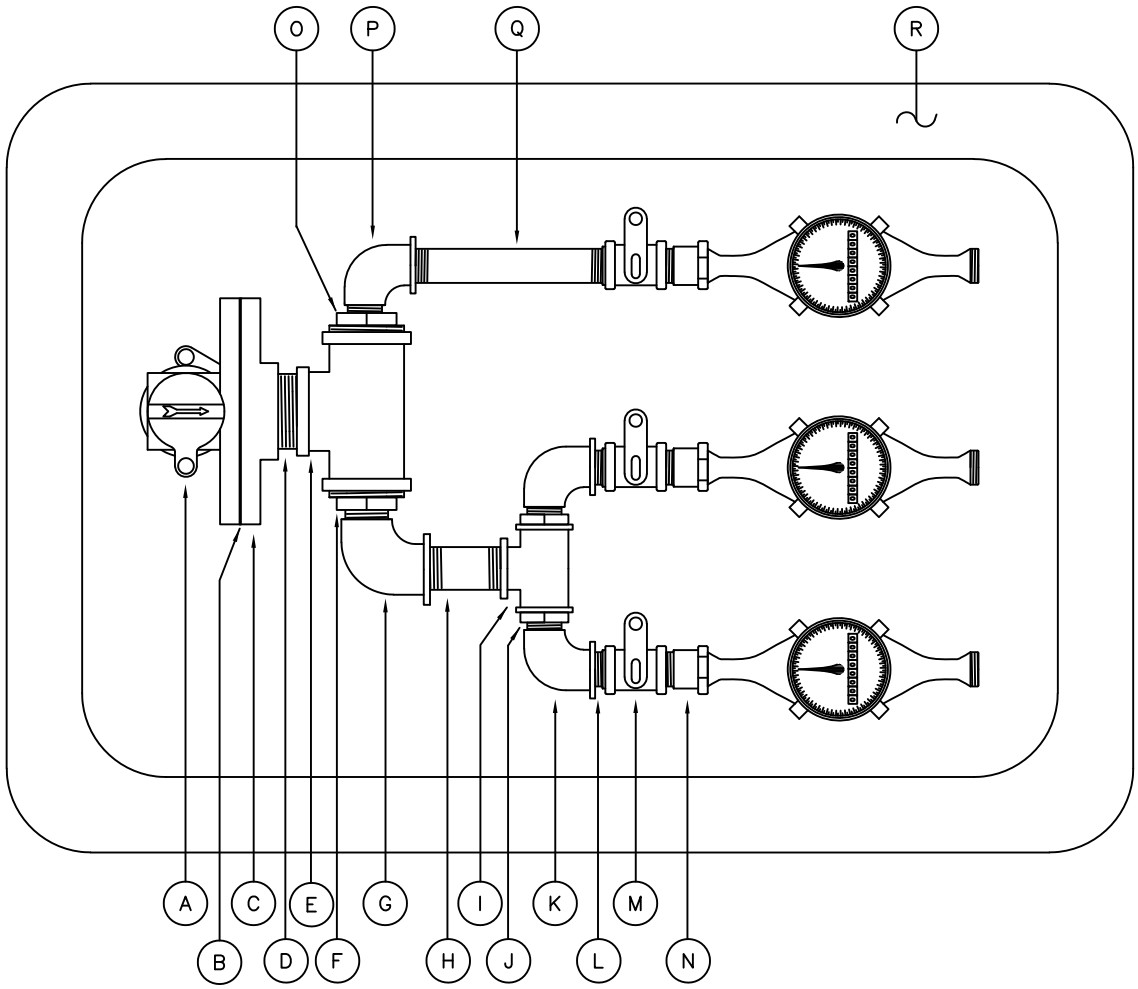
Dublin San Ramon Services District	REVISION DATE JUN 2020
MANIFOLD MAIN FOR CLUSTERED SERVICES SERVING CONDOMINIUMS	REVISED BY RM/BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–24



KEY	QTY	MATERIALS
A	1	1" BRONZE ANGLE METER STOP WITH WING-LOCK
B	1	1" BRONZE METER COUPLING BUSHING (1" MALE METER x 1" F.I.P.)
C	1	METER BRANCH WITH 1" M.I.P. INLET & 3/4" M.I.P. OUTLETS
D	2	3/4" BRONZE STRAIGHT CURB STOP BALL VALVE WITH WING-LOCK
E	2	3/4" BRONZE STRAIGHT METER COUPLING (M.I.P. x METER NUT)
F	2	5/8 METER (SUPPLIED BY DISTRICT)
G	1	METER BOX AND LID

NOTE: SEE W-7 FOR SERVICE INSTALLATION. SEE W-29 FOR ADDRESS TAGS.

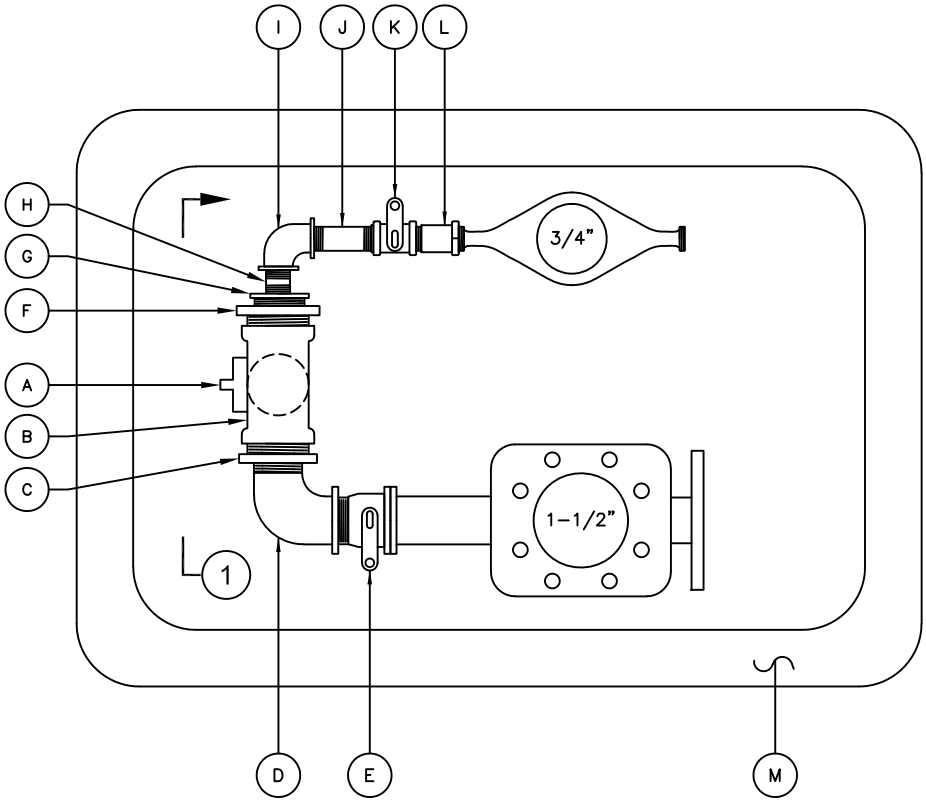
Dublin San Ramon Services District	REVISION DATE DEC 2019
1" WATER SERVICE WITH TWO 5/8" METER MANIFOLD	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-24A



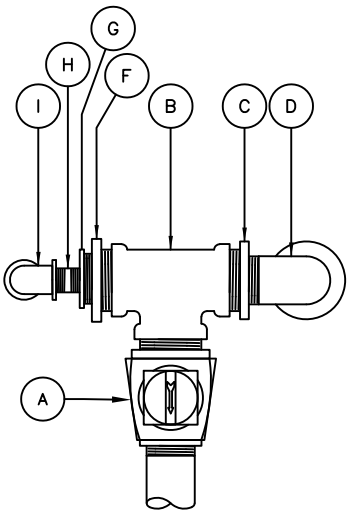
KEY	QTY	MATERIALS	KEY	QTY	MATERIALS
A	1	2" BRONZE ANGLE METER STOP WITH WING–LOCK	J	2	1" TO 3/4" BRASS BUSHINGS
B	1	2" RUBBER METER GASKET	K	3	3'4 BRASS STREET ELLS
C	1	2" BRONZE METER FLANGE WITH 2" FEMALE THREADS	L	2	3/4" BRASS CLOSE NIPPLES
		4"x4" DIP ELL, FLG. x FLG.	M	3	3/4 BRONZE BALL VALVE CURBS STOPS – STRAIGHT
D	1	2" BRASS NIPPLE – 2" LONG	N	3	3/4" BRONZE STRAIGHT METER COUPLINGS
E	1	2" BRASS TEE	O	1	2" TO 3/4" BRASS BUSHING
F	1	2" TO 1" BRASS BUSHING	P	1	3/4" STREET ELL
G	1	1" BRASS STREET ELL	Q	1	3/4" BRASS NIPPLE 6" LONG
H	1	1" BRASS NIPPLE – 3" LONG	R	1	METER BOX AND LID
I	1	1" BRASS TEE			

NOTES: 1. SEE W–8 FOR SERVICE INSTALLATION.
2. SEE W–29 FOR ADDRESS TAGS.
3. USE OF THIS DETAIL REQUIRES DISTRICT ENGINEER APPROVAL

Dublin San Ramon Services District	REVISION DATE JUN 2020
2" WATER SERVICE WITH THREE 5/8" METER MANIFOLD	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–24B



PLAN

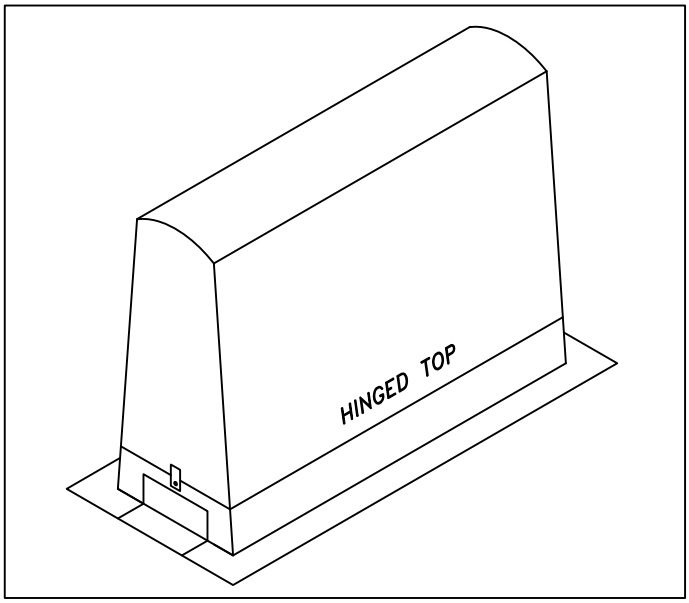


SECTION 1

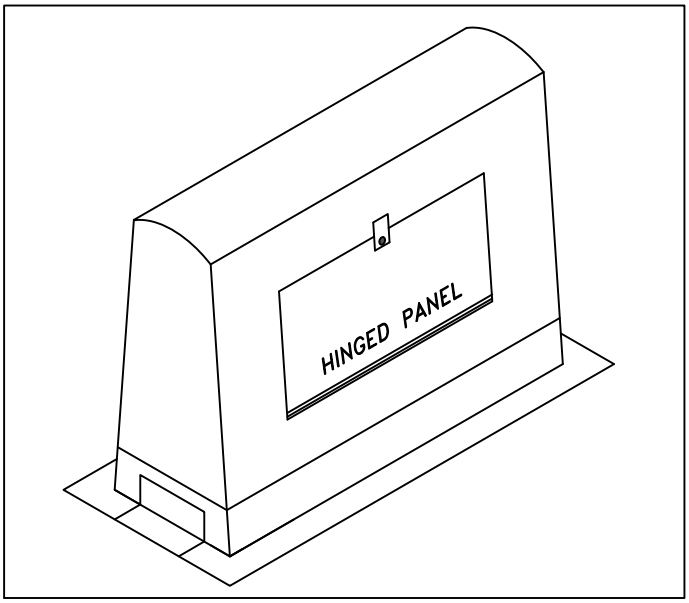
KEY	QTY	MATERIALS	KEY	QTY	MATERIALS
A	1	2" BRONZE STRAIGHT CURB STOP BALL VALVE WITH WING-LOCK	G	1	BRASS BUSHING 3/4" FIP X 1-1/2" MIP
B	1	2" BRASS TEE	H	1	3/4" BRASS NIPPLE 2" LONG
C	2	BRASS BUSHING 1-1/2" FIP X 2" MIP	I	1	3/4" BRASS ELBOW
D	1	1-1/2" BRASS STREET ELL	J	1	3/4" BRASS NIPPLE 1-3/4" LONG
E	1	1-1/2" STRAIGHT METER STOP BALL VALVE (MIP X METER FLANGE) WITH RUBBER METER GASKET	K	1	3/4" BRONZE STRAIGHT CURB STOP BALL VALVE WITH WING-LOCK
			L	1	3/4" BRONZE STRAIGHT METER COUPLING
F	1	BRASS BUSHING 1-1/2" FIP X 2" MIP	M	1	METER BOX AND LID

NOTE: SEE W-8 FOR SERVICE INSTALLATION. SEE W-29 FOR ADDRESS TAGS.

Dublin San Ramon Services District	DATE DEC 2019
2" WATER SERVICE WITH ONE 3/4" METER & ONE 1-1/2" METER MANIFOLD INSTALLATIONS	DESIGNED RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-24C



FOR PIPE SIZE <= 2–INCH



FOR PIPE SIZES > 2–INCH

PIPE SIZE	INSIDE DIMENSIONS W	L	H
3/4"–1"	8	25	19
3/4"–1"	9	26	19
1 1/4"–2"	11	35	24
1 1/4"–2"	12	37	30
1 1/4"–2"	12	46	30
1 1/4"–2"	12	46	31
2 1/2"–3"	24	67	45
4"	29	65	50
6"	28	104	49
8"–10"	40	157	74

NOTES:
1. ENCLOSURE SHALL BE AS SPECIFIED ON APPROVED MATERIALS LIST, OR EQUAL.
2. CONCRETE PAD SHALL EXTEND 4 INCHES BEYOND THE EDGE OF THE ENCLOSURE.

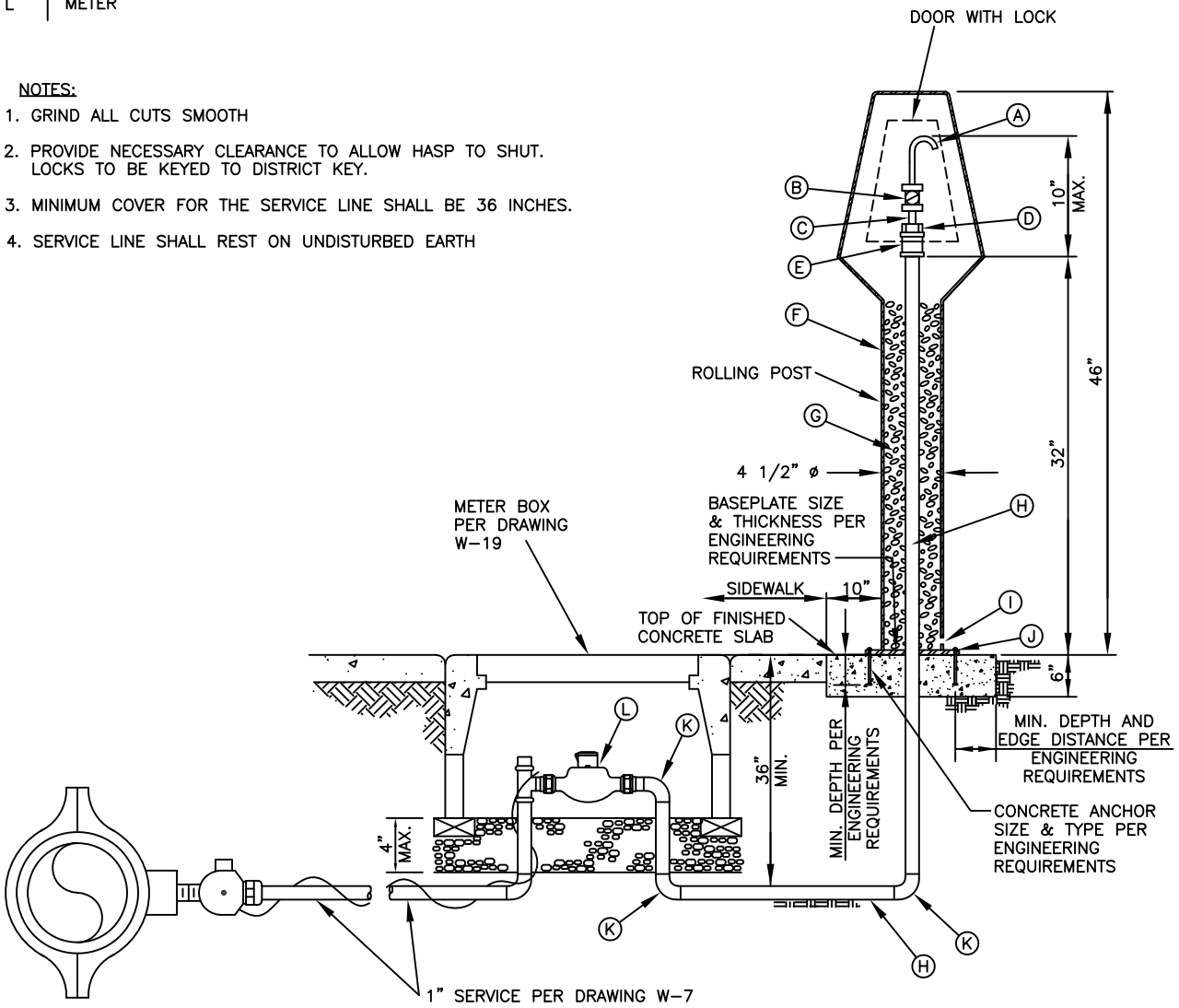
REV. 11/19

Dublin San Ramon Services District	DATE DEC 2019
FIBERGLASS ENCLOSURE FOR BACKFLOW PREVENTER	DESIGNED RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–25

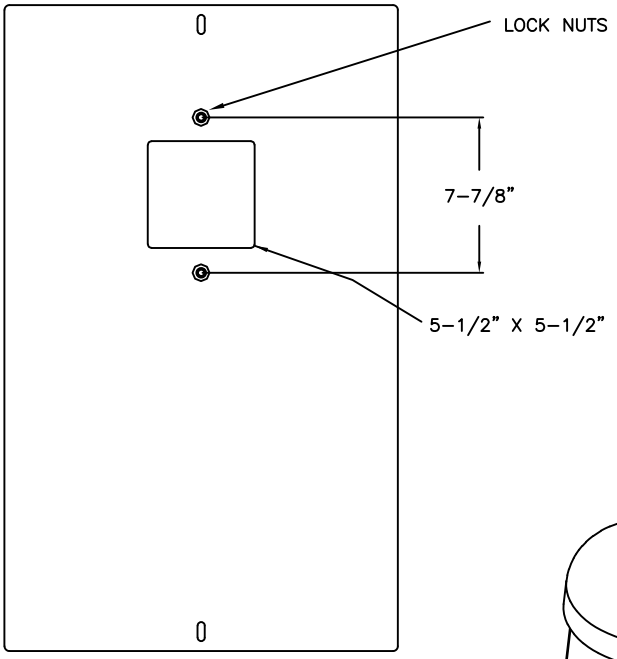
ITEM	DESCRIPTION
A	3/8" STAINLESS GOOSE NECK
B	1/2" x 3/8" BRASS OR STAINLESS VALVE
C	1/2" POLYETHYLENE TUBING
D	1" x 1/2" BRASS BUSHING
E	1" STRAIGHT BRASS COUPLING
F	POWDER COATED EPOXY STEEL HOUSING
G	PEA GRAVEL
H	1" POLYETHYLENE TUBING (BLUE)
I	1/2"ø WEEP HOLE
J	ANCHOR BOLT
K	FLARE FITTING OR COMPRESSION JOINT
L	METER

NOTES:

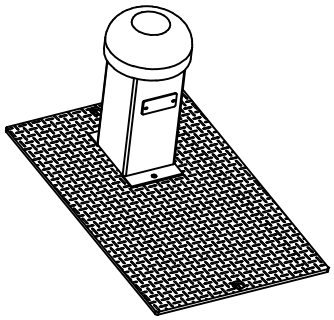
1. GRIND ALL CUTS SMOOTH
2. PROVIDE NECESSARY CLEARANCE TO ALLOW HASP TO SHUT. LOCKS TO BE KEYED TO DISTRICT KEY.
3. MINIMUM COVER FOR THE SERVICE LINE SHALL BE 36 INCHES.
4. SERVICE LINE SHALL REST ON UNDISTURBED EARTH

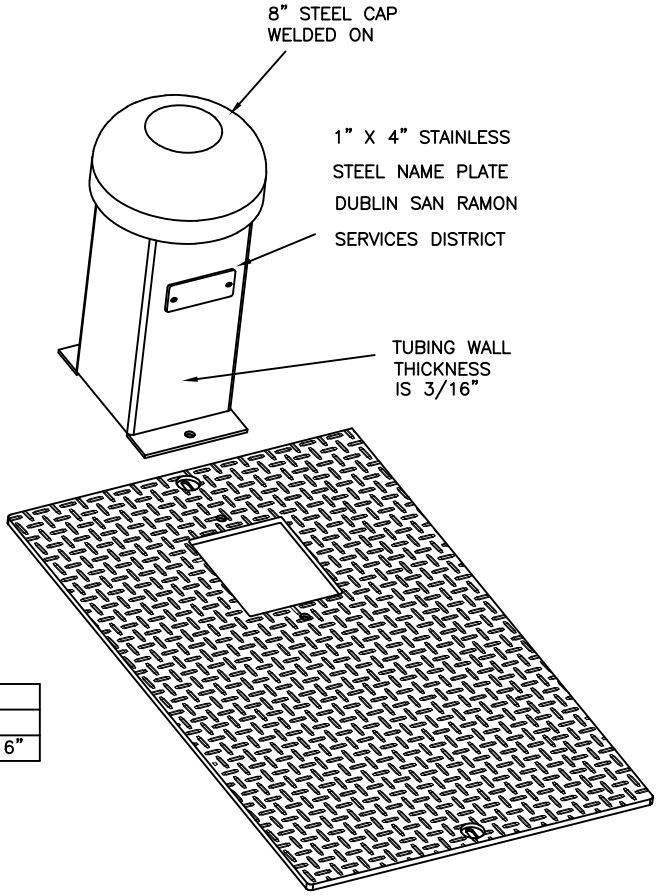


Dublin San Ramon Services District	REVISION DATE DEC 2019
STANDARD SAMPLING STATION	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-26



(BOTTOM SIDE OF PLATE)



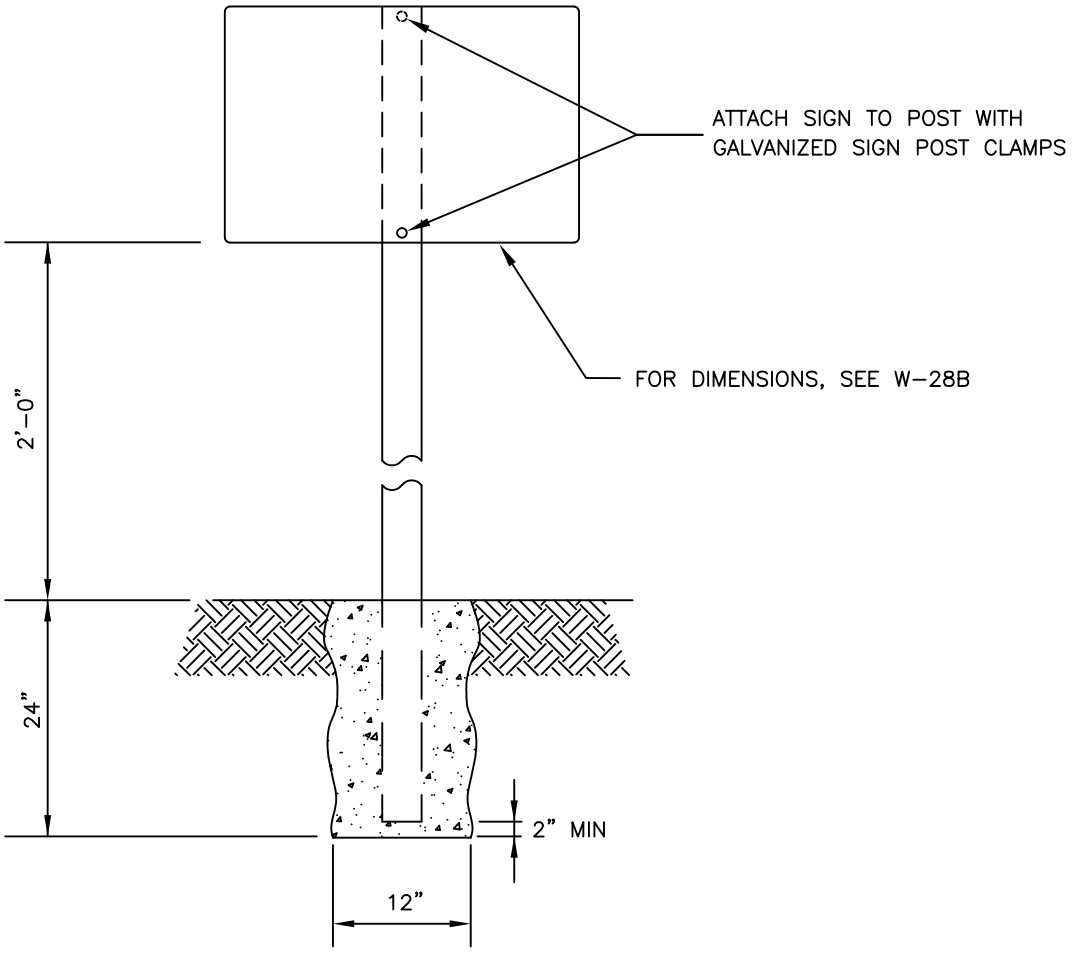


	LID / PLATE SIZE
FOR 1" CAV	16-1/4" X 27" X 3/16"
FOR 2" CAV	20-1/4" X 33-1/4" X 3/16"

NOTES:

1. VALVE COVER TO BE ON APPROVED MATERIALS LIST, OR APPROVED EQUAL.
2. CLEAN INTERIOR AND EXTERIOR OF STEEL WITH A WATER-BASED CLEANER.
3. APPLY PRIMER 2-3 MILLS THICK WITH TWO PART CATALYZED POLYAMID EPOXY PRIMER (HUNTER GREEN FOR POTABLE WATER OR PURPLE FOR RECYCLED WATER), OR APPROVED EQUAL PRIMER.
4. APPLY ALIPHATIC URETHANE FINISH TOP COAT.
5. VALVE VENT COVER AND LID TO BE PAINTED HUNTER GREEN FOR POTABLE WATER OR PURPLE FOR RECYCLED WATER.

Dublin San Ramon Services District	REVISION DATE JUN 2020
AIR RELEASE & VACUUM RELIEF VALVE VENT COVER	REVISED BY RM/BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-27



NOTES:

1. RECYCLED WATER NOTIFICATION SIGN POST TO BE PROVIDED BY DEVELOPER.
2. POST SHALL BE 2" DIAMETER GALVANIZED STEEL.
3. FOOTING SHALL BE 24' IN DEPTH, IN CONCRETE.

Dublin San Ramon Services District	REVISION DATE JUN 2020
RECYCLED WATER SIGN POST DETAIL	REVISED BY KP/BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–28

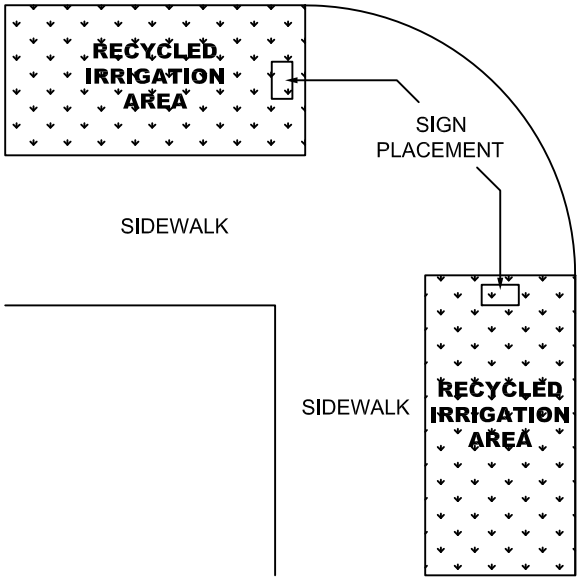


Fig. 1 Corner Pedestrian Crossing

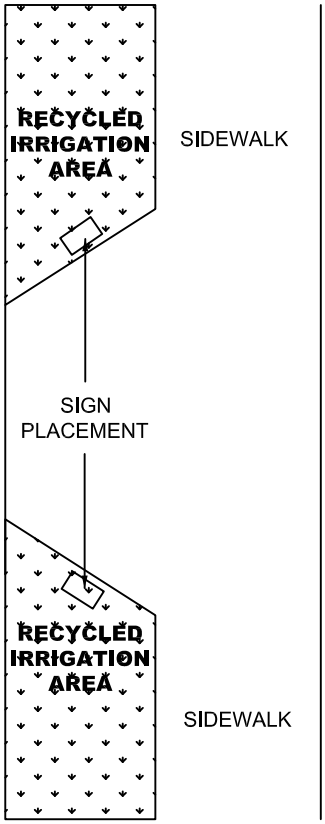


Fig. 2 MID-STREET PEDESTRIAN CROSSING

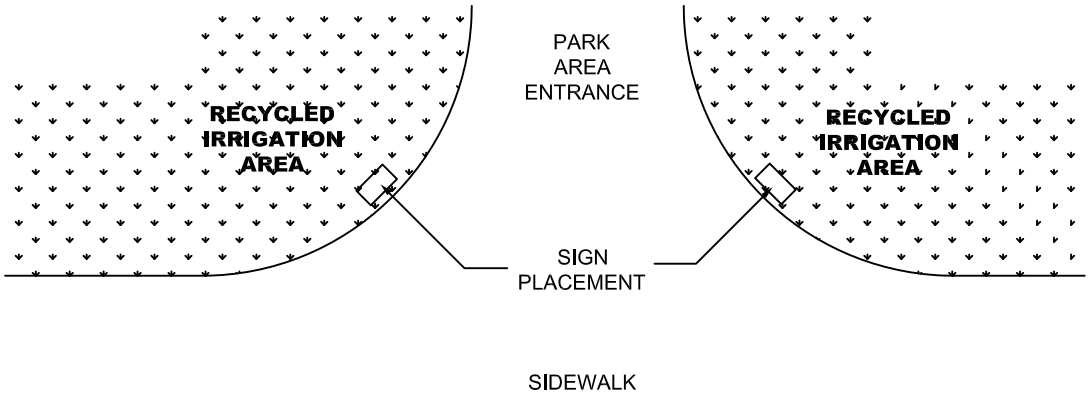
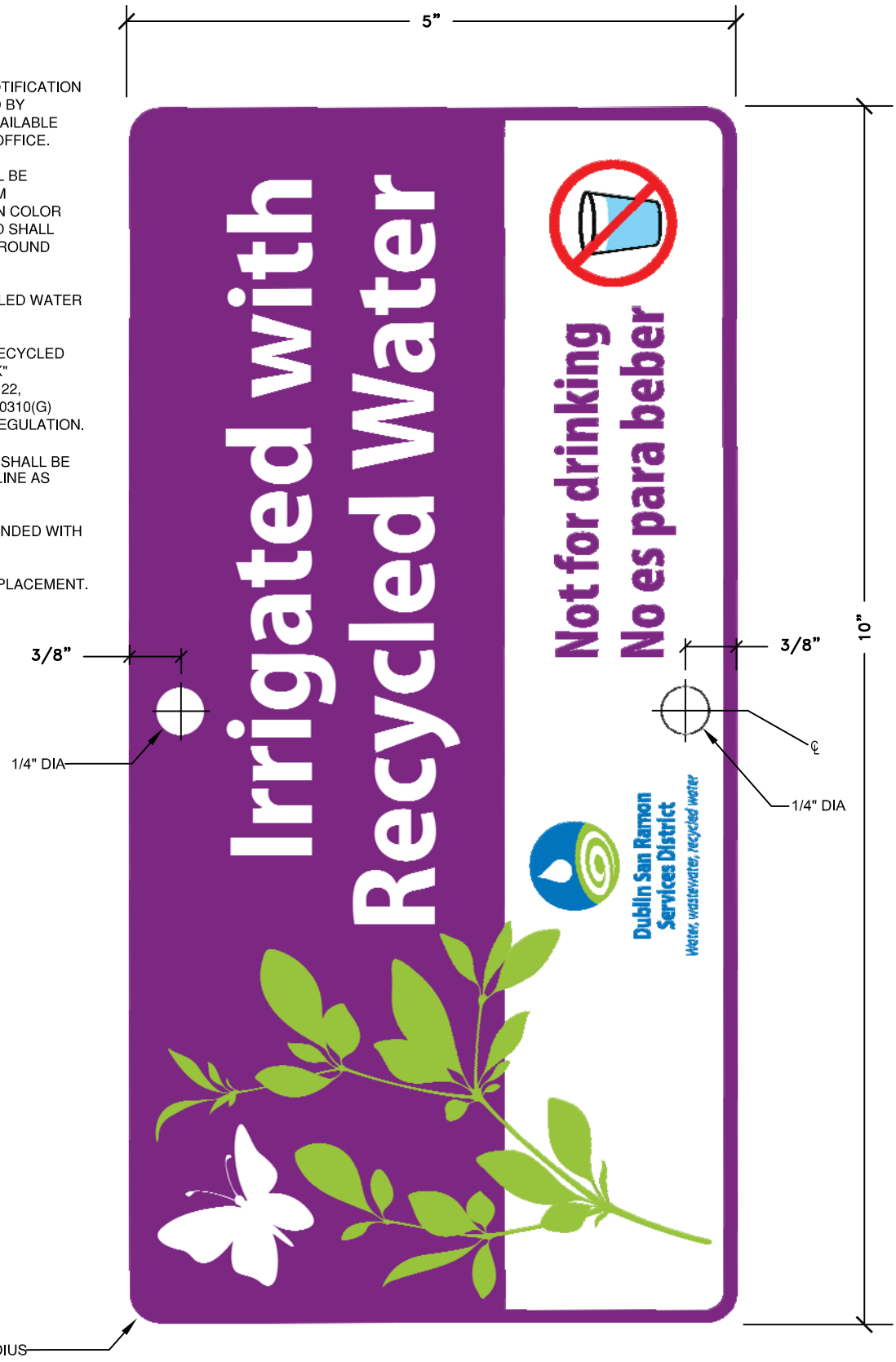


Fig. 3 PARK AREA ENTRANCE PLACEMENT

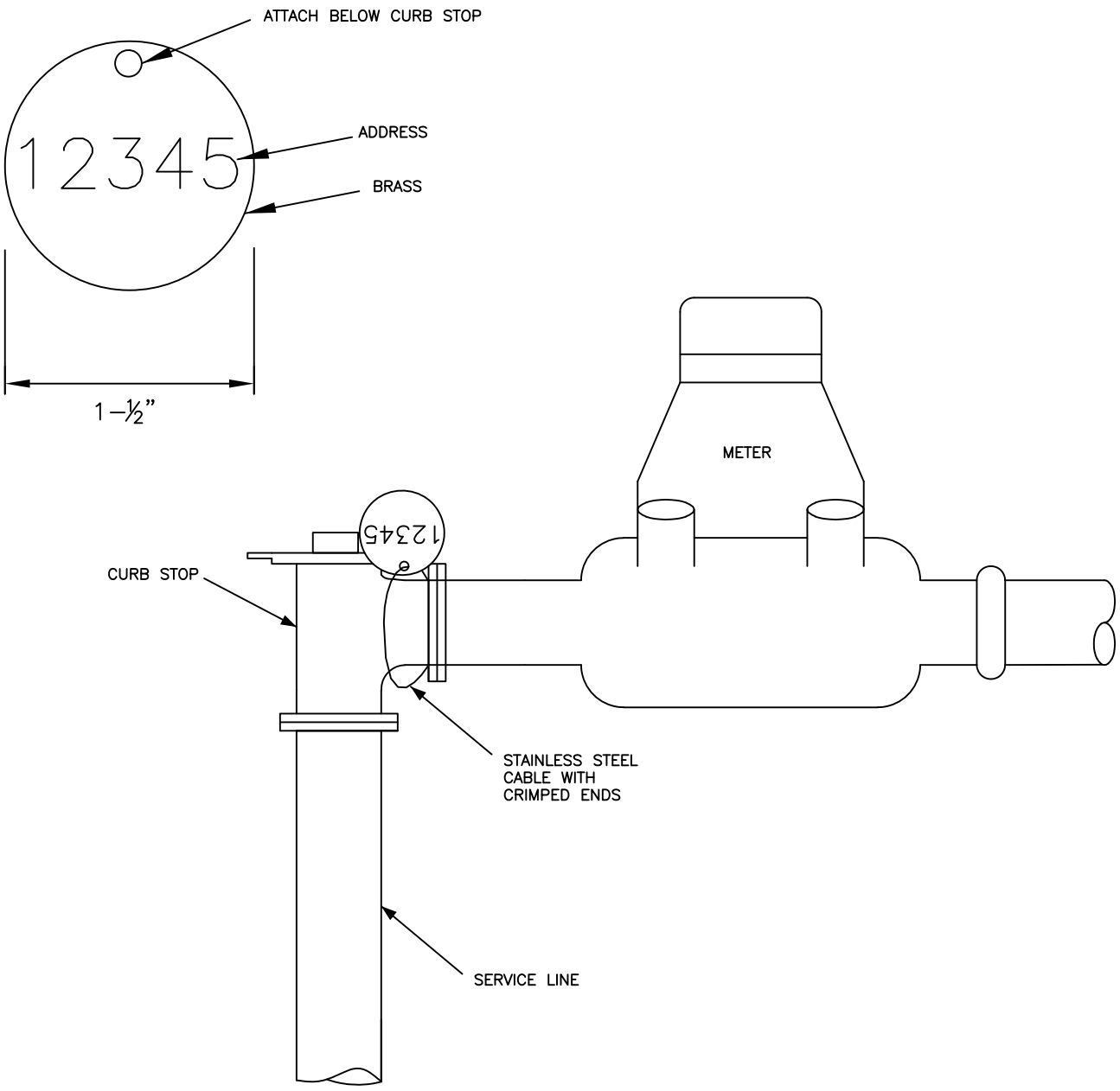
Dublin San Ramon Services District	DATE JAN 2020
STANDARD DETAILS FOR PLACEMENT OF RECYCLED WATER IRRIGATION SIGNS	REVISED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–28A

NOTES

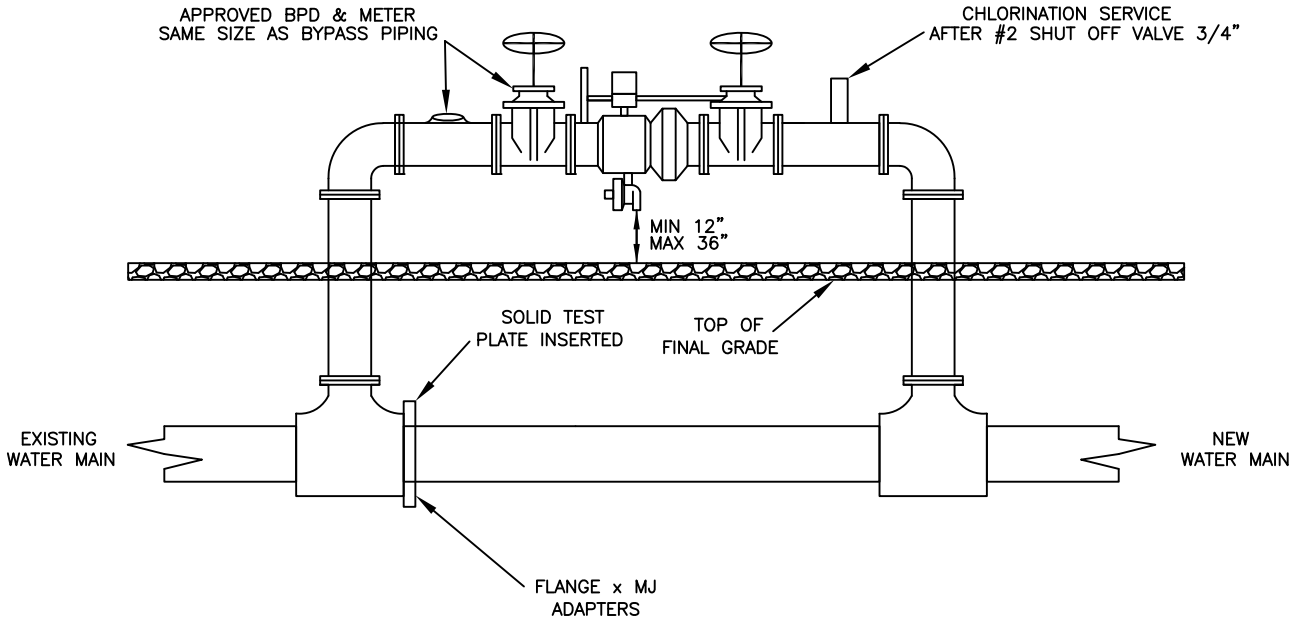
1. RECYCLED WATER NOTIFICATION SIGN TO BE OBTAINED BY DEVELOPER. SIGN AVAILABLE FOR SALE AT DSRSD OFFICE.
2. WARNING SIGN SHALL BE 0.63 GAUGE ALUMINUM PURPLE (PMS #2587) IN COLOR WITH WHITE TEXT AND SHALL BE AFFIXED TO THE GROUND BY A WOODEN POST
3. SEE W-28 FOR RECYCLED WATER SIGN POST DETAIL.
4. SIGN SHALL STATE "RECYCLED WATER DO NOT DRINK" ACCORDING TO TITLE 22, ARTICLE 4, SECTION 60310(G) OF THE STATEWIDE REGULATION.
5. ¼ " MOUNTING HOLES SHALL BE DRILLED ON CENTER LINE AS SHOWN.
6. EDGES SHALL BE ROUNDED WITH 1/2" RADIUS.
7. SEE W-28A FOR SIGN PLACEMENT.



Dublin San Ramon Services District	DATE DEC 2019
RECYCLED WATER ALUMINUM SIGN DETAIL	DESIGNED BCD/SO
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-28B

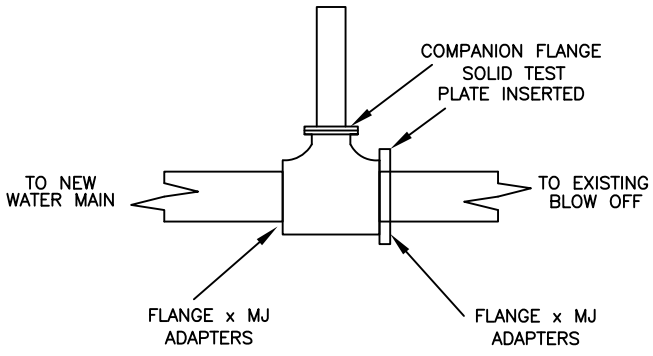


Dublin San Ramon Services District	REVISION DATE JUN 2020
BRASS ADDRESS TAGS FOR MANIFOLDED METERS	REVISED BY BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–29



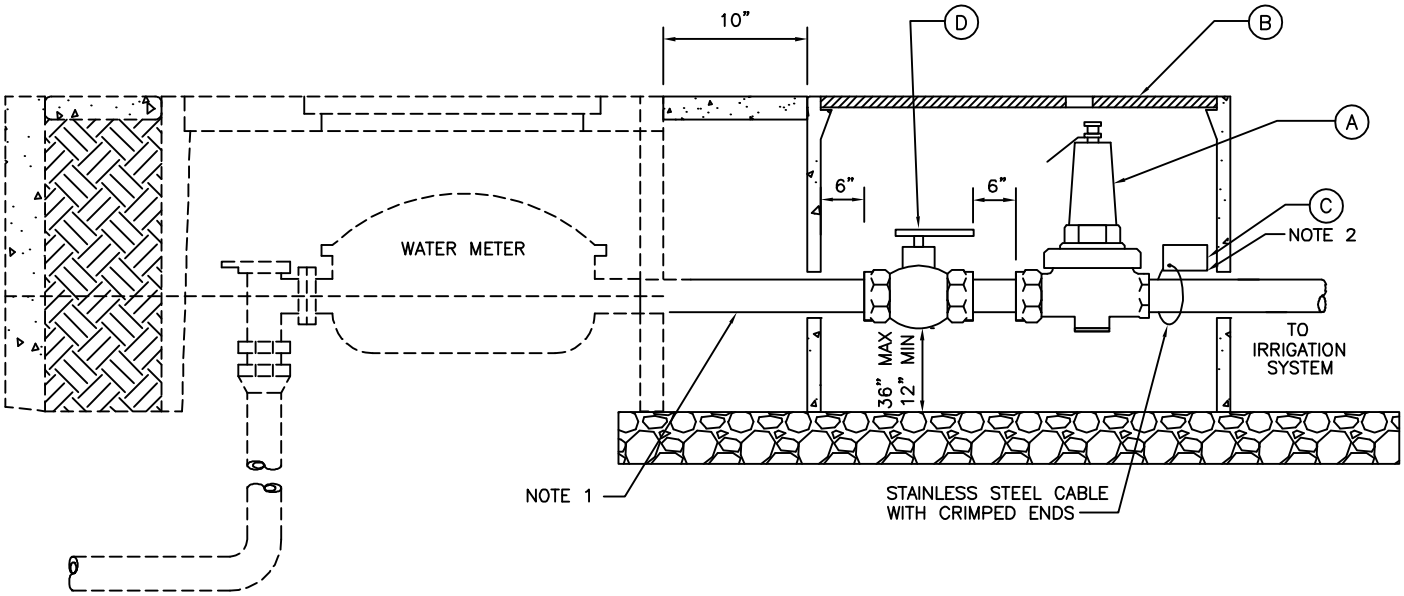
NOTES:

1. RP SHALL BE SIZED BY CONTRACTOR TO MEET AWWA STANDARD FOR FLUSHING.
2. CONSTRUCTION JUMPER TO BE REMOVED ONCE TESTING IS COMPLETED.
3. AFTER TESTING IS COMPLETED, ALL PIECES OF CONSTRUCTION JUMPER (INCLUDING THE TEES) SHALL BE REMOVED AND A STRAIGHT PIPE TO COMPLETE THE WATER MAIN SHALL BE INSTALLED.

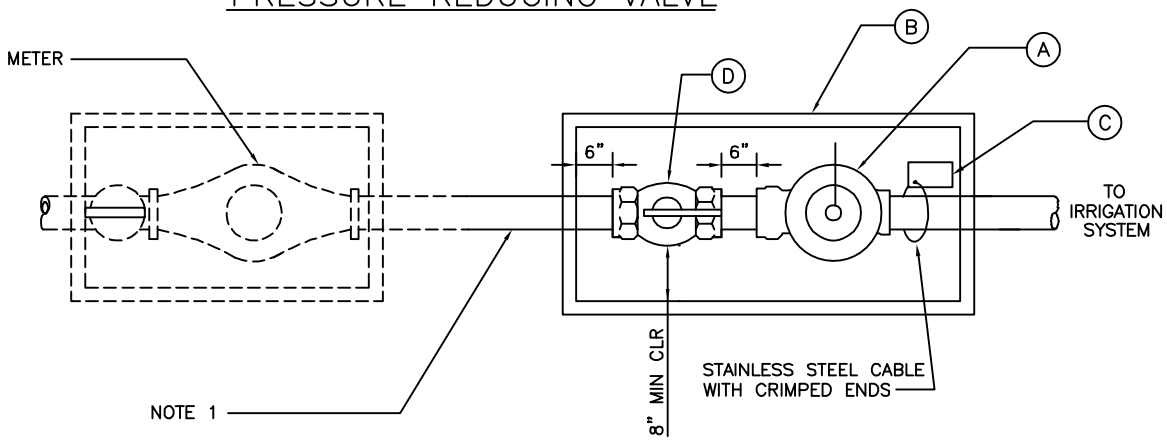


ALL OTHER COMMON CONNECTIONS

Dublin San Ramon Services District	REVISION DATE JAN 2021
CONSTRUCTION JUMPER	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–30



PRESSURE REDUCING VALVE



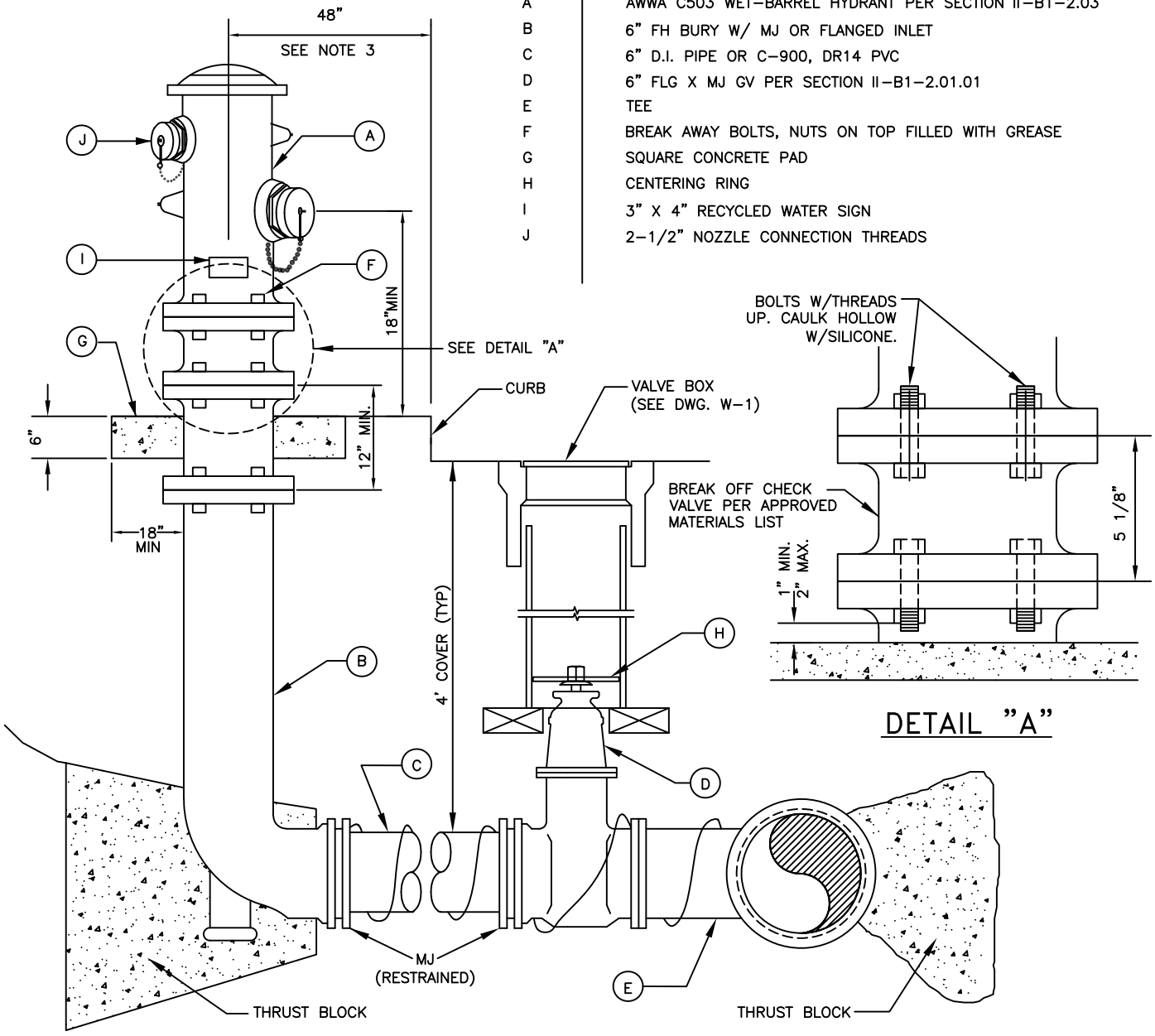
ITEM	DESCRIPTION
A	PRESSURE REDUCING VALVE
B	METER BOX AND LID (PURPLE COLOR)
C	RECYCLED WATER WARNING TAG
D	BALL VALVE

NOTES:

1. NO LINE CONNECTIONS BETWEEN METER & PRV.
2. RECYCLED WATER I.D. TAG/LABEL.
3. PRV SIZE SHALL BE EQUAL TO METER SIZE.
4. FLOW SENSOR AND MASTER SHUT OFF VALVES SHALL BE INSTALLED IN ACCORDANCE WITH SPEC. SEC IV–A4–5.01

Dublin San Ramon Services District	DATE JAN 2020
3/4" – 3" PRV INSTALLATION FOR RECYCLED WATER IRRIGATION SYSTEM	DESIGNED BD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–31

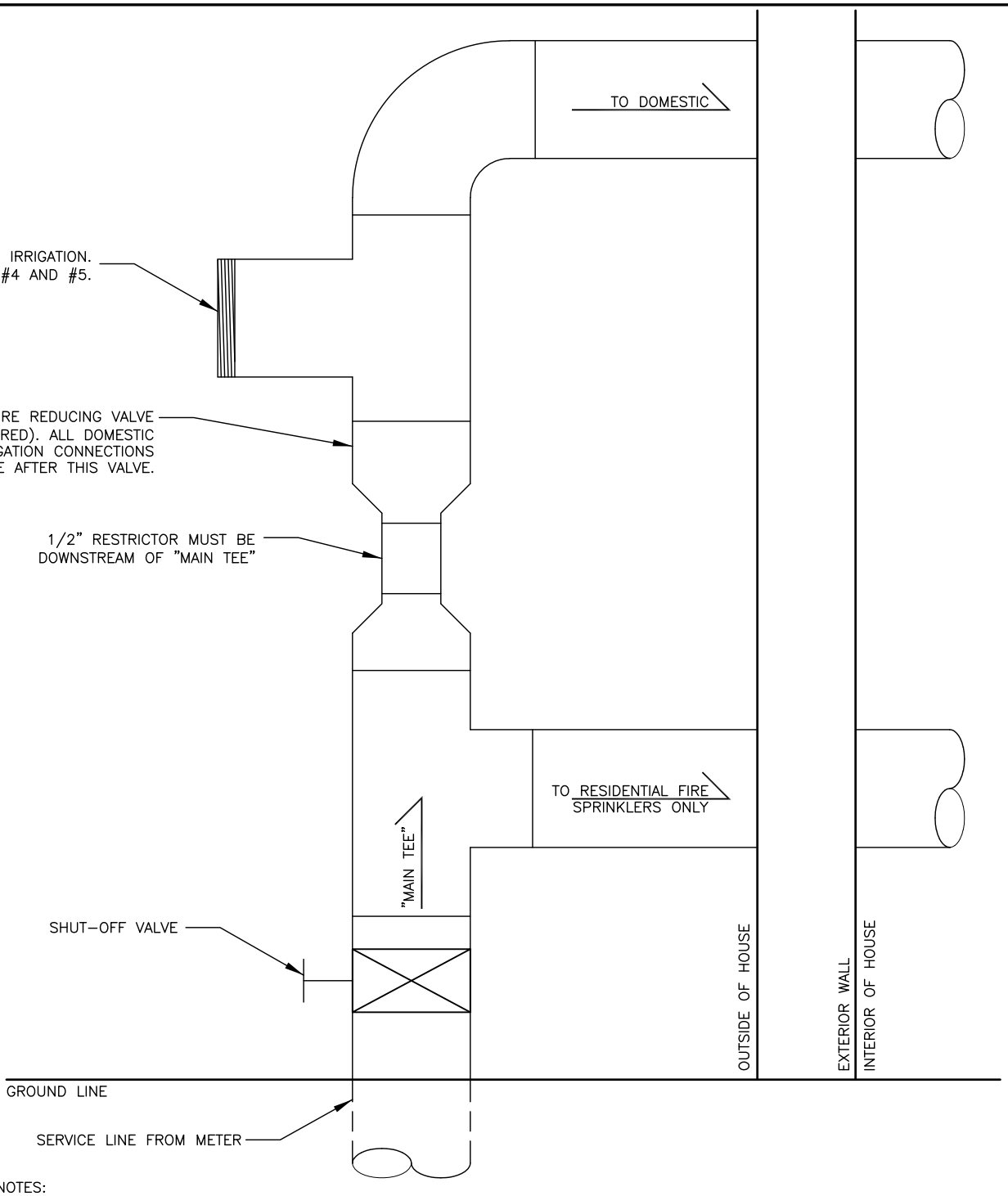
ITEM	DESCRIPTION
A	AWWA C503 WET–BARREL HYDRANT PER SECTION II–B1–2.03
B	6" FH BURY W/ MJ OR FLANGED INLET
C	6" D.I. PIPE OR C–900, DR14 PVC
D	6" FLG X MJ GV PER SECTION II–B1–2.01.01
E	TEE
F	BREAK AWAY BOLTS, NUTS ON TOP FILLED WITH GREASE
G	SQUARE CONCRETE PAD
H	CENTERING RING
I	3" X 4" RECYCLED WATER SIGN
J	2–1/2" NOZZLE CONNECTION THREADS



NOTES:

1. ON MAINS WHERE VALVES ARE TO BE INSTALLED ADJACENT TO TEES OR CROSSES, THE VALVES SHALL BE FLANGED X MJ WITH FLANGED END BOLTED DIRECTLY TO THE TEE OR CROSS.
2. VALVE DISTANCE IN FEET TO BE MARKED ON CURB.
3. SEE PLANS AND SPECIFICATIONS FOR LOCATION OF HYDRANTS. REFER TO SECTION II–B2–5.01 FOR PLACEMENT OF FIRE HYDRANTS BEHIND CURBS AND SIDEWALKS.
4. HYDRANT EXTERIOR PAINT SHALL BE PURPLE IN CONFORMANCE WITH SECTION IV–B1–2.11.
5. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, ANTI–SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREADS. POLYWRAP ALL FERROUS PIPE AND FITTINGS.
7. TRACER WIRE SHALL BE INSTALLED ON ALL FIRE HYDRANT RUNS.

Dublin San Ramon Services District	REVISION DATE JAN 2021
RECYCLED WATER FIRE HYDRANT INSTALLATION	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W–32

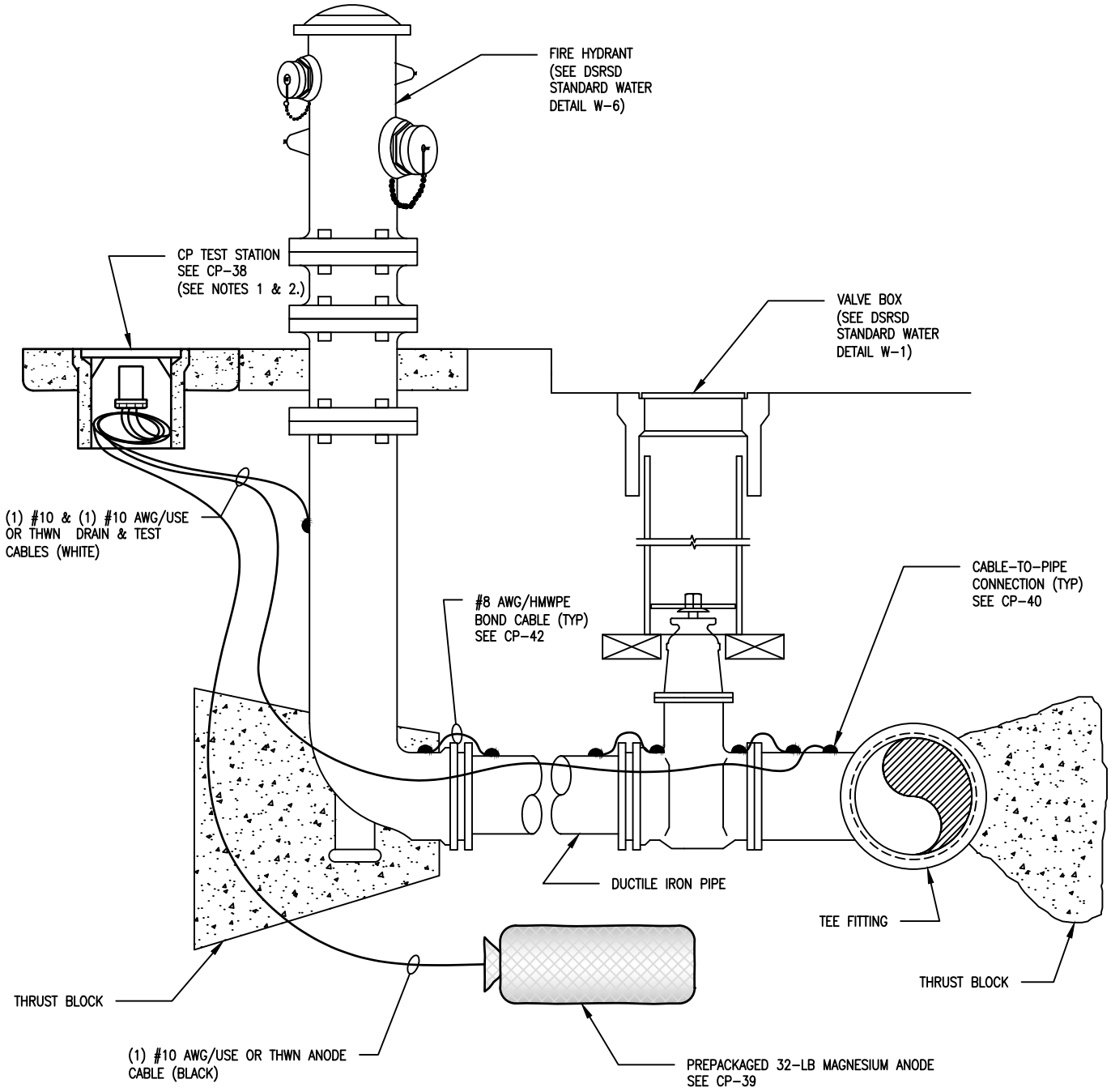


NOTES:

1. ALL SERVICE CONNECTIONS (EXCEPT FIRE SERVICE CONNECTIONS) SHALL BE MADE DOWNSTREAM OF THE RESTRICTION IN THE DOMESTIC SERVICE LINE.
2. THE ONE-HALF INCH RESTRICTOR AND BOTH TEES SHOWN ON THIS DRAWINGS SHALL BE ON THE OUTSIDE OF THE HOUSE AND SHALL BE VISIBLE FROM THE STREET UNLESS A LETTER OF EXEMPTION IS ON FILE WITH DSRSD.
3. SIZES OF PIPING MAY VARY PER PLANS. SIZE OF RESTRICTOR SHALL ALWAYS BE ONE-HALF (1/2) INCH.
4. MATERIAL SHALL CONFORM TO THE LATEST UNIFORM PLUMBING CODE.
5. INSTALLATION OF A HOSE BIB AT THE EXTERIOR OF THE HOME IS PERMISSIBLE.

SCALE: N.T.S.

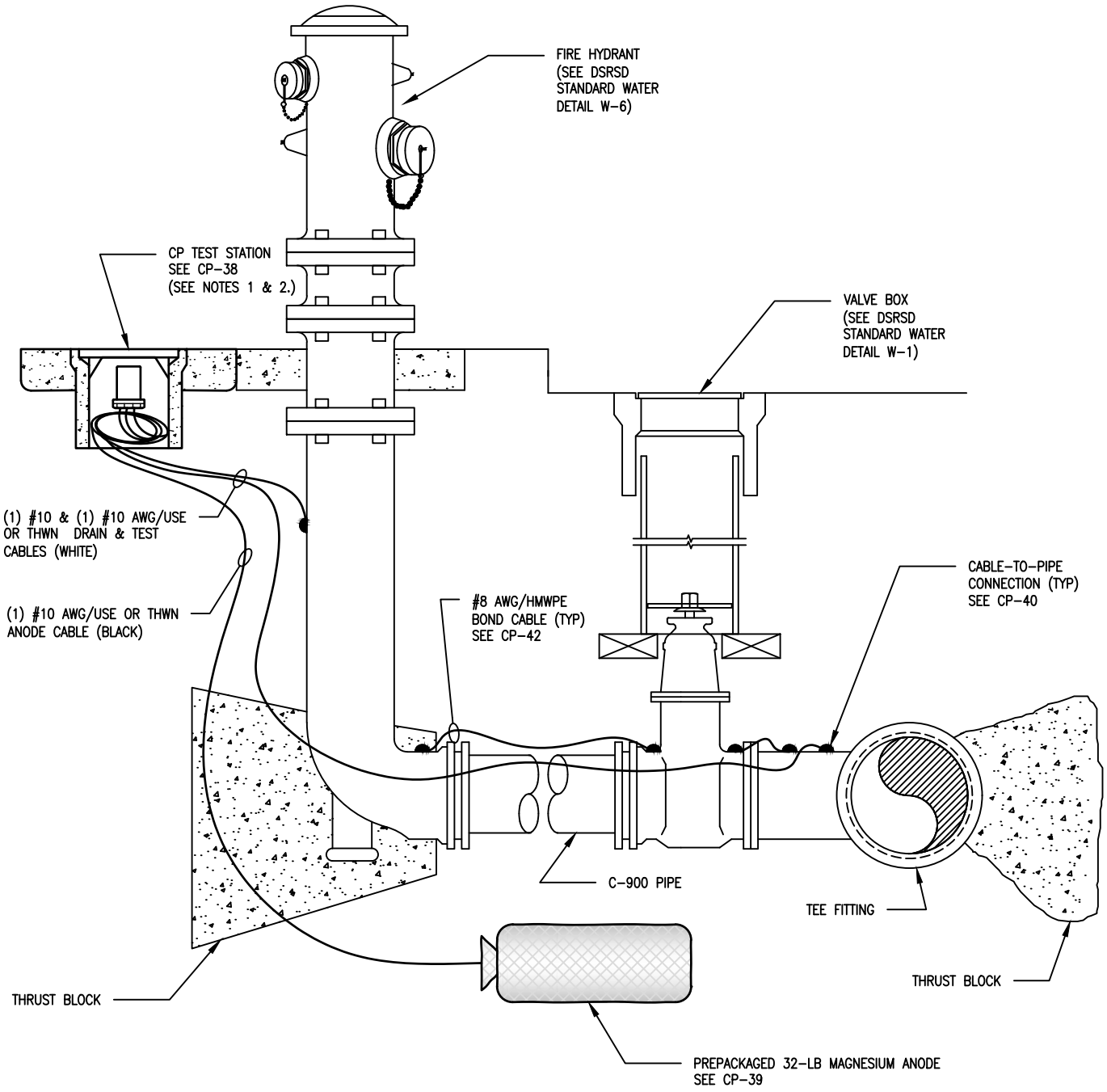
Dublin San Ramon Services District	REVISION DATE MAY 2022
OUTDOOR PLUMBING SCHEMATIC (SINGLE FAMILY RESIDENTIAL ONLY)	REVISED BY RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-33



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS WILL BE REQUIRED IN HEAVILY TRAFFICKED AREAS OR AREAS THAT ARE DIFFICULT TO ACCESS AND MAINTAIN.
2. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF FIRE HYDRANTS ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

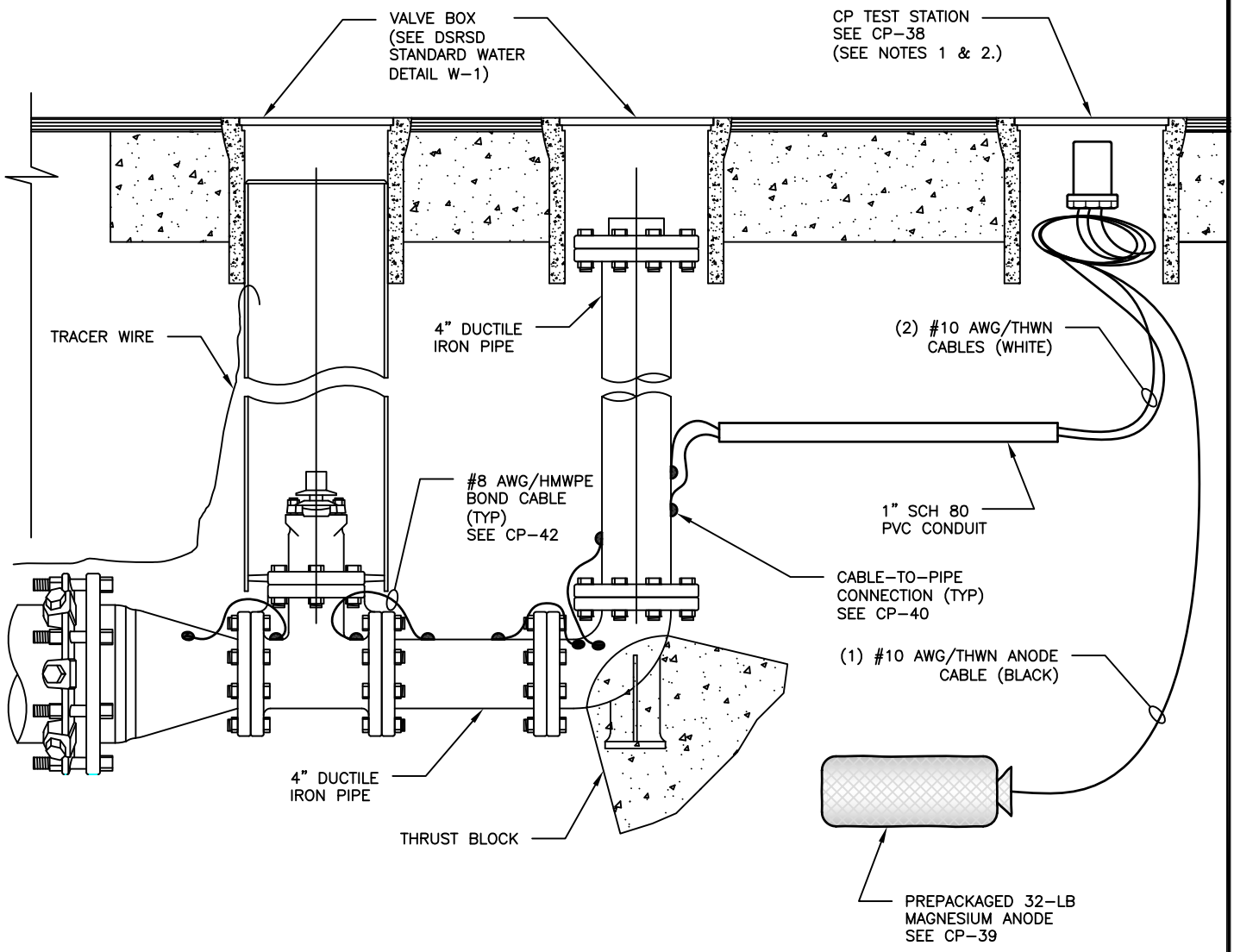
Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP FOR DI FIRE HYDRANT	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-6



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS WILL BE REQUIRED IN HEAVILY TRAFFICKED AREAS OR AREAS THAT ARE DIFFICULT TO ACCESS AND MAINTAIN.
2. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF FIRE HYDRANTS ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

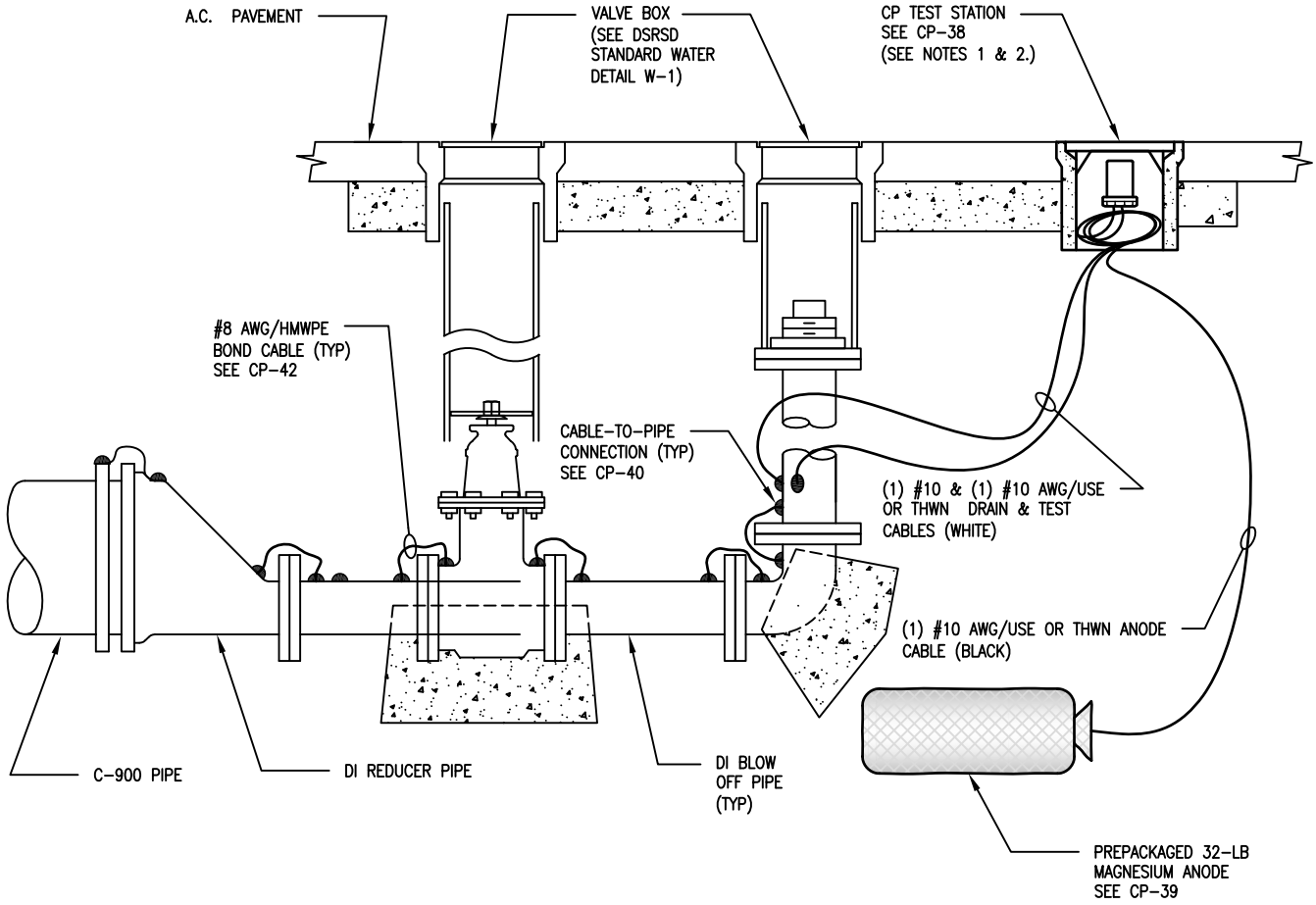
Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP FOR C-900 PIPE FIRE HYDRANT INSTALLATION	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-6A



NOTES:

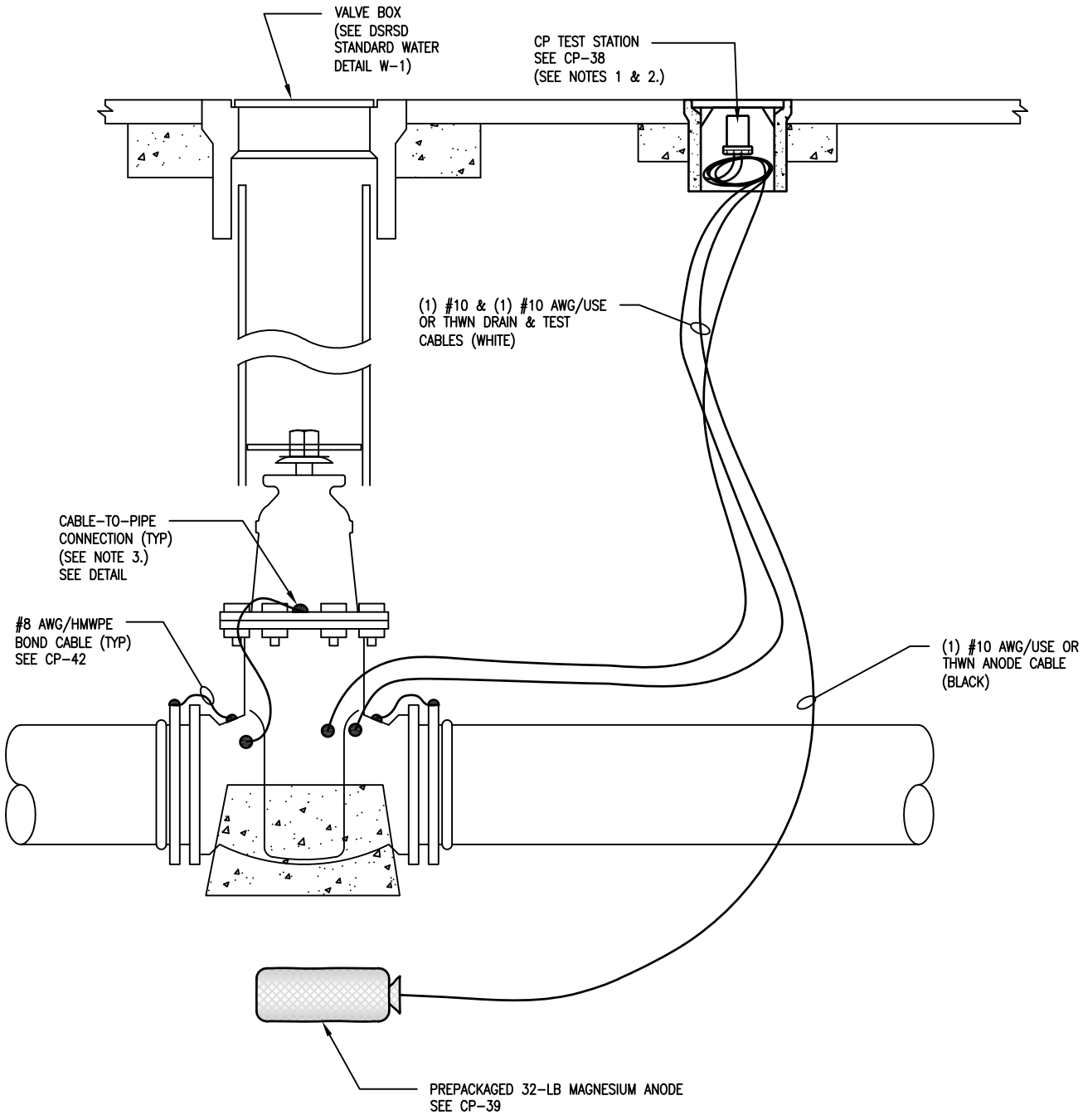
1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS MAY BE REQUIRED TO BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
2. TEST STATION SHALL BE INSTALLED WITHIN ROADWAY ABOVE PIPE.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF IN-LINE VALVES ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

Dublin San Ramon Services District	REVISION DATE JULY 2022
4" BLOW-OFF ASSEMBLY 6", 8", 10" AND 12" MAINS	REVISED BY SC / RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-9



NOTES:
1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS MAY BE REQUIRED TO BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
2. TEST STATION SHALL BE INSTALLED WITHIN ROADWAY ABOVE PIPE.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF IN-LINE VALVES ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

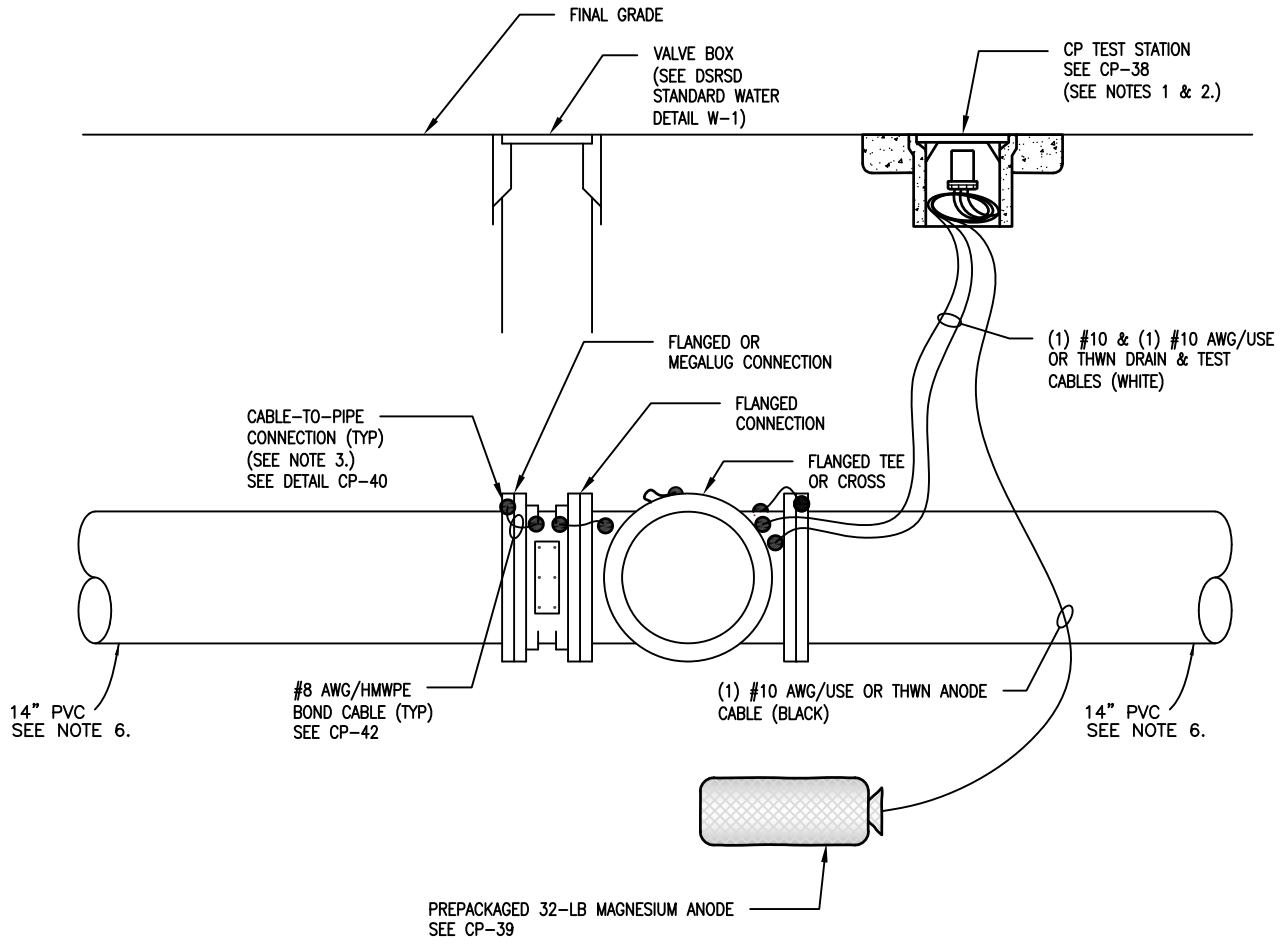
Dublin San Ramon Services District	REVISION DATE JULY 2022
CP FOR BLOW-OFF ASSEMBLY AT DEAD END 16" MAINS	REVISED BY SC / RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-10



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS MAY BE REQUIRED TO BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
2. TEST STATION SHALL BE INSTALLED WITHIN ROADWAY ABOVE PIPE.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF IN-LINE VALVES ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

Dublin San Ramon Services District	REVISION DATE JULY 2022
CP FOR GATE VALVE INSTALLATION 12" GATE VALVE AND SMALLER	REVISED BY SC / RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-13



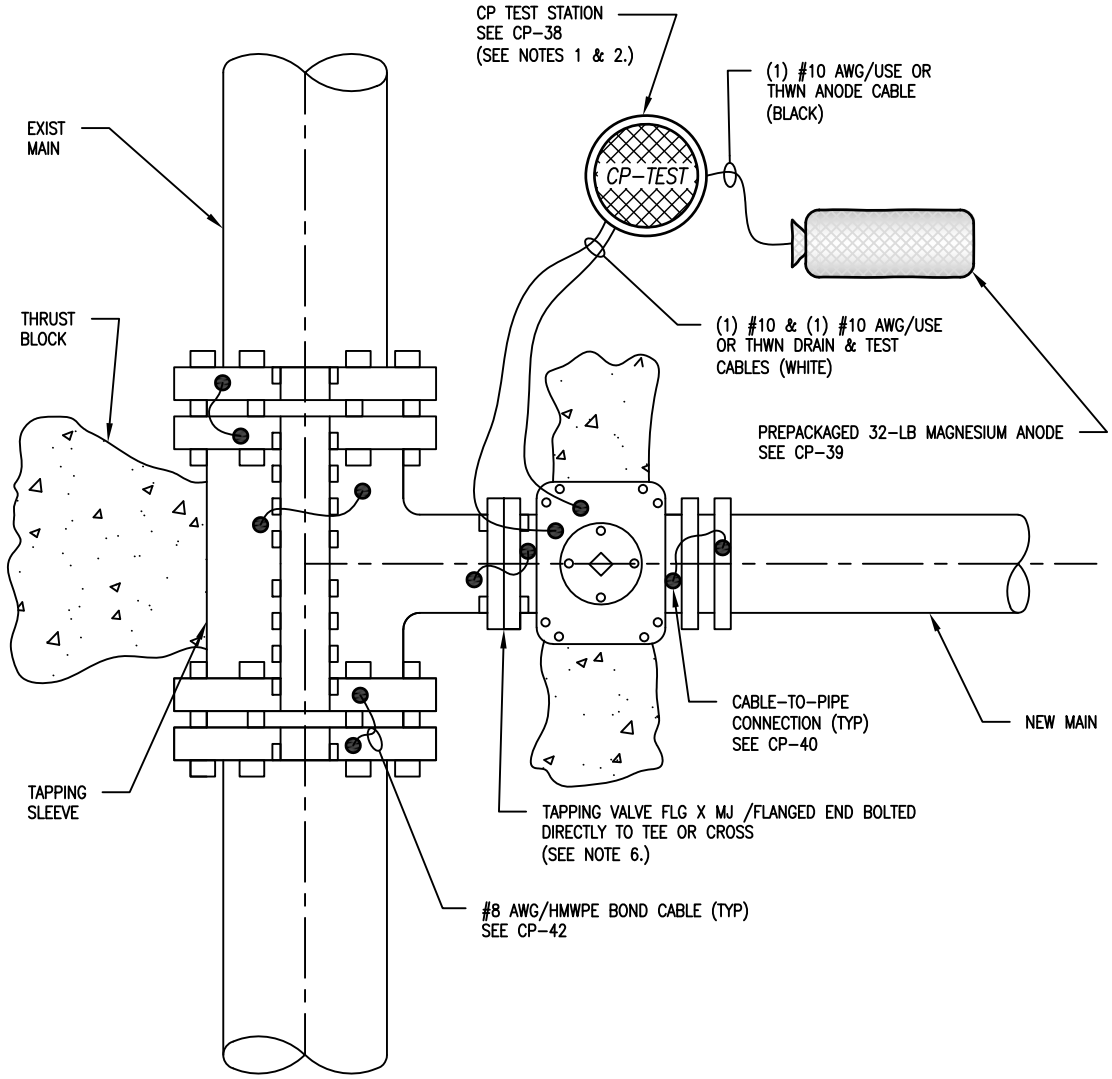
BFV AT TEE OR CROSS

NTS

NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS MAY BE REQUIRED TO BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
2. TEST STATION SHALL BE INSTALLED WITHIN ROADWAY ABOVE PIPE.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF IN-LINE VALVES ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

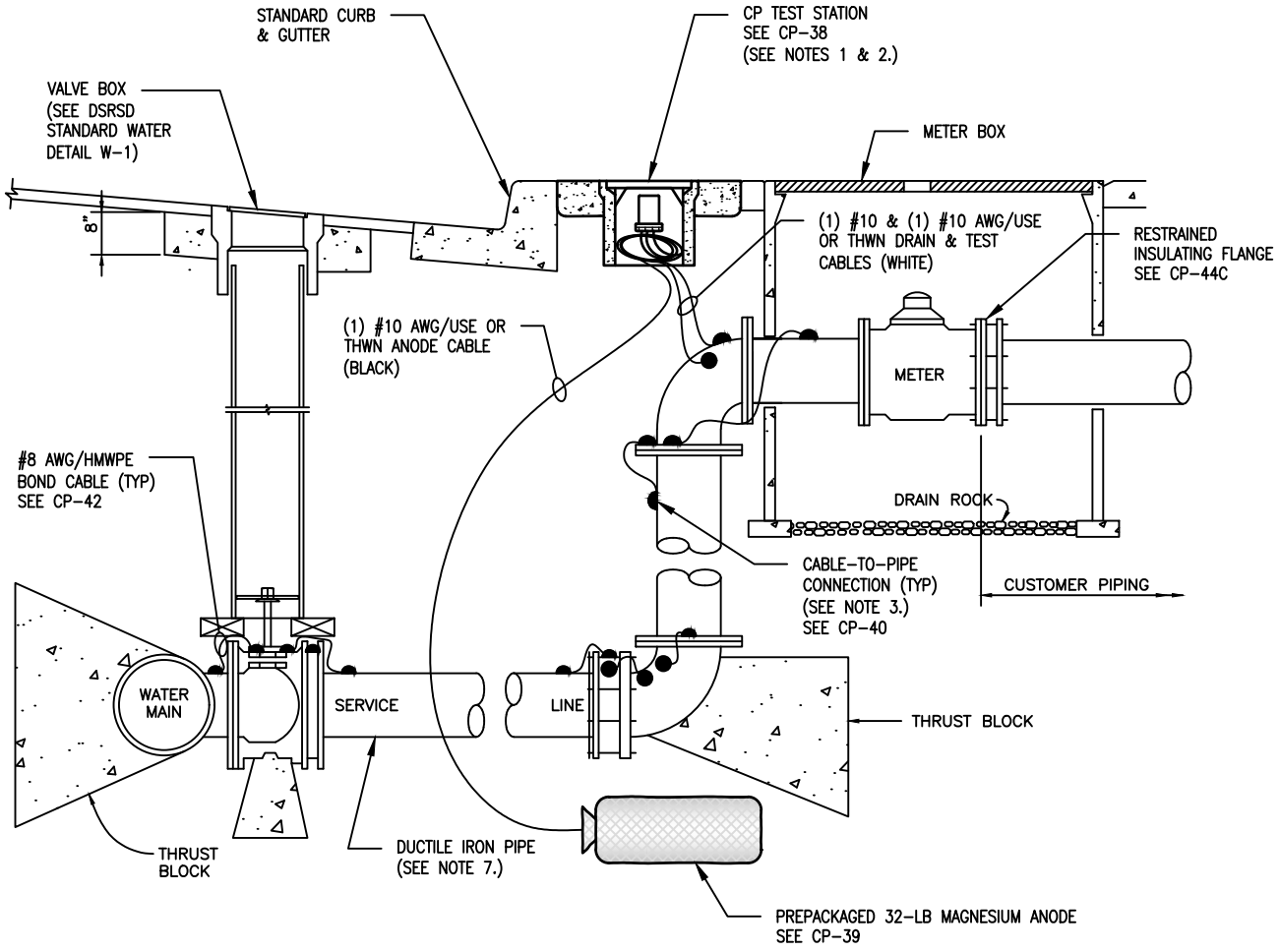
Dublin San Ramon Services District	REVISION DATE JULY 2022
CP FOR BUTTERFLY VALVE INSTALLATION 14" PVC PIPE AND TEE OR CROSS TO BFV	REVISED BY SC / RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-14



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS MAY BE REQUIRED TO BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
2. TEST STATION SHALL BE INSTALLED WITHIN ROADWAY ABOVE PIPE.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF IN-LINE VALVES ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

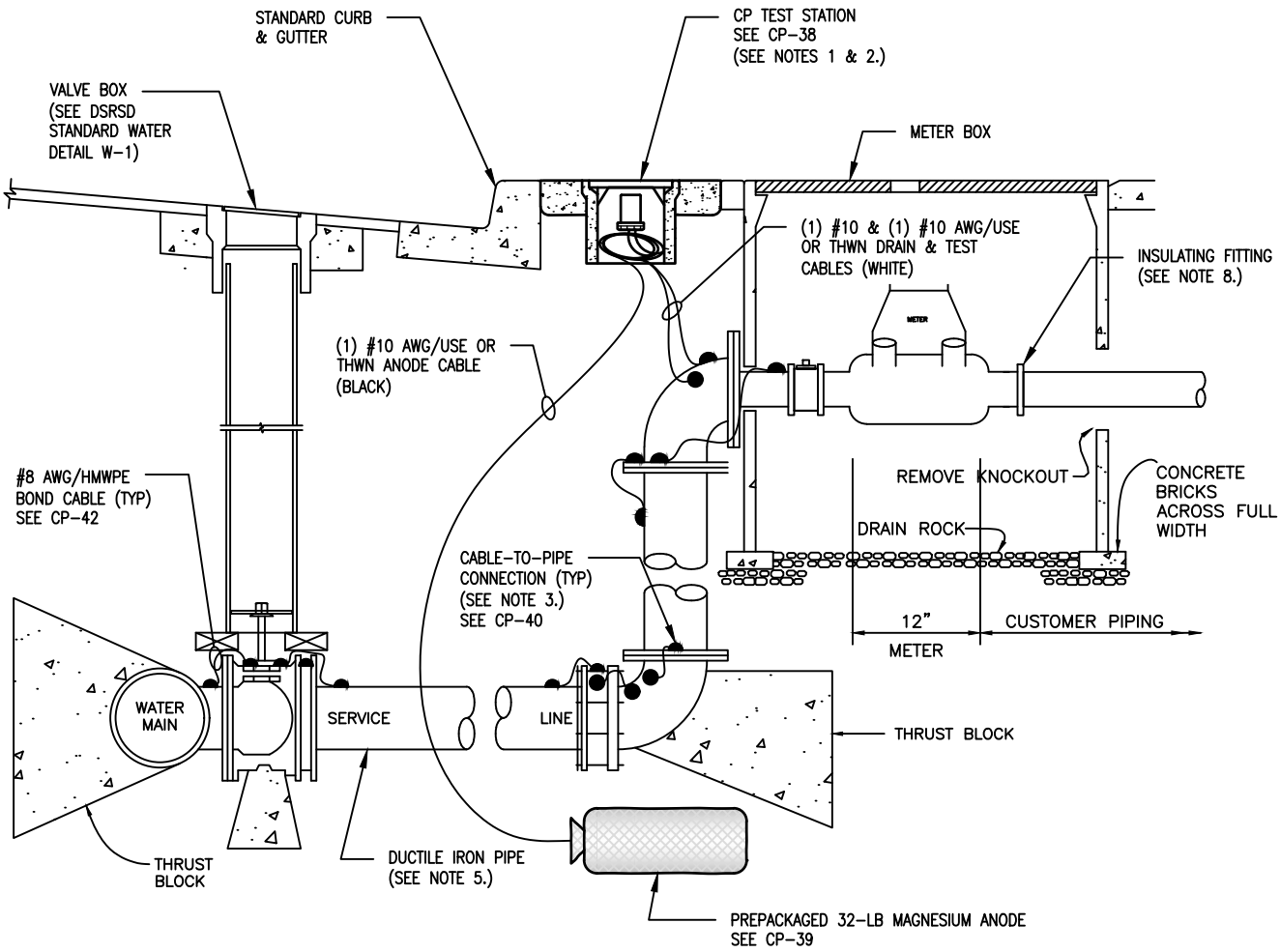
Dublin San Ramon Services District	REVISION DATE JULY 2022
CP FOR TAPPING SLEEVE AND TAPPING VALVE INSTALLATION	REVISED BY SC / RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-17



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS WILL BE REQUIRED IN HEAVILY TRAFFICKED AREAS OR AREAS THAT ARE DIFFICULT TO ACCESS AND MAINTAIN.
2. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF SERVICE LATERALS ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.
7. IF INSTALLED PIPE IS C-900, ELIMINATE BONDING TO HORIZONTAL PIPE AND INSTALL A SINGLE BOND CABLE DIRECTLY FROM VALVE TO FLEXIBLE COUPLING.

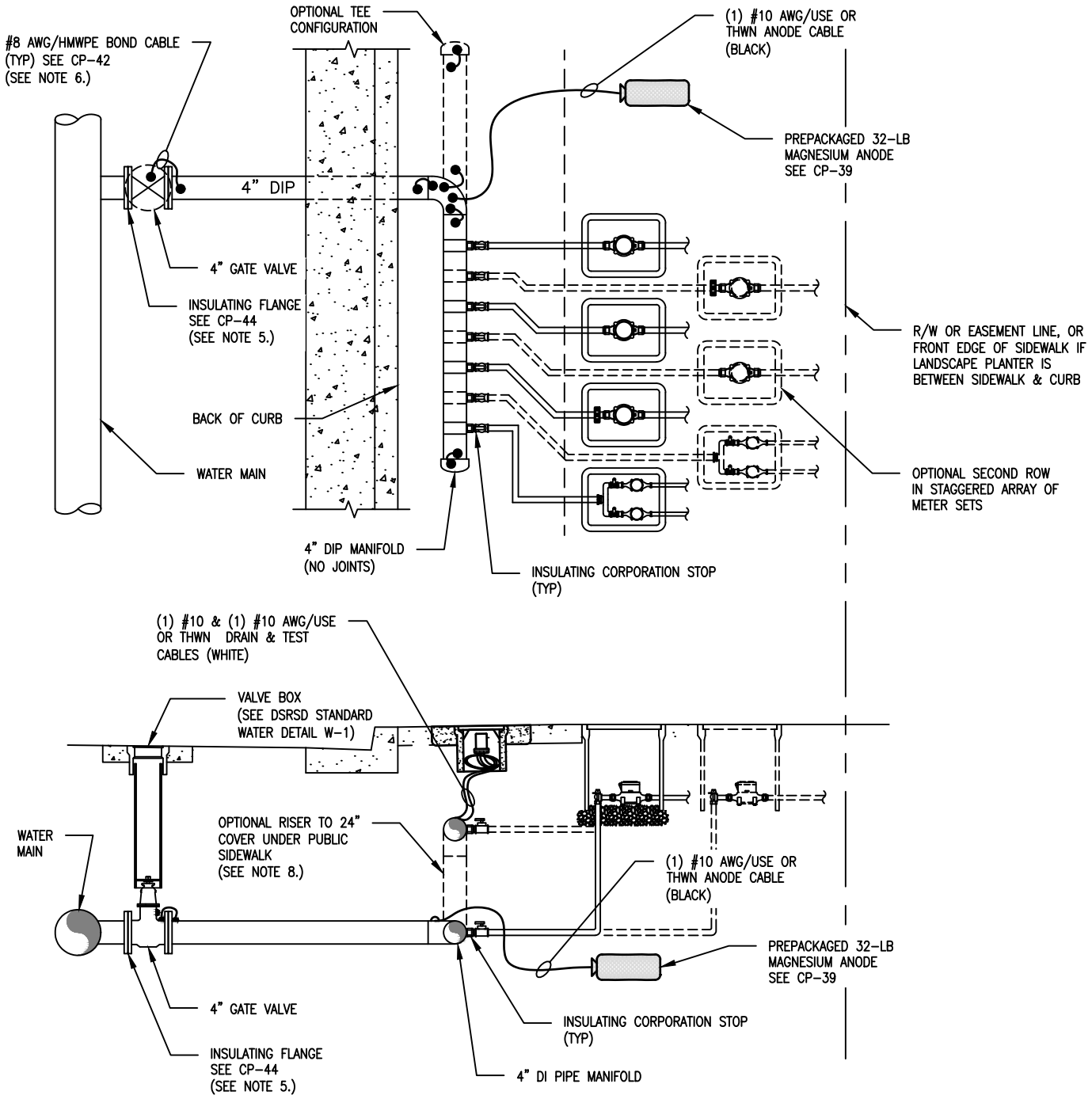
Dublin San Ramon Services District	DATE JUNE 2022
CP FOR 3" METER INSTALLATION	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-20



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS WILL BE REQUIRED IN HEAVILY TRAFFICKED AREAS OR AREAS THAT ARE DIFFICULT TO ACCESS AND MAINTAIN.
2. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF SERVICE LATERALS ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.
7. IF INSTALLED PIPE IS C-900, ELIMINATE BONDING TO HORIZONTAL PIPE AND INSTALL A SINGLE BOND CABLE DIRECTLY FROM VALVE TO FLEXIBLE COUPLING.
8. IF CUSTOMER'S PIPE IS NOT METALLIC, NO ELECTRICAL ISOLATION IS REQUIRED. IF CUSTOMER'S PIPE IS METALLIC, ELECTRICAL ISOLATION SHALL BE INSTALLED PER DETAIL CP-44, CP-44A, OR CP-44B.

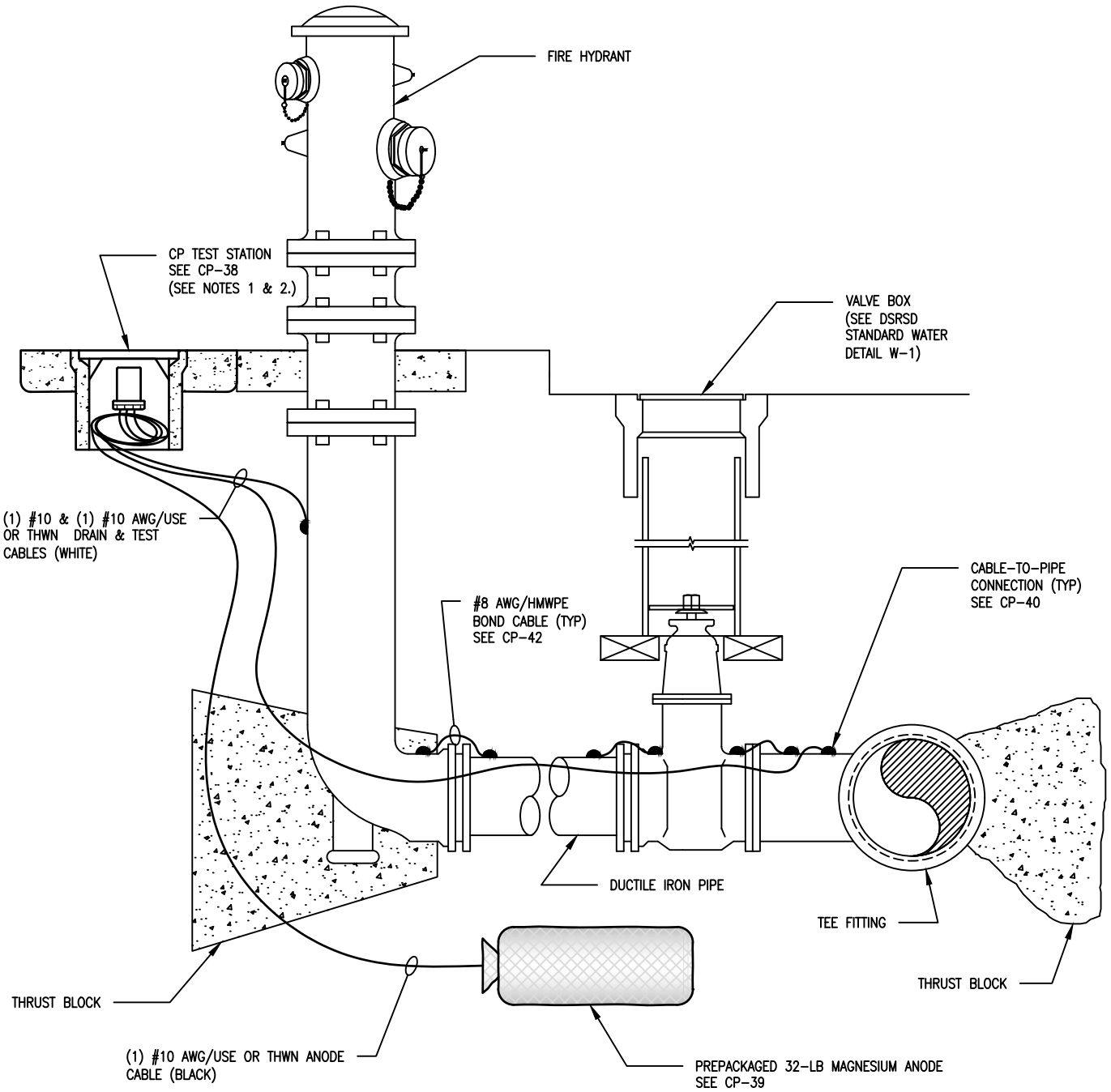
Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP FOR 4-INCH SERVICE W/ 2-INCH METER INSTALLATION	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-20A



NOTES:

1. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
2. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
3. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
4. INSTALL 1" SCH 80 PVC CONDUIT ON ANY HORIZONTAL CABLE RUN EXCEEDING 5-FT IN LENGTH.
5. INSULATING JOINTS SHALL BE INSTALLED ONLY WHEN SERVICE LATERAL IS INSTALLED ON EXISTING DUCTILE IRON WATER MAINS. WHEN INSTALLING DUCTILE IRON LATERALS ON PVC WATER MAINS, INSTALL BOND CABLES FOR ALL METALLIC JOINTS PER CP-42. FOR CATHODIC PROTECTION OF DUCTILE IRON SERVICE LATERALS ATTACHED TO NEW DUCTILE IRON WATER MAINS, BOND LATERAL TO WATER MAIN, AND INSTALL ANODES ON DUCTILE IRON WATER MAIN PER SEE DETAIL CP-33.
6. INSTALL #8 AWG/HMWPE BOND CABLE ACROSS ALL BURIED JOINTS PER CP-42.
7. INSTALL INSULATING CORPORATION STOP AT EACH SERVICE CONNECTION TO DI MANIFOLD HEADER CONNECTION.

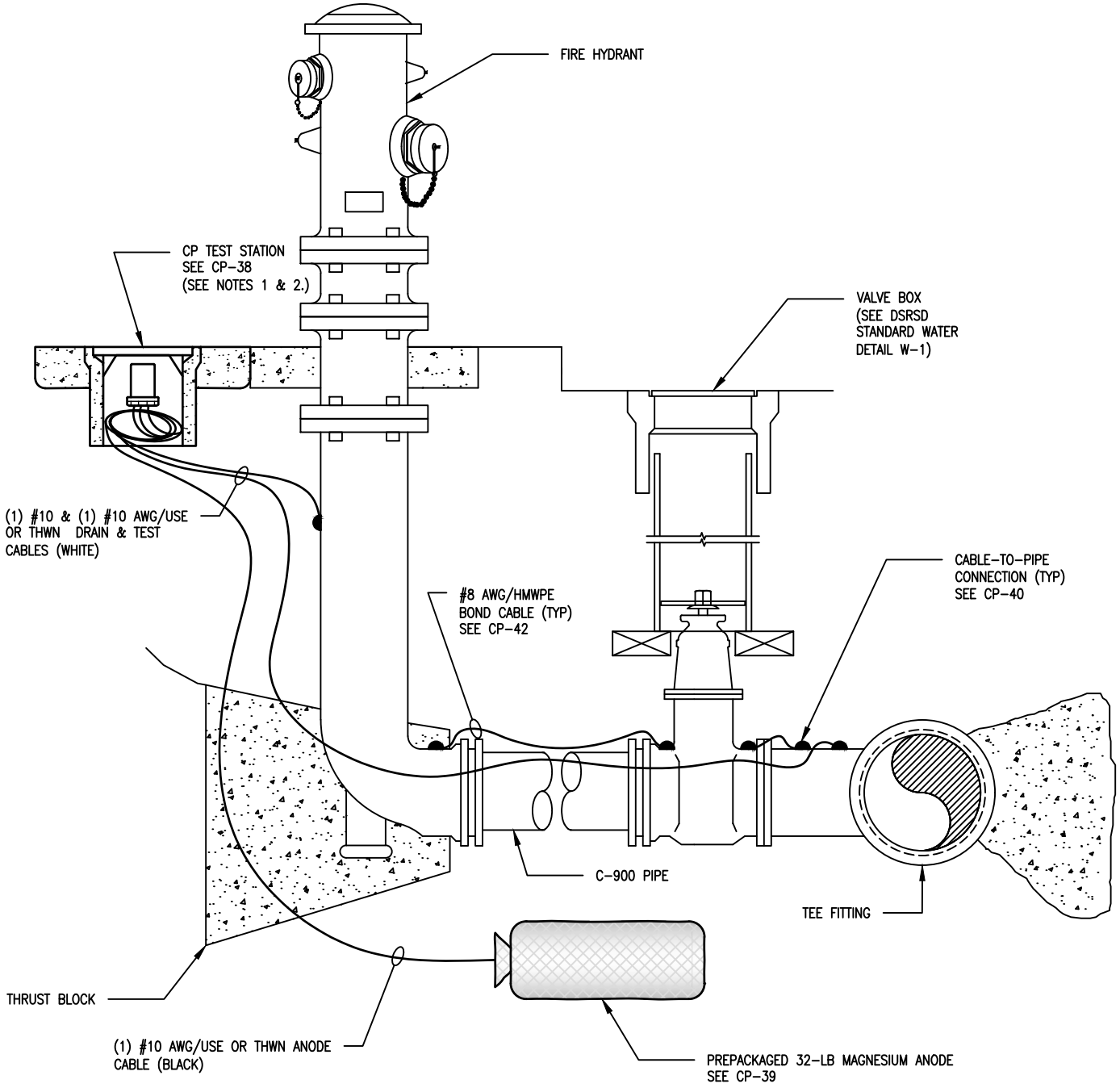
Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP FOR MANIFOLD MAIN FOR CLUSTERED SERVICES SERVING CONDOMINIUMS	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-24



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS WILL BE REQUIRED IN HEAVILY TRAFFICKED AREAS OR AREAS THAT ARE DIFFICULT TO ACCESS AND MAINTAIN.
2. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
5. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF FIRE HYDRANTS ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP FOR RECYCLED DI WATER FIRE HYDRANT INSTALLATION	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-32



NOTES:

1. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS WILL BE REQUIRED IN HEAVILY TRAFFICKED AREAS OR AREAS THAT ARE DIFFICULT TO ACCESS AND MAINTAIN.
2. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
3. BOND CABLES MAY BE REMOVED FROM FLANGES, PROVIDED EPOXY COATING IS REMOVED USING A GRINDING TOOL UNTIL ALL WASHERS SEAT TO BARE, SHINY METAL ON THE FLANGE ASSEMBLIES.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
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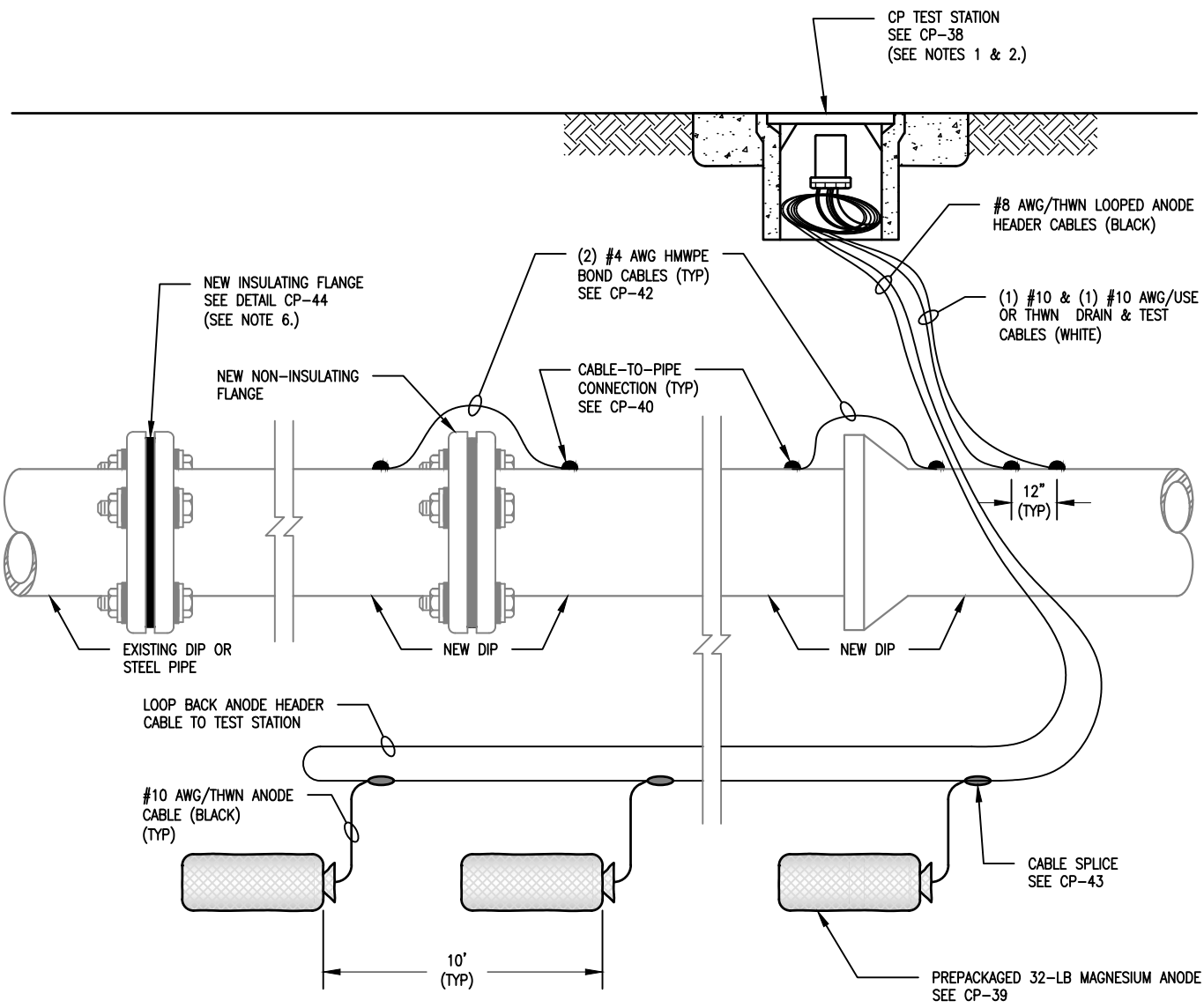
6. THIS DETAIL IS INTENDED FOR INSTALLATION ON PVC WATER MAINS ONLY. FOR CATHODIC PROTECTION OF FIRE HYDRANTS ATTACHED TO DUCTILE IRON WATER MAINS, SEE DETAIL CP-33.

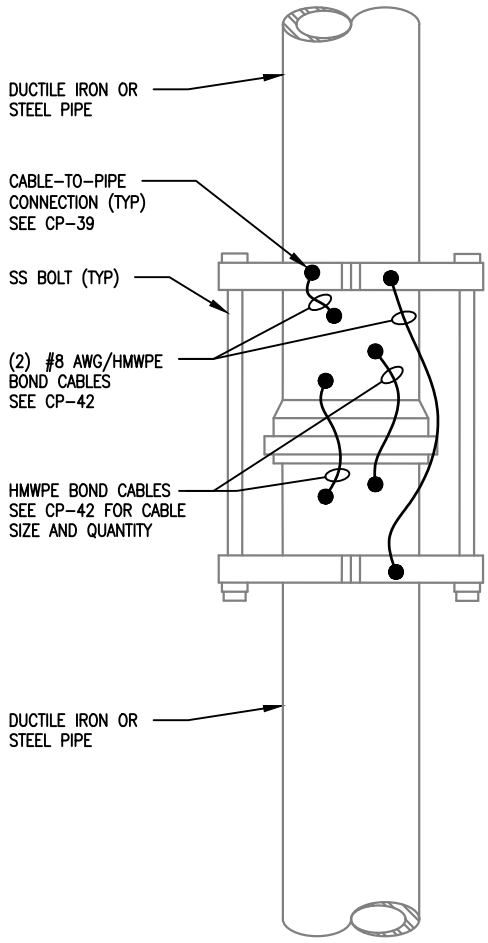
Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP FOR C900 RECYCLED WATER FIRE HYDRANT INSTALLATION	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-32A



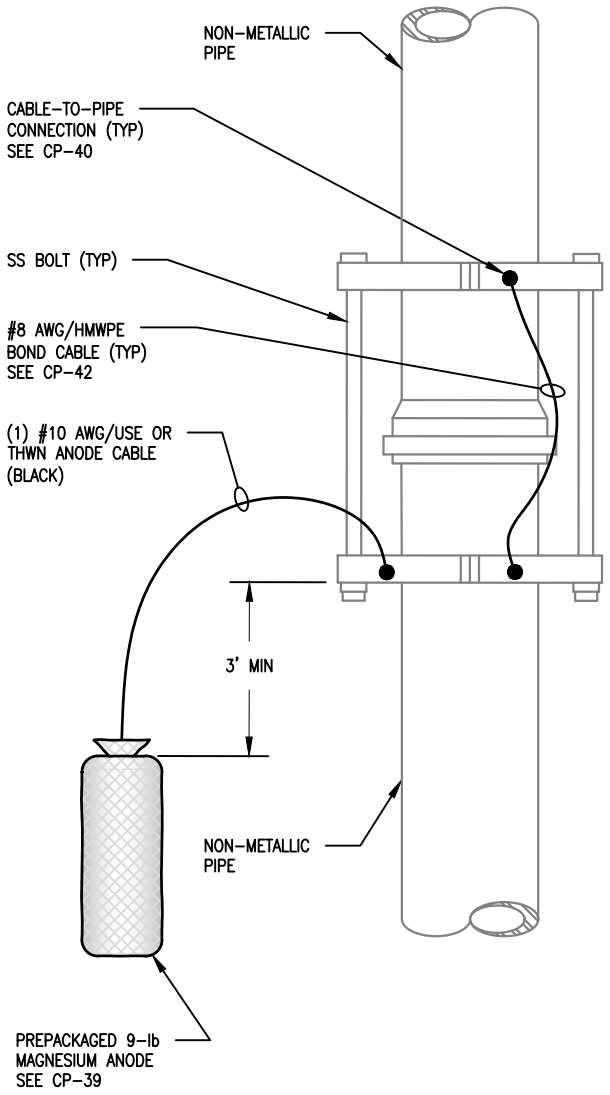
NOTES:

1. PIPELINE CATHODIC PROTECTION SHALL BE DESIGN BY A CORROSION ENGINEER, AND, DEPENDING ON PIPELINE LENGTH, CATHODIC PROTECTION WILL TYPICALLY INCLUDE TEST STATIONS AND ANODE BEDS INSTALLED AT REGULAR INTERVALS ALONG THE LENGTH OF THE PIPELINE.
2. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
3. ALL FASTENER BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
4. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
5. THIS DETAIL IS INTENDED FOR NEW DUCTILE IRON OR STEEL WATER PIPELINES.
6. ENSURE ELECTRICAL ISOLATION BETWEEN NEW DSRSD PROJECT PIPELINE AND EXISTING PIPELINES OR ANY PIPES OWNED OR OPERATED BY OTHERS.
7. ENSURE A MINIMUM DISTANCE OF 24-INCHES BETWEEN NEW DSRSD DUCTILE IRON PROJECT WATER MAINS AND ANY FOREIGN, METALLIC UTILITY PIPELINE. IF 24" MINIMUM DISTANCE CANNOT BE ACHIEVED, NOTIFY DSRSD REPRESENTATIVE FOR POTENTIAL FOREIGN PIPELINE INTERFERENCE MITIGATION REQUIREMENTS.
8. IF STEEL PIPE IS INSTALLED WITH MORTAR COATING, CATHODIC PROTECTION MAY NOT BE REQUIRED. MORTAR COATED PIPE WILL REQUIRE BONDING AND TEST STATION INSTALLATION, HOWEVER.

Dublin San Ramon Services District	DATE JUNE 2022
CP FOR DUCTILE IRON OR STEEL PIPELINE	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-33



DUCTILE IRON OR STEEL PIPE

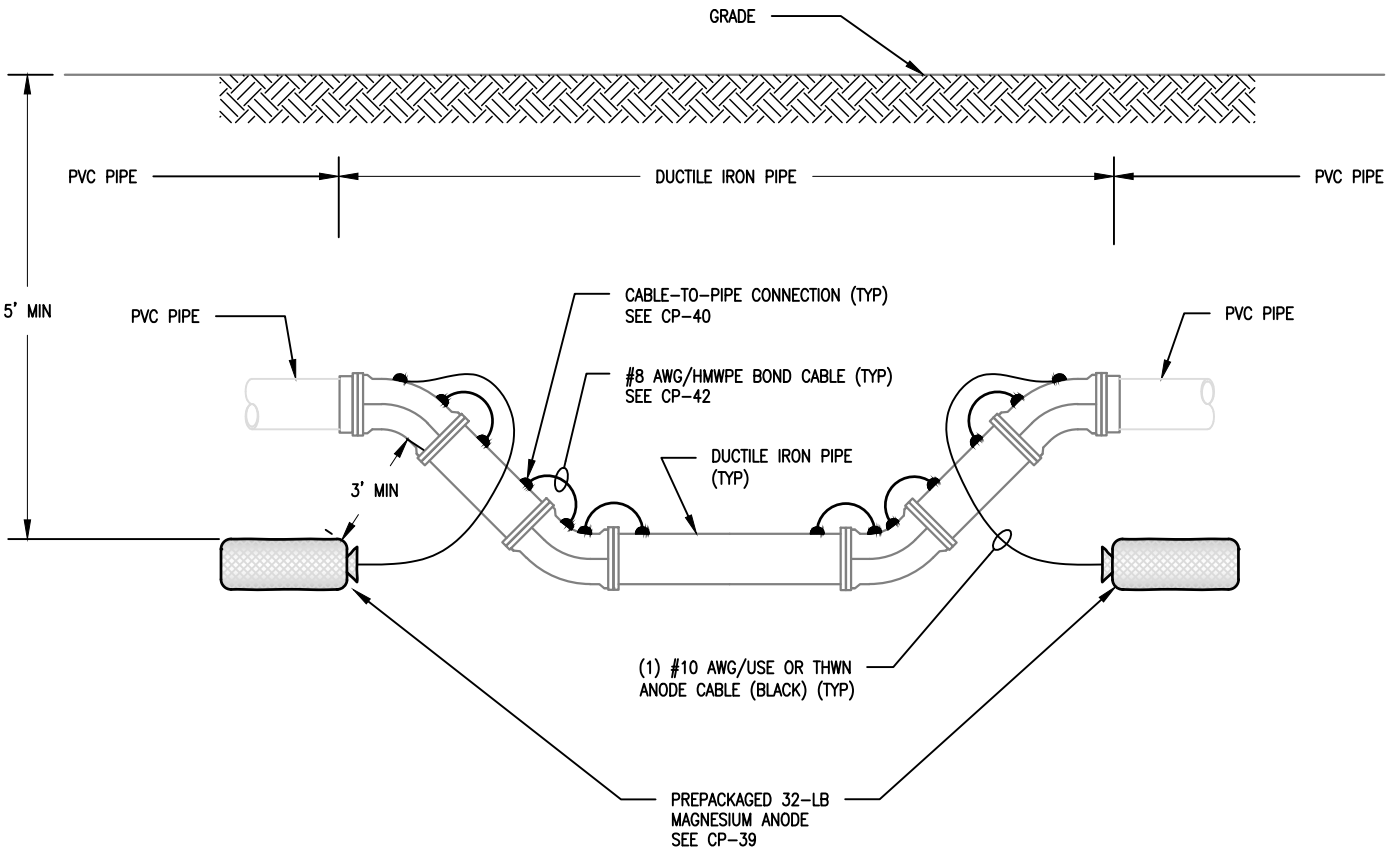


NON-METALLIC PIPE

NOTES:

1. ALL FASTENER BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
2. IF 316 STAINLESS STEEL RESTRAINED JOINTS ARE INSTALLED, NO COATINGS OR CATHODIC PROTECTION ARE REQUIRED.
3. IF CARBON STEEL RESTRAINED JOINTS ARE INSTALLED, THREE OPTIONS ARE AVAILABLE FOR CORROSION CONTROL AS DESCRIBED BELOW:
   - 3.1. FOR DUCTILE IRON PIPE, INSTALL BOND CABLES FROM DUCTILE IRON PIPE TO RESTRAINED COUPLING, WITH 8-MIL POLYETHYLENE COATING PER NOTE 4., CP-37.
   - 3.2. OPTION 1 FOR NON-METALLIC PIPE, PROVIDE WAX TAPE TO COMPLETELY COVER ALL BURIED CARBON STEEL ELEMENTS. NON-FIRMING WAX TAPE SHALL BE PROVIDED WITH A PROTECTIVE OUTER WRAP, SUCH AS 8-MIL POLYETHYLENE WRAP, OR APPROVED EQUAL. SEE DSRSD'S APPROVED MATERIALS LIST.
   - 3.3. OPTION 2 FOR NON-METALLIC PIPE, INSTALL CATHODIC PROTECTION AND BOND CABLES AS SHOWN IN THIS DETAIL, WITH 8-MIL POLYETHYLENE OUTER WRAP.
4. INSTALL THE ANODE 1-FT BELOW BOTTOM OF THE TRENCH WITH A MINIMUM OF 1-FT OF CLEANED NATIVE BACKFILL. ATTACH ANODE CABLE DIRECTLY TO THRUST RESTRAINT FITTING.
5. THIS DETAIL IS INTENDED FOR NEW DUCTILE IRON OR STEEL WATER PIPELINES.
6. ENSURE ELECTRICAL ISOLATION BETWEEN NEW NEW DSRSD PROJECT PIPELINE AND EXISTING PIPELINES OR ANY PIPES OWNED OR OPERATED BY OTHERS.
7. NO TEST STATION IS REQUIRED FOR THESE FITTINGS, HOWEVER A RECORD OF ALL INSTALLATIONS SHALL BE PROVIDED TO THE PROJECT ENGINEER.

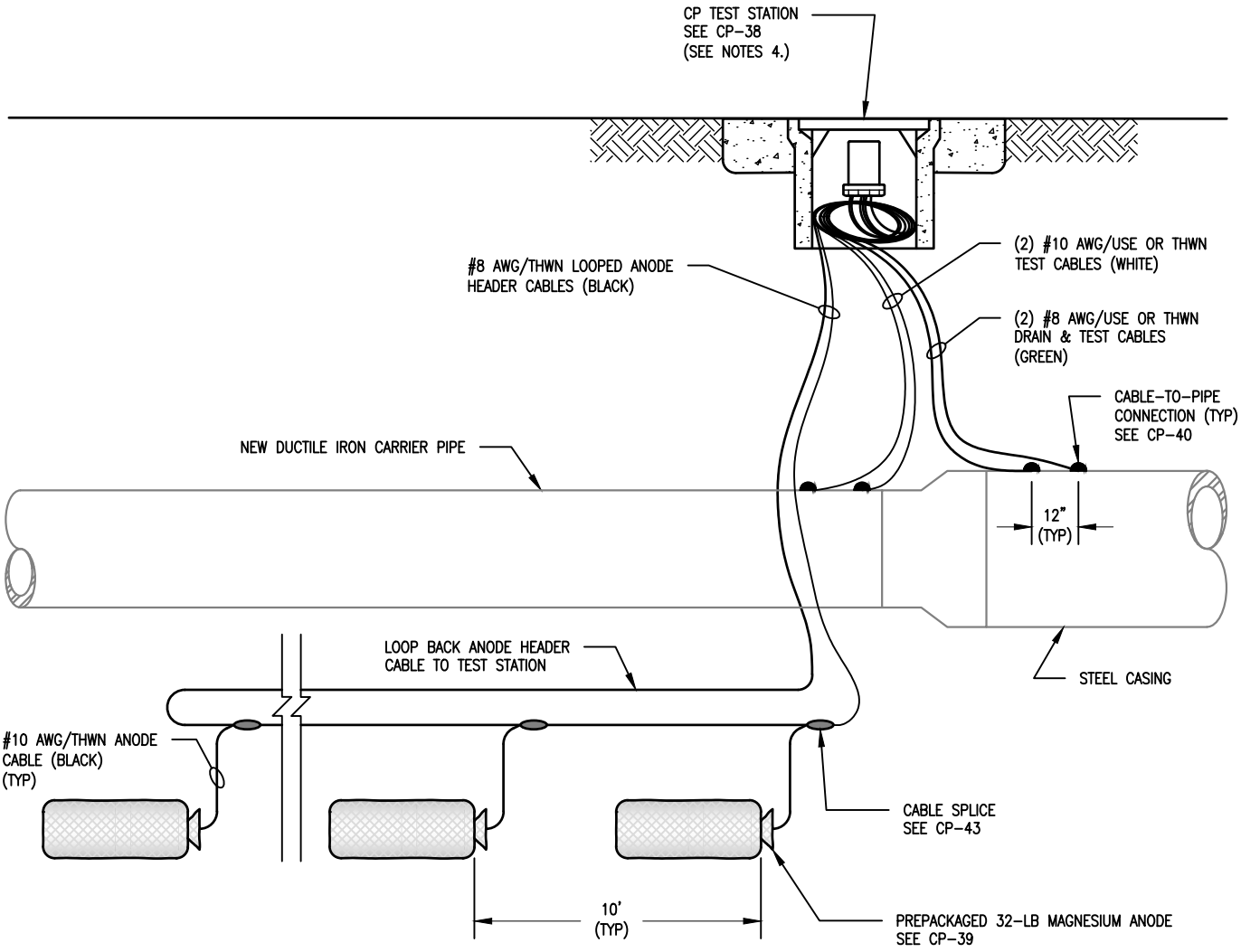
Dublin San Ramon Services District	DATE JUNE 2022
CP FOR MECHANICAL THRUST RESTRAINT	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-34



NOTES:

1. VERTICAL OFFSETS CONNECTED TO PVC PIPE SHALL BE INSTALLED WITH ANODES AS INDICATED IN THIS DETAIL. FOR VERTICAL OFFSETS CONNECTED TO DUCTILE IRON PIPE, REFER TO CP-33.
2. THIS DETAIL MAY BE USED FOR DISTANCES UP TO 100 LINEAR FEET OF DUCTILE IRON VERTICAL OFFSET, AS SHOWN ABOVE, FOR DEEPENING OR SHALLOWING OF THE ALIGNMENT.
3. TWO 32 POUND ANODES SHALL BE INSTALLED FOR EACH 50-FEET OF DUCTILE IRON PIPE WITH THE TOP OF THE ANODE A MINIMUM OF 5-FEET BELOW GRADE AND 3-FEET OFF OF THE PIPELINE AND A MINIMUM OF 5-FEET BELOW FINISHED GRADE.
4. IF THE SPOOL PIECES ARE PVC PIPE, BOND THE DUCTILE IRON ELBOWS/FITTINGS TOGETHER BY INSTALLING ONE #8 AWG/HMWPE BOND CABLE FROM FITTING TO FITTING ACROSS EACH JOINT.
5. ALL FASTENER BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
6. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
7. THIS DETAIL IS INTENDED FOR NEW DUCTILE IRON OR STEEL WATER PIPELINES.
8. ENSURE ELECTRICAL ISOLATION BETWEEN NEW DSRSD PROJECT PIPELINE AND EXISTING PIPELINES OR ANY PIPES OWNED OR OPERATED BY OTHERS.
9. ENSURE A MINIMUM DISTANCE OF 24-INCHES BETWEEN NEW DSRSD DUCTILE IRON PROJECT WATER MAINS AND ANY FOREIGN, METALLIC UTILITY PIPELINE. IF 24" MINIMUM DISTANCE CANNOT BE ACHIEVED, NOTIFY DSRSD REPRESENTATIVE FOR POTENTIAL FOREIGN PIPELINE INTERFERENCE MITIGATION REQUIREMENTS.

Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP FOR PIPELINE VERTICAL OFFSET	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-35



NOTES:

1. ENSURE ELECTRICAL ISOLATION BETWEEN THE CASING AND METALLIC CARRIER PIPE. AFTER INSTALLATION OF CASING AND CARRIER PIPE, AND BEFORE BACKFILL, DSRSD REPRESENTATIVE SHALL FIELD TEST TO CONFIRM ELECTRICAL ISOLATION. NO TESTING IS REQUIRED FOR NON-METALLIC PIPE.
2. FOR C-900 CARRIER PIPE INSTALLATIONS, TEST WIRES TO THE CARRIER PIPE SHALL NOT BE INSTALLED ON NON-METALLIC PIPE.
3. CASING CATHODIC PROTECTION SHALL BE DESIGN BY A CORROSION ENGINEER, AND, DEPENDING ON CASING LENGTH, CATHODIC PROTECTION WILL TYPICALLY INCLUDE A TEST STATION AND AN ANODE BED INSTALLED AT EACH END OF THE CASING.
4. TEST STATION SHALL BE INSTALLED BEHIND CURB AND OUT OF ROAD TRAFFIC IN LANDSCAPE OR SIDEWALK.
5. ALL DIRECT BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.

Dublin San Ramon Services District	DATE JUNE 2022
CP FOR STEEL CASINGS	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-36

GENERAL CATHODIC PROTECTION NOTES:

1. CATHODIC PROTECTION REQUIREMENTS ARE ESTABLISHED ACCORDING TO SITE SOIL CONDITIONS, AS DETERMINED BY A SITE SOIL STUDY. A SOIL CORROSIVITY STUDY SHALL BE PERFORMED UNDER THE SUPERVISION OF A NACE CERTIFIED CATHODIC PROTECTION SPECIALIST (CP4), A NACE CERTIFIED CORROSION SPECIALIST, OR A STATE CERTIFIED CORROSION ENGINEER FOR ALL PROJECTS INVOLVING NEW, BURIED WATER PRESSURE PIPING.

2. THE PIPELINES WHICH MAY BE THE SUBJECT OF THE CATHODIC PROTECTION SYSTEM ARE THE DUCTILE IRON, CAST IRON OR STEEL PIPES, METALLIC VALVES AND FITTINGS ON DOMESTIC & FIRE WATER PIPELINES. ALSO CATHODIC PROTECTION MAY BE REQUIRED FOR BURIED DUCTILE IRON WATER SERVICES, ARV'S, AND BLOW OFFS.

3. PREPACKAGED ANODE SIZE AND ALLOY SHALL BE INCLUDED IN A SITE CORROSION CONTROL DESIGN. ANODE ALLOYS MAY BE ZINC, STANDARD POTENTIAL (H-1) MAGNESIUM, OR HIGH-POTENTIAL MAGNESIUM ALLOY, DEPENDING ON SITE SOIL CONDITIONS.

4. ALL FERROUS METAL PIPE & FITTINGS SHALL BE WRAPPED WITH 8-MIL POLYETHYLENE IN ACCORDANCE WITH AWWA C-105.

5. ALL BURIED PIPING SHALL BE ELECTRICALLY ISOLATED FROM BUILDING PLUMBING, BUILDING STRUCTURES (SUCH AS CONCRETE SLABS AND WALLS), AND FOREIGN OR EXISTING PIPELINE CONNECTIONS PER DETAILS CP-44, CP-44A, CP-44B, OR CP-44C.

6. ALL NON-WELDED, NON-INSULATING JOINTS SHALL BE BONDED WITH HMWPE INSULATED COPPER CABLES FOR ELECTRICAL CONTINUITY OF THE DUCTILE IRON FITTINGS. INSTALL ONE #8 AWG/HMWPE BOND CABLE ON EACH JOINT FOR PIPE OF UP TO 6-INCHES IN DIAMETER. INSTALL ONE #4 AWG/HMWPE BOND CABLE ON EACH JOINT FOR PIPE OF UP TO 18-INCHES IN DIAMETER. INSTALL TWO #4 AWG/HMWPE BOND CABLES ON EACH JOINT FOR 20-INCH DIAMETER PIPE AND LARGER.

7. WHEN DETERMINED BY THE DISTRICT ENGINEER, TEST STATIONS ARE REQUIRED FOR ALL ANODE LOCATIONS FOR CATHODICALLY PROTECTED METALLIC PIPES AND FITTINGS, WITH THE EXCEPTION THAT ANODES MAY BE CONNECTED DIRECTLY TO ISOLATED ELBOWS AS SHOWN IN DWG. CP-34.

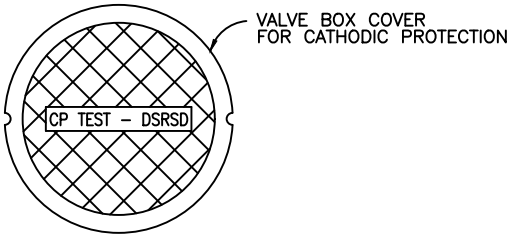
8. MULTIPLE FITTINGS CAN BE BONDED TOGETHER USING A #8 AWG/HMWPE CABLE AND PROTECTED WITH A SINGLE ANODE FOR C-900 PIPELINES. CONSULT THE PROJECT CORROSION ENGINEER IN COORDINATION WITH DSRSD ENGINEERING FOR ACCEPTABLE VARIANCES FROM THE DSRSD STANDARDS. FOR FITTINGS FROM 8-INCHES TO 18-INCHES IN DIAMETER USE ONE #4 AWG/HMWPE CABLE. FOR DIAMETERS OF 6-INCHES OR LESS USE ONE #8 AWG/HMWPE CABLE.

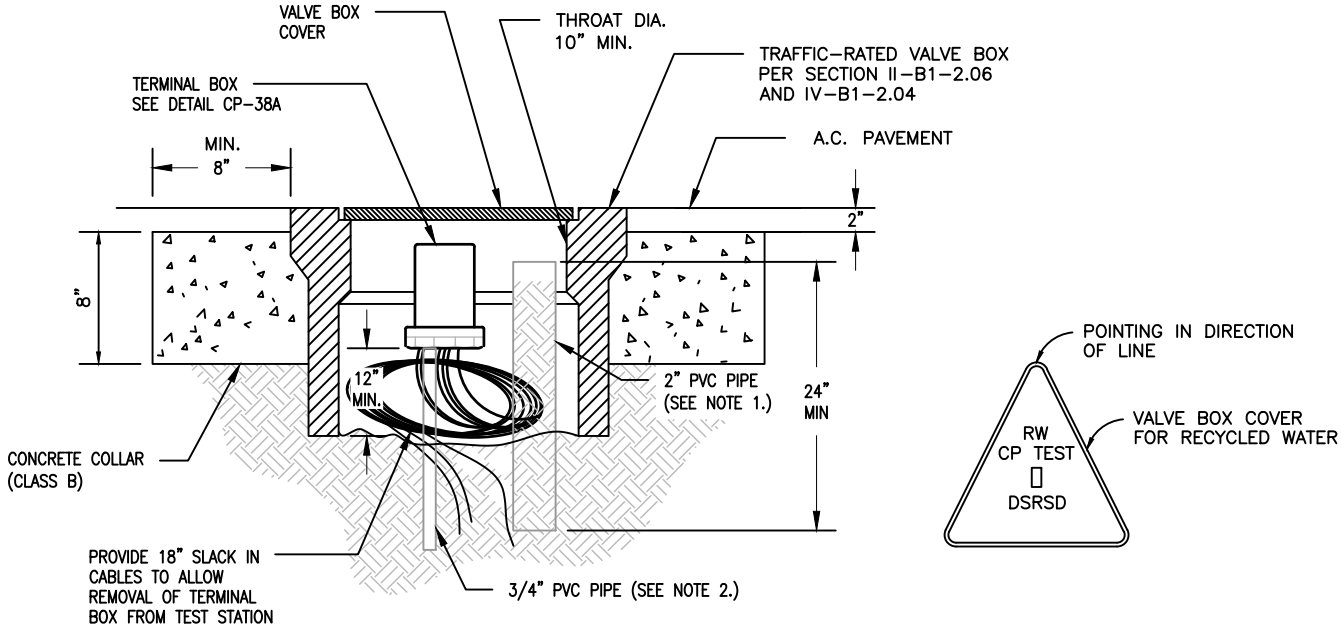
9. ALL TEST STATIONS SHALL BE PROVIDED WITH TWO STRUCTURE CABLES; ONE FOR TESTING AND ONE FOR DRAINING OF CATHODIC PROTECTION CURRENT IN THE CATHODIC PROTECTION CIRCUIT. FOR CATHODIC PROTECTION SYSTEMS IN WHICH ANODES ARE BONDED DIRECTLY TO STRUCTURES, NO SEPARATE STRUCTURE DRAIN CABLE IS REQUIRED AND A SINGLE, DIRECTLY BONDED ANODE CABLE SHALL BE PROVIDED WITH EACH INSTALLED ANODE.

10. ALL ANODES INSTALLED SHALL BE DOCUMENTED AND REPORT SHALL BE PROVIDED TO THE PROJECT CORROSION ENGINEER OR NACE SPECIALIST.

11. AFTER COMPLETION THE SYSTEM SHALL BE TESTED, AND THE FINDINGS CERTIFIED, UNDER THE SUPERVISION OF A REGISTERED CORROSION ENGINEER OR NACE CATHODIC PROTECTION SPECIALIST.

Dublin San Ramon Services District	DATE JULY 2022
CP GENERAL NOTES	DESIGNED SC / RM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-37



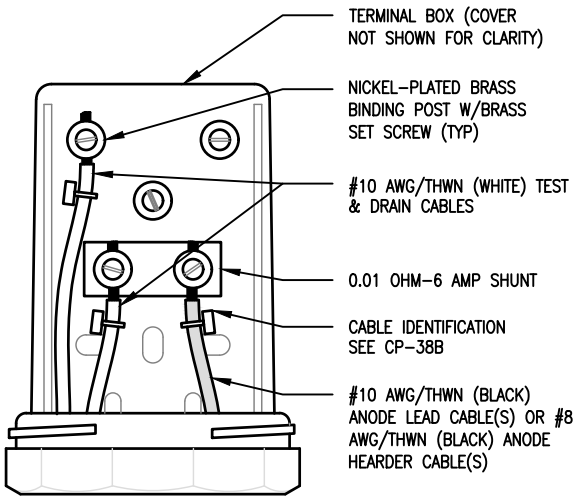


CP TEST STATION BOX WITH CAST IRON TRAFFIC LID

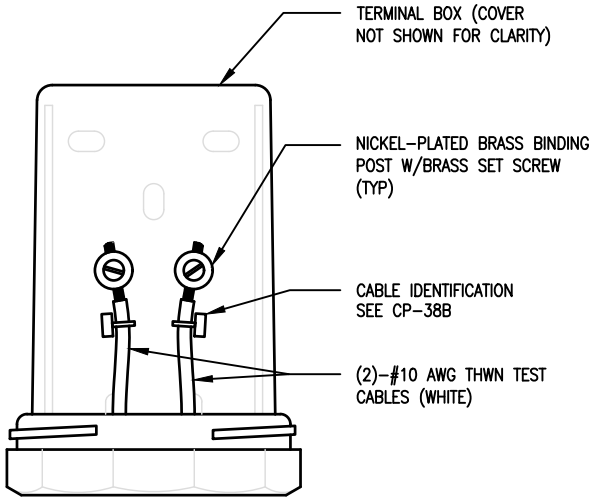
NOTES:

1. INSTALL 2" PVC PIPE IN CLEAN NATIVE SOIL. FILL PIPE WITH CLEAN SOIL, FREE FROM ROCKS & DEBRIS.
2. INSTALL 18" LENGTH OF 3/4" PVC PIPE TO ENSURE THAT THE TERMINAL BOX WILL REMAIN IN THE UPRIGHT POSITION. POSITION THE PIPE SO THAT THE TERMINAL BOX WILL BE AS HIGH AS POSSIBLE WITH THE CAST IRON LID STILL CLOSING PROPERLY.
3. A.C. AND SIDEWALK PAVEMENT TO COMPLY WITH STREET PAVEMENT OR SIDEWALK REQUIREMENTS.
4. ALL CP TEST STATIONS SHALL BE INSTALLED A MINIMUM OF 2–FT OUTSIDE OF AUTOMOBILE TRAFFIC LANES. IF CURBS ARE PRESENT, TEST STATIONS SHALL BE INSTALLED BEHIND CURBS IN TRAFFIC MEDIANS, SIDEWALKS, OR LANDSCAPING.
5. FOR TESTS STATION BOXES INSTALLED IN NON–TRAFFIC AREAS, CONCRETE COLLAR SHALL BE EXTENDED TO FINISH GRADE. SLOPE COLLAR TO DRAIN AWAY FROM LID.
6. RISER PIPE TO BE ONE CONTINUOUS PIECE OF PVC.
7. CP TEST STATION BOX COVERS FOR RECYCLED WATER MAINS SHALL BE TRIANGULAR WITH "RW CP TEST –DSRSD" INSCRIPTION CAST ON THE TOP SURFACE.

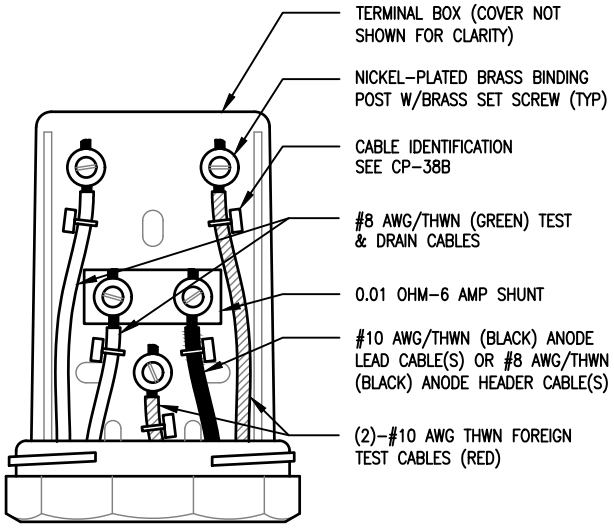
Dublin San Ramon Services District	DATE JUNE 2022
CP TEST STATION BOX INSTALLATION	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP–38



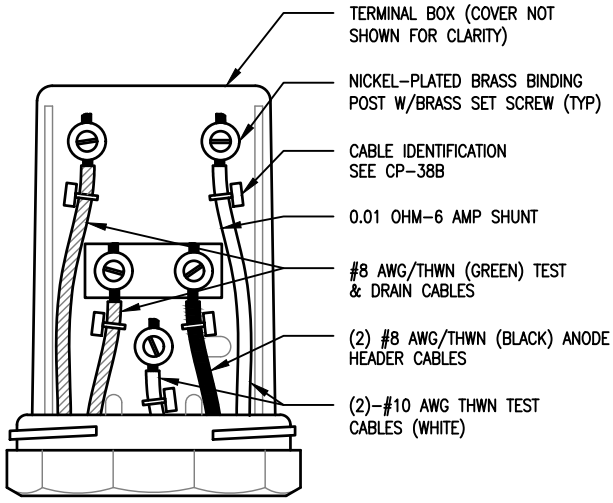
ATS TERMINAL BOX



CTS TERMINAL BOX

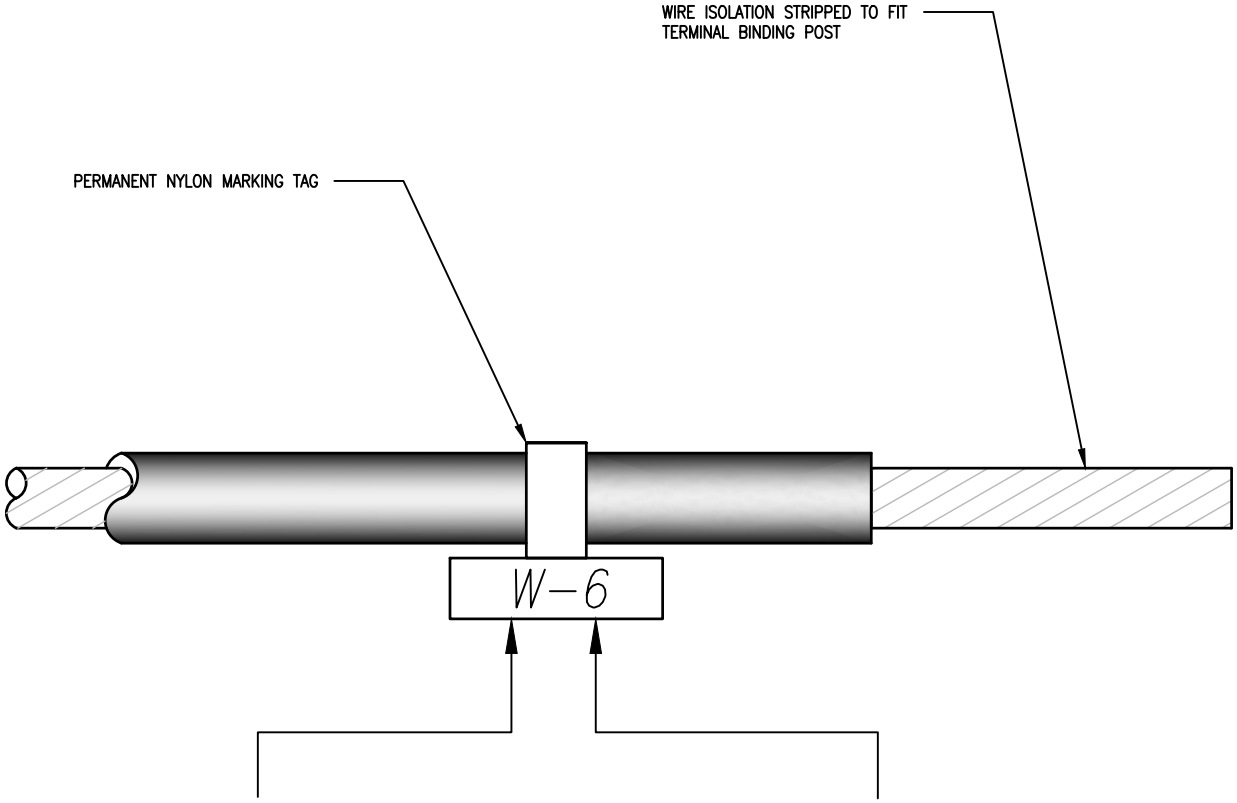


IJTSA TERMINAL BOX



CATS TERMINAL BOX

Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP TERMINAL BOX	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP–38A



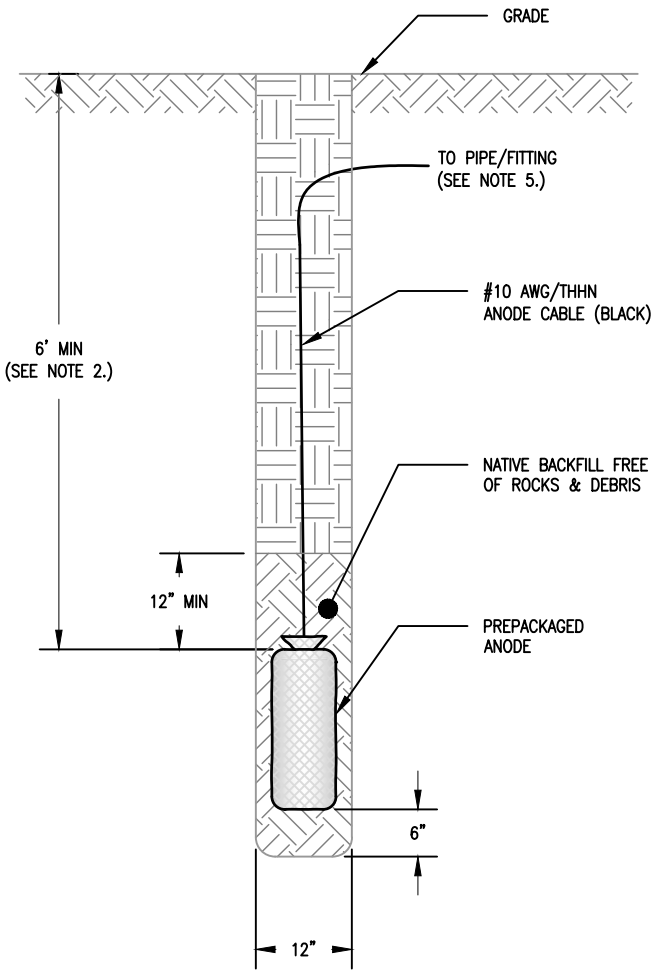
ABBREVIATIONS

AN – ANODE
DW – DOMESTIC WATER
RW – RECYCLED WATER
FW – FIRE WATER
NPW – NON–POTABLE

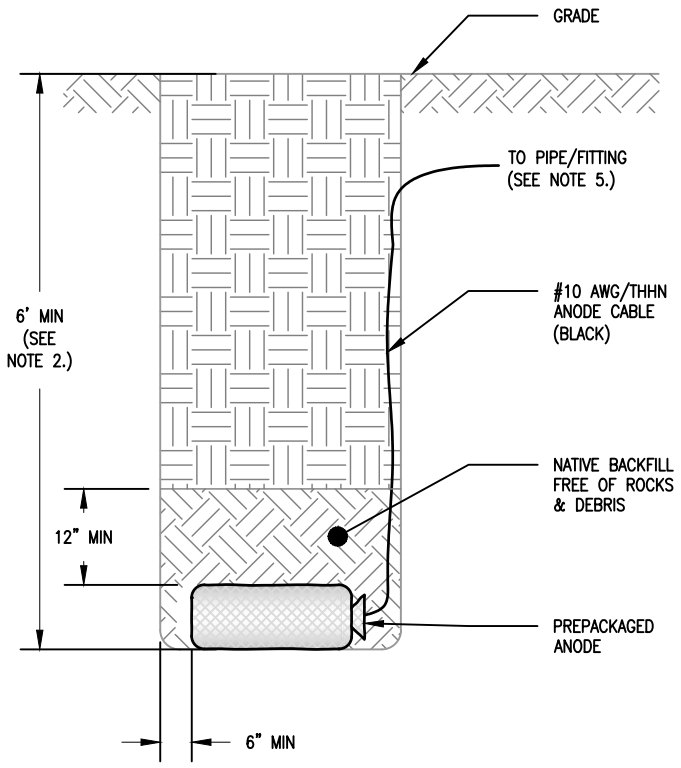
NUMBER

PIPE DIAMETER (INCHES)
ANODE NUMBER

Dublin San Ramon Services District	DATE JUNE 2022
CP CABLE IDENTIFICATION	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP–38B



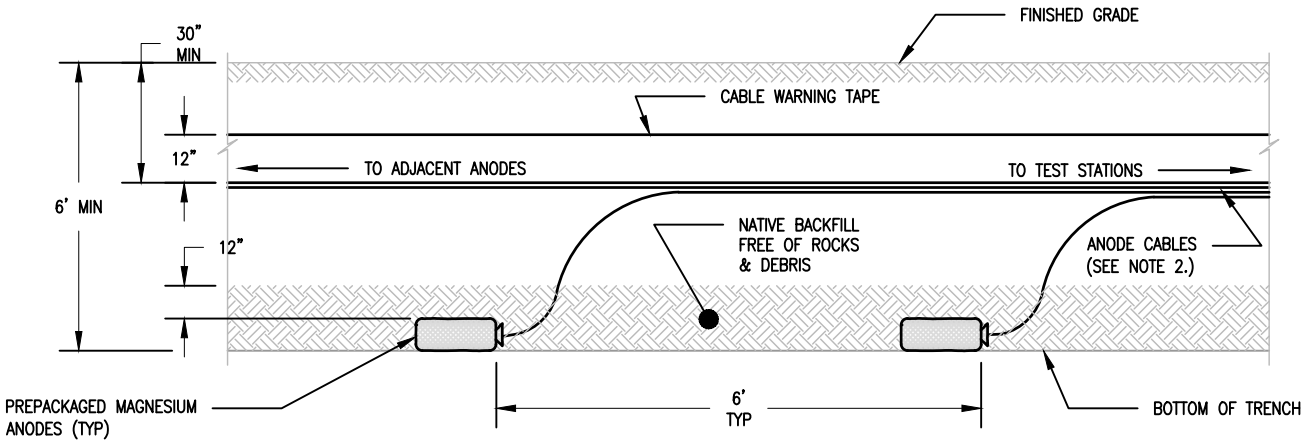
VERTICAL INSTALLATION



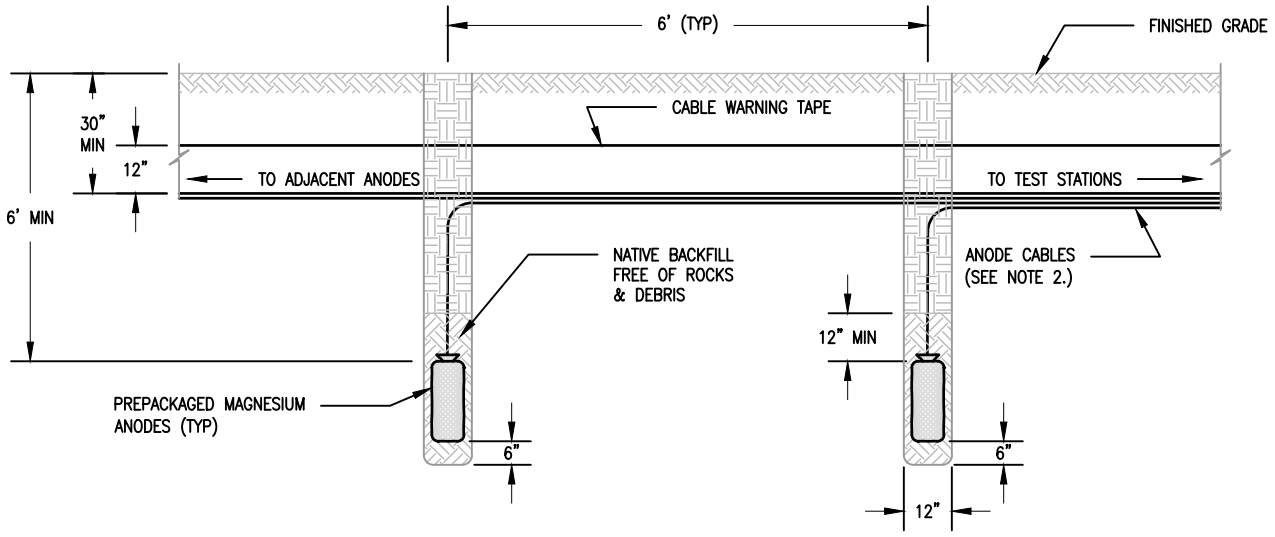
HORIZONTAL INSTALLATION

NOTES:
1. INSTALL ANODES 3 FEET OFF THE PIPE/FITTING IN NATIVE SOIL.
2. FOR SACRIFICIAL ANODES PROTECTING DUCTILE IRON VALVES, FITTINGS & RISERS OF C900 PVC PIPELINES, ANODES MAY BE INSTALLED SUCH THAT THE TOP OF THE ANODE IS PLACED BELOW THE BOTTOM OF THE VALVE OR FITTING. FOR DUCTILE IRON PIPELINE INSTALLATIONS, ANODE SHALL BE INSTALLED TO A MINIMUM DEPTH OF 6 FEET AS INDICATED IN THIS DETAIL. A MINIMUM OF A 3 FEET DISTANCE SHALL BE MAINTAINED BETWEEN EACH ANODE AND THE DUCTILE IRON STRUCTURE IT PROTECTS IN ALL CASES.
3. THE ANODES MAY BE INSTALLED HORIZONTALLY OR VERTICALLY UPON DISCRETION OF THE CONTRACTOR.
4. MAINTAIN A MIN. DISTANCE OF 10 FEET BETWEEN ANODES IF MULTIPLE ANODES ARE INSTALLED.
5. CONNECT ANODE CABLE TO TEST STATION OR DIRECTLY TO PIPE OR FITTING AS SHOWN IN THE DRAWINGS.

Dublin San Ramon Services District	DATE JUNE 2022
ANODE INSTALLATION – SINGLE ANODE	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP–39



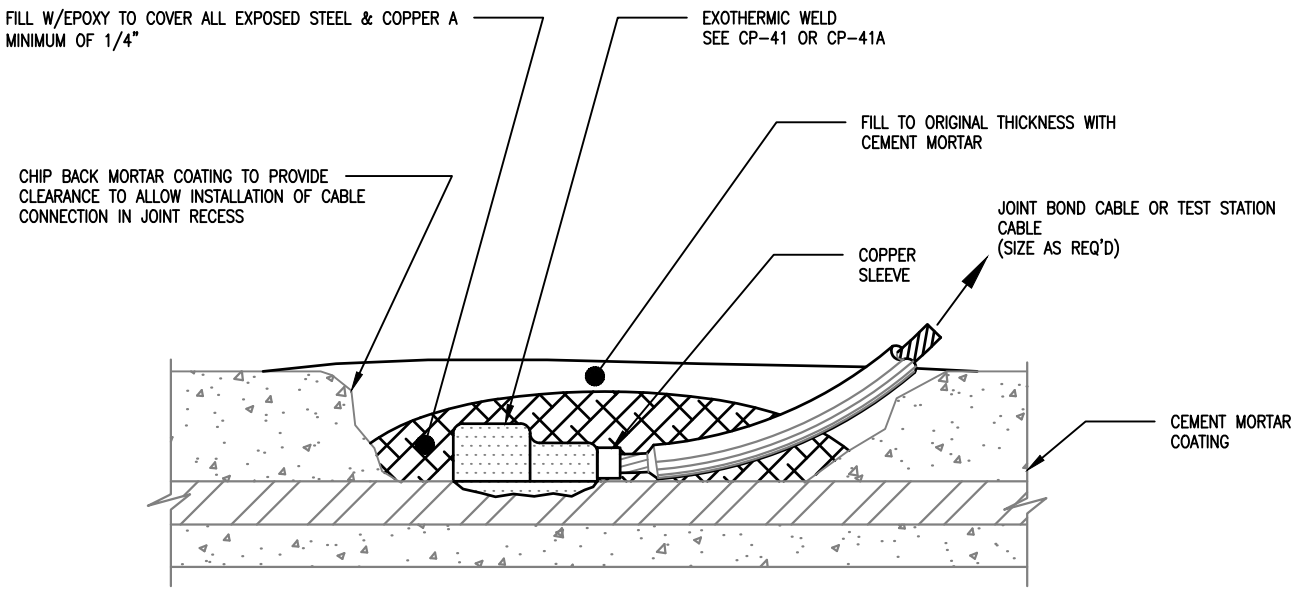
HORIZONTAL INSTALLATION



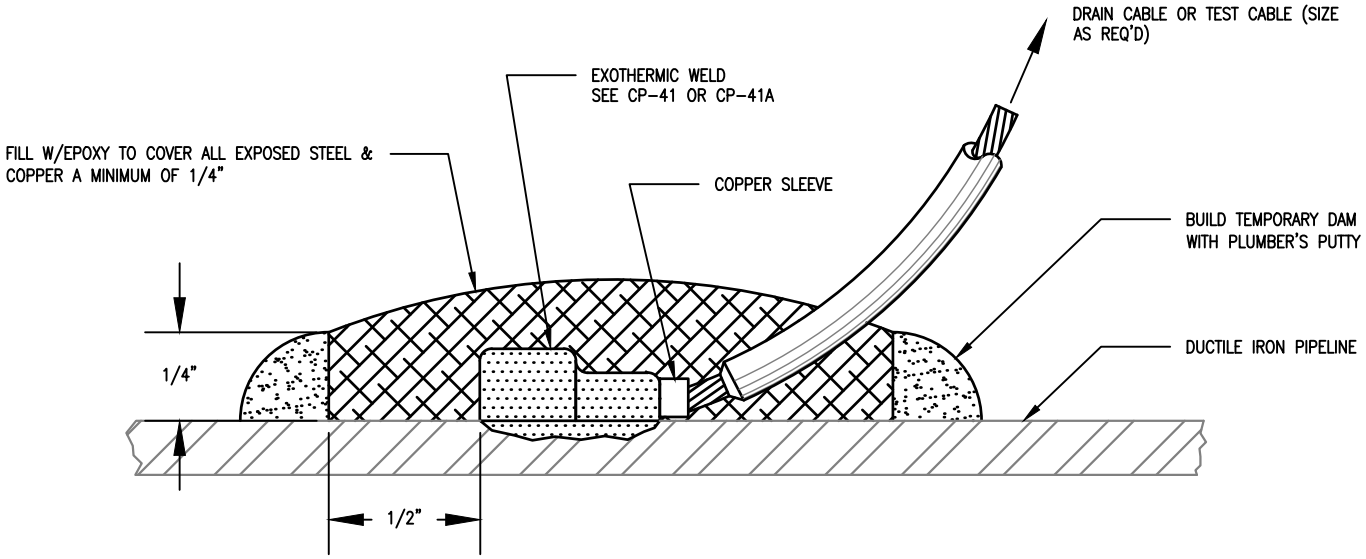
VERTICAL INSTALLATION

NOTES:
1. INSTALL ANODES 3 FEET OFF THE PIPE/FITTING IN NATIVE SOIL.
2. FOR SACRIFICIAL ANODES PROTECTING DUCTILE IRON VALVES, FITTINGS & RISERS OF C900 PVC PIPELINES, ANODES MAY BE INSTALLED SUCH THAT THE TOP OF THE ANODE IS PLACED BELOW THE BOTTOM OF THE VALVE OR FITTING. FOR DUCTILE IRON PIPELINE INSTALLATIONS, ANODE SHALL BE INSTALLED TO A MINIMUM DEPTH OF 6 FEET AS INDICATED IN THIS DETAIL. A MINIMUM OF A 3 FEET DISTANCE SHALL BE MAINTAINED BETWEEN EACH ANODE AND THE DUCTILE IRON STRUCTURE IT PROTECTS IN ALL CASES.
3. THE ANODES MAY BE INSTALLED HORIZONTALLY OR VERTICALLY UPON DISCRETION OF THE CONTRACTOR.
4. MAINTAIN A MIN. DISTANCE OF 10 FEET BETWEEN ANODES IF MULTIPLE ANODES ARE INSTALLED.
5. CONNECT ANODE CABLE TO TEST STATION OR DIRECTLY TO PIPE OR FITTING AS SHOWN IN THE DRAWINGS.

Dublin San Ramon Services District	DATE JUNE 2022
ANODE INSTALLATION – MULTIPLE ANODES	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP–39A



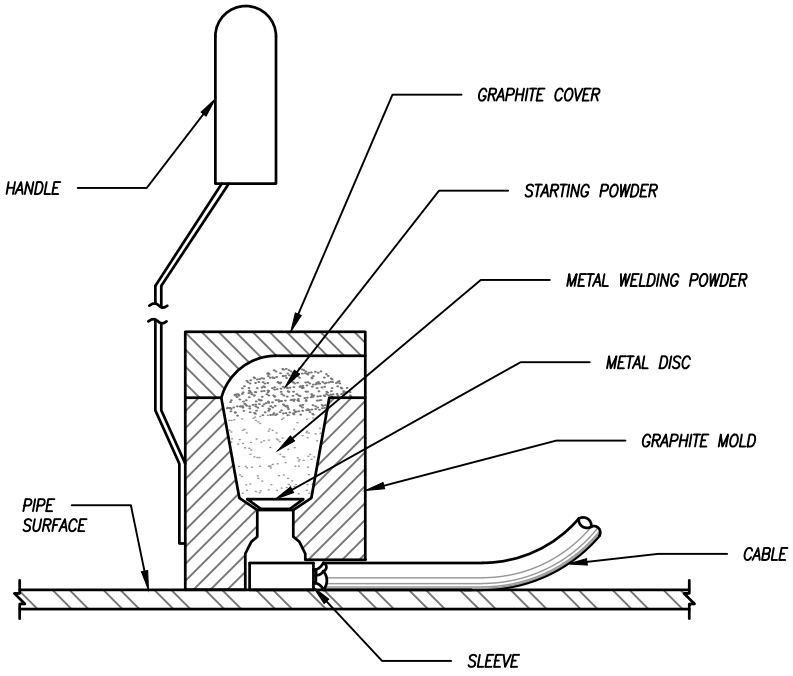
MORTAR COATED STEEL PIPE



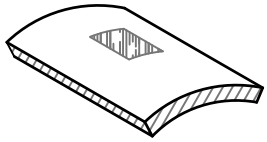
DUCTILE IRON PIPE

NOTE:
1. COATING MAY CONSIST OF ANY OF THE FOLLOWING, OR APPROVED EQUALS:
   1.1. TWO PART LIQUID EPOXY WITH PUTTY DAM, AS SHOWN
   1.2. PROPOXY 20 EPOXY STICK.
2. COATING SHALL COVER ALL COPPER AND ANY STEEL OR DUCTILE IRON SURFACE THAT WAS CLEANED AND PREPARED FOR CADWELD CONNECTION.

Dublin San Ramon Services District	REVISION DATE JUNE 2022
CP STRUCTURE-TO-CABLE CONNECTION	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-40

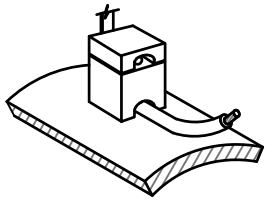


STEP 1. FILE STRUCTURE CONNECTION AREA TO BARE SHINY METAL AND CLEAN.

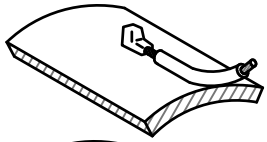


STEP 2. STRIP ISOLATION FROM WIRE. ATTACH SLEEVE REQUIRED ON #6 AWG/WIRE OR SMALLER.

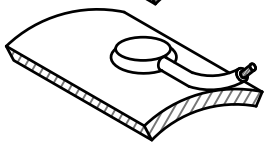
STEP 3. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR AND IGNITE WITH FLINT GUN.



STEP 4. REMOVE SLAG FROM CONNECTION AND PEEN WELD FOR SOUNDNESS.

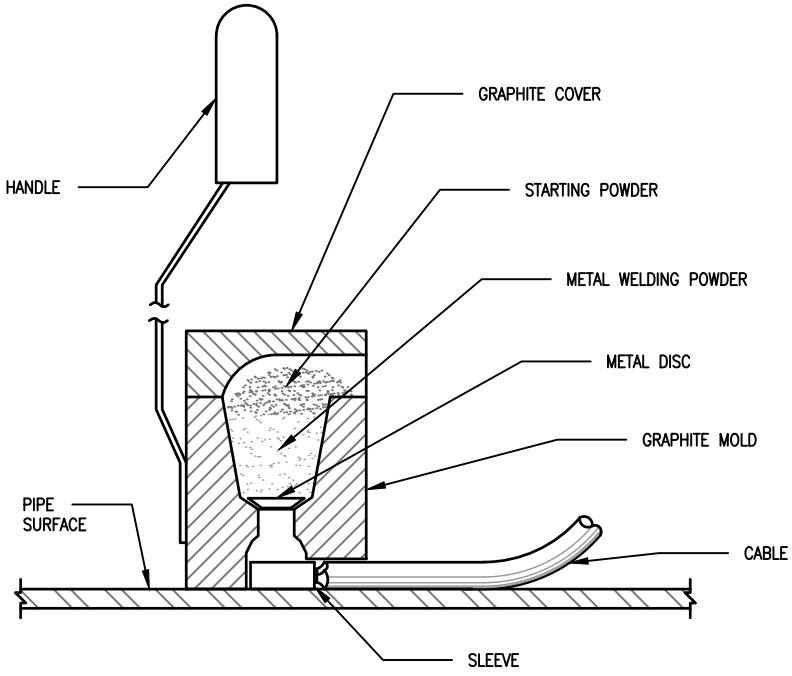


STEP 5. COVER CONNECTION AND EXPOSED STRUCTURE SURFACE PER DETAIL CP-40.



NOTE:
PROCEDURE SHOWN ABOVE IS TO BE USED AS A GENERAL GUIDE ONLY. CONSULT MANUFACTURER'S LITERATURE FOR SPECIFIC INSTALLATION INSTRUCTIONS.

Dublin San Ramon Services District	REVISION DATE JUNE 2022
HORIZONTAL EXOTHERMIC WELD	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-41



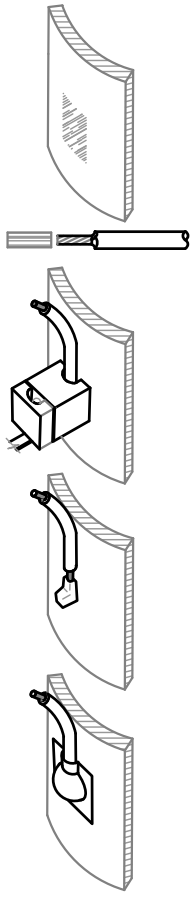
STEP 1. FILE STRUCTURE CONNECTION ARE TO BARE SHINY METAL AND CLEAN.

STEP 2. STRIP ISOLATION FROM WIRE. ATTACH SLEEVE REQUIRED ON #6 AWG WIRE OR SMALLER

STEP 3. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR AND IGNITE WITH FLINT GUN.

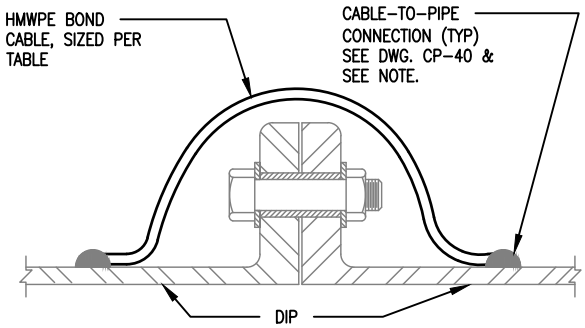
STEP 4. REMOVE SLAG FROM CONNECTION AND PEEN WELD FOR SOUNDNESS.

STEP 5. COVER CONNECTION AND EXPOSED STRUCTURE SURFACE PER CP–40

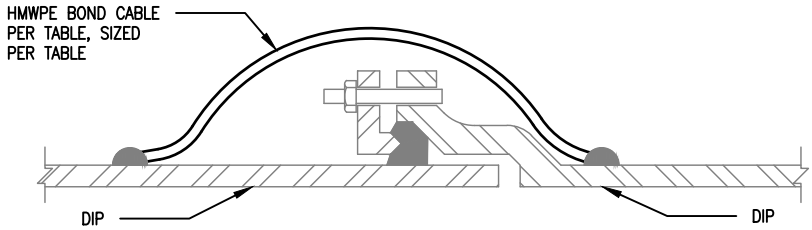


NOTE:
PROCEDURE SHOWN ABOVE IS TO BE USED AS A GENERAL GUIDE ONLY. CONSULT MANUFACTURER'S LITERATURE FOR SPECIFIC INSTALLATION INSTRUCTIONS.

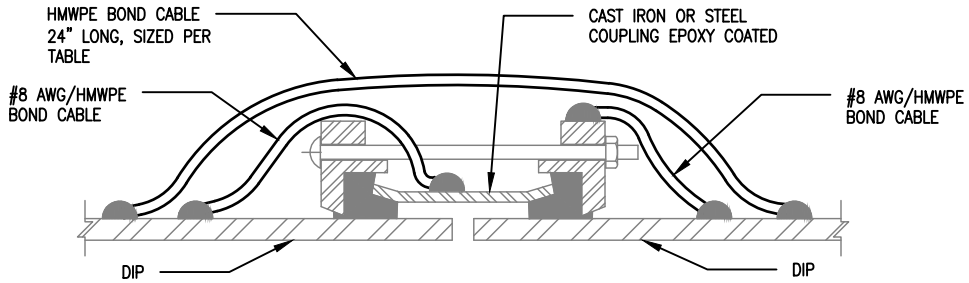
Dublin San Ramon Services District	REVISION DATE JUNE 2022
VERTICAL EXOTHERMIC WELD	REVISED BY SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP–41A



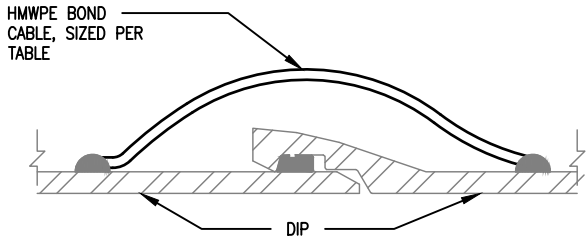
FLANGED JOINT



MECHANICAL JOINT



FLEXIBLE COUPLING



PUSH-ON JOINT

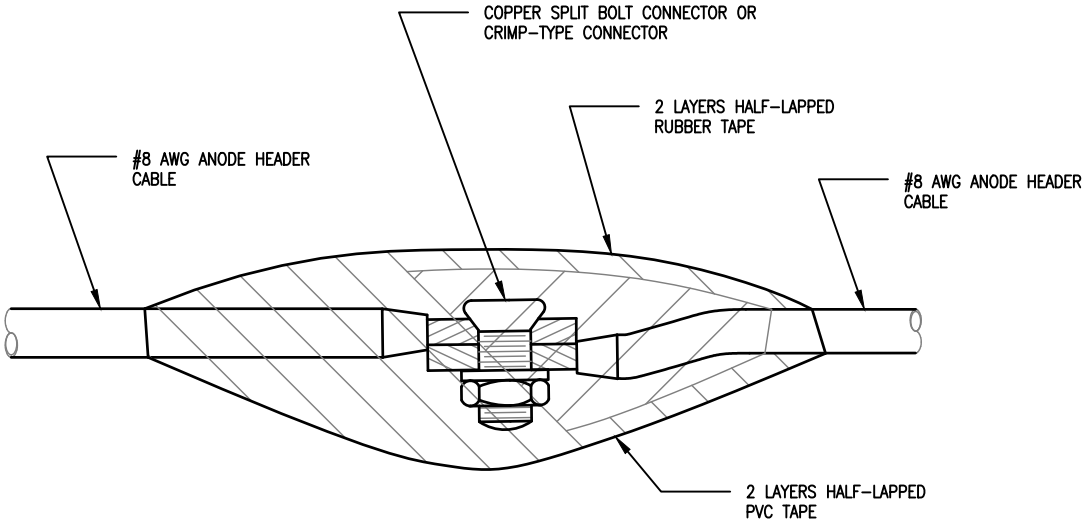
NOTE:

1. DO NOT INSTALL BOND CABLES ACROSS INSULATING JOINTS.
2. EXOTHERMIC WELD CONNECTIONS FOR DUCTILE IRON PIPE SHALL BE INSTALLED A MINIMUM OF 6-INCHES DISTANCE FROM ADJACENT WELDS.

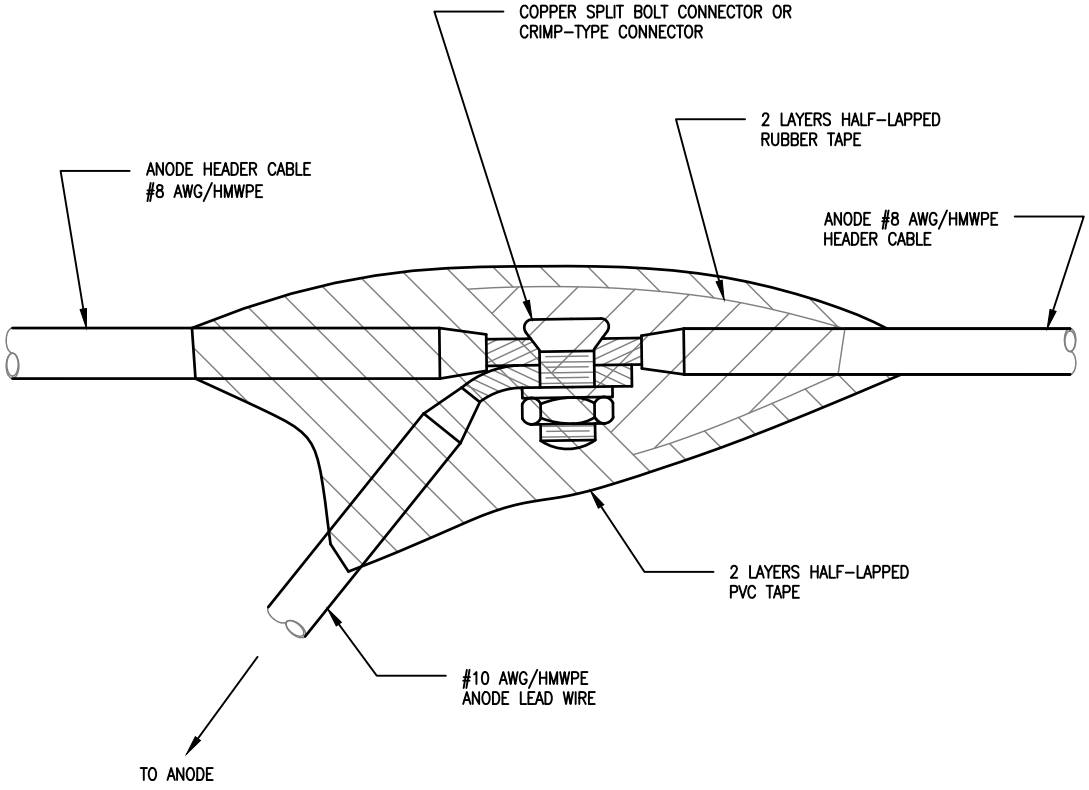
TABLE 1

PIPE DIAMETER	WIRE COUNT AND GAUGE
FITTINGS & UP TO 8" DI PIPE	ONE (1) #8 AWG
10" to 18"	ONE (1) #4 AWG
20" AND LARGER	TWO (2) #4 AWG

Dublin San Ramon Services District	DATE JUNE 2022
BOND CABLE INSTALLATION	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-42

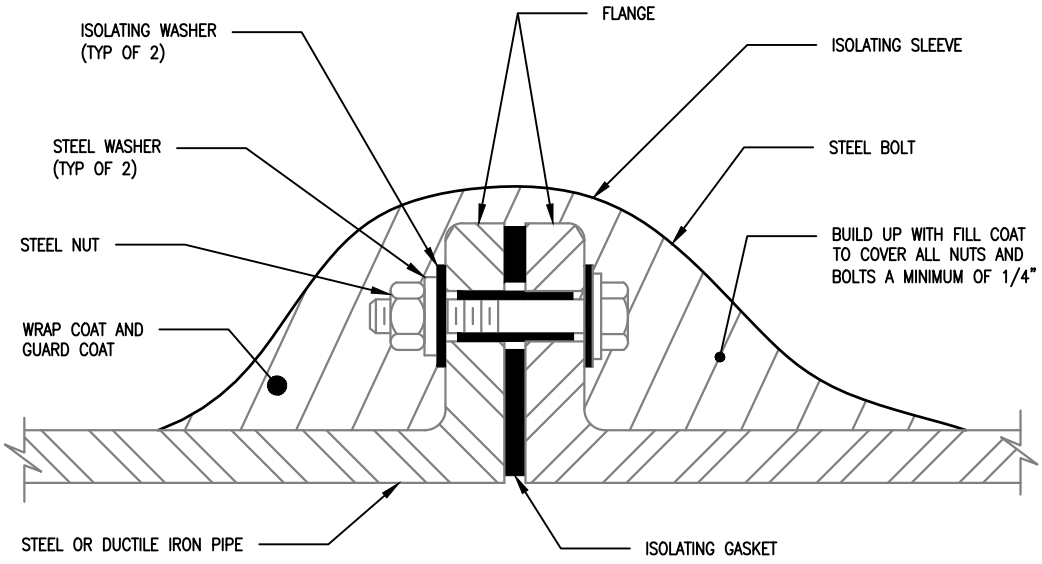


TWO-WAY CABLE SPLICE

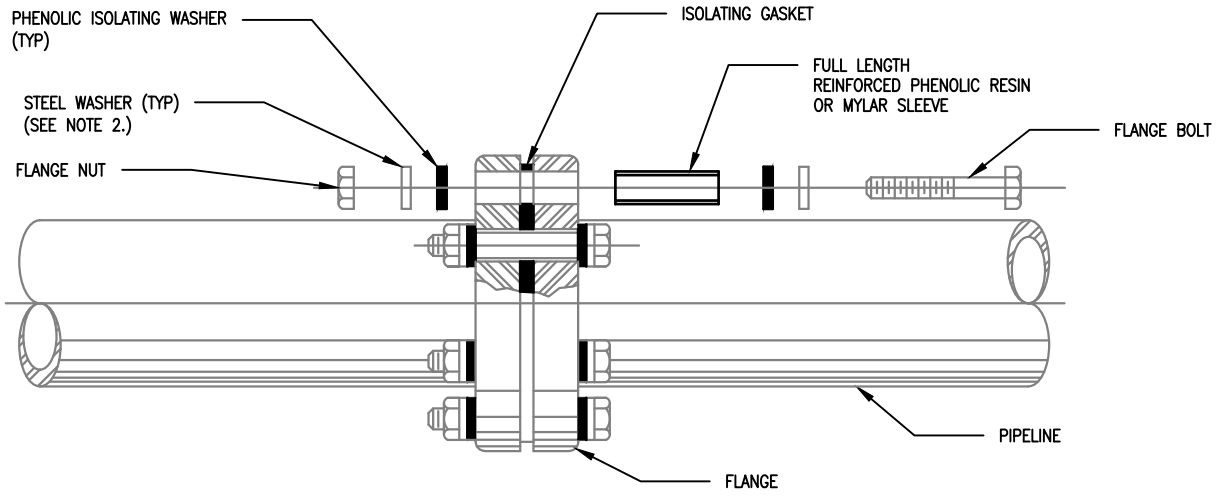


THREE-WAY CABLE SPLICE

Dublin San Ramon Services District	DATE JUNE 2022
CP CABLE SPLICE CONNECTION	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-43



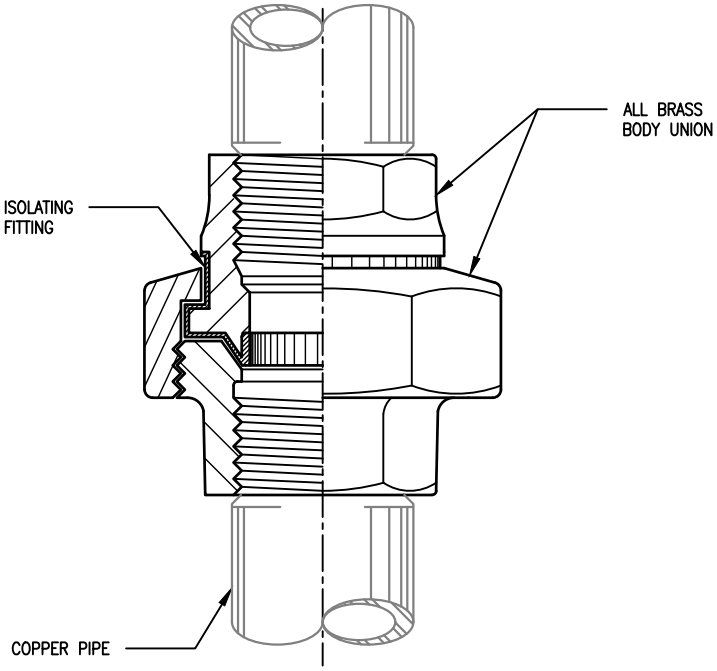
BELOW GRADE COATING



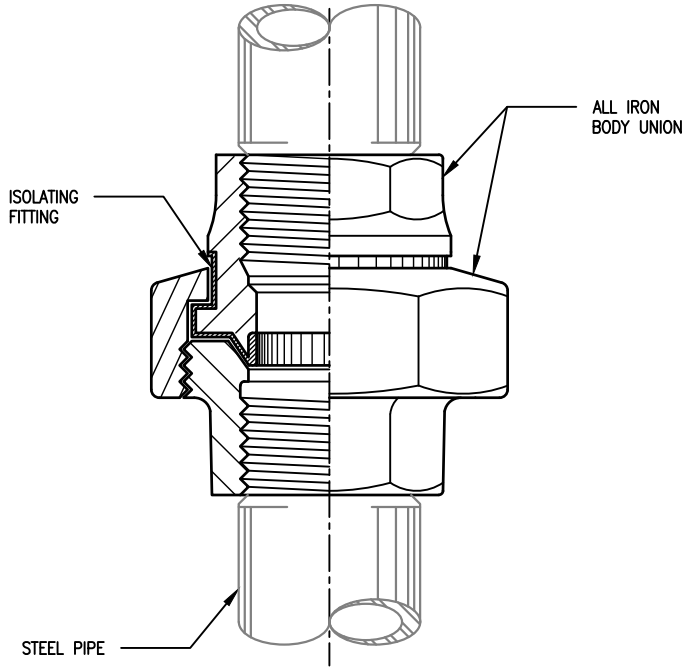
ABOVE GRADE ISOLATING JOINT

NOTES:
1. THE ISOLATING FLANGE KIT SHALL BE FOR WATER SERVICE, SUITABLE FOR WET & DRY LOCATIONS, AND BE OF SAME PRESSURE RATING AS THE FLANGE.
2. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
3. ALL BURIED DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE, PER NOTE 4., CP-37.
4. DELETE COATING IF FLANGE IS LOCATED ABOVE GRADE OR IN VAULTS. FOR BURIED ISOLATING JOINTS APPLY THE COATING SYSTEM AS SHOWN ABOVE.
5. ALL ISOLATING JOINTS SHALL BE TESTED AND APPROVED PRIOR TO BACKFILL.

Dublin San Ramon Services District	DATE JUNE 2022
INSULATING JOINT FLANGE KIT AND FLANGE COATING	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-44

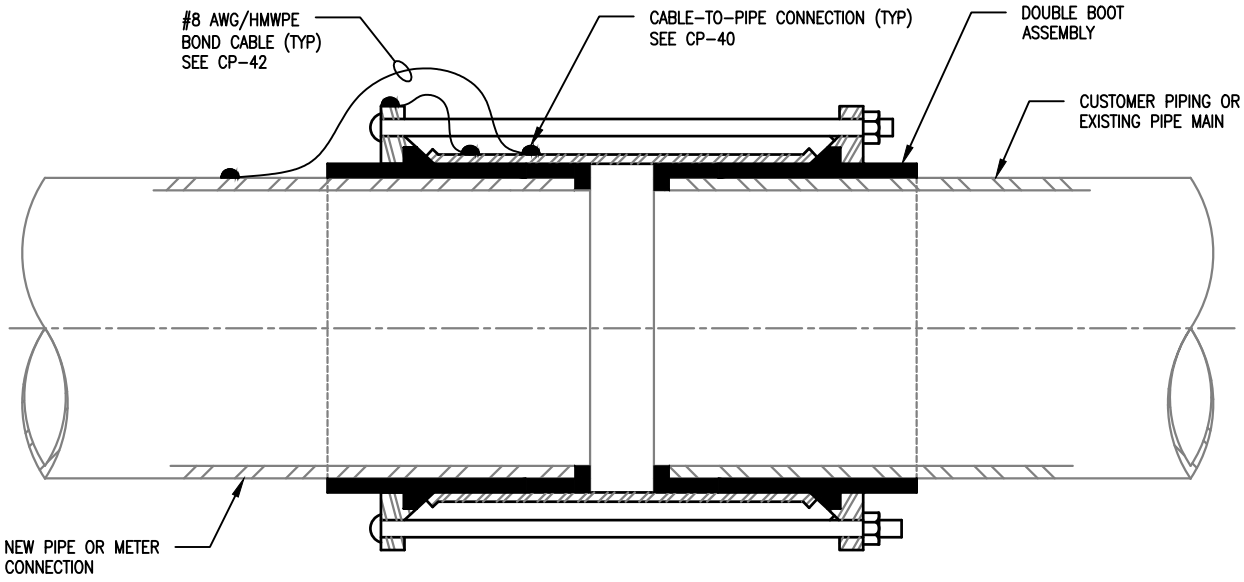


COPPER PIPE



STEEL PIPE

Dublin San Ramon Services District	DATE JUNE 2022
CP INSULATING UNION	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP–44A

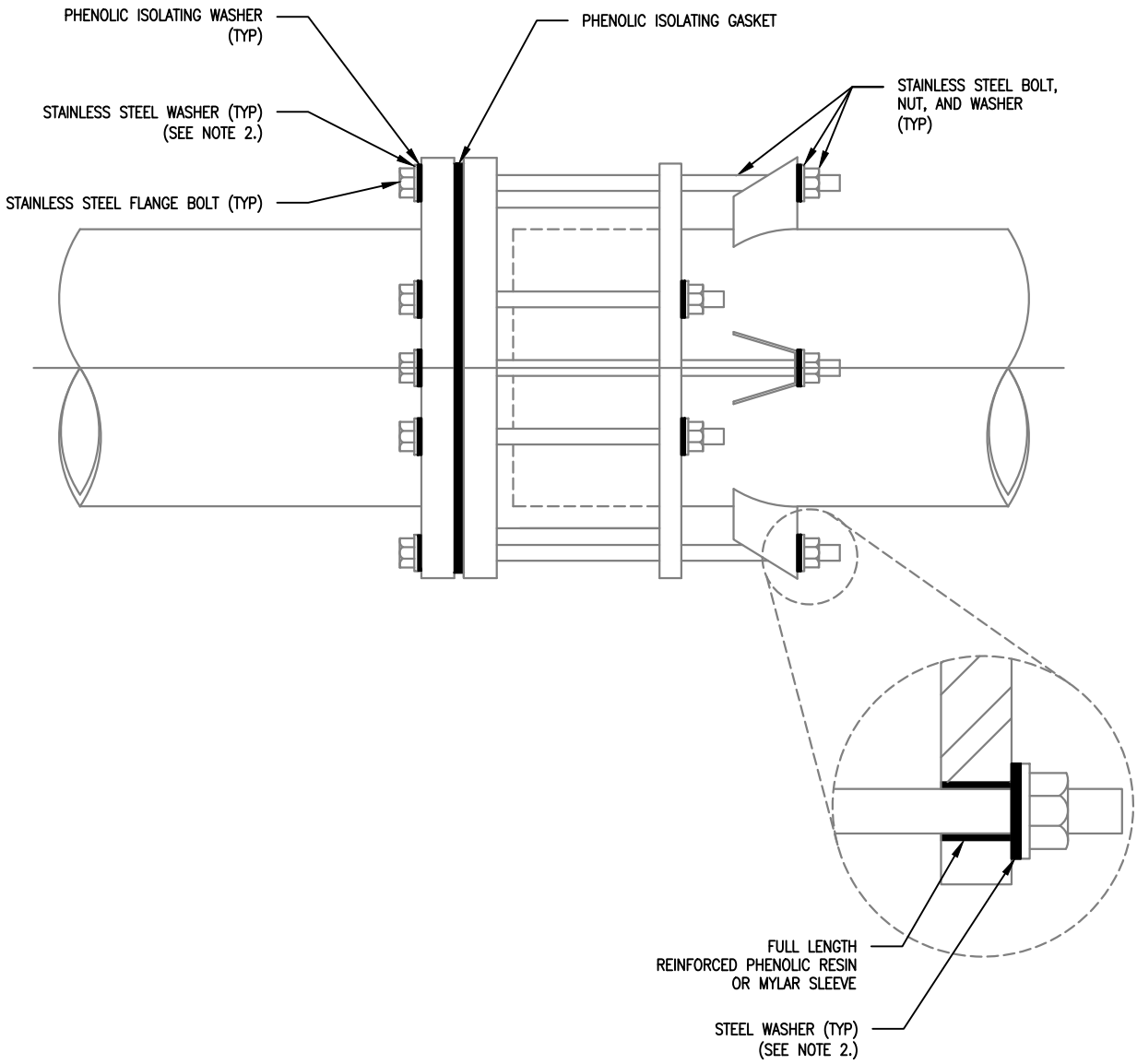


INSULATING FLEXIBLE COUPLING

NOTES:

1. ISOLATING FLANGE JOINT IS ONLY REQUIRED FOR CONNECTION OF TWO METALLIC PIPES. IF EITHER CONNECTED PIPE IS NON-METALLIC, NO ISOLATING JOINT IS REQUIRED.
2. ALL FASTENER BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
3. THE ISOLATING FLANGE KIT SHALL BE FOR WATER SERVICE, SUITABLE FOR DRY LOCATIONS, AND BE OF SAME PRESSURE RATING AS THE FLANGE.
4. PROVIDE WAX TAPE TO COMPLETELY COVER ALL BELOW GRADE CARBON STEEL INSULATING FLEXIBLE COUPLINGS. ANY NON-FIRMING WAX TAPE SHALL BE PROVIDED WITH A PROTECTIVE OUTER WRAP, PER MANUFACTURERS RECOMMENDATIONS. SEE DSRSD'S APPROVED MATERIALS LIST.
5. ALL ISOLATING JOINTS SHALL BE TESTED AND APPROVED BY A DSRSD REPRESENTATIVE PRIOR TO BACKFILL.

Dublin San Ramon Services District	DATE JUNE 2022
INSULATING JOINT FLANGE KIT AND FLANGE COATING	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-44B



ABOVE GRADE ISOLATING JOINT

NOTES:

1. ISOLATING FLANGE JOINT IS ONLY REQUIRED FOR CONNECTION OF TWO METALLIC PIPES. IF EITHER CONNECTED PIPE IS NON-METALLIC, NO ISOLATING JOINT IS REQUIRED.
2. ALL FASTENER BOLTS SHALL BE STAINLESS STEEL TYPE 316, OR APPROVED EQUAL, AND ALL BOLTS, NUTS, AND WASHERS SHALL BE STAMPED IDENTIFYING THE GRADE OF STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO BOLT THREAD.
3. THE ISOLATING FLANGE KIT SHALL BE FOR WATER SERVICE, SUITABLE FOR DRY LOCATIONS, AND BE OF SAME PRESSURE RATING AS THE FLANGE.
4. PROVIDE WAX TAPE TO COMPLETELY COVER ALL BELOW GRADE CARBON STEEL INSULATING FLEXIBLE COUPLINGS. ANY NON-FIRMING WAX TAPE SHALL BE PROVIDED WITH A PROTECTIVE OUTER WRAP, PER MANUFACTURERS RECOMMENDATIONS. SEE DSRSD'S APPROVED MATERIALS LIST.
5. ALL ISOLATING JOINTS SHALL BE TESTED AND APPROVED BY A DSRSD REPRESENTATIVE PRIOR TO BACKFILL.

Dublin San Ramon Services District	DATE JUNE 2022
INSULATING RESTRAINED FLANGE COUPLING	DESIGNED SC
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING CP-44C