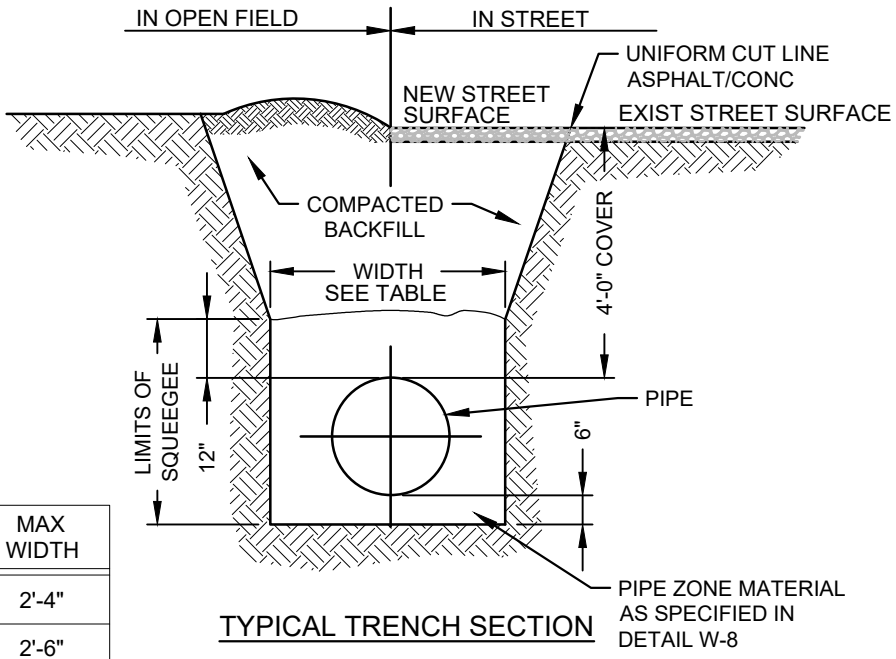
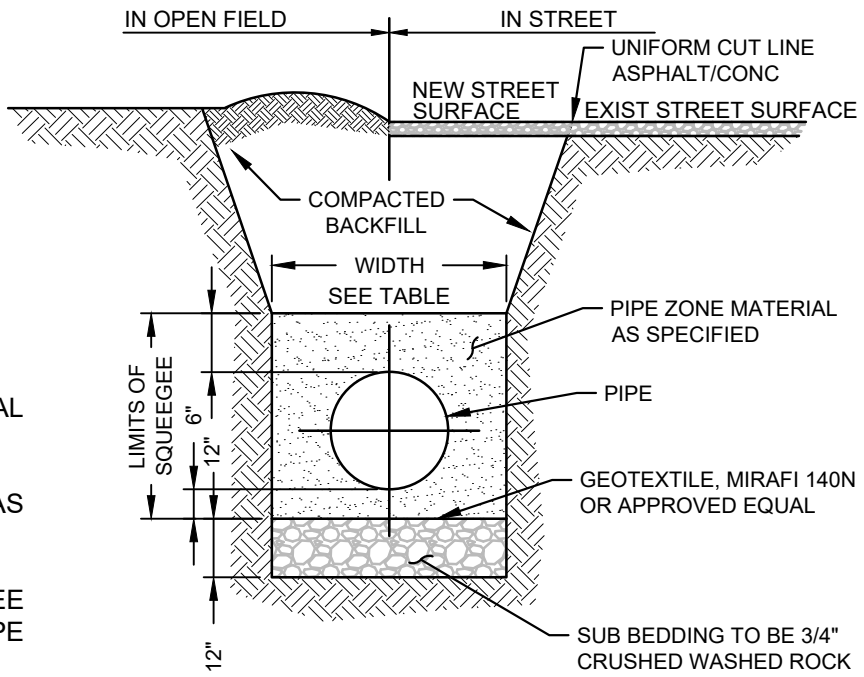


TYPICAL TRENCH SECTION

PIPE Ø	MIN WIDTH	MAX WIDTH
4"	1'-4"	2'-4"
6"	1'-6"	2'-6"
8"	1'-8"	2'-8"
12"	2'-0"	3'-0"
16"	2'-4"	3'-4"
20"	2'-8"	3'-8"
24"	4'-0"	5'-0"



TYPICAL TRENCH SECTION IN EXPANSIVE SOILS

NOTES:

1. MIN COVER TO BE 4.0' BELOW OFFICIAL STREET GRADE.
2. TRENCH WALLS TO BE SUPPORTED AS REQUIRED BY OSHA.
3. PIPE SHALL BE BEDDED WITH SQUEEGEE FROM 6" BELOW THE BOTTOM OF THE PIPE TO 12" ABOVE THE TOP OF THE PIPE.
4. COMPACTION SHALL BE PER COUNTY STANDARDS OR 95% STANDARD PROCTOR IN THE ABSENCE THEREOF.
5. TAPPING SADDLES REQUIRED IN AREAS WHERE THE BEDDING SECTION IS USED.

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LONGS PEAK WATER DISTRICT

TYPICAL TRENCH SECTION
PIPE PROTECTION

SCALE: NONE | DETAIL: W-01

PIPE BEDDING:

(A) INSTALLATION OF BEDDING AND PIPE: AFTER COMPLETION OF THE TRENCH EXCAVATION AND PROPER PREPARATION OF THE FOUNDATION, SIX INCHES (6") OF BEDDING MATERIAL SHALL BE PLACED ON THE TRENCH BOTTOM FOR SUPPORT UNDER THE PIPE. BELL HOLES SHALL BE DUG DEEP ENOUGH TO PROVIDE A MINIMUM OF TWO INCHES (2") OF CLEARANCE BETWEEN THE BELL AND BEDDING MATERIAL. ALL PIPE SHALL BE INSTALLED IN SUCH A MANNER TO INSURE FULL SUPPORT OF THE PIPE BARREL OVER ITS ENTIRE LENGTH. AFTER THE PIPE IS ADJUSTED FOR LINE AND GRADE, AND THE JOINT IS MADE, THE BEDDING MATERIAL SHALL BE CAREFULLY PLACED AND TAMPED UNDER THE HAUNCHES OF THE PIPE AND IN THE PREVIOUSLY DUG BELL HOLES.

TAMPING IS HEREIN DEFINED AS THE ACT OF PLACING APPROVED BEDDING MATERIAL UNDER THE HAUNCHES OF THE PIPE, PAYING PARTICULAR ATTENTION TO VOIDS, BELL HOLES, AND SLING HOLES. THE PURPOSE OF TAMPING IS TO ENSURE UNIFORM SUPPORT FOR THE PIPE.

THE LIMITS OF BEDDING SHALL BE SIX INCHES (6") BELOW THE BOTTOM OF THE PIPE TO TWELVE INCHES (12") ABOVE THE TOP OF THE PIPE. APPROVED BACKFILL MAY THEN BE INSTALLED TO THE GROUNDLINE.

COMPACTION OF BEDDING IS NOT REQUIRED. THE ONLY REQUIREMENT IS SUFFICIENT TAMPING TO ACHIEVE UNIFORM SUPPORT UNDER THE PIPE. SEE DETAIL W-7 OF THE STANDARD DRAWINGS FOR A TYPICAL TRENCH CROSS SECTION.

(B) BEDDING MATERIAL: THE BEDDING MATERIAL SHALL BE CLEAN WELL-GRADED SAND OR SQUEEGEE SAND AND SHALL CONFORM TO THE FOLLOWING LIMITS WHEN TESTING BY MEANS OF LABORATORY SIEVES:

WELL-GRADED SAND

SIEVE SIZE	TOTAL PERCENT PASSING BY WEIGHT
3/8 INCH	100
NO.4	95-100
NO.8	80-100
NO.16	50-85
NO.30	25-60
NO.50	10-30
NO.100	2-10
NO.200	0

SQUEEGEE SAND

SIEVE SIZE	TOTAL PERCENT PASSING BY WEIGHT
3/8 INCH	100
NO.100	0-5

IF APPROVED BY THE OWNER, FINES FORM THE TRENCH WALLS AND SPOILS PILE MAY BE USED TO PROVIDE UNIFORM SUPPORT FOR THE PIPE. NO ROCK OR STONE LARGER THAN THAT ALLOWED BY THE SIEVE ANALYSIS, OR ANY OTHER DETRIMENTAL SUBSTANCE, SHALL BE PLACED CLOSER TO THE PIPE THAN SIX INCHES (6"). APPROVED BEDDING MATERIALS SHALL BE STOCKPILED ON THE JOBSITE TO BE USED IN THE EVENT NATURAL MATERIALS BECOME UNSATISFACTORY. THE OWNER RESERVES THE RIGHT TO REQUIRE THE USE OF THE SPECIFIED BEDDING MATERIAL AT ANY TIME.

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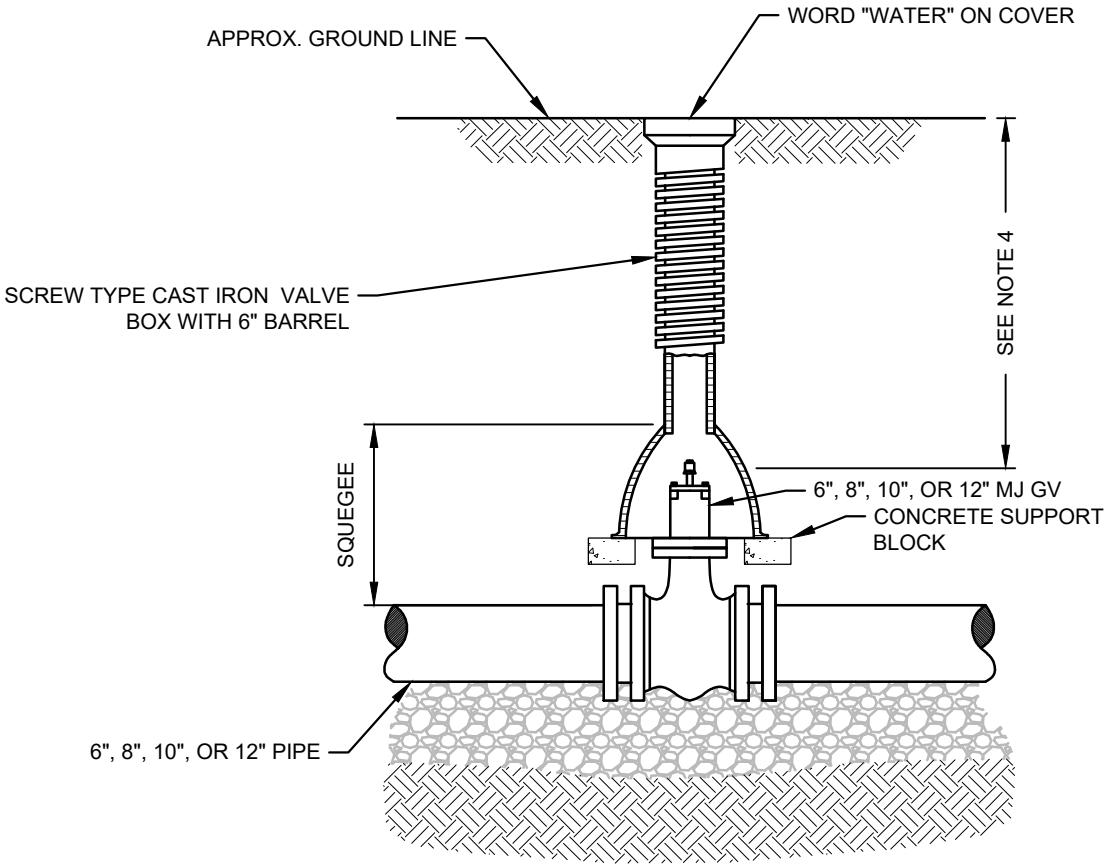
LONGS PEAK WATER DISTRICT

PIPE BEDDING

SCALE: NONE

DETAIL: W-02



6-INCH VALVE BOXES

MATERIALS:

VALVE BOX PARTS SHALL BE MADE FROM GRAY CAST IRON, ASTM A48 CLASS 20A.

USE OF AN ALUMINUM ALLOY AS A CASTING MATERIAL IS NOT ACCEPTABLE.

APPROVED PATTERNS:

VALVE BOXES SHALL BE THE TWO-PIECE ADJUSTABLE SCREW TYPE AND THE FOLLOWING PATTERN IS ACCEPTABLE.

1. SCREW-TYPE 6-INCH CAST IRON VALVE BOX ASSEMBLY SERIES 6850 PART NO. 664S, ROUND 26" BOTTOM, 36" TOP WITH LID MARKED 'WATER'.

2. OR APPROVED EQUAL.

NOTES:

1. ALL CI SHALL BE WRAPPED WITH 8 MIL MIN THICKNESS POLYETHYLENE.
2. VALVE NUT SHALL BE CENTERED.
3. VALVE BOX SHALL BE PLUMB.
4. IF GREATER THAN 5'-0" PROVIDE OPERATING NUT EXTENSION WITH CENTERING RING TO 12" BELOW COVER.

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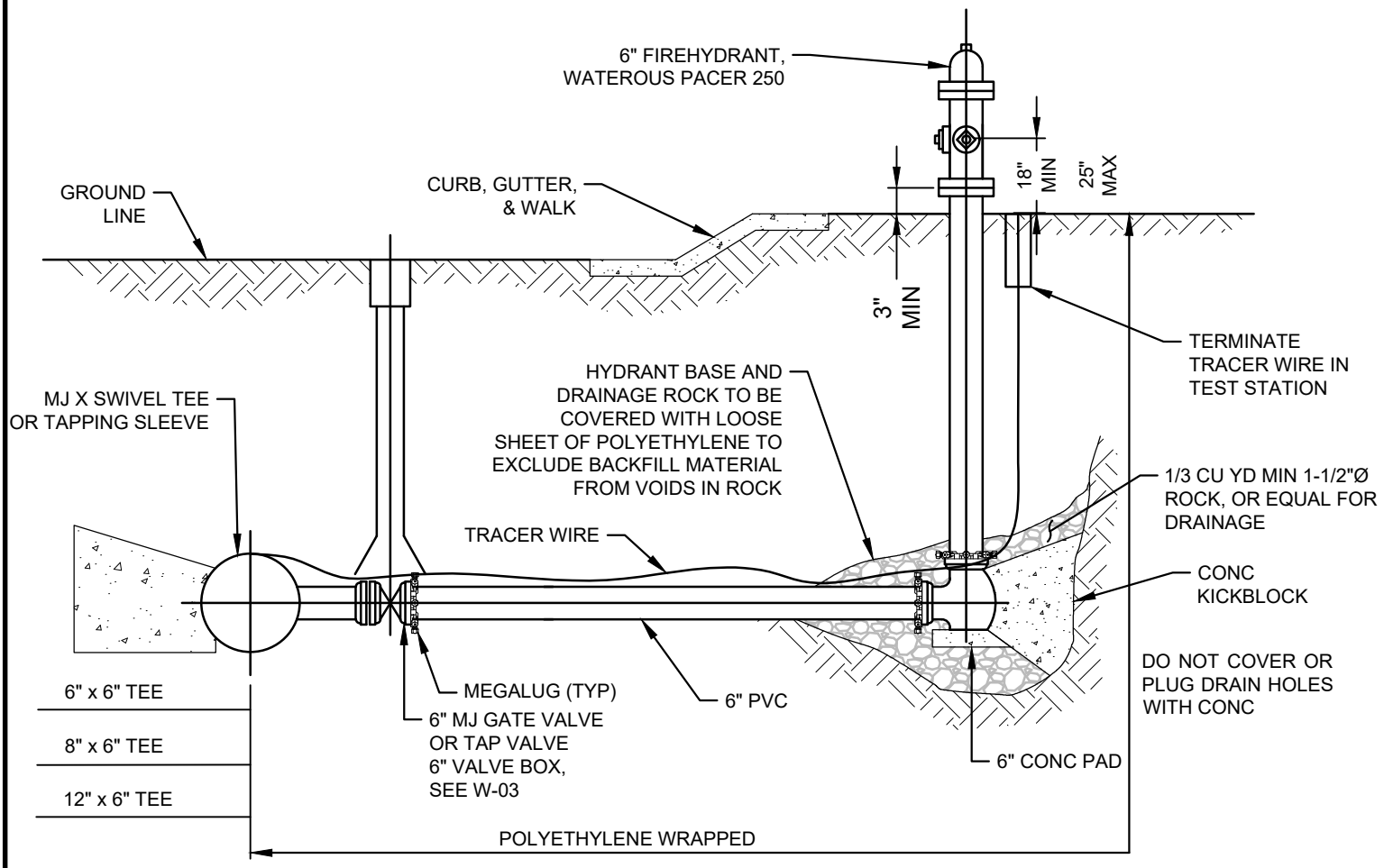
LONGS PEAK WATER DISTRICT

VALVE BOX DETAIL

SCALE: NONE

DETAIL: W-03



NOTE:

NO HORIZONTAL OR VERTICAL BENDS ARE ALLOWED IN FIRE HYDRANT BRANCH OR SPRINKLER LINES.

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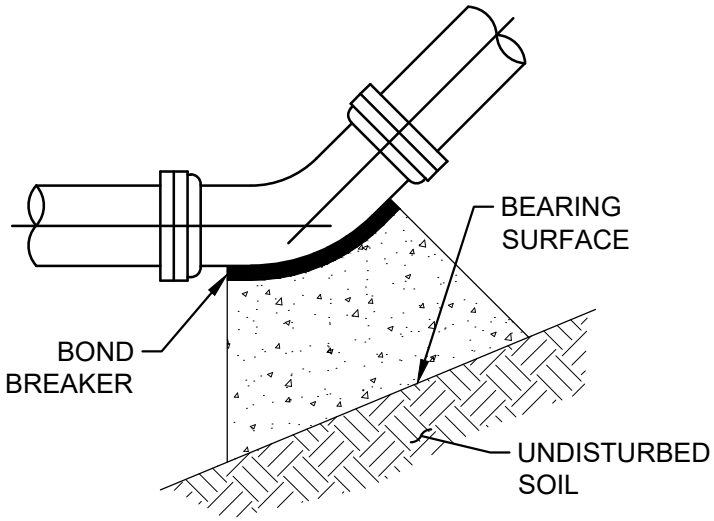
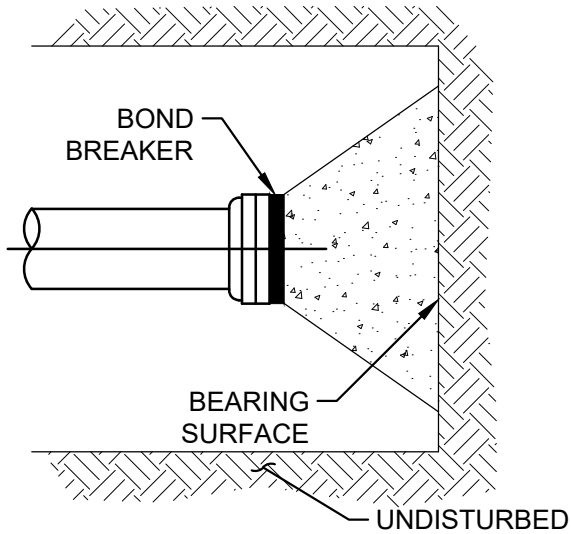
LONGS PEAK WATER DISTRICT

PLAN, PROFILE & LOCATIONS FOR FIRE HYDRANTS, MAINS & VALVES

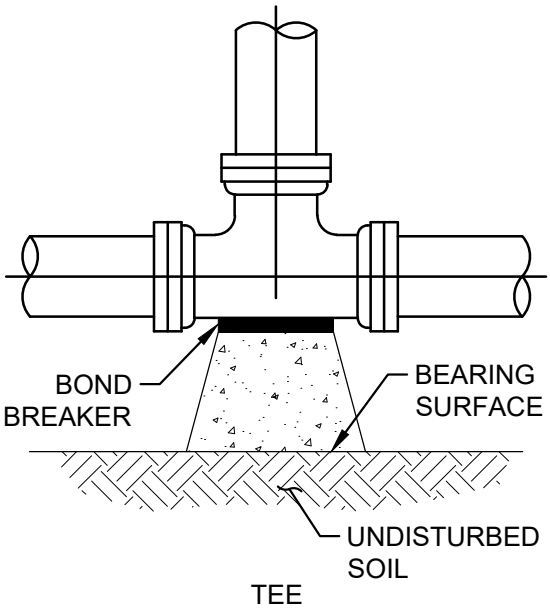
SCALE: NONE | DETAIL: W-04



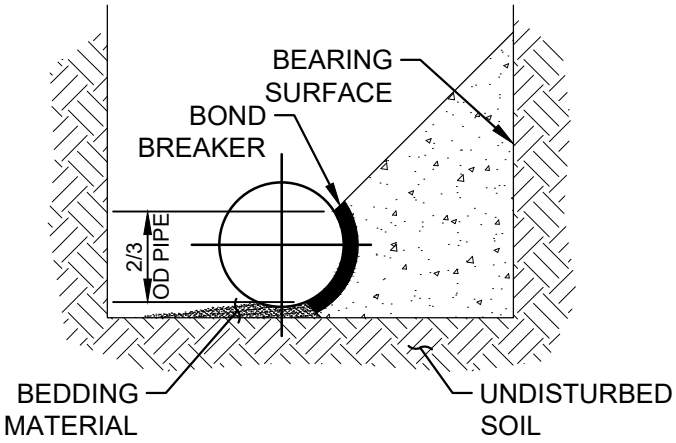
11-1/4°, 22-1/2°,
45°, AND 90° BENDS



DEAD END



TEE



TYPICAL CROSS SECTION

NOTES:

1. ON 16" AND 20" TRANSMISSION MAINS, ALL BENDS SHALL BE BOTH RODDED AND KICKBLOCKED.
2. BEARING SURFACES SHOWN IN CHART ARE MIN.
3. BASED ON 150 PSI INTERNAL PIPE PRESSURE PLUS WATER HAMMER.
   4", 6", 8", AND 12" WATER HAMMER = 110 PSI
   16", 20", AND 24" WATER HAMMER = 70 PSI
4. BASED ON 3,000 PSF SOIL BEARING CAPACITY.
5. ALL VALVES, TEES, BENDS, AND PLUGS SHALL BE BOTH RODDED AND KICKBLOCKED.

MINIMUM BEARING SURFACE AREA
(IN SQUARE FEET)

PIPE Ø	BENDS				TEE OR DEAD END
	11-1/4°	22-1/2°	45°	90°	
4"	1.00	1.00	1.00	N/A	1.50
6"	1.00	1.25	2.25	N/A	3.00
8"	1.00	2.00	4.00	N/A	5.25
12"	2.25	4.50	8.75	N/A	11.25
16"	3.75	7.50	14.50	27.00	19.00
20"	5.00	10.00	19.50	35.50	25.00
24"	7.00	14.00	27.75	51.00	36.00

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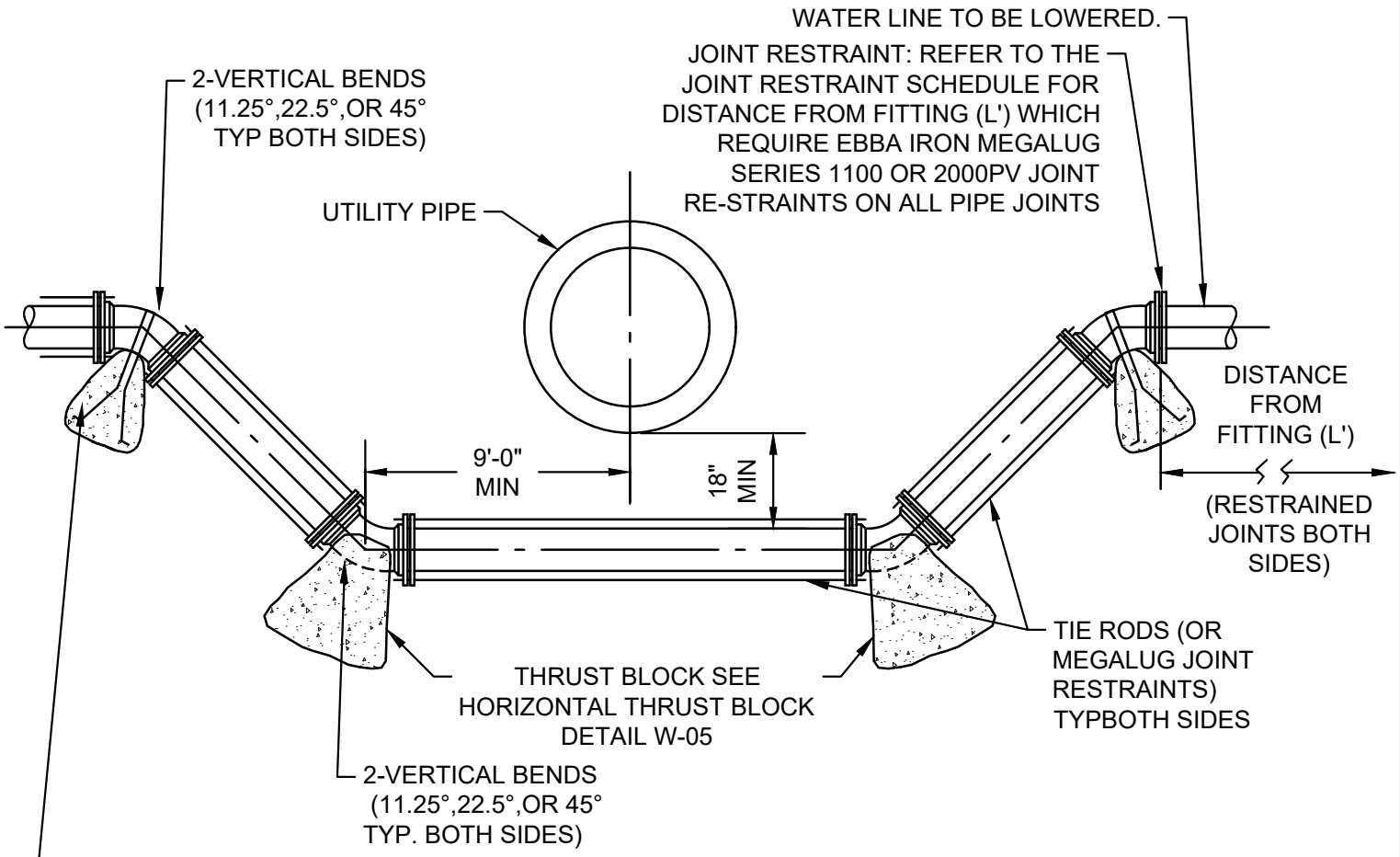
LONGS PEAK WATER DISTRICT

CONCRETE KICKBLOCKS
BEARING SURFACES & INSTALLATION

SCALE: NONE | DETAIL: W-05



SCALE: NONE

JOINT RESTRAINT SCHEDULE

PIPE DIAM.	11 1/4 DEG. L' (feet)	22 1/2 DEG. L' (feet)	45 DEG. L' (feet)
4"	20'	20'	22'
6"	20'	20'	30'
8"	20'	20'	40'
10"	20'	23'	48'
12"	20'	27'	57'

NOTE:
PIPE RESTRAINT SHALL BE BOTH CONCRETE THRUST BLOCKS AND JOINT RESTRAINTS AS SPECIFIED.

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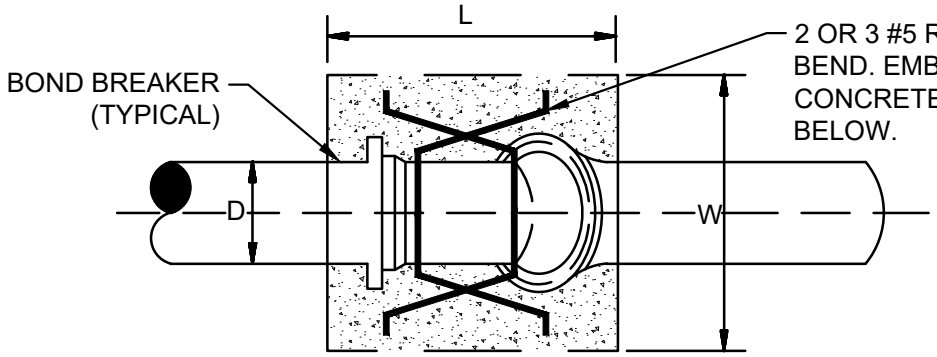
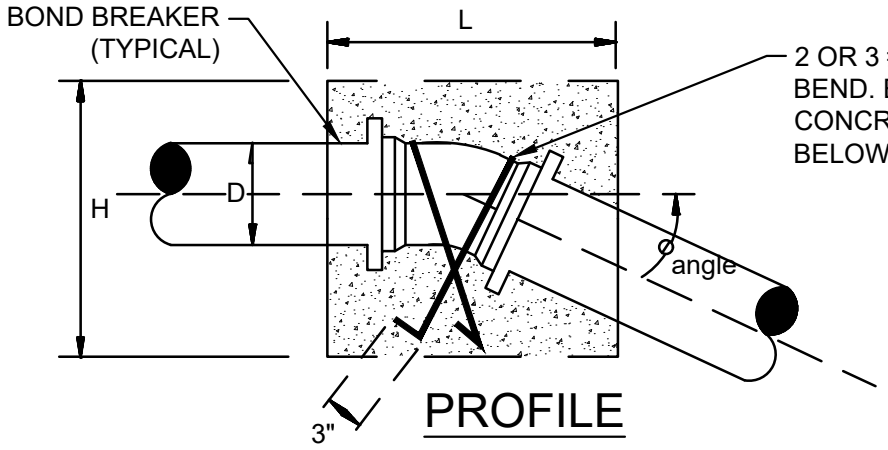
WATER LINE LOWERING

SCALE: NONE | DETAIL: W-06



PLAN



PROFILE

SCALE: NONE

PIPE DIAM.	11 1/4 DEG.					22 1/2 DEG.					45 DEG.				
	L"	W"	H"		CY.	L"	W"	H"		CY.	L"	W"	H"		CY.
4"	13	27	27		0.2	13	38	37		0.4	24	41	35		0.8
6"	20	36	30		0.5	17	57	44		0.9	31	70	35		1.6
8"	23	44	37		0.8	24	67	44		1.6	38	70	50		2.9
10"	26	55	40		1.3	33	65	53		2.4	46	79	58		4.5
12"	34	61	40		1.8	40	77	52		3.5	50	88	68		6.4

NOTES:

1. VOLUME OF CONCRETE IS IN CUBIC YARDS.
2. CONCRETE SHALL BE 3,000 PSI (COMPRESSIVE STRENGTH.)
3. THRUST BLOCKS TO BE CENTERED HORIZONTALLY ON THE BEND.
4. DESIGN IS BASED ON 200 PSI TEST PRESSURE (P) WITH A SAFETY FACTOR (SF) OF 1.5.
5. VERTICAL THRUST BLOCK "UNDER" BENDS TO BE SIZED BASED ON BEARING AREA--SEE HORIZONTAL THRUST BLOCK DETAIL.

$$\text{VOLUME OF THRUST BLOCK IN CUBIC YARDS} = \frac{SF*P*A*(SIN)\ \text{angle}\ \varnothing}{27ft^3 * 140\ PCF}$$

P= TEST PRESSURE IN PSI
A= CROSS SECTIONAL AREA OF PIPE IN SQUARE INCHES
ø = DEGREE OF BEND FROM HORIZONTAL PLANE.
WM= MASS OF CONCRETE PER CUBIC FEET.

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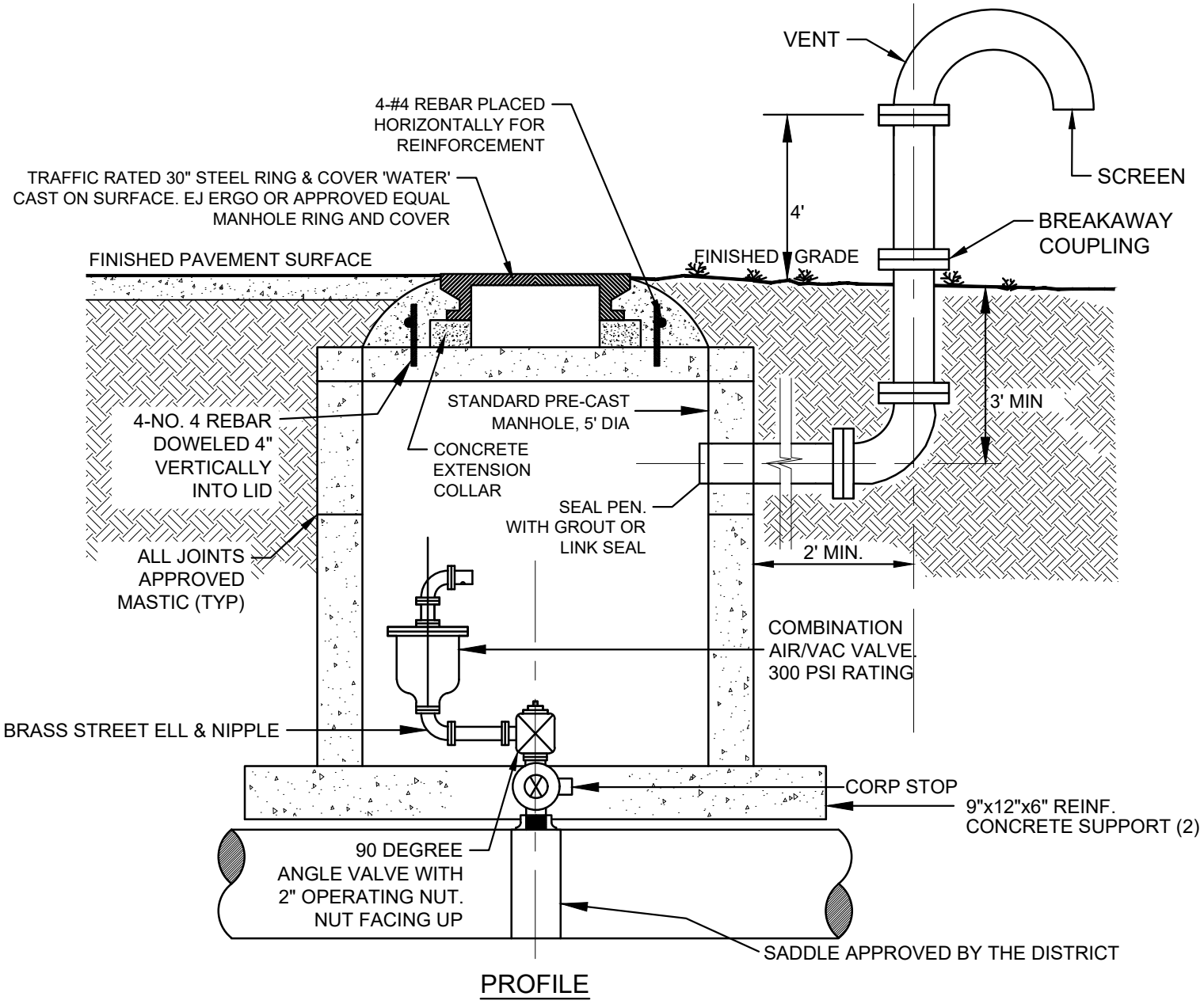
LONGS PEAK WATER DISTRICT

VERTICAL THRUST RESTRAINT DETAIL

SCALE: NONE | DETAIL: W-07



PROFILE

NOTES:

1. VENT PIPE SHALL BE GALVANIZED IRON PIPE ABOVE GRADE.
2. VENT PIPE SHALL BE SCH 40 PVC BELOW GRADE.
3. ALL OTHER PIPING SHALL BE BRASS, BRONZE OR COPPER. VENT PIPE DIAMETER TO BE 4"-6" DEPENDING ON SIZE & QTY OF AIR VACS.
4. THE DISTANCE BETWEEN STEPS SHALL NOT EXCEED 12".
5. LADDER RUNGS ARE REQUIRED IN ALL PRECAST CONCRETE MANHOLES.
6. HIGH GROUNDWATER MAY REQUIRE WATERTIGHT CONCRETE MANHOLES AND SOLID PIPING FROM THE AIR VAC VENT TO OUTSIDE VENT. (DETAIL MAY BE MODIFIED)
7. IN RESIDENTIAL SETTING, A FABRICATED VENT SCREEN MAY BE USED INSTEAD OF GALVANIZED VENT PIPE.
8. WASHED ROCK MUST BE INSTALLED A MIN OF 24" BELOW FOOTINGS AND MANHOLE TO ALLOW PROPER DRAINAGE.
9. FOR MULTIPLE AIR/VAC'S INSTALL UNISTRUT AND CLAMP AROUND NIPPLES BETWEEN CORP STOP AND VALVE.

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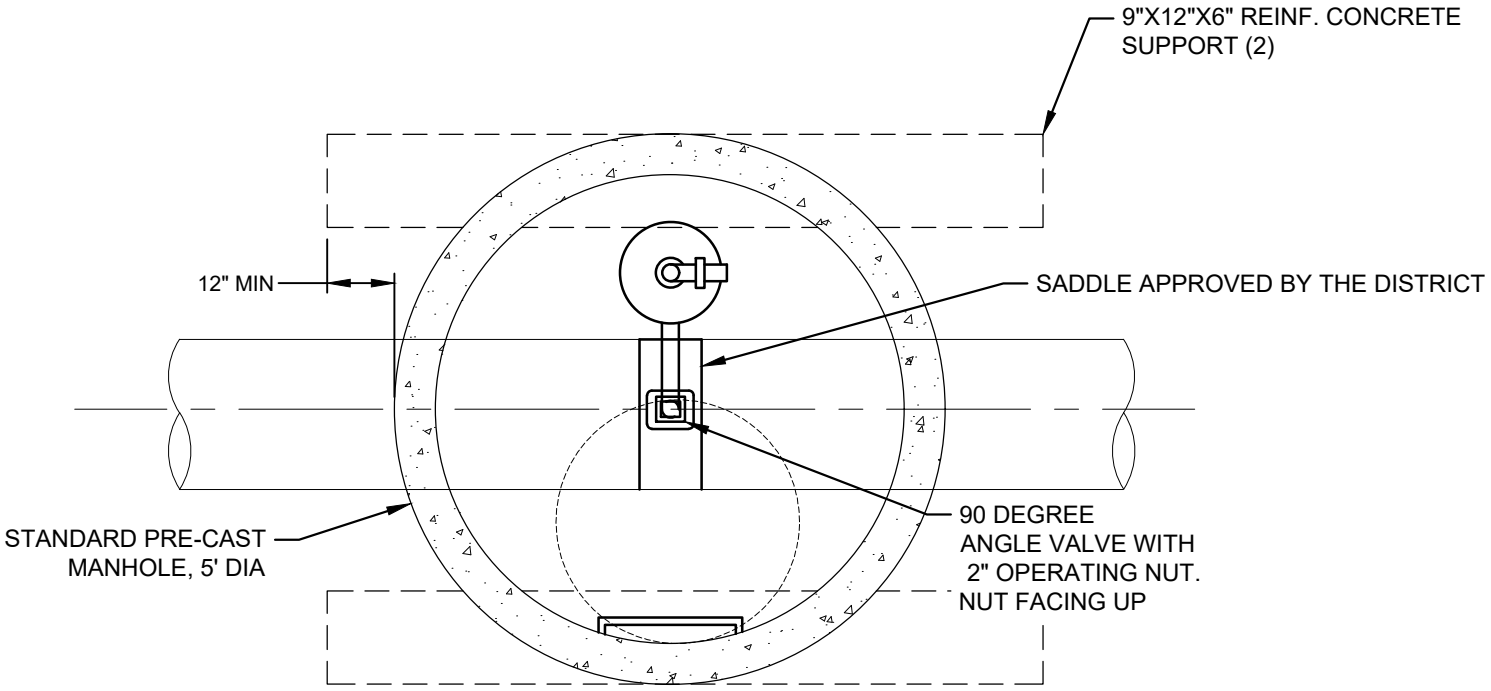
LONGS PEAK WATER DISTRICT

2" AIR VALVE & VACUUM ASSEMBLY PROFILE VIEW

SCALE: NONE | DETAIL: W-08A



PLAN

NOTES:

1. VENT PIPE SHALL BE GALVANIZED IRON PIPE ABOVE GRADE.
2. VENT PIPE SHALL BE SCH 40 PVC BELOW GRADE.
3. ALL OTHER PIPING SHALL BE BRASS, BRONZE OR COPPER. VENT PIPE DIAMETER TO BE 4"-6" DEPENDING ON SIZE & QTY OF AIR VACS.
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7. IN RESIDENTIAL SETTING, A FABRICATED VENT SCREEN MAY BE USED INSTEAD OF GALVANIZED VENT PIPE.
8. WASHED ROCK MUST BE INSTALLED A MIN OF 24" BELOW FOOTINGS AND MANHOLE TO ALLOW PROPER DRAINAGE.
9. FOR MULTIPLE AIR/VAC'S INSTALL UNISTRUT AND CLAMP AROUND NIPPLES BETWEEN CORP STOP AND VALVE.

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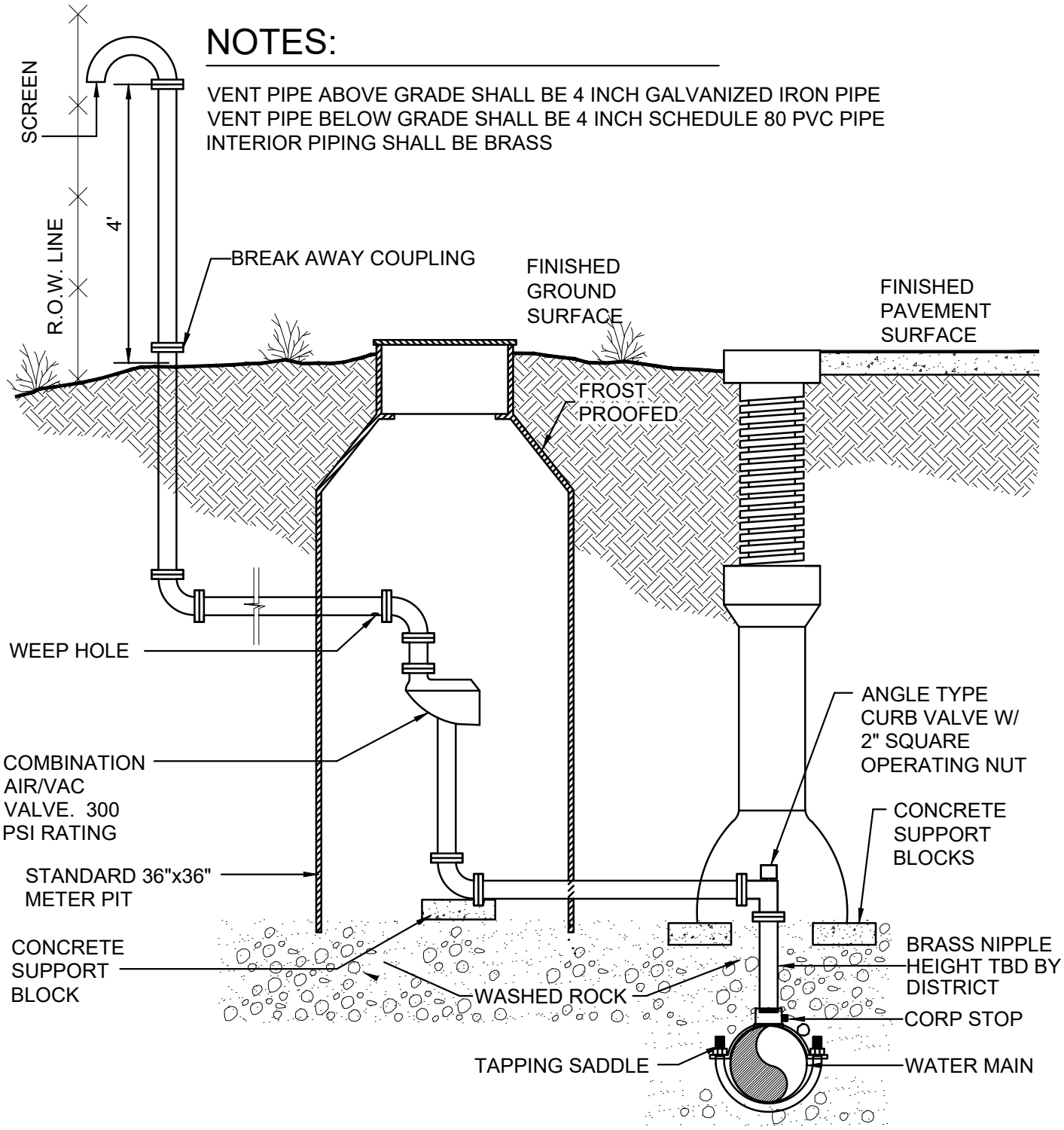
LONGS PEAK WATER DISTRICT

2" AIR VALVE &
VACUUM ASSEMBLY PLAN VIEW

SCALE: NONE | DETAIL: W-08B

NOTES:

VENT PIPE ABOVE GRADE SHALL BE 4 INCH GALVANIZED IRON PIPE
VENT PIPE BELOW GRADE SHALL BE 4 INCH SCHEDULE 80 PVC PIPE
INTERIOR PIPING SHALL BE BRASS



TAPPING SADDLE SHALL BE BRONZE BODY, 200 PSIG OR GREATER MAXIMUM WORKING PRESSURE CORPORATION STOP SHALL BE BALL TYPE, 300 PSIG MAXIMUM WORKING PRESSURE

SCALE: NONE

LONGS PEAK WATER DISTRICT

TYPICAL AIR/VACUUM VALVE

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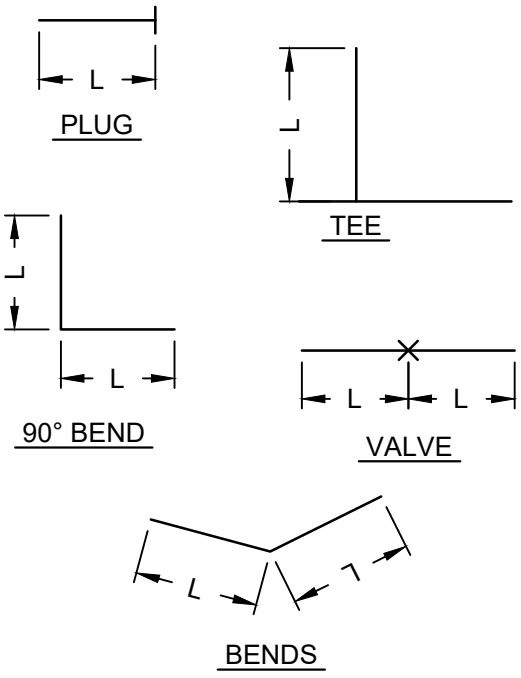
SCALE: NONE	DETAIL: W-09

LENGTH OF RESTRAINED PIPE

PIPE SIZE	4"	6"	8"	12"
FITTING	L	L	L	L
90° BEND, TEE, PLUG, VALVE	30'	45'	60'	90'
45° BEND	10'	15'	20'	30'
22 1/2° BEND	2'	5'	7'	10'
11 1/4° BEND	1'	1'	1'	2'

NOTES:
1. ALL RESTRAINTS SHALL BE EBBA IRON.



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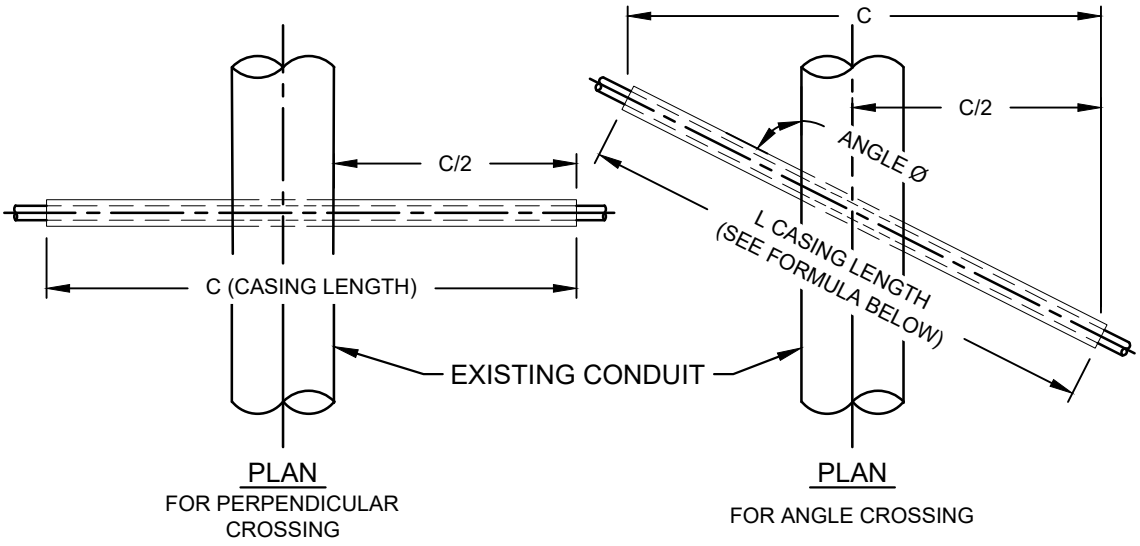
LONGS PEAK WATER DISTRICT

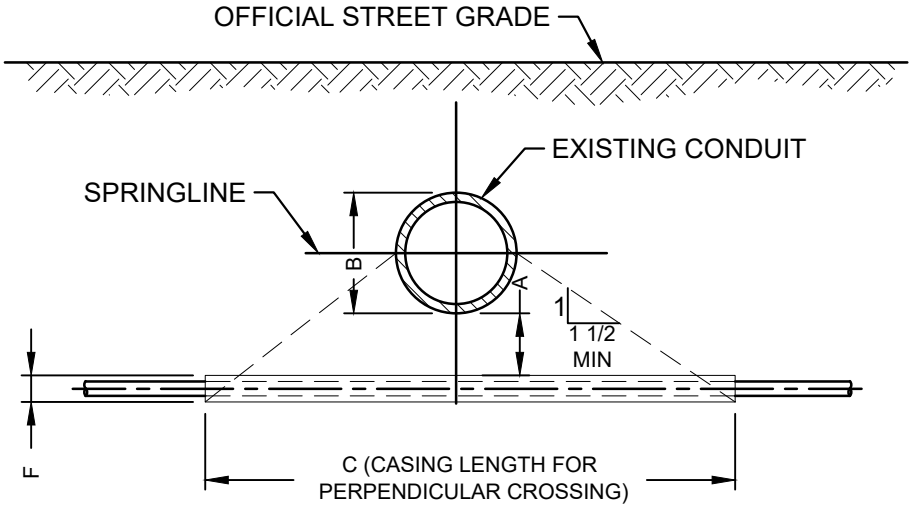
LENGTH OF RESTRAINED PIPE

SCALE: NONE | DETAIL: W-10



PLAN
FOR PERPENDICULAR CROSSING

PLAN
FOR ANGLE CROSSING



PROFILE

FORMULA FOR FINDING C: $C = B+(2)(1.5)(\frac{B}{2}+A+F)$

- PERPENDICULAR CROSSING CASING LENGTH
- OD EXISTING CONDUIT
- CONSTANT
- RATIO OF MIN SLOPE
- 1/2 OD EXISTING CONDUIT
- VERTICAL DISTANCE BETWEEN CASING AND EXISTING CONDUIT
- CASING OD

NOTES:

1. FINAL APPROVAL OF BORING AND CASING METHOD AND MATERIALS SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.
2. SOIL AT ENDS OF CASING SHALL BE STABLE AT ALL TIMES.
3. CATHODIC PROTECTION SHALL BE PROVIDED FOR STEEL CASING AS REQUIRED BY THE ENGINEER.
4. CASING PIPE SHALL BE ONE PIECE, STRAIGHT, ROUND, AND OF NEW MATERIAL.

FORMULA FOR FINDING L:

$$L = \frac{C}{\text{SIN } Ø}$$

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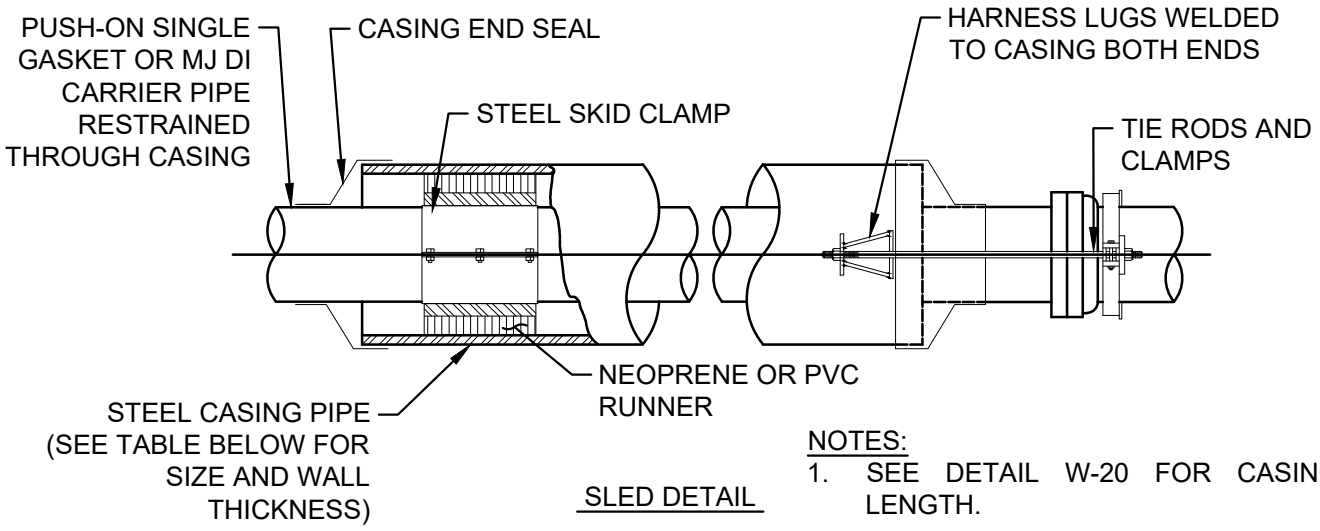
LONGS PEAK WATER DISTRICT

BORED CROSSING BENEATH CONDUITS

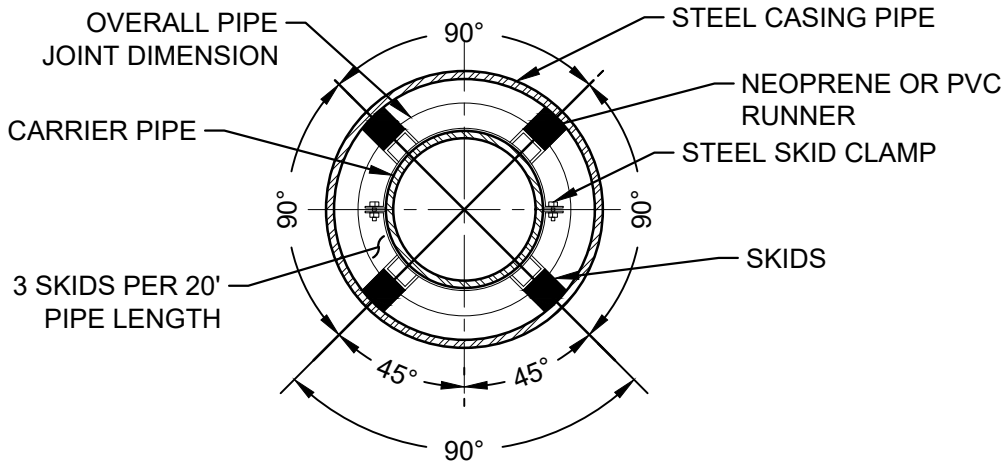
SCALE: NONE | DETAIL: W-11



SLED DETAIL

NOTES:

1. SEE DETAIL W-20 FOR CASING LENGTH.
2. HARNESS LUGS TO BE INSULATED FROM DI PIPE



PIPE CASING DETAIL

CARRIER PIPE NOMINAL Ø	CASING PIPE	
	MIN OD	MIN WALL THICKNESS
4"	12"	0.188"
6"	16"	0.25"
8"	18"	0.282"
12"	22"	0.344"
16"	28"	0.406"
20"	32"	0.469"

NOTE:
TRENCH LAID CASINGS SHALL BE DESIGNED AND INSTALLED TO CONDUIT STANDARDS.

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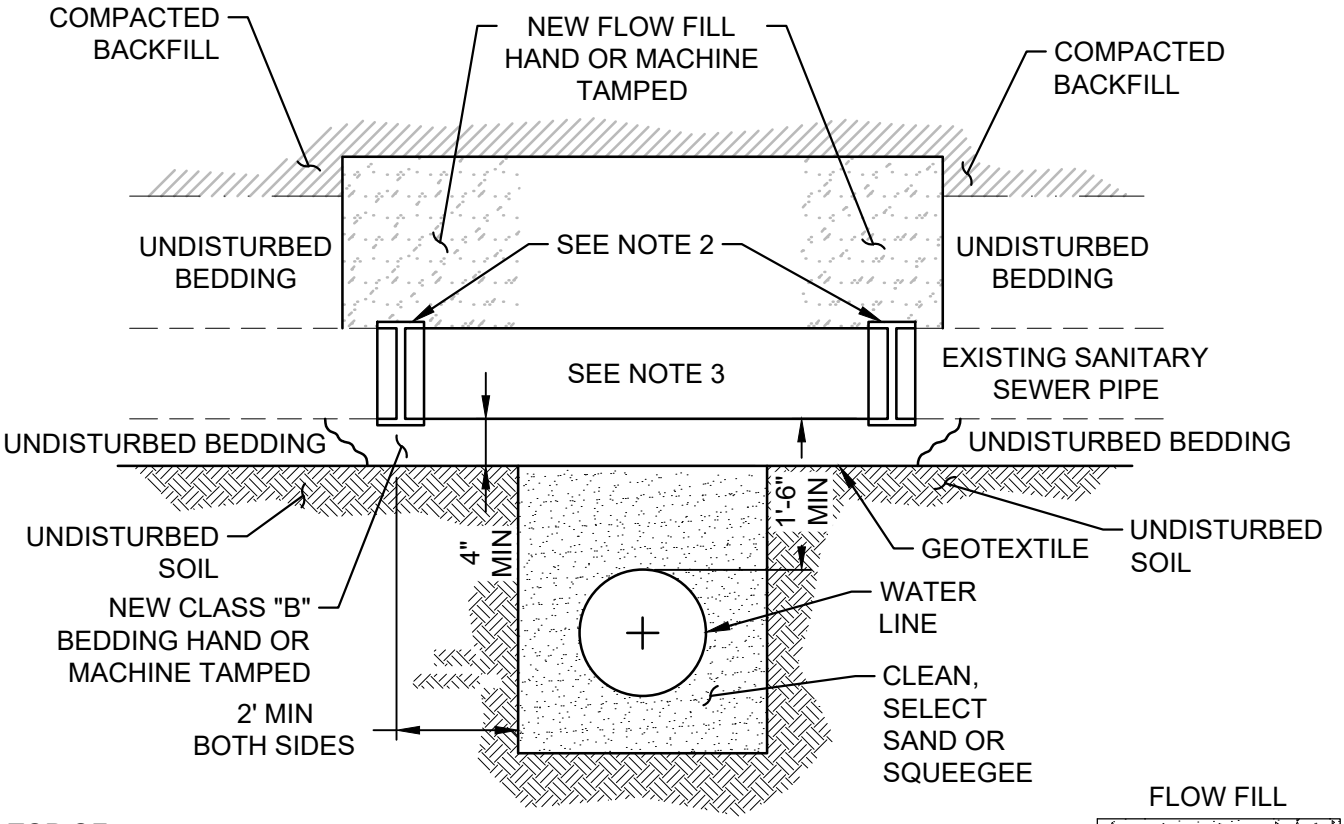
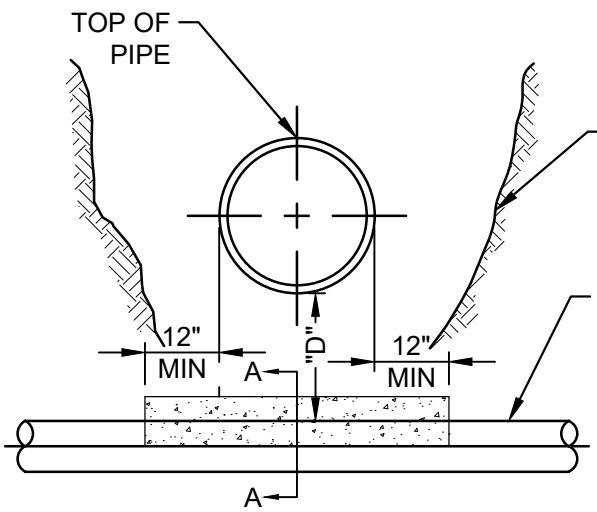
LONGS PEAK WATER DISTRICT

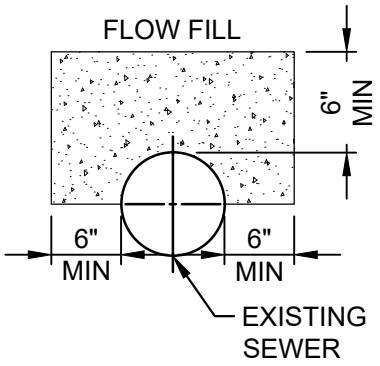
BORING CASING DETAIL

SCALE: NONE | DETAIL: W-12





SEWER CROSSING UNDER
WITH "D" LESS THAN 18"
MINIMUM 6"
SEPARATION
REQUIRED



SECTION A-A

NOTES:

1. ALL EXISTING SEWER DAMAGED DURING INSTALLATION MUST BE REPLACED WITH PVC PIPE.
2. WATER TIGHT FLEXIBLE COUPLING CONFORMING TO ASTM C 425 BANDED WITH TWO SERIES 300 STAINLESS STEEL BANDS
3. WHERE APPLICABLE, REPLACE EXIST SEWER WITH PSM SDR 35 PVC PIPE CONFORMING TO ASTM D 3034
4. ANY SUBDRAIN UNDER THE SEWER SHALL BE REPLACED SUCH THAT NO FLOW SHALL ENTER THE WATER LINE TRENCH

LONGS PEAK WATER DISTRICT

CROSSING SANITARY SEWERS

SCALE: NONE | DETAIL: W-13

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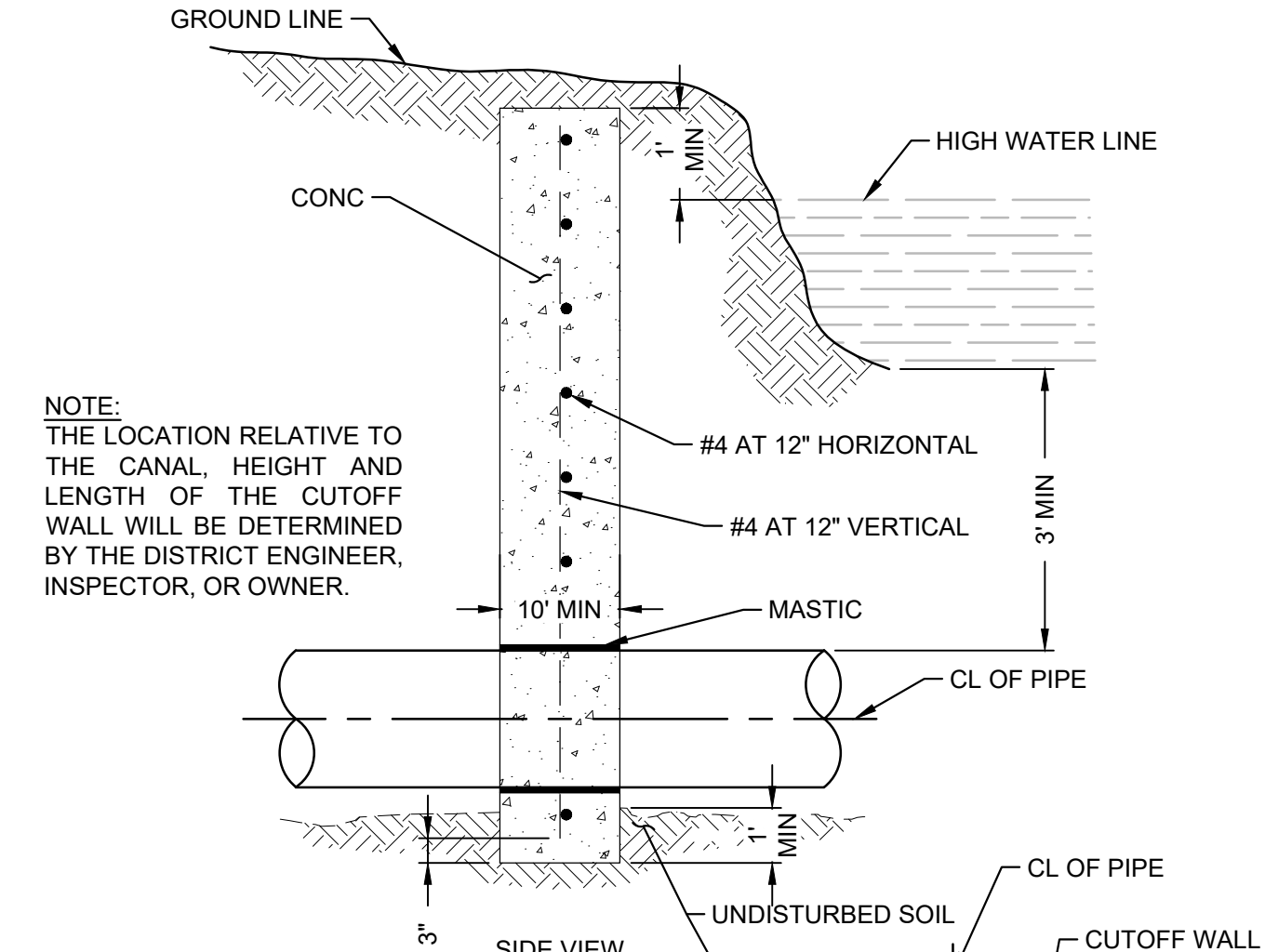
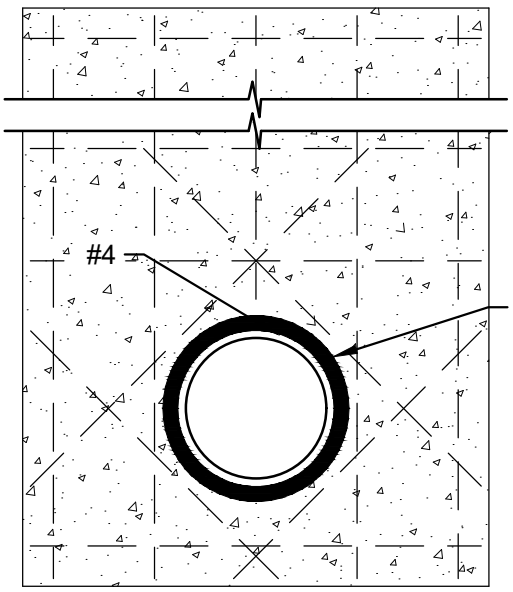
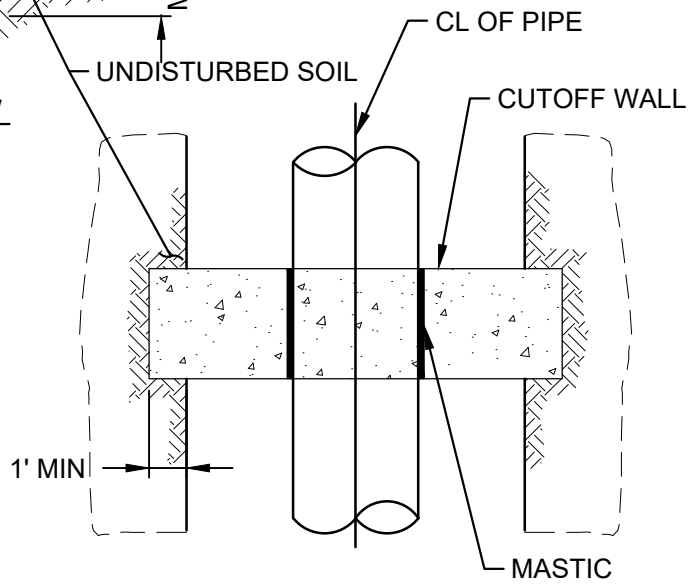


SIDE VIEW

NOTE:
THE LOCATION RELATIVE TO THE CANAL, HEIGHT AND LENGTH OF THE CUTOFF WALL WILL BE DETERMINED BY THE DISTRICT ENGINEER, INSPECTOR, OR OWNER.



FRONT VIEW



TOP VIEW

NOTE:
REINFORCEMENT NOT SHOWN.

LONGS PEAK WATER DISTRICT

TYPICAL CUTOFF WALL FOR DITCH OR CANAL CROSSING

SCALE: NONE | DETAIL: W-14

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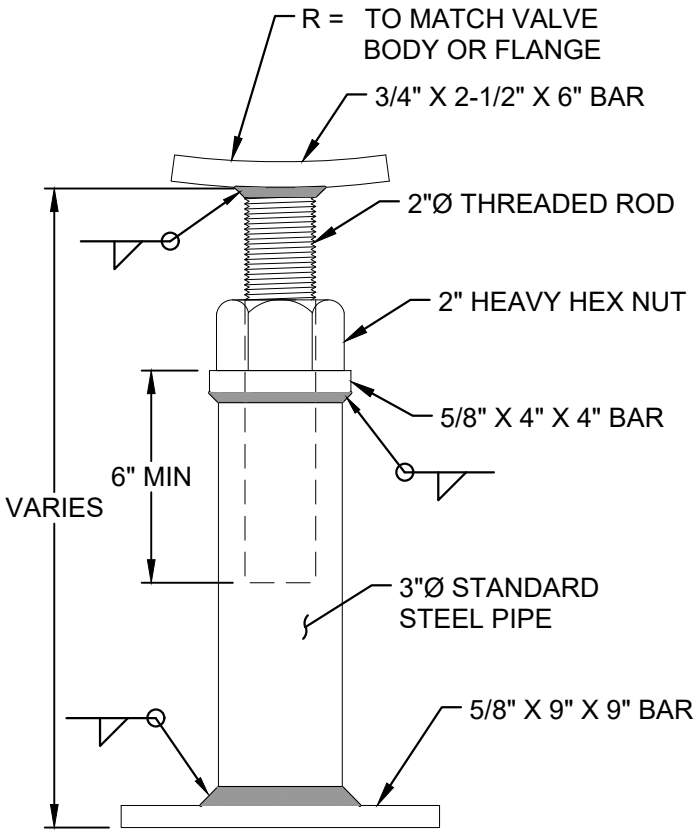
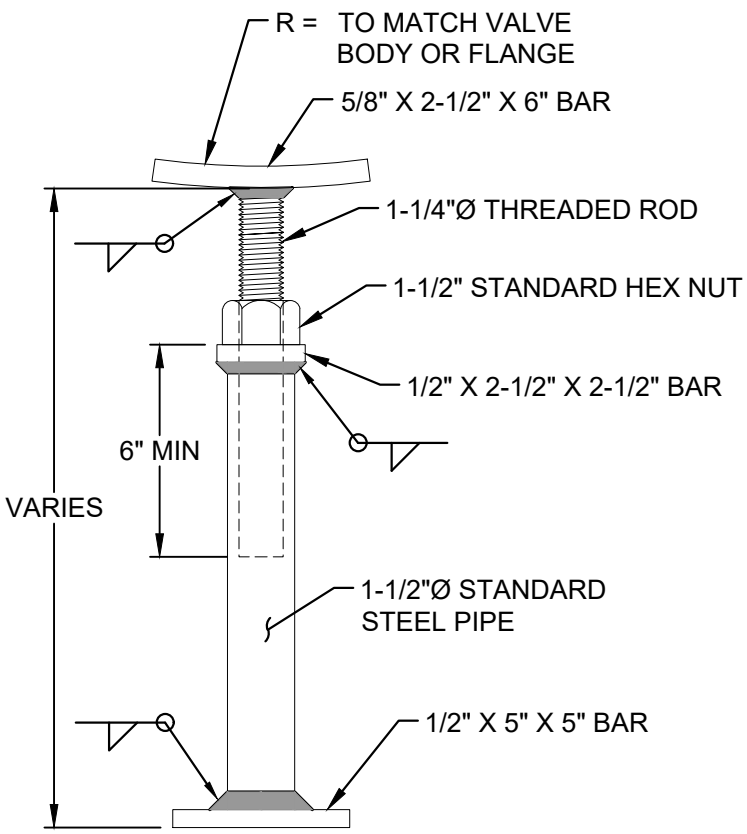


HEAVY DUTY



STANDARD

ADJUSTABLE - SUPPORT

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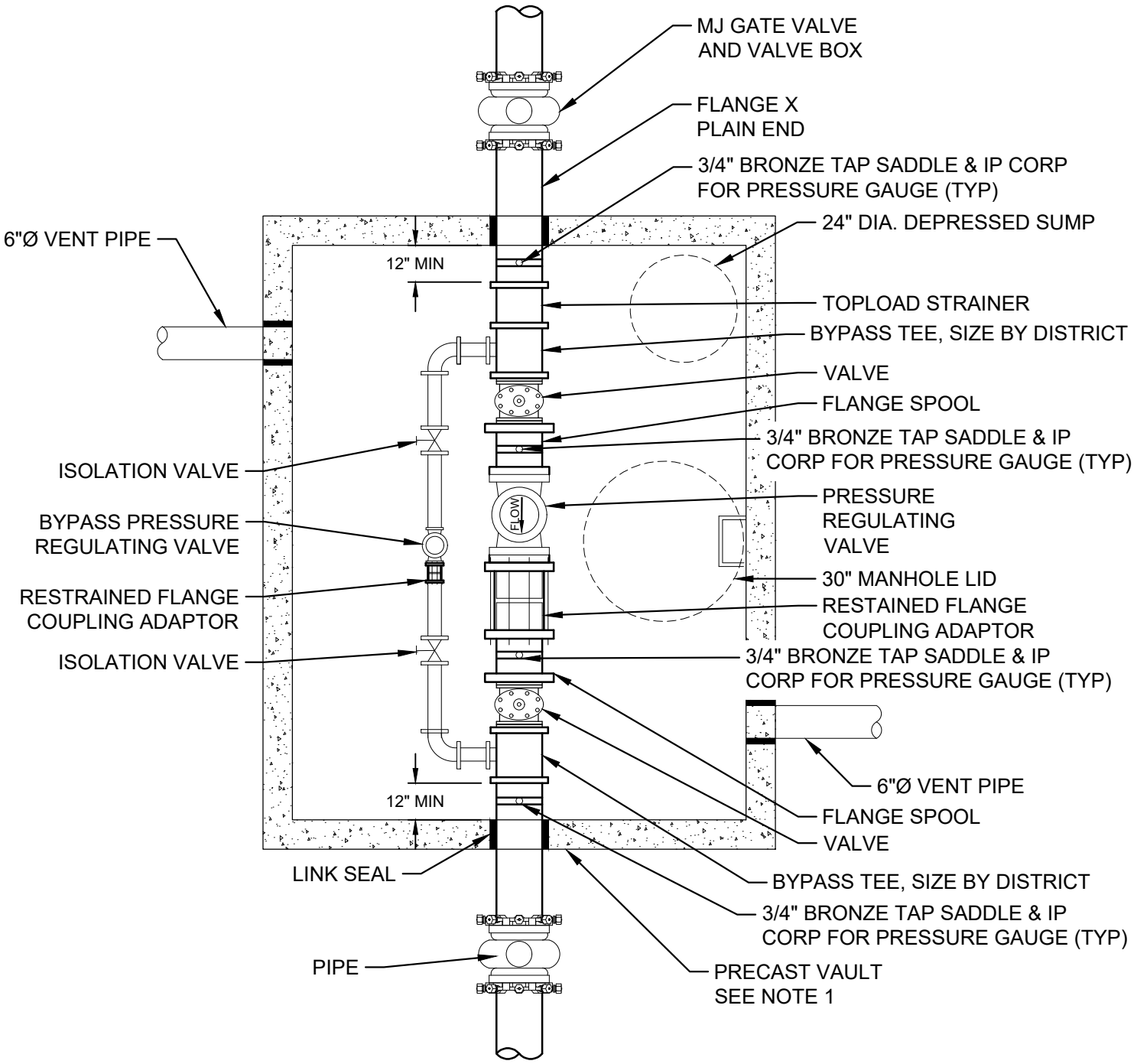
LONGS PEAK WATER DISTRICT

ADJUSTABLE STEEL PIPE VALVE SUPPORT

SCALE: NONE | DETAIL: W-15



NOTES:

1. VAULT SHALL HAVE A MINIMUM 6-FT CLEAR HEIGHT, LENGTH AND WIDTH AS DIRECTED BY THE DISTRICT.
2. ACCESS STAIRS WITH LADDER RUNGS.
3. FOR CROSS SECTION VIEW, SEE CROSS SECTION DETAIL W-17.
4. THE DISTANCE BETWEEN RUNGS, CLEATS, AND STEPS SHALL NOT EXCEED 12" AND SHALL BE UNIFORM THROUGHOUT THE LENGTH OF THE LADDER.
5. ALL PENETRATIONS SHALL REQUIRE LINK SEAL. MASTIC AND ROD WILL NOT BE ACCEPTED.

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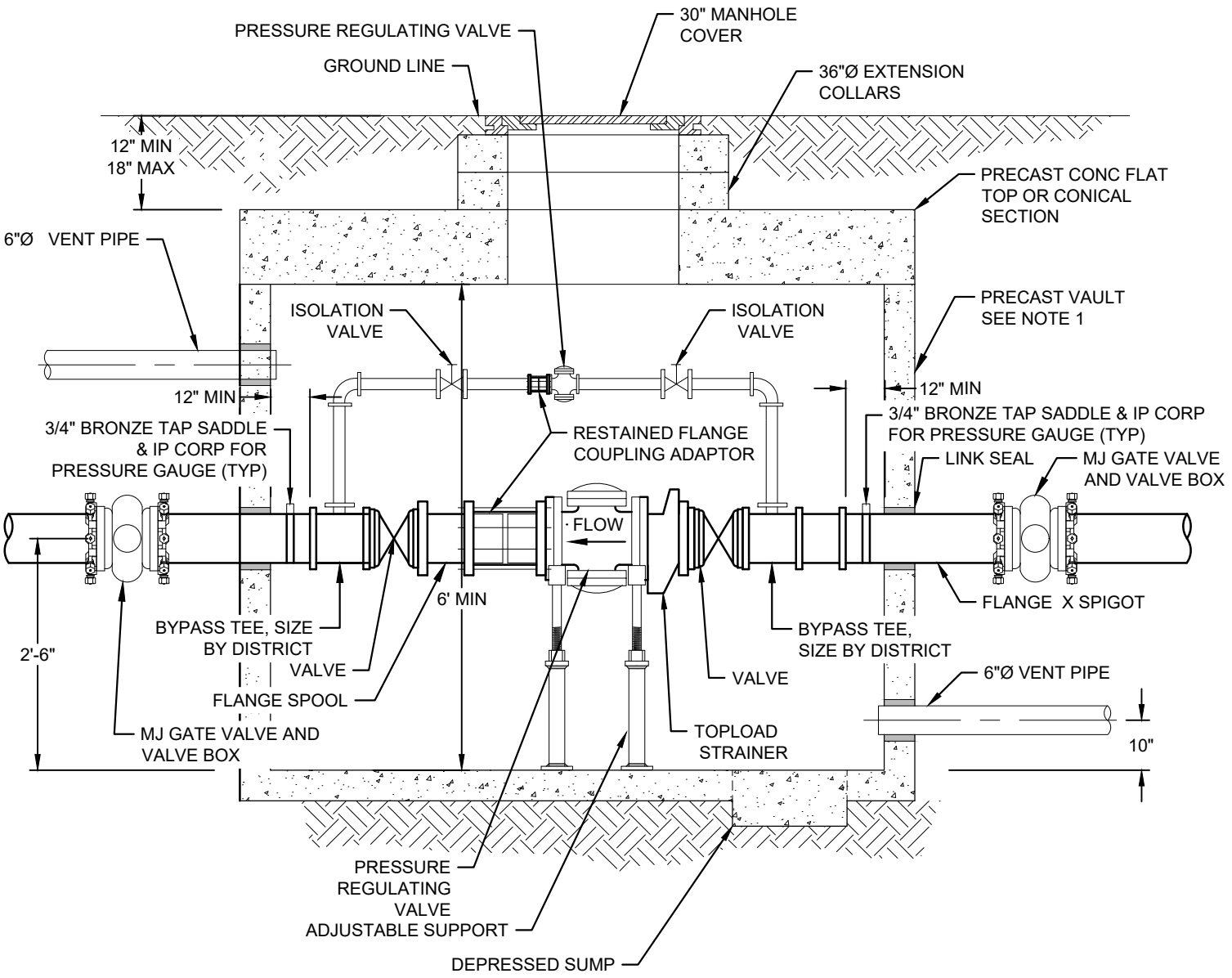
LONGS PEAK WATER DISTRICT

PRESSURE REGULATING VALVE PRECAST VAULT TYPICAL PLAN

SCALE: NONE | DETAIL: W-16



NOTES:

1. VAULT SHALL HAVE A MINIMUM 6-FT CLEAR HEIGHT, LENGTH AND WIDTH AS DIRECTED BY THE DISTRICT.
2. ACCESS STAIRS WITH LADDER RUNGS.
3. FOR PLAN VIEW, SEE PLAN DETAIL W-16.
4. THE DISTANCE BETWEEN RUNGS, CLEATS, AND STEPS SHALL NOT EXCEED 12" AND SHALL BE UNIFORM THROUGHOUT THE LENGTH OF THE LADDER.
5. ALL PENETRATIONS SHALL REQUIRE LINK SEAL. MASTIC AND ROD WILL NOT BE ACCEPTED.

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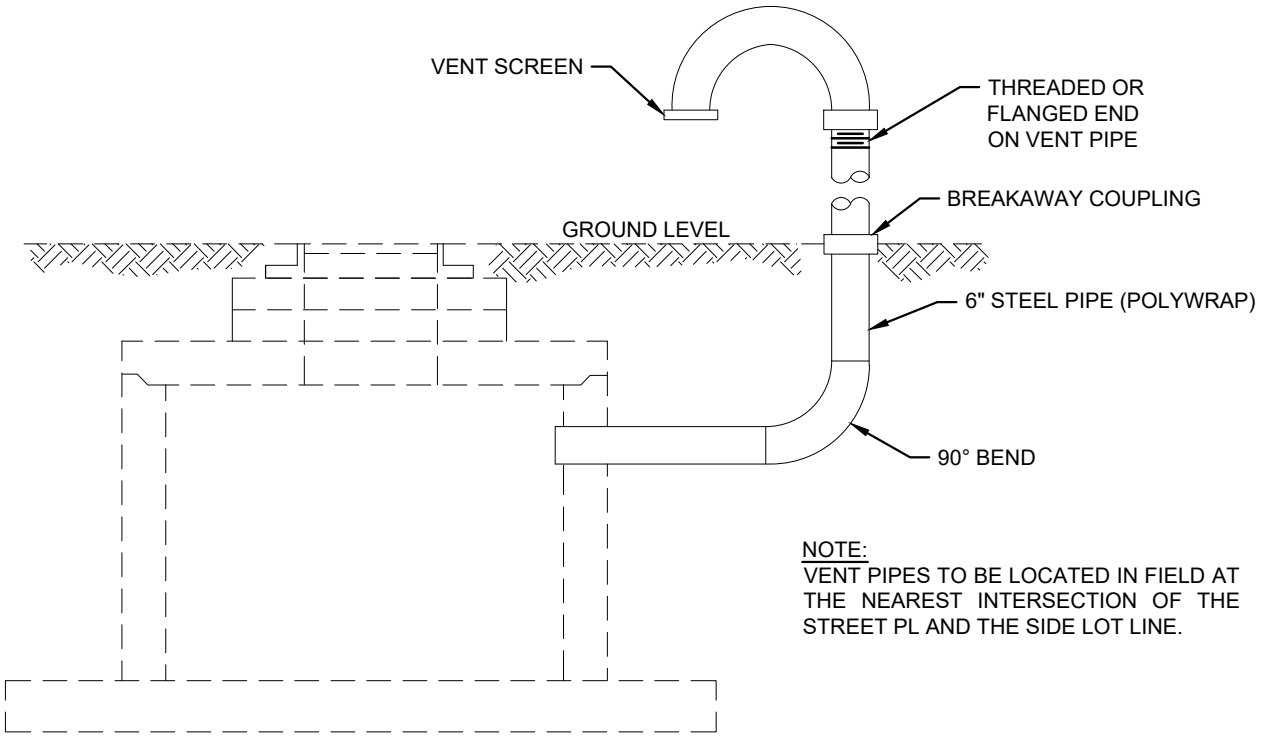
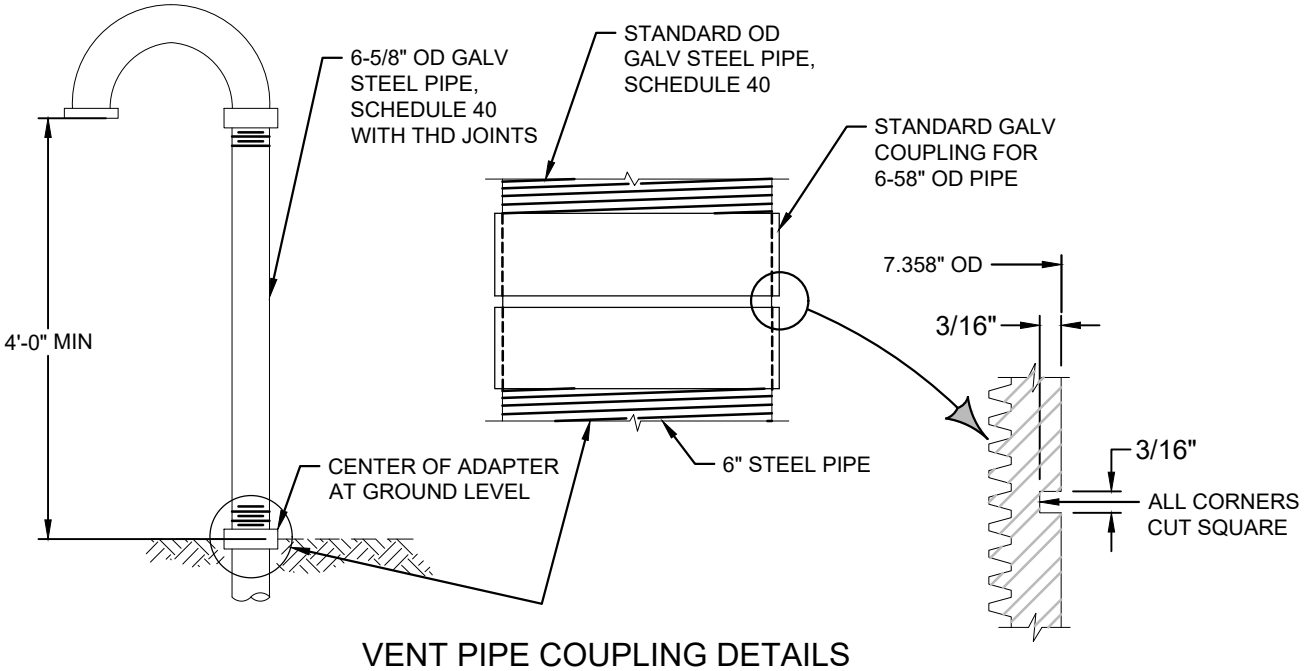
LONGS PEAK WATER DISTRICT

PRESSURE REGULATING VALVE PRECAST VAULT CROSS SECTION

SCALE: NONE | DETAIL: W-17



VENT PIPE INSTALLATION



VENT PIPE COUPLING DETAILS

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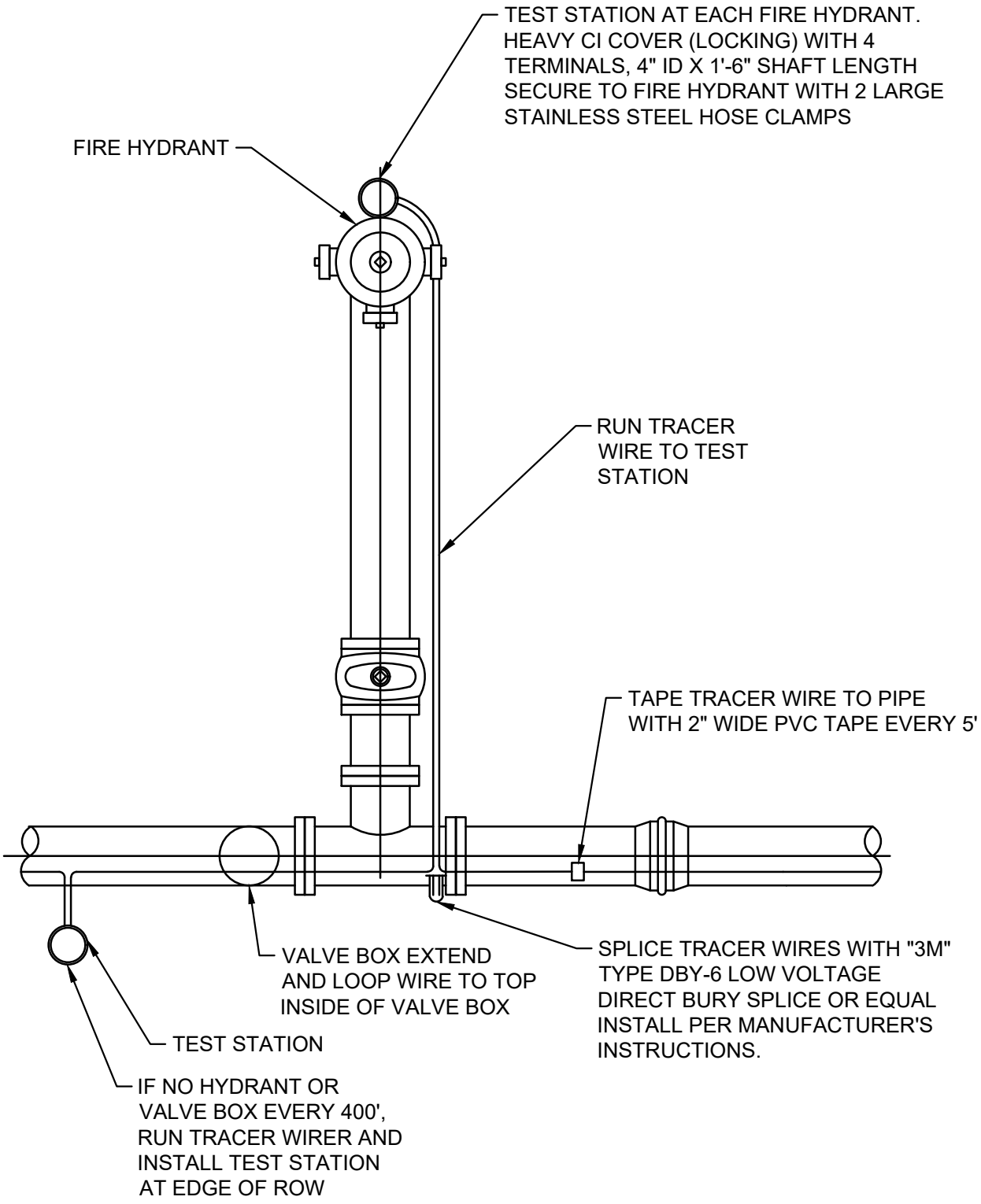
LONGS PEAK WATER DISTRICT

INDUSTRIAL VENT ASSEMBLY
INSTALLATION & DETAILS

SCALE: NONE | DETAIL: W-18



NOTE:
TRACER WIRE SHALL BE 12-GAUGE AWG, POLYETHYLENE COATED.

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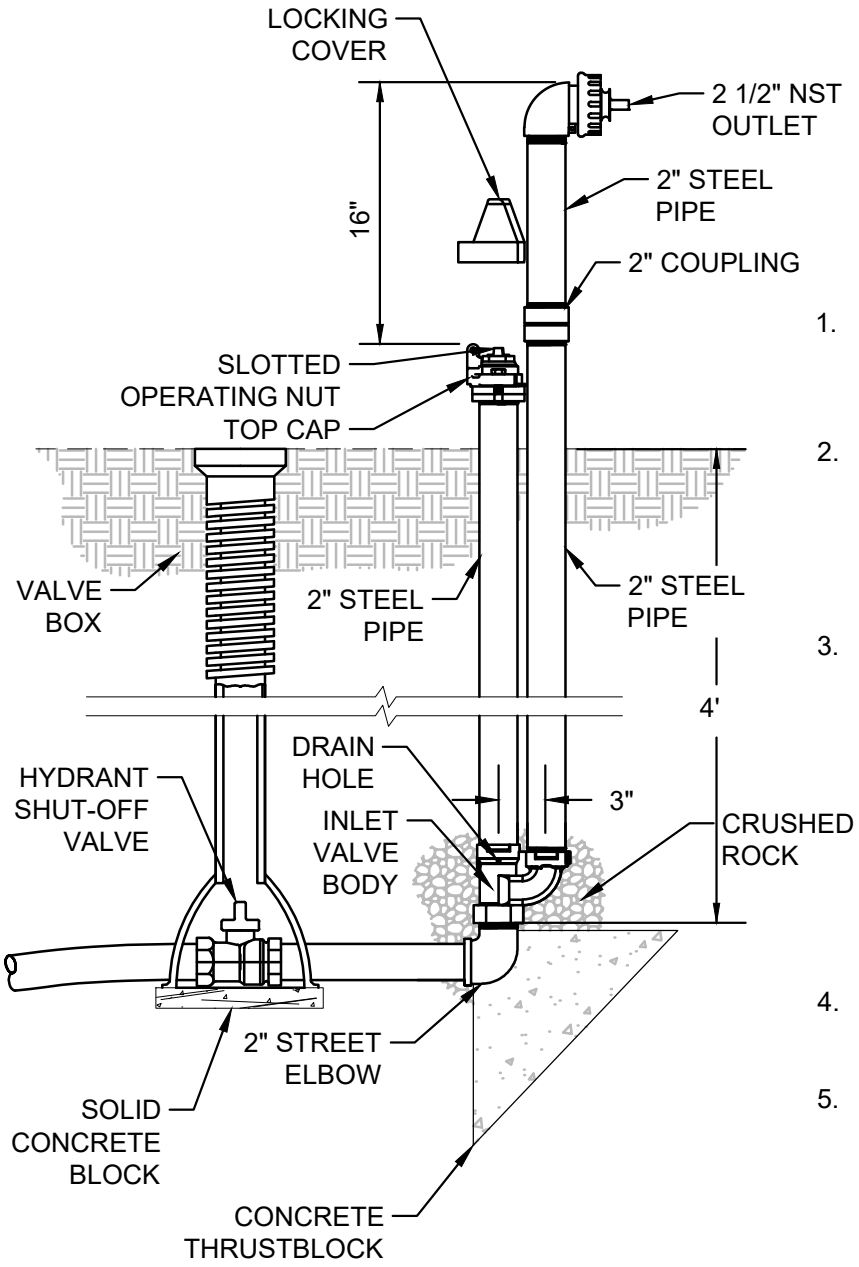
LONGS PEAK WATER DISTRICT

TRACER WIRE INSTALLATION

SCALE: NONE | DETAIL: W-19



1. BLOW-OFF HYDRANT SHALL BE SELF-DRAINING, NON-FREEZING TYPE WITH A 4' DEPTH OF BURY. MAINGUARD #77 OR DISTRICT APPROVED EQUAL.
2. HYDRANT SHALL BE FURNISHED WITH A 2" FIP VERTICAL INLET CONNECTION, A NON-TURNING OPERATING ROD AND SHALL OPEN TO THE LEFT. OUTLET SHALL BE 2-1/2" NST OR SMALLER WITH CAP AND EXTEND A MINIMUM OF 12" ABOVE THE GROUND.
3. ALL WATER FLOW SHALL PASS THRU A 2" STEEL PIPE AND WATERWAY. THE OPERATING DRIVE MECHANISM SHALL RAISE AND LOWER A PLUNGER TO CONTROL THE FLOW OF WATER AND SHALL BE SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING, WITH ALL WORKING PARTS BEING BRASS, GALVANIZED STEEL, OR PVC. SAID OPERATING DRIVE SHALL OPERATE WITH A STANDARD UNIVERSAL SLOTTED VALVE WRENCH.
4. WHEN OPEN THE FLOW OF WATER SHALL BE UNOBSTRUCTED AND THE DRAIN HOLE SHALL BE COVERED.
5. HYDRANT SHALL BE SET IN 4 CUBIC FEET OF CRUSHED STONE TO ALLOW FOR PROPER DRAINAGE OF HYDRANT. RECOMMENDATIONS OF AWWA SHOULD BE FOLLOWED WHEN INSTALLING THE HYDRANT.

LONGS PEAK WATER DISTRICT

STANDARD
2" BLOW-OFF

SCALE: NONE | DETAIL: W-20

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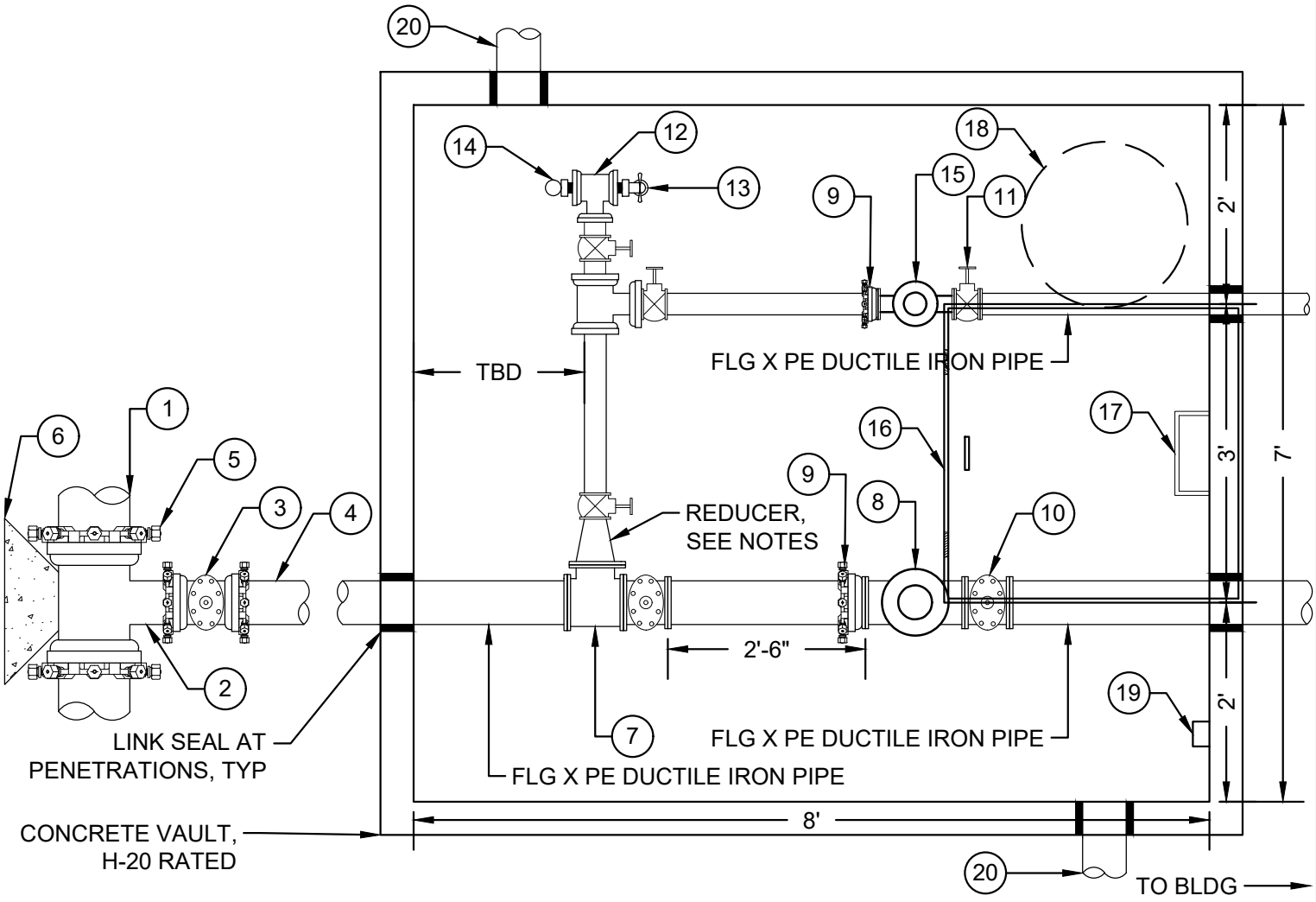

FIRELINE OR DOMESTIC CONNECTION WITH MAIN EXTENSION

1. EXIST MAIN
2. MJ TEE
3. MECHANICAL JOINT GATE VALVE
4. 6" DI PIPE
5. RESTRAINT DEVICE
6. CONC KICKBLOCK
7. 6" FLANGED TEE
8. NEPTUNE MACH 10
9. RESTRAINED FLANGED COUPLING ADAPTER
10. 6" FLANGED FULLY OPEN GATE VALVE
11. DOMESTIC SERVICE VALVE
12. 1" THREADED TEE
13. BRASS HOSE BIBB
14. PRESSURE INDICATOR
15. NEPTUNE MACH 10
16. 36"X36" BILCO ACCESS HATCH
17. LADDER RUNGS
18. SUMP PIT, 24" DIA, 2" DEEP MIN
19. 110V OUTLET
20. 6" VENT

NOTES:

A. 6" TEE CAN BE SUBSTITUTED BY BRASS SERVICE SADDLE UPON DISTRICT APPROVAL.
B. ALL DOMESTIC PIPE, FITTINGS, AND APPURTENANCE SIZES PER PLAN.
C. 3" AND LARGER SERVICES SHALL BE FLANGED DUCTILE IRON. 2" AND SMALLER SHALL BE THREADED BRASS.
D. ALL PIPE SHALL BE EPOXY COATED BLUE.

LONGS PEAK WATER DISTRICT

FIRELINE CONNECTION WITH DOMESTIC SERVICE TEE PLAN

SCALE: NONE | DETAIL: W-21

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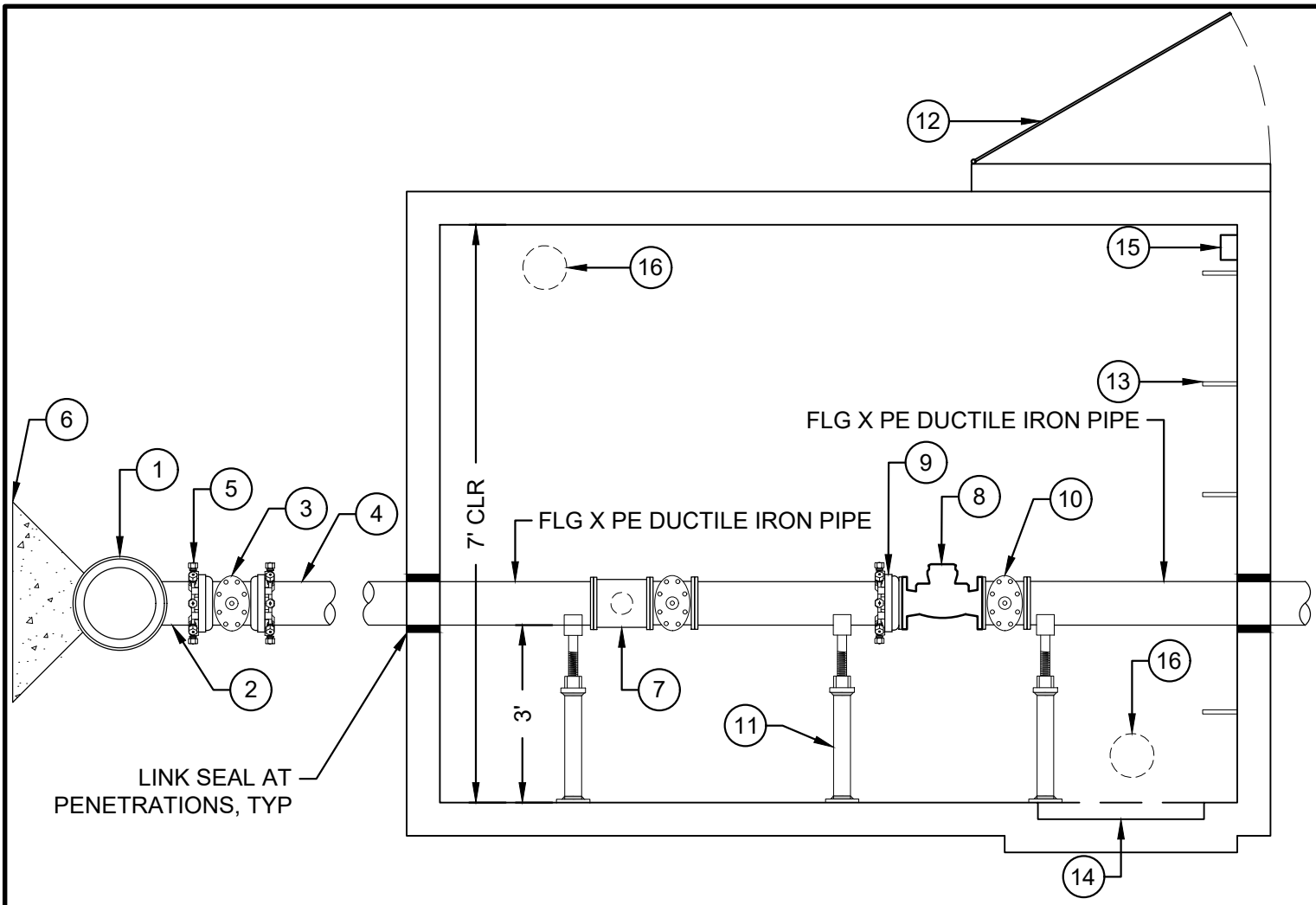

FIRELINE OR DOMESTIC CONNECTION WITH MAIN EXTENSION

1. EXIST MAIN
2. MJ TEE
3. MECHANICAL JOINT GATE VALVE
4. 6" DI PIPE
5. RESTRAINT DEVICE
6. CONC KICKBLOCK
7. 6" FLANGED TEE
8. NEPTUNE MACH 10
9. RESTRAINED FLANGED COUPLING ADAPTER
10. 6" FLANGED FULLY OPEN GATE VALVE
11. ADJUSTABLE PIPE SUPPORT
12. 36"x36" BILCO HATCH
13. LADDER RUNGS
14. PRECAST SUMP PIT, 24" DIA X 2" DEEP, MIN
15. 110V OUTLET
16. 6" VENT

NOTES:

A. 6" TEE CAN BE SUBSTITUTED BY BRASS SERVICE SADDLE UPON DISTRICT APPROVAL

B. PIPE SUPPORTS SHALL BE REQUIRED ON ALL LINES INCLUDING DOMESTIC AND OPTIONAL BYPASS LINES. THREE (3) STANDS MINIMUM PER LINE.

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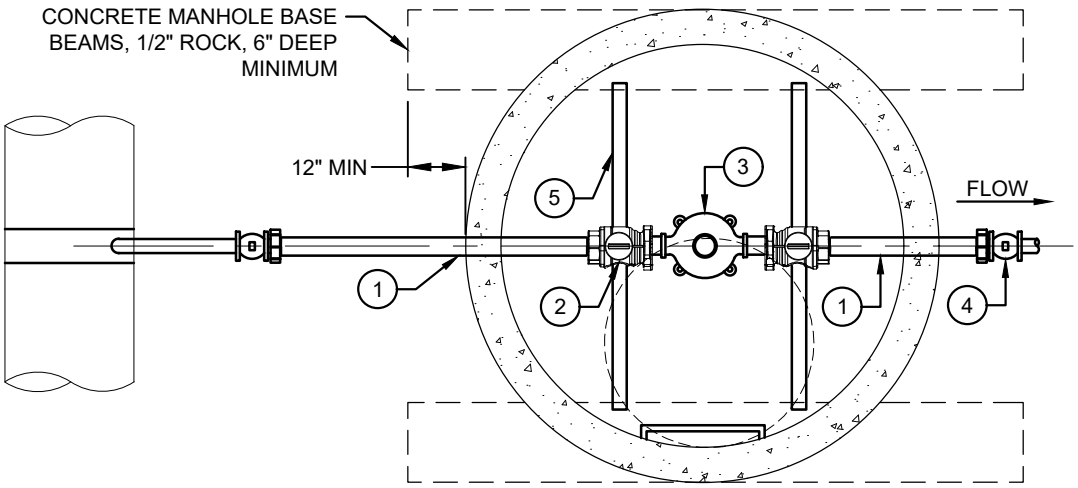
LONGS PEAK WATER DISTRICT

FIRELINE CONNECTION WITH DOMESTIC SERVICE TEE SECTION

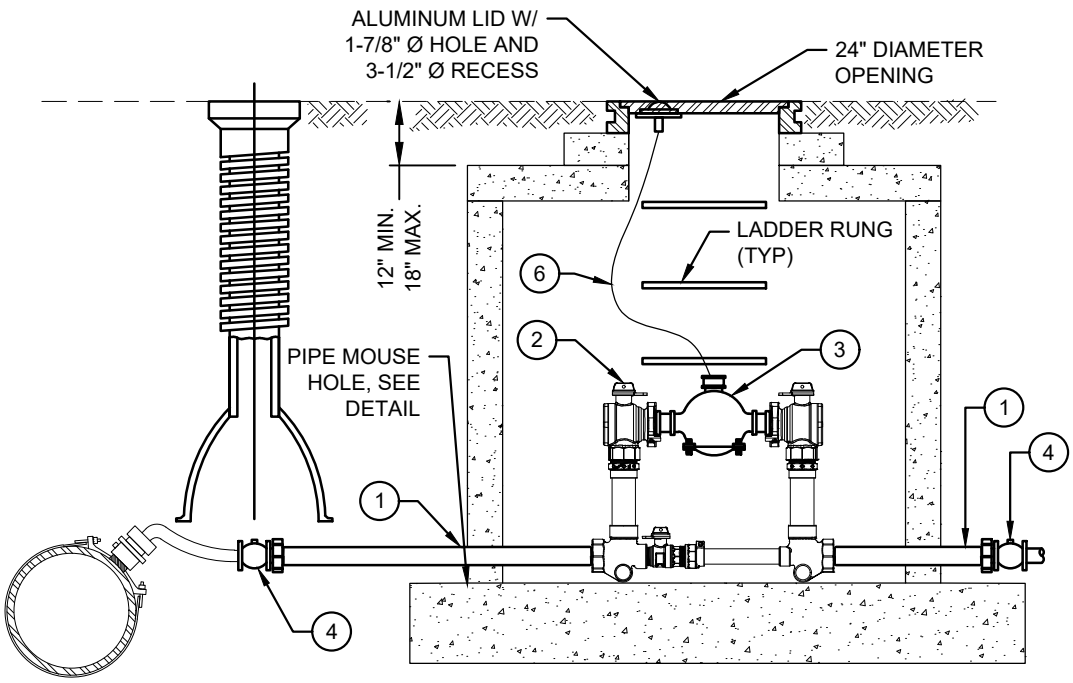
SCALE: NONE | DETAIL: W-22



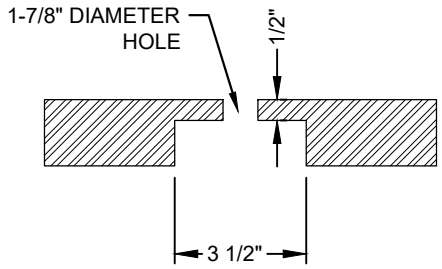
PLAN

DETAILS:

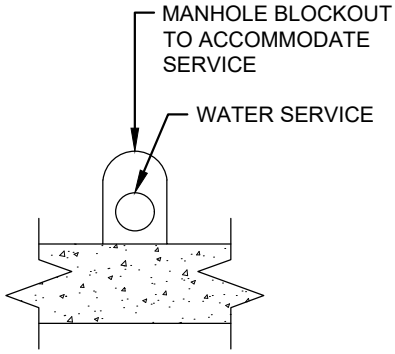
1. NIPPLE
2. FLANGED METER SETTER WITH BALL VALVES ON INLET/OUTLET
3. 1-1/2" - 2" NEPTUNE MACH 10 METER
4. EXTERNAL VALVE (SEE NOTE I)
5. METER SETTER SUPPORT
6. REMOTE REGISTER WIRE



ELEVATION



RECESS DETAIL



MOUSE HOLE DETAIL

NOTES:

A. A 60" MANHOLE PIT WILL ACCOMMODATE 1 ½" & 2" METERS.
B. ALL INTERIOR PIPING SHALL BE BRASS
C. JOINTS SHALL BE EITHER THREADED OR COMPRESSION. NO SWEATED JOINTS WILL BE ALLOWED.
D. NO CONCRETE TO BE LAID IN FLOOR OF METER MANHOLE
E. DOWNSTREAM CHANGES IN PIPE DIAMETER SHALL BE MADE OUTSIDE OF METER VAULT, BUT NO MORE THAN 2' BEYOND VAULT
F. LADDER RUNGS SHALL BE REQUIRED
G. HOLE IN LID TO BE RECESSED TO ACCEPT TRANSMITTER
H. FOR SIZE OF METER PIT LARGER THAN 2" METER, CONTACT THE DISTRICT
I. EXTERNAL VALVE TO BE STOP AND WASTE TYPE FOR IRRIGATION WATER APPLICATION

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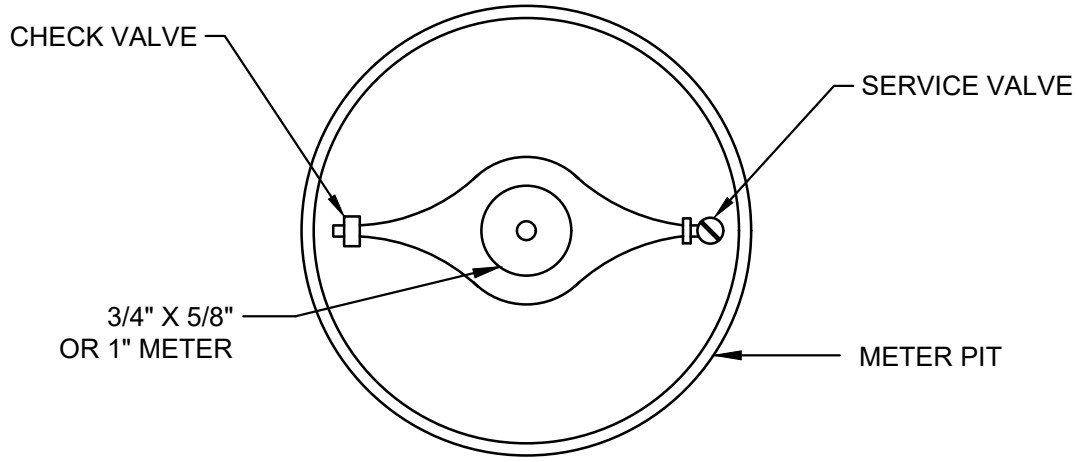
LONGS PEAK WATER DISTRICT

OUTSIDE METER SETTING FOR 1-1/2" & 2" METERS

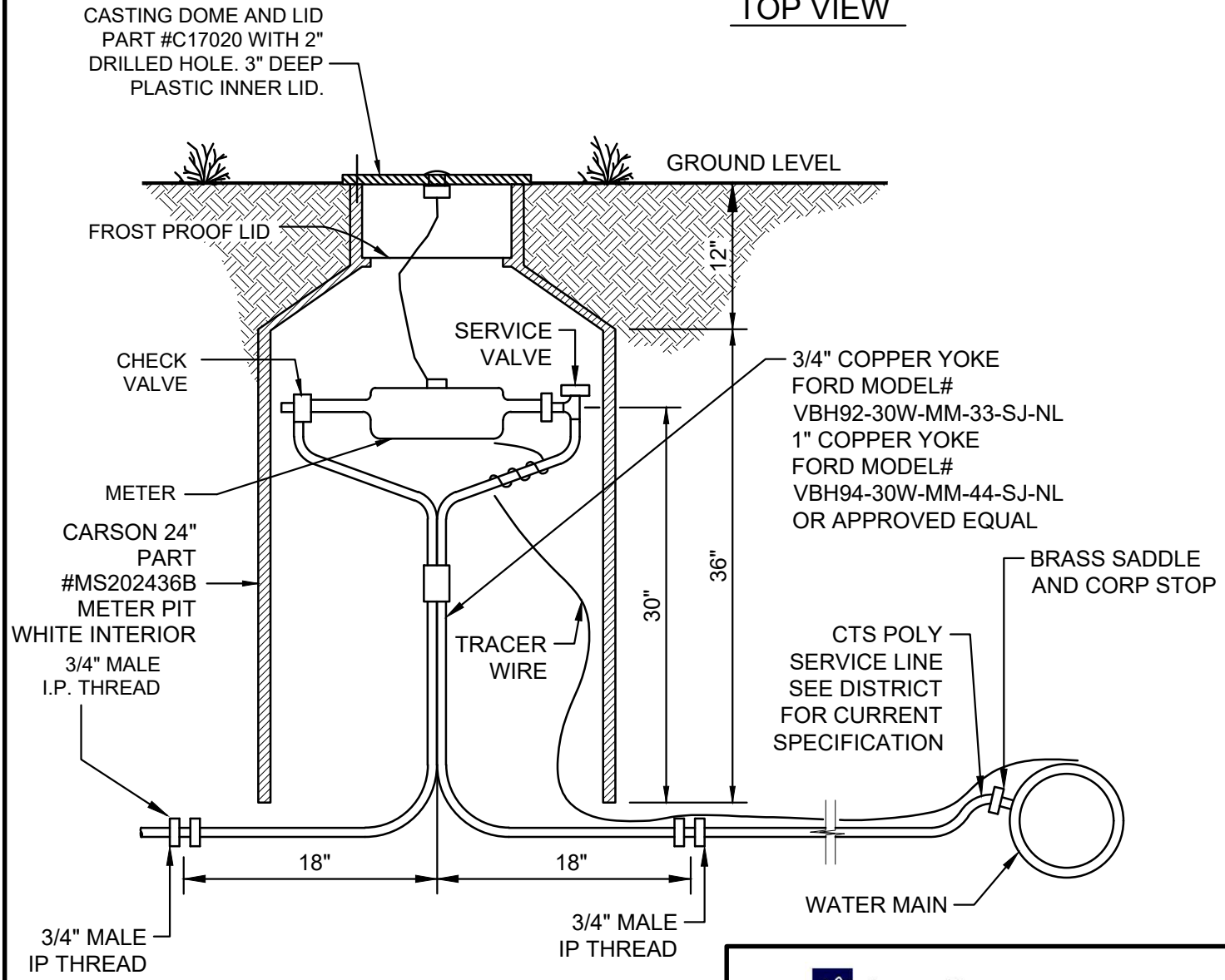
SCALE: NONE | DETAIL: W-23

NOTE

LPWD TO SUPPLY METER. ALL OTHER COMPONENTS TO BE SUPPLIED BY DEVELOPER/CONTRACTOR. ALL COMPONENTS TO BE INSTALLED BY DEVELOPER/CONTRACTOR.



TOP VIEW



LONGS PEAK WATER DISTRICT

3/4" OR 1" STANDARD
RESIDENTIAL METER PIT

SCALE: NONE | DETAIL: W-24

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NOTE

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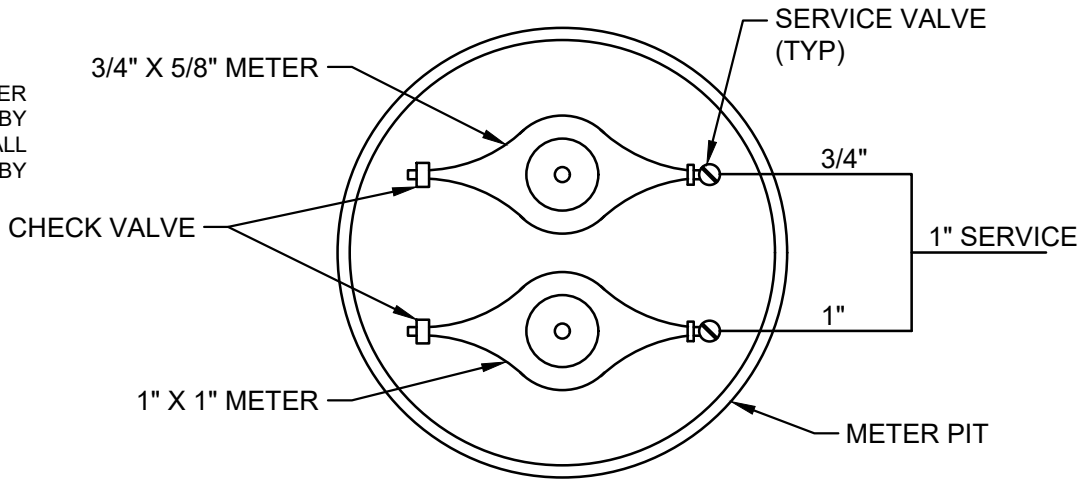
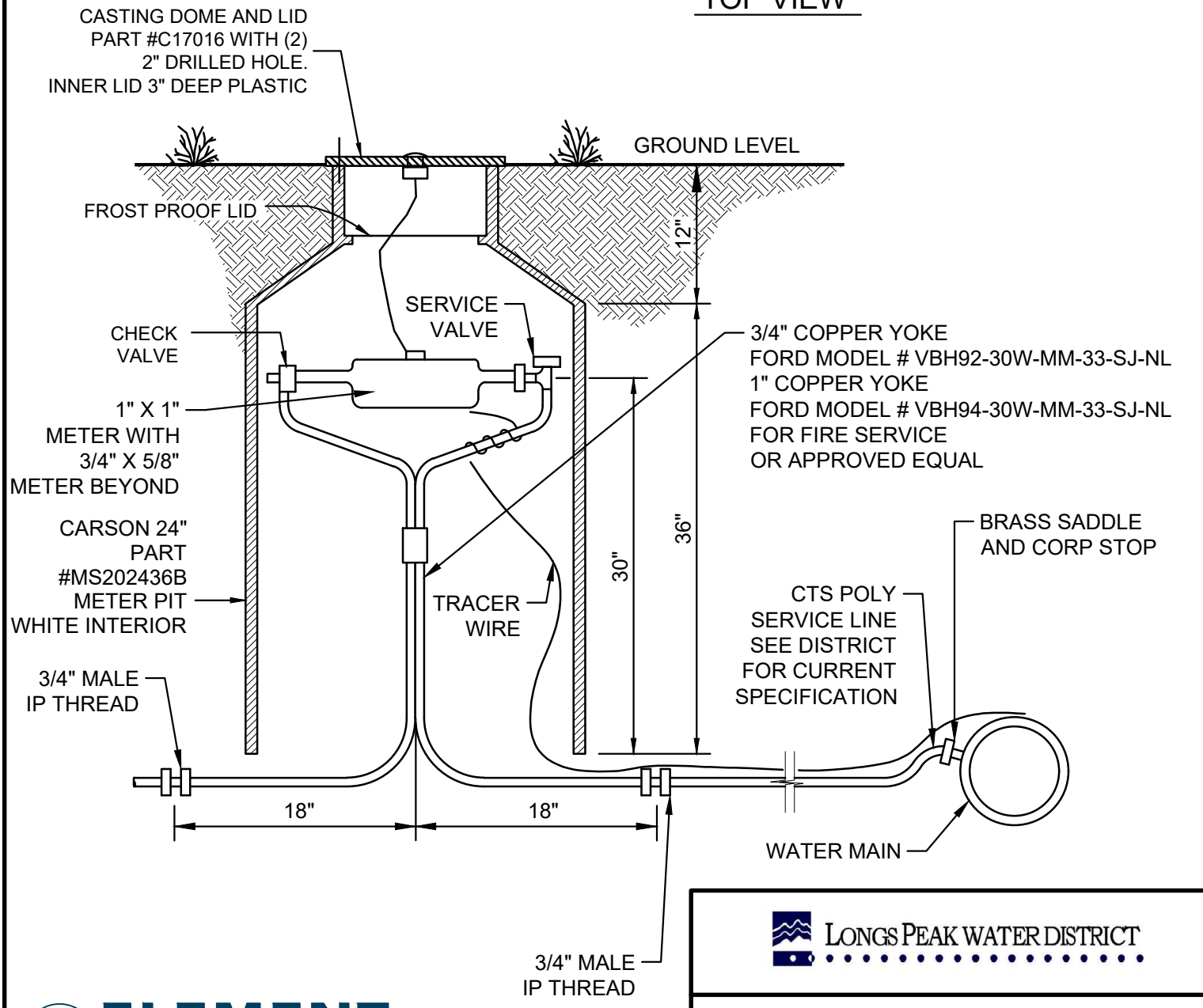


TOP VIEW



LONGS PEAK WATER DISTRICT

RESIDENTIAL METER PIT
WITH FIRE SERVICE

SCALE: NONE | DETAIL: W-25

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NOTE

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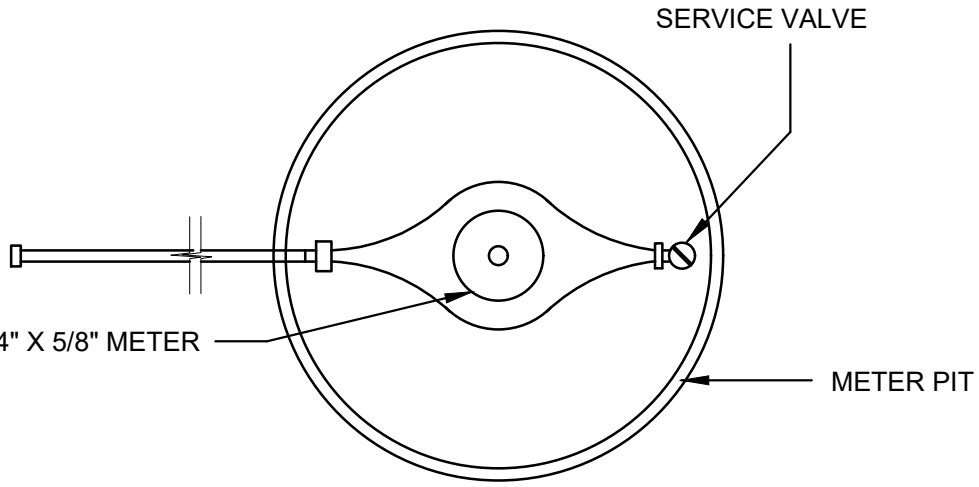
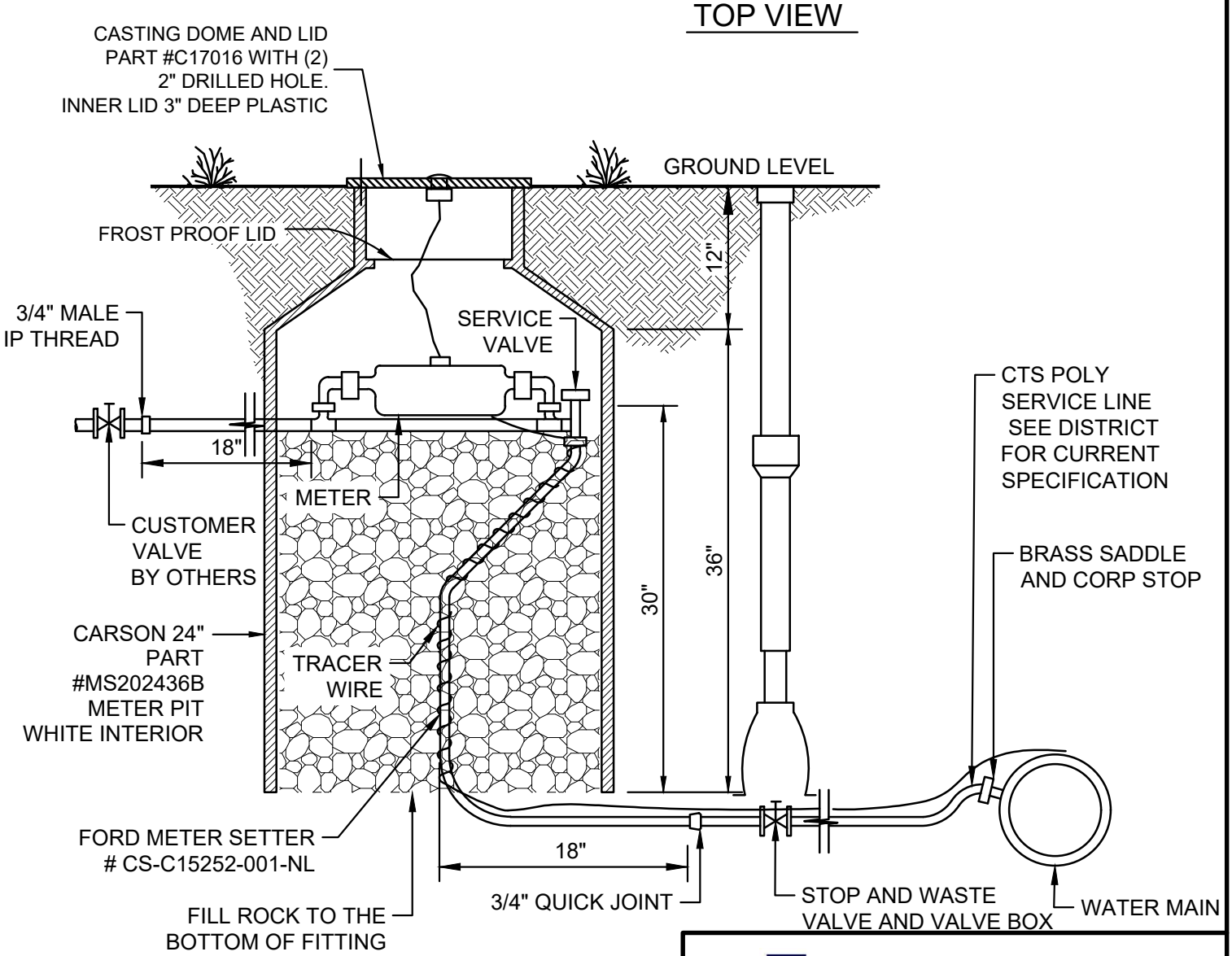


TOP VIEW



LONGS PEAK WATER DISTRICT

RESIDENTIAL METER PIT
WITH FIRE SERVICE

SCALE: NONE | DETAIL: W-26

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NOTE

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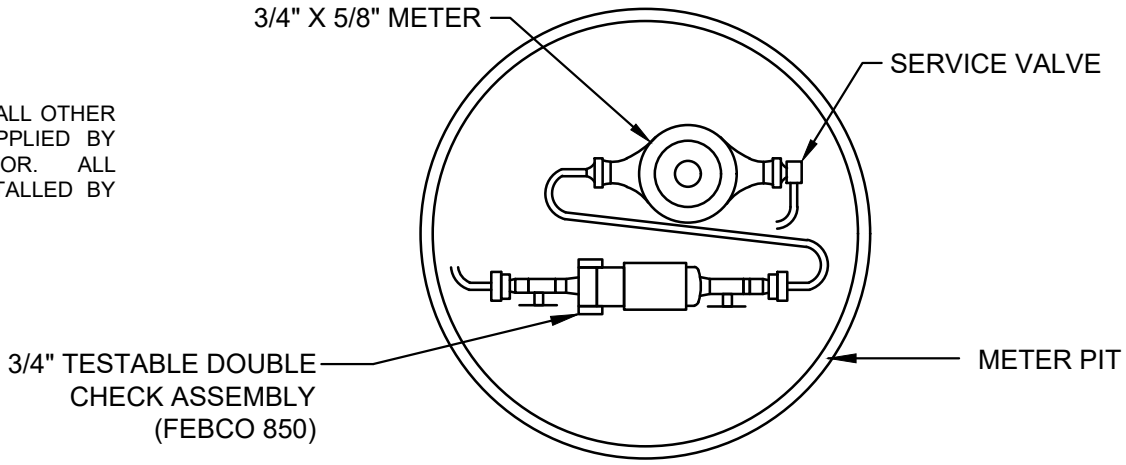
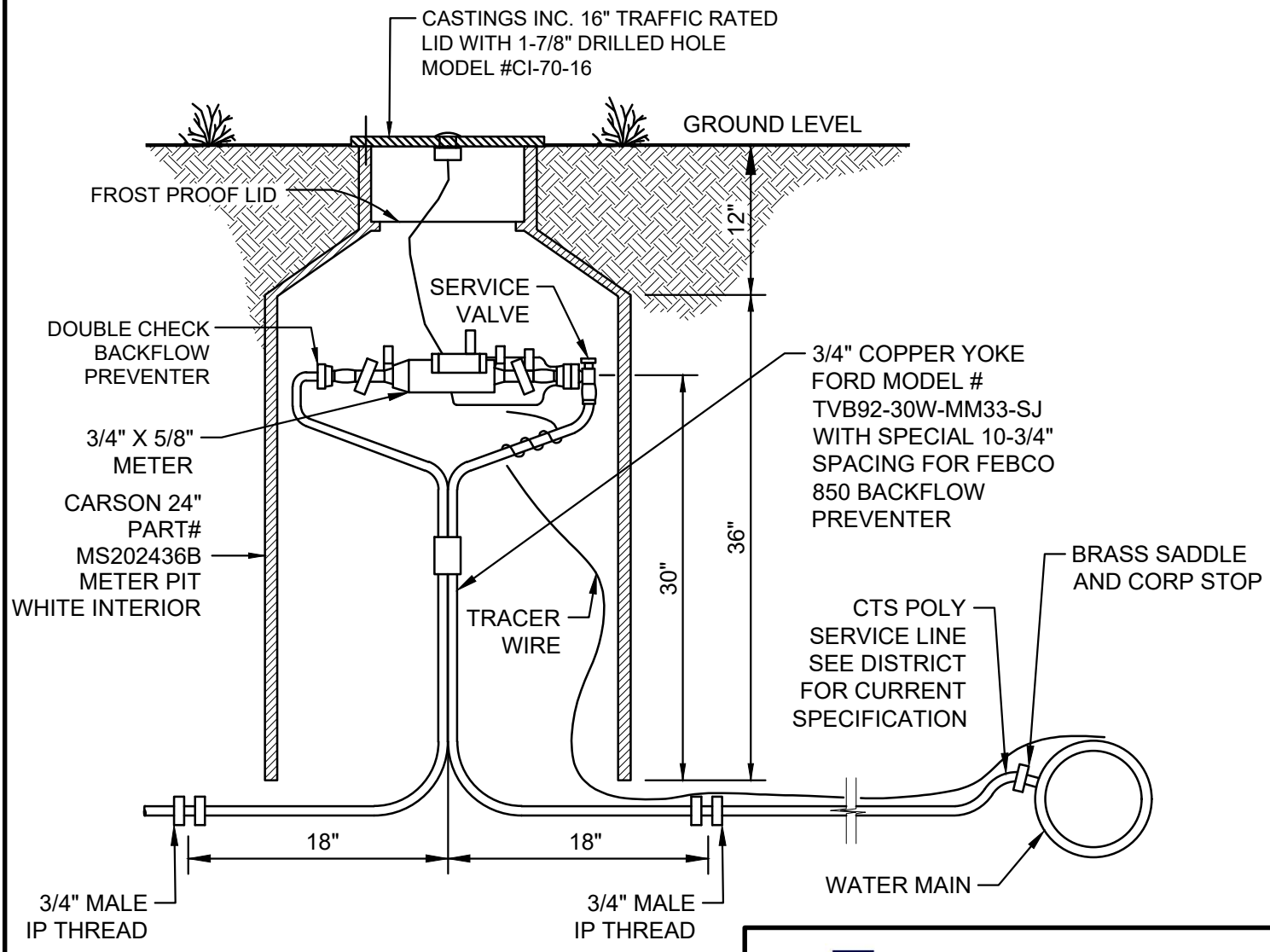


TOP VIEW



LONGS PEAK WATER DISTRICT

RESIDENTIAL METER PIT WITH BROWNWATER IRRIGATION

SCALE: NONE | DETAIL: W-27

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