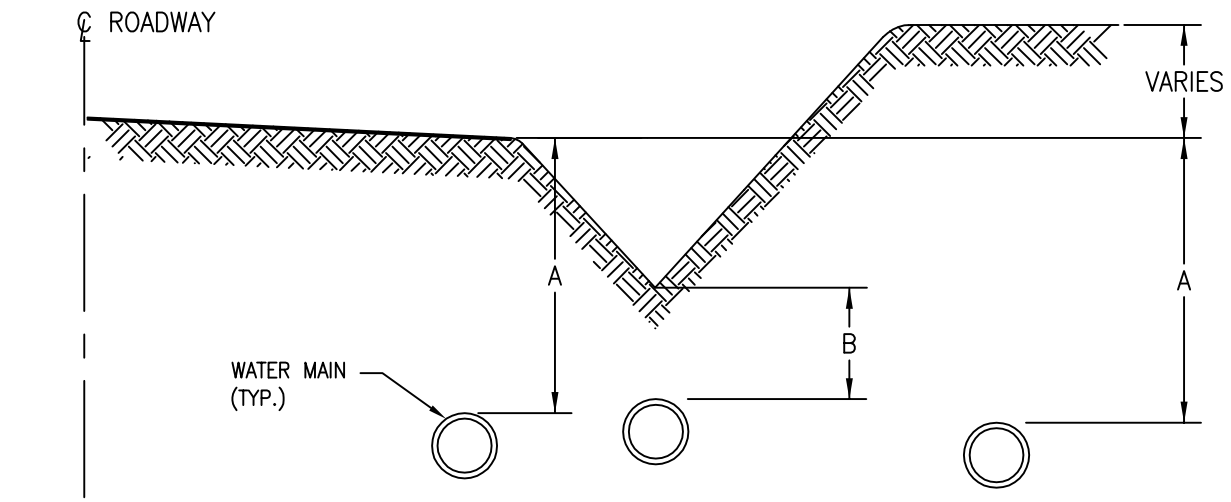
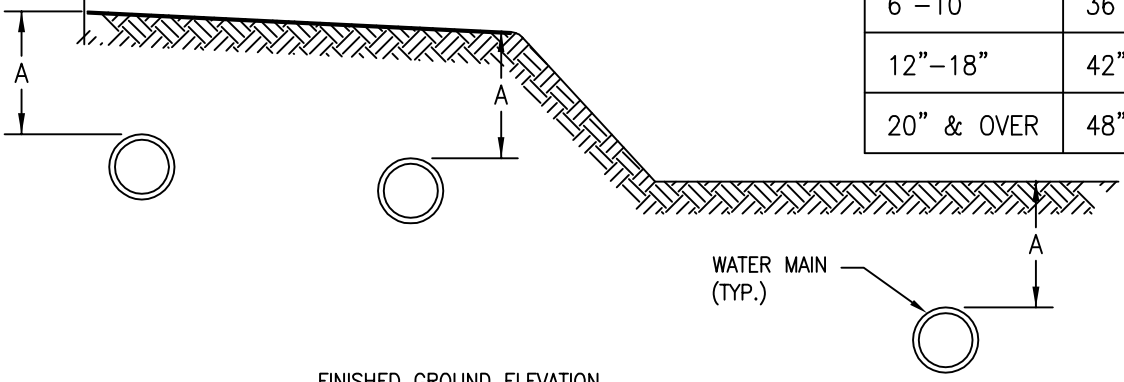
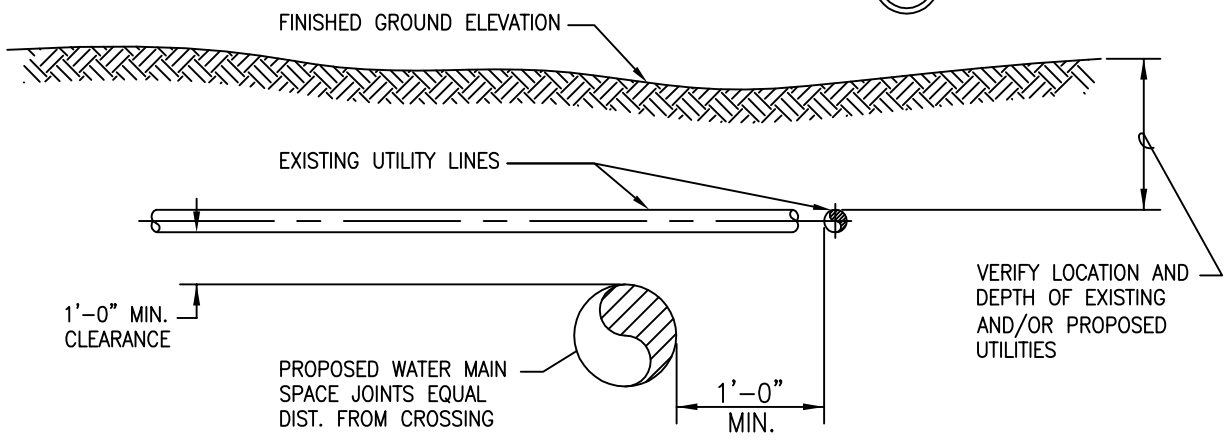


PIPE SIZE	A	B
6"–10"	36"	30"
12"–18"	42"	30"
20" & OVER	48"	36"





NOTES:

1. IN THE CASE OF CONFLICTS WITH OTHER UTILITIES ROUTE WATER MAINS UNDER CONFLICTING UTILITIES.

2. IN THE CASE OF CONFLICTS WITH SEWER LINES FOLLOW ECOLOGY REQUIREMENTS OR AS DIRECTED.

ALDERWOOD
WATER & WASTEWATER
DISTRICT

MINIMUM STANDARD DEPTH REQUIREMENTS

DATE: 11–2015 | DWG. WD–1

APPROVED BY: DLH
DISTRICT ENGINEER

NTS

SERVICE TYPE AND LOCATION	H10–UNINTENDED TRAFFIC	H20–TRAFFIC RATED	ADA–NON SKID	BOX TYPE	LID TYPE
1 INCH WATER SERVICE METER BOX IN LANDSCAPE OR DRIVEWAY (SEE NOTE 1)	X		X	CARSON HW 1527BCF HDPE W/ 18" BODY OR SIGMA/RAVEN RMB–152718–SW–B	NICOR HDPE W/ BADGER AMR RECESS AND AWWD LOGO PART # B65NLBLKALDthOCE
METER BOX IN DRIVEWAY AISLE OR THRU–WAY		X	X	OLD CASTLE / CHRISTY B1324 (CONCRETE TYPE)	B1324 SOLID CI LID (NO AWWD LOGO)
1–1/2" – 2" WATER SERVICE METER BOX IN LANDSCAPE, BEHIND VERTICAL CURB ONLY				OLD CASTLE / CARSON HDPE 1730MSBC W/ 18" BODY PEDESTRIAN ONLY	OLD CASTLE / CARSON HDPE 1730 – HDPE AMR RECESS W/ PLASTIC READER DOOR PEDESTRIAN ONLY
METER BOX IN DRIVEWAY AISLE OR THRU–WAY (SEE NOTE 1)		X	X	OLD CASTLE / CHRISTY B1730 (CONCRETE TYPE)	B1730 SOLID CI LID
2 INCH OR SMALLER DCVA				SAME AS WATER SERVICE BOX FOR LOCATION	SAME AS WATER SERVICE BOX FOR LOCATION, NO HOLE/READER DOOR.
2 INCH OR SMALLER PRV				(SEE WD–4C)	(SEE WD–4C)
BLOW OFF AND STAND PIPE ASSEMBLY IN SAME BOX		X	X	OLD CASTLE / CHRISTY B1324 AND 12" (CONCRETE TYPE)	OLD CASTLE / CHRISTY B1324 SOLID CI LID

NOTES:

1. DISTRICT APPROVAL IS REQUIRED FOR INSTALLING METER BOXES IN DRIVEWAYS. REFER TO DETAIL WD–4B FOR INSTALLATION DETAIL.
2. EQUIVALENT MAY BE CONSIDERED BY THE DISTRICT.

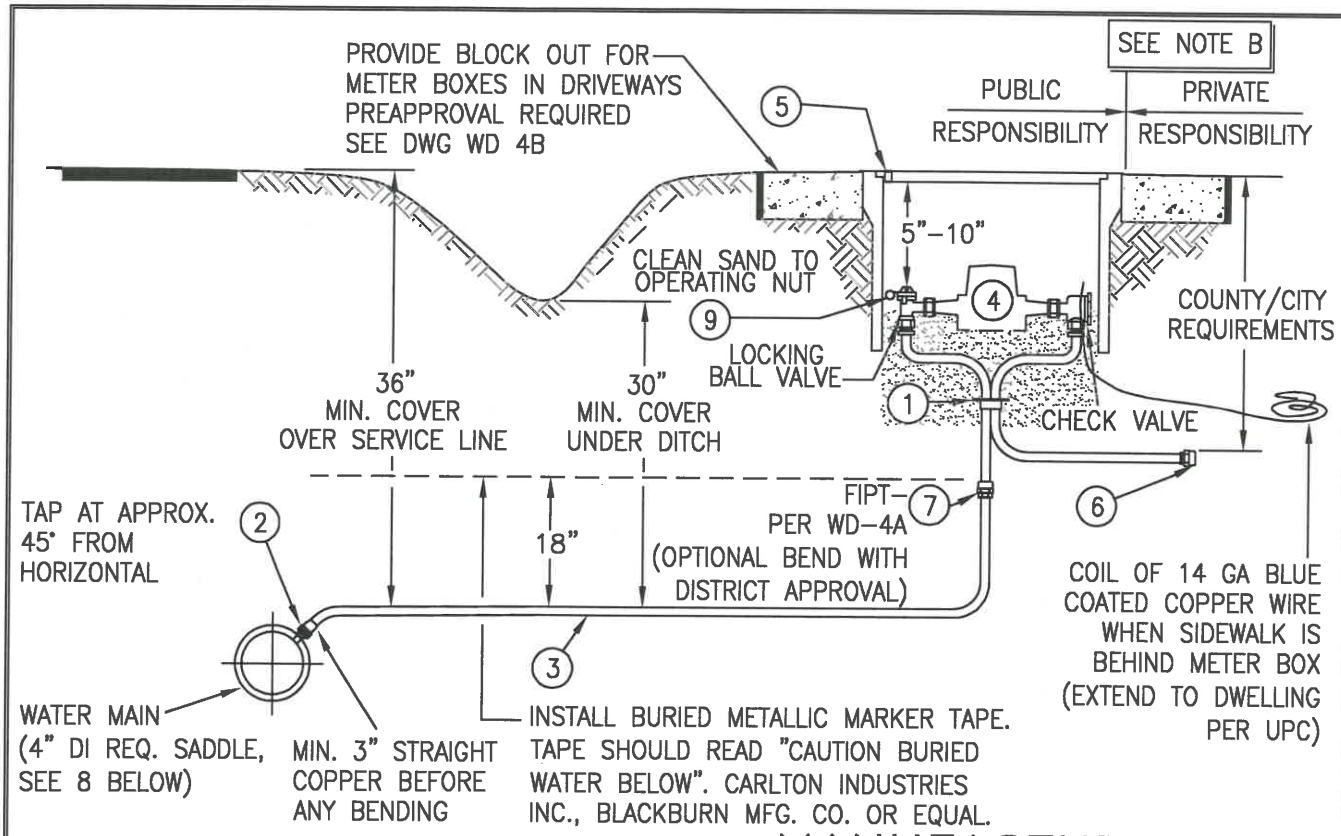
ALDERWOOD WATER & WASTEWATER DISTRICT

METER BOXES AND LIDS

DATE: 18 FEB 2020 | DWG. WD–2

APPROVED BY: _____
ENGINEERING & DEVELOPMENT DIRECTOR

NTS



NO.	ITEM	MAT'L	SIZE	MANUFACTURER		
				FORD	MUELLER	McDONALD
1	METER SETTER	COPPER	1"	FORD VBH94–15W–MM–44ZA–NL WITH VERITCAL INLET MUELLER 391B24104R2–80N AY MCDONALD 762P415WCPP44X15		
2	CORPORATION STOP	FOR COPPER SERVICE	1"	FB–1000–4–Q	B25008N	74701BQ
3	PIPE	COPPER	1"	FEDERAL SPEC. WW–T–799, TYPE K ASTM SPEC. B88, TYPE K A.W.W.A. SPEC. 7S–CR, TYPE K		
4	METER (FURNISHED BY AWWD)					
5	METER BOX		1"	REFER TO DETAIL WD–2 FOR METER BOX TYPE		
6	PVC CAP AT END OF TAIL PIECE					
7	ADAPTOR		1"	F.I.P.T x COMPRESSION JOINT MATCHING SETTER MANUFACT.		
8	4" DI SADDLE		1"	FORD – FSD202 4.74–5.26 O.D. (C.C. THREAD)	ROMAC – 202NS 4.5 –5.4 O.D. (C.C. THREAD)	
9	SST 1–1/4" ROUND TAG W/ ADDRESS OR LOT NUMBER FOR CLUSTERED BOXES					

NOTES:

A. SPLICES – NOT ALLOWED UNLESS APPROVED BY THE DISTRICT. USE MUELLER 110 OR FORD COMPRESSION JOINT.
B. OWNERS ARE RESPONSIBLE FOR INSTALLING PRESSURE REDUCER ON THEIR SYSTEM TO PROTECT THEIR FACILITIES FROM HIGH PRESSURE, EXCEPT AS OTHERWISE DIRECTED BY DISTRICT.
C. SURFACE RESTORATION IN ACCORDANCE WITH JURISDICTIONAL AUTHORITY.
D. 4" OF SAND BEDDING REQUIRED ON ALL COPPER SERVICE LINES.
E. WHEN SIDEWALK IS INSTALLED BEHIND METER BOX, A COPPER TAILPIECE OF LIKE LENGTH SHALL BE EXTENDED TO THE PROPERTY SIDE OF WALKWAY.
F. ALL FITTINGS SHALL BE "LEAD FREE"

ALDERWOOD WATER & WASTEWATER DISTRICT

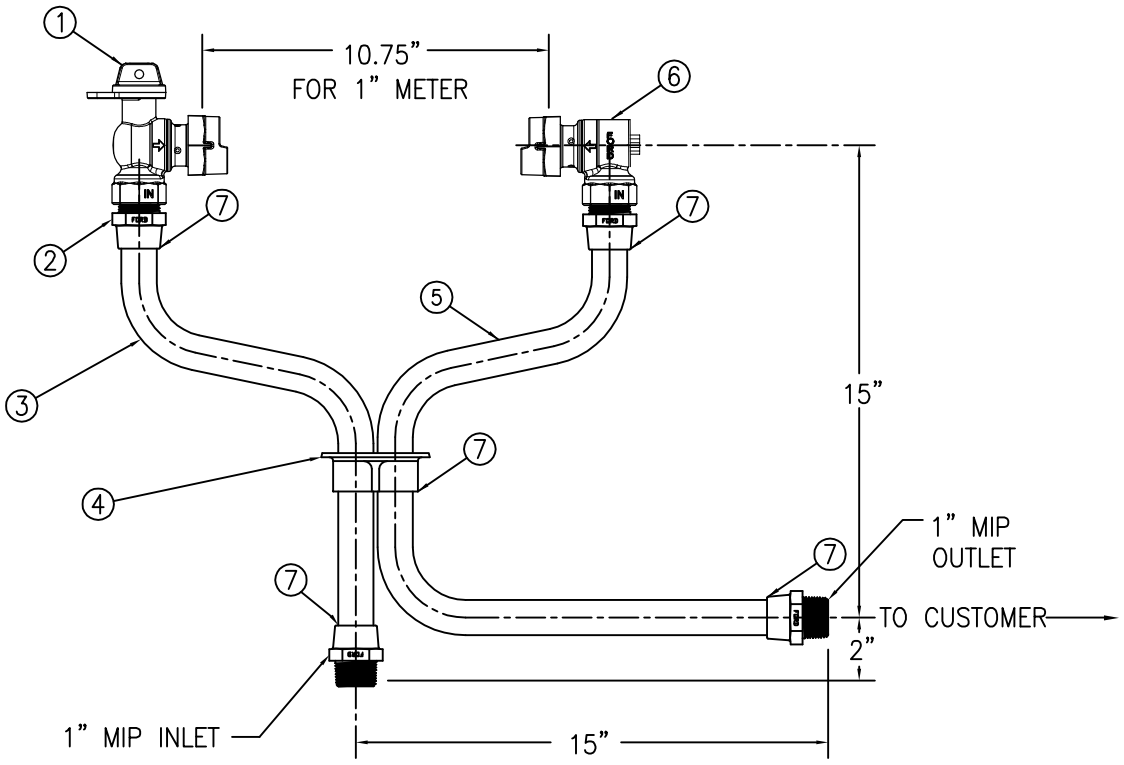
1" SERVICE INSTALLATION

DATE: 7 JAN 2020 | DWG. WD–4

APPROVED BY: _____
ENGINEERING & DEVELOPMENT DIRECTOR

NTS

1" METER SETTER



NOTE:
IF REPLACING AN EXISTING SETTER THAT DOES NOT HAVE A CHECK VALVE, INSTALL SETTER WITH AN ANGLE BALL VALVE ON DOWNSTREAM METER CONNECTION.

NOTES:

① LOCKING ANGLE BALL VALVE
② SODLER BUSHING
③ 1 1/8" OD COPPER TUBE
④ TIE BAR
⑤ 1 1/8" OD COPPER TUBE
⑥ ANGLE CHECK VALVE
⑦ COMPLETELY SOLDER ALL CONNECTING PIECES AND TIE BAR TO PIPE.

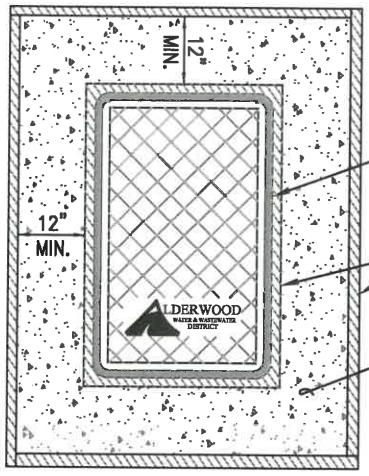
ALDERWOOD
WATER & WASTEWATER
DISTRICT

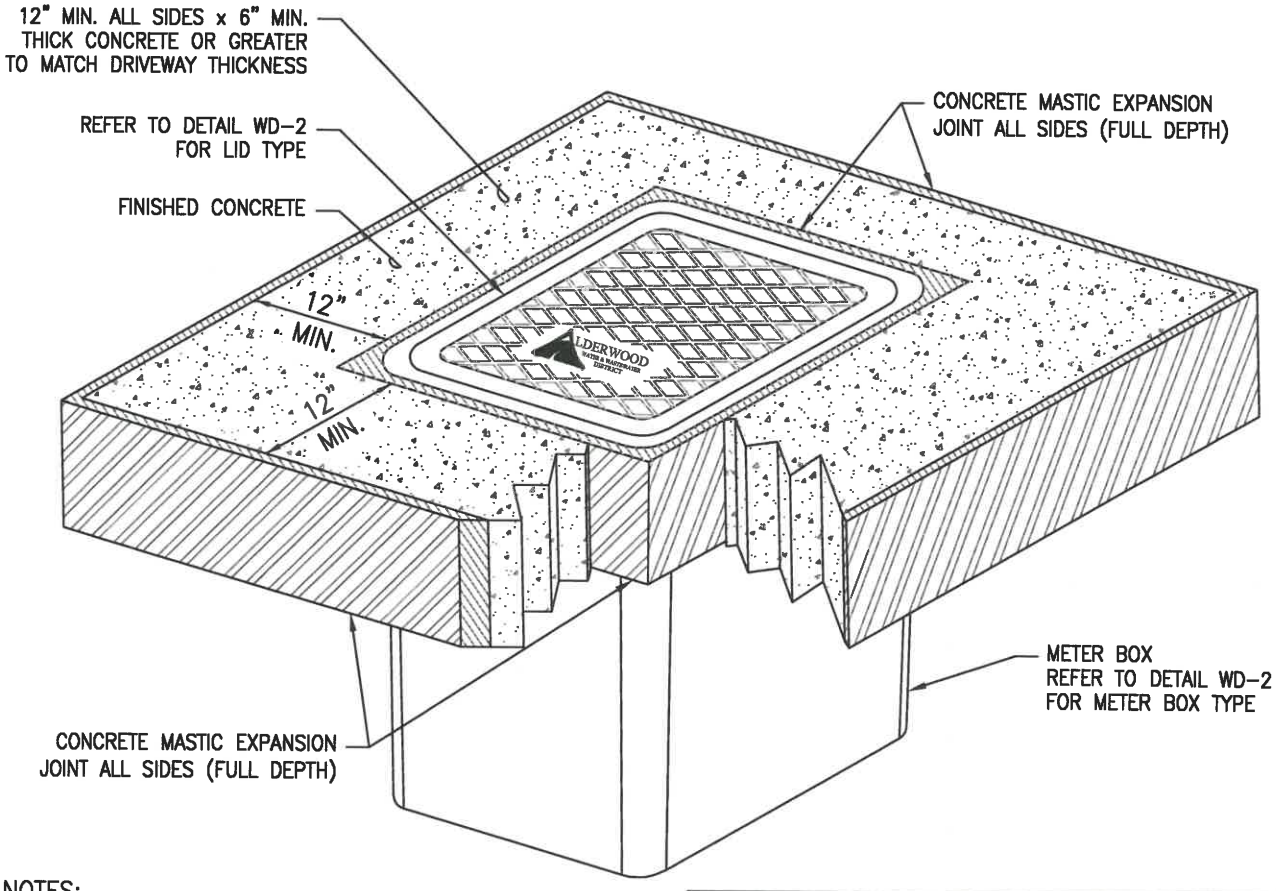
METER SETTER
1" WATER SERVICE

DATE: 11-2015	DWG. WD-4A

APPROVED BY: DLH
DISTRICT ENGINEER

NTS





NOTES:

1. DISTRICT APPROVAL IS REQUIRED FOR INSTALLING METER BOXES IN DRIVEWAYS.
2. FOR USE IN CONCRETE DRIVEWAY ONLY.
3. COMPACTED 5/8" MINUS CRUSHED ROCK BASE UNDER BOX FOR SUPPORT REQUIRED.

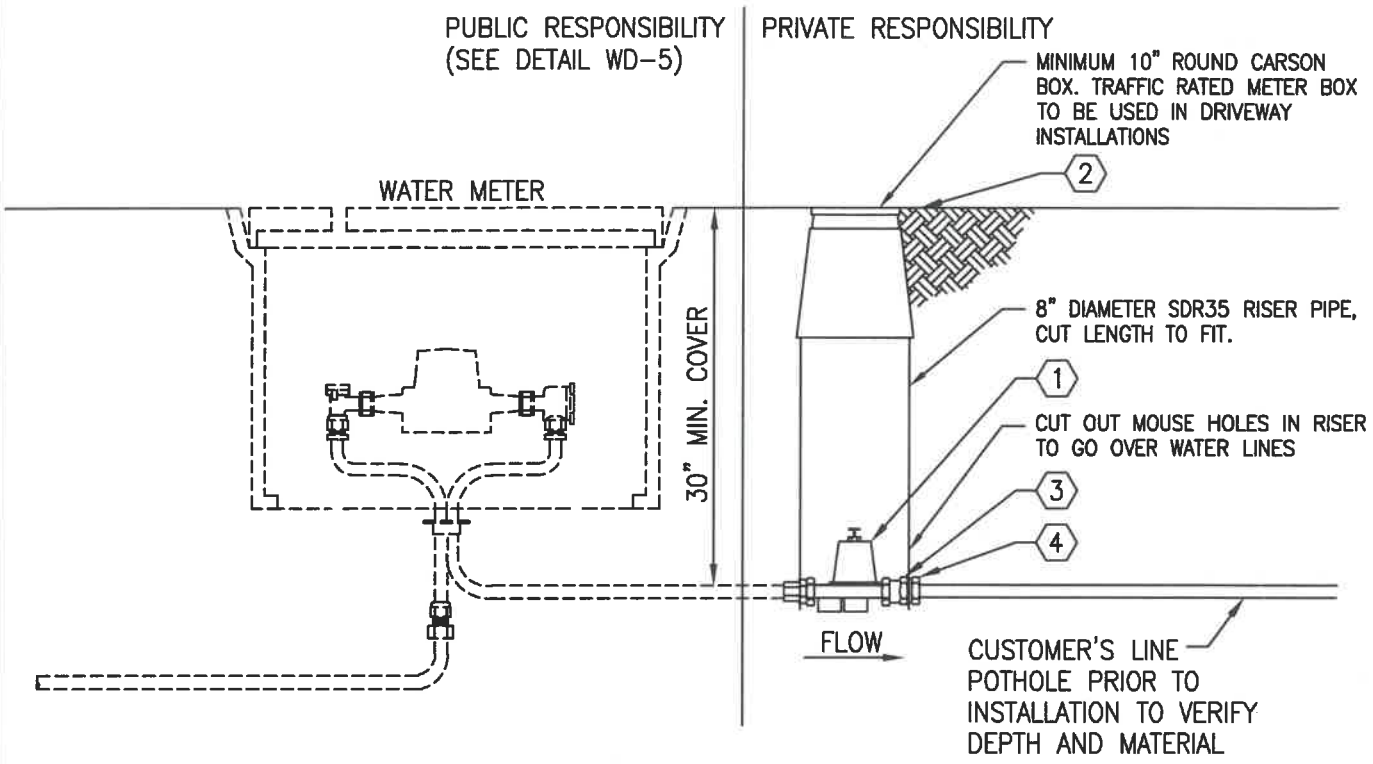
ALDERWOOD
WATER & WASTEWATER DISTRICT

BLOCK OUT FOR METER BOXES IN CONCRETE DRIVEWAYS

DATE: 7 JAN 2020 | DWG. WD-4B

APPROVED BY: _____
ENGINEERING & DEVELOPMENT DIRECTOR

NTS



KEYED NOTES FOR PRV

1. PRESSURE REDUCING VALVE W/ STRAINER – 3/4" – 2" WITH UNION COUPLING ON THE INLET; EQUAL TO: WATTS #LF25AUB-Z3.
2. LANDSCAPE: MINIMUM 10" ROUND TO ALLOW ACCESS, TRAFFIC AREAS: SAME AS METER BOX
3. CONNECTION TO CUSTOMER'S LINE SHALL BE BRASS TRANSITION FITTING COMPATIBLE TO CONNECT CUSTOMERS PRIVATE WATER LINE. NO NYLON, PLASTIC, OR GALVANIZED FITTINGS ALLOWED.
4. 3/4" – 2" BRASS DIELECTRIC UNION. (INSTALL DOWNSTREAM OF THE PRV IF CUSTOMERS LINE IS METALLIC)
5. CONTRACTOR TO TAKE PRE & POST CONSTRUCTION PRESSURE AT CUSTOMER'S BUILDING AND SET PRESSURE TO PRE CONSTRUCTION LEVEL. CONTRACTOR TO DOCUMENT AND PROVIDE INFORMATION TO THE DISTRICT.

INSTALLATION

THE PRESSURE REDUCING VALVE SHALL BE LOCATED DIRECTLY DOWNSTREAM OF THE METER. RESPONSIBILITY FOR PROPER INSTALLATION SHALL BE THAT OF THE CONTRACTOR. MAINTENANCE AND OPERATION OF THE VALVE SHALL BE THAT OF THE PROPERTY OWNER.

NOTES:

1. A NEW PRV SHALL BE INSTALLED WHEN AN EXISTING PRV IS REMOVED DURING SERVICE RELOCATION OR IF WATER MAIN PRESSURES ARE INCREASED TO OVER 80 PSI.

2. MEASURE AND RECORD EXISTING WATER PRESSURE AT BUILDING PRIOR TO RECONNECTION AND AFTER REESTABLISHMENT OF SERVICE PRESSURE. IF PRESSURE READINGS DIFFER BY MORE THAN 5 PSI, THE CONTRACTOR SHALL IDENTIFY AND CORRECT THE ISSUE.

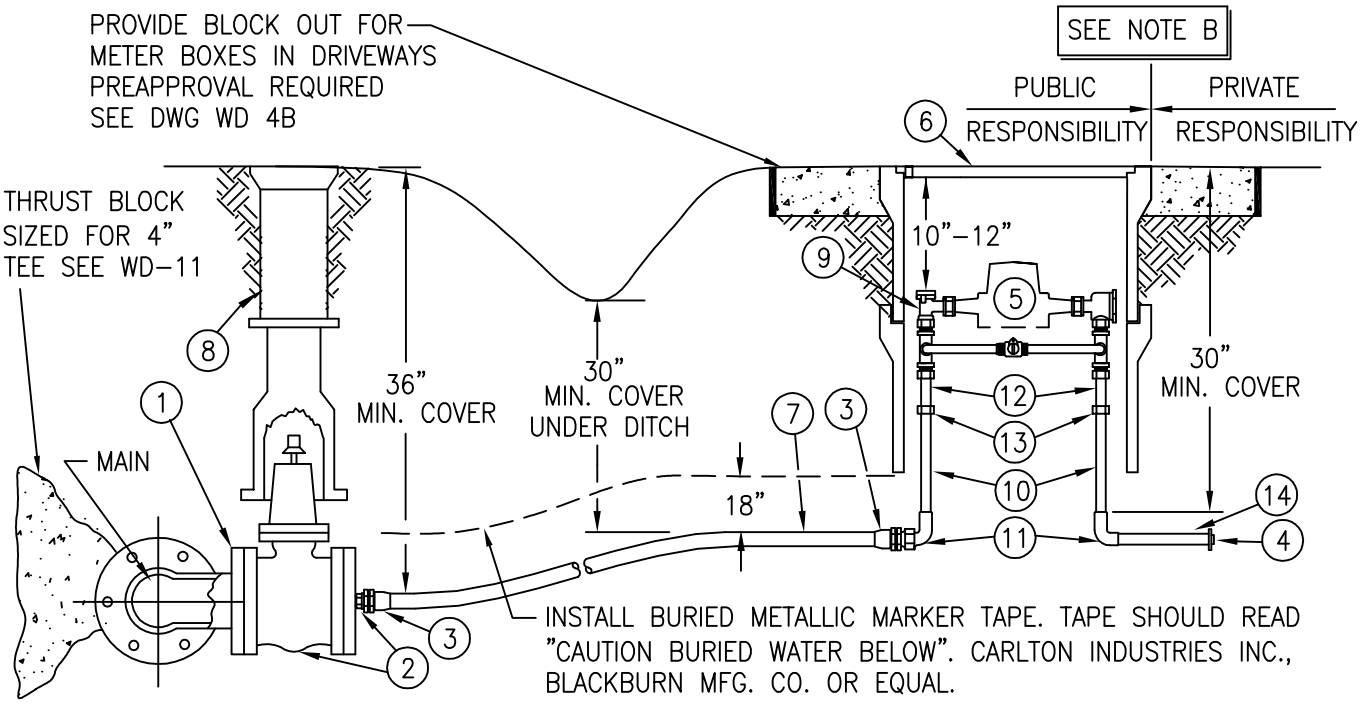
ALDERWOOD
WATER & WASTEWATER DISTRICT

PRESSURE REDUCING VALVE 3/4" – 2"

DATE: 24 AUG 2021 | DWG. WD-4C

APPROVED BY: _____
ENGINEERING & DEVELOPMENT DIRECTOR

NTS



NO.	ITEM
1	DISTRICT APPOVED TEE X 4" (FL)
2	4" R/W GATE VALVE (FL X FL) 4" X 2" COMPANION FLANGE (FIPT) FOR 1 1/2" USE BRASS BUSHING
3	1-1/2" OR 2" MUELLER 110, FORD GRIP JOINT OR AY MCDONALD 4753 MIPX Q ADAPTER
4	1-1/2" OR 2" PLASTIC CAP (SCHEDULE 40)
5	1 1/2" OR 2" BADGER RECORDALL METER SUPPLIED BY DISTRICT
6	REFER TO DETAIL WD-2 FOR METER BOX TYPE
7	1 1/2" OR 2" TYPE K COPPER PIPE (SOFT)
8	CAST-IRON VALVE BOX
9	1 1/2" OR 2" BRASS METER SETTER WITH HIGH BYPASS 1 1/2" FORD VBH86-5HB-11-66-NL 1 1/2" AY MCDONALD 730F608WDFF-666 2" FORD VBH87-5HB-11-77-NL 2" AY McDONALD 730F708WDFF-776 (OR APPROVED EQUAL)
10	1 1/2" OR 2" BRASS NIPPLE 6" LONG MIN. (MIPT)
11	1 1/2" OR 2" BRASS 90° ELBOW (FIPT)
12	1 1/2" OR 2" NIPPLE 3" LONG MIN.
13	1 1/2" OR 2" BRASS UNION (FIPT)
14	1 1/2" OR 2" BRASS NIPPLE 2' MIN. (EXTEND TO BACK OF SIDEWALK IF NECESSARY)

NOTES:

A. NO SPLICES ALLOWED UNLESS APPROVED BY DISTRICT. USE MUELLER 110 OR FORD QUICK JOINT.
B. OWNERS ARE RESPONSIBLE FOR INSTALLING PRESSURE REDUCER ON THEIR SYSTEM TO PROTECT THEIR FACILITIES FROM HIGH PRESSURE, UNLESS OTHERWISE SHOWN ON DRAWING.
C. SURFACE RESTORATION IN ACCORDANCE WITH JURISDICTIONAL AUTHORITY.
D. 4" SAND BEDDING REQUIRED ON ALL COPPER.
E. ALL FITTINGS SHALL BE "LEAD FREE"

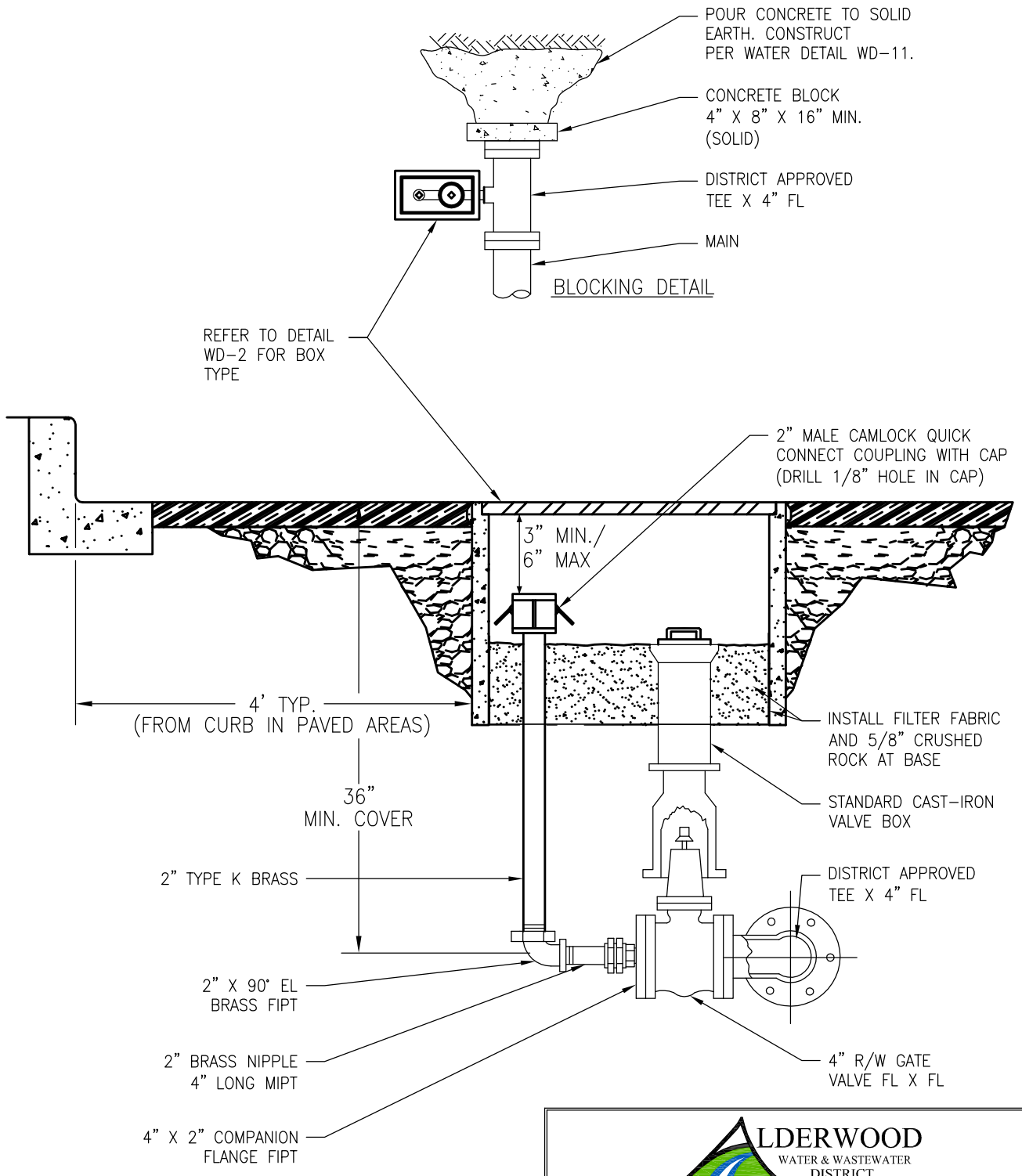
ALDERWOOD WATER & WASTEWATER DISTRICT

1-1/2" & 2" SERVICE INSTALLATION

DATE: 11-2015 | DWG. WD-5

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



NOTES:

1. LOCATE METER BOX AS DIRECTED IN LOCATION APPROVED BY THE DISTRICT.
2. USE SAME STANDARD FOR LOCATIONS IN NON-PAVED AREAS

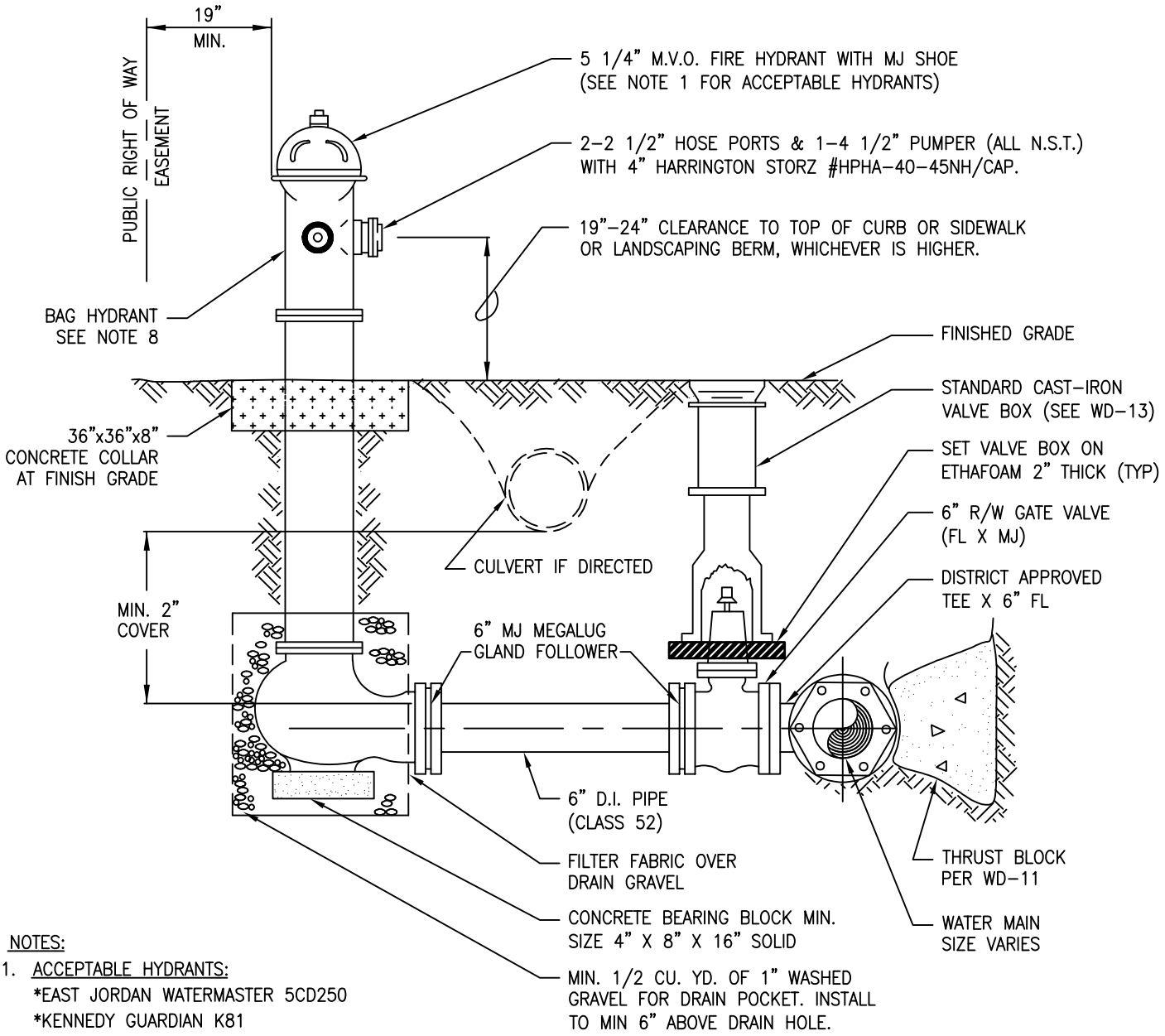
ALDERWOOD WATER & WASTEWATER DISTRICT

2" BLOWOFF ASSEMBLY

DATE: 07-2017	DWG. WD-6

APPROVED BY: SDS
DEVELOPMENT ENGINEER

NTS



NOTES:

1. ACCEPTABLE HYDRANTS:
   - *EAST JORDAN WATERMASTER 5CD250
   - *KENNEDY GUARDIAN K81
   - *CLOW MEDALLION
   - *MUELLER SUPER CENTURION 250
   - *AVK HYDRANT-2780
2. PAINT HYDRANT WITH 2 COATS OF OLD CAT YELLOW RUST-OLEUM 7448402, MILLER PAINTS 12LW0239 OR EQUAL.
3. WHEN 6" DI PIPE EXCEEDS 18' USE APPROVED RESTRAINED JOINTS.
4. HYDRANTS SHALL BE FURNISHED WITH BREAK AWAY FLANGE OR LUGS.
5. INSTALL GUARD POST AS DIRECTED. (SEE WD-17)
6. PROVIDE MINIMUM 3' CLEAR ZONE AROUND HYDRANTS IN ALL LOCATIONS IN ACCORDANCE WITH COUNTY AND FIRE CODES.
7. IN AREAS WHERE VALVE IS LOCATED OUTSIDE OF PAVEMENT STENCIL DISTANCE TO VALVE ON HYDRANT WITH 2" BLACK NUMERALS.
8. HYDRANTS NOT IN SERVICE SHALL BE COVERED WITH BLACK HEAVY DUTY LAWN AND GARDEN BAG, SECURE WITH DUCT TAPE OR ELECTRICAL TAPE.
9. REMOVE CHAINS.

ALDERWOOD
WATER & WASTEWATER
DISTRICT

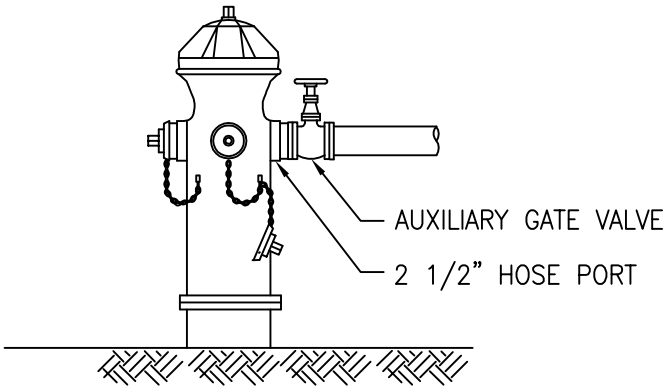
FIRE HYDRANT ASSEMBLY

DATE: 01-2025 | DWG. WD-7

APPROVED BY: _____
ENGINEERING & DEVELOPMENT DIRECTOR

NTS

APPROVED METHOD OF
HYDRANT USE



HYDRANT USE PROCEDURES

1. USER MUST HAVE A VALID "WATER USE PERMIT" FOR EACH VEHICLE, FROM THE DISTRICT IN THEIR POSSESSION. ONLY APPROVED/DESIGNATED FILLING HYDRANTS CAN BE USED FOR FILLING. CONTACT OPERATION AND MAINTENANCE FOR APPROVED FILLING HYDRANT LOCATIONS AND VEHICLE INSPECTION.
2. THERE SHALL BE AN ACCEPTABLE WASHINGTON STATE APPROVED AND TESTED "BACKFLOW ASSEMBLY" OR AN APPROVED AIR GAP.
3. OPENING AND CLOSING OF HYDRANT VALVE SHALL BE WITH AN ACCEPTABLE WRENCH TO RECEIVE THE 5-SIDED NUT AND SHALL BE DONE SLOWLY TO PREVENT EXCESSIVE PRESSURE SURGES ON THE WATER SYSTEM.
4. THERE SHALL BE AN AUXILIARY GATE VALVE ATTACHED TO THE 2-1/2 HOSE PORT OF THE HYDRANT PROVIDED BY PERMIT HOLDER.
5. THE HYDRANT VALVE SHALL BE FULLY OPENED AND THE WATER USE CONTROLLED EXCLUSIVELY BY THE AUXILIARY GATE VALVE.
6. THE AUXILIARY GATE VALVE SHALL BE OPERATED IN A SLOW MANNER TO PREVENT EXCESSIVE PRESSURE SURGES ON THE WATER SYSTEM.
7. WATER FROM HYDRANTS WITHIN THE DISTRICT CANNOT BE USED OUTSIDE OF THE DISTRICT BOUNDARIES. ANY VIOLATIONS ARE SUBJECT TO LOSS OF WATER USE PERMITS AND MONETARY FINE.
8. IF UNABLE TO OPERATE OR CLOSE THE HYDRANT PROPERLY, CALL THE DISTRICT IMMEDIATELY FOR ASSISTANCE - (425)787-0250.
9. DO NOT USE PRIVATELY OWNED HYDRANTS THAT ARE LOCATED WITHIN THE DISTRICT. NORMALLY, PRIVATE HYDRANTS WILL BE PAINTED WHITE.

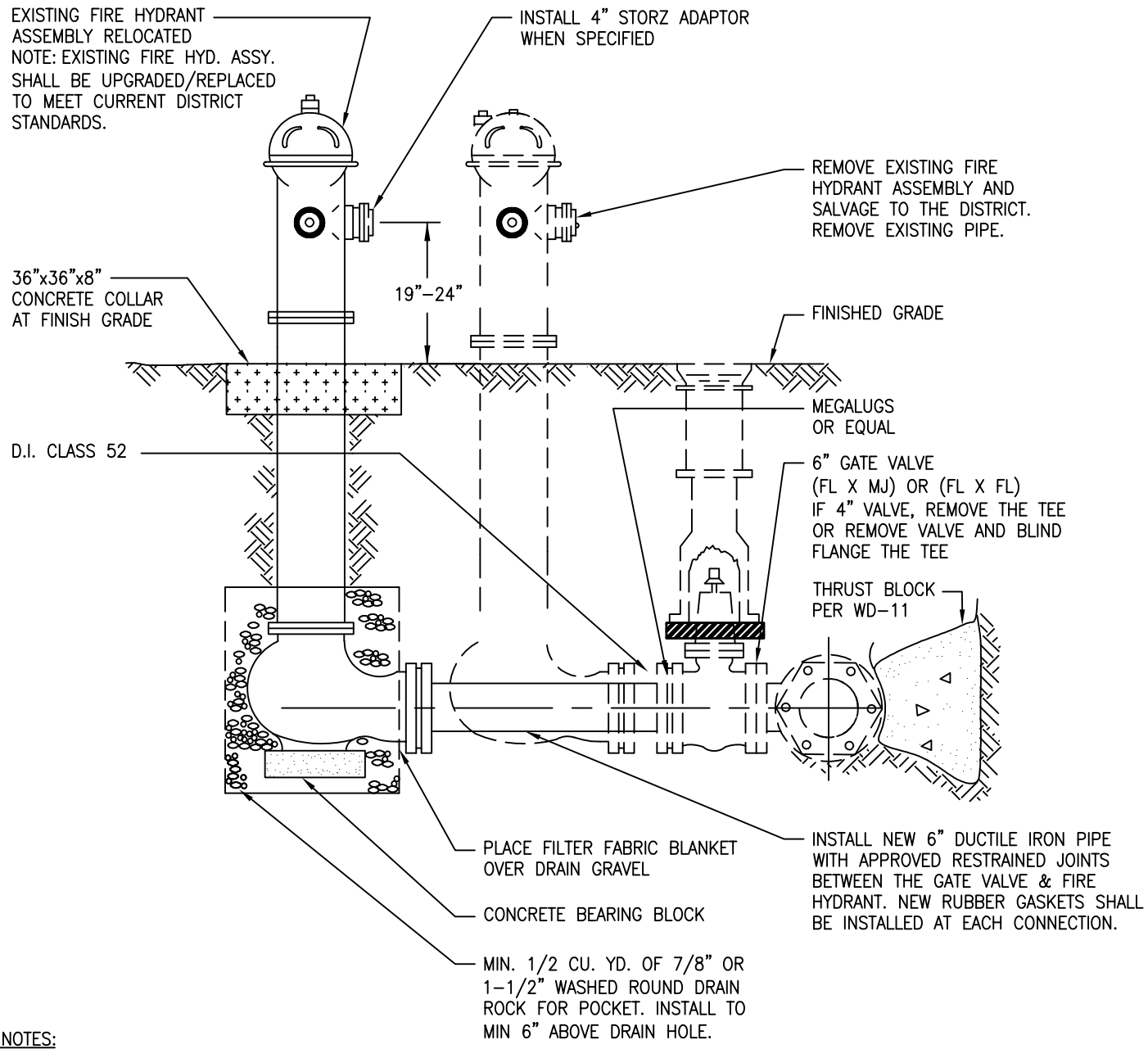
ALDERWOOD
WATER & WASTEWATER
DISTRICT

HYDRANT USE REQUIREMENTS

DATE: 11-2015	DWG. WD-8

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



NOTES:

1. ACCEPTABLE HYDRANTS:
   - *EAST JORDAN WATERMASTER 5CD250
   - *KENNEDY GUARDIAN K81
   - *CLOW MEDALLION
   - *MUELLER SUPER CENTURION 250
   - *AVK HYDRANT –2780
2. THOROUGHLY CLEAN & PAINT HYDRANT WITH 2 COATS OF OLD CAT YELLOW RUST–OLEUM 7448402, MILLER PAINTS 12LW0239 OR EQUAL.
3. WHEN 6" DUCTILE IRON PIPE EXCEEDS 18' USE APPROVED RESTRAINED JOINTS.
4. INSTALL GUARD POST AS DIRECTED (SEE WD–17).
5. PROVIDE MINIMUM 5' CLEAR ZONE AROUND HYDRANTS IN OR ADJACENT TO RIGHT OF WAY AND 3' OTHERWISE.
6. INSTALL NEW STORZ FITTING WHEN SPECIFIED.
7. REMOVE CHAINS.

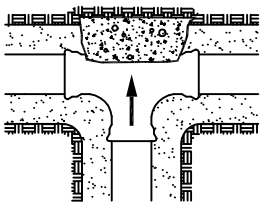
ALDERWOOD
WATER & WASTEWATER DISTRICT

RELOCATE/REPLACE EXISTING FIRE HYDRANT ASSEMBLY

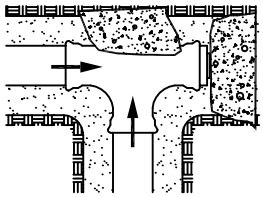
DATE: 01–2025 | DWG. WD–9

APPROVED BY: _____
ENGINEERING & DEVELOPMENT DIRECTOR

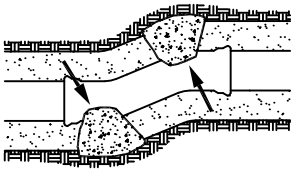
NTS



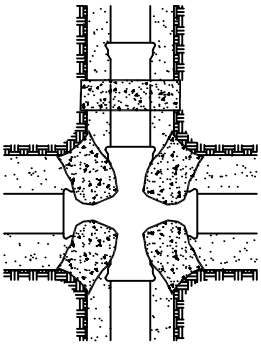
TEE



90°/TEE



BEND



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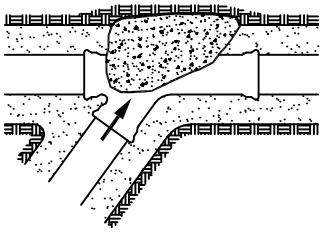

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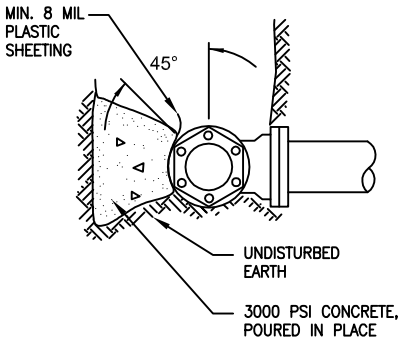


SECTION VIEW
BENDS AND TEES

FOR VERTICAL THRUST
BLOCKING SEE DETAIL WD-12

HORIZONTAL THRUST BLOCKS MIN. BEARING AREA IN SQUARE FEET						
Pipe Size in Inches	Tees, Wyes & Dead Ends	90° Bend/Tee	45° Bend	22 1/2° Bend	11 1/4° Bend	CROSS
6	7.00	9.00	5.00	3.00	2.00	7.00
8	12.00	17.00	9.00	5.00	2.00	12.50
10	18.00	26.00	14.00	7.00	4.00	19.50
12	26.00	37.00	20.00	11.00	5.00	28.20
16	47.00	66.00	36.00	19.00	9.00	50.00
18	59.00	84.00	46.00	24.00	12.00	58.50
24	106.00	149.00	81.00	42.00	21.00	65.00

NOTES:

1. BEARING AREA TABLE BASED ON 300 PSI PRESSURE AND 1500 PSF SOIL BEARING. IF PRESSURE IS GREATER OR SOIL BEARING IS LESS, THE THRUST BLOCK SIZE SHALL BE INCREASED.
2. ALL THRUST BLOCKING SHALL BE IN ACCORDANCE WITH AWWA AND THE STANDARD SPECIFICATIONS.
3. ALL THRUST BLOCK & SUPPORT CONC. SHALL BE 3000 PSI READY MIX CONC.
4. GLANDS & BOLTS SHALL BE PROTECTED FROM CONC. WITH 8 MIL. PLASTIC SHEETING WHEN POURING THRUST BLOCKS.
5. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.

ALDERWOOD
WATER & WASTEWATER
DISTRICT

THRUST BLOCK DETAILS

DATE: 11-2015 | DWG. WD-11

APPROVED BY: DLH
DISTRICT ENGINEER

NTS

TYPE "A" BLOCKING
FOR 11 1/4°–22 1/2°–33 3/4° VERTICAL BENDS

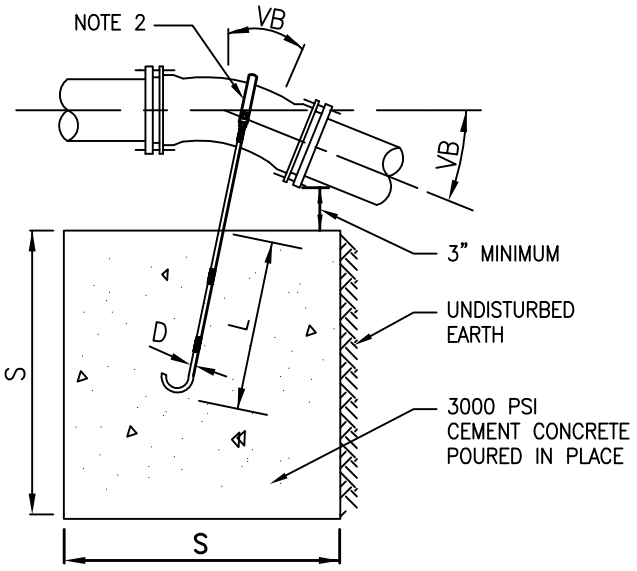
PIPE SIZE NOM. DIAMETER– INCHES	DESIGN PRESSURE PSI	VB VERTICAL BEND DEGREES	No. OF CU. FT. OF CONC. BLOCKING	S SIDE OF CUBE LIN. FT.	D **DIAM. OF THREADED** RODS (2) SS INCHES	L DEPTH OF RODS IN CONCRETE LIN. FT.
4"	300	11 1/4	8	2	5/8"	1.5
		22 1/2	11	2.2		2.0
		33 3/4	17	2.6		
6"	300	11 1/4	11	2.2	5/8"	2.0
		22 1/2	25	2.9		
		33 3/4	41	3.5		
8"	300	11 1/4	16	2.5	5/8"	2.0
		22 1/2	47	3.6		
		33 3/4	70	4.1	3/4"	2.5
12"	250	11 1/4	32	3.2	5/8"	2.0
		22 1/2	88	4.5	7/8"	3.0
		33 3/4	132	5.1		
16"	225	11 1/4	70	4.1	7/8"	3.0
		22 1/2	184	5.7	1 1/8"	4.0
		33 3/4	275	6.5	1 1/4"	
20"	200	11 1/4	91	4.5	7/8"	3.0
		22 1/2	225	6.1	1 1/4"	4.0
		33 3/4	330	6.9	1 3/8"	4.5
24"	200	11 1/4	128	5.0	1"	3.5
		22 1/2	320	6.8	1 3/8"	4.5
		33 3/4	480	7.9	1 7/8"	5.5

TYPE "B" BLOCKING
FOR – 45° VERTICAL BENDS

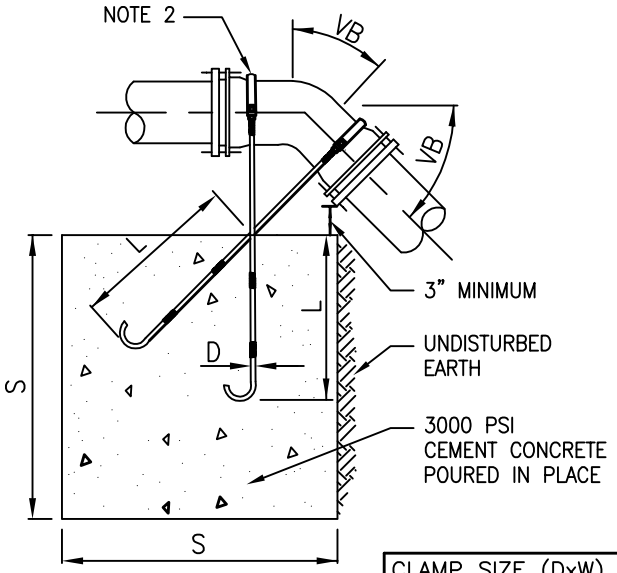
		VB		S	D	L
4"	300	45	30	3.1	5/8"	2.0
6"			68	4.1		
8"			123	5.0		
12"	250		232	6.1	3/4"	2.5
16"	225		478	7.8	1 1/8"	4.0
20"	200		560	8.2	1 1/4"	
24"			820	9.4	1 3/8"	4.5

NOTES:

1. APPROVAL OF LOCATION FROM THE DISTRICT IS REQUIRED PRIOR TO INSTALLATION.
2. PIPE CLAMP SHALL BE GALVANIZED. BAR AND **HARDWARE SHALL BE STAINLESS STEEL.**



TYPE "A" BLOCKING



TYPE "B" BLOCKING

PIPE CLAMP

CLAMP SIZE (DxW)	
4"	3/8" x 2"
6"	1/2" x 2–1/2"
8"	1/2" x 2–1/2"
12"	3/4" x 3"
16"	3/4" x 4"
20"	1" x 5"
24"	1" x 5"

ALDERWOOD
WATER & WASTEWATER DISTRICT

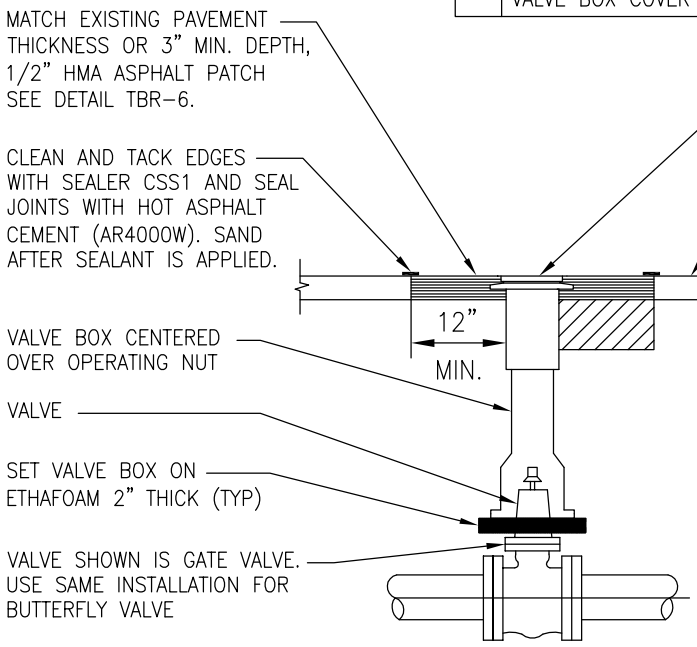
THRUST BLOCKING FOR VERTICAL BENDS

DATE: 11–2015 | DWG. WD–12

APPROVED BY: DLH
DISTRICT ENGINEER

NTS

NO.	ITEM	MATERIAL	SIZE	MANUFACTURER	USE
1.	VALVE BOX BOTTOM	C.I.	30"	EJ85556030U	ALL AREAS
2.	VALVE BOX TOP VALVE BOX TOP	C.I. C.I.	18" 16"	EJ00366410U EJ85557016U	NOT IN ADA AREA ADA/LOCKING TOP
3.	VALVE BOX COVER VALVE BOX COVER VALVE BOX COVER	C.I. C.I. C.I.	6-5/8" 7-5/16" 7-5/16"	EJ00366420U EJ06800001U EJ06800025U	NOT IN ADA AREA ADA AREA COVER LOCKING COVER



VALVE BOX IN ASPHALT AREA

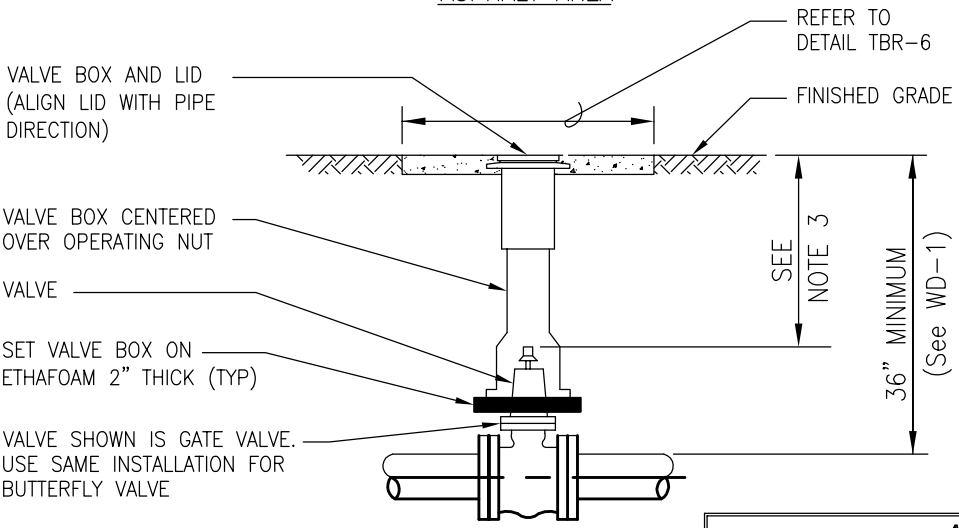
NOTES:

A. HEAVY DUTY VALVE BOX WITH MIN. 30" LENGTH BASE AND DROP HANDLE COVER.

B. PAVEMENT RESTORATION IN ACCORDANCE WITH JURISDICTIONAL AUTHORITY AND DIVISION 7.

C. IF OPERATING NUT IS MORE THAN 3 FEET BELOW FINISHED GRADE SEE DETAIL WD-14.

C. EJIW OR APPROVED EQUAL, MANUFACTURED IN THE U.S.A.



VALVE BOX IN UNIMPROVED AREA

CSS1= CATIONIC SLOW SETTING TYPE 1
AR4000W= ASPHALT RUBBER TYPE 4000W
HMA = HOT MIX ASPHALT

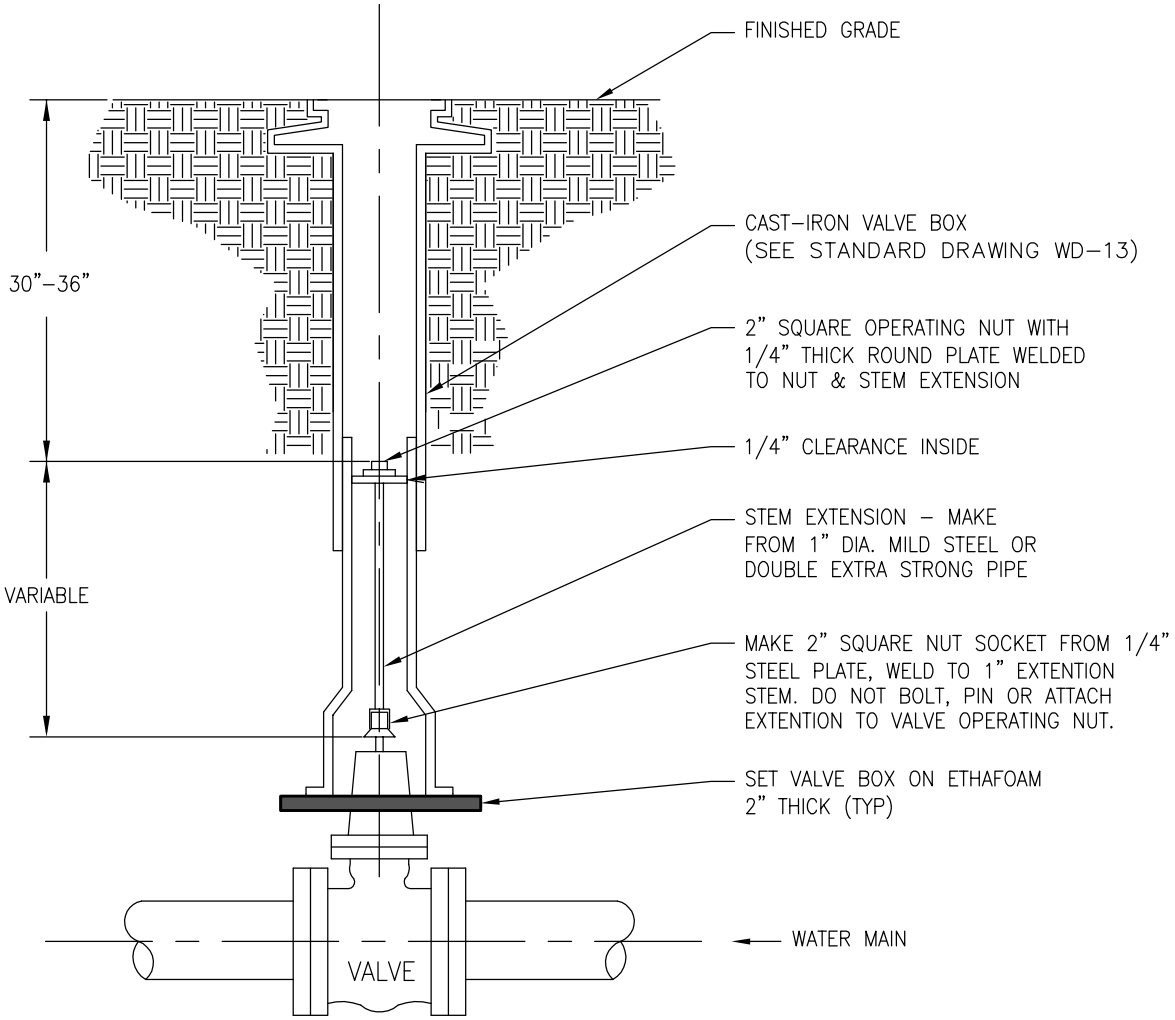
ALDERWOOD WATER & WASTEWATER DISTRICT

CAST IRON VALVE BOX

DATE: 08-2017 | DWG. WD-13

APPROVED BY: SDS
DEVELOPMENT ENGINEER

NTS



NOTE:

1. MINIMUM LENGTH OF EXTENSION IS 1 FOOT.

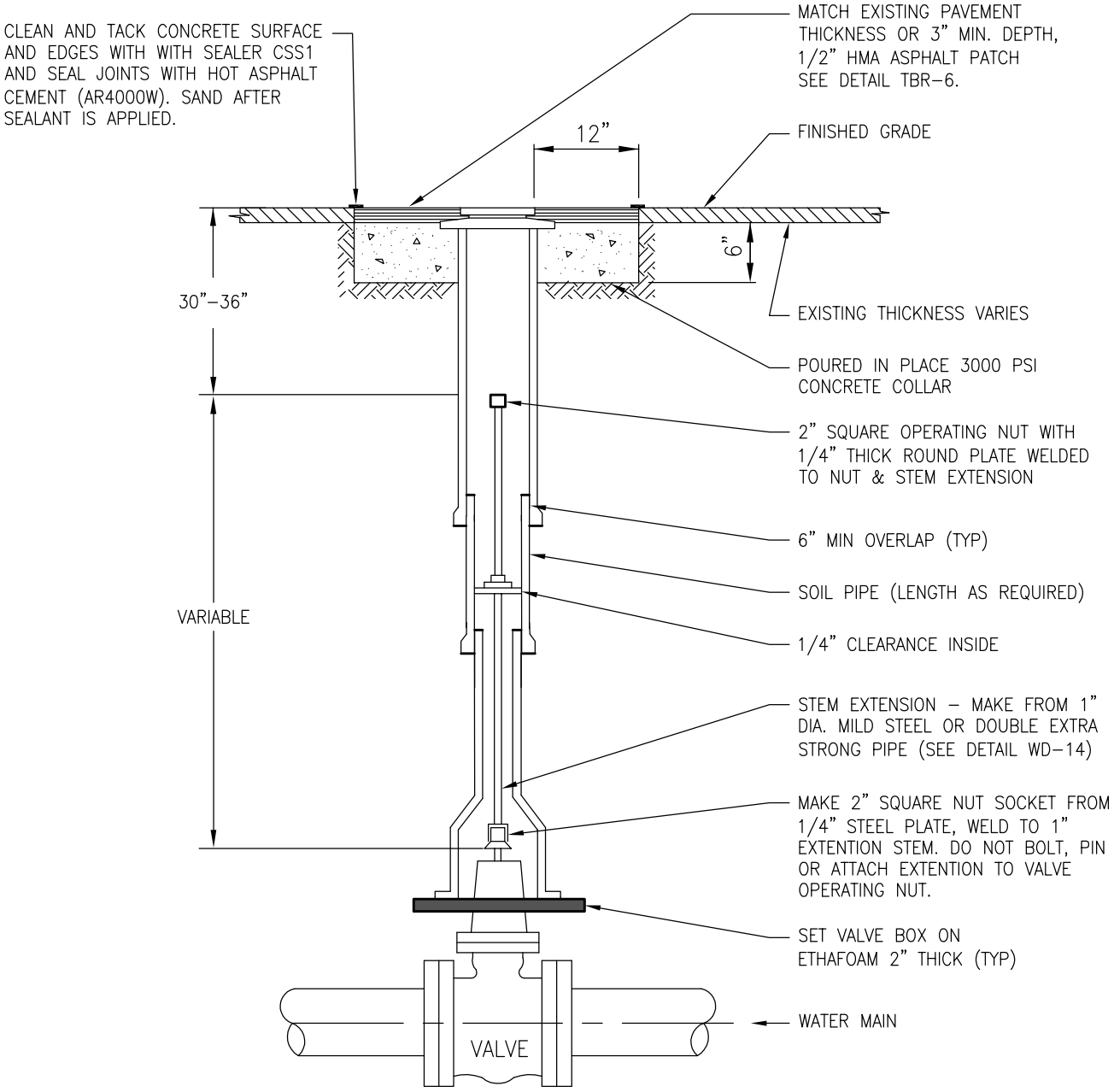
ALDERWOOD
WATER & WASTEWATER
DISTRICT

VALVE STEM EXTENSION

DATE: 05–2017	DWG. WD–14

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



CSS1= CATIONIC SLOW SETTING TYPE 1
AR4000W= ASPHALT RUBBER TYPE 4000W
HMA= HOT MIX ASPHALT

NOTES:

1. VALVE BOX SHALL BE ALIGNED AND CLEANED TO ENSURE PROPER VALVE OPERATION.
2. DEFECTIVE OR NON STANDARD VALVE BOX COMPONENTS SHALL BE REPLACED WITH NEW CURRENT DISTRICT STANDARD.
3. PAVEMENT RESTORATION IN ACCORDANCE WITH JURISDICTIONAL AUTHORITY AND DIVISION 7.
4. IF OPERATING NUT IS MORE THAN 3 FEET BELOW GRADE AFTER ADJUSTMENT SEE DETAIL WD-14.

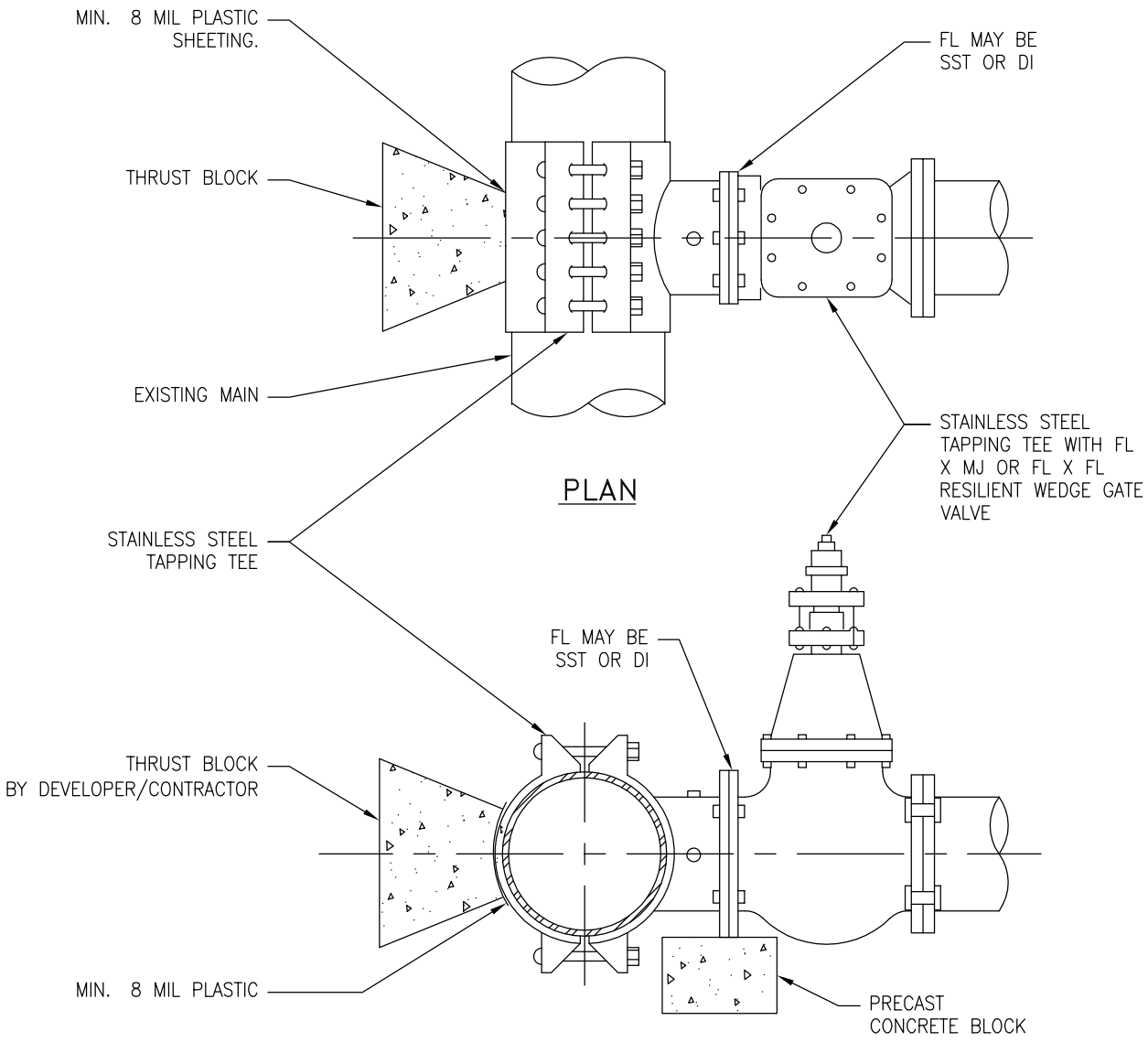
ALDERWOOD WATER & WASTEWATER DISTRICT

VALVE BOX ADJUSTMENT

DATE: 05-2017 | DWG. WD-15

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



PROFILE

NOTES:

1. STAINLESS STEEL TAPPING TEE SHALL BE ROMAC OR SMITH BLAIR.

O.D. RANGES (INCHES)	
6"– 6.59–6.99 8"– 8.62–9.06 12"– 12.90–13.30 16"– 17.15–17.55	FOR LARGER SIZES CONSULT THE DISTRICT

2. ALL WATER MAIN TAPS SHALL BE BY THE DISTRICT UNLESS OTHERWISE SPECIFIED.
3. DEVELOPER/CONTRACTOR SHALL PROVIDE ALL REQUIRED EXCAVATION AND RESTORATION.
4. DEVELOPER/CONTRACTOR TO FURNISH ALL MATERIALS AND BLOCKING.
5. PRELIMINARY EXCAVATION MAY BE REQUIRED TO VERIFY EXISTING PIPE O.D. AND MATERIAL TYPE.

ALDERWOOD WATER & WASTEWATER DISTRICT

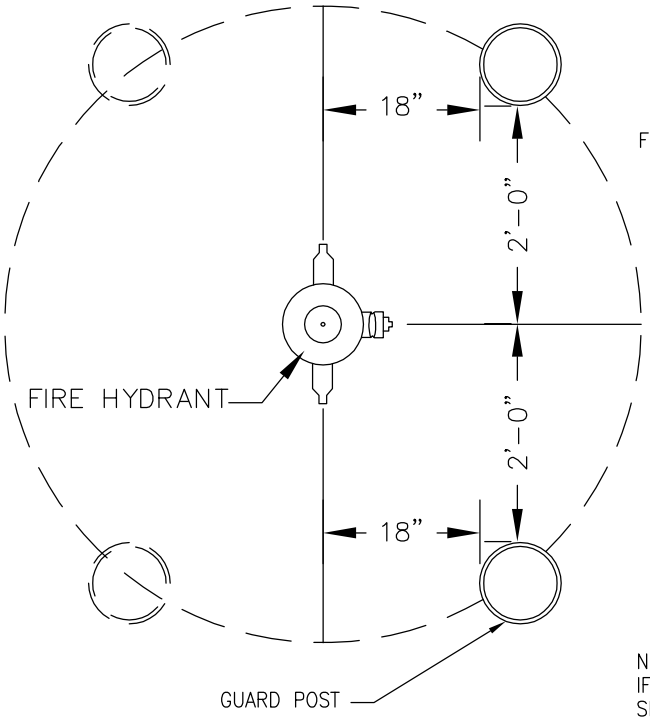
TAPPING TEE AND VALVE

DATE: 05–2017 | DWG. WD–16

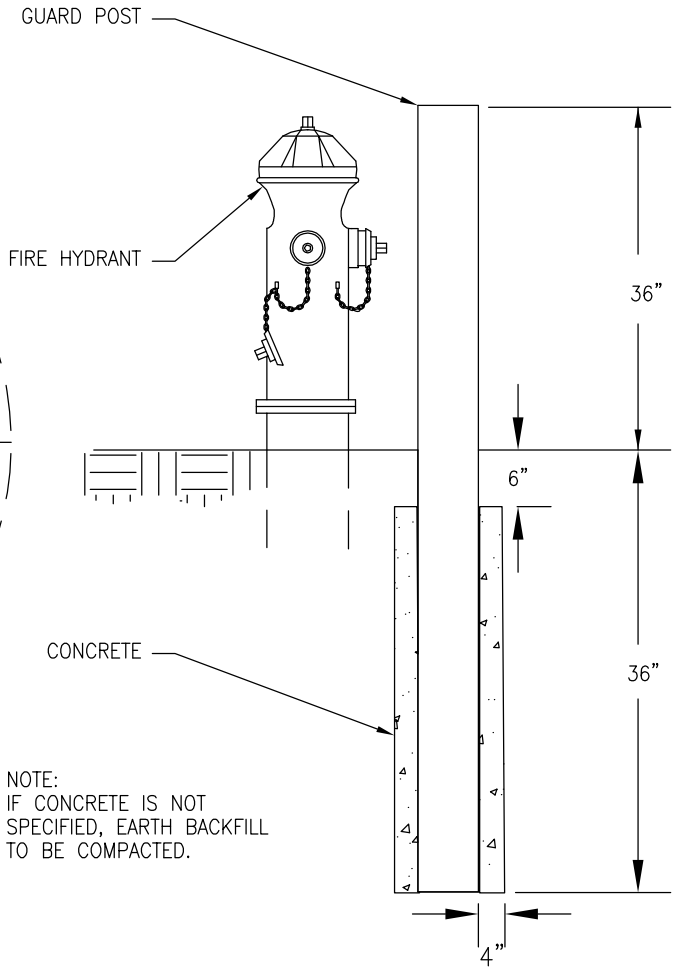
APPROVED BY: DLH
DISTRICT ENGINEER

NTS

9" ROUND REINFORCED CONCRETE GUARD POST, 6'-0" LONG MIN. EQUAL TO RENTON CONCRETE PRODUCTS OR 6" DIAMETER DUCTILE IRON PIPE FILLED WITH CONCRETE. INSTALLED ONLY WHERE DIRECTED.



PLAN



NOTE:
IF CONCRETE IS NOT SPECIFIED, EARTH BACKFILL TO BE COMPACTED.

ELEVATION

NOTES:

1. WHERE FACE OF CURB IS LESS THAN 3 FEET FROM CENTER OF HYDRANT, INSTALL MINIMUM 2 AND UP TO 4. INSTALL GUARD POST AS DIRECTED.
2. LOCATE GUARD POSTS AS SHOWN ON DRAWINGS OR AS DIRECTED BY DISTRICT. DO NOT BLOCK ACCESS TO PORTS.
3. PAINT THE ABOVE GROUND PORTION WITH 2 COATS OF OLD CAT YELLOW RUST-OLEUM 7448402, MILLER PAINTS 12LW0239 OR EQUAL.
4. HYDRANT GUARD POSTS SHALL BE DIRECT BURY.
5. GUARD POSTS ARE INTENDED TO PROTECT HYDRANT FROM SPEEDS LESS THAN 25 MPH, SUCH AS RESIDENTIAL STREETS & PARKING LOTS

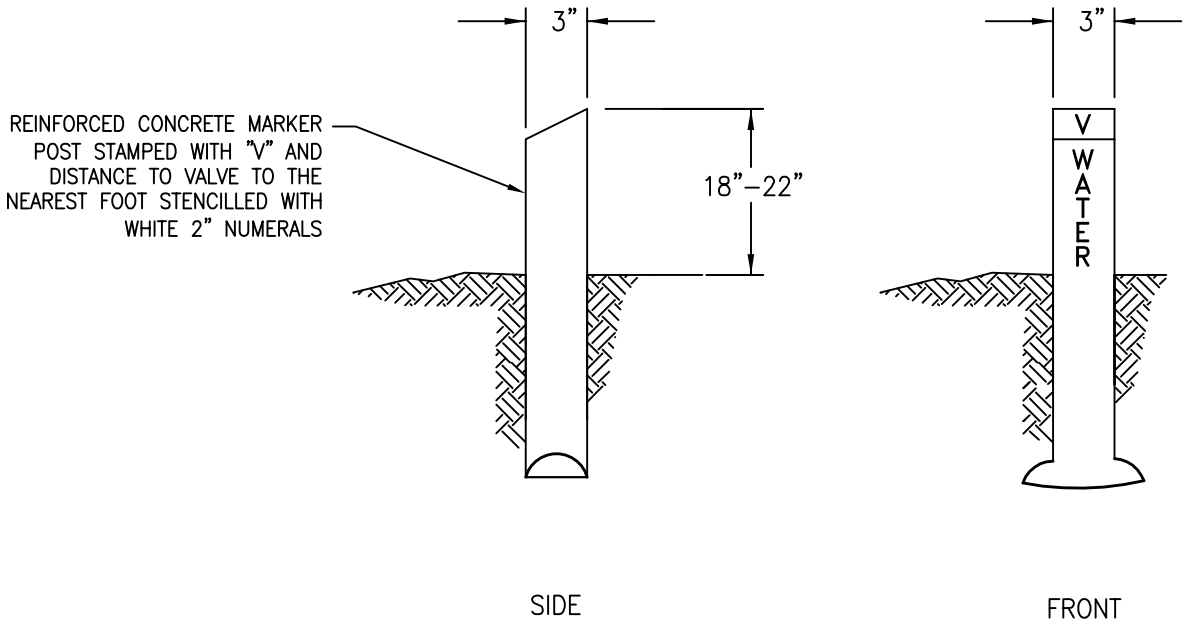
ALDERWOOD
WATER & WASTEWATER DISTRICT

HYDRANT GUARD POSTS

DATE: 05-2017	DWG. WD-17

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



VALVE MARKER POST

NOTES:

1. INSTALL AT ALL VALVES NOT LOCATED WITHIN PAVED AREA.
2. THE LETTER V AND THE WORD WATER SHALL BE CAST IN THE FACE OF THE MARKER FACING THE VALVE WITH THE DISTANCE TO THE VALVE PAINTED ON THE MARKER WITH WHITE ENAMEL PAINT.
3. PAINT THE ABOVE GROUND PORTION WITH 2 COATS OF BLUE MILLER PAINTS 13LW0054 OR BLUE RODDA PAINTS EV13D5870 OR EQUAL.
4. MARKERS SHALL BE DIRECT BURY.
5. 66" CARSONITE, HANSON TRI–FLEX, OR EQUAL MAY BE USED UPON APPROVAL BY THE DISTRICT.

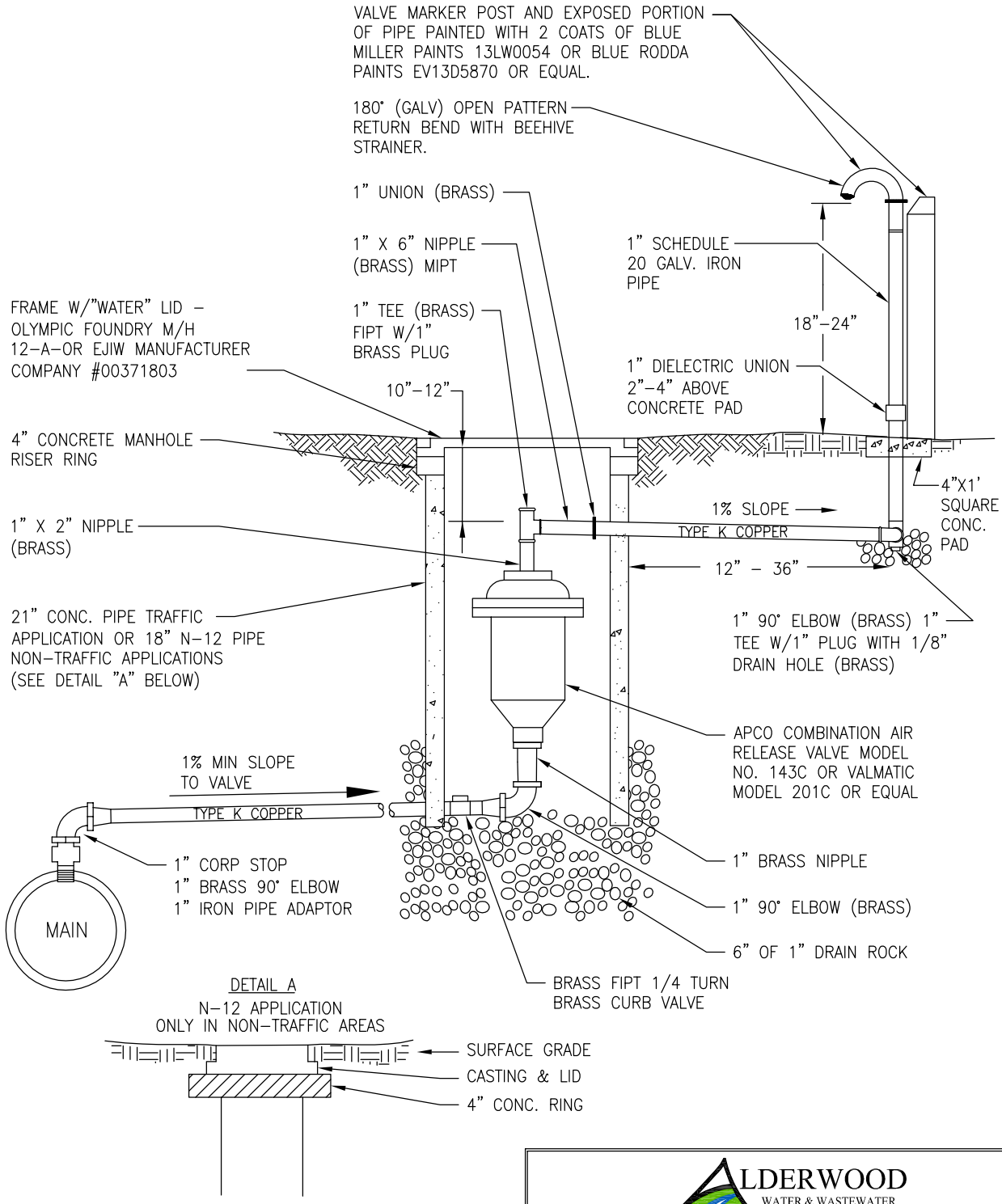
ALDERWOOD
WATER & WASTEWATER DISTRICT

VALVE MARKER POST

DATE: 11–2015	DWG. WD–18

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



NOTES:

1. INSTALL AT HIGH POINTS IN THE WATER MAIN. LOCATIONS AS DIRECTED BY THE DISTRICT.
2. LOCATE AIR RELEASE DISCHARGE PIPE NEAR PROPERTY LINE OR AS DIRECTED BY THE DISTRICT.
3. LENGTH OF 1" TYPE K COPPER AS DIRECTED BY THE DISTRICT.

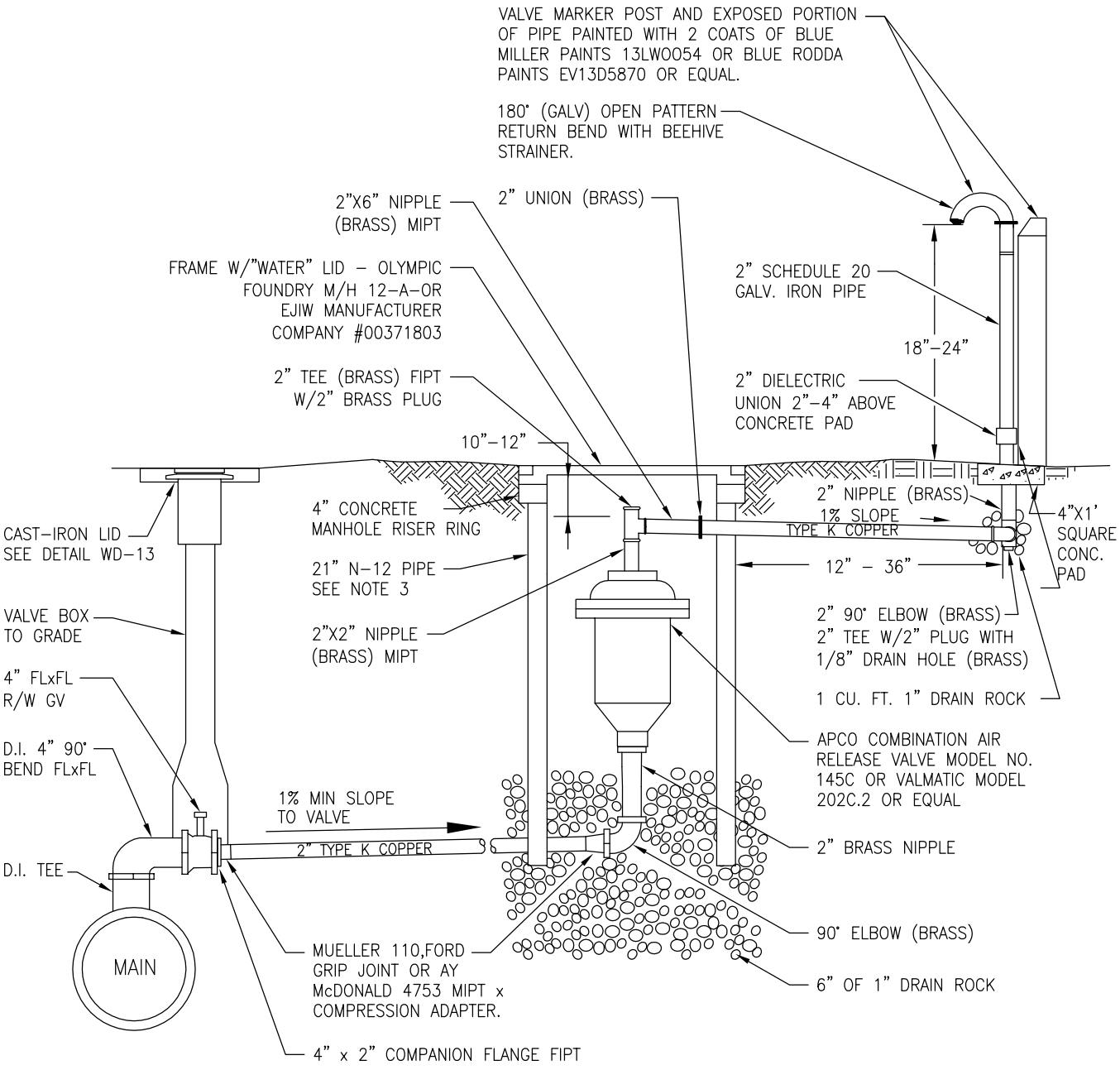
ALDERWOOD WATER & WASTEWATER DISTRICT

1" COMBINATION AIR AND VACUUM RELEASE VALVE

DATE: 05–2017	DWG. WD–19

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



NOTES:

1. INSTALL AT HIGH POINTS IN THE WATER MAIN. LOCATIONS AS DIRECTED BY THE DISTRICT.
2. LOCATE AIR RELEASE DISCHARGE PIPE NEAR PROPERTY LINE OR AS DIRECTED BY THE DISTRICT.
3. IN TRAFFIC APPLICATION VAULT SHALL BE FOG TITE 2T OR BROOKS 65–TR WITH STEEL LID STACK AS REQUIRED.
4. LENGTH OF 2" TYPE K COPPER AS DIRECTED BY THE DISTRICT.
5. SST SADDLE & GATE VALVE IS REQUIRED WHEN INSTALLED ON AN EXISTING LARGE PIPE, SEE DETAIL WD–16.

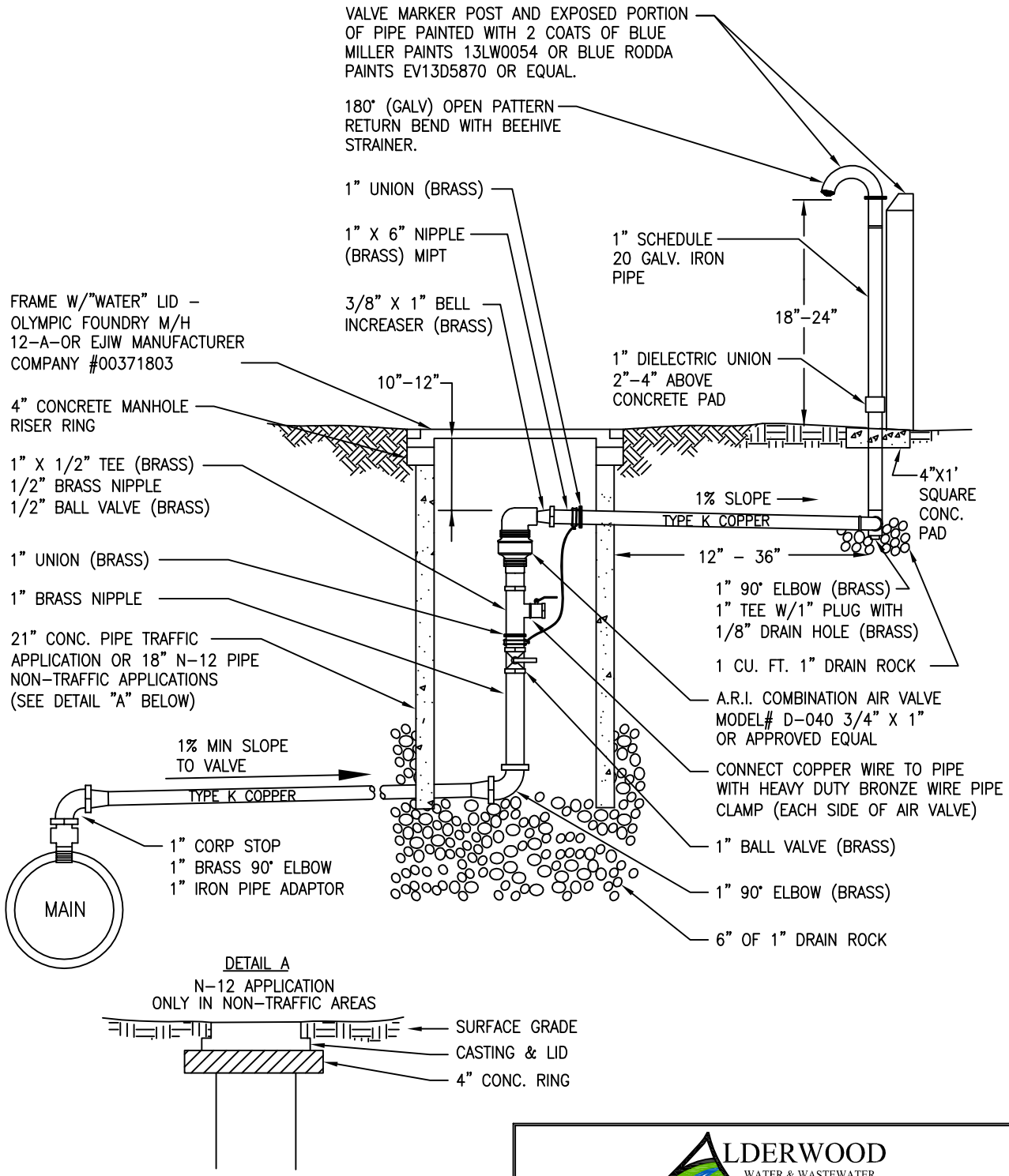
ALDERWOOD WATER & WASTEWATER DISTRICT

2" COMBINATION AIR AND VACUUM RELEASE VALVE

DATE: 05–2017 | DWG. WD–19A

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



NOTES:

1. INSTALL AT HIGH POINTS IN THE WATER MAIN. LOCATIONS AS DIRECTED BY THE DISTRICT.
2. LOCATE AIR RELEASE DISCHARGE PIPE NEAR PROPERTY LINE OR AS DIRECTED BY THE DISTRICT.
3. LENGTH OF 1" TYPE K COPPER AS DIRECTED BY THE DISTRICT.

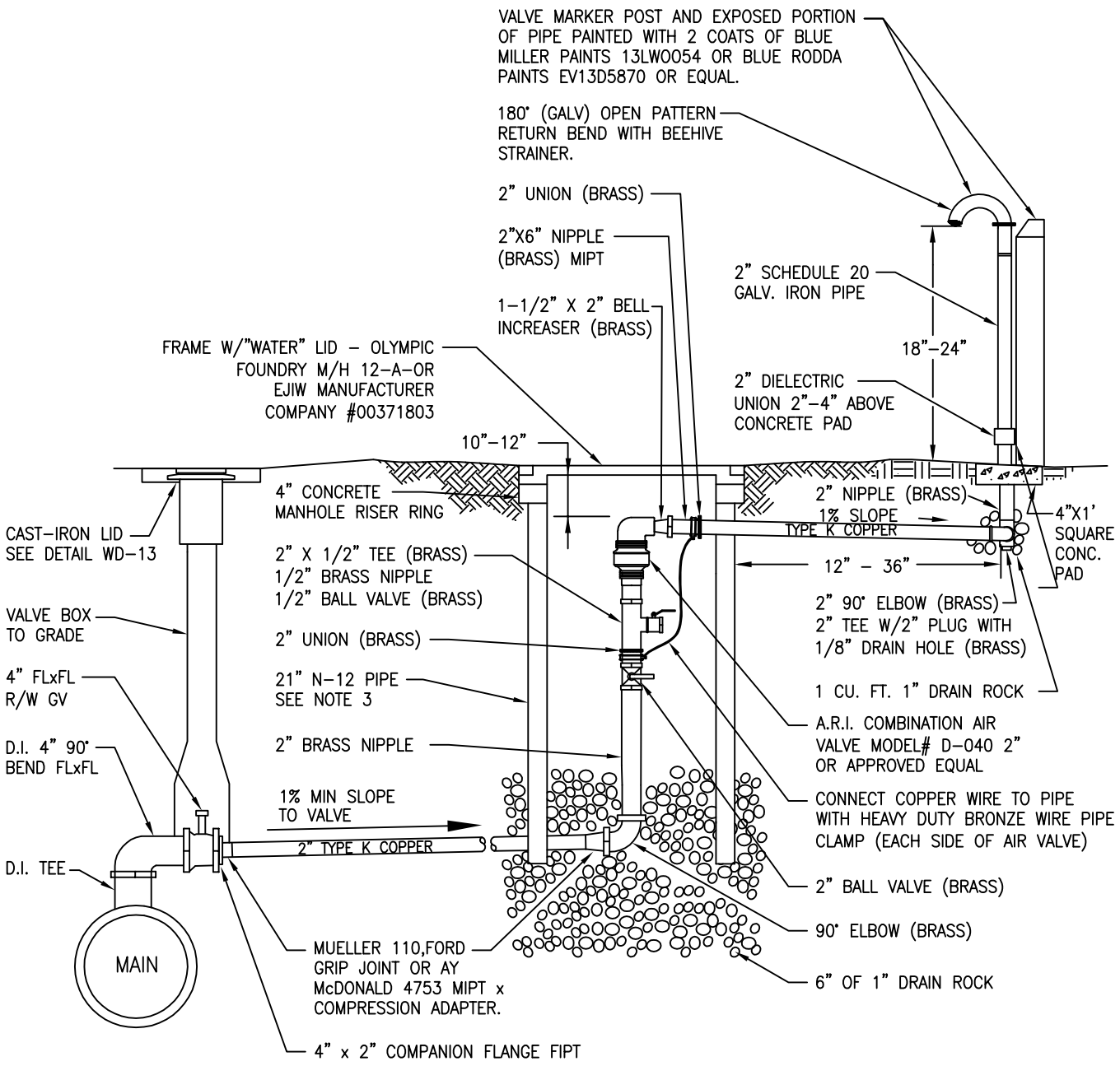
ALDERWOOD WATER & WASTEWATER DISTRICT

1" COMBINATION AIR AND VACUUM RELEASE VALVE

DATE: 11–2015	DWG. WD–19B

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



NOTES:

1. INSTALL AT HIGH POINTS IN THE WATER MAIN. LOCATIONS AS DIRECTED BY THE DISTRICT.
2. LOCATE AIR RELEASE DISCHARGE PIPE NEAR PROPERTY LINE OR AS DIRECTED BY THE DISTRICT.
3. IN TRAFFIC APPLICATION VAULT SHALL BE FOG TITE 2T OR BROOKS 65-TR WITH STEEL LID STACK AS REQUIRED.
4. LENGTH OF 2" TYPE K COPPER AS DIRECTED BY THE DISTRICT.
5. SST SADDLE & GATE VALVE IS REQUIRED WHEN INSTALLED ON AN EXISTING LARGE PIPE, SEE DETAIL WD-16.

ALDERWOOD WATER & WASTEWATER DISTRICT

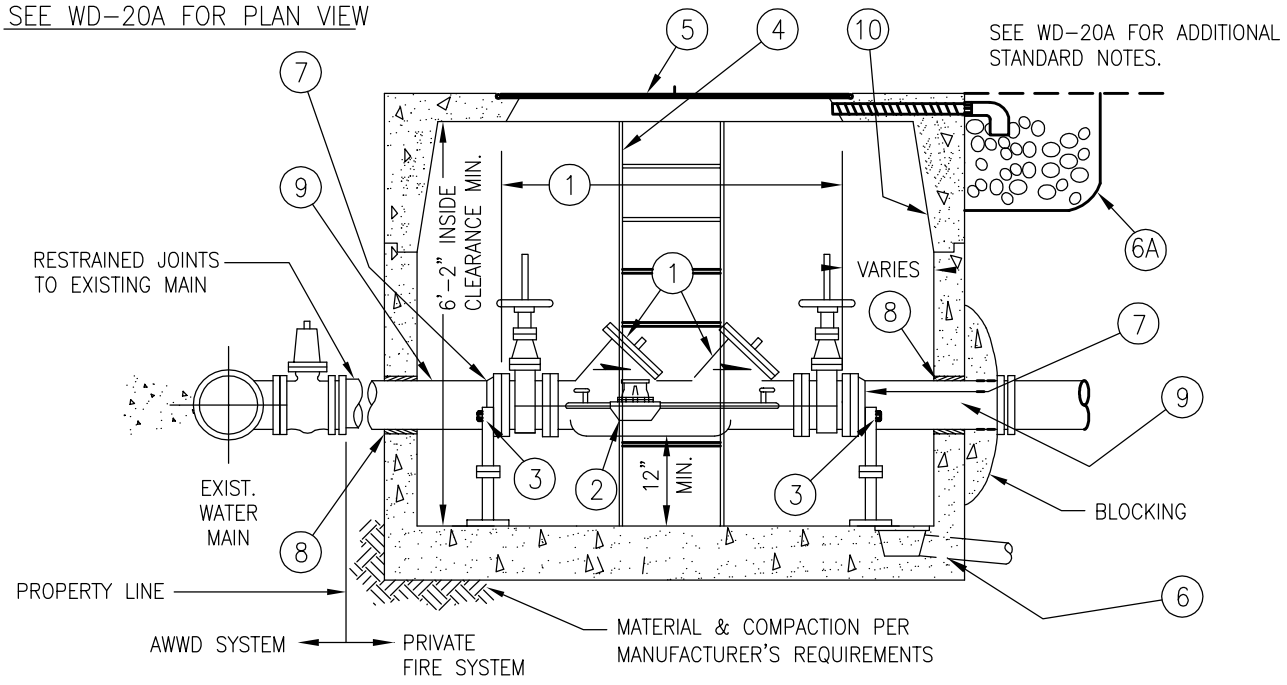
2" COMBINATION AIR AND VACUUM RELEASE VALVE

DATE: 11-2015	DWG. WD-19C

APPROVED BY: DLH
DISTRICT ENGINEER

NTS

SEE WD-20A FOR PLAN VIEW



NO.	DESCRIPTION
1	STATE APPROVED DOUBLE CHECK DETECTOR ASSY. FL X FL WITH LOW FLOW BY-PASS METER.
2	5/8" X 3/4" BADGER RECORDALL DISC METER M25, 7-1/2" LAY LENGTH, LEAD-FREE BRONZE ALLOY HOUSING AND BOTTOM, HR-E ENCODER WITH ORION CE TRANSMITTER. MOUNT RADIO TRANSMITTER THROUGH VAULT LID AS DIRECTED BY THE DISTRICT. FACTORY PROGRAMMED FOR CUBIC FEET.
3	ADJUSTABLE PIPE SUPPORT STANDON MODEL S-89 OR EQUAL, AND SHALL BE BOLTED TO THE VALVE FLANGE.
4	INSTALL MANUFACTURER FURNISHED LADDER ON SAME SIDE AS BYPASS METER.
5	36" X 72" LW PRODUCTS HD ACCESS HATCH (H-20 RATED). SEE NOTES
6	VAULT DRAIN TO DAYLIGHT OR BE WATER TIGHT.
6A	INSTALL PVC SHORT NIPPLE & 90° POINTED DOWN IN THE CORNER DRAIN W/1" WASHED DRAIN ROCK POCKET. NOTE: DEPENDING ON MANUFACTURER AND SIZE OF VAULT DRAIN KNOCKOUTS COULD BE ON SIDES OR END OF LID.
7	MEGA-FLANGE ADAPTER WITH SET SCREWS OR APPROVED EQUAL.
8	WATER-TIGHT GROUT, BOTH ENDS OF VAULT.
9	DUCTILE IRON PIPE: 4" CLASS 53, 6"-12" CLASS 52.
10	OLD CASTLE PRECAST (UTILITY VAULT) 4484-LA OR APPROVED EQUAL.

ACCESS HATCH NOTES:

1. WEATHER TIGHT SEAL, SELF LATCHING STAINLESS STEEL SHAM LOCK WITH A RECESSED PADLOCK HASP OR EQUAL.
2. HATCH TO BE COATED WITH THERMION TH604 ANTI-SLIP & ANTI CORROSION SYSTEM, GRADE #2 MODERATE TEXTURE.
3. LID AND HATCH TO BE H30 RATED IF IN TRAFFIC AREA.

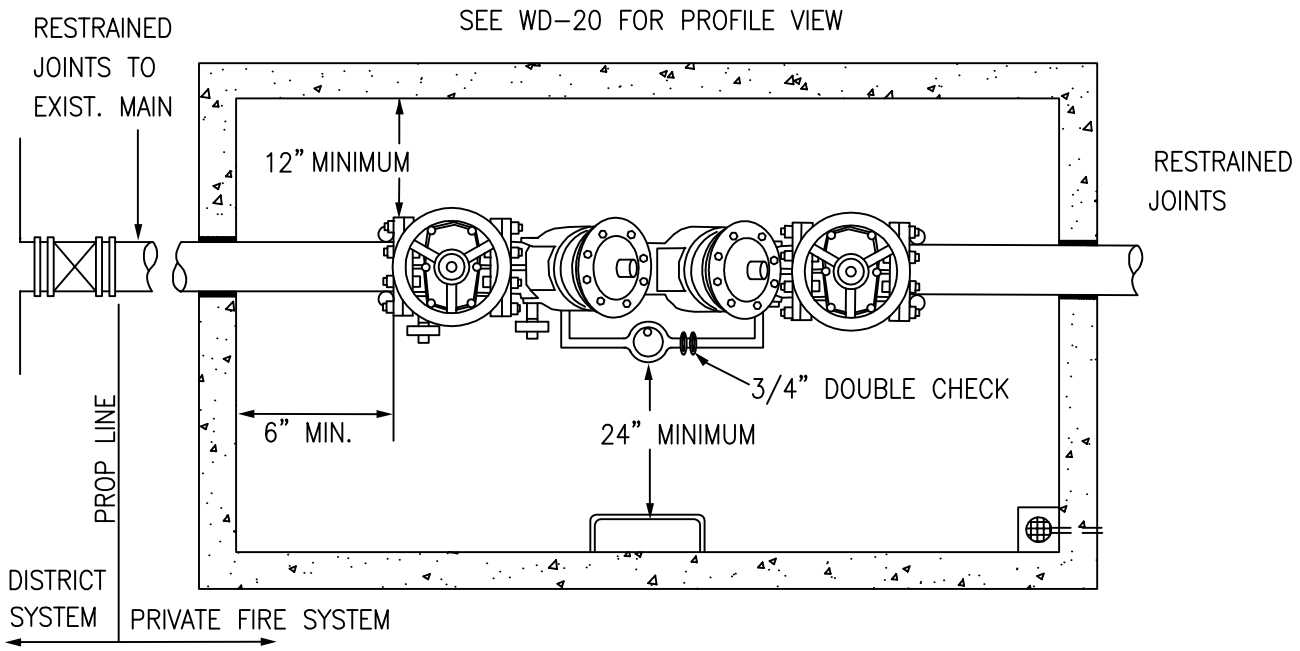
ALDERWOOD WATER & WASTEWATER DISTRICT

PRIVATE FIRE SYSTEM
DOUBLE CHECK DETECTOR
ASSEMBLY (PROFILE VIEW)

DATE: 05-2017 | DWG. WD-20

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



NOTES:

1. BACKFLOW ASSEMBLIES SHALL BE LOCATED AS APPROVED BY THE DISTRICT. THE BY-PASS METER SHALL BE A BADGER ADE M25 WITH BADGER ORION TRANSMITTER MOUNTED THROUGH VAULT LID AS DIRECTED BY THE DISTRICT.
2. BACKFLOW ASSEMBLIES SELECTED FOR INSTALLATION MUST APPEAR ON THE WASHINGTON STATE DEPARTMENT OF HEALTH CURRENT LIST OF BACKFLOW ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE.
3. UPON INSTALLATION OF THE BACKFLOW ASSEMBLY, THE INSTALLER OR DEVELOPER WILL CALL THE DISTRICT FOR AN INSPECTION BY A CROSS CONNECTION CONTROL SPECIALIST.
4. FOLLOWING AN INSPECTION APPROVAL BY THE DISTRICT, THE BACKFLOW ASSEMBLY MUST BE SCHEDULED FOR AN INITIAL TEST BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. THE INITIAL TEST OF THE BACKFLOW ASSEMBLY MUST BE OBSERVED BY A DISTRICT CROSS CONNECTION CONTROL SPECIALIST
5. THE PROPERTY OWNER IS RESPONSIBLE FOR THE INITIAL AND ANNUAL TESTING OF ANY BACKFLOW ASSEMBLY.
6. THE PROPERTY OWNER IS RESPONSIBLE FOR FREEZE PROTECTION OF ANY BACKFLOW ASSEMBLY.
7. THE INSTALLER OR DEVELOPER MUST PROVIDE TEST COCK PROTECTION WITH PLUGS, CAPS OR COVERS.
8. PRESSURE TEST & DISINFECT PER AWWA STANDARDS.
9. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH STATE, LOCAL DISTRICT, & SUPPLIED MFG. STANDARDS.
10. DOUBLE CHECK DETECTOR ASSY. IS CONSIDERED PART OF THE PRIVATE FIRE PROTECTION SYSTEM
11. INSTALLATION AND TESTING CONDUCTED IN ACCORDANCE WITH STATE AND AWWA STANDARDS.
12. METER TO BE VERIFIED WORKING WHEN DCDA IS TESTED.

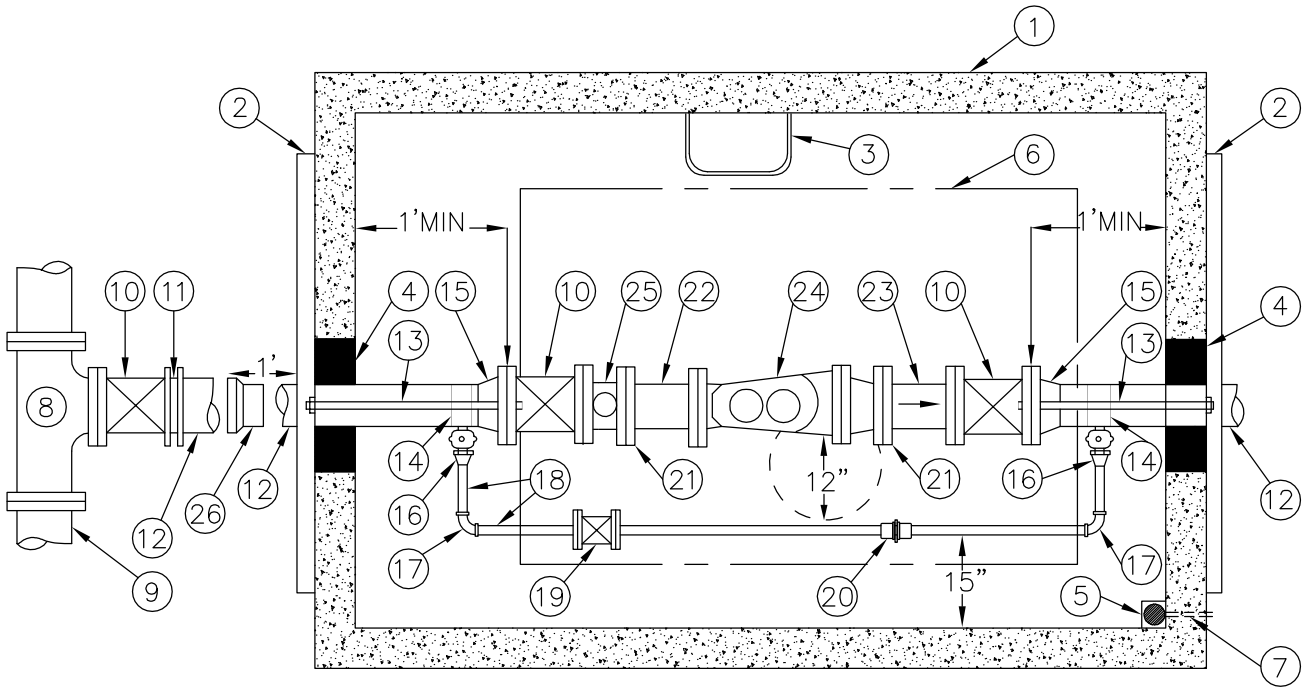
ALDERWOOD
WATER & WASTEWATER DISTRICT

PRIVATE FIRE SYSTEM DOUBLE CHECK DETECTOR ASSEMBLY (PLAN VIEW)

DATE: 11-2015 | DWG. WD-20A

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



3"& 4" METER SERVICE INSTALLATION

① UTILITY VAULT No. 4484-LA OR APPROVED EQUAL

② 4~3"x3"x3/8" GALV. ANGLES, 48" LONG (HOT DIPPED)

③ INSTALL LANE POLYPROPYLENE (STEEL REINFORCED) LADDER ON OPPOSITE SIDE OF SECONDARY METER. LOCATION TO BE APPROVED BY THE DISTRICT. (MUST BE ACCESSIBLE FROM VAULT LIDS & MUST NOT INTERFERE WITH THE METER MOUNT OR TESTING)

④ NON-SHRINK WATER TIGHT GROUT (BOTH ENDS)

⑤ DRAIN VAULT TO DAYLIGHT OR PROVIDE WATERTIGHT VAULT. EASEMENT REQUIRED ON DRAIN

⑥ 36"X72" LW PRODUCTS HD ACCESS HATCH (H-20 RATED). HATCH TO BE COATED WITH THERMION TH604 ANTI-SLIP & ANTI CORROSION SYSTEM, GRADE #2 MODERATE TEXTURE. LID AND HATCH TO BE H-30 RATED IF IN TRAFFIC AREA.

⑦ INSTALL PVC SHORT NIPPLE & 90° POINTED DOWN IN THE CORNER DRAIN W/1" WASHED DRAIN ROCK POCKET. NOTE: DEPENDING ON MANUFACTURER AND SIZE OF VAULT DRAIN KNOCKOUTS COULD BE ON SIDES OR END OF LID.

⑧ 3" OR 4" TEE (FL)

⑨ WATER MAIN

⑩ 3" OR 4" R.W. GATE VALVE (FL x MJ)

⑪ MEGALUG GLAND OR APPROVED EQUAL.

⑫ 3" OR 4" DUCTILE IRON PIPE.

⑬ (4) 5/8 DIA. SST. ALLTHREAD- BOLT FLANGE THROUGH WALL TO ANGLE (HOT DIPPED)

⑭ ROMAC 2"X3" (202NS-4.05) OR 2"X4" (202NS-4.80) DOUBLE STRAP STAINLESS STEEL SADDLE OR APPROVED EQUAL

⑮ MEGALUG GLAND OR APPROVED EQUAL.

⑯ 2" CORP. STOP (2 PLACES) FORD FB500-7 OR MUELLER B2969N

⑰ 2" BRASS 90° BEND

⑱ 2" BRASS PIPE (TYP)

⑲ BRASS FIP GATE VALVE.

⑳ 2" BRASS UNION AS APPROVED BY THE DISTRICT

㉑ MEGAFLANGE ADAPTER

㉒ DUCTILE IRON SPOOL (FL X PE) (15" LONG FOR 3" METER, 20" LONG FOR 4" METER)

㉓ 3" OR 4" DUCTILE IRON SPOOL (FL X PE) (10" LONG MIN.)

㉔ 3" OR 4" BADGER RECORDALL COMPOUND SERIES METER (FL X FL), LEAD-FREE BRONZE ALLOY WITH HIGH RESOLUTION ENCODER (HR-E) AND ORION CE TRANSMITTER. MOUNT RADIO TRANSMITTER THROUGH VAULT LID AS DIRECTED BY THE DISTRICT. FACTORY PROGRAMMED FOR 100 CUBIC FEET.

㉕ 3" OR 4" BADGER PLATE STRAINER (FL X FL)

㉖ 4"x3" DUCTILE IRON REDUCER AS DIRECTED BY THE DISTRICT (MJxMJ) WITH MEGALUG FOLLOWER GLANDS.

NOTE:
PIPING & VALVES MUST BE SUPPORTED BY ADJUSTABLE PIPE SUPPORT STANDONS, MODEL S-92 OR APPROVED EQUAL, A MINIMUM OF TWO REQUIRED OR AS DIRECTED BY THE DISTRICT.

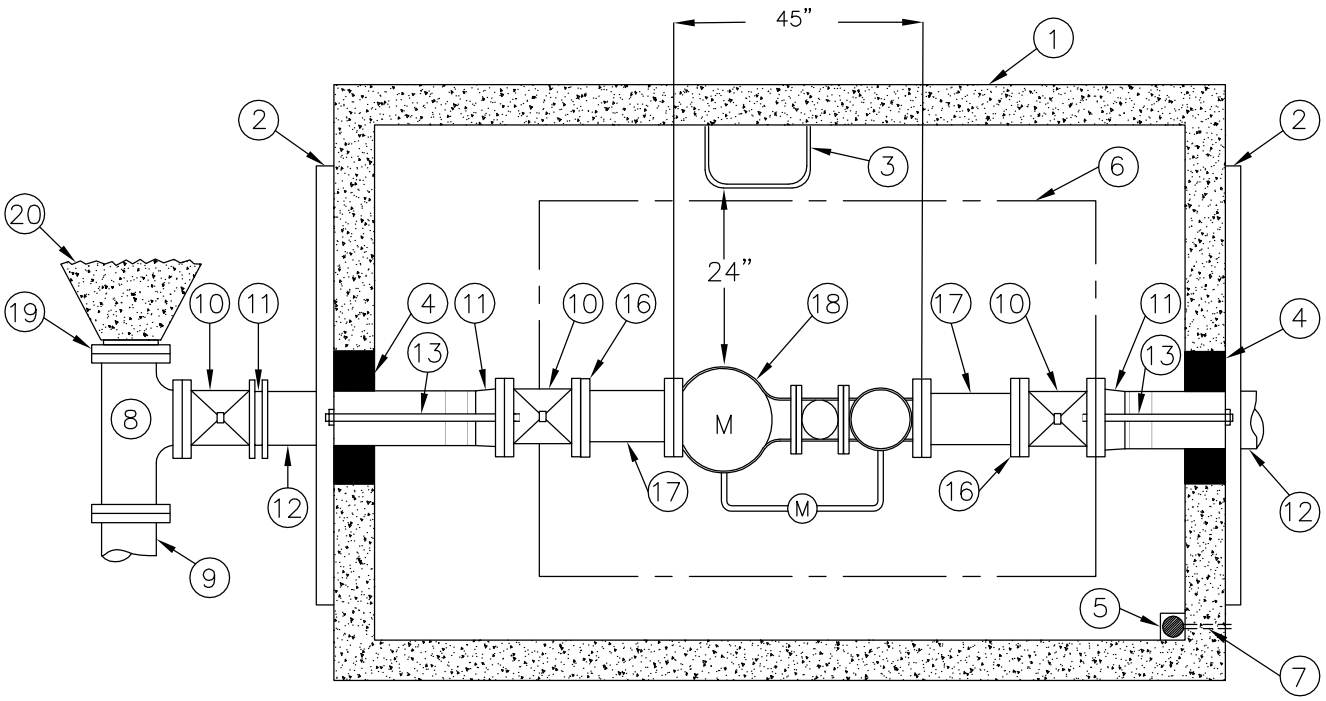
ALDERWOOD
WATER & WASTEWATER
DISTRICT

3" & 4" SERVICE INSTALLATION

DATE: 05-2017 | DWG. WD-22

APPROVED BY: DLH
DISTRICT ENGINEER

NTS



6" FIRE METER SERVICE INSTALLATION

① UTILITY VAULT No. 4484-LA OR APPROVED EQUAL

② 4~3"x3"x3/8" GALV. ANGLES, 48" LONG (HOT DIPPED)

③ INSTALL LANE POLYPROPYLENE (STEEL REINFORCED) LADDER ON OPPOSITE SIDE OF BY-PASS METER. LOCATION TO BE APPROVED BY THE DISTRICT. (MUST BE ACCESSIBLE FROM VAULT LIDS & MUST NOT INTERFERE WITH THE METER MOUNT OR TESTING)

④ LINK SEAL AND NON-SHRINK WATER TIGHT GROUT (BOTH ENDS)

⑤ DRAIN VAULT TO DAYLIGHT OR PROVIDE WATERTIGHT VAULT.

⑥ 36"X72" LW PRODUCTS HD ACCESS HATCH (H-20 RATED). HATCH TO BE COATED WITH THERMION TH604 ANTI-SLIP & ANTI CORROSION SYSTEM, GRADE #2 MODERATE TEXTURE.

⑦ INSTALL PVC SHORT NIPPLE & 90° POINTED DOWN IN THE CORNER DRAIN W/1" WASHED DRAIN ROCK POCKET. (NOTE:) DEPENDING ON MANUFACTURER AND SIZE OF VAULT DRAIN KNOCKOUTS COULD BE ON SIDES OR END OF LID.

⑧ 8" x 6" TEE (MJ x FL)

⑨ 8" D.I. WATER MAIN

⑩ 6" R.W. GATE VALVE (FL x MJ)

⑪ 6" MEGALUG GLAND OR APPROVED EQUAL.

⑫ 6" DUCTILE IRON PIPE.

⑬ 4~5/8 DIA. SST. ALLTHREAD- BOLT FLANGE THROUGH WALL TO ANGLE (HOT DIPPED)

⑯ 6" MEGAFLANGE ADAPTER

⑰ 6" DUCTILE IRON SPOOL (FL X PE) (12" LONG MIN.)

⑱ 6" RECORDALL FIRE SERIES METER ASSEMBLY WITH STRAINER, TURBINE METER, CHECK VALVE AND 1" BY-PASS METER, MODEL FSAA-01 INCLUDING TRANSMITTER WITH REMOTE READ CAPABILITY. INSTALL RADIO READ TRANSMITTERS THROUGH VAULT LID AS DIRECTED BY THE DISTRICT. (FL X FL) METER SHALL READ IN 100CF.

⑲ 8" MJ PLUG

⑳ CONCRETE BLOCK

NOTE:
ALL PIPING & VALVES WITHIN VAULT MUST BE SUPPORTED BY ADJUSTABLE PIPE SUPPORT STANDONS, MODEL S-92 OR APPROVED EQUAL, A MINIMUM OF TWO REQUIRED OR AS DIRECTED BY THE DISTRICT.

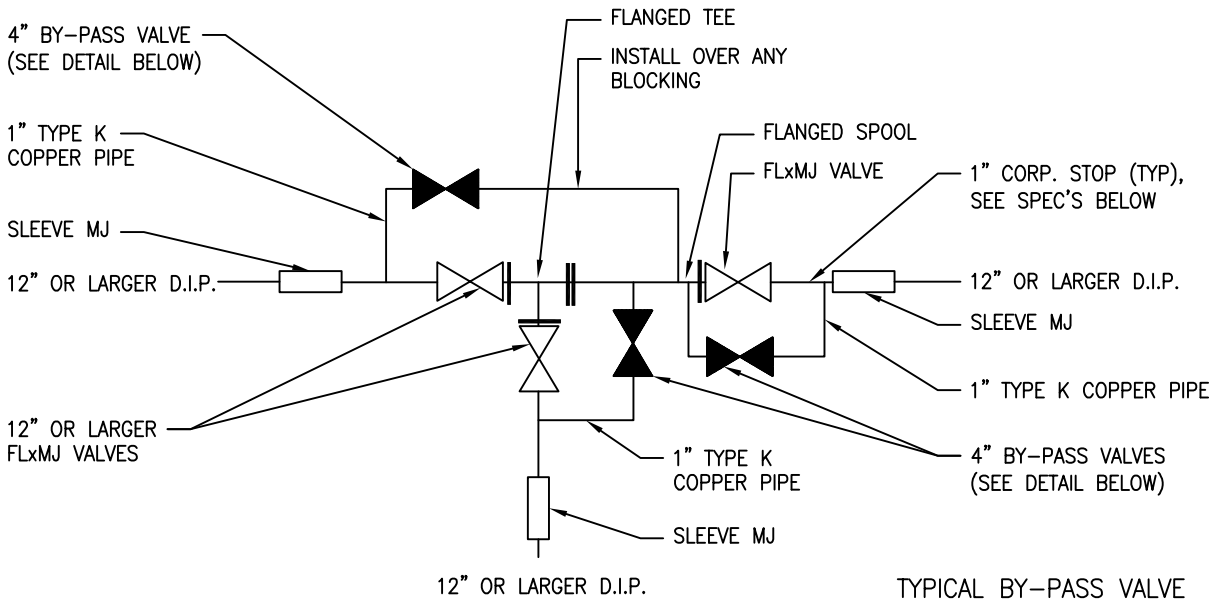
ALDERWOOD
WATER & WASTEWATER DISTRICT

6" FIRE METER SERVICE INSTALLATION

DATE: 03-2017 | DWG. WD-22B

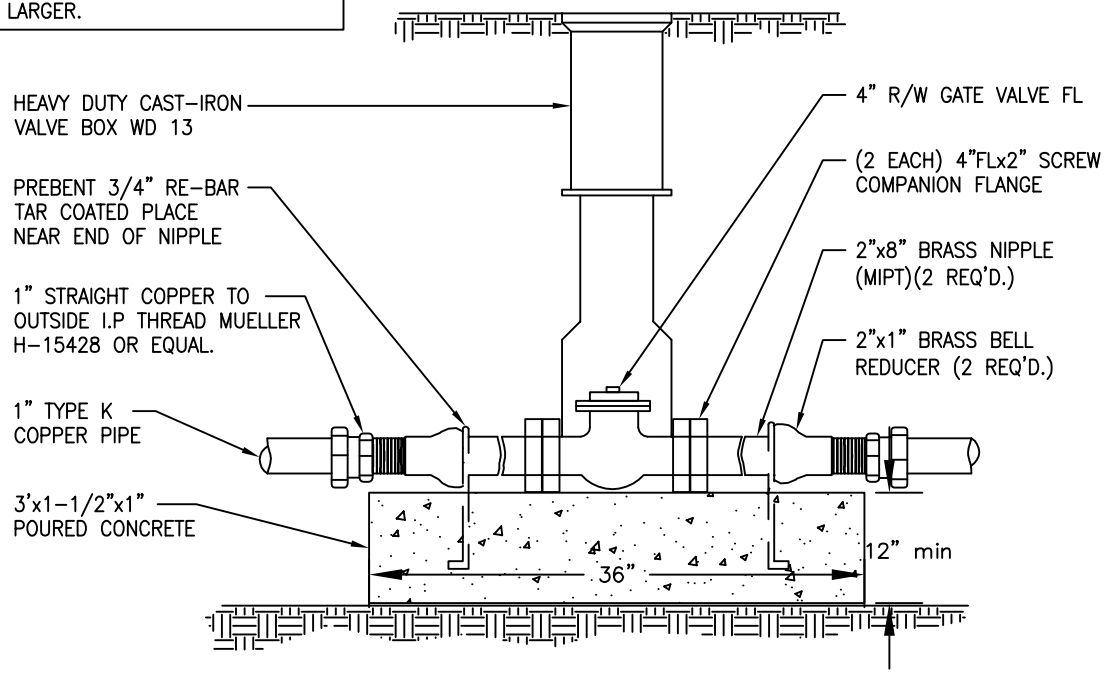
APPROVED BY: DLH
DISTRICT ENGINEER

NTS



TYPICAL BY-PASS VALVE PLACEMENT

NOTE: BY-PASS VALVE SHALL BE USED WHEN STATIC WATER PRESSURE EXCEEDS 150 P.S.I ON WATER MAINS 12" AND LARGER.



1" CORPORATION STOP

FORD	MUELLER
FB-1000-4-Q	B-25008

ALDERWOOD
WATER & WASTEWATER
DISTRICT

4" BY-PASS VALVE

DATE: 11-2015 | DWG. WD-23

APPROVED BY: DLH
DISTRICT ENGINEER

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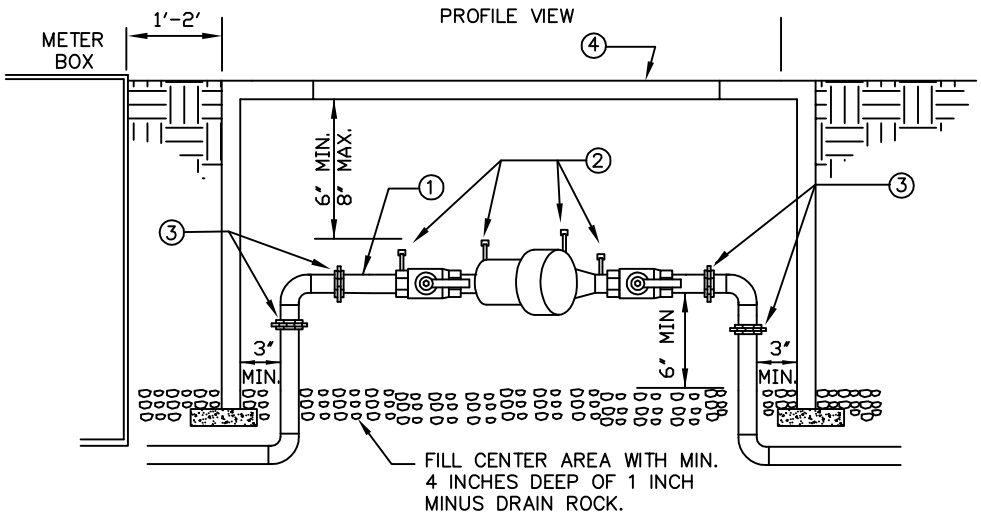

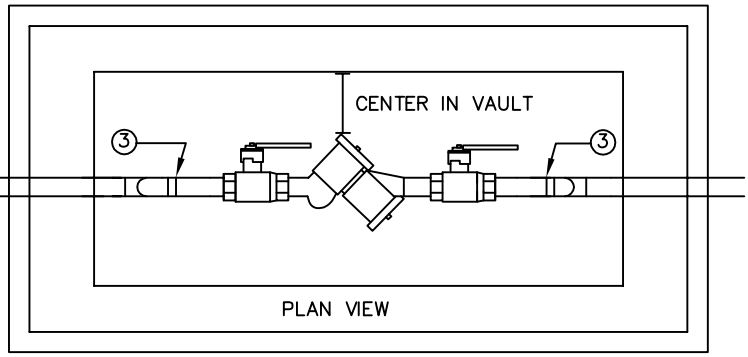

DCVA INSTALLATION

* DCVA–BOX SHALL BE LOCATED IMMEDIATELY DOWNSTREAM OF WATER METER BOX PRIOR TO ANY BRANCH CONNECTIONS, WITH NO MORE THAN 1'–2' BETWEEN BOXES.

NOTES:

1. PIPING FROM METER TO DCVA SHALL BE COPPER OR BRASS.
2. THE INSTALLER OR DEVELOPER MUST PROVIDE TEST COCK PROTECTION WITH PLUGS, CAPS OR COVERS. TEST COCKS MUST BE POINTED UP.
3. UNIONS MUST BE INSTALLED VERTICALLY OR HORIZONTALLY. DIELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
4. PERMANENT ASSEMBLY SHALL BE INSTALLED BELOW GROUND WITH LID ADJUSTED TO FINISH GRADE AND IN AN APPROVED BOX LARGE ENOUGH TO ACCOMMODATE BACKFLOW INSTALLATION AS ILLUSTRATED AND LARGE ENOUGH TO ACCESS, TEST AND MAINTAIN ASSEMBLY.
5. BACKFLOW ASSEMBLIES MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH LIST OF BACKFLOW ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE.
6. AFTER INSTALLATION OF THE BACKFLOW ASSEMBLY, THE DEVELOPER OR INSTALLER WILL CALL THE DISTRICT FOR AN INSPECTION BY A DISTRICT CROSS–CONNECTION CONTROL SPECIALIST.
7. FOLLOWING AN INSPECTION APPROVAL BY THE DISTRICT, THE BACKFLOW ASSEMBLY MUST BE SCHEDULED FOR AN INITIAL TEST BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. THE INITIAL TEST OF THE BACKFLOW ASSEMBLY MAY BE OBSERVED BY A DISTRICT CROSS–CONNECTION CONTROL SPECIALIST. THE METER MUST BE INSTALLED PRIOR TO THE INITIAL TEST.
8. DCVA MUST BE PURCHASED AND INSTALLED AS A UNIT. NO MODIFICATIONS TO ANY PART OF THE ASSEMBLY ARE ALLOWED.
9. FREEZE PROTECTION IS THE REPONSIBILITY OF THE OWNER AND SHALL NOT INTERFERE WITH OPERATION OR TESTING OF THE ASSEMBLY.
10. BOX MUST BE LARGE ENOUGH FOR ASSEMBLY, UNIONS AND ALL REQUIRED CLEARANCES.

ALDERWOOD
WATER & WASTEWATER DISTRICT

DOUBLE CHECK VALVE ASSEMBLY 3/4" – 2" ASSEMBLIES

DATE: 11–2015	DWG. WD–24

APPROVED BY: DLH
DISTRICT ENGINEER

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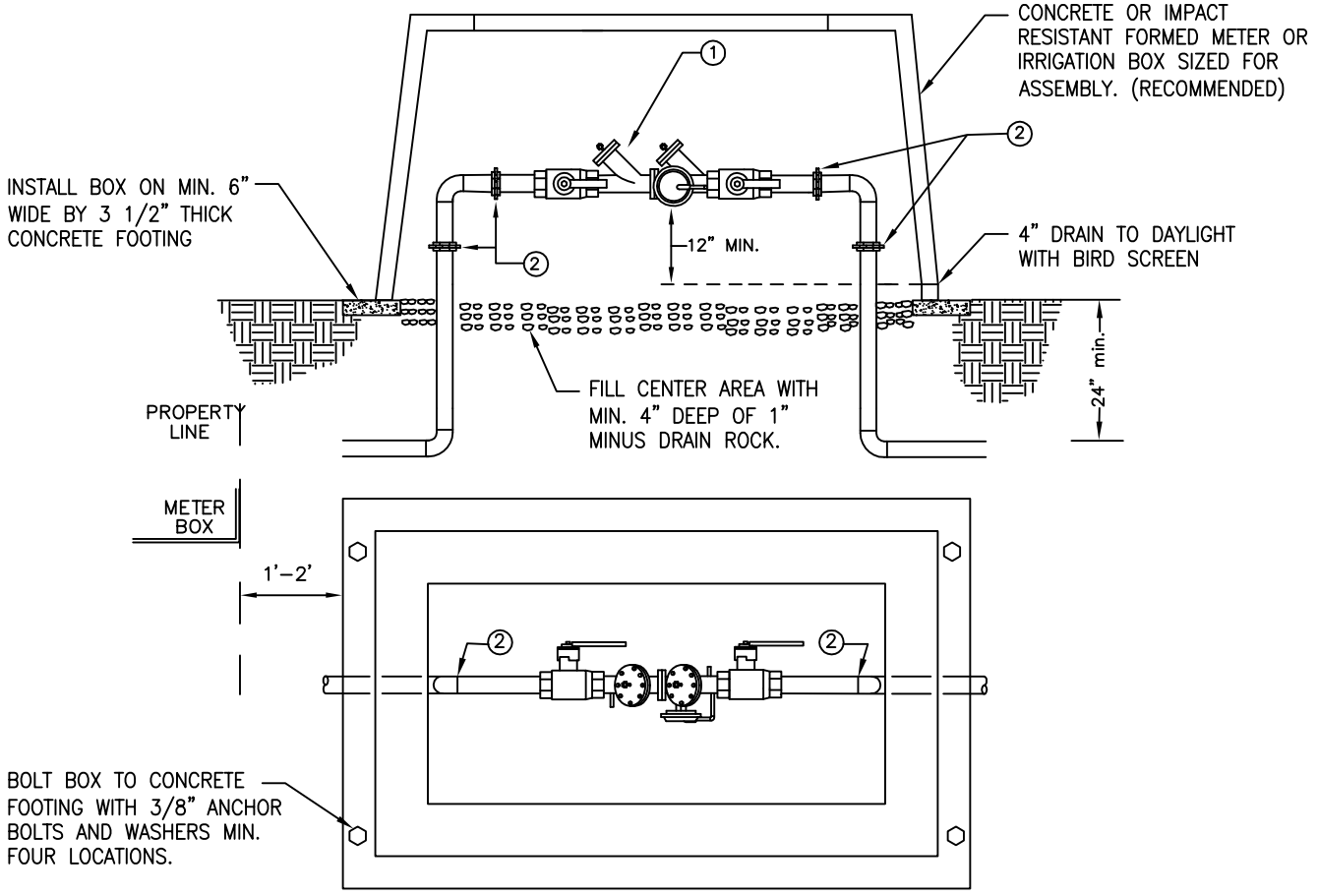

RPBA ABOVE GROUND INSTALLATION

* RPBA-BOX SHALL BE LOCATED IMMEDIATELY DOWNSTREAM OF WATER METER BOX PRIOR TO ANY BRANCH CONNECTIONS, WITH NO MORE THAN 1'-2' BETWEEN BOXES.

NOTES:

1. BACKFLOW ASSEMBLIES MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH LIST OF BACKFLOW ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE.
2. UNIONS MUST BE INSTALLED VERTICALLY OR HORIZONTALLY.
3. DIELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
4. AFTER INSTALLATION OF BACKFLOW ASSEMBLY, THE CONTRACTOR OR INSTALLER WILL CALL THE DISTRICT FOR AN INSPECTION BY A DISTRICT CROSS-CONNECTION CONTROL SPECIALIST.
5. RPBA MUST BE PURCHASED AND INSTALLED AS A UNIT. NO MODIFICATIONS TO ANY PART OF THE ASSEMBLY ARE ALLOWED.
6. FREEZE PROTECTION IS THE REPONSIBILITY OF THE OWNER AND SHALL NOT INTERFERE WITH OPERATION OR TESTING OF THE ASSEMBLY.
7. FOLLOWING AN INSPECTION APPROVAL BY THE DISTRICT, THE BACKFLOW ASSEMBLY MUST BE SCHEDULED FOR AN INITIAL TEST BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. THE INITIAL TEST OF THE BACKFLOW ASSEMBLY MAY BE OBSERVED BY A DISTRICT CROSS-CONNECTION CONTROL SPECIALIST. METER MUST BE INSTALLED PRIOR TO TESTING.
8. PIPING FROM METER TO RPBA SHALL BE COPPER OR BRASS.
9. THE INSTALLER/DEVELOPER MUST PROVIDE TEST COCK PROTECTION WITH PLUGS, CAPS OR COVERS.
10. MINIMUM 12" GAP FROM BOTTOM OF RELIEF PORT TO TOP OF DAYLIGHT DRAIN.

ALDERWOOD WATER & WASTEWATER DISTRICT

REDUCED PRESSURE BACKFLOW ASSEMBLY (3/4"-2" ASSEMBLIES)

DATE: 11-2015	DWG. WD-25

APPROVED BY: DLH
DISTRICT ENGINEER

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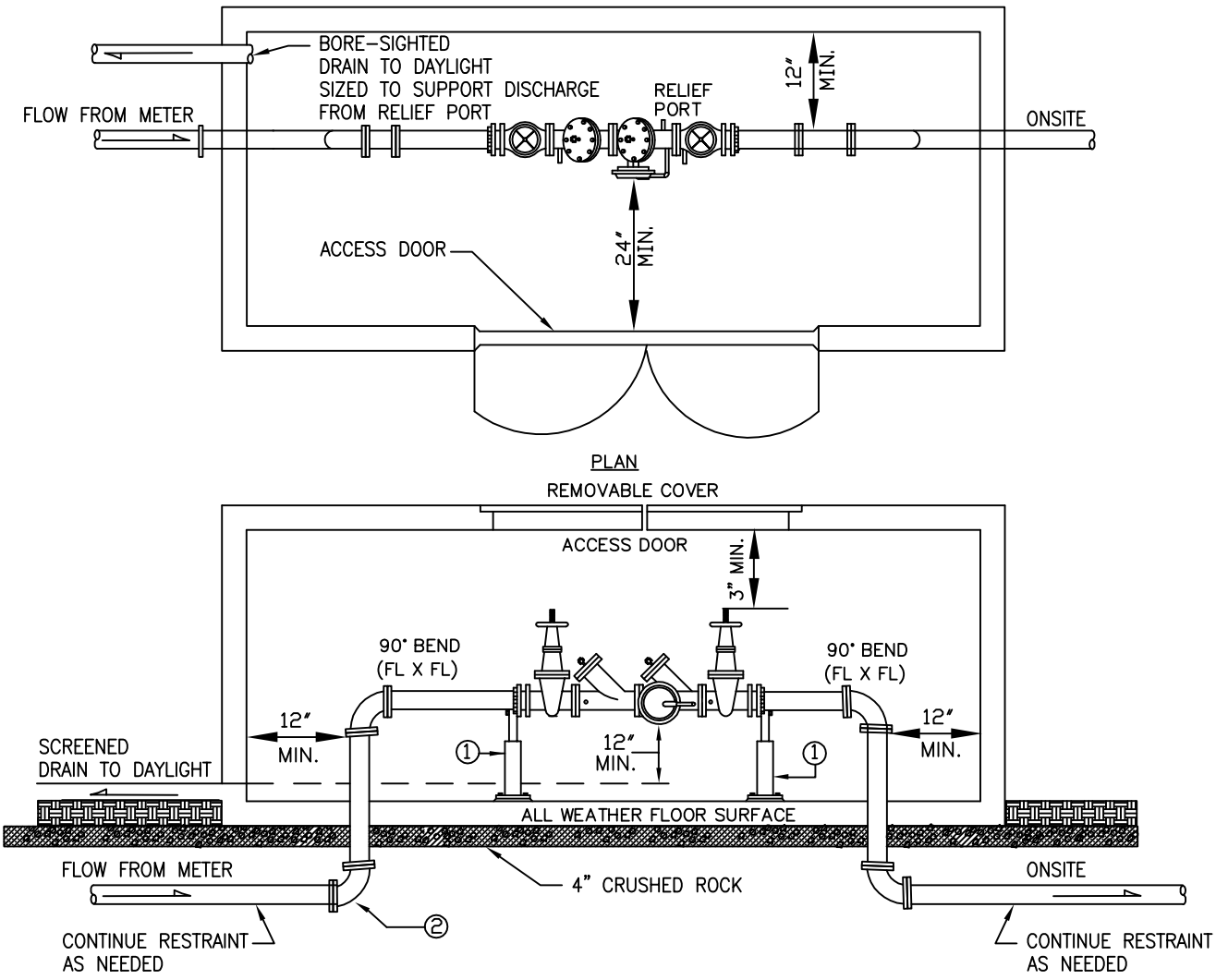

NOTES:

① ADUSTABLE PIPE SUPPORT STANDON MODEL S-89 OR EQUAL & SHALL BE BOLTED TO THE VALVE FLANGE.

② USING 90° ELBOWS ON BOTH SIDES OF RPBA, ALL FITTINGS SHALL BE FLANGED OR RESTRAINED.

③ AFTER INSTALLATION OF BACKFLOW ASSEMBLY, THE CONTRACTOR OR INSTALLER WILL CALL THE DISTRICT FOR AN INSPECTION BY A DISTRICT CROSS-CONNECTION CONTROL SPECIALIST.

④ FOLLOWING AN INSPECTION APPROVAL BY THE DISTRICT, THE BACKFLOW ASSEMBLY MUST BE SCHEDULED FOR AN INITIAL TEST BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. THE INITIAL TEST OF THE BACKFLOW ASSEMBLY MAY BE OBSERVED BY A CROSS-CONNECTION CONTROL SPECIALIST FROM THE DISTRICT. METER MUST BE INSTALLED PRIOR TO INITIAL TEST.

⑤ BACKFLOW ASSEMBLIES MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH LIST OF BACKFLOW ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE.

⑥ RPBA MUST BE PURCHASED AND INSTALLED AS A UNIT. NO MODIFICATIONS TO ANY PART OF THE ASSEMBLY ARE ALLOWED.

⑦ FREEZE PROTECTION IS THE REPONSIBILITY OF THE OWNER AND SHALL NOT INTERFERE WITH OPERATION OR TESTING OF THE ASSEMBLY.

⑧ MUST MAINTAIN 12" MINIMUM AIR GAP FROM BOTTOM OF RELIEF PORT TO TOP OF DAYLIGHT DRAIN.

ALDERWOOD
WATER & WASTEWATER
DISTRICT

REDUCED PRESSURE BACKFLOW ASSEMBLY (3" AND LARGER)

DATE: 11-2015 | DWG. WD-26

APPROVED BY: DLH
DISTRICT ENGINEER

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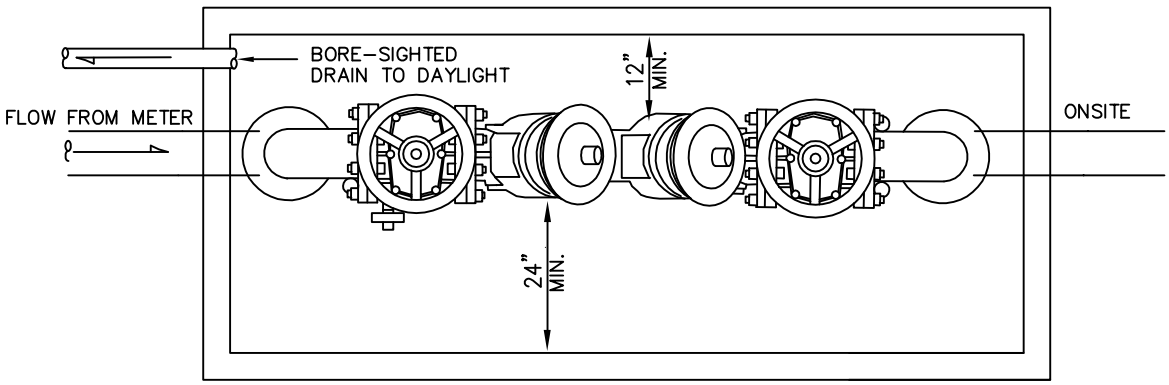
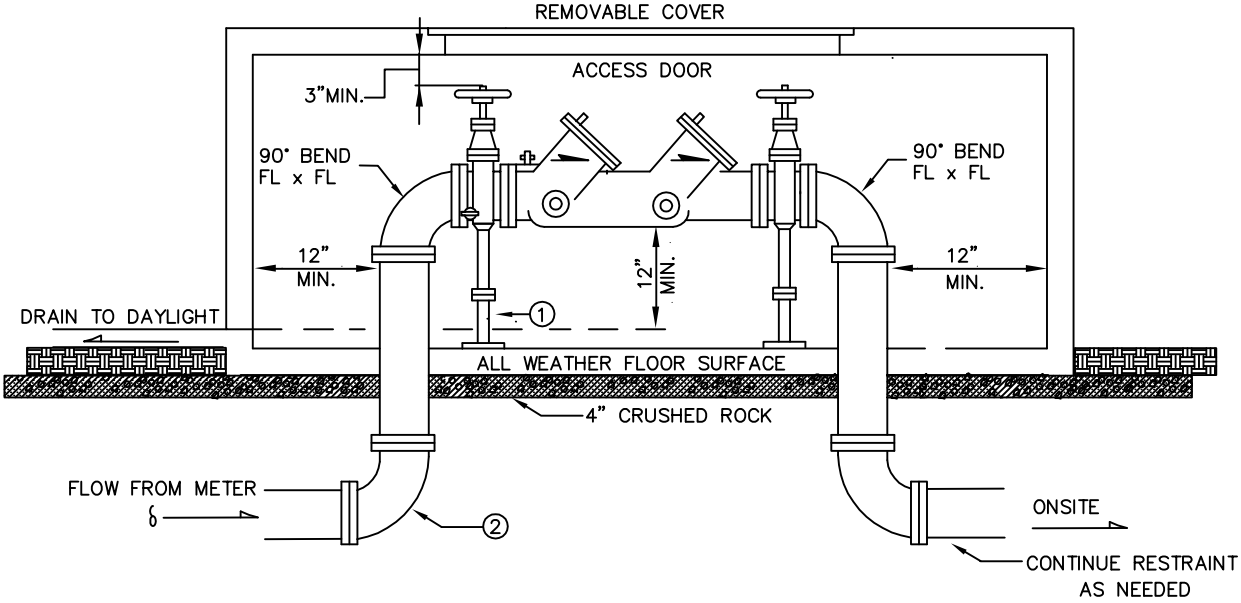


TOP

PLAN



NOTES:

1. ADUSTABLE PIPE SUPPORT STANDON MODEL S-89 OR EQUAL & SHALL BE BOLTED TO THE VALVE FLANGES.
2. USING 90° ELBOWS ON BOTH SIDES OF RPBA, ALL FITTINGS SHALL BE FLANGED OR RESTRAINED.
3. FOLLOWING AN INSPECTION APPROVAL BY THE DISTRICT, THE BACKFLOW ASSEMBLY MUST BE SCHEDULED FOR AN INITIAL TEST BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. THE INITIAL TEST OF THE BACKFLOW ASSEMBLY MAY BE OBSERVED BY A CROSS-CONNECTION CONTROL SPECIALIST FROM THE DISTRICT. METER MUST BE INSTALLED PRIOR TO INITIAL TEST.
4. AFTER INSTALLATION OF THE BACKFLOW ASSEMBLY, THE DEVELOPER OR INSTALLER WILL CALL THE DISTRICT FOR AN INSPECTION BY A DISTRICT CROSS-CONNECTION CONTROL SPECIALIST.
5. BACKFLOW ASSEMBLIES MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH LIST OF BACKFLOW ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE.
6. FREEZE PROTECTION IS THE REPONSIBILITY OF THE OWNER AND SHALL NOT INTERFERE WITH OPERATION OR TESTING OF THE ASSEMBLY.
7. DCVA MUST BE PURCHASED AND INSTALLED AS A UNIT. NO MODIFICATIONS TO ANY PART OF THE ASSEMBLY ARE ALLOWED.

ALDERWOOD
WATER & WASTEWATER
DISTRICT

ABOVE GROUND DCVA 3" AND LARGER

DATE: 11-2015	DWG. WD-27

APPROVED BY: DLH
DISTRICT ENGINEER

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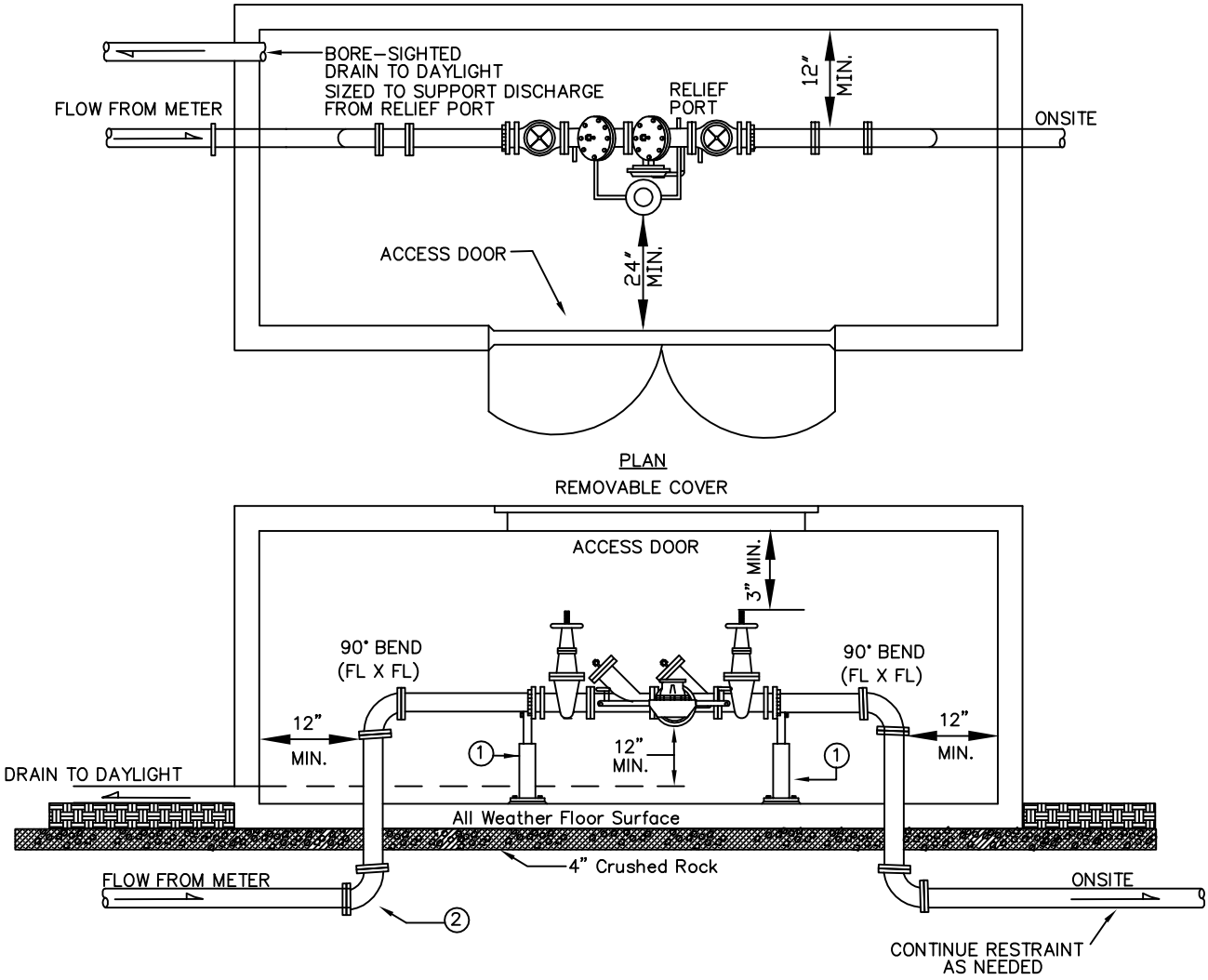

NOTES:

1. ADUSTABLE PIPE SUPPORT STANDON MODEL S-89 OR EQUAL & SHALL BE BOLTED TO THE VALVE FLANGE.
2. USING 90° ELBOWS ON BOTH SIDES OF RPBA, ALL FITTINGS SHALL BE FLANGED OR RESTRAINED.
3. BACKFLOW ASSEMBLIES MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH LIST OF BACKFLOW ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE.
4. FOLLOWING AN INSPECTION APPROVAL BY THE DISTRICT, THE BACKFLOW ASSEMBLY MUST BE SCHEDULED FOR AN INITIAL TEST BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. THE INITIAL TEST OF THE BACKFLOW ASSEMBLY MAY BE OBSERVED BY A CROSS-CONNECTION CONTROL SPECIALIST FROM THE DISTRICT. METER MUST BE INSTALLED PRIOR TO INITIAL TEST.
5. AFTER INSTALLATION OF BACKFLOW ASSEMBLY, THE CONTRACTOR OR INSTALLER WILL CALL THE DISTRICT FOR AN INSPECTION BY A DISTRICT CROSS-CONNECTION CONTROL SPECIALIST.
6. FREEZE PROTECTION IS THE REPONSIBILITY OF THE OWNER AND SHALL NOT INTERFERE WITH OPERATION OR TESTING OF THE ASSEMBLY.
7. RPDA MUST BE PURCHASED AND INSTALLED AS A UNIT. NO MODIFICATIONS TO ANY PART OF THE ASSEMBLY ARE ALLOWED.
8. MUST MAINTAIN 12"MINIMUM AIR GAP FROM BOTTOM OF RELIEF PORT TO TOP OF DAYLIGHT DRAIN.
9. 5/8" X 3/4" BADGER ADE M25 7 1/2" LAY LENGTH, ORION PIT DATA PROFILE TRANSMITTER, LOW LEAD HOUSING, LOW LEAD ALLOY HOUSING BOTTOM WITH PLASTIC LID AND SHROUD. MOUNT RADIO TRANSMITTER THROUGH VAULT LID AS DIRECTED BY THE DISTRICT.
10. RPDA IS CONSIDERED PART OF THE PRIVATE FIRE PROTECTION SYSTEM.

ALDERWOOD
WATER & WASTEWATER
DISTRICT

REDUCED PRESSURE DETECTOR ASSEMBLY (3" & LARGER)

DATE: 11-2015 | DWG. WD-28

APPROVED BY: DLH
DISTRICT ENGINEER

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