WATER DETAILS

INDX.DWG

(HORIZONTAL) BEARING AREA OF THRUST BLOCKS IN SQUARE FEET									(VERTICAL) VOLUME OF THRUST BLOCK IN CUBIC YARDS			
FITTING SIZE	TEE, WYE, DEAD END AND HYDRANT	STRADDLE BLOCK	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN		45° BEND	22-1/2° BEND	11-1/4° BEND	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
				A-1	A-2							
4	1.0	1.6	1.4	1.9	1.4	1.0	---	---	---	---	---	---
6	2.1	3.7	3.0	4.3	3.0	1.6	1.0	---	1.3	---	---	---
8	3.8	6.5	5.3	7.6	5.4	2.9	1.5	1.0	2.3	1.1	---	---
10	5.9	10.2	8.4	11.8	8.4	4.6	2.4	1.2	3.7	1.8	---	---
12	8.5	14.7	12.0	17.0	12.0	6.6	3.4	1.7	5.5	2.8	1.2	---
14	11.5	---	16.3	23.0	16.3	8.9	4.6	2.3	7.6	3.9	1.7	---
16	15.0	26.1	21.3	30.0	21.3	11.6	6.0	3.0	9.9	5.1	2.3	0.9
18	19.0	---	27.0	38.0	27.0	14.6	7.6	3.8	---	---	---	---
20	23.5	40.8	33.3	47.0	33.3	18.1	9.4	4.7	---	---	---	---
24	34.0	58.8	48.0	68.0	48.0	26.2	13.6	6.8	---	---	---	---

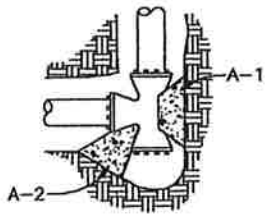
NOTES:

1. ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:

   BEARING AREA = (TEST PRESSURE / 150) x (2000 / SOIL BEARING STRESS) x (TABLE VALUE)

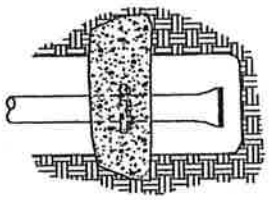
2. ABOVE VOLUMES BASED ON TEST PRESSURE OF 150 PSI AND THE WEIGHT OF CONCRETE = 4050 POUNDS PER CUBIC YARD. TO COMPUTE FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION:

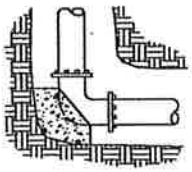
   VOLUME = (TEST PRESSURE / 150) x (TABLE VALUE)

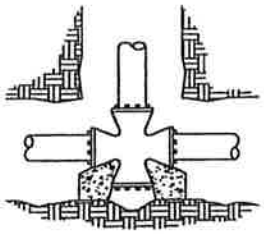


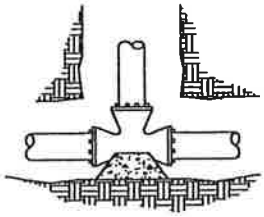
TEE

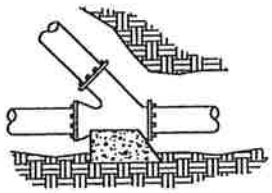

CROSS

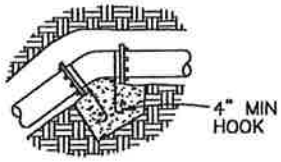

STRADDLE BLOCK


BEND


CROSS


TEE


WYE



VERTICAL BEND

RODS FOR VERTICAL BENDS		
FITTING SIZE	ROD SIZE	EMBEDMENT
12" AND LESS	#6	30"
14"-16"	#8	36"

NOTES:

1. CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. ALL CONCRETE TO BE CLASS 2400 MINIMUM.
3. INSTALL ISOLATION MATERIAL BETWEEN PIPE AND/OR FITTINGS BEFORE POURING CONCRETE BLOCKING.
4. CONCRETE SHALL BE KEPT CLEAR OF ALL JOINTS AND ACCESSORIES.
5. TIE RODS SHALL BE DEFORMED GALVANIZED COLD ROLLED STEEL, 40000 PSI TENSILE STRENGTH.

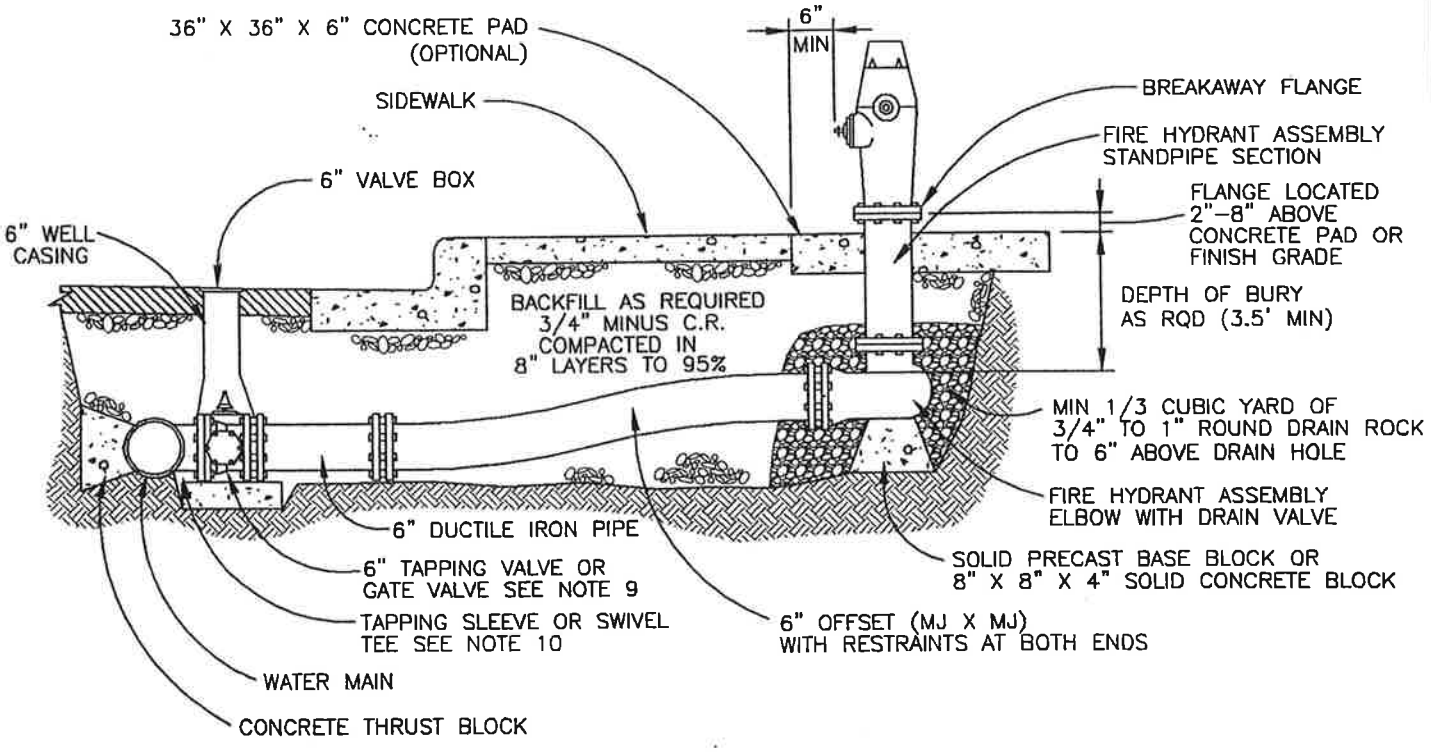
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT ENGINEERING DEPT.

THRUST BLOCK

SCALE: NONE | DWG. NO. EP-401

EP-401.DWG



NOTES:

1. WHEN PIPE IS SHORTER THAN 18', NO JOINTS ALLOWED.
2. WHEN PIPE IS SHORTER THAN 18', USE MECHANICAL JOINT RETAINER GLANDS.
3. THERE SHALL BE A MINIMUM OF 3'–0" HORIZONTAL CLEARANCE AROUND HYDRANT.
4. WHEN PLACED ADJACENT TO CURB, HYDRANT PORT SHALL BE 24" FROM FACE OF CURB.
5. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED AS PER THRUST BLOCK STANDARD DRAWING EP–401. DO NOT BLOCK DRAIN HOLES.
6. EXTENSIONS REQUIRED FOR HYDRANT SYSTEMS SHALL BE INSTALLED TO THE MANUFACTURER'S SPECIFICATIONS.
7. FIRE HYDRANTS SHALL BE PLACED TO PROVIDE A MINIMUM OF 5' CLEARANCE FROM DRIVEWAYS, POLES, AND OTHER OBSTRUCTIONS.
8. HYDRANT PUMPER PORT SHALL FACE DIRECTION OF ACCESS.
9. FOR WET TAP, USE FLANGE X MJ TAPPING VALVE. FOR DRY CONNECTION, USE MJ X MJ GATE VALVE.
10. FOR WET TAP, USE TAPPING SLEEVE WITH FLANGE CONNECTION. FOR DRY CONNECTION, USE A MJ SWIVEL TEE.
11. USE 8 MIL PLASTIC BETWEEN PIPE AND CONCRETE ON CONCRETE POURS AGAINST PIPE SURFACES.

NO.	DATE	INITIAL	REVISIONS
1	07/05	BWD	NOTES

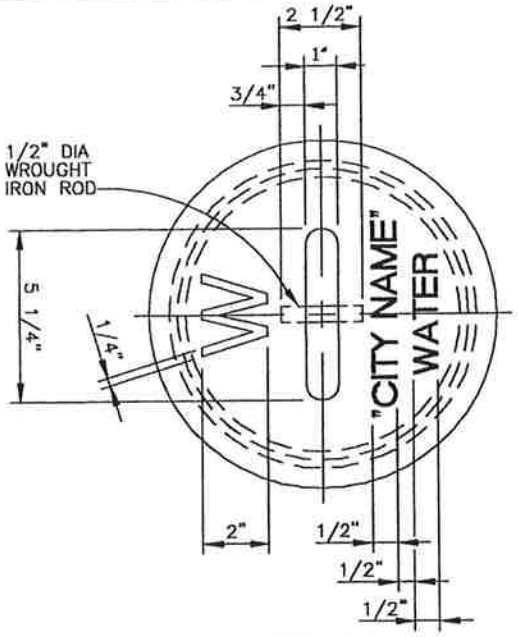
DESIGN:	DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

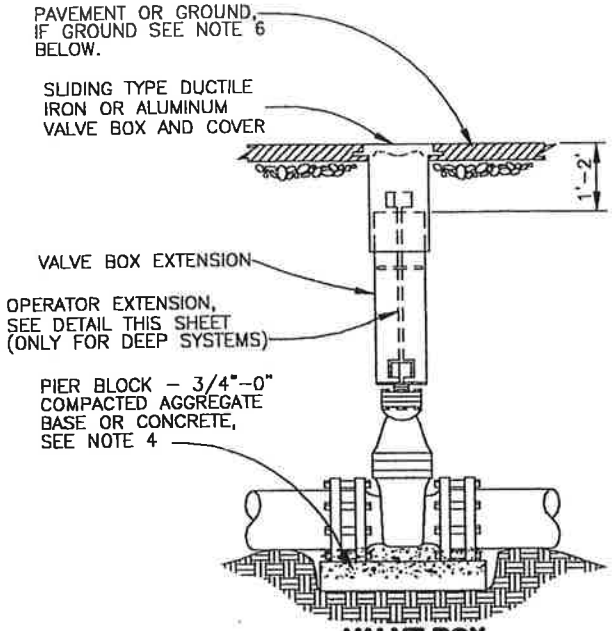
HYDRANT INSTALLATION

SCALE: NONE | DWG. NO. EP–402

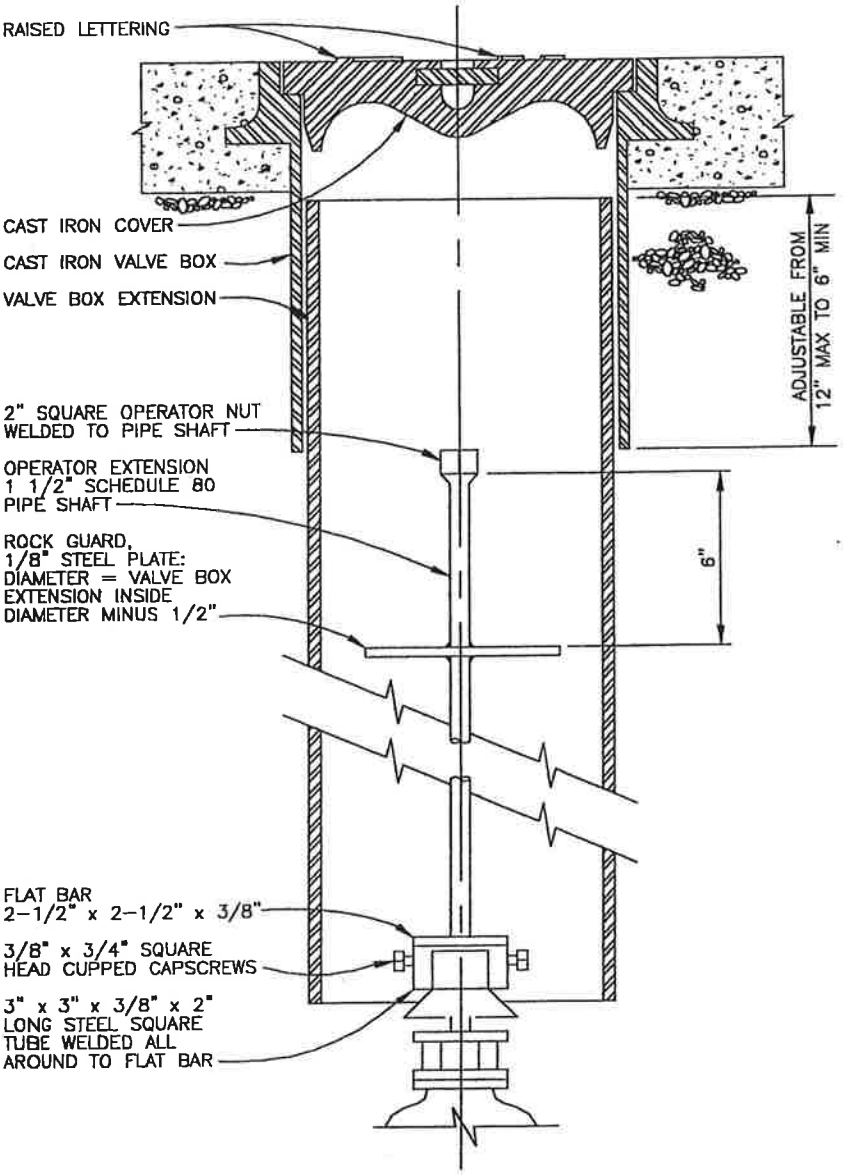
EP–402.DWG



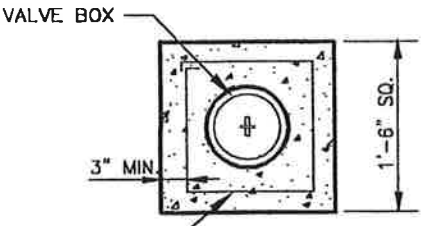
COVER PLAN



VALVE BOX ASSEMBLY DETAIL



VALVE BOX EXTENSION SECTION



CONC. PAD

NOTES:

1. VALVE BOX NOT TO REST ON OPERATING ASSEMBLY.
2. OPERATOR EXTENSION REQUIRED WHEN VALVE NUT IS DEEPER THAN 3 FEET FROM FINISH GRADE.
3. CENTER VALVE BOX ON AXIS OF OPERATOR NUT.
4. VALVES 12" AND SMALLER SHALL BE PROVIDED WITH CLASS B BASE ON UNDISTURBED GROUND. VALVES GREATER THAN 12" SHALL BE INSTALLED ON PRECAST CONCRETE PIER BLOCK.
5. VALVE BOX EXTENSION SHALL BE CAST IRON OR PVC (ASTM D 3034).
6. PROVIDE 1'-6" SQ. x 6" THICK CONC. PAD WHERE VALVE IS NOT IN PAVEMENT.
7. SET COVER OF VALVE BOX AND CONC. PAD FLUSH WITH FINISH GRADE.

NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

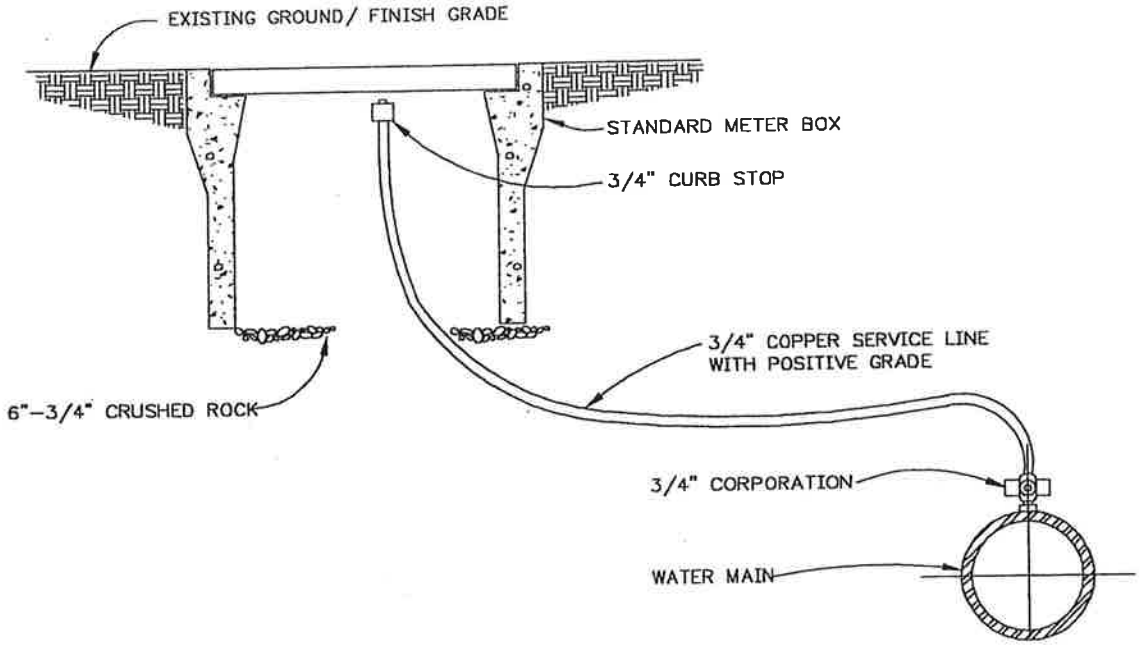
VALVE BOX AND OPERATOR EXTENSION ASSEMBLY

SCALE: NONE | DWG. NO. EP-403

EP-403.DWG

DETAIL EP–404 HAS BEEN DELETED.

EP–404–DELETED.DWG



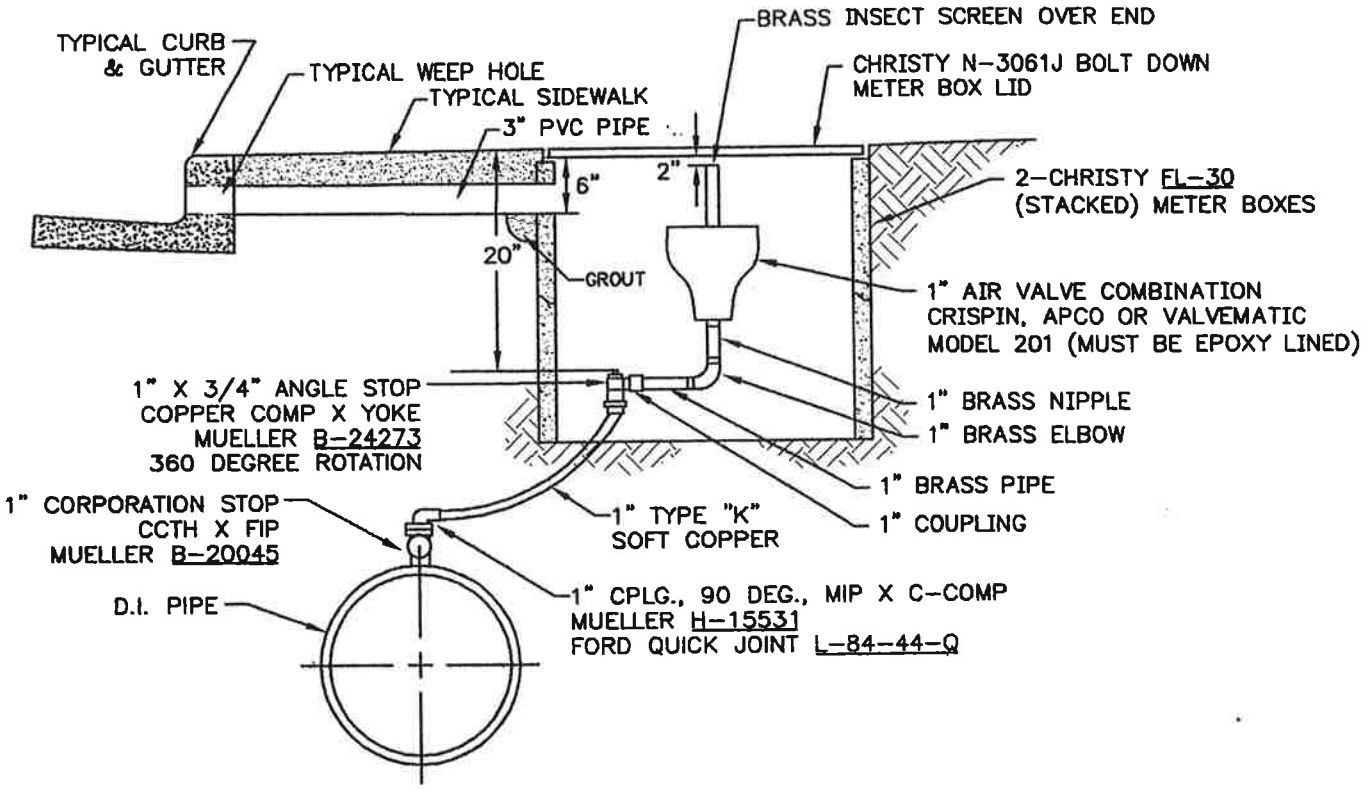
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

MANUAL AIR–RELEASE ASSEMBLY

SCALE: NONE | DWG. NO. EP–406

EP–406.DWG



NOTES:

1. METER BOX AND LID SHALL BE PLACED IN PLANTER AREA, IF AVAILABLE OTHERWISE, IT SHALL BE PLACED BEHIND SIDEWALK AS SHOWN ABOVE.
2. COPPER PIPE MUST ALWAYS BE INSTALLED WITH GRADE RISING FROM CORP STOP TO ANGLE STOP (NO HIGH POINTS).
3. ALL COPPER PIPE SHALL HAVE A MINIMUM OF 6" OF SAND SURROUNDING IT.

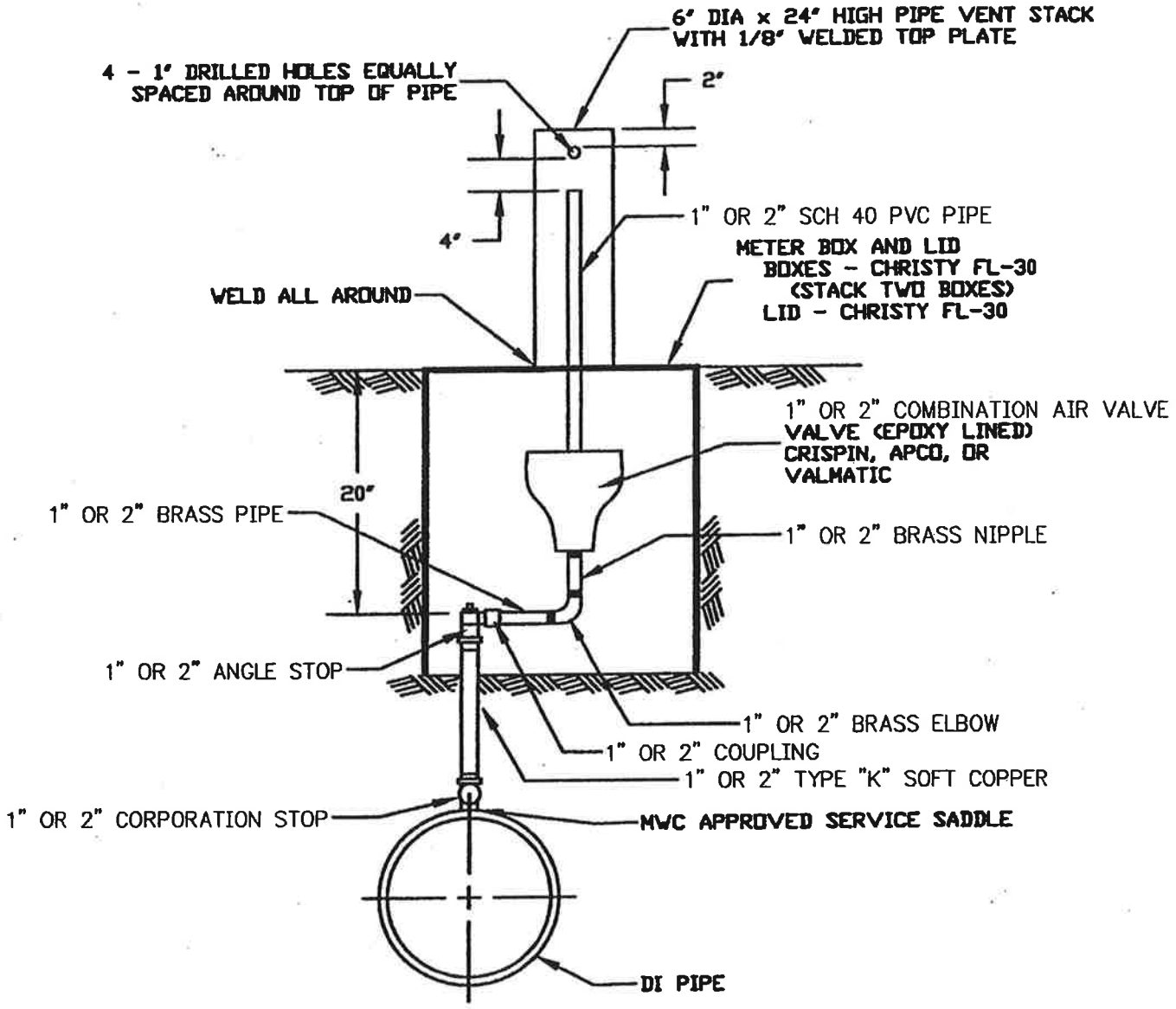
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

AIR-RELEASE AND VALVE ASSEMBLY FOR NEW SUBDIVISION

SCALE: NONE | DWG. NO. EP-407

EP-407.DWG



NOTES:

1. 2" COPPER PIPE MUST ALWAYS BE INSTALLED WITH GRADE RISING FROM CORP STOP TO ANGLE STOP (NO HIGH POINTS).
2. ALL COPPER PIPE SHALL HAVE A MINIMUM OF 6" OF SAND SURROUNDING IT.

NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

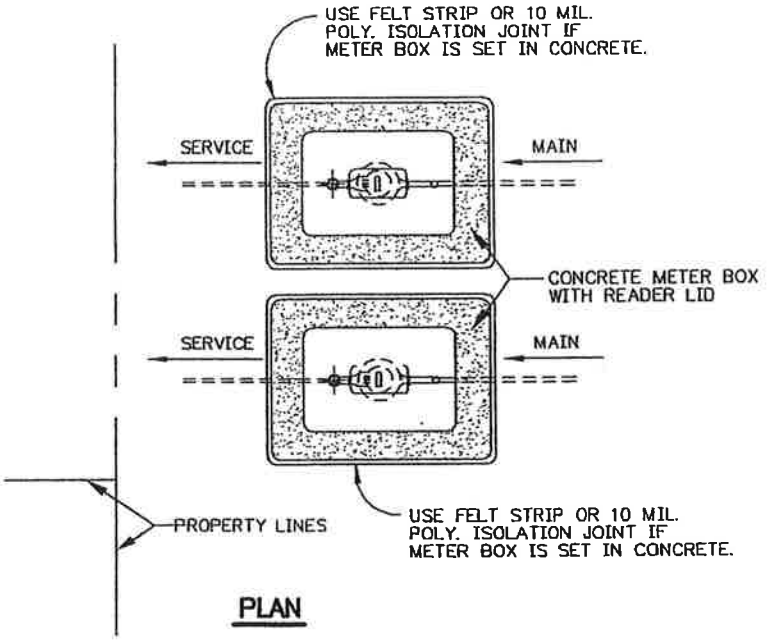
1" & 2" AIR VALVE

SCALE: NONE | DWG. NO. EP-407A

EP-407A.DWG

DETAIL EP-407B HAS BEEN DELETED.

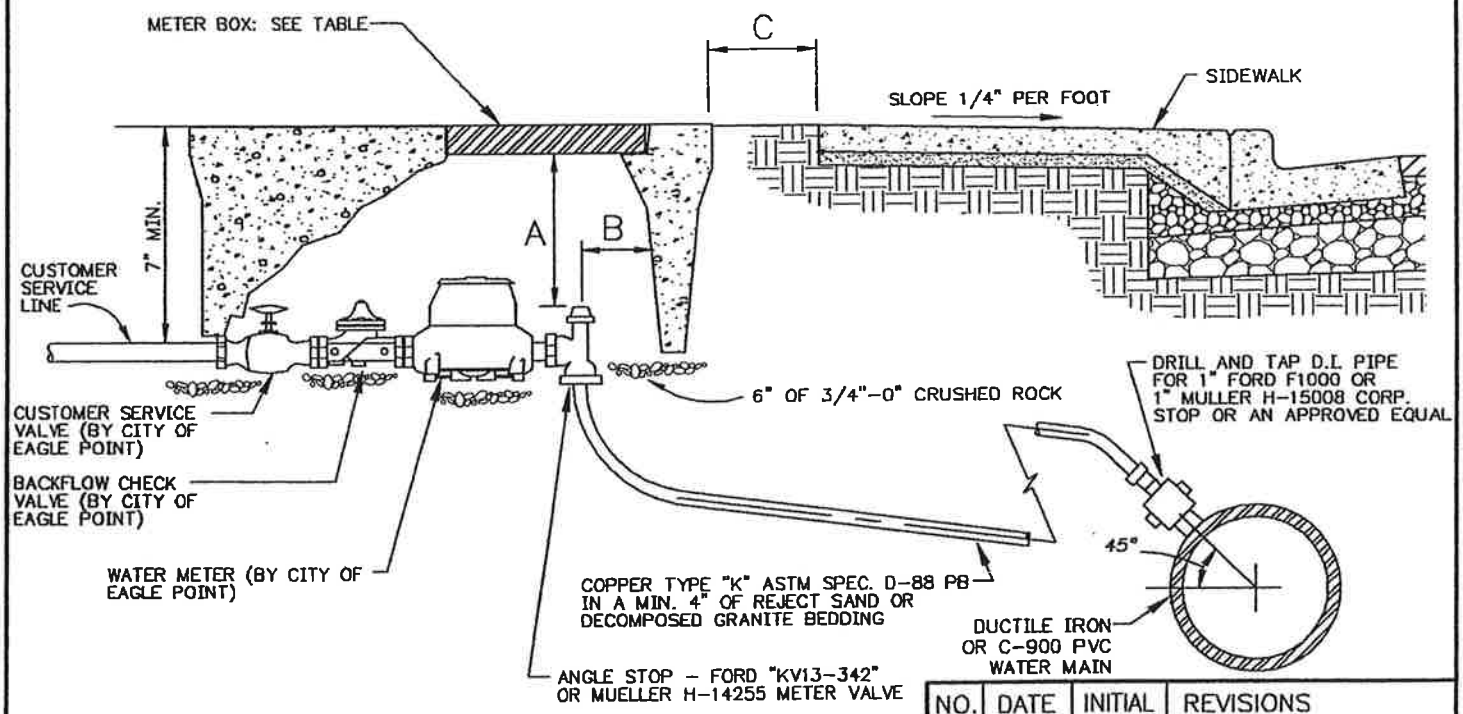
EP-407B-DELETED.DWG



PLAN

METER BOX CLEARANCES

METER SIZE	A	B	C	NON-TRAFFIC RATED METER BOX	H/20-TRAFFIC RATED METER BOX
3/4"	6"	2"	2"	CHRISTY B12 WITH CHRISTY B12D LID OR APPROVED EQUAL	CHRISTY B1324 H/20 LOAD UTILITY BOX WITH CHRISTY B1324-61GH COVER OR APPROVED EQUAL
1"	6"	2"	2"		
1.5"	7"	3"	2"	CHRISTY B36 UTILITY BOX WITH CHRISTY B36D LID AND B36SL SLAB OR APPROVED EQUAL	CHRISTY B1730 H/20 LOAD UTILITY BOX WITH CHRISTY B1730-51G COVER OR APPROVED EQUAL
2"	7"	3"	2"		



PROFILE

NOTES:

1. METER TO BE CENTERED AND SET PLUMB INSIDE METER BOX, AS DIMENSIONED ABOVE.
2. MANUFACTURED METER SETTER MAY BE USED FOR 3/4" TO 2" SERVICES.
3. SET METER BOX 2" BEHIND CURB OR SIDEWALK NOT SUBJECT TO VEHICULAR TRAFFIC.
4. METER BOXES CANNOT BE LOCATED IN DRIVEWAYS.
5. CATHODIC PROTECTION REQUIRED WHEN SOIL PH OR CONDITIONS DICTATE, AS REQUIRED BY PUBLIC WORKS.

NO.	DATE	INITIAL	REVISIONS
1	08/05	BWD	UPDATED MTR BOX SPECS.

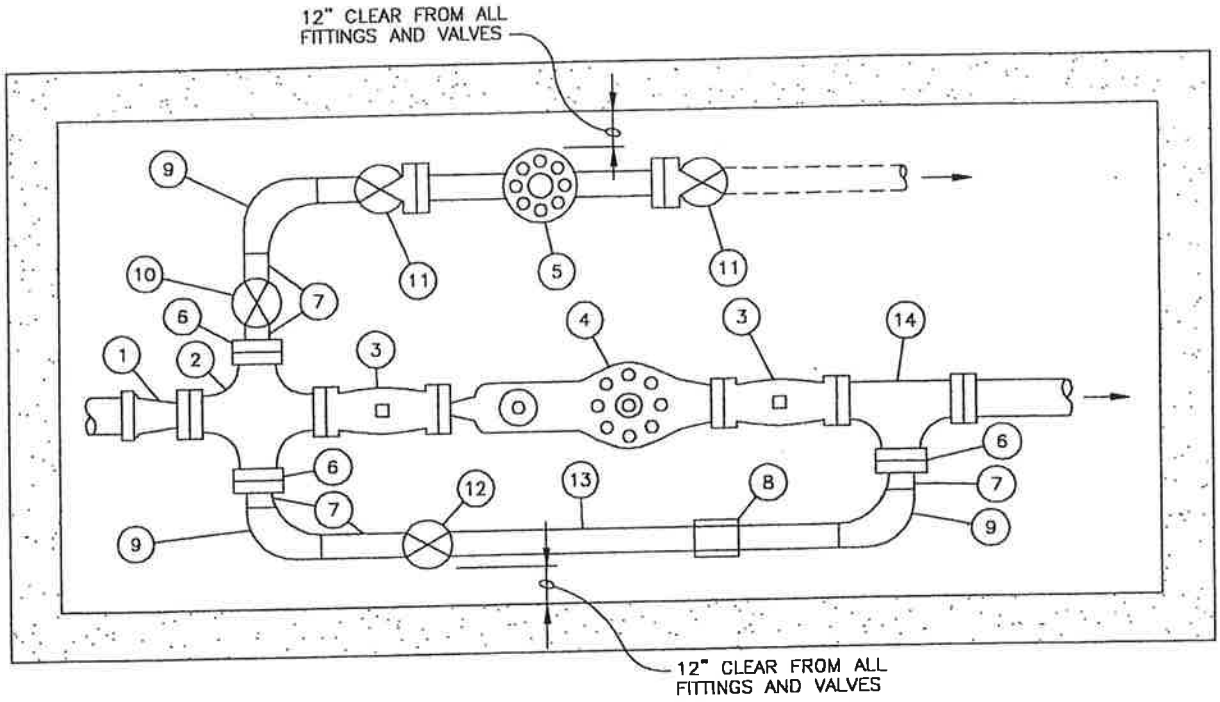
DESIGN:	DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT ENGINEERING DEPT.

3/4" TO 2" WATER METER SETTING DETAIL

SCALE: NONE | DWG. NO. EP-408

EP-408.DWG



1. MECHANICAL JOINT X FLANGE ADAPTER
2. ALL–FLANGE CROSS
3. FLANGE GATE VALVE
4. COMPOUND METER (DOMESTIC)
5. DISC METER (IRRIGATION)
6. COMPANION FLANGE
7. BRASS NIPPLES
8. MECHANICAL COUPLING
9. I.P. X I.P. BRASS 90
10. I.P. X I.P. GATE VALVE (OPTIONAL)
11. I.P. X METER FLANGE GATE VALVE
12. I.P. X I.P. GATE VALVE
13. BRASS PIPE
14. ALL–FLANGE TEE

NOTES:

1. VAULTS SHALL BE SIZED PER SPECIFICATIONS AND MINIMUM CLEARANCES. WHEN REQUIRED, VAULTS SHALL BE DESIGNED FOR SITE SPECIFIC CONDITIONS BY A LICENSED STRUCTURAL ENGINEER.
2. ALL VAULTS SHALL BE SUPPORTED WITH ADEQUATE CONCRETE FLOOR AND SHALL BE DESIGNED TO PREVENT BOUYANCY FROM GROUNDWATER IF GROUNDWATER EXISTS AT ANY TIME DURING THE YEAR. VAULTS SHALL BE WATER–TIGHT.
3. PRECAST CONCRETE UTILITY VAULTS MAY BE USED IN LIEU OF CAST–IN–PLACE WHEN SIZES ARE AVAILABLE.
4. BACKFLOW DEVICES TO BE INSTALLED ON SERVICE AND IRRIGATION LINES AS REQUIRED.
5. STANDARD BYPASS SIZE IS 2 INCH.
6. SERVICE AND IRRIGATION LINE SIZES WILL VARY ACCORDING TO NEED.
7. TEES AND VALVES SHALL BE SUPPORTED WITH PIER BLOCKS OR JACKS.
8. VAULT DEPTH SHALL BE SUCH THAT THERE IS A MINIMUM CLEARANCE TO THE VAULT LID OF 6" WHEN THE VALVES ARE FULLY OPEN.

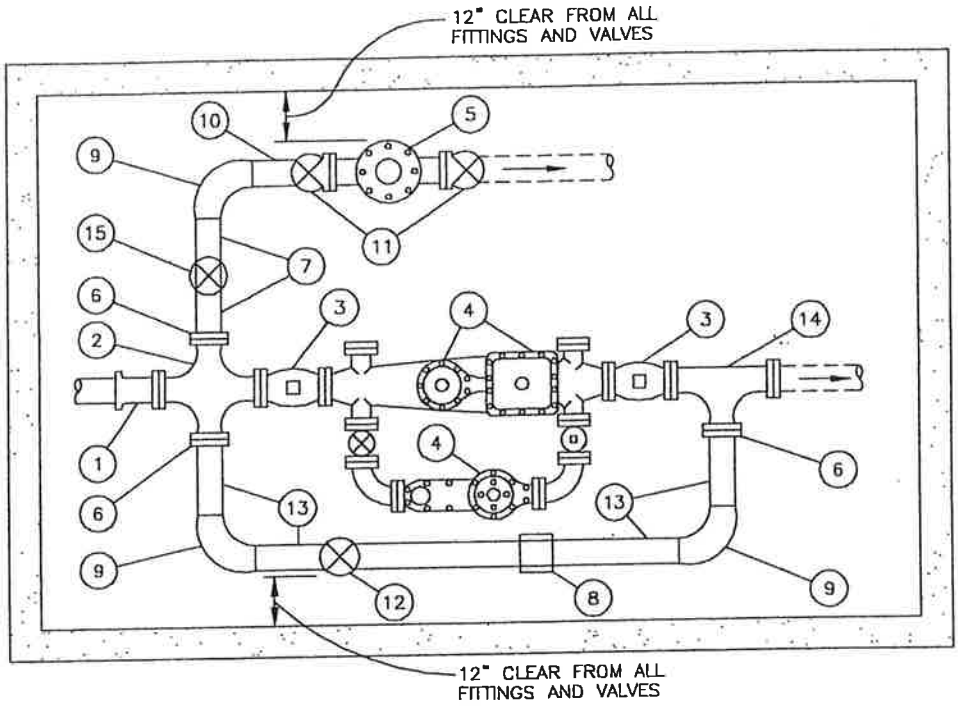
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

COMPOUND METER SETTINGS WITH IRRIGATION

SCALE: NONE | DWG. NO. EP–409

EP–409.DWG



1. MECHANICAL JOINT x FLANGE ADAPTER
2. ALL–FLANGE CROSS
3. FLANGE GATE VALVE
4. FM – CT DETECTOR METER OR DETECTOR CHECK METER
5. DISC METER (IRRIGATION)
6. COMPANION FLANGE
7. BRASS NIPPLES
8. MECHANICAL COUPLING / THREADED BRASS UNION
9. I.P. x I.P. BRASS 90
10. CLOSE NIPPLE
11. I.P. x METER FLANGE GATE VALVE
12. I.P. x I.P. GATE VALVE
13. BRASS PIPE
14. ALL–FLG TEE
15. OPTIONAL I.P. x I.P. GATE VALVE

NOTES:

1. VAULTS SHALL BE SIZED PER SPECIFICATIONS AND MINIMUM CLEARANCES. VAULTS SHALL BE DESIGNED FOR SITE SPECIFIC CONDITIONS BY A LICENSED STRUCTURAL ENGINEER.
2. ALL VAULTS SHALL BE SUPPORTED WITH ADEQUATE CONCRETE FLOOR AND SHALL BE DESIGNED TO PREVENT BOUYANCY FROM GROUNDWATER IF GROUNDWATER EXISTS AT ANY TIME DURING THE YEAR. VAULTS SHALL BE WATER–TIGHT.
3. PRECAST CONCRETE UTILITY VAULTS MAY BE USED IN LIEU OF CAST–IN–PLACE WHEN SIZES ARE AVAILABLE.
4. BACKFLOW DEVICES TO BE INSTALLED ON SERVICE AND IRRIGATION LINES AS REQUIRED.
5. STANDARD BYPASS SIZE IS 2 INCH.
6. IRRIGATION IS NOT A CRITERION FOR DETECTOR CHECK VALVE VAULTS.
7. TEES AND VALVES SHALL BE SUPPORTED WITH PIER BLOCKS OR JACKS.
8. VAULT DEPTH SHALL BE SUCH THAT THERE IS A MINIMUM CLEARANCE TO THE VAULT LID OF 6" WHEN THE VALVES ARE FULLY OPEN.

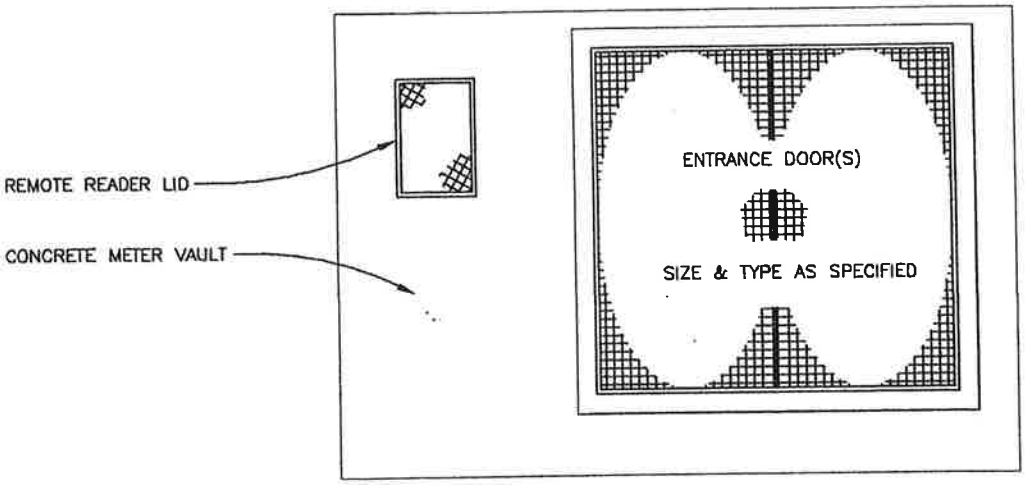
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

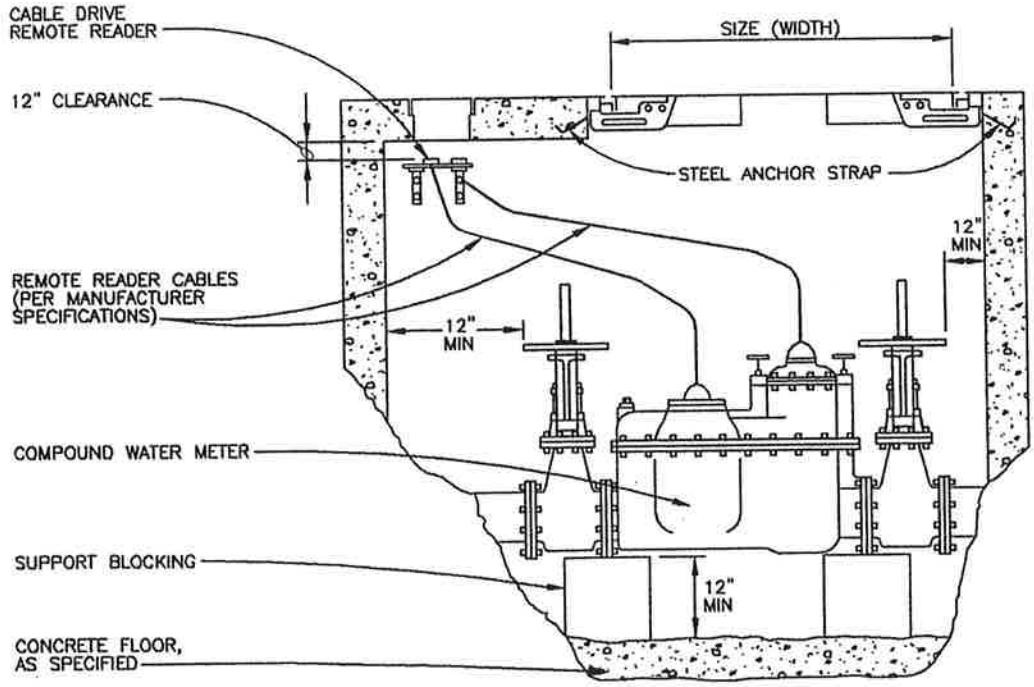
FM–CT COMPOUND METER SETTINGS WITH IRRIGATION

SCALE: NONE | DWG. NO. EP–410

EP–410.DWG



PLAN VIEW



ELEVATION VIEW

NOTES:

1. VAULT SHALL BE CONSTRUCTED PER THE "COMPOUND METER SETTINGS WITH IRRIGATION" DRAWING.
2. PRECAST UTILITY VAULTS AND STANDARD PREMANUFACTURED DOORS MAY BE USED, AS SPECIFIED.
3. DOOR(S) SHALL BE SIZED TO ACCOMODATE METER INSTALLATION AND REMOVAL.

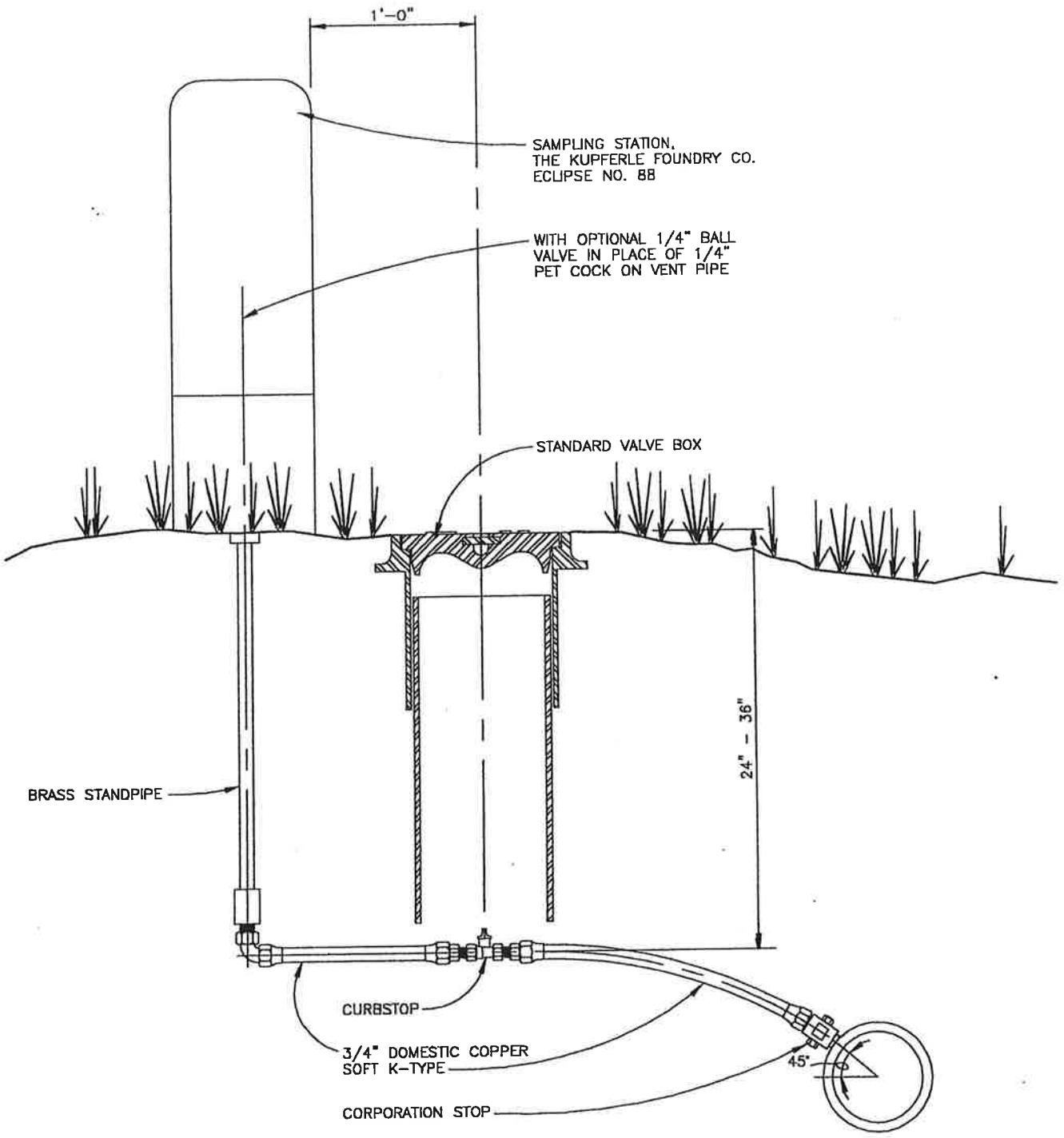
NO.	DATE	INITIAL	REVISIONS
1	08/05	BWD	MIN CLEARANCE
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

METER WITH REMOTE READER AND VAULT

SCALE: NONE | DWG. NO. EP-411

EP-411.DWG



NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

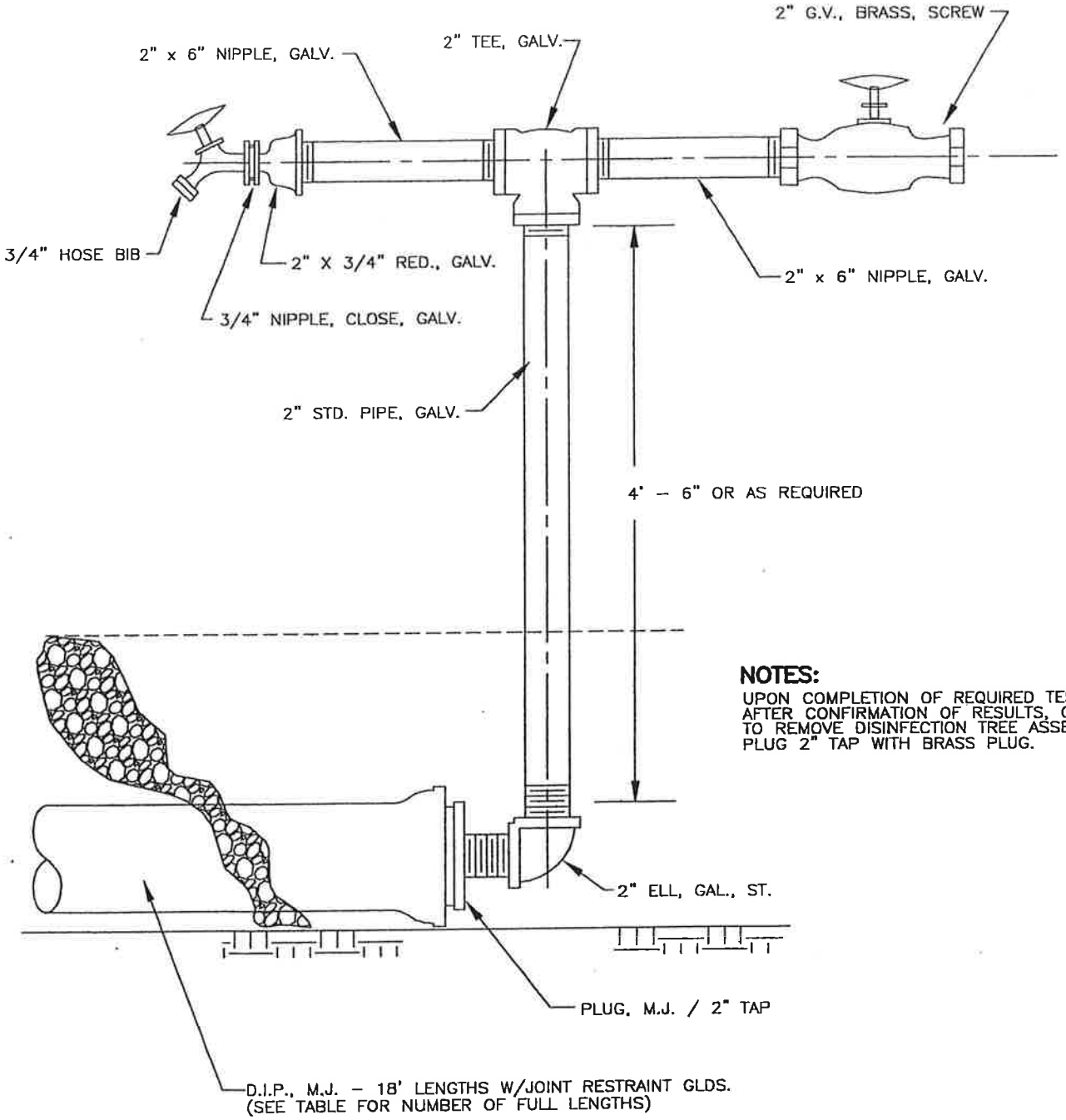
WATER SAMPLING STATION

SCALE: NONE | DWG. NO. EP-412

EP-412.DWG

DETAIL EP–413 HAS BEEN DELETED.

EP–413–DELETED.DWG



NOTES:

UPON COMPLETION OF REQUIRED TESTS AND AFTER CONFIRMATION OF RESULTS, CONTRACTOR TO REMOVE DISINFECTION TREE ASSEMBLY AND PLUG 2" TAP WITH BRASS PLUG.

SIZE TABLE	
4"	3
6"	3
8"	3
12"	3

NO.	DATE	INITIAL	REVISIONS

DESIGN:	DRAWN:	APPROVED: 2001

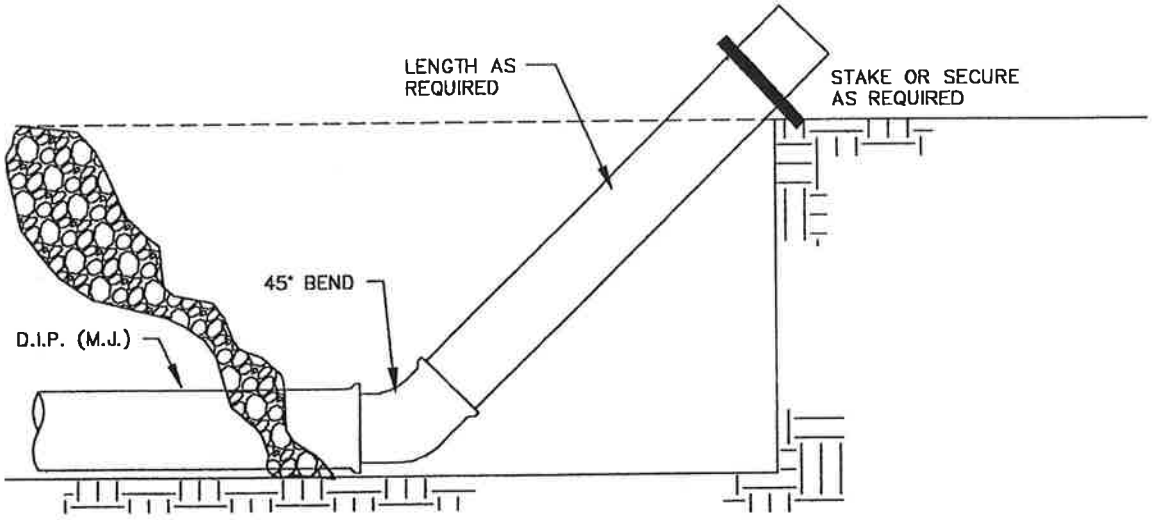
CITY OF EAGLE POINT
ENGINEERING DEPT.

PRESSURE TEST, DISINFECTION, DECHLORINATION, AND SAMPLING TREE WITH END DRAIN

SCALE: NONE | DWG. NO. EP–414

EP-414.DWG

NOTE: INSURE AGAINST FLUSHED WATER RE-ENTERING THE PIPELINE.



4" – 12" PIPE – FLUSH POINT IS SAME SIZE AS PIPE BEING INSTALLED

LARGER THAN 12" PIPE – TO BE DETERMINED BY CITY OF EAGLE POINT

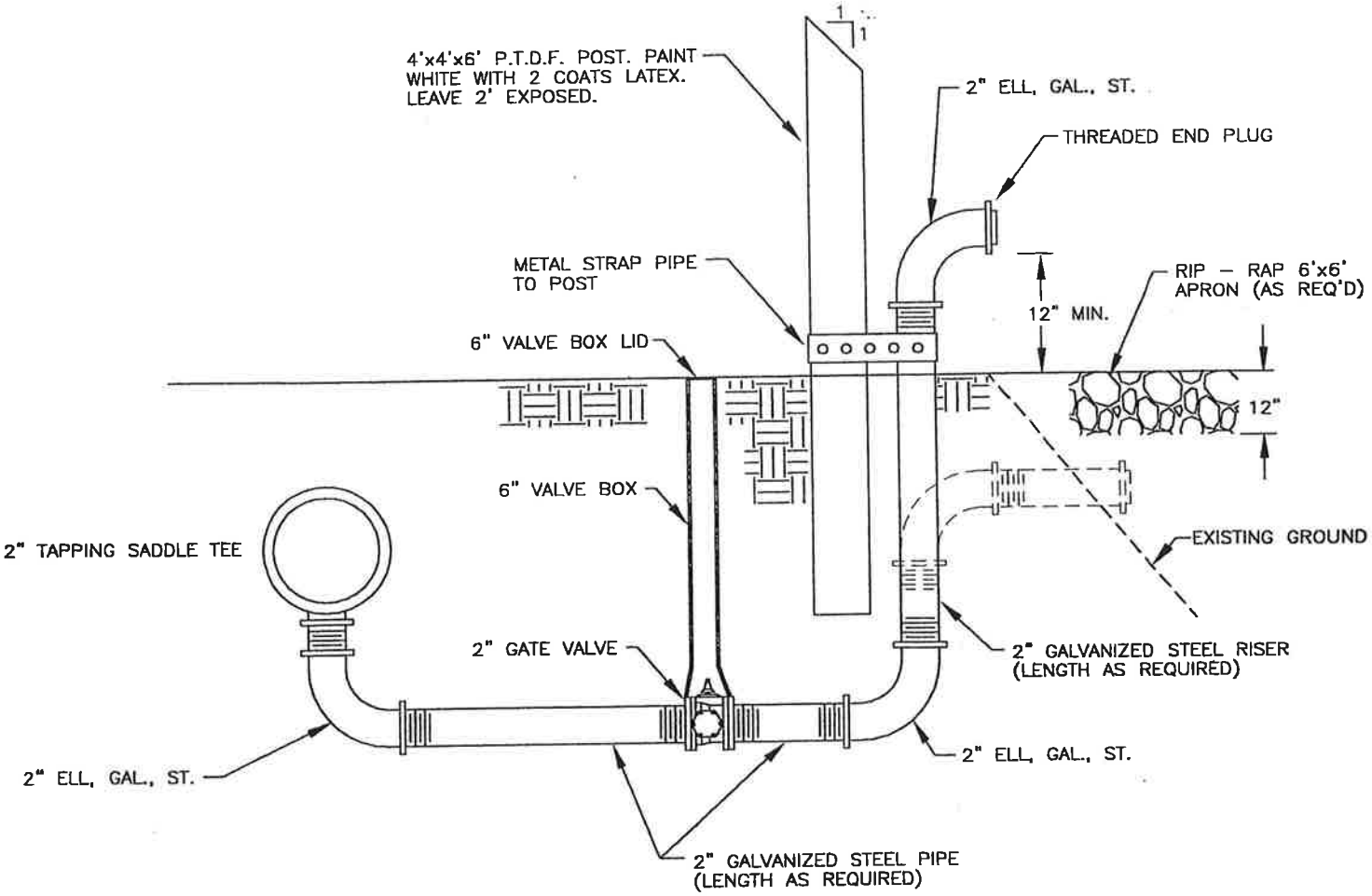
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT ENGINEERING DEPT.

FULL SIZE FLUSH POINT

SCALE: NONE | DWG. NO. EP-415

EP-415.DWG



NOTES:

FOR INSTALLATION IN PAVED AREAS, USE DETAIL FROM "TYPICAL MAIN DEAD–END BLOW OFF ASSEMBLY"

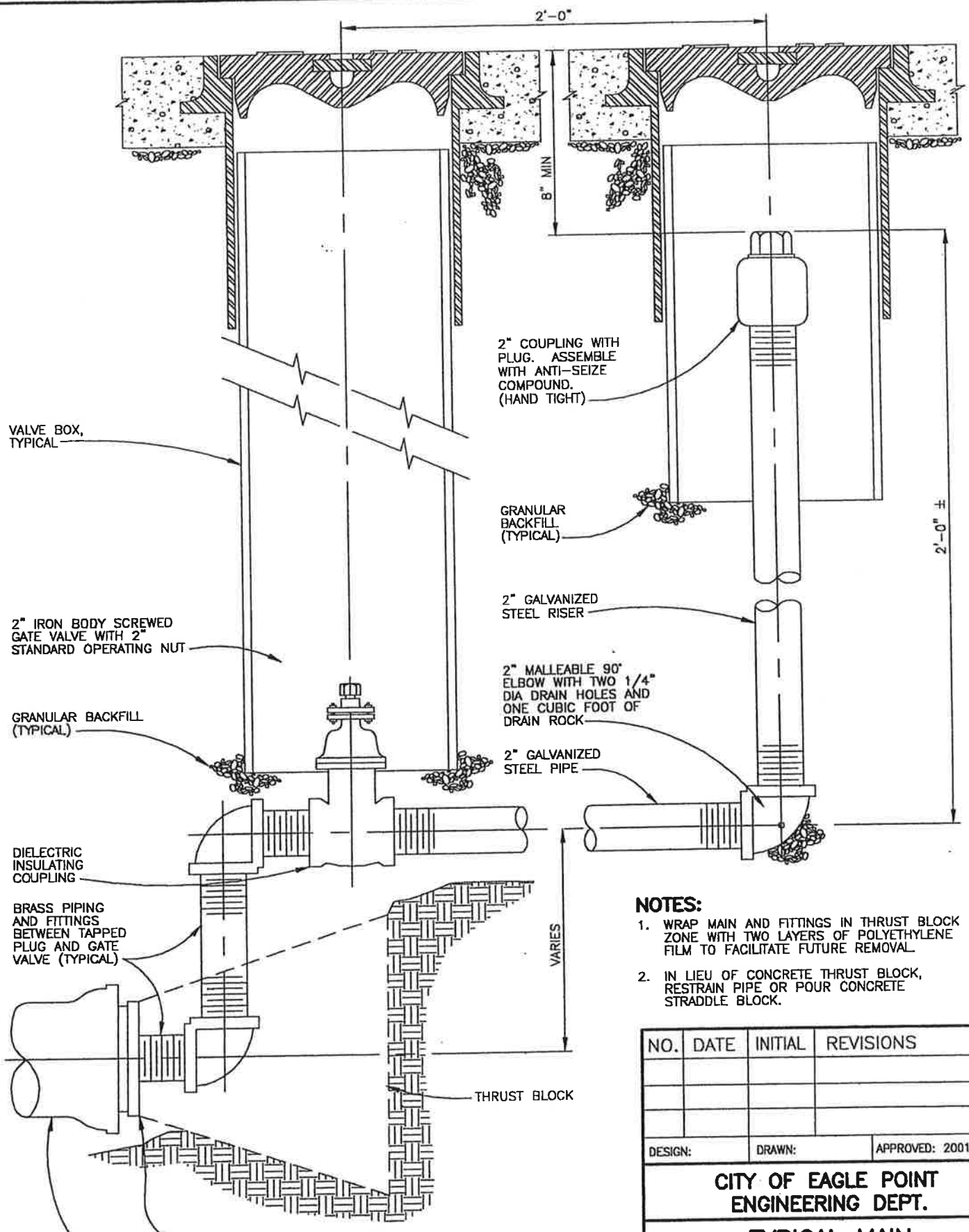
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

MAIN BLOWOFF ASSEMBLY

SCALE: NONE | DWG. NO. EP–416

EP–416.DWG



NOTES:

1. WRAP MAIN AND FITTINGS IN THRUST BLOCK ZONE WITH TWO LAYERS OF POLYETHYLENE FILM TO FACILITATE FUTURE REMOVAL.
2. IN LIEU OF CONCRETE THRUST BLOCK, RESTRAIN PIPE OR POUR CONCRETE STRADDLE BLOCK.

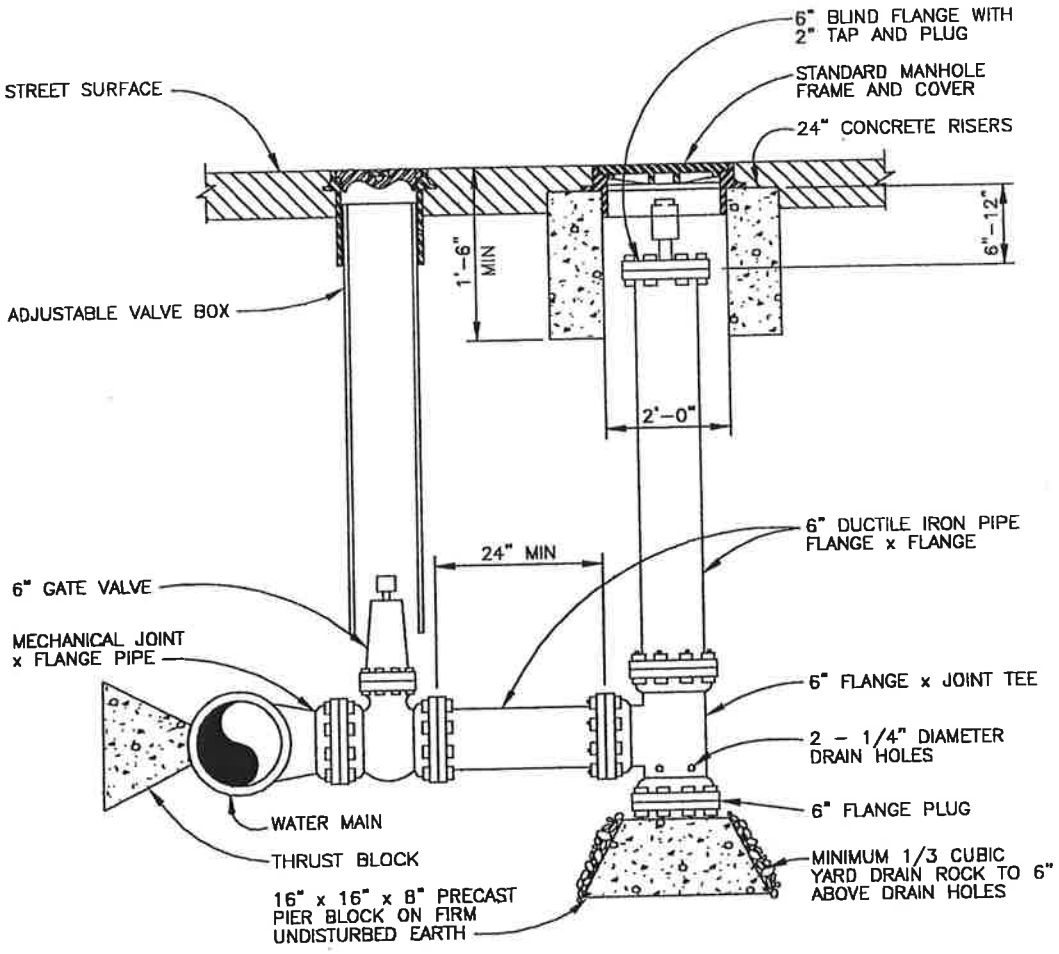
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

TYPICAL MAIN DEAD-END BLOWOFF ASSEMBLY

SCALE: NONE | DWG. NO. EP-417

EP-417.DWG



NOTES:

1. FOR BLOW-OFF OPERATIONS, REMOVE PIPE CAP AND ADD A 2" PIPE EXTENTION AND 2" CHECK VALVE ASSEMBLY.
2. BACK-FLOW PREVENTION DEVICES REQ'D FOR ALL BLOW-OFF ASSEMBLIES.

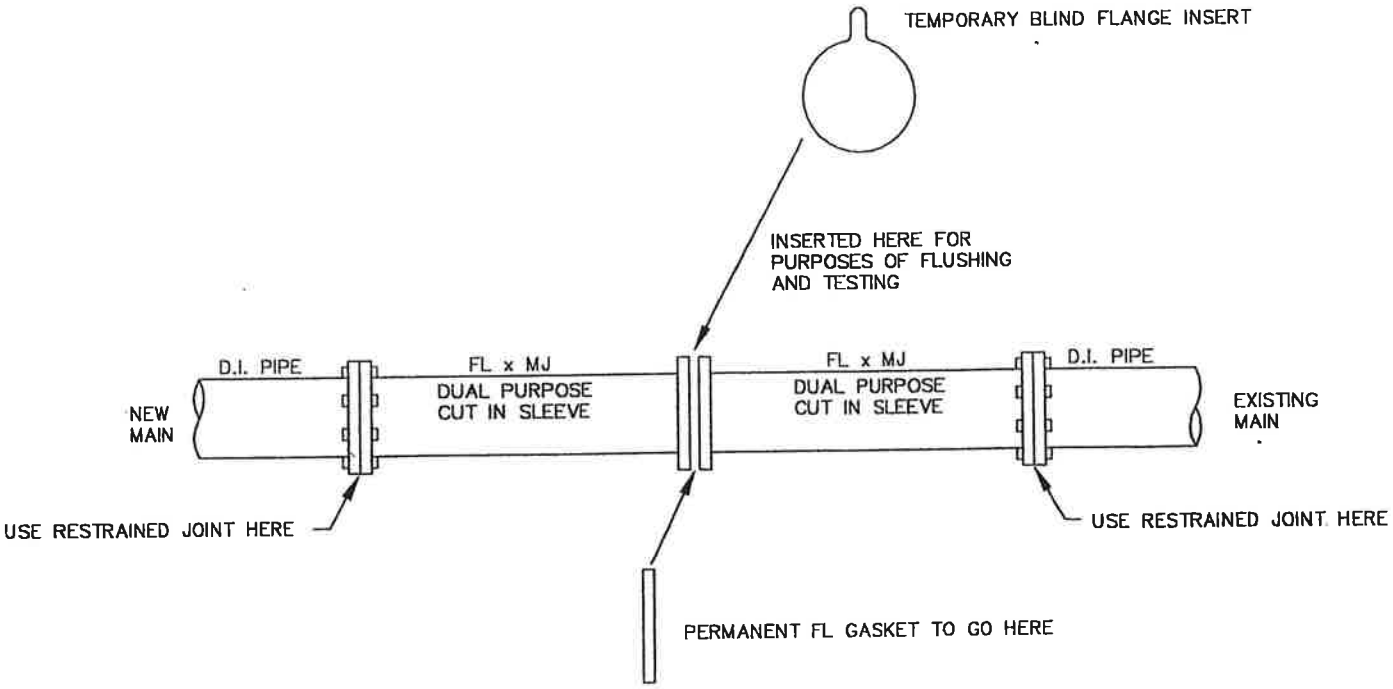
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT ENGINEERING DEPT.

6" BLOWOFF ASSEMBLY

SCALE: NONE | DWG. NO. EP-418

EP-418.DWG



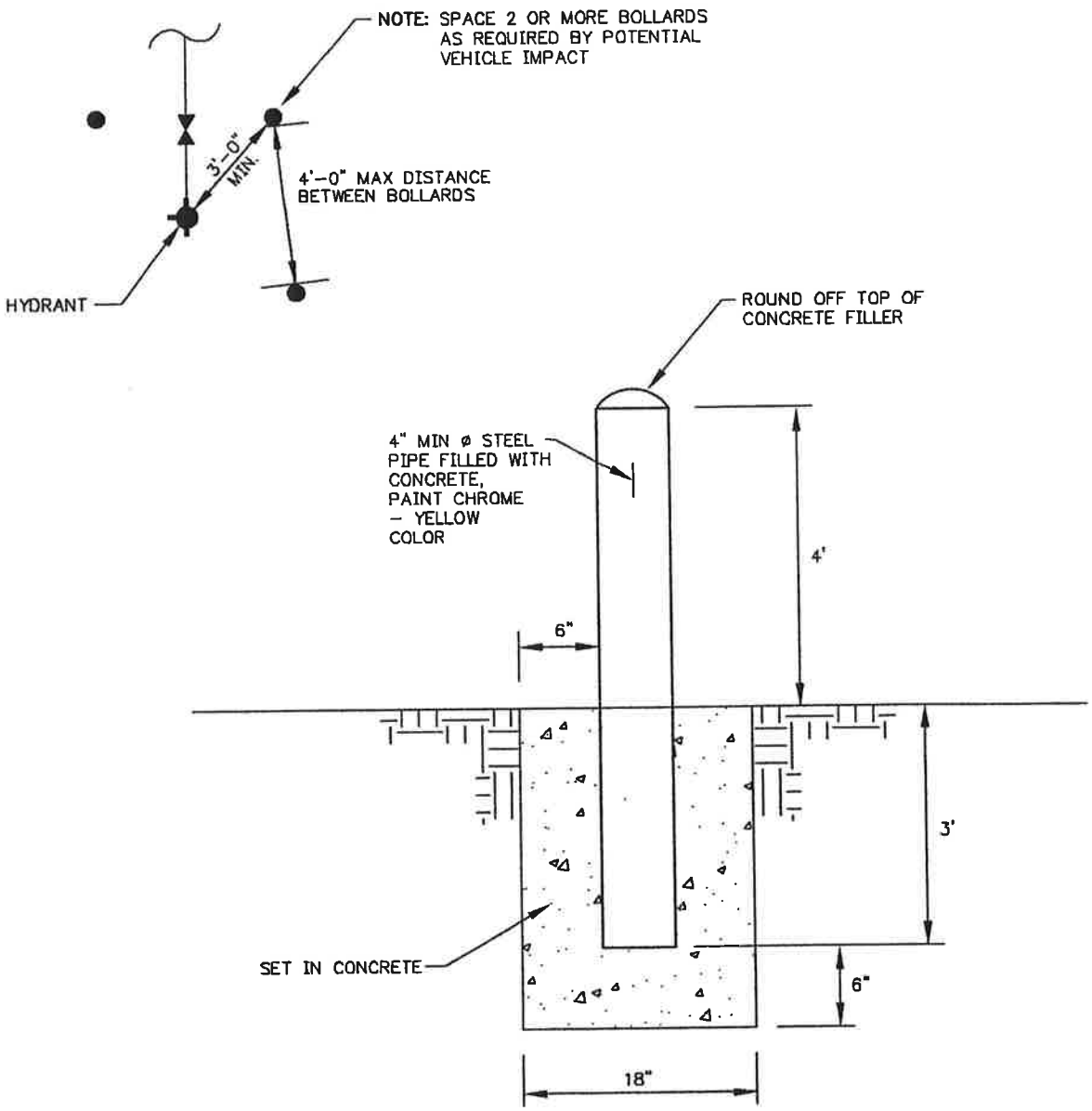
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

CUT – IN SLEEVE

SCALE: NONE | DWG. NO. EP–419

EP–419.DWG



NOTE: IF HYDRANT IS IN LANDSCAPED, CURBED PLANTER, WITH 5' FROM HYDRANT TO FACE OF CURB IN EACH DIRECTION, BOLLARDS WILL NOT BE REQUIRED.

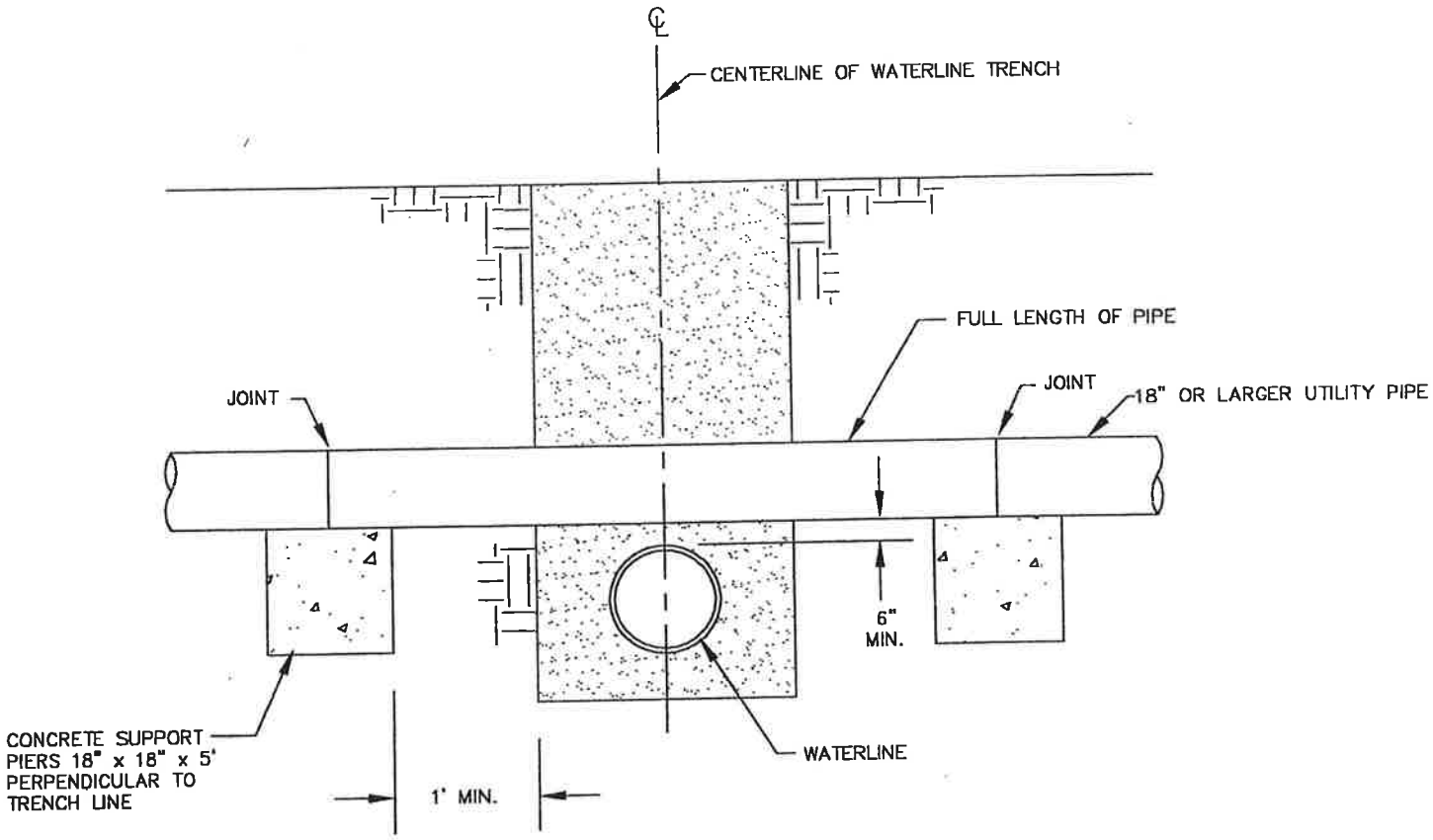
NO.	DATE	INITIAL	REVISIONS
1	07/05	BWD	BOLLARD 2 OR MORE
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

BOLLARD DETAIL

SCALE: NONE | DWG. NO. EP-420

EP-420.DWG



NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

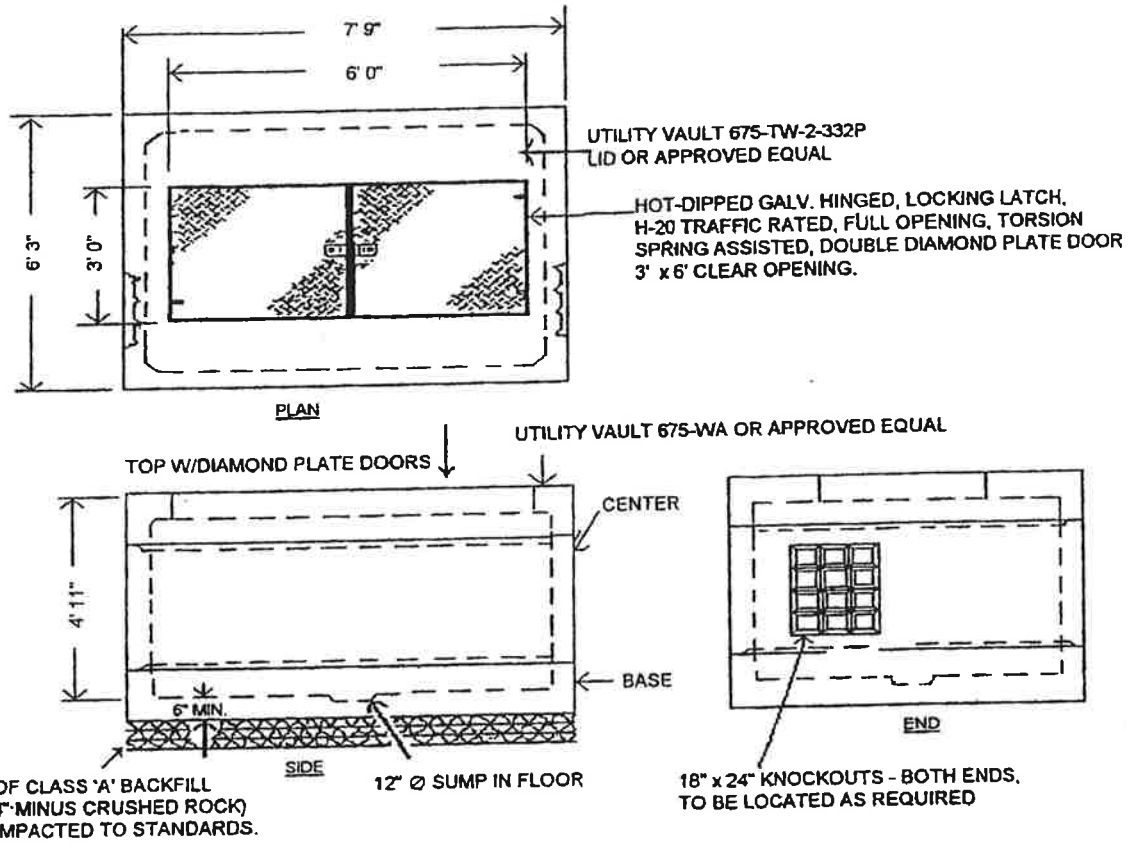
CITY OF EAGLE POINT
ENGINEERING DEPT.

SUPPORT PIER DETAIL

SCALE: NONE | DWG. NO. EP-421

EP-421.DWG

NOTE: 1) THIS IS A GENERAL DRAWING FOR MINIMUM REQUIREMENTS.
2) FIRE DEPARTMENT CONNECTION AND CHECK VALVE MAY BE IN VAULT, BUT NOT THRU LID OR TOP.



APPROVED VAULTS AND LIDS:
1) UTILITY VAULT CO. 675-WA VAULT W/ 675-TW-2-332P LID
2) UTILITY VAULT CO. 5106-LA VAULT W/ 5106-TL-2-332P LID
3) ALLIANCE CONCRETE ENCLOSURES INC. ACE-468 FIRE SERVICE VAULT

FOR USE AS:
1) 4" OR 6" BACKFLOW PREVENTION DEVICE VAULT MUST USE A UTILITY VAULT 675-WA WITH A 675-TW-2-332P LID OR APPROVED EQUAL.
2) 8" OR 10" BACKFLOW PREVENTION DEVICE MUST USE A UTILITY VAULT 5106-LA WITH A 5106-TL-2-332P LID OR APPROVED EQUAL.

STRUCTURAL NOTES:
1) CONCRETE : 28 DAY STRENGTH F ' C= 4500 PSI
2) REBAR: ASTM A-615 GRADE 60
3) MESH: ASTM A-185 GRADE 65
4) MINIMUM REQUIRED DESIGN PARAMETERS:
ASTM C-857 "MIN. STRUCTURAL DESIGN, ACI-318-83 BUILDING CODE LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"

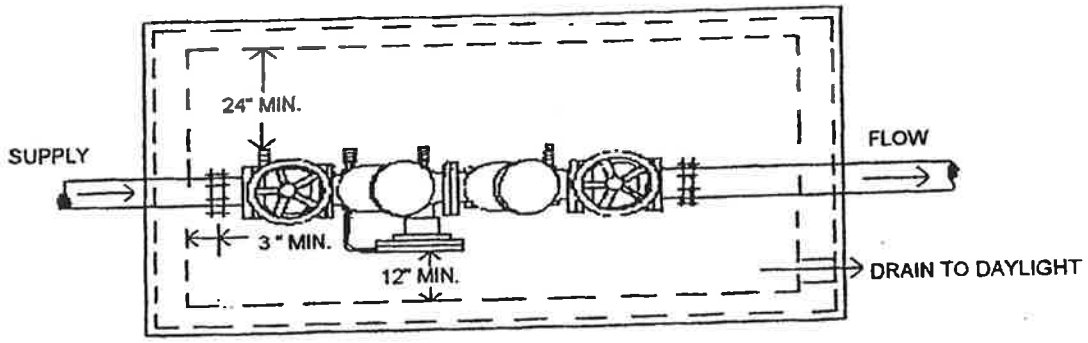
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

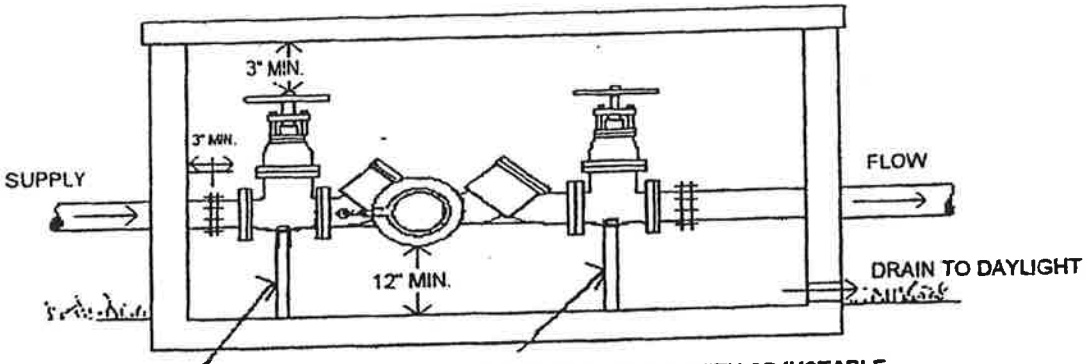
PRECAST NON-TRAFFIC VAULT AND LID

SCALE: NONE | DWG. NO. EP-422

EP-422.DWG



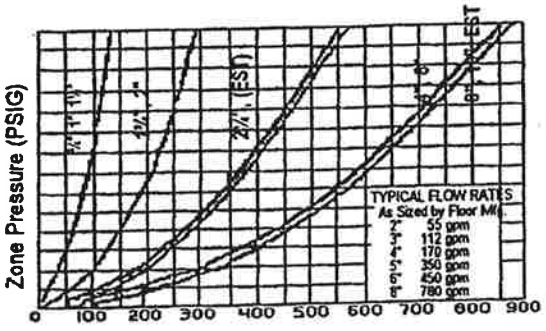
PLAN



PROVIDE SUPPORT FOR 2½" AND LARGER ASSEMBLIES WITH ADJUSTABLE METAL PIPE SUPPORTS - GRINNEL FIG. 258/259 OR APPROVED EQUAL .

SECTION

RELIEF VALVE DISCHARGE RATES
Reduced Pressure Backflow Assemblies



NOTES:

1) LARGE ASSEMBLIES ARE THOSE THAT ARE 2½" AND LARGER.
2) ASSEMBLY SHALL NOT BE SUBJECT TO FLOODING.
3) DRAIN LINES SHALL BE SIZED TO ACCOMMODATE FULL RELIEF VALVE DISCHARGE FLOW.
4) REDUCED PRESSURE BACKFLOW ASSEMBLIES ARE TYPICALLY INSTALLED ABOVE GRADE IN WELL DRAINING AREAS, BUT MAY BE INSTALLED BELOW GRADE IF AN ADEQUATE DRAIN TO DAYLIGHT IS PROVIDED.
5) SHALL BE INSTALLED ABOVE THE 100-YEAR FLOOD LEVEL.
6) BRASS OR PLASTIC PLUGS ARE REQUIRED FOR ALL VAULT INSTALLATIONS.

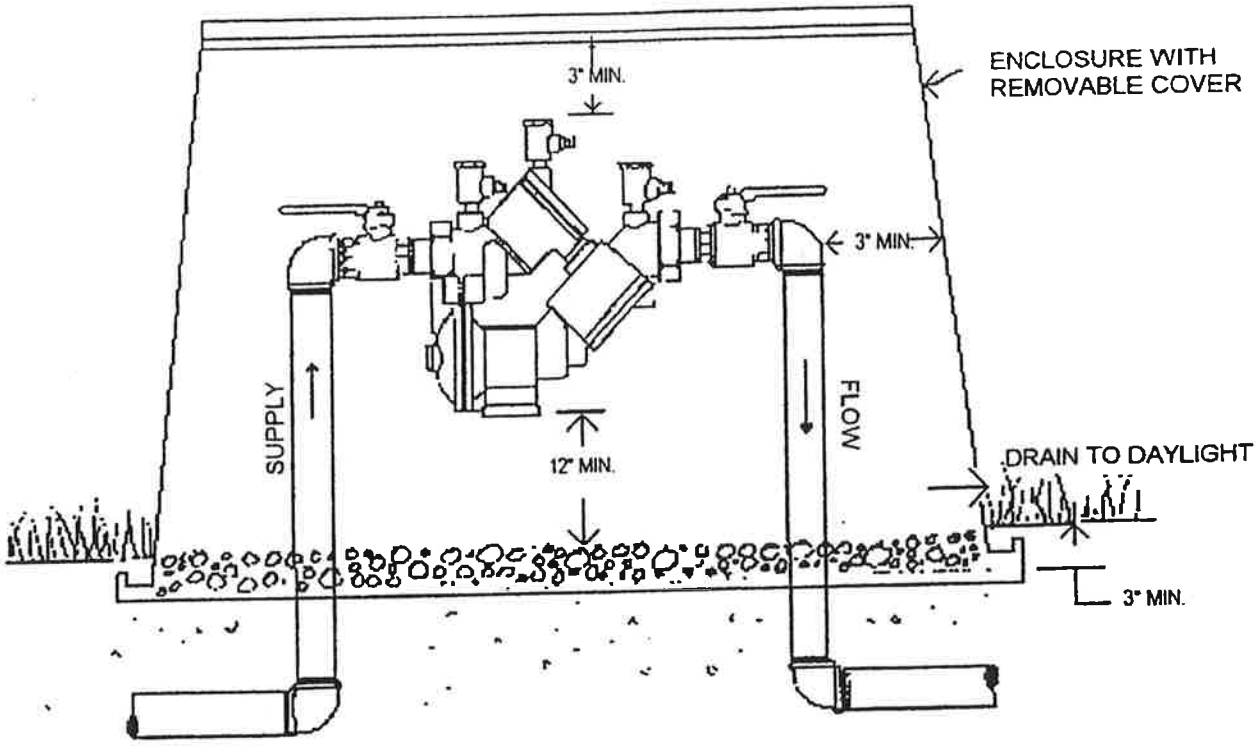
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

REDUCED PRESSURE BACKFLOW ASSEMBLY (LARGE)

SCALE: NONE | DWG. NO. EP–423

EP–423.DWG



NOTE:

1) Bottom and side clearances apply when assemblies are installed inside building. Access doors may be provided on side of above-ground vault.
2) RPBAs shall always be installed horizontally, never vertically.
3) RPBAs shall always be installed above the 100 year (1%) flood level unless approved by the local authority.
4) Relief valves shall never be extended or plugged.
5) Protection from freezing should be provided.
6) A provision for an air gapped drain shall be provided.
7) RPBAs shall not be installed in an enclosed vault or box unless a bore-sighted drain to daylight is provided and brass or plastic plugs are installed in all test ports.
8) Minimum clearances for assemblies 2 inches or smaller may be reduced provided that they are accessible for testing and repairing and approved by the water purveyor. The minimum 12" clearance under the relief valve must be maintained.
9) Maximum height of installation shall not exceed 5 feet for assemblies unless there is a permanently installed platform meeting Occupational Safety and Health (OSHA) standards to facilitate servicing the assembly.

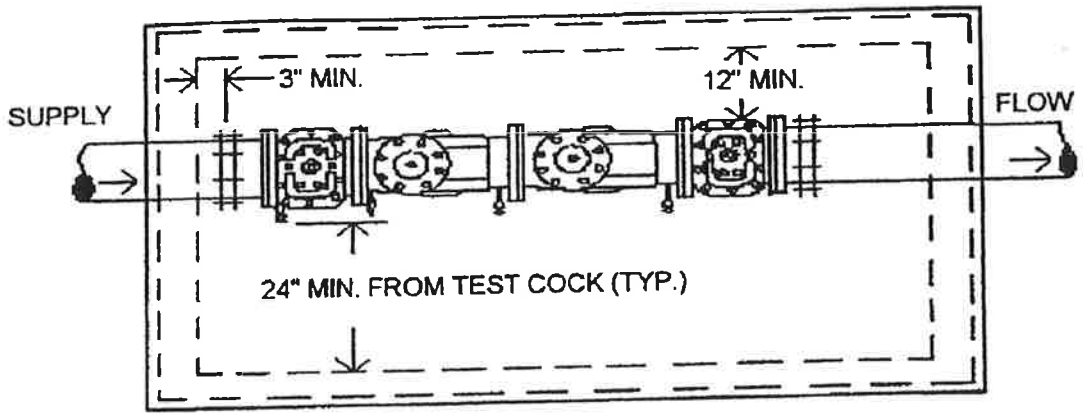
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

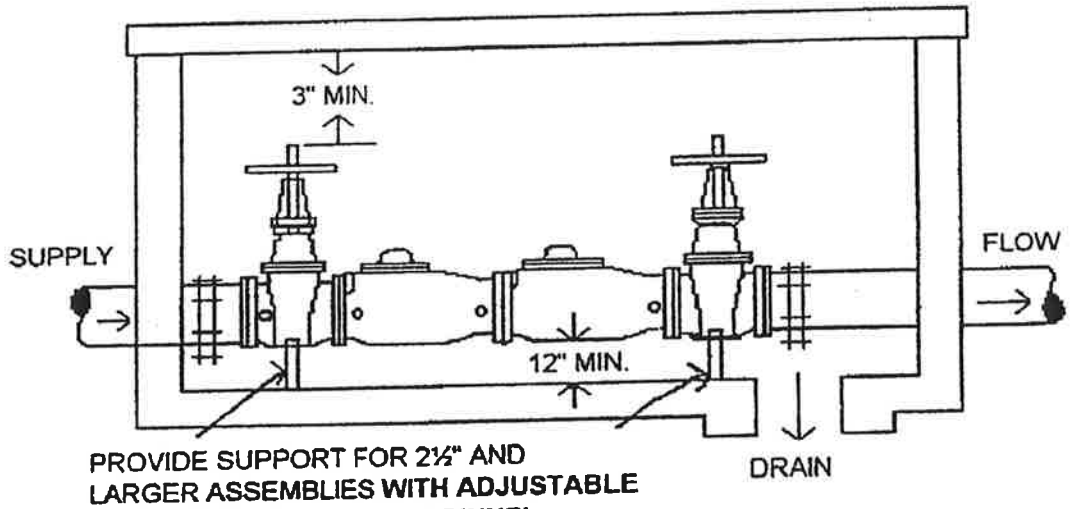
CITY OF EAGLE POINT
ENGINEERING DEPT.

REDUCED PRESSURE BACKFLOW ASSEMBLY (SMALL)

SCALE: NONE | DWG. NO. EP-424

EP-424.DWG





PROVIDE SUPPORT FOR 2½" AND LARGER ASSEMBLIES WITH ADJUSTABLE METAL PIPE SUPPORTS; GRINNEL FIG. 258/259 OR APPROVED EQUAL

NOTES:

1) LARGE ASSEMBLIES ARE THOSE THAT ARE 2½" AND LARGER.
2) INSTALLATIONS REQUIRE THE USE OF BRASS OR PLASTIC PLUGS IN ALL TEST PORTS.

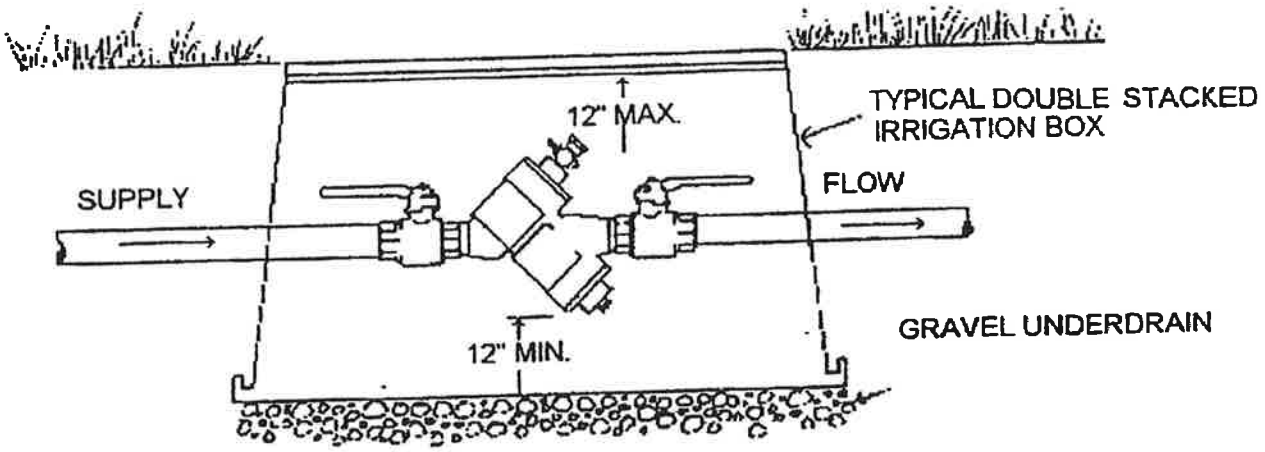
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

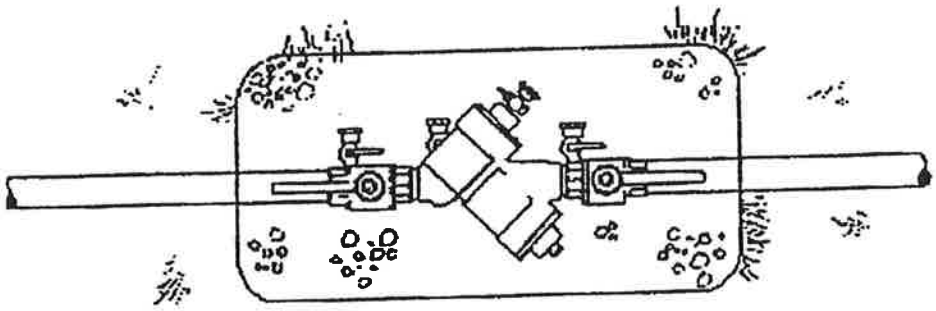
DOUBLE CHECK VALVE ASSEMBLY (LARGE)

SCALE: NONE | DWG. NO. EP–425

EP–425.DWG



SECTION



PLAN

NOTES:

1) Adequate clearance must be provided for testing and maintenance.
2) DCVAs may be installed below grade in a vault provided water-tight brass or plastic plugs are installed in the test cocks, but the assembly shall not be subject to continuous immersion.
3) Protection from freezing should be provided.

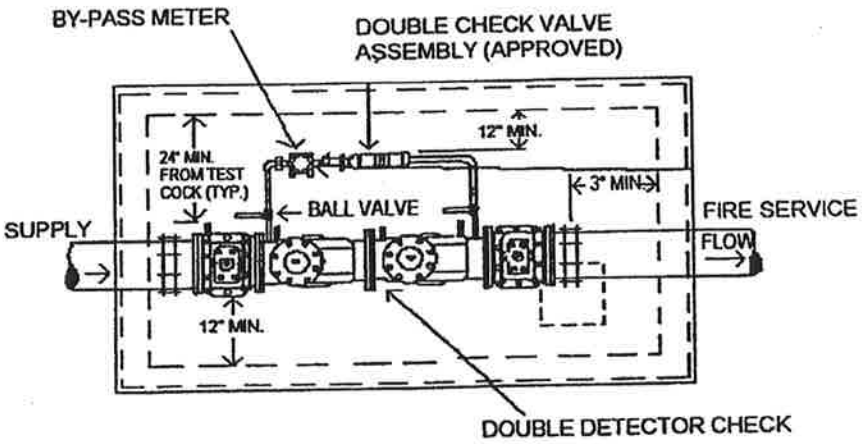
NO.	DATE	INITIAL	REVISIONS
1	07/05	BWD	ADDED DOUBLE BOX
DESIGN:		DRAWN:	APPROVED: 2001

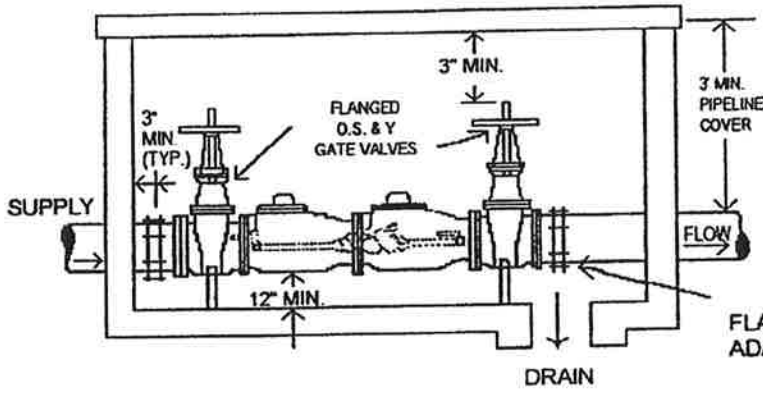
CITY OF EAGLE POINT
ENGINEERING DEPT.

DOUBLE CHECK VALVE ASSEMBLY (SMALL)

SCALE: NONE | DWG. NO. EP-426

EP-426.DWG





PROVIDE SUPPORT FOR 2½" AND LARGER ASSEMBLIES W/ADJUSTABLE METAL PIPE SUPPORTS - GRINNEL FIG. 258/259 OR APPROVED EQUAL.

NOTES:

1) BRASS OR PLASTIC PLUGS TO BE INSTALLED IN ALL TEST COCKS.
2) IF DOMESTIC SERVICE IS INSTALLED OFF THE FIRE SERVICE*, A SECOND GATE VALVE MUST BE INSTALLED OUTSIDE THE VAULT. JOINT RESTRAINT MUST BE PROVIDED BETWEEN THIS VALVE AND THE MAIN.
   * SIZE OF FIRE SERVICE LATERAL WILL BE LARGER

APPROVED DEVICE ASSEMBLIES

1) ALLIANCE CONCRETE ENCLOSURES INC. ACE-468 FIRE SERVICE BACKFLOW DEVICE ASSEMBLY

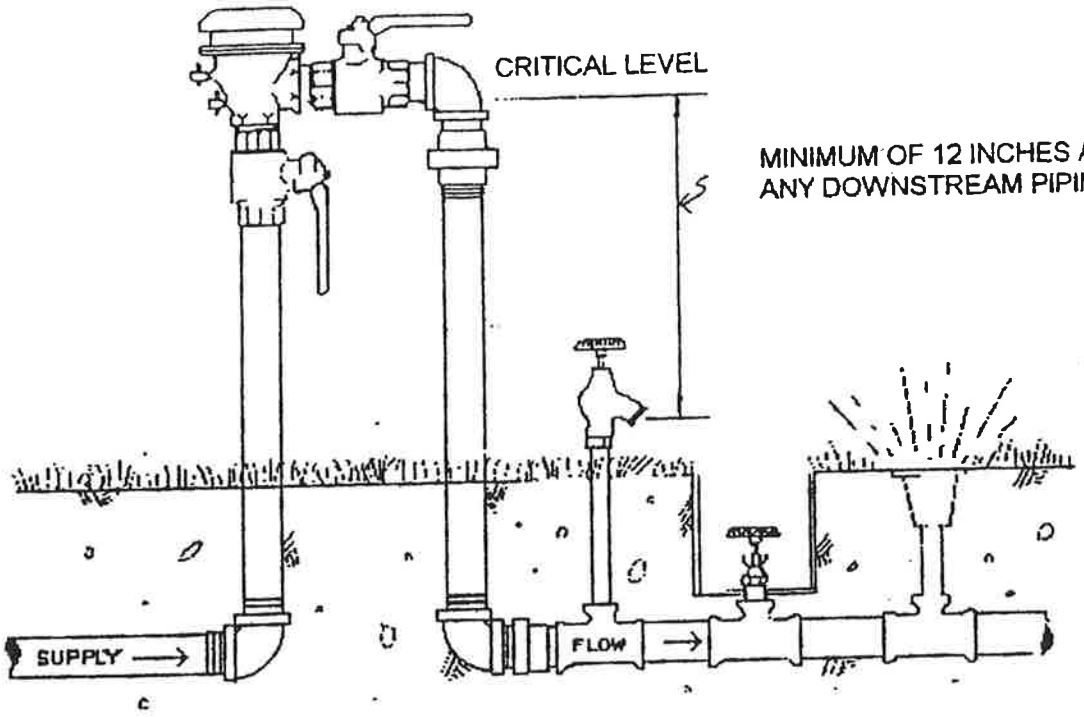
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

DOUBLE DETECTOR CHECK VALVE ASSEMBLY (LARGE)

SCALE: NONE | DWG. NO. EP–427

EP–427.DWG



NOTES:

1) Downstream side of pressure vacuum breaker may be maintained under pressure by a valve, but there may be absolutely no means of imposing backpressure by pump or other means.
2) PVBAs are designed to protect against back siphonage only, not backpressure.
3) PVBAs shall be installed where occasional water discharge from the assembly caused by pressure fluctuations will not be objectionable.
4) Adequate spacing shall be available for maintenance and testing.
5) Shall not be subject to flooding.
6) Shall be installed a minimum of twelve inches above the highest downstream piping and/or outlets.

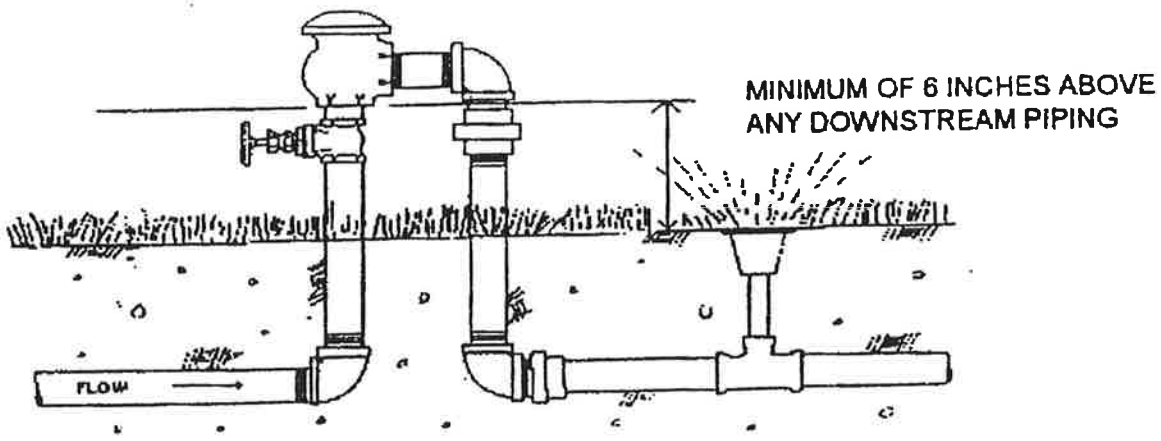
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

PRESSURE VACUUM BREAKER

SCALE: NONE | DWG. NO. EP–428

EP–428.DWG



NOTES:

1) Absolutely no means of shut-off on the downstream or discharge side of the atmospheric vacuum breaker.
2) For intermittent use only. Must not be pressurized for more than 12 hours in any 24 hour period.
3) Shall not be subject to any backpressure.
4) Shall not be installed in dusty or corrosive atmospheres.
5) Shall not be installed where subject to flooding.
6) Shall be installed a minimum of six inches above the highest downstream piping and/or outlets.

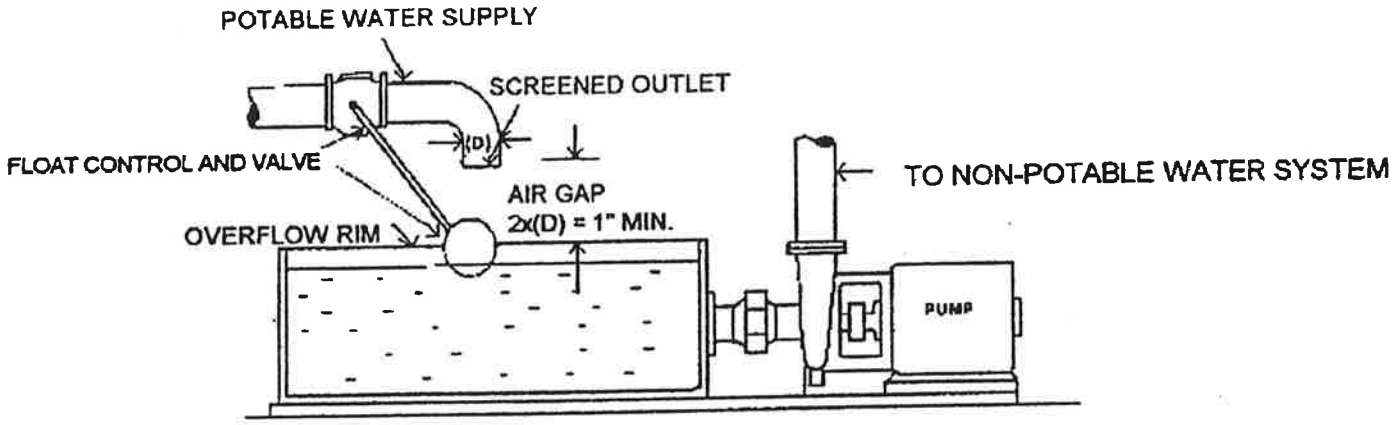
NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

ATMOSPHERIC
VACUUM BREAKER

SCALE: NONE | DWG. NO. EP-429

EP-429.DWG



NO.	DATE	INITIAL	REVISIONS
DESIGN:		DRAWN:	APPROVED: 2001

CITY OF EAGLE POINT
ENGINEERING DEPT.

AIR GAP SEPARATION

SCALE: NONE | DWG. NO. EP-430

EP-430.DWG