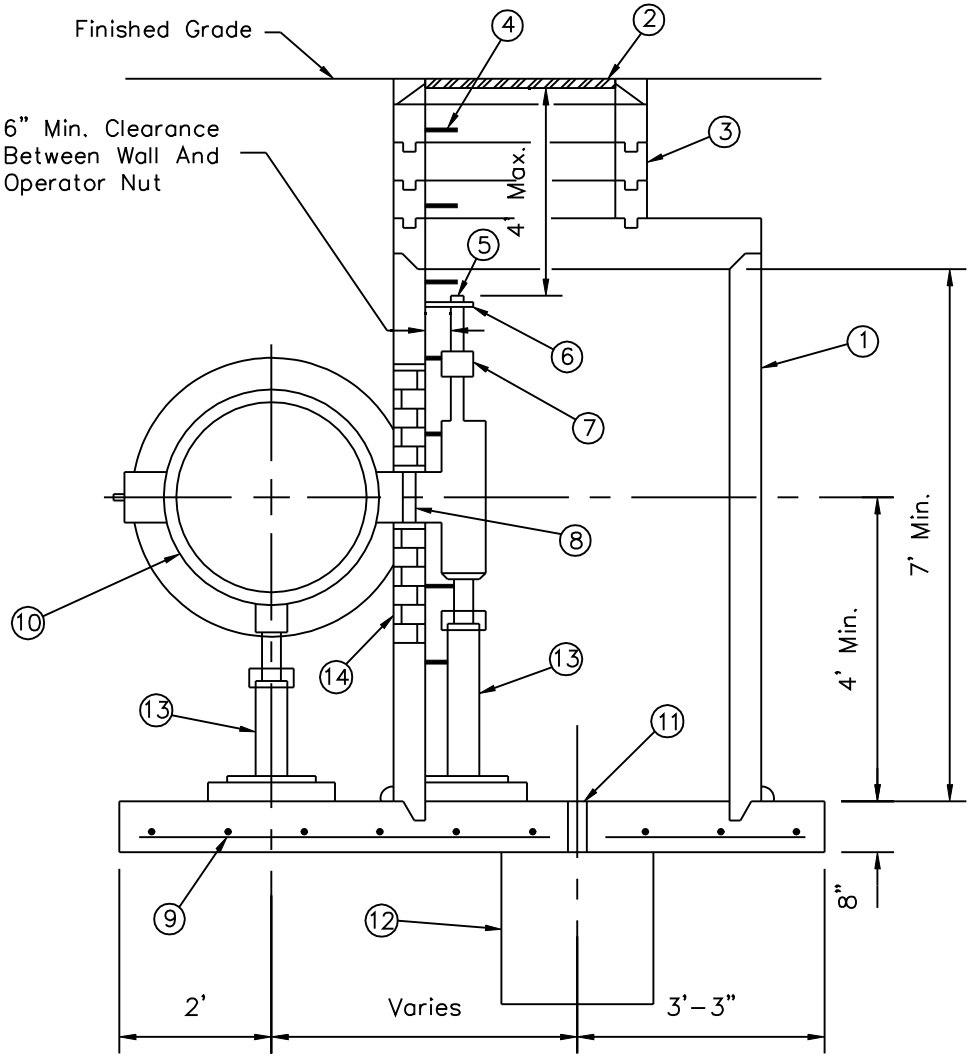


SECTION

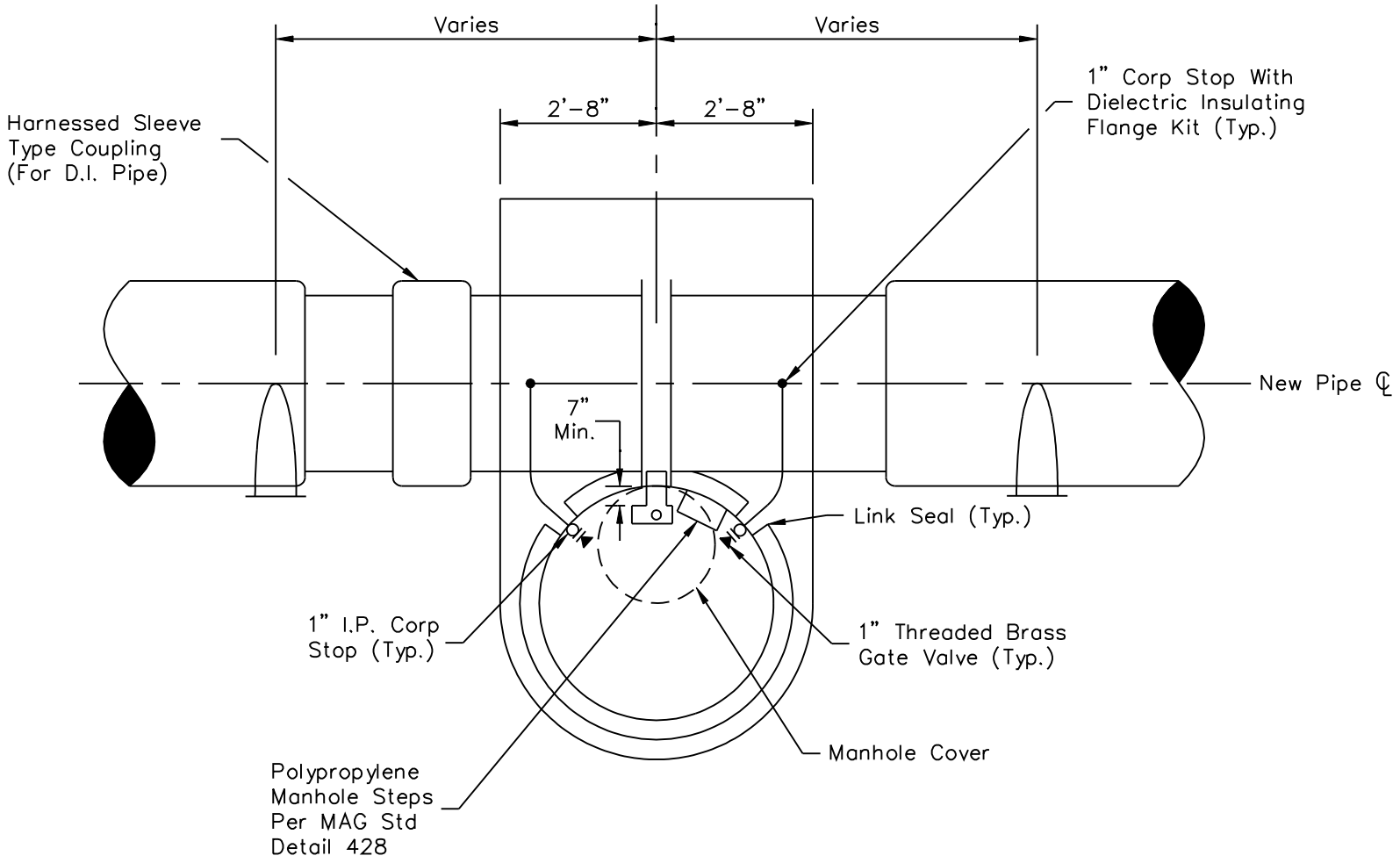
LEGEND

1. 48" I.D. Manhole Shaft Per MAG Std. Detail 420, Type "B" Top
2. 30" Manhole Frame & Cover Per MAG Std. Detail 424
3. Grouted Adjusting Rings
4. Polypropylene Manhole Steps Per MAG Std. Detail 428, 12" Spacing Typical
5. Operator Nut
6. Wall Bracket
7. Packing Gland
8. 6" Extension
9. #4 Rebar 12" On Center Each Way 2" Clear Typical
10. Butterfly Valve
11. 3" Diameter Drain
12. 8 Cu. Ft. Gravel Sump
13. Adjustable Pipe Saddle Support
14. Rectangular Cut-Out In Manhole Shaft, Fill Space Between Shaft And Pipe With 1" Sheet Foam, Brick And Mortar

REVISED 1/4/93

DETAIL NO. 2305-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUTTERFLY VALVE OPERATOR MANHOLE	DETAIL NO. 2305-1

REVISED 1/14/93



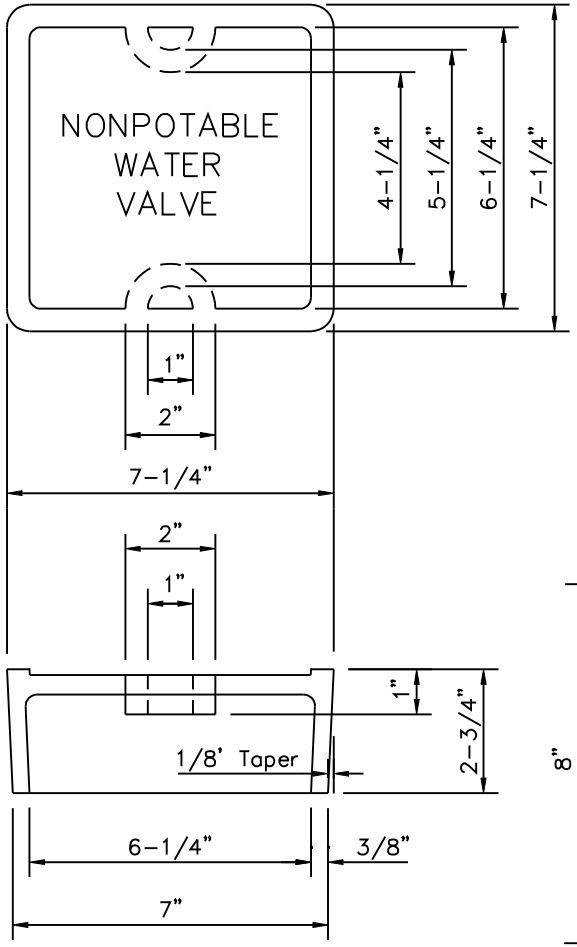
PLAN

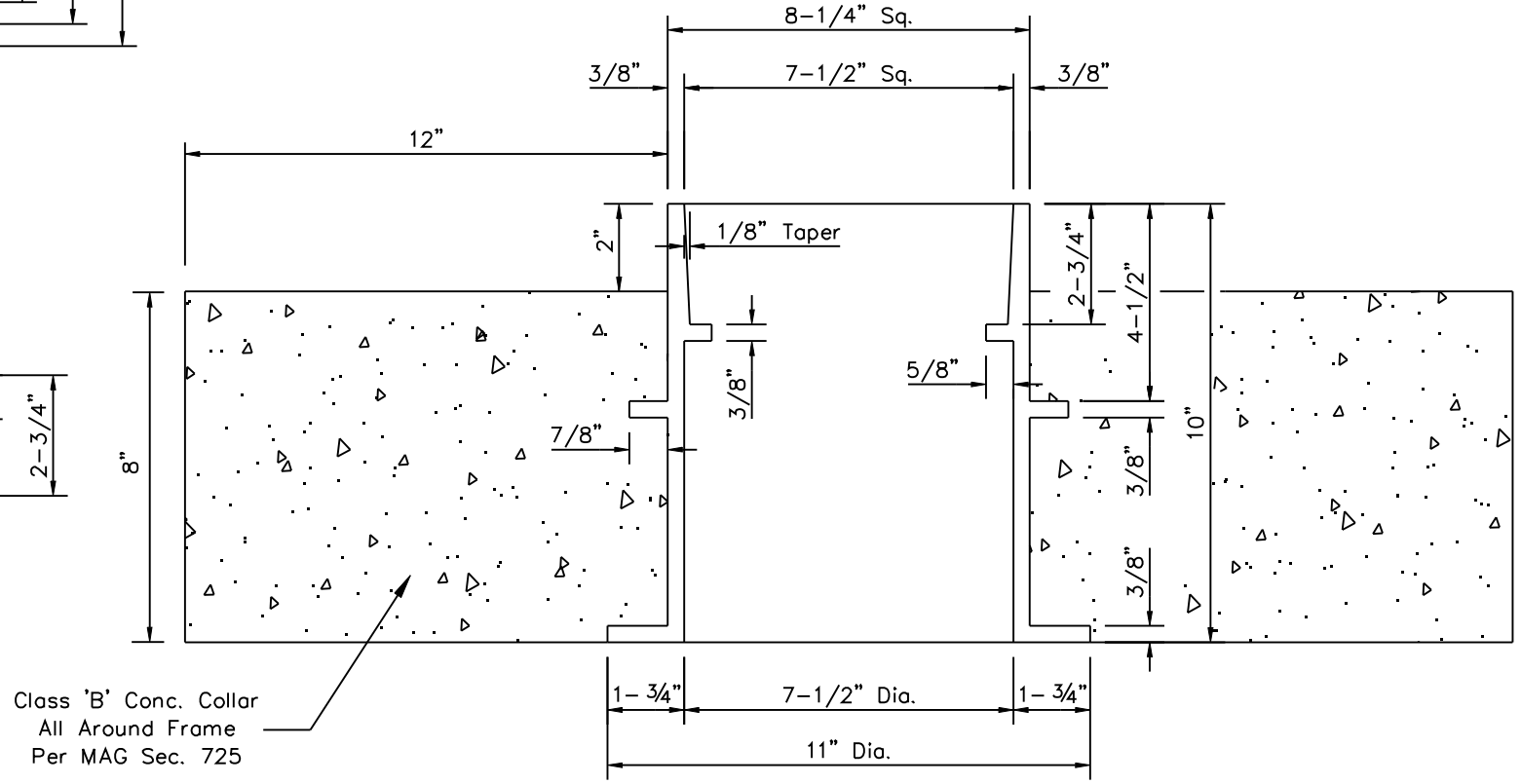
DETAIL NO. 2305-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUTTERFLY VALVE OPERATOR MANHOLE	DETAIL NO. 2305-2

REVISED 2/22/99

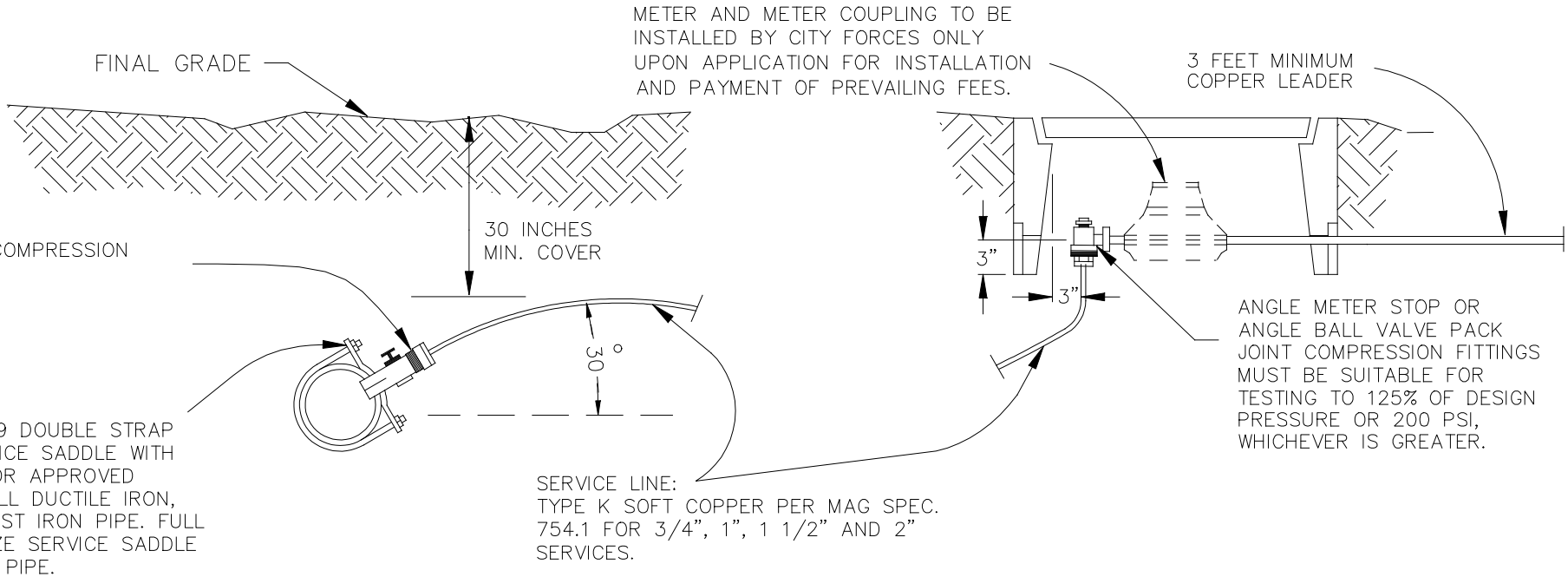
NOTES

1. Round bottom for riser pipe, square top for cover.
2. All materials shall be cast iron per ASTM A48, Class 30B.
3. Nonpotable water valve box to be installed per M.A.G. Std. Detail 391.
4. The cast iron lid shall be marked "Nonpotable Water Valve" on the top side. Letters shall be 1" each and raised 1/8".





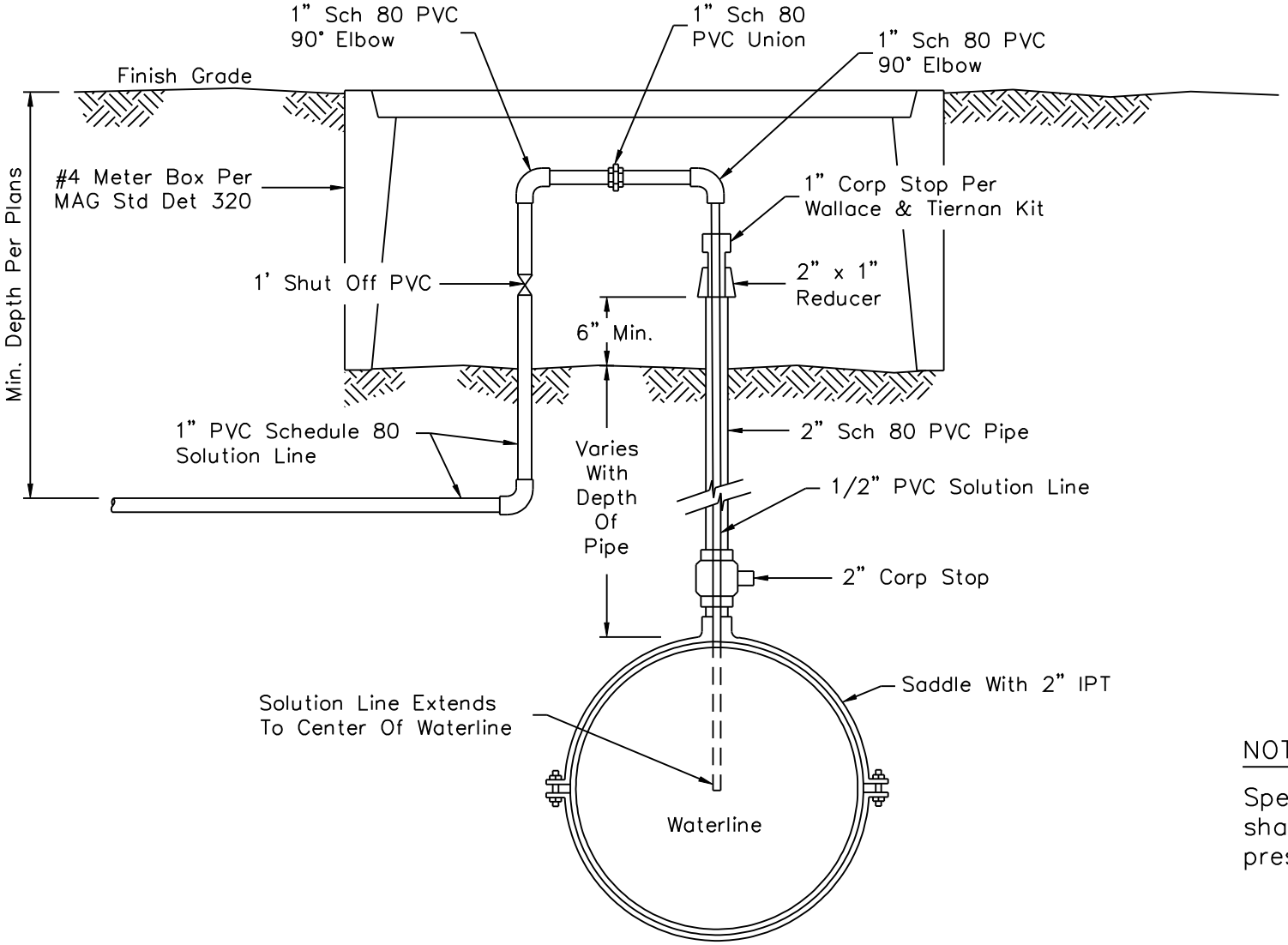
DETAIL NO. 2315	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	NONPOTABLE WATER VALVE BOX & COVER	DETAIL NO. 2315



REVISED 4/24/07

NOTE:
1. All taps must be made using a service saddle.
2. All service line sizes shall have the pack joint compression fittings for corp. stops and meter stops.
3. Where a contractor is installing new water lines, all water service connections shall also be installed. The contractor's installation shall include the service saddle, corp. stop, service pipe, appurtenant fittings, meter stop, concrete meter box and box cover per M.A.G. Specifications.
4. Copper service lines in the 3/4", 1", 1 1/2", and 2" sizes that cross streets will be one continuous piece. Only with written consent of Water & Wastewater Operations will joints be permitted under a road. When this occurs, pack joint fittings will be required; no soldered joints will be permitted.
5. Authorized City of Scottsdale Water and Wastewater Operations personnel, or a City approved tapping contractor shall install the water service connections on existing mains.
6. All services shall be set to final/curb grade prior to pressure testing. If meter stop is compromised during construction, or is affected as a result of grade change, it will be required to be replaced. Final landscape grade shall be set flush to top of the meter box.

DETAIL NO. 2330	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	WATER SERVICE LINE CONNECTION	DETAIL NO. 2330

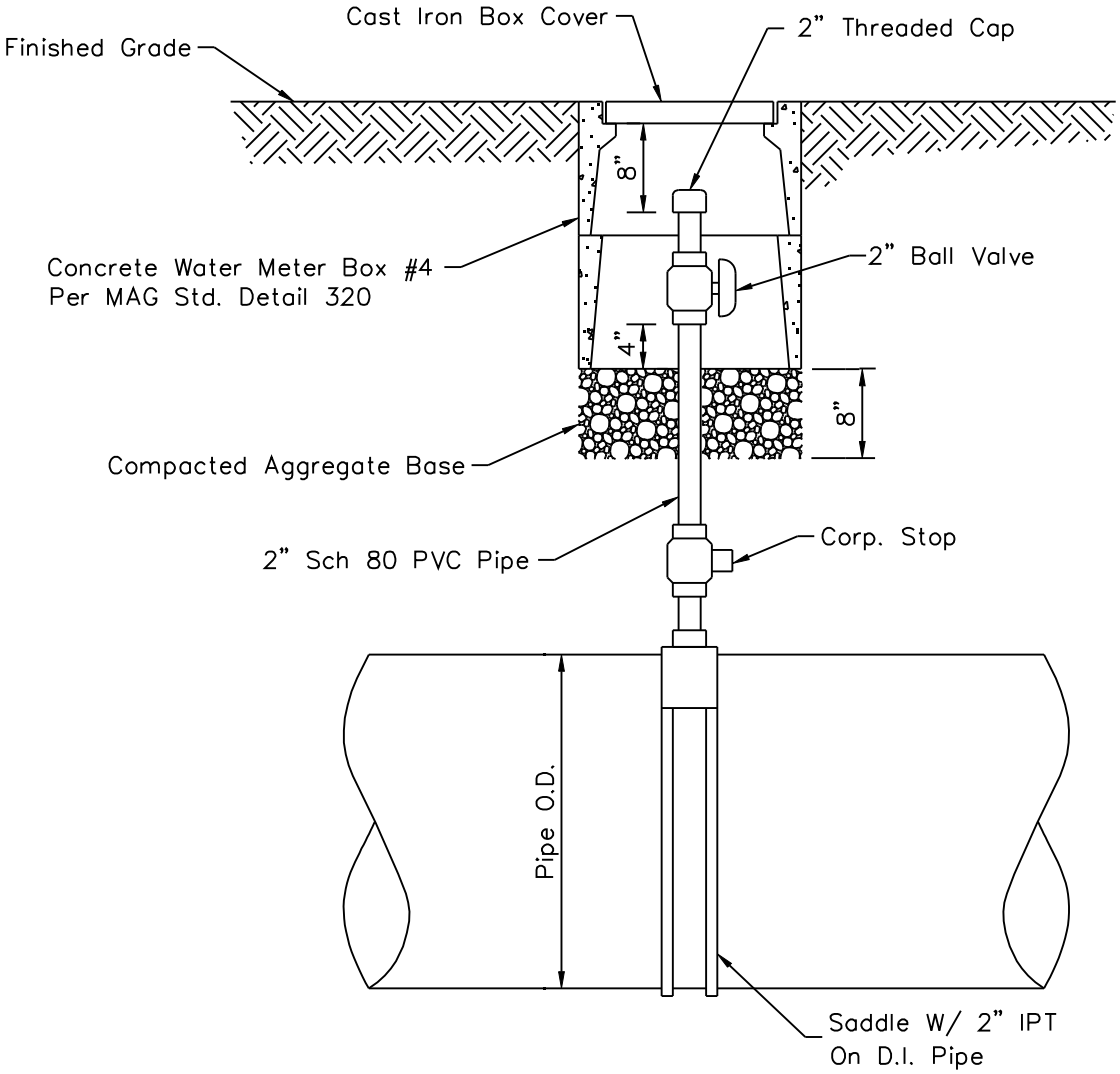


NOTE:

Specifications on all fittings shall exceed the maximum pressures of the system.

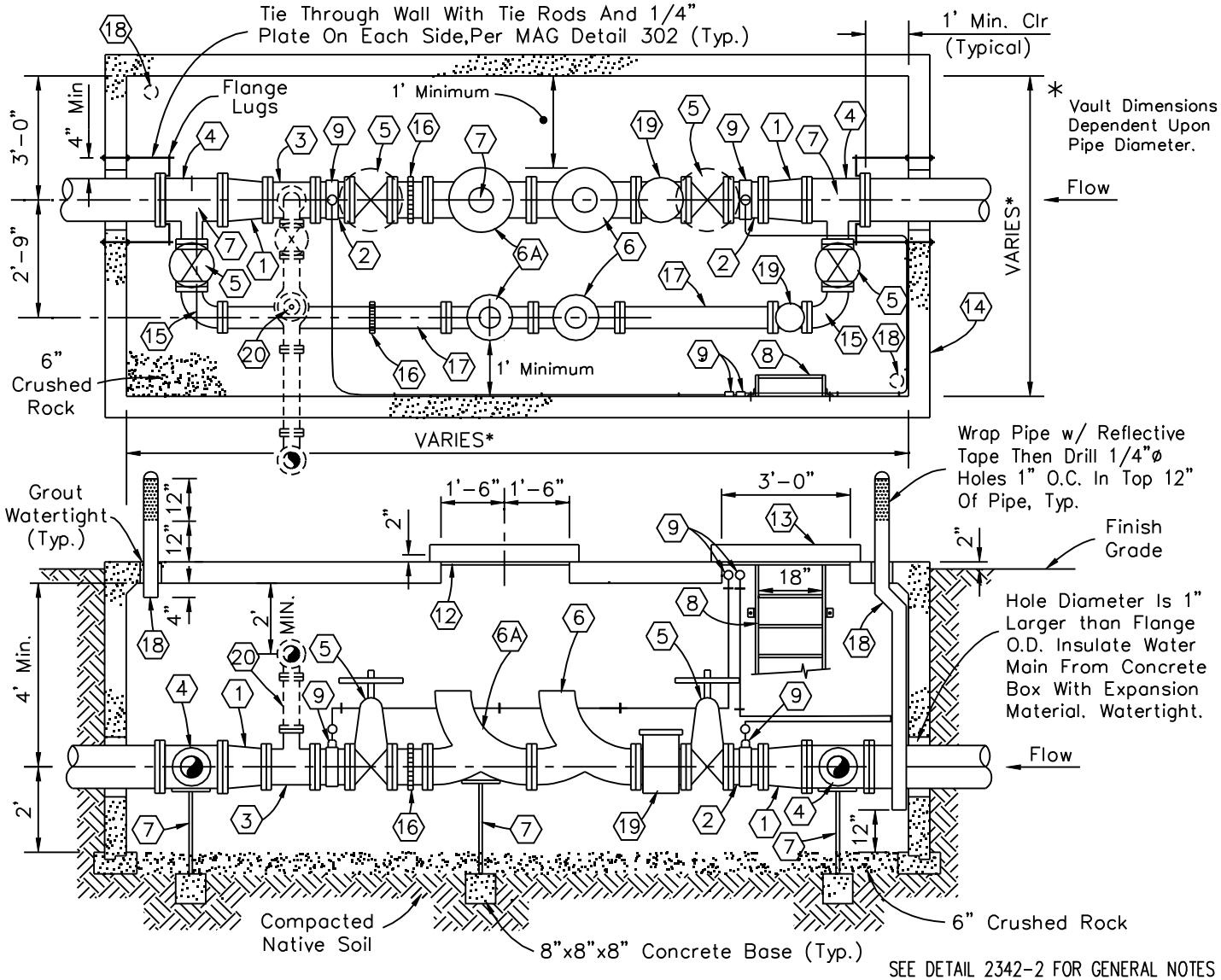
REVISED 3/11/94

DETAIL NO. 2332	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CHLORINE INJECTION TAP FOR UNDERGROUND WATERLINES	DETAIL NO. 2332



REVISED 1/4/93

DETAIL NO. 2333	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TAP FOR FUTURE CHLORINE INJECTION	DETAIL NO. 2333



SEE DETAIL 2342-2 FOR GENERAL NOTES

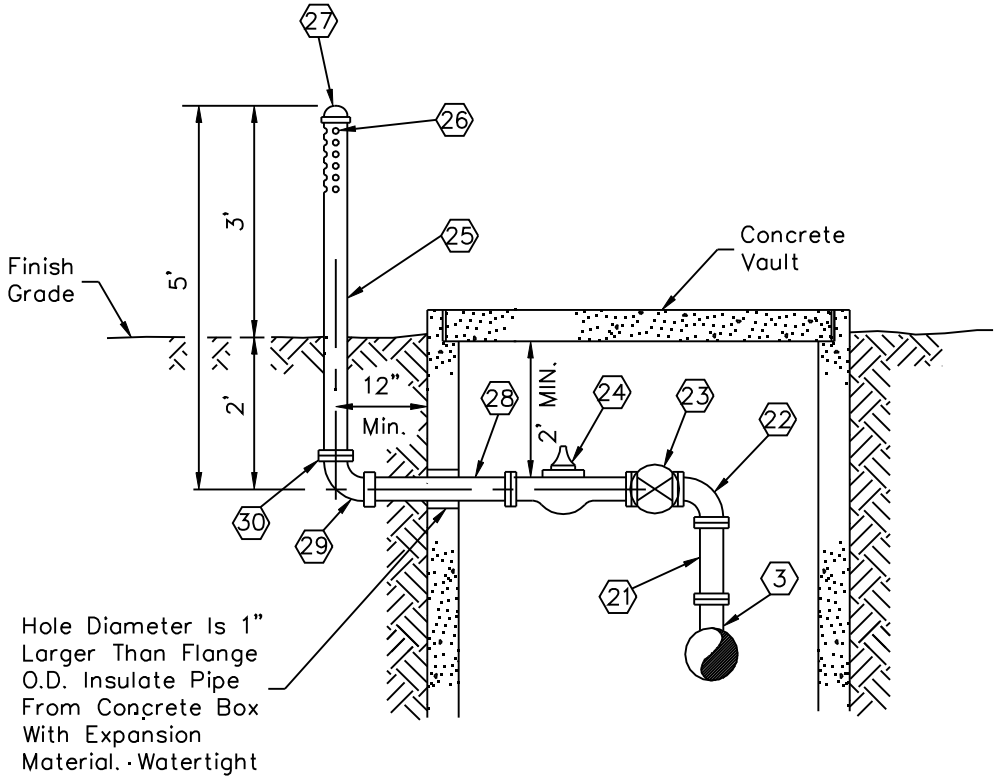
NOTES

1. D.I.P. Flg Concentric Reducer
2. D.I.P. Flg x Flg Spool Piece
3. D.I.P. Flg x Flg Tee. Install Only When Detail 2342-2 Is Used.
4. D.I.P. Flg Reducing Tee
5. Flg NRS Resilient Wedge Gate Valve, Inside Epoxy Coated, Low Zinc Stem w/ Wheel Handle
6. Flg PRV Bermad Model 723-20-V-I-U w/ Valve Position Indicator & Low Flow V-Port Plug And Must Have Stainless Steel Pilot Tubing, Or Approved Equal.
6A. Flg PRV Bermad Model 723-20-V-I-U w/ Valve Or Approved Equal Will Be Installed When Pressure Differential Is 100 psi Or Greater.
7. 4" Dia Galv Adjustable Pipe Supports w/ 1" Adj. Rod And Nut On 8"x 8"x 8" Concrete Base.
8. Galv Access Ladder Bolted To Wall, 6" Stand Off.
9. Saddle With 1" Corp., 3/8" Brass Reducer, 3/8" 3/8" Brass Tee w/ Oil Filled 0-200 Pressure Gauge. Install 3/8" Stainless Tubing Strapped To Wall As Shown w/ Oil Filled Gauges Mounted At Access Door. Gages To Be Readable From Outside Vault.
12. For 8" Valves Or Larger Install Utility Vault Raised/ Adjustable Access Door, Model 3636, Or Approved Equal, Centered Over Main Valves For Removal.
13. Utility Vault Raised/Adjustable Steel Access Door For Inspection, Model 3636 Or Approved Equal. Place In Corner With Ladder.
14. Precast Concrete Water Utility Vault, Per MAG Std Det 321 & 345-1, Inside Dimensions Vary Depending On Pipe Size.
15. D.I.P. Flg 90° Elbow
16. Victaulic Coupling Or Approved Equal w/ All Thread Tie Rods.
17. D.I.P. Flg Pipe Spool
18. 4" Galv. Steel Vent Pipe With Cap. Strap Pipe To Wall. Install Vents In Unpaved Areas Only.
19. Basket Type Strainer
20. 4" Pressure Relief Bermad Model 730-I-U w/ Valve Position Indicator Or Approved Equal Required When Pressure Differential Meets Or Exceeds 100 PSI. See Detail 2342-2.

* Engineer to note direction of flow and pressure setting on the plans.

REVISED 2/27/01

DETAIL NO. 2342-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	PRESSURE REDUCING VALVE	DETAIL NO. 2342-1



PRESSURE RELIEF OUTLET ASSEMBLY DETAIL

SEE NOTE ⟨20⟩ DETAIL 2342-1

NOTES

⟨3⟩ Flg x Flg Tee, See Detail 2342-1

⟨21⟩ 4" Flg Connecting Piece

⟨22⟩ 4" DIP Flg x Flg 90° Elbow, w/ Restrained Joints (Meg A Lug Or Approved Equal)

⟨23⟩ 4" Flg NRS Resilient Wedge Gate Valve, Inside Epoxy Coated, Low Zinc Stem w/ Handwheel

⟨24⟩ 4" Flg PRV Bermad Model 730-I-U Or Approved Equal, Epoxy Coated w/ Valve Position Indicator

⟨25⟩ 4" SCH. 40 Steel Pipe (Painted Desert Beige)

⟨26⟩ 6 Rows 2" O.C. Of 3-1"ø Holes, 180° Spray Pattern

⟨27⟩ 4" SCH 40 Steel Cap (Threaded)

⟨28⟩ 4" Ductile Pipe Spool

⟨29⟩ 4" DIP MJ x Flg 90° Elbow

⟨30⟩ Flanged Connection w/ Breakaway Bolts

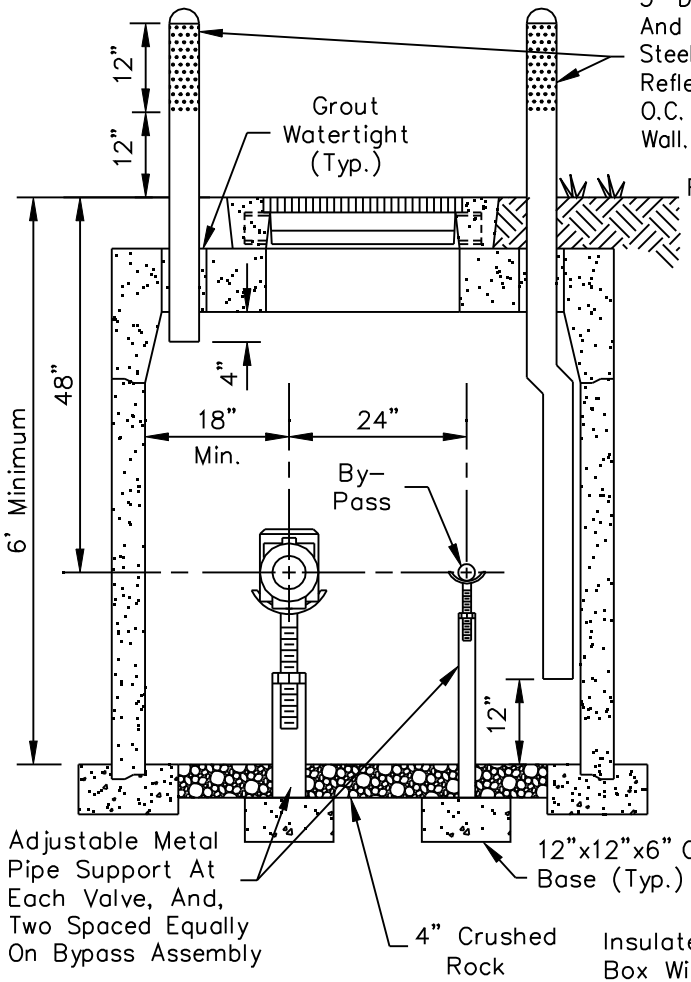
GENERAL NOTES

1. All pipe and valves are to be rated per system pressure.
2. Pilot lines for all controls will be stainless steel tubing.
3. Stainless tubing bends will be uniform and made with a tubing bender.
4. Bypass line (small PRV) shall be 4" Min. D.I.P.
5. Airvents and relief outlet riser pipe shall not be located within 12 feet of an existing edge of pavement or within 2 feet of a barrier type curb or 2' back of sidewalk.

REVISED 2/27/01

DETAIL NO. 2342-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	PRESSURE REDUCING VALVE	DETAIL NO. 2342-2

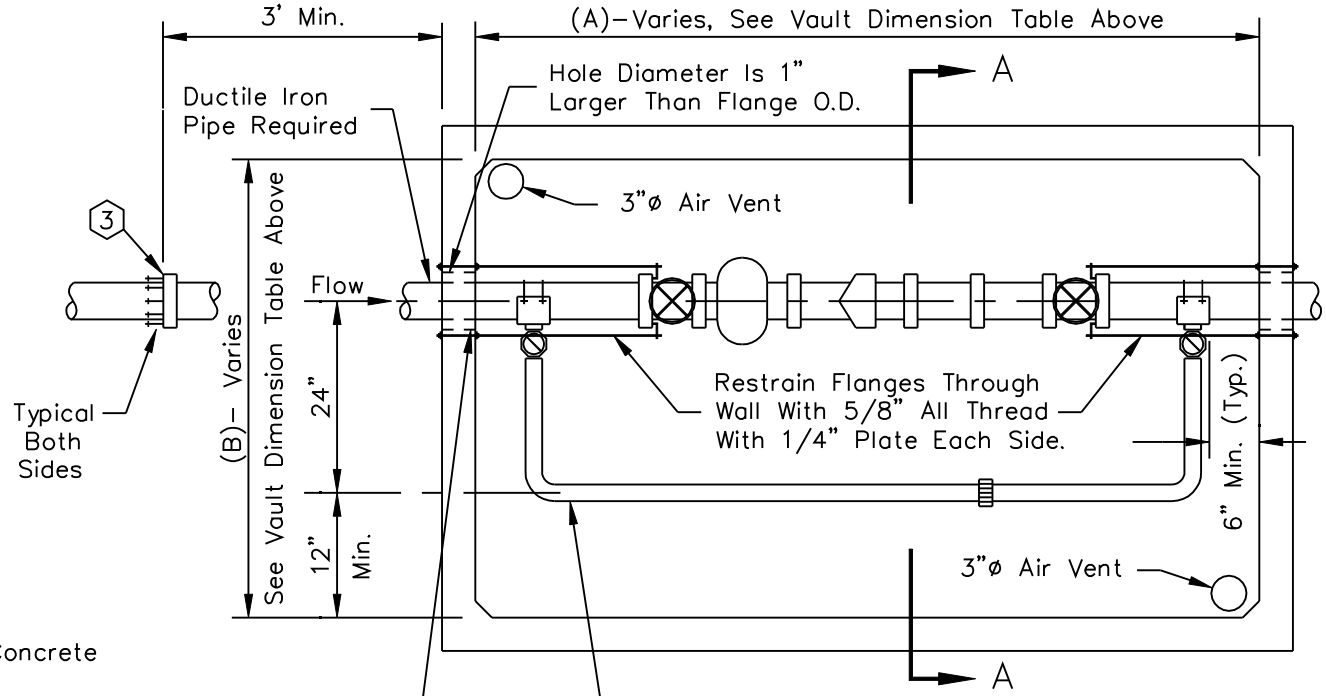
REVISED 2/27/01



SECTION A-A

NOTE: Meter Vaults To Be Pre-Cast Concrete Unless Otherwise Approved By Water Operations. See MAG Std Detail 321 For Vault Construction.

VAULT DIMENSION TABLE			
MAIN SIZE	3"	4"	6"
(A)	8'-4"	10'-6"	12'-0"
(B)	4'-6"	5'-0"	5'-0"



Insulate Water Main From Concrete Box With 1" Ramneck Or Other Expansion Material Approved By The Engineer. Grout Balance Of Opening Per MAG Specifications.

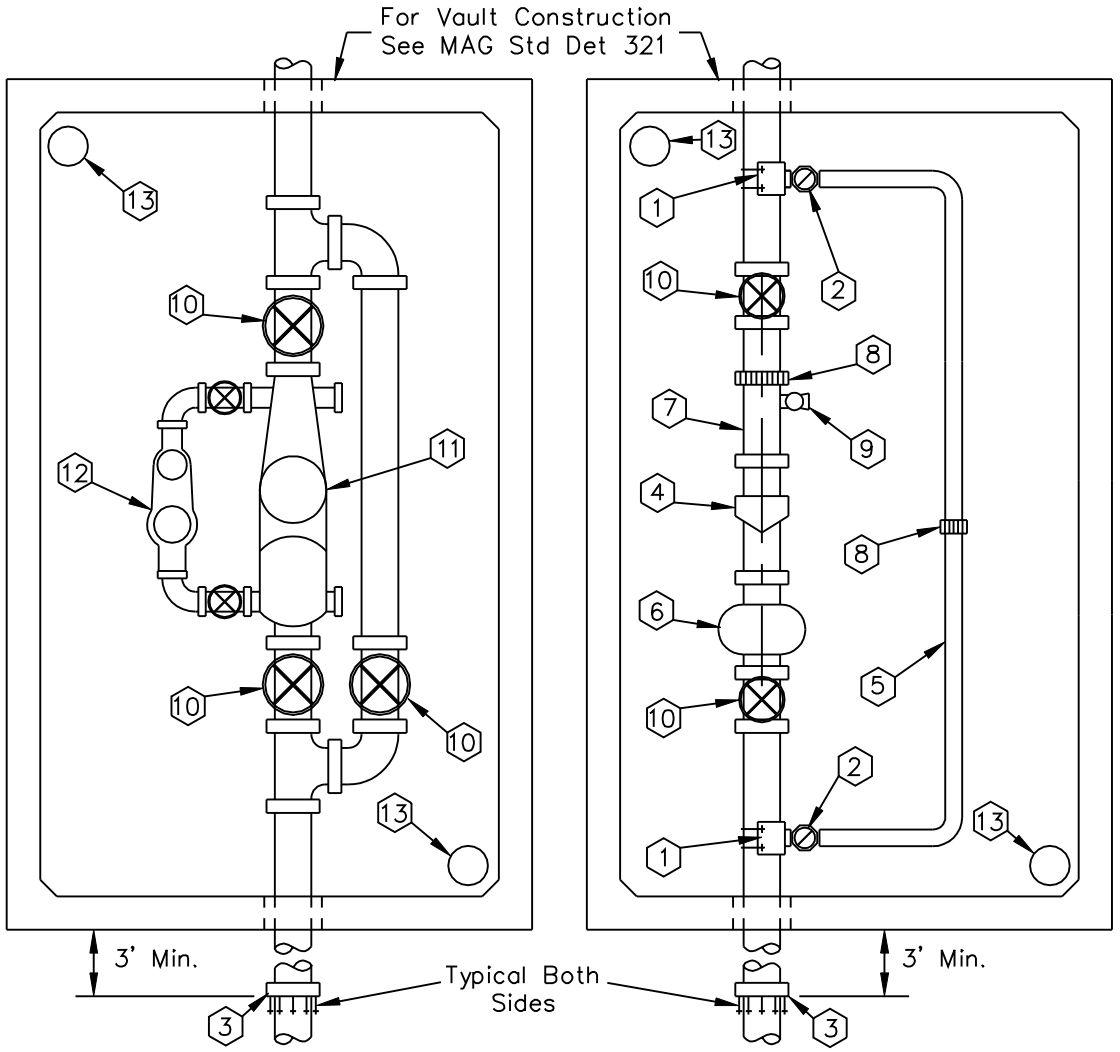
Except For 2" Copper Bypass All Fittings Will Be Flanged. Uniflange Not Acceptable Unless Approved By Water Operations. 2" Copper Bypass Will Be Joined With Silver Solder Except At 2" Corp Stop Which Will Be Pac Joint.

PLAN

VAULT INSTALLATION

DETAIL NO. 2345-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	3", 4", 6" WATER METER	DETAIL NO. 2345-1

REVISED 2/27/01



COMBINATION DOMESTIC/ FIRE LINE METER

COMPOUND/TURBINE METER

KEY NOTES

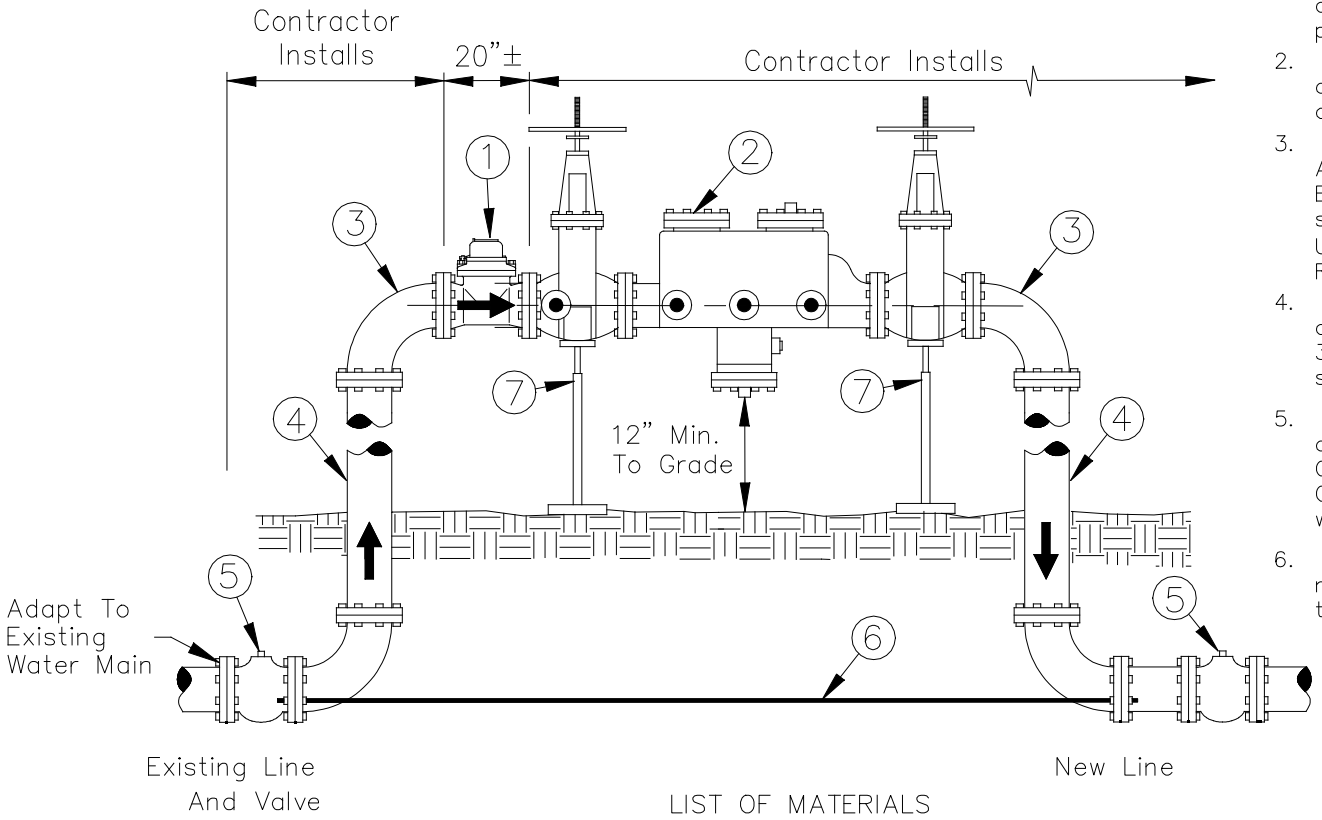
1. Double Strap All Bronze Service Saddle, Or Flanged x Flanged Tee With Flanged X Flanged Valve For Sizes 3" Or Larger.
2. Corp. Stop, 2"(Ball Type), Or R.W. Gate Valve With Non-Rising Stem Handwheel Operator For 3" Or Larger.
3. Adaptor, Flanged To Mech. Joint For A.C.P.
4. Turbine (High Flow) Or Compound Meter, See Note 4 Below.
5. 2" Ridged Type "K" Copper By-Pass Line, 3" Or Larger To Be Ductile Iron. Not Less Than One Pipe Size Smaller Than Meter In Note 4.
6. Strainer, Supplied with Meter.
7. Flanged Spool, (3 Pipe Diameters In Length, Min.).
8. Provide Victaulic Coupling Or Approved Equal For All Lines 3" Or Larger.
9. 2" Threaded Outlet And Ball Valve. Not Needed If Vertical Test Valve Is Provided On Meter.
10. Resilient Wedge Gate Valve, Flanged, With Hand Wheel, Open Left, With Non-Rising Stem.
11. Turbine (High Flow) Or Compound Meter, See Note 4 Below.
12. 2" Turbine Meter: Sensus "W-160" Or Hersey "MHR" Or Neptune Trident Turbine.
13. 3"ø Air Vent, See Sheet 1 Of 2.

NOTES

1. For Larger Meters Special Vault Design Is Required.
2. Use Of Remote Reading Device At Option Of Utility.
3. An Approved Backflow Prevention Assembly Shall Be Required Downstream Of The Water Meter. Contact Water Resources, Backflow Prevention For Specific Information.
4. Meter To Be Provided By City Upon Payment Of Fees.

DETAIL NO.		APPROVED BY:		DETAIL NO.
2345-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	3, 4", 6" WATER METER	2345-2

REVISED 4/25/07



GENERAL NOTES

1. Contractor to supply and install above ground piping and fittings to accomodate 3" meter, backflow preventer and 2 – 90° ells.
2. Contractor to remove piping and fittings after acceptance of new water main and complete connection as per MAG Standards.
3. Approvals for backflow assemblies must have Seal Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.
4. Any water line that is greater than 300 feet will require a temporary construction meter. Water lines less than 300 feet will not require a construction meter but will still be subject to bacterial testing.
5. City Inspector to determine readiness for meter prior to contacting Water Resources for meter setting. Contractor to supply transmittal number to City Inspector. City Inspector to notify the Water Resources Department when meter is ready for installation.
6. Reduced pressure principle backflow assemblies must be tested by a certified tester after installation, that is recognized by the City of Scottsdale.

LIST OF MATERIALS

① 3" Turbine Construction Meter With 3" Flanges, Supplied By City.

② 3" Approved Reduced Pressure Principle Backflow Prevention Assembly, Supplied By Contractor.

③ 3" Flanged Ductile Iron 90° Ell, Supplied By Contractor.

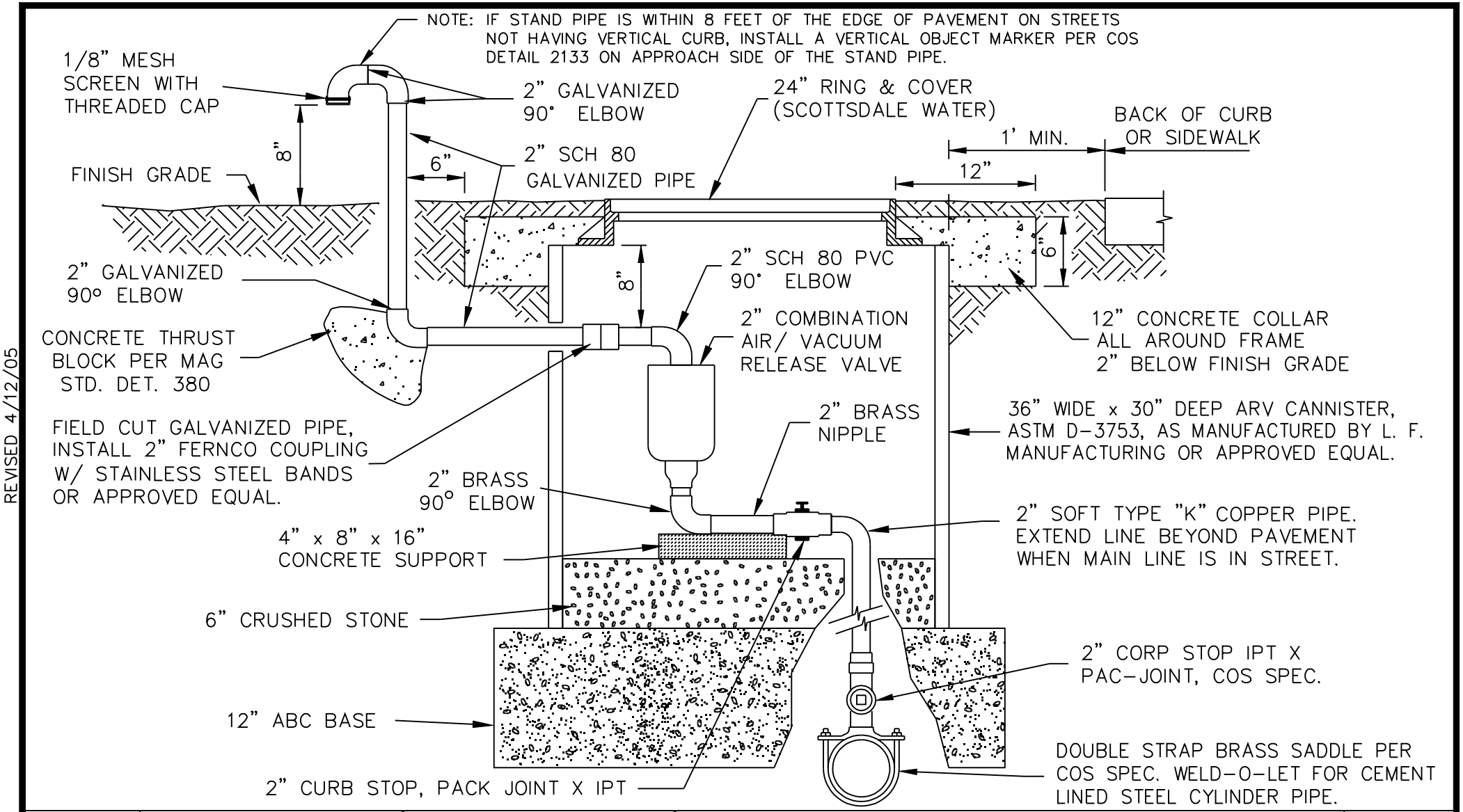
④ 3" Ductile Iron Spool.

⑤ Line valves shall be within a 20' maximum distance upstream and downstream of flow meter or as approved by COS, and shall remain in-place after removal of temporary meter.

⑥ 3/4"ø zinc coated threaded rod.

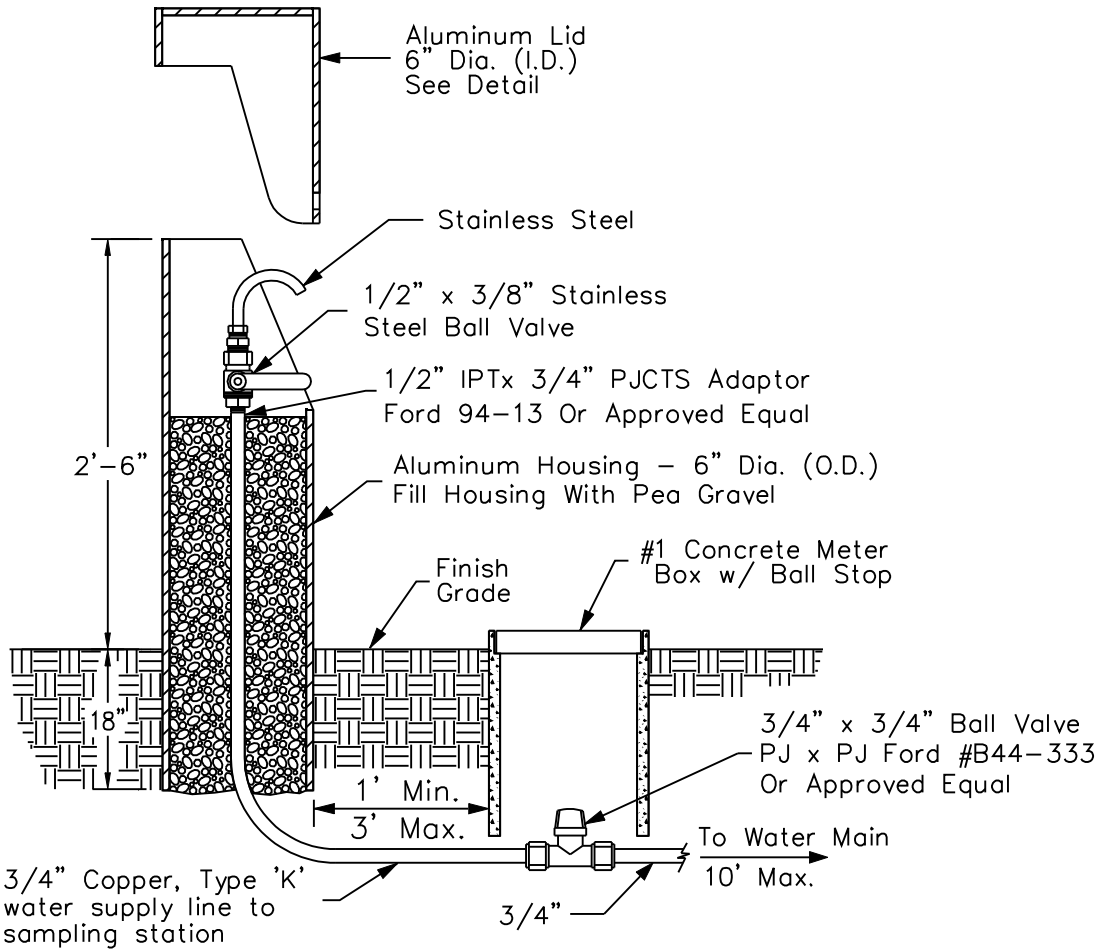
⑦ Adjustable Metal Pipe Support (Required).

DETAIL NO. 2346	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TEMPORARY CONSTRUCTION METER	DETAIL NO. 2346



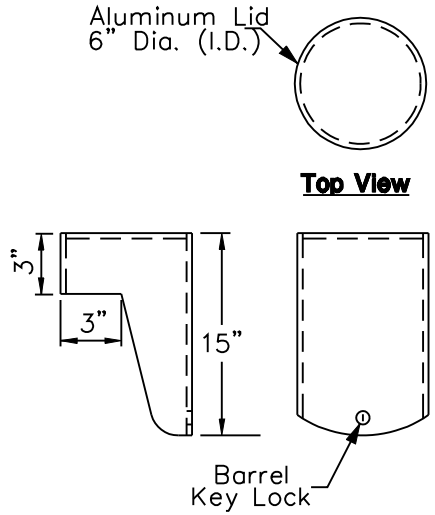
REVISED 4/12/05

DETAIL NO. 2348	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	2" AIR/VACUUM RELEASE VALVE	DETAIL NO. 2348



TYPICAL INSTALLATION

N.T.S.



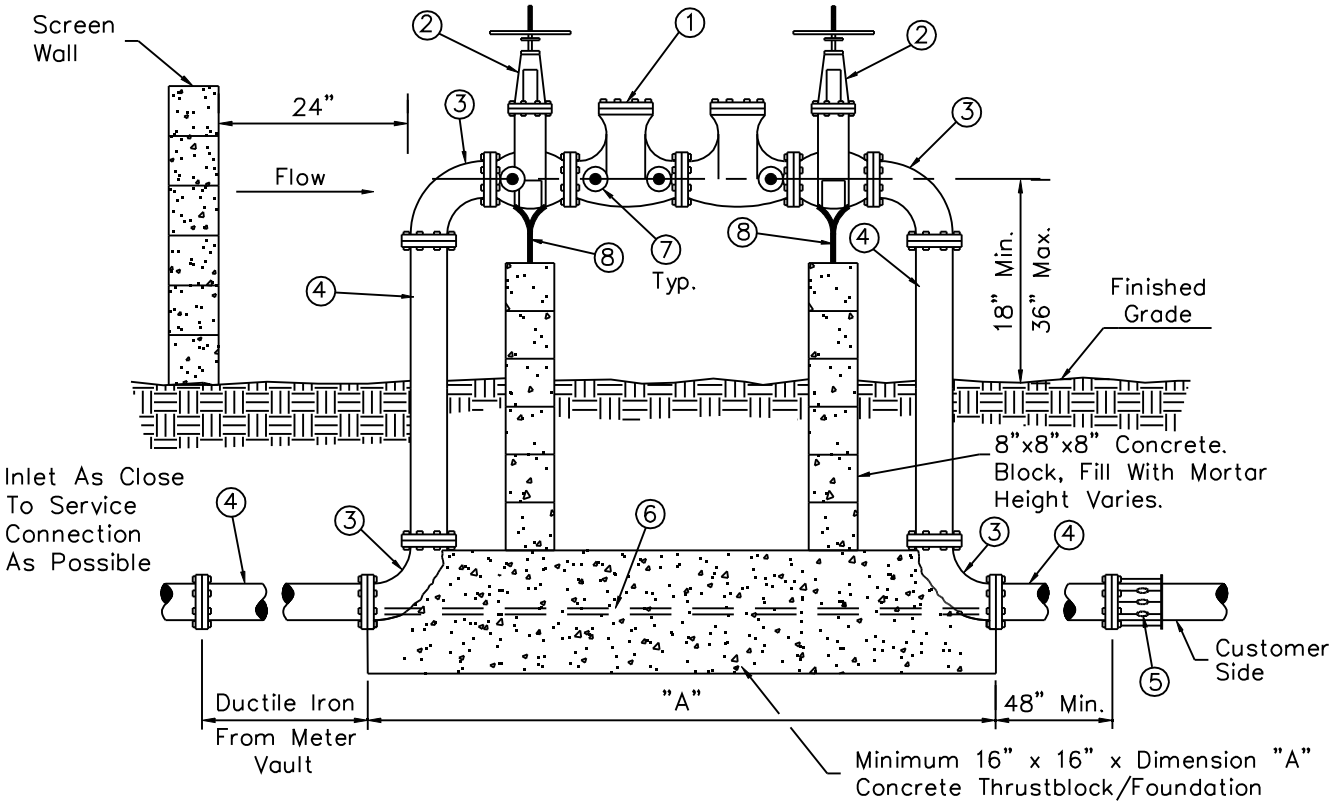
LID DETAILS

N.T.S.

NOTES:

1. Water Quality Sampling Station to be Koralean or approved equal.
2. Keys to locks shall be delivered to City of Scottsdale Water Quality Department upon acceptance.

DETAIL NO. 2349	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	WATER QUALITY SAMPLING STATION	DETAIL NO. 2349



REVISED 5/5/04

GENERAL NOTES

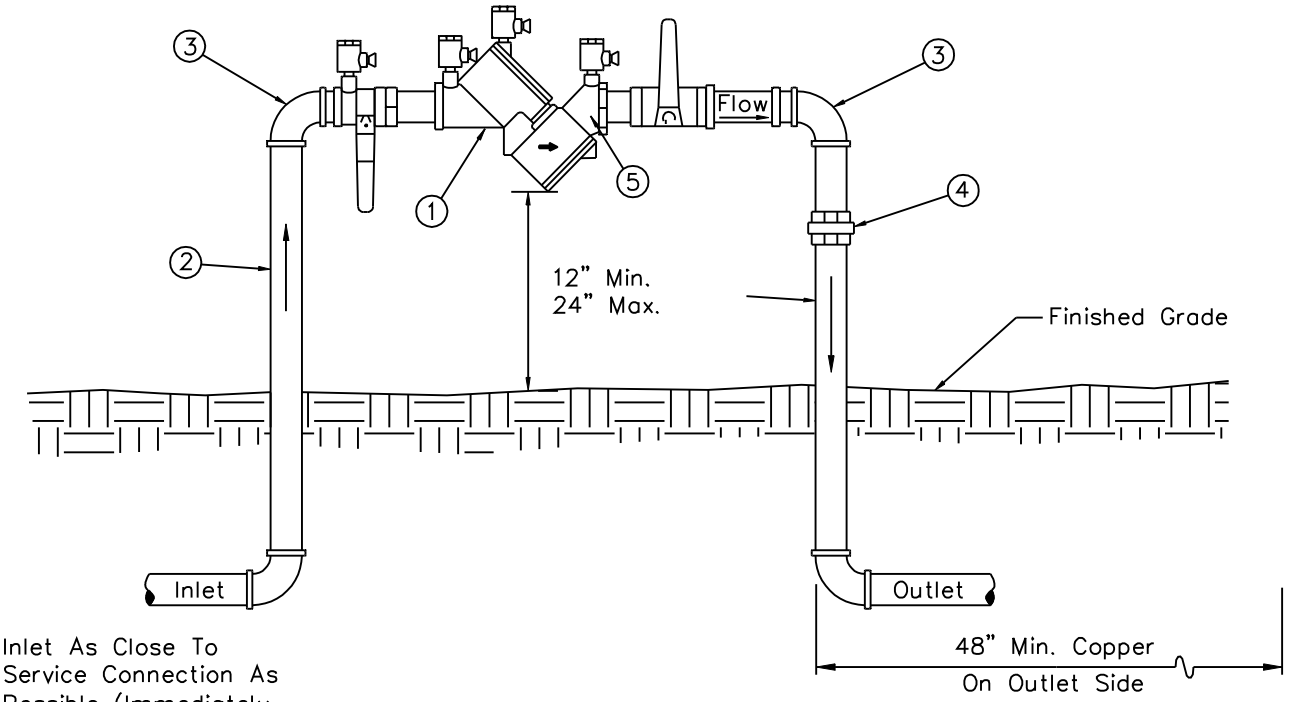
1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
3. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
4. Finished grade underneath the backflow preventer shall be at 95% compaction.
5. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
6. Call for underground inspection before backfilling trench.
7. Vertical installations of assemblies on fire sprinkler systems are allowed using assemblies approved for use in the vertical position on fire systems.
8. Approvals for backflow assemblies must have Seal Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

LIST OF MATERIALS

① Approved double check valve backflow prevention assembly.
② Resilient seated gate valve.
O.S. & Y. (fire line connection)
N.R.S. (non fire line)
③ 90° ell. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
④ Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
⑤ Flanged adapter (when required)
⑥ 3/4" zinc coated threaded rod, (5/8" rod on 3" to 4" sizes), bolt to flanges as shown, typical both sides.
⑦ Test cocks with brass plugs or adaptors with caps installed. (4 required)
⑧ Adjustable metal pipe supports and concrete block supports with 1" adjusting rod and nut on assemblies 4" and larger. Install above grade.

DETAIL NO. 2351	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES	DETAIL NO. 2351

REVISED 5/05/04



Inlet As Close To Service Connection As Possible (Immediately After Water Meter). Copper On Inlet Side.

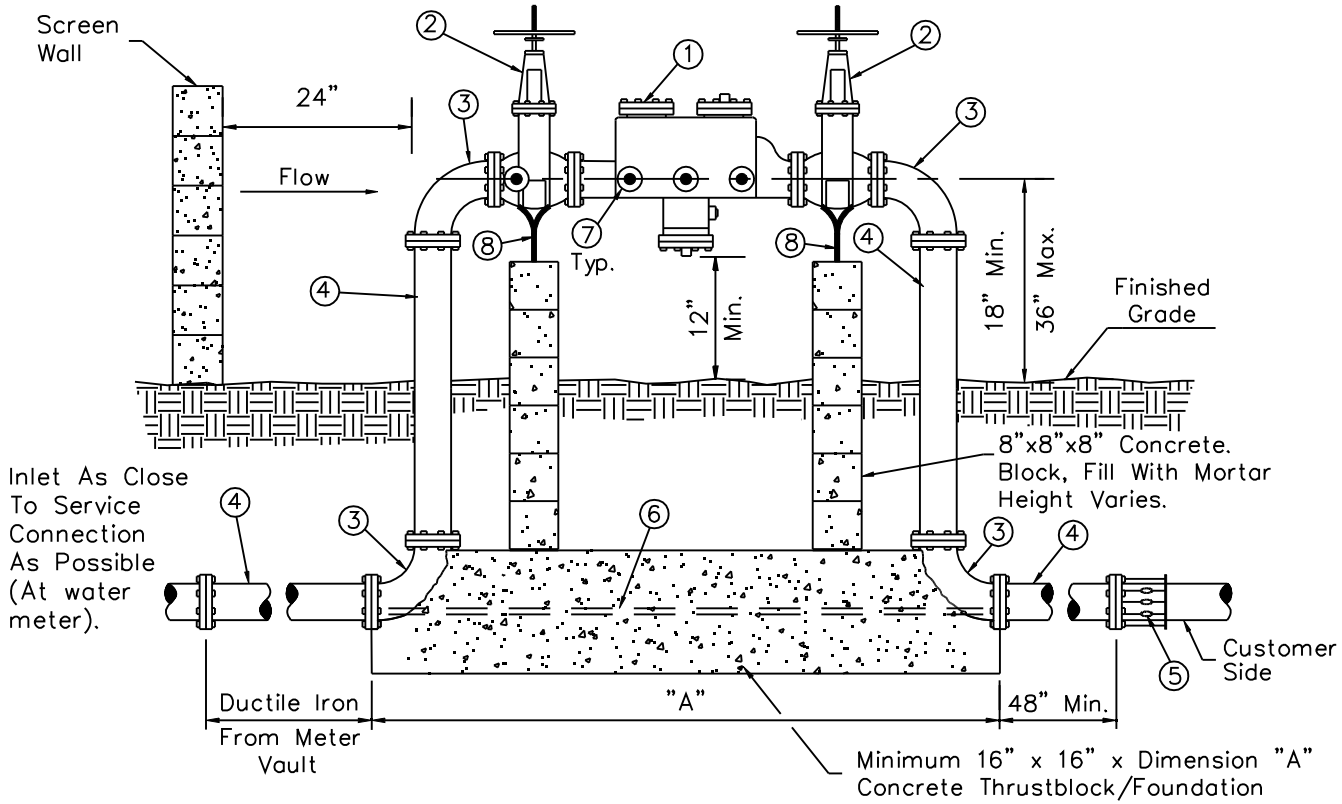
GENERAL NOTES

1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Copper fittings shall be connected with lead free solder joints.
3. Finished grade underneath the backflow preventer shall be at 95% compaction.
4. All nipples to be copper or brass.
5. Piping under the City right of way must be type "K" copper.
6. Call for underground inspection before backfilling trench.
7. Vertical installations of assemblies on fire sprinkler systems are allowed using assemblies approved for use in the vertical position on fire systems.
8. Approvals for backflow assemblies must have Seal Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

LIST OF MATERIALS

① Approved double check valve backflow prevention assembly, ball valves included.
② Pipe spool, type "L" hard copper, 3/4" thru 2 1/2".
③ 90° ell, copper, 3/4" thru 2 1/2".
④ Pipe union, brass or copper.
⑤ Test cocks with brass plugs or adaptors with caps installed. (4 required)

DETAIL NO.		APPROVED BY:		DETAIL NO.
2352	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3/4 INCH THRU 2 1/2 INCHES	2352



REVISED 5/05/04

GENERAL NOTES

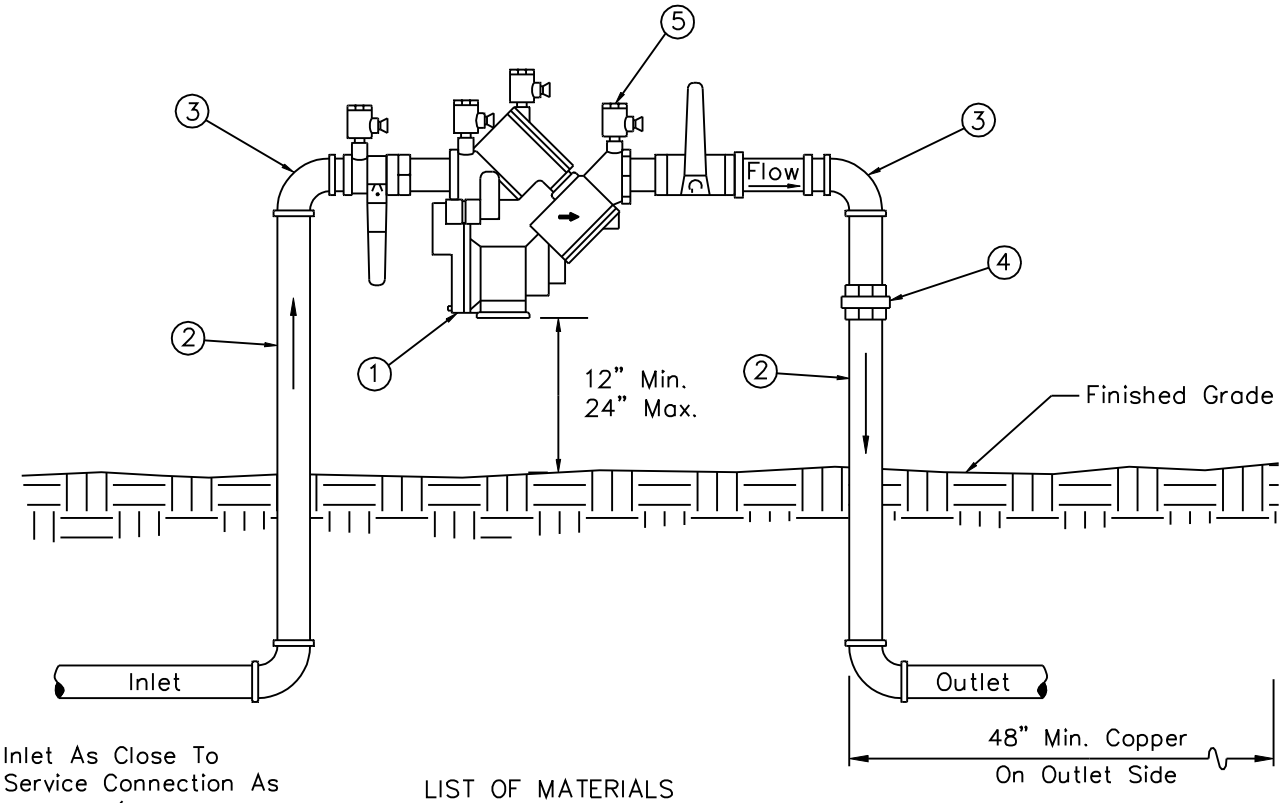
1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
3. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
4. Finished grade underneath the backflow preventer shall be at 95% compaction.
5. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
6. Call for underground inspection before backfilling trench.
7. Approvals for backflow assemblies must have Seal Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

LIST OF MATERIALS

① Approved reduced pressure principle backflow prevention assembly.
② Resilient seated gate valve. O.S. & Y. (fire line connection). N.R.S. (non fire line)
③ 90° ell. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
④ Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
⑤ Flanged adapter (when required)
⑥ 3/4" zinc coated threaded rod, (5/8" rod on 3" to 4" sizes), bolt to flanges as shown, typical both sides.
⑦ Test cocks with brass plugs or adaptors with caps installed. (4 required)
⑧ Adjustable metal pipe supports and concrete block supports with 1" adjusting rod and nut on assemblies 4" and larger. Install above grade.

DETAIL NO. 2353	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES	DETAIL NO. 2353

REVISED 5/05/04



Inlet As Close To Service Connection As Possible (Immediately After Water Meter). Copper On Inlet Side.

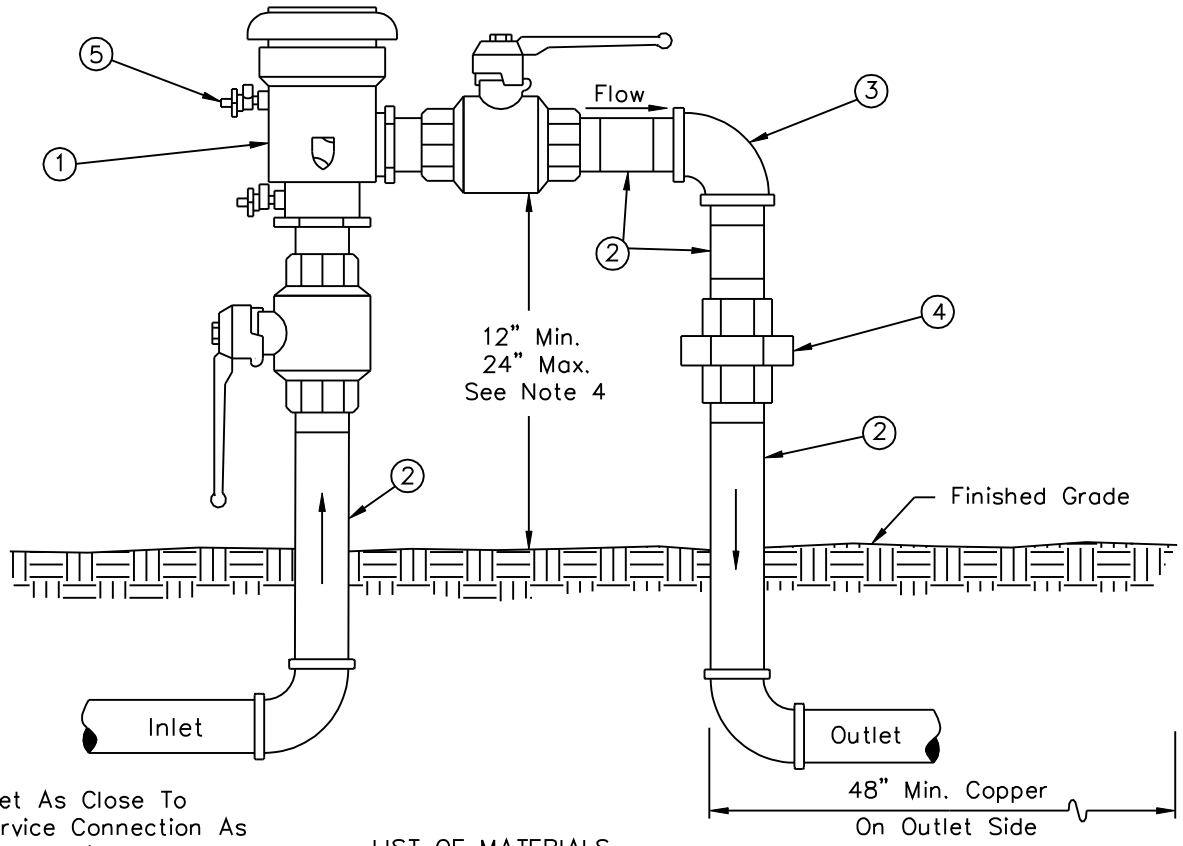
LIST OF MATERIALS

① Approved reduced pressure principle backflow prevention assembly, ball valves included.
② Pipe spool, type "L" hard copper, 3/4" thru 2 1/2".
③ 90° ell, copper, 3/4" thru 2 1/2".
④ Pipe union, brass or copper.
⑤ Test cocks with brass plugs or adaptors with caps installed. (4 Required)

GENERAL NOTES

1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Copper fittings shall be connected with lead free solder joints.
3. Finished grade underneath the backflow preventer shall be at 95% compaction.
4. All nipples to be copper or brass.
5. Piping under the City right of way must be type "K" copper.
6. Call for underground inspection before backfilling trench.
7. Approvals for backflow assemblies must have Seal Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

DETAIL NO. 2354	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3/4 INCH THRU 2 1/2 INCHES	DETAIL NO. 2354



Inlet As Close To Service Connection As Possible (Immediately After Water Meter). Copper On Inlet Side.

LIST OF MATERIALS

① Approved pressure vacuum breaker assembly, ball valves included.
② Pipe spool, type "L" hard copper, 1/2" thru 2".
③ 90° ell, copper, 1/2" thru 2".
④ Pipe union, brass or copper.
⑤ Test cocks with brass plugs or adaptors with caps installed. (2 required)

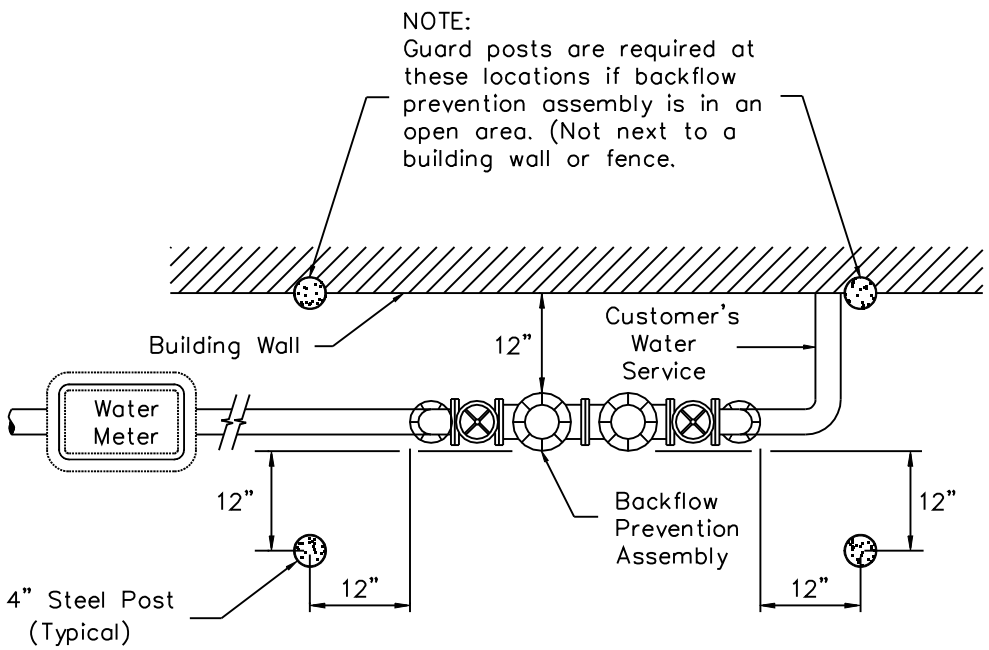
GENERAL NOTES

1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Pressure vacuum breakers must be installed at least 12" above all downstream piping.
3. If this distance exceeds 24 inches, a reduced pressure principle backflow prevention assembly must be utilized. See Detail 2354.
4. Copper fittings shall be connected with lead free solder joints.
5. Finished grade underneath the backflow preventer shall be at 95% compaction.
6. All nipples to be copper or brass.
7. Piping under the City right of way must be type "K" copper.
8. Call for underground inspection before backfilling trench.
9. Approvals for backflow assemblies must have Seal Approval from the American Society of Sanitation Engineers.

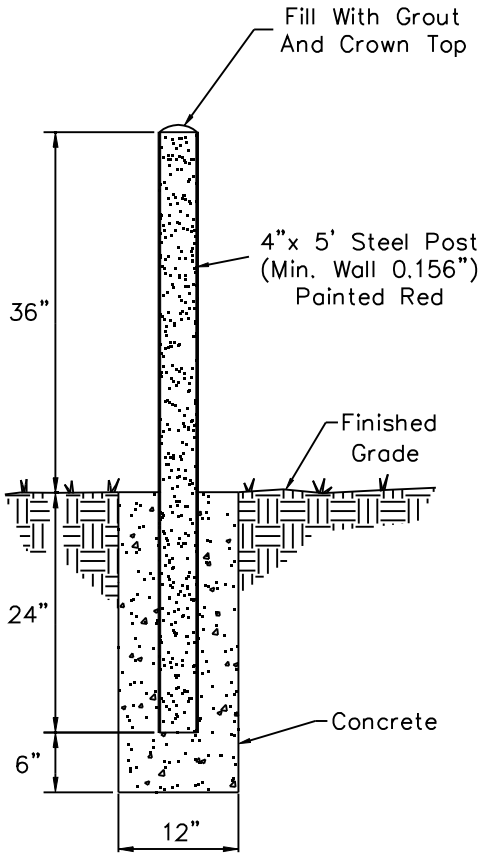
REVISED 5/05/04

DETAIL NO. 2355	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	PRESSURE VACUUM BREAKER ASSEMBLY FOR ASSEMBLIES 1/2 INCH THRU 2 INCHES	DETAIL NO. 2355

REVISED 2/09/99

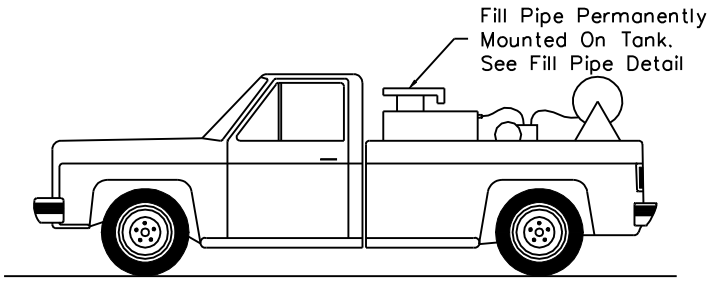


PLAN VIEW

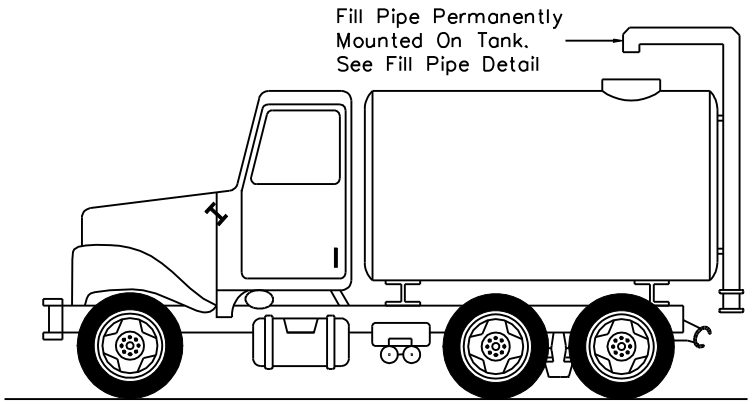


GUARD POST SECTION

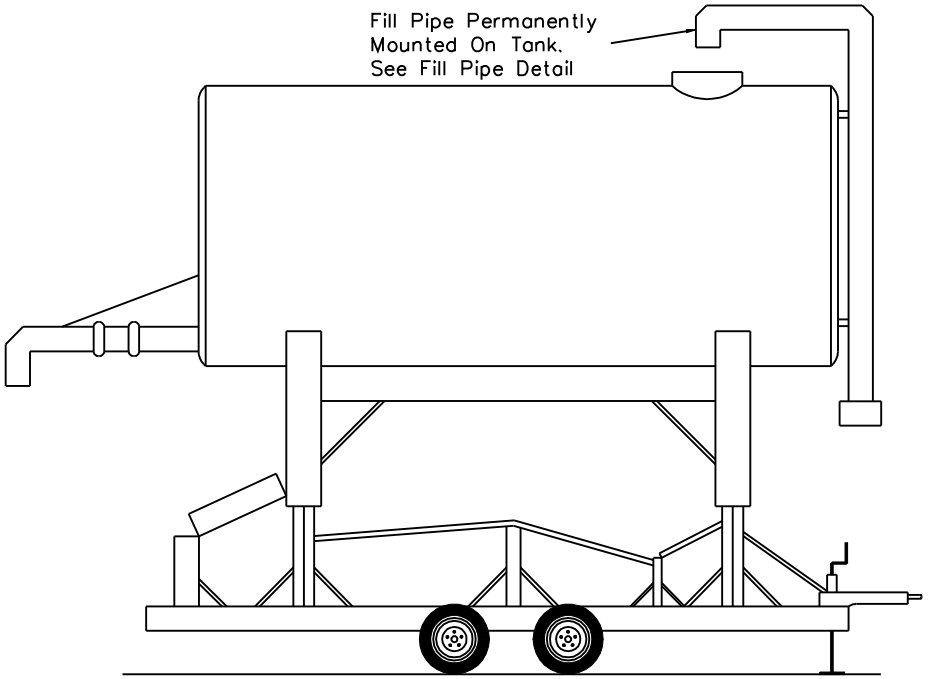
DETAIL NO. 2356	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	GUARD POSTS FOR BACKFLOW PREVENTION ASSEMBLIES	DETAIL NO. 2356



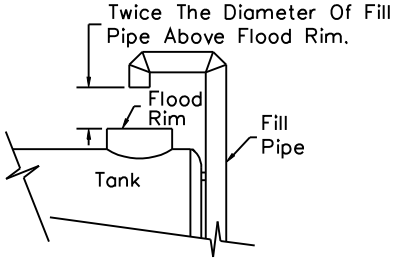
PESTICIDE APPLICATOR TRUCK



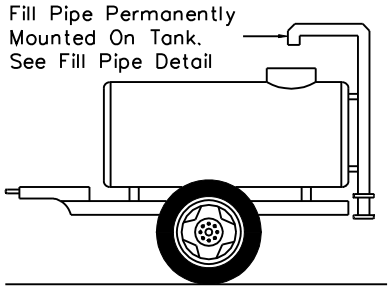
WATER TRUCK



ELEVATED TANK

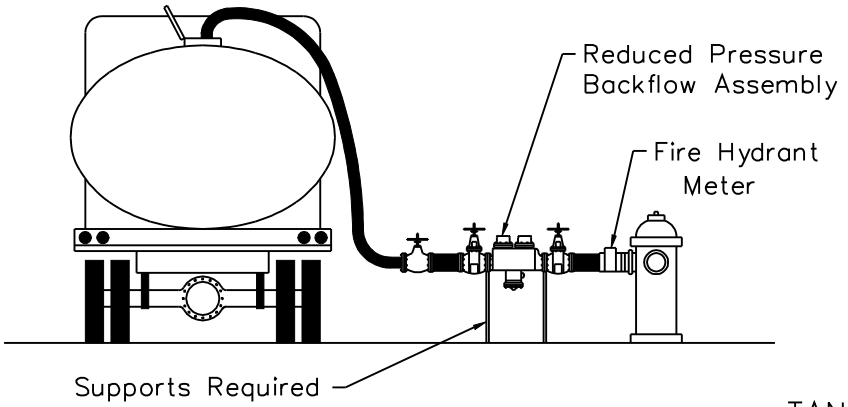


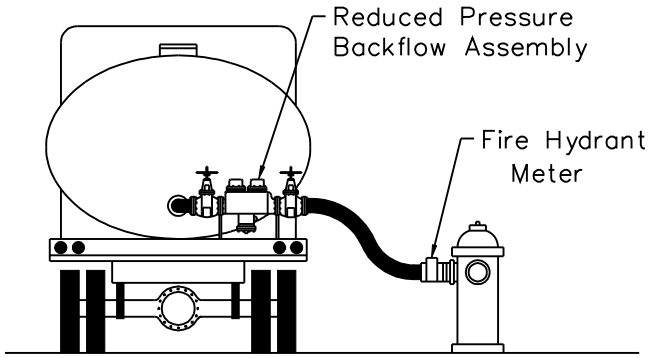
FILL PIPE DETAIL



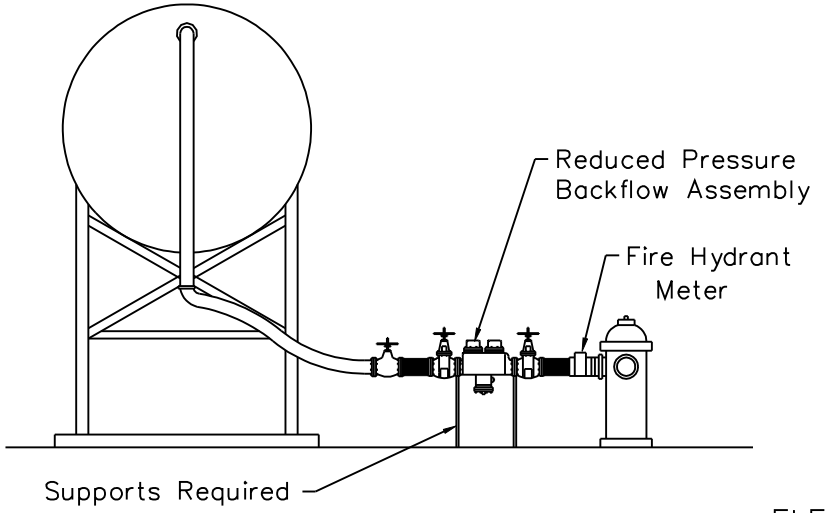
WATER WAGON

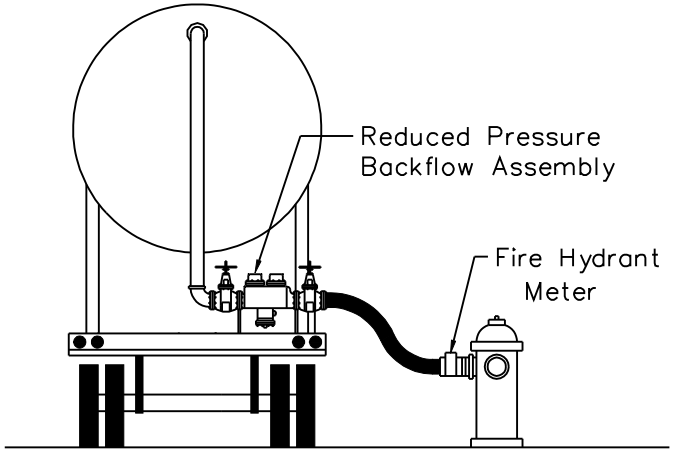
DETAIL NO. 2357	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FILL PIPE DETAILS FOR PORTABLE TANKS WITH AIR GAP SEPARATION	DETAIL NO. 2357





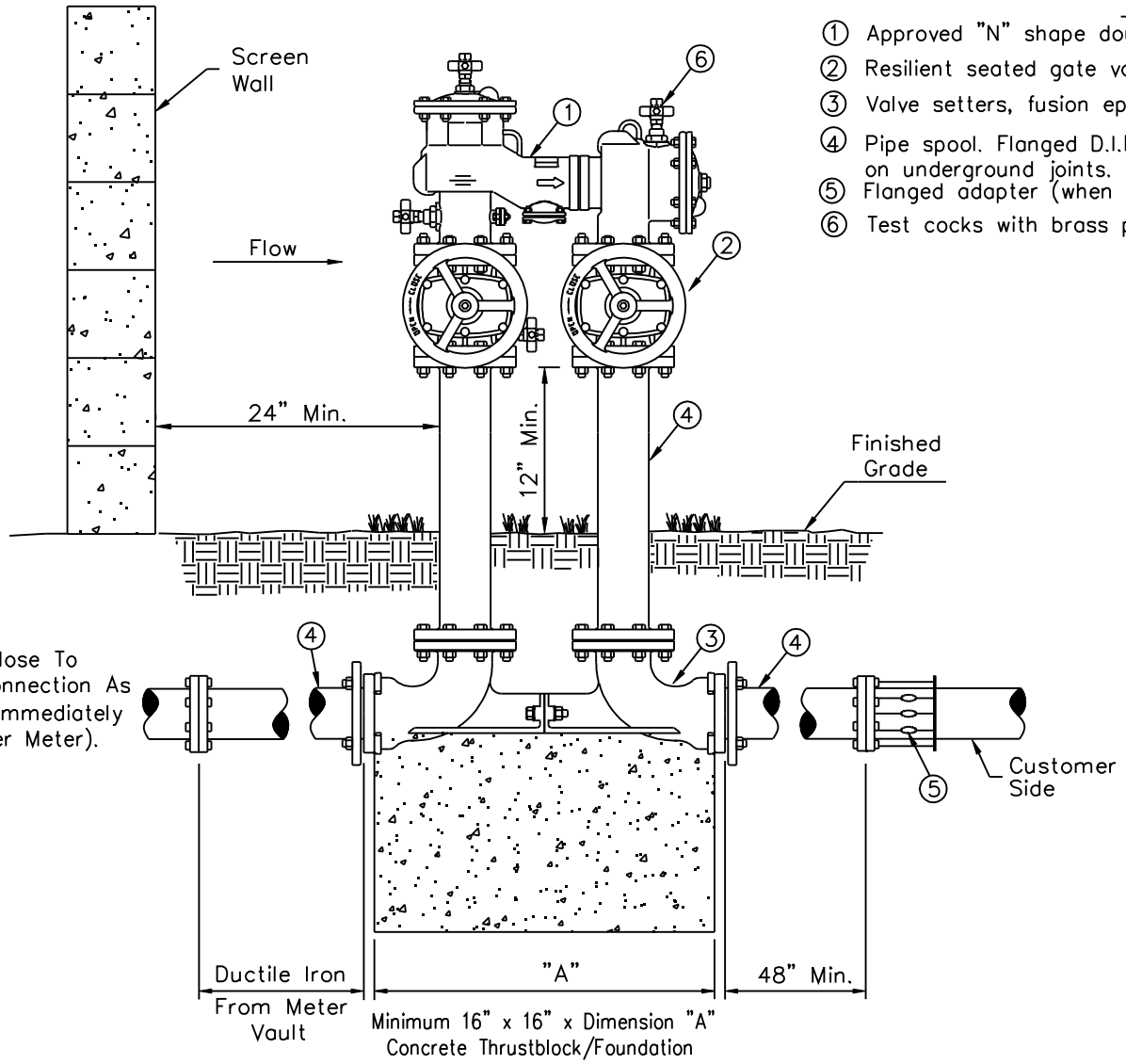
TANK TRUCKS





ELEVATED TANKS

DETAIL NO. 2358	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BACKFLOW PREVENTION METHOD FOR PORTABLE TANKS WITH NO AIR GAP SEPARATION	DETAIL NO. 2358



LIST OF MATERIALS

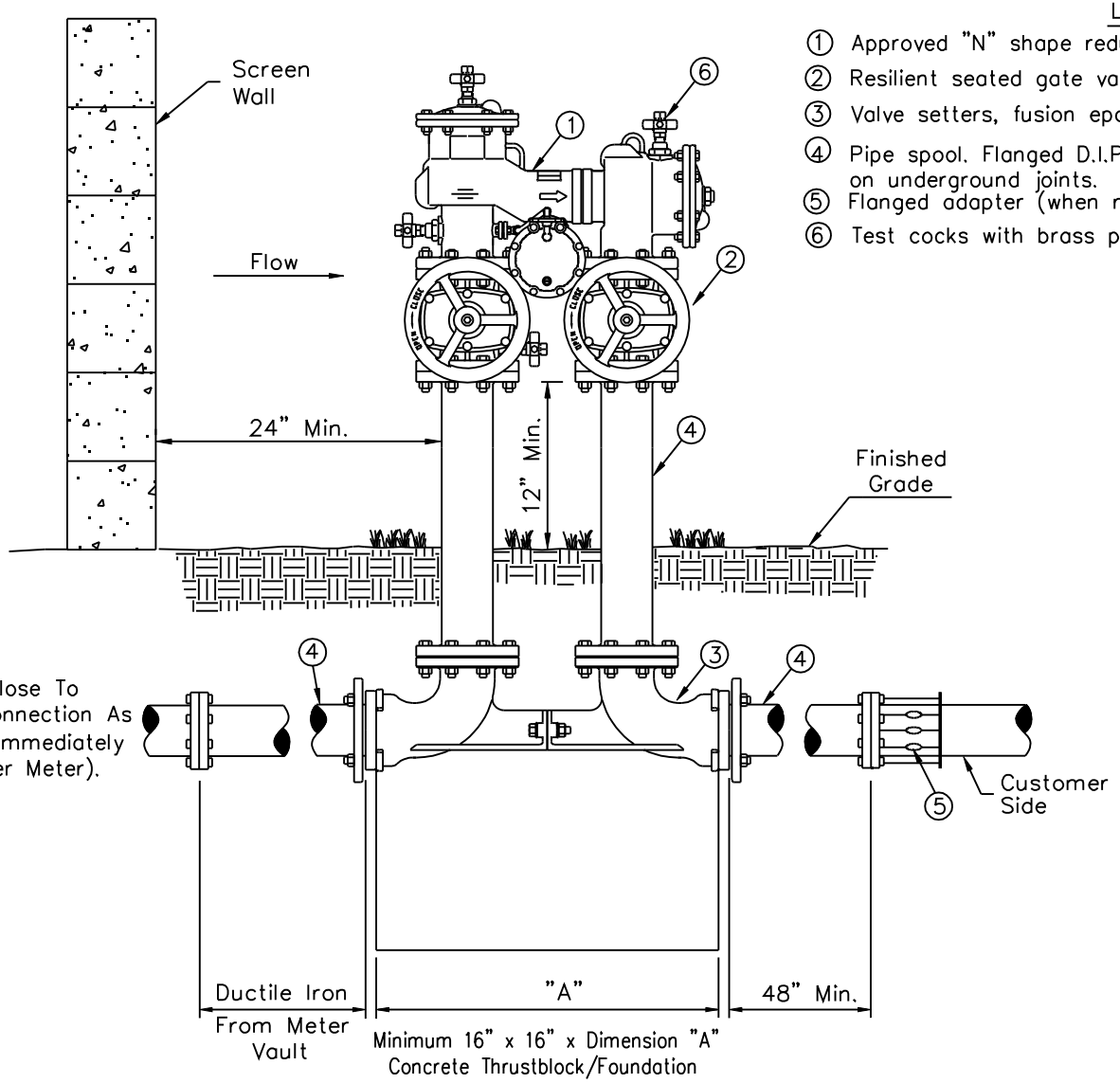
1. Approved "N" shape double check valve backflow prevention assembly.
2. Resilient seated gate valve. O.S. & Y. (fire line connection) N.R.S. (non fire line)
3. Valve setters, fusion epoxy coated ductile iron, plated nuts and bolts. (2 required)
4. Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
5. Flanged adapter (when required)
6. Test cocks with brass plugs or adaptors with caps installed. (4 required)

GENERAL NOTES

1. Backflow backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
3. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
4. Finished grade underneath the backflow preventer shall be at 95% compaction.
5. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
6. Call for underground inspection before backfilling trench.
7. Seal Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

REVISED 5/05/04

DETAIL NO. 2359	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	"N" SHAPED DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES	DETAIL NO. 2359



LIST OF MATERIALS

1. Approved "N" shape reduced pressure principle backflow prevention assembly.
2. Resilient seated gate valve. O.S. & Y. (fire line connection) N.R.S. (non fire line)
3. Valve setters, fusion epoxy coated ductile iron, plated nuts and bolts. (2 required)
4. Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
5. Flanged adapter (when required)
6. Test cocks with brass plugs or adaptors with caps installed. (4 required)

GENERAL NOTES

1. Backflow backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
3. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
4. Finished grade underneath the backflow preventer shall be at 95% compaction.
5. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
6. Call for underground inspection before backfilling trench.
7. Approvals for backflow assemblies must have Seal Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

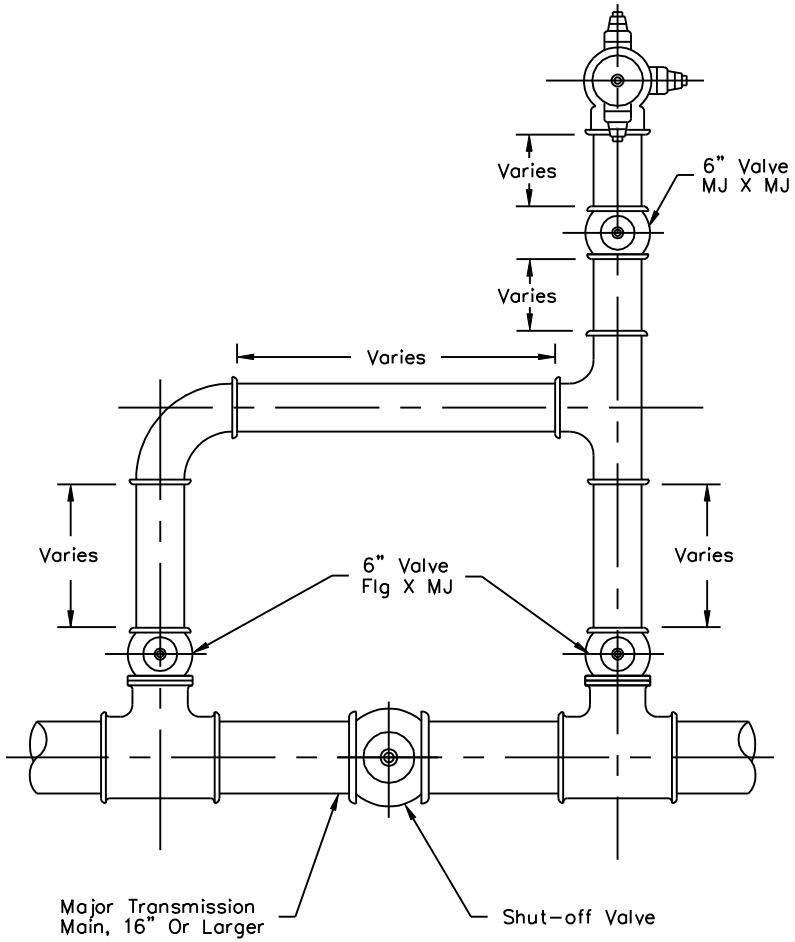
REVISED 5/05/04

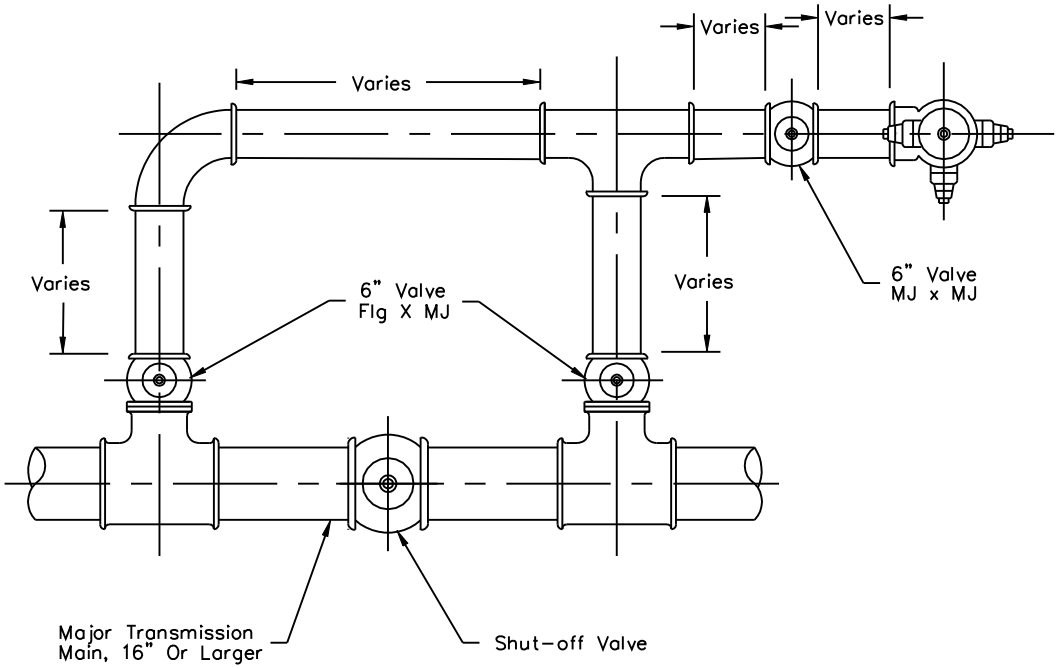
DETAIL NO. 2360	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	"N" SHAPED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES	DETAIL NO. 2360

REVISED 6/15/06

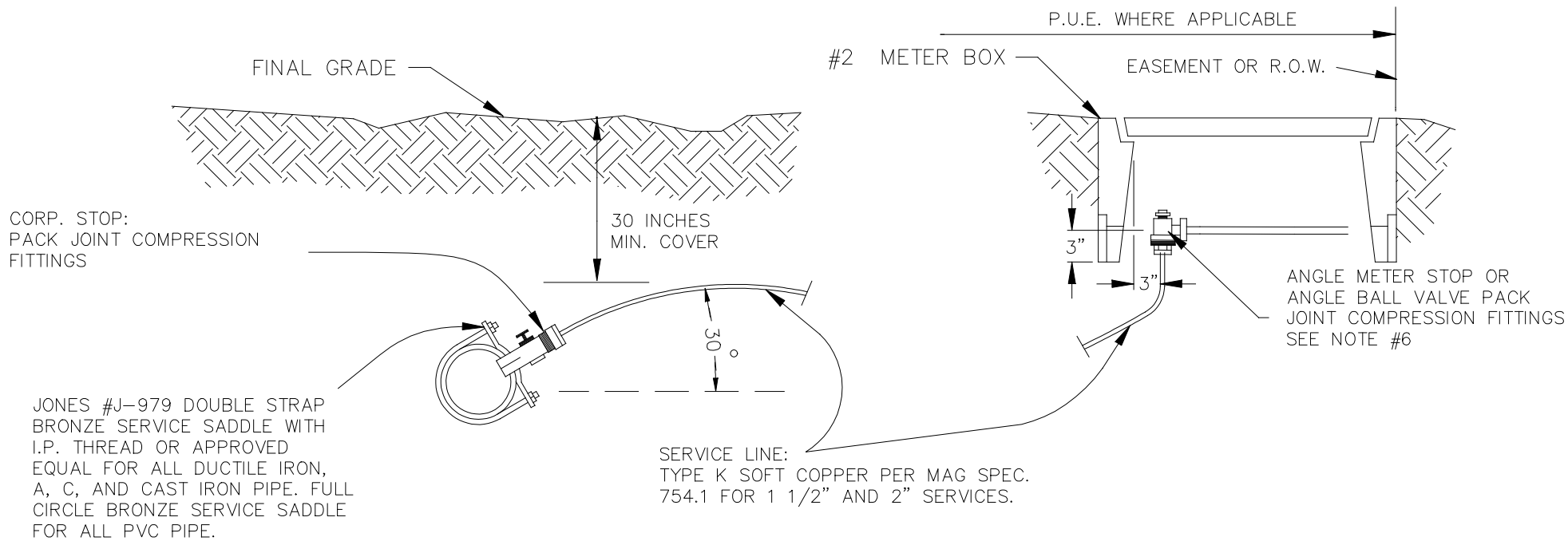
NOTES

1. All joints in hydrant run-out to be restrained joints.
2. See MAG Std. Detail 391-C for valve box installation.
3. For water valve blocking see MAG Std. Detail 301.
4. For additional information see MAG Std. Detail 360.





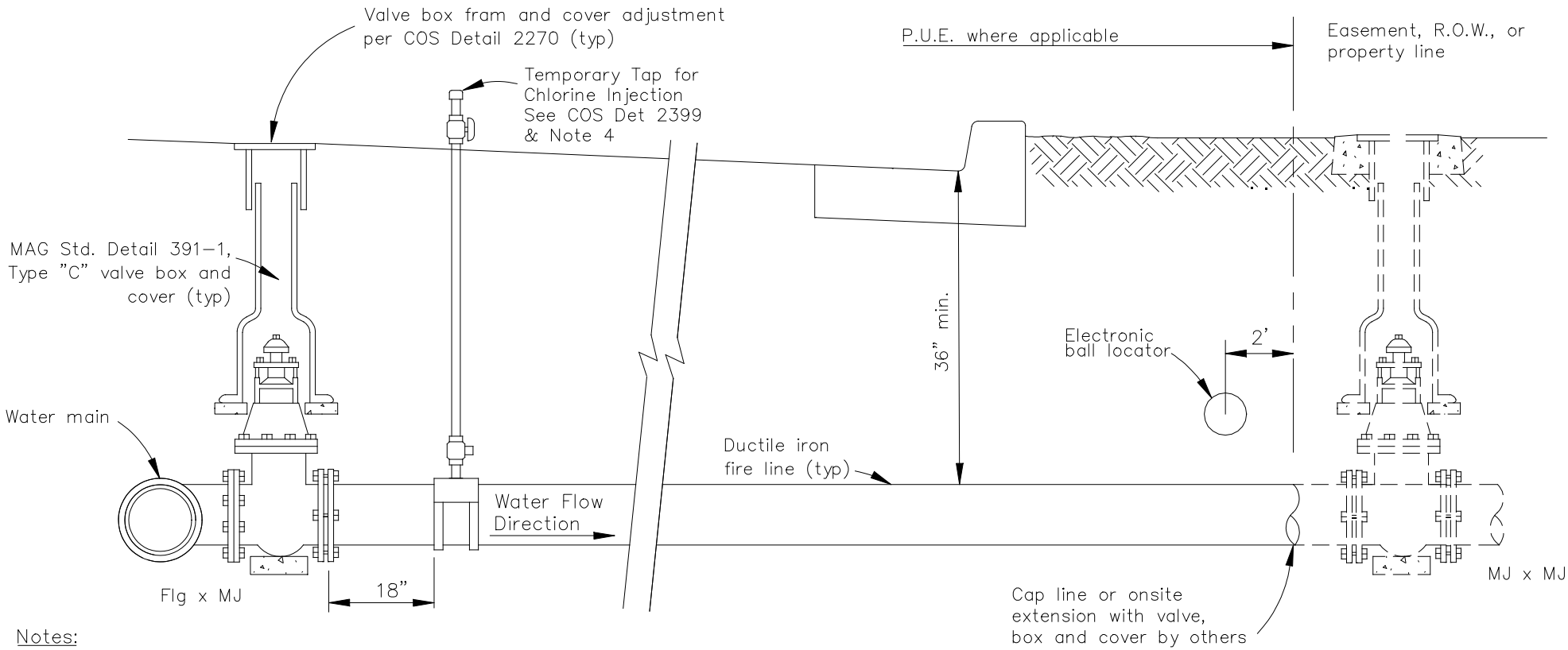
DETAIL NO. 2361	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE HYDRANT BYPASS ASSEMBLY	DETAIL NO. 2361



REVISED 5/22/07

NOTE:
1. All taps must be made using a service saddle.
2. All service line sizes shall have the pack joint compression fittings for corp. stops and meter stops.
3. Where a contractor is installing new water lines, all fire line connections shall also be installed. The contractor's installation shall include the service saddle, corp. stop, service pipe, appurtenant fittings, meter stop, concrete meter box and box cover, per M.A.G. Specifications.
4. Copper service lines in the 1 1/2", and 2" sizes that cross streets will be one continuous piece. Only with the written consent of Water & Wastewater Operations will joints be permitted under a road. When this occurs, pack joint fittings will be required; no soldered joints will be permitted.
5. Authorized City of Scottsdale Water and Wastewater Operations personnel or a City approved tapping contractor shall install the water service connections on existing mains.
6. A fire Department Identification Tag is required. Water resistant tag shall be affixed to valve in meter box and shall state: "DO NOT CLOSE! Fire Sprinkler Supply Line".
7. Rough grade shall be set to 1 ½ inches below top of meter box. Final landscape grade shall be set flush to top of meter box

DETAIL NO.	City of Scottsdale Standard Details	APPROVED BY:	1 1/2"-2" FIRE LINE CONNECTION	DETAIL NO.
2362-1		Scottsdale Standards & Specifications Committee		2362-1

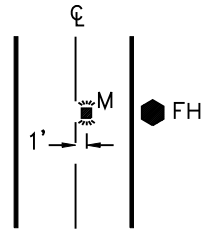


REVISED 4/25/07

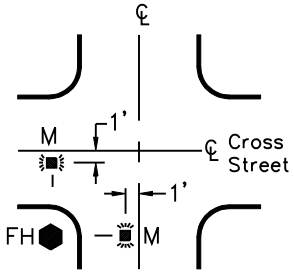
Notes:

1. All water lines within the right–of–way or public utility easement shall be polywrapped ductile iron pipe.
2. Joint restraint shall conform to the requirements of MAG Std. Detail 303.
3. When a water main is located behind the curb at the near side of the street, the gate valve by others is not required when the fire line is extended onto private property.
4. All 3" and larger fire lines are required to be disinfected and tested in accordance with MAG Section 611. A corporation stop shall be inserted in the top of the pipe 18" down stream from the tapping valve and will be used as the chlorine injection point.

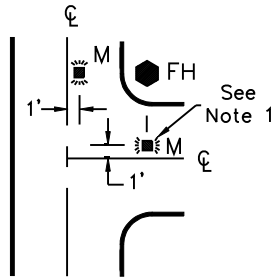
DETAIL NO. 2362-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	3" AND LARGER FIRE LINE CONNECTION	DETAIL NO. 2362-2



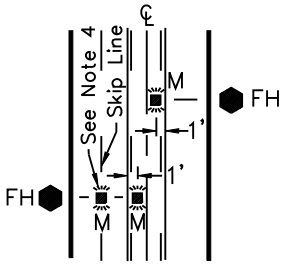
Midblock Local



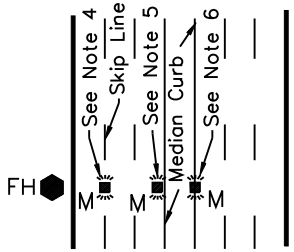
Local Cross Intersection



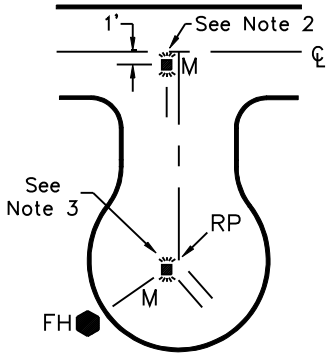
Local 'T' Intersection



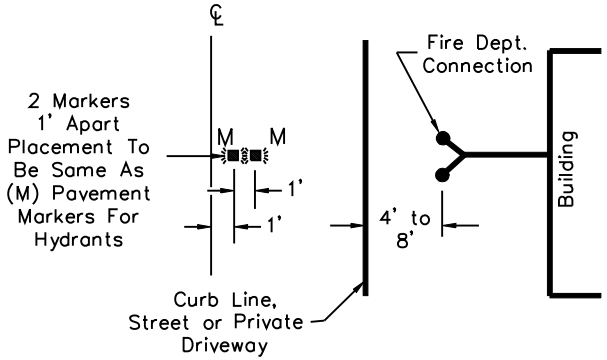
Midblock
WITH CENTER LANE OR SKIP LINES



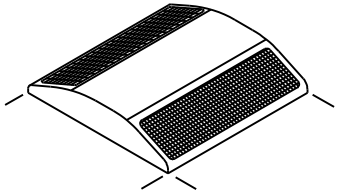
Midblock
WITH RAISED MEDIAN



Cul-De-Sac Street



Fire Dept. Connection



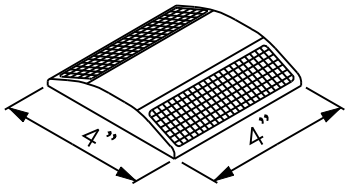
(M) Pavement Marker
(2-WAY REFLECTIVE BLUE)

NOTES:

1. Not Required on Dead End Streets Without Hydrants
2. Place on Hydrant Side of Centerline.
3. Not Required When Cul-De-Sac is Less Than 250'.
4. To Be Placed in Line With Skip Line.
5. Place on Gutter or Adjacent To Curb.
6. Place on Top of Curb. (This Location Optional)
7. Pavement Markers Shall Not Be Placed Within One Foot of A Paint Line (Center to Center).

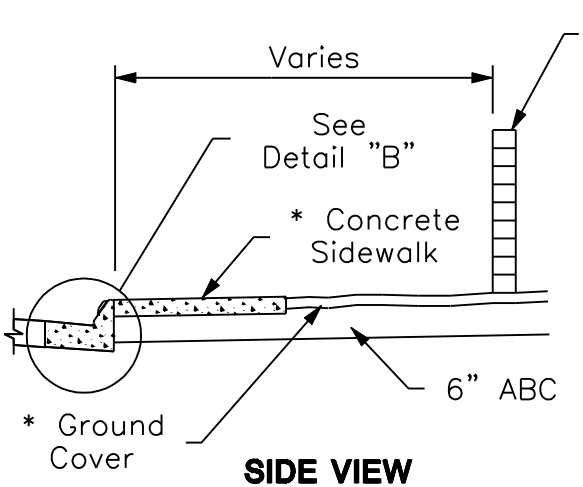
REVISED 6/15/91

DETAIL NO. 2363	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	PAVEMENT MARKERS FOR FIRE HYDRANTS	DETAIL NO. 2363

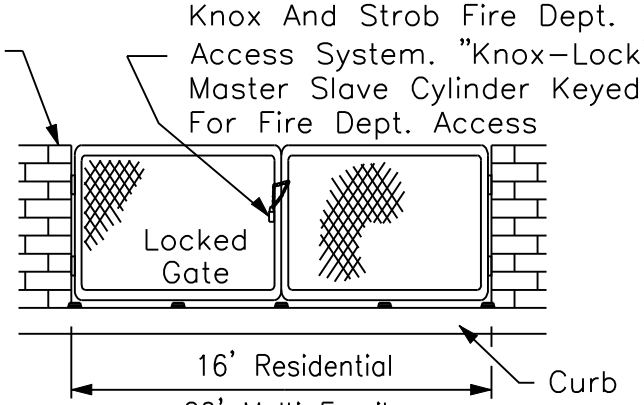


Type M Pavement Marker
(2-WAY REFLECTIVE BLUE)

DETAIL "A"

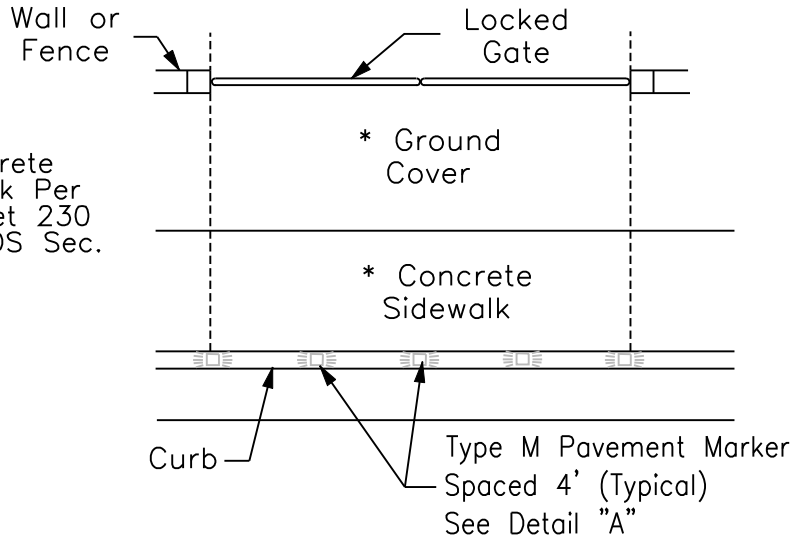


SIDE VIEW

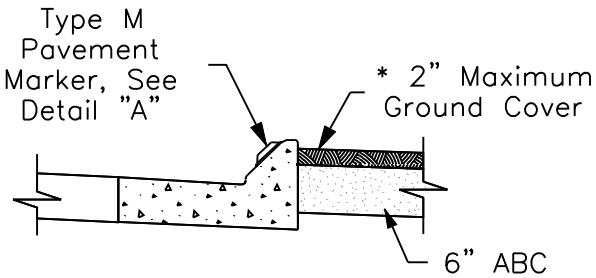


FRONT VIEW

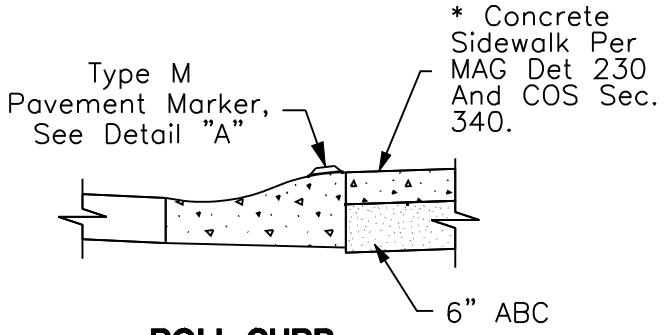
* NOTE:
Sidewalk And/Or 2" Max. Ground Cover Over Min. 6" ABC



TOP VIEW



TYPE "M" MOUNTABLE CURB AND GUTTER



ROLL CURB

DETAIL "B"

REVISED 2/26/04

DETAIL NO. 2364	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE AND EMERGENCY ACCESS AND DELINEATION	DETAIL NO. 2364

NOTES:

1. At the beginning and end of the fire lane, the sign shall have a single headed arrow pointing in the direction the regulation is in effect. The intermediate signs shall have double headed arrows pointing in both directions.

2. The maximum spacing of the signs shall be 100’, contingent upon Traffic Engineering’s review and approval.

3. The signs shall be set at an angle of not less than 30° nor more than 45° with the curb or line of traffic flow

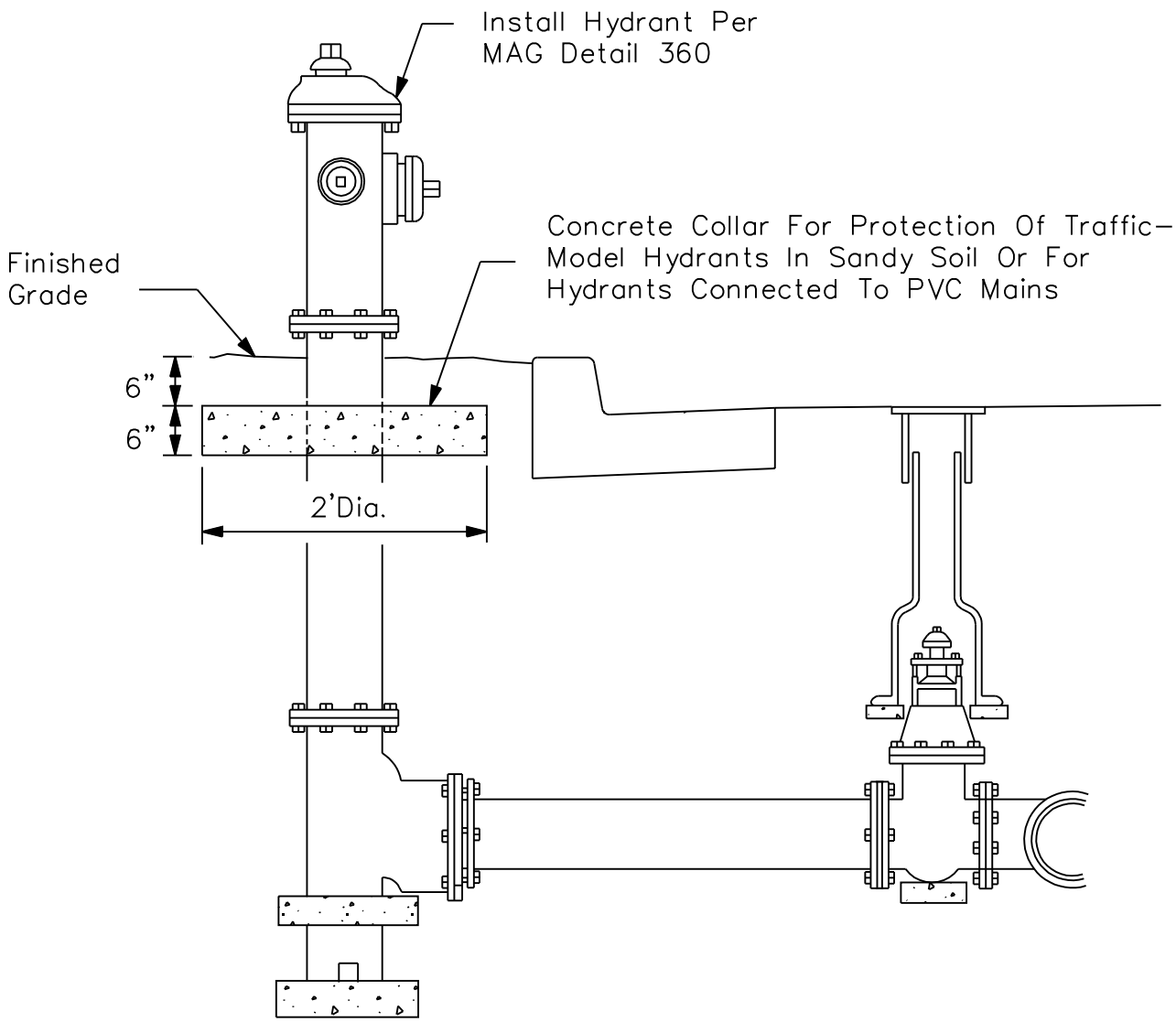
4. The clearance to the bottom of the sign shall be 7 feet. There shall be no other signs attached to the sign or the sign pole.

5. The sign substrate shall be a minimum of 12’’ x 18’’ treated aluminum with a thickness of 0.080”.

6. The sign face shall have a white, ASTM Type IV reflective background with a red screen printed or translucent acrylic EC overlay film reflective legend. Use the standard sign face number R7–32 or equivalent incorporating additional information to complete the sign as shown.

REVISED 4/25/07

DETAIL NO. 2365	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE LANE SIGN	DETAIL NO. 2365

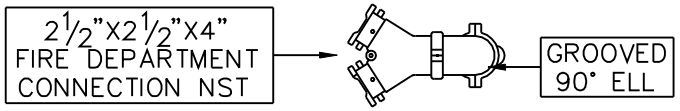


REVISED: 4/30/04

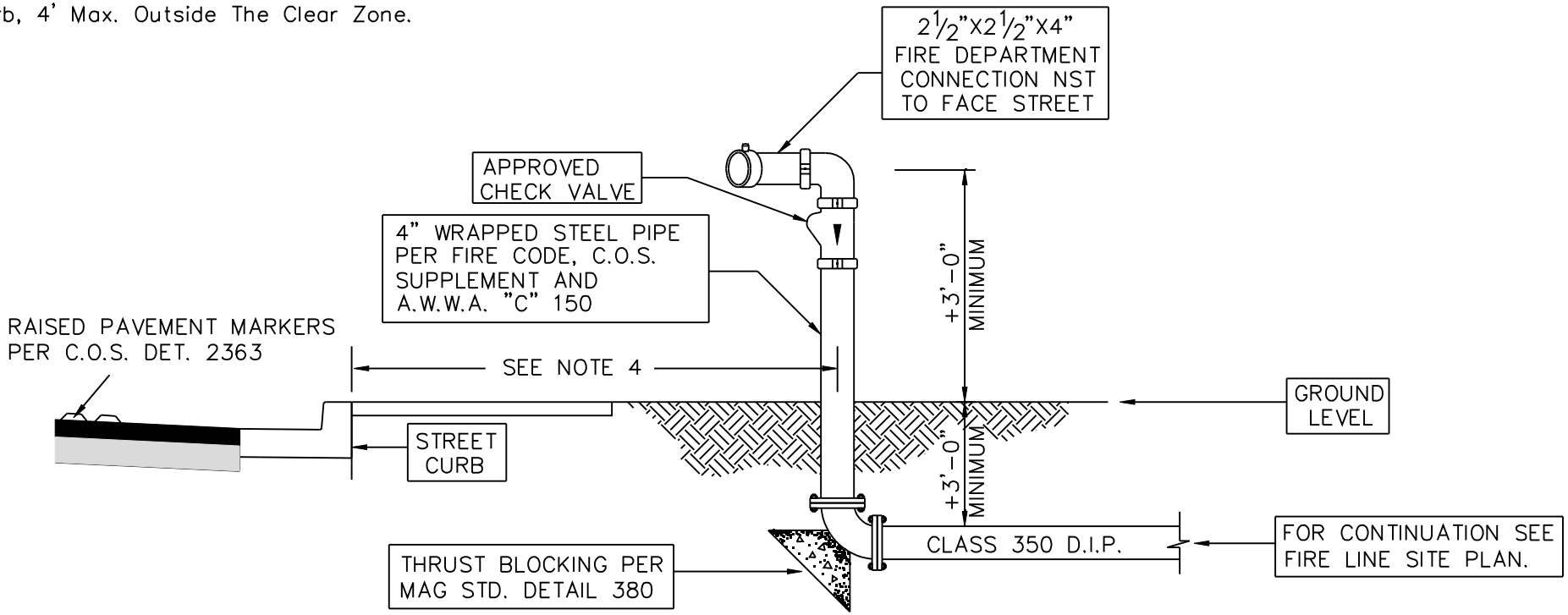
DETAIL NO. 2366	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CONCRETE COLLAR FOR FIRE HYDRANTS	DETAIL NO. 2366

GENERAL NOTES

1. Provide Building I.D. On Remote Fire Dept. Connection.
2. No Trees, Bushes Or Walls Within 5' Radius Of Fire Dept. Connection
3. If Fire Sprinkler Design Indicates Demand Of 1000 GPM Or Greater, The Underground Fire Dept. Connection Line Shall Be Increased To 6" Diameter With A Three Way 2½" Fire Dept. Hose Connection
4. 4' Min. To Back Of Curb, or 2' Min To Back Of Sidewalk, or When No Curb, 4' Max. Outside The Clear Zone.



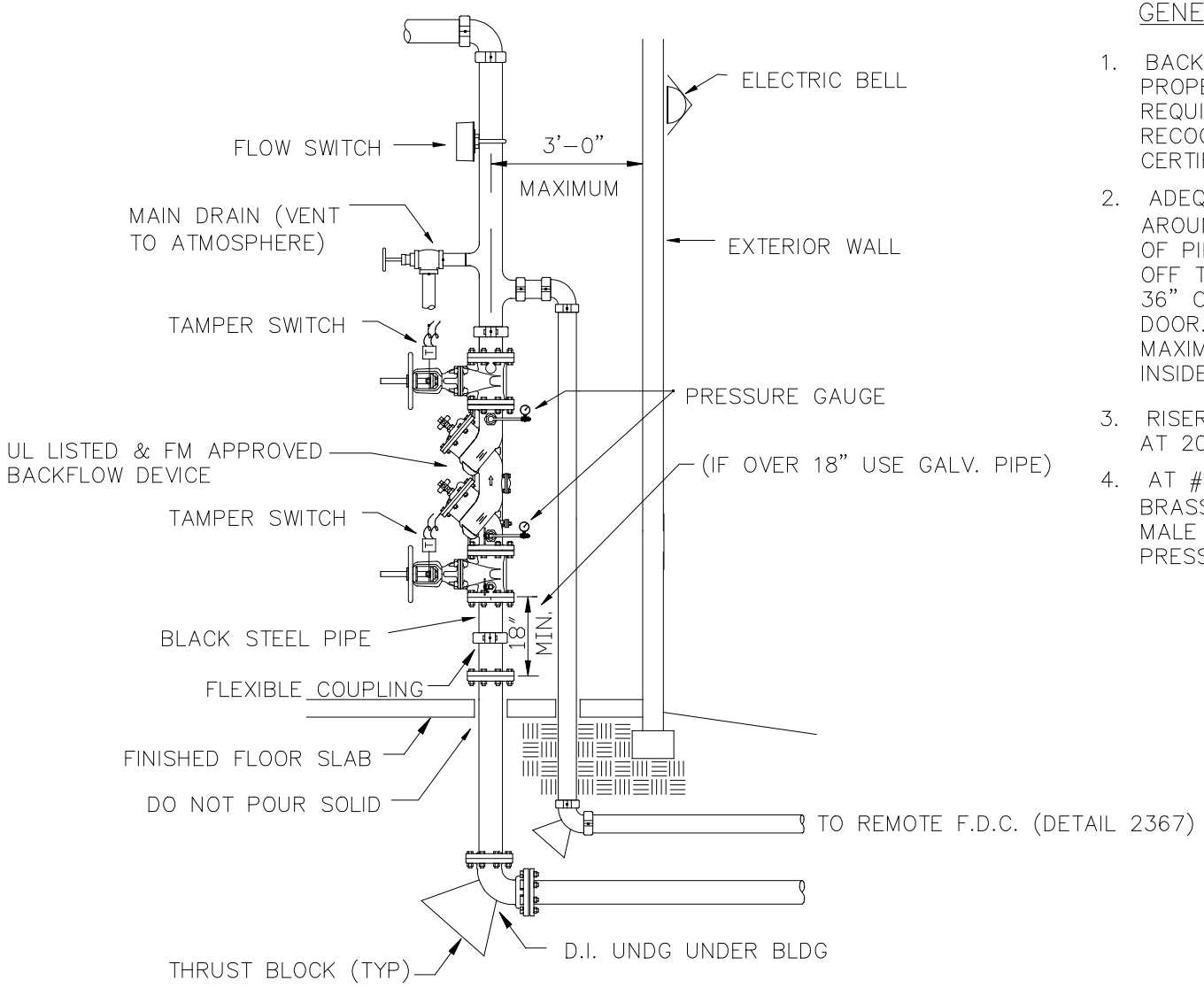
TOP VIEW



SIDE VIEW

REVISED 5/17/06

DETAIL NO. 2367	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE DEPARTMENT REMOTE SIAMESE CONNECTION	DETAIL NO. 2367

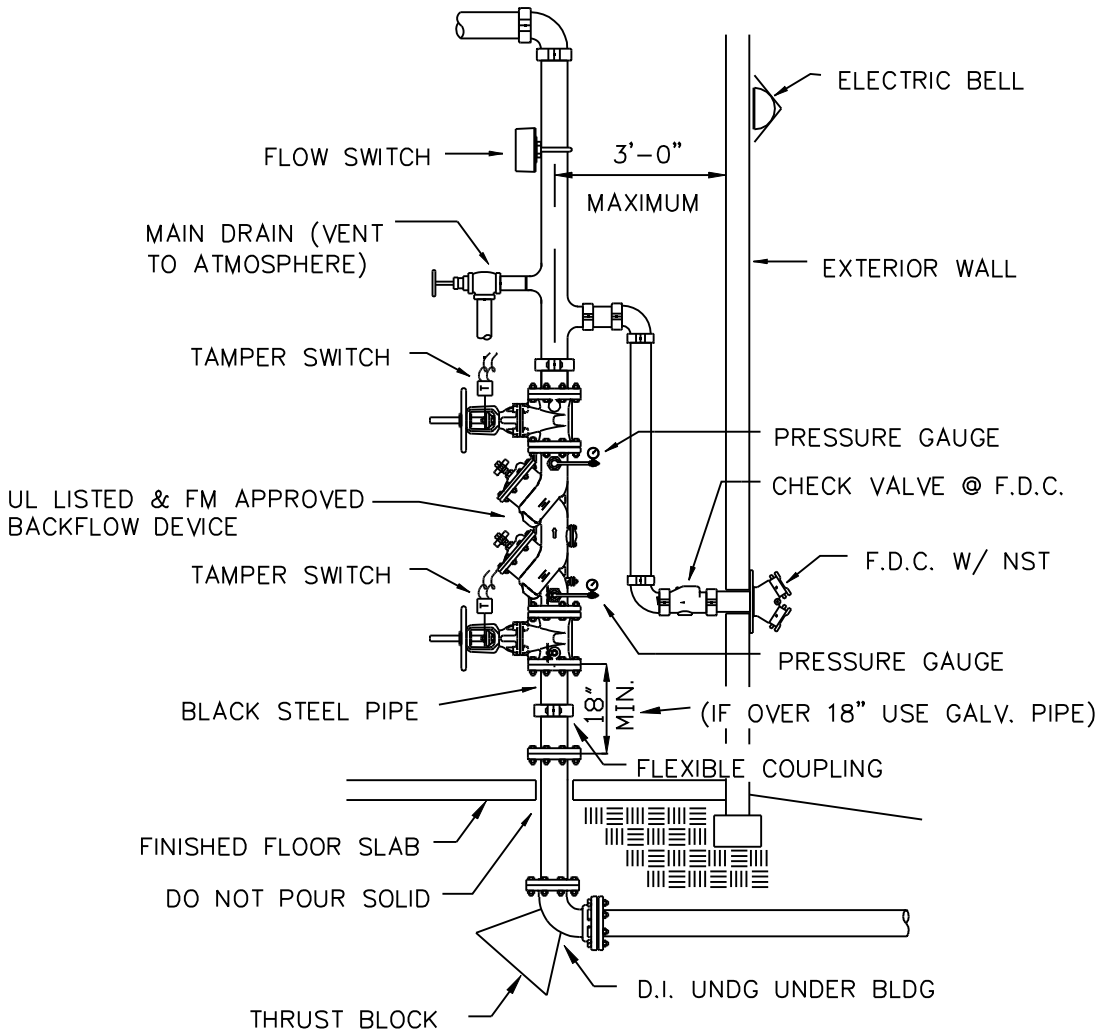


GENERAL NOTES

1. BACKFLOW PREVENTER SHALL BE TESTED FOR PROPER OPERATION PER CITY OF SCOTTSDALE REQUIREMENTS BY A CERTIFIED TESTER RECOGNIZED BY THE CITY, BEFORE A TEMPORARY CERTIFICATE OF OCCUPANCY IS ISSUED.
2. ADEQUATE CLEARANCE SHALL BE PROVIDED AROUND FIRE RISER. DIMENSIONS FROM FACE OF PIPE SHALL MEASURE A MINIMUM OF 12" OFF THE BACK WALL, 18" ON EACH SIDE AND 36" CLEAR IN FRONT WITH A FULL HEIGHT DOOR. THE FIRE LINE SHALL EXTEND A MAXIMUM OF 3' INTO THE BUILDING FROM INSIDE FACE OF WALL TO CENTER OF PIPE.
3. RISER SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR TWO HOURS.
4. AT #1 & #4 TEST PORTS INSTALL A 1/2" BRASS NIPPLE, TEE & PLUGS W/1/2" x 1/4" MALE FLARED CONNECTION W/ CAP (INSTALL PRESSURE GAUGE ON TEE OUTLET)

REVISED 4/24/07

DETAIL NO. 2369	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE SPRINKLER RISER DETAIL - VERTICAL INSTALLATION #1	DETAIL NO. 2368



GENERAL NOTES

1. BACKFLOW PREVENTER SHALL BE TESTED FOR PROPER OPERATION PER CITY OF SCOTTSDALE REQUIREMENTS BY A CERTIFIED TESTER RECOGNIZED BY THE CITY, BEFORE A TEMPORARY CERTIFICATE OF OCCUPANCY IS ISSUED.
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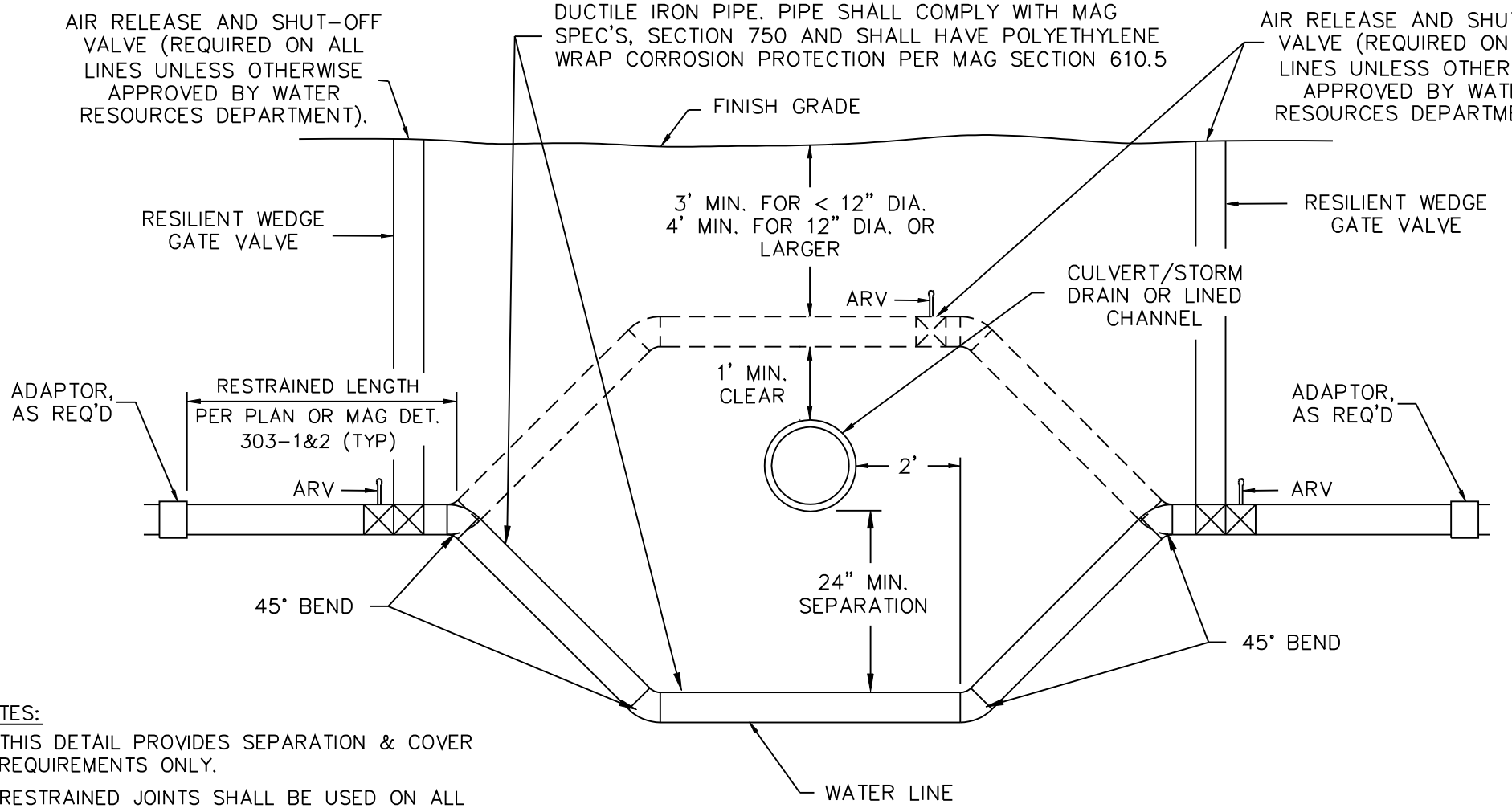
REVISED 5/17/05

DETAIL NO. 2369	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE SPRINKLER RISER DETAIL - VERTICAL INSTALLATION #2	DETAIL NO. 2369

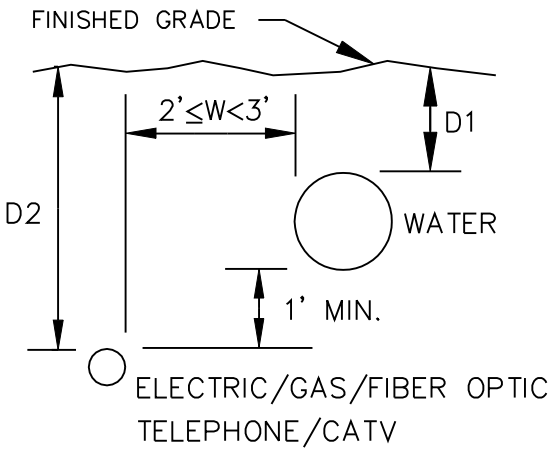


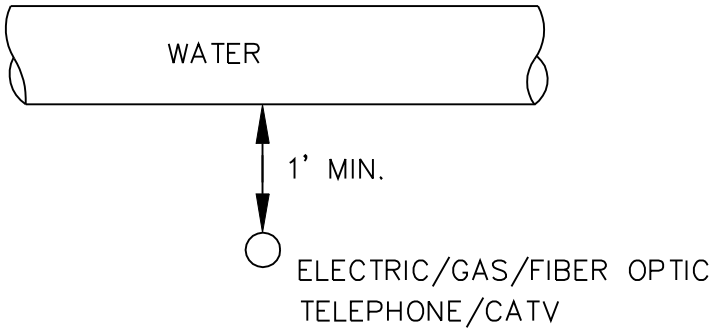
NOTES:

1. THIS DETAIL PROVIDES SEPARATION & COVER REQUIREMENTS ONLY.
2. RESTRAINED JOINTS SHALL BE USED ON ALL BENDS AND FOR THE APPROPRIATE RESTRAINT LENGTH OF PIPE PER THE MANUFACTURERS SPECIFICATION.

REVISED 2/27/02

DETAIL NO. 2370	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	VERTICAL REALIGNMENT OF WATER MAINS	DETAIL NO. 2370

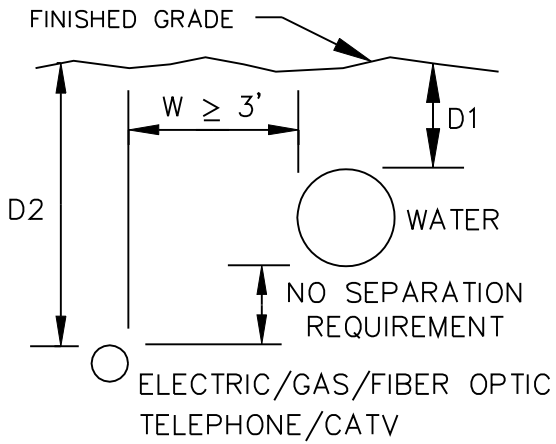




CROSSING

LEGEND

D1 = 3' Min. for pipe < 12" dia
D1 = 4' Min. for pipe ≥ 12" dia
D2 = Minimum Cover
W = Horizontal Separation



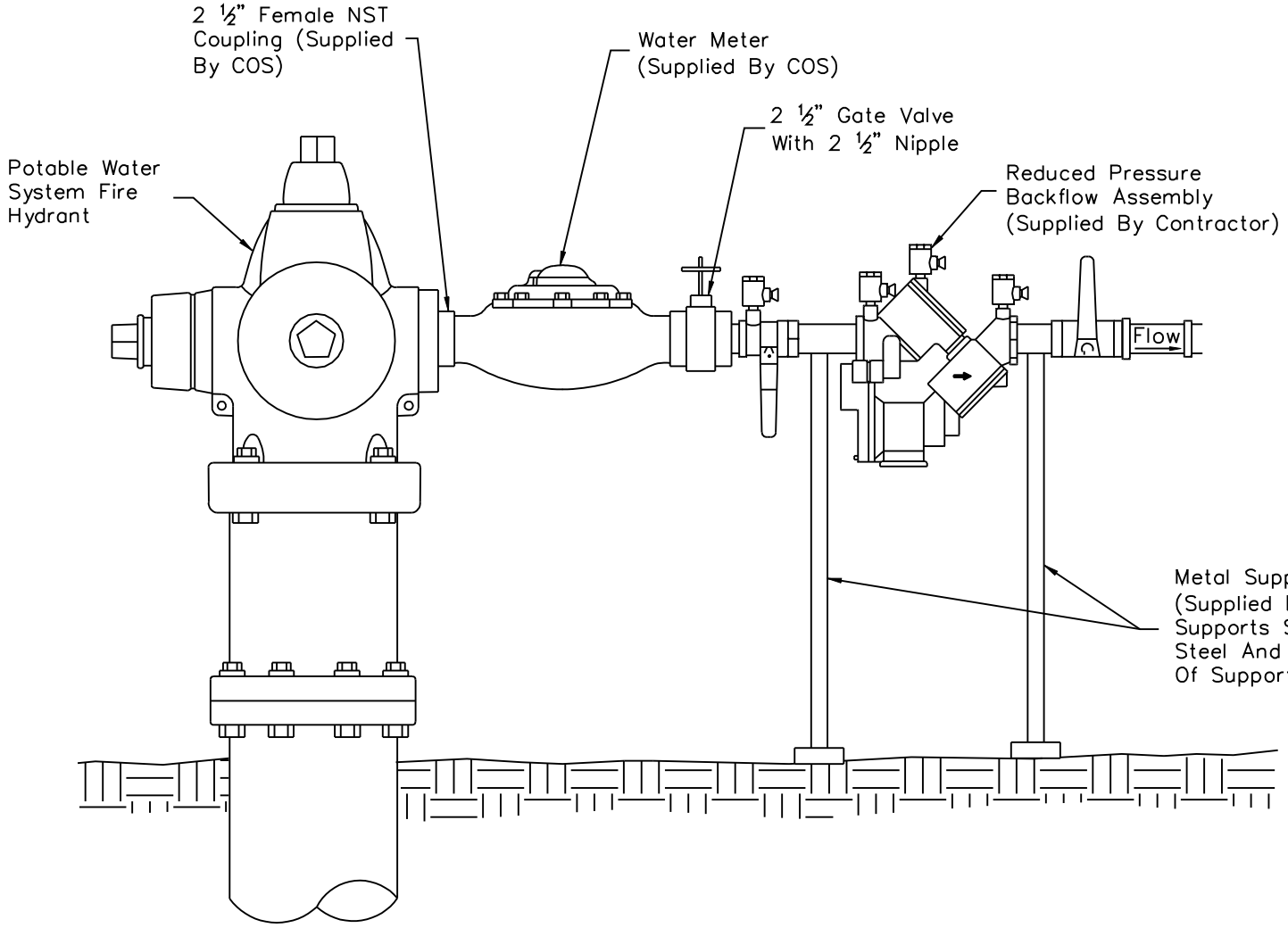
NOTES

1. Electric separation requirements are for primary electric conductors only. For service conductors see plans.

2. Primary electric, gas, telephone, cable TV or fiber optic lines shall not cross above a water line without written approval from the City's Water Resources Department. If this approval is obtained, a utility locator strip and ABC slurry conforming to COS Specifications Sec. 601.3.6 are required.

REVISED 8/29/96

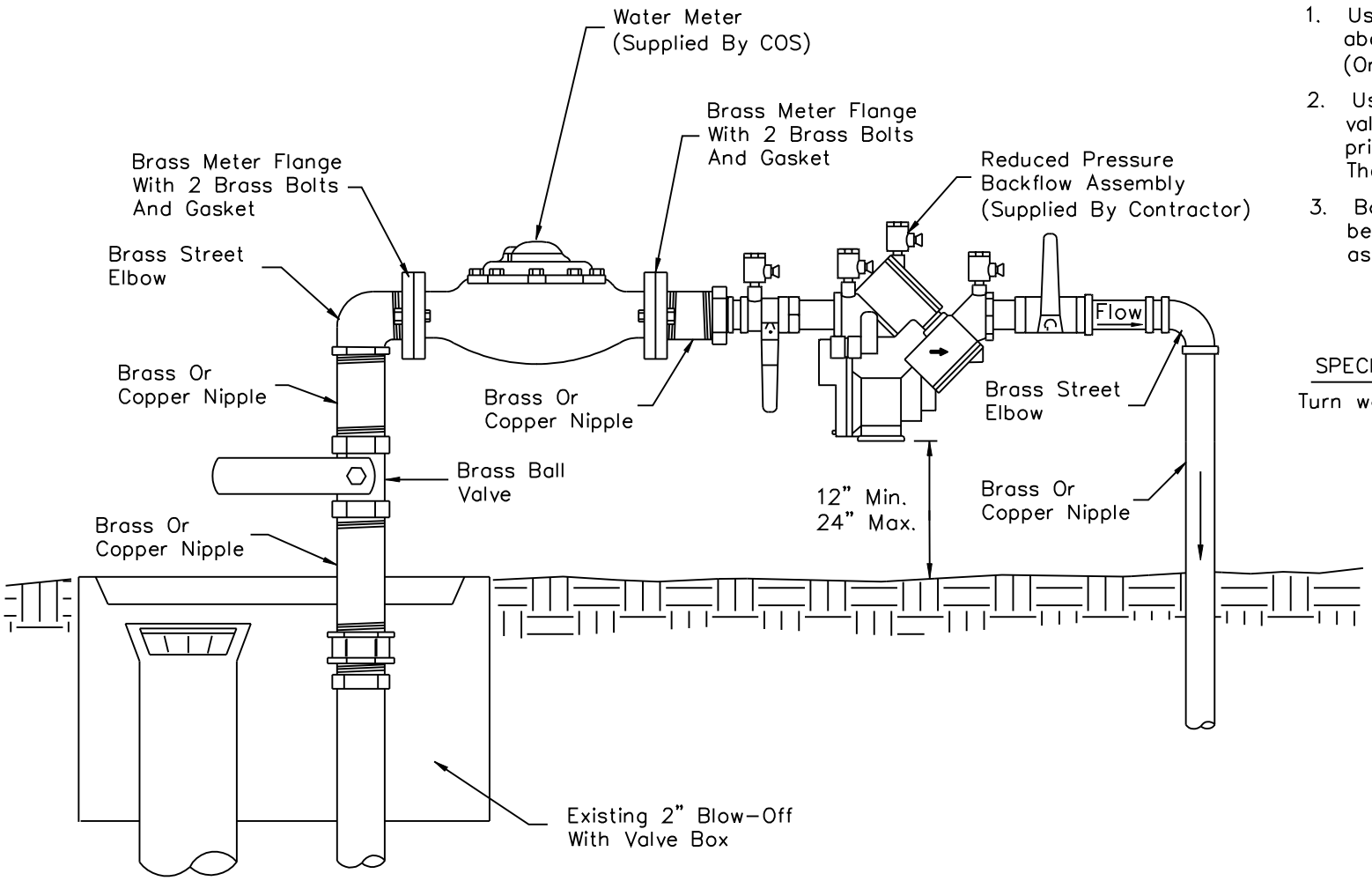
DETAIL NO. 2372	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MINIMUM UTILITY SEPARATION REQUIREMENTS	DETAIL NO. 2372



GENERAL NOTES

1. Backflow assembly shall be tested by a certified backflow assembly tester before using and also each time the meter is moved.
2. User must remove backflow assembly when hydrant meter is removed or relocated.
3. User is liable for any damage to the hydrant and all attachments to the hydrant.
4. User must use gate valve to control flow of water, not the hydrant valve assembly.
5. Call 480–312–5650 for questions.

DETAIL NO. 2380	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TEMPORARY WATER SUPPLY HYDRANT METER ASSEMBLY	DETAIL NO. 2380



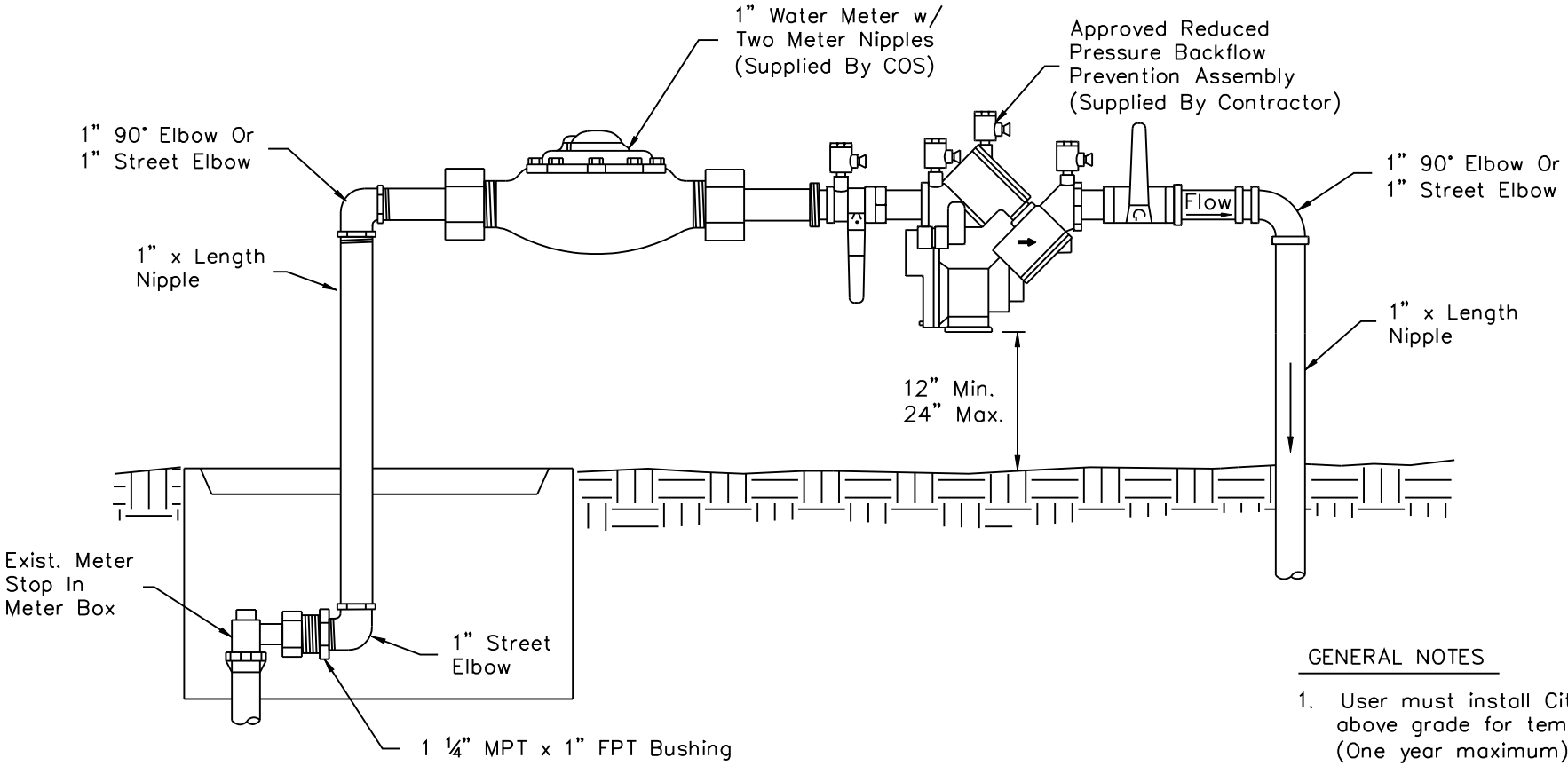
GENERAL NOTES

1. User must install City water meter above grade for temporary use. (One year maximum)
2. User must supply all fittings, piping, valves and approved reduced pressure principle backflow prevention assembly. The City shall supply the water meter.
3. Backflow assembly must be tested before use by a certified backflow assembly tester.

SPECIAL NOTE

Turn water on and off slowly.

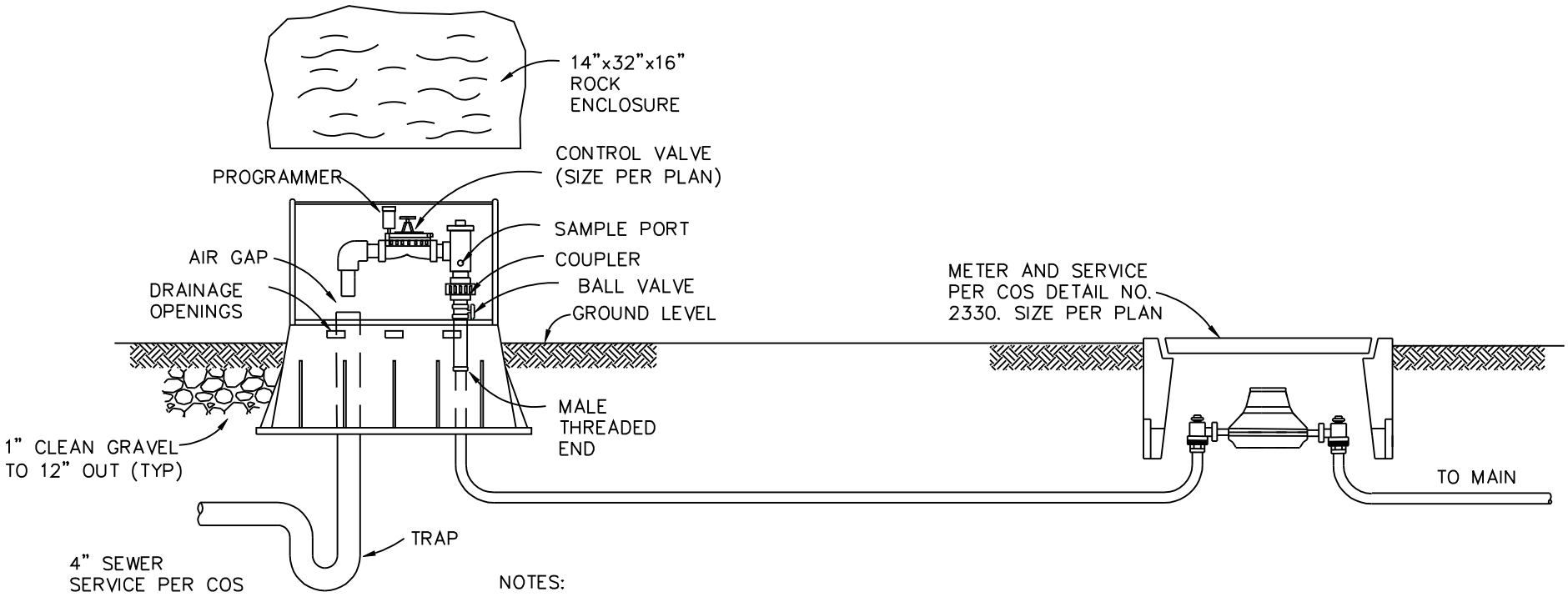
DETAIL NO. 2381	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TEMPORARY BLOW-OFF FOR WATER SUPPLY	DETAIL NO. 2381



GENERAL NOTES

1. User must install City water meter above grade for temporary use. (One year maximum)
2. User must supply all fittings, nipples, valves and approved reduced pressure principle backflow prevention assembly. All fittings and nipples must be brass. The City shall supply the water meter.
3. Backflow assembly must be tested before use by a certified backflow assembly tester.

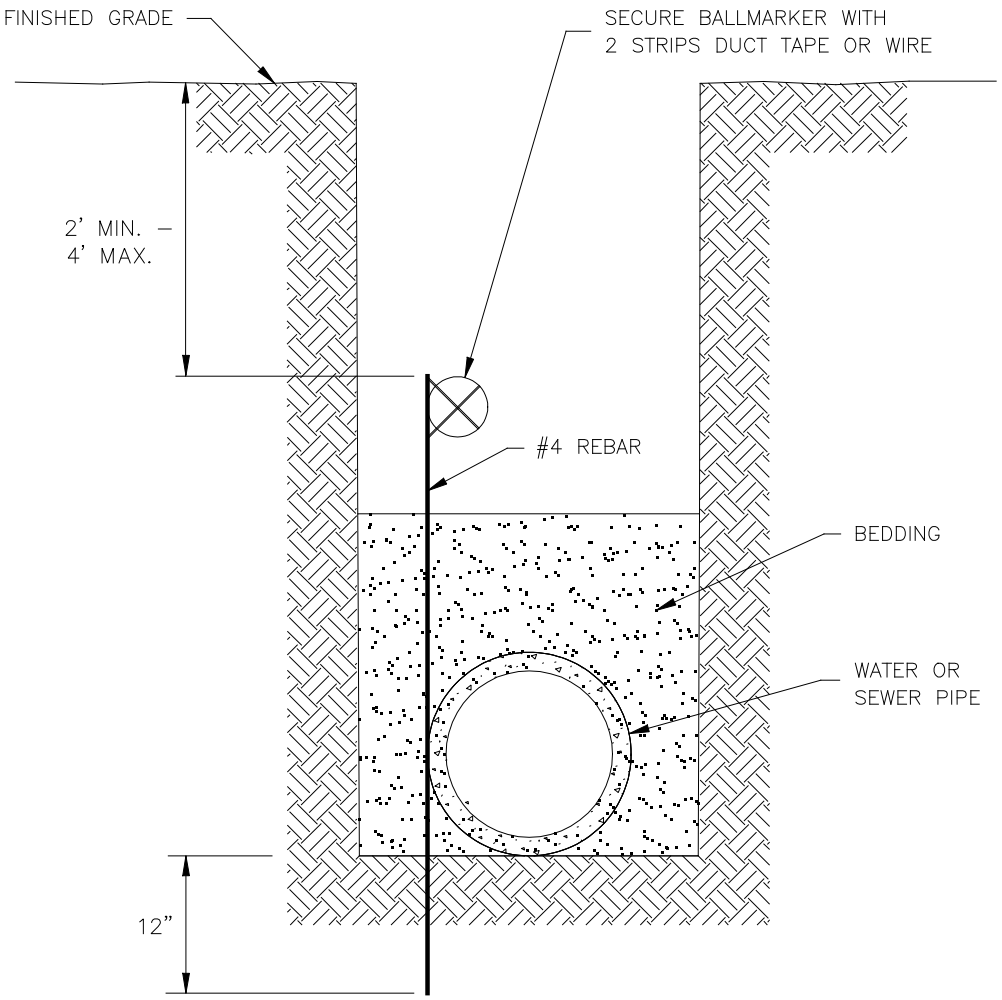
DETAIL NO. 2382	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TEMPORARY WATER SERVICE	DETAIL NO. 2382



NOTES:

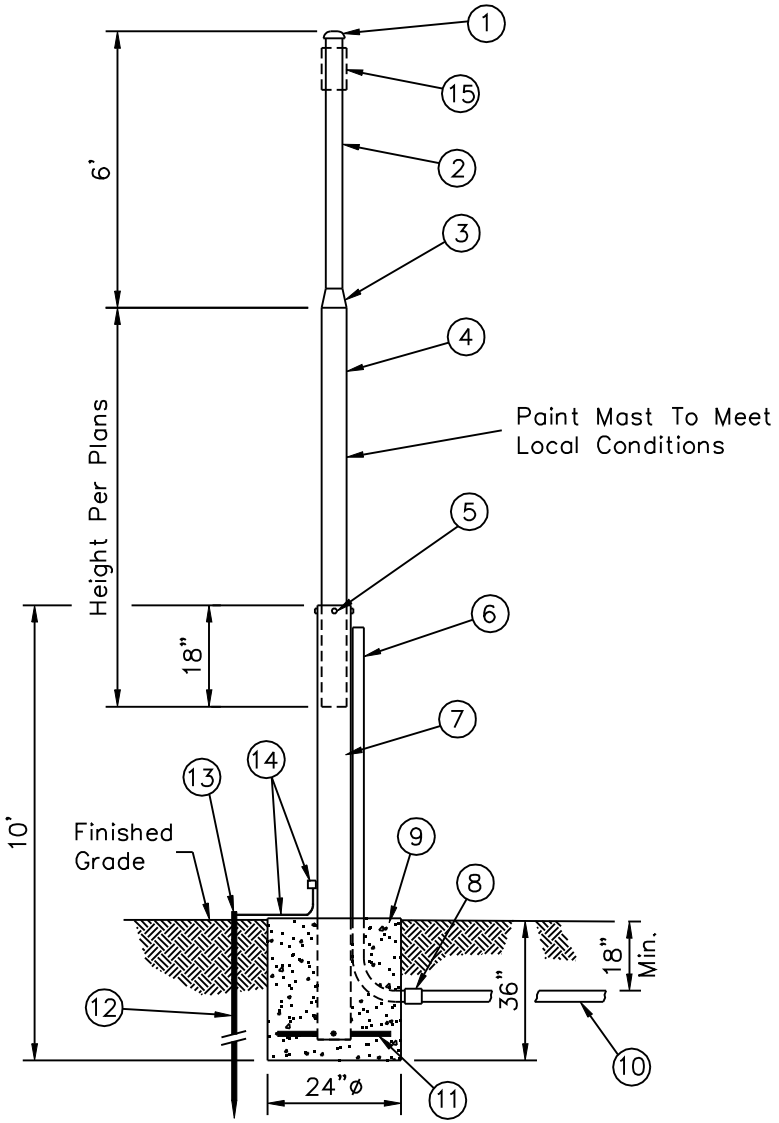
1. AUTOMATIC FLUSHING VALVE ASSEMBLY TO BE "HYDRO-GUARD" DIRECT DISCHARGE TYPE OR APPROVED EQUAL. CONTROLLER SHALL BE BATTERY OPERATED AND 7-DAY PROGRAMMABLE. FLUSHING VALVE SHALL BE CORROSION RESISTANT AND RATED BETWEEN 20 AND 150-PSI OPERATING PRESSURE. VALVE, CONTROLLER, AND BATTERY PACK SHALL REMAIN DRY AT ALL TIMES.
2. AIR GAP TO BE A MINIMUM OF 2 TIMES THE VALVE DISCHARGE PIPE DIAMETER.
3. ALL MOUNTING BRACKETS AND HARDWARE SHALL BE STAINLESS STEEL.
4. FAUX ROCK ENCLOSURE SHALL BE MANUFACTURED BY CHANNEL, OR AN APPROVED EQUAL, COLORED TO BE CONSISTENT WITH ONSITE NATIVE MATERIAL, AND SECURED BY AN INTEGRATED LOCKING DEVICE.
5. DRAINAGE SHALL BE DIRECTED AWAY FROM THE ASSEMBLY.

DETAIL NO. 2383	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	WATER LINE FLUSHING ASSEMBLY	DETAIL NO. 2383



REVISED 5/07/07

DETAIL NO. 2397	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	ELECTRONIC BALLMARKER PLACEMENT	DETAIL NO. 2397

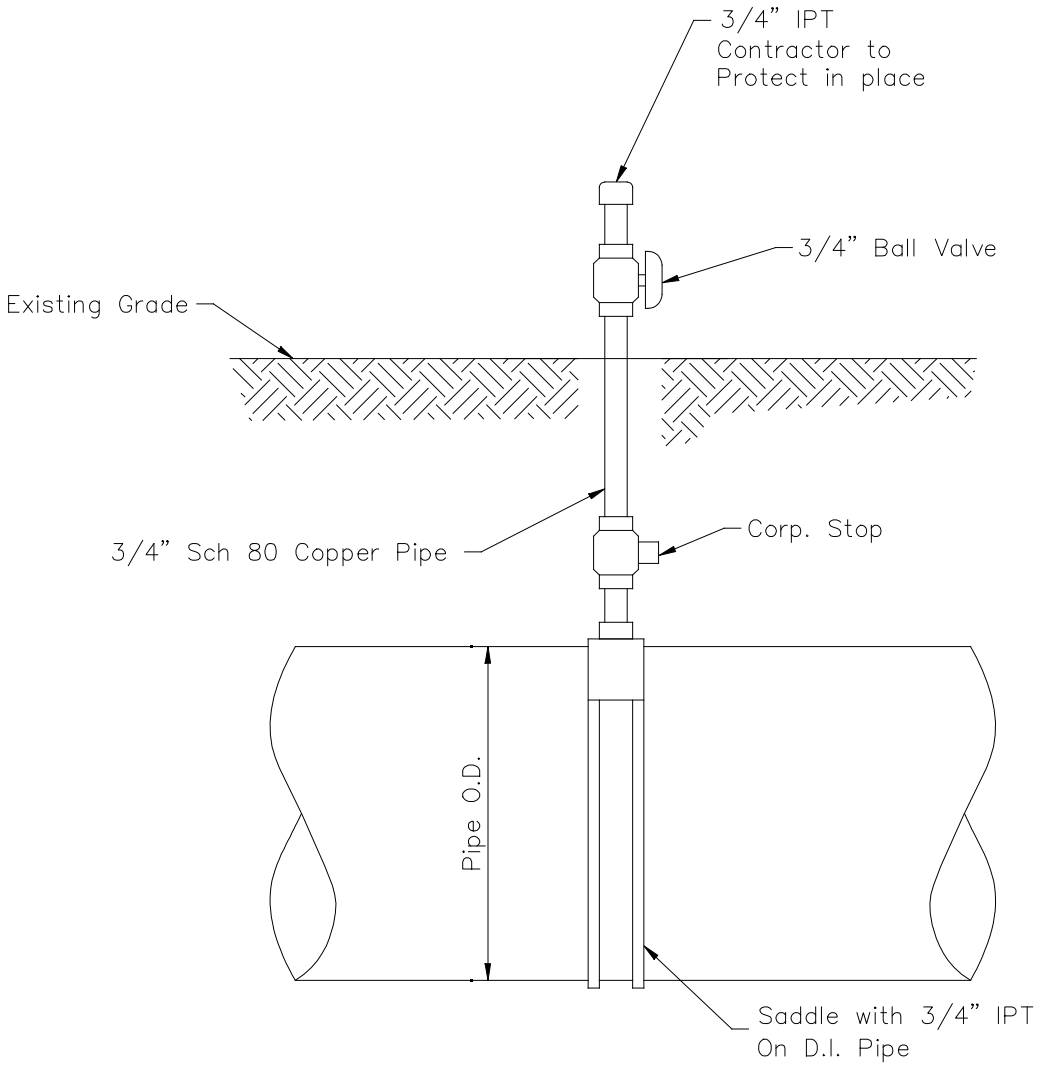


LIST OF MATERIALS

1. Raintight Cap
2. 2" Galvanized Rigid Steel Conduit
3. 2 1/2" To 2" Galvanized Steel Reducer
4. 2 1/2" Galvanized Rigid Steel Conduit
5. 1/2" Set Screw (Typ. – 4 Each)
6. 1" Rigid Steel Conduit, Strap To Mast
   Install Bushing On Top Of Conduit
7. 3" Galvanized Rigid Steel Conduit
8. PVC To Rigid Steel Conduit Fitting
9. Concrete Foundation, Class "B"
10. 1" PVC Conduit To Radio Transceiving Unit
11. #5 Rebar (8" Length) Welded To
    3" Conduit (Typ. – 4 Each)
12. 5/8"ø x 8' Long Grounding Rod
13. Acorn Nut Connection
14. Ground Attached To 3" Conduit
    Using Lug And Self Tapping Screw
15. Install YAGI Or Omnidirectional Antenna
    Per Contract Documents

REVISED 4/30/04

DETAIL NO. 2398	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	ANTENNA MAST DETAIL	DETAIL NO. 2398



GENERAL NOTES:

1. Upon completion and acceptance of bacterial testing, the corp stop shall be shut off. The copper riser shall be disconnected and removed. The corp stop shall remain closed in place.

REVISED 4/25/07

DETAIL NO. 2399	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TEMPORARY TAP FOR CHLORINE INJECTION	DETAIL NO. 2399