LEGEND

1. 48" I.D. Manhole Shaft Per MAG Std.
   Detail 420, Type "B" Top (Without Manhole Steps)
2. 32" Hinged Manhole Frame & Cover Per COS Specifications Section 610.8
3. Grouted Adjusting Rings
4. Not Used
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

SECTION

6" Min. Clearance Between Wall And Operator Nut

Finished Grade

2'

3'-3"

2' Varies

3'-3"

LEGEND

SECTION

DETAIL NO. 2305-1

City of Scottsdale Standard Details

APPROVED BY:
Scottsdale Standards & Specifications Committee

BUTTERFLY VALVE OPERATOR MANHOLE

DETAIL NO. 2305-1
Harnessed Sleeve Type Coupling (For D.I. Pipe)

1" I.P. Corp Stop (Typ.)

Polypropylene Manhole Steps Per MAG Std Detail 428

Manhole Cover

1" Threaded Brass Gate Valve (Typ.)

Link Seal (Typ.)

1" Corp Stop With Dielectric Insulating Flange Kit (Typ.)

New Pipe

Variety

Variety

2' - 8"

2' - 8"

PLAN
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".
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 a composite lid (DFW PLASTICS, INC or approved equal).
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 curbed 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.
Specifications on all fittings shall exceed the maximum pressures of the system.
TAP FOR FUTURE CHLORINE INJECTION

- **Cast Iron Box Cover**
- **2" Threaded Cap**
- **Concrete Water Meter Box #4**
  - Per MAG Std. Detail 320
- **Compacted Aggregate Base**
- **2" Sch 80 PVC Pipe**
- **Corp. Stop**
- **Saddle W/ 2" IPT On D.I. Pipe**

**City of Scottsdale**

**Standard Details**

**DETAIL NO. 2333**

**APPROVED BY:**
- Scottsdale Standards & Specifications Committee

**REVISED 1/4/93**

**APPROVED BY:**
- Scottsdale Standards & Specifications Committee
NOTES

3  Flg x Flg Tee, See Detail 2342-1
21  4” Flg Connecting Piece
22  4” DIP Flg x Flg 90° Elbow, w/ Restrainted
    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.
NOTE: Meter Vaults To Be Pre-Cast Concrete Unless Otherwise Approved By Water Operations. See MAG Std Detail 321 For Vault Construction.

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<tr>
<th>MAIN SIZE</th>
<th>3&quot;</th>
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<th>6&quot;</th>
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<tr>
<td>(A)</td>
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<tr>
<td>(B)</td>
<td>4'-6&quot;</td>
<td>5'-0&quot;</td>
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VAULT INSTALLATION

3", 4", 6" WATER 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″ 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.
4. Meter To Be Provided By City Upon Payment Of Fees.
1. Contractor to supply and install above ground piping and fittings to accommodate 3" meter, backflow preventer and 2 - 90° ell.
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 suppression 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.
1/8" MESH SCREEN WITH THREADED CAP

2" GALVANIZED 90° ELBOW

CONCRETE THRUST BLOCK PER MAC STD. DET. 380

FIELD CUT GALVANIZED PIPE, INSTALL 2" FERNCO COUPLING W/ STAINLESS STEEL BANDS OR APPROVED EQUAL

2" GALVANIZED 90° ELBOW

6" CRUSHED STONE

12" ABC BASE

4" x 8" x 16" CONCRETE SUPPORT

2" CURB STOP, PACK JOINT X IPT

NOTE: IF STAND PIPE IS WITHIN 8 FEET OF THE EDGE OF PAVEMENT ON STREETS NOT HAVING VERTICAL CURB, INSTALL A VERTICAL OBJECT MARKER PER COS DETAIL 2133 ON APPROACH SIDE OF THE STAND PIPE.

1/8" MESH SCREEN WITH THREADED CAP

2" GALVANIZED 90° ELBOW

CONCRETE THRUST BLOCK PER MAC STD. DET. 380

FIELD CUT GALVANIZED PIPE, INSTALL 2" FERNCO COUPLING W/ STAINLESS STEEL BANDS OR APPROVED EQUAL

2" GALVANIZED 90° ELBOW

6" CRUSHED STONE

12" ABC BASE

4" x 8" x 16" CONCRETE SUPPORT

2" CURB STOP, PACK JOINT X IPT

NOTE: IF STAND PIPE IS WITHIN 8 FEET OF THE EDGE OF PAVEMENT ON STREETS NOT HAVING VERTICAL CURB, INSTALL A VERTICAL OBJECT MARKER PER COS DETAIL 2133 ON APPROACH SIDE OF THE STAND PIPE.
To Water Main

Water supply line to sampling station

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.

TYPICAL INSTALLATION

N.T.S.

Aluminum Lid
6" Dia. (I.D.)
See Detail

Stainless Steel

1/2" x 3/8" Stainless
Steel Ball Valve

1/2" IPTx 3/4" PJCTS Adaptor
Ford 94-13 Or Approved Equal

Aluminum Housing - 6" Dia. (O.D.)
Fill Housing With Pea Gravel

Finish Grade

#1 Concrete Meter
Box w/ Ball Stop

3/4" Copper, Type 'K'
water supply line to
sampling station

3/4" x 3/4" Ball Valve
PJ x PJ Ford #B44-333
Or Approved Equal

3/4" x 3/4" Ball Valve
To Water Main
10' Max.

1' Min.
3' Max.

18"

2'-6"

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.
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.

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.

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 suppression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

SCREEN WALL

From Meter Vault

Ductile Iron

Flow

Inlet As Close To Service Connection As Possible

Maximum Height Varies.

Minimum 16” x 16” x Dimension “A” Concrete Thrustblock/Foundation

8” x 8” x 8” Concrete Block, Fill With Mortar

36” Min.

Finished Grade

36” Min. 48” Min.

Customer Side

Typ.

8” Min. 18” Max.

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

APPROVED BY:
Scottsdale Standards & Specifications Committee

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. Copper fittings shall be connected with lead-free solder joints or approved equal.
3. Finished grade underneath the backflow preventer shall be at 95% compaction.
4. All nipples to be copper or brass.
5. Inlet / outlet piping must be type "K" hard 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 suppression 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)
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.

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 suppression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

LIST OF MATERIALS

1. 1  Approved reduced pressure principle backflow prevention assembly.
2. 2  Resilient seated gate valve, O.S. & Y. (fire line connection). N.R.S. (non fire line)
3. 3  90° ell. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
4. 4  Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
5. 5  Flanged adapter (when required)
6. 6  3/4" zinc coated threaded rod, (5/8" rod on 3" to 4" sizes), bolt to flanges as shown, typical both sides.
7. 7  Test cocks with brass plugs or adaptors with caps installed. (4 required)
8. 8  Adjustable metal pipe supports and concrete block supports with 1" adjusting rod and nut on assemblies 4" and larger. Install above grade.
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 or approved equal.
3. Finished grade underneath the backflow preventer shall be at 95% compaction.
4. All nipples to be copper or brass.
5. Inlet/outlet piping must be type "K" hard copper.
7. Approvals for backflow assemblies must have NSF Approval from the American Society of Sanitation Engineers. Backflow assemblies installed on fire suppression 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, 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. 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 or approved equal.
5. Finished grade underneath the backflow preventer shall be at 95% compaction.
6. All nipples to be copper or brass.
7. Inlet / Outlet piping must be type "K" hard 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.

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)
NOTE:
Guard posts are required at these locations if backflow prevention assembly is in an open area. (Not next to a building wall or fence.)

4" x 5' Steel Post
(Min. Wall 0.156"
Pointed Red

Fill With Grout And Crown Top

Customer's Water Service
Backflow Prevention Assembly

Building Wall

Water Meter

Concrete

PLAN VIEW

GUARD POST SECTION
Fill Pipe Permanently Mounted On Tank. See Fill Pipe Detail

Tank Twice The Diameter Of Fill Pipe Above Flood Rim.

FLOOD RIM

FILL PIPE DETAIL

Twice The Diameter Of Fill Pipe Above Flood Rim.

Fill Pipe Permanently Mounted On Tank. See Fill Pipe Detail

WATER TRUCK

WATER WAGON

PESTICIDE APPLICATOR TRUCK

ELEVATED TANK

FILL PIPE DETAILS FOR PORTABLE TANKS WITH AIR GAP SEPARATION
1. Approved "N" shape double check valve backflow prevention assembly.
3. Valve setters, fusion epoxy coated ductile iron, plated nuts and bolts. (2 required)
4. Pipe spool. Flanged D.I.P. 3" thru 10", Vega 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)
7. Optional Fire Department Connection (FDC) - see COS Std. Detail 2374.

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 suppression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.
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)
7. Optional Fire Department Connection (FDC) – see COS Std. Detail 2374.

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 suppression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

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
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.
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 1/2 inches below top of meter box. Final landscape grade shall be set flush to top of meter box.
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" downstream from the tapping valve and will be used as the chlorine injection point.
Pavement Marker
(2-WAY REFLECTIVE BLUE)
(ADOT TYPE BB)

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).
**Pavement Marker**
(2-WAY REFLECTIVE BLUE)
(ADOT TYPE BB)

**DETAIL "A"**

- NOTE:
  Sidewalk And/Or 2” Max. Ground Cover Over Min. 6” ABC

**Type BB Pavement Marker, See Detail "A"**

- * 2” Maximum Ground Cover

**TYPE "M" MOUNTABLE CURB AND GUTTER**

**DETAIL "B"**

- See Detail “B”
- * Concrete Sidewalk
- * Ground Cover

**SIDE VIEW**

**ROLL CURB**

- Type BB Pavement Marker, See Detail “A”

- * Concrete Sidewalk Per MAC Det 230 And COS Sec. 340.

**TOP VIEW**

- Locked Gate
- Wall or Fence

**FRONT VIEW**

- Curb

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

**FIRE AND EMERGENCY ACCESS AND DELINEATION**

**CURB AND GUTTER**

**TYPE "M" MOUNTABLE ROLL CURB**

**DETAIL NO. 2364**

**City of Scottsdale Standard Details**

**APPROVED BY:**
Scottsdale Standards & Specifications Committee

**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.
Concrete Collar For Protection Of Traffic—Model Hydrants In Sandy Soil Or For Hydrants Connected To PVC Mains

Install Hydrant Per MAG Detail 360

Finished Grade

24" Dia.

6"

6"
GENERAL NOTES
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.

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)

5. HYDRAULIC DESIGN AND SUMMARY INFORMATION PER NFPA SHALL BE ATTACHED TO RISER.

6. SPARE HEAD BOX SHALL BE MOUNTED IN AREA.

* REDUCED-PRESSURE BACKFLOW REQUIRED WHEN F.D. CONNECTION IS WITHIN 1700 FEET OF AN AUXILIARY SUPPLY.
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NOTES:
1. DETAIL ONLY ILLUSTRATES MINIMUM SEPARATION AND COVER REQUIREMENTS.
2. QUANTITIES FOR PIPE, FITTINGS, VALVES AND RESTRAINT PER PLANS, INCLUDING ANY REMOVALS, TEMPORARY SUPPORT, SURFACE RESTORATION, ETC.
3. ALL JOINTS TO BE RESTRAINED PER MAG STD. DETAIL 303-1 AND 303-2 UNLESS OTHERWISE NOTED ON THE PLANS.
4. GATE VALVES AND AIR/VACUUM VALVES INSTALLED AS SHOWN UNLESS NOTED OTHERWISE ON THE PLANS.
5. BENDS NOT ADJACENT TO A GATE VALVE SHALL BE INSTALLED WITH BALL MARKERS PER COS STD. DETAIL 2397.
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.
2. No Trees, Bushes Or Walls Allowed 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 2-1/2” 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.
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.

Potable Water System Fire Hydrant

Metal Supports (2 Ea) (Supplied By Contractor)
Supports Shall Be Of Steel And Be Capable Of Supporting 120 lb.

2 ½” Female NST Coupling (Supplied By COS)

Water Meter (Supplied By COS)

2 ½” Gate Valve With 2 ½” Nipple

Reduced Pressure Backflow Assembly (Supplied By Contractor)
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.
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. ALL MOUNTING BRACKETS AND HARDWARE SHALL BE STAINLESS STEEL.

3. 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.

4. DRAINAGE SHALL BE DIRECTED AWAY FROM THE ASSEMBLY.

5. SERVICE LINE, METER AND CONTROL VALVE TO BE THE SAME SIZE.
ELECTRONIC BALLMARKER PLACEMENT

Standard Details

City of Scottsdale

DETAIL NO. 2397

2397

12"

2' MIN. - 4' MAX.

#4 REBAR

BEDDING

WATER OR SEWER Pipe

FINISHED GRADE

SECURE BALLMARKER WITH 2 STRIPS DUCT TAPE OR WIRE

12"

APPROVED BY:
Scottsdale Standards & Specifications Committee

REVISED 5/07/07
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" 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

Paint Mast To Meet Local Conditions

Height Per Plans

LENGTH

Finished Grade

24"Ø

10'

6'

16"
TEMPORARY TAP FOR CHLORINE INJECTION

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.

Existing Grade

3/4" Sch 80 Copper Pipe

3/4" Ball Valve

Corp. Stop

Saddle with 3/4" PT
On D.I. Pipe

Pipe O.D.