2015

City of Scottsdale

SUPPLEMENT TO
MAG UNIFORM STANDARD
DETAILS
for
PUBLIC WORKS CONSTRUCTION

EFFECTIVE SEPTEMBER 24, 2015

REVISED 6/9/15

2100 Series
General Information

2120	Survey Marker
2124	Accessible Signage
2131	Sign Post Installation
2132*	Raised Pavement Marker Layout
2133–1	Median Nose Signing – Type A & B
2133–2	Median Or Shoulder Signing
2134–1*	Street Name Signs – Type A
2134–2*	Street Name Signs – Type B
2134–3	Street Name Signs – 18" Metro
2134–4	Street Name Signs – 24" Metro
2134–5*	Directional Street Name Sign
2135	Street Name Sign w/Stop Installation
2136	Advance Street Name Signs
2137	Loop Detectors
2138	Signal Pole Drilling Detail
2139	Traffic Signal Controller Cabinet Extender
2140	Model 330 Input Rack Wiring Instructions
2141	Tape Color Codes for Traffic Signal Wiring
2146–1	Refuse Enclosure
2146–2	Refuse Enclosure With Grease Containment Area
2147–1	Double Refuse Enclosure
2147–2	Double Refuse Enclosure With Grease Containment Area
2165–1	16' Sliding Gate & Hinged Door
2165–2	16' Sliding Gate

2200 Series
Street Information

2200*	Pavement Replacement
2201*	Trench Bedding & Backfill
2202	Trench Plating
2203–1*	Micro–Trench Pavement Replacement and Backfill
2203–2*	Fiber Optic Curb Marker
2207	Residential Unpaved Road
2210	Grading Behind The Curb
2220	Curb And Gutter – Types "A" & "B"
2221	Curb And Gutter – Types "M" & "W"
2225	Median Nose & Reverse Curve Details
2226	Median Nose Details
2228	Cut–Off Wall
2230*	Sidewalk Cutout For Utility Poles
2231*	Detectable Warning Surface
2232*	Directional Sidewalk Ramps
2233–1*	Directional Sidewalk Ramps Retrofit – Type A
2233–2*	Directional Sidewalk Ramps Retrofit – Type B
2234*	Shared Curb Sidewalk Ramp
2235–1*	Mid–Block Sidewalk Ramp – Type A
2235–2*	Mid–Block Sidewalk Ramp – Type B
2237	Sidewalk Pavers (Non–Traffic Bearing)
2239	Median Concrete Pavers
2240*	6' Valley Gutter & Apron
2250*	Driveway Entrances
2255	Residential Driveways
2256	Commercial/Industrial Driveways–Type CL
2257	Commercial/Industrial Driveways–Type CH
2258	Commercial/Industrial Driveways–Type CI
2263–1*	Bus Shelter – Foundation Plan
2263–2*	Bus Shelter – Floor Plan
2263–3*	Bus Shelter – Framing Plan

2200 Series
Street Information (cont'd)

2263–4*	Bus Shelter – Elevation
2263–5*	Bus Shelter – Elevation
2263–6*	Bus Shelter – Furnature Location
2263–7*	Bus Shelter – Notes
2263–8*	Bus Shelter – Abbreviations
2264–1*	Bus Shelter – Foundation Plan
2264–2*	Bus Shelter – Framing Plan
2264–3*	Bus Shelter – Roof Plan
2264–4*	Bus Shelter – Elevation
2264–5*	Bus Shelter – Sections
2264–6*	Bus Shelter – Details
2264–7*	Bus Shelter – Details
2264–8*	Bus Shelter – Details
2264–9*	Bus Shelter – Details
2264–10*	Bus Shelter – Notes
2264–11*	Bus Shelter – Abbreviations
2266–1*	Closed End Bus Bay – Type "A"
2266–2*	Closed End Bus Bay – Type "B"
2267*	Far Side Bus Bay
2268	Base Slab And Foundations For Bus Stop Bench And Receptacles
2270*	Frame & Cover Grade Adjustment
2282	Multi–Use Path Striping And Signing
2283*	Multi–Use Path Details
2284	Multi–Use Path Wet Crossing Sign
2285	Double Bicycle Rack
2290–1*	Median Island Details
2290–2	Bulb Out/Choker Detail
2292–1	Speed Table Details
2292–2*	Speed Table Details
2293*	Mid–Block Pedestrian Table
2294*	Intersection Pedestrian Table
2295*	Pedestrian Refuge

NOTE: * – New Or Revised Detail For 2015 Supplement

DETAIL NO.		APPROVED BY:		DETAIL NO.
2100-1	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	INDEX	2100-1

2300 Series
Water Information

2300 Series
Water Information (cont'd)

2400 Series
Sanitary Sewer Information

2500 Series
Storm Drain Information

REVISED 6/9/15

NOTE: * – New Or Revised Detail For 2015 Supplement

DETAIL NO. 2100-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	INDEX	DETAIL NO. 2100-2

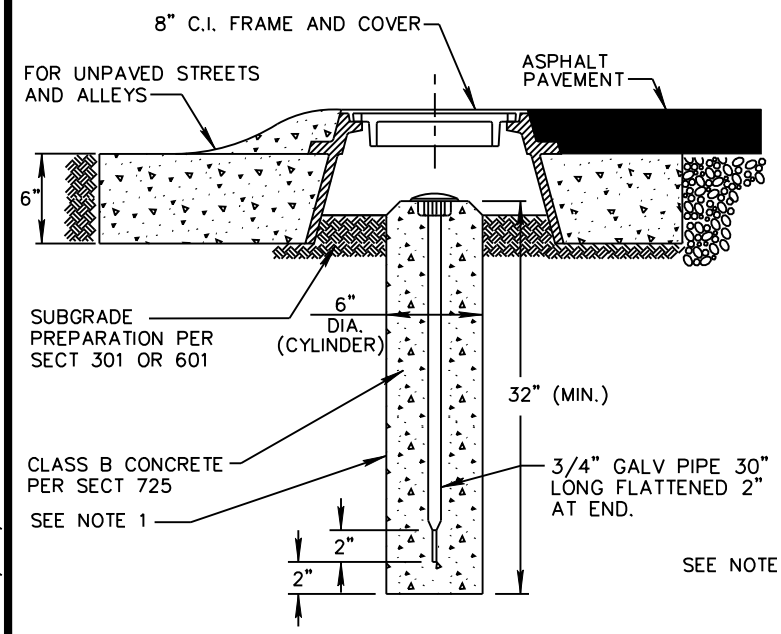
REVISED 6/9/15

2600 Series
Landscaping, Irrigation & Trail Information

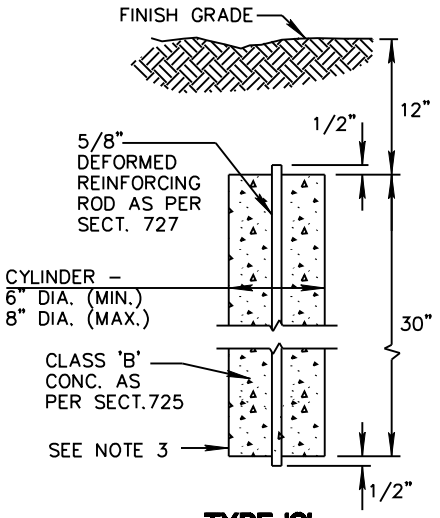
NOTE: * – New Or Revised Detail For 2015 Supplement

DETAIL NO.		APPROVED BY:		DETAIL NO.
2100-3	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	INDEX	2100-3

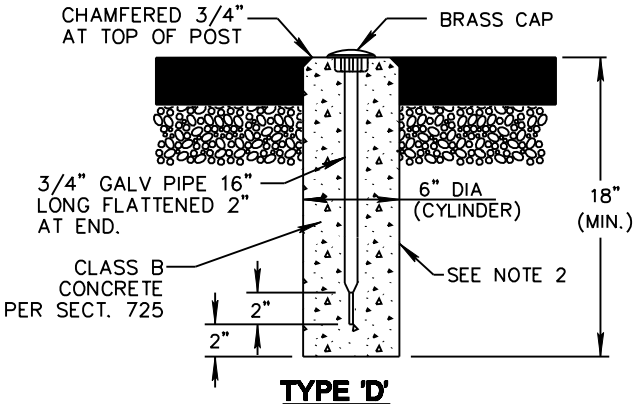
NEW 3/31/10



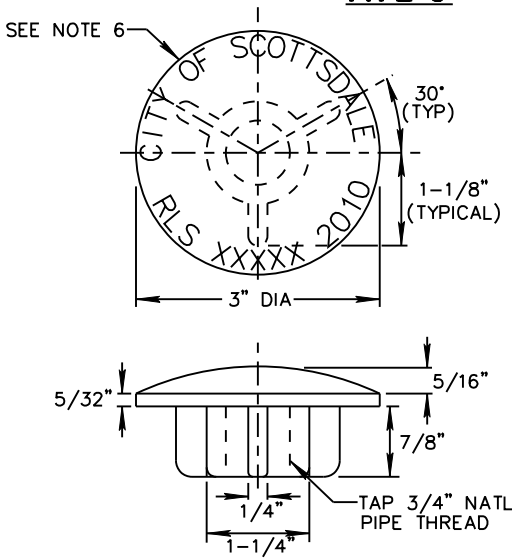
TYPE 'E'
(WITH FRAME)



TYPE 'C'



TYPE 'D'
(WITHOUT FRAME)



CAP DETAIL

NOTES:

1. TYPE "E" TO BE USED AT INTERSECTIONS OF MAJOR STREETS, COLLECTOR STREETS, SECTION AND QUARTER SECTION CORNERS PER ARS 33-103. CONCRETE POST IS CHAMFERED ¾" AT TOP.
2. TYPE "D" TO BE USED AT 1/16TH CORNERS, INTERSECTIONS OF STREET CENTERLINES (EXCEPT WHERE TYPE "E" IS SPECIFIED), CORNERS OR CHANGES IN ALIGNMENT OF SUBDIVISION BOUNDARIES WITHIN THE ASPHALT SECTION, PC'S & PT'S OF ALL CURVES, AND PI'S WHEN WITHIN THE PAVED SECTION.
3. TYPE "C" TO BE USED AT CORNERS OF, AND CHANGE IN ALIGNMENT OF, SUBDIVISION BOUNDARIES WHERE CORNERS OR CHANGE POINTS FALL OUTSIDE OF PAVED AREAS OR IN ALLEYS.
4. WHEN MONUMENTS (BRASS CAP, HAND HOLE AND SECTION CORNERS, ETC.) DESCRIBED IN NOTES #1, #2 & #3 WILL BE DISTURBED DURING CONSTRUCTION, A "RESULTS OF SURVEY" WILL BE PREPARED BY A REGISTERED LAND SURVEYOR TO PRESERVE THE LOCATION. SEE MAG SECTION 405 FOR GUIDANCE. IN ALL CASES WHEN MONUMENTS ARE "SET", A RESULTS OF SURVEY SHALL BE RECORDED.
5. SECTION CORNERS, 1/4 CORNERS AND WHEN APPLICABLE, STAMP THE APPROPRIATE PUBLIC LAND MARKINGS PER CURRENT MANUAL OF INSTRUCTIONS FOR THE SURVEY OF THE PUBLIC LANDS OF THE UNITED STATES, PREPARED BY THE BUREAU OF LAND MANAGEMENT.
6. IN ALL CASES, THE POINT SURVEYED SHALL BE IDENTIFIED BY A PUNCH MARK AND IN ADDITION THE CAP SHALL BE STAMPED WITH THE REGISTERED LAND SURVEYOR (RLS) REGISTRATION NUMBER AND YEAR.
7. CAP TO BE CONSTRUCTED OF RED BRASS OR BRONZE. LETTERS TO BE 1/4" HIGH, APPROX. 1/32" WIDE, 1/32" DEEP AND 1/16" BORDER FROM EDGE OF CAP TO TOP OF LETTERING.
8. ALL COVERS INSTALLED, ADJUSTED OR REPLACED DURING CONSTRUCTION SHALL READ "SURVEY" PER MAG 270 AND ADJUSTED PER COS STANDARD DETAIL 2270.

DETAIL NO. 2120	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SURVEY MARKER	DETAIL NO. 2120

NOTE:

Lettering shall be
Clearview 1–W font

2" Letters

6" Symbol
Royal Blue
Solid With
White Symbol

0.875" Letters

0.5" Letters

MOUNTING OPTIONS (SEE PLANS)

A) Flexible P.E. Post With Surface Mount Base – Epoxy To Pavement Surface

B) Perforated Galvanized Tubing Per COS Detail 2131. Install In Landscape Areas Only.

C) Surface Mount To Structure

D) Mount As Detailed On Plans

Green Borders and Text,
and Blue Symbol on White
Retroreflective Background (Typ.)
Background: ASTM Type IV Sheeting
Copy: Same As Above
Substrate: 0.080 Gauge
Treated Aluminum

Bottom of Sign Shall Be
Five Feet Above Finish Surface

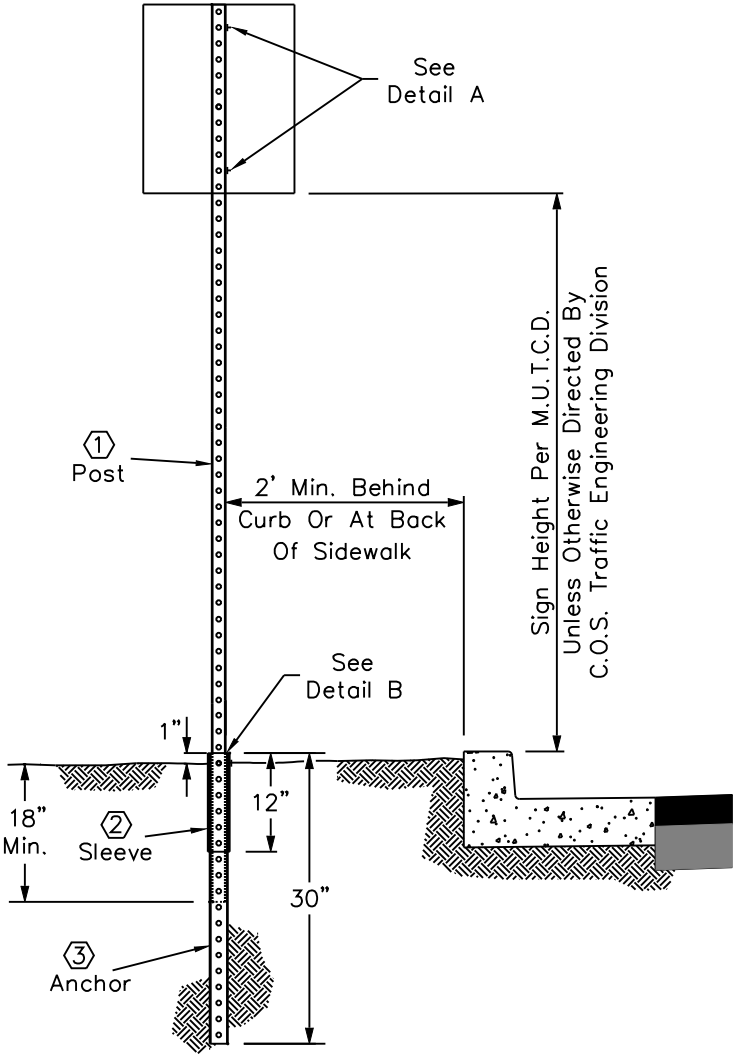
ACCESSIBLE SIGNAGE

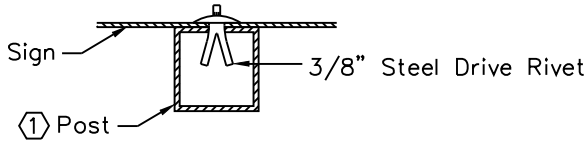
One Sign At Each
Accessible Parking Stall

REVISED 4/24/07

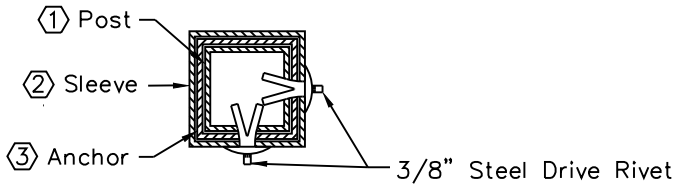
DETAIL NO. 2124	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	ACCESSIBLE SIGNAGE	DETAIL NO. 2124

REVISED 3/19/09

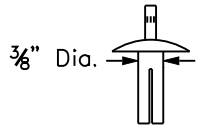




Detail A
Sign Mounting



Detail B
Anchor Assembly



3/8" Steel Drive Rivet

Note: Aluminum rivets are not acceptable.

Legend

1 Post – 1–3/4" x 1–3/4" Square Perforated 0.105" Galvanized Steel Tubing (Green Finish)

2 Sleeve – 2–1/4" x 2–1/4" x 12", Square Perforated 0.105 Galvanized Steel Tubing

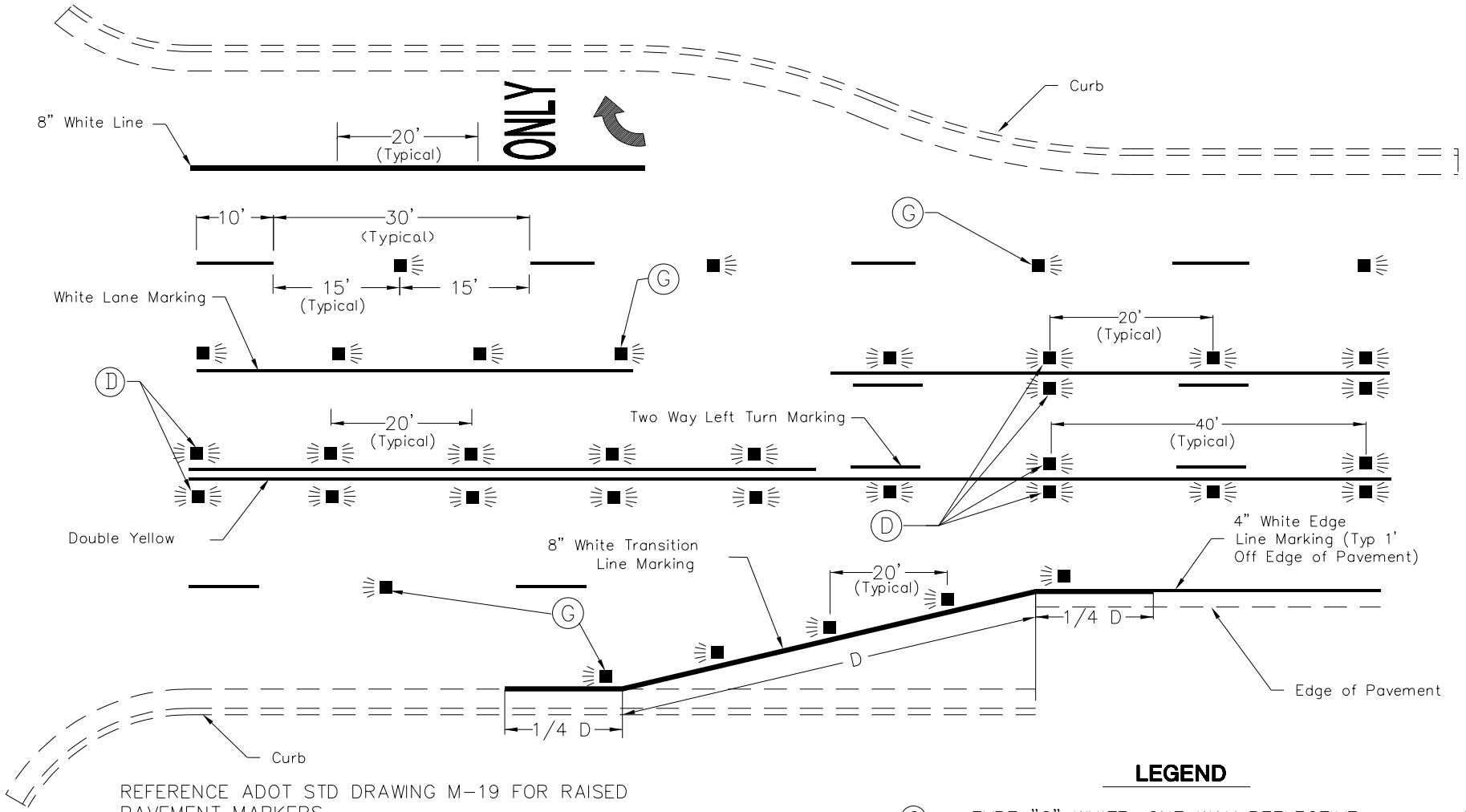
3 Anchor – 2" x 2" x 30", Square Perforated 0.105" Galvanized Steel Tubing

NOTE:

1. Sign Post, Sleeve And Anchor Shall Be As Per COS Specification Section 402.3

DETAIL NO. 2131	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SIGN POST INSTALLATION	DETAIL NO. 2131

REVISED 5/19/15



REFERENCE ADOT STD DRAWING M-19 FOR RAISED PAVEMENT MARKERS.

SEE STANDARD DETAIL 2363 FOR FIRE HYDRANT MARKERS

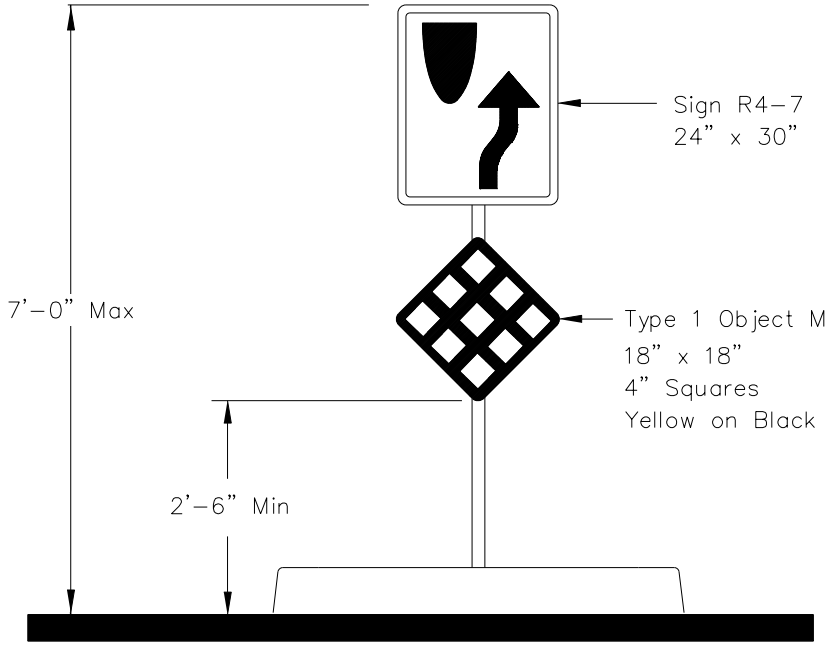
LEGEND

(G) – TYPE "G" WHITE, ONE WAY REFLECTIVE

(D) – TYPE "D" YELLOW, TWO WAY REFLECTIVE

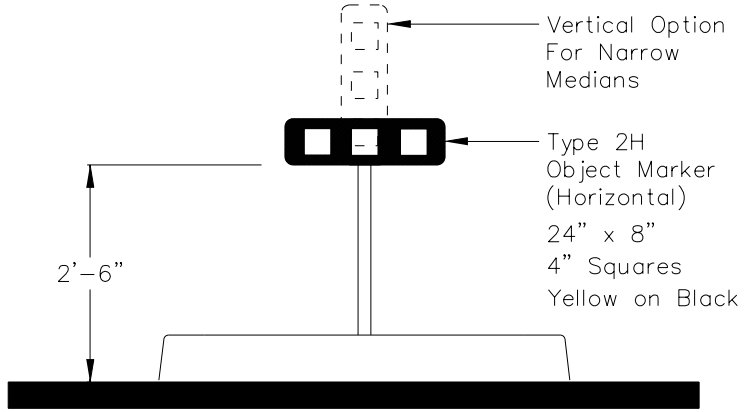
DETAIL NO. 2132	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	RAISED PAVEMENT MARKER LAYOUT	DETAIL NO. 2132

REVISED 9/22/11



TYPE "A"

(AT SIGNALIZED INTERSECTIONS
OR AS SHOWN ON PLANS AND FIRST &
LAST NOSE ON A STRING OF MEDIANS)



TYPE "B"

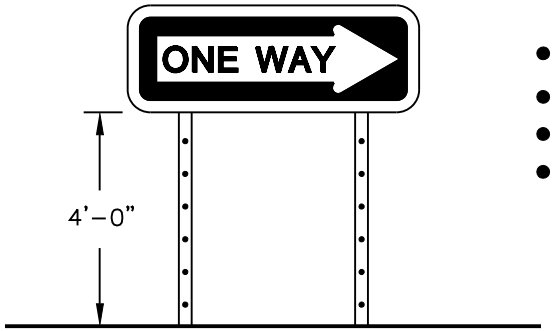
(ALL OTHER MEDIANS)

NOTES:

1. See COS Std Det 2225 Or 2226 For Typical Location.
2. Sign Posts Per COS Std Det 2131.

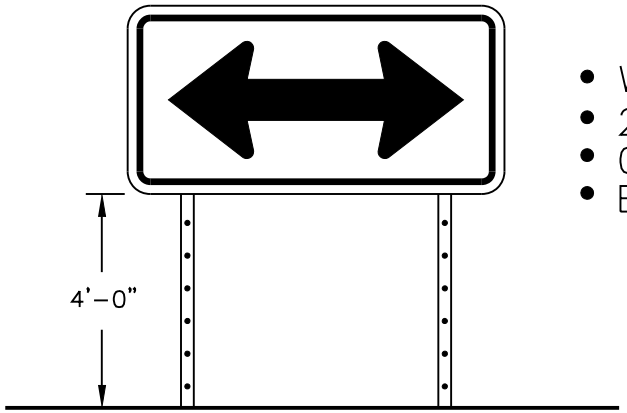
DETAIL NO. 2133-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MEDIAN NOSE SIGNING - TYPE A&B	DETAIL NO. 2133-1

REVISED 4/20/07



TYPE "A"

- R6-1R or R6-1L
- 12" x 36" blank size
- 0.125 blank type
- Black legend and background, white arrow



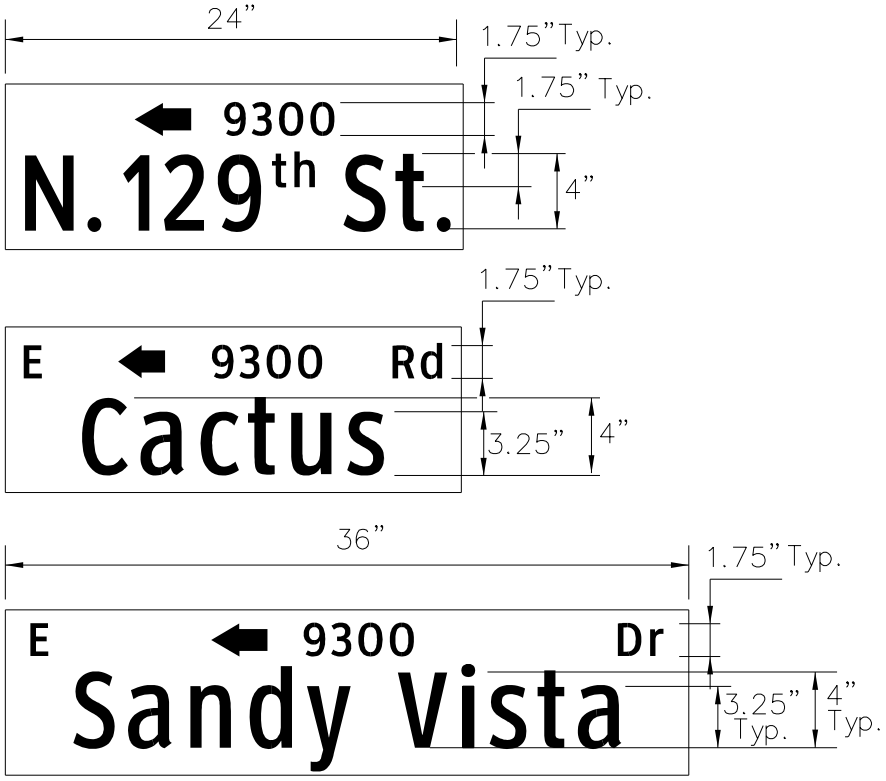
TYPE "B"

- W1-6R or W1-6L, or W1-7 (double arrow)
- 24" x 48" or 30" x 60" blank sizes
- 0.125 blank type
- Black arrow and border, yellow background

NOTES:

1. Sign posts per COS Std. Detail 2131
2. Sign sheeting per COS Supplemental Specs. Section 402.3.

DETAIL NO. 2133-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MEDIAN OR SHOULDER SIGNING	DETAIL NO. 2133-2



REVISED 5/20/15

TYPE A SIGNS

ASTM Type IV Sheeting
Green/White (2 Sides)

Typeface: Clearview 2W, (Longer names may require using 1W font)

Blank Sizes: 9"x 24", 30", 36", 42"
Blank Type: .091 extruded aluminum

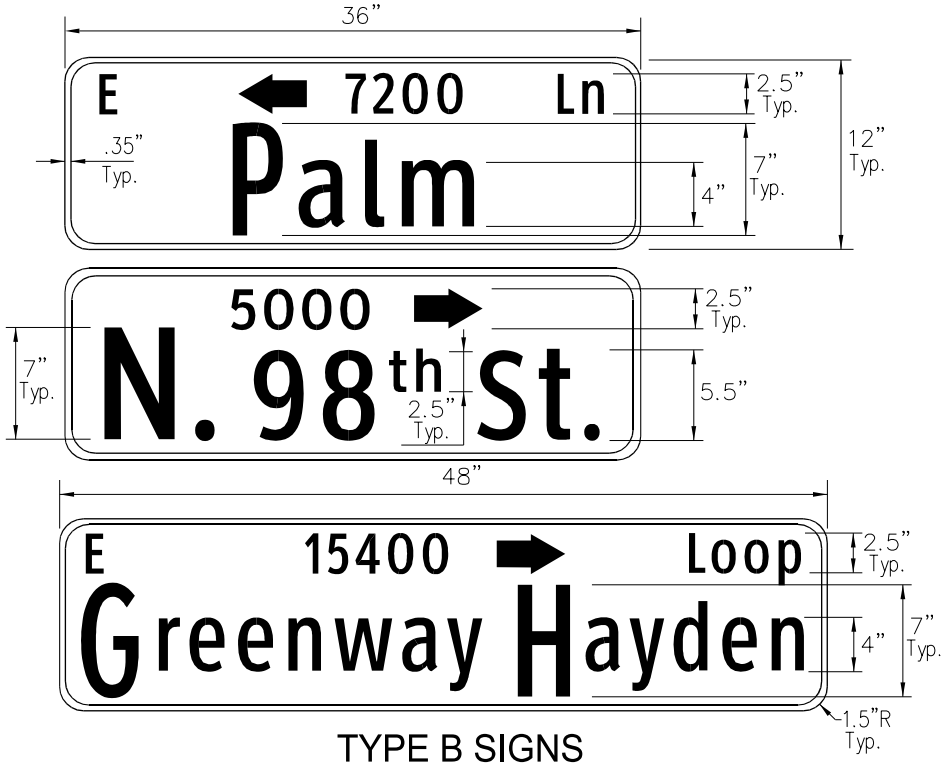
Sign imaging: must meet FWHA standards and must be acrylic based electronic cuttable film (1170 series or equivalent) or silk screen ink. All inks and films shall be graffiti resistant.

Intended Usage: Type "A" Street Name Signs shall be used in residential areas where Residential Streets intersect with Local Collector Streets. See the COS General Plan for Street Designations.

Arrows on sign panels typically point north or east in the direction of increasing address number.

DETAIL NO. 2131-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STREET NAME SIGNS - TYPE A	DETAIL NO. 2134-1

REVISED 5/22/15

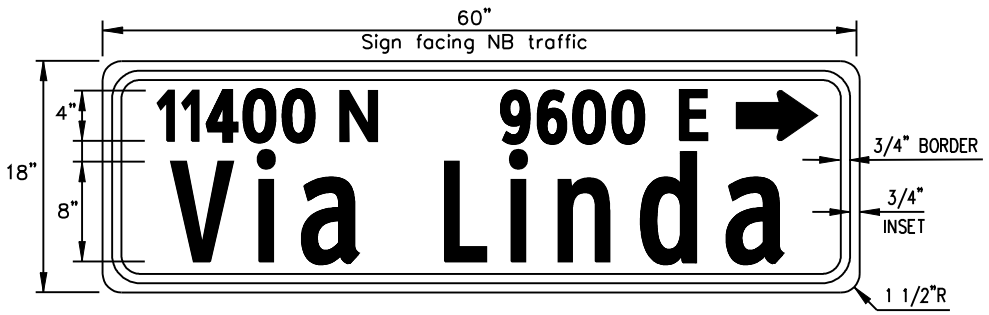


TYPE B SIGNS

ASTM Type IV Reflective Sheeting
Green/White (2 Sides)
Typeface: Clearview 2W, (Longer names may require using 1W font)
Blank Sizes: 12"x 36", 42" & 48"
Blank Type: 0.125 treated aluminum

Intended Usage: Type "B" Street Name Signs shall be used where a Residential Street or a Local Collector Street intersects with a street with a classification of Major Collector or larger. See the COS General Plan for Street Designations.

DETAIL NO. 2134-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STREET NAME SIGNS - TYPE B	DETAIL NO. 2134-2



SIGN FORMAT EXAMPLE FOR OPPOSING TRAFFIC

Sign facing
SB traffic

18" METRO SIGNS

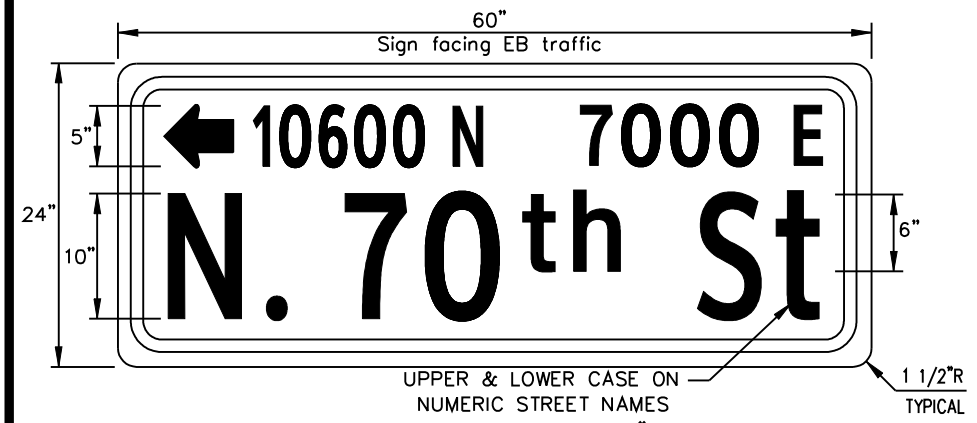
Proposed ASTM Type XI Reflective Sheeting
Green/White (1 Side)
Typestyle: Clearview 2–W or 3–W
Blank Sizes: 18" x 48", 18" x 60", 18" x 72"
Blank Type: 0.080 Treated Aluminum

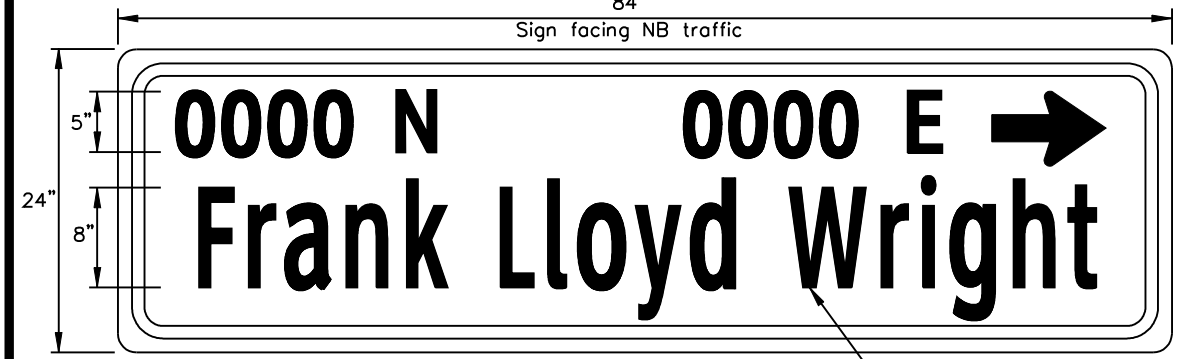
Intended Usage: 18" Metro Street Name Signs shall be used on signnalized minor roads with a speed limit of 35MPH or lower. See the COS General Plan for Street Designations.

Arrows on sign panels typically point north or east in the direction of increasing address number.

REVISED 5/08/08

DETAIL NO. 2134-3	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STREET NAME SIGNS - 18" METRO	DETAIL NO. 2134-3





REVISED 5/08/08

24" METRO SIGNS

Proposed ASTM Type XI Reflective Sheeting
Green/White (1 Side)
Typestyle: Clearview 2-W or 3-W
Blank Sizes: 24" x 60", 24" x 72", 24" x 84"
Blank Type: 0.125 Treated Aluminum

SIGN FORMAT EXAMPLE FOR OPPOSING TRAFFIC

Sign facing WB traffic

Sign facing NB traffic

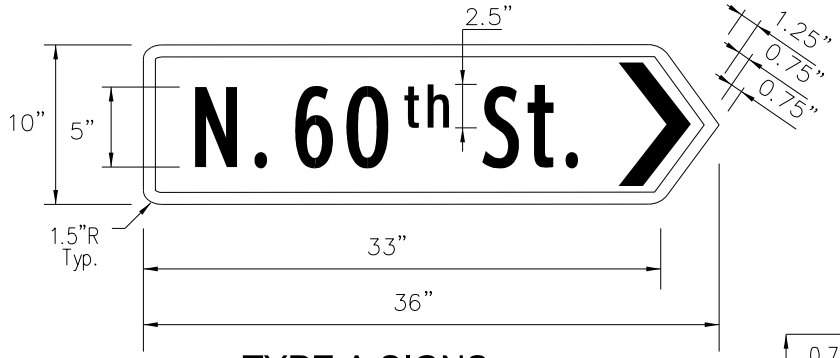
Sign facing SB traffic

Intended Usage: 24" Metro Street Name Signs shall be used on signalized major roads with a speed limit of 35MPH or higher. See the COS General Plan for Street Designations.

Sign imaging: Must meet FHWA standards. Must be acrylic based electronic cuttable film (1170 series or equivalent) or silk screen ink. All inks and films shall be graffiti resistant.

Arrows on sign panels typically point north or east in the direction of increasing address number.

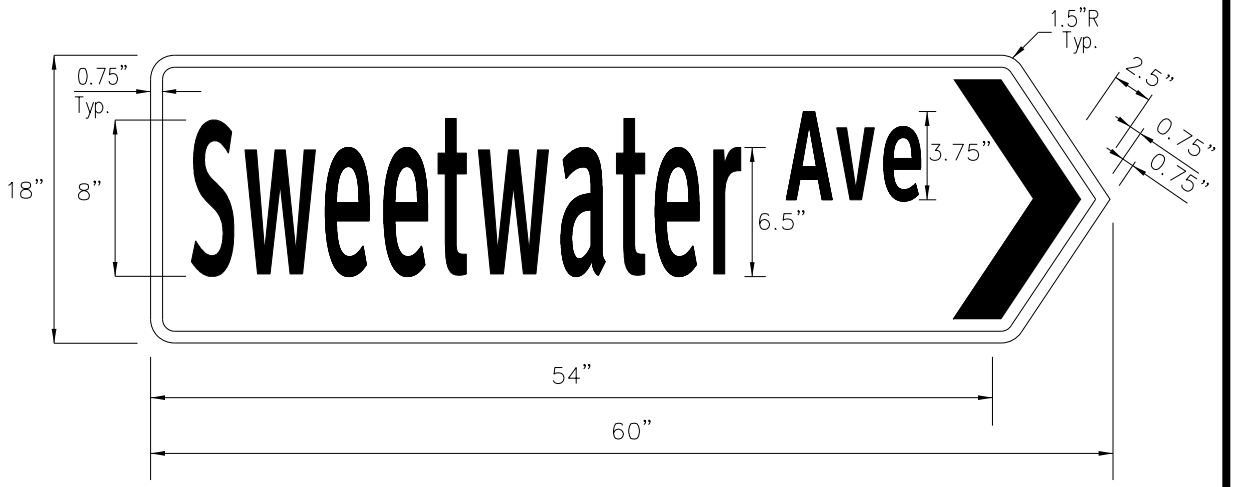
DETAIL NO.		APPROVED BY:		DETAIL NO.
2134-4	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	STREET NAME SIGNS - 24" METRO	2134-4



TYPE A SIGNS

ASTM Type IV Reflective Sheeting
Green background /White legend & border
Typeface: Clearview 2W
Blank Size: 10"x 36", 42", 48"
Blank Type: 0.100 treated aluminum

Intended Usage: Type "A" Directional Street Name Signs shall be used for roadways posted 30MPH or less, unless approved by Traffic Engineering staff.



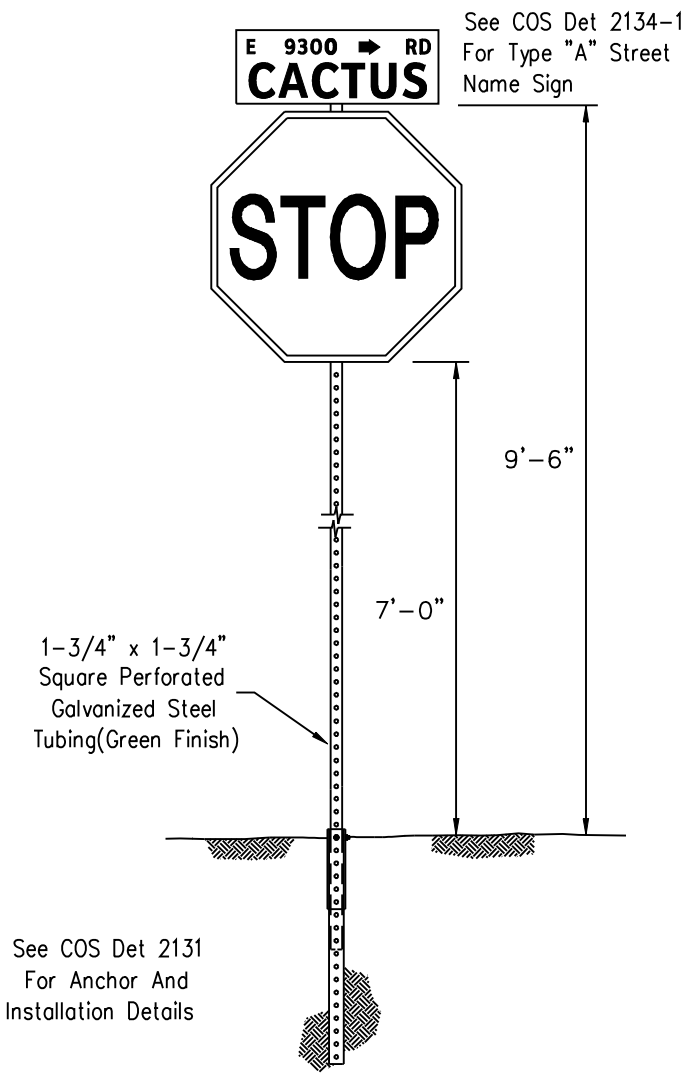
TYPE B SIGNS

ASTM Type IV Reflective Sheeting
Green background /White legend & border
Typeface: Clearview 2W
Blank Size: 18"x 36", 48", 72", 84"
Blank Type: 0.100 treated aluminum

Intended Usage: Type "B" Directional Street Name Signs shall be used for roadways where posted speed limit is greater than 30MPH.

REVISED 5/22/15

DETAIL NO. 2134-5	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DIRECTIONAL STREET NAME SIGN	DETAIL NO. 2134-5



NOTES:

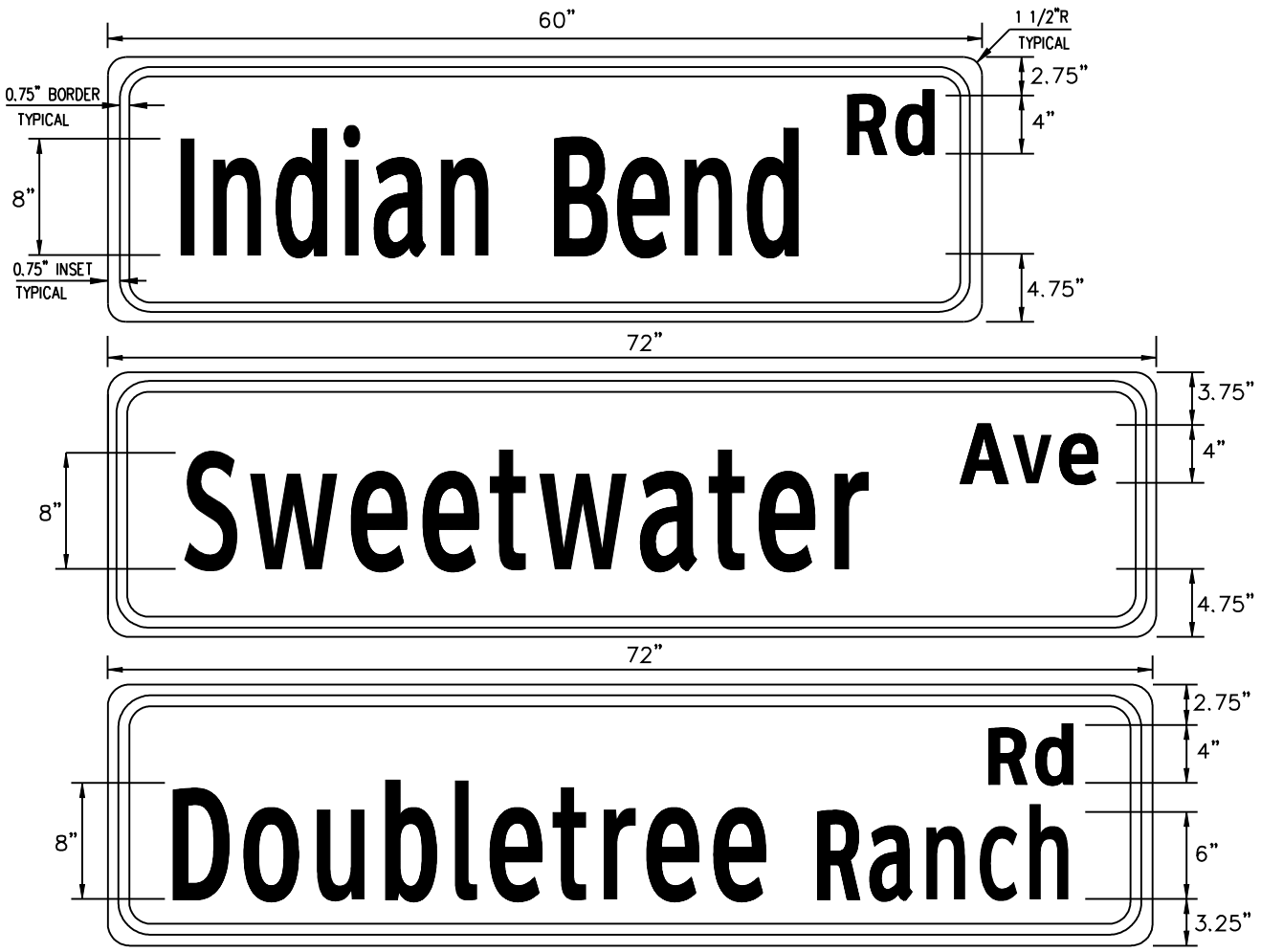
Street name sign and stop sign mounting height shall be measured from adjacent grade of sidewalk, top of curb or top of nearest pavement.

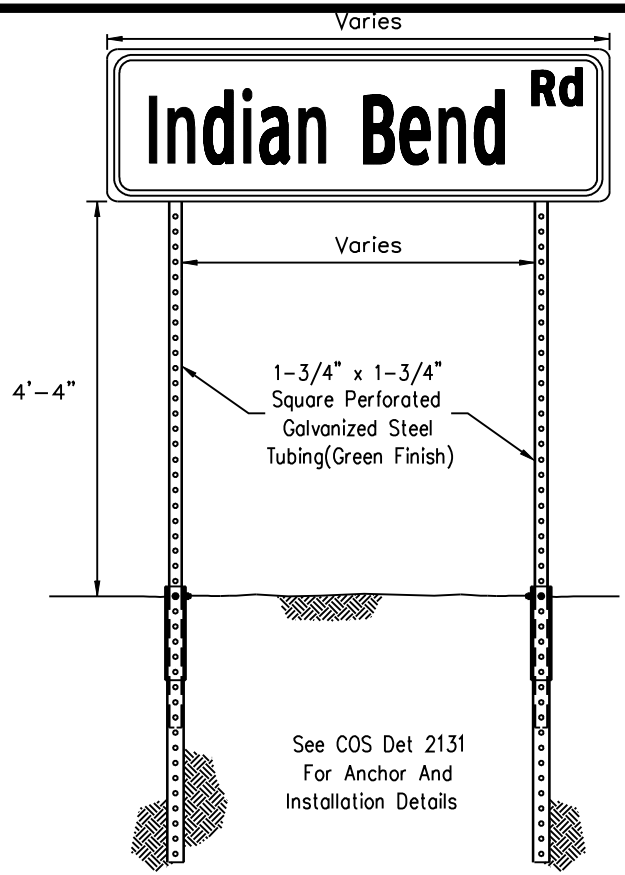
When no stop sign is required, the street name sign is mounted at 9 feet 6 inches.

When two street name signs are mounted one on top of the other, the height is measured to the bottom sign.

REVISED 5/08/08

DETAIL NO. 2135	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STREET NAME SIGN WITH STOP SIGN INSTALLATION	DETAIL NO. 2135





Proposed ASTM Type XI (1 Side)
Typsestyle: Clearview 2-W or 3-W

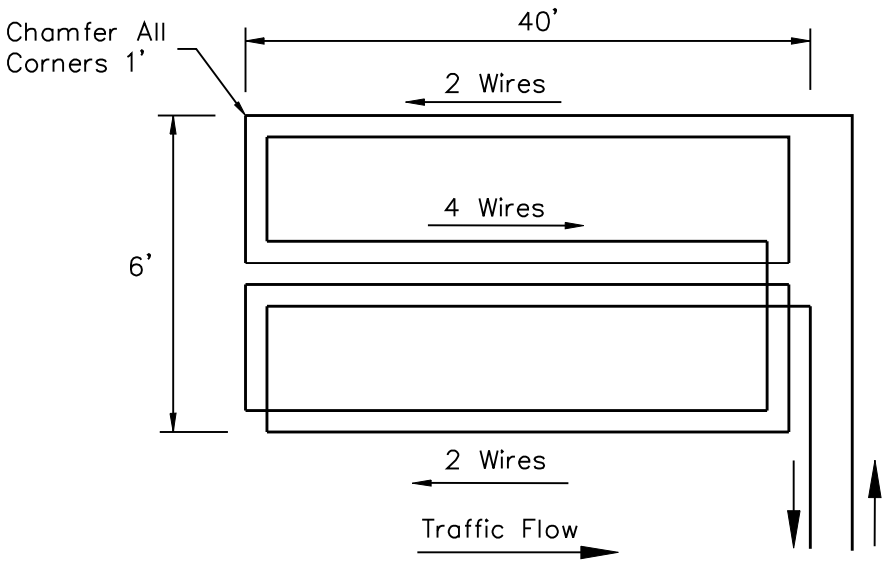
Blank Sizes: 18" x 48", 18" x 60", 18" x 72"
Blank Type: 0.080 Treated Aluminum

Sign imaging: Must meet FHWA standards and must be acrylic based electronic cutting film (1170 series or equivalent) or silk screen ink. All inks and films shall be graffiti resistant.

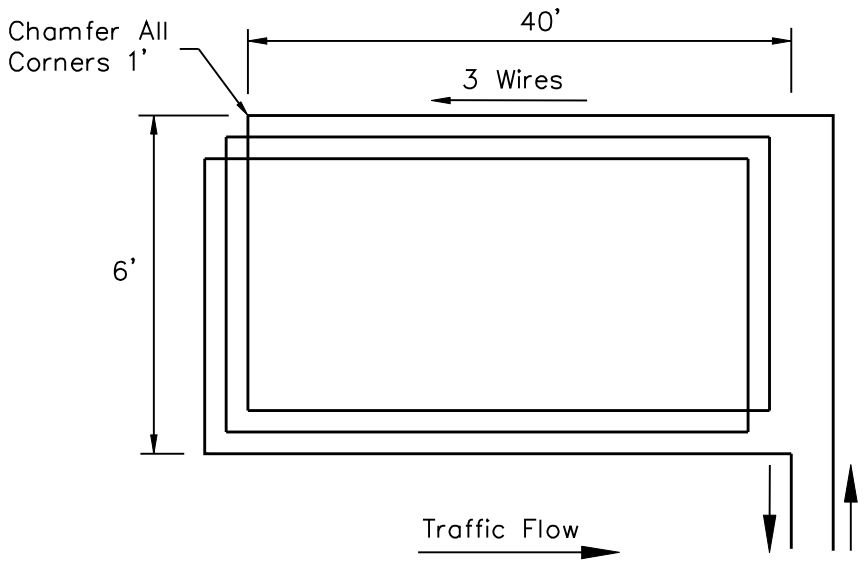
Intended Usage: In advance of the specified street where a collector street intersects a minor/major arterial or expressway. Location determined by multiplying the posted speed limit by 10. Sign is typically placed in a center median when available, otherwise on the right hand side of the road.

REVISED 5/12/08

DETAIL NO. 2136	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	ADVANCE STREET NAME SIGNS	DETAIL NO. 2136



QUADRUPOLE LOOP DETECTOR
For Left Turn Lanes Only

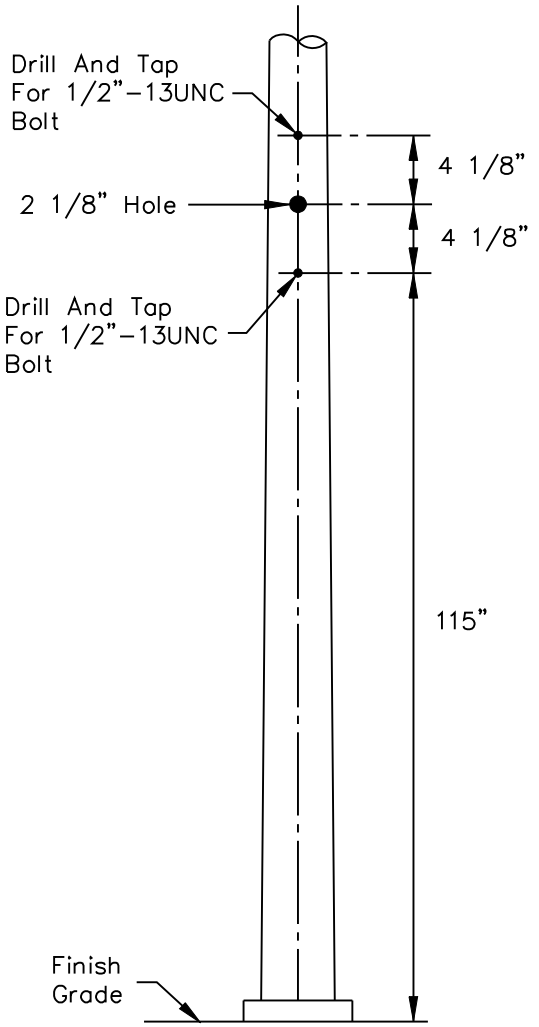


STANDARD LOOP DETECTOR

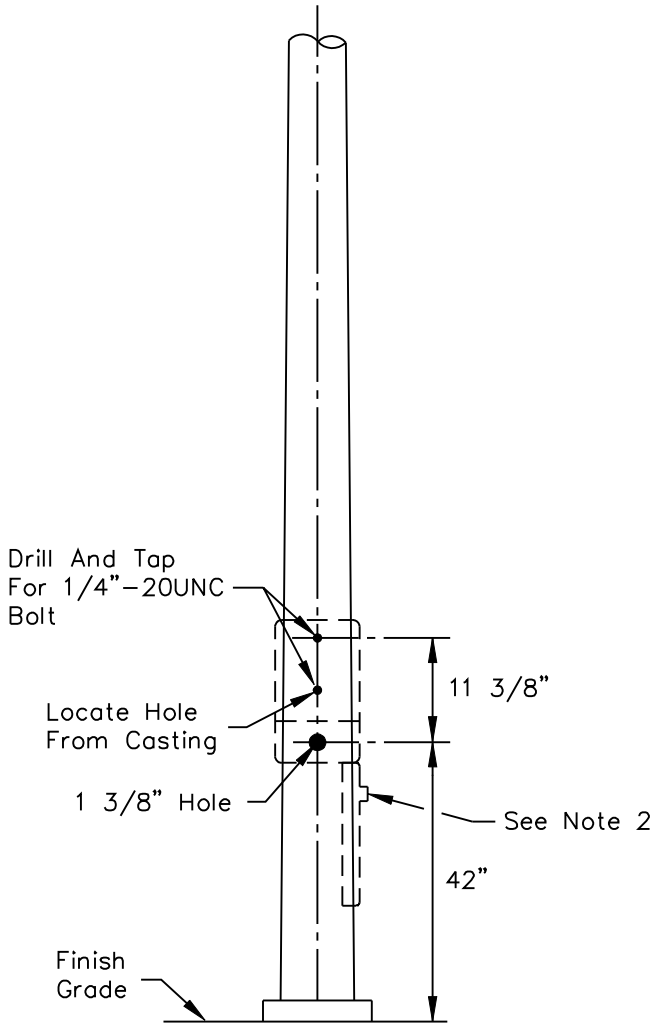
NOTES:

1. All loop detectors shall be wire–in–duct type wire. (Detect–a–Duct or approved equivalent, #14 stranded inside a 1/4" PVC tubing (IMSA 51–5).
2. All loop detectors shall be centered in the middle of the applicable traffic lane. Loop shall be sufficiently dimensioned on the plans. Loop detectors shall extend five feet into the crosswalk unless directed otherwise by the Traffic Engineering Department.
3. A rectangular loop with 3 turns (6 feet x 40 feet) shall be used for all through lanes.
4. A quadrupole loop with 2 outside turns and 4 inside turns (6 feet x 40 feet) shall be used in all exclusive left–turn lanes. (Wire in middle cut shall run the same direction.
5. Loop detectors shall not be installed in exclusive right turn lanes.
6. The location of permanent count detector loops shall be specified by the Traffic Engineering Department. Count detector loops shall consist of a minimum of 4 turns (6 feet x 6 feet).
7. Pre–formed loop detectors conforming to the latest ADOT specifications shall be used under decorative pavement, "pavers", concrete, or other "special" roadway surfaces, or as directed by the Traffic Engineering Department.
8. Lead–in cable between loop wire and controller shall be latest ADOT specification or approved equivalent (IMSA 50–2).
9. Loop lead–in and splices in pull box shall be twisted and soldered. Griggs Loop Detector Sealant, 3–M Loop Sealant, or approved equivalent shall be used.
10. Loops shall be installed prior to the installation of the final pavement lift (if part of a paving project).
11. Loops shall be inspected and tested prior to acceptance by the City.
12. See ADOT TS 7–1 for installation details.

DETAIL NO. 2137	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	LOOP DETECTORS	DETAIL NO. 2137



SIDE MOUNT DRILLING DETAIL



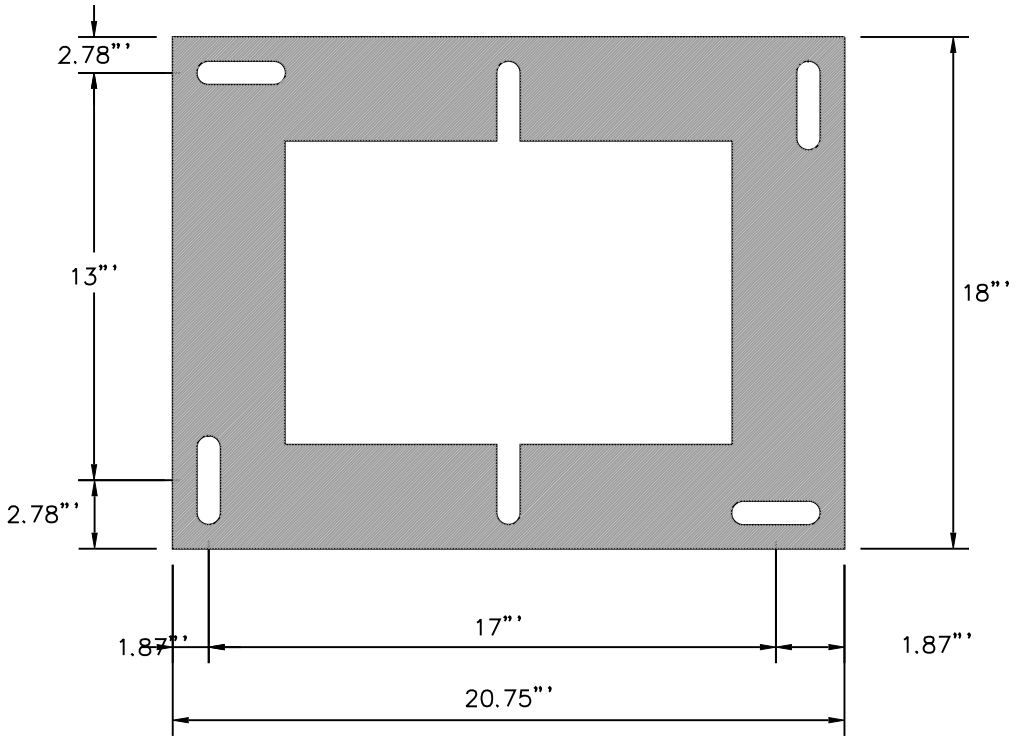
PUSH BUTTON DRILLING DETAIL

NOTES:

1. Drilling of pole to be oriented according to pole layout, or as directed by C.O.S. Engineer in the field.
2. When two pedestrian push button assemblies are mounted on a small diameter pole the lower assembly shall be positioned upside down so that the push button is at the top and the sign is below.
3. Top mounting holes to be field drilled in order to allow for manufacturing variations.
4. Push button shall be A.D.A large target style (ADOT Type I).

DETAIL NO. 2138	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SIGNAL POLE DRILLING DETAIL	DETAIL NO. 2138

REVISED 4/24/07



INSIDE VIEW OF BOTH SIDES OF BASE EXTENDER

Notes:

1. Model 330 cabinet base extenders will include cutouts that will accommodate replacement with all other Scottsdale 330 cabinets and model 336S. These base extenders are available from the cabinet manufacturer. All Scottsdale cabinets are foundation mounted.

2. Foundation must include a 4"x30"x30" concrete pad in front of the cabinet door.

3. The cabinet shall be mounted in such a way that when the technician has the door open and is facing the cabinet, he is also facing the intersection.

4. Cabinet base extender shall have a 12" x 12" removable access panel. Base extender shall be installed so that access panel is on door side of cabinet.

DETAIL NO. 2139	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRAFFIC SIGNAL CONTROLLER CABINET BASE EXTENDER	DETAIL NO. 2139

REVISED 4/24/07

LOOP AND PEDESTRIAN PUSH BUTTON INPUTS

Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	Slot 10	Slot 11	Slot 12	Slot 13	Slot 14
1 AB Ph 1	3 AB Ph 2	5 AB Ph 3	7 AB Ph 4	9 AB Ph 5	11 AB Ph 6	13 AB Ph 7	15 AB Ph 8	17 AB 1 PPB	19 AB 3 PPB	21 AB RRPre	23 AB AdvEn	25 AB EV A	27 AB Stop Time
2 AB Ph 1	4 AB Ph 2	6 AB Ph 3	8 AB Ph 4	10 AB Ph 5	12 AB Ph 6	14 AB Ph 7	16 AB Ph 8	18 AB 5 PPB	20 AB 7 PPB	22AB Flash	24 AB Adv	26 AB EV B	28 AB 6 Call
Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Ped Push Buttons	Ped Push Buttons	-------	-------	Pre-Empt	Slot 14 ------- Slot 14

1. All Scottsdale model 330 cabinet input racks have 14 slots.
2. Slots 1–8 are for vehicle detector loops.
3. Phase 4 loops are terminated on slot 4 (7A&B and/or 8A&B).
4. Phase 4 pedestrian push button is terminated on 19A and ppb neutral on 19B.
5. 19B shall have a jumper to the neutral bar.
6. All two phase intersections are to be wired to phases 2 and 4.
7. Field output wiring for 2 phase signals shall be wired to 2R, 2Y, 2G and 4R, 4Y, 4G.
8. Ped field wiring shall be wired to 9R, 9G (Phase 2 Ped) and 10R, 10G (Phase 4 Ped).
9. Call COS Traffic Signals (480)312–5635 prior to wiring cabinet for instructions for intersections with more than 2 phases.

DETAIL NO. 2140	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MODEL 330 INPUT RACK WIRING INSTRUCTIONS	DETAIL NO. 2140

MAIN DIRECTIONS

Direction	Color
WB	Blue
EB	Green
NB	Red
SB	Yellow

LEFT TURN DIRECTIONS (Main Color + White)

Direction	Color
WBLT	Blue + White
EBLT	Green + White
NBLT	Red + White
SBLT	Yellow + White

RIGHT TURN DIRECTIONS (Main Color + Black)

Direction	Color
WBRT	Blue + Black
EBRT	Green + Black
NBRT	Red + Black
SBRT	Yellow + Black

Color Of Wire For Power/Neutrals/Pushbuttons

Wire	Color
AC+ Power	Black
AC- (Neutral)	White
24V Pushbutton	Orange, Stranded

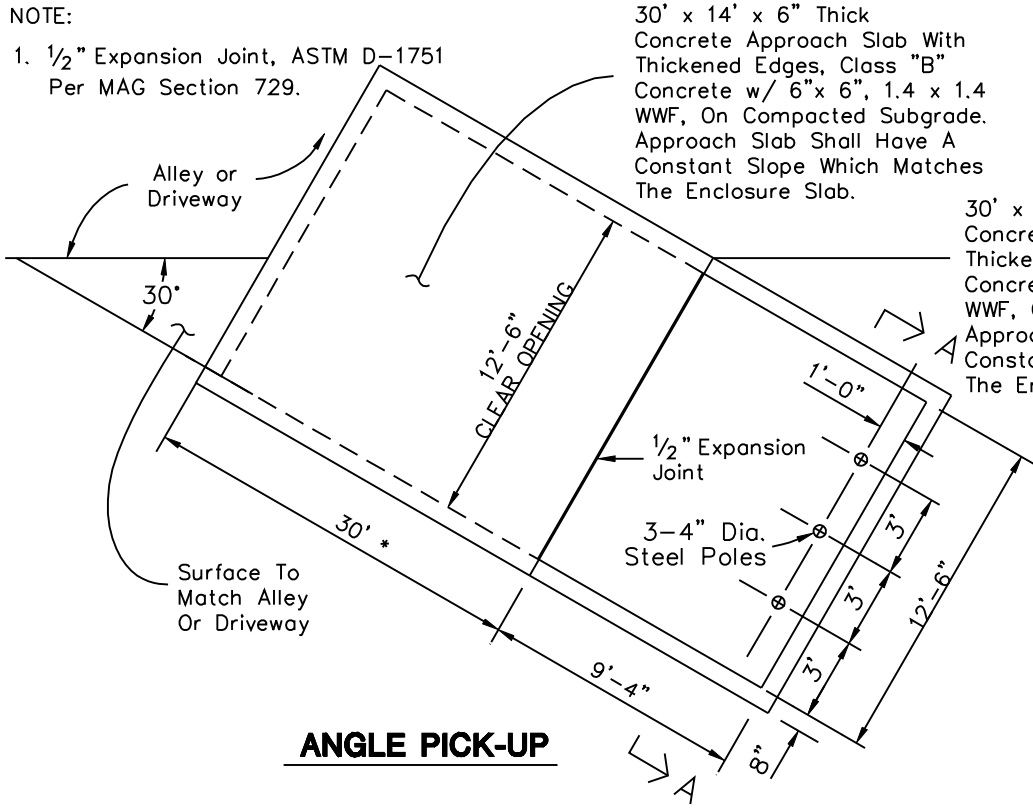
WBLT = West Bound Left Turn and shall be the phase for vehicles facing west and turning to south
EBLT = East Bound Left Turn and shall be the phase for vehicles facing east and turning to north
NBLT = North Bound Left Turn and shall be the phase for vehicles facing north and turning to west
SBLT = South Bound Left Turn and shall be the phase for vehicles facing south and turning to east

WBRT = West Bound Right Turn and shall be the phase for vehicles facing west and turning to north
EBRT = East Bound Right Turn and shall be the phase for vehicles facing east and turning to south
NBRT = North Bound Right Turn and shall be the phase for vehicles facing north and turning to east
SBRT = South Bound Right Turn and shall be the phase for vehicles facing south and turning to west

DETAIL NO. 2141	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TAPE COLOR CODES FOR TRAFFIC SIGNAL WIRING	DETAIL NO. 2141

NOTE:

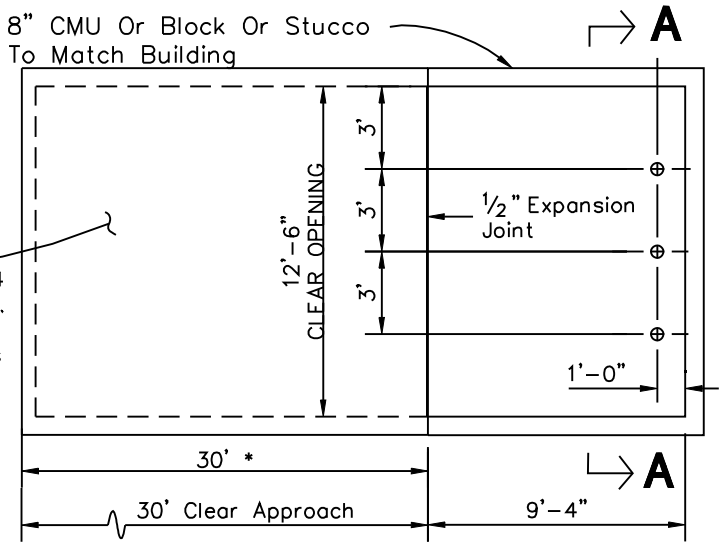
1. ½" Expansion Joint, ASTM D-1751 Per MAG Section 729.



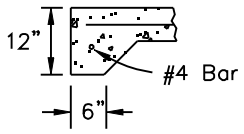
30' x 14' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Concrete w/ 6"x 6", 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.

* In locations where a 30' approach slab is not possible, approval from the City of Scottsdale Quality Compliance Division is required.

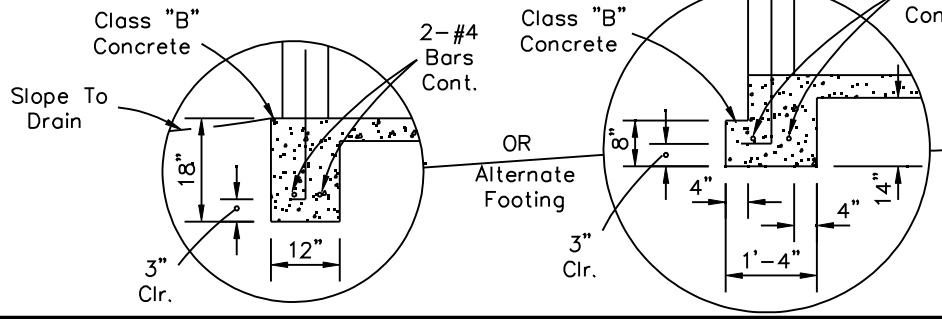
ANGLE PICK-UP

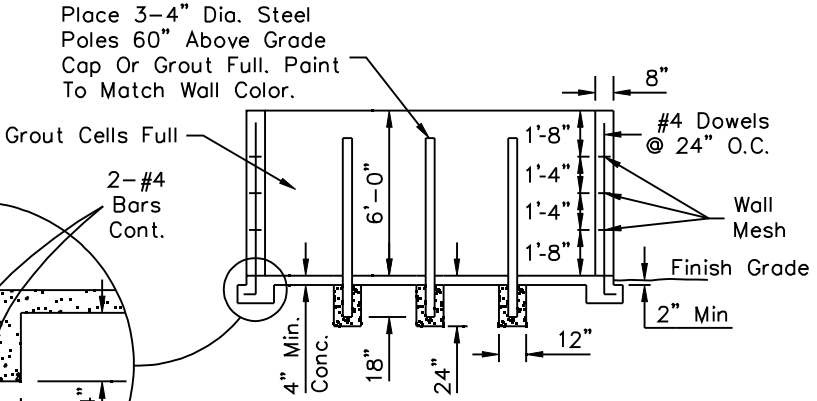


HEAD ON PICK-UP



APPROACH SLAB THICKENED EDGE DETAIL

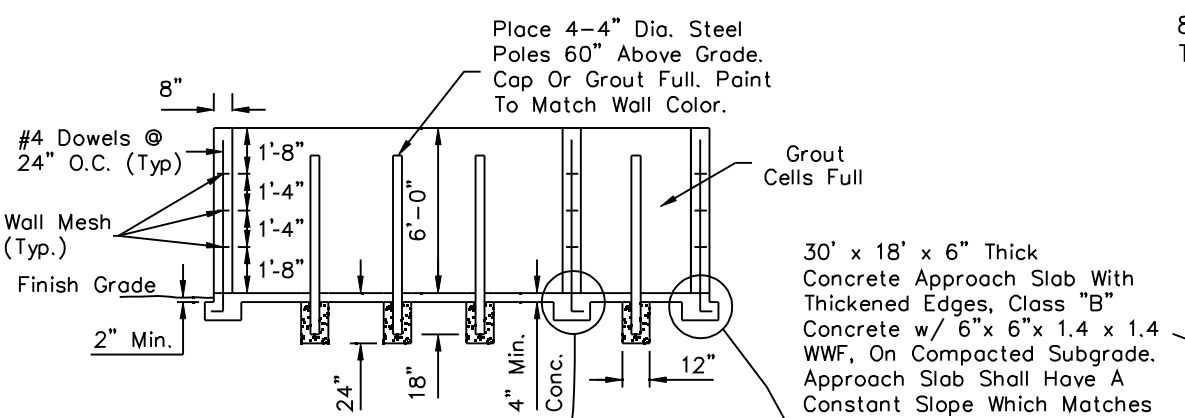




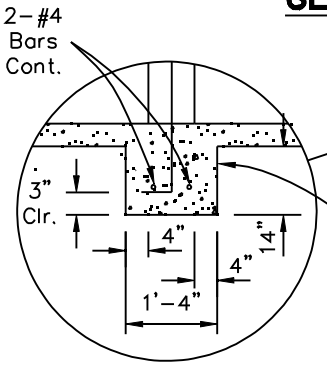
SECTION A-A

REVISED 5/9/02

DETAIL NO. 2146-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	REFUSE ENCLOSURE	DETAIL NO. 2146-1

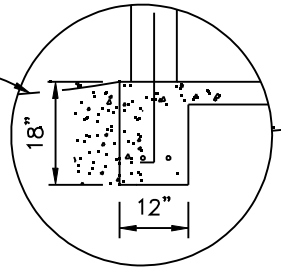


SECTION A-A



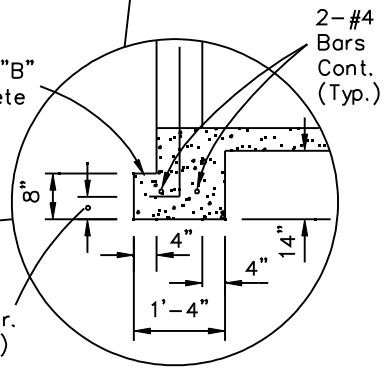
30' x 18' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Concrete w/ 6"x 6"x 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.

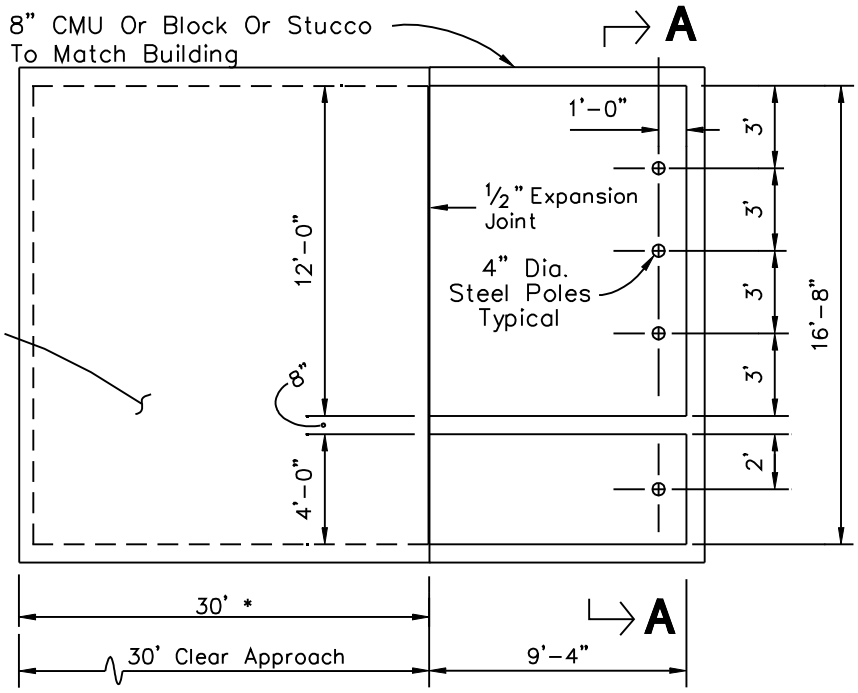
* In locations where a 30' approach slab is not possible, approval from the City of Scottsdale Quality Compliance Division is required.



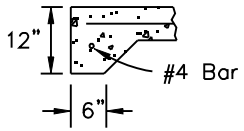
OR

Alternate Footing





PLAN



APPROACH SLAB THICKENED EDGE DETAIL

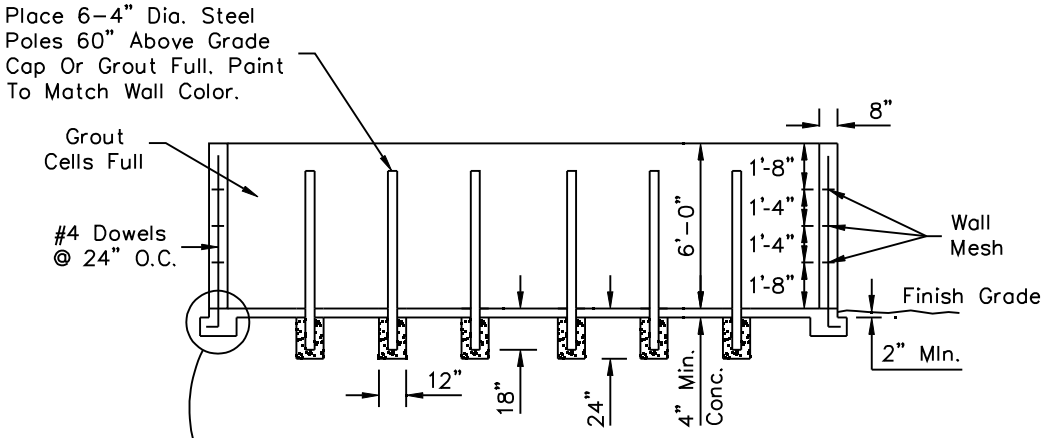
NOTES:

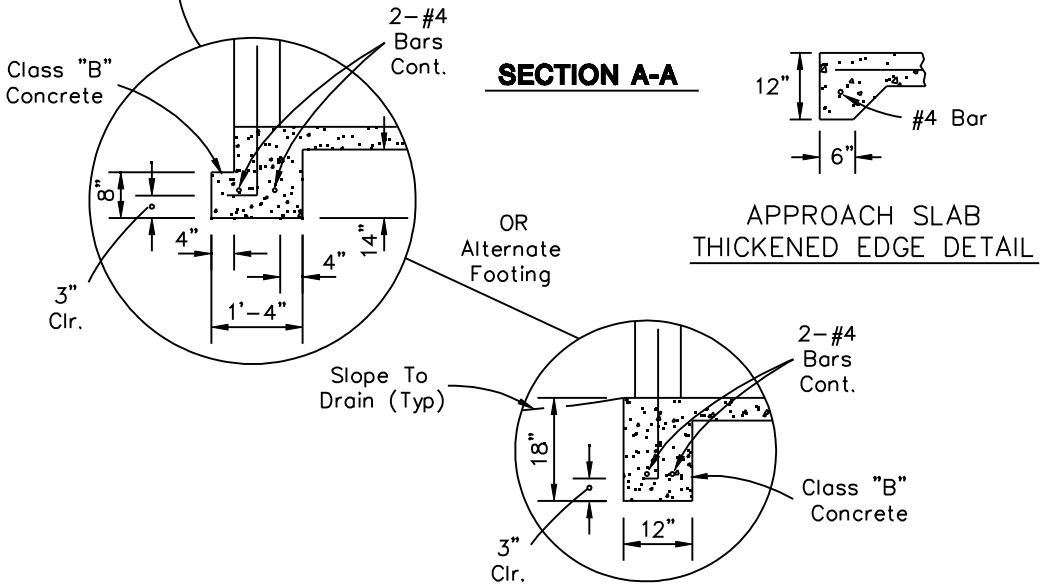
1. Enclosure For Angle Pick–up Similar To COS Detail 2146–1
2. ½" Expansion Joint, ASTM D–1751 Per MAG Section 729.

REVISED 5/9/02

DETAIL NO.		APPROVED BY:		DETAIL NO.
2146-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	REFUSE ENCLOSURE W/ GREASE CONTAINMENT AREA	2146-2

REVISED 5/9/02



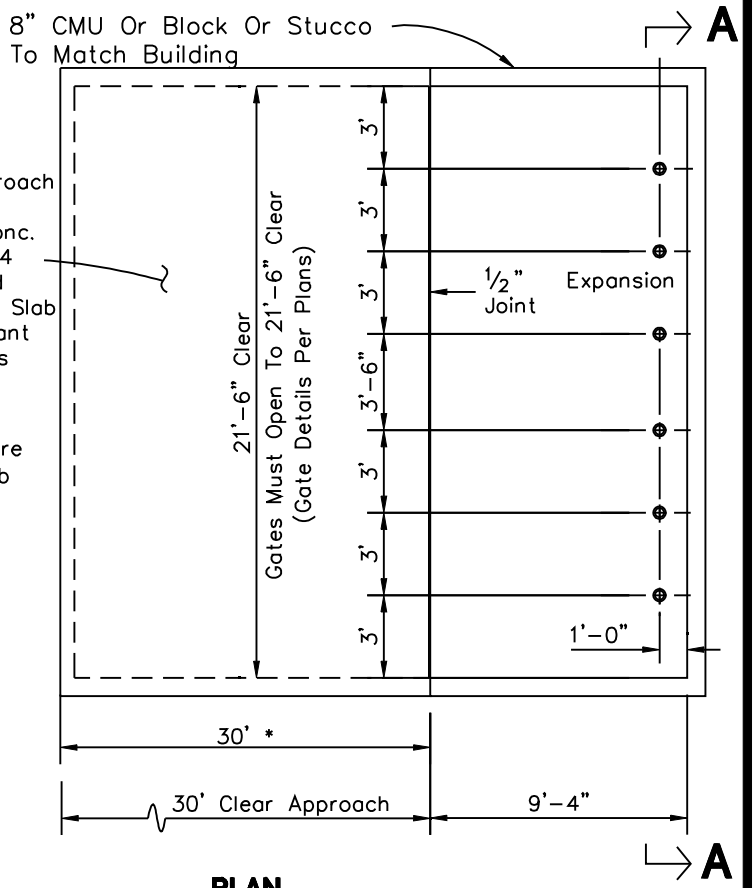


SECTION A-A

APPROACH SLAB
THICKENED EDGE DETAIL

30' x 23' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Conc. w/ 6"x 6", 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.

* In locations where a 30' approach slab is not possible, approval from the City of Scottsdale Quality Compliance Division is required.

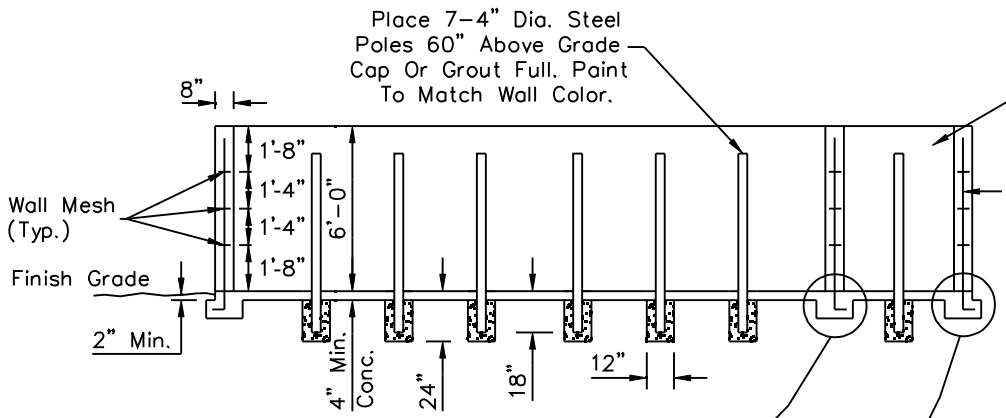


PLAN

NOTE:

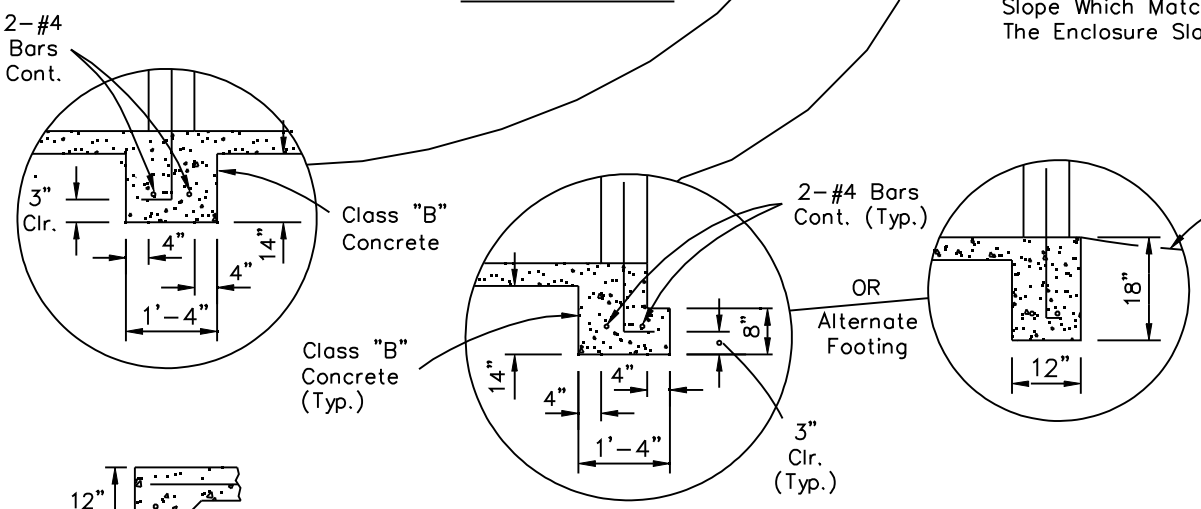
1. Double Enclosure For Angle Pick–Up Similar To COS Det. 2146–1
2. ½" Expansion Joint, ASTM D–1751 Per MAG Section 729.

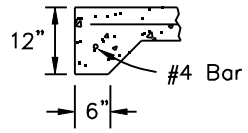
DETAIL NO. 2147-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DOUBLE REFUSE ENCLOSURE	DETAIL NO. 2147-1



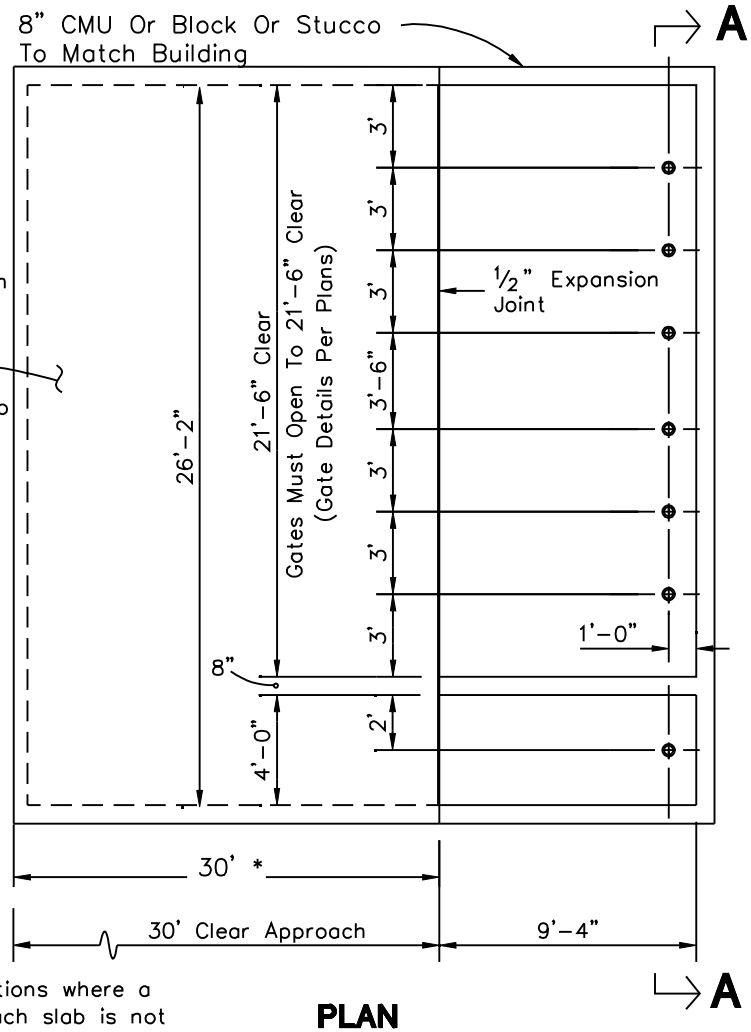
SECTION A-A

30' x 27.5' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Conc. w/ 6"x 6", 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.





APPROACH SLAB THICKENED EDGE DETAIL



PLAN

NOTES:

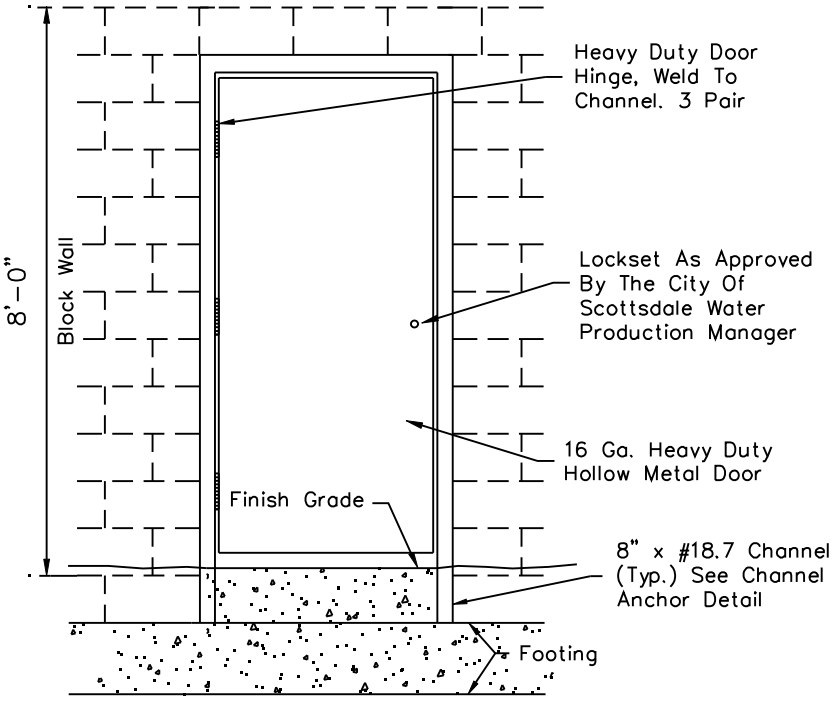
1. Double Enclosure For Angle Pick-Up Similar To COS Det. 2146-1
2. 1/2" Expansion Joint, ASTM D-1751 Per MAG Section 729.

* In locations where a 30' approach slab is not possible, approval from the City of Scottsdale Quality Compliance Division is required.

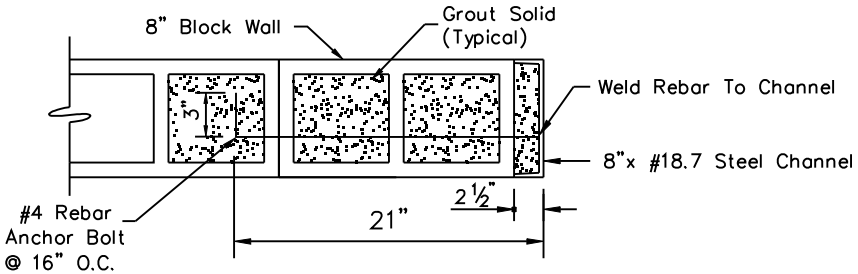
REVISED 5/9/02

DETAIL NO.		APPROVED BY:		DETAIL NO.
2147-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	DOUBLE REFUSE ENCLOSURE W/ GREASE CONTAINMENT AREA	2147-2

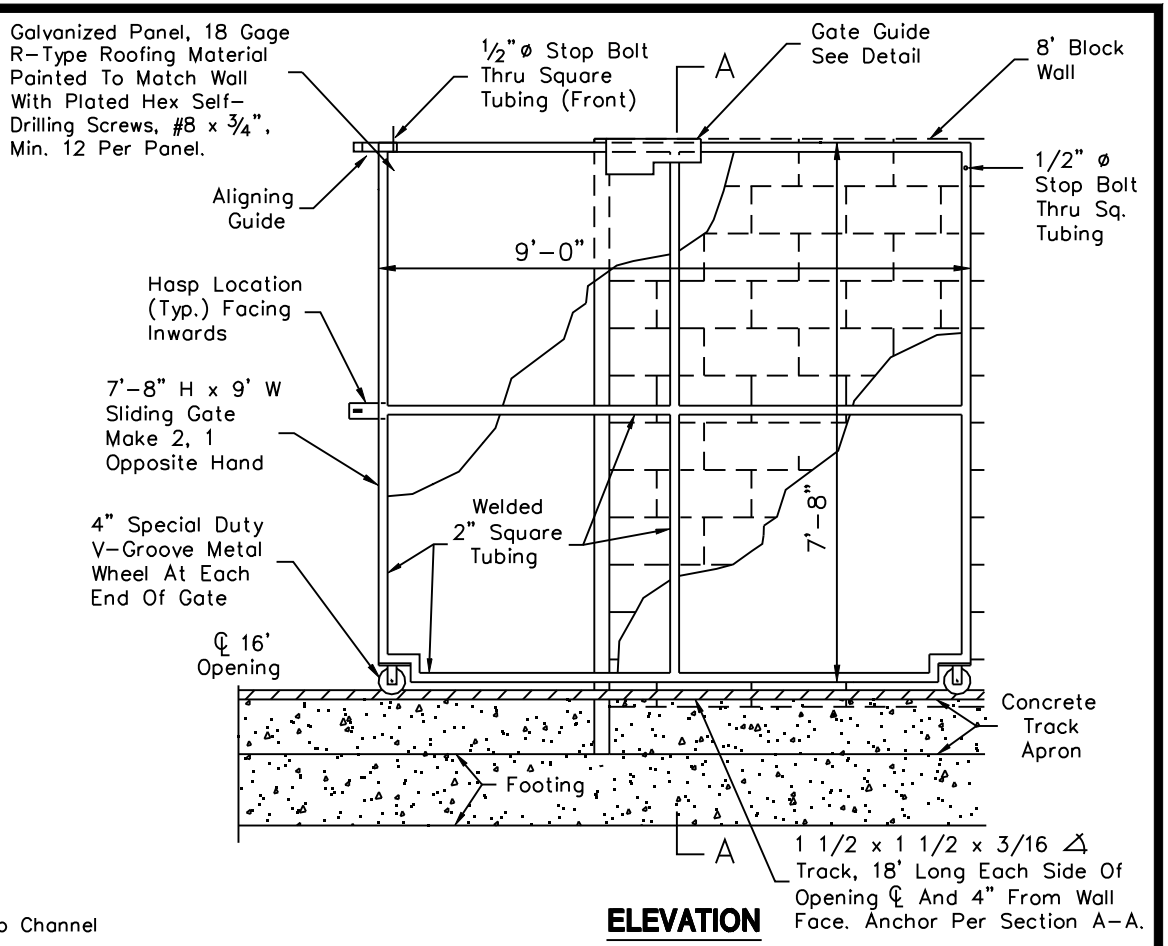
REVISED 4/12/05



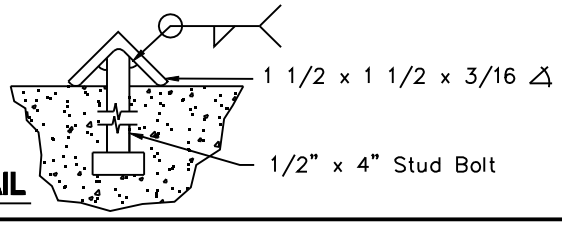
HINGED DOOR



CHANNEL ANCHOR DETAIL

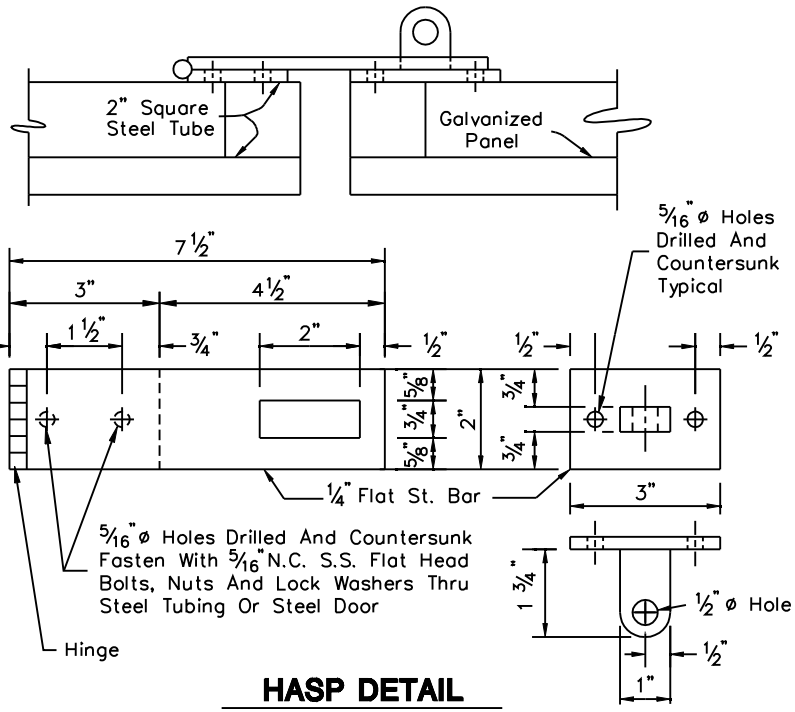


ELEVATION



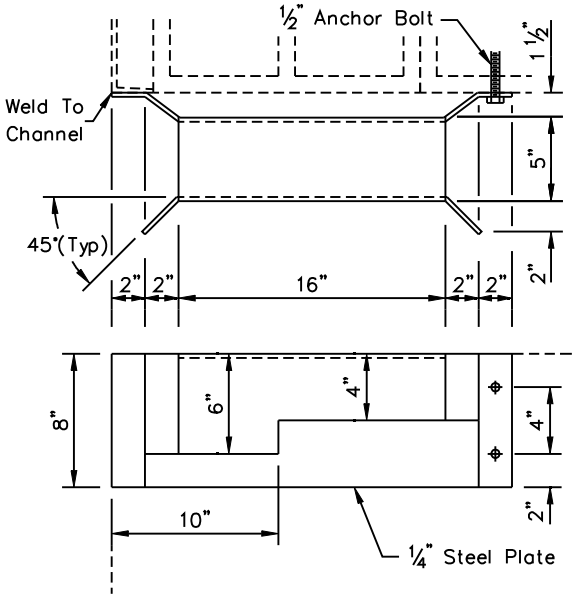
TRACK DETAIL

DETAIL NO. 2165-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	16' SLIDING GATE & HINGED DOOR	DETAIL NO. 2165-1



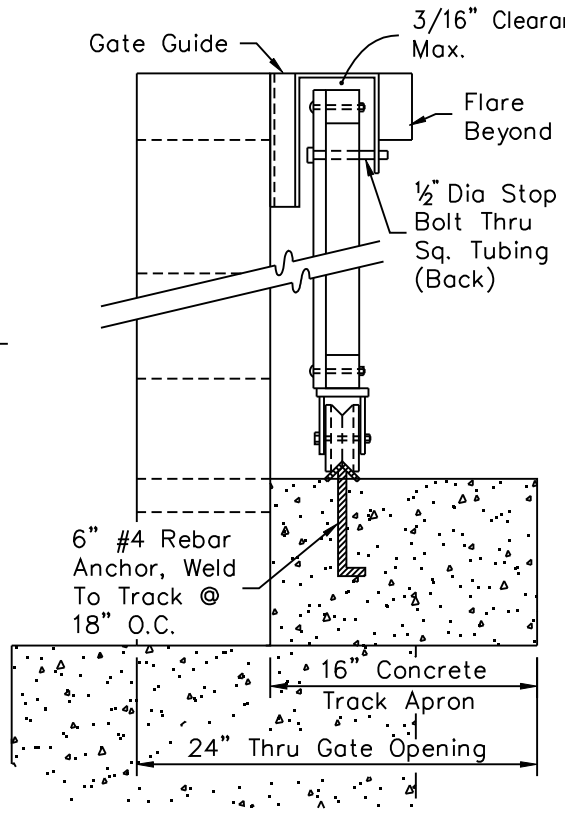
HASP DETAIL

N.T.S.

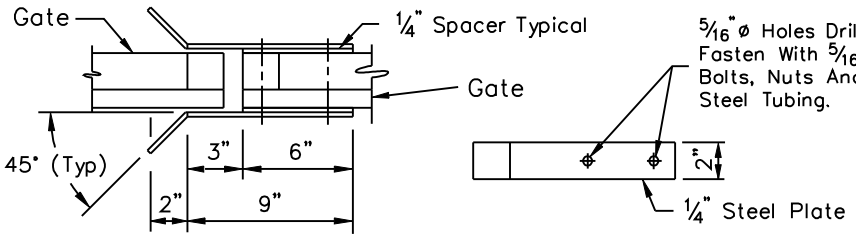


GATE GUIDE DETAIL

(Make 2, 1 Opposite Hand)



SECTION A-A



PLAN **ELEVATION**

ALIGNING GUIDE DETAIL

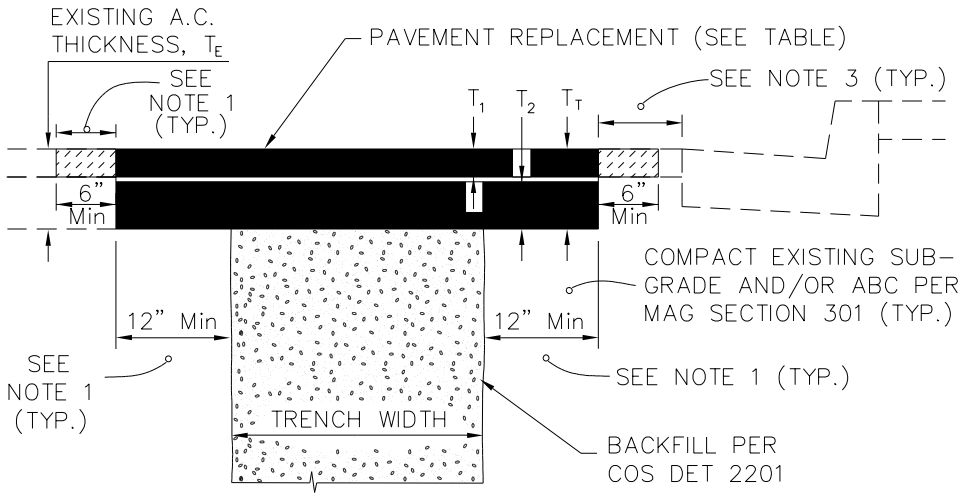
2 Required

NOTES:

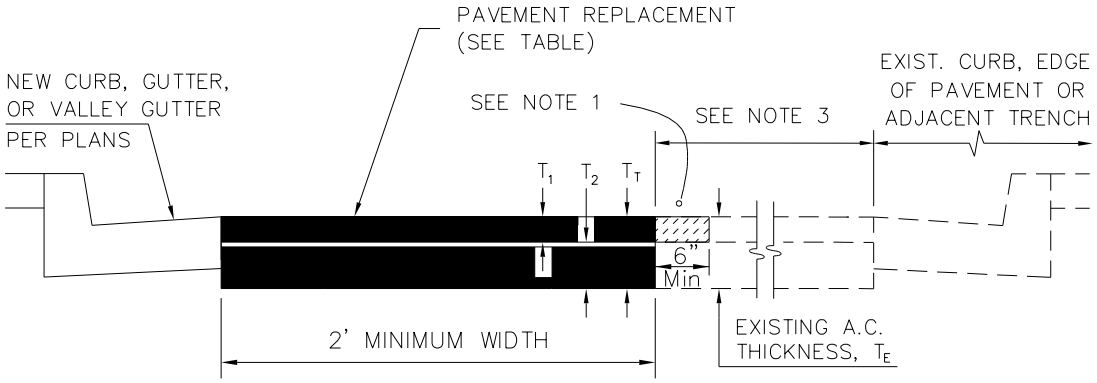
1. Contractor shall prime and paint all metal surfaces. Before application, the color and manufacturer of the paint shall be approved by the City.
2. Prior to painting, all surfaces shall be cleaned free of concrete, mortar, rust, dirt and any other objectionable materials.
3. Apply one (1) primer coat and two (2) exterior alkyd gloss enamel coats to metal.

REVISED 4/12/05

DETAIL NO. 2165-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	16' SLIDING GATE	DETAIL NO. 2165-2



PAVEMENT REPLACEMENT FOR TRENCHES (T-TOP)



PAVEMENT REPLACEMENT

EXISTING PAVEMENT THICKNESS, T_E	AC PAVEMENT REPLACEMENT TABLE		
	AC SINGLE COURSE OR SURFACE COURSE, T_1	AC BASE COURSE, T_2	TOTAL THICKNESS, T_T
$T_E \leq 3"$	3" MINIMUM	NONE	3" MINIMUM
$T_E > 3"$	2" MINIMUM	2" MINIMUM	T_E (MATCH EXIST)

PAVEMENT REPLACEMENT NOTES

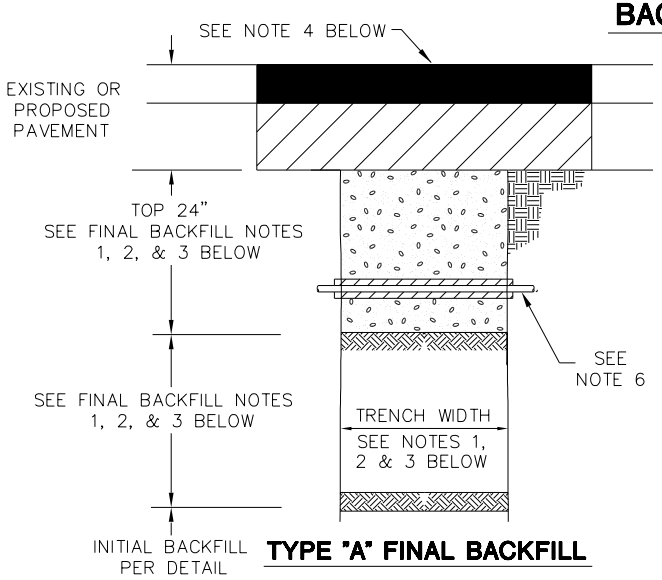
1. "T"-TOP REQUIRED FOR ALL TRENCHES. A.C. SURFACE COURSE REPLACEMENT TO BE MILLED DOUBLE "T" CONFIGURATION AS SPECIFIED BELOW FOR PAVEMENTS 4" AND THICKER.
   a. FOR PAVEMENT 4 YEARS AND OLDER: INITIAL A.C. REMOVAL TO BE THE MINIMUM WIDTH REQUIRED FOR PROPER TRENCH COMPACTION. SAWCUT & REMOVE 12" OF A.C. MINIMUM ON EACH SIDE OF THE TRENCH FOR THE "T"-TOP AFTER THE BACKFILL MATERIAL IS PLACED. PAVEMENTS 4" AND THICKER, MILL AND REMOVE THE TOP 2" OF THE SURFACE COURSE A MINIMUM OF 6" ON EACH SIDE OF THE T-TOP PRIOR TO PLACEMENT OF THE FINAL SURFACE COURSE LIFT.
   b. FOR NEW AND OVERLAYED PAVEMENT LESS THAN 4 YEARS OLD AND ALL PAVEMENTS WITH RUBBERIZED SURFACE COURSES: INITIAL A.C. REMOVAL TO BE THE MINIMUM WIDTH REQUIRED FOR PROPER TRENCH COMPACTION. SAWCUT & REMOVE 12" OF A.C. MINIMUM ON EACH SIDE OF THE TRENCH FOR THE "T"-TOP AFTER THE BACKFILL MATERIAL IS PLACED. PAVEMENTS 4" AND THICKER, MILL AND REMOVE THE TOP 2" OF THE SURFACE COURSE EQUALLY ON BOTH SIDES OF THE TRENCH TO A MINIMUM TOTAL WIDTH OF 10 FEET. FOR PAVEMENTS LESS THAN 4" THICK SAWCUT, REMOVE AND REPLACE THE ENTIRE PAVEMENT SURFACE TO A MINIMUM TOTAL WIDTH OF 10 FEET, AS DIRECTED BY THE ENGINEER.
   c. FOR DEEP PAVEMENT STRUCTURES REQUIRING TWO OR MORE PAVEMENT BASE LIFTS: INITIAL A.C. REMOVAL TO BE THE MINIMUM WIDTH REQUIRED FOR PROPER TRENCH COMPACTION. SAWCUT, REMOVE AND REPLACE A.C. ON BOTH SIDES OF THE TRENCH AS NECESSARY TO ACCOMODATE A RIDE ON TYPE VIBRATORY ROLLER COMPACTOR FOR PLACEMENT OF THE A.C. BASE COURSE LIFTS, MATCH EXISTING A.C. DEPTH. MILL AND REMOVE THE TOP 2" OF THE SURFACE COURSE EQUALLY ON BOTH SIDES OF THE TRENCH TO A MINIMUM TOTAL WIDTH OF 10 FEET.
2. ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF MAG SECTION 321.
3. IF PAVEMENT REMNANT IS LESS THAN 36", REMOVE AND REPLACE PAVEMENT AS PER THIS DETAIL.
4. AGGREGATE BASE COURSE PER MAG SECTION 702 SHALL BE PROVIDED TO MATCH EXISTING ABC THICKNESS IN ADJACENT ROADWAY.
5. REFER TO COS SUPPLEMENTAL SPECIFICATIONS, SECTION 336.2.4 FOR PAVEMENT SMOOTHNESS REQUIREMENTS.

REVISED 5/23/15

DETAIL NO. 2200	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	PAVEMENT REPLACEMENT	DETAIL NO. 2200

REVISED 5/27/15

BACKFILL DETAILS

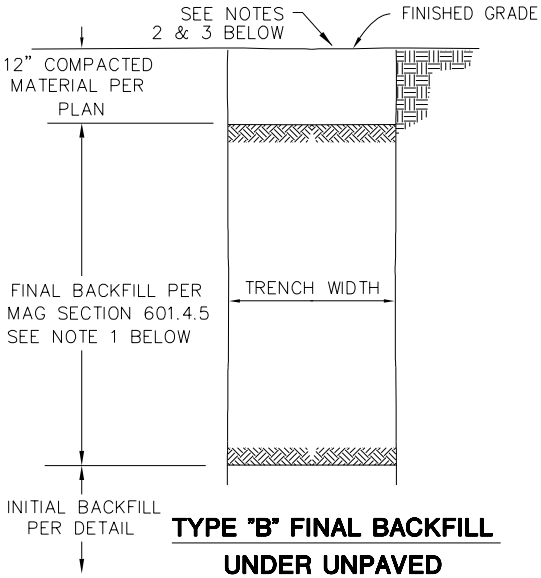


TYPE "A" FINAL BACKFILL

UNDER EXIST. OR PROPOSED PAVEMENT OR EXIST. SURFACE TREATMENT

FINAL BACKFILL NOTES

1. TRENCHES LESS THAN 24" IN WIDTH – 1/2 SACK CLSM, MAG 728, FULL DEPTH OF BACKFILL BOTTOM OF ABC LAYER IN PAVEMENT STRUCTURE OR 6" BELOW PAVEMENT IN FULL DEPTH PAVEMENT STRUCTURES. CONSTRUCT PAVEMENT STRUCTURE TO MATCH EXISTING AND IN ACCORDANCE WITH COS DETAIL 2200.
2. TRENCHES 24" TO 6' IN WIDTH – 1/2 SACK CLSM AS DESCRIBED IN NOTE 1 ABOVE WITHIN THE TOP 24" OF THE TRENCH; MAG 601.4.3 FOR BALANCE OF BACKFILL.
3. TRENCHES OVER 6' IN WIDTH – MAG 601.4.5 FULL DEPTH OF FINAL BACKFILL.
4. TREAT ENTIRE DISTURBED SURFACE OF UNPAVED ALLEYS WITH LIGNIN–BASED DUST PALLATIVE, MAG 792, 1:1 DILUTION RATIO, 0.50 GAL/SY APPLICATION RATE.
5. CLSM SHALL NOT BE USED FOR WATER OR SEWER PIPE BEDDING. SEE BEDDING DETAIL.
6. EXPOSED COPPER OR POLYETHYLENE WATER PIPES IN SIZES 3/4" TO 2" SHALL BE WRAPPED WITH 3/4" WIDE BLACK INSULATION BEFORE PLACING CLSM.
7. RECYCLED ASPHALT SHALL NOT BE USED FOR FINAL BACKFILL.



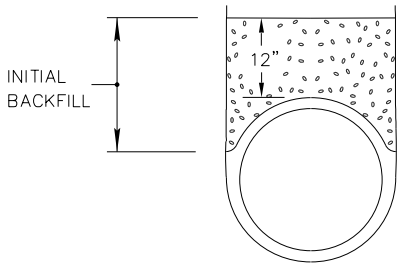
TYPE "B" FINAL BACKFILL

UNDER UNPAVED ROADWAY, PARKING LOT AND VACANT LAND

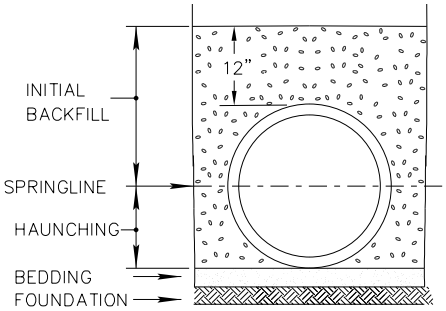
FINAL BACKFILL NOTES

1. MAG 601.4.5 FULL DEPTH OF BACKFILL.
2. ENTIRE DISTURBED EXISTING SURFACE TO BE RESTORED WITH A LIKE MATERIAL.
3. TREAT ENTIRE DISTURBED SURFACE WITH LIGNIN–BASED DUST PALLATIVE, MAG 792, 1:1 DILUTION RATIO, 0.50 GAL/SY APPLICATION RATE.
4. RECYCLED ASPHALT SHALL NOT BE USED FOR FINAL BACKFILL.

TRENCH DETAILS



TRENCH DETAIL
CAST-IN-PLACE PIPE



TRENCH DETAIL
ALL OTHER PIPE

NOTES:

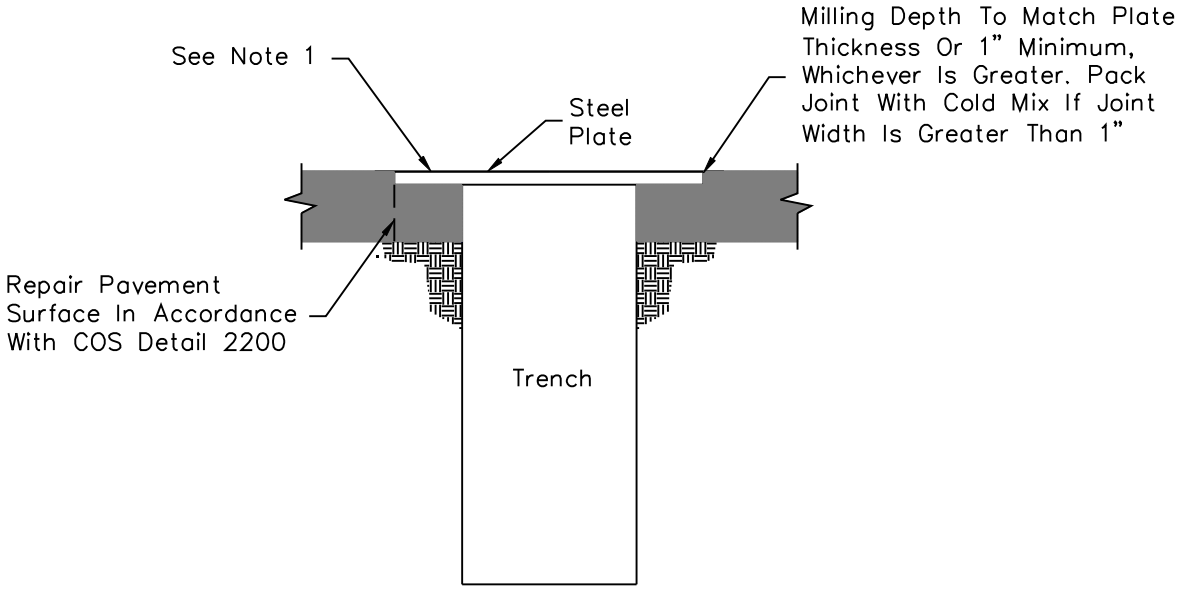
1. ALL PIPES REQUIRE BEDDING PER COS SUPPLEMENTAL SPECIFICATIONS SECTION 601.2.3.
2. RECYCLED ASPHALT SHALL NOT BE USED FOR BEDDING, HAUNCHING OR INITIAL BACKFILL MATERIAL.
3. BEDDING, HAUNCHING AND INITIAL BACKFILL PER COS SUPPLEMENTAL SPECIFICATIONS SECTION 601.

DETAIL NO. 2201	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRENCH BEDDING & BACKFILL	DETAIL NO. 2201

REVISED: 4/25/02

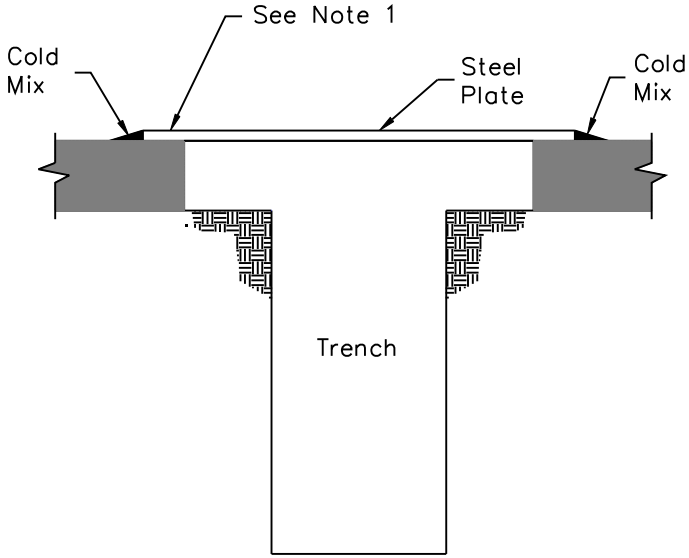
NOTES:

1. The contractor shall provide adequate overlap of plate on asphalt to assure no slippage of plate and no collapsing of trench.
2. "Posted Speed" does not include temporary construction signing.



TYPE "A" PLATING

CITY POSTED SPEEDS OF
35 MPH AND GREATER
OR BUS & TRUCK ROUTE

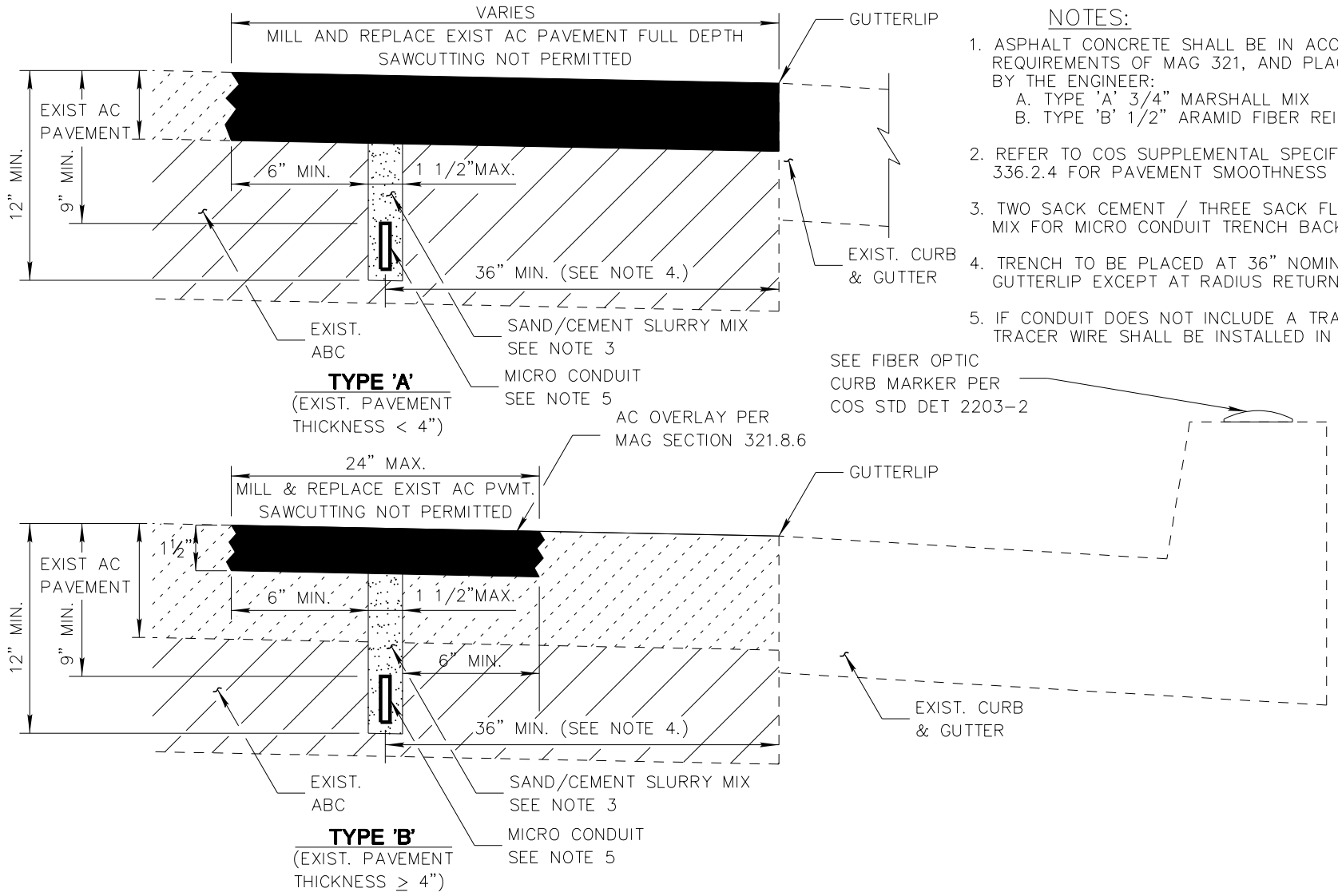


TYPE "B" PLATING

CITY POSTED SPEEDS
UNDER 35 MPH

DETAIL NO. 2202	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRENCH PLATING	DETAIL NO. 2202

NEW 4/23/14

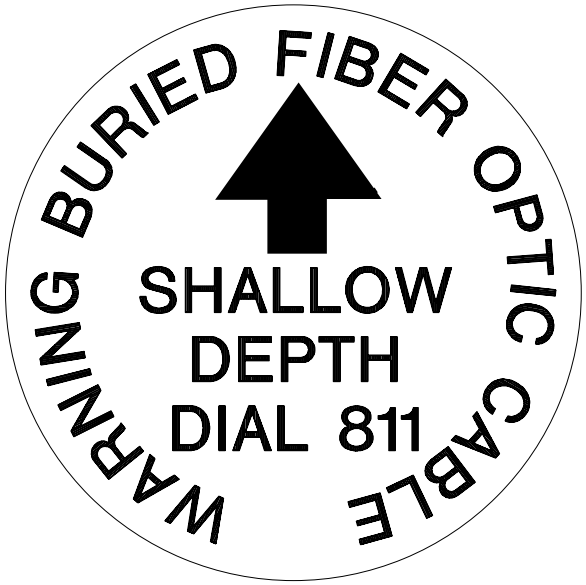


NOTES:

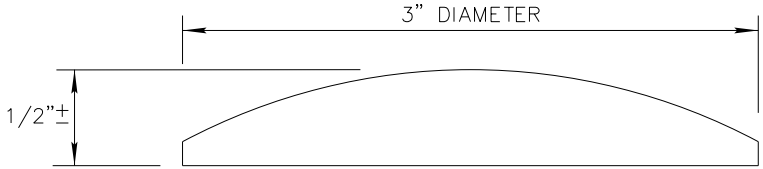
1. ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF MAG 321, AND PLACEMENT AS DIRECTED BY THE ENGINEER:
   A. TYPE 'A' 3/4" MARSHALL MIX
   B. TYPE 'B' 1/2" ARAMID FIBER REINFORCED MARSHALL MIX
2. REFER TO COS SUPPLEMENTAL SPECIFICATIONS, SECTION 336.2.4 FOR PAVEMENT SMOOTHNESS REQUIREMENTS.
3. TWO SACK CEMENT / THREE SACK FLY ASH SAND SLURRY MIX FOR MICRO CONDUIT TRENCH BACKFILL.
4. TRENCH TO BE PLACED AT 36" NOMINAL DISTANCE FROM GUTTERLIP EXCEPT AT RADIUS RETURNS.
5. IF CONDUIT DOES NOT INCLUDE A TRACER WIRE. A SEPERATE TRACER WIRE SHALL BE INSTALLED IN THE TRENCH.

DETAIL NO.		APPROVED BY:		DETAIL NO.
2203-1	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	MICRO-TRENCH PAVEMENT REPLACEMENT AND BACKFILL	2203-1

NEW 4/23/14



TOP VIEW
(NTS)



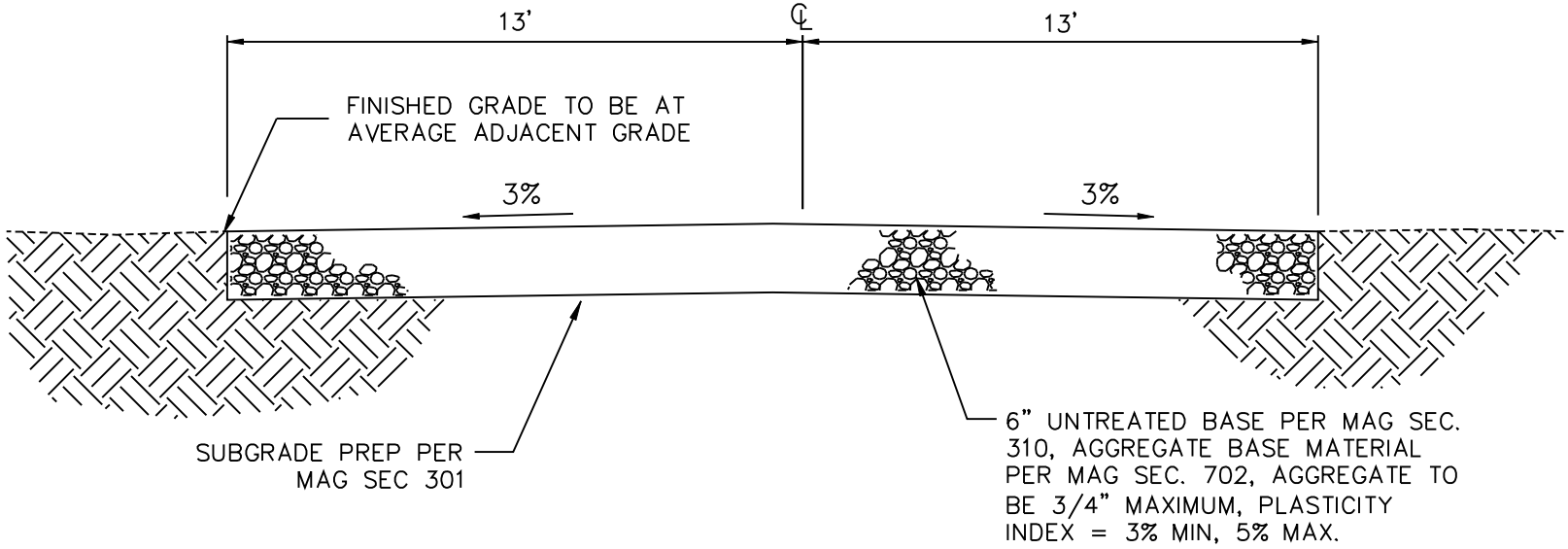
SIDE VIEW
(NTS)

NOTES:

1. MATERIAL: MULTI LAYER WITH PLASTIC BASE AND POLYURETHANE DOME OR APPROVED EQUAL. MARKER SHALL BE U.V. AND ABRASION RESISTANT.
2. COLOR: BLACK SYMBOLS & LETTERS ON ORANGE BACKGROUND.
3. THE TOTAL WIDTH OF THE INDIVIDUAL LETTERS TO BE SUCH THAT LETTERS AND PICTURE ARE EQUALLY SPACED AND BALANCED.
4. LETTERS TO BE 1/4" IN HEIGHT.
5. CURB MARKER TO BE INSTALLED WITH DYNAMIX #6125-1 URETHANE UNIVERSAL ADHESIVE OR APPROVED EQUAL.
6. CURB MARKERS SHALL BE INSTALLED AT TOP OF CURB RETURNS AND AT MINIMUM 150' INTERVALS ALONG MICROTRENCH.

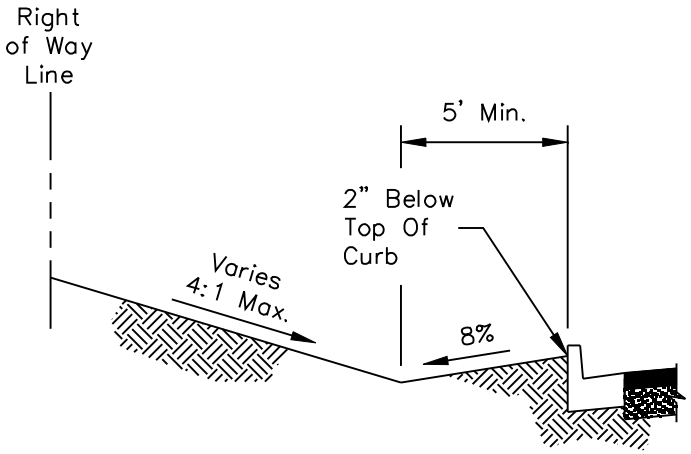
DETAIL NO. 2203-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIBER OPTIC CURB MARKER	DETAIL NO. 2203-2

REVISED: 3/28/02

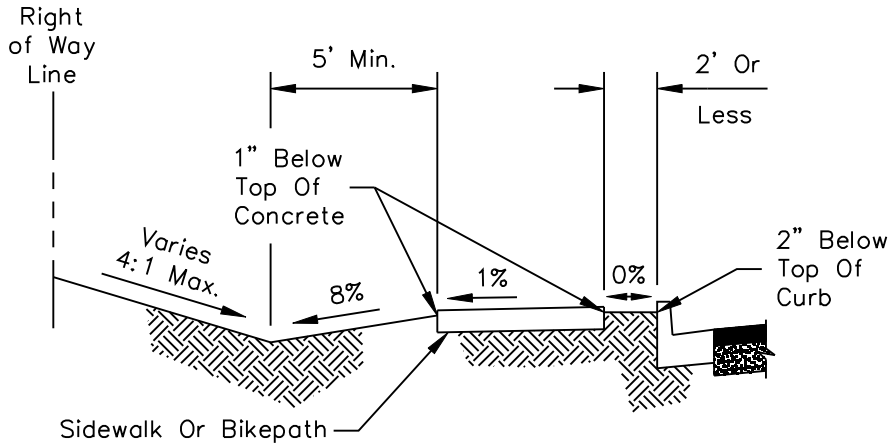


UNPAVED ROAD DETAIL

DETAIL NO. 2207	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	RESIDENTIAL UNPAVED ROAD	DETAIL NO. 2207



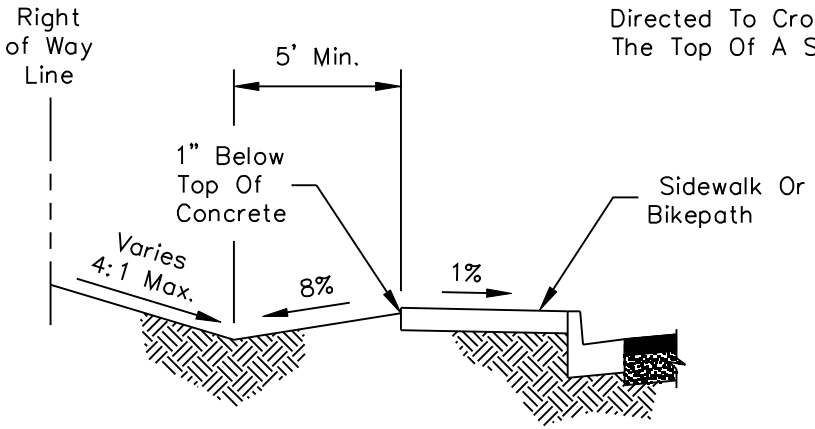
NO SIDEWALK



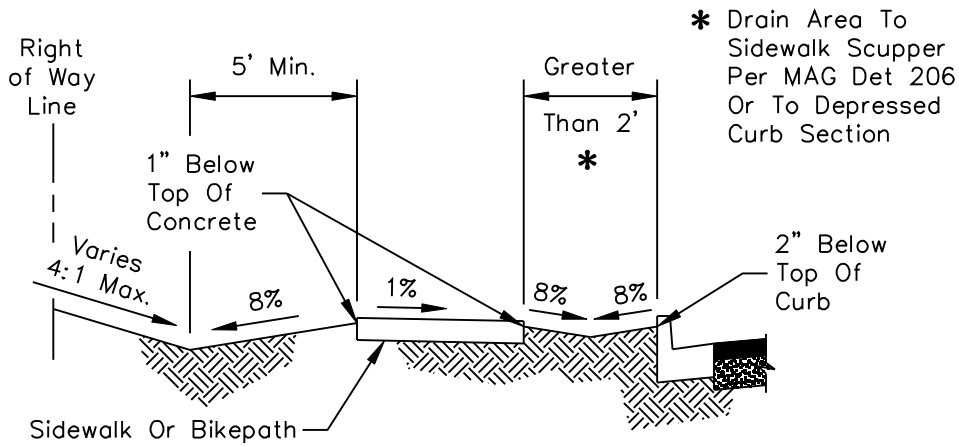
SIDEWALK LESS THAN 2' BEHIND CURB

NOTE:

Runoff Shall Not Be Directed To Cross Over The Top Of A Sidewalk.



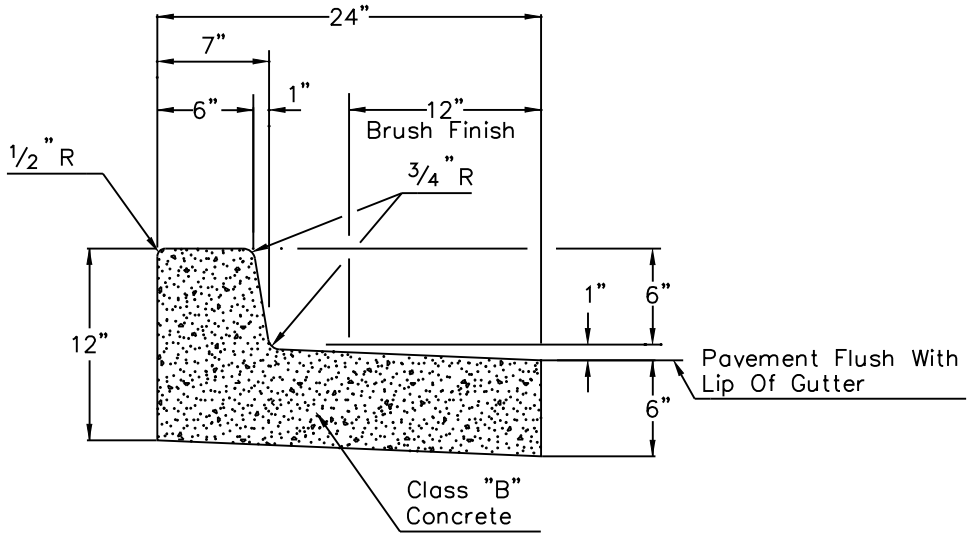
SIDEWALK AT BACK OF CURB



SIDEWALK MORE THAN 2' BEHIND CURB

DETAIL NO. 2210	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	# GRADING BEHIND THE CURB	DETAIL NO. 2210

REVISED 4/15/09

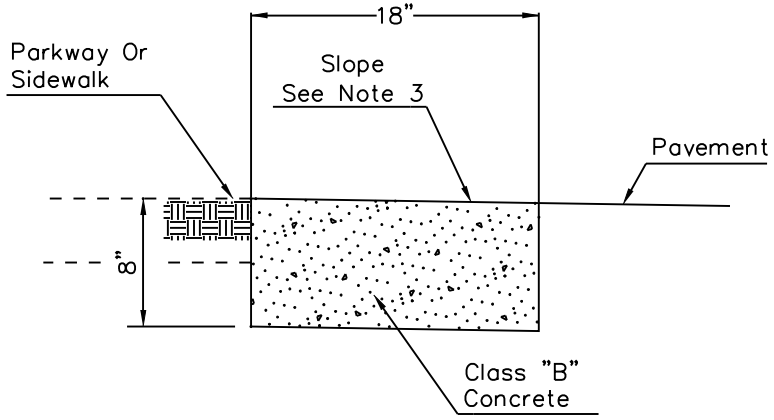


VERTICAL CURB & GUTTER WITH DEPRESSED LIP

TYPE "A"

NOTES

1. All exposed surfaces to be trowel finished except as shown. See M.A.G. Section 340.
2. Contraction joint spacing shall be 10' maximum or as directed by the Inspector.
3. Construct curb and install 1/2" mastic expansion joints, A.S.T.M. D-1751, per M.A.G. Sec. 340 & 729 and COS Sec. 340.
4. Colored concrete shall be colored integrally.



RIBBON CURB

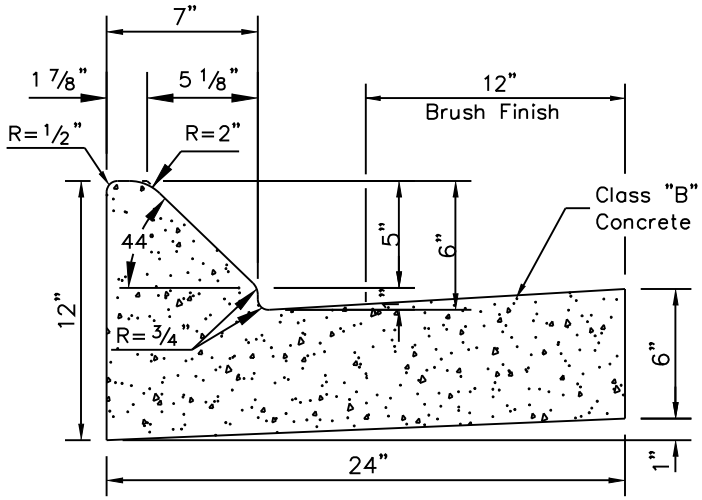
TYPE "B"

NOTES

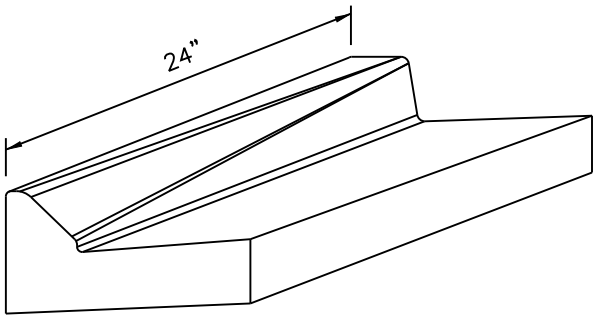
1. Construct curb and install 1/2" mastic expansion joints, A.S.T.M. D-1751, per M.A.G. Sec. 340 & 729 and COS Sec 340.
2. Broom finish all surfaces.
3. Ribbon curb may slope towards pavement or parkway. Match cross slope of road unless indicated otherwise on plans.
4. Contraction joint spacing shall be 10' maximum or as directed by the Inspector.
5. Colored concrete shall be colored integrally.

DETAIL NO. 2220	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CURB AND GUTTER - TYPES A & B	DETAIL NO. 2220

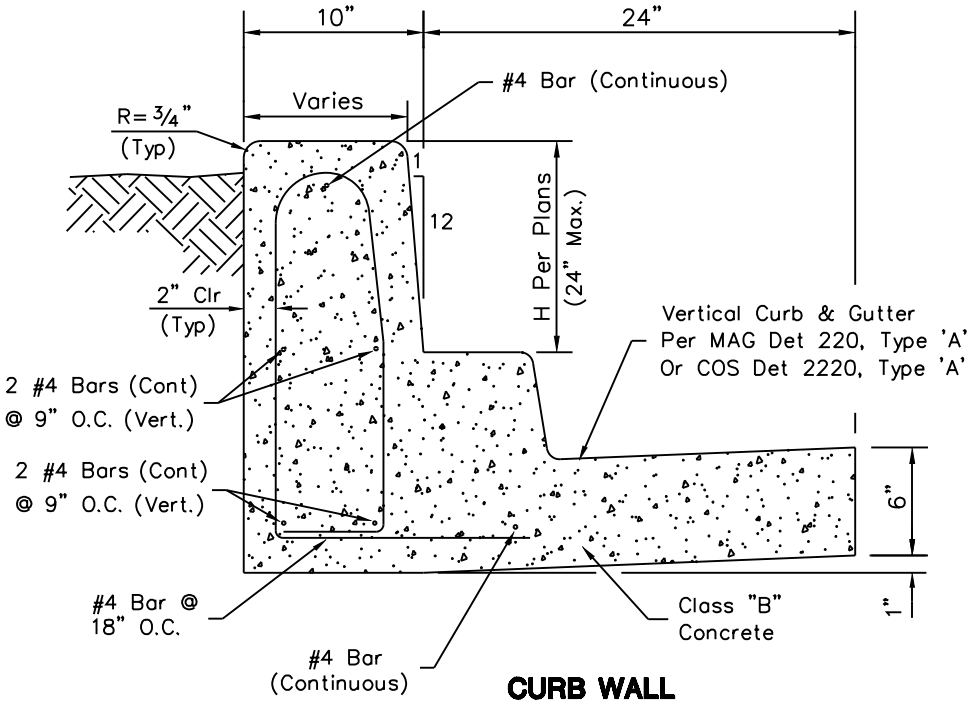
REVISED 4/15/09



MOUNTABLE/MEDIAN CURB & GUTTER
TYPE "M"



MOUNTABLE CURB TO VERTICAL CURB TRANSITION



CURB WALL
TYPE "W"

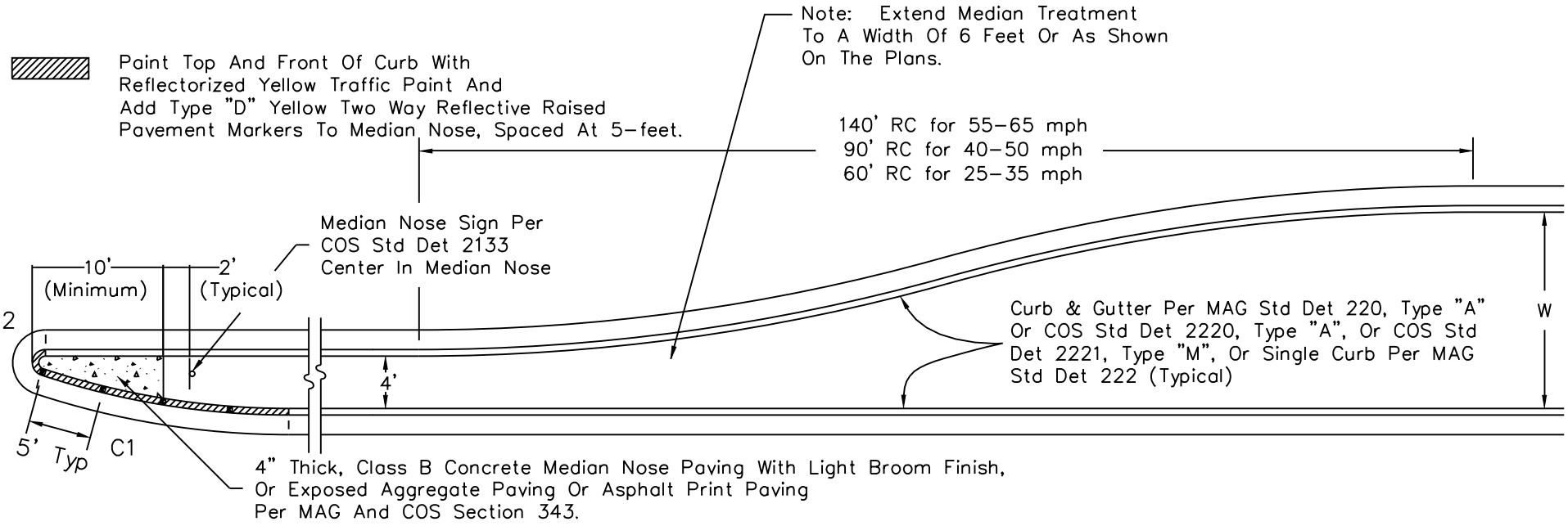
NOTES

1. All exposed surfaces to be trowel finished except as shown. See M.A.G. Section 340.
2. Contraction joint spacing shall be 10' maximum or as directed by the Inspector.
3. Construct curb and install 1/2" mastic expansion joints, A.S.T.M. D-1751, per M.A.G. Sec. 340 & 729 and C.O.S. Sec. 340.
4. Gutter lip may be depressed where indicated on plans and constructed as shown on COS Detail 2220, Type "A".
5. Colored concrete, if called for on the plans, shall be colored integrally.
6. Steel reinforcement shall be per M.A.G. Section 727.

DETAIL NO. 2221	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CURB & GUTTER - TYPES M & W	DETAIL NO. 2221

MEDIAN NOSE CURVE DATA

CURVE	RADIUS*	LENGTH	TANGENT	CHORD	DELTA
C1	59.5'	19.06'	9.61'	18.97'	18°20'59"
C2	0.50'	1.41'	3.10'	0.99'	161°39'01"

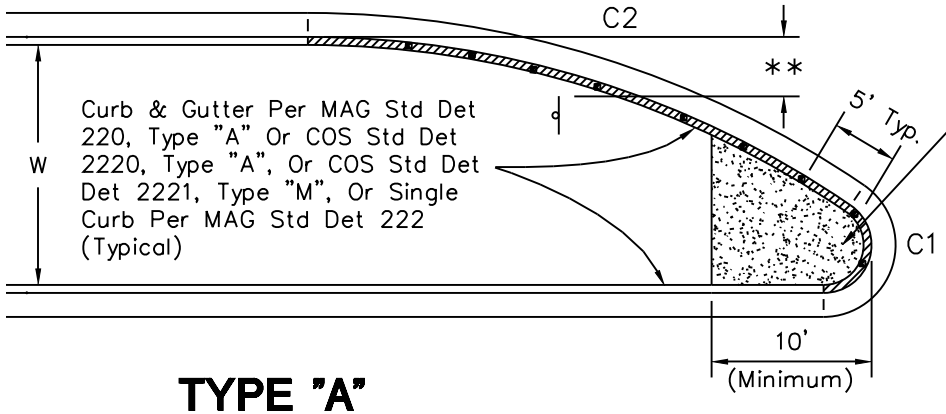


REVISED 3/11/09

* ALL RADII AND DIMENSIONS TO BACK OF CURB

NOTE: Curve Data Shown Is For Streets On Linear Alignments Only.

DETAIL NO. 2225	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MEDIAN NOSE & REVERSE CURVE DETAILS	DETAIL NO. 2225



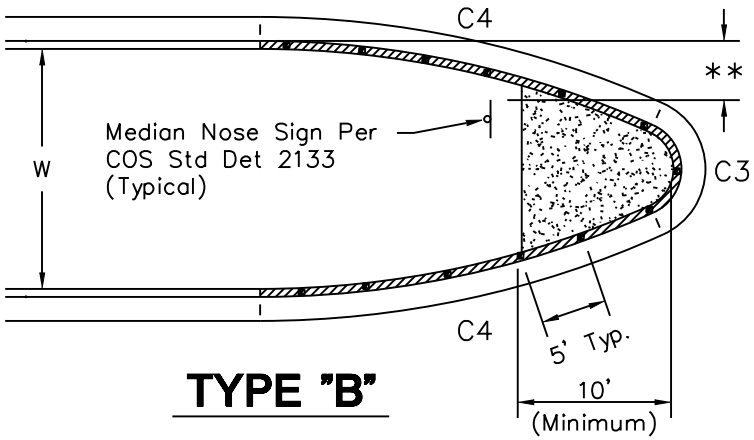
TYPE "A"

4" Thick, Class B Concrete Median Nose Paving With Light Broom Finish, Or Exposed Aggregate Paving or Asphalt Print Paving per MAG and COS Section 343 (Typical)

* ALL RADII AND DIMENSIONS TO BACK OF CURB

** OFFSET TO BE NO MORE THAN 3' FROM FACE OF CURB TANGENT TO EDGE OF SIGN

Paint Top And Front Of Curb With Reflectorized Yellow Traffic Paint And Add Type "D" Yellow Reflective Raised Pavement Markers to Median Nose Nose, Spaced at 5-feet.



TYPE "B"

* CURVE DATA – W=15'					
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA
C1	2.50'	6.35'	8.06'	4.78'	145°32'39"
C2	59.50'	35.78'	18.45'	35.24'	34°27'21"
C3	2.50'	5.74'	5.57'	4.56'	131°38'42"
C4	59.50'	25.11'	12.74'	24.92'	24°10'39"

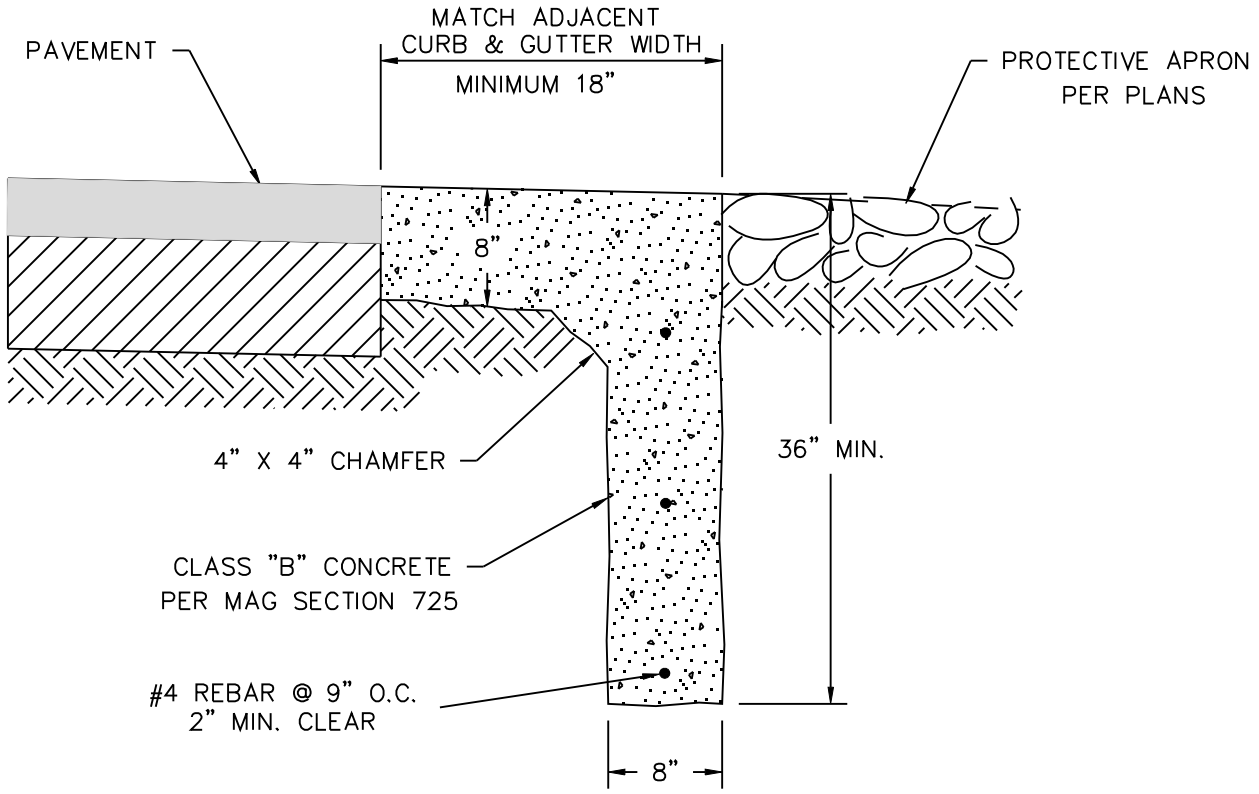
* CURVE DATA – W=16'					
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA
C1	2.50'	6.27'	7.65'	4.75'	143°48'20"
C2	59.50'	37.59'	19.44'	36.97'	36°11'40"
C3	2.50'	5.64'	5.27'	4.52'	129°14'46"
C4	59.50'	26.35'	13.40'	26.14'	25°22'37"

* CURVE DATA – W=24'					
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA
C1	2.50'	5.75'	5.59'	4.56'	131°48'37"
C2	59.50'	50.04'	26.61'	48.58'	48°11'23"
C3	2.50'	4.93'	3.77'	4.17'	112°53'08"
C4	59.50'	34.85'	17.94'	34.35'	33°33'26"

REVISED 3/11/09

DETAIL NO. 2226	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MEDIAN NOSE DETAILS	DETAIL NO. 2226

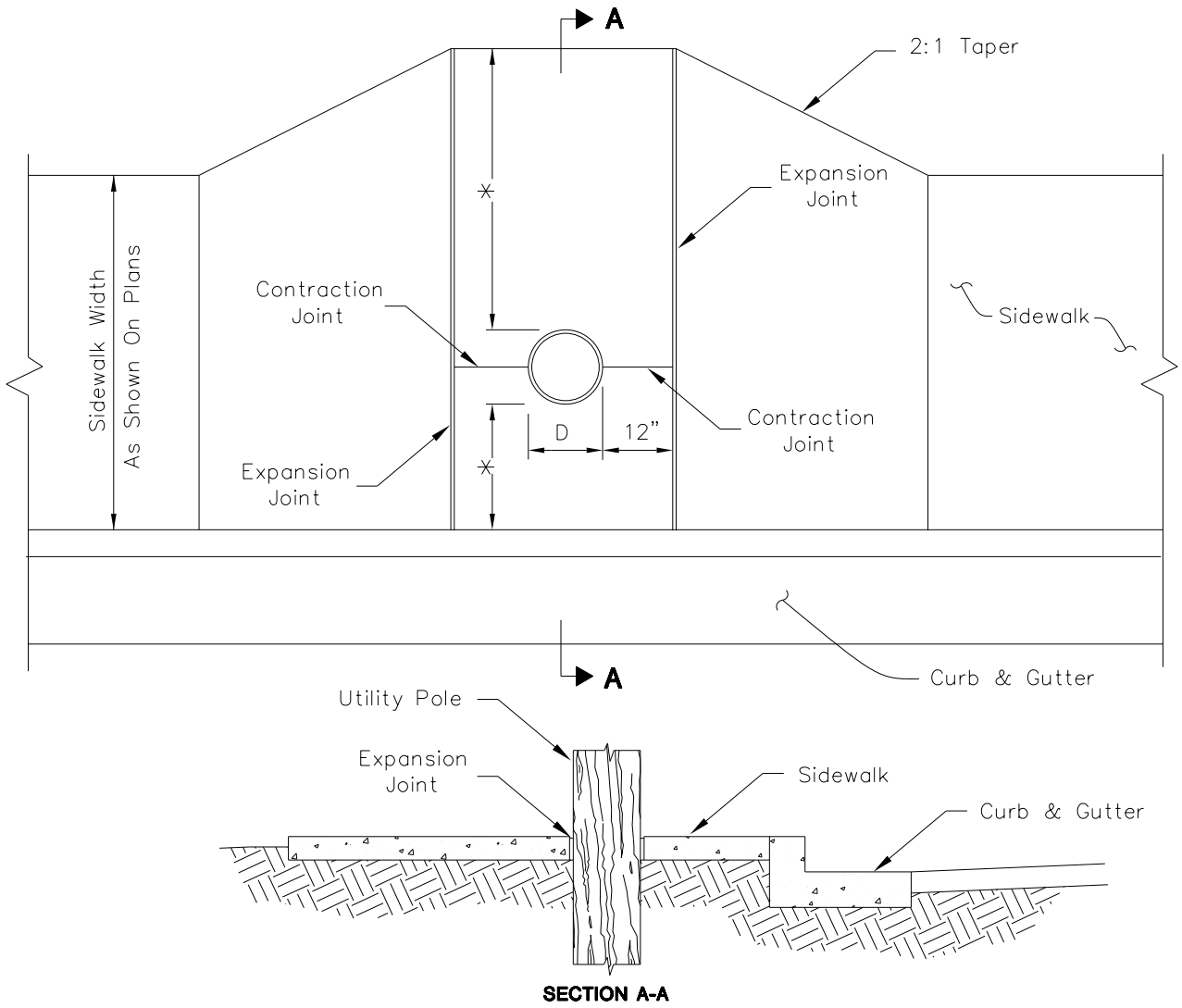
REVISED 2/22/99



NOTE: Form The Top 8" Of Cut-Off Wall

DETAIL NO. 2228	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CUT-OFF WALL	DETAIL NO. 2228

REVISED 5/23/15



SECTION A-A

NOTES

Install expansion joint around wood pole.

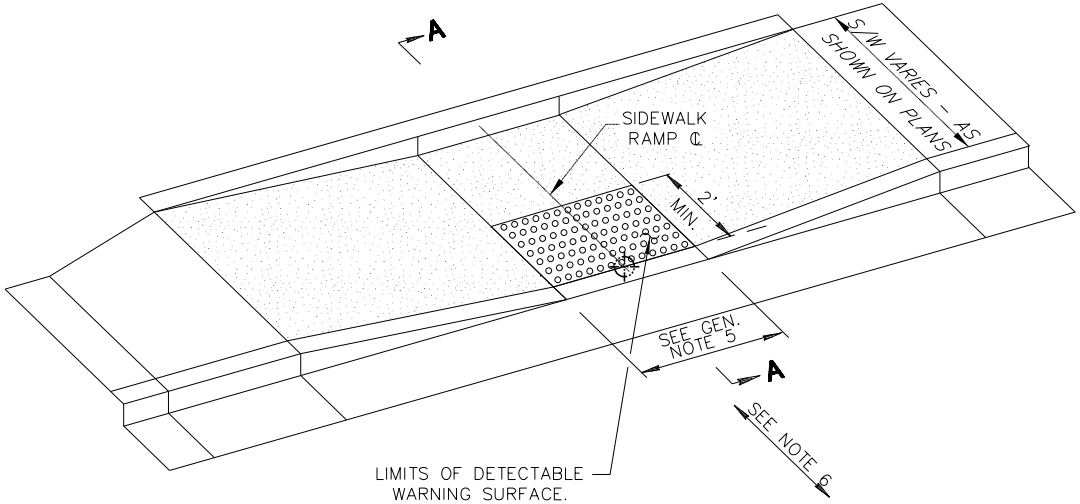
Install expansion joint at sidewalk 1/4" lower than sidewalk

* Match width of sidewalk on one side of utility pole if possible, if not, maintain 48" clear on one side of utility pole unless otherwise approved by City staff.

D = Pole Diameter
Range: 12"–17"

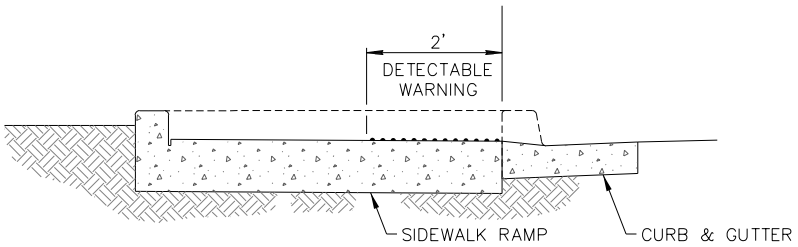
DETAIL NO. 2230	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SIDEWALK CUTOUT FOR UTILITY POLES	DETAIL NO. 2230

REVISED 5/23/15



INSTALLATION EXAMPLE
NTS

RAMP CONTROL POINT (TYP.) SEE PLANS



SECTION A-A
NTS

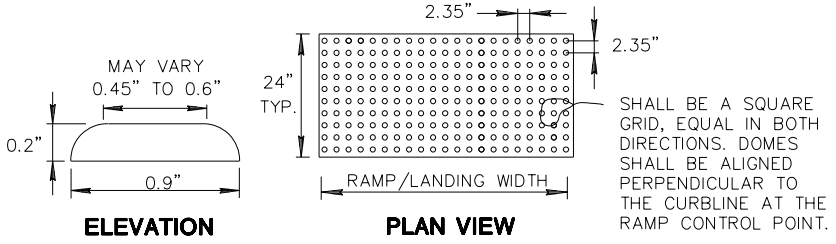
GENERAL NOTES

1. DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES, AND SHALL CONFORM TO THE DETAILS IN THE PLANS AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
2. ALL DETECTABLE WARNING SURFACES SHALL START AT BACK OF CURB, MEASURE 24 INCHES IN DEPTH AND COVER THE COMPLETE WIDTH OF THE RAMP LANDING.
3. 70% VISUAL CONTRAST IS REQUIRED. THE COLOR SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING MATERIAL. COLOR WILL BE SUBJECT TO APPROVAL BY CITY STAFF.
4. THE CONCRETE WORK REQUIRED TO FORM A BLOCK OUT FOR CAST IN PLACE APPLICATIONS, OR TO CREATE A SMOOTH AND CLEAN CONCRETE SURFACE FOR SURFACE APPLICATIONS, SHALL BE INCLUDED IN THE COST OF THE CONCRETE CURB RAMP. THE COST OF FURNISHING AND INSTALLING THE DETECTABLE WARNING DEVICE SHALL BE INCLUDED IN THE COST OF THE CONCRETE CURB RAMP.
5. WIDTH PER RAMP DETAIL OR AS CALLED OUT ON PLANS.
6. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED PERPENDICULAR TO THE CURB AT THE RAMP CONTROL POINT. SEE PLANS FOR RAMP CONTROL POINT.

APPROVED DETECTABLE WARNING SURFACES

1. ONLY DETECTABLE WARNING SYSTEMS WHICH APPEAR ON THE CITY OF SCOTTSDALE QUALIFIED PRODUCTS LIST ARE APPROVED FOR INSTALLATION. THE QUALIFIED PRODUCT LIST IS LOCATED AT THE FOLLOWING WEBSITE:

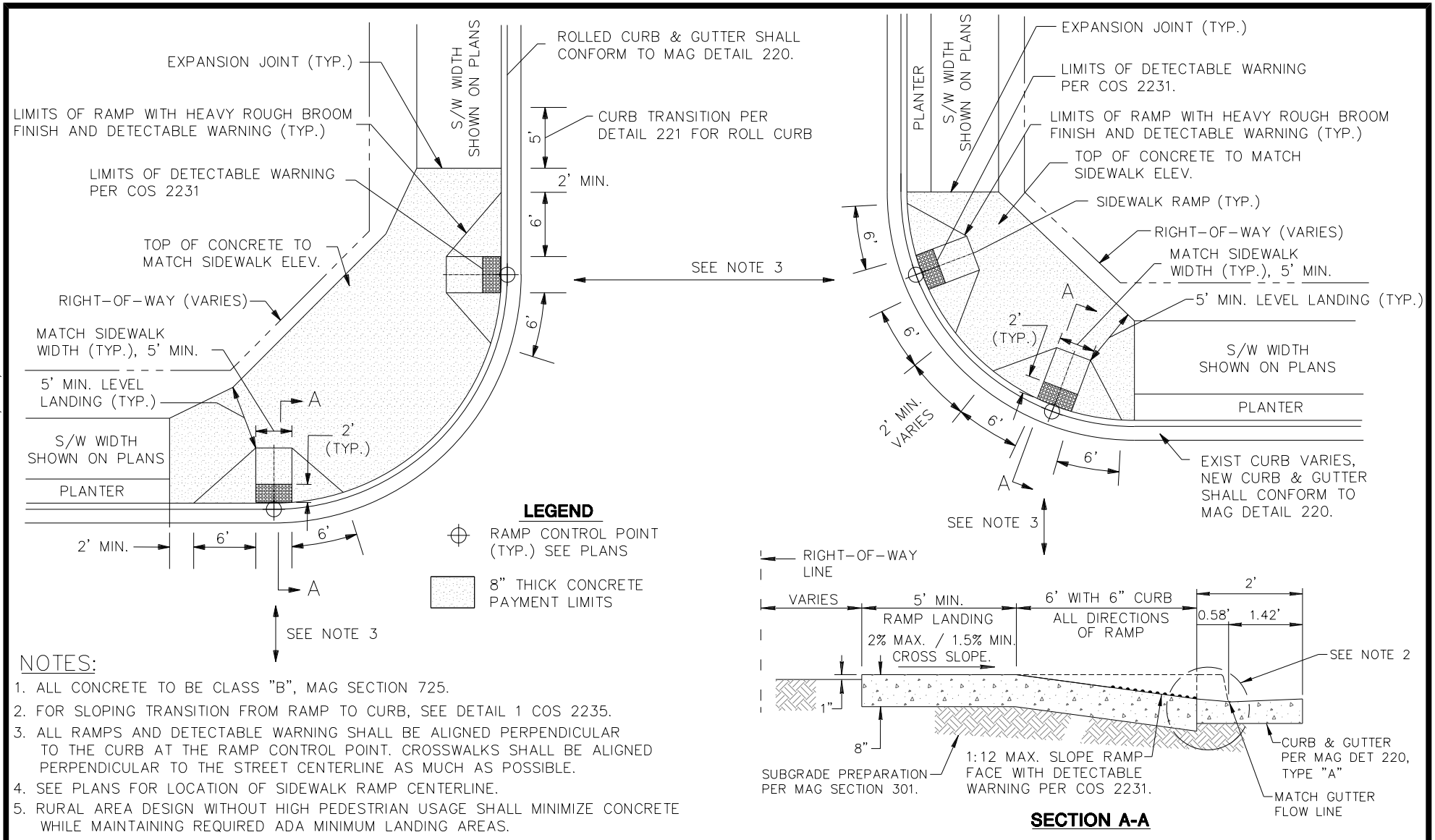
   WWW.SCOTTSDALEAZ.GOV/STREETS/PRODUCTS/



ELEVATION **PLAN VIEW**

TRUNCATED DOME DETECTABLE WARNING
NTS

DETAIL NO. 2231	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DETECTABLE WARNING SURFACE	DETAIL NO. 2231



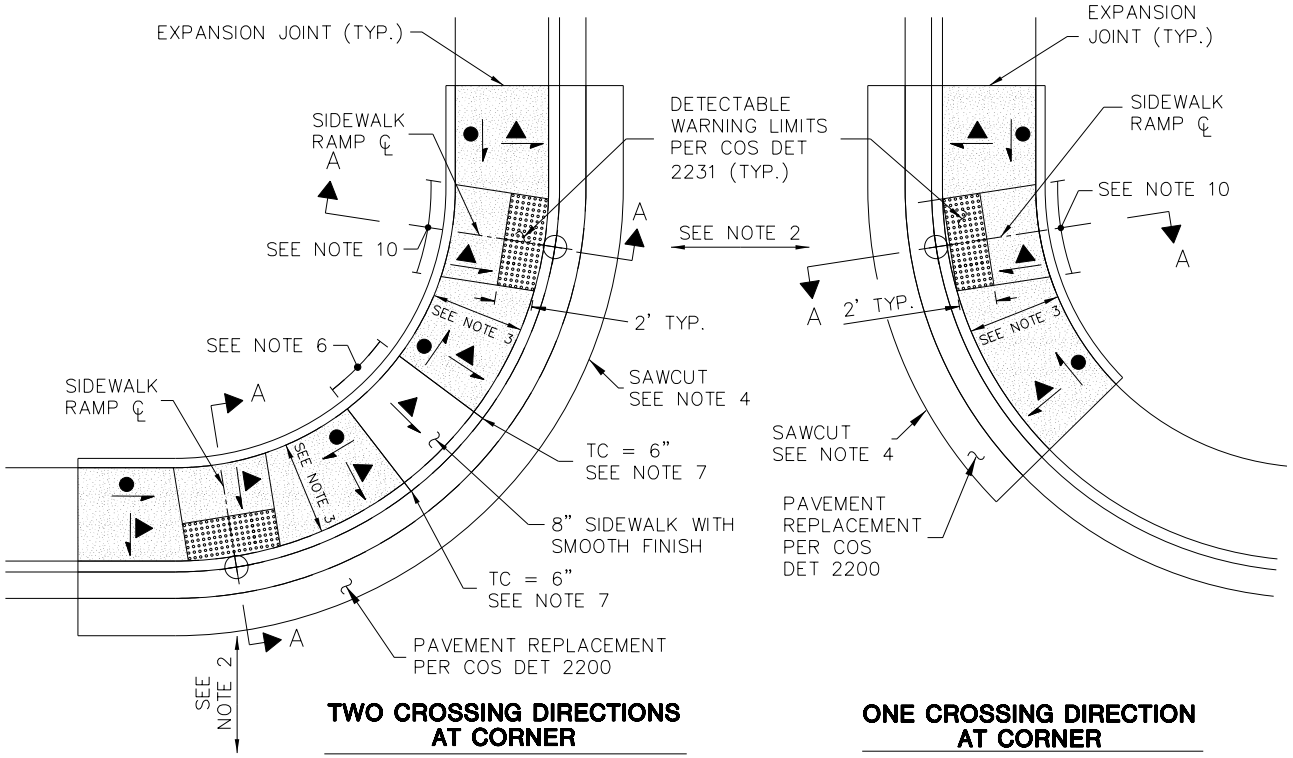
REVISED 5/23/15

NOTES:

1. ALL CONCRETE TO BE CLASS "B", MAG SECTION 725.
2. FOR SLOPING TRANSITION FROM RAMP TO CURB, SEE DETAIL 1 COS 2235.
3. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED PERPENDICULAR TO THE CURB AT THE RAMP CONTROL POINT. CROSSWALKS SHALL BE ALIGNED PERPENDICULAR TO THE STREET CENTERLINE AS MUCH AS POSSIBLE.
4. SEE PLANS FOR LOCATION OF SIDEWALK RAMP CENTERLINE.
5. RURAL AREA DESIGN WITHOUT HIGH PEDESTRIAN USAGE SHALL MINIMIZE CONCRETE WHILE MAINTAINING REQUIRED ADA MINIMUM LANDING AREAS.

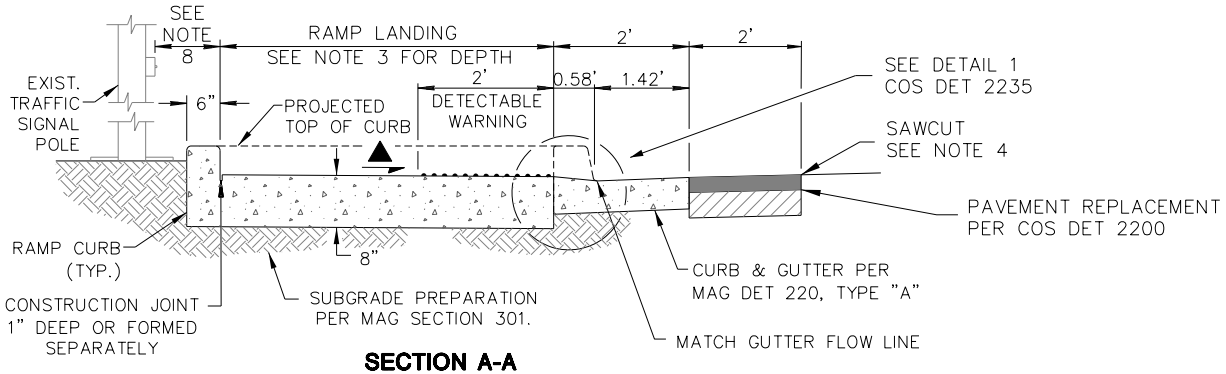
DETAIL NO. 2232	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DIRECTIONAL SIDEWALK RAMPS	DETAIL NO. 2232

REVISED 5/23/15



TWO CROSSING DIRECTIONS AT CORNER

ONE CROSSING DIRECTION AT CORNER



SECTION A-A

NOTES:

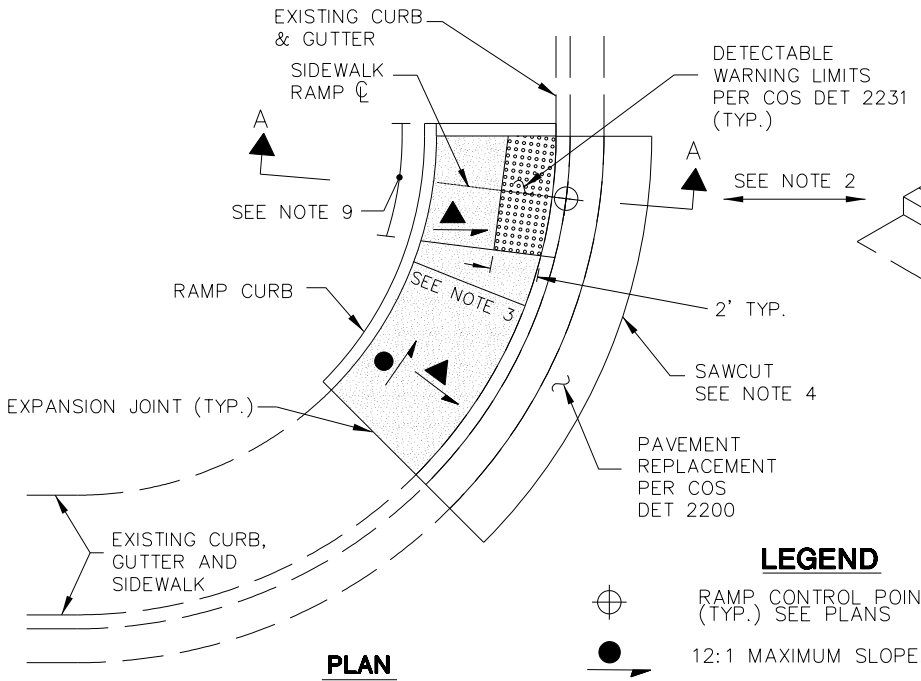
1. ALL CONCRETE TO BE CLASS "B", MAG SECTION 725.
2. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED PERPENDICULAR TO THE CURBLINE AT THE RAMP CONTROL POINT. CROSSWALKS SHALL BE ALIGNED PERPENDICULAR TO THE STREET CENTERLINE AS MUCH AS POSSIBLE.
3. RAMP LANDING DEPTH SHALL MATCH SIDEWALK WIDTH, 5' MINIMUM, AS MEASURED RADIALLY FROM BACK OF CURB TO THE FACE OF RAMP CURB.
4. WHEN A CONCRETE APRON EXISTS THE SAWCUT MAY BE MADE IN THE APRON 2' FROM BACK OF EXISTING CURB.
5. SEE PLANS FOR LOCATION OF SIDEWALK RAMP CENTERLINE.
6. MINIMUM 4' LONG LEVEL AREA REQUIRED BETWEEN RAMPS, 8" THICK.
7. CURB HEIGHT MAY BE DECREASED TO 4" FOR SPACE LIMITED AREAS PROVIDED THE RAMP SLOPE IS A MAXIMUM 12:1 AND THE MINIMUM 4' LONG LEVEL AREA BETWEEN RAMPS IS MAINTAINED.
8. PROVIDE 10" MAXIMUM TO FACE OF ANY EXISTING PEDESTRIAN PUSH BUTTON. RAMP CURB AND LANDING MAY NEED TO BE EXTENDED AROUND POLE TO PROVIDE ACCESS TO PUSH BUTTON, OR MOVE BUTTON AS NEEDED.
9. EACH RAMP RETROFIT REQUIRES A SITE SPECIFIC ASSESSMENT AND FIELD REVIEW BY THE DESIGN ENGINEER TO ENSURE FUNCTIONAL DESIGN.
10. RAMP WIDTH SHALL MATCH SIDEALK OR PATH WIDTH, 5' MINIMUM AS MEASURED AT BACK OF RAMP ALONG RAMP CURB.

LEGEND

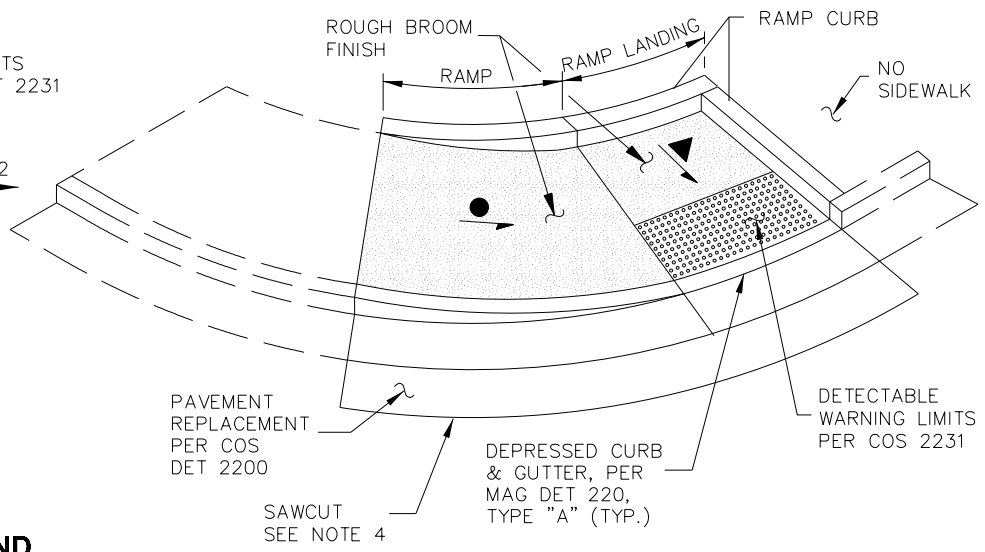
- RAMP CONTROL POINT (TYP.) SEE PLANS
- 12:1 MAXIMUM SLOPE, 15:1 DESIRED SLOPE
- 2% MAXIMUM SLOPE, 1.5% MINIMUM SLOPE
- 8" SIDEWALK RAMP PAYMENT LIMITS AND HEAVY ROUGH BROOM FINISH LIMITS

DETAIL NO.		APPROVED BY:		DETAIL NO.
2233-1	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	DIRECTIONAL SIDEWALK RAMP RETROFIT - TYPE A	2233-1

REVISED 5/23/15



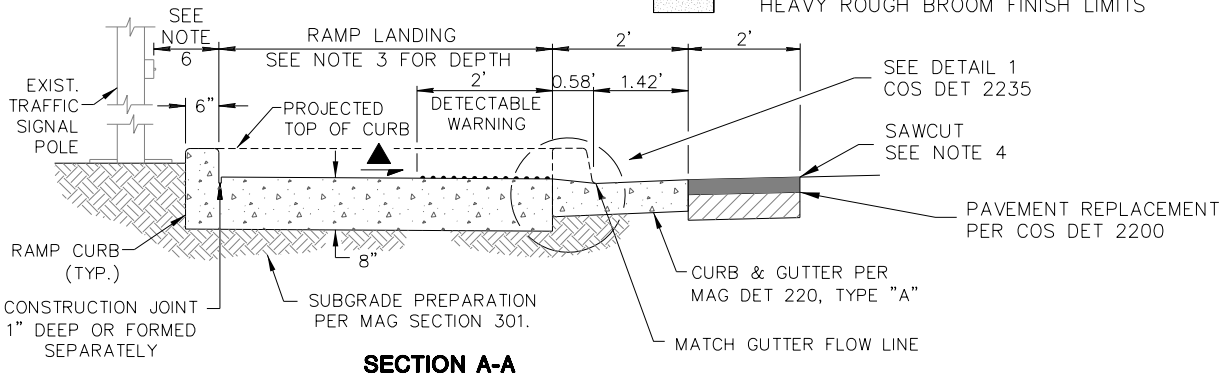
PLAN



PERSPECTIVE

LEGEND

- RAMP CONTROL POINT (TYP.) SEE PLANS
- 12:1 MAXIMUM SLOPE, 15:1 DESIRED SLOPE
- 2% MAXIMUM SLOPE, 1.5% MINIMUM SLOPE
- 8" SIDEWALK RAMP PAYMENT LIMITS AND HEAVY ROUGH BROOM FINISH LIMITS

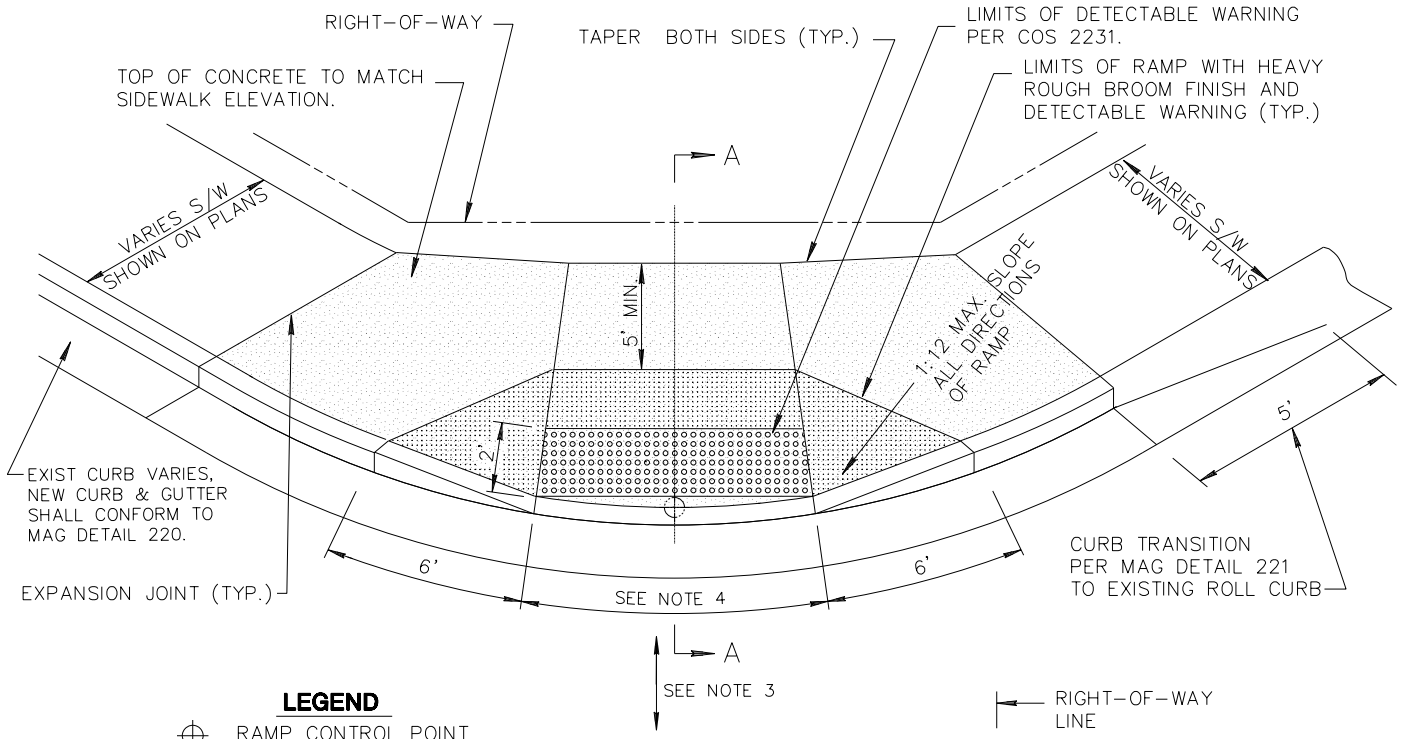


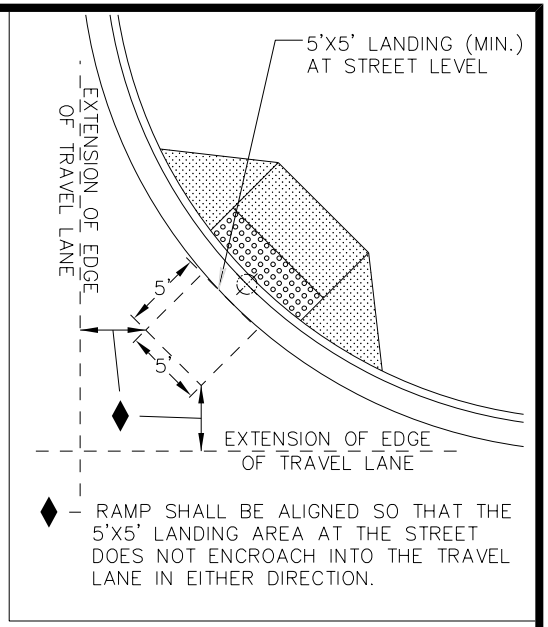
SECTION A-A

NOTES:

1. ALL CONCRETE TO BE CLASS "B", MAG SECTION 725.
2. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED PERPENDICULAR TO THE CURB AT THE RAMP CONTROL POINT. CROSSWALKS SHALL BE ALIGNED PERPENDICULAR TO THE STREET CENTERLINE AS MUCH AS POSSIBLE.
3. RAMP LANDING DEPTH SHALL MATCH SIDEWALK WIDTH, 5' MINIMUM, AS MEASURED RADIALLY FROM BACK OF CURB TO FACE OF RAMP CURB.
4. WHEN A CONCRETE APRON EXISTS THE SAWCUT MAY BE MADE IN THE APRON 2' FROM BACK OF EXISTING CURB.
5. SEE PLANS FOR LOCATION OF SIDEWALK RAMP CENTERLINE.
6. PROVIDE 10" MAXIMUM TO FACE OF ANY EXISTING PEDESTRIAN PUSH BUTTON. RAMP CURB AND LANDING MAY NEED TO BE EXTENDED AROUND POLE TO PROVIDE ACCESS TO PUSH BUTTON, OR MOVE BUTTON AS NEEDED.
7. THIS SIDEWALK RAMP DETAIL IS FOR RETROFITTING ONLY AND IS NOT TO BE USED FOR NEW CONSTRUCTION.
8. EACH RAMP RETROFIT REQUIRES A SITE SPECIFIC ASSESSMENT AND FIELD REVIEW BY THE DESIGN ENGINEER TO ENSURE A FUNCTIONAL DESIGN.
9. RAMP WIDTH SHALL MATCH SIDEWALK OR PATH WIDTH, 5' MINIMUM AS MEASURED AT BACK OF RAMP ALONG RAMP CURB.

DETAIL NO.		APPROVED BY:		DETAIL NO.
2233-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	DIRECTIONAL SIDEWALK RAMP RETROFIT - TYPE B	2233-2





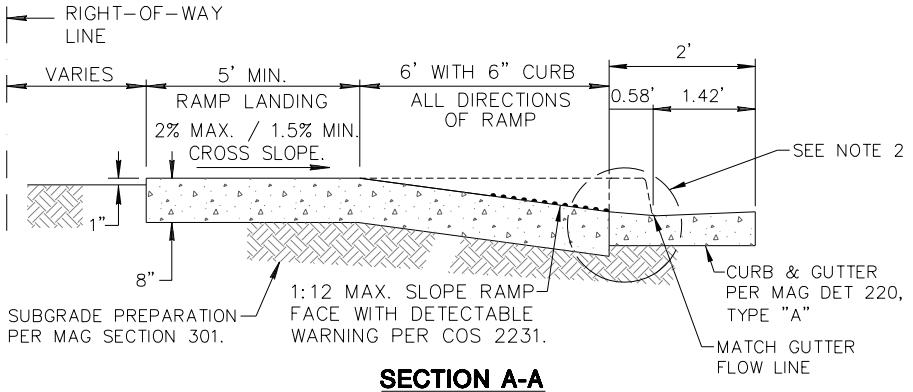
LEGEND

⊕ RAMP CONTROL POINT (TYP.) SEE PLANS

8" THICK CONCRETE PAYMENT LIMITS

NOTES:

1. ALL CONCRETE TO BE CLASS "B", MAG SECTION 725.
2. FOR SLOPING TRANSITION FROM RAMP TO CURB, SEE DETAIL 1 COS 2235.
3. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED PERPENDICULAR TO THE CURB AT THE RAMP CONTROL POINT. CROSSWALKS SHALL BE ALIGNED PERPENDICULAR TO THE STREET CENTERLINE AS MUCH AS POSSIBLE.
4. WIDTH OF RAMP SHALL MATCH SIDEWALK WIDTH, 8' MINIMUM.

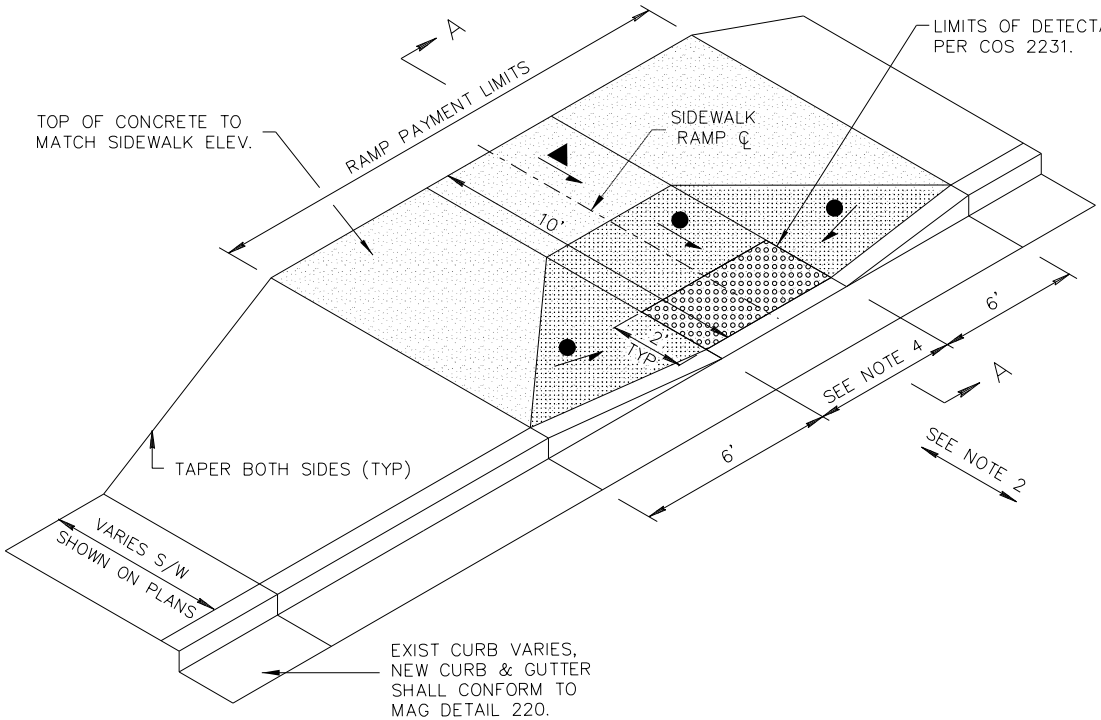


SECTION A-A

REVISED 5/23/15

DETAIL NO. 2234	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SHARED CURB SIDEWALK RAMP	DETAIL NO. 2234

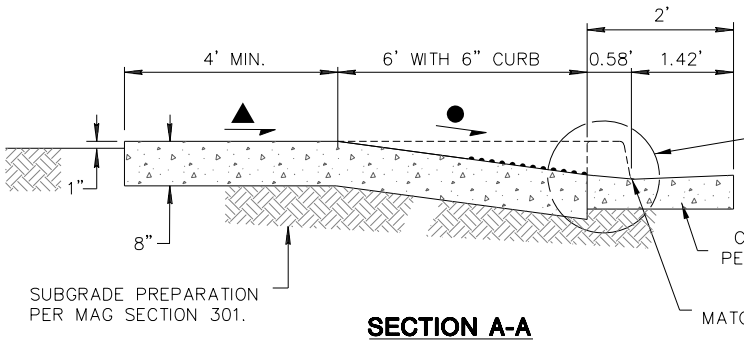
REVISED 5/23/15



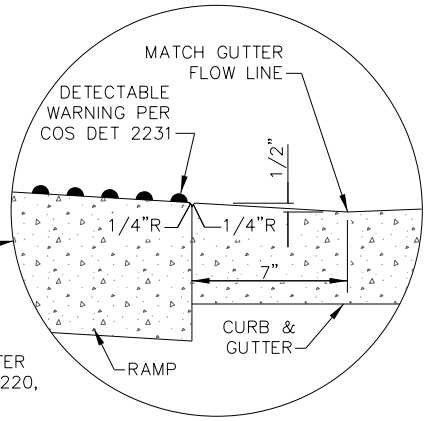
NOTES:
1. ALL CONCRETE TO BE CLASS "B", MAG SECTION 725.
2. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED PERPENDICULAR TO THE CURB. CROSSWALKS SHALL BE ALIGNED PERPENDICULAR TO THE STREET CENTERLINE AS MUCH AS POSSIBLE.
3. SEE PLANS FOR LOCATION OF SIDEWALK RAMP CENTERLINE.
4. WIDTH OF RAMP SHALL MATCH SIDEWALK WIDTH, 5' MINIMUM.

LEGEND

- 12:1 MAXIMUM SLOPE, 15:1 DESIRED SLOPE
- 2% MAXIMUM SLOPE, 1.5% MINIMUM SLOPE
- 8" THICK CONCRETE PAYMENT LIMITS



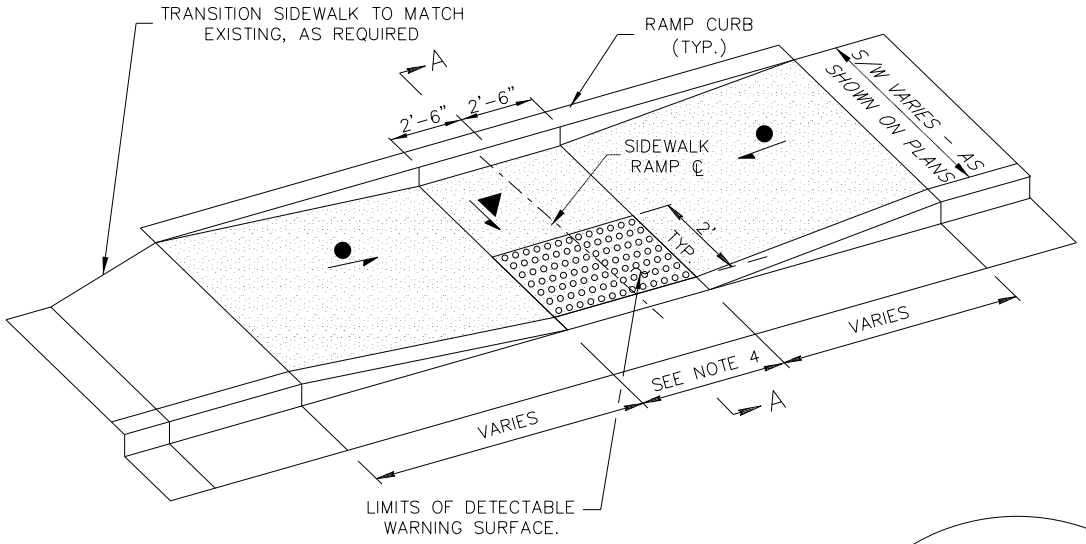
SECTION A-A



DETAIL 1

DETAIL NO. 2235-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MID-BLOCK SIDEWALK RAMP - TYPE A	DETAIL NO. 2235-1

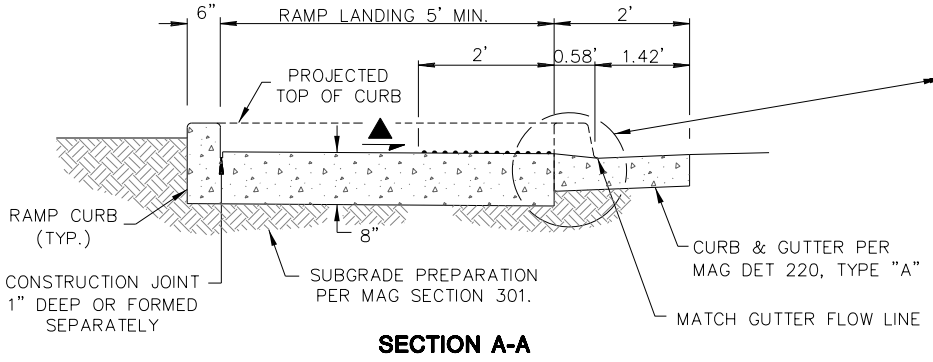
REVISED 5/23/15



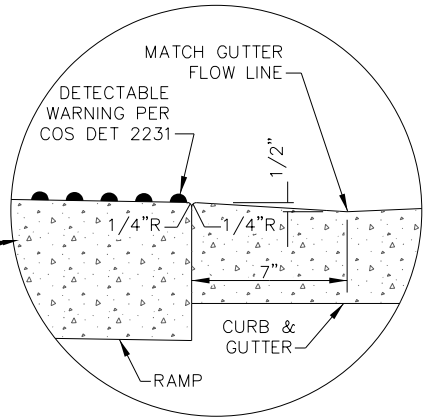
NOTES:
1. ALL CONCRETE TO BE CLASS "B", MAG SECTION 725.
2. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED PERPENDICULAR TO THE CURB. CROSSWALKS SHALL BE ALIGNED PERPENDICULAR TO THE STREET CENTERLINE AS MUCH AS POSSIBLE.
3. SEE PLANS FOR LOCATION OF SIDEWALK RAMP CENTERLINE.
4. WIDTH OF RAMP SHALL MATCH SIDEWALK WIDTH, 5' MINIMUM.

LEGEND

- 12:1 MAXIMUM SLOPE, 15:1 DESIRED SLOPE
- 2% MAXIMUM SLOPE, 1.5% MINIMUM SLOPE
- 8" SIDEWALK RAMP PAYMENT LIMITS AND HEAVY ROUGH BROOM FINISH LIMITS



SECTION A-A

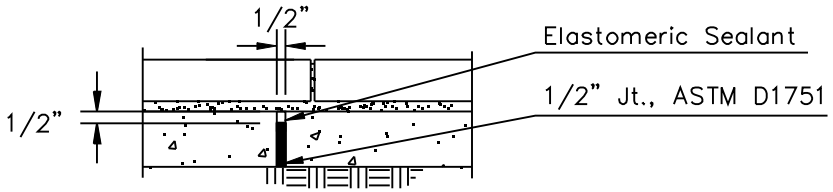


DETAIL 1

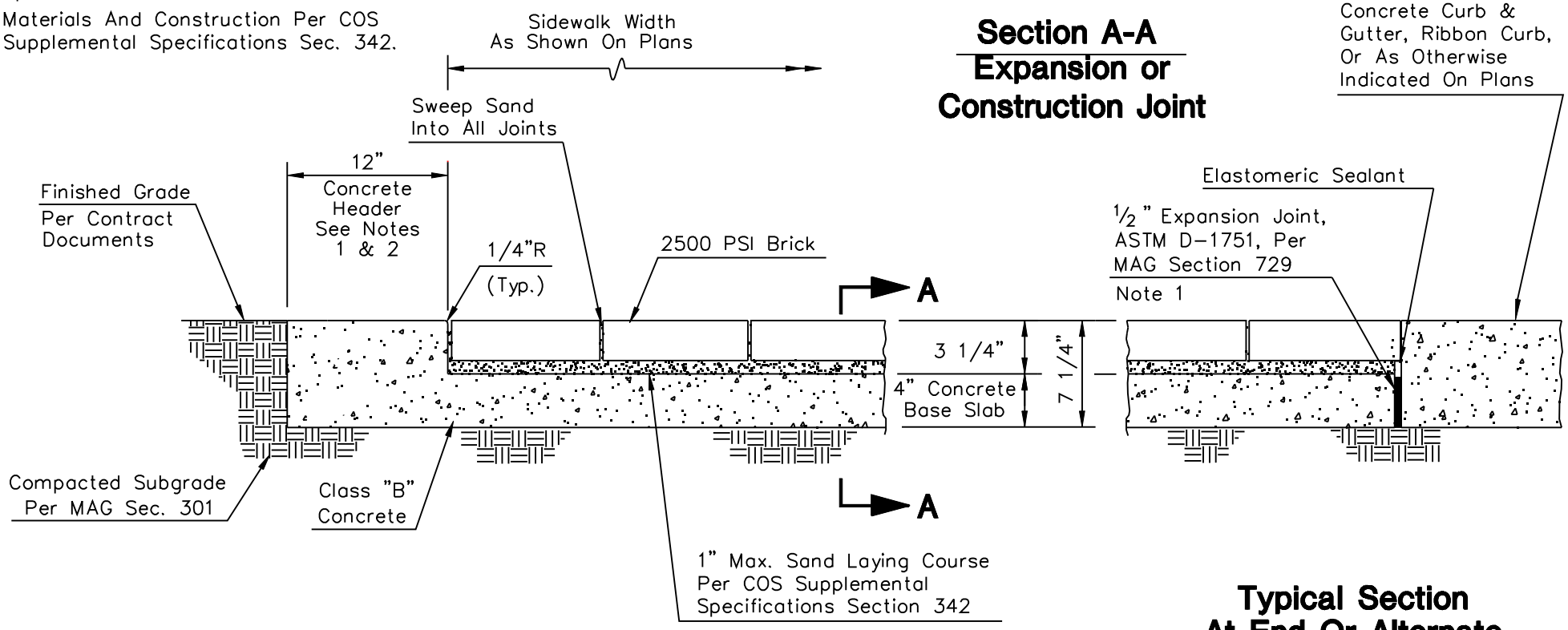
DETAIL NO.		APPROVED BY:		DETAIL NO.
2235-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	MID-BLOCK SIDEWALK RAMP - TYPE B	2235-2

NOTES:

1. ½" Expansion Joint, ASTM D-1751 Per MAG Sec. 729, and Elastomeric Sealant Per COS Sec. 342.3.4.
2. Contraction Joints Per COS Supplemental Specifications Sec. 342.
3. Materials And Construction Per COS Supplemental Specifications Sec. 342.



Section A-A Expansion or Construction Joint

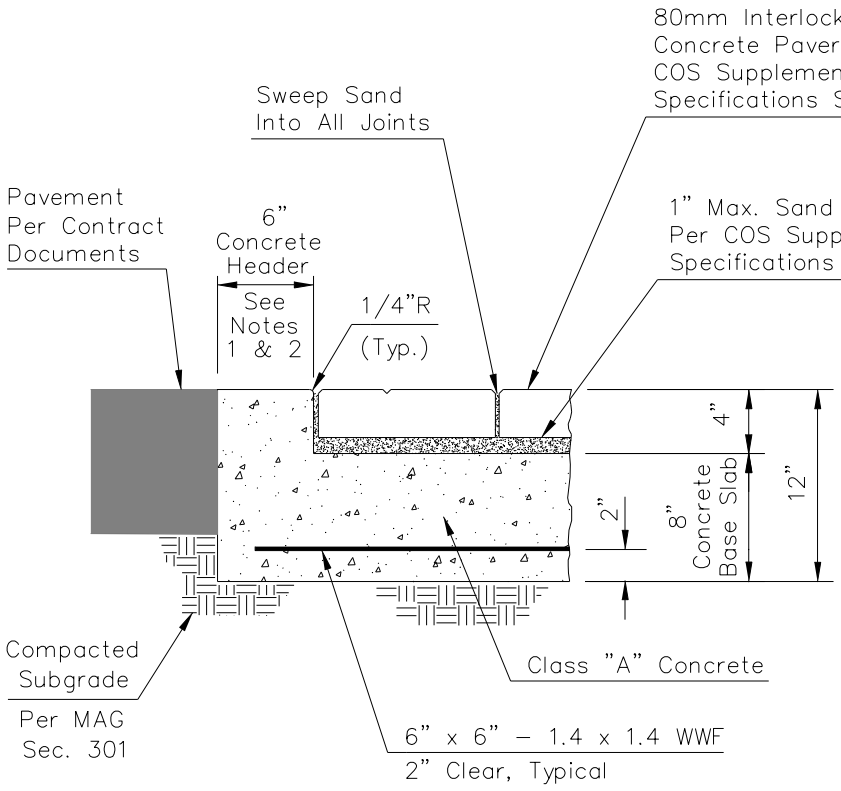


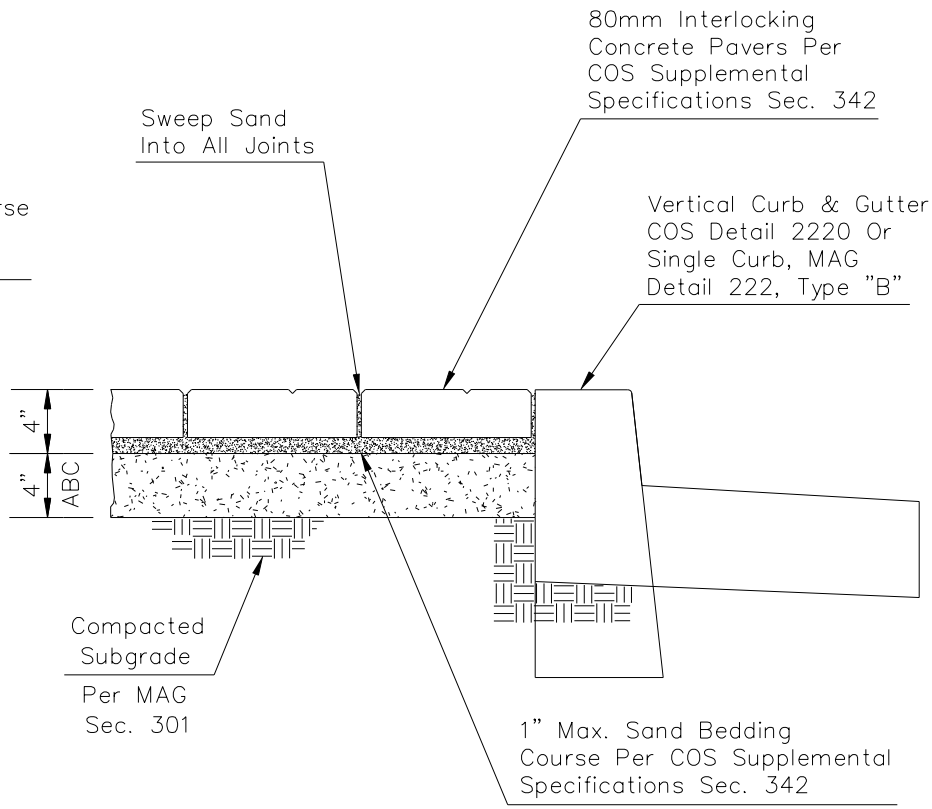
Typical Half Section (Against Earth)

Typical Section At End Or Alternate Half Section (Against Concrete)

DETAIL NO.		APPROVED BY:		DETAIL NO.
2237	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	SIDEWALK PAVERS (NON-TRAFFIC BEARING)	2237

REVISED 1/18/12





Type "B"
Flush Median

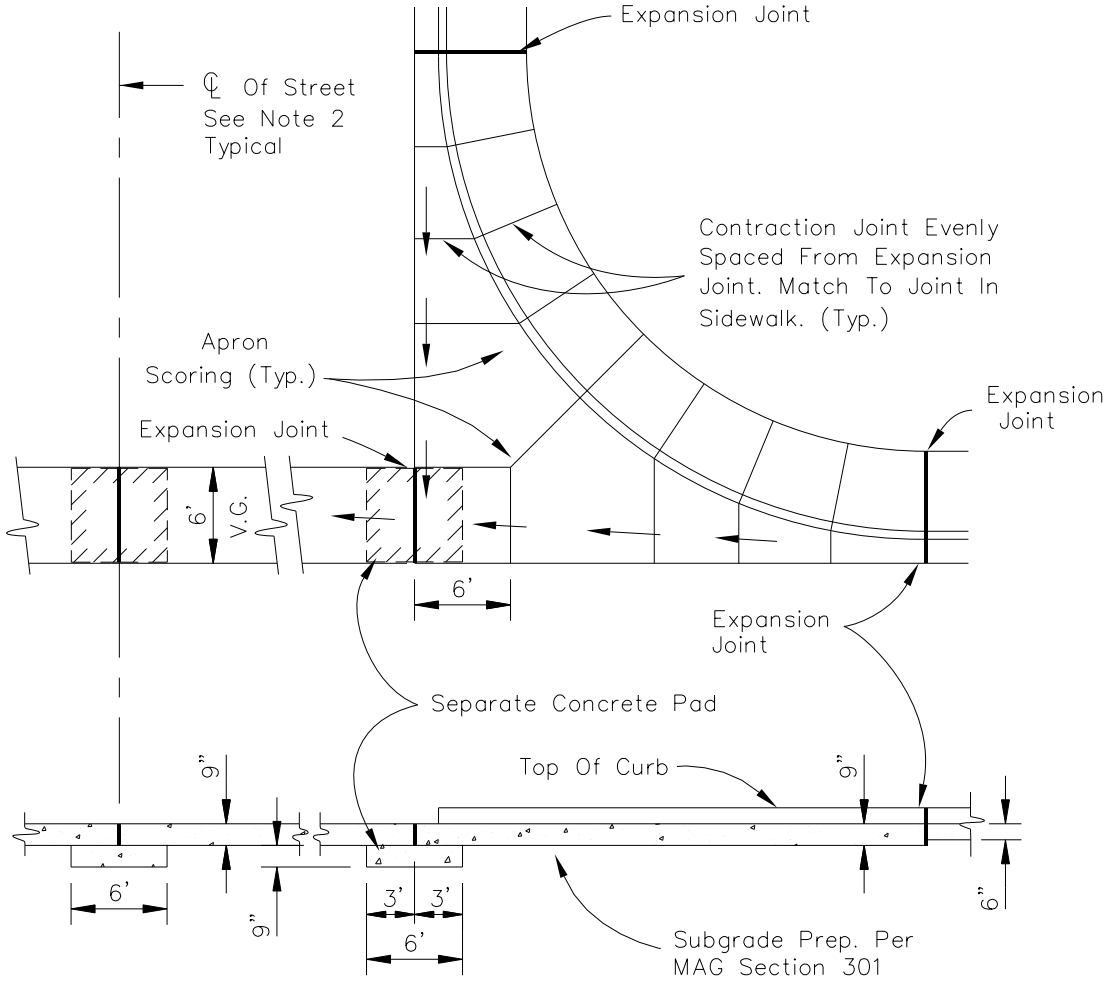
Type "A"
Raised Median

NOTES:

1. ½" Expansion Joint, ASTM D–1751 Per MAG Sec. 729, Every 50'.
2. Contraction Joints Per COS Supplemental Specifications Sec. 342, Every 10'.
3. Materials And Construction Per COS Supplemental Specifications Sec. 342.
4. Maximum allowable joint gap is ½".

DETAIL NO. 2239	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MEDIAN CONCRETE PAVERS	DETAIL NO. 2239

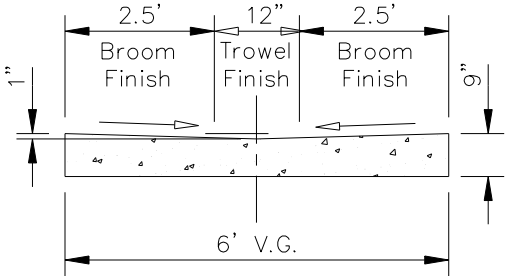
REVISED 5/28/15



SECTION THRU APRON FLOW-LINE

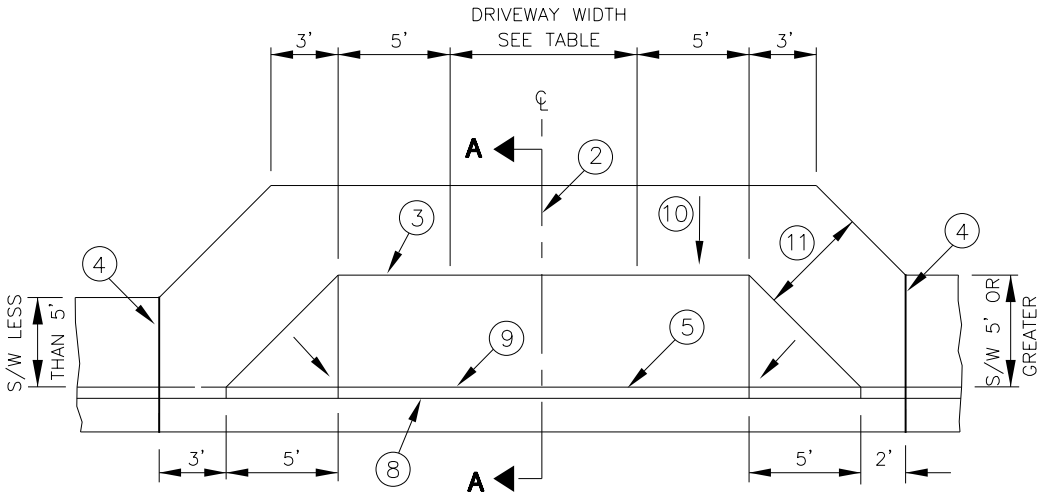
NOTES

1. All Concrete To Be Class "A", MAG Section 725.
2. Use A Construction Joint Or Contraction Joint At The ℄ Of Street. A Separate Concrete Pad Is Required With A Construction Joint.
3. ½" Expansion Joint, ASTM D-1751 Per MAG Section 729.
4. Return Curb and Sidewalk to be Monolithically Poured.

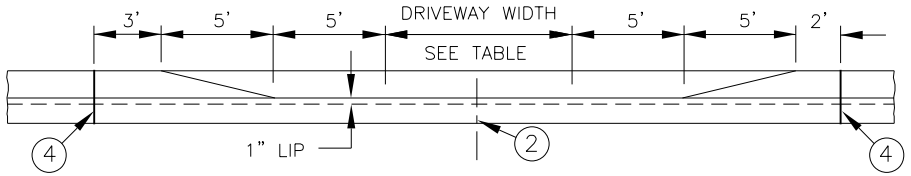


SECTION THRU VALLEY GUTTER

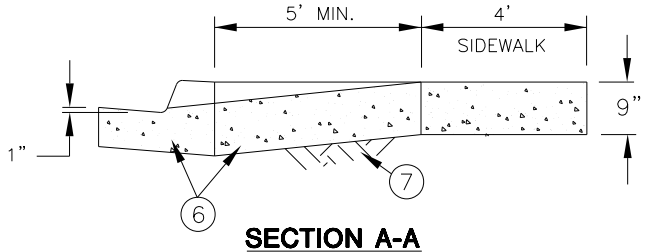
DETAIL NO. 2240	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	6' VALLEY GUTTER & APRON	DETAIL NO. 2240



PLAN



ELEVATION



SECTION A-A

NOTES

1 DEPRESSED CURB SHALL BE PAID FOR AT THE UNIT PRICE BID FOR THE TYPE OF CURB USED AT THAT LOCATION.

2 CONTRACTION JOINT ON DRIVEWAY CENTERLINE.

3 BACK OF DRIVEWAY ENTRANCE – CONSTRUCTION JOINT OR SCORE MARK.

4 MASTIC EXPANSION JOINT THROUGH CURB AND GUTTER. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER A.S.T.M. D–1751.

5 BACK OF CURB – CONSTRUCTION JOINT OR SCORE MARK.

6 CONCRETE CLASS AS NOTED IN TABLE. CONCRETE PER, MAG SECTION 725.

7 SUBGRADE PREPARATION, MAG SECTION 301.

8 FLOW LINE OF GUTTER.

9 DEPRESSED CURB.

10 2% MAXIMUM CROSS SLOPE. 1.5% MINIMUM CROSS SLOPE

11 CONCRETE SIDEWALK PER MAG DETAIL 230, MODIFIED. THICKNESS = 9"

COMMERCIAL & INDUSTRIAL			
DRIVEWAY WIDTH	MIN.	MAX.	CLASS
COMMERCIAL ZONING	+ 16'	40'	A
INDUSTRIAL ZONING	+ 16'	40'	A
+ 24' MIN. FOR TWO WAY TRAFFIC			
RESIDENTIAL			
DRIVEWAY WIDTH	MIN.	MAX.	CLASS
MAJOR STREET	16'	30'	B
COLLECTOR STREET	*12'	30'	B
LOCAL STREET	12'	30'	B
* 16' DESIRABLE			

REVISED 5/28/15

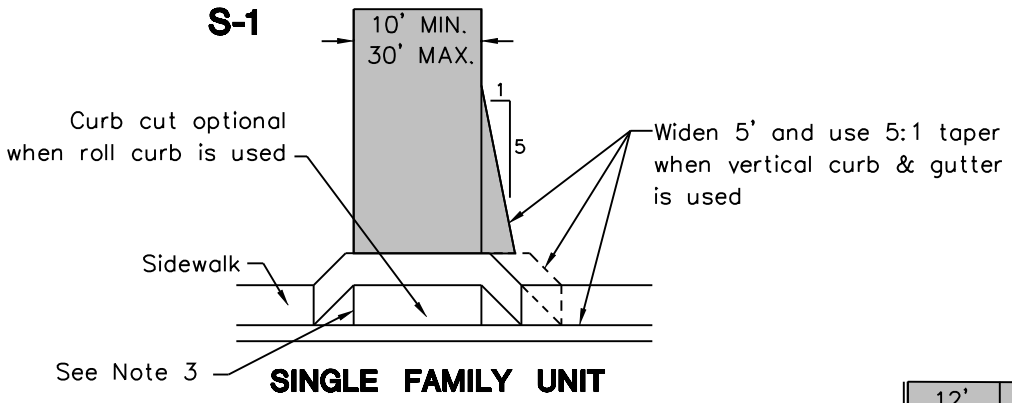
DETAIL NO. 2250	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DRIVEWAY ENTRANCES	DETAIL NO. 2250

REVISED 3/31/10

CONSTRUCTION NOTES

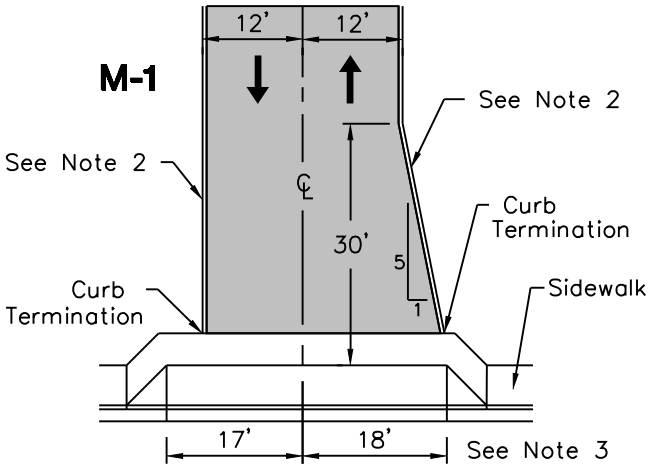
1. Sidewalk shall conform to MAG Std. Detail 230 and C.O.S. Sect. 340.
2. Curb as called for on plans.
3. Driveway entrances shall conform to COS Std. Detail 2250. Driveways shall be 3" of R-3/4" asphalt on 6" A.B.C. unless otherwise noted. See plans for driveway limits.
4. Valley gutter shall conform to COS Standard Detail 2240.
5. Sidewalk width, sidewalk ramp configuration and detectable warning surface as called for on plans.
6. Curb termination similar to MAG Std. Det 222.
7. When installing new driveways along an existing street, sawcut, remove & replace a minimum 2' wide strip of A.C. pavement per COS Standard Detail 2200.

S-1



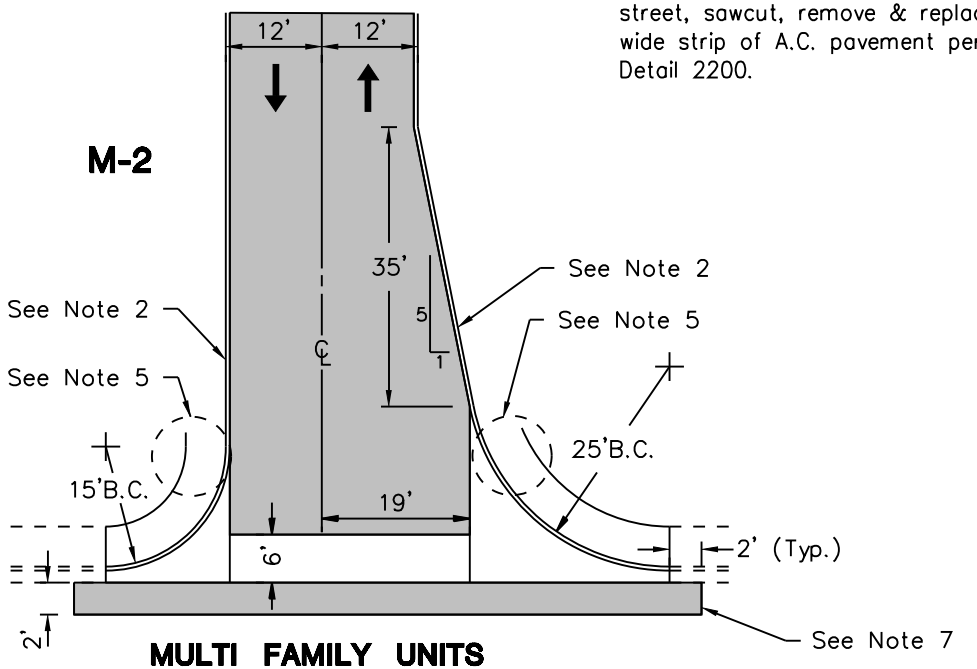
SINGLE FAMILY UNIT

M-1



MULTI FAMILY UNITS

M-2

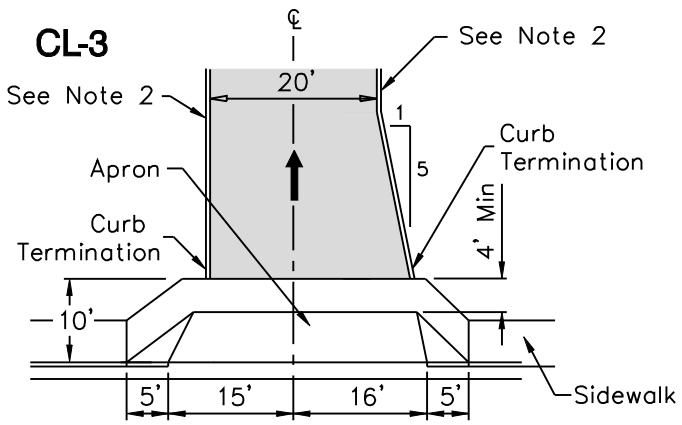


MULTI FAMILY UNITS

DETAIL NO. 2255	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	RESIDENTIAL DRIVEWAYS	DETAIL NO. 2255

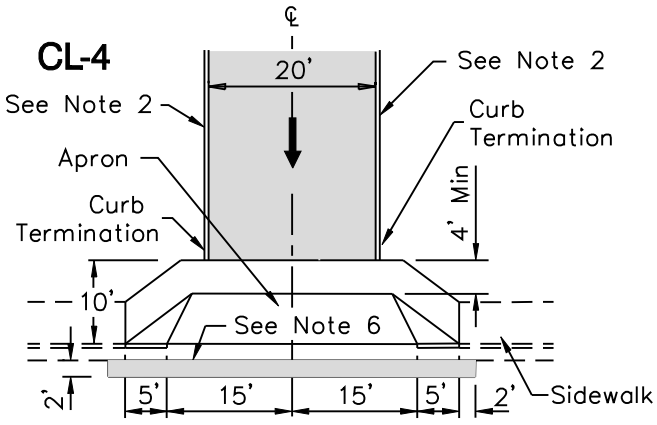
REVISED 5/17/06

CL-3



ONE WAY INGRESS

CL-4

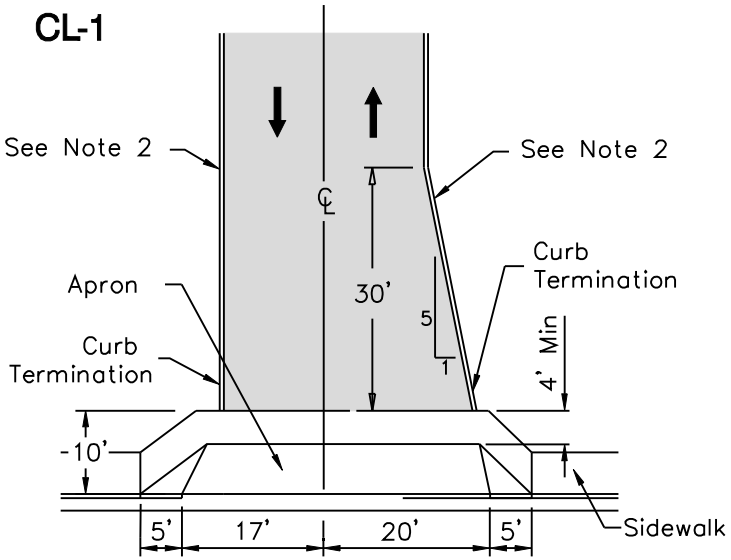


ONE WAY EGRESS

CONSTRUCTION NOTES

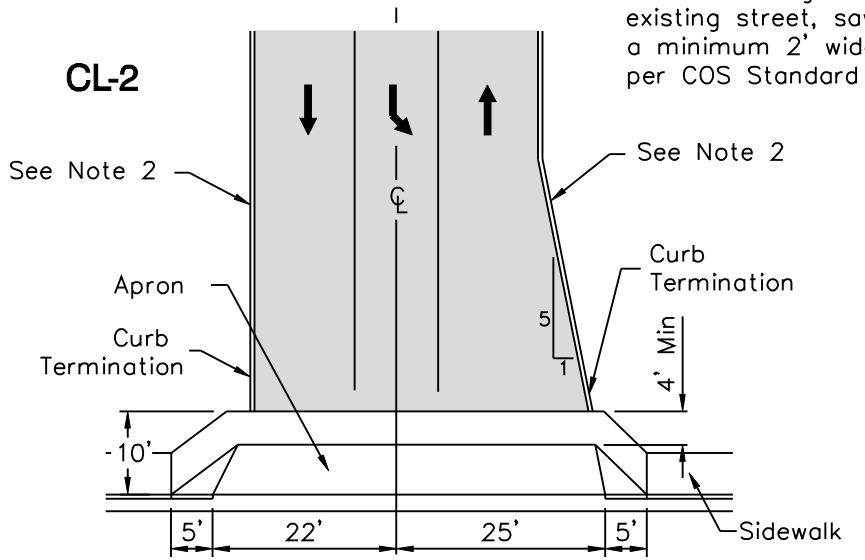
1. Sidewalk shall conform to MAG Standard Detail 230 and C.O.S. Sec. 340.
2. Curb as called for on plans.
3. Curb & Gutter shall conform to MAG Standard Detail 220. Single Curb shall conform to MAG Standard Detail 222.
4. Driveway Entrances shall conform to COS Standard Detail 2250 except for modifications as noted. Driveways shall be 2–1/2" A.C. A–19 on 6" A.B.C. unless otherwise noted. See plans for driveway limits.
5. Curb termination similar to MAG Std. Det. 222.
6. When installing new driveways along an existing street, sawcut, remove & replace a minimum 2' wide strip of A.C. pavement per COS Standard Detail 2200.

CL-1



TWO WAY

CL-2



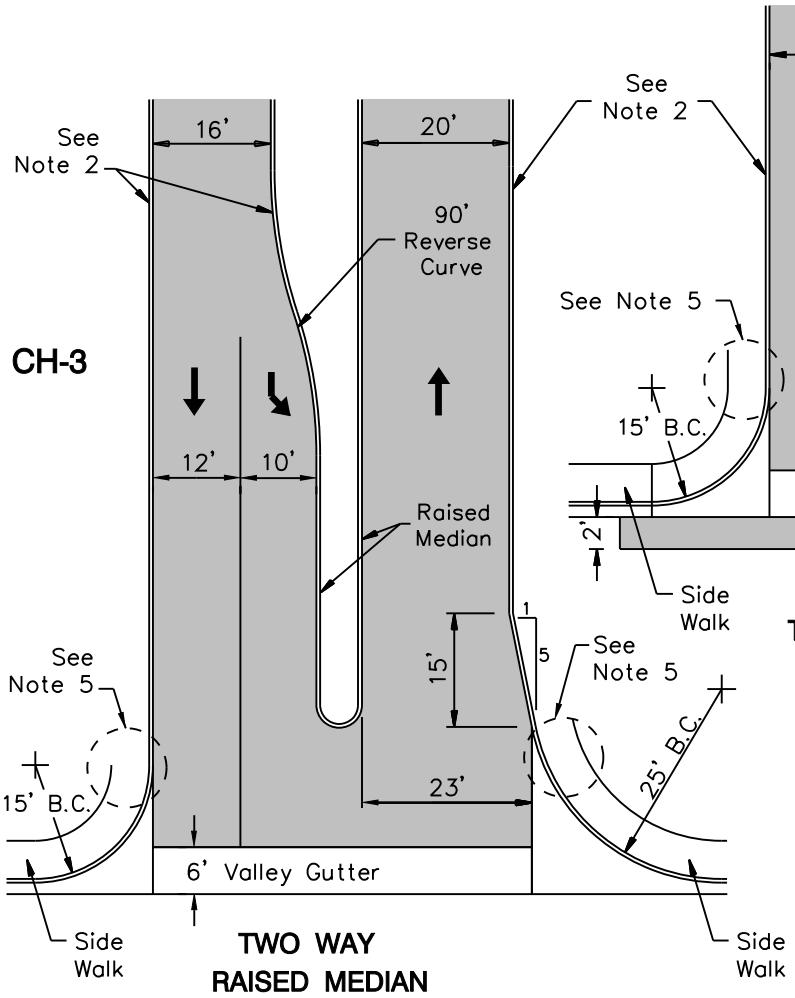
TWO WAY WITH
TWO EGRESS LANES

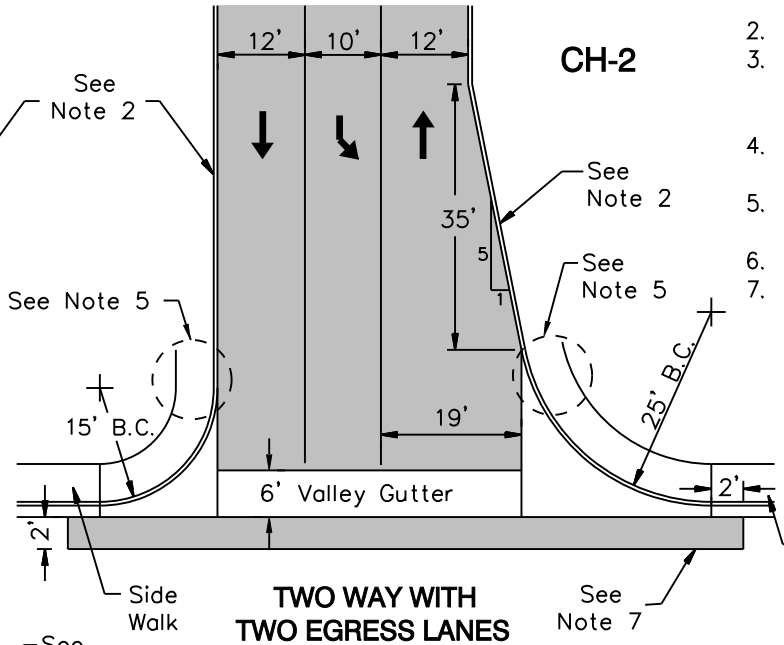
DETAIL NO. 2256	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	COMMERCIAL/INDUSTRIAL DRIVEWAYS-TYPE CL	DETAIL NO. 2256

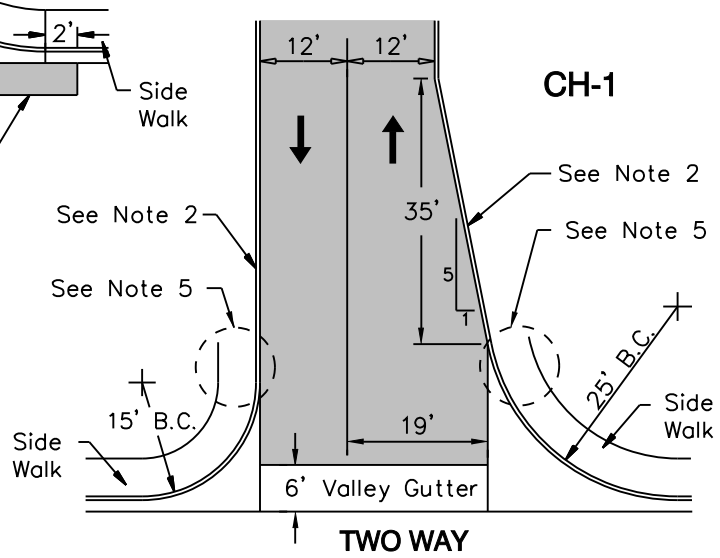
REVISED 3/31/10

CONSTRUCTION NOTES

1. Sidewalk shall conform to MAG Std. Detail 230 and C.O.S. Sect. 340.
2. Curb as called for on plans.
3. Driveways shall be 3" of R-3/4" asphalt on 6" A.B.C. unless otherwise noted. See plans for driveway limits.
4. Valley gutter shall conform to COS Standard Detail 2240.
5. Sidewalk width, sidewalk ramp configuration and detectable warning surface as called for on plans.
6. Curb termination similar to MAG Std. Det 222.
7. When installing new driveways along an existing street, sawcut, remove & replace a minimum 2' wide strip of A.C. pavement per COS Standard Detail 2200.





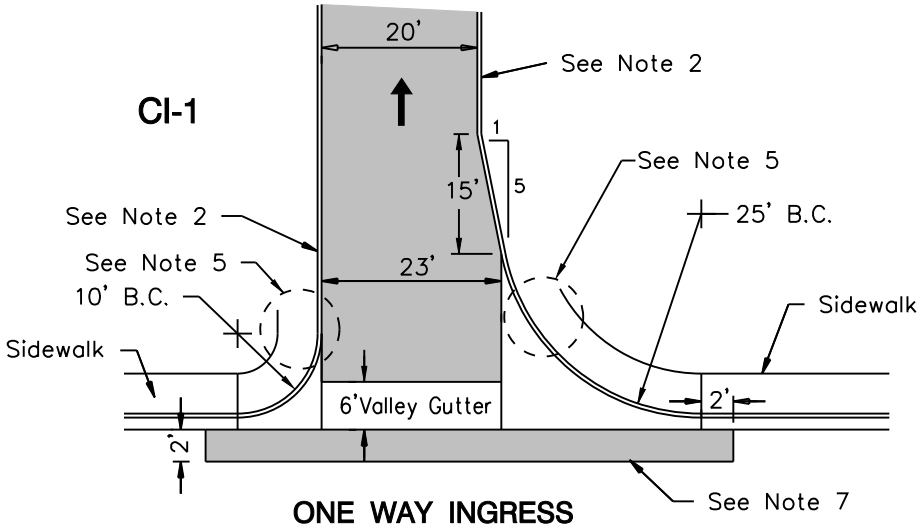


DETAIL NO. 2257	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	COMMERCIAL/INDUSTRIAL DRIVEWAYS-TYPE CH	DETAIL NO. 2257

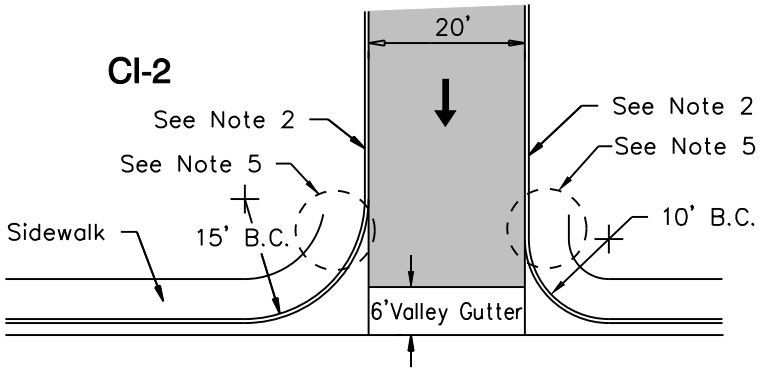
REVISED 3/31/10

CONSTRUCTION NOTES

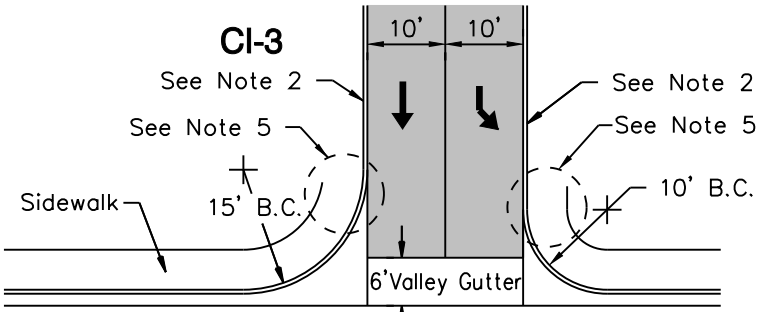
1. Sidewalk shall conform to MAG Std. Detail 230 and C.O.S. Sect. 340.
2. Curb as called for on plans.
3. Driveways shall be 3" of R-3/4" asphalt on 6" A.B.C. unless otherwise noted. See plans for driveway limits.
4. Valley gutter shall conform to COS Standard Detail 2240.
5. Sidewalk width, sidewalk ramp configuration and detectable warning surface as called for on plans.
6. Curb termination similar to MAG Std. Det 222.
7. When installing new driveways along an existing street, sawcut, remove & replace a minimum 2' wide strip of A.C. pavement per COS Standard Detail 2200.



ONE WAY INGRESS



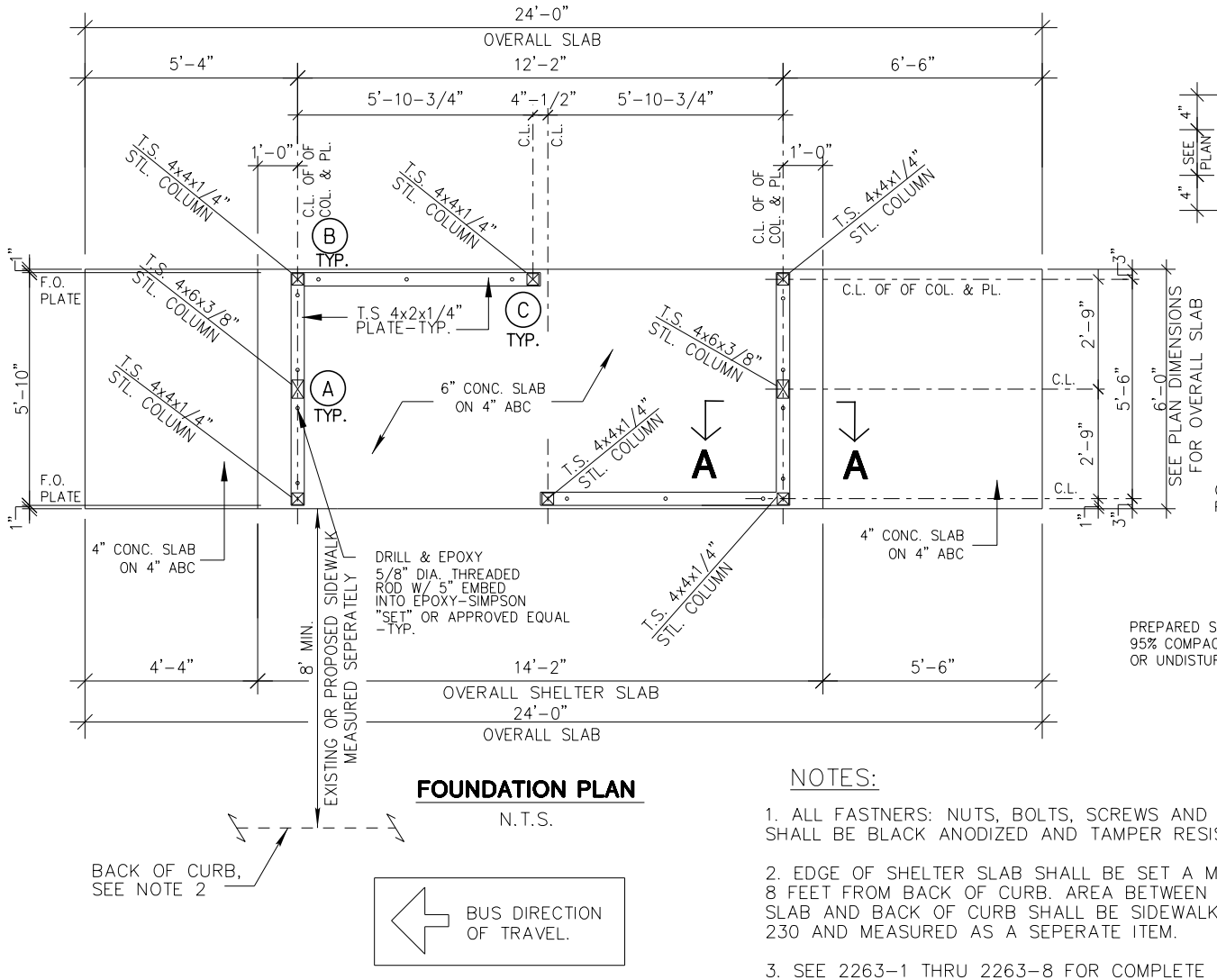
ONE WAY EGRESS



TWO LANES
ONE WAY EGRESS

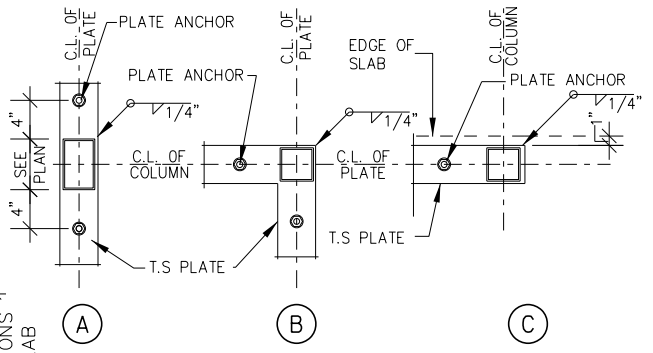
DETAIL NO. 2258	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	COMMERCIAL/INDUSTRIAL DRIVEWAYS-TYPE CI	DETAIL NO. 2258

NEW DETAIL 5/30/15



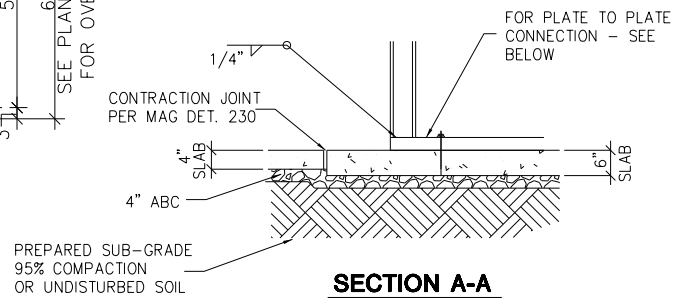
FOUNDATION PLAN

N.T.S.



CONNNECTION DETAIL

N.T.S.



SECTION A-A

N.T.S.

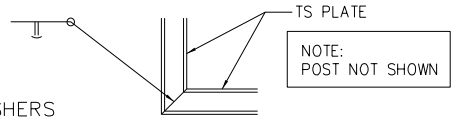


PLATE TO PLATE CONNNECTION

N.T.S.

NOTES:

1. ALL FASTNERS: NUTS, BOLTS, SCREWS AND WASHERS SHALL BE BLACK ANODIZED AND TAMPER RESISTANT.

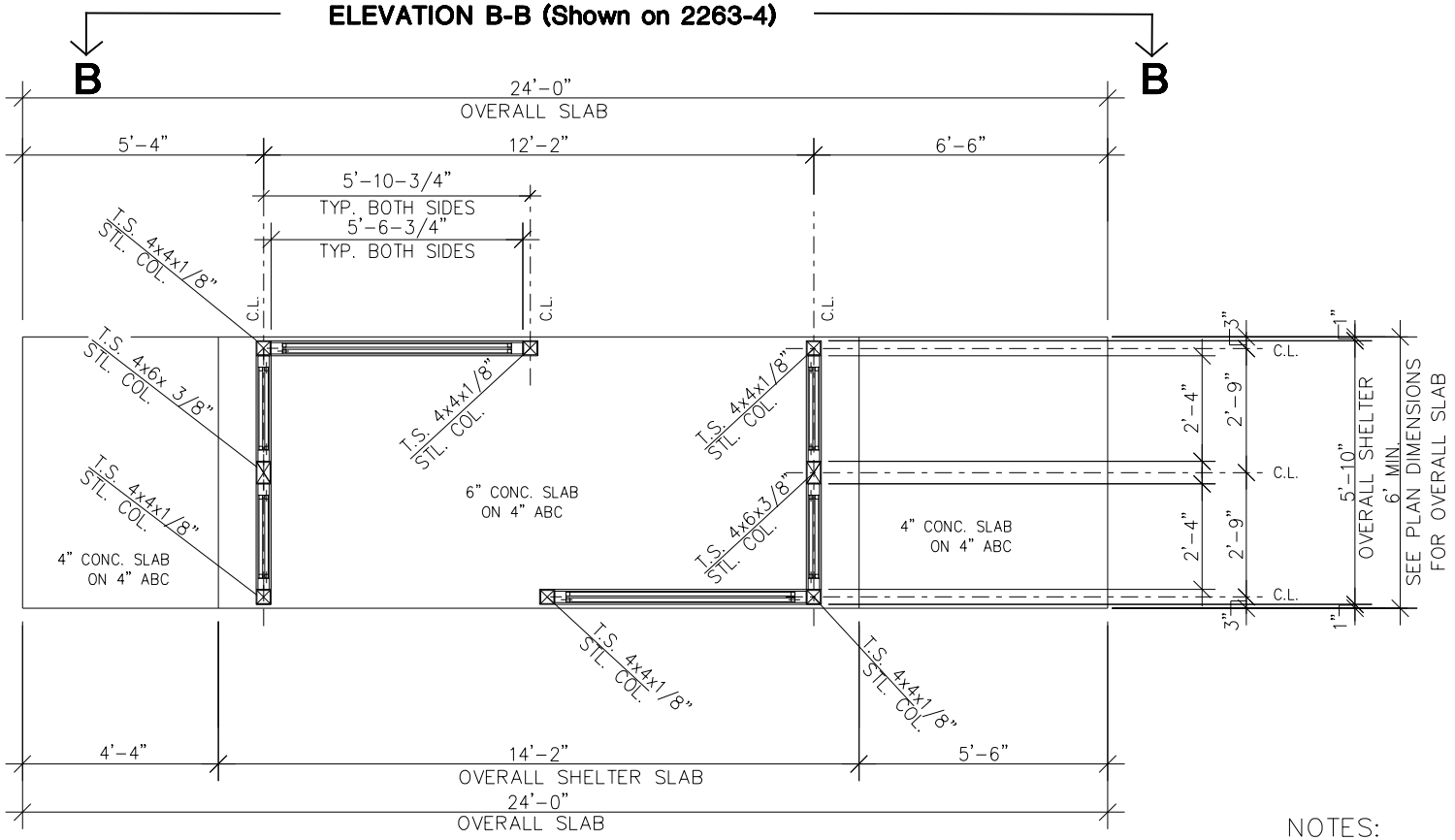
2. EDGE OF SHELTER SLAB SHALL BE SET A MINIMUM OF 8 FEET FROM BACK OF CURB. AREA BETWEEN SHELTER SLAB AND BACK OF CURB SHALL BE SIDEWALK PER MAG 230 AND MEASURED AS A SEPERATE ITEM.

3. SEE 2263-1 THRU 2263-8 FOR COMPLETE REQUIREMENTS RELATED TO BUS SHELTER.

DETAIL NO. 2263-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUS SHELTER	DETAIL NO. 2263-1

NEW DETAIL 5/30/15

ELEVATION B-B (Shown on 2263-4)



FLOOR PLAN

N.T.S.

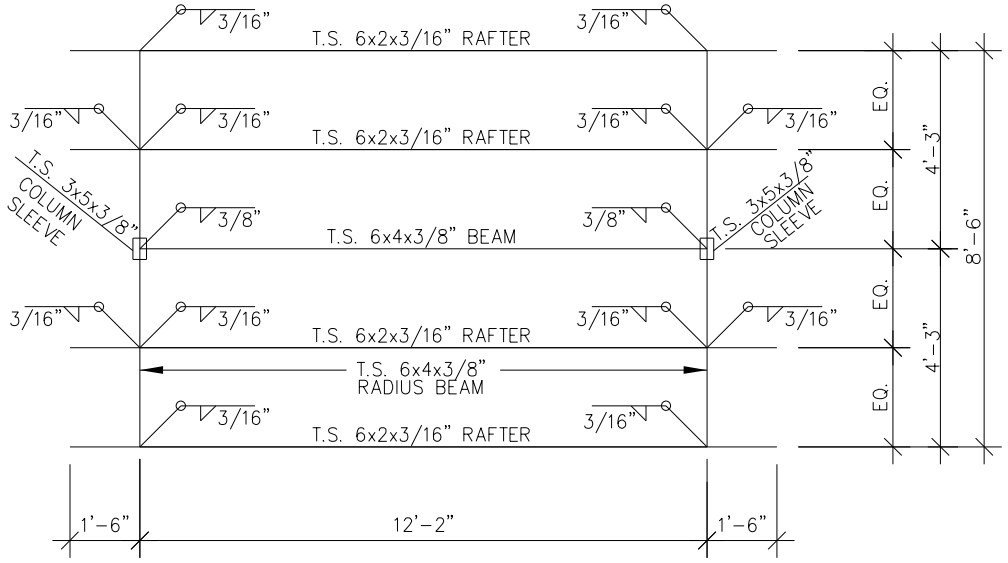
BUS DIRECTION OF TRAVEL.

NOTES:

1. ALL FASTNERS: NUTS, BOLTS, SCREWS AND WASHERS SHALL BE BLACK ANODIZED AND TAMPER RESISTANT.
2. FOR INFORMATION NOT SHOWN SEE ELEVATION VIEW.

DETAIL NO. 2263-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUS SHELTER	DETAIL NO. 2263-2

NEW DETAIL 5/30/15

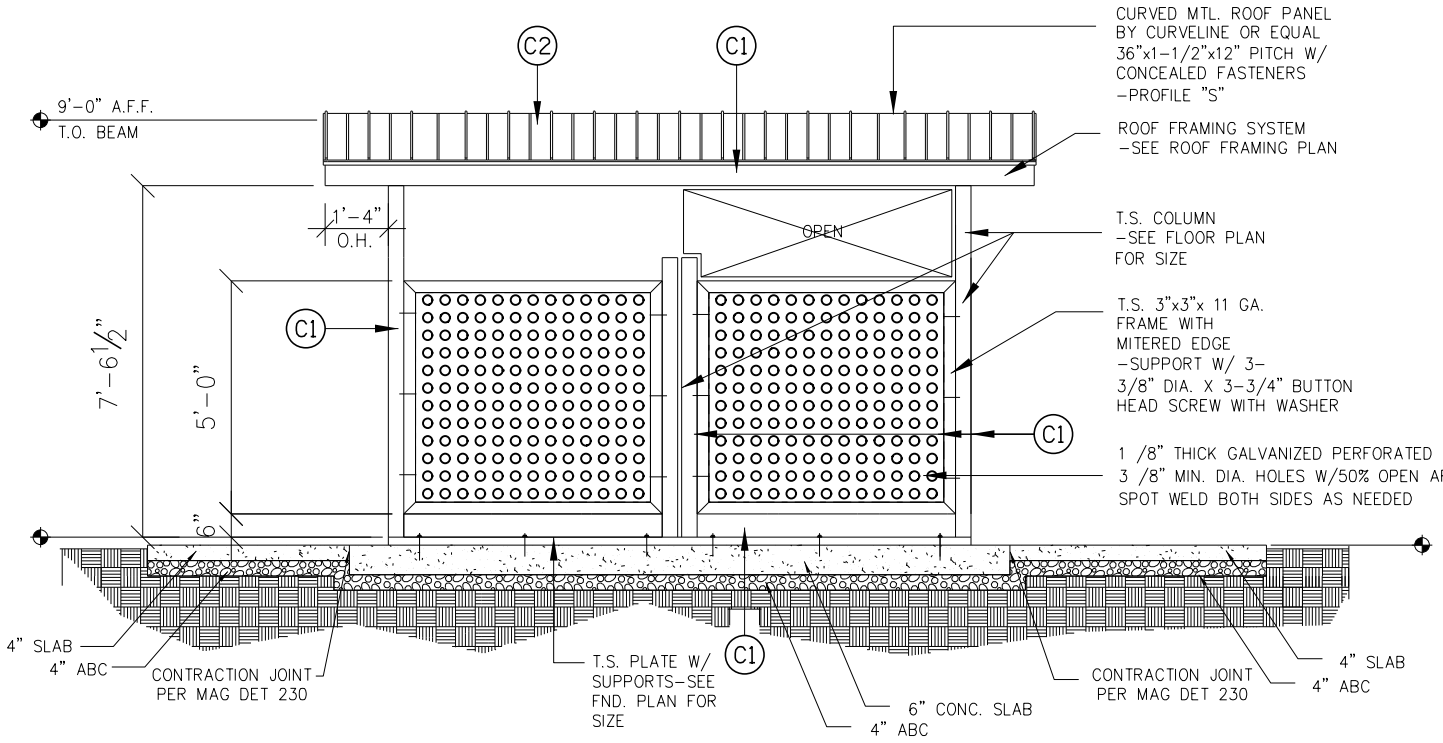


FRAMING PLAN

N.T.S.

DETAIL NO. 2263-3	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUS SHELTER	DETAIL NO. 2263-3

NEW DETAIL 5/30/15



ELEVATION B-B
(From 2263-2)

N.T.S.

COLOR LEGEND

(C1) BUS SHELTER STRUCTURE: RAL NUMBER 3009
POWDER COATED WITH ANTI-GRAFFITI COATING

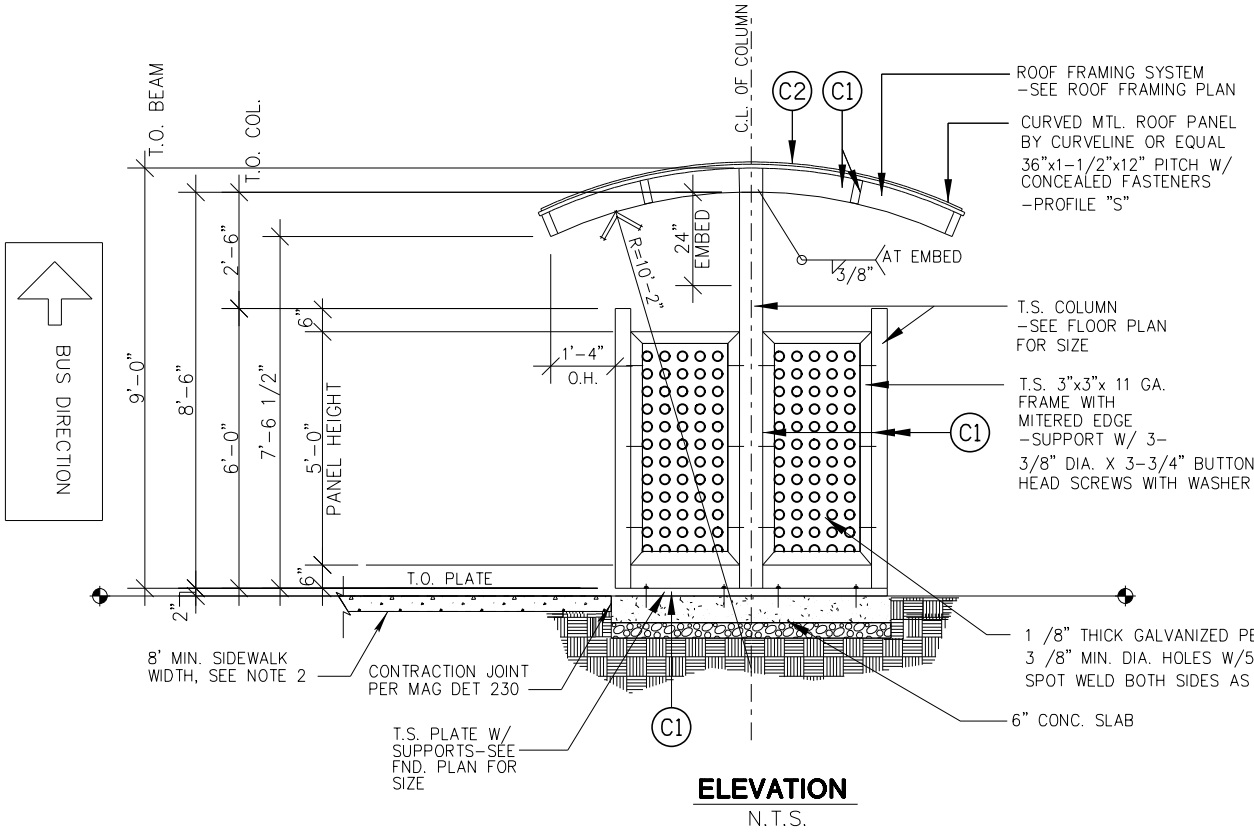
(C2) METAL ROOFING: RAL NUMBER 6004
POWDER COATED WITH ANTI-GRAFFITI COATING

NOTES:

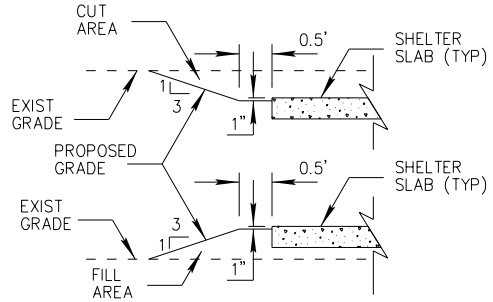
1. ALL FASTNERS: NUTS, BOLTS, SCREWS AND WASHERS SHALL BE BLACK ANODIZED AND TAMPER RESISTANT.

DETAIL NO. 2263-4	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUS SHELTER	DETAIL NO. 2263-4

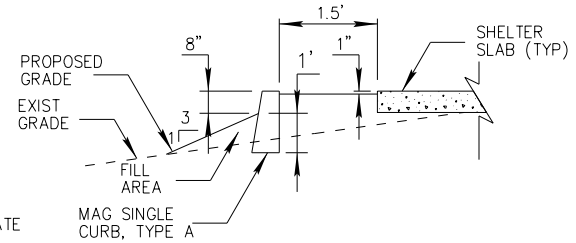
NEW DETAIL 5/30/15



ELEVATION
N.T.S.



TYPICAL CUT/FILL CONDITIONS
N.T.S.



TYPICAL FILL CONDITION WITH CURB
N.T.S.

NOTES:

1. ALL FASTNERS: NUTS, BOLTS, SCREWS AND WASHERS SHALL BE BLACK ANODIZED AND TAMPER RESISTANT.

2. EDGE OF SHELTER SLAB SHALL BE SET A MINIMUM OF 8 FEET FROM BACK OF CURB. AREA BETWEEN SHELTER SLAB AND BACK OF CURB SHALL BE SIDEWALK PER MAG 230 AND MEASURED AS A SEPERATE ITEM.

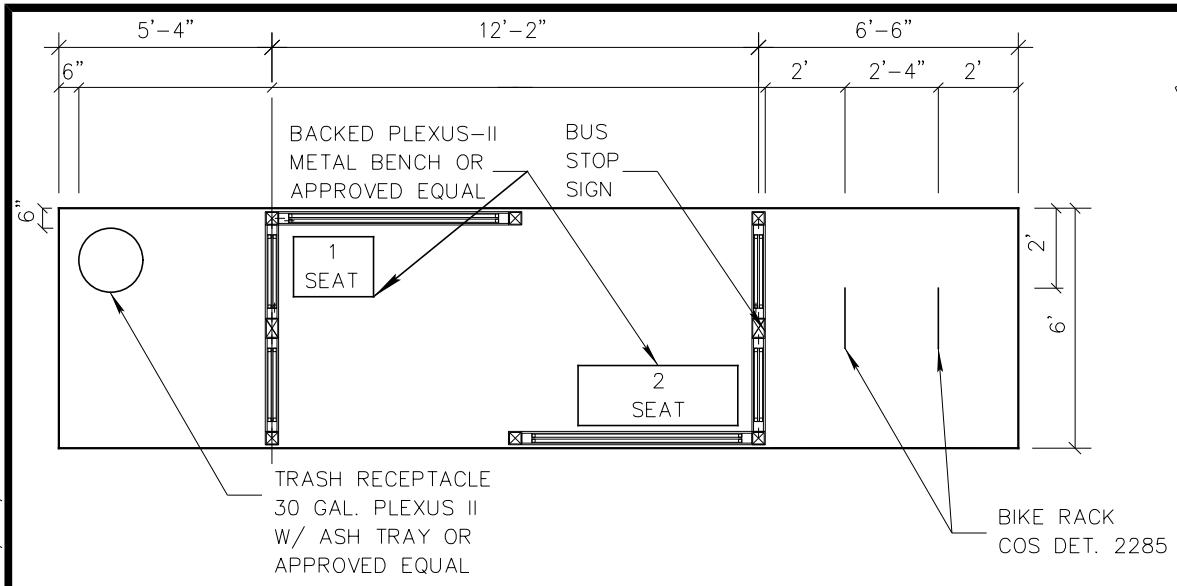
COLOR LEGEND

(C1) BUS SHELTER STRUCTURE: RAL NUMBER 3009 POWDER COATED WITH ANTI-GRAFFITI COATING

(C2) METAL ROOFING: RAL NUMBER 6004 POWDER COATED WITH ANTI-GRAFFITI COATING

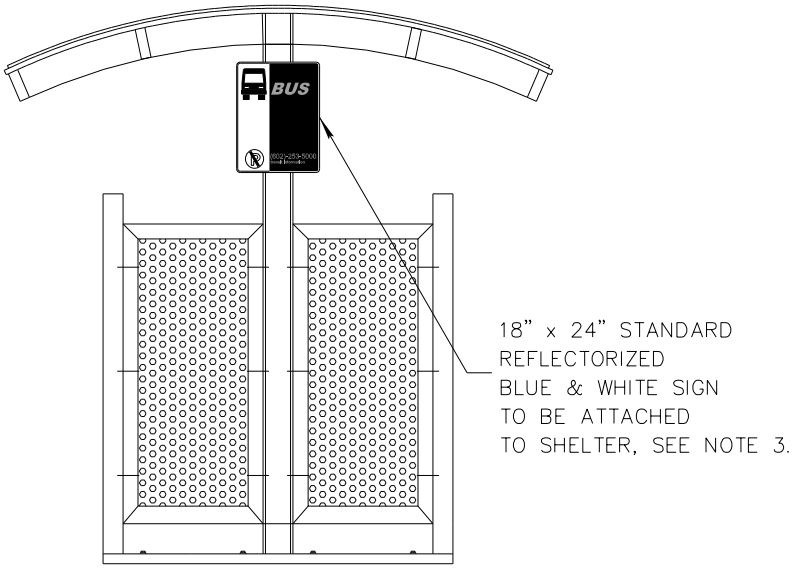
DETAIL NO.		APPROVED BY:		DETAIL NO.
2263-5	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	**BUS SHELTER**	2263-5

NEW DETAIL 5/30/15



FURNITURE LOCATION

N.T.S



BUS STOP SIGN LOCATION

N.T.S

BUS DIRECTION OF TRAVEL.

NOTES:

1. ALL FURNITURE SHALL BE LANDSCAPE FORMS, PLEXUS II COLLECTION, POWDER COATED IN BRONZE WITH ANTI-GRAFFITI COATING OR APPROVED EQUAL.

2. BENCHS SHALL BE FREE STANDING WITH ANCHOR TABS. ANCHOR BENCHES WITH 3/8" DIA. X 3 1/2" WEDGE ANCHORS AND TAMPER RESISTENT OR WELDED NUTS. ANCHORS SHALL HAVE MINIMUM 3" EMBEDMENT INTO CONCRETE SLAB.

3. BUS STOP SIGN SHALL BE A REGIONAL STANDARD SIGN PER REGIONAL PUBLIC TRANSPORTATION AUTHORITY (RPTA) AND VALLEY METRO BUS STOP PROGRAM AND DESIGN STANDARDS.

BUS STOP SIGN

N.T.S

DETAIL NO.		APPROVED BY:		DETAIL NO.
2263-6	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	BUS SHELTER	2263-6

GENERAL STRUCTURAL NOTES

BUILDING CODE:

2012 EDITION OF THE UNIFORM BUILDING CODE, WITH CITY OF SCOTTSDALE AMENDMENTS.

LOADS:

LATERAL:
WIND LOAD = 120 MPH WIND SPEED, EXPOSURE C.

FOUNDATIONS:

COMPACT SUB GRADE AND BASE MATERIAL TO 95% OF THE ASTM D698 MAXIMUM DRY DENSITY.

CONCRETE:

MINIMUM 28 DAY STRENGTH 3,000 PSI

ALL CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI. FOR CONCRETE WITHOUT PLASTICIZER, MAXIMUM SLUMP 4 1/2" AT POINT OF PLACEMENT U.N.O. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL.

STRUCTURAL STEEL:

ALL CONSTRUCTION PER LATEST AISC STEEL CONSTRUCTION HANDBOOK. ALL STRUCTURAL STEEL SHALL BE ASTM A-36 EXCEPT AS FOLLOWS:

PIPE STEEL: ASTM A-53 GRADE B OR A-501
TUBE STEEL: ASTM A-500 GRADE B (Fy=46 KSI)
BOLTS EMBEDDED IN CONCRETE: ASTM A-307.
ALL FASTNERS, NUTS, BOLTS, SCREWS AND WASHERS SHALL BE BLACK ANODIZED AND TAMPER RESISTANT.

UNLESS NOTED OTHERWISE, ALL WELDS PER LATEST EDITION OF THE AWS STANDARDS. ALL WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES. CERTIFICATES SHALL BE THOSE ISSUED BY AN ACCEPTED TESTING AGENCY. ALL WELDING DONE BY E70 SERIES LOW HYDROGEN RODS PER AWS D1.1 UNLESS NOTED OTHERWISE. THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS; THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW.

SPECIAL INSPECTIONS:

POST INSTALLED ANCHORS

SHOP DRAWINGS:

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTOR'S REVIEW.

MANUFACTURER OR FABRICATOR SHALL CLOUD ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY.

THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS. THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY.

REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR.

SUPPLEMENTARY NOTES:

1. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION.
2. CONTRACTOR SHALL ESTABLISH AND VERIFY IN FIELD ALL EXISTING CONDITIONS AFFECTING NEW CONSTRUCTION, CONTACT CITY INSPECTOR IMMEDIATELY IF CONDITIONS ARE NOT AS DEPICTED IN DRAWINGS.
3. SHELTER SLAB SHALL BE CLASS "B" CONCRETE PER MAG SECTION 725.

SPECIAL REQUIREMENTS

1. AN ARTIST-DESIGNED SHELTER MAY BE SUBSTITUTED FOR STANDARD SHELTER BY APPROVAL OF THE CITY OF SCOTTSDALE TRANSIT SECTION. HOWEVER, IT MUST INCORPORATE ALL THE FUNCTIONAL ELEMENTS INCLUDED IN THE STANDARD SHELTER. SEE TRANSIT & DESIGN REVIEW STAFF FOR DETAILS.

2. STANDARD BUS STOP SIGN LOCATION, NEW OR RELOCATED SIGNS SHALL BE APPROVED BY THE TRAFFIC/TRANSIT STAFF.

3. ADDITIONAL REQUIREMENTS MAY INCLUDE:
A) LEANING RAIL.
B) LED REAL TIME BUS INFORMATION SIGN.
C) BUS ROUTE/TRAFFIC INFORMATION KIOSKS.
D) PEDESTRIAN RAILING AROUND THE BACK OF SHELTER ADJACENT TO STEEP SLOPES OR DROP-OFFS.

4. CITY OF SCOTTSDALE TRANSIT BUS SHELTERS SHALL BE PROVIDED WITH A GROUNDING SYSTEM THAT MAY CONSIST OF ONE OF THE FOLLOWING METHODS:
A) 25 FEET OF #4 STANDARD COPPER (UNINSULATED) INSTALLED IN THE BASE OF ONE OF THE UPRIGHT FOUNDATIONS. THE GROUNDING CONDUCTOR WILL EXTEND OUT OF THE POURED CONCRETE FOUNDATION WITH A LENGTH NOT TO EXCEED 3 FEET. THE GROUNDING CONDUCTOR WILL BE WRAPPED IN A CLOCKWISE ROTATION, ONE WRAP, AROUND ON THE THE UPRIGHT ANCHOR BOLTS. A FLAT FENDER WASHER WILL BE INSTALLED ON TOP OF THE CONDUCTOR WITH THE ANCHOR BOLT NUT ON TOP OF THE FLAT WASHER AND SECURED.
B) A SECOND METHOD WILL CONSIST OF A 5/8"x 8'-0" GROUND ROD DRIVEN IN THE ELECTRICAL PULLBOX ADJACENT TO THE BUS SHELTER. A GROUND ROD TERMINAL NUT (ACORN NUT) WILL BE INSTALLED ON TOP OF THE GROUND ROD SECURING A #8 AWG BARE SOLID COPPER WIRE. THE GROUND WIRE WILL BE INSTALLED FROM THE JUNCTION BOX, UNBROKEN AND UNSPLICED, TO THE BUS SHELTER UPRIGHT WHERE IT WILL BE TERMINATED. A SET-SCREW TERMINAL LUG WILL BE FASTENED TO THE STRUCTURE UPRIGHT UNDER THE BOTTOM KICKPANEL. THE AREA UNDER THE TERMINAL LUG WILL BE CLEANED OF ALL RUST, SCALE AND PAINT. THE #8 BARE BOND CONDUCTOR WILL BE TERMINATED IN THE SET-SCREW TERMINAL LUG.

BOTH GROUNDING METHODS WILL BE DONE IN ACCORDANCE WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.

NEW DETAIL 5/30/15

DETAIL NO. 2263-7	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUS SHELTER	DETAIL NO. 2263-7

NEW DETAIL 5/30/15

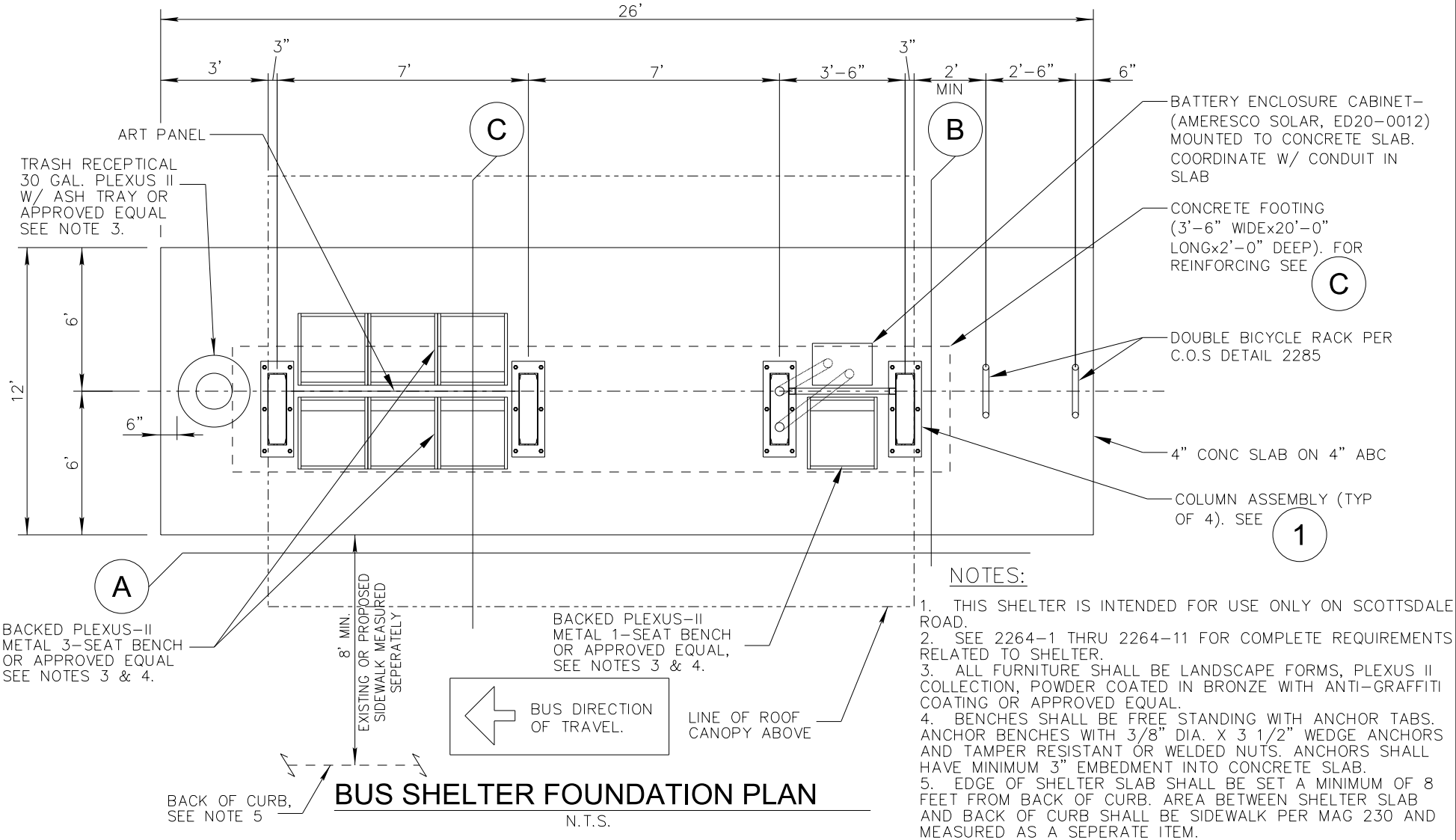
ABBREVIATIONS

NOTE: ABBREVIATIONS MAY OR MAY NOT HAVE PERIODS, BUT SHALL BE READ AS SAME.

A.B.	ANCHOR BOLT
A.B.C.	AGGREGATE BASE COURSE
ACI	AMERICAN CONCRETE INSTITUTE
A/C	AIR CONDITIONER
A.F.F.	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
ALT.	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
ARCH'L	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
@	AT (MEASUREMENT)
BM	BEAM
B.F.F	BELOW FINISHED FLOOR
BLK	BLOCK
B.O.B.	BOTTOM OF BEAM
B.O.D.	BOTTOM OF DECK
B.O.F.	BOTTOM OF FOOTING
BRG	BEARING
C	CAMBER
C.C.	CENTERLINE TO CENTERLINE
C.G.	CENTER OF GRAVITY
C.I.P.	CAST IN PLACE
C.L.	CENTERLINE
C.L.B.	CENTERLINE OF BEAM
C.L.C.	CENTERLINE OF COLUMN
C.L.F.	CENTERLINE OF FOOTING
C.L.W.	CENTERLINE OF WALL
CLR	CLEAR
CONC	CONCRETE
CONC C.J.	CONCRETE CONTROL JOINT
CONC S.J.	CONCRETE SAWCUT JOINT
C.M.U.	CONCRETE MASONRY UNIT
COL	COLUMN
CONN	CONNECTION
CONT	CONTINUOUS
C.O.S.	CITY OF SCOTTSDALE
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
DET	DETAIL
DL	DEAD LOAD
⌀ OR DIA	DIAMETER
DN	DOWN
DWG(S)	DRAWING(S)
E.C.	END TO CENTERLINE
E.E.	END TO END
E.O.S.	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EXP. BOLT (E.B.)	EXPANSION BOLT
EXP. JT (E.J.)	EXPANSION JOINT
E.W.	EACH WAY
FDN	FOUNDATION
F.F.	FINISHED FLOOR
F.O.M.	FACE OF MEMBER
F.O.S.	FACE OF STEEL
F.O.W.	FACE OF WALL
GA	GAGE (UNIT OF MEASUREMENT)
GALV	GALVANIZED
G.S.N.	GENERAL STRUCTURAL NOTES
GLB (GLULAM)	GLUED-LAMINATED BEAM
HORIZ	HORIZONTAL REINFORCING
IBC	INTERNATIONAL BUILDING CODE
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
I.F.W.	INSIDE FACE OF WALL
I.O.D.	INTERPRETATION OF DRAWINGS
K(KIP)	1000 POUNDS
KLF	KIPS PER LINEAR FOOT
LBS (#)	POUNDS
LGS	LIGHT GAGE STEEL
LGSEA	LIGHT GAGE STEEL ENGINEERS ASSOCIATION
L.O.D.	LOCATION OF DETAILS
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAG	MARICOPA ASSOCIATION OF GOV'T
MAS	MASONRY
MAS C.J.	MASONRY CONTROL JOINT
MAX	MAXIMUM
MBMA	METAL BUILDING MANUFACTURERS ASSOCIATION
MECH'L	MECHANICAL
MFR('S)	MANUFACTURER('S)
MIN	MINIMUM
N/A	NOT APPLICABLE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.F.W.	OUTSIDE FACE OF WALL
OPP	OPPOSITE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PCI	PRECAST/PRESTRESSED CONCRETE INSTITUTE
P.C.	PRECAST CONCRETE
PLF	POUNDS PER LINEAR FOOT
±	PLUS OR MINUS
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTI	POST-TENSIONING INSTITUTE
REINF	REINFORCING
SDI	STEEL DECK INSTITUTE
SLH	SHORT LEG HORIZONTAL
SLV	SHORT LEG VERTICAL
SJI	STEEL JOIST INSTITUTE
SIM	SIMILAR
SQ.	SQUARE
SSMA	STEEL STUD MANUFACTURERS ASSOCIATION
STD	STANDARD
STL	STEEL
TL	TOTAL LOAD
T.O.B.	TOP OF BEAM
T.O.C.T.	TOP OF CONCRETE TOPPING
T.O.D.	TOP OF DECK
T.O.F.	TOP OF FOOTING
T.O.L.	TOP OF LEDGER
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PLATE
T.O.P.C.	TOP OF PRECAST CONCRETE
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TPI	TRUSS PLATE INSTITUTE
TS	TUBE STEEL
TYP	TYPICAL
T&G	TONGUE AND GROOVE
UBC	UNIFORM BUILDING CODE
U.N.O.	UNLESS NOTED OTHERWISE
VERT	VERTICAL REINFORCING
WCLA	WEST COAST LUMBER ASSOCIATION
WCLIB	WEST COAST LUMBER INSPECTION BUREAU
W.W.F.	WELDED WIRE FABRIC
WWPA	WESTERN WOOD PRODUCTS ASSOCIATION
W/	WITH
W/C	WATER TO CEMENT RATIO
W/O	WITHOUT

DETAIL NO.		APPROVED BY:		DETAIL NO.
2263-8	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	BUS SHELTER	2263-8

NEW DETAIL 5/30/15



BUS SHELTER FOUNDATION PLAN

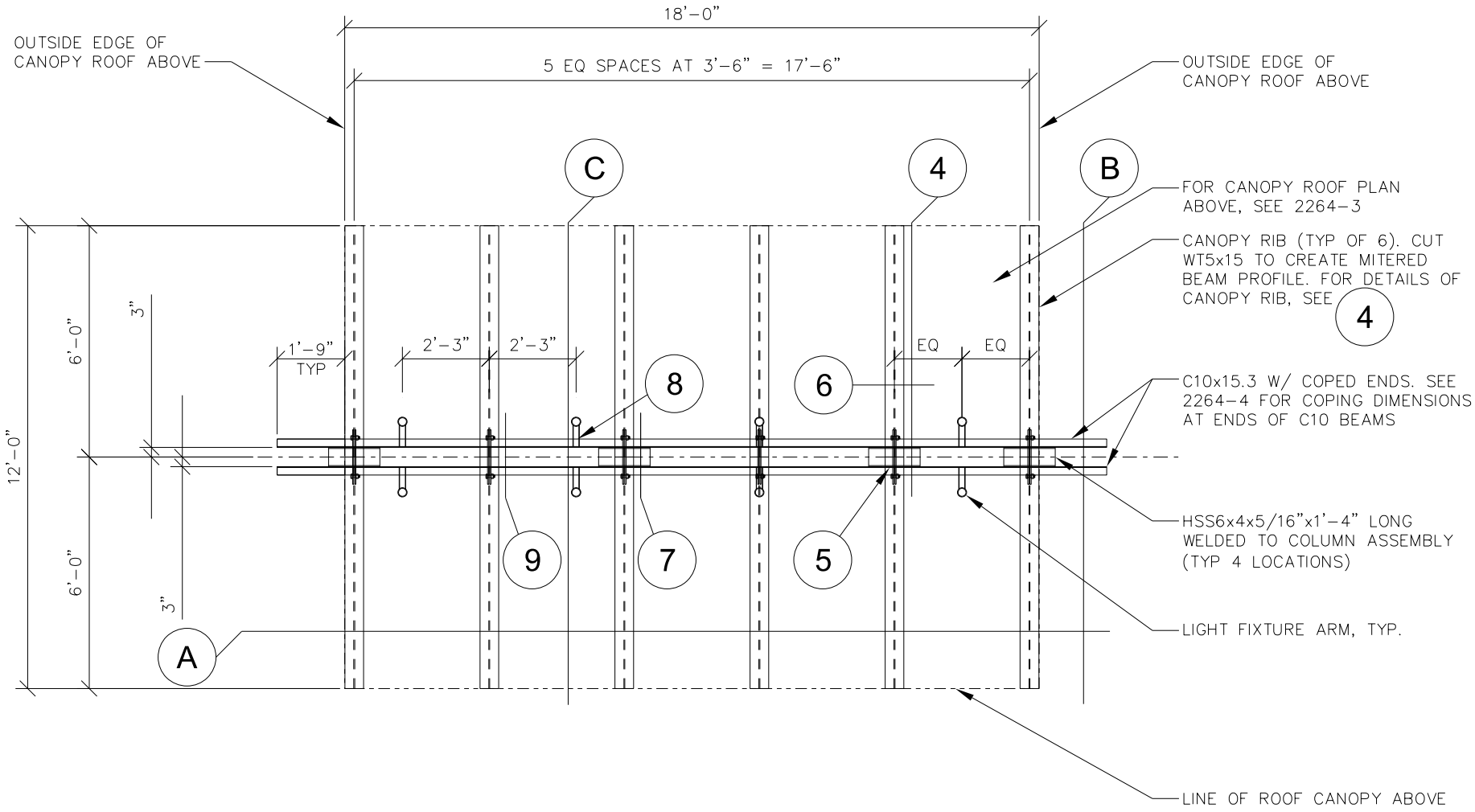
N.T.S.

NOTES:

1. THIS SHELTER IS INTENDED FOR USE ONLY ON SCOTTSDALE ROAD.
2. SEE 2264-1 THRU 2264-11 FOR COMPLETE REQUIREMENTS RELATED TO SHELTER.
3. ALL FURNITURE SHALL BE LANDSCAPE FORMS, PLEXUS II COLLECTION, POWDER COATED IN BRONZE WITH ANTI-GRAFFITI COATING OR APPROVED EQUAL.
4. BENCHES SHALL BE FREE STANDING WITH ANCHOR TABS. ANCHOR BENCHES WITH 3/8" DIA. X 3 1/2" WEDGE ANCHORS AND TAMPER RESISTANT OR WELDED NUTS. ANCHORS SHALL HAVE MINIMUM 3" EMBEDMENT INTO CONCRETE SLAB.
5. EDGE OF SHELTER SLAB SHALL BE SET A MINIMUM OF 8 FEET FROM BACK OF CURB. AREA BETWEEN SHELTER SLAB AND BACK OF CURB SHALL BE SIDEWALK PER MAG 230 AND MEASURED AS A SEPERATE ITEM.

DETAIL NO. 2264-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-1

NEW DETAIL 5/30/15

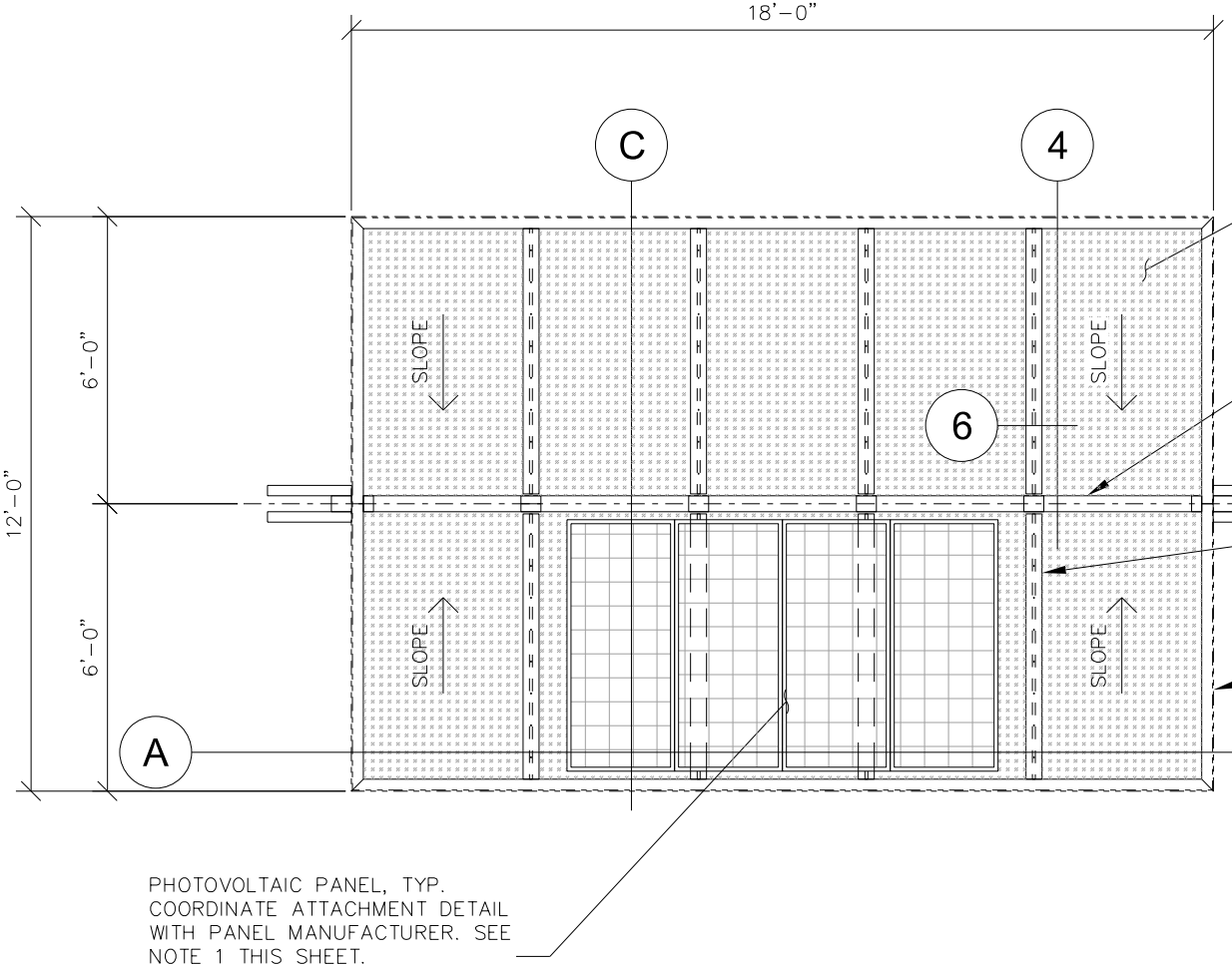


BUS SHELTER FRAMING PLAN

N.T.S.

DETAIL NO. 2264-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-2

NEW DETAIL 5/30/15



NOTES:

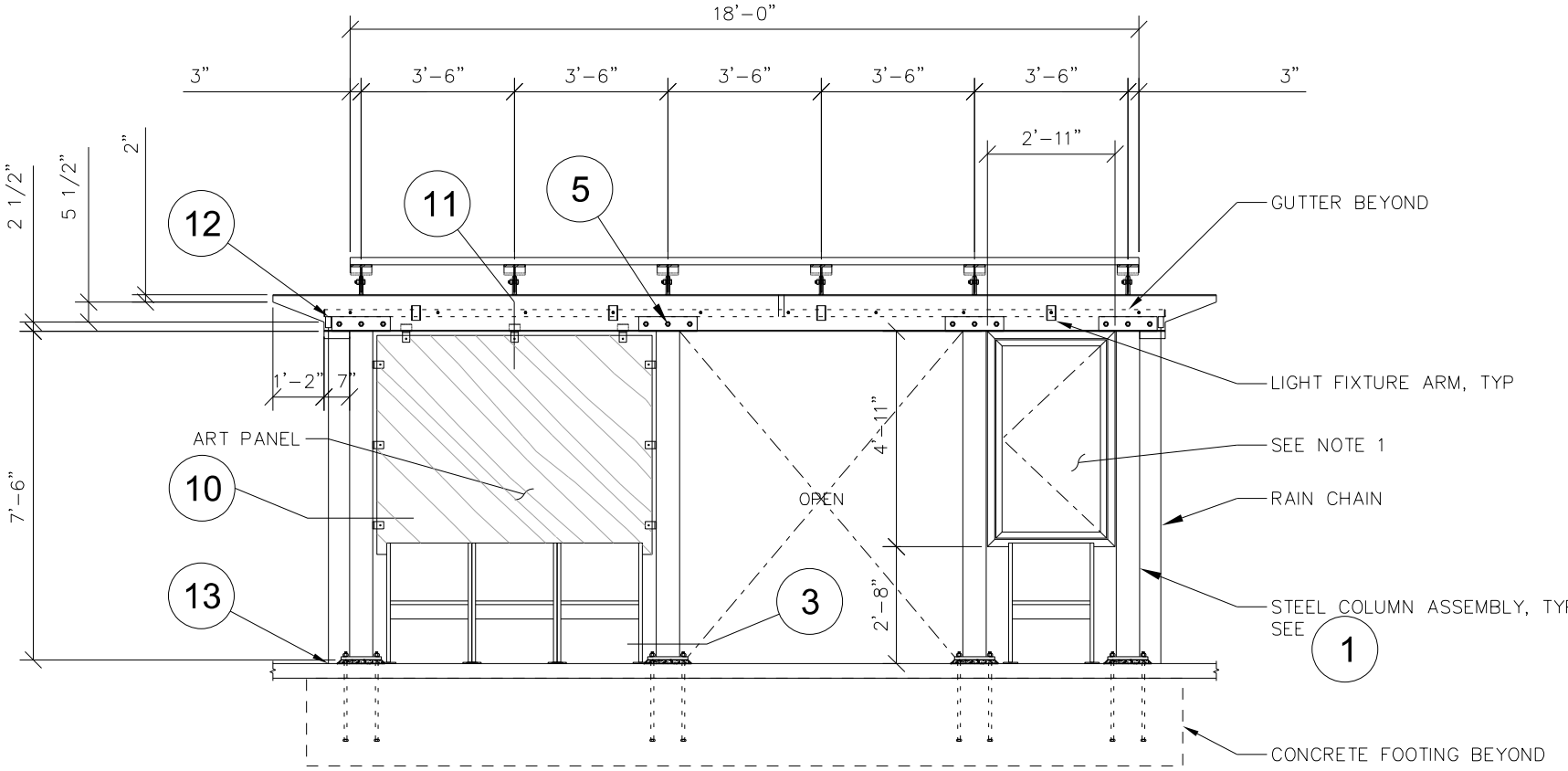
1. PHOTOVOLTAIC PANELS SHALL BE PART OF A COMPLETE PHOTOVOLTAIC SYSTEM. AMERESCO SOLAR OR EQUAL INCLUDING PANELS, ADJUSTABLE MOUNTING, BATTERIES, CABLING , AND CONTROLLERS. PROVIDE SK420W/300ah/12V/SUNLIGHT OR APPROVED EQUAL. LOCATION AND RAKE ANGLE OF SOLAR PANELS SHALL OPTIMIZE THE PERFORMANCE OF THE SYSTEM AND APPROVAL BY C.O.S. IS REQUIRED.
2. LAMINATED GLASS PANELS SHALL BE HEAT STRENGTHENED LAMINATED GLASS. PROVIDE OLDCASTLE 3/16" CLEAR – 60 ARTIC SNOW – 3/16" CLEAR OR APPROVED EQUAL. APPROVAL BY C.O.S.

BUS SHELTER ROOF PLAN

N.T.S.

DETAIL NO. 2264-3	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-3

NEW DETAIL 5/30/15



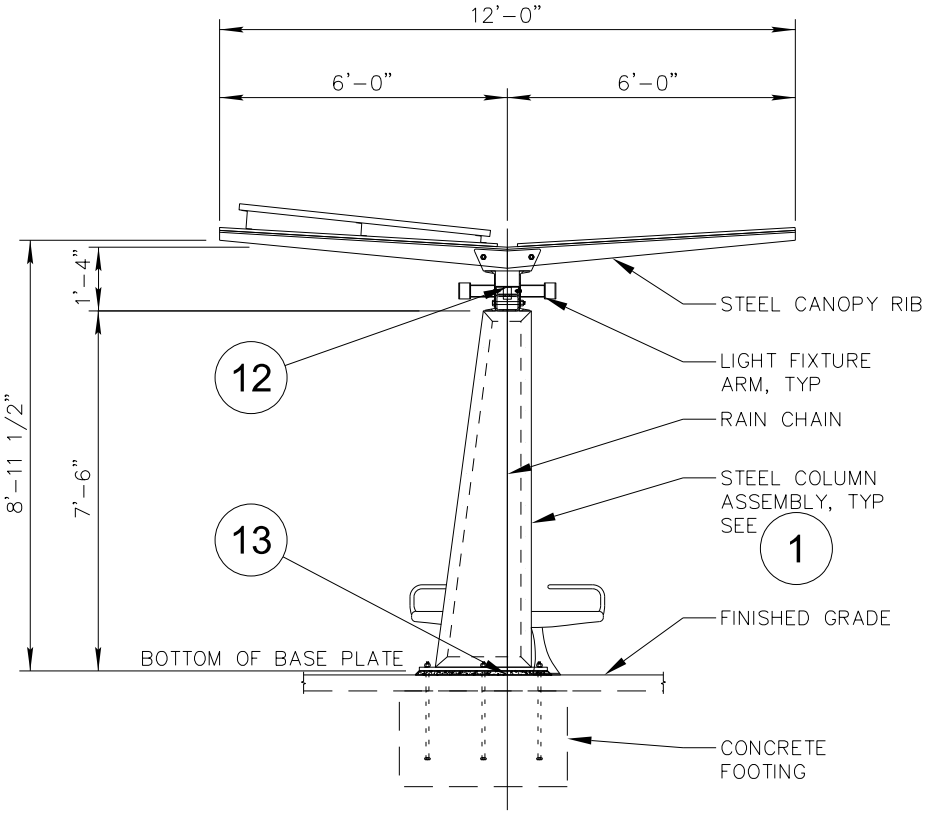
NOTES:

1. CUSTOM MAP CASE FABRICATED FROM 16 GA. COLD-ROLLED STEEL. 2-SIDED CASE, APPROXIMATELY 5" TOTAL DEPTH, WITH LOCKABLE POLYCARBONATE DOOR WITH STEEL FRAME AND PIANO HINGE ON BOTH SIDES OF CASE. PROVIDE REMOVABLE 2-SIDED VINYL DISPLAY BOARD CENTERED WITHIN THE FRAME. MAP CASE SHALL INCLUDE MOUNTING HARDWARE APPROPRIATE FOR THE INTENDED APPLICATION. PROVIDE POWDER-COAT FINISH TO MATCH SHELTER STRUCTURE.

A BUS SHELTER ELEVATION
N.T.S.

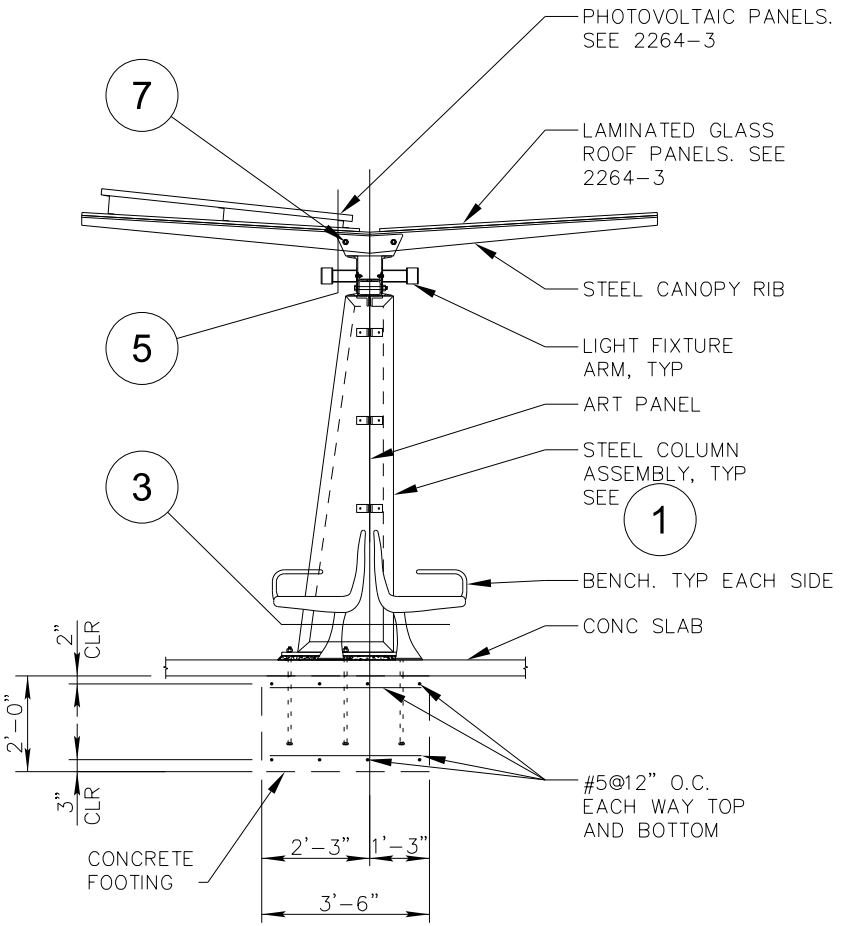
DETAIL NO. 2264-4	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-4

NEW DETAIL 5/30/15



B BUS SHELTER ELEVATION

N.T.S.

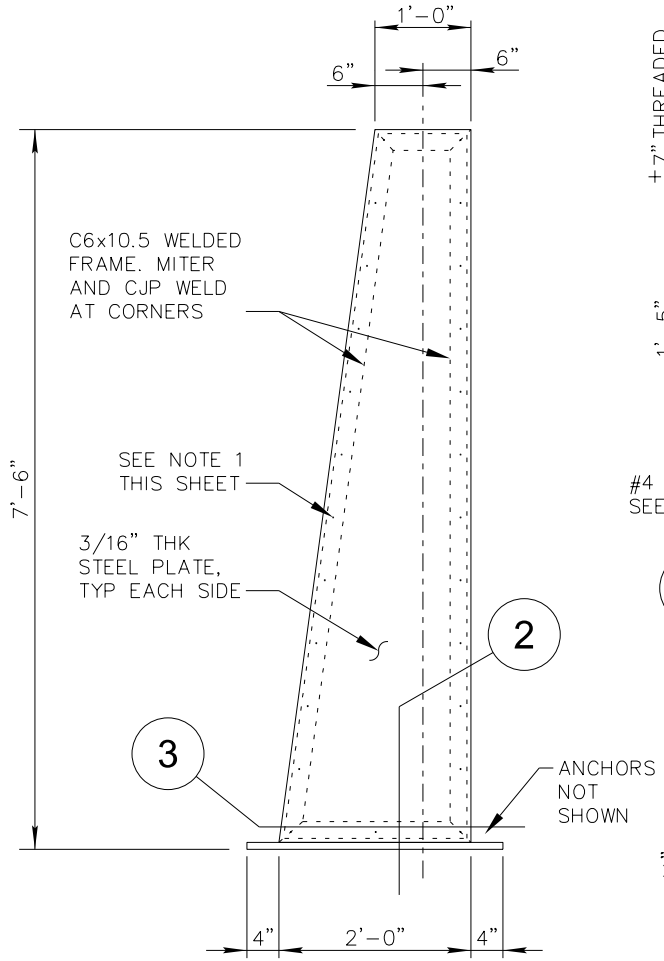


C BUS SHELTER SECTION

N.T.S.

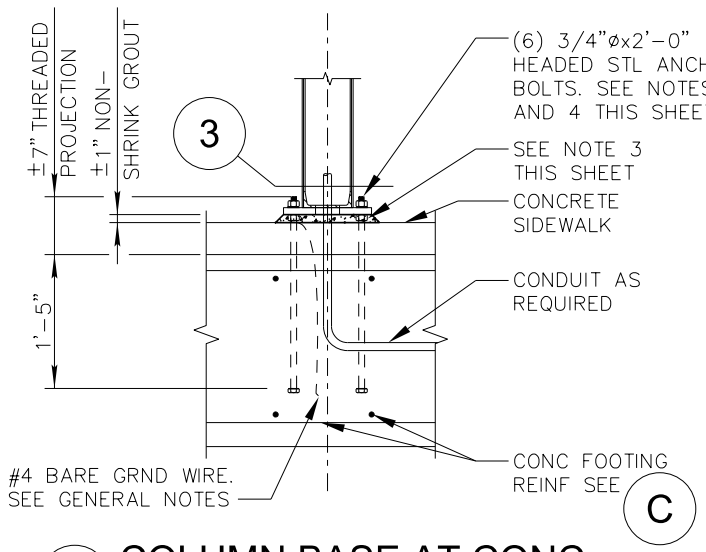
DETAIL NO. 2264-5	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-5

NEW DETAIL 5/30/15



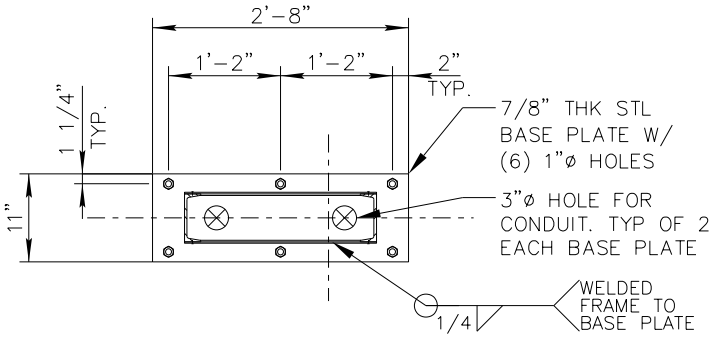
1 STEEL COLUMN ASSEMBLY

N.T.S.



2 COLUMN BASE AT CONC

N.T.S.



3 COLUMN BASE PLATE

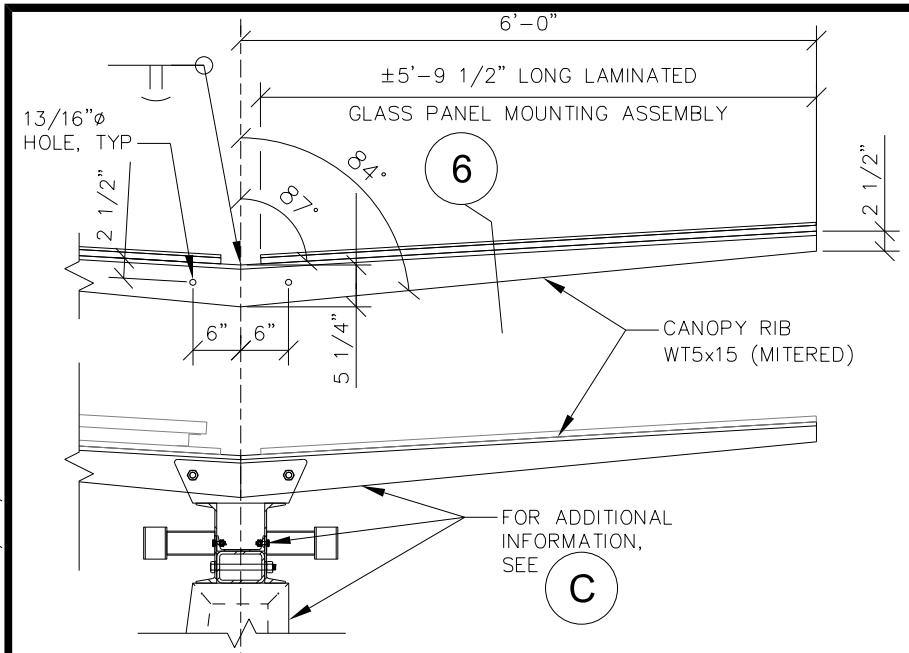
N.T.S.

NOTES:

1. SECURE 3/16" THICK PLATE TO EACH SIDE OF WELDED FRAME USING 1/4" STAINLESS STEEL SCREWS @ 8" O.C. AROUND PERIMETER. PROVIDE TAMPER-RESISTANT HEADS ON SCREWS.
2. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 36 WITH HOT-DIP OR MECHANICALLY DEPOSITED ZINC COATING. PROVIDE STEEL SETTING TEMPLATES TO ACCURATELY LOCATE ANCHOR BOLTS AND TO FIRMLY HOLD ANCHOR BOLTS IN-PLACE DURING CONCRETE PLACEMENT. PERIODIC SPECIAL INSPECTION OF ANCHOR BOLT INSTALLATION IS REQUIRED AND SHALL BE PERFORMED IN ACCORDANCE WITH TABLE 1705.3 OF THE 2012 IBC. DO NOT PLACE CONCRETE FOOTING WITHOUT APPROVAL OF REINFORCING, EMBEDDED ITEMS AND ANCHOR BOLT PLACEMENT BY SPECIAL INSPECTOR.
3. USE METAL WEDGES, SHIMS, OR LEVELING NUTS AS REQUIRED TO LEVEL COLUMN BASE PLATES. METAL WEDGES/SHIMS SHALL BE SAME MATERIAL AS BASE PLATE. CUT OFF PROTRUSIONS OF WEDGES AND SHIMS AND WELD FLUSH WITH EDGE OF BASE PLATE. LEVELING NUTS SHALL BE THE SAME MATERIAL AS THE ANCHOR BOLTS.
4. AFTER COMPLETE INSTALLATION OF COLUMN, UPSET THREADS ON ANCHOR BOLTS TO PREVENT TOP NUT FROM BACKING OFF.

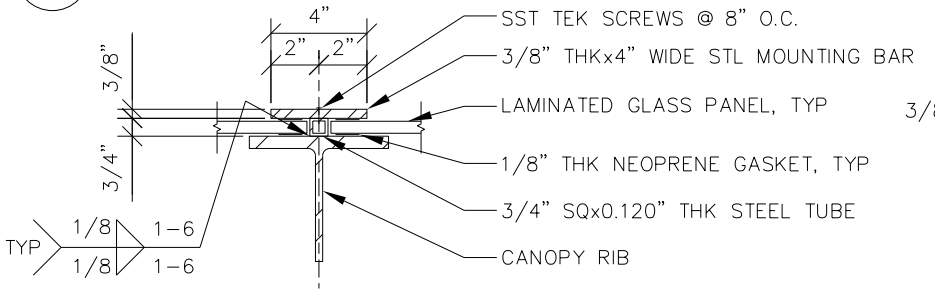
DETAIL NO. 2264-6	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-6

NEW DETAIL 5/30/15



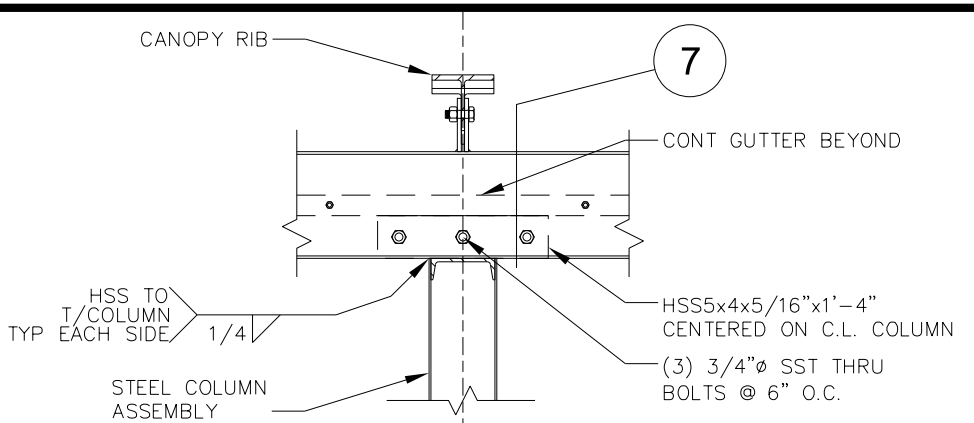
4 CANOPY RIB DETAIL

N.T.S.



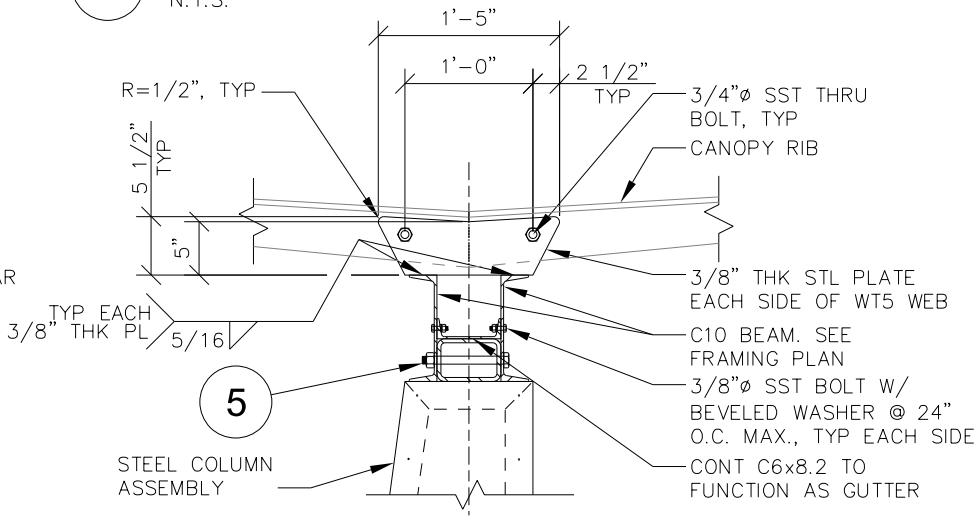
6 SECTION THRU MOUNTING ASSEMBLY

N.T.S.



5 TOP OF COLUMN DETAIL

N.T.S.

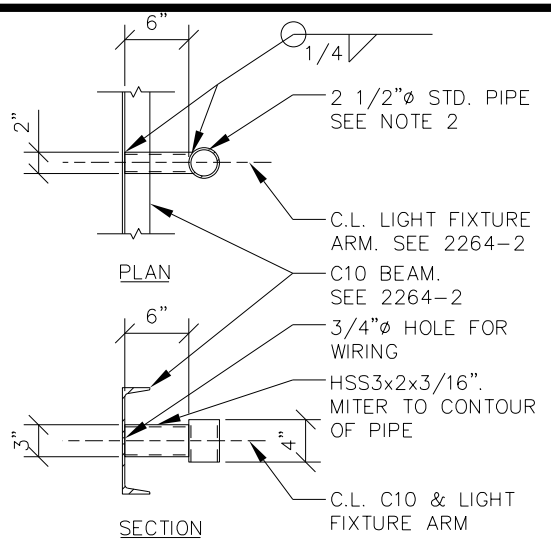


7 CANOPY RIB CONNECTION DETAIL

N.T.S.

DETAIL NO. 2264-7	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-7

NEW DETAIL 5/30/15

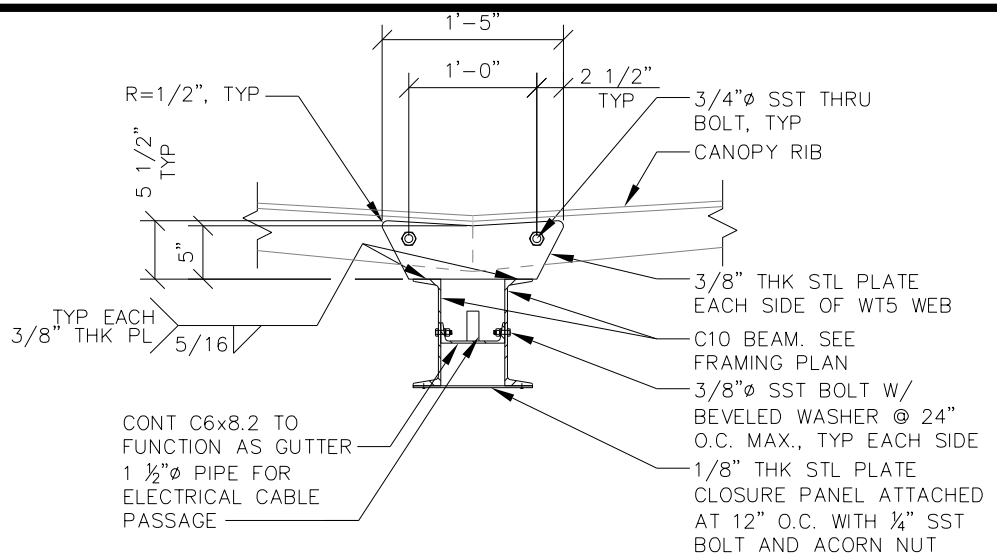


NOTES:

1. LIGHT FIXTURE NOT SHOWN FOR CLARITY. PROVIDE MAG LED MR16, 12 DEGREE, COOL WHITE, YOKE MOUNT, 12V LIGHT FIXTURE BY MAGNIFLOOD OR APPROVED EQUAL.
2. DRILL AND TAP 2 1/2"ø STD PIPE TO RECEIVE (3) 1/4"ø SET SCREWS FOR ATTACHMENT OF LIGHT FIXTURE TO PIPE. COORDINATE ATTACHMENT DETAILS W/ SELECTED LIGHT FIXTURE MFR

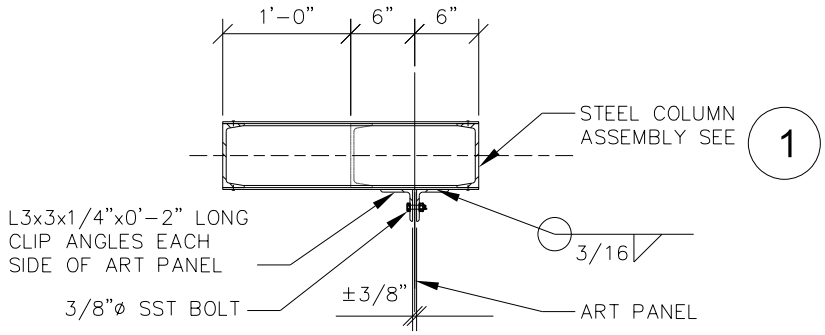
8 LIGHT FIXTURE ARM DETAIL

N.T.S.



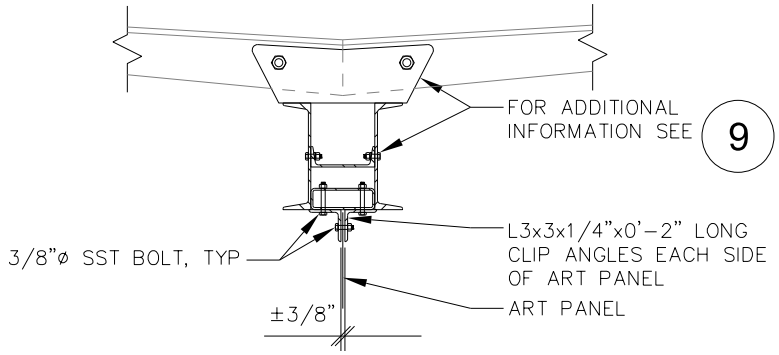
9 CANOPY RIB AT C10 BEAMS

N.T.S.



10 ART PANEL AT COLUMN DETAIL

N.T.S.

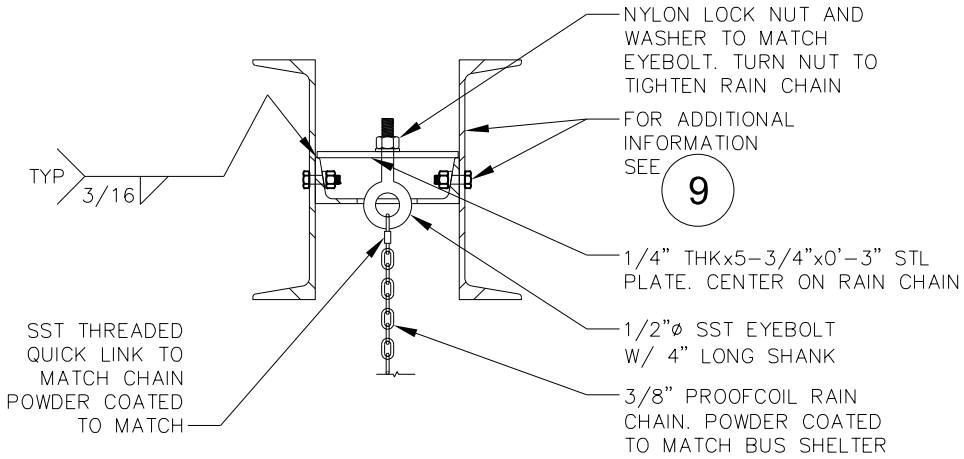


11 ART PANEL AT C10 BEAMS

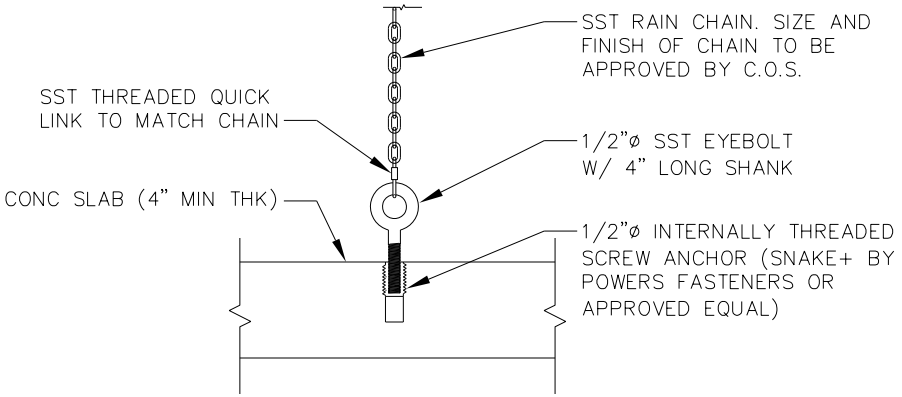
N.T.S.

DETAIL NO. 2264-8	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-8

NEW DETAIL 5/30/15



12 RAIN CHAIN TOP CONNECTION
N.T.S.



13 RAIN CHAIN BOTTOM CONNECTION
N.T.S.

DETAIL NO. 2264-9	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	DETAIL NO. 2264-9

NEW DETAIL 5/30/15

GENERAL STRUCTURAL NOTES

BUILDING CODE:

2012 EDITION OF THE INTERNATIONAL BUILDING CODE, WITH CITY OF SCOTTSDALE AMENDMENTS.

LOADS:

LATERAL:
WIND LOAD = 120 MPH WIND SPEED, EXPOSURE B.
SEISMIC: SDS = 0.200, SD1 = 0.100

FOUNDATIONS:

COMPACT SUB GRADE AND BASE MATERIAL TO 95% OF THE ASTM D698 MAXIMUM DRY DENSITY.

CONCRETE:

MINIMUM 28 DAY STRENGTH 3,000 PSI

ALL CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI. FOR CONCRETE WITHOUT PLASTICIZER, MAXIMUM SLUMP 4 1/2" AT POINT OF PLACEMENT U.N.O. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL.

REINFORCING:

ALL REINFORCING PER CRSI SPECIFICATIONS AND HAND-BOOK. ASTM A615 (Fy = 60 KSI/GRADE 60) DEFORMED BARS FOR ALL BARS.

ALL REINFORCING SHALL BE CHAIRED TO ENSURE PROPER CLEARANCES. SUPPORT OF FOUNDATION REINFORCING MUST PROVIDE ISOLATION FROM MOISTURE CORROSION BY USE OF A PLASTIC OR CONCRETE CHAIR. DUCT-TAPE COVERED REINFORCING IS NOT AN ACCEPTABLE CHAIR.

ALL DIMENSIONS REFERENCED IN DRAWINGS AS "CLEAR" SHALL BE FROM FACE OF STRUCTURE TO EDGE OF REINFORCING, AND SHALL NOT BE LESS THAN STATED, NOR GREATER THAN "CLEAR" DIMENSION PLUS 3/8". ALL OTHERS SHALL BE PLUS OR MINUS 1/4" TYPICAL UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL:

ALL CONSTRUCTION PER LATEST AISC STEEL CONST. MANUAL. ALL TUBE STEEL SHALL BE ASTM A500 (Fy=46 KSI). ALL MISCELLANEOUS STEEL UNLESS NOTED OTHERWISE SHALL BE ASTM A36 (Fy = 36 KSI).

UNLESS NOTED OTHERWISE, ALL WELDS PER LATEST EDITION OF THE AWS STANDARDS.

STRUCTURAL STEEL: CONT'D

ALL WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES. CERTIFICATES SHALL BE THOSE ISSUED BY AN ACCEPTED TESTING AGENCY. ALL WELDING DONE BY E70 SERIES LOW HYDROGEN RODS UNLESS NOTED OTHERWISE. FOR GRADE 60 REINFORCING BARS, USE E90 SERIES. THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS; THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW.

SHOP DRAWINGS:

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTOR'S REVIEW.

MANUFACTURER OR FABRICATOR SHALL CLOUD ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY.

THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS. THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY.

REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR.

SPECIAL REQUIREMENTS

1. AN ARTIST-DESIGNED SHELTER MAY BE SUBSTITUTED FOR STANDARD SHELTER BY APPROVAL OF THE CITY OF SCOTTSDALE TRANSIT SECTION. HOWEVER, IT MUST INCORPORATE ALL THE FUNCTIONAL ELEMENTS INCLUDED IN THE STANDARD SHELTER. SEE TRANSIT & DESIGN REVIEW STAFF FOR DETAILS.

2. STANDARD BUS STOP SIGN LOCATION, NEW OR RE-LOCATED SIGNS SHALL BE APPROVED BY THE TRAFFIC/TRANSIT STAFF.

3. ADDITIONAL REQUIREMENTS MAY INCLUDE:
A) LEANING RAIL.
B) LED REAL TIME BUS INFORMATION SIGN.
C) BUS ROUTE/TRAFFIC INFORMATION KIOSKS.
D) PEDESTRIAN RAILING AROUND THE BACK OF SHELTER ADJACENT TO STEEP SLOPES OR DROP-OFFS.

4. CITY OF SCOTTSDALE TRANSIT BUS SHELTERS SHALL BE PROVIDED WITH A GROUNDING SYSTEM OF THE FOLLOWING METHOD:
A) 25 FEET OF #4 STANDARD COPPER (UNINSULATED) INSTALLED IN THE BASE OF ONE OF THE UPRIGHT FOUNDATIONS. THE GROUNDING CONDUCTOR WILL EXTEND OUT OF THE POURED CONCRETE FOUNDATION WITH A LENGTH NOT TO EXCEED 3 FEET. THE GROUNDING CONDUCTOR WILL BE WRAPPED IN A CLOCKWISE ROTATION, ONE WRAP, AROUND ON THE THE UPRIGHT ANCHOR BOLTS OF THE COLUMN IN WHICH THE CONDUIT SYSTEM ENTERS. A FLAT FENDER WASHER WILL BE INSTALLED ON TOP OF THE CONDUCTOR WITH THE ANCHOR BOLT NUT ON TOP OF THE FLAT WASHER AND SECURED.

GROUNDING METHODS WILL BE DONE IN ACCORDANCE WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.

5. ALL METAL ELEMENTS OF THE STRUCTURE WILL BE POWDER COATED WITH ANTI-GRAFFITI COATING TO MATCH THE COLOR: WESTERN RESERVE 8716N LRV 11.

DETAIL NO.		APPROVED BY:		DETAIL NO.
2264-10	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	2264-10

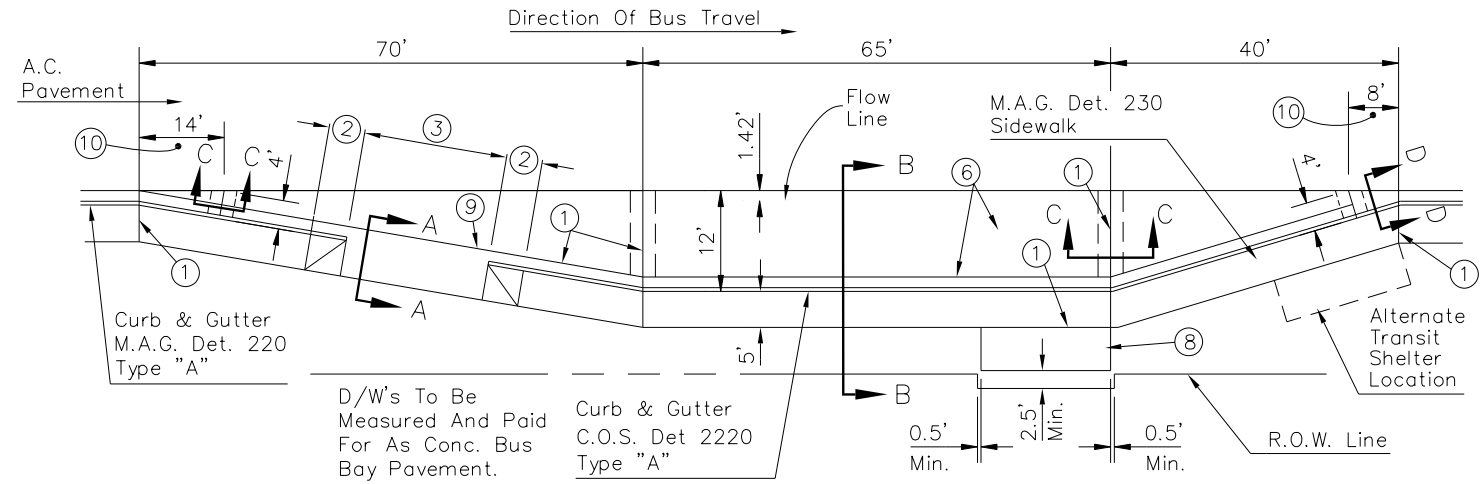
NEW DETAIL 5/30/15

ABBREVIATIONS

NOTE: ABBREVIATIONS MAY OR MAY NOT HAVE PERIODS, BUT SHALL BE READ AS SAME.

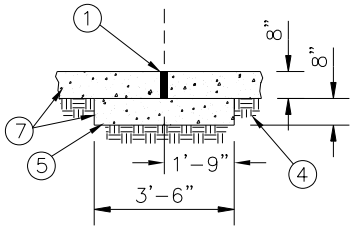
A.B.	ANCHOR BOLT
A.B.C.	AGGREGATE BASE COURSE
ACI	AMERICAN CONCRETE INSTITUTE
A.F.F.	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT.	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
ARCH'L	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
@	AT (MEASUREMENT)
BM	BEAM
B.F.F	BELOW FINISHED FLOOR
BLK	BLOCK
B.O.B.	BOTTOM OF BEAM
B.O.F.	BOTTOM OF FOOTING
BRG	BEARING
C	CAMBER
C.C.	CENTERLINE TO CENTERLINE
C.G.	CENTER OF GRAVITY
C.I.P.	CAST IN PLACE
C.L.	CENTERLINE
C.L.B.	CENTERLINE OF BEAM
C.L.C.	CENTERLINE OF COLUMN
C.L.F.	CENTERLINE OF FOOTING
C.L.W.	CENTERLINE OF WALL
CLR	CLEAR
CONC	CONCRETE
CONC C.J.	CONCRETE CONTROL JOINT
CONC S.J.	CONCRETE SAWCUT JOINT
C.M.U.	CONCRETE MASONRY UNIT
CONN	CONNECTION
CONT	CONTINUOUS
C.O.S.	CITY OF SCOTTSDALE
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
DL	DEAD LOAD
⌀ OR DIA	DIAMETER
DWG(S)	DRAWING(S)
E.C.	END TO CENTERLINE
E.E.	END TO END
E.O.S.	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EXP. BOLT (E.B.)	EXPANSION BOLT
EXP. JT (E.J.)	EXPANSION JOINT
E.W.	EACH WAY
F.F.	FINISHED FLOOR
F.O.S.	FACE OF STEEL
F.O.W.	FACE OF WALL
GA	GAGE (UNIT OF MEASUREMENT)
GALV	GALVANIZED
G.S.N.	GENERAL STRUCTURAL NOTES
HORIZ	HORIZONTAL REINFORCING
IBC	INTERNATIONAL BUILDING CODE
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
I.F.W.	INSIDE FACE OF WALL
K(KIP)	1000 POUNDS
KLF	KIPS PER LINEAR FOOT
LBS (#)	POUNDS
LGS	LIGHT GAGE STEEL
LGSEA	LIGHT GAGE STEEL ENGINEERS ASSOCIATION
L.O.D.	LOCATION OF DETAILS
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAS	MASONRY
MAS C.J.	MASONRY CONTROL JOINT
MAX	MAXIMUM
MECH'L	MECHANICAL
MFR('S)	MANUFACTURER('S)
MIN	MINIMUM
N/A	NOT APPLICABLE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.F.W.	OUTSIDE FACE OF WALL
OPP	OPPOSITE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PLF	POUNDS PER LINEAR FOOT
±	PLUS OR MINUS
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REINF	REINFORCING
SLH	SHORT LEG HORIZONTAL
SLV	SHORT LEG VERTICAL
SIM	SIMILAR
SQ.	SQUARE
SSMA	STEEL STUD MANUFACTURERS ASSOCIATION
STD	STANDARD
STL	STEEL
TL	TOTAL LOAD
T.O.B.	TOP OF BEAM
T.O.C.T.	TOP OF CONCRETE TOPPING
T.O.D.	TOP OF DECK
T.O.F.	TOP OF FOOTING
T.O.L.	TOP OF LEDGER
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PLATE
T.O.P.C.	TOP OF PRECAST CONCRETE
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TPI	TRUSS PLATE INSTITUTE
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT	VERTICAL REINFORCING
W.W.F.	WELDED WIRE FABRIC
W/	WITH
W/C	WATER TO CEMENT RATIO
W/O	WITHOUT

DETAIL NO.		APPROVED BY:		DETAIL NO.
2264-11	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	SCOTTSDALE ROAD BUS SHELTER	2264-11

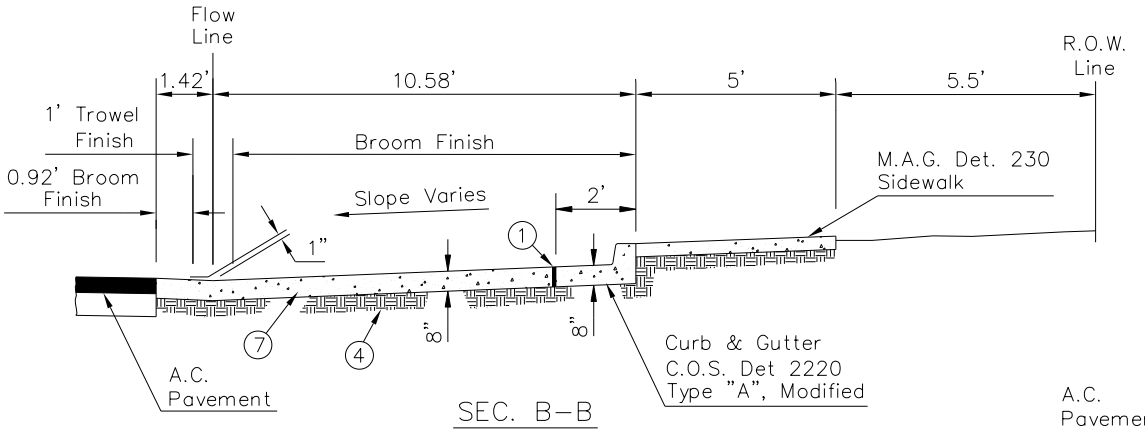


PLAN VIEW

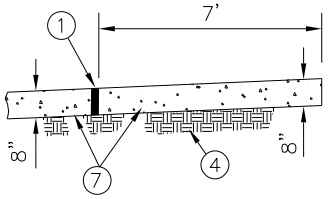
1. 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751 PER MAG SEC. 729, INSTALL PER COS SEC. 340.3.
2. TRANSITION CURB FACE FROM 6" TO 0" HEIGHT IN 5'
3. D/W WIDTHS & LOCATIONS VARY, SEE PLANS. MAINTAIN 10' MIN. CLEARANCE BETWEEN DRIVEWAYS AND SHELTER PAD. WHEN DRIVE-WAY WIDTH EXCEEDS 22', PROVIDE A CONTRACTION JOINT ON D/W ℄.
4. SUBGRADE PREPARATION PER MAG SECTION 301.
5. CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT.
6. CONTRACTION JOINTS IN THE BUS BAY PAVEMENT SHALL MATCH THOSE IN THE CURB.
7. CONCRETE SHALL BE CLASS "A" PER MAG SECTION 725
8. TRANSIT SHELTER PAD, PER COS STD DETAIL 2263 OR 2264.
9. NEW CONCRETE D/W TO BE POURED WITH BUS BAY PAVEMENT.
10. CURB & GUTTER TO BUS BAY PAVEMENT TRANSITION.



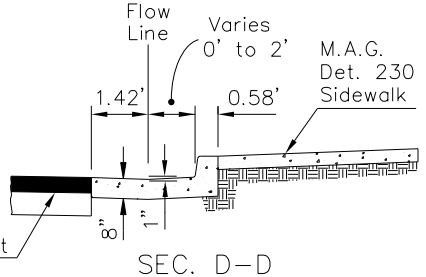
SEC. C-C



SEC. B-B



SEC. A-A

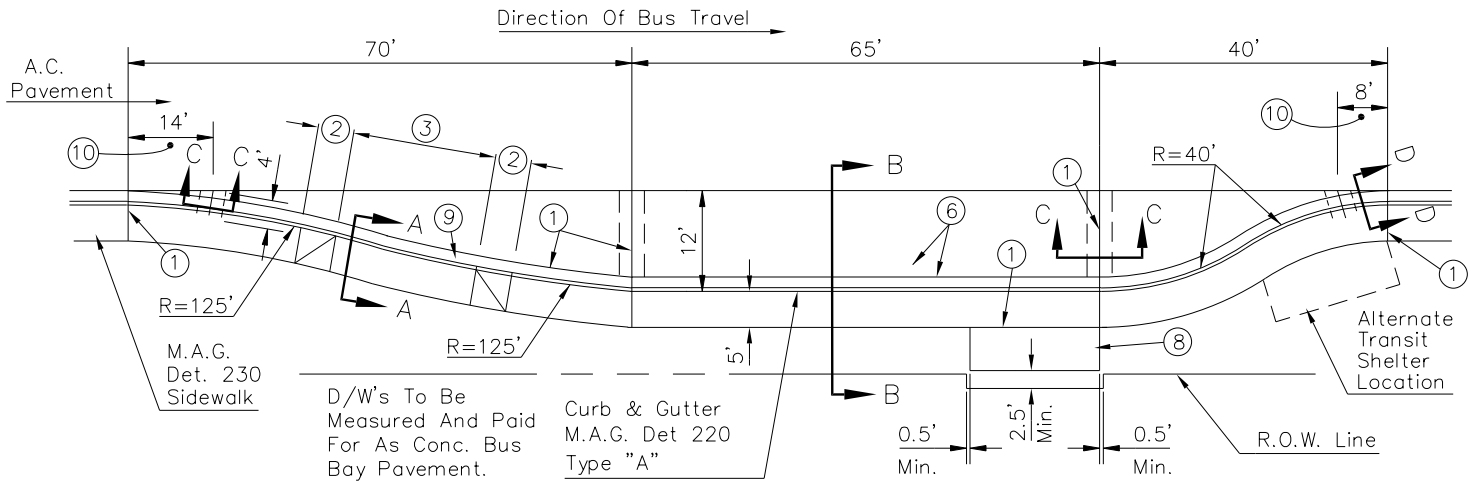


SEC. D-D

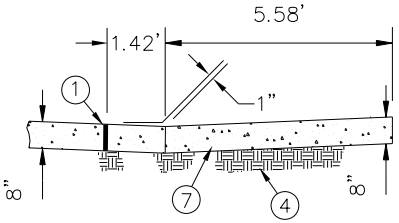
REVISED 5/23/15

DETAIL NO. 2266-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CLOSED END BUS BAY - TYPE"A"	DETAIL NO. 2266-1

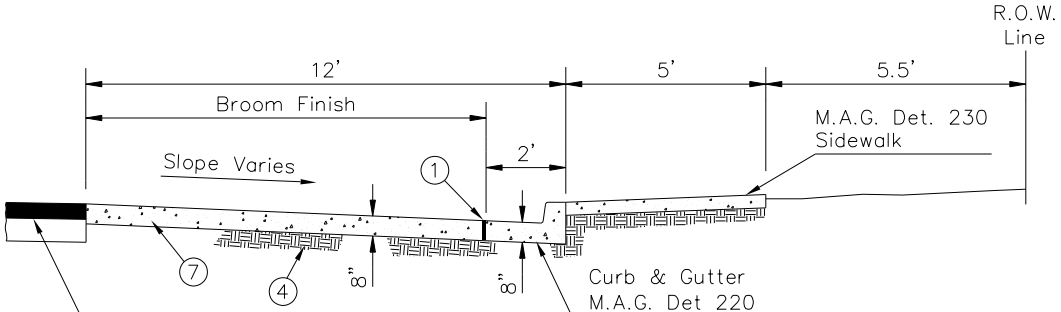
REVISED 5/23/15



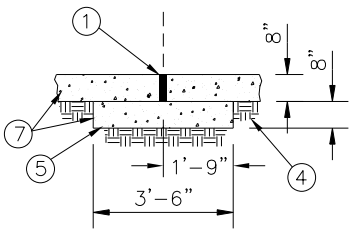
PLAN VIEW



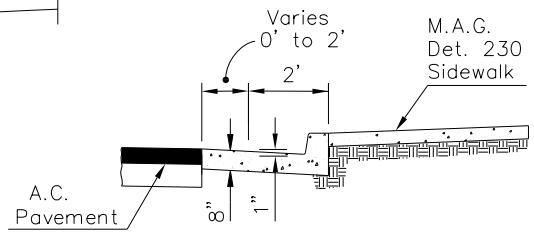
SEC. A–A



SEC. B–B



SEC. C–C

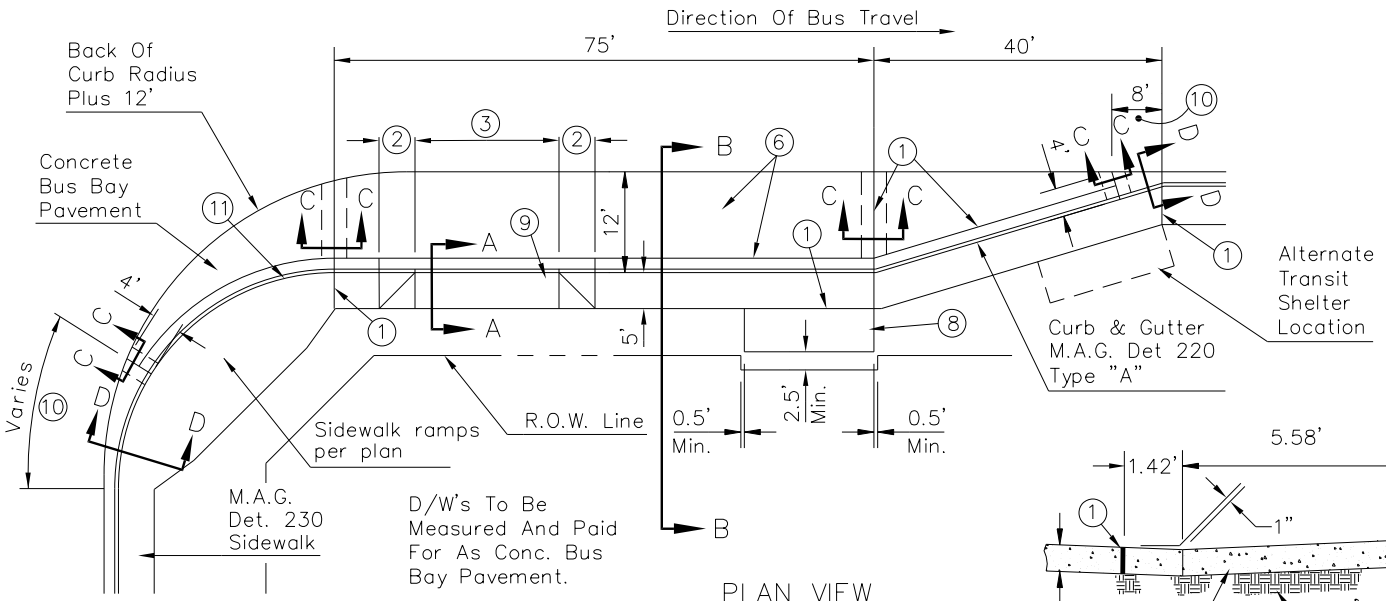


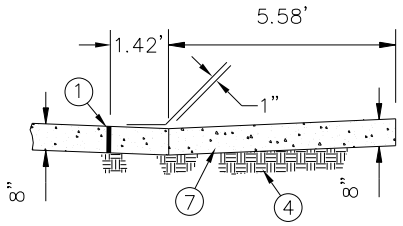
SEC. D–D

1. 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D–1751 PER MAG SECTION 729.
2. TRANSITION CURB FACE FROM 6" TO 0" HEIGHT IN 5'
3. D/W WIDTHS & LOCATIONS VARY, SEE PLANS. MAINTAIN 10' MIN. CLEARANCE BETWEEN DRIVEWAYS AND SHELTER PAD. WHEN DRIVE–WAY WIDTH EXCEEDS 22', PROVIDE A CONTRACTION JOINT ON D/W ℄
4. SUBGRADE PREPARATION PER MAG SECTION 301.
5. CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT.
6. CONTRACTION JOINTS IN THE BUS BAY PAVEMENT SHALL MATCH THOSE IN THE CURB.
7. CONCRETE SHALL BE CLASS "A" PER MAG SECTION 725
8. TRANSIT SHELTER PAD, PER COS STD DETAIL 2263 OR 2264.
9. NEW CONCRETE D/W TO BE POURED WITH BUS BAY PAVEMENT.
10. CURB & GUTTER TO BUS BAY PAVEMENT TRANSITION.

DETAIL NO. 2266-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CLOSED END BUS BAY - TYPE "B"	DETAIL NO. 2266-2

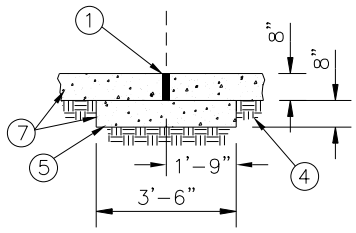
REVISED 5/23/15



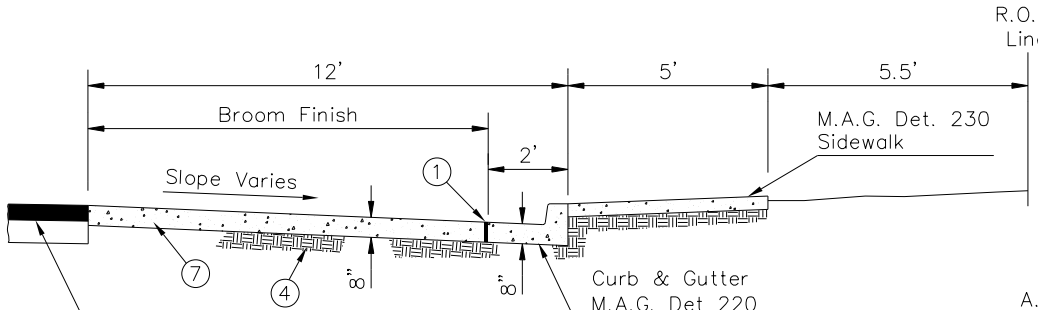


SEC. A–A

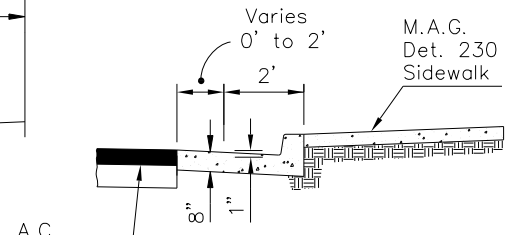
1. 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D–1751 PER MAG SECTION 729.
2. TRANSITION CURB FACE FROM 6" TO 0" HEIGHT IN 5'
3. D/W WIDTHS & LOCATIONS VARY, SEE PLANS. MAINTAIN 10' MIN. CLEARANCE BETWEEN DRIVEWAYS AND SHELTER PAD. WHEN DRIVE–WAY WIDTH EXCEEDS 22', PROVIDE A CONTRACTION JOINT ON D/W ℄.
4. SUBGRADE PREPARATION PER MAG SECTION 301.
5. CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT.
6. CONTRACTION JOINTS IN THE BUS BAY PAVEMENT SHALL MATCH THOSE IN THE CURB.
7. CONCRETE SHALL BE CLASS "A" PER MAG SECTION 725
8. TRANSIT SHELTER PAD, PER COS STD DETAIL 2263 OR 2264.
9. NEW CONCRETE D/W TO BE POURED WITH BUS BAY PAVEMENT.
10. CURB & GUTTER TO BUS BAY PAVEMENT TRANSITION.
11. CURB RADIUS AS SHOWN ON THE PLANS



SEC. C–C



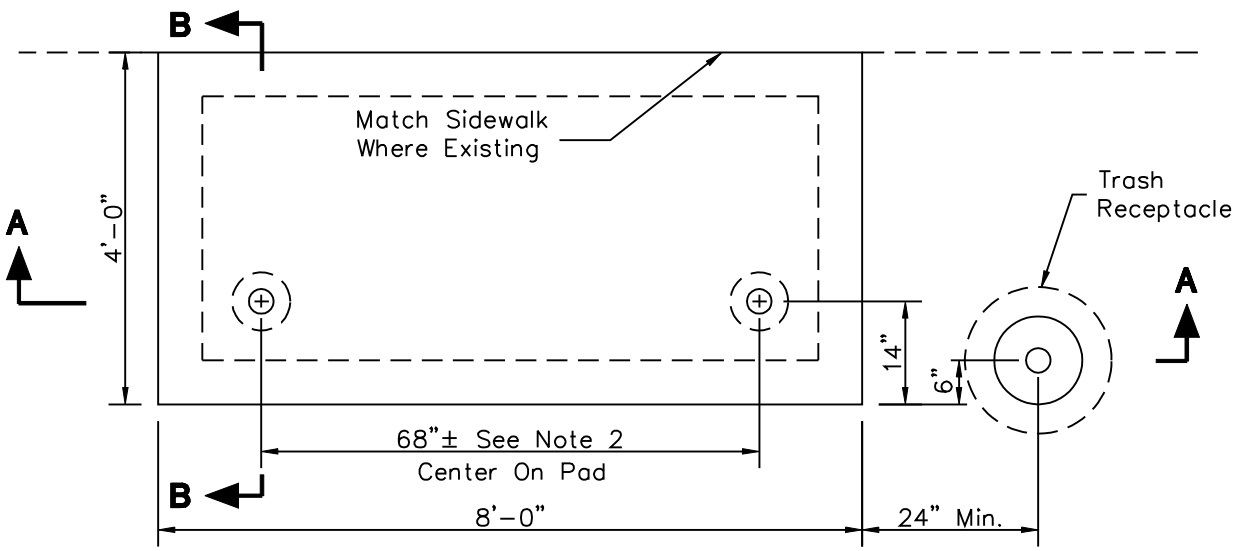
SEC. B–B



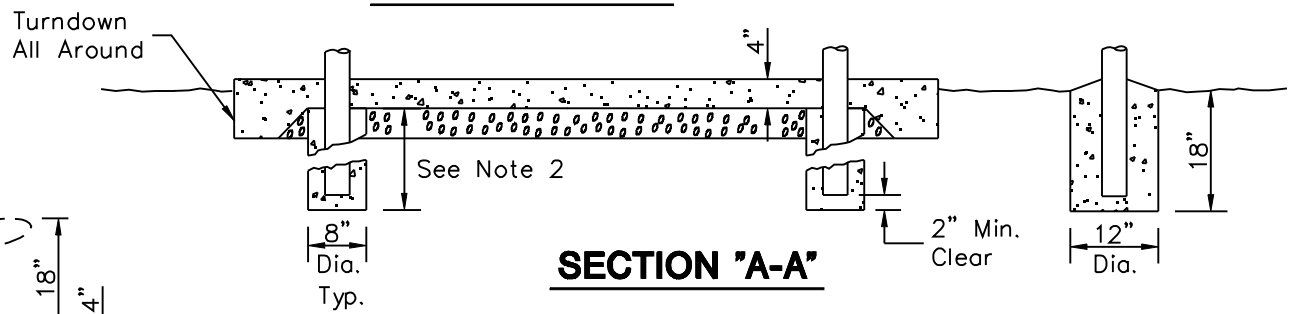
SEC. D–D

DETAIL NO. 2267	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FAR - SIDE BUS BAY	DETAIL NO. 2267

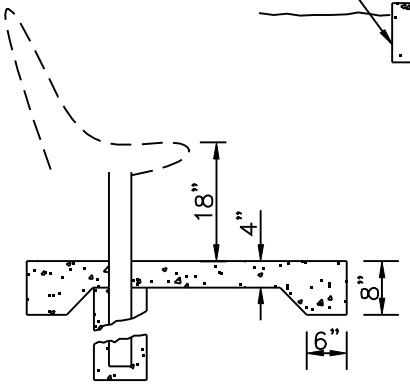
REVISED 7/1/97



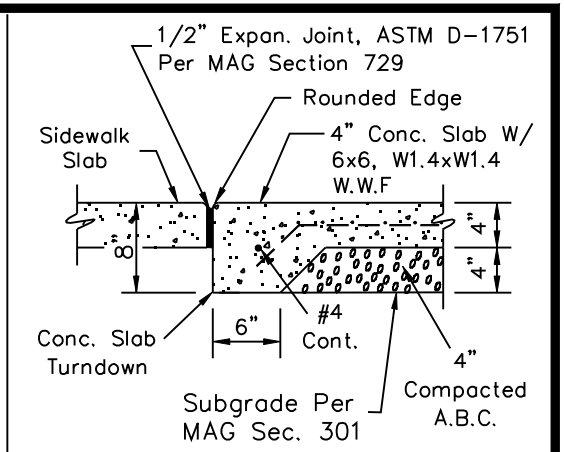
BASE SLAB PLAN



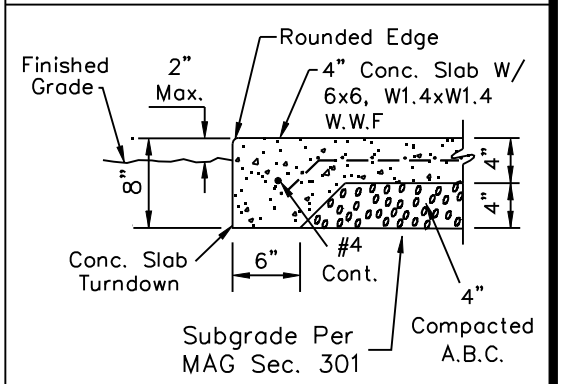
SECTION "A-A"



SECTION "B-B"



SLAB EDGE AT SIDEWALK



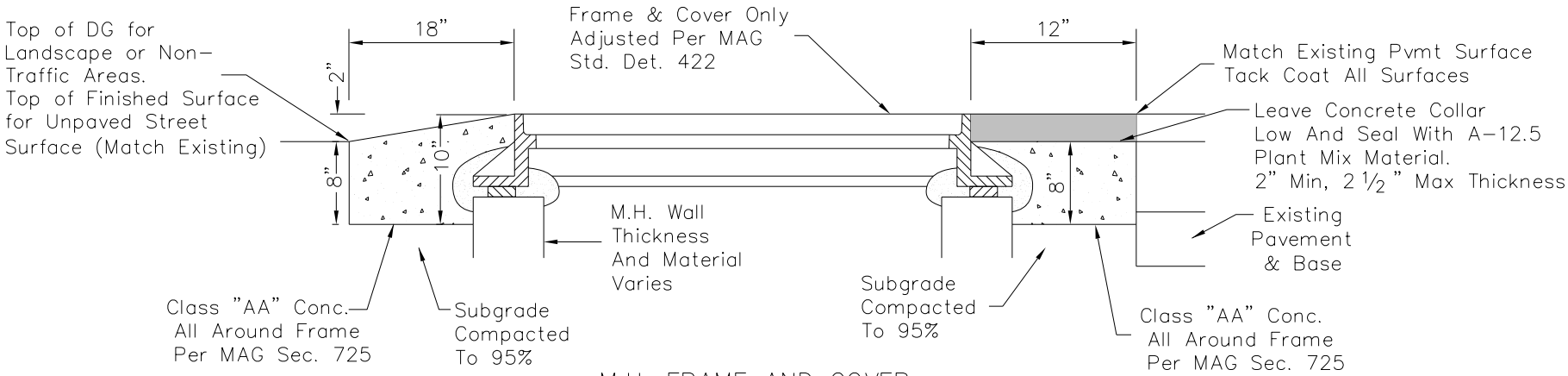
SLAB EDGE AT GRADE

NOTES:

1. Concrete shall be Class "A" per MAG Section 725. Slab surface shall be trowel finish with salt pitted appearance and random sweat. Use integral color when specified on the plans.
2. Dimensions may vary with bench style – Verify and adjust to provide clearance and bench height shown.

DETAIL NO. 2268	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BASE SLAB AND FOUNDATIONS FOR BUS STOP BENCH AND RECEPTACLES	DETAIL NO. 2268

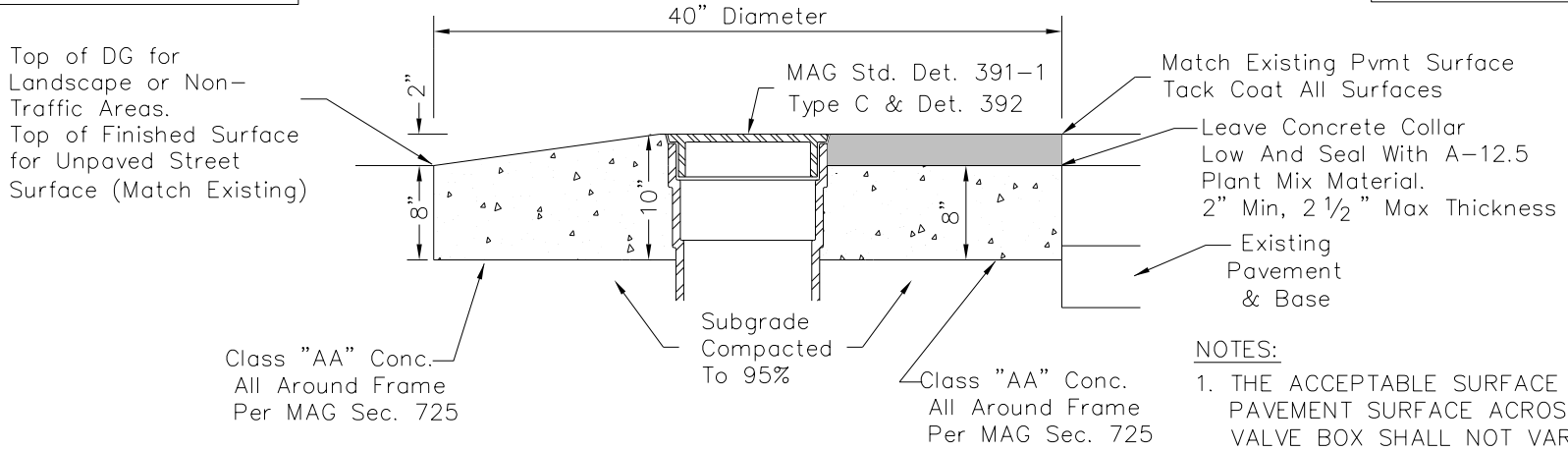
REVISED 5/27/15



M.H. FRAME AND COVER

UNPAVED LOCATIONS

PAVED LOCATIONS



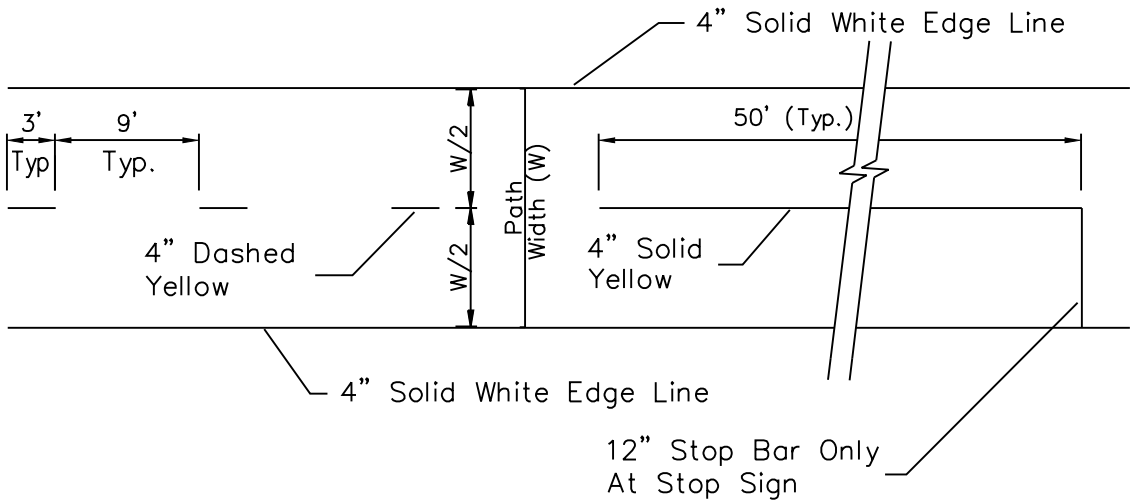
VALVE BOX FRAME AND COVER

NOTES:

1. THE ACCEPTABLE SURFACE PROFILE FROM THE PAVEMENT SURFACE ACROSS THE MANHOLE OR VALVE BOX SHALL NOT VARY MORE THAN 1/4 INCH FROM THE LOWER EDGE OF A 12 FOOT STRAIGHTEDGE WHEN THE STRAIGHTEDGE IS PLACED PARALLEL AND PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY.

DETAIL NO. 2270	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FRAME & COVER GRADE ADJUSTMENT	DETAIL NO. 2270

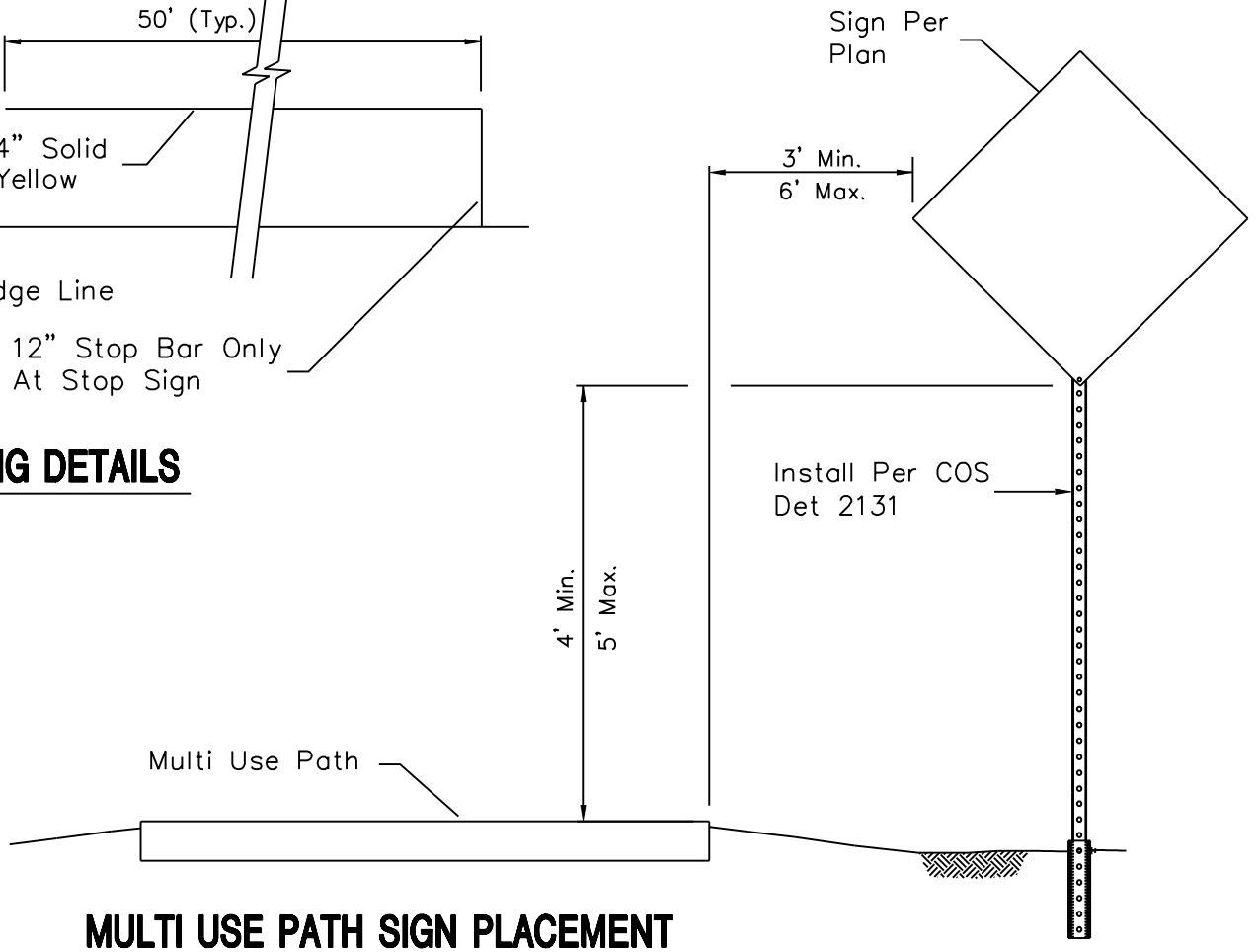
REVISED 3/10/09



MULTI USE PATH STRIPING DETAILS

NOTE:

Striping shall be reflectorized paint with glass beads per ADOT Standard Specifications Section 708.



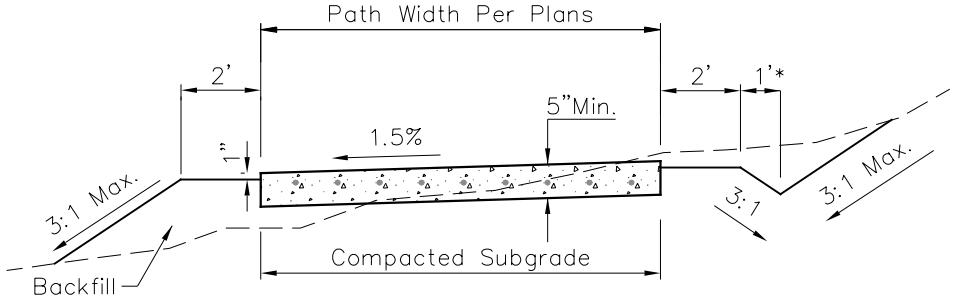
MULTI USE PATH SIGN PLACEMENT

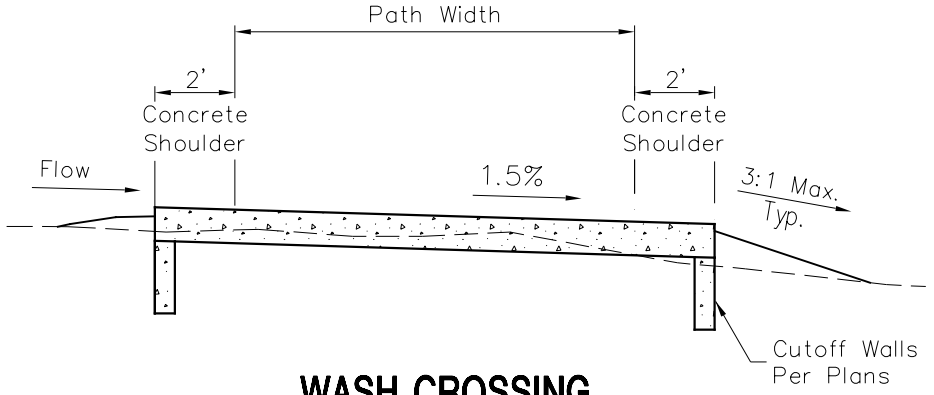
DETAIL NO. 2282	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MULTI USE PATH STRIPING AND SIGNING	DETAIL NO. 2282

NOTES

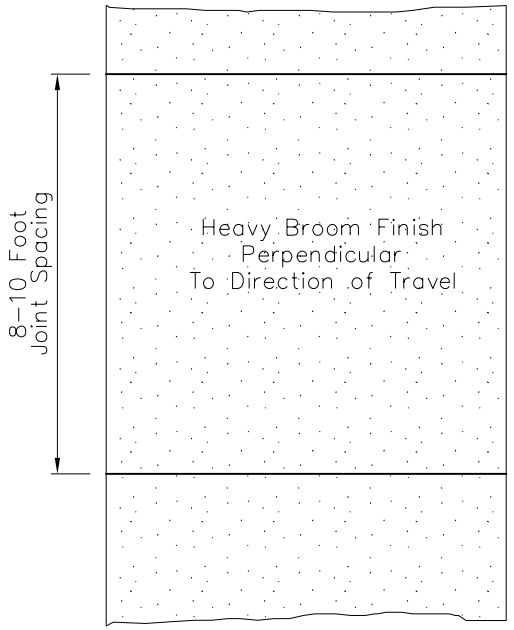
1. Path construction per MAG Sect. 340 and COS Supplemental Specs. to MAG.
2. Expansion Joint per MAG Dtl. 230 with a maximum spacing of 50'.
3. Contraction joint shall be saw cut to 1/3 of the slab depth and conform to MAG Sect. 324.
4. Path shall be a minimum 10-foot width unless otherwise approved by the City.

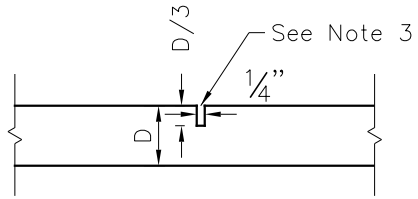
* Each project shall evaluate the need for drainage swale.





WASH CROSSING





CONTRACTION JOINT

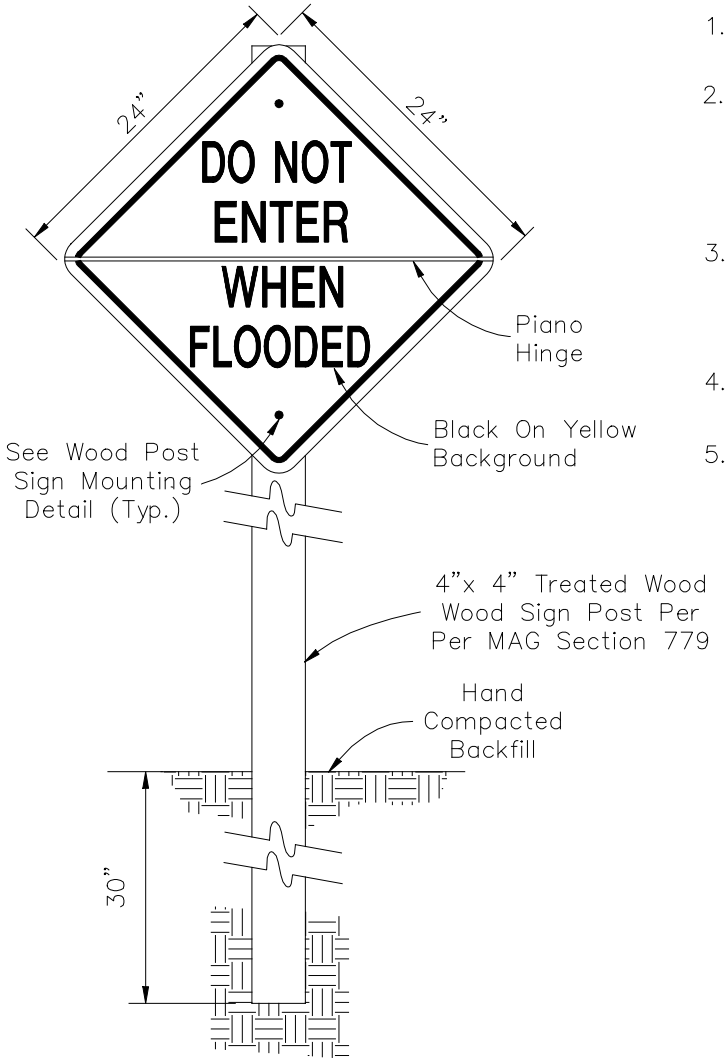
REVISED 01/13

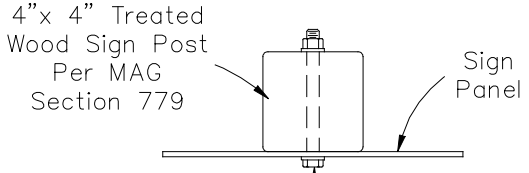
DETAIL NO. 2283	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MULTI USE CONCRETE PATH	DETAIL NO. 2283

REVISED 4/24/07

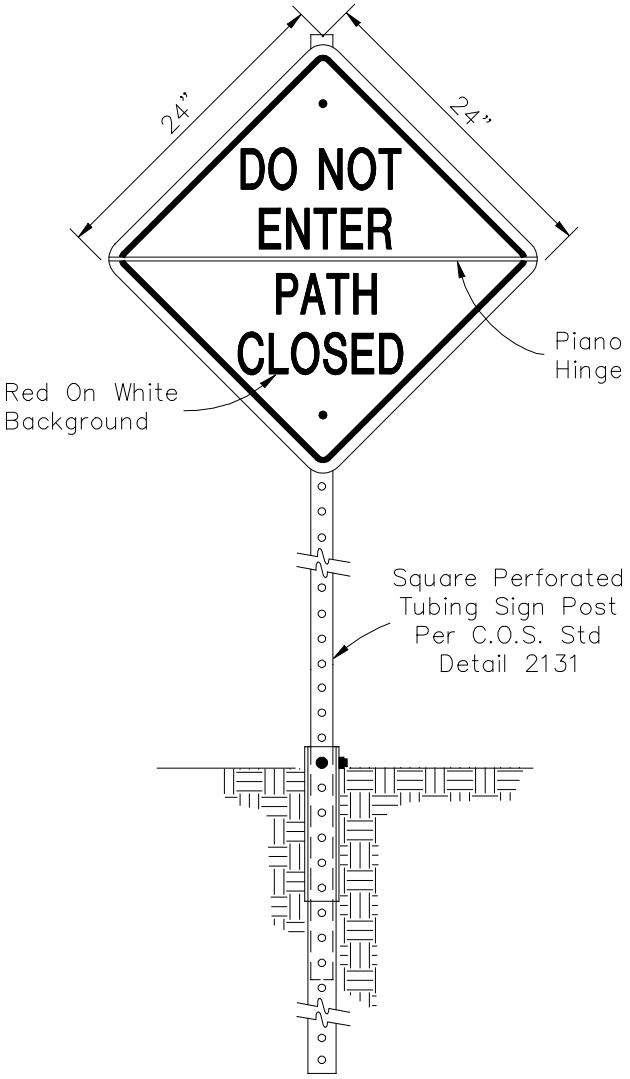
NOTES:

1. Signs shall conform to C.O.S. Supplemental Specifications, Section 402.3.
2. Signs to be mounted on square perforated tubing per C.O.S. Std Det 2131 within C.O.S. Right–of–Way. Treated wood post may be used for trail markers located outside C.O.S. Right–of Way.
3. Background and legends shall be ASTM Type IV reflective sheeting. Black legends shall be opaque (colors as noted) unless otherwise approved by the City of Scottsdale.
4. Sign height and placement shall conform to C.O.S. Std. Det. 2282.
5. For additional information regarding sign fabrication, contact the City of Scottsdale Sign Shop, 480–312–5646.



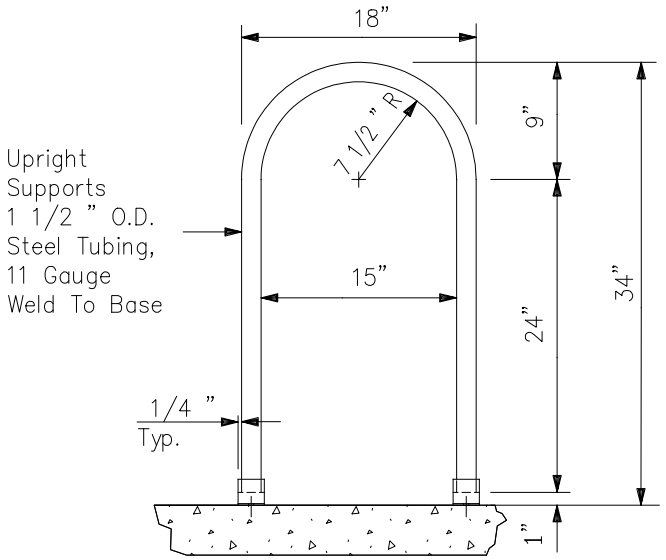


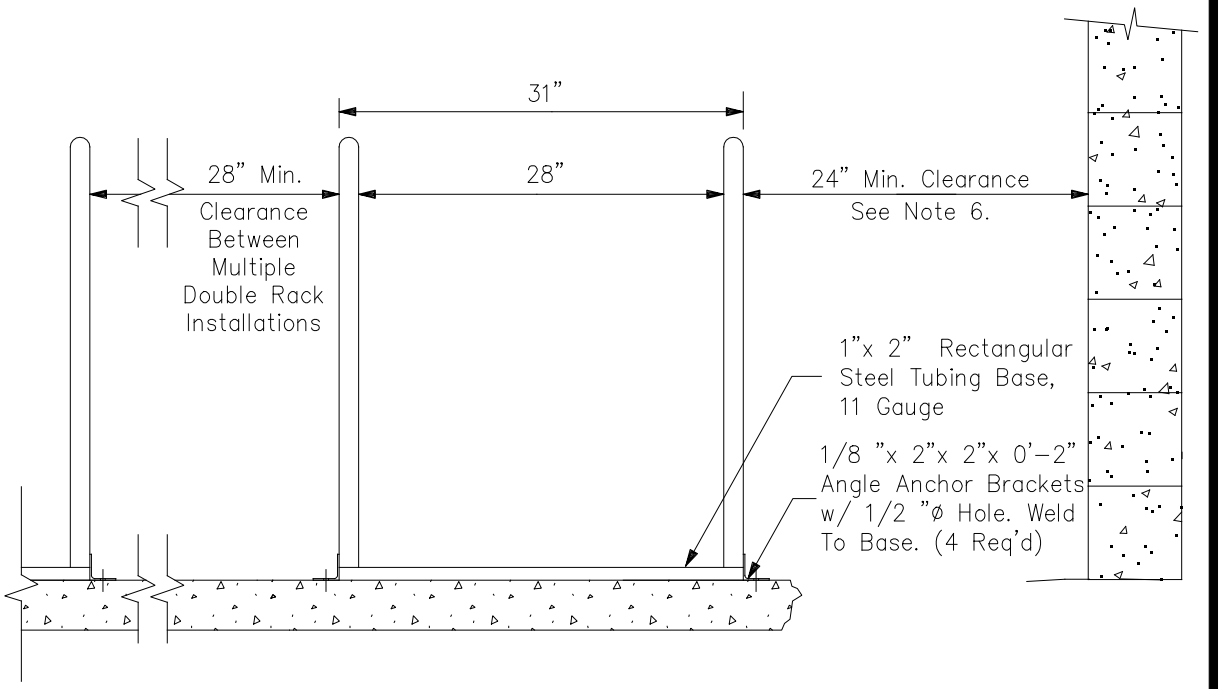
Fasten With (2) 1/2"x 2" Lag Screws With (2) Flat Washers or (2) 1/2"x 4 1/2" Bolts With (4) Flat Washers. Burr Threads And Nuts With Center Punch.



WOOD POST SIGN MOUNTING DETAIL

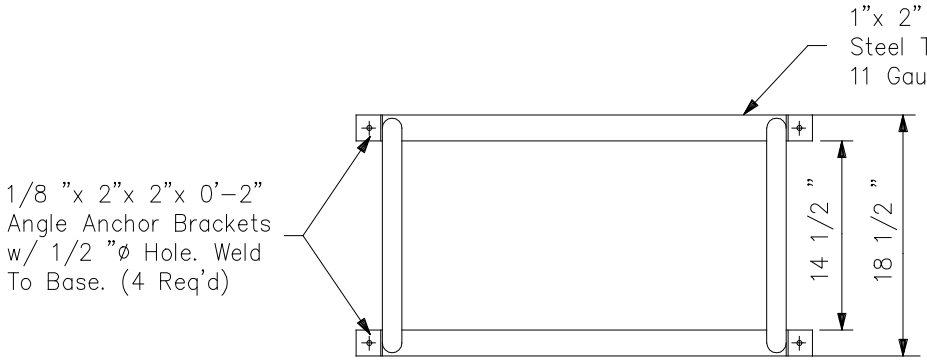
DETAIL NO. 2284	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MULTI-USE PATH WET CROSSING SIGN	DETAIL NO. 2284





NOTES:

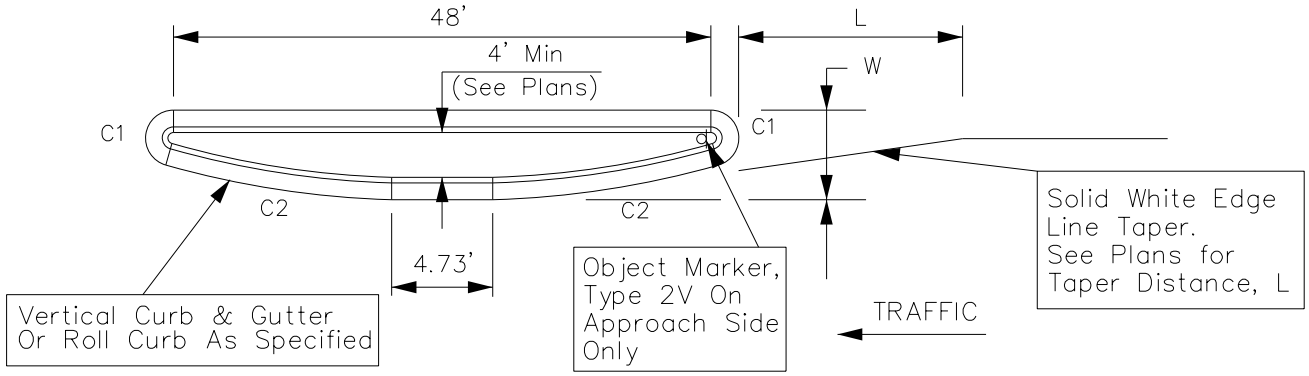
1. Double rack holds 4 bicycles.
2. Finish to be weather resistant, baked-on powder polymer coating.
3. Anchor rack to concrete w/ 3/8"ø x 2 1/2" wedge anchors and tamper resistant or welded nuts, (4 Req'd) or set tubing 12" below grade in 24" deep x 6" wide concrete footing.
4. Concrete base may be covered with turf or decomposed granite.
5. Placement of bicycle rack shall be convenient to main entrance and in a highly visible area.
6. 24" Min. clearance from walls or obstructions including curbs or edge of roadway on both sides and back of rack. Front of rack shall have a 6' min clear area.



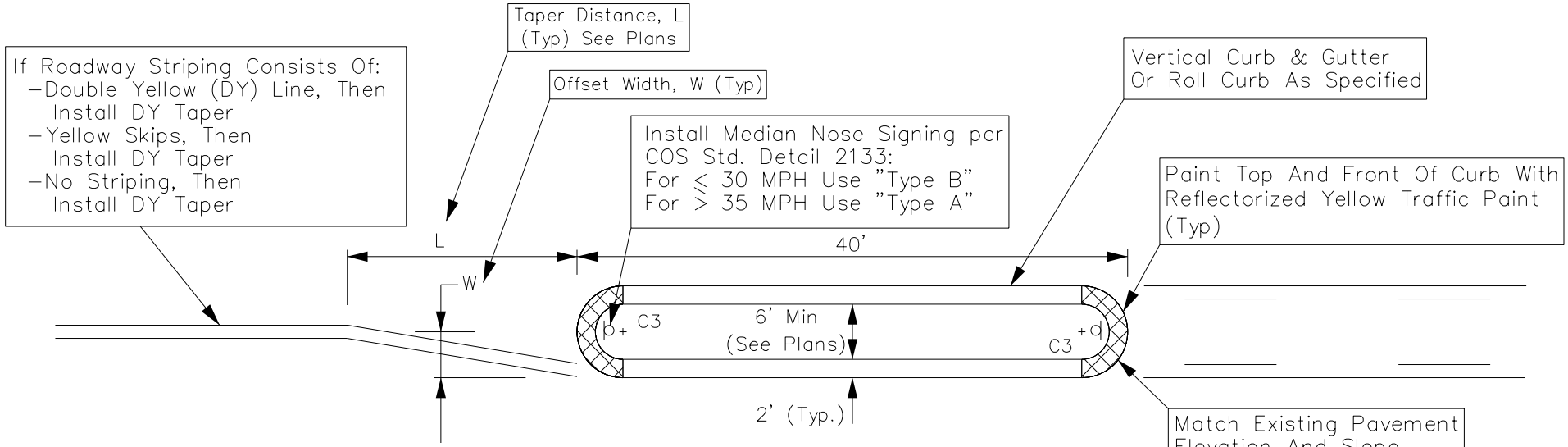
REVISED 5/09/07

DETAIL NO. 2285	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DOUBLE BICYCLE RACK	DETAIL NO. 2285

CURVE DATA – TO BACK OF CURB			
CURVE	RADIUS	LENGTH	DELTA
C1	0.50'	1.43'	164°12'35"
C2	80.00' Max.	22.05'	15°47'25"
C3	3.00' Min.	9.42'	180°00'00"



SIDE ISLAND DETAIL

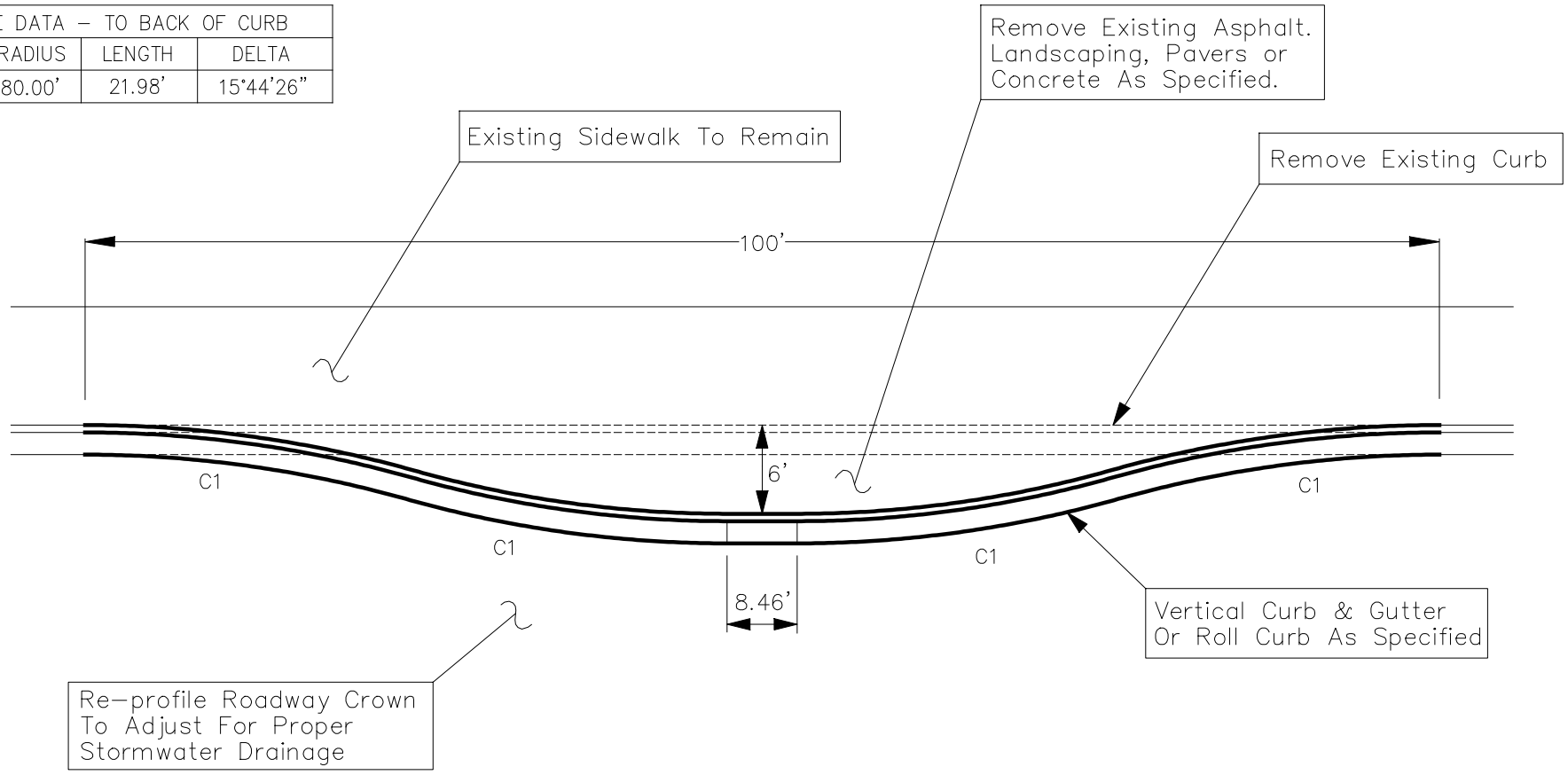


MEDIAN ISLAND DETAIL

REVISED 5/26/15

DETAIL NO. 2290-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MEDIAN ISLAND DETAILS	DETAIL NO. 2290-1

CURVE DATA – TO BACK OF CURB			
CURVE	RADIUS	LENGTH	DELTA
C1	80.00'	21.98'	15°44'26"

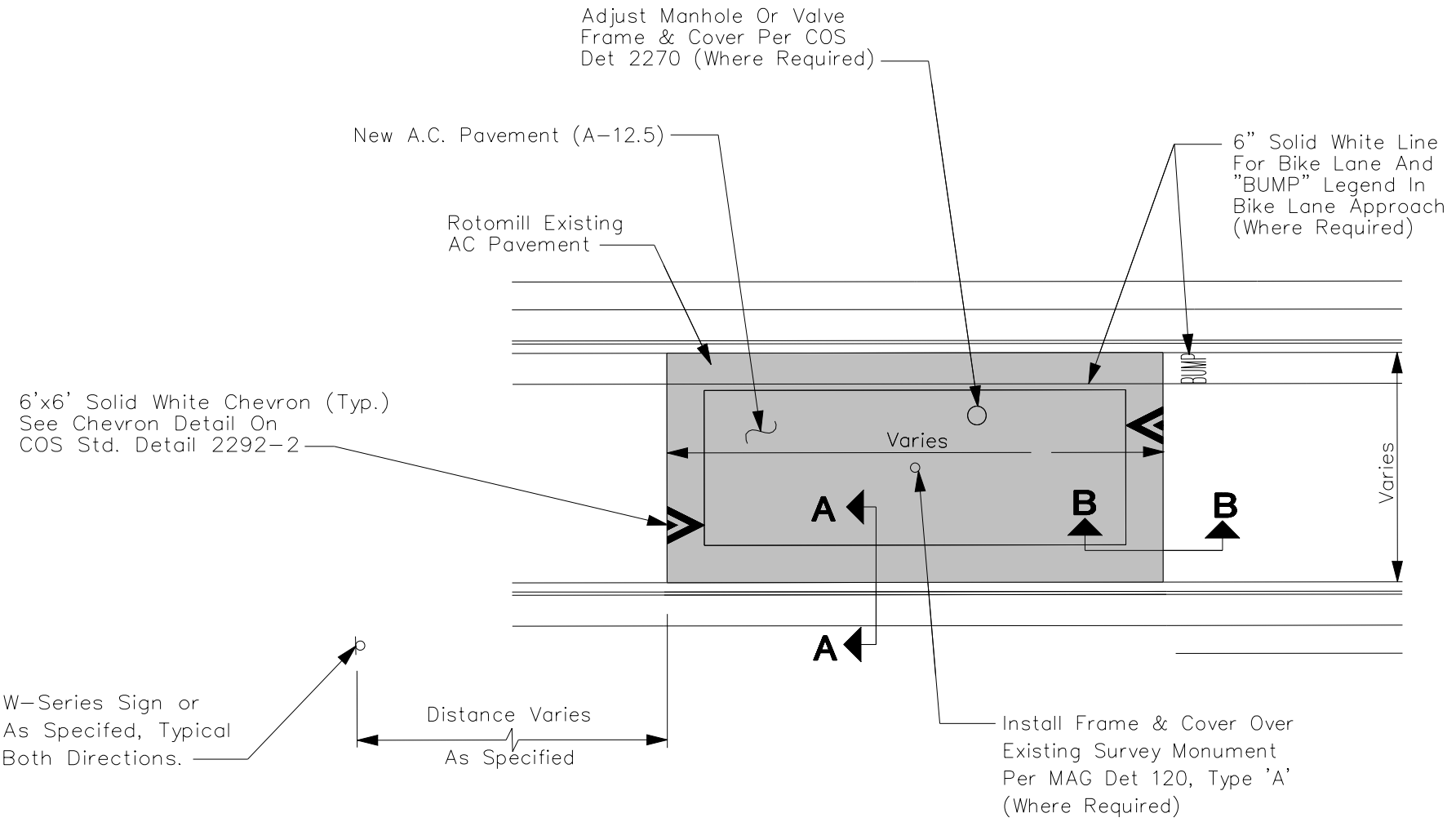


BULB OUT / CHOKER DETAIL

REVISED 05/01/07

DETAIL NO. 2290-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BULB OUT/CHOKER DETAIL	DETAIL NO. 2290-2

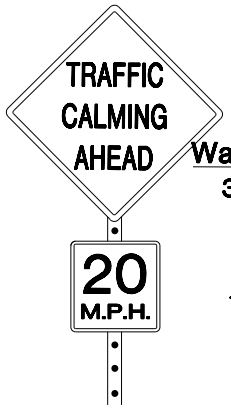
REVISED 12/6/11



NOTE: For Sections A-A And B-B See COS Std. Detail 2292-2.

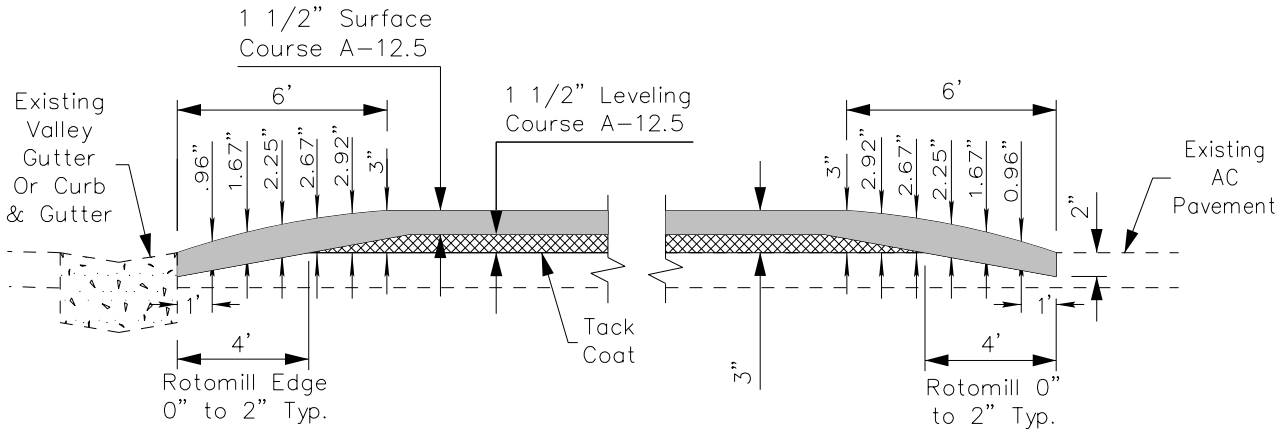
DETAIL NO. 2292-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SPEED TABLE DETAILS	DETAIL NO. 2292-1

REVISED 5/26/15



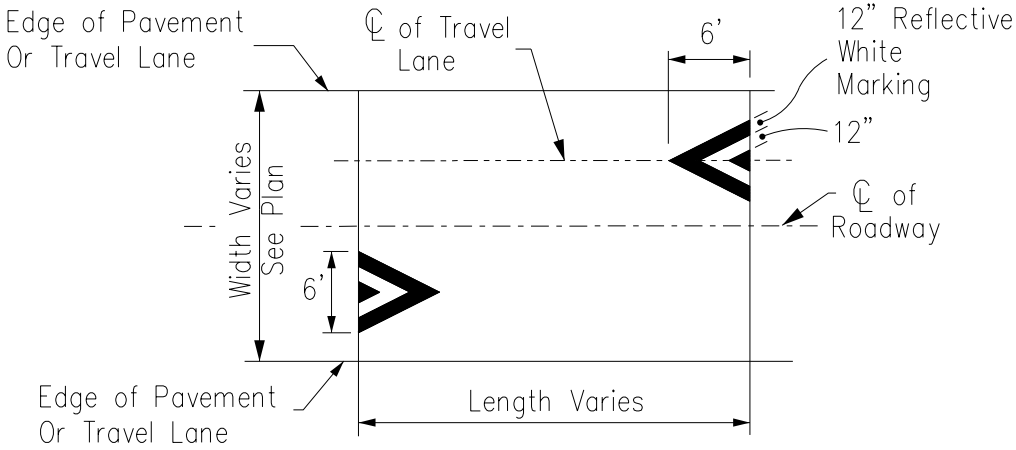
Warning Sign
30" x 30"

W13-1
18" x 18"



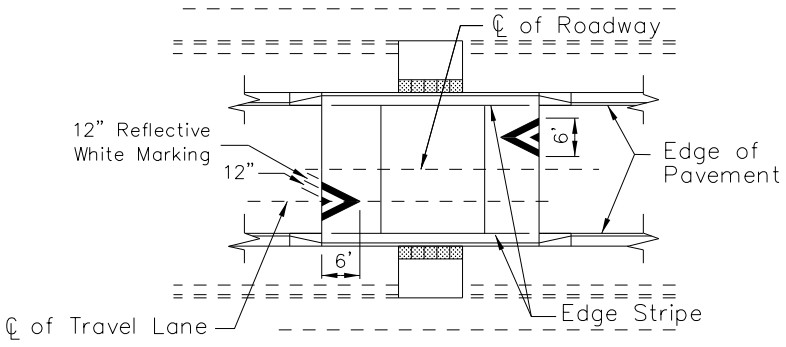
SECTION A-A
MATCH EX. CONCRETE
TYPICAL ALL LOCATIONS

SECTION B-B
MATCH EX. AC PAVEMENT
TYPICAL ALL LOCATIONS

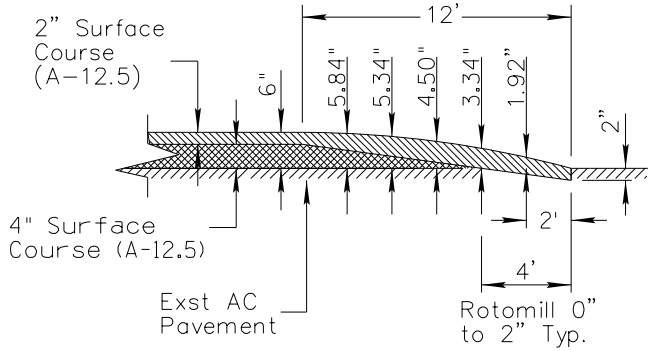


CHEVRON DETAIL

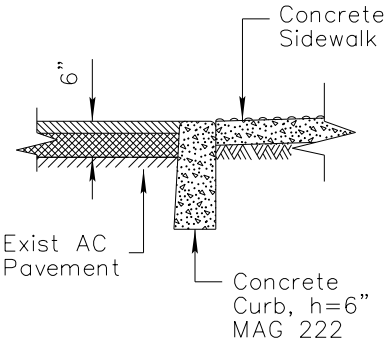
DETAIL NO. 2292-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SPEED TABLE DETAILS	DETAIL NO. 2292-2



Chevron Detail

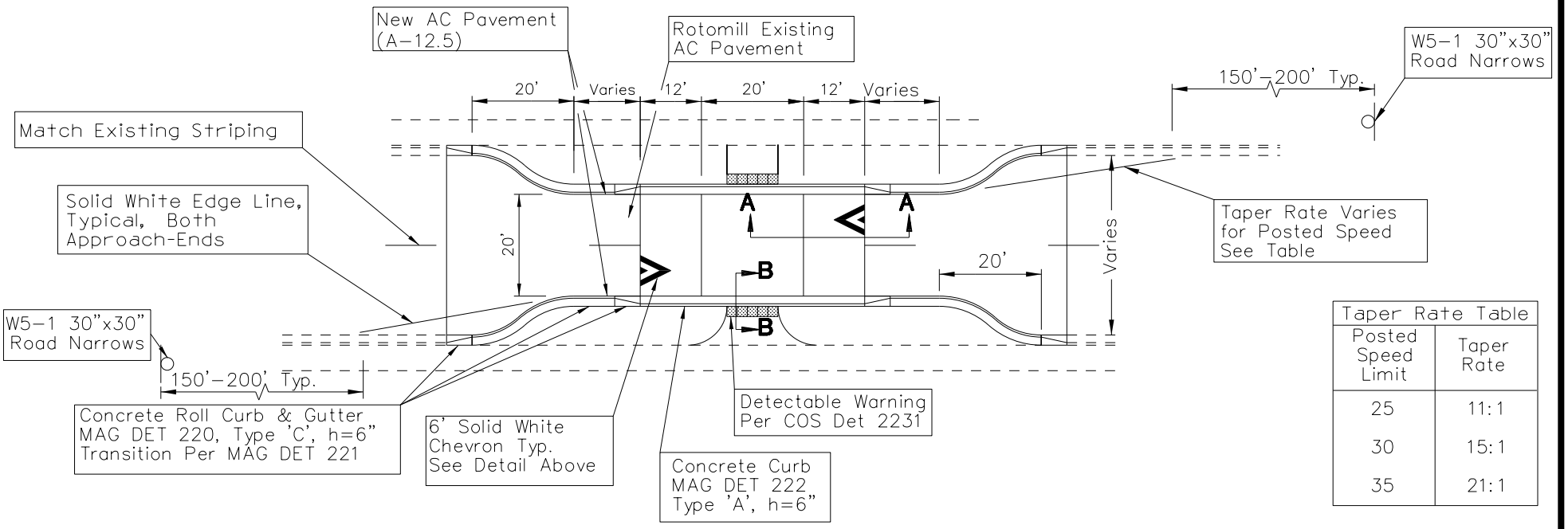


Section A-A



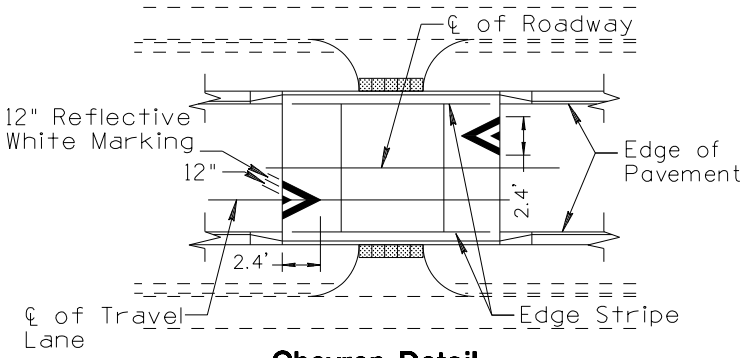
Section B-B

REVISED 5/26/15

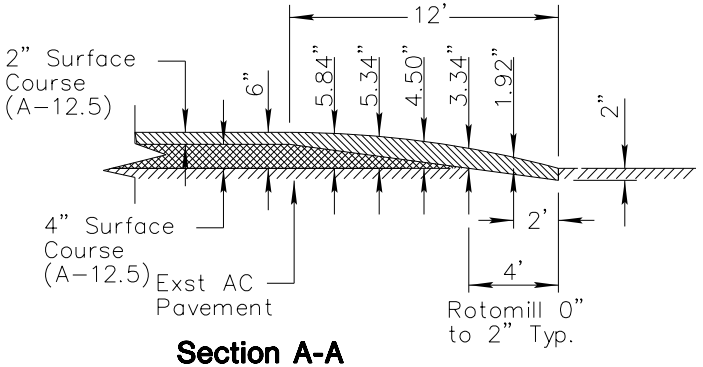


Taper Rate Table	
Posted Speed Limit	Taper Rate
25	11:1
30	15:1
35	21:1

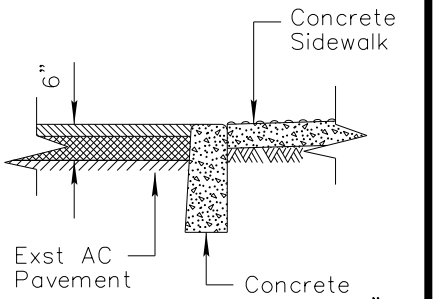
DETAIL NO. 2293	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MID-BLOCK PEDESTRIAN TABLE	DETAIL NO. 2293



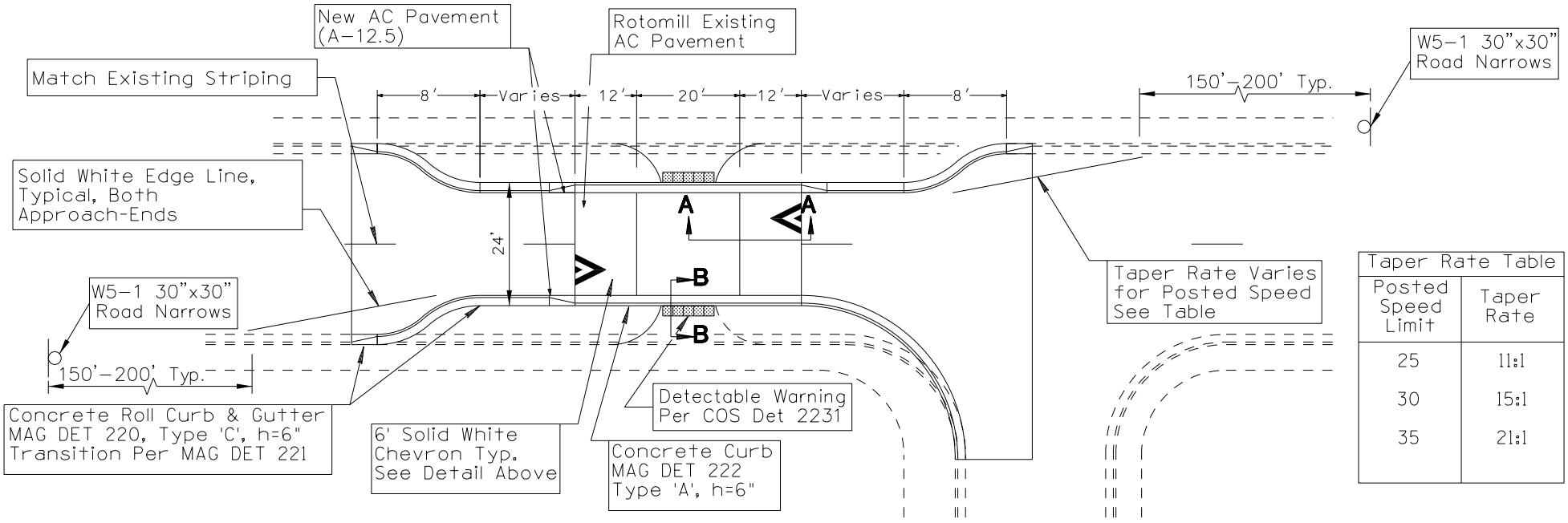
Chevron Detail



Section A-A



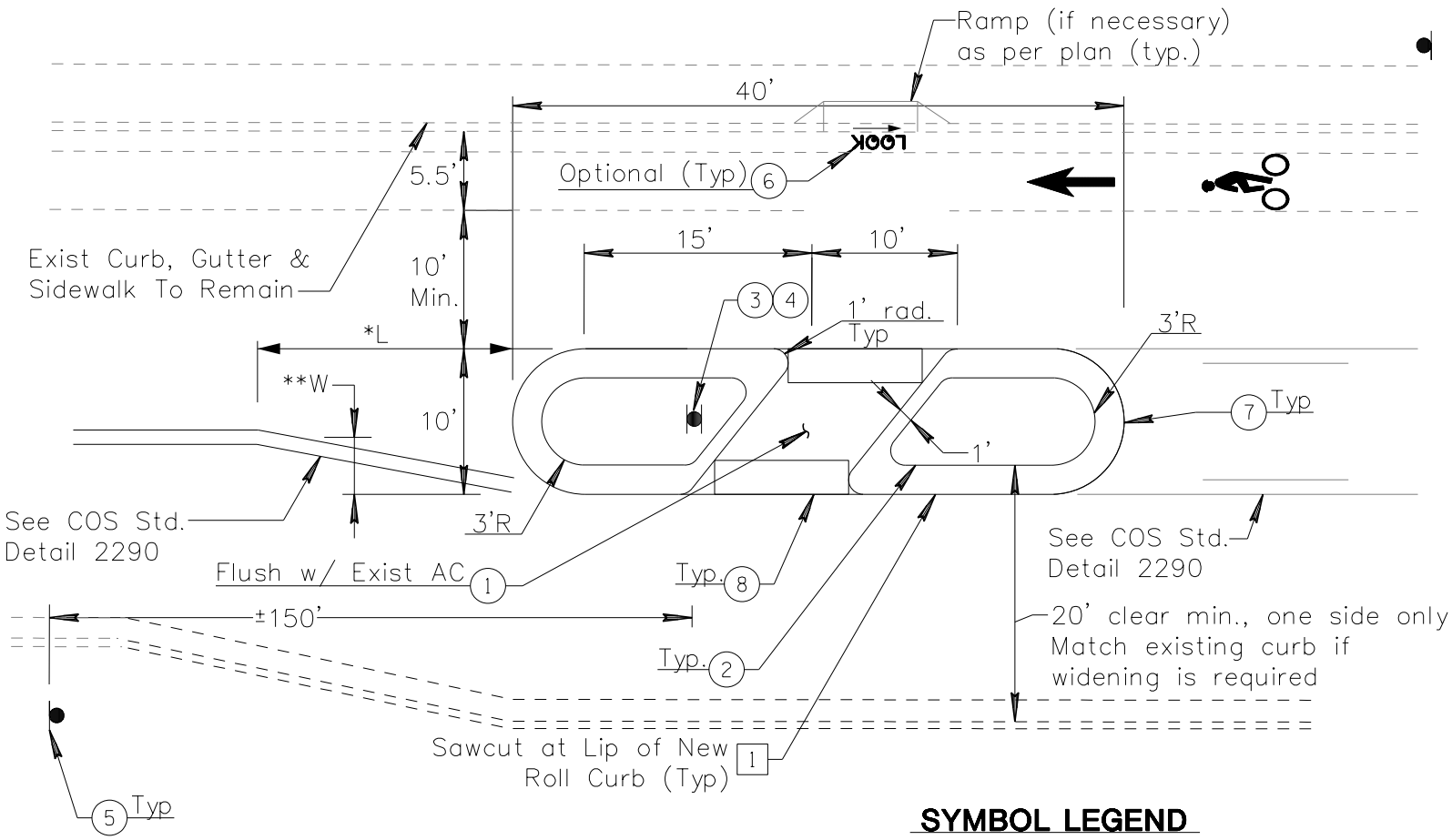
Section B-B

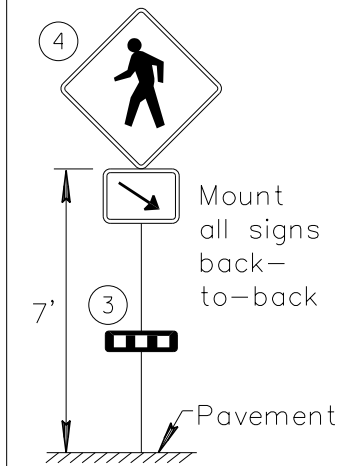


Taper Rate Table	
Posted Speed Limit	Taper Rate
25	11:1
30	15:1
35	21:1

REVISED 5/26/15

DETAIL NO. 2294	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	INTERSECTION PEDESTRIAN TABLE	DETAIL NO. 2294





REVISED 5/26/15

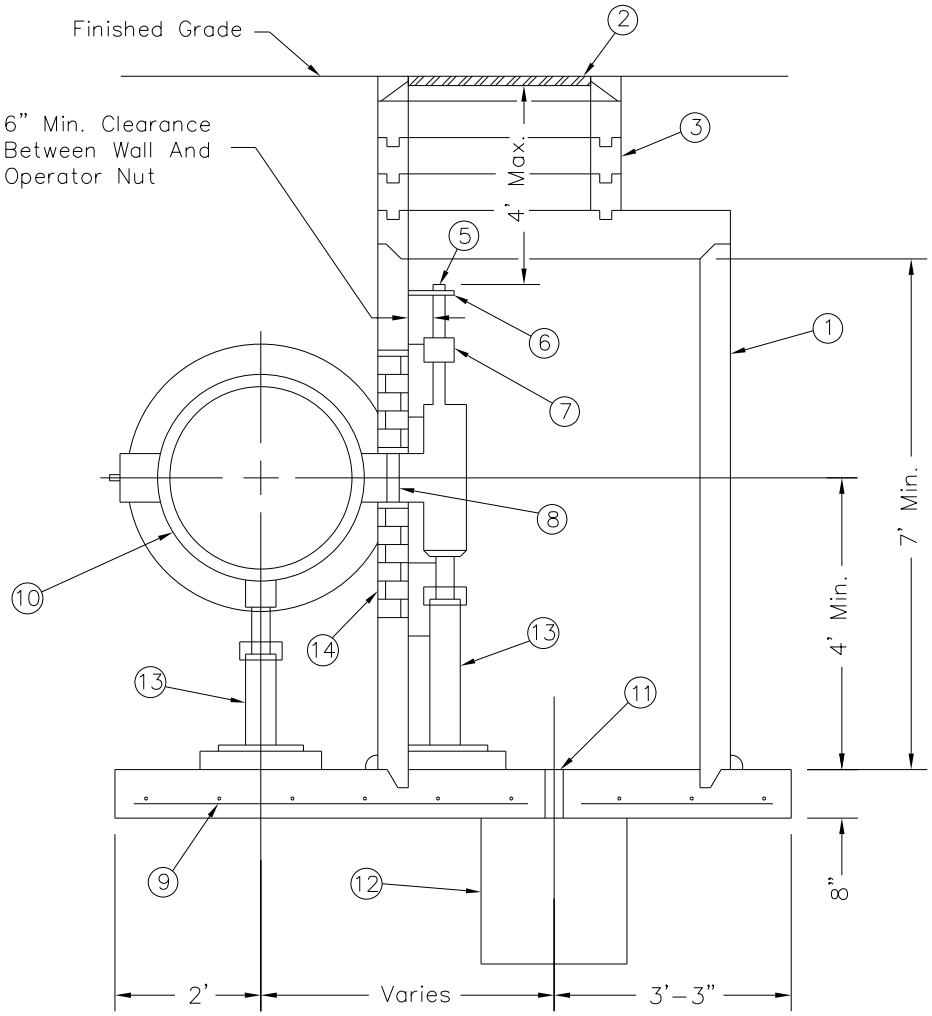
SYMBOL LEGEND

- 1 Sawcut & Remove AC Pavement
- (1) 8" Class "A" Concrete Pvmt per MAG Spec 324 & 725
- (2) Roll Curb per MAG Det 220 Type D
- (3) Install Median Nose Signing Per COS Std. Detail 2133, Type B
- (4) 30" x 30" W11–2 above 24" x 12" W16–7p–R below
- (5) If posted speed ≥ 40 mph, install advance 30" x 30" W11–2
- (6) 9" text w/arrow (optional)
- (7) Match existing pavement elevation and slope
- (8) Detectable Warning Surface per COS Det. 2231

* L= Taper Distance (See Plans)

**W= Offset Distance

DETAIL NO. 2295	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	PEDESTRIAN REFUGE	DETAIL NO. 2295



SECTION

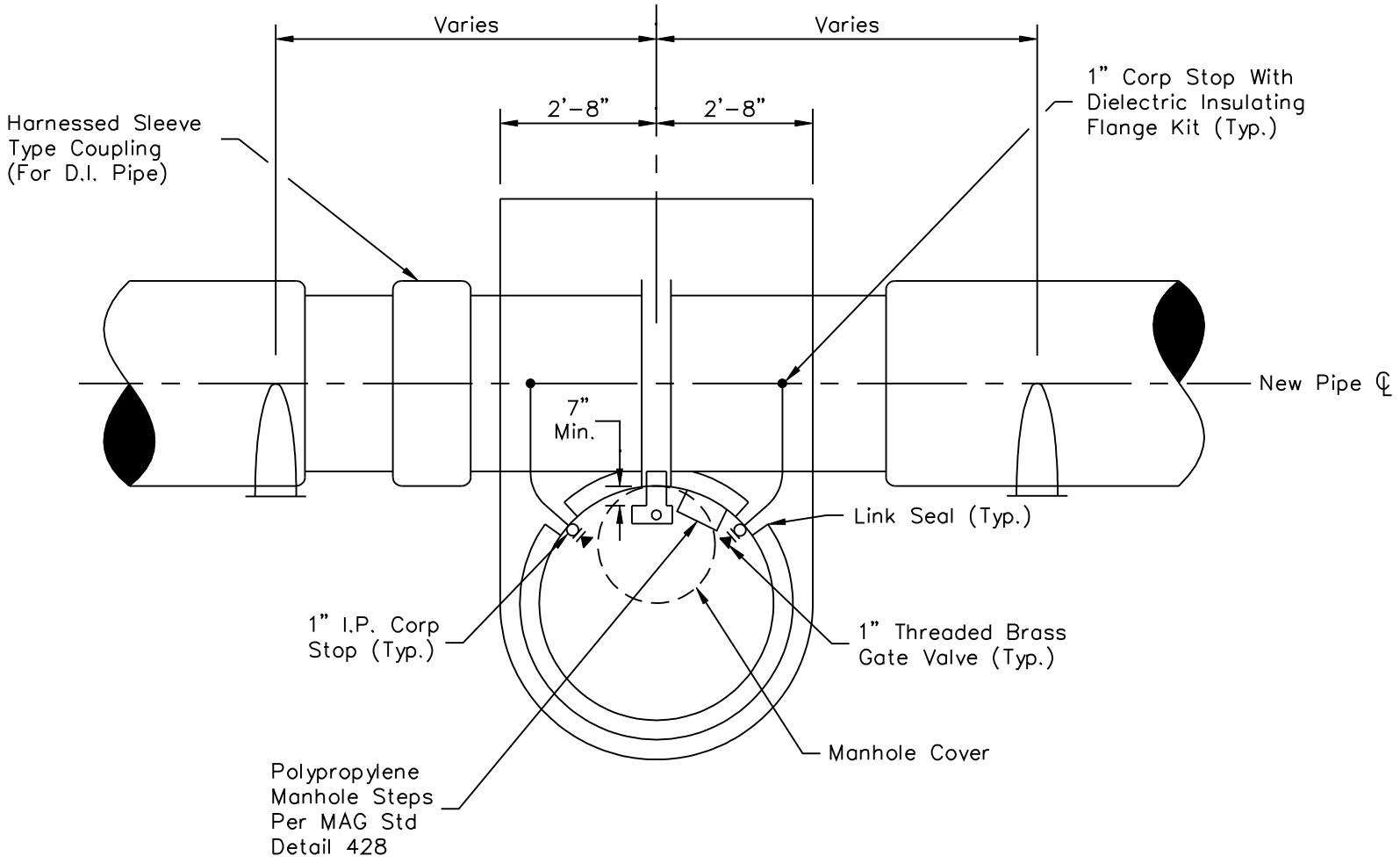
LEGEND

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

REVISED 5/19/15

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



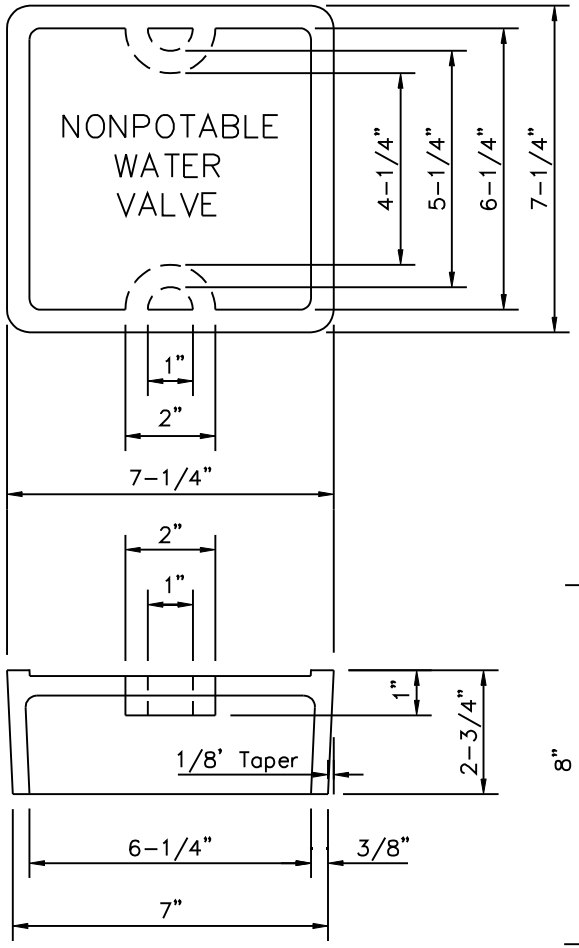
PLAN

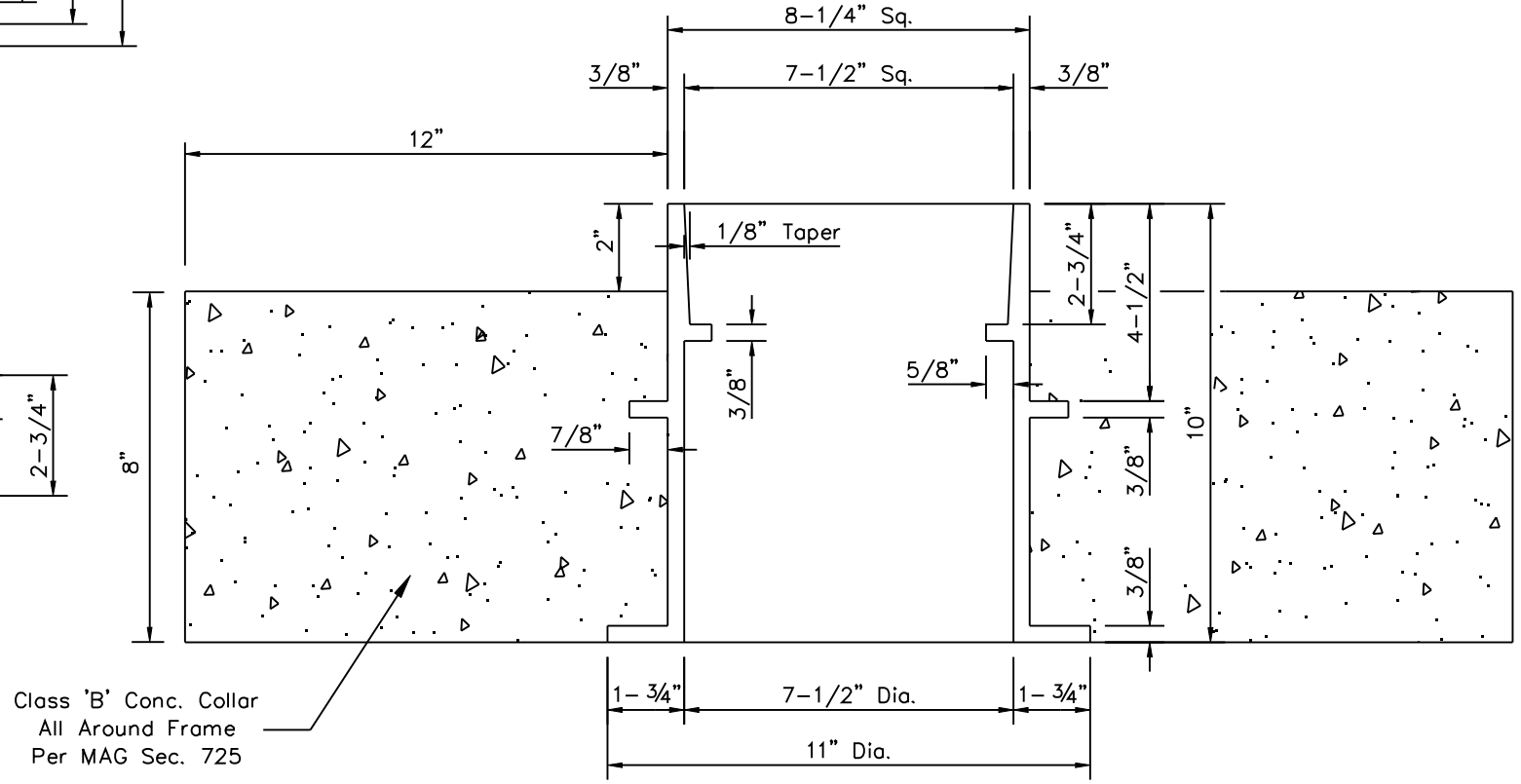
DETAIL NO. 2305-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	BUTTERFLY VALVE OPERATOR MANHOLE	DETAIL NO. 2305-2

REVISED 2/22/99

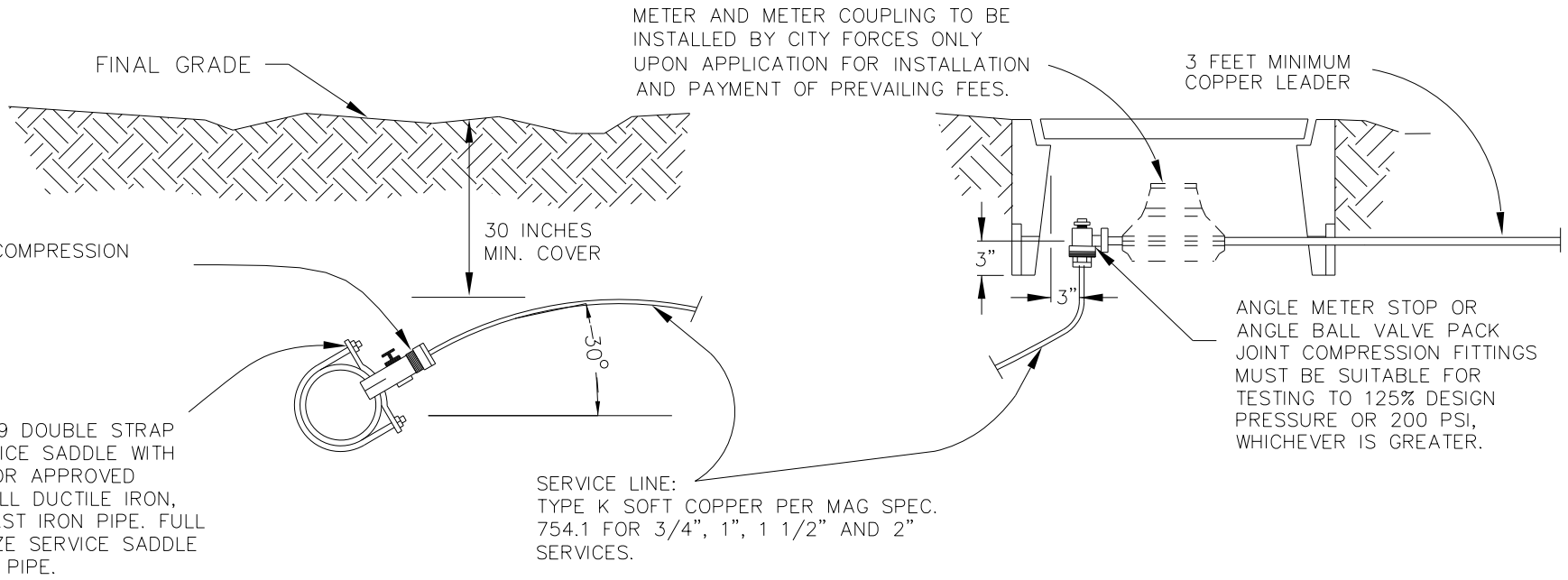
NOTES

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".





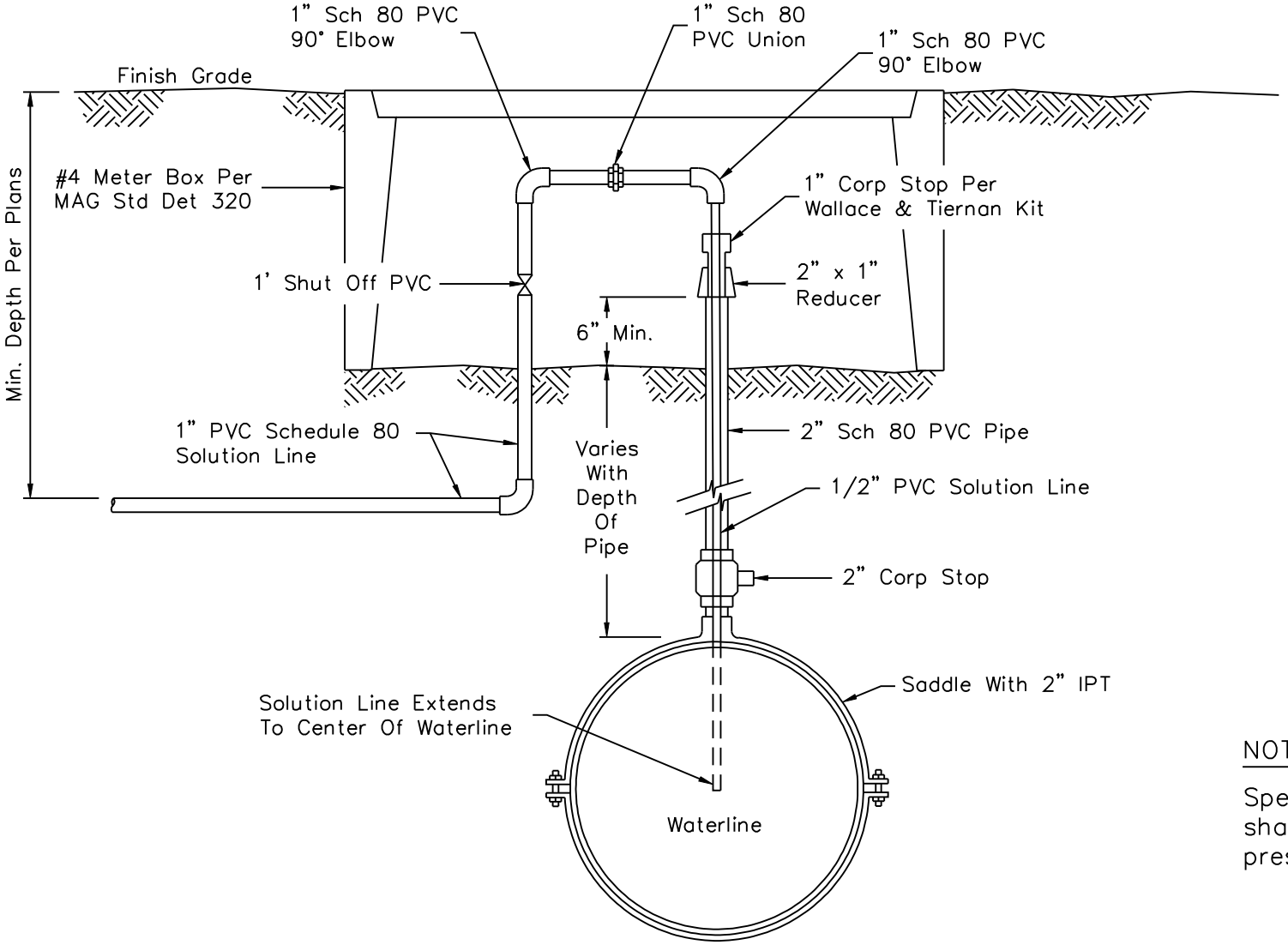
DETAIL NO. 2315	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	NONPOTABLE WATER VALVE BOX & COVER	DETAIL NO. 2315



REVISED 5/19/15

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 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/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

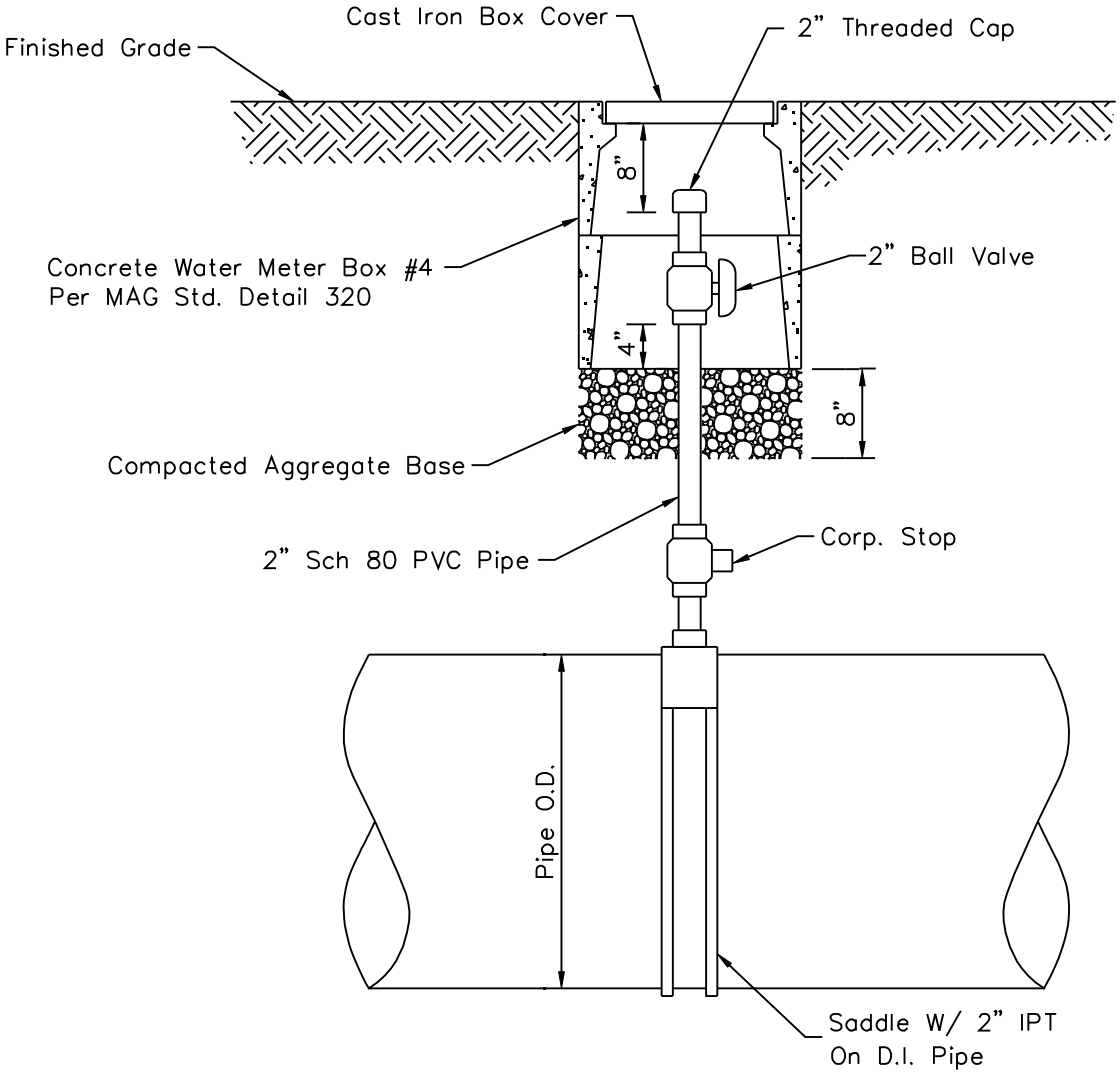


NOTE:

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

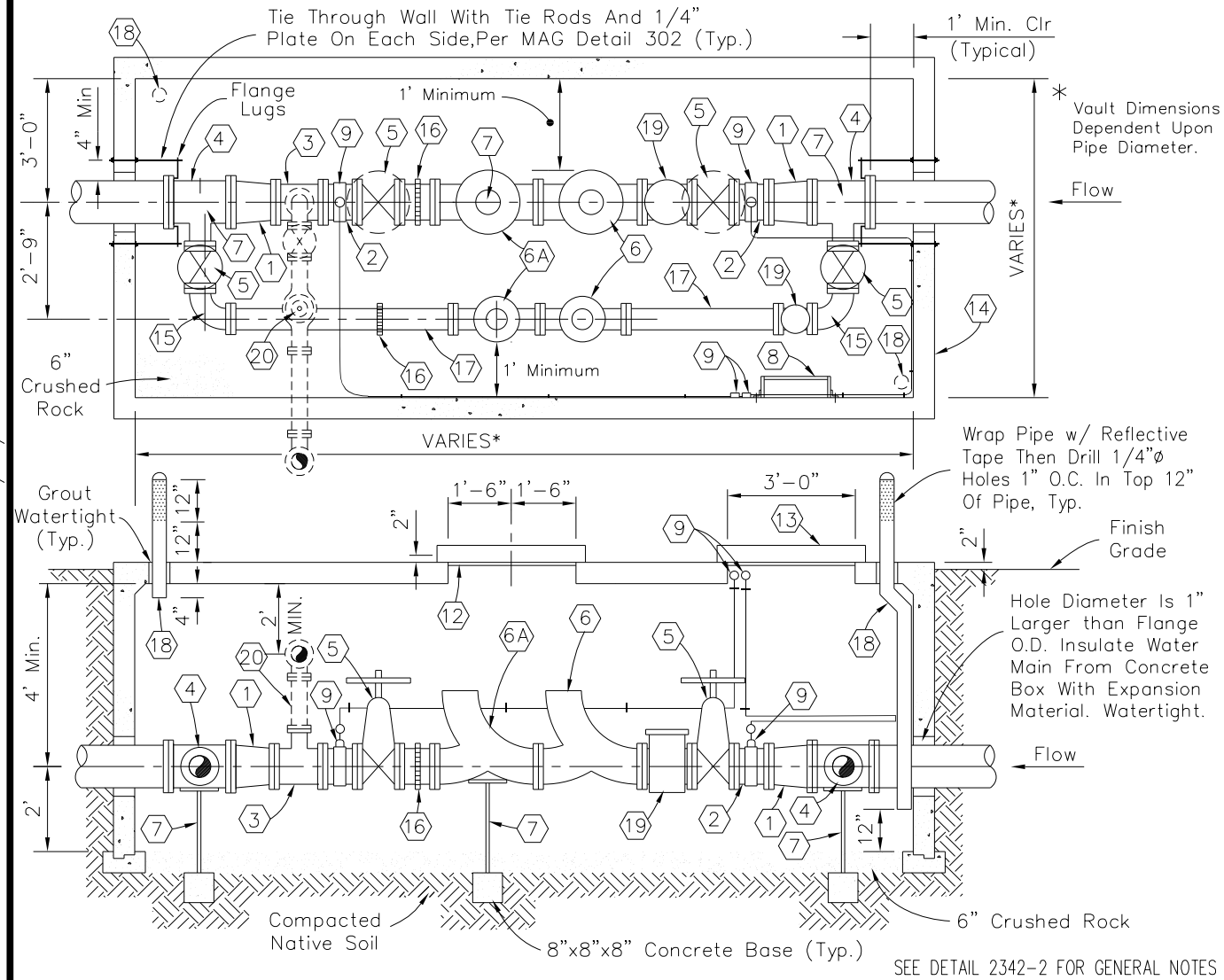
REVISED 3/11/94

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

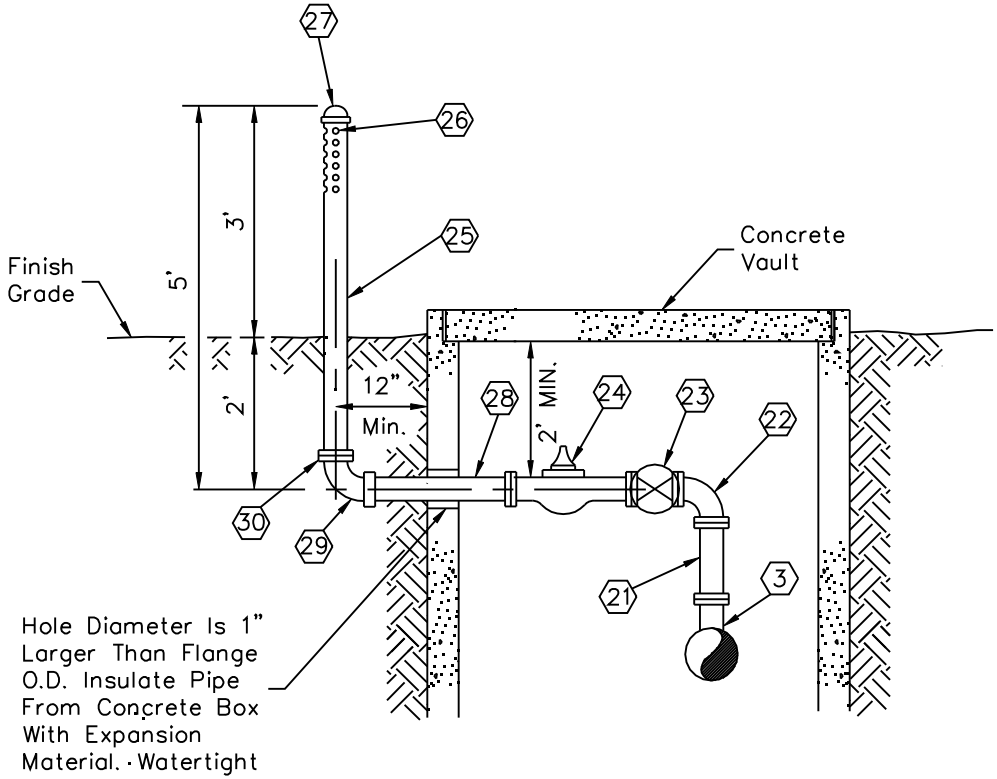
NOTES

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. Not Used.
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 5/19/15

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

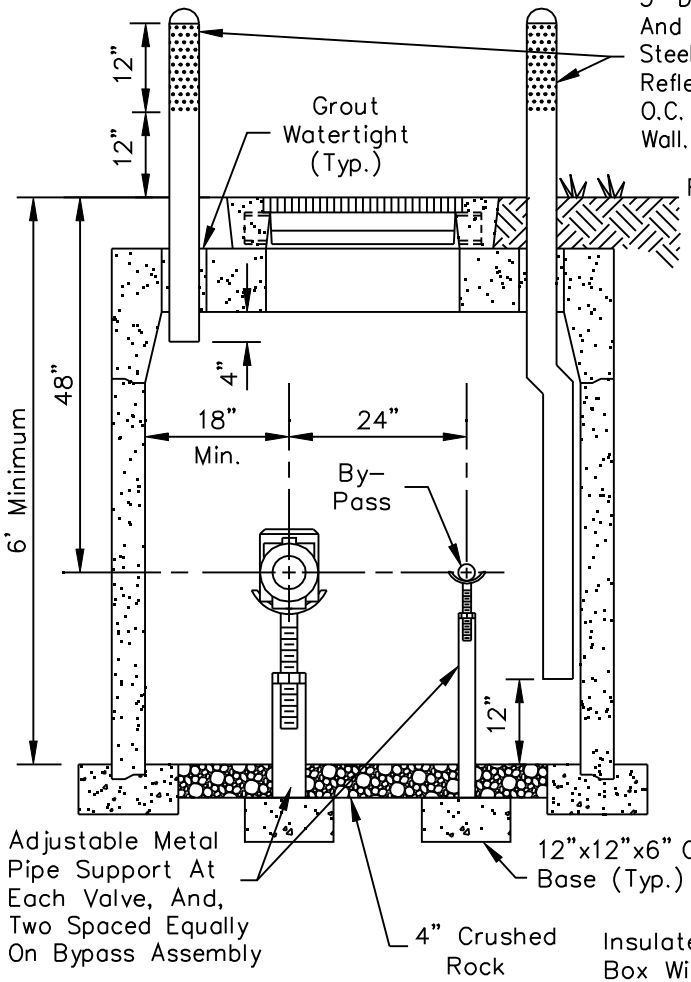
GENERAL NOTES

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

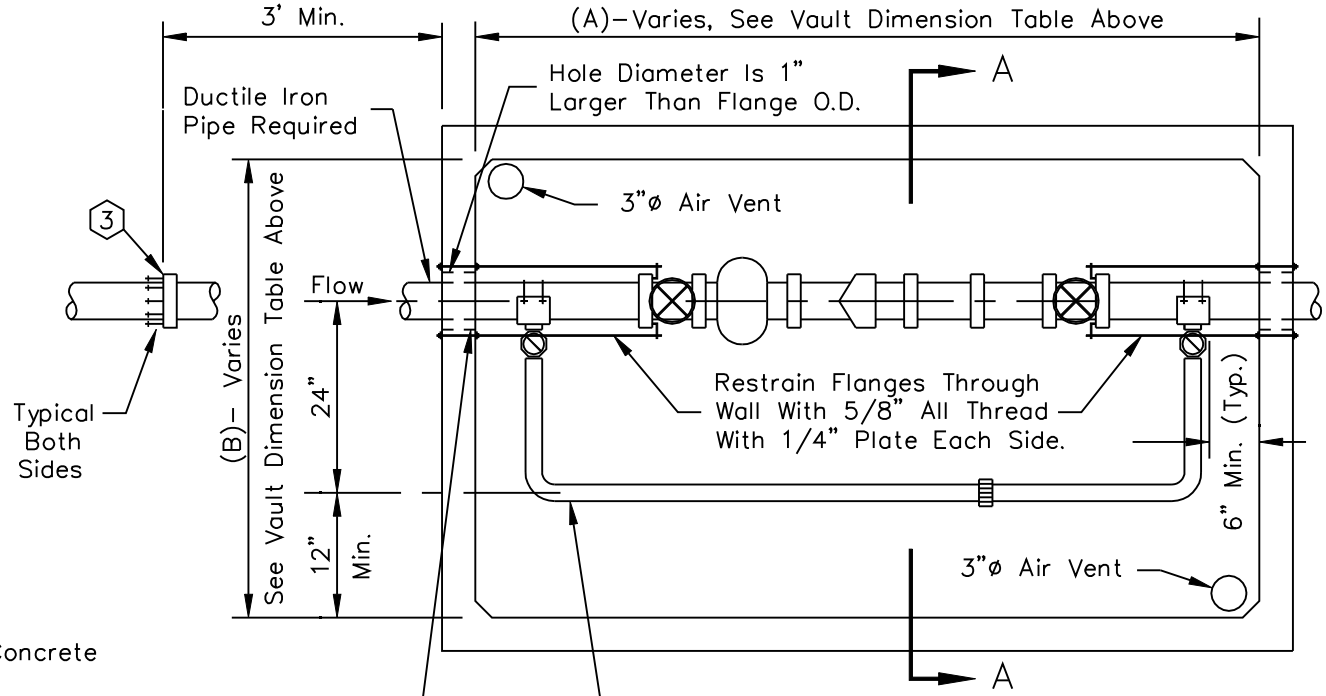
REVISED 2/27/01



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.

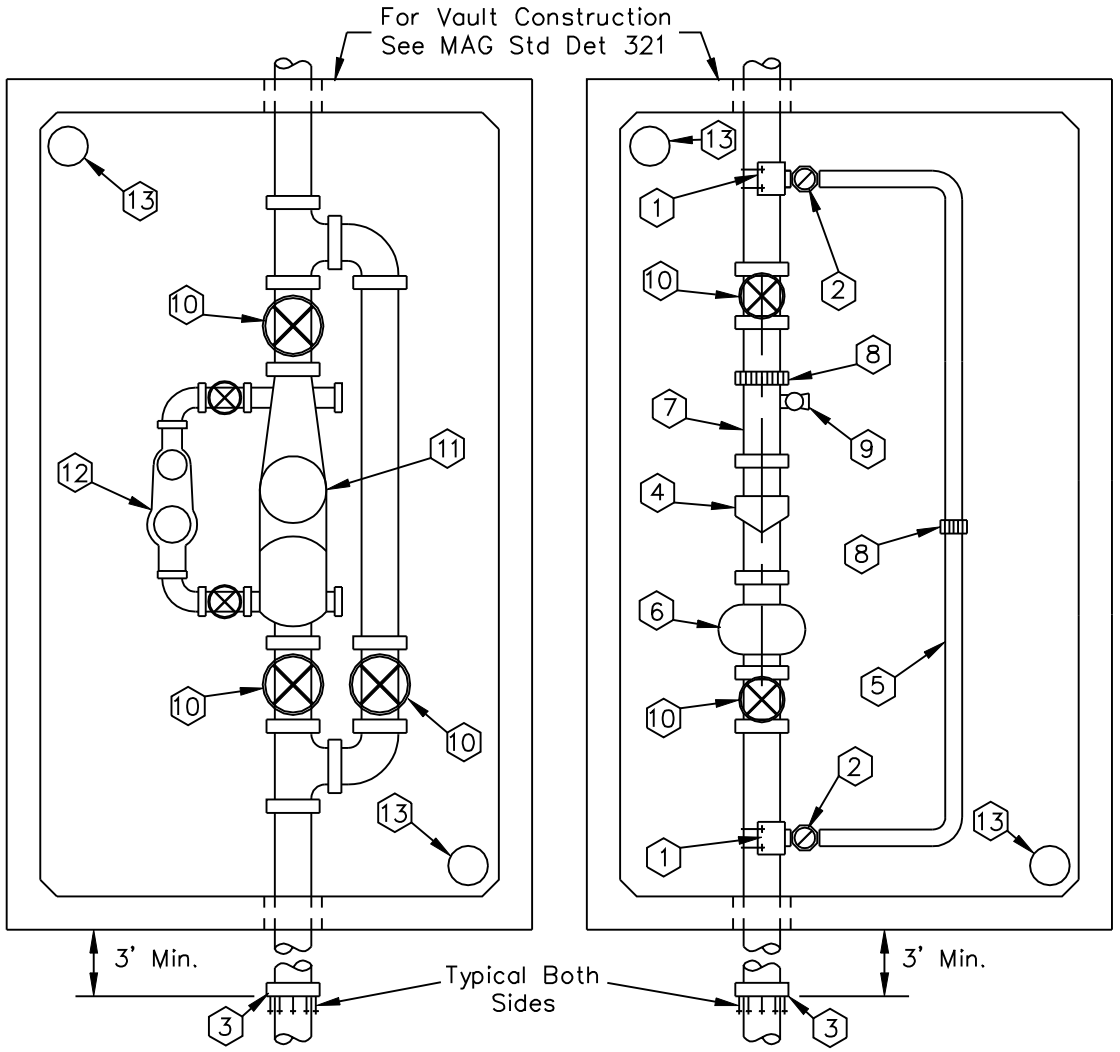
Except For 2" Copper Bypass All Fittings Will Be Flanged. Uniflange Not Acceptable Unless Approved By Water Operations. 2" Copper Bypass Will Be Joined With Silver Solder Except At 2" Corp Stop Which Will Be Pac Joint.

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

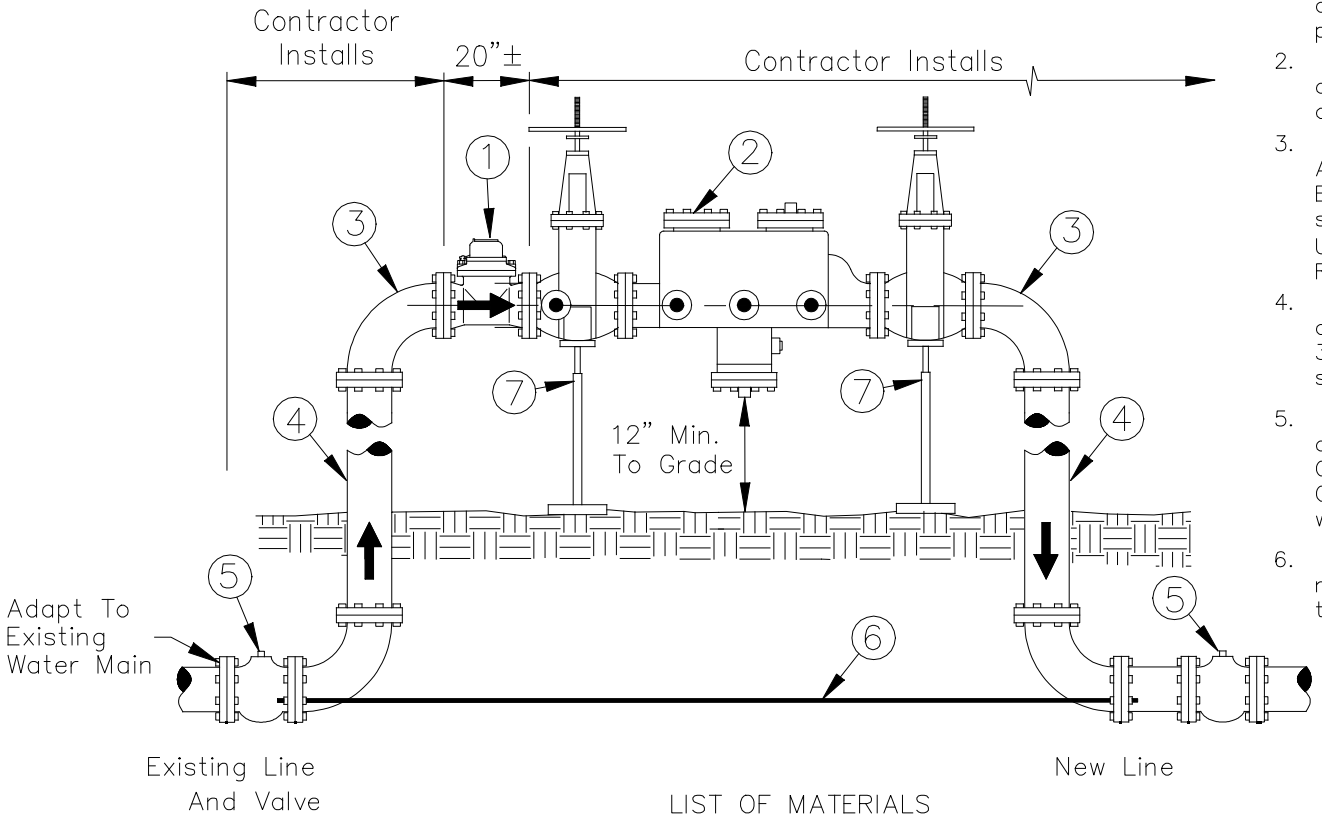
1. Double Strap All Bronze Service Saddle, Or Flanged x Flanged Tee With Flanged X Flanged Valve For Sizes 3" Or Larger.
2. Corp. Stop, 2"(Ball Type), Or R.W. Gate Valve With Non-Rising Stem Handwheel Operator For 3" Or Larger.
3. Adaptor, Flanged To Mech. Joint For A.C.P.
4. Turbine (High Flow) Or Compound 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. 2345-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	3, 4", 6" WATER METER	DETAIL NO. 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.

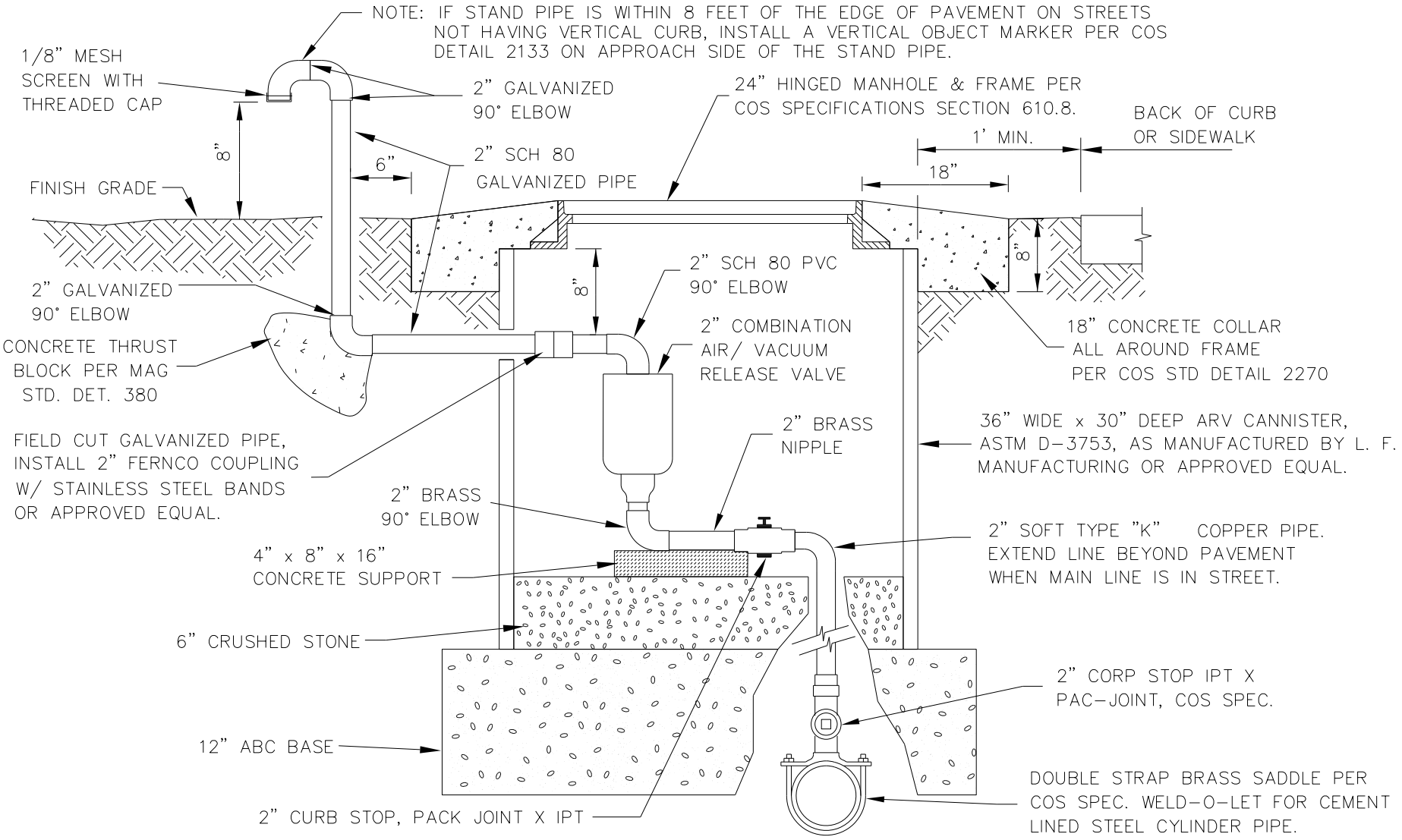
④ 3" Ductile Iron Spool.

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.

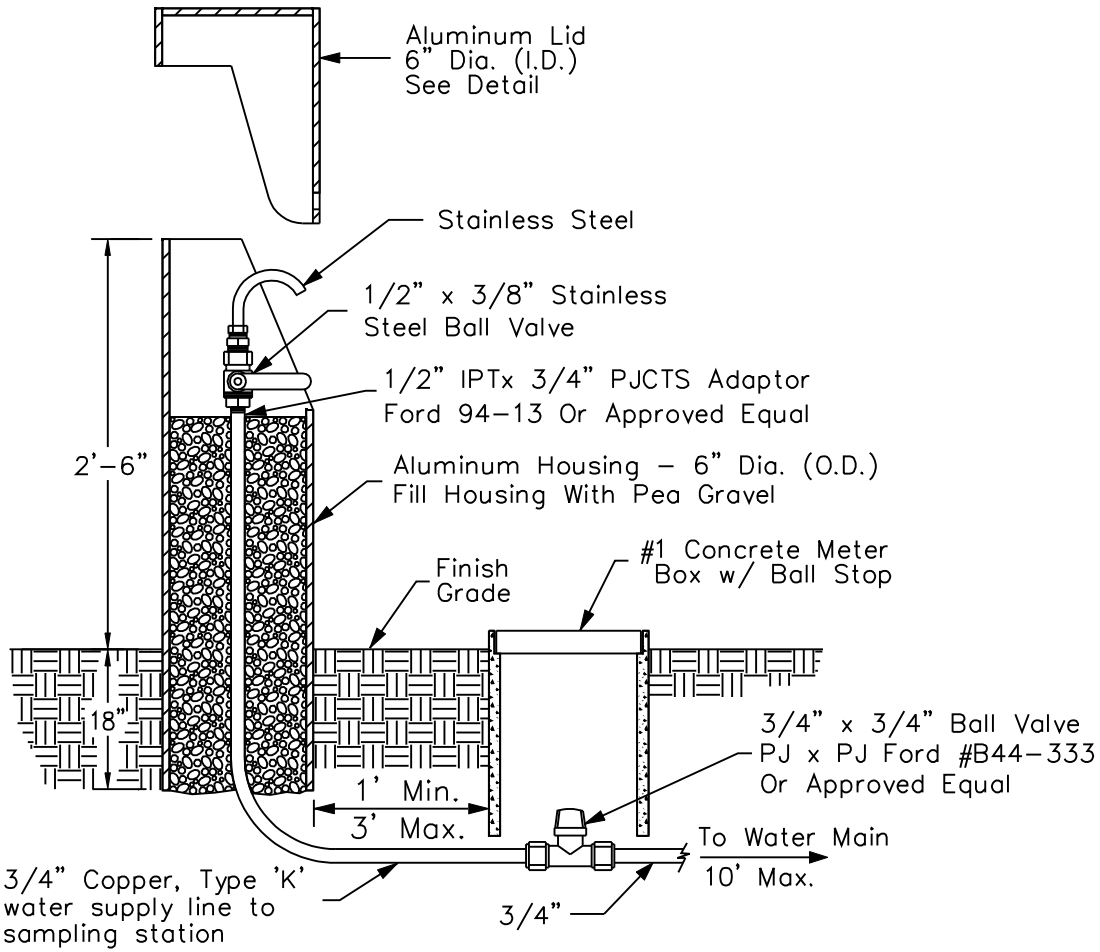
⑦ Adjustable Metal Pipe Support (Required).

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



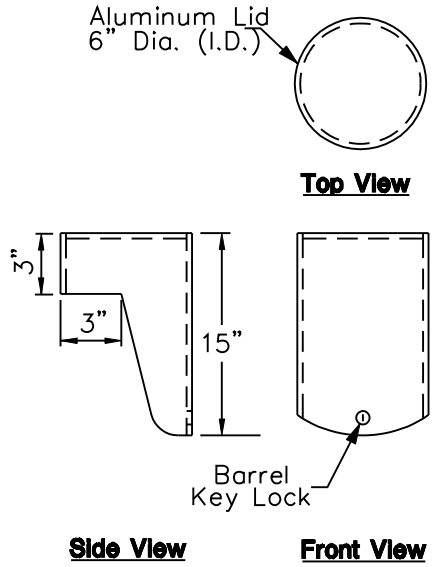
REVISED 5/28/15

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.



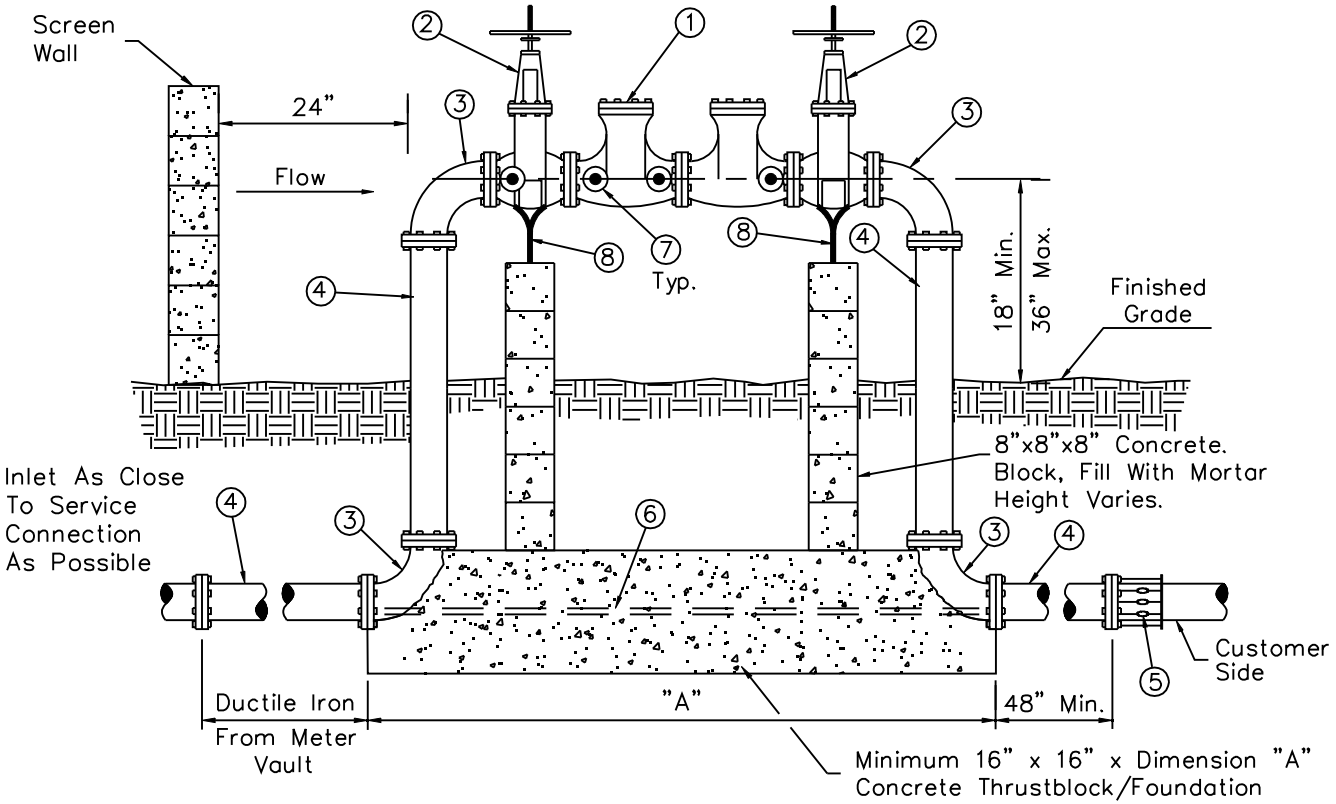
LID DETAILS

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

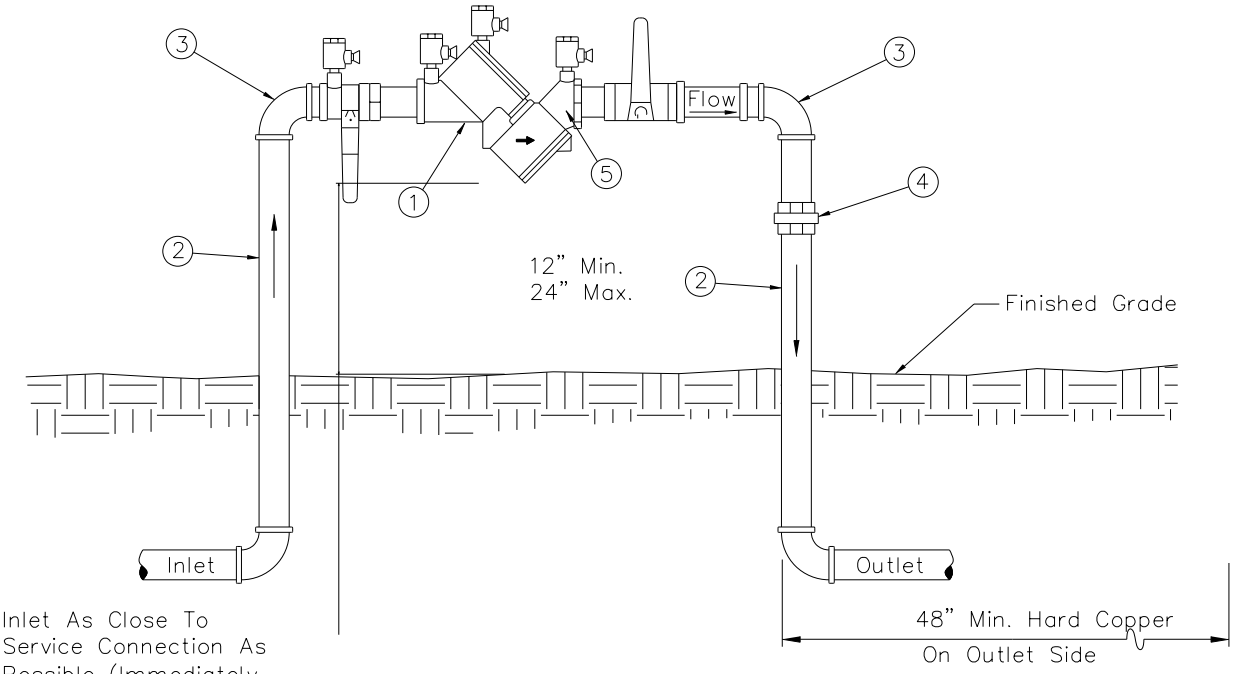
1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
3. For backflow preventers requiring guard posts 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 1/19/12



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

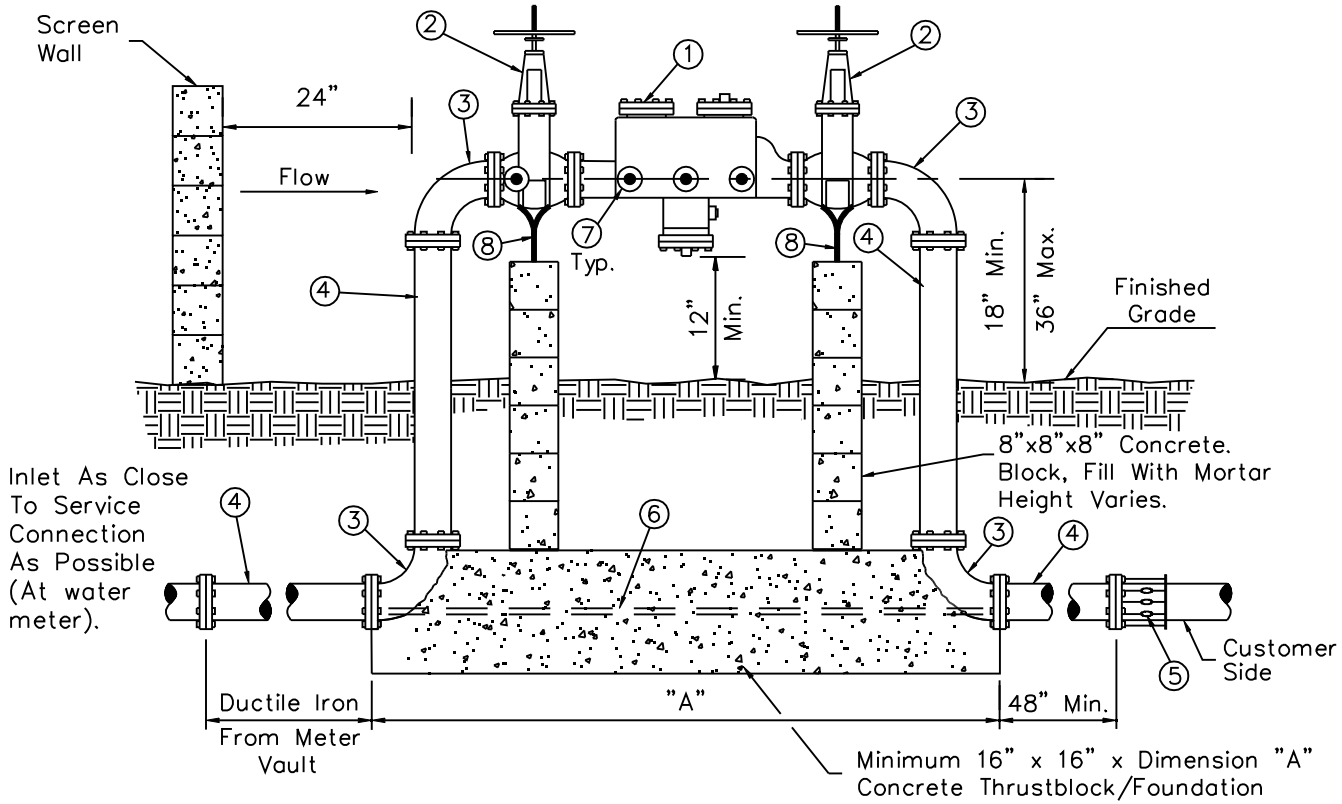
GENERAL NOTES

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 or approved equal.
3. Finished grade underneath the backflow pre-venter 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 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. 2352	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3/4 INCH THRU 2 1/2 INCHES	DETAIL NO. 2352



REVISED 5/05/04

GENERAL NOTES

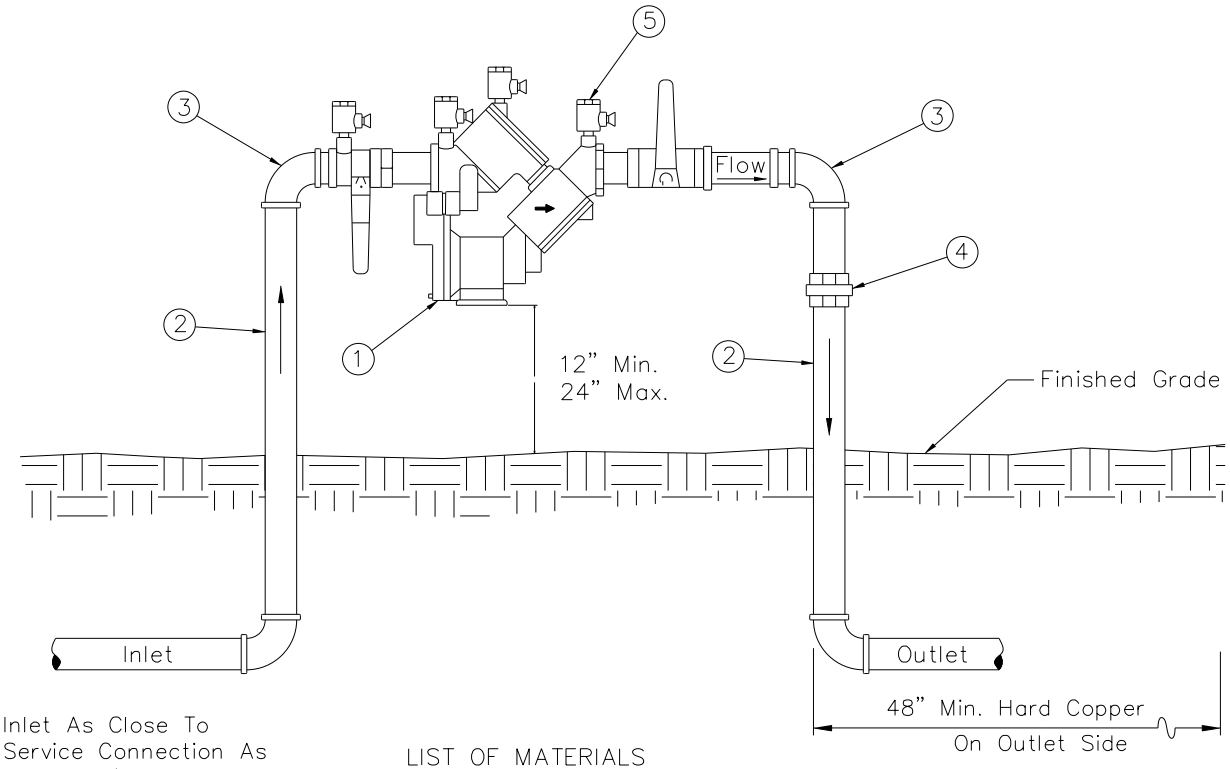
1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
3. For backflow preventers requiring guard posts 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 1/19/12



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

LIST OF MATERIALS

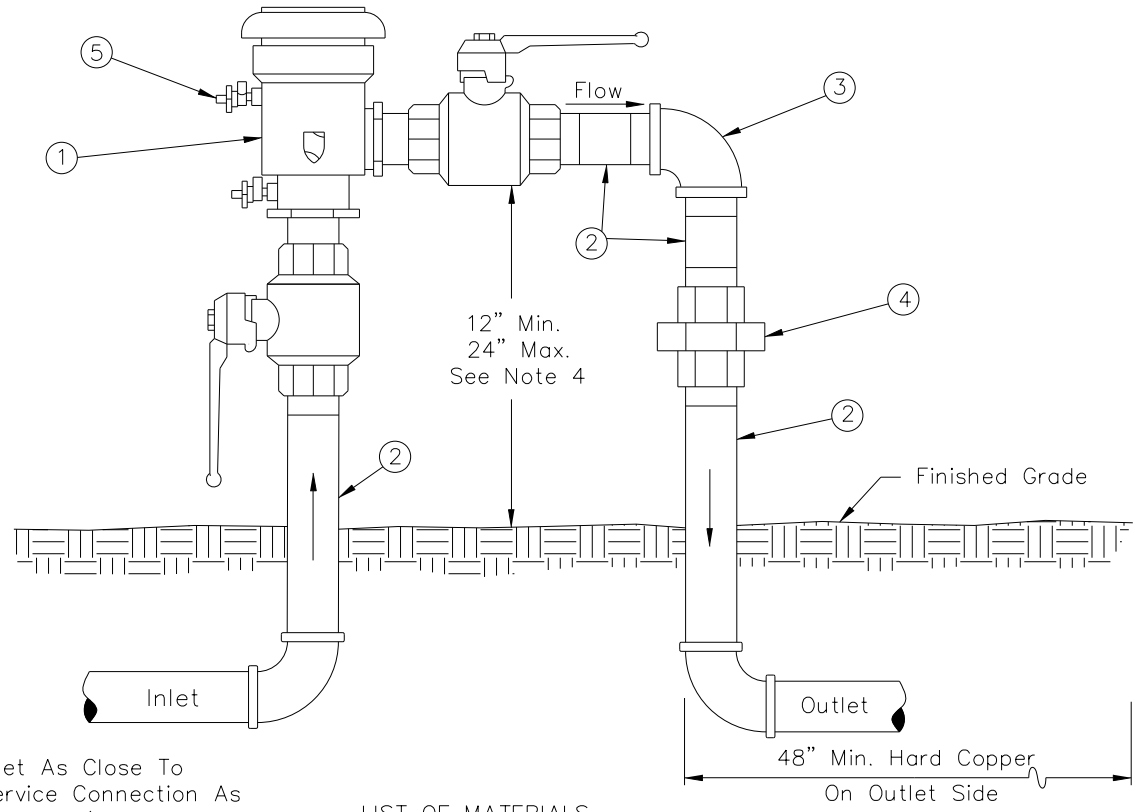
① Approved reduced pressure principle backflow prevention assembly, ball valves included.
② Pipe spool, type "L" hard copper, 3/4" thru 2 1/2".
③ 90° ell, copper, 3/4" thru 2 1/2".
④ Pipe union, brass or copper.
⑤ Test cocks with brass plugs or adaptors with caps installed. (4 Required)

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 or approved equal.
3. Finished grade underneath the backflow pre-venter 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. 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

REVISED 1/19/12



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

LIST OF MATERIALS

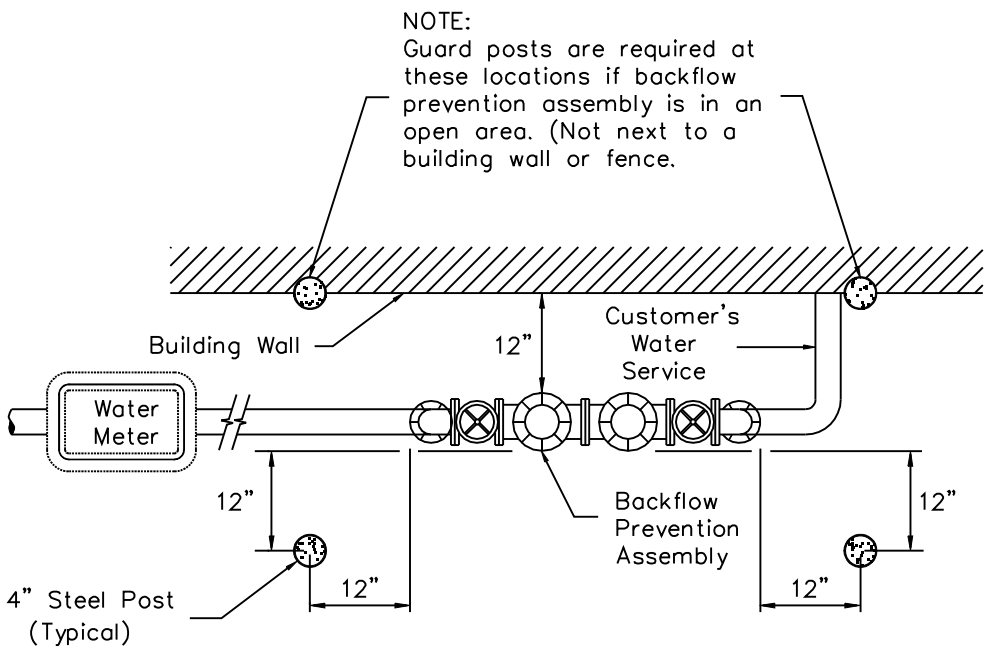
① Approved pressure vacuum breaker assembly, ball valves included.
② Pipe spool, type "L" hard copper, 1/2" thru 2".
③ 90° ell, copper, 1/2" thru 2".
④ Pipe union, brass or copper.
⑤ Test cocks with brass plugs or adaptors with caps installed. (2 required)

GENERAL NOTES

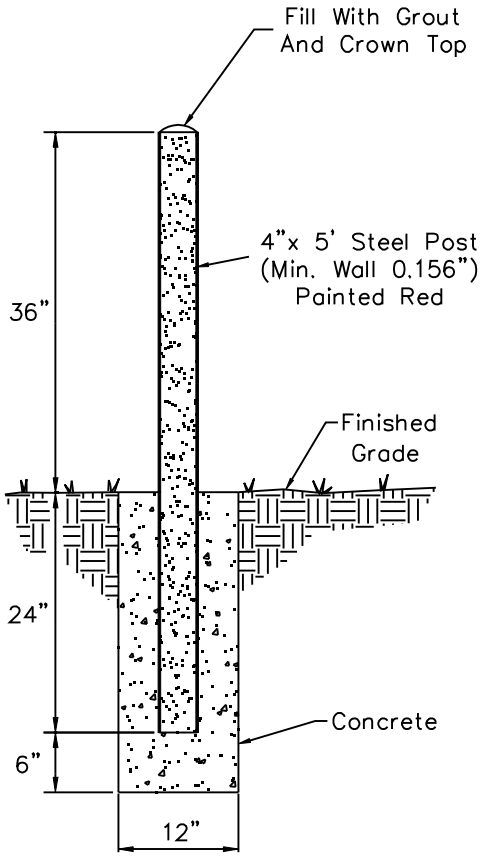
1. Backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Pressure vacuum breakers must be installed at least 12" above all downstream piping.
3. If this distance exceeds 24 inches, a reduced pressure principle backflow prevention assembly must be utilized. See Detail 2354.
4. Copper fittings shall be connected with lead free solder joints 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.

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

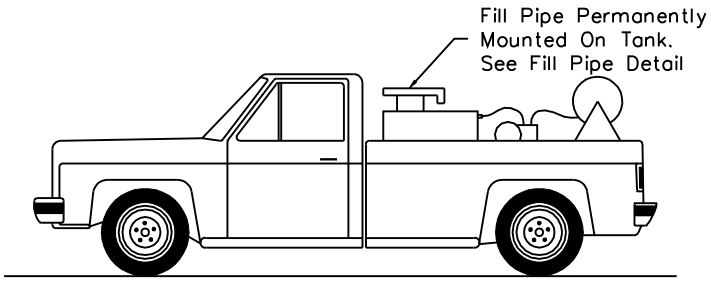


PLAN VIEW

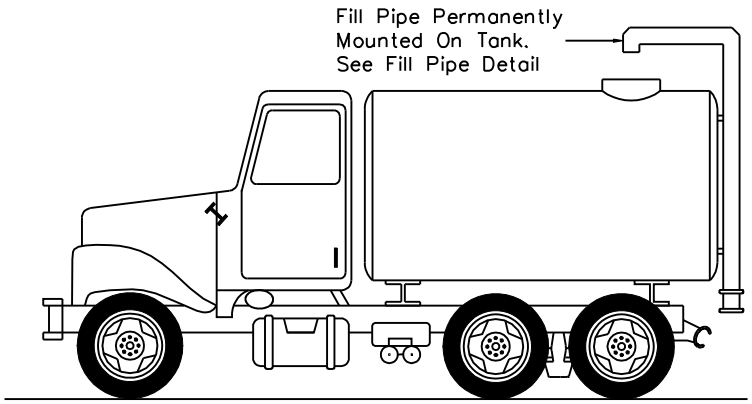


GUARD POST SECTION

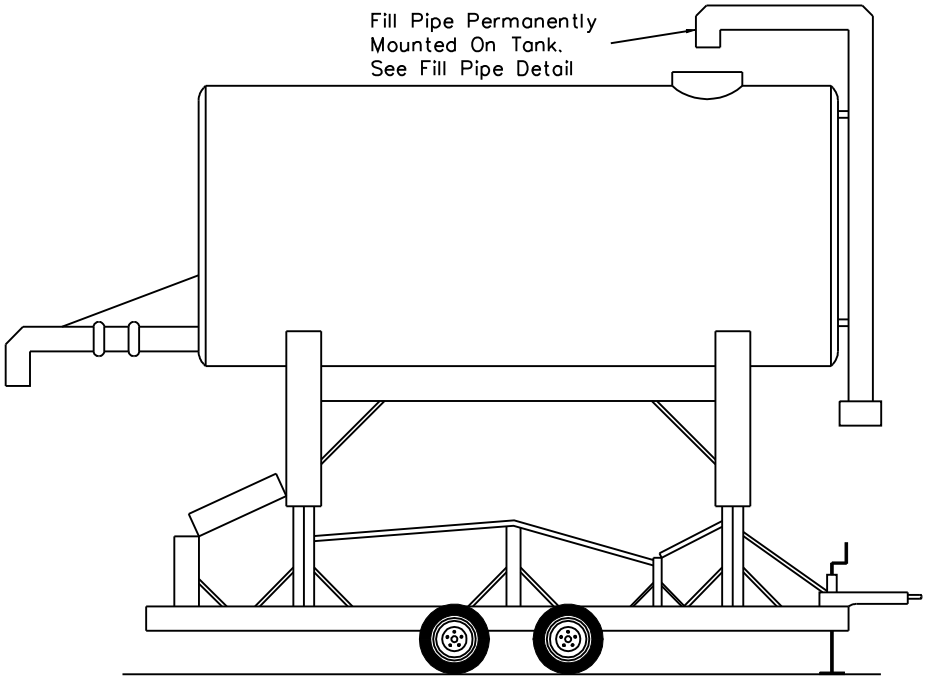
DETAIL NO. 2356	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	GUARD POSTS FOR BACKFLOW PREVENTION ASSEMBLIES	DETAIL NO. 2356



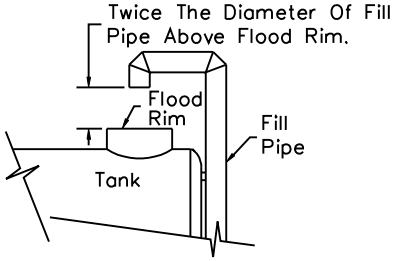
PESTICIDE APPLICATOR TRUCK



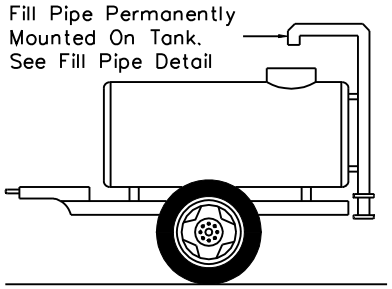
WATER TRUCK



ELEVATED TANK

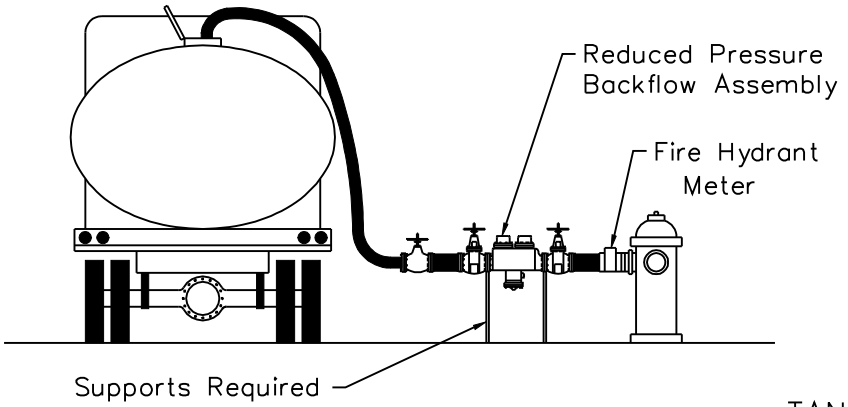


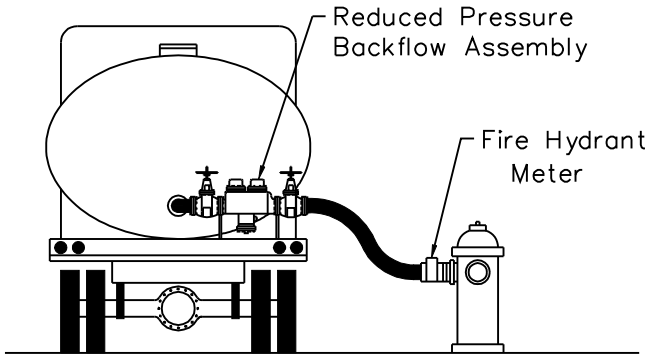
FILL PIPE DETAIL



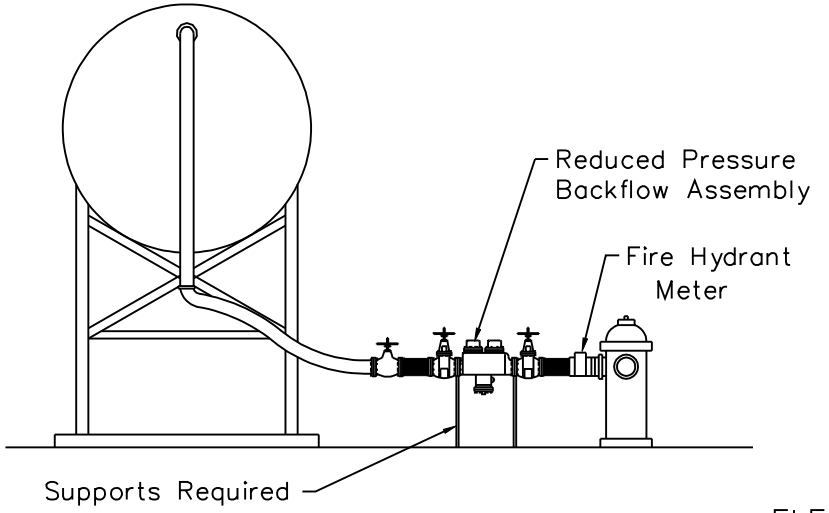
WATER WAGON

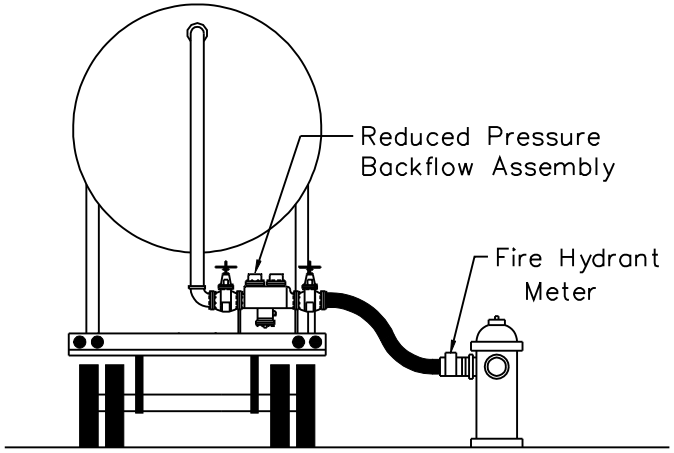
DETAIL NO. 2357	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FILL PIPE DETAILS FOR PORTABLE TANKS WITH AIR GAP SEPARATION	DETAIL NO. 2357





TANK TRUCKS

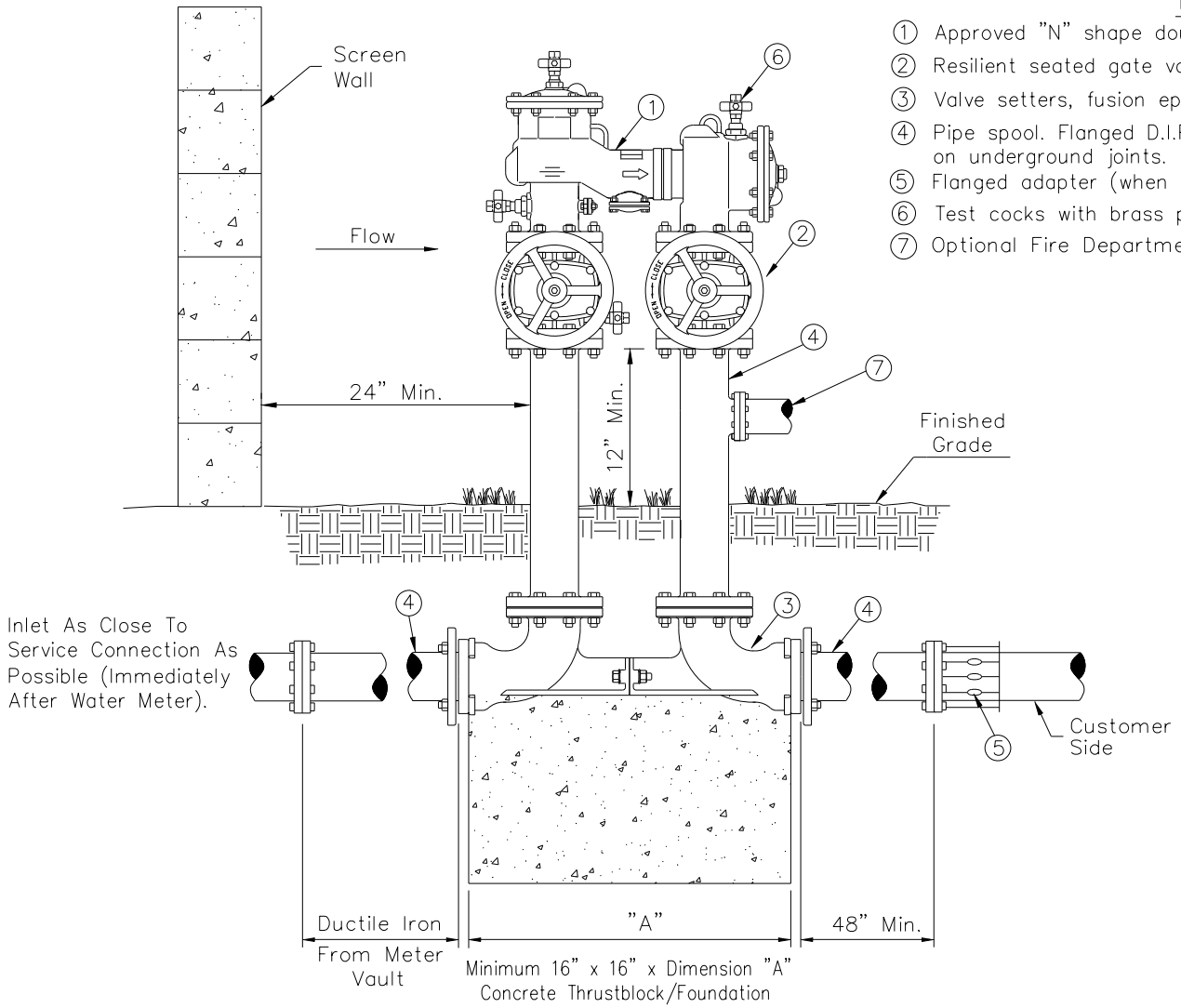




ELEVATED TANKS

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

REVISED 1/20/12



LIST OF MATERIALS

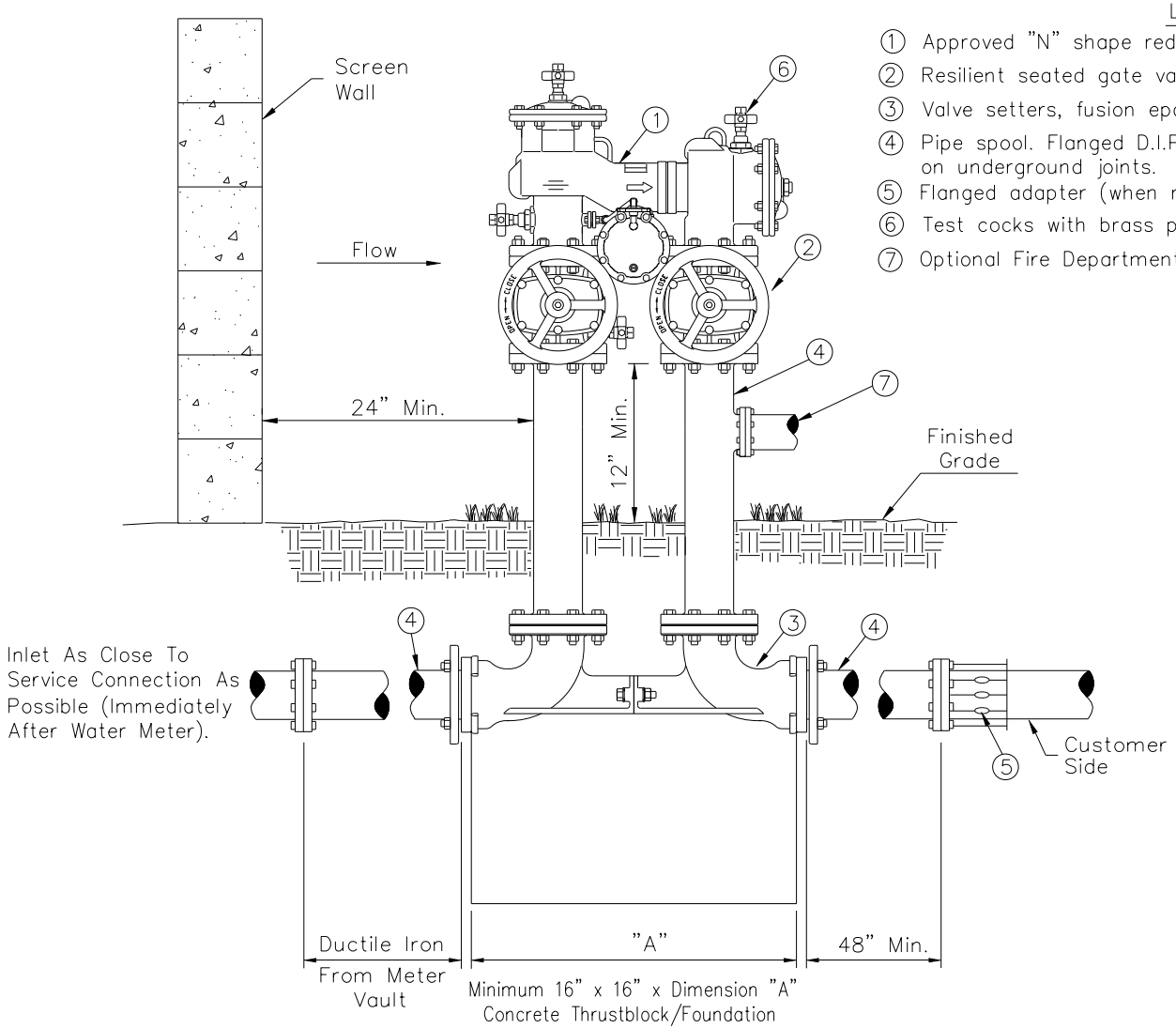
1. Approved "N" shape double check valve backflow prevention assembly.
2. Resilient seated gate valve. O.S. & Y. (fire line connection) N.R.S. (non fire line)
3. Valve setters, fusion epoxy coated ductile iron, plated nuts and bolts. (2 required)
4. Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or 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)
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 supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

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

REVISED 1/20/12



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

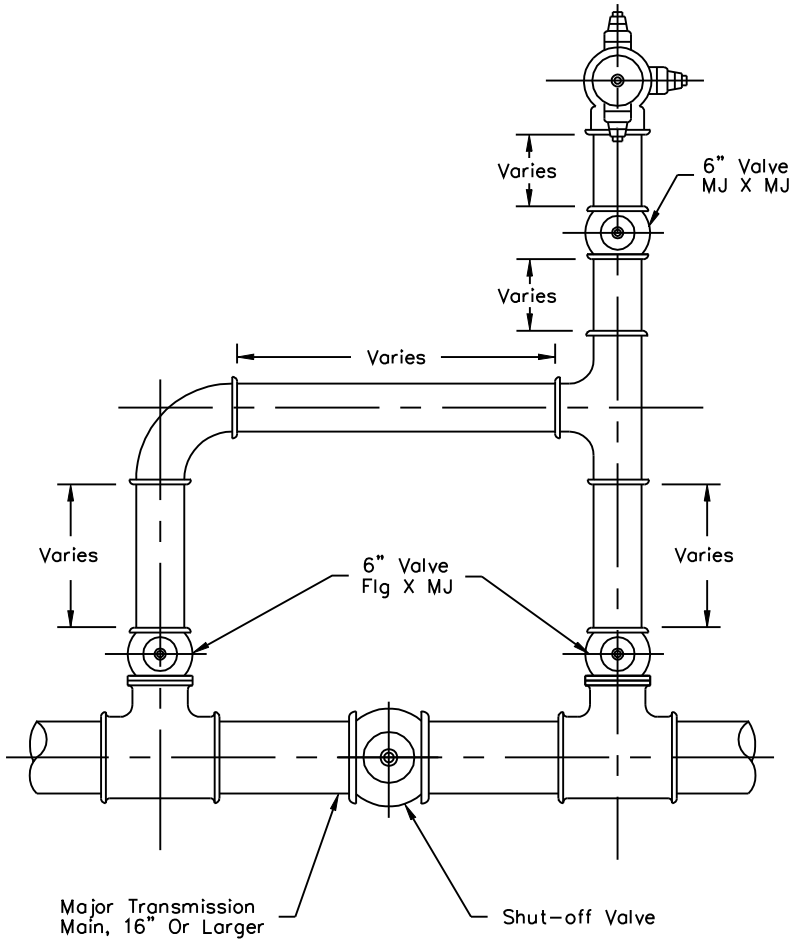
1. Backflow backflow assemblies must be tested by a certified tester that is recognized by the City of Scottsdale.
2. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
3. For backflow preventers requiring guard 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 supression systems must also have approval from Underwriters Laboratories and/or Factory Mutual Research Corporation.

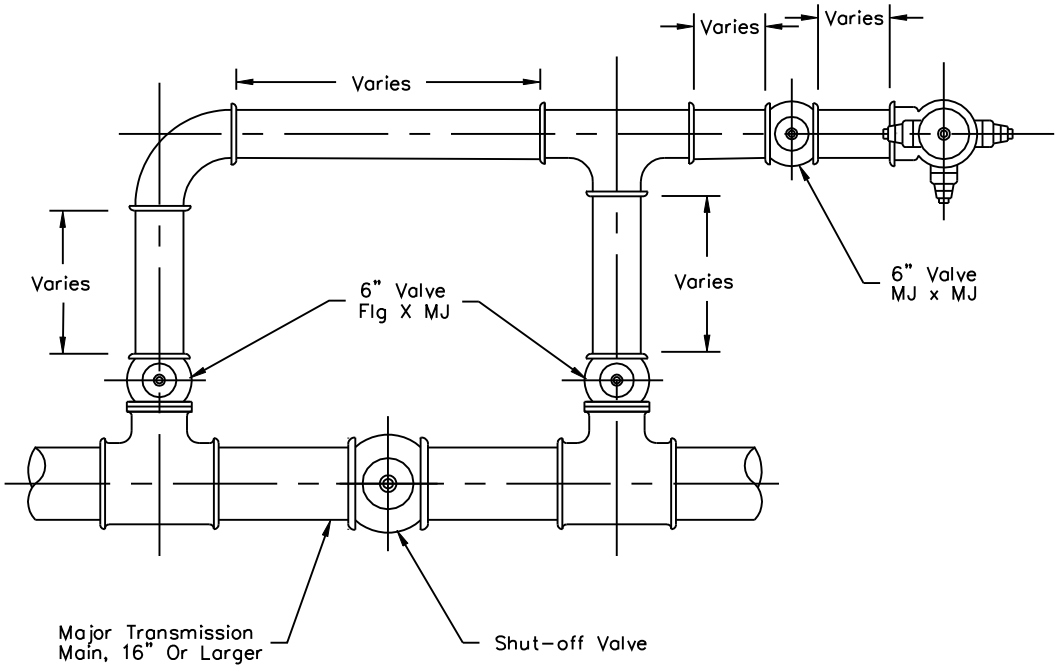
DETAIL NO. 2360	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	"N" SHAPED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES	DETAIL NO. 2360

REVISED 6/15/06

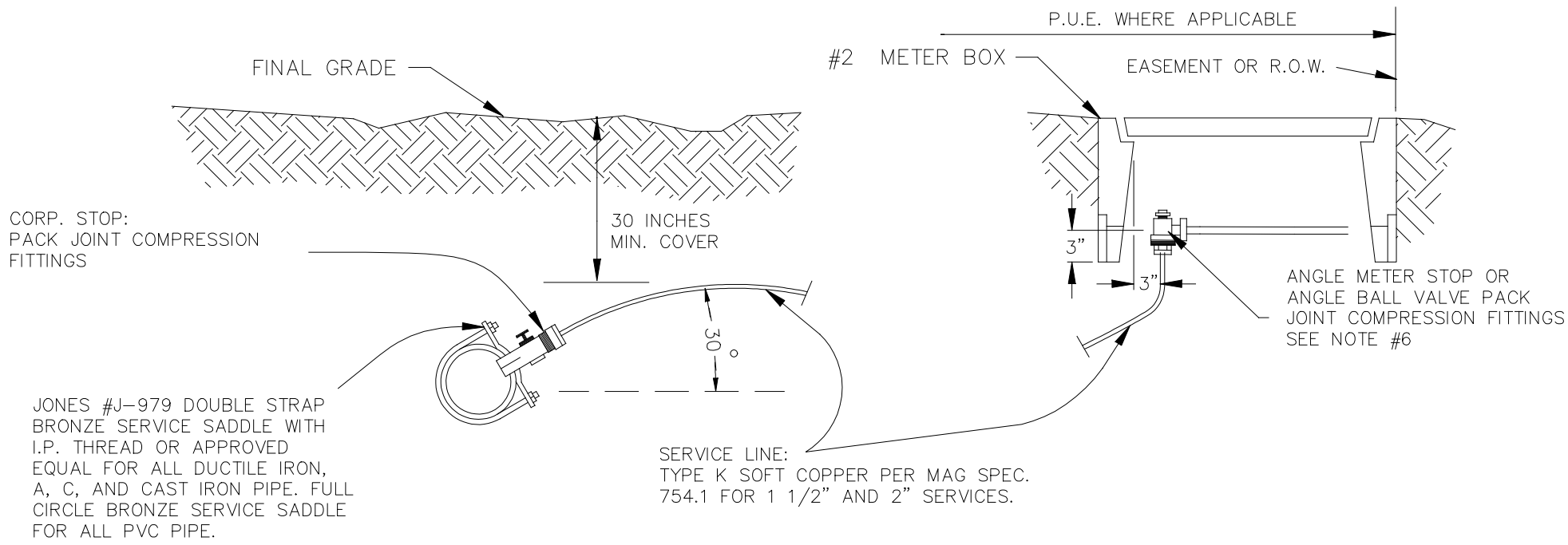
NOTES

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.





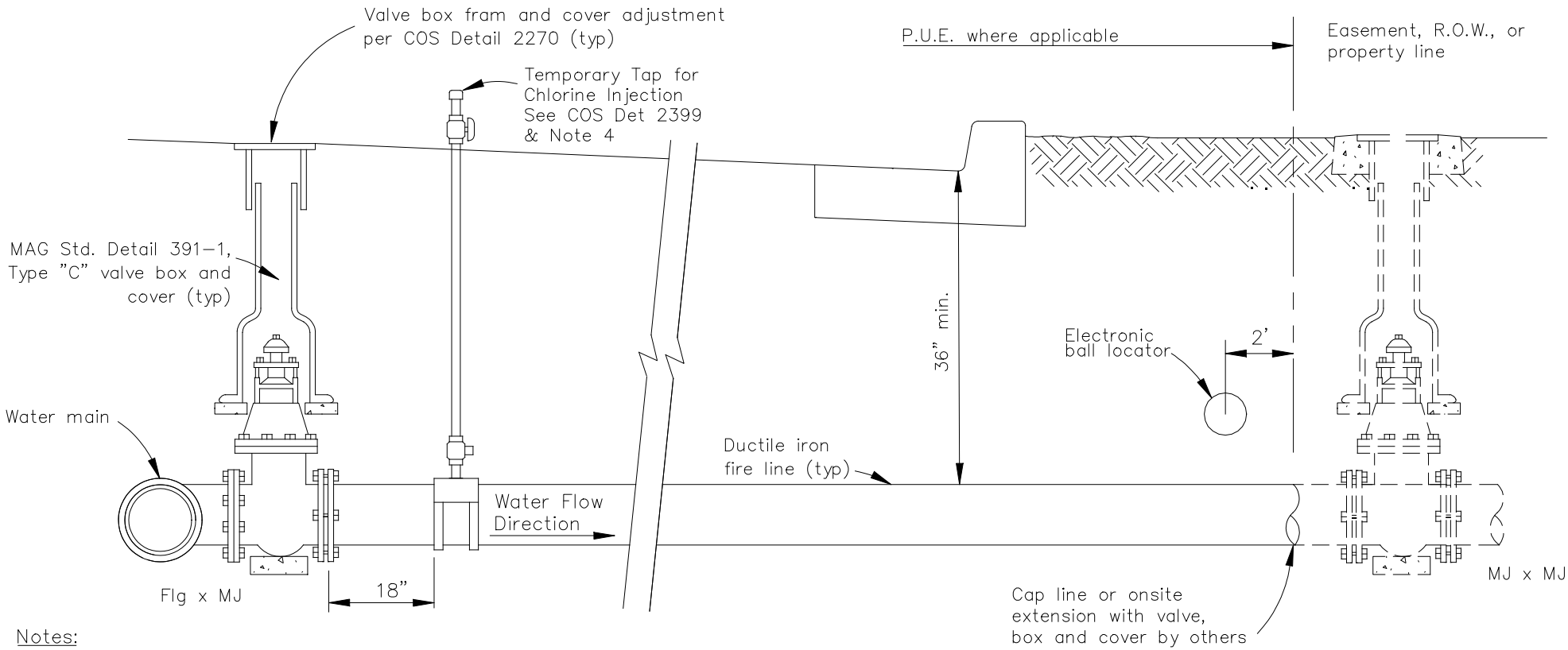
DETAIL NO. 2361	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE HYDRANT BYPASS ASSEMBLY	DETAIL NO. 2361



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: Scottsdale Standards & Specifications Committee	1 1/2"-2" FIRE LINE CONNECTION	DETAIL NO.
2362-1				2362-1



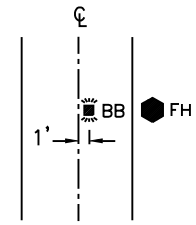
REVISED 4/25/07

Notes:

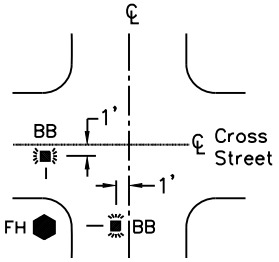
1. All water lines within the right–of–way or public utility easement shall be polywrapped ductile iron pipe.
2. Joint restraint shall conform to the requirements of MAG Std. Detail 303.
3. When a water main is located behind the curb at the near side of the street, the gate valve by others is not required 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

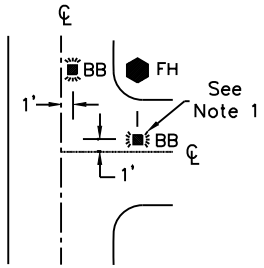
REVISED 4/22/09



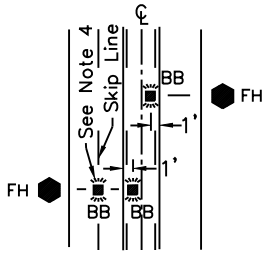
Midblock Local



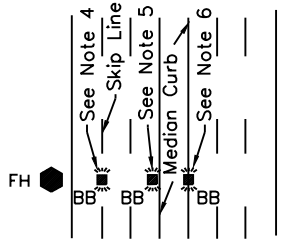
Local Cross Intersection



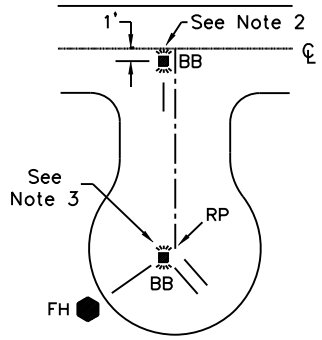
Local 'T' Intersection



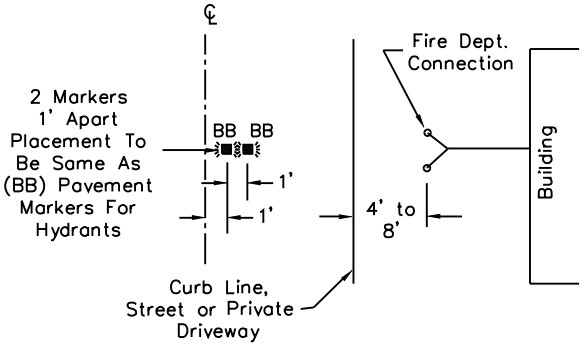
Midblock
WITH CENTER LANE OR SKIP LINES



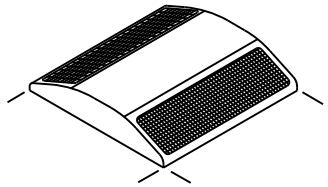
Midblock
WITH RAISED MEDIAN



Cul-De-Sac Street



Fire Dept. Connection

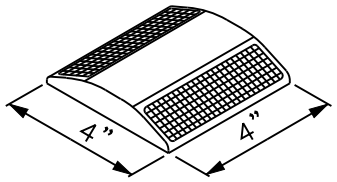


Pavement Marker
(2-WAY REFLECTIVE BLUE)
(ADOT TYPE BB)

NOTES:

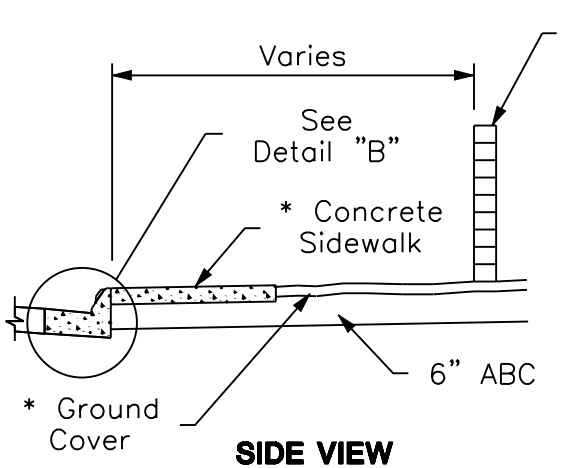
1. Not Required on Dead End Streets Without Hydrants
2. Place on Hydrant Side of Centerline.
3. Not Required When Cul-De-Sac is Less Than 250'.
4. To Be Placed in Line With Skip Line.
5. Place on Gutter or Adjacent To Curb.
6. Place on Top of Curb. (This Location Optional)
7. Pavement Markers Shall Not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

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

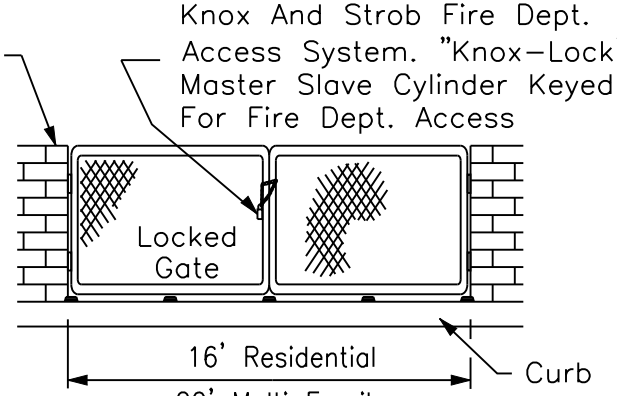


Pavement Marker
(2-WAY REFLECTIVE BLUE)
(ADOT TYPE BB)

DETAIL "A"

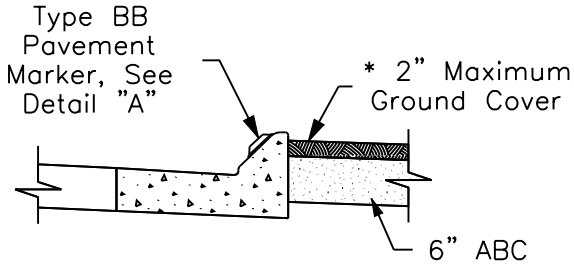


SIDE VIEW

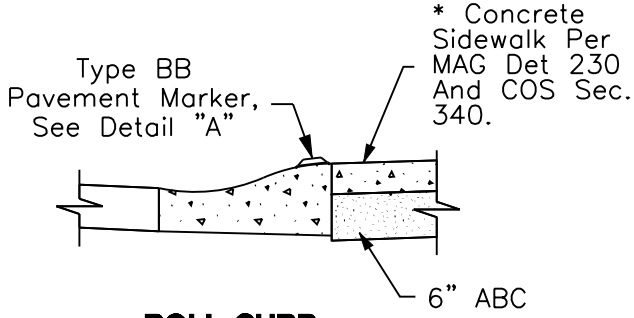


FRONT VIEW

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

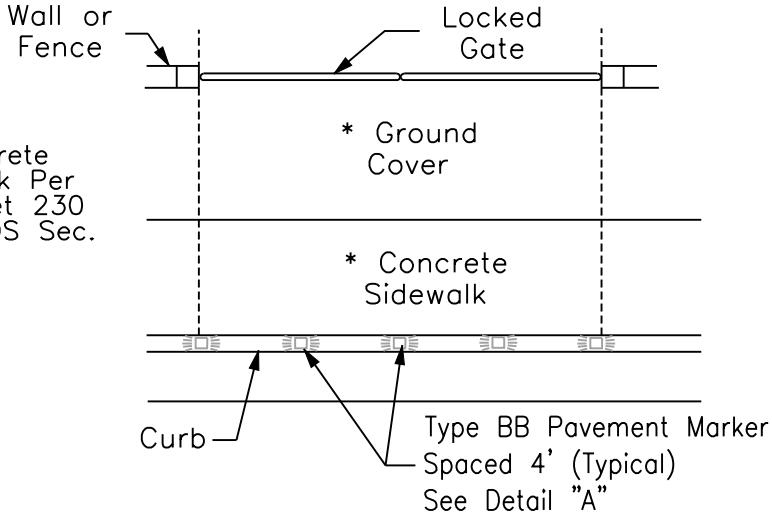


TYPE "M" MOUNTABLE CURB AND GUTTER



ROLL CURB

DETAIL "B"



TOP VIEW

REVISED 4/22/09

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

REVISED 4/15/09

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.

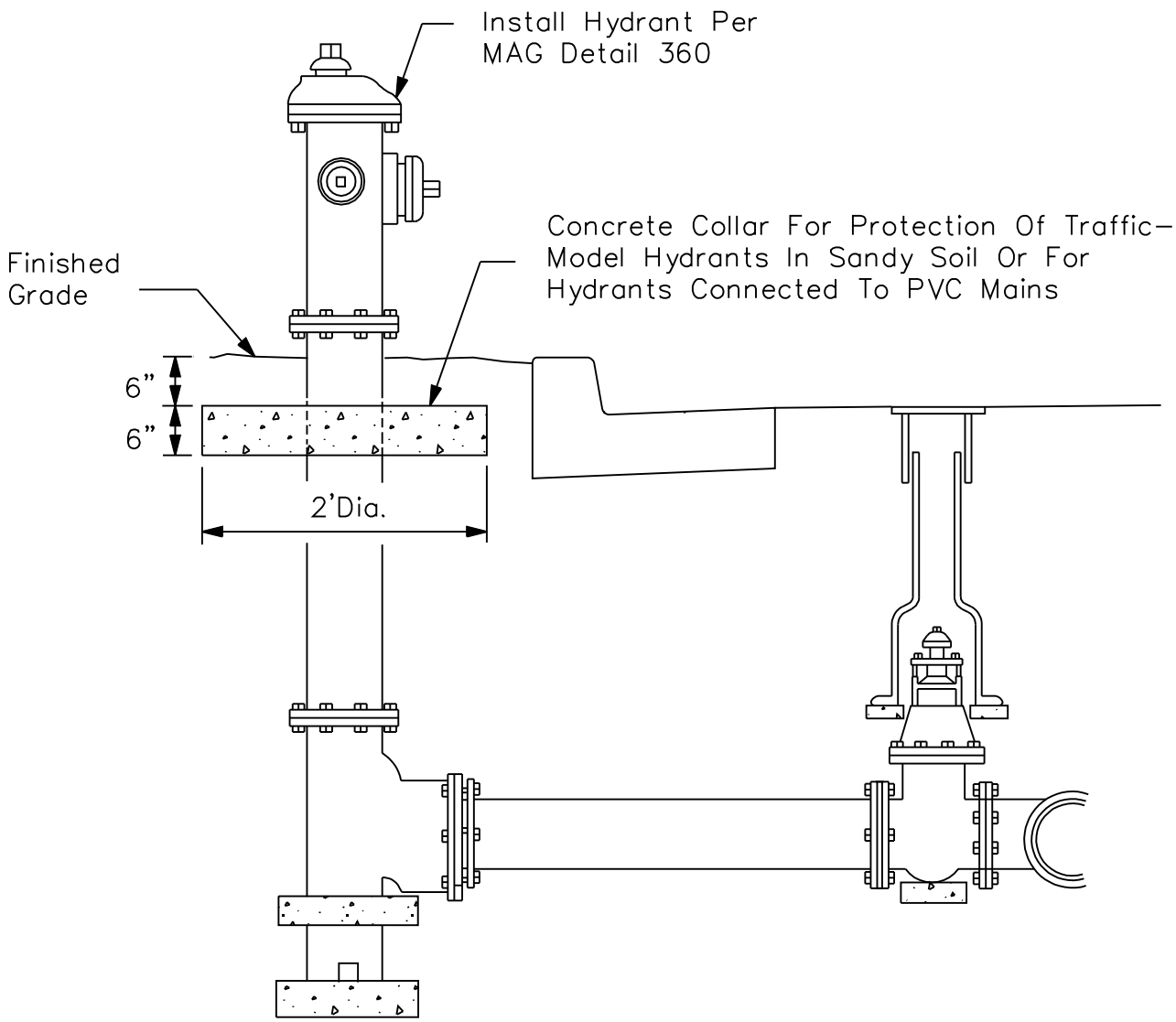
3. The signs shall be set at an angle of not less than 30° nor more than 45° with the curb or line of traffic flow

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.

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



REVISED: 4/30/04

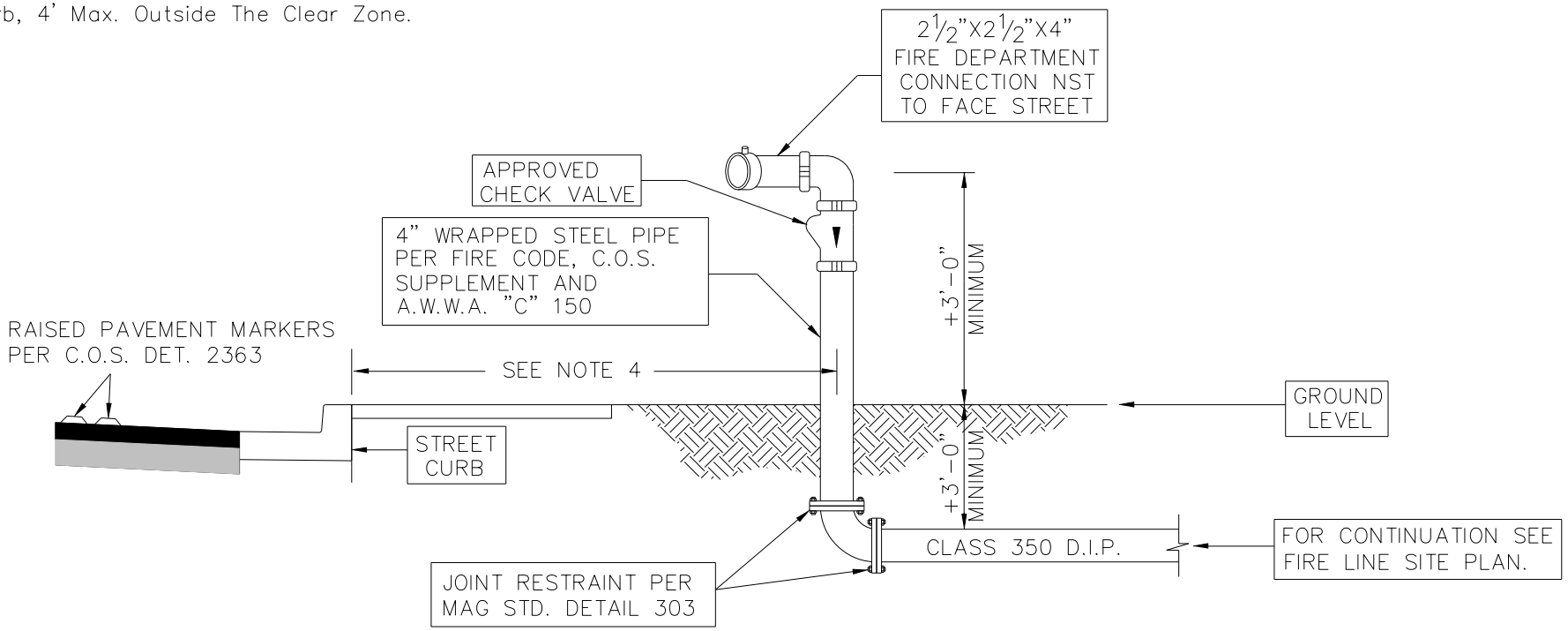
DETAIL NO. 2366	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CONCRETE COLLAR FOR FIRE HYDRANTS	DETAIL NO. 2366

REVISED 12/21/11

GENERAL NOTES

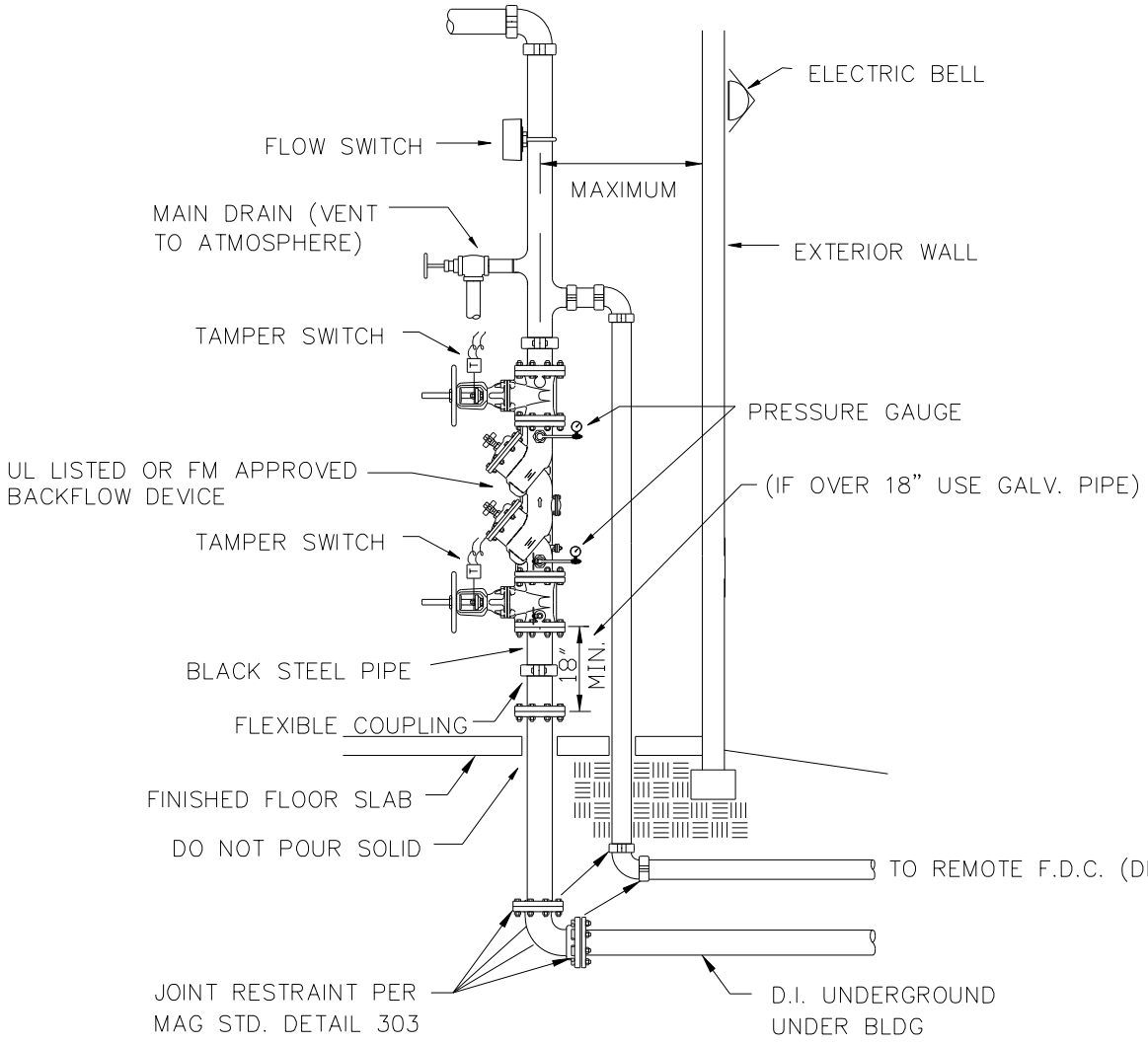
1. Provide Building I.D. On Remote Fire Dept. Connection.
2. No Trees, Bushes Or Walls Within 5' Radius Of Fire Dept. Connection
3. If Fire Sprinkler Design Indicates Demand Of 1000 GPM Or Greater, The Underground Fire Dept. Connection Line Shall Be Increased To 6" Diameter With A Three Way 2½" Fire 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

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)

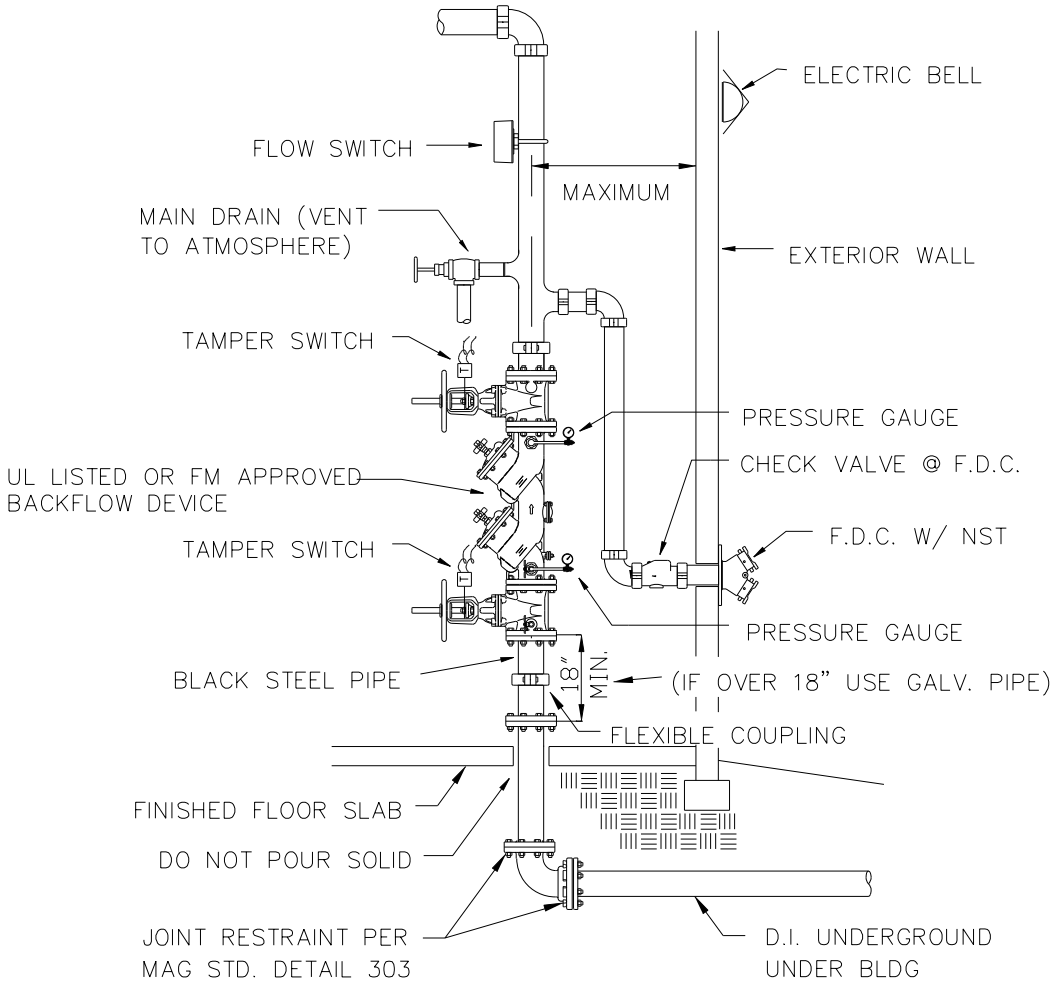
5. HYDRAULIC DESIGN AND SUMMARY INFORMATION PER NFPA SHALL BE ATTACHED TO RISER.

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.

REVISED 3/1/12

DETAIL NO. 2368	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE SPRINKLER RISER DETAIL WITH REMOTE FD CONNECTION	DETAIL NO. 2368



REVISED 3/1/12

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)

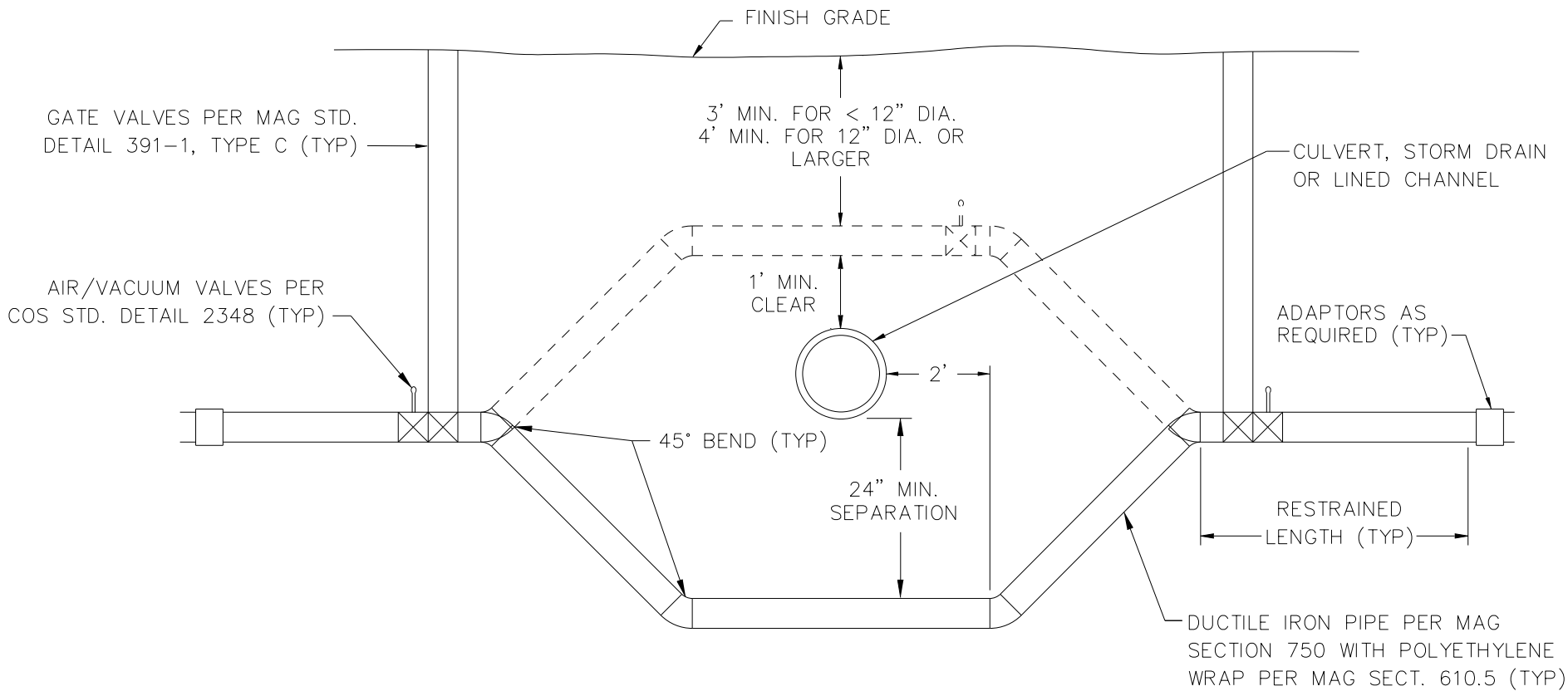
5. HYDRAULIC DESIGN AND SUMMARY INFORMATION PER NFPA SHALL BE ATTACHED TO RISER.

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.

DETAIL NO. 2369	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FIRE SPRINKLER RISER DETAIL WITH WALLMOUNT FD CONNECTION	DETAIL NO. 2369

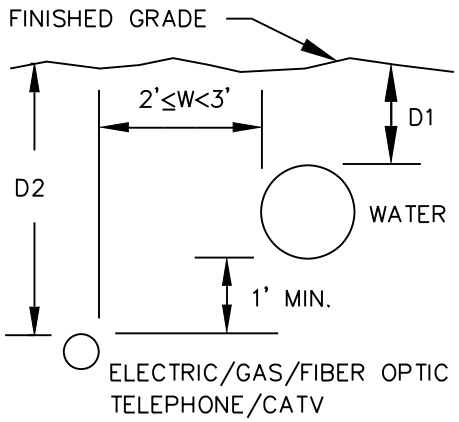
REVISED 1/18/12

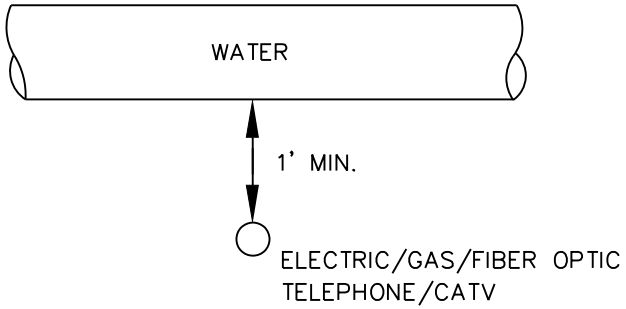


NOTES:

1. DETAIL ONLY ILLUSTRATES MINIMUM SEPARATION AND COVER REQUIREMENTS.
2. QUANTITITES 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.

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





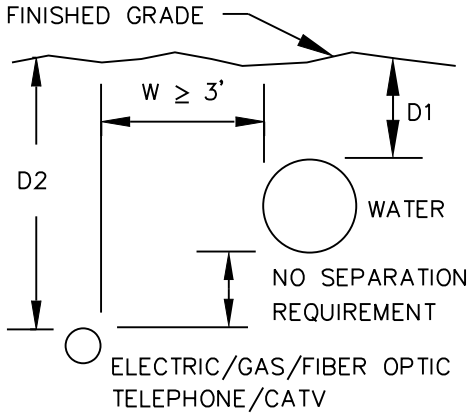
CROSSING

LEGEND:

D1 = { 3' Min. for pipe < 12" dia.
4' Min. for pipe = 12" dia.
5' Min. for pipe > 12" dia.

D2 = Minimum Cover

W = Horizontal Separation



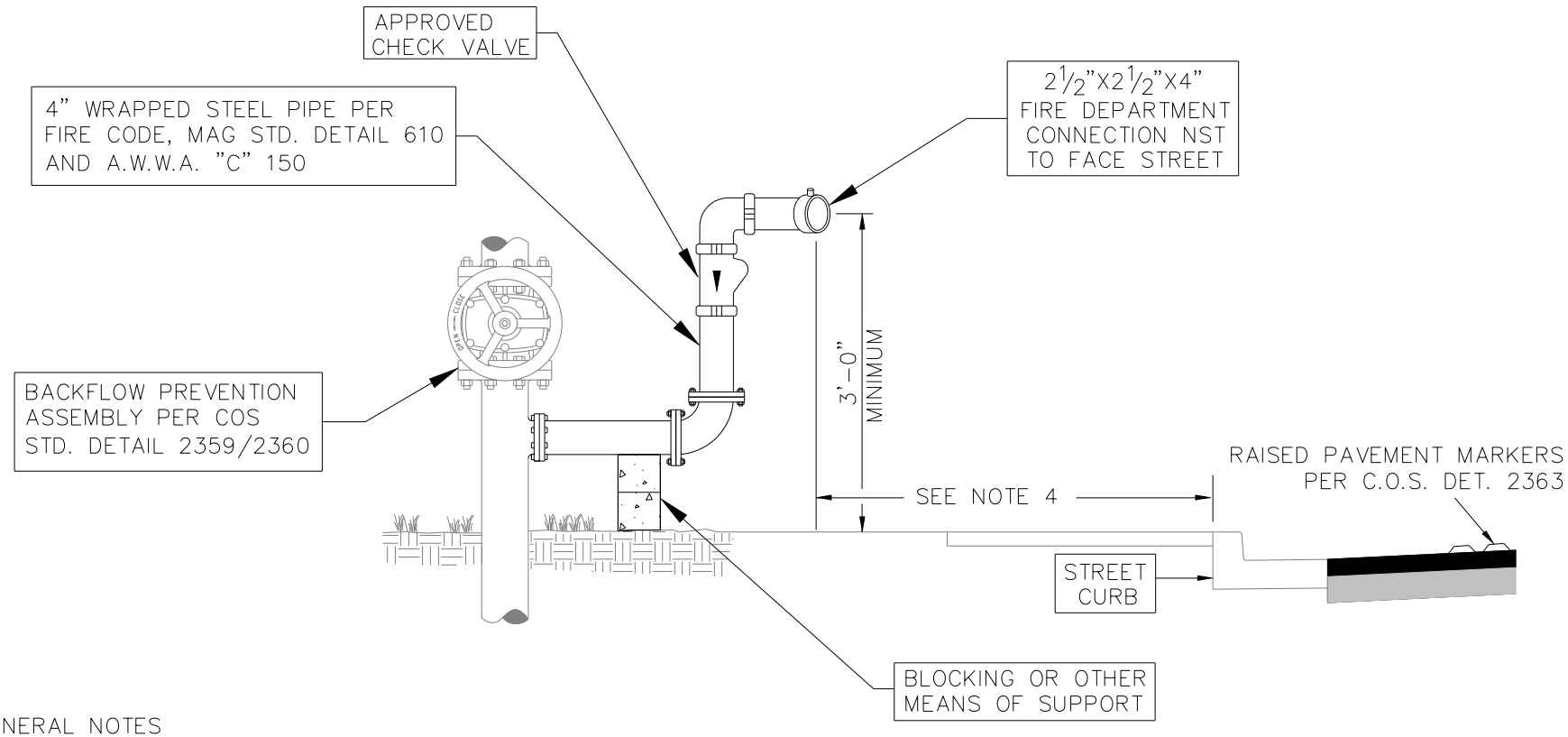
NOTES:

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 3/25/09

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

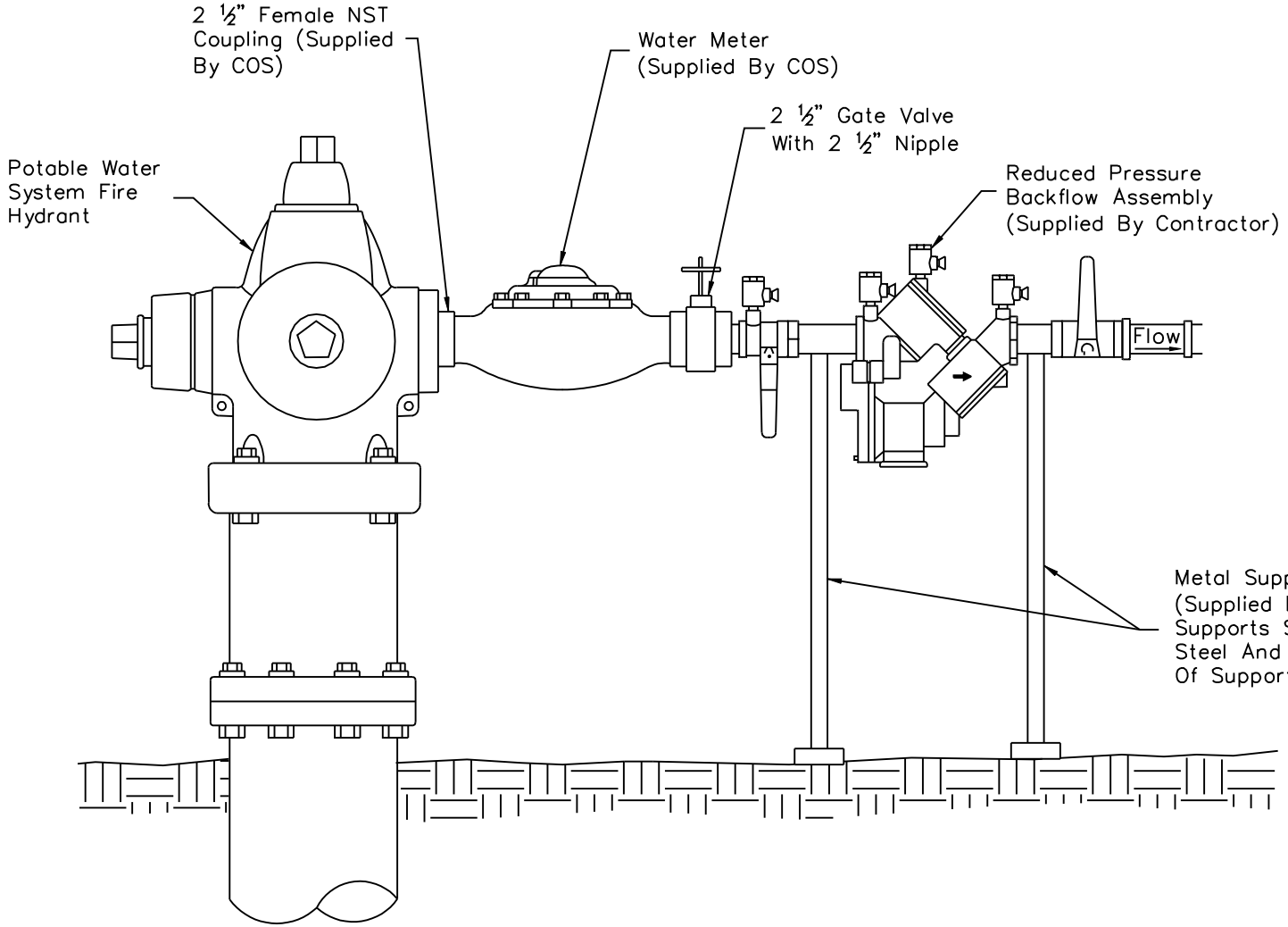
NEW 1/19/12



GENERAL NOTES

1. Provide Building I.D. On Remote Fire Dept. Connection.
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.

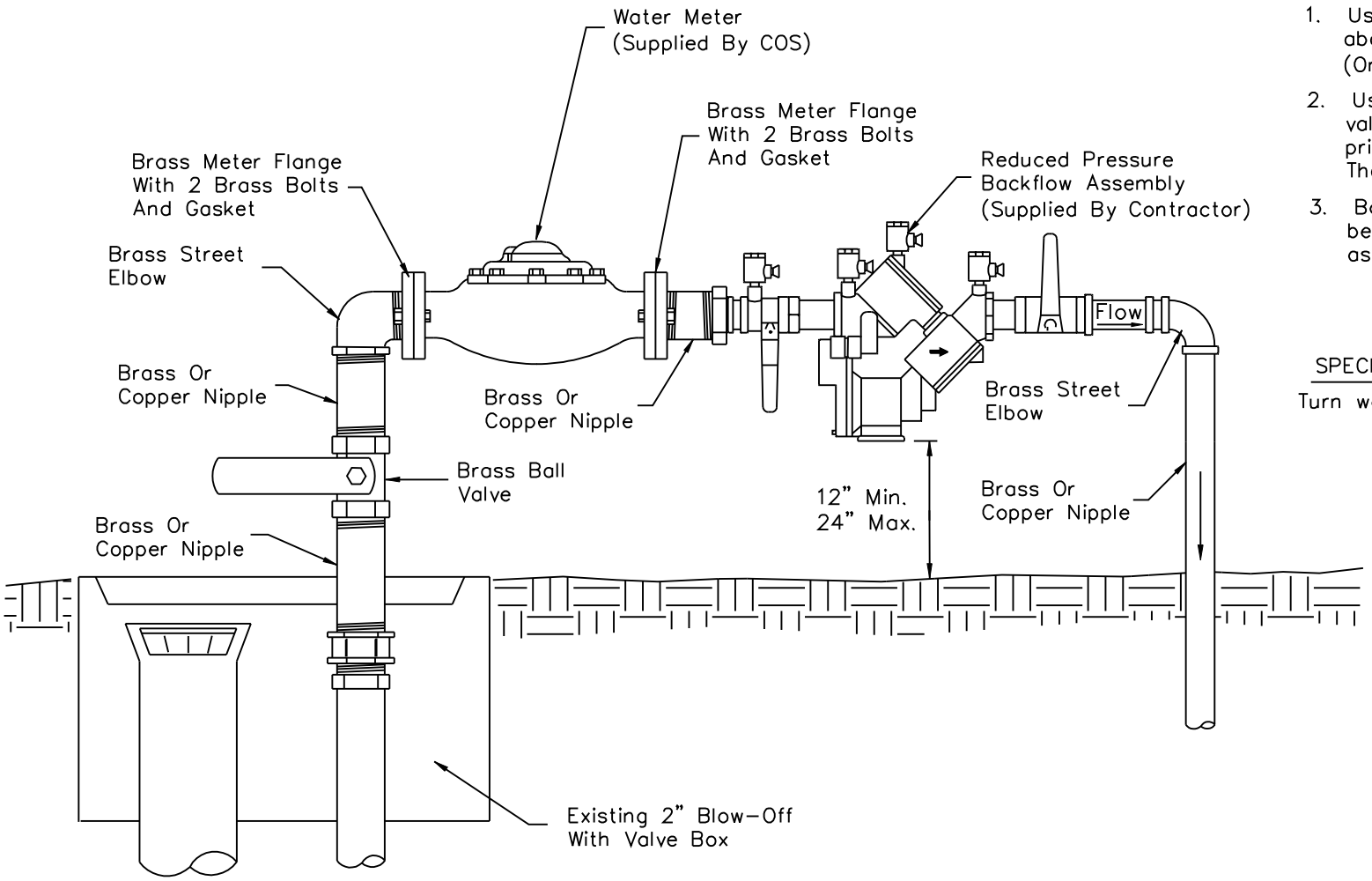
DETAIL NO. 2374	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	REMOTE FIRE DEPARTMENT CONNECTION TO BACKFLOW PREVENTION ASSEMBLY	DETAIL NO. 2374



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



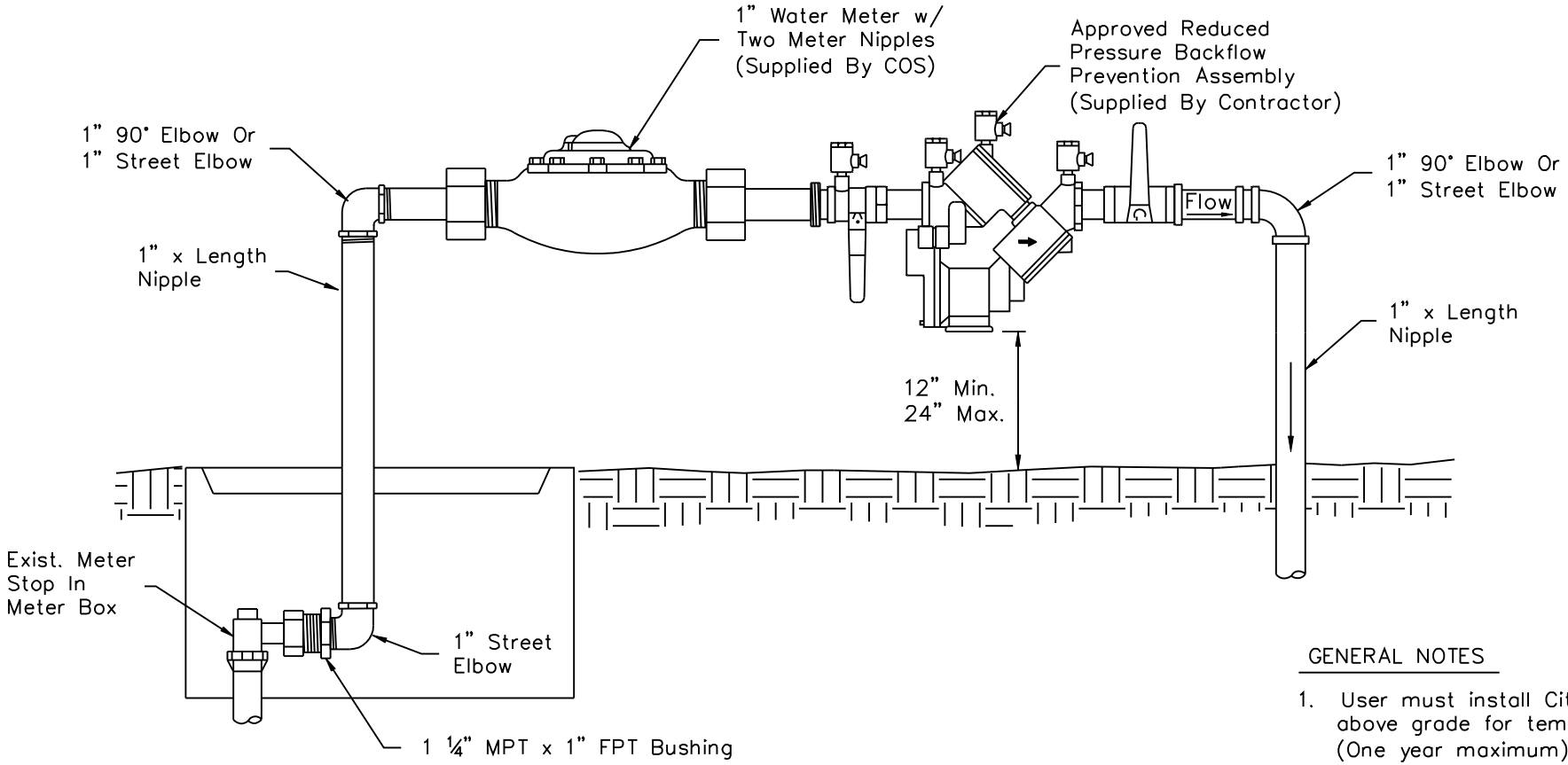
GENERAL NOTES

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

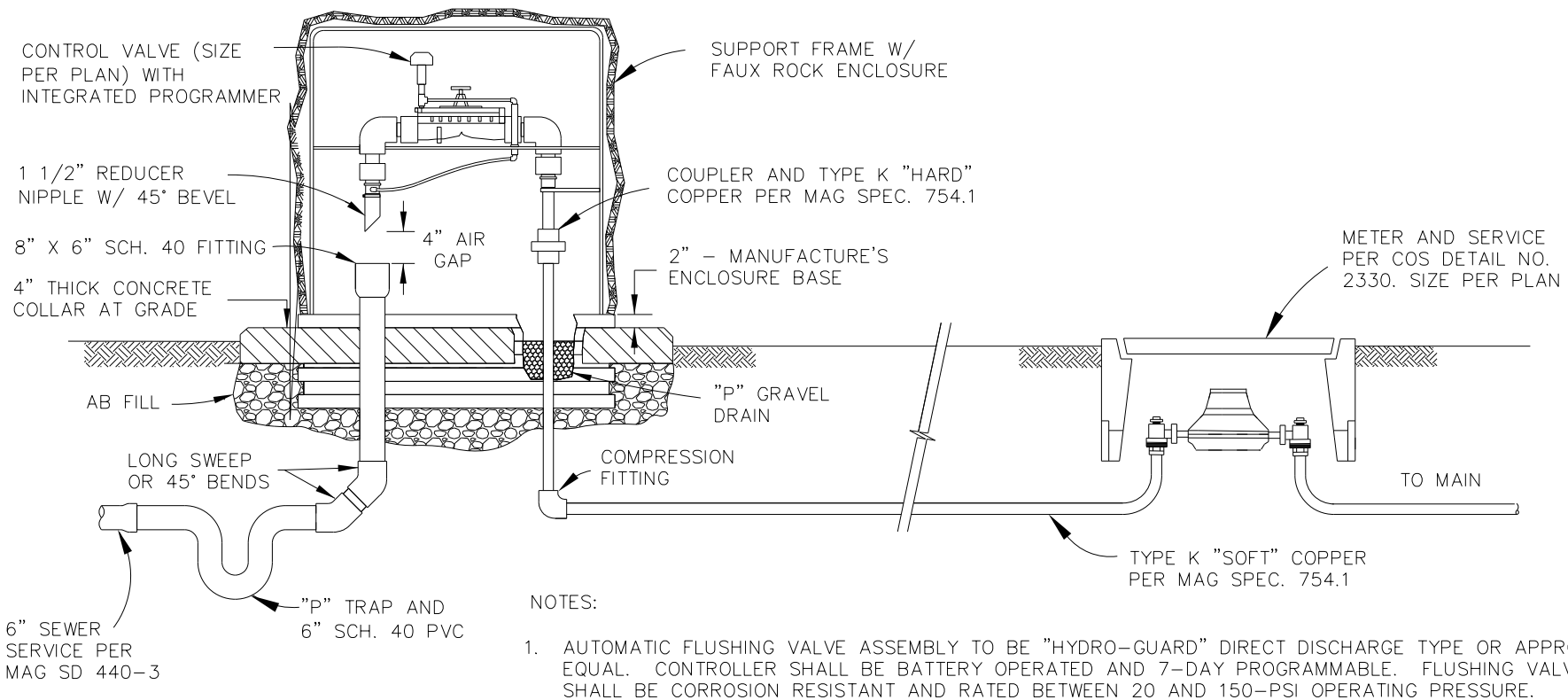


GENERAL NOTES

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

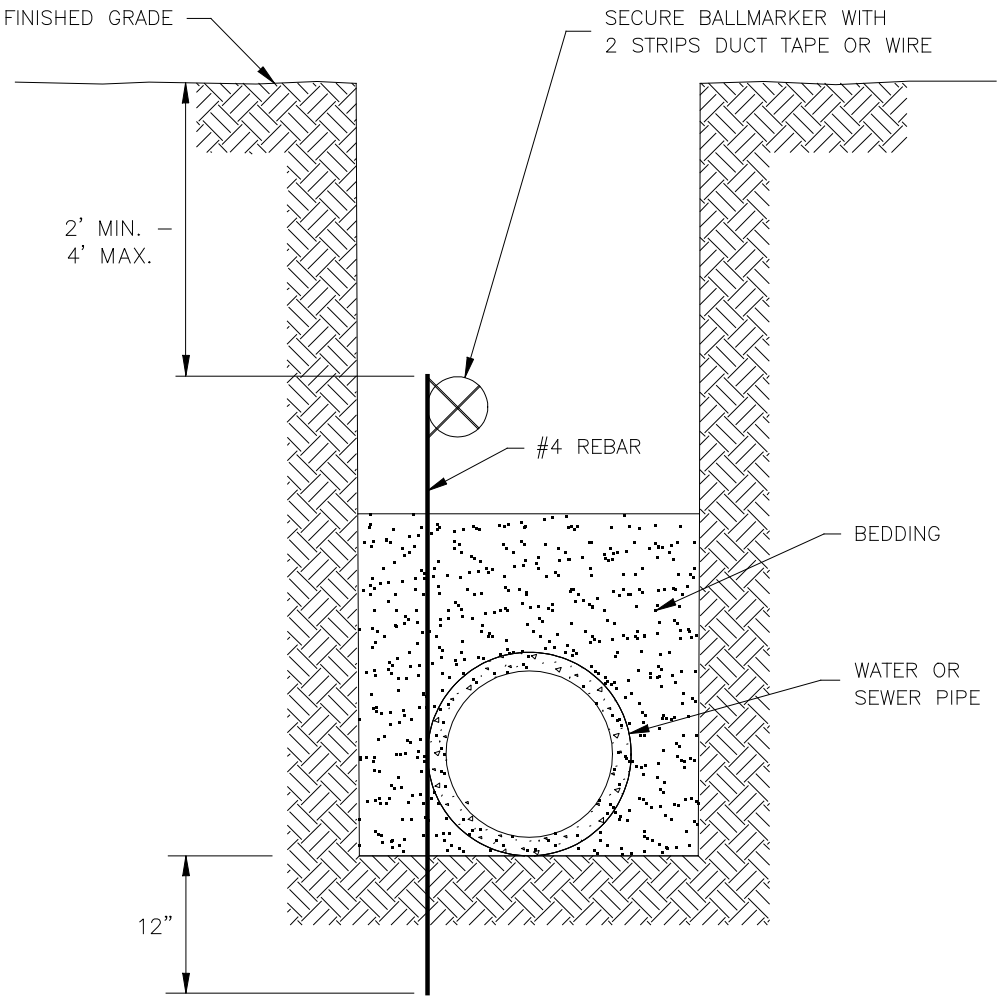
REVISED 5/22/15



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.

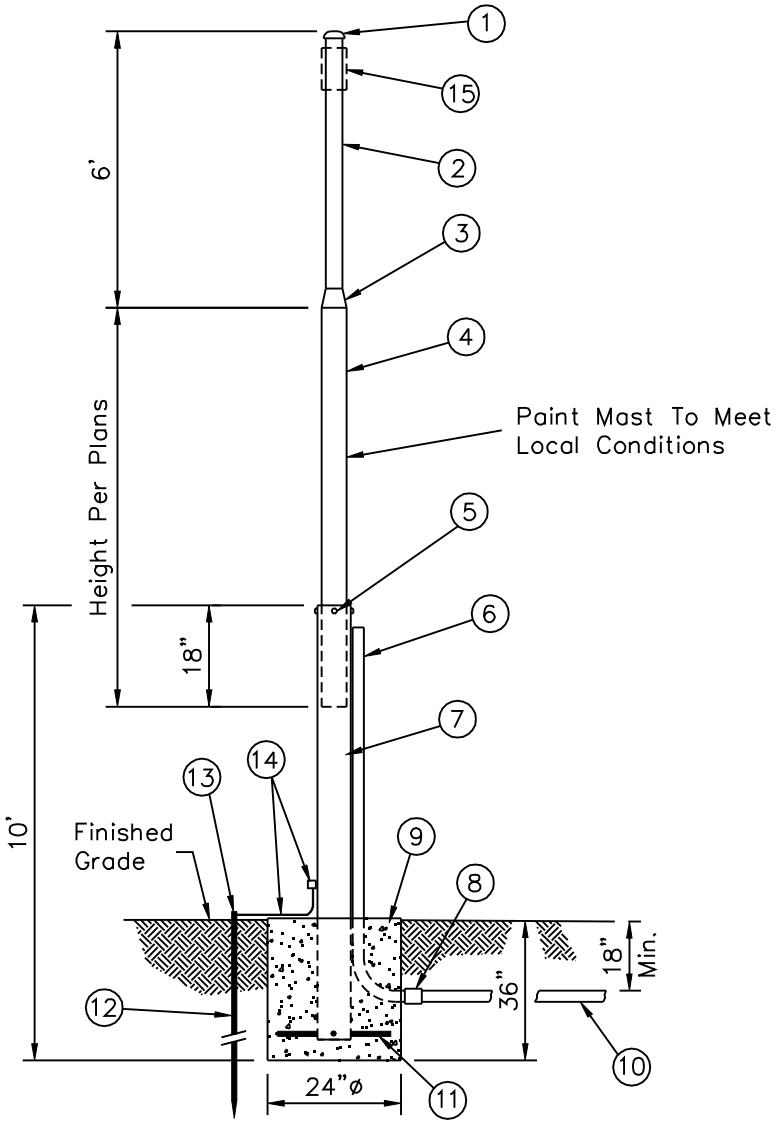
DETAIL NO. 2383	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	WATER LINE FLUSHING ASSEMBLY	DETAIL NO. 2383



REVISED 5/07/07

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

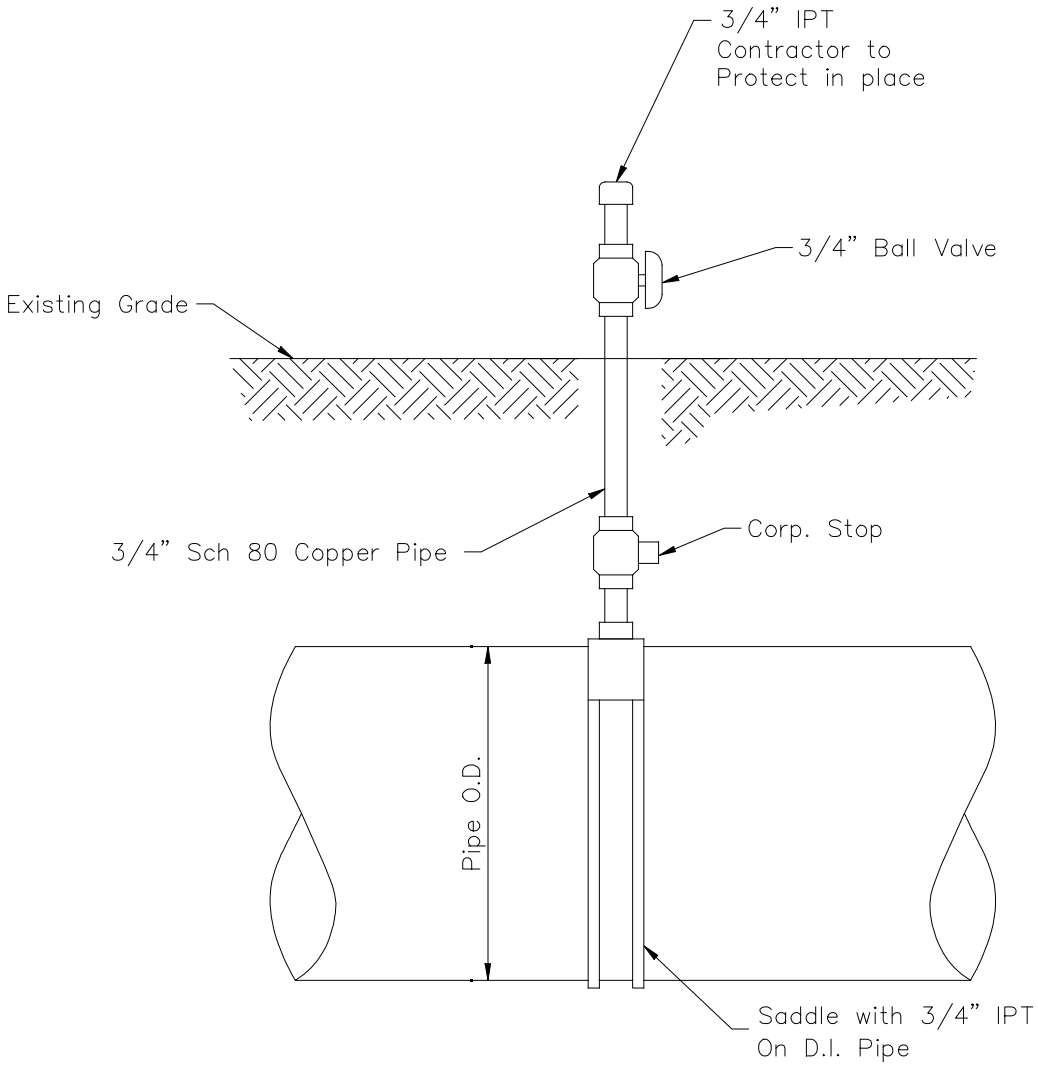
REVISED 4/30/04



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

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



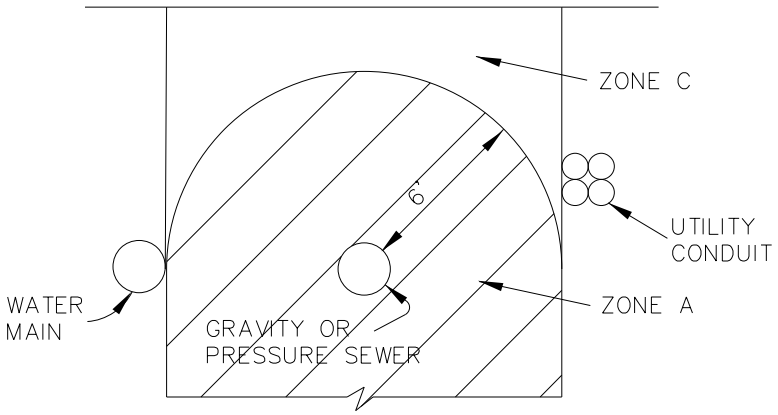
GENERAL NOTES:

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.

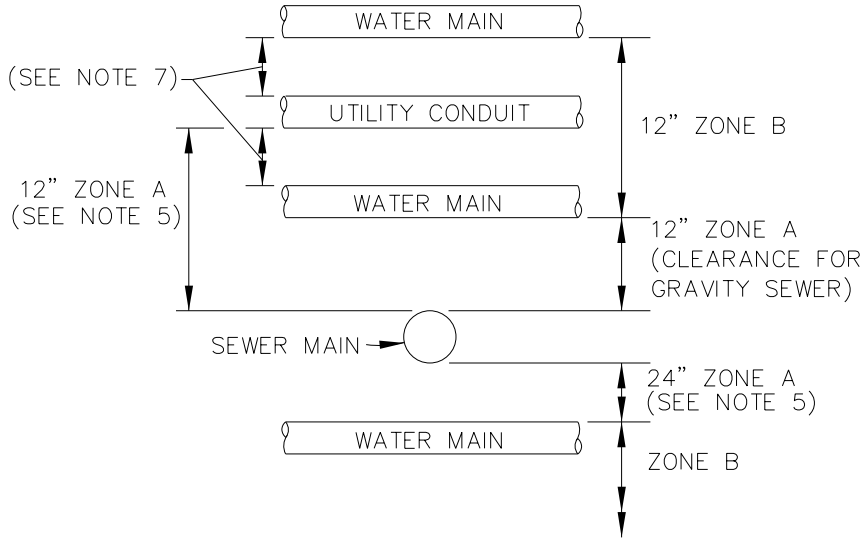
REVISED 4/25/07

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

REVISED 5/27/15



PARALLEL INSTALLATION GRAVITY OR PRESSURE SEWER



CROSSING INSTALLATION

NOTES:

1. SEPARATION DISTANCES AND/OR EXTRA PROTECTION SHALL BE REQUIRED TO PROTECT WATER MAINS FROM CONTAMINATION BY SANITARY SEWER MAINS.

2. SEE CROSS INSTALLATION DETAIL ON THIS SHEET FOR LIMITS OF SEPARATION/EXTRA PROTECTION. ALL DISTANCES ARE MEASURED PERPENDICULARLY FROM THE OUTSIDE OF THE PIPES.

   A. NO WATER MAINS OR UTILITIY CONDUITS SHALL FALL WITHIN ZONE A.

   B. EXTRA PROTECTION WILL BE REQUIRED WHEN THE WATER MAIN FALLS WITHIN ZONE B. EXTRA PROTECTION SHALL CONSIST OF CONSTRUCTING SANITARY SEWER MAINS WITH MECHANICAL JOINT OR RESTRAINED JOINT DUCTILE IRON PIPE. DUCTILE IRON PIPE SHALL COMPLY WITH THE REQUIREMENTS FOR SEWER INSTALLATION. IN A CROSSING, THE NUMBER OF JOINTS SHALL BE HELD TO A MINIMUM WITH ONE FULL JOINT OF PIPE CENTERED OVER/UNDER THE OTHER. AN ALTERNATIVE PROTECTION MAY CONSIST OF ENCASING SEWER MAINS IN REINFORCED CONCRETE PER MAG STD. DETAIL 404-3.

   C. NO ADDITIONAL PROTECTION WILL BE REQUIRED OUTSIDE OF ZONES A AND B.

   D. WATER MAINS PERMITTED IN ZONE C ONLY WITH WRITTEN PERMISSION FROM THE WATER RESOURCES DEPARTMENT.

3. SEPARATION REQUIREMENTS FOR 4" OR 6" INDIVIDUAL HOUSE SERVICE CONNECTIONS SHALL COMPLY WITH THE PLUMBING CODES ADOPTED BY THE CITY.

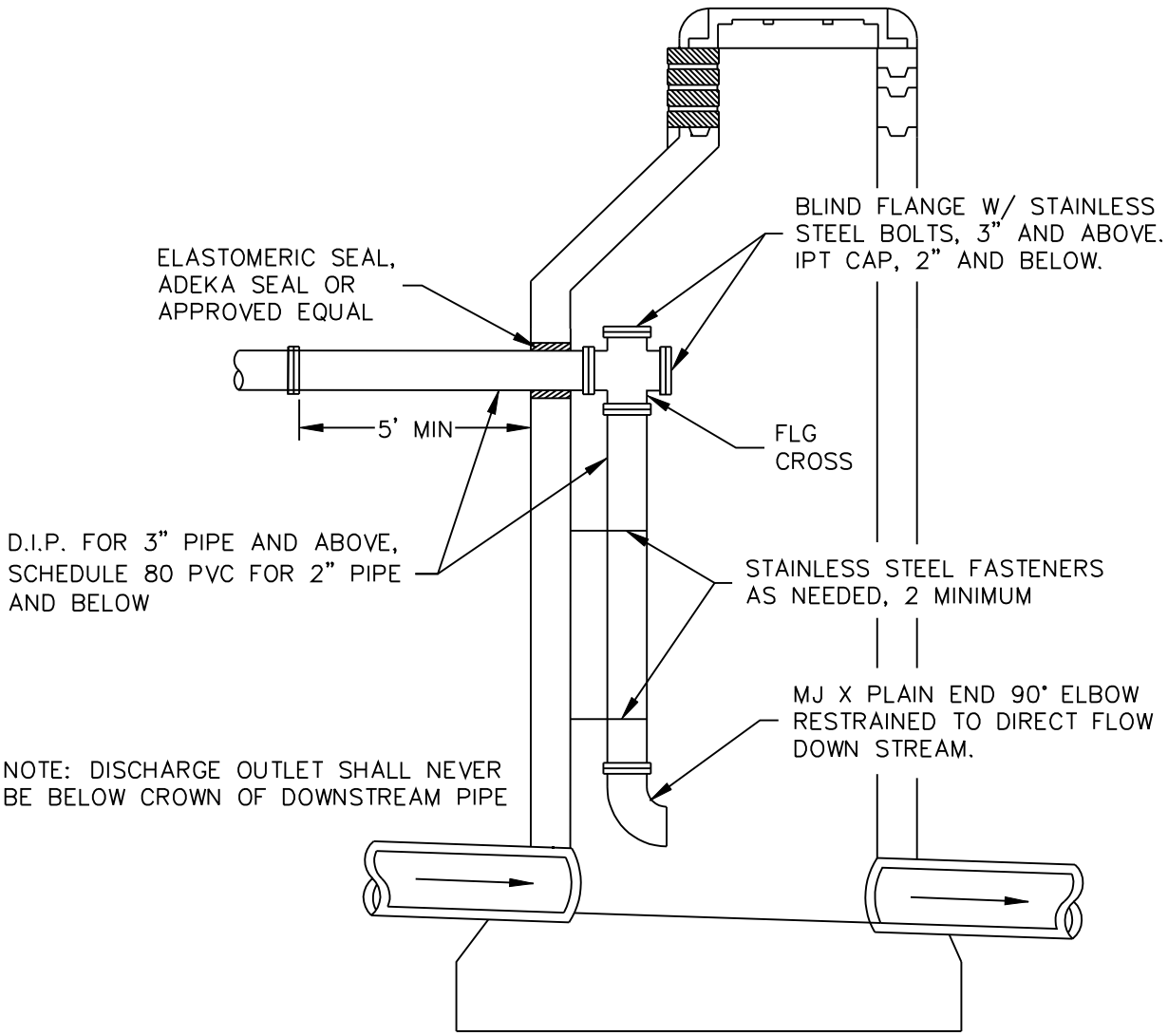
4. RECLAIMED WATER SHALL BE CONSIDERED AS POTABLE WATER WHEN PLACED NEXT TO A SANITARY SEWER AND CONSIDERED A PRESSURE OR FORCED SANITARY SEWER MAIN, WHEN PLACED NEXT TO A POTABLE WATER MAIN.

5. ZONE A IS 24" WHERE WATER MAINS AND UTILITY CONDUITS CROSS PRESSURE SEWER MAINS.

6. THIS DRAWING REVISES MAG STD. DETAIL 404-1 ONLY. MAG STD. DETAILS 404-2 & 404-3 REMAIN INTACT.

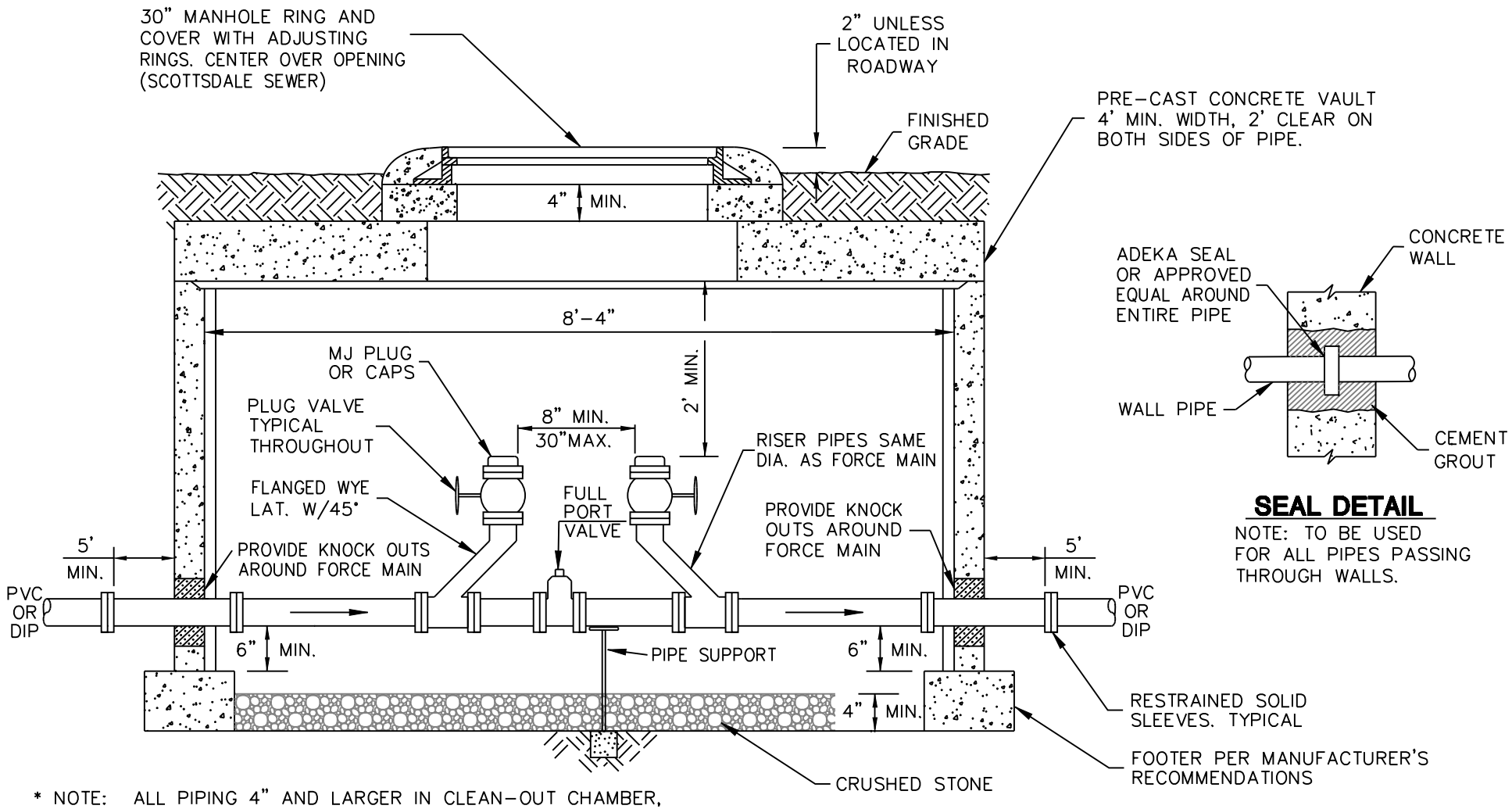
7. REFERENCE COS STANDARD DETAIL 2370 AND 2372.

DETAIL NO. 2401	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SANITARY SEWER SEPARATION / PROTECTION FROM WATER & UTILITIES	DETAIL NO. 2401



DETAIL NO. 2402	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FORCE MAIN DISCHARGE MANHOLE	DETAIL NO. 2402

REVISED 4/06/09



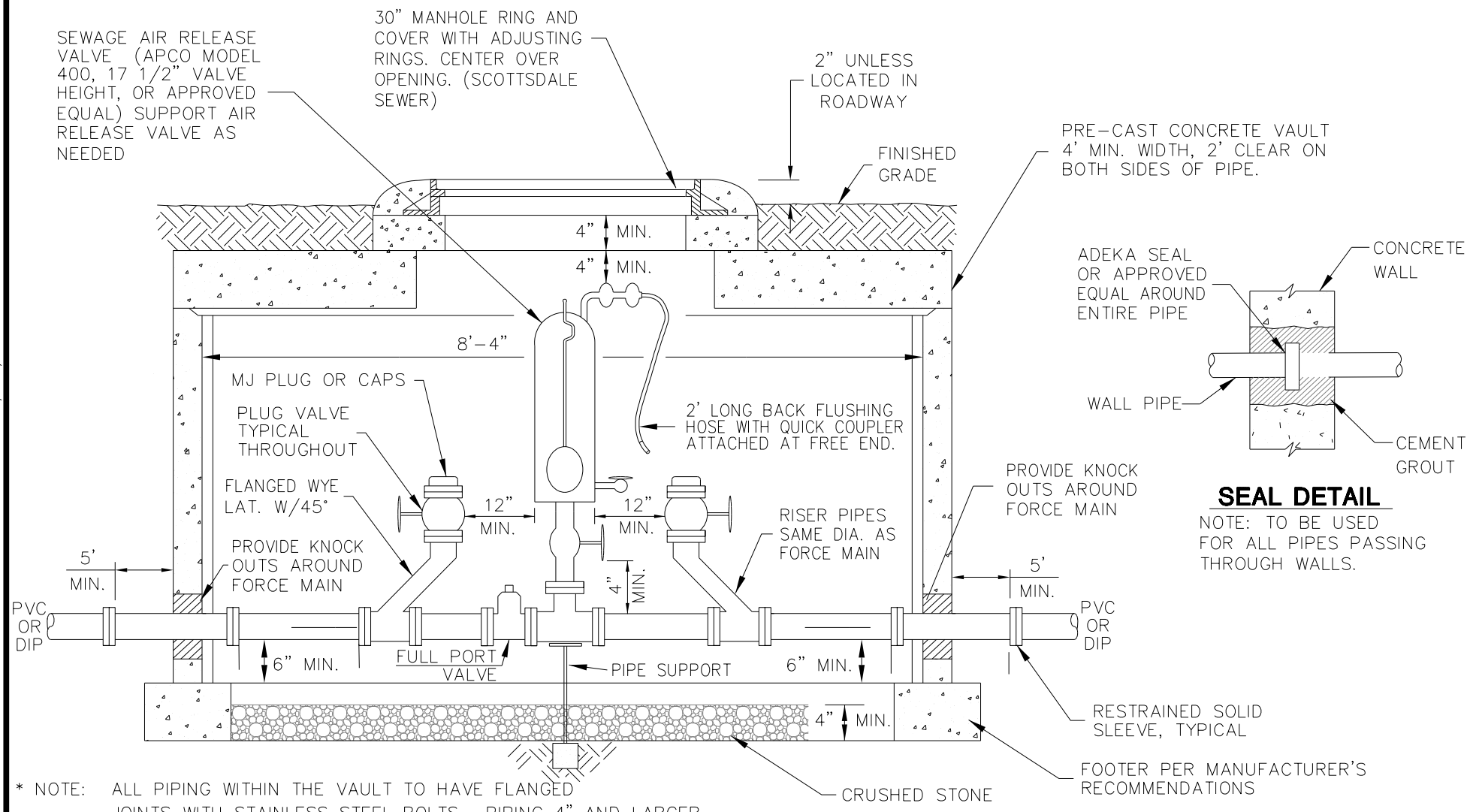
SEAL DETAIL

NOTE: TO BE USED FOR ALL PIPES PASSING THROUGH WALLS.

* NOTE: ALL PIPING 4" AND LARGER IN CLEAN-OUT CHAMBER, EXCEPT AS NOTED, TO BE DUCTILE IRON CONNECTED WITH FLANGED JOINTS AND STAINLESS STEEL BOLTS.

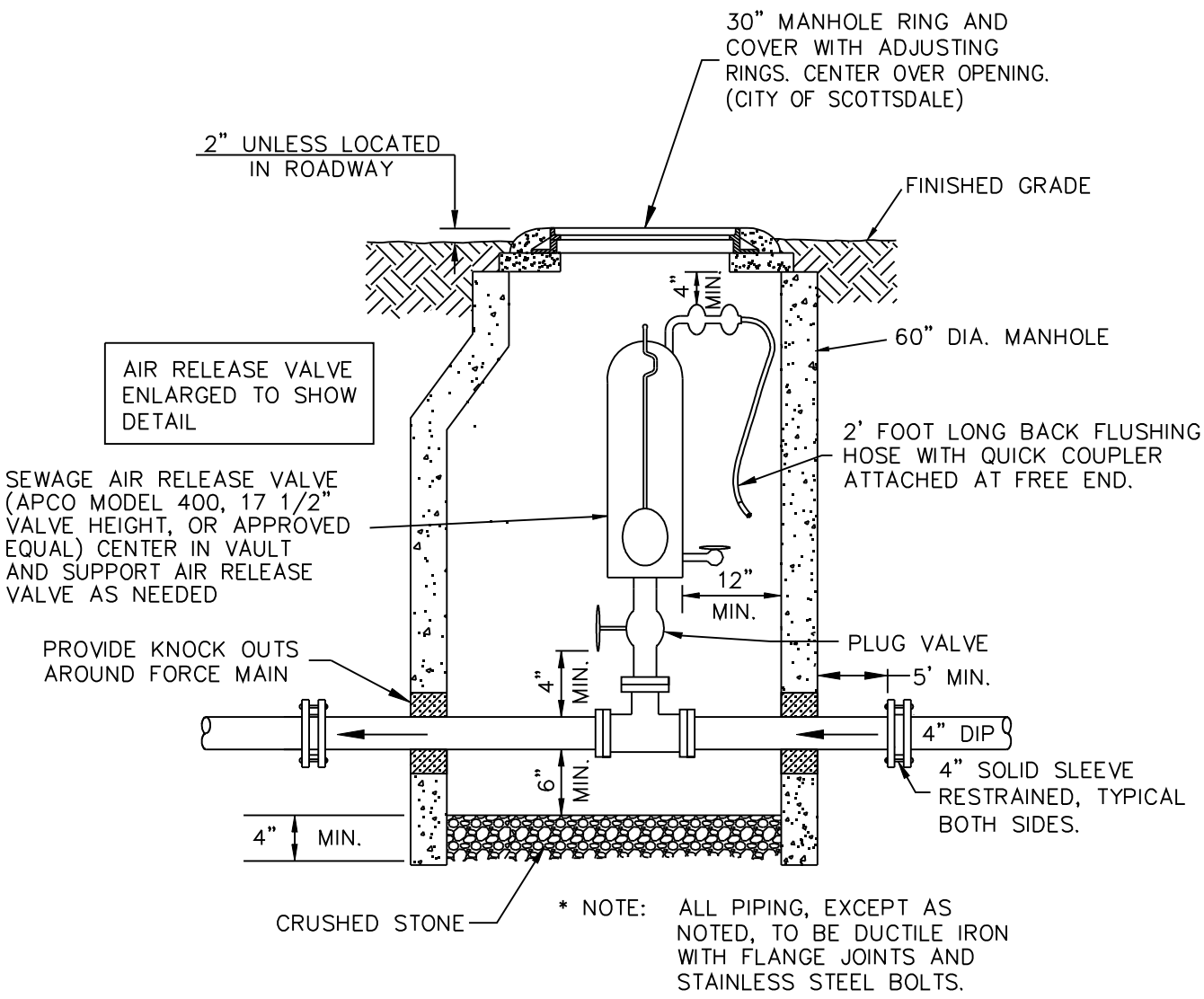
DETAIL NO. 2403	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TWO-WAY FORCE MAIN CLEAN-OUT	DETAIL NO. 2403

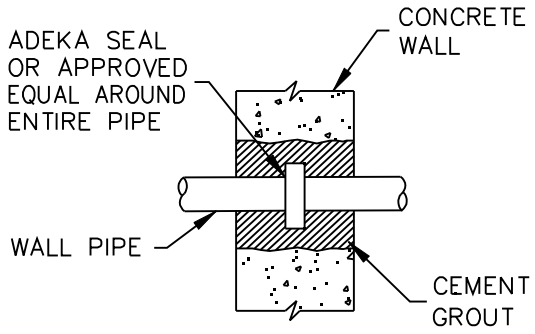
REVISED 5/19/15



* NOTE: ALL PIPING WITHIN THE VAULT TO HAVE FLANGED JOINTS WITH STAINLESS STEEL BOLTS. PIPING 4" AND LARGER TO BE DUCTILE IRON; ALL OTHER PIPING TO BE PAINTED STEEL.

DETAIL NO. 2404	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	FORCE MAIN CLEANOUT WITH SEWAGE AIR RELEASE VALVE	DETAIL NO. 2404

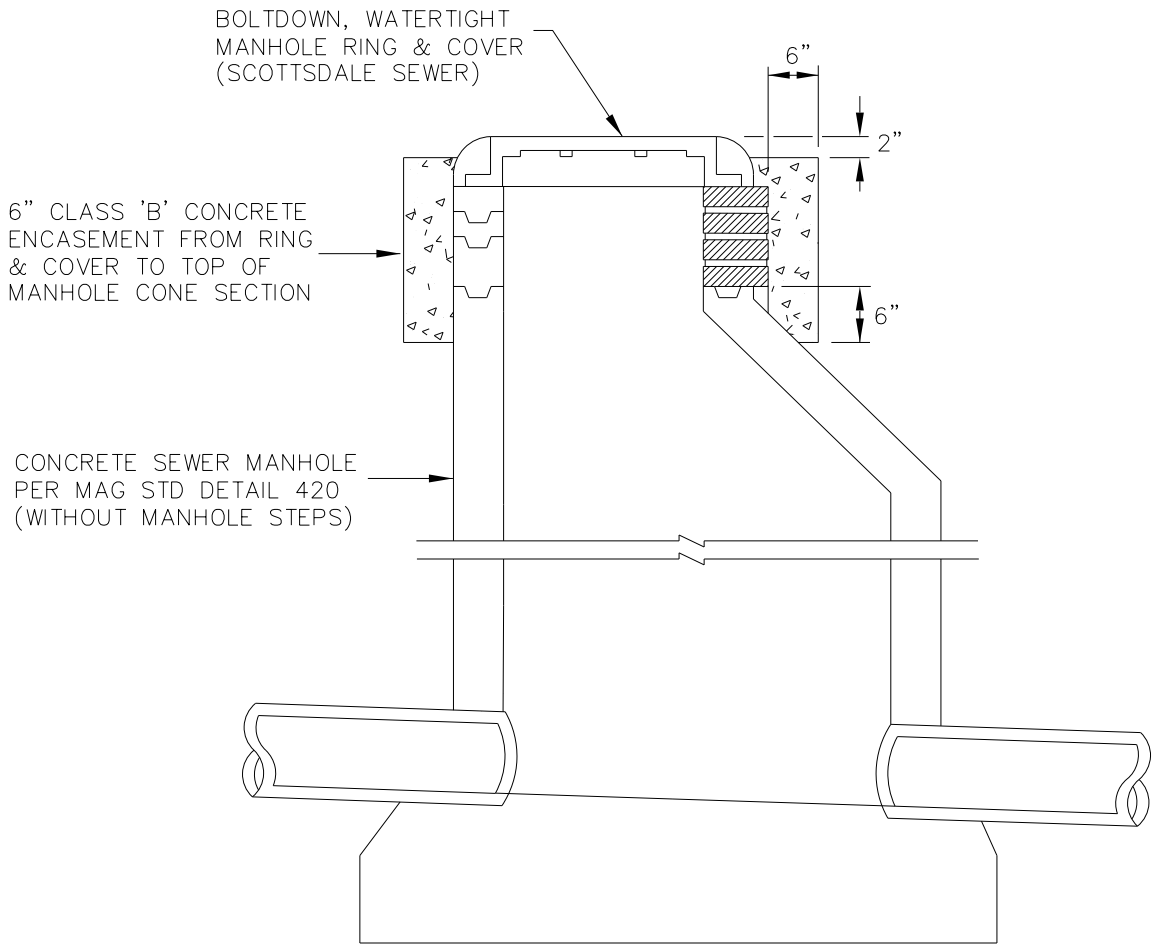




SEAL DETAIL

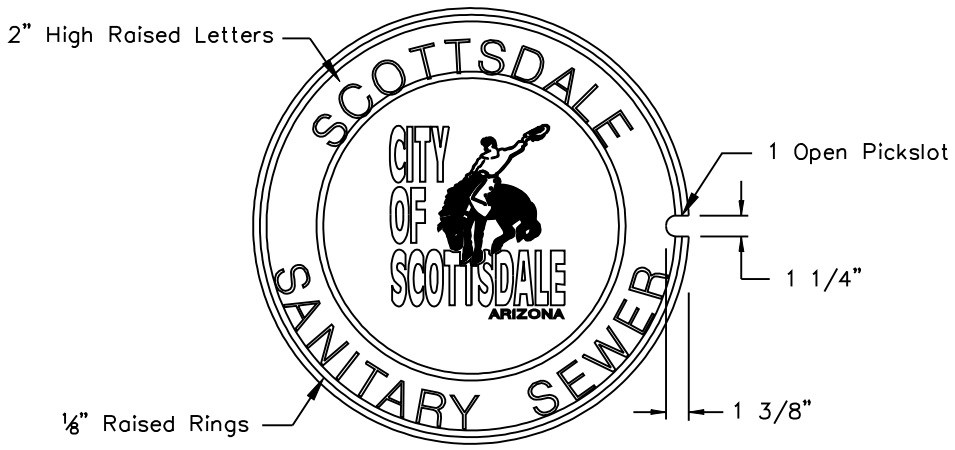
NOTE: TO BE USED FOR ALL PIPES PASSING THROUGH WALLS.

DETAIL NO. 2405	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SEWER AIR RELEASE VALVE	DETAIL NO. 2405

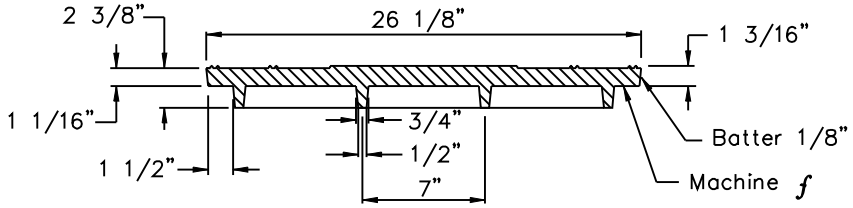


REVISED 5/19/15

DETAIL NO. 2420	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	WATER TIGHT CONCRETE SEWER MANHOLE	DETAIL NO. 2420

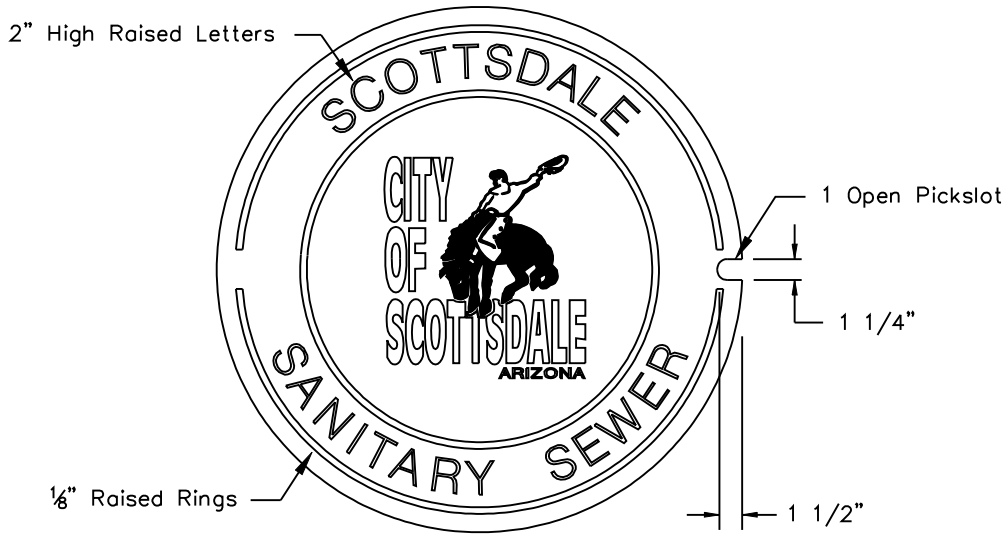


TOP VIEW

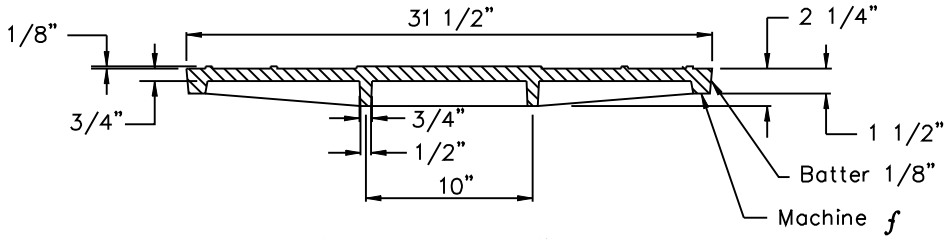


SECTION OF COVER

24" MANHOLE COVER



TOP VIEW



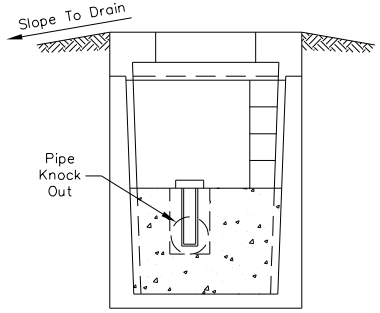
SECTION OF COVER

30" MANHOLE COVER

NOTES

1. Material: Cast Gray Iron ASTM A-48, Class 35B, Unpainted
2. The Total Width Of Individual Letters To Be Such That Letters And Words Are Equally Spaced And Balanced.
3. Letters To Be 2" In Height And Raised 1/8" Above Level Of Cover. Type Of Letters To Be Submitted For Approval.
4. Weight Of Castings Shall Be No More Than 2% Less Than Weight Specified. Castings Shall Conform To M.A.G. Section 787.

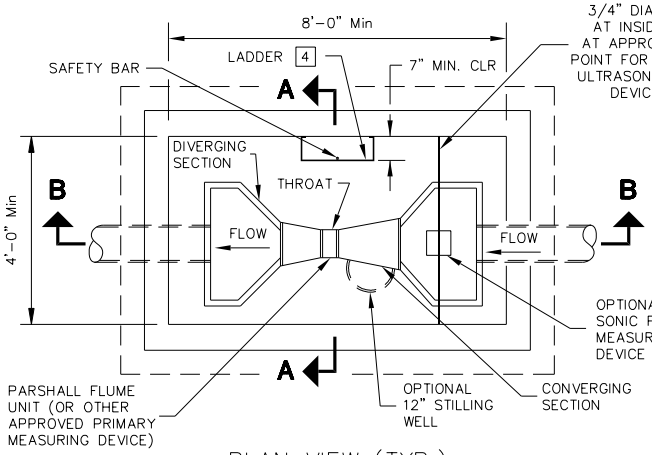
DETAIL NO. 2421	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SANITARY SEWER MANHOLE COVER	DETAIL NO. 2421



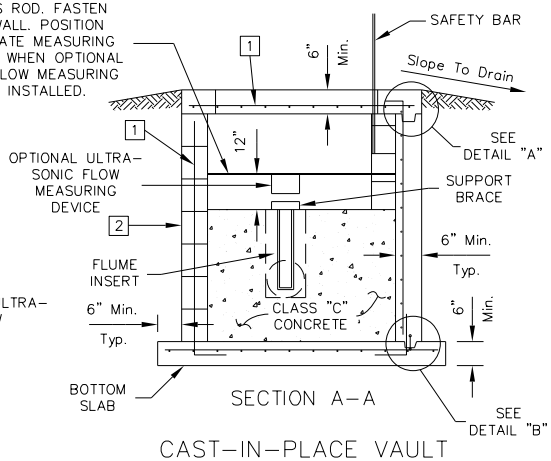
SECTION A–A

PRE–CAST VAULT

UTILITY VAULT CO.
VAULT NO. 575–BL,
NO. 577–BL OR
APPROVED EQUAL



PLAN VIEW (TYP.)

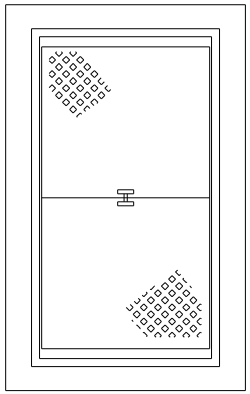


SECTION A–A

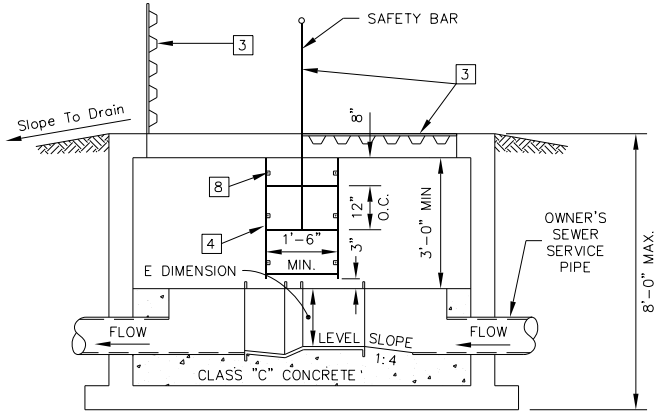
CAST–IN–PLACE VAULT

NOTES:

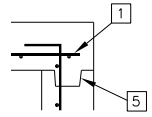
1. Reinforced steel and clearance as approved by the engineer.
2. Block masonry may be used in lieu of CIP walls. 8" block masonry, grout each cell to full hieght (grout per MAG Section 776).
3. 2 Torsion spring assisted galvanized diamond plate access doors (design loading AASHO–H20) locking with type 304SS hardware and safety bar (Bilco Model LU–3, or approved equal).
4. Ladder shall be furnished and installed in accordance with the detail and shall meet the requirements of OSHA for Type IA (300 lbs) fixed ladders, single section. Details of ladder con–struction, along with a certification that the ladder meeets or exceeds OSHA requirements for Type IA (300 lbs) service shall be submitted for review prior to furnishing and installing. Mill finished aluminum ladder or approved corrosion resistant material.
5. 2"x 4" key, center on wall. (Install rope caulk continuously).
6. 1–5/8"x 2–1/2"x 3" key.
7. 4" PVC dumbell type continuous waterstop 3/8" min. thickness. (Wash thoroughly prior to installation.
8. Anchor straps (3 each side) with 5/8" x 3–1/2" 316SS anchor bolts with lock washer and nut.



COVER WITH LID

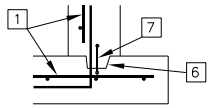


SECTION B–B



TOP KEY

DETAIL "A"



BOTTOM KEY

DETAIL "B"

GENERAL NOTES

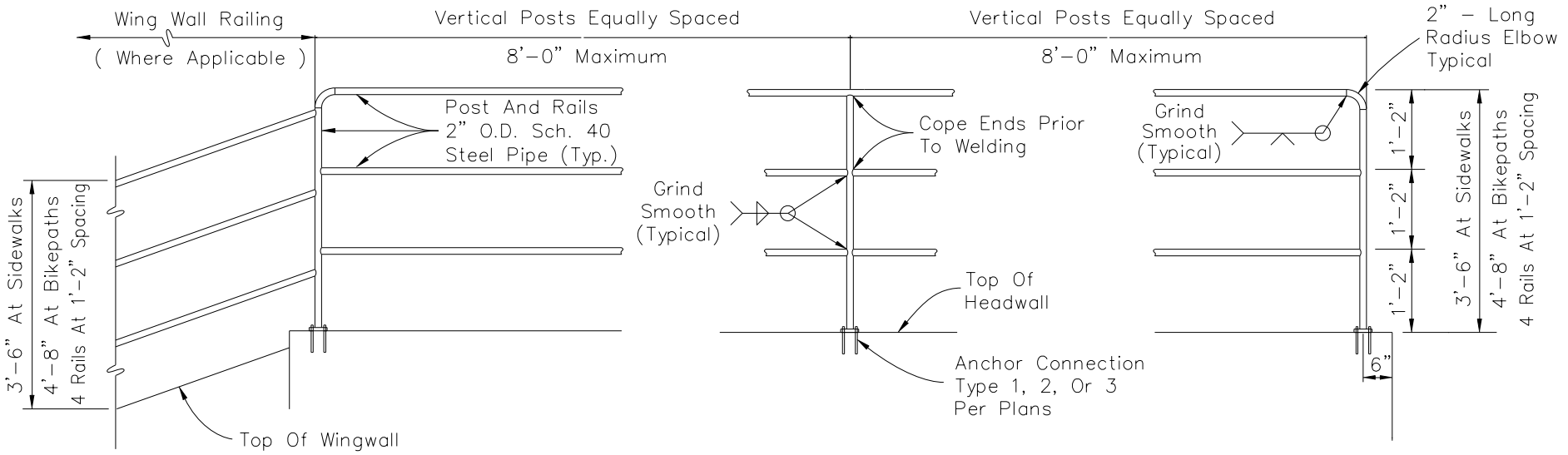
1. All construction shall conform to MAG Specifications and Details and City of Scottsdale Supplement to MAG Specifications and Details, unless modified on the plans.
2. All concrete floors, walls and top slab of the structure shall conform to MAG section 725, Class A, minimum compressive strength at 28 days = 3,000 psi.
3. All concrete for the grout fillet inside the structure shall conform to MAG Section 725, Class C, minimum compressive strength at 28 days = 2,000 psi.
4. All steel reinforcing shall be deformed bars, Grade 60, billet steel conforming to ASTM Specification No. A–615, latest edition.
5. The Monitoring/Sampling Vault shall be installed on the owner's property as close to the customer tap to the City sewer as feasible, and approved by the City of Scottsdale.
6. Flume size should be based upon the minimum and maximum flow rates and velocities to insure free–flow conditions.
   - –Maximum Flow = 70%–100f maximum capacity of selected flume size.
   - –0.5 inches of flow should exist at the minimum actual flow.
7. Flume floor elevation should be high enough, relative to downstream conditions, to prevent submerged flow (50% submergence is acceptable at maximum flow), Install the flume level (longitudinally and transversely) in the converging section.
8. Upstream flow should be wave free, non–turbulent, and symmetrical having a uniform velocity (1fps minimum to 3 fps maximum) at least 10 times the diameter of the upstream sewer pipe in length in the approach channel. Bends upstream in the flume will NOT be allowed for a distance of 25 pipe diameters unless conditions in the approach section of the flume will not be adversely affected.
9. The flume shall be installed off–center and away from the ladder to allow the maximum working space for City personnel.
10. It shall be the owner's responsibility to properly maintain the flume in accordance with the manufacturers recommendations to ensure the accuracy of the measurement.

EQUIPMENT DESCRIPTION

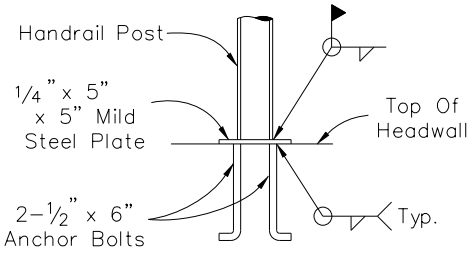
A Fisher and Porter type 10F1940, Hinde Engineering Company, PS–1001, or approved equal molded fiberglass reinforced polyester Parshall Flume shall be installed. The flume shall be molded in one piece with ample wall thickness and reinforcing ribs to prevent distorsion during shipment, installation and operation. The flume shall be self–supporting and require no external supporting structure. Interior dimensions shall conform to those in the latest revision of Water Measurement Manual published by the U.S. Department of the Interior, Water and Power Resources Services. The throat width and flume height (*E dimension) shall be per plan.

DETAIL NO. 2460	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	MONITORING/SAMPLING VAULT	DETAIL NO. 2460

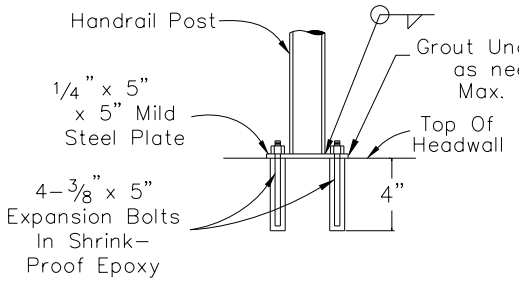
REVISED 12/5/11



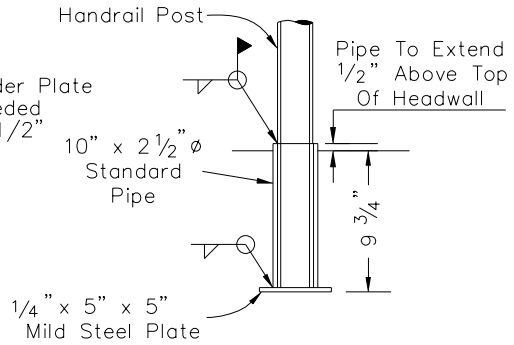
ELEVATION



TYPE 1
ANCHOR PLATE DETAIL



TYPE 2
EXPANSION BOLT DETAIL



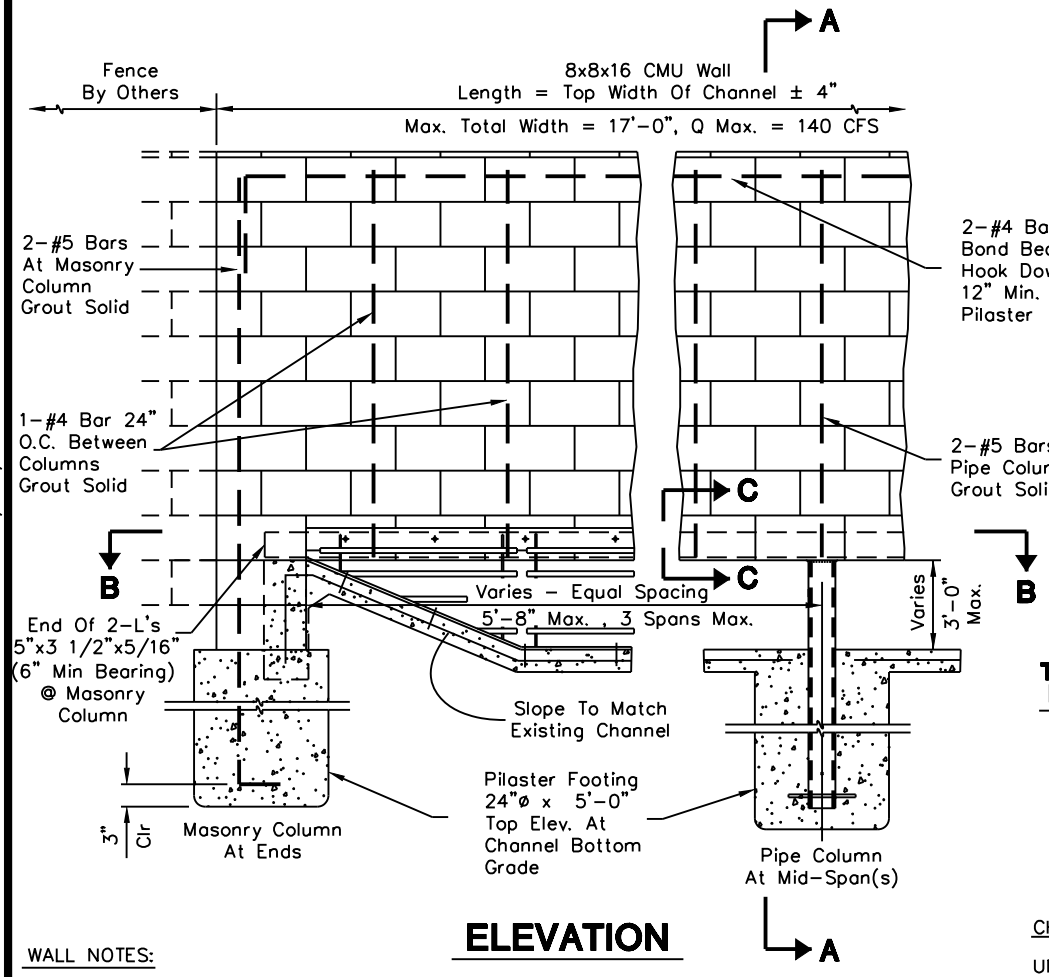
TYPE 3
PIPE SLEEVE DETAIL

CONSTRUCTION NOTES

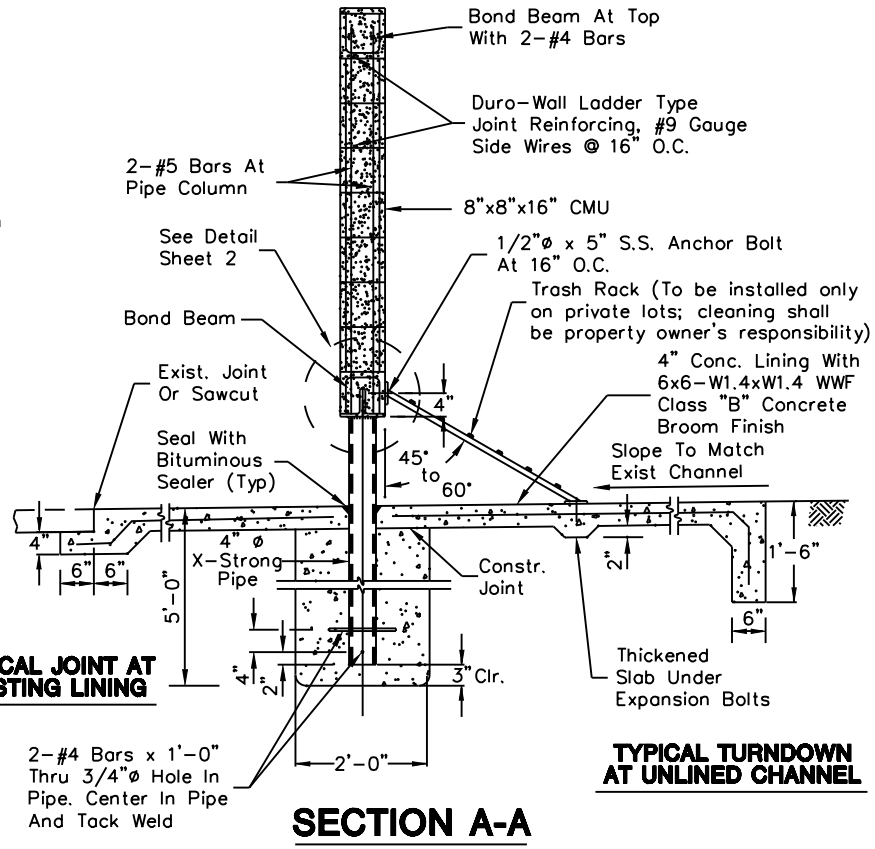
1. Paint handrail per MAG Specifications Section 530. Color per plans.
2. Vertical posts to be evenly spaced.

DETAIL NO. 2508	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	HANDRAIL DETAIL	DETAIL NO. 2508

REVISED 3/15/10



ELEVATION



TYPICAL JOINT AT EXISTING LINING

TYPICAL TURNDOWN AT UNLINED CHANNEL

SECTION A-A

WALL NOTES:

1. Wall Height, Finish Texture And Color to Match Adjacent Property Wall.
2. Construction To Conform to MAG Section 510.
3. Trash Rack Grate Required on Private Lots only; And Property Owner Shall Be Responsible for Cleaning.

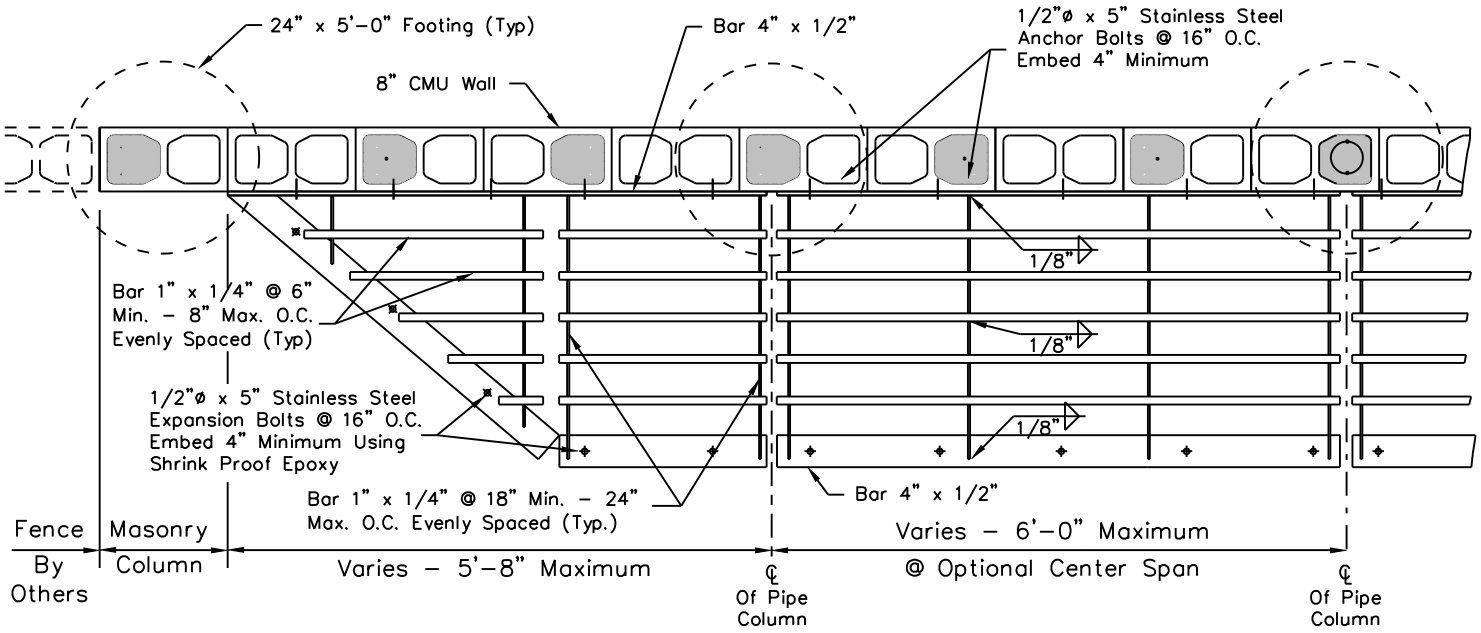
CHANNEL NOTES:

UNLINED CHANNELS: Construct New Lining 6' Minimum Upstream And Downstream From Wall With Turndown At All Edges Of Lining.

EXISTING LINED CHANNELS: Remove Existing Lining 4' Minimum Upstream And Downstream From Wall. Replace Using Joint Shown.

DETAIL NO. 2515-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	WALL OPENING & EROSION PROTECTION - TYPE 1	DETAIL NO. 2515-1

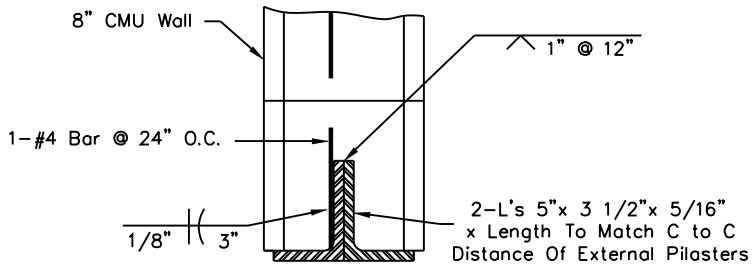
REVISED 3/15/10



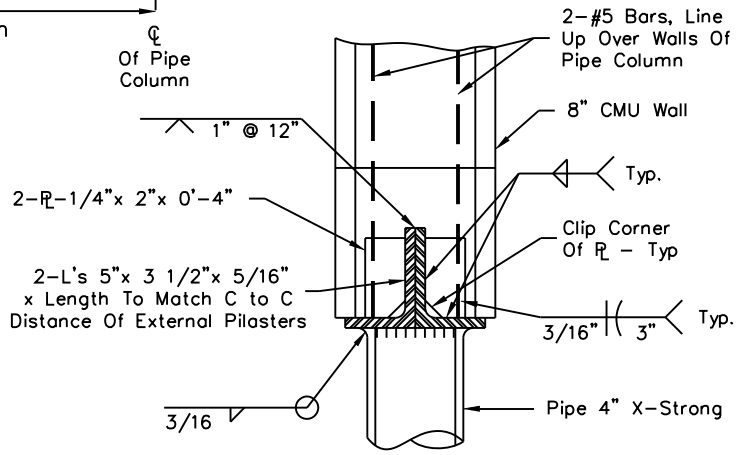
SECTION B-B

GRATE NOTES:

1. Steel Work Shall Conform To Mag Sections 515 And 770.
2. Shop Drawings Are Not Required. Contractor Shall Be Responsible For Correct Fit Between The Trash Rack, Channel And Wall As Constructed In The Field.
3. Shop Prime Steel And Touch-Up Per MAG Section 515.5. Apply A Second Coat After Erection And A Finish Coat Of Alkyd Enamel To Match Wall Finish Color.
4. Grate Required on Private Lots Only. Property Owner Responsible for Cleaning.



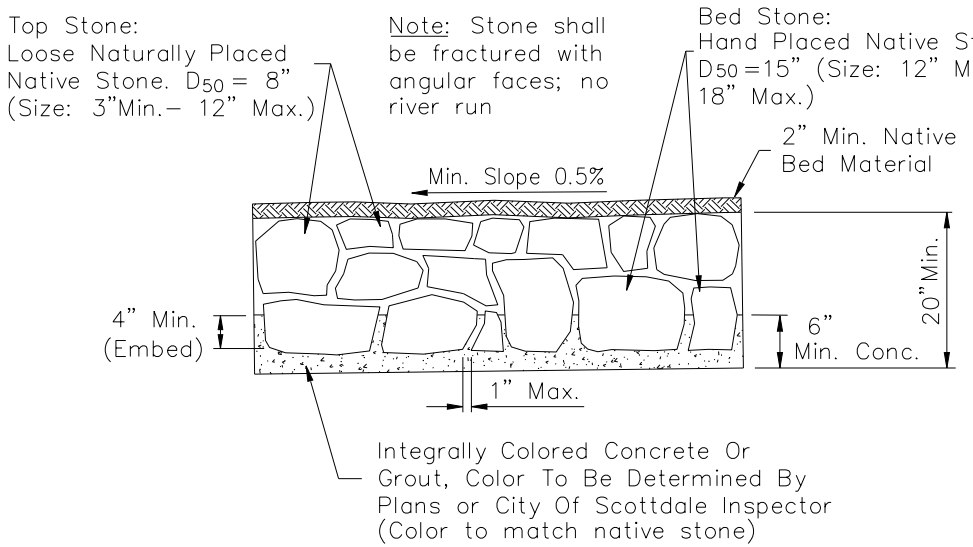
SECTION C-C



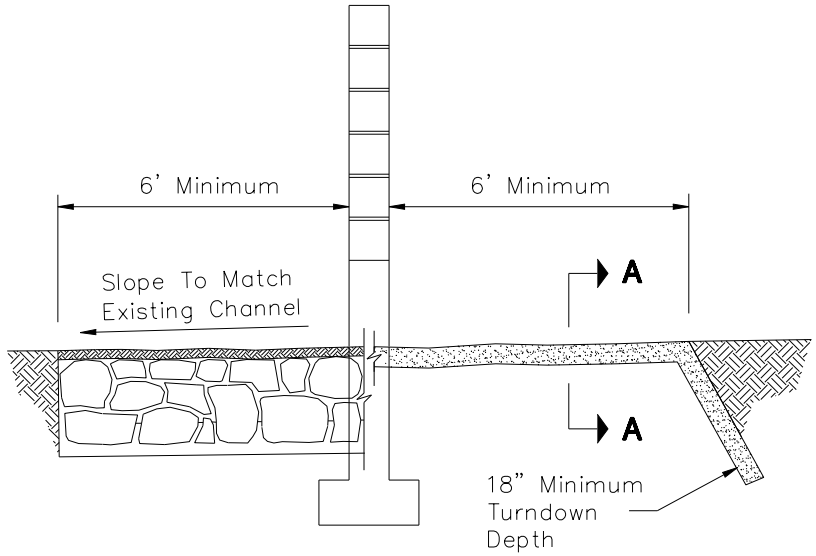
DETAIL AT PIPE COLUMN

DETAIL NO.		APPROVED BY:		DETAIL NO.
2515-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	DRAINAGE GRATE AT BLOCK WALL	2515-2

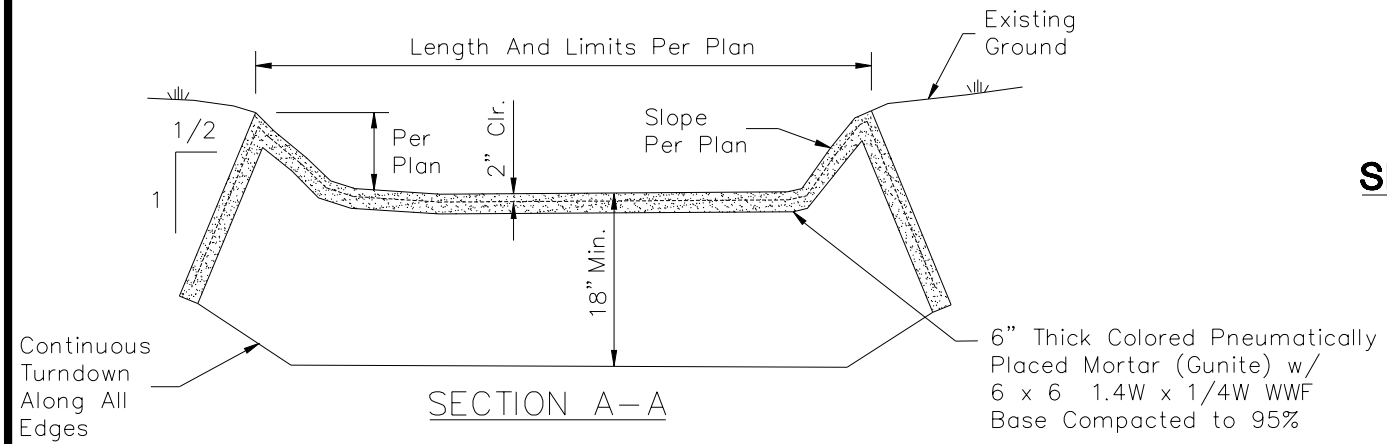
REVISED 12/21/11



TYPE 2A - BURIED GROUTED RIP-RAP DETAIL



SECTION AT WALL

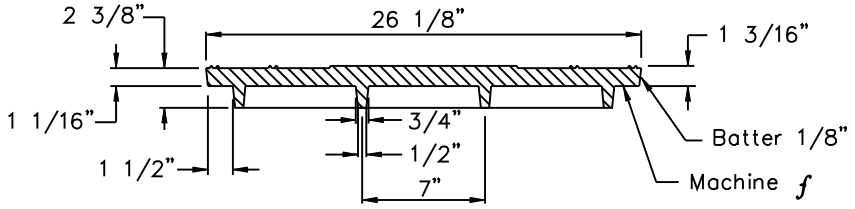


SECTION A–A

TYPE 2B - PNEUMATICALLY PLACED MORTAR DETAIL

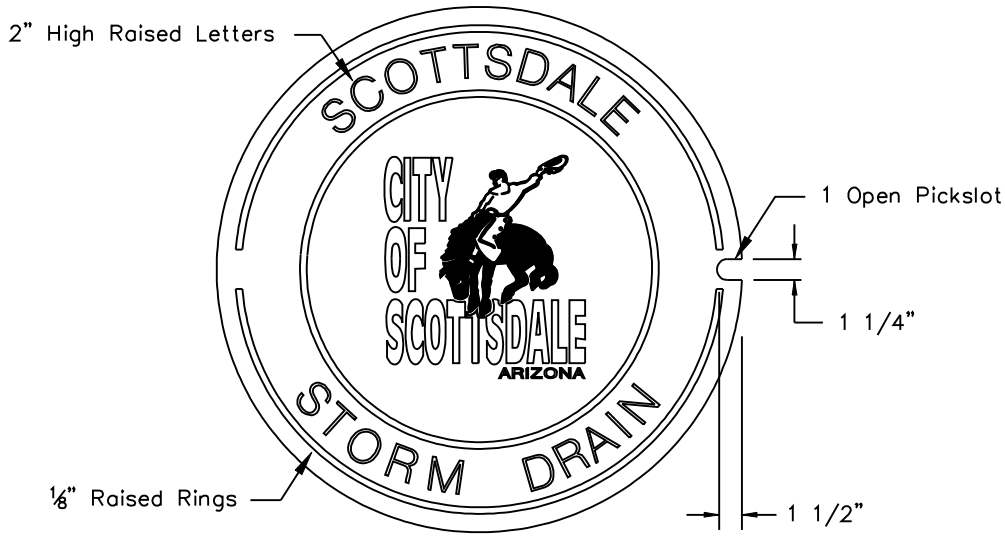
DETAIL NO. 2515-3	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	EROSION PROTECTION - TYPE 2	DETAIL NO. 2515-3

TOP VIEW

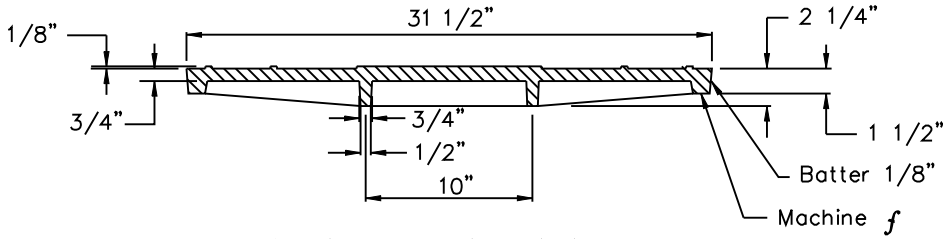


SECTION OF COVER

24" MANHOLE COVER



TOP VIEW



SECTION OF COVER

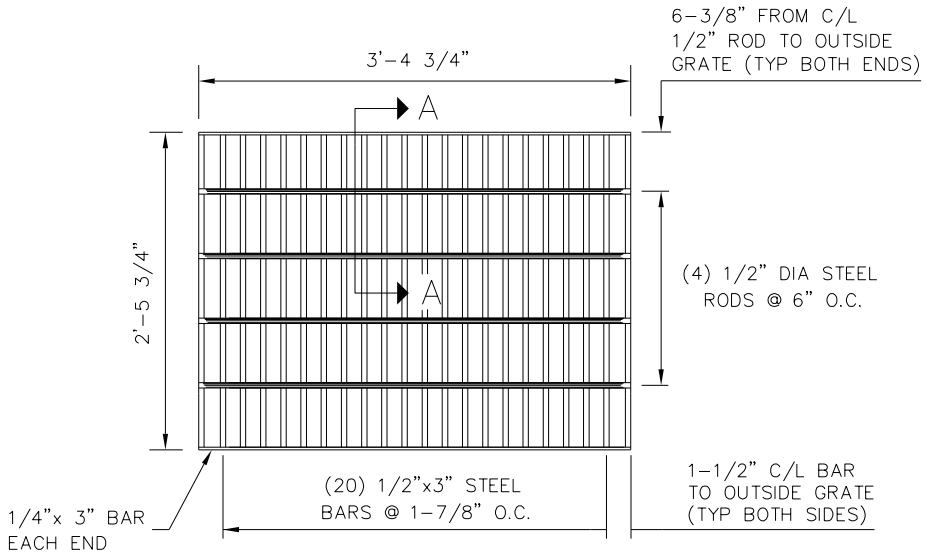
30" MANHOLE COVER

NOTES

1. Material: Cast Gray Iron ASTM A-48, Class 35B, Unpainted
2. The Total Width Of Individual Letters To Be Such That Letters And Words Are Equally Spaced And Balanced.
3. Letters To Be 2" In Height And Raised 1/8" Above Level Of Cover. Type Of Letters To Be Submitted For Approval.
4. Weight Of Castings Shall Be No More Than 2% Less Than Weight Specified. Castings Shall Conform To M.A.G. Section 787.

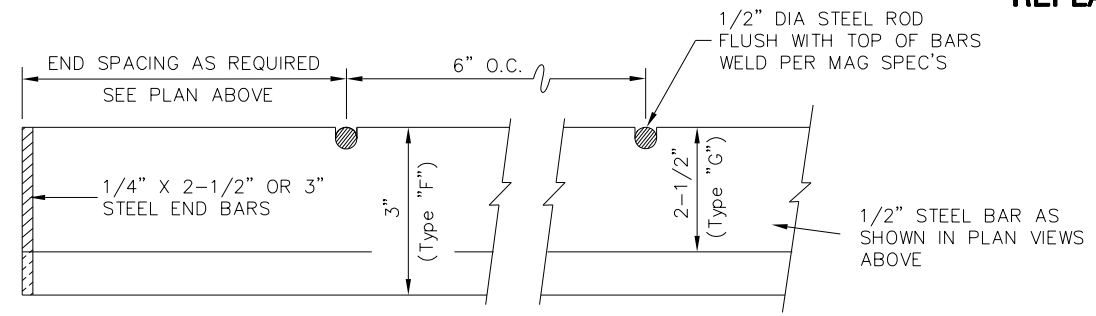
DETAIL NO. 2520	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STORM DRAIN MANHOLE COVER	DETAIL NO. 2520

REVISED 5/28/15

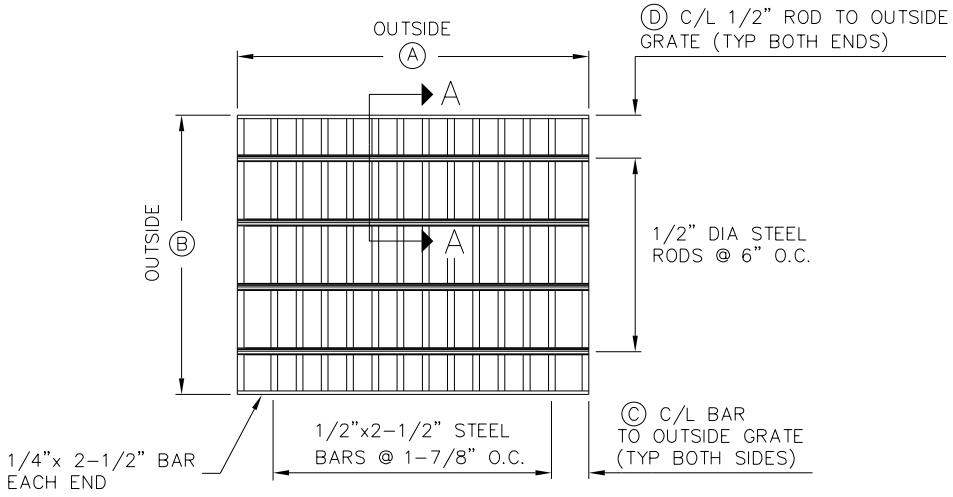


GRATE FOR TYPE "F" CATCH BASIN

REPLACES GRATE SHOWN IN MAG STD. DETAIL 535



SECTION A-A



GRATE FOR TYPE "G" & "H" CATCH BASINS

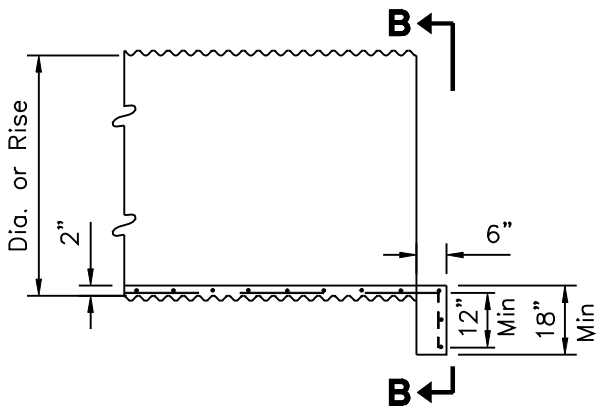
REPLACES GRATE SHOWN IN MAG STD. DETAILS 537/539

NOTES:

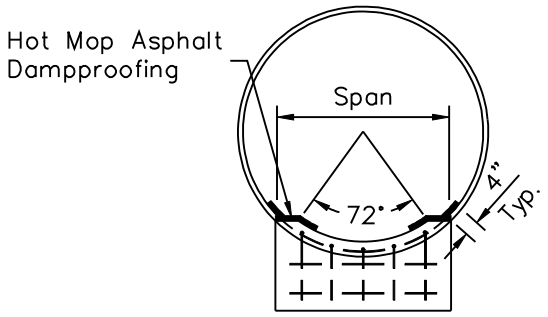
1. ALL MATERIALS AND FABRICATION TO BE AS SPECIFIED IN MAG STANDARD DETAIL NO. 539.
2. MAXIMUM TOTAL DIMENSION BETWEEN OUTSIDE OF GRATE AND INSIDE OF FRAME SHALL NOT EXCEED 3/8".
3. ATTACH GRATE TO CATCH BASIN WITH EYE BOLT AND CHAIN PER MAG DETAIL NO. 537.

TYPE "G" & "H" GRATE DIMENSIONS		
	SINGLE GRATE	DOUBLE GRATE
(A)	2'-4 5/8"	4'-4 5/8"
(B)	2'-4 5/8"	2'-4 5/8"
(C)	2-11/16"	2-5/16"
(D)	0'-4"	0'-3 3/4"

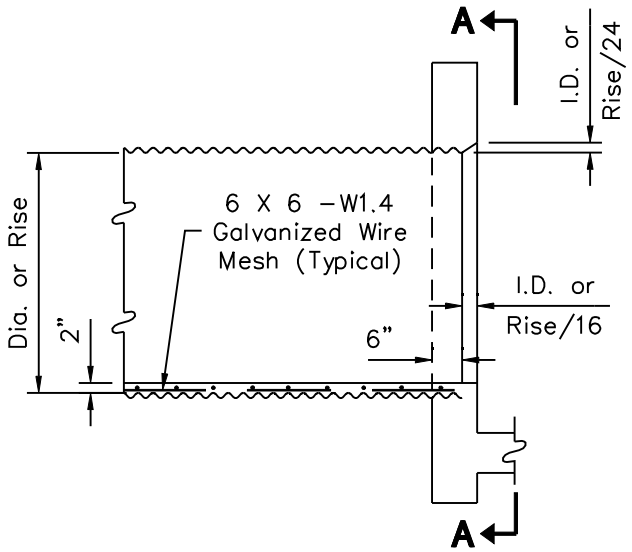
DETAIL NO. 2535	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CATCH BASIN GRATES	DETAIL NO. 2535



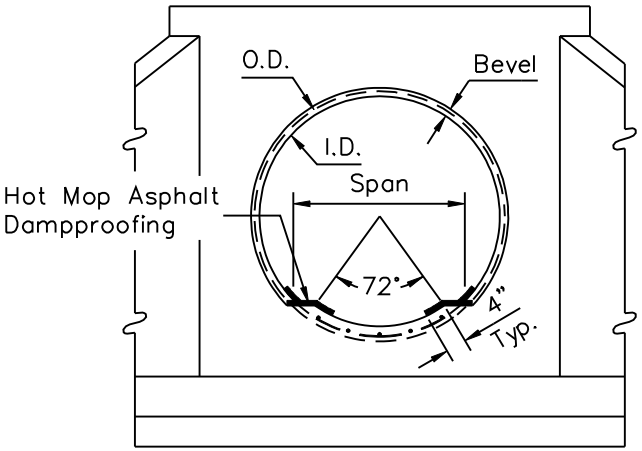
NO HEADWALL



ELEVATION B-B



WITH HEADWALL

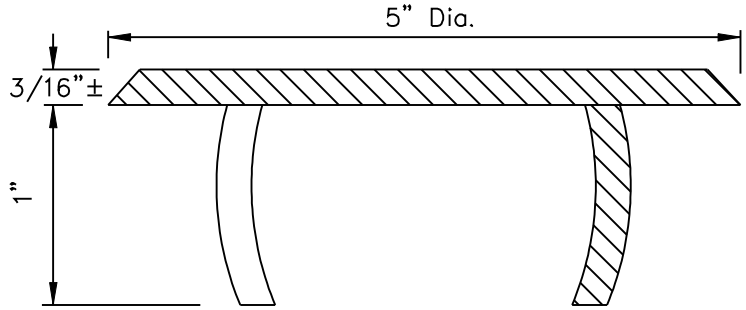


ELEVATION A-A

GENERAL NOTES

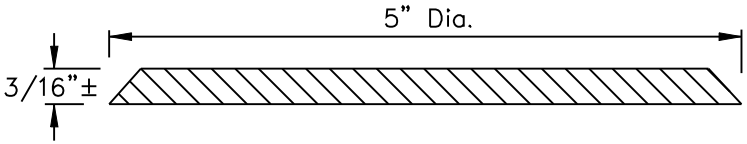
1. For lateral dimensions of invert paving, use 72° control for CMP and span for CMPA.
2. Paving shall be scored at 18" min. (transverse) along pipe length.
3. Use bevel on inlet headwall only.
4. Wire mesh shall be tack welded to corrugation crests at 18" intervals. Laps shall be 6" min.
5. Paving shall not be placed until backfilling is completed.
6. Concrete shall be Class "B".

DETAIL NO. 2554	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	CONCRETE INVERT PAVING FOR CORRUGATED METAL PIPE AND PIPE ARCH	DETAIL NO. 2554



TYPE "A:

TO BE INSTALLED IN WET CONCRETE
DURING CONSTRUCTION



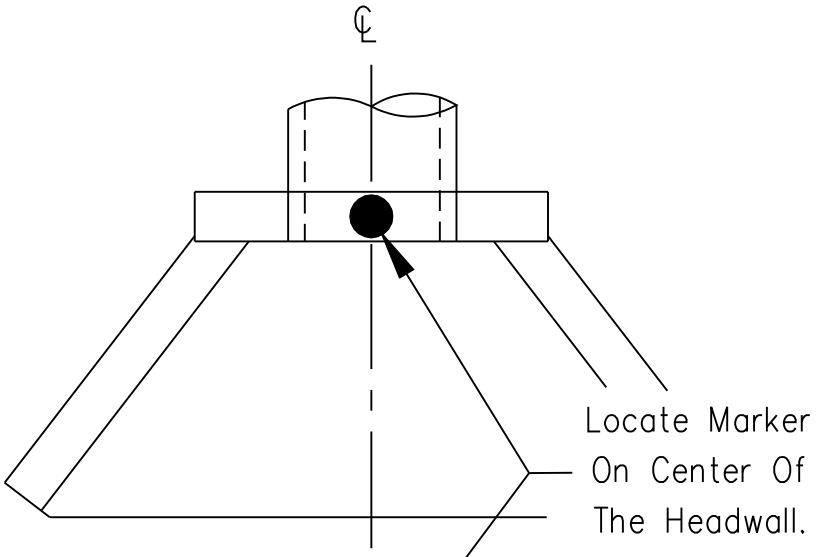
TYPE "B"

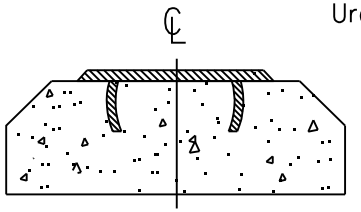
TO BE INSTALLED WITH ADHESIVE
ON EXISTING STRUCTURES

NOTES

1. Material: Cast Aluminum
2. The Total Width Of Individual Letters To Be Such That Letters And Words Are Equally Spaced And Balanced.
3. Letters To Be 1/2" In Height. Type Of Letters To Be Submitted For Approval.

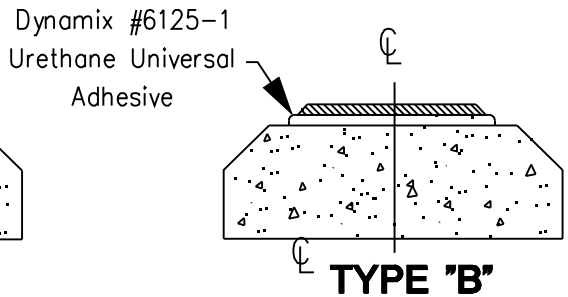
DETAIL NO. 2560-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STORM DRAIN INLET MARKER	DETAIL NO. 2560-1





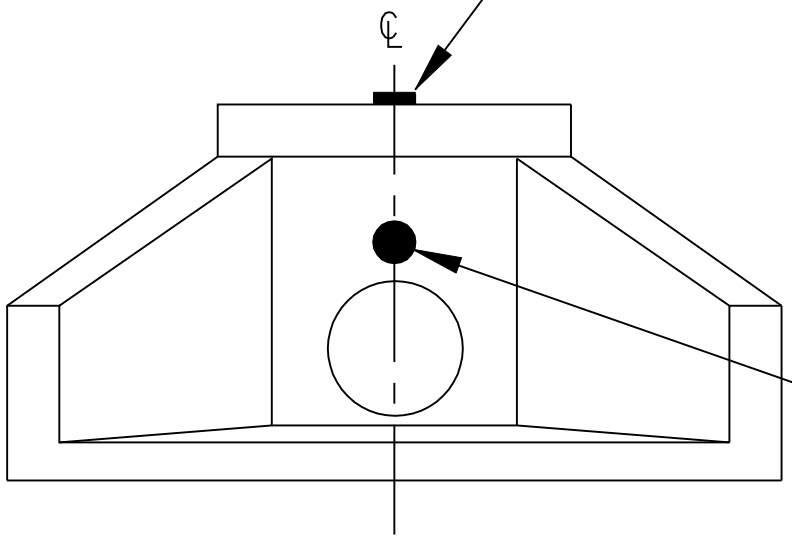
TYPE "A"

TO BE INSTALLED IN WET CONCRETE
DURING CONSTRUCTION

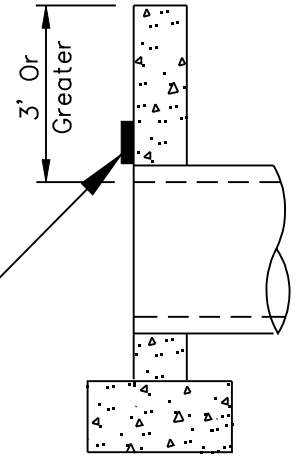


TYPE "B"

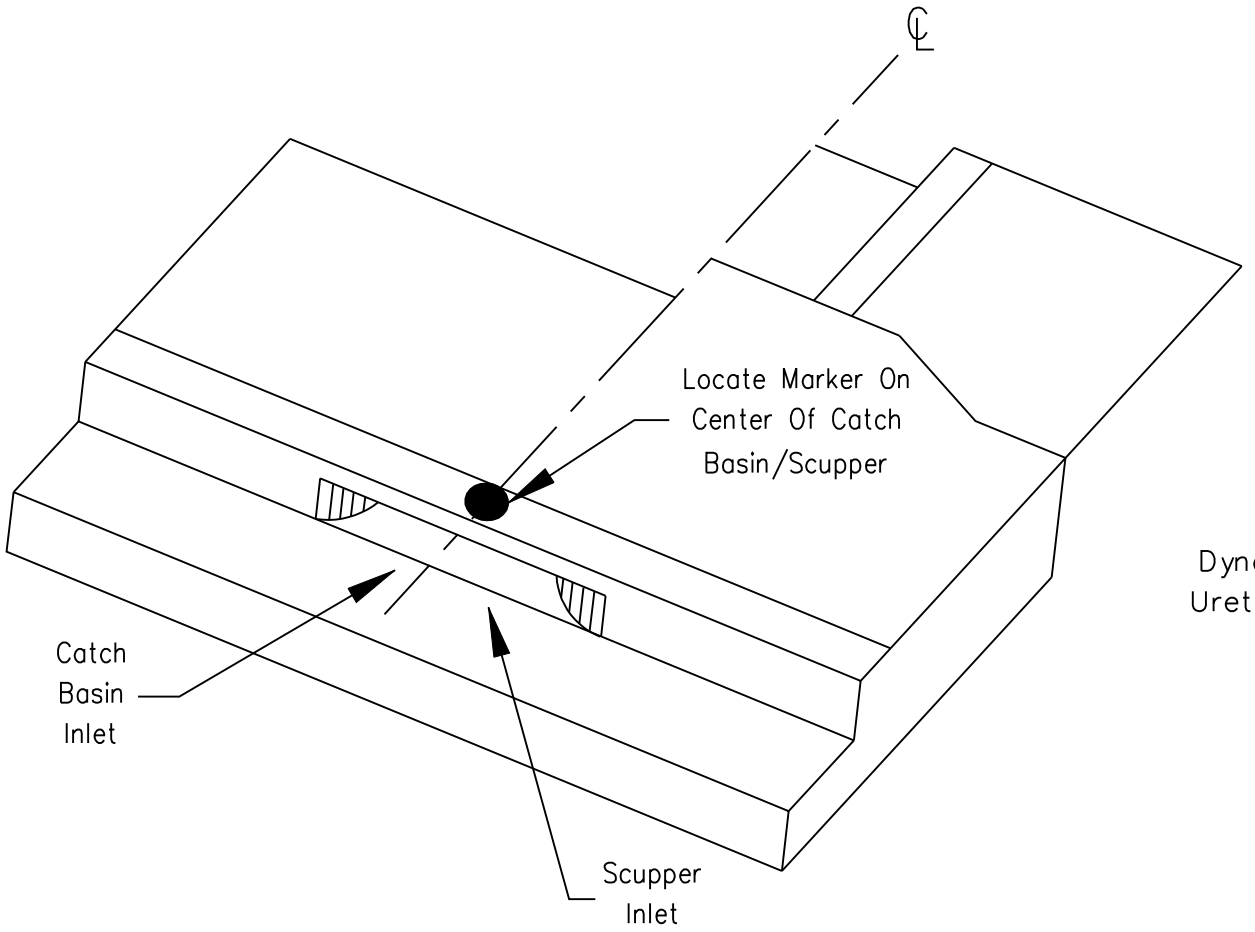
TO BE INSTALLED WITH ADHESIVE
ON EXISTING STRUCTURES

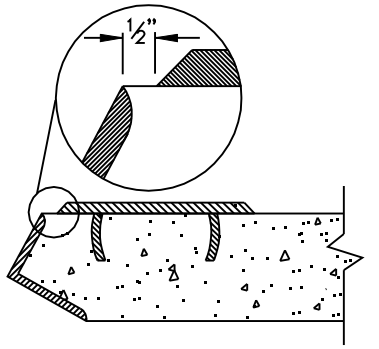


Locate Marker On the
Vertical Face Of Headwall
When Face Is 3' Or Greater.
Center On Headwall.



DETAIL NO. 2560-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STORM DRAIN INLET MARKER ON HEADWALL	DETAIL NO. 2560-2

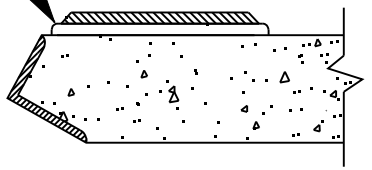




TYPE "A"

TO BE INSTALLED IN WET CONCRETE
DURING CONSTRUCTION

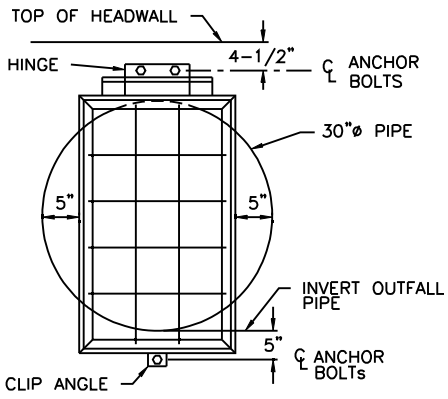
Dynamix #6125–1
Urethane Universal
Adhesive



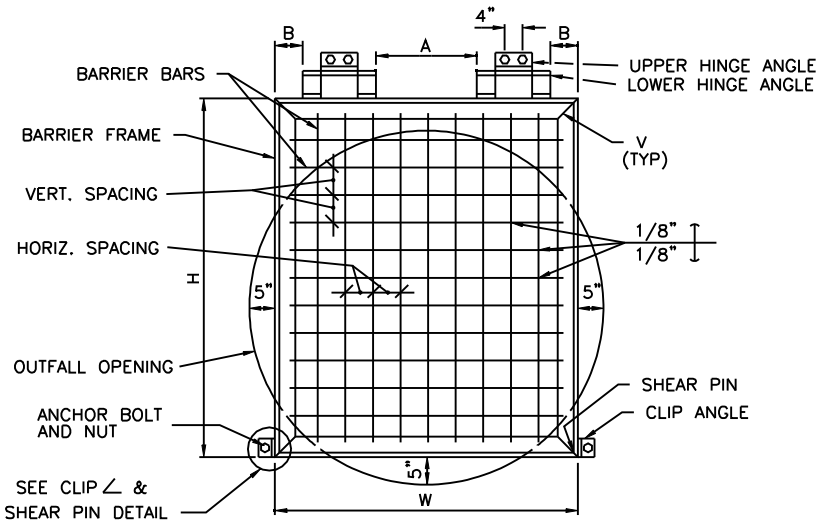
TYPE "B"

TO BE INSTALLED WITH ADHESIVE
ON EXISTING STRUCTURES

DETAIL NO. 2560-3	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STORM DRAIN INLET MARKER ON CATCH BASIN/SCUPPER	DETAIL NO. 2560-3



30"ø & 36"ø PIPES ONLY, SINGLE HINGE & CLIP ANGLE DETAIL

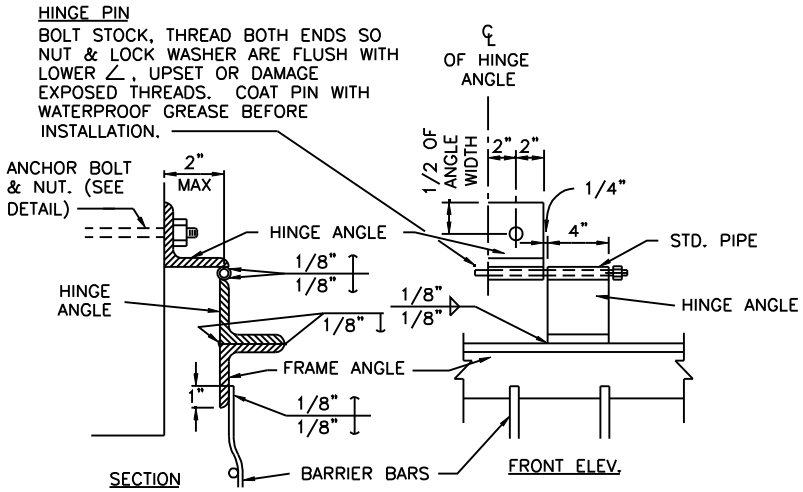


TYPICAL BARRIER DETAIL

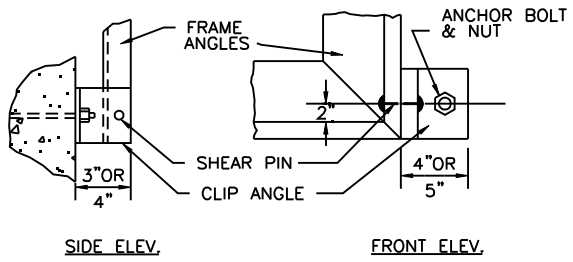
NOTES:

1. ALL SHEAR PIN ANGLES SHALL FIT SNUGLY AND TRULY FACE TO FACE. COVER WITH WATERPROOF GREASE PRIOR TO INSTALLATION OF PIN.
2. GALVANIZE ALL FERROUS PARTS AFTER FABRICATION.
3. THE SHEAR PIN HOLES IN THE ANGLE SHALL BE DRILLED FOR A TIGHT FIT OF THE SHEAR PINS.
4. FRAME AND HINGE ANGLES SHALL HAVE THE OUTSTANDING LEGS OUT FOR OUTLETS.
5. ALL ANCHOR BOLTS SHALL BE 5/8"ø ANCHOR BOLTS EMBEDDED 4"(MIN.) INTO EPOXY GROUT.
6. ALL SHEAR PINS ARE TO BE PEENED BOTH ENDS AFTER INSTALLATION.
7. SHEAR PIN MATERIAL SHALL BE COMMERCIALLY PURE ALUMINUM WIRE.
8. SEE BARRIER SHEDULE, DET. 2562-2 FOR VARIABLE DIMENSIONS.
9. COVER ALL MOVABLE CONTACT SURFACE WITH A COAT OF WATERPROOF GREASE PRIOR TO INSTALLATION.
10. ALL BARRIER BARS TO BE 1/2" PLAIN.

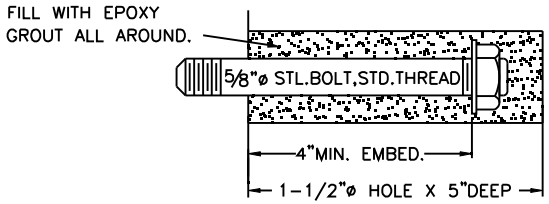
REVISED 3/28/02



HINGE INSTALLATION DETAIL



CLIP ANGLE & SHEAR PIN DETAIL



ANCHOR BOLT DETAIL

DETAIL NO. 2562-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	STORM SEWER OUTFALL ACCESS BARRIER	DETAIL NO. 2562-1

SIZE OF OUTFALL CONDUIT	FRAME ANGLES	SHEAR PIN CLIP ANGLES	SHEAR PINS	HINGE PINS	HINGE ANGLES	HINGE STD. PIPE	✳ NO. OF EQUAL BARRIER BAR SPACES (HORIZ.)	NO. OF EQUAL BARRIER BAR SPACES (VERT.)	H (OUT TO OUT FRAME ANGLES)	✳ W (OUT TO OUT FRAME ANGLES)	A	B
30"	2X2X1/4	4X4X1/4	1-1/8ø	1/2"ø	2X2X1/4	3/4"	3	5	34"	20"	SINGLE HINGE CENTERED	
36"	2X2X1/4	4X4X1/4	1-1/8ø	3/4"ø	2-1/2X 2-1/2X1/4	1"	4	6	40"	26"	SINGLE HINGE CENTERED	
42"	2X2X1/4	4X4X1/4	2-1/8ø	1/2"ø	2X2X1/4	3/4"	5	6	42"	32"	0	0
48"	3X3X7/16	5X3X1/4	2-1/8ø	3/4"ø	2-1/2X 2-1/2X1/4	1"	5	7	47"	38"	3"	1"
54"	3X3X7/16	5X3X1/4	2-1/8ø	3/4"ø	2-1/2X 2-1/2X1/4	1"	6	8	54"	44"	5"	3"
60"	3X3X7/16	5X3X1/4	2-1/8ø	3/4"ø	2-1/2X 2-1/2X1/4	1"	7	9	60"	50"	9"	4"
66"	3X3X7/16	5X3X1/4	2-1/8ø	3/4"ø	2-1/2X 2-1/2X1/4	1"	8	10	66"	56"	11"	6"
72"	4X4X5/8	5X3X1/4	2-3/16ø	1"ø	3X3X3/8	1-1/4"	9	11	73"	62"	15"	7"
78"	4X4X5/8	5X3X1/4	2-3/16ø	1"ø	3X3X3/8	1-1/4"	10	11	79"	68"	17"	9"
84"	4X4X5/8	5X3X1/4	2-3/16ø	1"ø	3X3X3/8	1-1/4"	11	13	86"	74"	21"	10"
90"	4X4X5/8	5X3X1/4	2-3/16ø	1"ø	3X3X3/8	1-1/4"	12	13	92"	80"	23"	12"
96"	4X4X5/8	5X3X1/4	2-3/16ø	1"ø	3X3X3/8	1-1/4"	12	14	98"	86"	29"	12"

✳NOTE: Adjust these values for skewed conduits. Provide 5" maximum opening at each side and between bars.

REVISED: 3/28/02

DETAIL NO. 2562-2

City of Scottsdale Standard Details

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

BARRIER SPECIFICATIONS SCHEDULE

DETAIL NO. 2562-2

MINIMUM TREE SIZE REQUIREMENTS

Name	Size	Height	Width	Caliper
ACACIA				
BERLANDER	15	4	2	0.5
GUAJILLO (M)	24	5	4	1
(ACACIA BERLANDIERI)	30	7	5	1.5
	36	9	6	2
MULGA	15	5	2	0.75
(ACACIA ANEURA)	24	7	4	1.5
	30	9	6	2
	36	10	8	2.5
SHOESTRING	15	7	2.5	0.75
(ACACIA STENOPHYLLA)	24	9	4	1.5
	30	11	5	2
	36	13	6	2.5
	42	15	7	3
	48	17	8	4
SHOESTRING (M)	15	7	2.5	0.5
(ACACIA STENOPHYLLA)	24	9	4	1
	36	13	6	2
SWEET	15	6	2.5	0.75
(ACACIA SMALLII)	24	8	4	1.5
	30	9	6	2
	36	10	8	2.5
	42	12	10	3
	48	14	12	3.5
SWEET (M)	15	5	3	0.5
(ACACIA SMALLII)	24	8	5	1
	30	9	7	1.5
	36	10	9	2
	42	12	10	3
	48	14	12	3.5
**WILLOW **	15	6	2	0.75
AUSTRALIAN WILLOW	24	8	4	1.5
(ACACIA SALICINA)	30	10	5	2
	36	14	6	2.5

Name	Size	Height	Width	Caliper
IRONWOOD				
DESERT IRONWOOD	15	3	2	0.5
(OLNEYA TESOTA)	24	6	3	1.25
	30	8	6	2
	36	10	8	2.5
	42	11	9	3
	48	12	10	3.5
DESERT IRONWOOD (M)	15	3	2	0.5
(OLNEYA TESOTA)	24	6	3	1.25
	30	8	6	2
	36	10	8	2.5
	42	11	9	3
	48	12	10	3.5
MESQUITE				
CHILEAN MESQUITE	15	6	2	0.75
(PROSOPIS CHILENSIS)	24	8	4	1.5
	30	9	6	2
	36	10	8	2.5
	42	12	10	3
	48	14	12	3.5
CHILEAN MESQUITE (M)	15	5	3	0.5
(PROSOPIS CHILENSIS)	24	8	5	1
	30	9	7	1.5
	36	10	9	2
HONEY MESQUITE (M)	15	6	2	0.75
(PROSOPIS -	24	8	4	1.5
GLANDULOSA)	30	9	6	2
	36	10	8	2.5
	42	12	10	3
	48	14	12	3.5
SCREW BEAN (M)	15	5.5	3	0.5
(PROSOPIS -	24	8	4	1
PUBESCENS)	30	9	6	1.5
	36	10	8	2
	42	12	10	3
	48	14	12	3.5

Name	Size	Height	Width	Caliper
MESQUITE (Cont.)				
VELVET\ ARIZONA (M)	15	5.5	3	0.5
(PROSOPIS VELUNTINA)	24	7	4	1
	30	9	6	1.5
	36	10	8	2
	42	12	10	2.5
	48	14	12	3
PALOVERDE				
BLUE PALO VERDE	15	6	2	0.75
(PARKINSONIA FLORIDUM)	24	7.5	4	1.5
	30	9	7	2
	36	10	8	2.5
	42	12	9	3
	48	14	10	3.5
BLUE PALO VERDE (M)	15	5	3	0.5
(PARKINSONIA FLORIDUM)	24	7	4	1
	30	8	6	1.5
	36	10	8	2
LITTLE LEAF	15	4	2	0.5
FOOTHILLS	24	6	3	1
(PARKINSONIA	30	7	5	1.5
MICROPHYLLUM)	36	8	6	2
LITTLE LEAF	15	4	3	0.5
FOOTHILLS (M)	24	5	4	1
(PARKINSONIA	30	6	5	1.5
MICROPHYLLUM)	36	8	7	2
SONORAN	15	6	2	0.75
(PARKINSONIA PRAECOX)	24	7	4	1.5
	30	8	6	2
	36	10	8	2.5
	42	12	10	3
	48	14	12	3.5
	36	10	8	2
	42	11	10	2.5
	48	12	12	3
SONORAN (M)	15	5	2	0.5
(PARKINSONIA PRAECOX)	24	7	4	1
	30	8	6	1.5
	36	10	8	2
	42	11	10	2.5
	48	12	12	3

Name	Size	Height	Width	Caliper
OTHER TREES				
ALEPPO	15	6	3	0.75
(PINUS HALEPENSIS)	24	9	4	2
	30	11	6	3
	36	14	7	3.5
	42	16	9	4
	48	18	10	4.5
ARIZONA SYCAMORE	15	7	2	1
(PLATANUS WRIGHTII)	24	9	4	1.5
	30	13	6	2.5
	36	16	8	3.5
ARIZONA	15	6	3	0.5
SYCAMORE (M)	24	8	4	1
(PLATANUS WRIGHTII)	30	12	7	2
	36	15	9	3
AUSTRALIAN WILLOW	15	5	3	0.75
WILGA	24	8	4	1.25
(GEIJERA PARVIFLORA)	30	10	5	2
	36	12	5.5	2.5
CHASTE TREE	15	5	3	0.75
(VITEX ANGUS-CASTUS)	24	6	4	1.25
	30	7	5	2
	36	8	6	2.5
CHINESE EVERGREEN	15	7	2	0.75
ELM	24	8	3	1.25
(ULMUS PARVIFOLIA)	30	12	6	2
	36	14	8	2.5
	42	16	9	3.5
	48	18	10	3.75
CHINESE PISTACHE	15	7	2	0.75
(PISTACIA CHINENSIS)	24	9	4	1.5
	30	10	5	2.5
	36	12	6	3.5
CHIR PINE\ INDIAN	15	5	3	1
LONG LEAF	24	8	4	2
(PINUS ROXBURGHII)	30	11	6	2.5
	36	15	6.5	3.5
	42	17	8	4.5
	48	20	9	5

Name	Size	Height	Width	Caliper
COOLIBAH	15	7	3	0.75
(EUCALYPTUS -	24	10	4	1.5
MICROTHECA)	30	12	5	2
	36	15	6	2.5
CORK OAK	15	4	2	0.75
(QUERCUS SUBER)	24	6.5	3	1.5
	30	9	4.5	2.5
	36	12	6	3.5
	42	14	9	4
	48	16	11	4.5
CORRAL GUM	15	6	2.5	0.75
(EUCALYPTUS TORQUATA)	24	8	3.5	1.25
DESERT WILLOW	15	6	2	0.75
(CHILOPSIS LINEARIS)	24	7	4	1.25
	30	9	6	1.75
	36	10	8	2.25
DESERT WILLOW (M)	15	5	3	0.75
(CHILOPSIS LINEARIS)	24	7	5	1
	30	9	6	1.5
	36	12	8	2
ELDARICA	15	6	2	1.5
(PINUS ELDARICA)	24	10	4	2
	30	13	4	3
	36	15	5	4
FEATHER BUSH	15	5	3	0.75
FERN OF THE DESERT	24	6.5	4	1.25
(LYSILOMA THORNBERI)	30	7	6.5	2
	36	8	6	2.5
FEATHER BUSH\ FERN	15	4	3	0.75
OF THE DESERT(M)	24	5	5	1
(LYSILOMA THORNBERI)	30	7	7	1.5
	36	8	8	2

REVISED 05/05/08

See General Notes On Page 2

Page 1 of 2

DETAIL NO.		APPROVED BY:		DETAIL NO.
2600-1	**City of Scottsdale Standard Details**	**Scottsdale Standards & Specifications Committee**	**MINIMUM TREE SIZE REQUIREMENTS**	**2600-1**

MINIMUM TREE SIZE REQUIREMENTS

Name	Size	Height	Width	Caliper
FICUS	15	8	2	0.75
(FICUS NITIDA)	24	9	4	1.5
	30	10	5	2
	36	12	6	3
FICUS (M)	15	5.5	3	0.5
(FICUS NITIDA M)	24	8	4	1
	30	10	6	2
	36	12	8	2.5
FLOODED GUM	15	8	3	1
(EUCALYPTUS RUDIS)	24	10	4	1.5
FLOWERING CHERRY	15	6	2.5	0.75
(PRUNUS VARIETIES)	24	9	4	1.25
	30	11	8	2
	36	13	10	2.5
	42	15	11	3
	48	17	12	3.5
HONEY LOCUST	15	8	2	0.75
(GLEDITSIA TRIACANTHOS	24	9	4	1.5
INERMIS)	30	10	6	2
	36	12	8	2.5
	42	14	10	3
	48	16	12	3.5
JACARANDA	15	8	2	0.75
(JACARANDA ACUTIFOLIA)	24	9	4	1.5
	30	12	5	2.5
	36	14	8	3
	42	16	8	3.5
	48	18	9	4
JACARANDA (M)	15	5.5	3	0.5
(JACARANDA-	24	8	5	0.75
ACUTIFOLIA)	30	10	6	1.5
	36	12	7	2
MESCAL BEAN\ TEXAS	15	3	1	0.75
MOUNTAIN LAUREL	24	4	2	1
(SOPHORA -	30	5	3	1.75
SECUNDIFLORA)	36	6	4	2
MESCAL BEAN\ TEXAS	15	3	2	0.75
MOUNTAIN LAUREL (M)	24	4	3	1
(SOPHORA -	30	5	4	1.5
SECUNDIFLORA)	36	6	5	2

Name	Size	Height	Width	Caliper
MEXICAN PALO VERDE	15	7	3	1
JERUSALEM	24	9	6	1.5
(PARKINSONIA ACULEATA)	30	11	9	2.5
	36	12	10	3
MODESTO ASH	15	8	2	1
(FRAXINUS V MODESTO)	24	10	4	1.5
	30	12	6	2
	36	14	7	2.5
	42	16	8	3
	48	17	10	3.5
NARROW LEAF GIMLET	15	6	2.5	0.75
SWAMP MALLET	24	8	3	1
(EUCALYPTUS -				
SPATHULATA)				
OLIVE TREE	15	5	3	0.5
(OLEA EUROPAEA)	24	8	5.5	1.5
'SWAN HILL'	30	11	9	2
	36	12	10	3
	42	14	12	3.5
	48	16	14	4
ORCHID TREE	15	8	2	0.75
(BAUHINIA)	24	9	4	1.25
	30	11	6	2
	36	13	7	2.5
RAYWOOD ASH	15	8	4	1
CLARET ASH	24	10	3	1.5
(FRAXINUS O RAYWOODII)	30	12	5	2
	36	14	8	2.5
	42	16	10	3
	48	18	12	4
RED CAP GUM	15	6.5	2.4	0.75
(EUCALYPTUS-	24	8	4	1.25
ERYTHROCORYES)				

Name	Size	Height	Width	Caliper
RED GUM	15	8	3	1
(EUCALYPTUS-	24	10	4	1.75
CAMALDULENSIS)				
RED IRON BARK	15	8	3	0.75
(EUCALYPTUS -	24	10	4	1.5
SIDEROXYLON)				
RIO GRANDE\ FAN	15	7	2	0.75
TEXAS ASH	24	9	4	1.25
(FRAXINUS V FANTEX)	30	12	5	2
	36	14	8	2.5
	42	15	9	3.5
	48	16	10	4
SHAMEL\ EVERGREEN	15	8	2	1
(FRAXINUS UHDEI)	24	10	4	1.5
	30	12	5	2.5
	36	14	8	3
	42	15	9	3.5
	48	16	10	4
SILK OAK	15	8	3	1
(GREVILLEA ROBUSTA)	24	10	4	2
	30	12	6	2.5
	36	14	7	3

Name	Size	Height	Width	Caliper
SILK TREE MIMOSA (M)	15	5	3.5	0.5
(ALBIZIA JULIBRISSIA)	24	6.5	5	0.75
	30	6	6	1
	36	10	8	2.5
SILVER DOLLAR GUM	15	7	3	0.75
(EUCALYPTUS-	24	10	4	1.5
POLYANTHEMOS)				
SISSOO	15	7	3	0.75
(DALBERGIA SISSOO)	24	10	4	1.25
	30	12	7	2.5
	36	15	10	3
SOUTHERN LIVE OAK	15	6	2	0.75
HERITAGE	24	9	4	1.25
(QUERCUS VIRGINIANA)	30	11	6.5	2
	36	13	8	2.75
	42	15	10	3.5
	48	17	12	4.5
TEXAS EBONY	15	5	2	0.75
(PITHECELLOBIUM-	24	6	3	1.5
FLEXICAULE)	30	7	4	2
	36	9	6	2.5
	42	10	6	3
	48	11	7	3.5

Name	Size	Height	Width	Caliper
SILK TREE MIMOSA	15	6	3	0.75
(ALBISIA JULIBRISSIN)	24	8	4	1.5
	30	10	6	2
	36	12	8	3
TEXAS EBONY (M)	15	4	2	0.5
(PITHECELLUBIUM-	24	6	4	1
FLEXICAULE)	30	7	6	1.5
	36	9	8	2
	42	10	10	2.5
	48	11	11	3
YELLOW OLEANDER	15	6	2	0.5
(THEVETIA PERUVIANA)	24	8	4	1.25

Page 2 of 2

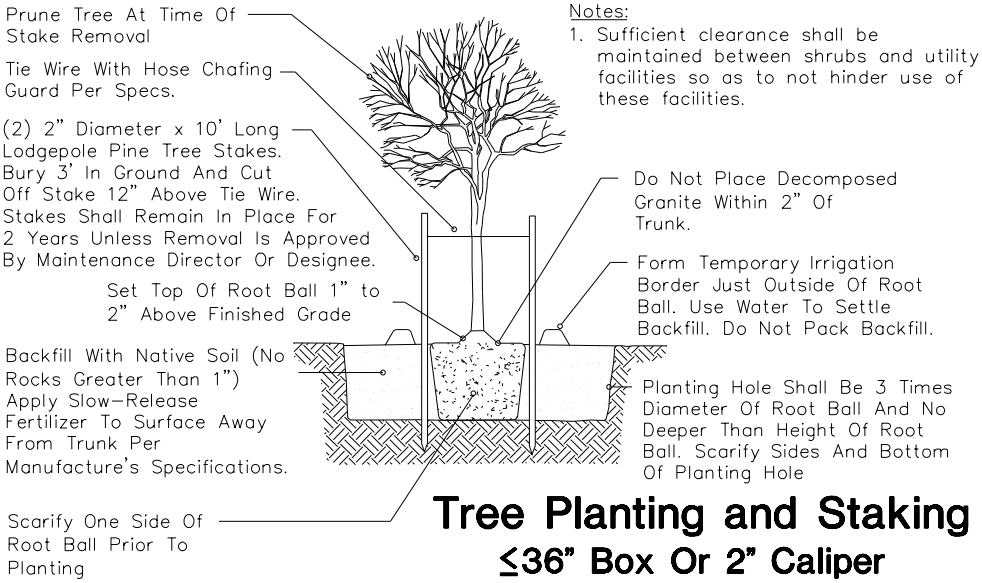
REVISED 05/05/08

GENERAL NOTES:

1. All trees shall be guaranteed for one year from the date of acceptance
2. "M" designates a multitrunk tree. A multitrunk tree is a tree with more than one main trunk.
3. Caliper is measured at 12" above the ground for trees with caliper greater than 4". For multitrunk trees, and trees with caliper of less that 4", the caliper is measured 6" above the ground.
4. Size is listed as the box size in inches except for those trees in 15 gallon containers.

DETAIL NO.		APPROVED BY:		DETAIL NO.
2600-2	**City of Scottsdale Standard Details**	**Scottsdale Standards & Specifications Committee**	**MINIMUM TREE SIZE REQUIREMENTS**	**2600-2**

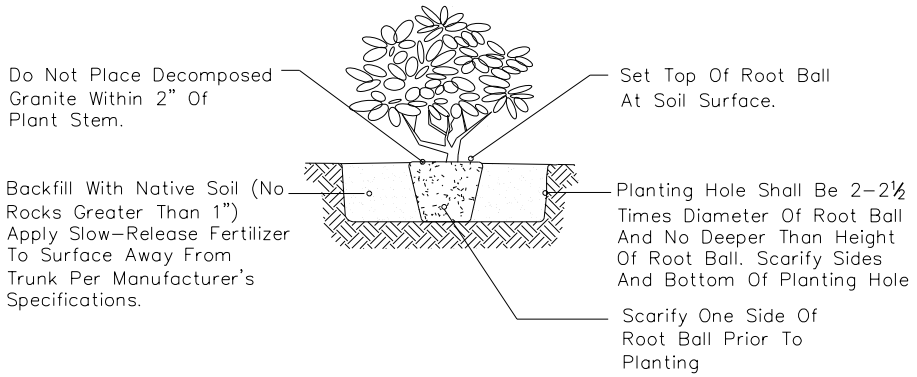
REVISED 5/1/15



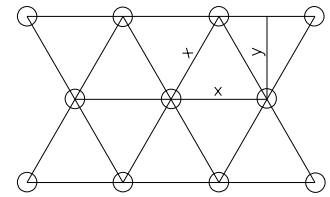
Notes:
1. Sufficient clearance shall be maintained between shrubs and utility facilities so as to not hinder use of these facilities.

Tree Planting and Staking
≤36" Box Or 2" Caliper

Notes:
1. Sufficient clearance shall be maintained between shrubs and utility facilities so as to not hinder use of these facilities.



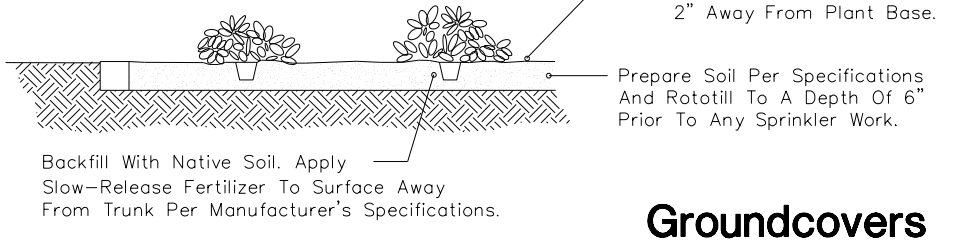
Shrub Planting



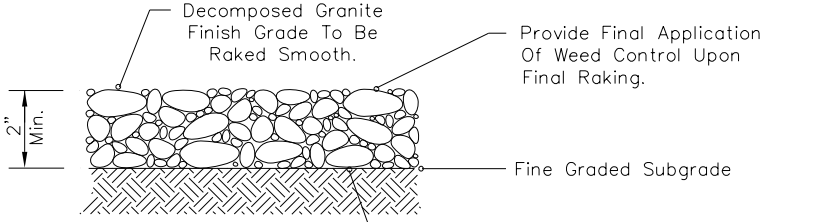
All Groundcovers To Be Planted On Center (See Plant Legend) In A Triangular Pattern.

X = O.C. Dimension As Noted On Plan

Y = 0.86 Of Dimension "X"



Groundcovers

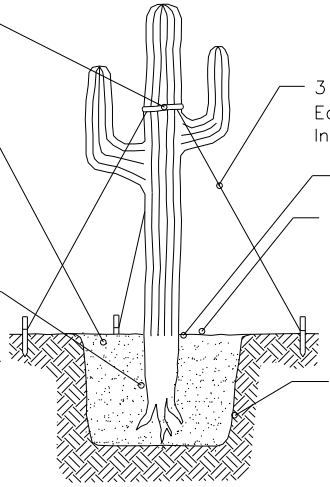


Note: Refer to COS Detail 2210 for finish grade height of decomposed granite and turf in relation to top of curbs & sidewalks.

Decomposed Granite

DETAIL NO. 2620-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	LANDSCAPE DETAILS	DETAIL NO. 2620-1

(1) **Do Not Place Decomposed Granite Within 2" Of Planting Base.**

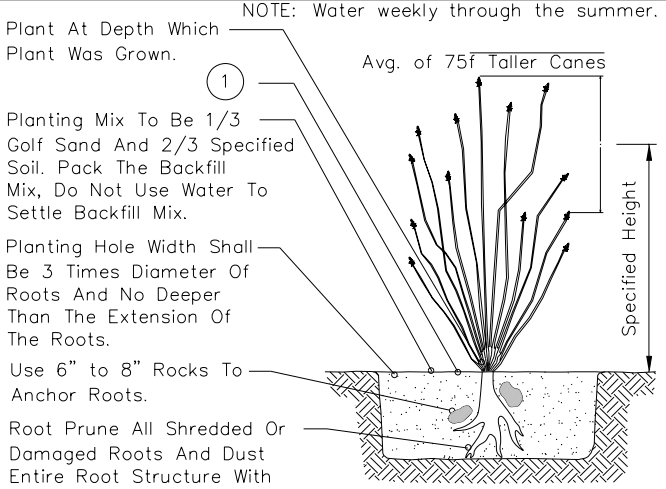


Saguaro Planting Type A

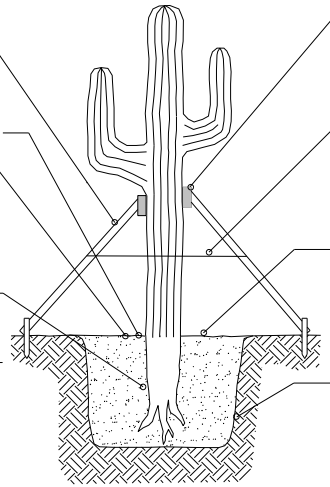
NOTES:

1. Optimum transplanting season is October thru November.
2. Maintain original plant orientation. The original "North" orientation shall be marked on a rib at a height of 5' above ground level.
3. Water thoroughly at the time of transplanting to remove air pockets and assure proper compaction. Backfill shall be free of injurious rocks and debris.
4. Do not water for 3 weeks after planting.
5. Plant in areas safe from present and future construction activities.
6. Transplant to original depth of bury.

NOTE: Water weekly through the summer.



Ocotillo Planting

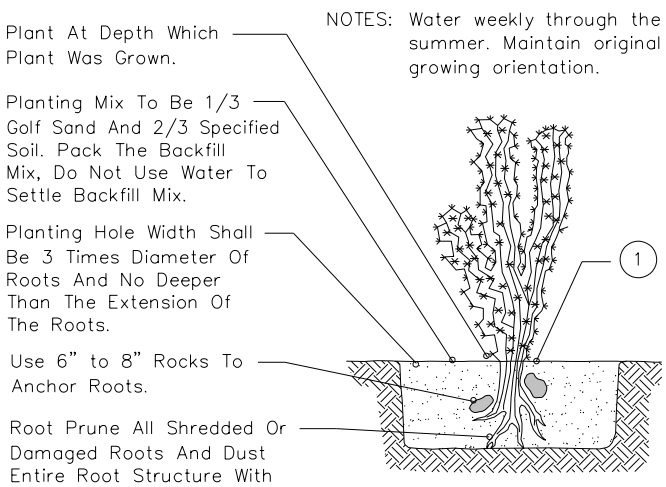


Saguaro Planting Type B

NOTES:

1. Optimum transplanting season is October thru November.
2. Maintain original plant orientation. The original "North" orientation shall be marked on a rib at a height of 5' above ground level.
3. Water thoroughly at the time of transplanting to remove air pockets and assure proper compaction. Backfill shall be free of injurious rocks and debris.
4. Do not water for 3 weeks after planting.
5. Plant in areas safe from present and future construction activities.
6. Transplant to original depth of bury.

NOTES: Water weekly through the summer. Maintain original growing orientation.

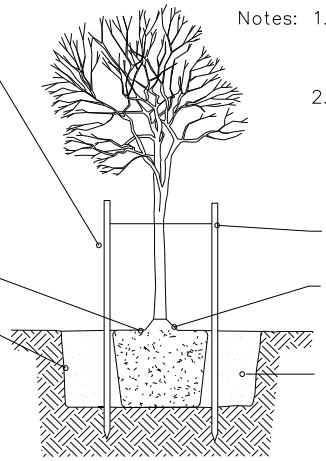


Cactus Planting

REVISED 3/1/12

DETAIL NO.		APPROVED BY:		DETAIL NO.
2620-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	LANDSCAPE DETAILS	2620-2

REVISED 5/22/15



Staking Required For Trees In 36" Box Or Less Or With A Caliper Of Less Than 2". (2) 2" Diameter x 10' Long Lodgepole Pine Tree Stakes. Bury 3' In Ground And Cut Off Stake 12" Above Tie Wire. Stakes Shall Remain In Place For 2 Years Unless Removal Is Approved By Maintenance Director Or Designee.

Do Not Place Decomposed Granite Within 2" Of Trunk.

Backfill With Native Soil. (No Rocks Greater Than 3") Backfill 3/4 The depth Of Rootball Before Removing Box Side Panels. Compact Backfill As Needed To Prevent Breaking Rootball.

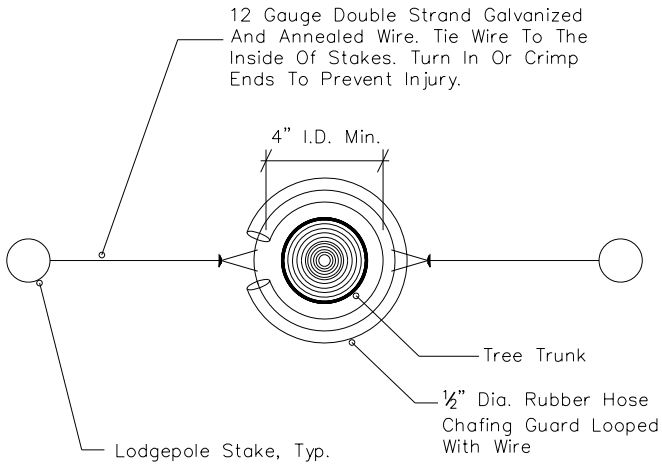
Notes:
1. Sufficient clearance shall be maintained between trees and utility facilities so as to not hinder use of these facilities.
2. Plant pit basins within sloped planting areas shall be constructed with a max. 2:1 slope. Provide smooth transition to surrounding finish grade.

Tie Wire With Hose Chafing Guard Per Specs. As Required.

Set Top Of Root Ball 1" to 2" Above Finished Grade

Planting Hole Shall Be 3 Times Diameter Of Root Ball And No Deeper Than Height Of Rootball. Scarify Sides And Bottom Of Planting Hole

Salvaged Tree Planting



12 Gauge Double Strand Galvanized And Annealed Wire. Tie Wire To The Inside Of Stakes. Turn In Or Crimp Ends To Prevent Injury.

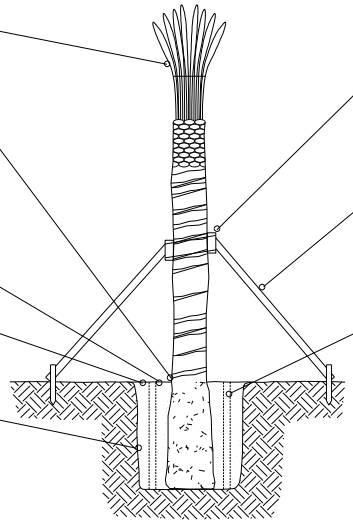
4" I.D. Min.

Tree Trunk

½" Dia. Rubber Hose Chafing Guard Looped With Wire

Lodgepole Stake, Typ.

Tree Staking - Plan View



Thin Top 6–8 Fronds, Tie With Natural Fiber Twine. (Remove Ties Prior To Buckling 60–90 Days).

Plant At Depth Which Plant Was Grown. Adjusting Root Ball Depth To Align Finished Height Will Not Be Allowed.

Do Not Place Decomposed Granite Within 2" Of Trunk.

100% Golf Sand Backfill. Settle Backfill With Water, Do Not Pack Backfill.

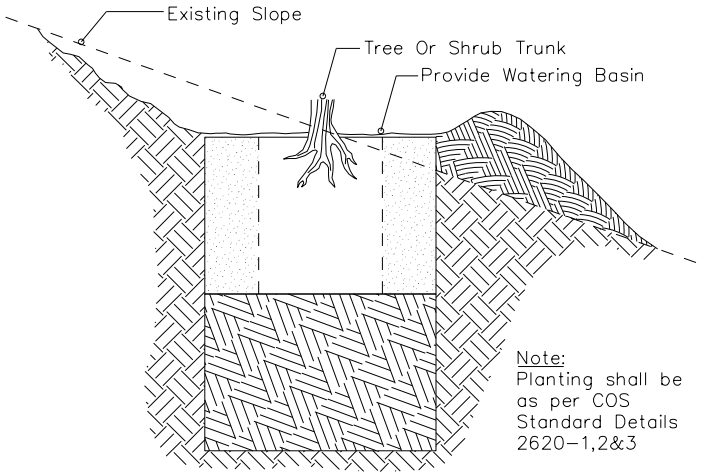
Planting Hole Width Shall Be 3 Times Diameter Of Roots And No Deeper Than The Extension Of The Roots.

2"x 4" Blocking Nailed To Brace. Tie To Trunk With 1" (Min,) Vinyl Tie.

(3) 2"x 6" Braces, Spaced Equally And Nailed To Wooden Stakes In The Ground.

4" Perforated PVC, 2 Per Tree. Wrap PVC With Soil Screen Fabric.

Palm Planting and Bracing Detail



Existing Slope

Tree Or Shrub Trunk

Provide Watering Basin

Note:
Planting shall be as per COS Standard Details 2620–1,2&3

Tree & Shrub On Slope Planting

DETAIL NO. 2620-3	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	LANDSCAPE DETAILS	DETAIL NO. 2620-3

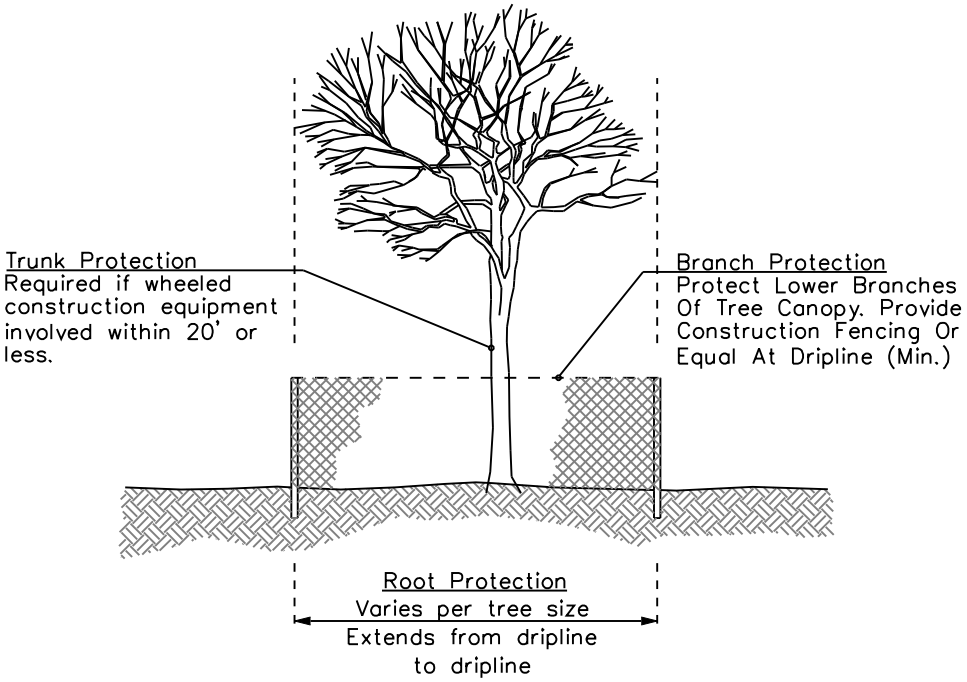
NEW 4/16/09

Note:
No Materials Shall Be Stored Within The Tree Protection Areas

Place Signs:

KEEP OUT
TREE PROTECTION AREA

Every 50' Attached To Fencing



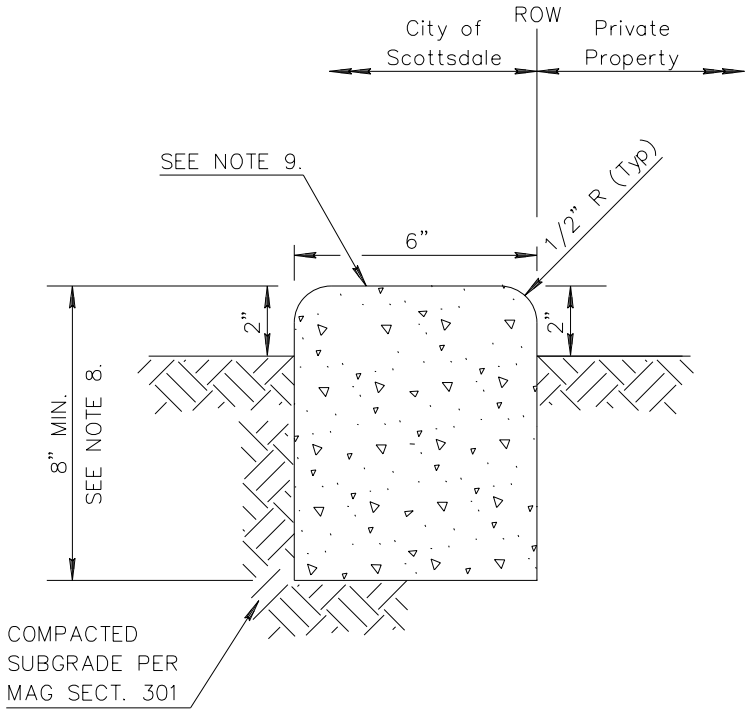
NOTES:

1. All trees to be protected within the construction area shall be identified with white survey tape wrapped around the trunk. Grouping of more than one tree within the tree protection zone may occur.
2. To prevent tree root smothering, soil stockpiles, supplies, equipment or any other material shall not be placed or stored within a tree drip line or within 25 feet of a tree trunk, whichever is greater.
3. Trenches shall be hand dug within the drip line in areas where roots two inches in diameter and greater are present, or when in close proximity to low branching trees. Whenever possible, roots two inches or greater in diameter shall be tunneled or bored under and shall be covered to prevent dehydration.
4. Tree roots shall not be cut unless cutting is unavoidable. When root cutting is unavoidable, a clean sharp cut with an approved pruning saw shall be made to avoid shredding or smashing. Root cuts should be made back to a lateral root. Whenever possible, tree roots should be cut between late fall and bud opening, when root energy supplies are high and conditions are least favorable for disease-causing agents. Exposed roots shall be covered immediately to prevent dehydration. Roots shall be covered with soil or burlap and kept moist. Backfill material around damaged roots shall be a light mulch/sand mixture to promote root recovery.
5. Watering of protected trees in which roots were cut shall be provided by the contractor. Watering schedule to be established by City arborist.
6. Horizontal boring rather than trenching should be used for utility placement within drip line of tree whenever possible.
7. Fencing material shall encircle any tree whose outer drip line edge is within 25 feet of any construction activities.
8. Fencing material shall be orange construction fence a minimum of 4 feet in height.
9. Fencing material shall be set at the drip line or 25 feet from tree trunk, whichever is greater, and maintained in an upright position throughout the duration of construction activities.
10. Any grade changes or retaining wall/tree well installation within the drip line shall be approved by City arborist.

Tree Protection

DETAIL NO.		APPROVED BY:		DETAIL NO.
2620-4	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	LANDSCAPE DETAILS	2620-4

NEW 6/12/12



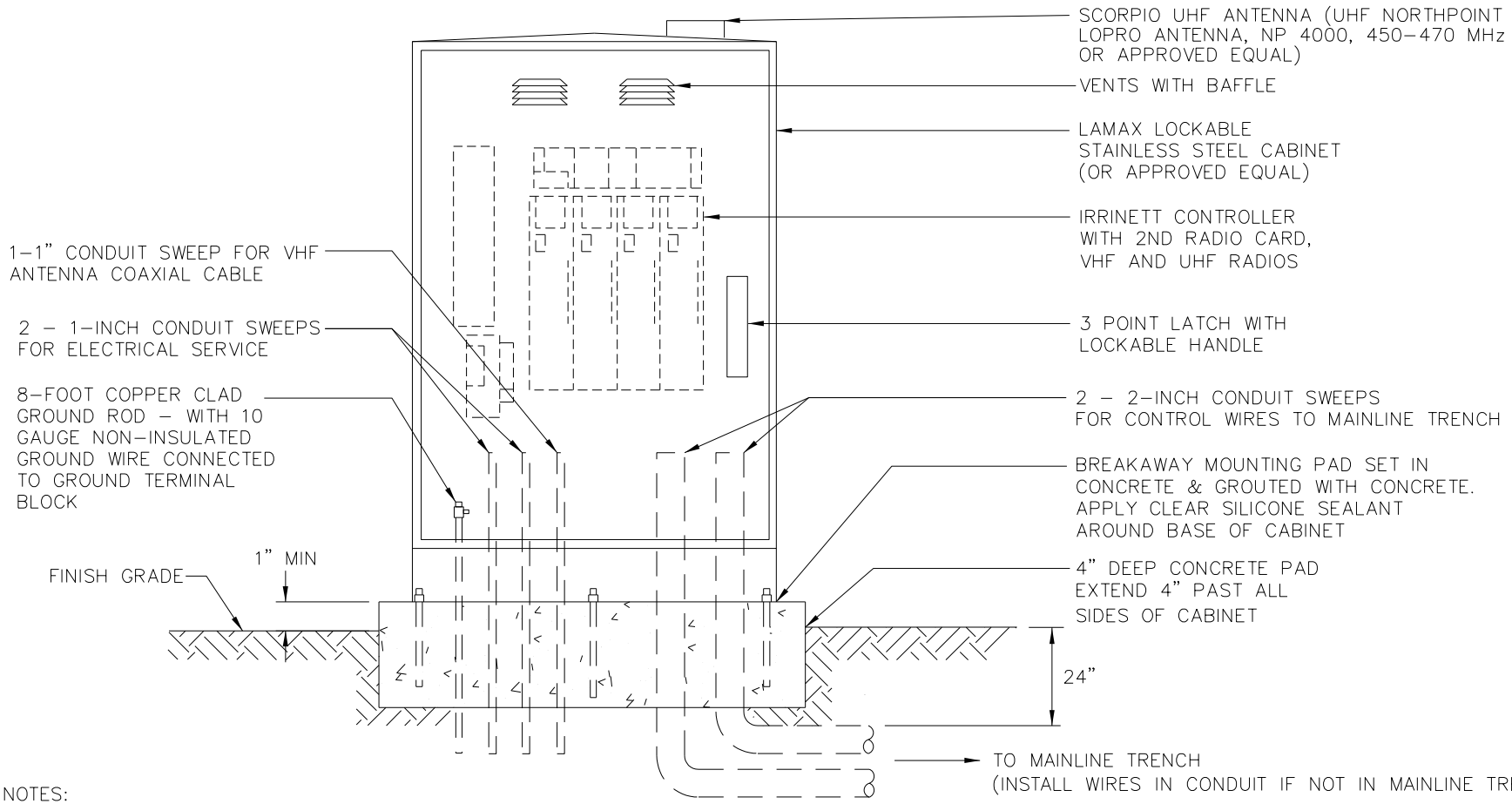
HEADER CURB

NOTES:

1. ALL VERTICAL SURFACES TO BE FORMED.
2. VERTICAL SURFACES DOWN FROM 2" BELOW UNDISTURBED SOIL MAY BE PLACED AGAINST NEAT CUT IF APPROVED BY THE ENGINEER AND CONCRETE WILL NOT EXTEND MORE THAN 1" BEYOND THEORETICAL FACE.
3. ALL EXPOSED SURFACES TO BE STRIPPED GREEN AND TROWEL FINISHED.
4. CONCRETE CURBS CONFORM TO SECT. 340.
5. MAXIMUM SPACING OF CONTRACTION JOINTS IS 10' MAXIMUM.
6. EXPANSION JOINTS PER SECT. 340, 50' MAXIMUM SPACING.
7. CONCRETE TO BE CLASS 'B' PER SECT. 725.
8. HEADER SHALL HAVE AN 18" DEPTH IF HEADER IS SUBJECT TO SCOUR WHEN CONTAINING RIP-RAP AREAS.
9. TOP OF HEADER TO BE FLUSH WITH TOP OF ANY ADJACENT CONCRETE SURFACES.
10. ENSURE A SMOOTH AND EVEN TRANSITION WHERE CONCRETE HEADER TERMINATES AT SIDEWALK OR WALL.
11. COLOR TO MATCH ADJACENT SIDEWALKS OR STANDARD CONCRETE COLOR IF NOT ADJACENT TO OTHER PAVING.

DETAIL NO. 2622	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	LANDSCAPE CONCRETE HEADER	DETAIL NO. 2622

REVISED 5/1/15

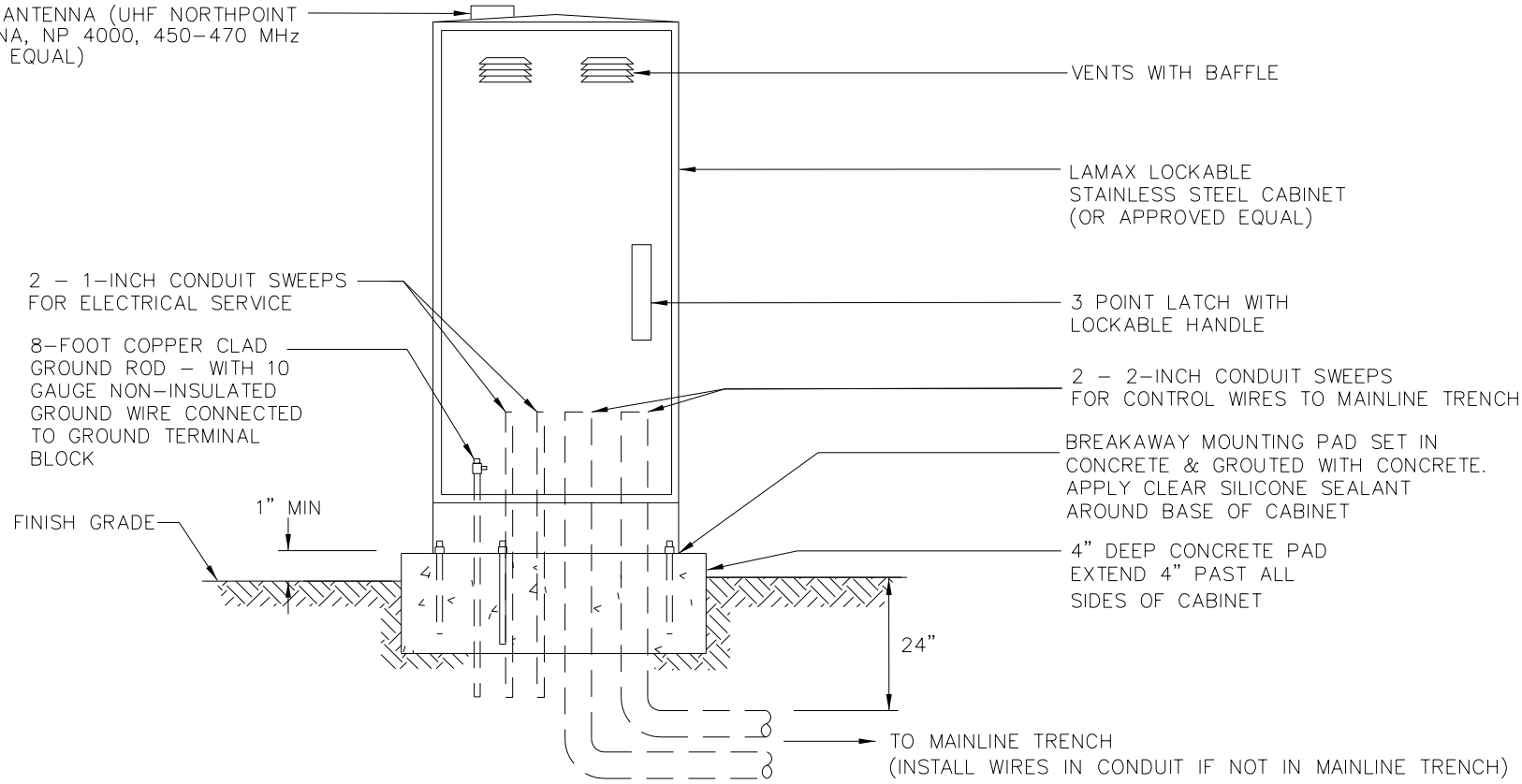


NOTES:

1. POWER SOURCE FOR CONTROLLER TO BE HARD WIRED FROM CIRCUIT BREAKER MOUNTED INSIDE CABINET TO A NON–GFI OUTLET. CONTROLLER TO BE PLUGGED INTO OUTLET.
2. LOCATION OF POWER SOURCE TO BE NOTED ON CIRCUIT BREAKER PANEL.
3. CONTROLLER TO BE LOCATED IN AREA WITH POSITIVE DRAINAGE.
4. INSTALL ONLY ONE CONTROL VALVE WIRE PER CONTROLLER OUTPUT.
5. VHF AND UHF RADIOS TO BE TUNED TO C.O.S. FREQUENCIES. CONTACT IRRIGATION DEPARTMENT FOR INFORMATION (480–312–2189)
6. ANTENNA TYPE, MAST & MOUNTING INSTALLATION TO BE APPROVED BY CITY OF SCOTTSDALE IRRIGATION DEPARTMENT.
7. POWER SOURCE TO BE PROVIDED BY CONTRACTOR FOLLOWING NEC REQUIREMENTS. INSTALLATION TO BE INSPECTED AND APPROVED BY COS INSPECTOR. INSTALL METAL ADDRESS LABELS TO OUTSIDE DOOR OF IRRIGATION CONTROLLER CABINETS FOR ALL CONTROLLERS RECEIVING NON–METERED POWER SUPPLY.

DETAIL NO. 2631	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	IRRINET PEDESTAL MOUNTED CONTROLLER	DETAIL NO. 2631

REVISED 5/1/15

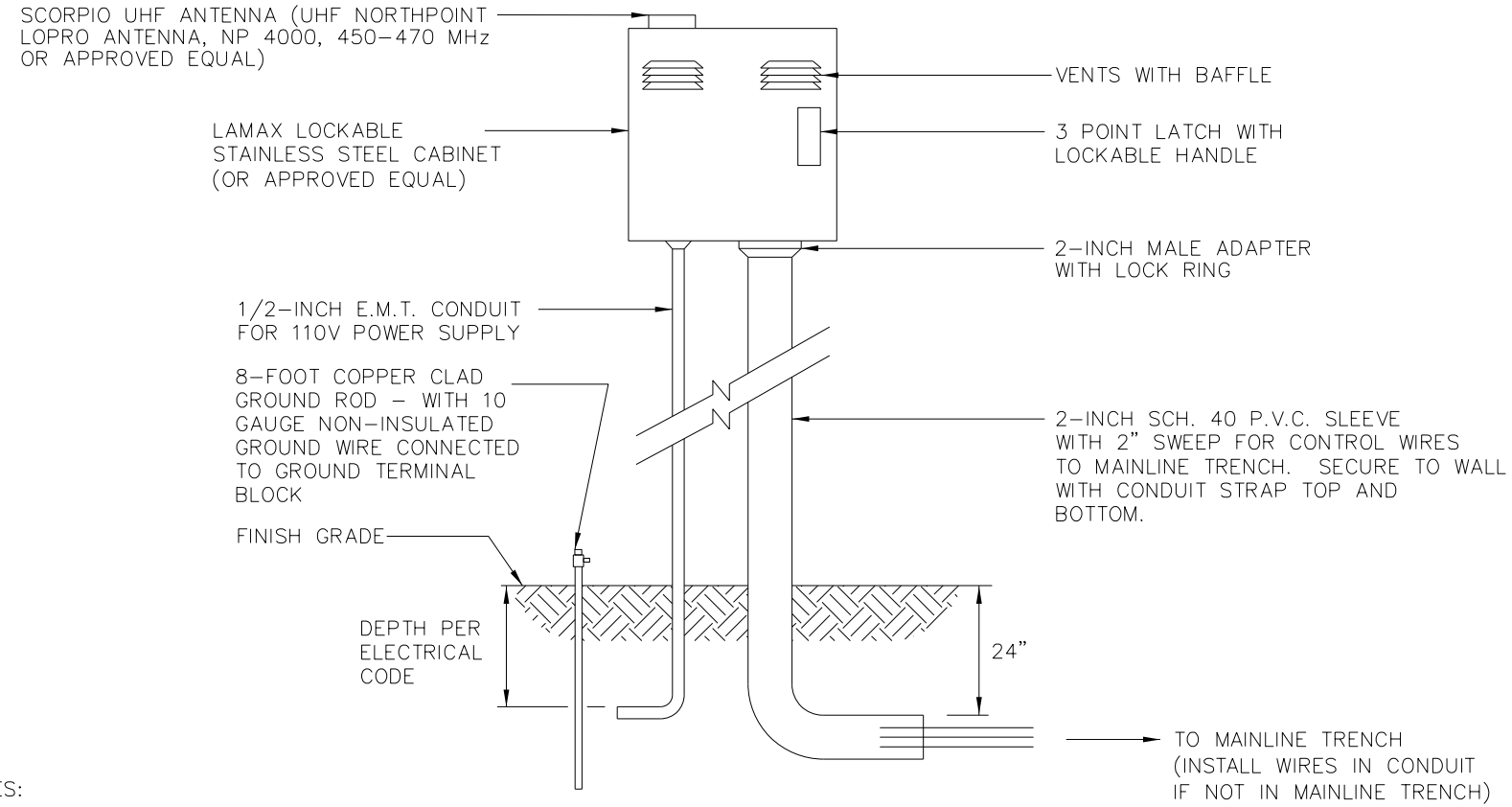


NOTES:

1. POWER SOURCE FOR CONTROLLER TO BE HARD WIRED FROM CIRCUIT BREAKER MOUNTED INSIDE CABINET TO A NON–GFI OUTLET. CONTROLLER TO BE PLUGGED INTO OUTLET.
2. LOCATION OF POWER SOURCE TO BE NOTED ON CIRCUIT BREAKER PANEL.
3. REMOTE CONTROL VALVES FOR D.C. SCORPIO APPLICATIONS MUST HAVE D.C. LATCHING SOLENOIDS AND APPROVED SOLAR PANEL FOR POWER SOURCE.
4. MIDLAND NARROW BAND RADIO # 2845 G TO BE INSTALLED WITH SCORPIO CONTROLLER.
5. CONTROLLER TO BE LOCATED IN AREA WITH POSITIVE DRAINAGE.
6. INSTALL ONLY ONE CONTROL VALVE WIRE PER CONTROLLER OUTPUT.
7. UHF RADIO TO BE TUNED TO C.O.S. FREQUENCIES. CONTACT IRRIGATION DEPARTMENT FOR INFORMATION (480–312–2189)
8. POWER SOURCE TO BE PROVIDED BY CONTRACTOR FOLLOWING NEC REQUIREMENTS. INSTALLATION TO BE INSPECTED AND APPROVED BY COS INSPECTOR. INSTALL METAL ADDRESS LABELS TO OUTSIDE DOOR OF IRRIGATION CONTROLLER CABINETS FOR ALL CONTROLLERS RECEIVING NON–METERED POWER SUPPLY.

DETAIL NO. 2632	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCORPIO PEDESTAL MOUNTED CONTROLLER	DETAIL NO. 2632

REVISED 5/1/15

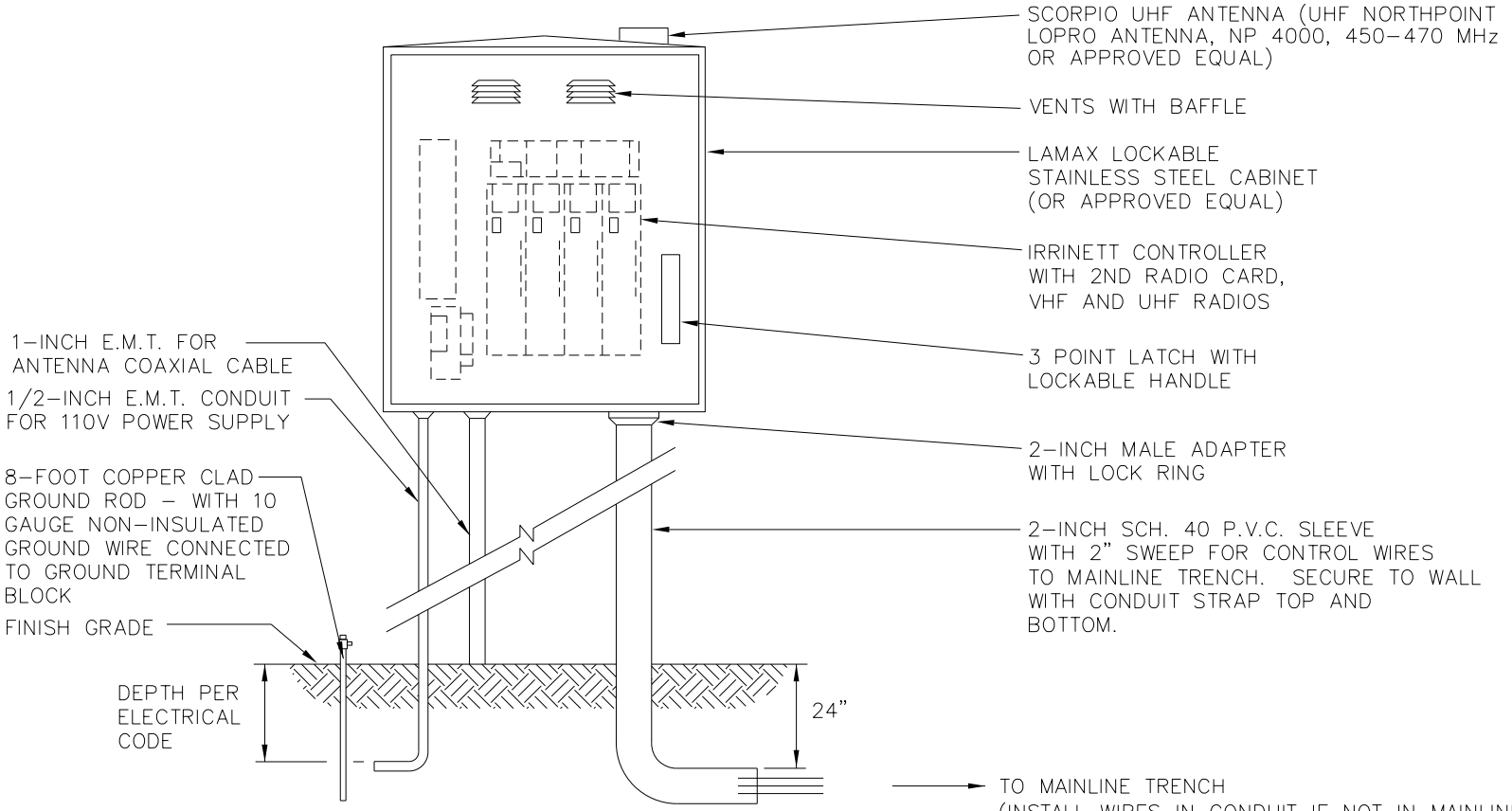


NOTES:

1. POWER SOURCE FOR CONTROLLER TO BE HARD WIRED FROM CIRCUIT BREAKER MOUNTED INSIDE CABINET TO A NON–GFI OUTLET. CONTROLLER TO BE PLUGGED INTO OUTLET.
2. LOCATION OF POWER SOURCE TO BE NOTED ON CIRCUIT BREAKER PANEL.
3. REMOTE CONTROL VALVES FOR D.C. SCORPIO APPLICATIONS MUST HAVE D.C. LATCHING SOLENOIDS AND APPROVED SOLAR PANEL FOR POWER SOURCE.
4. MIDLAND NARROW BAND RADIO #2845 G TO BE INSTALLED WITH SCORPIO CONTROLLER.
5. INSTALL ONLY ONE CONTROL VALVE WIRE PER CONTROLLER OUTPUT.
6. UHF RADIO TO BE TUNED TO C.O.S. FREQUENCIES. CONTACT IRRIGATION DEPARTMENT FOR INFORMATION (480–312–2189)
7. POWER SOURCE TO BE PROVIDED BY CONTRACTOR FOLLOWING NEC REQUIREMENTS. INSTALLATION TO BE INSPECTED AND APPROVED BY COS INSPECTOR. INSTALL METAL ADDRESS LABELS TO OUTSIDE DOOR OF IRRIGATION CONTROLLER CABINETS FOR ALL CONTROLLERS RECEIVING NON–METERED POWER SUPPLY.

DETAIL NO. 2633	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SCORPIO WALL MOUNTED CONTROLLER	DETAIL NO. 2633

REVISED 5/1/15



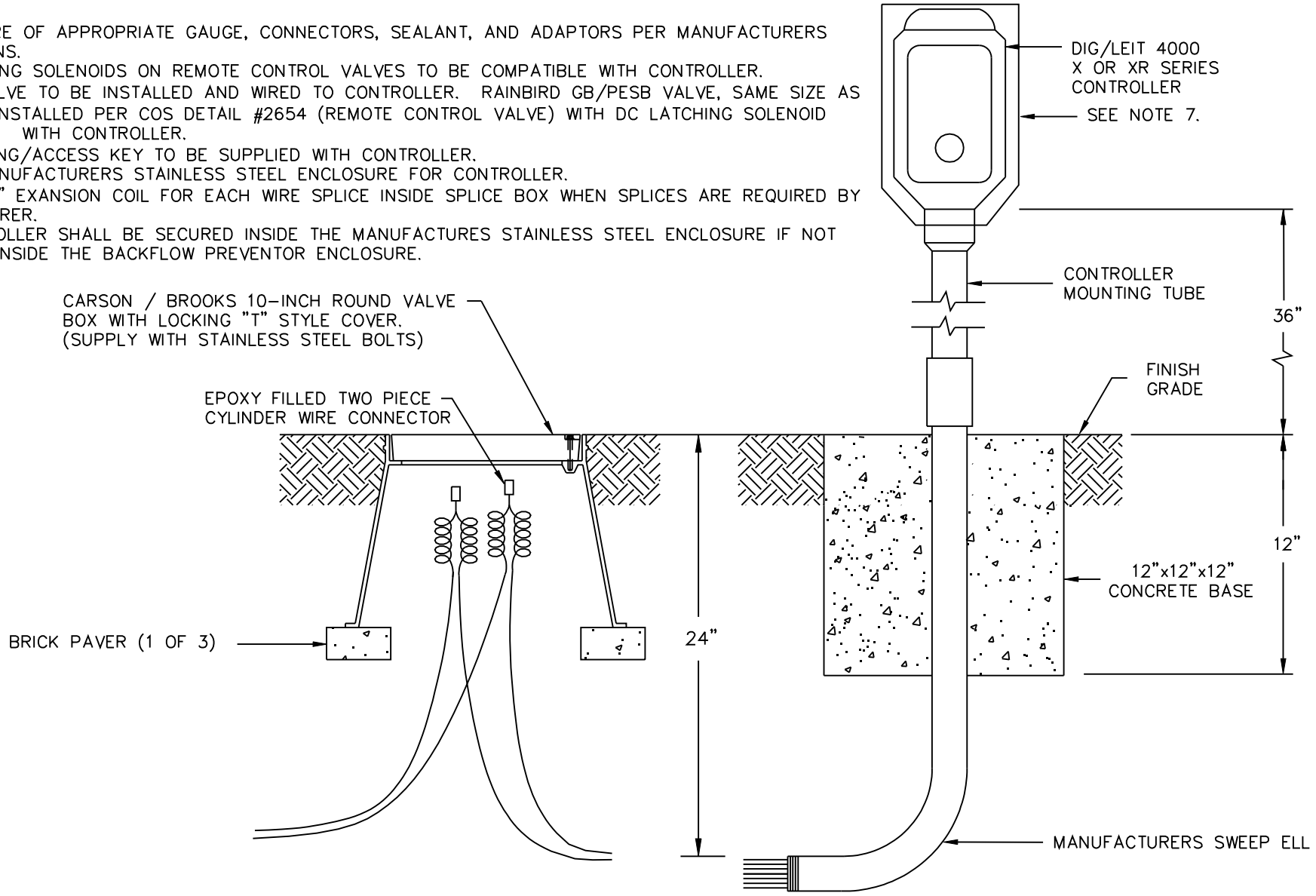
NOTE:

1. POWER SOURCE FOR CONTROLLER TO BE HARD WIRED FROM CIRCUIT BREAKER MOUNTED INSIDE CABINET TO A NON–GFI OUTLET. CONTROLLER TO BE PLUGGED INTO OUTLET.
2. LOCATION OF POWER SOURCE TO BE NOTED ON CIRCUIT BREAKER PANEL.
3. INSTALL ONLY ONE CONTROL VALVE WIRE PER CONTROLLER OUTPUT.
4. VHF AND UHF RADIOS TO BE TUNED TO C.O.S. FREQUENCIES. CONTACT IRRIGATION DEPARTMENT FOR INFORMATION (480–312–2189)
5. POWER SOURCE TO BE PROVIDED BY CONTRACTOR FOLLOWING NEC REQUIREMENTS. INSTALLATION TO BE INSPECTED AND APPROVED BY COS INSPECTOR. INSTALL METAL ADDRESS LABELS TO OUTSIDE DOOR OF IRRIGATION CONTROLLER CABINETS FOR ALL CONTROLLERS RECEIVING NON–METERED POWER SUPPLY.
6. ANTENNA TYPE, MAST AND MOUNTING INSTALLATION TO BE APPROVED BY COS IRRIGATION DEPARTMENT.

DETAIL NO. 2634	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	IRRINET WALL MOUNTED CONTROLLER	DETAIL NO. 2634

NOTES:

1. INSTALL WIRE OF APPROPRIATE GAUGE, CONNECTORS, SEALANT, AND ADAPTORS PER MANUFACTURERS INSTRUCTIONS.
2. D.C. LATCHING SOLENOIDS ON REMOTE CONTROL VALVES TO BE COMPATIBLE WITH CONTROLLER.
3. MASTER VALVE TO BE INSTALLED AND WIRED TO CONTROLLER. RAINBIRD GB/PESB VALVE, SAME SIZE AS MAINLINE INSTALLED PER COS DETAIL #2654 (REMOTE CONTROL VALVE) WITH DC LATCHING SOLENOID COMPATIBLE WITH CONTROLLER.
4. PROGRAMMING/ACCESS KEY TO BE SUPPLIED WITH CONTROLLER.
5. INSTALL MANUFACTURERS STAINLESS STEEL ENCLOSURE FOR CONTROLLER.
6. PROVIDE 12" EXANSION COIL FOR EACH WIRE SPLICE INSIDE SPLICE BOX WHEN SPLICES ARE REQUIRED BY MANUFACTURER.
7. THE CONTROLLER SHALL BE SECURED INSIDE THE MANUFACTURES STAINLESS STEEL ENCLOSURE IF NOT INSTALLED INSIDE THE BACKFLOW PREVENTOR ENCLOSURE.



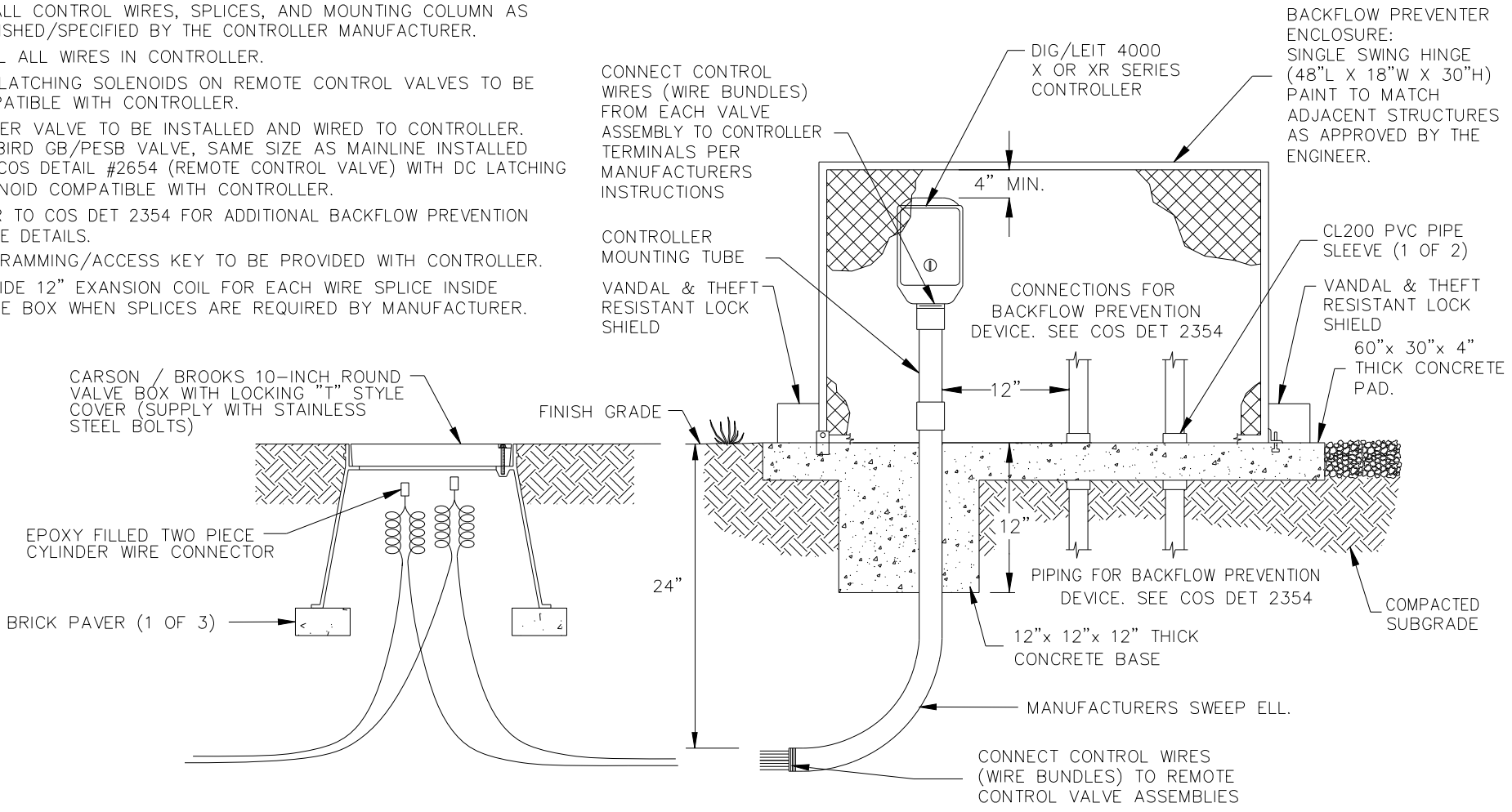
REVISED 05/02/08

DETAIL NO. 2635-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SOLAR CONTROLLER	DETAIL NO. 2635-1

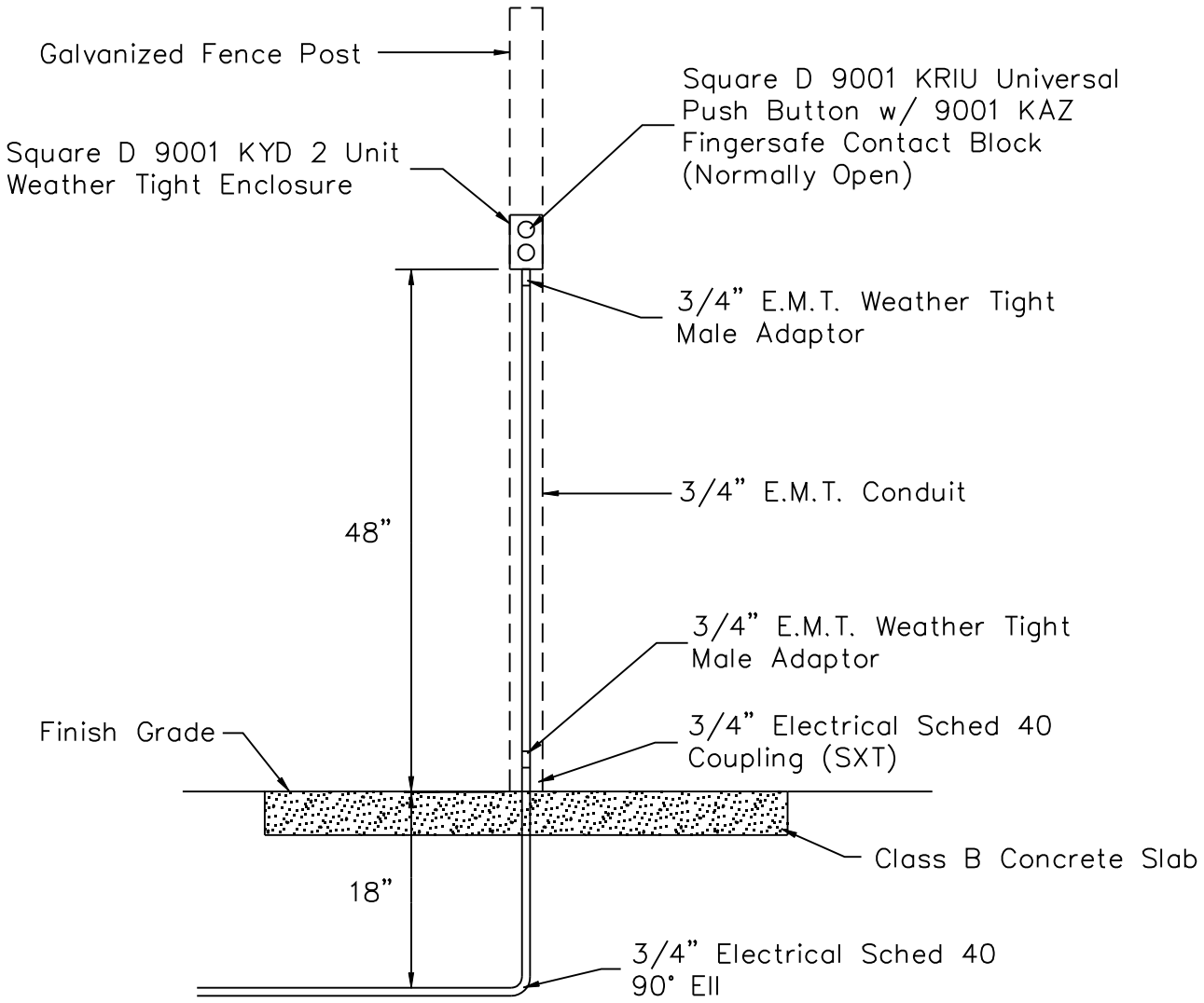
NOTES:

1. INSTALL WIRING OF APPROPRIATE GAUGE, CONNECTORS, SEALANT, AND ADAPTORS PER MANUFACTURERS INSTRUCTIONS.
2. INSTALL CONTROL WIRES, SPLICES, AND MOUNTING COLUMN AS FURNISHED/SPECIFIED BY THE CONTROLLER MANUFACTURER.
3. LABEL ALL WIRES IN CONTROLLER.
4. D.C. LATCHING SOLENOIDS ON REMOTE CONTROL VALVES TO BE COMPATIBLE WITH CONTROLLER.
5. MASTER VALVE TO BE INSTALLED AND WIRED TO CONTROLLER. RAINBIRD GB/PESB VALVE, SAME SIZE AS MAINLINE INSTALLED PER COS DETAIL #2654 (REMOTE CONTROL VALVE) WITH DC LATCHING SOLENOID COMPATIBLE WITH CONTROLLER.
6. REFER TO COS DET 2354 FOR ADDITIONAL BACKFLOW PREVENTION DEVICE DETAILS.
7. PROGRAMMING/ACCESS KEY TO BE PROVIDED WITH CONTROLLER.
8. PROVIDE 12" EXANSION COIL FOR EACH WIRE SPLICE INSIDE SPLICE BOX WHEN SPLICES ARE REQUIRED BY MANUFACTURER.

REVISED 3/1/12



DETAIL NO.		APPROVED BY:		DETAIL NO.
2635-2	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	SOLAR CONTROLLER AND BACKFLOW PREVENTER ENCLOSURE	2635-2

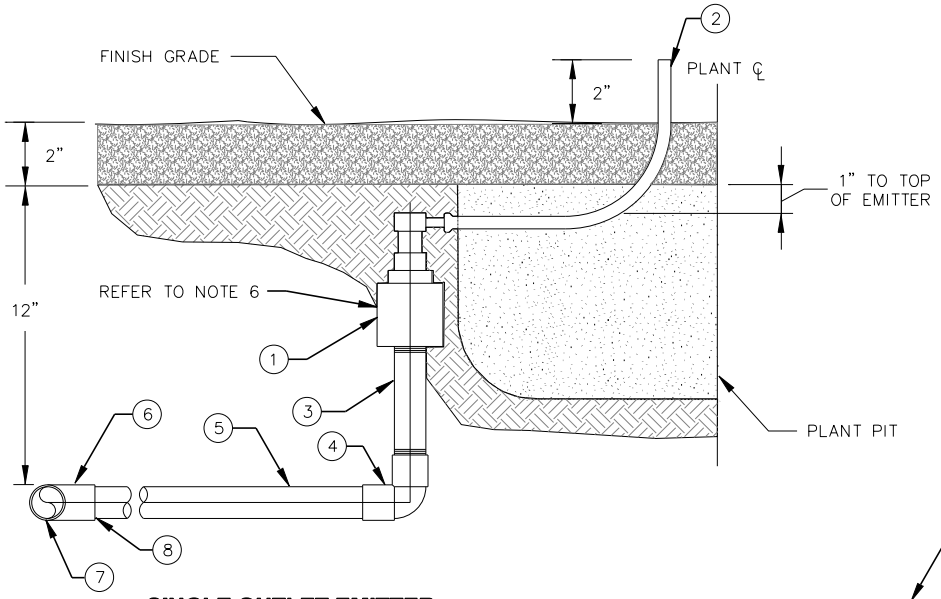


NOTES:

1. Install #14 ga. irrigation control wire.
2. Install one control wire per push button. Control wire to be different color from all other irrigation control wires.
3. Common wire (#12 ga) for push buttons shall be a separate common wire and not part of the irrigation control valve common wire.
4. Push button common wire to have color stripe matching push button control wire. The common wire may be shared by other push buttons.
5. Attach push button enclosure to galvanized post with two self-tapping hex head screws.
6. For other configurations/applications, contact Irrigation Dept 480-312-2189.
7. Label control wires inside enclosure and at controller to differentiate their functionality.

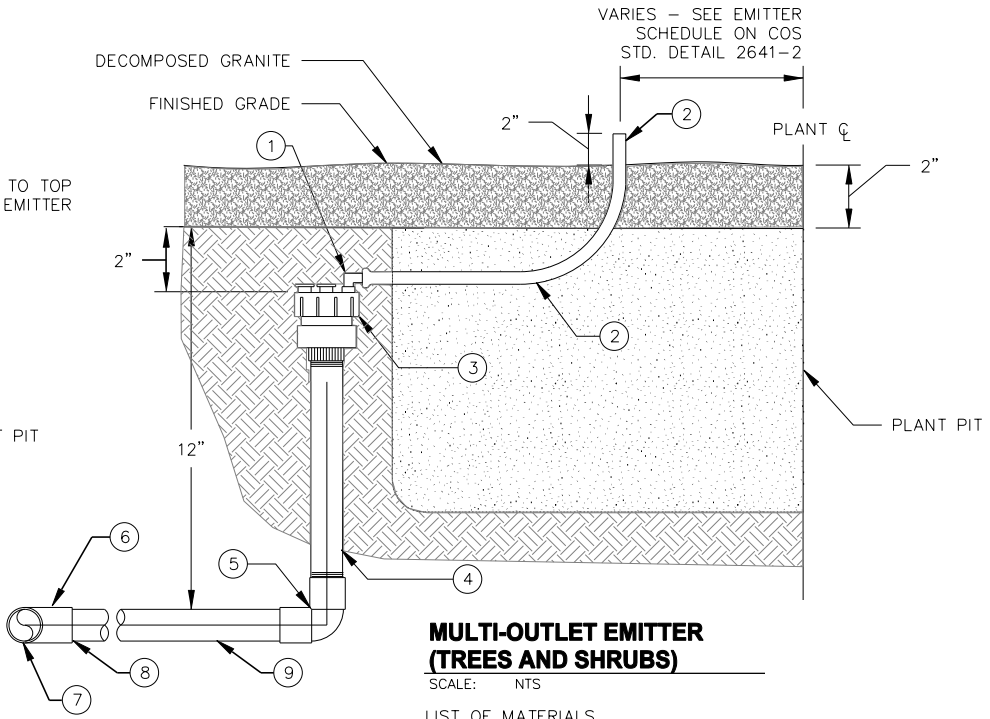
DETAIL NO. 2636	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	IRRIGATION PUSH BUTTON CONTROL	DETAIL NO. 2636

REVISED 2/21/12



SINGLE OUTLET EMITTER (REFER TO NOTE # 6)

SCALE: NTS



MULTI-OUTLET EMITTER (TREES AND SHRUBS)

SCALE: NTS

LIST OF MATERIALS

1. BOWSMITH SL 200 SERIES SINGLE PORT EMITTER OR APPROVED EQUAL. LOCATE ON UPHILL SIDE OF PLANT CENTERLINE
2. 1/4" POLYETHYLENE FLEX HOSE EMITTER TUBING (6' MAX.)
3. 1/2" X 6" SCH 80 TBE NIPPLE
4. 1/2" OR ¾" PVC SCH 40 90° ELBOW – SXT REDUCING AS NECESSARY
5. 1/2" PVC CL 315 PIPE OR ¾" CL 200
6. PVC SCH 40 FITTING
7. PVC CL 315 FOR 1/2" LATERALS, PVC CL 200 FOR LATERALS GREATER THAN 1/2"
8. INSTALL BUSHING AS REQUIRED

NOTES:

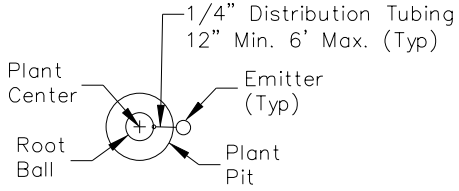
1. PIPE CEMENT & PRIMER SHALL BE USED ON RIGID PIPE CONNECTIONS. TEFLON TAPE SHALL BE USED FOR ALL PIPE THREAD CONNECTIONS.
2. POLYETHYLENE EMITTER TUBING EMISSION POINTS SHALL BE EQUALLY SPACED AND LOCATED TO DIRECT WATER FLOW TO THE PERIMETER OF THE DRIP LINE.
3. NUMBER OF OPENINGS AND EMITTER TUBES REQUIRED IS BASED ON PLANT SIZE. (SEE COS STD. DET. 2641-2)
4. MAXIMUM EMITTER TUBING LENGTH = 6 FEET.
5. NO EMITTER LATERALS OR PIPING SHALL BE INSTALLED THROUGH OR BENEATH PLANT PITS. MINIMUM DISTANCE BETWEEN PLANT PIT PERMITER AND PIPING SHALL BE 12".
6. MULTI OUTLET EMITTERS WILL USE A MIN. OF TWO OUTLETS, PLANTS THAT ARE NOT WITHIN A 6' RADIUS OF EACH OTHER SHALL BE IRRIGATED BY SINGLE OUTLET EMITTERS.

LIST OF MATERIALS

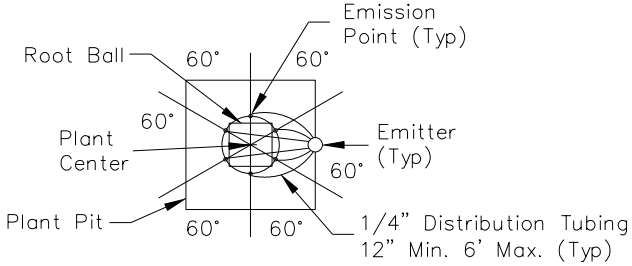
1. SWIVEL OUTLET 90° ELBOW
2. 1/4" POLYETHYLENE FLEX HOSE EMITTER TUBING (6' MAX.)
3. BOWSMITH ML 200 SERIES MULTI-PORT EMITTER OR APPROVED EQUAL. LOCATE ON UPHILL SIDE OF PLANT CENTERLINE
4. 1/2" X 6" SCH 80 NIPPLE TBE
5. 1/2" OR ¾" PVC SCH 40 90° ELBOW – SXT REDUCING AS NECESSARY
6. PVC SCH 40 FITTING
7. PVC CL 315 FOR 1/2" LATERALS, PVC CL 200 FOR LATERALS GREATER THAN 1/2"
8. INSTALL BUSHING AS REQUIRED
9. ½" PVC CL315 PIPE OR ¾" CL 200

DETAIL NO. 2641-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SINGLE & MULTI-OUTLET EMITTERS	DETAIL NO. 2641-1

REVISED 2/21/12

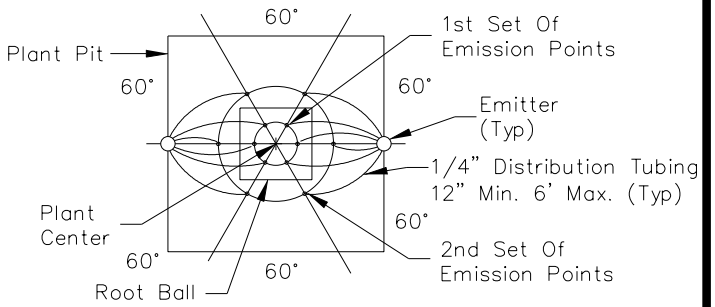


SHRUB EMITTER
SINGLE OUTLET



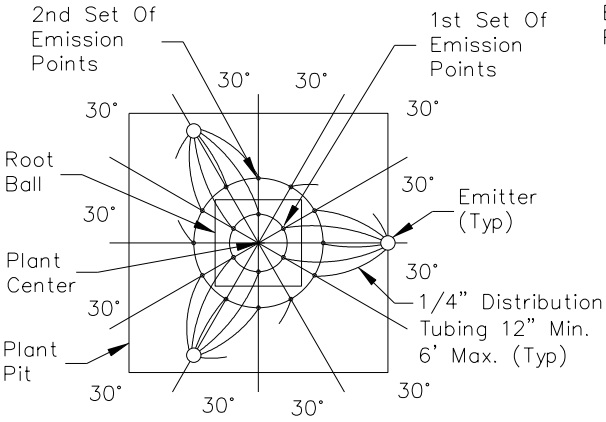
TREE EMITTER – MULTI OUTLET
15 GAL. TO 42" BOX TREES

(SEE EMITTER SCHEDULE)



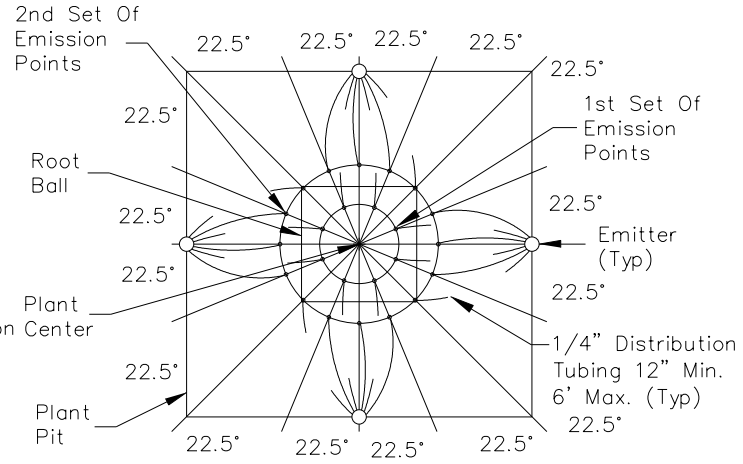
TREE EMITTER – MULTI OUTLET
48" BOX TO 60" BOX TREES

(SEE EMITTER SCHEDULE)



TREE EMITTER – MULTI OUTLET
66" BOX TO 84" BOX TREES

(SEE EMITTER SCHEDULE)



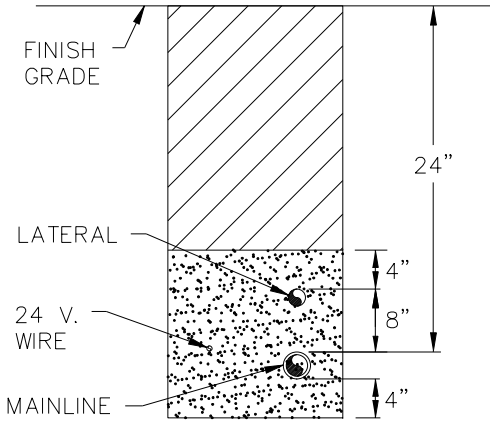
TREE EMITTER – MULTI OUTLET
96" BOX TREES

(SEE EMITTER SCHEDULE)

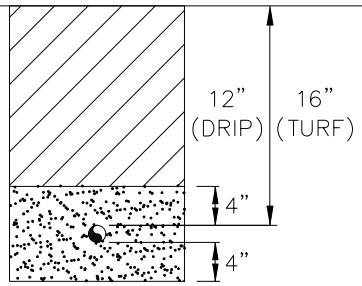
EMITTER SCHEDULE			
Tree Size	Number Of Multi Outlet Emitters – Outlet Quantity = Emitter GPH Total	Distance From Trunk	
		1st Set Of Emission Points	2nd Set Of Emission Points
15 Gal.	1–2 GPH=12 GPH	3 @ 12"	
24" Box	1–2 GPH=12 GPH	4 @ 18"	
30" Box	1–2 GPH=12 GPH	6 @ 21"	
36" Box	1–2 GPH=12 GPH	6 @ 24"	
42" Box	1–2 GPH=12 GPH	6 @ 27"	
48" Box	2–2 GPH=24 GPH	6 @ 12"	4 @ 42"
54" Box	2–2 GPH=24 GPH	6 @ 15"	5 @ 45"
60" Box	2–2 GPH=24 GPH	6 @ 18"	6 @ 48"
66" Box 72" Box	3–2 GPH=36 GPH	6 @ 24"	12 @ 54"
78" Box 84" Box	3–2 GPH=36 GPH	6 @ 30"	12 @ 60"
≥ 90" Box	4–2 GPH=48 GPH	8 @ 33"	16 @ 66"

DETAIL NO. 2641-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	IRRIGATION EMITTER LAYOUT	DETAIL NO. 2641-2

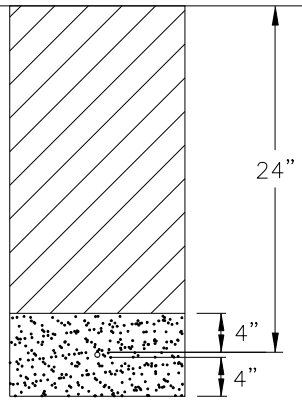
REVISED 6/12/12



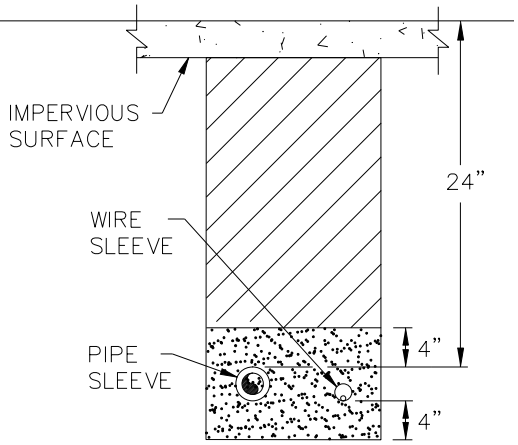
MAINLINE, LATERAL & 24V WIRE



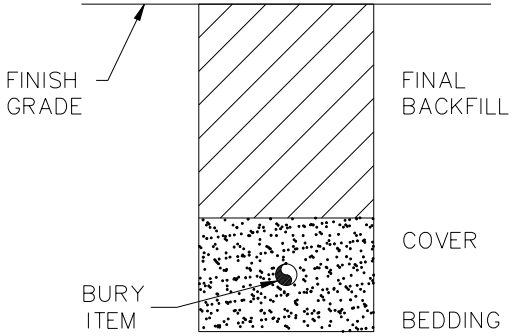
PVC LATERAL



24V WIRE



PIPE & WIRE SLEEVING



EXCAVATED MATERIAL SHALL BE FINELY SCREENED WITH NO ROCKS LARGER THAN 1".

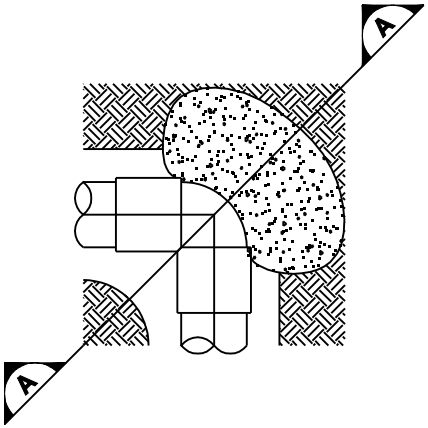
BEDDING AND COVER MATERIAL SHALL BE TOPSOIL WITH NO ROCKS.

NOTES:

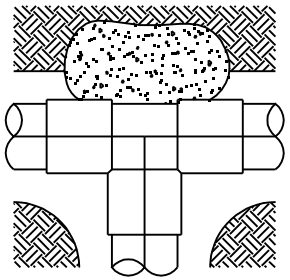
1. BEDDING SHALL BE PLACED AND LEVELED PRIOR TO INSTALLATION OF BURY ITEM.
2. BACKFILL SHALL BE PLACED IN MAXIMUM 6" LIFTS.
3. SLEEVE ALL PIPE AND WIRE SEPARATELY. SLEEVE 2 X DIA. OF PIPE (MIN 2"). ONE PIPE PER SLEEVE. SLEEVES TO BE PRIMED AND SOLVENT WELDED.
4. ALL PIPE TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS WITH PIPE LABELING FACING UP FOR INSPECTION PURPOSES. PROVIDE A MINIMUM OF 2" CLEARANCE TO SIDE OF TRENCH AND BETWEEN PIPES.
5. ALL 120 V. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.
6. TAPE AND BUNDLE IRRIGATION CONTROL WIRES EVERY 10'. PROVIDE LOOSE 20" LOOP AT ALL CHANGES OF DIRECTION OVER 30°.
7. ALL REMOTE CONTROL VALVE WIRING NOT INSTALLED WITH MAINLINE PIPE SHALL BE INSTALLED IN A MINIMUM 2" SCHEDULE 40 GREY ELECTRICAL CONDUIT OR AS APPROVED.
8. "NON–POTABLE" WARNING TAPE TO BE INSTALLED ON ALL PRESSURIZED MAINLINES 12" ABOVE THE PIPE.
9. INSTALL ONE ADDITIONAL SLEEVE SIZED TO MATCH THE LARGEST REQUIRED SLEEVE WITH ENDS TAPED FOR FUTURE USE.
10. SLEEVES TO EXTEND A MINIMUM OF 12" PAST HARDSCAPE PLANTERS, CURBS, SIDEWALKS, ETC. SLEEVES TO BE STAGGERED/OFFSET SO THAT SLEEVE USE IS NOT OBSTRUCTED BY OTHER PIPES.
11. WHERE PRESSURE SUPPLY PIPING IS INSTALLED WITHOUT CONTROL WIRING, A 14 GA. TRACKING WIRE SHALL BE INSTALLED.

DETAIL NO. 2642	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	IRRIGATION TRENCHING	DETAIL NO. 2642

REVISED: 05/14/08



90° ELL
SCALE: NTS

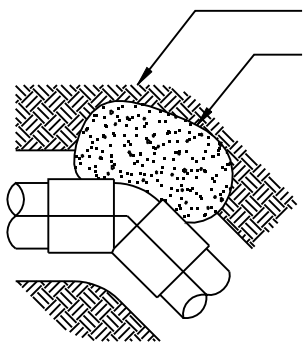


TEE
SCALE: NTS

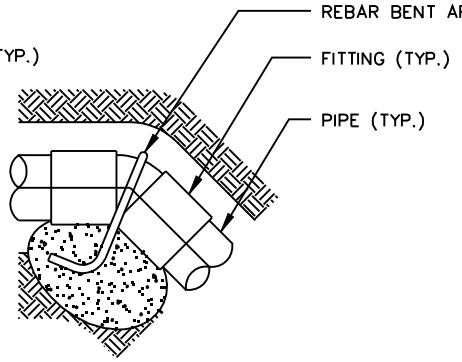
MINUMUM THRUST BLOCK AREA (YxW)		
PIPE SIZE	IRRIGATION PIPE	
	TEE, DEAD END 90°BEND	45°,22.5°
3"	1 SF	.5 SF
4"	1.5 SF	1 SF
5" & LARGER	2 SF	1.5 SF
	PER MAG DETAIL 380	PER MAG DETAIL 380

NOTES

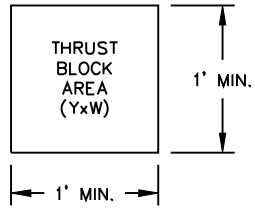
1. MINIMUM THRUST BLOCK AREAS ARE BASED ON A SOIL BEARING CAPACITY OF 3000 LBS/SF
2. THRUST BLOCK SHALL EXTEND INTO UNDISTURBED SOIL.
3. THRUST BLOCK SHALL BE MAG SECT. 725-CLASS C.
4. MAINLINE PIPING 4" AND LARGER SHALL HAVE MEGA/LUG JOINT RESTRAINTS INSTALLED AT ALL FLOW DIRECTION CHANGES (CONCRETE THRUST BLOCK NOT REQUIRED IF BELL END HARNESS JOINT RESTRAINTS ARE INSTALLED PER MAG 303-1 AND 303-2).

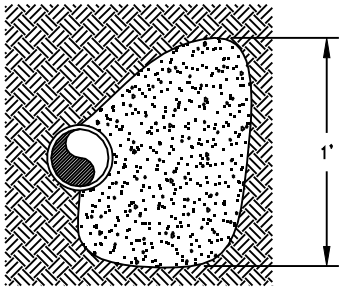


45° ELL
SCALE: NTS



45° ELL (VERTICAL)
SCALE: NTS

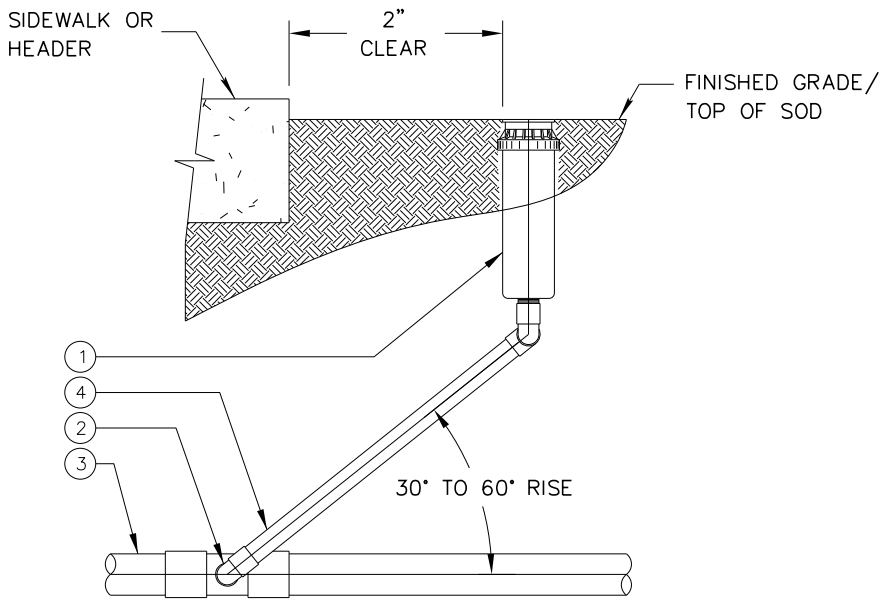




SECTION A-A

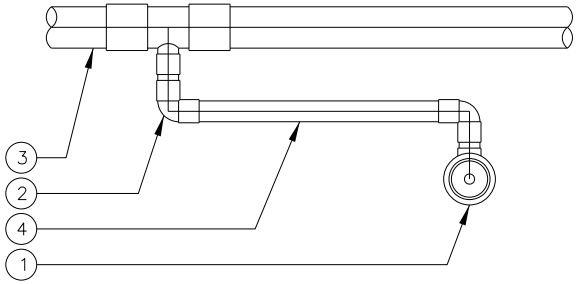
DETAIL NO. 2643	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	IRRIGATION THRUST BLOCK	DETAIL NO. 2643

REVISED 5/1/15



SWING JOINT ASSEMBLY ELEVATION

SCALE: NTS



SWING JOINT ASSEMBLY PLAN

SCALE: NTS

LIST OF MATERIALS

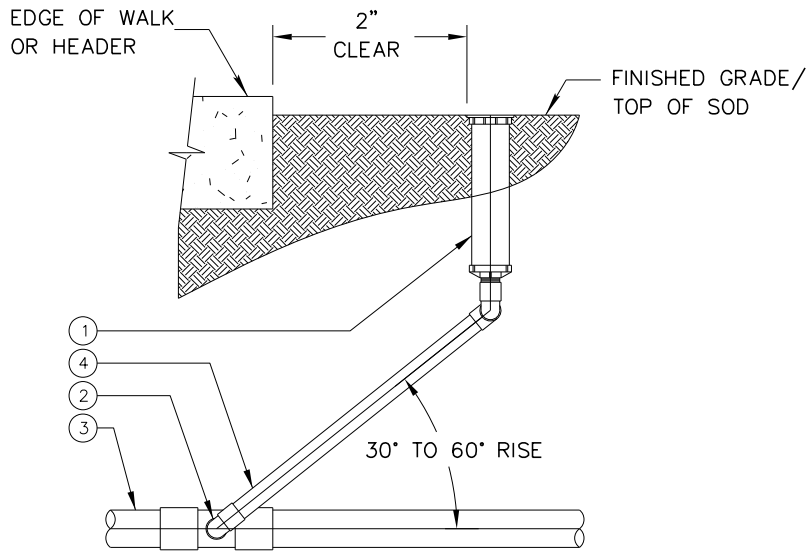
1. ROTOR SPRINKLER HEAD
2. STREET ELL (1 OF 3) SCH 40 PVC
3. PVC LATERAL PIPE
4. SCH 80 NIPPLE TBE

NOTES

1. SWING JOINT TO BE THE SAME SIZE AS SPRINKLER HEAD INLET.
2. NO PRE-FAB SWING JOINTS
3. NO MARLEX FITTINGS

DETAIL NO. 2644	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	ROTOR SPRINKLER ASSEMBLY	DETAIL NO. 2644

REVISED 5/3/15

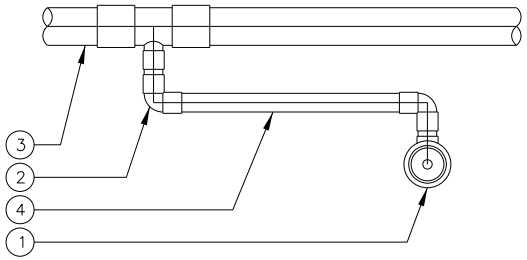


SWING JOINT ASSEMBLY ELEVATION

SCALE: NTS

LIST OF MATERIALS

1. 4" POP-UP SPRAY SPRINKLER HEAD
2. STREET ELL (1 OF 3) SCH 40 PVC
3. PVC LATERAL PIPE
4. SCH 80 NIPPLE TBE



SWING JOINT ASSEMBLY PLAN

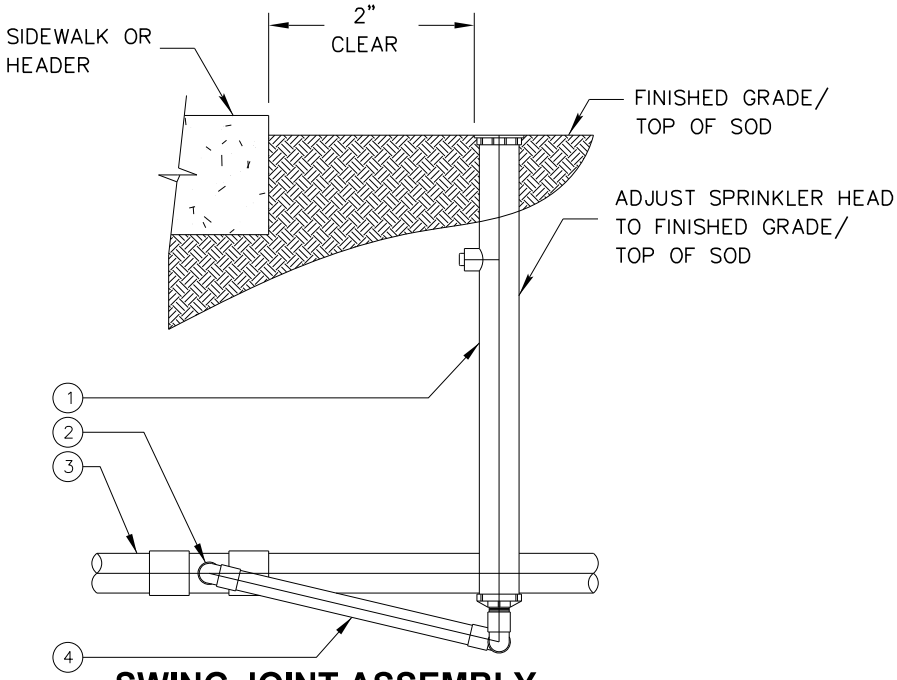
SCALE: NTS

NOTES

1. SWING JOINT TO BE THE SAME SIZE AS SPRINKLER HEAD INLET.
2. NO PRE-FAB SWING JOINTS
3. NO MARLEX FITTINGS

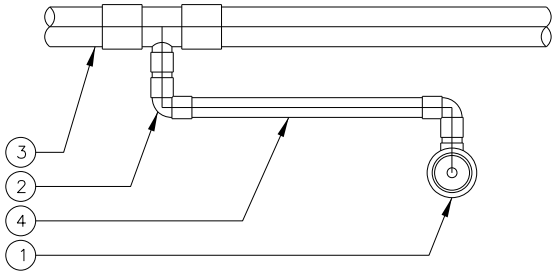
DETAIL NO. 2645	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	POP-UP SPRINKLER ASSEMBLY	DETAIL NO. 2645

REVISED 5/22/15



SWING JOINT ASSEMBLY ELEVATION

SCALE: NTS



SWING JOINT ASSEMBLY PLAN

SCALE: NTS

LIST OF MATERIALS

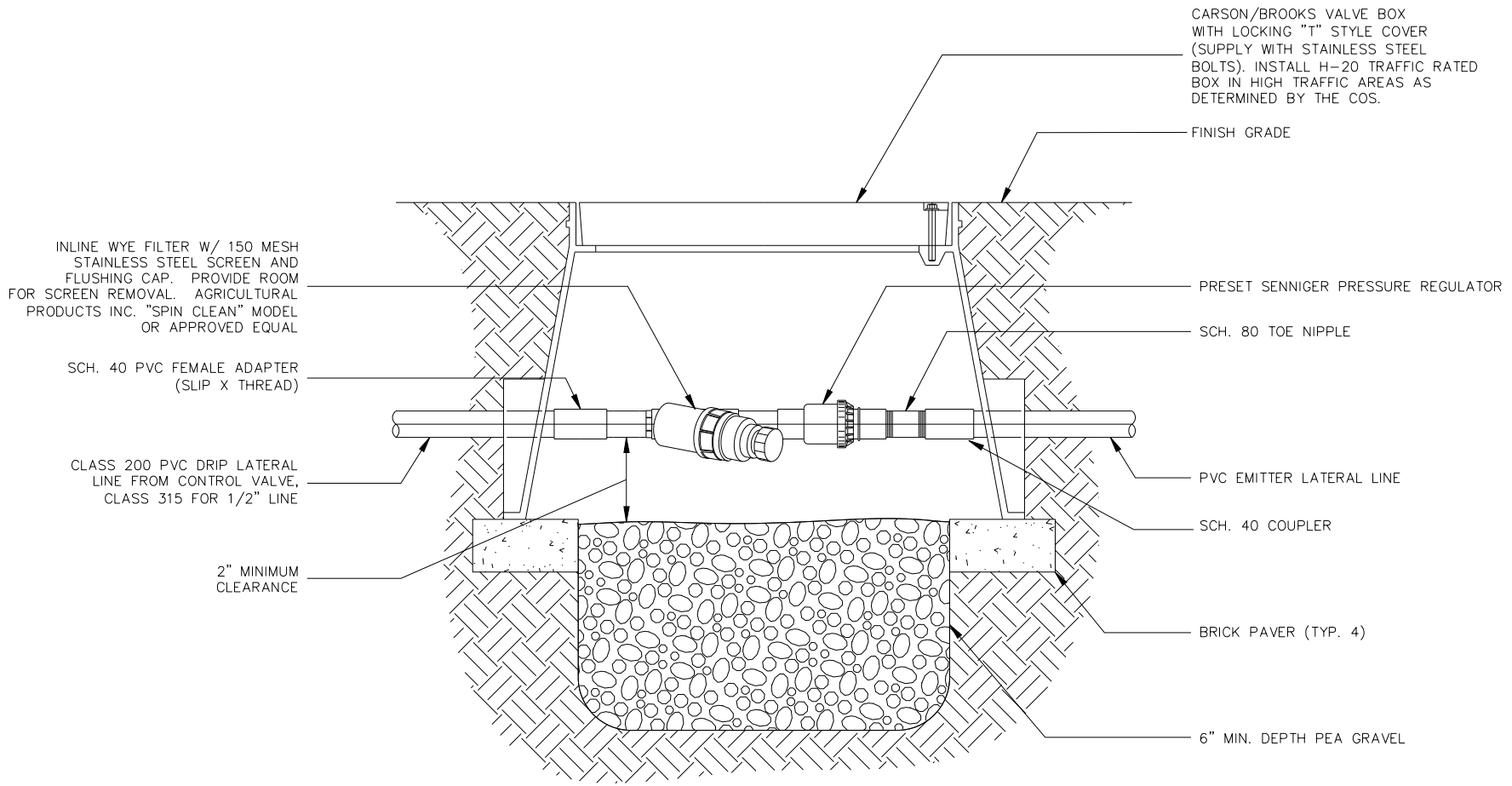
1. 12" POP-UP SPRAY SPRINKLER HEAD
2. STREET ELL (1 OF 3) SCH 40 PVC
3. PVC LATERAL PIPE
4. SCH 80 NIPPLE TBE

NOTES

1. SWING JOINT TO BE THE SAME SIZE AS SPRINKLER HEAD INLET.
2. SWING JOINT SHALL BE CONNECTED TO BOTTOM OUTLET.
3. NO PRE-FAB SWING JOINTS
4. NO MARLEX FITTINGS

DETAIL NO. 2646	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	SHRUB POP-UP SPRINKLER ASSEMBLY	DETAIL NO. 2646

REVISED 3/7/12

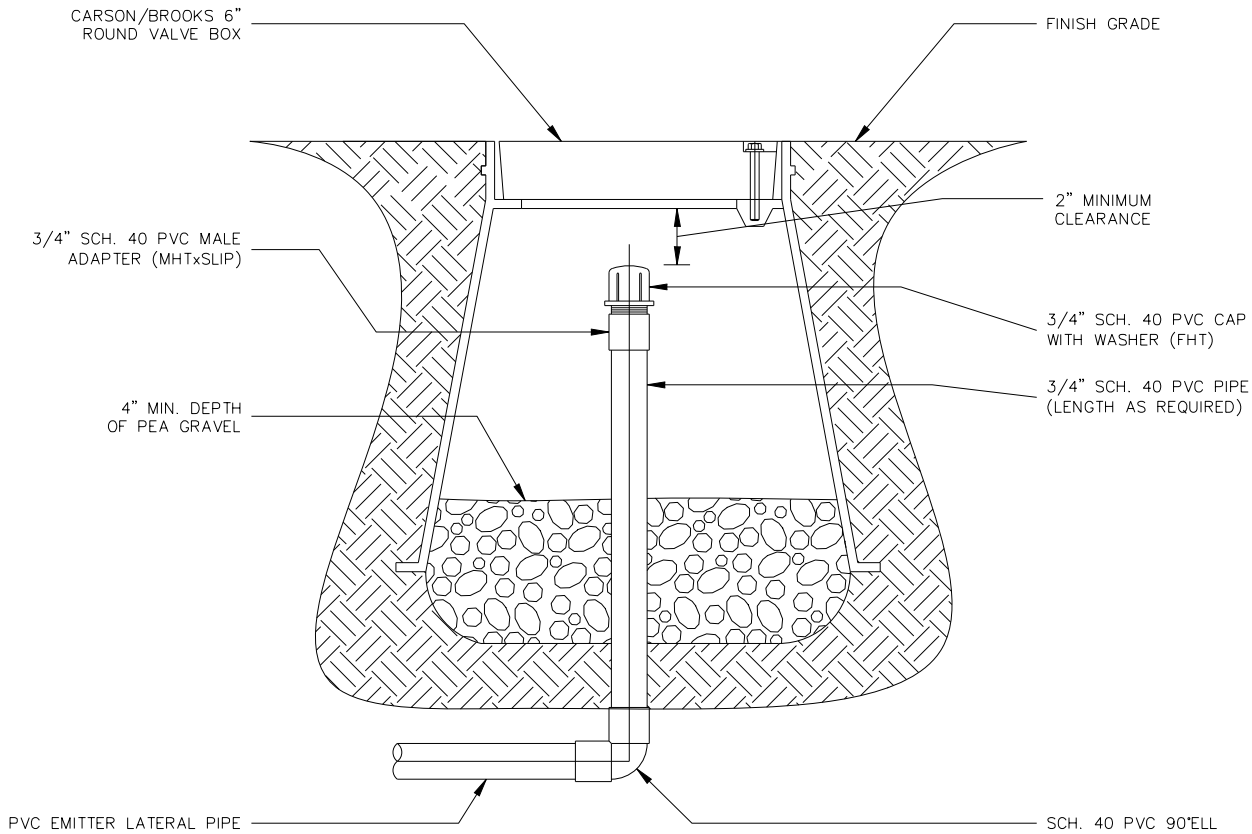


DRIP FILTER &
PRESS. REG. ASSEMBLY

SCALE: NTS

DETAIL NO. 2647	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	DRIP FILTER & PRESSURE REGULATOR	DETAIL NO. 2647

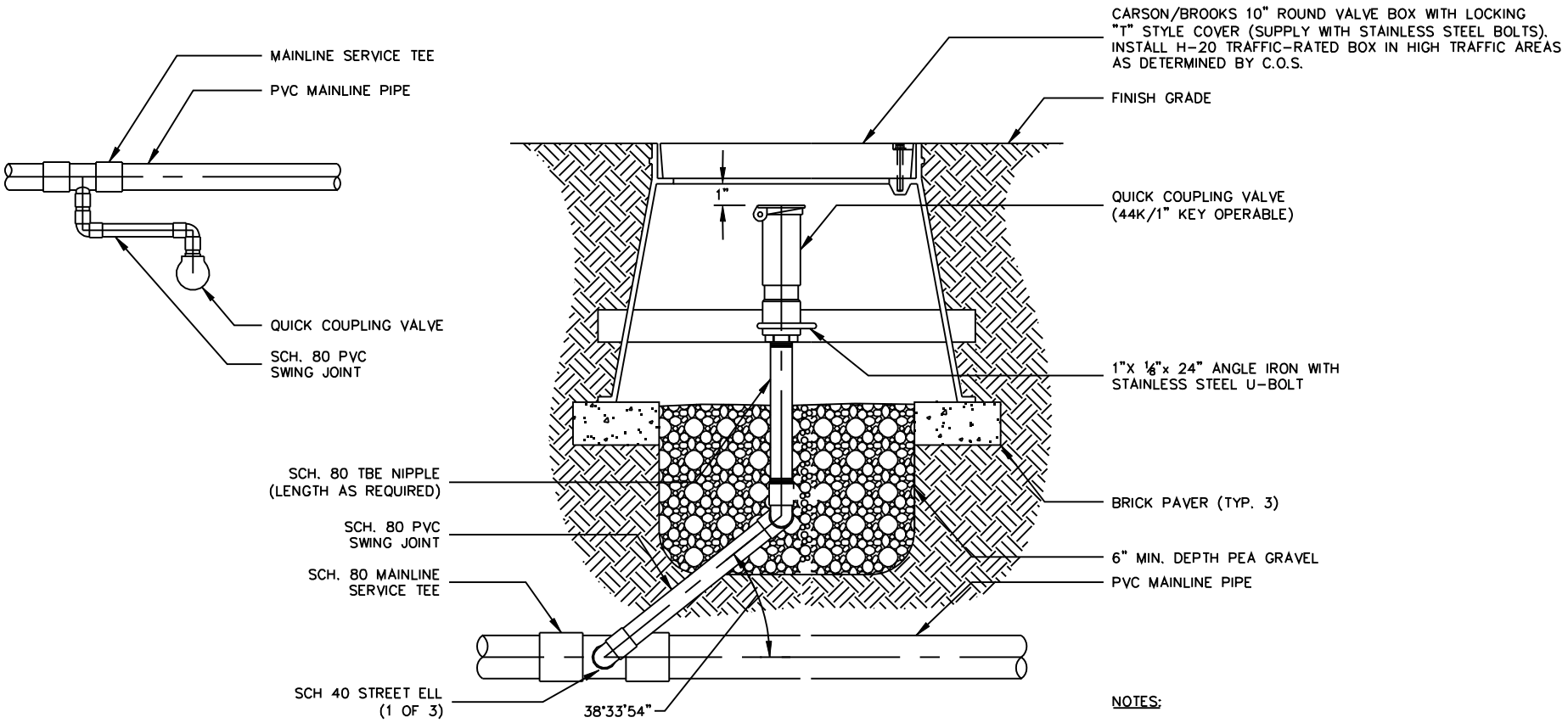
REVISED 3/7/12



EMITTER FLUSH CAP ASSEMBLY

SCALE: NTS

DETAIL NO. 2648	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	EMITTER FLUSH CAP ASSEMBLY	DETAIL NO. 2648



REVISED: 05/02/08

QUICK COUPLER ASSEMBLY
SCALE: NTS

NOTES:

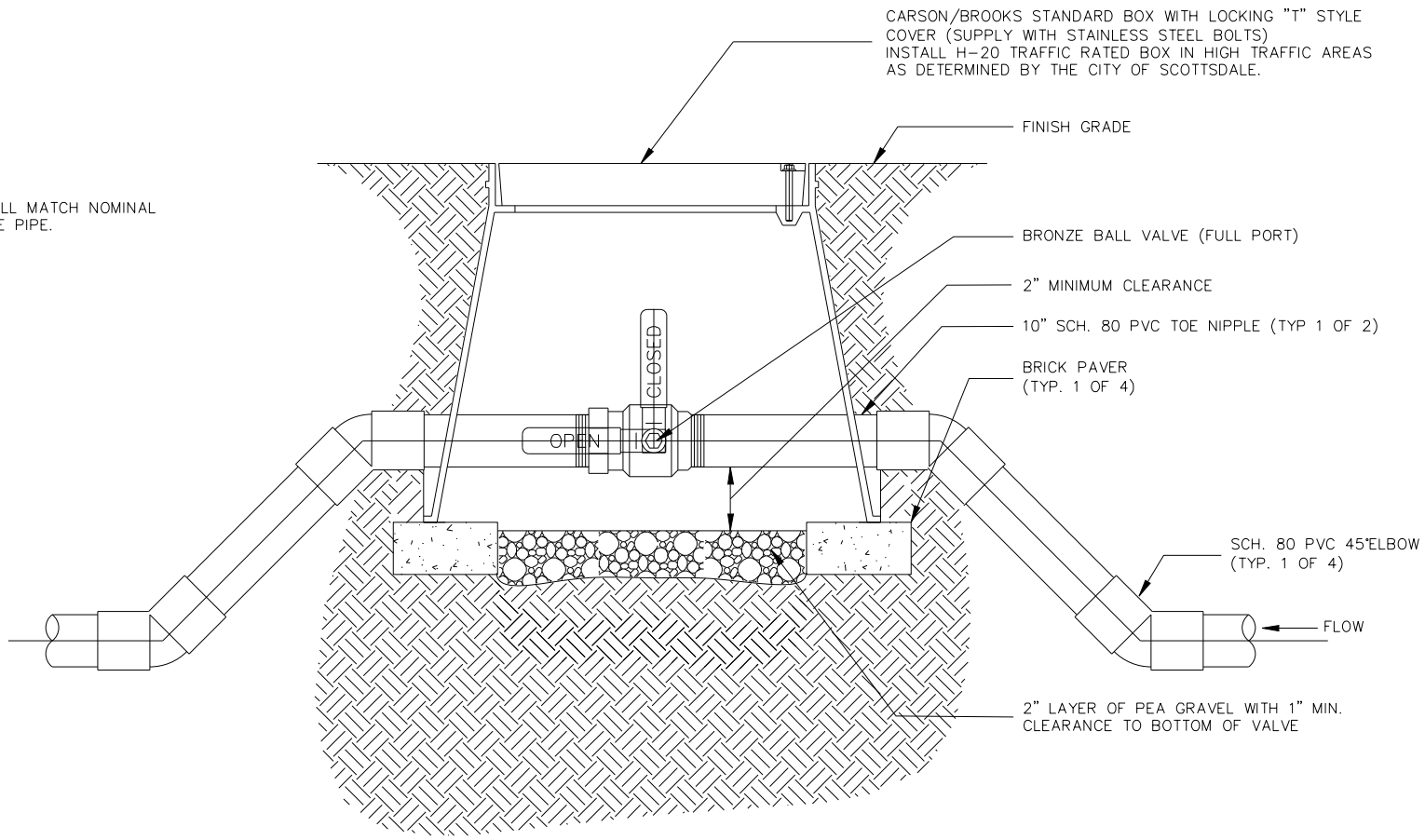
1. EACH QUICK COUPLER SHALL BE IN A SEPARATE VALVE BOX.
2. SWING JOINT SHALL BE THE SAME SIZE AS QUICK COUPLER VALVE.
3. NO PRE-FAB SWING JOINTS.
4. U-BOLT TO BE SECURED WITH LOCK WASHERS AND BACK-UP LOCKING NUT.

DETAIL NO. 2649	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	QUICK COUPLER ASSEMBLY	DETAIL NO. 2649

REVISED 3/7/12

NOTE:

1. BALL VALVE SHALL MATCH NOMINAL SIZE OF MAINLINE PIPE.



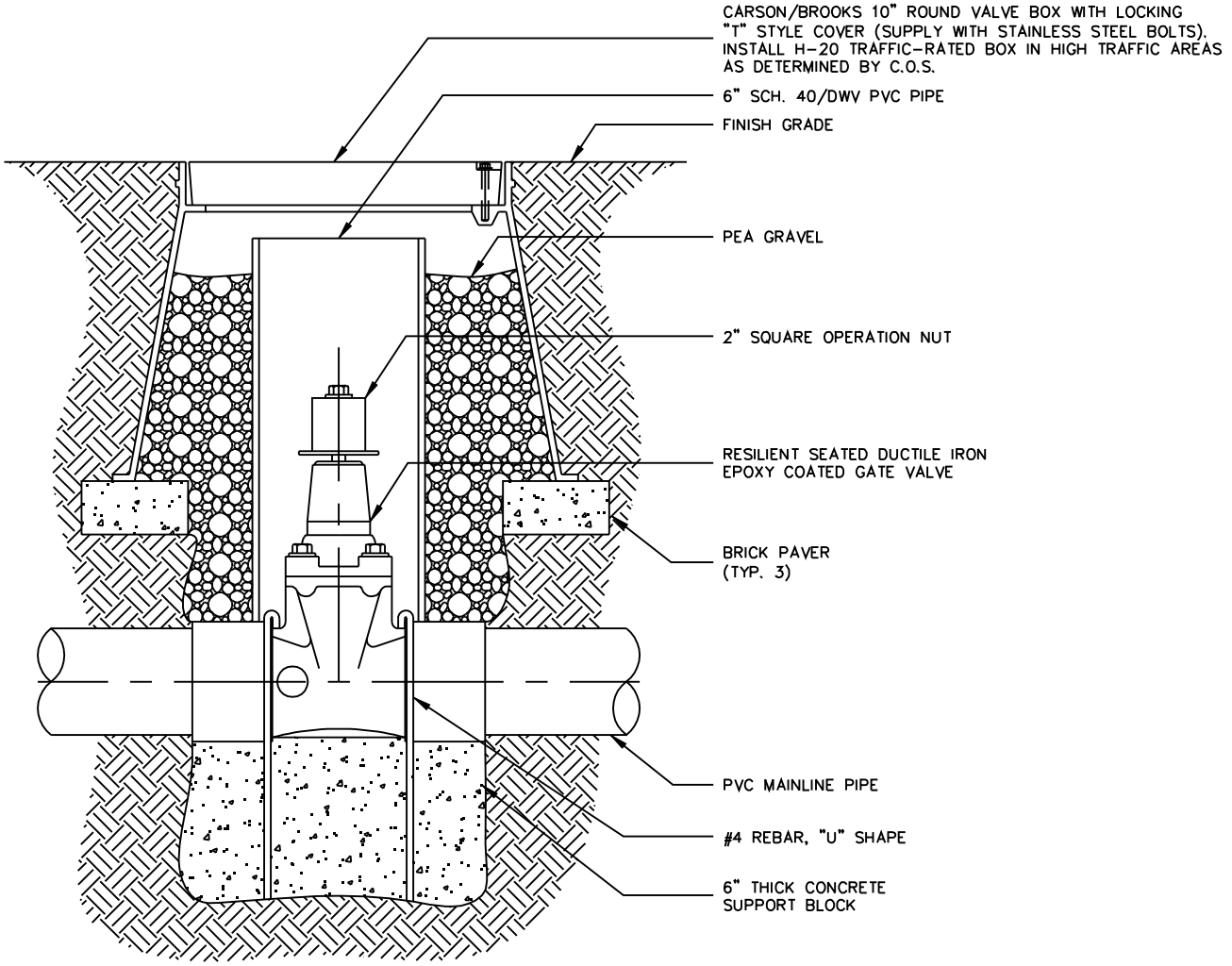
1-1/2" & SMALLER MAINLINE ISOLATION BALL VALVE ASSEMBLY

SCALE: NTS

DETAIL NO.		APPROVED BY:		DETAIL NO.
2650	City of Scottsdale Standard Details	Scottsdale Standards & Specifications Committee	1 1/2" & SMALLER MAINLINE BALL VALVE	2650

NOTE:

1. GATE VALVE SHALL MATCH NOMINAL SIZE OF MAINLINE PIPE.
2. PROTECT VALVE BODY WITH 10MIL PLASTIC PRIOR TO INSTALLATION OF REBAR & SUPPORT BLOCK.



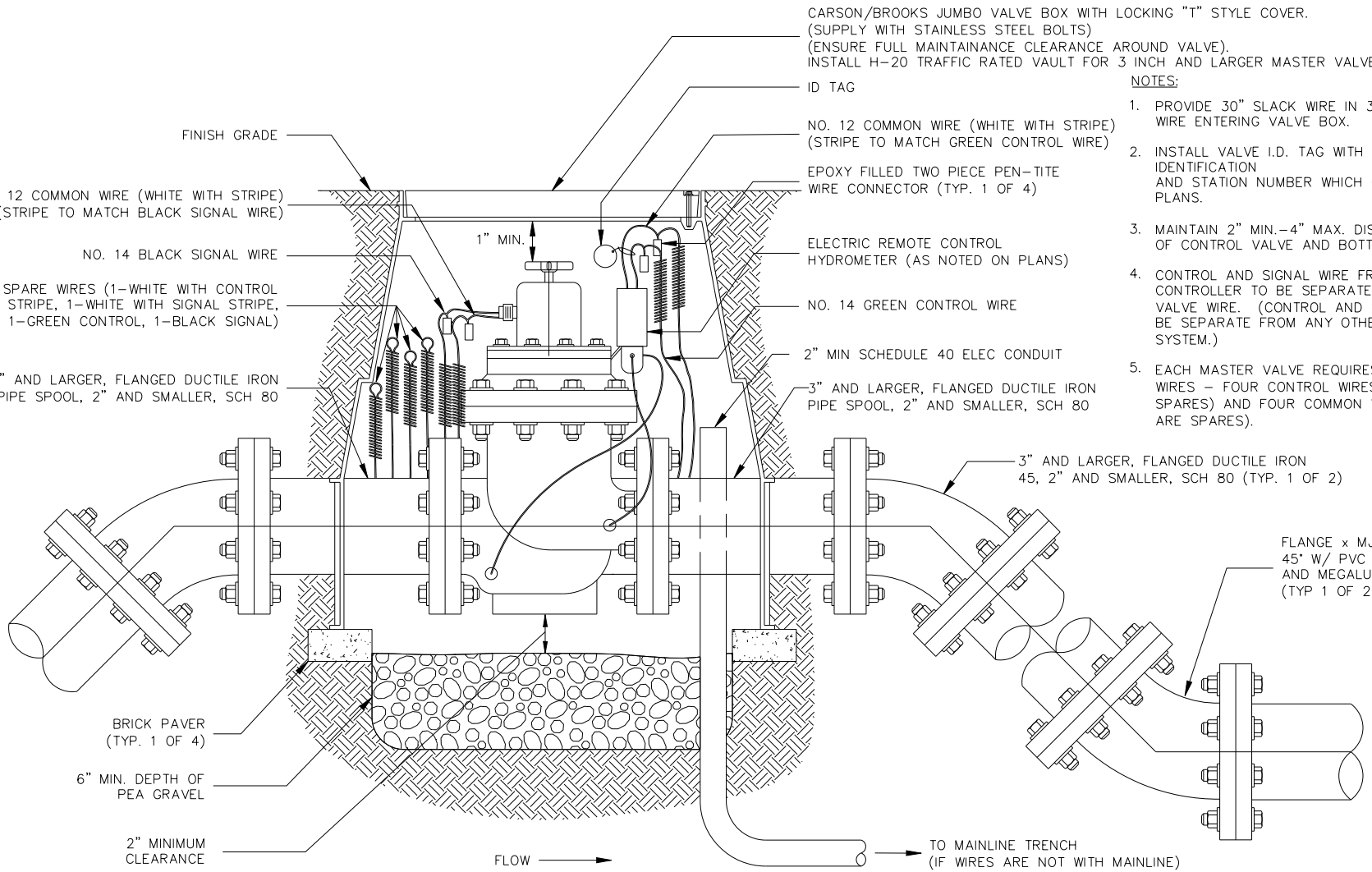
2" & LARGER MAINLINE ISOLATION GATE VALVE ASSEMBLY

SCALE: NTS

REVISED: 05/02/08

DETAIL NO. 2651	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	2" & LARGER MAINLINE ISOLATION GATE VALVE	DETAIL NO. 2651

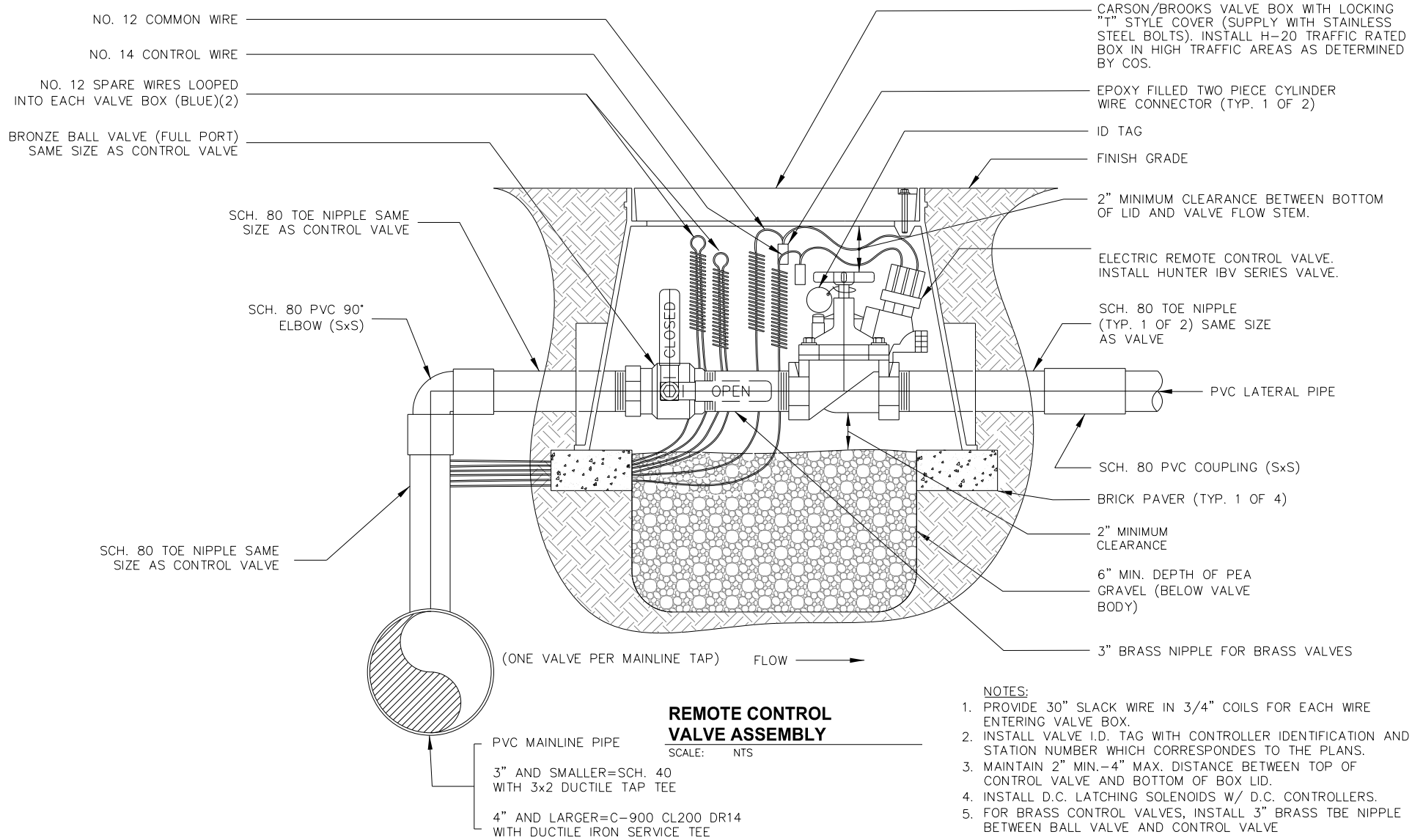
REVISED 6/12/12



NOTES:

1. PROVIDE 30" SLACK WIRE IN 3/4" COILS FOR EACH WIRE ENTERING VALVE BOX.
2. INSTALL VALVE I.D. TAG WITH CONTROLLER IDENTIFICATION AND STATION NUMBER WHICH CORRESPONDS TO THE PLANS.
3. MAINTAIN 2" MIN.-4" MAX. DISTANCE BETWEEN TOP OF CONTROL VALVE AND BOTTOM OF BOX LID.
4. CONTROL AND SIGNAL WIRE FROM MASTER VALVE TO CONTROLLER TO BE SEPARATE COLOR FROM OTHER VALVE WIRE. (CONTROL AND SIGNAL COMMONS TO BE SEPARATE FROM ANY OTHERS COMMONS IN THE SYSTEM.)
5. EACH MASTER VALVE REQUIRES A TOTAL OF EIGHT WIRES - FOUR CONTROL WIRES (TWO OF WHICH ARE SPARES) AND FOUR COMMON WIRES (TWO OF WHICH ARE SPARES).

DETAIL NO. 2653	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	1 1/2" & LARGER MASTER VALVE/FLOW METER	DETAIL NO. 2653



REMOTE CONTROL VALVE ASSEMBLY

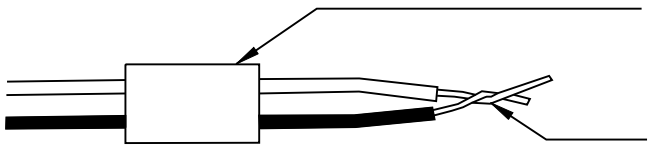
SCALE: NTS

NOTES:

1. PROVIDE 30" SLACK WIRE IN 3/4" COILS FOR EACH WIRE ENTERING VALVE BOX.
2. INSTALL VALVE I.D. TAG WITH CONTROLLER IDENTIFICATION AND STATION NUMBER WHICH CORRESPONDES TO THE PLANS.
3. MAINTAIN 2" MIN.-4" MAX. DISTANCE BETWEEN TOP OF CONTROL VALVE AND BOTTOM OF BOX LID.
4. INSTALL D.C. LATCHING SOLENOIDS W/ D.C. CONTROLLERS.
5. FOR BRASS CONTROL VALVES, INSTALL 3" BRASS TBE NIPPLE BETWEEN BALL VALVE AND CONTROL VALVE

REVISED 6/02/15

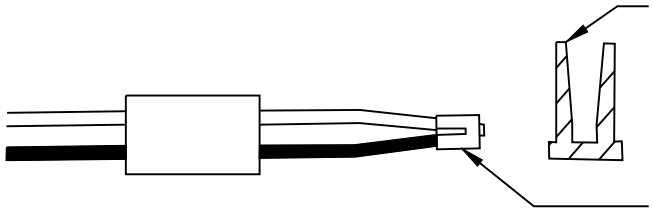
DETAIL NO. 2654	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	REMOTE CONTROL VALVE AND SOLAR CONTROLLER MASTER VALVE ASSEMBLY	DETAIL NO. 2654



STEP 1

SLIP BASE SOCKET OVER END OF WIRES

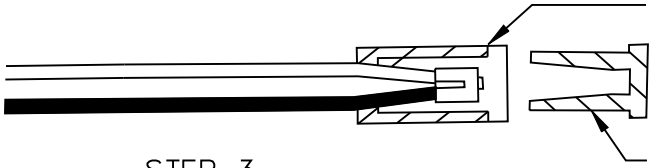
STRIP WIRES APPROX. 5/8" FROM ENDS – TWIST ENDS TOGETHER



STEP 2

APPLY SEALER TO OUTSIDE OF SEALING PLUG – FILL CAVITY WITH SEALER

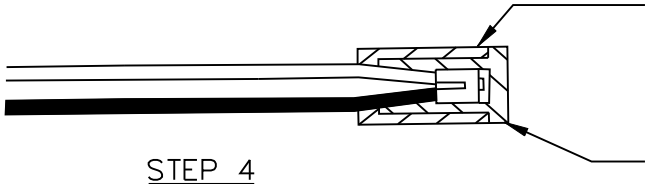
PUT CRIMP SLEEVE OVER WIRE ENDS – CRIMP SLEEVE AND CUT OFF EXCESS WIRE



STEP 3

PULL BASE SOCKET OVER WIRE END AS FAR AS POSSIBLE

PUSH SEALING PLUG INTO BASE SOCKET



STEP 4

PUSH WIRES TO END OF BASE SOCKET TO ASSURE COMPLETE SEALING OF CONNECTION

DRI–SPLICE TYPE WIRE CONNECTOR

NOTES:

1. FOR WIRE SIZES NO. 14, 12 AND 10, ALL CONNECTIONS IN VALVE BOXES ONLY.

2. INSTALL SPEARS DS–100 DRI–SPLICE CONNECTORS WITH DS–300 SEALANT.

REVISED: 3/9/05

DETAIL NO. 2655	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TYPICAL IRRIGATION WIRE CONNECTION	DETAIL NO. 2655

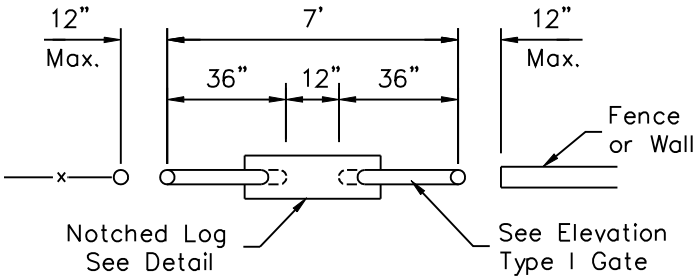
REVISED: 4/25/07

WIRE SIZE (AWG)	MAXIMUM NUMBER OF WIRES TO BE INSTALLED IN A SCHEDULE 40 PVC SLEEVE			WIRE SIZE (AWG)
	2"	2–1/2"	3"	
14	25	40	56	14
12	20	33	50	12

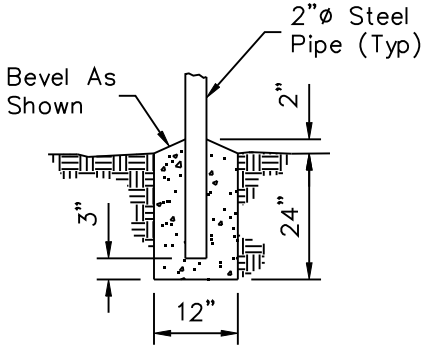
NOTE:

1. ALL WIRE SLEEVES TO BE SHC. 40 PVC AND SHALL BE INSTALLED WITH A MINIMUM OFFSET AT THE JOINTS TO PERMIT EASY INSTALLATION AND REMOVAL OF CONTROL AND COMMON WIRES. ALL WIRES SHALL BE INSTALLED IN SLEEVES UNDER THE PAVED AREAS. SLEEVES SHALL EXTEND AT LEAST 12" BEYOND THE EDGES OF THE PAVEMENT. SIZE OF SLEEVES SHALL BE AS SHOWN.

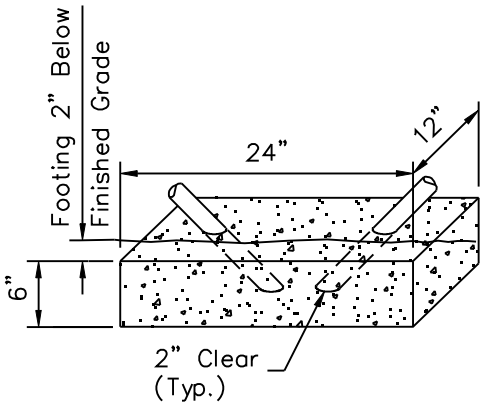
DETAIL NO. 2656	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	IRRIGATION WIRE SLEEVING CHART	DETAIL NO. 2656



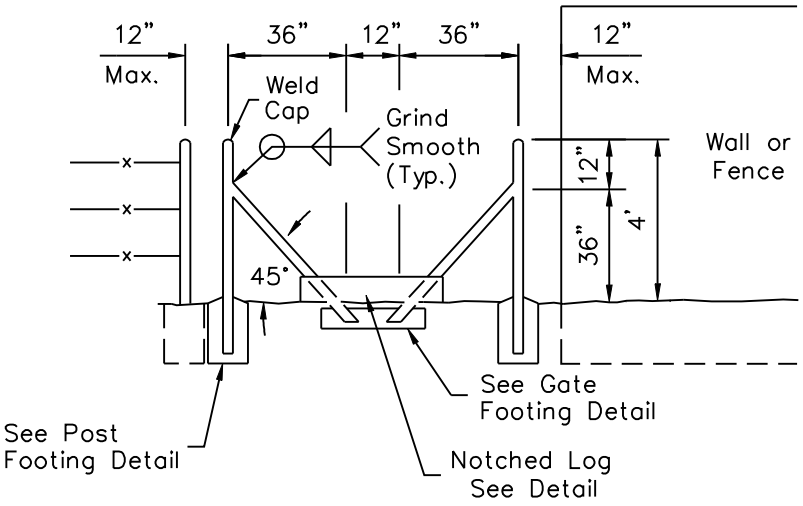
TYPE I GATE w/ NOTCHED LOG



POST FOOTING DETAIL



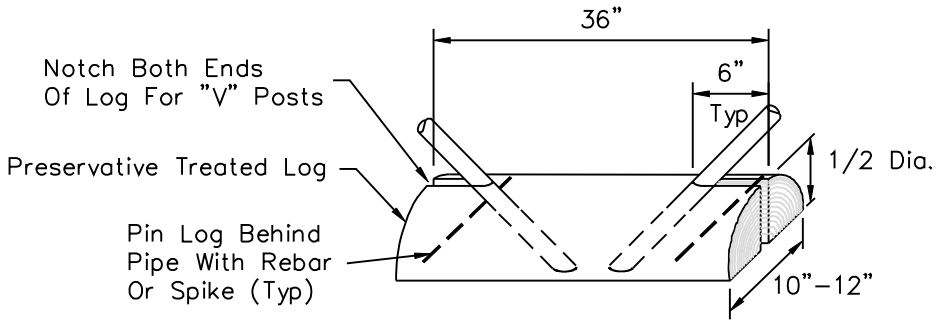
GATE FOOTING DETAIL



ELEVATION TYPE I GATE

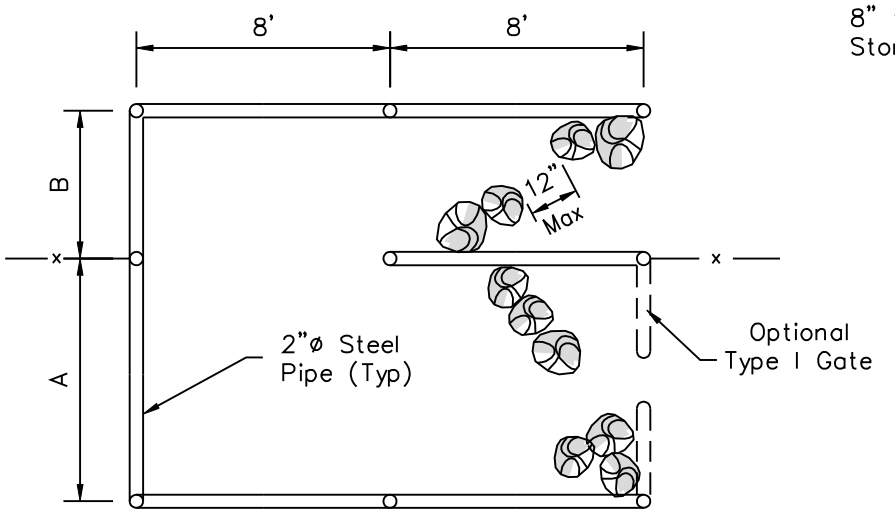
NOTES:

1. All Concrete Shall Be Class "B".
2. Paint Rails Per ADOT Specifications. Color Per Plans.
3. Treated Wood Per MAG Section 779.

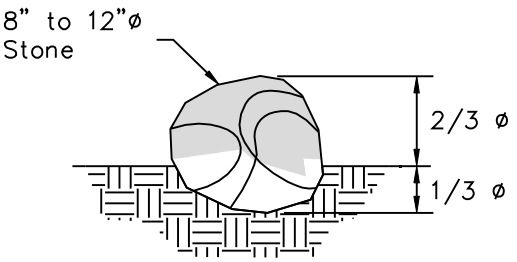


NOTCHED LOG DETAIL

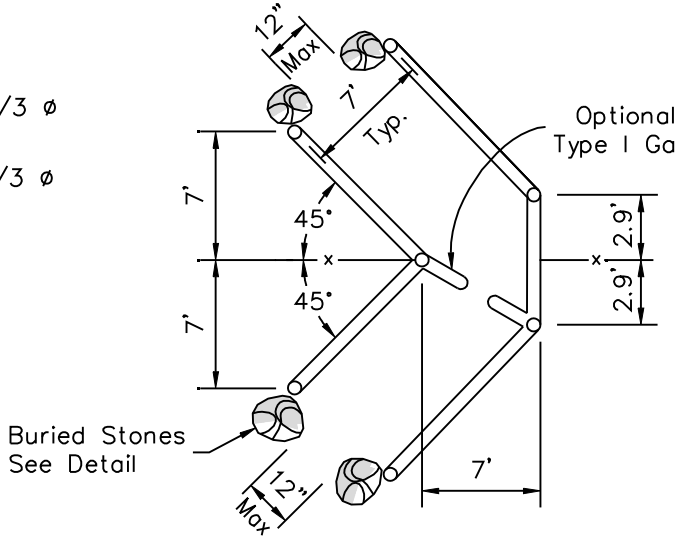
DETAIL NO. 2680-1	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRAIL ACCESS GATES	DETAIL NO. 2680-1



TYPE II GATE



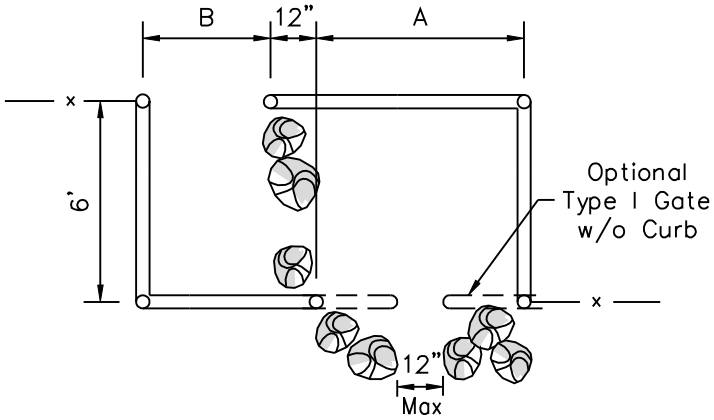
BURIED STONE DETAIL



TYPE IV GATE

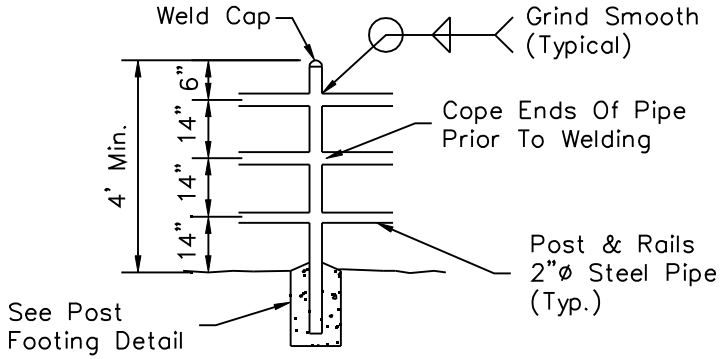
NOTE:

Gate barriers for Type II, III and IV gates shall be buried stones or Type I gate as shown on plan.



TYPE III GATE

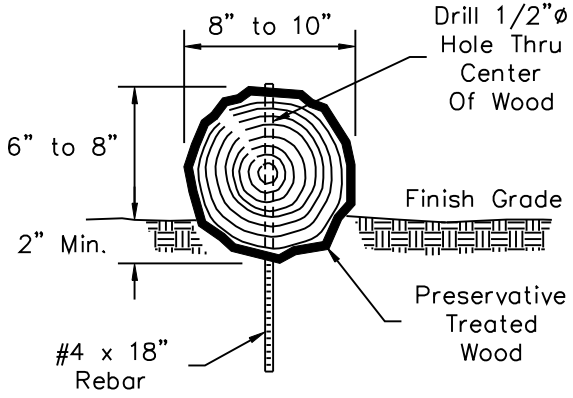
TYPE II and III GATE DIMENSIONS		
GATE BARRIER	A	B
Type I	7'	4'
Buried Rocks	4'	4'



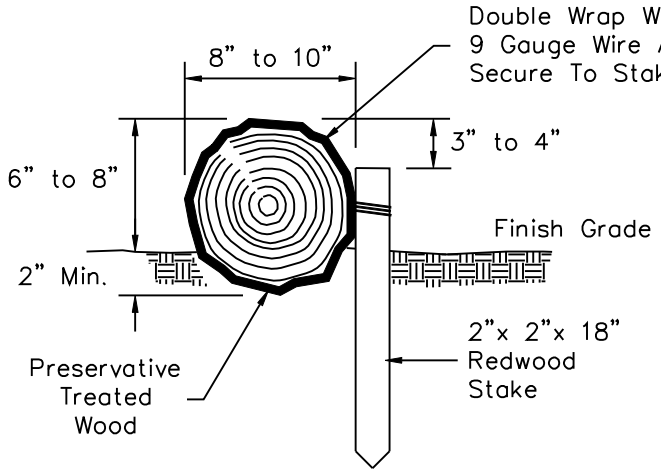
TYPICAL RAIL ELEVATION TYPE II, III & IV GATE

DETAIL NO.			
2680-2	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRAIL ACCESS GATES

DETAIL NO. 2680-2



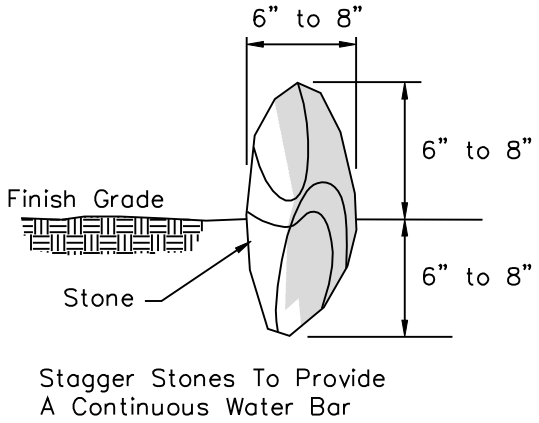
REBAR SECURED WOOD BARS



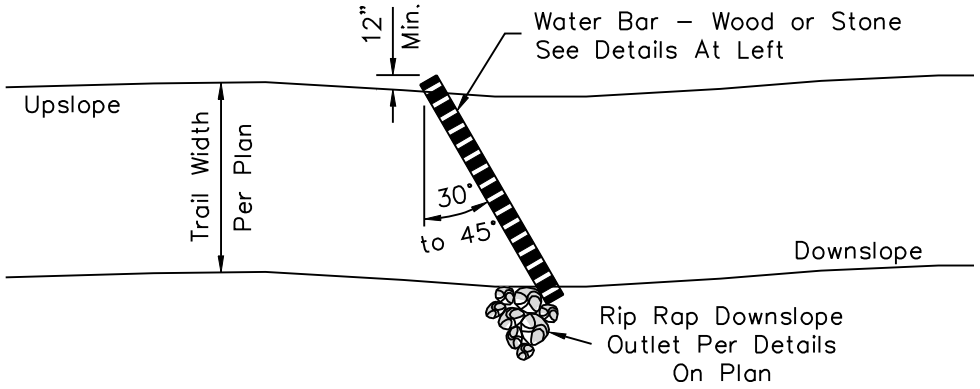
WIRE SECURED WOOD BARS

NOTES:

1. Provide water bars at a maximum 100' interval where trail grade is equal to or greater than 6% and at all locations as shown on plans.
2. Treated wood per MAG Section 779.

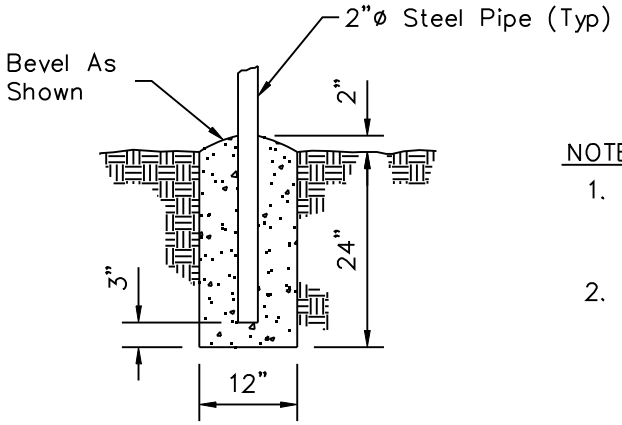


STONE BARS



WATER BARS
PLAN

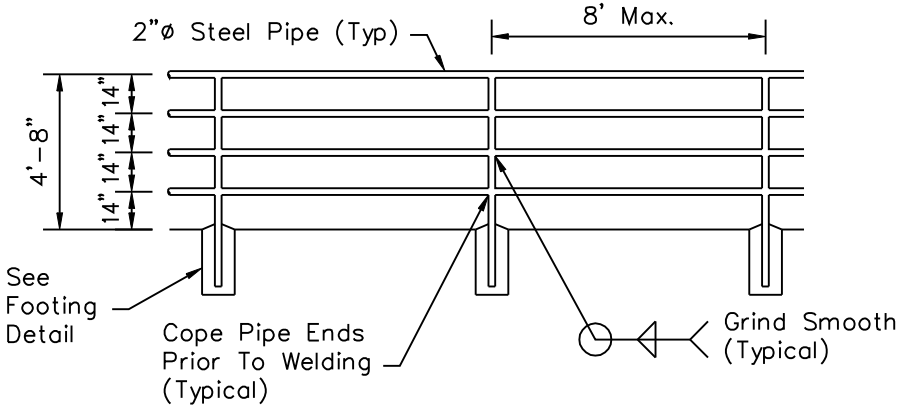
DETAIL NO. 2681	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRAIL WATER BARS	DETAIL NO. 2681



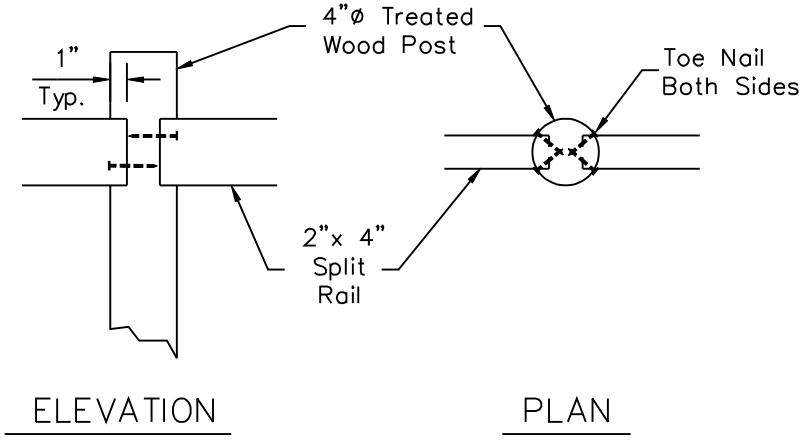
NOTES:

1. Paint Rails Per ADOT Specifications. Color Per Plan.
2. Treated Wood Posts Per MAG Section 779.

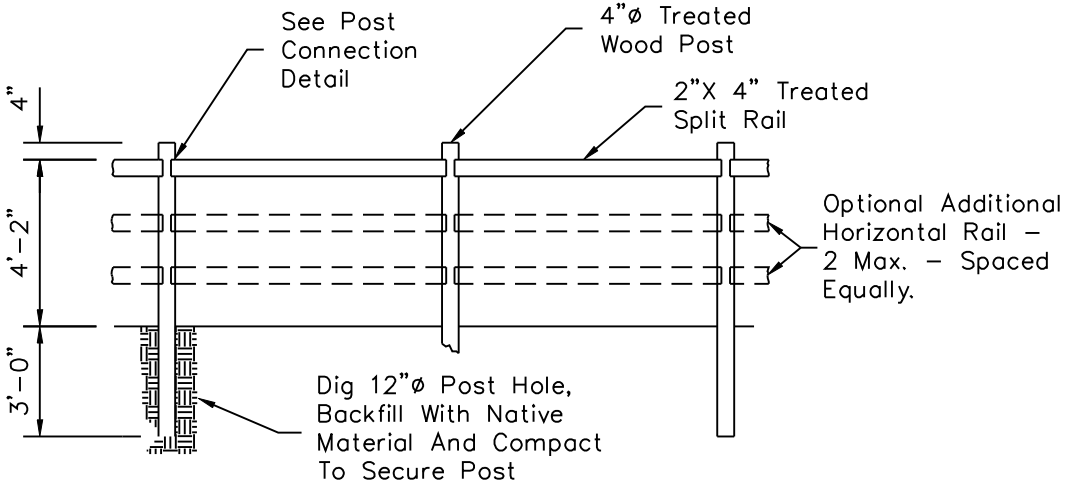
CONCRETE FOOTING DETAIL



STEEL RAIL



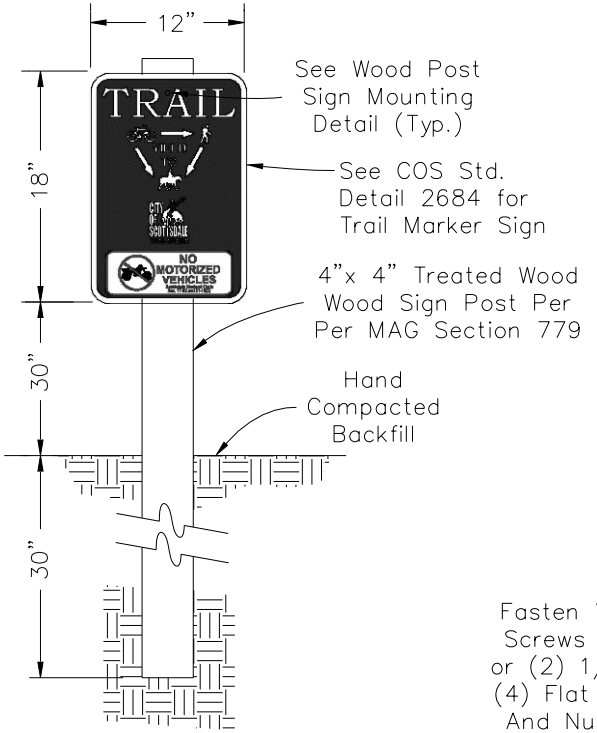
POST CONNECTION DETAIL



POST AND RAIL

DETAIL NO. 2682	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRAIL SAFETY BARRIERS	DETAIL NO. 2682

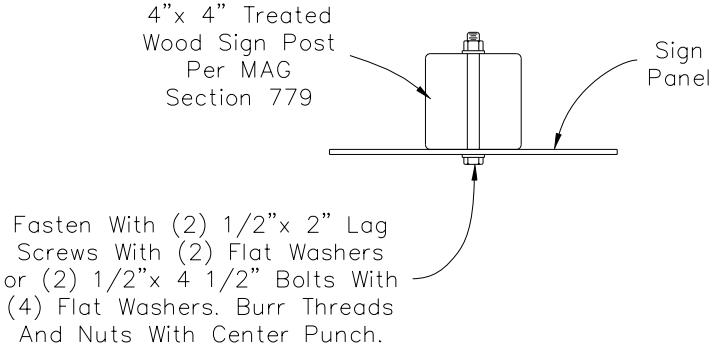
REVISED 3/1/12



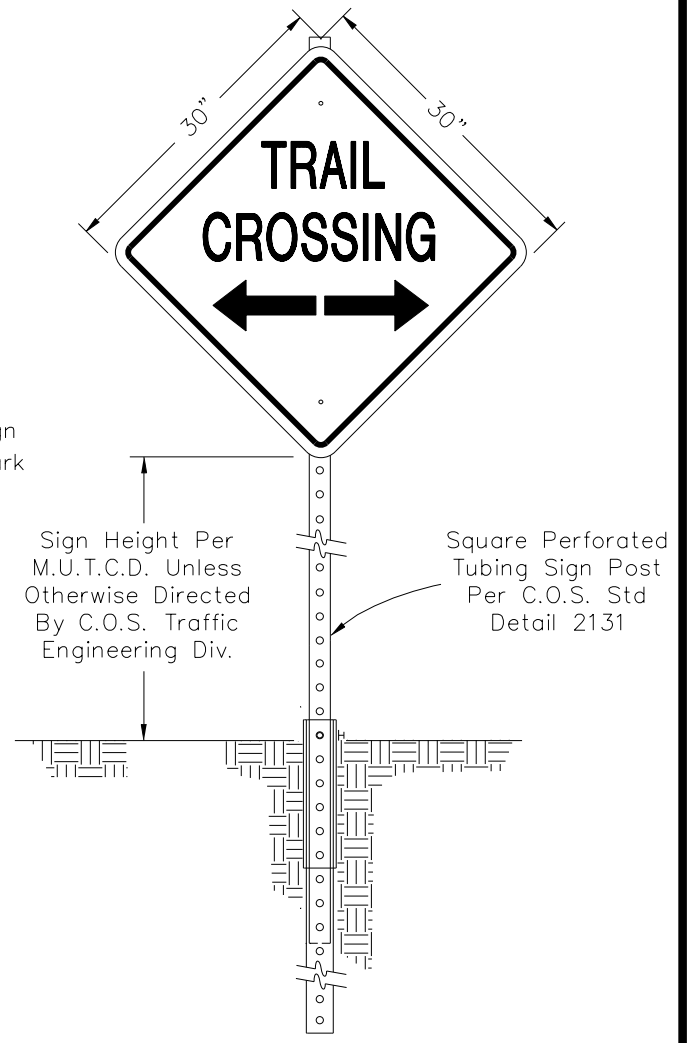
TRAIL MARKER

NOTES:

1. Signs shall conform to C.O.S. Supplemental Specifications, Section 402.3.
2. Signs to be mounted on square perforated tubing per C.O.S. Std Det 2131 within C.O.S. Right-of-Way. Treated wood post may be used for trail markers located outside C.O.S. Right-of Way.
3. Legends shall be reflectorized white vinyl sheeting on a green or brown vinyl back-ground unless otherwise approved by the City of Scottsdale.
4. For signs located within Scenic Corridors, all sign backs shall be finished with a non-reflective dark color such as "Western Reserve 8716N Frazee" or similar, unless signs will be installed back to back on the same post.



WOOD POST SIGN MOUNTING DETAIL



TRAIL CROSSING SIGN

DETAIL NO. 2683	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRAIL SIGNS	DETAIL NO. 2683

NEW 3/31/10

NOTES:

1. Signs shall conform to COS Spec. Sect. 402.3.
2. The sign substrate shall be treated aluminum with a thickness of 0.080".
3. The sign face shall have ASTM Type IV reflectorized sheeting with a brown screen printed or translucent acrylic EC overlay film reflective legend. Brown color shall be Pantone PMS 483 or closest equivalent. "NO MOTORIZED VEHICLES" portion shall be red text on white background except motor vehicle image shall be black.
4. Electronic version of sign graphics available upon request.
5. See COS Std. Detail 2683 for post and mounting details.

DETAIL NO. 2684	City of Scottsdale Standard Details	APPROVED BY: Scottsdale Standards & Specifications Committee	TRAIL MARKER SIGN	DETAIL NO. 2684