

CITY OF VISTA STANDARD DRAWINGS

(PRELIMINARY, FOR REVIEW)



January, 2013

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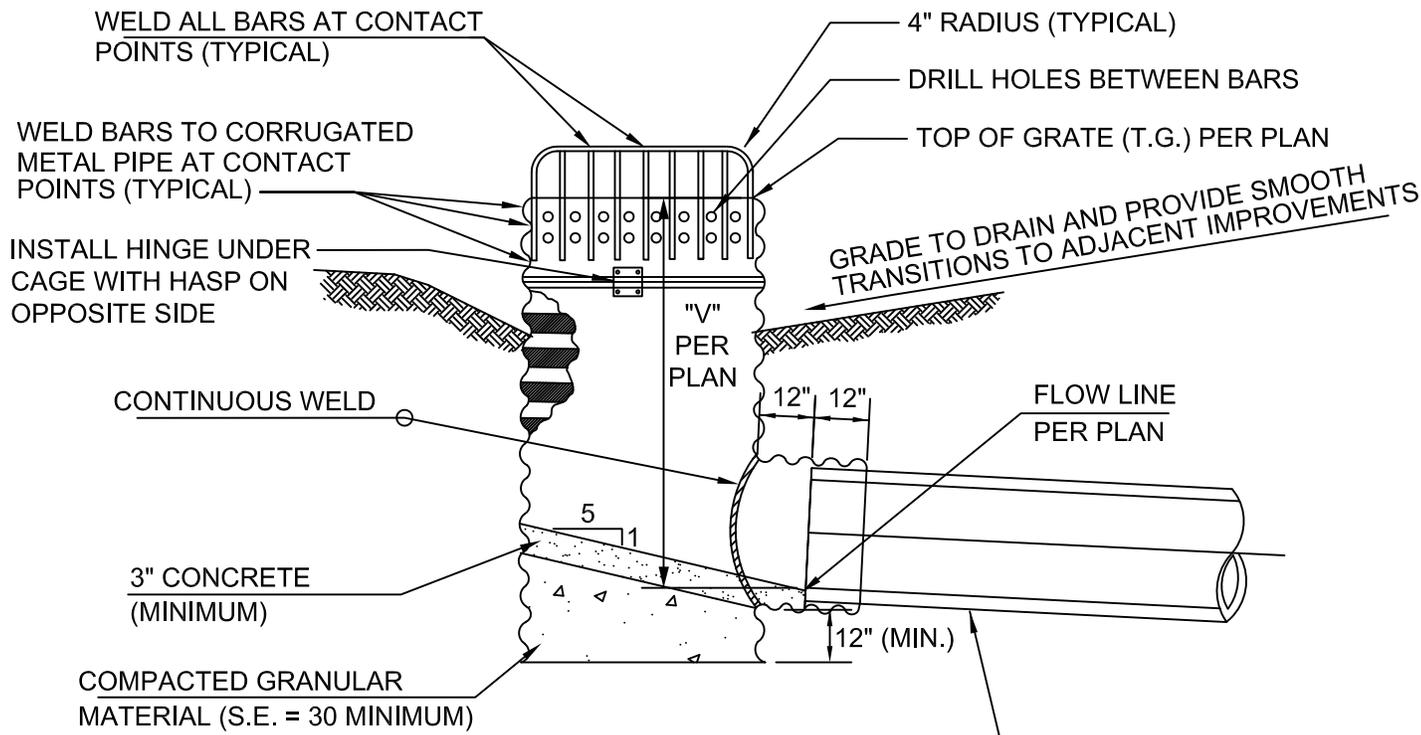
SRF-01A	Public Street Name Sign Details (For Non-Signalized Intersection)
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**CITY OF VISTA MODIFICATIONS TO THE
SAN DIEGO REGIONAL STANDARD DRAWINGS**

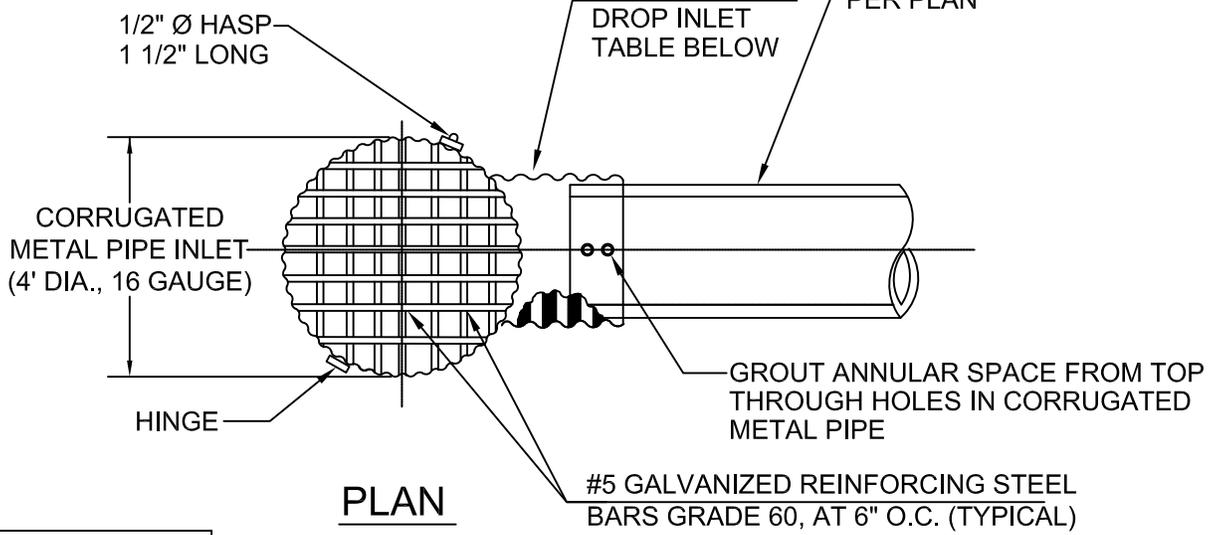
DWG.	MODIFICATION
D-27	Add: A maximum of three (3) combined outlets in lieu of standard D-25
D-40	Add: "T" dimension shall be a minimum of three (3) times the nominal rip-rap diameter
D-75	Add: 6"x6"x#10x#10 welded wire mesh, instead of stucco netting
G-4	Replace type 'A' with SRF-10A
G-6	Replace type 'B-3' with SRF-15
G-11	Remove curb/gutter and sidewalk from score-mark to score-mark or from joint-to-joint, or approved combination
G-14	Change thickness in driveways for Commercial/Industrial/Multi-Family from 5-1/2" to 6"
G-24	Replace with SRF -8A and 8B
G-25	Replace with SRF -8A and 8B
G-27	Change slope of ramp from 8.33% maximum to 7.1% maximum. Change note 4 to read: "Landing cross slope shall be 1.5% maximum in both directions".
G-28	Change slope of ramp from 8.33% maximum to 7.1% maximum. Change note 4 to read: "Landing cross slope shall be 1.5% maximum in both directions".
G-29	Change slope of ramp from 8.33% maximum to 7.1% maximum. Change note 3 to read: "Landing cross slope shall be 1.5% maximum in both directions".
G-31	Change slope of ramp from 8.33% maximum to 7.1% maximum. Change note 2 to read: "Landing cross slope shall be 1.5% maximum in both directions".
G-32	Change slope of ramp from 8.33% maximum to 7.1% maximum. Change note 6 to read: "Landing cross slope shall be 1.5% maximum in both directions".
G-33	Replace with SFR-8A and 8B
G-36	Replace with SFR-8A and 8B
M-4	Add: To be used only with specific approval of the City Engineer
SM-03	Replace with SWR-32
SM-08	Replace with SWR-31
SP-02	Replace with SWR-11

DRAINAGE STRUCTURES

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PROFILE



PLAN

DROP INLET TABLE	
REINFORCED CONCRETE PIPE SIZE	CORRUGATED METAL PIPE OUTLET SIZE
18"	24"
24"	30"
30"	36"

NOTES:

1. ALL COMPONENTS SHALL BE GALVANIZED.
2. INSTALL #5 GALVANIZED REINFORCING STEEL BARS INSIDE CORRUGATED METAL PIPE ABOVE AND BELOW JOINT TO SUPPORT UPPER SECTION AND ALLOW HINGE AND HASP TO SECURE TOP SECTION.
3. SEE SDRSD D-16 FOR ADDITIONAL NOTES.

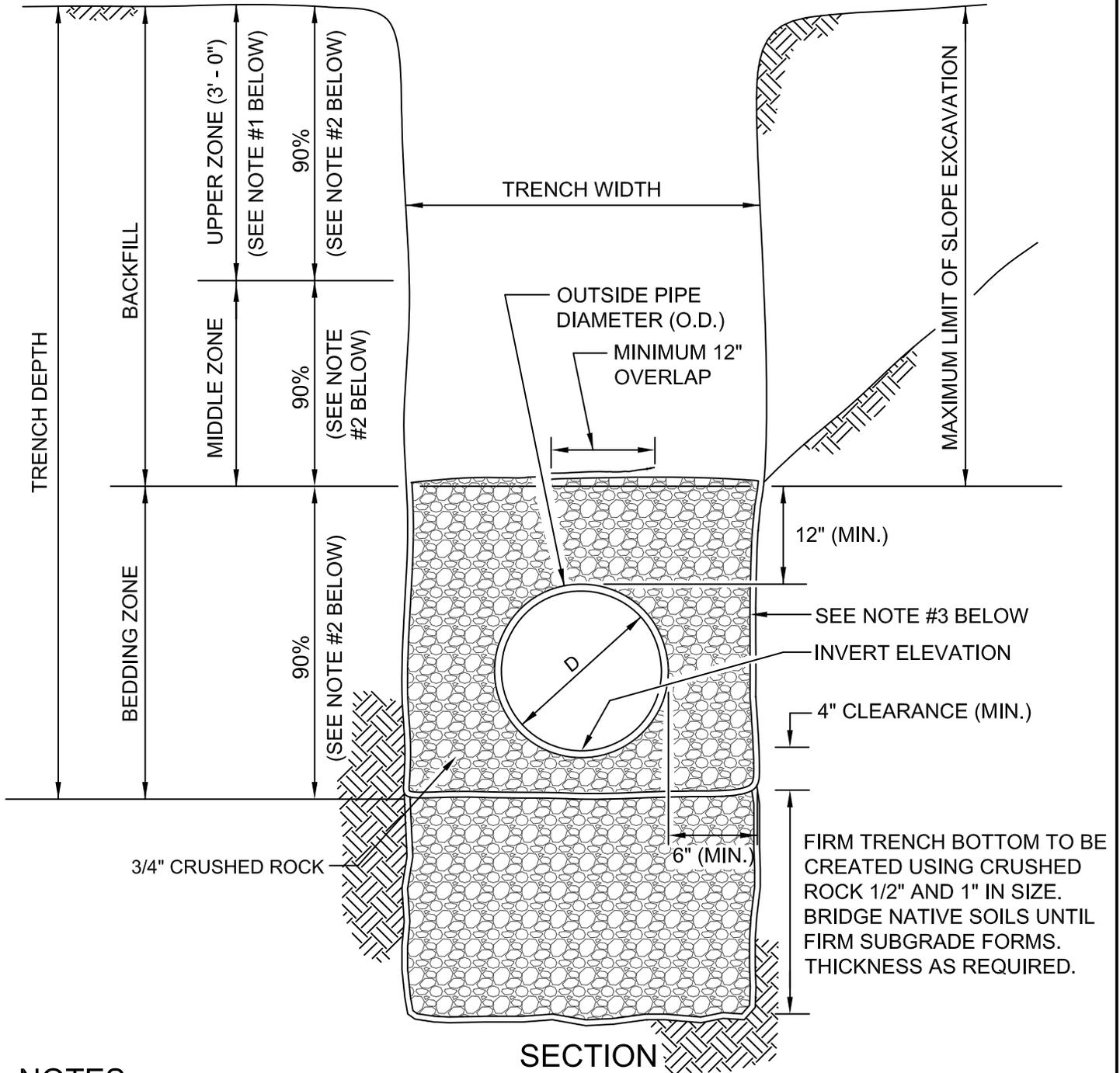
LEGEND



Revision	By	Apprvd	Date
New		WH	01/18/90
Updated	TR	GM	10/22/12

CITY OF VISTA
 STANDARD DRAWING
CORRUGATED METAL PIPE DROP INLET

CITY ENGINEER, DATE
 RCE 55075
 DRAWING NUMBER: **DRN-01**



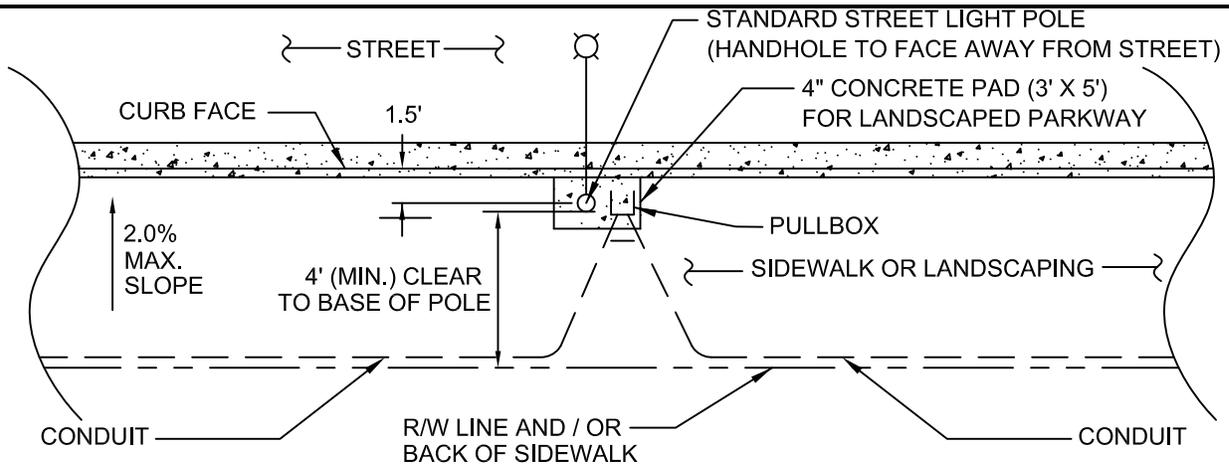
NOTES:

1. SEE CITY OF VISTA STANDARD DRAWING SRF-8A AND SRF-8B (TRENCH PAVING STANDARD) WHEN TRENCHING ON IMPROVED STREETS - NOTE 95% COMPACTION IS REQUIRED ONE FOOT BELOW THE REQUIRED STREET STRUCTURAL SECTION.
2. INDICATES THE MINIMUM RELATIVE COMPACTION.
3. 90N NONWOVEN NEEDLE PUNCHED GEOTEXTILE PER 2012 GREENBOOK SECTION 213-2 SHALL ENVELOPE THE 3/4" CRUSHED ROCK IN THE BEDDING ZONE.

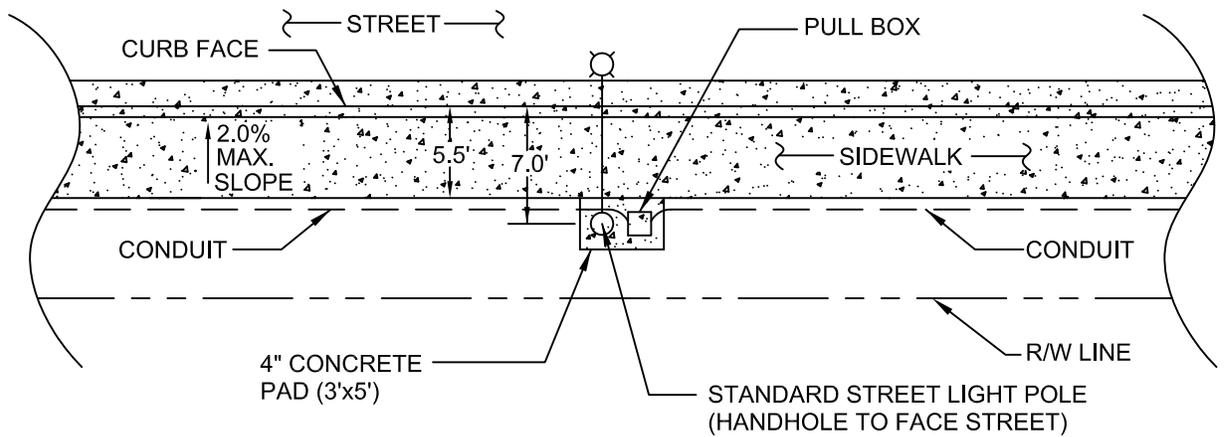
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING		
New	TR	SS	09/03/08			STORM DRAIN TRENCH BACKFILL REQUIREMENTS
Updated	TR	GM	10/22/12	CITY ENGINEER, DATE RCE 55075		
				DRAWING NUMBER: DRN-02		

ELECTRICAL SYSTEMS

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CASE 1: FULL WIDTH SIDEWALK OR NO SIDEWALK



CASE 2: TYPICAL 5' WIDE SIDEWALK

NOTES:

1. STREET LIGHT LOCATION MUST BE STAKED PRIOR TO TRENCHING FOR INSTALLATION OF ELECTRIC, GAS, TELEPHONE AND CABLE TELEVISION CONDUITS TO AVOID CONFLICT.
2. STREET LIGHTS SHALL BE INSTALLED PRIOR TO SIDEWALK.
3. CONCRETE CLASS AND FINISH REQUIREMENTS FOR CONCRETE PAD SHALL BE PER SDRSD NO. G-7, G-9 AND G-10.
4. MODIFY IRRIGATION APPERTENANCES AS NECESSARY TO AVOID CONFLICT WITH STREET LIGHT, PULL BOX, CONCRETE PAD AND CONDUIT LOCATION.
5. STREET LIGHTS SHALL BE PLACED AT EVENLY SPACED INTERVALS PER THE TABLE BELOW OR AS APPROVED BY THE CITY ENGINEER.

ST. LT. WATTAGE / MODEL	SPACING CRITERIA
37 WATT BetaLED (STR-LWY-2M-HT-02-D-UL-SV-525-R UTL)	EVERY 150 LF STAGGERED
92 WATT BetaLED (STR-LWY-3M-HT-04-D-UL-SV-700-R UTL)	EVERY 165 LF STAGGERED
116 WATT BetaLED (STR-LWY-5M-HT-05-D-UL-SV-700-R UTL)	FOR TRAFFIC SIGNAL POLES

LEGEND

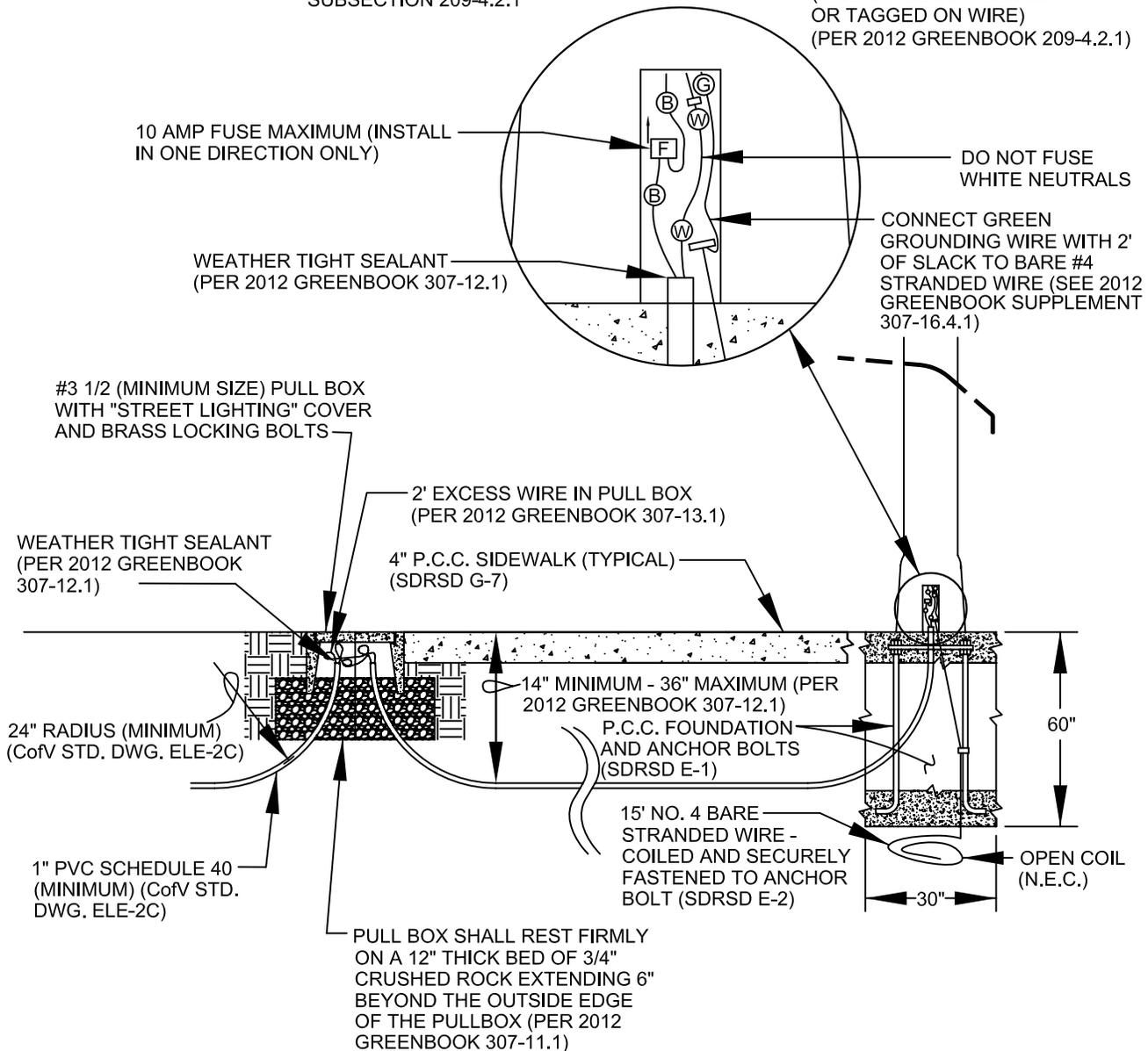


Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	LED STREET LIGHT TYPE AND LOCATION	CITY ENGINEER, DATE
						RCE 55075

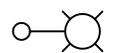
120 VOLT SYSTEM

NOTE: STREET LIGHT WIRE INSULATION MARKINGS SHALL BE PER 2012 GREENBOOK SUBSECTION 209-4.2.1

WIRE SIZE: AWG 10 THWN OR 10 THW 600 V WIRE PER CoV STD. DWG. ELE-2D (SIZE SHALL BE PRINTED OR TAGGED ON WIRE) (PER 2012 GREENBOOK 209-4.2.1)



LEGEND



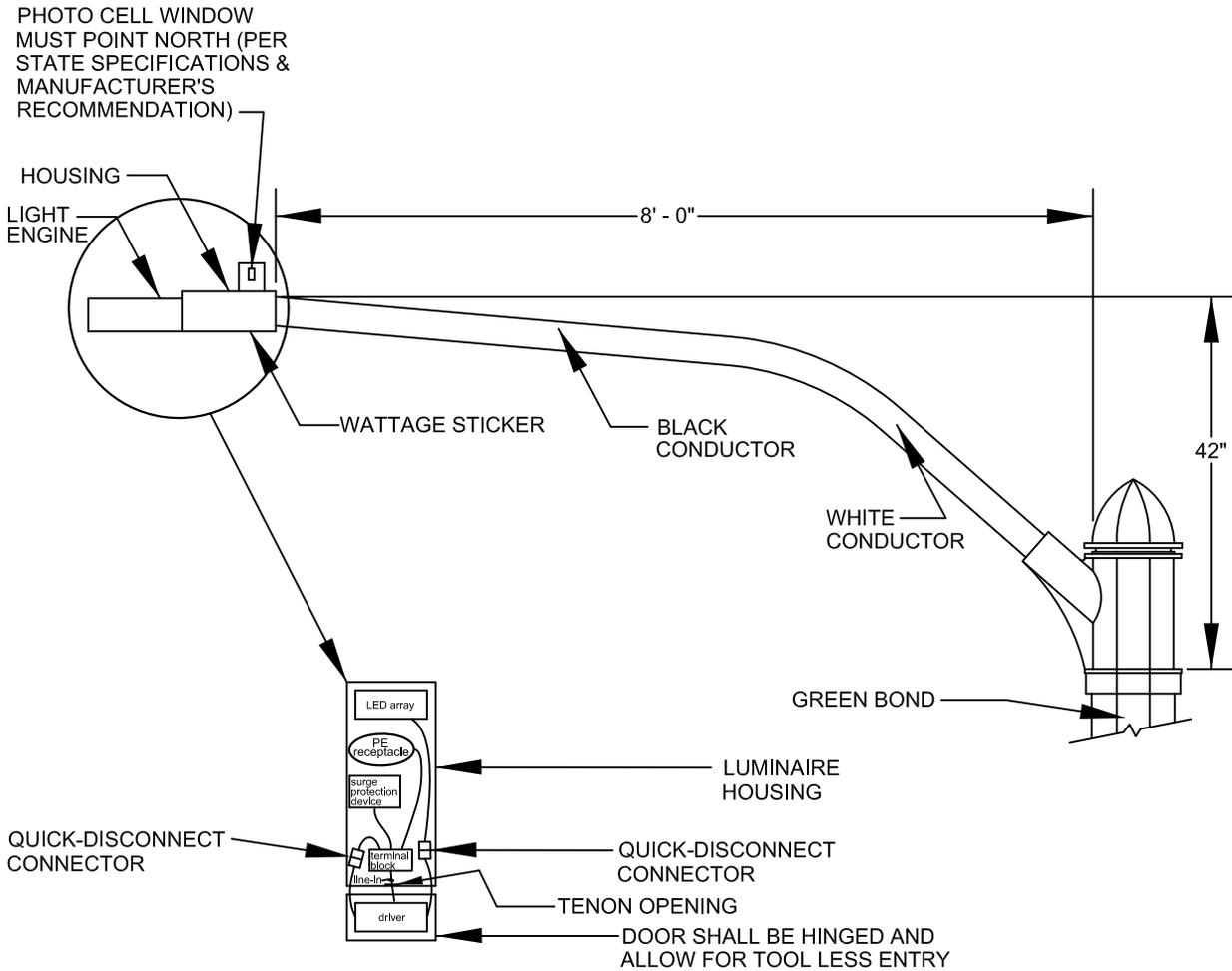
Revision	By	Apprvd	Date

CITY OF VISTA
STANDARD DRAWING

**LED STREET LIGHT
INSTALLATION CRITERIA**

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: ELE-01B	

120 VOLT SYSTEM



LEGEND



Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
				LED STREET LIGHT INSTALLATION CRITERIA	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: ELE-01C

CITY OF VISTA - LED STREET LIGHTING STANDARDS

GENERAL:

New or relocated streetlights located within City R/W or City easements are required to include light emitting diode (LED) luminaires and be constructed per City Standards and per Plan, and field inspected and approved prior to requesting energizing or acceptance.

NON-STANDARD LIGHTING:

Other types and styles of poles and / or non-solid-state (non LED) luminaires may be allowed with PRIOR approval from the City Engineer. Since solid-state LED luminaires have a long life, use less electricity, and are mercury and lead-free, justification must be provided for a non-solid-state luminaire substitution.

INDUSTRY STANDARDS:

LED streetlight luminaires shall meet the applicable requirements of the following industry standards:

1. IES LM-80-08 - Approved Method for Measuring Lumen Maintenance of LED chips (fixture manufacturer must provide extrapolation calculations method of explanation for lumen maintenance derived from in-situ testing upon request)
2. IESNA TM-15-11 (replaces TM-15-07 and TM-15-07 Addendum A) - Luminaire Classification System for Outdoor Luminaires; Backlight, Uplight, and Glare (BUG) Ratings
3. ANSI/NEMA/ANSI C78.377-2008 - Specifications for the Chromaticity of Solid-State Lighting (SSL) Products
4. IES LM-79-08 - Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products
5. IEEE C62.41.2-2002 - IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and less) AC Power Circuits
6. ANSI/UL 1598 - Poles & luminaires; UL
7. ANSI/UL 8750: Additional requirements for LED luminaires as well as drivers and LED arrays

Test data that establishes compliance with the requirements listed above shall be provided upon request.

REFERENCE:

1. Project Plans and Specifications - Location and project-specific details
2. California Electric Code - As applicable by the Building Department
3. SDG&E Standards - As applicable
4. City Standard Drawings
5. Standard Specifications for Public Works Construction (Greenbook) (latest edition) - Subsections 209 and 307 and all included cross references
6. San Diego Regional Standard Drawings E-1 & E-2 (as applicable) - for anchor base foundation and ground wire only
7. Manual of Uniform Traffic Control Devices (MUTCD) (latest edition) - for traffic control and sign installation on poles

LUMINAIRES:

Fixtures shall be one of the following:

BetaLED / CREE Catalog #: STR-LWY-2M-HT-02-D-UL-SV-525-R UTL (LED SYSTEM WATTS = 37)

BetaLED / CREE Catalog #: STR-LWY-3M-HT-04-D-UL-SV-700-R UTL (LED SYSTEM WATTS = 92)

BetaLED / CREE Catalog #: STR-LWY-5M-HT-05-D-UL-SV-700-R UTL (LED SYSTEM WATTS = 116)

Catalog definitions: STR = product; LWY = family; 2M = Optic: IESNA Type II medium distribution; HT = horizontal tenon mount; 02 = # of LEDs x 10 (20 LEDs); D = LED series; UL = voltage, universal 120-277 Vac; SV = housing color, silver; 525 = 525mA drive current; R = NEMA photocell receptacle; UTL = Factory-Installed Options (UTL = Utility Option) (includes exterior wattage label that reflects watts for the drive current selected. The ability to exceed the selected drive current will be disabled).

3M = Optic: IESNA Type III medium distribution; 04 = # of LEDs x 10 (40 LEDs); 700 = 700mA drive current

5M = Optic: IESNA Type V medium distribution; 05 = # of LEDs x 10 (50 LEDs); 700 = 700mA drive current

General description of LEDway (light emitting diode) Streetlight - Standard fixture utilizes terminal block for power input suitable for #6 - #14 AWG wire and operates at 700mA. Drive current is field switchable. A three-pole terminal block capable of accepting #14 to #10 AWG shall be mounted to the housing inside the electrical compartment. Luminaire shall be provided with capability for optional backlight control. Complete assembly weight shall not exceed 45 lbs. Fixture is designed to mount on a schedule 40, 2" nominal pipe size (NPS) horizontal tenon (minimum 8' in length) and is adjustable +/- 5 degrees to allow for fixture leveling (includes two axis T-level to aid in this process). Fixture, including the LEDs, drivers and electrical components, shall carry a limited five year warranty and housing paint and finish shall carry a ten year warranty.

Color temperature and CRI: 6000K +/- 500 color temperature, minimum 70 CRI

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
				LED STREET LIGHTING STANDARDS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: ELE-02A

CITY OF VISTA - LED STREET LIGHTING STANDARDS

LUMINAIRE HOUSING:

Luminaire housing shall be furnished with an optical assembly, be powder-coated silver, include a level bubble to facilitate installation, allow for tool-less entry and shall include an integral twistlock type receptacle for photoelectric cell control in accordance with the latest EEI-NEMA standards which is adjustable with respect to north and pre-wired to the terminal board.

Luminaire external housing shall have a minimum rating of IP56 as specified in IEC 60529, with the ability to shed water from inside the housing (i.e. weep holes).

The LED luminaire shall be designed for horizontal mounting. The LED assembly shall have a slip-fitted mounting bracket capable of attaching to a two-inch (2") pipe without the need for special mounting parts. They shall be installed in a horizontal position with leveling and clamping to the mast arm pipe accomplished by tightening mounting bolts, which are externally or internally accessible. Bolts shall be minimum 5/8" x 2" size and either stainless steel or cadmium-plated steel.

Luminaire circuitry shall include quick connect / disconnects to allow easy separation and removal of driver and power door. See City of Vista Standard Drawing ELE-1C. Grounding requirements: ANSI/UL Standards and NFPA 70.

The luminaire power unit assembly shall consist of an integral driver, capacitor, 10K surge suppressor, and heavy-duty terminal block. The power unit assembly shall be mounted on a separate component of the luminaire to facilitate replacement.

The luminaire optical chamber shall have a minimum rating of IP66 as specified in IEC 60529.

The luminaire housing cooling system shall consist of a passive heat sink with no fans, pumps, or liquids and shall be designed and constructed to accept a standard plug type, locking, three-pole, three-wire, streetlight photo control. The fixture and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117.

All fasteners shall be stainless steel and all polycarbonate components shall be UV stabilized.

An easily-viewable nameplate shall be permanently affixed to the inside of each luminaire housing. The nameplate shall contain the following information: manufacturer's name, manufacturer's catalog number, date of manufacture (month and year), plant location, input power consumption, driver output current, IEC IP Rating, correlated color temperature (CCT), IES light distribution type, IESNA TM-15 BUG ratings, and serial number. A utility-approved luminescent name plate with light source and wattage listed shall also be permanently affixed on the exterior of the luminaire and be visible from the ground.

The driver assembly shall be enclosed in a separate compartment from the optical assembly. The entire fixture shall be 'wet listed' with the optical assembly compartment being rated at IP66. The LED luminaire shall be constructed to provide the required light distribution with the lower edge of the luminaire housing below the entire light source close contact refractors. The luminaire must be Dark Sky compliant with a 'UO' BUG rating. The light distribution pattern shall be per the Fixture Application table in the OPTICAL DISTRIBUTION METHOD & CONFIGURATIONS section below:

OPTICAL DISTRIBUTION METHOD & CONFIGURATIONS:

Optical configurations shall meet the following criteria:

1. No reflectors or single lensed fixture accepted; close contact refractors to be employed for optical distribution
2. Refractors are to be polymeric material rated 5VA, f1 rating
3. Kelvin temperature to be 6,000K (+/- 500)
4. Lumen maintenance at 50,000 hours of life to be no less than 88% of initial lumen output
5. Shall have a 95% survival rate at 50,000 hours
6. Integral 10K surge suppressor for diode and entire system protection

Fixture Application	LED Fixture Wattage	Minimum Lumens @ 100 hrs	Light Distribution Type
Residential Street	37 Watts	2,600 Lumens	IESNA Type II medium distribution
Collector & Arterial Streets	92 Watts	6,490 Lumens	IESNA Type III medium distribution
For above Traffic Signals	116 Watts	8,900 Lumens	IESNA Type V medium distribution

BIRD SPIKES:

Bird spikes are required on luminaire housing and light engine per the catalog numbers listed below:

Component	BETA / CREE Catalog Number
Housing	XA-BRDSPKHSG
Light Engine (37 Watt)	XA-BRDSPK30
Light Engine (92 & 116 Watts)	XA-BRDSPK60

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				LED STREET LIGHTING STANDARDS	
				CITY ENGINEER, RCE 55075	DATE
				DRAWING NUMBER: ELE-02B	

CITY OF VISTA - LED STREET LIGHTING STANDARDS

DRIVERS:

Light Emitting Diode (LED) drivers shall be component-type consisting of precision wound coils and welded magnetic steel laminations assembled together and impregnated with baked-on, insulating, weatherproof varnish; and metal-cased, hermetically-sealed capacitor, suitable for use on multiple distribution circuits with 60Hz, 120 or 240 Volt rating. The operating sound pressure noise level shall not exceed the ambient noise level by more than five (5) decibels at a distance of 30 feet when measured by a sound level meter conforming to the American Standards for Sound Level Meters. Where the ambient noise level is less, a minimum of 40 decibels shall be assumed.

Power supply / driver shall be field replaceable by means of quick-disconnect connectors and easy access mounting hardware.

Power supply / driver shall be wet-listed in the US and Canada, UL, ROHS compliant, meet Caltrans 611 vibration testing and GR-63-CORE section 4.4.1/5.4.2 earthquake zone 4.

DRIVER SPECIFICATIONS:

Electronic; voltage range = universal 120 - 277 v +/- 10%; frequency = 50/60 Hz; power factor > 90% @ full load; THD < 20% @ full load; output ripple < 10%; output shall be isolated; case temperature rated for -40 to 60C; fully encased and potted; overheat protection, self limited short circuit protection, and overload protected - minimum integral 10k surge protection tested in accordance with IEEE C62.41 and ANSI standard 62.41.2; Driver Life Rating not less than 100,000 hours.

PHOTOELECTRIC CONTROL UNIT:

Fisher-Pierce # FPN7790B (blue cap, 105 - 285 volt range).

The photoelectric unit shall consist of a photoelectric cell in a weatherproof housing which plugs into an EEI-NEMA twist-lock receptacle integral with the luminaire and shall be installed with the clear UV-stabilized photocell window facing north. The control unit shall contain a uniformly coated cadmium-sulfide photoelectric cell suitable for operation with 120 or 240 volt line supply with surge protection to prevent damage and made to fail in the "ON" position. The unit shall have a HID load rating of 1,800 VA with a Tungsten load rating of 1,000 watts.

The response level of the unit to changing light levels shall remain stable throughout the life of the unit (5,000 operations). The "turn-on" level shall be a nominal 1 foot-candle and the "turn-on:turn-off" ratio shall be 1.5.

FUSES:

Fuses shall be slow blow 13/32" x 1 1/2" in-line type in 10 amp size (unless specified otherwise by City Electrician). The fuse shall be installed in the hot leg of the lighting conductor. The circuit shall be fused in the base of the pole - NOT in the pull box. 240-volt installations require each leg to be fused using a double fuse holder and two fuses of appropriate size.

FUSEHOLDERS:

Fuseholders shall be completely waterproof, shall grip the fuse in the load side section when opened, and be able to take a 13/32" x 1 1/2" fuse, with crimp-type tubular terminals of a proper size for the cable in the particular light.

MAST ARMS:

8-foot steel or aluminum.

Mast arms shall be two inch (2") I.P.S. galvanized steel or aluminum and shall be self-supporting without braces, scrolls or rods. Mounting shall be perpendicular to the street centerline unless otherwise directed by the City Engineer. They shall have a minimum of six inches (6") of horizontal straight section at the end of the arm to mount a two inch (2") I.P.S. slipfitter type luminaire mount.

Mast arms shall be eight feet (8') long for all luminaires unless otherwise specified in the plans and shall be capable of handling the EPA and weight of the luminaire. Steel arms shall conform to ASTM A 120. Aluminum arms shall be corrosion resistant alloys such as Aluminum Association wrought alloys 6061 or 6062 or cast alloys 319 or 356.

All exposed hardware shall be stainless steel. All protected hardware not visible after installation shall be cast aluminum and / or stainless steel, hot-dipped galvanized or cadmium-plated steel. Anti-seize shall be used.

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				LED STREET LIGHTING STANDARDS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: ELE-02C

CITY OF VISTA - LED STREET LIGHTING STANDARDS

FOUNDATIONS:

Per SDRSD No. E-1 and E-2. Anchor base foundation only. For E-2 use No. 2 for ground wire; no ground rod.

Anchor bolts shall be the type and size shown on SDRSD E-1 and shall conform to the specifications of ASTM A 307 and be provided with two nuts and two washer each. Bolts, nuts and washers shall be galvanized by the hot-dip process conforming to ASTM A 153 or cadmium-plated with Type NS coating conforming to ASTM A 165. Direct burial poles may use 2-sack mix slurry backfill.

Plumbing of the standard shall be accomplished by adjusting the nuts on the anchor bolts before the foundation cap is placed. Shims or other similar devices for plumbing or raking will not be permitted. After plumbing the standard, anchor bolts shall be cut off 1/4" above the nuts and the exposed surfaces shall be repaired.

CONCRETE POLES:

RESIDENTIAL STREETS: Ameron 2B2-24(37I)2AP6A or 2B2-24(37I)2AP8A (27.5' mounting height)

COLLECTOR AND ARTERIAL STREETS: Ameron 6B1-26(37I)1AP8A (29.83' mounting height)

(Note: Use 8' arm for poles located adjacent to the sidewalk on residential, collector and arterial streets)

Concrete poles shall be tapered, centrifugally cast and prestressed. Poles shall be round black and white marble aggregate or natural exposed aggregate. Pole shape and color shall be uniform for any one project. Replacement poles shall match existing.

The ultimate strength of a pole shall be calculated in accordance with the latest revision of American Concrete Institute (A.C.I.) standard 318. Under working loads (including wind loading, as specified in the latest edition of AASHTO standards), the pole must not be stressed beyond the cracking strength. The pole and mast arm must be capable of handling the EPA and weight of the luminaire.

Aggregates shall conform to current requirements of ASTM C33, except that abrasion requirements therein shall not apply and that no more than seven percent (7%) shall pass a #100 mesh sieve. No dye or sealer shall be used.

The centrifugal casting process shall produce a center duct throughout the length of the pole, which shall be free from sharp projections or edges and shall be a minimum of one and one-half inch (1-1/2") in diameter. All reinforcing steel shall have a minimum cover of five-eighths inch (5/8") of concrete. After curing, the surface of the pole shall be treated to remove cement laitance and to develop the surface texture. When finished, poles shall be without cracks or crazing and shall have a uniform surface (without objectionable mold marks) and texture throughout the entire length. Maximum deviation from stringline at any point shall not exceed 0.03" per foot of length.

Hand hole cover plates shall be aluminum and securing bolts shall be stainless steel tamper-proof bolts of the type installed with a pent-head wrench.

PROTECTIVE COATINGS FOR POLES:

All poles shall be provided with a clear, factory applied Amershield Anti-Graffiti coating.

PULL BOXES:

State No. 3-1/2 Pull Boxes (15 3/8" x 10 1/8"), or approved equal, shall be installed per CALTRANS Standard Plan ES-8 as follows:

1. Located at the end of the conduit run and three feet (3') from SDG&E service point and five feet (5') clear of curb face (NOTE: if the street light is within ten feet (10') of the service point only one pull box is required.
2. Located within five feet (5') of each street light.
3. Located at conduit interval runs of not more than 150 LF. Additional #5 pull boxes will be required for conduit runs over 150 LF long.

The bottom of the pull box shall rest firmly on a twelve-inch (12") thick bed of three-quarter-inch (3/4") crushed rock extending six inches (6") beyond the outside edges of the box. Pull boxes shall be installed behind sidewalk or five feet (5') behind the face of curb or dike and, where practical, shall be installed with the short side parallel to the curb. They shall not be installed in any part of a driveway or other traveled way, unless approved by the City Engineer and provided with a metal traffic cover. Pull box covers shall be inscribed "STREET LIGHTING" and shall be secured with 3/8" bolts, cap screws or studs and nuts made of brass, stainless steel or non-corroding material.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
				LED STREET LIGHTING STANDARDS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: ELE-02D

CITY OF VISTA - LED STREET LIGHTING STANDARDS

CONDUIT AND TRENCH:

All conduit shall be one-inch (1") UL approved heavy wall polyvinyl chloride (PVC) Schedule 40. Conduit shall be encased in a minimum of three inches (3") of sand on all sides. The minimum sweep radius shall be twenty-four inches (24"). The maximum length of a conduit run shall be one hundred fifty feet (150'). The Contractor may, at his expense, use conduit of a larger size, provided the larger size is used for the entire length of the conduit runs between pull boxes (reducing couplings shall not be allowed).

Conduit shall be laid to a depth of not less than thirty inches (30") unless placed under sidewalk in which case only fourteen inches (14") shall be required. Conduit laid in open trench shall not be covered nor shall any trench or inspection hole be backfilled until accepted by the City Engineer of his designated representative. Conduit shall be installed per SDRSD M-15 if in joint trench.

SPLICING:

Splices shall be permitted in pull boxes and lighting standard bases ONLY. All splices shall be waterproofed with epoxy encapsulation or heat shrink tubing.

CONDUCTORS AND SERVICE RUNS:

All conductors shall be stranded copper, THHN, #10AWG minimum. Neither aluminum nor direct-burial cable shall be accepted. All street light systems shall be provided with 110-120V service.

Wire shall conform to the applicable portion of ASTM B3 and B8. Wire size shall be indicated on the "As-Built" plans. Wire connectors shall be approved by the City Engineer or his designated representative and shall bear the UL seal of approval. The installation procedure, connector size and crimping tools shall conform to the manufacturer's recommendations.

Wire from the base of the pole to the luminaire shall be #10. For 120-volt installations, the wires shall be black and white, with black being the hot wire and fused. For 240-volt installations, one hot wire shall be black and the other shall be red. Both hot wires shall be fused. Any ground wires shall be green and connected to a clamp attached to an anchor bolt - NO EXCEPTIONS!

Service runs parallel to the street shall be installed under the sidewalk where new sidewalk is being constructed or directly behind the existing sidewalk. Voltage drop shall not exceed five percent (5%).

PRE-INSTALLATION:

1. Obtain a City R/W permit for any work to be done within a City R/W or City easement. Attached to the R/W permit are the construction requirements applicable to all work performed within the City R/W.
2. Call Underground Service Alert at 800-422-4133 at least 48 hours before excavating.

INSTALLATION AND INSPECTION:

1. Concrete and/or asphalt removal & replacement shall be per City of Vista public street requirements as directed by the City. A sidewalk extension may be required to meet ADA access requirements.
2. Conduit depth shall be as described in the CONDUIT AND TRENCH section. All trenches shall be compacted per the City of Vista public street requirements as directed by the City.
3. Street Lights shall be located per City approved plan or per City of Vista Standard Drawing ELE- 1A-1C, and shall not be relocated without prior City approval.
4. Minimum Engineering Department Inspections Required:
 - a. Schedule an Engineering Department Inspection 48 hours in advance by calling 760-639-6113
 - b. All work performed within a Public Right-Of-Way
 - c. All conduit placement
 - d. Prior to and during any concrete foundation placement
 - e. Pole installation
5. Building Department inspection is required for final wiring and splicing prior to energizing. Contact the Building Department for inspection 48 hours in advance at 760-639-6106.
6. Pedestrian and vehicle traffic control and access shall be maintained per the Plans, Specifications, 2012 Standard Specifications for Public Works Construction (Greenbook) subsection 7-10 (Public Convenience and Safety), MUTCD, and as otherwise required or directed by the City.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
				LED STREET LIGHTING STANDARDS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: ELE-02E

CITY OF VISTA - LED STREET LIGHTING STANDARDS

ACCEPTANCE AND ENERGIZING:

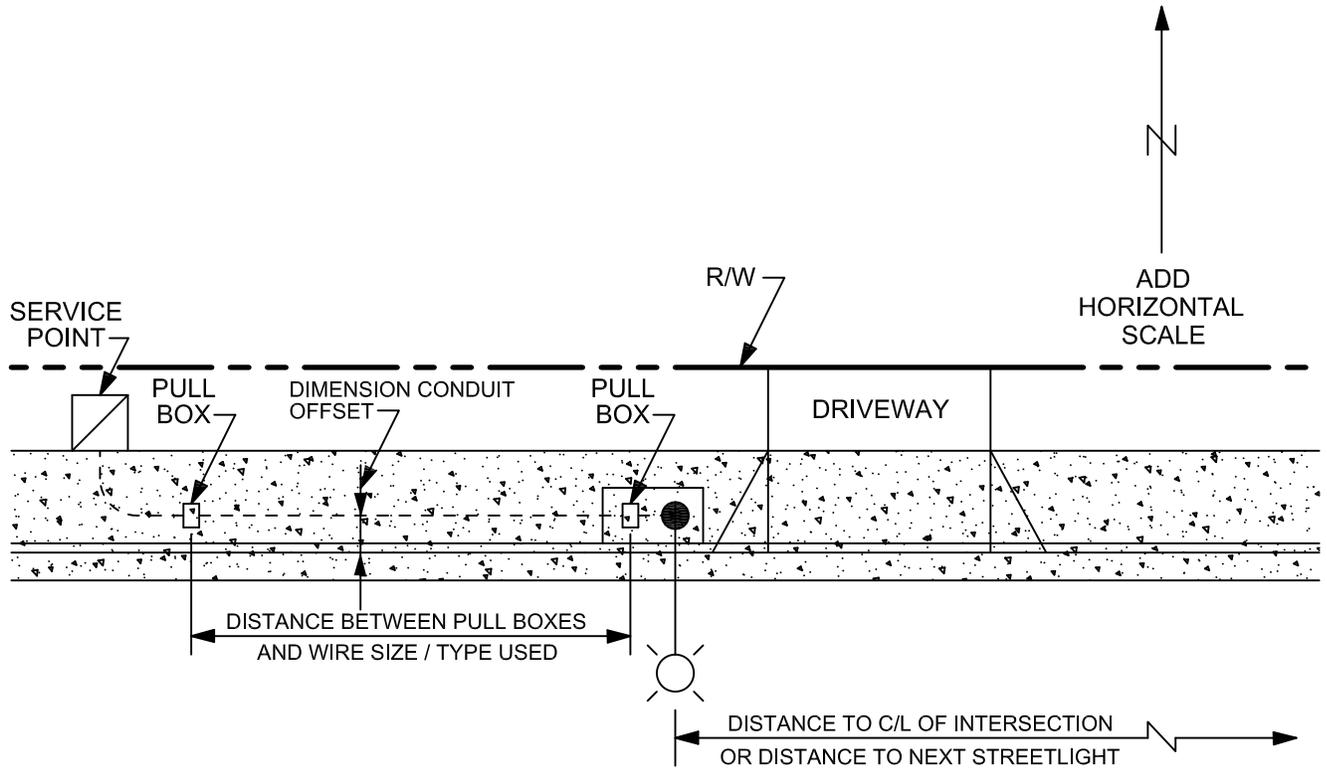
1. Upon completion of all street light construction, the Contractor (on public projects) or Developer (on private development projects) shall submit two (2) sets of professionally drafted streetlight "As-Built" plans on 11" x 17" size mylar sheets to the Development Services Division (Permit Center), City of Vista, showing the following information:
 - a. Layout of curbs, gutter, sidewalks, driveways and other improvements, drawn to scale
 - b. Location of street lights, with dimensions from the nearest cross street intersection and between streetlights
 - c. Location of pull boxes dimensioned from the streetlights, curbs or other features
 - d. Location of service point (power source) and SDG&E identification number
 - e. Location of conduit service runs dimensioned from face of curb, edge of pavement or back of sidewalk as applicable
 - f. Size and type of wire used
 - g. Size (wattage and voltage rating) and type (LED) of each lamp and number of lamps used
 - h. North arrow
 - i. Contractor's name, address and telephone number
 - j. Identifying project name and number

- INCOMPLETE SUBMITTALS WILL NOT BE ACCEPTED -
2. For private development projects, the Developer shall submit a one-year Streetlight Energy fee for each new streetlight, paid when streetlight "As-Built" plans are submitted. The fees shall be paid in accordance with the most recent City of Vista Fee Schedule. All installations shall be guaranteed for a period of one year from the date of acceptance by the City for maintenance.
3. After "As-built" plans have been accepted by the City, the Contractor or Developer shall anticipate a minimum of five (5) working days for the City to contact SDG&E for streetlight energizing. Release of a Building Occupancy requires that streetlights be energized.

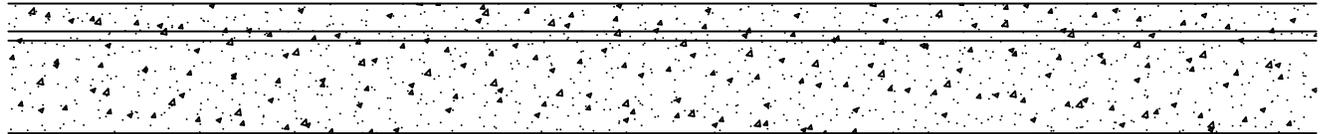
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
				LED STREET LIGHTING STANDARDS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: ELE-02F

CITY OF VISTA - LED STREET LIGHTING STANDARDS

SAMPLE STREETLIGHT "AS-BUILT" PLAN



STREET NAME



STREETLIGHT "AS-BUILT" PLAN FOR [LOCATION / PROJECT #]

INCLUDE STREETLIGHT LINE VOLTAGE, FIXTURE WATTAGE, FIXTURE MANUFACTURER, POLE MANUFACTURER, POLE TYPE AND MODEL NUMBER.

INCLUDE CONTRACTOR'S NAME, ADDRESS AND TELEPHONE NUMBER (INCLUDING AREA CODE)

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
				LED STREET LIGHTING STANDARDS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: ELE-02G

SEWERAGE SYSTEMS

**THIS SHEET INTENTIONALLY
LEFT BLANK**

DESCRIPTION

SYMBOL

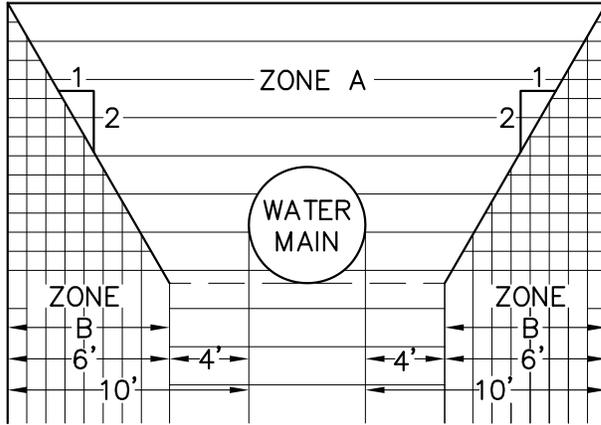
QUANTITY

SEWER MAIN		SWR-11 & -12	LF
SEWER MANHOLE		SWR-3, -4 & -5	EA
CLEAN-OUT		SWR-8	EA
DEAD END		SWR-8	EA
STUB			EA
CONCRETE ENCASEMENT		SWR-15	LF
CUT OFF WALL		SWR-16	EA
SEWER LATERAL		SWR-17, -18 & -25	EA
FORCEMAIN			LF
PROPERTY LINE			
EDGE OF PAVEMENT			
EXISTING SEWER LATERAL			
EXISTING WATER LATERAL			
EXISTING GAS LINE. "HP" INDICATES HIGH PRESSURE.			
EXISTING ELECTRIC CONDUIT /CABLE; "OH" INDICATES OVERHEAD			
EXISTING TELEPHONE CONDUIT(S)			
EXISTING TELEVISION CONDUIT(S)			
EXISTING WATER PIPE			
EXISTING SEWER			
EXISTING STORM DRAIN			
EXISTING POWER POLE & GUY WIRE			
EXISTING SIGN			
EXISTING MANHOLE			
EXISTING STREET LIGHT			
EXISTING FENCE			
EXISTING TRAFFIC SIGNAL			
EXISTING VALVE BOX COVER			
EXISTING FIRE HYDRANT			

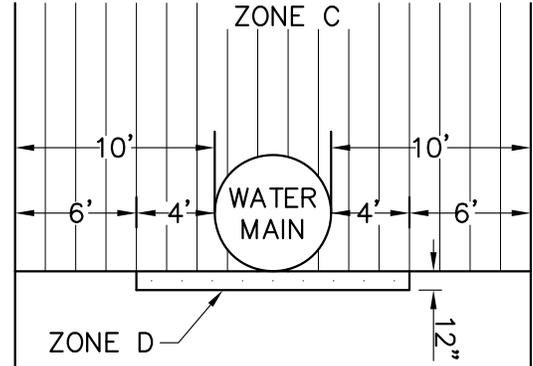
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	SJ	SS	03/01/12		
				STANDARD SEWER LEGEND AND SYMBOLS	CITY ENGINEER DATE RCE 55075
					DRAWING NUMBER: SWR-01

WATER & SEWER MAINS SHALL BE INSTALLED IN SEPARATE TRENCHES. SEWERS SHALL BE INSTALLED AT LEAST TEN FEET (10') HORIZONTALLY FROM EXISTING OR NEW WATER MAINS.

PARALLEL CONSTRUCTION



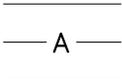
PERPENDICULAR CONSTRUCTION



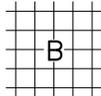
NOTES: DIMENSIONS ARE FROM OUTSIDE OF WATER MAIN TO OUTSIDE OF SEWER MAIN

SANITARY SEWERS ARE NOT PERMITTED WITHIN ANY OF THE ABOVE INDICATED ZONES UNLESS CONSTRUCTED IN CONFORMANCE WITH THE SPECIAL REQUIREMENTS AS SHOWN BELOW.

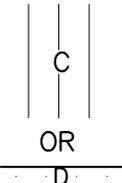
ZONE	SPECIAL SEWER CONSTRUCTION REQUIREMENTS
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SEWER LINES WILL NOT BE PERMITTED IN THIS ZONE WITHOUT SPECIAL WRITTEN PERMISSION FROM THE DEPARTMENT OF HEALTH.



EXTRA-STRENGTH VITRIFIED CLAY WITH COMPRESSION JOINT; OR RUBBER GASKETED PLASTIC PIPE.



SEWER PIPE WITHIN A CONTINUOUS STEEL CASING, WHICH CASING SHALL HAVE A THICKNESS OF NOT LESS THAN ONE-FOURTH INCH (1/4") AND WITH ALL VOIDS BETWEEN SEWER PIPE AND CASING PRESSURE GROUTED WITH SAND CEMENT GROUT.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	SJ	SS	03/01/12	SEWER AND WATER MAINLINE SEPARATION REQUIREMENTS	CITY ENGINEER DATE RCE 55075
					DRAWING NUMBER: SWR-2

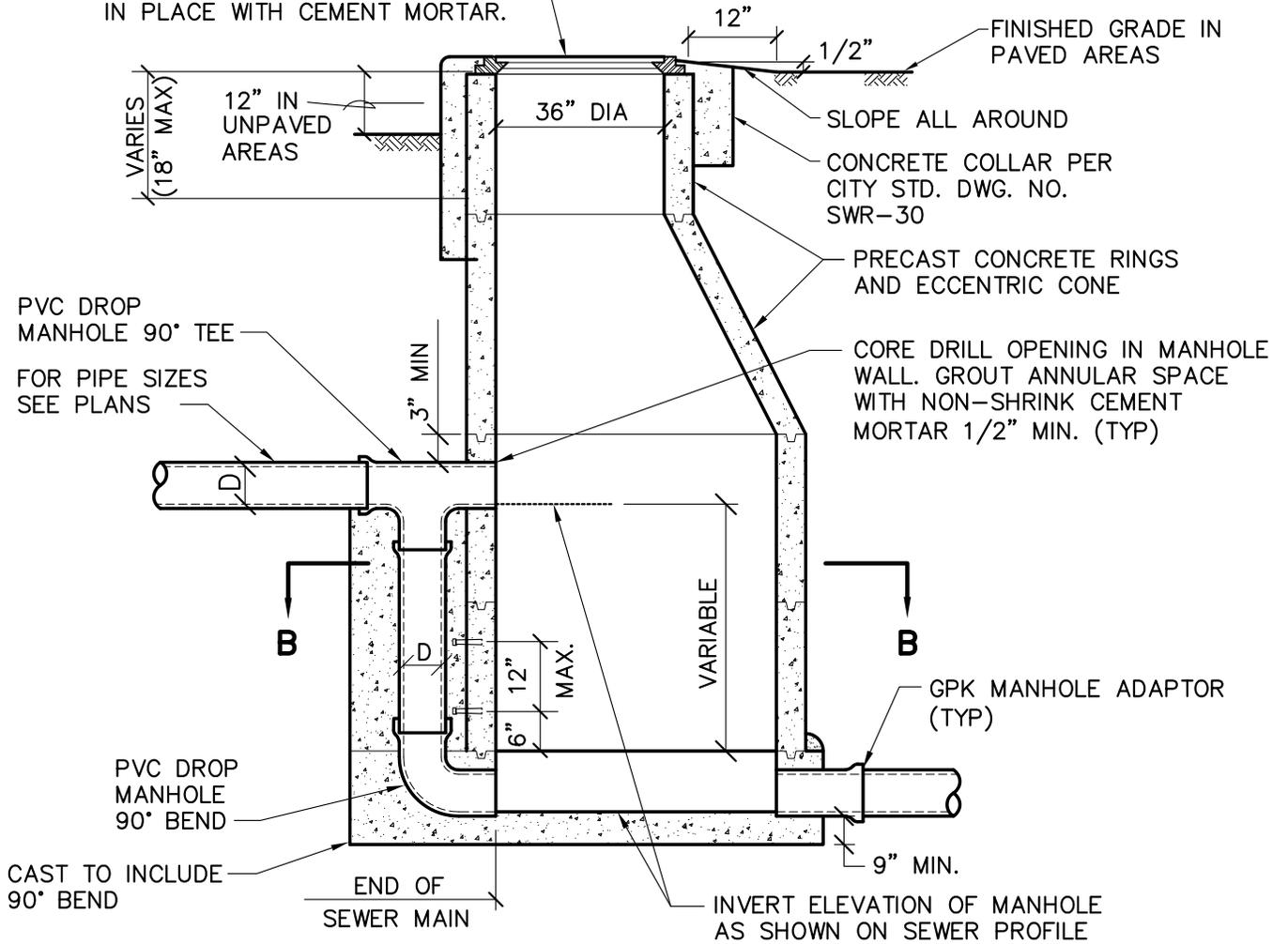
SEE SAN DIEGO REGIONAL STANDARD
DRAWINGS SM-01, SM-03, SM-04 AND SM-05

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				STANDARD SEWER PRECAST CONCRETE MANHOLE (4')	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-3

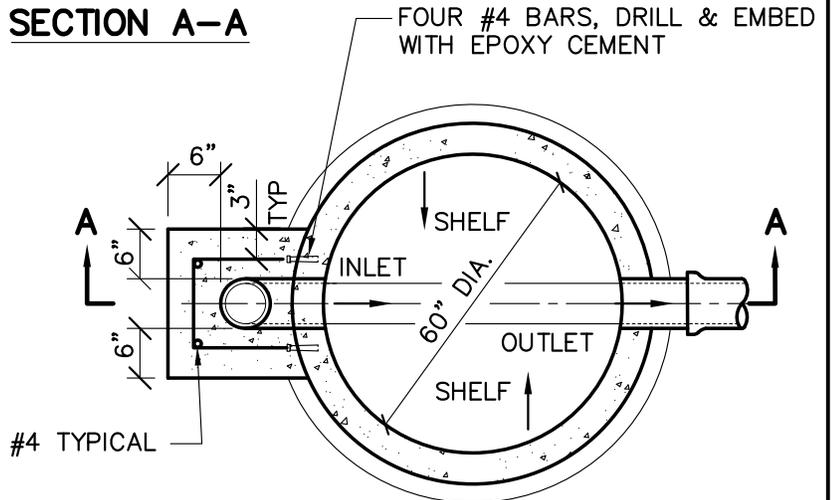
SEE SAN DIEGO REGIONAL STANDARD
DRAWINGS SM-02, SM-03, SM-04 AND SM-05

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				STANDARD SEWER PRECAST CONCRETE MANHOLE (5')	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-4

STANDARD CAST IRON MANHOLE
FRAME AND COVER PER CITY
STD. DWG. NO. SWR-4. CEMENT
IN PLACE WITH CEMENT MORTAR.



SECTION A-A



SECTION B-B

NOTES:

1. DROP MANHOLE SHALL BE IDENTICAL TO STANDARD CONCRETE MANHOLE, EXCEPT FOR PIPE DETAILS AS SHOWN.
2. THE DROP MANHOLE TEE SHALL ENTER THE 5' DIA. RING. SEAL WALL PENETRATION PER SDRSD SM-04.
3. CLEAN AND ROUGHEN OUTSIDE SURFACE OF RINGS AND APPLY BONDING AGENT CEMENT PRIOR TO POURING SUPPORT FOR DROP SECTION.
4. NO MANHOLE STEPS ALLOWED.

Revision	By	Apprvd	Date
New	SJ	SS	03/01/12

CITY OF VISTA
STANDARD DRAWING

**STANDARD SEWER PRECAST
CONCRETE DROP MANHOLE**

CITY ENGINEER RCE 55075	DATE
DRAWING NUMBER: SWR-5A	

NOTES:

1. ALL PORTLAND CEMENT CONCRETE SHALL CONFORM TO THE PROVISIONS OF SECTIONS 201, 202 AND 303 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK).
2. CLASS 560-C-3250 CONCRETE WITH TYPE V CEMENT, AS DESCRIBED IN SECTION 201 OF THE GREENBOOK SHALL BE USED FOR ALL MANHOLE BASES UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER. THE MAXIMUM WATER / CEMENT RATIO SHALL BE 0.53 BY WEIGHT; AND THE MAXIMUM SLUMP SHALL BE 4" TO 6". IN CERTAIN CIRCUMSTANCES, RAPID-SETTING CONCRETE MAY BE REQUIRED. ACCELERATING ADMIXTURES SHALL CONFORM TO ASTM C-494 AND MAY BE USED IN THE CONCRETE MIX AS PERMITTED BY THE CITY ENGINEER. CALCIUM CHLORIDE SHALL NOT BE USED IN CONCRETE. HAND MIXED CONCRETE MATERIALS TYPE AND PROPORTIONS SHALL BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO APPLICATION ON SITE.
3. ALL PRECAST COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
4. VERTICAL WALL OF THE CONE SHALL BE ON THE UPSTREAM SIDE OF THE MANHOLE.
5. REFER TO SDRSD SM-1 THROUGH SM-8 & M-3 FOR ALL OTHER PERTINENT CONSTRUCTION DATA.
6. MANHOLE INSTALLATION WILL REQUIRE 1" A.C. OVER A 12" WIDE BY 11" THICK CONCRETE COLLAR AROUND THE MANHOLE (MINIMUM).
7. DROP MANHOLES EXCEEDING TWENTY FEET (20') IN DEPTH SHALL BE DESIGNED WITH THICKER WALLS AND THICKER BASE.
8. PLACE BASE AGAINST A 6" LAYER OF 3/4" CRUSHED ROCK.
9. MANHOLE FRAMES SHALL BE SET IN CLASS 'C' MORTAR AND CONFORM TO THE PROVISIONS OF SEWER SUBSECTION 201-5 OF THE LATEST EDITION OF THE GREENBOOK. ALL JOINTS SHALL BE SET IN MASTIC AND CONFORM TO THE PROVISIONS OF SECTION 207 OF THE GREENBOOK.
10. ALL PATCHING WITHIN MANHOLE BASE SHALL BE WITH A TWO-COMPONENT, POLYMER-MODIFIED, PORTLAND CEMENT, FAST SETTING, NON-SAG EPOXY MORTAR WITH A PENETRATING CORROSION INHIBITOR (e.g. SIKATOP 123 PLUS).
11. GPK SAND COLLAR MANHOLE ADAPTERS (OR APPROVED EQUAL) SHALL BE UTILIZED FOR ALL MANHOLE CONNECTIONS.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
Updated	TR	SS	03/01/12		
				SEWER DROP MANHOLE NOTES	CITY ENGINEER DATE RCE 55075
					DRAWING NUMBER: SWR-5B

SEE SAN DIEGO REGIONAL STANDARD
DRAWING M-1

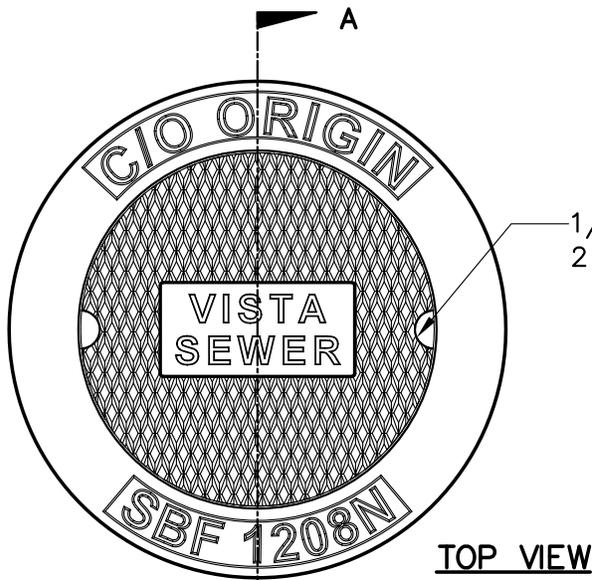
Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				STANDARD 24" DIA. SEWER MANHOLE FRAME AND COVER	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-6

SEE SAN DIEGO REGIONAL STANDARD
DRAWING M-3

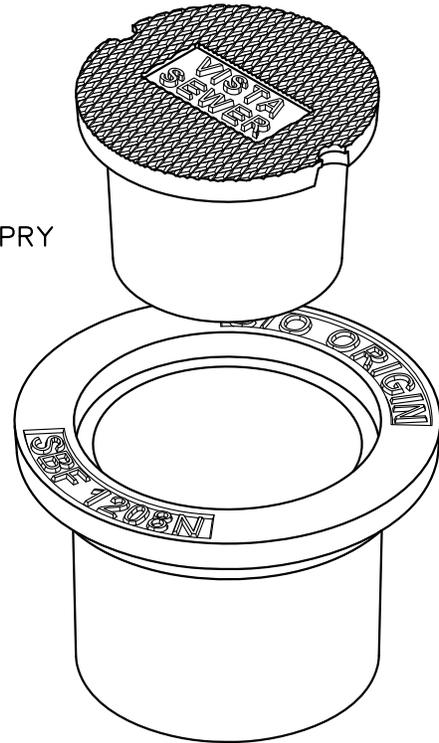
Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				36" MANHOLE FRAME AND TWO CONCENTRIC COVERS (HEAVY DUTY)	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-7

SEE SAN DIEGO REGIONAL STANDARD
DRAWING SC-1

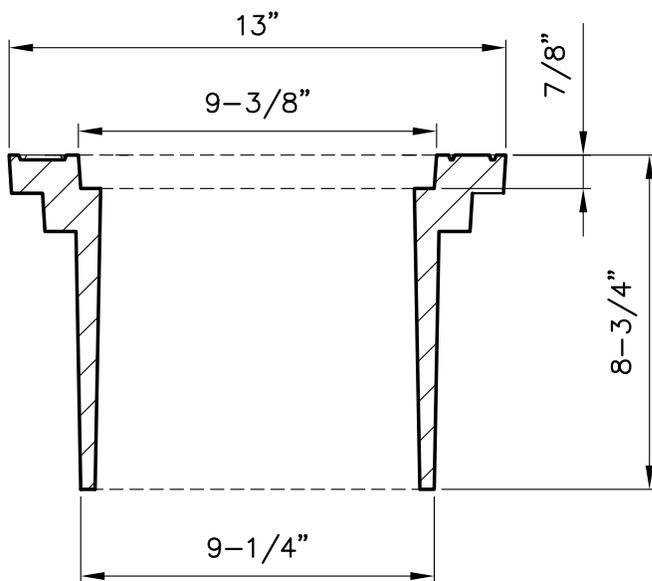
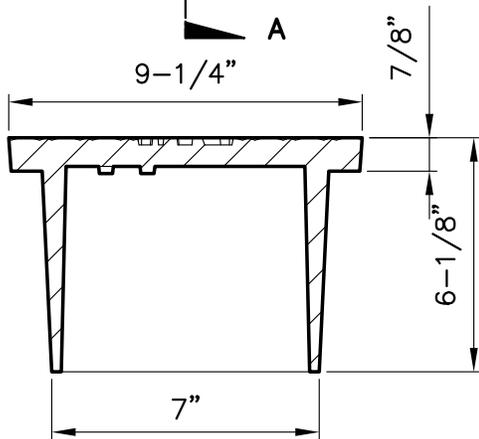
Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				STANDARD SEWER DEAD END CLEANOUT	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-8



1/2"x1" SIDE PRY
2 TOTAL



ISOMETRIC VIEW



SECTION A-A

NOTES:

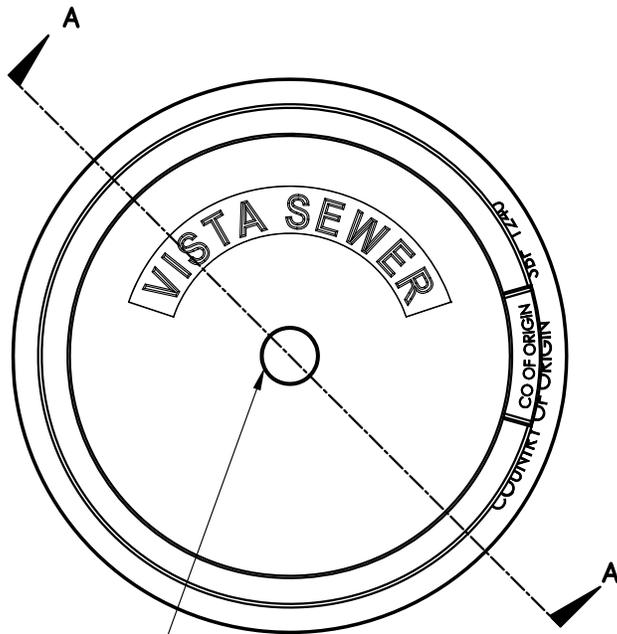
1. MATERIAL SHALL BE GREY CAST IRON ASTM A48 CLASS 30B AND MADE IN U.S.A.
2. BEARING SURFACES SHALL BE MACHINED FOR CLOSE & QUIET FIT.
3. CASTINGS SHALL BE DIPPED IN BLACK BITUMINOUS PAINT FOR FINISH.
4. FRAME AND LID SHALL MEET H-20 WHEEL LOAD REQUIREMENTS.
5. CAST SHALL BE BY SOUTH BAY FOUNDRY 1208N (OR APPROVED EQUAL).

Revision	By	Apprvd	Date
New	SJ	SS	03/01/12

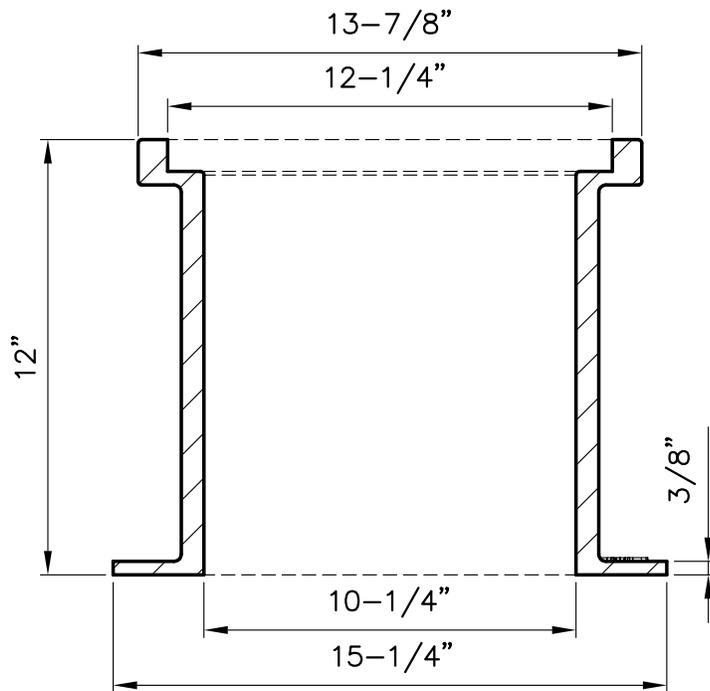
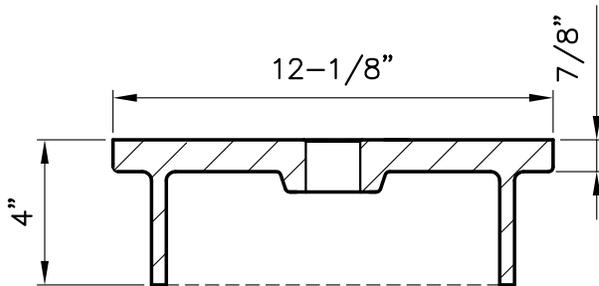
CITY OF VISTA
STANDARD DRAWING

**STANDARD 6" SEWER CLEANOUT
FRAME AND LID**

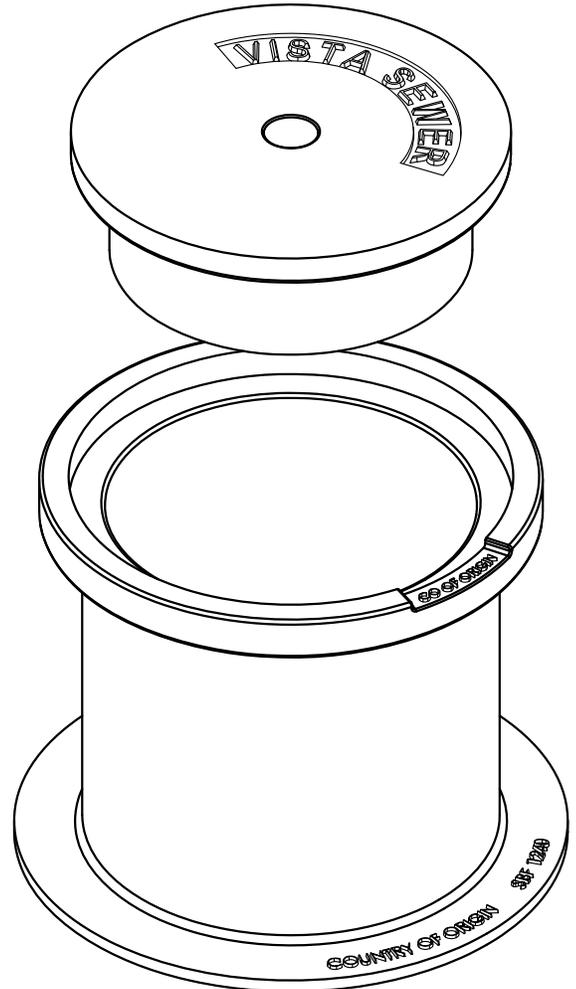
CITY ENGINEER DATE
RCE 55075
DRAWING NUMBER: **SWR-9A**



DIA. = 1-1/2"
HOLE



SECTION A-A



ISOMETRIC VIEW

NOTES:

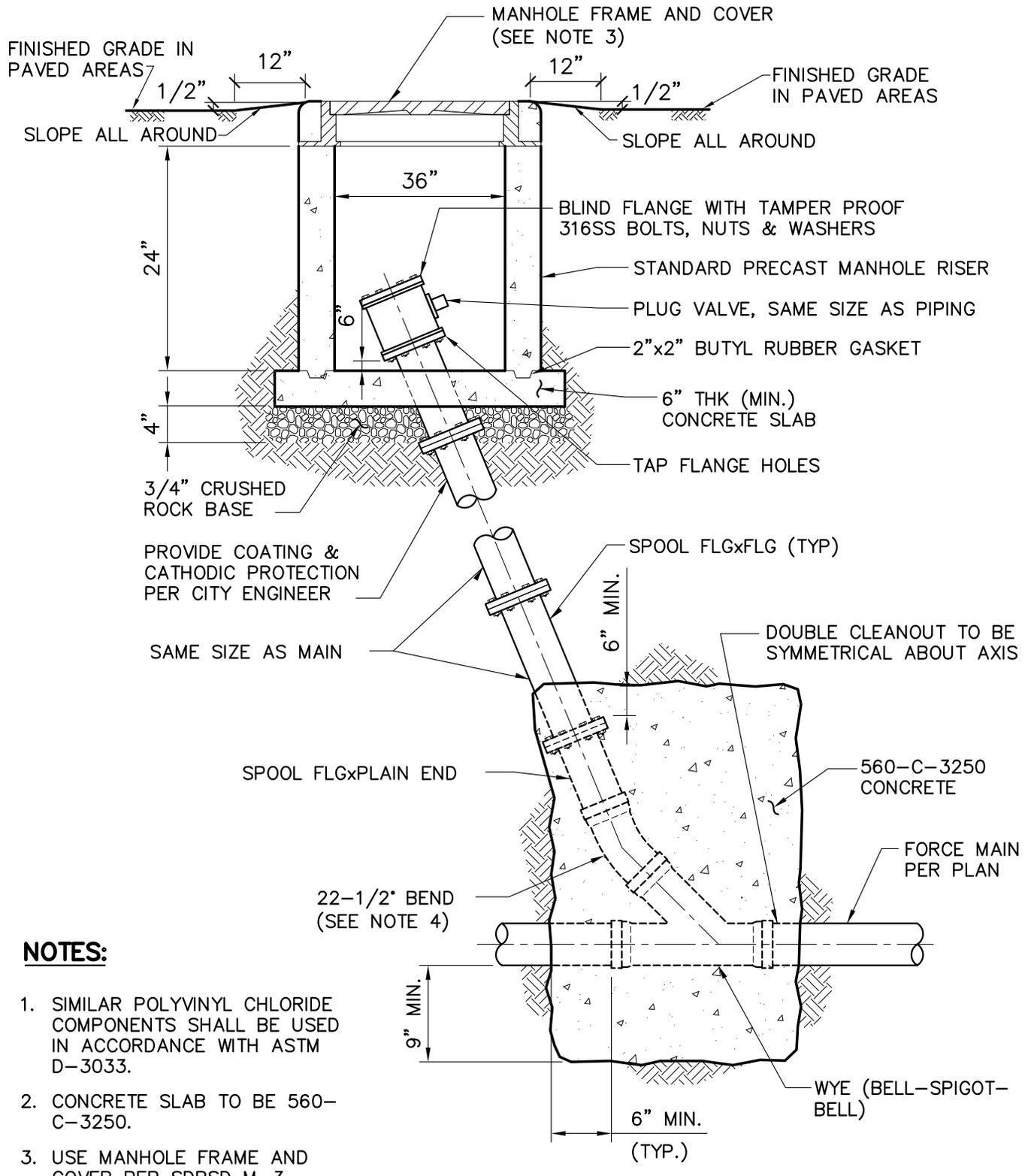
1. MATERIAL SHALL BE GREY CAST IRON ASTM A48 CLASS 30B AND MADE IN U.S.A.
2. BEARING SURFACES SHALL BE MACHINED FOR CLOSE & QUIET FIT.
3. CASTINGS SHALL BE DIPPED IN BLACK BITUMINOUS PAINT FOR FINISH.
4. FRAME AND LID SHALL MEET H-20 WHEEL LOAD REQUIREMENTS.
5. CAST SHALL BE BY SOUTH BAY FOUNDRY 1240 (OR APPROVED EQUAL).

Revision	By	Apprvd	Date
New	SJ	SS	03/01/12

CITY OF VISTA
STANDARD DRAWING

**STANDARD 8" SEWER CLEANOUT
FRAME AND LID**

CITY ENGINEER RCE 55075	DATE
DRAWING NUMBER: SWR-9B	



NOTES:

1. SIMILAR POLYVINYL CHLORIDE COMPONENTS SHALL BE USED IN ACCORDANCE WITH ASTM D-3033.
2. CONCRETE SLAB TO BE 560-C-3250.
3. USE MANHOLE FRAME AND COVER PER SDRSD M-3
4. MORE THAN ONE 22-1/2° BEND SHALL BE APPROVED BY CITY ENGINEER

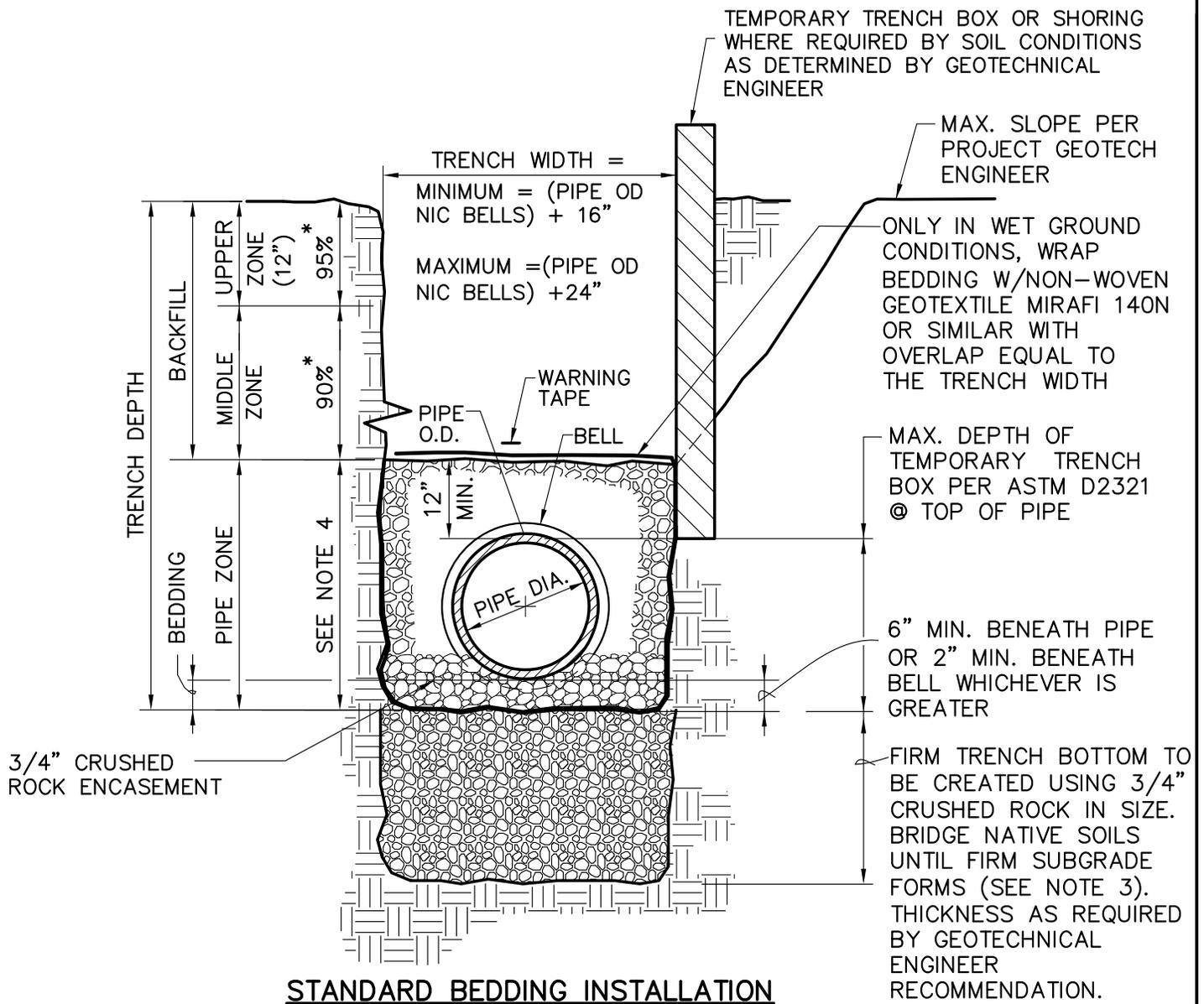
—○— C.O.
 LEGEND ON PLANS

Revision	By	Apprvd	Date
New	SJ	SS	03/01/12

CITY OF VISTA
 STANDARD DRAWING

CLEANOUT - SEWER FORCE MAIN

CITY ENGINEER	DATE
RCE 55075	
DRAWING NUMBER: SWR-10	



NOTES:

1. ALL PIPING SHALL BE INSTALLED IN ACCORDANCE W/ ASTM D2321 (STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF PIPE FOR SEWERS & OTHER GRAVITY-FLOW APPLICATIONS.)
2. (*) INDICATES MINIMUM RELATIVE COMPACTION.
3. UNDISTURBED NATIVE SOIL IS ANTICIPATED TO BE 85% RELATIVE COMPACTION AT TRENCH BOTTOM, WHICH IS SUITABLE AS "FIRM TRENCH BOTTOM". IF THE TRENCH BOTTOM IS LESS THAN 85% RELATIVE COMPACTION, CONTRACTOR SHALL PLACE CRUSHED ROCK AS INDICATED BY TRENCH DETAIL.
4. PROVIDE COMPACTION EFFORT SUITABLE TO UNIFORMLY LOAD THE ENTIRE CIRCUMFERENCE OF THE PIPE.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	SJ	SS	03/01/12		
				STANDARD SEWER PIPE ZONE AND TRENCH BACKFILL	CITY ENGINEER DATE RCE 55075
					DRAWING NUMBER: SWR-11

SEE CITY OF VISTA STANDARD DRAWINGS
SRF-8A AND SRF-8B

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				STANDARD PIPE TRENCH DETAIL IN EXISTING STREETS	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-12

SEE CITY OF VISTA STANDARD DRAWINGS
 SRF-11A, SRF-11B AND SAN DIEGO
 REGIONAL STANDARD DRAWING SP-3

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				CONCRETE CROWN PROTECTION FOR EXISTING SEWER INLETS	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-13

SEE SAN DIEGO REGIONAL STANDARD
DRAWING SP-9

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				CONCRETE SUPPORT FOR UNDERCUT SEWER PIPE	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-14

SEE SAN DIEGO REGIONAL STANDARD
DRAWING SP-3

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	CITY ENGINEER DATE RCE 55075
New	SJ	SS	03/01/12		

SEE SAN DIEGO REGIONAL STANDARD
DRAWINGS SP-5 AND SP-7

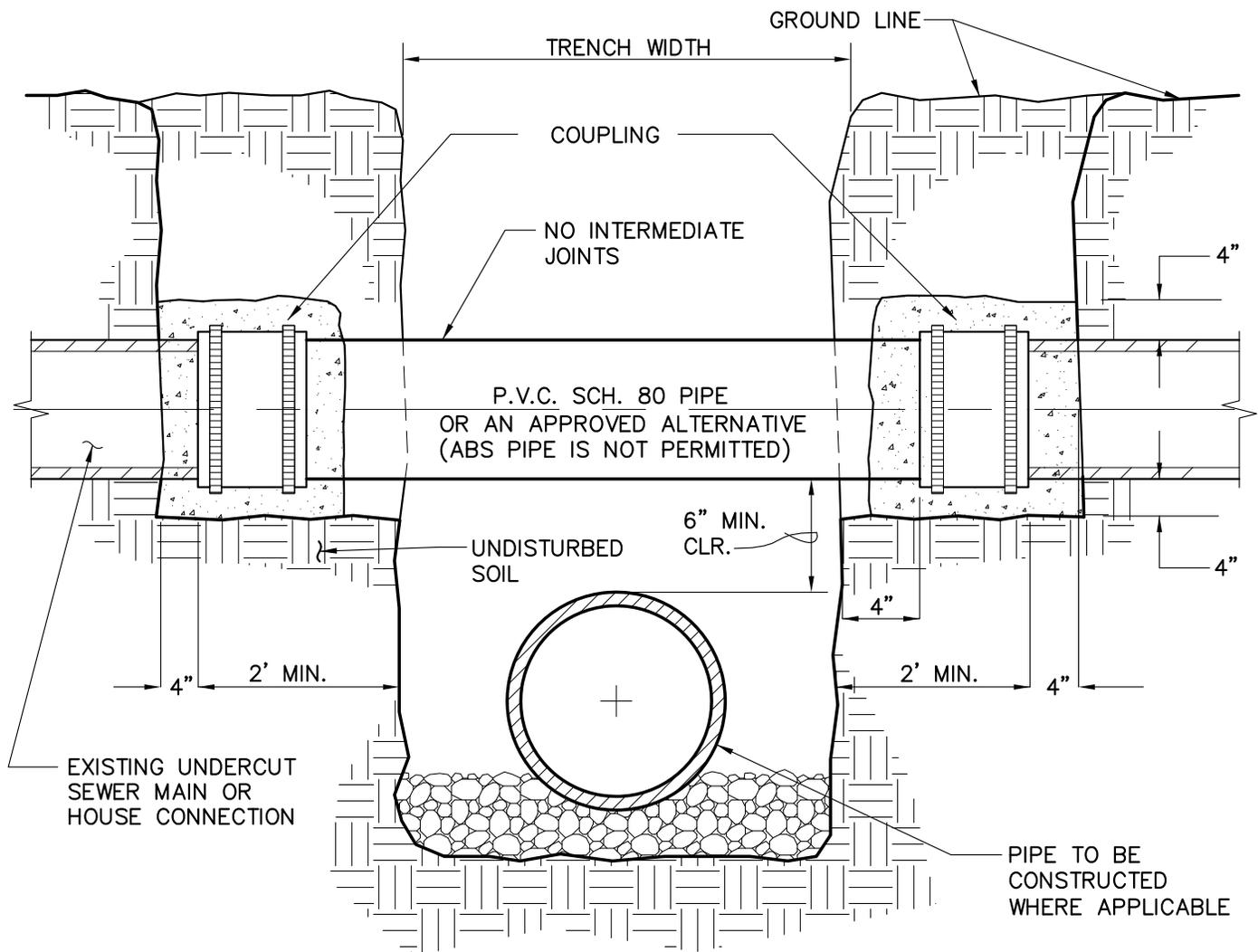
Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				STANDARD SEWER CUT-OFF WALL ANCHOR	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-16

SEE SAN DIEGO REGIONAL STANDARD
DRAWINGS SS-1 AND SS-3

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				SEWER LATERAL HOUSE CONNECTION	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-17

SEE SAN DIEGO REGIONAL STANDARD
DRAWINGS SS-2 AND SS-3

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				SEWER LATERAL HOUSE CONNECTION (DEEP CUT)	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-18

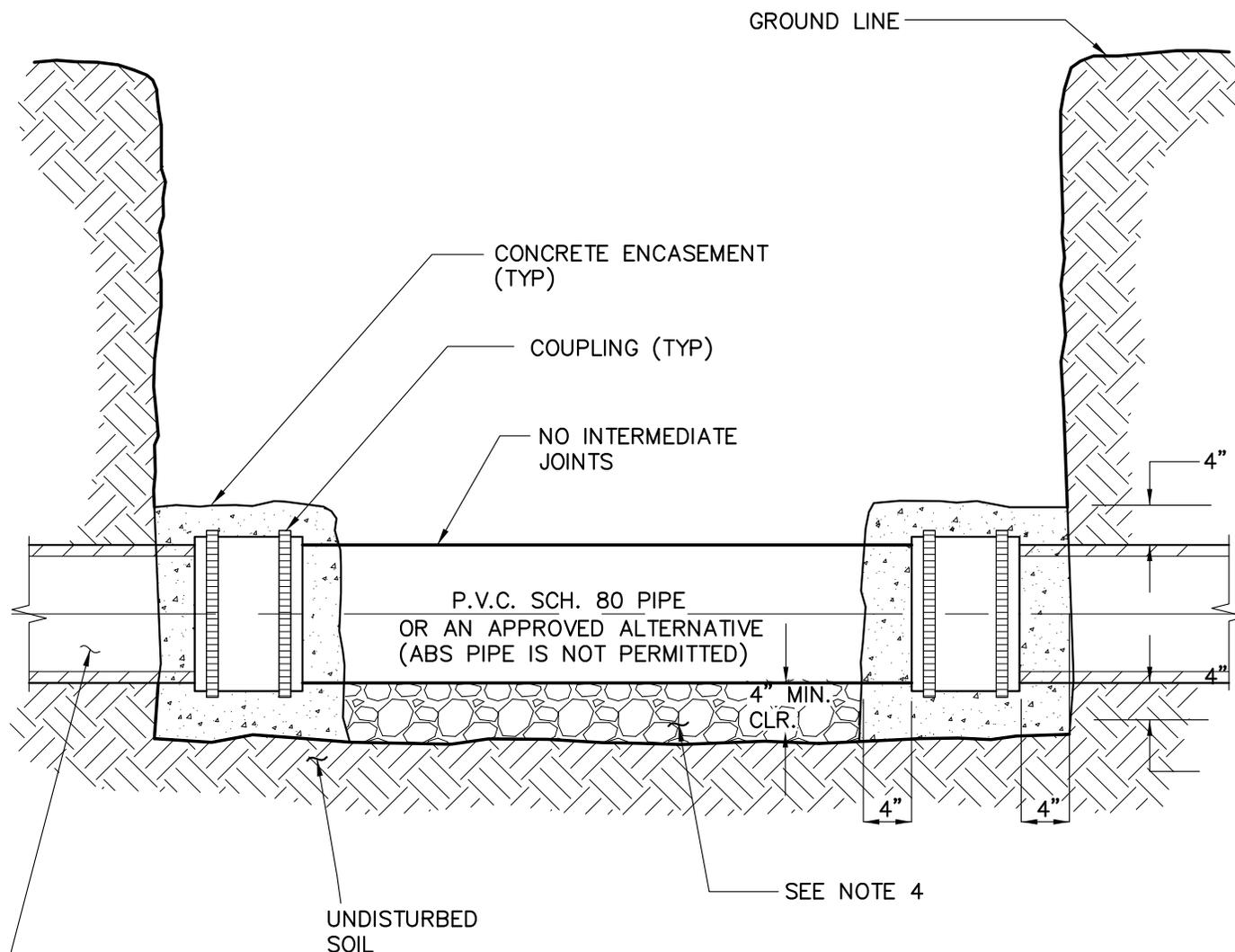


TYPICAL SECTION
NOT TO SCALE

NOTES:

1. COUPLING SHALL BE FUSION BONDED EPOXY COATED CAST COUPLING AS MANUFACTURED BY ROMAC, SMITH-BLAIR OR, APPROVED EQUAL. COUPLING SHALL BE WAX TAPED AFTER INSTALLATION. CONCRETE ENCASEMENT IS NOT REQUIRED FOR CAST COUPLING.
2. IF CAST COUPLING IS NOT AVAILABLE, COUPLING SHALL BE MOLDED SYNTHETIC RUBBER WITH STAINLESS STEEL SHEAR SHIELD AND NUT AND BOLT STAINLESS CLAMPS SPECIFICALLY DESIGNED FOR BELOW GROUND SEWER APPLICATIONS.
3. AFTER ASSEMBLY, MOLDED RUBBER COUPLING SHALL BE ENCASED IN CONCRETE WITH A MINIMUM CONCRETE COVER OF 4 INCHES ON ALL SIDES. CONCRETE SHALL HAVE A MINIMUM CURE TIME OF ONE HOUR AND RESIST PROBING PRIOR TO TRENCH BACKFILL AND COMPACTION.
4. SAND OR 3/4" (MAX.) CRUSHED ROCK BEDDING AROUND PIPE SHALL BE HAND PLACED AND TAMPED UNDER PIPE AND HAUNCHES PRIOR TO TRENCH BACKFILL AND COMPACTION.
5. PIPE MATERIAL SHALL BE SCH-80 PVC OR VCP (ABS PIPE IS NOT PERMITTED).
6. FOR PAVEMENT REPAIR AND TRENCH BACKFILL SEE CITY OF VISTA STANDARD DRAWING SRF 8A AND 8B

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	SJ	SS	03/01/12		

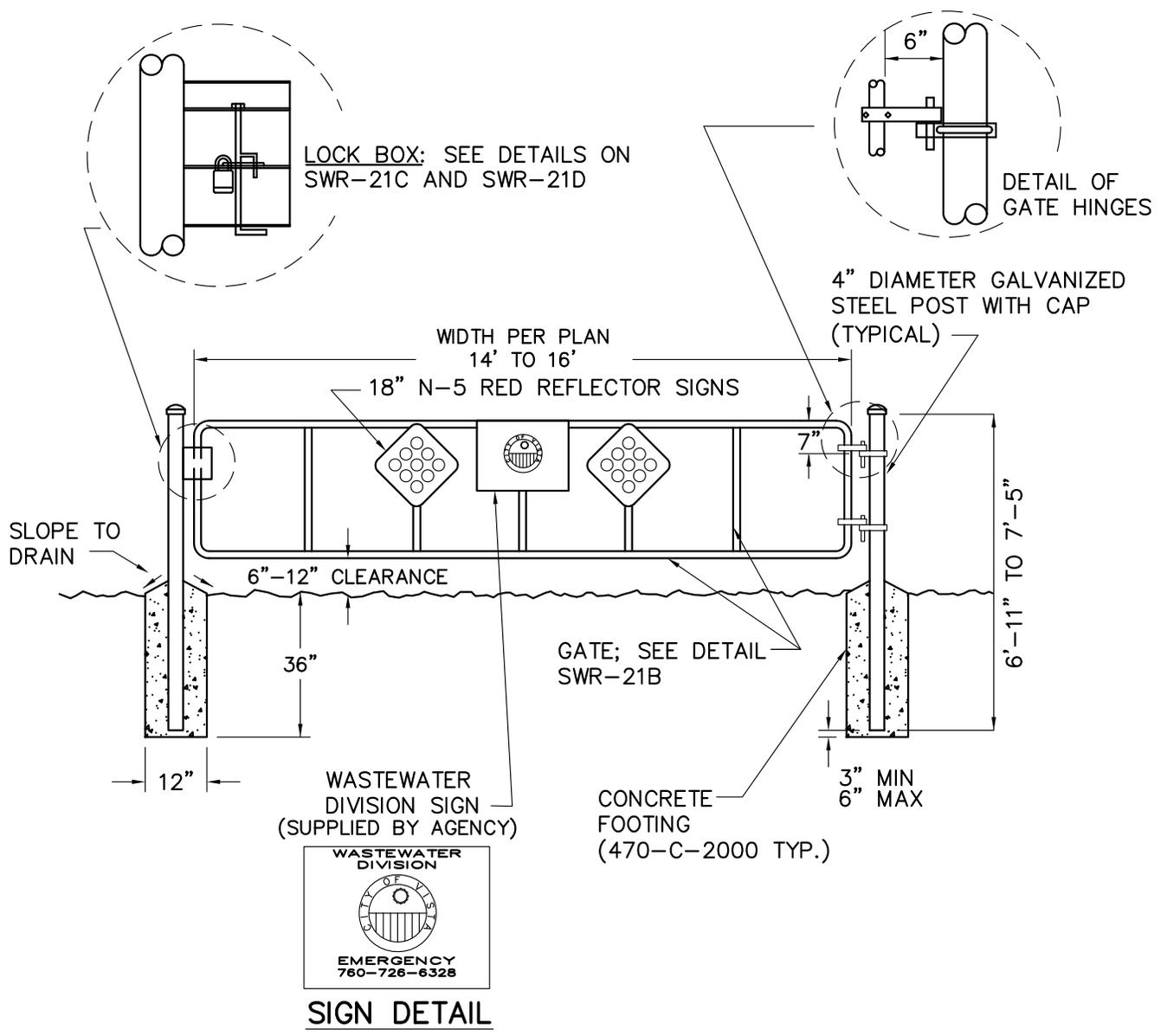


TYPICAL SECTION
NOT TO SCALE

NOTES:

1. COUPLING SHALL BE FUSION BONDED EPOXY COATED CAST COUPLING AS MANUFACTURED BY ROMAC, SMITH-BLAIR OR, APPROVED EQUAL. COUPLING SHALL BE WAX TAPED AFTER INSTALLATION. CONCRETE ENCASEMENT IS NOT REQUIRED FOR CAST COUPLING.
2. IF CAST COUPLING IS NOT AVAILABLE, COUPLING SHALL BE MOLDED SYNTHETIC RUBBER WITH STAINLESS STEEL SHEAR SHIELD AND NUT AND BOLT STAINLESS CLAMPS SPECIFICALLY DESIGNED FOR BELOW GROUND SEWER APPLICATIONS.
3. AFTER ASSEMBLY, MOLDED RUBBER COUPLING SHALL BE ENCASED IN CONCRETE WITH A MINIMUM CONCRETE COVER OF 4 INCHES ON ALL SIDES. CONCRETE SHALL HAVE A MINIMUM CURE TIME OF ONE HOUR AND RESIST PROBING PRIOR TO TRENCH BACKFILL AND COMPACTION.
4. SAND OR 3/4" (MAX.) CRUSHED ROCK BEDDING AROUND PIPE SHALL BE HAND PLACED AND TAMPED UNDER PIPE AND HAUNCHES PRIOR TO TRENCH BACKFILL AND COMPACTION.
5. PIPE MATERIAL SHALL BE SCH-80 PVC OR VCP (ABS PIPE IS NOT PERMITTED).
6. FOR PAVEMENT REPAIR AND TRENCH BACKFILL SEE CITY OF VISTA STANDARD DRAWING SRF 8A AND 8B

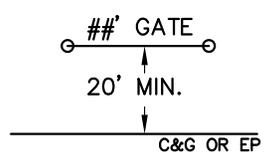
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	CITY ENGINEER DATE RCE 55075
New	SJ	SS	03/01/12		



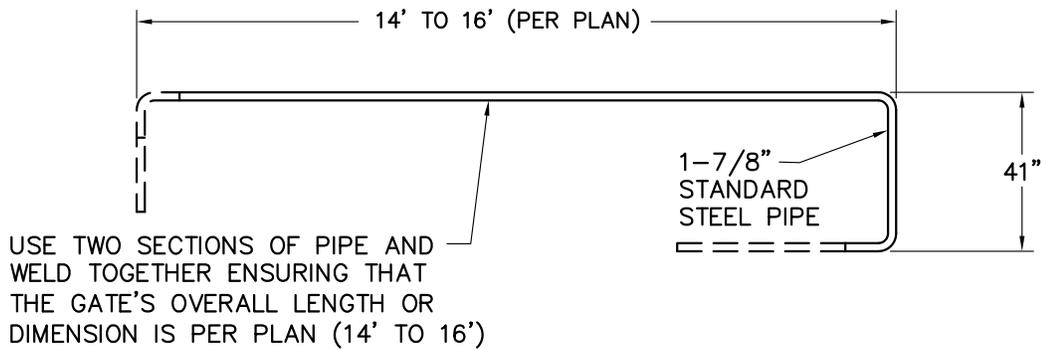
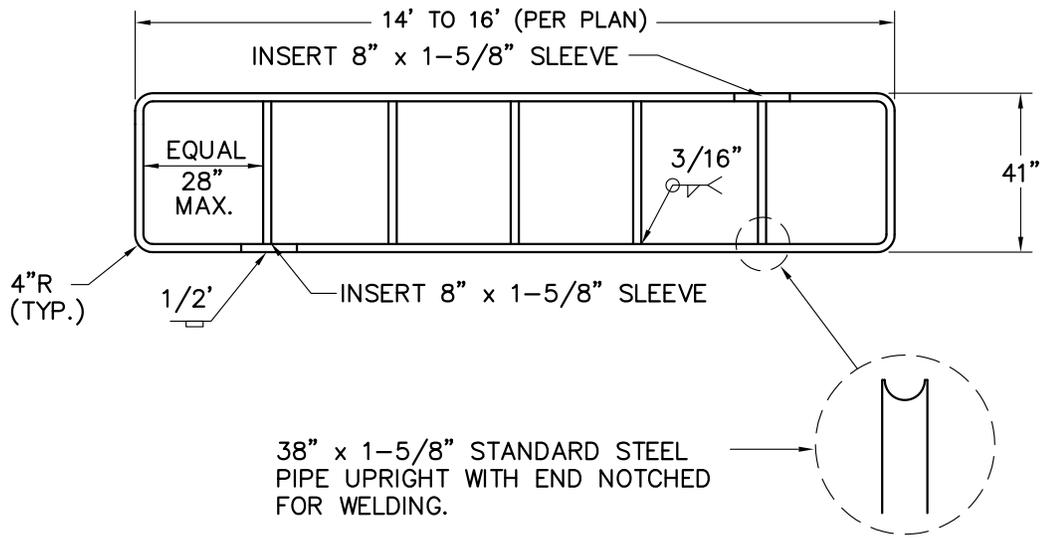
NOTES:

1. GATE, LOCK BOX, HINGES AND POSTS ARE TO BE PAINTED PER PUBLIC WORKS DEPARTMENT REQUIREMENTS. POSTS IN FOOTINGS ARE TO BE SET PLUMB AND CONCRETE ALLOWED TO CURE FOR 48 HOURS PRIOR TO HANGING OF GATE.
2. POSTS ARE TO BE INSTALLED TO ACCOMODATE GATE, LOCK BOX AND HINGES. CONTRACTOR SHALL VERIFY INSIDE MEASUREMENT BETWEEN THE POSTS.
3. PROVIDE MINIMUM FIVE FOOT (5') WIDE OPENING FOR NON-VEHICULAR ACCESS.
4. ATTACH SIGNS TO GATE WITH SELF TAPPING SCREWS.

LEGEND



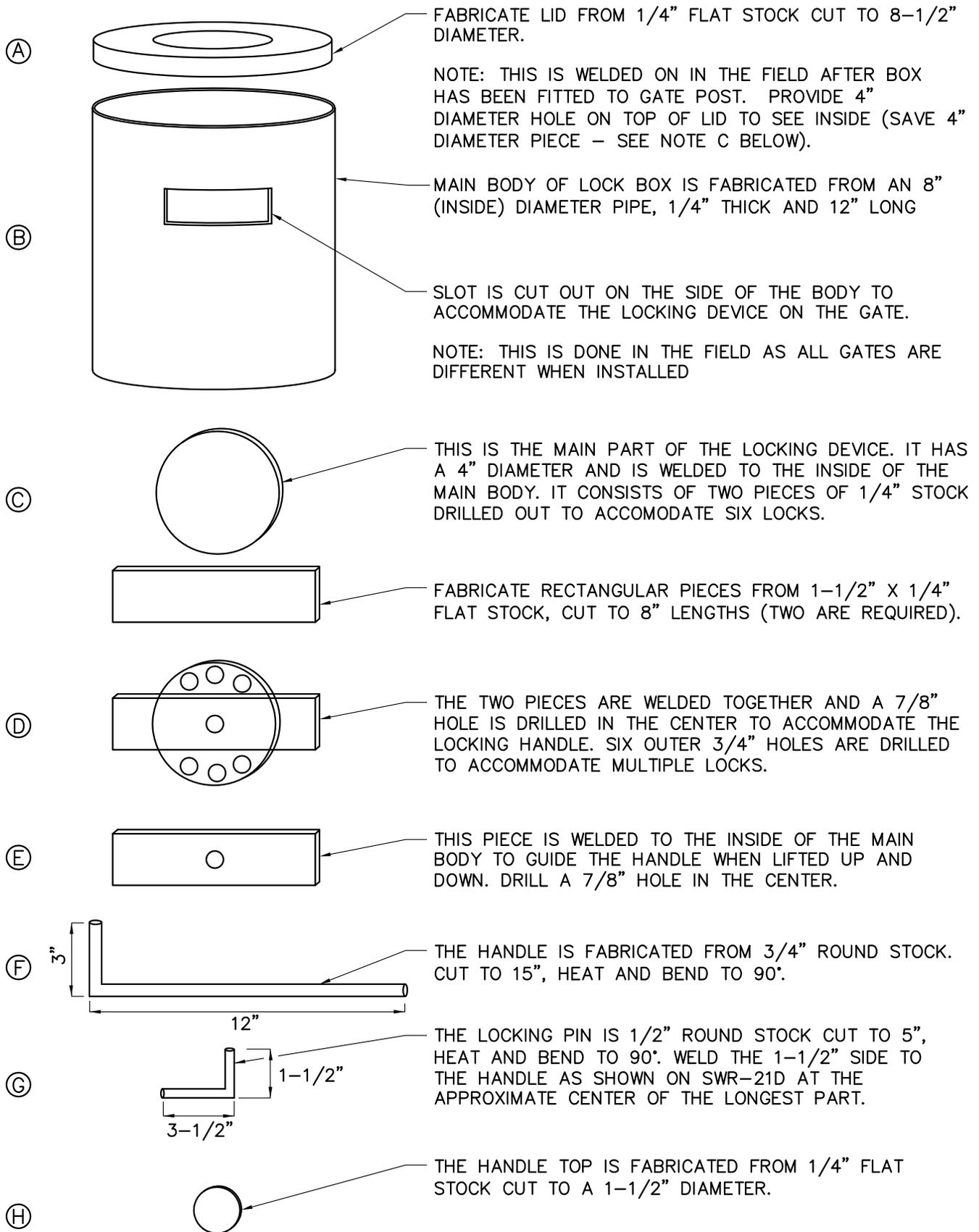
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING			
New		PN	09/21/00				
Updated	TR	SS	04/24/08	SEWER EASEMENT GATE			
						CITY ENGINEER	DATE
						RCE 55075	
				DRAWING NUMBER: SWR-21A			



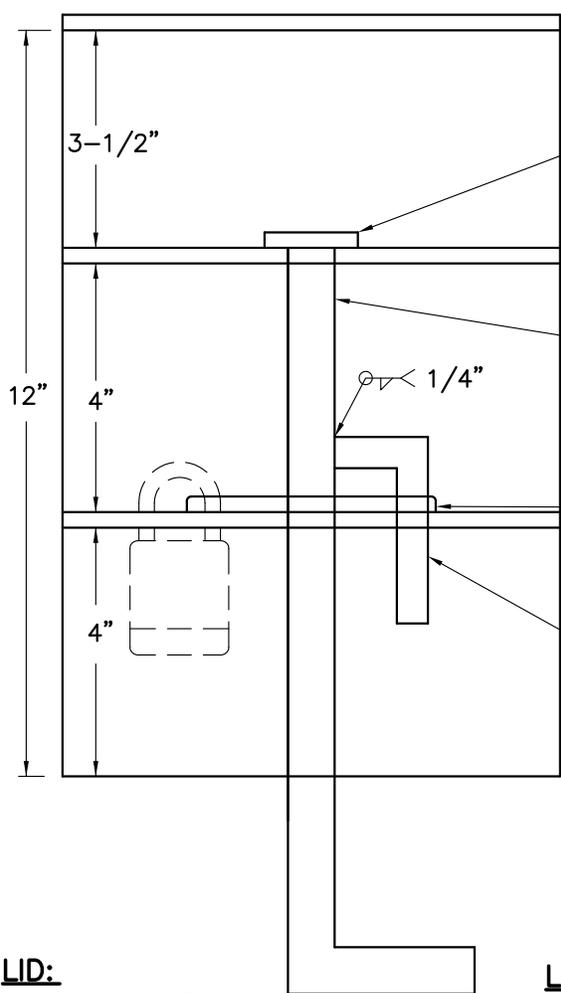
NOTE:

1. PIPE SHALL BE ASTM A53 GRADE 'B'.
2. WELD AND GRIND SMOOTH ALL CONNECTIONS.
3. HOT DIP GALVANIZE AFTER FABRICATION.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING			
New		PN	09/21/00				
Updated	SJ	SS	03/01/12	SEWER EASEMENT GATE			
						CITY ENGINEER	DATE
						RCE 55075	
				DRAWING NUMBER: SWR-21B			



Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New		PN	09/21/00		
Updated	SJ	SS	03/01/12	EASEMENT GATE BARREL LOCK ASSEMBLY	
				DRAWING NUMBER: SWR-21C	



LID: TACK WELD IN FIELD.

HANDLE TOP: TACK WELD TO TOP END OF HANDLE IN FIELD.

SUPPORT BAR: THIS IS THE MOST IMPORTANT PART OF THE ASSEMBLY. IT MUST BE EXACT.

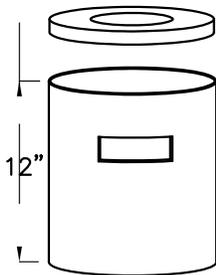
HANDLE: THE UPPER PORTION MUST STICK UP THROUGH SUPPORT BAR. ALLOW FOR CLEARANCE OF LOCKING PIN TO CLEAR ANY INSTALLED LOCKS.

LOCKING RING ASSEMBLY: THIS PIECE IS ASSEMBLED ACCORDING TO HOW THE HANDLE LINES UP IN THE SUPPORT BAR.

LOCKING PIN:

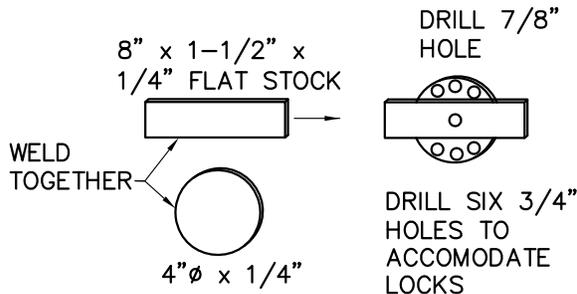
LID:

8-1/2" x 1/4"
LID WELDED ON
IN FIELD

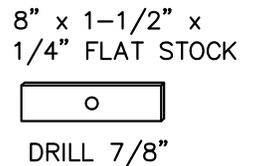


8" I.D. x 1/4"
OR SCHEDULE
40 METAL
PIPE

LOCKING RING ASSEMBLY:

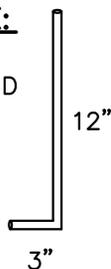


SUPPORT BAR:



HANDLE:

3/4" ROUND
STOCK



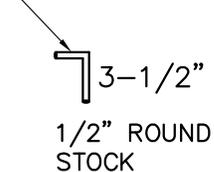
HANDLE TOP:

1-1/2" ϕ x 1/4"
FLAT STOCK



LOCKING PIN:

1-1/2" CUT
TO FIT
LOCKING RING



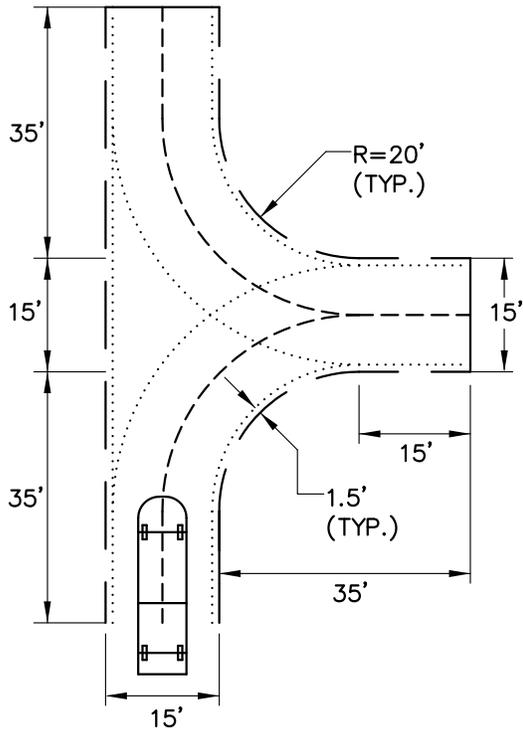
Revision	By	Apprvd	Date
New		PN	09/21/00
Updated	SJ	SS	04/04/12

CITY OF VISTA
STANDARD DRAWING

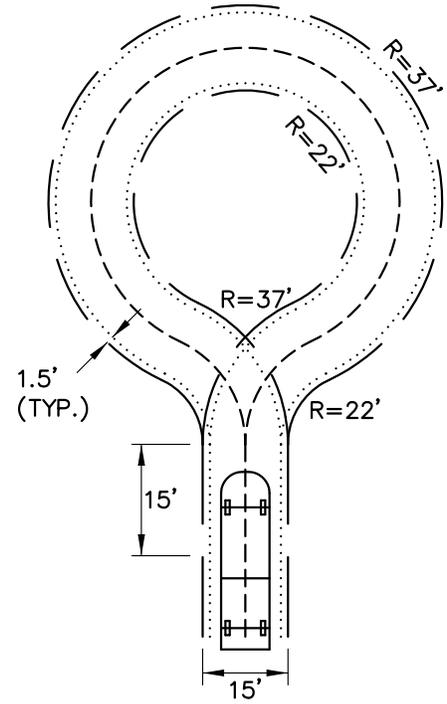
**EASEMENT GATE BARREL
LOCK ASSEMBLY**

CITY ENGINEER DATE
RCE 55075

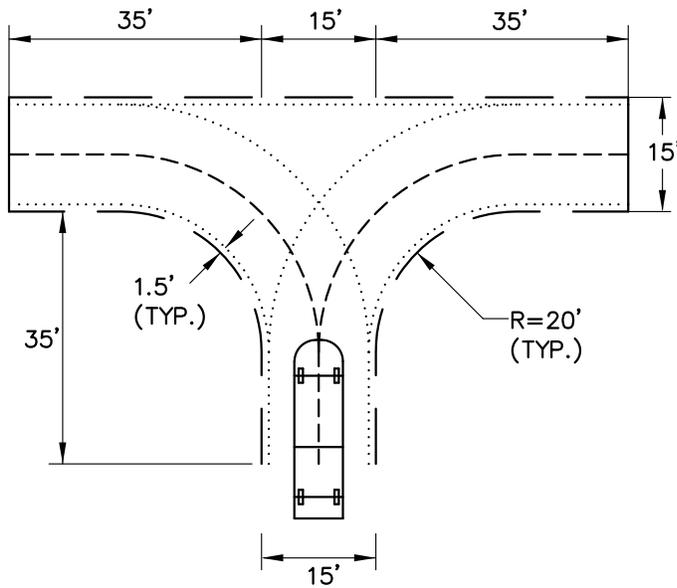
DRAWING NUMBER: **SWR-21D**



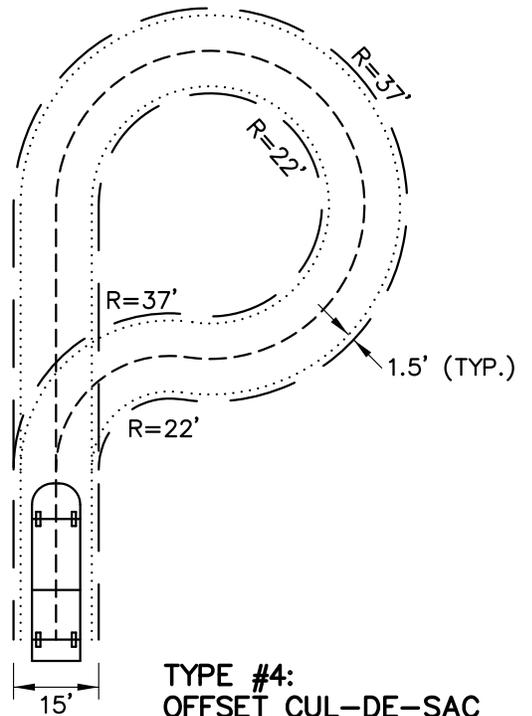
**TYPE #1:
HAMMERHEAD TURN AROUND**



**TYPE #2:
CUL-DE-SAC TURN AROUND**



**TYPE #3:
HAMMERHEAD "T" TURN AROUND**



**TYPE #4:
OFFSET CUL-DE-SAC
TURN AROUND**

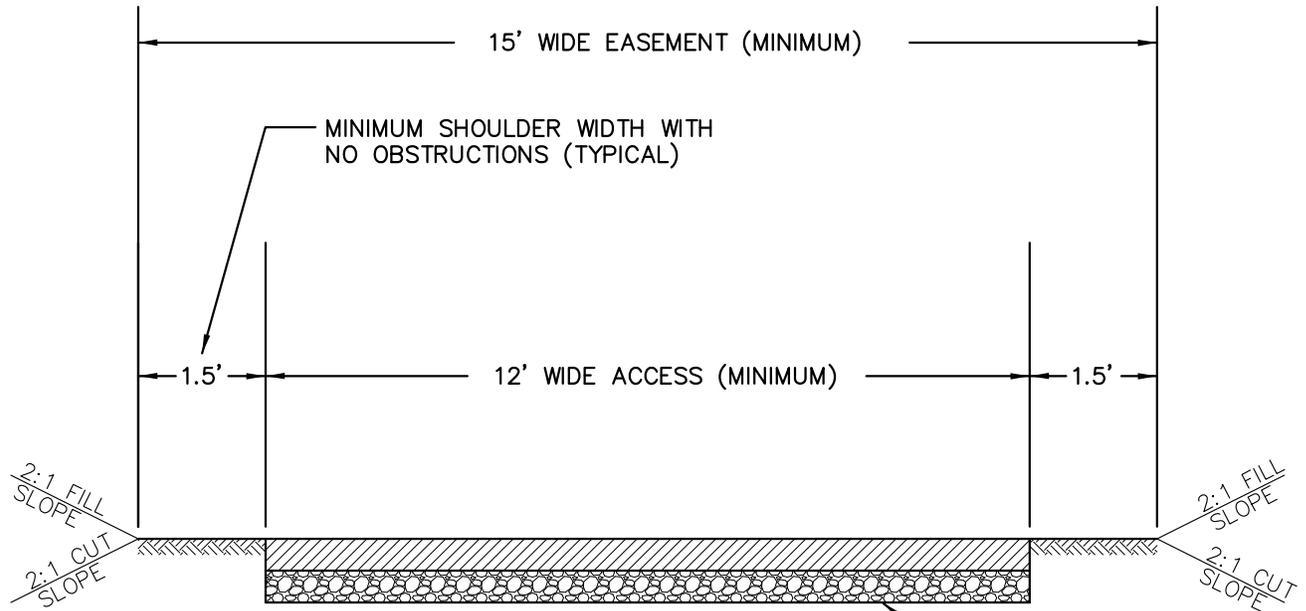
NOTE: SPECIFY TURN AROUND BY TYPE NUMBER OR AS OTHERWISE APPROVED BY CITY ENGINEER. CUSTOM DESIGN CONSTRAINTS: VEHICLE DIMENSION: 30' LONG BY 10' WIDE.

Revision	By	Apprvd	Date
New	TT		11/14/03
Updated	TR	SS	03/01/12

CITY OF VISTA
STANDARD DRAWING

**SEWER ACCESS ROAD
TURN AROUND TYPES**

CITY ENGINEER DATE
RCE 55075
DRAWING NUMBER: **SWR-22**



STREET STRUCTURAL SECTION SHALL BE BASED ON MINIMUM TRAFFIC INDEX (T.I.) = 5.0 AND KNOWN SUBGRADE "R" VALUE

NOTES:

1) STREET CROSS SLOPE SHALL BE ONE OF THE FOLLOWING:

- ALTERNATIVE A: -2% SLOPE FROM CROWN C/L TO THE OUTSIDE EDGES OF THE PAVEMENT
- ALTERNATIVE B: -2% SLOPE TO THE CENTER OF THE PAVEMENT
- ALTERNATIVE C: -2% SLOPE TO THE LEFT SIDE OF THE PAVEMENT
- ALTERNATIVE D: -2% SLOPE TO THE RIGHT SIDE OF THE PAVEMENT

2) MINIMUM STREET STRUCTURAL SECTION TYPES:

- TYPE A: MINIMUM 3" THICK OF 3/4" GRAVEL OVER 4" CLASS 2 AGGREGATE BASE
- TYPE B: MINIMUM 3" A.C. OVER 4" CLASS 2 AGGREGATE BASE
- TYPE C: MINIMUM 5" P.C.C. (WITH BROOM OR GROOVE FINISH AS DIRECTED BY CITY ENGINEER) OVER 4" CLASS 2 AGGREGATE BASE

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING			
New	TR	SS	03/01/12				
				SEWER ACCESS ROAD STRUCTURAL ALTERNATIVES			
						CITY ENGINEER	DATE
						RCE 55075	
				DRAWING NUMBER: SWR-23			

TABLE I – DROP TO MAIN							
SEWER SIZE	8"	10"	12"	15"	18"	21"	24"
DROP TO MAIN	1.2'	1.3'	1.4'	1.8'	2.0'	2.2'	2.4'

SEWER LATERAL TABLES

A SEWER LATERAL TABLE (SEE EXAMPLE BELOW) SHALL BE INCLUDED IN THE IMPROVEMENT PLANS FOR ALL LATERALS. THE LATERAL TABLE SHALL, AT A MINIMUM, INCLUDE:

1. SEQUENCE NUMBER
2. LOT NUMBER
3. SEWER MAIN STATION
4. INVERT AT SEWER MAIN (INVERT ELEVATION OF COLLECTION SEWER AT LATERAL CONNECTION)
5. LENGTH (DISTANCE FROM SEWER MAIN CENTERLINE TO PROPERTY LINE) LESS 2' (THE APPROXIMATE INSTALLED LENGTH OF THE WYE AND 1/8TH BEND)
6. DROP TO MAIN (SEE TABLE I, ABOVE)
7. INVERT ELEVATION OF LATERAL AT PROPERTY LINE
8. SLOPE IN % = $\frac{((\text{ITEM 7} - (\text{ITEM 4} + \text{ITEM 6})) * 100)}{(\text{ITEM 5} - 2.0')}$, WHICH SHOULD BE GREATER THAN 2% FOR A 4-INCH DIAMETER LATERAL OR 1% FOR A 6-INCH DIAMETER LATERAL
9. GROUND ELEVATION AT PROPERTY LINE
10. DEPTH AT PROPERTY LINE
11. PAD ELEVATION OF BUILDING BEING SERVED
12. RIM ELEVATION OF NEXT UPSTREAM MH
13. BACKWATER VALVE REQUIRED ON LATERAL – YES OR NO – REQUIRED WHEN UPSTREAM MH RIM ELEVATION IS HIGHER THAN HOUSE PAD
14. REMARKS (SUCH AS "DEEP CUT LATERAL")

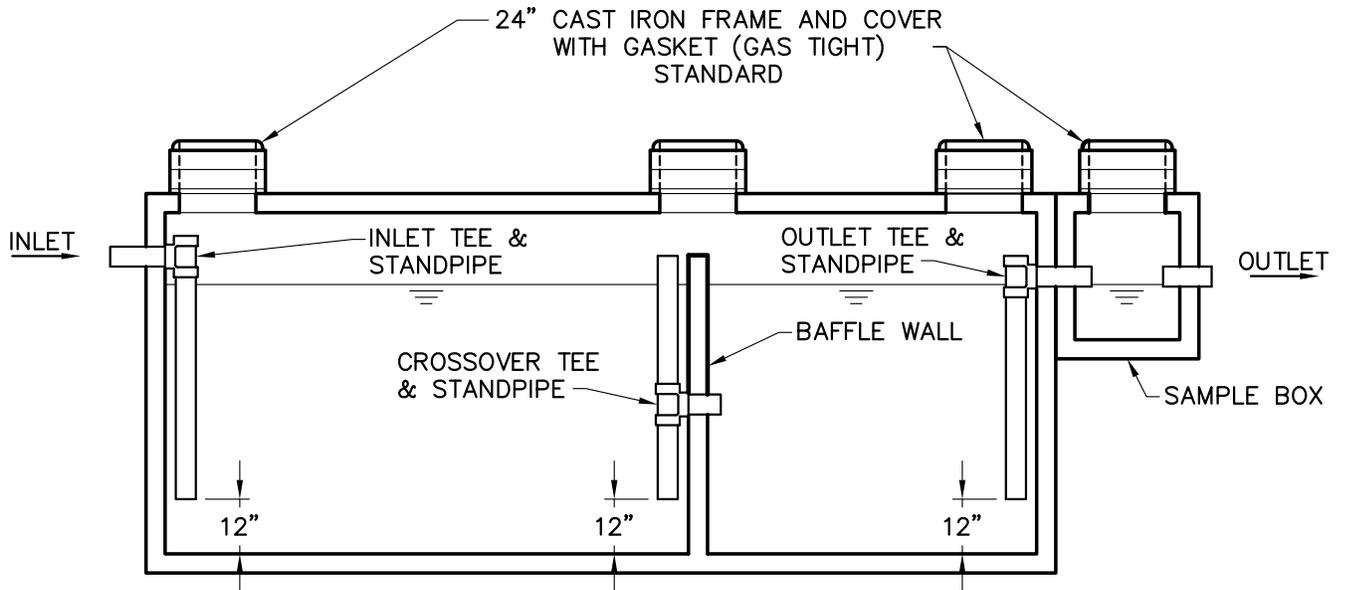
TABLE SHALL BE PRESENTED IN THE FORM SHOWN BELOW:

SEWER LATERAL TABLE													
SEQ. NO.	LOT NO.	STREET STATION OF LATERAL AT MAIN	INVERT AT MAIN IE	LENGTH OF LATERAL	DROP TO MAIN	LATERAL ELEV. AT PL IE	LATERAL SLOPE %	GROUND ELEV. AT PL	DEPTH BELOW PL PL TO IE	PAD ELEV. FT.	UPSTREAM MH RIM ELEV.	BACKWATER VALVE REQ'D	REMARKS

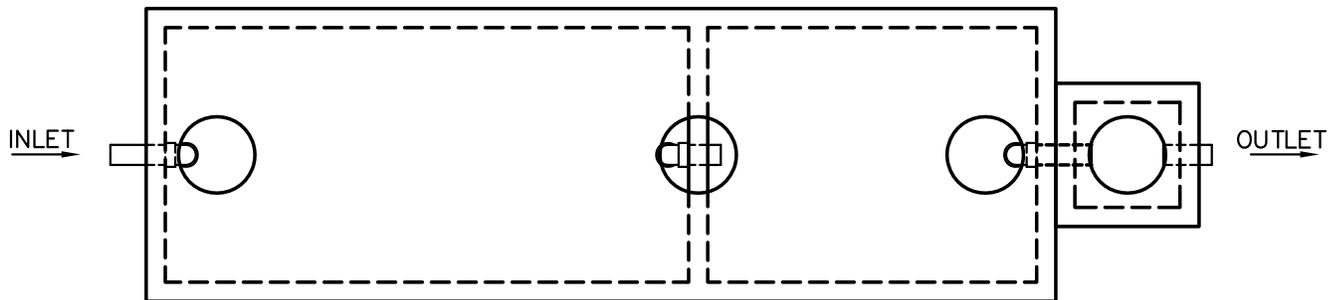
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING SEWER LATERAL TABLES	CITY ENGINEER DATE RCE 55075 DRAWING NUMBER: SWR-24
New	SJ	SS	03/01/12		

SEE SAN DIEGO REGIONAL STANDARD
DRAWING SC-01

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				STANDARD RESIDENTIAL SEWER LATERAL AND CLEANOUT	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-25



SIDE VIEW CUTAWAY



TOP VIEW (LIDS REMOVED)

NOTES:

1. GREASE INTERCEPTOR SIZE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA PLUMBING CODE (CPC) REQUIREMENTS.
2. GREASE INTERCEPTORS SHALL BE DESIGNED, CONSTRUCTED, TESTED, AND MARKED IN ACCORDANCE WITH THE IAPMO PS-118-2000 PROPERTY STANDARD FOR FOG DISPOSAL SYSTEMS. SUBMIT SHOP DRAWINGS SHOWING COMPLIANCE.
3. ALL GREASE INTERCEPTORS SHALL BE PROVIDED WITH SAMPLE BOX, AS SHOWN.
4. ALL GREASE INTERCEPTORS SHALL HAVE A CLEANOUT INSTALLED AFTER THE SAMPLE BOX ON THE PRIVATE LATERAL AND AT INTERVALS REQUIRED BY THE CPC.
5. INTERCEPTORS SHALL HAVE A SANITARY TEE LOCATED INSIDE THE SAMPLE BOX ON THE DISCHARGE SIDE OF THE SAMPLE BOX.
6. BOX AND COVER DESIGN LOAD SHALL BE H-20 TRAFFIC.

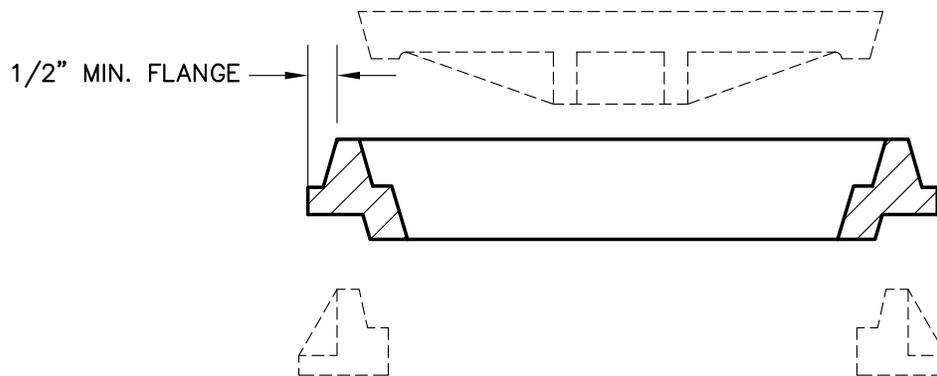
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	SJ	SS	03/01/12		
				TYPICAL GRAVITY GREASE INTERCEPTOR	CITY ENGINEER DATE RCE 55075
					DRAWING NUMBER: SWR-26

SEE SAN DIEGO REGIONAL STANDARD
DRAWINGS SM-01 AND SM-02

Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				SHALLOW SEWER MANHOLE	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-27

SEE SAN DIEGO REGIONAL STANDARD
DRAWING M-4

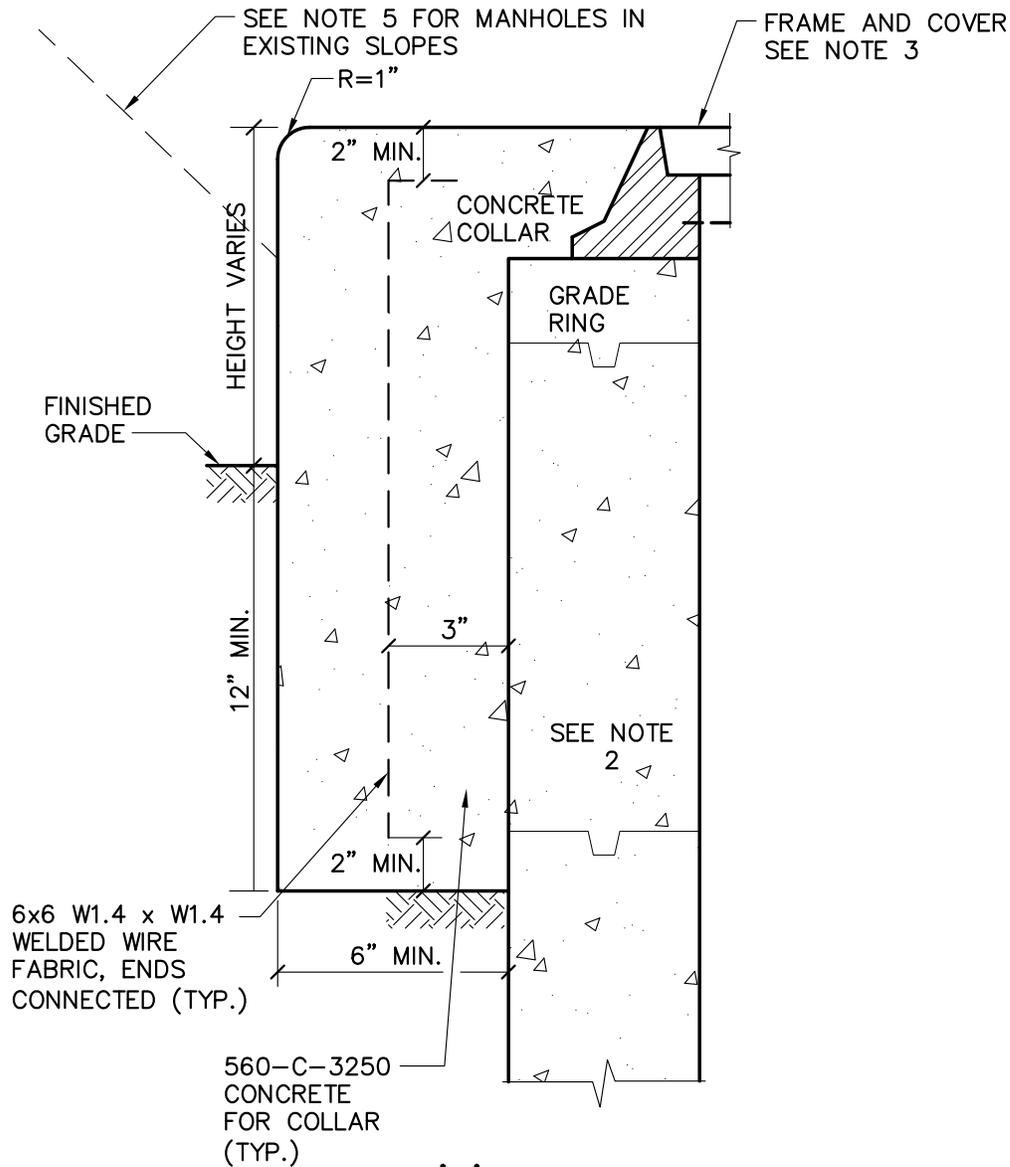
Revision	By	Apprvd	Date	CITY OF VISTA	
New	SJ	SS	03/01/12	STANDARD DRAWING	
				MANHOLE FRAME AND COVER (LOCKING DEVICE)	CITY ENGINEER DATE
					RCE 55075
					DRAWING NUMBER: SWR-28



NOTES:

1. IF APPLICABLE, SUBMIT A COPY OF WRITTEN APPROVAL FROM THE JURISDICTIONAL CITY ALLOWING THE USE OF CAST IRON RISER RINGS FOR MANHOLE HEIGHT ADJUSTMENT.
2. MANHOLE HEIGHT ADJUSTMENT OF BETWEEN ONE TO TWO INCHES (1"–2") PER RISER RING ALLOWED.
3. MANHOLE RISER RINGS SHALL BE SPECIFICALLY MANUFACTURED TO MATCH THE EXISTING MANHOLE FRAME AND COVER DIMENSIONALLY AND BY CASTING NUMBER.
4. NO MORE THAN TWO CAST IRON RISER RINGS SHALL BE INSTALLED ON AN EXISTING MANHOLE FRAME.
5. FOR A HEIGHT ADJUSTMENT GREATER THAN THAT ALLOWED BY TWO CAST IRON RISER RINGS, NEW CONCRETE RISERS SHALL BE USED PER SDRSD SM-01 AND SM-02.
6. RISER RING CAST IRON SHALL MEET THE REQUIRMENTS OF ASTM A48, CLASS 30.
7. RISERS SHALL HAVE A FLANGE 360 DEGREES ON THE OUTSIDE OF THE RISER. THE FLANGE SHALL EXTEND A MINIMUM OF 1/2 INCH IN HEIGHT.
8. ALL SEATING SURFACES SHALL BE MACHINED AND ATTAIN FULL CONTACT OF MATING SURFACES SUCH THAT THE RAISED MANHOLE COVER DOES NOT "ROCK" OR MOVE ON THE ORIGINAL MANHOLE FRAME.
9. RISERS SHALL BE MARKED WITH THE FOUNDRY NAME, PATTERN REFERENCE NUMBER AND HEIGHT OF RISE, FOR EXAMPLE: (SBF 1310x2).
10. CAST IRON RISER RINGS SHALL BE MANUFACTURED BY SOUTH BAY FOUNDRY (OR APPROVED EQUAL).

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	SJ	SS	03/01/12		
				CAST IRON RISER RINGS	CITY ENGINEER DATE RCE 55075
					DRAWING NUMBER: SWR-29

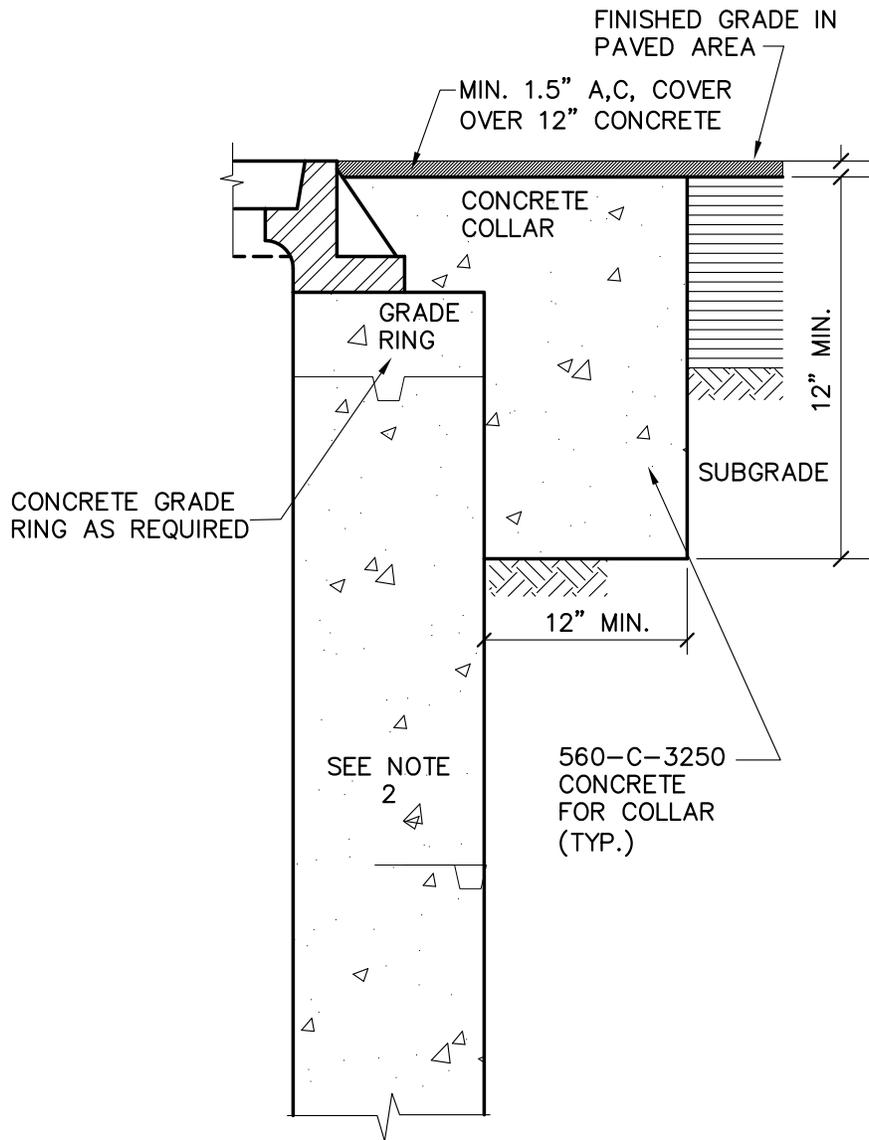


TYPE 'A' FOR UNPAVED AREAS

NOTES:

1. MANHOLE FRAME SHALL BE SET IN CLASS "C" MORTAR (2012 GREENBOOK SUBSECTION 201-5.1).
2. PRECAST MH PER SDRSD SM-01, -02, -03, -04, -05 AND PER PLANS.
3. MANHOLE FRAME AND COVER FOR TYPE 'A' LOCATIONS SHALL BE GMI COMPOSITE FRAME AND COVER DESIGNED FOR AASHTO H-20 LOADING.
4. LOCKING / SEALED MANHOLE FRAMES & COVERS, WHERE SPECIFIED, SHALL BE PAMREX FRAMES AND COVERS BY CERTAINTEED.
5. FOR MANHOLES WITHIN EXISTING SLOPES, THE UPHILL SIDE SHALL EXTEND SIX INCHES (6") ABOVE THE EXISTING GRADE. THE DOWNHILL SIDE SHALL BE VARIABLE, DEPENDING UPON THE STEEPNESS OF THE SLOPE. A TWELVE INCH (12") MINIMUM EMBANKMENT SHALL BE MAINTAINED ON ALL SIDES.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING			
New	SJ	SS	03/01/12				
				CITY ENGINEER DATE RCE 55075			
CONCRETE MANHOLE COLLAR (TYPE A)						DRAWING NUMBER: SWR-30A	

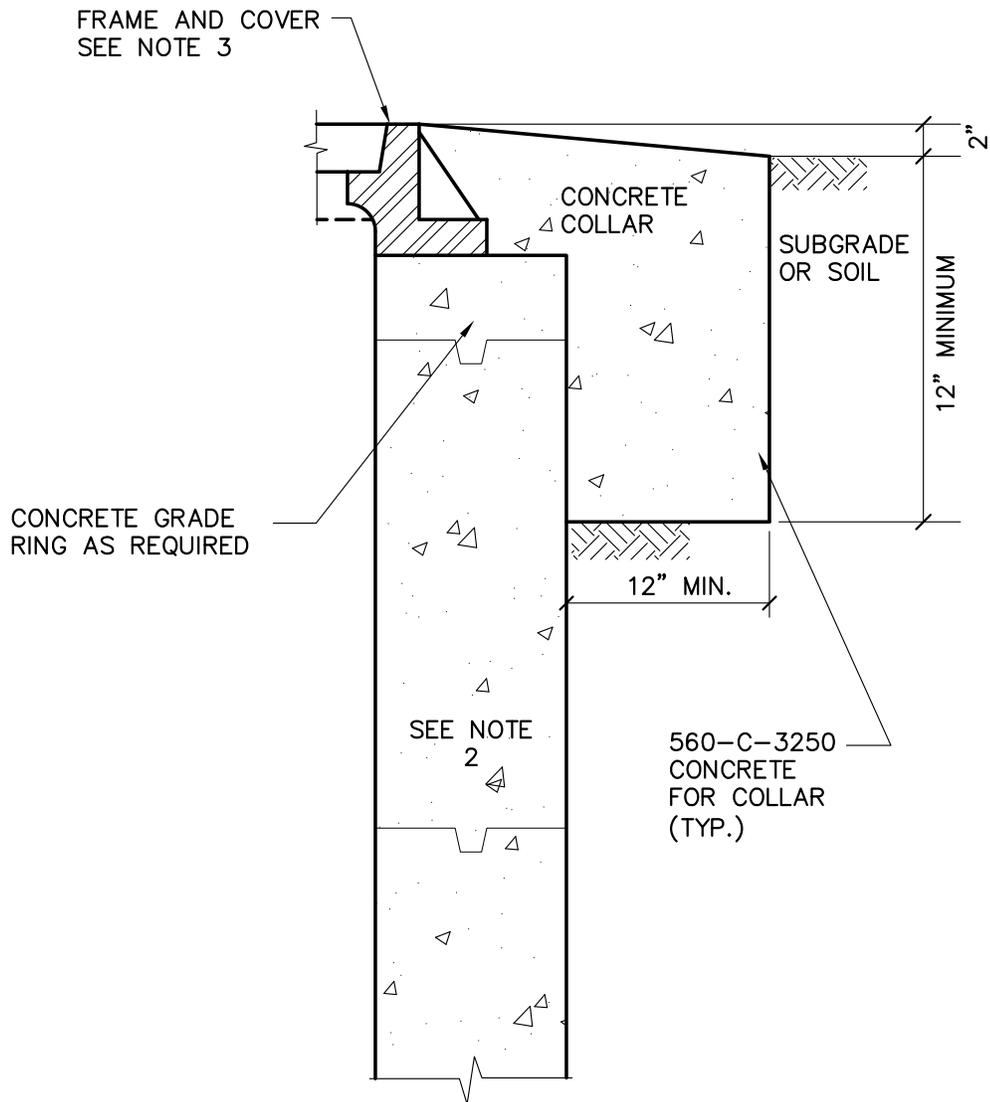


TYPE 'B' FOR PAVED AREAS

NOTES:

1. MANHOLE FRAME SHALL BE SET IN CLASS "C" MORTAR (2012 GREENBOOK SUBSECTION 201-5.1).
2. PRECAST MH PER SDRSD SM-01, -02, -03, -04, -05 AND PER PLANS.
3. MANHOLE FRAME & COVER PER SDRSD M-3 AND M-4 AND PER PLANS.
4. LOCKING / SEALED MANHOLE FRAMES & COVERS, WHERE SPECIFIED, SHALL BE PAMREX FRAMES AND COVERS BY CERTAINTTEED.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	SJ	SS	03/01/12		
				CONCRETE MANHOLE COLLAR (TYPE B)	CITY ENGINEER DATE RCE 55075
					DRAWING NUMBER: SWR-30B



TYPE 'C' FOR UNPAVED TRAVELED WAYS

NOTES:

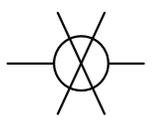
1. MANHOLE FRAME SHALL BE SET IN CLASS "C" MORTAR (2012 GREENBOOK SUBSECTION 201-5.1).
2. PRECAST MH PER SDRSD SM-01, -02, -03, -04, -05 AND PER PLANS.
3. MANHOLE FRAME & COVER PER SDRSD M-3 AND M-4 AND PER PLANS.
4. LOCKING / SEALED MANHOLE FRAMES & COVERS, WHERE SPECIFIED, SHALL BE PAMREX FRAMES AND COVERS BY CERTAINTED.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING			
New	SJ	SS	03/01/12			CONCRETE MANHOLE COLLAR (TYPE C)	
				CITY ENGINEER	DATE		
				RCE 55075			
				DRAWING NUMBER:	SWR-30C		

EXISTING FINISH GRADE

LEGEND

SMH



REMOVE EXISTING MANHOLE FRAME &
COVER, CONCRETE RING, GRADE RINGS
& CONE (MINIMUM 3' BELOW GRADE)
BACKFILL AND COMPACT TO 95%

EXISTING MANHOLE BASE, RINGS AND
PIPE TO BE ABANDONED IN PLACE

FILL VOID WITH (1)
GRANULAR MATERIAL (SAND
EQUIVALENT = 30 MIN.)
COMPACTED TO 90%
MINIMUM OR (2) WITH
CEMENT SLURRY BACKFILL
(100-E-100)

ABANDON
SEWER MAIN

SUITABLE MATERIAL
TO HOLD CONCRETE
PLUG IN PLACE PER
SDRSD WP-03

ABANDON
SEWER MAIN

CONCRETE
PLUG
(18" MINIMUM)

PERFORATE OR BREAK BASE

NOTES:

1. ALL SALVAGEABLE MATERIALS SHALL BE DELIVERED TO THE CITY OF VISTA PUBLIC WORKS YARD.
2. CONTRACTOR AT HIS OPTION AND EXPENSE MAY REMOVE ENTIRE MANHOLE STRUCTURE.
3. SEE CITY OF VISTA STANDARD DRAWING SRF-8A & SRF-8B FOR MINIMUM SURFACE RESTORATION REQUIREMENTS.

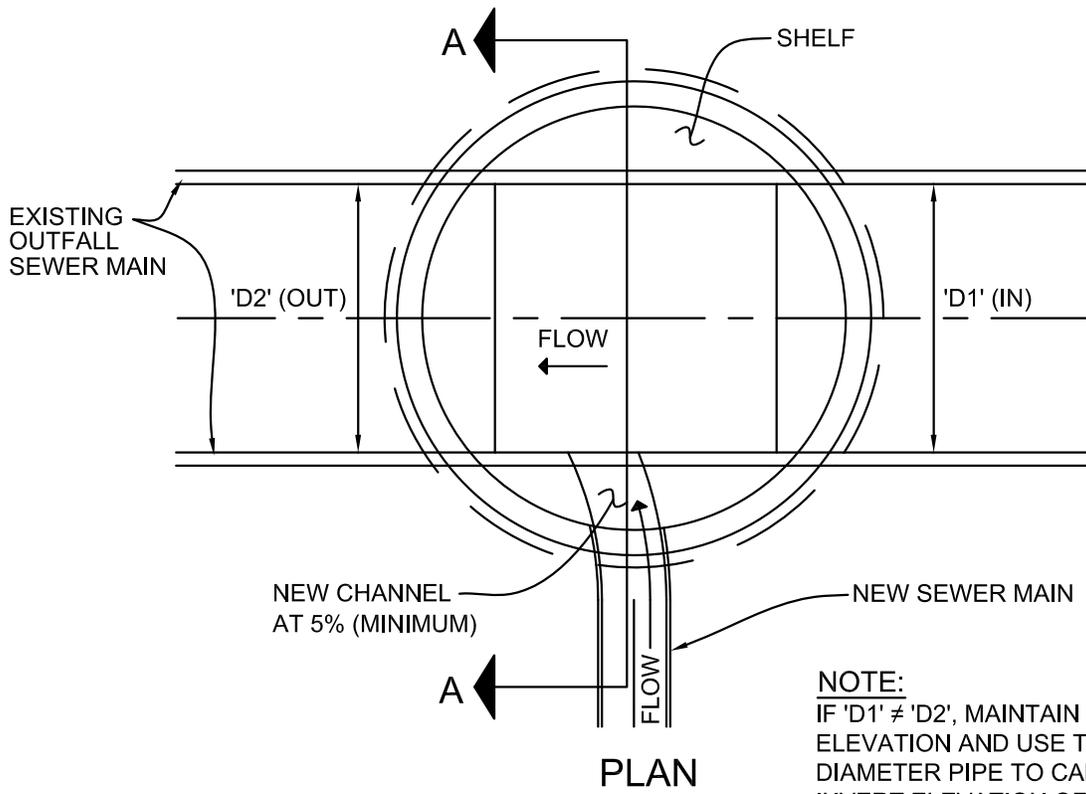
Revision	By	Apprvd	Date
New		TH	07/08/93
Updated	TR	SS	03/21/08

CITY OF VISTA
STANDARD DRAWING

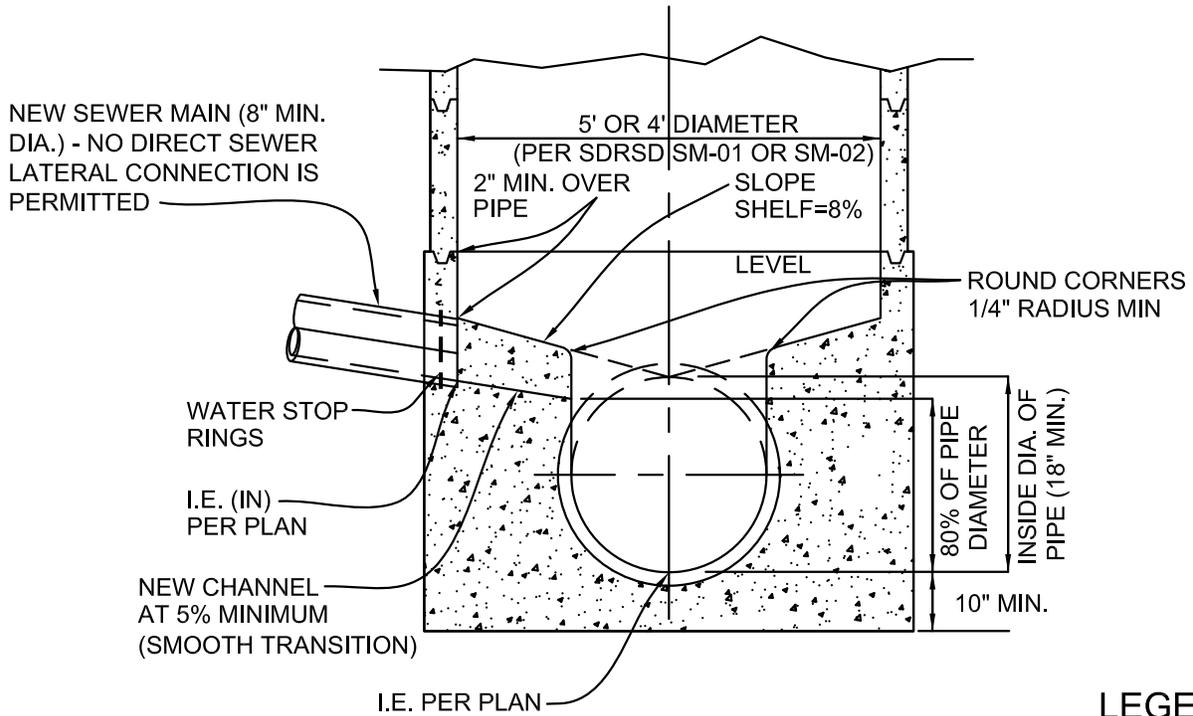
**EXISTING SEWER
MANHOLE ABANDONMENT**

CITY ENGINEER DATE
RCE 55075

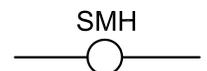
DRAWING
NUMBER: **SWR-31**



NOTE:
IF 'D1' ≠ 'D2', MAINTAIN LOWEST INVERT
ELEVATION AND USE THE LARGER
DIAMETER PIPE TO CALCULATE THE
INVERT ELEVATION OF THE PROPOSED
SEWER MAIN



LEGEND



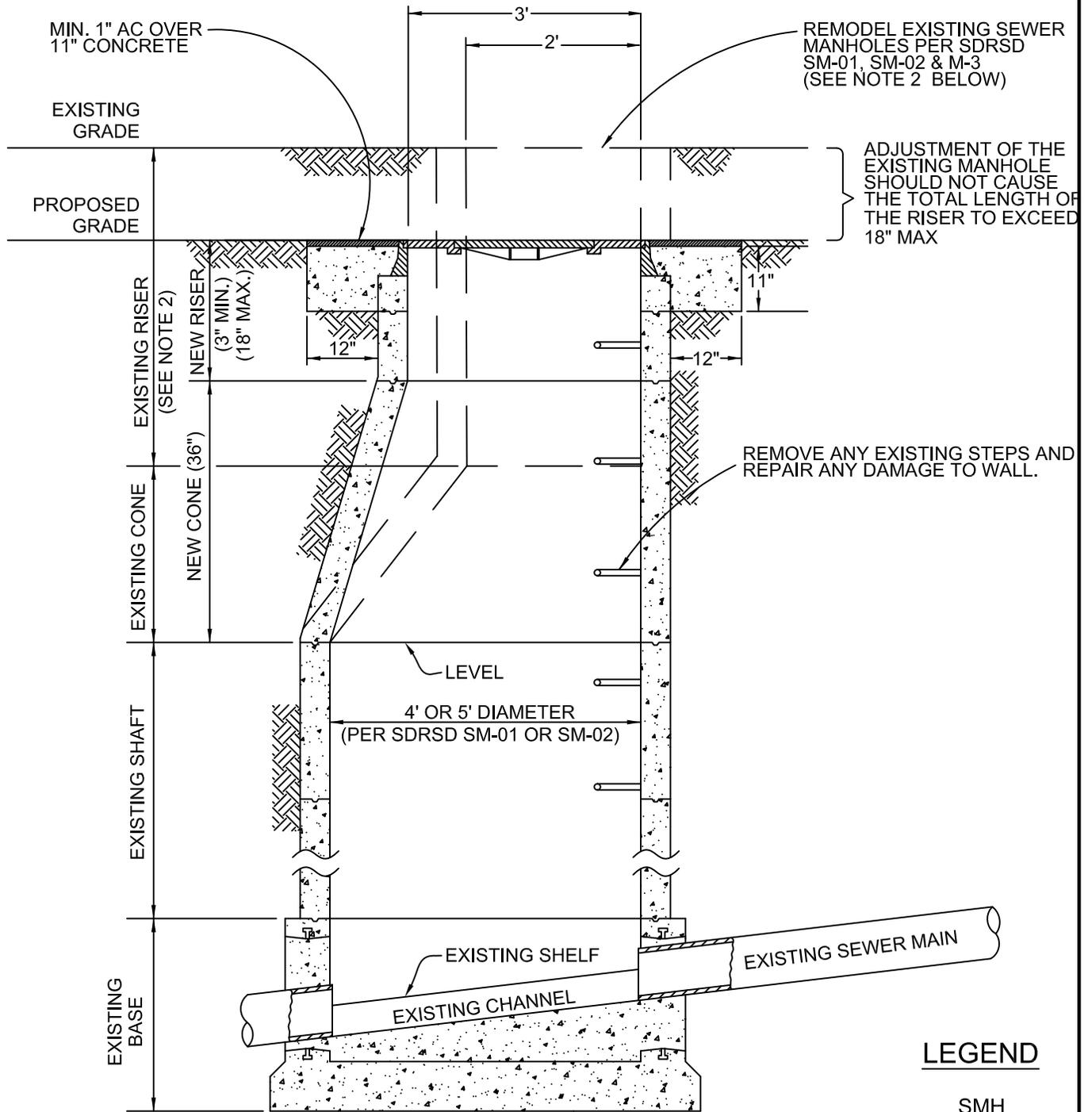
Revision	By	Apprvd	Date
New		TH	07/08/93
Updated	TR	SS	04/19/08

CITY OF VISTA
STANDARD DRAWING

**OUTFALL & TRUNKLINE
SEWER CONNECTIONS**

CITY ENGINEER DATE
RCE 55075

DRAWING
NUMBER: **SWR-32**



NOTES:

1. SALVAGEABLE MATERIALS SHALL BE DELIVERED TO THE CITY OF VISTA PUBLIC WORKS YARD.
2. RECONSTRUCT EXISTING SEWER MANHOLES PER SDRSD SM-01, SM-02 & M-3. REPLACE EXISTING 2' DIA. RISERS, FRAMES, CONES AND COVERS WITH NEW 3' DIA. RISERS, FRAMES, AND COVERS. REPLACE THE ENTIRE MANHOLE IF THE SHAFT RINGS ARE LESS THAN 3' DIA.
3. APPLY NEW COAT OF HIGH-STRENGTH NON-SHRINKING MORTAR AND CONCRETE TO THE EXTERIOR WALLS.

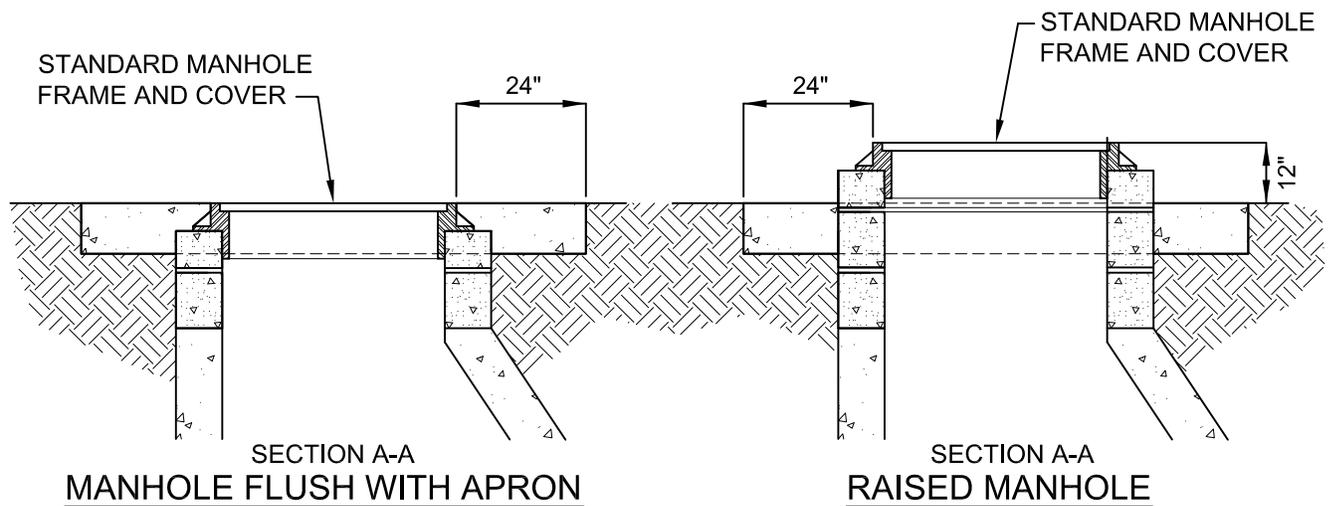
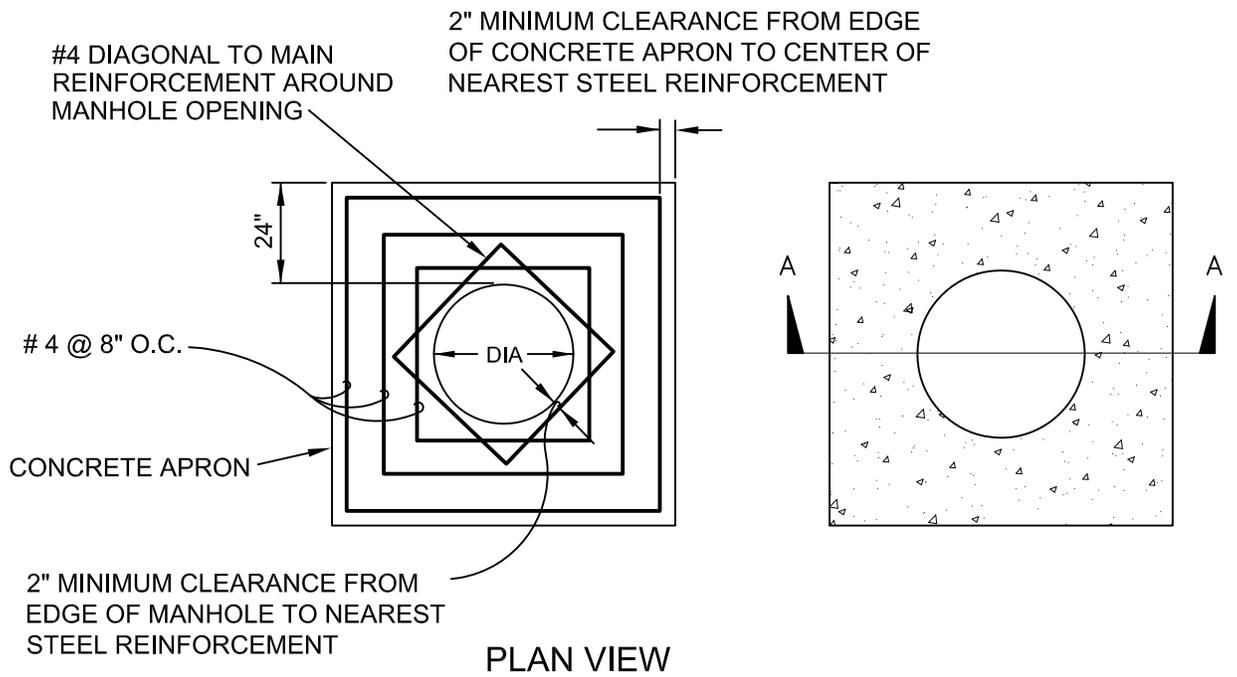
Revision	By	Apprvd	Date
New		TH	07/08/93
Updated	TR	SS	04/19/08

CITY OF VISTA
STANDARD DRAWING

**SEWER MANHOLE
RECONSTRUCTION**

CITY ENGINEER DATE
RCE 55075

DRAWING NUMBER: **SWR-33**



GENERAL NOTES:

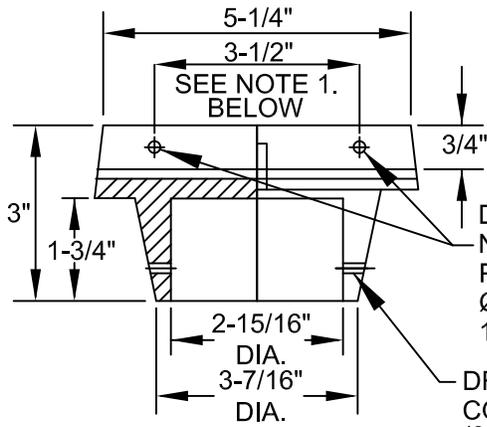
1. THE 6" THICK CONCRETE APRON SHOULD BE CAST-IN-PLACE CONCRETE (520-C-2500).
2. PROVIDE A MINIMUM OF 2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
3. STEEL REINFORCEMENT SHALL MEET ASTM C-478 REQUIREMENTS.
4. NO. 4 REBARS SPACED EQUALLY MAY BE LAP TIED OR SQUARE HOOPS.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING			
New	GL	SS	03/01/12			CONCRETE APRON FOR SEWER MANHOLE (UNTRAVELED AREAS)	
				CITY ENGINEER	DATE		
				RCE 55075			
				DRAWING NUMBER:	SWR-34		

SURFACE IMPROVEMENTS

**THIS SHEET INTENTIONALLY
LEFT BLANK**

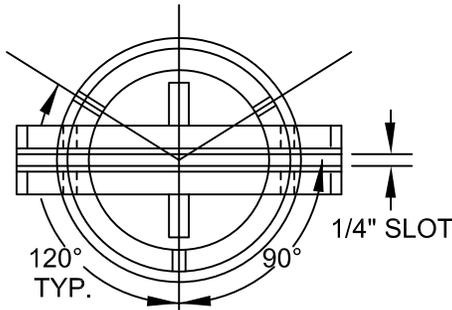
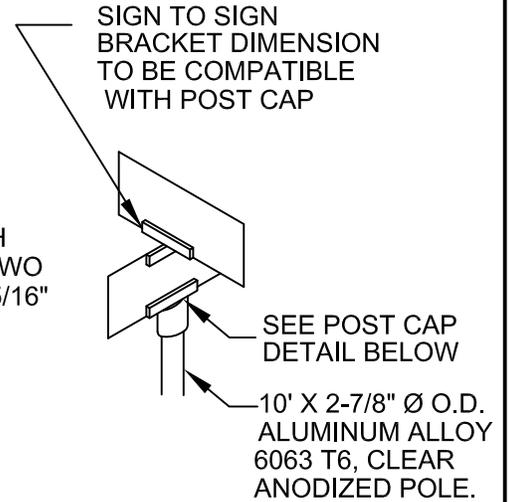
**MODEL 808
(1/4" SLOT)**



HALF SECTION DETAIL

DRILL 11/32" Ø HOLE THROUGH NEAR SIDE FLANGE TYPICAL TWO PLACES. DRILL AND TAP FOR 5/16" Ø #18 BOLTS IN LINE WITH 11/32" Ø HOLES.

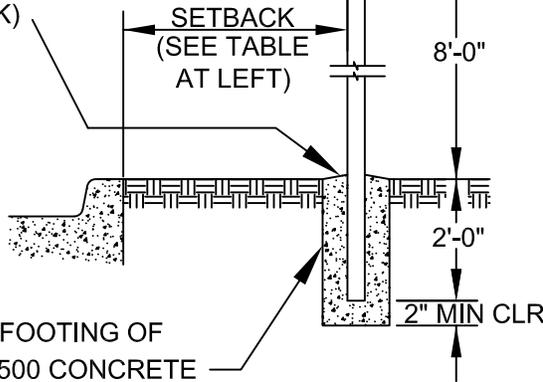
DRILL AND TAP FOR 5/16" Ø #18 CONE POINTED SCREW (3 PLACES)



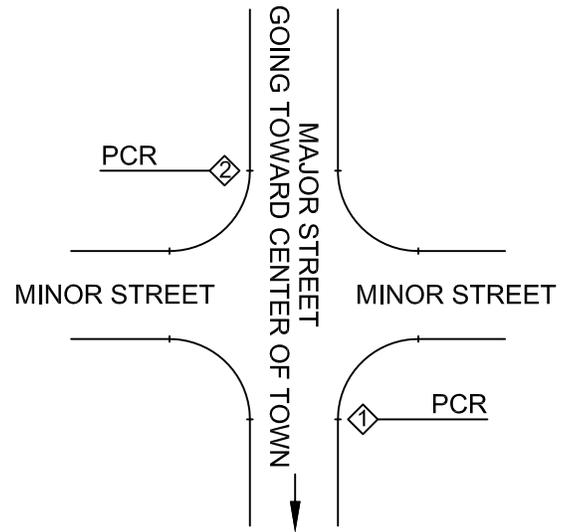
POST CAP DETAIL

DRILL HOLE TO SECURE CAP TO POST WITH SCREW OR RIVET

SLOPE TO 1/4" ABOVE GRADE (FLUSH WITH SIDEWALK)



10" DIA FOOTING OF 520-C-2500 CONCRETE



STREET NAME SIGN LOCATION
(NUMBERS INDICATE PRIORITY OF LOCATION SELECTION)

CURB AND SIDEWALK	SIDEWALK WIDTH	SETBACK
CONTIGUOUS	EQUAL TO OR LESS THAN 6'	SIDEWALK WIDTH + 0.5' (4' MINIMUM)
CONTIGUOUS	GREATER THAN 6'	1.5'
SEPARATE	4' MINIMUM	PARKWAY WIDTH - 1'

NOTES:

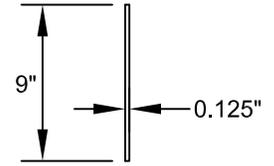
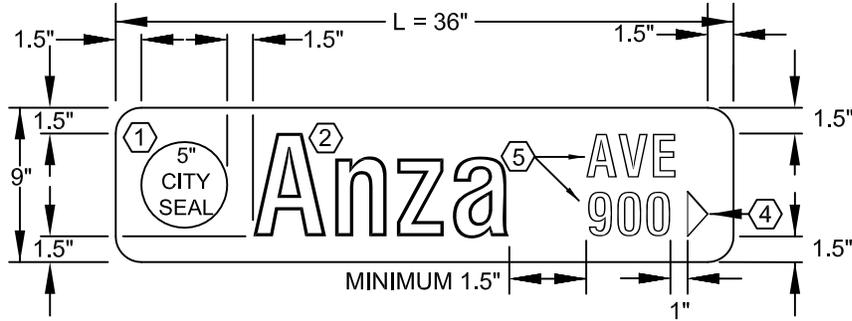
- HOLE SPACING SHALL MATCH THE HOLES IN THE EXTRUDED BLADES.
- BRACKET TO BE DIE CAST ALUMINUM.
- ALL ATTACHING SCREWS SHALL BE STAINLESS STEEL VANDAL PROOF TYPE.

Revision	By	Apprvd	Date
Updated	TR	SS	11/28/08

CITY OF VISTA
STANDARD DRAWING

PUBLIC STREET NAME SIGN
DETAILS
(FOR NON-SIGNALIZED INTERSECTIONS)

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-01A	



SIGN BLADE SECTION



* SEE NOTE ③ BELOW

TYPICAL PUBLIC STREET NAME SIGN LAYOUT

TYPICAL LAYOUT OF LEGEND ON VARIABLE LENGTH SIGN BLADE OF EXTRUDED ALUMINUM WITH (DIAMOND GRADE 3) REVERSE SCREENED REFLECTIVE SHEETING WITH DIAMOND GRADE WHITE LETTERS.

① REFLECTIVE 5" CITY SEAL ON THE LEFT SIDE OF ALL 9' HIGH PUBLIC STREET NAME SIGNS.

② 6" FOR UPPERCASE LETTERING AND 4.5" FOR LOWERCASE LETTERING (C SERIES).
SUFFIX / BLK # 2.5" C SERIES.

③ * 2.5" E.D. FOR HANGING LEGEND;
6" FOR UPPERCASE LETTERING AND 4.5" FOR LOWERCASE LETTERING (C SERIES) (B TO FIT).
SUFFIX / BLK # 2.5" C SERIES.

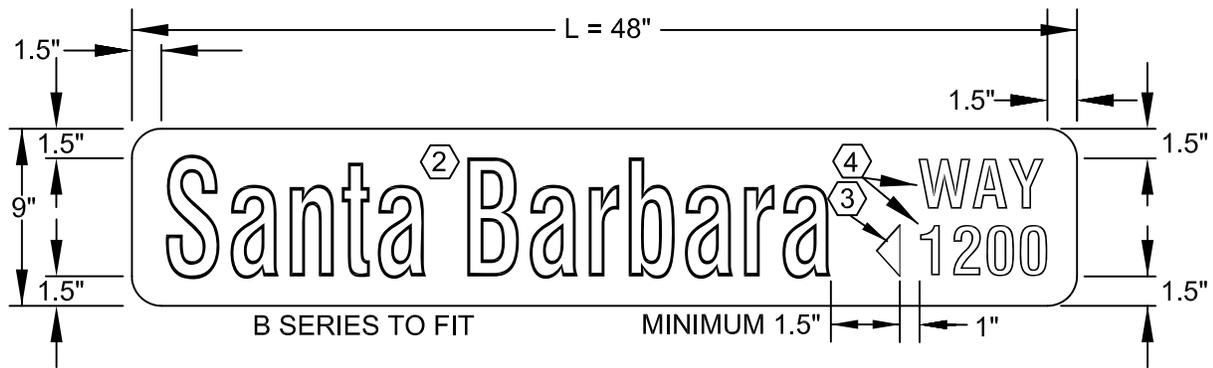
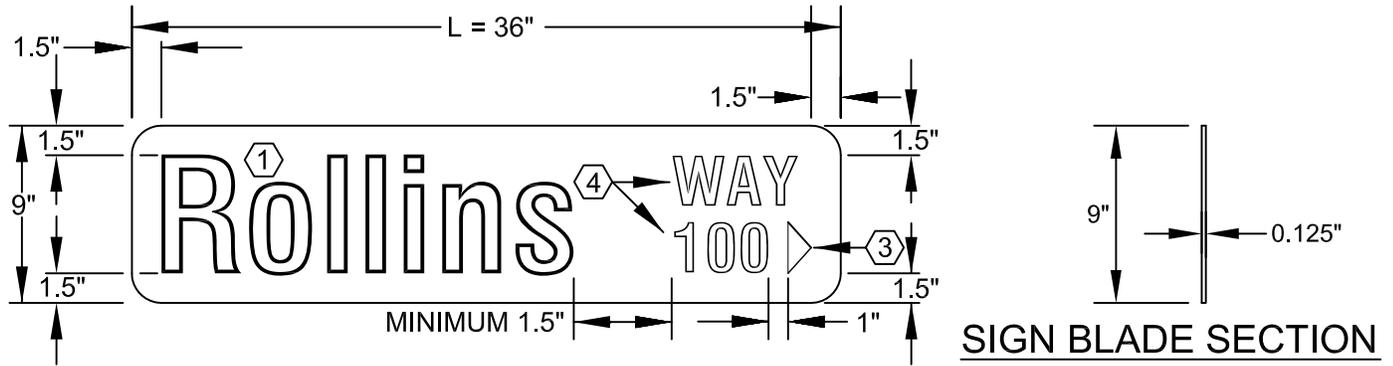
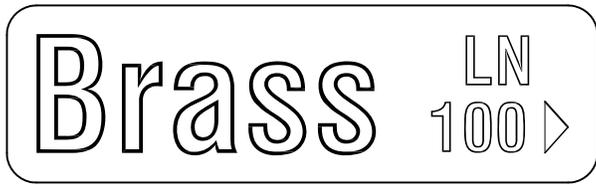
④ ARROW TO BE 1.17" WIDE AND 2.61" HIGH.

⑤ PREFERRED ABBREVIATIONS:

AVENUE: AV OR AVE	DRIVE: DR	PARK: PK	STREET: ST
BOULEVARD: BL OR BLVD	HEIGHTS: HTS	PARKWAY: PKY OR PKWY	TERRACE: TER
CANYON: CYN	HIGHWAY: HWY	PLACE: PL	TRAIL: TR
CIRCLE: CIR	LANE: LN	ROAD: RD	WAY: WY OR WAY

NOTE: SEE THE CITY OF VISTA TRAFFIC (TRF) STANDARD DRAWING TRF-3 FOR THE DESIGN CRITERIA FOR STREET NAME SIGNS ATTACHED TO THE TRAFFIC SIGNAL MAST ARM AT SIGNALIZED INTERSECTIONS.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
Updated	TR	SS	11/28/08		
				CITY ENGINEER, DATE RCE 55075	
				DRAWING NUMBER: SRF-01B	



TYPICAL PRIVATE STREET NAME SIGN LAYOUT

TYPICAL LAYOUT OF LEGEND ON VARIABLE LENGTH SIGN BLADE OF EXTRUDED ALUMINUM WITH (DIAMOND GRADE 3) REVERSE SCREENED REFLECTIVE SHEETING WITH DIAMOND GRADE WHITE LETTERS.

① 6" FOR UPPERCASE LETTERING AND 4.5" FOR LOWERCASE LETTERING (C SERIES). SUFFIX / BLK # 2.5" C SERIES.

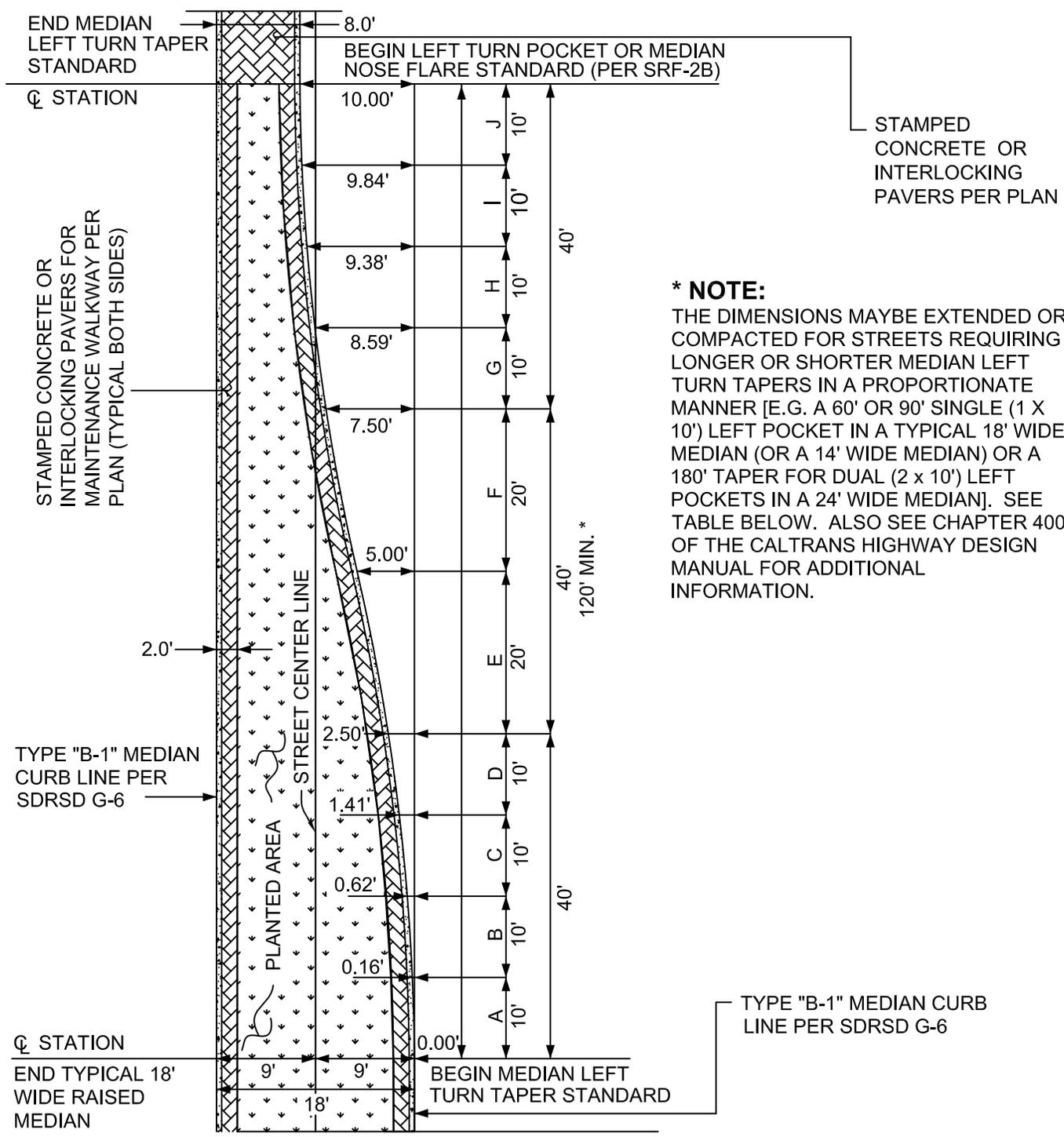
② 6" FOR UPPERCASE LETTERING AND 4.5" FOR LOWERCASE LETTERING (C SERIES) (B TO FIT). SUFFIX / BLK # 2.5" C SERIES.

③ ARROW TO BE 1.17" WIDE AND 2.61" HIGH.

④ PREFERRED ABBREVIATIONS:

AVENUE: AV OR AVE	DRIVE: DR	PARK: PK	STREET: ST
BOULEVARD: BL OR BLVD	HEIGHTS: HTS	PARKWAY: PKY OR PKWY	TERRACE: TER
CANYON: CYN	HIGHWAY: HWY	PLACE: PL	TRAIL: TR
CIRCLE: CIR	LANE: LN	ROAD: RD	WAY: WY OR WAY

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
Updated	TR	SS	11/28/08		
				PUBLIC STREET NAME SIGN DETAILS (FOR NON-SIGNALIZED INTERSECTIONS)	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-01C



STAMPED
CONCRETE OR
INTERLOCKING
PAVERS PER PLAN

*** NOTE:**
THE DIMENSIONS MAYBE EXTENDED OR COMPACTED FOR STREETS REQUIRING LONGER OR SHORTER MEDIAN LEFT TURN TAPERS IN A PROPORTIONATE MANNER [E.G. A 60' OR 90' SINGLE (1 X 10') LEFT POCKET IN A TYPICAL 18' WIDE MEDIAN (OR A 14' WIDE MEDIAN) OR A 180' TAPER FOR DUAL (2 X 10') LEFT POCKETS IN A 24' WIDE MEDIAN]. SEE TABLE BELOW. ALSO SEE CHAPTER 400 OF THE CALTRANS HIGHWAY DESIGN MANUAL FOR ADDITIONAL INFORMATION.

** = LEFT TURN POCKET INCREMENT LENGTH AND OFFSET DISTANCE
*** = LENGTH OF LEFT TURN POCKET

**	A	B	C	D	E
60'	5' / 0.16'	10' / 0.62'	15' / 1.41'	20' / 2.50'	30' / 5.00'
90'	7.5' / 0.16'	15' / 0.62'	22.5' / 1.41'	30' / 2.50'	45' / 5.00'
180'	15' / 0.32'	30' / 1.24'	45' / 2.82'	60' / 5.00'	75' / 10.00'

**	F	G	H	I	J
60'	40' / 7.50'	45' / 8.59'	50' / 9.38'	55' / 9.84'	60' / 10.00'
90'	60' / 7.50'	67.5' / 8.59'	75' / 9.38'	82.5' / 9.84'	90' / 10.00'
180'	90' / 15.00'	135' / 17.18'	150' / 18.76'	165' / 19.68'	180' / 20.00'

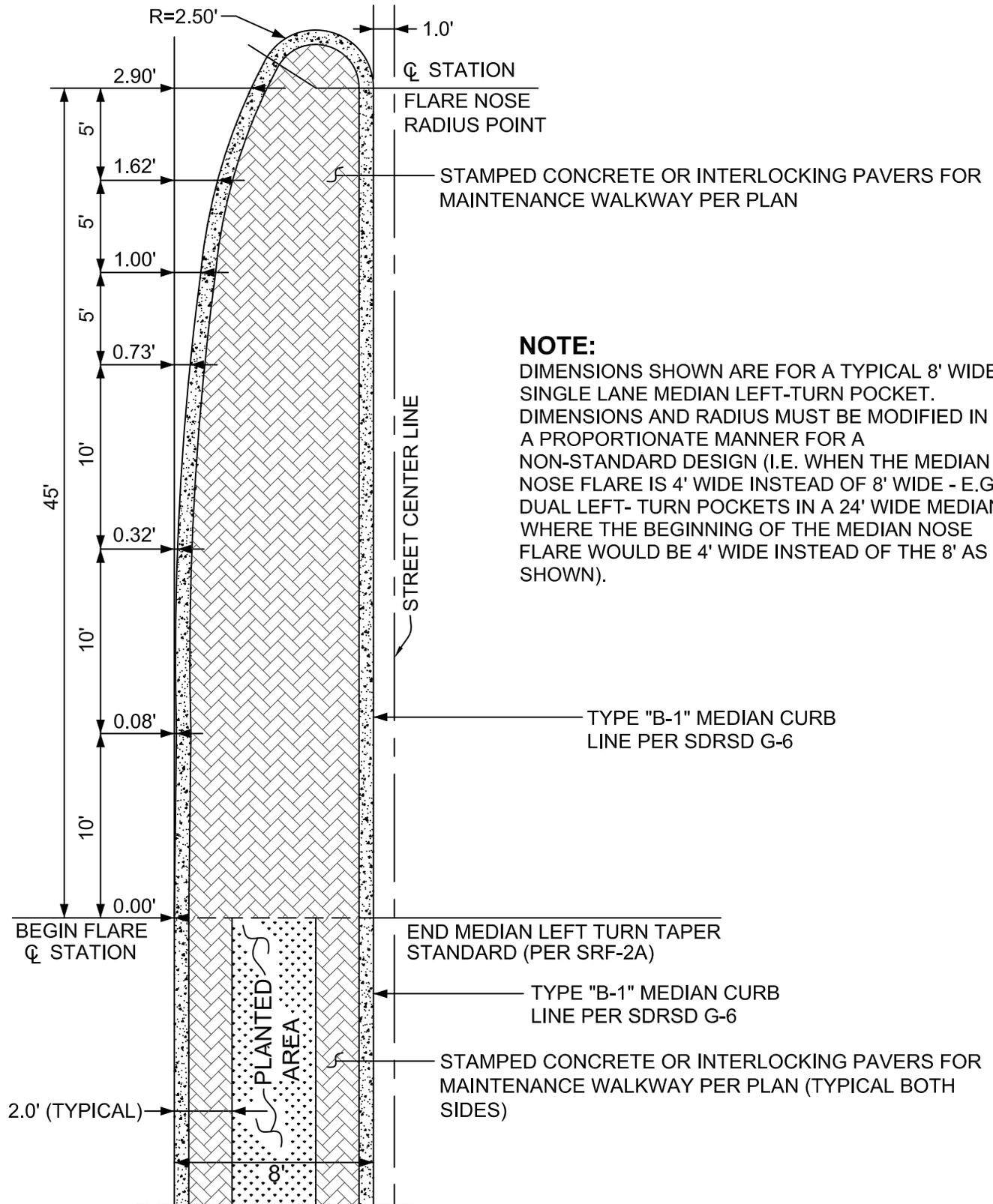
Revision	By	Apprvd	Date
New	TR	SS	11/29/08

CITY OF VISTA
STANDARD DRAWING

**120' MEDIAN LEFT TURN
TAPER STANDARD**

CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: **SRF-02A**



NOTE:
 DIMENSIONS SHOWN ARE FOR A TYPICAL 8' WIDE SINGLE LANE MEDIAN LEFT-TURN POCKET. DIMENSIONS AND RADIUS MUST BE MODIFIED IN A PROPORTIONATE MANNER FOR A NON-STANDARD DESIGN (I.E. WHEN THE MEDIAN NOSE FLARE IS 4' WIDE INSTEAD OF 8' WIDE - E.G. DUAL LEFT- TURN POCKETS IN A 24' WIDE MEDIAN WHERE THE BEGINNING OF THE MEDIAN NOSE FLARE WOULD BE 4' WIDE INSTEAD OF THE 8' AS SHOWN).

Revision	By	Apprvd	Date
New	TR	SS	11/29/09

CITY OF VISTA
 STANDARD DRAWING

**45' MEDIAN NOSE
 FLARE STANDARD**

CITY ENGINEER, DATE
 RCE 55075

DRAWING NUMBER: **SRF-02B**

PUBLIC STREET DESIGN CRITERIA

STREET CLASS	6 LANE PRIME ARTERIAL (DIVIDED)	6 LANE URBAN ARTERIAL (DIVIDED)	4 LANE MAJOR ARTERIAL (DIVIDED)	4-LANE COLLECTOR (UNDIVIDED)	2-LANE COLLECTOR WITH TWLTL (22)	2-LANE COLLECTOR	2-LANE LITE COLLECTOR /LOCAL STREET	CUL-DE-SAC STREET	HILLSIDE STREET	ALLEY	SEMI-RURAL ROAD								
STREET CRITERIA	ADT (LOS "C")	ADT (LOS "D")	ADT (LOS "E")	DESIGN SPEED	R.O.W. WIDTH	CURB-TO-CURB WIDTH (MEDIAN WIDTH OR N/A)	SIDEWALK WIDTHS	MIN. TRAFFIC INDEX	MIN. STRUCTURAL SECTION (3)	MIN. HORIZONTAL RADIUS (4)	MIN. "RECOVERY" TANGENT	CURB RETURN RADIUS (5)	MAX. INTERSECTION SKEW	MIN. INTERSECTION SPACING (OFFSET "Ts")	MIN. MEDIAN CURB OPENING SPACING	MIN. INTERSECTION TANGENT (6)	MAXIMUM GRADE (7)	MINIMUM GRADE	
	48,000	40,000	32,000	21,000	12,000	1,500	1,500	1,500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	54,000	45,000	36,000	24,500	13,000	4,500	4,500	4,500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	60,000	50,000	40,000	30,000	15,000	7,000	7,000	7,000	300	300	300	300	300	300	300	300	300	300	7,000
	55 MPH (1)	50 MPH (1)	45 MPH	45 MPH	35 MPH	30 MPH	25 MPH	25 MPH	20 MPH	20 MPH	20 MPH	20 MPH	20 MPH	20 MPH	20 MPH	20 MPH	20 MPH	20 MPH	20 MPH
	126 FT (2)	110 FT (2)	100 FT (2)	84 FT (2)	68 FT (2)	70 FT (15) (60 FT)	60 FT	60 FT	40 FT	20 FT (20)	20 FT	20 FT	20 FT	20 FT	20 FT	20 FT	20 FT	20 FT	60 FT
	106 FT (2) (18 FT MEDIAN)	94 FT (2) (14 FT MEDIAN)	80 FT (2) (16 FT MEDIAN)	64 FT (2)	48 FT (2)	50 FT (15) (40 FT)	40 FT	40 FT	28 FT	20 FT	28 FT	28 FT	28 FT	28 FT	28 FT	28 FT	28 FT	28 FT	28 FT
	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	5-FEET (MIN.)	AS RE-REQUIRED
	9.0	9.0	8.5	8.0	8.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	6 IN A.C. 8 IN A.B.	6 IN A.C. 8 IN A.B.	5 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.	4 IN A.C. 8 IN A.B.
	2,200 FT	2,200 FT	1,400 FT	1,100 FT	600 FT	425 FT	300 FT	300 FT	150 FT (18)	100 FT	100 FT	100 FT	100 FT	100 FT	100 FT	100 FT	100 FT	100 FT	150 FT
	200 FT	200 FT	150 FT	100 FT	100 FT	100 FT	50 FT	50 FT	N/A	50 FT	50 FT	50 FT	50 FT	50 FT	50 FT	50 FT	50 FT	50 FT	50 FT
	35 FT	35 FT	35 FT	35 FT	35 FT	35 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT
	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°	10°
	2,600 FT (1,300 FT)	2,600 FT (1,300 FT)	1,200 FT (600 FT)	600 FT (300 FT)	600 FT (300 FT)	300 FT (300 FT)	200 FT (150 FT)	200 FT (150 FT)	150 FT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	600 FT	600 FT	500 FT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	100 FT	100 FT	100 FT	100 FT	50 FT	50 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	25 FT	N/A
	7 %	7 %	7 %	8 %	10 %	12 %	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	12 % (17)	13 % (17)
	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %

Revision	By	Apprvd	Date
New		GR	03/05/85
Updated	TR	SS	03/01/12

CITY OF VISTA
STANDARD DRAWING

PUBLIC AND PRIVATE STREET DESIGN CRITERIA (SHT 1 OF 4)

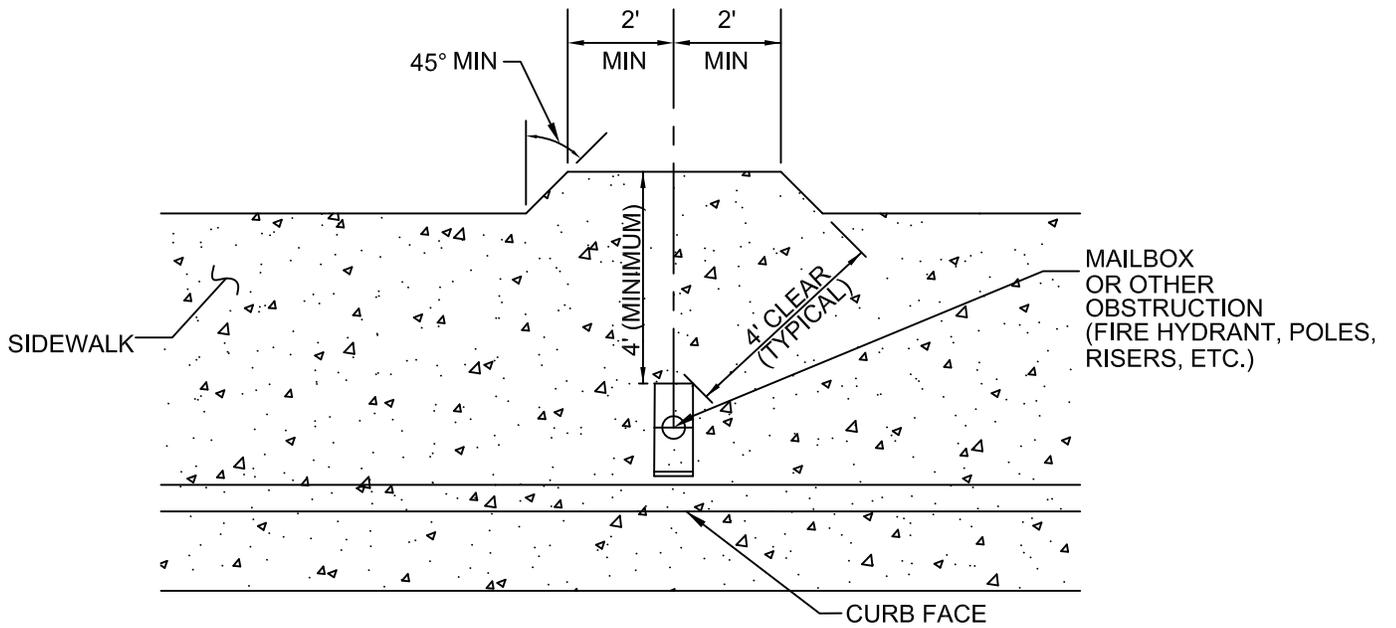
CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: **SRF-03A**

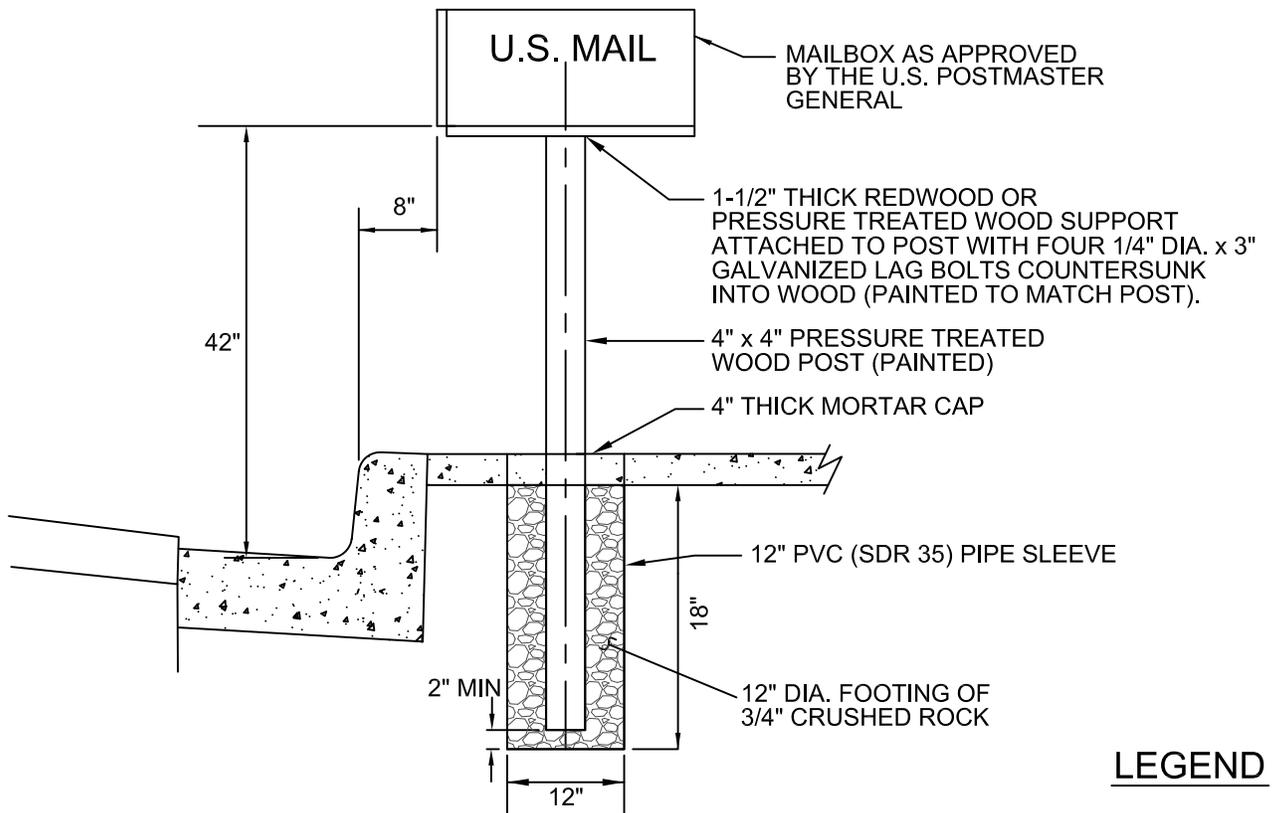
NOTES:

- (1) DESIGN SPEED FOR PRIME ARTERIALS MAYBE REDUCED IN URBAN AREAS AT THE DISCRETION OF THE CITY ENGINEER.
- (2) RIGHT-OF-WAY AND CURB-TO-CURB DISTANCE MAYBE INCREASED TO PROVIDE FOR SPECIAL ROADWAY GEOMETRICS AT ARTERIAL / ARTERIAL INTERSECTIONS (e.g. DUAL LEFT TURN POCKETS OR DEDICATED, RIGHT TURN ONLY ANCILLARY LANES).
- (3) ACTUAL STRUCTURAL SECTIONS TO BE DETERMINED BY GEOTECHNICAL ENGINEER'S TESTING OF THE SUBGRADE AND RECOMMENDATIONS.
- (4) SUPER ELEVATION AND UPGRADED ROADWAY DRAINAGE MAYBE USED TO REDUCE THESE MINIMUMS.
- (5) AT THE INTERSECTION OF TWO DISSIMILARLY CLASSIFIED STREETS, THE LARGER OF THE TWO RADII SHALL BE USED. ALL RADII ARE MEASURED AT CURB FACE.
- (6) USED WHEN APPROACHING MAJOR SIGNALIZED INTERSECTIONS (EXISTING OR PLANNED), OR TERMINUS OF STREET. DISTANCE IS MEASURED FROM THE P.C.R. MAYBE REDUCED ONLY WITH PERMISSION OF THE CITY ENGINEER.
- (7) MAYBE INCREASED UP AN ADDITIONAL 2% FOR SHORT DISTANCES IN MOUNTAINOUS TERRAIN WITH APPROVAL OF THE CITY ENGINEER. THE MAXIMUM GRADE THROUGH AN INTERSECTION SHALL NOT EXCEED 5%.
- (8) THE AASHTO "COMFORT CURVE" FOR SAG CURVE CONDITIONS, $L = A(V \text{ SQUARED})/46.5$, IS AN ACCEPTABLE ALTERNATIVE IF ADEQUATE SUPPLEMENTAL STREET ILLUMINATION IS PROVIDED.
- (9) A 0.04 (4.0%) MAXIMUM "SUPER" IS TO BE EXCEEDED ONLY WITH PERMISSION OF THE CITY ENGINEER. AN ABSOLUTE MAXIMUM OF 0.06 (6.0%) SHOULD NEVER BE EXCEEDED IN URBAN AREAS OR ON ROUTES WITH SIGNIFICANT TRUCK TRAFFIC IN THE TRAFFIC STREAM.
- (10) AT THE INTERSECTION OF TWO DISSIMILARLY CLASSIFIED STREET, THE LUMINARY REQUIREMENTS FOR THE HIGHER CLASSIFIED STREET SHALL BE USED. AT SIGNALIZED INTERSECTIONS, LIGHTING SHALL BE DESIGNED TO PROVIDE AN ILLUMINATION LEVEL OF 0.6 FOOT-CANDLE AT THE INTERSECTION OF THE STREET CENTERLINES. ALL STREET LIGHTS SHALL BE LIGHT EMITTING DIODE (BetaLED). SEE CITY OF VISTA STANDARD DRAWING ELE-1A FOR STREETLIGHT SPACING CRITERIA.
- (11) MAXIMUM DRIVEWAY WIDTH IS THIRTY FEET (30'). AN ALTERNATE MAXIMUM DRIVEWAY WIDTH OF THIRTY-SIX FEET (36') IS ACCEPTABLE IF THERE IS JOINT ACCESS BETWEEN ADJACENT PROPERTIES. NEW DRIVEWAYS IN COMMERCIALY AND INDUSTRIALLY ZONED AREAS SHALL BE THE RADIUS TYPE PER THE CITY'S STANDARD DRAWING HANDOUT.
- (12) NONE IF OTHER AVAILABLE. 24' TO 30' (36' FOR JOINT ACCESS) DRIVEWAYS ONLY WHEN ABSOLUTELY NECESSARY. DRIVEWAY GEOMETRICS MAYBE REQUIRED TO RESTRICT TURNS TO RIGHT TURN IN OR RIGHT TURN OUT ON AN AUXILIARY LANE. A 20' MINIMUM THROAT DISTANCE (MEASURED FROM THE ULTIMATE RIGHT-OF-WAY LINE) IS REQUIRED AS PART OF ON-SITE PARKING LOT DESIGN.
- (13) DISTANCE IS MEASURED FROM P.C.R. TO NEAR SIDE OF THE DRIVEWAY. APPROVAL OF DRIVEWAYS WITHIN THIS SEPARATION MAYBE CONTINGENT UPON DRIVEWAY GEOMETRICS THAT ALLOW ONLY RIGHT TURNS IN OR RIGHT TURNS OUT ON AN AUXILIARY LANE, AND / OR RECIPROCAL ACCESS AGREEMENTS WITH THE ADJACENT PROPERTY OWNER(S).
- (14) MAYBE RESTRICTED. NEW DRIVEWAYS IN COMMERCIALY AND INDUSTRIALLY ZONED AREAS SHALL BE THE RADIUS TYPE PER THE CITY'S STANDARD DRAWING HANDOUT.
- (15) FOR STREETS DESIGNED WITH A CENTER TURN LANE.
- (16) SUPER ELEVATION IS NOT RECOMMENDED ON INDUSTRIAL, LOCAL, CUL-DE-SACS, HILLSIDE STREETS, RURAL ROADS OR ALLEYS.
- (17) A 14% MAXIMUM GRADE (15% FOR RURAL ROADS) WITH REINFORCED CONCRETE AS A STREET SURFACE INSTEAD OF ASPHALT CONCRETE.
- (18) SUBJECT TO APPROVAL BY CITY ENGINEER.
- (19) PARKING PERMITTED ON ONE SIDE OF STREET ONLY.
- (20) MAY VARY.
- (21) WITH POPOUTS @ 30 FEET.
- (22) TWO WAY LEFT TURN (IN STRIPED CENTER MEDIAN)

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New		GR	03/05/85		
Updated	TR	SS	03/01/12	PUBLIC AND PRIVATE STREET DESIGN CRITERIA (SHT 3 OF 4)	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-03C



PLAN



ELEVATION

LEGEND



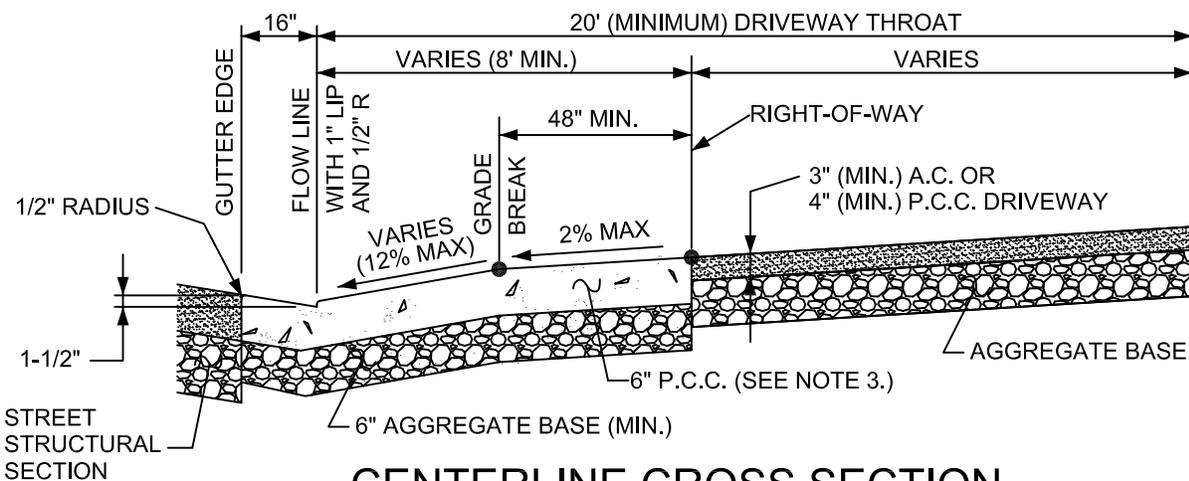
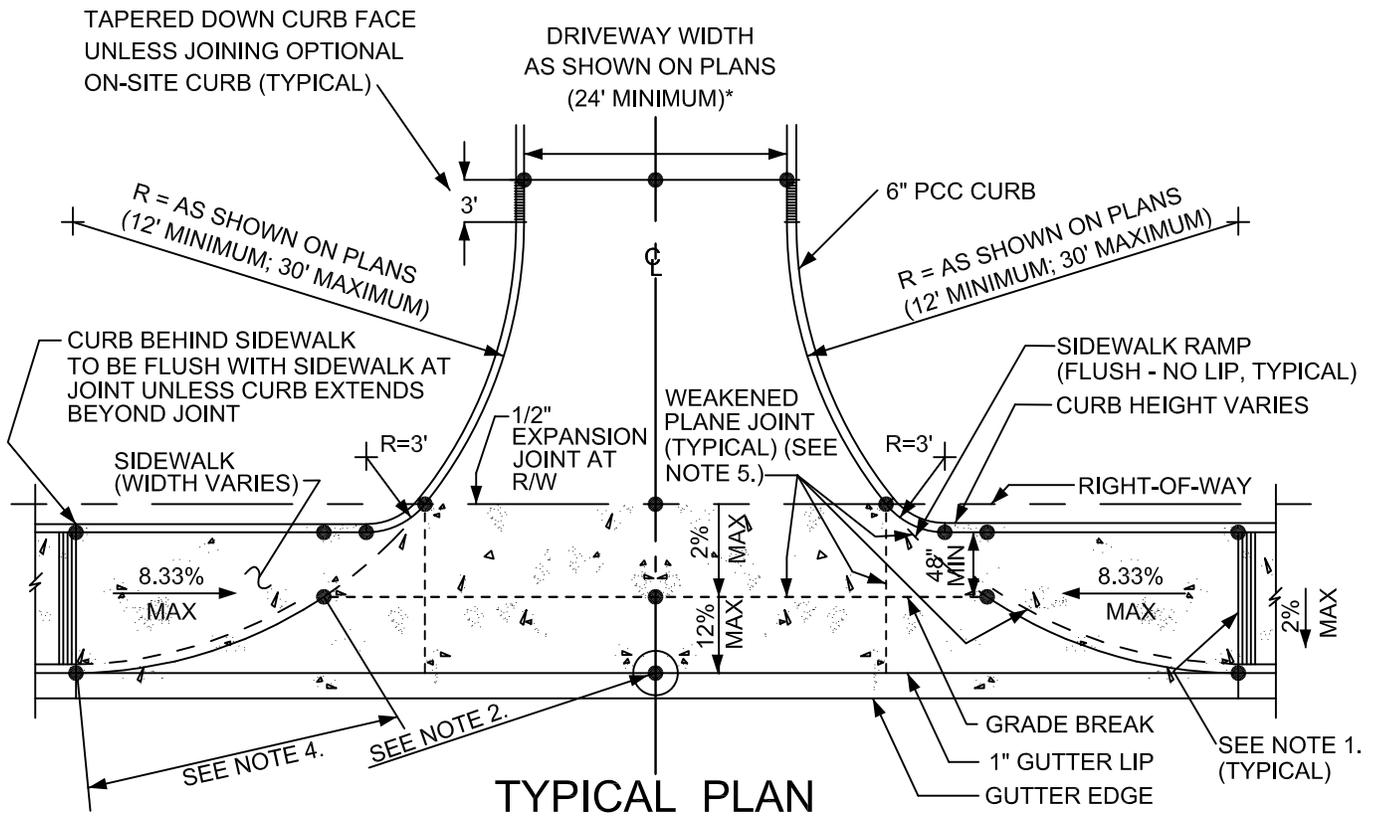
Revision	By	Apprvd	Date
New		TH	08/23/90
Updated	TR	SS	04/19/08

CITY OF VISTA
STANDARD DRAWING

**MAILBOX INSTALLATION
IN SIDEWALK**

CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: **SRF-04**



NOTES:

1. ALLEY TYPE DRIVEWAY SHALL BE POURED MONOLITHICALLY (INCLUDING RETAINING CURBS). INSTALL A 1/2" EXPANSION JOINT BETWEEN RAMPS AND SIDEWALKS AND IN THE DRIVEWAY AT THE R/W. ADJACENT TO RAMPS, THE SIDEWALK SHALL HAVE A 12" WIDE BORDER WITH 1/4" DEEP SCORE LINES AND 1/8" RADIUS. THE SPACING SHALL BE APPROXIMATELY 3/4" O/C.
2. ● = TYPICAL ELEVATIONS SHOWN ON PLANS (I.E.: TOP OF CURB, FLOW LINE OR FINISHED SURFACE).
3. CONCRETE MIX DESIGN SHALL BE 560-C-3250 (6 SACK). NO CONCRETE SHALL BE PLACED UNTIL SUBGRADE, BASE AND FORMS HAVE BEEN INSPECTED BY THE CITY.
4. TRANSITION FROM FULL HEIGHT CURB TO FLUSH. PROVIDE WEAKENED PLANE JOINT 6" BEHIND CURB AND AT CURB LINE WHERE CURB IS FLUSH.
5. WEAKENED PLANE JOINTS SHALL BE INSTALLED ON BOTH SIDES OF THE DRIVEWAY AND AT TEN FOOT (10') INTERVALS (MAXIMUM) (OPTIONAL AT GRADE BREAK). SEE SDRSD G-2 AND G-10 FOR CURB AND JOINT DETAILS.

* OR AS REQUIRED BY THE CITY ENGINEER.

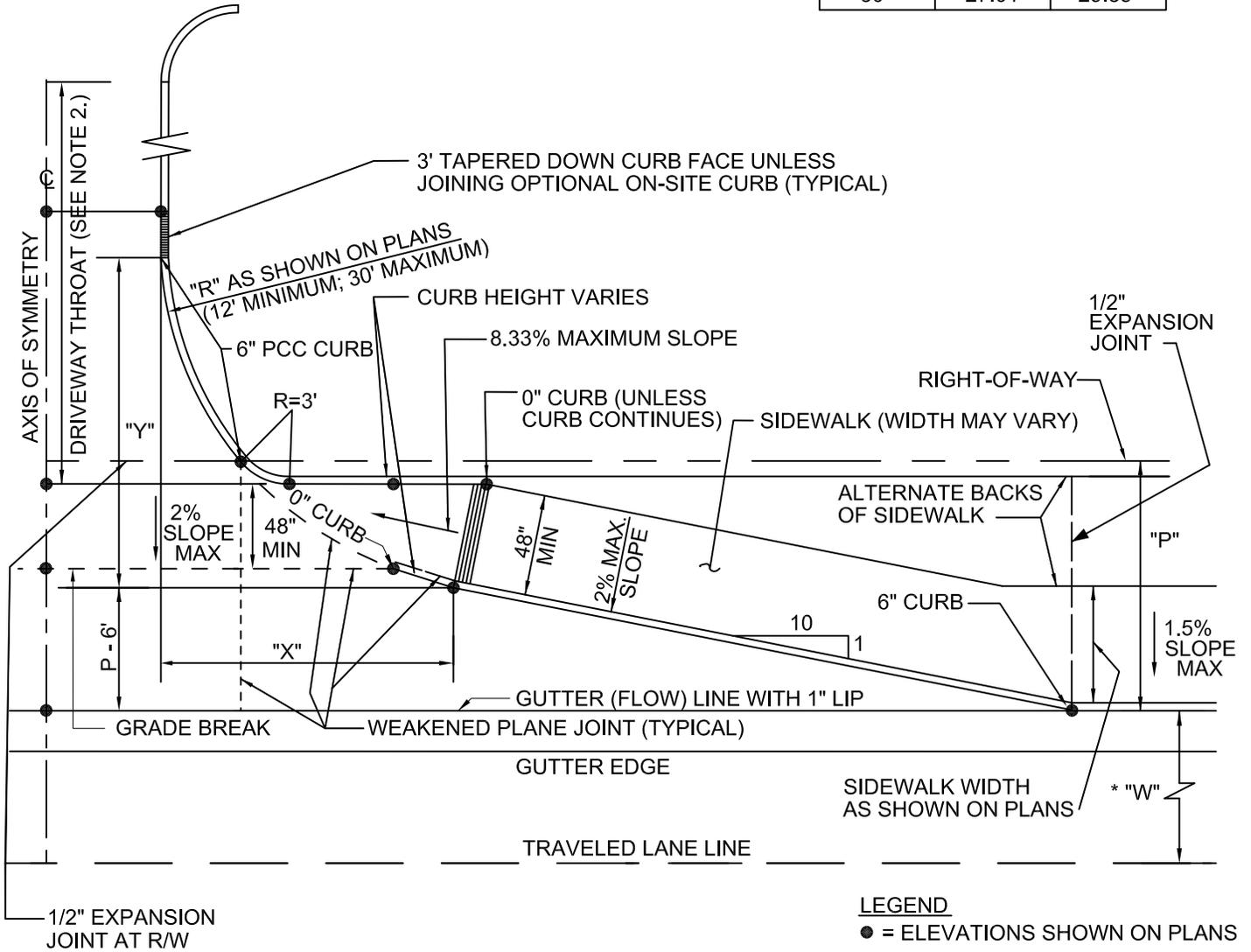
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New		TH	06/26/91		
Updated	TR	SS	03/15/11	CITY ENGINEER, DATE RCE 55075	
ALLEY TYPE DRIVEWAY					

DRIVEWAY SELECTION TABLE

TYPE OF DRIVEWAY APPROACH	2-WAY DAILY DRIVEWAY VOLUME
SDRSD G-14 & G-26	0 - 200
VISTA DWG SRF-5A & -5B	200 - 2500
STANDARD INTERSECTION	2500 +

DRIVEWAY DIMENSIONS

RADIUS R	X	Y
10'	9.00'	9.95'
15'	13.51'	14.93'
20'	18.01'	19.90'
25'	22.51'	24.88'
30'	27.01'	29.85'



NOTES:

"P" = PARKWAY WIDTH

P - 6' = OFFSET

* = USE OFFSET TRANSITION WHEN "W" < 18 FEET AND "P" = OR > 10 FEET.

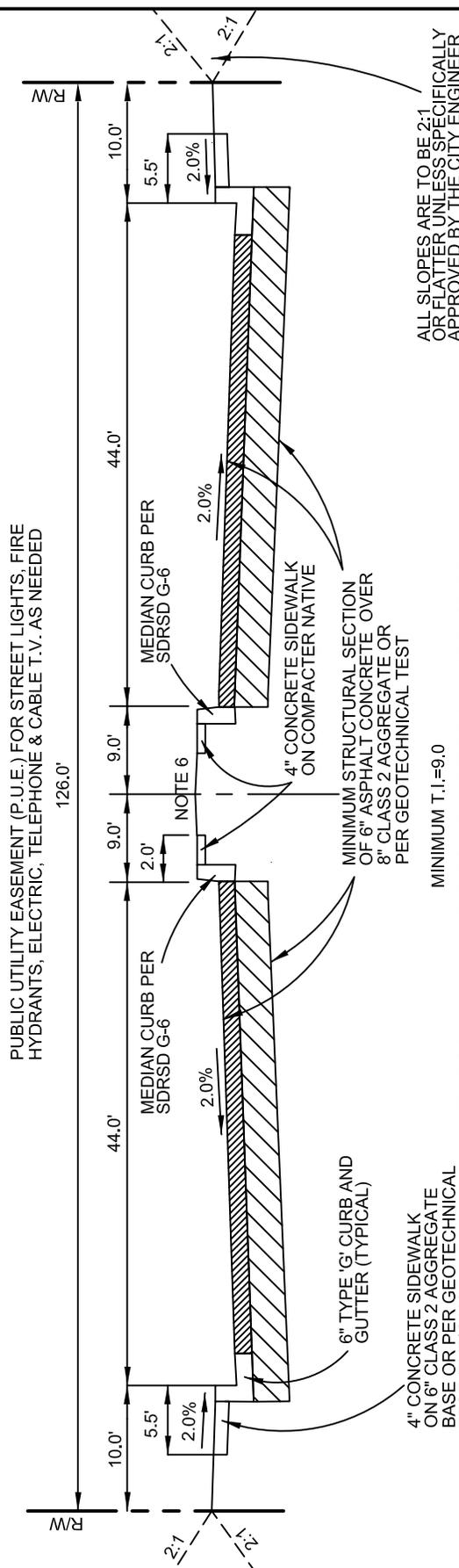
1. AUXILIARY 12' WIDE RIGHT TURN LANE IN STREET SHALL BE REQUIRED WHEN RIGHT TURN MOVEMENT EXCEEDS 125 VEHICLES PER HOUR. MINIMUM 250 FEET LENGTH INCLUDING A 90 FOOT BAY TAPER TRANSITION.
2. DRIVEWAY THROAT OR RESERVOIR LENGTH SHALL BE 20' MINIMUM TO 150' MAXIMUM. THROAT AREA SHALL BE CLEAR OF CROSS TRAFFIC. THROAT LENGTH TO BE 20' PER 1000 ADT AND APPROVED BY CITY ENGINEER.

Revision	By	Apprvd	Date
New		TH	06/26/91
Updated	TR	SS	03/15/11

CITY OF VISTA
STANDARD DRAWING

ALLEY TYPE DRIVEWAY

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-05B	



ALL SLOPES ARE TO BE 2:1 OR FLATTER UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER

TYPICAL 6-LANE PRIME ARTERIAL (DIVIDED)

MINIMUM T.I. = 9.0

MINIMUM PAVEMENT DESIGN REQUIREMENT		
SUBBASE	BASE	SURFACE
N.A.	8" CLASS 2 AGGREGATE BASE	6" ASPHALT

1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 9.0 TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE THE CITY ENGINEER
3. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE
4. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE CITY OF VISTA
5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS
6. 2-FOOT WIDE LANDSCAPE WALKWAYS ADJACENT TO THE MEDIAN CURBS WIDTH OF LANDSCAPE AREA TO BE DETERMINED BY ISLAND WIDTH.

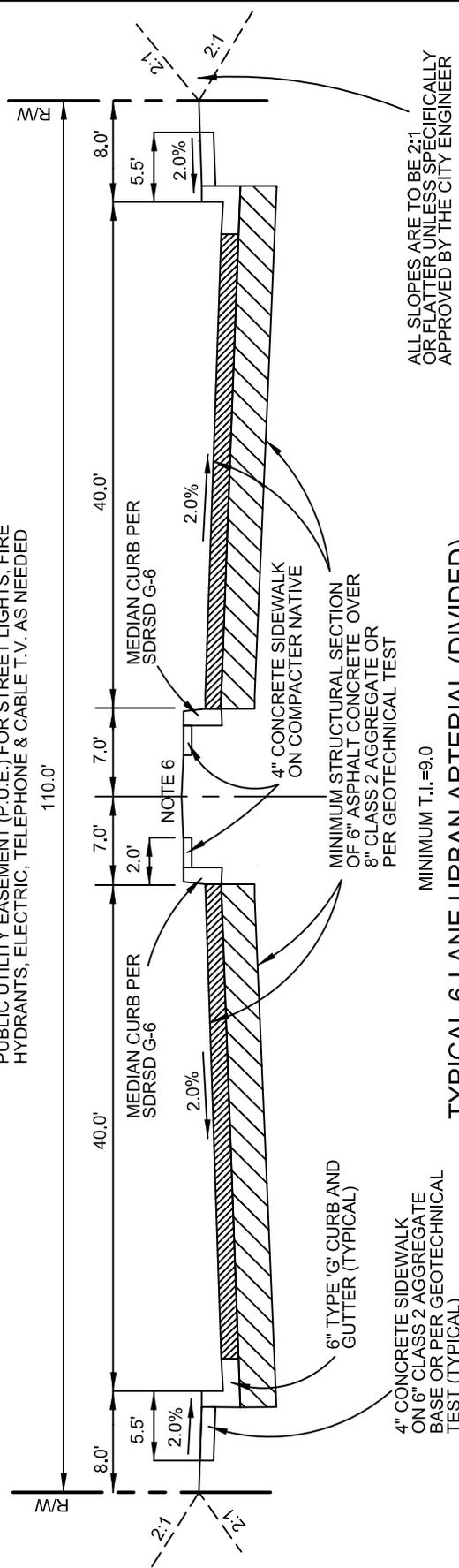
Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

6 LANE PRIME ARTERIAL
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06A	

PUBLIC UTILITY EASEMENT (P.U.E.) FOR STREET LIGHTS, FIRE HYDRANTS, ELECTRIC, TELEPHONE & CABLE T.V. AS NEEDED



ALL SLOPES ARE TO BE 2:1 OR FLATTER UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER

TYPICAL 6-LANE URBAN ARTERIAL (DIVIDED)

MINIMUM T.I.=9.0

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	SURFACE
N.A.	6" ASPHALT
8" CLASS 2 AGGREGATE BASE	

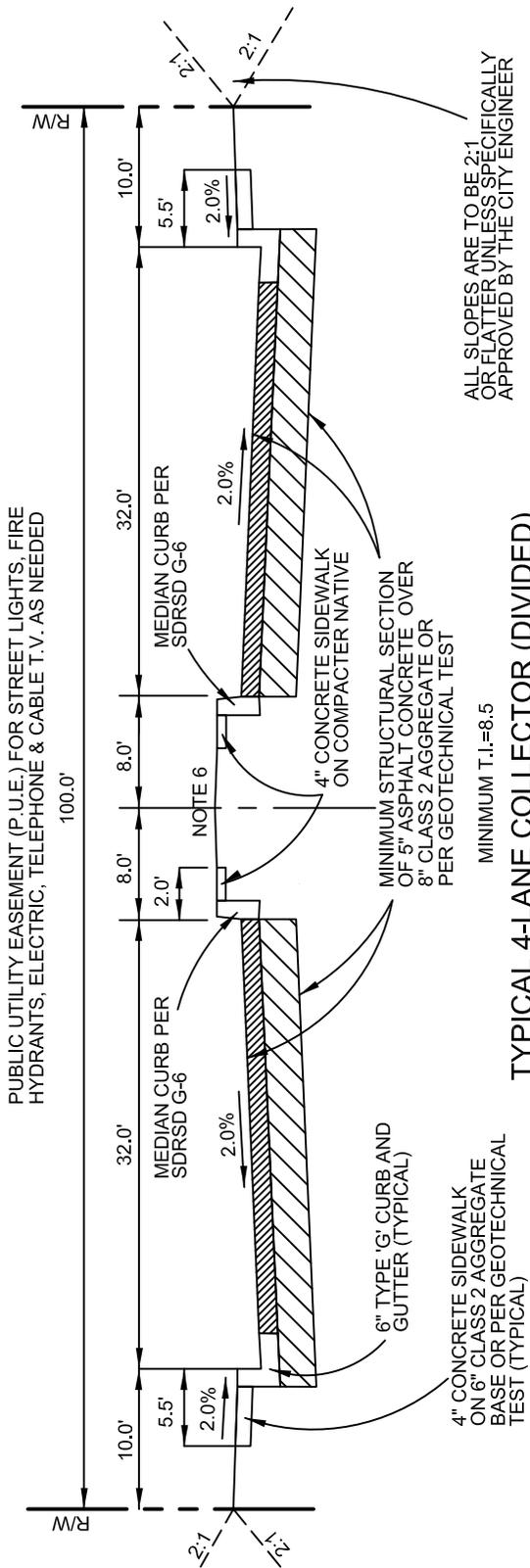
1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 9.0 TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE THE CITY ENGINEER
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4. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE CITY OF VISTA
5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS
6. 2-FOOT WIDE LANDSCAPE WALKWAYS ADJACENT TO THE MEDIAN CURBS WIDTH OF LANDSCAPE AREA TO BE DETERMINED BY ISLAND WIDTH.

Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

6 LANE URBAN ARTERIAL
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06B	



TYPICAL 4-LANE COLLECTOR (DIVIDED)

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	SURFACE
N.A.	5" ASPHALT

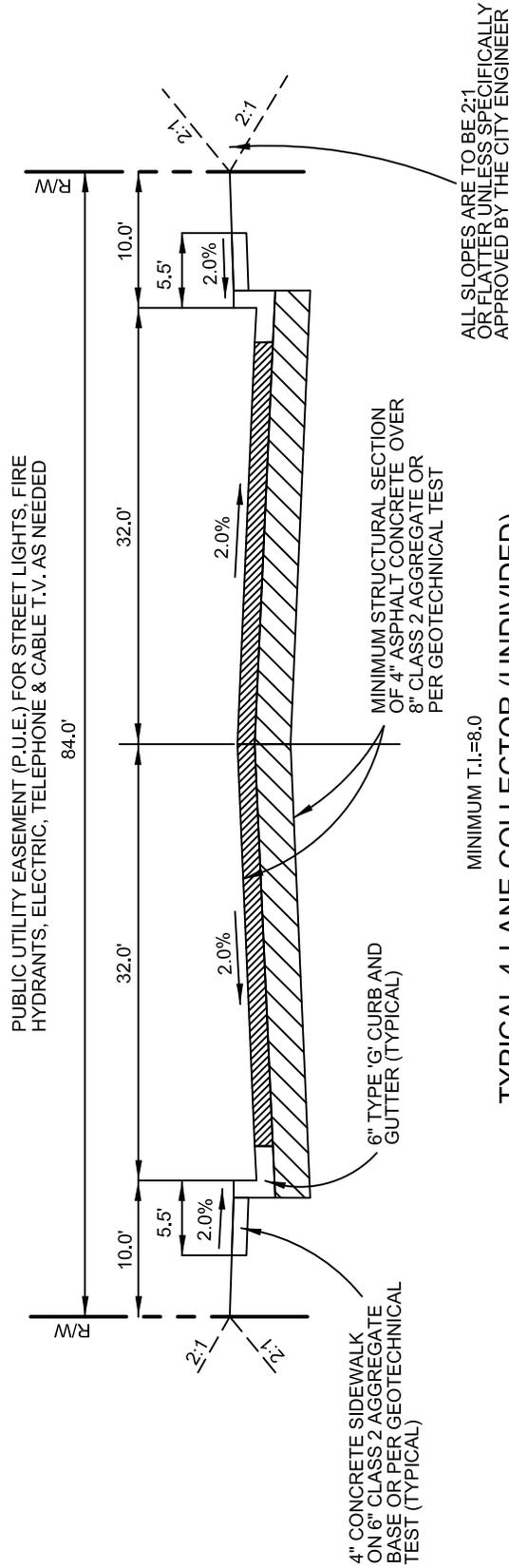
1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 8.5 INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE CITY ENGINEER
3. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE
4. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE CITY OF VISTA
5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS
6. 2-FOOT WIDE LANDSCAPE WALKWAYS ADJACENT TO THE MEDIAN CURBS WIDTH OF LANDSCAPE AREA TO BE DETERMINED BY ISLAND WIDTH.

Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

4 LANE MAJOR ARTERIAL
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06C	



MINIMUM T.I.=8.0

TYPICAL 4-LANE COLLECTOR (UNDIVIDED)

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	BASE
N.A.	8" CLASS 2 AGGREGATE BASE
	SURFACE
	4" ASPHALT

1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 8.0 INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE THE CITY ENGINEER
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4. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE CITY OF VISTA
5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS

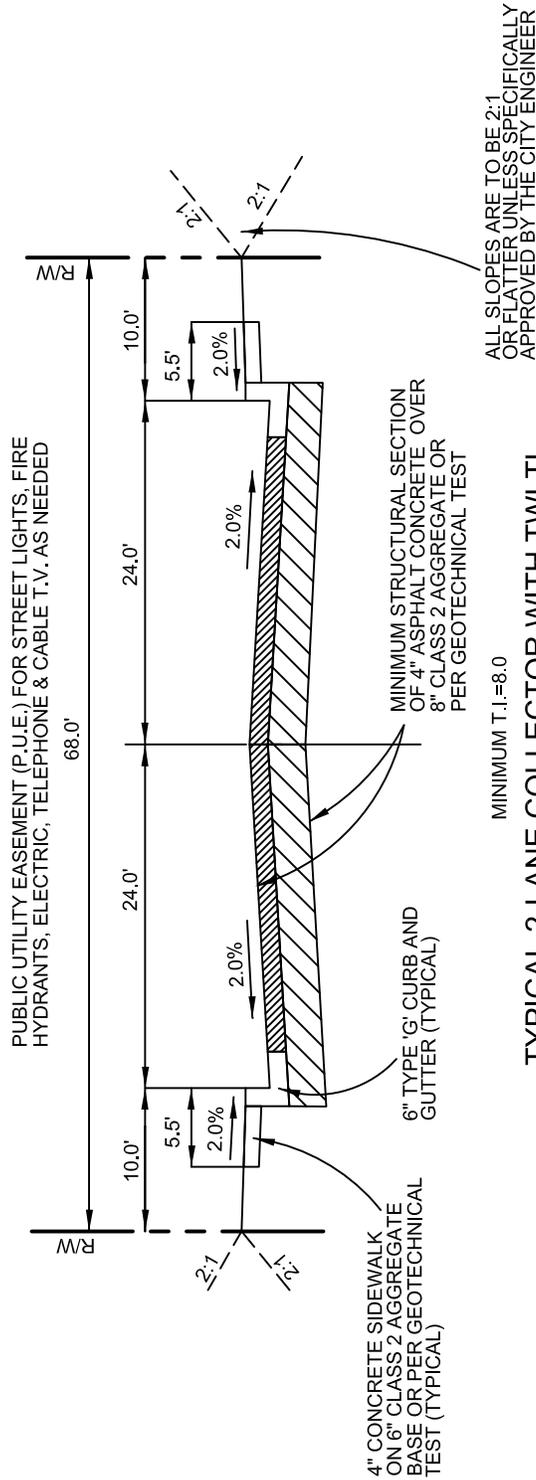
ALL SLOPES ARE TO BE 2:1 OR FLATTER UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER

Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

**4 LANE COLLECTOR (UNDIV)
TYPICAL SECTION**

CITY ENGINEER, DATE
RCE 55075
DRAWING NUMBER: **SRF-06D**



TYPICAL 2-LANE COLLECTOR WITH TWLTL

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	BASE SURFACE
N.A.	8" CLASS 2 AGGREGATE BASE 4" ASPHALT

1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 8.0 INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE CITY ENGINEER
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4. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE CITY OF VISTA
5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS

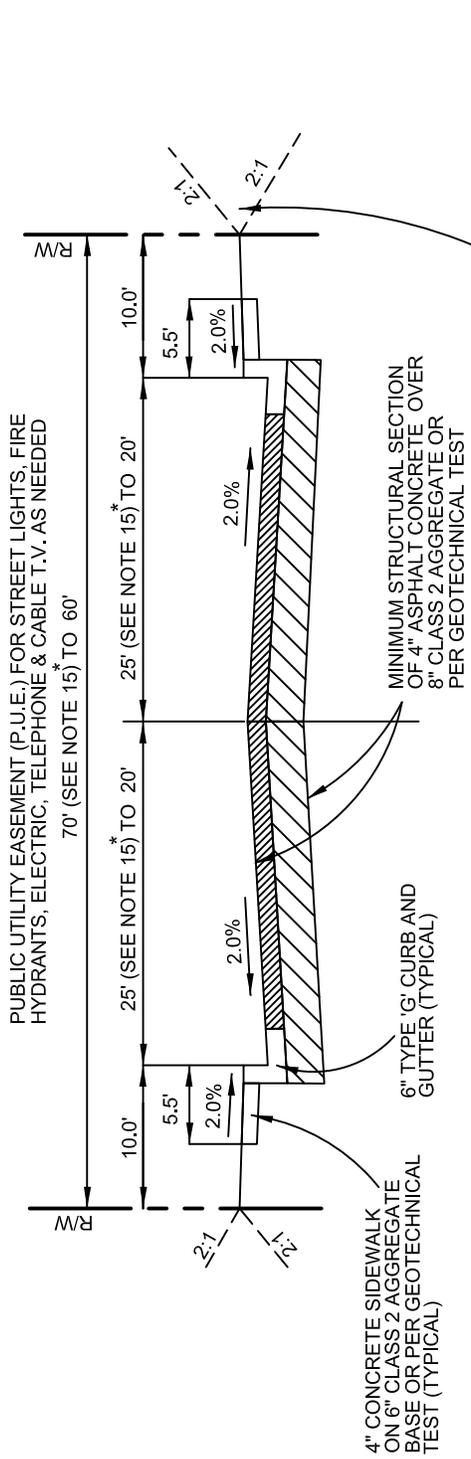
Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

2 LANE COLLECTOR W TWLTL
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06E	

* NOTE 15 IS LOCATED ON CITY OF VISTA DRAWING NUMBER SRF-3C



ALL SLOPES ARE TO BE 2:1 OR FLATTER UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER

MINIMUM T.I.=6.0

TYPICAL 2-LANE COLLECTOR

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	BASE
N.A.	8" CLASS 2 AGGREGATE BASE
	SURFACE
	4" ASPHALT

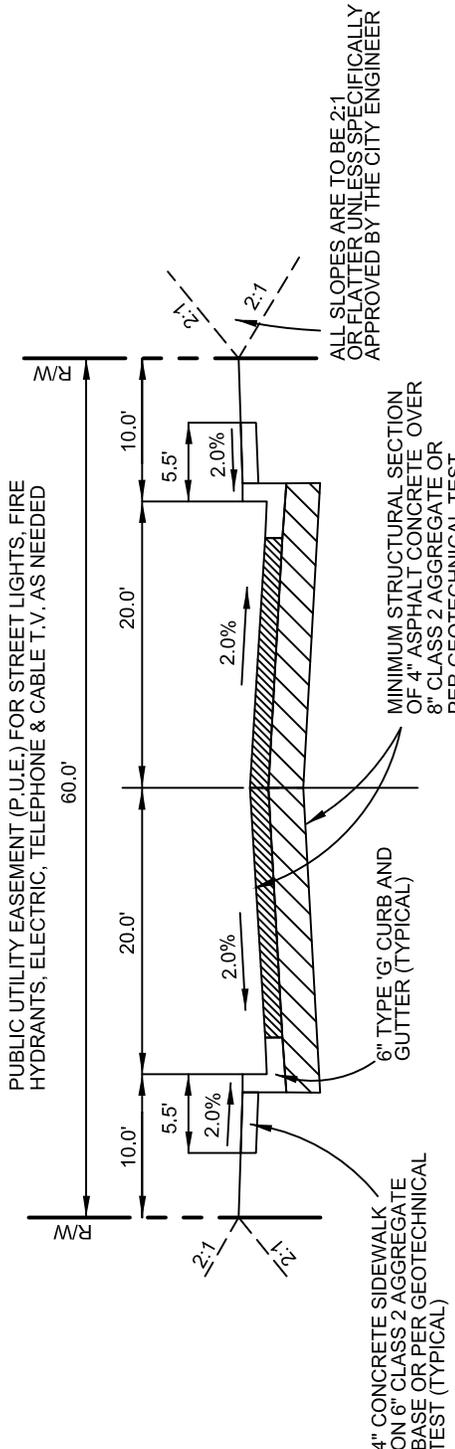
1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 6.0 INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE THE CITY ENGINEER
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5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS

Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

2 LANE COLLECTOR STREET
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06F	



MINIMUM T.I.=6.0

TYPICAL 2-LANE LITE COLLECTOR/LOCAL STREET

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	BASE
N.A.	8" CLASS 2 AGGREGATE BASE
	SURFACE
	4" ASPHALT

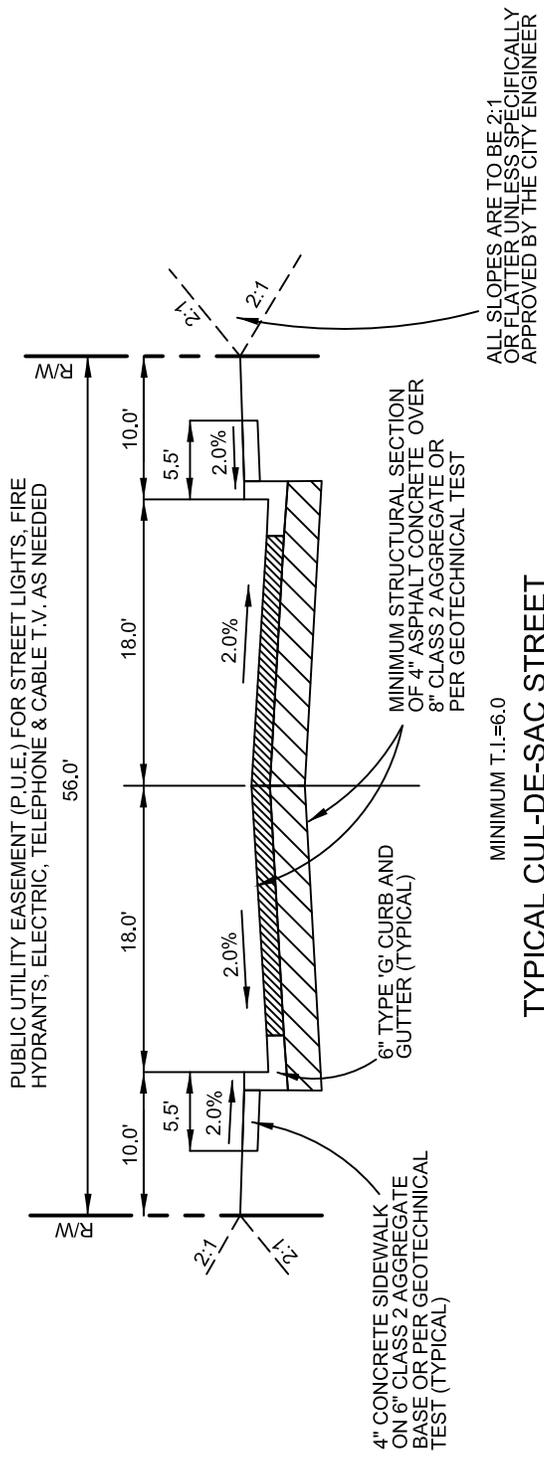
1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
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5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS

Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

2 LANE LITE COLLECT / LOCAL STREET TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06G	



TYPICAL CUL-DE-SAC STREET

MINIMUM PAVEMENT DESIGN REQUIREMENT		
SUBBASE	BASE	SURFACE
N.A.	8" CLASS 2 AGGREGATE BASE	4" ASPHALT

1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 6.0 INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE THE CITY ENGINEER
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5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS

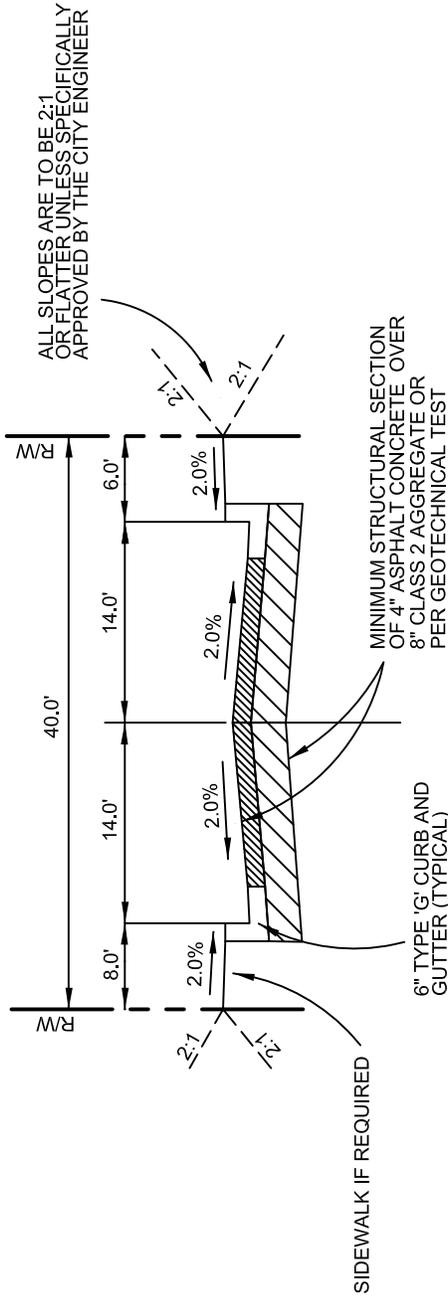
Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

CUL-DE-SAC STREET
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06H	

PUBLIC UTILITY EASEMENT (P.U.E.) FOR STREET LIGHTS, FIRE HYDRANTS, ELECTRIC, TELEPHONE & CABLE T.V. AS NEEDED



MINIMUM T.I.=6.0

TYPICAL HILLSIDE STREET

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	BASE SURFACE
N.A.	8" CLASS 2 AGGREGATE BASE 4" ASPHALT

1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 6.0 INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE THE CITY ENGINEER
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5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS

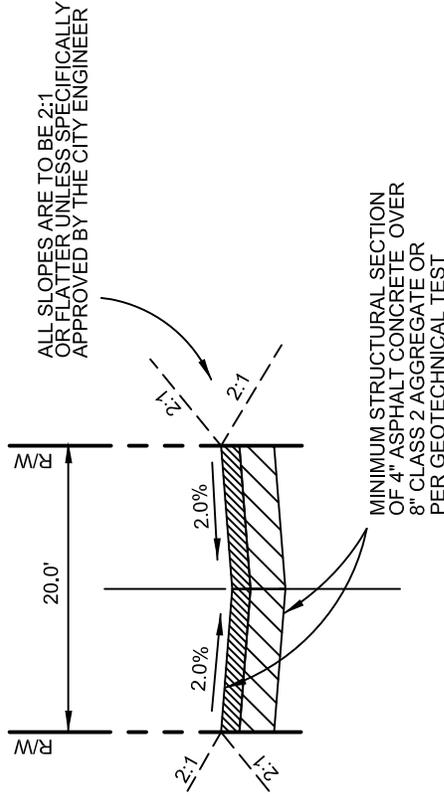
Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

HILLSIDE STREET
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-061	

PUBLIC UTILITY EASEMENT (P.U.E.) FOR STREET LIGHTS, FIRE HYDRANTS, ELECTRIC, TELEPHONE & CABLE T.V. AS NEEDED



MINIMUM T.I.=6.0

TYPICAL ALLEY

MINIMUM PAVEMENT DESIGN REQUIREMENT		
SUBBASE	BASE	SURFACE
N.A.	8" CLASS 2 AGGREGATE BASE	4" ASPHALT

1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 6.0. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE CITY ENGINEER
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4. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS
5. 5-1/2" OF CONCRETE (560-C-3250) OVER 6" OF CLASS 2 AGGREGATE BASE MAY BE SUBSTITUTED FOR THE 4" ASPHALT CONCRETE OVER 8" OF CLASS 2 AGGREGATE BASE

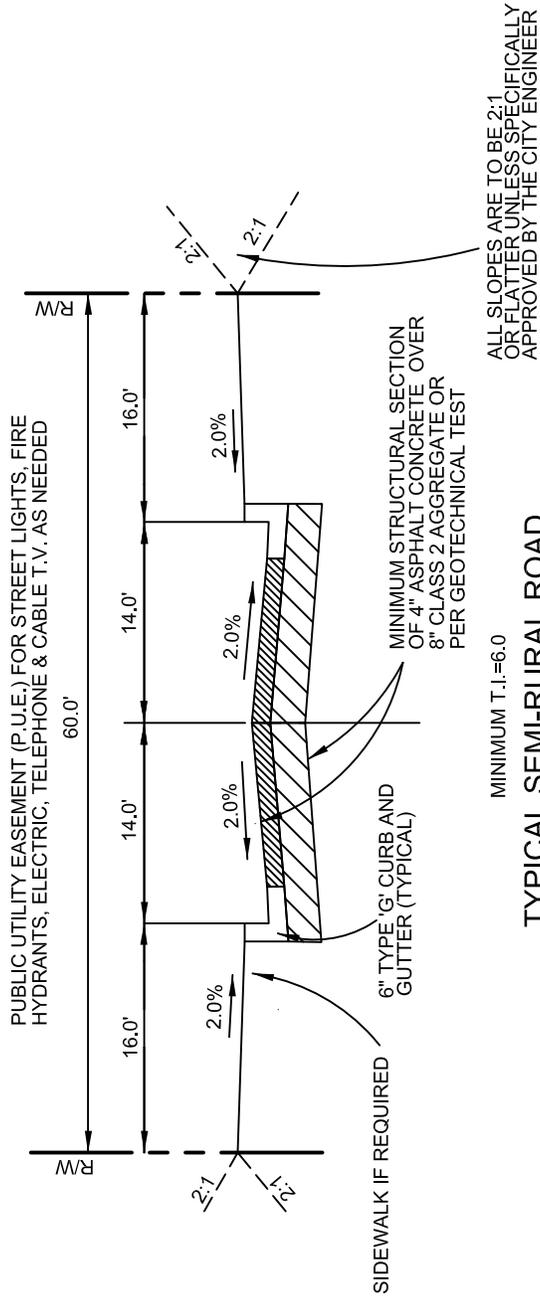
Revision	By	Apprvd	Date
New	GL		11/01/12

CITY OF VISTA
STANDARD DRAWING

ALLEY
TYPICAL SECTION

CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: **SRF-06J**



TYPICAL SEMI-RURAL ROAD

MINIMUM PAVEMENT DESIGN REQUIREMENT	
SUBBASE	BASE SURFACE
N.A.	8" CLASS 2 AGGREGATE BASE 4" ASPHALT

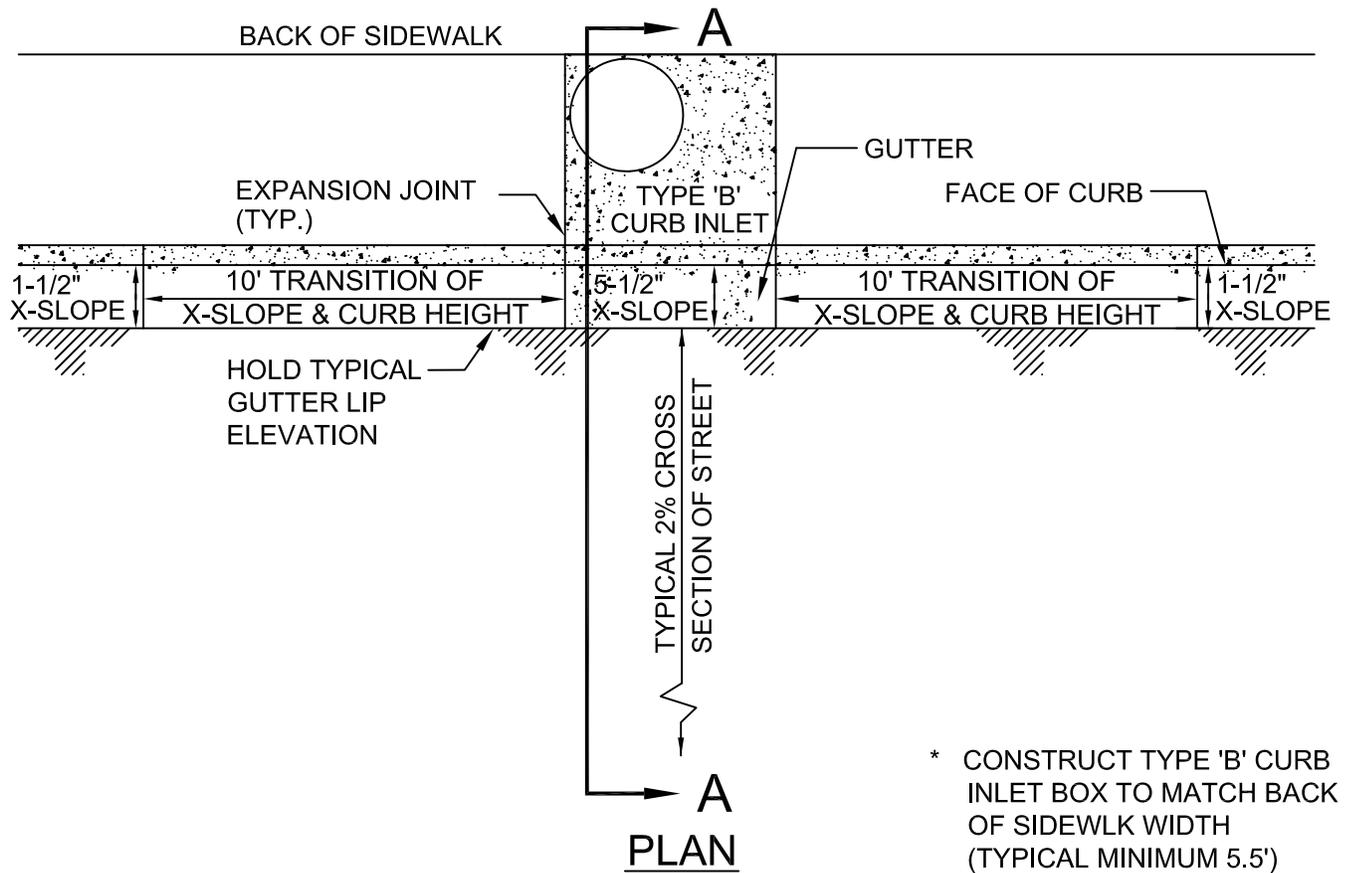
1. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS
2. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM TRAFFIC INDEX (T.I.) VALUE OF 6.0 INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE THE CITY ENGINEER
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5. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS

Revision	By	Apprvd	Date
New	GL		11/01/12

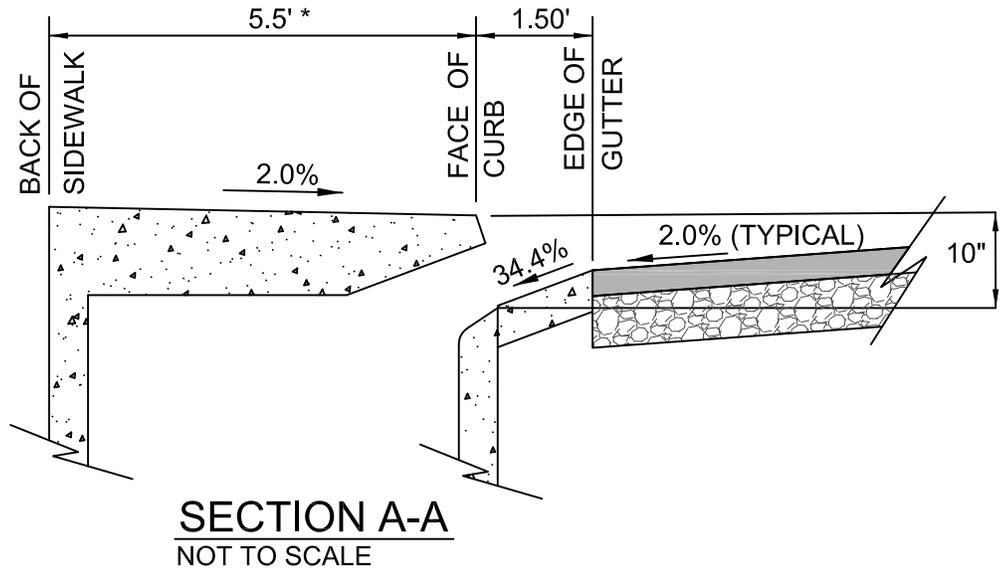
CITY OF VISTA
STANDARD DRAWING

SEMI-RURAL ROAD
TYPICAL SECTION

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-06K	



* CONSTRUCT TYPE 'B' CURB INLET BOX TO MATCH BACK OF SIDEWALK WIDTH (TYPICAL MINIMUM 5.5')



NOTE:

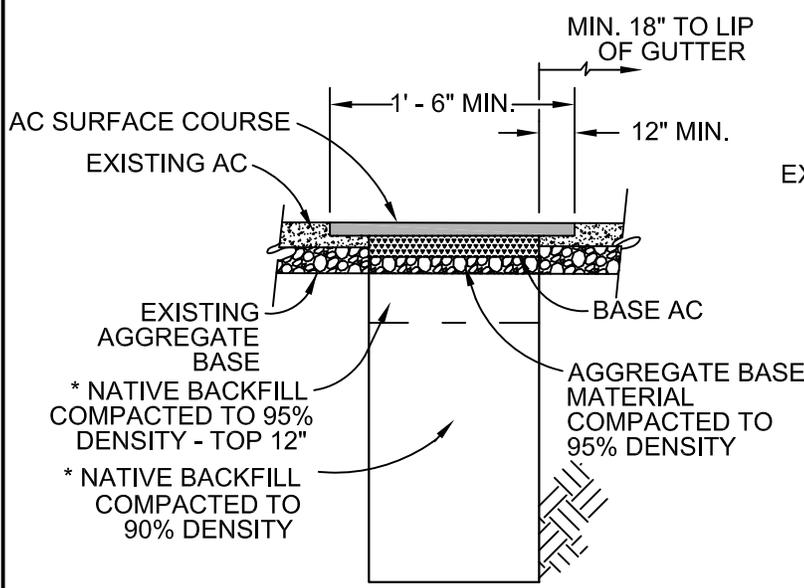
THIS GUTTER TRANSITION SHALL BE USED WITH THE CONSTRUCTION OF TYPE 'B' CURB INLETS. GUTTER TRANSITION SHALL BEGIN 10' FROM BOTH SIDES OF CURB INLET BY MAINTAINING THE SAME ELEVATION DIFFERENCE BETWEEN THE TOP OF CURB AND THE EDGE OF GUTTER, BUT WARPING THE X-SLOPE OF THE CONCRETE GUTTER FROM THE TYPICAL 9.4% (ASSUMING A 6" TYPE 'G' CURB FACE) TO A 34.4% X-SLOPE WITH A 10" CURB FACE AT THE EDGES OF CURB INLET.

Revision	By	Apprvd	Date
Updated	TR	SS	08/22/08
Updated	TR	GM	10/23/12

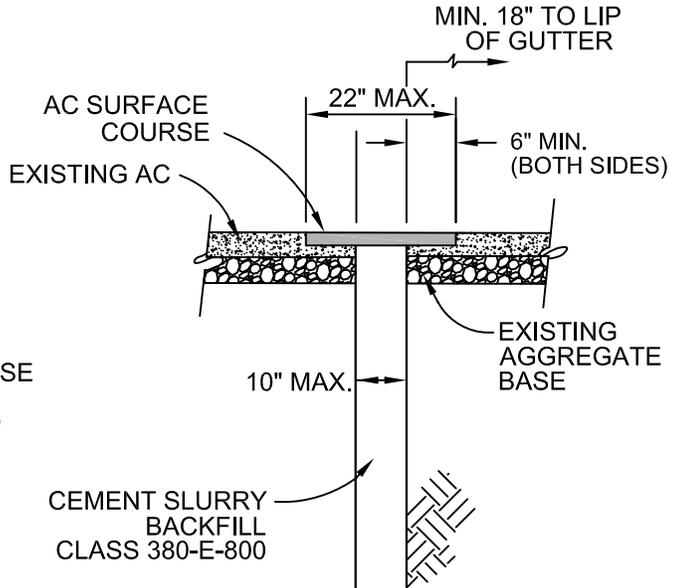
CITY OF VISTA
STANDARD DRAWING

**GUTTER TRANSITION
FOR TYPE B CURB INLETS**

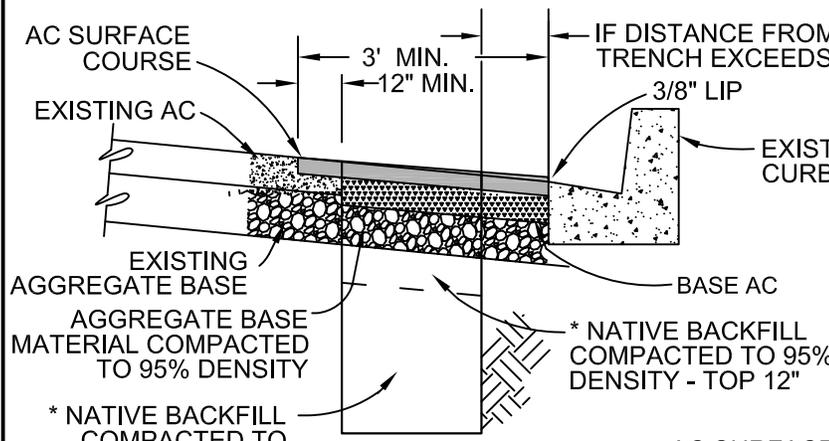
CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER:	SRF-07



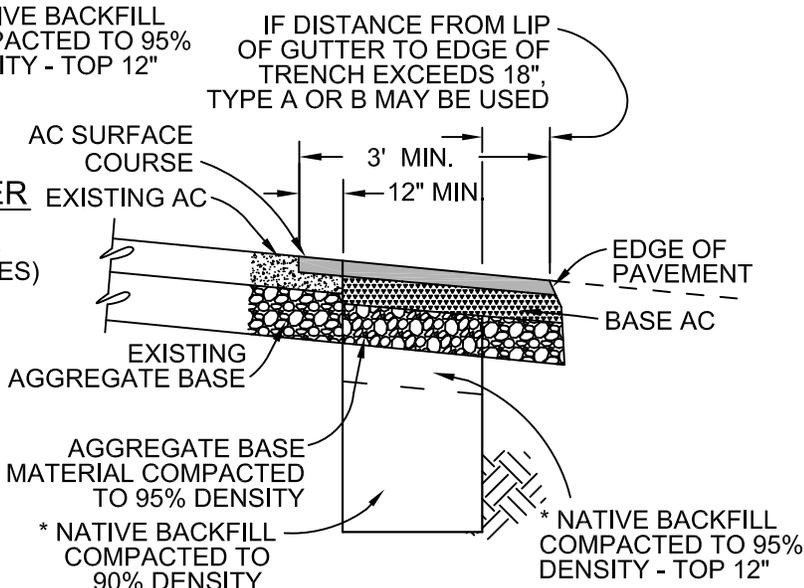
TYPE A
EXCAVATED TRENCH
 (SEE SRF-8B FOR TRENCH PAVING NOTES)



TYPE B
ROCKSAW TRENCH
 (SEE SRF-8B FOR TRENCH PAVING NOTES)



TYPE C
TRENCH ADJACENT TO GUTTER
(ROCKSAW OR EXCAVATED)
 (SEE SRF-8B FOR TRENCH PAVING NOTES)



TYPE D
TRENCH AT EDGE OF PAVEMENT
 (SEE SRF-8B FOR TRENCH PAVING NOTES)

ASPHALT LEGEND	
	NEW 1/2" MEDIUM ASPHALT
	NEW 3/4" MEDIUM ASPHALT
	EXISTING ASPHALT

* NATIVE BACKFILL = S.E. 30 (MINIMUM); NATIVE BACKFILL MAY BE REPLACED WITH 2 SACK CEMENT SLURRY IF APPROVED BY CITY ENGINEER

Revision	By	Apprvd	Date
New		DS	10/89
Updated	TR	SS	05/07/12

CITY OF VISTA
 STANDARD DRAWING

TRENCH PAVING
TYPE STANDARDS

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER: SRF-08A	

GENERAL PROVISIONS

- A. THE GENERAL CONTRACTOR IS REQUIRED TO OBTAIN A CITY RIGHT-OF-WAY PERMIT FOR ANY AND ALL WORK PERFORMED WITHIN THE CITY RIGHT-OF-WAY.
- B. ALL WORK PERFORMED REQUIRES CITY INSPECTION.
- C. IN NO CASE SHALL TEMPORARY ASPHALT OR PLATES BE LEFT IN PLACE LONGER THAN TEN (10) WORKING DAYS ABOVE TRENCH TYPES A, C & D; NO TRENCHES SHALL BE LEFT OPEN OVERNIGHT.
- D. CONSTRUCTION MATERIALS & CONSTRUCTION METHODS ARE CONSIDERED THE MINIMUM REQUIRED AND MAY BE REVISED BY THE CITY AT ANY TIME.
- E. ALL TRENCHING REQUIRES COMPACTION TESTING OF THE BACKFILL AND AGGREGATE BASE UNLESS WAIVED BY THE CITY ENGINEER.
- F. ALL TRENCH PLATES SHALL BE RECESSED.

CONSTRUCTION MATERIALS

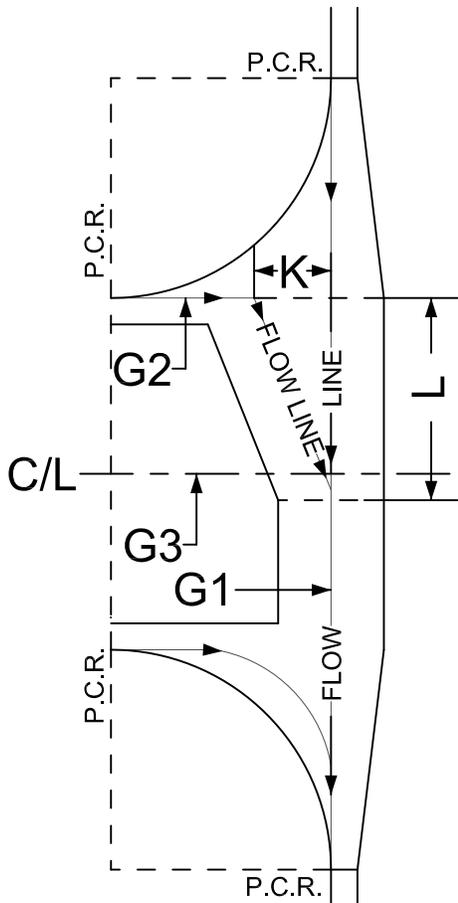
- A. ASPHALT CONCRETE (AC): 1/2" SURFACE COURSE = C2-AR-4000-RAP; 3/4" BASE COURSE = B-AR-4000-RAP (PERFORMANCE GRADE (PG) ASPHALT BINDER PG 64-10 MAYBE SUBSTITUTED FOR THE SPECIFIED AR GRADE ASPHALT BINDER)
- B. AGGREGATE BASE: CLASS 2 (PER CALTRANS SPECIFICATION SUBSECTION 26-1.02B) OR CRUSHED AGGREGATE BASE (PER 2012 GREENBOOK SUBSECTION 200-2.2)
- C. SLURRY BACKFILL: ROCKSAW TRENCH - CLASS 380-E-800; ALL OTHER: CLASS 190-E-400 (OR AS APPROVED)
- D. TACK COAT: AR 400 PAVING ASPHALT OR GRADE SS-1h EMULSIFIED ASPHALT (PER 2012 GREENBOOK SUBSECTION 302-5.4)

CONSTRUCTION METHODS

- A. TYPE A, C & D TRENCHES
 - 1. EXISTING AC PAVING SHALL BE SAWCUT AND REMOVED ALONG CLEAN, STRAIGHT LINES, TAKING CARE NOT TO UPLIFT OR TEAR ADJOINING PAVING (PER 2012 GREENBOOK 300-1.3.2)
 - 2. AGGREGATE BASE MATERIAL TO BE REPLACED TO DEPTH OF EXISTING BASE. A MINIMUM OF 6" AC MAY BE SUBSTITUTED FOR BASE WITH PRIOR CITY APPROVAL
 - 3. A TACK COAT OF ASPHALTIC EMULSION OR PAVING ASPHALT SHALL BE APPLIED TO ALL CONTACT SURFACES
 - 4. AC BASE COURSE TO MEET EXISTING STREET GRADE - LEAVING DEPRESSIONS FOR CAP PAVING IS NOT ALLOWED
 - 5. AC BASE COURSE DEPTH SHALL BE 1" DEEPER THAN EXISTING - MINIMUM 4" DEPTH AC SHALL BE HOT-PLANT MIX
 - 6. COLD PLANE EXISTING AC PAVEMENT TO A MINIMUM DEPTH OF ONE-HALF THICKNESS OF EXISTING AC - NOT TO EXCEED 2"
 - 7. AC SURFACE COURSE SHALL BE PLACED USING A SPREADER BOX OR PAVING MACHINE AND SHALL BE DENSIFIED / FINISHED PER 2012 GREENBOOK 302-5.6.1 & 302-5.6.2
 - 8. AC RESURFACING SHALL BE SEAL COATED WITH EMULSIFIED ASPHALT AND COVERED WITH SAND UNLESS WAIVED BY CITY ENGINEER

- B. TYPE B TRENCH
 - 1. CEMENT SLURRY SHALL HAVE A MINIMUM 4" SLUMP AND BE THOROUGHLY CONSOLIDATED WITH VIBRATORS AND TAMPED.
 - 2. CEMENT SLURRY SHALL BE LEFT 1/2" LOW FROM EXISTING STREET SURFACE; TEMPORARY AC SHALL BE PLACED OVER SLURRY IN ALL AREAS SUBJECT TO VEHICLE OR PEDESTRIAN TRAFFIC
 - 3. ALLOW SLURRY FIVE (5) DAYS TO CURE BEFORE PLANING
 - 4. COLD PLANE EXISTING AC PAVEMENT TO A MINIMUM DEPTH OF ONE-HALF THICKNESS OF EXISTING AC - NOT TO EXCEED 2"
 - 5. A TACK COAT OF ASPHALTIC EMULSION OR PAVING ASPHALT SHALL BE APPLIED TO ALL SURFACES
 - 6. AC SURFACE COURSE SHALL BE PLACED USING A SPREADER BOX OR PAVING MACHINE AND SHALL BE DENSIFIED / FINISHED PER 2012 GREENBOOK 302-5.6.1 & 302-5.6.2
 - 7. AC RESURFACING SHALL BE SEAL COATED WITH EMULSIFIED ASPHALT AND COVERED WITH SAND UNLESS WAIVED BY CITY ENGINEER

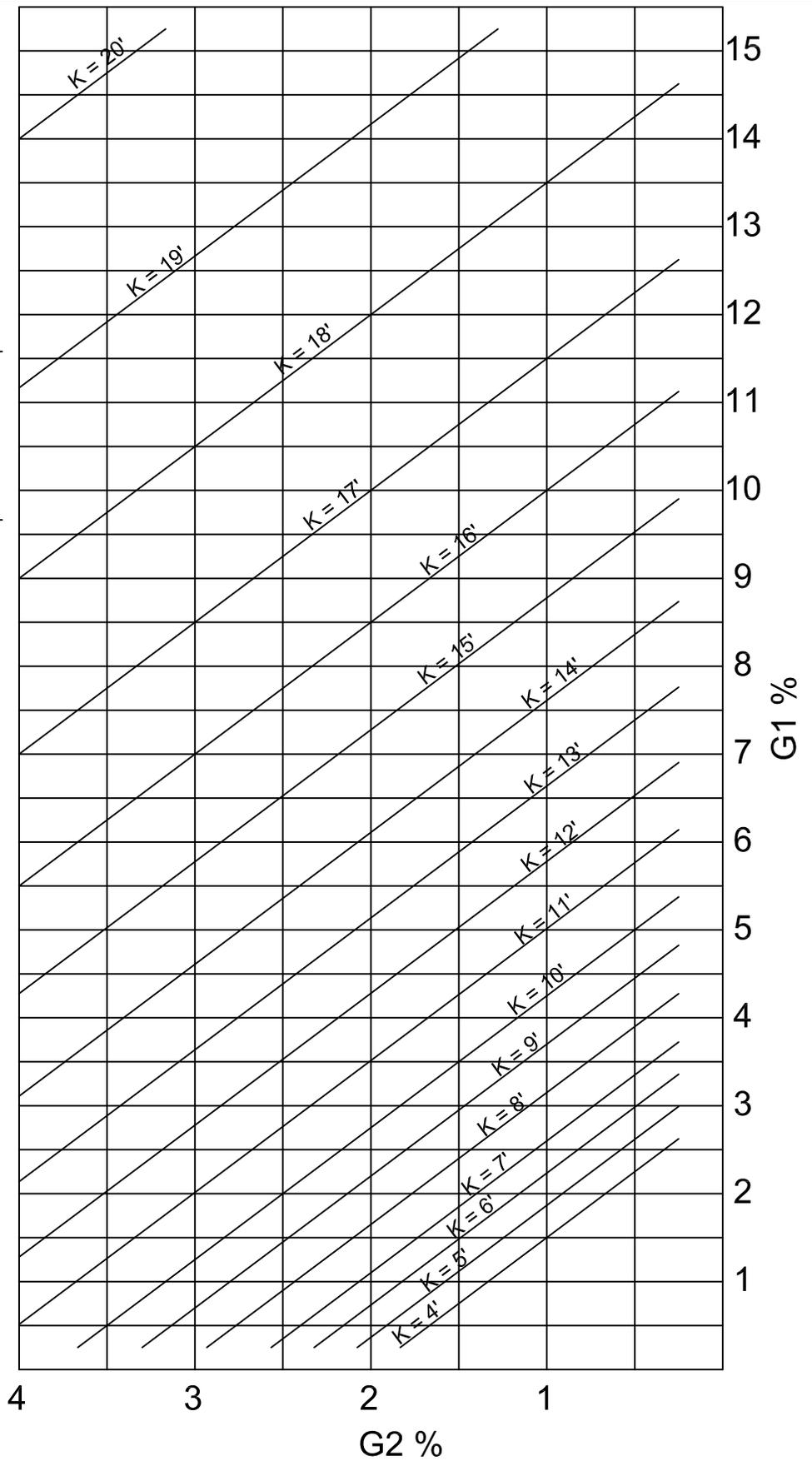
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New		DS	10/89		
Updated	TR	SS	05/07/12	TRENCH PAVING TYPE STANDARDS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-08B



PLAN

$$L = \frac{KG1}{G3}$$

$$K \leq L$$



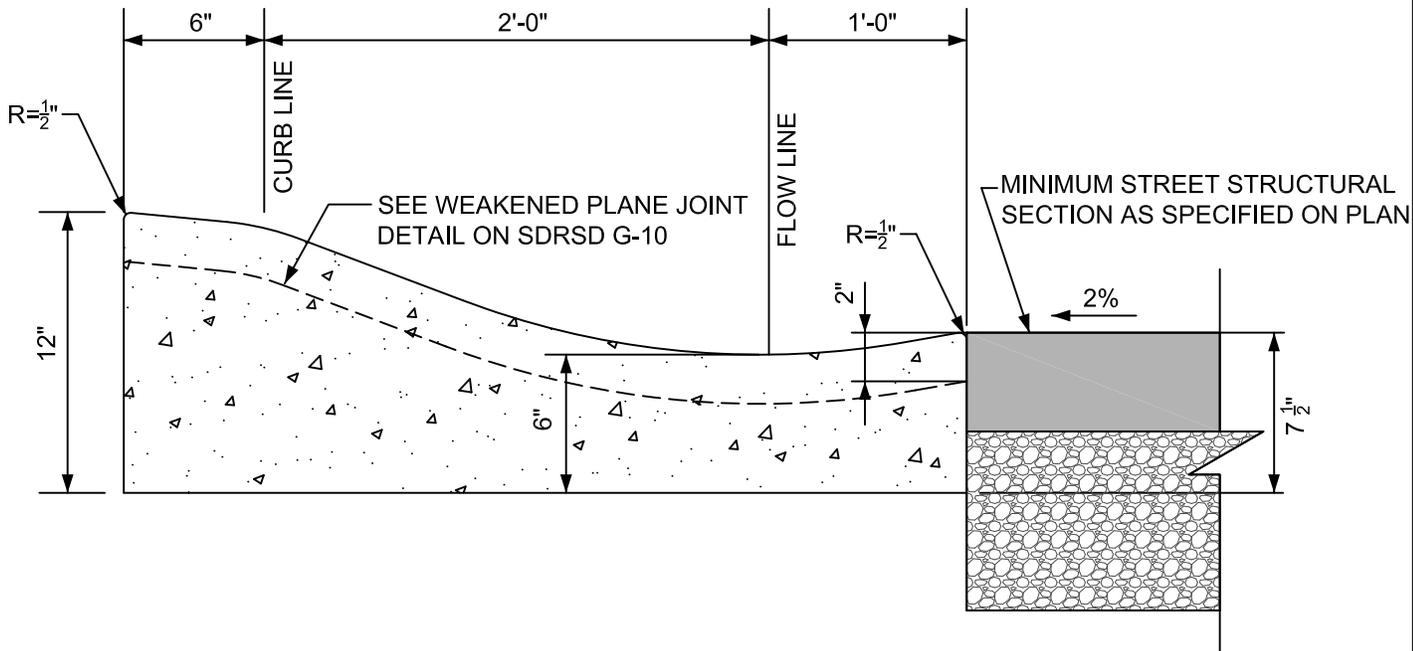
Revision	By	Apprvd	Date
New	TR	SS	04/20/08

CITY OF VISTA
STANDARD DRAWING

**SPECIAL CROSS GUTTER
(FOR STEEP GRADES)**

CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: **SRF-09B**

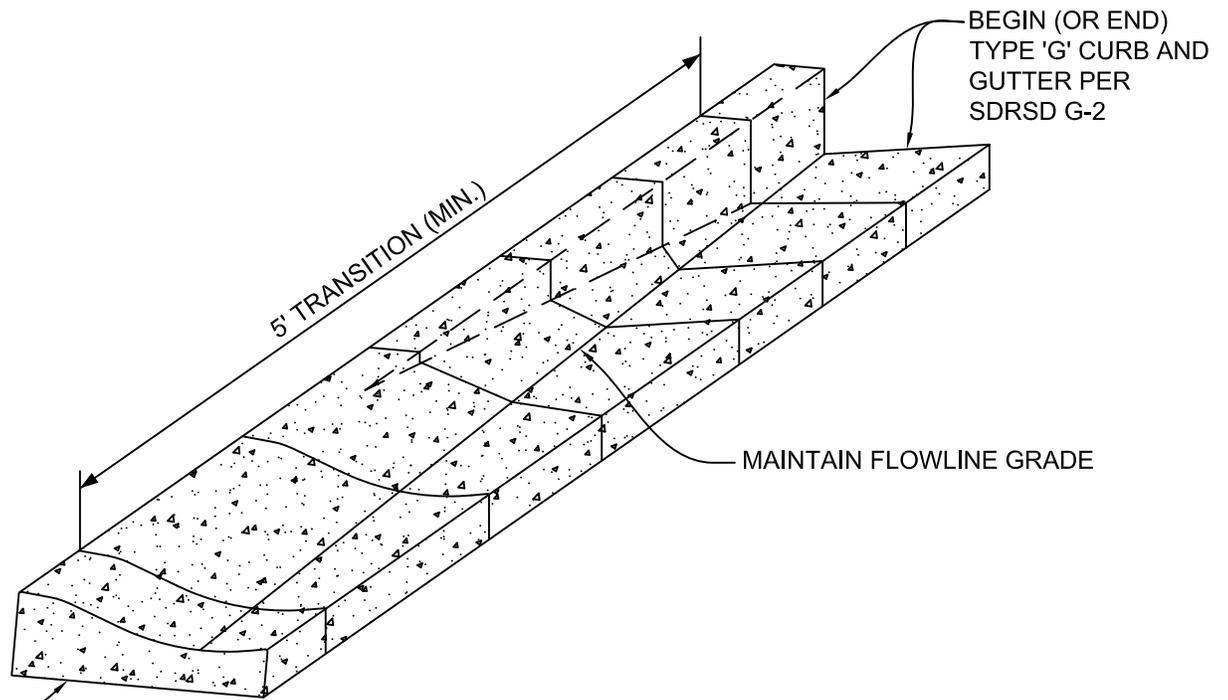


MODIFIED ROLLED CURB AND GUTTER

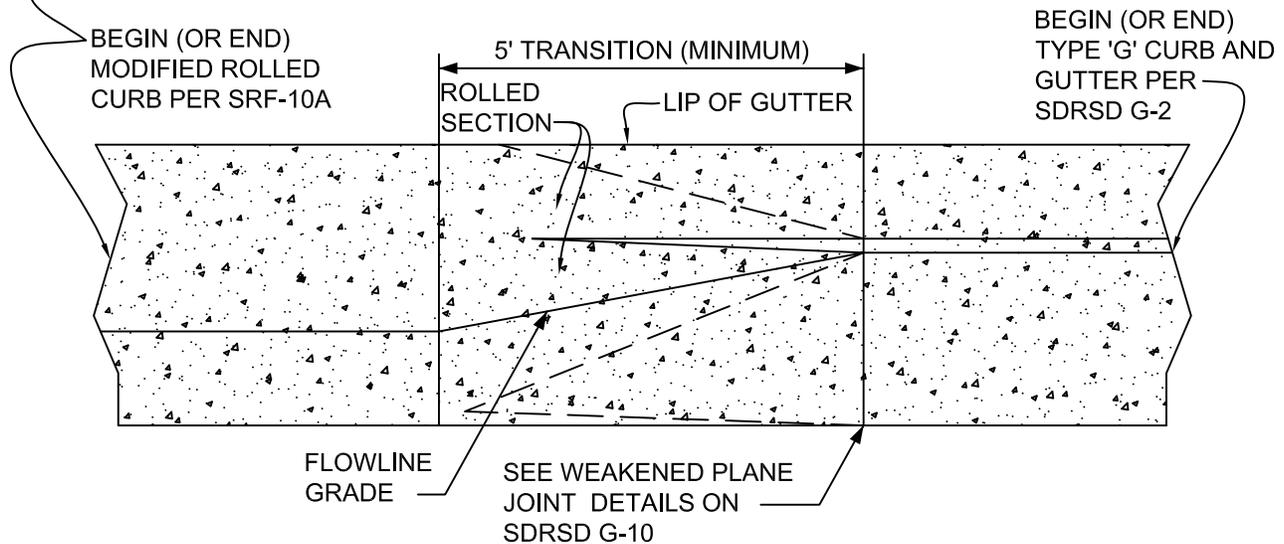
NOTES:

1. P.C.C. SHALL BE 560-C-3250 CONCRETE (6-SACK) MINIMUM IN ACCORDANCE WITH THE LATEST EDITION STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").
2. TRANSITION TO TYPE 'G' CURB & GUTTER PER SDRSD G-2 AT ALL CUL-DE-SACS WITH DRAINAGE STRUCTURES AND ALL CURB RETURNS IF A PEDESTRIAN RAMP IS NOT PROVIDED.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	TR	SS	04/20/08	MODIFIED ROLLED CURB TRANSITION DETAIL	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-10A



ISOMETRIC VIEW

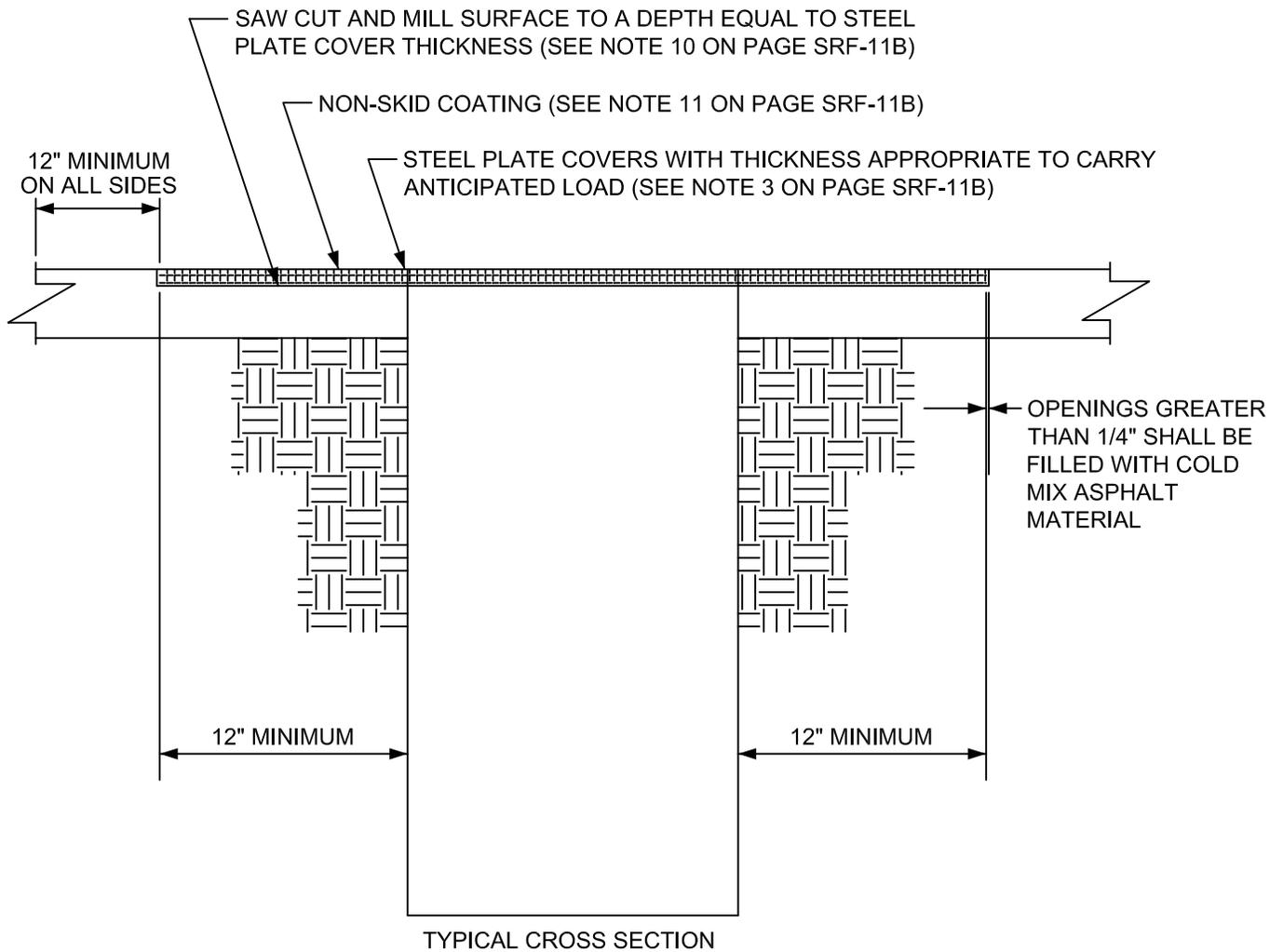


PLAN VIEW

NOTES:

1. P.C.C. SHALL BE 560-C-3250 CONCRETE (6-SACK) MINIMUM IN ACCORDANCE WITH THE LATEST EDITION STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").
2. TRANSITION TO TYPE G CURB & GUTTER PER SDRSD G-2 AT ALL CUL-DE-SACS WITH DRAINAGE STRUCTURES AND ALL CURB RETURNS IF A PEDESTRIAN RAMP IS NOT PROVIDED.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	TR	SS	04/20/08		
				MODIFIED ROLLED CURB TRANSITION DETAIL	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-10B



Revision	By	Apprvd	Date
New	TR	SS	11/30/08
Updated	TR	HH	05/07/12

CITY OF VISTA
STANDARD DRAWING

TEMPORARY STEEL
PLATE COVERS

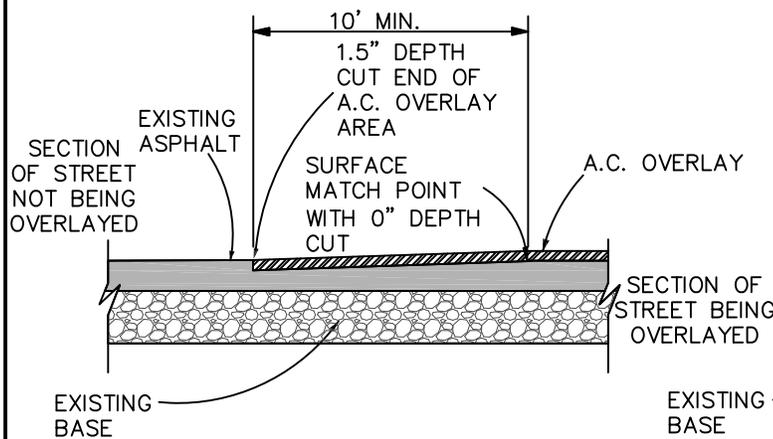
CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: SRF-11A

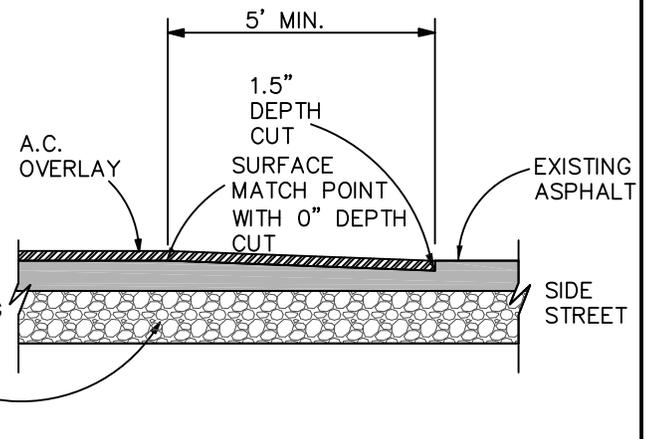
NOTES:

1. THE CONTRACTOR SHALL PROVIDE SUITABLE STEEL PLATE COVERS WHERE TRAFFIC MUST CROSS TRENCHES.
2. THE USE OF STEEL PLATE COVERS SHALL BE APPROVED BY THE ENGINEERING INSPECTION DIVISION PRIOR TO INITATION OF CONSTRUCTION.
3. SEE SAN DIEGO REGIONAL GREENBOOK SUPPLEMENT SUBSECTION 7-10.5.3 FOR STEEL PLATE COVER THICKNESS TABLE. THE THICKNESS OF THE STEEL PLATE COVERS FOR TRENCH WIDTHS EXCEEDING SIXTY-THREE INCHES (63") SHALL BE ESTABLISHED IN AN ANALYSIS COMPLETED BY A LICENSED PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA. THE ANALYSIS SHALL BE BASED ON A-36 GRADE STEEL WITH HS20-44 TRUCK LOADING PER THE CALTRANS BRIDGE DESIGN SPECIFICATIONS MANUAL AND A MAXIMUM STEEL PLATE COVER DEFLECTION OF 1/2" WHEN EXPERIENCING SAID LOADING. FOR SITUATIONS WHERE MULTIPLE LAYERS OF STEEL PLATE COVERS (OR STACKED STEEL PLATE COVERS) ARE TO BE EMPLOYED, THE SEAMS (I.E. THE INTERFACE BETWEEN THE STEEL PLATE COVERS SIDE-BY-SIDE) OF THE UPPER LAYER SHALL BE PLACED PERPENDICULAR TO THE SEAMS OF THE UNDERLYING STEEL PLATE COVERS.
4. TEMPORARY STEEL PLATE COVER INSTALLATION SHALL NOT EXCEED FOUR (4) CONSECUTIVE WORKING DAYS.
5. THE TOPSIDE OF THE STEEL PLATE COVERS SHALL BE FLAT AND FREE OF ANY CLIPS, CHAINS, ATTACHMENTS, WELDMENTS OR SURFACE IRREGULARITIES.
6. STEEL PLATE COVERS WITH A PERMANENT DISPLACEMENT (I.E. DISPLACEMENT ANYWHERE ON THE SURFACE OF THE STEEL PLATE COVER WITH RESPECT TO A PLANE FORMED BY THE OUTSIDE EDGES) THAT EXCEEDS 1/2" SHALL NOT BE USED FOR STEEL PLATE COVERING PURPOSES. STEEL PLATE COVERS THAT DEVELOP A PERMANENT DISPLACEMENT EXCEEDING 1/2" DURING SERVICE SHALL BE REMOVED AND REPLACED.
7. THE STEEL PLATE COVERS SHALL BE PROVIDED WITH APPROPRIATE NUMBER OF KEYHOLE SLOTS OR CIRCULAR HOLES FOR HANDLING, LIFTING, INSTALLATION AND REMOVAL PURPOSES.
8. THE CONTRACTOR SHALL AVOID USING A LONG SERIES OF STEEL PLATE COVERS THAT RUN PARALLEL TO VEHICULAR TRAFFIC WHEEL PATH.
9. STEEL PLATE COVERING SHALL BE INSTALLED TO OPERATE WITH MINIMUM NOISE.
10. THE PAVEMENT SHALL BE COLD-MILLED TO A DEPTH EQUAL TO THE THICKNESS OF THE STEEL PLATE COVER AND TO A WIDTH AND LENGTH EQUAL TO THE DIMENSIONS OF THE STEEL PLATE COVER. ADDITIONAL METHODS OF SECURING STEEL PLATE COVERS MAYBE REQUIRED DEPENDING ON FIELD CONDITIONS.
11. THE SURFACE OF ALL STRUCUTRAL STEEL PLATE COVERS USED BY THE CONTRACTOR TO BRIDGE ANY EXCAVATION IN THE PUBLIC RIGHT-OF-WAY SHALL HAVE A NON-SKID COATING ("SKID GUARD" OR EQUAL) WITH A MINIMUM COEFFICIENT OF FRICTION = 0.35 PER CALIFORNIA TEST METHOD 342 FOR ALL TRAFFIC STEEL PLATE COVERS WITHIN THE TRAVELED ROADWAY OF STREETS AND ALLEYS, AND A MINIMUM COEFFICIENT OF FRICTION OF 0.50 PER ASTM C 1028 FOR THOSE STEEL PLATE COVERS IN PEDESTRIAN CROSSWALKS OR ACCESSIBLE AREAS. THE NON-SKID COATING SHALL BE BLACK. WHEN REQUIRED BY THE ENGINEER, THE CONTRACTOR OR PERMITTEE SHALL CERIFY IN WRITING TO THE AGENCY THAT THE STEEL PLATE COVERS TO BE USED IN THE WORK MEET THE REQUIRED STATIC COEFFICIENT OF FRICTION. ALSO WHEN REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL HAVE THE STEEL PLATE COVERS TO BE USED IN THE WORK TESTED IN ACCORDANCE WITH THE ABOVE STANDARDS FOR THE VERIFICATION OF THE REQUIRED STATIC COEFFICIENT OF FRICTION. TESTING SHALL BE DONE BY AN INDEPENDENT LABORATORY APPROVED BY THE ENGINEER. THE CONTRACTOR OR PERMITTEE SHALL PAY FOR ANY COSTS ASSOCIATED WITH THE TESTING OF THE STEEL PLATE COVERS.

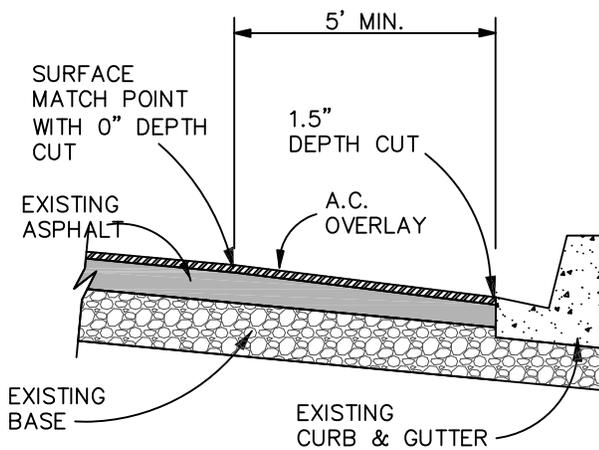
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING		
New	TR	SS	11/30/08			TEMPORARY STEEL PLATE COVERS (NOTES)
Updated	TR	HH	05/07/12	CITY ENGINEER, DATE RCE 55075		
				DRAWING NUMBER: SRF-11B		



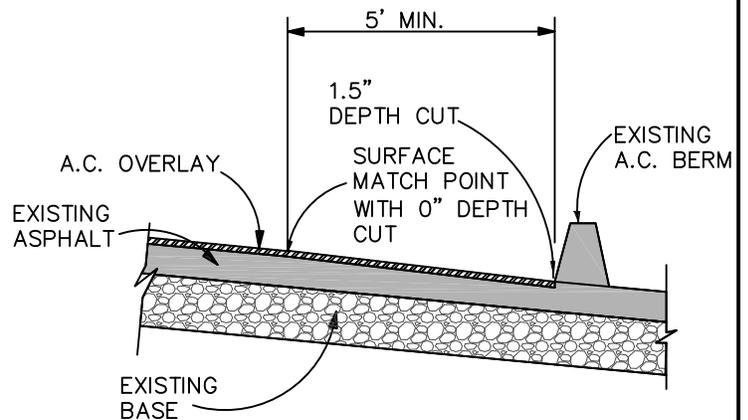
HEADER CUT ACROSS STREET



HEADER CUT AT SIDE STREET



EDGE CUT NEXT TO EXISTING CURB & GUTTER



EDGE CUT NEXT TO EXISTING A.C. BERM

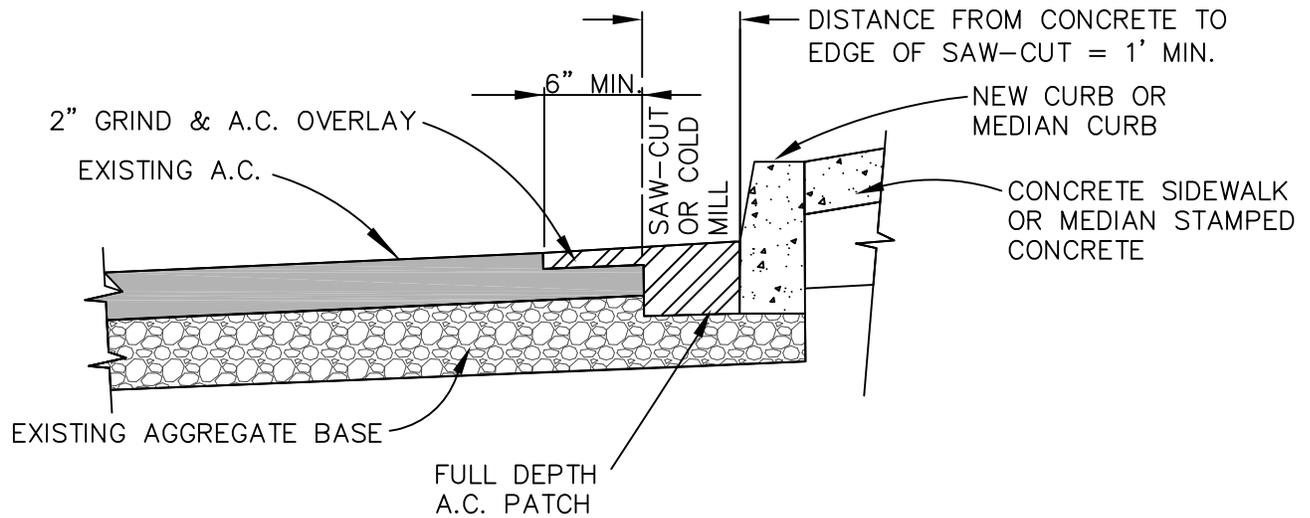
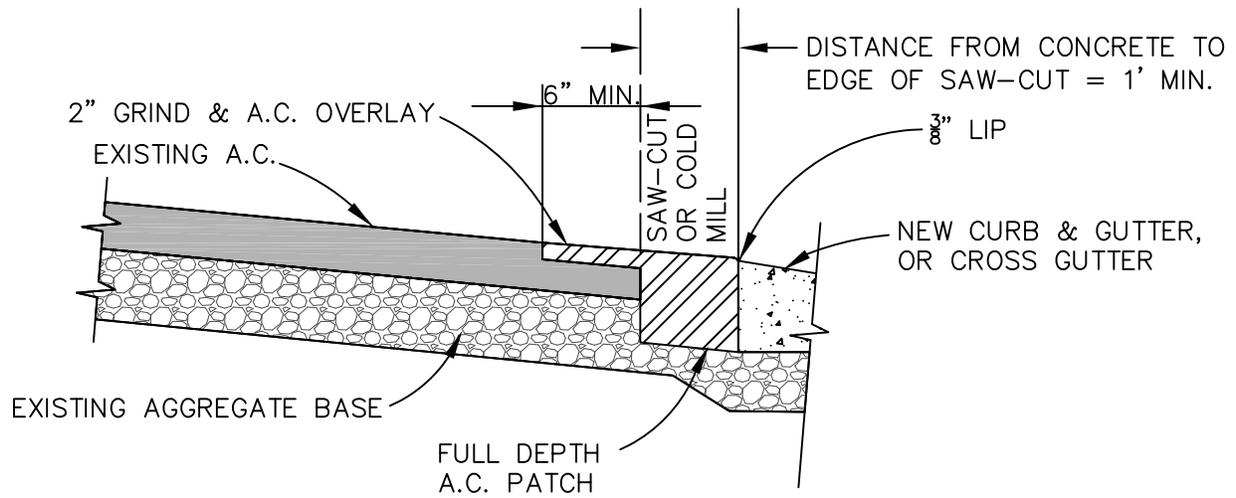
Revision	By	Apprvd	Date
New	GL	SS	09/01/11

CITY OF VISTA
STANDARD DRAWING

**COLD MILLING
DETAILS**

CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: **SRF-12**



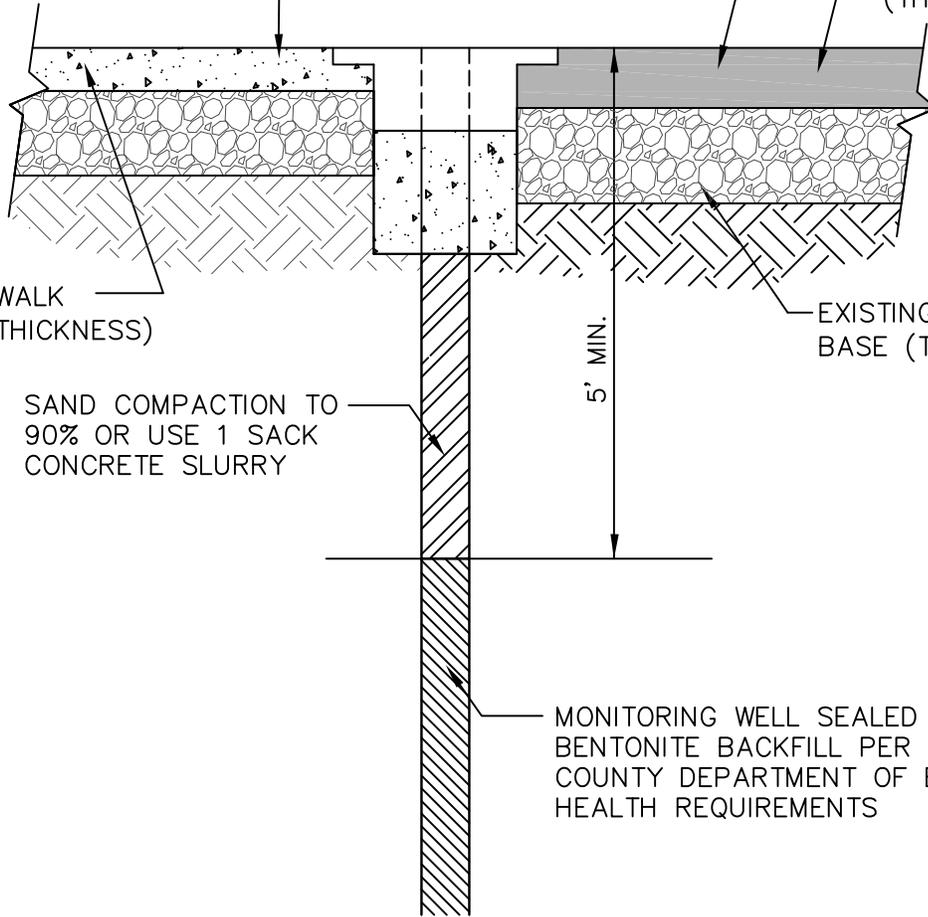
PAVEMENT RESTORATION FOR CURB, GUTTER, OR CROSS GUTTER

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	GL	TS	09/01/11	PAVEMENT RESTORATION DETAILS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-13

RESURFACE STREET AFTER
 ABANDONING MONITORING WELL IN
 STREET PER CITY OF VISTA STD.
 DWG. SRF-8A & -8B, TYPE A

REPLACE SIDEWALK PER SDRSD
 G-11 AFTER ABANDONING
 MONITORING WELL IN SIDEWALK

EXISTING ASPHALT
 CONCRETE
 (THICKNESS VARIES)



EXISTING SIDEWALK
 (NOMINAL 4" THICKNESS)

SAND COMPACTION TO
 90% OR USE 1 SACK
 CONCRETE SLURRY

5' MIN.

EXISTING AGGREGATE
 BASE (THICKNESS VARIES)

MONITORING WELL SEALED WITH
 BENTONITE BACKFILL PER SAN DIEGO
 COUNTY DEPARTMENT OF ENVIRONMENTAL
 HEALTH REQUIREMENTS

**SURFACE REPAIRS FOR
 MONITORING WELL ABANDONMENT**

NOTE:

MONITORING WELLS SHALL, AT A MINIMUM, BE DESTROYED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 23 OF THE WATER WELL STANDARDS IF LOCATED IN AN AREA FREE OF ANY KNOWN OR POTENTIAL CONTAMINATION OR POLLUTION

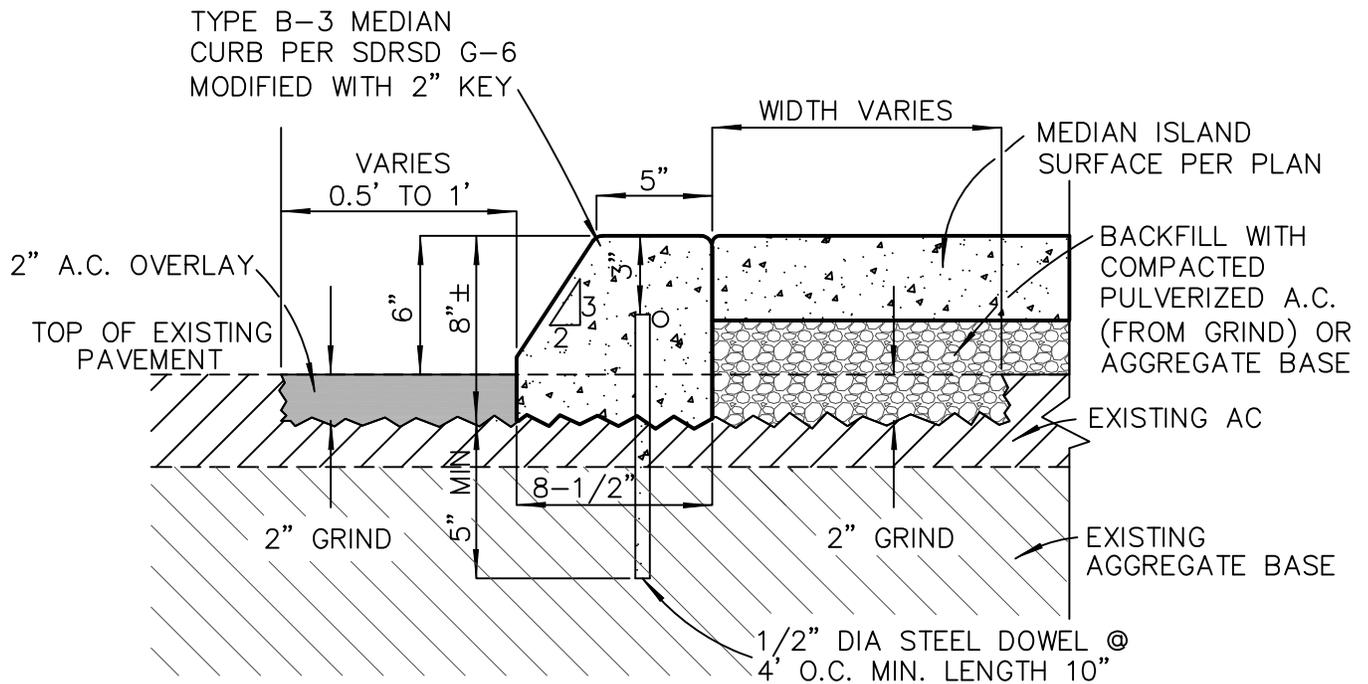
Revision	By	Apprvd	Date
New	TS	TS	03/01/12

CITY OF VISTA
 STANDARD DRAWING

**MONITORING WELL
 ABANDONMENT**

CITY ENGINEER, DATE
 RCE 55075

DRAWING
 NUMBER: **SRF-14**

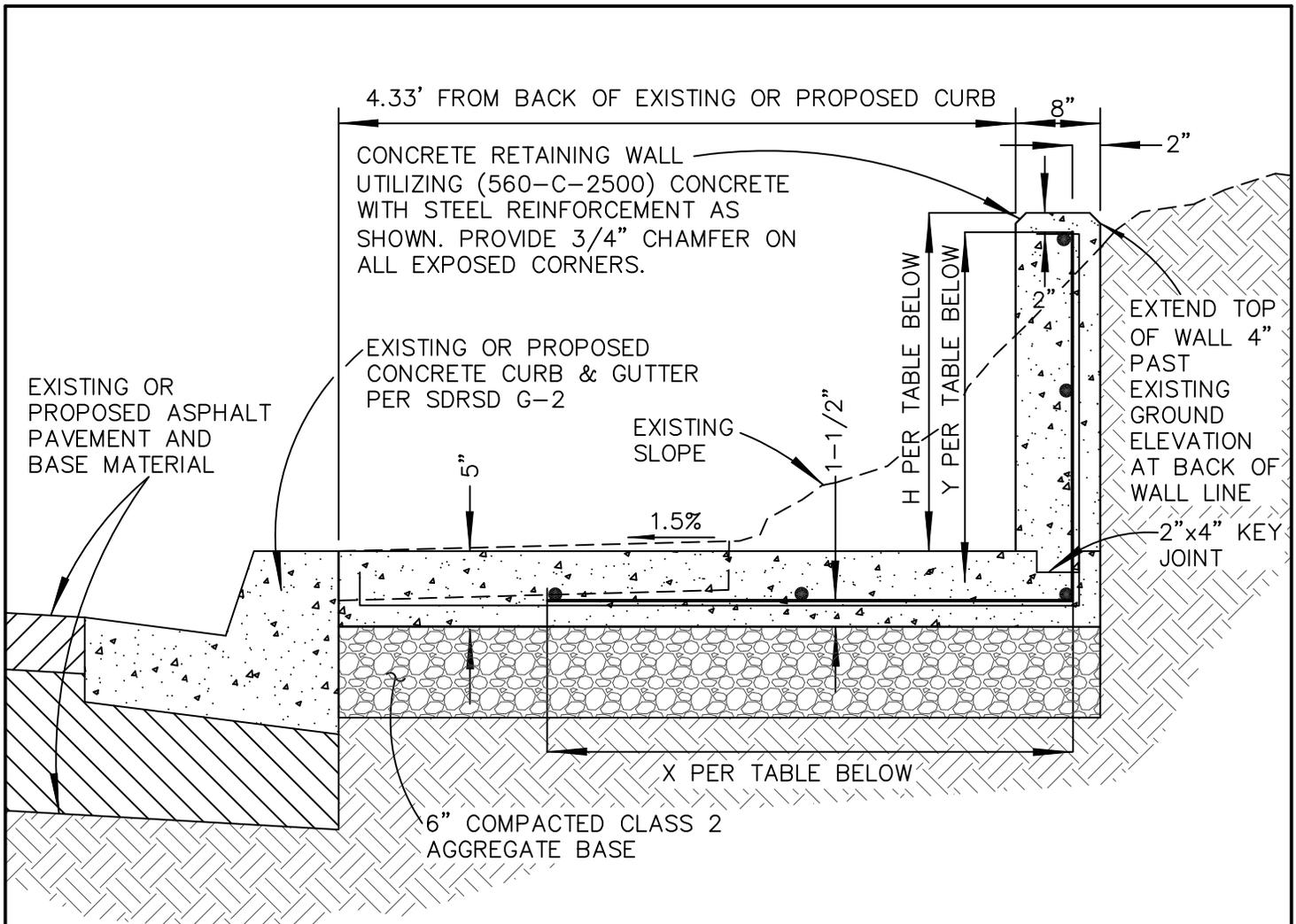


6" MEDIAN CURB WITH 2" KEY

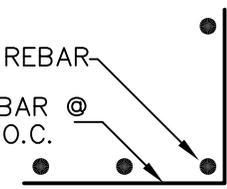
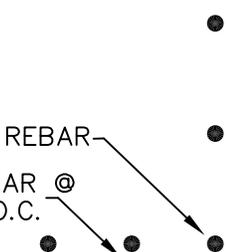
NOTE:

A CONTINUOUS BEND OF CONCRETE TO ASPHALT EPOXY ADHESIVE SHALL BE APPLIED TO THE EXISTING GRINDED A.C. BELOW THE PROPOSED MEDIAN CURB FOR ADHESION BETWEEN THE MEDIAN CURB AND EXISTING GRINDED A.C.

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	GL	SS	12/01/11	6" MEDIAN CURB MODIFIED WITH 2" KEY	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-15



CONCRETE RETAINING WALL AND SIDEWALK

H	X	Y	DIAGRAM
2'-0"	2'-6"	2'-1.5"	(4) #4 REBAR #4 REBAR @ 1'-0" O.C. 
3'-0"	2'-6"	3'-1.5"	(5) #4 REBAR #4 REBAR @ 1'-0" O.C. 

STEEL REINFORCEMENT PLACEMENT TABLE

Revision	By	Apprvd	Date	CITY OF VISTA	
New	GL	TS	12/01/11	STANDARD DRAWING	
				CONCRETE RETAINING WALL AND SIDEWALK	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: SRF-16

TRAFFIC AND STRIPING

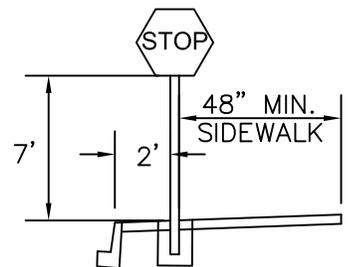
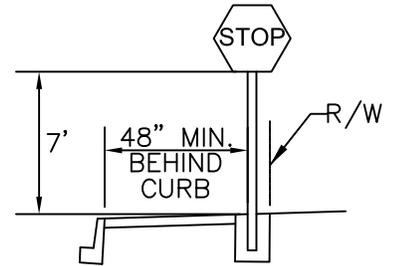
**THIS SHEET INTENTIONALLY
LEFT BLANK**

STOP BAR NOTES:

1. 45° BEND IN LIMIT LINE IS OPTIONAL WHEN NO CURB RAMP IS PRESENT OR ON WIDE SIDE ROADS WITH LONG RADIUS CURB RETURNS. DO NOT USE BEND ON ROADS WITH SHORT RADIUS (20' OR LESS) CURB RETURNS.

SIGNING NOTES:

1. FOR STOP SIGN LOCATIONS FOR SIDEWALKS < 6 FEET WIDE, PLACE STOP SIGN 48" BEHIND BACK OF CURB AT $\Delta/4$ WITHIN CITY R/W.



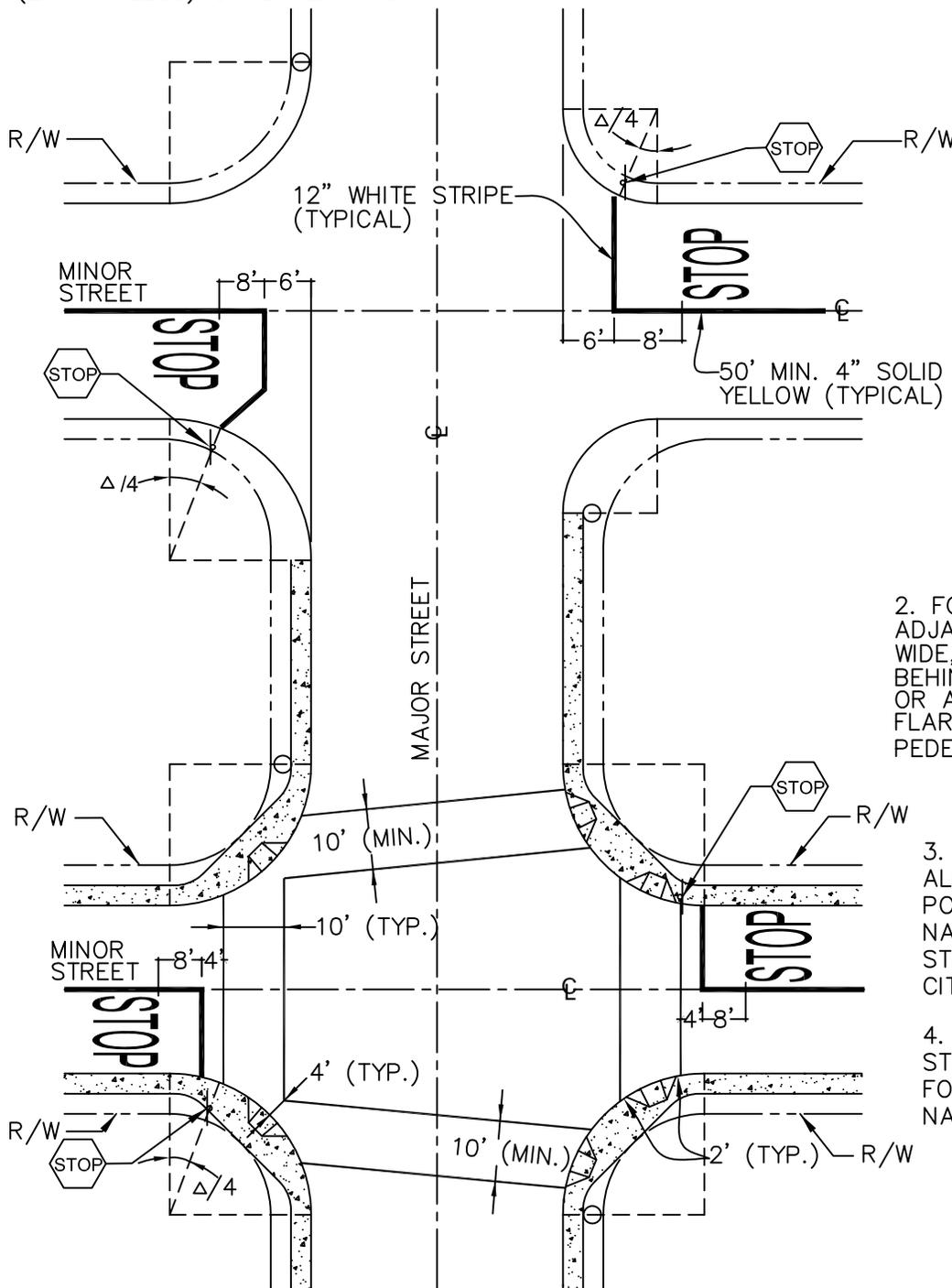
2. FOR STOP SIGN LOCATIONS ADJACENT TO SIDEWALKS > 6' WIDE, PLACE STOP SIGN 2' BEHIND FACE OF CURB AT $\Delta/4$ OR AT THE LIMIT OF THE SIDE FLARE OF THE DOUBLE PEDESTRIAN RAMP

3. NO OTHER SIGNS SHALL BE ALLOWED ON THE STOP SIGN POST EXCEPT FOR STREET NAME SIGNS FOR 4-WAY STOPS IF AUTHORIZED BY THE CITY ENGINEER.

4. SEE CITY OF VISTA STANDARD DRAWING SRF-1 FOR NON-SIGNALIZED STREET NAME SIGN LOCATIONS.

LEGEND

- ⊥ STOP SIGN
- STREET NAME SIGN

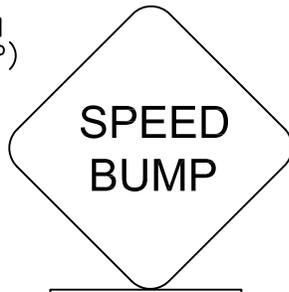


CROSSWALK STRIPING NOTES:

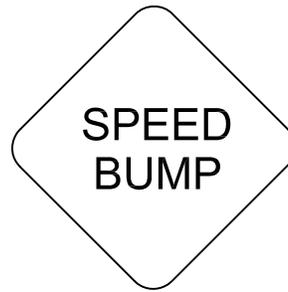
1. MINIMUM 10' WIDTH BETWEEN LINES (TOTAL 12' WIDE INCLUDING OUTSIDE OF LINES)
2. CROSS HATCH FOR SCHOOL CROSSWALKS, SPECIAL STRIPING FOR BIKE PATH
3. MINIMUM 4' WIDE AREA IN FRONT OF ADA CURB RAMPS
4. MINIMUM 2' FULL HEIGHT CURB INSIDE CROSSWALK STRIPING AT RAMPS

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New		GR	05/23/85		
Updated	TR	SS	08/22/08	STOP SIGN, STOP BAR AND CROSSWALK LOCATION DETAILS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: TRF-01

W17-1
(BUMP)

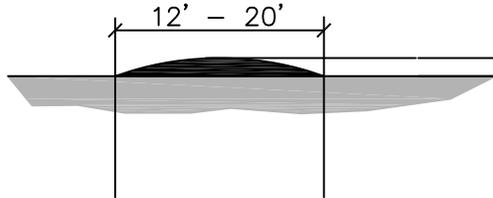


SIGN DETAILS



W17-1
(BUMP)

W16-9P

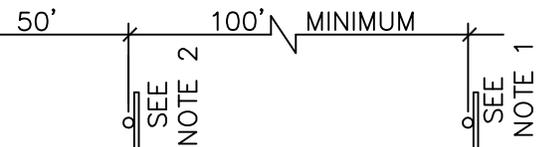


2-5/8" - 3-1/8" (PER
COUNCIL POLICY 600-07
FOR PUBLIC STREETS)
2-1/2" - 3" (PER
COUNCIL POLICY 600-09
FOR PRIVATE STREETS)

SPEED BUMP SECTION

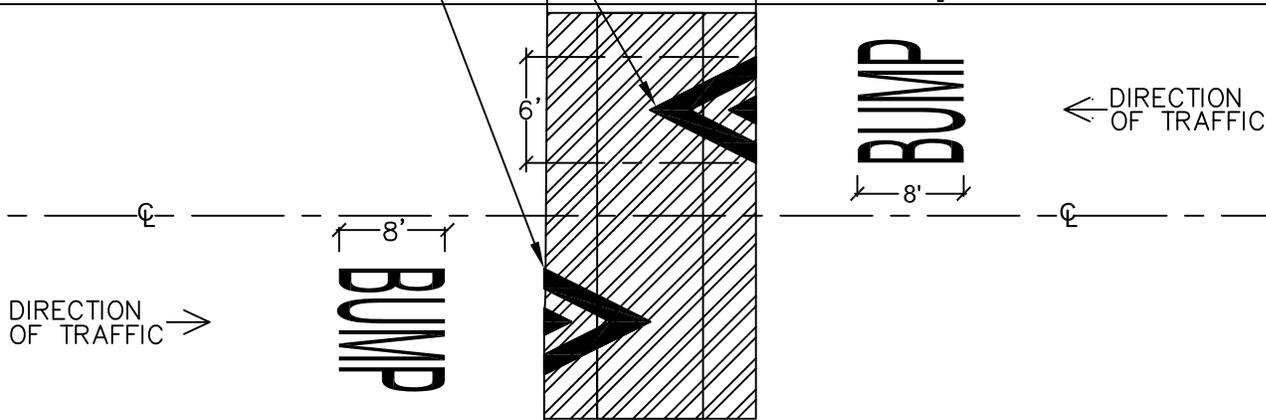
(PER COUNCIL POLICIES 600-07 AND 600-09)

PAINT PER CALIFORNIA MUTCD
FIGURE 3B-29 OPTION A
SEE NOTE 3



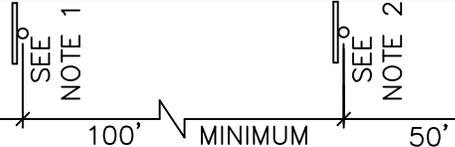
SEE
NOTE 2

SEE
NOTE 1



DIRECTION OF TRAFFIC →

← DIRECTION OF TRAFFIC



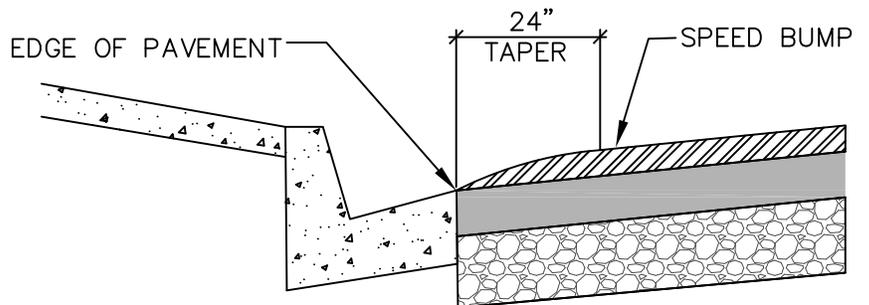
SEE
NOTE 1

SEE
NOTE 2

PLAN

NOTES:

1. A SINGLE SPEED BUMP AHEAD (W-17-1/W16-9P) SIGN SHALL BE INSTALLED IN ADVANCE OF THE FIRST BUMP IN EACH DIRECTION
2. SPEED BUMP (W17-1) SIGN MAY BE INSTALLED IN ADVANCE OF EACH INDIVIDUAL SPEED BUMP
3. PAINT 12" SOLID WHITE LEGEND AS SHOWN AND PER CALIFORNIA MUTCD FIGURE 3B-29 OPTION A



EDGE DETAIL

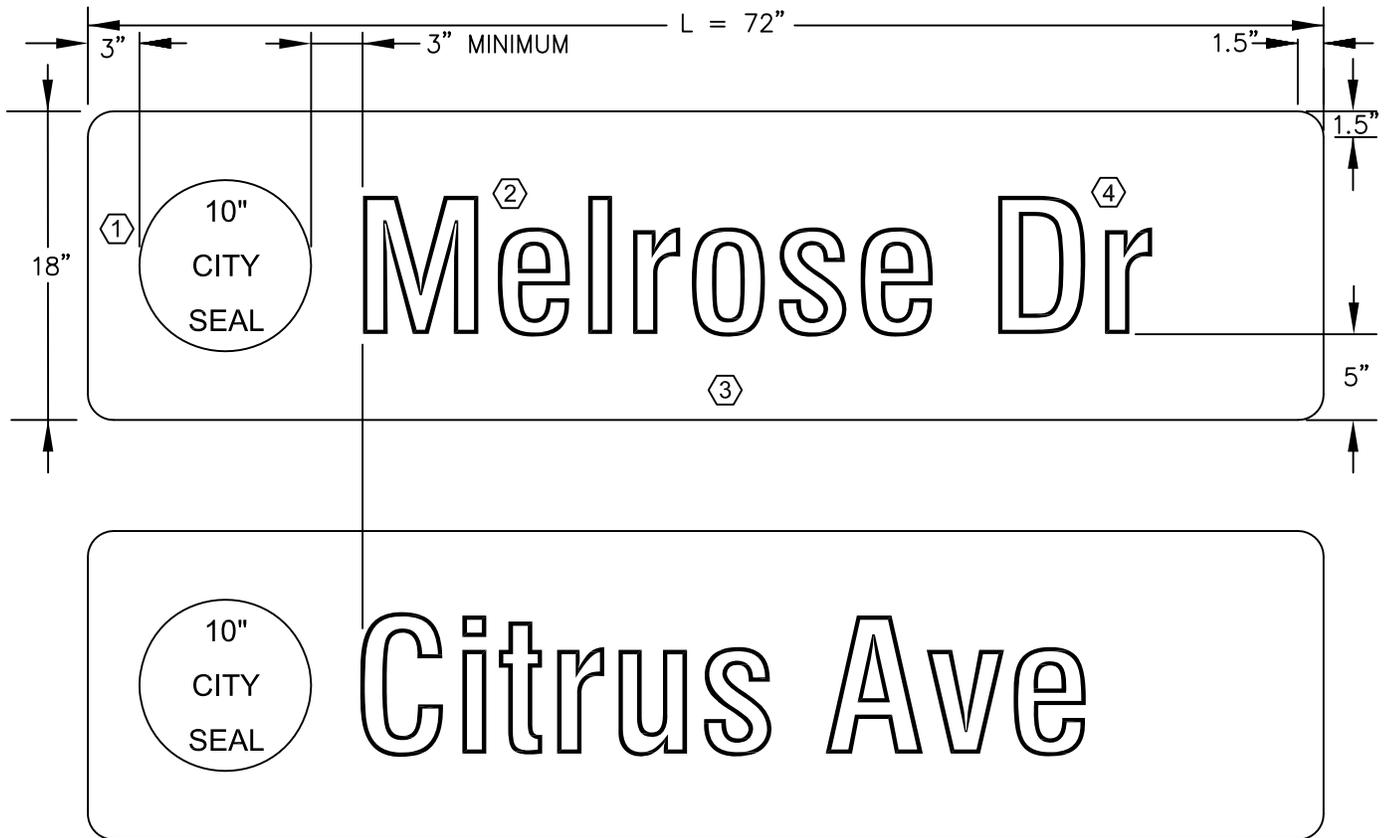
Revision	By	Apprvd	Date
Updated	TR	HH	12/18/12

CITY OF VISTA
STANDARD DRAWING

SPEED BUMPS

CITY ENGINEER, DATE
RCE 55075

DRAWING NUMBER: **TRF-02**

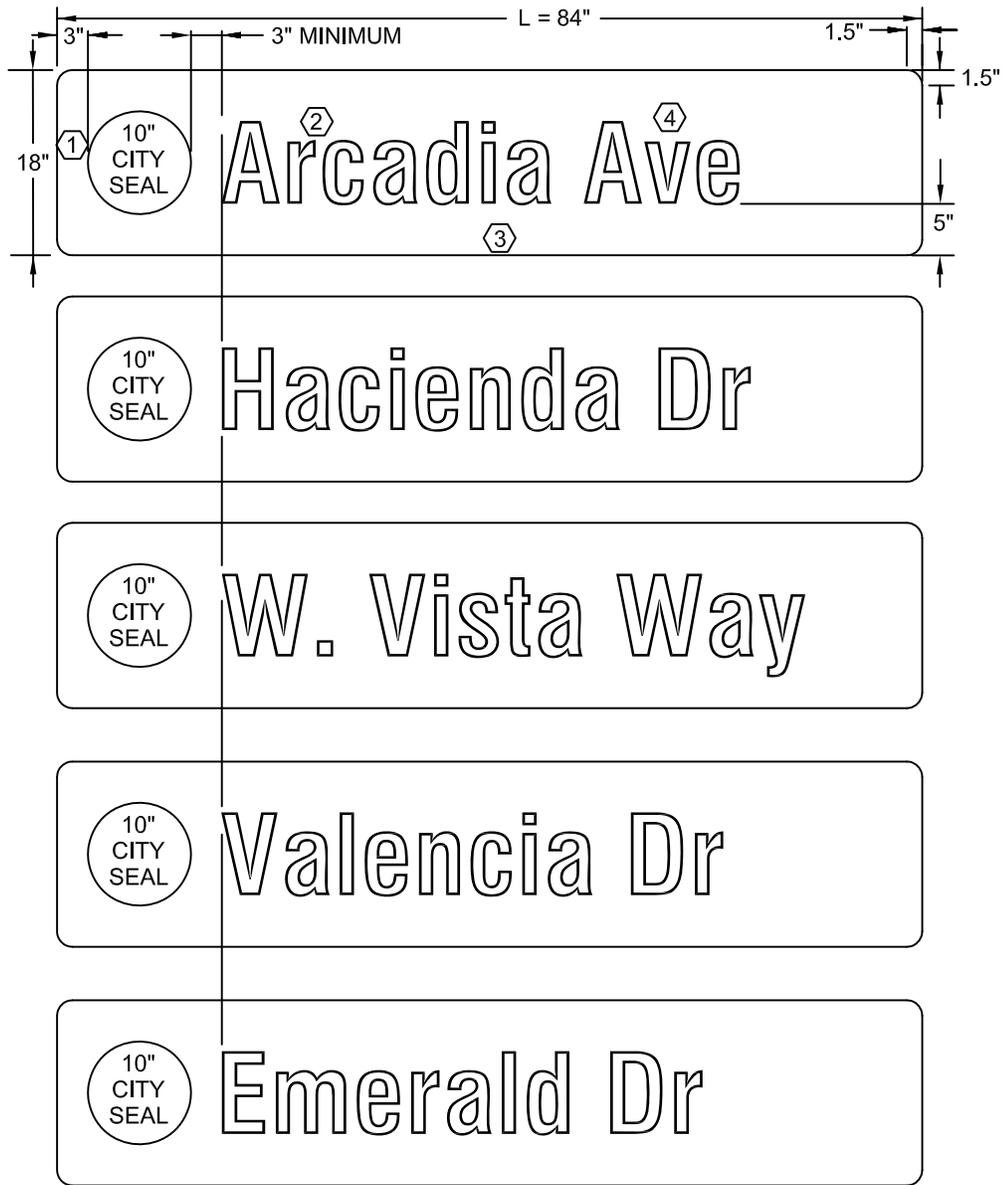


TYPICAL PUBLIC STREET NAME SIGN LAYOUT AT SIGNALIZED INTERSECTIONS

- ① REFLECTIVE 10" CITY SEAL ON THE LEFT SIDE OF ALL PUBLIC STREET NAME SIGNS AT SIGNALIZED INTERSECTIONS. REQUEST THE DIGITAL FILE OF THE CITY SEAL FROM THE ENGINEERING DEPARTMENT.
- ② DIAMOND GRADE WHITE 8" D-SERIES FHWA FONT FOR UPPERCASE LETTERING AND 6" D-SERIES FHWA FONT FOR LOWERCASE LETTERING WITH BLUE BACKGROUND.
- ③ 0.080 GAUGE ALUMINUM WITH FRAMED BACKING, SINGLE FACE WITH DIAMOND GRADE 3 REVERSE SCREENED REFLECTIVE SHEETING.
- ④ PREFERRED ABBREVIATIONS:

AVENUE: AV OR AVE	DRIVE: DR	PARK: PK	STREET: ST
BOULEVARD: BL OR BLVD	HEIGHTS: HTS	PARKWAY: PKY OR PKWY	TERRACE: TER
CANYON: CYN	HIGHWAY: HWY	PLACE: PL	TRAIL: TR
CIRCLE: CIR	LANE: LN	ROAD: RD	WAY: WY OR WAY

Revision	By	Apprvd	Date	CITY OF VISTA	
New	TR	LP	11/14/08	STANDARD DRAWING	
Updated	TR	SS	12/16/10	STREET NAME SIGN DETAILS FOR SIGNALIZED INTERSECTIONS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: TRF-03A



TYPICAL PUBLIC STREET NAME SIGN LAYOUT AT SIGNALIZED INTERSECTIONS

- ① REFLECTIVE 10" CITY SEAL ON THE LEFT SIDE OF ALL PUBLIC STREET NAME SIGNS AT SIGNALIZED INTERSECTIONS. REQUEST THE DIGITAL FILE OF THE CITY SEAL FROM THE ENGINEERING DEPARTMENT.
- ② DIAMOND GRADE WHITE 8" D-SERIES FHWA FONT FOR UPPERCASE LETTERING AND 6" D-SERIES FHWA FONT FOR LOWERCASE LETTERING WITH BLUE BACKGROUND.
- ③ 0.080 GAUGE ALUMINUM WITH FRAMED BACKING, SINGLE FACE WITH DIAMOND GRADE 3 REVERSE SCREENED REFLECTIVE SHEETING.
- ④ PREFERRED ABBREVIATIONS:

AVENUE: AV OR AVE	DRIVE: DR	PARK: PK	STREET: ST
BOULEVARD: BL OR BLVD	HEIGHTS: HTS	PARKWAY: PKY OR PKWY	TERRACE: TER
CANYON: CYN	HIGHWAY: HWY	PLACE: PL	TRAIL: TR
CIRCLE: CIR	LANE: LN	ROAD: RD	WAY: WY OR WAY

Revision	By	Apprvd	Date	CITY OF VISTA	
New	TR	LP	11/14/08	STANDARD DRAWING	
Updated	TR	SS	12/16/10	STREET NAME SIGN DETAILS FOR SIGNALIZED INTERSECTIONS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: TRF-03B



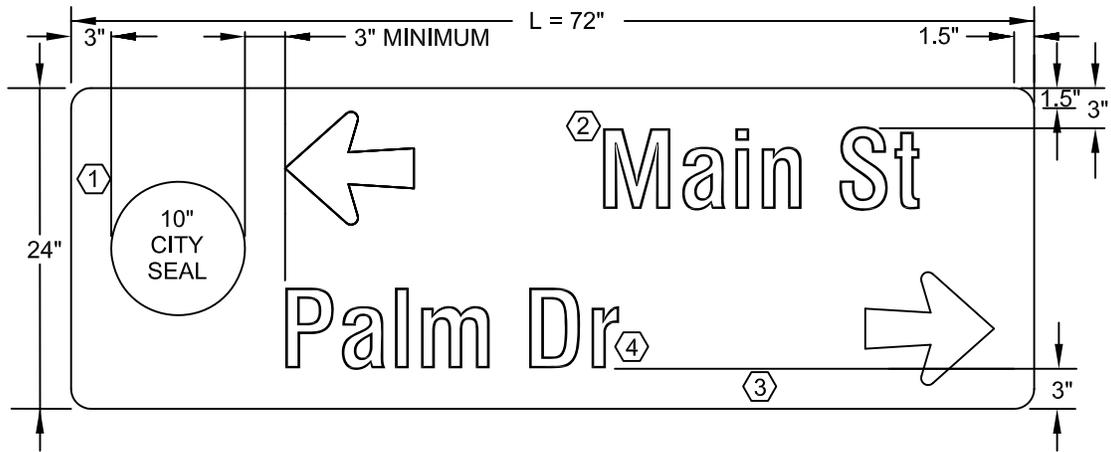
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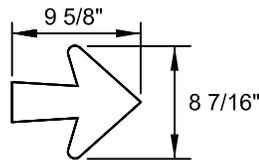
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Revision	By	Apprvd	Date	CITY OF VISTA	
New	TR	LP	11/14/08	STANDARD DRAWING	
Updated	TR	SS	12/16/10	STREET NAME SIGN DETAILS	
				FOR SIGNALIZED INTERSECTIONS	
				CITY ENGINEER, RCE 55075	DATE
				DRAWING NUMBER: TRF-03C	



CENTER LEGENDS



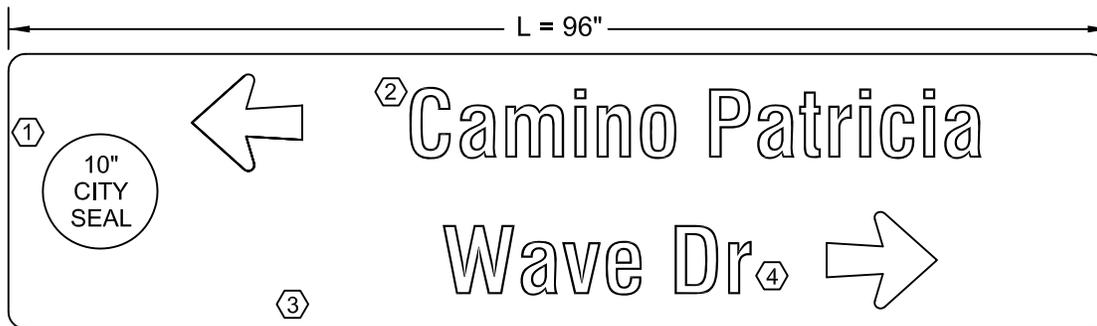
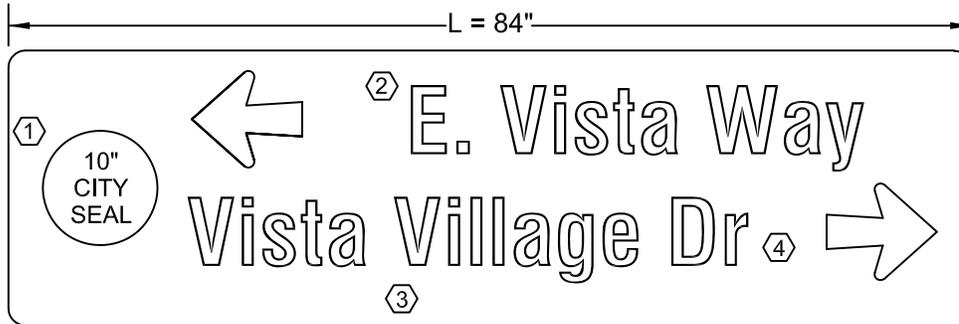
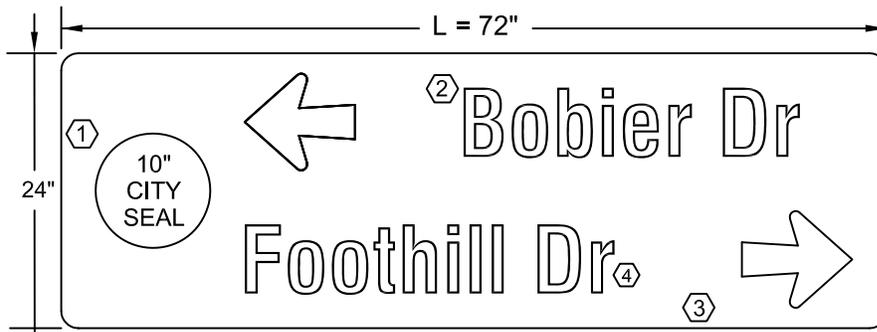
TYPICAL PUBLIC STREET NAME SIGN LAYOUT AT SIGNALIZED INTERSECTIONS

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Revision	By	Apprvd	Date	CITY OF VISTA	
New	TR	LP	11/14/08	STANDARD DRAWING	
Updated	TR	SS	12/16/10	STREET NAME SIGN DETAILS	
				FOR SIGNALIZED INTERSECTIONS	
				CITY ENGINEER, RCE 55075	DATE
				DRAWING NUMBER:	TRF-03D

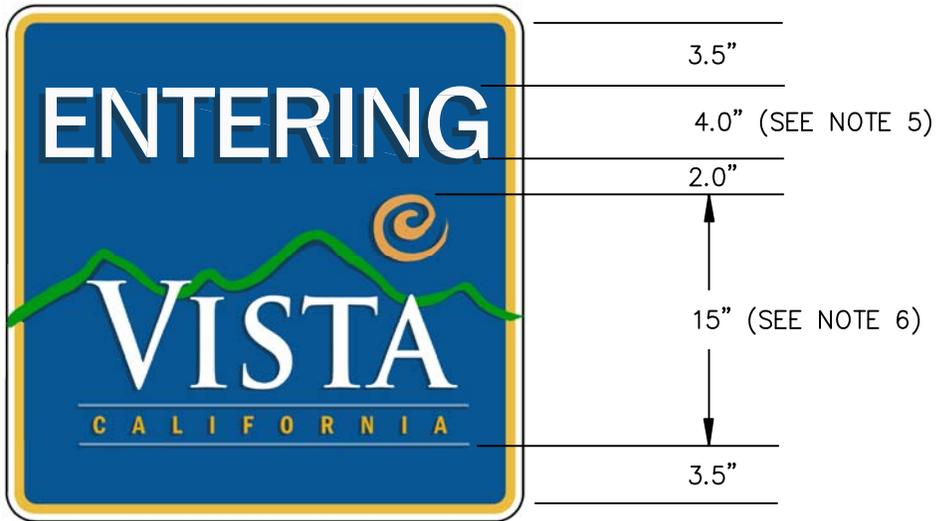


TYPICAL PUBLIC STREET NAME SIGN LAYOUT AT SIGNALIZED INTERSECTIONS

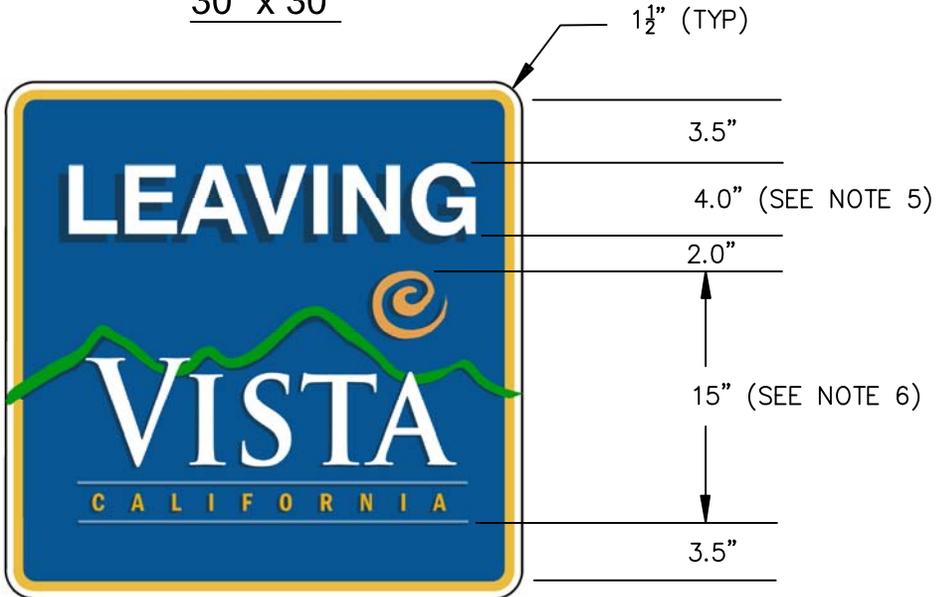
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Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	TR	LP	11/14/08	STREET NAME SIGN DETAILS FOR SIGNALIZED INTERSECTIONS	CITY ENGINEER, DATE RCE 55075
Updated	TR	SS	12/16/10		DRAWING NUMBER: TRF-03E



30" x 30"

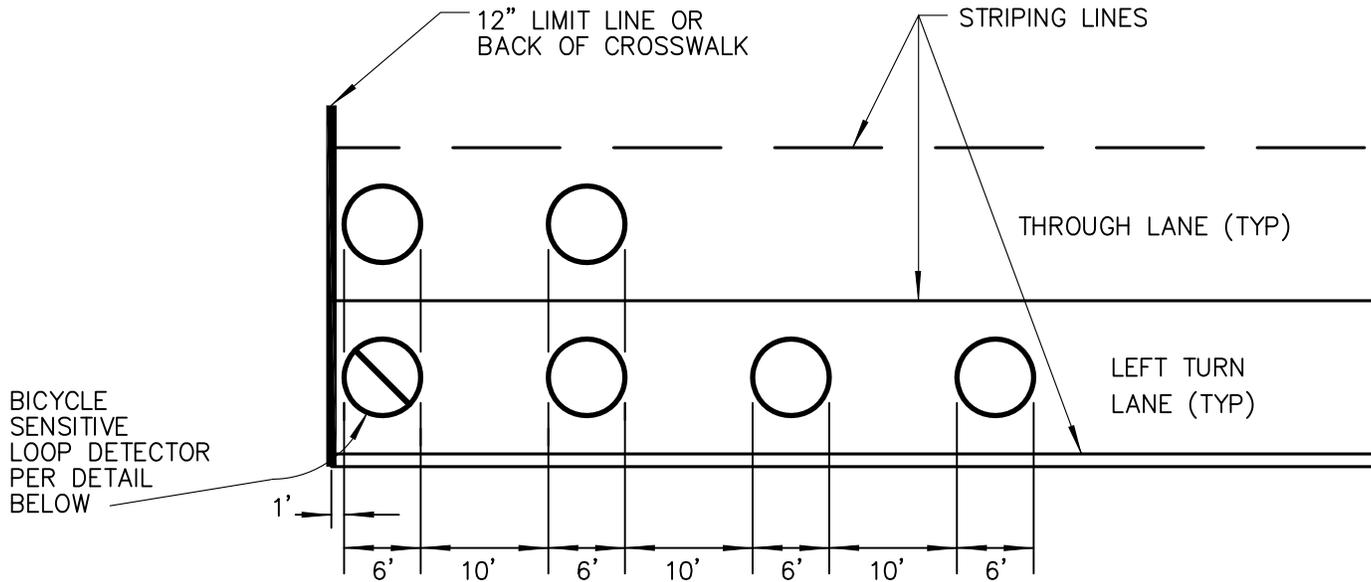


30" x 30"

NOTES:

- 1) BORDER WIDTH 5/8"; COLOR: WHITE.
- 2) MARGIN WIDTH 3/8"; COLOR: GOLD – PANTONE #143C (C-8 M-33 Y-82 K-1).
- 3) BACKGROUND COLOR: DARK BLUE – PANTONE #295C (C-100 M-57 Y-0 K-40).
- 4) USE 0.080 GAUGE ALUMINUM WITH HIGH INTENSITY PRISMATIC RETROREFLECTIVE SHEETING.
- 5) USE 4" D-SERIES FHWA WHITE FONT.
- 6) REQUEST THE STANDARD CITY LOGO DIGITAL FILE FROM THE ENGINEERING DEPARTMENT.

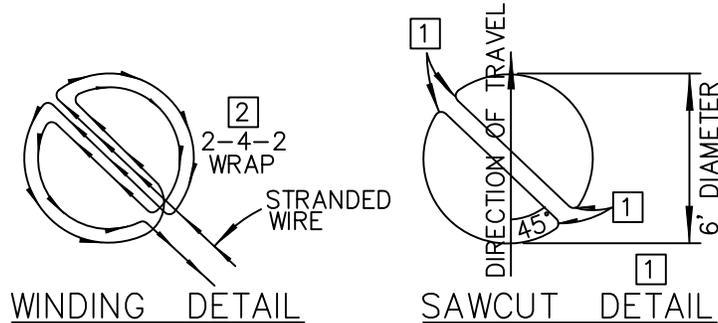
Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	RC	SS	04/05/10		
				ENTERING & LEAVING CITY SIGN DETAILS	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: TRF-04



TYPICAL LOOP DETECTOR LAYOUT

NOTES:

1. ALL LOOP DETECTORS SHALL BE INSTALLED IN PAVEMENT SURFACE.
2. ALL LOOP DETECTORS SHALL BE CENTERED IN LANE, UNLESS OTHERWISE NOTED.
3. ADVANCE LOOPS SHALL BE INSTALLED FOR MAJOR STREET THROUGH MOVEMENTS PER STANDARDS ESTABLISHED IN THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA - MUTCD).
4. FIRST LOOP IN EVERY TRAVEL LANE, EXCEPT FOR STRAIGHT THROUGH LANES ON THE MAJOR STREET APPROACHES, SHALL BE A BICYCLE SENSITIVE LOOP.



- 1** ROUND CORNERS OF ACUTE ANGLES TO PREVENT DAMAGE TO CONDUCTORS.
- 2** INSTALL 2-4-2 TURNS WHEN ONE TYPE PHASE LOOP IS IN SERIES WITH AN ADDITIONAL CIRCULAR LOOP ON A SENSOR UNIT CHANNEL FOR SLOT DETAIL. SEE LOOP INSTALLATION PROCEDURE CALTRANS STANDARD PLAN ES-5A.

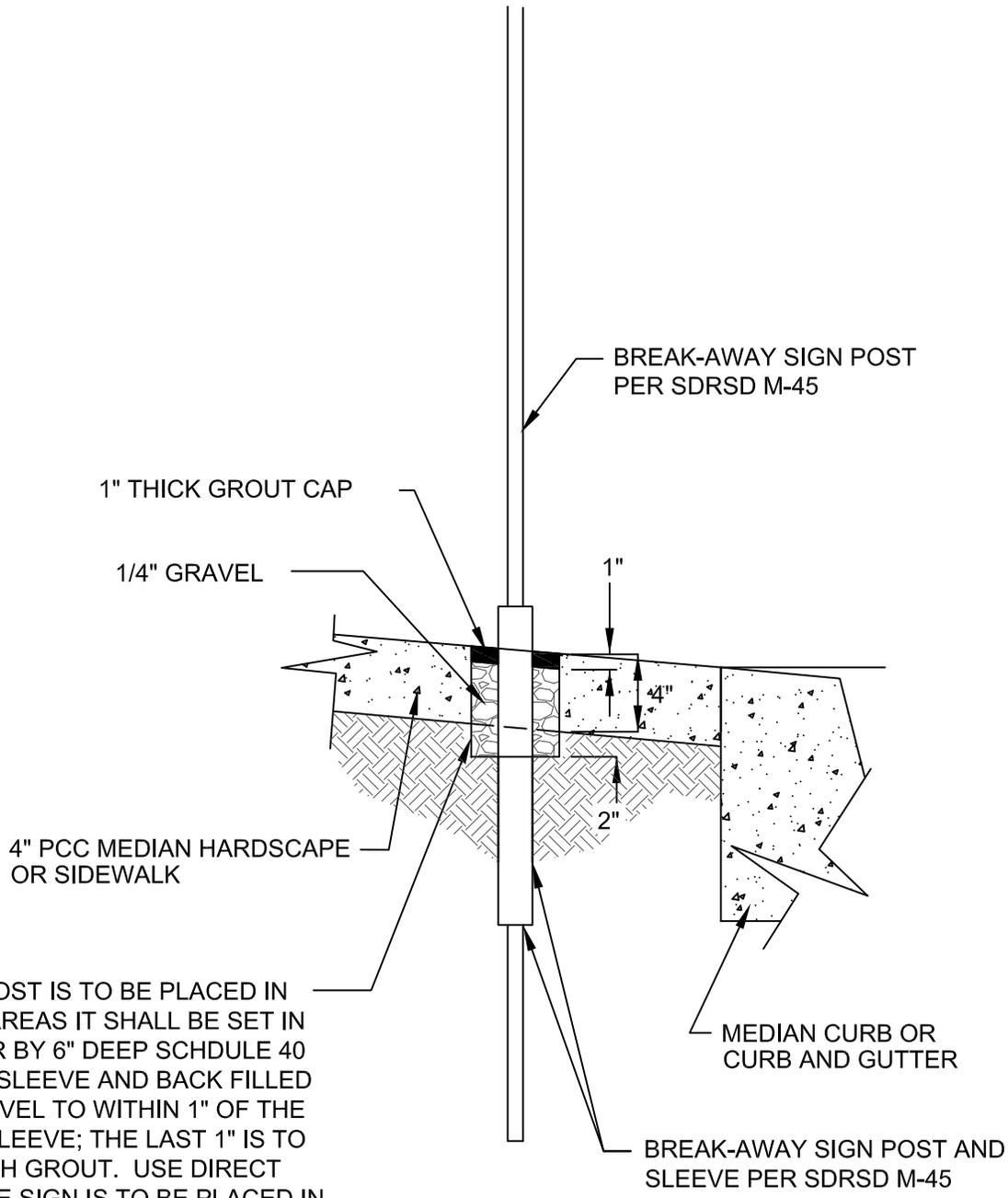
BICYCLE SENSITIVE LOOP DETECTOR CONFIGURATION

Revision	By	Apprvd	Date
New	RC	LP	04/05/10
Updated	GL	SS	02/08/11

CITY OF VISTA
STANDARD DRAWING

**STANDARD LOOP
DETECTOR LAYOUT**

CITY ENGINEER, RCE 55075	DATE
DRAWING NUMBER:	TRF-05



WHEN SIGN POST IS TO BE PLACED IN HARDSCAPE AREAS IT SHALL BE SET IN A 4" DIAMETER BY 6" DEEP SCHEDULE 40 PVC ANCHOR SLEEVE AND BACK FILLED WITH 1/4" GRAVEL TO WITHIN 1" OF THE TOP OF THE SLEEVE; THE LAST 1" IS TO BE FILLED WITH GROUT. USE DIRECT BURIAL WHERE SIGN IS TO BE PLACED IN SOIL.

BREAK-AWAY SIGN POST

Revision	By	Apprvd	Date	CITY OF VISTA STANDARD DRAWING	
New	GL	SS	4/26/11		
				SIGN POST FOOTING IN HARDSCAPE	CITY ENGINEER, DATE RCE 55075
					DRAWING NUMBER: TRF-06