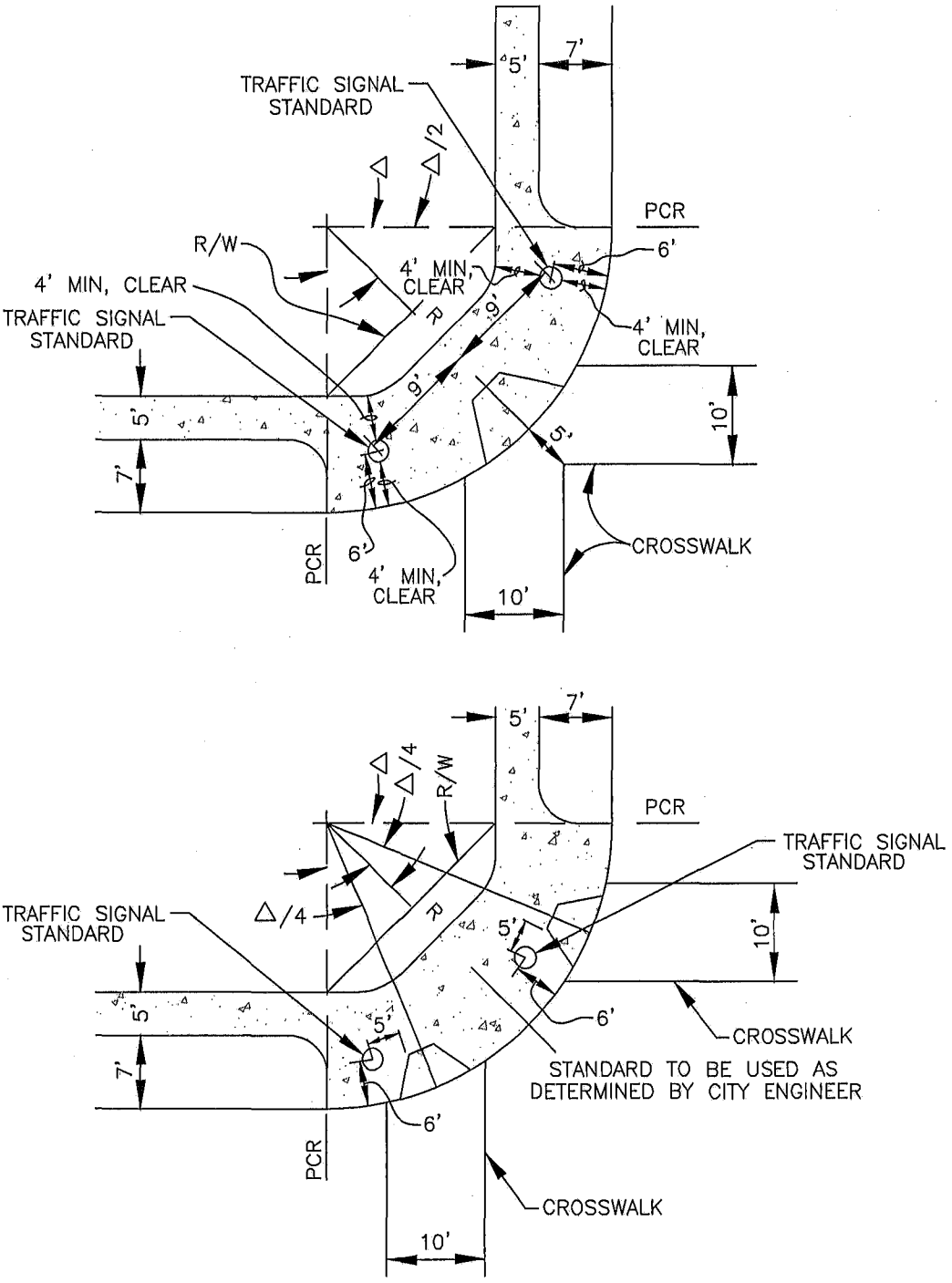
TRAFFIC
(TRF)

CITY OF CHULA VISTA

DESIGN AND CONSTRUCTION STANDARD DRAWINGS 2017

DEPARTMENT OF ENGINEERING AND CAPITAL PROJECTS



NOTES:

FINAL DETERMINATION OF TRAFFIC SIGNAL STANDARD LOCATION SHALL BE MADE BY THE CITY'S TRAFFIC ENGINEERING SECTION PRIOR TO INSTALLATION.

REVISION	BY	APPROVED	DATE
ORIGINAL			2/90
REVISION	CVM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

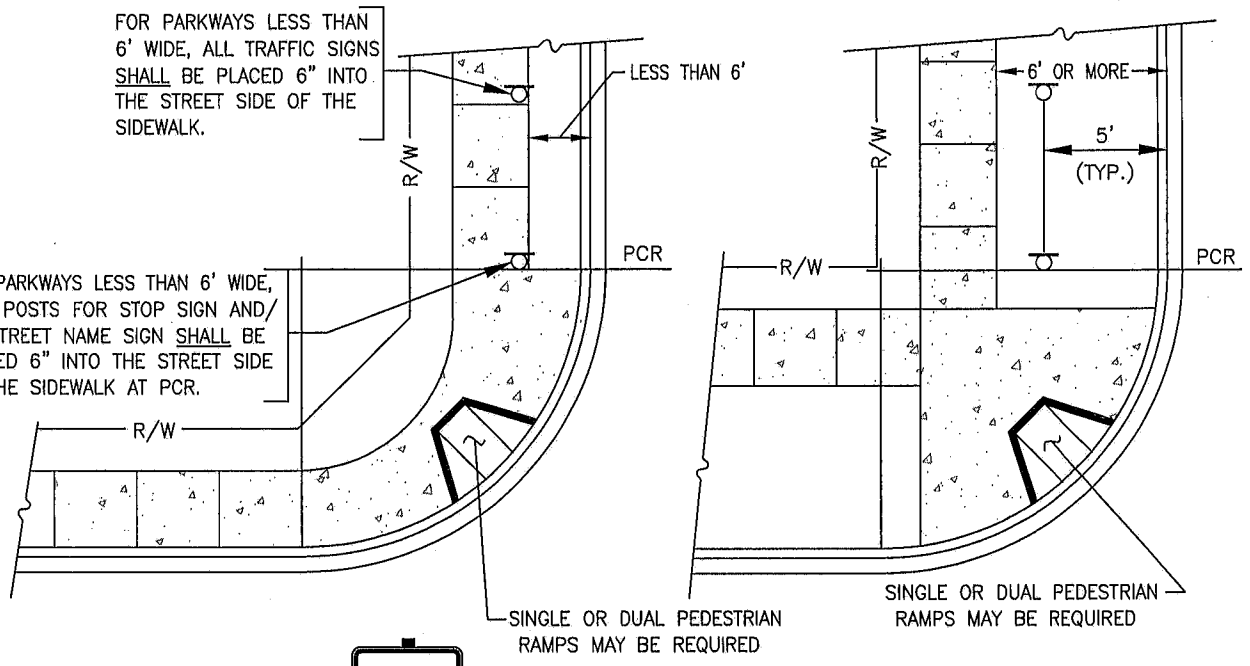
CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

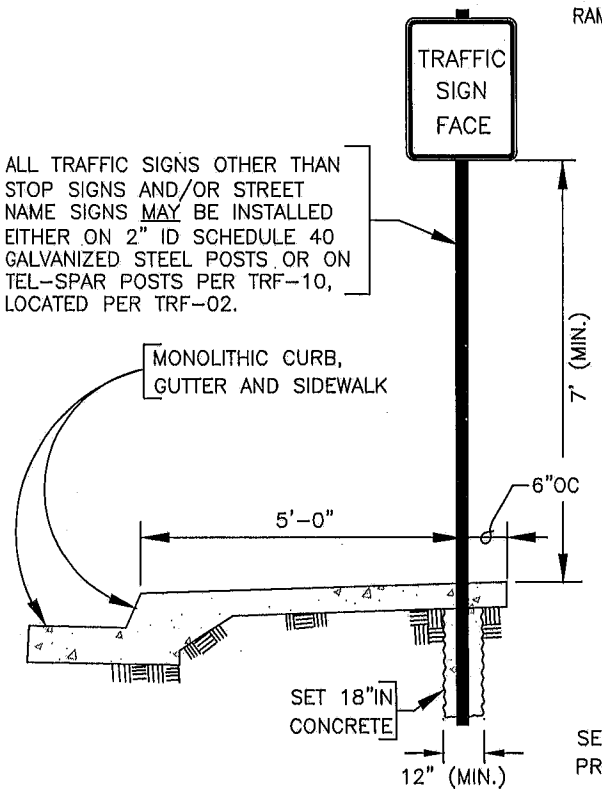
TRAFFIC SIGNAL STANDARD LOCATIONS

William S. Valle

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

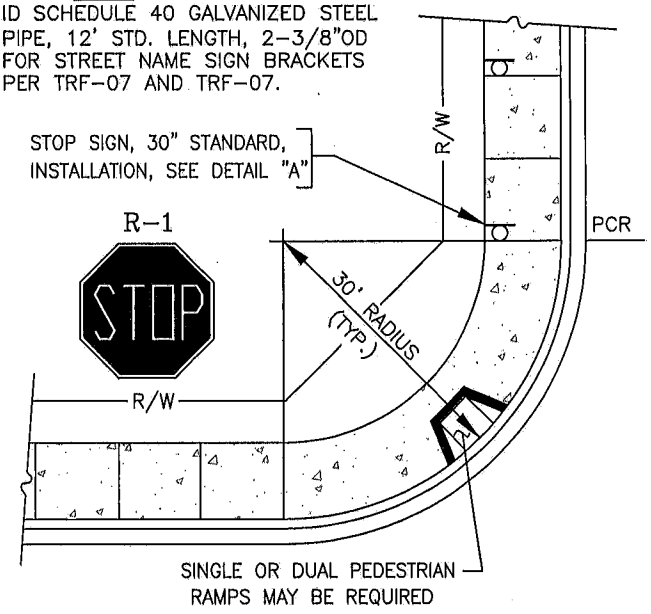
TRF-01





DETAIL "A"
NO SCALE

STOP SIGNS AND/OR STREET NAME SIGNS SHALL BE INSTALLED ON 2" ID SCHEDULE 40 GALVANIZED STEEL PIPE, 12' STD. LENGTH, 2-3/8"OD FOR STREET NAME SIGN BRACKETS PER TRF-07 AND TRF-07.



SEVERAL ORDINANCES IN THE CITY OF CHULA VISTA CITY CODE PROHIBIT THE OBSTRUCTION OF REGULATORY SIGNS IN THE CITY:

12.12.040 OBSTRUCTING PUBLIC WAYS WITH VEGETATION PROHIBITED.

12.12.120 VISION CLEARANCE-INTERSECTION REQUIREMENTS.

12.32.040 APPROVAL AND PERMIT REQUIRED.

12.32.150 TRIMMING REGULATIONS-OWNER RESPONSIBILITY-CITY TO PERFORM WORK WHEN.

12.32.190 MAINTENANCE OF PUBLIC RIGHT-OF-WAY BY PROPERTY OWNER.

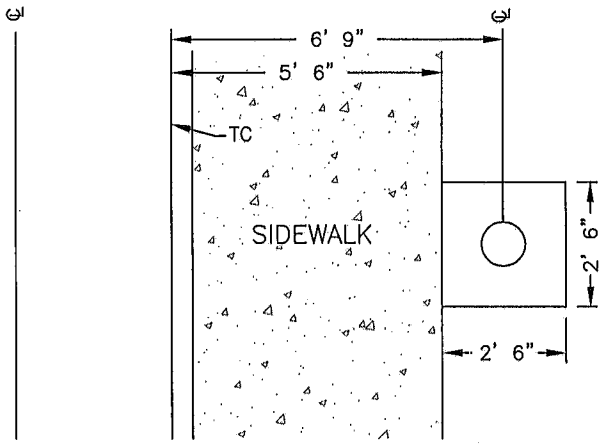
REVISION	BY	APPROVED	DATE
ORIGINAL			2/90
REVISION	CVM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

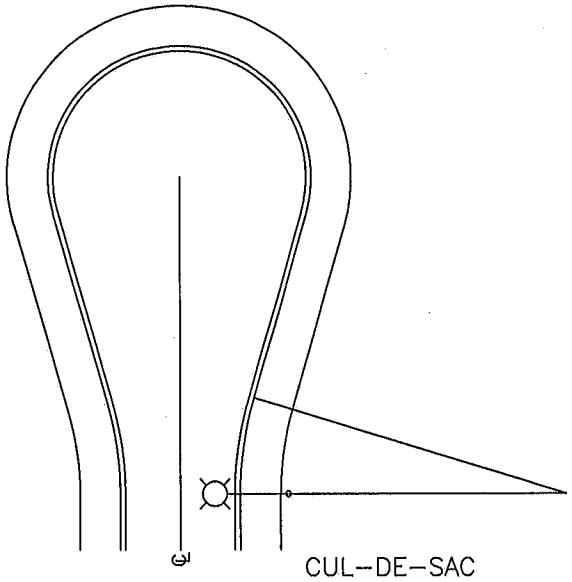
CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

TYPICAL SIGN POST PLACEMENT

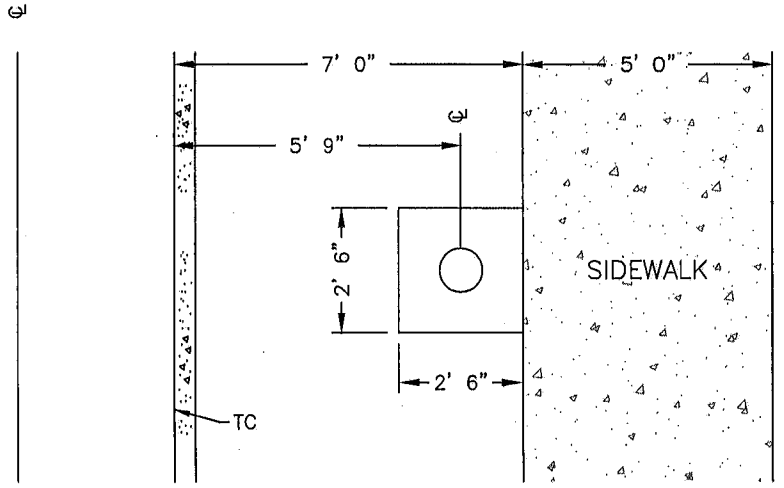
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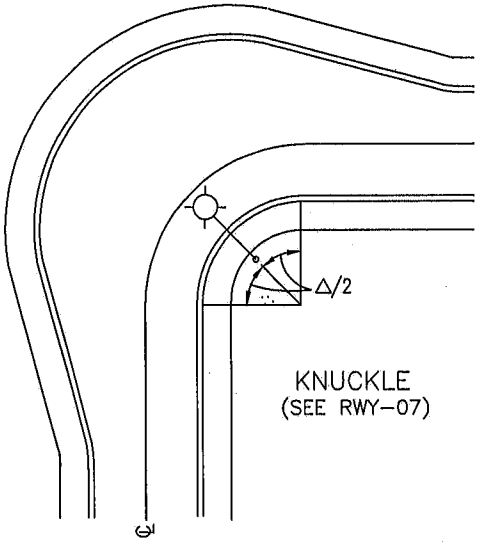
TRF-02



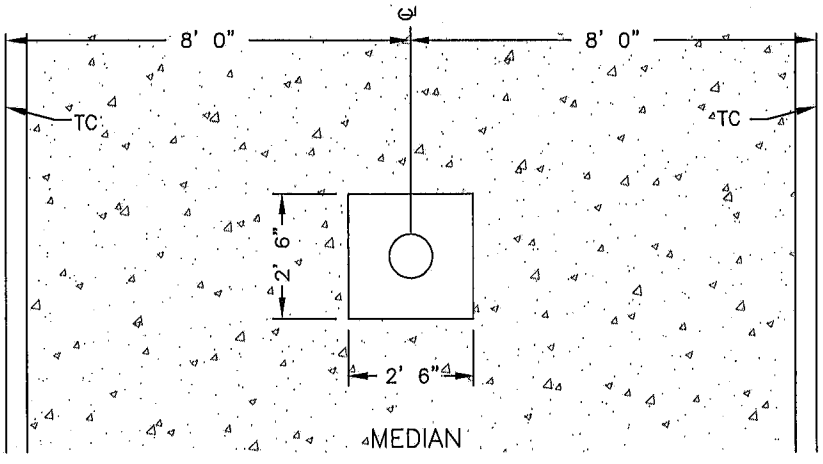


CUL–DE–SAC
(SEE RWY–08)





KNUCKLE
(SEE RWY–07)



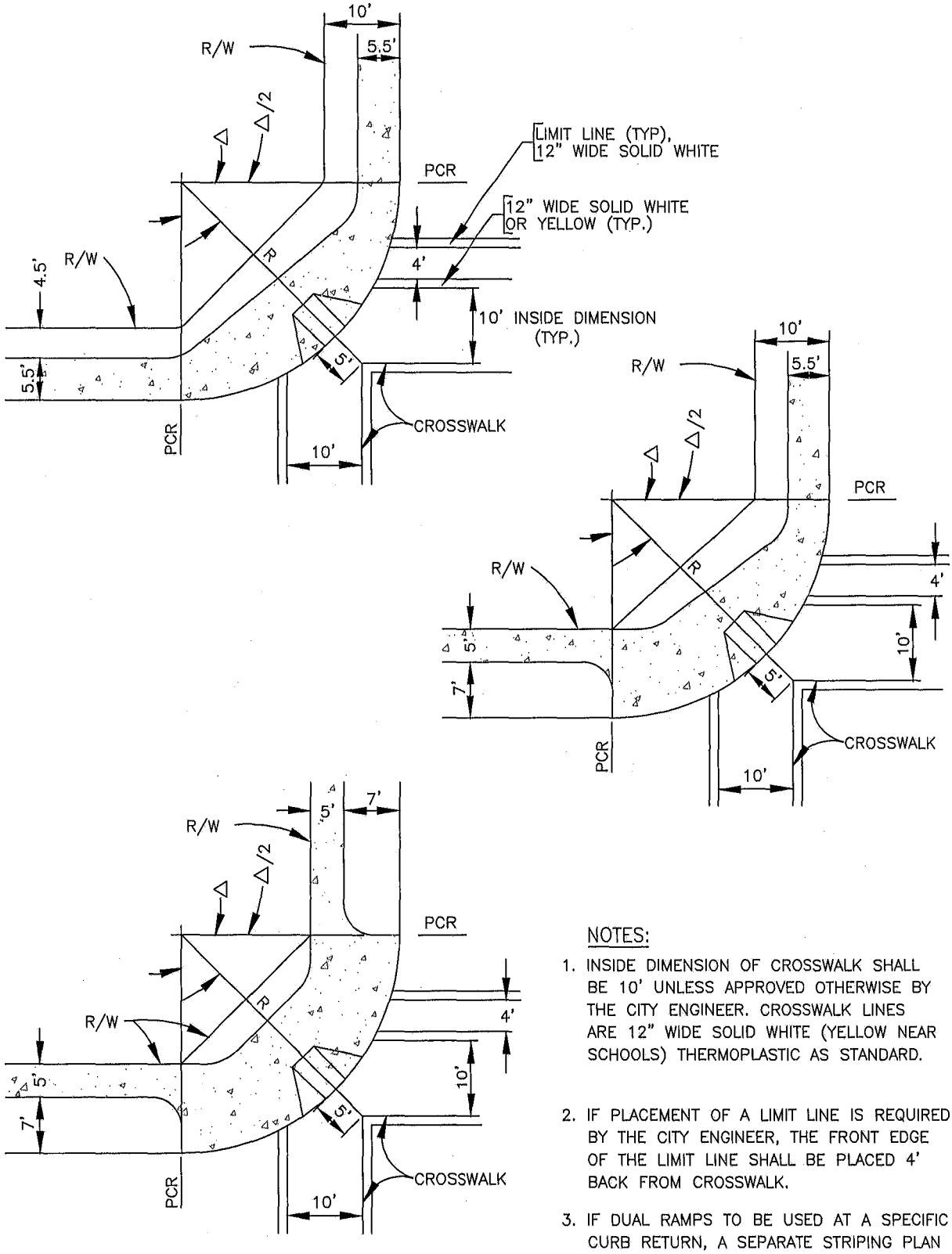
REVISION	BY	APPROVED	DATE
ORIGINAL			2/90
REVISION	CVM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

STREET LIGHT LOCATIONS

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CITY ENGINEER

TRF–03



NOTES:

1. INSIDE DIMENSION OF CROSSWALK SHALL BE 10' UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER. CROSSWALK LINES ARE 12" WIDE SOLID WHITE (YELLOW NEAR SCHOOLS) THERMOPLASTIC AS STANDARD.
2. IF PLACEMENT OF A LIMIT LINE IS REQUIRED BY THE CITY ENGINEER, THE FRONT EDGE OF THE LIMIT LINE SHALL BE PLACED 4' BACK FROM CROSSWALK.
3. IF DUAL RAMPS TO BE USED AT A SPECIFIC CURB RETURN, A SEPARATE STRIPING PLAN SHALL BE SUBMITTED FOR APPROVAL BY THE CITY ENGINEER.

REVISION	BY	APPROVED	DATE
ORIGINAL			2/90
REVISION	CVM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

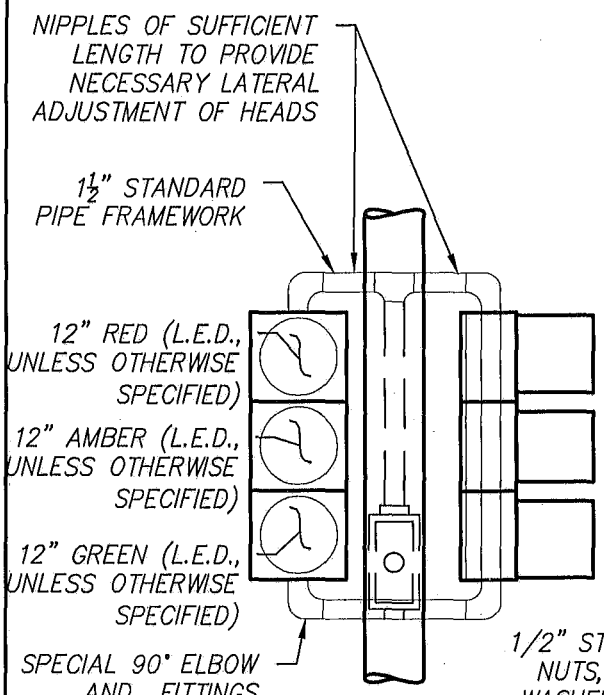
CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

TYPICAL SIDEWALK AND CROSSWALK LOCATIONS

William S. Valle

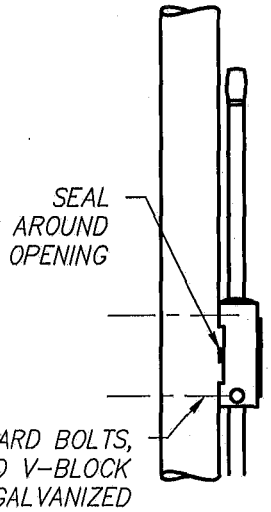
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CITY ENGINEER

TRF-04



ELEVATION–TYPICAL
NO SCALE

FRONT VIEW

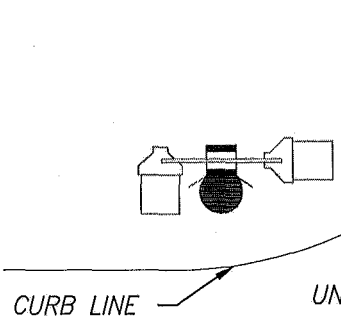


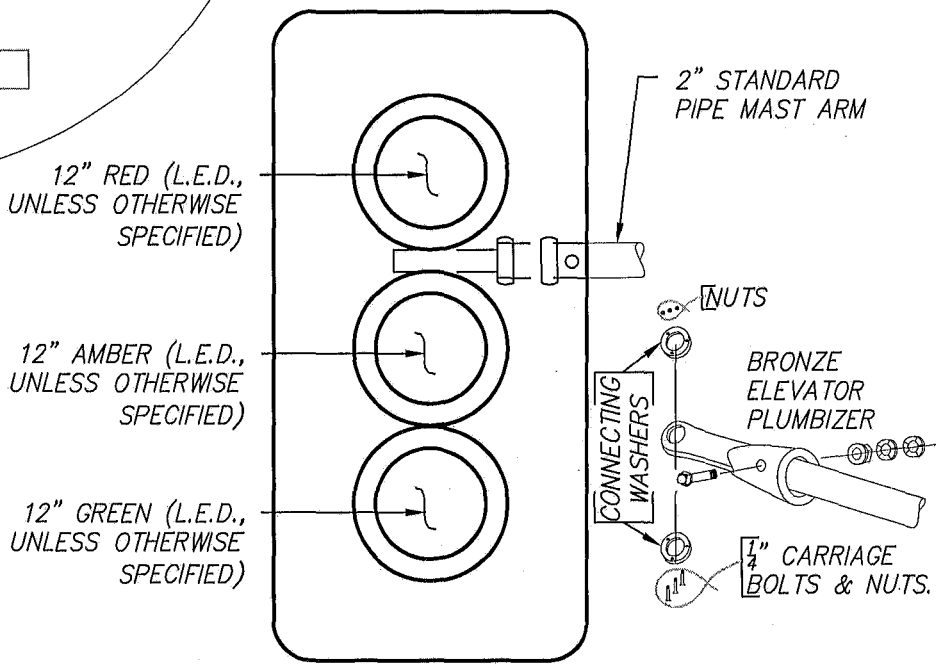
BRACKET MOUNTING
NO SCALE

SIDE VIEW

NOTES:
BRACKET MOUNTINGS SHALL BE ON SIDE OF POLE AWAY FROM TRAFFIC

TERMINAL BOX
NO SCALE





NOTES:
PLUMB AND SECURE SIGNAL HEAD, THEN DRILL 7/16" HOLE THRU MAST ARM IN LINE WITH HOLE IN SLIPFITTER. PLACE 3/8" GALVANIZED BOLT WITH WASHER UNDER HEAD THRU HOLE & SECURE WITH WASHER AND TWO NUTS.

ELEVATOR PLUMBIZER ASSEMBLY
NO SCALE

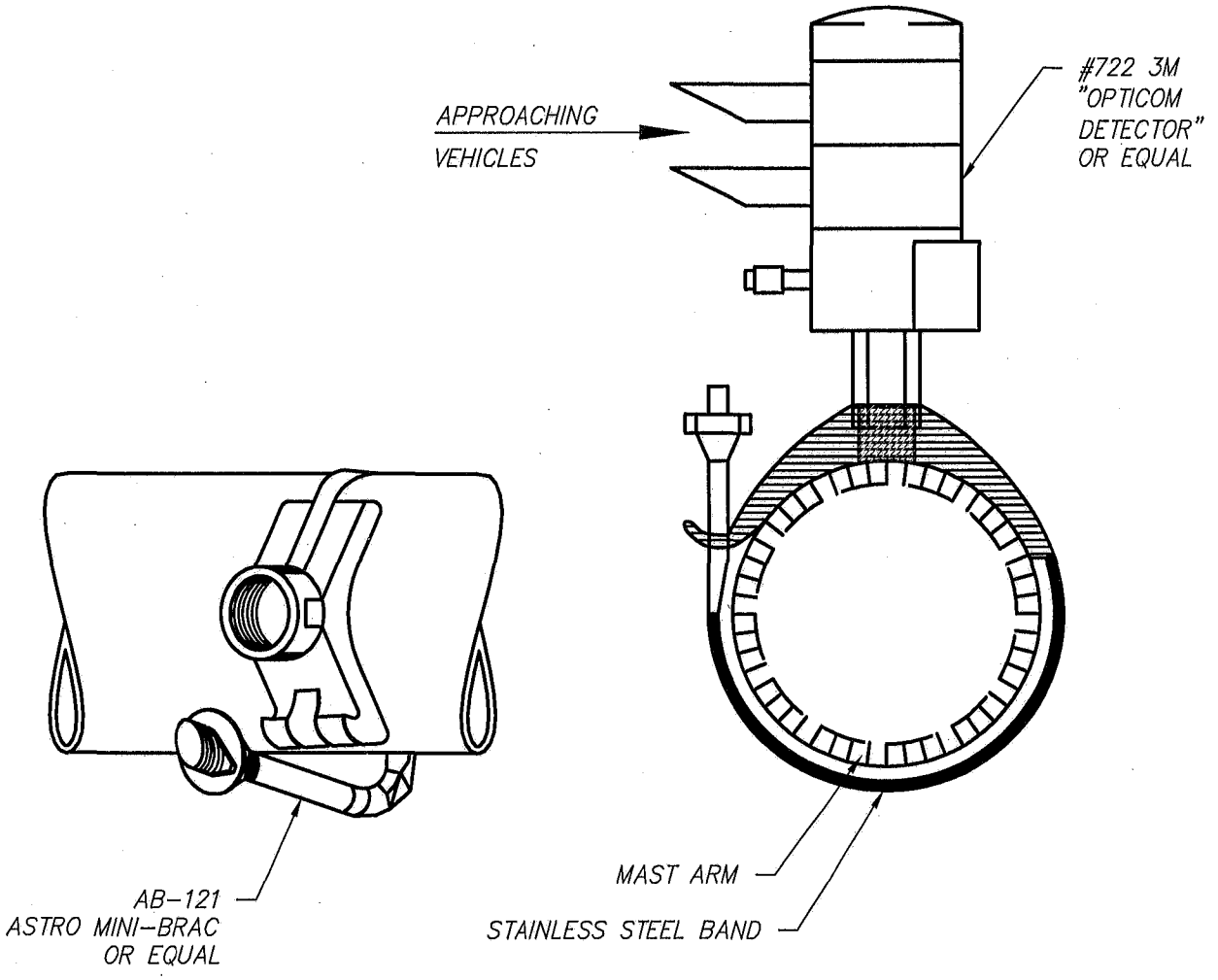
REVISION	BY	APPROVED	DATE
ORIGINAL			12/67
REVISION	CM	CVM	11/02
REVISION	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

SIGNAL HEAD MOUNTING BRACKET AND MAST ARM INSTALLATION

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CITY ENGINEER

TRF–05



EMERGENCY VEHICLE PRE-EMPTION (EVPE) DETECTOR

NO SCALE — MOUNTING DETAILS

REVISION	BY	APPROVED	DATE
ORIGINAL			3/83
REVISION	CM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

EVPE DETECTOR

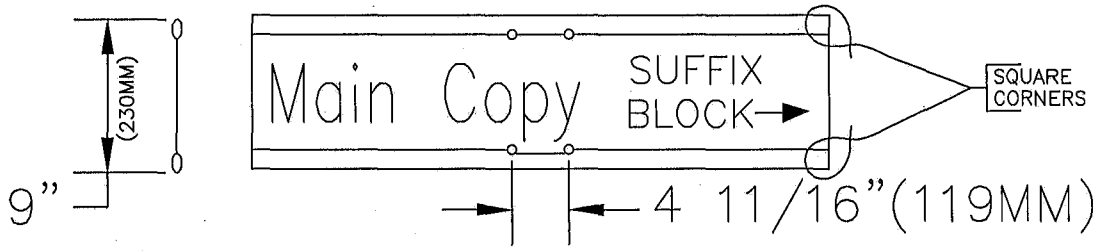
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CITY ENGINEER

TRF-06

STOCK NO.	SIZE	MATERIAL & FINISH CODE		BORDER
V14F-909EX-2C1P V14F-909EX-2C2P	9" HEIGHT BY VARIABLE LENGTH 24" MINIMUM	ALUMINUM EXTRUSION PER CALTRANS 6061T6 OR 5052-H38 ALLOY MATERIAL .250" BULB WITH .091" WEB ONLY		3/8" (9.53MM)
LETTER COLOR	BK/GR COLOR	HOLES	HOLE ℄	RADIUS
REFLECTIVE WHITE *REFLECTIVE BLUE	REFLECTIVE BLUE *REFLECTIVE WHITE	TWO HOLES TOP & TWO HOLES BOTTOM	4-11/16" ON CENTERS	SQUARE CORNERS

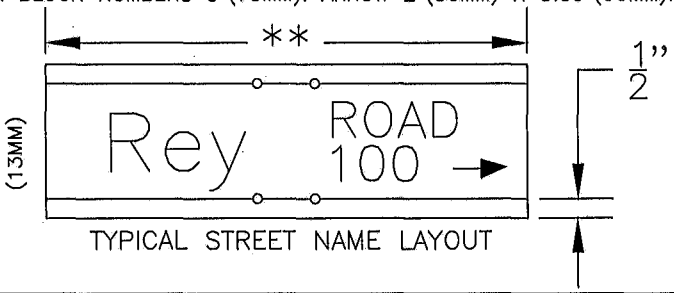
* FOR PRIVATE STREETS.

A PLATE: WIDTH 9"(230MM) BY VARIABLE LENGTH, 24"(610MM) MINIMUM WITH 48"(1220MM) MAXIMUM. ALUMINUM ALLOY PER CALTRANS, EXTRUSION TYPE WITH 0.250"(6.35MM) BULB AND 0.091"(2.31MM) WEB. SQUARE CORNERS. TWO HOLES TOP, TWO BOTTOM ON 4 11/16"(119MM) CENTERS.



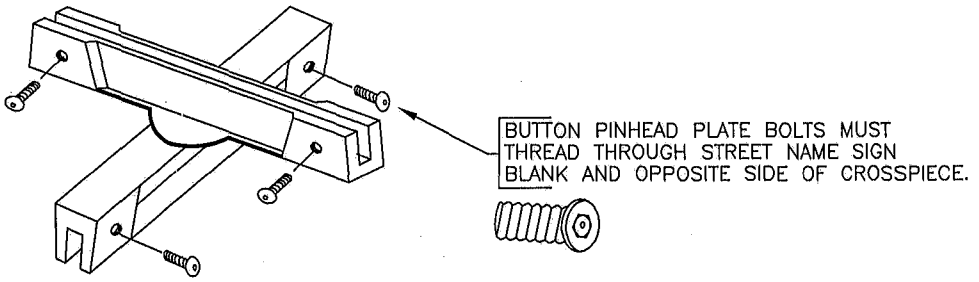
B LEGEND: TRAFFIC STYLE REFLECTIVE LETTERS, BLUE OR WHITE:
MAIN COPY 6"(150MM) U.C., 4-1/2"(114MM) L.C.: FIFTEEN(15) LETTERS MAXIMUM,
EVERY TWO LOWER CASE "i" COUNTS AS ONE LETTER.
SUFFIX 3"(75MM) U.C.: BLOCK NUMBERS 3"(75MM): ARROW 2"(50MM) X 3.55"(90MM).

**
24"(610MM),
30"(760MM),
36"(915MM),
42"(1070MM),
48"(1220MM)



TYPICAL STREET NAME LAYOUT

C CROSSPIECE: V14F-909EX-90°



STREET NAME SIGN SYSTEM

REVISION	BY	APPROVED	DATE
ORIGINAL			7/90
REVISION	CM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

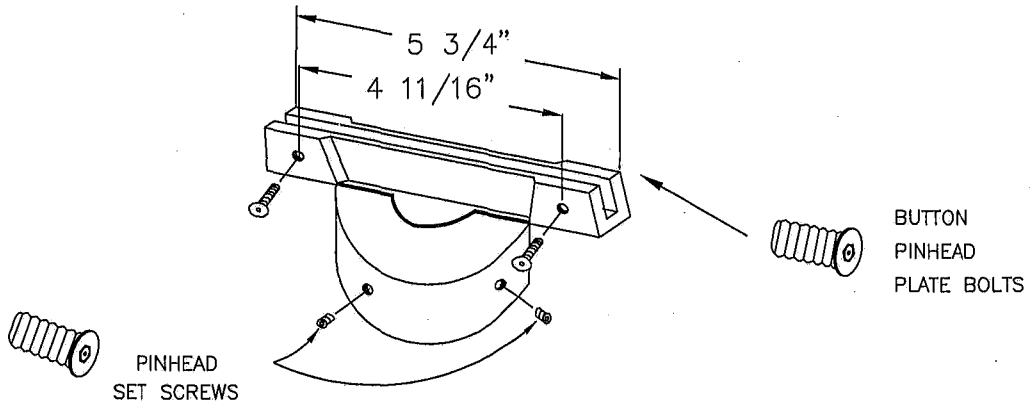
CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

STREET NAME SIGNS

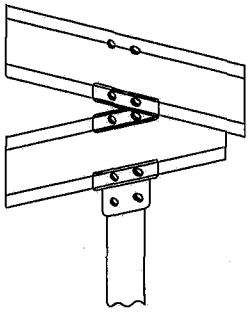
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CITY ENGINEER

TRF-07

D CAP: V14F-909EX-2C TO FIT 2" I.D. GALVANIZED STEEL PIPE



E MOUNTING: V14F-90EX-2C2P ILLUSTRATED



F SPECIFICATION: V14F-909EX-2C1P ONE NAME ASSEMBLY OR
V14F-909EX-2C2P TWO NAME ASSEMBLY

9" WIDTH x VARIABLE, 24" LENGTH MINIMUM, 48" MAXIMUM LENGTH. EXTRUSION TYPE ALUMINUM BLADE WITH .250" BULB AND .091" WEB. REFLECTIVE BLUE BACKGROUND, DOUBLE FACED. SQUARE CORNER. TWO HOLES TOP, TWO HOLES BOTTON ON 4 11/16" CENTERS.

TRAFFIC STYLE LETTERS REFLECTIVE WHITE 6" U.C. AND 4 1/2" L.C. MAIN COPY. SUFFIX 3" U.C. ON TOP LINE, 3" BLOCK NUMBERS SECOND LINE WITH 2" x 3.55" ARROW TO THE RIGHT.

90° CROSS PIECE COMPLETE WITH BUTTON PIN HEAD PLATE BOLTS. BOLTS MUST THREAD THROUGH STREET NAME SIGN BLANK AND OPPOSITE SIDE OF CROSSPIECE. CAP TO FIT 2" I.D. PIPE, WITH PIN HEAD SET SCREWS AND BUTTON PIN HEAD PLATE BOLTS, PURSUANT TO CITY OF CHULA VISTA SPECIFICATIONS.

STREET NAME SIGN SYSTEM

NOTE: FORMERLY CVDS 35
NOTE: FORMERLY CVDS 33

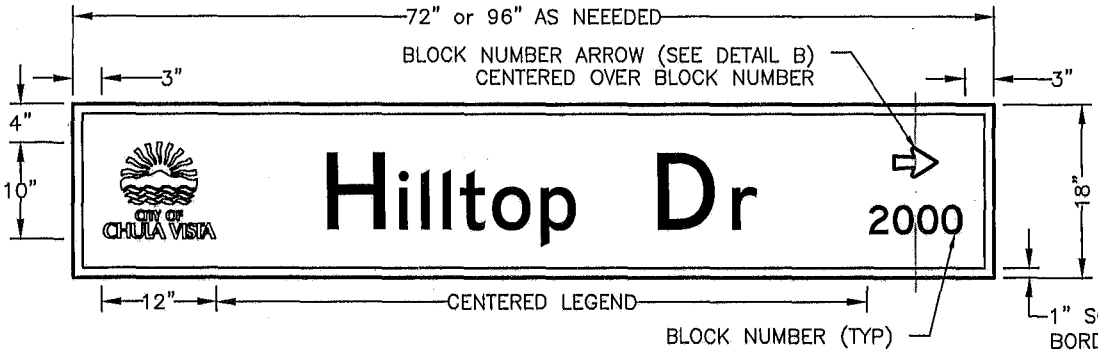
REVISION	BY	APPROVED	DATE
ORIGINAL			7/72
REVISION	CM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

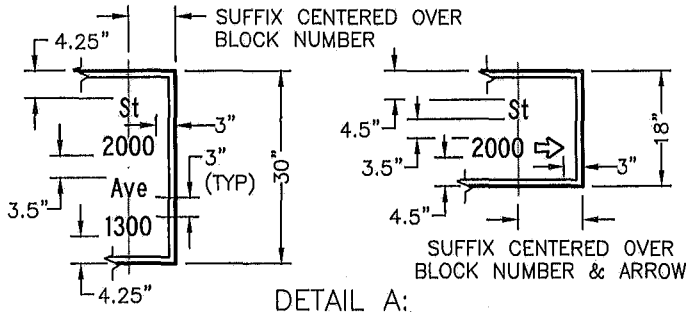
STREET NAME SIGNS DETAILS

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TRF-07





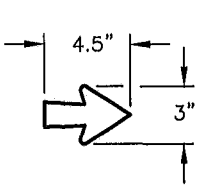


DETAIL A:
SUFFIX PLACEMENT RESTRICTIVE CONDITIONS

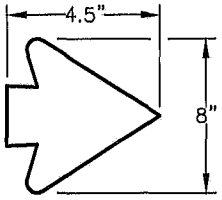
NOTES:

1. DG3 REFLECTIVE SHEETING PER ASTM D 4956 TYPE XI STANDARDS
2. GREEN BACKGROUND WITH WHITE FHWA HIGHWAY GOTHIC FONT. STREET NAME 8" UPPERCASE AND 6" LOWERCASE. BLOCK NUMBER 3".
3. 0.05 ALUMINUM SUBSTRATE
4. RELATIVE DIMENSIONS FOR BLOCK AND STREET NAME ARROWS (DETAILS B AND C) PER STANDARD HIGHWAY SIGN AND MARKINGS DETAIL S-2

GUIDANCE FOR FONT SERIES, SIGN SIZE AND PLACEMENT: DEFAULT TO AN 18" X 72" SIGN BLANK AND SERIES E FONT. PLACE ABBREVIATED SUFFIX IN-LINE WITH STREET NAME. FOR ALPHA STREET NAMES ONLY, SPELL OUT "STREET". TO ACHIEVE LEGEND FIT USE THE FOLLOWING IN ORDER OF PRIORITY: 1.) SERIES D 2.) ABBREVIATIONS (SEE DETAIL CVD-TRXX SHEET 3) 3.) SERIES C FONT. 4.) 96" X 18" SIGN BLANK WITH SERIES E FONT FOLLOWED BY D, C AND B SERIES. 5.) STACK STREET SUFFIX OVER THE BLOCK NUMBER AND ARROW USING 3" FONT (SEE DETAIL A). USE SERIES E FONT FOLLOWED BY D, C AND B SERIES. ONLY ONE SERIES FONT SHALL BE USED PER SIGN.



DETAIL B:
BLOCK NUMBER
ARROW



DETAIL C:
STREET NAME
DIRECTIONAL
ARROW

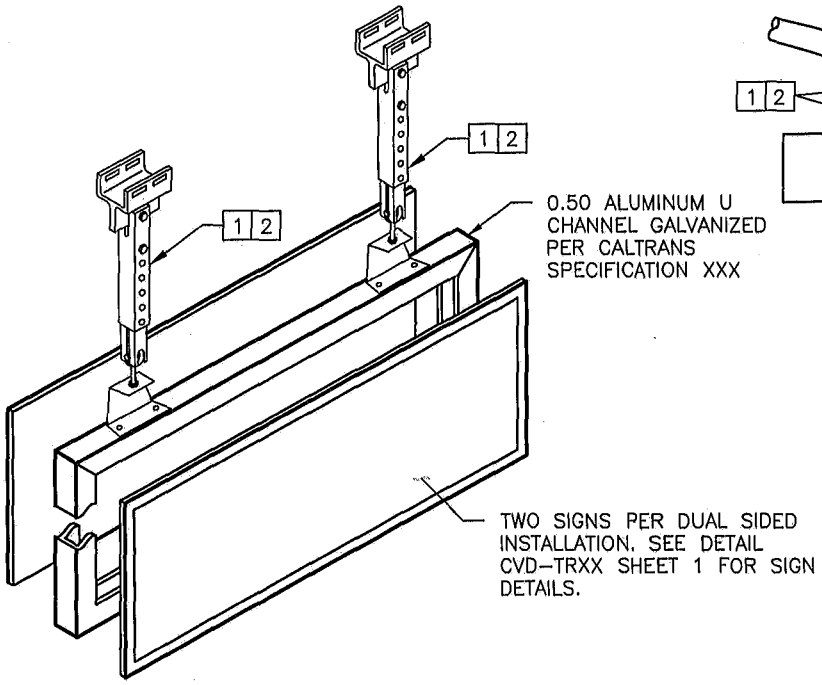
REVISION	BY	APPROVED	DATE
ORIGINAL	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

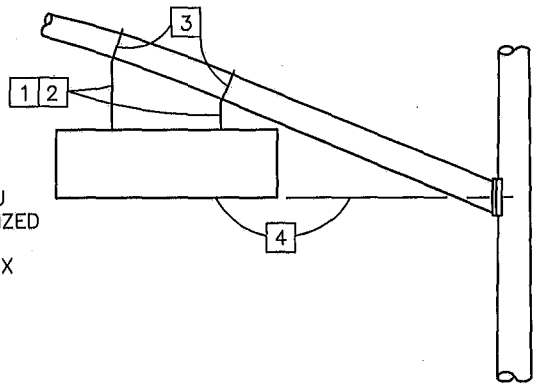
OVERHEAD STREET NAME SIGNS

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CITY ENGINEER

TRF-07



DETAIL D:
SIGN FRAME AND ATTACHMENT

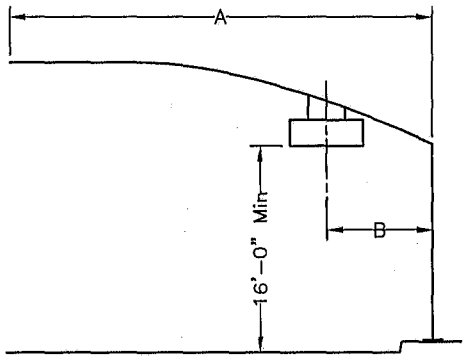


DETAIL E:
SIGN MOUNTING

NOTES:

1. BRACKET, $\frac{1}{4}$" X $1\frac{1}{2}$" MINIMUM, LENGTH VARIABLE
2. BRACKET, 2-PIECE ADJUSTABLE. $\frac{1}{4}$" X $1\frac{1}{2}$" MINIMUM. TWO $\frac{1}{2}$" ø HEXAGON HEAD BOLTS WITH NUTS AND LOCKWASHERS
3. $\frac{3}{4}$" X 0.02" MINIMUM ROUNDED EDGE STAINLESS STEEL STRAP WITH 2" LONG BEND UNDER BUCKLE. IF ATTACHING TO A MULTISIDED SECTION BEND UNDER SECTION SHALL BE LONG ENOUGH TO CONTACT AT LEAST 3 CORNERS.
4. ADJUST FIXTURE LEVEL NO LOWER THAN CENTER OF SIGNAL MAST ARM CONNECTION.

NOTES THIS PAGE ARE FOR REFERENCE ONLY. USE CALTRANS STANDARD DRAWING ES-7P FOR THE LATEST STANDARD DETAILS FOR SIGN HARDWARE, PLACEMENT AND NOTES.



DETAIL F:
SIGN PLACEMENT

SIGN PLACEMENT

A	B	
PROJECTED LENGTH	72" SIGN	96" SIGN
20'-0"	7'-10"	8'-10"
25'-0"	9'-2"	10'-2"
30'-0"	9'-6"	10'-6"
35'-0"	10'-6"	11'-6"
40'-0"	12'-6"	13'-6"
45'-0"		
50'-0"		
55'-0"		
60'-0"		
65'-0"		

REVISION	BY	APPROVED	DATE
ORIGINAL	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

OVERHEAD STREET NAME SIGN DETAILS

William S. Valle

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF-07

NAME TO BE ABBREVIATED	ABBREVIATION
Avenida	Avd
Avenue	Ave
Boulevard	Blvd
Calle	Cl
Callejon	Clj
Caminito	Cmto
Camino	Cam
Center	Ctr
Circle	Cir
Corte	Cte
Court	Ct
Creek	Ck
Drive	Dr
East	E
Elementary	Elem
Entrance	Ent
Estate	Est
Freeway	Fwy
Gardens	Gdns
Heights	Hts
Highlands	Hghlds
Highway	Hwy
Lake	Lk
Lane	Ln
Loop	Lp
Meadow	Mdw
Mount	Mt
Mountain	Mnt
North	N
Park	Pk

NAME TO BE ABBREVIATED	ABBREVIATION
Parkway	Pkwy
Paseo	Pas
Place	Pl
Plaza	Plz
Rambla	Rmbla
Ranch	Rch
Rancho	Rcho
Ridge	Rdg
River	Riv
Road	Rd
Saint	St
Santa	Snta
School	Sch
South	S
Spring	Spg
Springs	Spgs
Station	Sta
Street	St
Summit	Smt
Terrace	Ter
Trail	Tr
Truck Trail	TT
Valley	Vly
View	Vw
Village	Vlg
Vista	Vis
Way	Wy
West	W
Driveway	Dwy

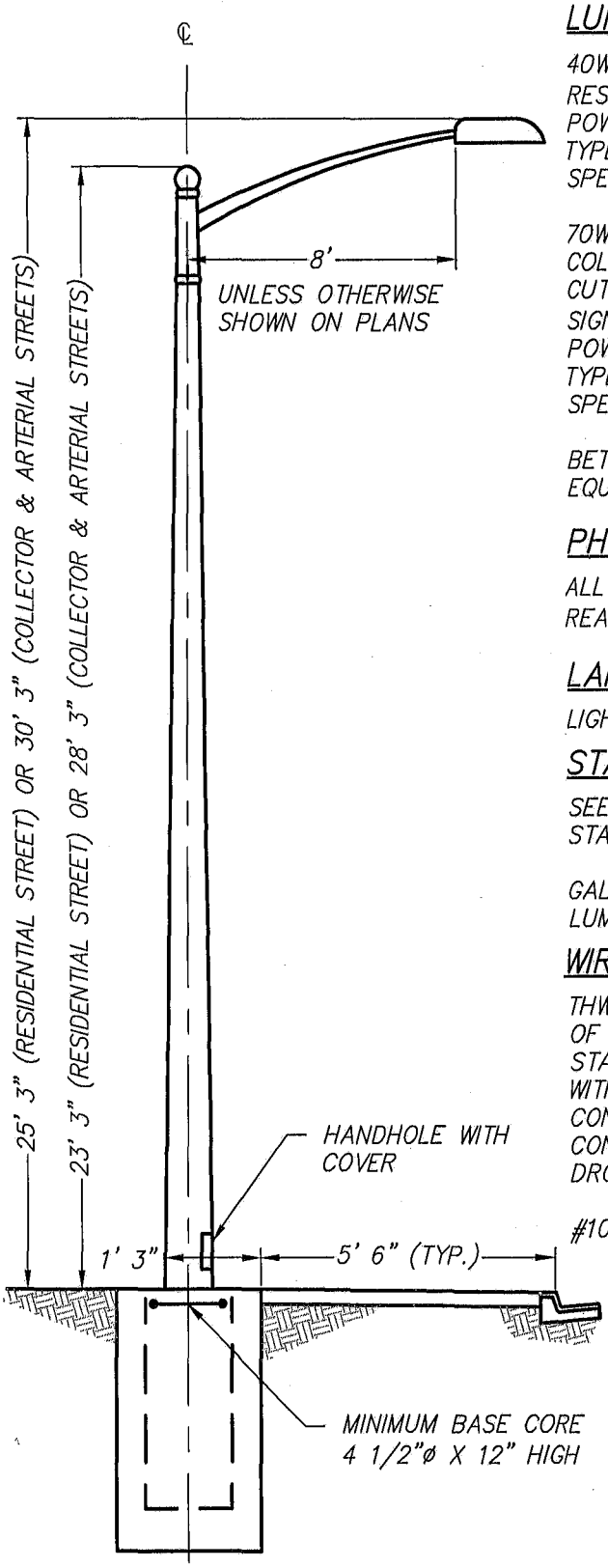
REVISION	BY	APPROVED	DATE
ORIGINAL	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

OVERHEAD STREET NAME SIGN ABBREVIATIONS

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF-07



LUMINAIRE:

40W–60W L.E.D. LUMINAIRE WITH CUT–OFF OPTICS ON RESIDENTIAL STREET. USE MULTI–VOLT (120V/240V) POWER SUPPLY, TWIST–LOCK P.E.C. RECEPTACLE AND I.E.S. TYPE II LIGHT DISTRIBUTION PATTERN UNLESS OTHERWISE SPECIFIED.

70W–90W L.E.D. LUMINAIRE WITH CUT–OFF OPTICS ON COLLECTOR STREET. 100W–150W L.E.D. LUMINAIRE WITH CUT–OFF OPTICS ON ARTERIAL STREET AND ON TRAFFIC SIGNAL SAFETY LIGHTING. USE MULTI– VOLT (120V/240V) POWER SUPPLY, TWIST LOCK P.E.C. RECEPTACLE AND I.E.S. TYPE III LIGHT DISTRIBUTION PATTERN UNLESS OTHERWISE SPECIFIED.

BETALED, GE, LED ROADWAY, LEOTEK, OR APPROVED EQUAL.

PHOTO ELECTRIC CONTROL:

ALL LUMINAIRES/FIXTURES SHALL BE "ADAPTIVE CONTROL READY" PER CITY OF CHULA VISTA SPECIFICATIONS.

LAMP:

LIGHT EMITTTING DIODE (L.E.D.)

STANDARD:

SEE SECTION 307 OF THE CITY OF CHULA VISTA STANDARD SPECIAL PROVISIONS. TWO–INCH STANDARD

GALVANIZED STEEL OR ALUMINUM PIPE BRACKET FOR LUMINAIRE. HANDLE TO FACE STREET.

WIRING:

THW STRANDED COPPER TO SERVICE POINT. NEUTRAL LEG OF LIGHTING CONDUCTORS GROUNDED IN BASE OF STANDARD. HOT LEG OF LIGHTING CONDUCTORS FUSED WITH 10–AMPERE MIDGET FERRULE TYPE FUSE IN PLUG CONNECTOR, IN BASE OF STANDARD. SIZE ALL CONDUCTORS FOR MAXIMUM THREE PERCENT VOLTAGE DROP IN ALL STREET LIGHT CIRCUITS.

#10 THW STRANDED COPPER IN STANDARD.

GENERAL NOTES:

1. LUMINAIRE & PHOTO CELL SHALL BE APPROVED BY CITY ENGINEER PRIOR TO INSTALLATION.

2. STREET LIGHT PLANS SHALL SHOW WIRING FROM SERVICE POINT TO STREET LIGHTS, AND SHALL BE APPROVED BY CITY ENGINEER PRIOR TO INSTALLATION.

FOUNDATION & GROUNDING:

SEE TRF–08
REFER TO MANUFACTURER'S DETAIL FOR ANCHOR BOLT SPACING.

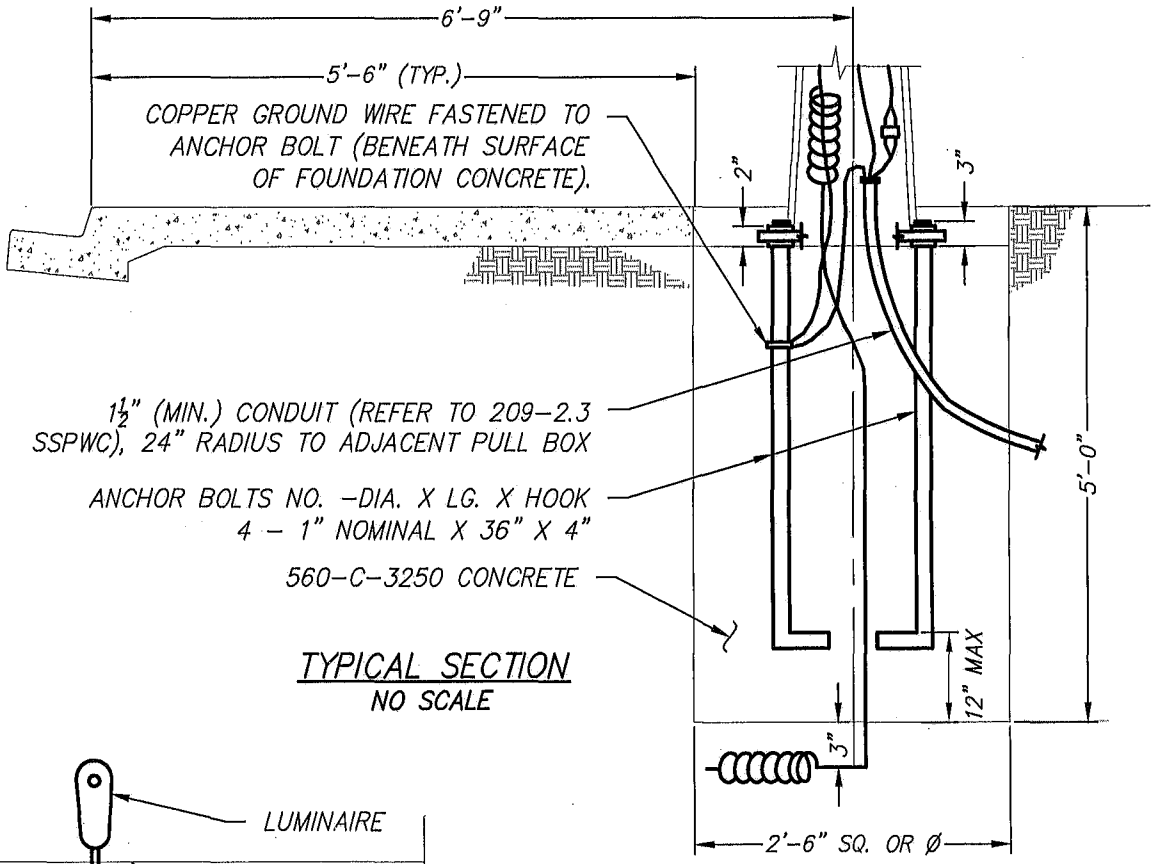
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ORIGINAL			7/80
REVISION	CVM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

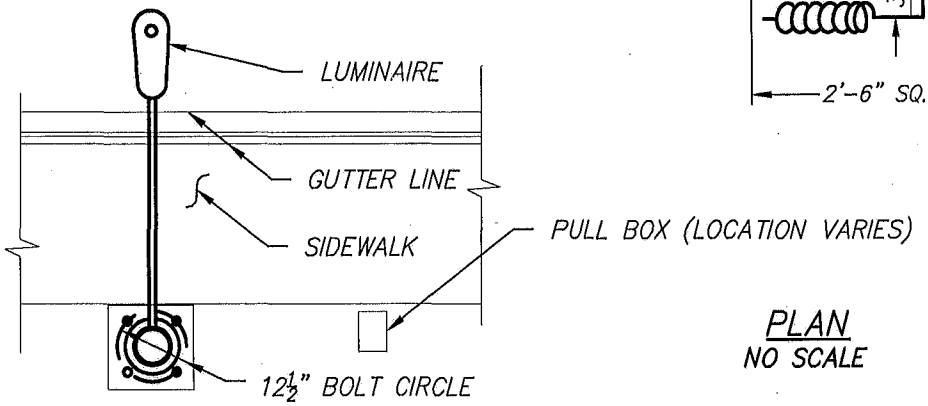
STREET LIGHTING STANDARD

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF–08



TYPICAL SECTION
NO SCALE



PLAN
NO SCALE

NOTES:

1. CONDUIT SHOULD BE RIGID STEEL OR PVC SCHEDULE 80, PLACED 30" TO 60"DEEP IN THE STREET OR 18" TO 36" DEEP BEHIND CURB LINE. REFER TO CHULA VISTA CONSTRUCTION STANDARD DWG. TRF-08 - STREET LIGHTING STANDARD.

2. WIRING - MINIMUM #8 THW STRANDED COPPER, 5/64" INSULATION TO SERVICE POINT. TWO CONDUCTORS: [1-RED OR BLACK, 1-WHITE (NEUTRAL), 120 VOLT] [2-RED OR BLACK, 1-GREEN #6, 240 VOLT], #10 THW STRANDED COPPER IN THE STANDARD.

3. EACH ANCHOR BOLT SHALL BE PROVIDED WITH 2 NUTS AND 2 WASHERS, GALVANIZED. THE TOP 8" OF ALL ANCHOR BOLTS AND ALL NUTS SHALL BE GALVANIZED. COMPLETED INSTALLATION WHEREIN ENDS OF ANCHOR BOLTS ARE EXPOSED SHALL HAVE BOLT ENDS CUT AND GROUND DOWN TO MAXIMUM EXPOSED LENGTH OF 1/4" ABOVE ANCHOR NUTS. BEVEL SHARP EDGES OF BOLTS.

4. SQUARE FOUNDATIONS SHALL BE INSTALLED IN NON-GRANULAR CLAY SOILS. CIRCULAR FOUNDATIONS MAY BE INSTALLED IN COURSE GRANULAR SOIL.

5. PULL BOXES SHALL BE PER CITY OF CHULA VISTA CONSTRUCTION STANDARD DWG. TRF-09.

6. STREET LIGHTING STD. (ELECTRICAL DETAILS) SHALL BE PER TRF-08.

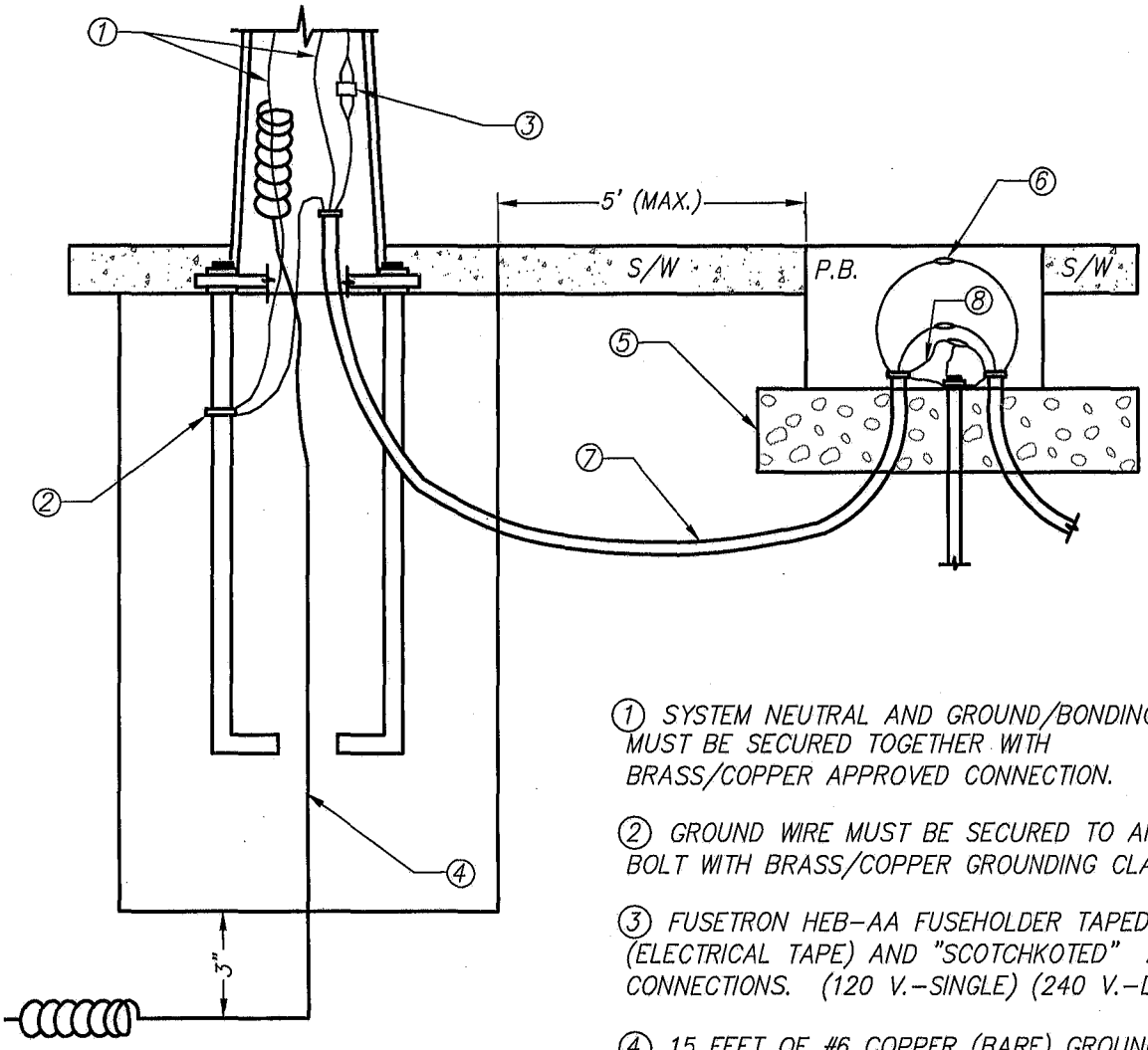
REVISION	BY	APPROVED	DATE
ORIGINAL			3/83
REVISION	CVM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

STREET LIGHT STANDARD
FOUNDATION DETAIL

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF-08



MINIMUM WIRE SPECIFICATIONS:

SERVICE RUN: #8 COPPER THW
STRANDED POLE: #10 COPPER THW
STRANDED GROUND AND BONDING: #6 COPPER (BARE)

STREET LIGHTING ELECTRICAL DETAILS:

SEE CHULA VISTA CONSTRUCTION STANDARDS NO. TRF-08, TRF-08, TRF-09, AND TRF-09FOR CONSTRUCTION DETAILS.

(1) SYSTEM NEUTRAL AND GROUND/BONDING WIRE MUST BE SECURED TOGETHER WITH BRASS/COPPER APPROVED CONNECTION.

(2) GROUND WIRE MUST BE SECURED TO ANCHOR BOLT WITH BRASS/COPPER GROUNDING CLAMP.

(3) FUSETRON HEB-AA FUSEHOLDER TAPED (ELECTRICAL TAPE) AND "SCOTCHKOTED" AT CONNECTIONS. (120 V.-SINGLE) (240 V.-DUAL).

(4) 15 FEET OF #6 COPPER (BARE) GROUND WIRE TO BE INSTALLED 3" BELOW THE FOUNDATION AND EXTENDED THROUGH THE @ NOTE 1.

(5) GRAVEL BASE FOR PULL BOXES TO BE 6" DEEP AND 3" BEYOND THE EDGE OF THE PULL BOX. (SEE TRF-09).

(6) ALL CONNECTIONS ARE TO BE TAPED (ELECTRICAL TAPE) AND "SCOTCHKOTED".

(7) IF RIGID CONDUIT IS USED, IT SHALL BE BONDED TO THE NEUTRAL AND THE GROUND WIRE.

(8) IF 240 V. SYSTEM, GROUND WIRE IS REQUIRED.

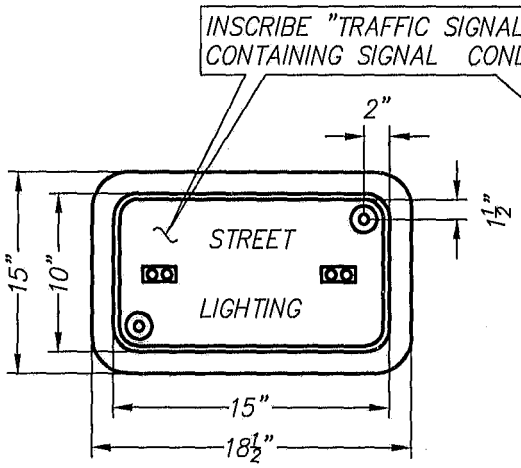
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CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

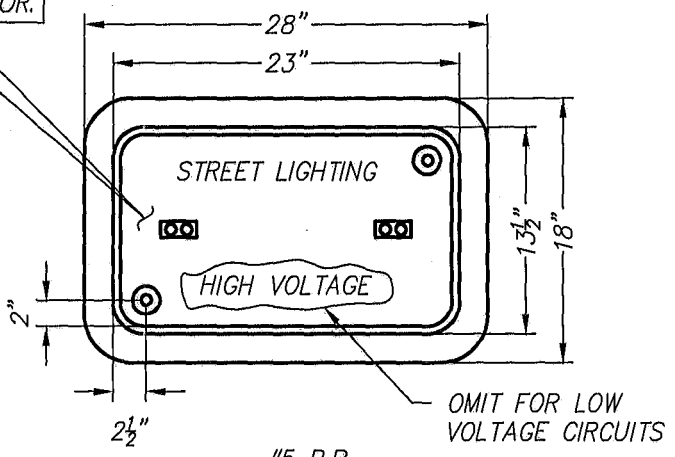
STREET LIGHTING STANDARD ELECTRICAL DETAILS

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CITY ENGINEER

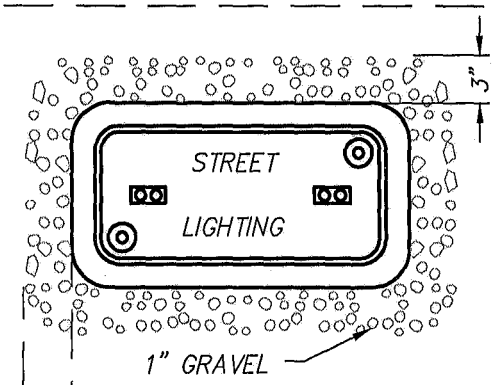
TRF-08

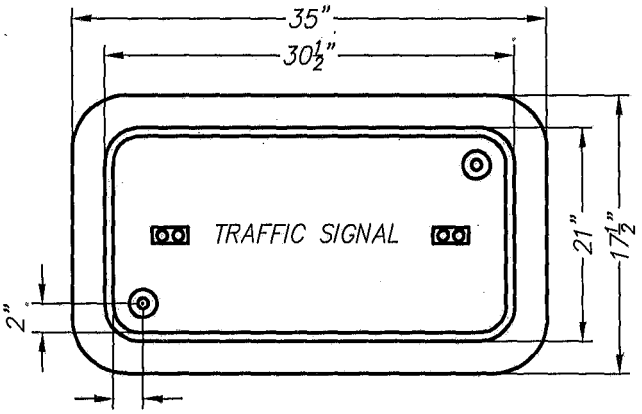


#3 1/2 P.B.

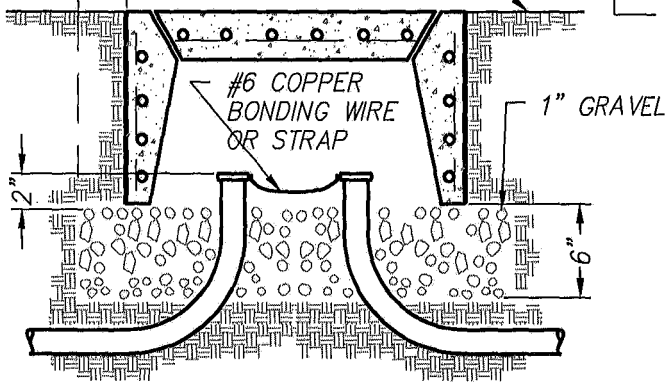


#5 P.B.





2" #6 P.B.



PULL BOX REQUIREMENTS:

CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 86-2.06.

CHULA VISTA REQUIRED PULL BOX LOCATIONS:

1. ADJACENT TO SERVICE POINTS, TRANSFORMERS.
2. ADJACENT TO EVERY STREET LIGHTING STANDARD.
3. BOTH SIDES OF STREET CROSSINGS.
4. WHEN THE SERVICE POINT IS WITHIN 20' FEET OF THE STREET LIGHTING STANDARD, ONE PULL BOX IS SUFFICIENT.
5. TRAFFIC SIGNAL AND TELEPHONE INTERCONNECT: PULL BOXES SHALL BE #5 MINIMUM.

NOTES:

STEEL REINFORCING SHALL BE AS REGULARLY USED IN THE STANDARD PRODUCTS OF THE RESPECTIVE MANUFACTURER. PULL BOXES NOT TO BE CONSTRUCTED IN DRIVEWAY APPROACHES.

ALL BOXES IN VEHICLE TRAVEL WAY SHALL HAVE A TRAFFIC LOAD BEARING COVER.

REVISION	BY	APPROVED	DATE
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REVISION	CM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

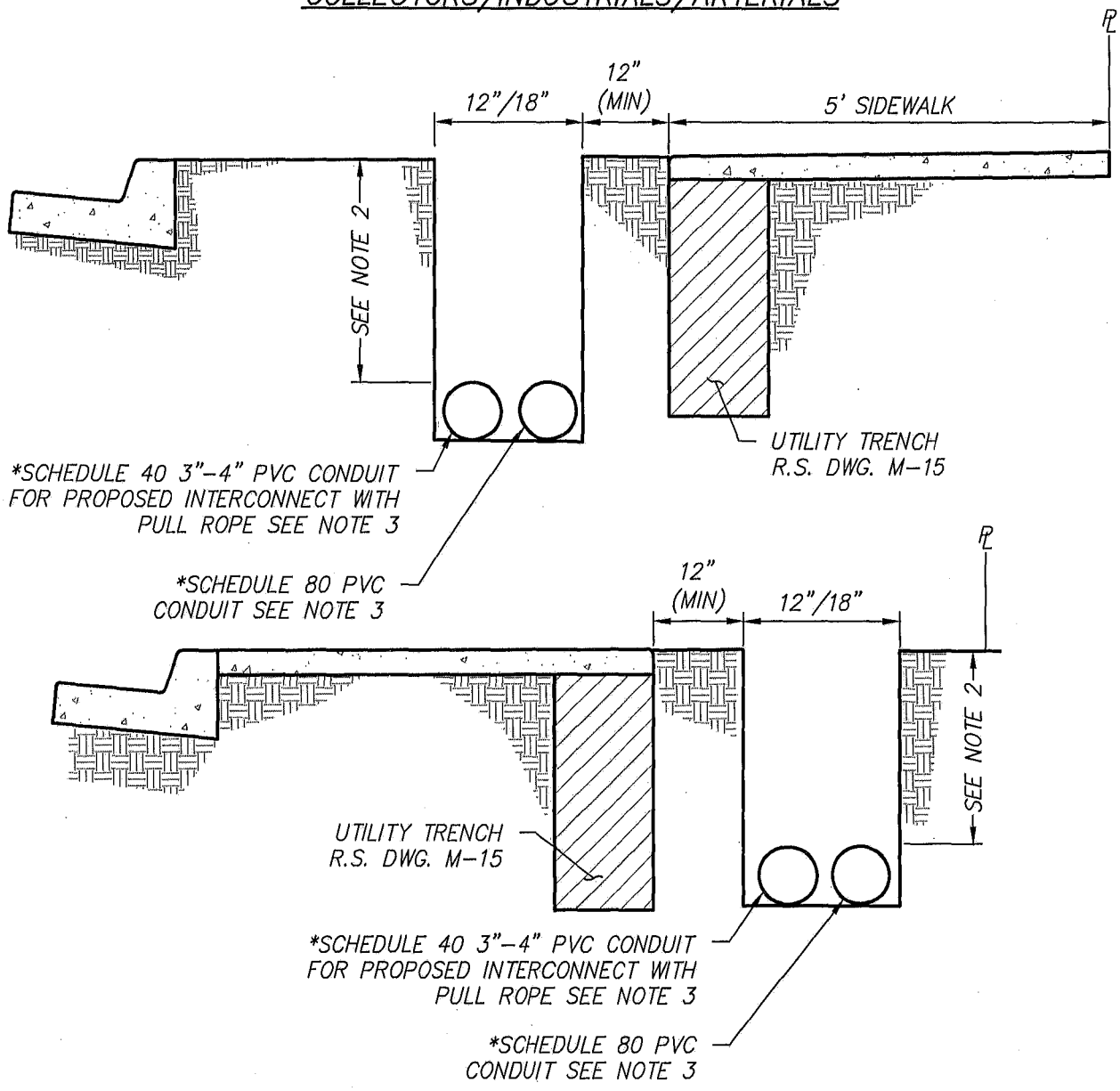
CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

PULL BOXES

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF-09

COLLECTORS/INDUSTRIALS/ARTERIALS



STREET LIGHT/TRAFFIC SIGNAL CONDUIT TRENCH – 18" DEEP MIN.

NOT TO SCALE

1. BACKFILL TO BE COMPACTED 90%.
2. CONDUIT SHALL BE PLACED A MINIMUM OF 30" BELOW GRADE IN STREET, AND A MINIMUM OF 18" BELOW GRADE BEHIND CURB.
3. PULL ROPE SHALL BE INSTALLED FOR FUTURE STREET LIGHT/TRAFFIC SIGNALS/INTERCONNECT.
4. CONDUCTOR TYPE & QUANTITY AS APPROVED BY CITY ENGINEER.
5. SEE TRF-09FOR PULL BOX DETAILS.
6. * FOR COLLECTOR/INDUSTRIAL/ARTERIAL ROADWAYS USE AN 18" WIDE TRENCH.

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ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

STREET LIGHT & TRAFFIC SIGNAL CONDUIT TRENCH

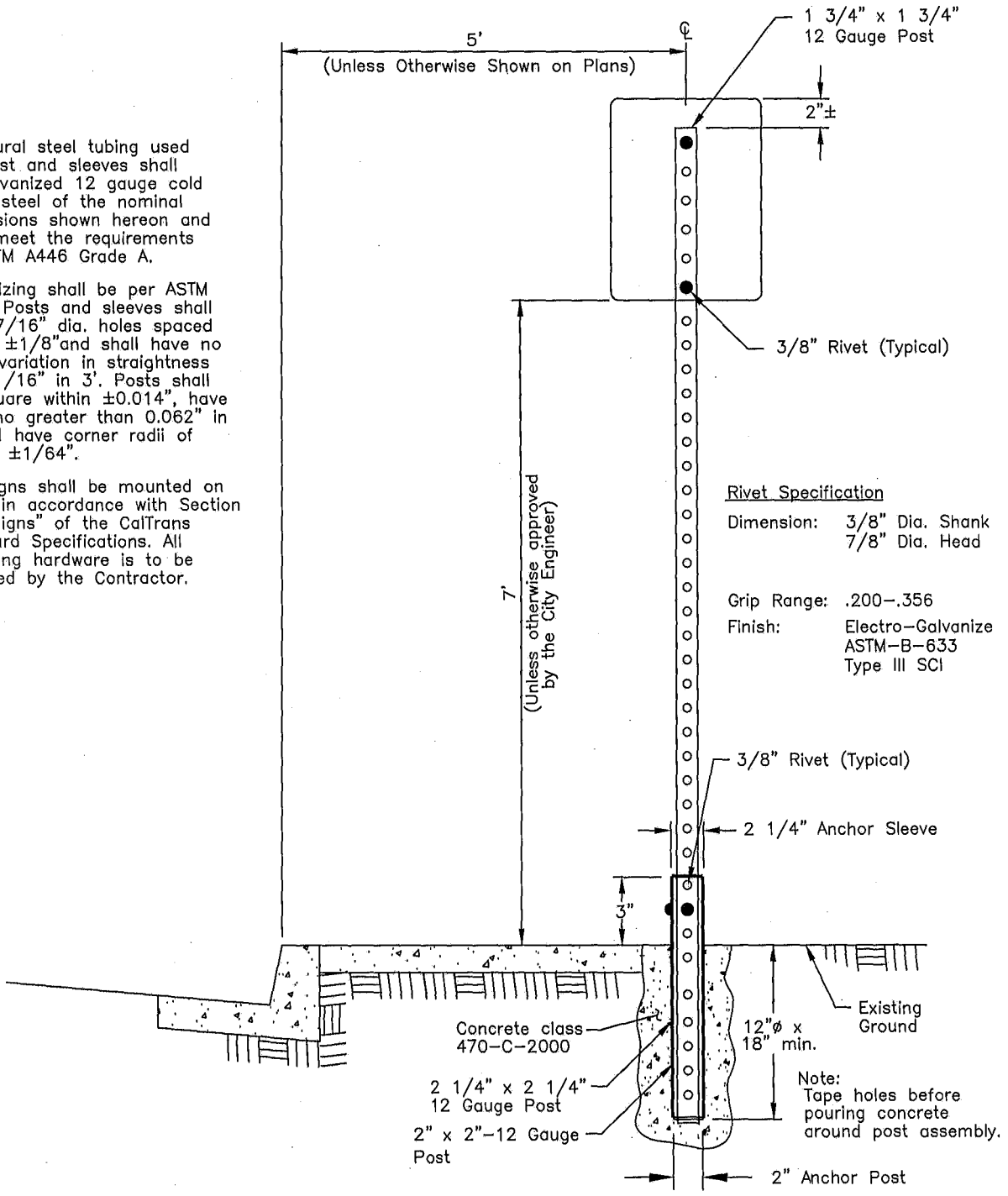
William S. Valle

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF-09

NOTES:

1. Structural steel tubing used for post and sleeves shall be galvanized 12 gauge cold rolled steel of the nominal dimensions shown hereon and shall meet the requirements of ASTM A446 Grade A.
2. Galvanizing shall be per ASTM A525. Posts and sleeves shall have 7/16" dia. holes spaced 1"o.c. ±1/8"and shall have no more variation in straightness than 1/16" in 3'. Posts shall be square within ±0.014", have twist no greater than 0.062" in 3' and have corner radii of 5/32" ±1/64".
3. The signs shall be mounted on posts in accordance with Section 56, "Signs" of the CalTrans Standard Specifications. All fastening hardware is to be provided by the Contractor.



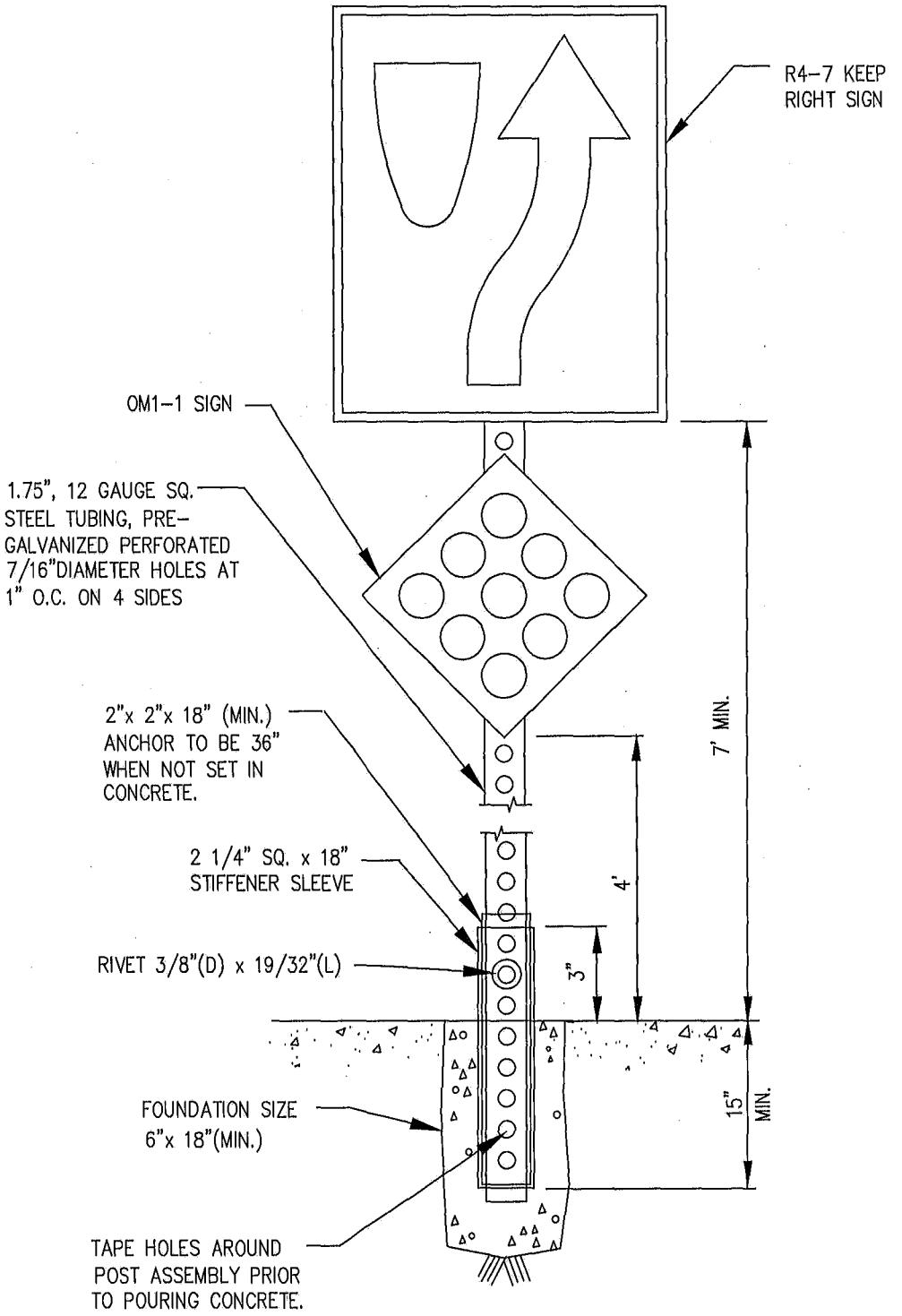
REVISION	BY	APPROVED	DATE
ORIGINAL			2/95
REVISION	CVM	C. SWANSON	11/02
REVISION	DPH	W. VALLE	11/17

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

BREAK–AWAY SIGN POST

WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF–10



NO SCALE

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ORIGINAL	DPH	W. VALLE	11/17

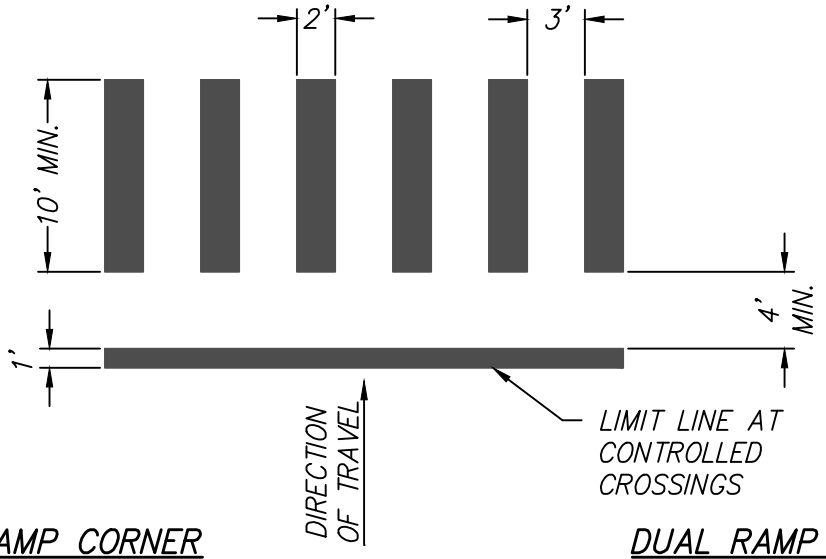
CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

BREAKAWAY POST ON MEDIAN

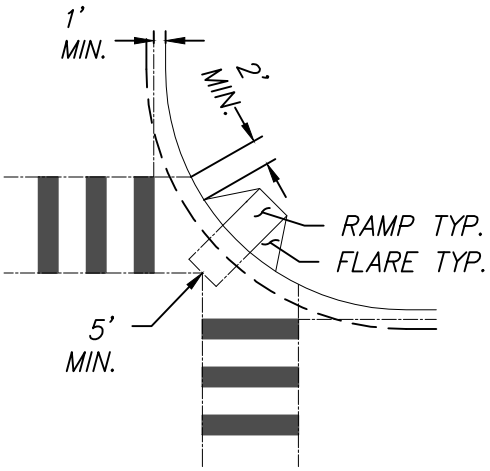
WILLIAM S. VALLE 11/21/2017
CITY ENGINEER

TRF-10

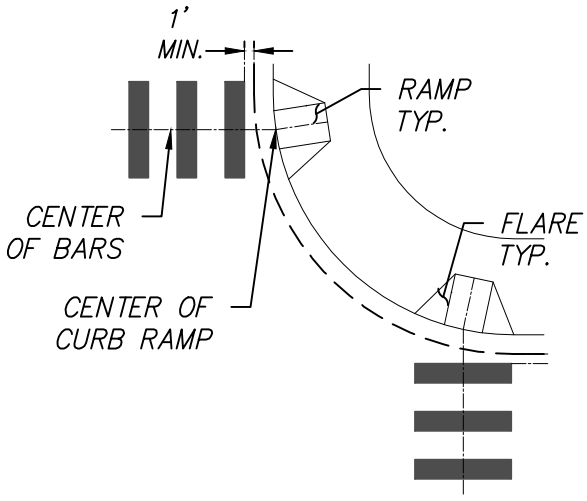
TYPICAL CONTINENTAL CROSSWALK MARKINGS



SINGLE RAMP CORNER



DUAL RAMP CORNER



LEGEND

CONSTRUCTION LINE
CURB & GUTTER
CROSSWALK BAR (2' WIDE)

GENERAL NOTES:

1. MARKED CROSSWALKS SHALL BE WHITE OR YELLOW THERMOPLASTIC (AS REQUIRED).
2. MARKED CROSSWALK LOCATIONS CONSISTING OF BRICK PAVERS OR OTHER DECORATIVE PAVING SHALL BE PROVIDED WITH A 1' WIDE TRANSVERSE THERMOPLASTIC BAND ON EACH SIDE OF THE SPECIALTY PAVED CROSSWALK.
3. SIGNALIZED INTERSECTIONS SHALL BE PROVIDED WITH A MARKED CROSSWALK ACROSS EACH LEG WHERE PEDESTRIANS ARE PERMITTED TO CROSS.
4. LONGITUDINAL BARS SHALL BE ANGLED PARALLEL TO THE DIRECTION OF VEHICULAR TRAVEL.
5. LIMIT LINES SHALL BE INSTALLED A MINIMUM OF 4 FEET IN ADVANCE OF MARKED CROSSWALKS FOR THE APPROACH LANES AT ALL CONTROLLED CROSSINGS.
6. MARKED CROSSWALKS SHOULD BE A MINIMUM OF 10 FEET IN WIDTH. PLACEMENT OF CONTINENTAL CROSSWALKS SHALL COMPLY WITH ACCESSIBILITY REGULATIONS PER THE MOST RECENT VERSION OF AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS AND PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
7. THE CROSSWALK BETWEEN A DUAL RAMP CORNER AND A SINGLE RAMP CORNER SHALL BE AT LEAST 10 FEET WIDE AND SATISFY THE MINIMUM OF 2 FEET BEYOND THE FLARE REQUIREMENT FOR THE SINGLE RAMP AS SHOWN ABOVE.
8. CONTINENTAL CROSSWALK BARS SHALL BE UNIFORM WITHIN THE SAME CROSSING. NO PARTIAL BARS SHALL BE INSTALLED.
9. A CROSSWALK BAR SHALL BE CENTERED IN THE CENTER OF THE CROSSING.
10. CROSSWALK MARKINGS SHALL BE PER THE LATEST VERSION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD) RETRO-REFLECTIVITY COMPLIANT AND SKID RESISTANT.

REVISION	BY	APPROVED	DATE
ORIGINAL	DPH	W. VALLE	11/17
MODIFIED	CCPM	L. SCHAAR	03/26

CITY OF CHULA VISTA
ENGINEERING & CAPITAL PROJECTS
STANDARD DRAWING

CONTINENTAL CROSSWALK MARKING LAYOUTS AND NOTES

Luis Schaar
LUIS SCHAAR, PE 03/25/2026
CITY ENGINEER

TRF-11