

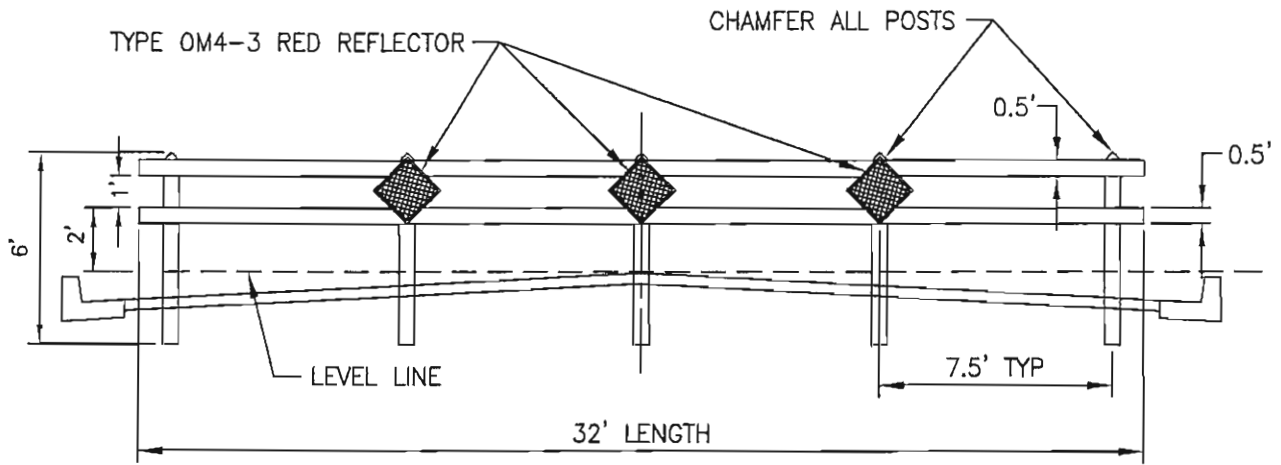
SECTION 4000

TRAFFIC

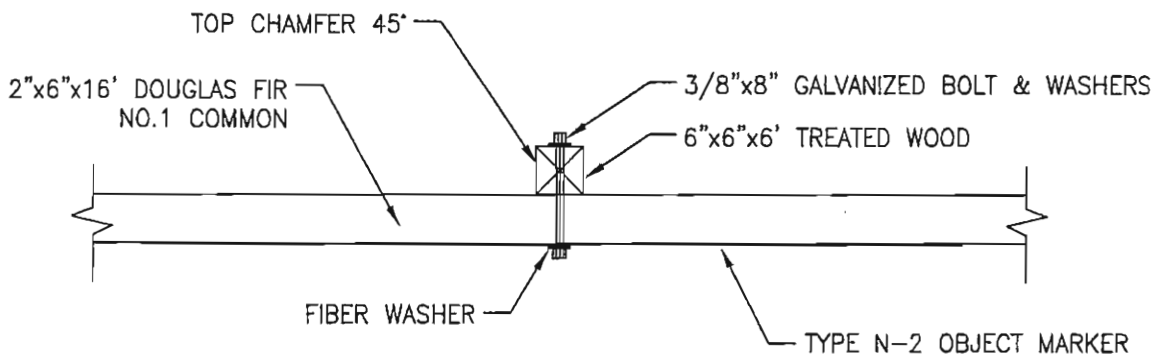
CONSTRUCTION STANDARDS

SECTION 4000 - TRAFFIC

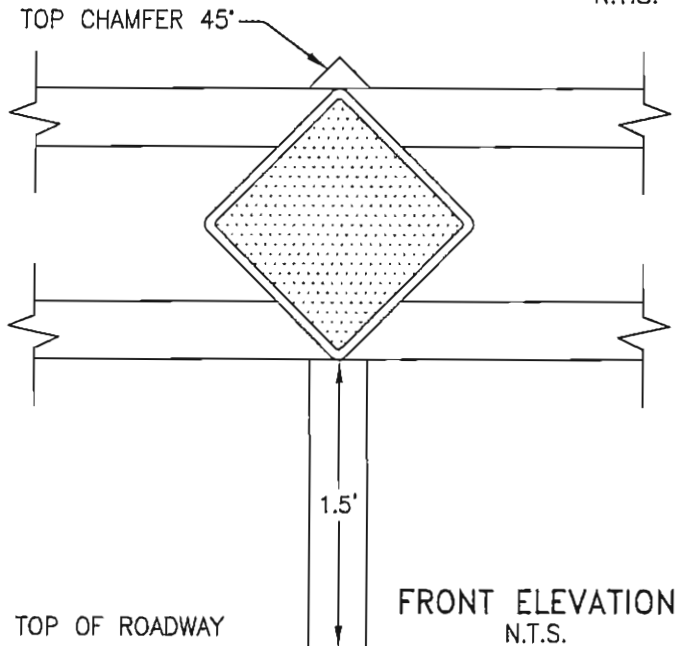
4000	Standard Barricade
4001	Type R Controller Cabinet Foundation Detail
4002	Type 1-A Foundation Detail
4003 (4 Sheets)	Sign Installation Details
4004	Solopro Installation Detail
4005	Reflective Street Name Sign and Arm Installation Details



TYPICAL SECTION
SCALE: 1"=6'



TYPICAL SECTION
N.T.S.



NOTES:

1. PROVISION FOR FIRE TRUCK/EMERGENCY VEHICLE TURN-AROUND SHALL BE REQUIRED AS SHOWN ON PLANS.
2. CONSTRUCTION METHODS AND STRUCTURAL MATERIALS USED SHALL MEET CALTRANS STD. SPECIFICATIONS, SECTIONS 57 & 58.
3. TWO COATS OF PREMIUM QUALITY WHITE PAINT SHALL BE APPLIED PER SECTION 59.
4. THREE GALVANIZED 20D NAILS SHALL BE USED TO SECURE END OF PLANK TO POSTS AT CENTERLINE AND FIVE 20D NAILS SHALL BE USED AT OTHER POSTS.
5. OVERALL WIDTH SHOWN IS FOR LOCAL RESIDENTIAL STREETS WITH 36 FT. CURB SEPARATION. FOR OTHER STREETS USE CURB SEPARATION LESS 4 FT.



APPROVED BY: *Ricardo Sandoval* 10.18.06
 CITY ENGINEER DATE
RICARDO SANDOVAL
 REVIEWED BY: *DL*
 REVISION NUMBER: _____

CITY OF FONTANA

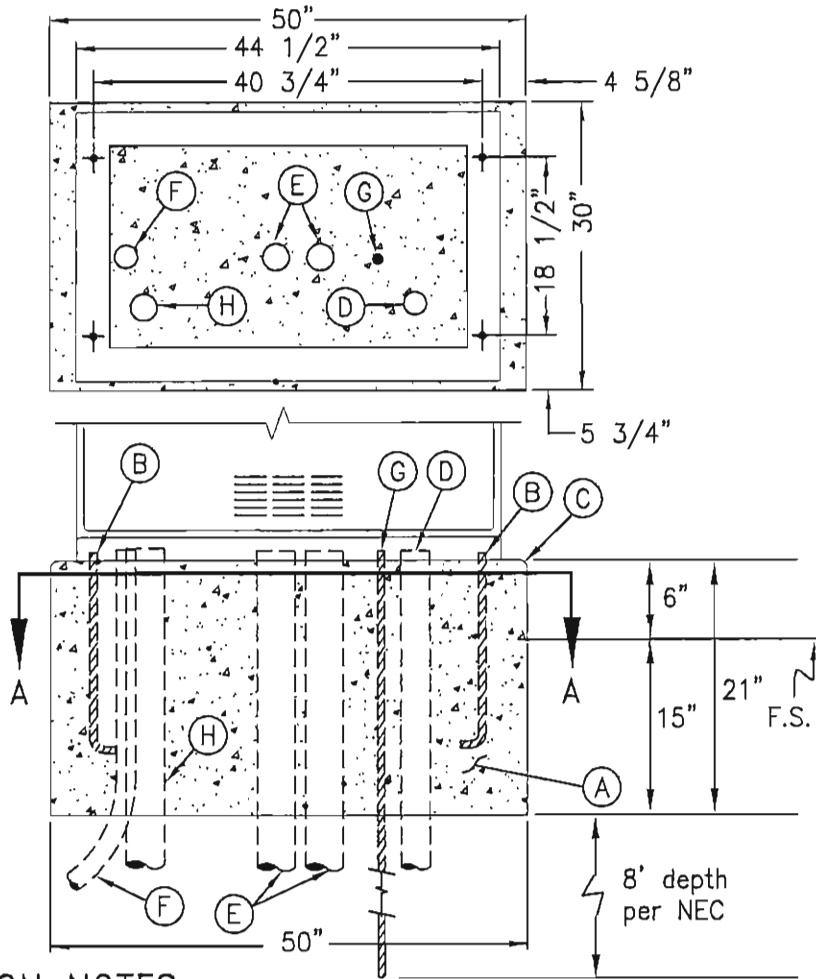
STANDARD
BARRICADE

07/10/06

STD. PLAN NO. 4000

SHT 1 OF 1

SECTION A-A



CONSTRUCTION NOTES:

- (A) 560-C-3250 PORTLAND CEMENT CONCRETE FOUNDATION.
- (B) 3/4" x 18" GALVANIZED ANCHOR BOLTS (ASTM A307).
- (C) 3/8" CHAMFER TYPICAL.
- (D) 2" SERVICE CONDUIT TO SERVICE ENCLOSURE.
- (E) 3" SIGNAL CONDUCTOR CONDUITS TO ADJACENT PULL BOX.
- (F) 2" CONDUIT FOR SIGNAL INTERCONNECT, PHONE OR FUTURE FIBER-OPTIC COMMUNICATION CABLE.
- (G) GROUND ROD, 8 FT. MIN. INTO EARTH, EXCLUDING CONCRETE.(APPROXIMATELY 10.5 FT. ROD)
- (H) 3" CONDUIT FOR DETECTOR CABLES AND VIDEO POWER

NOTES:

1. INSTALL IN ACCORDANCE WITH CALTRANS STD. PLAN ES-4B. (NOTES 3, 7 AND 17 OF ES-4B MAY NOT APPLY).
2. TOP OF FOUNDATION SHALL BE 6" ABOVE FINISHED SURFACE.
3. FINAL LOCATION OF CONDUITS SHALL BE APPROVED PRIOR TO FOUNDATION POUR.
4. ALL CONDUITS IN CONTROLLER FOUNDATION SHALL BE HOT-DIPPED GALVANIZED RIGID STEEL.

NOT TO SCALE



APPROVED BY:

Ricardo Sandoval 10.18.06

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: *D6*

DATE OF LAST REVISION: _____

CITY OF FONTANA

TYPE R
CONTROLLER CABINET
FOUNDATION DETAIL

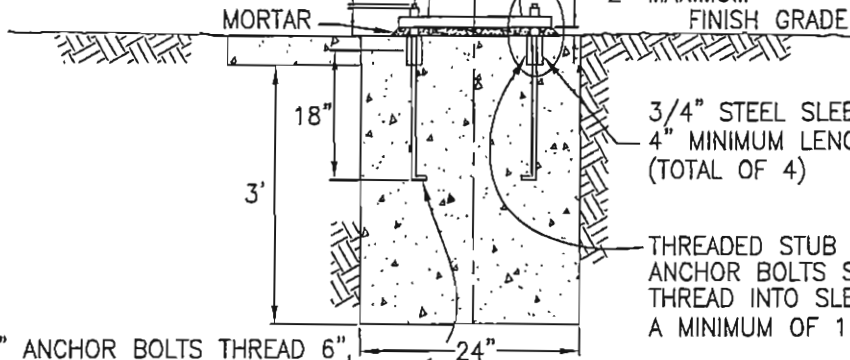
07/10/06

STD. PLAN NO. 4001

SHT 1 OF 1

3/4"x6" GALVANIZED FULLY
THREADED STUD (TOTAL OF 4)

1/2" MAXIMUM



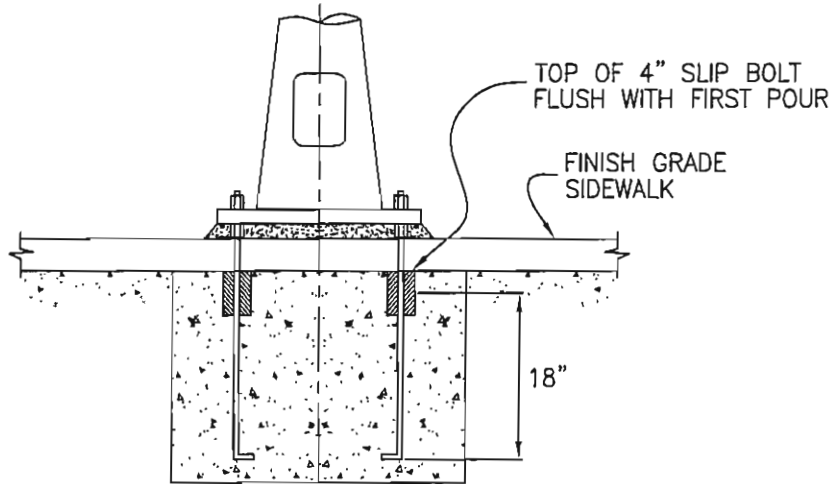
2" MAXIMUM
FINISH GRADE

3/4" STEEL SLEEVE NUT
4" MINIMUM LENGTH
(TOTAL OF 4)

THREADED STUD AND
ANCHOR BOLTS SHALL
THREAD INTO SLEEVE NUT
A MINIMUM OF 1 1/2"

3/4"x18" ANCHOR BOLTS THREAD 6"
WITH 2 NUTS AND 2 WASHERS EACH.
LENGTH DOES NOT INCLUDE 2" OR 4"
90° BEND (TOTAL OF 4)

FOUNDATION FOR TYPE 1 - A STANDARD
UN - IMPROVED AREA



TOP OF 4" SLIP BOLT
FLUSH WITH FIRST POUR

FINISH GRADE
SIDEWALK

18"

FOUNDATION FOR TYPE 1 - A STANDARD
IMPROVED AREA

NOT TO SCALE



APPROVED BY:

Ricardo Sandoval 10-18-06
CITY ENGINEER DATE

RICARDO SANDOVAL

REVIEWED BY: *DG*

DATE OF LAST REVISION: _____

CITY OF FONTANA

TYPE 1-A FOUNDATION
DETAIL

07/10/06

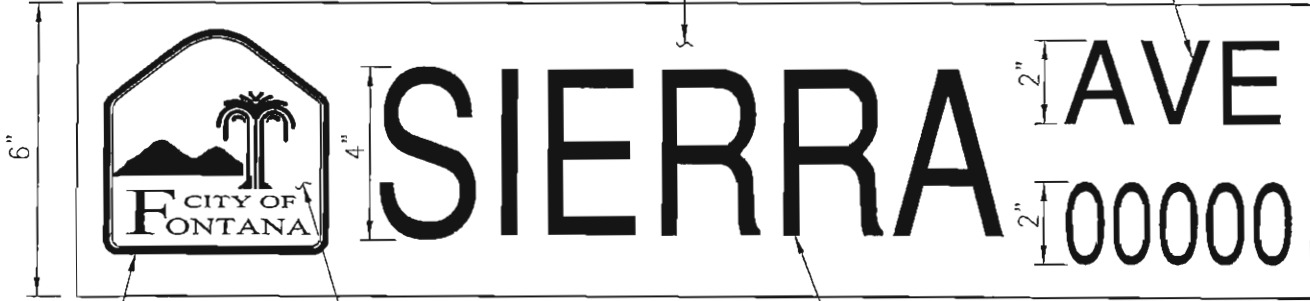
STD. PLAN NO. **4002**

SHT 1 OF 1

VARIES 24" - 42"

GREEN BACKGROUND

WHITE LETTERS



WHITE (SILVER) BACKGROUND

WHITE REFLECTIVE LETTERS TYP.

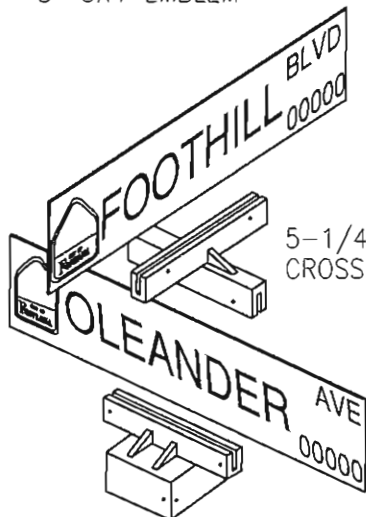
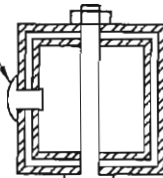
5" CITY EMBLEM

RIVET LOCATION

STREET SIDE OF POST

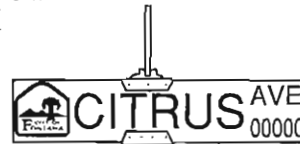
DIRECTION OF TRAFFIC FLOW

BOLT LOCATION



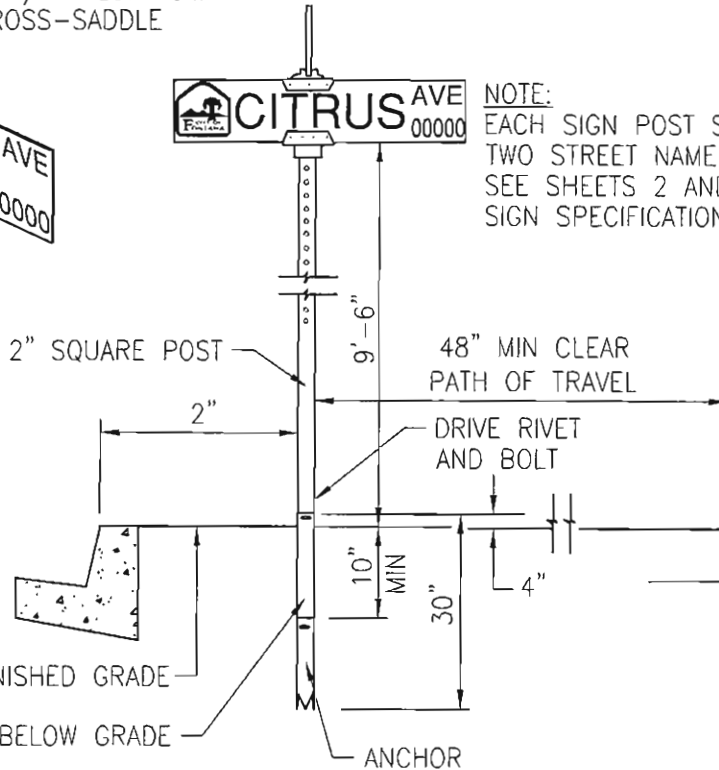
5-1/4" ALUMINUM CROSS-SADDLE

2" SQUARE X 5-1/4" ALUMINUM CAP



NOTE:

EACH SIGN POST SHALL ACCOMPANY TWO STREET NAME SIGN BLADES. SEE SHEETS 2 AND 3 FOR COMPLETE SIGN SPECIFICATIONS.



SIDEWALK, PARKWAY OR FINISHED GRADE

POST BELOW GRADE

ANCHOR

NOT TO SCALE



APPROVED BY:

CITY ENGINEER
RICARDO SANDOVAL

REVIEWED BY: *DL*

DATE OF LAST REVISION: 1

Ricardo Sandoval .7.22.08
DATE

CITY OF FONTANA

SIGN INSTALLATION
DETAILS

07/10/06

STD. PLAN NO. **4003**

SHT **1** OF **4**

SIGN AND POST MATERIAL & INSTALLATION REQUIREMENTS:

1. STREET NAME SIGN MATERIALS, SIZES, AND INSTALLATION

- A. SIGN BLANK MATERIAL SHALL BE EXTRUDED ALUMINUM, 5052-H38 ALLOY.
- B. SIGN BLANK DIMENSIONS ARE 6" HIGH BY A MINIMUM OF 24" TO A MAXIMUM OF 42" LONG AS REQUIRED.
- C. SIGN LETTERING SHALL BE 3M OR AVERY-DENNISON HIGH INTENSITY OR ENGINEERING GRADE REFLECTIVE WHITE SHEETING OR APPROVED EQUIVALENT. THE SIGN BACKGROUND SHALL BE 3M OR AVERY-DENNISON HIGH INTENSITY REFLECTIVE GREEN SHEETING OR APPROVED EQUIVALENT.
- D. SIGN STREET NAME LETTERS MUST BE WHITE FHWA (FEDERAL HIGHWAY ADMINISTRATION) SERIES C-4" UPPER CASE. ADDRESS BLOCK NUMBERS MUST BE WHITE FHWA SERIES C-2". STREET NAME SUFFIX MUST BE WHITE FHWA 2" UPPER CASE.
- E. BLOCK NUMBERS SHALL BE ASSIGNED BY DEPARTMENT OF COMMUNITY DEVELOPMENT.

2. REGULATORY AND WARNING SIGN MATERIALS, SIZES, AND INSTALLATION

- A. SIGNS SHALL BE A HIGH INTENSITY GRADE REFLECTORIZED .080 ALUMINUM WITH 3M OR AVERY DENNISON 0L1000 (OR APPROVED EQUAL) ANTI-GRAFFITI FILM.
- B. SIGNS SHALL BE SECURED TO THE POST BY A 3" BY 5/16" BOLT WITH A 2" FENDER WASHER ON TOP AND A 3/8" DRIVE RIVET WITH A 2" FENDER WASHER ON THE BOTTOM. THE FENDER WASHER SHALL HAVE A MINIMUM THICKNESS OF .075".
- C. SIGNS 36" OR GREATER SHALL HAVE A 30" BACK BRACE INSTALLED. STOP SIGNS THAT FACE EAST AND WEST SHALL HAVE A 24" BACK BRACE INSTALLED.
- D. THE BOTTOM OF THE SIGN SHALL BE A MINIMUM OF 7 FEET ABOVE THE FINISHED SURFACE.

3. POST MATERIALS AND INSTALLATION

- A. SQUARE PERFORATED STEEL TUBE POSTS WITH ANCHOR SHALL BE USED FOR ALL TRAFFIC CONTROL AND INFORMATIONAL SIGNS WITHIN ROAD RIGHT-OF-WAY. POST MUST BE 2" SQUARE PRE-PUNCH AND HOT DIPPED GALVANIZED INSIDE AND OUTSIDE. THE ONE-PIECE ANCHOR SHALL BE AN "ANCHORMATE" ANCHOR (2.5" X 2.5" X 30" GALVANIZED STEEL).
- B. THE NUMBER OF POSTS REQUIRED FOR SIGN INSTALLATION SHALL BE DETERMINED BY THE AREA OF THE SIGN OR THE COMBINATION OF SIGNS TO BE INSTALLED. A SINGLE POST SHALL BE USED WHERE BOTH THE LENGTH AND WIDTH ARE LESS THAN 48". DOUBLE POSTS SHALL BE USED WHERE EITHER THE LENGTH OR THE WIDTH EQUALS OR EXCEEDS 48".
- C. THE ANCHOR SHALL BE DRIVEN UNTIL ONLY 4" REMAINS ABOVE GROUND LEVEL. IN CONCRETE, ANCHORS MAY BE CUT TO 20".
- D. ALL DIRT AND CONCRETE SHALL BE REMOVED FROM THE INSIDE TOP 10" MIN. OF THE ANCHOR TO ALLOW FOR INSTALLATION OF THE SIGN POST.
- E. THE SIGN POST SHALL BE INSTALLED A MINIMUM OF 10" INTO THE ANCHOR AND SECURED IN PLACE WITH ONE 3/8" DRIVE RIVET AND ONE 3" X 5/16" BOLT. THE RIVET SHALL BE INSTALLED ON THE SIDE FACING TRAFFIC AND THE BOLT INSTALLED PARALLELED TO TRAFFIC AS SHOWN (SEE SHEET 1).
- F. INSTALLATION ACCORDING TO THESE REQUIREMENTS IS ESSENTIAL TO MAINTAIN THE BREAK-AWAY CHARACTERISTICS OF THE POST SYSTEM. UNDER NO CIRCUMSTANCES SHALL THE ANCHOR ASSEMBLY BE SECURED IN CONCRETE FOOTINGS.
- G. THE SIGN POST SHALL BE A MINIMUM OF 2 FEET FROM THE CURB.

NOT TO SCALE



APPROVED BY:

Ricardo Sandoval 10-18-06

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: *RS*

DATE OF LAST REVISION: _____

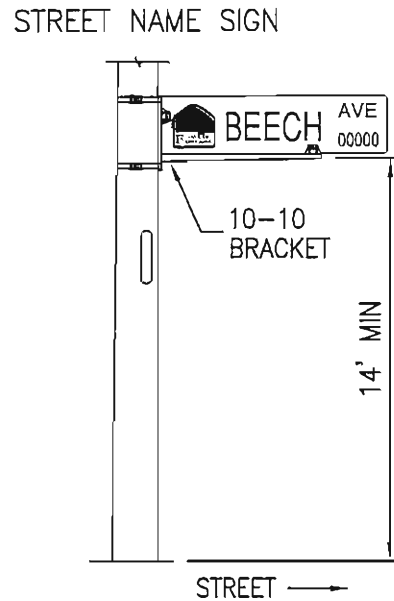
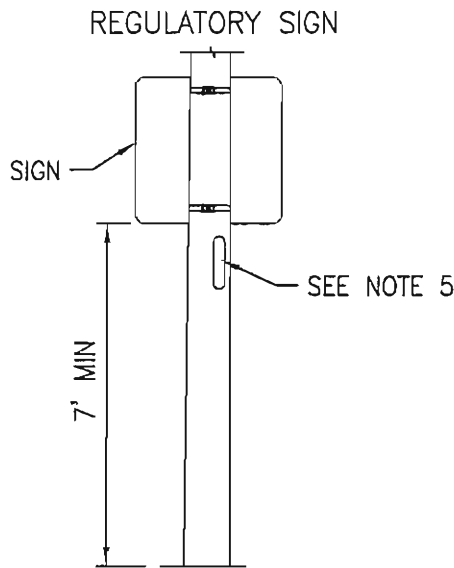
CITY OF FONTANA

**SIGN INSTALLATION
DETAILS**

07/10/06

STD. PLAN NO. **4003**

SHT **2** OF **4**



TYPICAL MARBELITE INSTALLATION

1. THE MINIMUM VERTICAL CLEARANCE SHALL BE 7' FROM THE FINISHED SURFACE TO THE BOTTOM OF THE LOWEST SIGN ON THE MARBELITE
2. THE SIGN OR 10-10 BRACKET SHALL BE BANDED TO THE FLAT SURFACE OF THE MARBELITE THAT BEST ACCOMMODATES A 90 DEGREE ANGLE TO ONCOMING TRAFFIC (OR THE CURB) UNLESS OTHERWISE SPECIFIED.
3. THE BAND SHALL BE TIGHTENED TO A POINT AT WHICH IT DOES NOT BREAK, YET PREVENTS MOVEMENT OF THE SIGN, BAND, OR BRACKER.
4. ALL SIGNS BEING BANDED TO MARBELITE SHALL HAVE NO LESS THAN 2 BANDS (UPPER AND LOWER).
5. UNDER NO CIRCUMSTANCES SHALL THE BANDS COVER THE IDENTIFICATION TAG ON THE MARBELITE.

BAND IT - C206 STAINLESS STEEL TYPE 201 OR APPROVED EQUAL.
3/4" WIDTH AND .030" THICKNESS

BRACKET (REGULATORY SIGN) - BAND-IT, D001 OR EQUAL. 1 BOLT STRAIGHT LEG STAINLESS STEEL 3/4".

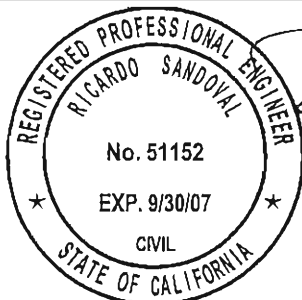
BRACKET (STREET NAME SIGN) - 10-10 EXTRUDED ALUMINUM ALLOY.

BUCKLES - BAND-IT C456 OR EQUAL. EAR LOCKED 316 STAINLESS STEEL 3/4".

BOLTS - 1" X 5/16" COARSE THREAD STAINLESS STEEL.

WASHERS - ALL REGULATORY SIGNS SHALL BE INSTALLED WITH 5/16" X 2" ZINC COATED FENDER WASHERS WITH A MINIMUM THICKNESS OF .075"

NOT TO SCALE



APPROVED BY:

Ricardo Sandoval
CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: *DL*

DATE OF LAST REVISION: _____

CITY OF FONTANA

SIGN INSTALLATION
DETAILS

07/10/06


STD. PLAN NO. **4003**

SHT 3 OF 4

STANDARD ABBREVIATIONS

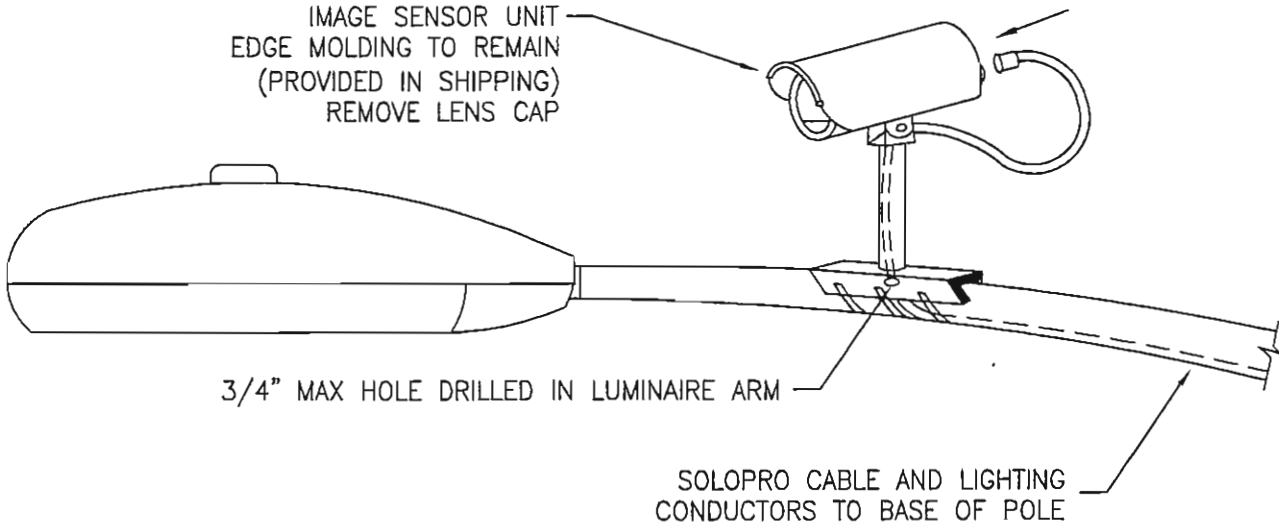
AVENUE/AVENIDA	AVE	LAKE/LAKES	LKS
BOULEVARD	BLVD	LANE	LN
CANYON	CYN	PARKWAY	PKWY
CENTER	CNTR	PLACE	PL
CIRCLE	CIR	ROAD	RD
COURT	CT	SQUARE	SQ
DRIVE	DR	STREET	ST
HEIGHTS	HTS	WAY	WY

NOT TO SCALE

	APPROVED BY: <i>Ricardo Sandoval</i> 10/18/06 CITY ENGINEER DATE RICARDO SANDOVAL	CITY OF FONTANA	
	REVIEWED BY: <i>DL</i>	STREET NAME ABBREVIATIONS	
	DATE OF LAST REVISION: _____	07/10/06	STD. PLAN NO. 4003

RUN SOLOPRO CABLE INTO LUMINAIRE ARM AND DOWN POLE. SPLICE SOLOPRO CABLE AT BASE OF POLE. (TERMINAL BLOCK WILL BE PROVIDED BY THE CITY).

IMAGE SENSOR UNIT
EDGE MOLDING TO REMAIN
(PROVIDED IN SHIPPING)
REMOVE LENS CAP



3/4" MAX HOLE DRILLED IN LUMINAIRE ARM

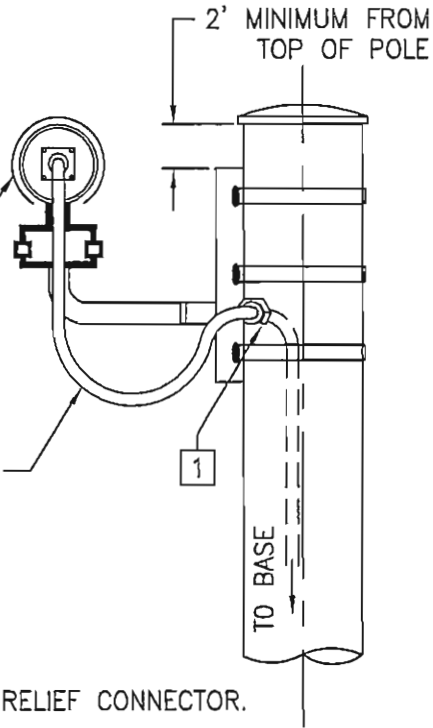
SOLOPRO CABLE AND LIGHTING CONDUCTORS TO BASE OF POLE

LUMINAIRE ARM MOUNT

NOT TO SCALE

IMAGE SENSOR UNIT.
EDGE MOLDING TO REMAIN.
(PROVIDED IN SHIPPING)

SOLOPRO CABLE TO BASE OF POLE



2' MINIMUM FROM TOP OF POLE

TO BASE

1 DRILL HOLE AND INSTALL STAIN RELIEF CONNECTOR.

SHAFT MOUNT

NOT TO SCALE



APPROVED BY: *Ricardo Sandoval* 10-18-06
CITY ENGINEER DATE
RICARDO SANDOVAL
REVIEWED BY: *DG*
DATE OF LAST REVISION: _____

CITY OF FONTANA

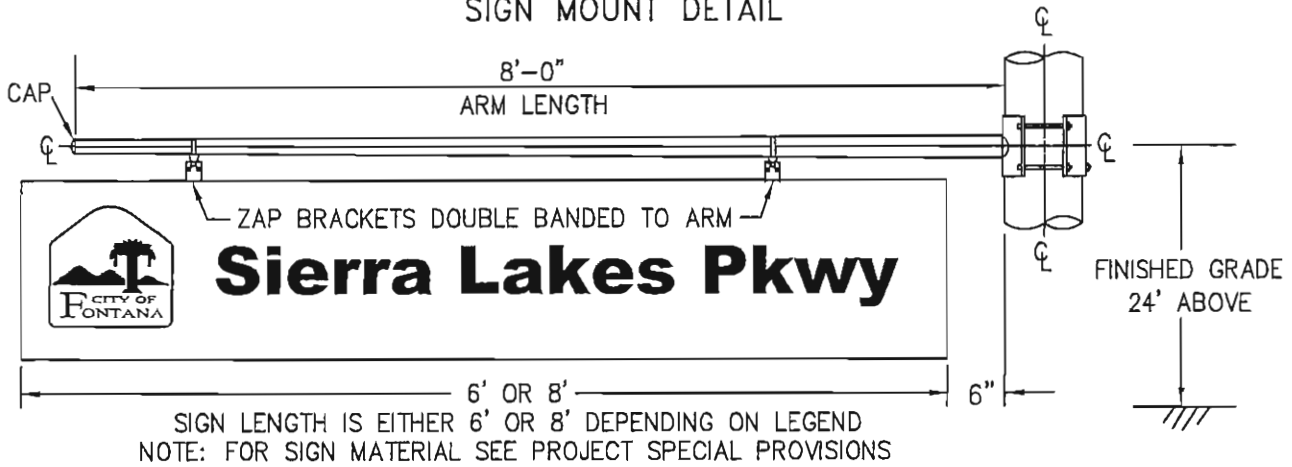
**SOLOPRO INSTALLATION
DETAIL**

07/10/06

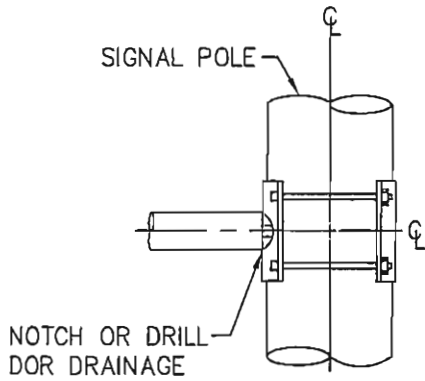
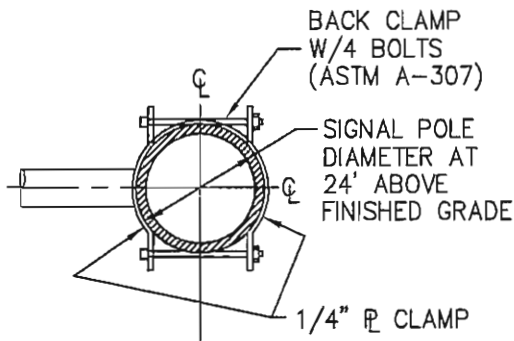
STD. PLAN NO. **4004**

SHT **1** OF **1**

SIGN MOUNT DETAIL

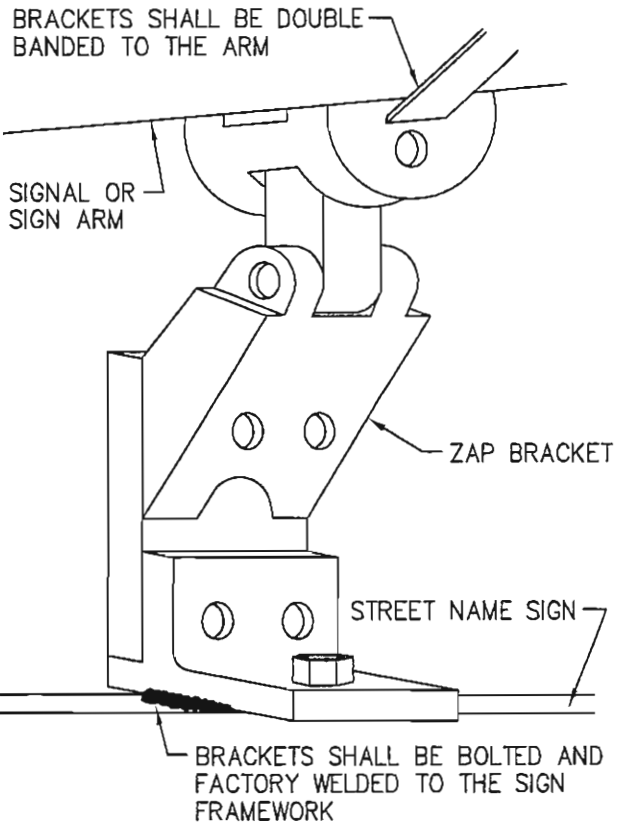


NOT TO SCALE



CLAMP DETAIL

NOT TO SCALE



ZAP BRACKET DETAIL

NOT TO SCALE



APPROVED BY:

Ricardo Sandoval 10-18-06

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: *JS*

DATE OF LAST REVISION: _____

CITY OF FONTANA

REFLECTIVE STREET NAME
SIGN AND ARM INSTALLATION
DETAILS

07/10/06

STD. PLAN NO. **4005**

SHT 1 OF 1