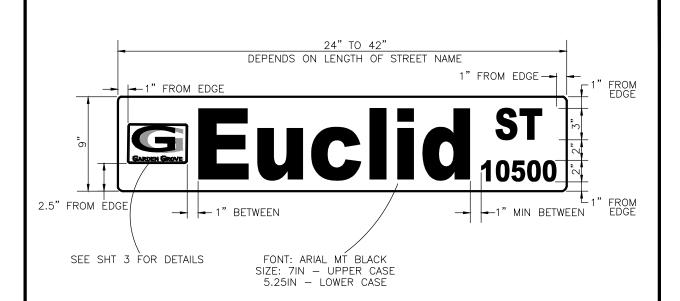


# CITY OF GARDLIN STANDARD PLANS CITY OF GARDEN GROVE

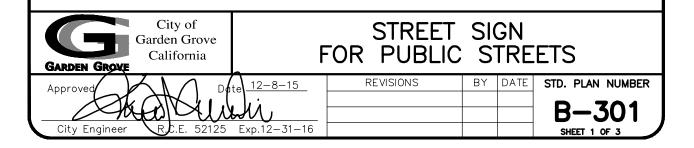
#### SERIES B-300 TRAFFIC AND LIGHTING

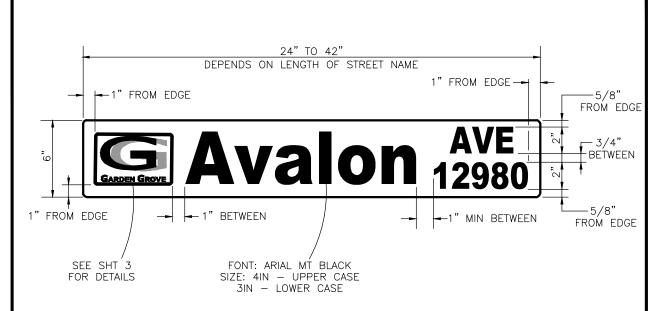
- B-301 STREET SIGN FOR PUBLIC STREETS
- B-302 STREET SIGN FOR PRIVATE STREETS
- B-303 ROADWAY STRIPING DETAILS
- B-305 TYPICAL TRAFFIC MARKER & SIGN INSTALLATION
- B-306 STANDARD BARRICADE
- B-307 STEEL DAVIT STANDARD
- B-308 PRIVATE PROPERTY TOW AWAY SIGN
- B-309 STREET NAME SIGN MOUNTING BRACKET (FLAT OR EXTRUDED)
- B-310 STREET NAME SIGN POLE DETAIL
- B-311 PARKING LOT LAYOUT
- B-312 PARKING & QUEUING FOR DRIVE THROUGH RESTAURANTS
- B-313 STREET LIGHTING



### CLASS "A" SIGN FOR ARTERIAL STREETS

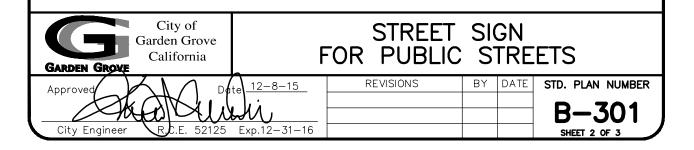
- 1. ALL SIGNS SHALL BE IN CITY STANDARD SIGN LENGTHS: 24", 30", 36", 42", EXTRUDED ALUMINUM SIGN BLANK.
- 2. SIGNS SHALL BE MADE USING 3M OR EQUIVALENT HIGH INTENSITY GRADE PRISMATIC (HIP) REFLECTIVE SHEETING WHITE BACKGROUND WITH BLUE TRANSPARENT SHEETING FOR THE LETTERS AND SUPPLEMENTAL INFORMATION.
- 3. SIGNS SHALL BE DOUBLE SIDED.
- 4. SIGNS SHALL BE SHEETED WITH 3M 1160 OR EQUIVALENT ANTI-GRAFFITI SHEETING.
- 5. A SCALED ELECTRONIC COPY OF SIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PRODUCTION.

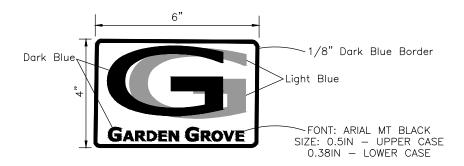




### CLASS "B" SIGN FOR NON-ARTERIAL STREETS

- 1. ALL SIGNS SHALL BE IN CITY STANDARD SIGN LENGTHS: 24", 30", 36", 42", EXTRUDED ALUMINUM SIGN BLANK.
- 2. SIGNS SHALL BE MADE USING 3M OR EQUIVALENT HIGH INTENSITY GRADE PRISMATIC (HIP) REFLECTIVE SHEETING WHITE BACKGROUND WITH BLUE TRANSPARENT SHEETING FOR THE LETTERS AND SUPPLEMENTAL INFORMATION.
- 3. SIGNS SHALL BE DOUBLE SIDED.
- 4. SIGNS SHALL BE SHEETED WITH 3M 1160 OR EQUIVALENT ANTI-GRAFFITI SHEETING.
- 5. A SCALED ELECTRONIC COPY OF SIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PRODUCTION.

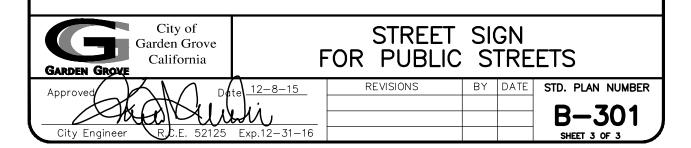


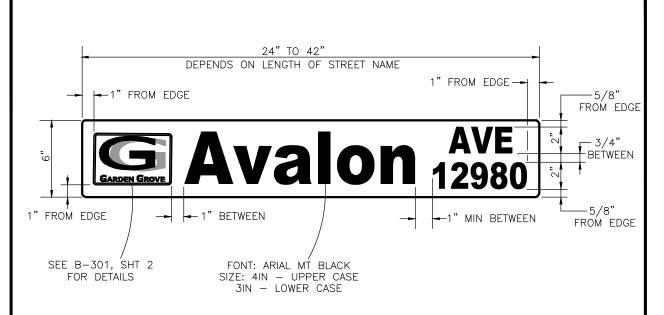


### CITY OF GARDEN GROVE LOGO

FOR PUBLIC AND PRIVATE STREETS

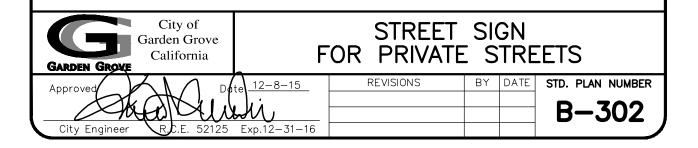
- 1. BACKGROUND: WHITE REFLECTIVE HIGH INTENSITY PRISMATIC SHEETING.
- 2. ALL LETTERING FONTS AND COLOR SHALL BE AS SHOWN ABOVE.

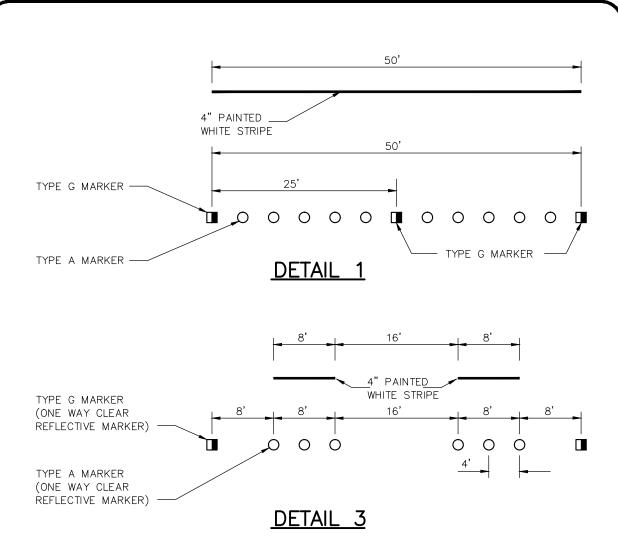




#### SIGN FOR PRIVATE STREETS

- 1. ALL SIGNS SHALL BE IN CITY STANDARD SIGN LENGTHS: 24", 30", 36", 42", EXTRUDED ALUMINUM SIGN BLANK.
- 2. SIGNS SHALL BE MADE USING 3M OR EQUIVALENT HIGH INTENSITY GRADE PRISMATIC (HIP) REFLECTIVE SHEETING LIGHT BLUE IN BACKGROUND WITH CONTRASTING DARK BLUE TRANSPARENT SHEETING FOR THE LETTERS AND SUPPLEMENTAL INFORMATION.
- 3. SIGNS SHALL BE DOUBLE SIDED.
- 4. SIGNS SHALL BE SHEETED WITH 3M 1160 OR EQUIVALENT ANTI-GRAFFITI SHEETING.
- 5. INCLUDE A 4"X6" CITY TWO COLOR SCREEN-PRINTED LOGO. REFER TO B-301, SHEET 3 FOR DETAIL.
- 6. A SCALED ELECTRONIC COPY OF SIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PRODUCTION.

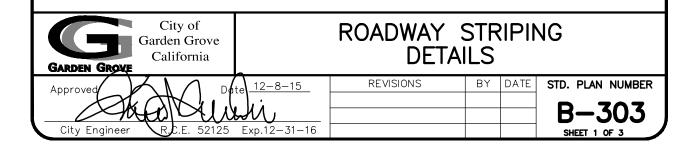


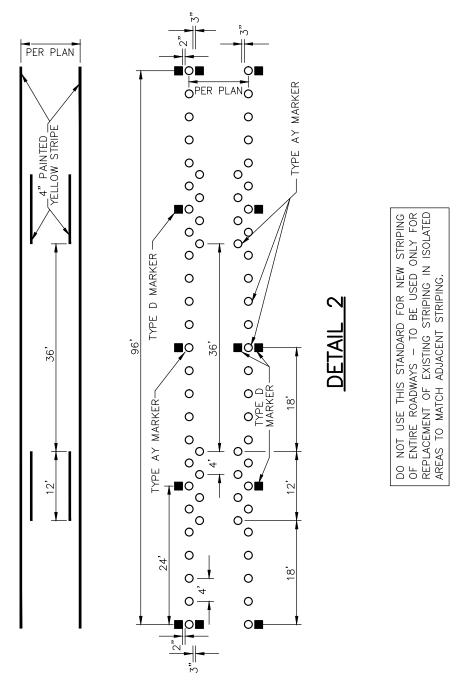


### **NOTES:**

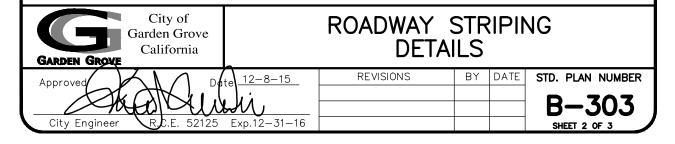
- 1. BOTH PAINT AND MARKERS TO BE INSTALLED PER DETAIL AS SHOWN, WITH PAINT INSTALLED FIRST.
- 2. INSTALLATION OF ALL MARKERS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST CALTRANS STANDARD SPECIFICATIONS SECTION 85.

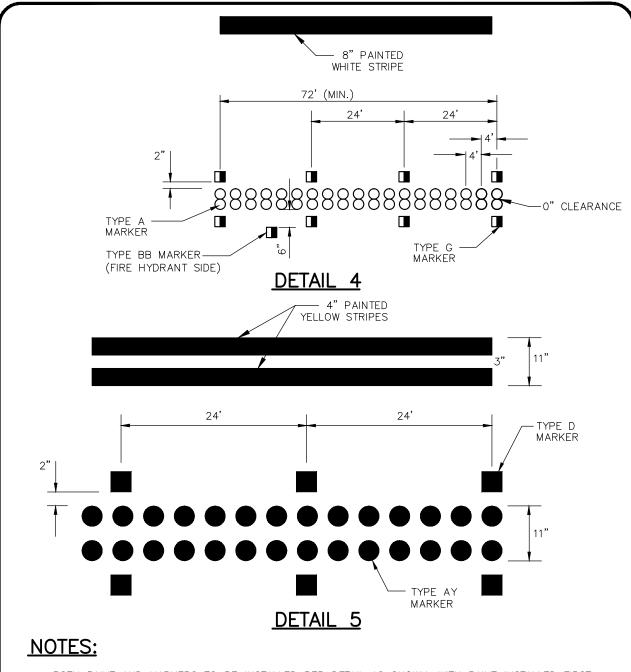
DO NOT USE THIS STANDARD FOR NEW STRIPING OF ENTIRE ROADWAYS — TO BE USED ONLY FOR REPLACEMENT OF EXISTING STRIPING IN ISOLATED AREAS TO MATCH ADJACENT STRIPING.





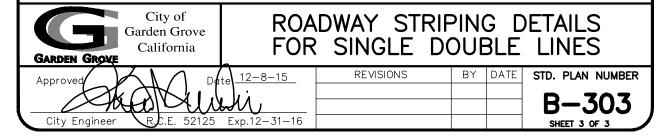
- 1. BOTH PAINT AND MARKERS TO BE INSTALLED PER DETAIL AS SHOWN, WITH PAINT INSTALLED FIRST.
- 2. INSTALLATION OF ALL MARKERS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST CALTRANS STANDARD SPECIFICATIONS SECTION 85.

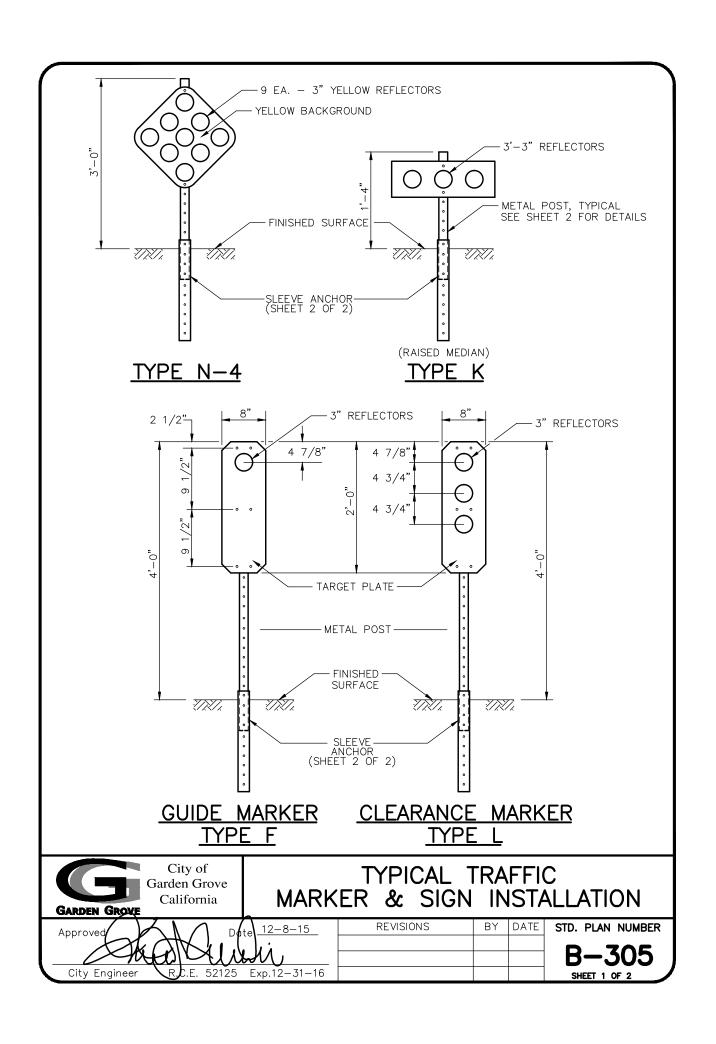


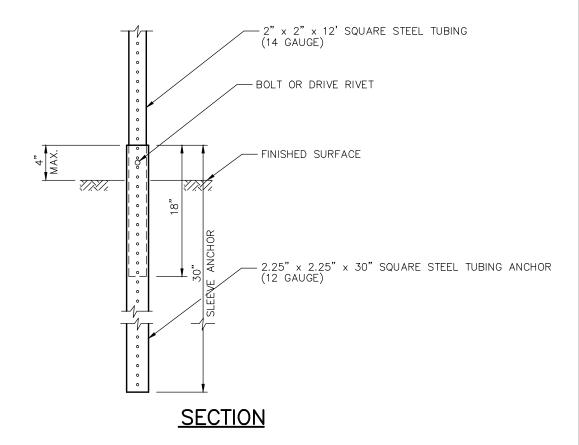


- 1. BOTH PAINT AND MARKERS TO BE INSTALLED PER DETAIL AS SHOWN, WITH PAINT INSTALLED FIRST.
- 2. INSTALLATION OF ALL MARKERS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST CALTRANS STANDARD SPECIFICATIONS SECTION 85.

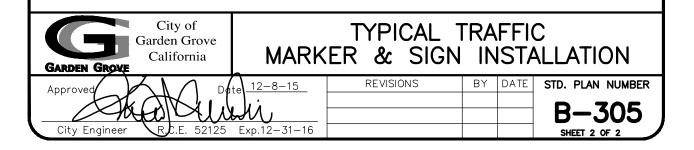
DO NOT USE THIS STANDARD FOR NEW STRIPING OF ENTIRE ROADWAYS — TO BE USED ONLY FOR REPLACEMENT OF EXISTING STRIPING IN ISOLATED AREAS TO MATCH ADJACENT STRIPING.

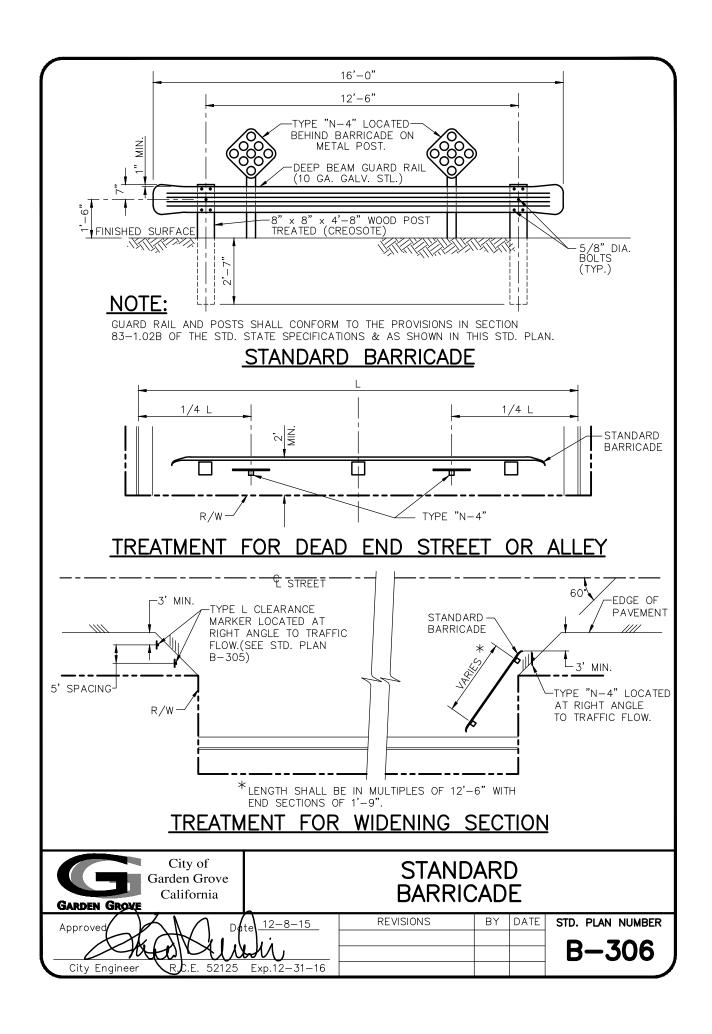


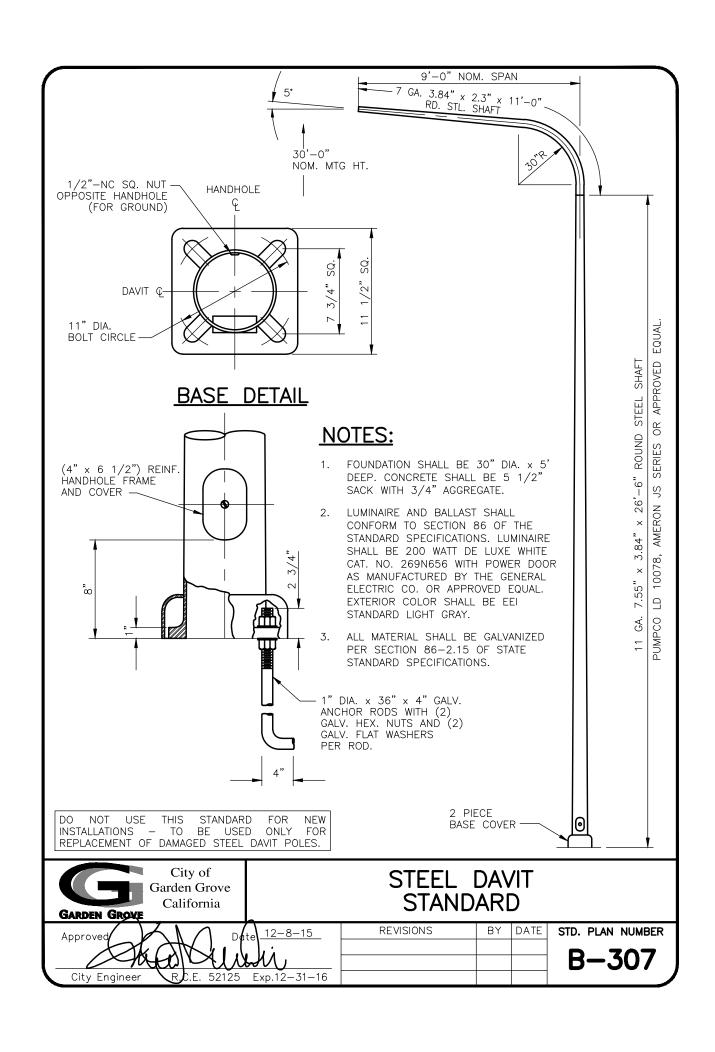


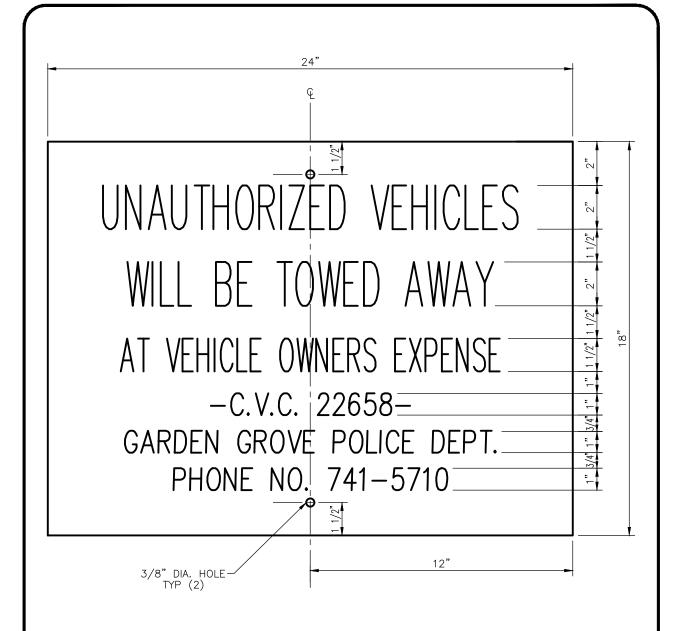


- SQUARE STEEL TUBING SHALL BE GALVANIZED, WITH 7/16" DIAMETER DIE CUT KNOCKOUTS ON 1" CENTERS, FULL LENGTH ON FOUR SIDES, AS MANUFACTURED BY ALLIED TUBE CONDUIT, OR APPROVED EQUAL.
- 2. SIGNS SHALL BE MOUNTED WITH GALVANIZED NUTS, BOLTS, AND WASHERS, OR DRIVE RIVETS.

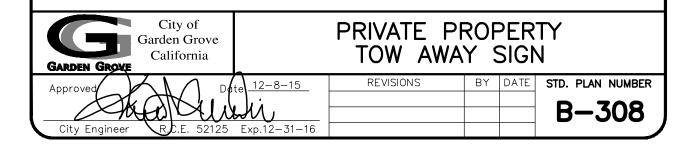


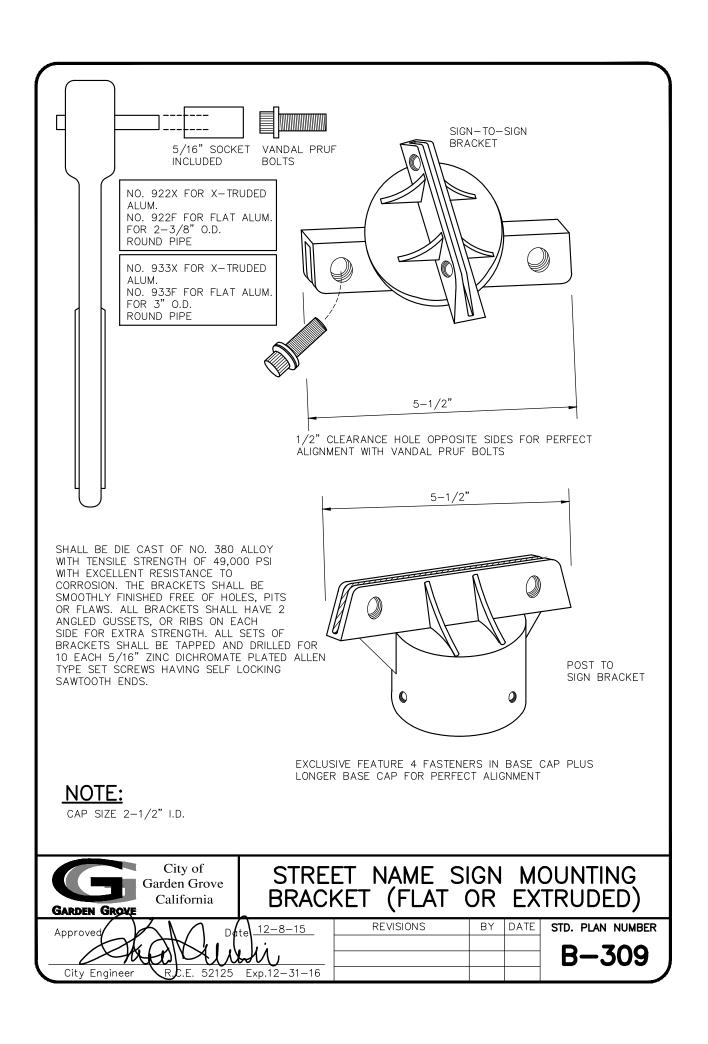




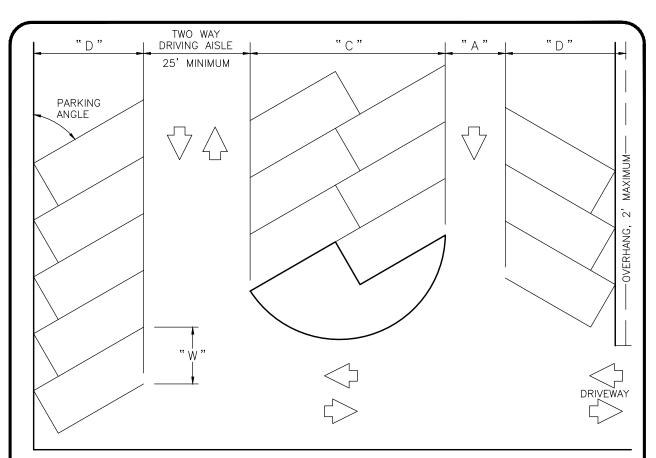


- 1. COLOR SHALL BE BLACK LETTERS AND BORDER ON A WHITE BACKGROUND.
- 2. SIZES SHOWN ARE MINIMUM.
- 3. SIGN PLACEMENT SHALL BE IN ACCORDANCE WITH M.C. 10.56.220 AND C.V.C. 22658.





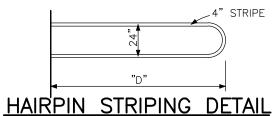
## **NOTE:** SEE B-301 & B-302 FOR STREET SIGN DETAILS AND B-305 FOR SIGN MOUNTING BRACKET DETAILS. 2" I.D. SCHEDULE 40 (MIN.) GALVANIZED PIPE 10'-6" LONG. FINISHED SURFACE D FOUNDATION MAY BE $\nabla$ POURED INTEGRAL WITH SIDEWALK $\nabla$ $\triangle$ D $\nabla$ D Δ Δ D 8" DIA **SECTION** City of STREET NAME SIGN Garden Grove POLE DETAIL California GARDEN GROVE STD. PLAN NUMBER REVISIONS DATE 12-8-15 Approved B-310 City Engineer R.C.E. 52125 Exp.12-31-16

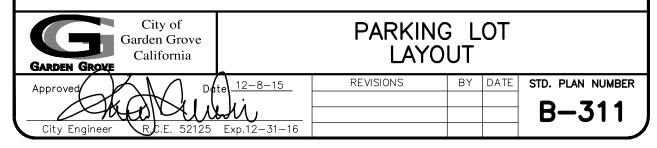


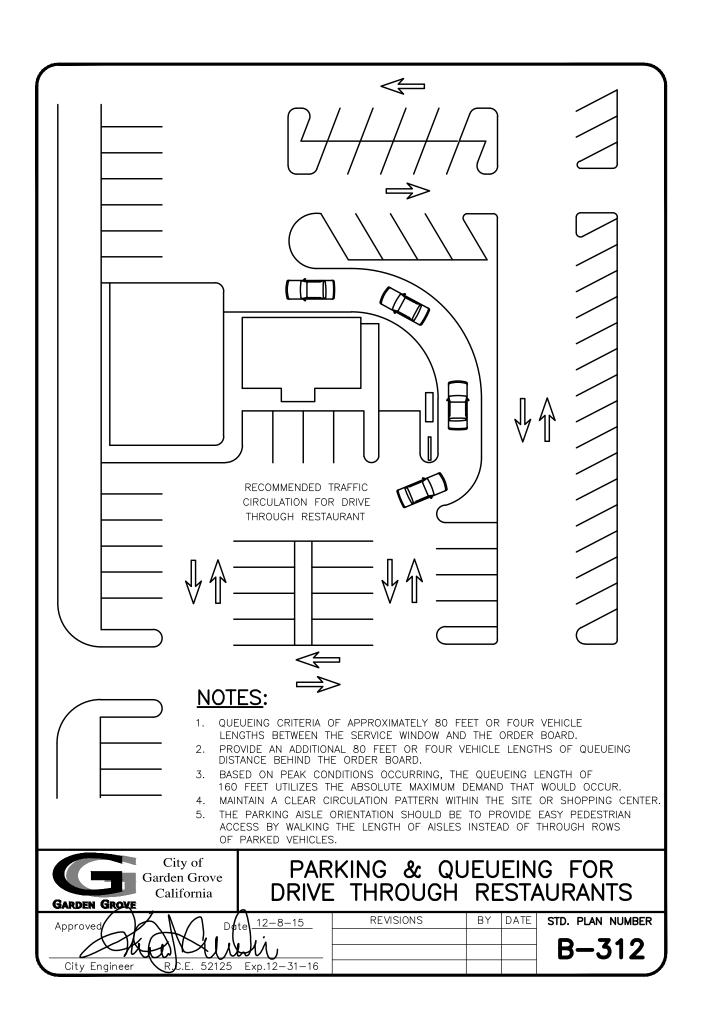
STALL TYPE	PARKING ANGLE (DEGREES)		"D" DEPTH of STALL PERPENDICULAR to AISLE	" A " MIN. WIDTH of DRIVING AISLE	" C " CENTER SECTION PARKING WIDTH
	90	9'	19'	25'	38'
FULL SIZE	60	10'-5"	20'-11"	17'	37'-5"
	45	12'-9"	19'-10"	14'-6"	33'-3"
	30	18'	17'-4"	14'	26'-10"
	0*	22'	**8'	14'	
COMPACT	90	8'	15'	25'	30'
	60	9'-3"	17'	17'	30'
	45	11'-4"	16'-3"	14'-6"	26'-10"

<sup>\*</sup> PARALLEL PARKING

<sup>\*\* 9&#</sup>x27; AGAINST A WALL







#### STREET LIGHTING STANDARDS

#### **GENERAL**

WHERE STREET LIGHTING IS CALLED FOR, IT SHALL BE PROVIDED IN ACCORDANCE WITH CITY OF GARDEN GROVE STD. PLAN NO. B-313 ON CITY STREETS AND ALL OTHER LOCATIONS WHERE ILLUMINATION IS JUSTIFIED, AS DETERMINED BY THE ENGINEER. ALL STREET LIGHT LAYOUTS AND LIGHTING DESIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

#### **ELECTROLIERS**

ELECTROLIER IS DEFINED AS THE STREET LIGHT POLE, MAST ARM, AND LUMINAIRE. LUMINAIRE IS DEFINED AS THE LIGHT FIXTURE ON THE END OF THE MAST ARM.

ELECTROLIERS SHALL BE OF THE TYPE PROVIDED BY THE SERVING UTILITIES, OR AS APPROVED BY THE ENGINEER AND THE SERVING UTILITY WHERE AESTHETIC OR LIGHT DISTRIBUTION CONSIDERATIONS ARE WARRANTED.

ELECTROLIERS SHALL BE PLACED AT LOT LINES EXCEPT AS APPROVED BY THE ENGINEER. THE DISTANCE OF THE ELECTROLIER BEHIND CURB SHALL BE APPROVED BY THE ENGINEER.

AT INTERSECTIONS, WHERE PRACTICAL, ELECTROLIERS SHALL BE PLACED NEAR THE END OF THE CURB RETURN ON THE FAR RIGHT SIDE OF THE INTERSECTION. AT A "T" INTERSECTION AN ELECTROLIER SHALL BE PLACED AT THE HEAD OF THE INTERSECTION OR AT ALTERNATE LOCATIONS NEAR THE END OF CURB RETURN ON EITHER THE FAR RIGHT OR THE FAR LEFT SIDE OF THE INTERSECTION.

ELECTROLIERS IN MEDIAN ISLANDS SHALL NOT BE PLACED CLOSER THAN 100 FEET FROM AN ARTERIAL HIGHWAY OR COLLECTOR STREET INTERSECTION. ELECTROLIERS SHALL NOT BE PLACED IN MEDIAN ISLANDS LESS THAN SIX (6) FEET IN WIDTH.

ELECTROLIERS SHOULD BE PLACED ALTERNATELY ON EACH SIDE OF THE ROADWAY WHEN INSTALLED ALONG THE SIDES OF A ROADWAY.

ELECTROLIERS SHALL BE SPACED IN ACCORDANCE WITH THE FOLLOWING:

	LOCATION	MINIMUM HPSV LAMP <u>SIZE (LUMENS)</u>	APPROX. SPACING <u>(FEET)</u>
A.	LOCAL STREETS	9,500	100-150
В.	SECONDARY ARTERIAL (4-LANE WITHOUT RAISED MEDIANS)	16,000	150-200
C.	PRIMARY ARTERIAL (4-LANE WITH RAISED MEDIANS) (6-LANE WITHOUT RAISED MEDIANS)	16,000 22,000	150-200 200-250
D.	MAJOR ARTERIAL (6-LANE WITH RAISED MEDIANS)	22,000	200-250

REQUIRED SPACING AND LUMEN LEVELS MAY BE MODIFIED ON AN EXCEPTIONAL BASIS FOR PURPOSES OF CRIME PREVENTION, ENERGY SAVINGS, AND/OR AS ADVISED BY THE ENGINEER. CONSISTENCY OF ELECTROLIER SPACING AND LAMP LUMEN LEVELS SHALL BE MAINTAINED ALONG ALL STREETS WHENEVER POSSIBLE.

City of Garden Grove California GARDEN GROVE	STREET LIGHTING
Approved Date 12-8-15	REVISIONS BY DATE STD. PLAN NUMBER
City Engineer R.C.E. 52125 Exp.12-31-1	B-313 SHEET 1 OF 2

#### STREET LIGHTING STANDARDS (Continued):

#### POLES, MAST ARMS, AND LUMINAIRES

POLES SHALL BE MARBELITE.

LENGTH OF MAST ARMS SHALL BE A MINIMUM OF 6-FEET.

MAST ARMS MAY BE MOUNTED ON EXISTING WOOD POLES WHERE:

- A. THE PROXIMITY OR NUMBER OF EXISTING WOOD POLES WITHIN THE RIGHT-OF-WAY PRECLUDES THE INSTALLATION OF SEPARATE STREET LIGHTING POLES.
- B. TEMPORARY LIGHTING IS TO BE INSTALLED IN UNDEVELOPED AREAS.

HEIGHT OF LUMINAIRES SHALL BE A MINIMUM OF 30-FEET.

LUMINAIRES SHALL BE OF THE TYPE USED BY THE SERVING UTILITY AND SHALL BE THE COBRA HEAD STYLE HOUSING.

#### **LAMPS**

LAMPS SHALL BE HIGH PRESSURE SODIUM VAPOR (HPSV).

#### MISCELLANEOUS MATERIALS AND WORKMANSHIP

MATERIAL AND WORK SHALL MEET OR EXCEED THE APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE, THE ELECTRICAL SAFETY ORDERS OF THE DEPARTMENT OF INDUSTRIAL SAFETY, STATE OF CALIFORNIA, THE AMERICAN SOCIETY FOR TESTING MATERIALS AND SECTION 86 OF THE STANDARD SPECIFICATIONS OF THE CALIFORNIA STATE DEPARTMENT OF TRANSPORTATION, LATEST EDITION.

IN ADDITION TO THE ABOVE, NON-UTILITY-OWNED STREET LIGHTING INSTALLATIONS SHALL CONFORM TO THE LATEST PUBLICATION OF SECTION 307 OF THE SOUTHERN CALIFORNIA CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND THE SOUTHERN CALIFORNIA DISTRICT OF ASSOCIATED GENERAL CONTRACTORS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THIS STANDARD PLAN.

THE CONSTRUCTION PRACTICES AND MATERIALS USED FOR STREET LIGHTS OWNED BY UTILITIES SUBJECT TO THE REGULATION OF THE CALIFORNIA PUBLIC UTILITIES COMMISSION ARE SPECIFIED EXCLUSIVELY BY THE ORDERS OF THE COMMISSION. ALL STREET LIGHTS OWNED BY REGULATED UTILITIES SHALL MEET OR EXCEED THE REQUIREMENTS OF GENERAL ORDERS 95 AND 128.

#### SERVICE AND MAINTENANCE

SERVICE AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE ELECTROLIER.

City of Garden Grove California	STREET L	IGHTIN	G
Approved Date 12-8-15	REVISIONS	BY DATE	STD. PLAN NUMBER
City Engineer R.C.E. 52125 Exp.12-31-16			B-313