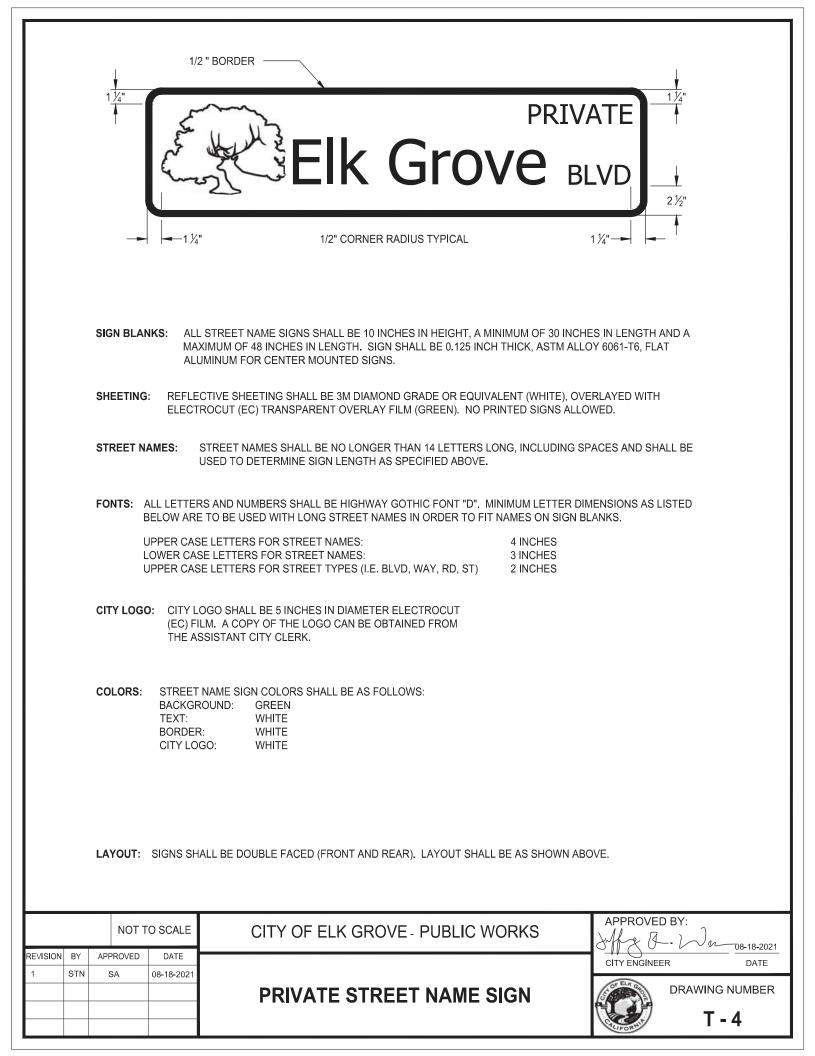
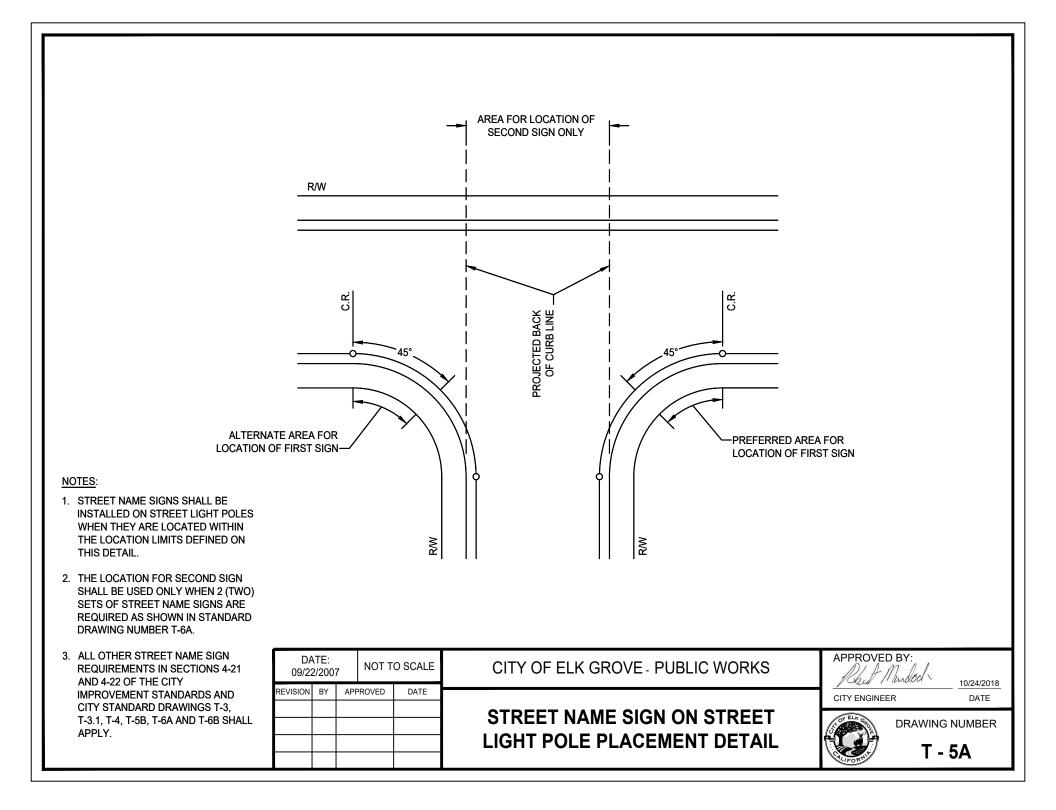
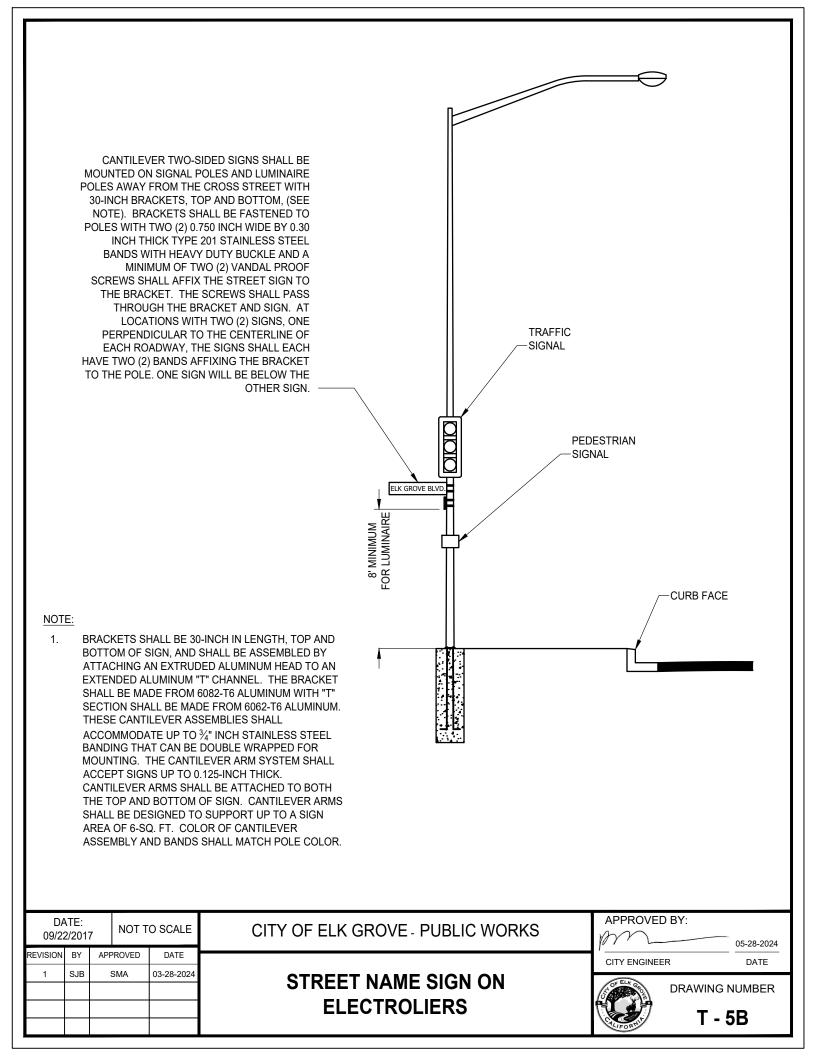


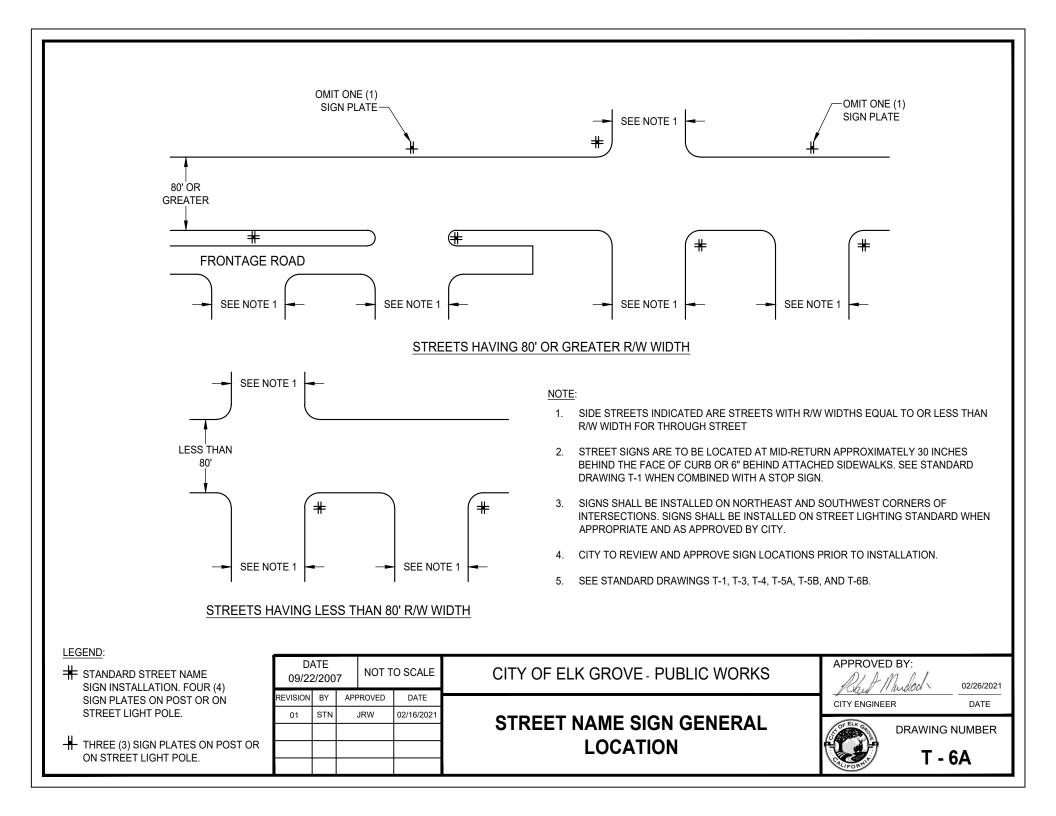
| 1/2 " BORDER JOHN SMITH BLVD   |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| $= 9\frac{1}{2}$ $= 8\frac{1}{2}$ $= 1\frac{1}{4}$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/4$ $1/4$   |  |  |  |  |  |  |  |
| 1/2 " BORDER JOHN SMITH BLVD   |  |  |  |  |  |  |  |
| $\begin{vmatrix} \bullet & \bullet \\ \bullet & \bullet \\ \bullet & \bullet \\ \hline \bullet & \bullet $ |  |  |  |  |  |  |  |
| 1/2 " BORDER JOHN SMITH BLVD   |  |  |  |  |  |  |  |
| 9 $\frac{1}{2}$ " 1/2" CORNER RADIUS TYPICAL 1 $\frac{1}{4}$ "   |  |  |  |  |  |  |  |
| SIGN BLANKS: ALL STREET NAME SIGNS SHALL BE 10 INCHES IN HEIGHT, A MINIMUM OF 30 INCHES IN LENGTH AND A<br>MAXIMUM OF 48 INCHES IN LENGTH. SIGN SHALL BE 0.125 INCH THICK, ASTM ALLOY 6061-T6, FLAT<br>ALUMINUM FOR CENTER MOUNTED SIGNS.  |  |  |  |  |  |  |  |
| SHEETING: REFLECTIVE SHEETING SHALL BE 3M DIAMOND GRADE OR EQUIVALENT (WHITE), OVERLAYED WITH ELECTROCUT (EC) TRANSPARENT OVERLAY FILM (GREEN). NO PRINTED SIGNS ALLOWED.  |  |  |  |  |  |  |  |
| <b>STREET NAMES:</b> STREET NAMES SHALL BE NO LONGER THAN 14 LETTERS LONG, INCLUDING SPACES AND SHALL BE USED TO DETERMINE SIGN LENGTH AS SPECIFIED ABOVE.   |  |  |  |  |  |  |  |
| FONTS: ALL LETTERS AND NUMBERS SHALL BE HIGHWAY GOTHIC FONT "D". MINIMUM LETTER DIMENSIONS AS LISTED BELOW ARE TO BE USED WITH LONG STREET NAMES IN ORDER TO FIT NAMES ON SIGN BLANKS.   |  |  |  |  |  |  |  |
| UPPER CASE LETTERS FOR STREET NAMES:4 INCHESLOWER CASE LETTERS FOR STREET NAMES:3 INCHESUPPER CASE LETTERS FOR STREET TYPES (I.E. BLVD, WAY, RD, ST)2 INCHESUPPER CASE LETTERS FOR "VETERAN", "POLICE", "FIRE FIGHTER": $\frac{3}{4}$ INCHESUPPER CASE LETTERS FOR "HONORING THOSESERVED": $\frac{5}{8}$ INCHES  |  |  |  |  |  |  |  |
| VETERAN/POLICE/FIRE FIGHTERNAMING STREET NAME SIGN AND INSTALLATION EFFORTS MUST BE COORDINATED WITH THESTREET NAME SIGN:CITY PUBLIC WORKS. FOR MORE INFORMATION, CALL 916.687.3005  |  |  |  |  |  |  |  |
| COLORS:STREET NAME SIGN COLORS SHALL BE AS FOLLOWS:<br>BACKGROUND:BACKGROUND:GREEN<br>TEXT:TEXT:WHITE<br>BORDER:FLAG:WHITE BACKGROUND  |  |  |  |  |  |  |  |
| LAYOUT: SIGNS SHALL BE DOUBLE FACED (FRONT AND REAR) . LAYOUT SHALL BE AS SHOWN ABOVE.   |  |  |  |  |  |  |  |
| DATE<br>01-30-2023 NOT TO SCALE CITY OF ELK GROVE - PUBLIC WORKS   |  |  |  |  |  |  |  |
| REVISION       BY       APPROVED       DATE         VETERAN AND PUBLIC SAFETY       CITY ENGINEER       DATE         DRAWING NUMBER       STREET NAME SIGN       T - 3.1   |  |  |  |  |  |  |  |

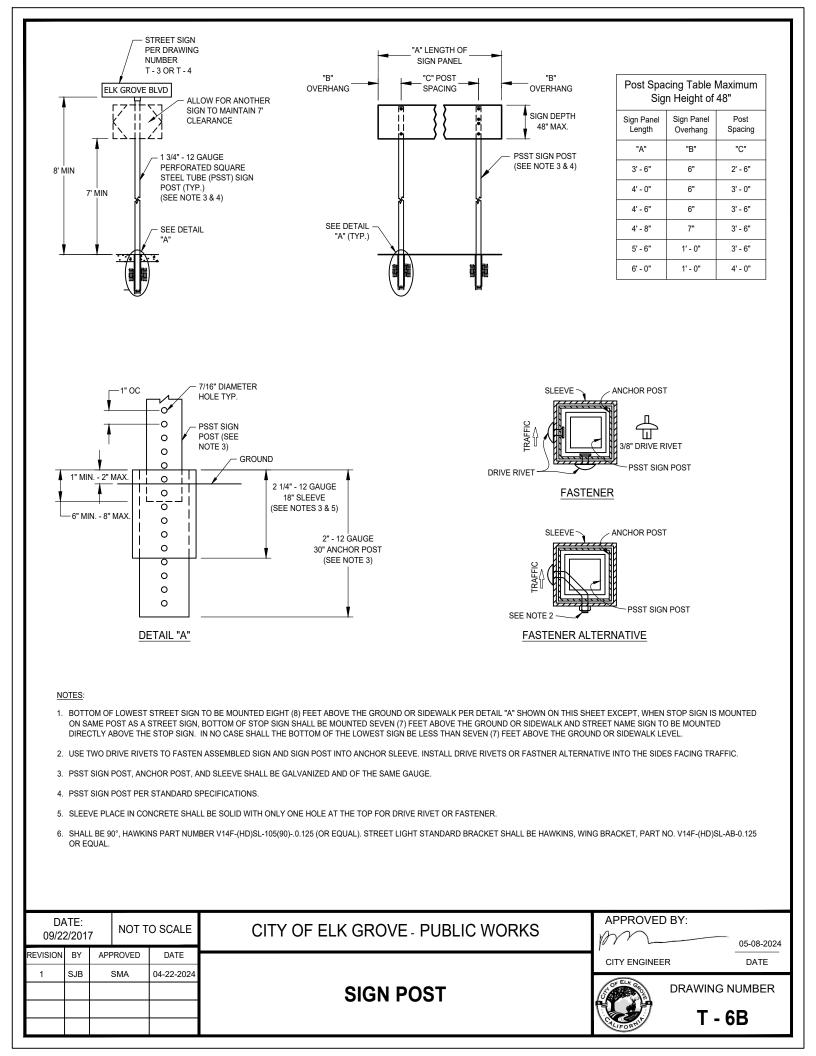
|               | 1 <u>1/4"</u> | Lever and a second | 1/2 " BORDER<br>Elk Grove   | BLVD<br>2½"<br>1½"                                    |
|---------------|---------------|--------------------|---|---|
|               | SIGN BLAN     | MA                 | . STREET NAME SIGNS SHALL BE 10 INCHES IN HEIGHT, A MINIMUM OF 30<br>XIMUM OF 48 INCHES IN LENGTH. SIGN SHALL BE 0.125 INCH THICK, ASTI<br>JMINUM FOR CENTER MOUNTED SIGNS. |   |
|               | SHEETING      |                    | CTIVE SHEETING SHALL BE 3M DIAMOND GRADE OR EQUIVALENT (WHITE<br>ROCUT (EC) TRANSPARENT OVERLAY FILM (GREEN). NO PRINTED SIGNS  |   |
|               | STREET NA     |                    | STREET NAMES SHALL BE NO LONGER THAN 14 LETTERS LONG, INCLUD<br>USED TO DETERMINE SIGN LENGTH AS SPECIFIED ABOVE.   | ING SPACES AND SHALL BE                               |
|               |               |                    | RS AND NUMBERS SHALL BE HIGHWAY GOTHIC FONT "D". MINIMUM LETT<br>E TO BE USED WITH LONG STREET NAMES IN ORDER TO FIT NAMES ON S   |   |
|               | L             | OWER CA            | E LETTERS FOR STREET NAMES: 4 INCHES<br>SE LETTERS FOR STREET NAMES: 3 INCHES<br>SE LETTERS FOR STREET TYPES (I.E. BLVD, WAY, RD, ST) 2 INCHES                              |   |
|               | CITY LOGO     | (EC) F             | OGO SHALL BE 5 INCHES IN DIAMETER ELECTROCUT<br>LM. A COPY OF THE LOGO CAN BE OBTAINED FROM<br>SSISTANT CITY CLERK.   |   |
|               | COLORS:       | B<br>T<br>B        | TREET NAME SIGN COLORS SHALL BE AS FOLLOWS:<br>ACKGROUND: GREEN<br>EXT: WHITE<br>ORDER: WHITE<br>ITY LOGO: WHITE  |   |
|               | LAYOUT:       | SIGNS SH           | ALL BE DOUBLE FACED (FRONT AND REAR) . LAYOUT SHALL BE AS SHO   | WN ABOVE.   |
|               | NOT T         | O SCALE            | CITY OF ELK GROVE - PUBLIC WORKS  | APPROVED BY:<br>Siff & D. Wn 08-18-2021               |
| <br>BY<br>STN | APPROVED      | DATE<br>08/18/2021 | STREET NAME SIGN  | CITY ENGINEER DATE CITY ENGINEER DRAWING NUMBER T - 3 |

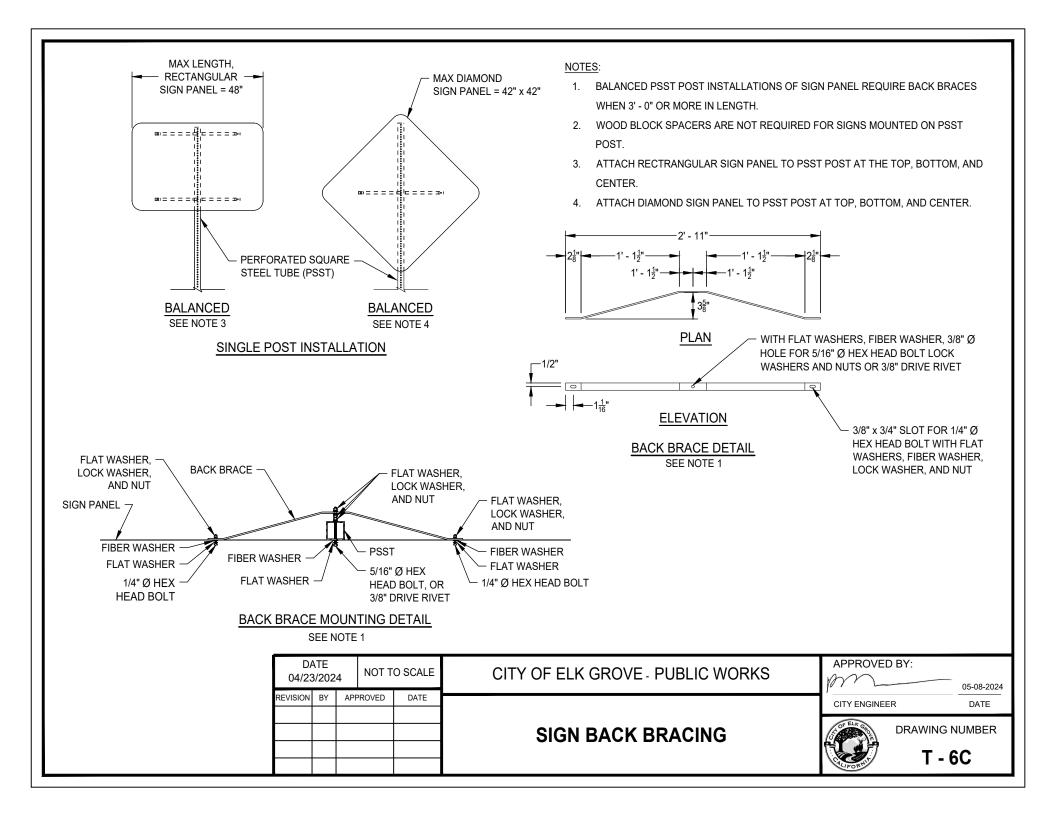




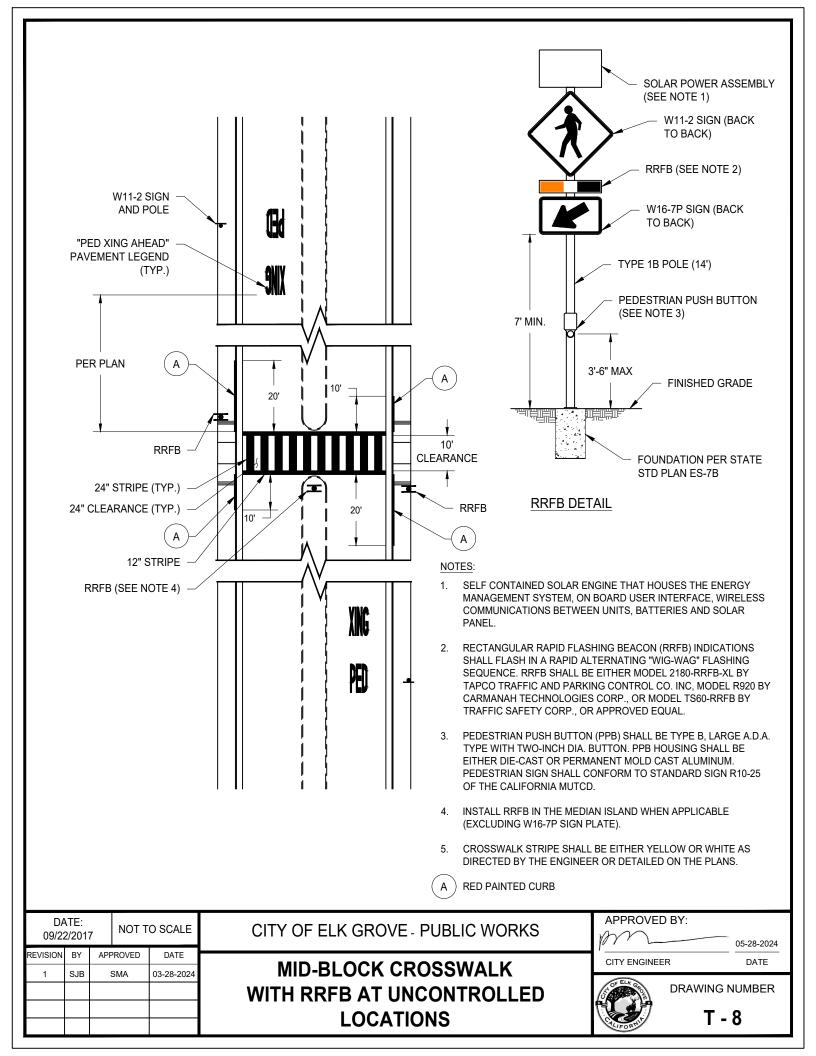


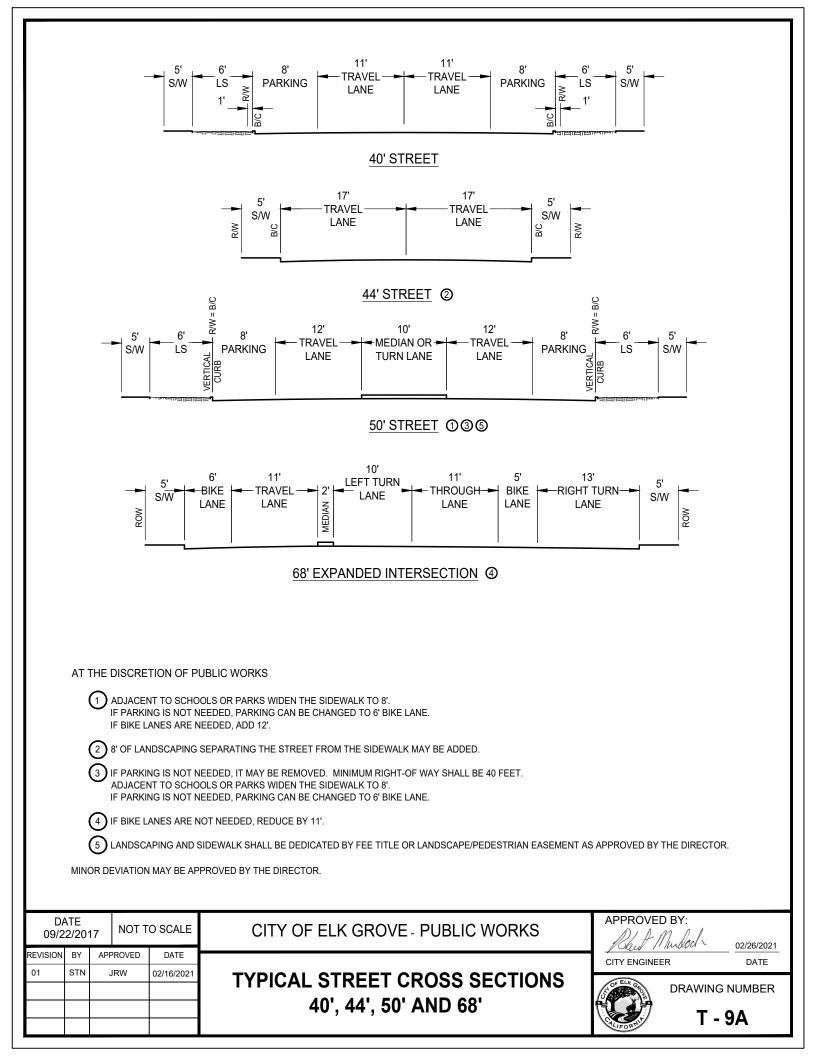


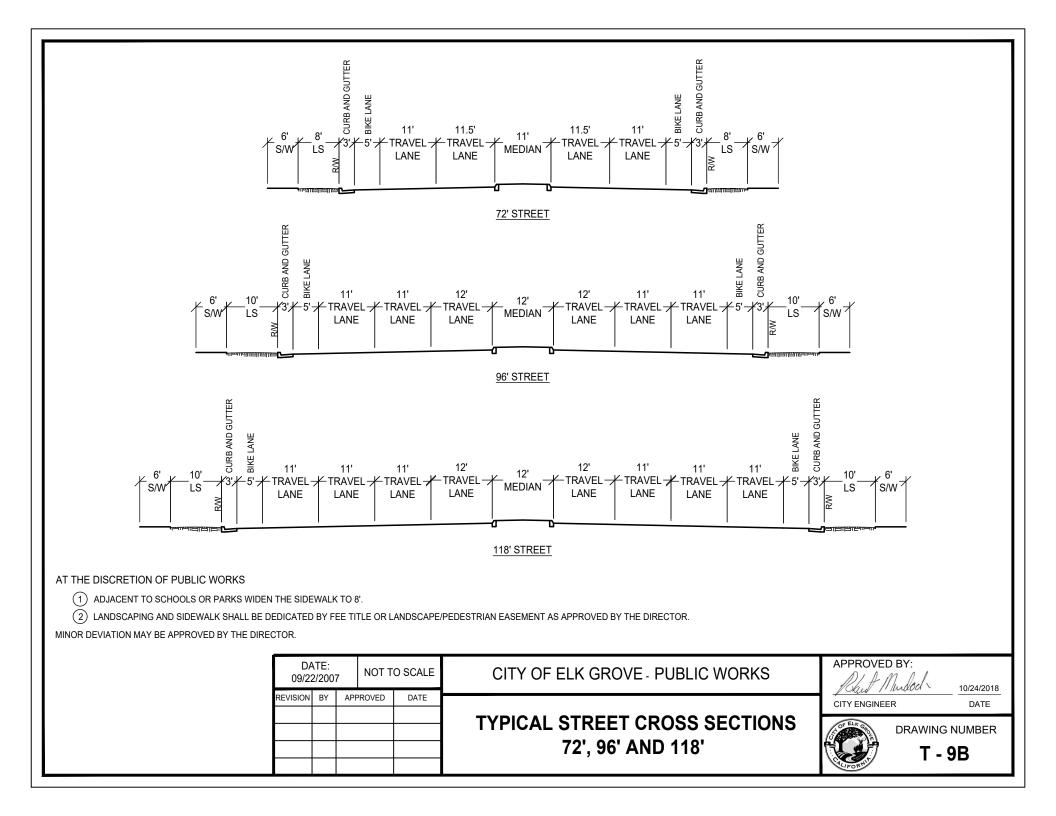


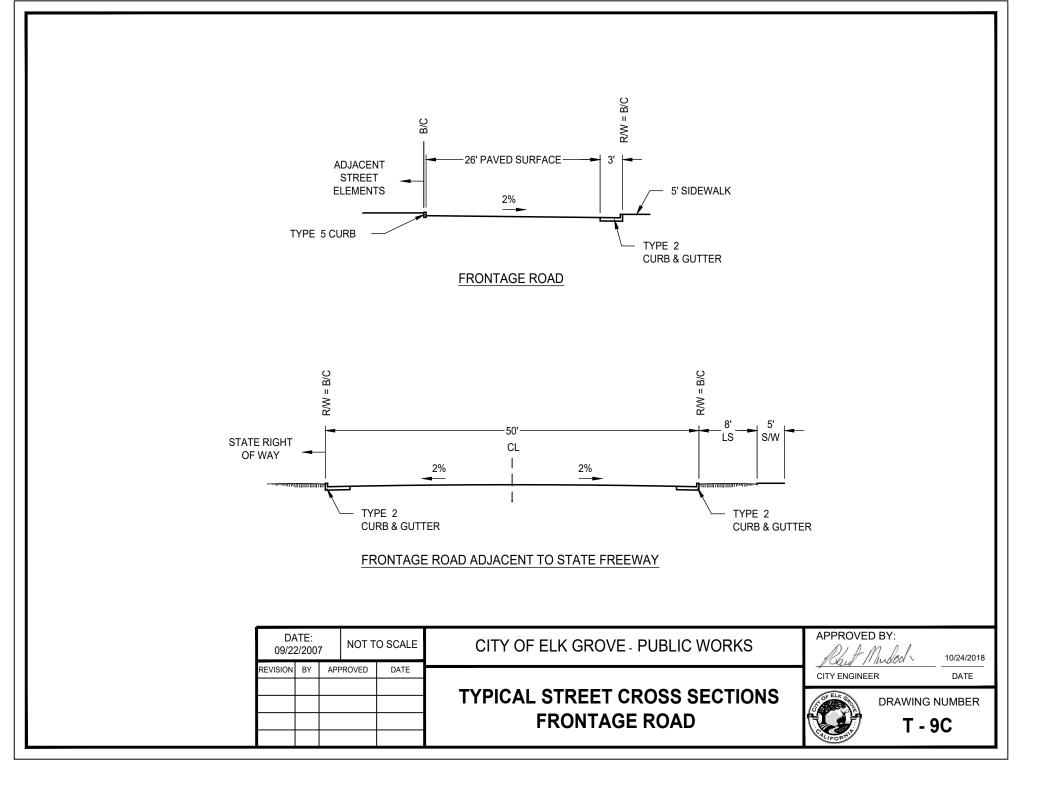


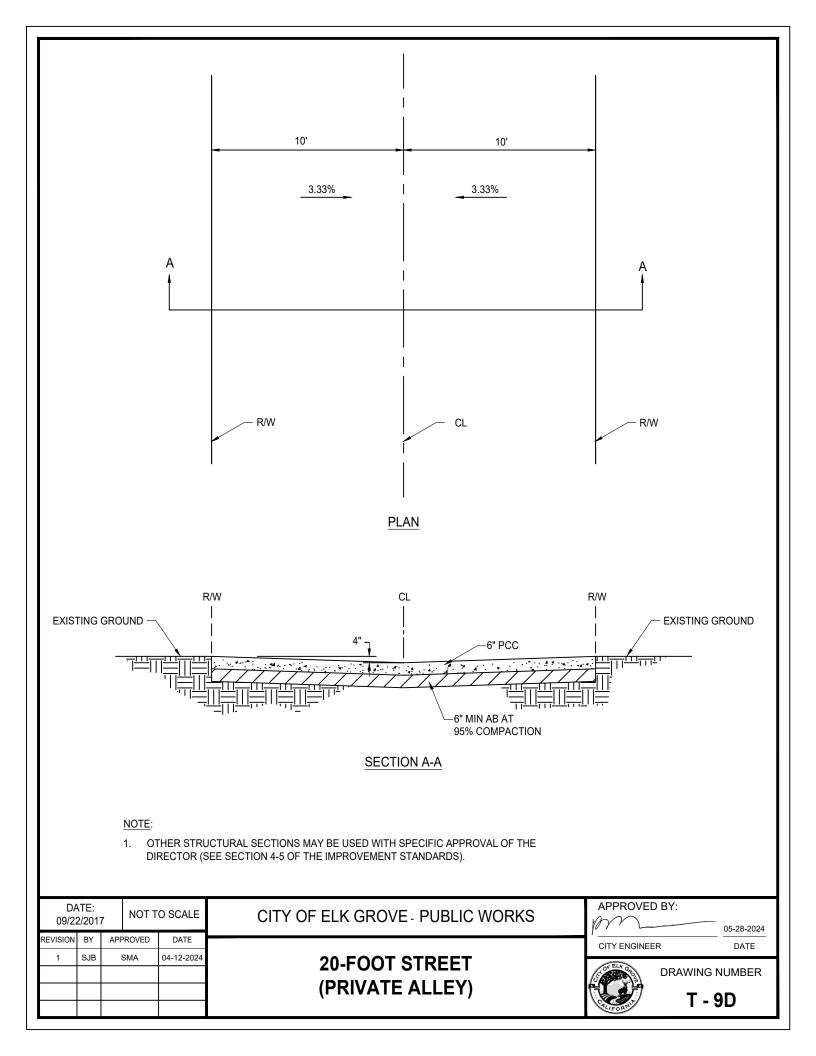
| BIKE LOOP DETECTOR WI<br>BIKE DETECTION SYMBOL<br>(SEE DETAILS AND NOTES)<br>CROSSWALK<br>LINE<br>SUPPLEMENTAL<br>LIMIT LINE<br>DETECTOR<br>HAND HOLE (TYP)<br>TRAFFIC LOOP (TYP)  |  |
|--|--|
|  | ISTALLATION AT MAJOR BIKE LOOP INSTALLATION<br>WITH RIGHT TURN LANE ADJACENT TO CURB AND GUTTER  |
| CABLE (DLC) AND CONNECTI<br>OTHERWISE NOTED ON THE<br>2. FOR BIKE LANE WITH LESS T<br>GUTTER, USE 3/4 SIZE OF BI<br>3. BIKE LANE LEGENDS, ARROV<br>PAINT PER SECTION 84-2.02 (<br>4. BIKE DETECTION SYMBOL SH<br>AND OUTSIDE THROUGH LAN<br>THE OUTSIDE LEFT TURN LA | Image: Construction of the second |
| DATE:<br>09/22/2007 NOT TO SCALE   | CITY OF ELK GROVE - PUBLIC WORKS   |
| REVISION     BY     APPROVED     DATE       01     SN     SA     07-29-2021  | BIKE LOOP AND BIKE LEGEND<br>INSTALLATION DETAIL<br>T - 7  |

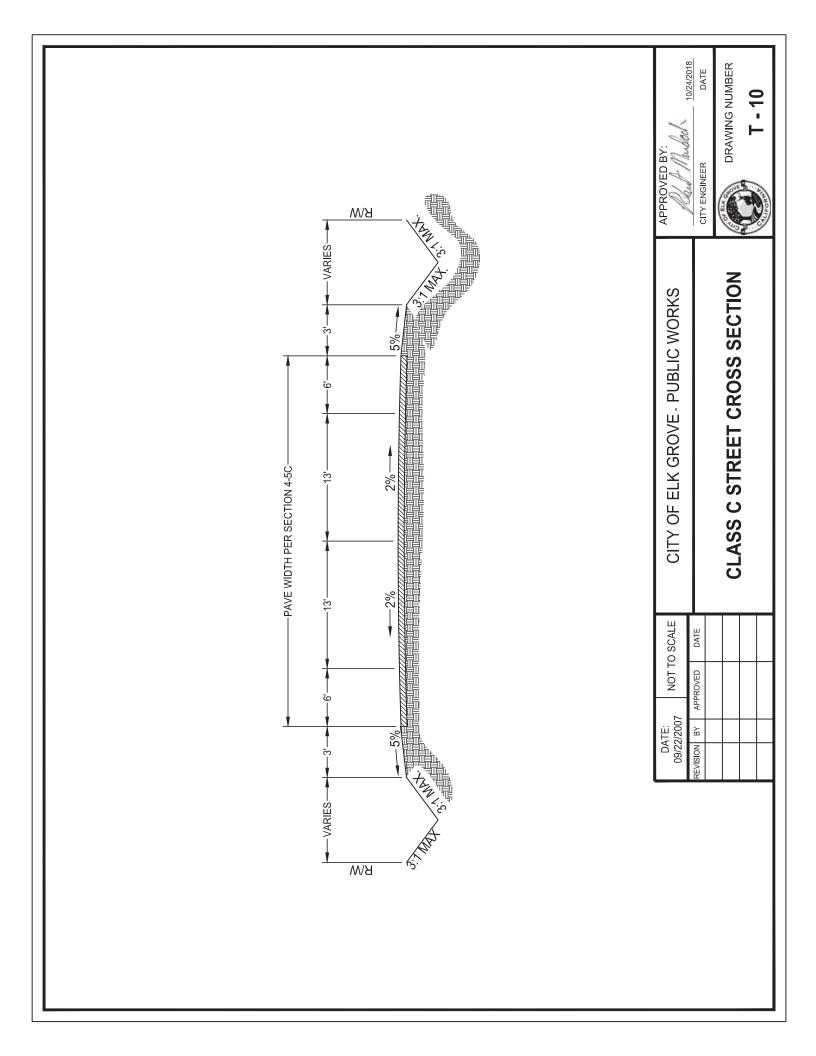


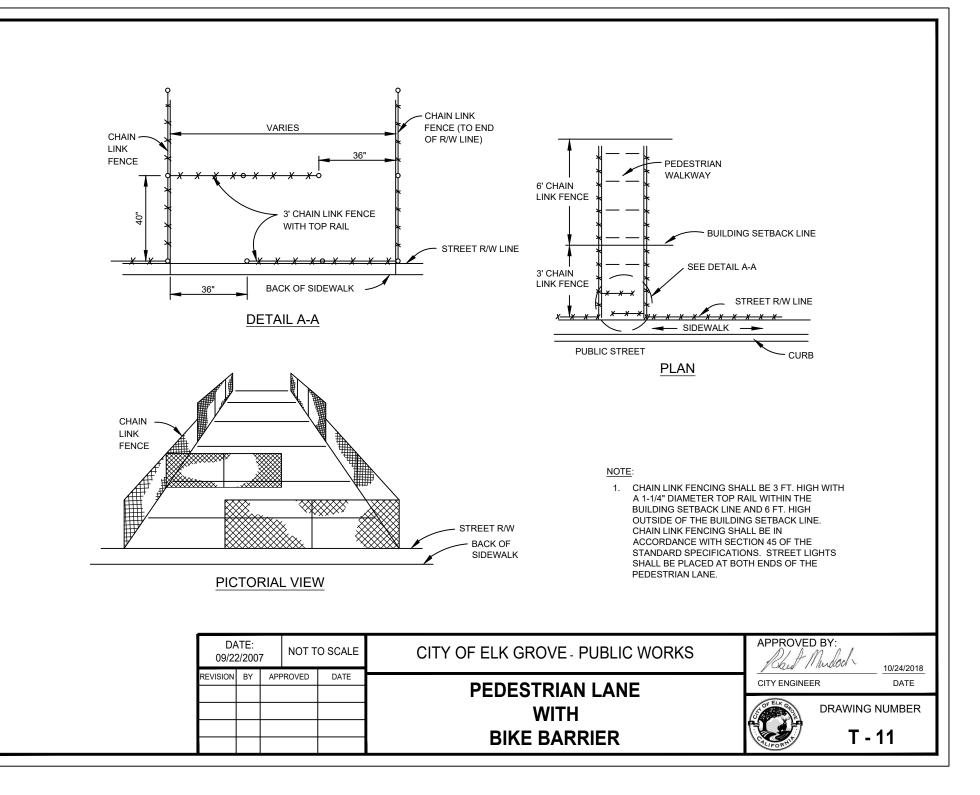




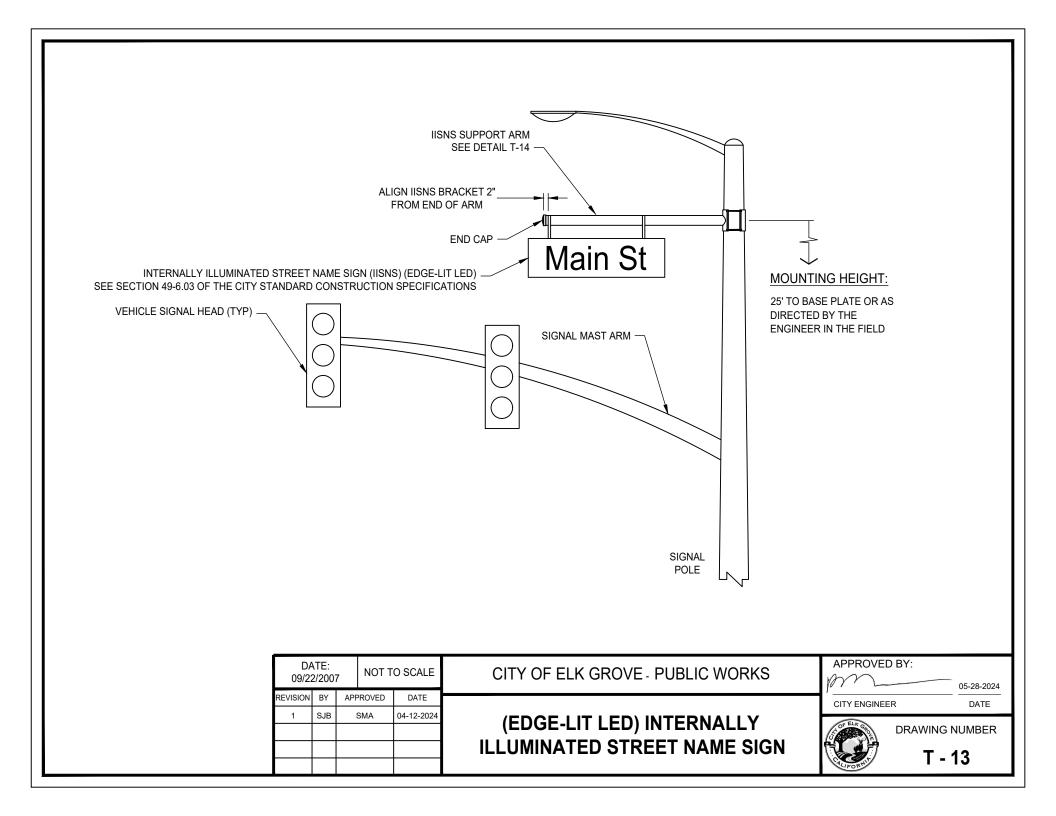


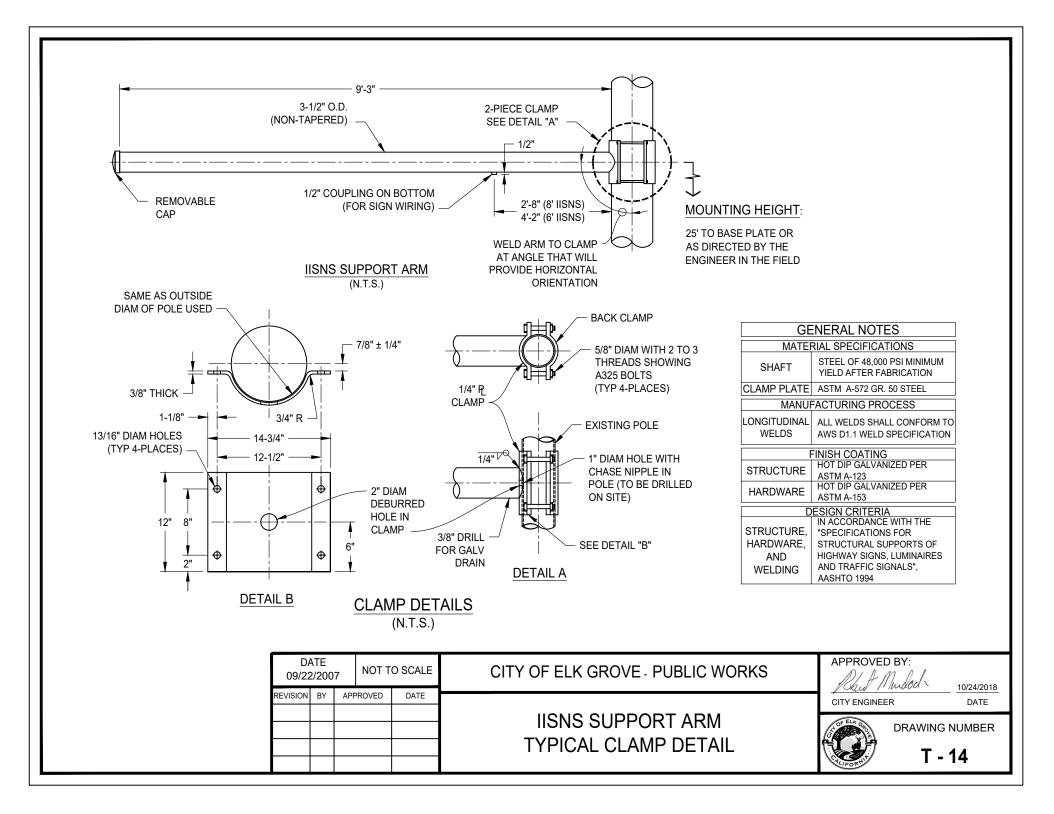






| SYS<br>36"   | TYPE<br>TERY BACKUP<br>TEM CABINET<br>13"<br>13"<br>TYPE III<br>SERVICE<br>CABINET                    | ER  | 32"<br>SOLID NEUTRAL BUSS AND<br>NO. 6 BARE COPPER<br>GROUND WIRE TO GROUND<br>BUSS OF CABINET   |
|--|---|---|--|
| CONCRETE FC  |   | 50"   |  |
| TYPE III SERVICE<br>CABINET<br>TOP OF CONCRETE<br>EXISTING<br>SIDEWALK<br>6"<br>6"<br>6"<br>6"<br>6"<br>6"<br>6"<br>6"<br>6"<br>6"<br>6"<br>6"<br>6" | FRONT<br>RD PLAN ES-2D AND ES-3C FOR<br>, A RAISED PORTLAND CEMENT<br>NET (50" W x 48" D x 4" THICK). | PAD SHALL BE CONSTRUC                       | 3" 2"<br>RIGHT AND<br>LEFT SIDES<br>FRONT AND<br>BACK SIDES<br>EXISTING<br>SIDEWALK<br>12"<br>4"<br>5/8" DIAM X 10'<br>GROUND ROD WITH<br>APPROVED GROUND<br>CLAMP |
| DATE:<br>09/22/2017     NOT TO SCALE       REVISION     BY     APPROVED     DATE       I     I     I   |   | ROVE - PUBLIC W<br>FOUNDATION<br>TROLLER CA | ORKS APPROVED BY: Band Muloch 10/24/2018 CITY ENGINEER DATE DRAWING NUMBER   |





## CONDUIT SIZING

| CONDUCTOR                        | EQUIVALENT NUMBER<br>OF #14 A.W.G.<br>CONDUCTORS FOR USE<br>IN CONDUIT SIZING |
|----------------------------------|---|
| #12 CONDUCTOR                    | 1.2   |
| #10 CONDUCTOR                    | 1.5   |
| #8 CONDUCTOR                     | 2.3   |
| #6 CONDUCTOR                     | 3   |
| #4 CONDUCTOR                     | 4   |
| #2 CONDUCTOR                     | 5.3   |
| #0 CONDUCTOR                     | 11.5  |
| INTERCONNECT CABLE               | 18  |
| DETECTOR LEAD-IN CABLE           | 2.5   |
| EMERGENCY VEHICLE DETECTOR CABLE | 2   |

| CONDUIT SIZE                                 | 2" | 2.5" | 3" | 3.5" | 4"  |
|--|----|------|----|------|-----|
| MAXIMUM NUMBER<br>OF #14 A.W.G<br>CONDUCTORS | 31 | 44   | 69 | 91   | 113 |

NOTE: MINIMUM SIZE FOR NEW CONDUITS IS 2".

## SERVICE WIRE MAXIMUM LENGTHS FOR TRAFFIC SIGNALS

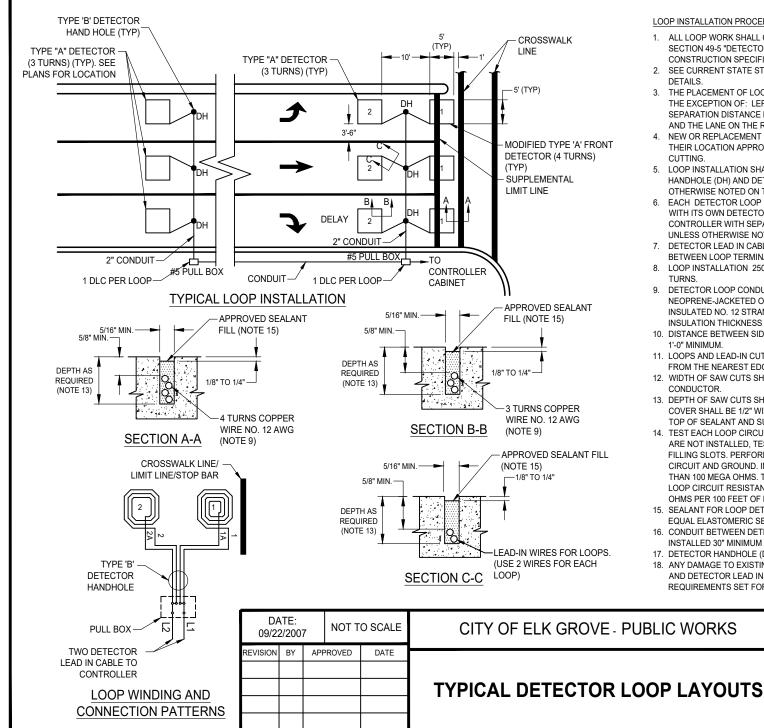
| WIRE SIZE | LENGTH |
|-----------|--------|
| #0        | 576'   |
| #2        | 360'   |
| #4        | 224'   |

## CIRCUIT BREAKER SIZING

| CONDUCTOR SIZE<br>A.W.G. | MAXIMUM CIRCUIT<br>BREAKER AMPERAGE |
|--------------------------|-------------------------------------|
| #2                       | 100                                 |
| #4                       | 80                                  |
| #6                       | 50                                  |
| #8                       | 40                                  |
| #10                      | 30                                  |

NOTE: THE BREAKER SIZE SHALL BE DETERMINED BY THE LOAD REQUIREMENTS. MINIMUM BREAKER SIZE IS 30 AMPS.

| DATE:<br>09/22/2017 |     | 7 NOT    | O SCALE    | CITY OF ELK GROVE - PUBLIC WORKS |               | BY:<br>05-28-2024 |
|---------------------|-----|----------|------------|----------------------------------|---------------|-------------------|
| REVISION            | BY  | APPROVED | DATE       |                                  | CITY ENGINEER | DATE              |
| 1                   | SJB | SMA      | 03-28-2024 | CONDUIT, SERVICE WIRE            | A OF ELK GRO  | DRAWING NUMBER    |
|                     |     |          |            | AND BREAKER SIZING               | CALIFORTHY    | T - 15            |



### LOOP INSTALLATION PROCEDURE

- 1. ALL LOOP WORK SHALL CONFORM TO THE LATEST VERSION OF SECTION 49-5 "DETECTOR" OF THE CITY OF ELK GROVE STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD DRAWINGS.
- 2. SEE CURRENT STATE STANDARD PLANS ES-5 SERIES FOR ADDITIONAL
- 3. THE PLACEMENT OF LOOPS SHALL BE CENTERED IN EACH LANE, WITH THE EXCEPTION OF: LEFT TURN LANE LESS THAN 11' WIDE, THE SEPARATION DISTANCE BETWEEN THE RIGHT EDGE OF EACH LOOP AND THE LANE ON THE RIGHT (THRU LANE) SHOULD BE 3'-6"
- 4. NEW OR REPLACEMENT LOOP SHALL BE MARKED ON PAVEMENT AND THEIR LOCATION APPROVED BY THE ENGINEER, PRIOR TO PAVEMENT
- 5. LOOP INSTALLATION SHALL INCLUDE NEW CONDUIT, DETECTOR HANDHOLE (DH) AND DETECTOR LEAD IN CABLE (DLC), UNLESS OTHERWISE NOTED ON THE PLANS
- 6. EACH DETECTOR LOOP IN EACH TRAVEL LANE SHALL BE INSTALLED WITH ITS OWN DETECTOR LEAD IN CABLE AND CONNECTED IN CONTROLLER WITH SEPARATE DETECTOR CHANNEL FOR OPERATION. UNLESS OTHERWISE NOTED ON THE PLANS.
- 7. DETECTOR LEAD IN CABLES SHALL BE CONTINUOUS WITHOUT SPLICES BETWEEN LOOP TERMINATION PULL BOX AND CONTROLLER.
- LOOP INSTALLATION 250' OR MORE FROM STOP BAR SHALL HAVE 4
- 9. DETECTOR LOOP CONDUCTOR SHALL BE TYPE RHW-USE NEOPRENE-JACKETED OR TYPE USE CROSSLINKED POLYPROPYLENE INSULATED NO. 12 STRANDED COPPER WIRE, CONDUCTOR INSULATION THICKNESS SHALL BE FORTY (40) MILS MINIMUM.
- 10. DISTANCE BETWEEN SIDE OF LOOP AND LEAD-IN SAW CUT SHALL BE
- 11. LOOPS AND LEAD-IN CUTS SHALL BE LOCATED A MINIMUM OF 2 FEET FROM THE NEAREST EDGE OF MANHOLE COVER OR VALVE BOX.
- 12. WIDTH OF SAW CUTS SHALL BE 1/4" WIDER THAN THICKNESS OF THE
- 13. DEPTH OF SAW CUTS SHALL BE SUCH THAT THE MINIMUM SEALANT COVER SHALL BE 1/2" WITH AN ADDITIONAL 1/8" TO 1/4" GAP BETWEEN TOP OF SEALANT AND SURFACE OF PAVEMENT.
- 14. TEST EACH LOOP CIRCUIT AT CONTROLLER CABINET (OR, IF THESE ARE NOT INSTALLED. TEST AT TERMINATION PULL BOX) BEFORE FILLING SLOTS. PERFORM A RESISTANCE TEST BETWEEN EACH CIRCUIT AND GROUND. INSULATION RESISTANCE SHALL NOT BE LESS THAN 100 MEGA OHMS. TEST EACH LOOP CIRCUIT FOR CONTINUITY. LOOP CIRCUIT RESISTANCE SHALL NOT EXCEED 0.5 OHMS PLUS 0.35 OHMS PER 100 FEET OF LEAD-IN CABLE.
- 15. SEALANT FOR LOOP DETECTORS SHALL BE 3M 5000 OR APPROVED EQUAL ELASTOMERIC SEALANT.
- 16. CONDUIT BETWEEN DETECTOR HANDHOLE AND PULL BOX SHALL BE INSTALLED 30" MINIMUM BELOW ROADSIDE DITCH OR SWALE.
- 17. DETECTOR HANDHOLE (DH) SHALL BE TYPE B (SEE STD DWG T 17).
- 18. ANY DAMAGE TO EXISTING LOOPS, DETECTOR HANDHOLE, CONDUIT AND DETECTOR LEAD IN CABLE SHALL BE REPLACED PER THE REQUIREMENTS SET FORTH IN THIS DETAIL.

APPROVED BY:

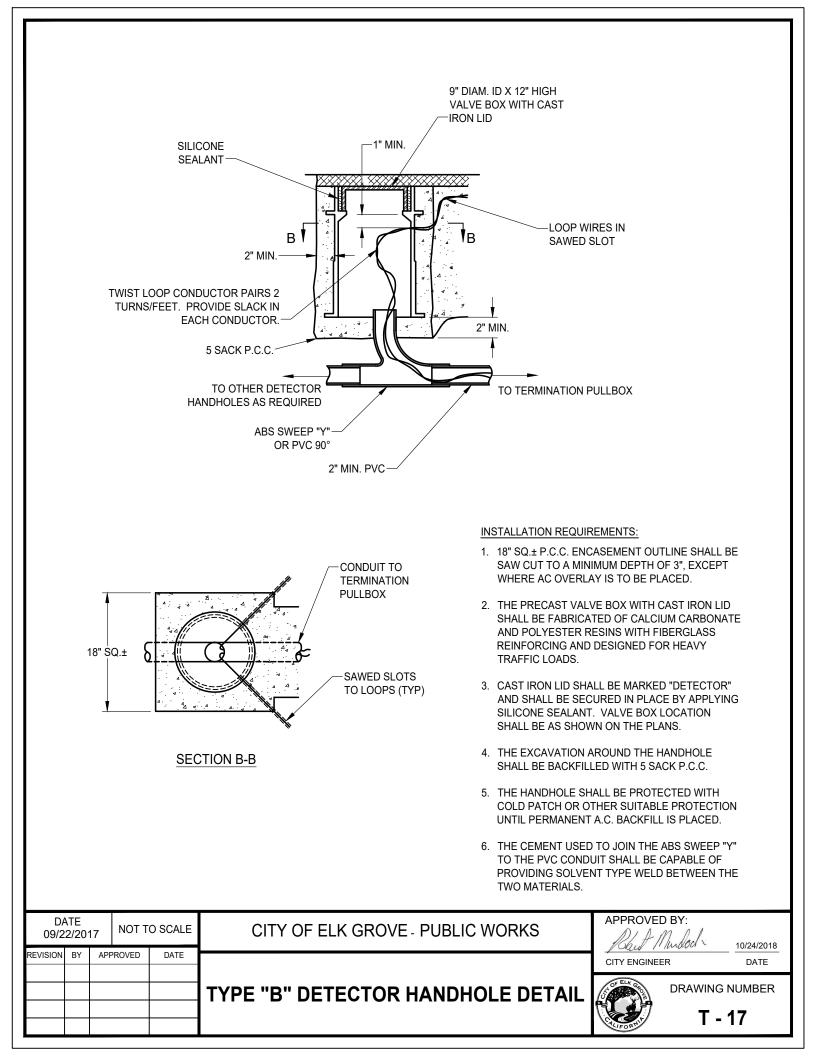
CITY ENGINEER

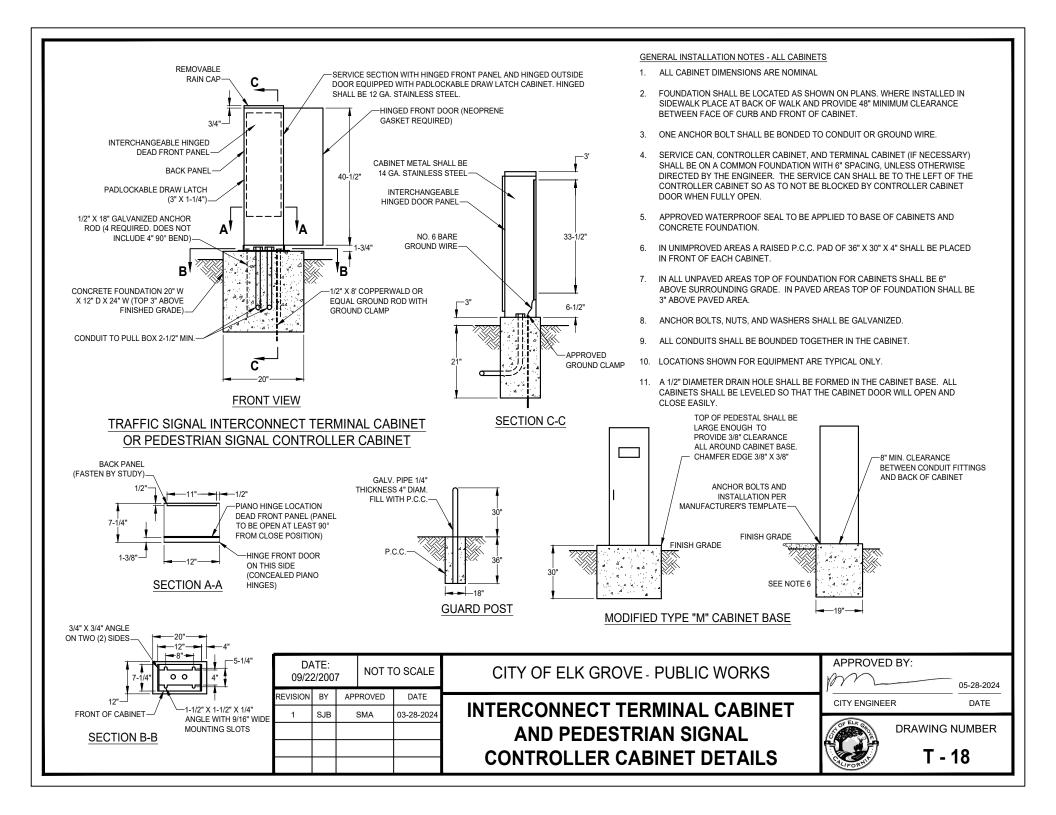
10/24/2018

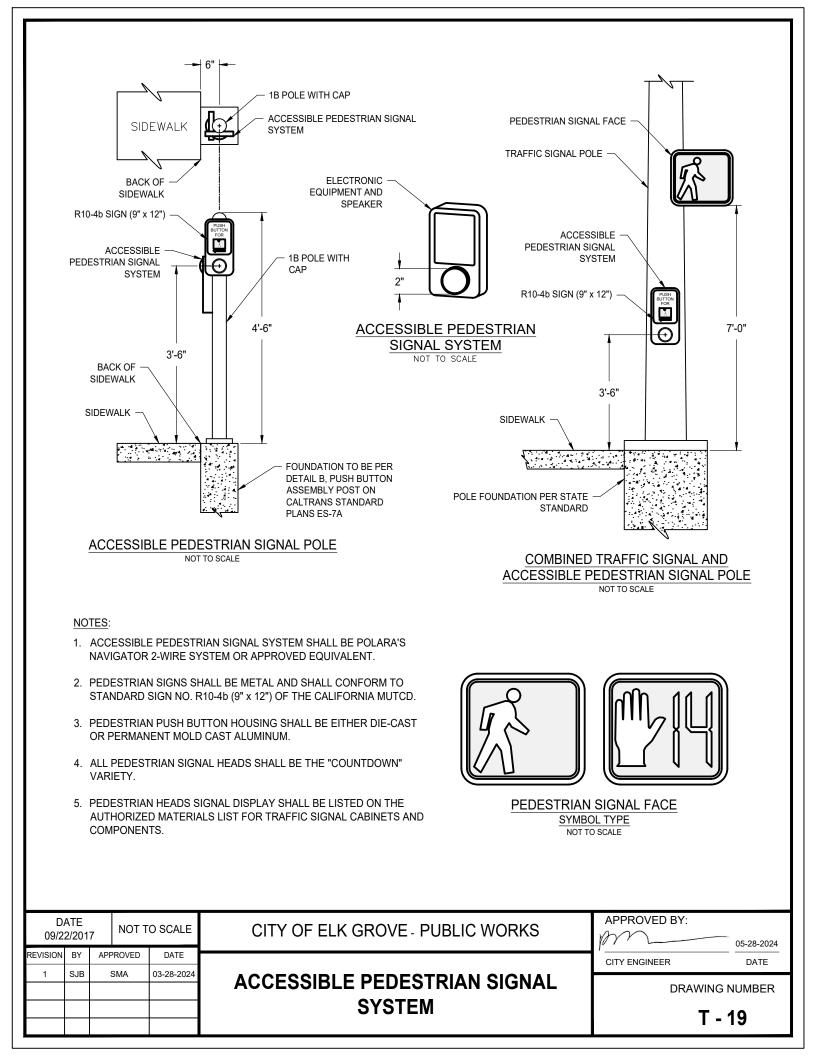
DATE

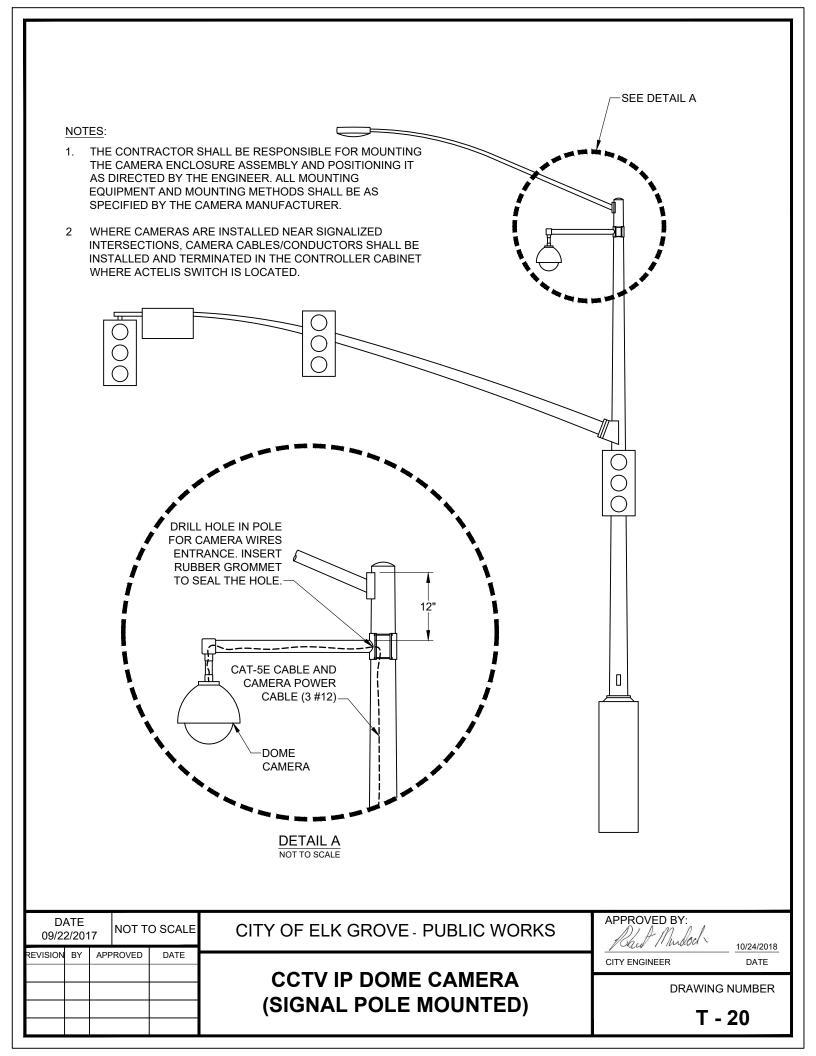
DRAWING NUMBER

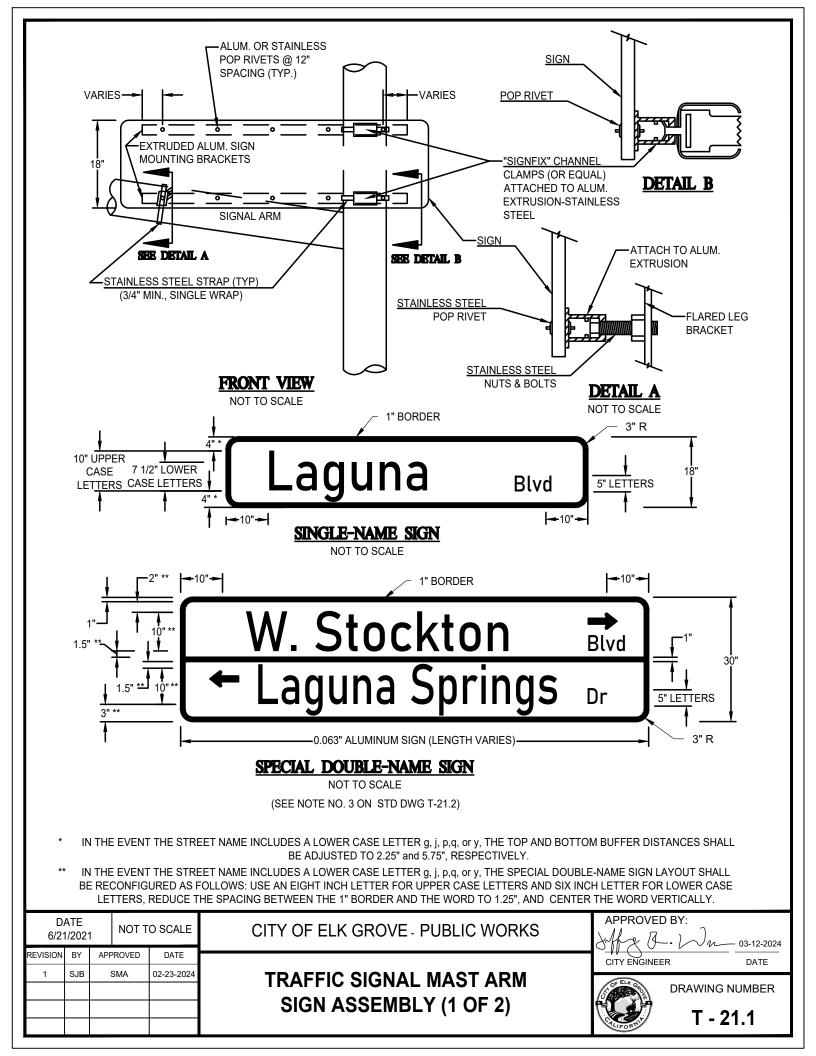
T - 16











# NOTES FOR TRAFFIC-SIGNAL-ARM SIGN MOUNTING:

- 1. ALL MATERIAL FURNISHED SHALL BE RUST RESISTANT. ALL SIGN HARDWARE SHALL BE ALUMINUM AND ANY MOVING PARTS MUST BE MADE OF STAINLESS STEEL TO PREVENT RUSTING.
- 2. THE SIGN MOUNTING EXTRUDED ALUMINUM MOUNTING BRACKETS SHALL BE EITHER MEDIUM ALUMINUM EXTRUSIONS (SIGNFIX PART NO. SX-073) OR LARGER ALUMINUM EXTRUSIONS (SIGNFIX PART NO. SX-0130). EXTRUDED ALUMINUM MOUNTING BRACKETS MUST BE BY SIGNFIX OR MUST BE DIRECTLY ADAPTABLE TO UNIVERSAL SIGNFIX CHANNEL CLAMPS E.P. (PART NO. SX-0220) OR EQUAL. FLARED LEG MOUNTING BRACKET FOR MOUNTING TO POLE OR MAST ARM SHALL BE HAWKINS PART NO. M2G-FUB OR APPROVED EQUAL. THREADED PORTION OF BRACKET SHALL ACCEPT COURSE THREAD 5/16 INCH ALL-THREAD BOLT.
- 3. SINGLE STREET NAME SIGN SHALL HAVE NAME AND SUFFIX CENTERED IN SIGN. SIGNS SHALL BE SINGLE FACE AND FABRICATED ON ALUMINUM BLANKS 0.063-INCH THICKNESS. BLANK SHALL BE 18-INCHES IN WIDTH AND VARY IN LENGTH DEPENDING ON THE NUMBER OF LETTERS OF THE STREET (MIN. OF 6-FEET IN LENGTH). SIGN BLANK SHALL HAVE GREEN ELECTROCUT FILM (EC) OVER 3M DIAMOND GRADE. REFLECTIVE VINYL SHEETING. UPPER CASE LETTERS SHALL BE 10-INCHES AND LOWER CASE LETTERS SHALL BE 7.5-INCHES. ALL LETTERS SHALL BE HIGHWAY FRONT "D". SIGN SHALL HAVE 1-INCH WHITE BORDER COVERING THE ENTIRE EDGE OF SIGN BLANK. CORNERS SHALL BE NEATLY ROUNDED TO A 3-INCH RADIUS. THERE SHALL BE 10-INCHES SPACING BETWEEN BOARDER AND SIDES OF STREET NAME. LETTERS SHALL BE SPACED A MIN. OF 1.5 INCHES.
- VARIOUS STREETS IN THE CITY CHANGE NAMES AT MAJOR INTERSECTIONS. SIGNS THAT DESIGNATE DIFFERENT NAMES SHALL BE MADE AS PER STANDARD DRAWING NO. T-21.1, PAGE 1.
- ALL SIGNS SHALL BE APPROVED FOR CONFORMANCE BY THE CITY OPERATION AND MAINTENANCE STAFF PRIOR TO INSTALLATION. TO SCHEDULE AN INSPECTION PLEASE CALL (916) 687-3005.

|          | ATE<br> /2021 | NOT T    | O SCALE    | CITY OF ELK GROVE - PUBLIC WORKS                  | APPROVED BY:<br>She J. Wn 03-12-2024 |
|----------|---------------|----------|------------|---|--------------------------------------|
| REVISION |               | APPROVED | DATE       |   | CITY ENGINEER DATE                   |
| 1        | SJB           | SMA      | 02-23-2024 | TRAFFIC SIGNAL MAST ARM<br>SIGN ASSEMBLY (2 OF 2) | DRAWING NUMBER                       |
|          |               |          |            |   | <b>T - 21.2</b>                      |

