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8401 Laguna Palms Way
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CITY OF ELK GROVE
PROUD HERITAGE. BRIGHT FUTURE.

Standards Update Transmittal

Reference Number: 2021-10
Standards: Improvement Standards, Section(s) 2-17, 4-8
Construction Specifications, Section 48-3
Standard Drawings T-21, T-22

Update:

1. Improvement Standard:
   a. Section 2-17," Utilities": add note to reference the standard drawing T-22, "Fiber Backbone Network".
   b. Section 4-8, "Sight Distances and Visibility Easement at Intersections": add Table 1A, Stopping Sight Distance.
2. Construction Specifications:
   a. Section 48-3, "Placement": revise striping waiting period to 7 days after completing the final lift of asphalt concrete.
3. Standard Drawings:
   a. T-21 TRAFFIC SIGNAL MAST ARM SIGN ASSEMBLY (1 of 2): create a new standard drawing for the traffic signal mast arm sign assembly.
   b. T-22 FIBER BACKBONE NETWORK: create a new standard drawing for the fiber backbone network.

Effect of Update:

1. Ensure that future fiber optic network will place at proper location.
2. Ensure that proper design value is used.
3. Installation of thermoplastic striping will require to wait a period of 7 days after completing the final lift of asphalt concrete.
4. Ensure that traffic signal arm sign assembly is standardized.

Request for Update Initiated By: Ryan Chapman 06/12/2020

Update Reviewed for Conformity and Consistency to Standards: Shoaib Ahrary 6/9/2021 | 5:18 PM PDT

Shoaib Ahrary, P.E., Interim ESD Manager Date

Update to Standards Approved: Jeffrey R. Werner 6/21/2021 | 4:23 PM PDT

Jeffrey R. Werner, P.E., City Engineer Date

2-17 UTILITIES

A. All new sidewalk construction adjacent to roadways shown on Figure 1 – Fiber Backbone Network (below), (also see Standard drawing T-22), shall install a minimum of 2ea 2-inch diameter and 1ea 4-inch diameter plastic ducts for future use by the City. Each conduit shall include a pull-wire and have a Type 6 Pull Box installed at a maximum spacing of 500 feet.

B. All known existing utilities are to be shown on the plans. In addition, the Consulting Engineer shall submit prints of the preliminary and approved plans to the utility companies involved. This is necessary for the utilities to properly plan their relocation projects and needed additional facilities. Copies of the transmittal letters to the utility companies shall be provided to the City. In addition, the following note shall appear on the first page of the plans:

> *"No pavement work will occur within existing public right-of-way prior to completion of any necessary utility pole relocation within the public right-of-way."*

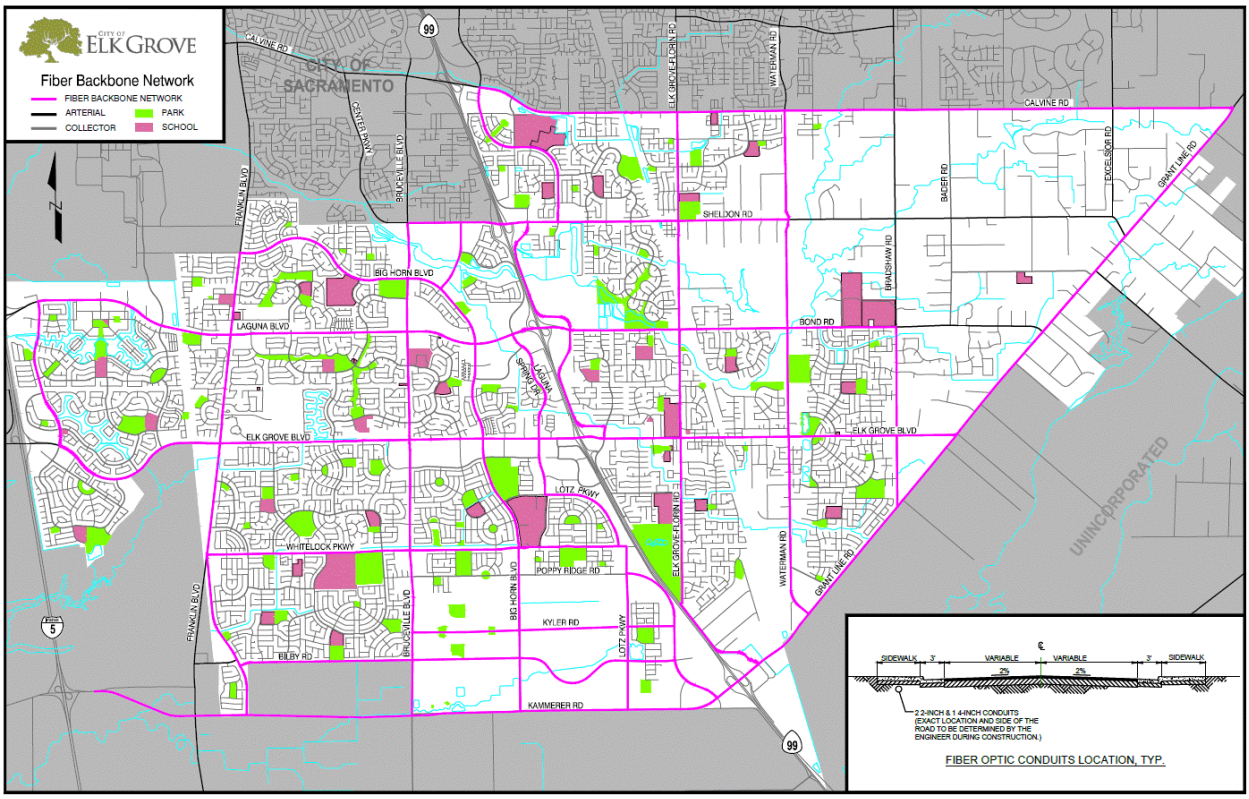
C. Existing and new dry utilities (low and high voltage electrical, gas, telephone, cable, fiber optics and similar) fronting new development shall be placed underground except for very high voltage (69 kV or greater). Relocated power poles for very high voltage, which cannot feasibly be placed underground, shall be placed behind the back of the sidewalk. All lower voltage lines shall be removed from these poles and placed underground. Once placed underground in an area, no new overhead lines shall be installed, even if power poles exist.

D. Utility manholes and boxes for dry utilities shall not be placed in sidewalks or curb ramps. All dry utility box covers shall be appropriately labeled "Telephone", "Streetlight", "Cable", "Electric", "Gas", etc. If the Consulting Engineer approves the installation of a dry utility box in a sidewalk due to extraordinary circumstances, as determined by the City, such box and lid shall be traffic-rated and shall be placed flush with the sidewalk grade.

E. Hydraulic jetting of utility trenches is not allowed within the City of Elk Grove.

F. Tree preservation and protection shall be consistent with the City Code.

Figure 1 – Fiber Backbone Network



4-8 SIGHT DISTANCE AND VISIBILITY EASEMENTS AT INTERSECTIONS

For streets having, or intersecting with a street having, an ultimate width of 48 feet or greater (measured from back of curb to back of curb), the minimum stopping sight distance for establishing visibility control areas at intersections and non-residential driveways shall be as shown in Table 1A , Stopping Sight Distance (also see Standard drawing ST-26.1)

Table 1A
Stopping Sight Distance

Design Speed (mph)	Stopping Distance (ft)
10	50
15	100
20	125
25	150
30	200
35	250
40	300
45	360
50	430
55	500
60	580
65	660
70	750
75	840
80	930

For other cases, the following visibility control standards shall apply:

- Streets with an ultimate width of less than 48 feet (measured from back of curb to back of curb) shall be consistent with Standard drawing ST-26.2.
- 90-degree intersection elbows shall be consistent with Standard drawing ST-25.
- Residential driveways shall be consistent with Standard drawing ST-26.2. Residential driveways off of collectors, arterials or thoroughfares may be subject to the minimum sight distance requirements set forth above, as determined by the Director.

Regardless of the street width, driveways serving significant traffic volumes, as determined by the Director, shall be subject to the minimum sight distance requirements for major street intersections.

All existing streets that do not intersect at a 90º±5º angle to one another shall be subject to the minimum sight distance requirements for major street intersections when enforcing the visibility control area.

No signs, plantings, structures, natural growth, fences, walls or any other type of obstruction to a clear view, higher than 3 feet above the nearest pavement surface (or traveled area where no pavement exists) shall be installed or maintained or shall be permitted to be installed or maintained within the visibility control area. Exceptions include tree canopies, signs that provide a minimum clearance of 7 feet measured from the existing grade, or permanent structures existing as of the effective date of these provisions.

Dedication of visibility easements may be required over the visibility control areas to ensure that the required sight distances can be enforced and maintained. Visibility easements for residential driveways are not required unless the Director determines that the dedication is necessary to satisfy special safety considerations. Visibility easements shall be recorded on final maps or by separate instrument if a map is not required.

48-3 PLACEMENT

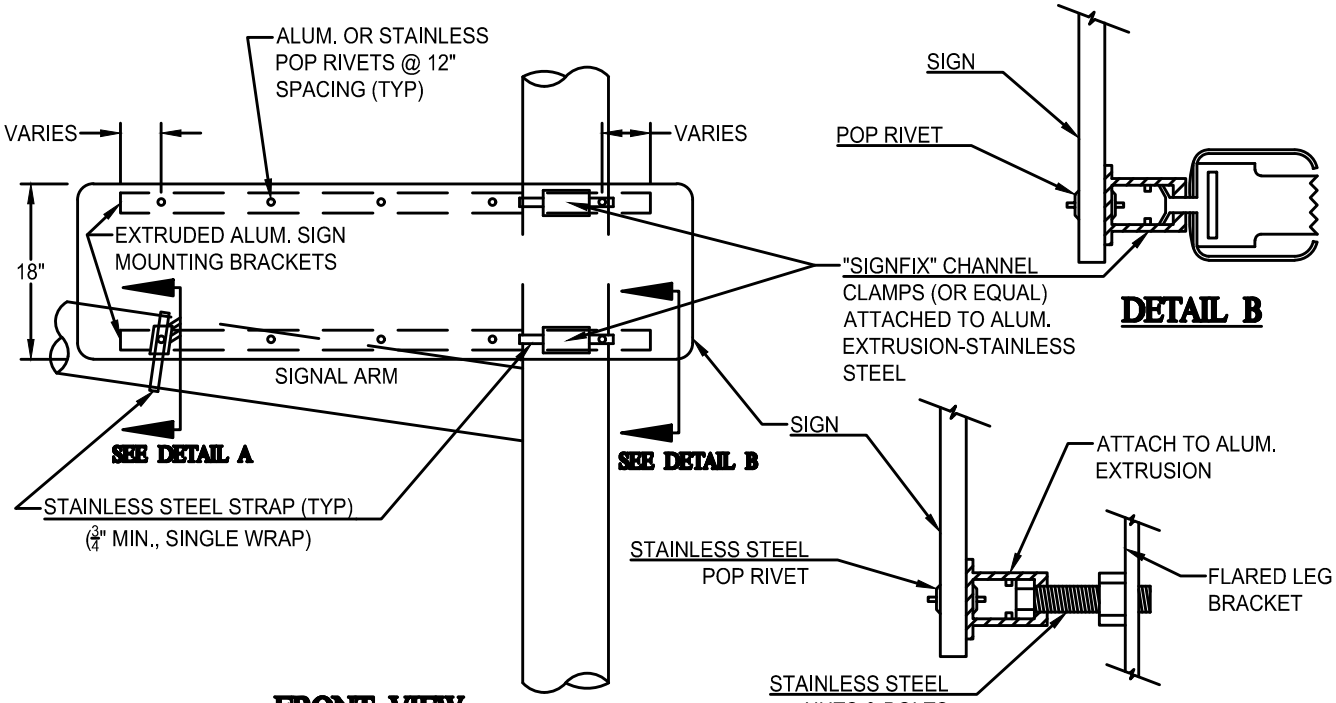
New traffic striping of the roadway including, but not limited to, centerline, lane lines, crosswalks, stop bars, and other pavement markings shall be installed on each segment of roadway construction only after seven (7) calendar days after completing the final lift of asphalt concrete pavement on that roadway segment.

All traffic striping and pavement markings shall be completed prior to opening the roadway to public traffic. If the road must be opened to public traffic prior to the completion of final striping and pavement markings, the Contractor shall supply and install temporary lane line striping and pavement markings for crosswalks and or stop bars as detailed .

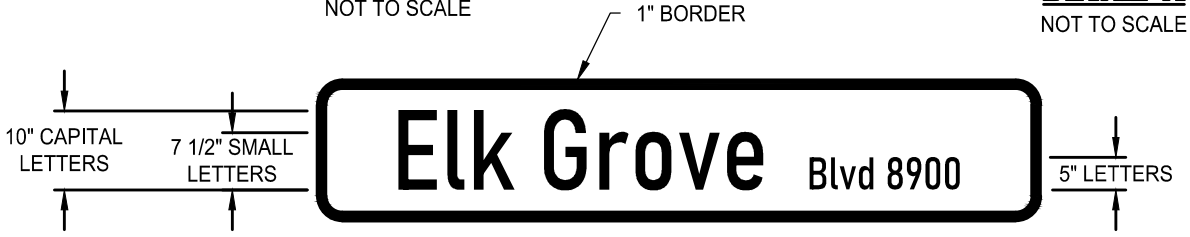
Temporary pavement markings shall be flush mounted reflectorized tape squares, four inch by four inch (4" x 4") 3M "Staymark" with backing liners, detour grade, #6350 yellow and #6351 white, or approved equal. Right turn barrier lines, edge lines, and shoulder lane lines shall not be delineated with temporary pavement markings. The spacing of the temporary pavement markings shall be as follows:

Line Type	**Color**	**Spacing**
Centerline (straight roadway portions)	Yellow	48' O.C.
Centerline (tapered or curving portions)	Yellow	24' O.C.
Stop Lines	White	6' O.C.
Channelizing Line	White	24' O.C.

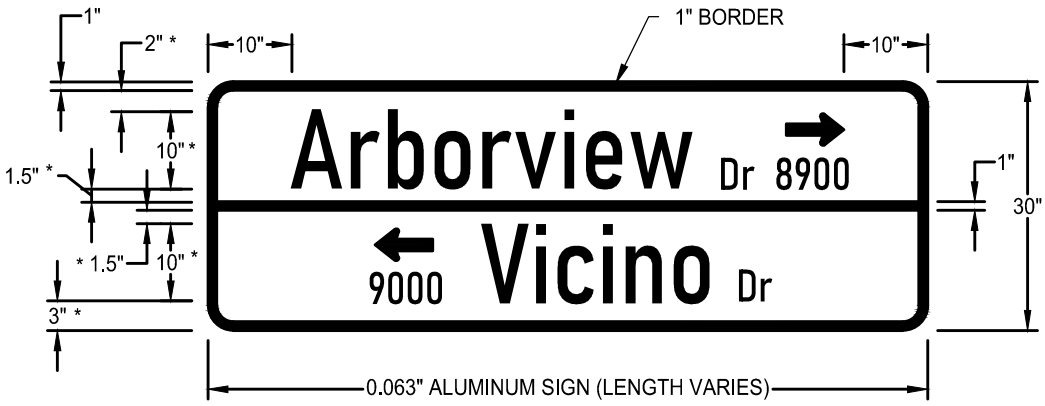
The Contractor must maintain the temporary striping and pavement markings until the final striping and pavement markings are installed. The Contractor shall remove all temporary striping and pavement markings prior to the installation of final striping.



FRONT VIEW
NOT TO SCALE



SINGLE-NAME SIGN
NOT TO SCALE



SPECIAL DOUBLE-NAME SIGN
NOT TO SCALE

(SEE NOTE NO. 3 ON PAGE 2)

* IN THE EVENT THE STREET NAME INCLUDES A LOWER CASE LETTER g, j, p,q, or y, THE SPECIAL DOUBLE-NAME SIGN LAYOUT SHALL BE RECONFIGURED AS FOLLOWS: USE AN EIGHT INCH LETTER FOR UPPER CASE LETTERS AND SIX INCH LETTER FOR LOWER CASE LETTERS, REDUCE THE SPACING BETWEEN THE 1" BORDER AND THE WORD TO 1.25", AND CENTER THE WORD VERTICALLY.

DATE 6/21/2021	NOT TO SCALE

REVISION	BY	APPROVED	DATE

CITY OF ELK GROVE - PUBLIC WORKS

TRAFFIC SIGNAL MAST ARM SIGN ASSEMBLY (1 OF 2)

APPROVED BY:

CITY ENGINEER — DATE 6/21/2021

DRAWING NUMBER

T - 21

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.

4. 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, PAGE 1.

5. 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.

DATE 6/21/2021	NOT TO SCALE

REVISION	BY	APPROVED	DATE

CITY OF ELK GROVE - PUBLIC WORKS

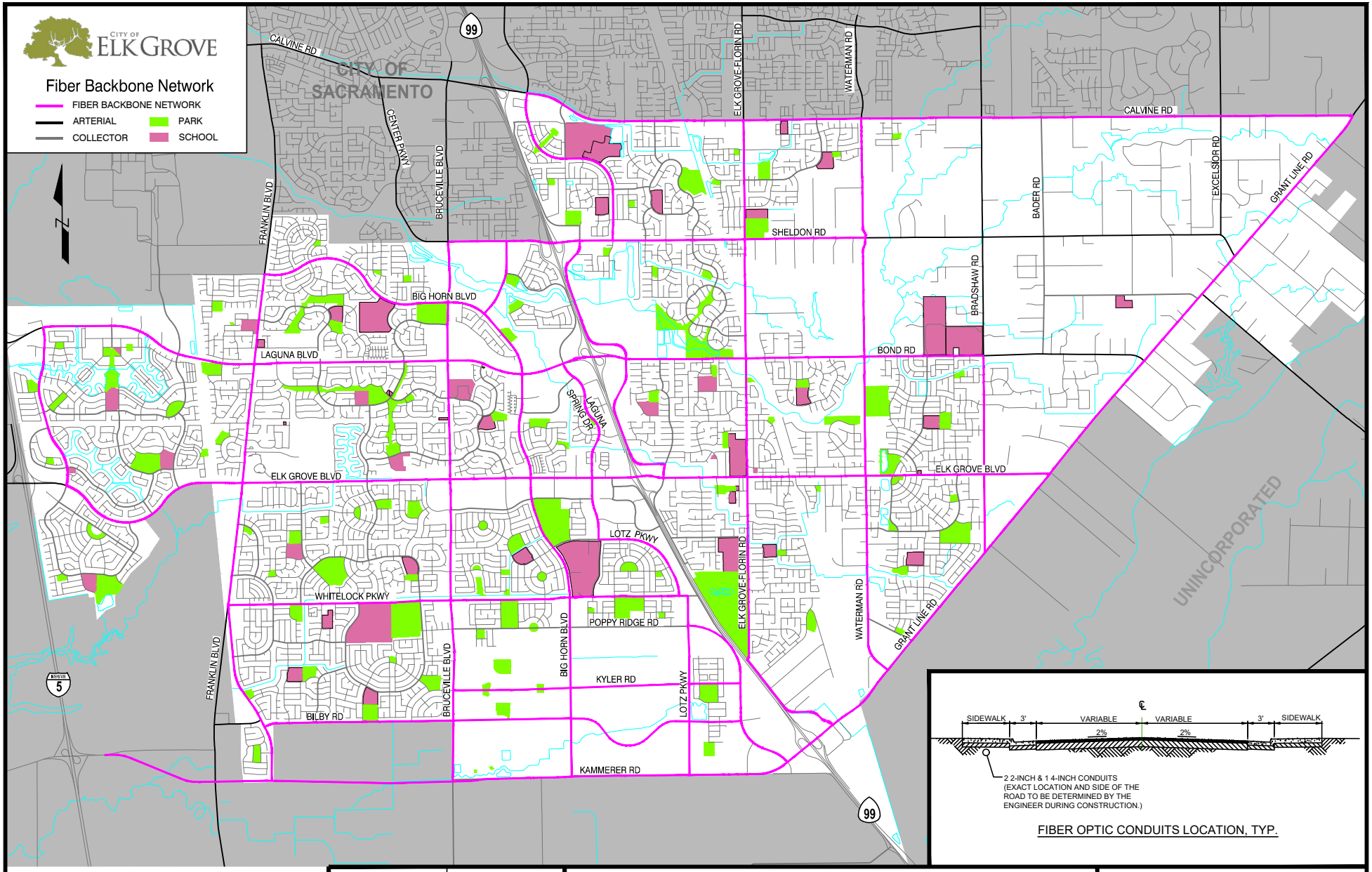
TRAFFIC SIGNAL MAST ARM SIGN ASSEMBLY (2 OF 2)

APPROVED BY:

CITY ENGINEER — DATE 6/21/2021

DRAWING NUMBER

T - 21



DATE	NOT TO SCALE
6/21/2021	

REVISION	BY	APPROVED	DATE

CITY OF ELK GROVE - PUBLIC WORKS

FIBER BACKBONE NETWORK

APPROVED BY:

CITY ENGINEER — DATE: 6/21/2021

DRAWING NUMBER

T - 22