

**CITY OF ELK GROVE
SMUD SERVICES REQUEST
FOR TELECOMMUNICATOINS
SERVICE PROVIDER**



Date of Request:

Approximate Date Service Connection is Needed:

START DISCONNECT TRANSFER OF SERVICE
OTHER _____

Telecommunications Service Provider (TSP) Name: **AT&T**

TSP Billing Address: **AT&T Mobility c/o Engie Insight MS 7372 P.O. Box 2241 Spokane, WA 99210**

TSP Tax ID:

Contact Person and Number: **Engie Insight (866) 322-4547**

Point of Connection (POC): City Service#: **Not Available**

SMUD POC to City Conductor:

1. Descriptive Address: Measurements must be from the street center line and must be listed as x feet, the side of the street, and include north/south and east/west directions. For example: 50 feet of East Street and 10 feet South of J Street.

Meter #: Box U7101

Address: Adjacent to 9050 Vicino Dr

Description: South side of Big Horn Blvd, 70 feet from the centerline; 255 feet West from the centerline of Vicino Drive

2. California State, Zone 2, NAD83 in Feet: X,Y coordinate of the connection point:

NAD83:0402, 6725864.988ftUSE 1919129.358ftUSN

Decimal: 38.430530, -121.426808

3. Attach City Map with SMUD POC to City Conductor with an X or highlight on the map. (Note: please only submit the drawing with this location. Do not submit all drawing pages.)

City Pole Number: Pole #: SLT-30041

Location of TSP Devices on City Street lights:

1. Descriptive Address: Measurements must be from the street center line and must be listed as x feet, the side of the street, and include north/south and east/west directions. For example: 50 feet of East Street and 10 feet South of J Street. Address: 9050 Vicino Dr
Description: South 60 Feet from the centerline of Big Horn Blvd; 165 Feet West from the centerline of Vicino Dr
2. California State, Zone 2, NAD83 in Feet: X,Y coordinate of the connection point: NAD 83: Zone 0402, 6725953.355ftUSE 1919108.064ftUSN
Decimal: 38.43047, -121.4265
3. California State, Zone 2, NAD83 in Feet: X,Y coordinate of the connection point where the antenna is being powered from: NAD 83: 0402 6726159.979ftUSE 1919050.371ftUSN
Decimal: 38.430308, -121.425780
4. Attach City Map with locations of 1) TSP devices on City Street light with an X or highlight on the map and 2) where the device is getting power from. (Note: please only submit the drawing with these locations. Do not submit all drawing pages.)

Number/Type of Devices: (How many transmitters, antennae, etc.)

2 Transmitters (RRU's), 2 Power Supply Units (PSU's) and 1 antenna

Make and Model of Devices:

Ericsson RRU 2203 Ericsson RRU 2205 PSU AC 08, JPAK-AM-600-4LS-23D

Maximum Nameplate AC Wattage of each Device:

Ericsson RRU 2203 = 1100W, Ericsson RRU 2205 = 1100W

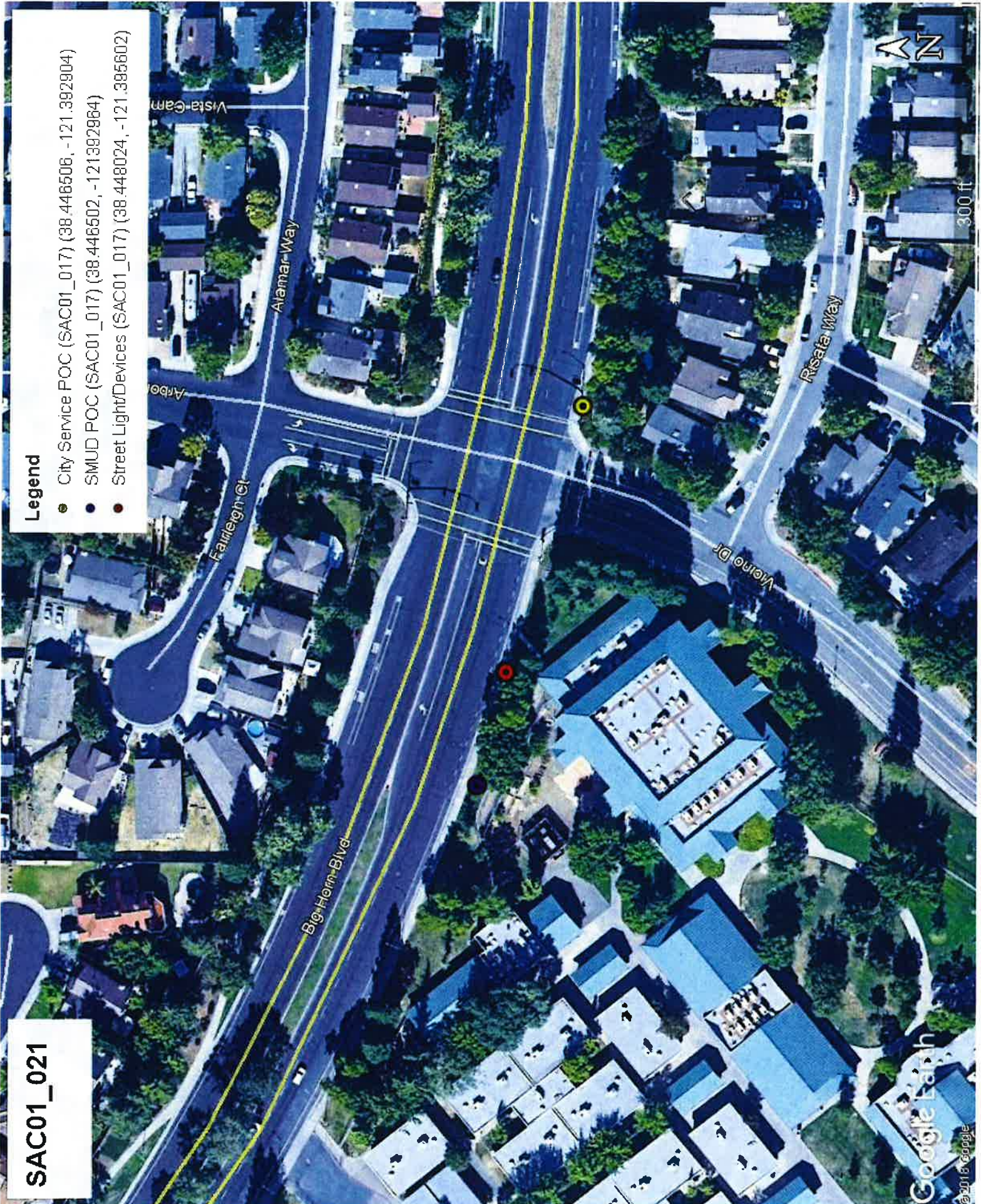
Small cell attachment equipment specification sheet attached X

This area reserved for SMUD use only

SAC01_021

Legend

- City Service POC (SAC01_017) (38.446506, -121.392904)
- SMUD POC (SAC01_017) (38.446502, -121.392964)
- Street Light/Devices (SAC01_017) (38.448024, -121.385602)





SMALL CELL LOAD SUMMARY – Elk Grove

Vendor Name: Vinculums
 City Project Number:
 Date: 11/4/19

Project:							
Location Address:	9050 Vicino Drive						
Pole Coordinates:	38.43047, -121.4265	City Service Coordinates:	38.430308, -121.425780				
Node Number:	SAC01_021						
Street Light Pole Number:	SLT-30041 (MA-LED)						
City Service Address:	SE Corner of Big Horn Blvd. & Vicino Dr.						
SMUD Point of Connect:	Box U7101 38.430530, -121.426808						
City Service Number:	Need Service Number from City						
RF Config:	MICRO	Radio Load:	2200W	Future Radio Load:			
Circuit Breaker:	Position #2, 40 AMP						
Voltage:	<input checked="" type="checkbox"/> 120 V <input type="checkbox"/> 240 V <input type="checkbox"/> 277 V <input type="checkbox"/> 480 V						
Number of Existing Loads:	MA-LED:	3	ORN-LED:		PT-LED:		
	MA-HPS:		ORN-HPS:		PT-HPS:		
Description of Existing Loads (Street Light Numbers):							
30041	26926	30039					

Total Existing Loads:		
3	MA-LED X 110 W	330 W
	MA-HPS X 200 W	W
	ORN-LED X 110 W	W
	ORN-HPS X 100 W	W
	PT-LED X 110 W	W
	PT-HPS X 100 W	W
	Radio Load	2200 W
New Load Total (RP):		2530 W
Total Load on Circuit:		3.16 KVA
*Minimum Circuit Overcurrent Protection Required:		26.35 AMP
Radio Load Pico kWh/Yr.:		19,272

Recircuiting Required:		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Existing Circuit Breaker	40 AMPS	
Percentage Overcurrent Protection Used	53%	
Difficulty Level:	1	
1. No Constructability Issues	2. Difficult	3. Very Difficult
Pass or Fail:	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Notes:		
*Per NEC Regulation, the Real Power (RP) will not exceed 80% of the Overcurrent Protection.		

Street Light No.		GPS		Light Type			Comments
Site Pole	Others	Latitude	Longitude	Lamp Post	Post Top	Mast Arm	(LED, HPS, SIGNAL, COBRA, ETC.)
30041	X	38.4307	-121.4265			X	LED
	26926	38.430163	-121.424556			X	LED
	30039	38.430969	-121.427933			X	LED



Penso Engineering
Joshua Penso, PE-EE

Date: 11/20/2019

To Whom It May Concern:

In coordination with RLS-CMC & Vinculum/AT&T drawings for node SAC01_021. I have reviewed the OEM specifications for the proposed equipment listed below. Based on the data sheets for the equipment listed, I have calculated the power consumption, apparent power, and yearly usage listed for the typical radio equipment configuration powered solely by this equipment. This calculation is based on a single power supply powered by a 120V 2-wire service and all proposed radio loads will be powered only by this single supply.

Equipment	Description	Max Power (Watts)	Max Current (Amps)	KVA	KWh/Yr
PSU AC 08	Rectifier Power Supply	2200	18.34	2.2	19272

I, Joshua Penso, affirm that the design presented in this document meets the 2016 California Electric Code, the 2014 NEC and the 2014 National Electric Safety Code (NESC).

Sincerely,

Joshua Penso, PE-EE
California License E-16741
Expiration Date: 9/30/2020

11-20-19





SITE ID: CRAN_RSFR_SAC01_021
NODE FA: 14807727 NODE USID: 187886
PACE: MRSFR044192
IN THE PUBLIC R.O.W.
ADJACENT TO 9050 VICINO DR
ELK GROVE, CA 95758
STREET LIGHT ID #: 30041



LOCATION NO:	14807727
DRAWN BY:	EZG
CHECKED BY:	MM

REV	DATE	DESCRIPTION
0	12/05/2019	100% CD'S FOR SUBMITTAL
A	09/12/2019	90% CD'S FOR REVIEW

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

CRAN_RSFR_SAC01_021

STREET LIGHT ID #:30041

IN THE PUBLIC R.O.W.
9050 VICINO DR
ELK GROVE, CA 95758

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

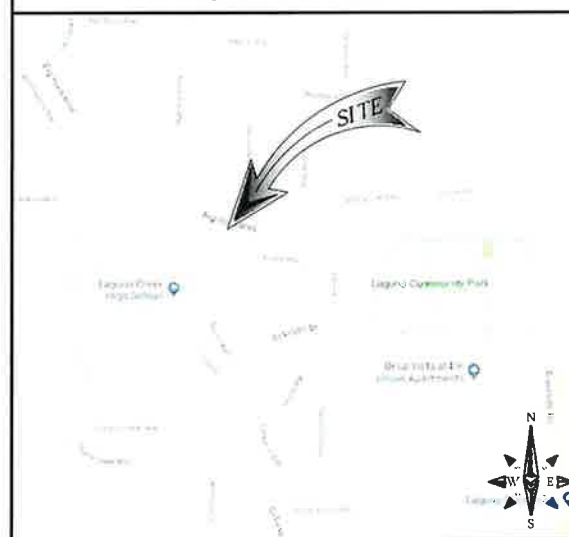
CONSULTING TEAM

ENGINEERING COMPANY: M SQUARED WIRELESS
 1387 CALLE AVANZADO
 SAN CLEMENTE, CA 92673
 CONTACT: MICHAEL MONTELLO
 PHONE: (949) 391-6824

PLANNING CONSULTANT: VINCULUMS SERVICES
 1200 DEL PASO RD, STE 150
 SACRAMENTO, CA 95843
 CONTACT: DIAN TARDIFF
 PHONE: (209) 662-4217

CONSTRUCTION MANAGER: VINCULUMS SERVICES
 1200 DEL PASO RD, STE 150
 SACRAMENTO, CA 95843
 CONTACT: ROBERT FLYNT
 PHONE: (916) 768-9699

VICINITY MAP



POLE # 30041



PROJECT DESCRIPTION

THIS IS UNMANNED WIRELESS TELECOMMUNICATION FACILITY FOR AT&T MOBILITY CONSISTING OF THE INSTALLATION AND OPERATION OF AN ANTENNA AND ASSOCIATED EQUIPMENT ON AN (E) STREET LIGHT POLE IN THE PUBLIC RIGHT OF WAY. SCOPE OF WORK & SITE COMPLETION CHECKLIST:

- ANTENNA & ASSOCIATED EQUIPMENT BOXES – INSTALL A (N) TELECOMMUNICATION ANTENNA & EQUIPMENT BOXES ON AN (E) STREET LIGHT POLE. INSTALLATION CONSISTS OF (1) CYLINDRICAL ANTENNA IN A 10-1/2"Ø FIBERGLASS SHROUD WITH A 10-3/4"Ø CAP & (1) 4415 RADIO UNIT AND (1) 4426 RADIO UNIT.
- DEPTH OF (E) CAISSON HAS BEEN VERIFIED BY NON-DESTRUCTIVE TESTING BY A TRAINED PROFESSIONAL. IF CAISSON IS OF LESSER DIMENSIONS THAT SHOWN ON STRUCTURAL ANALYSIS, IT IS TO BE REPLACED WITH (N) CAISSON FOR TYPE 15 STREET LIGHT POLE PER CALTRANS STANDARD PLANS, LATEST REVISION, SHOWN ON POLE FOUNDATION DETAILS SHEET IN THIS PLAN SET.
- DURABLE PAINT – ANTENNA SHROUD, CABLING & RADIO RELAY UNITS TO BE PAINTED TO MATCH (E) STREET LIGHT POLE USING A DURABLE PAINT (E.G. SHERWIN WILLIAMS FRAZEE OR EQUIVALENT).
- CABLING – CABLING TO BE INSTALLED IN A TIDY MANNER WITHOUT EXCESS CABLE LOOPS.
- SPACING OF SUPPORT ELEMENTS – SUPPORT EQUIPMENT (E.G. RRUS) TO BE CLUSTERED AS CLOSE AS TECHNICALLY FEASIBLE ON POLE.
- LOGO REMOVAL – ALL EQUIPMENT LOGOS, OTHER THAN THOSE REQUIRED BY REGULATION (E.G. NODE IDENTIFICATION OR SHUTDOWN SIGNAGE) OR PG&E REGULATIONS SHALL BE PAINTED OVER OR REMOVED. RAISED/DEPRESSED LOGOS/TEXT ON RRUS OR OTHER EQUIPMENT, IF PRESENT, TO BE SANDED OFF OR SIMILARLY REMOVED/ FILLED.
- UTILITY LINES – PROPOSED UTILITY LINES BETWEEN (E) POINT OF CONNECTION TO BE UNDERGROUND.
- IF A BANNER OR BANNER BRACKETS ARE PRESENT, REMOVE AND REPLACE (E) BRACKETS WITH (N) BREAKAWAY BRACKETS.

DO NOT SCALE DRAWINGS

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



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CONTRACTOR NOTES

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND/OR ENGINEERS IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

PROJECT INFORMATION

OWNER: CITY OF ELK GROVE
APPLICANT: AT&T MOBILITY
 5001 EXECUTIVE PARKWAY
 SAN RAMON, CA 94583
ADJACENT APN#: 116-0011-037
LATITUDE: 38.430469° N
LONGITUDE: 121.426500° W
JURISDICTION: CITY OF ELK GROVE
ZONING: PUBLIC RIGHT-OF-WAY
PROPOSED USE: UNMANNED TELECOMMUNICATIONS FACILITY
POWER COMPANY: SMUD

DESIGN CRITERIA

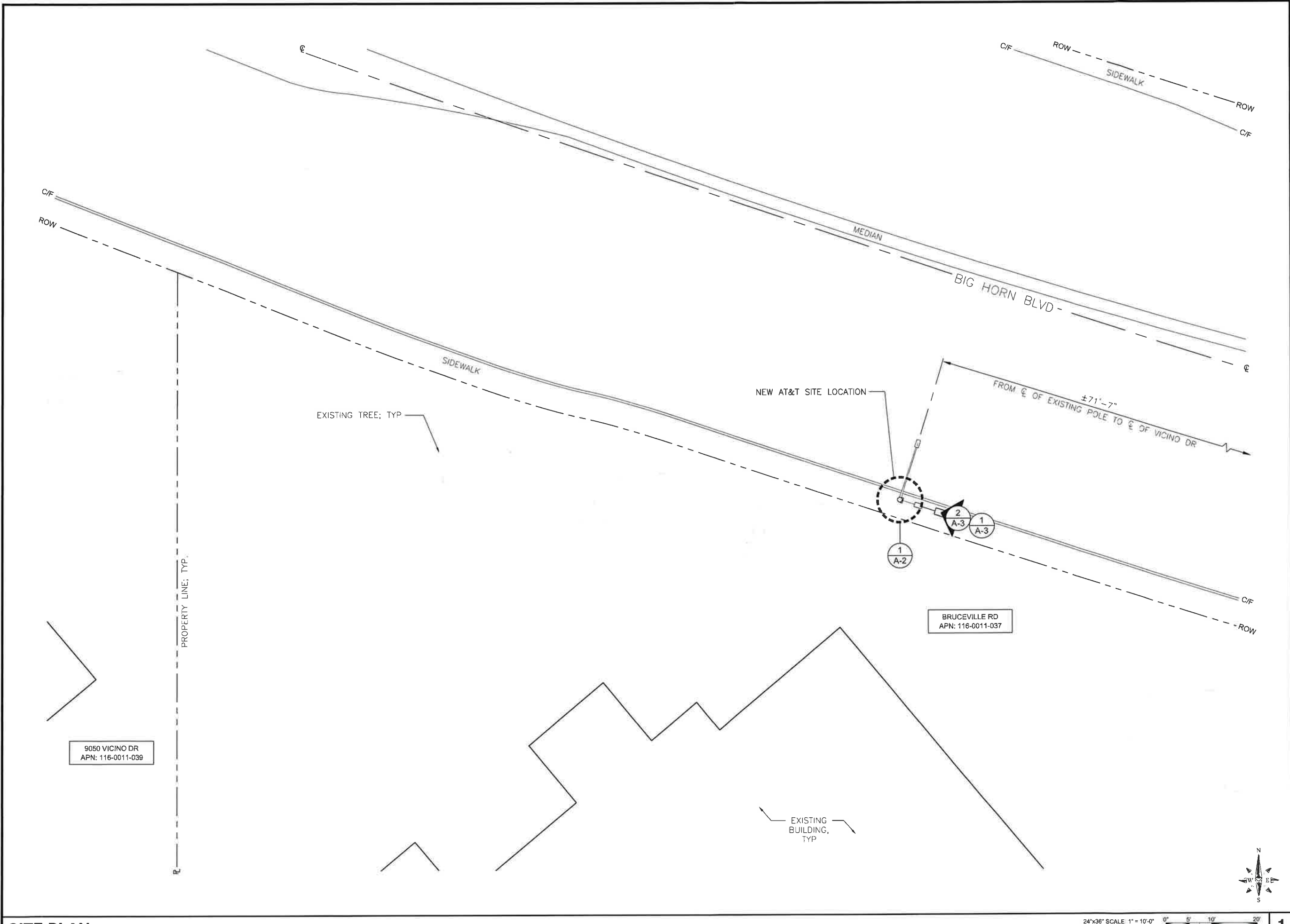
APPLICABLE CODES

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

- CALIFORNIA ADMINISTRATIVE CODE (INCL TITLE 24 & 25)
- 2016 CALIFORNIA BUILDING CODE
- 2016 MECHANICAL CALIFORNIA CODE
- 2016 CALIFORNIA ELECTRICAL CODE
- 2016 GREEN BUILDING CODE
- 2016 CALIFORNIA ENERGY CODE
- GENERAL ORDER 95 (JUNE 2009 EDITION)
- CURRENT SACRAMENTO CITY CODE AMENDMENTS

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	ELEVATIONS
D-1, D-2, D-3	EQUIPMENT DETAILS
E-1, E-2	ELECTRICAL DETAILS
TCP-1	TRAFFIC CONTROL PLAN NOTES
TCP-2	TRAFFIC CONTROL PLAN



M SQUARE
WIRELESS
1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 391-8824

LOCATION NO: 14807727
DRAWN BY: EZG
CHECKED BY: VM

REV	DATE	DESCRIPTION
0	12/05/2019	100% CD'S FOR SUBMITTAL
A	09/12/2019	90% CD'S FOR REVIEW

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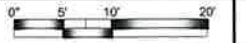
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STREET LIGHT ID #:30041
IN THE PUBLIC R.O.W.
9050 VICINO DR
ELK GROVE, CA 95758

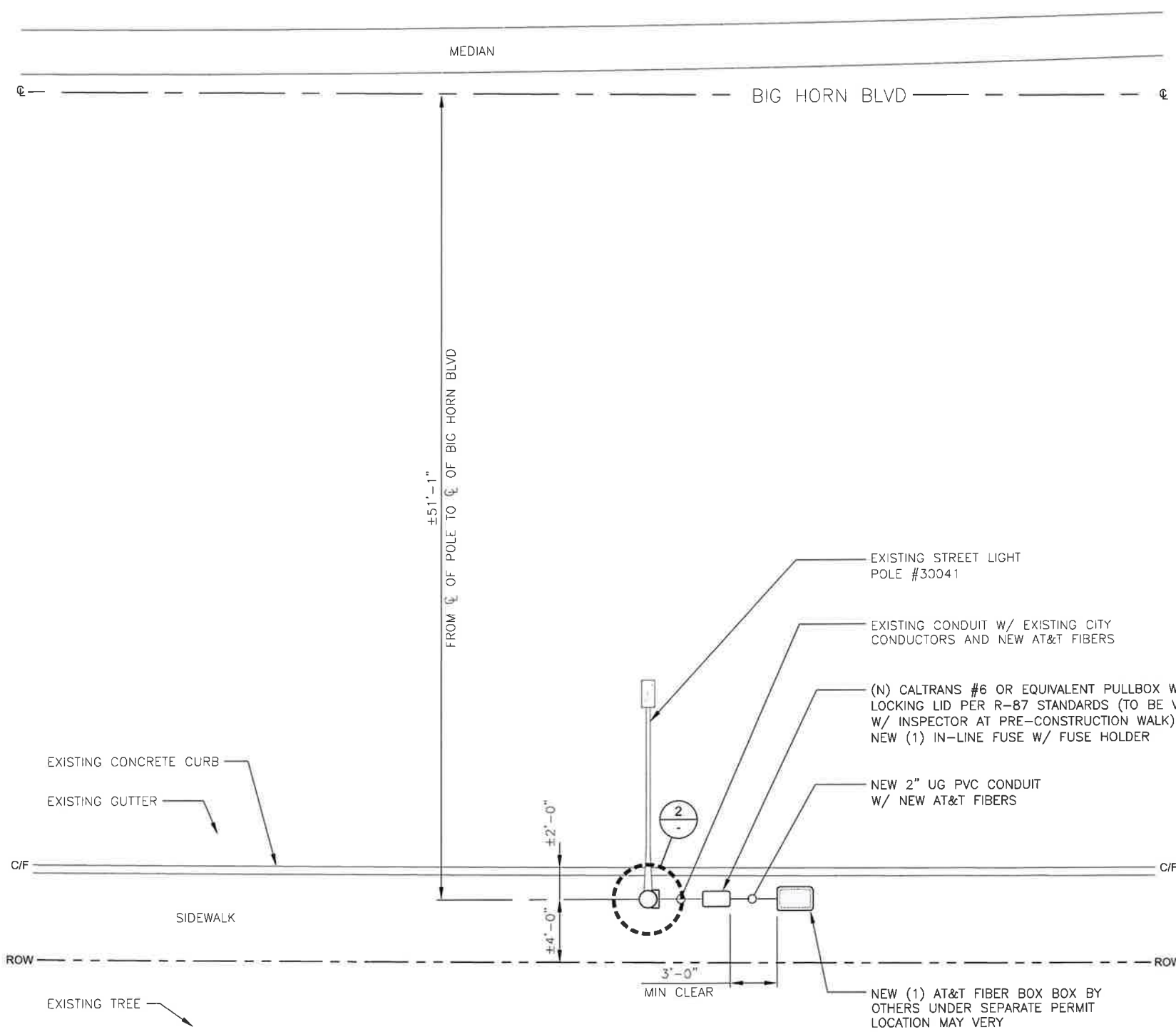
SHEET TITLE
SITE PLAN

SHEET NUMBER
A-1

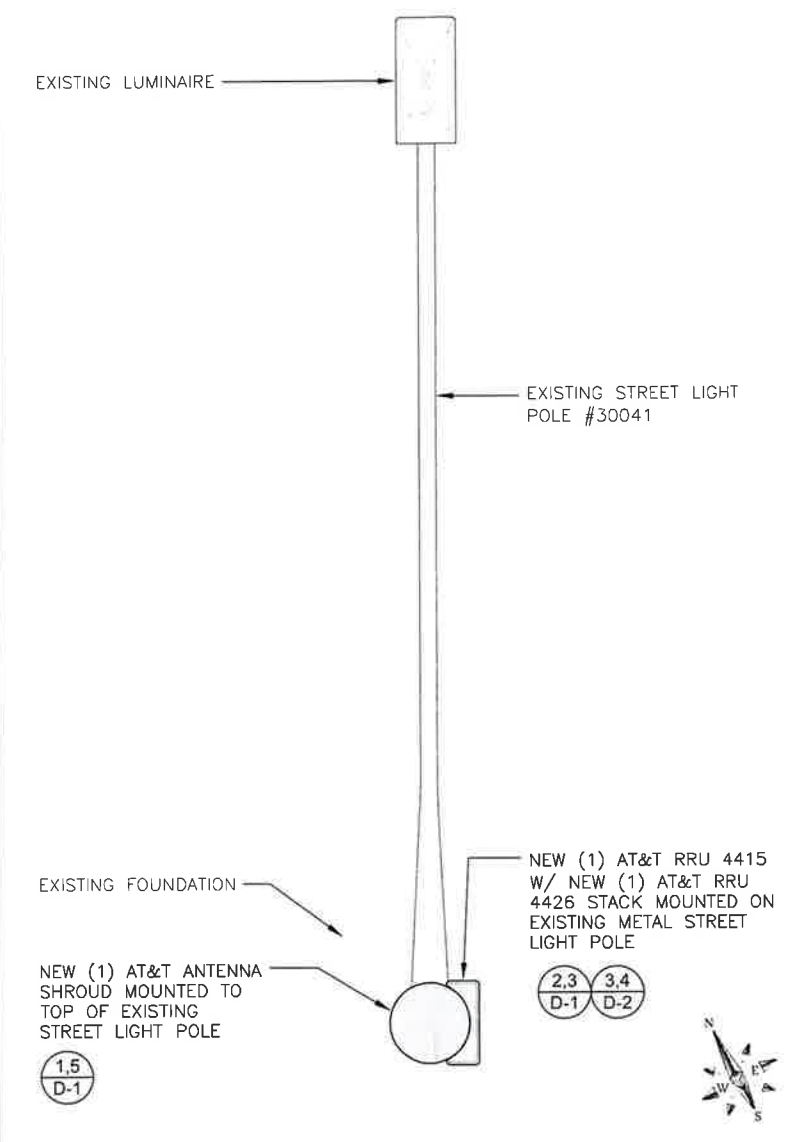
SITE PLAN

24"x36" SCALE: 1" = 10'-0"
11"x17" SCALE: 1" = 20'-0"





BRUCEVILLE RD
APN: 116-0011-037



ANTENNA LAYOUT 24"x36" SCALE: 3/4" = 1'-0" 11"x17" SCALE: 3/8" = 1'-0" 2

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- GENERAL NOTES:**
- CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE COSTS INCURRED DURING CONSTRUCTION.
 - CONTRACTOR TO CALL DIG ALERT A MINIMUM OF 48 HOURS IN ADVANCE OF EXCAVATION.
 - GENERAL CONTRACTOR IS RESPONSIBLE FOR RESTORING CONSTRUCTION AREA TO LIKE EXISTING CONDITION OR BETTER

- EXISTING UTILITIES NOTE:**
- LOCATIONS OF ALL UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE AND BASED ON RESEARCH OF AVAILABLE RECORDS



M SQUARED WIRELESS
1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 361-8824

LOCATION NO:	14807727
DRAWN BY:	EZG
CHECKED BY:	MM

REV	DATE	DESCRIPTION
D	12/05/2019	100% CD'S FOR SUBMITTAL
A	09/12/2019	90% CD'S FOR REVIEW

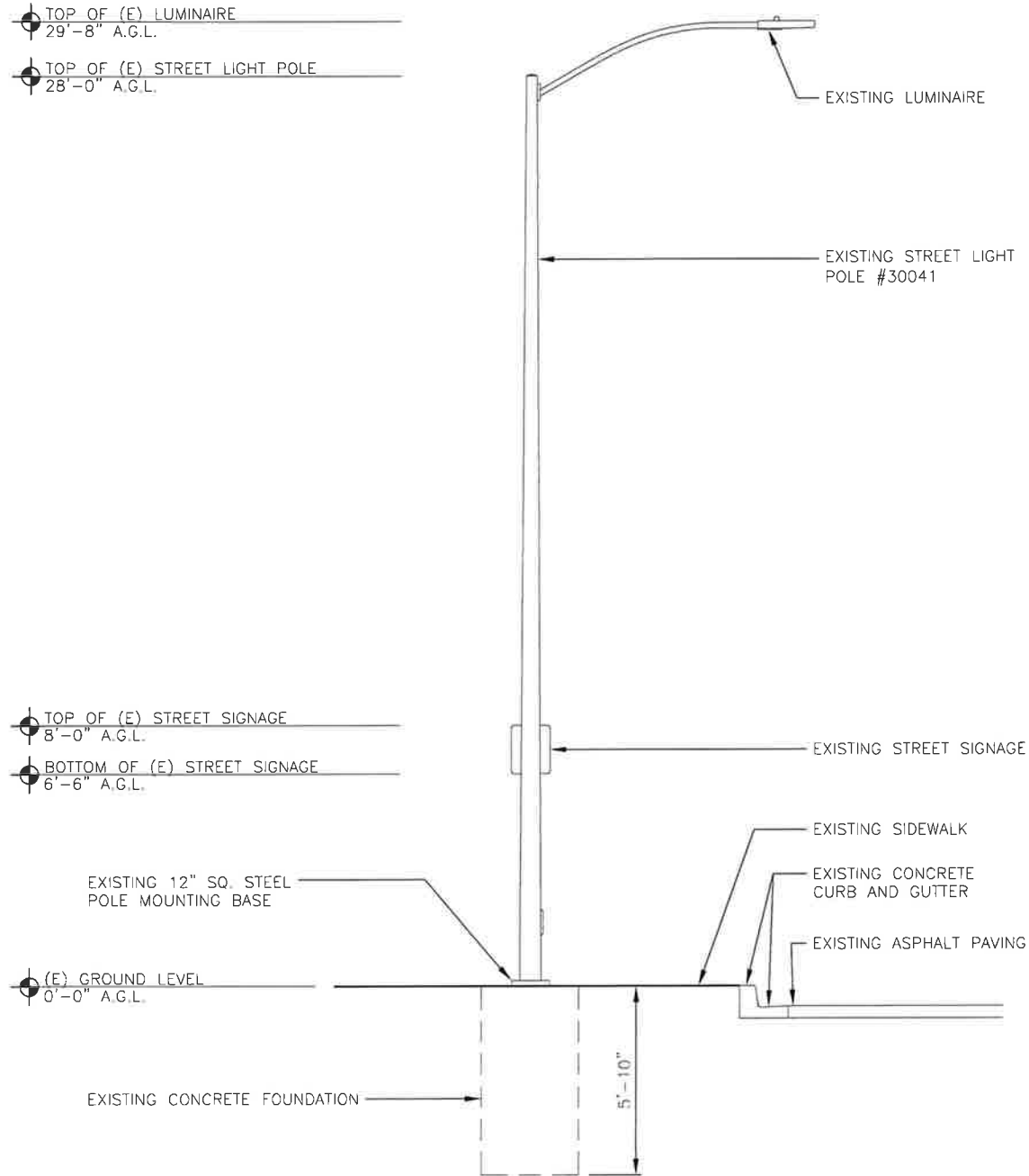
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CRAN_RSFR_SAC01_021
STREET LIGHT ID #:30041
IN THE PUBLIC R.O.W.
9050 VICINO DR
ELK GROVE, CA 95758

SHEET TITLE
ENLARGED SITE PLAN

SHEET NUMBER
A-2

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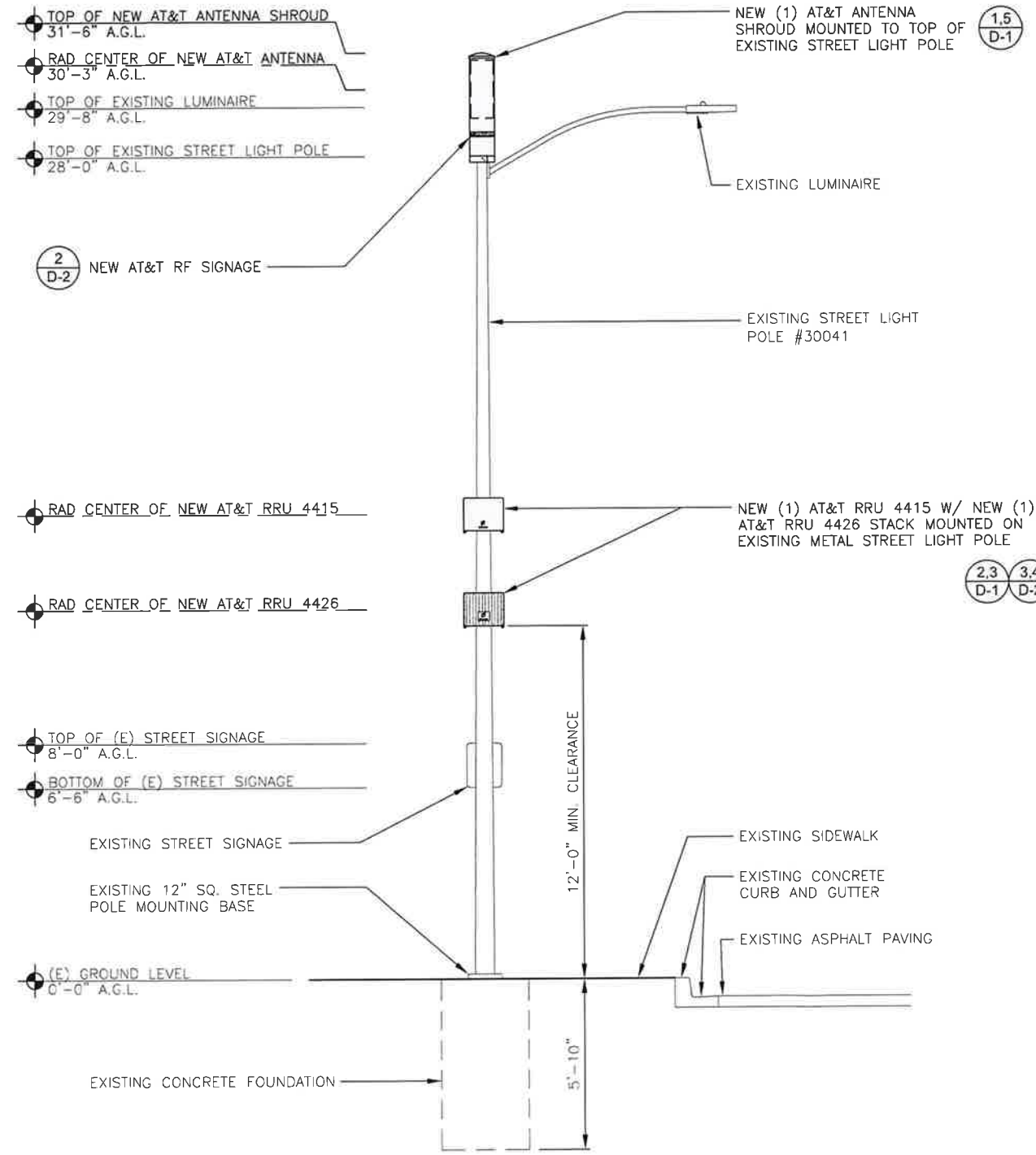


EXISTING SOUTHEAST ELEVATION

24"x36" SCALE: 3/8" = 1'-0"
 11"x17" SCALE: 3/16" = 1'-0"

2

NEW SOUTHEAST ELEVATION



NOTE:
 ALL NEW EQUIPMENT TO BE PAINTED TO MATCH EXISTING POLE COLOR USING DURABLE NON-REFLECTIVE PAINT (E.G. SHWERWIN WILLIAMS, FRAZEE OR EQUIVALENT)

24"x36" SCALE: 3/8" = 1'-0"
 11"x17" SCALE: 3/16" = 1'-0"

1



M SQUARE
 WIRELESS
 1387 CALLE AVANZADO
 SAN CLEMENTE CA 92673 (949) 391-8824

LOCATION NO: 148
 DRAWN BY:
 CHECKED BY:

REV	DATE	DESCRIPTION
0	12/05/2019	100% CD'S FOR SUBMIT
A	09/12/2019	90% CD'S FOR REVIEW

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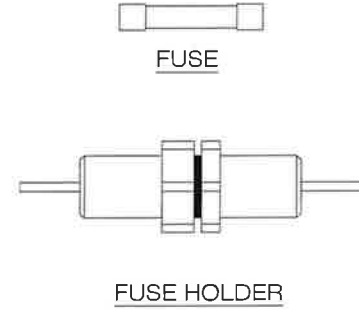
CRAN RSFR SAC01
 STREET LIGHT ID #:3004
 IN THE PUBLIC R.O.W.
 9050 VICINO DR
 ELK GROVE, CA 95758

SHEET TITLE
POLE ELEVATIONS

SHEET NUMBER
A-3

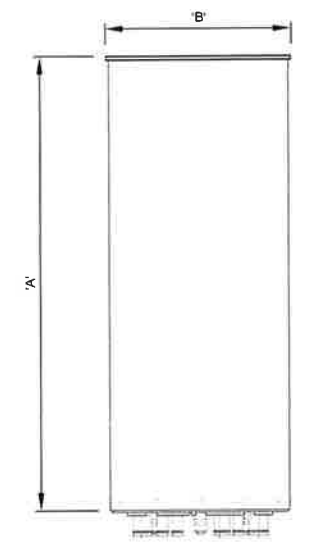
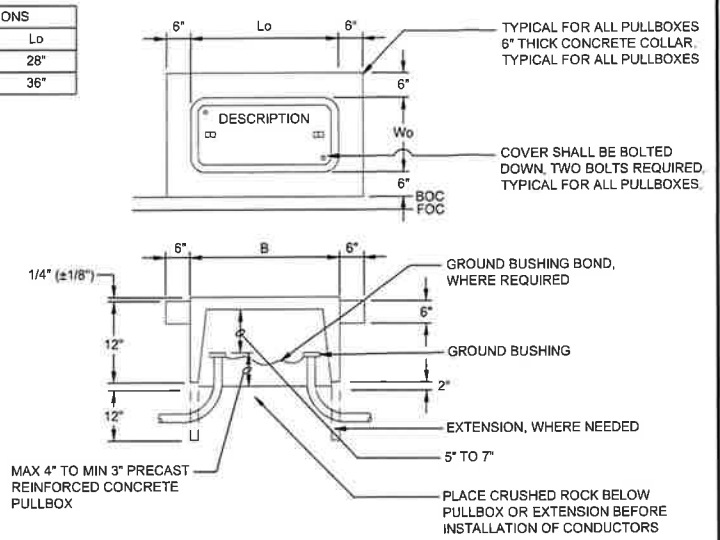
MANUFACTURER: EATON/BUSSMAN
 FUSE MFG P/N: FNM-7 AMP, 7
 MANUFACTURER: EATON/BUSSMAN
 FUSE HOLDER MFG P/N: HEB-AA
 AMPS RATING: 30A

EATON



NOTE:
 DETAIL IS SHOWN FOR REFERENCE ONLY, AND NOT FOR CONSTRUCTION, REFER TO EQUIPMENT MANUFACTURER SPECIFICATIONS AND INSTALLATION PROCEDURES FOR ADDITIONAL INFORMATION

PULLBOX DIMENSIONS		
PULLBOX	Wo	Lo
5	18"	28"
6	23"	36"



MANUFACTURER: COMMSCOPE		TOTAL WEIGHT: 15.4 LBS
MODEL: WVSSP-360S-F		
DIMENSIONS:		
A	23.6"	
B	7.9"	

IN-LINE FUSE W/ FUSE HOLDER

24"x36" SCALE: NTS
 11"x17" SCALE: NTS

CALTRANS #5 OR #6 PULLBOX

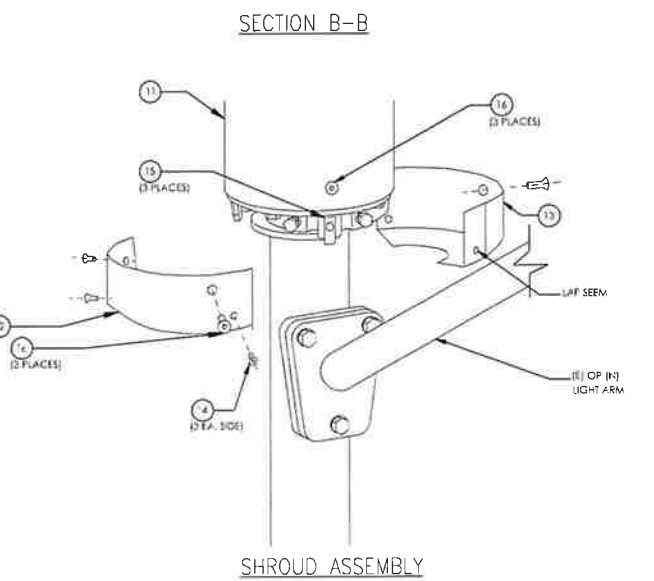
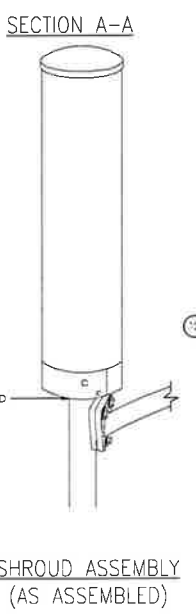
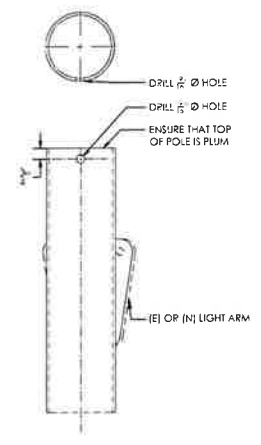
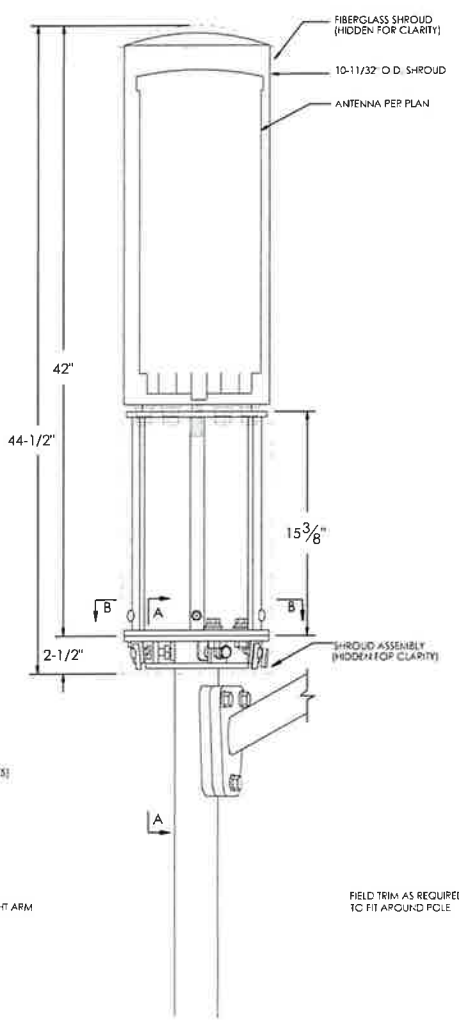
24"x36" SCALE: NTS
 11"x17" SCALE: NTS

OMNI-DIRECTIONAL ANTENNA

24"x36" SCALE: NTS
 11"x17" SCALE: NTS

1

ITEM NO.	DESCRIPTION	QTY
CLAMP-ON BRACKET PARTS / HARDWARE		
1	2" x 10" O.D. ANTENNA CAGE	1
2	2" x 7/8" O.D. MOUNTING BRACKET	1
3	3/4" x 1.037" O.D. x 1.21" FLAT WASHERS S.S.	1
4	1/2" LOCK WASHERS S.S.	7
5	1/2" FLAT WASHER TEFLON	3
6	1/2" FLAT WASHER S.S.	3
7	1/2" JAM NUT S.S.	5
8	1/2" x 1-1/2" FULLY THD D BOLT S.S.	5
9	1/2" x 2-1/2" FULLY THD D BOLT S.S.	2
10	1/2" x 3" LONG S.S. THREADED ROD	1
SHROUD ASSEMBLY & COVER PLATE PARTS / HARDWARE		
11	10-11/32" O.D. x 42" FIBERGLASS SHROUD ASSEMBLY	1
12	16 GA x 10-1/8" x 23-3/8" METAL SHROUD	1
13	16 GA x 10-1/8" x 23-3/8" METAL SHROUD	1
14	1/2" x 1" FHCS S.S.	6
15	1/2" x 1/2" SPRING NUT	3
16	1/2" x 1-1/2" FHCS S.S.	6



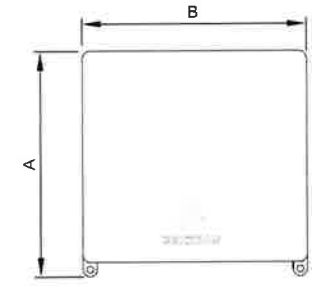
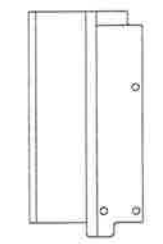
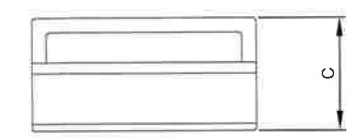
BASE MOUNT ON BRACKET
 (ANTENNA NOT SHOWN FOR CLARITY)

ELEVATION VIEW

SHROUD ASSEMBLY
 (AS ASSEMBLED)

SHROUD ASSEMBLY

MANUFACTURER: ERICSSON	
MODEL NO.: RRU 4415	
DIMENSIONS: COLOR:	
A	16.54"
B	13.46"
C	6.30"
TOTAL WEIGHT: ±44 LBS	

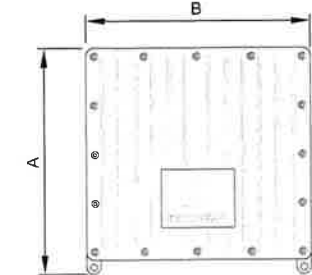
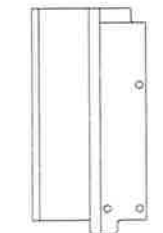
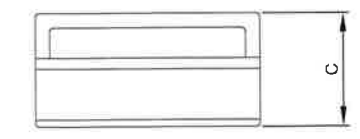


ERICSSON RRU 4415

24"x36" SCALE: NTS
 11"x17" SCALE: NTS

2

MANUFACTURER: ERICSSON	
MODEL NO.: RRU 4426	
DIMENSIONS: COLOR:	
A	16.54"
B	13.50"
C	6.30"
TOTAL WEIGHT: ±46 LBS	



SIDE VIEW

FRONT VIEW

LIGHT STANDARD ANTENNA MOUNT FOR 3"-5" O.D. POLES

24"x36" SCALE: NTS
 11"x17" SCALE: NTS

ERICSSON RRU 4426

24"x36" SCALE: NTS
 11"x17" SCALE: NTS

3



LOCATION NO:	14807727
DRAWN BY:	EZG
CHECKED BY:	MM

REV	DATE	DESCRIPTION
D	12/05/2019	100% CD'S FOR SUBMITTAL
A	09/12/2019	90% CD'S FOR REVIEW

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CRAN_RSFR_SAC01_021

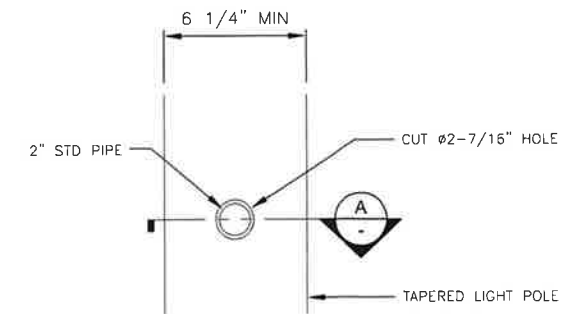
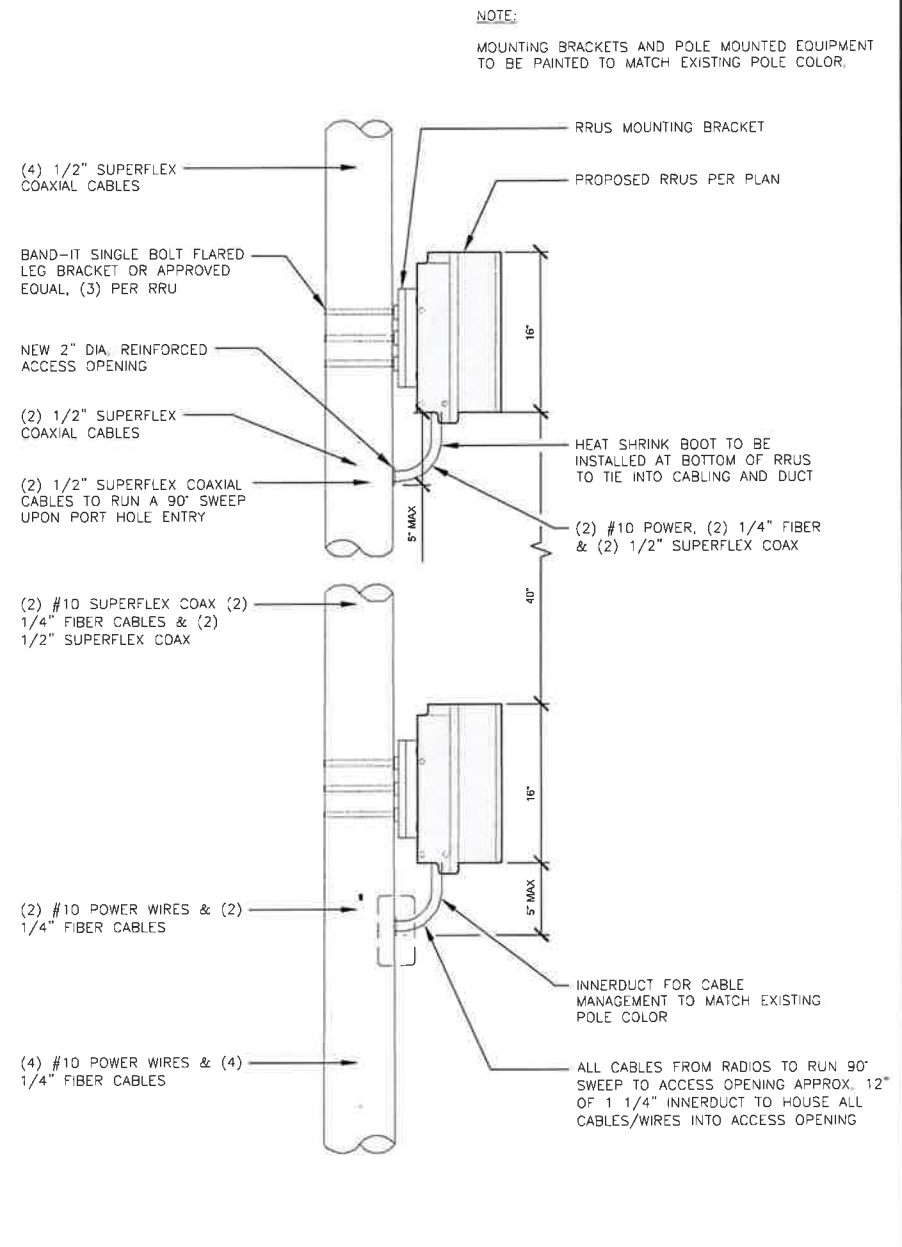
STREET LIGHT ID #:30041
 IN THE PUBLIC R.O.W.
 9050 VICINO DR
 ELK GROVE, CA 95758

SHEET TITLE
EQUIPMENT DETAILS

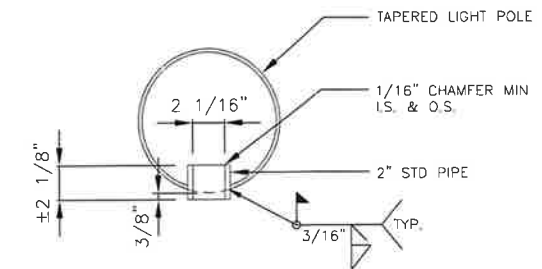
SHEET NUMBER
D-1

NOT USED

5



CUT DETAIL



SECTION A-A

FIELD WELDING NOTES:

1. WELDING TO BE PERFORMED BY AN AWS CERTIFIED WELDER FOR THE TYPE OF AND POSITION INDICATED. ALL WORK MUST BE IN CONFORMANCE WITH LATEST EDITION OF ASIC & AWS D 1.1
2. GRIND SURFACES TO BE WELDED WITH A SILICONE CARBIDE WHEEL PRIOR TO WELDING TO REMOVE ALL GALVANIZING WHICH MAY OTHERWISE BE CONSUMED IN THE WELD METAL, APPLY ANTI-SPATTER COMPOUND AFTER GRINDING.
3. WELDING TECHNIQUE MUST MINIMIZE TEMPERATURE RISE ON THE INSIDE SURFACE OF THE MONOPOLE AND ALSO VOLATIZE ANY REMAINING ZINC WITHIN THE BASE METAL WITH MINIMUM SPATTER. USE AN E70 (LOW HYDROGEN) ELECTRODE. USE LARGEST DIAMETER ELECTRODE COMPATIBLE WITH WELDING POSITION AND MATERIAL THICKNESS. STRICTLY FOLLOW ALL MANUFACTURER'S INSTRUCTIONS FOR STORAGE AND USE OF ELECTRODES. AVOID REMOVING ELECTRODES FROM MANUFACTURER'S PACKAGING UNTIL READY IMMEDIATE USE.
4. WELDING MAY PRODUCE TOXIC FUMES. REFER TO ANSI STANDARD Z49.1 "SAFETY IN WELDING AND CUTTING" FOR PROPER PRECAUTIONS.
5. UPON COMPLETION OF WELDING, APPLY GALV-A-STICK ZINC COATING TO ALL UNPROTECTED SURFACES. APPLY A SECOND LAYER OF COLD GALVANIZING SPRAY COMPOUND CONTAINING A MINIMUM ZINC CONTENT OF 95%. IF NECESSARY, APPLY A FINAL COAT OF COMPATIBLE PAINT TO MATCH SURROUNDING SURFACES.

NOT USED

6

RRU MOUNTING DETAIL

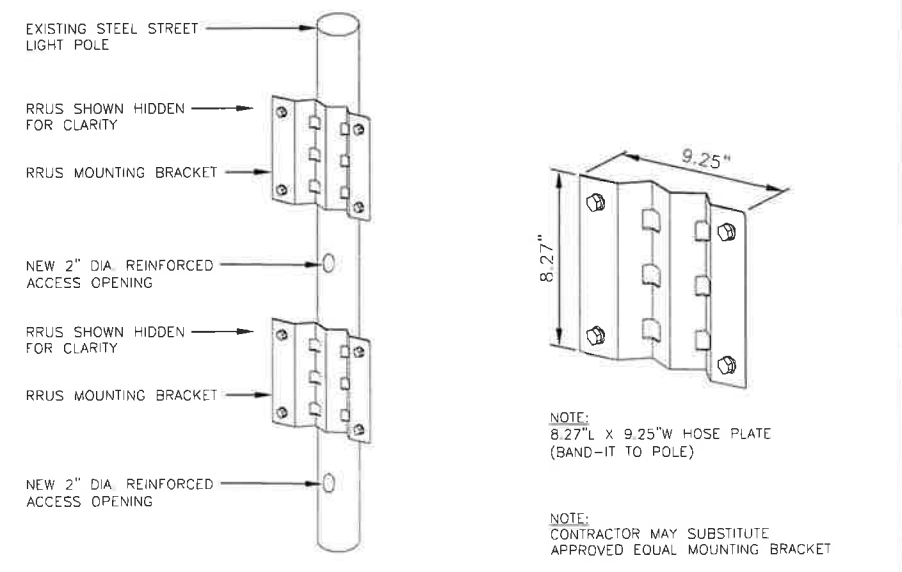
24"x36" SCALE: NTS
11"x17" SCALE: NTS

3

ACCESS PORTS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

1



NOTE:
APPLY TWO NOTICE STICKERS OPPOSITE EACH OTHER AROUND THE BOTTOM OF THE RADOME.



NOTICE

RF energy emitted by this device may exceed the FCC's general public exposure limits. Stay at least 1 foot away from the device.
Call AT&T at 800-638-2822, 9 then 3 for help if you need access within 1 foot



LOCATION NO:	14807727
DRAWN BY:	EZG
CHECKED BY:	MM

REV	DATE	DESCRIPTION
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A	09/12/2019	90% CD'S FOR REVIEW

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STREET LIGHT ID # 30041
IN THE PUBLIC R.O.W.
9050 VICINO DR
ELK GROVE, CA 95758

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
D-2

NOT USED

7

RRUS POLE MOUNTING DETAIL

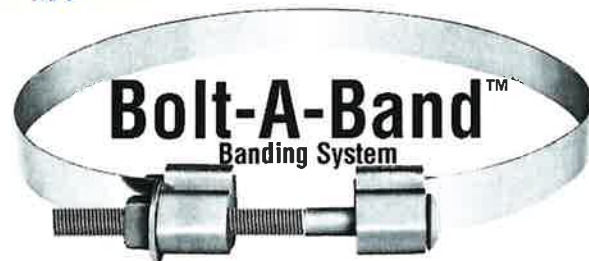
24"x36" SCALE: NTS
11"x17" SCALE: NTS

4

RF SIGNAGE

24"x36" SCALE: NTS
11"x17" SCALE: NTS

2



For Mounting Equipment on Most Steel, Wood, or Concrete Poles

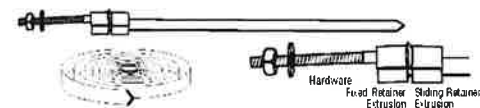
Bolt-A-Band™ lets you mount equipment on round, square or irregular shaped poles without drilling holes. Bolt-A-Band™ features a pre-cut, high quality stainless steel band with accompanying installation hardware. Adjusts easily to fit most any size pole. Installs in just minutes with no special tools required. Use it as shown for equipment mounting... or create your own applications! Call Aluma-Form inside sales for more information.



How to Select Proper Size

Band Width – Bolt-A-Band™ is available in 3/4" and 1 1/4" band widths and many lengths for mounting a variety of equipment. Generally, use 3/4" band for lighter loads (cabinets, telephone drops, U-Guards, co-axial cable, etc.), and 1 1/4" band for high tension loads.

Band Length – Proper length is easily determined by placing equipment to be mounted against pole or structure at mounting position. Measure total length needed around structure, add six (6) inches and round up to next standard length to determine correct length to order. Installation instructions are always included with each Bolt-A-Band™ order.



STANDARD LENGTH SINGLE BAND

CATALOG #	WEIGHT/EA.	STD. CARTON	HARDWARE	LENGTH	BAND
BAE-3431	75 lb	24	1"	36"	3/4"
BAE-3441	80 lb	24	1"	48"	3/4"
BAE-3442	80 lb	24	1"	60"	3/4"
BAE-3540	90 lb	24	1"	60"	1 1/4"
BAE-3572	95 lb	24	1"	72"	1 1/4"
BAE-3844	1.10 lbs	24	1"	84"	3/4"
BAE-3826	1.80 lbs	24	1"	96"	3/4"
BAE-3845	1.85 lbs	24	1"	108"	3/4"
BAE-3848	1.85 lbs	24	1"	120"	3/4"
BAE-3849	2.10 lbs	24	1"	132"	3/4"
BAE-3872	2.30 lbs	24	1"	144"	3/4"
BAE-3844	2.30 lbs	24	1"	156"	3/4"

SPECIFICATIONS

Stainless Steel Band – Type 304 polished stainless steel with minimum tensile of 95,000 P.S.I. and minimum yield of 45,000 P.S.I. Finished in size of 1/16" thickness x 1/4" width and .041" thickness x 1/4" width.

Aluminum Hardware Extrusions – 6061 T6 Aluminum Alloy. The alloy conforms to ASTM B 221. A minimum tensile strength of 58,000 P.S.I. and minimum yield strength of 35,000 P.S.I.

Carriage Bolt – High strength Grade 5 carriage bolt (ASTM A 488), finished in 1/4" x 1/4" x 1/4" size.

STANDARD 100' LENGTH BANDS

CATALOG #	WEIGHT/EACH	STD. CARTON	HARDWARE	LENGTH	BAND
100-3540-100	8.00 lbs	1	1"	100'	3/4"
100-3548-100	9.00 lbs	1	1"	100'	1 1/4"

BUCKLES FOR 100' BANDS

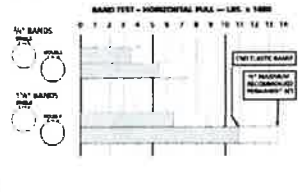
CATALOG #	WEIGHT/EACH	STD. CARTON
DAB-35	5.00 lbs	24
BAB-55	1.25 lbs	24

STANDARD LENGTH DOUBLE BAND

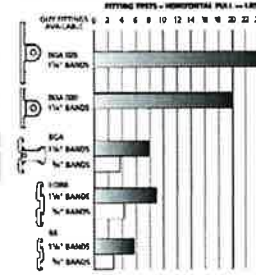
CATALOG #	WEIGHT/EA.	STD. CARTON	HARDWARE	LENGTH	BAND
BAE-3835-2	3.50 lbs	24	1"	36"	3/4"
BAE-3847-2	4.00 lb	24	1"	48"	3/4"
BAE-3852-2	7.50 lb	24	1"	96"	3/4"

BANDING STRENGTH TESTS

MAXIMUM BAND CAPACITY
These tests were conducted with steel fittings for 1/4" and 3/8" diameter. The maximum recommended loading of the stainless steel bands, Aluminum alloy fittings such as the DGA, HDDE, or DG are generally weaker than these values. For strength hardware contact the factory.



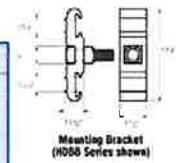
BAND STRENGTH WITH ALUMINUM OR STEEL ALLOY FITTINGS



ALL PURPOSE MTG. BRACKET (LOCATES 1/2" BOLT)

CATALOG #	WEIGHT	STD. CARTON	DESCRIPTION
BB-1511-M	.80 lb	24	Light Duty Mount with 1/2" x 1/4" Bolt
HDDB-1511-M	.85 lb	24	Heavy Duty Mount with 1/2" x 1/4" Bolt
HCRA-1511-M/M	1.00 lb	24	Heavy Duty Mount with 1/2" x 1/4" Bolt
HCBB-1511-M3-M	.96 lb	24	Heavy Duty Mount with 3/8" x 1/4" Bolt
BB-211-SS-2	585 lb	24	1/4" diameter light duty mount with stainless 1/2" x 1/4" Bolt

Attaches with 1/4" Band

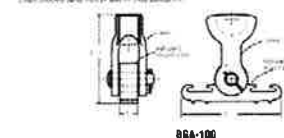


BB-211-SS-2

BANDED GUY ATTACHMENT WITH CLEVIS

CATALOG #	WEIGHT/EA.	STD. CARTON	DESCRIPTION
BGA-100	1.50 lbs	24	Heavy Duty Banded Guy Attachment with Clevis
BGA-520	3.60 lbs	24	Heavy Duty Banded Guy Attachment with Clevis
BGA-525	4.250 lbs	24	1 1/2" Heavy Duty Banded Guy Attachment with Clevis

Attaches with 1/4" Band



BGA-100

BGA-525

CONDUIT AND U-GUARD STRAPS

CATALOG #	WEIGHT/EA.	STD. CARTON	DESCRIPTION
BST-1	87 lbs	24	1 1/2" x 1 1/2"
BST-2	11 lbs	24	2" x 2"
BST-3	15 lbs	24	3" x 3"
BST-4	17 lbs	24	4" x 4"
BST-5	23 lbs	24	5" x 5"
BST-6	27 lbs	24	6" x 6"

Attaches with 3/4" Band

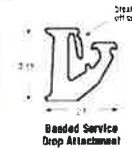


Conduit and U-Guard Straps

BANDED SERVICE DROP ATTACHMENT

CATALOG #	WEIGHT/EA.	STD. CARTON	DESCRIPTION
BSA-3A	582 lb	50	Banded Service Drop Attachment with 1/2" x 1/4" Band

Attaches with 1/4" Band

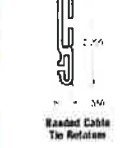


Banded Service Drop Attachment

BANDED CABLE TIE RETAINER

CATALOG #	WEIGHT/EA.	STD. CARTON	DESCRIPTION
CTR	210 lb	100	Retainer for Cable Tie with 1/4" or 3/8" Band

For use with 1/4" or 3/8" Band

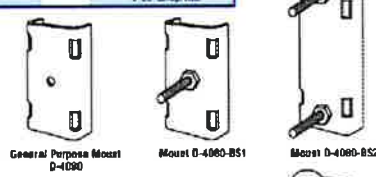


Banded Cable Tie Retainer

GENERAL PURPOSE MOUNT

CATALOG #	WEIGHT/EA.	STD. CARTON	DESCRIPTION
D-400	0.5 lbs	3	Minimum diameter of 1/2" diameter. Size 1/2" x 1/2" spaced around with 1/4" x 1/4" mounting hole.
D-400-B51	7.20 lbs	3	1/2" x 1/2" mounting bracket with 1/4" x 1/4" carriage bolt.
D-400-B52	10.05 lbs	3	1 1/2" x 1 1/2" mounting bracket with 1/2" x 1/2" carriage bolt.

Attaches with 1/4" Band



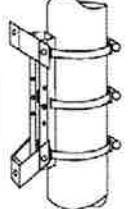
General Purpose Mount D-400

Mount D-400-B51

Mount D-400-B52

TRANSFORMER MOUNTING BRACKET

CATALOG #	WEIGHT/EA.	STD. CARTON	DESCRIPTION
PP-MB1-F1-E	9.3 lbs	5	Transformer mounting bracket. Adjustable for 12" or 24" top mounting.



M SQUARE WIRELESS
1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 391-8824

LOCATION NO: 14807727
DRAWN BY: EZG
CHECKED BY: MM

REV	DATE	DESCRIPTION
O	12/05/2019	100% CD'S FOR SUBMITTAL
A	09/12/2019	90% CD'S FOR REVIEW

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STREET LIGHT ID #:30041
IN THE PUBLIC R.O.W.
9050 VICINO DR
ELK GROVE, CA 95758

SHEET TITLE
BOLT-A-BAND DETAIL

SHEET NUMBER

D-3

NOT USED 5

UNDERGROUND ELECTRIC SERVICE NOTES:

UL APPROVED SCHEDULE 40 OR 80 PVC. SCHEDULE 40 PVC SHALL NOT BE USED IF THE CONDUIT IS LOCATED SO THAT IT IS SUBJECT TO PHYSICAL DAMAGE. TO AVOID CABLE INSULATION DAMAGE, THE END OF THE CONDUIT SHALL BE PROVIDED WITH A SUITABLE TERMINATION FITTING SUCH AS A BUSHING, NIPPLE, END BELL, OR CABLE PROTECTOR, ETC. NOTE: CONDUITS SHALL NOT PASS UNDER OR THROUGH ONE BUILDING TO SUPPLY ADJACENT BUILDINGS.

PRIOR TO CABLE INSTALLATION, PROVE ALL CONDUITS FREE AND CLEAR BY MEANS OF A MANDREL OR OTHER METHOD ACCEPTABLE TO PG&E. A PG&E-APPROVED POLYESTER, FLAT PULLING TAPE, WHITE WITH SEQUENTIAL FOOTAGE MARKINGS EVERY FOOT, AND 2,500-POUND MINIMUM TENSILE STRENGTH (CODE 560154), SHALL BE INSTALLED IN ALL CONDUITS AND ATTACHED TO AN END CAP.

PG&E WILL FURNISH AND INSTALL THE UNDERGROUND SERVICE CONDUCTORS AND MAKE CONNECTIONS IN THE APPLICANT'S SERVICE TERMINATION ENCLOSURE.

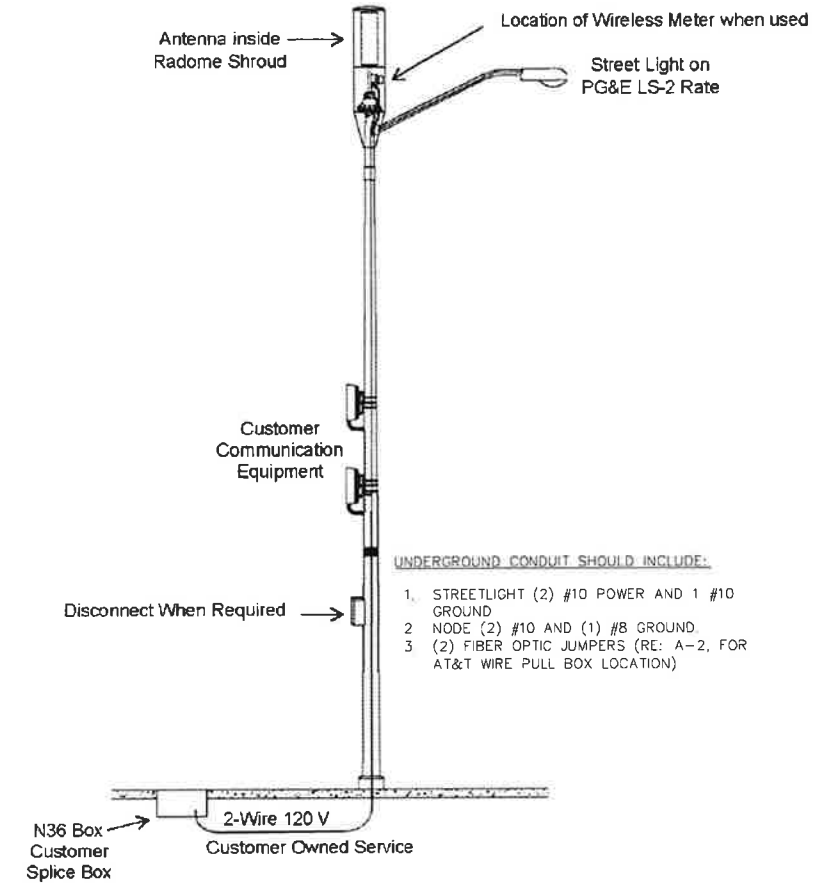
WHEN THE INTRUSION OF WATER CAN REASONABLY BE EXPECTED, THE FOLLOWING ACTIONS ARE REQUIRED:

1) PG&E IS RESPONSIBLE FOR SEALING THE CONDUIT AT THE METER TERMINATION FACILITIES AS SHOWN IN DOCUMENT 062288. IF THE METER TERMINATION FACILITIES ARE SIGNIFICANTLY LOWER THAN THE SOURCE SIDE FACILITIES, THEN THE CONDUIT SHOULD BE SEALED AT BOTH ENDS. THE RAYFLATE DUCT SEALING SYSTEM (RDSS) CONDUIT SEALING SYSTEM CAN BE ORDERED FOR THIS PURPOSE. SEE DOCUMENT 062288.

2) THE APPLICANT IS RESPONSIBLE FOR PROVIDING A MEANS TO PREVENT THE ACCUMULATION OF EXCESS WATER OR WATER PRESSURE IN THE SERVICE CONDUIT SYSTEM. THIS IS ACCOMPLISHED BY INSTALLING A SPLICE BOX AT THE BASE OF THE RISER TO THE METER PANEL, OR AT A MAXIMUM OF 6 FEET AWAY TO THE METER PANEL ALONG THE SERVICE RUN.

MAIN SERVICE PANEL RATING (AMPS)	CONDUIT SIZE AND NUMBER	CABLES REQUIRED TO SERVE MAXIMUM LOAD			
		ALUMINUM		COPPER	
		PER PHASE	NEUTRAL	PER PHASE	NEUTRAL
100	1"-3"	1-1/0	#2	NA	NA
CONDUIT DIAMETER		VERTICAL RADIUS		HORIZONTAL	
3"		24"		36"	

Typical Streetlight Pico/Micro Site



UNDERGROUND CONDUIT SHOULD INCLUDE:

1. STREETLIGHT (2) #10 POWER AND 1 #10 GROUND
2. NODE (2) #10 AND (1) #8 GROUND
3. (2) FIBER OPTIC JUMPERS (RE: A-2, FOR AT&T WIRE PULL BOX LOCATION)

Figure 1 - Customer Owned (Non-PG&E) Steel Streetlight Pole with Antenna and Communication Equipment

NOT USED 6

ELECTRICAL SERVICE NOTES 24"x36" SCALE: NTS 11"x17" SCALE: NTS

STREETLIGHT POLE 24"x36" SCALE: NTS 11"x17" SCALE: NTS 1

NOT USED 7

NOT USED 4

NOT USED 2



LOCATION NO:	14807727
DRAWN BY:	EZG
CHECKED BY:	MM

REV	DATE	DESCRIPTION
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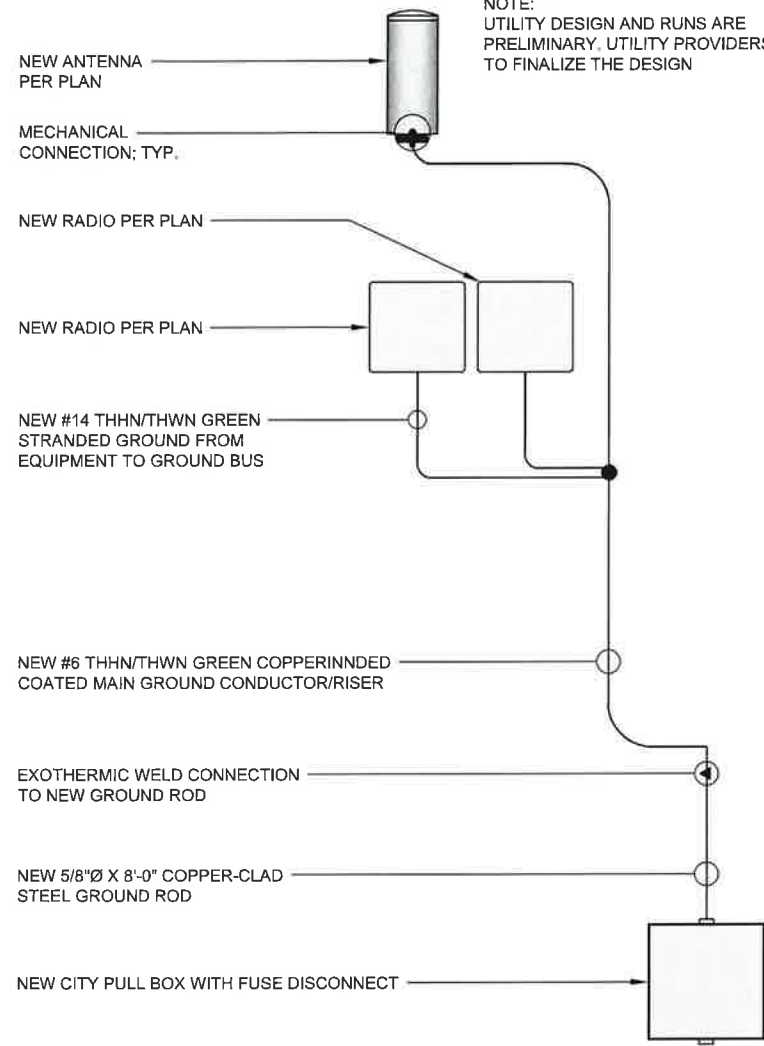
SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-1

NOTE:
ALL GROUND CONDUCTORS TO BE #6
THHN/THWN GREEN STRANDED COPPER
UNLESS OTHERWISE NOTED OR REQUIRED BY
EQUIPMENT MANUFACTURER.

EXOTHERMIC WELD CONNECTIONS ■
MECHANICAL TYPE CONNECTIONS ●

NOTE:
UTILITY DESIGN AND RUNS ARE
PRELIMINARY. UTILITY PROVIDERS
TO FINALIZE THE DESIGN



GROUNDING SCHEMATIC

24"x36" SCALE: NTS
11"x17" SCALE: NTS

6

SINGLE LINE DIAGRAM

24"x36" SCALE: NTS
11"x17" SCALE: NTS

4

NOT USED

2

NOT USED

7

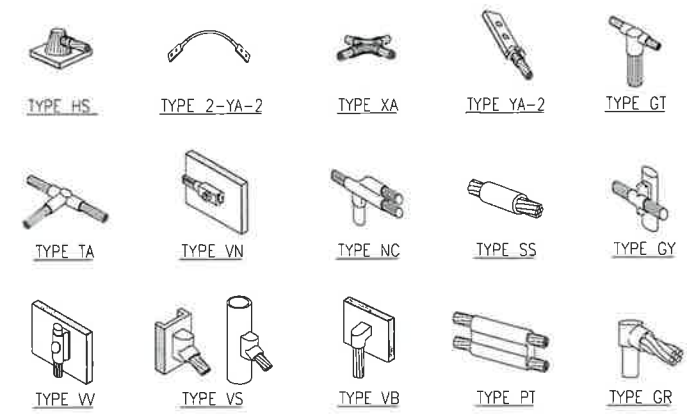
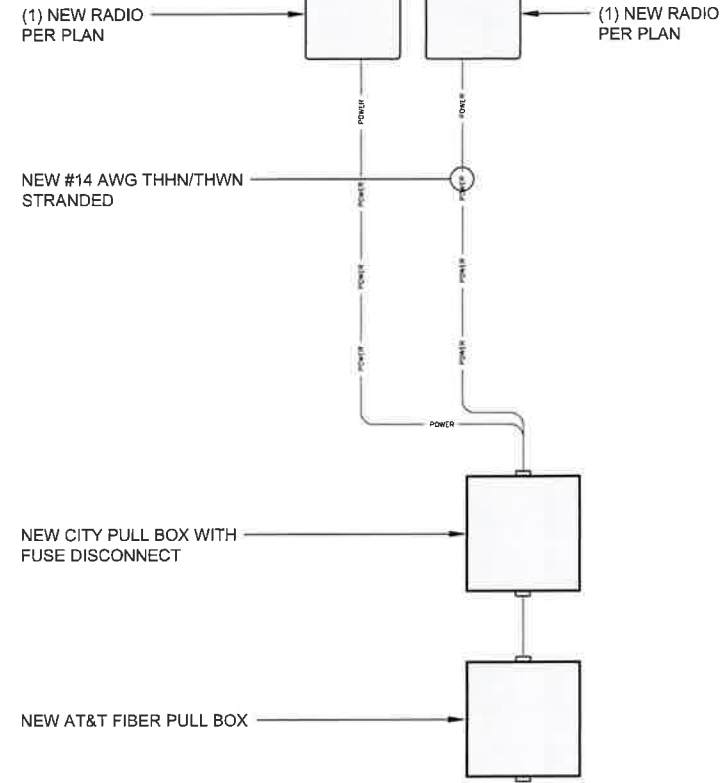
NOT USED

5

NOT USED

3

NOTE:
UTILITY DESIGN AND RUNS ARE PRELIMINARY.
UTILITY PROVIDERS TO FINALIZE THE DESIGN



NOTE:
ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH
PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.

CADWELDS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

1



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DRAWN BY:	EZG
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ELK GROVE, CA 95756

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-2

MUTCD REFERENCE GUIDE:

1. NOTHING ALLOWED IN THE BUFFER AND TRANSITION AREAS AT ALL TIMES.
2. SIGNS ARE ONLY SHOWING TO THE PUBLIC WHEN IN USE.
3. SIGNS AND CHANNELIZING DEVICES MUST BE RETROREFLECTIVE OR ILLUMINATED DURING NIGHT OPERATIONS.
4. SIGN PANEL SIZES 36"x36" MIN. ON ROADS <50MPH, 48"x48" ON ROADS >50MPH.
5. SIGNS ARE SPACED PER THE CA 2014 MUTCD (REVISION 2) MANUAL.
6. CHANNELIZING DEVICES SPACING AND TAPER LENGTHS ARE BASED ON THEIR RESPECTIVE CHARTS.
7. NOTIFY THE LOCAL LAW ENFORCEMENT, FIRE AND AMBULANCE COMPANIES WITHIN 72 HOURS BEFORE CONSTRUCTION BEGINS.
8. CONTRACTOR TO MAKE SURE ALL TRAFFIC CONTROL EQUIPMENT MEETS ALL AGENCY REQUIREMENTS.
9. REMOVE ALL CONFLICTING MARKINGS FOR LONG TERMS OPERATIONS (3 DAYS OR LONGER).
10. THE LOCATION OF THE SIGNS AS SHOWN ON THE ILLUSTRATIONS ARE GUIDELINES AND ACTUAL LOCATIONS WILL DEPEND UPON ALIGNMENT, GRADE, LOCATIONS OF STREET INTERSECTIONS AND 85% TILE POSTED SPEED LIMITS.
11. WHILE CROSSING INTERSECTIONS DURING MOBILE WORK, WORK MUST FOLLOW THE FLOW OF TRAFFIC AND PROCEED ON A GREEN LIGHT.
12. FULL COMPLIANCE IS REQUIRED WITH THE CITY AGENCY.
13. PEDESTRIAN ACCESS MUST BE MAINTAINED AS PER THE CA 2014 MUTCD (REVISION 2) STANDARDS AND ADA REQUIREMENTS.
14. C30 SIGNS ARE PERMITTED IN BUFFER AREAS.
15. SIGN SPACING IS PROVIDED IN THE CA MUTCD 2014 EDITION (REVISION 2), PART 6. TRAFFIC SPEEDS ARE BASED UPON RADAR MEASUREMENTS OF MOTORISTS. THE MUTCD ALLOWS FOR A "RANGE" IN SIGN PLACEMENT AND WILL BE PROVIDED BY DOT. THE 85% TILE IS USED WHEN AVAILABLE TO PROVIDE A MORE ACCURATE PRESENTATION OF MOTORISTS SPEEDS.
16. ANY WORK WITHIN 200FT OF A SIGNALIZED INTERSECTION WILL REQUIRE CONTACT AND COORDINATION WITH CITY AGENCY PRIOR TO ANY WORK.
17. QUALITY STANDARDS TO MEET REQUIREMENTS OF SECTION 1A-2 OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
18. ALL TRAFFIC CONTROL DEVICES INCLUDING: SIGNS, BARRICADES, VERTICAL PANELS, DRUMS, WARNING LIGHTS, ARROWBOARDS, CHANGEABLE MESSAGE SIGNS, CONES AND TUBULAR MARKERS THAT MEET THE REQUIREMENTS OF AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA), CA MUTCD 2014 (REVISION 2) SHALL BE USED ON THIS PROJECT/THIS WORK.
19. THE NCHRP REPORT 476 PROVIDES GUIDELINES FOR DESIGN AND OPERATION OF NIGHTTIME TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE AND CONSTRUCTION. SEE TYPICAL APPLICATIONS NWT-1 THROUGH NWT-7. COMPLY WITH ANSI 107-2004 FOR APPAREL HIGHWAY CONSTRUCTION WORK LIGHTING SHALL BE PER CONSTRUCTION SAFETY ORDER 1523 - ILLUMINATIONS.
20. SIDEWALKS AT THE CONSTRUCTION LOCATION MAY BE CLOSED WITH ADEQUATE DETOURS, SIDEWALKS MAY ONLY BE CLOSED TO THROUGH TRAFFIC AND SHALL NOT PREVENT LOCAL PEDESTRIANS ACCESS. DETOURS SHALL NOT INCREASE THE PATH OF TRAVEL BY MORE THAN 500FT. DETOUR ROUTES SHALL BE LIMITED TO EXISTING SIDEWALKS, PRIVATE PROPERTIES (SEE BELOW REQUIREMENTS) AND CROSSINGS AT ROADWAY INTERSECTIONS. TO THE MAXIMUM EXTENT FEASIBLE, THE ALTERNATE CIRCULATION PATH SHALL BE PROVIDED ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE. WHERE IT IS FEASIBLE TO PROVIDE A SAME-SIDE ALTERNATE CIRCULATION PATH AND PEDESTRIANS WILL BE DETOURED, SECTION 60.02 OF THE CA 2014 MUTCD (REVISION 2) SPECIFIES THAT THE ALTERNATE PATH PROVIDE A SIMILAR LEVEL OF ACCESSIBILITY TO THAT OF THE EXISTING DISRUPTED ROUTE. THIS MAY INCLUDE THE INCORPORATION OF ACCESSIBLE PEDESTRIAN SIGNS (APS), CURB RAMPS, OR OTHERS ACCESSIBILITY FEATURES.
21. PEDESTRIANS MAY BE DETOURED ONTO PRIVATE PROPERTY ONLY IF WRITTEN PERMISSION FROM THE PROPERTY OWNER IS OBTAINED ALONG WITH DOCUMENTATION INDICATING THAT THE CITY WOULD NOT BE LIABLE (HOLD HARMLESS) IN THE EVENT OF AN ACCIDENT.
22. DURING WORK HOURS, AT LEAST ONE WORKER SHALL BE ASSIGNED THE RESPONSIBILITY TO ESCORT ELDERLY, DISABLED OR ANY OTHER PEDESTRIANS IN NEED OF ASSISTANCE THROUGH THE CONSTRUCTION SITE. A WORKER ASSIGNED WITH THIS RESPONSIBILITY MAY ALSO PARTICIPATE IN OTHER CONSTRUCTION ACTIVITIES; HOWEVER, THE ASSIGNED WORKER SHALL BE AWARE OF HIS OR HERS RESPONSIBILITIES FOR PROVIDING THIS ASSISTANCE. MEASURES THAT SIMPLY CLOSE THE SIDEWALK, WITH THE EXCEPTION THAT PEDESTRIANS WILL CROSS SOMEWHERE ELSE DOES NOT ADEQUATELY SATISFY PEDESTRIAN ACCESS. PEDESTRIANS SHOULD NEVER BE DIRECTED/EXPECTED TO CROSS A MULTILANE ROADWAY AT ANY LOCATION OTHER THAN AT A SIGNAL (OR ALL-WAY STOP). ACCOMMODATIONS SHOULD BE MADE ON THE SAME SIDE OF ROADWAY AS WORK.

TRAFFIC CONTROL NOTES:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING WORK ON A PUBLIC STREET TO INSTALL AND MAINTAIN THE TRAFFIC CONTROL DEVICES AS SHOWN HEREIN, AS WELL AS ANY ADDITIONAL TRAFFIC CONTROL DEVICES THAT MAY BE REQUIRED TO INSURE THE SAFE MOVEMENT OF TRAFFIC AND PEDESTRIANS THROUGH OR AROUND THE WORK AREA AND PROVIDE MAXIMUM PROTECTION AND SAFETY TO CONSTRUCTION WORKERS.
2. ALL DELINEATORS SHALL BE EQUIPPED WITH REFLECTORS AT NIGHT TIME.
3. THE CONTRACTOR SHALL NOTIFY THE CITY/COUNTY OF RECORD AND CALTRANS PERMIT INSPECTOR AT LEAST FIVE WORKING DAYS IN ADVANCE OF IMPLEMENTING ANY CONSTRUCTION DETOUR.
4. ALL SIGNS, DELINEATORS, BARRICADES, ETC. AND THEIR INSTALLATION SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION) AND THE MUTCD CALIFORNIA SUPPLEMENT, STATE OF CALIFORNIA STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND STAMPED PLANS.
5. THE CITY/COUNTY OF RECORD AND CALTRANS RESERVE THE RIGHT TO OBSERVE THESE TRAFFIC CONTROL PLANS IN USE AND TO MAKE ANY NECESSARY CHANGES AS FIELD CONDITIONS WARRANT. ANY CHANGES SHALL SUPERSEDE THESE PLANS. EXACT LOCATION OF ALL EQUIPMENT AND TRAFFIC CONTROL DEVICES SHALL BE DETERMINED BY THE ENGINEER.
6. ALL TRAFFIC CONTROL DEVICES, STRIPES, MARKINGS, LEGENDS AND RAISED PAVEMENT MARKERS SHALL CONFORM TO THE MUTCD AND THE CALIFORNIA SUPPLEMENT (LATEST EDITION), THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS (LATEST EDITION), SPECIAL PROVISIONS, AND STAMPED PLANS.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN THEIR POSITION AT ALL TIMES AND SHALL BE REPAIRED, REPLACED OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY.
8. ALL TRAFFIC LANES SHALL HAVE A MINIMUM OF 5 FEET CLEARANCE FROM OPEN EXCAVATIONS AND A MINIMUM OF 2 FEET FROM VERTICAL OBSTRUCTIONS.
9. CONTRACTOR SHALL PROVIDE FLAGGERS AS DEEMED NECESSARY BY THE CITY/COUNTY INSPECTOR OR CALTRANS PERMIT INSPECTOR.
10. ALL ADVANCE WARNING SIGNS SHALL BE EQUIPPED WITH FLAGS.
11. TRAFFIC SIGNALS SHALL REMAIN IN OPERATION AT ALL TIMES. SIGNAL OPERATION DURING EACH CONSTRUCTION PHASE SHALL BE COORDINATED WITH AND APPROVED BY THE CITY/COUNTY OF RECORD AND/OR CALTRANS INSPECTOR.
12. PLACE ADDITIONAL "LANE CLOSED", (C30) SIGNS ON TYPE II BARRICADES AT 100 FOOT INTERVALS THROUGHOUT EXTENDED WORK AREAS IN EACH LANE THAT IS CLOSED. INSTALL "OPEN TRENCH" (C27) SIGNS WHENEVER AN OPEN EXCAVATION AREA EXISTS ADJACENT TO THE TRAVELED WAY.
13. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED FOLLOWING COMPLETION OF EACH CONSTRUCTION STAGE AND THE PERMANENT TRAFFIC CONTROL DEVICES SHALL BE RESTORED BY THE CONTRACTOR UPON COMPLETION OF PROJECT.
14. CONTRACTOR SHALL REPLACE/REPAIR ALL DAMAGED STRIPING AT THE END OF EACH WORKING DAY.
15. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN DISABILITY ACT AS RELATED TO PEDESTRIAN ACCESS AND SHALL MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES PER ADA REQUIREMENTS. SIDEWALK CLOSURE/DETOUR SHALL COMPLY WITH THE WATCH STANDARDS AND MUST OBTAIN APPROVAL FROM THE CITY/COUNTY OF RECORD.
16. CONTRACTOR SHALL COVER OR REMOVE ALL CONFLICTING SIGNS.
17. CONTRACTOR SHALL POST "SYMBOL" UNEVEN LANES, "STEEL PLATES AHEAD" OR "BUMP" SIGNS FOR PAVEMENT SURFACE DISRUPTIONS OF 1/2" OR GREATER. PAVEMENT DISRUPTIONS FOR 1" OR GREATER SHALL HAVE A BEVELED EDGE OF FOUR (4) HORIZONTAL TO ONE (1) VERTICAL.
18. CONTRACTOR SHALL INSTALL "CAUTION STEEL PLATES AHEAD" AND/OR "ROUGH ROAD" SIGNS IN ADVANCE OF STEEL PLATE BRIDGING.
19. CONTRACTOR SHALL VERIFY ALL NECESSARY EQUIPMENT NEEDED FOR OVERHEAD CONSTRUCTION PRIOR TO THE START OF CONSTRUCTION.
20. WORK HOURS SHALL COMPLY WITH CITY OF ELK GROVE CONSTRUCTION CODE AND SCC CHAPTER 10.16 TRAFFIC CONTROL DEVICES.
21. RESIDENTS TO BE NOTIFIED OF DATES AND TIMES OF CONSTRUCTIONS TWO (2) WEEKS PRIOR TO THE START OF WORK.
22. A 5'-0" MIN. PEDESTRIAN CLEARANCE TO BE MAINTAINED AT EXISTING SIDEWALKS.
23. POSTED SPEED 40 MPH ON BIG HORN BLVD

Posted Speed	Formula	Buffer Space	Minimum Taper Lengths									Maximum Cone Spacing		Sign Spacing △	LIDG (Ft) △
			L			1/2 L			1/3 L			L	1/2 L		
			L	1/2 L	1/3 L	L	1/2 L	1/3 L	L	1/2 L	1/3 L				
25	L = WS ² 60	155'	104'	52'	35'	115'	57'	38'	125'	63'	42'	25'	13'	100' To 200'	94'
30		200'	150'	75'	50'	165'	83'	55'	180'	90'	60'	30'	15'	120' To 250'	113'
35		250'	204'	102'	68'	225'	112'	75'	245'	123'	82'	35'	18'	140' To 280'	131'
40		305'	267'	133'	89'	293'	147'	98'	320'	160'	107'	40'	20'	160' To 320'	150'
45		360'	450'	225'	150'	495'	248'	165'	540'	270'	180'	45'	23'	360' To 540'	169'
50	L = WS	425'	500'	250'	167'	550'	275'	183'	600'	300'	200'	50'	25'	400' To 600'	197'
55		495'	550'	275'	183'	605'	303'	202'	660'	330'	220'	50'	28'	440' To 660'	210'
60		570'	600'	300'	200'	660'	330'	220'	720'	360'	240'	50'	30'	480' To 720'	225'
65		645'	650'	325'	217'	715'	358'	238'	780'	390'	260'	50'	33'	520' To 700'	244'
70		730'	700'	350'	233'	770'	385'	257'	840'	420'	280'	50'	35'	560' To 820'	263'



LOCATION NO:	14807727
DRAWN BY:	EZG
CHECKED BY:	MM

REV	DATE	DESCRIPTION
0	12/05/2019	100% CD'S FOR SUBMITAL
A	09/12/2019	90% CD'S FOR REVIEW

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

CRAN_RSFR_SAC01_021
STREET LIGHT ID #:30041
IN THE PUBLIC R.O.W.
9050 VICINO DR
ELK GROVE, CA 95758

SHEET TITLE
TRAFFIC CONTROL
PLAN NOTES

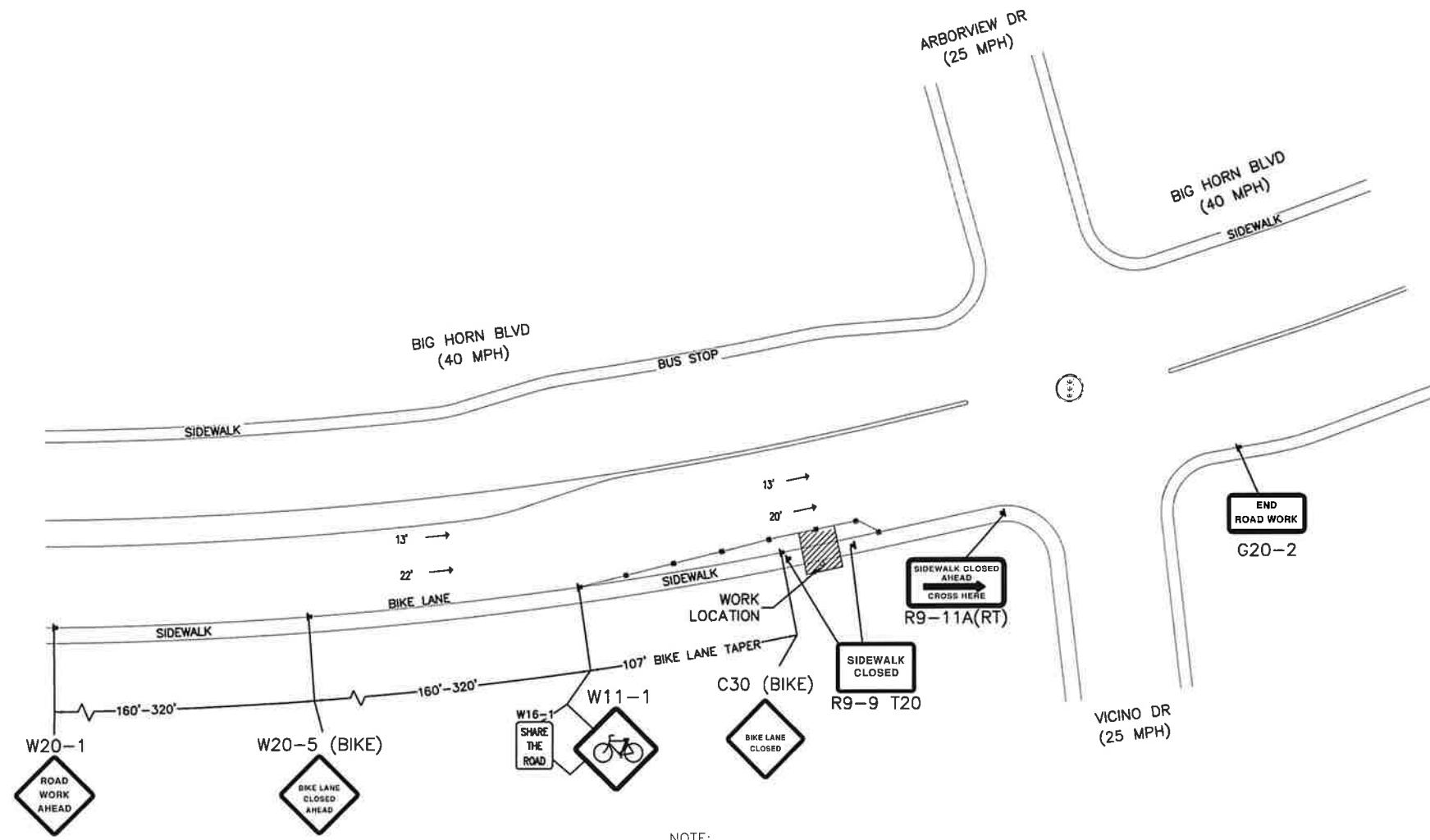
SHEET NUMBER
TCP-1

NOTE:
ALL TRAFFIC CONTROL SHALL COMPLY WITH ALL CITY OF ELK GROVE REQUIREMENTS. SEE ATTACHED MUTCD REFERENCE GUIDE FOR INFORMATION ON SIGN SPACING, LOCATION, OF CONSTRUCTION SIGNAGE, FLAGGERS, AND CHANNELING DEVICES.

ALLOWABLE WORKING HOURS
M-F: 8:30AM - 3:30PM
SAT: 7:00AM - 5:00PM

NOTE:
MAINTAIN ACCESS TO R/T BUS STOPS OR COORDINATE WITH R/T TO RELOCATE BUS STOP LOCATIONS. CONTRACTOR SHALL COORDINATE THE BUS STOP WITH R/T REPRESENTATIVE.
(916) 321-2800

*POST TEMPORARY NO PARKING SIGN ON TYPE BARRICADE 72 HRS IN ADVANCED.
TRAFFIC CONTROL TO BE ARRANGED 72 HOURS IN ADVANCE OF CONSTRUCTION



NOTE:
CONTRACTOR TO PROVIDE PEDESTRIAN ESCORT

LEGEND			
	FLASHING ARROW SIGN		TYPE III BARRICADE
	CHANNELIZING DEVICE		TYPE III BARRICADE W/ PROPOSED SIGNS
	HIGH LEVEL WARNING DEVICE W/ PROPOSED SIGN		SIGNALIZED INTERSECTION
	PROPOSED SIGN AND POST		CONSTRUCTION AREA
	TYPE I BARRICADE		FLAGGER
	TYPE I BARRICADE W/ PROPOSED SIGNS		



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STREET LIGHT ID #:30041
IN THE PUBLIC R.O.W.
9050 VICINO DR
ELK GROVE, CA 95758

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
TCP-2