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



Date of R	Request:	
Approxim	nate Date Service Connection is Needed:	
	TART X DISCONNECT TRANSFER OF SERVICE	
TSP Billin		Spokane, WA 99210
Contact F	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.

- Address: In-ground Box 5' Behind City Service
 Description: West side of Bruceville Rd, 75 feet from the centerline; 235 feet South from the centerline of Whitelock Pkwy

 2. California State, Zone 2, NAD83 in Feet: X,Y coordinate of the connection point: NAD83:0402, 6728494.465ftUSE 1905672.945ftUSN Decimal: 38.393535, -121.417930
- 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-28051D

Location of TSP Devices on City Street lights:

- 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: 10064 Bruceville Rd
 Description: South 80 Feet from the centerline of Whitelock Pkwy; 250 Feet East from the centerline of Bruceville Rd
- 2. California State, Zone 2, NAD83 in Feet: X,Y coordinate of the connection point: NAD 83: Zone 0402, 6728313.058ftUSE 1905848.415ftUSN Decimal: 38.39402, -121.418559
- 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 6728503.172ffUSE 1905655.884ffUSN

 Decimal: 38.393488, -121.417900
- 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) and 1 antenna

Make and Model of Devices:

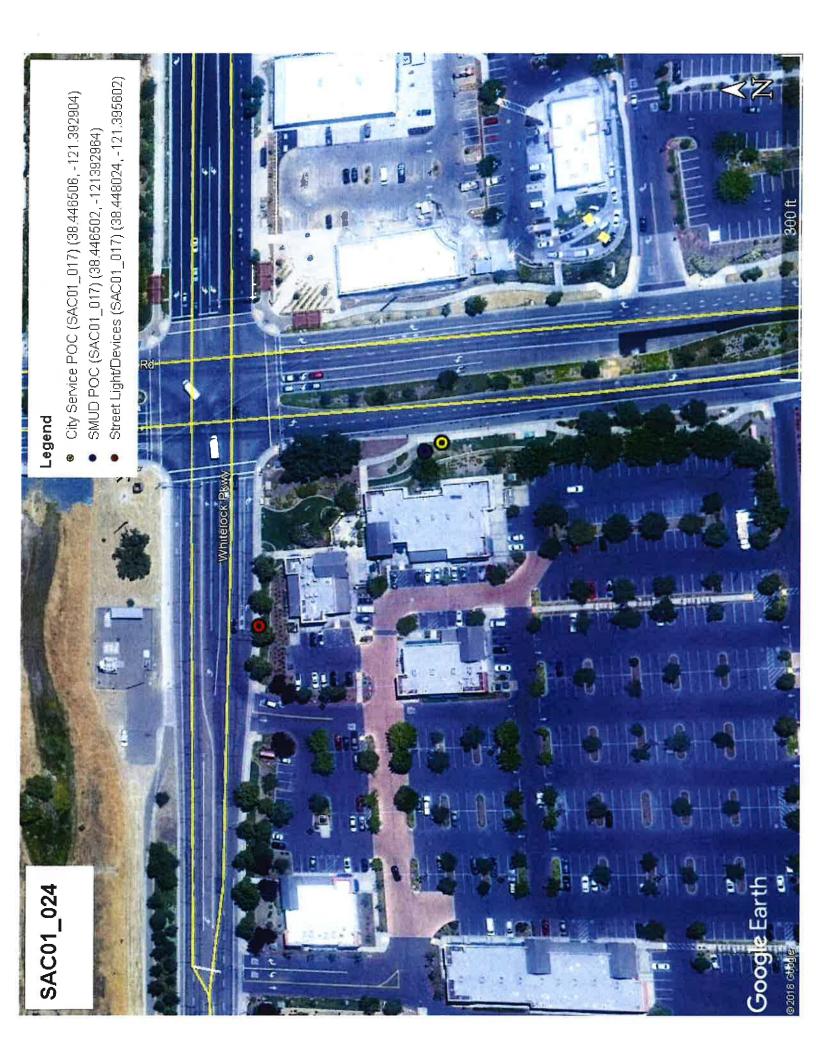
Ericsson RRU 2203, Ericsson RRU 2205, PSU AC 08, JPAK-1M-600-04LS-2.5

Maximum Nameplate AC Wattage of each Device:

Ericsson RRU 4415 = 1100W, Ericsson RRU 4426 = 1100W

Small cell attachment equipment specification sheet attached ____X

This area reserved for SMUD use only





SMALL CELL LOAD SUMMARY – Elk Grove

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

	Project:			Francisco (1 3 4 1				
	Location Address:	6991 Whitelock Parkway								
	Pole Coordinates:	38.39402, -121.4	418559	City Service C	oordinates:	38.393488, -121.417900				
	Node Number:	SAC01_024	10)							
Street Light Pole Number:		SLT-28051D (MA	A-LED)							
City Service Address:		10064 Bruceville	e Road							
SMUD Point of Connect:		Inground Box 5'	Behind Service; 38	.393535, -121.41	7930					
City Service Number:		Need Service Number from City								
RF Config:		MICRO	Radio Load	id: 2200W Futur		e Radio Load:				
	Circuit Breaker:	Position #2, Lighting B; 40 AMP								
	Voltage:	⊠ 120 V □ 240	V □ 277 V □ 480	v						
		MA-LED:	3	ORN-LED:		PT-LED:				
Numbe	er of Existing Loads:	MA-HPS:		ORN-HPS:		PT-HPS:				
Description of Exis	sting Loads (Street Lig	ht Numbers):		N I I	J Hajiri					
28051D	28051B	28051F								

Total Existin	ng Loads:		Recircuiting Required:						
3	MA-LED X 110 W	330 W	☐ Yes ⊠ No						
	MA-HPS X 200 W	w	Existing C	rcuit Breaker	40 AMPS				
	ORN-LED X 110 W	w	Percentage Overcurrent Pro	tection Used	53%				
	ORN-HPS X 100 W	w	Difficulty Level:	1					
	PT-LED X 110 W	w	1. No Constructability Issues	2. Difficu	lt 3. Very Dif	fficult			
	PT-HPS X 100 W	w	B		. O.	••			
	Radio Load	2200 W	Pass or Fail:		Pass 🗆 Fai	11			
	New Load Total (RP):	2530 W	Notes:	This					
	Total Load on Circuit:	3.16 KVA	*Per NEC Regulation, the Rec	al Power (RP) w	ill not exceed 80% of	the			
*M	inimum Circuit Overcurrent Protection Required:	26.35 AMP	Overcurrent Protection.						
	Radio Load Pico kWh/Yr.:	19,272			540				

Street I	ight No.	G	PS	1	ight Typ	e	Comments
Site Pole	Others	Latitude	Longitude	Lamp Post	Post Top	Mast Arm	(LED, HPS, SIGNAL, COBRA, ETC.)
28051D	х	38.39402	-121.418559			x	LED
	28051B	38.392827	-121.417822			х	LED
	28051F	38.394063	-121.419968			х	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_024. 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

Exp: 9-30- 20



SITE ID: CRAN_RSFR_SAC01_024

NODE FA: 14807751 NODE USID: 187854

PACE: MRSFR044061

IN THE PUBLIC R.O.W.

ADJACENT TO 6991 WHITELOCK PKWY

ELK GROVE, CA 95757

STREET LIGHT ID #: 28051D

CONSULTING TEAM

ENGINEERING COMPANY:

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

CONSTRUCTION MANAGER:

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

PLANNING CONSULTANT:

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

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 OFFICE ANY OFFICE OF THE SHALL SHAL DISCREPANCIES BEFORE E RESPONSIBLE FOR SAME



Know what's below. Call before you dig.

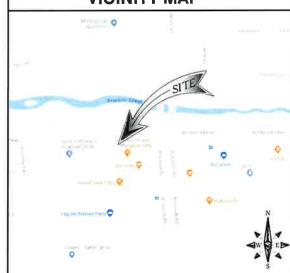
Call Two Working Days Before You Dig! 811 / 800-227-2600 usanorth.org

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

VICINITY MAP



CONTRACTOR NOTES

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

DESIGN CRITERIA

PROJECT INFORMATION

POLE # 28051D

OWNER: CITY OF ELK GROVE

APPLICANT: AT&T MOBILITY 5001 EXECUTIVE PARKWAY SAN RAMON, CA 94583

ADJACENT APN# 132-2170-012

LATITUDE: 38.394022' N 121_418559° W LONGITUDE:

JURISDICTION: CITY OF ELK GROVE PUBLIC RIGHT-OF-WAY

PROPOSED USE: TELECOMMUNICATIONS **EACILITY**

POWER COMPANY:

ZONING:

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 COMPLÉTION 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" FIBERGLASS SHROUD WITH A 10-3/4" O 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
- 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
- IF A BANNER OR BANNER BRACKETS ARE PRESENT, REMOVE AND REPLACE (E) BRACKETS WITH (N) BREAKAWAY BRACKETS.

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







CHE	CKED BY:	
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Α	09/12/2019	90% CD'S FOR REVIEW
REV	DATE	DESCRIPTION

LOCATION NO:

DRAWN BY:

T IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS EY ARE ACTING UNDER THE DIRECTION OF A LICENSE PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

CRAN RSFR SACO1_024

STREET LIGHT ID #:28051D

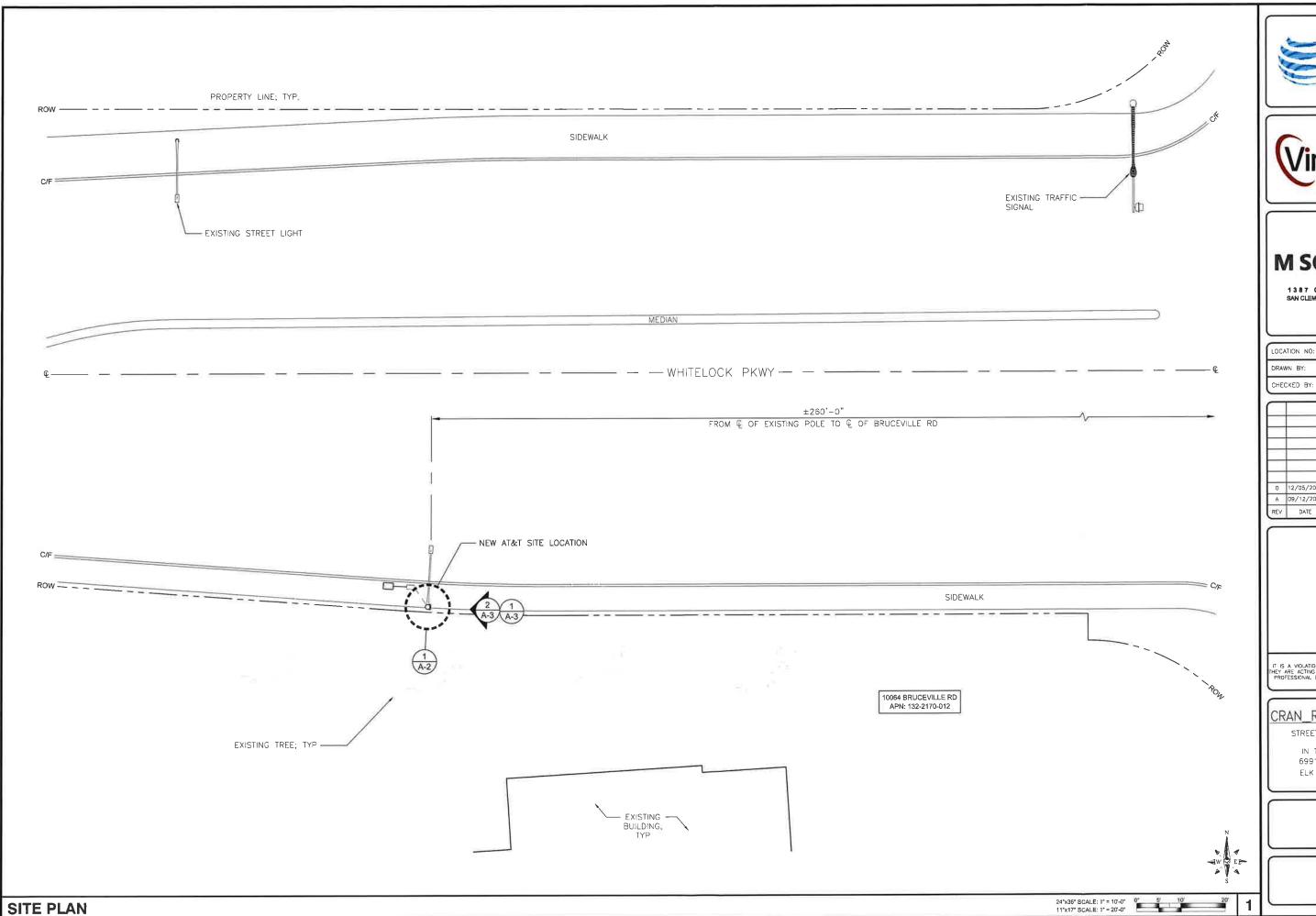
IN THE PUBLIC ROW 6991 WHITELOCK PKWY ELK GROVE, CA 95757

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1









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CRAN_RSFR_SAC01_024

STREET LIGHT ID #:28051D

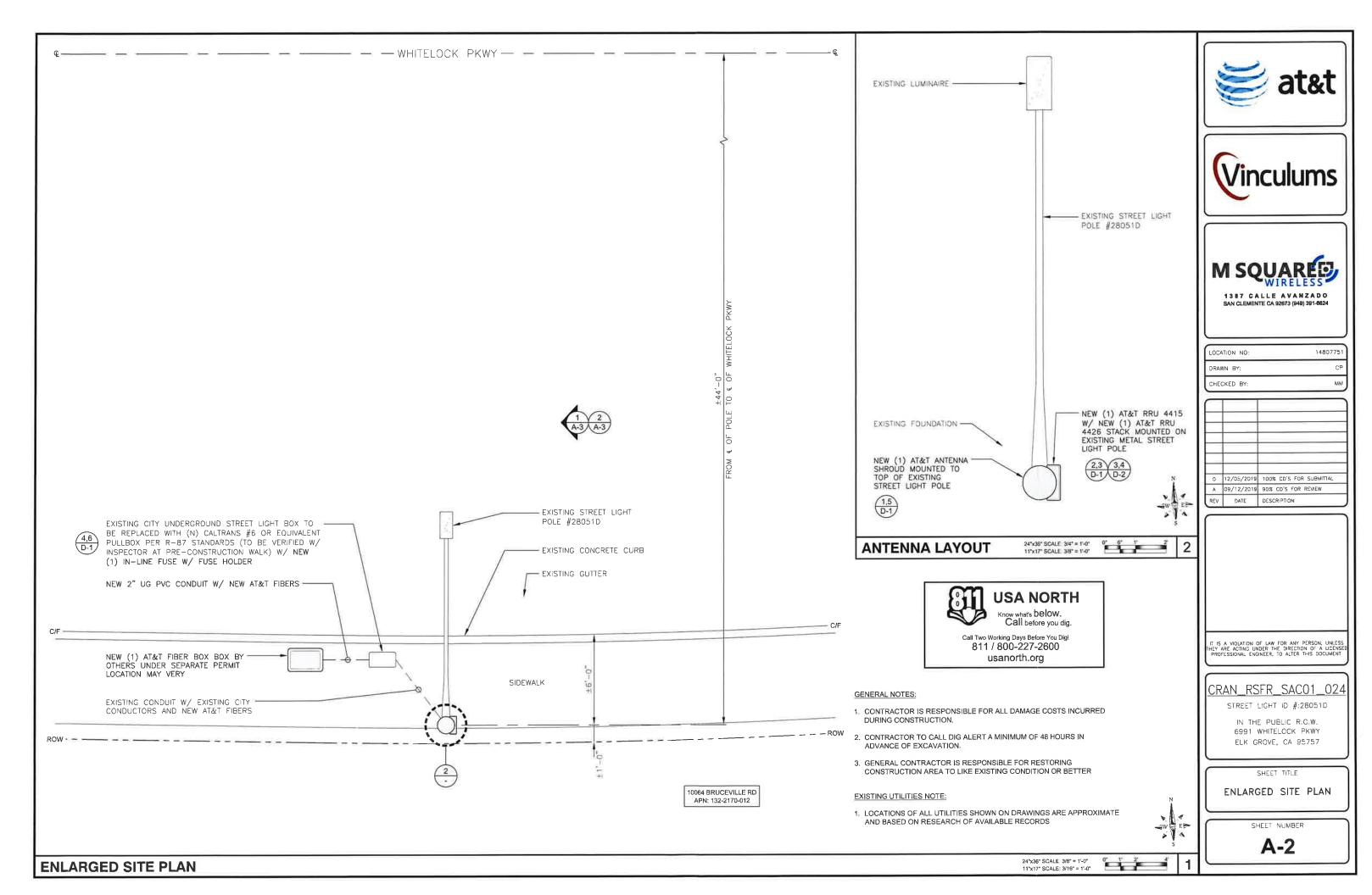
IN THE PUBLIC R.O.W. 6991 WHITELOCK PKWY ELK GROVE, CA 95757

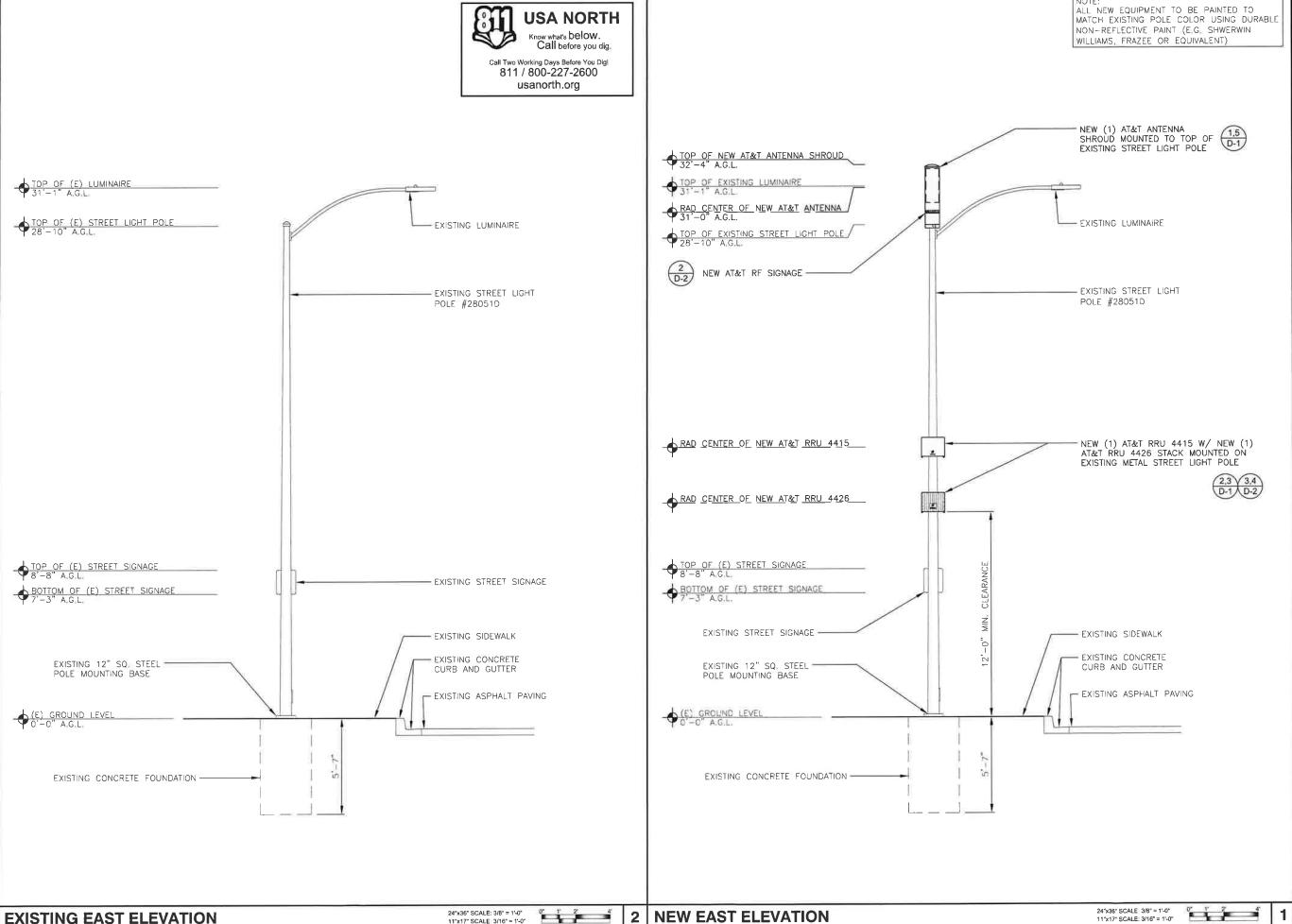
SHEET TITLE

SITE PLAN

SHEET NUMBER

A-1





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1480775

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CRAN_RSFR_SAC01_024

STREET LIGHT ID #128051D

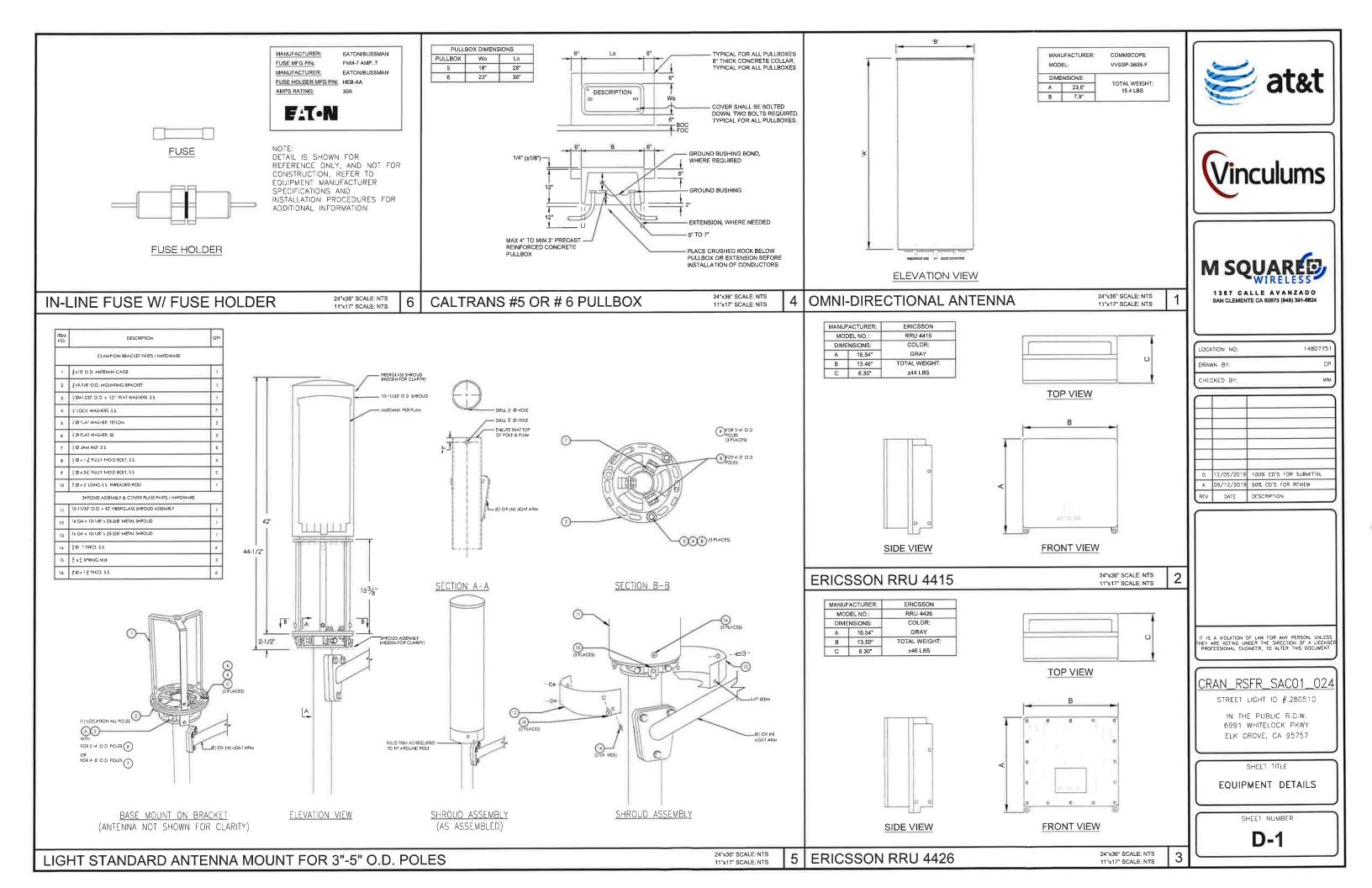
IN THE PUBLIC R.O.W. 6991 WHITELOCK PKWY ELK GROVE, CA 95757

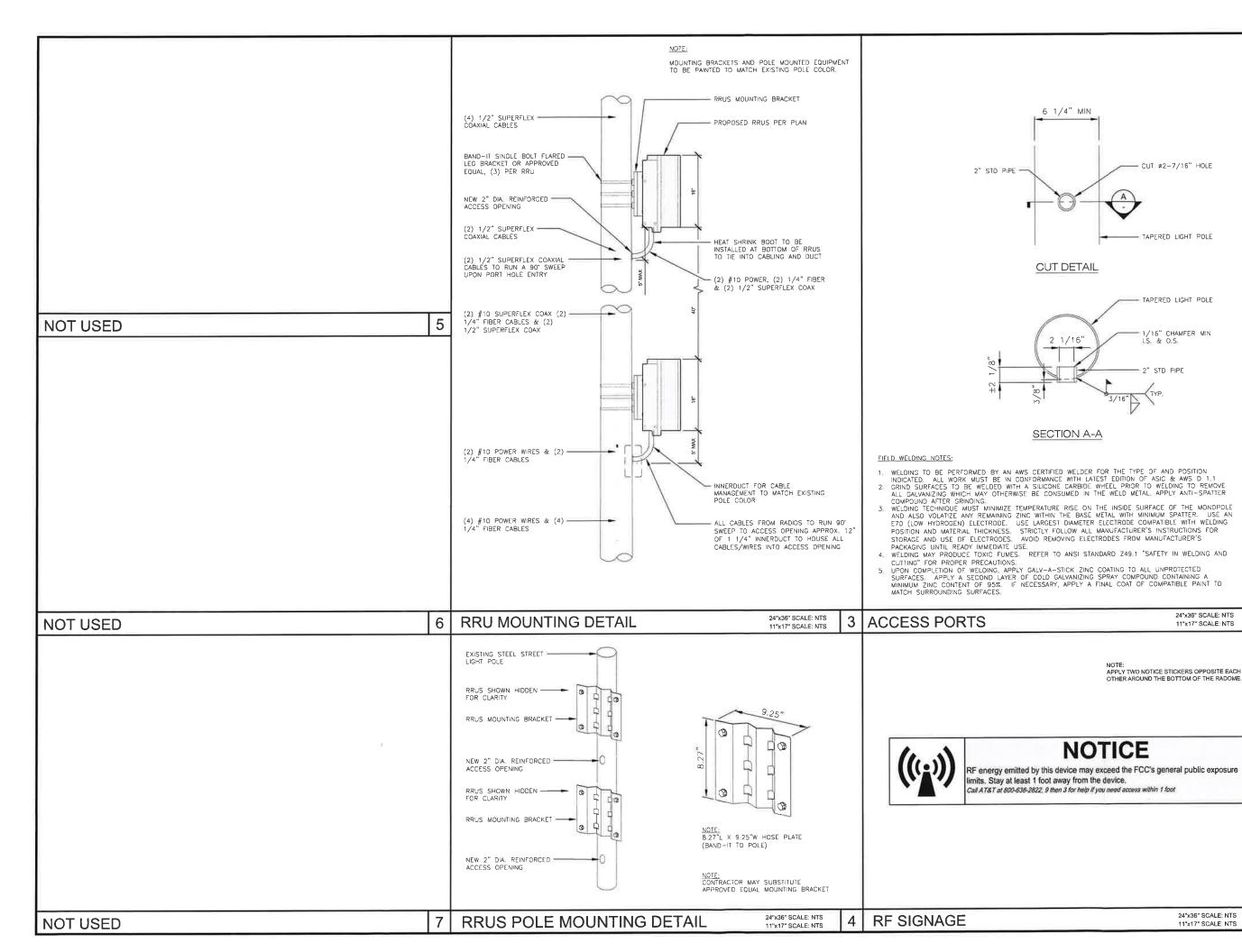
SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

A-3











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

CRAN RSFR SACO1 024

STREET LIGHT ID #:28051D

IN THE PUBLIC ROW 6991 WHITELOCK PKWY ELK GROVE, CA 95757

SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

D-2

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 LOCATION ND:
 14807751

 DRAWN BY:
 CP

 CHECKED BY:
 MM

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

CRAN_RSFR_SAC01_024

STREET LIGHT ID #:28051D

IN THE PUBLIC R.O.W. 6991 WHITELOCK PKWY ELK GROVE, CA 95757

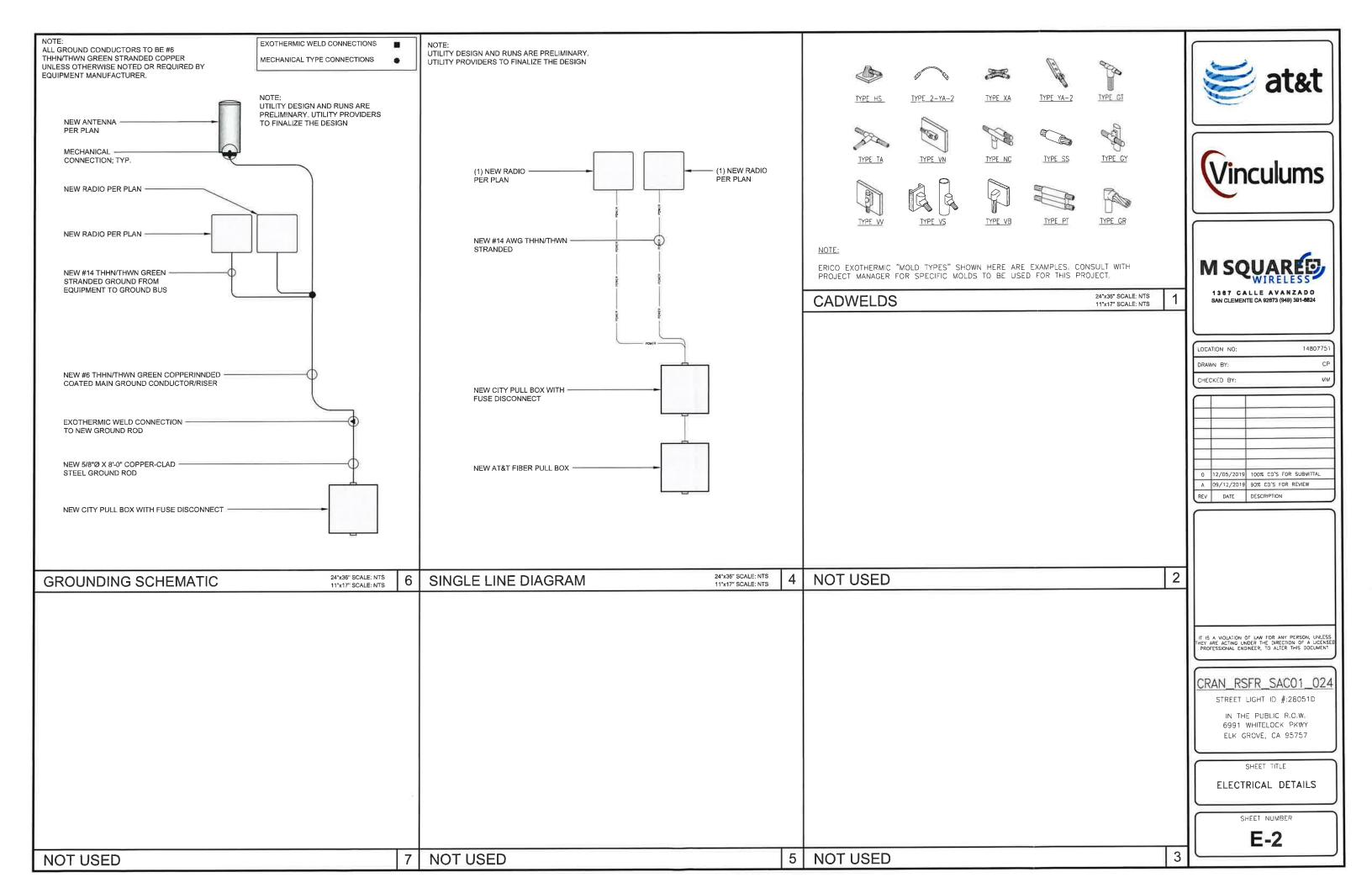
SHEET TITLE

BOLT-A-BAND DETAIL

SHEET NUMBER

D-3

Typical Streetlight Pico/Micro Site 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. Location of Wireless Meter when used Antenna inside Radome Shroud Street Light on PG&E LS-2 Rate PRIOR TO CABLE INSTALLATION, PROVE ALL CONDUITS FREE AND CLEAR BY MEANS OF A MANDREL OR OTHER METHOD ACCEPTABLE TO PORCE A PORCE-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 WHEN THE INTUSION OF WATER CAN REASONABLE 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 06228B, 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 082388 1387 CALLE AVANZADO 5 **NOT USED** SAN CLEMENTE CA 92673 (949) 391-6824 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. Customer Communication Equipment LOCATION NO: 14807751 UNDERGROUND CONDUIT SHOULD INCLUDE: CP DRAWN BY: 1. STREETLIGHT (2) #10 POWER AND 1 #10 ММ CHECKED BY Disconnect When Required _____ GROUND 2 NODE (2) #10 AND (1) #8 GROUND 3. (2) FIBER OPTIC JUMPERS (RE: A-2, FOR MAIN SERVICE PANEL RATING CONDUIT SIZE AND NUMBER AT&T WIRE PULL BOX LOCATION) 100 1'-3" 1-1/0 NA CONDUIT DIAMETER VERTICAL RADIUS 2-Wire 120 V 0 12/05/2019 100% CD'S FOR SUBMITTAL 36" N36 Box -Customer Owned Service A D9/12/2019 90% CD'S FOR REVIEW Customer Splice Box DATE DESCRIPTION Figure 1 – Customer Owned (Non-PG&E) Steel Streetlight Pole with Antenna and Communication Equipment 24"x36" SCALE: NTS 24"x36" SCALE: NTS 11"x17" SCALE: NTS **ELECTRICAL SERVICE NOTES** 3 STREETLIGHT POLE **NOT USED** IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HEY ARE ACTING UNDER THE DIRECTION OF A LICENSE! PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT CRAN_RSFR_SAC01_024 STREET LIGHT ID #:28051D IN THE PUBLIC R.O.W. 6991 WHITELOCK PKWY ELK GROVE, CA 95757 ELECTRICAL DETAILS SHEET NUMBER 4 NOT USED 7 NOT USED **NOT USED**



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.
- 32 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.
- 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 NWTA-1 THROUGH NWTA-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 THEAT 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 WONDER 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 (CR 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 35 MPH ON WHITELOCK PKWY

						Ta	Minimu iper Ler								
Posted Speed	Formula	Buffer Space											mum Spacing	Sign Spacing	LIDG
			L	½ L	1/3 L	L	½ L	1/3 L	L	½ L	1/3 L			\triangle	(Ft)
25		155'	104'	52'	35'	115'	57'	38'	125'	63'	42'	25'	13'	100' To 200'	94'
30	1 14/02	200'	150'	75'	50'	165'	83'	55'	180'	90'	60'	30'	15'	120' To 250'	113'
35	$L = WS^2$	250'	204'	102	68'	225'	112'	75'	245'	123'	82"	35'	18'	140' To 280'	131'
40	60	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		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	L = WS	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'







LOCA	ATION NO:	1480775
DRAV	WN BY:	CI
CHE	CKED BY:	М
_		
0	12/05/2019	100% CD'S FOR SUBMITTAL
Α	09/12/2019	90% CD'S FOR REVIEW
REV	DATE	DESCRIPTION

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

CRAN_RSFR_SAC01_024

STREET LIGHT ID #:28051D

IN THE PUBLIC R.O.W. 6991 WHITELOCK PKWY ELK GROVE, CA 95757

SHEET TITL

TRAFFIC CONTROL PLAN NOTES

SHEET NUMBER

TCP-1

NOTE:

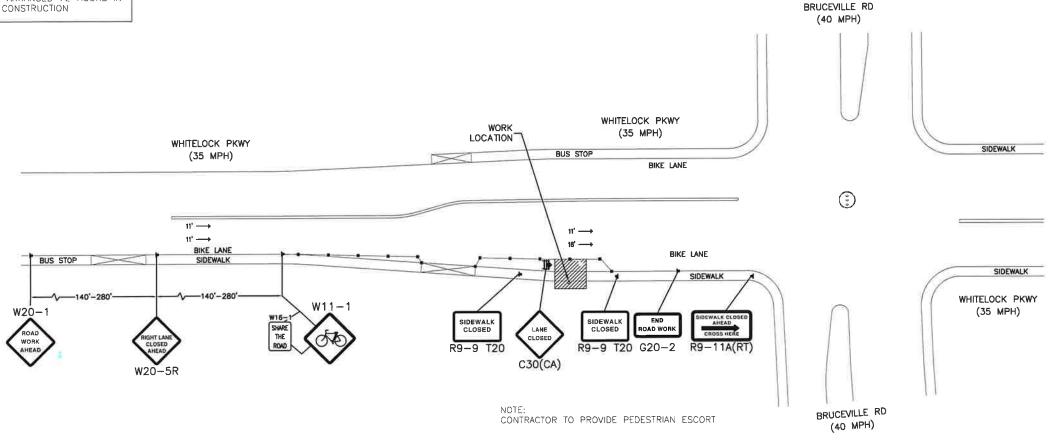
ALL TRAFFIC CONTROL SHALL COMPLY WITH ALL CITY OF ELK GROVE REQUIREMENTS, SEE ATTACHED MUTCD REFERENCE GUIDE FOR INFORMATION ON SIGN SPACING, LOCATION, OF CONSTRUCTION SIGNAGE, FLAGGERS, AND CHANNELING DEVICES.

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

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









LOCA	ATION NO:	14807751
DRAN	WN BY:	CP
CHE	CKED BY:	ММ
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0	12/05/2019	100% CD'S FOR SUBMITTAL
А	09/12/2019	90% CD'S FOR REVIÉW
REV	DATE	DESCRIPTION

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CRAN_RSFR_SAC01_024

STREET LIGHT ID # 28051D

IN THE PUBLIC R.O.W. 6991 WHITELOCK PKWY ELK GROVE, CA 95757

SHEET TITLE

TRAFFIC CONTROL PLAN

SHEET NUMBER

TCP-2



TRAFFIC CONTROL PLAN

FLASHING ARROW SIGN

CHANNELIZING DEVICE

W/ PROPOSED SIGN

TYPE I BARRICADE

TYPE I BARRICADE W/

HIGH LEVEL WARNING DEVICE

PROPOSED SIGN AND POST

TYPE III BARRICADE

SIGNALIZED INTERSECTION

TYPE III BARRICADE W/

CONSTRUCTION AREA

FLAGGER

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