

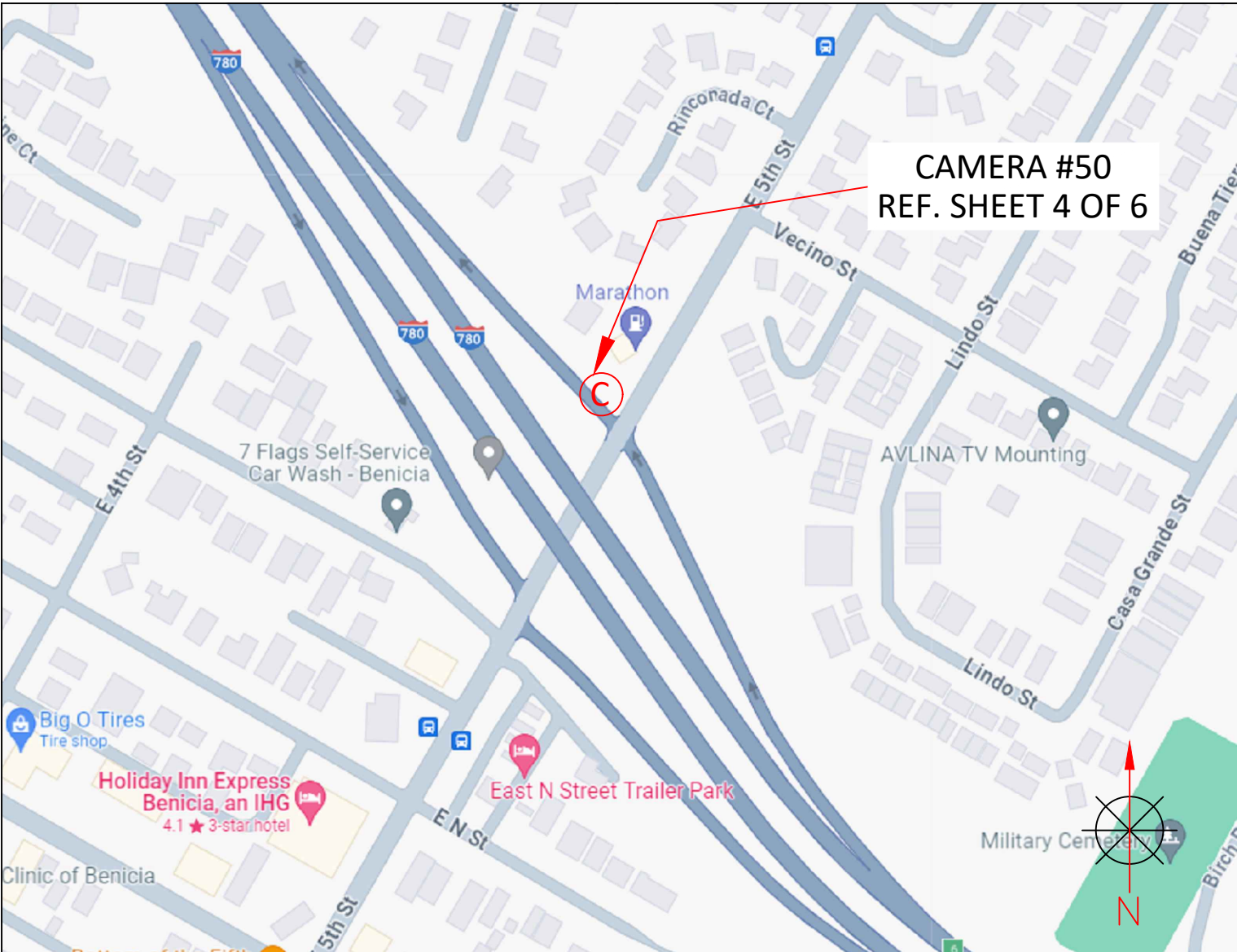
STATE OF CALIFORNIA
CALIFORNIA DEPARTMENT OF TRANSPORTATION
SUBMITTED BY BENICIA POLICE DEPARTMENT
AUTOMATIC LICENSE PLATE READING
(ALPR) CAMERA PERMIT



LOCATION / VICINITY MAP

INDEX OF DRAWING:

- SHEET 1 : COVER SHEET AND CAMERA LOCATION MAP
- SHEET 2 : GENERAL NOTES AND TRAFFIC DESIGN TABLES
- SHEET 3 : CAMERA LOCATION INFORMATION
- SHEET 4 : SITE PLAN
- SHEET 5 : TRAFFIC CONTROL PLAN
- SHEET 6 : HARDWARE DETAILS



	REV	DESCRIPTION	DATE	BY	TITLE: COVER SHEET AND CAMERA LOCATION MAP	PLANS PREPARED BY:  CHC A CONGRUEX COMPANY 9095 Rio San Diego Dr. Ste 165 San Diego, CA 92108-1694 (949) 250-0004 / FAX (949) 250-0006	PROJ#: 423899	
					SCOPE OF WORK: CALTRANS (DISTRICT-4) ALPR CAMERA INSTALLATION		DRAWN BY: ROHIT THAKUR	
							CHECKED BY: RAMAN DEEP SINGH	
							APPROVED BY: DEREK PORCELLA	
							DATE: 12/12/2023	SHEET: 1 OF 6

GENERAL NOTES AND TRAFFIC DESIGN TABLES



1. TRAFFIC CONTROL PLAN SHALL CONFORM TO THE MOST CURRENT CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND STATE STANDARD PLANS.
2. NO LANE CLOSURES PERMITTED BEFORE 9:00AM AND AFTER 3:00PM.
3. ALL AFFECTED RESIDENTS, BUSINESSES, AGENCIES, AND SCHOOLS SHALL BE GIVEN A 72 HOURS NOTICE PRIOR TO THE START OF WORK AND THEIR ACCESS SHALL BE MAINTAINED AT ALL TIMES.
4. TEMPORARY NO PARKING SIGNS SHALL BE POSTED 48 HOURS PRIOR TO START OF WORK.
5. ALL CONFLICTING SIGNS, STRIPING OR PAVEMENT MARKINGS SHALL BE COVERED OR REMOVED AND REPLACED WHEN WORK IS COMPLETED.
6. TRAFFIC DIRECTION THROUGH A SIGNALIZED INTERSECTION SHALL BE CONDUCTED BY THE CITY OF PEARLAND UNIFORMED POLICE OFFICER OR A COMMUNITY SERVICE OFFICER ONLY. SHOULD WORK REQUIRE A SIGNAL TO BE OVERRIDDEN, ARRANGEMENT SHALL BE MADE WITH THE CITY POLICE DEPT AND TRANSPORTATION ENGINEERING DEPT AT LEAST 14 DAYS PRIOR TO START OF WORK.

Table A - Recommended Advance Warning Sign Spacing

Posted Speed	Distance Between Signs **		
POSTED SPEED	A	B	C
Urban 25 mph or less***	100	100	100
Urban more than 25 mph to 40 mph***	250	250	250
Urban more than 40 mph***	350	350	350
Rural	500	500	500
Expressway/Freeway	1,000	1,500	2,640

Table B - Taper Length Criteria for Temporary Traffic Control Zones

Type of Taper	Taper Length (L)
Merging Taper	at least L
Shifting Taper	at least 0.5L
Shoulder Taper	at least 0.33L
One-Lane, Two-Way Traffic Taper	50 feet minimum, 100 feet maximum
Downstream taper	50 feet min., 100 feet max. per lane

Table C - Formulas for Determining Taper Lengths

Speed Limit	Taper Length (L) Feet
40 mph or less	L = WS ² /60
45 mph or more	L = WS

Where: L = taper length in feet
W = width of offset feet
S = posted speed limit, or off peak 85th- percentile speed prior to work starting. Or the anticipated operating speed in mph

Table D – Longitudinal Buffer Space or Flagger Station Spacing on Downgrades

Speed (mph)	% Downgrade (Buffer Space)			
	Level Road 0% (ft)	-3% (ft)	-6% (ft)	-9% (ft)
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

Table E – Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length ** For Width of Offset 12 ft (W)			
	Merging L (ft)	Shifting L/2 (ft)	Shoulder L/3 (ft)	Down Stream (ft) ***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50

Table F – Maximum Spacing of Channelizing Devices

Speed (mph)	Maximum Channelizer Spacing		
	Taper* (ft)	Tangent (ft)	Conflict** (ft)
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	55	110	27
60	60	120	30
65	65	130	32
70	70	140	35

CAMERA LOCATION INFORMATION

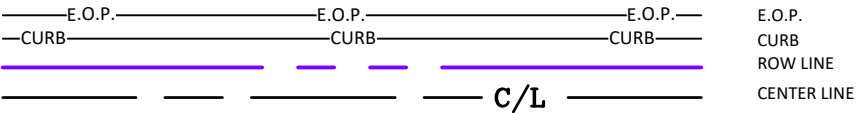
CAMERA NO.	LOCATION			
	STREET	DIRECTION	LATITUDE LONGITUDE	POLE
50	CA-780 (ON-RAMP)	WESTBOUND	38.053600611435364,-122.1451307638023	EXISTING LIGHT POLE



SITE ADDRESS:
1500 E 5TH ST, BENICIA, CA 94510

SITE PLAN

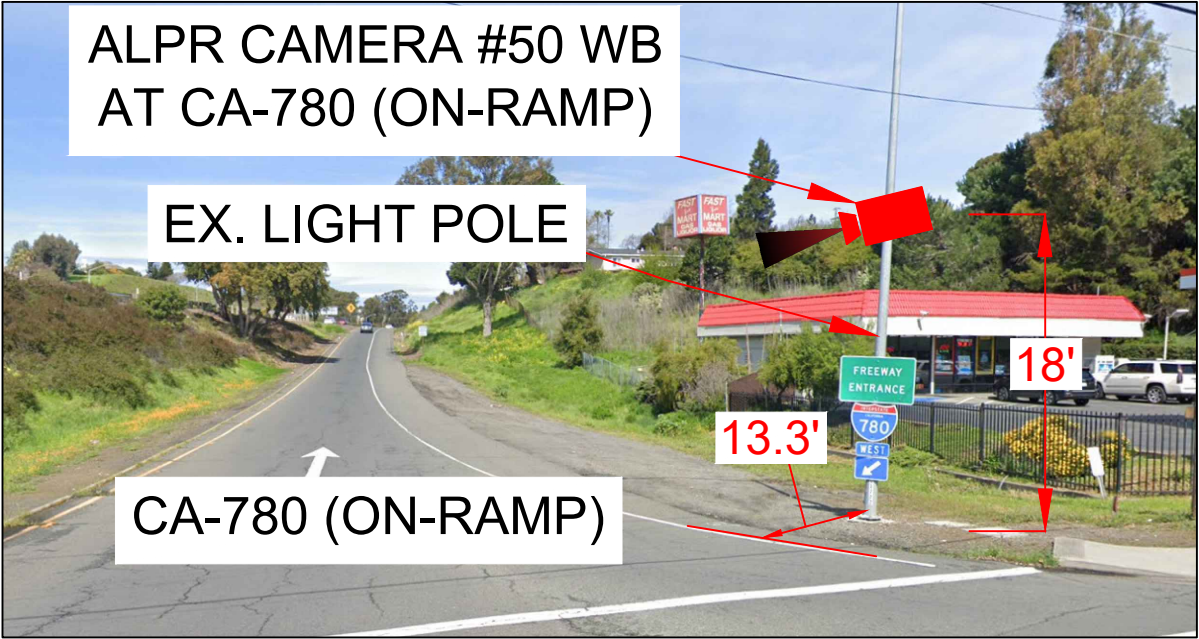
LINE LEGENDS



AERIAL VIEW



STREET VIEW



RTE_NM	:SH0006-LG
RTE_PRFX	:SH
RTE_NBR	:6
BEGIN_DFO	:491.33
END_DFO	:524.394

SYMBOLS	
	TRANSFORMER
	STREET LIGHT
	TRAFFIC SIGNAL COMBINATION
	EXISTING POLE
	EXISTING VAULT
	EXISTING PEDESTAL
	EXISTING IRRIGATION VAULT
	EXISTING UTILITY VAULT/PEDESTAL
	GAS/WATER VALVE
	TREE/BUSHES
	STREET SIGN
	FIRE HYDRANT
	MONUMENT
	CATCH BASIN
	STORM DRAIN MANHOLE
	WATER MANHOLE
	SANITARY SEWER MANHOLE
	SEWER CLEAN OUT
	ELECTRIC MANHOLE
	UNIDENTIFIED MANHOLE
	WATER METER
	GAS METER

flock safety

REV	DESCRIPTION	DATE	BY

TITLE:	SITE PLAN
SCOPE OF WORK:	CALTRANS (DISTRICT-4) ALPR CAMERA INSTALLATION

PLANS PREPARED BY:
CHC
A CONGRUEX COMPANY
9095 Rio San Diego Dr. Ste 165
San Diego, CA 92108-1694
(949) 250-0004 / FAX (949) 250-0006

PROJ#:	423899
DRAWN BY:	ROHIT THAKUR
CHECKED BY:	RAMAN DEEP SINGH
APPROVED BY:	DEREK PORCELLA
DATE:	12/12/2023
SHEET:	4 OF 6

1500 E 5TH ST.
(CA-780) (ON-RAMP) AND E 5TH ST.
-ALPR CAMERA #50 PL.
WORK AREA 1 OF 1
POSTMILE : SOL 1.608

CALTRANS TCP DRAWING

- LEGEND
- ☆ UNIFORMED POLICE OFFICER
 - ☼ PORTABLE FLASHING BEACON (P.F.B.)
 - ⚡ TYPE III BARRICADE W/SIGN
 - ⚡ TYPE II BARRICADE W/SIGN
 - CHANNELIZING DEVICE
 - TRAFFIC CONE WITH CLIP ON SIGN
 - TYPE I W/ SIGN
 - EXISTING SIGN
 - ⊙ SIGNALIZED INTERSECTION
 - ⚡ FLASHING ARROW BOARD
 - ⚡ HIGH LEVEL WARNING DEVICE (FLAGTREE)
 - ⚡ FLAGGER
 - TANSAT TOW AWAY NO STOPPING ANY TIME
 - ⊞ EXISTING DRIVEWAY
 - ▨ WORK ZONE (ACTIVITY AREA) LIMITS
 - ➡ DIRECTION OF TRAFFIC (NOT PAVEMENT MARKING)



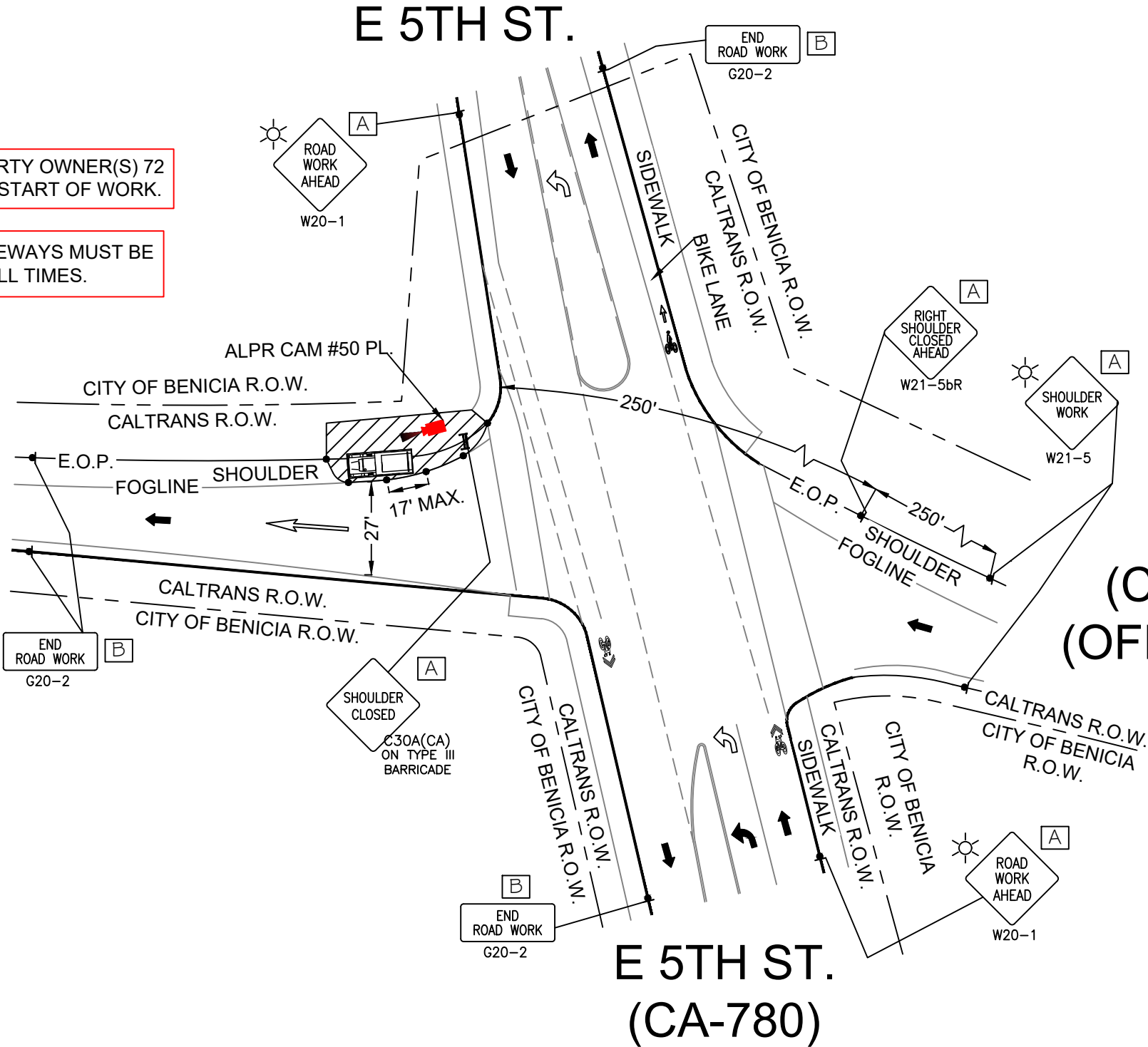
CONTACT PROPERTY OWNER(S) 72 HOURS PRIOR TO START OF WORK.

ACCESS TO DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.

(CA-780)
(ON-RAMP)



(CA-780)
(OFF-RAMP)



SCALE: 1" = 40'

POSTMILE

Map Satellite

Postmile

Point Line Components

County

SOL-Solano

Route

78C

Postmile

1.608

Go Start Over

Geo-Coordinates

Latitude: 38° 3' 12.6" N

Longitude: 122° 8' 42.4" W

Go Deg/Min/Sec/Card

Route 780

Postmile: SOL 1.608

Statewide Odometer: 1.12

flock safety

REV	DESCRIPTION	DATE	BY

TITLE:	TRAFFIC CONTROL PLAN
SCOPE OF WORK:	CALTRANS (DISTRICT-4) ALPR CAMERA INSTALLATION

PLANS PREPARED BY:

CHC
A CONGRUEX COMPANY
9095 Rio San Diego Dr. Ste 165
San Diego, CA 92108-1694
(949) 250-0004 / FAX (949) 250-0006

PROJ#: 423899

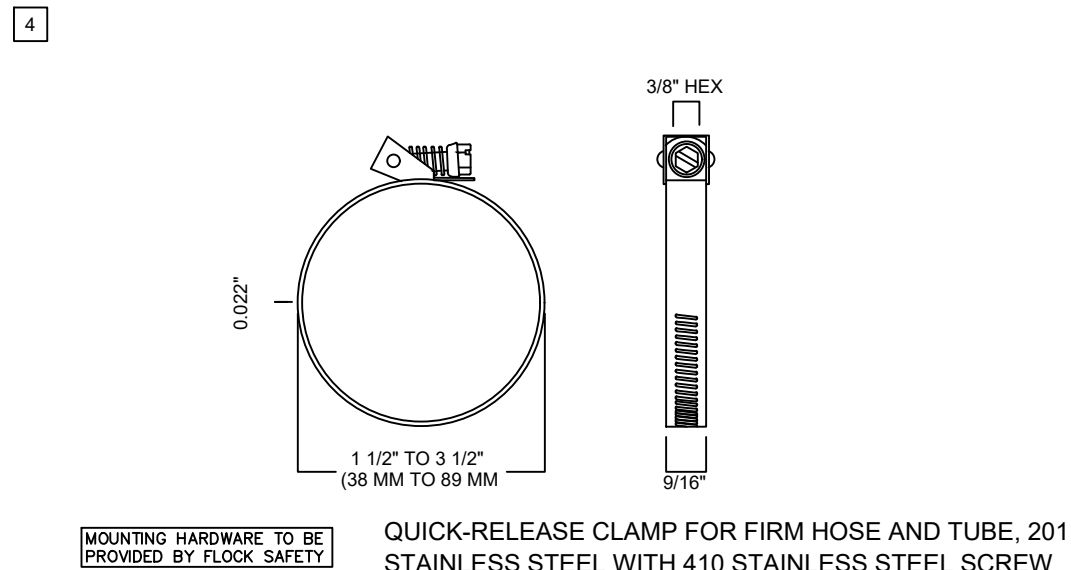
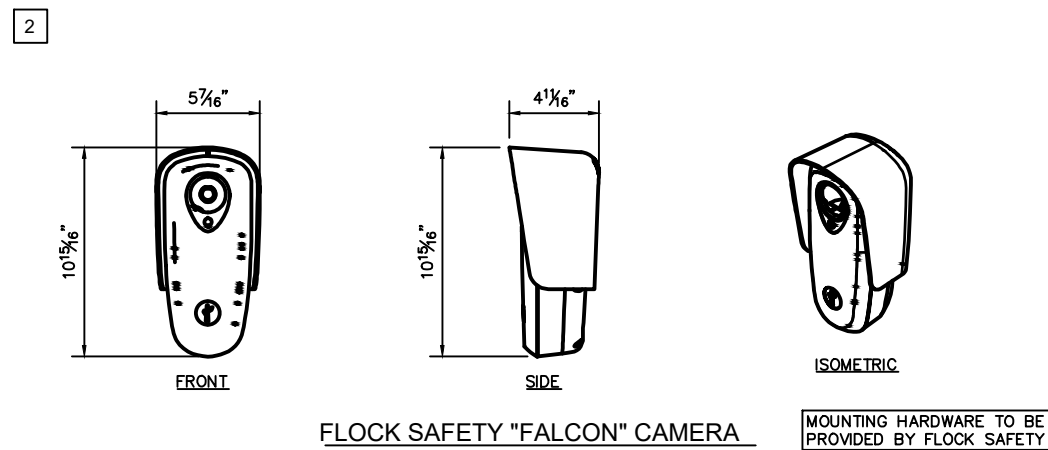
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CHECKED BY: RAMAN DEEP SINGH

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DATE: 12/12/2023

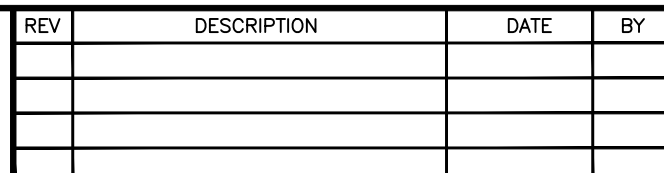
SHEET: 5 OF 6



5	BOM TABLE				
BOM Table					
ITEM NO.	P/N	LIBRARY NAME	DESCRIPTION	QTY.	MASS (GRAMS)
1	-	solar panel rev00.00.01		2	2267.96
2	204-00011	204-00011 REV A SOLAR PANEL SIDE MOUNT TILT ARM	TILT ARM	1	1185.26
3	-	fixed bracket rev00.00	FIXED BRACKET	1	244.92
4	-	96439A730_18-8 SS PRESS-FIT NUT FOR SHEET METAL	M6 THREADED INSERT PRESS FIT	4	3.91
5	-	M6 HEX SCREW	M6 HEXAGONAL SCREW	4	5.47
6		battery mount rev00.01.01	BATTERY MOUNT	2	305.67
7		WH-08C_WH-08C-02	EXTERNAL BATTERY CASE	2	3628.74
8		SCREWS-005_SCREWS-005		8	1.76

SHEET: SPEC.02	REV: 0
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THIS DOCUMENT HAS BEEN DRAWN BASED OFF THE MOST RECENT AVAILABLE DATA & AERIAL IMAGERY. THIS INCLUDES RIGHT OF WAY, EXISTING UTILITIES, & PRIVATE PROPERTY LINES. IT REMAINS THE RESPONSIBILITY OF OTHERS TO VERIFY ALL DATA PRIOR AND EXISTING SURROUNDING FACILITIES TO VERIFY & CONFLICTS ABOVE & BELOW GRADE. ALL CONSTRUCTION TO FOLLOW CITY OF MONT BELVIEU GENERAL GUIDELINES. DO NOT SCALE DRAWINGS. CALL 811 PRIOR TO DIGGING.



TITLE:	HARDWARE DETAILS
SCOPE OF WORK:	CALTRANS (DISTRICT-4) ALPR CAMERA INSTALLATION

PLANS PREPARED BY:



PROJ#:	423899
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DRAWN BY: ROHIT THAKUR

CHECKED BY: RAMAN DEEP SINGH

APPROVED BY: DEREK PORCELLA

DATE: 12/12/2023 SHEET: 6 OF 6