

# **INFORMATION HANDOUT**

**For Contract No. 07-207604**

**At 07-LA-101-S0.0/17.2**

**Identified by**

**Project ID 0714000279**

## **MATERIALS INFORMATION**

Fiber Optic System As-Built Drawings

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	30	83

REGISTERED ELECTRICAL ENGINEER

3-13-95

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 ALLEN CHEN  
 No. E-14106  
 Exp. 06-30-97  
 ELECTRICAL  
 STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

PROJECT NOTES (FOR SHEETS E-2 THROUGH E-9):

- TRENCH CONDUIT IN SOIL.
- TRENCH CONDUIT IN CONCRETE.
- TRENCH CONDUIT IN ASPHALT.
- ~~ATTACH CONDUIT TO STRUCTURE DELETED BY CCO #9~~
- JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
- INSTALL MODEL 170 CONTROLLER INTERFACE IN THE CONTROLLER CABINET, SEE SHEET E-24 FOR DETAILS.
- INSTALL AN ADDITIONAL MODEL 170 CONTROLLER INTERFACE IN THE CONTROLLER CABINET, SEE SHEET E-24 FOR DETAILS.

GENERAL NOTES:

- BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL FACILITIES, THE CONTRACTOR SHALL GIVE 72 HOURS ADVANCE NOTICE IN WRITING TO THE ENGINEER.
- SERVICE EQUIPMENT ENCLOSURE SHALL BE LOCATED 10' MINIMUM FROM THE POWER POLE OR VAULT.
- ELECTRICAL SERVICE INSTALLATION SHALL MEET THE UTILITY COMPANY REQUIREMENTS SERVING IN THE LOCAL JURISDICTION.
- TRENCH FOR CONDUIT INSTALLATION BETWEEN POWER POLE OR VAULT AND SERVICE ENCLOSURE SHALL BE LEFT OPEN FOR INSPECTION AND APPROVAL BY CONCERNED UTILITY COMPANY INSPECTOR BEFORE BACKFILL.
- STENCIL CAMERA IDENTIFICATION NUMBER ON POLE IN 3" CHARACTERS 10 FEET ABOVE BASE. SEE SHEET KI.

LEGEND:

- CCTV ASSEMBLY CAMERA AND POLE
- EXISTING CCTV ASSEMBLY CAMERA AND POLE
- NEW CCTV 334-TV CABINET
- EXISTING 334 CABINET
- 334 CABINET
- SPLICE VAULT
- EXISTING SPLICE VAULT
- TELEPHONE BRIDGE
- EXISTING TELEPHONE BRIDGE
- DUPLEX RECEPTACLE
- CIRCUIT BREAKER
- SURGE PROTECTOR
- THERMOSTATIC CONTROL
- RELAY CONTACT NC
- FAN
- INDICATOR LAMP
- RELAY COIL - HIGH TEMPERATURE
- THERMO ADJUSTABLE CALIBRATED THERMOSTAT
- EQUIPMENT GROUND
- PP# xxx POWER POLE NUMBER
- HOxxx CCTV IDENTIFICATION NUMBER:  
(HO = HOLLYWOOD FREEWAY)  
(xxx = POST MILE DESIGNATOR TO ONE DECIMAL PLACE)
- x W x-WIRE CIRCUIT
- xP22 x-PAIR 22AWG CONDUCTORS

ABBREVIATIONS:

CCR	CAMERA CONTROL RECEIVER
CCTV	CLOSED CIRCUIT TELEVISION
CH	CHANNEL
COMM	COMMUNICATION
DACCS	DIGITAL CROSS CONNECTION SWITCH
DEMUX	DEMULTIPLEXER
DSI OTU	DSI OPTICAL TRANSMISSION UNIT
E/O	ELECTRICAL TO OPTICAL
FDF	FIBER DISTRIBUTION FRAME
F/O, FO	FIBER OPTIC
FXO	FOREIGN EXCHANGE OFFICE
JKFD	JACKFIELD
MM	MULTIMODE
MMFO	MULTIMODE FIBER OPTIC CABLE
MOD	MODEM
MUX	MULTIPLEXER
NC	NORMALLY CLOSE
O/E	OPTICAL TO ELECTRICAL
OHS	OVERHEAD SIGN
OW	ORDER WIRE
RMS	RAMP METERING STATION
RX	RECEIVER
SM	SINGLEMODE
SMFO	SINGLEMODE FIBER OPTIC CABLE
T	TERMINATE
TX	TRANSMITTER
VDX	VIDEO DEMULTIPLEXER
VID	VIDEO
VMX	VIDEO MULTIPLEXER
VR	VIDEO RECEIVER
VX	VIDEO TRANSMITTER
4WTO	4 WIRE TRANSMISSION ONLY
2WFXS	2 WIRE FOREIGN EXCHANGE SERVICE
4WE&M	4 WIRE ANALOG WITH E&M SIGNALING

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** IVHS DEVELOPMENT  
 PROJECT ENGINEER ALLEN CHEN  
 DATE REVISED BY PW 5/94 DATE REVISED AC 5/94  
 CALCULATED/DESIGNED BY PW 5/94 CHECKED BY AC 5/94

**AS-BUILT**

Contract No. 07- 1186C4

Resident Engineer: AMOS, H.

Completion Date: 08/21/1998

LEGEND AND NOTES

E-1

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

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 DGN FILE => /usr/tomd/P2/71186cu01.dgn

CU 07396

EA1186C1

LAST REVISION 00-00-00  
 TIME PLOTTED => 18-MAR-1995 14:49

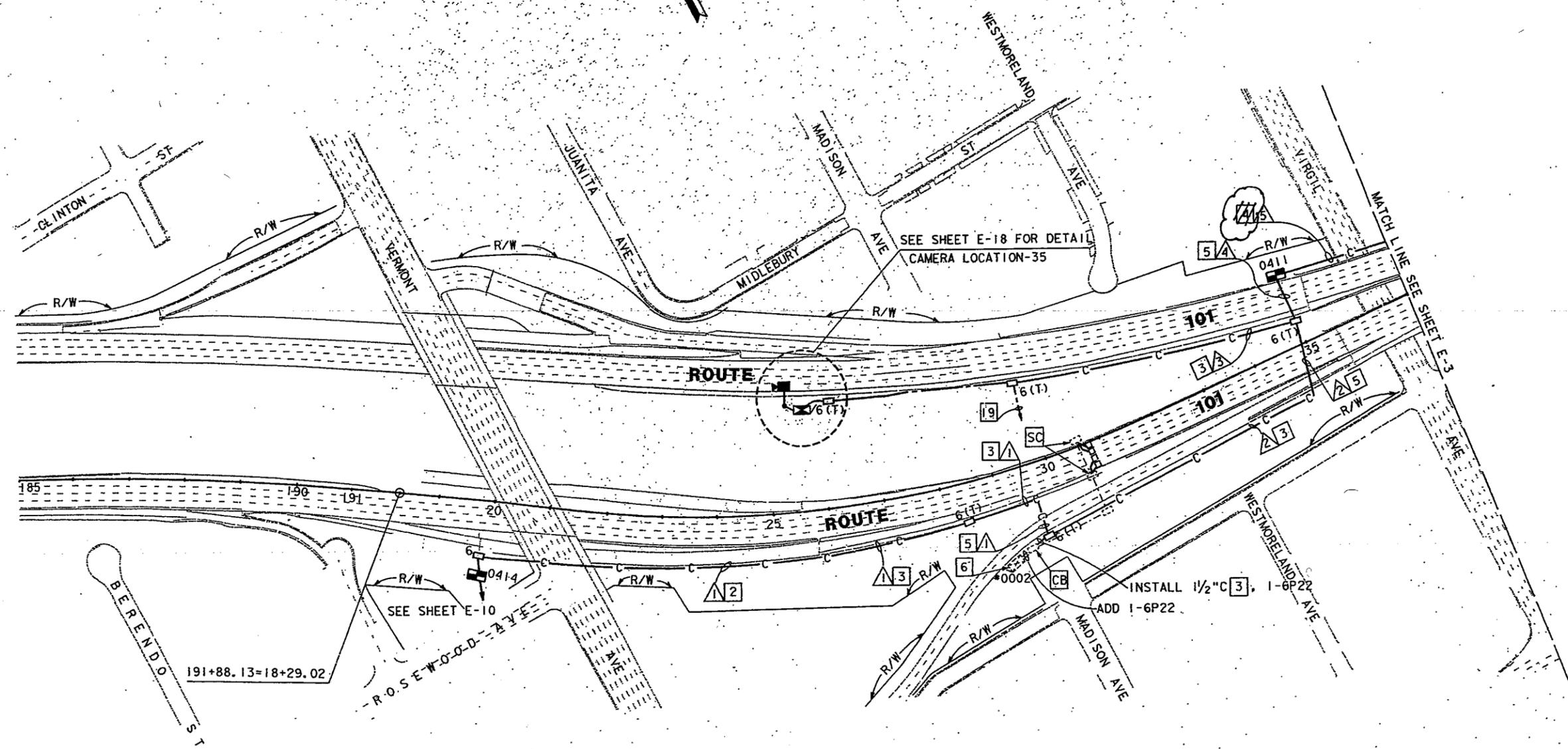
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	31	83

REGISTERED ELECTRICAL ENGINEER  
**ALLEN CHEN**  
 No. 14106  
 Exp. 6/30/97  
 ELECTRICAL  
 STATE OF CALIFORNIA

3-13-95  
 PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

- NOTES (THIS SHEET ONLY):
- FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
  - FOR EXISTING UTILITIES, SEE SHEET U-2.
- 19 FOR DETAIL AND CONTINUATION, SEE SHEET E-18.



DATE	REVISOR	DATE	REVISOR

CALCULATED/DESIGNED BY: AL  
 CHECKED BY: AC

PROJECT ENGINEER: ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** IVHS DEVELOPMENT

**CONDUCTOR SCHEDULE**

CONDUCTOR TYPE	CONDUCTOR RUN				
	▲	▲	▲	▲	▲
50P22 CABLE					1
6P22 CABLE				2	
2SMFO					
60SMFO	1				
12SMFO					
DLC					
INNERDUCT	1	1			
CONDUIT SIZE	4"	4"	2"	4"	4"

**AS-BUILT**  
 Contract No. 07-1186C4  
 Resident Engineer: AMOS, H.  
 Completion Date: 08/21/1998

**CCTV AND COMMUNICATIONS SYSTEM ROUTING**

SCALE: 1"=100'

**E-2**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	32	83

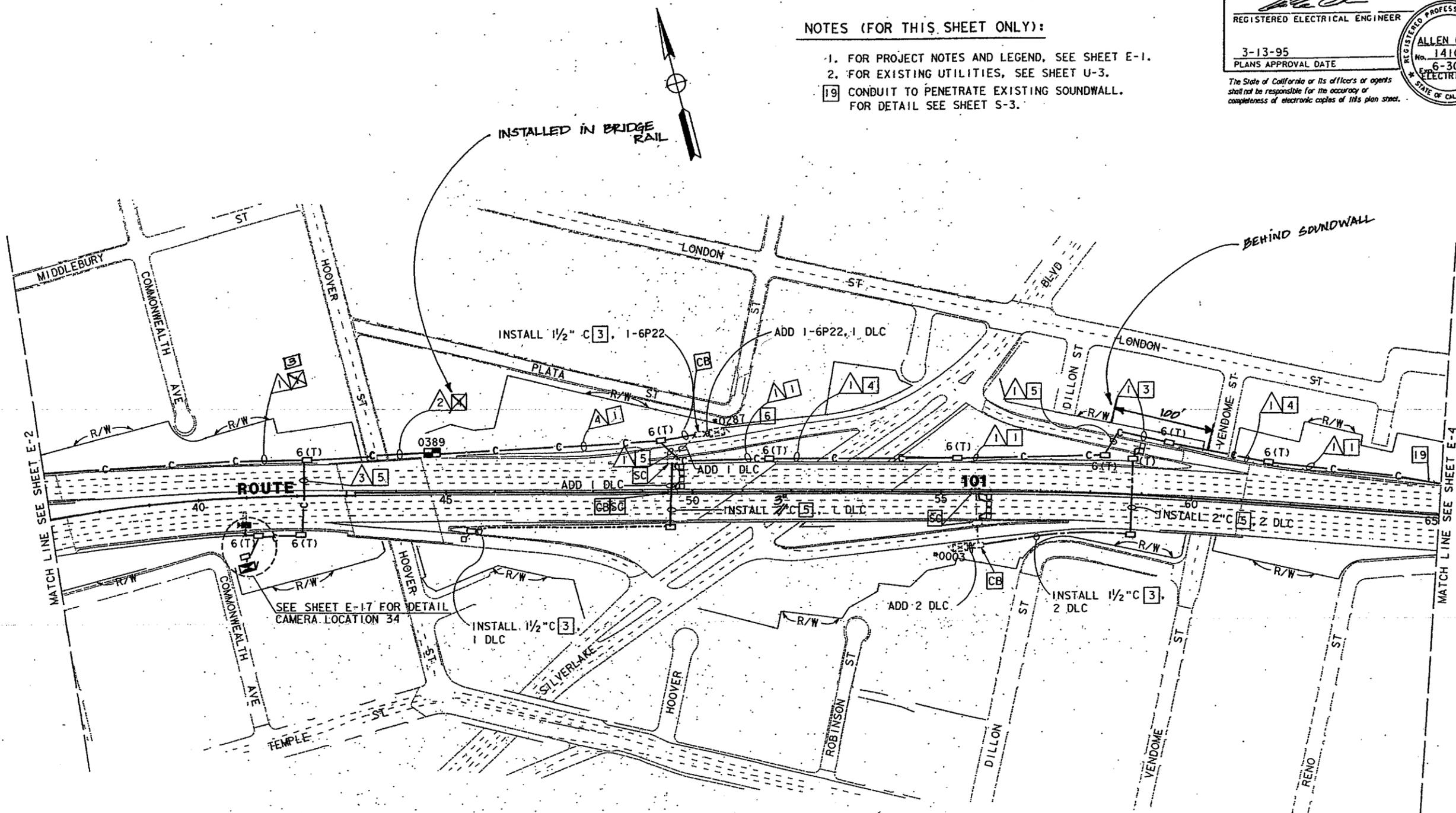
REGISTERED ELECTRICAL ENGINEER  
 3-13-95  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
**ALLEN CHEN**  
 No. 14106  
 6-30-97  
 ELECTRICAL  
 STATE OF CALIFORNIA

*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

**NOTES (FOR THIS SHEET ONLY):**

- FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
- FOR EXISTING UTILITIES, SEE SHEET U-3.
- CONDUIT TO PENETRATE EXISTING SOUNDWALL. FOR DETAIL SEE SHEET S-3.



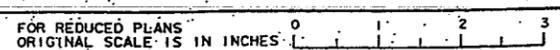
**CONDUCTOR SCHEDULE**

CONDUCTOR TYPE	CONDUCTOR RUN			
	1	2	3	4
50P22 CABLE				
6P22 CABLE				
2SMFO				
60SMFO				
12SMFO				
#4 POWER CABLE				
DLC				
INNERDUCT				
CONDUIT SIZE	4"	4"	2"	4"

**AS-BUILT**  
 Contract No. 07- 1186C4  
 Resident Engineer: AMOS, H.  
 Completion Date: 08/21/1998

**CCTV AND COMMUNICATIONS SYSTEM ROUTING**  
 SCALE: 1" = 100'

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY



USERNAME => COOK  
 DGN FILE => ZH3:L330004J71186CU03.DGN

CU 07396

EA 1186C1

PROJECT ENGINEER: ALLEN CHEN  
 DEPARTMENT OF TRANSPORTATION  
 IVHS DEVELOPMENT  
 STATE OF CALIFORNIA  
 5th Edition

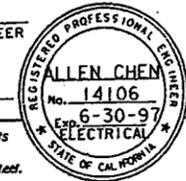
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5/94	AL	6/94	AC
DESIGNED BY	CHECKED BY	DESIGNED BY	CHECKED BY
AL	AC		

TIME PLOTTED > 18-MAR-1995 11:53  
 08-31-94



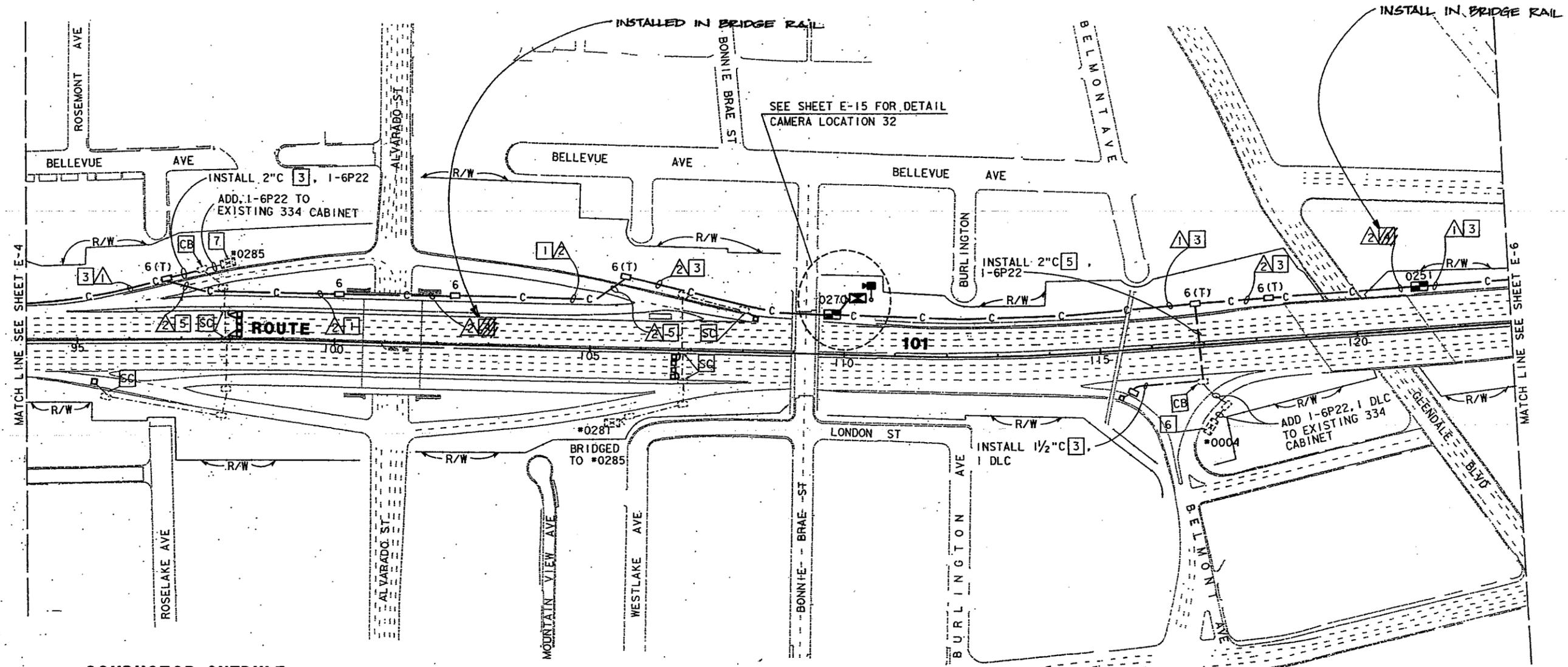
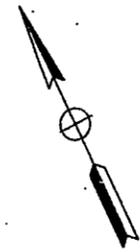
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	34	83

REGISTERED ELECTRICAL ENGINEER  
 3-13-95  
 PLANS APPROVAL DATE  
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**NOTES (FOR THIS SHEET ONLY):**

- FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
- FOR EXISTING UTILITIES, SEE SHEET U-5.



**CONDUCTOR SCHEDULE**

CONDUCTOR TYPE	CONDUCTOR RUN	
	△	▽
50P22 CABLE		
6P22 CABLE		
2SMFO		
60SMFO		
12SMFO		
DLC		
INNERDUCT		
CONDUIT SIZE	4"	3"

\* EXISTING TO BE REUSED

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL ONLY.

**AS-BUILT**  
 Contract No. 07- 1186C4  
 Resident Engineer: AMOS, H.  
 Completion Date: 08/21/1998

**CCTV AND COMMUNICATIONS SYSTEM ROUTING**

SCALE: 1" = 100'

E-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 PROJECT ENGINEER: ALLEN CHEN  
 CALCULATED BY: AL  
 CHECKED BY: AC  
 DATE: 5/94  
 DATE REVISED BY: B)  
 DATE REVISED: 6/94

08-31-94  
 TIME PLOTTED -> 18-MAR-1995 11:54

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	35	83

REGISTERED ELECTRICAL ENGINEER  
 3-13-95  
 PLANS APPROVAL DATE

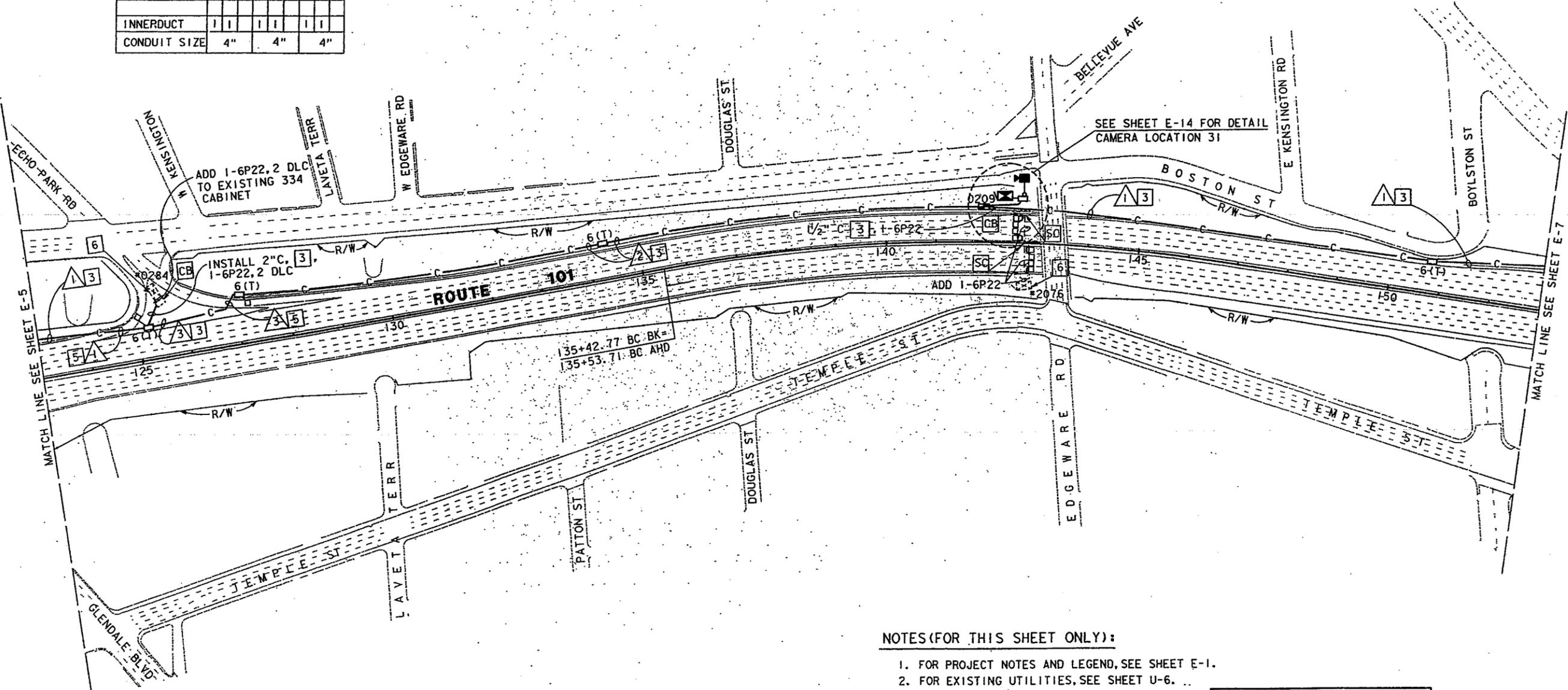
REGISTERED PROFESSIONAL ENGINEER  
 ALLEN CHEN  
 No. 14106  
 6/30/97  
 ELECTRICAL  
 STATE OF CALIFORNIA

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**CONDUCTOR SCHEDULE**

CONDUCTOR TYPE	CONDUCTOR RUN		
	△	△	△
50P22 CABLE		I	I
6P22 CABLE			I
2SMFO			I
60SMFO	I	I	I
12SMFO	I	I	I
DLC			I
INNERDUCT	I	I	I
CONDUIT SIZE	4"	4"	4"

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** IVHS DEVELOPMENT  
 PROJECT ENGINEER ALLEN CHEN  
 CHECKED BY AC  
 DATE 6/94  
 REVISIONS



**NOTES (FOR THIS SHEET ONLY):**

1. FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
2. FOR EXISTING UTILITIES, SEE SHEET U-6.

**AS-BUILT**  
 Contract No. 07- 1186C4  
 Resident Engineer: AMOS, H.  
 Completion Date: 08/21/1998

**CCTV AND COMMUNICATIONS SYSTEM ROUTING**

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL ONLY.

SCALE: 1"=100'

E-6

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES: 0 1 2 3

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 DGN FILE => /usr/mikes1/P4/7/186cu06.dg

CU 07396

EA 1186C1

TIME PLOTTED => 18-MAR-1995 12:08  
 LAST REVISION 08-31-94

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	36	83

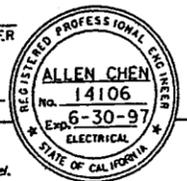
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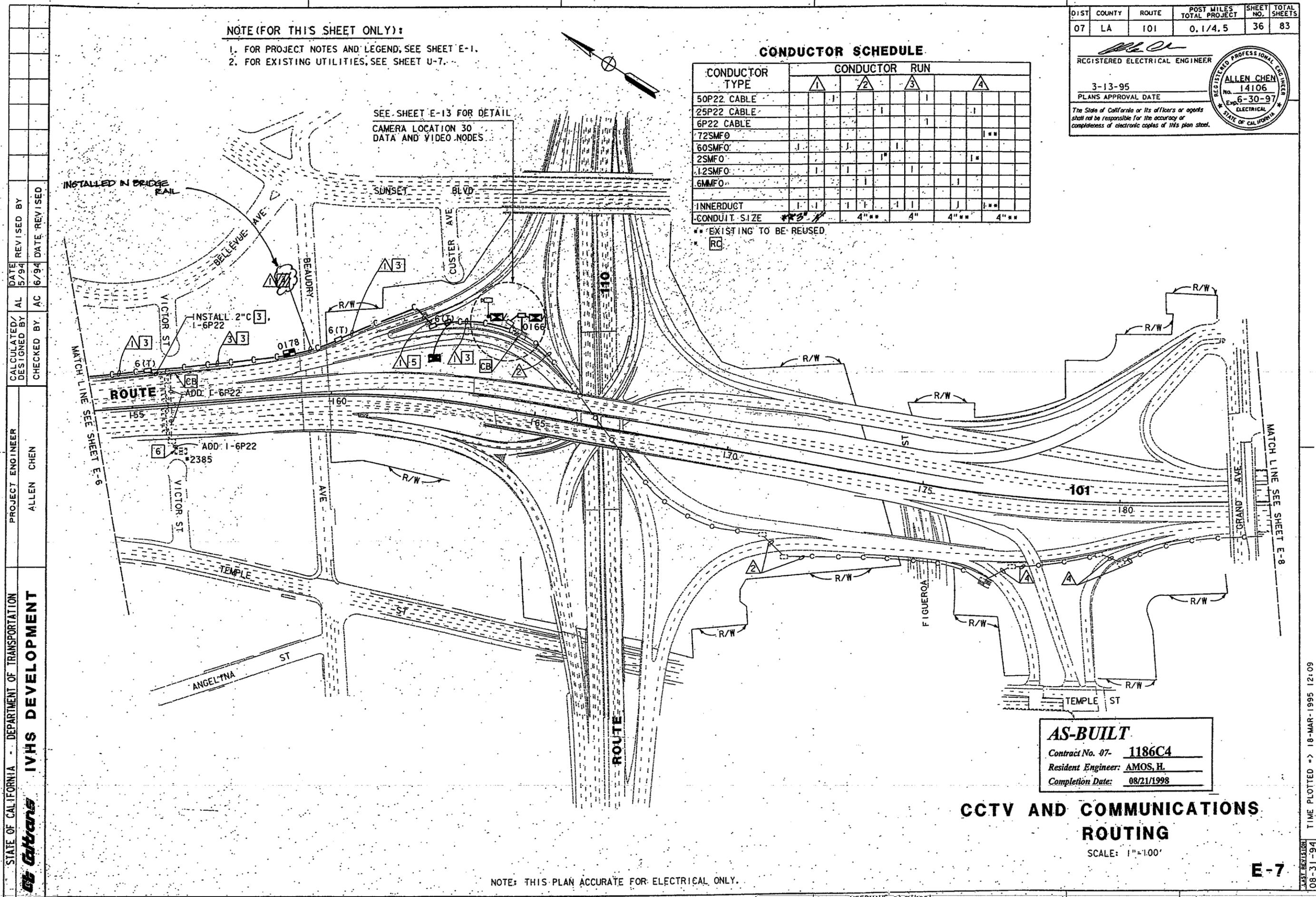
1. FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
2. FOR EXISTING UTILITIES, SEE SHEET U-7.

**CONDUCTOR SCHEDULE**

CONDUCTOR TYPE	CONDUCTOR RUN			
	1	2	3	4
50P22 CABLE				
25P22 CABLE				
6P22 CABLE				
72SMFO				
60SMFO				
2SMFO				
12SMFO				
6MMFO				
INNERDUCT				
CONDUIT SIZE	4"***	4"***	4"***	4"***

\*\*\* EXISTING TO BE REUSED  
\* RC

REGISTERED ELECTRICAL ENGINEER  
  
 3-13-95  
 PLANS APPROVAL DATE  
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SEE SHEET E-13 FOR DETAIL  
 CAMERA LOCATION 30  
 DATA AND VIDEO NODES

DATE REVISED BY  
 5/94  
 CALCULATED/AL  
 DESIGNED BY  
 6/94  
 CHECKED BY AC  
 DATE REVISED

PROJECT ENGINEER  
 ALLEN CHEN

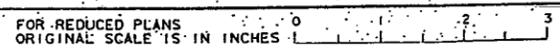
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** IVHS DEVELOPMENT

**AS-BUILT**  
 Contract No. 07- 1186C4  
 Resident Engineer: AMOS, H.  
 Completion Date: 08/21/1998

**CCTV AND COMMUNICATIONS ROUTING**

SCALE: 1"=100'

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL ONLY.



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 DGN FILE => /usr/mlkes1/P4/71186cu07.dg

CU 07396

EA 1186C1

LAST REVISION 08-31-94 TIME PLOTTED => 18-MAR-1995 12:09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.745	37	83

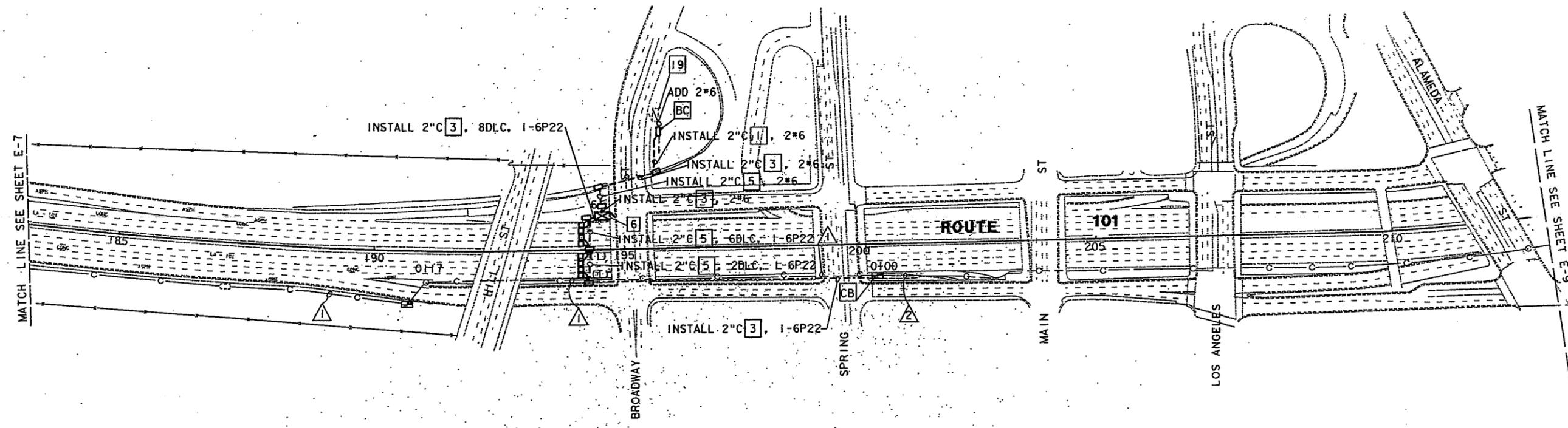
REGISTERED ELECTRICAL ENGINEER

3-13-95  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
ALLEN CHEN  
No. 14106  
Exp. 6-30-97  
ELECTRICAL  
STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**IVHS DEVELOPMENT**  
PROJECT ENGINEER: ALLEN CHEN  
CALCULATED/DESIGNED BY: AL  
CHECKED BY: AC  
DATE: 5/94  
REVISOR: AC  
DATE: 6/94



**CONDUCTOR SCHEDULE**

CONDUCTOR TYPE	CONDUCTOR RUN	
	▲	▲
50P22 CABLE		
25P22 CABLE	1	1**
6P22 CABLE		
72SMFO	1**	1**
60SMFO		
6MMFO	1	1**
2SMFO	1*	
INNERDUCT	1	1**
CONDUIT SIZE	4**	4**

\*\* - EXISTING TO BE REUSED.  
\* - RC

**NOTES (FOR THIS SHEET ONLY):**

- FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
  - FOR EXISTING UTILITIES, SEE SHEET U-8.
- [19] ADD A 120V-1P-30 AMP CIRCUIT BREAKER TO EXISTING IRRIGATION SERVICE (#433640) FOR COUNT STATION.

**AS-BUILT**  
Contract No. 07- 1186C4  
Resident Engineer: AMOS, H.  
Completion Date: 08/21/1998

**CCTV AND COMMUNICATION SYSTEM ROUTING AND COUNT STATION**

SCALE: 1" = 100'

**E-8**

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES: 0 1 2 3

USERNAME => trjimt  
DGN FILE => /usr/trjimt/P2/71186cu08.dg

CU 07396

EA 1186C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	38	83

**CONDUCTOR SCHEDULE**

CONDUCTOR TYPE	CONDUCTOR RUN			
	1	2	3	4
25P22 CABLE			1**	
6P22 CABLE				
72SMFO	1**		1**	
6MMFO		1**		
INNERDUCT	1**	1**	1**	1**
CONDUIT SIZE	4***		4***	

\*\* - EXISTING TO BE REUSED

**NOTES ( FOR THIS SHEET ONLY ):**

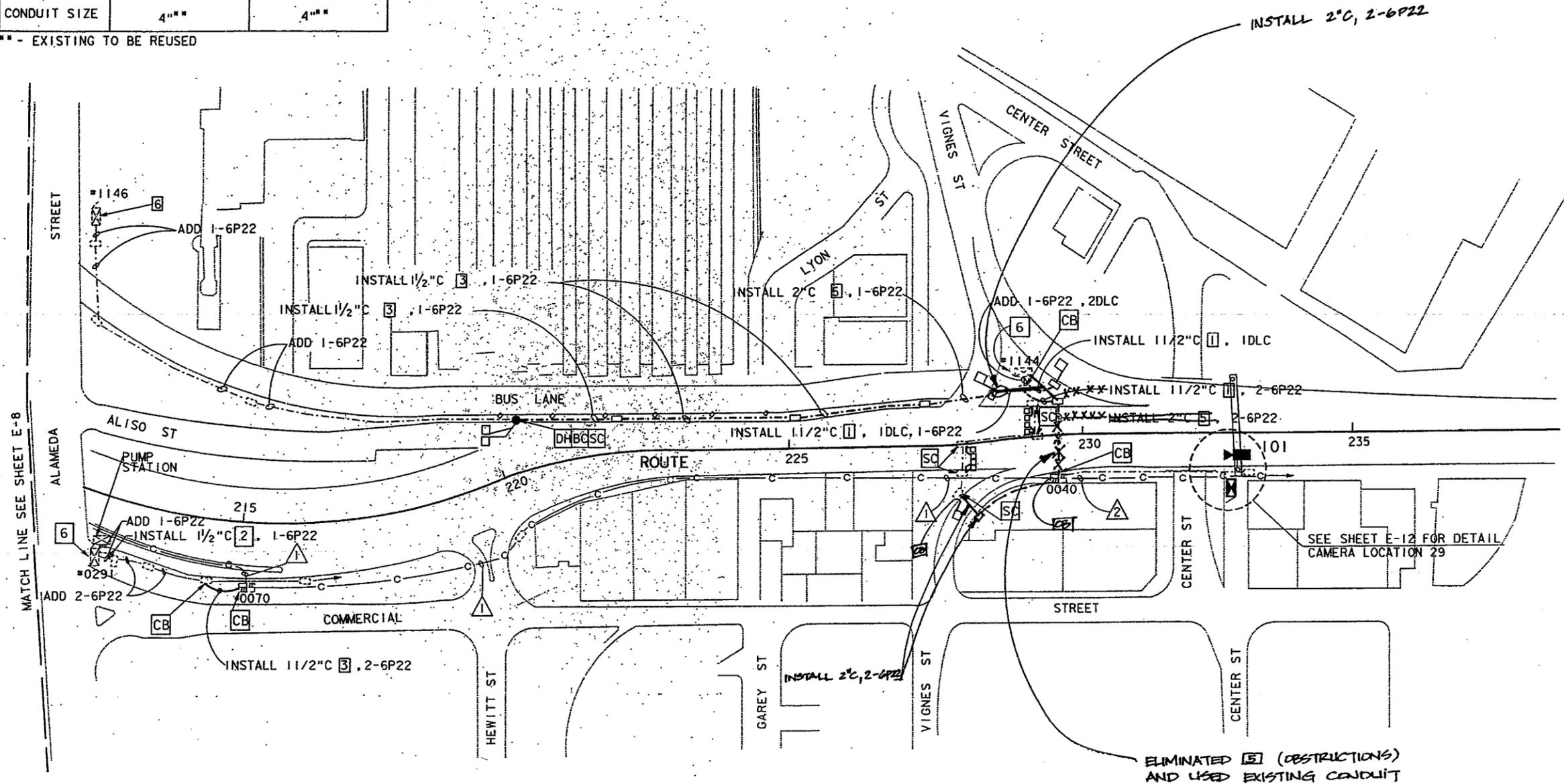
1. FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
2. FOR EXISTING UTILITIES, SEE SHEET U-8.

REGISTERED ELECTRICAL ENGINEER  
**ALLEN CHEN**  
 No. 14106  
 Exp. 6-30-97  
 ELECTRICAL  
 STATE OF CALIFORNIA

3-13-95  
 PLANS APPROVAL DATE

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** IVHS DEVELOPMENT  
 PROJECT ENGINEER: ALLEN CHEN  
 DATE REVISOR: AL 8/94  
 CHECKED BY: AC 8/94  
 DATE REVISOR: AL 8/94

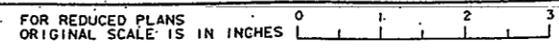


**AS-BUILT**  
 Contract No. 07- 1186C4  
 Resident Engineer: AMOS, H.  
 Completion Date: 08/21/1998

**CCTV AND COMMUNICATIONS SYSTEM ROUTING**

**E-9**

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL ONLY



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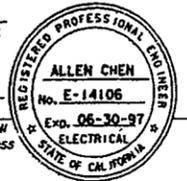
CU 07396

EA 1186C1

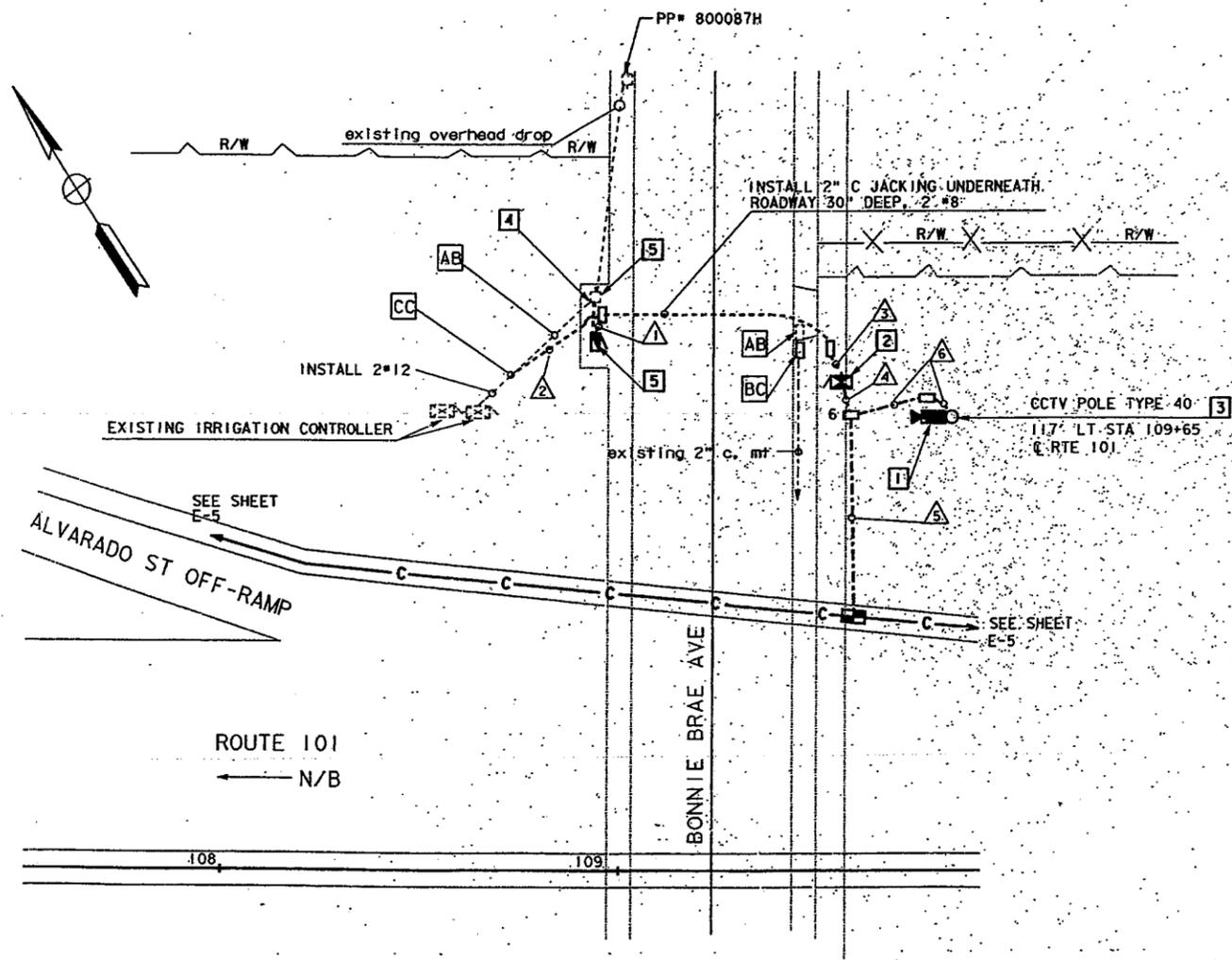
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	44	83

REGISTERED ELECTRICAL ENGINEER  
 3-13-95  
 PLANS APPROVAL DATE  
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STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
**Caltrans** IVHS DEVELOPMENT  
 PROJECT ENGINEER ALLEN CHEN  
 CALCULATED/DESIGNED BY PW 5/94  
 CHECKED BY AC 5/94  
 DATE REVISED BY  
 DATE REVISED



### CONDUCTOR AND CONDUIT SCHEDULE

	1	2	3	4	5	6
CAMERA VIDEO INTERFACE CABLE				1		1
PAN/TILT CONTROL CABLE				1		1
LENS CONTROL CABLE				1		1
CAMERA POWER CABLE				1		1
CAMERA GROUND CABLE				1		1
2 SINGLEMODE FIBER OPTIC CABLE				1	1	
6P22 COMMUNICATION DIST. CABLE				1	1	
#12 POWER CABLE	2	2				
#8 POWER CABLE	2		2			
CONDUIT SIZE	2"	2"	2"	2-3"	2"	2-2"

#### NOTES (THIS SHEET ONLY):

- 1] INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT. SET PAN STOPS FOR 350 °
- 2] INSTALL STATE-FURNISHED CCTV 334 CABINET. SEE CABINET DETAIL PLAN SHEET E-27.
- 3] INSTALL TYPE 40 CCTV POLE. FOR INSTALLATION AND MOUNTING DETAILS, SEE POLE MOUNT DETAIL PLAN SHEET E-28.
- 4] INSTALL TYPE 'H' RISER AND 3" CONDUIT. CONDUCTORS BY OTHERS.
- 5] RC EXISTING 120/240V POLE-MOUNTED SERVICE FOR IRRIGATION. INSTALL A 120/240V, 3 WIRE, SINGLE PHASE, 100 AMP TYPE 111-BF SERVICE EQUIPMENT ENCLOSURE WITH 100 AMP MAIN BREAKER, A METERED 120-1P-30 AMP CIRCUIT BREAKER FOR 334 CCTV CABINET, A 120-1P-20 AMP CIRCUIT BREAKER FOR IRRIGATION.

**AS-BUILT**  
 Contract No. 07- 1186C4  
 Resident Engineer: AMOS, H.  
 Completion Date: 08/21/1998

**CCTV CAMERA  
 (LOCATION HO 027)**  
 SCALE: 1" = 20'  
**E-15**

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY



USERNAME => mikes1  
 DGN FILE => /usr/mikes1/P4/71186cu15.da

CU07396

EA1186C1

LAST REVISION: 00-00-00 TIME PLOTTED: 20-MAR-1995 06:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	45	83

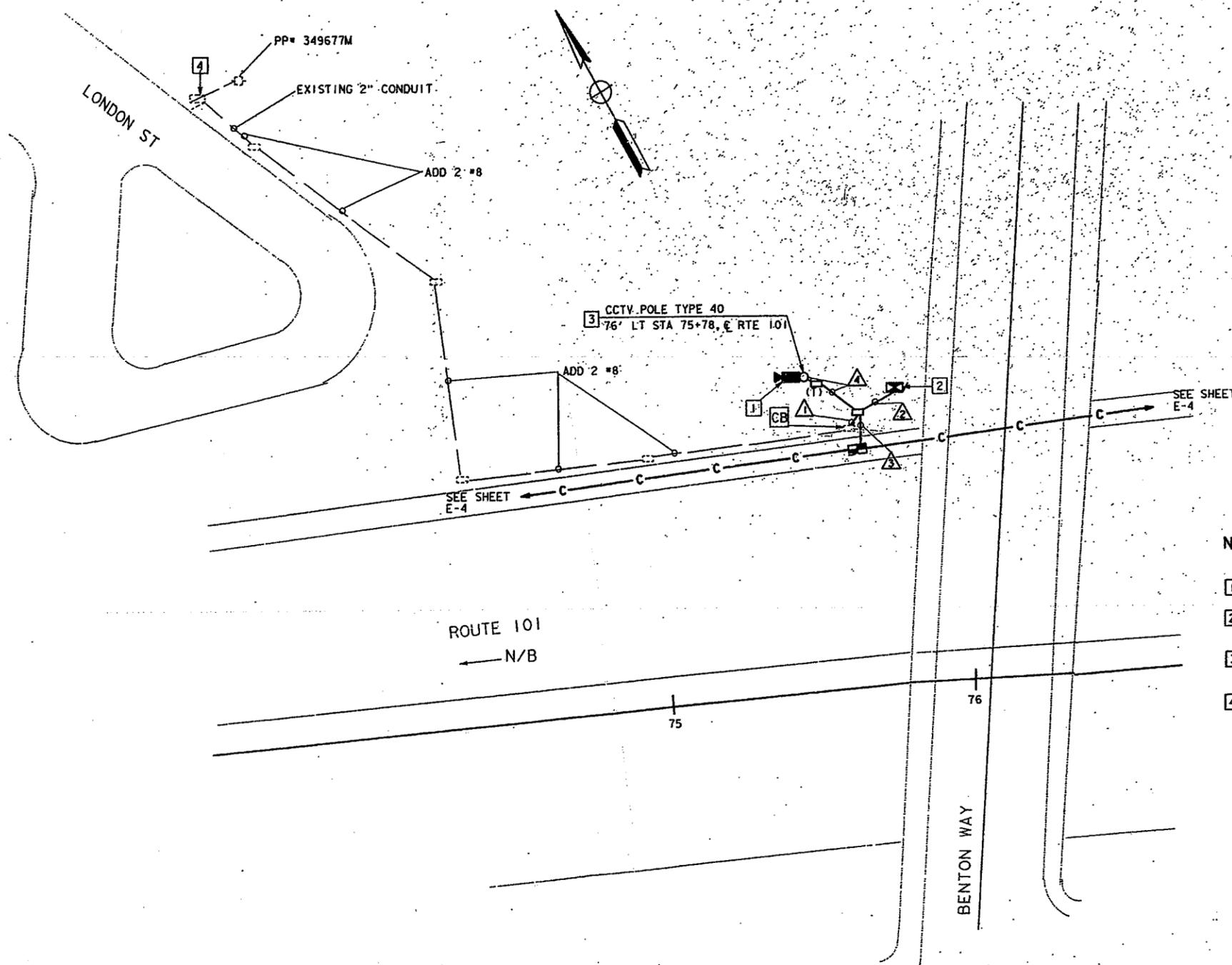
REGISTERED ELECTRICAL ENGINEER

3-13-95  
PLANS APPROVAL DATE

ALLEN CHEN  
No. E-14106  
Exp. 06-30-97  
ELECTRICAL  
STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** IVHS DEVELOPMENT  
 PROJECT ENGINEER: ALLEN CHEN  
 CALCULATED/DESIGNED BY: PW 5/94  
 CHECKED BY: AC 5/94  
 DATE REVISION: 5/94  
 DATE REVISION: 5/94



**CONDUCTOR AND CONDUIT SCHEDULE**

	1	2	3	4
CAMERA VIDEO INTERFACE CABLE		1		1
PAN/TILT CONTROL CABLE		1		1
LENS CONTROL CABLE		1		1
CAMERA POWER CABLE		1		1
CAMERA GROUND CABLE		1		1
2 SINGLEMODE FIBER OPTIC CABLE		1	1	
6P22 COMMUNICATION DIST. CABLE		1	1	
#8 POWER CABLE	2	2		
CONDUIT SIZE	2"	2-3"	2"	2-2"

**NOTES (THIS SHEET ONLY):**

- 1 INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT. SET PAN STOPS FOR 350°.
- 2 INSTALL STATE-FURNISHED CCTV 334 CABINET. SEE CABINET DETAIL PLAN SHEET E-27.
- 3 INSTALL TYPE 40 CCTV POLE. FOR INSTALLATION AND MOUNTING DETAILS, SEE POLE MOUNT DETAIL PLAN SHEET E-28.
- 4 ADD A 120-IP-30 AMP CIRCUIT BREAKER TO EXISTING TYPE III-BF SERVICE EQUIPMENT ENCLOSURE FOR CCTV 334 CABINET.

**AS-BUILT**

Contract No. 07- 1186C4

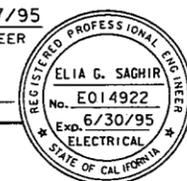
Resident Engineer: AMOS, H.

Completion Date: 08/21/1998

**CCTV CAMERA (LOCATION HO 033)**  
 SCALE: 1" = 20'  
**E-16**

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	71	154

*Elia G. Saghir* 2/17/95  
 REGISTERED ELECTRICAL ENGINEER  
 10-10-95  
 PLANS APPROVAL DATE  


NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638  
 IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUÉ AND ASSOCIATES, INC.

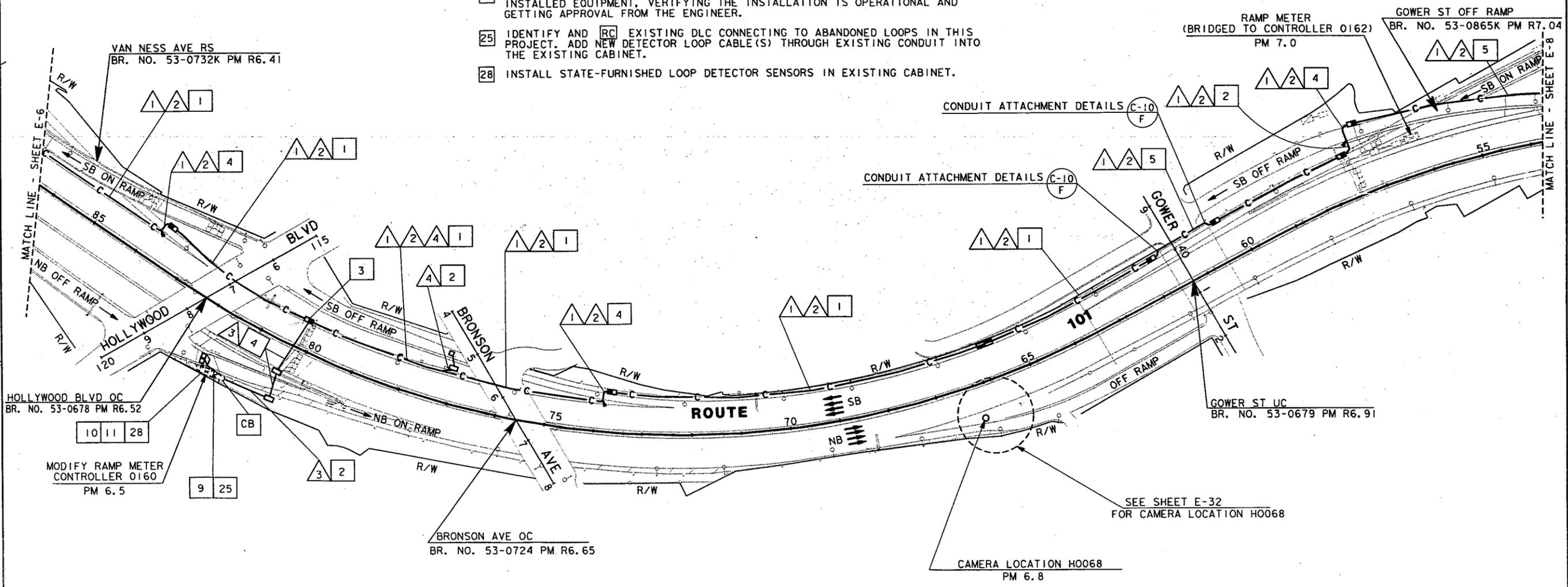
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

PROJECT NOTES: (THIS SHEET ONLY)

- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE SHEETS C-4 TO C-11 FOR DETAILS.
- 9 ADD CABLE(S) AND CONNECT TO CONTROLLER.
- 10 INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE SHEETS E-58 AND E-60 FOR DETAILS.
- 11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
- 25 IDENTIFY AND RC EXISTING DLC CONNECTING TO ABANDONED LOOPS IN THIS PROJECT. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET.
- 28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CABINET.

CONDUCTOR TYPE	FUNCTION	1	2	3	4
50P22 CABLE	DATA/PHONE	1			
6P22 CABLE	DATA/PHONE			1	
48 SMFO CABLE	VIDEO/DATA	1			
12 SMFO CABLE	SH VIDEO		1		
DLC	RAMP/COUNT			1	1
	INNERDUCT	1/4"	1/4"		
CONDUIT	SIZE	4"	4"	2"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR

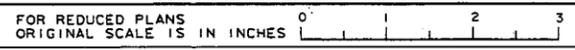


## LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

**E-7**

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2.  
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.



USERNAME => mikes1  
DGN FILE => /usr/mikes1/P0/712072u07.dg

CU 07387

EA 120721

PROJECT ENGINEER PAT SULLIVAN  
 CALCULATED/DESIGNED BY ES JZ  
 CHECKED BY JZ  
 DATE REVISED BY 2/95  
 DATE REVISED 5/95

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Caltrans

PROJECT ENGINEER: PAT SULLIVAN  
 CALCULATED/DESIGNED BY: ES  
 CHECKED BY: JZ  
 DATE REVISIONS:  
 2/95  
 5/95  
 DATE REVISIONS:  
 2/95  
 5/95

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)										
CONDUCTOR TYPE	FUNCTION	1	2	3	8	9	10	12	13	
50P22 CABLE	DATA /PHONE	1								
6P22 CABLE	DATA /PHONE			1				1		
48 SMFO CABLE	VIDEO/DATA	1			2					
12 SMFO CABLE	SH VIDEO		1							
DLC	RAMP/COUNT				1	1	1	3		1
	INNERDUCT	1/4"	1/4"				1/4"		1/4"	1/4"
CONDUIT	SIZE	4"	4"	2"	2"	3"	2"	2"	4"	

**PROJECT NOTES: (THIS SHEET ONLY)**

- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE SHEETS C-4 TO C-11 FOR DETAILS.
- 9 ADD CABLE(S) AND CONNECT TO CONTROLLER.
- 10 INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE SHEETS E-58 AND E-60 FOR DETAILS.
- 11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT. VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
- 25 IDENTIFY AND [RC] EXISTING DLC CONNECTING TO ABANDONED LOOPS IN THIS PROJECT. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET.
- 28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CABINET.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	72	154

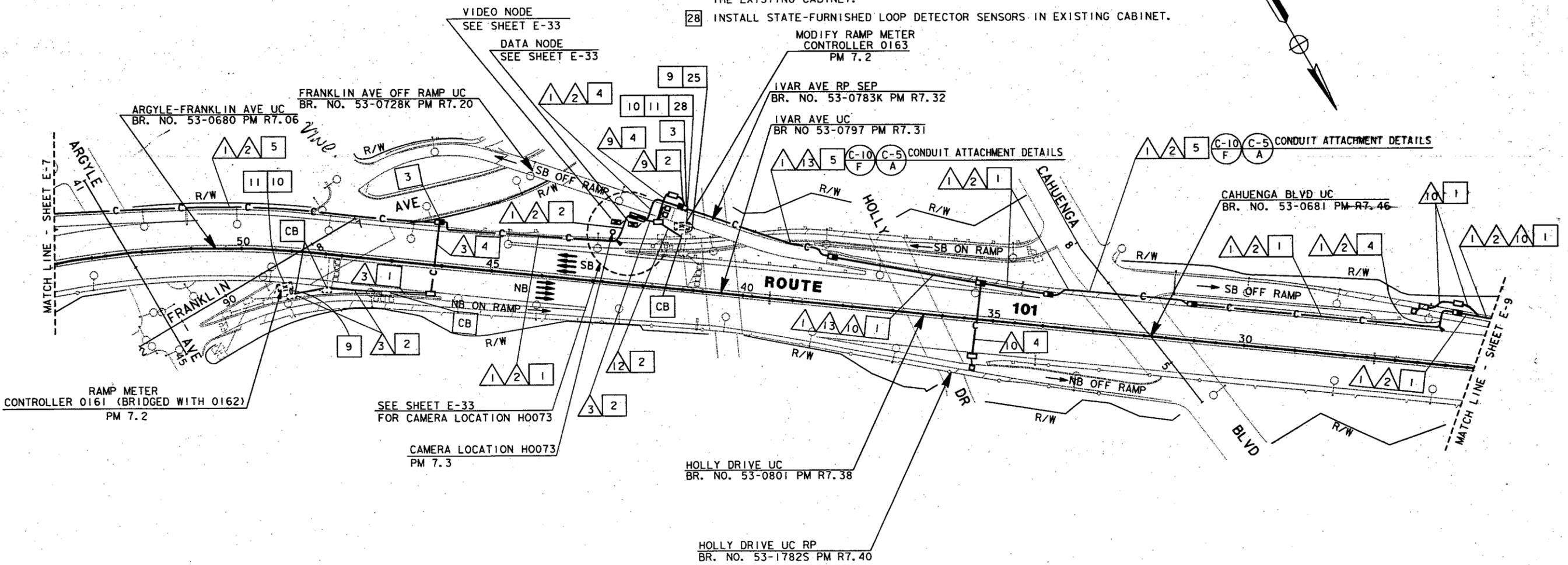
2/17/95  
 REGISTERED ELECTRICAL ENGINEER  
 ELIA G. SAGHIR  
 No. E014922  
 Exp. 6/30/95  
 STATE OF CALIFORNIA

10-10-95  
 PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638

IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUE AND ASSOCIATES, INC.

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**LOOP DETECTOR,  
 CCTV AND COMMUNICATION SYSTEM  
 ROUTING**

SCALE: 1"=100'

**E-8**

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

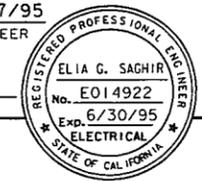
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

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DGN FILE => /usr/mikes1/P0/712072u08.dg

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	73	154

*Elia G. Saghir* 2/17/95  
REGISTERED ELECTRICAL ENGINEER



10-10-95  
PLANS APPROVAL DATE

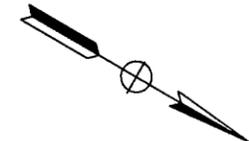
NATIONAL ENGINEERING TECHNOLOGY  
14320 FIRESTONE BLVD., SUITE 100  
LA MIRADA, CA 90638

IN ASSOCIATION WITH:  
RAYTHEON INFRASTRUCTURE SERVICES, INC.  
ABRATIQUE AND ASSOCIATES, INC.

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**PROJECT NOTES: (THIS SHEET ONLY)**

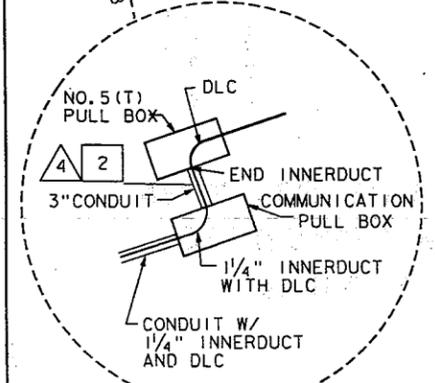
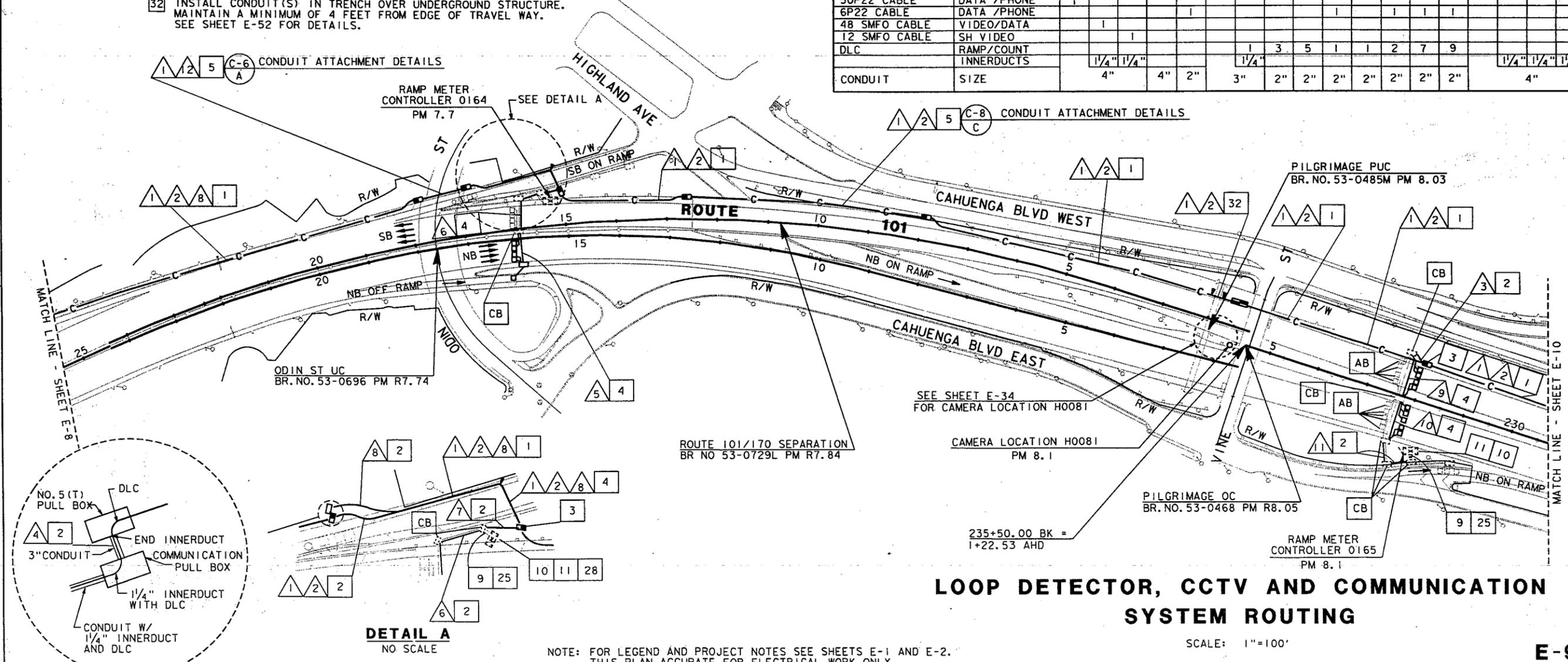
- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE SHEETS C-4 TO C-11 FOR DETAILS.
- 9 ADD CABLE(S) AND CONNECT TO CONTROLLER.
- 10 INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE SHEETS E-58 AND E-60 FOR DETAILS.
- 11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT. VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
- 25 ADD DETECTOR LOOP CABLE(S) TO EXISTING CONDUIT.
- 28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CABINET.
- 32 INSTALL CONDUIT(S) IN TRENCH OVER UNDERGROUND STRUCTURE. MAINTAIN A MINIMUM OF 4 FEET FROM EDGE OF TRAVEL WAY. SEE SHEET E-52 FOR DETAILS.



CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8	9	10	11	12
50P22 CABLE	DATA /PHONE	1											
6P22 CABLE	DATA /PHONE			1						1	1	1	
48 SMFO CABLE	VIDEO/DATA	1											
12 SMFO CABLE	SH VIDEO		1										
DLC	RAMP/COUNT INNERDUCTS				1/4"	3	5	1	1	2	7	9	
CONDUIT	SIZE	4"	4"	2"	3"	2"	2"	2"	2"	2"	2"	2"	4"

1 2 5 C-6 A CONDUIT ATTACHMENT DETAILS

1 2 5 C-8 C CONDUIT ATTACHMENT DETAILS



**DETAIL A**  
NO SCALE

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING**

SCALE: 1"=100'

**E-9**

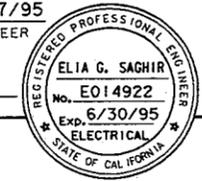
DESIGNED BY	DATE	REVISOR
ES	2/95	
CHECKED BY	JZ	5/95
		DATE REVISED

PROJECT ENGINEER  
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
Caltrans

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	74	154

Elia G. Saghir 2/17/95  
 REGISTERED ELECTRICAL ENGINEER



10-10-95  
 PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638

IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUE AND ASSOCIATES, INC.

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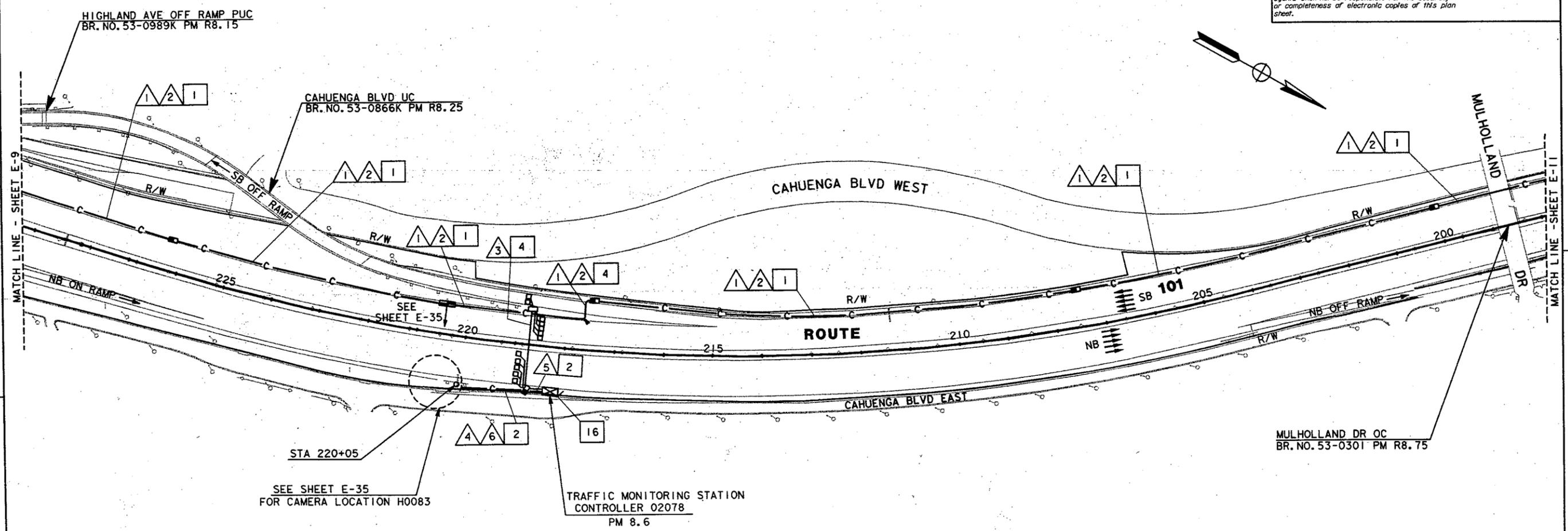
PROJECT NOTES: (THIS SHEET ONLY)

- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 16 INSTALL TYPE 334 CABINET ON NEW FOUNDATION. INSTALL STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK. SEE SHEET E-59 AND SHEET E-60.

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6
50P22 CABLE	DATA /PHONE	1					
6P22 CABLE	DATA /PHONE					1	1
48 SMFO CABLE	VIDEO/DATA	1					
12 SMFO CABLE	SH VIDEO		1				
#6	POWER				2	2	
DLC	RAMP/COUNT			7		12	
	INNERDUCT	1 1/4"	1 1/4"				
CONDUIT	SIZE	4"	4"	2"	2"	3"	3"

(E) - EXISTING CONDUIT OR CONDUCTOR

PROJECT ENGINEER: PAT SULLIVAN  
 CALCULATED/DESIGNED BY: ES  
 CHECKED BY: JZ  
 REVISIONS: DATE 2/95, DATE 5/95, DATE 5/95  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Gibbons



**TRAFFIC MONITORING STATION,  
 CCTV AND COMMUNICATION  
 SYSTEM ROUTING**

SCALE: 1"=100'

**E-10**

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

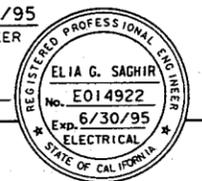


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CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	75	154

2/17/95  
 REGISTERED ELECTRICAL ENGINEER



10-10-95  
 PLANS APPROVAL DATE

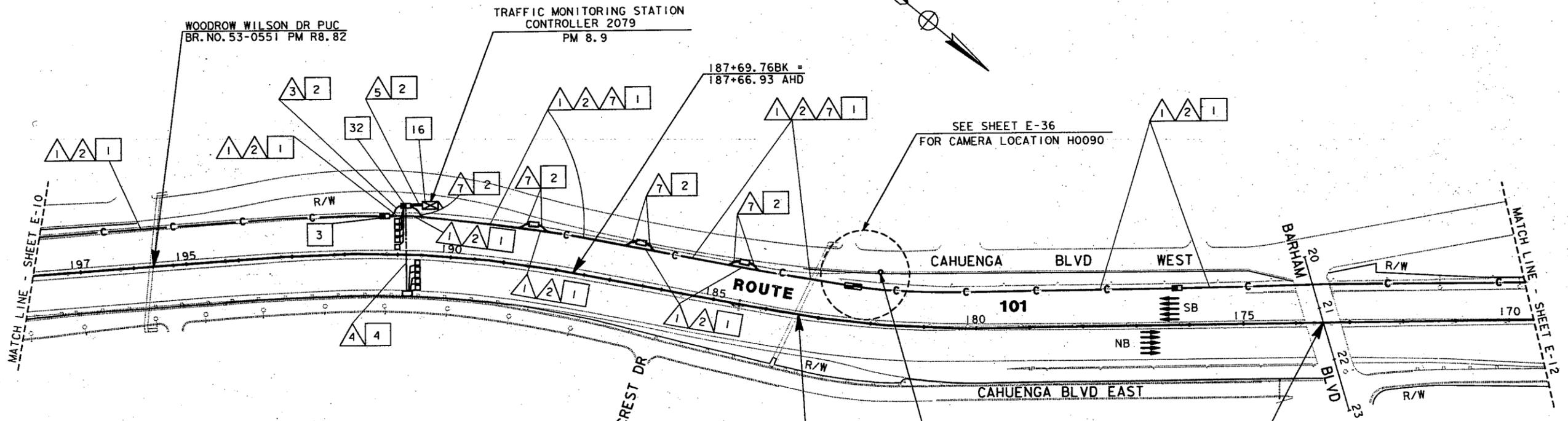
NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638

IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUÉ AND ASSOCIATES, INC.

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CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)		1	2	3	4	5	7
CONDUCTOR TYPE	FUNCTION						
50P22 CABLE	DATA/PHONE	1					
6P22 CABLE	DATA/PHONE			1			1
48 SMFO CABLE	VIDEO/DATA	1					
12 SMFO CABLE #4	SH VIDEO POWER		1			2	2
DLC	TMS INNERDUCT				5	10	
CONDUIT	SIZE	4"	4"	2"	2"	3"	3"

(E) - EXISTING CONDUIT OR CONDUCTOR



PROJECT NOTES: (THIS SHEET ONLY)

- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 16 INSTALL TYPE 334 CABINET ON NEW FOUNDATION. INSTALL STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK. SEE SHEET E-59 AND SHEET E-60.
- 32 INSTALL A MINIMUM 2KVA, SINGLE PHASE 240/120V STEP DOWN TRANSFORMER.

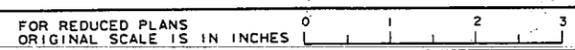
NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**TRAFFIC MONITORING STATION,  
 CCTV AND COMMUNICATION  
 SYSTEM ROUTING**

SCALE: 1"=100'

**E-11**

PROJECT ENGINEER: PAT SULLIVAN  
 CALCULATED/DRAWN BY: ES  
 CHECKED BY: JZ  
 DATE: 2/95  
 DATE REVISED: 5/95  
 PROJECT: STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 PROJECT NO.: 53-0551 PM R8.82



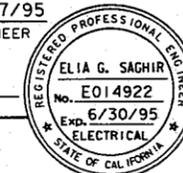
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CU 07387 EA 120721

TIME PLOTTED => 17-OCT-1995 12:39  
 00-00-00

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	76	154

*Elia G. Saghir* 2/17/95  
REGISTERED ELECTRICAL ENGINEER



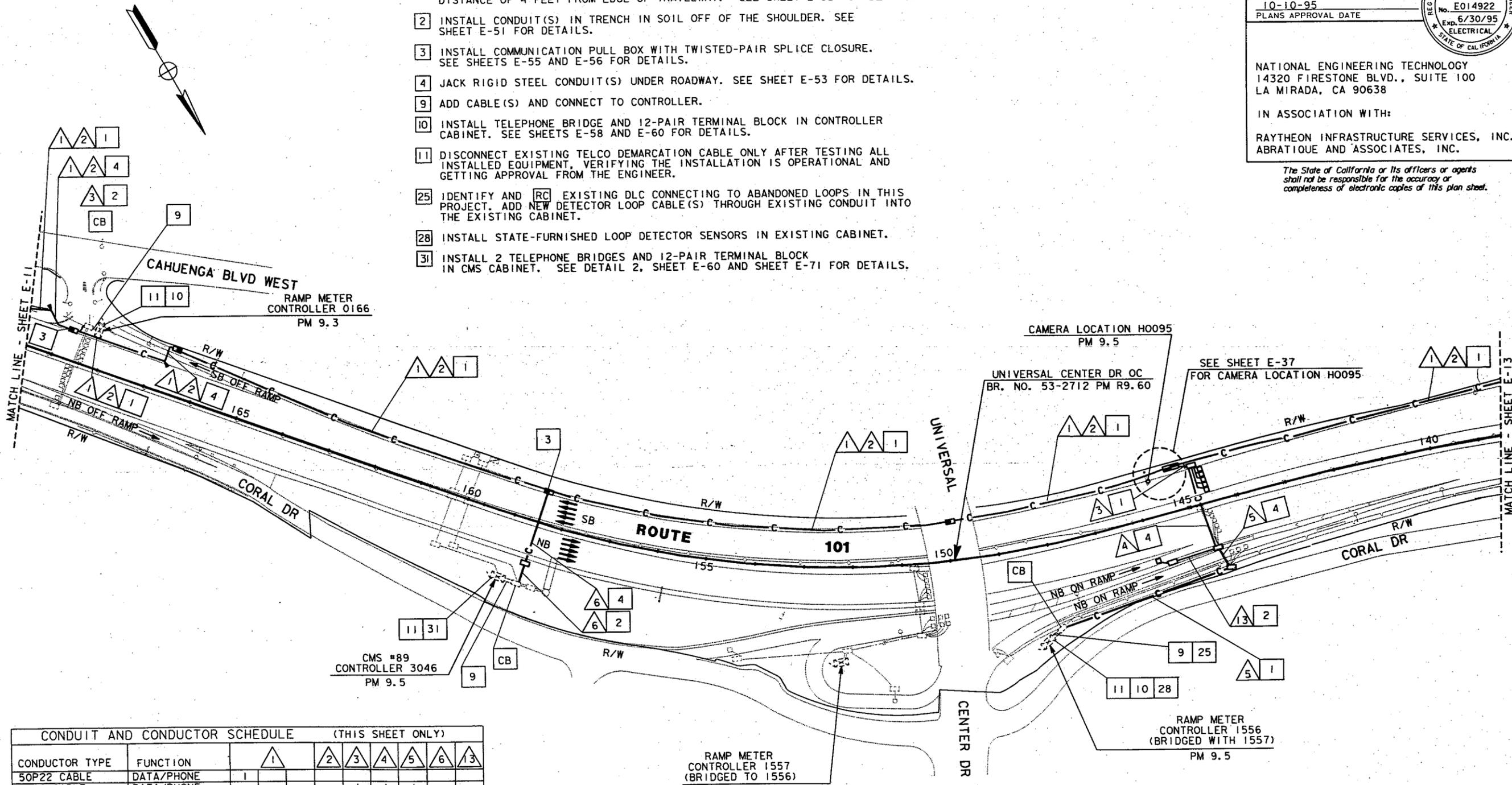
10-10-95  
PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY  
14320 FIRESTONE BLVD., SUITE 100  
LA MIRADA, CA 90638  
IN ASSOCIATION WITH:  
RAYTHEON INFRASTRUCTURE SERVICES, INC.  
ABRATIQUE AND ASSOCIATES, INC.

*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

PROJECT NOTES: (THIS SHEET ONLY)

- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 9 ADD CABLE(S) AND CONNECT TO CONTROLLER.
- 10 INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE SHEETS E-58 AND E-60 FOR DETAILS.
- 11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
- 25 IDENTIFY AND RC EXISTING DLC CONNECTING TO ABANDONED LOOPS IN THIS PROJECT. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET.
- 28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CABINET.
- 31 INSTALL 2 TELEPHONE BRIDGES AND 12-PAIR TERMINAL BLOCK IN CMS CABINET. SEE DETAIL 2, SHEET E-60 AND SHEET E-71 FOR DETAILS.

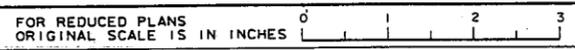


CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	13
50P22 CABLE	DATA/PHONE	1						
6P22 CABLE	DATA/PHONE			1	1	1		
12P22 CABLE	DATA/PHONE						1	
48 SMFO CABLE	VIDEO/DATA	1						
12 SMFO CABLE	SH VIDEO		1					
DLC	RAMP/COUNT				5	6		1
	INNERDUCT	1/4"	1/4"					
CONDUIT	SIZE	4"	4"	2"	2"	2"	2"	2"

## LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.



USERNAME => richard  
DGN FILE => /usr/richard/P11/712072u12.

CU 07387 EA 120721

REVISIONS  
DATE  
BY  
REVISIONS  
DATE  
BY

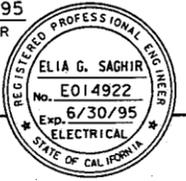
PROJECT ENGINEER  
PAT SULLIVAN

DEPARTMENT OF TRANSPORTATION  
STATE OF CALIFORNIA  
Gibbons

TIME PLOTTED => 17-OCT-1995 10:52  
LAST REVISION 00-00-00



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS
07	LA	101	R4.4/R17.1	78 154

*Elia G. Saghir* 2/17/95  
 REGISTERED ELECTRICAL ENGINEER  
 10-10-95  
 PLANS APPROVAL DATE  


NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638  
 IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUE AND ASSOCIATES, INC.

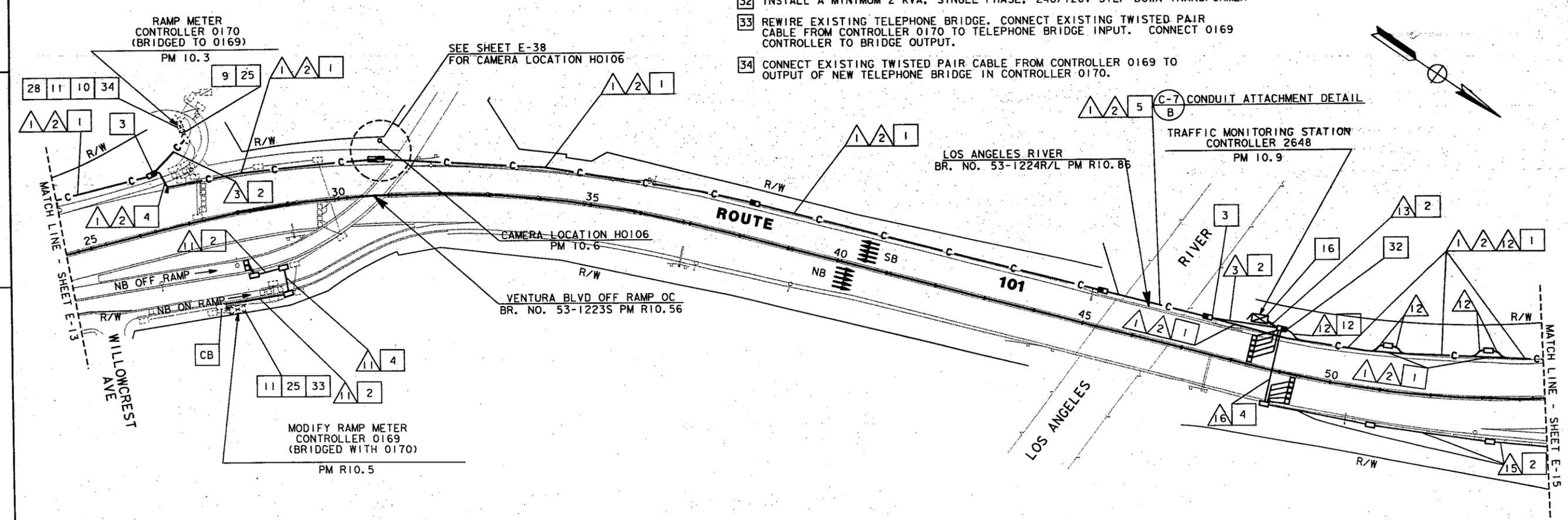
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**PROJECT NOTES: (THIS SHEET ONLY)**

- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE DETAIL B, SHEET E-56.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE SHEETS C-4 TO C-11 FOR DETAILS.
- 9 CONNECT 6P22 TWISTED PAIR CABLE TO CONTROLLER.
- 10 INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE SHEETS E-58 AND E-60 FOR DETAILS.
- 11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
- 16 INSTALL TYPE 334 CABINET ON NEW FOUNDATION. INSTALL STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK. SEE SHEET E-59 AND SHEET E-60.
- 25 IDENTIFY AND [RC] EXISTING DLC CONNECTING TO ABANDONED LOOPS IN THIS PROJECT. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET.
- 28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CABINET.
- 32 INSTALL A MINIMUM 2 KVA, SINGLE PHASE, 240/120V STEP-DOWN TRANSFORMER
- 33 REWIRE EXISTING TELEPHONE BRIDGE. CONNECT EXISTING TWISTED PAIR CABLE FROM CONTROLLER 0170 TO TELEPHONE BRIDGE INPUT. CONNECT 0169 CONTROLLER TO BRIDGE OUTPUT.
- 34 CONNECT EXISTING TWISTED PAIR CABLE FROM CONTROLLER 0169 TO OUTPUT OF NEW TELEPHONE BRIDGE IN CONTROLLER 0170.

CONDUCTOR TYPE	FUNCTION	1	2	3	11	12	13	15	16
50P22 CABLE	DATA/PHONE	1					1		
6P22 CABLE	DATA/PHONE			1					
48 SMFO CABLE	VIDEO/DATA	1							
12 SMFO CABLE	SH VIDEO		1			2	2		
*4	POWER								
DLC	RAMP/COUNT INNERDUCT	1 1/4"	1 1/4"		2		11	1	6
CONDUIT	SIZE	4"	4"	2"	2"	2"	3"	3"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR



**TRAFFIC MONITORING STATION, CCTV AND COMMUNICATION SYSTEM ROUTING**

SCALE: 1"=100'

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

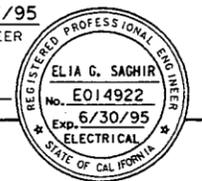
PROJECT ENGINEER: PAT SULLIVAN  
 DEPARTMENT OF TRANSPORTATION - STATE OF CALIFORNIA  
 REVISIONS: 00-00-00  
 TIME PLOTTED: 17-OCT-1995 12:23

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

USERNAME => richard  
 DGN FILE => /usr/richard/P11/712072u14.

CU 07387 EA 120721

*Elia G. Saghir* 2/17/95  
 REGISTERED ELECTRICAL ENGINEER



10-10-95  
 PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638

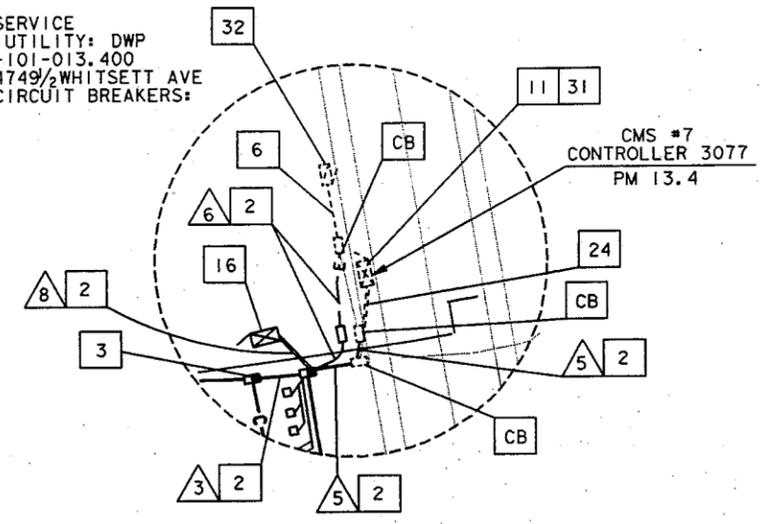
IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUÉ AND ASSOCIATES, INC.

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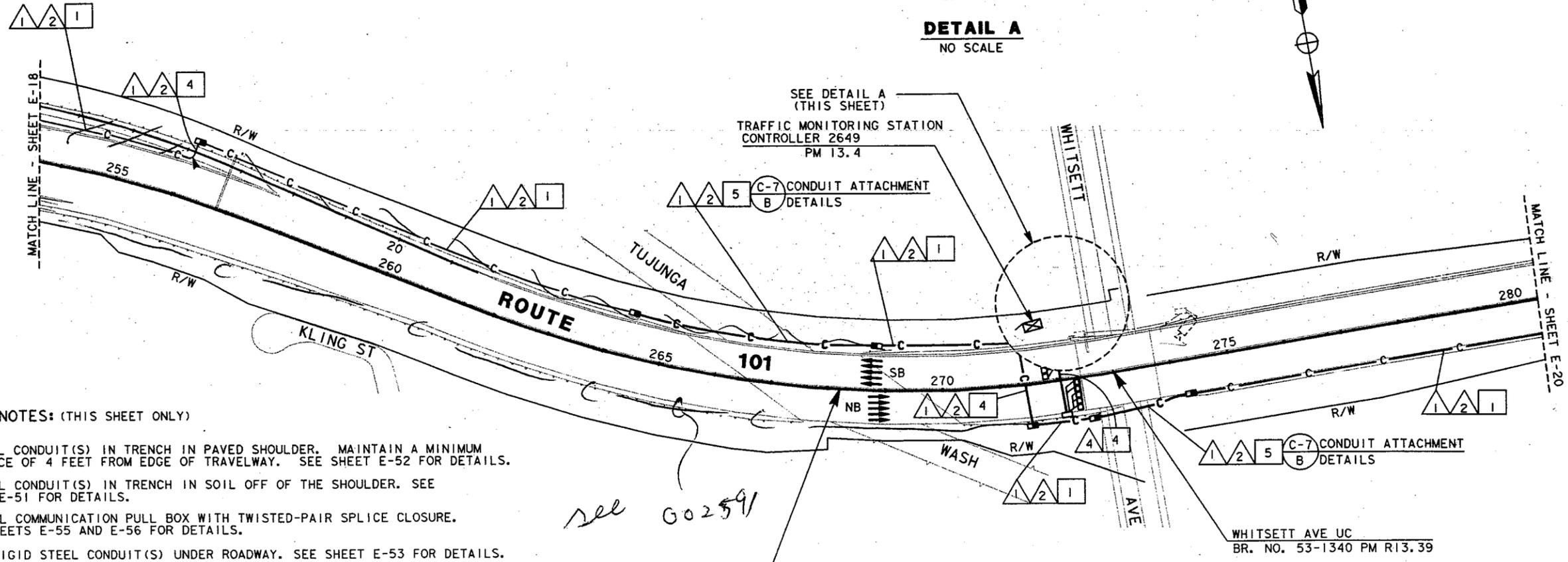
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	8
50P22 CABLE	DATA/PHONE	1						
6P22 CABLE	DATA/PHONE			1				1
72 SMFO CABLE	VIDEO/DATA	1						
12 SMFO CABLE	SH VIDEO		1					
12P22 CABLE	DATA/PHONE			1		1		
#8	POWER						2	2
DLC	TMS				5			10
	INNERDUCT	1 1/4"	1 1/4"					
CONDUIT	SIZE	4"	4"	2"	2"	2"	2"	3"

(E) - EXISTING CONDUIT OR CONDUCTOR

EXISTING SERVICE  
 SERVICING UTILITY: DWP  
 ID# 07-53-101-013.400  
 ADDRESS: 4749 1/2 WHITSETT AVE  
 EXISTING CIRCUIT BREAKERS:



**DETAIL A**  
 NO SCALE



**PROJECT NOTES: (THIS SHEET ONLY)**

- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
- 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
- 5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE SHEETS C-4 TO C-11 FOR DETAILS.
- 6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.
- 11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
- 16 INSTALL TYPE 334 CABINET ON NEW FOUNDATION. INSTALL STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK. SEE SHEET E-59 AND SHEET E-60.
- 24 ADD CABLE TO EXISTING CONDUIT.
- 31 INSTALL 2 TELEPHONE BRIDGES AND 12-PAIR TERMINAL BLOCK IN CMS CABINET. SEE DETAIL 2, SHEET E-60 AND SHEET E-71 FOR DETAILS.
- 32 ADD ONE 30A, SINGLE POLE CIRCUIT BREAKER FOR TMS.

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

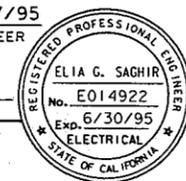
**TRAFFIC MONITORING STATION AND COMMUNICATION SYSTEM ROUTING**

SCALE: 1"=100'

**E-19**

PROJECT ENGINEER: PAT SULLIVAN  
 CALCULATED/DESIGNED BY: ES  
 CHECKED BY: JZ  
 DATE REVISED: 2/95  
 DATE REVISED: 5/95  
 PROJECT ENGINEER: PAT SULLIVAN  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Caltrans

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	84	154

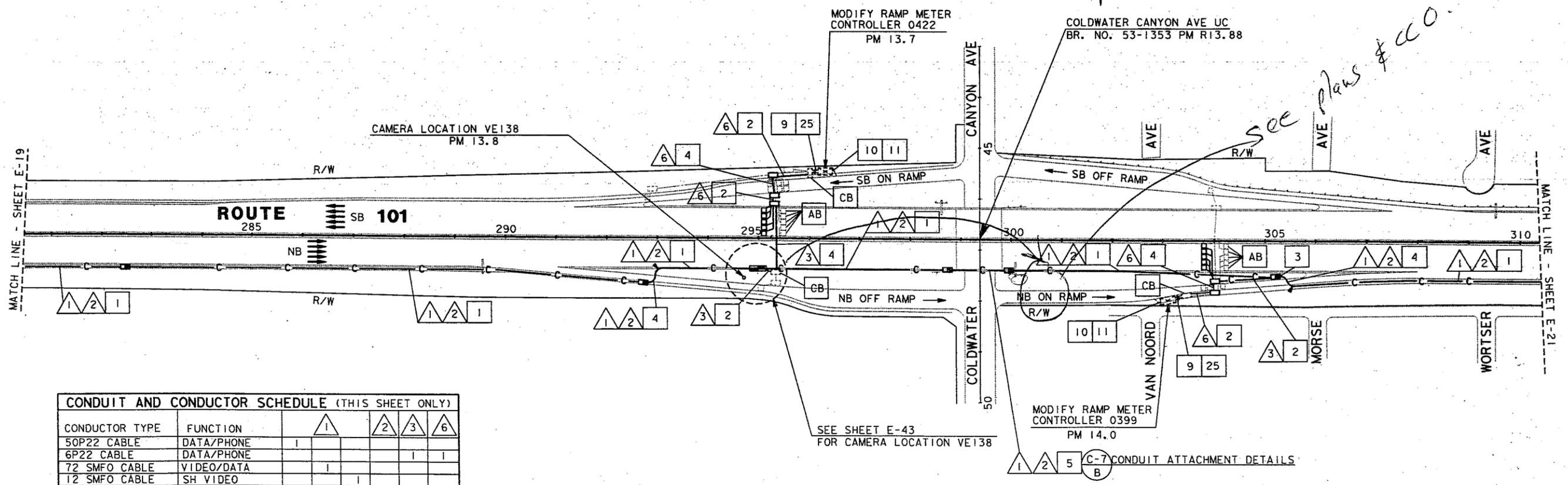
*Elia G. Saghir* 2/17/95  
 REGISTERED ELECTRICAL ENGINEER  
 10-10-95  
 PLANS APPROVAL DATE  


NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638  
 IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUÉ AND ASSOCIATES, INC.

*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

- PROJECT NOTES: (THIS SHEET ONLY)**
- 1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
  - 2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
  - 3 INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
  - 4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
  - 5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE SHEETS C-4 TO C-11 FOR DETAILS.
  - 9 ADD CABLE(S) AND CONNECT TO CONTROLLER.
  - 10 INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE SHEETS E-58 AND E-60 FOR DETAILS.
  - 11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
  - 25 IDENTIFY AND RC EXISTING DLC CONNECTING TO ABANDONED LOOPS IN THIS PROJECT. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 PROJECT ENGINEER PAT SULLIVAN  
 CALCULATED/DESIGNED BY ES  
 CHECKED BY JZ  
 DATE 2/95  
 REVISED BY  
 DATE REVISED



**CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)**

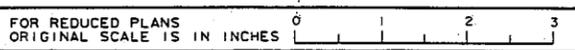
CONDUCTOR TYPE	FUNCTION	1	2	3	6
50P22 CABLE	DATA/PHONE	1			
6P22 CABLE	DATA/PHONE			1	1
72 SMFO CABLE	VIDEO/DATA	1			
12 SMFO CABLE	SH VIDEO		1		
DLC	RAMP/COUNT				5
	INNERDUCT	1/4"	1/4"		
CONDUIT	SIZE	4"	4"	2"	2"

(E) = EXISTING CONDUIT OR CONDUCTOR

**LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING**

SCALE: 1"=100'

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.



USERNAME => annda  
DGN FILE => /usr/annda/P54/712072u20.dg

CU 07387 EA 120721

**E-20**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	85	154

*Elia G. Saghir* 2/17/95  
 REGISTERED ELECTRICAL ENGINEER



10-10-95  
 PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY  
 14320 FIRESTONE BLVD., SUITE 100  
 LA MIRADA, CA 90638

IN ASSOCIATION WITH:  
 RAYTHEON INFRASTRUCTURE SERVICES, INC.  
 ABRATIQUÉ AND ASSOCIATES, INC.

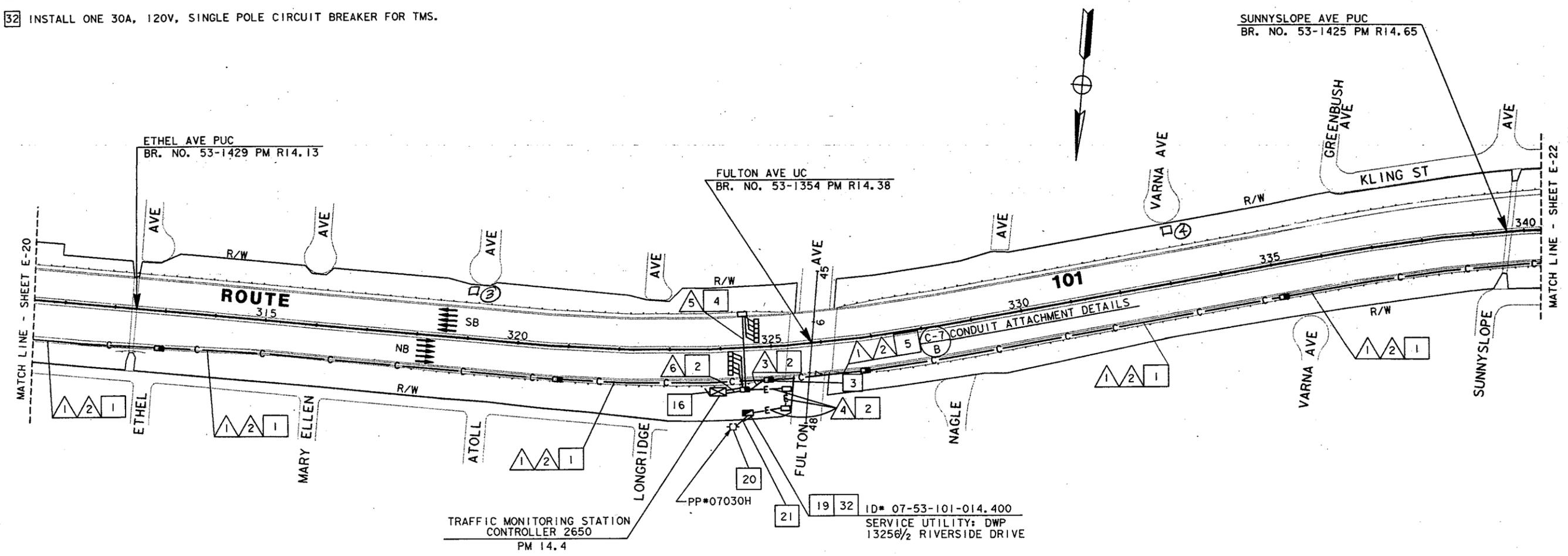
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

PROJECT NOTES (THIS SHEET ONLY):

- 1] INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
- 2] INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
- 3] INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
- 5] INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE SHEETS C-4 TO C-11 FOR DETAILS.
- 16] INSTALL TYPE 334 CABINET ON NEW FOUNDATION. INSTALL STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK. SEE SHEET E-59 AND SHEET E-60.
- 19] INSTALL ON NEW FOUNDATION TYPE 111-BF 100A, 120/240V SERVICE WITH A 100A, 240V, 2P MAIN CIRCUIT BREAKER.
- 20] INSTALL 3" CONDUIT TYPE H SERVICE RISER ON POWER POLE.
- 21] INSTALL 3" RIGID STEEL CONDUIT. UTILITY COMPANY TO INSTALL CONDUCTORS.
- 32] INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR TMS.

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6
50P22 CABLE	DATA /PHONE	1					
6P22 CABLE	DATA /PHONE			1			1
72 SMFO CABLE	VIDEO/DATA	1					
12 SMFO CABLE	SH VIDEO		1				
*8	POWER				2		2
DLC	TMS					5	10
	INNERDUCT	1 1/4"	1 1/4"				
CONDUIT	SIZE	4"	4"	2"	2"	2"	3"

(E) - EXISTING CONDUIT OR CONDUCTOR



**TRAFFIC MONITORING STATION AND COMMUNICATION SYSTEM ROUTING**

SCALE: 1"=100'

**E-21**

NOTE: FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.



USERNAME => mikes1  
 DGN FILE => /usr/mikes1/PO/712072u21.dg

CU 07387 EA 120721

REVISOR	DATE	REVISION
ES	2/95	
JZ	5/95	

PROJECT ENGINEER  
 PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Gibbons