INFORMATION HANDOUT

For Contract No. 07-1W6504
At 07-LA-101 & 134-Various

Identified by
Project ID 0712000451

As-Builts

Fiber Optic System As-Built Drawings

CCTV and Communication System Routing

Sheet Number	INDEX OF SHEETS
1	Title and Location Map
2-3	Standard Plans List
4	Key Map and Line Index
5-22	Layouts
23-35	Construction Details
36-69	Utility Plans
70-76	Traffic Handling Plans
77-78	Construction Area Signs
79-80	Summary of Quantities
81	Sign Details
82-87	Retaining Wall Plans
88-202	Electrical Plans
203-209	Revised and New Standard Plans

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN LOS ANGELES COUNTY
IN LOS ANGELES, BURBANK AND GLENDALE
FROM ROUTE 101 TO ROUTE 210

To be supplemented by Standard Plans dated July, 1995

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	134	0.0/21.8	1	209

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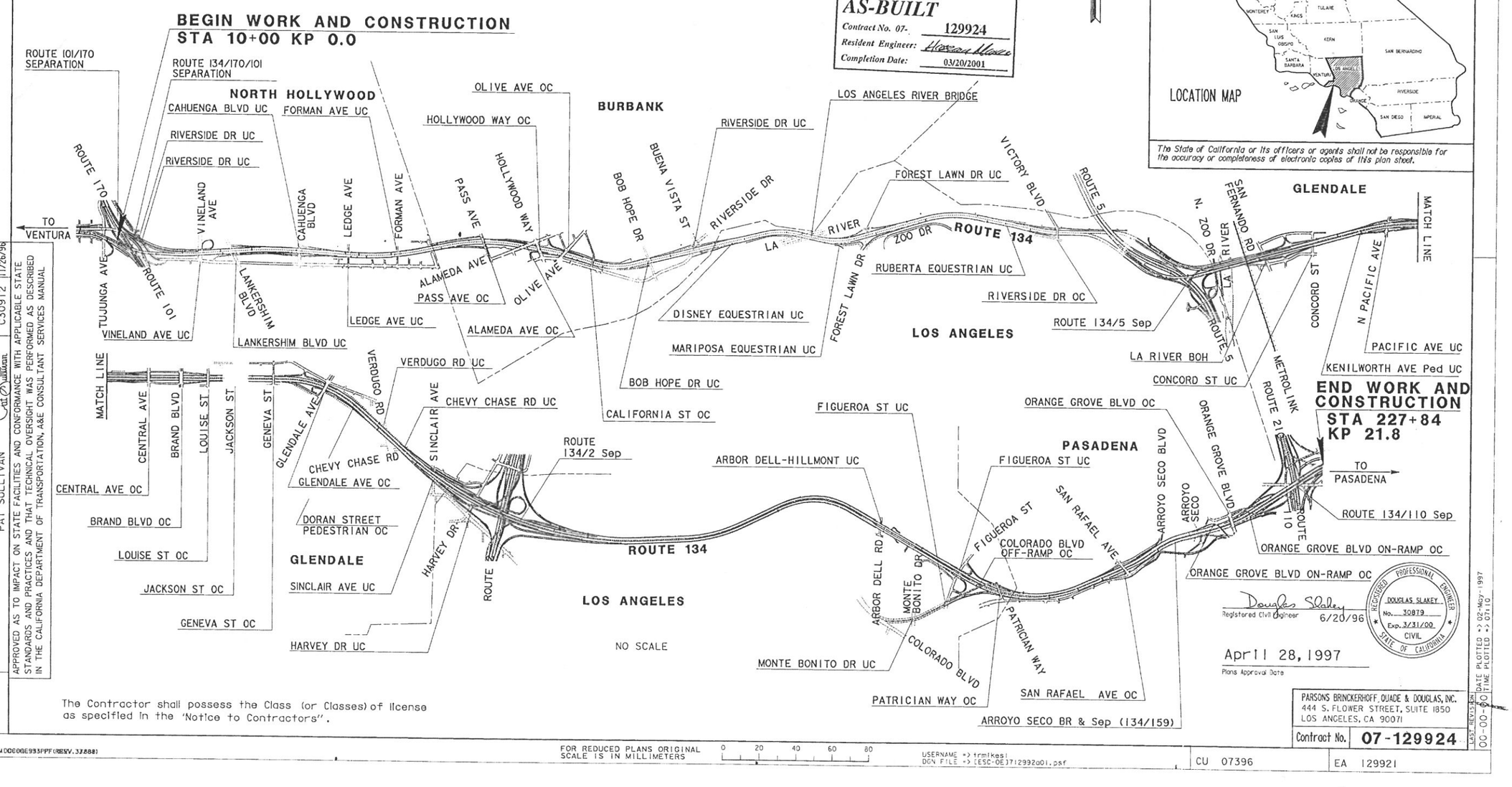
AS-BUILT
Contract No. 07- 129924
Resident Engineer: Hassan Mirza
Completion Date: 03/20/2001



DESIGN OVERSIGHT APPROVAL
PAT SULLIVAN
Pat Sullivan
APPROVED AS TO IMPACT ON STATE FACILITIES AND CONFORMANCE WITH APPLICABLE STATE STANDARDS AND PRACTICES AND THAT TECHNICAL OVERSIGHT WAS PERFORMED AS DESCRIBED IN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION, A&E CONSULTANT SERVICES MANUAL

DATE	AUTHORIZATION NO.
11/26/96	C30912

PROJECT ENGINEER

The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors".

Douglas Slakey
Registered Civil Engineer 6/20/96

REGISTERED PROFESSIONAL ENGINEER
DOUGLAS SLAKEY
No. 30879
Exp. 3/31/00
CIVIL
STATE OF CALIFORNIA

April 28, 1997
Plans Approval Date

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

Contract No. 07-129924

LAST REVISION 00-00-00 DATE PLOTTED => 02-May-1997
TIME PLOTTED => 07:10

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

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CU 07396 EA 129921

FDGNM DD0GGE933PPF (REEV. 32888)

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	88	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER — No. C048591 — Exp. 6-30-00 — CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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GENERAL NOTES:

1. REFER TO SHEETS E-97 AND E-98 FOR A LISTING OF ROUTE 134 ELEMENTS.
2. ALL IRRIGATION CONTROLLERS ARE EXISTING UNLESS OTHERWISE NOTED ON THE PLANS.
3. ALL CONDUIT CONTAINING FIBER OPTIC CABLE SHALL ENTER PULL BOXES ON THE SHORT SIDE ONLY.
4. ALL PULL BOXES AND SPLICE VAULTS SHALL BE INSTALLED IN THE UNPAVED AREA IMMEDIATELY ADJACENT TO THE PAVED SHOULDER OR BEHIND MBGR. CONDUIT SHALL BE DIRECTED FROM THE SHOULDER TO THE BOXES WITH 22 ½ DEGREE BENDS.
5. REFER TO CONDUCTOR SCHEDULES ON PLANS FOR CONDUIT SIZES AND CONDUCTOR TYPES.
6. ALL NEW SERVICE EQUIPMENT ENCLOSURES SHALL ALSO HAVE:
   (1) 1P, 20 A BREAKER (SPARE)
   (1) 1P, 30 A BREAKER (SPARE)
   (1) 2P, (SPACE FOR FUTURE)
7. SIZE 103 CONDUITS TO BE INSTALLED IN PAVEMENT MAINTAINING 100 mm MINIMUM DISTANCE FROM EDGE OF TRAVELED WAY UNLESS OTHERWISE NOTED.
8. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL FACILITIES, THE CONTRACTOR SHALL GIVE 72 HOURS ADVANCE NOTICE IN WRITING TO THE ENGINEER.
9. SERVICE EQUIPMENT ENCLOSURE SHALL BE LOCATED 5 m MINIMUM FROM THE POWER POLE OR VAULT.
10. ELECTRICAL SERVICE INSTALLATION SHALL MEET THE REQUIREMENTS OF EITHER SOUTHERN CALIFORNIA EDISON COMPANY (SCE) OR LOS ANGELES DEPARTMENT OF WATER AND POWER (DWP).
11. CONDUCTORS FROM POWER POLE (OR VAULT) TO SERVICE ENCLOSURE WILL BE INSTALLED BY UTILITY COMPANY.
12. TRENCH FOR CONDUIT INSTALLATION BETWEEN POWER POLE (OR VAULT) AND SERVICE ENCLOSURE SHALL BE LEFT OPEN FOR INSPECTION AND APPROVAL BY SCE OR DWP INSPECTOR BEFORE BACKFILL.
13. STATIONS GIVEN ARE APPROXIMATE, EXACT EQUIPMENT AND POLE LOCATIONS TO BE DETERMINED BY ENGINEER.

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

ABBREVIATIONS: (NOT LISTED IN CALTRANS STANDARD PLANS)

#	-	NUMBER
AVC	-	AUTOMATIC VEHICLE CLASSIFICATION SYSTEM
AWG	-	AMERICAN WIRE GAUGE
B/O	-	BREAKOUT
BOH	-	BRIDGE AND OVERHEAD
BPSD	-	BURBANK POWER SERVICES DEPARTMENT
CCR	-	CAMERA CONTROL RECEIVER
CIA	-	CONTROLLER INTERFACE ASSEMBLY
COAX	-	COAXIAL
COMM	-	COMMUNICATION
CTRL	-	CONTROLLER
DACCS	-	DIGITAL ACCESS AND CROSS CONNECTION SYSTEM
DEMARC	-	DEMARCATION
DEMUX	-	DEMULTIPLEX
DWP	-	LA DEPARTMENT OF WATER AND POWER
E/O	-	EAST OF
FDF	-	FIBER DISTRIBUTION FRAME
FDU	-	FIBER DISTRIBUTION UNIT
GPSD	-	GLENDALE POWER SERVICES DEPARTMENT
GTE	-	GENERAL TELEPHONE AND ELECTRIC
JKFD	-	JACKFIELD
KP	-	KILOMETER POST
LA	-	LOS ANGELES
MUX	-	MULTIPLEX
NHD	-	NORTH HOLLYWOOD
N/O	-	NORTH OF
OW	-	ORDER WIRE (MULTIPLE VOICE CIRCUIT)
P	-	PAIR
P22	-	PAIR 22 AMERICAN WIRE GAUGE
PAC BELL	-	PACIFIC BELL TELEPHONE COMPANY
PCMS	-	PASADENA CITY MUNICIPAL SERVICES
PDA	-	POWER DISTRIBUTION ASSEMBLY
PR	-	PAIR
RCVR	-	RECEIVER
RMC	-	RAMP METER CONTROLLER
RMS	-	RAMP METERING SYSTEM
RX	-	RECEIVE
SCE	-	SOUTHERN CALIFORNIA EDISON
SCGAS	-	SOUTHERN CALIFORNIA GAS COMPANY
SCWC	-	SOUTHERN CALIFORNIA WATER COMPANY
SMFO	-	SINGLEMODE FIBER OPTIC
S/O	-	SOUTH OF
TMS	-	TRAFFIC MONITORING STATION
TWP	-	TWISTED WIRE PAIR
TX	-	TRANSMIT
VE	-	VENTURA FREEWAY
VMX	-	VIDEO MULTIPLEXER
W/O	-	WEST OF
XCVR	-	TRANSCEIVER
XFMR	-	TRANSFORMER
XMTR	-	TRANSMITTER

LEGEND: (NOT LISTED IN CALTRANS STANDARD PLANS)

- SPLICE VAULT
- DATA, VIDEO OR CABLE NODE TYPE 334-TV CABINET
- TYPE 334 - TV CABINET
- COMMUNICATION PULL BOX
- CCTV CAMERA ASSEMBLY AND POLE
- EXISTING CCTV CAMERA ASSEMBLY AND POLE
- EXISTING VAULT
- EXISTING SPLICE VAULT
- --E--E ELECTRICAL SERVICE CONDUIT(S)
- ——C—— COMMUNICATION CONDUIT(S)
- --e--e EXISTING ELECTRICAL SERVICE CONDUIT(S)
- EXISTING PIEZOELECTRIC OR AVC SENSORS
- OPTICAL FIBER CABLE

TABLE 1 - CCTV CONTROL CABLE		
CONDUCTOR TYPE	FUNCTION	QUANTITY
9P18 AWG CABLE	PAN/TILT CONTROL CABLE	1
12P18 AWG CABLE	CAMERA CONTROL CABLE	1
RG-6A/U COAX CABLE	CAMERA VIDEO INTERFACE CABLE	1

TABLE 2 - CMS CONTROL CABLE		
CONDUCTOR TYPE	FUNCTION	QUANTITY
24P18 AWG CABLE *	CMS CONTROL CABLE *	1
6P18 AWG CABLE *	CMS CONTROL CABLE *	1

*STATE-FURNISHED CABLES.

CCTV AND COMMUNICATION SYSTEM (LEGEND AND NOTES)

NO SCALE

E-1

CALCULATED/DESIGNED BY | MMS | DATE 6/96 | REVISED BY
CHECKED BY | DS | 6/96 | DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
PROJECT ENGINEER: PAT SULLIVAN

LAST REVISION 00-00-00
TIME PLOTTED => 07-May-1997 09:04

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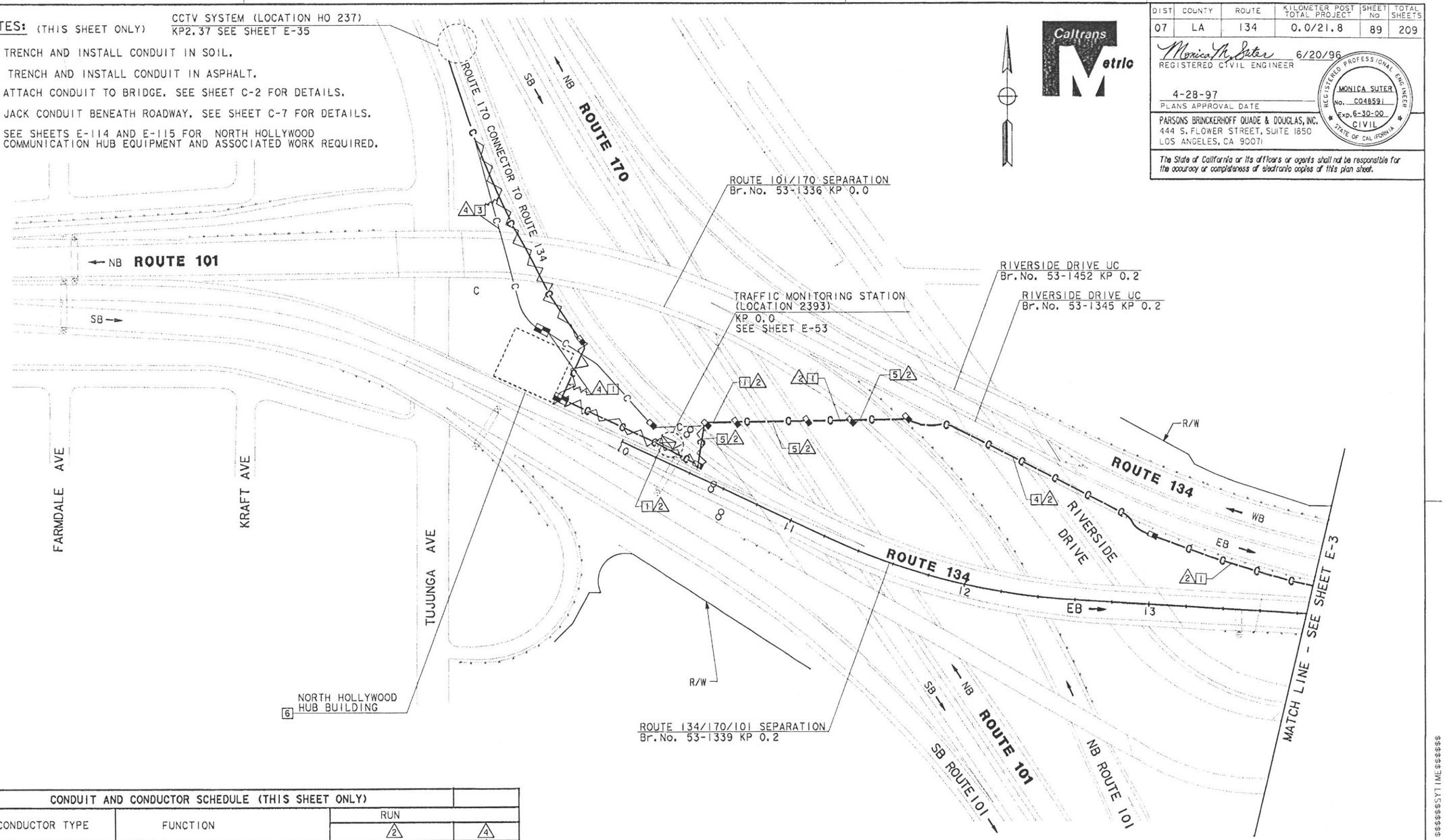
DGN FILE => [ESC-OE]712992u01.psf

CU 07396 EA 129921

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
6. SEE SHEETS E-114 AND E-115 FOR NORTH HOLLYWOOD COMMUNICATION HUB EQUIPMENT AND ASSOCIATED WORK REQUIRED.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN 2				4	
50P22 CABLE	DATA/VOICE	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO TO HUB		1				
	SIZE 32 INNERDUCT		1	1			1
2SMFO B/O CABLE	SHORT HAUL VIDEO						1
6P22	DATA/VOICE					1	
	CONDUIT SIZE	103			103	78	

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

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

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-2

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	89	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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DATE	REVISED BY
6/96	DATE REVISED
MM	MMS

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$$SYTIME$$$$$$

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CU 07396 EA 129921

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	90	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
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Caltrans Metric

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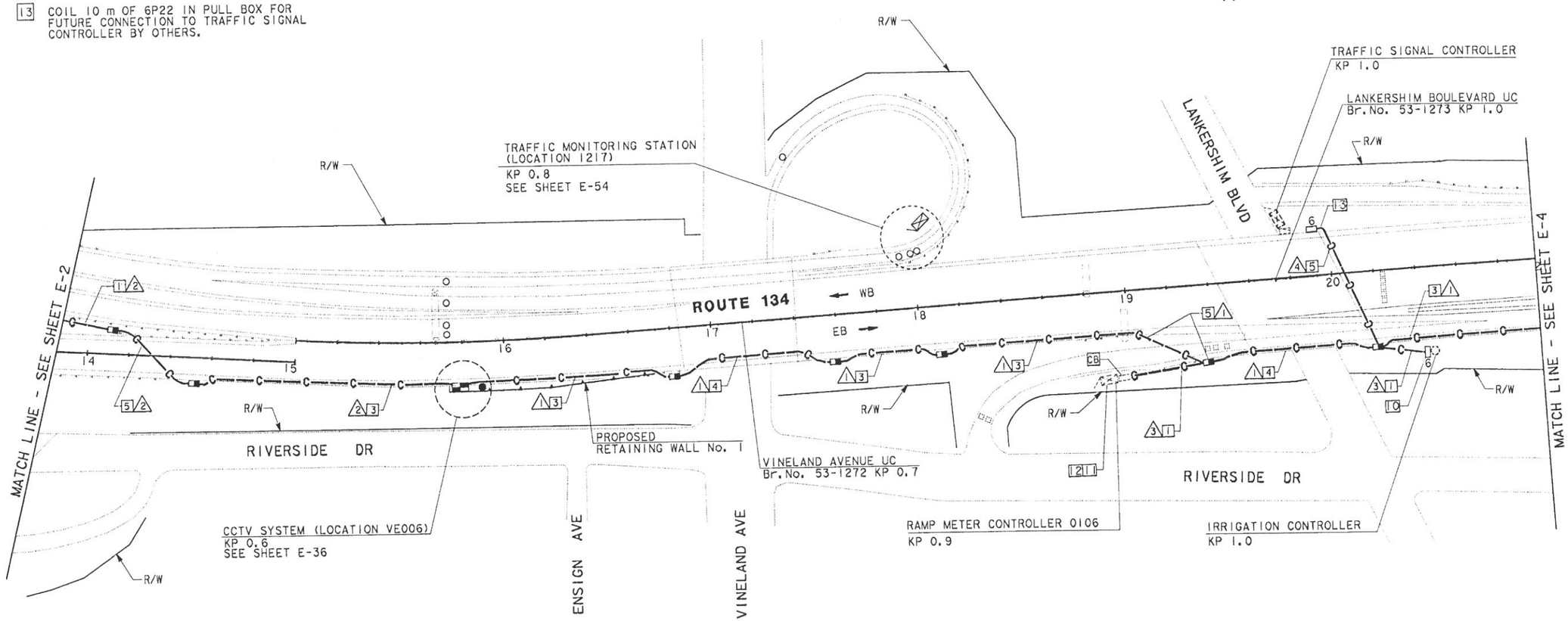
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2				RUN 3	RUN 4
50P22 CABLE	DATA/VOICE	1				1					
6P22 CABLE	DATA/VOICE									1	1
24SMFO CABLE	VIDEO DISTRIBUTION			1							
72 ~~48~~SMFO CABLE	MUTIPLEXED DATA/VIDEO		1				1				
	SIZE 32 INNERDUCT		1	1			1	1			
	CONDUIT SIZE		103		103		103		103	53	78



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER: PAT SULLIVAN
CALCULATED/DESIGNED BY: MM DATE 6/96
CHECKED BY: MMS 6/96
REVISED BY
DATE REVISED

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

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CU 07396 EA 129921

TIME PLOTTED => $$$$$$SYTIME$$$$$$
LAST REVISION

NOTES: (THIS SHEET ONLY)

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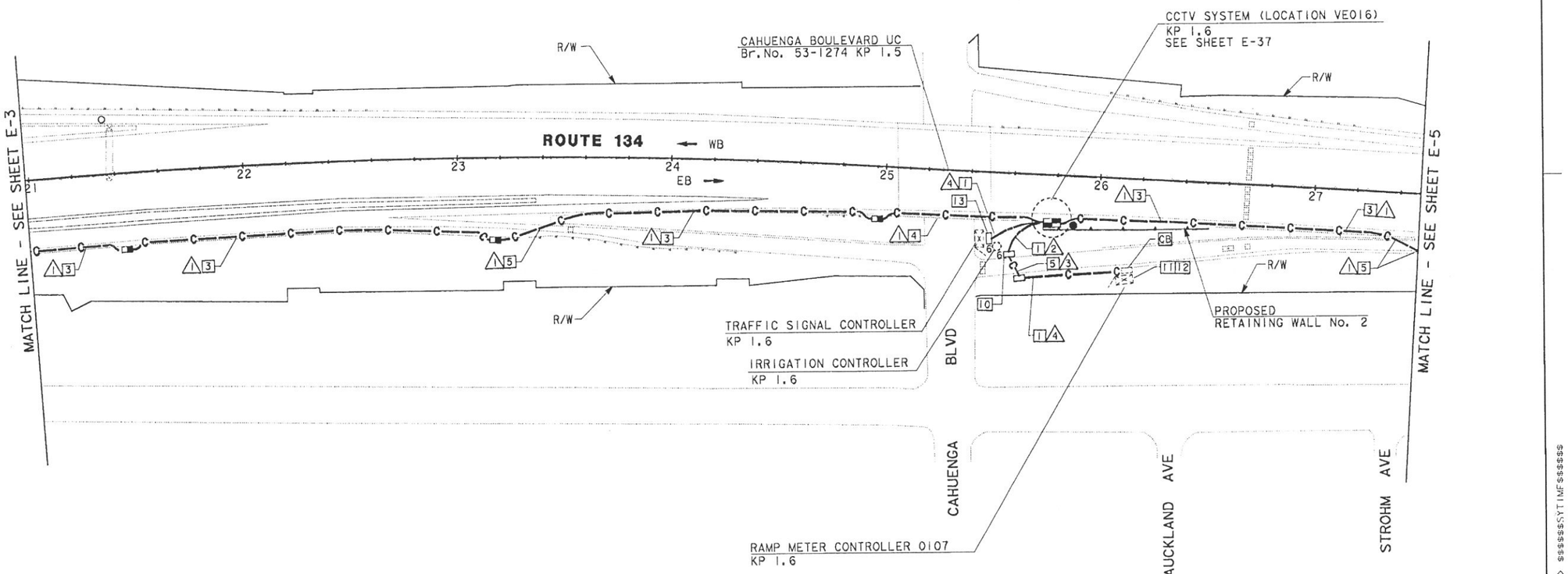
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				2	3	4
50P22 CABLE	DATA/VOICE	1						
6P22 CABLE	DATA/VOICE					2	1	1
24SMFO CABLE	VIDEO DISTRIBUTION			1				
72 ~~48~~MFO CABLE	MULTIPLEXED DATA/VIDEO		1					
	SIZE 32 INNERDUCT		1	1				
	CONDUIT SIZE	103			103	53	78	53



COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-4

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

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	91	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER — No. C048591 — Exp. 6-30-00 — CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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DATE	REVISED BY	CALCULATED/ DESIGNED BY	PROJECT ENGINEER
6/96	MMS	MM	PAT SULLIVAN
DATE REVISED		CHECKED BY	

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CU 07396 EA 129921

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	92	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
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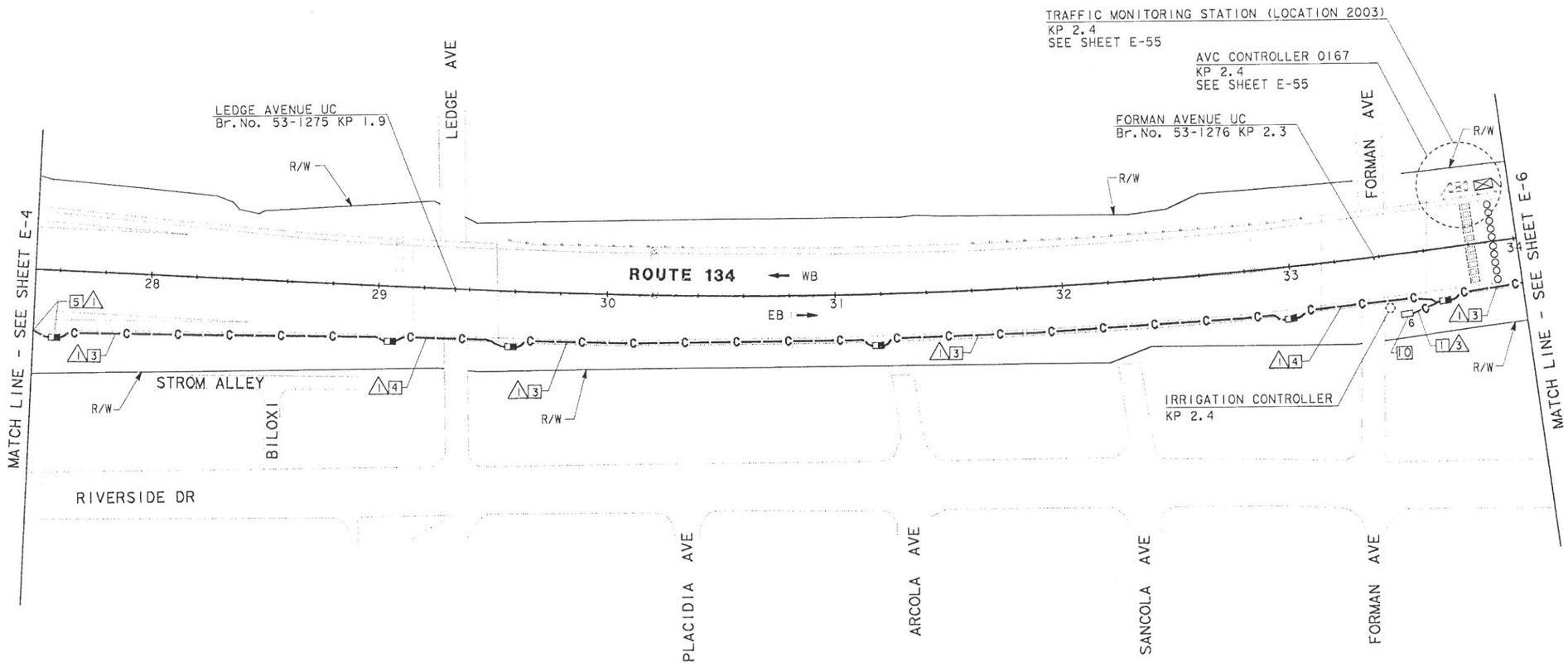
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 3
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE		103		103	53



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER: PAT SULLIVAN
CALCULATED/DESIGNED BY: MM DATE 6/96
CHECKED BY: MMS 6/96
REVISED BY
DATE REVISED

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USER ID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u06.dgn DATE: Fri Apr 27 2001 TIME: 09:54

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	93	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL STATE OF CALIFORNIA

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Caltrans Metric

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5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
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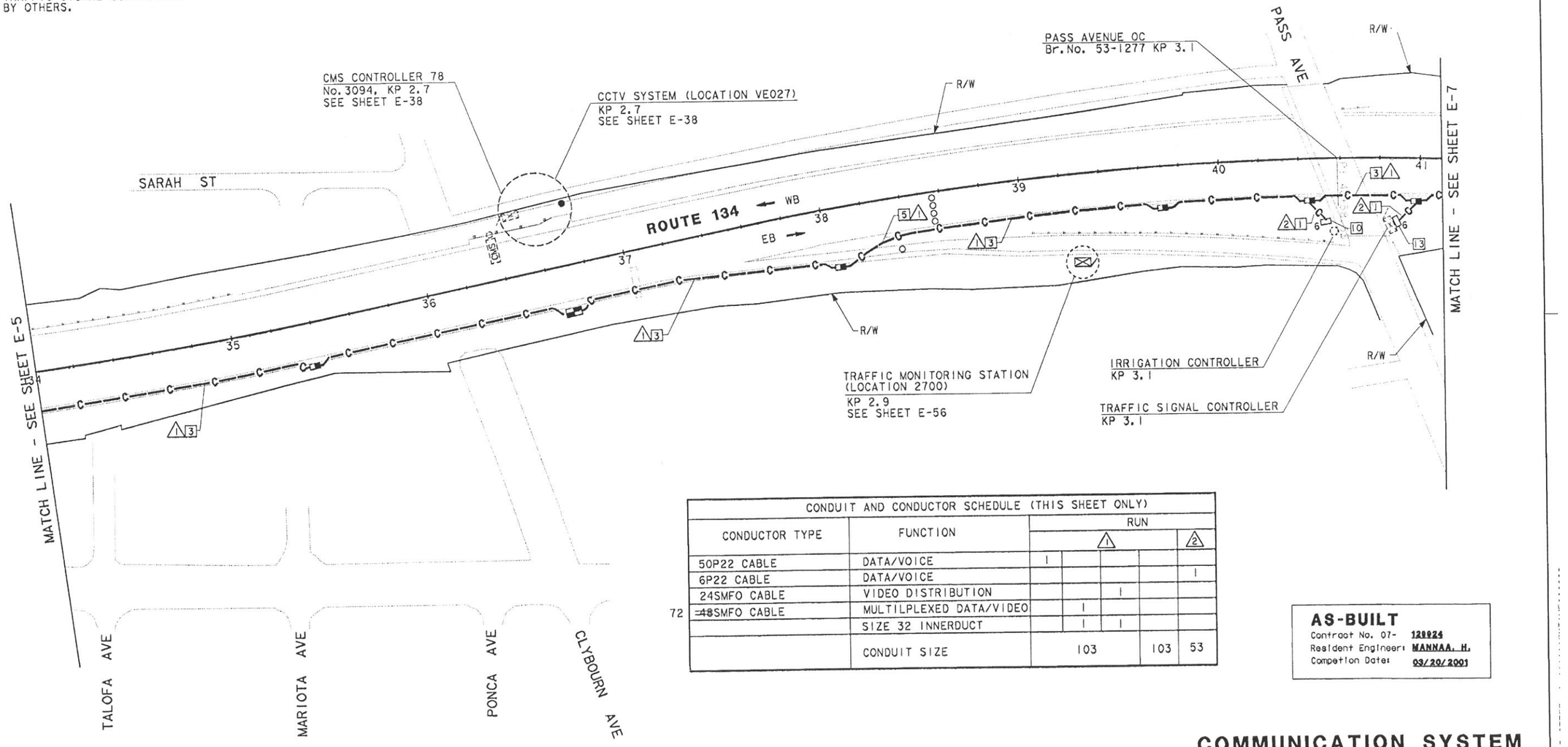
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MULTILPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE		103		103	53

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER: PAT SULLIVAN
CALCULATED/DESIGNED BY: MM DATE 6/96
CHECKED BY: MMS 6/96
REVISED BY
DATE REVISED

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USERNAME => $$$$$$USER$$$$$$
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CU 07396 EA 129921

LAST REVISION

USERID: HHuynh@T7NT6044 FILE: I:\projects\129921_ua\ab\712992u07.dgn DATE: Fri Apr 27 2001 TIME: 09:53

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.
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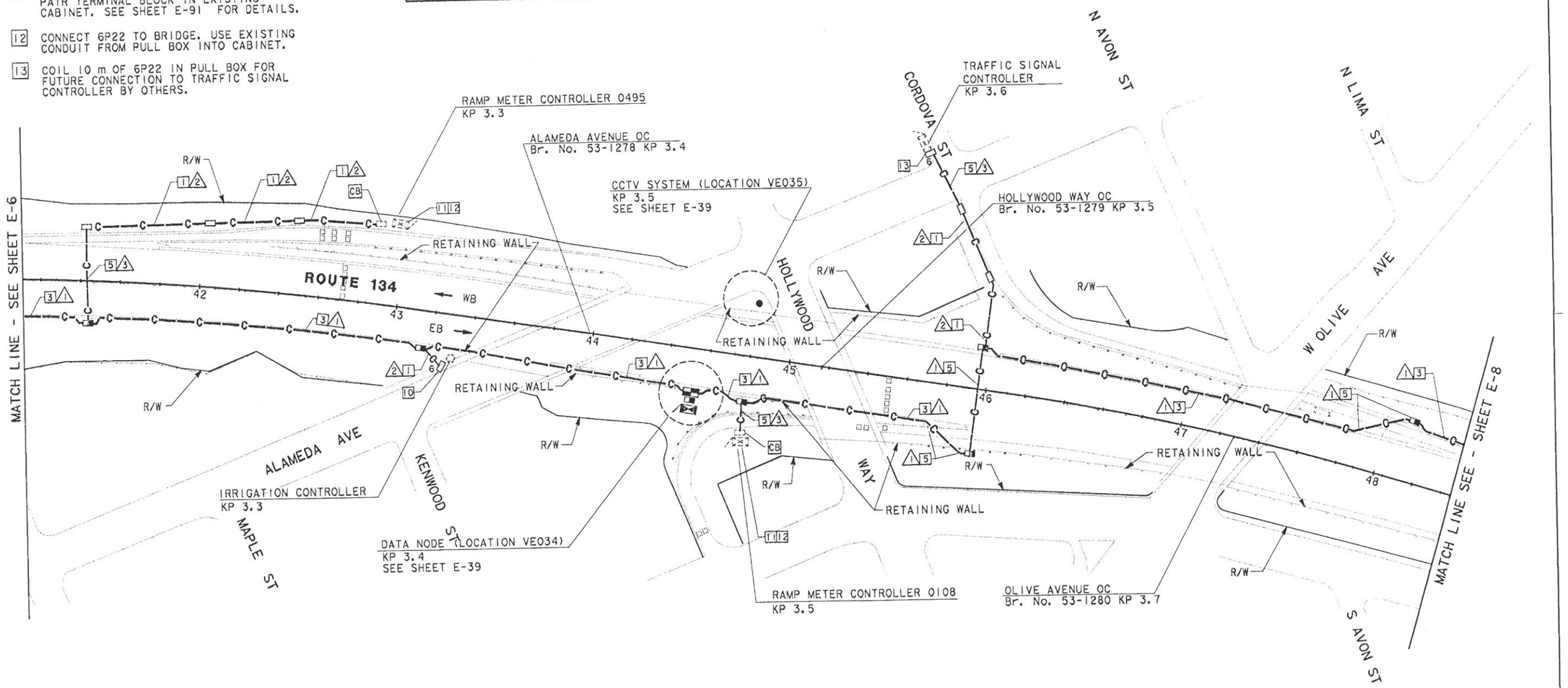
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN 1				2	3
50P22 CABLE	DATA/VOICE	1					
6P22 CABLE	DATA/VOICE					1	1
24SMFO CABLE	VIDEO DISTRIBUTION			1			
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
	SIZE 32 INNERDUCT		1	1			
	CONDUIT SIZE	103			103	53	78



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	94	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER — No. C048591 — Exp. 6-30-00 — CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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DATE	REVISED BY	DATE REVISED
6/96	MM	6/96

CALCULATED/DESIGNED BY: MM
CHECKED BY: MMS

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

AS-BUILT
Contract No. 07- 128924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

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

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-7

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

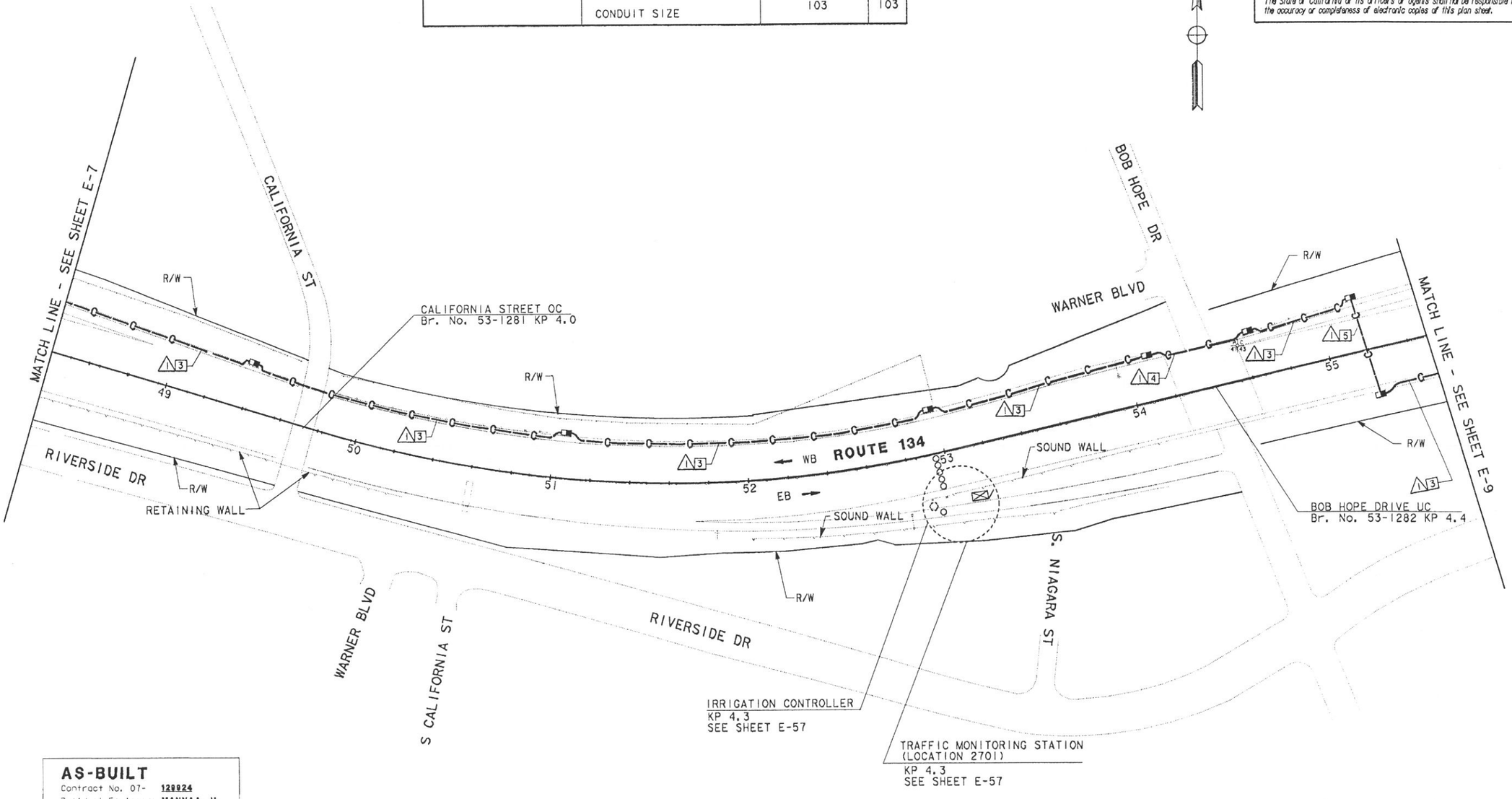
CU 07396 EA 129921

USERID: HHuynh@T7NT6044 FILE: I:\projects\129921_ua\ab\712992u07.dgn DATE: Fri Apr 27 2001 TIME: 09:53

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)					
CONDUCTOR TYPE	FUNCTION	RUN			
		1	3	4	5
50P22 CABLE	DATA/VOICE	1			
24SMFO CABLE	VIDEO DISTRIBUTION			1	
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1		
	SIZE 32 INNERDUCT		1	1	
	CONDUIT SIZE	103			103



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	95	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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.

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-8

DATE	REVISED BY
6/96	DATE REVISED

CALCULATED/DESIGNED BY: MM
CHECKED BY: MMS

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION 00 00 00 TIMF PLOTTED => $$$$$$$$TIMF$$$$$$

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	96	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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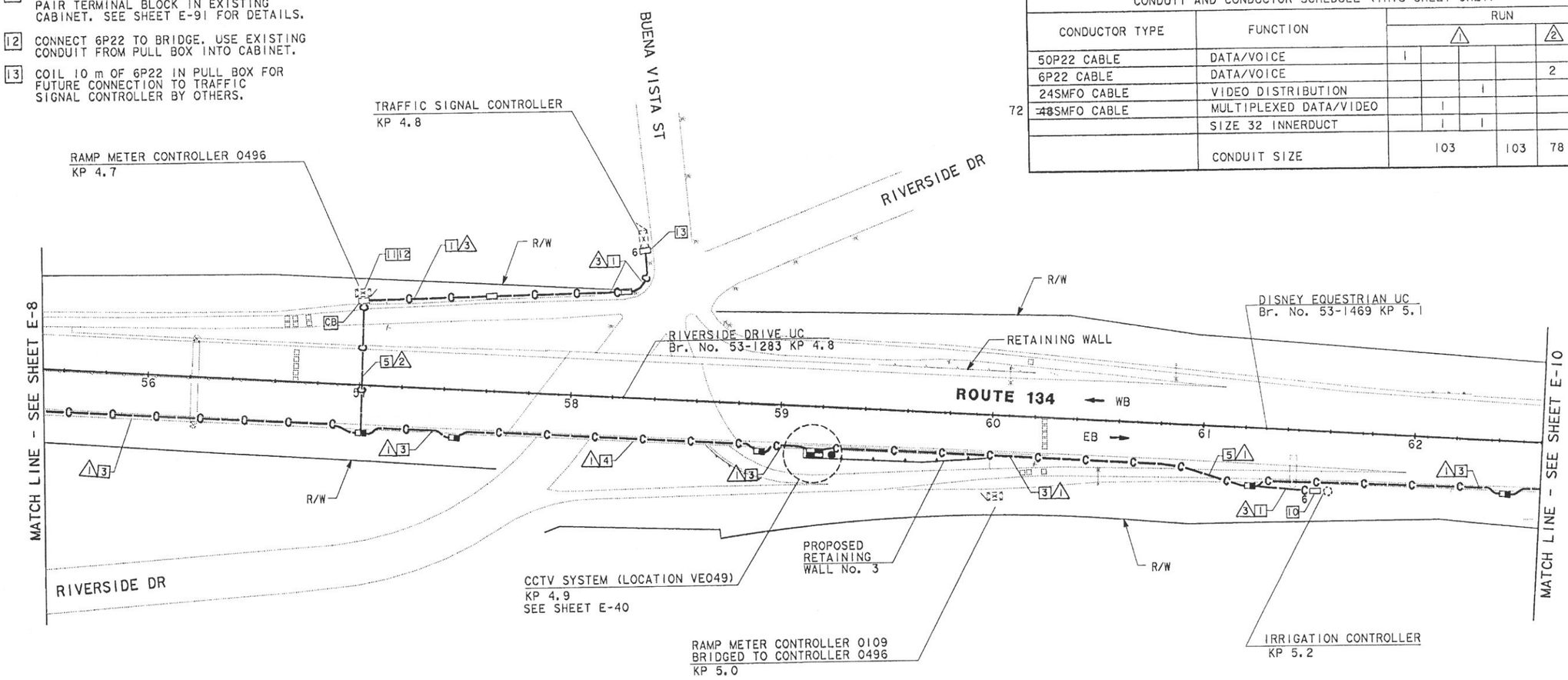
Caltrans Metric

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN 1				2	3
50P22 CABLE	DATA/VOICE	1					
6P22 CABLE	DATA/VOICE					2	1
24SMFO CABLE	VIDEO DISTRIBUTION			1			
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
	SIZE 32 INNERDUCT		1	1			
	CONDUIT SIZE	103			103	78	53



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-9

DATE	REVISED BY
6/96	MM

DATE REVISED	CALCULATED/ DESIGNED BY
6/96	MM

CHECKED BY
MMS

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 — TIME PLOTTED => $$$$$$$SYTIME$$$$$$

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USERID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u09.dan DATE: Mon Apr 30 2001 TIME: 09:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	97	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
MONICA SUTER
No. C048581
Exp. 6-30-00
CIVIL
STATE OF CALIFORNIA

4-28-97
PLANS APPROVAL DATE

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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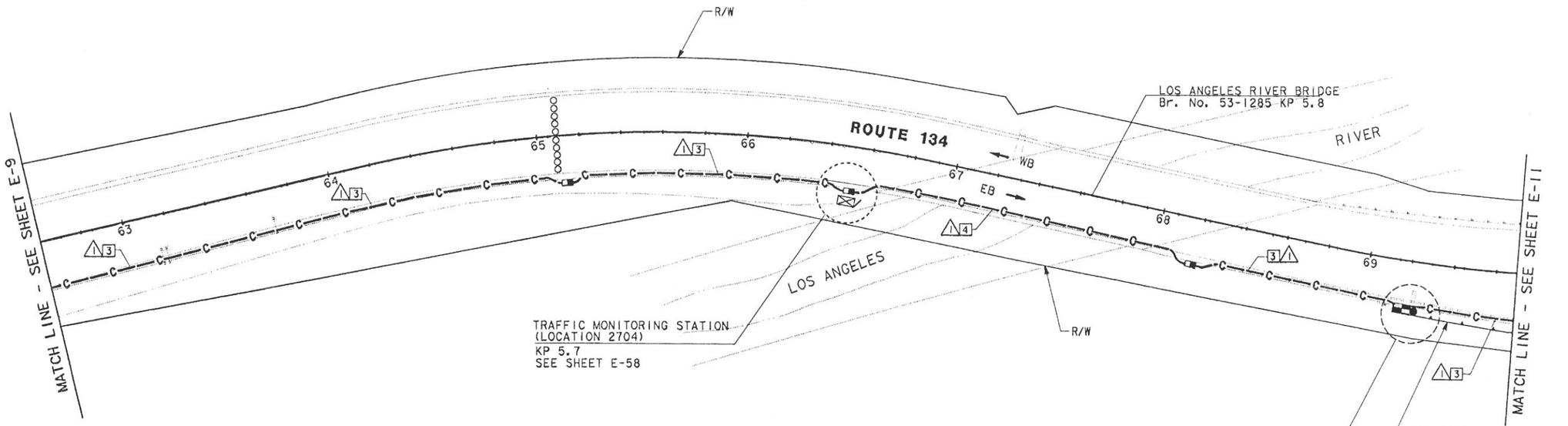
NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN ⚠			
50P22 CABLE	DATA/VOICE	1			
24SMFO CABLE	VIDEO DISTRIBUTION			1	
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1		
	SIZE 32 INNERDUCT		1	1	
	CONDUIT SIZE	103			103

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-10

DATE	REVISED BY	DATE REVISED
6/96	MM	6/96 MMS

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION 00 00 00 TIME PLOTTED => $$$$$$$$TIME$$$$$$$$

USER ID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ob\712992u11.dgn DATE: Fri Apr 27 2001 TIME: 09:51

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
18. CONNECT 2-6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				2	3	4	5
50P22 CABLE	DATA/VOICE	1							
6P22 CABLE	DATA/VOICE					1	1	3	3
24SMFO CABLE	VIDEO DISTRIBUTION			1					
72 ~~48~~SMFO CABLE	MUTIPLEXED DATA/VIDEO		1						
	SIZE 32 INNERDUCT		1	1					
	CONDUIT SIZE	103			103	78	53	53	78

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	134	0.0/21.8	98	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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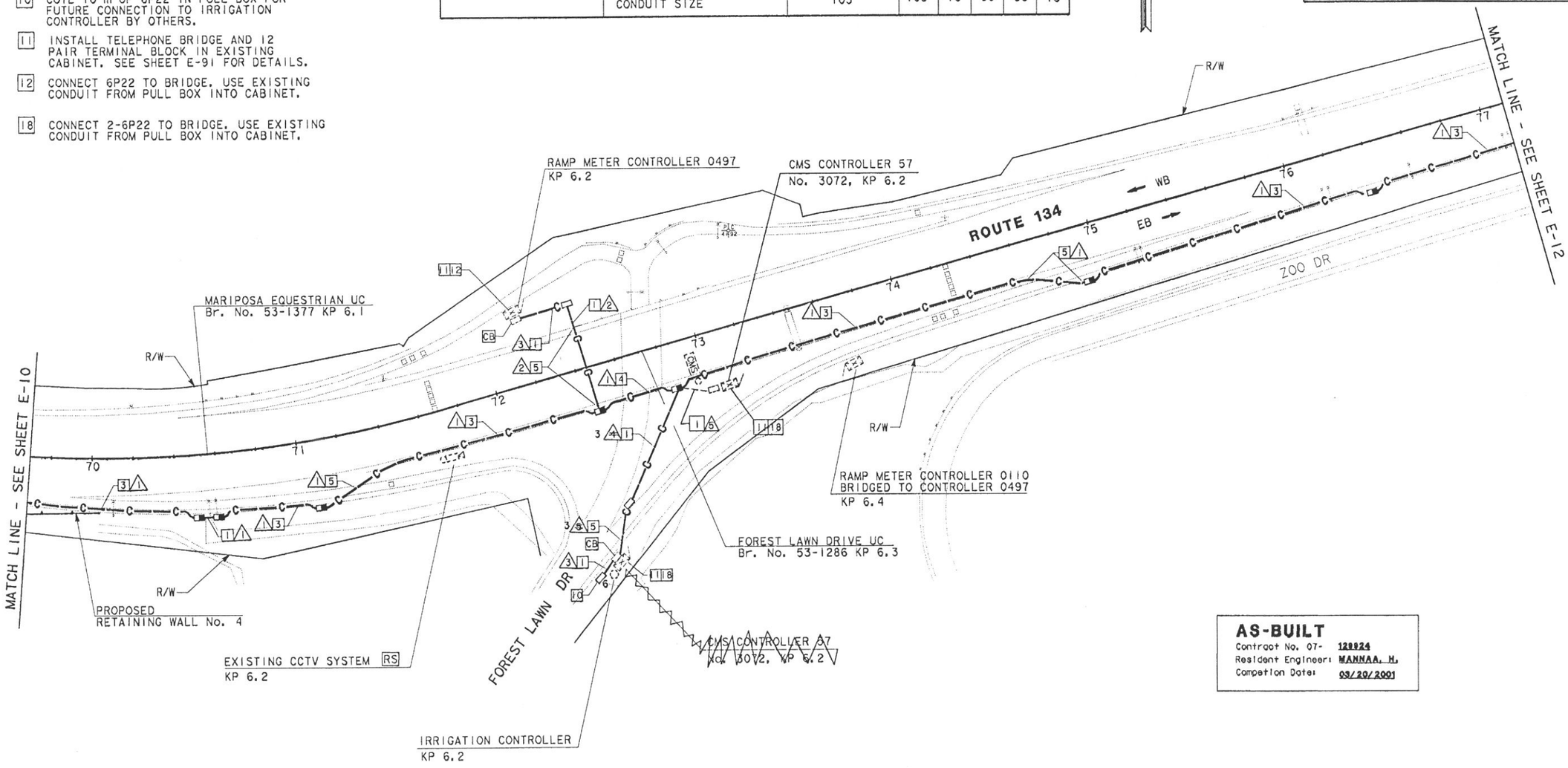

AS-BUILT
Contract No. 07- 128924
Resident Engineer: MANNAA, H.
Completion Date: 09/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-11

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

REVISED BY	DATE REVISED
MM	6/96
MMS	6/96

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION $$$$$$$$$$ TIME PLOTTED => $$$$$$$$$$

USER ID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ob\712992u11.dgn DATE: Fri Apr 27 2001 TIME: 09:51

USER ID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u12.dgn DATE: Fri Apr 27 2001 TIME: 09:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	99	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MONICA SUTER
No. C048591
Exp. 6-30-00
CIVIL
STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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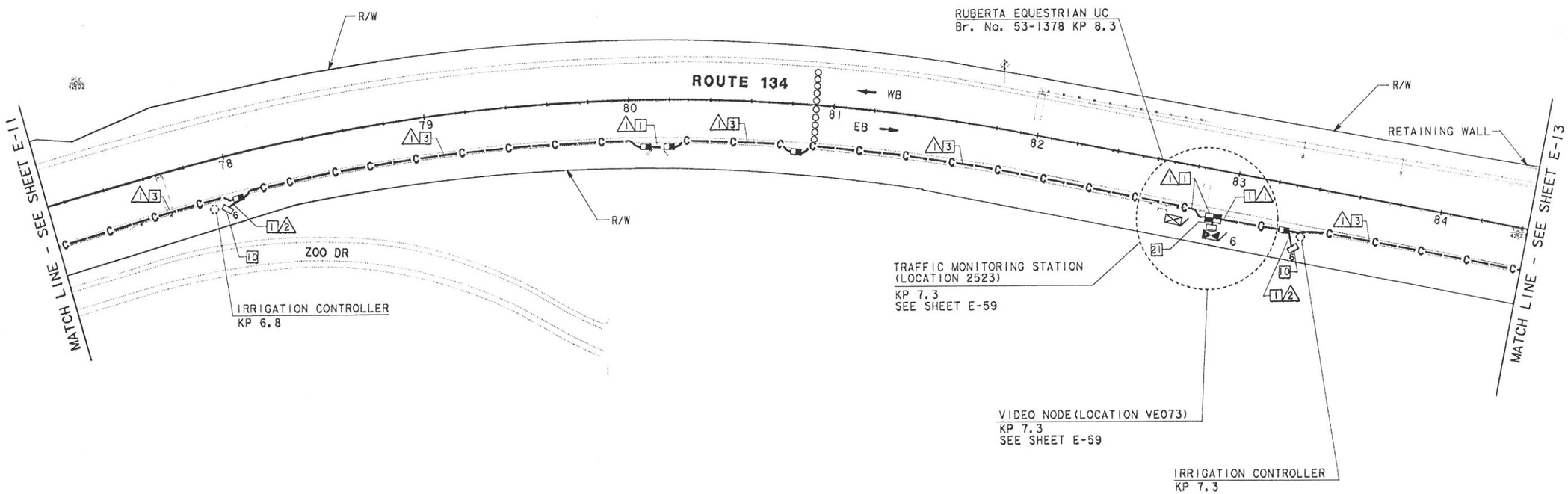
Caltrans Metric

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
10. COIL 10m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER.
21. SEE SHEET E-59 FOR CONDUIT INFORMATION AND PAYMENT.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE		103		103	53



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER: PAT SULLIVAN

CALCULATED/DESIGNED BY: MM DATE 6/96
CHECKED BY: MMS 6/96
REVISED BY
DATE REVISED

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$SYTIME$$$$$$

SEP 2 HHuynh@T7NT6044 F:\projects\129921_ua\ab\712992u13.dgn DATE Fri Apr 27 2001 TIME 09:49

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	100	209

Caltrans Metric

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

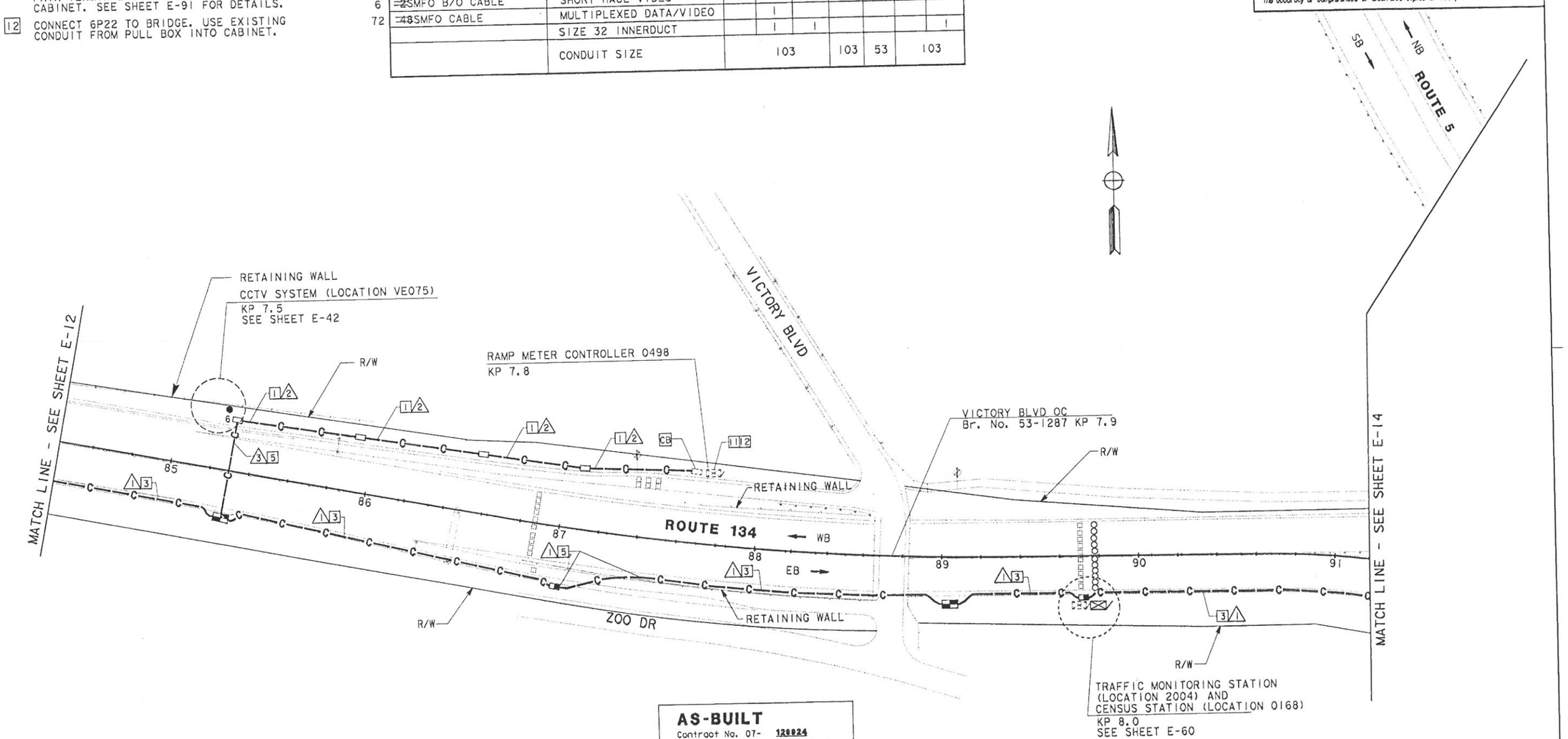
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2		RUN 3
50P22 CABLE	DATA/VOICE	1						
6P22 CABLE	DATA/VOICE					1	2	
24SMFO CABLE	VIDEO DISTRIBUTION			1				
6 ~~2~~SMFO B/O CABLE	SHORT HAUL VIDEO							1
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
	SIZE 32 INNERDUCT		1	1				1
	CONDUIT SIZE		103		103	53	103	



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-13

CALCULATED/ DESIGNED BY	MM	DATE 6/96	REVISED BY
CHECKED BY	MMS	6/96	DATE REVISED

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
15. COIL 20 m OF 6P22 CABLE IN PULL BOX FOR FUTURE CONNECTION TO CENSUS STATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72~~48~~SMFO CABLE	MUXTILEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE	103			103	53

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	101	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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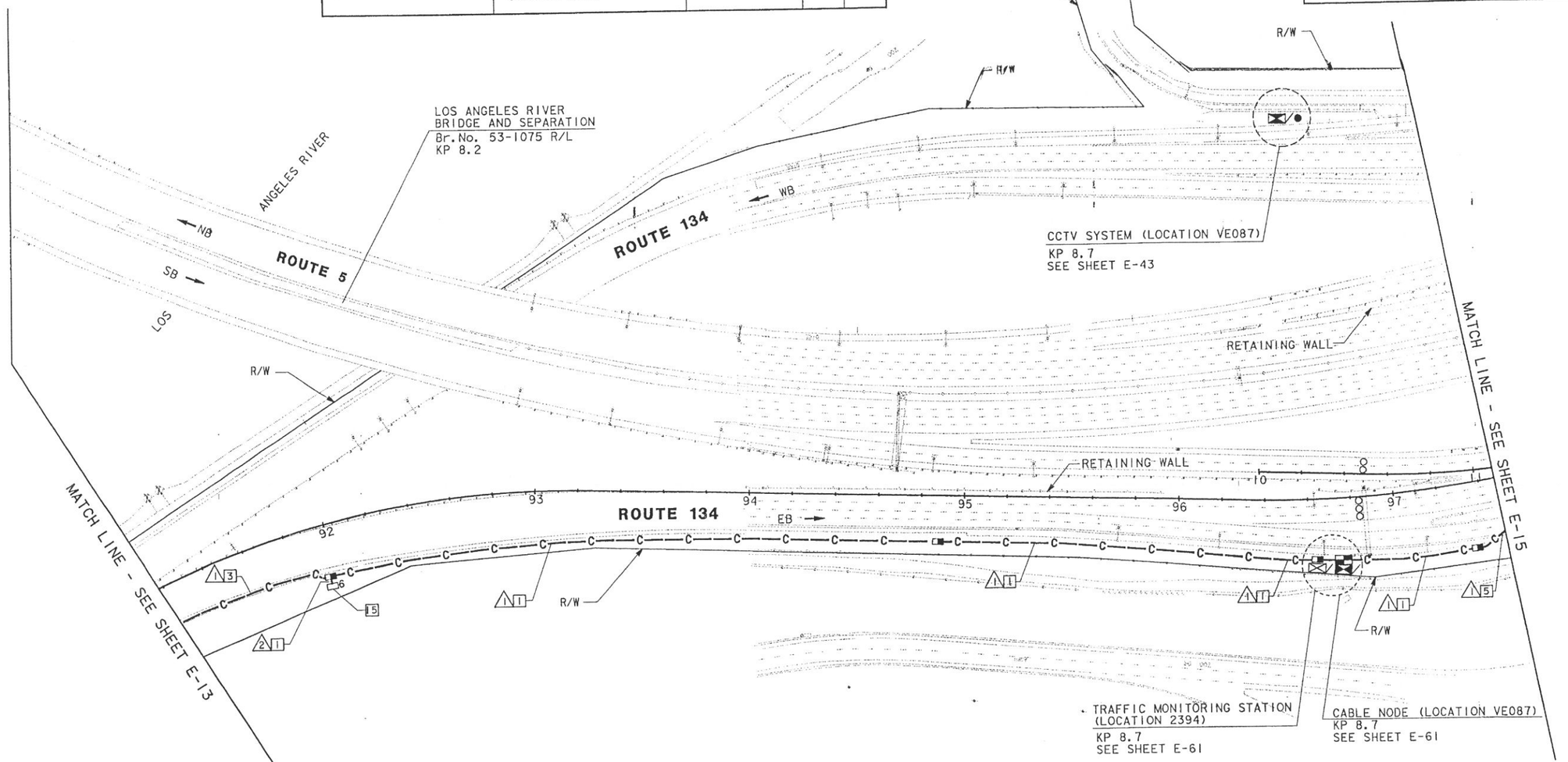

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-14

DATE	REVISED BY	DATE REVISED
6/96	MM	6/96

CALCULATED/DESIGNED BY
CHECKED BY MMS

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

TIME PLOTTED => $$$$$$$SYTIME$$$$$$

USERNAME => $$$$$$USER$$$$$$

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.

AS-BUILT
Contract No. 07- 128924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	102	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER — No. C048591 — Exp. 6-30-00 — CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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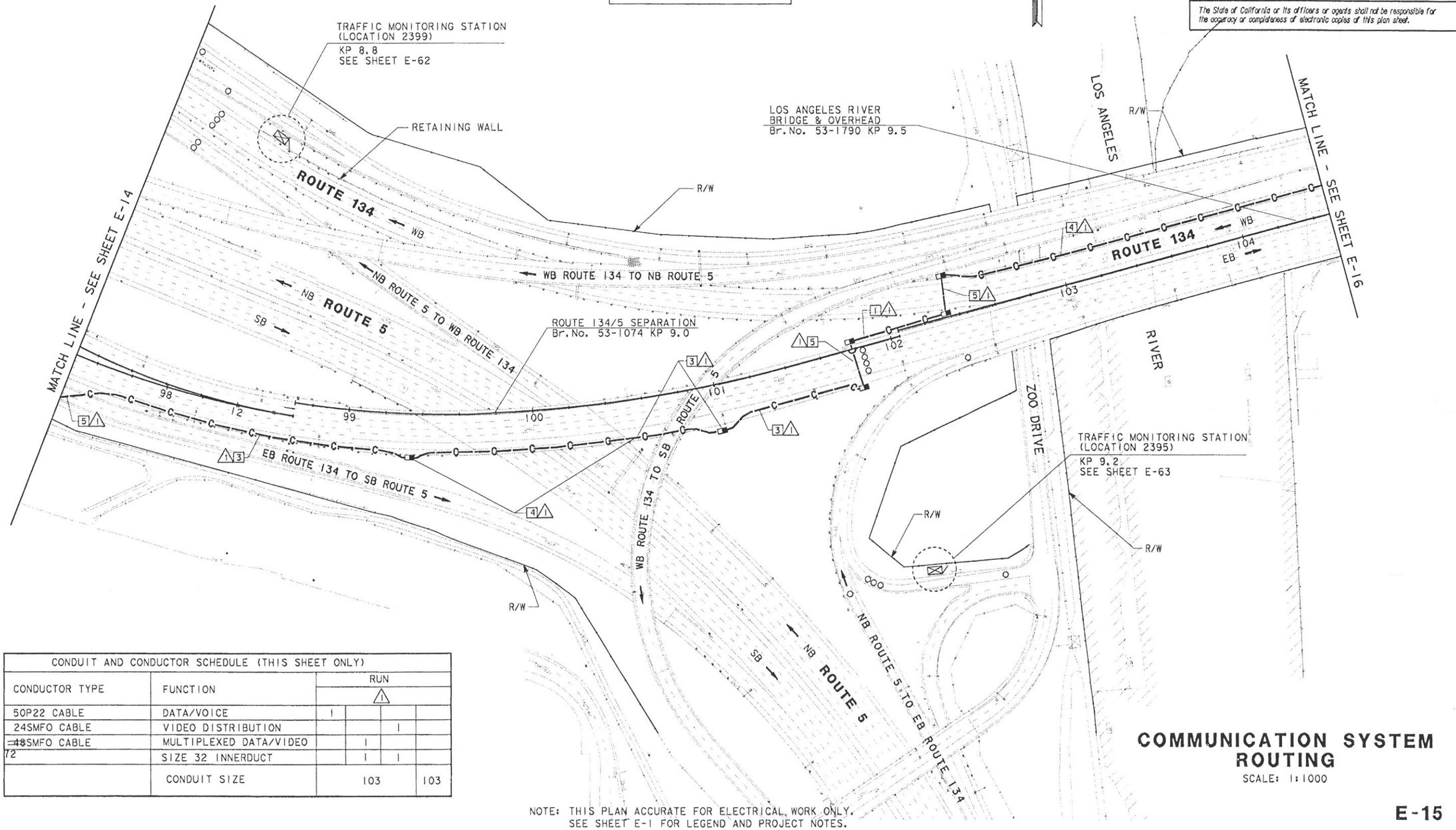

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN 1				
50P22 CABLE	DATA/VOICE	1				
24SMFO CABLE	VIDEO DISTRIBUTION			1		
~~48~~72SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE		103			103

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

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-15

DATE	BY	REVISED BY / DATE REVISED
6/96	MM	MMS 6/96

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$SYTIME$$$$$$

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USER ID: HHuynh@T2NT6044 FILE: i:\projects\129921_ua\ab\Z12992u16.dgn DATE: Tue May 1 2001 TIME: 11:18

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	103	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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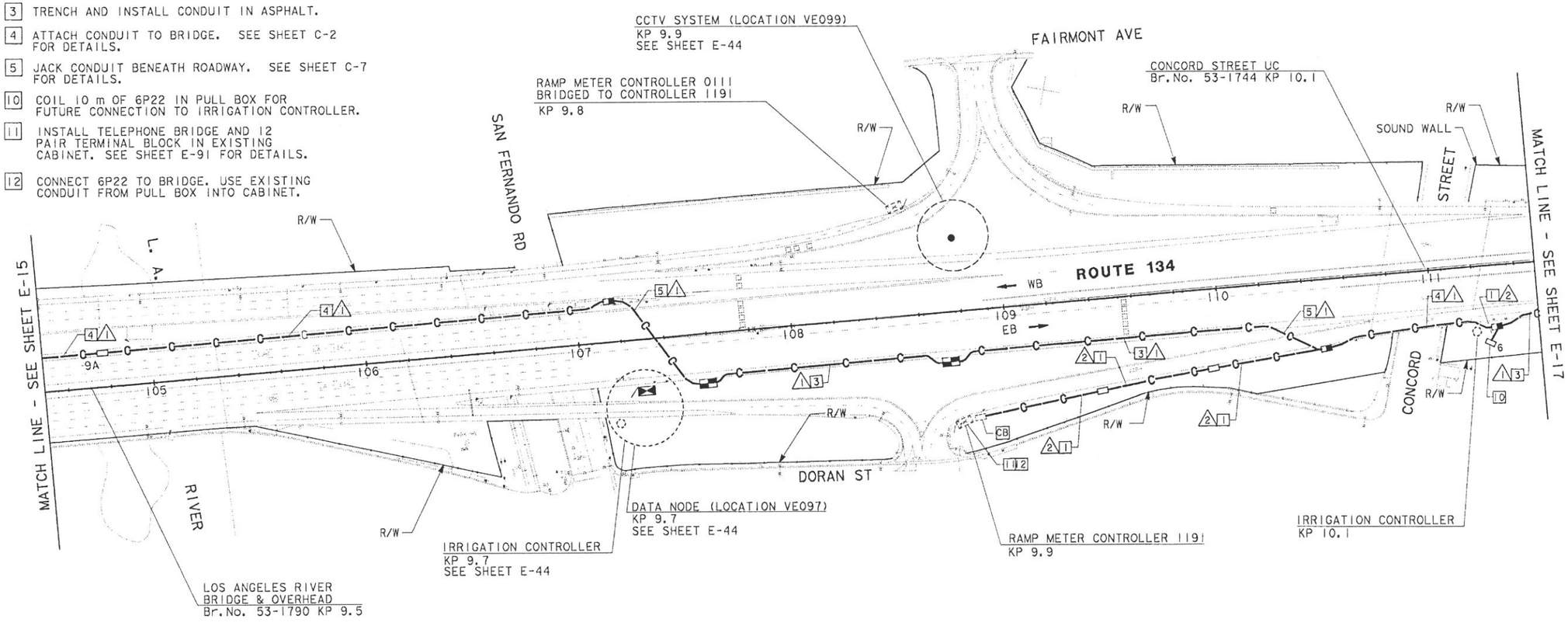
Caltrans Metric

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
		⚠1				⚠2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MUTILPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE	103			103	53

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-16

DATE	REVISED BY	DATE	REVISED BY
6/96	MM	6/96	MMS

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$$SYTIME$$$$$$

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USER ID: HHuynh@T2NT6044 FILE: i:\projects\129921_ua\ab\Z12992u16.dgn DATE: Tue May 1 2001 TIME: 11:18

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	104	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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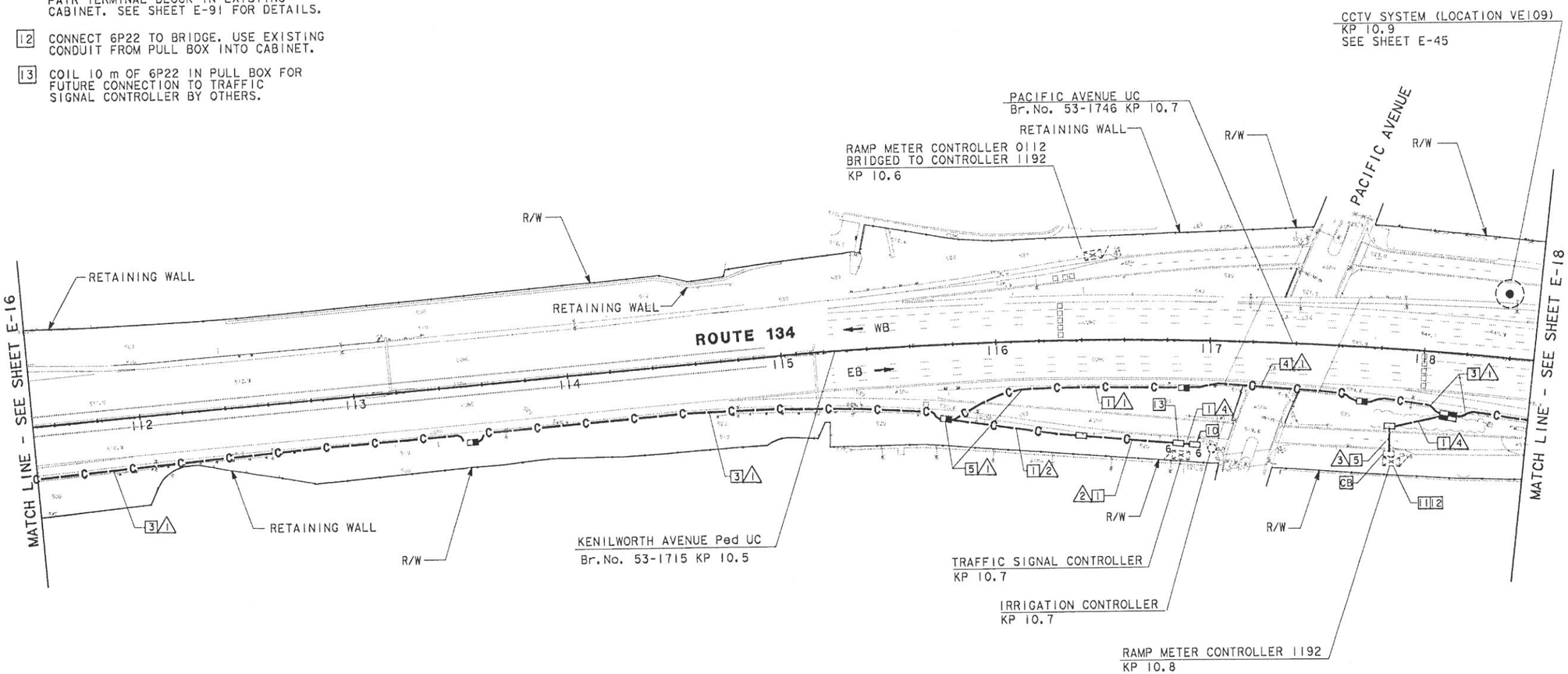
Caltrans Metric

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4
50P22 CABLE	DATA/VOICE	1			
6P22 CABLE	DATA/VOICE		2	1	1
24SMFO CABLE	VIDEO DISTRIBUTION	1			
72 ~~48~~SMFO CABLE	MUTIPLEXED DATA/VIDEO	1			
	SIZE 32 INNERDUCT	1 1			
	CONDUIT SIZE	103 103	53	78	53



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER: PAT SULLIVAN

	DATE	REVISED BY	DATE REVISED
CALCULATED/ DESIGNED BY	MM	6/96	
CHECKED BY	MMS	6/96	

LAST REVISION 00-00-00
TIME PLOTTED => $$$$$$SYSTIME$$$$$$

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

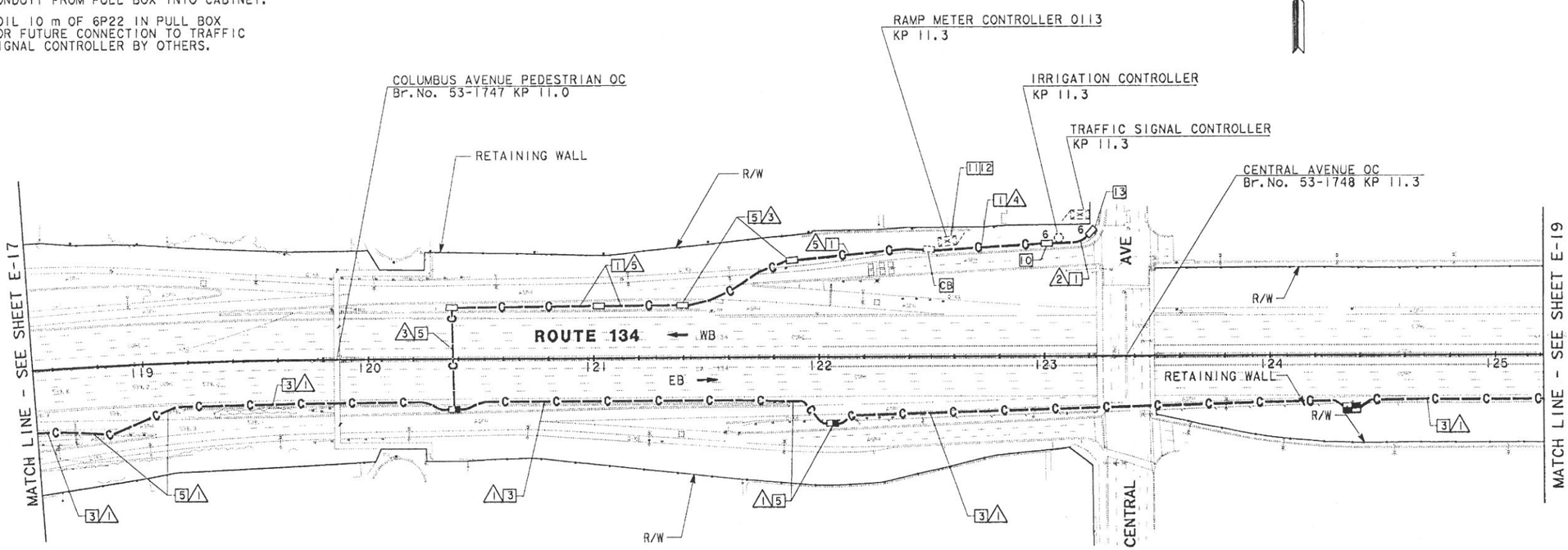
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USER ID: MHuynh@TZNT6044 FILE: f:\projects\129921_ua\ob\Z12992u18.dgn DATE: Fri Apr 27 2001 TIME: 09:58

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)									
CONDUCTOR TYPE	FUNCTION	RUN							
		1				2	3	4	5
50P22 CABLE	DATA/VOICE	1							
6P22 CABLE	DATA/VOICE					1	3	2	3
24SMFO CABLE	VIDEO DISTRIBUTION			1					
72 ~~48~~SMFO CABLE	MULTIPLEXER DATA/VIDEO		1						
	SIZE 32 INNERDUCT		1	1					
	CONDUIT SIZE	103			103	53	78	53	53

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

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/30/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-18

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	105	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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DATE	REVISED BY	DATE REVISED
6/96	MM	6/96 MMS

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$SYTIME$$$$$$

$$$$$$$$BOOKSPEC$$$$$$$$
$$$$$$$$POSTMILE$$$$$$$$

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

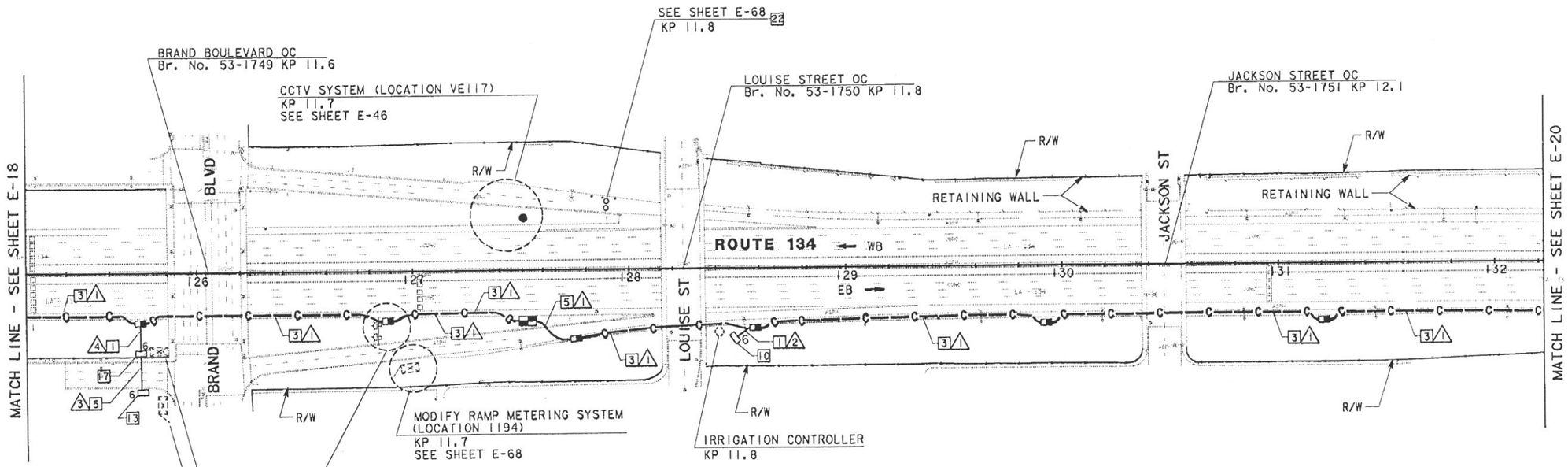
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USER ID: MHuynh@TZNT6044 FILE: f:\projects\129921_ua\ob\Z12992u18.dgn DATE: Fri Apr 27 2001 TIME: 09:58

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.
17. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO CENSUS STATION BY OTHERS.
22. INCLUDED IN BID ITEM "MODIFY RAMP METERING SYSTEM (LOCATION 1194)."



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1				2	3	4
50P22 CABLE	DATA/VOICE	1						
6P22 CABLE	DATA/VOICE					1	1	2
24SMFO CABLE	VIDEO DISTRIBUTION			1				
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
	SIZE 32 INNERDUCT		1	1				
	CONDUIT SIZE	103			103	53	78	53

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-19

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	106	209

Caltrans Metro

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER — No. C048591 — Exp. 6-30-00 — CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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ALL DIMENSION ARTE IN METERS UNLESS OTHERWISE SHOWN.

DATE	REVISED BY
6/96	MM
6/96	MMS

DATE REVISED

CALCULATED/DESIGNED BY

CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

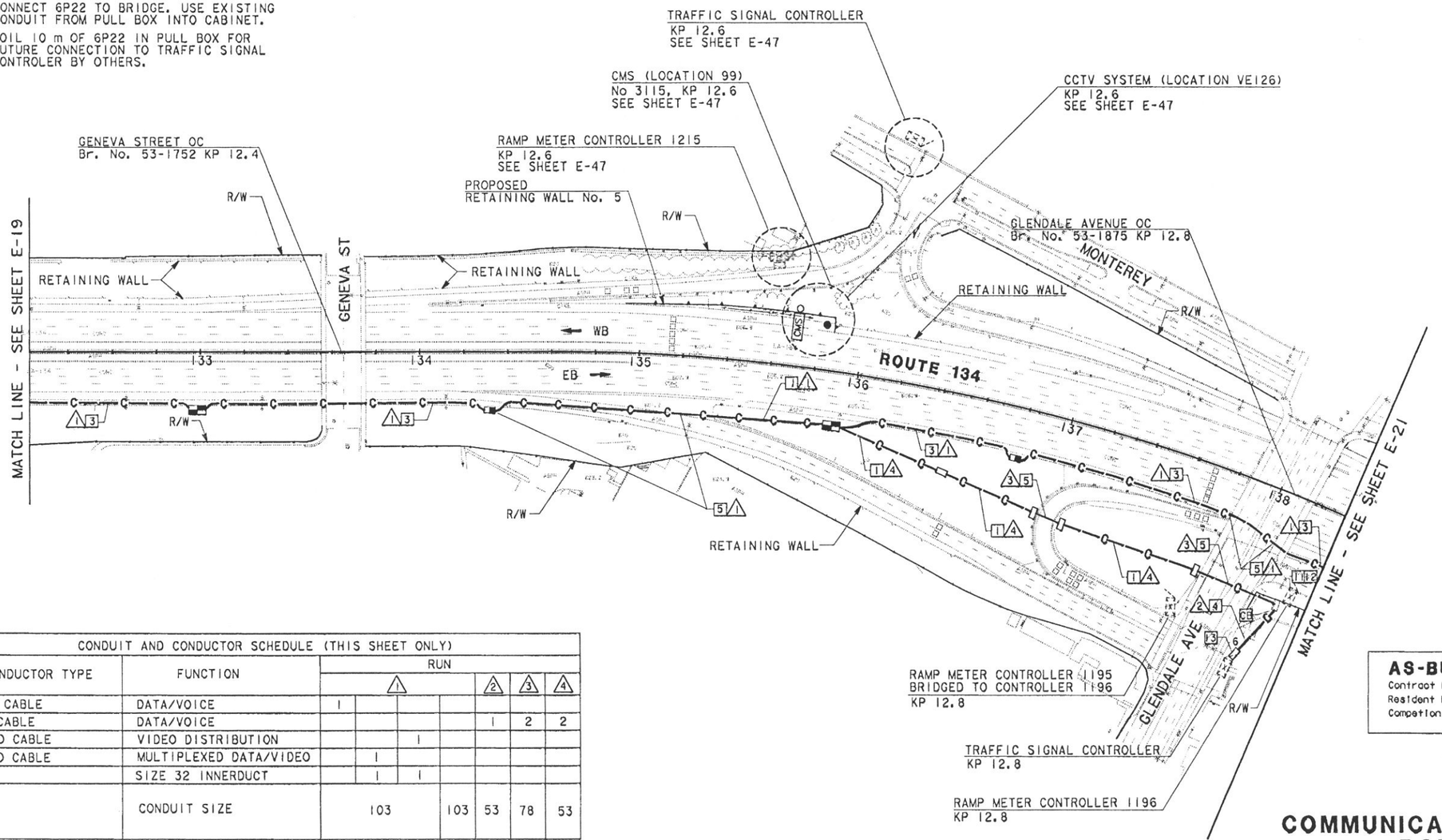
CU 07396 EA 129921

LAST REVISION 00-00-00

TIME PLOTTED => $$$$$$SYSTIME$$$$$$

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. TRENCH AND INSTALL CONDUIT IN SIDEWALK.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLER BY OTHERS.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1				2	3	4
50P22 CABLE	DATA/VOICE	1						
6P22 CABLE	DATA/VOICE					1	2	2
24SMFO CABLE	VIDEO DISTRIBUTION			1				
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
	SIZE 32 INNERDUCT		1	1				
	CONDUIT SIZE	103			103	53	78	53

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 09/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-20

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	107	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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DATE	REVISED BY	DATE REVISED
6/96	MM	6/96 MMS

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$$SYTIME$$$$$$

USER ID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u21.dgn DATE: Mon Apr 30 2001 TIME: 10:05

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	108	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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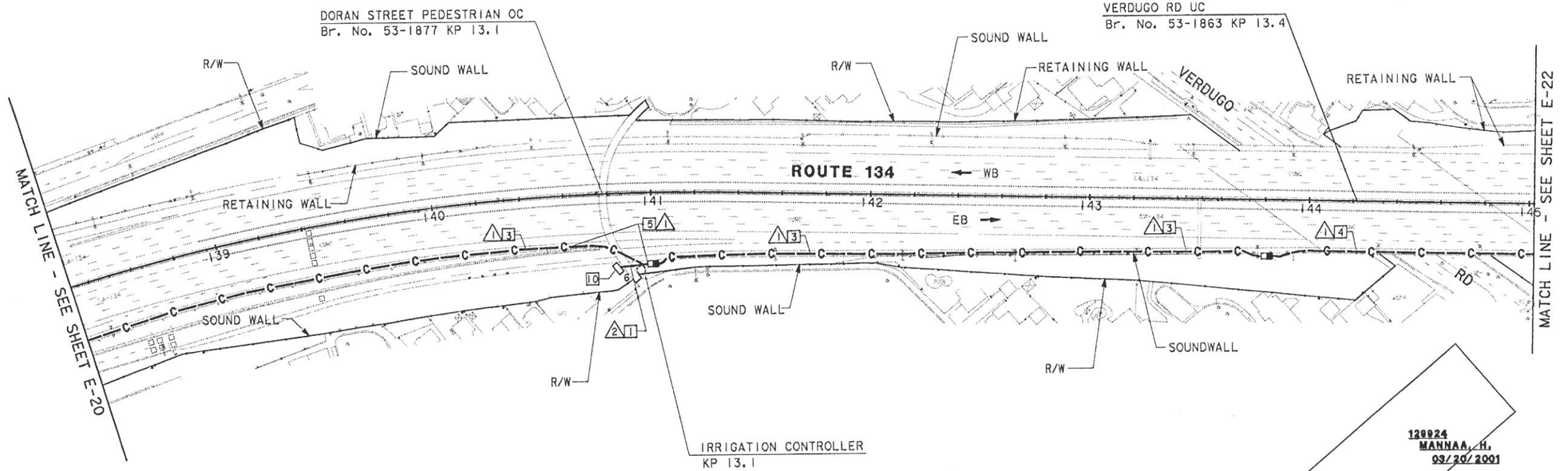
NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2. FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7. FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE	103			103	53



129924
MANNAA, H.
03/20/2001

AS-BUILT
Contract No. 07-
Resident Engineer:
Completion Date:

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-21

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
CHECKED BY	MMS	6/96	

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$$SYTIME$$$$$$$

USER ID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u21.dgn DATE: Mon Apr 30 2001 TIME: 10:05

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	109	209

Caltrans Metric

Monica M Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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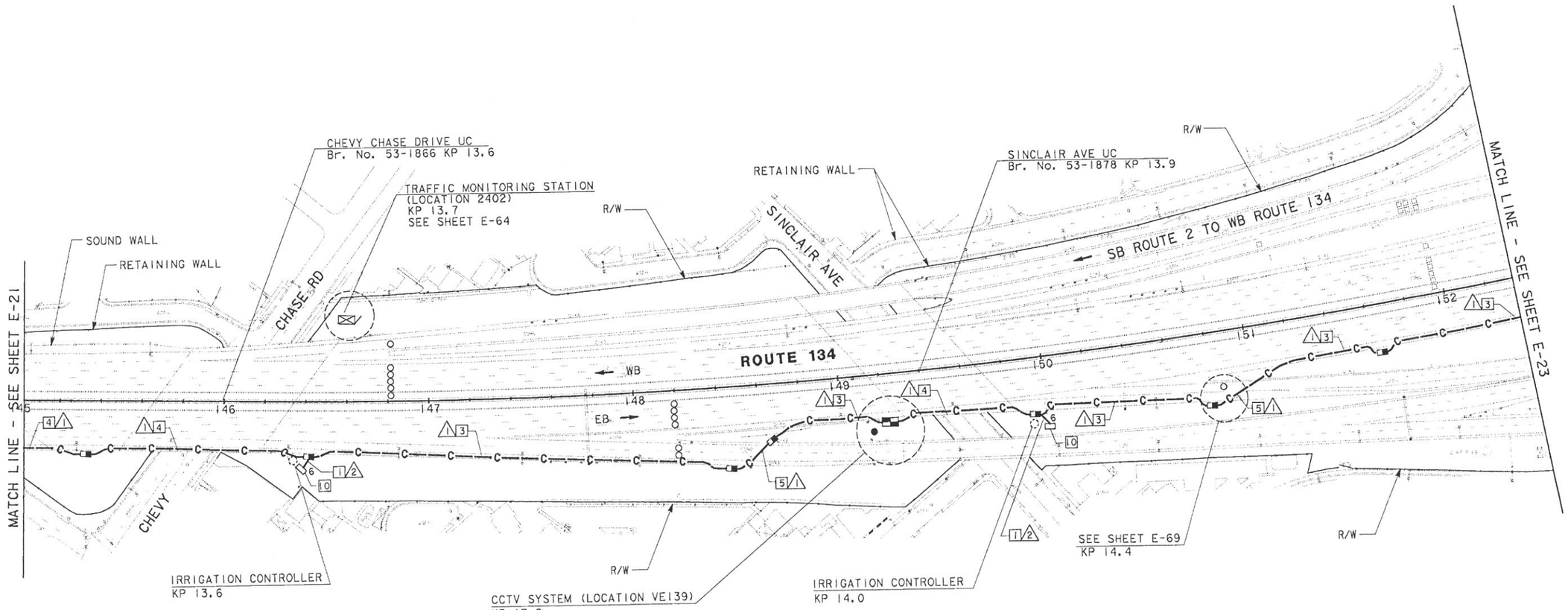
NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)					
CONDUCTOR TYPE	FUNCTION	RUN (1)			RUN (2)
50P22 CABLE	DATA/VOICE	1			
6P22 CABLE	DATA/VOICE				1
24SMFO CABLE	VIDEO DISTRIBUTION			1	
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1		
	SIZE 32 INNERDUCT		1	1	
	CONDUIT SIZE	103			103 / 53



AS-BUILT
Contract No. 07- **129924**
Resident Engineer: **MANNAA, H.**
Competion Date: **03/20/2001**

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-22

CALCULATED/ DESIGNED BY	MM	6/96	REVISED BY
CHECKED BY	MMS	6/96	DATE REVISED

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO	SHEETS
07	LA	134	0.0/21.8	110	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER — No. C048591 — Exp. 6-30-00 — CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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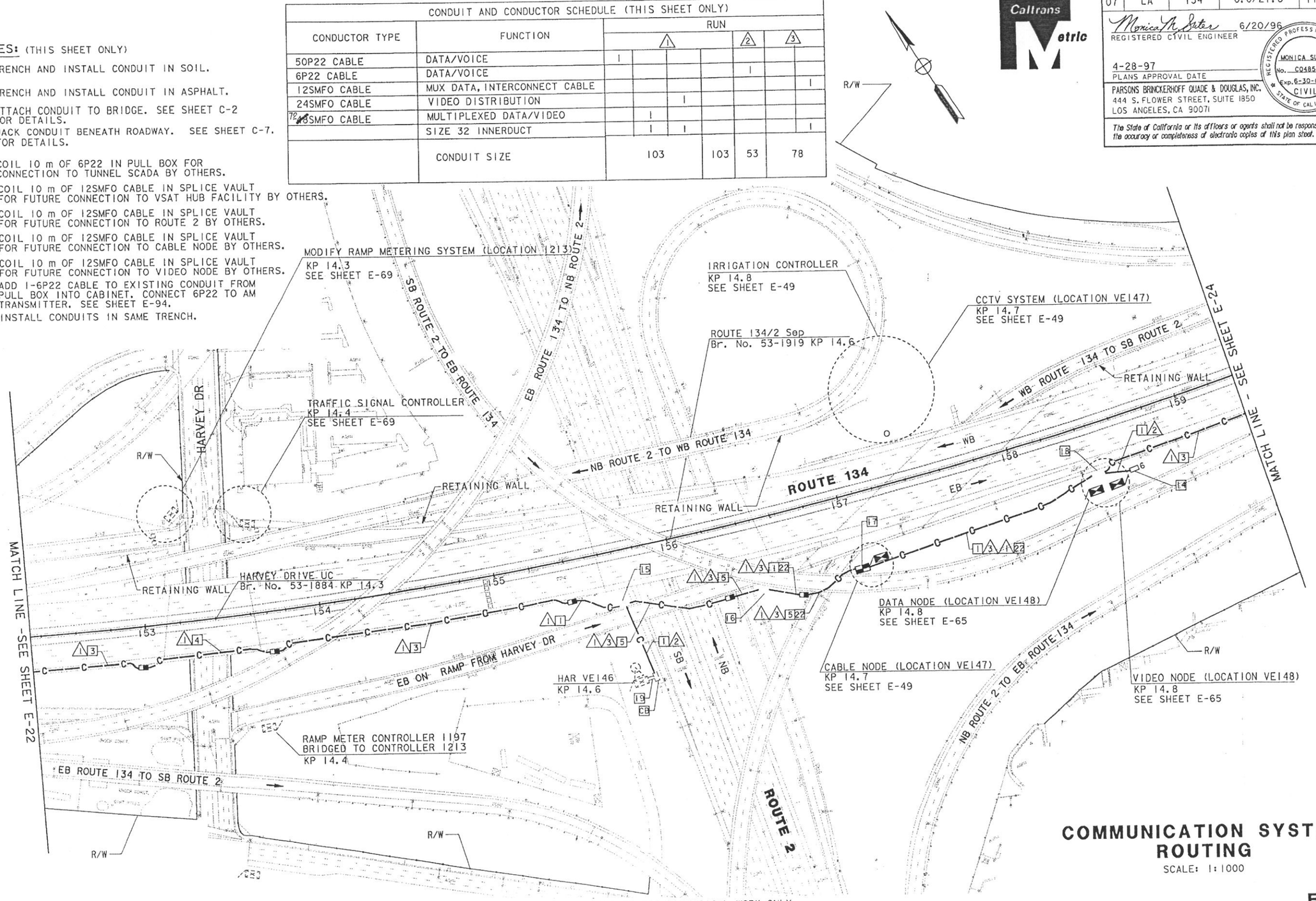
Caltrans Metric

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1				2	3	
50P22 CABLE	DATA/VOICE	1						
6P22 CABLE	DATA/VOICE					1		
12SMFO CABLE	MUX DATA, INTERCONNECT CABLE							1
24SMFO CABLE	VIDEO DISTRIBUTION			1				
72~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
	SIZE 32 INNERDUCT		1	1				1
	CONDUIT SIZE	103			103	53	78	

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7. FOR DETAILS.
14. COIL 10 m OF 6P22 IN PULL BOX FOR CONNECTION TO TUNNEL SCADA BY OTHERS.
15. COIL 10 m OF 12SMFO CABLE IN SPLICE VAULT FOR FUTURE CONNECTION TO VSAT HUB FACILITY BY OTHERS.
16. COIL 10 m OF 12SMFO CABLE IN SPLICE VAULT FOR FUTURE CONNECTION TO ROUTE 2 BY OTHERS.
17. COIL 10 m OF 12SMFO CABLE IN SPLICE VAULT FOR FUTURE CONNECTION TO CABLE NODE BY OTHERS.
18. COIL 10 m OF 12SMFO CABLE IN SPLICE VAULT FOR FUTURE CONNECTION TO VIDEO NODE BY OTHERS.
19. ADD 1-6P22 CABLE TO EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 6P22 TO AM TRANSMITTER. SEE SHEET E-94.
22. INSTALL CONDUITS IN SAME TRENCH.



COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-23

DATE	REVISED BY
6/96	MM
6/96	MMS

DATE REVISED

CALCULATED/DESIGNED BY

CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396

EA 129921

LAST REVISION 00-00-00

TIME PLOTTED => $$$$$$$$SYTIME$$$$$$

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	111	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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Caltrans Metric

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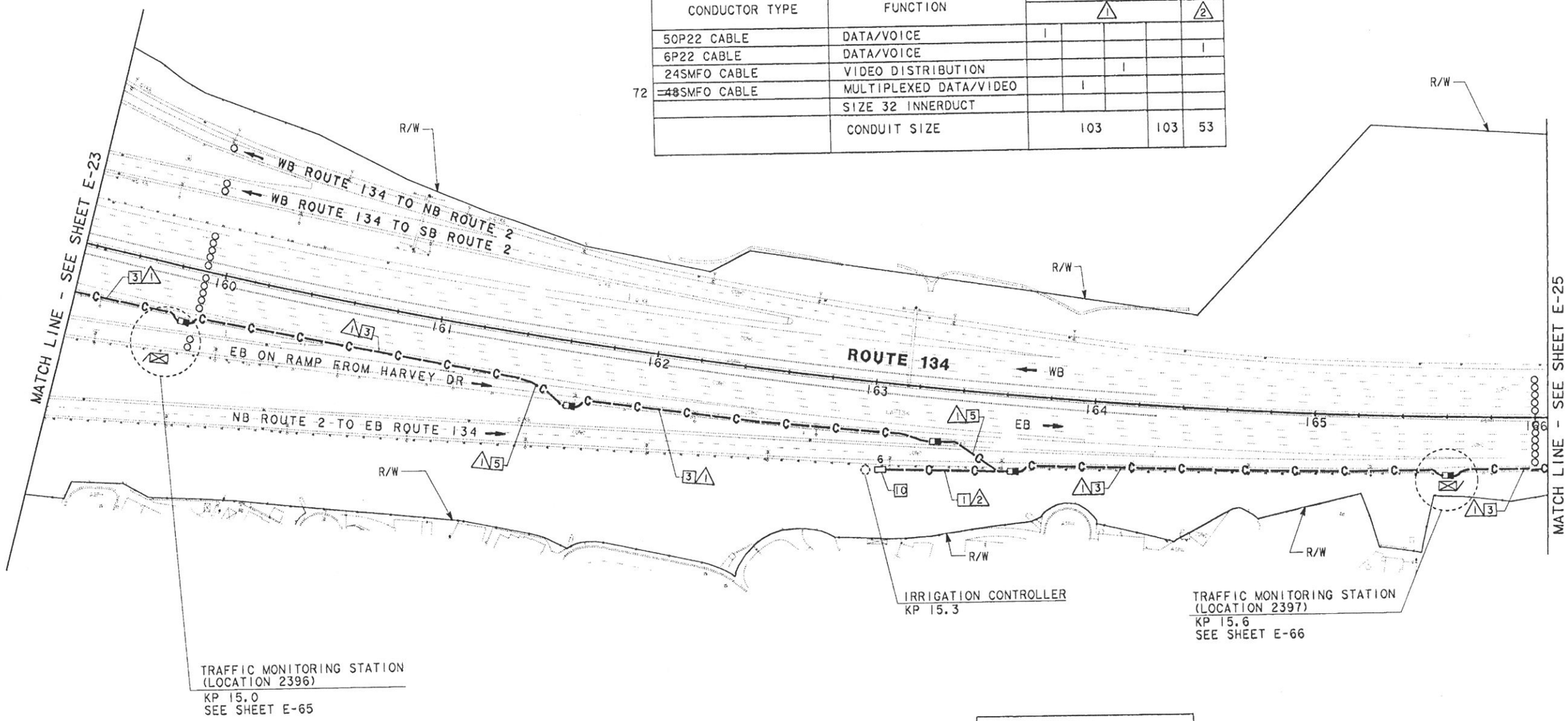
1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT					
	CONDUIT SIZE	103			103	53



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-24

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

CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
MM	MMS	6/96		

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	112	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

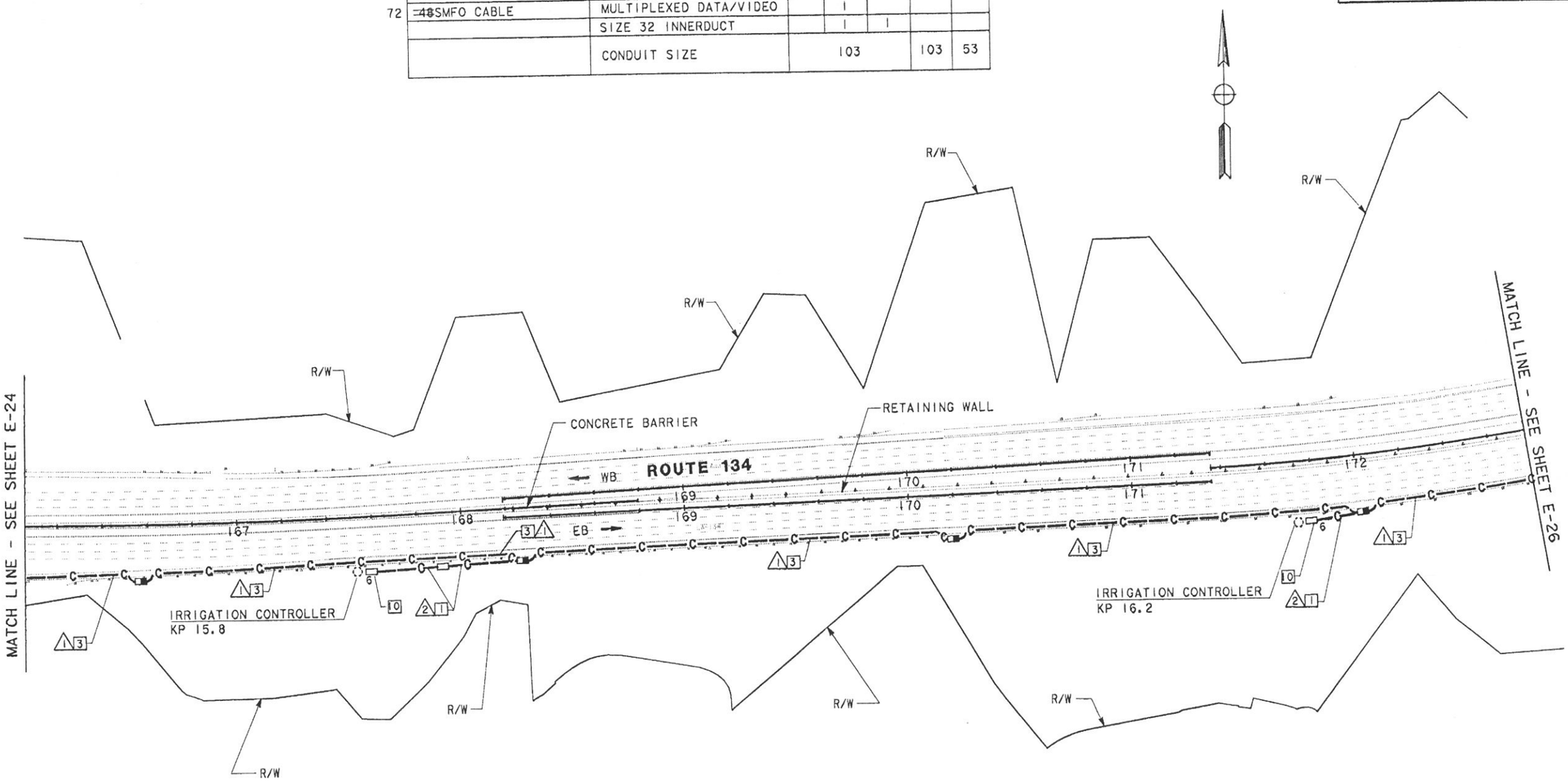
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE	103			103	53



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-25

CALCULATED/ DESIGNED BY	CHECKED BY	DATE REVISED BY	DATE REVISED
MM	MMS	6/96	6/96

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
		1				2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MULTIPLXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE	103			103	53

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	113	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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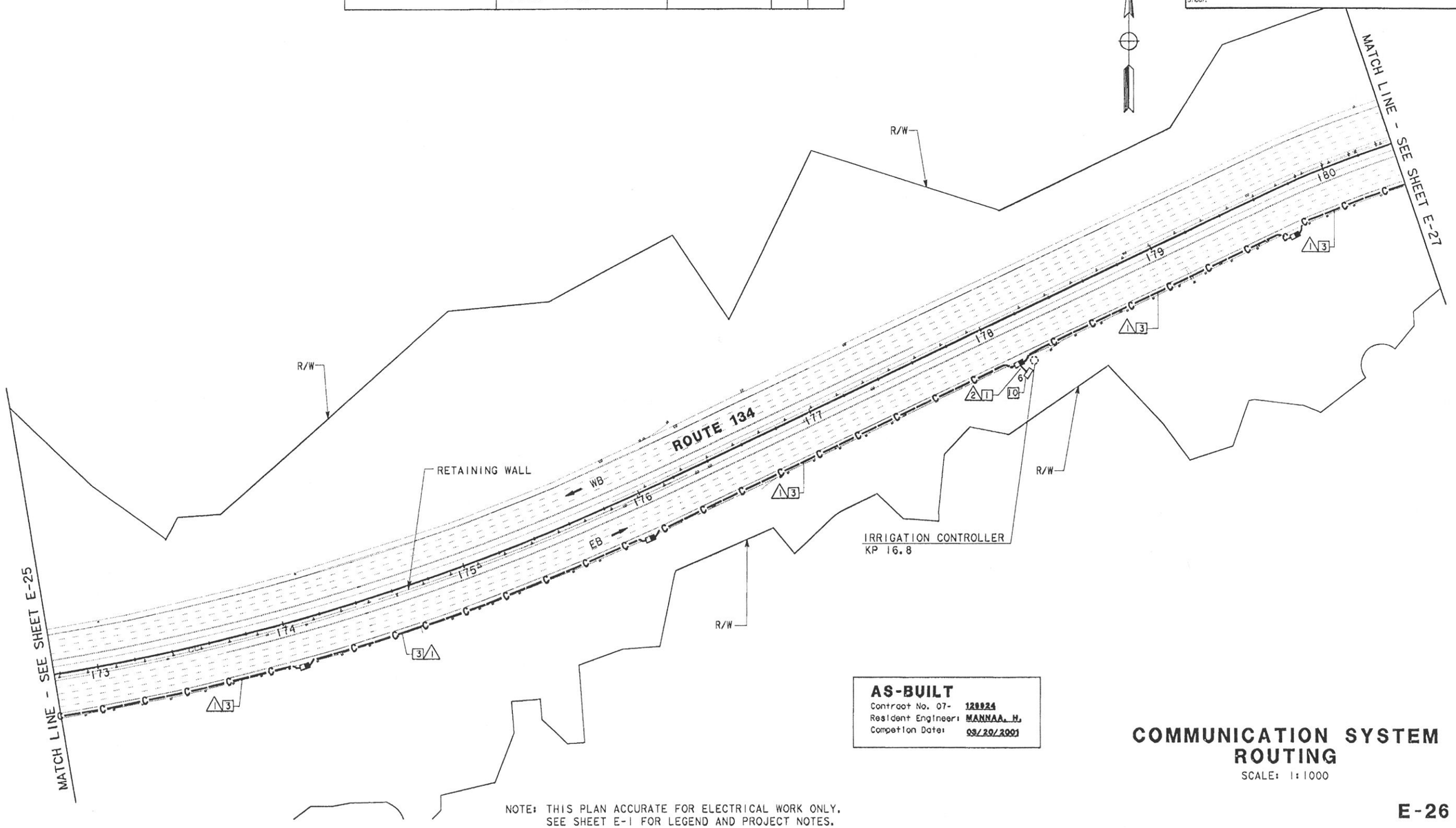

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 09/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-26

CALCULATED/DESIGNED BY | CHECKED BY | MM | MMS | 6/96 | 6/96 | DATE REVISED BY | DATE REVISED

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 | EA 129921

LAST REVISION 00-00-00 TIME PLOTTED => $$$$$$$$YTIME$$$$$$

USERID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u27.dgn DATE: Fri Apr 27 2001 TIME: 10:30

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	114	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER — No. C048591 — Exp. 6-30-00 — CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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DATE	REVISED BY	DATE	REVISED BY
6/96	MM	6/96	MMS

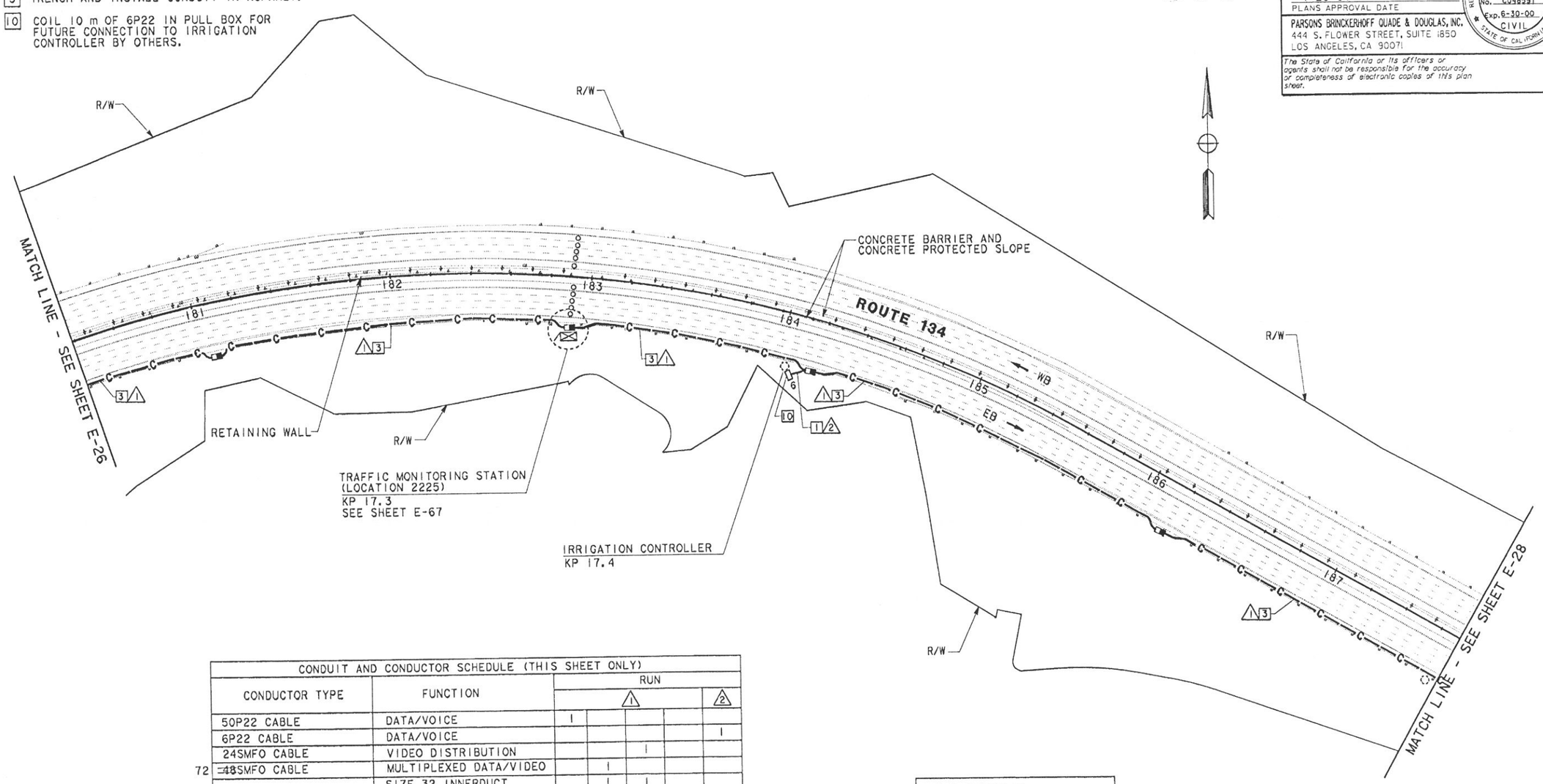
CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2
50P22 CABLE	DATA/VOICE	1				
6P22 CABLE	DATA/VOICE					1
24SMFO CABLE	VIDEO DISTRIBUTION			1		
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
	SIZE 32 INNERDUCT		1	1		
	CONDUIT SIZE	103			103	53

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-27

LAST REVISION

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USERID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u27.dgn DATE: Fri Apr 27 2001 TIME: 10:30

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	115	209

Caltrans Metric

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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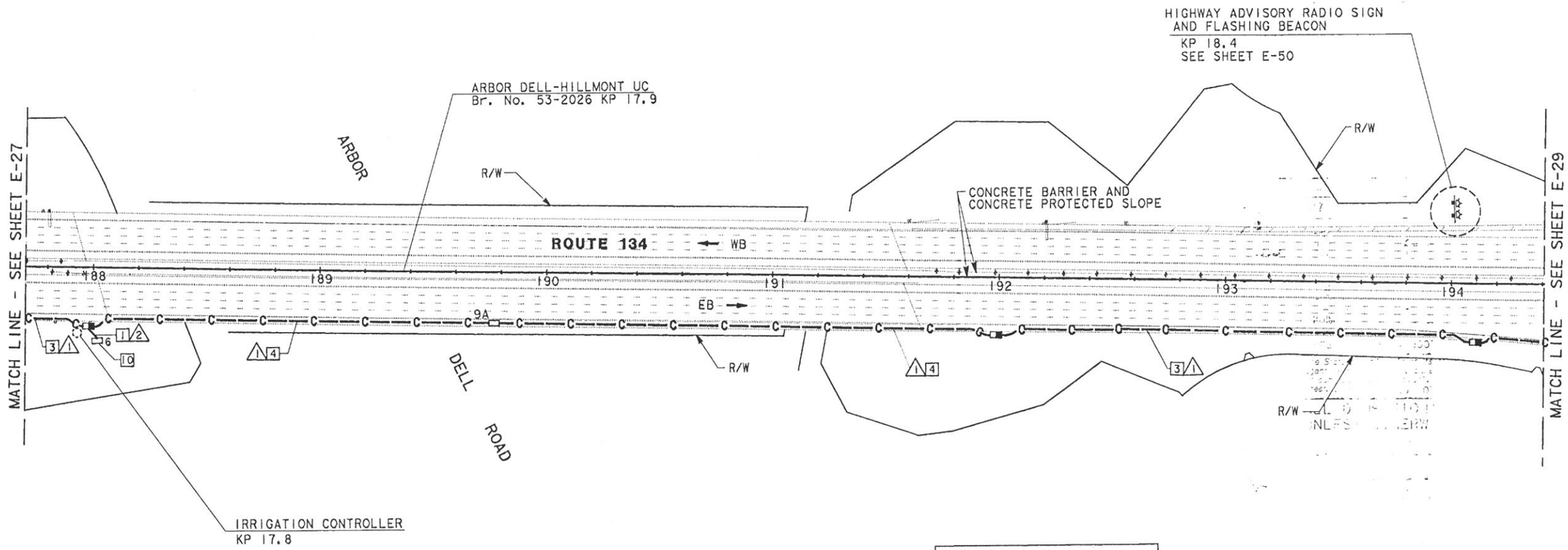
ALL DIMENSION ARE IN METERS UNLESS OTHERWISE SHOWN

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				2	3
50P22 CABLE	DATA/VOICE	1					
6P22 CABLE	DATA/VOICE					1	1
24SMFO CABLE	VIDEO DISTRIBUTION			1			
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
	SIZE 32 INNERDUCT		1	1			
	CONDUIT SIZE		103		103	53	78



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

E-50

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

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

E-28

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER: PAT SULLIVAN

CALCULATED/DESIGNED BY: MM DATE 6/96 REVISED BY
CHECKED BY: MMS 6/96 DATE REVISED

TIME PLOTTED => $$$$$$SYTIME$$$$$$
LAST REVISION 00-00-00

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USERID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u28.dgn DATE: Mon Apr 30 2001 TIME: 10:08

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION. TO IRRIGATION CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN (1)			RUN (2)
50P22 CABLE	DATA/VOICE	1			
6P22 CABLE	DATA/VOICE				1
24SMFO CABLE	VIDEO DISTRIBUTION		1		
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1		
	SIZE 32 INNERDUCT		1	1	
	CONDUIT SIZE	103		103	53

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	116	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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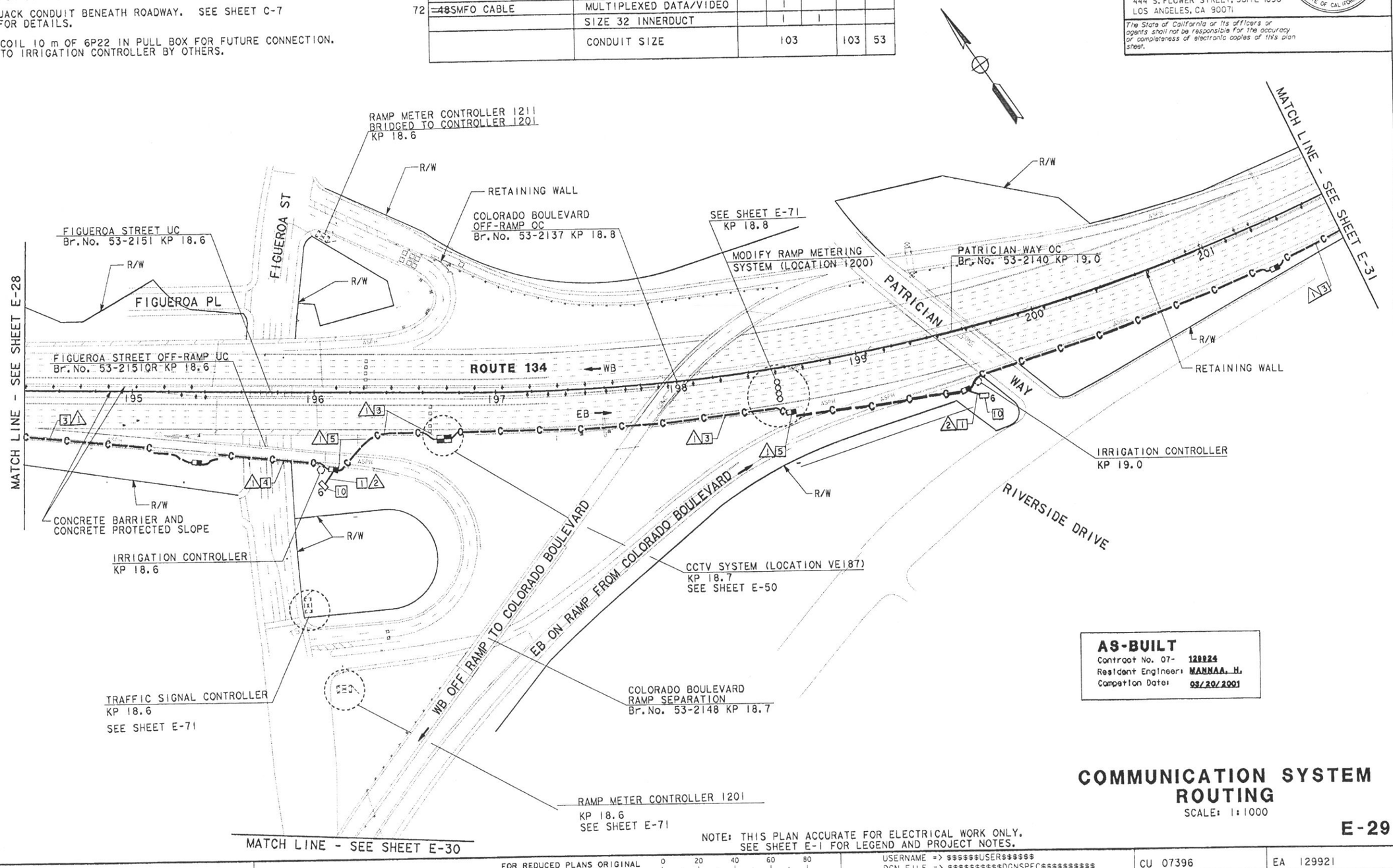
DATE	REVISED BY
6/96	MM
6/96	MMS

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans



AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-29

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

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

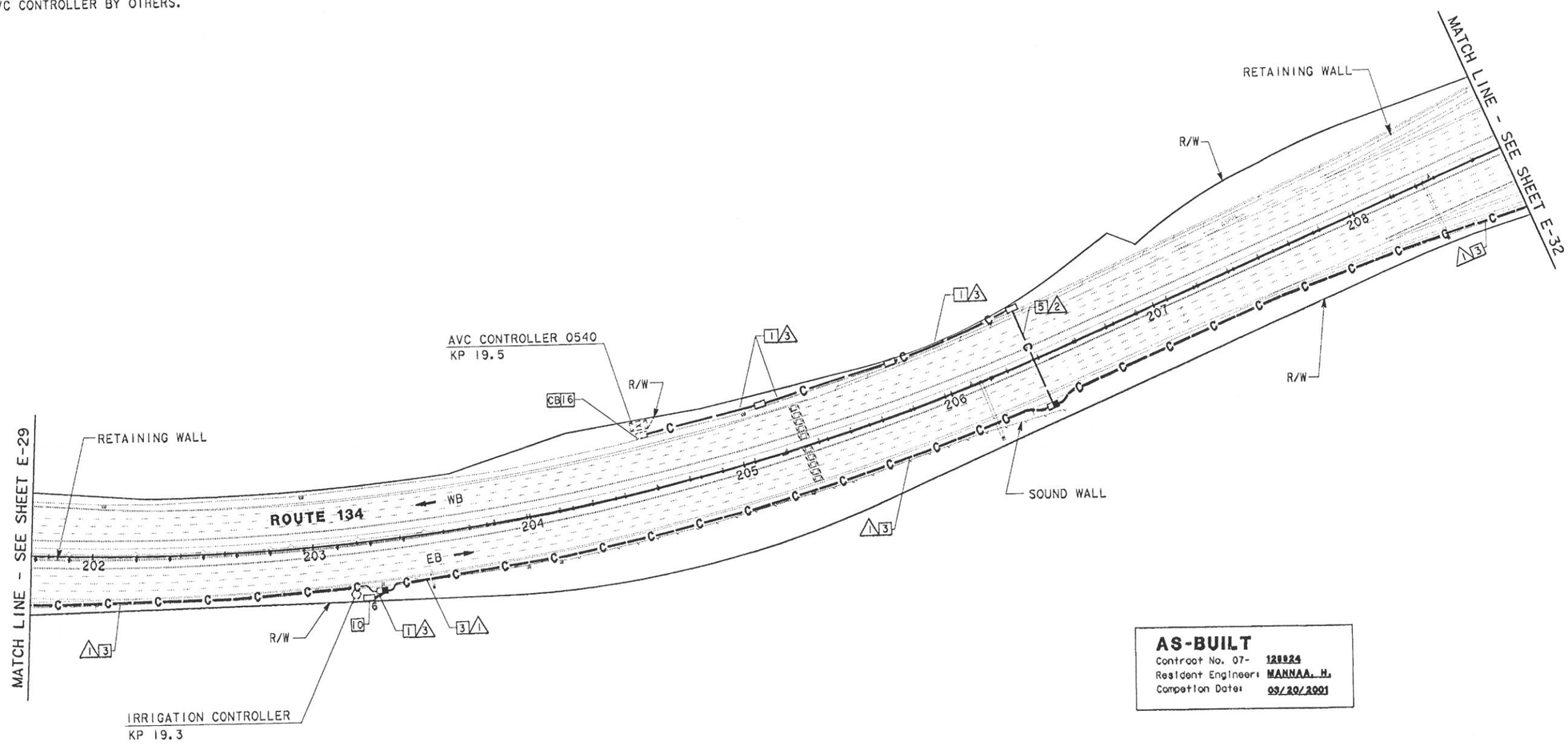
LAST REVISION

NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.
16. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO AVC CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2	RUN 3
50P22 CABLE	DATA/VOICE	1					
6P22 CABLE	DATA/VOICE					1	1
24SMFO CABLE	VIDEO DISTRIBUTION			1			
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
	SIZE 32 INNERDUCT		1	1			
	CONDUIT SIZE	103			103	78	53



AS-BUILT
Contract No. 07- 128824
Resident Engineer: MANNAA, H.
Completion Date: 09/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-31

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

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	118	209

Monica R. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
MM	MMS	6/96		

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

LAST REVISION

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	134	0.0/21.8	119	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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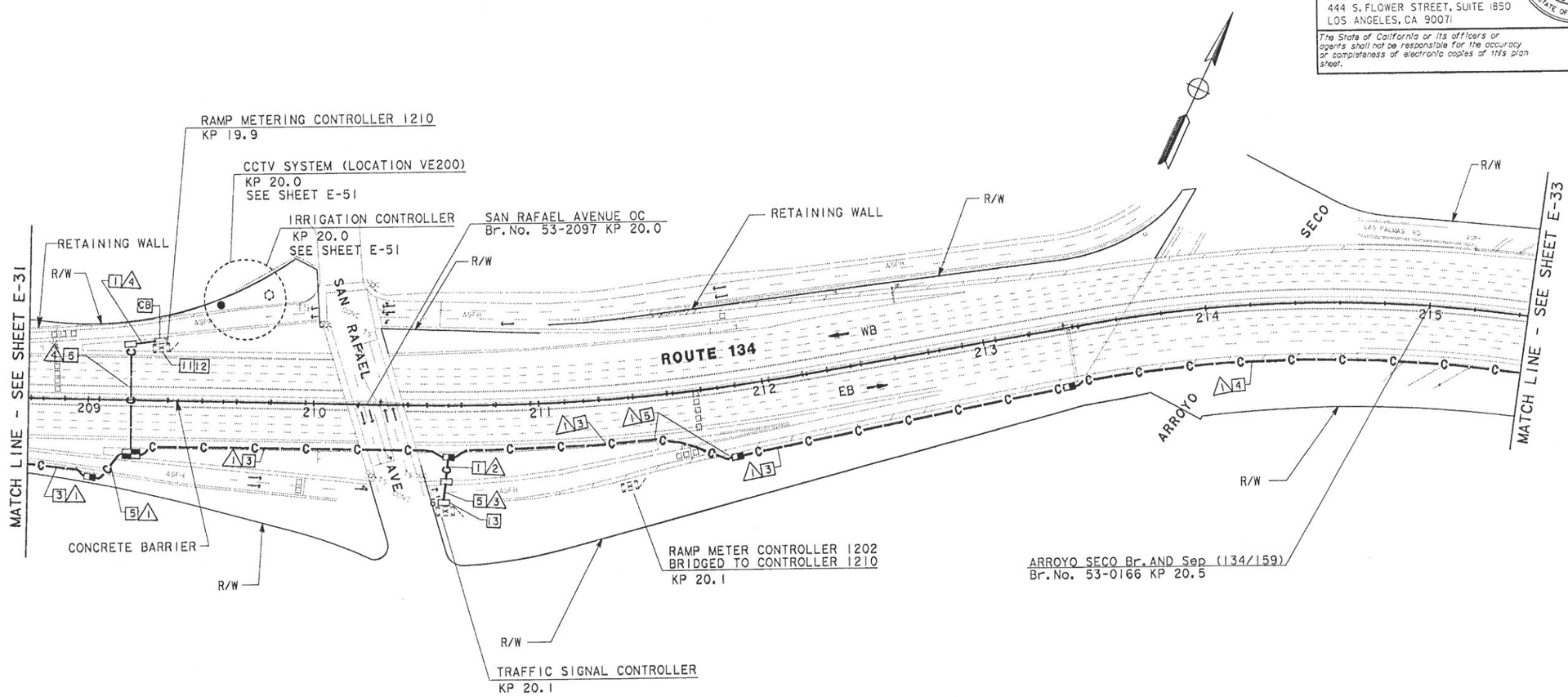
DATE	REVISED BY
6/96	DATE REVISED

CALCULATED/DESIGNED BY	MM
CHECKED BY	MMS 6/96

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN CONCRETE.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

	CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2	RUN 3	RUN 4	
	50P22 CABLE	DATA/VOICE	1							
	6P22 CABLE	DATA/VOICE					1	1		3
	24SMFO CABLE	VIDEO DISTRIBUTION			1					
72	~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1						
6	~~2~~SMFO B/O CABLE	SHORT HAUL VIDEO							1	
		SIZE 32 INNERDUCT		1	1				1	
		CONDUIT SIZE		103		103	53	78	103	

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

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-32

LAST REVISION 00-00-00
TIME PLOTTED => $$$$$$$SYTIME$$$$$$$

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USERID: HHuynh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u32.dgn DATE: Mon Apr 30 2001 TIME: 10:10

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	120	209

Caltrans Metric

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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NOTES: (THIS SHEET ONLY)

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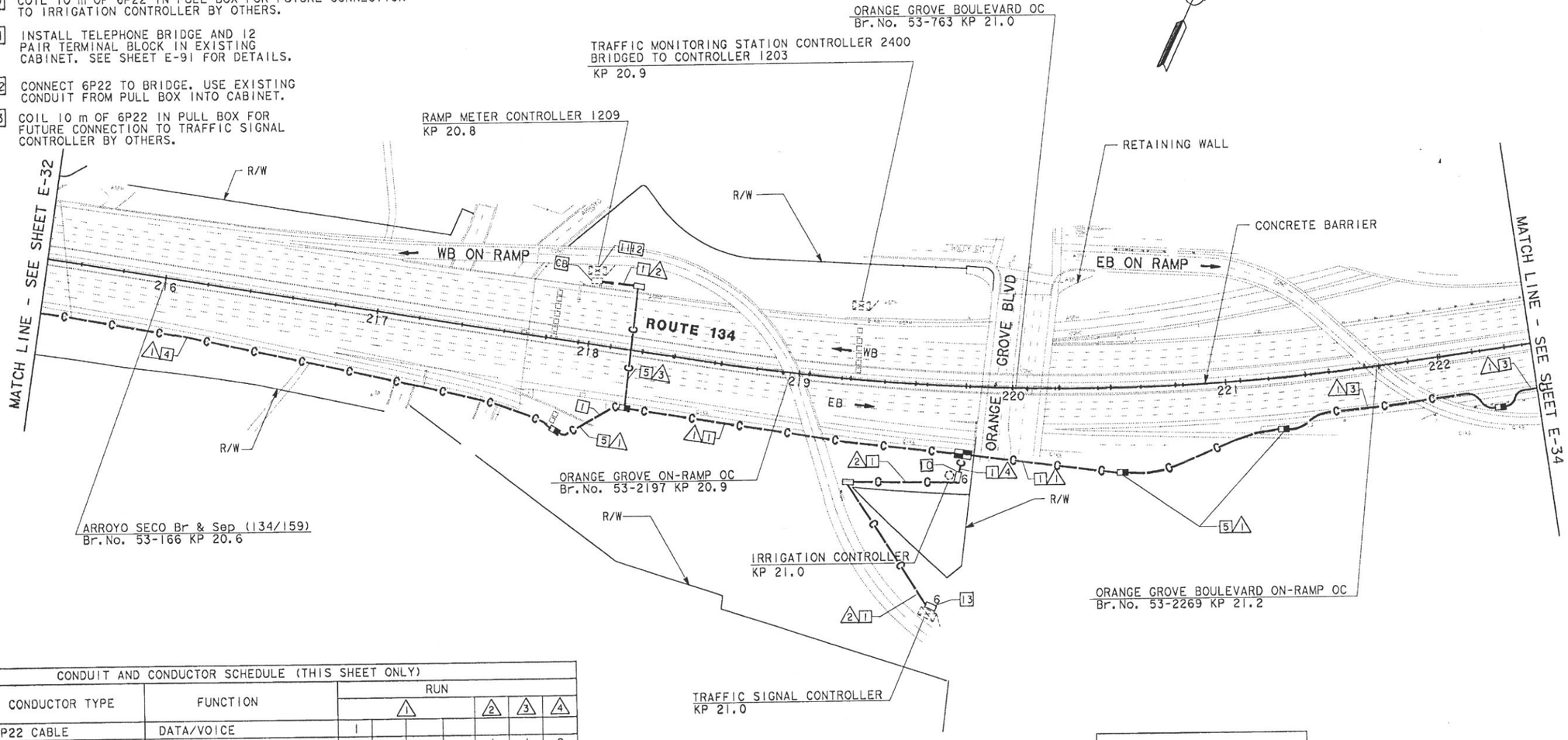
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
10. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO IRRIGATION CONTROLLER BY OTHERS.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-91 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
13. COIL 10 m OF 6P22 IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1				2	3	4
50P22 CABLE	DATA/VOICE	1						
6P22 CABLE	DATA/VOICE					1	1	2
24SMFO CABLE	VIDEO DISTRIBUTION			1				
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
	SIZE 32 INNERDUCT		1	1				
	CONDUIT SIZE	103			103	53	78	53

AS-BUILT
Contract No. 07- 128924
Resident Engineer: MANNAA, H.
Competion Date: 03/20/2001

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

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-33

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
6/96	MM	MM	MMS
6/96	DATE REVISED		

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 | EA 129921

LAST REVISION 00-00-00 | TIME PLOTTED => $$$$$$SYSTIME$$$$$$

USERID: HHJvnh@T7NT6044 FILE: f:\projects\129921_ua\ab\712992u33.dgn DATE: Mon Apr 30 2001 TIME: 10:12

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	134	0.0/21.8	121	209

Monica M. Suter 6/20/96
REGISTERED CIVIL ENGINEER

4-28-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MONICA SUTER No. C048591 Exp. 6-30-00 CIVIL — STATE OF CALIFORNIA

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
444 S. FLOWER STREET, SUITE 1850
LOS ANGELES, CA 90071

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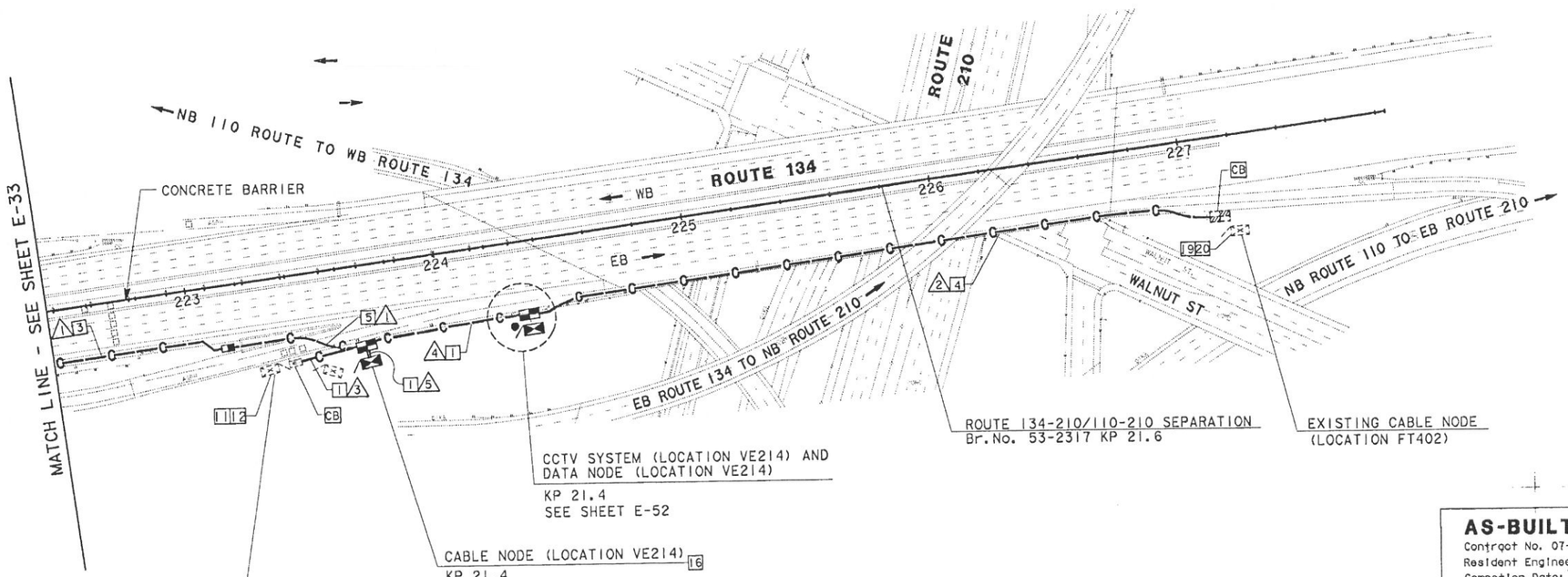
NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
3. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. ATTACH CONDUIT TO BRIDGE. SEE SHEET C-2 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-7 FOR DETAILS.
11. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN EXISTING CABINET. SEE SHEET E-97 FOR DETAILS.
12. CONNECT 6P22 TO BRIDGE, USE EXISTING CONDUIT FROM PULL BOX INTO CABINET.
16. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE EQUIPMENT AT CABLE NODE. SEE SHEET E-83 FOR DETAILS.
19. INSTALL NEW FIBER DISTRIBUTION UNIT (FDU) AND NEW 50 PR TERMINAL BLOCK IN EXISTING CABLE NODE.
20. TERMINATE ALL FIBERS ON FDU AND TERMINATE ALL TWISTED PAIR ON TERMINAL BLOCK. USE EXISTING CONDUIT FROM SPLICE VAULT INTO CABINET.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2				RUN 3	RUN 4					RUN 5			
50P22 CABLE	DATA/VOICE	1				1								1			2		
6P22 CABLE	VOICE/DATA									1									
24SMFO CABLE	VIDEO DISTRIBUTION			1									1					2	
72 ~~48~~SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					1				1							
12SMFO CABLE	134/210 INTERCONNECT CABLE						1				1								1
	SIZE 32 INNERDUCT		1	1			1	1			1	1	1					1	1
	CONDUIT SIZE	103			103	103			103	53	103				103	103	103		



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

AS-BUILT
Contract No. 07- 129924
Resident Engineer: MANNAA, H.
Completion Date: 03/20/2001

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-34

DATE	REVISED BY	DATE REVISED
6/96	MM	6/96 MMS

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00

TIME PLOTTED => $$$$$$$SYTIME$$$$$$

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DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 EA 129921

USER ID: KHuynh@T7NT6044 FILE: f:\projects\129921_ug\ab\712992u34.dgn DATE: Mon Apr 30 2001 TIME: 10:15

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4-12	Construction Details
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33-37	Traffic Handling Plans
38	Construction Area Signs
39	Summary of Quantities
40-51	Sign Plans, Details and Quantities
52-63	Retaining Wall Plans
64-132	Electrical Plans
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STRUCTURE PLANS	
143-146	EB Connector Seperation UC Br No. 53-1147R
147-149	Haskell Avenue UC Br No. 53-1103R
150-153	Hayvenhurst Avenue UC Br No. 53-1104
154-156	Balboa Boulevard UC Br No. 53-1052
157-158	White Oak Avenue UC Br No. 53-1054
159-162	Lindley Avenue UC Br No. 53-1055
163-166	Burbank Boulevard UC Br No. 53-1056
167-169	Reseda Boulevard UC Br No. 53-1057
170-172	De Soto Avenue UC Br No. 53-1062
173-175	Canoga Avenue UC Br No. 53-1063
176-178	Route 101/27 Seperation Br No. 53-1064

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO CONTRACTORS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA — ACNH-P101(985)E

DEPARTMENT OF TRANSPORTATION

Caltrans Metric

PROJECT PLANS FOR CONSTRUCTION ON

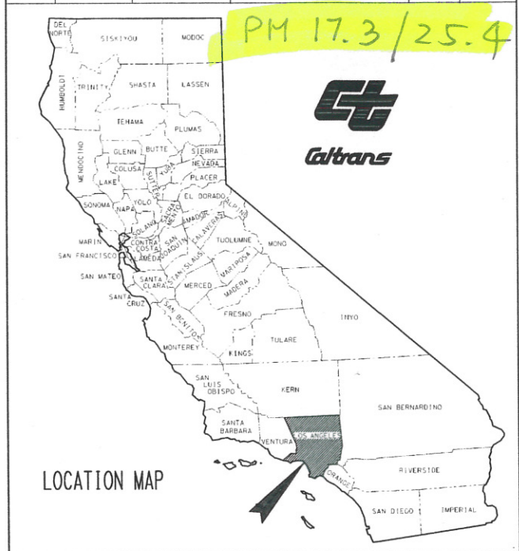
STATE HIGHWAY

IN LOS ANGELES COUNTY IN LOS ANGELES FROM ROUTE 405/101 SEPARATION TO 0.2 km NORTH OF ROUTE 101/27 SEPARATION, AT NORTH HOLLYWOOD HUB BUILDING, AND AT TRAFFIC MANAGEMENT CENTER

To be supplemented by Standard Plans dated July, 1999

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	1	178

PM 17.3/25.4



LOCATION MAP

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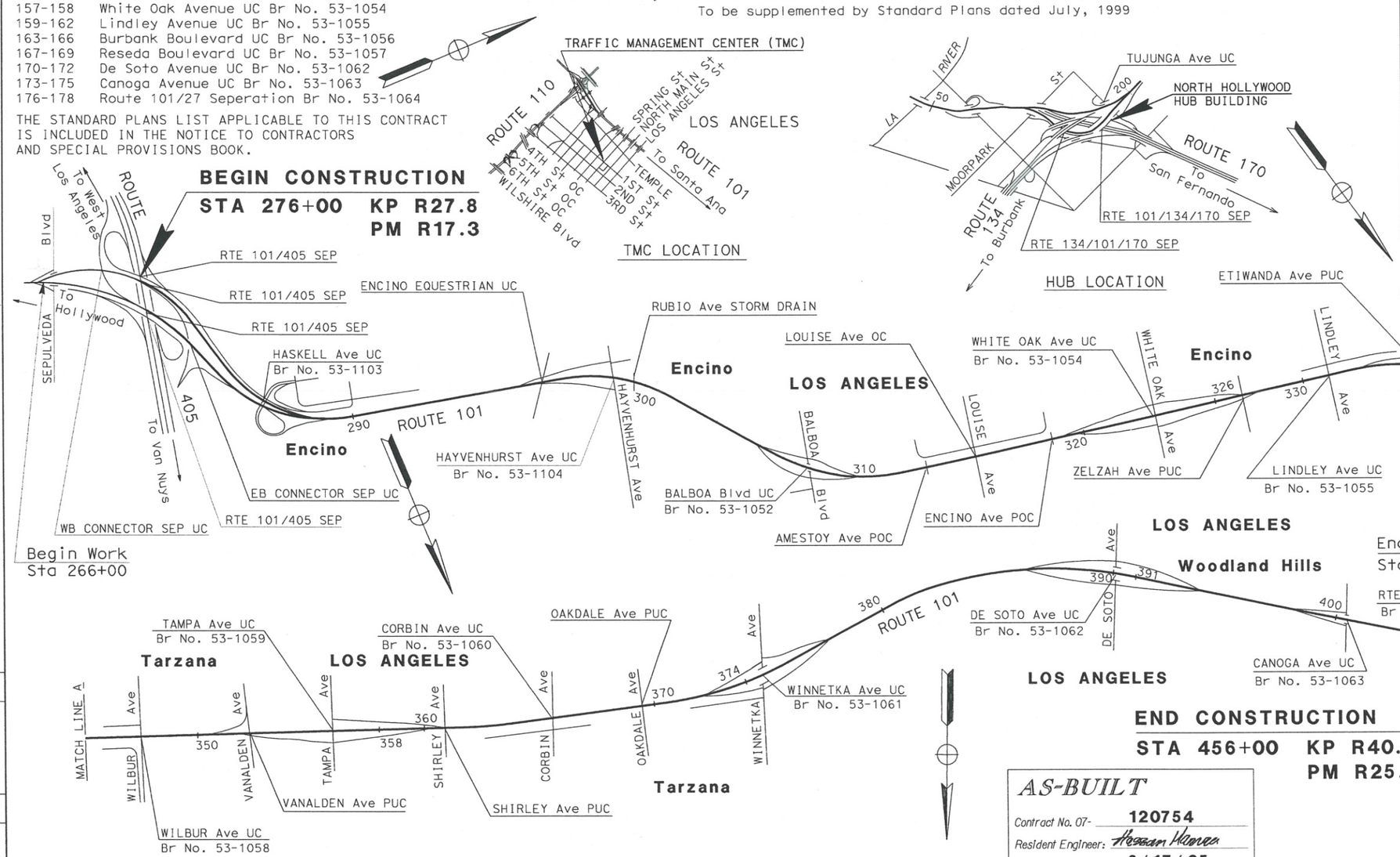

The Contractor shall possess the Class (or classes) of license as specified in the ''Notice to Contractors''.

AS-BUILT

Contract No. 07- 120754

Resident Engineer: Hossam Hanna

Completion Date: 6/17/05

Jacqueline C Tan
Project Engineer
Registered Electrical Engineer

April 7, 2003
Plans Approval Date

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 ELECTRICAL — STATE OF CALIFORNIA

Contract No. **07-120754**

PROJECT ENGINEER	DATE	PROJECT MANAGER	DATE
H. TRINH	2/03	J. TAN	2/03

LAST REVISION 00-00-00

TIME PLOTTED => 18-SEP-2007 15:30

FORM DC-OE-93-PF (REV. 3/88)

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USERNAME => s124928
DGN FILE => 712075a01.agn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8-R40.6	64	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

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TABLE 1 - CMS CONTROL CABLE

CONDUCTOR TYPE	FUNCTION	QTY
24P18 AWG CABLE *	CMS CONTROL CABLE *	1
6P18 AWG CABLE *	CMS CONTROL CABLE *	1

* STATE-FURNISHED CABLES

ABBREVIATIONS

12SMFO	FIBER OPTIC CABLE, 12 SINGLE MODE FIBERS
48SMFO	FIBER OPTIC CABLE, 48 SINGLE MODE FIBERS
Ø	DIAMETER
BB	BASE BAND
B/O	BREAKOUT CABLE
CCK	CAMERA CONTROL KEYBOARD
CCR	CAMERA CONTROL RECEIVER
CCT	CAMERA CONTROL TRANSMITTER
CHAN #	CHANNEL NUMBER
CS	CONTROL STATION
DEMARC	DEMARCATION
DEMUX	DEMULTIPLEXER
DIST	DISTRIBUTION
DLC	DETECTOR LEAD-IN CABLE
DWP	DEPARTMENT OF WATER & POWER, CITY OF LOS ANGELES
DN	DATA NODE
FDF	FIBER DISTRIBUTION FRAME
FDU	FIBER DISTRIBUTION UNIT
FLEX	FLEXIBLE
F/O OR FO	FIBER OPTIC
FODM	FIBER OPTIC DATA MODEM
FRE	FIBERGLASS REINFORCED EPOXY
GRS	GALVANIZED RIGID STEEL
INTRFCE	INTERFACE
IRR	IRRIGATION
J-BOX	JUNCTION BOX
MOD	MODEM
MUX	MULTIPLEXER
NOM	NOMINAL
PDA	POWER DISTRIBUTION ASSEMBLY
PR	PAIR
PTZ	PAN, TILT AND ZOOM
REQ'D	REQUIRED
RMS	RAMP METERING SYSTEM OR STATION
RX	RECEIVER
SCE	SOUTHERN CALIFORNIA EDISON
SCHED	SCHEDULE
SH	SHORT HAUL
SM	SINGLE MODE
STL	STEEL
TDM	TIME DOMAIN MULTIPLEXER
TELCO	TELEPHONE COMPANY
TMC	TRANSPORTATION MANAGEMENT CENTER
TMS	TRAFFIC MONITORING STATION
TP	TWISTED PAIR
TS	TRAFFIC SIGNAL
TX	TRANSMITTER
VN	VIDEO NODE
VDX	VIDEO DEMULTIPLEXER
VMX	VIDEO MULTIPLEXER
VR	SINGLE VIDEO RECEIVER
VX	SINGLE VIDEO TRANSMITTER
#X	X AWG CONDUCTOR, ie #10 MEANS 10 AWG CONDUCTOR
YP	Y PAIRS OF CONDUCTORS, ie 2P MEANS 2 PAIRS

LEGEND

- SPLICE VAULT
- EXISTING SPLICE VAULT
- FIBER OPTIC PATCH CORD
- COMMUNICATIONS PULL BOX
- EXISTING COMMUNICATIONS PULL BOX
- SERVICE CONDUIT (—E—)
- EXISTING SERVICE CONDUIT (—e—)
- CONDUIT LINE DELIMITER FOR CONSTRUCTION NOTES (1 … 2)
- TYPE 334-TV CABINET
- EXISTING TELEPHONE BRIDGE
- FIBER OPTIC CABLE
- COAXIAL CABLE

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
(LEGEND AND NOTES)

E-1

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

DATE	REVISED BY	DATE REVISED
7/02	CS	7/02
	HT	DL

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:41

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CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8-R40.6	65	178

REGISTERED ELECTRICAL ENGINEER — DATE 3/20/03

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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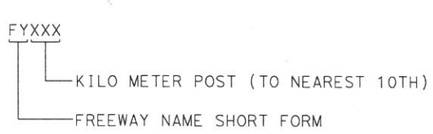
GENERAL NOTES:

1. FOR COMPLETE R/W DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.
2. MODEM NUMBERS FOR SOME CONTROLLERS HAVE NOT YET BEEN ASSIGNED, AND THEREFORE SUCH LOCATIONS HAVE BEEN ASSIGNED TO MODEM ID. VERIFY MODEM NUMBERS BEFORE CONSTRUCTION.
3. THE CONTRACTOR SHALL VERIFY PROPOSED CCTV POLE LOCATIONS WITH THE ENGINEER PRIOR TO PLACEMENT OF FOUNDATIONS. SEE L - SHEETS FOR EXACT LOCATION OF CCTV CAMERA .
4. THE LOCATIONS OF PROPOSED COMMUNICATIONS SYSTEM ELEMENTS ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED OR APPROVED BY THE ENGINEER. SEE L-SHEETS FOR EXACT LOCATION OF CCTV CAMERAS.
5. TYPE 334-TV CONTROLLER CABINET DOOR INDICATES THE FRONT OF THE CABINET.
6. WHEN EXISTING DETECTOR LOOPS AND CONDUITS ARE SHOWN IN THE VICINITY OF PROPOSED CONDUIT TRENCHES THE CONTRACTOR SHALL AVOID DAMAGING THE EXISTING CONDUIT. TRENCHING WITH HAND TOOLS MAY BE REQUIRED.
7. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL OR TELCO FACILITIES, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO ALL AGENCIES CONCERNED, AND THE ENGINEER 72 HOURS PRIOR TO COMMENCING WORK.
8. IDENTIFICATION FORMAT OF TRAFFIC OPERATION SYSTEM (TOS) ELEMENTS:



9. UNLESS OTHERWISE NOTED, ALL COMMUNICATION CONDUIT BENDS SHALL BE 1.2 m RADIUS FACTORY BENDS. ALL OTHER CONDUITS SHALL HAVE A MINIMUM BEND RADIUS OF NO LESS THAN 6 TIMES THE CONDUIT DIAMETER.
10. CONDUITS AND CONDUCTORS IN CONDUIT AND CONDUCTOR SCHEDULE TABLES ARE NEW UNLESS MARKED (E) INDICATING EXISTING.
11. PVC, WHERE CALLED OUT IN THESE PLANS, SHALL MEAN RIGID NON-METALLIC CONDUIT AS DEFINED IN THE STANDARD SPECIFICATIONS.
12. CONDUIT(S) SHALL BE INSTALLED WHERE SHOWN ON THE PLANS RELATIVE TO THE EXISTING SHOULDER.

PROJECT NOTES: (FOR E-3 TO E-37)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
6. ADD POWER CONDUCTORS TO EXISTING CONDUIT.
7. INSTALL CCTV CAMERA POLE AND NEW FOUNDATION. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON POLE. SEE SHEETS E-45 AND STD PLANS ES-16A FOR DETAILS.
8. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON EXISTING SIGN STRUCTURE. SEE SHEETS E-45 AND STD PLAN ES-16B FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
12. INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CONTROLLER CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.
13. INSTALL TYPE 334-TV CONTROLLER CABINETS ON NEW FOUNDATION. CONTROLLER CABINET SHALL INCLUDE EQUIPMENT AT VIDEO NODE. SEE DETAIL 3, SHEET E-50.
14. INSTALL COMMUNICATIONS PULL BOX APPROXIMATELY 5 m FROM EDGE OF STRUCTURE.
16. INSTALL FDU AND FIBER OPTIC MODEM IN CONTROLLER CABINET. SEE SHEETS E-49 AND E-68 FOR DETAILS.
17. INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV CAMERA.
18. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER CABINET.
19. INSTALL TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.
20. INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.
21. INSTALL 78C, TYPE 1. ELECTRIC COMPANY TO INSTALL CONDUCTORS.
22. INSTALL TYPE 1 CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.
23. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
26. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
28. INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.
29. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR CONTROL STATION.
30. INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CONTROLLER CABINET SHALL INCLUDE EQUIPMENT AT DATA NODE. SEE DETAIL 3, SHEET E-50 AND DETAIL B SHEET E-51.
31. INSTALL TYPE I CONDUIT(S) IN TRENCH IN PAVED SHOULDER. CONDUIT(S) SHALL BE INSTALLED AS CLOSE TO THE EDGE OF TRAVELED WAY AS POSSIBLE.

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
(NOTES)

E-2

DATE	REVISED BY	DATE REVISED
7/02	CS	7/02
7/02	DL	7/02

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED = 17-SEP-2007 TIME PLOTTED = 14:41

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CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8-R40.6	66	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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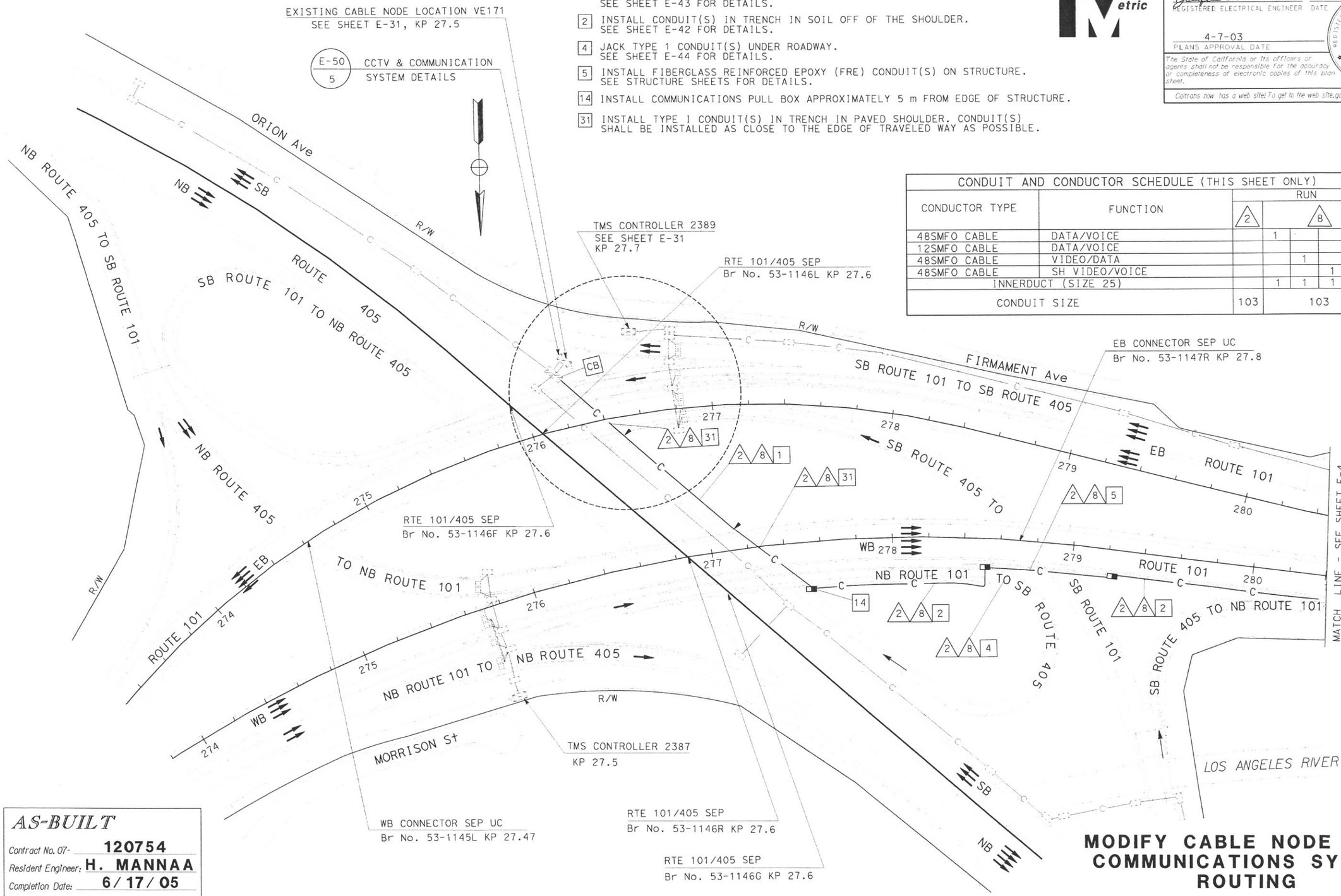
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
14. INSTALL COMMUNICATIONS PULL BOX APPROXIMATELY 5 m FROM EDGE OF STRUCTURE.
31. INSTALL TYPE I CONDUIT(S) IN TRENCH IN PAVED SHOULDER. CONDUIT(S) SHALL BE INSTALLED AS CLOSE TO THE EDGE OF TRAVELED WAY AS POSSIBLE.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 2	RUN 8			
48SMFO CABLE	DATA/VOICE		1			
12SMFO CABLE	DATA/VOICE					
48SMFO CABLE	VIDEO/DATA			1		
48SMFO CABLE	SH VIDEO/VOICE				1	
INNERDUCT (SIZE 25)			1	1	1	1
CONDUIT SIZE		103	103			



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

MODIFY CABLE NODE VE171 COMMUNICATIONS SYSTEM ROUTING

SCALE 1:1000

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT
PROJECT ENGINEER: HENRY H. TRINH
CALCULATED/DESIGNED BY: HT
CHECKED BY: DL
DATE REVISED BY: 7/02 CS
7/02 DATE REVISED

LAST REVISION 00-00-00 DATE PLOTTED = 17-SEP-2007 TIME PLOTTED = 14:41

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R27.8-R40.6	67	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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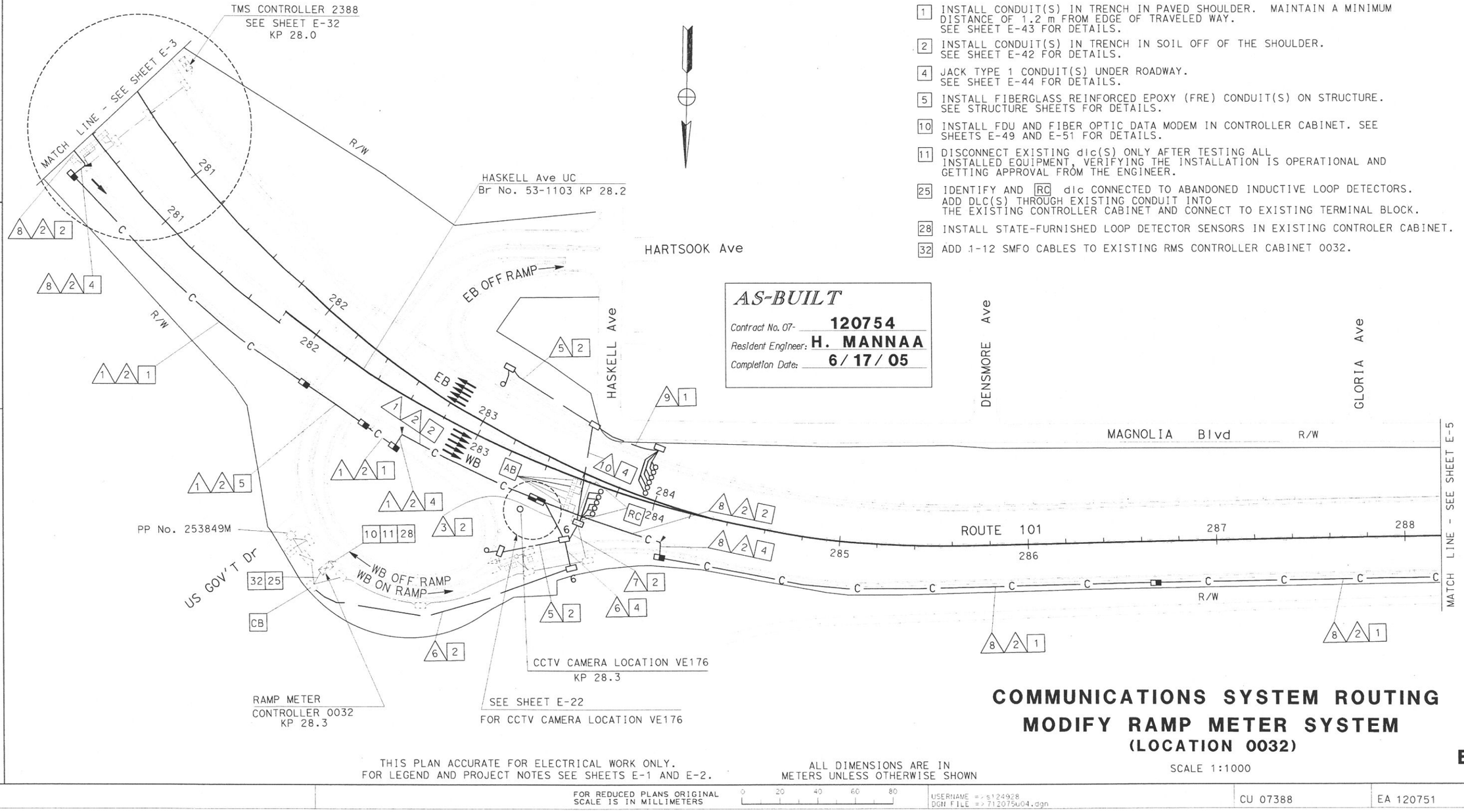
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)																		
CONDUIT/ CONDUCTOR	FUNCTION	RUN																
		1				2	3	5	6	7	8					9	10	
48SMFO CABLE	DATA/VOICE	1									1							
12SMFO CABLE	DATA/VOICE				1		1			1								
48SMFO CABLE	VIDEO/DATA		1									1						
48SMFO CABLE	SH VIDEO/VOICE			1									1					
DLC	RAMP/COUNT							1	13		12					6	7	
INNERDUCT (SIZE 25)		1	1	1	1							1	1	1	1			
INNERDUCT (SIZE 32)										1								
CONDUIT SIZE		103				103	53	53	78	53	103					53	53	

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(S) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
28. INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLER CABINET.
32. ADD 1-12 SMFO CABLES TO EXISTING RMS CONTROLLER CABINET 0032.



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0032)

SCALE 1:1000

E-4

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER: HENRY H. TRINH

CALCULATED/ DESIGNED BY | CHECKED BY
HT | DL

DATE 7/02 | REVISED BY | DATE REVISED 7/02
CS | 7/02

LAST REVISION 00-00-00 | DATE PLOTTED = 17-SEP-2007 | TIME PLOTTED = 14:41

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME = s124928
DGN FILE = 7120754u04.dgn

CU 07388 | EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8-R40.6	68	178

Caltrans Metric

Jacqueline C Tan 12/31/05
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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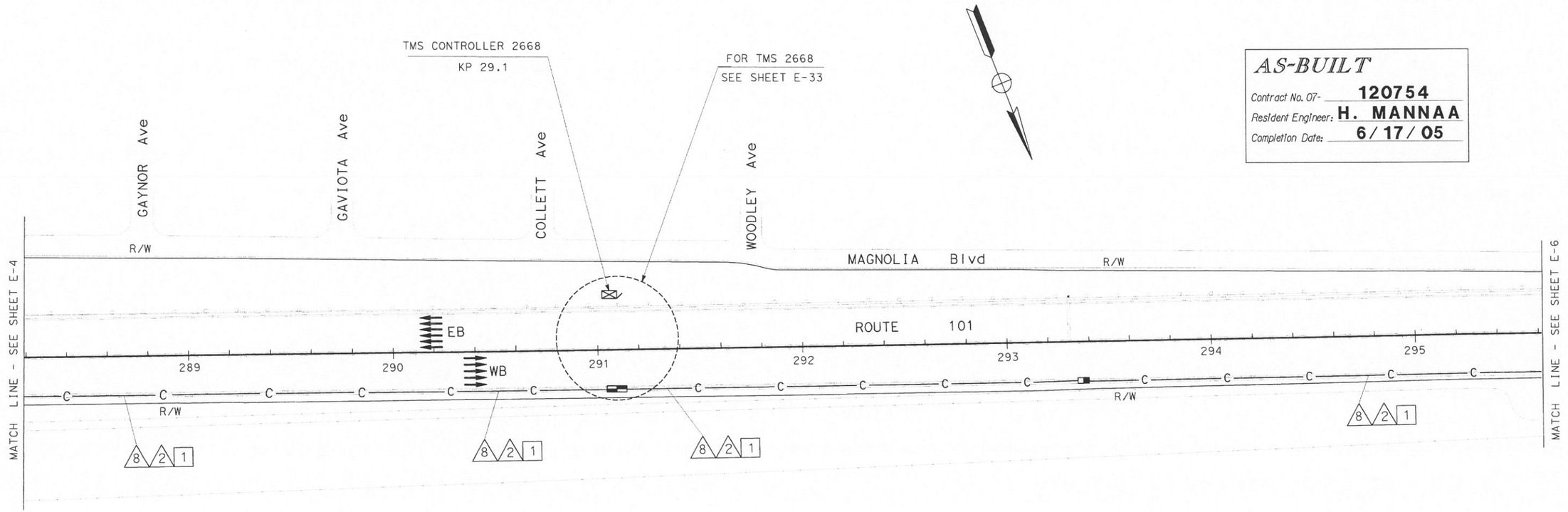
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUIT/CONDUCTOR	FUNCTION	RUN				
		8				2
48SMFO CABLE	DATA/VOICE	1				
12SMFO CABLE	DATA/VOICE					
48SMFO CABLE	VIDEO/DATA		1			
48SMFO CABLE	SH VIDEO/VOICE			1		
DLC	RAMP/COUNT					
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103

PROJECT NOTES: (THIS SHEET ONLY)

[1] INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING

SCALE 1:1000

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

E-5

DATE	REVISED BY	CALCULATED/ DESIGNED BY	PROJECT ENGINEER
7/02	CS	HT	HENRY H. TRINH
7/02	DATE REVISED	DL	
		CHECKED BY	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED = 17-SEP-2007 TIME PLOTTED = 14:41

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USERNAME => s124928
DGN FILE => 712075u05.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	101	R27.8-R40.6	69	178

Caltrans Metric

Jacqueline C. Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — EXP. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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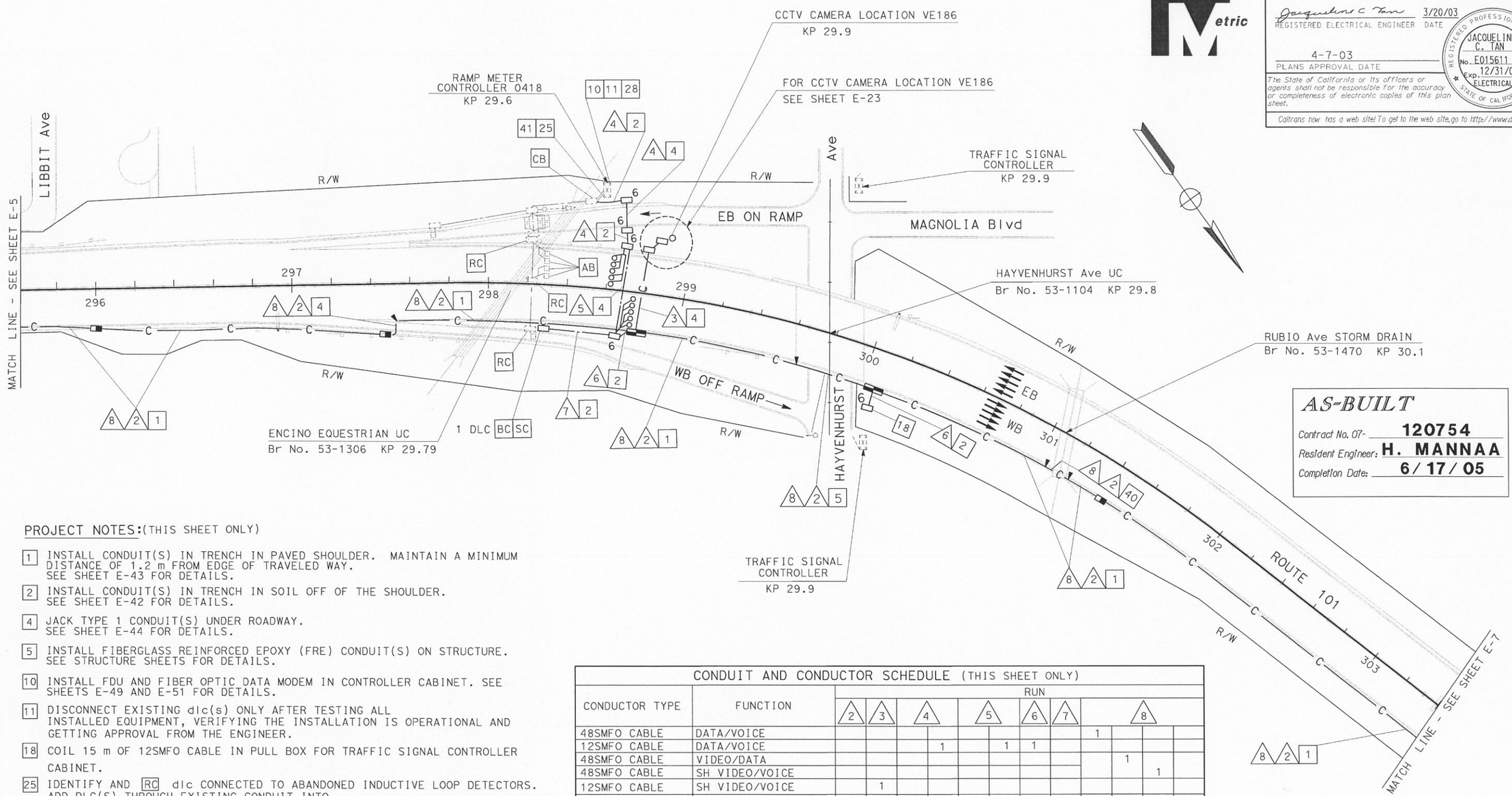

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

PROJECT NOTES:(THIS SHEET ONLY)

1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.

10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

11 DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

18 COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER CABINET.

25 IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.

28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.

40 INSTALL CONDUIT(S) SIDE BY SIDE, IN TRENCH, IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.

41 ADD 1-12 SMFO CABLES TO EXISTING RMS CONTROLLER CABINET 0418.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 2	3	4		5		6	7	8			
48SMFO CABLE	DATA/VOICE									1			
12SMFO CABLE	DATA/VOICE				1		1	1					
48SMFO CABLE	VIDEO/DATA										1		
48SMFO CABLE	SH VIDEO/VOICE											1	
12SMFO CABLE	SH VIDEO/VOICE		1										
DLC	RAMP/COUNT			11		6			1				
INNERDUCT (SIZE 25)										1	1	1	1
INNERDUCT (SIZE 32)					1		1						
CONDUIT SIZE		103	53	78		103		53	53	103			

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0418)

SCALE 1:1000

E-6

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT
PROJECT ENGINEER HENRY H. TRINH

DATE	REVISED BY	CALCULATED/DESIGNED BY	CHECKED BY
7/02	HT	DL	
7/02	DATE REVISED		
7/02	CS		

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:41

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u06.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8-R40.6	70	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JACQUELINE C. TAN
No. E015611
EXP. 12/31/05
ELECTRICAL
STATE OF CALIFORNIA

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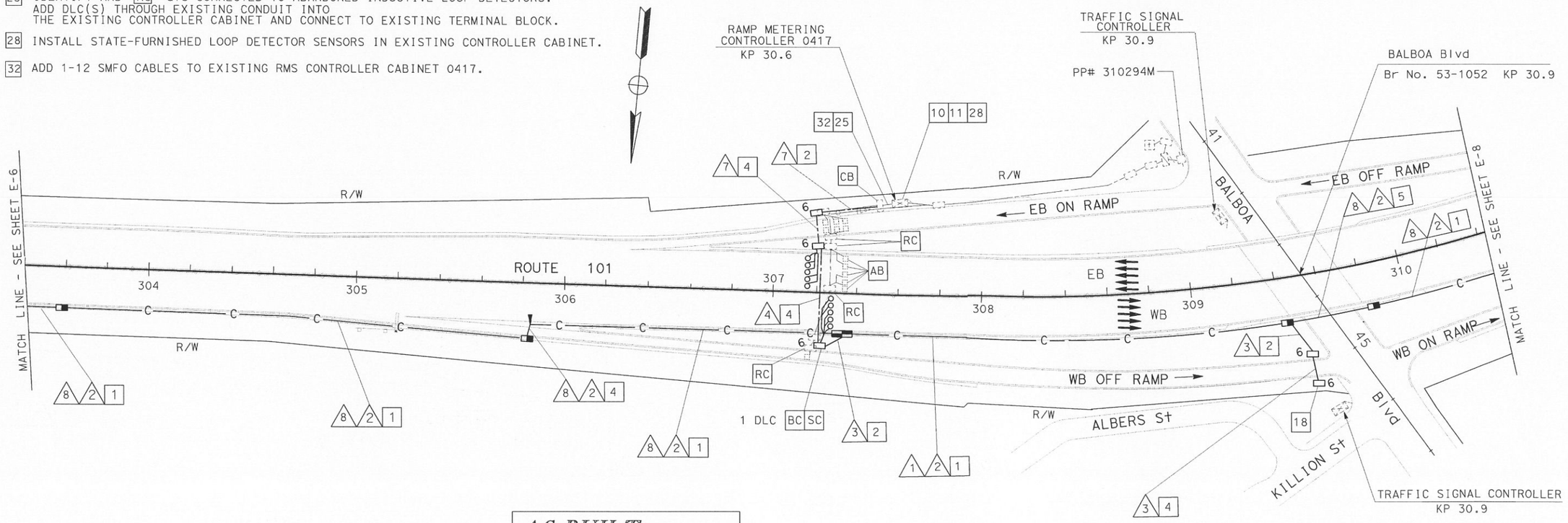
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
18. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
28. INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.
32. ADD 1-12 SMFO CABLES TO EXISTING RMS CONTROLLER CABINET 0417.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN															
		1				2	3	4		7		8					
48SMFO CABLE	DATA/VOICE	1										1					
12SMFO CABLE	DATA/VOICE				1		1		1		1						
48SMFO CABLE	VIDEO/DATA		1										1				
48SMFO CABLE	SH VIDEO/VOICE			1											1		
DLC	RAMP/COUNT									11							
INNERDUCT (SIZE 25)		1	1	1	1			6				1	1	1	1		
INNERDUCT (SIZE 32)									1		1						
CONDUIT SIZE		103				103	53	103		78		103					



AS-BUILT

Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0417)

SCALE 1:1000

E-7

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DATE	REVISED BY	DATE REVISED
7/02	HT	7/02

CALCULATED/DESIGNED BY: DL
CHECKED BY: CS

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2007
TIME PLOTTED => 14:41

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USERNAME => s124928
DGN FILE => 712075u07.dgn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	71	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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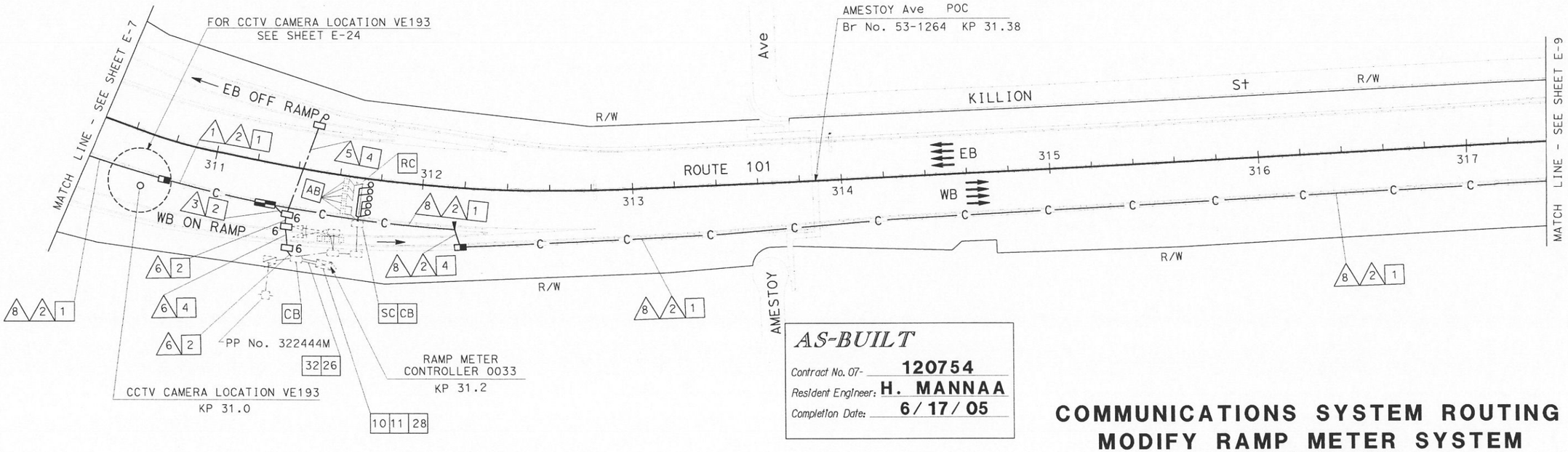
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVEL WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
26. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
28. INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.
32. ADD 1-12 SMFO CABLES TO EXISTING RMS CONTROLLER CABINET 0033.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				2	3	5	6	8			
48SMFO CABLE	DATA/VOICE	1								1			
12SMFO CABLE	DATA/VOICE				1		1		1				
48SMFO CABLE	VIDEO/DATA		1								1		
48SMFO CABLE	SH VIDEO/VOICE			1								1	
DLC	RAMP/COUNT							1	1				
INNERDUCT (SIZE 25)		1	1	1	1					1	1	1	1
INNERDUCT (SIZE 32)									1				
CONDUIT SIZE		103				103	53	53	78	103			



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0033)

SCALE 1:1000

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

E-8

DATE	REVISED BY
7/02	CS
7/02	DATE REVISED

CALCULATED/DESIGNED BY: HT
CHECKED BY: DL

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:41

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USERNAME => s124928
DGN FILE => 712075u08.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	72	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — EXP. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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DATE	REVISED BY	DATE REVISED
7/02	CS	7/02
	HT	7/02
CALCULATED/ DESIGNED BY	DL	
CHECKED BY	HENRY H. TRINH	
PROJECT ENGINEER		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

PROJECT NOTES: (THIS SHEET ONLY)

1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

11 DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

25 IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.

29 COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR CONTROL STATION.

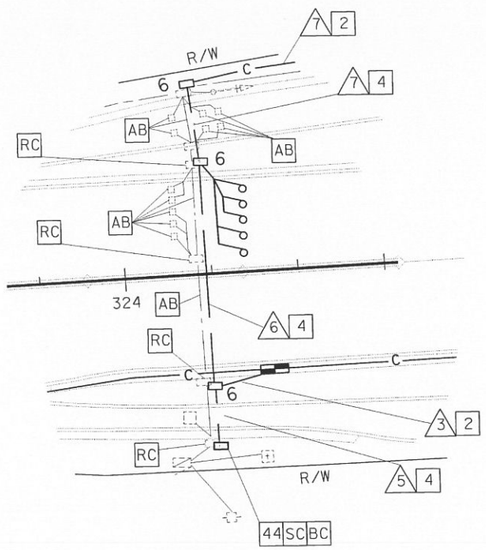
31 INSTALL TYPE I CONDUIT(S) IN TRENCH IN PAVED SHOULDER. CONDUIT(S) SHALL BE INSTALLED AS CLOSE TO THE EDGE OF TRAVELED WAY AS POSSIBLE.

44 ADD 1 DLC AND 2 # 8.

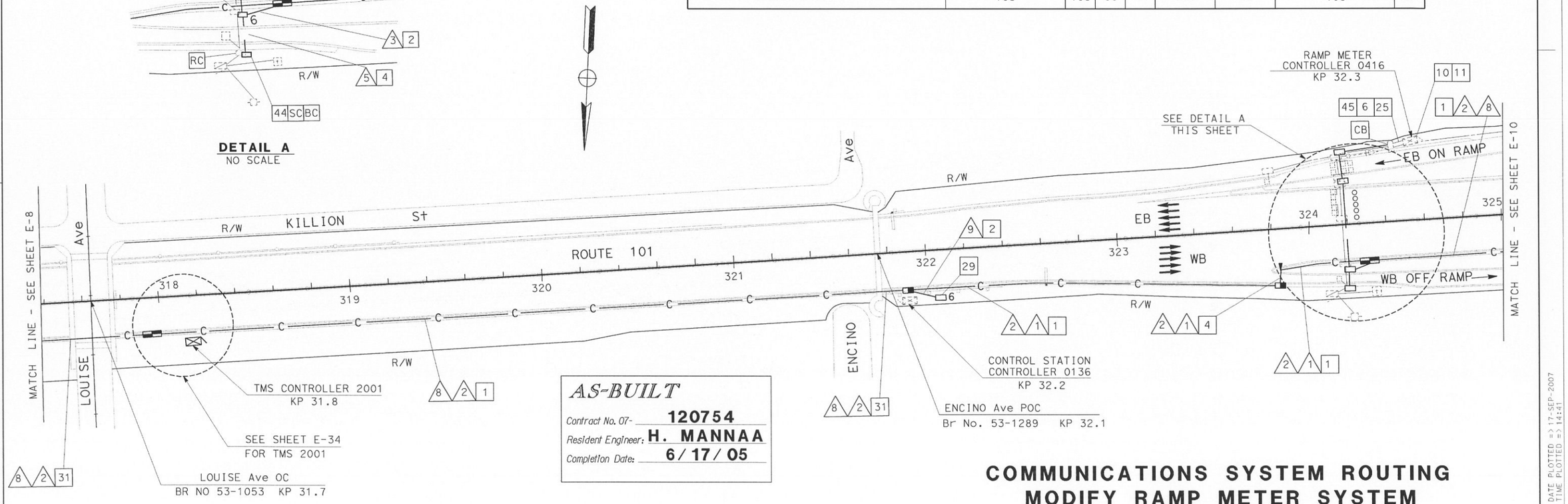
45 ADD 1-12 SMFO CABLES TO EXISTING RMS CONTROLLER CABINET 0416.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1			2	3	5	6		7		8				9
48SMFO CABLE	DATA/VOICE	1										1				
12SMFO CABLE	DATA/VOICE			1		1			1		1					1
48SMFO CABLE	VIDEO/DATA		1										1			
48SMFO CABLE	SH VIDEO/VOICE			1										1		
DLC	RAMP/COUNT						1	1		6						
#8	POWER						2	2		2						
INNERDUCT (SIZE 25)		1	1	1	1							1	1	1	1	
INNERDUCT (SIZE 32)									1		1					
CONDUIT SIZE		103			103	53	53	103		78		103				53



DETAIL A
NO SCALE



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0416)

SCALE 1:1000

E-9

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:41

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USERNAME => s124928
DGN FILE => 712075u09.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	73	178

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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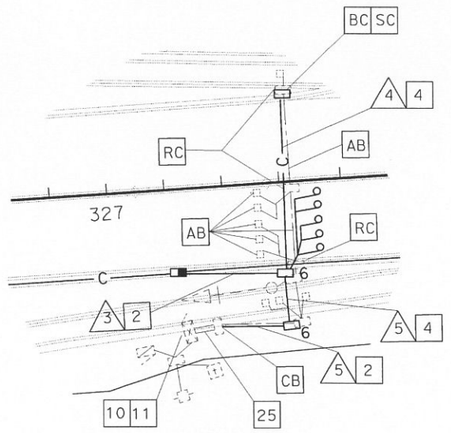
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

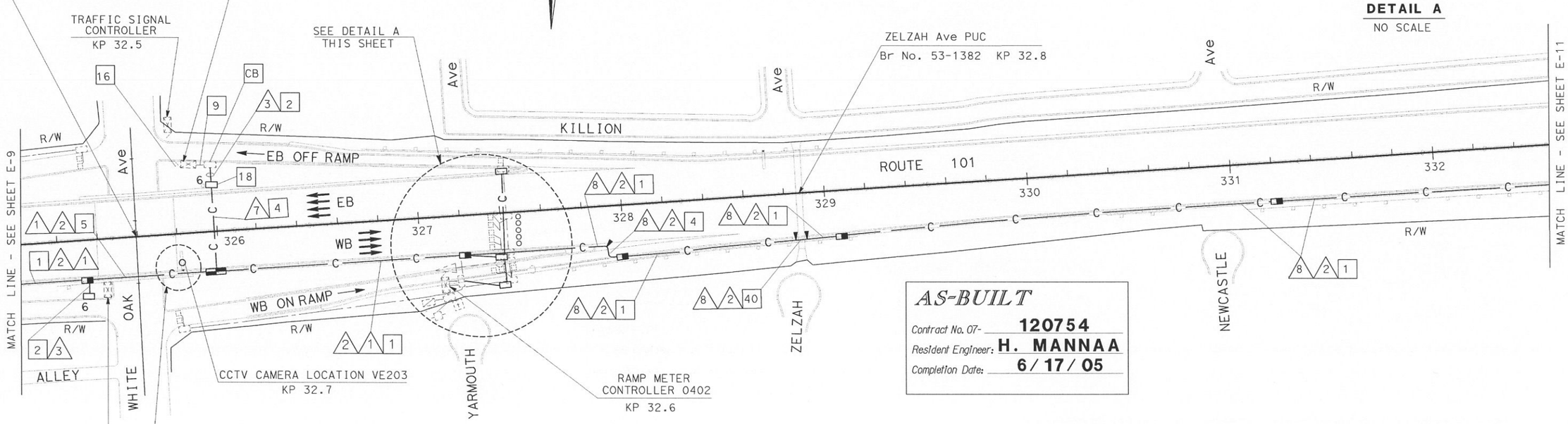
CONDUCTOR TYPE	FUNCTION	RUN 1				2	3	4	5		7		8			
48SMFO CABLE	DATA/VOICE	1											1			
12SMFO CABLE	DATA/VOICE				1		1			1	1	1				
48SMFO CABLE	VIDEO/DATA		1											1		
48SMFO CABLE	SH VIDEO/VOICE			1											1	
DLC	RAMP/COUNT							1	6							
INNERDUCT (SIZE 25)		1	1	1	1								1	1	1	1
INNERDUCT (SIZE 32)										1	1	1				
CONDUIT SIZE		103				103	53	53	78		103		103			

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
9. ADD 1-12 SMFO CABLES AND CONNECT TO EXISTING CMS CONTROLLER 3025
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
16. INSTALL FDU AND FIBER OPTIC MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-68 FOR DETAILS.
18. COIL 60 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
40. INSTALL CONDUIT(S) SIDE BY SIDE, IN TRENCH, IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.



DETAIL A
NO SCALE



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0402)

SCALE 1:1000

E-10

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u10.dgn

CU 07388 EA 120751

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER HENRY H. TRINH

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
CHECKED BY	7/02	CS	7/02
DL		HT	

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	74	178

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 EXP. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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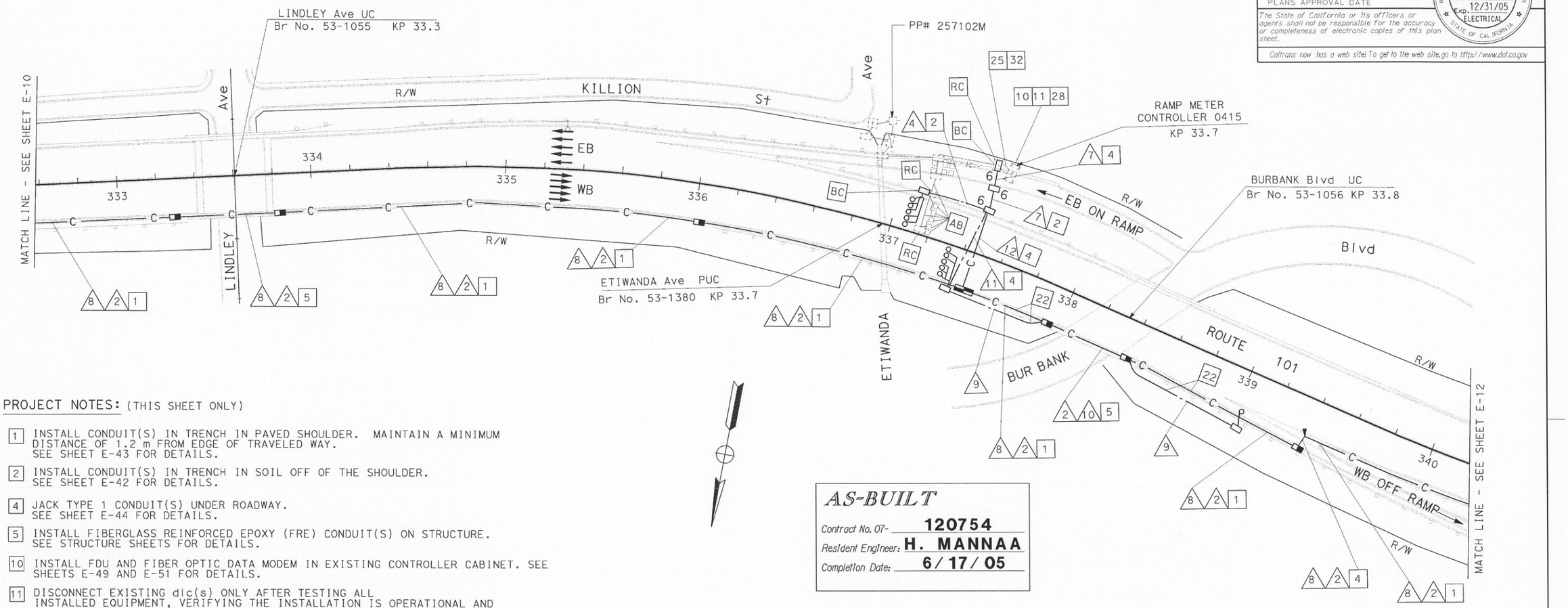
Caltrans Metric



PROJECT NOTES: (THIS SHEET ONLY)

1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

5 INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.

10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

11 DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

22 INSTALL TYPE 1 CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.

25 IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.

28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.

32 ADD 1-12 SMFO CABLES IN EXISTING CONDUITS AND CONNECT TO EXISTING RMS CONTROLLER 0415.

AS-BUILT
Contract No. 07- **120754**
Resident Engineer: **H. MANNAA**
Completion Date: **6/17/05**

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				2	4	7		8				9	10				11	12
48SMFO CABLE	DATA/VOICE	1							1						1					
12SMFO CABLE	DATA/VOICE				1			1												1
48SMFO CABLE	VIDEO/DATA		1							1						1				
48SMFO CABLE	SH VIDEO/VOICE			1							1						1			
DLC	RAMP/COUNT						5	11						1				1	6	
INNERDUCT (SIZE 25)		1	1	1	1				1	1	1	1			1	1	1			
INNERDUCT (SIZE 32)								1												1
CONDUIT SIZE		103				103	53	78		103				53	103				53	78

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0415)

SCALE 1:1000

E-11

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DATE	REVISED BY	CS
7/02	DATE REVISED	7/02
	HT	DL
CALCULATED/DESIGNED BY		CHECKED BY

PROJECT ENGINEER HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

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USERNAME => s124928
DGN FILE => 712075u11.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R27.8/R40.6	75	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — STATE OF CALIFORNIA

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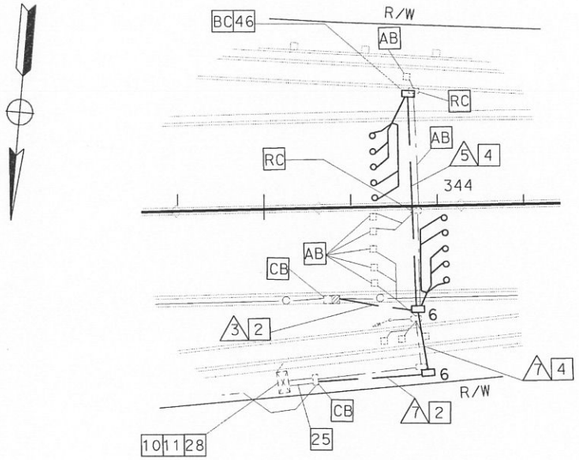
AS-BUILT

Contract No. 07- **120754**
Resident Engineer: **H. MANNAA**
Completion Date: **6/17/05**

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
18. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER. SPLICE IN/OUT PAIRS TOGETHER USING A FIBER OPTIC SPLICE CLOSURE.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
28. INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CABINET.
44. INSTALL CONDUCTORS AND INNERDUCTS IN EXISTING EMPTY CONDUIT.
45. INSTALL 1-12 SMFO TO RUN 9 FOR RMS CONTROLLER (KP 34.4)
46. INSTALL 1 DLC.

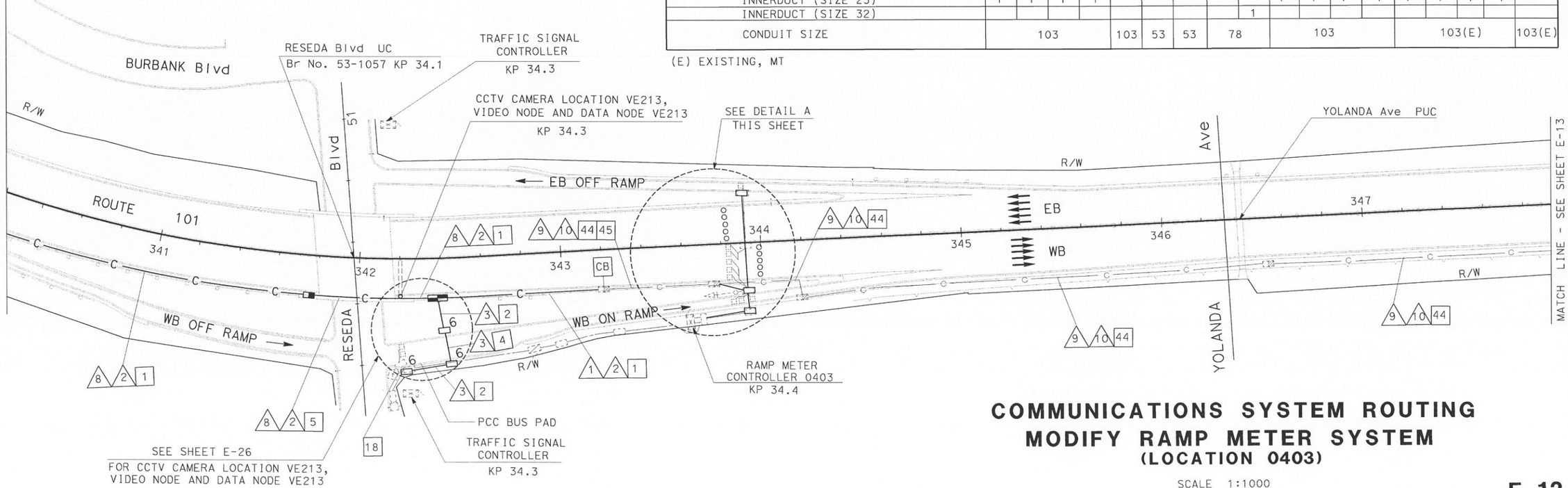


DETAIL A
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				2	3	5	7		8				9				10
48SMFO CABLE	DATA/VOICE	1									1				1				
12SMFO CABLE	DATA/VOICE				1		1			1									
48SMFO CABLE	VIDEO/DATA		1									1				1			
48SMFO CABLE	SH VIDEO/VOICE			1									1				1		
DLC	RAMP/COUNT							6	11										
INNERDUCT (SIZE 25)		1	1	1	1						1	1	1	1	1	1	1	1	
INNERDUCT (SIZE 32)										1									
CONDUIT SIZE		103				103	53	53	78		103				103(E)				103(E)

(E) EXISTING, MT



COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0403)

SCALE 1:1000

E-12

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

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7/02	DATE REVISED		

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

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DGN FILE => 712075u12.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R27.8/R40.6	76	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

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PROJECT NOTES: (THIS SHEET ONLY)

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

11 DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

25 IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD 10 DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.

28 INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.

29 INSTALL FIBER OPTIC SPLICE CLOSURE IN EXISTING SPLICE VAULT.

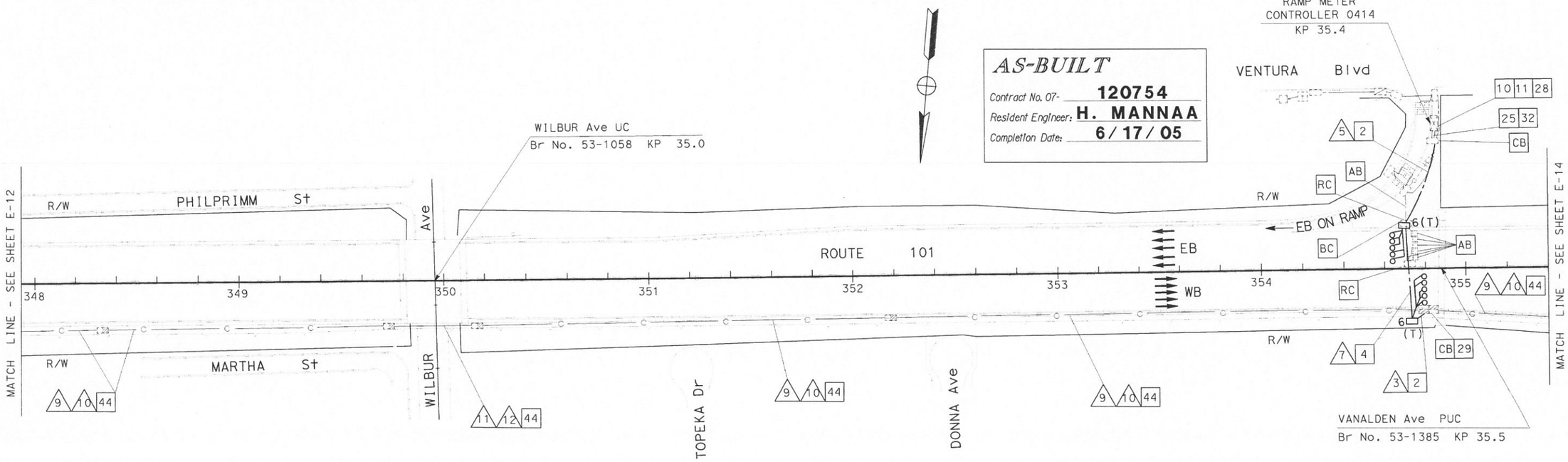
32 ADD 1-12 SMFO CABLES IN EXISTING CONDUITS AND CONNECT TO EXISTING RMS CONTROLLER 0414.

44 INSTALL CONDUCTORS AND INNERDUCTS IN EXISTING EMPTY CONDUIT.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 3	5	7	9	10	11	12
48SMFO CABLE	DATA/VOICE				1		1	
12SMFO CABLE	DATA/VOICE	1	1	1				
48SMFO CABLE	VIDEO/DATA				1		1	
48SMFO CABLE	SH VIDEO/VOICE				1		1	
DLC	RAMP/COUNT		10	5				
INNERDUCT (SIZE 25)					1 1 1 1		1 1 1 1	
INNERDUCT (SIZE 32)			1	1				
CONDUIT SIZE		53	78	103	103(E)	103(E)	78(E)	78(E)

(E) EXISTING, MT



COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0414)

SCALE 1:1000

E-13

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

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DGN FILE => 712075u13.dgn

CU 07388 EA 120751

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PROJECT ENGINEER HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	77	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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AS-BUILT

Contract No. 07- **120754**
Resident Engineer: **H. MANNAA**
Completion Date: **6/17/05**

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

11 DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

18 COIL 15 m OF 12 SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.

25 IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.

29 INSTALL FIBER OPTIC SPLICE CLOSURE IN EXISTING SPLICE VAULT.

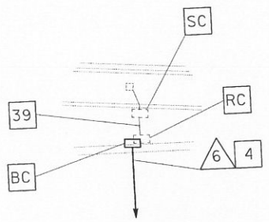
32 ADD 1-12 SMFO INTO EXISTING CONDUITS AND CONNECT TO EXISTING RMS CONTROLLER 0404.

39 RC dlc. INSTALL NEW DLC IN THE EXISTING CONDUIT.

42 SEE SHEET E-69 FOR SOUNDWALL CROSSING DETAILS.

44 INSTALL CONDUCTORS AND INNERDUCTS IN EXISTING EMPTY CONDUIT.

45 INSTALL 1-12 SMFO TO RUN 9 FOR TS CONTROLLER (KP 35.7).

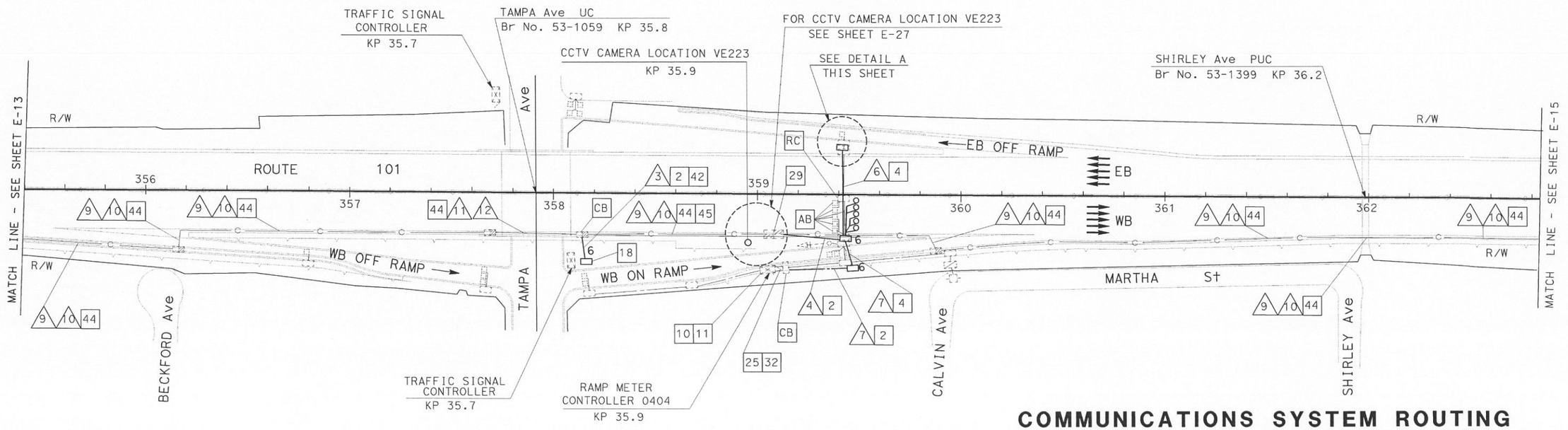


DETAIL A
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 3	4	6	7		9				10	11				12
48SMFO CABLE	DATA/VOICE						1					1				
12SMFO CABLE	DATA/VOICE	1	1			1										
48SMFO CABLE	VIDEO/DATA							1					1			
48SMFO CABLE	SH VIDEO/VOICE								1					1		
DLC	RAMP/COUNT			1	6											
INNERDUCT (SIZE 25)							1	1	1	1		1	1	1	1	
INNERDUCT (SIZE 32)						1										
CONDUIT SIZE		53	53	53	78		103(E)				103(E)	78(E)				78(E)

(E) EXISTING, MT



COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0404)

SCALE 1:1000

E-14

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FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2.

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT
PROJECT ENGINEER HENRY H. TRINH

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	78	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)												
CONDUCTOR TYPE	FUNCTION	RUN										
		9				10	11				12	
48SMFO CABLE	DATA/VOICE	1					1					
12SMFO CABLE	DATA/VOICE											
48SMFO CABLE	VIDEO/DATA		1					1				
48SMFO CABLE	SH VIDEO/VOICE			1					1			
INNERDUCT (SIZE 25)		1	1	1	1		1	1	1	1		
CONDUIT SIZE		103(E)				103(E)	78(E)				78(E)	

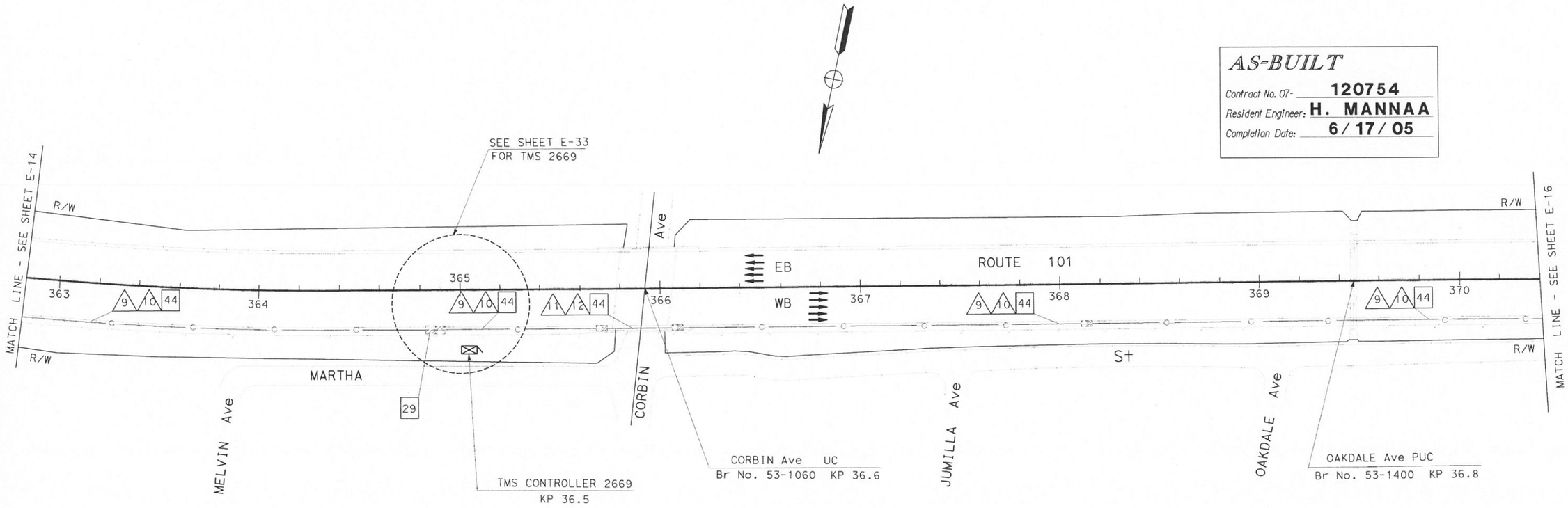
(E) EXISTING, MT

PROJECT NOTES: (THIS SHEET ONLY)

29 INSTALL FIBER OPTIC SPLICE CLOSURE IN EXISTING SPLICE VAULT.

44 INSTALL CONDUCTORS AND INNERDUCTS IN EXISTING EMPTY CONDUIT.

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05



COMMUNICATIONS SYSTEM ROUTING

SCALE 1:1000

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FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

E-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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PROJECT ENGINEER HENRY H. TRINH

DATE	REVISED BY	DATE	REVISED BY
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	79	178

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — STATE OF CALIFORNIA

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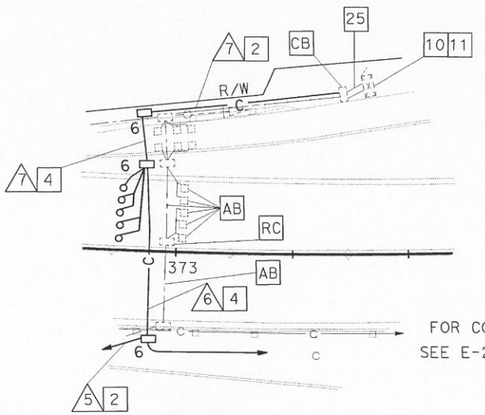
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
18. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
26. ADD 1 DLC
29. INSTALL FIBER OPTIC SPLICE CLOSURE IN EXISTING SPLICE VAULT.
32. ADD 1-12 SMFO INTO EXISTING CONDUIT AND CONNECT TO EXISTING RMS CONTROLLER 0405.
44. INSTALL CONDUCTORS AND INNERDUCTS IN EXISTING EMPTY CONDUIT.
45. INSTALL 1-12 SMFO TO RUN (9) FOR RMS 0405 (KP 37.6).

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

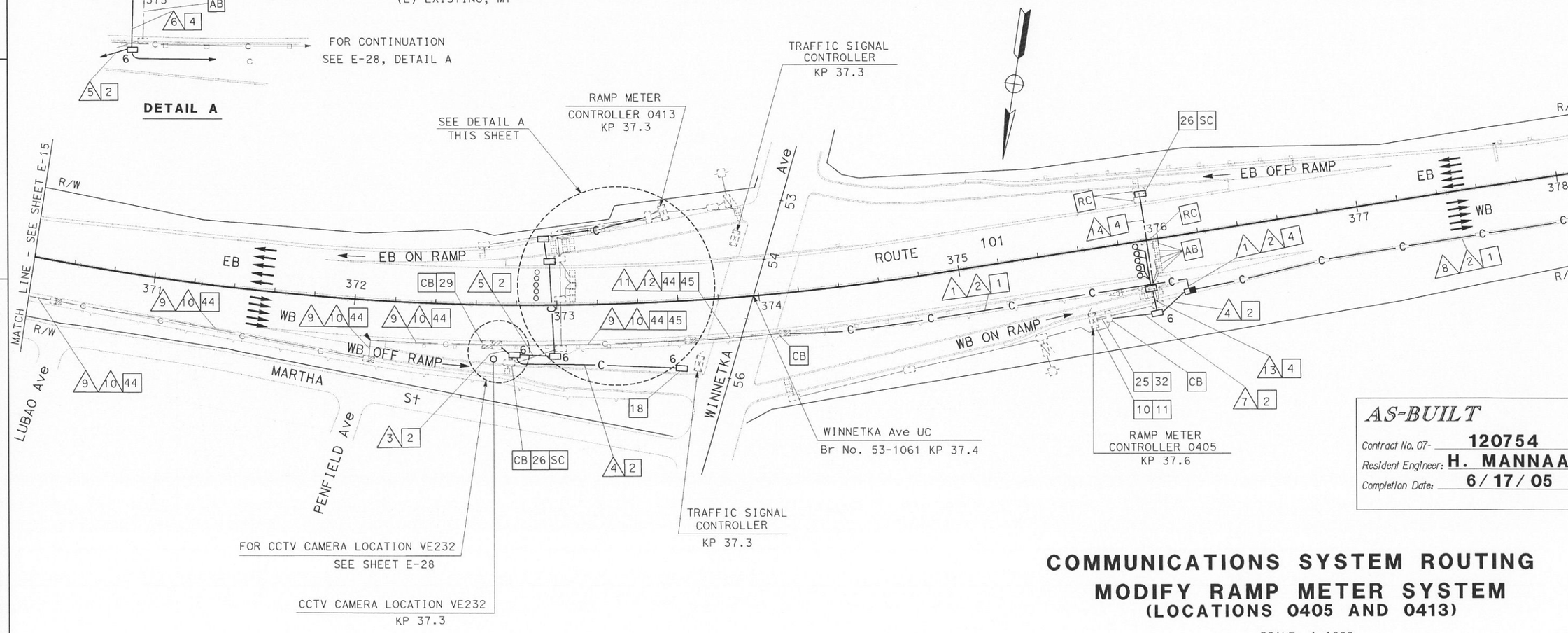
CONDUCTOR TYPE	FUNCTION	RUN (1)				(2)	(3)	(4)	(5)		(6)		(7)		(8)				(9)				(10)	(11)				(12)	(13)	(14)
48SMFO CABLE	DATA/VOICE	1													1				1					1						
12SMFO CABLE	DATA/VOICE				1		2		1			1		1																
48SMFO CABLE	VIDEO/DATA		1													1				1					1					
48SMFO CABLE	SH VIDEO/VOICE			1													1				1					1				
DLC	RAMP/COUNT								1		1		6																6	1
INNERDUCT (SIZE 25)		1	1	1	1										1	1	1	1	1	1	1	1		1	1	1	1			
INNERDUCT (SIZE 32)										1		1		1																
CONDUIT SIZE		103				103	53	53	78		103		78		103				103(E)				103(E)	78(E)				78(E)	53	53

(E) EXISTING, MT



DETAIL A

FOR CONTINUATION SEE E-28, DETAIL A



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATIONS 0405 AND 0413)

SCALE 1:1000

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

E-16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER HENRY H. TRINH

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
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7/02	DATE REVISED		

LAST REVISION 00-00-00 DATE PLOTTED = 17-SEP-2007 TIME PLOTTED = 14:42

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USERNAME => s124928
DGN FILE => 712075u16.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	80	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JACQUELINE C. TAN
No. E015611
Exp. 12/31/05
ELECTRICAL
STATE OF CALIFORNIA

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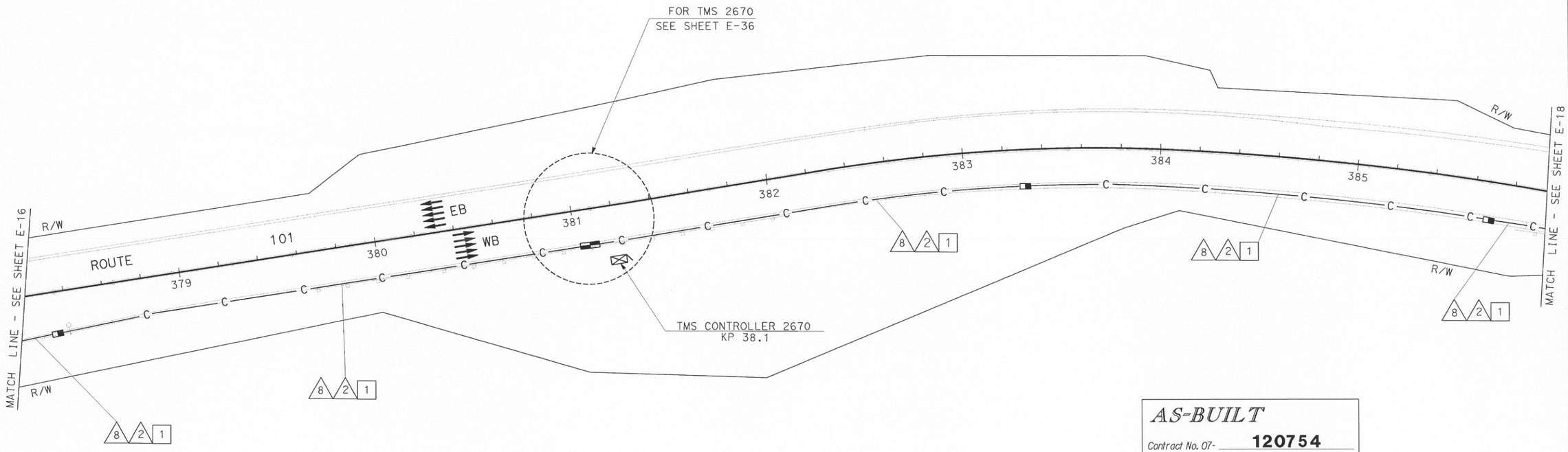
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
		8				2
48SMFO CABLE	DATA/VOICE	1				
12SMFO CABLE	DATA/VOICE					
48SMFO CABLE	VIDEO/DATA		1			
48SMFO CABLE	SH VIDEO/VOICE			1		
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

PROJECT NOTES: (THIS SHEET ONLY)

[1] INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.

COMMUNICATIONS SYSTEM ROUTING

SCALE 1:1000

E-17

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DATE	REVISED BY	CS
7/02	DATE REVISED	7/02
7/02	HT	
	DL	
CALCULATED/DESIGNED BY		
CHECKED BY		

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2007
TIME PLOTTED => 14:42

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USERNAME => s124928
DGN FILE => 712075u17.dgn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	101	R27.8/R40.6	81	178

Caltrans Metric

Jacqueline C. Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — STATE OF CALIFORNIA

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DATE	REVISED BY	DATE REVISED
7/02	CS	7/02

CALCULATED/DESIGNED BY: HT
CHECKED BY: DL

PROJECT ENGINEER: HENRY H. TRINH

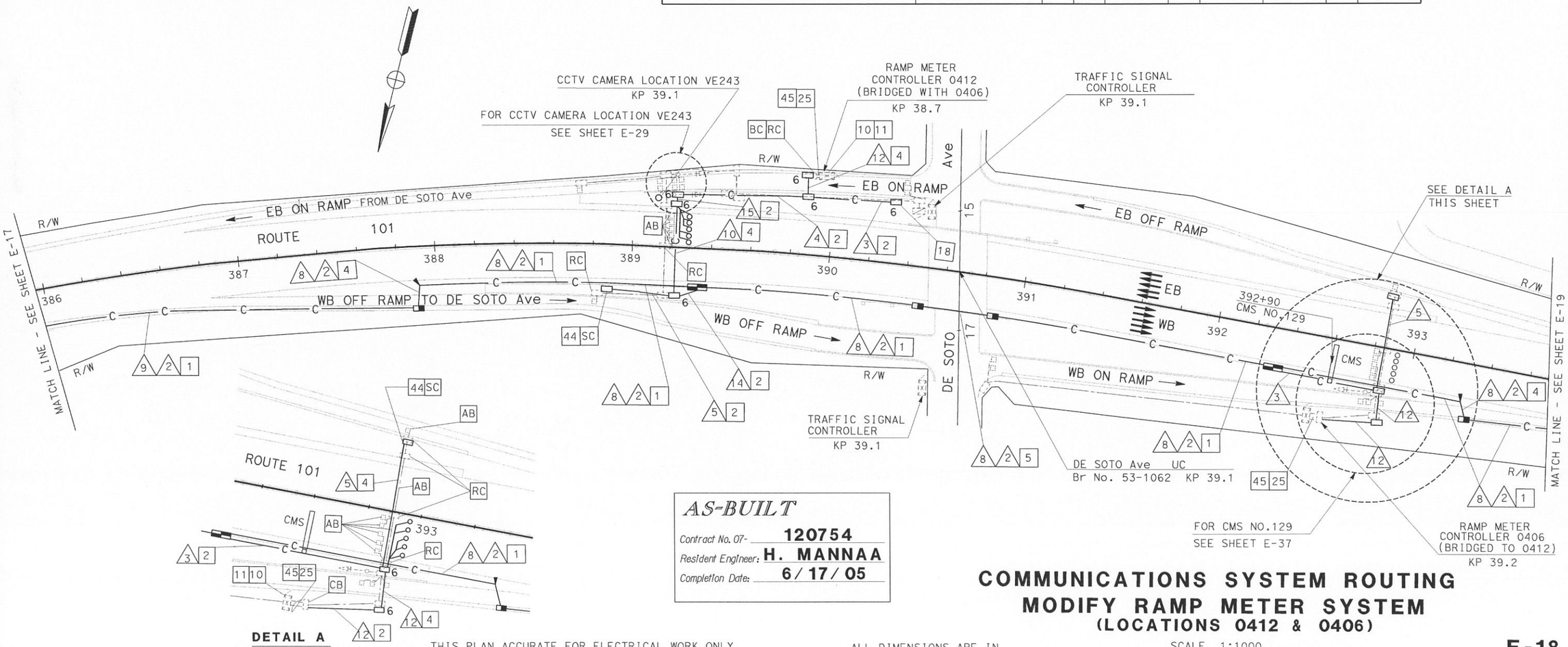
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **ITS DEVELOPMENT**

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING RMS CONTROLLER CABINETS 0406 & 0412. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
18. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
44. ADD 1 DLC
45. ADD 1-12 SMFO IN EXISTING CONDUITS AND CONNECT TO EXISTING RMS CONTROLLER CABINETS (0406& 0412)

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 8				2	3	4		5	10		12		14	15	
48SMFO CABLE	DATA/VOICE	1															
12SMFO CABLE	DATA/VOICE						1		2			3		1	3		2
48SMFO CABLE	VIDEO/DATA		1														
48SMFO CABLE	SH VIDEO/VOICE			1													
12SMFO CABLE	SH VIDEO/VOICE											1			1		1
DLC	RAMP/COUNT							6		1	1		6			6	
INNERDUCT (SIZE 25)		1	1	1	1												
INNERDUCT (SIZE 32)									1			1		1			1
CONDUIT SIZE		103				103	53	78		78	103		78		53	78	



DETAIL A
NO SCALE

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATIONS 0412 & 0406)

SCALE 1:1000

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

E-18

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

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USERNAME => s124928
DGN FILE => 712075u18.dgn

CU 07388 EA 120751

DIS	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	82	178

Caltrans Metric

Jacqueline C. Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL STATE OF CALIFORNIA REGISTERED PROFESSIONAL ENGINEER

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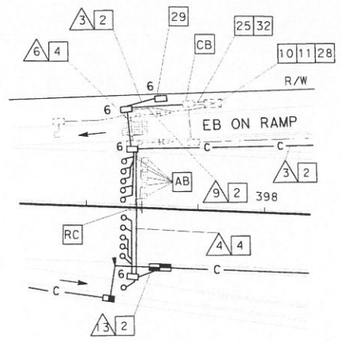
PROJECT NOTES: (THIS SHEET ONLY)

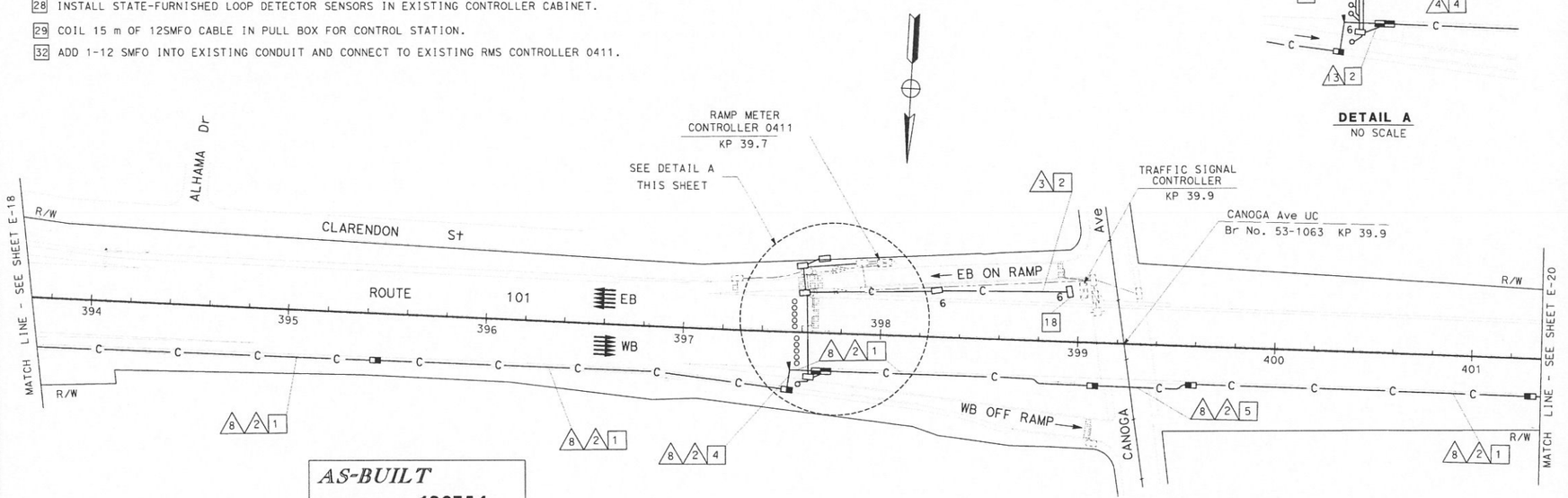
1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
18. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
28. INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.
29. COIL 15 m OF 12SMFO CABLE IN PULL BOX FOR CONTROL STATION.
32. ADD 1-12 SMFO INTO EXISTING CONDUIT AND CONNECT TO EXISTING RMS CONTROLLER 0411.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 8				2	3	4		6		9		13
48SMFO CABLE	DATA/VOICE	1												
12SMFO CABLE	DATA/VOICE						1		3		2		1	3
48SMFO CABLE	VIDEO/DATA		1											
48SMFO CABLE	SH VIDEO/VOICE			1										
DLC	RAMP/COUNT							6		11		11		
INNERDUCT (SIZE 25)		1	1	1	1									
INNERDUCT (SIZE 32)									1		1		1	
CONDUIT SIZE		103				103	53	103		103		78		53



DETAIL A
NO SCALE



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0411)

SCALE 1:1000

E-19

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER: HENRY H. TRINH
CALCULATED/DESIGNED BY: HT DATE 7/02
CHECKED BY: DL DATE 7/02
REVISED BY: CS DATE REVISED 7/02

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s 24928
DGN FILE => 712075u19.dgn

CU 07388 EA 120751

LAST REVISION 00-00-00 DATE PLOTTED => 11-SEP-2002 TIME PLOTTED => 14:42

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	83	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL STATE OF CALIFORNIA

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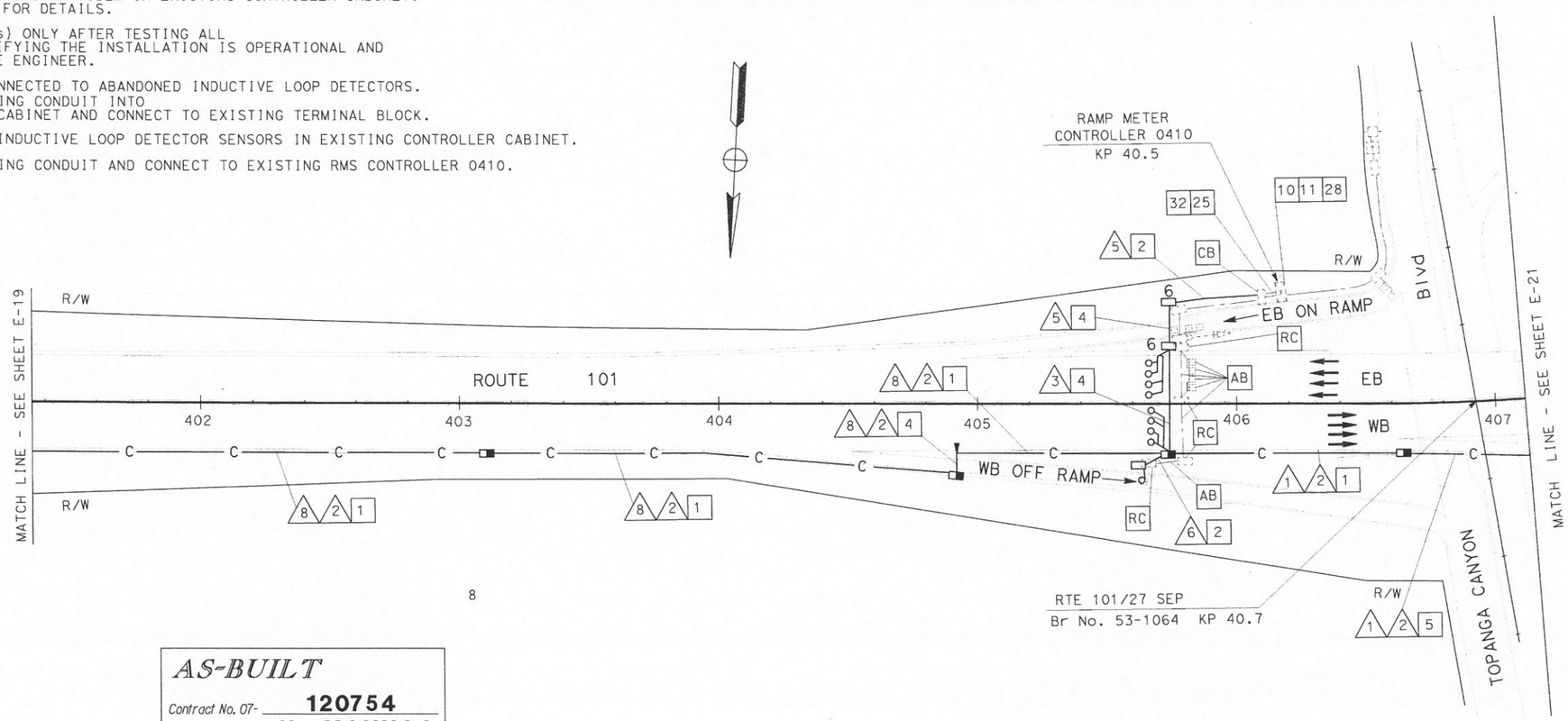
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
5. INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.
10. INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.
11. DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
25. IDENTIFY AND RC dlc CONNECTED TO ABANDONED INDUCTIVE LOOP DETECTORS. ADD DLC(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
28. INSTALL STATE-FURNISHED INDUCTIVE LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.
32. ADD 1-12 SMFO INTO EXISTING CONDUIT AND CONNECT TO EXISTING RMS CONTROLLER 0410.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				2	3		5		6	8			
48SMFO CABLE	DATA/VOICE	1										1			
12SMFO CABLE	DATA/VOICE				1			1		1					
48SMFO CABLE	VIDEO/DATA		1										1		
48SMFO CABLE	SH VIDEO/VOICE			1										1	
DLC	RAMP/COUNT						5		9		1				
INNERDUCT (SIZE 25)		1	1	1	1							1	1	1	1
INNERDUCT (SIZE 32)								1		1					
CONDUIT SIZE		103				103	78		78		53	103			



8

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATION 0410)

SCALE 1:1000

E-20

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FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2.

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER HENRY H. TRINH
CALCULATED/DESIGNED BY HT DATE 7/02
CHECKED BY DL DATE REVISED 7/02
REVISED BY CS

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u20.dgn

CU 07388 EA 120751

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	84	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — EXP. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)									
CONDUCTOR TYPE	FUNCTION	RUN 1				2	3		4
48SMFO CABLE	DATA/VOICE	1					1		
12SMFO CABLE	DATA/VOICE				1		2		1
48SMFO CABLE	VIDEO/DATA		1					1	
48SMFO CABLE	SH VIDEO/VOICE			1				1	
INNERDUCT (SIZE 25)		1	1	1	1				
CONDUIT SIZE		103				103	78	78	53

PROJECT NOTES: (THIS SHEET ONLY)

[1] INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.

[2] INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

[4] JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

[5] INSTALL FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT(S) ON STRUCTURE. SEE STRUCTURE SHEETS FOR DETAILS.

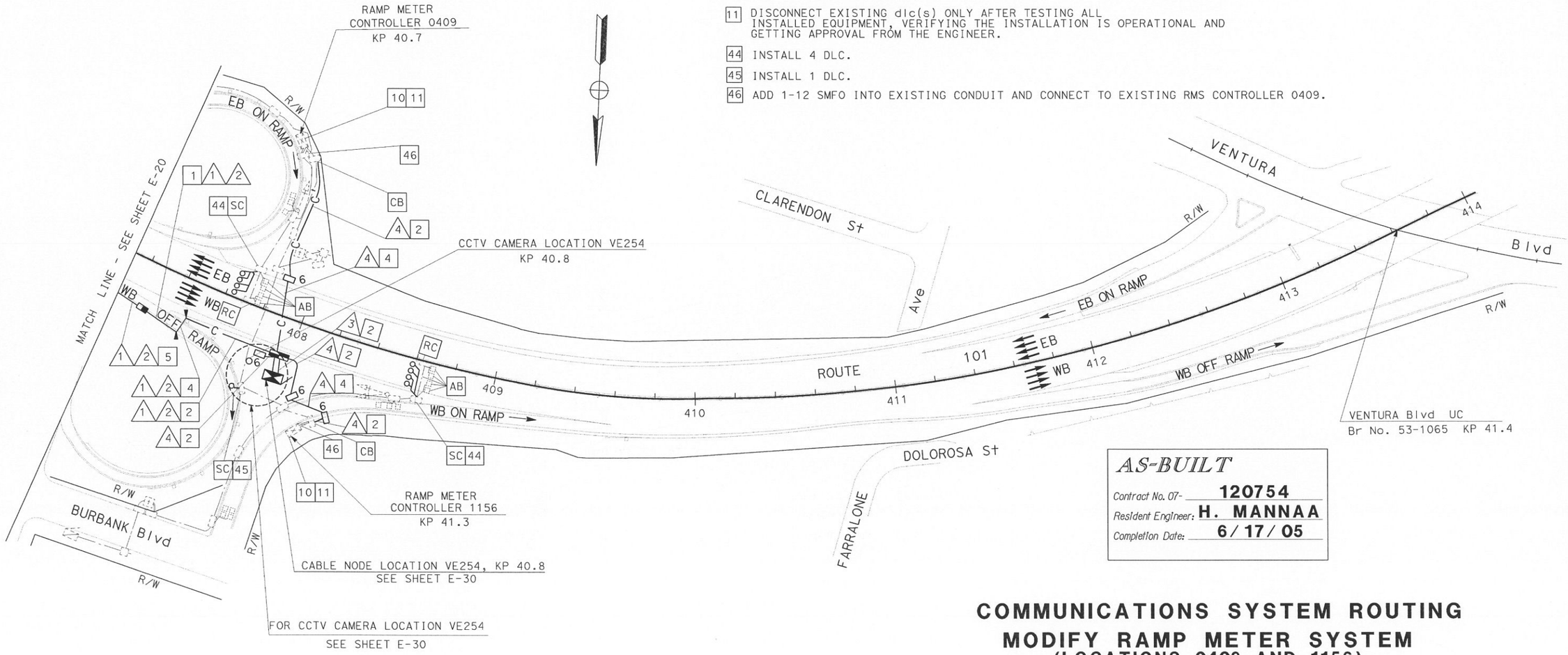
[10] INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

[11] DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

[44] INSTALL 4 DLC.

[45] INSTALL 1 DLC.

[46] ADD 1-12 SMFO INTO EXISTING CONDUIT AND CONNECT TO EXISTING RMS CONTROLLER 0409.



AS-BUILT

Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY RAMP METER SYSTEM
(LOCATIONS 0409 AND 1156)

SCALE 1:1000

E-21

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

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USERNAME => s124928
DGN FILE => 712075u21.dgn

CU 07388 EA 120751

DATE	REVISED BY	CS
7/02	DATE REVISED	7/02
	HT	
	DL	
	CALCULATED/DESIGNED BY	
	CHECKED BY	

PROJECT ENGINEER
H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2007
TIME PLOTTED => 14:42

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R27.8/R40.6	85	178

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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Caltrans Metric

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

7 INSTALL CCTV CAMERA POLE AND NEW FOUNDATION. SEE SHEETS E-45 AND STD PLAN ES-16A FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON POLE.

12 INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CONTROLLER CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.

17 INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV CAMERA.

19 INSTALL TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.

20 INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.

21 INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

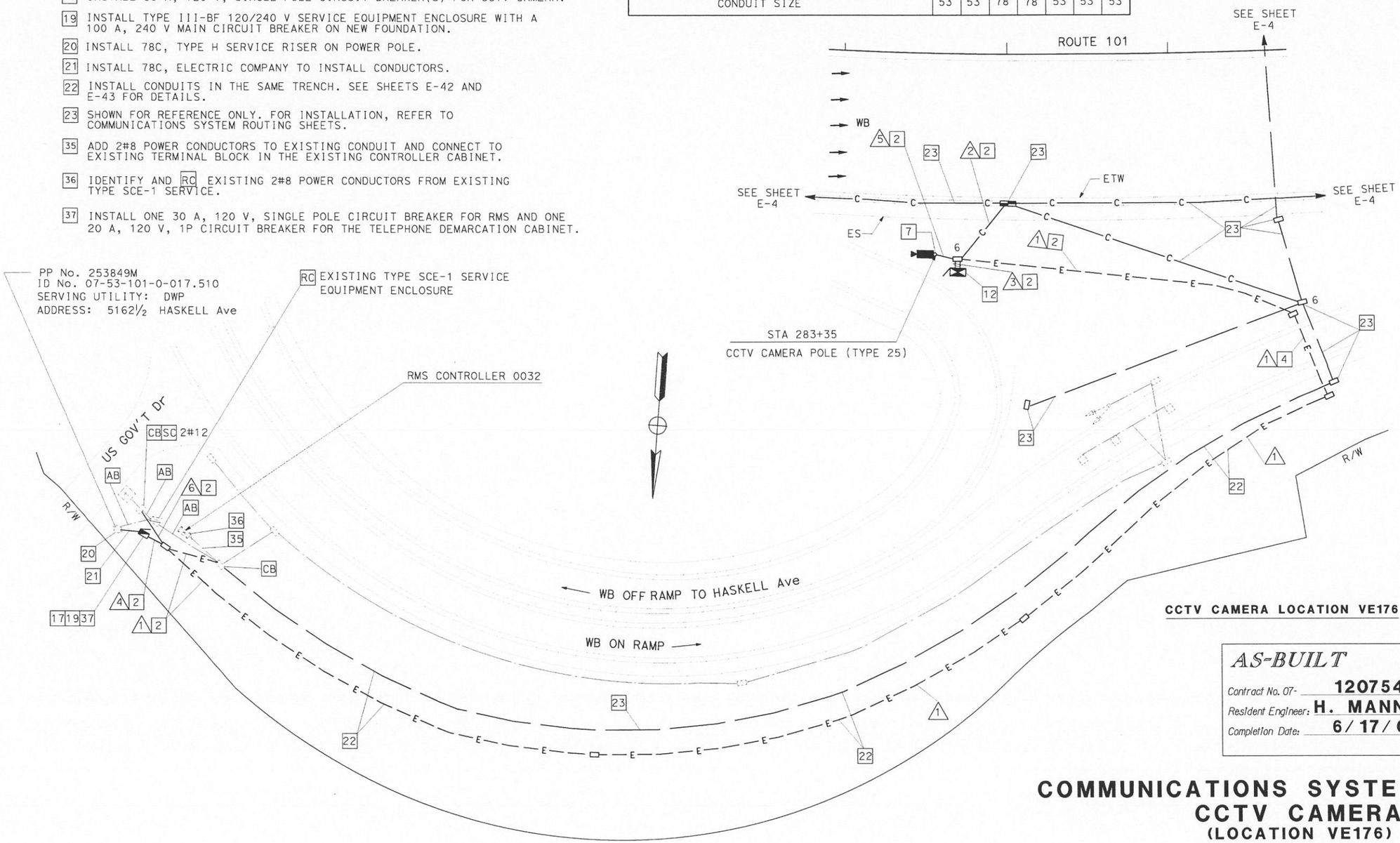
35 ADD 2#8 POWER CONDUCTORS TO EXISTING CONDUIT AND CONNECT TO EXISTING TERMINAL BLOCK IN THE EXISTING CONTROLLER CABINET.

36 IDENTIFY AND RC EXISTING 2#8 POWER CONDUCTORS FROM EXISTING TYPE SCE-1 SERVICE.

37 INSTALL ONE 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER FOR RMS AND ONE 20 A, 120 V, 1P CIRCUIT BREAKER FOR THE TELEPHONE DEMARCATION CABINET.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6
12SMFO	SH VIDEO/VOICE		1	1			
RG-6A/U COAX	BB VIDEO			1		1	
#8	POWER	2		2	4		
#12	POWER				2		2
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1		1
INNERDUCT (SIZE 32)							
CONDUIT SIZE		53	53	78	78	53	53	53



CCTV CAMERA LOCATION VE176

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
CCTV CAMERA
(LOCATION VE176)

SCALE 1:200

E-22

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

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USERNAME => s124928
DGN FILE => 712075u22.dgn

CU 07388 EA 120751

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

PROJECT ENGINEER
HENRY H. TRINH

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
7/02	CS	HT	DL
7/02	DATE REVISED		

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R27.8/R40.6	86	178

Caltrans Metric

Jacqueline C. Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

4-7-03
PLANS APPROVAL DATE

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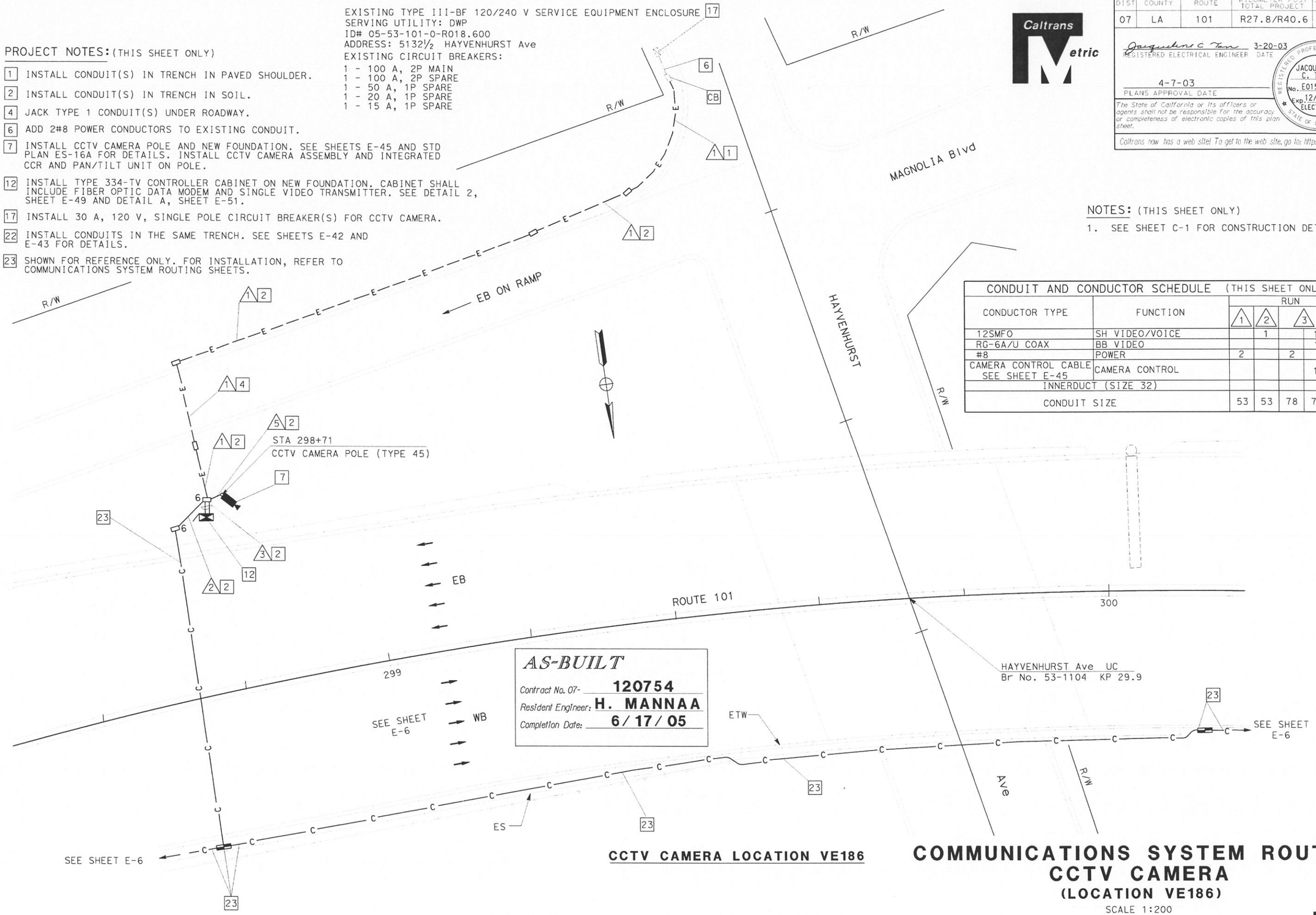
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY.
6. ADD 2#8 POWER CONDUCTORS TO EXISTING CONDUIT.
7. INSTALL CCTV CAMERA POLE AND NEW FOUNDATION. SEE SHEETS E-45 AND STD PLAN ES-16A FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON POLE.
12. INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.
17. INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV CAMERA.
22. INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.
23. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

EXISTING TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE
SERVING UTILITY: DWP
ID# 05-53-101-0-R018.600
ADDRESS: 5132½ HAYVENHURST Ave
EXISTING CIRCUIT BREAKERS:
1 - 100 A, 2P MAIN
1 - 100 A, 2P SPARE
1 - 50 A, 1P SPARE
1 - 20 A, 1P SPARE
1 - 15 A, 1P SPARE



NOTES: (THIS SHEET ONLY)

1. SEE SHEET C-1 FOR CONSTRUCTION DETAILS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5
12SMFO	SH VIDEO/VOICE		1		1	
RG-6A/U COAX	BB VIDEO				1	1
#8	POWER	2		2		
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1	1
INNERDUCT (SIZE 32)						
CONDUIT SIZE		53	53	78	78	53

CCTV CAMERA LOCATION VE186

COMMUNICATIONS SYSTEM ROUTING
CCTV CAMERA
(LOCATION VE186)

SCALE 1:200

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u23.dgn

CU 07388 EA 120751

E-23

DATE	REVISED BY	DATE REVISED
7/02	CS	7/02

CALCULATED/DESIGNED BY: HT
CHECKED BY: DL

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	87	178

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-7-03
PLANS APPROVAL DATE

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CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
		1	2	3	5	
12SMFO	SH VIDEO/VOICE		1		1	
RG-6A/U COAX	BB VIDEO				1	1
#8	POWER	2		2		
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1	1
INNERDUCT (SIZE 32)						
CONDUIT SIZE		53	53	78	78	53

NOTES: (THIS SHEET ONLY)

1. SEE SHEET C-2 FOR CONSTRUCTION DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY.

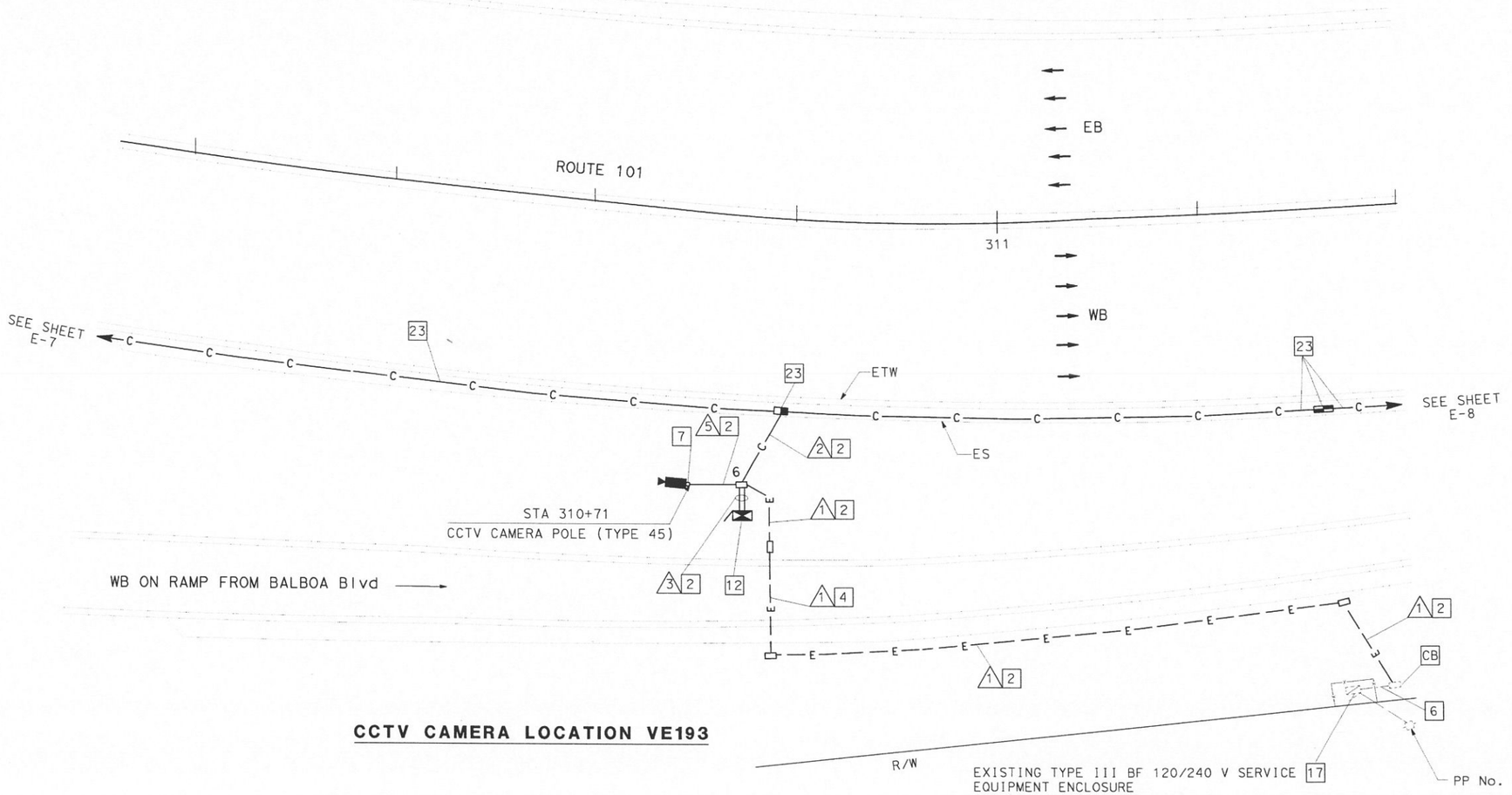
6 ADD 2#8 POWER CONDUCTORS TO EXISTING CONDUIT.

7 INSTALL CCTV CAMERA POLE AND NEW FOUNDATION. SEE SHEETS E-45 AND STD PLAN ES-16A FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON POLE.

12 INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.

17 INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV CAMERA.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.



CCTV CAMERA LOCATION VE193

EXISTING TYPE III BF 120/240 V SERVICE 17
EQUIPMENT ENCLOSURE
SERVING UTILITY: DWP
ID No. 07-53-101-0-R019.300
ADDRESS: 16946 ½ BURBANK Blvd
EXISTING CIRCUIT BREAKERS:
1 - 100 A, 2P MAIN
1 - 30 A, 2P SIGN
1 - 15 A, 2P RAMP METER

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING CCTV CAMERA (LOCATION VE193)

SCALE 1:200

E-24

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
HT	DL	7/02	CS	7/02

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED = 14:42

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USERNAME => s124928
DGN FILE => 7120750u24.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	88	178

Caltrans Metric

Jacqueline C Tan 3-20-03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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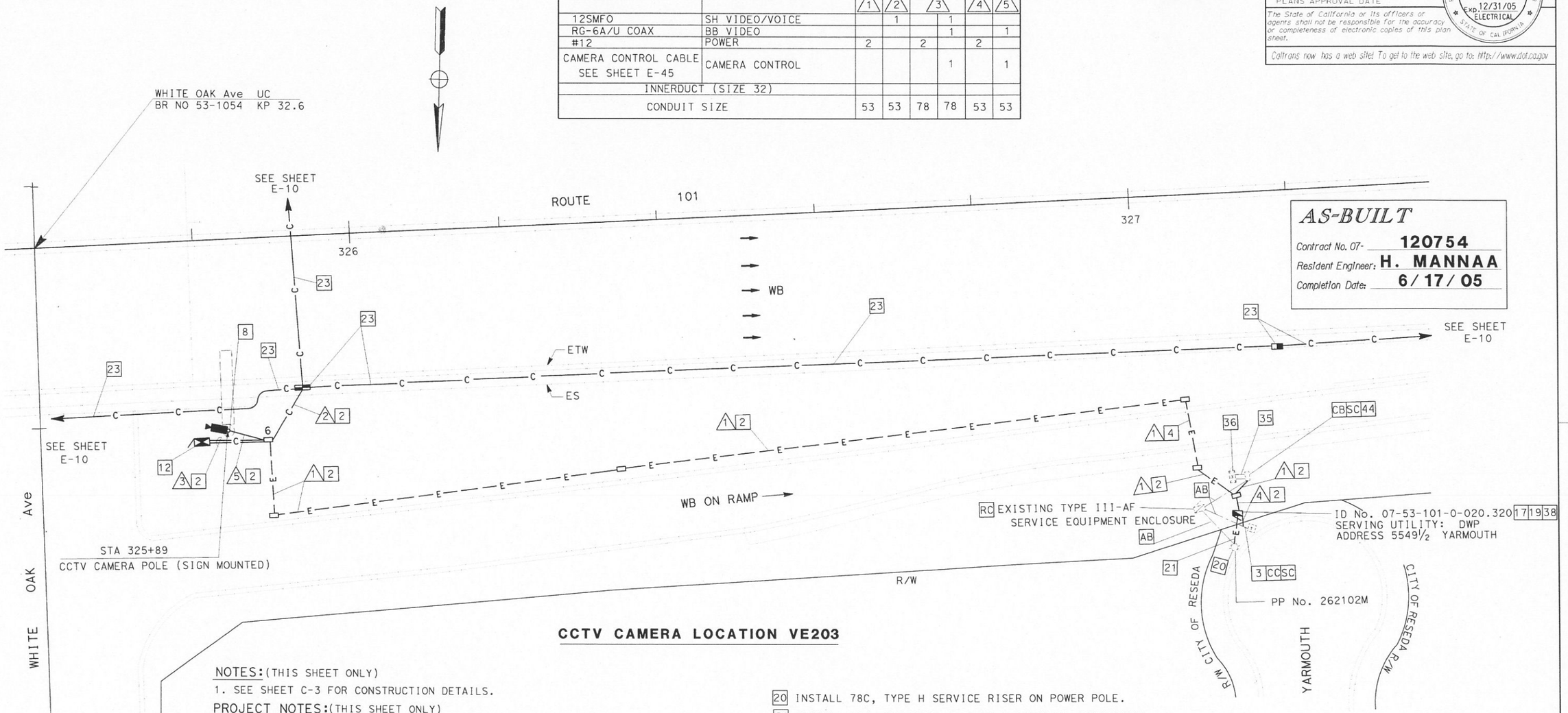
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5		
12SMFO	SH VIDEO/VOICE		1		1			
RG-6A/U COAX	BB VIDEO				1		1	
#12	POWER	2		2		2		
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1		1	
INNERDUCT (SIZE 32)								
CONDUIT SIZE		53	53	78	78	53	53	



CCTV CAMERA LOCATION VE203

NOTES: (THIS SHEET ONLY)

1. SEE SHEET C-3 FOR CONSTRUCTION DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

[2] INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

[3] REMOVE EXISTING CONDUCTORS AND INSTALL 2#12 IN EXISTING CONDUIT.

[4] JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

[8] INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON EXISTING SIGN STRUCTURE. SEE SHEETS E-45 AND STD PLAN ES-16B FOR DETAILS.

[12] INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.

[17] INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV CAMERA.

[19] INSTALL TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.

[20] INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.

[21] INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

[23] SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

[35] ADD 2#12 POWER CONDUCTORS TO EXISTING CONDUIT.

[36] IDENTIFY AND [RC] EXISTING 2#8 POWER CONDUCTORS FROM EXISTING TYPE II-A SERVICE EQUIPMENT ENCLOSURE.

[38] INSTALL ONE 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER FOR RMS AND ONE 15 A, 120 V, 1P CIRCUIT BREAKER FOR THE TELEPHONE DEMARCATION CABINET.

[44] INSTALL 2#12 CONDUCTORS.

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

AS-BUILT

Contract No. 07- **120754**
Resident Engineer: **H. MANNAA**
Completion Date: **6/17/05**

COMMUNICATIONS SYSTEM ROUTING
CCTV CAMERA
(LOCATION VE203)

SCALE 1:200

E-25

DATE	REVISED BY	DATE REVISED
7/02	HT	7/02

CALCULATED/DESIGNED BY: DL
CHECKED BY: CS

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED = 17-SEP-2007 TIME PLOTTED = 14:42

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u25.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	101	R27.8/R40.6	89	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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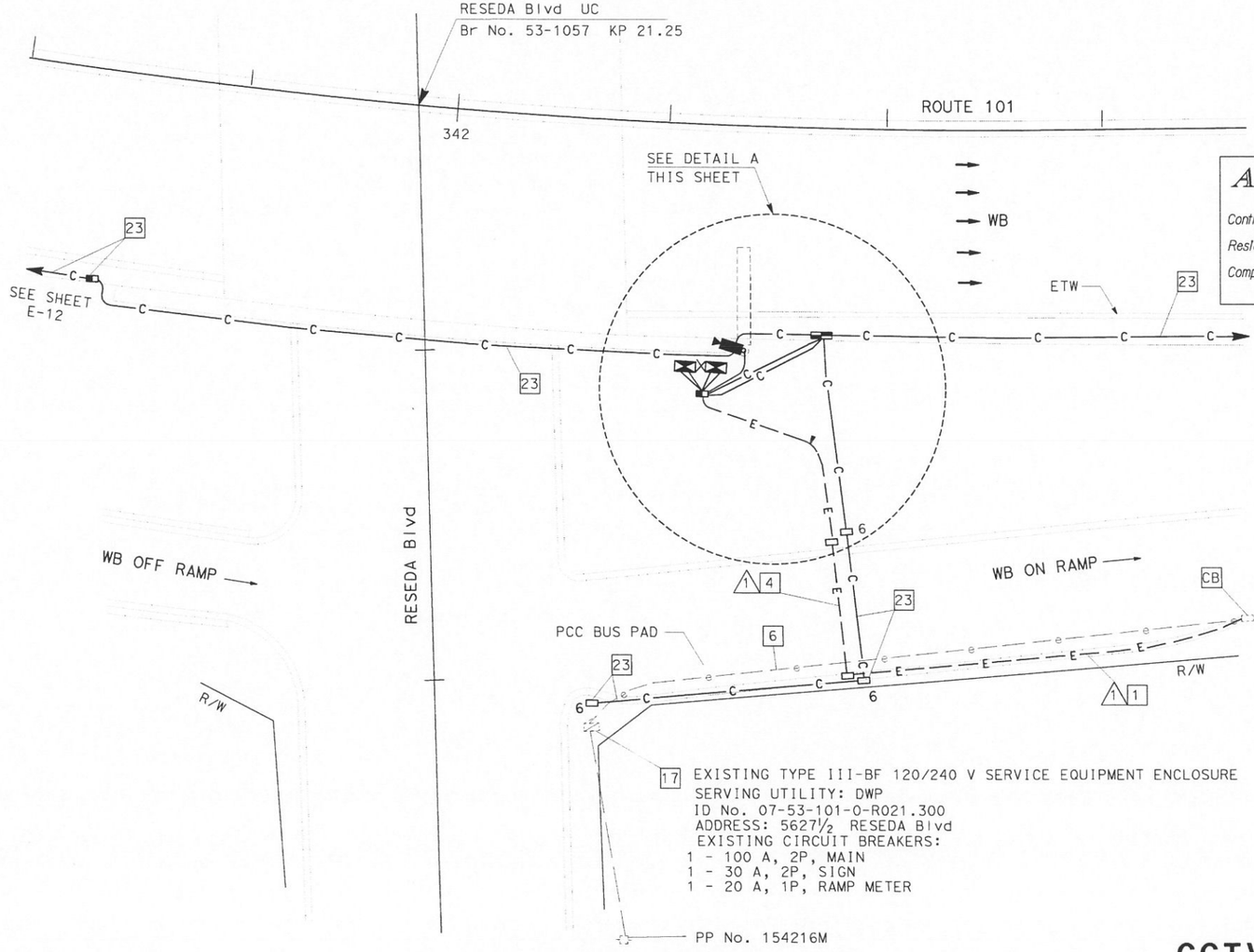
DATE	REVISED BY	DATE REVISED
7/02	CS	7/02

CALCULATED/DESIGNED BY: HT
CHECKED BY: DL
PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

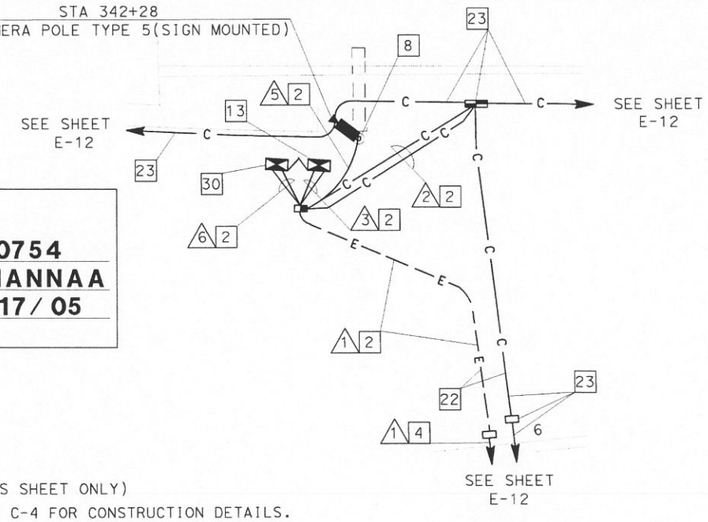
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2								3	5	6	
FO JUMPERS	DATA										6			6
48SMFO CABLE	DATA/VOICE		2											2
48SMFO CABLE	SH VIDEO/VOICE						2				2			
12SMFO CABLE	VIDEO/DATA					1					1			
RG-6A/U COAX	BB VIDEO										1	1		2
#8	POWER	4									2		2	
CAMERA CONTROL CABLE SHEET E-45	CAMERA CONTROL											1		1
INNERDUCT (SIZE 25)			1	1	1	1	1	1	1	1				
INNERDUCT (SIZE 32)														
CONDUIT SIZE		53	103				103				78	78	53	78	78



17 EXISTING TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE
SERVING UTILITY: DWP
ID No. 07-53-101-0-R021.300
ADDRESS: 5627½ RESEDA Blvd
EXISTING CIRCUIT BREAKERS:
1 - 100 A, 2P, MAIN
1 - 30 A, 2P, SIGN
1 - 20 A, 1P, RAMP METER

CCTV CAMERA LOCATION VE213



DETAIL A
NO SCALE

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

NOTES: (THIS SHEET ONLY)
1. SEE SHEET C-4 FOR CONSTRUCTION DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

1 INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER.
2 INSTALL CONDUIT(S) IN TRENCH IN SOIL.
4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY.
6 ADD 4#8 POWER CONDUCTORS TO EXISTING CONDUIT.
8 INSTALL CCTV CAMERA ASSEMBLY WITH INTEGRATED CCR AND PAN/TILT UNIT ON EXISTING SIGN STRUCTURE. SEE STD PLAN ES-16B FOR DETAILS.
13 INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE EQUIPMENT AT VIDEO NODE. SEE DETAIL 3, SHEET E-50.
17 INSTALL TWO 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR VIDEO AND DATA NODE.
22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.
23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.
30 INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE EQUIPMENT AT DATA NODE. SEE DETAIL 3, SHEET E-50 AND DETAIL B SHEET E-51.

COMMUNICATIONS SYSTEM ROUTING
CCTV CAMERA, VIDEO NODE AND DATA NODE
(LOCATION VE213)

SCALE 1:200

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

E-26

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

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USERNAME => s124928
DGN FILE => 712075026.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	90	178

Jacqueline C Tan — REGISTERED ELECTRICAL ENGINEER — 3/20/03 DATE

4-7-03 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 — ELECTRICAL — STATE OF CALIFORNIA

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CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN 1	2	3		5	6
12SMFO	SH VIDEO/VOICE		1		1		
RG-6A/U COAX	BB VIDEO				1	1	
#12	POWER	2		2			4
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1	1	
INNERDUCT (SIZE 32)							
CONDUIT SIZE		53	53	78	78	53	53

NOTES: (THIS SHEET ONLY)

1. SEE SHEET C-5 FOR CONSTRUCTION DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

[2] INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

[3] REMOVE EXISTING CONDUCTORS AND INSTALL 2#12 POWER CONDUCTORS.

[4] JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

[7] INSTALL CCTV CAMERA POLE AND NEW FOUNDATION. SEE SHEETS E-45 AND STD PLAN ES-16A FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON POLE.

[12] INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.

[17] INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV CAMERA.

[19] INSTALL TYPE III-BF, 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.

[20] INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.

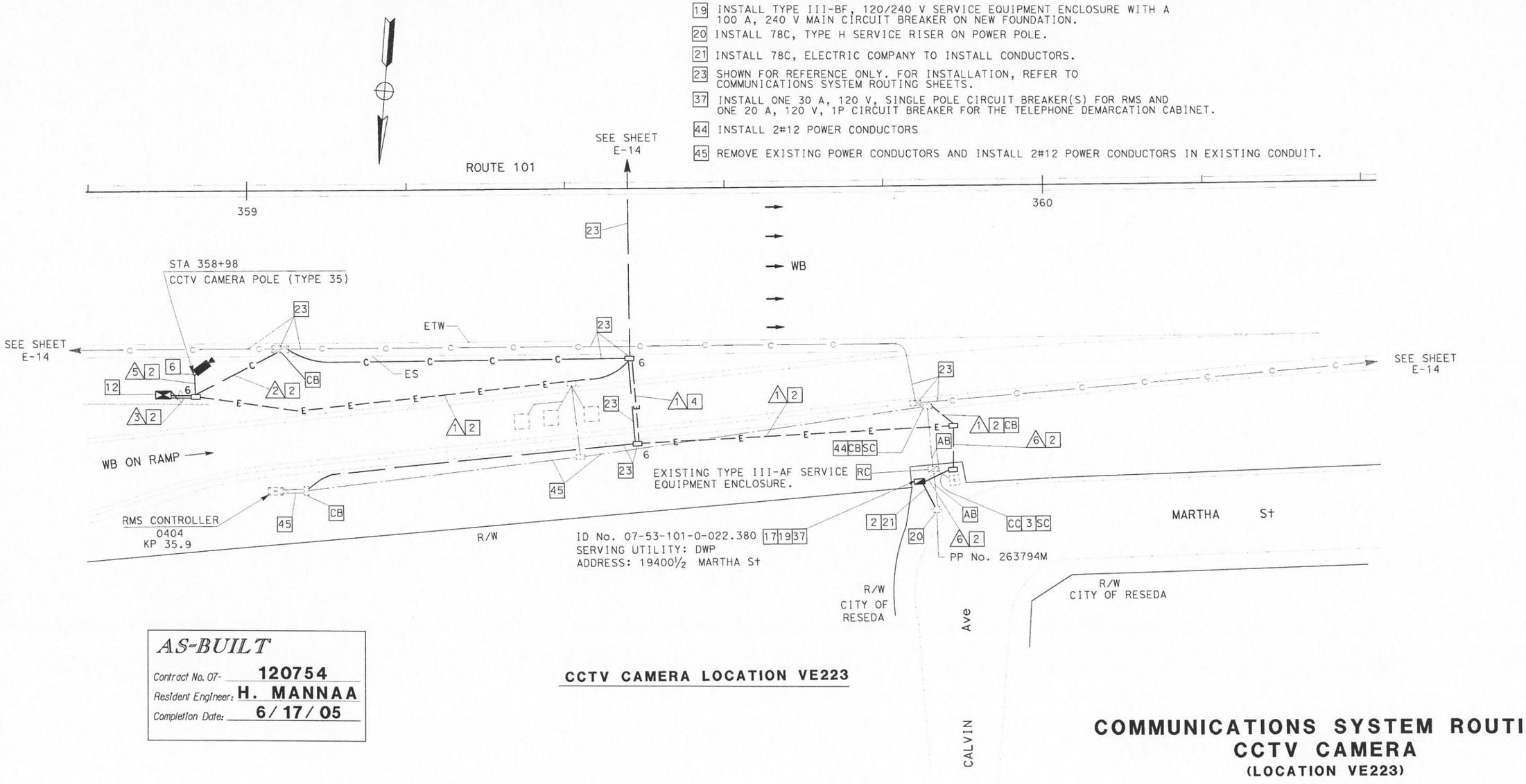
[21] INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

[23] SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

[37] INSTALL ONE 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR RMS AND ONE 20 A, 120 V, 1P CIRCUIT BREAKER FOR THE TELEPHONE DEMARCATION CABINET.

[44] INSTALL 2#12 POWER CONDUCTORS

[45] REMOVE EXISTING POWER CONDUCTORS AND INSTALL 2#12 POWER CONDUCTORS IN EXISTING CONDUIT.



CCTV CAMERA LOCATION VE223

AS-BUILT

Contract No. 07- 120754

Resident Engineer: H. MANNAA

Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING CCTV CAMERA (LOCATION VE223)

SCALE 1:200

E-27

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u27.dgn

CU 07388 EA 120751

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT
PROJECT ENGINEER HENRY H. TRINH
CALCULATED/DESIGNED BY HT
CHECKED BY DL
DATE REVISED BY CS
7/02 DATE REVISED 7/02

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	91	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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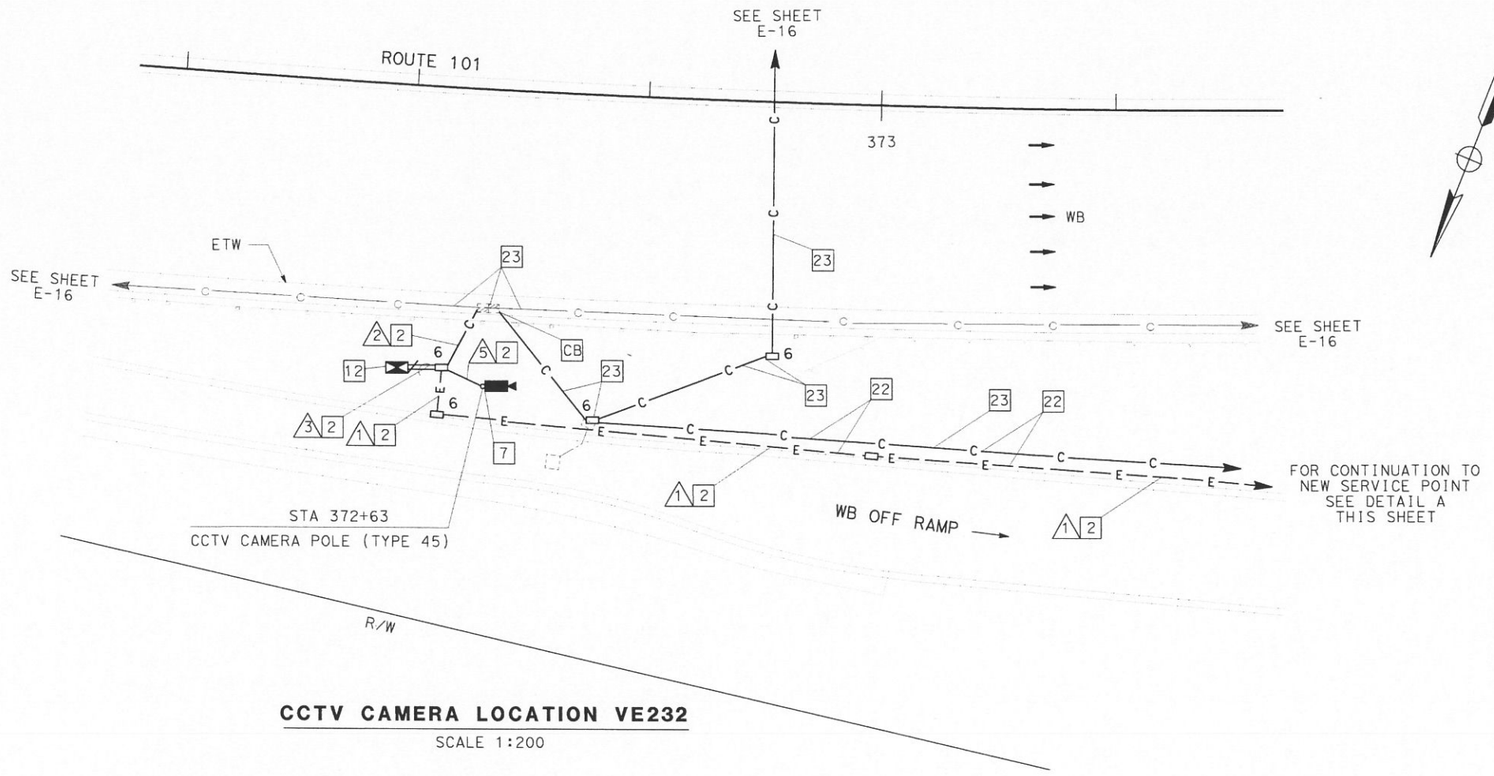
AS-BUILT

Contract No. 07- **120754**
Resident Engineer: **H. MANNAA**
Completion Date: **6/17/05**



CCTV CAMERA LOCATION VE232
SCALE 1:200

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN 1	2	3		5	6	
12SMFO	SH VIDEO/VOICE		1		1			
RG-6A/U COAX	BB VIDEO				1	1		
#8	POWER	2		2			2	
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1	1		
INNERDUCT (SIZE 32)								
CONDUIT SIZE		53	53	78	78	53	78	78

NOTES: (THIS SHEET ONLY)

1. SEE SHEET C-6 FOR CONSTRUCTION DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. FOR INSTALLATION OF SIZE SEE SHEET E-44 FOR DETAILS.

7 INSTALL CCTV CAMERA POLE AND NEW FOUNDATION. SEE SHEETS E-45 AND STD PLAN ES-16A FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON POLE.

12 INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.

17 INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV.

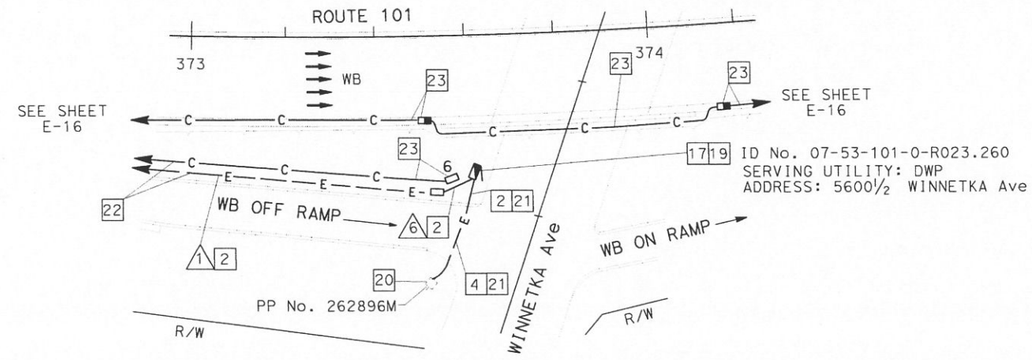
19 INSTALL TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.

20 INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.

21 INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.



DETAIL A
SCALE 1:500

COMMUNICATIONS SYSTEM ROUTING
CCTV CAMERA
(LOCATION VE232)

SCALE AS NOTED

E-28

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
7/02	CS	HT	DL
7/02	DATE REVISED		

PROJECT ENGINEER — HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:42

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u28.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	101	R27.8/R40.6	92	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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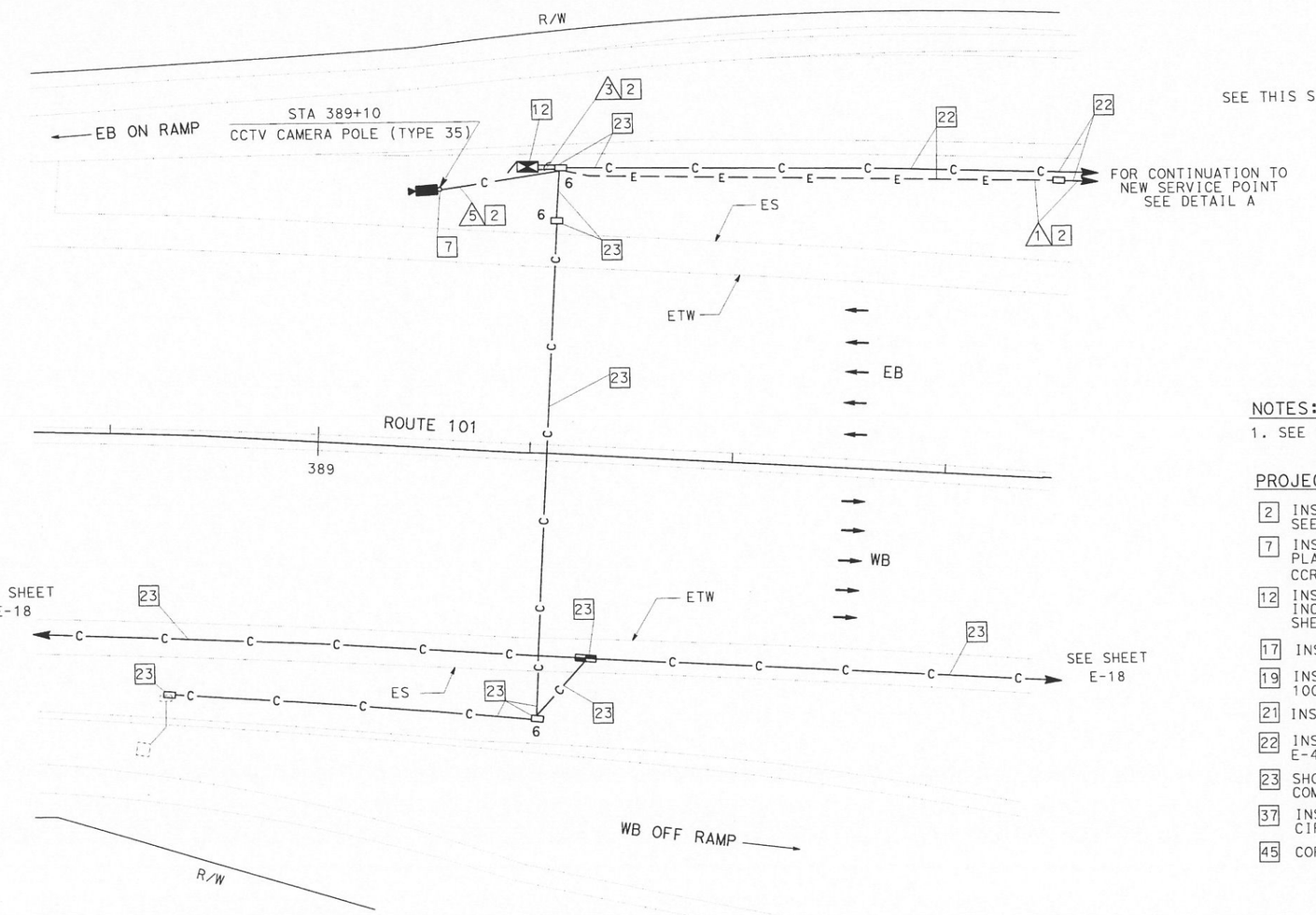
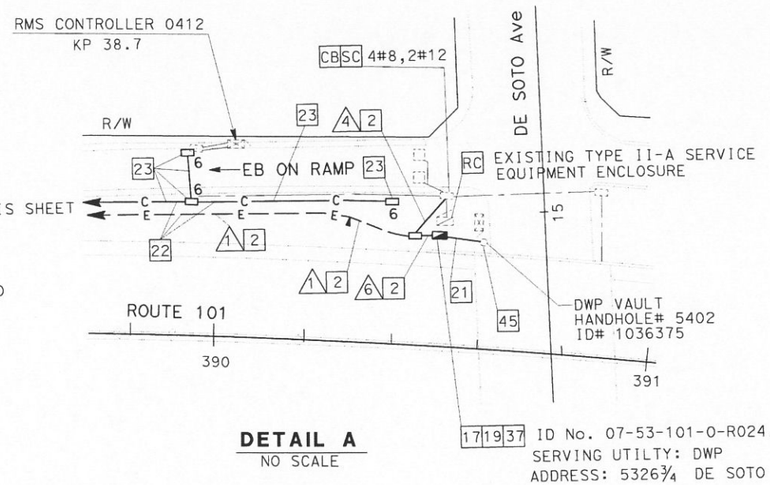
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN					
		1	3		4	5	6
12SMFO	SH VIDEO/VOICE			1			
RG-6A/U COAX	BB VIDEO			1		1	
#8	POWER	2	2		4		6
#12	POWER				2		2
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL			1		1	
INNERDUCT (SIZE 32)							
CONDUIT SIZE		53	78	78	53	53	53

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05



CCTV CAMERA LOCATION VE243
SCALE 1:200



DETAIL A
NO SCALE

17 19 37 ID No. 07-53-101-0-R024.310
SERVING UTILTY: DWP
ADDRESS: 5326¾ DE SOTO Ave

NOTES: (THIS SHEET ONLY)
1. SEE SHEET C-7 FOR CONSTRUCTION DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-45 AND STD PLAN ES-16A FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY AND INTEGRATED CCR AND PAN/TILT UNIT ON POLE.

12 INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.

17 INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV.

19 INSTALL TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.

21 INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

37 INSTALL TWO 30 A, 120 V, 1P CIRCUIT BREAKER FOR RMS AND ONE 15 A, 120 V, 1P CIRCUIT BREAKER FOR THE TELEPHONE DEMARCATION CABINET.

45 CORE THROUGH EXISTING DWP VAULT, DWP REPRESENTATIVE TO BE PRESENT WHILE CORING.

COMMUNICATIONS SYSTEM ROUTING
CCTV CAMERA
(LOCATION VE243)

SCALE AS NOTED

E-29

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
7/02	CS	HT	DL
7/02	DATE REVISED		

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:43

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 712075u29.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	93	178

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

JACQUELINE C. TAN No. E015611 Exp 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-7-03
PLANS APPROVAL DATE

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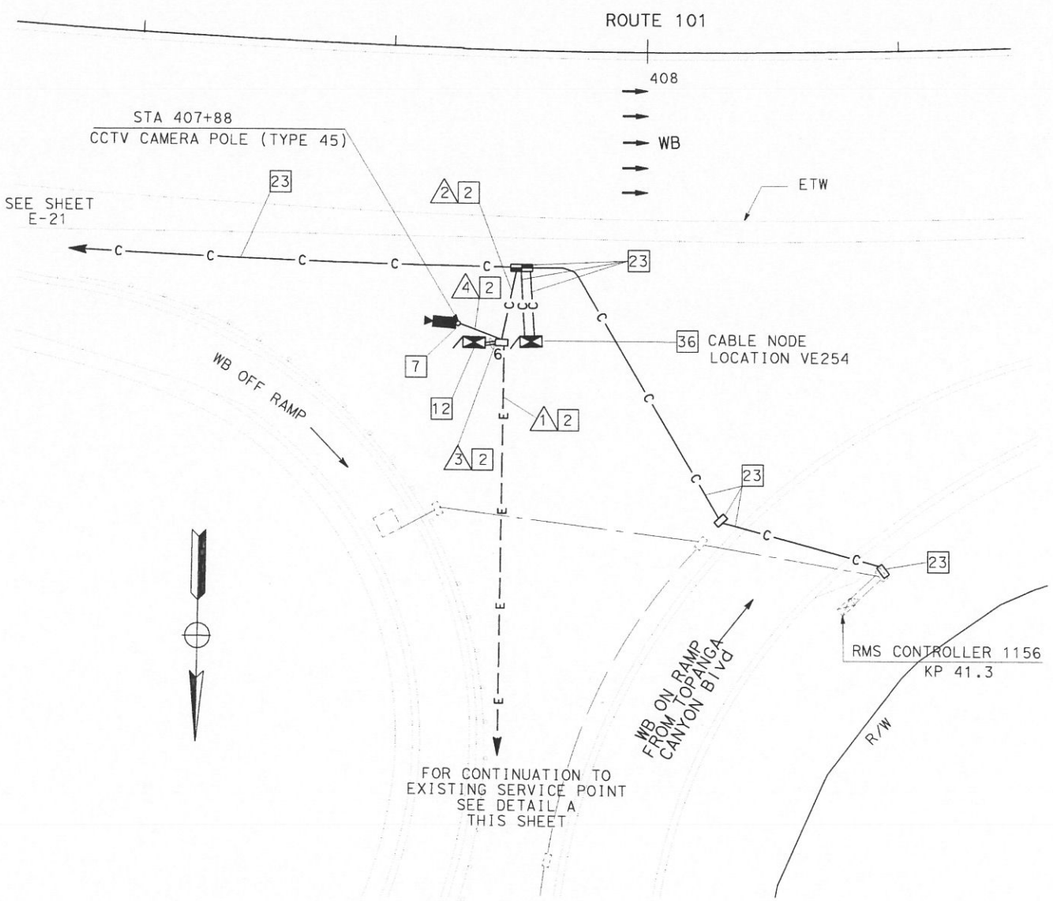
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 3	RUN 4
12SMFO	SH VIDEO/VOICE		1		1	
RG-6A/U COAX	BB VIDEO				1	1
#8	POWER	2		2		
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1	1
INNERDUCT (SIZE 32)						
CONDUIT SIZE		53	53	78	78	53



CCTV CAMERA AND CABLE NODE LOCATION VE254

SCALE 1:200

NOTES: (THIS SHEET ONLY)

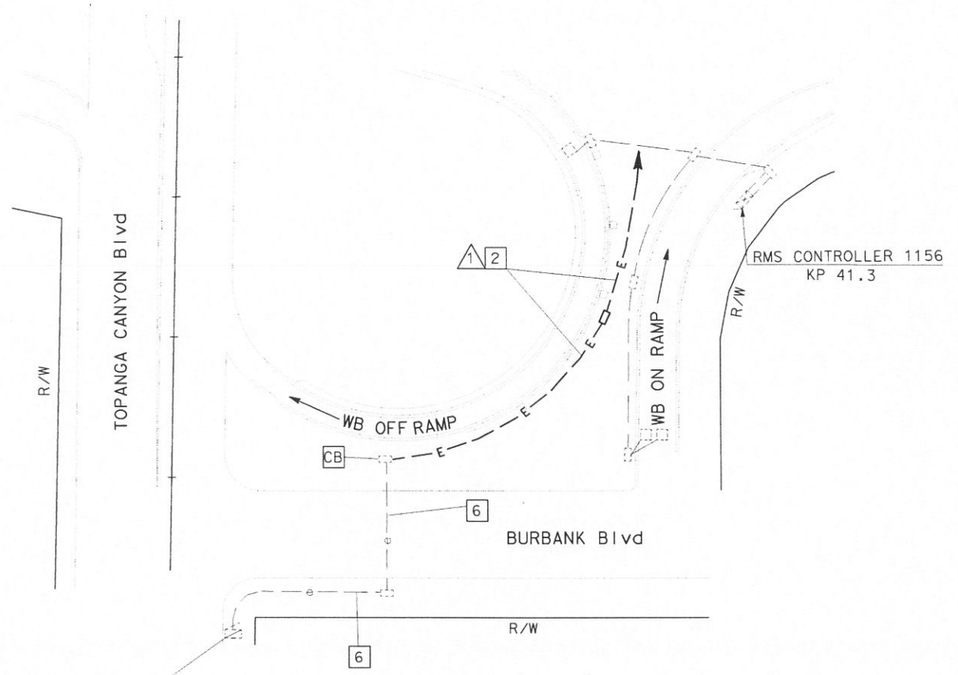
1. SEE SHEET C-8 FOR CONSTRUCTION DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

- [2] INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
- [6] ADD 2#8 POWER CONDUCTORS TO EXISTING CONDUIT.
- [7] INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-45 AND STD PLAN ES-16A FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY WITH INTEGRATED CCR AND PAN/TILT UNIT ON POLE.
- [12] INSTALL TYPE 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE FIBER OPTIC DATA MODEM AND SINGLE VIDEO TRANSMITTER. SEE DETAIL 2, SHEET E-49 AND DETAIL A, SHEET E-51.
- [17] ADD 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV CAMERA.
- [23] SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.
- [36] INSTALL TYPE 334 CONTROLLER CABINET. SEE SHEET E-50, DETAIL 4.

AS-BUILT

Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05



EXISTING TYPE III BF 120/240 V SERVICE [17]
EQUIPMENT ENCLOSURE
SERVING UTILITY: DWP
ID No. 07-53-101-0-R025.340
ADDRESS: 21999½ BURBANK Blvd
EXISTING CIRCUIT BREAKERS:
1 - 50 A, 1P SPARE
1 - 30 A, 1P RAMP METER
1 - 15 A, 1P TELCO DEMARCATION CABINET

DETAIL A

SCALE 1:200

COMMUNICATIONS SYSTEM ROUTING CCTV CAMERA AND CABLE NODE (LOCATION VE254)

SCALE AS NOTED

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

E-30

DATE	REVISED BY	CS
7/02	DATE REVISED	7/02
	CALCULATED/DESIGNED BY	HT
	CHECKED BY	DL
	PROJECT ENGINEER	HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:43

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DGN FILE => 712075u30.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	94	178

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JACQUELINE C. TAN
No. E015611
Exp. 12/31/05
ELECTRICAL
STATE OF CALIFORNIA

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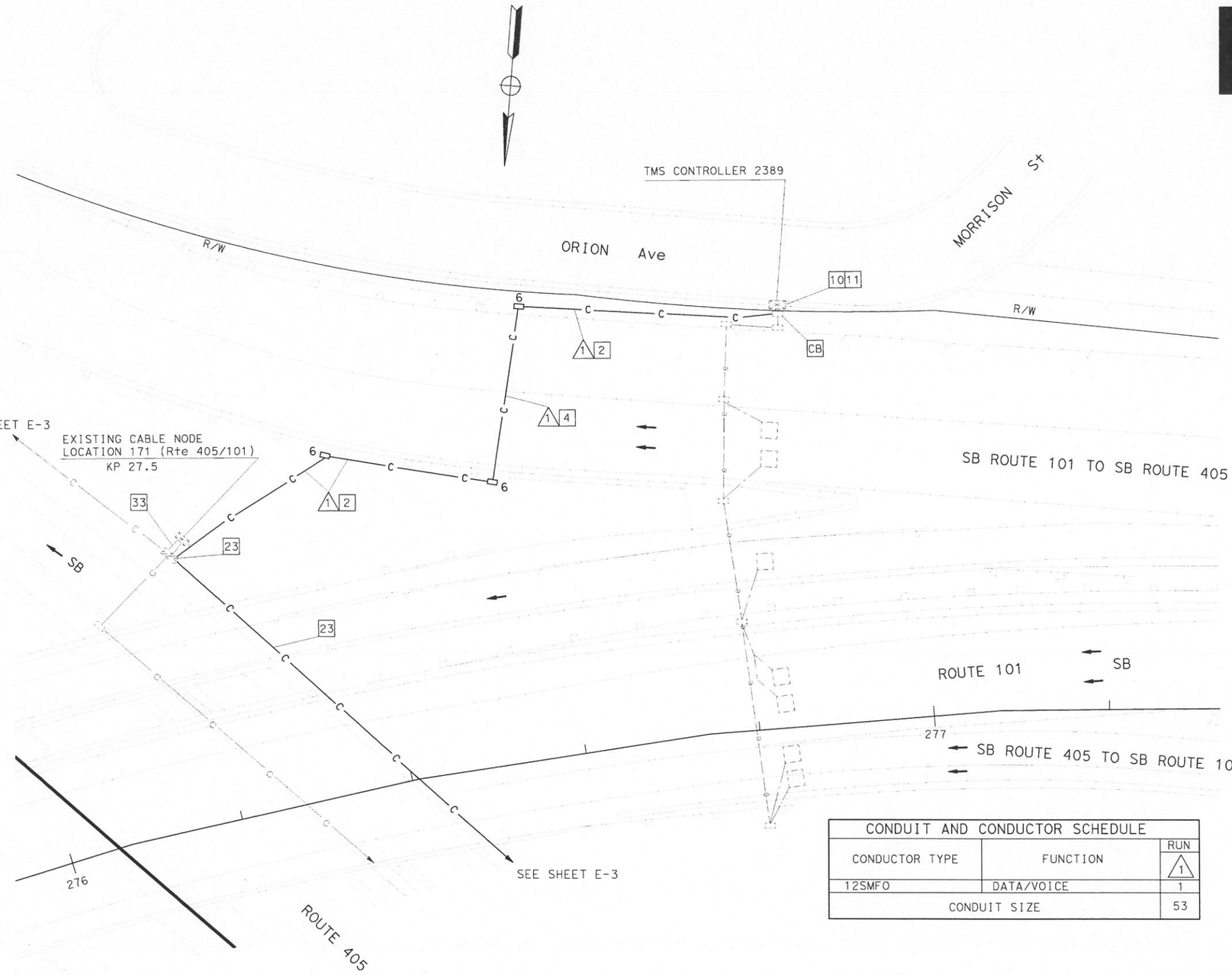

CONDUIT AND CONDUCTOR SCHEDULE		
CONDUCTOR TYPE	FUNCTION	RUN (1)
12SMFO	DATA/VOICE	1
CONDUIT SIZE		53

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING TMS 2389 CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

11 DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

33 INSTALL 3-48SMFO IN EXISTING CONDUIT AND TERMINATE IN NEW FDU'S IN EXISTING CABLE NODE. SEE SHEET E-50 FOR DETAILS.

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

CABLE NODE LOCATION VE171 AND TMS LOCATION 2389

COMMUNICATIONS SYSTEM ROUTING
MODIFY CABLE NODE
(LOCATION VE171)
MODIFY TRAFFIC MONITORING STATION
(LOCATION 2389)

SCALE 1:200

E-31

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s124928
DGN FILE => 7120750u31.dgn

CU 07388 EA 120751

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:43

DATE	REVISED BY	DATE	REVISED
7/02	CS	7/02	7/02

CALCULATED/DESIGNED BY: CS
CHECKED BY: DL
PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	95	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL STATE OF CALIFORNIA

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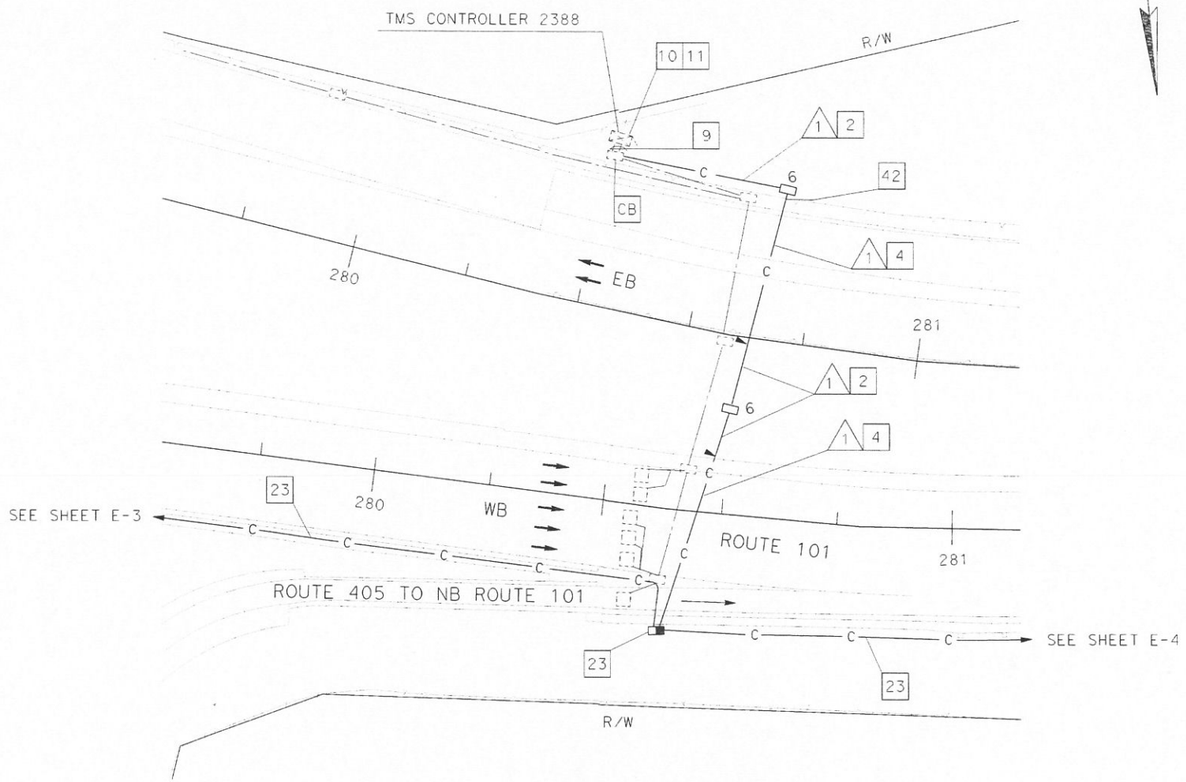

TMS LOCATION 2388

CONDUIT AND CONDUCTOR SCHEDULE		
CONDUCTOR TYPE	FUNCTION	RUN 1
12SMFO CABLE	DATA/VOICE	1
CONDUIT SIZE		53

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.

9 ADD COMMUNICATION CABLE(S) AND CONNECT TO EXISTING TMS CONTROLLER CABINET.

10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING TMS CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

11 DISCONNECT EXISTING COMMUNICATIONS(S) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

42 SEE SHEET E-69 FOR SOUNDWALL CROSSING DETAIL.

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
MODIFY TRAFFIC MONITORING STATION
(LOCATION 2388)

SCALE 1:500

E-32

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER HENRY H. TRINH
CALCULATED/DESIGNED BY CS DATE 7/02 REVISED BY CS
CHECKED BY DL 7/02 DATE REVISED 7/02

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:43

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USERNAME => s124928 DGN FILE => 712075u32.dgn
CU 07388
EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	96	178

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JACQUELINE C. TAN — No. E015611 — Exp. 12/31/05 ELECTRICAL — STATE OF CALIFORNIA

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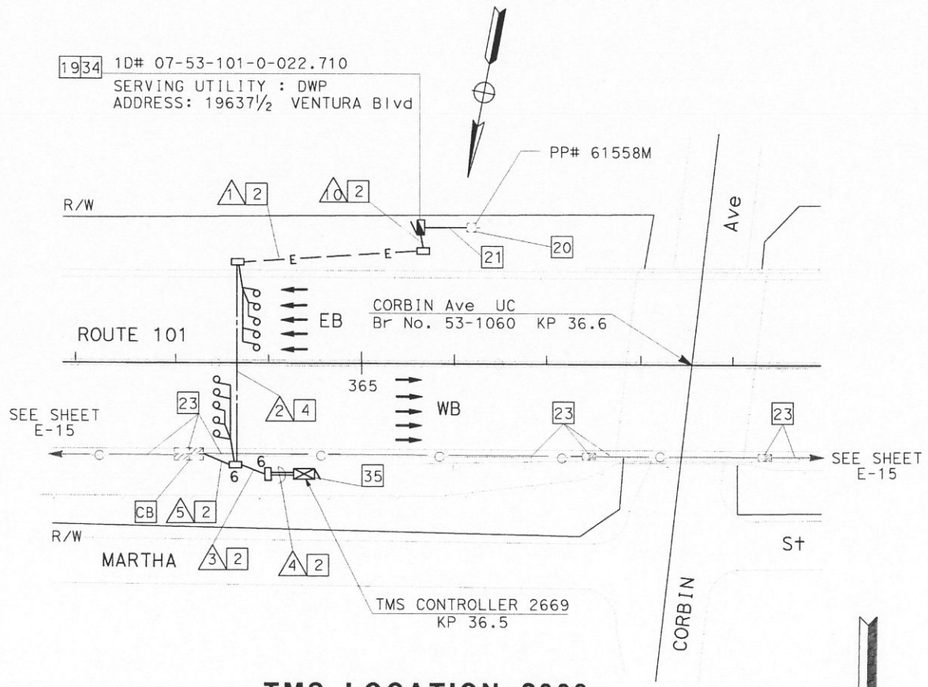
Caltrans Metric

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
6. ADD 2#6 POWER CONDUCTORS TO EXISTING CONDUIT.
19. INSTALL TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.
20. INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.
21. INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.
23. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.
34. ADD ONE 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER FOR TMS.
35. INSTALL STATE-FURNISHED MODEL 334 CONTROLLER CABINET ASSEMBLY WITH LOOP DETECTOR SENSOR ON NEW FOUNDATION. INSTALL FDU AND FIBER OPTIC DATA MODEM. SEE SHEET E-49 AND E-51.

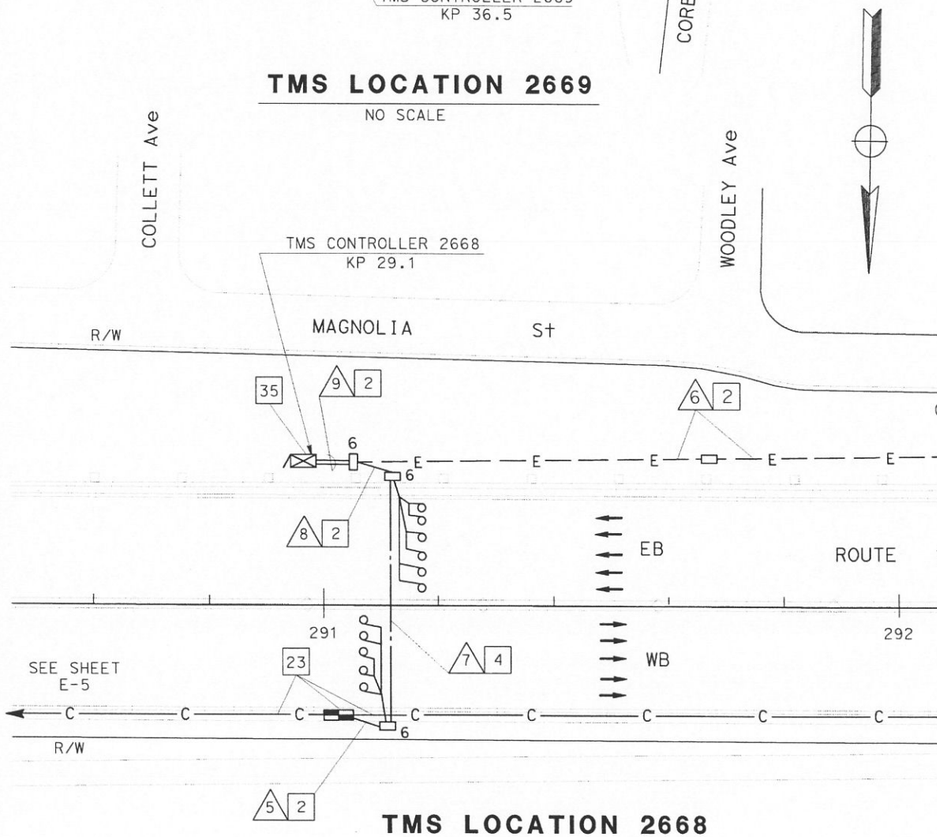
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3		4		5	6	7		8		9		10	
12SMFO	DATA/VOICE				1		1	1			1		1		1		
#8	POWER	2	2	2		2											
#6	POWER								2					2		2	
DLC	RAMP/COUNT		5	10			10			5		11			11		
INNERDUCT (SIZE 32)					1		1				1		1			1	
CONDUIT SIZE		53	78	78		78		53	53	103		78		78		78	78



TMS LOCATION 2669

NO SCALE



TMS LOCATION 2668

34 EXISTING TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE, SERVING UTILITY: DWP
ID: 07-53-101-0-018.210
ADDRESS: 16170½ MAGNOLIA Blvd
EXISTING CIRCUIT BREAKERS;
1-40 A, 240 V, 2P LIGHTING
1-30 A, 240 V, 2P SIGN
1-15 A, 120 V, 10 PEU

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

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

COMMUNICATIONS SYSTEM ROUTING TRAFFIC MONITORING STATION (LOCATIONS 2668 AND 2669)

SCALE 1:500

E-33

DATE	REVISED BY	CALCULATED/ DESIGNED BY
7/02	CS	CS
7/02	DATE REVISED	DL
	7/02	CHECKED BY

PROJECT ENGINEER — HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:43

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DGN FILE => 712075u33.dgn

CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	97	178

Jacqueline C. Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-7-03
PLANS APPROVAL DATE

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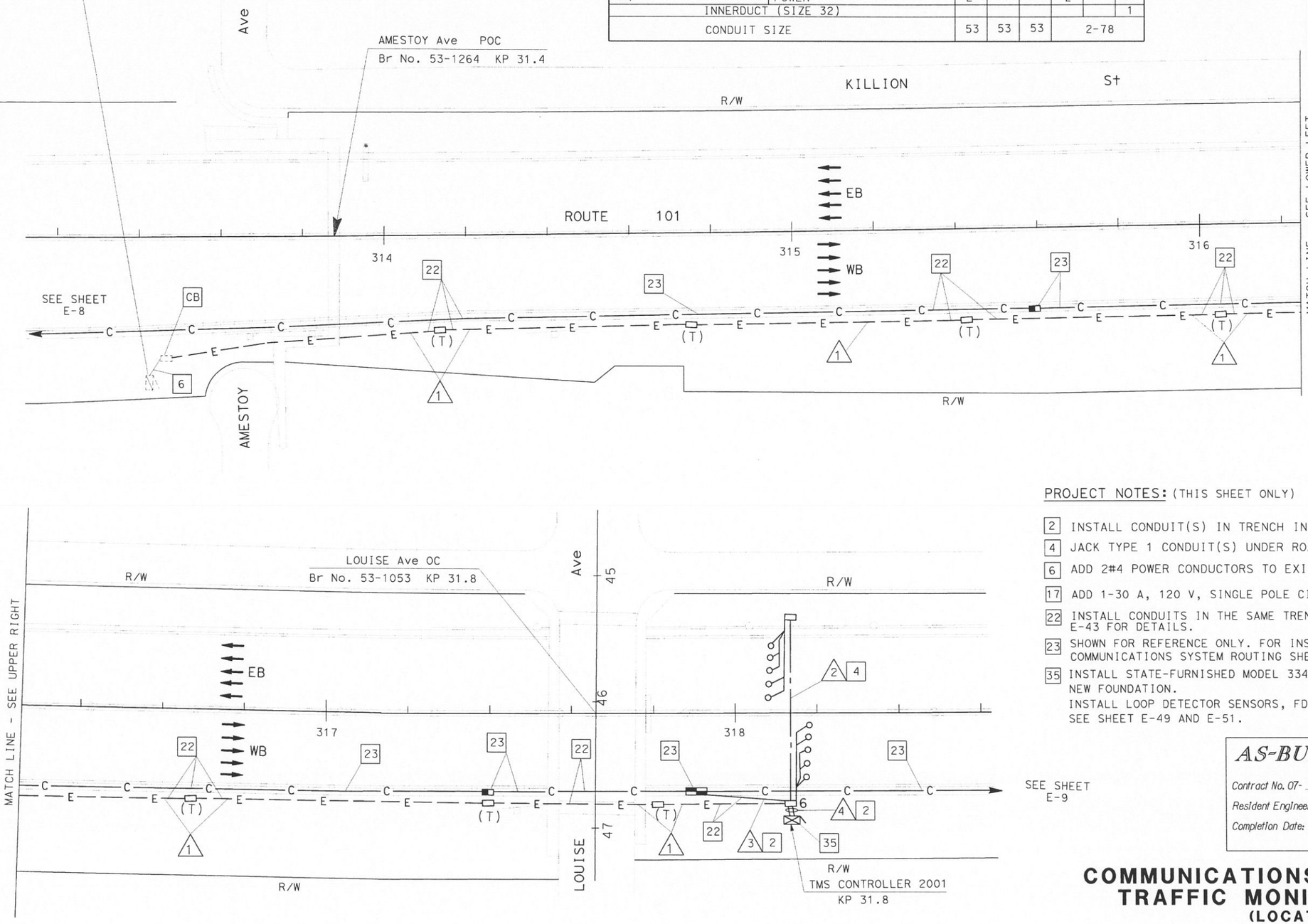
17 EXISTING TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE
SERVING UTILITY: DWP
ID: 07-53-101-0-R019.472
ADDRESS: 5528½ EDWARD E HORTON LN
EXISTING CIRCUIT BREAKER:
1-30 A, 240 V, 2P-SIGN

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4			
12SMFO CABLE	DATA/VOICE			1			1	
DLC	RAMP/COUNT		5			10		
#4	POWER	2			2			
INNERDUCT (SIZE 32)							1	
CONDUIT SIZE		53	53	53	2-78			



PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL.
4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY.
6 ADD 2#4 POWER CONDUCTORS TO EXISTING CONDUIT.
17 ADD 1-30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR TMS 2001.
22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.
23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.
35 INSTALL STATE-FURNISHED MODEL 334 CONTROLLER CABINET ASSEMBLY ON NEW FOUNDATION.
INSTALL LOOP DETECTOR SENSORS, FDU AND FIBER OPTIC DATA MODEM. SEE SHEET E-49 AND E-51.

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
TRAFFIC MONITORING STATION
(LOCATION 2001)

SCALE 1:500

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

E-34

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT
PROJECT ENGINEER HENRY H. TRINH
CALCULATED/DESIGNED BY CS
CHECKED BY DL
DATE REVISED BY 7/02 CS
DATE REVISED 7/02 DL

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2007
TIME PLOTTED => 14:43

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CU 07388
EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	98	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

4-7-03
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JACQUELINE C. TAN
No. E015611
Exp. 12/31/05
ELECTRICAL
STATE OF CALIFORNIA

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DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
7/02	CS	CS	DL
7/02	DATE REVISED		

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2		RUN 3
12SMFO CABLE	DATA/VOICE				
#2	POWER	2		2	
DLC	RAMP/COUNT				
#8	POWER		2		2
CONDUIT SIZE		53	78	78	53

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL.

17 INSTALL 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR TMS.

19 INSTALL TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.

20 INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.

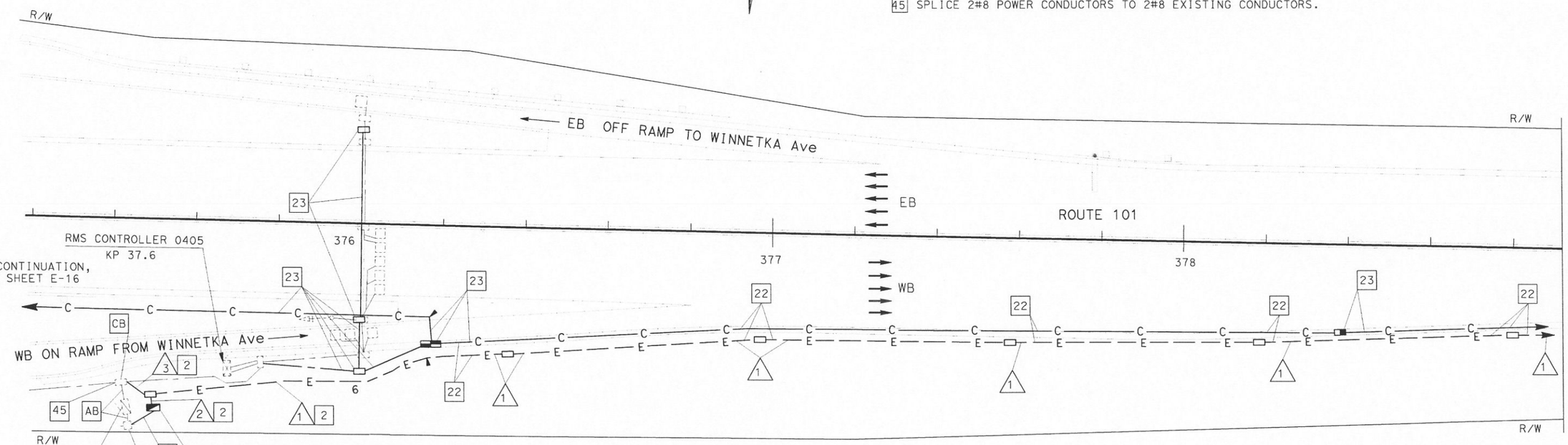
21 INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

37 INSTALL ONE 30 A, 120 V, SINGLE POLE CIRCUIT BREAKER(S) FOR RMS.

45 SPLICE 2#8 POWER CONDUCTORS TO 2#8 EXISTING CONDUCTORS.



AS-BUILT

Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
TRAFFIC MONITORING STATION
(LOCATION 2670)

SCALE 1:500

E-35

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

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 712075u35.dgn

CU 07388

EA 120751

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2007
TIME PLOTTED => 14:43

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	99	178

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

JACQUELINE C. TAN No. E015611 Exp. 12/31/05 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-7-03
PLANS APPROVAL DATE

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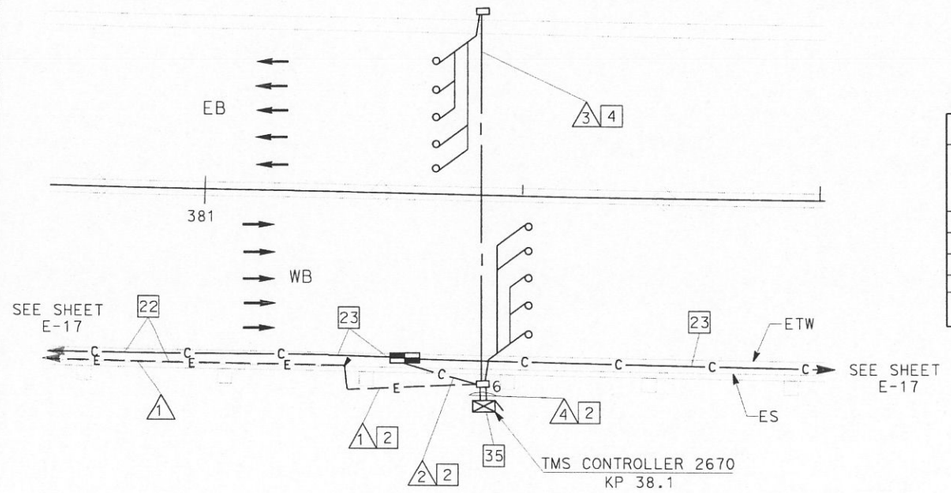


DETAIL A

NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1	2	3	4			
12SMFO CABLE	DATA/VOICE		1				1	
#2	POWER	2			2			
DLC	RAMP/COUNT			5		10		
INNERDUCT (SIZE 32)			1				1	
CONDUIT SIZE		53	53	78	78	78		

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL.

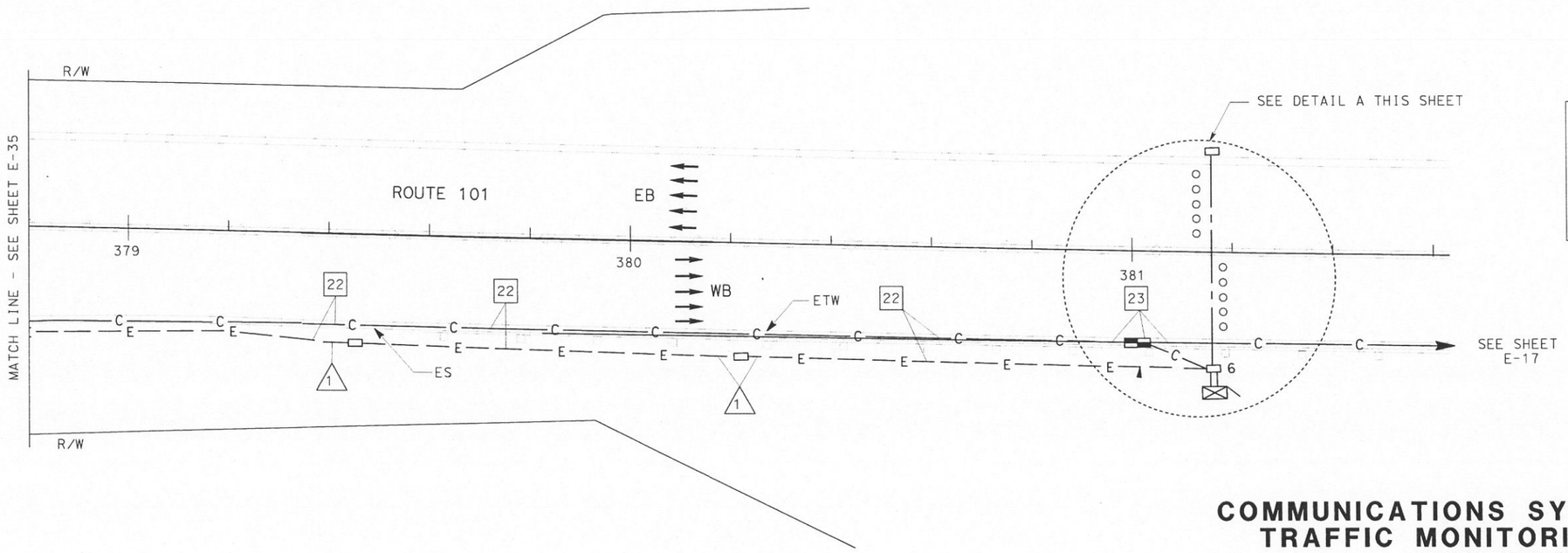
4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-42 AND E-43 FOR DETAILS.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

35 INSTALL STATE-FURNISHED MODEL 334 CABNET ON NEW FOUNDATION. INSTALL STATE FURNISHED MODEL MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL FDU AND FIBER OPTIC DATA MODEM. SEE SHEET E-49 AND E-51.

36 INSTALL TYPE 334 TV CABINET. SEE SHEET E-48, DETAIL B.



AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

COMMUNICATIONS SYSTEM ROUTING
TRAFFIC MONITORING STATION
(LOCATION 2670)

SCALE 1:500

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

E-36

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
7/02	CS	CS	DL
7/02	DATE REVISED 7/02		

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2007 TIME PLOTTED => 14:43

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CU 07388 EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	101	R27.8/R40.6	100	178

Caltrans Metric

Jacqueline C Tan 3/20/03
REGISTERED ELECTRICAL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
JACQUELINE C. TAN
No. E015611
Exp. 12/31/05
ELECTRICAL
STATE OF CALIFORNIA

4-7-03
PLANS APPROVAL DATE

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Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov

PROJECT NOTES: (THIS SHEET ONLY)

SEE SHEET L-2 FOR CONSTRUCTION DETAILS.

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.

19 INSTALL TYPE III-BF 120/240 V, SERVICE EQUIPMENT ENCLOSURE WITH A 100 A, 240 V MAIN CIRCUIT BREAKER ON NEW FOUNDATION.

20 RC EXISTING TYPE II-A SERVICE EQUIPMENT ENCLOSURE.

21 INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

23 SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATIONS SYSTEM ROUTING SHEETS.

26 INSTALL STATE-FURNISHED MODEL 500-X CMS PANEL AND SUPPORTING HARDWARE.

27 TRENCH AND INSTALL 78C IN SOIL AREA. FOR WIRING SEE NOTE 1 ON SHEET E-68.

28 TRENCH AND INSTALL 2-78C, STATE-FURNISHED CMS CONTROL CABLES, (6P18, 24P18) IN SOIL AREA. SEE TABLE 1 - SHEET E-1.

29 TRENCH AND INSTALL 78C, 12#1/0, IN SOIL AREA.

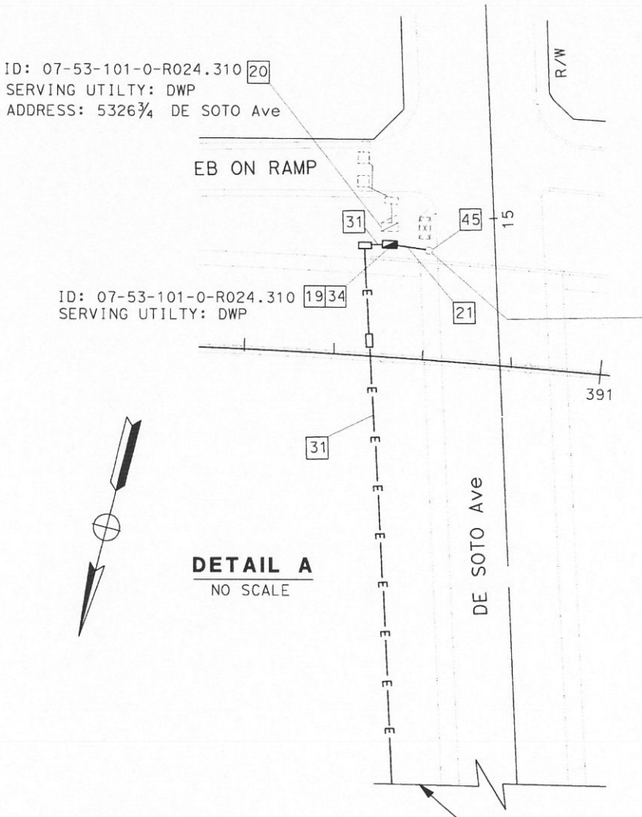
30 TRENCH AND INSTALL 2-78C, 2#6, STATE-FURNISHED CMS CONTROL CABLE (6P18, 24P18) IN SOIL AREA.

31 TRENCH AND INSTALL 2-78C, 2#6,12#1/0, IN SOIL AREA.

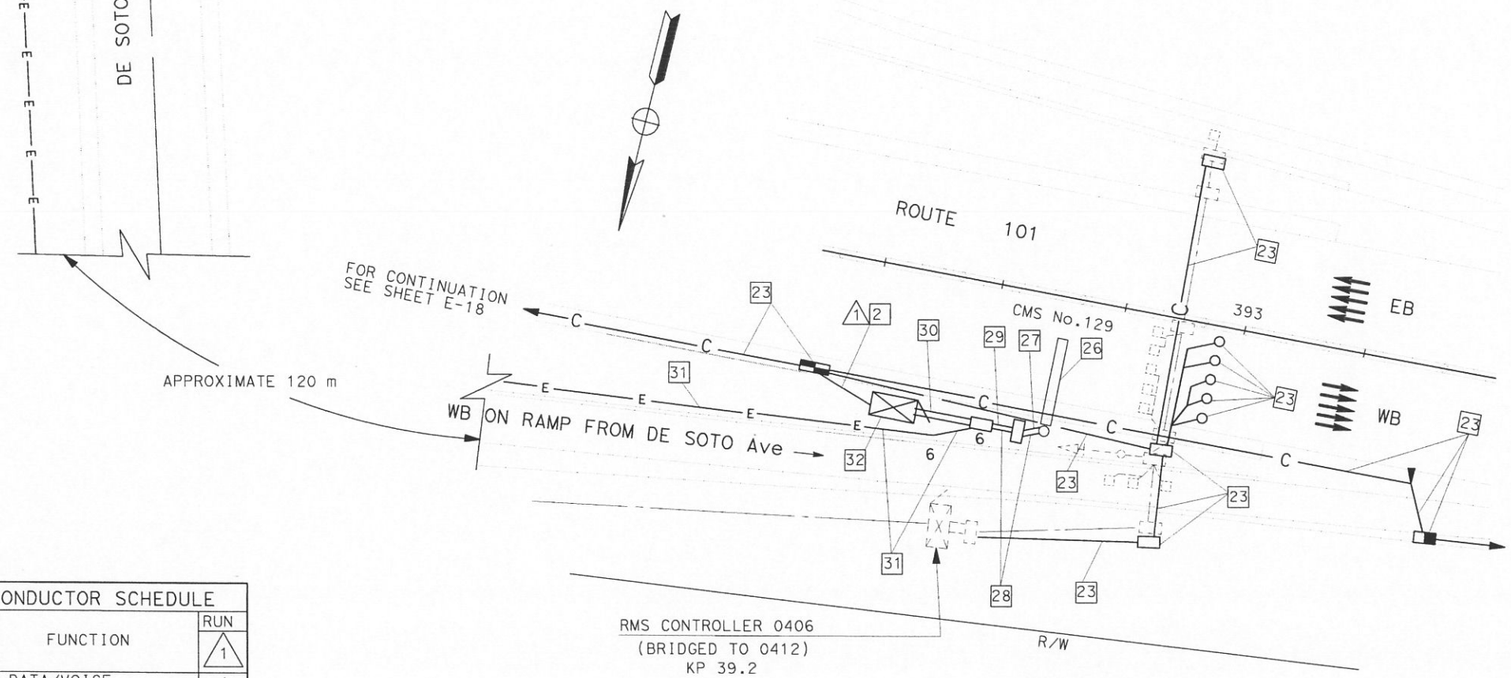
32 INSTALL STATE-FURNISHED TYPE 334 CMS CONTROLLER CABINET AND MODEL 170 CONTROLLER. CONSTRUCT CONCRETE PAD. INSTALL FDU AND FIBER OPTIC DATA MODEM, SEE SHEET E-68 AND E-49 FOR MORE DETAILS.

34 INSTALL ONE 120 V-1P-30 A CIRCUIT BREAKER FOR CMS CONTROLLER CABINET AND FOUR 120 V-1P-40 A CIRCUIT BREAKER FOR MODEL 500-X CMS PANEL.

45 CORE THROUGH EXISTING DWP VAULT, DWP REPRESENTATIVE TO BE PRESENT WHILE CORING.



DETAIL A
NO SCALE



CONDUIT AND CONDUCTOR SCHEDULE		
CONDUCTOR TYPE	FUNCTION	RUN 1
12SMFO CABLE	DATA/VOICE	1
INNERDUCT (SIZE 32)		
CONDUIT SIZE		53

AS-BUILT
Contract No. 07- 120754
Resident Engineer: H. MANNAA
Completion Date: 6/17/05

CMS No. 129
NO SCALE

COMMUNICATIONS SYSTEM ROUTING CHANGEABLE MESSAGE SIGN (No.129)

NO SCALE

E-37

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT
PROJECT ENGINEER HENRY H. TRINH

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
7/02	CS	CS	DL
7/02	DATE REVISED		

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"	4-5	Key Map and Line Index
"	6-17	Layouts
"	18-32	Construction Details
"	33-57	Utility Plans
"	58	Traffic Handling Plan
"	59-60	Consrruction Area Signs
"	61	Summary of Quantities
"	62-64	Retaining Wall Plans
"	65-137	Electrical Plans
"	138-139	Revised and New Standard Plans
	Architectural Plans	
"	140-154	101/134/170 Communications Hub Building

AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hassan Maarouf
Completion Date: 04/20/1999

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN LOS ANGELES COUNTY IN LOS ANGELES FROM VERMONT AVENUE TO ROUTE 101/405 SEPARATION

To be supplemented by Standard Plans dated July, 1992

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

LOCATION MAP

Caltrans

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BEGIN CONSTRUCTION
STA 195+00 PM R4.4

Begin Work
Sta 175+00

To Los Angeles

191+83.13 Bk
18+29.02 Ahd

175+70.35 Bk
175+75.78 Ahd

VERMONT AVE OC
CLINTON ST UC
MELROSE AVE UC
HELIOTROPE DR UC
NORMANDIE AVE UC
SUNSET BLVD OC
FOUNTAIN AVE OC
WESTERN AVE OC
SANTA MONICA BLVD SEP
FRANKLIN AVE RP UC
GOWER ST OFF RP
VAN NESS AVE RP
WILTON PL OC
HOLLYWOOD BLVD OC
BRONSON AVE OC
ARGYLE-FRANKLIN AVE UC
IVAR AVE RP SEP
HOLLY DR UC
ODIN ST UC
RTE 101/170 SEP
PILGRIMAGE OC
IVAR AVE UC
HOLLY DR UC RP
CAHUENGA BLVD UC
CAHUENGA BLVD EAST
CAHUENGA BLVD WEST
ROUTE 101
235+50.00 Bk
1+22.53 Ahd
187+69.76 Bk
187+66.93 Ahd
MULHOLLAND DR OC
BARHAM BLVD OC
UNIVERSAL DR OC
20+00.00 Bk
113+86.11 Ahd
VENTURA BLVD OR OC
LOS ANGELES RIVER
MOORPARK ST UC
LANKERSHIM BLVD UC
VINELAND AVE UC
TUJUNGA AVE UC
MATCH LINE
ROUTE 170
To San Fernando
RTE 101/134, 170 SEP
RIVERSIDE DR OC
RTE 134/101, 170 SEP
To Burbank
ROUTE 134

TRAFFIC MANAGEMENT CENTER (TMC)
ROUTE 110
SPRING ST
NORTH MAIN ST
LOS ANGELES
ROUTE 101
To Santa Ana
TEMPLE
1ST ST
2ND ST
3RD ST
4TH ST OC
5TH ST OC
6TH ST OC
WILSHIRE BLVD
LOS ANGELES

LOS ANGELES

LAUREL CANYON BLVD UC
MATCH LINE
COLFAX AVE UC
RADFORD AVE UC
TUJUNGA WASH
WHITSETT AVE UC
COLDWATER CANYON AVE UC
FULTON AVE UC
WOODMAN AVE UC
LA RIVER BRIDGE
VAN NUYS BLVD UC
EAST CONNECTOR UC
SEPULVEDA BLVD UC
KESTER AVE UC
RTE 101/405 SEP
RTE 101/405 SEP
To Santa Monica
ROUTE 405
To Van Nuys
WEST CONNECTOR UC
To Ventura
HASKELL AVE
SEPULVEDA BLVD
RIVERSIDE DR
ROUTE 101
TUJUNGA
WASH
RIVER

END CONSTRUCTION
STA 20+00 PM R17.1

End Work
Sta 40+00

LOS ANGELES

Project Engineer
Registered Civil Engineer

REGISTERED PROFESSIONAL ENGINEER
SEAN WONG
No. C049893
Exp. 9/30/96
CIVIL
STATE OF CALIFORNIA

October 10, 1995
Plans Approval Date

Approved as to impact on State facilities and conformance with applicable State standards and practices and that technical oversight was performed as described in the California Department of Transportation A & E Consultant Services Manual

PROJECT ENGINEER	DESIGN OVERSIGHT APPROVAL: PRINTED NAME	SIGNATURE	REGISTRATION NO.	DATE
N TONG	PAT SULLIVAN		C30912	5-22-95

The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors".

NO SCALE

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

Contract No. 07-120724

LAST REVISION 00-00-00

TIME PLOTTED => 16-OCT-1995 10:54

FORM OC-OE-93-PF (REV. 3/88)

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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	65	154

Elia G. Sachir 4/3/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SACHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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ABBREVIATIONS

12SMFO	FIBER OPTIC CABLE, 12 SINGLEMODE FIBERS
2SMFO	FIBER OPTIC CABLE, 2 SINGLEMODE FIBERS
48SMFO	FIBER OPTIC CABLE, 48 SINGLEMODE FIBERS
50P22	TWISTED PAIR CABLE, 50 PAIR 22 AWG CONDUCTORS
6P22	TWISTED PAIR CABLE, 6 PAIR 22 AWG CONDUCTORS
ø	DIAMETER
BB	BASE BAND
B/O	BREAKOUT CABLE
CCR	CAMERA CONTROL RECEIVER
CCT	CAMERA CONTROL TRANSMITTER
CCTV	CLOSED CIRCUIT TELEVISION
CHAN #	CHANNEL NUMBER
CMS	CHANGEABLE MESSAGE SIGN
DEMARC	DEMARCATION
DEMUX	DEMULTIPLEXER
DIST	DISTRIBUTION
DWP	DEPARTMENT OF POWER & WATER
FDF	FIBER DISTRIBUTION FRAME
FDU	FIBER DISTRIBUTION UNIT
FLEX	FLEXIBLE
F/O OR FO	FIBER OPTIC
FRE	FIBERGLASS REINFORCED EPOXY CONDUIT
INTRFCE	INTERFACE
J-BOX	JUNCTION BOX
MDF	MAIN DISTRIBUTION FRAME
MUX	MULTIPLEXER
NOM	NOMINAL
OC	ON CENTER
PDA	POWER DISTRIBUTION ASSEMBLY
PR	PAIR
PTZ	PAN, TILT AND ZOOM
REQ'D	REQUIRED
RMS	RAMP METERING SYSTEM OR STATION
RX	RECEIVER
SCE	SOUTHERN CALIFORNIA EDISON
SCHED	SCHEDULE
SH	SHORT HAUL
SM	SINGLEMODE
SONET	SYNCHRONOUS NETWORK
STL	STEEL
TDM	TIME DIVISON MULTIPLEXER
TELCO	TELEPHONE COMPANY
TMC	TRAFFIC MANAGEMENT CENTER
TMS	TRAFFIC MONITORING STATION
TP	TWISTED PAIR
TX	TRANSMITTER
VDS	VEHICLE DETECTOR STATION
VDX	VIDEO DEMULTIPLEXER
VMX	VIDEO MULTIPLEXER
VR	SINGLE VIDEO RECEIVER
VX	SINGLE VIDEO TRANSMITTER
#X	X AWG CONDUCTOR, Ie #10 MEANS 10 AWG CONDUCTOR
YP	Y PAIRS OF CONDUCTORS, Ie 2P MEANS 2 PAIRS

LEGEND

- CCTV CAMERA
- EXISTING CCTV CAMERA
- SPLICE VAULT
- EXISTING SPLICE VAULT
- FIBER OPTIC PATCH CORD
- COMMUNICATION PULL BOX
- —C— COMMUNICATIONS CONDUIT(S)
- —E— SERVICE CONDUIT(S)
- CONDUIT LINE DELIMITER FOR CONSTRUCTION NOTES
- TYPE 334-TV CABINET
- EXISTING TELEPHONE BRIDGE
- TELEPHONE BRIDGE
- FIBER OPTIC CABLE

TABLE I - CCTV WIRING		
CONDUCTOR TYPE	FUNCTION	QUANTITY
RG-6A/U	CAMERA VIDEO INTERFACE CABLE	1
9# 18 CABLE	PAN/TILT CONTROL CABLE	1
12# CABLE	LENS CONTROL CABLE	1
1# 8	CAMERA GROUND CABLE	1

AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hasan Maruee
Completion Date: 04/20/1999

CCTV AND COMMUNICATIONS SYSTEM
(LEGEND AND NOTES)

E-1

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95 JZ

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED: 19-OCT-1995 15:32
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CU 07387 EA 120721

FORM DC-OE-92-PF (REV. 3/88)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	66	154

Elia G. Saghir 4/3/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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GENERAL NOTES:

1. THE LOCATION OF ELECTRICAL HIGHWAY LIGHTING CONDUITS AND PULL BOXES ARE APPROXIMATE AND WERE OBTAINED FROM LIMITED LIGHTING RECORDS. CONTRACTOR SHALL AVOID DAMAGING EXISTING LIGHTING CONDUITS.
2. THE LOCATIONS OF EXISTING DETECTOR LOOPS, EXISTING CONTROLLER CABINETS, EXISTING SERVICE ENCLOSURES, POWER POLES AND EXISTING DEMARCATION BOXES ARE APPROXIMATE.
3. THE CONTRACTOR SHALL VERIFY PROPOSED CCTV POLE LOCATIONS WITH THE ENGINEER PRIOR TO PLACEMENT OF FOUNDATIONS.
4. THE LOCATIONS OF PROPOSED ELEMENTS ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED OR APPROVED BY THE ENGINEER. SEE L-SHEETS FOR EXACT LOCATION OF CCTV CAMERAS.
5. WHEN EXISTING DETECTOR LOOPS AND CONDUITS ARE SHOWN IN THE VICINITY OF PROPOSED CONDUIT TRENCHES, THE CONTRACTOR SHALL AVOID DAMAGING THE EXISTING CONDUIT. TRENCHING WITH HAND TOOLS MAY BE REQUIRED.
6. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL OR TELCO FACILITIES, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE ENGINEER AND ALL AGENCIES CONCERNED 72 HOURS PRIOR TO COMMENCING WORK.
7. PULL ROPE SHALL BE INSTALLED IN ALL EMPTY CONDUITS.
8. UNLESS OTHERWISE NOTED, ALL FIBER OPTIC CONDUIT BENDS SHALL BE 4 FT RADIUS FACTORY BENDS. ALL OTHER CONDUITS SHALL HAVE A MINIMUM BEND RADIUS OF NO LESS THAN 6 TIMES THE CONDUIT DIAMETER.
9. CONDUITS AND CONDUCTORS IN CONDUIT AND CONDUCTOR SCHEDULE TABLES ARE NEW UNLESS MARKED (E) INDICATING EXISTING.
10. PVC, WHERE CALLED OUT IN THESE PLANS, SHALL MEAN RIGID NON-METALLIC CONDUIT AS DEFINED IN THE STANDARD SPECIFICATIONS.
11. ALL NO.5, COMMUNICATION PULL BOXES AND SPLICE VAULTS SHALL BE TRAFFIC TYPE. SEE SHEETS E-55, E-56 AND E-57 FOR DETAILS.
12. LOCATIONS OF ROADWAY SHOULDER AND EDGE OF TRAVELWAY WERE OBTAINED FROM AS-BUILT PLANS , ARE APPROXIMATE, AND DO NOT INCLUDE ANY RELOCATION DUE TO RECENT ROADWAY CONSTRUCTION. LOCATIONS OF EXISTING SHOULDER MAY VARY. CONDUIT(S) SHALL BE INSTALLED WHERE SHOWN ON THE PLANS RELATIVE TO THE EXISTING SHOULDER.
13. IDENTIFICATION FORMAT OF TRAFFIC OPERATION SYSTEM (TOS) ELEMENTS:

TV-FYXXX
- TV — TOS ELEMENT TYPE: TV = CCTV CAMERA; CMS = CHANGEABLE MESSAGE SIGN; HAR = HIGHWAY ADVISORY RADIO
- F — FREEWAY NAME SHORT FORM
- YXXX — POST MILE (TO NEAREST 10TH)

14. MODEM NUMBERS FOR SOME CONTROLLERS HAVE NOT YET BEEN ASSIGNED, AND THEREFORE SUCH LOCATIONS HAVE (X,X,X-X) FOR CABLE PAIR ASSIGNMENTS. VERIFY MODEM NUMBERS BEFORE CONSTRUCTION. WHERE CONTROLLER NUMBERS ARE NOT ASSIGNED, XXXX HAS BEEN SHOWN.
15. FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

PROJECT NOTES: (MASTER LIST)

[1] INSTALL CONDUIT(S) IN TRENCH IN P.. 'ED 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.

[7] INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON P.LE.

[8] INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 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.

[12] INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND SINGLE VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

[13] INSTALL TWO TYPE 334-TV CABINETS ON NEW FOUNDATIONS. CABINET SHALL INCLUDE EQUIPMENT AT VIDEO AND DATA NODES. SEE DETAIL C , SHEET E-59 AND DETAIL 5, SHEET E-61 FOR DETAILS.

[14] REMOVE EXISTING SIGN FROM BACK OF BRIDGE RAIL BEFORE INSTALLING CONDUIT. RE-INSTALL SIGN AFTER CONDUIT IS INSTALLED.

[15] TRANSITION CONDUIT UNDER SOUNDWALL. DIG WITH HAND TOOLS AS REQUIRED. SEE SHEET C-15 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.

[17] INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV.

[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.

[22] INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

[23] THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

[24] ADD CABLE TO EXISTING CONDUIT.

[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-11 FOR DETAILS.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV AND COMMUNICATION SYSTEM (NOTES)

NO SCALE

E-2

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95 JZ

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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TIME PLOTTED : 19-OCT-1995 15:32

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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	67	154

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

10-10-95
PLANS APPROVAL DATE

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

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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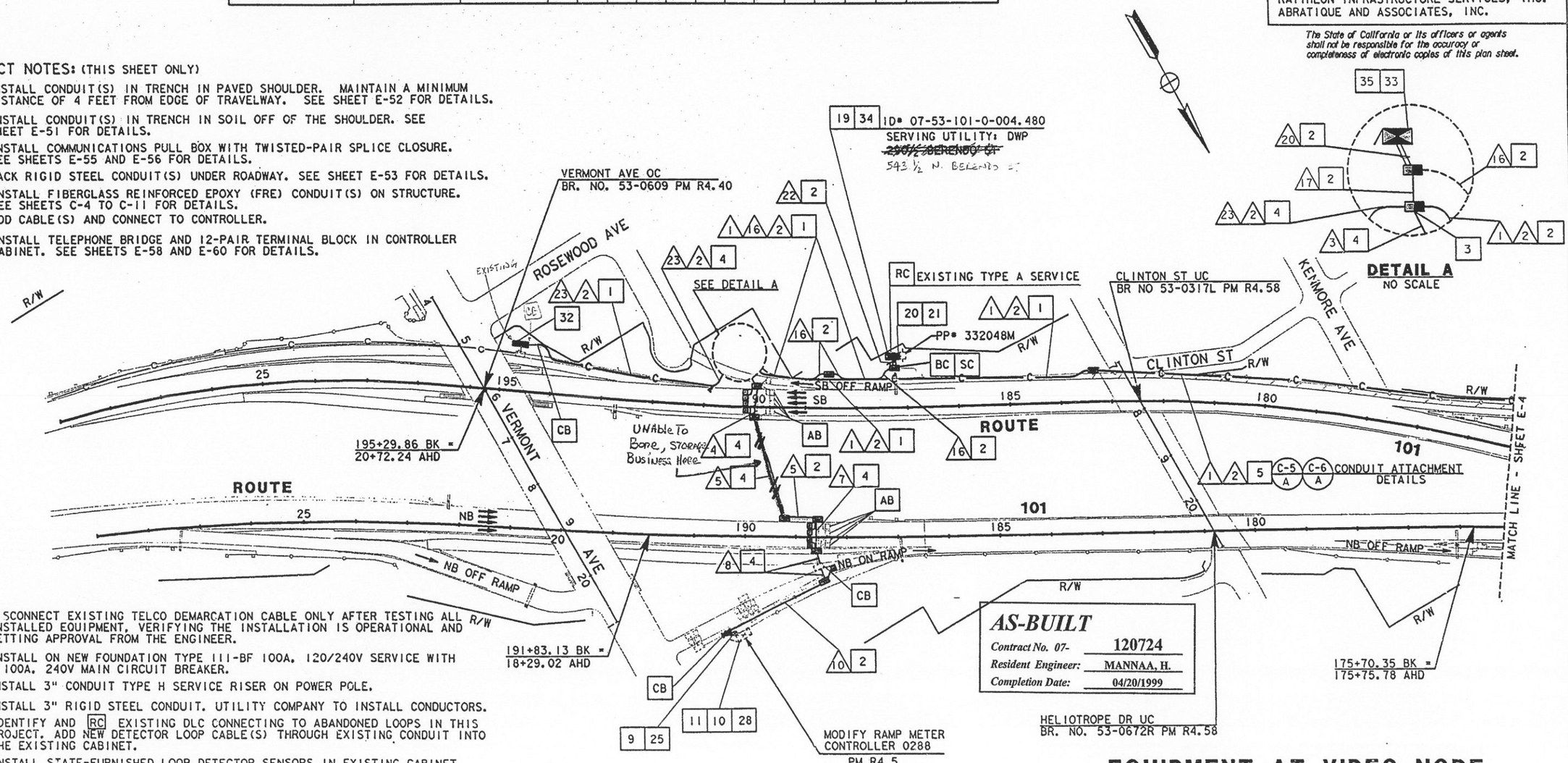
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	1A	2	3	4	5	6	7	8	10	16	17	20	22	23	27	27A
50P22 CABLE	DATA/PHONE	1																
6P22 CABLE	DATA/PHONE				1	1	1	1	1	1								
48 SMFO CABLE	VIDEO/DATA		1														1	
12 SMFO CABLE	SH VIDEO			1									1		1			
2 SMFO B/O CABLE	SH VIDEO												1		1		1	
#12	POWER															2		
#8	POWER										2			2		2		
DLC	RAMP/COUNT					2	4	6	8	9								
	INNERDUCT		1¼"	1¼"													1¼"	1¼"
CONDUIT	SIZE		4"		4"	2"	2"	2"	2"	2"	2"	2"	3"	3"	3"	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 COMMUNICATIONS 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.



DETAIL A
NO SCALE

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

11. DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
19. INSTALL ON NEW FOUNDATION TYPE 111-BF 100A. 120/240V SERVICE WITH A 100A. 240V 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.
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. SPLICE 48SMFO AND 2SMFO B/O CABLE TO EXISTING 60SMFO CABLE IN EXISTING SPLICE VAULT PER CONTRACT EA 1186C4. SEE SHEET E-66 FOR FIBER ASSIGNMENTS.
33. INSTALL TYPE 334 CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE EQUIPMENT AT VIDEO NODE SEE DETAIL 4, SHEET E-61.
34. INSTALL 1-30A AND 1-20A 120V SINGLE POLE CIRCUIT BREAKERS FOR VIDEO NODE AND FOR EXISTING IRRIGATION CABINET. REUSE EXISTING CONDUCTORS TO PROVIDE POWER TO IRRIGATION CABINET.

35. ITEM INCLUDED IN BID ITEM "EQUIPMENT AT VIDEO NODE."

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

EQUIPMENT AT VIDEO NODE, LOOP DETECTOR AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-3

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

PROJECT ENGINEER — PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => 19-OCT-1995 16:36

FORM CT-DE-92-DF (REV. 3/88)

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

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DGN FILE => /usr/mikesl/PO/712072u03.dg

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	68	154

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

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SACHIR — No. E014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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.

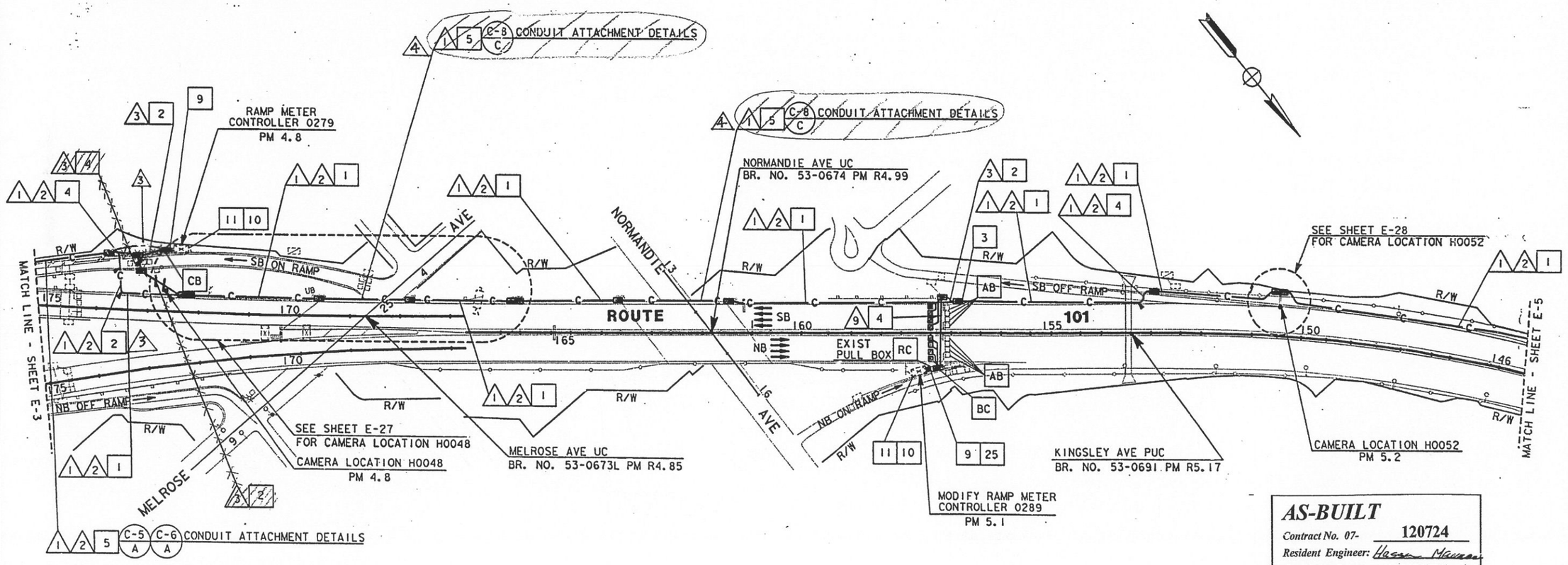
PROJECT NOTES: (THIS SHEET ONLY)

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.
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. INSTALLTELEPHONE 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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	3	3	3	4		
50P22 CABLE	DATA/PHONE	1				1		
6P22 CABLE	DATA/PHONE				1	1		
48 SMFO CABLE	VIDEO/DATA		1				1	
12 SMFO CABLE	SH VIDEO			1				1
DLC	RAMP/COUNT					4		
	INNERDUCT		1¼"	1¼"			1¼"	1¼"
CONDUIT	SIZE		4"		4"	2"	2" **	3" **

** EXISTING TO BE REUSED
CHANGED PER CCO #6



AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hasan Hamami
Completion Date: 04/20/1999

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.

E-4

DATE	REVISED BY
2/95	ES
5/95	JZ

DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-CE-92-PF (REV. 3/88)

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

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DGN FILE => /usr/trmarlak/P2/712072u04.

CU 07387

EA 120721

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. 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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8
50P22 CABLE	DATA/PHONE	1							
6P22 CABLE	DATA/PHONE					1			1
48 SMFO CABLE	VIDEO/DATA		1						
12 SMFO CABLE	SR VIDEO			1					
DLC	RAMP/COUNT						2	6	8 9
	INNERDUCT	1¼"	1¼"						
CONDUIT	SIZE	4"			4"	2"	2"	2"	2" 2"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	69	154

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

10-10-95
PLANS APPROVAL DATE

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

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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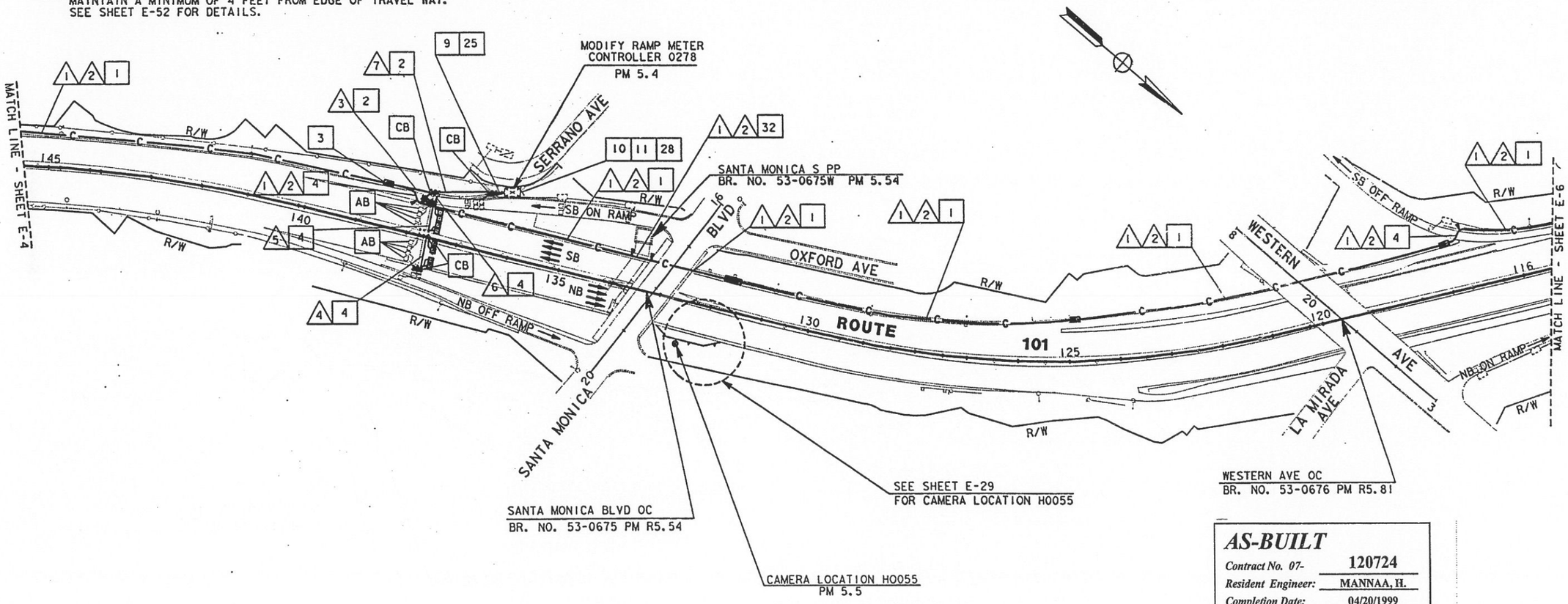

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-5

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

DATE	REVISED BY
2/95	ES
5/95	JZ

DATE REVISED | CALCULATED/DESIGNED BY | CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

TIME PLOTTED => 17-OCT-1995 10:17

FORM DC-OE-92-FF (REV. 3/88)

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

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DGN FILE => /usr/trmarlak/P2/712072u05.

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	70	154

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

10-10-95
PLANS APPROVAL DATE

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

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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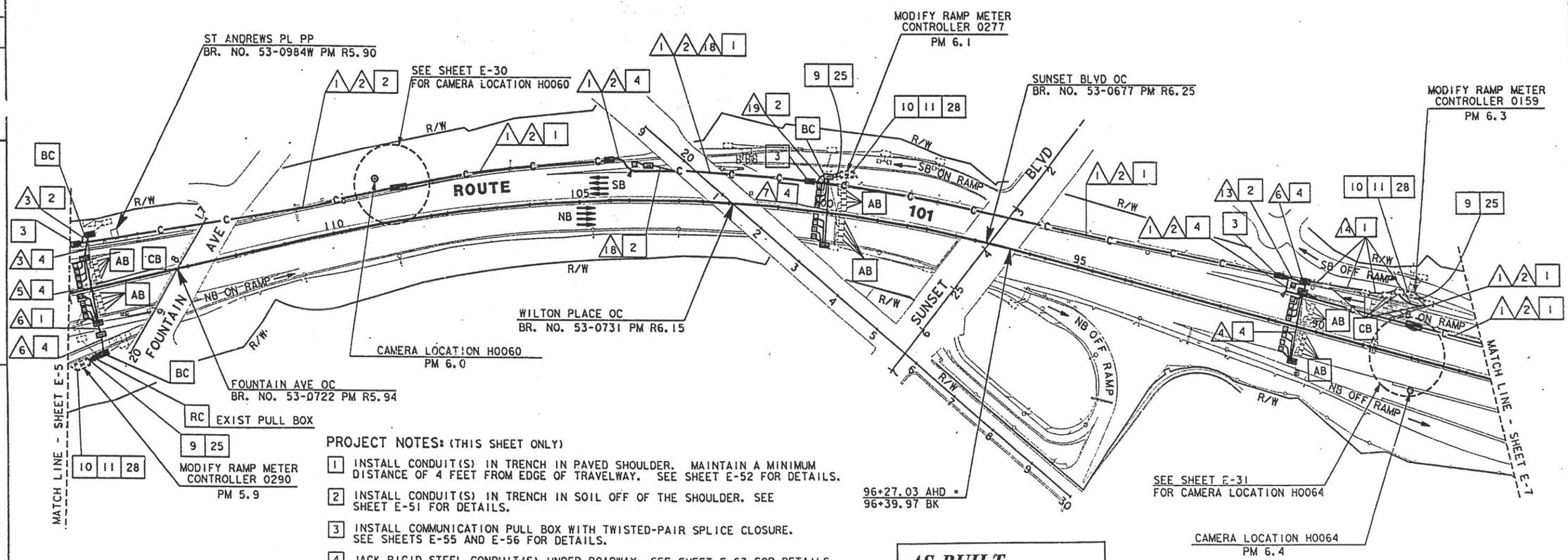
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8	14	18	19
50P22 CABLE	DATA/PHONE	1										
6P22 CABLE	DATA/PHONE					1		1		1	1	1
48 SMFO CABLE	VIDEO/DATA		1									
12 SMFO CABLE	SH VIDEO			1								
DLC	RAMP/COUNT					4	4	8	4		9	1	1
	INNERDUCT		1¼"	1¼"									
CONDUIT	SIZE		4"		4"	2"	2"	2"	2"	2"	2"	2"	2"



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.

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

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-6

DATE	REVISED BY	DATE REVISED
ES 2/95	JZ	5/95

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 08:29

FORM DC-OE-92-PF (REV. 3/88)
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DGN FILE => /usr/mikesl/P0/712072u06.dg
CU 07387
EA 120721

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

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

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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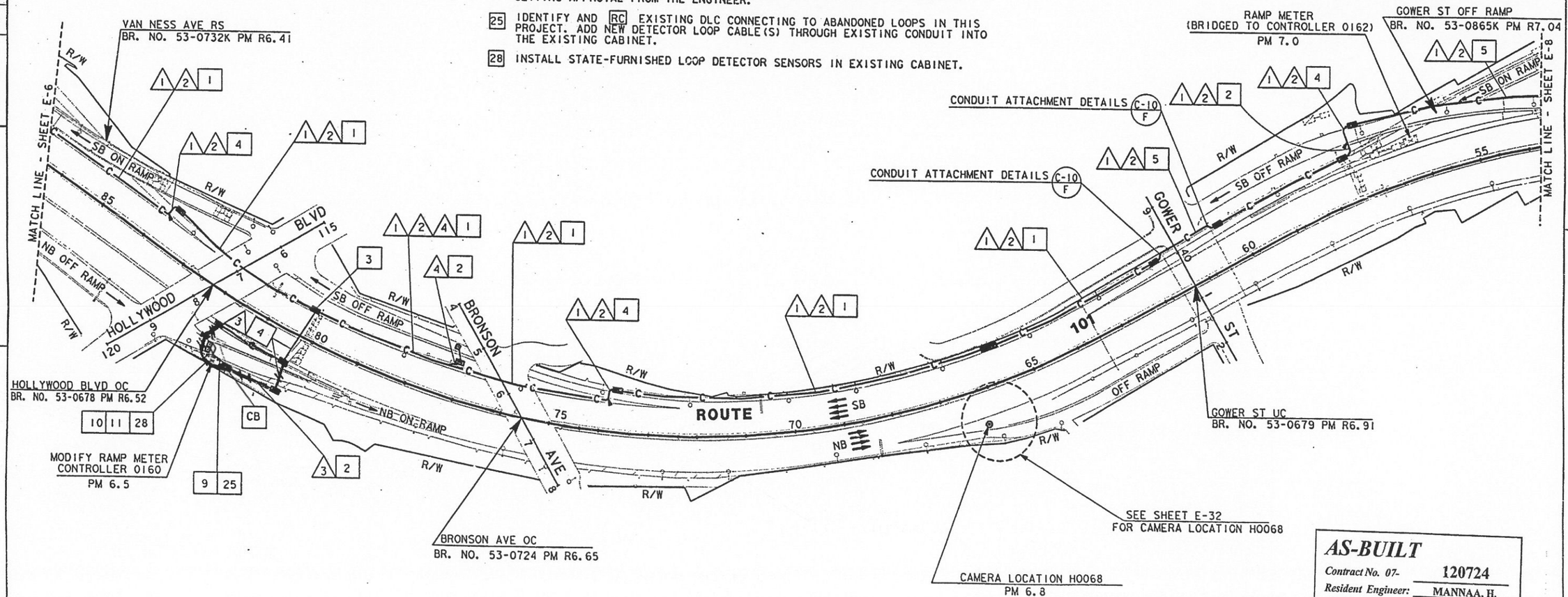
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	CONDUIT SIZE					
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	1¼"	1¼"				
CONDUIT	SIZE	4"		4"	2"	2"	

(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.
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.



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-7

PROJECT ENGINEER: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

	CALCULATED/ DESIGNED BY	CHECKED BY
DATE	ES	JZ
REVISED BY		
DATE REVISED	5/95	

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FORM CE-CS 52-PE (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
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DGN FILE => /usr/mlkesl/P0/712072u07.dg
CU 07387
EA 120721

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

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

10-10-95
PLANS APPROVAL DATE

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

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.
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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.
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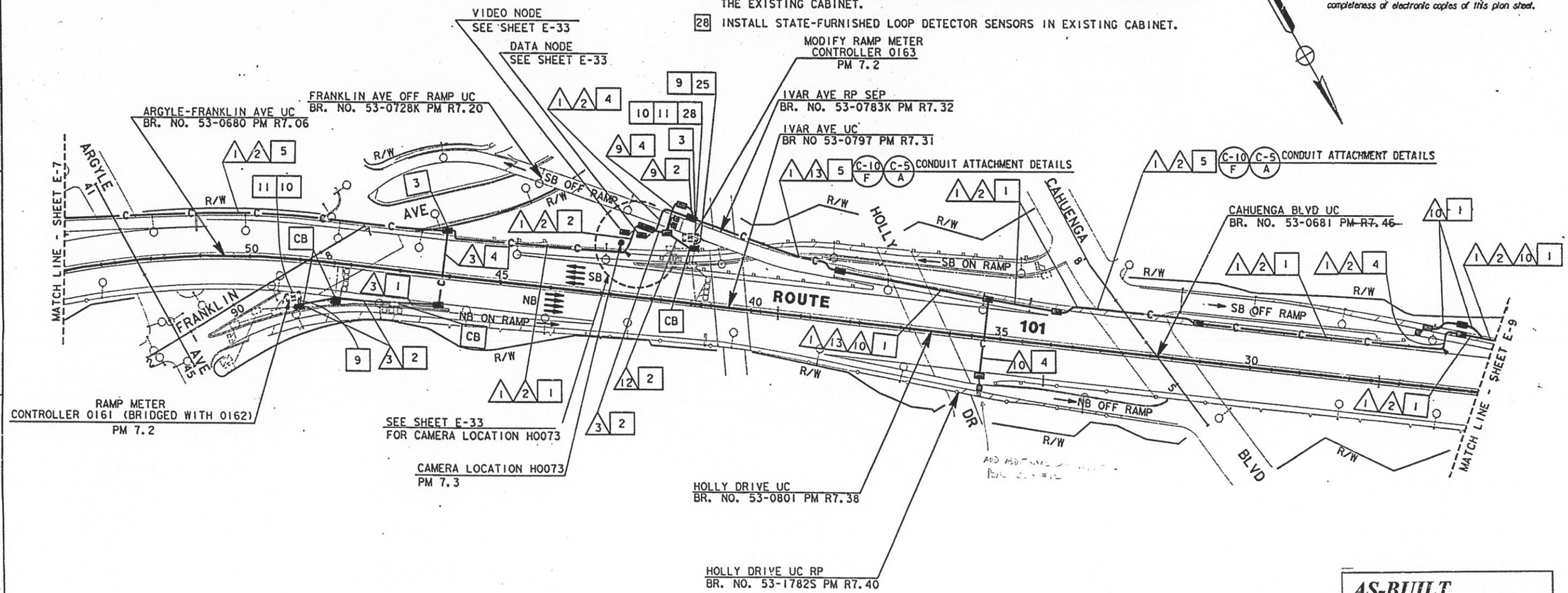
28. INSTALL STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CABINET.

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						
12 SMFO CABLE	SH VIDEO			1	2				
DLC	RAMP/COUNT				1	1	1	3	1
	INNERDUCT	1¼"	1¼"			1¼"			1¼" 1¼" 1¼"
CONDUIT	SIZE	4"		4"	2"	2"	3"	2"	2" 4"



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

REVISED BY	DATE	CALCULATED/ DESIGNED BY	ES
DATE REVISED	5/95	CHECKED BY	JZ

PROJECT ENGINEER — PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 — TIME PLOTTED => 17-OCT-1995 08:29

FORM DC-CE-92-PF (REV. 3/88)

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

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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

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

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)

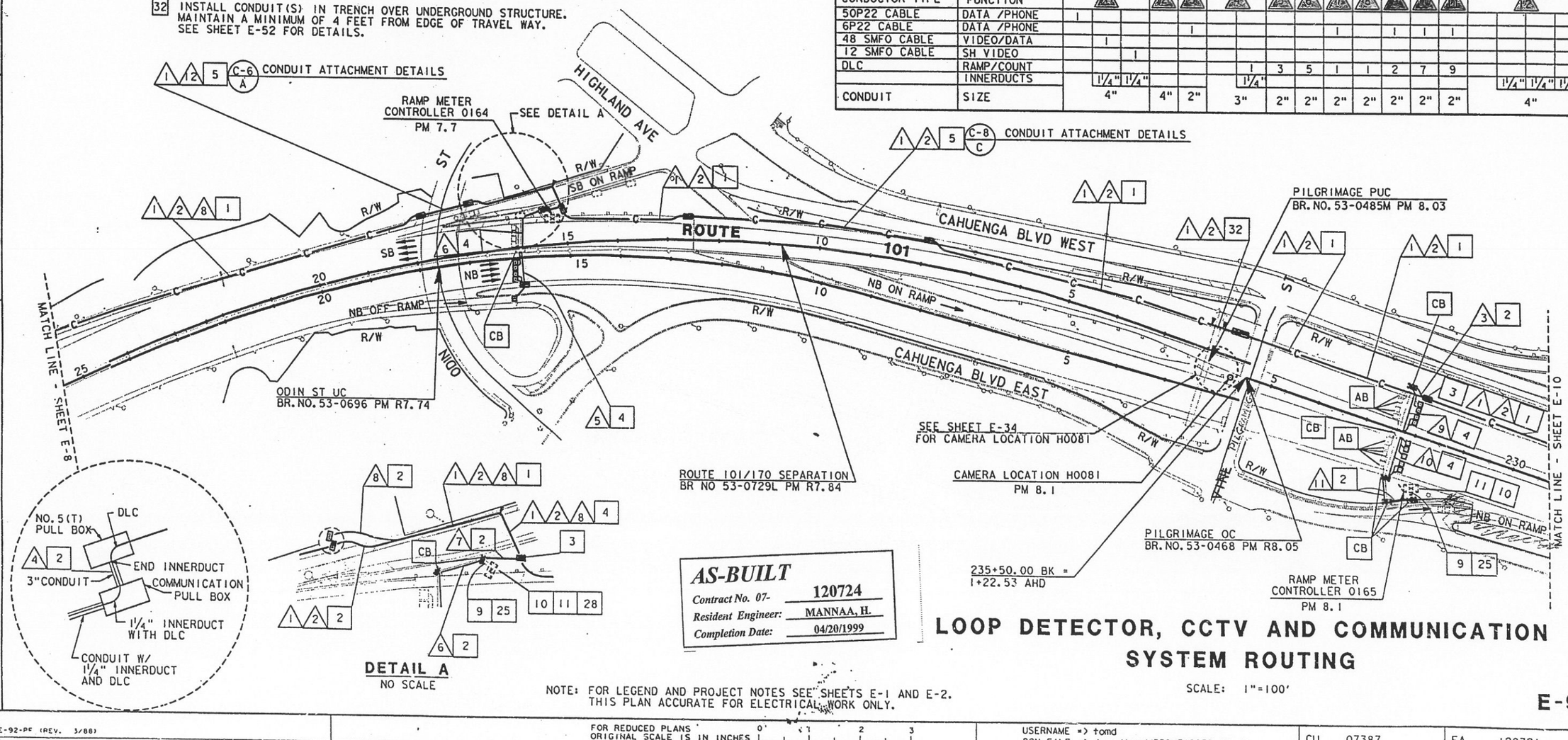
1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
3. INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE 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.

1 2 5 C-6 A CONDUIT ATTACHMENT DETAILS

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
50P22 CABLE	DATA /PHONE	1											
6P22 CABLE	DATA /PHONE			1									
48 SMFO CABLE	VIDEO/DATA		1					1		1	1	1	
12 SMFO CABLE	SH VIDEO			1									
DLC	RAMP/COUNT					1	3	5	1	1	2	7	9
	INNERDUCTS	1¼"	1¼"			1¼"							1
CONDUIT	SIZE	4"		4"	2"	3"	2"	2"	2"	2"	2"	2"	4"
													1¼" 1¼" 1¼"

1 2 5 C-8 C CONDUIT ATTACHMENT DETAILS



DETAIL A
NO SCALE

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-9

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

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 09:07

FORM DC-OE-92-PE (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => tomd
DGN FILE => /usr/tomd/P39/712072u09.dgn
CU 07387
EA 120721

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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6
50P22 CABLE	DATA /PHONE	1					
6P22 CABLE	DATA /PHONE						
48 SMFO CABLE	VIDEO/DATA		1			1	1
12 SMFO CABLE	SH VIDEO			1			
#6	POWER				2	2	
DLC	RAMP/COUNT			7		12	
	INNERDUCT	1¼"	1¼"				
CONDUIT	SIZE	4"	4"	2"	2"	3"	3"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR

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

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

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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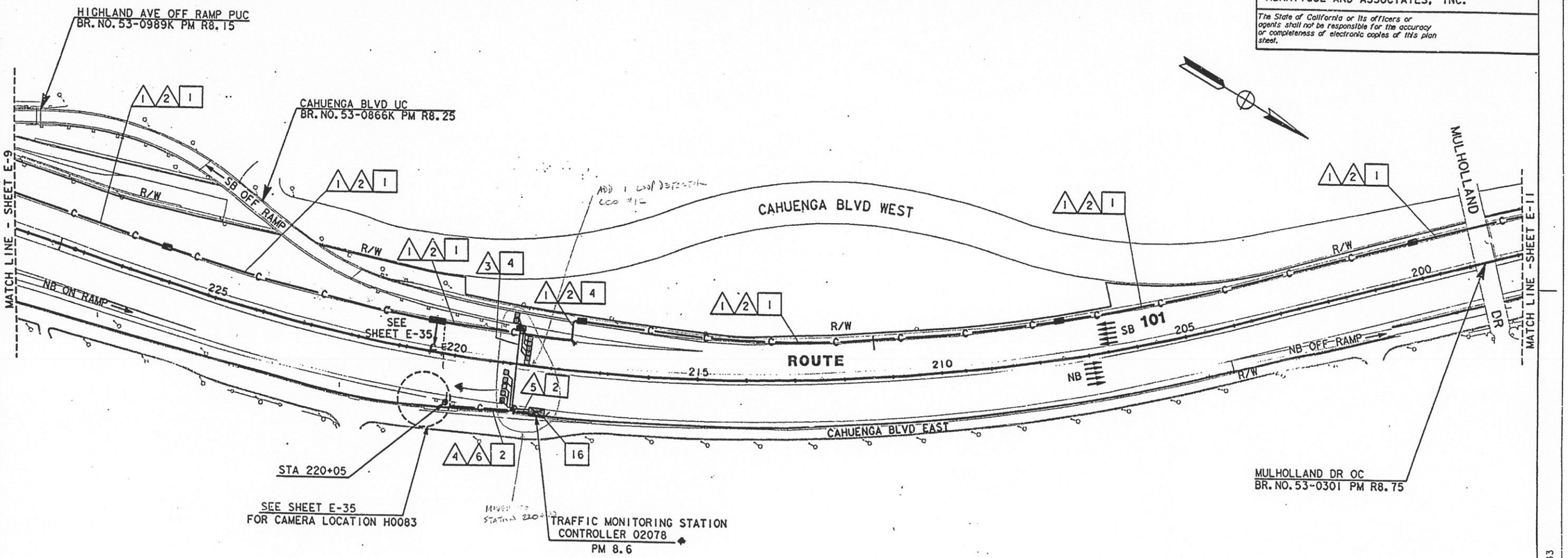

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-10

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95 JZ

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => 19-OCT-1995 15:33

FORM DC-OE-92-PF (REV. 3/88)

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

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DGN FILE => /usr/mlkesl/PO/712072u10.dg

CU 07387 EA 120721

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

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

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SACHIR — No. E014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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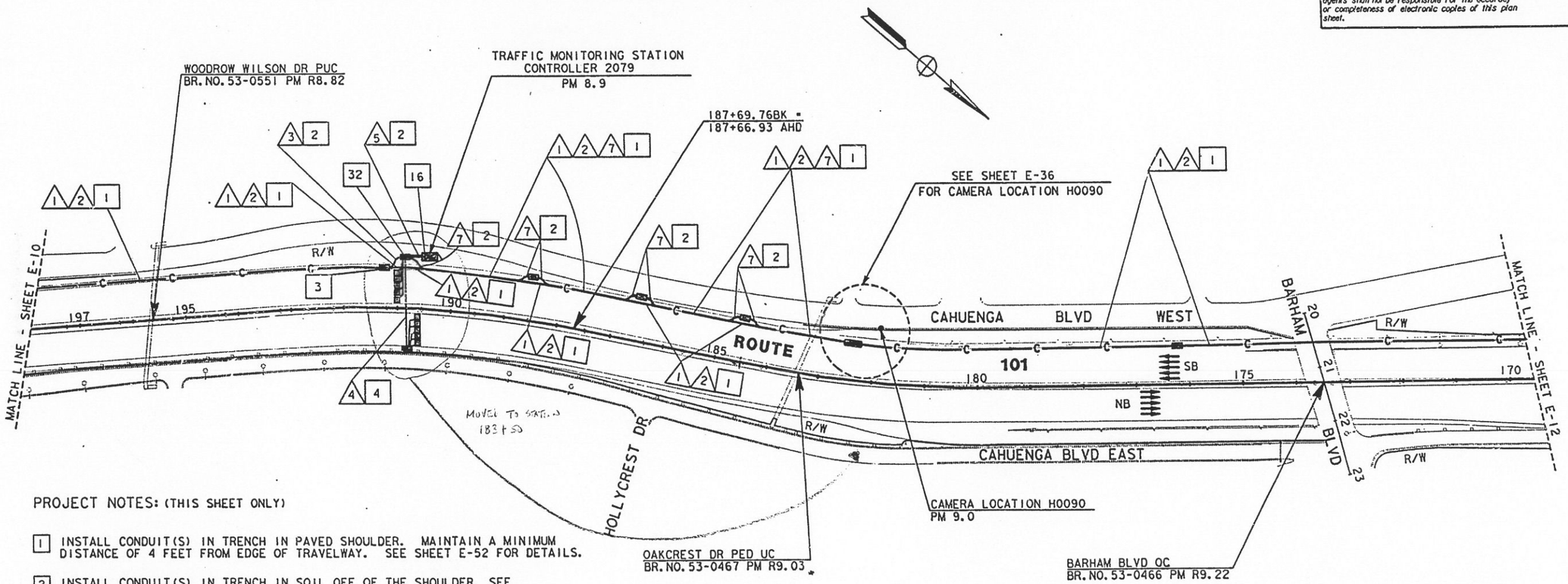
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8
50P22 CABLE	DATA/PHONE	1							
6P22 CABLE	DATA/PHONE					1		1	
48 SMFO CABLE	VIDEO/DATA		1						
12 SMFO CABLE	SH VIDEO			1					
#4	POWER						2		2
DLC	TMS					5		10	
	INNERDUCT		1¼"	1¼"					
CONDUIT	SIZE		4"		4"	2"	2"	3"	2"

(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 [illegible] 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.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

TRAFFIC MONITORING STATION, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-11

DATE	REVISED BY	DATE REVISED
2/95	ES	
5/95	JZ	

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-CE-92-FF (REV. 3/88)

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

USERNAME => tomd
DGN FILE => /usr/tomd/P39/712072u11.dgn

CU 07387 EA 120721

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

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

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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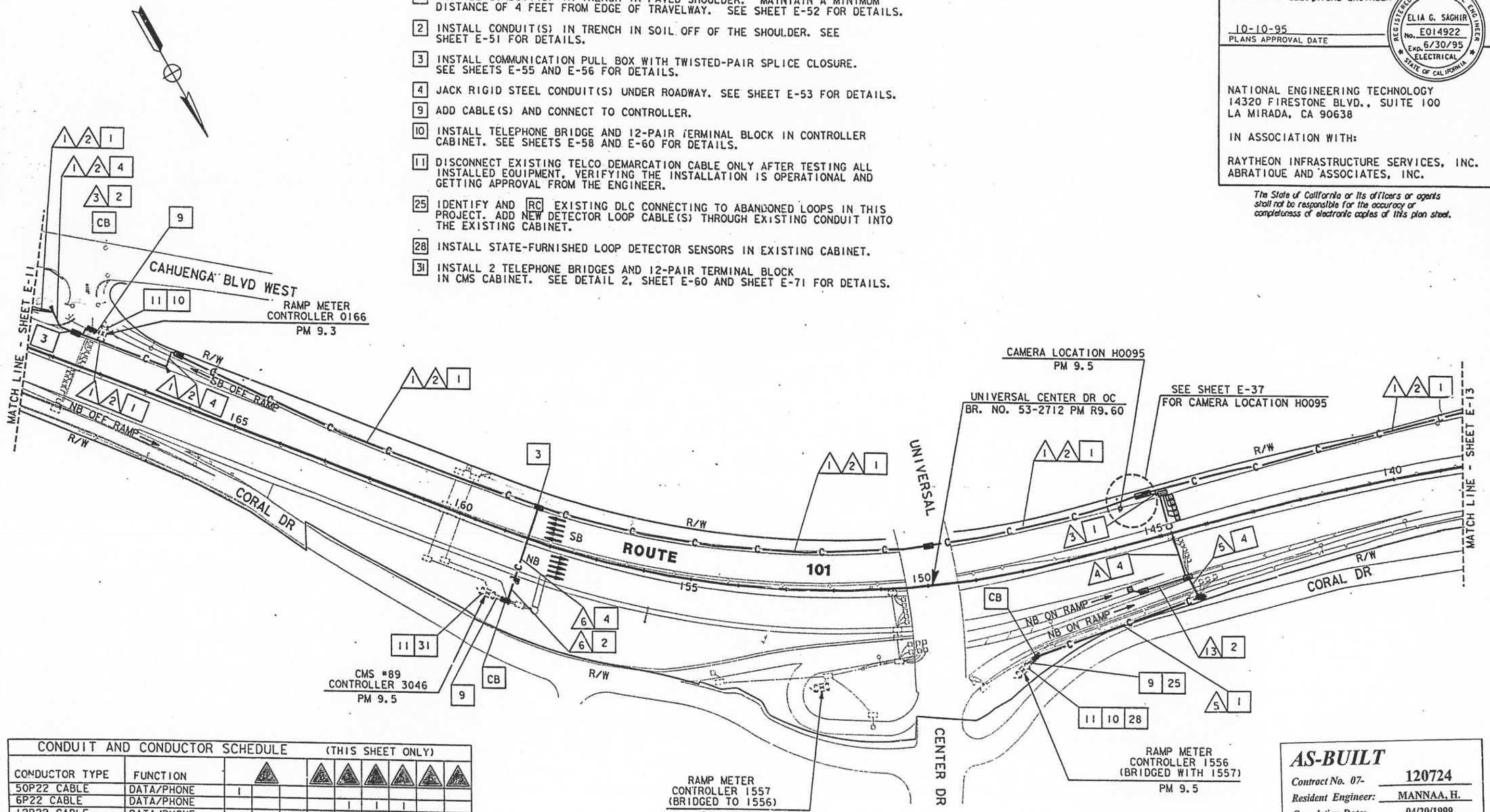
PROJECT NOTES: (THIS SHEET ONLY)

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.
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.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	△	△△	△△	△△	△△	△△	△△
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	
	INNERDUCT		1¼"	1¼"				
CONDUIT	SIZE		4"		4"	2"	2"	2"	2"	2"

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

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-12

PROJECT ENGINEER - PAT SULLIVAN
DEPARTMENT OF TRANSPORTATION - STATE OF CALIFORNIA
Gibbons
CALCULATED/DESIGNED BY ES
CHECKED BY JZ
DATE 2/95
REVISED BY
DATE REVISED 5/95
LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 10:52

FORM DC-FE-94 OF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => richard
DGN FILE => /usr/richard/P11/712072u12.
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	77	154

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

10-10-95
PLANS APPROVAL DATE

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

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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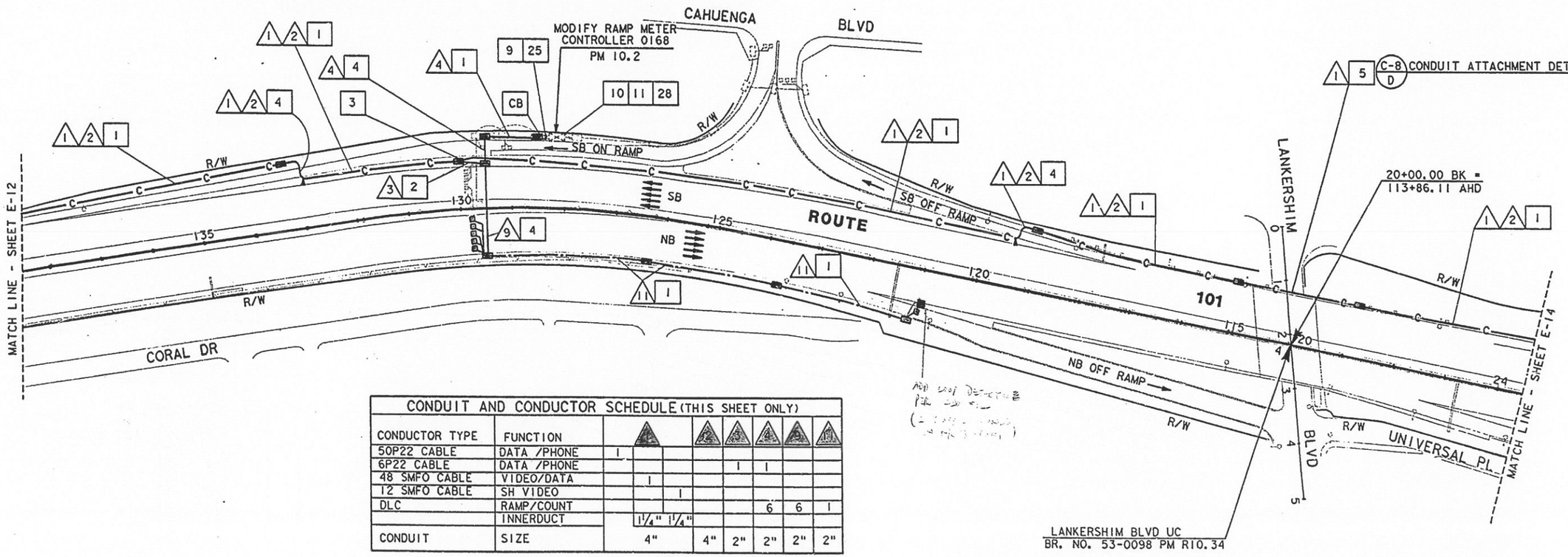
PROJECT NOTES: (THIS SHEET ONLY)

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. 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.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1			2	3	4	5	11
50P22 CABLE	DATA /PHONE	1							
6P22 CABLE	DATA /PHONE					1	1		
48 SMFO CABLE	VIDEO/DATA		1						
12 SMFO CABLE	SH VIDEO			1					
DLC	RAMP/COUNT						6	6	1
	INNERDUCT		1¼"	1¼"					
CONDUIT	SIZE	4"			4"	2"	2"	2"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

LOOP DETECTOR 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.

E-13

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

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 19-OCT-1995 15:33
LAST REVISION 00-00-00

FORM DC-SE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
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DGN FILE => /usr/mikesl/P0/712072ul3.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL 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

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

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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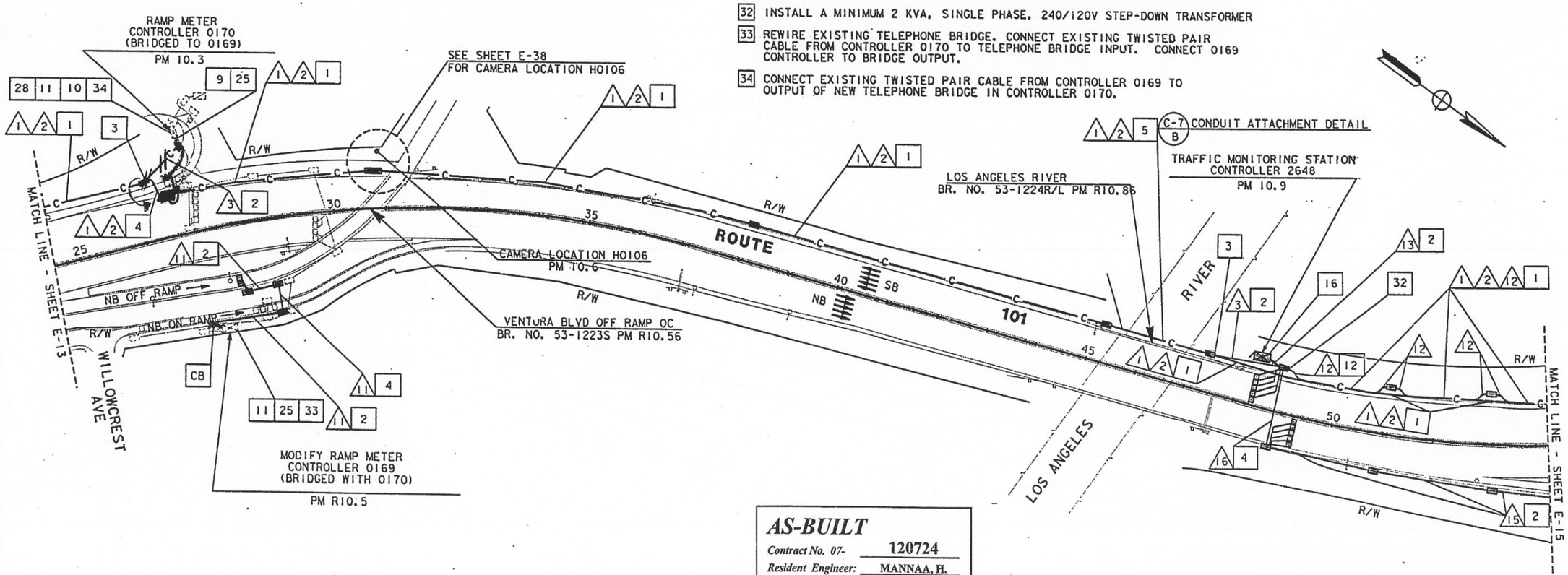
PROJECT NOTES: (THIS SHEET ONLY)

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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8	9	10
50P22 CABLE	DATA/PHONE	1									
6P22 CABLE	DATA/PHONE				1			1			
48 SMFO CABLE	VIDEO/DATA		1								
12 SMFO CABLE	SH VIDEO			1							
#4	POWER					2		2			
DLC	RAMP/COUNT				2		11		1	6	
	INNERDUCT	1¼"	1¼"								
CONDUIT	SIZE	4"		4"	2"	2"	2"	3"	3"	2"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-14

REVISED BY	DATE REVISED
ES	5/95

CALCULATED/ DESIGNED BY	DATE
JZ	2/95

CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 12:23

FORM DC-CE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
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DGN FILE => /usr/richard/P11/712072u14.
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	79	154

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

10-10-95
PLANS APPROVAL DATE

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

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.

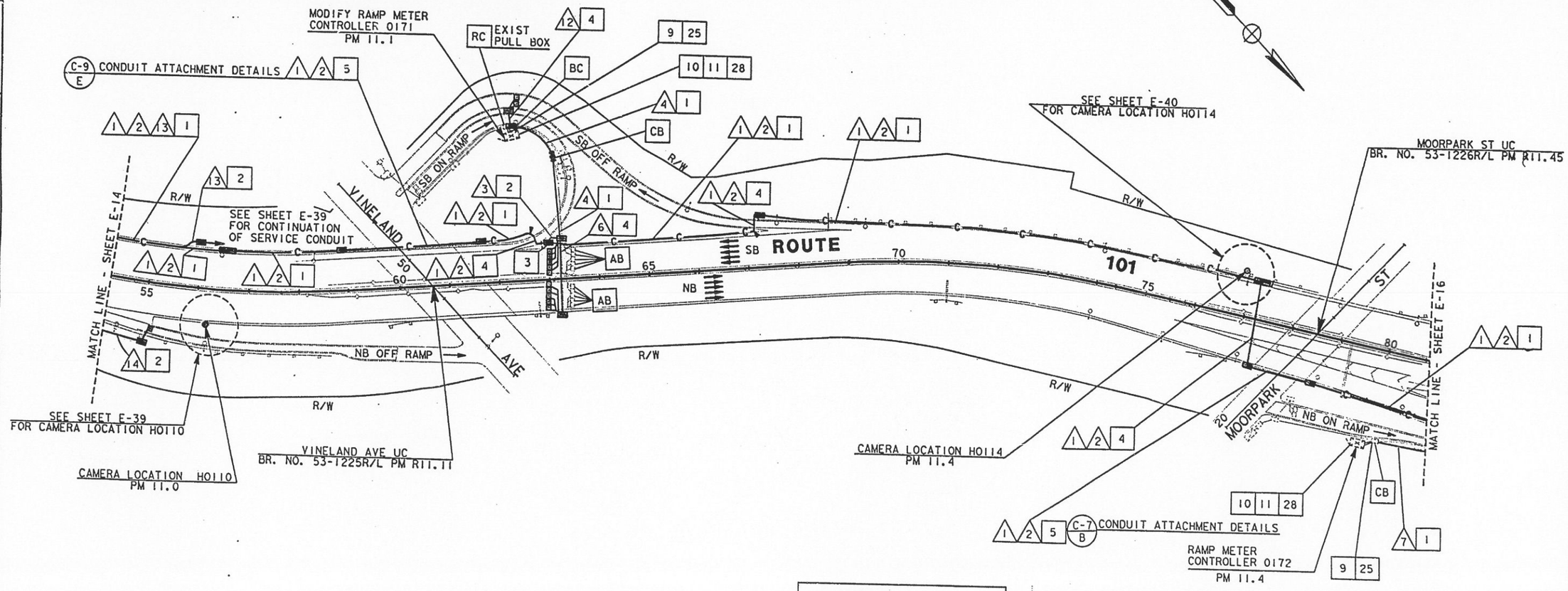
PROJECT NOTES: (THIS SHEET ONLY)

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.
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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	12	13	14
50P22 CABLE	DATA/PHONE	1									
6P22 CABLE	DATA/PHONE					1	1		1		
48 SMFO CABLE	VIDEO/DATA		1								
12 SMFO CABLE	SH VIDEO			1							
#4	POWER									2	
DLC	RAMP/COUNT						10	5	4	2	1
	INNERDUCT	1¼"	1¼"								
CONDUIT	SIZE	4"		4"	2"	2"	2"	2"	2"	2"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-15

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

FORM DC-OE-92-LE (REV. 3/88)

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

USERNAME => richard
DGN FILE => /usr/richard/P11/712072u15.

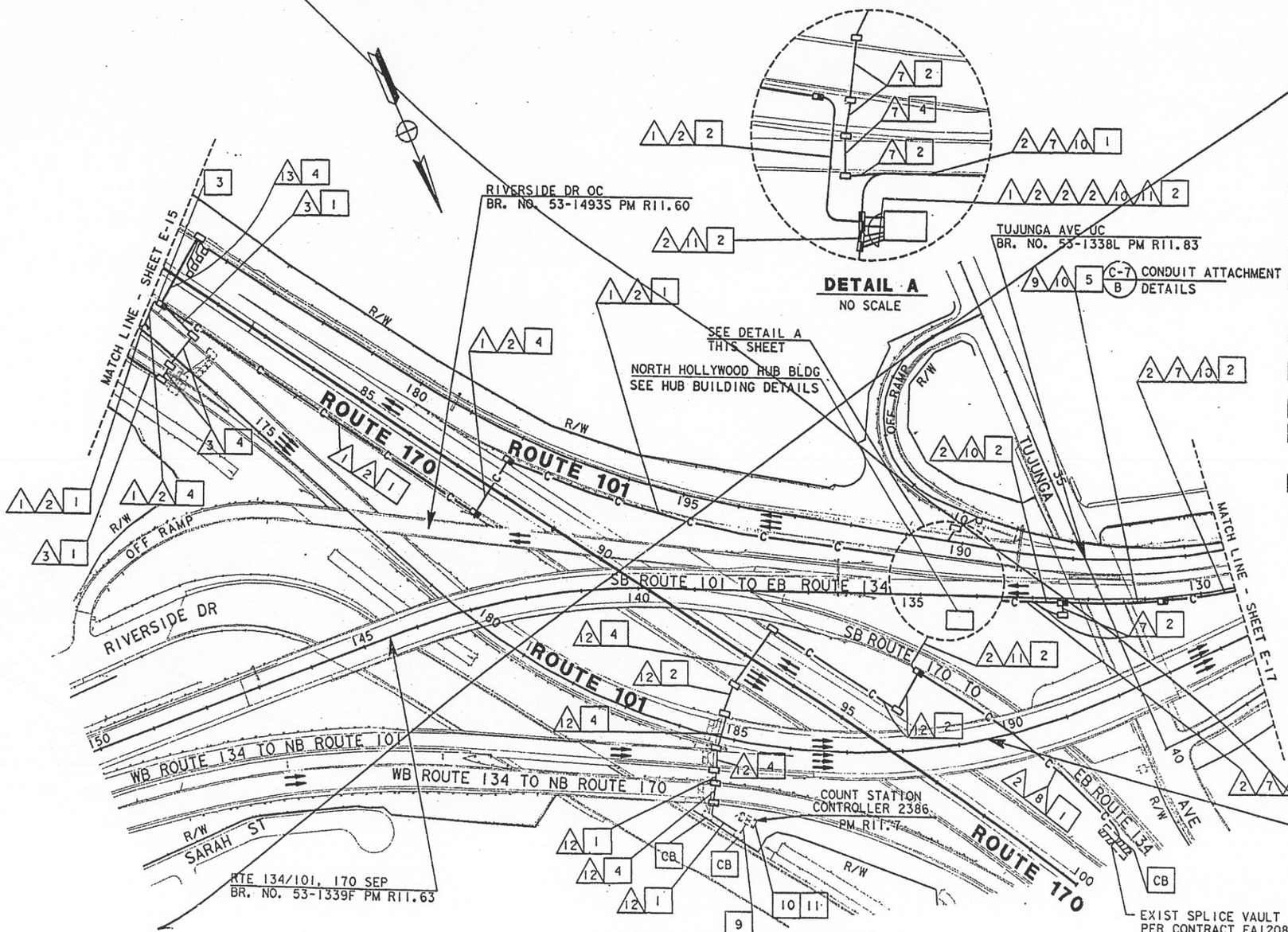
CU 07387 EA 120721

LAST REVISION 00-00-00 TIME PLOTTED => 17-OCT-1995 10:53

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	5	7	8	9	10	11	12	13
50P22 CABLE	DATA/PHONE	1							1			
6P22 CABLE	DATA/PHONE			1	1					1	1	
72 SMFO CABLE	VIDEO/DATA								1			
48 SMFO CABLE	VIDEO/DATA	1										
12 SMFO CABLE	SH VIDEO		1									
24 SMFO CABLE	SH VIDEO						1		1	1		
DLC	RAMP/COUNT			4	7	1		1				
	INNERDUCT	1¼" 1¼"					1¼" 1¼" 1¼" 1¼" 1¼"		1¼" 1¼"	1¼" 1¼"		4
CONDUIT	SIZE	4"	4"	2"	2"	2"	4"	4"	4"	4"	2"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR



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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	80	154

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

10-10-95
PLANS APPROVAL DATE

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

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 SHEET 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.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

LOOP DETECTOR AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-16

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95 JZ

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FORM DC-OT-92-PE (REV. 3/88)

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

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DGN FILE => /usr/mikesl/P0/712072u16.dg

CU 07387
EA 120721

LAST REVISION 00-00-00
TIME PLOTTED => 19-OCT-1995 15:33

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	81	154

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

10-10-95
PLANS APPROVAL DATE

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

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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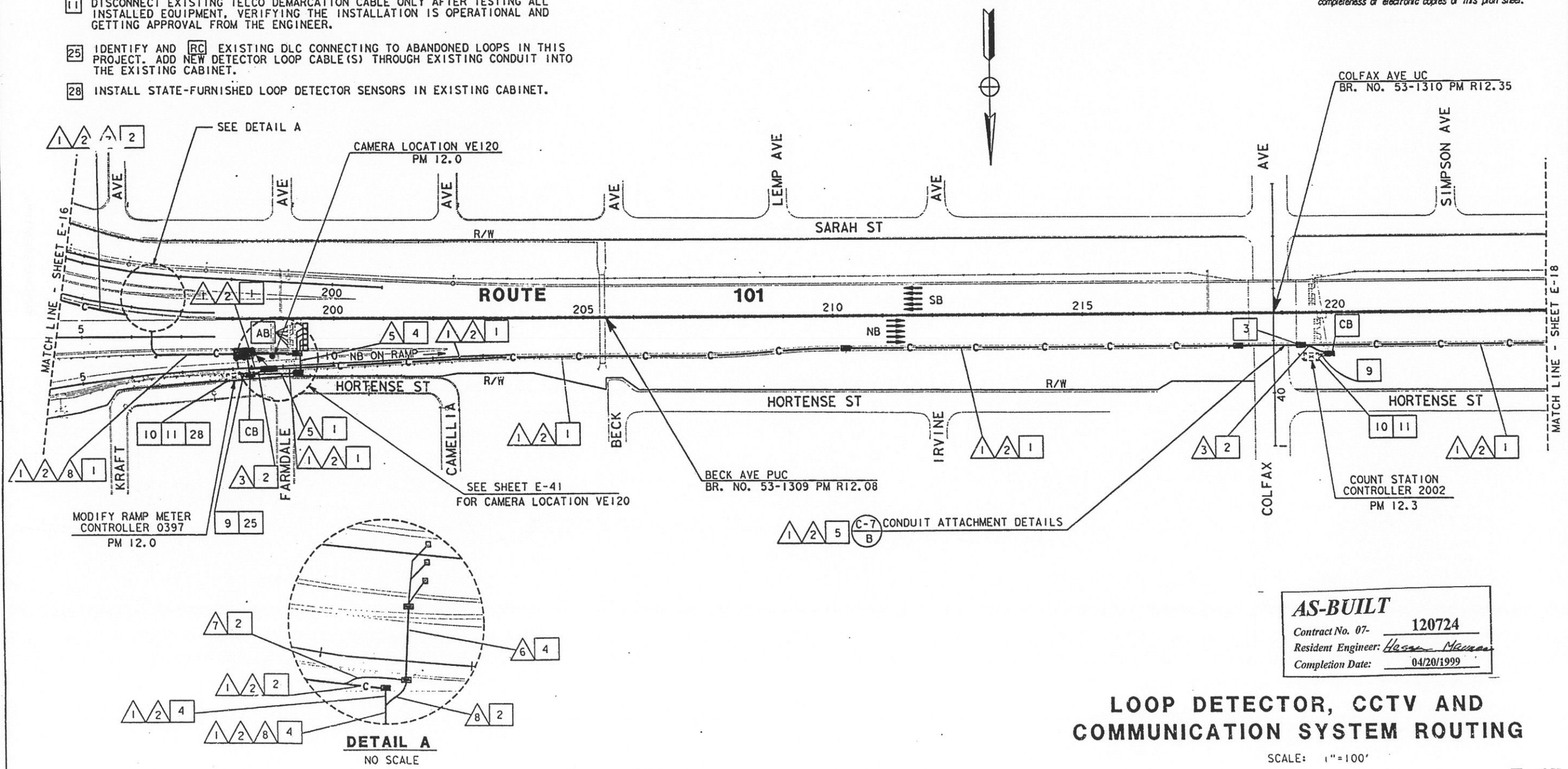
PROJECT NOTES: (THIS SHEET ONLY)

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. 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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	▲1	▲2	▲3	▲4	▲5	▲6	▲7	▲8
50P22 CABLE	DATA /PHONE	1							
6P22 CABLE	DATA /PHONE					1			
72 SMFO CABLE	VIDEO/DATA		1						
12 SMFO CABLE	SH VIDEO			1					
DLC	RAMP/COUNT						5	3	1	4
	INNERDUCT		1¼"	1¼"						
CONDUIT	SIZE		4"		4"	2"	2"	2"	2"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR



AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hesam Hamrah
Completion Date: 04/20/1999

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.

E-17

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95 JZ

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => 17-OCT-1995 08:48

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

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DGN FILE => /usr/lenard/P23/712072ul7.d

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	82	154

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

10-10-95
PLANS APPROVAL DATE

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

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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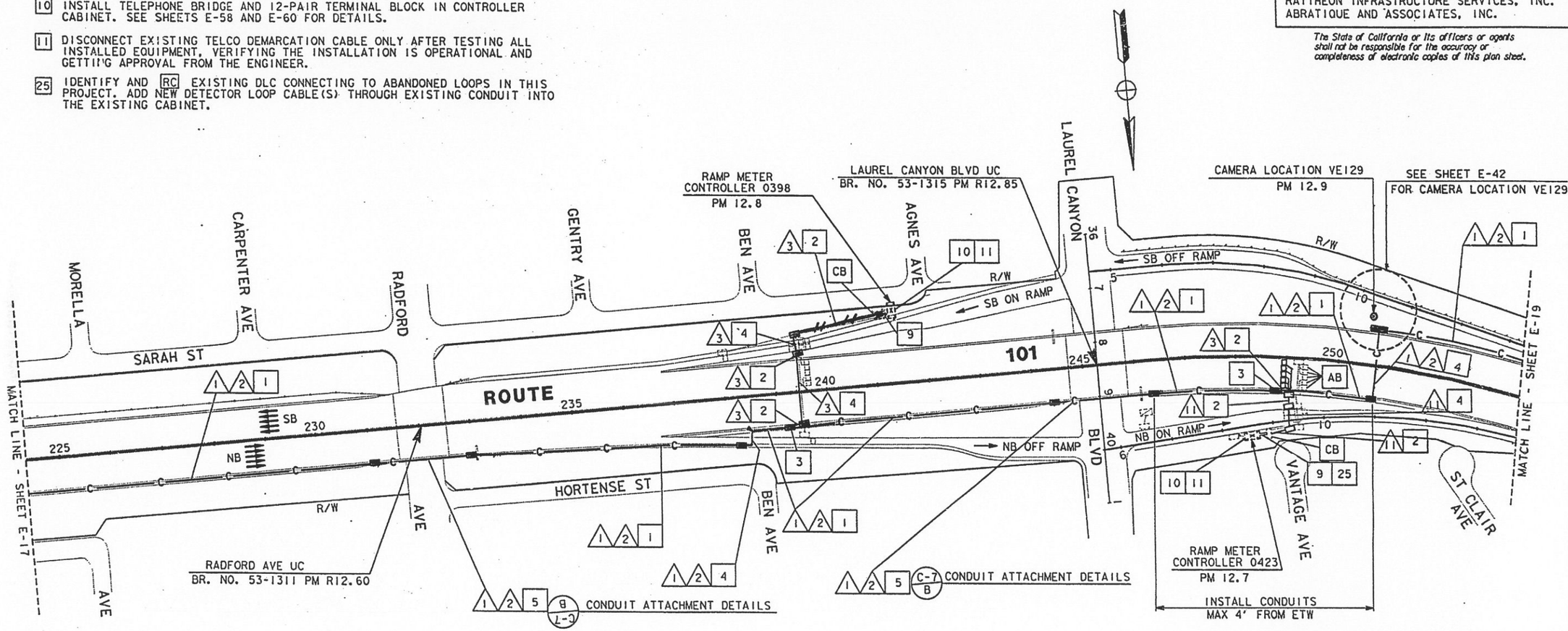
PROJECT NOTES: (THIS SHEET ONLY)

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. 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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1			2	3	4
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		1¼"	1¼"			
CONDUIT	SIZE	4"			4"	2"	2"

(E) - EXISTING CONDUIT OR CONDUCTOR



AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hassan Mazzaro
Completion Date: 04/20/1999

LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-18

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

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

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 17-OCT-1995 08:48
LAST REVISION 00-00-00

FORM DC-DE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
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DGN FILE => /usr/lenard/P23/712072u18.d
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	83	154

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

10-10-95
PLANS APPROVAL DATE

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

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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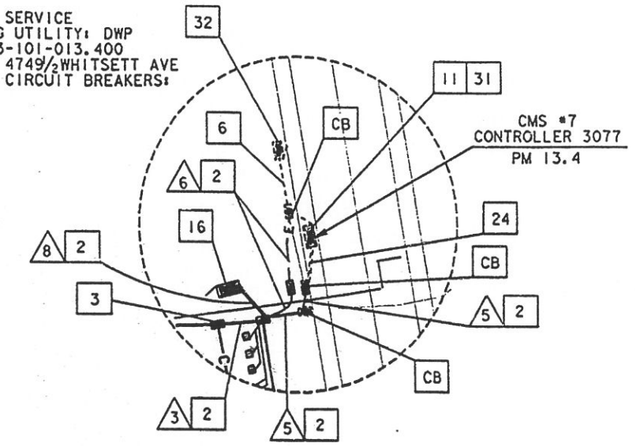
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

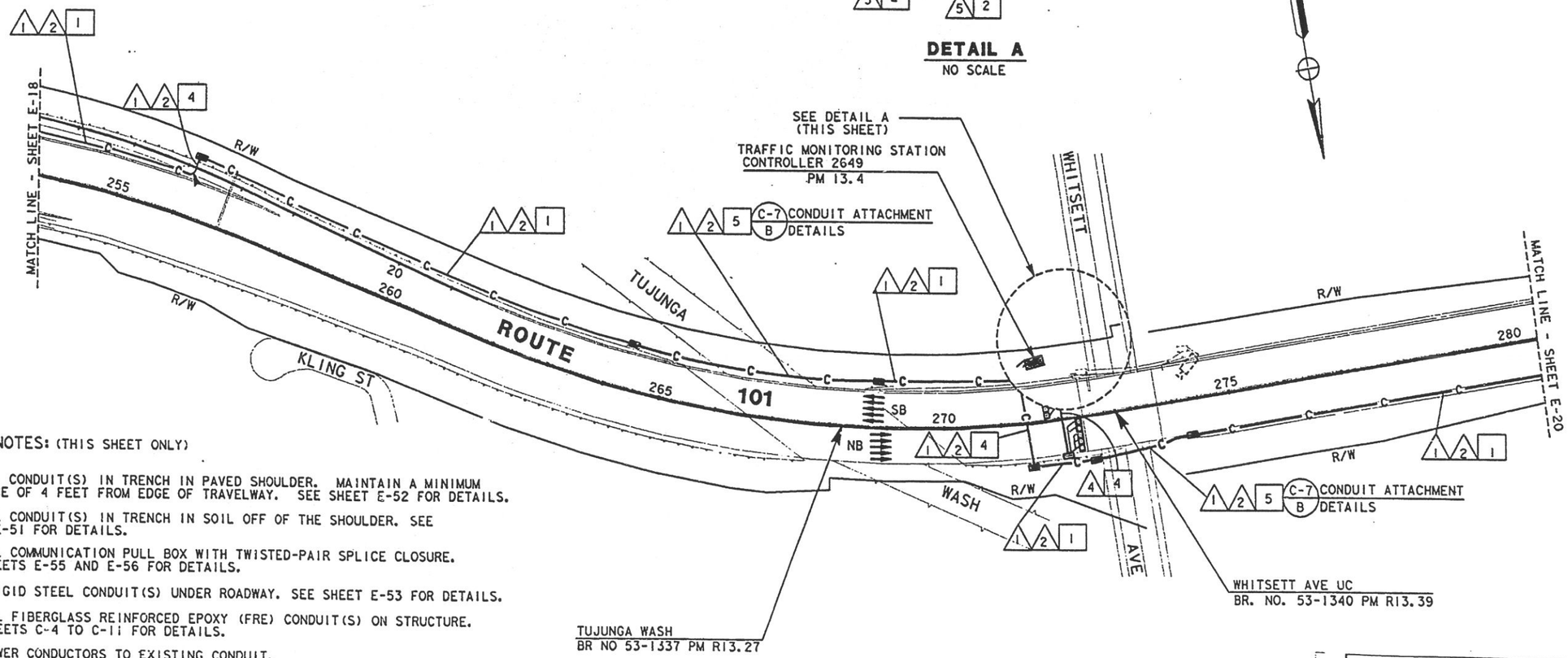
CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8
50P22 CABLE	DATA/PHONE	1							
6P22 CABLE	DATA/PHONE				1			1	
72 SMFO CABLE	VIDEO/DATA		1						
12 SMFO CABLE	SH VIDEO			1					
12P22 CABLE	DATA/PHONE				1		1		
#8	POWER							2	2
DLC	TMS					5		10	
	INNERDUCT	1¼"	1¼"						
CONDUIT	SIZE	4"		4"	2"	2"	2"	2"	3"	3"

(E) - EXISTING CONDUIT OR CONDUCTOR

EXISTING SERVICE
SERVICING UTILITY: DWP
ID# 07-53-101-013.400
ADDRESS: 4749½ 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.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hassan Mansour
Completion Date: 04/20/1999

TRAFFIC MONITORING STATION AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-19

REVISED BY	DATE REVISED
ES	2/95
JZ	5/95

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FORM DC-OE-92-PE (REV. 3/98)

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

USERNAME => mikesl
DGN FILE => /usr/mikesl/PO/712072J19.dg

CU 07387 EA 120721

LAST REVISION 00-00-00

TIME PLOTTED => 19-OCT-1995 15:34

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

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

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SACHIR — No. E014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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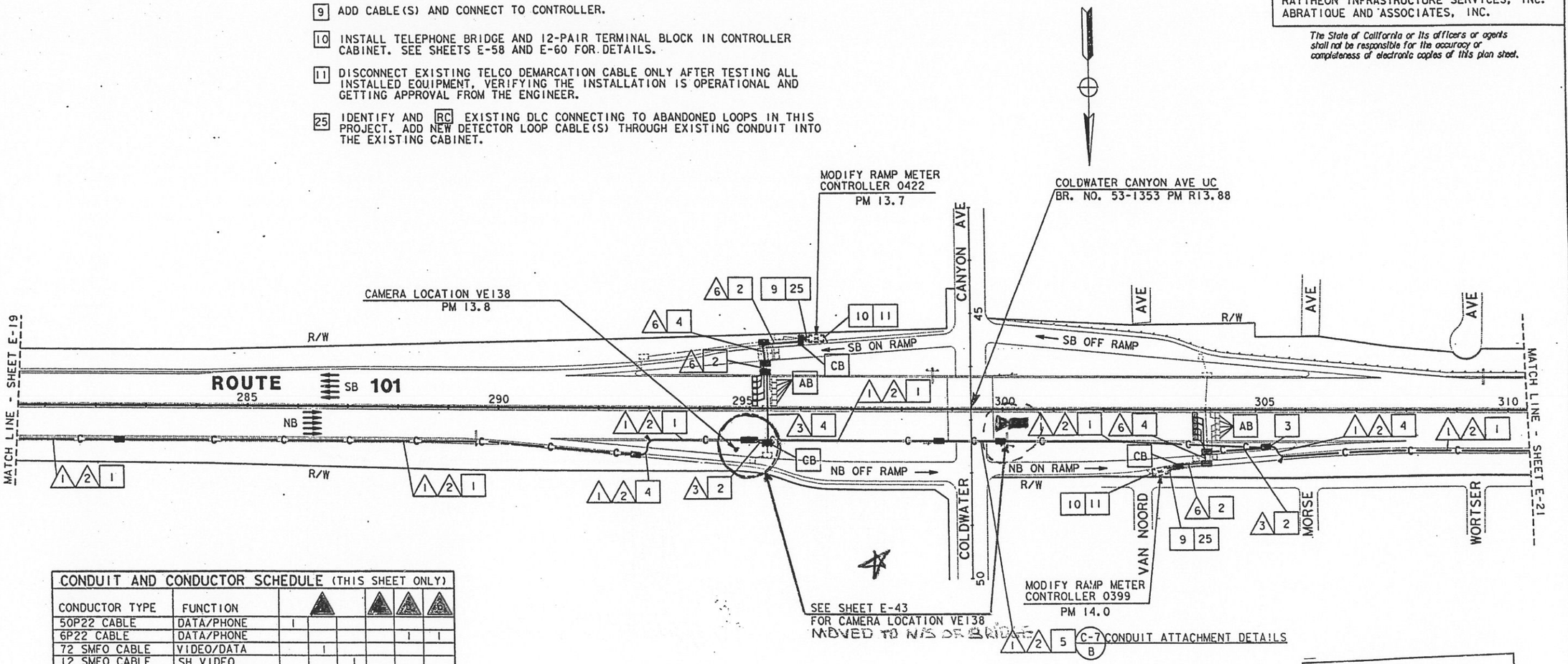
PROJECT NOTES: (THIS SHEET ONLY)

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. 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.



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION					
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		1¼"	1¼"		
CONDUIT	SIZE	4"		4"	2"	2"

(E) = EXISTING CONDUIT OR CONDUCTOR

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-20

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

LAST REVISION 00-00-00 TIME PLOTTED => 17-OCT-1995 09:21

FORM DC-CE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => annda
DGN FILE => /usr/annda/P54/712072u20.dg
CU 07387
EA 120721

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 COMMUNICATON 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 III-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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8
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		1¼"	1¼"					
CONDUIT	SIZE		4"		4"	2"	2"	2"	3"	3"

(E) - EXISTING CONDUIT OR CONDUCTOR

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

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. E014922 — Exp. 6/30/95 — ELECTRICAL — 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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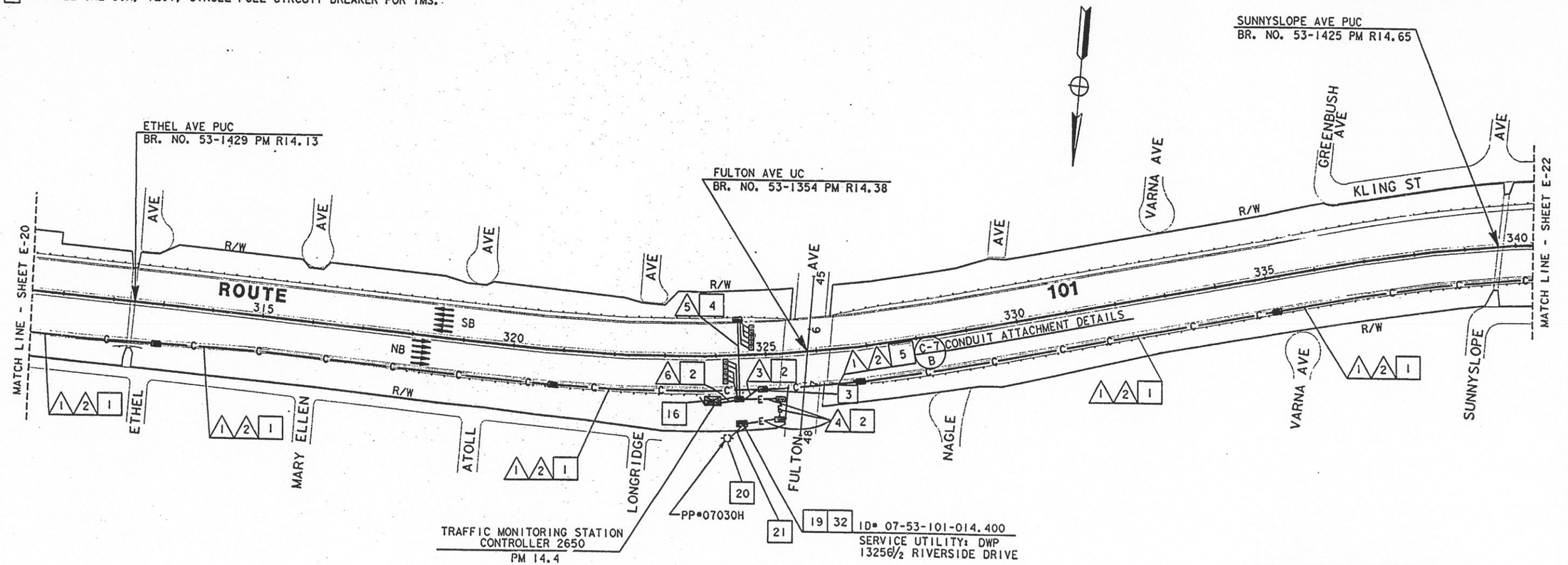

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

TRAFFIC MONITORING STATION 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.

E-21

DATE	REVISED BY	DATE	REVISED
2/95	ES	5/95	JZ

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 19-OCT-1995 15:36
LAST REVISED 00-00-00

FORM DT-OT-92-PE (REV. 3/88)

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

USERNAME => mikesl
DGN FILE => /usr/mikesl/PW/712072u21.dg

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	86	154

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

10-10-95
PLANS APPROVAL DATE

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

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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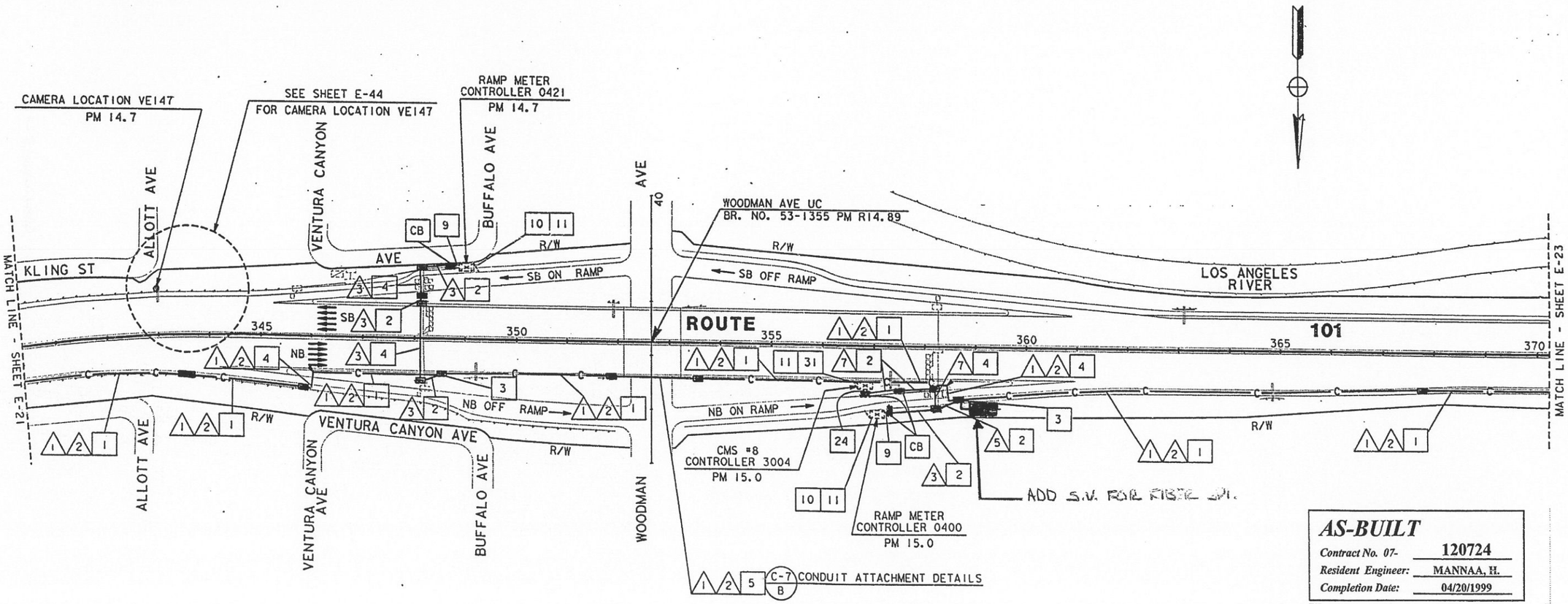
PROJECT NOTES: (THIS SHEET ONLY)

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.
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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

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			
12 P22 CABLE	DATA/PHONE					1	1
	INNERDUCT	1 1/4"	1 1/4"				
CONDUIT	SIZE	4"		4"	2"	2"	2"



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-22

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

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 09:03

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => annda
DGN FILE => /usr/annda/P54/712072u22.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	87	154

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

10-10-95
PLANS APPROVAL DATE

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

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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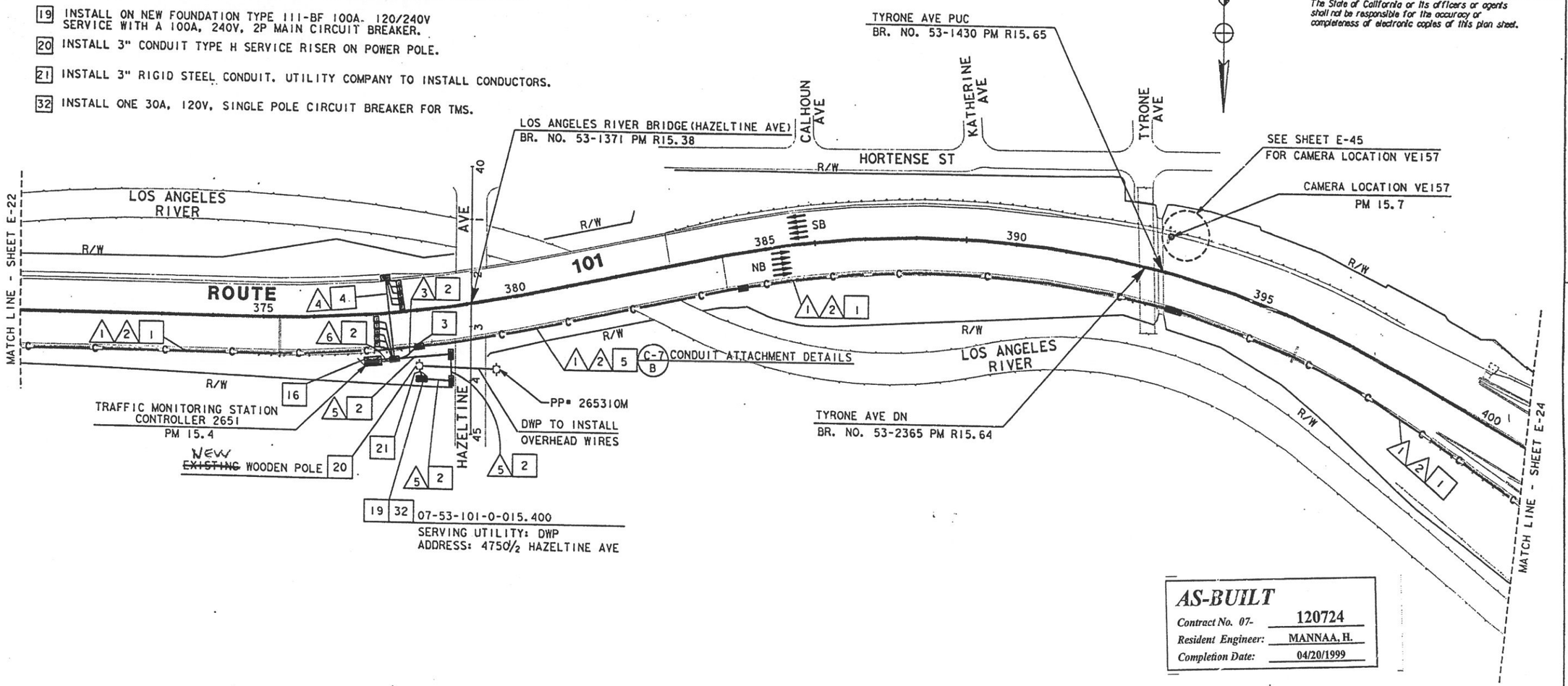
PROJECT NOTES: (THIS SHEET ONLY)

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.
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 III-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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

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	SM VIDEO			1			
#8	POWER					2	2
DLC	TMS				5		10
	INNERDUCT	1¼"	1¼"				
CONDUIT	SIZE	4"		4"	2"	2"	3"	3"



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

TRAFFIC MONITORING STATION, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-23

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

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

PROJECT ENGINEER — PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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

USERNAME => mikesl
DGN FILE => /usr/mikesl/PO/712072u23.dg

CU 07387 EA 120721

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 10:09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	88	154

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

10-10-95
PLANS APPROVAL DATE

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

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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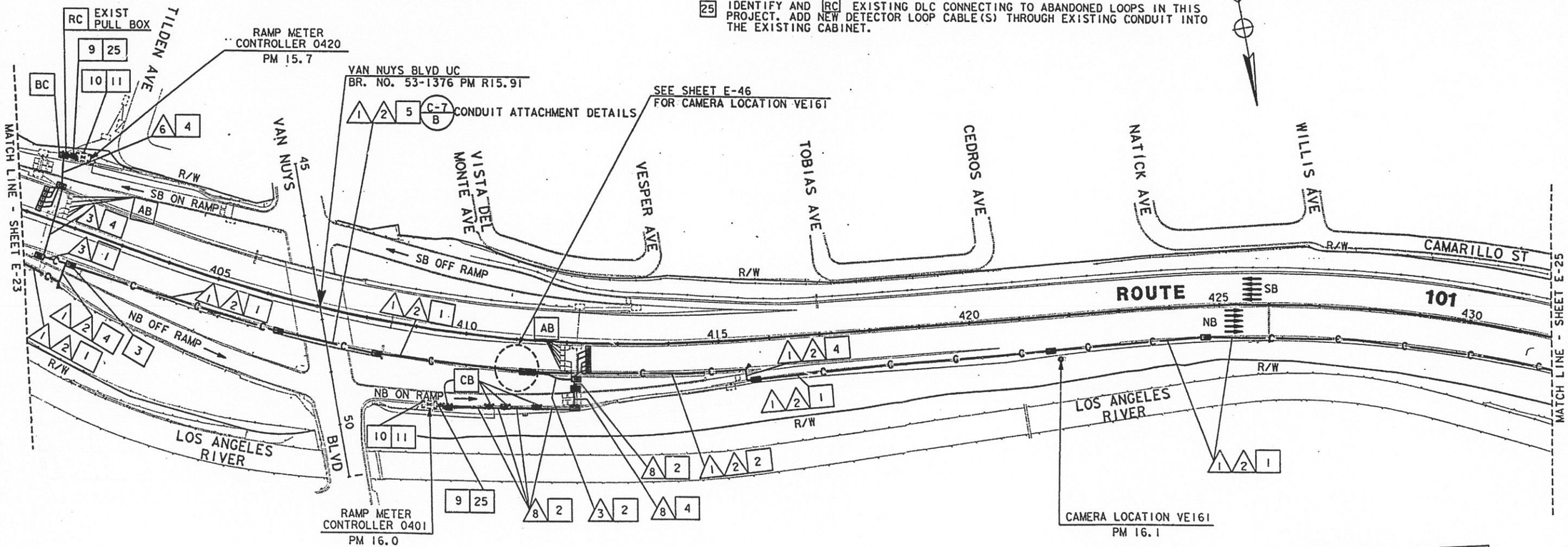
PROJECT NOTES: (THIS SHEET ONLY)

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. 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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1			2	3	6	4
50P22 CABLE	DATA/PHONE	1						
6P22 CABLE	DATA/PHONE					1	1	1
72 SMFO CABLE	VIDEO/DATA		1					
12 SMFO CABLE	SH VIDEO			1				
DLC	RAMP/COUNT						5	5
	INNERDUCT		1¼"	1¼"				
CONDUIT	SIZE	4"			4"	2"	2"	2"



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-24

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

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

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 17-OCT-1995 10:09
LAST REVISION 00-00-00

FORM DC-CE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl
DGN FILE => /usr/mikesl/PO/712072u24.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	89	154

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

10-10-95
PLANS APPROVAL DATE

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

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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TRAFFIC MONITORING STATION
CONTROLLER 2652
PM 16.4

19 32 ID= 07-53-101-0-016.420
SERVICING UTILITY: DWP
4814½ KESTER AVE

KESTER AVE
Power Fed Overhead
CAMARILLO ST
R/W
DWP VAULT
1 2 5 C-6 CONDUIT ATTACHMENT DETAILS
SOUND WALL CROSSING DETAIL
2"C. 7DLC 4

DETAIL A
NO SCALE

KESTER AVE UC
BR. NO. 53-1375 PM R16.43
SEE DETAIL A THIS SHEET
1 2 5 C-5 CONDUIT ATTACHMENT DETAILS
SALOMA AVE
LEMONA AVE
NORWICH AVE
NOBLE AVE PUC
BR. NO. 53-1438 PM R16.70
NOBLE AVE
C-1 SOUND WALL CROSSING DETAIL
LA MAIDA ST
MATCH LINE - SHEET E-24
MATCH LINE - SHEET E-26
2"C. 5DLC
435
440
445
450
SB
NB
ROUTE 101
MORRISON ST
R/W
33

COLUMBUS AVE
RAMP METER CONTROLLER 0419
PM 16.7
SEPULVEDA BLVD UC
BR. NO. 53-1102R/L PM R16.94
SEE SHEET E-47 FOR CAMERA LOCATION VE169
CAMERA LOCATION VE169
PM 16.9
SEPULVEDA BLVD
ON RAMP
OFF RAMP
CB
VIDEO NODE SEE SHEET E-47
DATA NODE SEE SHEET E-47
455
726
730
1 2 5 C-11 CONDUIT ATTACHMENT DETAILS

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14
50P22 CABLE	DATA /PHONE	1					1								
6P22 CABLE	DATA /PHONE				1								1		
72 SMFO CABLE	VIDEO/DATA		1					1							
12 SMFO CABLE	SH VIDEO			1											
#8	POWER								2						2
DLC	TMS									3	10	10			
	INNERDUCT		1¼" 1¼"				1¼" 1¼"								
CONDUIT	SIZE		4"		4"	2"	4"		2"	2"	2"	3"	3"		

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

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.
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 MAIN CIRCUIT BREAKER.
21. INSTALL 3" RIGID STEEL CONDUIT. UTILITY COMPANY TO INSTALL CONDUCTORS.
32. INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR TMS.
33. INSTALL GATE IN EXISTING SOUNDWALL. SEE SHEETS C-2 AND C-3 FOR DETAILS.

TRAFFIC MONITORING STATION, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-25

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

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FHWA 05-E-52-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl
DGN FILE => /usr/mikesl/P0/712072u25.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	90	154

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

10-10-95
PLANS APPROVAL DATE

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

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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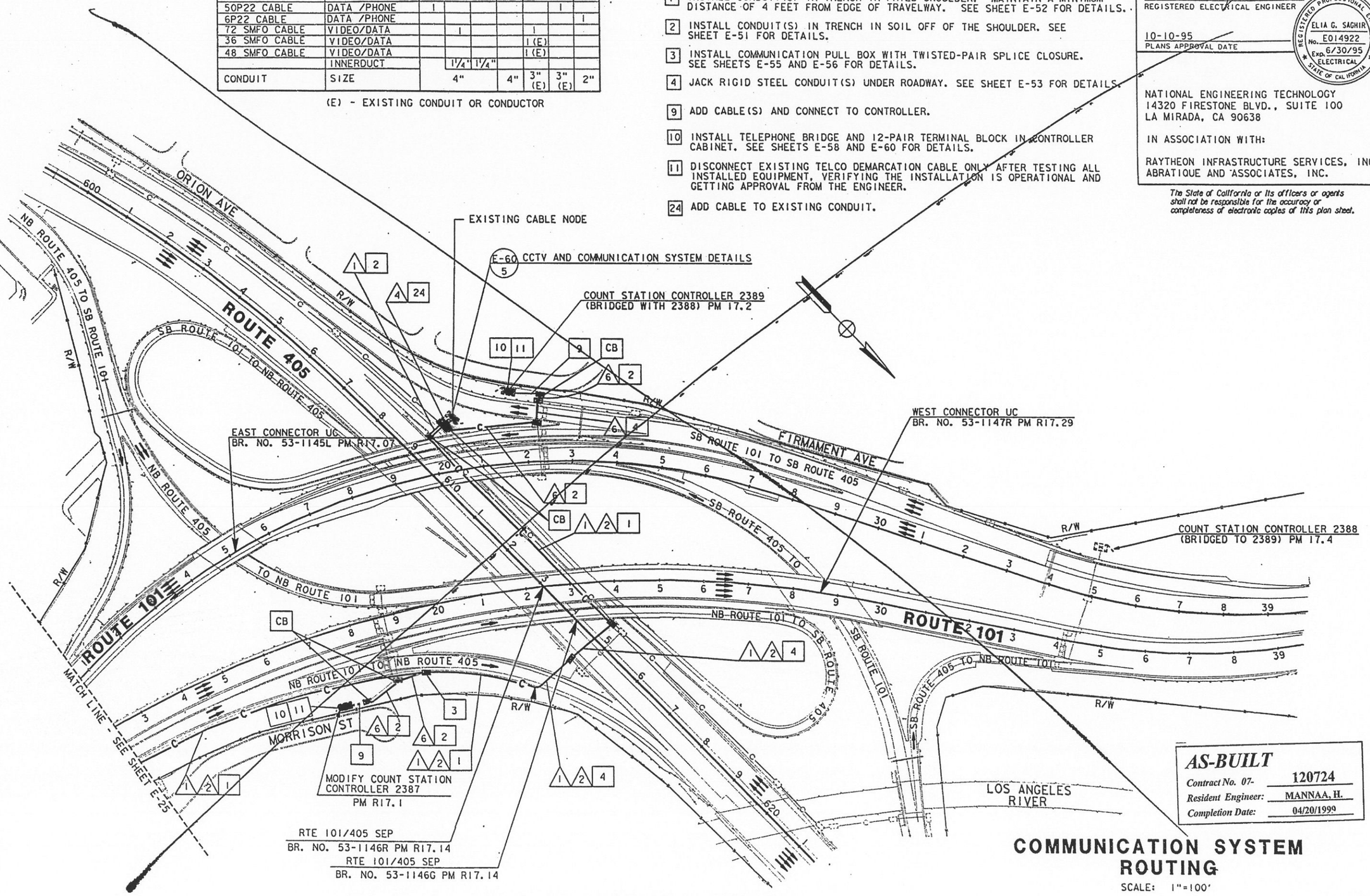
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1			2	4		6
50P22 CABLE	DATA /PHONE	1					1	
6P22 CABLE	DATA /PHONE							1
72 SMFO CABLE	VIDEO/DATA		1			1		
36 SMFO CABLE	VIDEO/DATA					1 (E)		
48 SMFO CABLE	VIDEO/DATA					1 (E)		
	INNERDUCT		1¼"	1¼"				
CONDUIT	SIZE		4"		4"	3" (E)	3" (E)	2"

(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.
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.
24. ADD CABLE TO EXISTING CONDUIT.



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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.

E-26

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95 JZ

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 17-OCT-1995 10:05
LAST REVISION 00-00-00

FORM DC-C-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => lenard
DGN FILE => /usr/lenard/P23/712072u26.d
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	91	154

Elia El-Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ELIA G. SAGHIR
No. 014922
Exp. 6/30/95
ELECTRICAL
STATE OF CALIFORNIA

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.

NOTE: (THIS SHEET ONLY)

1. SEE SHEET L-1 FOR LAYOUT DETAILS.

AS-BUILT	
Contract No. 07-	120724
Resident Engineer:	MANNAA, H.
Completion Date:	04/20/1999

PROJECT NOTES: (THIS SHEET ONLY)

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.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

9 ADD CABLE(S) AND CONNECT TO CONTROLLER.

11 DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND SINGLE VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL TWO 30A, 120V SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

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 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE SINGLE VIDEO TRANSMITTER. SEE DETAIL A SHEET E-59 AND DETAIL 3 SHEET E-60.

33 ADD CCTV WIRING TO EXISTING CONDUIT.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 3		RUN 4		RUN 6	RUN 7	RUN 9	RUN [illegible]		RUN [illegible]	
6P22 CABLE	DATA /PHONE		1		1					1		1	
12P22	DATA /PHONE		1						1				
2SMFO B/O CABLE	SH VIDEO			1	1					1			1
SEE TABLE 1, SHEET E-1	CCTV WIRING				1		1			1			
#8	POWER	4				2		2			2		
2P18	TELCO				1				1 (E)				
	INNERDUCT			1¼"									1¼"
	CONDUIT SIZE	2"	3"		3"	3"	2"	2"	2" (E)	3"		3"	

(E) - EXISTING CONDUIT OR CONDUCTOR

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

CCTV CAMERA (LOCATION H0048 AND LOCATION H0049)

SCALE: 1"=20'

E-27

CALCULATED/ DESIGNED BY	DM	DATE 2/95	REVISED BY	
CHECKED BY	ES	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	92	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ELIA G. SAGHIR No. 014922 Exp. 6/30/95 ELECTRICAL STATE OF CALIFORNIA

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)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

8 INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND SINGLE VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

15 TRANSITION CONDUIT UNDER SOUNDWALL. DIG WITH HAND TOOLS AS REQUIRED. SEE SHEET C-1 TO C-3 FOR DETAILS.

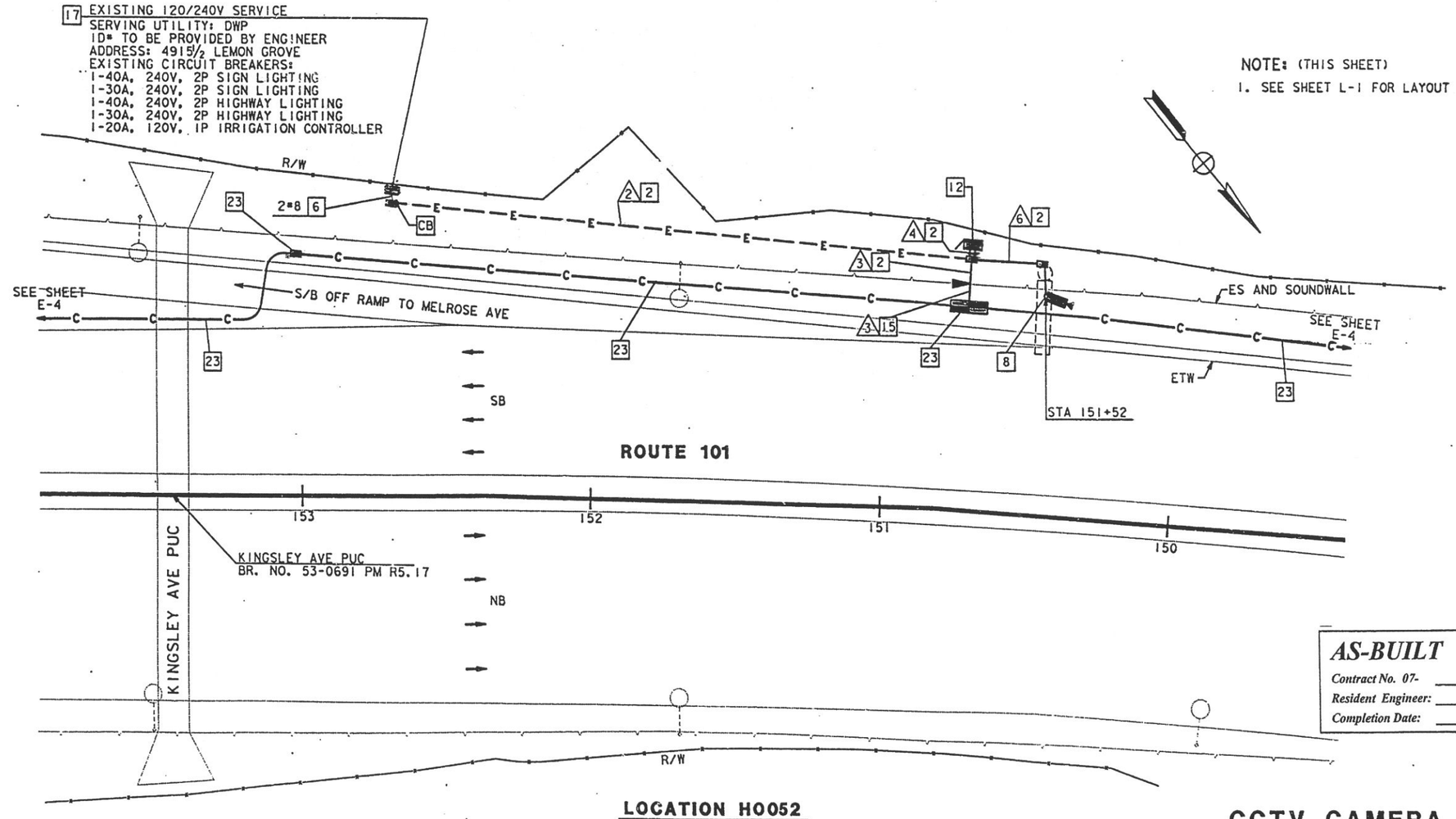
17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6
6P22 CABLE	DATA /PHONE		1			1	
2SMFO B/O CABLE	SH VIDEO			1		1	
SEE TABLE 1, SHEET E-1	CCTV WIRING					1	1
#8	POWER	2			2		
	INNERDUCT			1¼"			
	CONDUIT SIZE	2"	3"		3"	3"	2"

NOTE: (THIS SHEET)
1. SEE SHEET L-1 FOR LAYOUT DETAILS.



LOCATION H0052

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION H0052)

SCALE: 1"=20'

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

E-28

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

TIME PLOTTED => 17-OCT-1995 10:06
LAST REVISION 00-00-00

FORM DC-CE-92 PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => lenard /usr/lenard/P23/712072u28.d
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	93	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR No. 014922 Exp. 6/30/95 ELECTRICAL — STATE OF CALIFORNIA

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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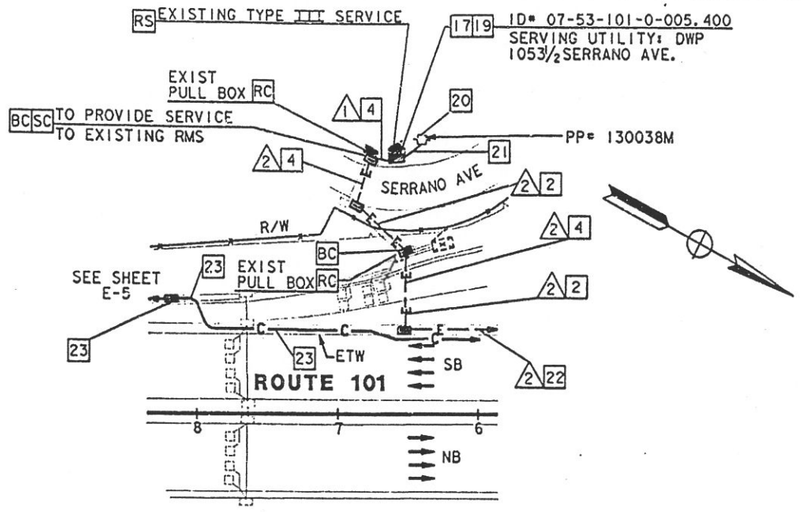
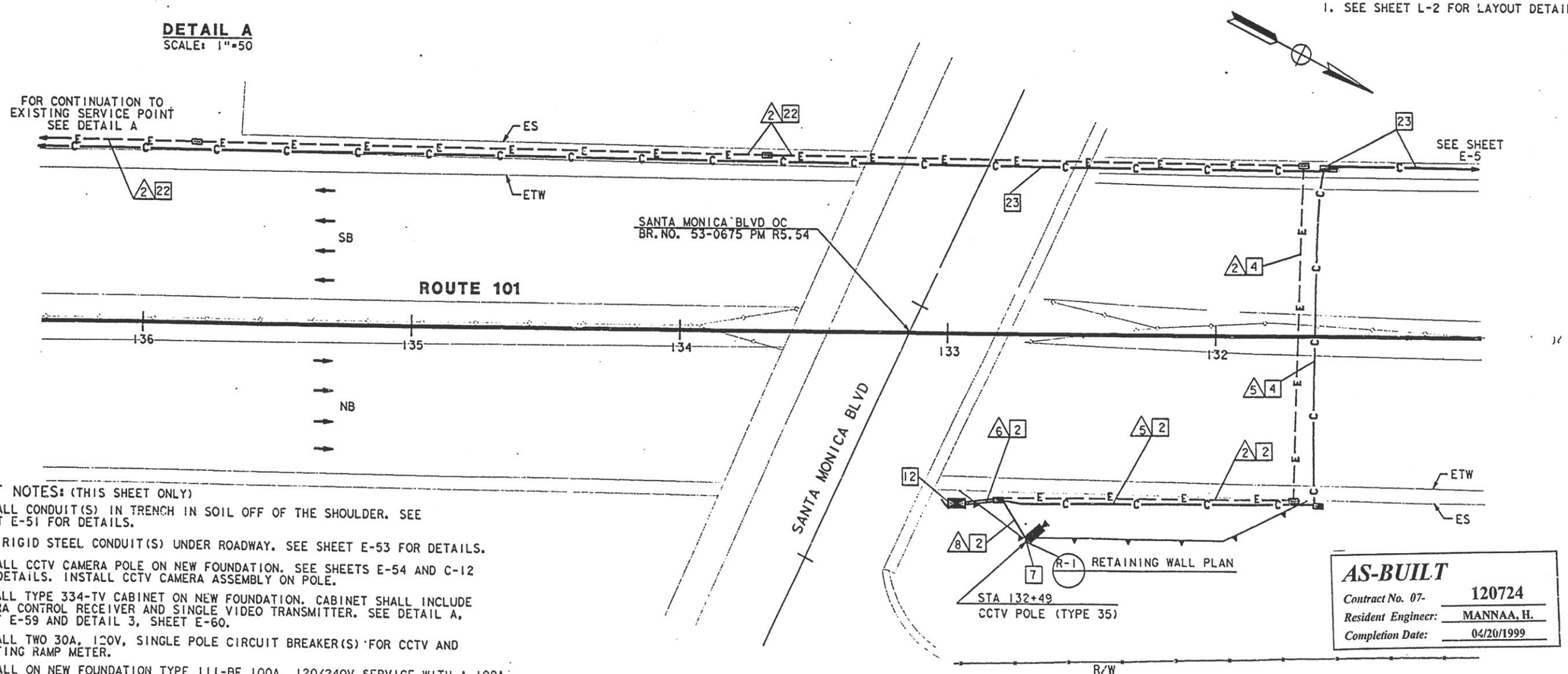


DETAIL A
SCALE: 1"=50

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN					
		1	2	3	4	5	6
6P22 CABLE	DATA /PHONE			1		1	
2SMFO B/O CABLE	SH VIDEO				1	1	
SEE TABLE 1, SHEET E-1	CCTV WIRING					1	1
#8	POWER	2					
#4	POWER	2	2		2		
	INNERDUCT			1¼"			
	CONDUIT SIZE	2"	2"	3"	3"	3"	2"

NOTE: (THIS SHEET)
1. SEE SHEET L-2 FOR LAYOUT DETAILS.



CAMERA LOCATION H0055
SCALE: 1"=20'

PROJECT NOTES: (THIS SHEET ONLY)

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.

7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND SINGLE VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL TWO 30A, 120V, SINGLE POLE CIRCUIT BREAKER(S) FOR CCTV AND EXISTING RAMP METER.

19 INSTALL ON NEW FOUNDATION TYPE III-BF 100A, 120/240V SERVICE WITH A 100A, 240V 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.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

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

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION H0055)

AS NOTED

E-29

REVISED BY	DATE	DATE REVISED
DM	2/95	5/95
ES		

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 TIME PLOTTED => 19-OCT-1995 15:36

FORM DC-CE-92-PE (REV. 3/86)

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

USERNAME => mikesl
/usr/mikesl/P0/712072u29.dg

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	94	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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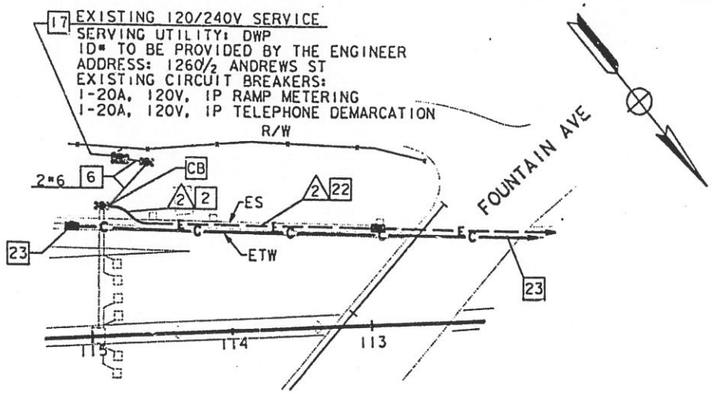
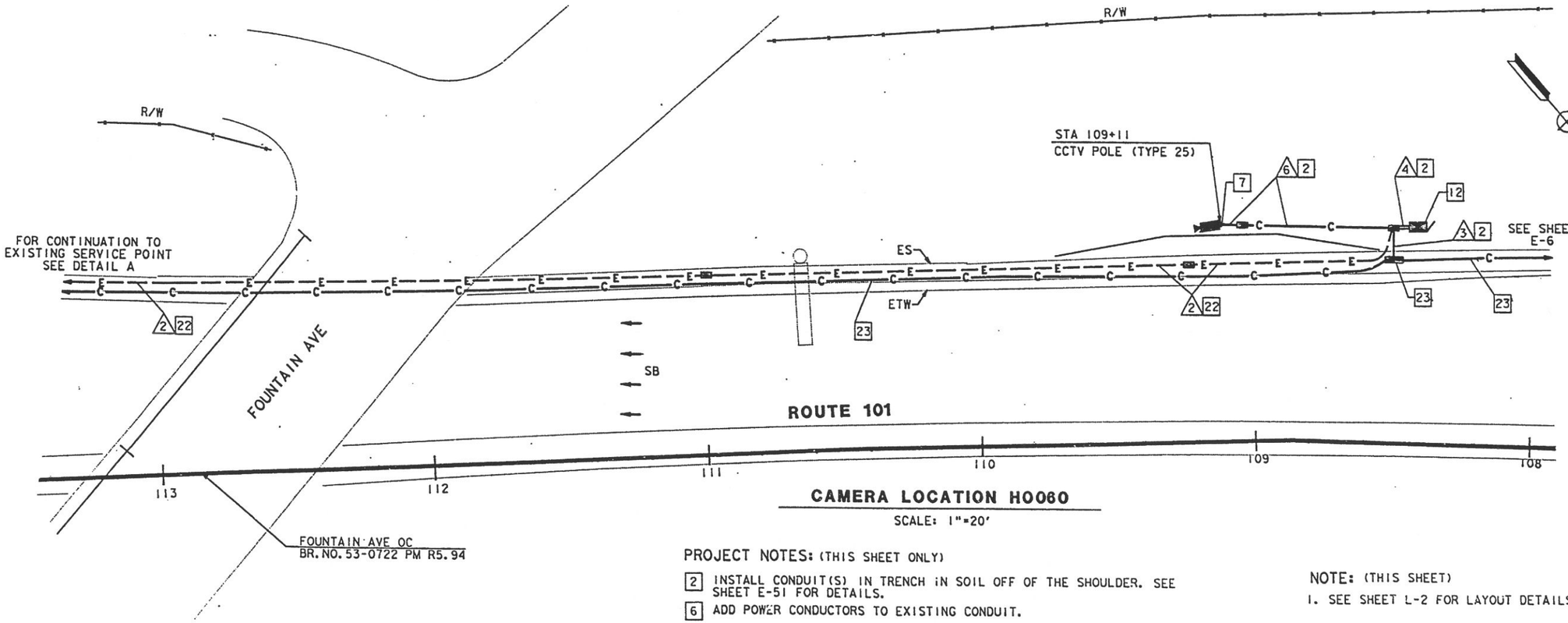
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
		▲	▲	▲	▲	▲
6P22 CABLE	DATA /PHONE		1		1	
2SMFO B/O CABLE	SH VIDEO		1		1	
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1
#6	POWER	2		2		
	INNERDUCT		1 1/4"			
	CONDUIT SIZE	2"	3"	3"	3"	2"

17 EXISTING 120/240V SERVICE
SERVING UTILITY: DWP
ID# TO BE PROVIDED BY THE ENGINEER
ADDRESS: 1260½ ANDREWS ST
EXISTING CIRCUIT BREAKERS:
1-20A, 120V, 1P RAMP METERING
1-20A, 120V, 1P TELEPHONE DEMARCATION



DETAIL A
SCALE: 1"=50



CAMERA LOCATION H0060
SCALE: 1"=20'

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

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

NOTE: (THIS SHEET)
1. SEE SHEET E-2 FOR LAYOUT DETAILS.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION ~~H0060~~)
SCALE: AS NOTED

E-30

DATE	REVISED BY	DATE REVISED
2/95	DM	5/95 ES

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER — PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 — TIME PLOTTED => 23-OCT-1995 12:19

FORM DC-6A-92-PF (REV. 3/88)

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

USERNAME => mikesl
/usr/mikesl/P0/712072u30.dg

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	95	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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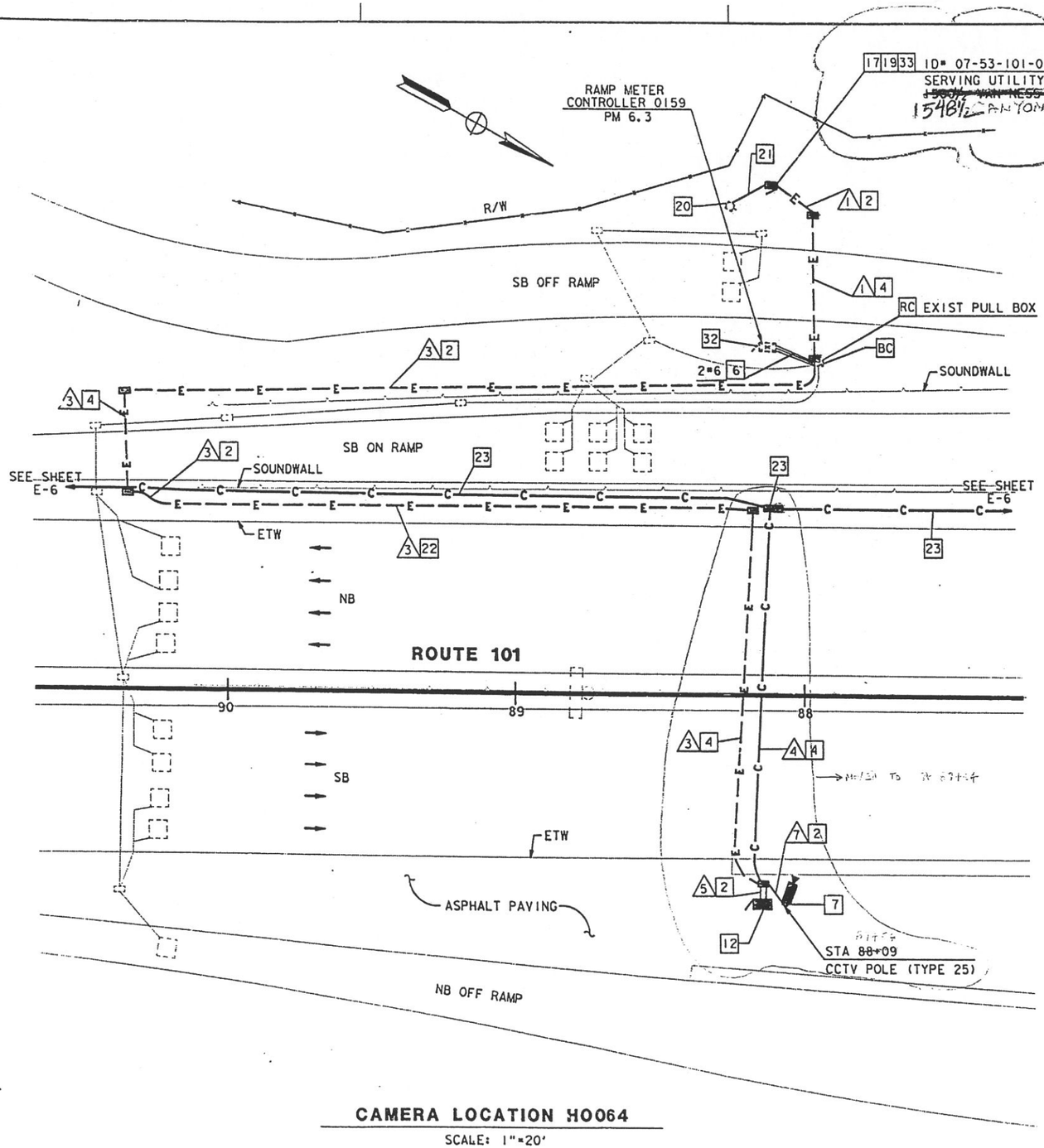

CAMERA LOCATION H0064
SCALE: 1"=20'

NOTE: (THIS SHEET)
1. SEE SHEET L-3 FOR LAYOUT DETAILS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6
6P22 CABLE	DATA /PHONE			1		1	
2SMFO B/O CABLE	SH VIDEO				1	1	
SEE TABLE 1, SHEET E-1	CCTV WIRING					1	1
#6	POWER	4	2		2		
	INNERDUCT			1¼"			
	CONDUIT SIZE	2"	2"	3"	3"	3"	2"

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

PROJECT NOTES: (THIS SHEET ONLY)

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.
6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.
7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.
12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.
17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.
19 INSTALL ON NEW FOUNDATION TYPE III-BF 100A, 120/240V SERVICE WITH A 100A, 240V 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.
22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.
23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.
32 DISCONNECT EXISTING SERVICE WIRES AND CONNECT NEW SERVICE WIRES, ONLY AFTER INSTALLING AND VERIFYING THAT THE NEW SERVICE IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
33 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR EXISTING RAMP METER.

CCTV CAMERA (LOCATION H0064)

SCALE: 1"=20'

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

E-31

REVISED BY	DATE REVISED
DM	2/95
ES	5/95

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 17-OCT-1995 13:23
LAST REVISION 00-00-00

FORM DC-[illegible]-92-EF (REV. 3/89)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => tomd /usr/tomd/P39/712072u31.dgn
CU 07387 EA 120721

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN (2)	(3)	(4)	(9)	(10)	(11)	(12)	(15)*
6P22 CABLE	DATA /PHONE				1				
2SMFO B/O CABLE	SH VIDEO					1			
SEE TABLE 1, SHEET E-1	CCTV WIRING						1		
							1	1	
#6	POWER	2	2			2	2		2
DLC	RAMP/COUNT		2	3		1			1
	INNERDUCT				1¼"				1¼"
	CONDUIT SIZE	2"	2"	2"	3"	2"	3"	2"	4"

* - CONDUIT RUN (14) INCLUDED IN THE QUANTITES FOR PAYMENT ON SHEET E-7

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.
6. ADD POWER CONDUCTORS TO EXISTING CONDUIT.
7. INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.
12. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.
17. INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.
22. INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.
23. THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.
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	96	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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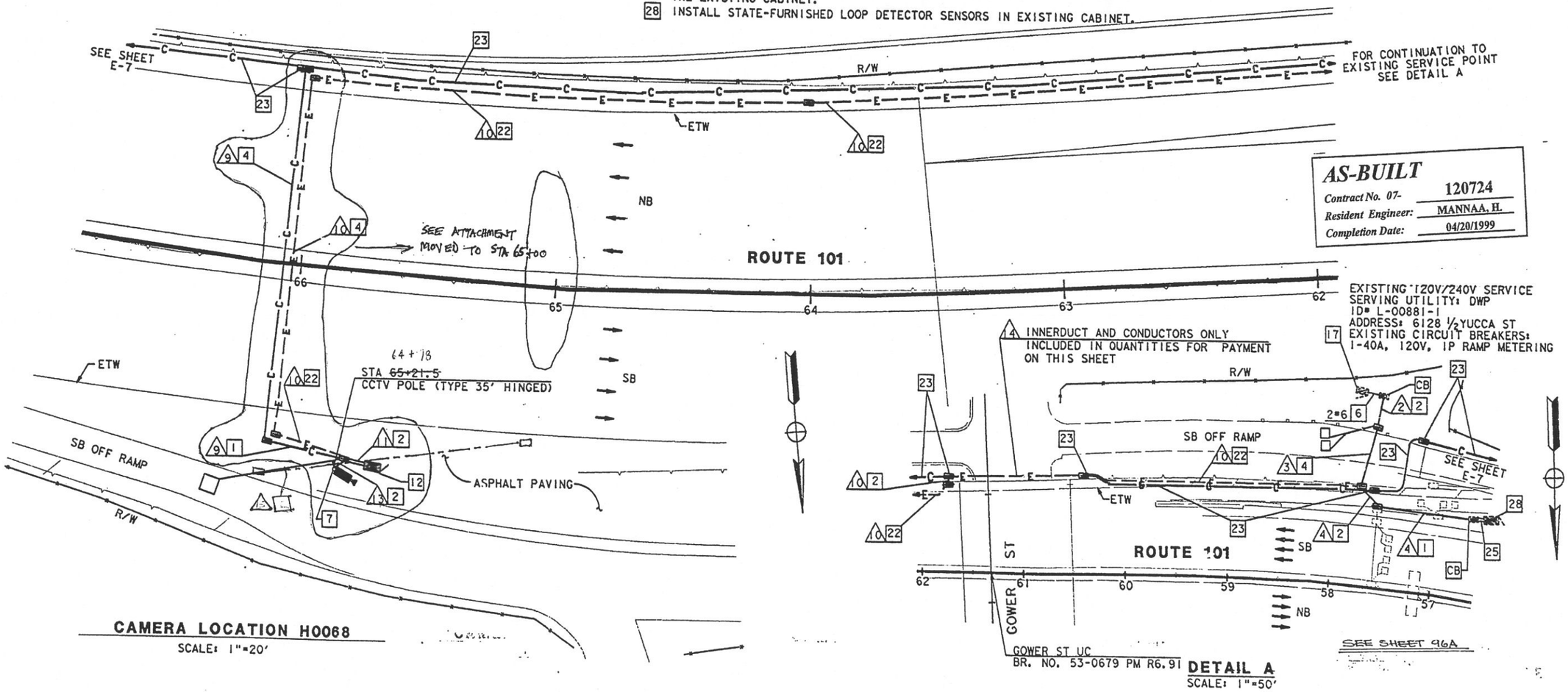

NOTE: (THIS SHEET)
1. SEE SHEET L-3 FOR LAYOUT DETAILS.

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

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION H0068)

AS NOTED

E-32

REVISED BY	DATE	DATE REVISED
DM	2/95	ES 5/95

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 19-OCT-1995 15:37

FORM DC-CE-92-PF (REV. 3/88)

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

USERNAME => mikesi
/usr/mikesi/P0/712072u32.dg

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	97	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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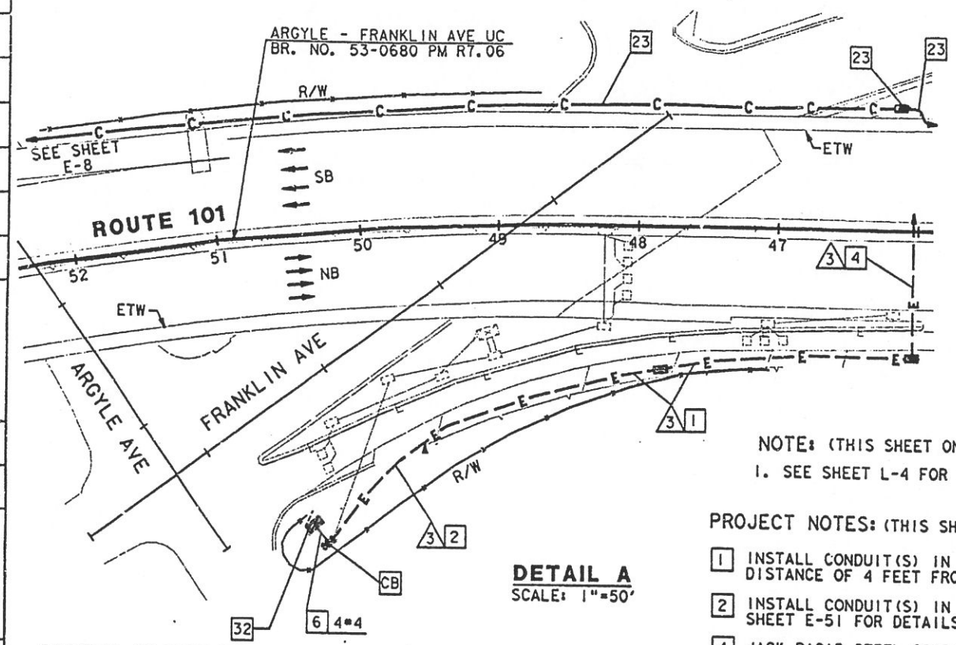


DETAIL A
SCALE: 1"=50'

EXISTING 120/240V SERVICE
SERVING UTILITY: SCE
ID# 07-53-210-029.650
ADDRESS: 1900½N VINE ST
EXISTING CIRCUIT BREAKERS:
1-40A, 120V, IP SIGN LIGHTING
1-20A, 120V, IP TELEPHONE DEMARCATION

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6
50P22 CABLE	DATA /PHONE		2			2	
6P22 CABLE	DATA /PHONE						
12SMFO CABLE	SH VIDEO		2	2			
2SMFO B/O CABLE	SH VIDEO		1	1			
SEE TABLE 1, SHEET E-1	CCTV WIRING			1	1		
FO PATCH CORDS	DATA			2		2	
#4	POWER	4					
	INNERDUCT		1¼"				
	CONDUIT SIZE	2"	4"	3"	2"	3"	

NOTE: (THIS SHEET ONLY)
1. SEE SHEET L-4 FOR LAYOUT DETAILS.

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.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

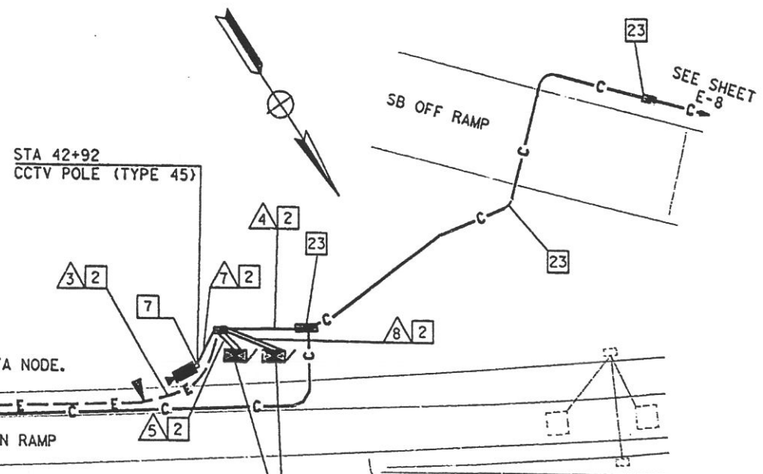
7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

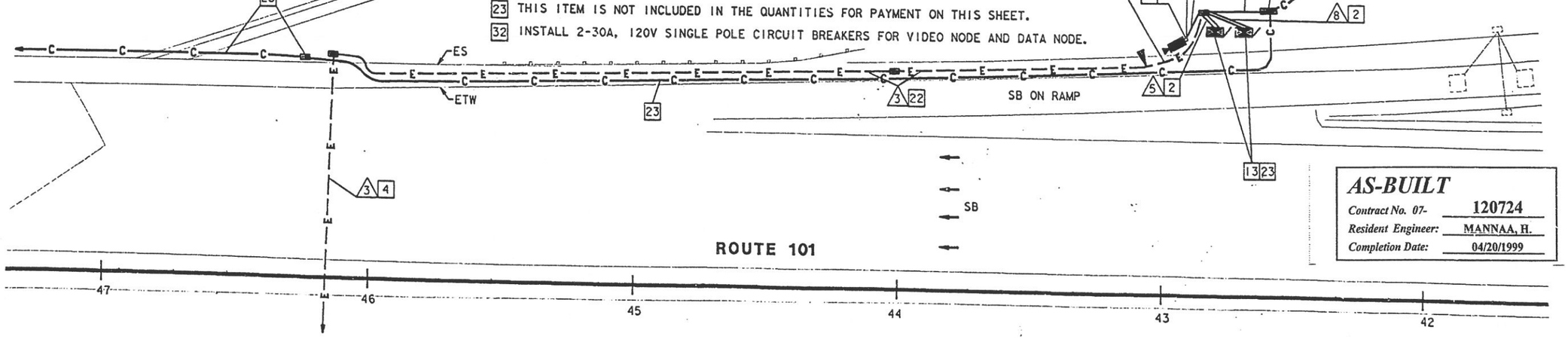
13 INSTALL (2) TYPE 334-TV CABINETS ON NEW FOUNDATIONS. CABINET SHALL INCLUDE EQUIPMENT AT VIDEO AND DATA NODES. SEE DETAIL C, SHEET E-59 AND DETAIL 5, SHEET E-61.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

32 INSTALL 2-30A, 120V SINGLE POLE CIRCUIT BREAKERS FOR VIDEO NODE AND DATA NODE.





CAMERA LOCATION H0073
SCALE: 1"=20'

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA, EQUIPMENT AT DATA NODE AND EQUIPMENT AT VIDEO NODE (LOCATION H0073)

SCALE: AS NOTED

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

E-33

PROJECT ENGINEER: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
DM	2/95	ES	5/95
CHECKED BY			

LAST REVISION 00-00-00 — TIME PLOTTED => 19-OCT-1995 15:37

FORM DOT-E-92-65 REV. 3/88 | FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3 | USERNAME => mikesl /usr/mikesl/P0/712072u33.dg | CU 07387 | EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R7.1	98	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR No. 014922 Exp. 6/30/95 ELECTRICAL — STATE OF CALIFORNIA

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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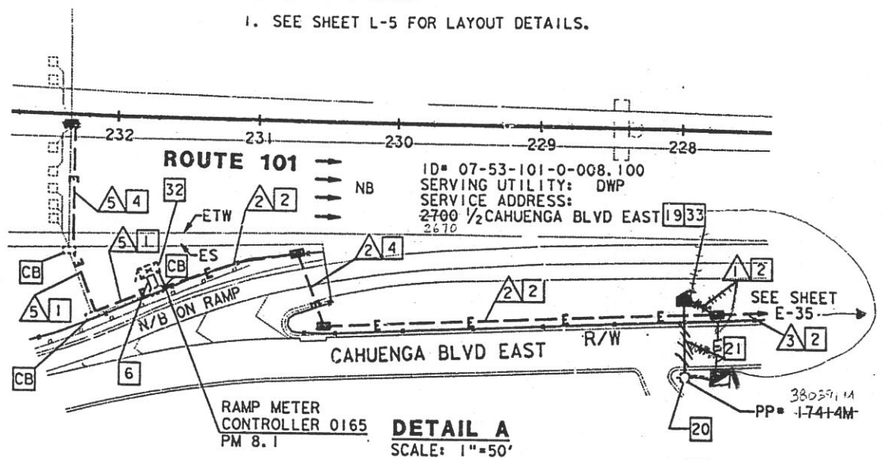
NOTE: (THIS SHEET)

1. SEE SHEET L-5 FOR LAYOUT DETAILS.

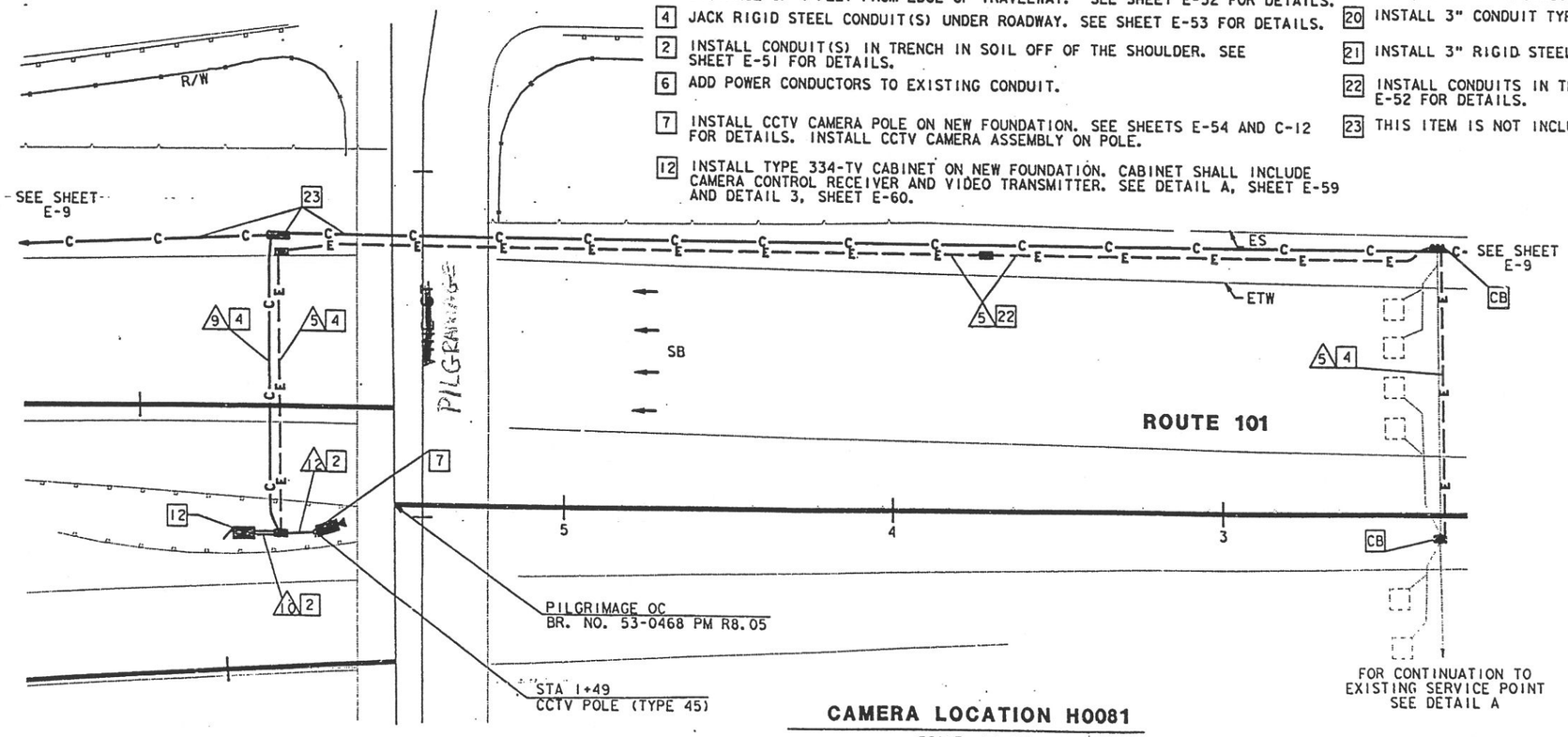


DETAIL A
SCALE: 1"=50'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)										
CONDUCTOR TYPE	FUNCTION	RUN								
		1	2	3	4	5	6	7	8	9
6P22 CABLE	DATA /PHONE					1			1	
2SMFO B/O CABLE	SH VIDEO						1		1	
SEE TABLE 1, SHEET E-1	CCTV WIRING								1	1
#8	POWER	2	2							
#4	POWER	2	2		2			2		
#6	POWER	4		4						
	CONDUIT SIZE	2"	2"	2"	2"	1¼"	1¼"	1¼"	3"	3"	2"

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.
4. JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
6. ADD POWER CONDUCTORS TO EXISTING CONDUIT.
7. INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.
12. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.
19. INSTALL ON NEW FOUNDATION TYPE III-BF 100A, 120/240V SERVICE WITH A 100A, 240V 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.
22. INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.
23. THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.
32. DISCONNECT EXISTING SERVICE WIRES AND CONNECT NEW SERVICE WIRES. ONLY AFTER INSTALLING AND VERIFYING THAT THE NEW SERVICE IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
33. INSTALL 4-30A, 120V, SINGLE PHASE, CIRCUIT BREAKERS FOR CCTV, EXISTING RMS, AND TMS.



CAMERA LOCATION H0081
SCALE: 1"=20'

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

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION H0081)

AS NOTED

E-34

DATE	REVISED BY	DATE	REVISED BY
2/95	DM	5/95	ES

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

XXXXXXXXXXXXXXXXXXXXXXXX
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 10:41

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => annda
/usr/annda/P54/712072u34.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	99	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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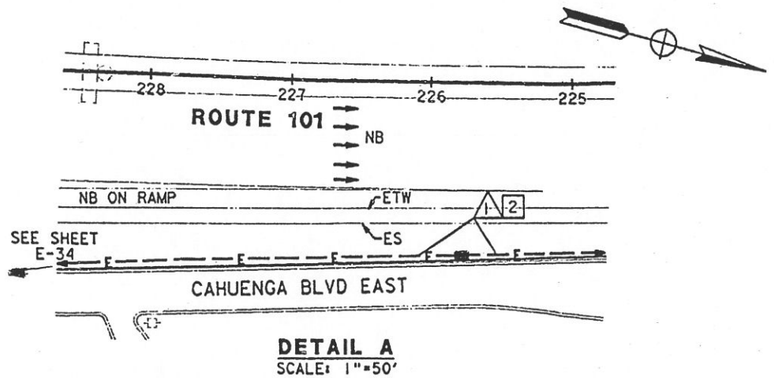


DETAIL A
SCALE: 1"=50'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7
6P22 CABLE	DATA /PHONE		2		1		1	
12SMFO CABLE	SH VIDEO				1			
2SMFO B/O CABLE	SH VIDEO		1		1			
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1		
#6	POWER	4		2				2
	INNERDUCT		1¼"					
	CONDUIT SIZE	2"	3"	3"	3"	2"	2"	2"

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.

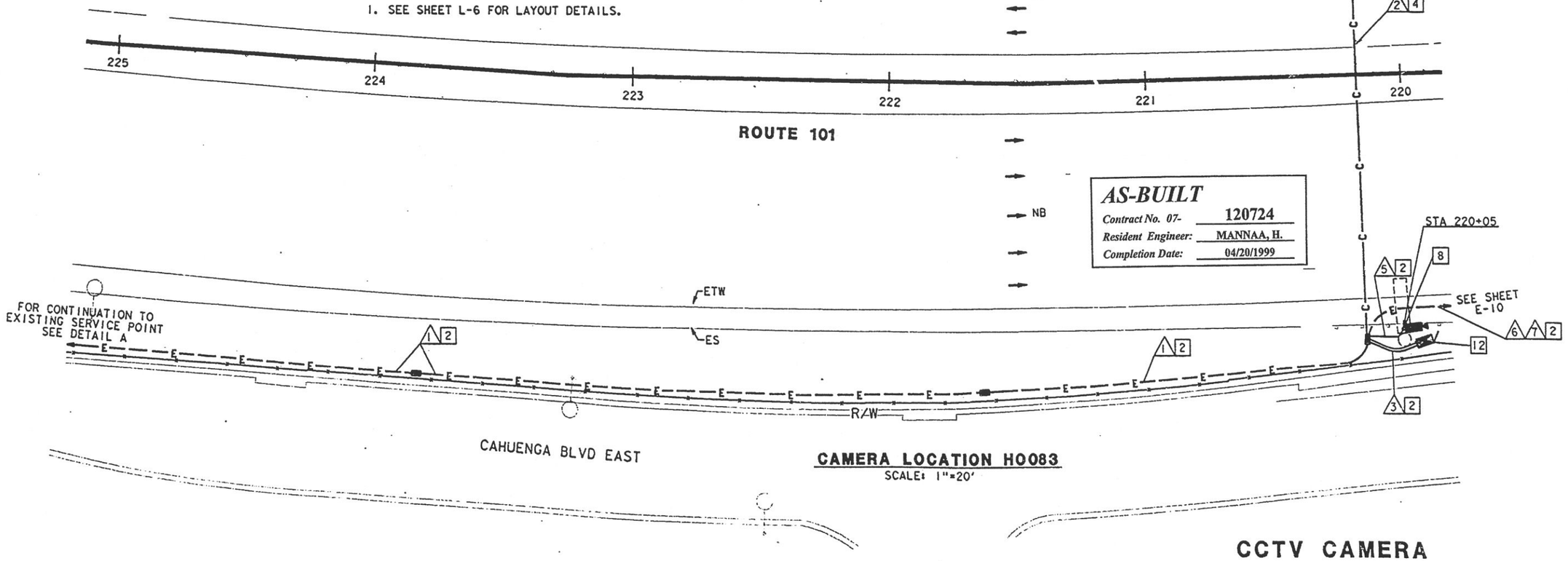
4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.

8 INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

NOTE: (THIS SHEET)
1. SEE SHEET L-6 FOR LAYOUT DETAILS.



CAMERA LOCATION HO083
SCALE: 1"=20'

CCTV CAMERA (LOCATION HO083)

SCALE: AS NOTED

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

E-35

REVISED BY	DATE REVISED
DM	2/95
ES	5/95

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

FHWA DC-OE-92-PE (REV. 3/88)

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

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	100	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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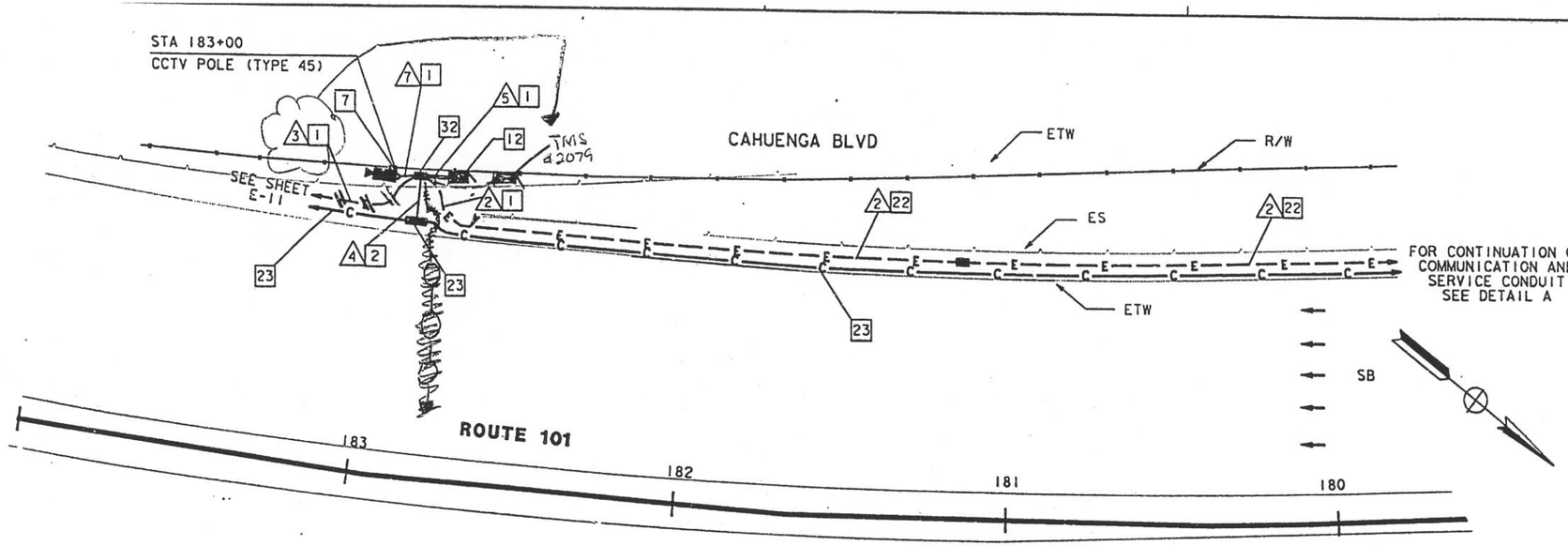


CAMERA LOCATION HO090

SCALE: 1"=20"

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
	FUNCTION	RUN						
		A	A	A	A	A	D	
6P22 CABLE	DATA /PHONE			1			1	
2SMFO B/O CABLE	SH VIDEO				1		1	
SEE TABLE I, SHEET E-1	CCTV WIRING						1	1
#6	POWER	2				2		
#4	POWER	2	2					1
	INNERDUCT			1¼"				
	CONDUIT SIZE	2"	2"	3"	3"	3"	2"	

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.

[6] ADD POWER CONDUCTORS TO EXISTING CONDUIT.

[7] INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

[12] INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

[22] INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

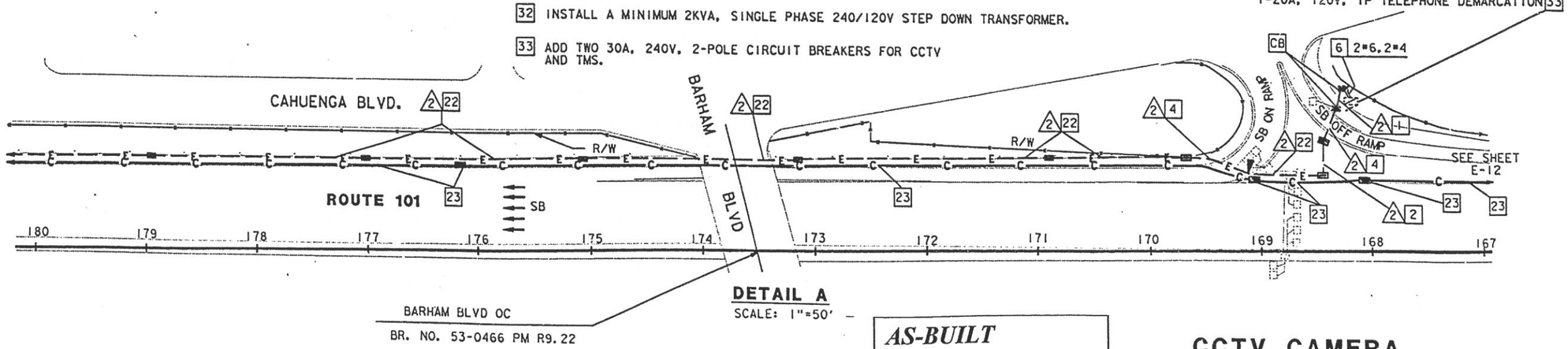
[23] THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

[32] INSTALL A MINIMUM 2KVA, SINGLE PHASE 240/120V STEP DOWN TRANSFORMER.

[33] ADD TWO 30A, 240V, 2-POLE CIRCUIT BREAKERS FOR CCTV AND TMS.

NOTE: (THIS SHEET ONLY)
1. SEE SHEET L-6 FOR LAYOUT DETAILS.

EXISTING 120/240V SERVICE
SERVING UTILITY: DWP
ID# 712086
ADDRESS: 3216½ BARHAM BLVD
EXISTING CIRCUIT BREAKERS:
1-40A, 120V, IP RAMP METER
1-40A, 120V, IP RAMP METER
1-20A, 120V, IP TELEPHONE DEMARCATION [33]



BARHAM BLVD OC
BR. NO. 53-0466 PM R9.22

DETAIL A

SCALE: 1"=50'

AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hasan Maman
Completion Date: 04/20/1999

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

CCTV CAMERA (LOCATION HO090)

SCALE: AS NOTED

E-36

CALCULATED/DESIGNED BY: DM
CHECKED BY: ES
DATE REVISED: 5/95
REVISED BY: DATE 2/95
PROJECT ENGINEER: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
XXXXXXXXXXXXXXXXXXXXXXXXXXXX
LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 10:52

FORM DC-OE-32-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
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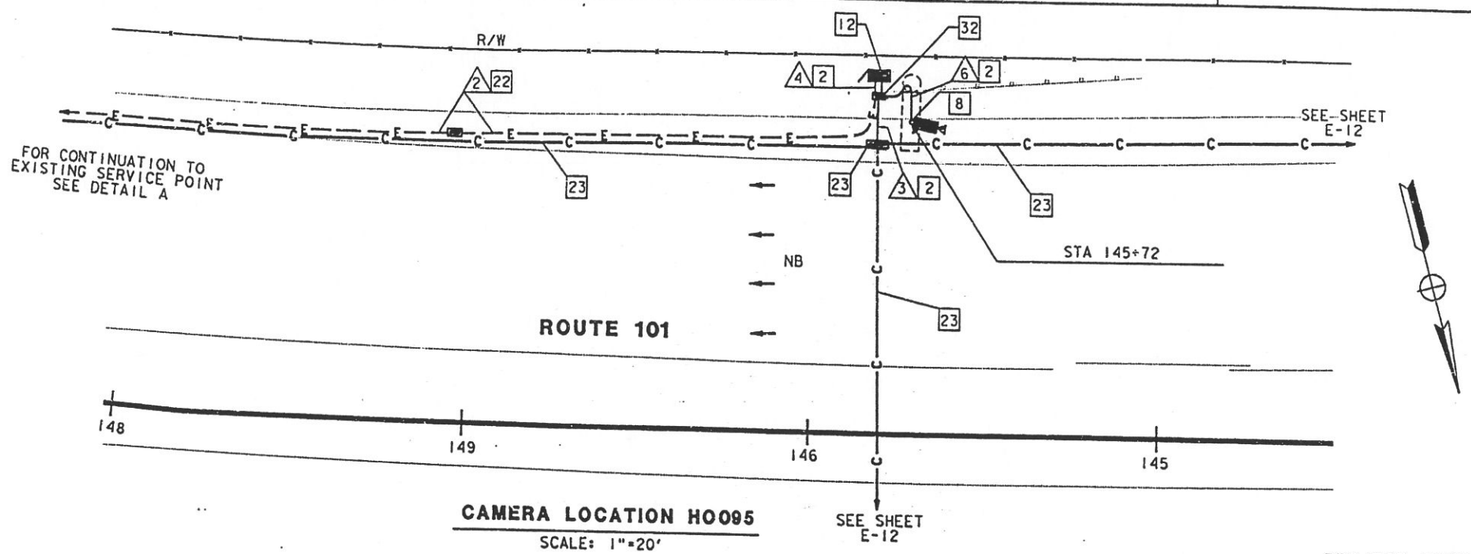
DGN FILE => /usr/mikesl/PO/712072u36.dg
CU 07387
EA 120721



CAMERA LOCATION HO095

SCALE: 1"=20'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN					
		▲	▲		▲	▲	
6P22 CABLE	DATA /PHONE		1		1		
12SMFO CABLE	SH VIDEO						
2SMFO B/O CABLE	SH VIDEO			1	1		
SEE TABLE 1, SHEET E-1	CCTV WIRING				1		1
#6	POWER	2				2	
	INNERDUCT			1 1/4"			
	CONDUIT SIZE	2"	3"	3"	3"	2"	

PROJECT NOTES (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

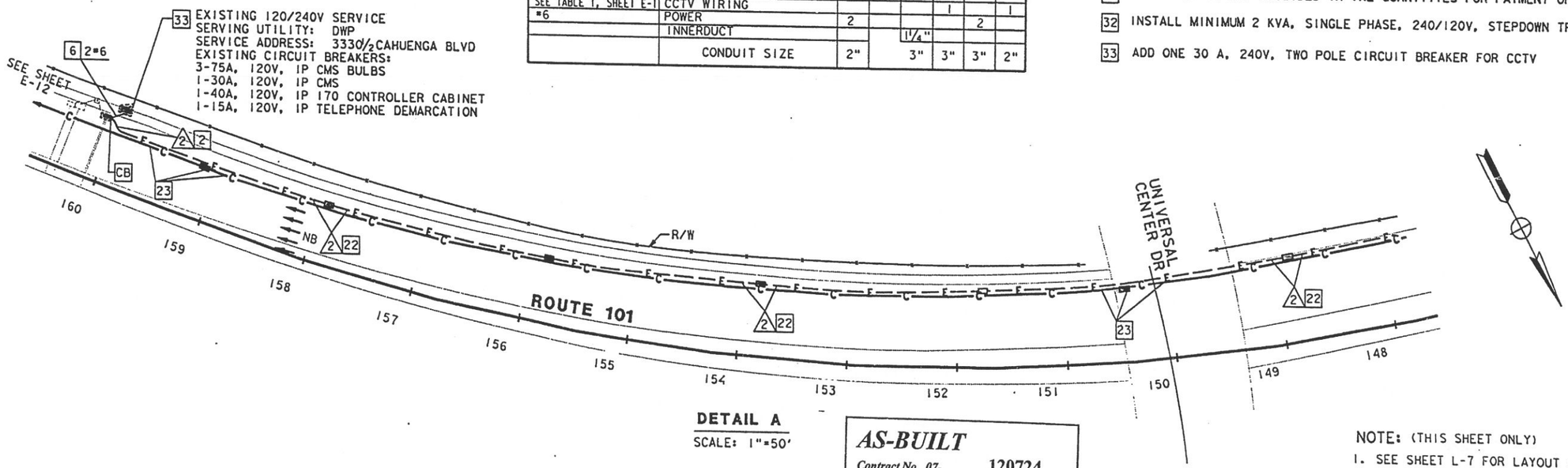
8 INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

32 INSTALL MINIMUM 2 KVA, SINGLE PHASE, 240/120V, STEPDOWN TRANSFORMER

33 ADD ONE 30 A, 240V, TWO POLE CIRCUIT BREAKER FOR CCTV



DETAIL A

SCALE: 1"=50'

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

NOTE: (THIS SHEET ONLY)
1. SEE SHEET L-7 FOR LAYOUT DETAILS.

CCTV CAMERA (LOCATION HO095)

AS NOTED

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

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

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
2/95	DM		ES
5/95	DATE REVISED		

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => mikes1
/usr/mikes1/PO/712072u37.dg

CU 07387 EA 120721

LAST REVISION 00-00-00 TIME PLOTTED => 17-OCT-1995 10:37

E-37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	102	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ELIA G. SAGHIR No. 014922 Exp. 6/30/95 ELECTRICAL STATE OF CALIFORNIA

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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CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5
6P22 CABLE	DATA /PHONE		1		1	
12SMFO CABLE	SH VIDEO					
2SMFO B/O CABLE	SH VIDEO			1	1	
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1
#6	POWER	2			2	
	INNERDUCT			1¼"		
	CONDUIT SIZE	2"	3"	3"	3"	2"

NOTE: (THIS SHEET)

1. SEE SHEET L-7 FOR LAYOUT DETAILS.

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

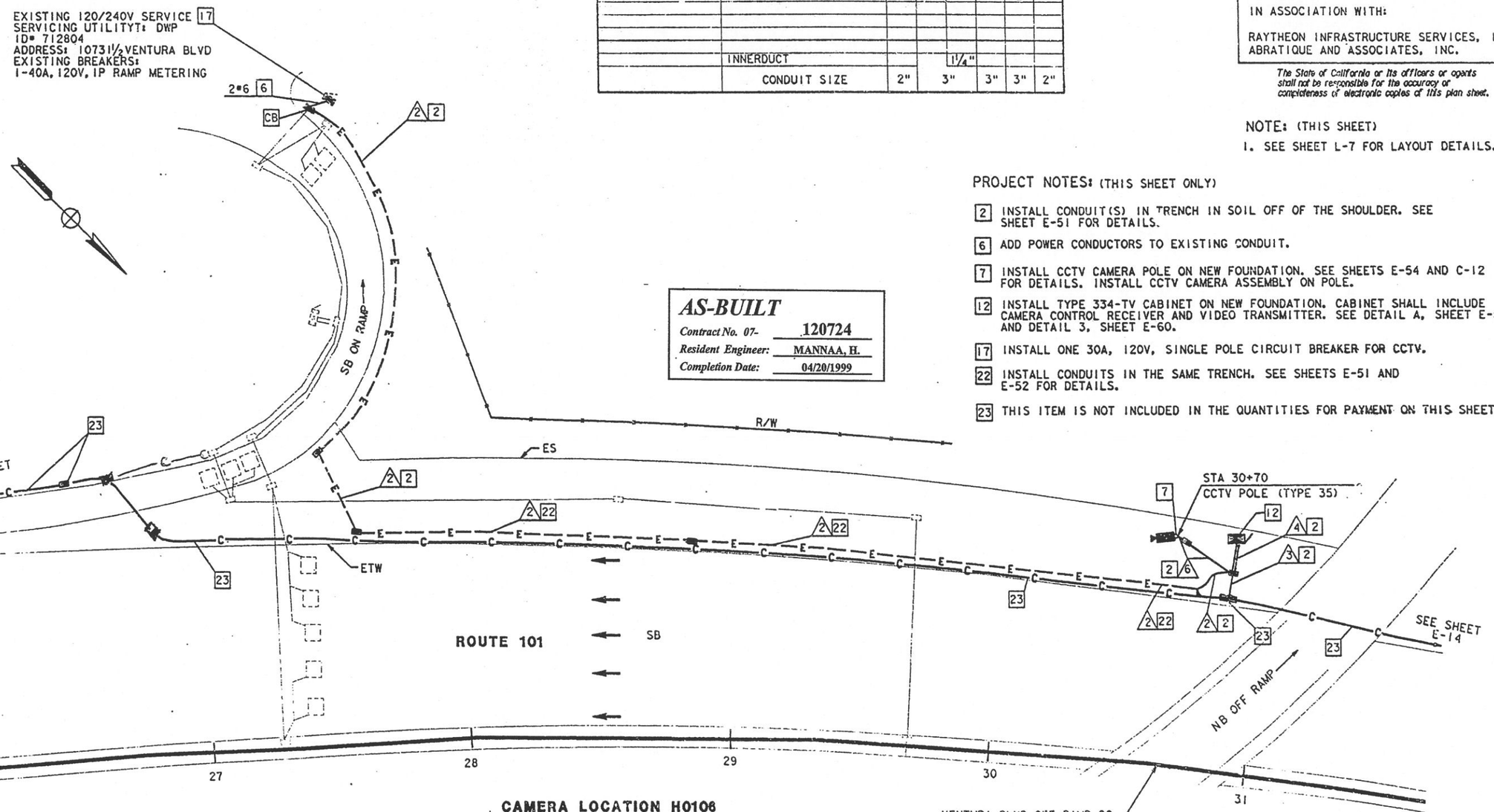
12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999



CAMERA LOCATION H0106
SCALE 1"=20'

CCTV CAMERA (LOCATION H0106)

SCALE: 1"=20'

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

E-38

CALCULATED/ DESIGNED BY	DM	DATE 2/95	REVISED BY
CHECKED BY	ES	5/95	DATE REVISED

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

TIME PLOTTED => 19-OCT-1995 15:38

LAST REVISION 00-00-00

FORM DC-CT-92-PF (REV. 3/88)

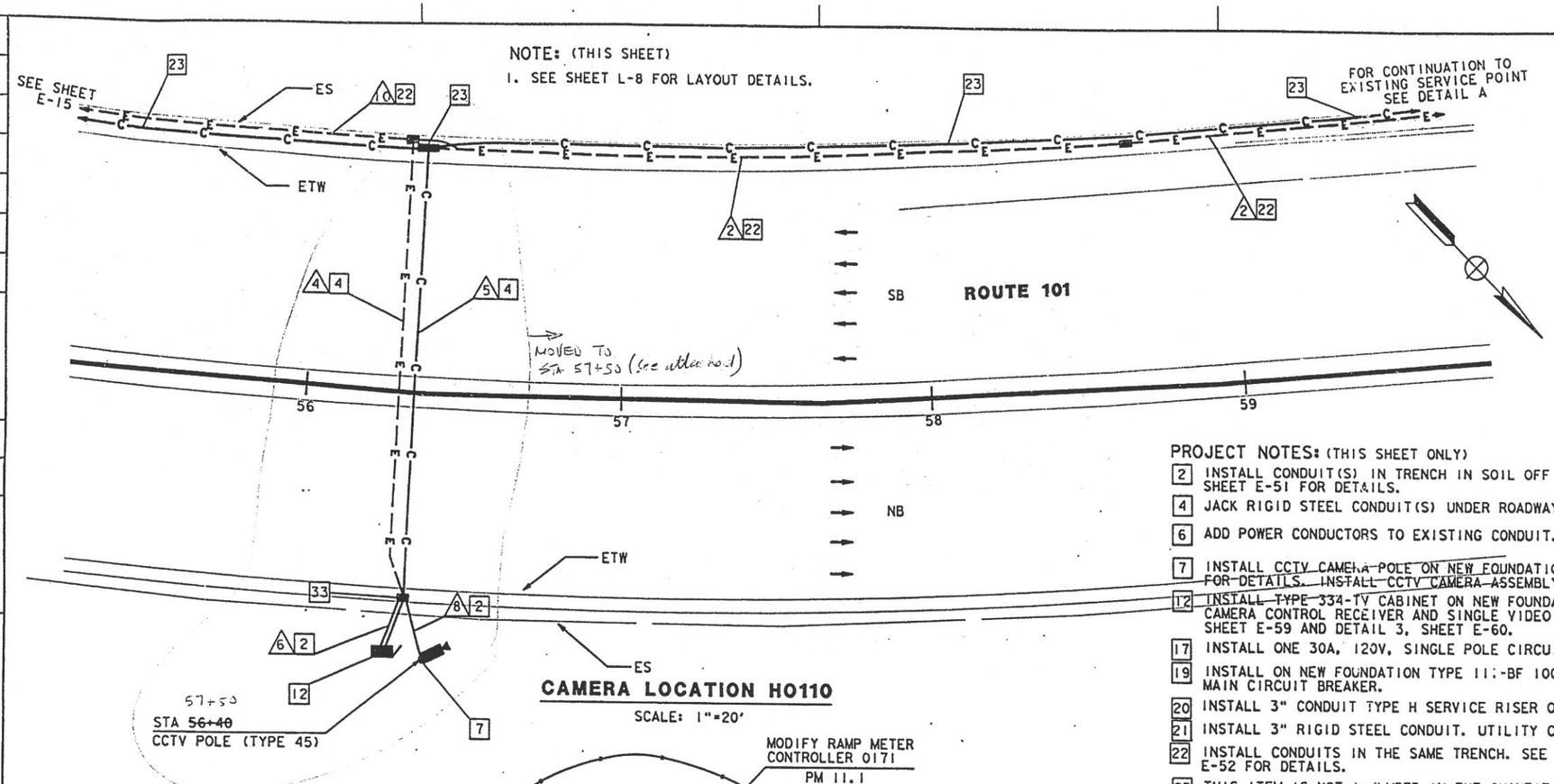
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USERNAME => mikesl /usr/mikesl/P0/712072u38.dg

CU 07387

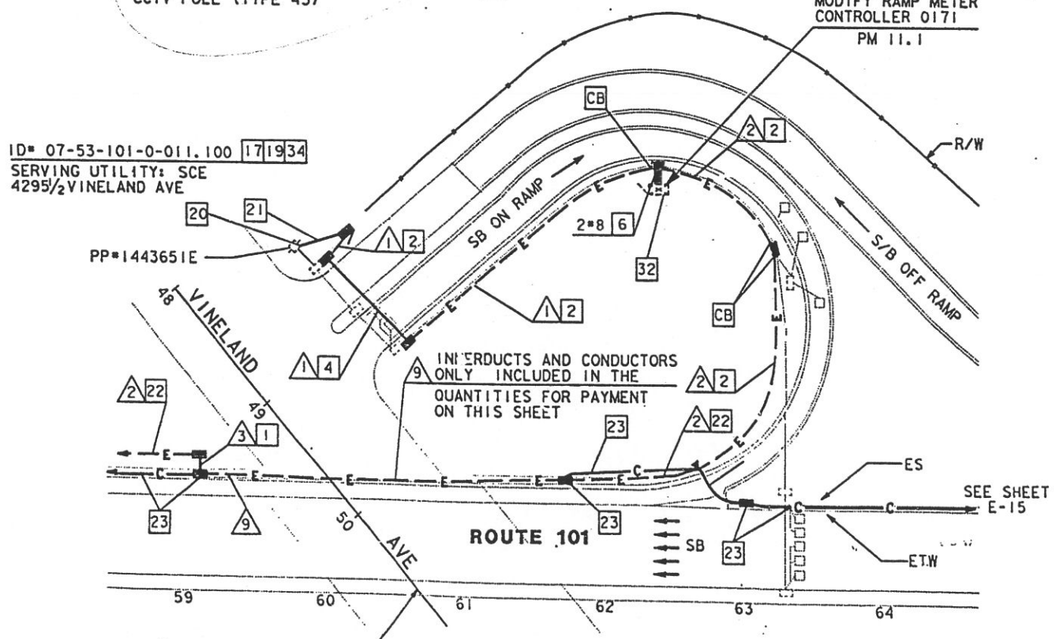
EA 120721

NOTE: (THIS SHEET)
1. SEE SHEET L-8 FOR LAYOUT DETAILS.



CAMERA LOCATION H0110

SCALE: 1"=20'



DETAIL A

SCALE: 1"=50'

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	103	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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)

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.
6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.
7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.
12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND SINGLE VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.
17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR RMS.
19 INSTALL ON NEW FOUNDATION TYPE 11-BF 100A, 120/240V SERVICE WITH A 100A, 240V 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.
22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.
23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.
32 DISCONNECT EXISTING SERVICE WIRES, ONLY AFTER INSTALLING AND VERIFYING THE NEW SERVICE IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
33 INSTALL A MINIMUM 2 KVA, SINGLE PHASE 240/120V STEP DOWN TRANSFORMER.
34 INSTALL TWO 30A, 240V (RATED 250V) TWO POLE CIRCUIT BREAKERS FOR CCTV AND TMS.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8	9*	10
6P22 CABLE	DATA /PHONE					1	1				
2SMFO B/O CABLE	SM VIDEO					1	1				
SEE TABLE 1, SHEET E-1	CCTV WIRING						1		1		
#8	POWER	2									
#6	POWER	2	2	2	2			2			2
#6	POWER										
#4	POWER	2	2	2						2	2
	INNERDUCT			1¼"		1¼"				1¼"	1¼"	1¼"
	CONDUIT SIZE	2"	2"	3"	2"	3"	3"	3"	2"	4"		2"

* - CONDUIT RUN 9 INCLUDED IN THE QUANTITIES FOR PAYMENT ON SHEET E-15

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

SEE SHEET 103A

CCTV CAMERA (LOCATION H0110)

SCALE: AS NOTED

E-39

REVISED BY	DATE REVISED
DM	2/95
ES	5/95

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER
PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 17-OCT-1995 14:31
LAST REVISION 00-00-00

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl /usr/mikesl/PO/712072u39.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	104	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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.

NOTE: (THIS SHEET)

1. SEE SHEET L-8 FOR LAYOUT DETAILS.

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.

8 INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

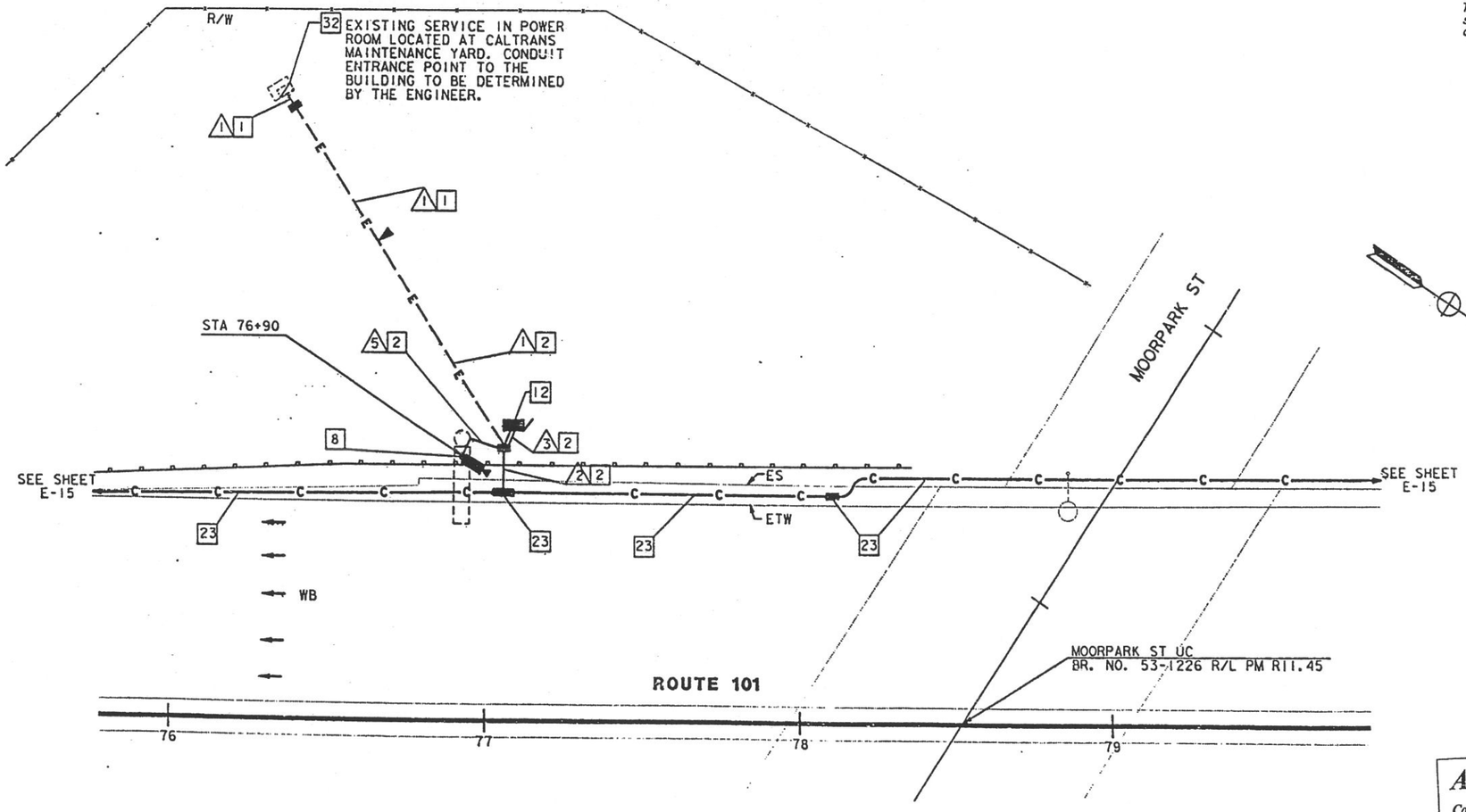
12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

32 ADD ONE 30A, 120V SINGLE POLE CIRCUIT BREAKER FOR CCTV.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5
6P22 CABLE	DATA /PHONE		1		1	
2SMFO D/O CABLE	SH VIDEO			1	1	
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1
*8	POWER	2		2		
	INNERDUCT		1¼"			
	CONDUIT SIZE	2"	3"	3"	3"	2"



CAMERA LOCATION VE114
SCALE: 1"=20'

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION HO114)

SCALE: 1"=20'

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

E-40

DATE	REVISED BY
2/95	DM
5/95	ES

DATE REVISED

CALCULATED/DESIGNED BY

CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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LAST REVISION 00-00-00

TIME PLOTTED => 17-OCT-1995 14:31

FORM DC-CE-92-PF (REV. 3/88)

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

USERNAME => mikesl
/usr/mikesl/PO/712072u40.dg

CU 07387

EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	105	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR No. 014922 Exp. 6/30/95 ELECTRICAL — STATE OF CALIFORNIA

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)

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.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

8 INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

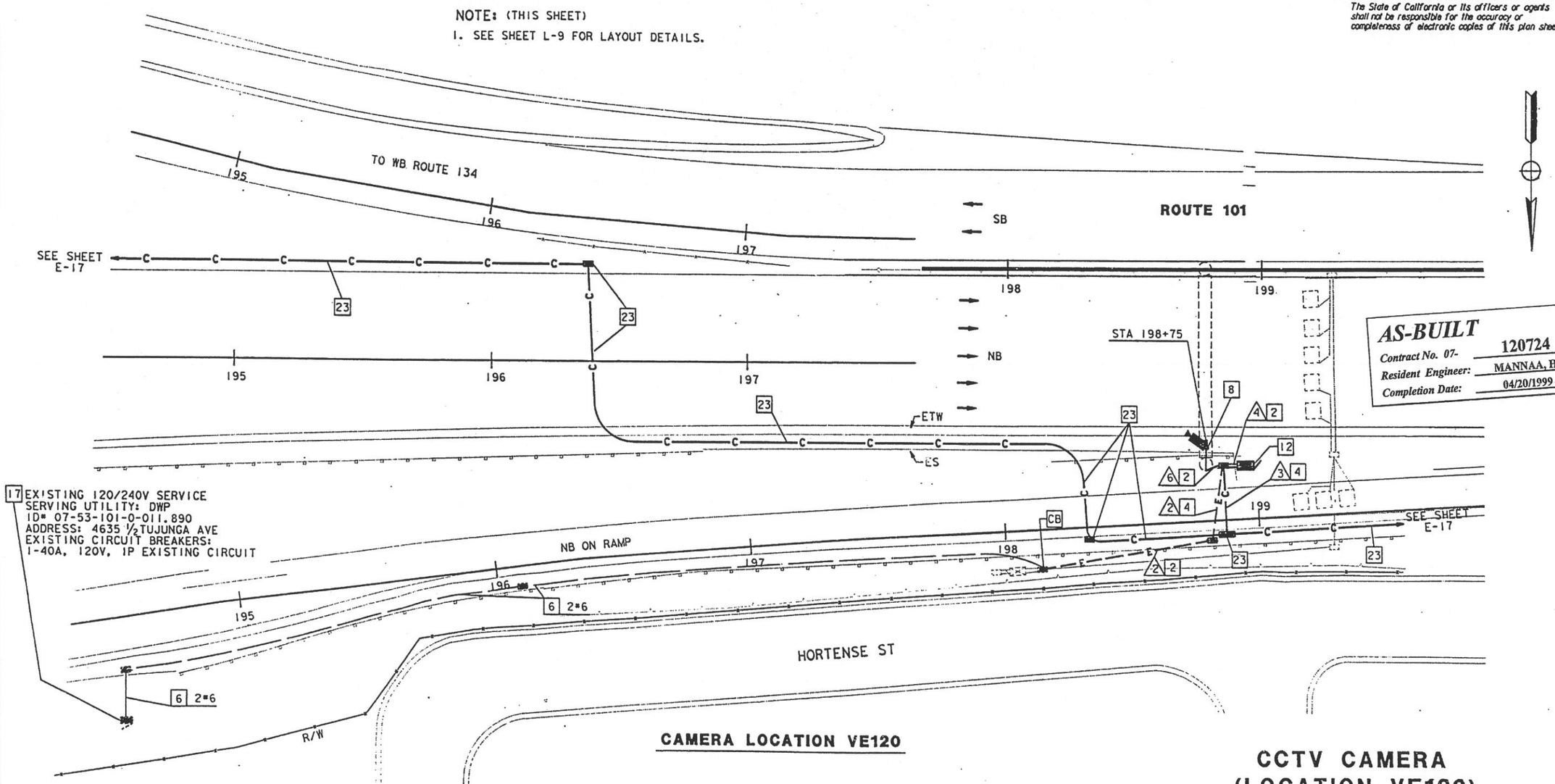
17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN ①	RUN ②	RUN ③	RUN ④	RUN ⑤
6P22 CABLE	DATA /PHONE		1		1	
2SMFO B/O CABLE	SH VIDEO		1		1	
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1
#6	POWER	2		2		
	INNERDUCT		1¼"			
	CONDUIT SIZE	2"	3"	3"	3"	2"

NOTE: (THIS SHEET)
1. SEE SHEET L-9 FOR LAYOUT DETAILS.



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CAMERA LOCATION VE120

CCTV CAMERA (LOCATION VE120)

SCALE: 1"=20'

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

E-41

REVISED BY	DATE REVISED
DM	ES
DATE 2/95	5/95
CALCULATED/ DESIGNED BY	CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 14:31

FORM DC-CE-92-FF (REV. 3/88)

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

USERNAME => mikes1
/usr/mikes1/P0/712072u41.dg

CU 07387

EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	106	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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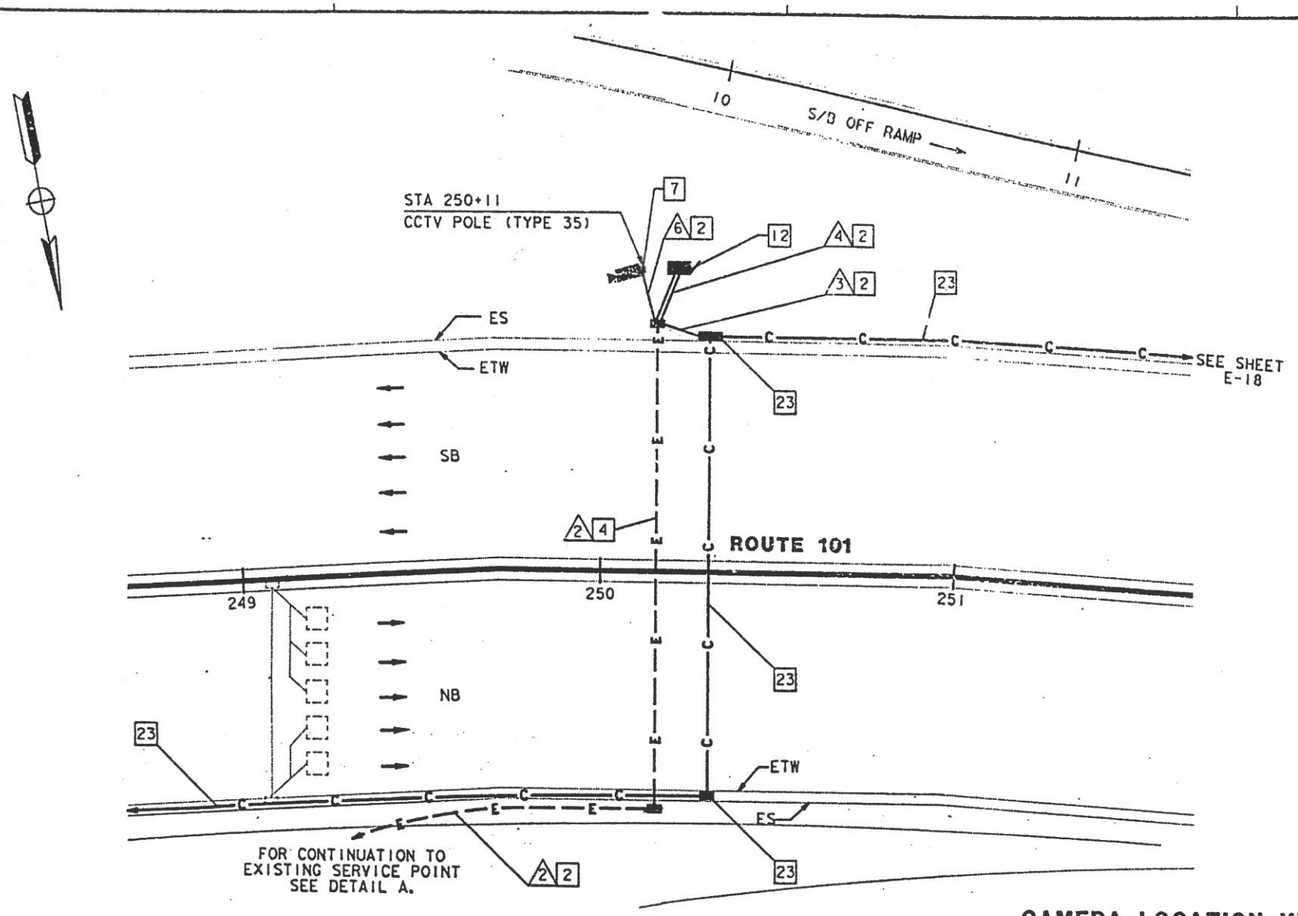
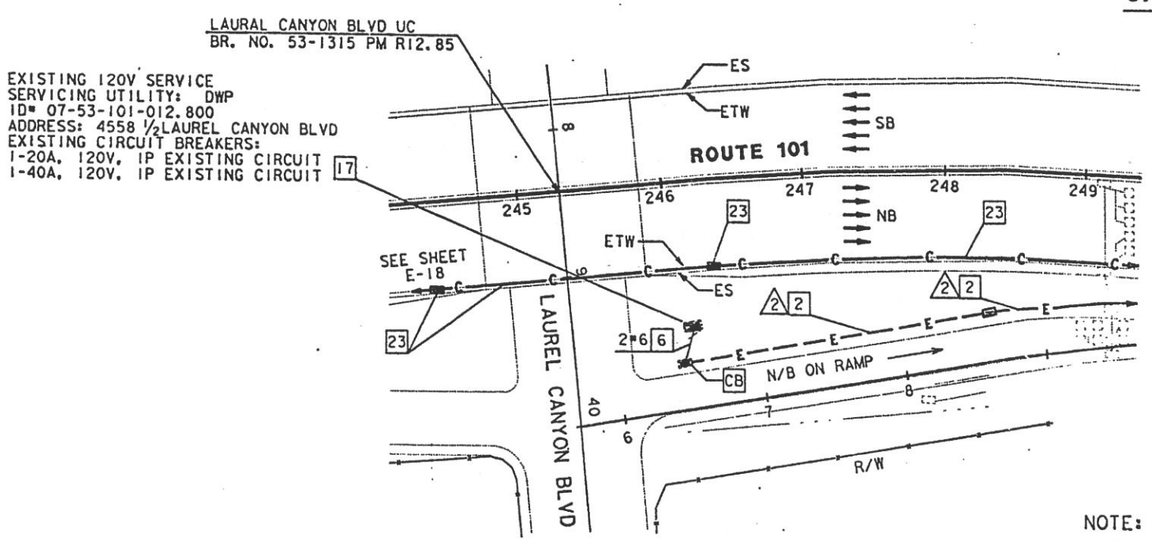


CAMERA LOCATION VE129

SCALE: 1"=20'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6
6P22 CABLE	DATA /PHONE		1		1	
2SMFO B/O CABLE	SH VIDEO			1	1	
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1
#6	POWER	2			2	
	INNERDUCT		1¼"			
	CONDUIT SIZE	2"	3"	3"	3"	2"



DETAIL A

SCALE: 1"=50'

PROJECT NOTES: (THIS SHEET ONLY)

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.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

NOTE: (THIS SHEET)
1. SEE SHEET L-9 FOR LAYOUT DETAILS.

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

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION VE129)

SCALE: AS NOTED

E-42

DATE	REVISED BY	DATE REVISED
2/95	DM	5/95 ES

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER
PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

TIME PLOTTED => 17-OCT-1995 12:56
LAST REVISION 00-00-00

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => trmorlak /usr/trmorlak/P2/712072u42.
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	107	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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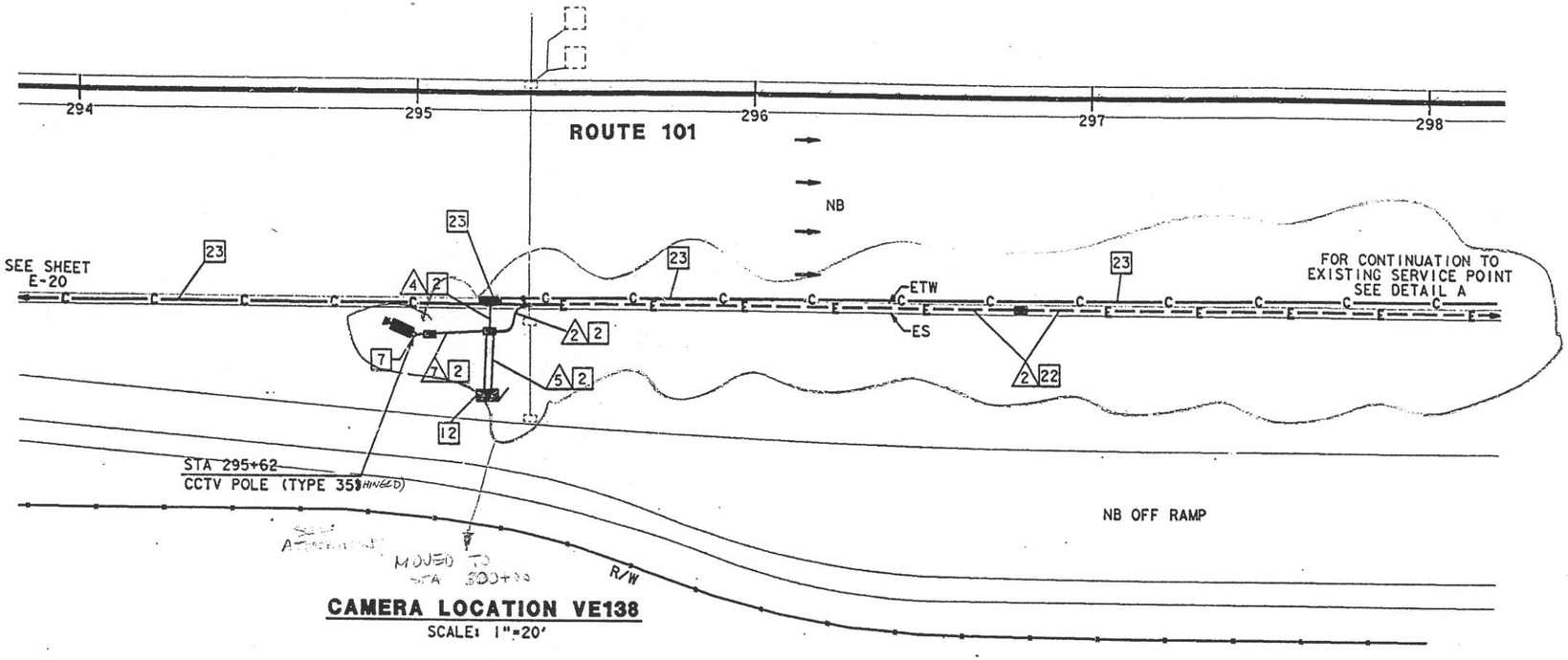
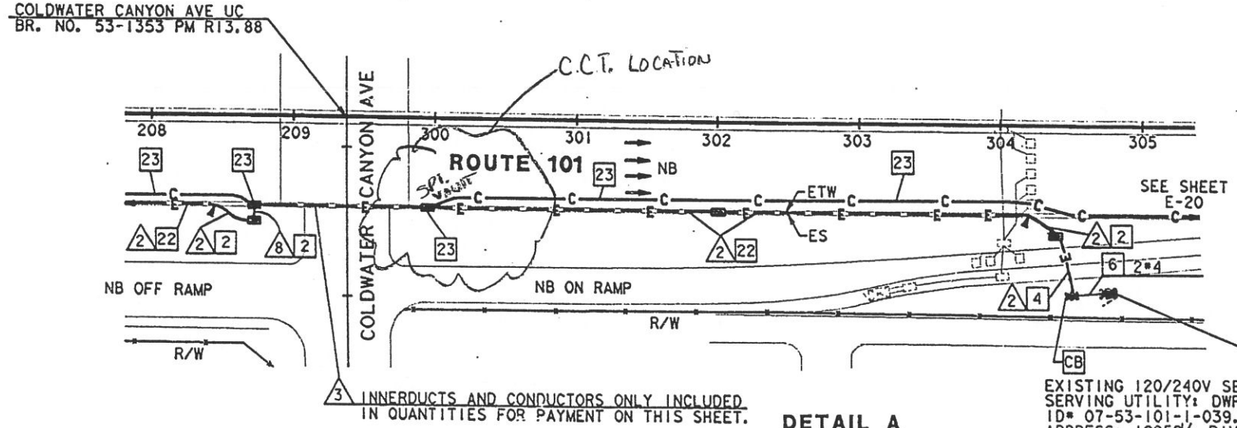


CAMERA LOCATION VE138
SCALE: 1"=20'



3 INNERDUCTS AND CONDUCTORS ONLY INCLUDED IN QUANTITIES FOR PAYMENT ON THIS SHEET.

DETAIL A
SCALE: 1"=50'

EXISTING 120/240V SERVICE 17
SERVING UTILITY: DWP
ID# 07-53-101-1-039.820
ADDRESS: 12952½ RIVERSIDE DR
EXISTING CIRCUIT BREAKERS:
1-30A, 240V, 2P SIGN LIGHTING
1-20A, 120V, IP RAMP METER

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)									
CONDUCTOR TYPE	FUNCTION	RUN							
		▲	▲*		▲	▲		▲	▲
6P22 CABLE	DATA /PHONE				1		1		
2SMFO B/O CABLE	SH VIDEO					1	1		
SEE TABLE 1, SHEET E-1	CCTV WIRING						1		1
#4	POWER	2		2				2		2
	INNERDUCT		1¼"	1¼"	1¼"		1¼"			1¼"
	CONDUIT SIZE	2"	4"		3"	3"	3"	2"	2"

* - CONDUIT RUN ▲3 INCLUDED IN THE QUANTITIES FOR PAYMENT ON SHEET E-20

PROJECT NOTES: (THIS SHEET ONLY)

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.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

SEE SHEET 107A

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

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION VE138)

SCALE: AS NOTED

E-43

DATE	REVISED BY	DATE REVISED
2/95	DM	
5/95	ES	

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 19-OCT-1995 15:39

FORM DC-OE-92-PE (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesi /usr/mikesi/PO/712072u43.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	108	154

Elia G. Sachir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEERS — ELIA G. SACHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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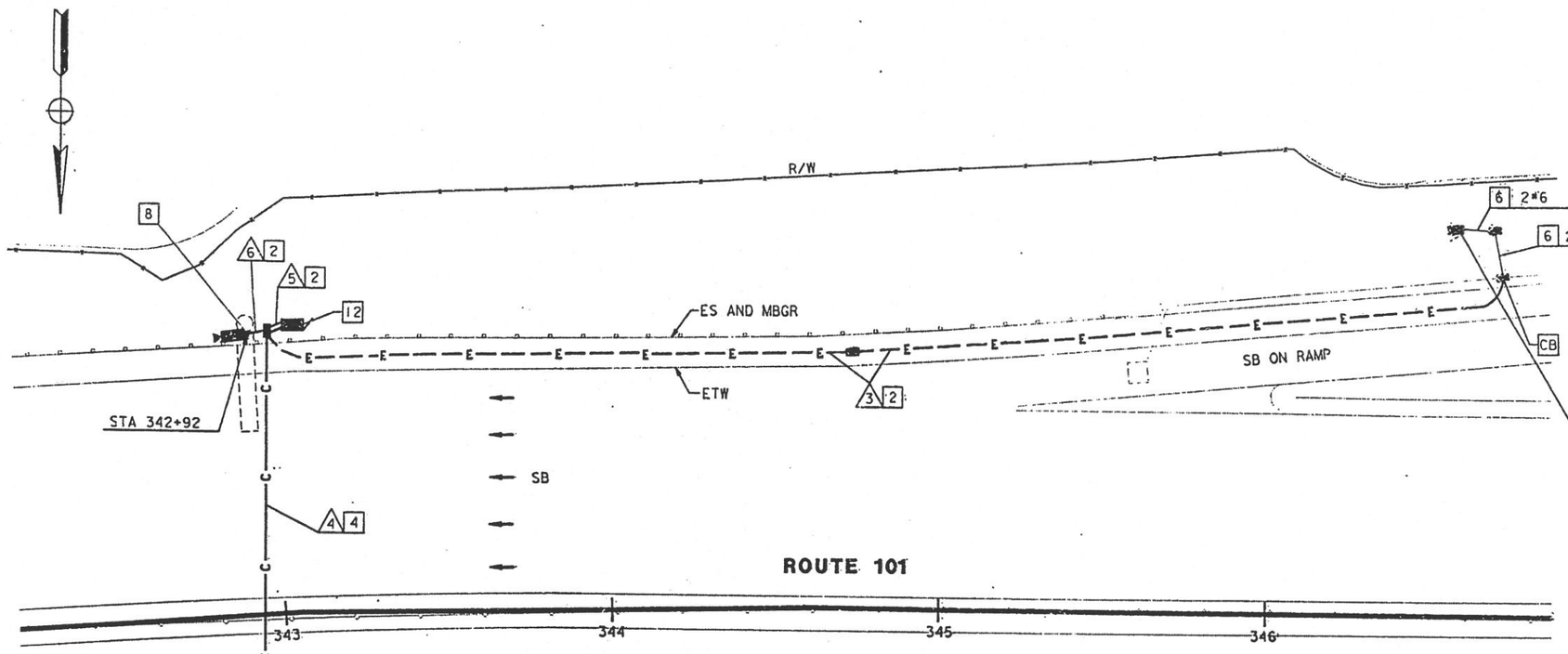
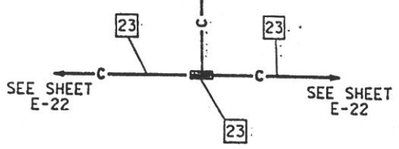


17 EXISTING 120/240V SERVICE
SERVICING UTILITY: DWP
ID# 53-101-014.781
ADDRESS: 4635½ BUFFALO AVE
EXISTING CIRCUIT BREAKERS:
1-30A, 240V, 2P SIGN LIGHTING
1-20A, 120V, 1P RAMP METER
1-20A, 120V, 1P TELEPHONE DEMARCATION CABINET

NOTE: (THIS SHEET)
1. SEE SHEET L-10 FOR LAYOUT DETAILS.

CAMERA LOCATION VE147

SCALE: 1"=20'



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN (A)	RUN (A)	RUN (B)	RUN (B)	RUN (B)
6P22 CABLE	DATA /PHONE		1		1	
2SMFO B/O CABLE	SM VIDEO			1	1	
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1
#6		2				2
	INNERDUCT			1¼"		
	CONDUIT SIZE	2"	3"	3"	3"	2"

PROJECT NOTES (THIS SHEET ONLY):

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.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

8 INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION VE147)

SCALE: 1"=20'

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

E-44

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

TIME PLOTTED => 17-OCT-1995 12:56
00:00:00:00

FORM DC-[illegible]-32545 (REV. 3288)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0" 1" 2" 3"
USERNAME => tmartin /usr/tmartin/07/2/120724/u45
CU 07387
EA 120724

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	109	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ELIA G. SAGHIR No. 014922 Exp. 6/30/95 ELECTRICAL STATE OF CALIFORNIA

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)

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.

8 INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

19 INSTALL ON NEW FOUNDATION TYPE III-BF 100A, 120/240V SERVICE WITH A 100A, 240V MAIN CIRCUIT BREAKER.

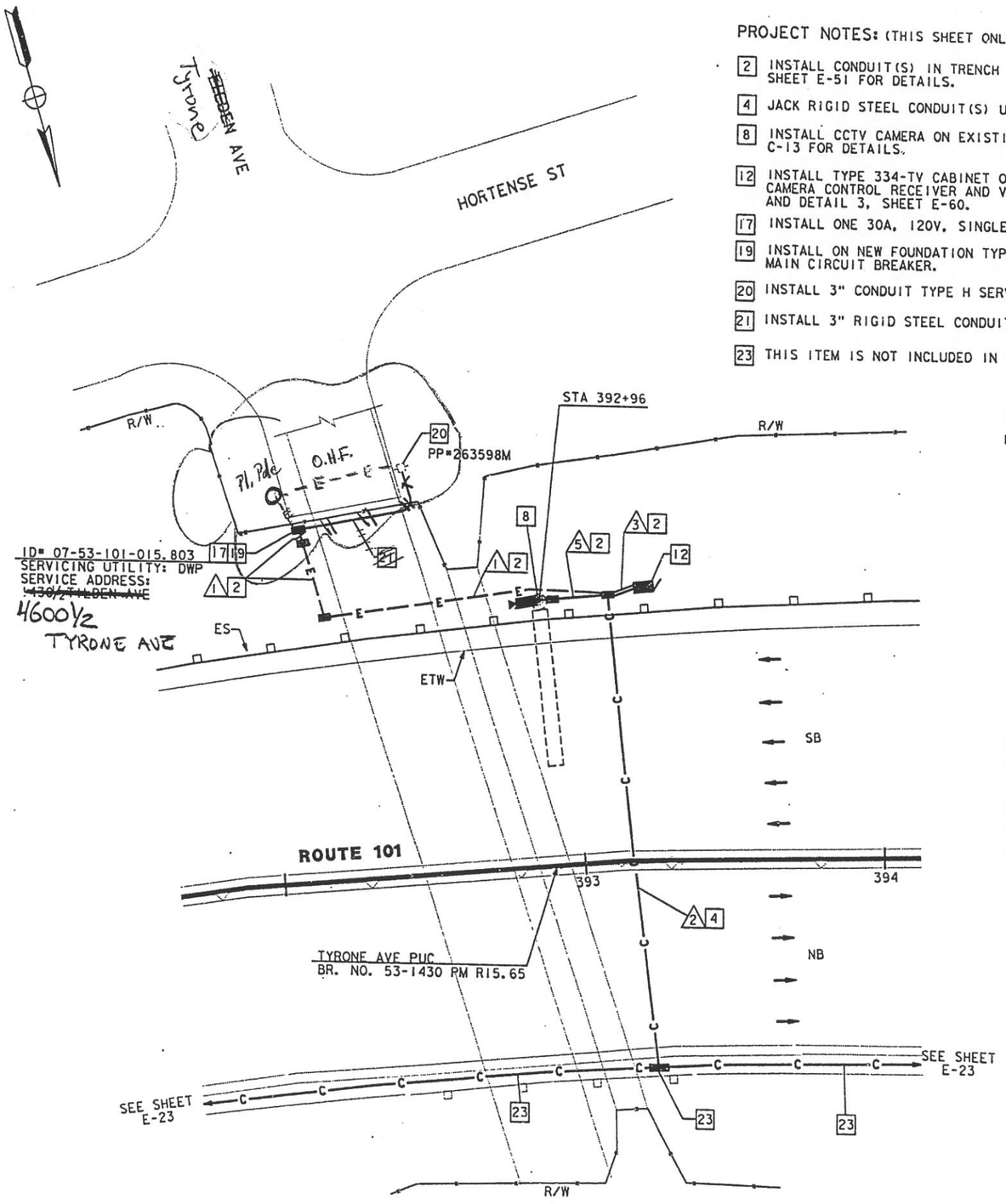
20 INSTALL 3" CONDUIT TYPE H SERVICE RISER ON POWER POLE.

21 INSTALL 3" RIGID STEEL CONDUIT. UTILITY COMPANY TO INSTALL CONDUCTORS.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

NOTE: (THIS SHEET)

1. SEE SHEET L-11 FOR LAYOUT DETAILS.



CAMERA LOCATION VE157

SCALE: 1"=20'

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

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5
6P22 CABLE	DATA /PHONE		1		1	
2SMFO B/O CABLE	SH VIDEO		1		1	
SEE TABLE 1, SHEET E-1	CCTV WIRING				1	1
#8	POWER	2		2		
	INNERDUCT		1¼"			
	CONDUIT SIZE	2"	3"	3"	3"	2"

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION VE157)

SCALE: 1"=20'

E-45

CALCULATED/ DESIGNED BY	DATE	REVISED BY
DM	2/95	
CHECKED BY	DATE REVISED	
ES	5/95	

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

TIME PLOTTED => 17-OCT-1995 12:46

LAST REVISION 00-00-00

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => mikesl /usr/mikesl/P0/712072u45.dg

CU 07387

EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	110	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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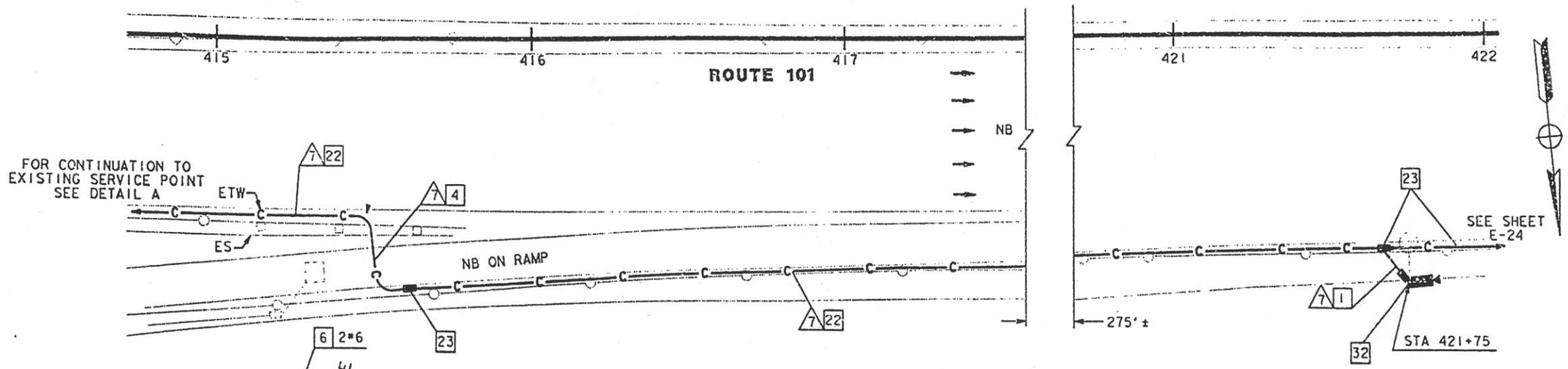
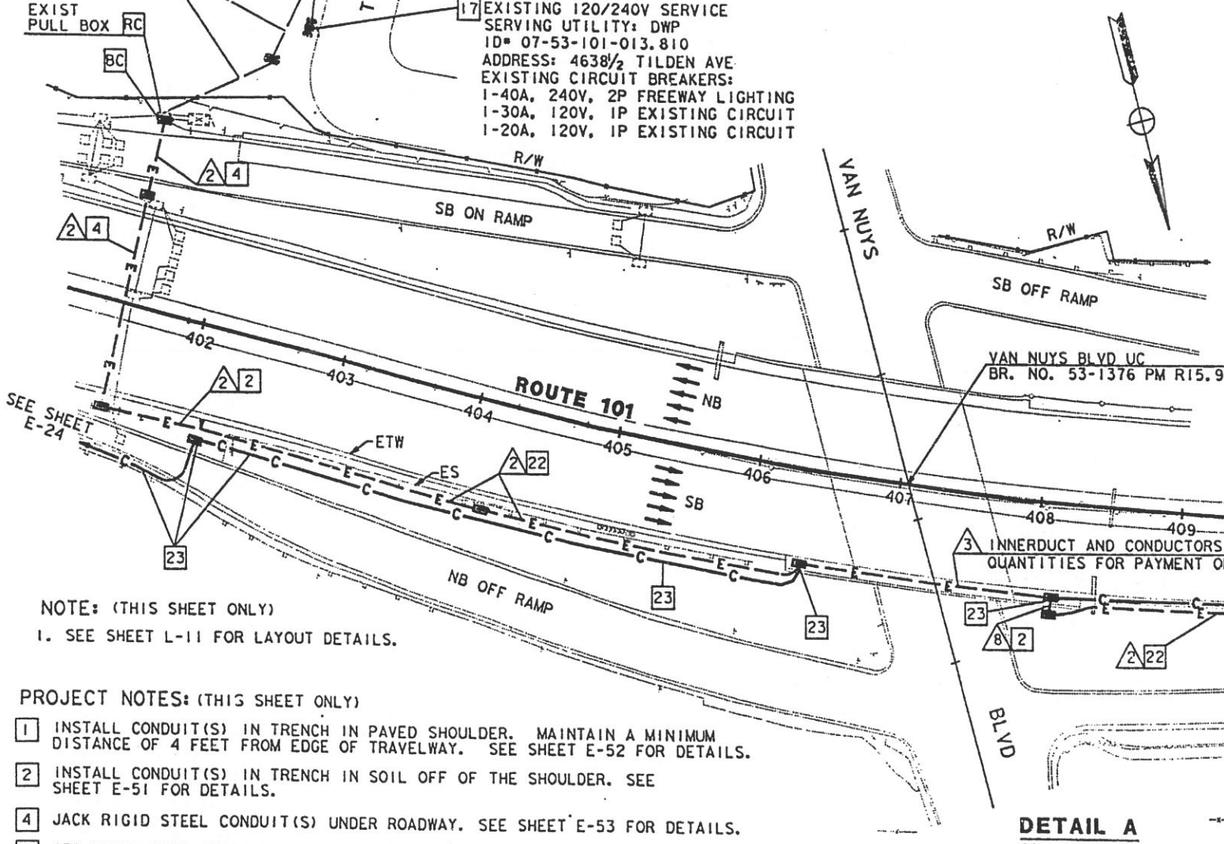


CAMERA LOCATION VE161

SCALE: 1"=20'



DETAIL A

SCALE: 1"=50'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)										
CONDUCTOR TYPE	FUNCTION	RUN								
		1	2*		4		5		7	8
6P22 CABLE	DATA /PHONE				1		1			
2SMFO B/O CABLE	SH VIDEO					1	1			
SEE TABLE 1, SHEET E-1	CCTV WIRING				1		1		1	
#6	POWER			2						
#6	POWER	2						2		2
	INNERDUCTS		1¼"	1¼"	1¼"		1¼"			1¼"
	CONDUIT SIZE	2"	4"		3"		3"	3"	2"	2"

* - CONDUIT RUN (3) INCLUDED IN THE QUANTITIES FOR PAYMENT ON SHEET E-24

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

NOTE: (THIS SHEET ONLY)
1. SEE SHEET L-11 FOR LAYOUT DETAILS.

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.

6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.

12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

22 INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-51 AND E-52 FOR DETAILS.

23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

32 INSTALL CCTV CAMERA ON EXISTING LUMINAIRE. SEE SHEETS E-54 AND C-14 FOR DETAILS.

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

CCTV CAMERA (LOCATION VE161)

SCALE: AS NOTED

E-46

DATE	REVISED BY	DATE REVISED
2/95	DM	5/95 ES

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER
PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 12:46

FORM DC-07-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesi /usr/mikesi/PO/7120720u46.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	111	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ELIA G. SAGHIR — No. 014922 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

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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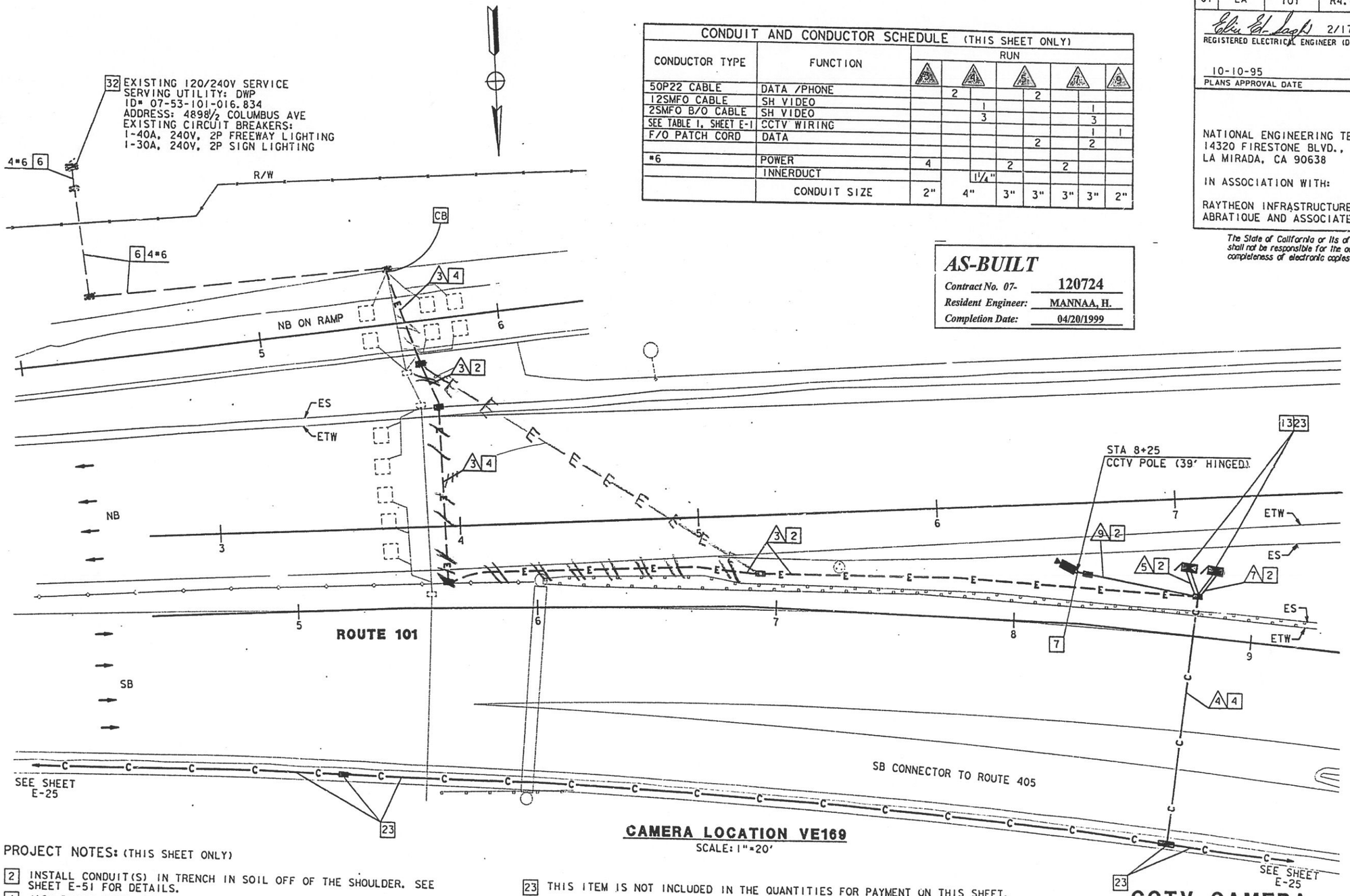
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7
50P22 CABLE	DATA /PHONE		2		2			
12SMFO CABLE	SH VIDEO		1				1	
2SMFO B/O CABLE	SH VIDEO		3				3	
SEE TABLE 1, SHEET E-1	CCTV WIRING						1	1
F/O PATCH CORD	DATA				2		2	
#6	POWER	4		2		2		
	INNERDUCT		1¼"					
	CONDUIT SIZE	2"	4"	3"	3"	3"	3"	2"

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999



CAMERA LOCATION VE169
SCALE: 1"=20'

PROJECT NOTES: (THIS SHEET ONLY)

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.
6 ADD POWER CONDUCTORS TO EXISTING CONDUIT.
7 INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.
13 INSTALL (2) TYPE 334-TV CABINETS ON NEW FOUNDATIONS. CABINET SHALL INCLUDE EQUIPMENT AT VIDEO AND DATA NODES. SEE DETAIL D , SHEET E-59 AND DETAIL 6 , SHEET E-62 FOR DETAILS.
23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.
32 INSTALL TWO 30A, 120V SINGLE POLE CIRCUIT BREAKERS FOR VIDEO NODE AND DATA NODE.

NOTE: (THIS SHEET)
1. SEE SHEET L-12 FOR LAYOUT DETAILS.

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

CCTV CAMERA, EQUIPMENT AT VIDEO NODE AND EQUIPMENT AT DATA NODE (LOCATION VE169)

SCALE: 1"=20'

E-47

PROJECT ENGINEER PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CALCULATED/ DESIGNED BY	DM	DATE 2/95	REVISED BY
CHECKED BY	ES	5/95	DATE REVISED

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 12:46

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl /usr/mikesl/P0/712072u47.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	1	83

INDEX OF SHEETS

Sheet No.	1	Title and Location Map
" "	2-3	Standard plans List
" "	4	Key Map and Line Index
" "	5-8	Layouts
" "	9	Construction Details
" "	10	Contour Grading
" "	11-19	Utility Plans
" "	20-24	Traffic Handling Plans
" "	25	Construction Area Signs
" "	26	Pavement Delineation
" "	27	Summary of Quantities
" "	28-29	Retaining Wall Plans
" "	30-66	Electrical Plans
" "	67-68	Revised Standard Plans
" "	69	New Standard Plan

STRUCTURE SHEETS

" "	70-83	Structure Plans

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY
IN LOS ANGELES
AT VARIOUS LOCATIONS FROM
LOS ANGELES RIVER BRIDGE AND OVERHEAD
TO 0.1 MILE WEST OF VERMONT AVENUE OVERCROSSING

To be supplemented by Standard Plans dated July, 1992

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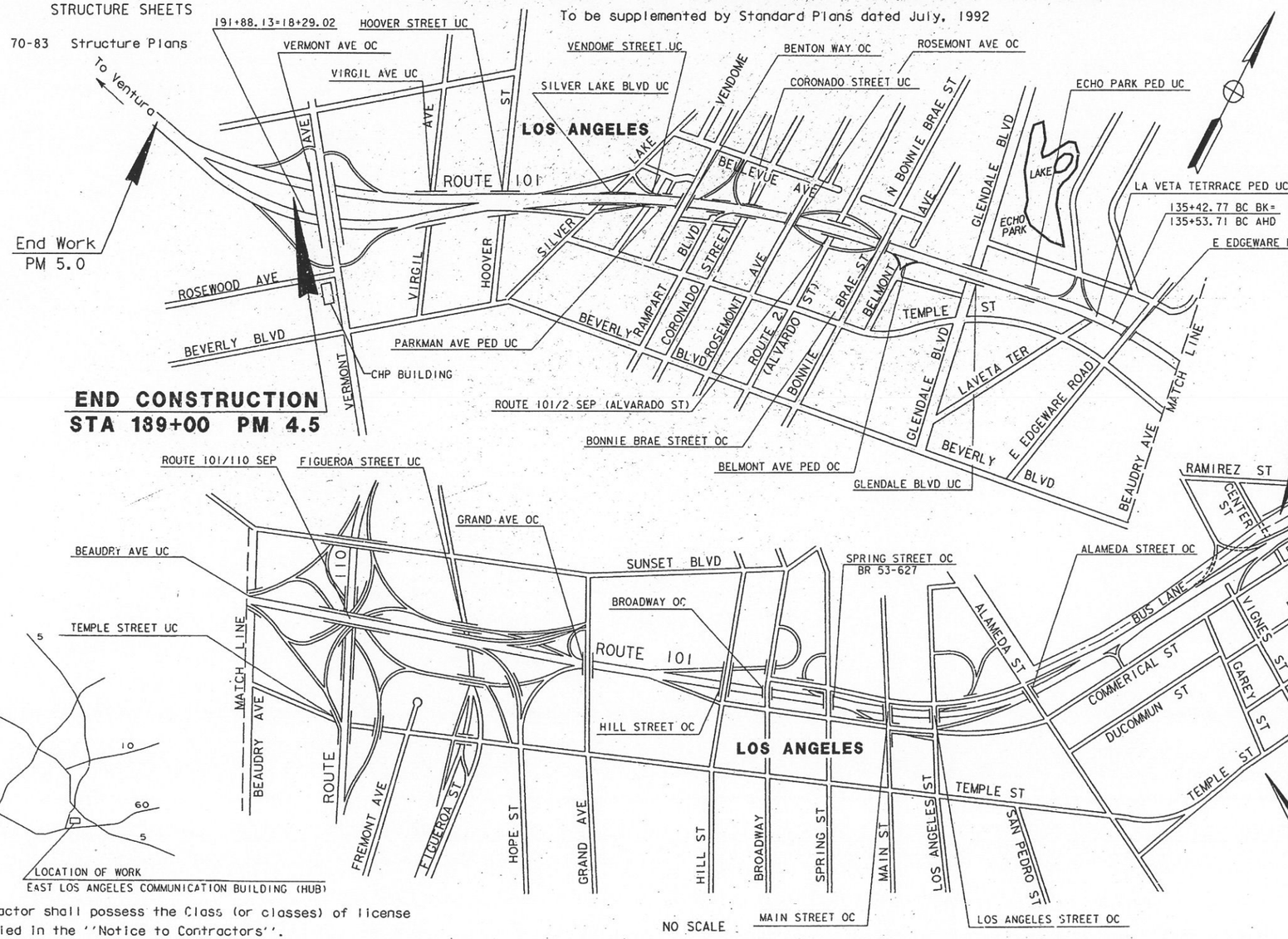

The Contractor shall possess the Class (or classes) of license as specified in the ''Notice to Contractors''.

AS-BUILT
Contract No. 07-1186C4
Resident Engineer: [signature]
Completion Date: 08/21/1998

[signature]
Project Manager
Registered Civil Engineer

March 13, 1995
Plans Approval Date

REGISTERED PROFESSIONAL ENGINEER
PAT SULLIVAN
No. C30912
Exp. 3/31/96
CIVIL
STATE OF CALIFORNIA

PROJECT MANAGER	DATE	PROJECT ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
PAT SULLIVAN		ALLEN CHEN		PATRICIA P. PEROVICH	

LAST REVISION 00-00-00

TIME PLOTTED => 21-MAR-1995 16:07

Contract No. 07-1186C4

FORM DC-OE-93-PF (REV. 3/88)

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CU 07374

EA 1186C1

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

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

[1] TRENCH CONDUIT IN SOIL.

[2] TRENCH CONDUIT IN CONCRETE.

[3] TRENCH CONDUIT IN ASPHALT.

~~[4] ATTACH CONDUIT TO STRUCTURE~~ DELETED BY CCO #9

[5] JACK RIGID STEEL CONDUIT BENEATH ROADWAY.

[6] INSTALL MODEL 170 CONTROLLER INTERFACE IN THE CONTROLLER CABINET. SEE SHEET E-24 FOR DETAILS.

[7] INSTALL AN ADDITIONAL MODEL 170 CONTROLLER INTERFACE IN THE CONTROLLER CABINET, SEE SHEET E-24 FOR DETAILS.

GENERAL NOTES:

1. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL FACILITIES, THE CONTRACTOR SHALL GIVE 72 HOURS ADVANCE NOTICE IN WRITING TO THE ENGINEER.
2. SERVICE EQUIPMENT ENCLOSURE SHALL BE LOCATED 10' MINIMUM FROM THE POWER POLE OR VAULT.
3. ELECTRICAL SERVICE INSTALLATION SHALL MEET THE UTILITY COMPANY REQUIREMENTS SERVING IN THE LOCAL JURISDICTION.
4. 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.
5. STENCIL CAMERA IDENTICATION NUMBER ON POLE IN 3" CHARACTERS 10 FEET ABOVE BASE. SEE SHEET K1.

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	MILTIMODE
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

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
R	DUPLEX RECEPTACLE
	CIRCUIT BREAKER
	SURGE PROTECTOR
	THERMOSTATIC CONTROL
	RELAY CONTACT NC
F	FAN
L	INDICATOR LAMP
HT	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

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

LEGEND AND NOTES

E-1

DATE	REVISED BY	DATE REVISED
5/94	PW	5/94 AC

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

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

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

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

CU 07396 EA 1186C1

NOTES (THIS SHEET ONLY):

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

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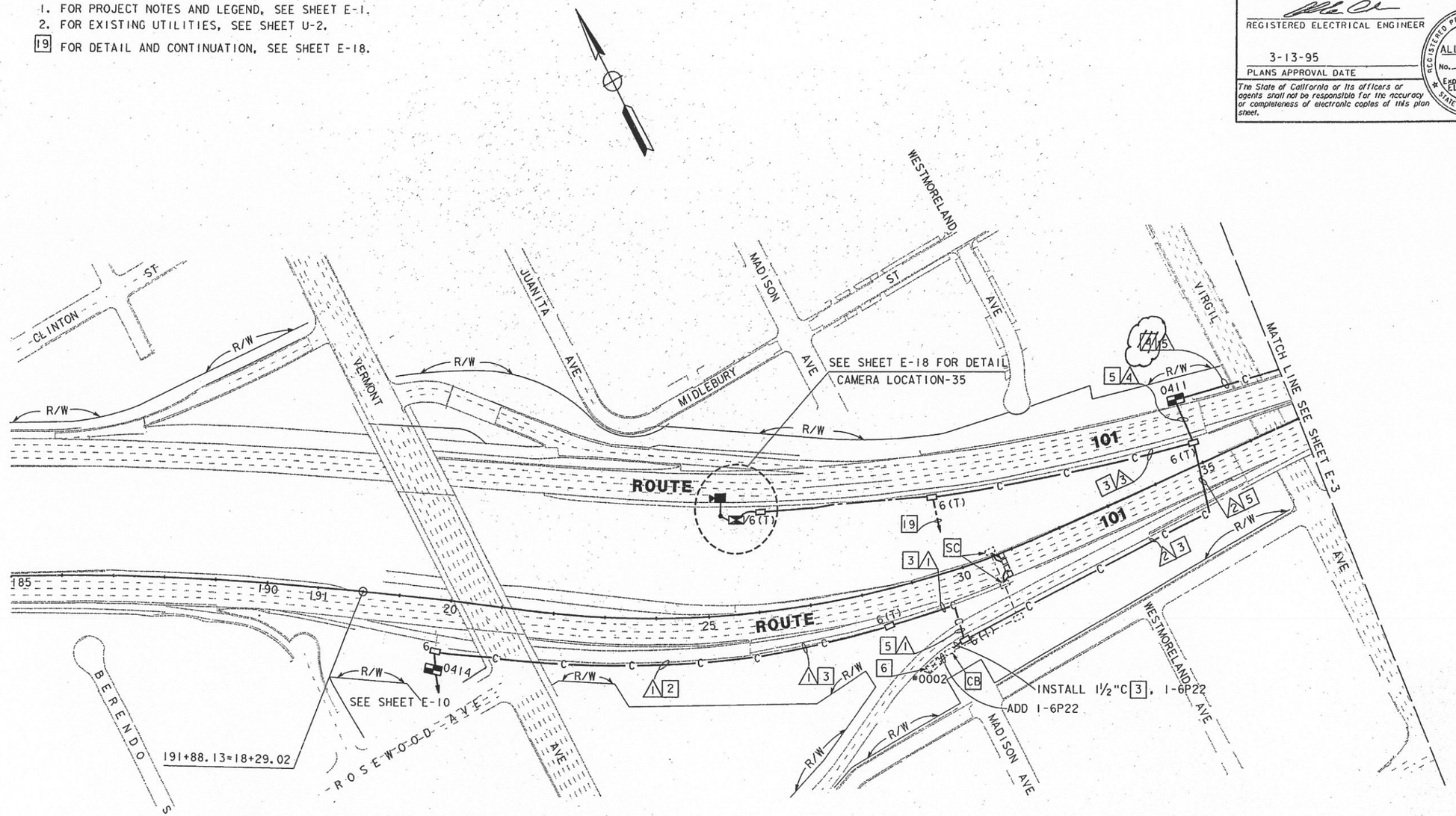

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	CONDUCTOR RUN 1	2	3	4	5
50P22 CABLE					1
6P22 CABLE		1	1	2	
2SMFO			1	1	
60SMFO	1	1		1	1
12SMFO	1	1		1	1
DLC					
INNERDUCT	1 1	1 1		1 1	1 1
CONDUIT SIZE	4"	4"	2"	3"*	4"

(* 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-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT
PROJECT ENGINEER: ALLEN CHEN
CALCULATED/DESIGNED BY: AL
CHECKED BY: AC
DATE REVISED BY:

LAST REVISION 08-31-94 TIME PLOTTED => 18-MAR-1995 14:34

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

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DGN FILE => /usr/tomd/P2/71186cu02.dgn

CU 07396

EA 1186C1

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 — Exp. 6-30-97 — ELECTRICAL — STATE OF CALIFORNIA

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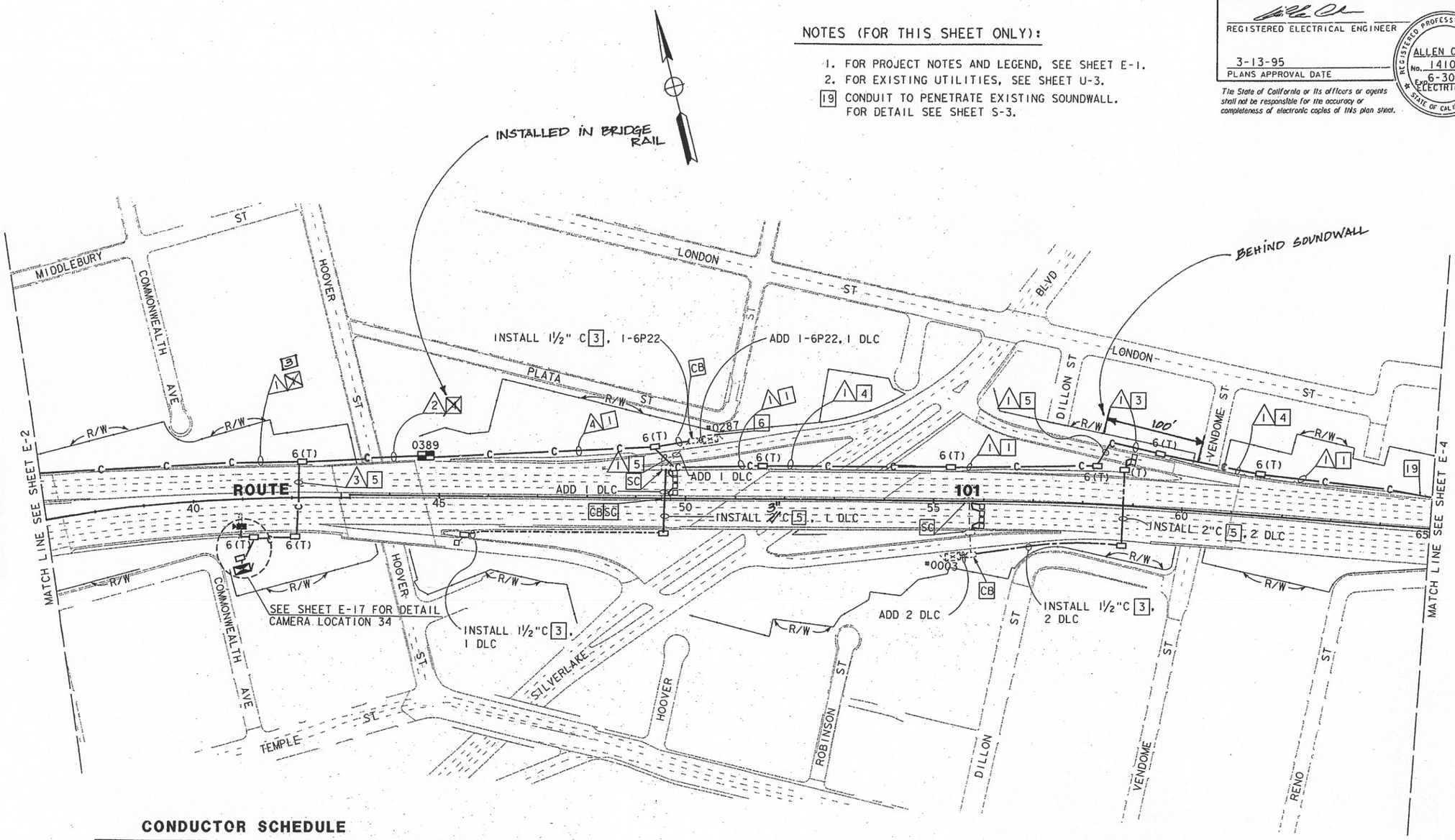
	DATE	REVISED BY
CALCULATED/ DESIGNED BY	AL	5/94
CHECKED BY	AC	6/94
	DATE REVISED	

PROJECT ENGINEER
ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

NOTES (FOR THIS SHEET ONLY):

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



CONDUCTOR SCHEDULE

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

E-3

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

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

USERNAME => COOK
DGN FILE => ZH3:[330004]71186CU03.DGN

CU 07396

EA 1186C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	33	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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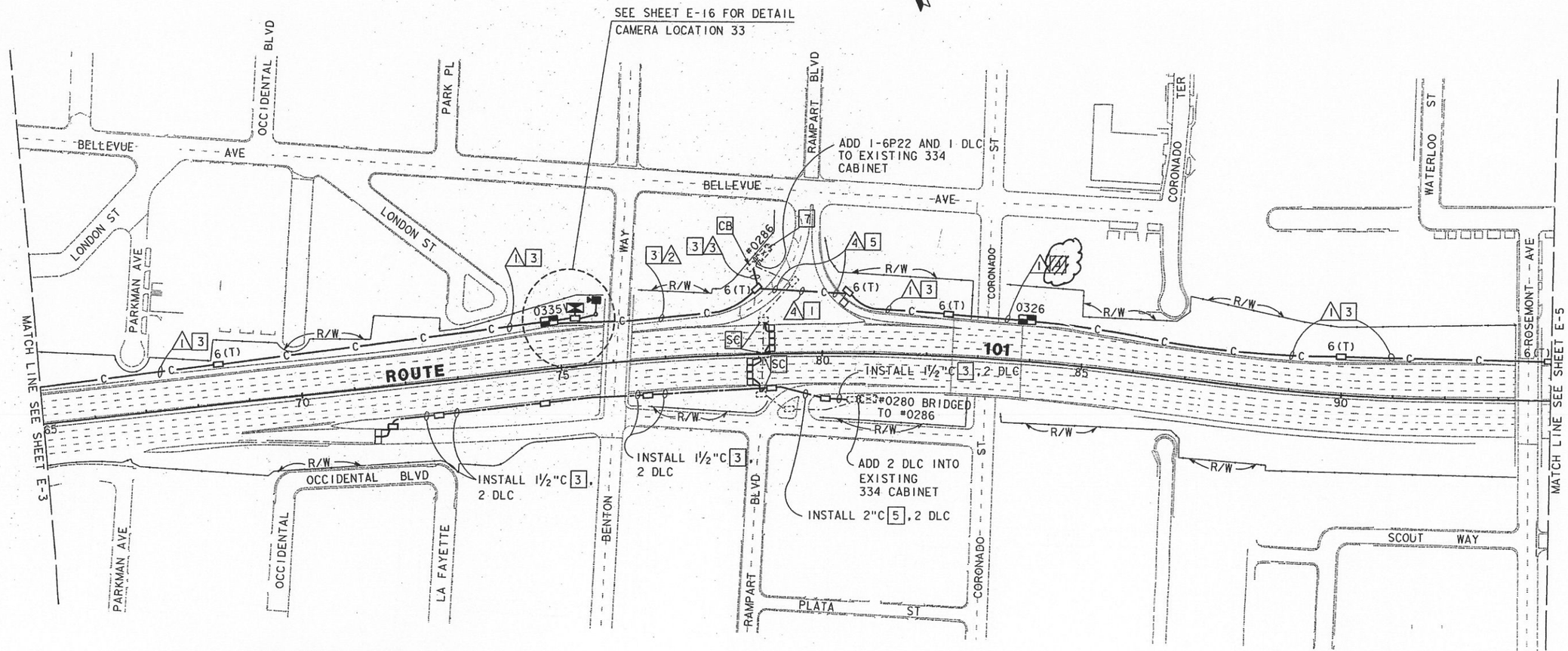
NOTES (FOR THIS SHEET ONLY):

1. FOR PROJECT NOTES AND LEGEND, SEE SHEET E-1.
2. FOR EXISTING UTILITIES, SEE SHEET U-4.



CONDUCTOR SCHEDULE

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

* EXISTING TO BE REUSED

NOTE : THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

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

CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-4

DATE	REVISED BY	DATE REVISED
CALCULATED/ DESIGNED BY	AL	
CHECKED BY	AC	

PROJECT ENGINEER — ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

LAST REVISION 08-31-94

TIME PLOTTED => 18-MAR-1995 11:53

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

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DGN FILE => /usr/mikesl/P4/71186cu04.dg

CU 07396

EA 1186C1

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

REGISTERED ELECTRICAL ENGINEER

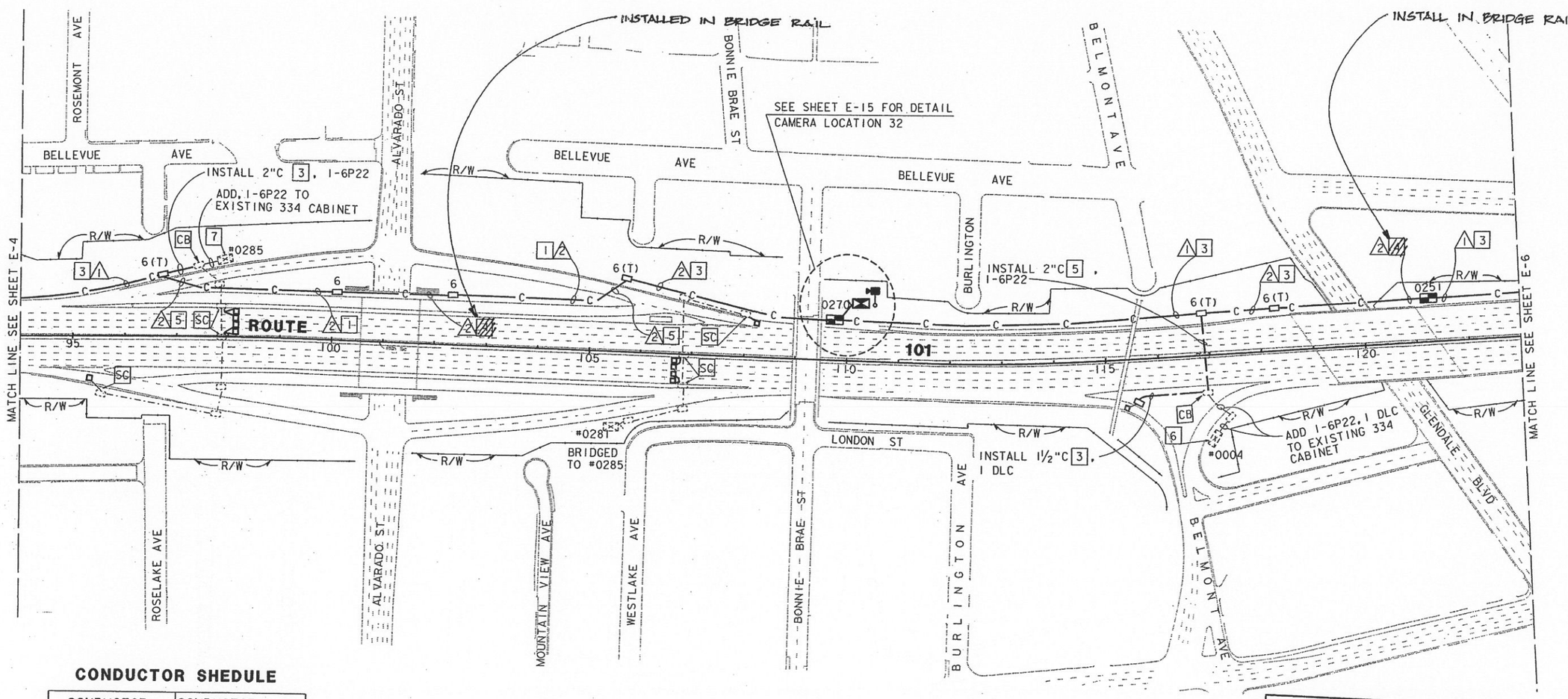
3-13-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ALLEN CHEN — No. 14106 — EXP. 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):

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



CONDUCTOR SHEDULE

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

* EXISTING TO BE REUSED

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 ONLY.

E-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER: ALLEN CHEN
IVHS DEVELOPMENT

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

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

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

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DGN FILE => /usr/mikesl/P4/71186cu05.dg

CU 07396

EA 1186C1

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

REGISTERED ELECTRICAL ENGINEER

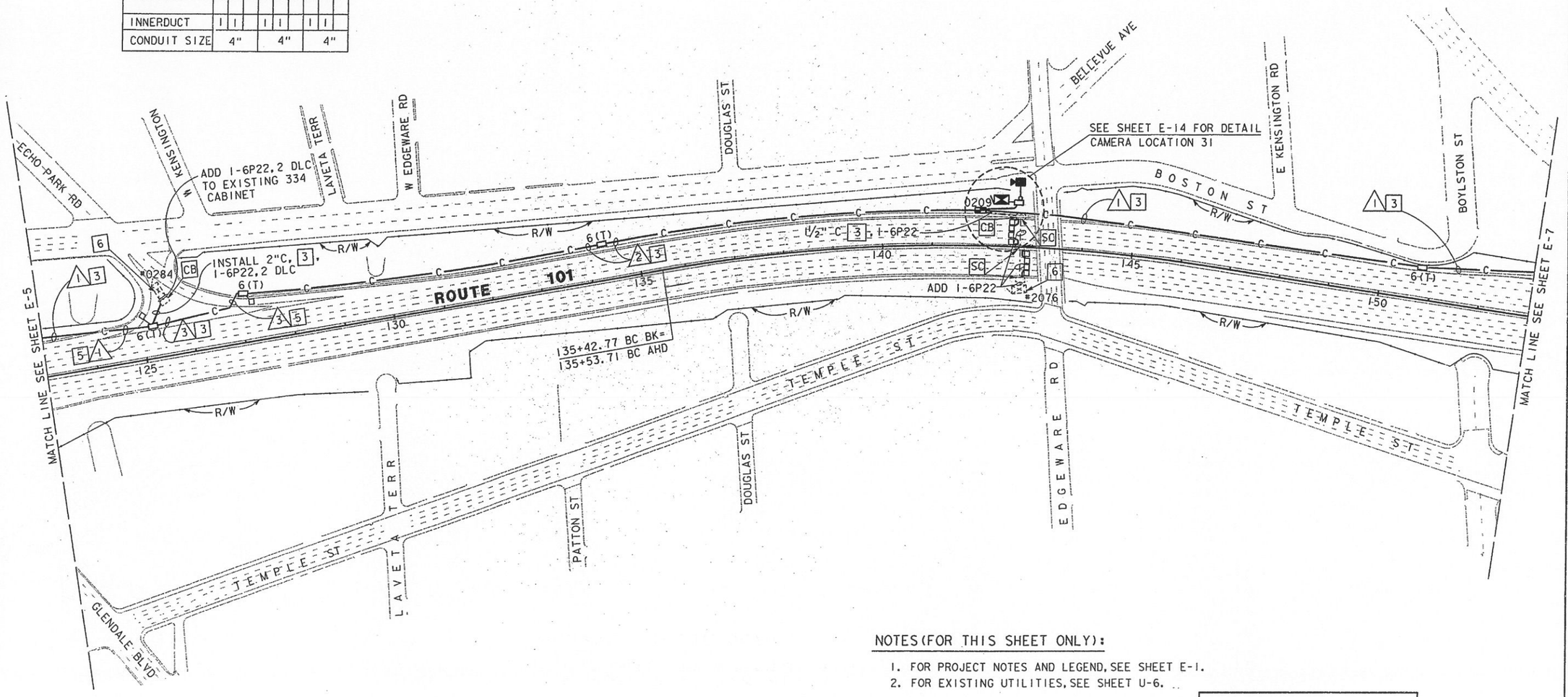
3-13-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ALLEN CHEN No. 14106 Exp. 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.

CONDUCTOR SCHEDULE

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



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

SCALE: 1"=100'

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL ONLY.

E-6

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

PROJECT ENGINEER: ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

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

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

USERNAME => mikesl
DGN FILE => /usr/mikesl/P4/7;186cu06.dg

CU 07396

EA 1186C1

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

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.

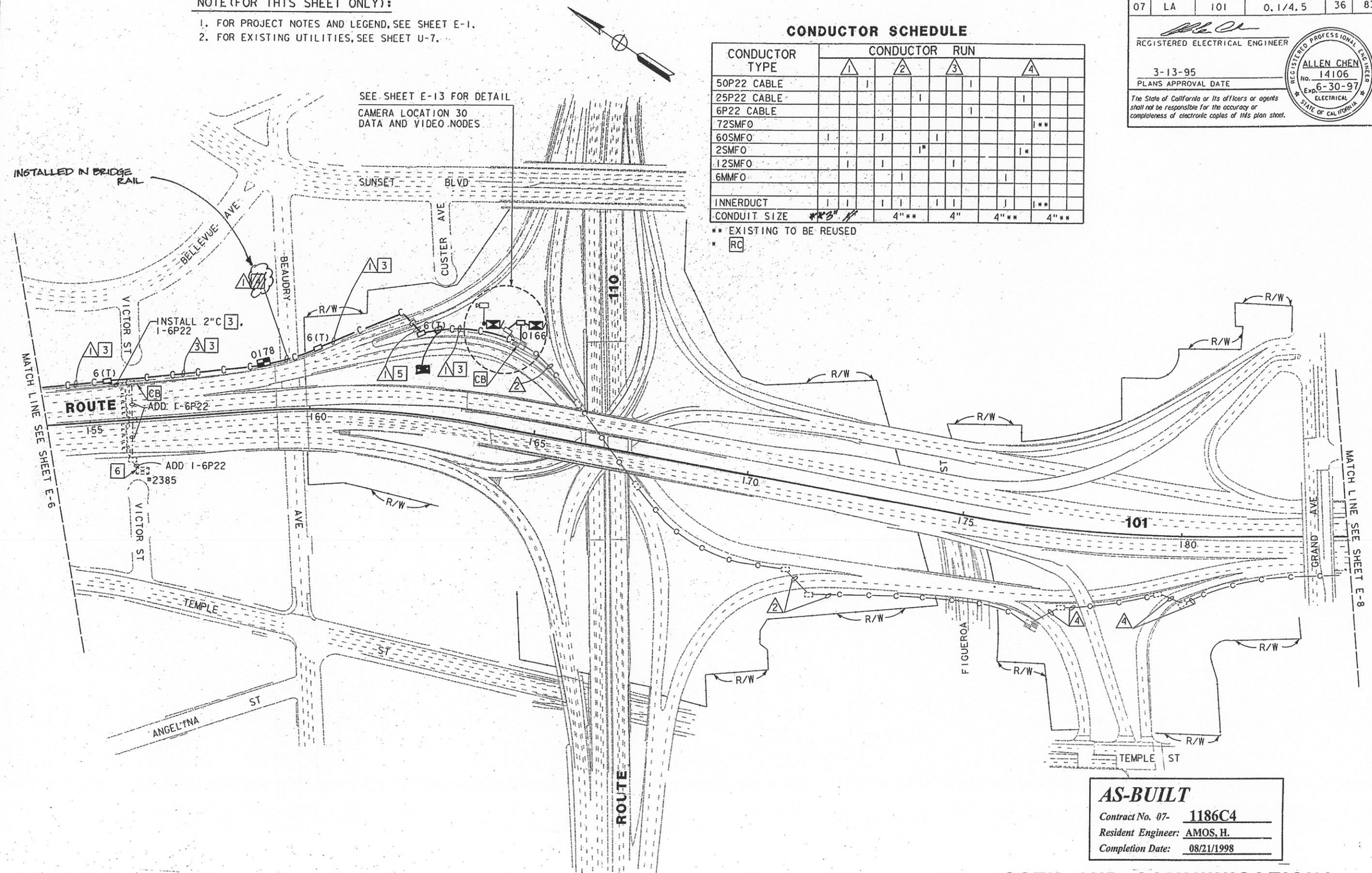
NOTE (FOR THIS SHEET ONLY):

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			1						1						
25P22 CABLE						1						1			
6P22 CABLE									1						
72SMFO													1**		
60SMFO	1			1			1								
2SMFO						1*						1*			
12SMFO		1		1				1							
6MMFO					1						1				
INNERDUCT	1	1		1	1		1	1			1		1**		
CONDUIT SIZE	~~**3"~~	~~4"~~		4"**			4"			4"**			4"**		

** EXISTING TO BE REUSED
* RC



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

CCTV AND COMMUNICATIONS ROUTING

SCALE: 1"=100'

E-7

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

PROJECT ENGINEER: ALLEN CHEN

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

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

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

USERNAME => mikesl
DGN FILE => /usr/mikesl/P4/71186cu07.dg

CU 07396

EA 1186C1

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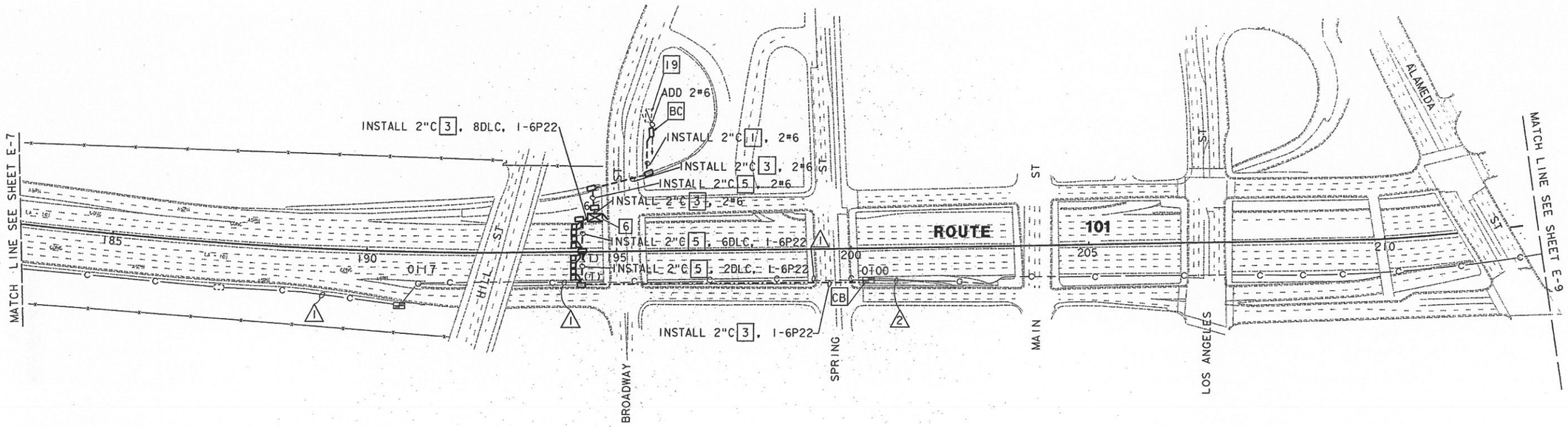

NOTES (FOR THIS SHEET ONLY):

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

19 ADD A 120V-1P-30 AMP CIRCUIT BREAKER TO EXISTING IRRIGATION SERVICE (#433640) FOR COUNT STATION.

CONDUCTOR SCHEDULE

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

**-EXISTING TO BE REUSED.
*- RC

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'

NOTE : THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

PROJECT ENGINEER: ALLEN CHEN
CALCULATED/DESIGNED BY: AL | DATE 5/94 | REVISED BY
CHECKED BY: AC | 6/94 | DATE REVISED

LAST REVISION 08-19-94 | TIME PLOTTED => 18-MAR-1995 11:41

FORM DC-OE-92-PF (REV. 3/88)

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

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	CONDUCTOR RUN 1			CONDUCTOR RUN 2		
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.

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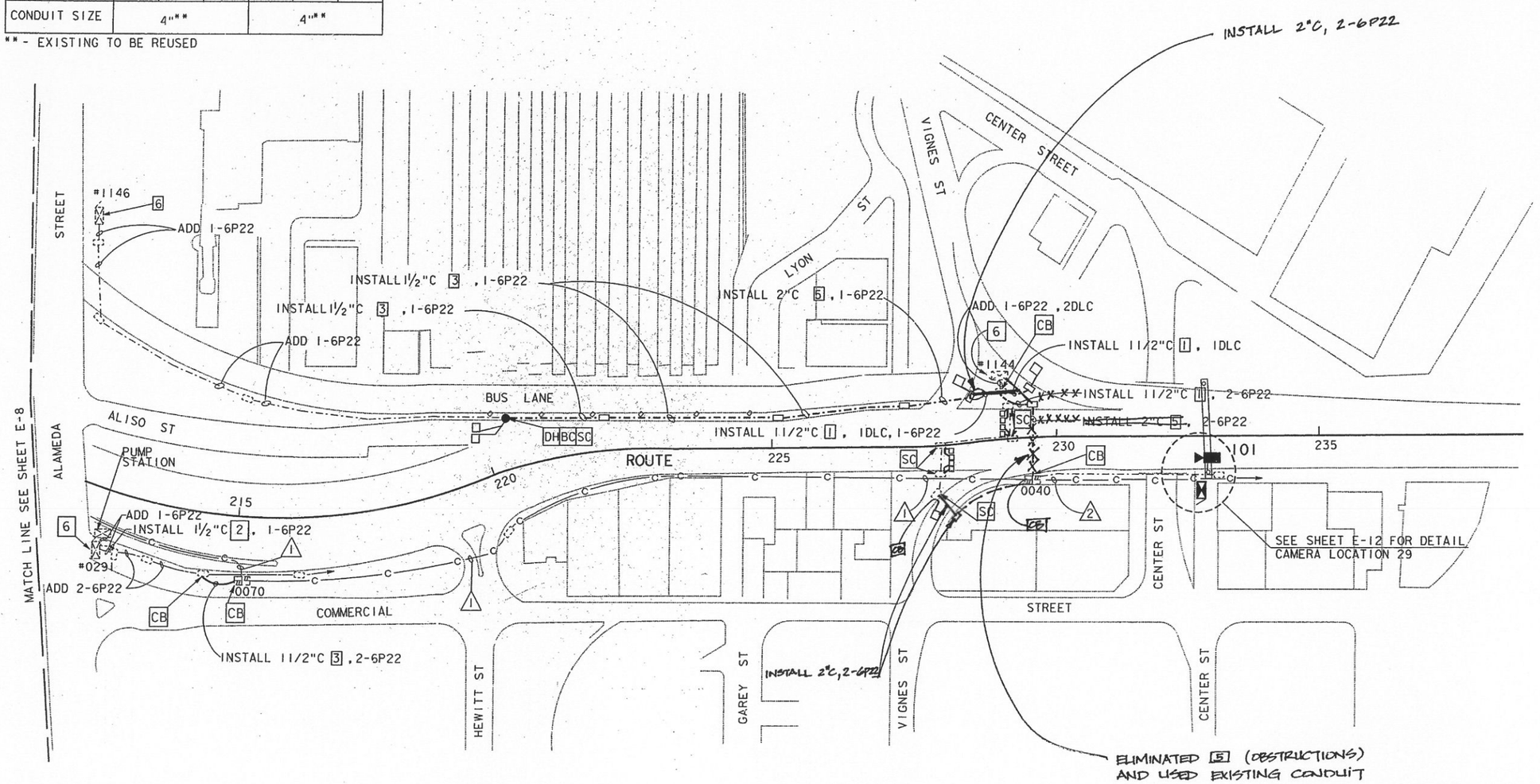

AS-BUILT
Contract No. 07- 1186C4
Resident Engineer: AMOS, H.
Completion Date: 08/21/1998

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1"=100'

E-9

NOTE : THIS PLAN ACCURATE FOR ELECTRICAL ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **IVHS DEVELOPMENT**
PROJECT ENGINEER: ALLEN CHEN

	CALCULATED/ DESIGNED BY	DATE	REVISED BY
	CHECKED BY	8/94	DATE REVISED
	AL	8/94	
	AC		

LAST REVISION 00-00-00 — TIME PLOTTED => 18-MAR-1995 14:25

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

USERNAME => maria
DGN FILE => /usr/maria/P5/71186cu09.dgn

CU 07396

EA 1186C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	39	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

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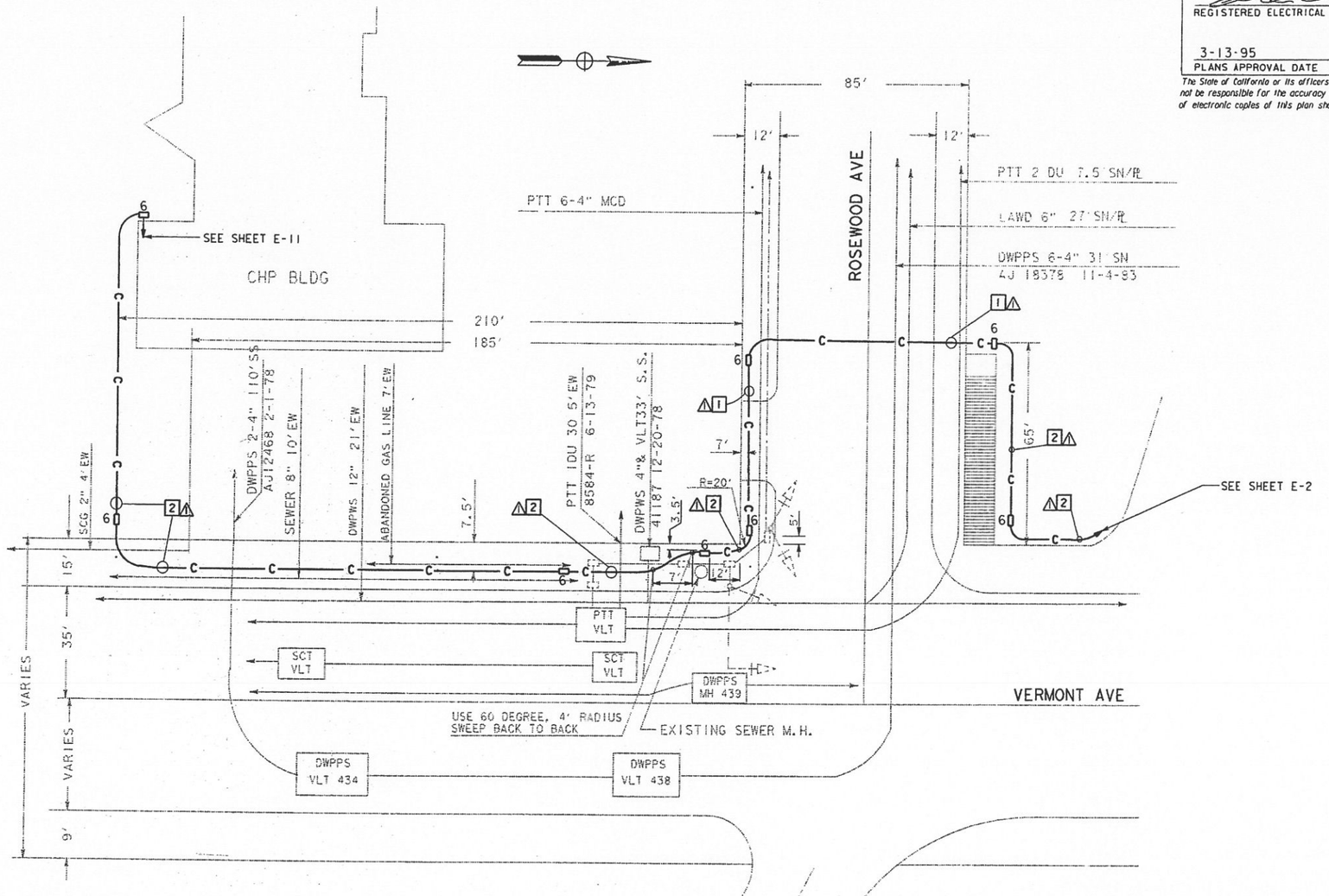
CONDUCTOR SCHEDULE

	⚠
12 SMFO CABLE	1
INNERDUCT	1
CONDUIT SIZE	3"



NOTES (THIS SHEET ONLY):

1. JACK 3" CONDUIT BENEATH ROADWAY 30" DEEP.
2. TRENCH AND INSTALL 3" CONDUIT 30" DEEP.
3. ALL CONDUIT SWEEP SHOWN ON THIS PLAN SHALL BE 3' RADIUS MINIMUM UNLESS OTHERWISE AS INDICATED.

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

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1"=20'

E-10

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

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

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

USERNAME => maria
DGN_FILE => /usr/maria/P5/71186cu10.dgn

CU 07396

EA 1186C1

LAST REVISION 00-00-00

TIME PLOTTED => 18-MAR-1995 14:25

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	40	83

REGISTERED ELECTRICAL ENGINEER

3-13-95
PLANS APPROVAL DATE

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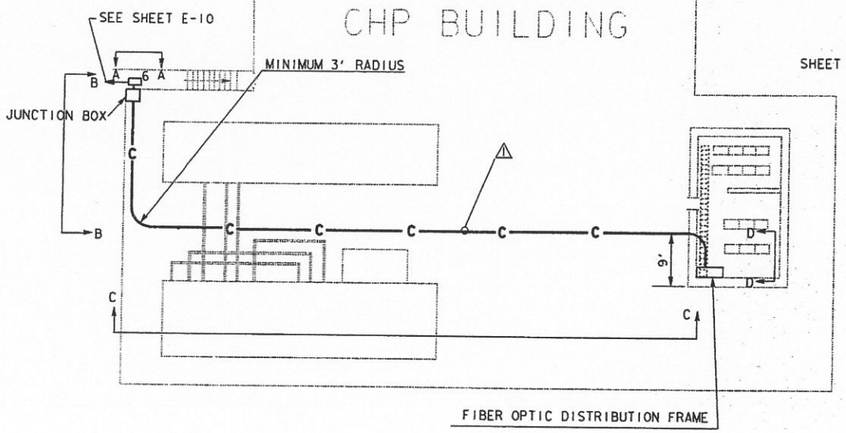
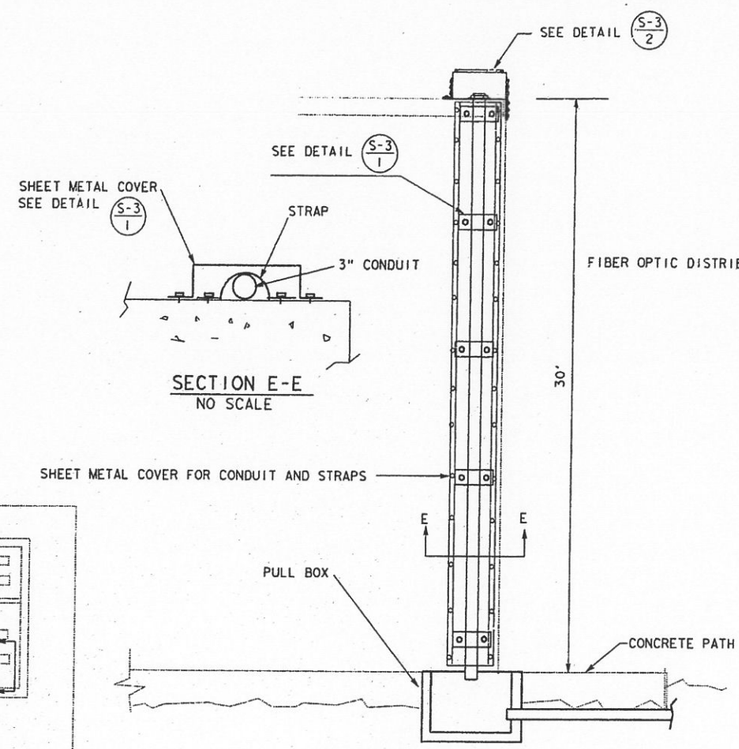
REGISTERED PROFESSIONAL ENGINEER — ALLEN CHEN — No. E-14106 — Exp. 06-30-97 — ELECTRICAL — STATE OF CALIFORNIA

CONDUCTOR SCHEDULE

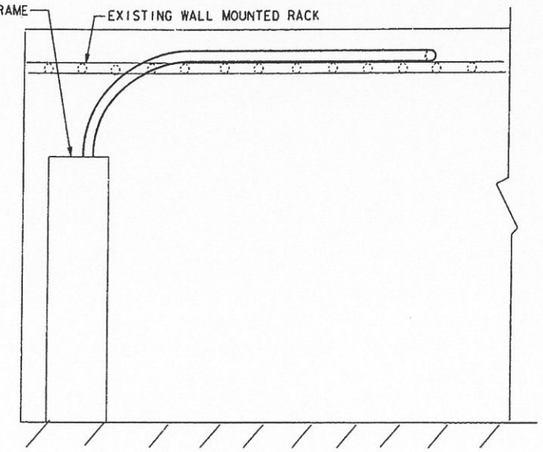
	⚠
12 SMFO CABLE	1
INNERDUCT	1
CONDUIT SIZE	3"



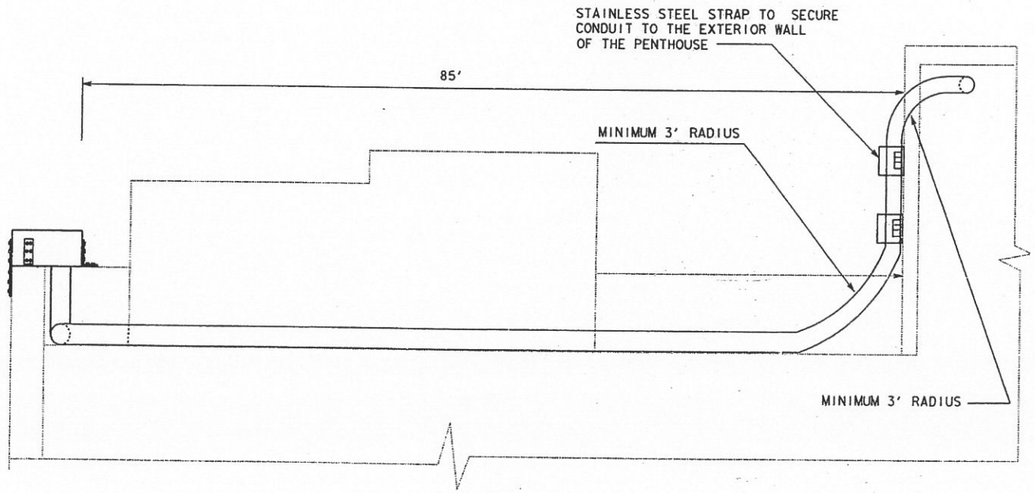


SECTION E-E
NO SCALE

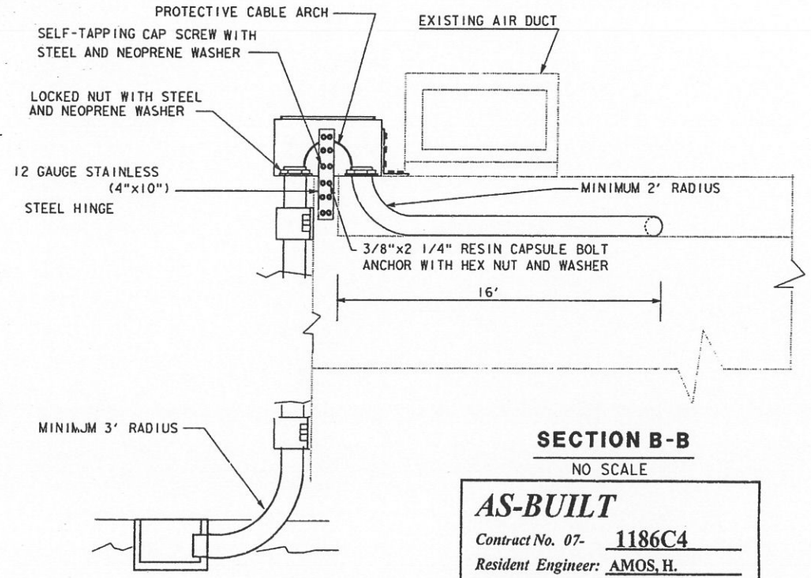
SECTION A-A
NO SCALE



SECTION D-D
NO SCALE



SECTION C-C
NO SCALE



SECTION B-B
NO SCALE

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

CCTV AND COMMUNICATION SYSTEM ROUTING

E-11

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gates
IVHS DEVELOPMENT
PROJECT ENGINEER: ALLEN CHEN
CALCULATED/DESIGNED BY: PW
CHECKED BY: AC
DATE: 5/94 REVISED BY
5/94 DATE REVISED
LAST REVISION 00-00-00
TIME PLOTTED => 18-MAR-1995 14:25

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

USERNAME => maria
DGN FILE => /usr/maria/P5/71186cu11.dgn

CU 07396

EA 1186C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	41	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

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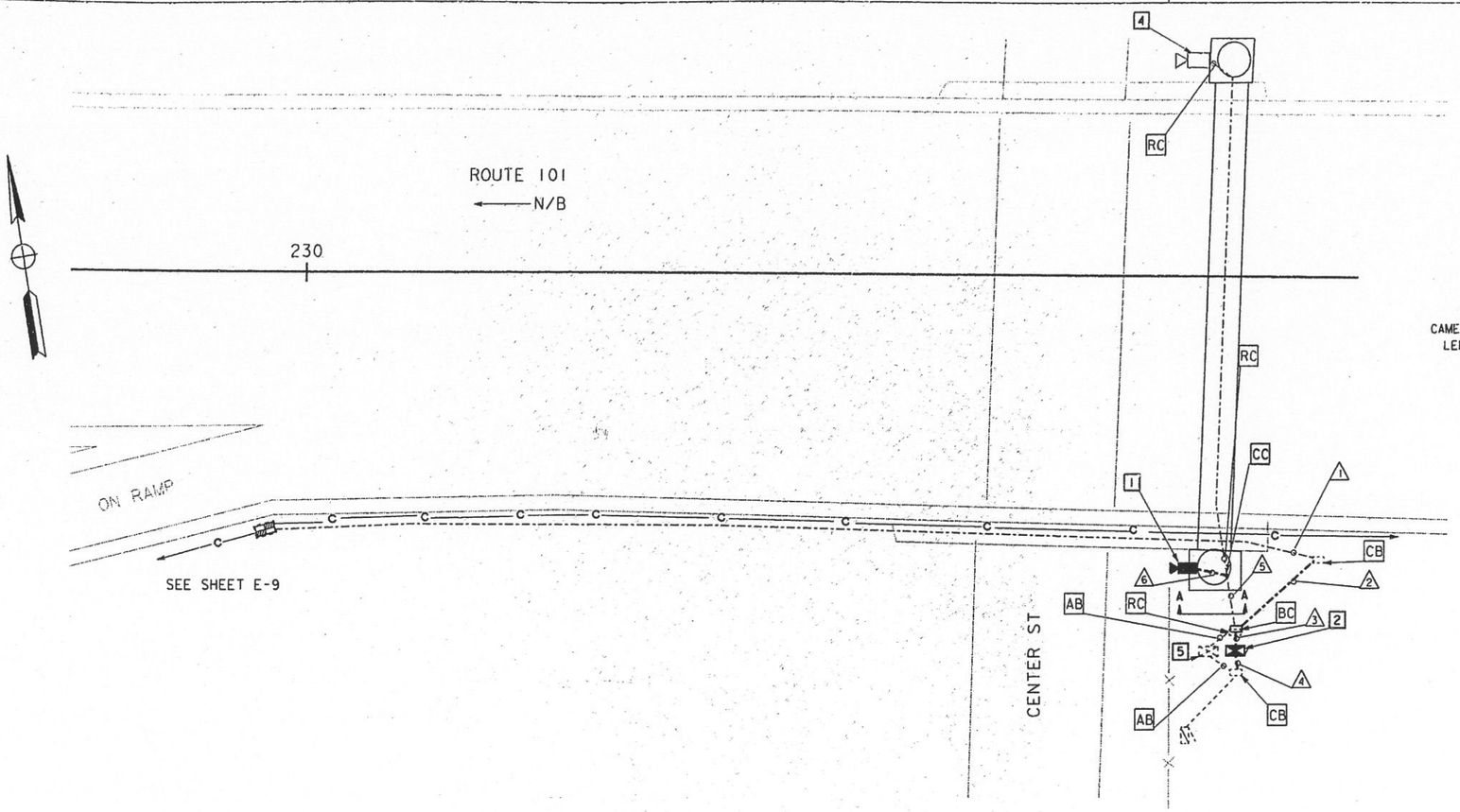

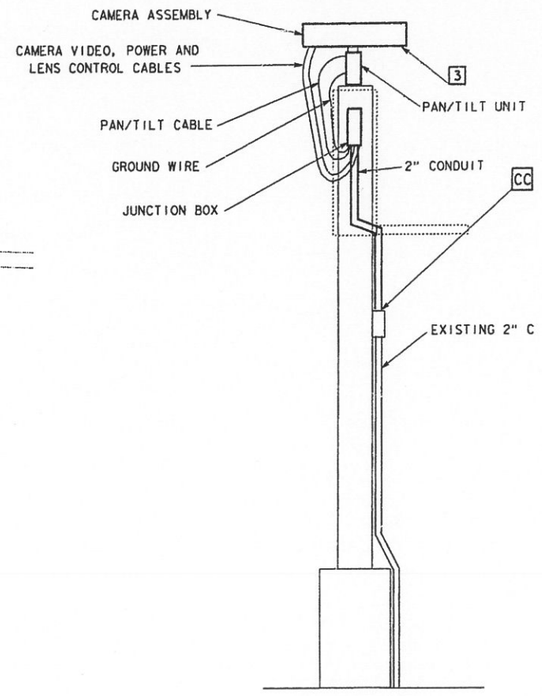

SECTION A-A

NO SCALE

CONDUCTOR AND CONDUIT SCHEDULE

	1	2	3	4	5	6
CAMERA VIDEO INTERFACE CABLE			1		1	1
PAN/TILT CONTROL CABLE			1		1	1
LENS CONTROL CABLE			1		1	1
CAMERA POWER CABLE			1		1	1
CAMERA GROUND CABLE			1		1	1
2 MULTIMODE FIBER OPTIC CABLE	1	1	1			
6P22 COMMUNICATION DIST. CABLE	1	1	1			
#10 POWER CABLE				2		
CONDUIT SIZE	2" (E)	3"	2-3"	2"	2" (E)	2"

(E): EXISTING CONDUIT TO BE REUSED

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. FOR CAMERA INSTALLATION DIRECT ON OHS STRUCTURE, SEE CCTV POLE AND MOUNTING DETAILS SHEET E-29.
4. RS EXISTING CAMERA ASSEMBLY AND PAN/TILT UNIT.
5. RS EXISTING CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER.
   RC EXISTING CABINET, EQUIPMENT NOT INDICATED IN THIS PLAN, AND CABINET FOUNDATION.

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

CCTV CAMERA (LOCATION HO 004)

SCALE: 1" = 20'

E-12

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

	DATE	REVISED BY
CALCULATED/DESIGNED	PW 5/94	
CHECKED BY	AC 5/94	DATE REVISED

PROJECT ENGINEER: ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

LAST REVISION 00-00-00
TIME PLOTTED => 21-MAR-1995 15:25

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

USERNAME => trjlmt
DGN FILE => /usr/trjlmt/P2/71186cu12.dg

CU 07396

EA 1186C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	42	83

REGISTERED ELECTRICAL ENGINEER

3-13-95
PLANS APPROVAL DATE

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

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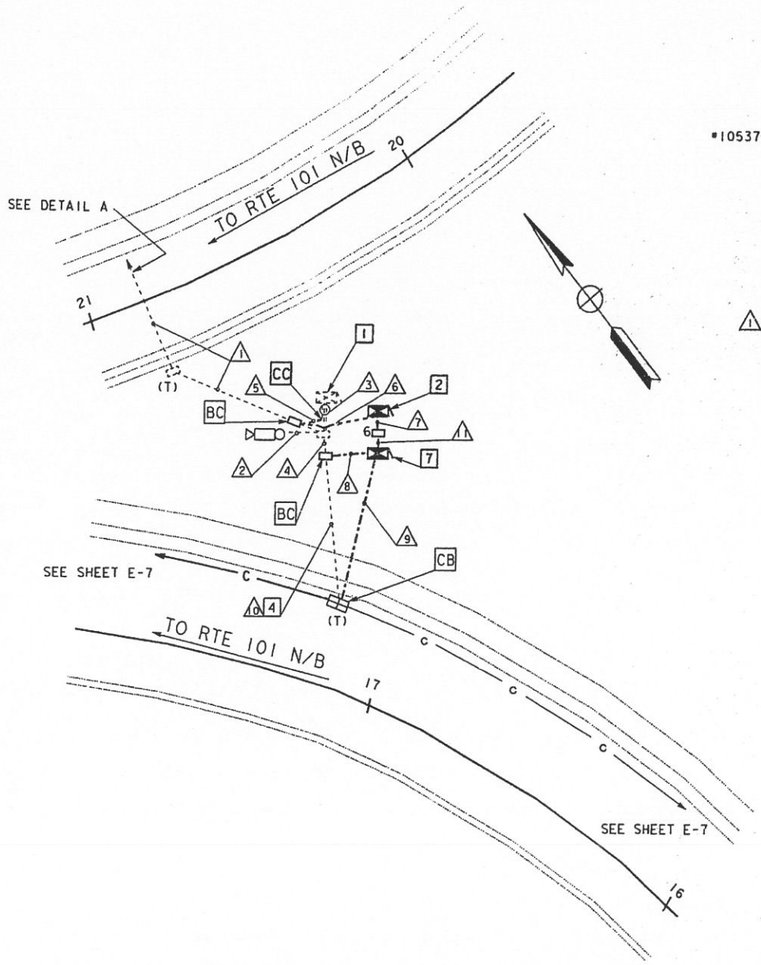
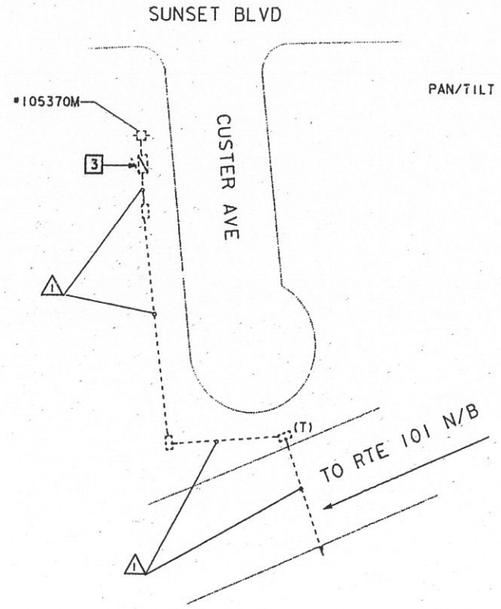
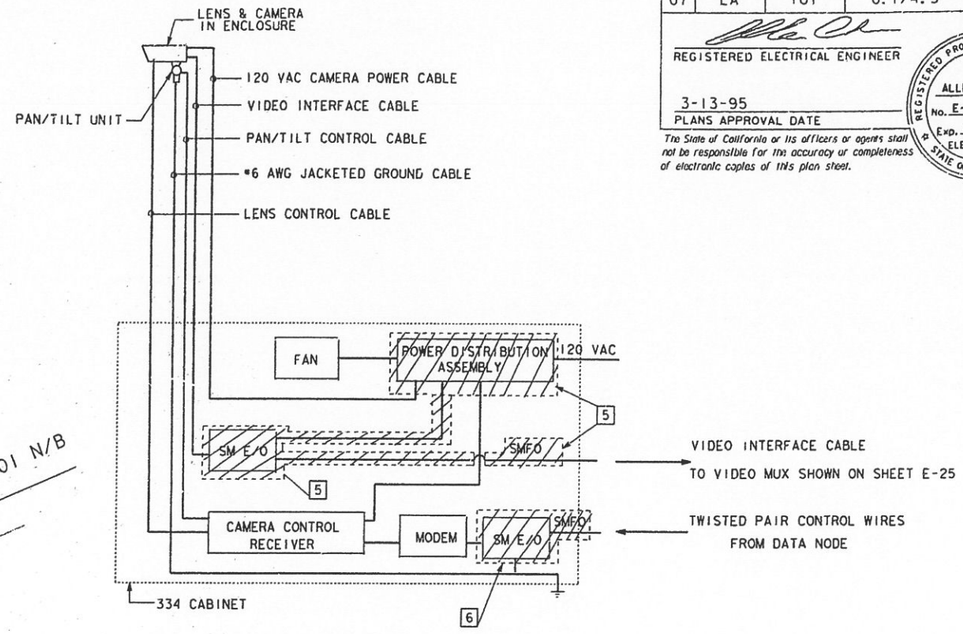




DETAIL A
NO SCALE



DETAIL B
NO SCALE

CONDUCTOR AND CONDUIT SCHEDULE

	1	2	3	4	5	6	7	8	9	10	11
CAMERA VIDEO INTERFACE CABLE		1(E)	1(E)								
PAN/TILT CONTROL CABLE		1(E)	1(E)								
LENS CONTROL CABLE		1(E)	1(E)								
CAMERA POWER CABLE		1(E)	1(E)								
CAMERA GROUND CABLE		1(E)	1(E)								
50P22 CABLE							1		1		1
25P22 CABLE							1		1		1
60 SMFO									2		
SMFO BREAK OUT CABLE			2	2			8	2			8
12SMFO CABLE			1	1				1	2		
6MMFO CABLE			1	1				1	1		
6P22 COMMUNICATION DIST. CABLE			1	1			1	1			1
#4 POWER CABLE	2(E), 4		2(E)		2(E)	4	2				2
CONDUIT SIZE	2"(E)	2-2"(E)	3-2"(E)	2"(E)	2"	2"	2-3"	2"	4"	2"(E)	4"

(E): EXISTING TO BE REUSED

NOTES (THIS SHEET ONLY):

1. INSTALL A 16-CHANNEL VIDEO MULTIPLEXER AND 6 VIDEO RECEIVERS IN VIDEO CABINET. FOR DETAILS ON ALL EQUIPMENT LAYOUT, WIRING, AND POWER DISTRIBUTION ASSEMBLY UPGRADE, SEE DETAIL-B THIS SHEET, E-25 AND E-26. INCLUDED IN BID ITEM "EQUIPMENT AT VIDEO NODE".
2. INSTALL STATE-FURNISHED TYPE 334 CABINET. INSTALL ONE D4 CHANNEL BANK IN DATA NODE CABINET. SEE E-26 FOR DETAIL ON ALL EQUIPMENT LAYOUT. INCLUDED IN BID ITEM "EQUIPMENT AT DATA NODE".
3. USE EXISTING 120V-1P-30AMP CCTV CAMERA CIRCUIT BREAKER FOR VIDEO NODE. ADD A METERED 120V-1P-30AMP CIRCUIT BREAKER FOR DATA NODE AND A METERED 120V-1P-30AMP CIRCUIT BREAKER FOR CABLE NODE IN EXISTING TYPE III-BF SERVICE CABINET. THE DISTANCE OF EXISTING SERVICE TO VIDEO AND DATA NODES IS APPROXIMATELY 260'.
4. RC EXISTING 2SMFO CABLE.
5. RS EXISTING EQUIPMENT AS SHOWN. CONNECT A VIDEO INTERFACE CABLE TO VIDEO MUX AND MATCH EXISTING BNC CONNECTOR INSIDE VIDEO NODE CABINET. SEE E-25 FOR DETAILS. INSTALL NEW POWER DISTRIBUTION ASSEMBLY SHOWN ON SHEET E-26.
6. RS EXISTING EQUIPMENT AS SHOWN. CONNECT TWISTED PAIR CONTROL WIRES FROM DATA NODE TO EXISTING MODEM INSIDE CAMERA CONTROL CABINET.
7. INSTALL A FIBER DISTRIBUTION FRAME IN CABLE NODE (STATE-FURNISHED TYPE 334 CABINET).

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

EQUIPMENT AT DATA NODE, EQUIPMENT AT VIDEO NODE, AND MODIFY CCTV CAMERA (LOCATION HO 017)

SCALE: 1" = 20'

E-13

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

CALCULATED/ DESIGNED BY	CHECKED BY	PROJECT ENGINEER
PW	AC	ALLEN CHEN

DATE	REVISED BY	DATE REVISED
5/94		5/94

LAST REVISION 00-00-00 TIME PLOTTED => 21-MAR-1995 15:25

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

USERNAME => trjimt
DGN FILE => /usr/trjimt/P2/71186cu13.dg

CU 07396

EA 1186C1

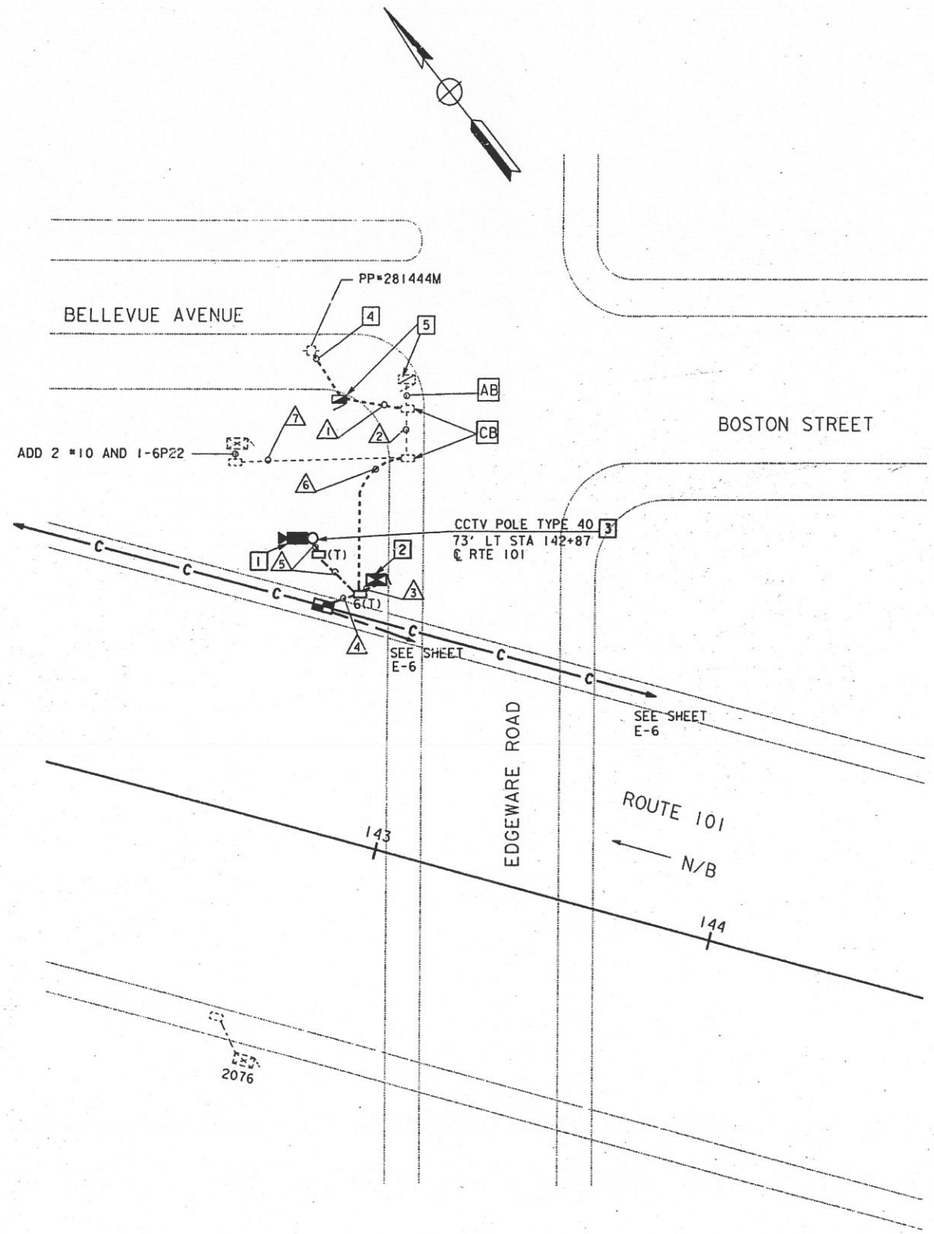
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	43	83

REGISTERED ELECTRICAL ENGINEER

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.

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



CONDUCTOR AND CONDUIT SCHEDULE

	1	2	3	4	5	6	7
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	2		1	1
#10 POWER CABLE	2	2					2
#8 POWER CABLE	2	2	2			2	
CONDUIT SIZE	2"	2"(E)	2-3"	2"	2-2"	2"	2"(E)

(E): EXISTING CONDUIT TO BE REUSED

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 SERVICE (ALREADY DISCONNECTED). 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 CCTV 334 CABINET, A 120-1P-30 AMP CIRCUIT BREAKER FOR COUNT STATIONS.

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

CCTV CAMERA (LOCATION HO 021)

SCALE: 1" = 20'

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

E-14

DATE	REVISED BY	DATE REVISED
5/94	PW	AC 5/94

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

LAST REVISION 00-00-00
TIME PLOTTED => 20-MAR-1995 09:56

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

USERNAME => jimt
DGN FILE => /usr/jimt/PO/71186cu14.dgn

CU 07396

EA 1186C1

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

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

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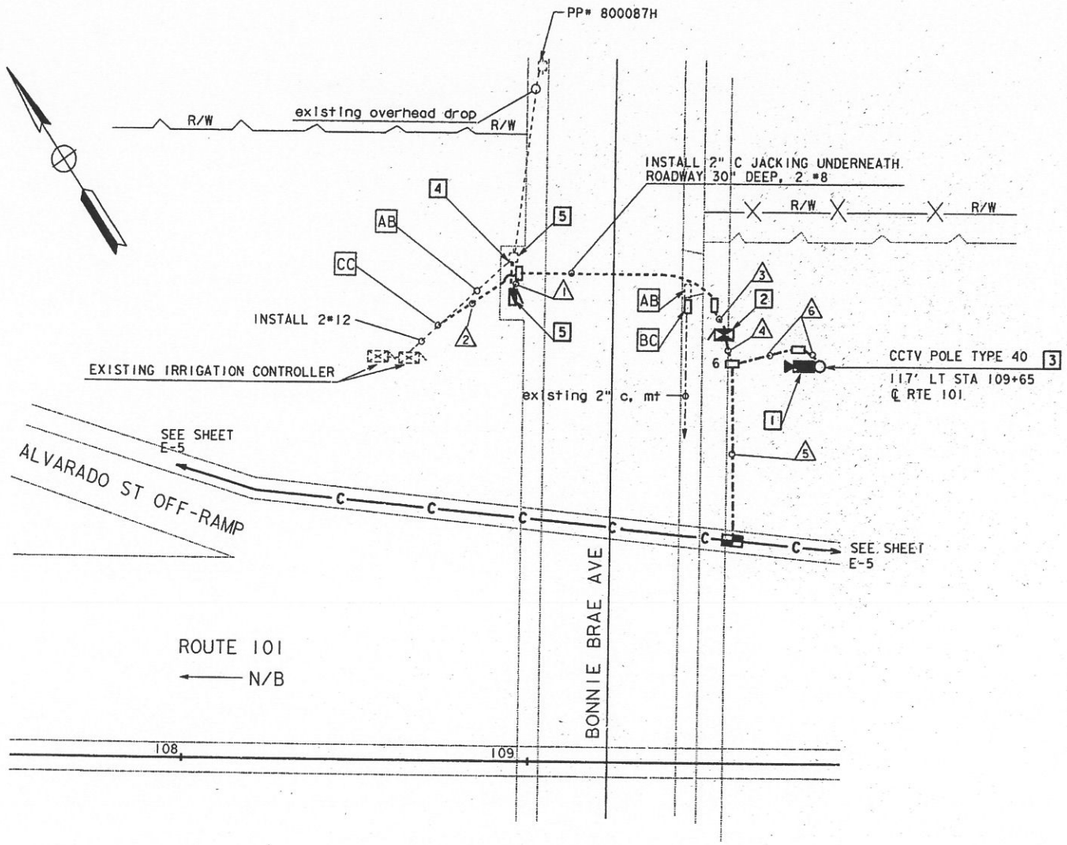

CONDUCTOR AND CONDUIT SCHEDULE

	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

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: 5/94
REVISED BY:

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

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

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DGN FILE => /usr/mikesl/P4/71186cu15.dg

CU07396

EA1186C1

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

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

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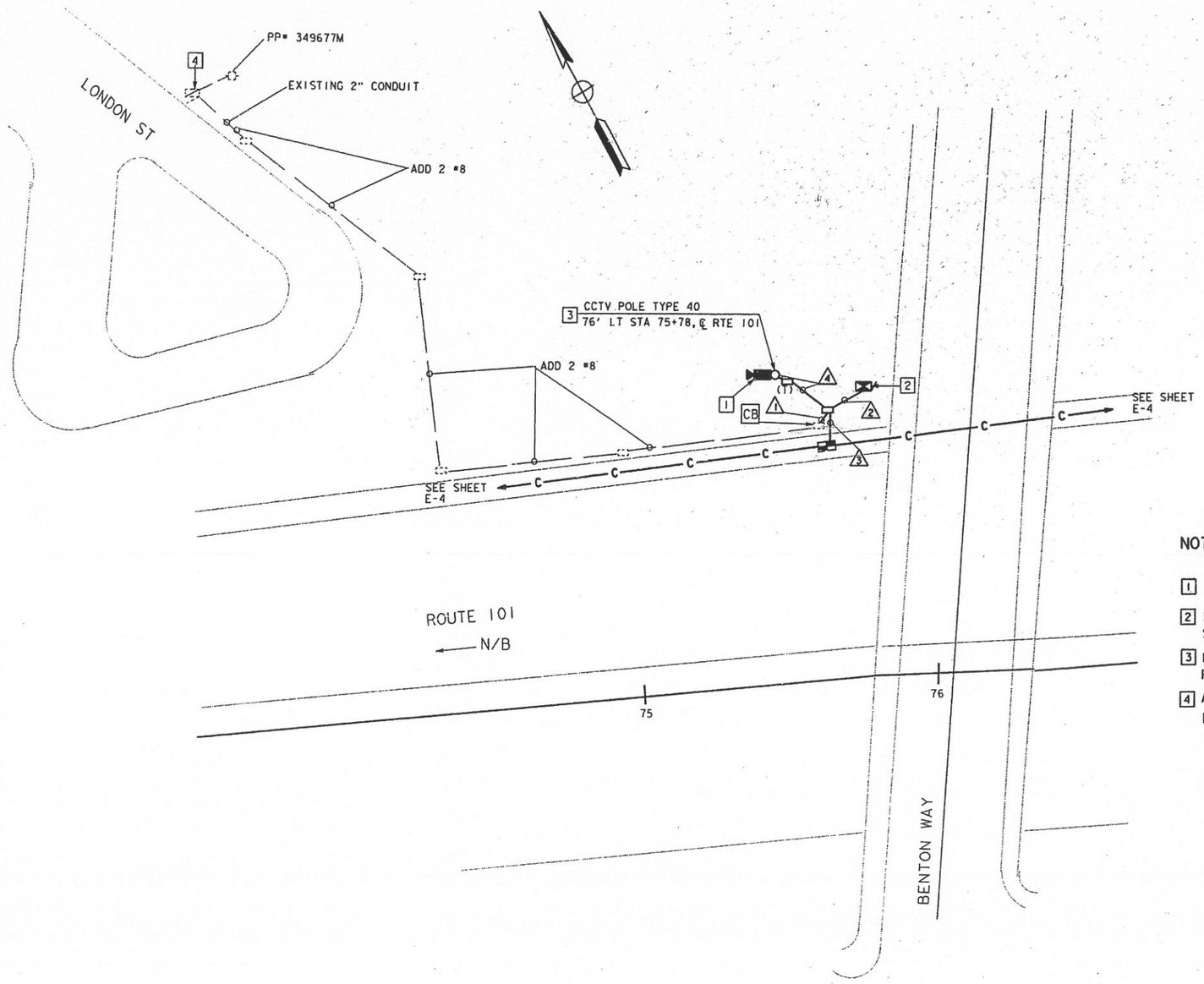

CONDUCTOR AND CONDUIT SCHEDULE

	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 120-1P-30 AMP CIRCUIT BREAKER TO EXISTING TYPE 111-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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT
PROJECT ENGINEER: ALLEN CHEN
CALCULATED/DESIGNED BY
CHECKED BY
DATE 5/94 REVISED BY: PW
5/94 DATE REVISED: AC
LAST REVISION 00-00-00
TIME PLOTTED => 20-MAR-1995 06:31

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

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DGN FILE => /usr/mikesl/P4/71186cu16.dg

CU 07396

EA 1186C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	46	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

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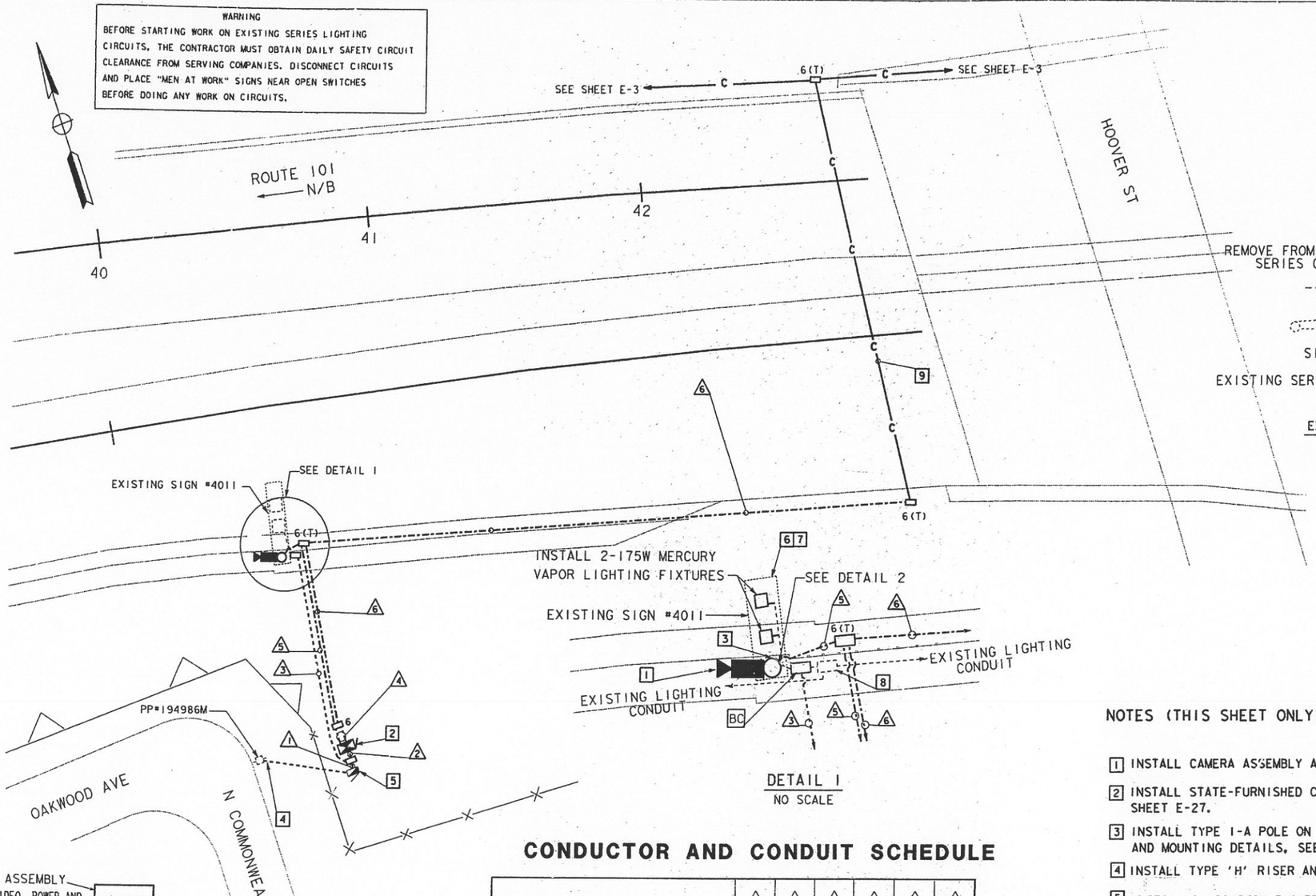
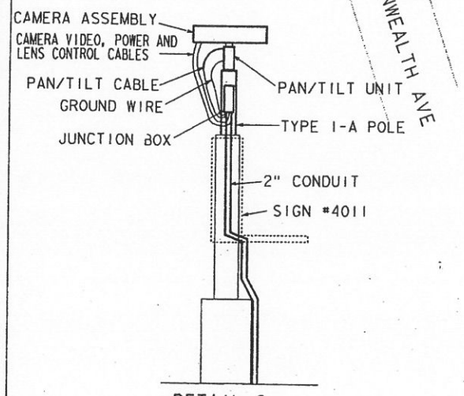
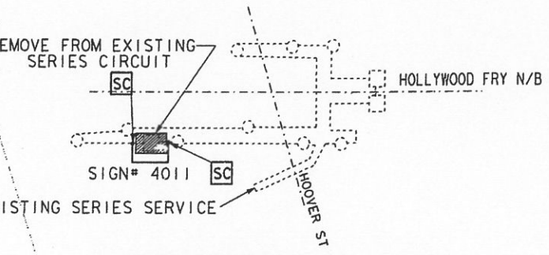
WARNING
BEFORE STARTING WORK ON EXISTING SERIES LIGHTING CIRCUITS, THE CONTRACTOR MUST OBTAIN DAILY SAFETY CIRCUIT CLEARANCE FROM SERVING COMPANIES. DISCONNECT CIRCUITS AND PLACE "MEN AT WORK" SIGNS NEAR OPEN SWITCHES BEFORE DOING ANY WORK ON CIRCUITS.



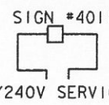
DETAIL 1
NO SCALE



DETAIL 2
NO SCALE



EXISTING SERIES CURCUIT FOR SIGN #4011



LEGEND (THIS SHEET ONLY):
- EXISTING SIGN LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED SIGN LUMINAIRE

LIGHTING CONVERSION DIAGRAM
NO SCALE

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
#6 POWER CABLE	2	2				
#10 POWER CABLE	2		2			
CONDUIT SIZE	2"	2"	1 1/2"	2-3"	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 1-A POLE ON EXISTING SIGN STRUCTURE. FOR INSTALLATION AND MOUNTING DETAILS, SEE SHEET E-28, AND E-29.
4. INSTALL TYPE 'H' RISER AND 3" CONDUIT. CONDUCTORS BY OTHERS.
5. INSTALL A 120/240V, 3-WIRE, SINGLE PHASE 100AMP, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100AMP MAIN BREAKER WITH, A METERED 120-1P-30 AMP CIRCUIT BREAKER FOR CCTV 334 CABINET, AND AN UNMETERED 120-1P-15AMP CIRCUIT BREAKER FOR SIGN ILLUMINATION.
6. RC EXISTING FLUORESCENT ILLUMINATION EQUIPMENT.
7. INSTALL TYPE SC3 SIGN CONTROL. RC EXISTING SIGN DISCONNECT.
8. RC EXISTING S/M TRANSFORMER.
9. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

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

CCTV CAMERA (LOCATION HO 041)
SCALE: 1" = 20'

E-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT
PROJECT ENGINEER: ALLEN CHEN

CALCULATED/ DESIGNED BY	PW	DATE 5/94	REVISED BY
CHECKED BY	AC	5/94	DATE REVISED

LAST REVISION 00-00-00 TIME PLOTTED => 20-MAR-1995 06:31

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

USERNAME => mikesl
DGN FILE => /usr/mikesl/P4/71186cul7.dg

CU 07396

EA 1186C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	47	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

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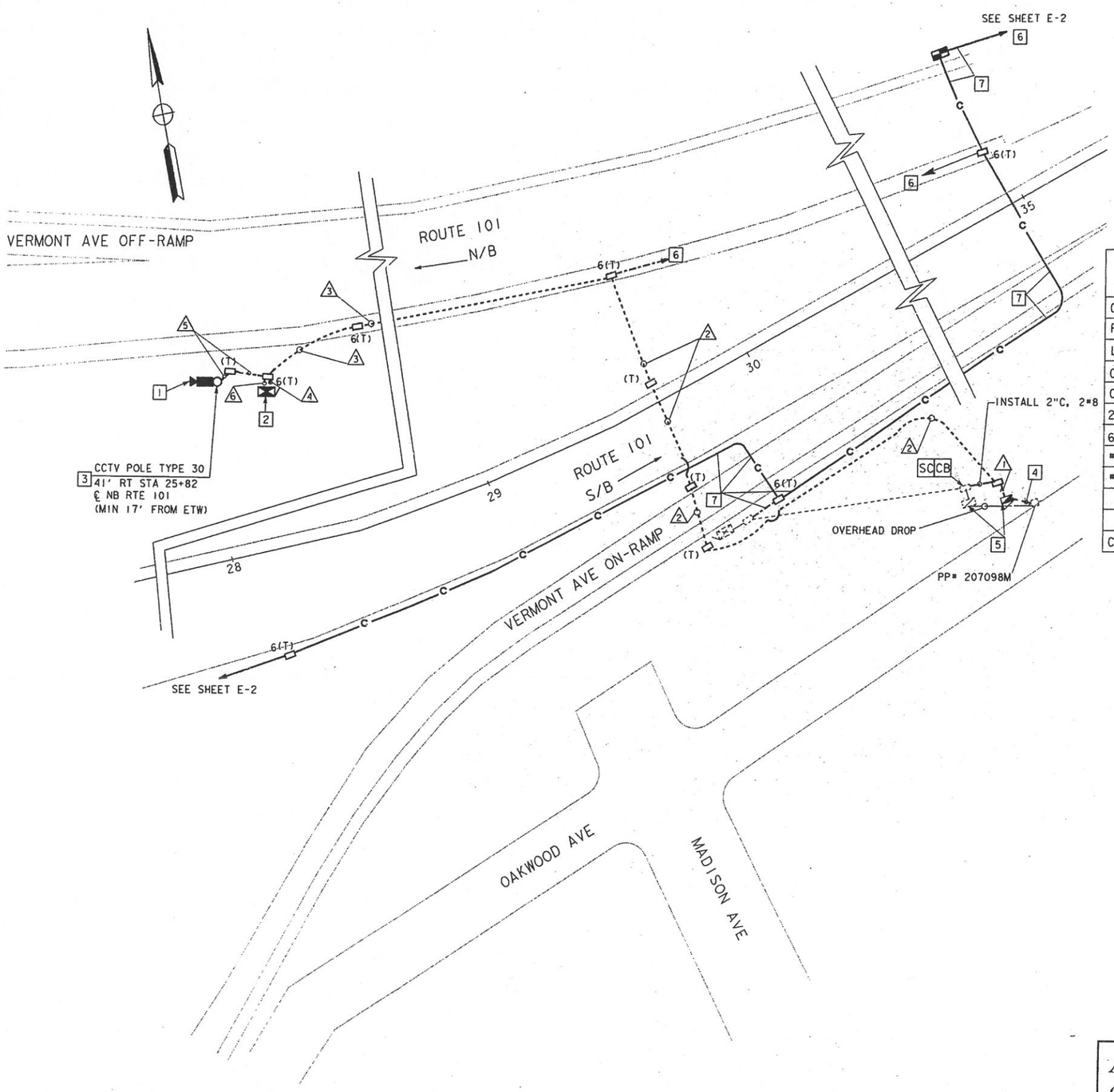

CONDUCTOR AND CONDUIT SCHEDULE

	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		
#8 POWER CABLE	2					
#4 POWER CABLE	2	2	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 30 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 POLE MOUNTED TYPE E SERVICE. 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 CCTV 334 CABINET, A 120-1P-30 AMP CIRCUIT BREAKER FOR RAMP METERING.
6. SEE SHEET E-2 FOR CONTINUATION.
7. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.

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

CCTV CAMERA (LOCATION HO 044)

SCALE: 1"=20'

E-18

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

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

LAST REVISION 00-00-00 TIME PLOTTED => 20-MAR-1995 08:23

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CU 07396

EA 1186C1