INFORMATION HANDOUT

For Contract No. 07-3X9204
At 07-LA-5, 47, 101-Var

Identified by
Project ID 0713000327

MATERIALS INFORMATION

Fiber Optic System and Pull Box Locations As-Built Drawings

USER ID: t7aferna@NODE FILE: /project/120791_ua/ab/t7aferna/712079u02.dan DATE: Wed Mar 22 2000 TIME: 08:39

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	5, 10, 57, 60, 210	Var	53	85

Caltrans Metric

Pat Sullivan 3-3-97
REGISTERED CIVIL ENGINEER

6-2-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — PAT SULLIVAN No. C30912 Exp. 3/31/00 — STATE OF CALIFORNIA

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

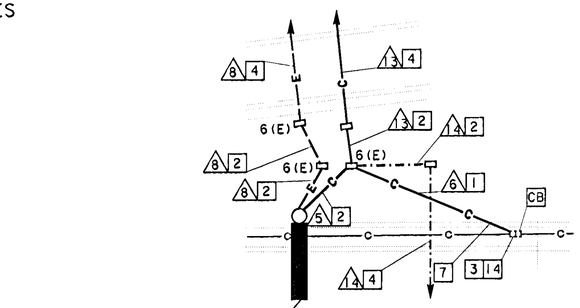
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY.
2. INSTALL CONDUIT(S).
3. INSTALL TWISTED PAIR SPLICE CLOSURE IN COMMUNICATION PULL BOX. SEE SHEET E-24 FOR DETAILS.
4. JACK TYPE I CONDUIT(S).
7. TRANSITION CONDUIT BENEATH SOUNDWALL. SEE SHEET C-9 FOR DETAILS.
14. SPLICE 6P22 CABLE TO EXISTING 50P22 CABLE, SEE SHEET E-23.
15. INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CMS CABINET. SEE DETAIL 1 , SHEET E-26 AND E-14 FOR DETAILS.
18. INSTALL THE FOLLOWING CIRCUIT BREAKERS:
    METER A
    1-100 A, 2P MAIN DICONNECT
    1- 30 A, IP RMS CONTROLLER 3099
    1- 20 A, IP TDB
    METER B
    1-200 A, 2P MAIN DISCONNECT
    4- 80 A, IP CMS
    1- 30 A, IP CMS CONTROLLER
19. INSTALL TYPE III-CF 120/240 V SERVICE CLOSURE WITH PROVISIONS FOR ONE(1)-100 A METER (METER A) AND ONE(1)-200 A METER (METER B).
20. INSTALL 78C, TYPE H SERVICE RISER ON POWER POLE.
21. INSTALL 78C, TYPE I CONDUIT. UTILITY COMPANY TO INSTALL CONDUCTORS.
22. INSTALL CONDUITS IN THE SAME TRENCH.
27. INSTALL STATE-FURNISHED LOOP DETECTOR SENSOR UNITS.
28. INSTALL TYPE 334 CONTROLLER CABINET AND EQUIPMENT AS SHOWN ON SHEET E-22.
30. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.

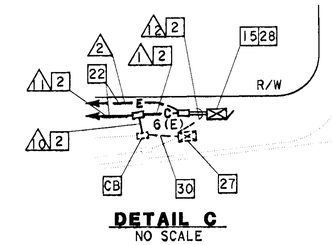
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8	9	10	11	12		13	14
6P22 CABLE	DATA /PHONE	2					2					2	2	2	2	
*6P18	*CMS CONTROL	1				1						1	1		1	
*24P18	*CMS CONTROL	1				1						1	1		1	
DLC	RAMP/COUNT							5			6	6			1	1
#1	POWER			6	6				6							
#8	POWER		2	2	4					2				2		
#10	POWER				2					2						
	CONDUIT SIZE	78	78	78	78	78	53	53	78	53	53	53	78	78	53	53

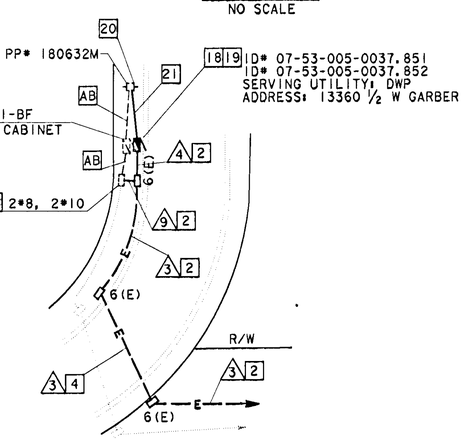
*STATE-FURNISHED CABLES



DETAIL B
NO SCALE



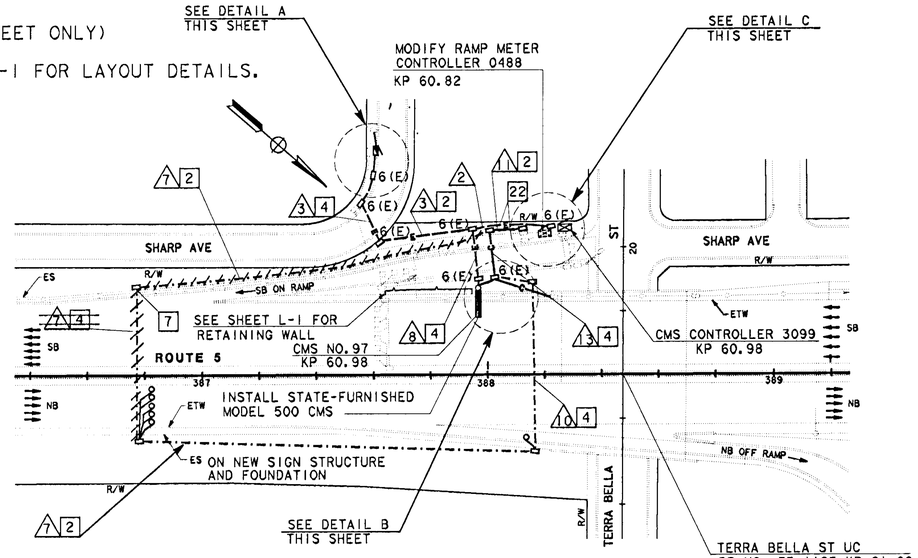
DETAIL C
NO SCALE



DETAIL A
NO SCALE

NOTES: (THIS SHEET ONLY)

1. SEE SHEET L-1 FOR LAYOUT DETAILS.



CMS SIGN NO.97 AND MODIFY RMS LOCATION 0488

AS-BUILT
Contract No. 07- 120794
Resident Engineer: AMOS, H.
Completion Date: 11/29/1999

CHANGEABLE MESSAGE SIGN SYSTEM (LOCATION GS609)
MODIFY RAMP METERING SYSTEM (LOCATION 0488)

SCALE: 1 : 1000

E-2

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
PROJECT ENGINEER PAT SULLIVAN
CALCULATED/ DESIGNED BY
CHECKED BY
DATE 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 120791

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

USER ID: t7aferna@NODE FILE: /project/120791_ua/ab/t7aferna/712079u02.dan DATE: Wed Mar 22 2000 TIME: 08:39

DIST	CO	ROUTE	POST MILE/KILO PROJECT	TOTAL SHEETS	SHEET
07	LA	5,10	16.9/46.2,50.1	23	153

Project Engineer (Date)

8-31-92

Plans Approval Date

NATIONAL ENGINEERING TECHNOLOGY
18700 VENTURA BLVD., SUITE 290
LA URBAN LA 91356
IN ASSOCIATION WITH
FBA-SOFT SERVICES INCORPORATED
RAHN, HITSUI & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC
CONTROL DESIGN SYSTEMS

PROJECT NOTES:

1. INSTALL TYPE III-RF SERVICE EQUIPMENT ENCLOSURE ON ELA FOUNDATION
2. INSTALL CAMERA POLE (TYPE 15) ON EXISTING SIGN STRUCTURE POLE. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
3. INSTALL CAMERA POLE (TYPE 30) AND FOUNDATION. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
4. INSTALL CAMERA POLE (TYPE 40) AND FOUNDATION. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
5. INSTALL CAMERA POLE (TYPE 15) AND FOUNDATION. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
6. INSTALL NO.6(T) PB (MODIFIED) WITH TWISTED PAIR SPLICE CLOSURE. SEE DETAIL B, SHEET E-69
7. INSTALL TYPE 334-TV CABINETS (2) ON NEW FOUNDATION. CABINETS TO INCLUDE CAMERA CONTROL RECEIVER, EQUIPMENT AT DATA NODE AND EQUIPMENT AT VIDEO NODE. SEE DETAIL B, SHEET E-74.
8. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CAMERA CONTROL RECEIVER, VIDEO TRANSMITTER AND VIDEO REPEATER. SEE DETAIL A, SHEET E-74
9. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION; CABINET TO INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-73
10. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION; CABINET TO INCLUDE CAMERA CONTROL RECEIVER, VIDEO TRANSMITTER AND EQUIPMENT AT DATA NODE. SEE DETAIL C, SHEET E-73
11. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINETS TO INCLUDE CAMERA CONTROL RECEIVER AND EQUIPMENT AT VIDEO NODE. SEE DETAIL B, SHEET E-73.
12. JACK 4" GALVANIZED STEEL CONDUIT BENEATH ROADWAY. SEE DETAIL B, SHEET E-65.
13. INSTALL CONDUIT(S) IN 6" WIDE TRENCH IN DIRT OFF SHOULDER, WITHIN 10' OF EDGE OF SHOULDER. SEE SHEETS E-61 AND E-64 FOR DETAILS.
14. INSTALL CONDUIT(S) IN 6" WIDE TRENCH IN ASPHALT SHOULDER, MAINTAINING 4' MINIMUM DISTANCE FROM EDGE OF TRAVELWAY. SEE SHEETS E-62 AND E-64 FOR DETAILS.
15. JACK TWO 4" GALVANIZED STEEL CONDUITS BENEATH ROADWAY. SEE DETAIL C, SHEET E-65
16. INSTALL COMMUNICATIONS TERMINAL BLOCK AND TELEPHONE BRIDGE IN EXISTING CONTROLLER CABINET. SEE SHEET E-71 FOR DETAILS
17. PRUNE PLANTS AFTER CAMERA IS INSTALLED AND OPERATING ENGINEER TO VERIFY THAT FINAL VIEW IS UNOBSCURED.
18. INSTALL BD-3 PEDESTAL FOR COMMUNICATIONS. SEE SHEET E-72 FOR DETAILS.
19. INSTALL CONDUIT(S) IN 6" WIDE SAWCUT TRENCH IN CONCRETE SIDEWALK. MAINTAINING 4' MINIMUM DISTANCE FROM EDGE OF TRAVELWAY. SEE SHEETS E-63 AND E-64 FOR DETAILS.
28. INSTALL 3" STL CONDUIT. ELECTRIC UTILITY COMPANY TO INSTALL 3 #2 CONDUCTORS
29. ELECTRIC UTILITY COMPANY TO INSTALL METER
30. INSTALL 3" CONDUIT TYPE H SERVICE RISER ON POWER POLE
31. INSTALL 240V/120V STEP DOWN TRANSFORMER IN PULL BOX
32. JACK 2" GALVANIZED STEEL CONDUIT BENEATH ROADWAY. SEE DETAIL A, SHEET E-65
33. ADD SERVICE (AND COMMUNICATIONS) CONDUCTORS IN EXISTING CONDUIT
34. INSTALL 15A, 120V CIRCUIT BREAKER FOR CAMERA AND TYPE 334-TV CABINET
35. REMOVE EXISTING SERVICE RISER FROM POWER POLE
36. INSTALL 20A, 120V CIRCUIT BREAKER FOR CONTROLLER CABINET
37. INSTALL 2 15A, 120V CIRCUIT BREAKERS FOR CAMERAS AND TYPE 334-TV CABINETS.
38. ADD COMMUNICATIONS CABLE(S) TO EXISTING CONDUIT
39. INSTALL 15A, 240V CIRCUIT BREAKER FOR CAMERA AND TYPE 334-TV CABINET
40. INSTALL 40A, 120V CIRCUIT BREAKER FOR CONTROLLER CABINET
41. INSTALL 20A, 120V CIRCUIT BREAKER FOR CONTROLLER CABINET.
42. INSTALL 40A, 240V CIRCUIT BREAKER FOR FREEWAY LIGHTING.
43. INSTALL 40A, 240V CIRCUIT BREAKER FOR FREEWAY SIGN(S)
51. ATTACH RISER CONDUIT TO FACE OF ABUTMENT WALL WITH TWO-HOLE PIPE STRAPS. LOCATE IN LINE WITH CONDUIT LOCATION ON STRUCTURE. SEE DETAIL A, SHEET E-87
52. ATTACH RISER CONDUIT TO FACE OF COLUMN OR PIER WALL WITH TWO-HOLE PIPE STRAPS. LOCATE RISER IN LINE WITH CONDUIT LOCATION ON STRUCTURE. SEE DETAIL B, SHEET E-88
53. ATTACH RISER CONDUIT TO FACE OF WING WALL AND/OR ABUTMENT WALL WITH TWO-HOLE PIPE STRAPS. LOCATE IN LINE WITH CONDUIT LOCATION ON STRUCTURE. SEE DETAIL C, SHEET E-88.
54. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL R, SHEET E-91.
55. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL J, SHEET E-91
56. CORE HOLE IN CONCRETE WALL AT LOCATION REQUIRED BY PLACEMENT OF CONDUIT ON STRUCTURE. DIAMETER OF CORED HOLE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT PLUS 1/2 INCH. SEE DETAIL D, SHEET E-89
57. INSTALL CONDUIT(S) IN NEW CONCRETE RAIL AT FACE OF TYPE 9 RAIL ON WING WALL. TRANSITION CONDUIT(S) FROM NEW CONCRETE SECTION TO TRENCH IN BACKFILL NEAR END OF WING WALL. SEE RAIL MODIFICATIONS SAN FERNANDO ROAD OVERHEAD BARRIER DETAILS.
58. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL E, SHEET E-90.
59. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL P, SHEET E-90.
60. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL L, SHEET E-90.
61. ATTACH CONDUIT WITH PIPE HANGER STRAPS TO BOTTOM SOFFIT OF BRIDGE DECK SLAB IN INTERIOR BAY. LOCATE CONDUIT TO CLEAR BRACING. SEE DETAIL I, SHEET E-92.
66. ATTACH CONDUIT TO OUTSIDE OF BRIDGE RAIL. INSTALL COVER OVER CONDUIT. SEE DETAIL O, SHEET E-93.
68. DRILL AND BOND REINFORCING STEEL IN HORIZONTAL SURFACE BEHIND TYPE 27 RAIL. PLACE CONDUIT(S) ON HORIZONTAL OR VERTICAL POSITION TO CLEAR EXISTING FACILITIES. ENCASE CONDUITS IN CONCRETE. SEE DETAIL N, SHEET E-92
70. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL F, SHEET E-90.
71. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN UTILITY VOID AND REPLACE CONCRETE. SEE DETAIL G, SHEET E-
72. ATTACH CONDUIT WITH ONE-HOLE PIPE STRAPS TO OUTSIDE OF RAIL POST. LOCATE CONDUIT AT SAME ELEVATION AS BOTTOM CHANNEL OF RAIL. SEE DETAIL H, SHEET E-90.
73. CONSTRUCT TYPE 25M-9 BARRIER AT FACE OF EXISTING TYPE 9 BARRIER RAIL. INSTALL CONDUIT IN NEWLY CONSTRUCTED RAIL. SEE MODIFICATIONS SAN FERNANDO ROAD OVERHEAD BARRIER DETAILS
74. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL M, SHEET E-91.
75. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL K, SHEET E-89.
76. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL S, SHEET E-89
79. CONNECT NEWLY INSTALLED CONDUIT TO EXISTING CONDUIT

GENERAL NOTES:

1. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON PLAN. ARE OBTAINED FROM OWNER'S RECORDS AND/OR OWNERS PLANS
2. THE LOCATION OF UNDERGROUND FACILITIES SHOWN ON PLAN ARE APPROXIMATE
3. **BLANK**
4. THE LOCATIONS OF EXISTING CONTROLLER CABINETS, EXISTING SERVICE ENCLOSURES, POWER POLES AND EXISTING DEMARCATION BOXES ARE APPROXIMATE.
5. THE LOCATIONS OF PROPOSED CCTV POLES AND TOWERS SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER PRIOR TO PLACEMENT OF FOUNDATIONS.
6. THE LOCATIONS OF PROPOSED CABINETS, PULL BOXES, SPLICE VAULTS AND DEMARCATION BOXES ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER
7. TYPE 334-TV CABINET DOOR SWING SHOWN ON NEW CABINETS INDICATES FRONT DOOR
8. EXISTING DETECTOR LOOPS AND CONDUITS ARE SHOWN IN THE VICINITY OF PROPOSED CONDUIT TRENCHES. CONTRACTOR SHALL EXERCISE CARE TO AVOID DAMAGE TO EXISTING CONDUITS. TRENCHING WITH HAND TOOLS MAY BE REQUIRED.
9. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL FACILITIES, THE CONTRACTOR SHALL PROVIDE 72 HOUR ADVANCED WRITTEN NOTICE TO ALL AGENCIES CONCERNED.
10. FOR SUPPLEMENTAL LEGEND, SEE STANDARD PLANS ES-1A AND ES-1B
11. UNLESS OTHERWISE NOTED, ALL CONDUIT BENDS SHALL BE 4 FOOT RADIUS FACTORY BENDS.
12. ALL CONDUITS IN CONDUCTOR SCHEDULE TABLES ARE EXISTING UNLESS MARKED (N) INDICATING PROPOSED NEW CONDUIT. ALL CONDUCTORS IN PROPOSED NEW CONDUITS ARE NEW. ALL CONDUCTORS IN EXISTING CONDUITS ARE EXISTING UNLESS MARKED (N).
13. PVC, WHERE CALLED OUT IN THESE PLANS, SHALL MEAN RIGID NON-METALLIC CONDUIT AS DEFINED IN THE STANDARD SPECIFICATIONS
14. ALL NO. 5 AND NO. 6 PULLBOXES ARE THE TRAFFIC TYPE WHETHER OR NOT THE PULLBOX IS IDENTIFIED WITH A (T) MODIFIER.

LEGEND

- PROPOSED CCTV CAMERA. SEE SHEET E-75 & STRUCTURES SHEETS FOR DETAILS
- PROPOSED SPLICE VAULT. SEE SHEET E-70 FOR DETAILS
- (T) OR (T) — PROPOSED NO. 6(T) PULLBOX (MODIFIED). SEE SHEETS E-65 THROUGH E-69 FOR DETAILS
- PROPOSED COMMUNICATIONS CONDUIT(S)
- PROPOSED SERVICE CONDUIT
- 13 14 — CONDUIT LINE DELIMITER FOR CONSTRUCTION NOTES
- EXISTING DETECTOR LOOP. SEE SHEETS E-2 THROUGH E-36
- 8/75 — DETAIL CALLOUT FOR DETAIL B ON SHEET E-75
- EXISTING SIGN SUPPORT STRUCTURE
- PROPOSED NO. 5(T) PULLBOX ON TRUNK LINE. SEE DETAIL A, SHEET E-65, AND DETAIL C, SHEET E-69
- PROPOSED TYPE 334-TV CABINET

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

LEGEND AND NOTES

E-1

DESIGNED BY: GLORIA GWYNNE
CALCULATED/CHECKED BY:
DESIGN OVERSIGHT:
DATE REVISED: 7-2-92, 7-30
DATE: 8-31-92

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

ELDWG NET 3\23\92

FORM DC-OE-92-PF (REV. 3/88)

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

07 | LA | 116634

< 24

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,50.1	24	153

Joseph A. Kwak
REGISTERED ELECTRICAL ENGINEER

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. KWAK
No. 10991
Exp. 6/30/95
STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DATE	REVISED BY
3/23	DATE REVISED
JK	CALCULATED/ DESIGNED BY
	CHECKED BY

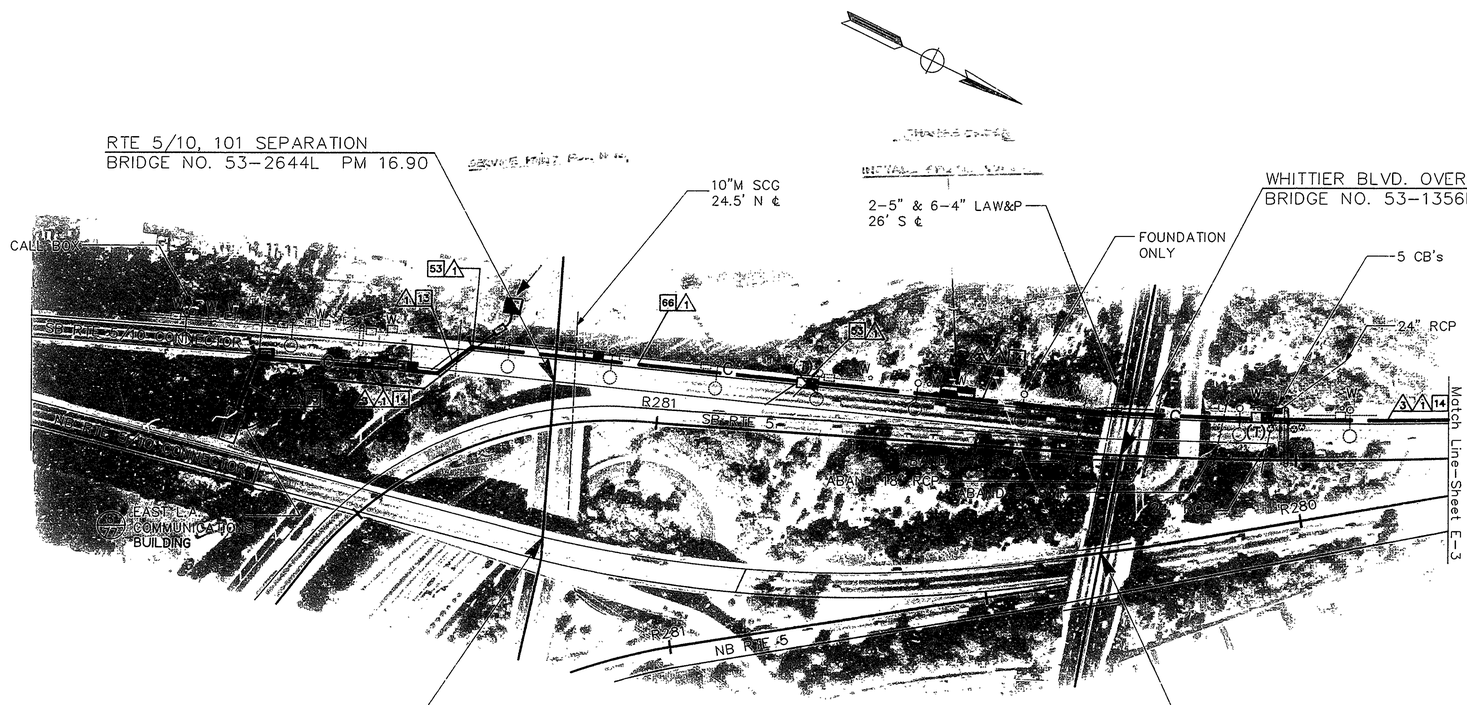
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

1166JE02.DWG HLN 05/15/92

RTE 5/10, 101 SEPARATION
BRIDGE NO. 53-2644L PM 16.90

WHITTIER BLVD. OVERCROSSING
BRIDGE NO. 53-1356L PM 17.07



RTE 5/10, 101 SEPARATION
BRIDGE NO. 53-2644G PM 16.90

WHITTIER BLVD. OVERCROSSING
BRIDGE NO. 53-1356R PM 17.07

CONDUCTOR SCHEDULE			
		RUN	
CONDUCTOR TYPE	FUNCTION	1	3
50P22 CABLE	PHONE LINES	1	
48SMFO CABLE	MUX VID/DATA	1	
8MMFO CABLE	SHORT HAUL VIDEO	1	
	CONDUIT SIZE	4" (N)	4" (N)

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

APPROX. SCALE: 1"=100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS
REFERENCE CALIBRATIONS INDICATE APPROXIMATE
RELATIVE DISTANCE IN THOUSANDS OF FEET.

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-2

FORM DC-OE-92-PF (REV. 3/88)

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

CU	07387	EA	116634

< 24

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,50.1	25	153

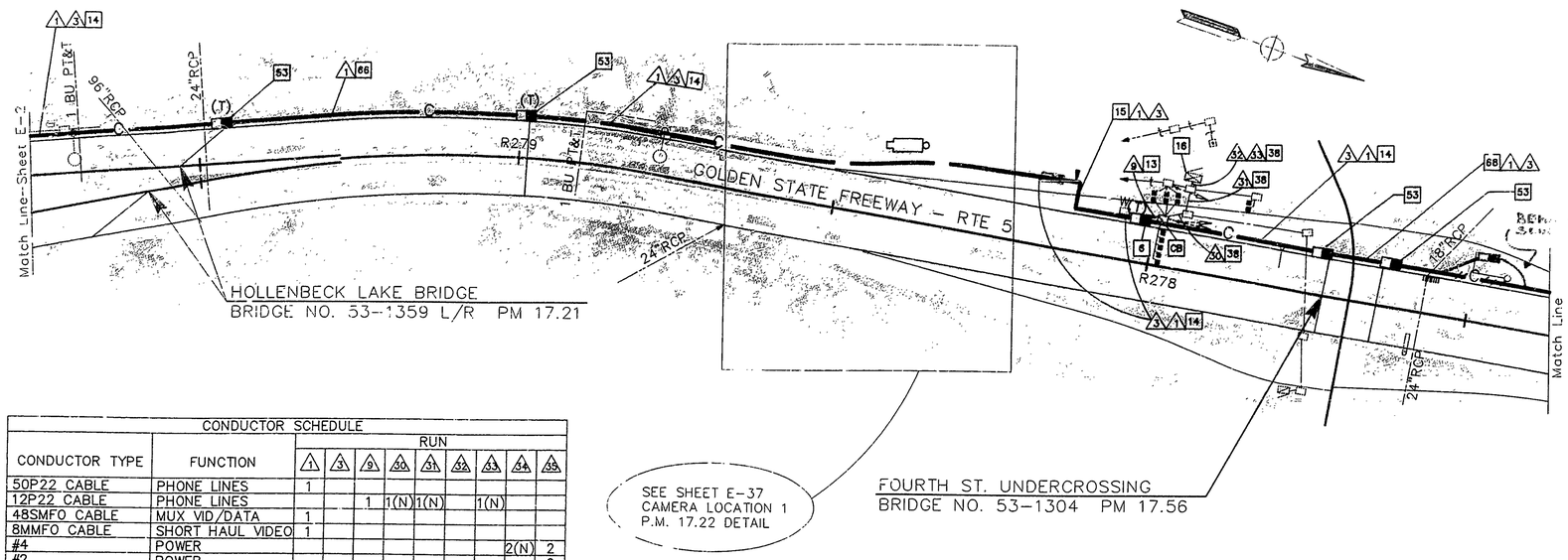
Joseph A. Kwak
REGISTERED ELECTRICAL ENGINEER

8-31-92
PLANS APPROVAL DATE

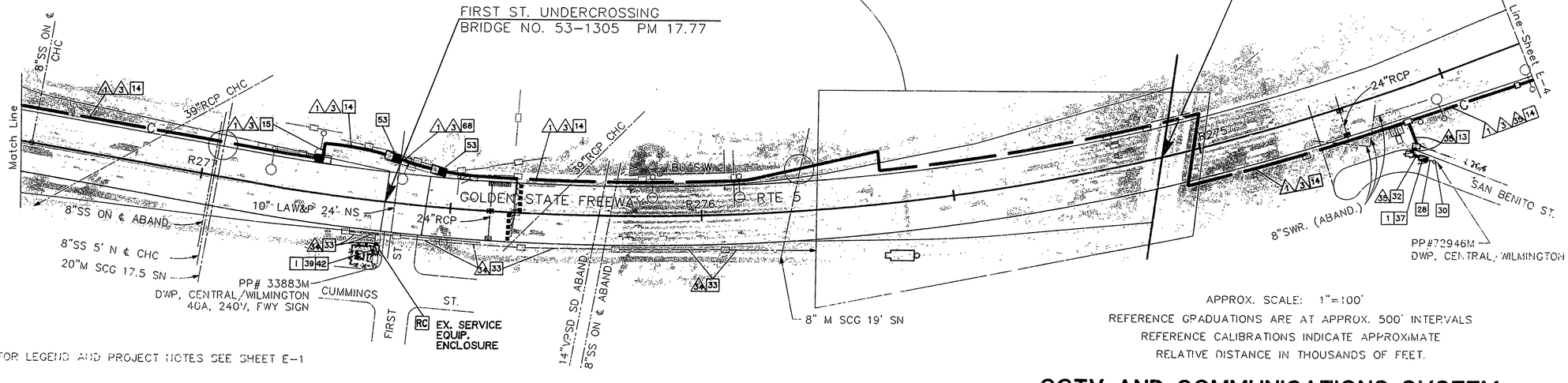
REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997



CONDUCTOR SCHEDULE											
CONDUCTOR TYPE	FUNCTION	RUN									
		1	3	9	30	31	32	33	34	35	
50P22 CABLE	PHONE LINES	1									
12P22 CABLE	PHONE LINES			1	1(N)	1(N)		1(N)			
48SMFO CABLE	MUX VID/DATA	1									
8MMFO CABLE	SHORT HAUL VIDEO	1									
#4	POWER								2(N)	2	
#2	POWER									2	
#8	GROUND									1	
#8 EXIST.	RMS SERVICE					2	2				
2#12 EXIST.	DLC				7	7		12			
#14 EXIST.	RAMP METER				6	6	12				
#10 EXIST.	COMMON				1	1	1				
#12 EXIST.	T.D.C. SERVICE					2					
#18 EXIST.	SHIELDED TEL. CABLE							1			
#6 EXIST.	FWY. SIGNAL LIGHT								4		
	CONDUIT SIZE	4" (N)	4" (N)	2" (N)	2"	2½"	2½"	2½"	2½"	3" (N)	



FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

APPROX. SCALE: 1"=100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS
REFERENCE CALIBRATIONS INDICATE APPROXIMATE RELATIVE DISTANCE IN THOUSANDS OF FEET.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-3

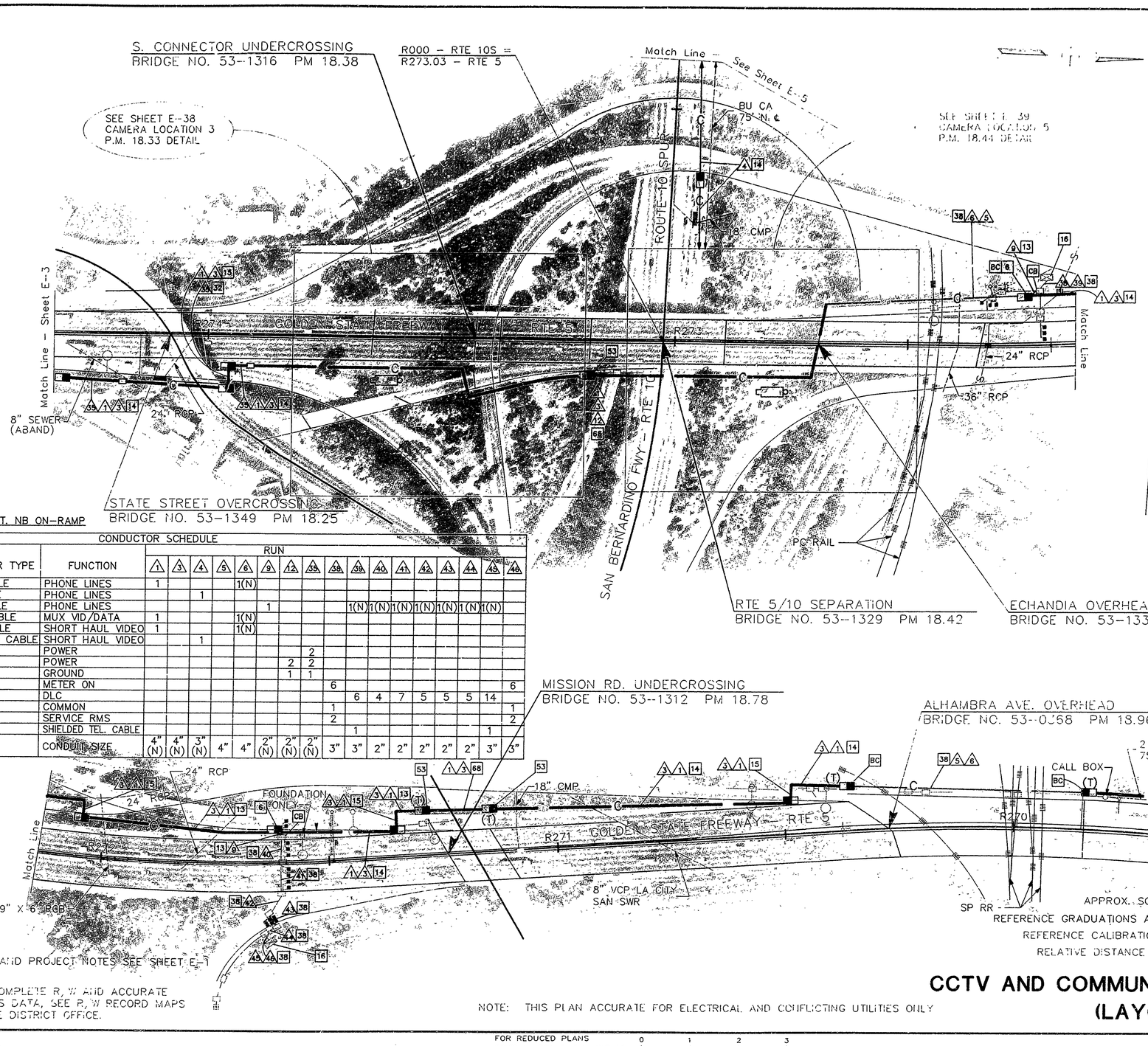
DESIGN OVERSIGHT — GLORIA GWYNNE
CALCULATED/DESIGNED BY — CHECKED BY — JK
DATE REVISED BY — 3/23 JK
DATE REVISED — 5/12
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gibbs
HLN 05/14/92
116631E03.DWG

FORM DC-OE-92-PE (REV. 3/88)

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

CU 07367 EA 116634

< 24



MARENGO ST. NB ON-RAMP

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	3	4	5	6	9	12	35	38	39	40	41	42	43	44	45	46
50P22 CABLE	PHONE LINES	1				1(N)												
6P19 CABLE	PHONE LINES			1														
12P22 CABLE	PHONE LINES						1				1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	
48SMFO CABLE	MUX VID/DATA	1				1(N)												
8MMFO CABLE	SHORT HAUL VIDEO	1				1(N)												
2MMFO B/O CABLE	SHORT HAUL VIDEO			1														
#4	POWER								2									
#2	POWER							2	2									
#8	GROUND							1	1									
#14 EXIST.	METER ON									6								6
#12 EXIST.	DLC										6	4	7	5	5	5	14	
#10 EXIST.	COMMON									1								1
#6 EXIST.	SERVICE RMS									2								2
#18 EXIST.	SHIELDED TEL. CABLE										1						1	
	CONDUIT SIZE	4" (N)	4" (N)	3" (N)	4"	4"	2" (N)	2" (N)	2" (N)	3"	3"	2"	2"	2"	2"	2"	3"	3"

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

10	16.9/46.2,SO.1	26	153

Joseph A. Kwak
REGISTERED ELECTRICAL ENGINEER
8-31-92
PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY
10700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT: GLORIA GWYNNE
CALCULATED / DESIGNED BY: JK
CHECKED BY: JK
DATE REVISED BY: 3/23
DATE REVISED: 5/22

11663EC4.DWG HLN 05/15/92

FORM DC-OE-92-PF (REV. 3/88)

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

CU 07387 EA 116634

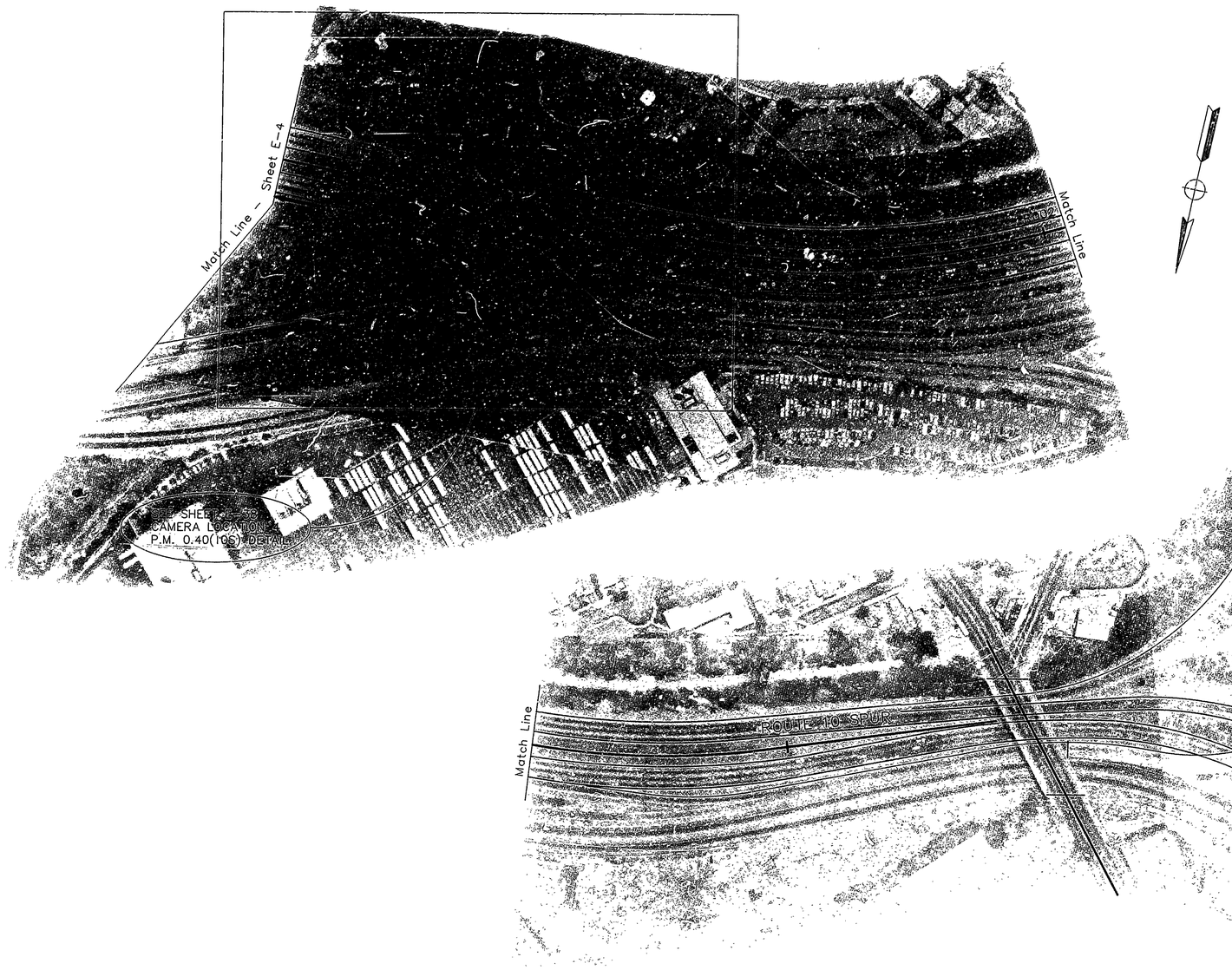
DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET TOTAL NO. SHEETS
07	LA	5,10	16.9/46.2,50.1	27 153

Joseph A. Kwak
REGISTERED ELECTRICAL ENGINEER

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH A KWAK No. 10991 Exp 6/30/95 STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



DATE	REVISED BY
3/23	DATE REVISED

CALCULATED/ DESIGNED BY
JK
CHECKED BY

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

1:\663E05.DWG PH 03/17/92

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

APPROX. SCALE: 1"=100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS
REFERENCE CALIBRATIONS INDICATE APPROXIMATE RELATIVE DISTANCE IN THOUSANDS OF FEET.

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

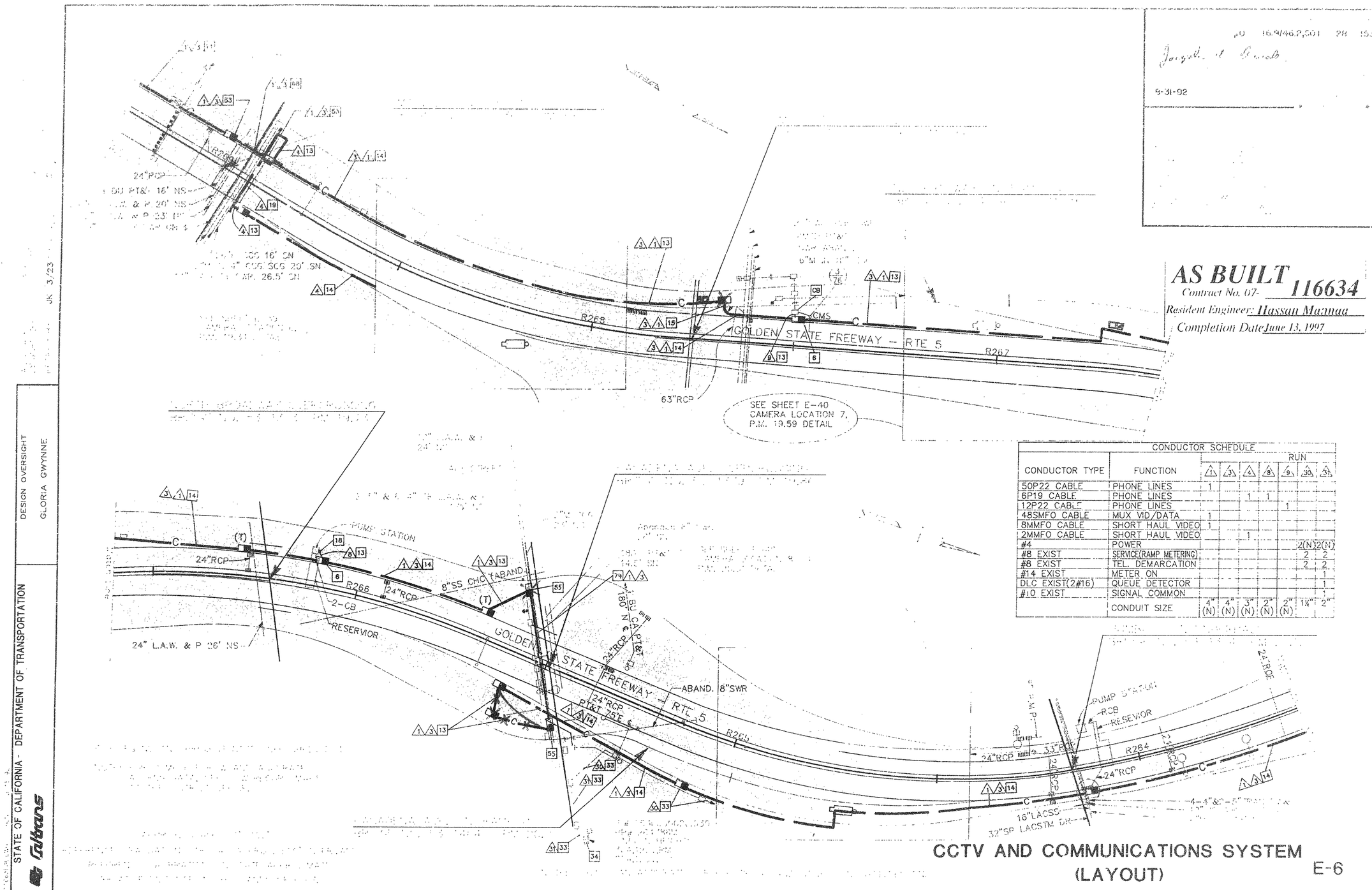
E-5

FORM DC-OE-92-PF (REV. 3/88)

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

CU	07387	EA	116634

< 24



CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 1	3	4	8	9	30	31
50P22 CABLE	PHONE LINES	1						
6P19 CABLE	PHONE LINES			1	1			
12P22 CABLE	PHONE LINES					1		
48SMFO CABLE	MUX VID/DATA	1						
8MMFO CABLE	SHORT HAUL VIDEO	1						
2MMFO CABLE	SHORT HAUL VIDEO			1				
#4	POWER						2(N)	2(N)
#8 EXIST	SERVICE(RAMP METERING)						2	2
#8 EXIST	TEL. DEMARCATION						2	2
#14 EXIST	METER ON							1
DLC EXIST(2#16)	QUEUE DETECTOR							1
#10 EXIST	SIGNAL COMMON							1
	CONDUIT SIZE	4" (N)	4" (N)	3" (N)	2" (N)	2" (N)	1½"	2"

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Maanaa
Completion Date June 13, 1997

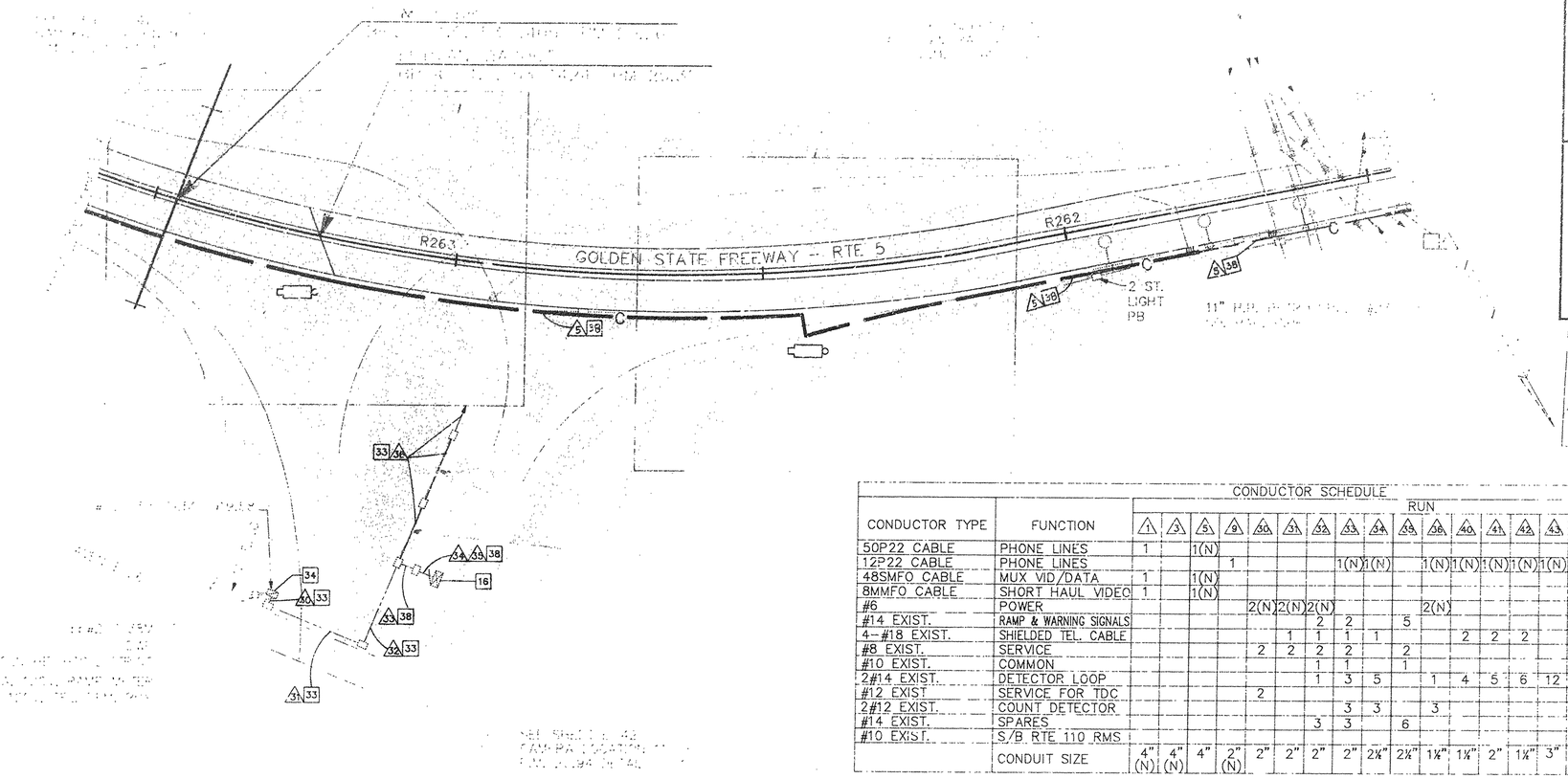
9-31-92

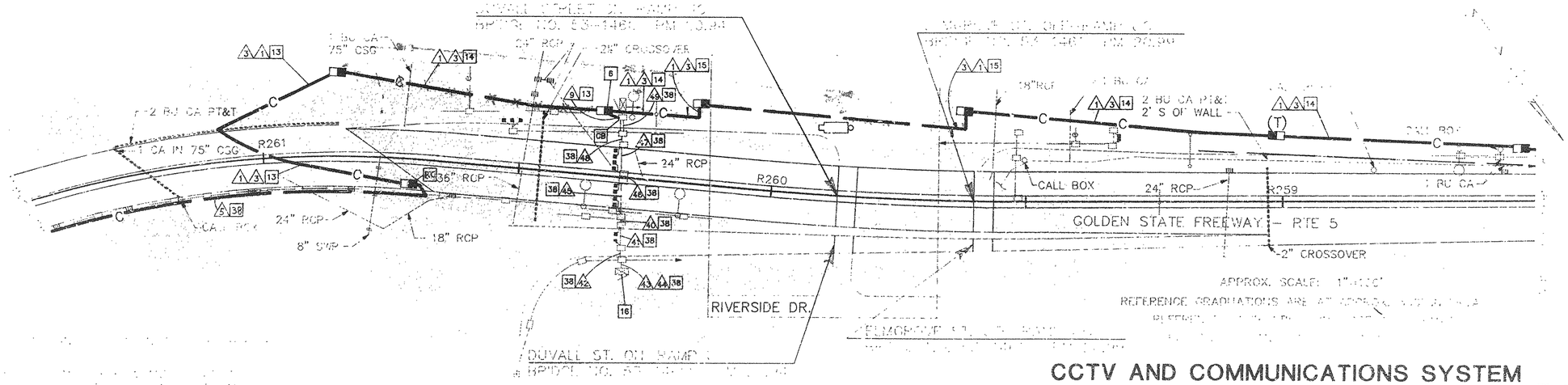
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-6





CONDUCTOR TYPE	FUNCTION	1	3	5	9	30	31	32	33	34	35	36	40	41	42	43	44	45	46	47	48	49
		CONDUCTOR SCHEDULE — RUN																				
50P22 CABLE	PHONE LINES	1		1(N)																		
12P22 CABLE	PHONE LINES				1				1(N)	1(N)		1(N)	1(N)	1(N)	1(N)	1(N)		1(N)	1(N)	1(N)	1(N)	1(N)
48SMFO CABLE	MUX VID/DATA	1		1(N)																		
8MMFO CABLE	SHORT HAUL VIDEO	1		1(N)																		
#6	POWER					2(N)	2(N)	2(N)				2(N)										
#14 EXIST.	RAMP & WARNING SIGNALS							2	2		5						4				3	4
4-#18 EXIST.	SHIELDED TEL. CABLE						1	1	1	1			2	2	2			2	2	2	2	2
#8 EXIST.	SERVICE					2	2	2	2		2						2					2
#10 EXIST.	COMMON							1	1		1						2					1
2#14 EXIST.	DETECTOR LOOP							1	3	5		1	4	5	6	12		2		2	4	12
#12 EXIST	SERVICE FOR TDC					2																
2#12 EXIST.	COUNT DETECTOR								3	3		3										
#14 EXIST.	SPARES							3	3		6						4					1
#10 EXIST.	S/B RTE 110 RMS																					2
	CONDUIT SIZE	4" (N)	4" (N)	4"	2" (N)	2"	2"	2"	2"	2½"	2½"	1½"	1½"	2"	1½"	3"	3"	2"	2"	2"	2"	2"

10 16 9/46.2,SO.1 29 153

Joseph E. Dwak

8-31-92

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23

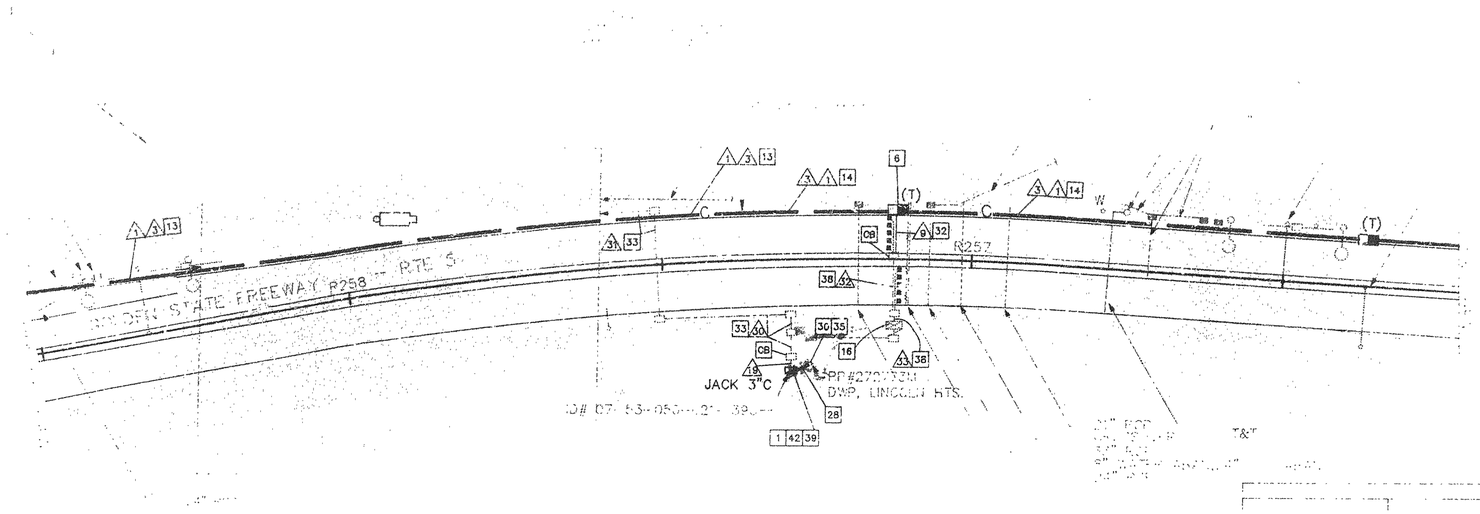
CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-7

10 16 9/46.2,501 30 153

Joseph [illegible]

8-31-92



AS BUILT 116634

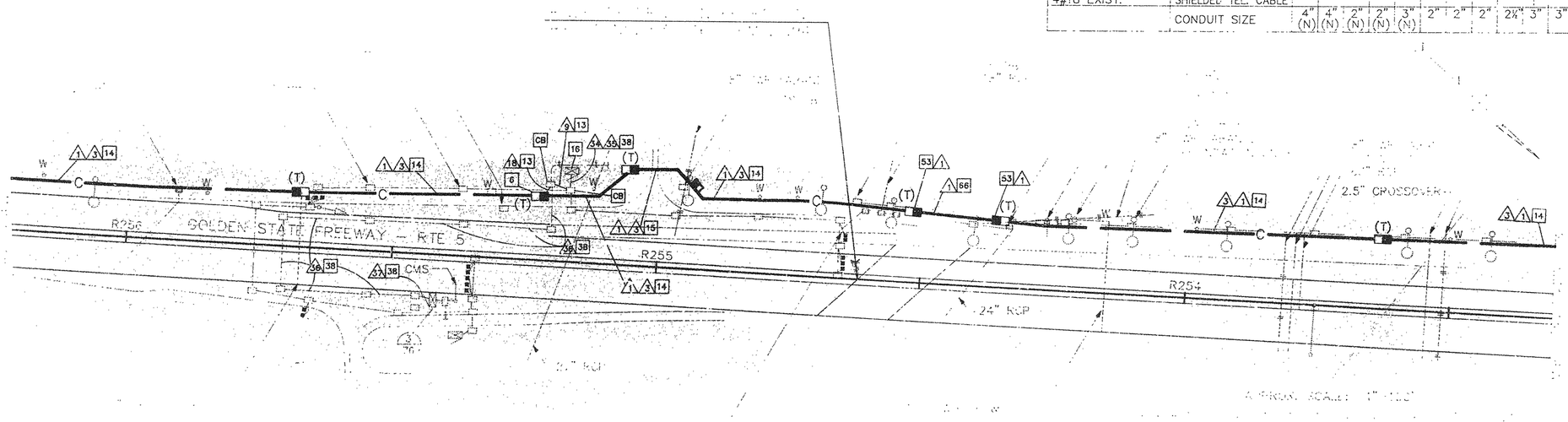
Contract No. 07-

Resident Engineer: Hassan Mamaa

Completion Date: June 13, 1997

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	3	9	18	19	30	31	32	33	34	35	36	37
50P22 CABLE	PHONE LINES	1												
12P22 CABLE	PHONE LINES			1	2				1(N)	1(N)	1(N)		1(N)	1(N)
48SMFO CABLE	MUX VID/DATA	1												
8MMFO CABLE	SHORT HAUL VIDEO	1												
#8	POWER					2	2(N)	2(N)						
#8	GROUND					1								
#6 EXIST.	FWY LIGHTING					2	2	2						
DLC EXIST.	DETECTOR LOOP								5	10	10			
#8 EXIST.	RMS SERVICE									2		2		
#14 EXIST.	RAMP METER											6		
#10 EXIST.	COMMON											1		
4#18 EXIST.	SHIELDED TEL. CABLE										1		1	1
	CONDUIT SIZE	4" (N)	4" (N)	2" (N)	2" (N)	3" (N)	2"	2"	2"	2½"	3"	3"	2"	3"



CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-8

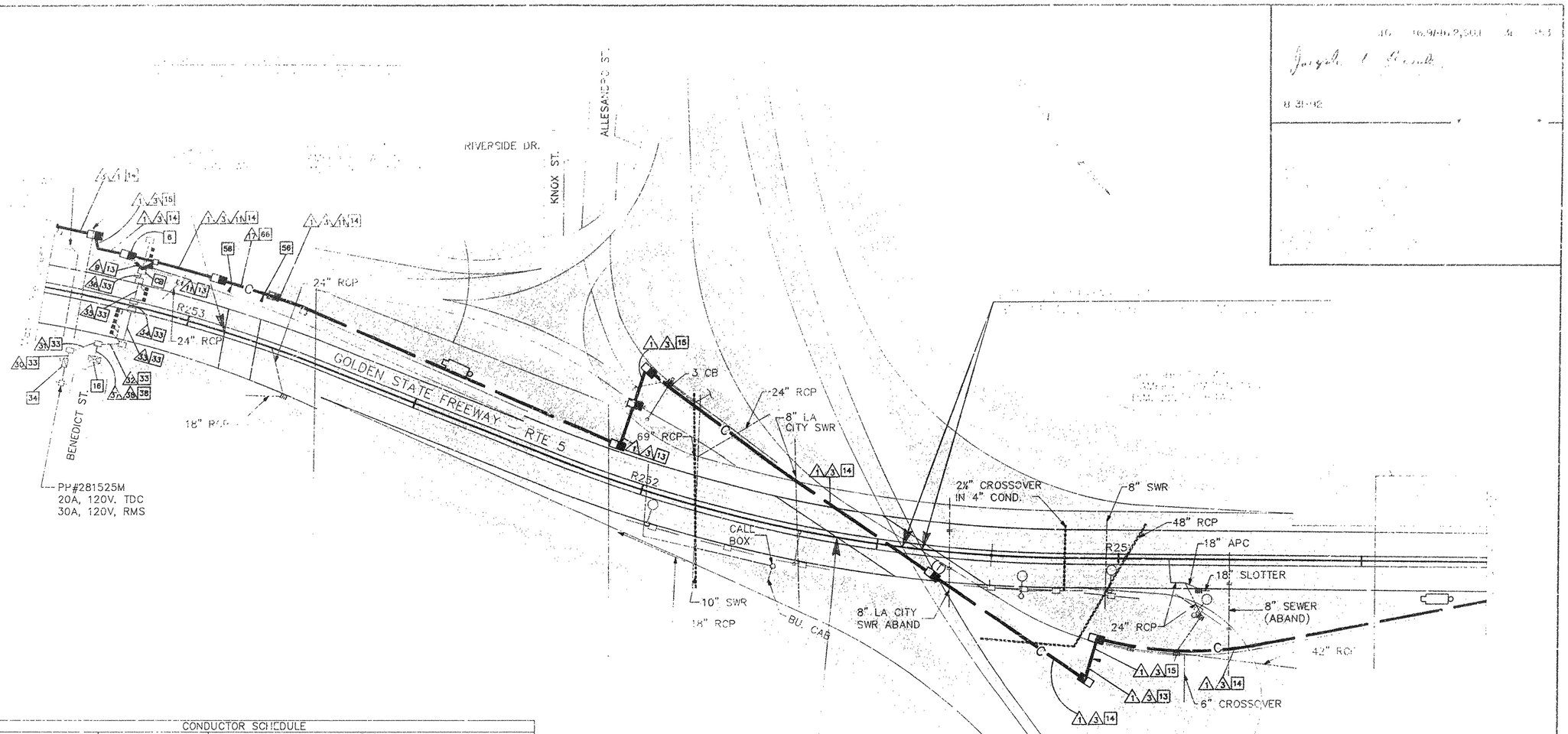
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN OVERSIGHT

GLORIA GWYNNE

JP 3/23



CONDUCTOR SCHEDULE																
CONDUCTOR TYPE	FUNCTION	RUN														
		1	3	9	11	17	30	31	32	33	34	35	36	37	38
50P22 CABLE	PHONE LINES	1				1										
12P22 CABLE	PHONE LINES			1(N)					1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		
48SMFO	MUX VID/DATA	1				1										
8MMFO CABLE	SHORT HAUL VIDEO	1				1										
2MMFO B/O CABLE	SHORT HAUL VIDEO															
#4	POWER				2	2	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)			
#8	GROUND				1	1										
2#12 EXIST.	COUNT DETECTOR								11	8	6	5	3	11		
#8 EXIST.	RMS SERVICE						2	2								2
#12 EXIST.	TDC SERVICE						2									
#18 EXIST.	SHIELDED TEL. CABLE													1		
	CONDUIT SIZE	4" (N)	4" (N)	2" (N)	2" (N)	4" (N)	3"	2"	3"	2¼"	2"	2"	2"	3"	3"	

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-9

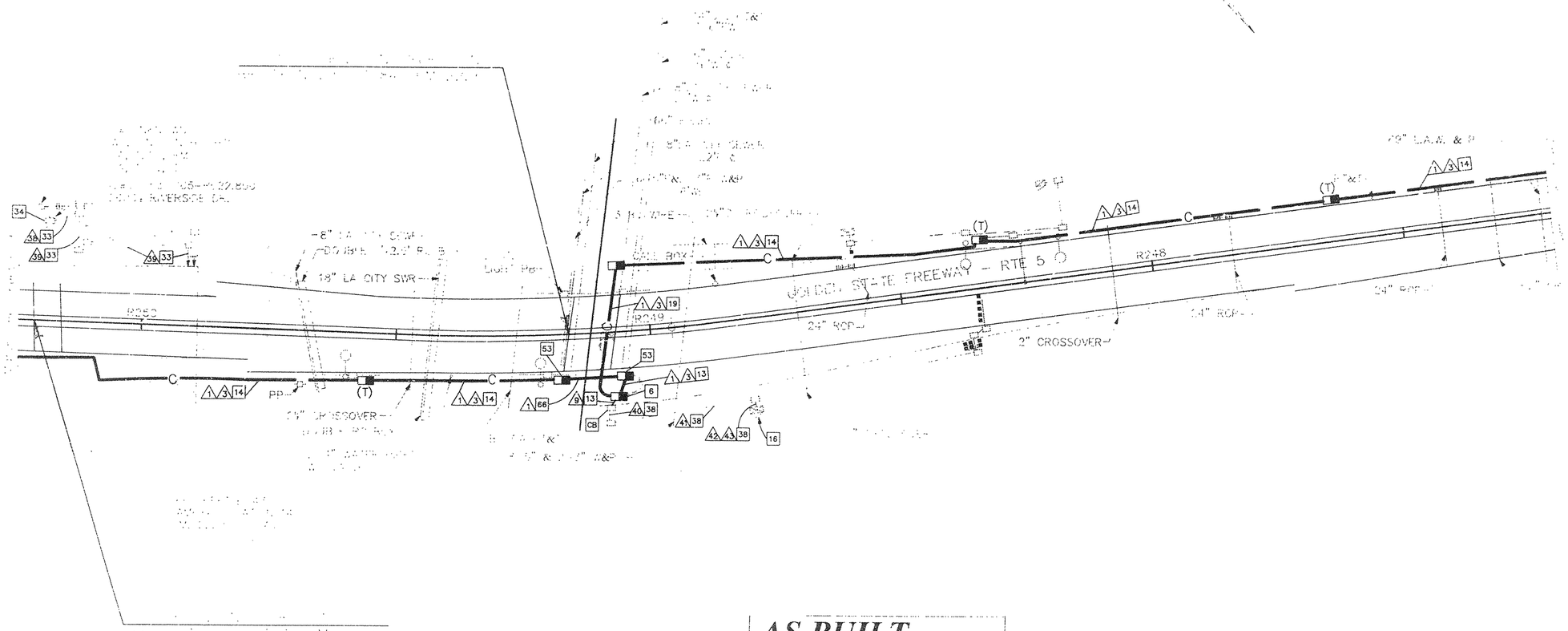
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN OVERSIGHT
GLORIA GWYNNE
JK 3/23

CONDUCTOR SCHEDULE										
		RUN								
CONDUCTOR TYPE	FUNCTION	1	3	9	38	39	40	41	42	43
50P22 CABLE	PHONE LINES	1								
12P22 CABLE	PHONE LINES			1			1(N)	1(N)	1(N)	
48SMFO CABLE	MUX VID/DATA	1								
8MMFO CABLE	SHORT HAUL VIDEO	1								
#4	POWER				2(N)	2(N)				
#8 EXIST.	TDC SERVICE						2			
#8 EXIST.	SERVICE RMS				2	2	2	2		2
#12 EXIST.	SERVICE TDC				2					
#14 EXIST.	RAMP METER						1	1		4
#10 EXIST.	COMMON						1	1		2
2#14 EXIST.	DLC						2	4	13	
#14 EXIST.	SPARES						1			4
	CONDUIT SIZE	4" (N)	4" (N)	2" (N)	2"	2"	2"	2"	3"	3"

10 16.9/43.2,SO.1 32 153

Joseph A. [illegible]

8-31-92



AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM
(LAYOUT)

E-10

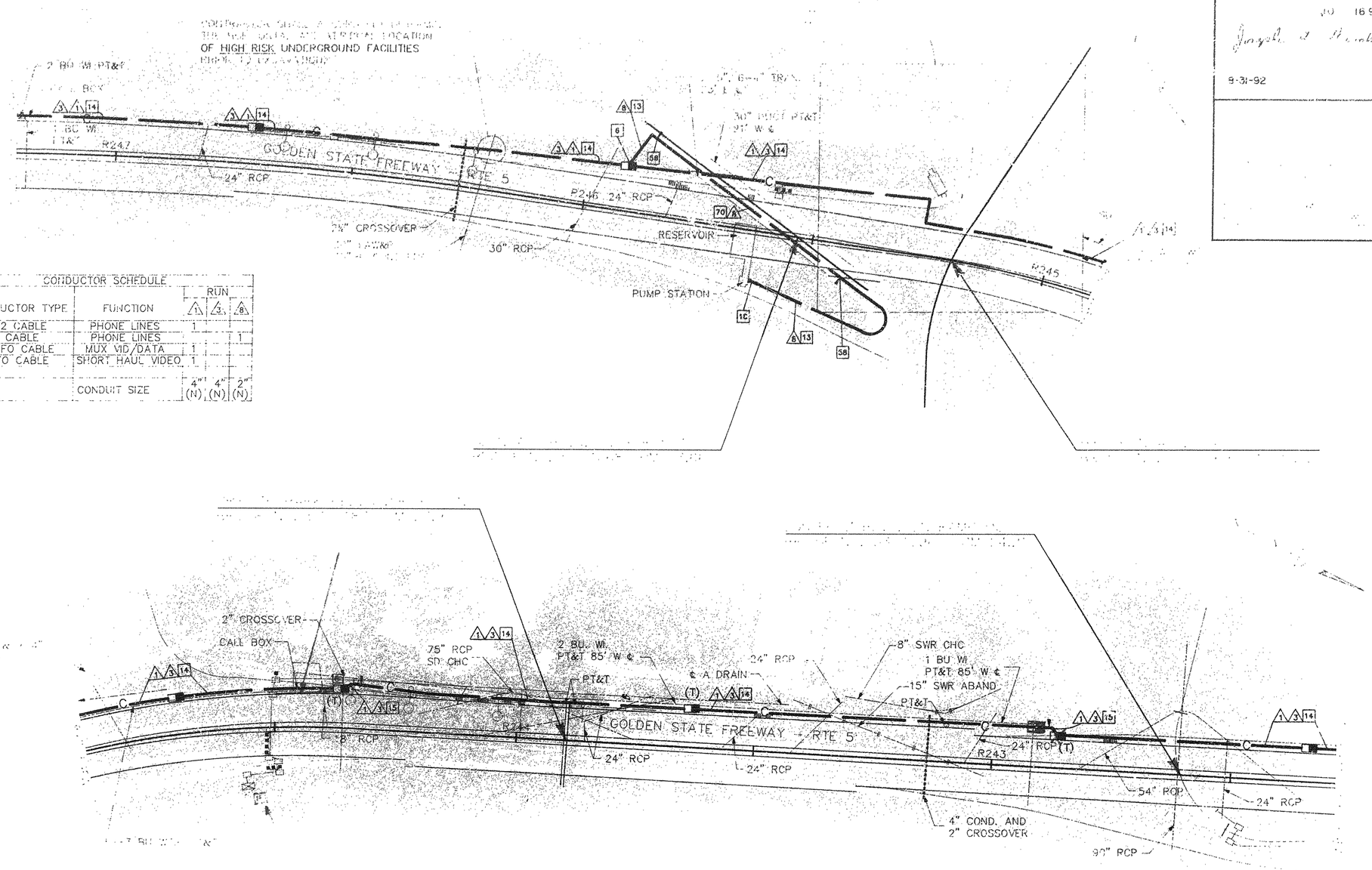
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23

JO 16 9/46.2.001 33 153

9-31-92



CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 3	RUN 8
50P22 CABLE	PHONE LINES	1		
6P19 CABLE	PHONE LINES			1
48SMFO CABLE	MUX VID/DATA	1		
8MMFO CABLE	SHORT HAUL VIDEO	1		
	CONDUIT SIZE	4" (N)	4" (N)	2" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

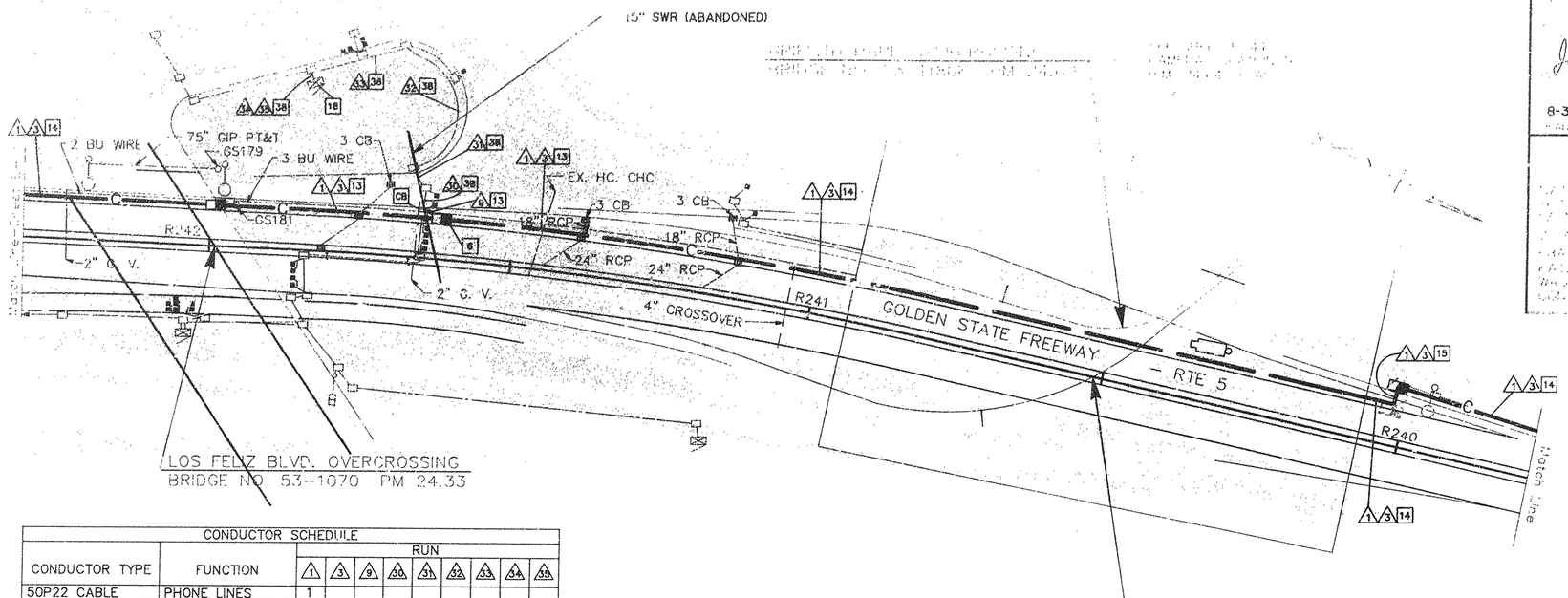
CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

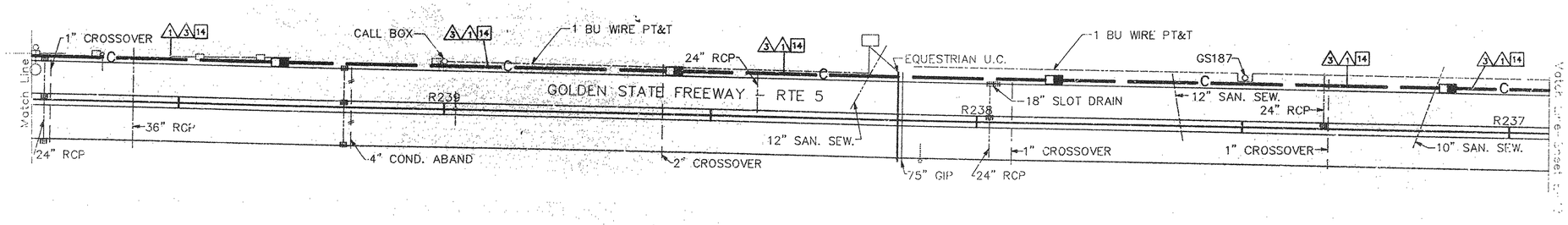
DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23



CONDUCTOR SCHEDULE											
CONDUCTOR TYPE	FUNCTION	RUN 1	3	9	30	31	32	33	34	35
50P22 CABLE	PHONE LINES	1								
12P22 CABLE	PHONE LINES			1	1(N)	1(N)	1(N)	1(N)	1(N)	
48SMFO CABLE	MUX VID/DATA	1								
8MMFO CABLE	SHORT HAUL VIDEO	1								
#14 EXIST.	RAMP SIGNAL									3
#14 EXIST.	METER ON									1
#14 EXIST.	SPARES									4
2#12 EXIST.	COUNT DETECTOR				5	6	8	9	9	
2#12 EXIST.	RAMP DETECTOR								3	
#10 EXIST.	COMMON									2
#8 EXIST.	SERVICE									2
4#18 EXIST.	SHIELDED TEL. CABLE				2	3	3	3	3	
	CONDUIT SIZE	4" (N)	4" (N)	2" (N)	2"	2"	2"	2"	2"	2"

~~ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.~~



APPROX. SCALE: 1"=100'

REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS.
REFERENCE CALIBRATIONS OF DATA PROVIDED
RELATIVE DISTANCE BETWEEN POINTS

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR PLOTTING AT 100 FEET PER INCH ONLY

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-12

10 16.9/46.2,50.1 34 153

Joseph A. Kwok

8-31-92

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

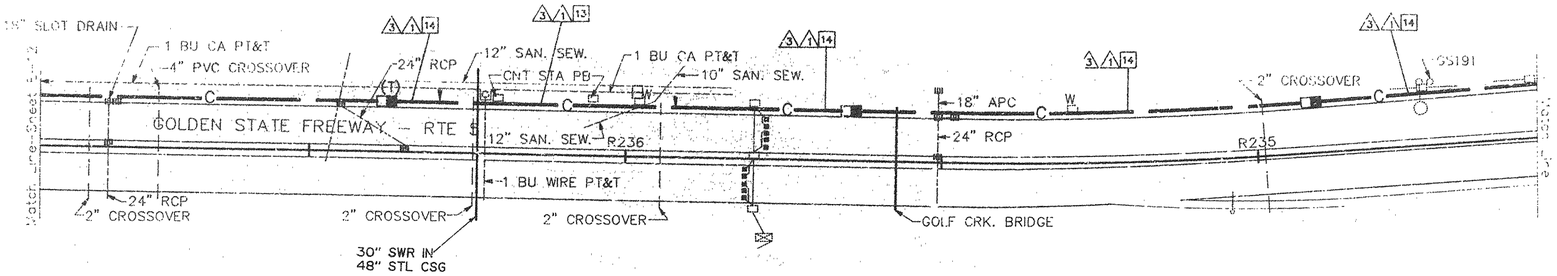
DESIGNED BY
DRAWN BY JK 3/23
CHECKED BY

DESIGN OVERSIGHT
GLORIA GWYNNE

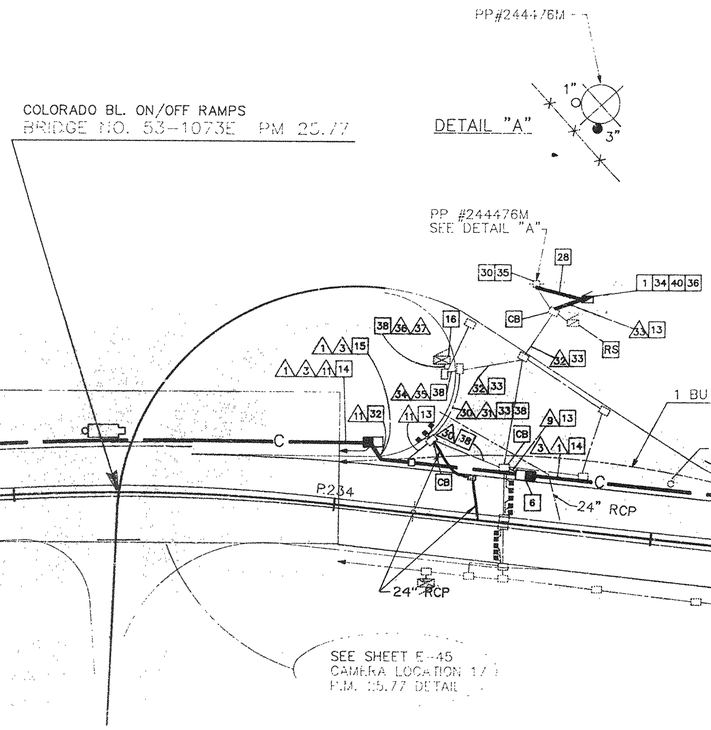
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

11668E12.DGN HLN 03.19.92

FORM DC-OE 93-PI (REV. 3.88)



CONDUCTOR TYPE	FUNCTION	CONDUCTOR SCHEDULE RUN											
		1	3	9	11	30	31	32	33	34	39	38	37
50P22 CABLE	PHONE LINES	1											
12P22 CABLE	PHONE LINES			1		1(N)					1(N)		1(N)
48SMFO CABLE	MUX VID/DATA	1											
8MMFO CABLE	SHORT HAUL VIDEO	1											
#4	POWER				2		2(N)	2(N)	2				
#8	GROUND				1								
DLC EXIST.	DETECTOR LOOP CAB.					5	2			2	5		7
4#18 EXIST.	SHIELD TELEPHONE CABLE					1					1		1
#14 EXIST.	RAMP METER						3			3		3	
#14 EXIST.	SPARES						3			4		4	
#10 EXIST.	SIGNAL COMMON						1			1		1	
#14 EXIST.	METER ON IND.									1		1	
#12 EXIST.	FLASH BEACON									2		2	
#8 EXIST.	SERVICE RMS							2	2	2		2	
#12 EXIST.	SERVICE TDC							2	2	2		2	
	CONDUIT SIZE	4" (N)	4" (N)	2" (N)	2" (N)	2"	2"	1½"	2" (N)	2"	2"	2½"	2½"



AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN OVERSIGHT
GLORIA GWYNNE
JK 3/23

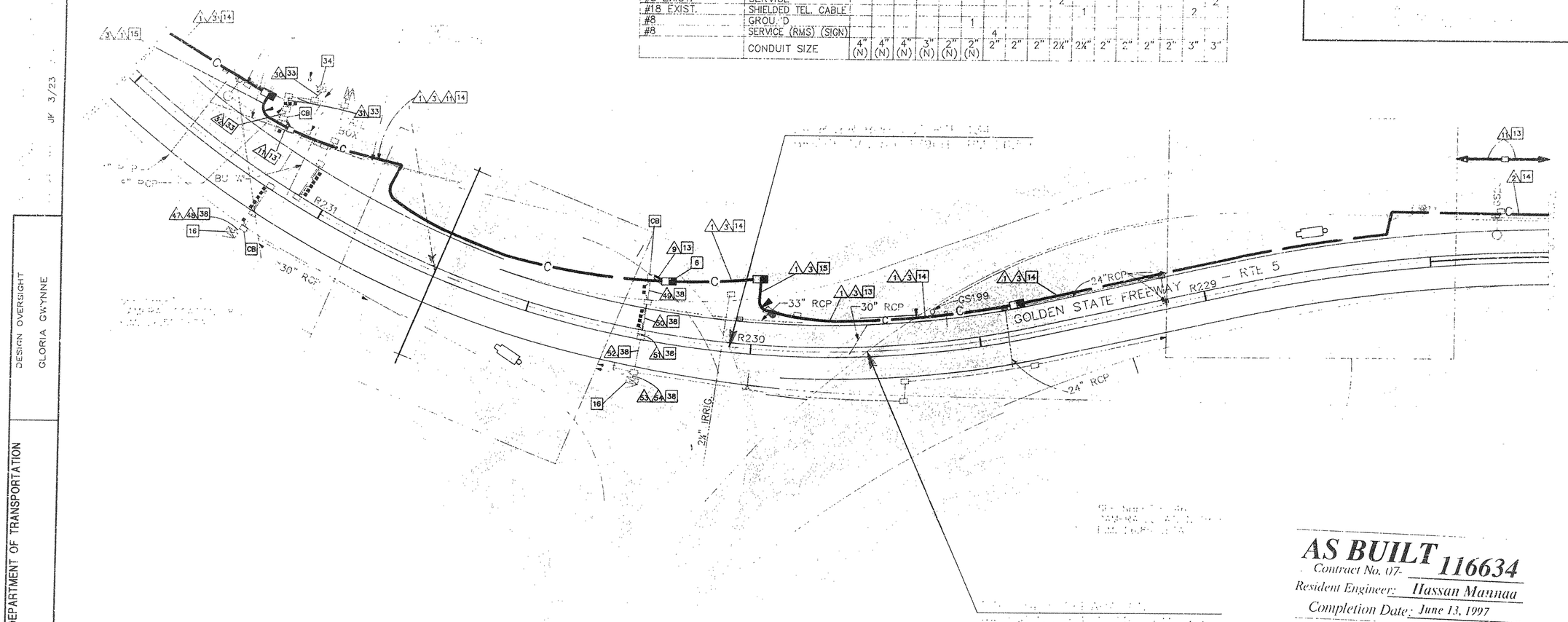
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	PIPE 1	2	3	4	5	6	31	32	33	34	45	46	47	48	49	50	51	52	53	54
24SMFO CABLE	MUX VID/DATA		1																		
50P22 CABLE	PHONE LINES	1	1																		
12P22 CABLE	PHONE LINES					1	1														
48SMFO CABLE	MUX VID/DATA	1												1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		
2MMFO B/O CABLE	SHORT HAUL VIDEO					1															
8MMFO CABLE	SHORT HAUL VIDEO	1	1																		
#4	POWER							2	2(N)	2(N)	2(N)										
#14 EXIST.	RAMP SIGNAL									3											
#14 EXIST.	METER ON																				
#14 EXIST.	SPARES									3											
2#12 EXIST.	COUNT DETECTOR									1	1			6	1	4	6	6	6		
2#12 EXIST.	RAMP DETECTOR									2											
#10 EXIST.	COMMON									1											
#8 EXIST.	SERVICE													2						2	2
#18 EXIST.	SHIELDED TEL. CABLE														1				2		
#8	GROUND							1													
#8	SERVICE (RMS) (SIGN)								4												
	CONDUIT SIZE	4" (N)	4" (N)	4" (N)	3" (N)	2" (N)	2" (N)	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	3"	3"	

5-11 16,9/46,2,30,1 RC [illegible]

[illegible] 4 Kinnaa

10-24-97



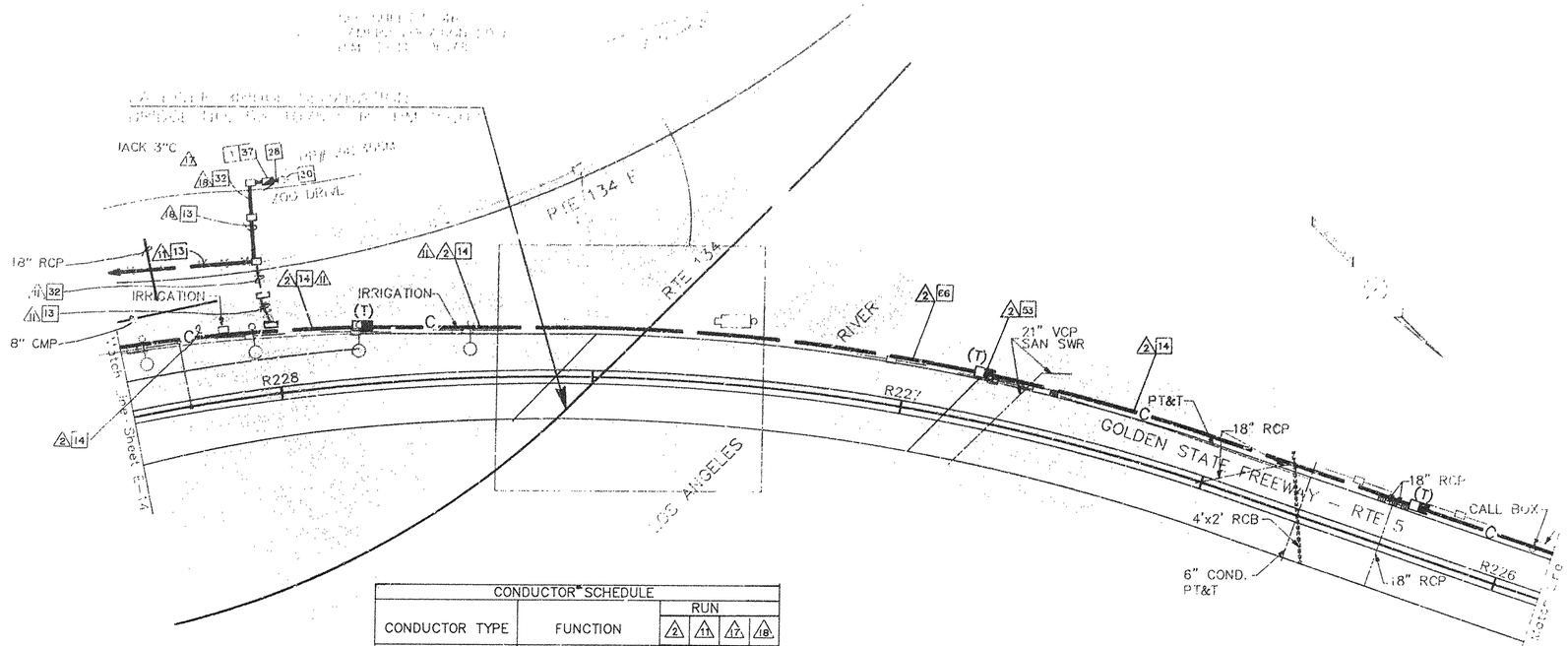
AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

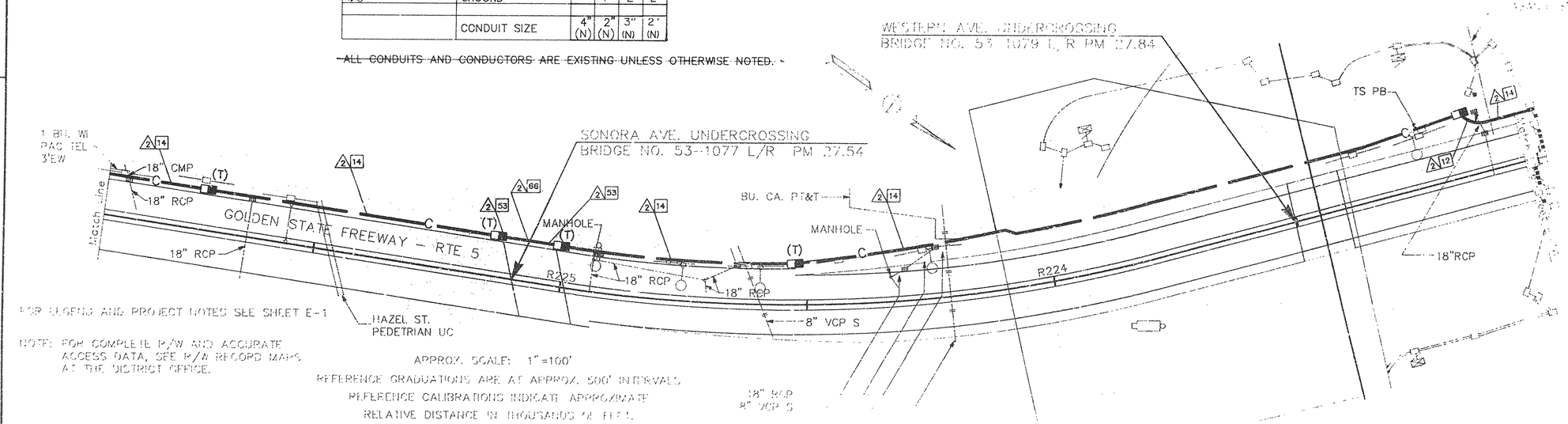
CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-14



CONDUCTOR SCHEDULE					
CONDUCTOR TYPE	FUNCTION	RUN (2)	(1)	(17)	(18)
50P22 CABLE	PHONE LINES	1			
24SMFO CABLE	MUX VID/DATA	1			
8MMFO CABLE	SHORT HAUL VIDEO	1			
#6	POWER				
#4	POWER		2	4	4
#8 EXIST	POWER				
#8	GROUND		1	2	2
	CONDUIT SIZE	4" (N)	2" (N)	3" (N)	2" (N)

ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.



FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

APPROX. SCALE: 1"=100'

REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS

REFERENCE CALIBRATIONS INDICATE APPROXIMATE RELATIVE DISTANCE IN THOUSANDS OF FEET.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-15

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

DESIGN OVERSIGHT
GLORIA GWYNNE

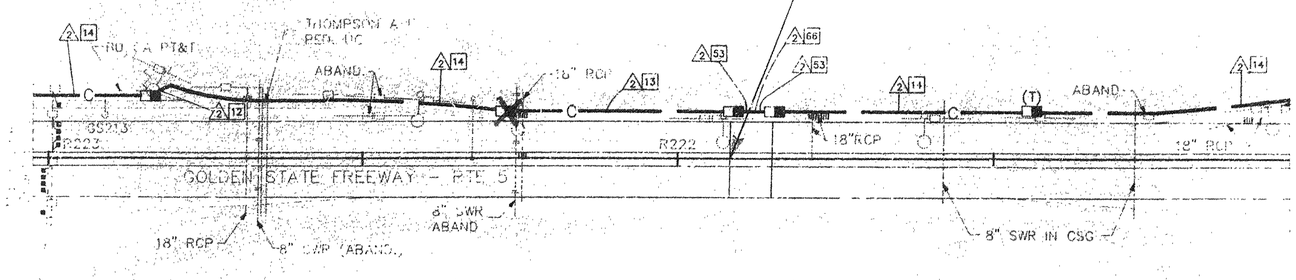
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CALCULATED/DESIGNED BY
CHECKED BY JK 3/23

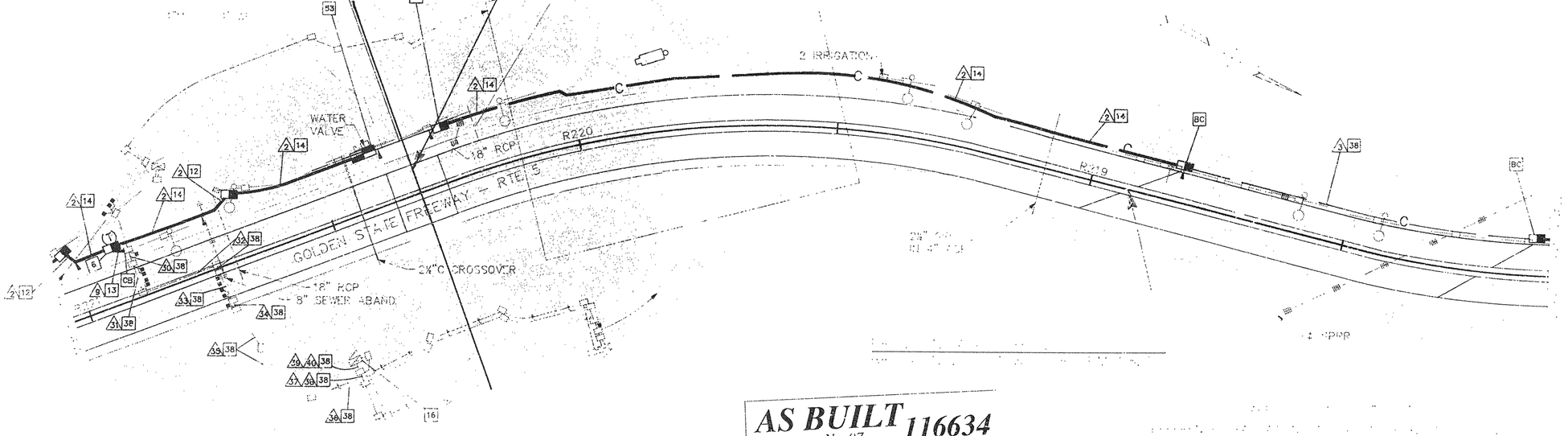
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES 0 1 2 3

07 LA

8-31-92



CONDUCTOR SCHEDULE														
		RUN												
CONDUCTOR TYPE	FUNCTION	2	5	9	20	31	32	33	34	39	36	37	38	39	40
50P22 CABLE	PHONE LINES	1	1(N)												
12P22 CABLE	PHONE LINES			1	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		1(N)	
24SMFO CABLE	MUX VID/DATA		1(N)												
8MMFO CABLE	SHORT HAUL VIDEO	1	1(N)												
#14 EXIST.	RAMP SIGNAL										3		3		3
#14 EXIST.	SPARES										3		3		3
2#12 EXIST.	DETECTOR LOOP				4	2		2	4	5	8	8		8	
#10 EXIST.	COMMON										1		1		1
#8 EXIST.	SERVICE												2		2
4#18 EXIST.	SHIELDED TEL. CABLE				2	2	2	2	2						
	CONDUIT SIZE	4" (N)	4"	2" (N)	2"	2"	2"	2"	2"	2"	2½"	2"	2"	2½"	2½"



AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mamaee
Completion Date: June 13, 1997

DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23

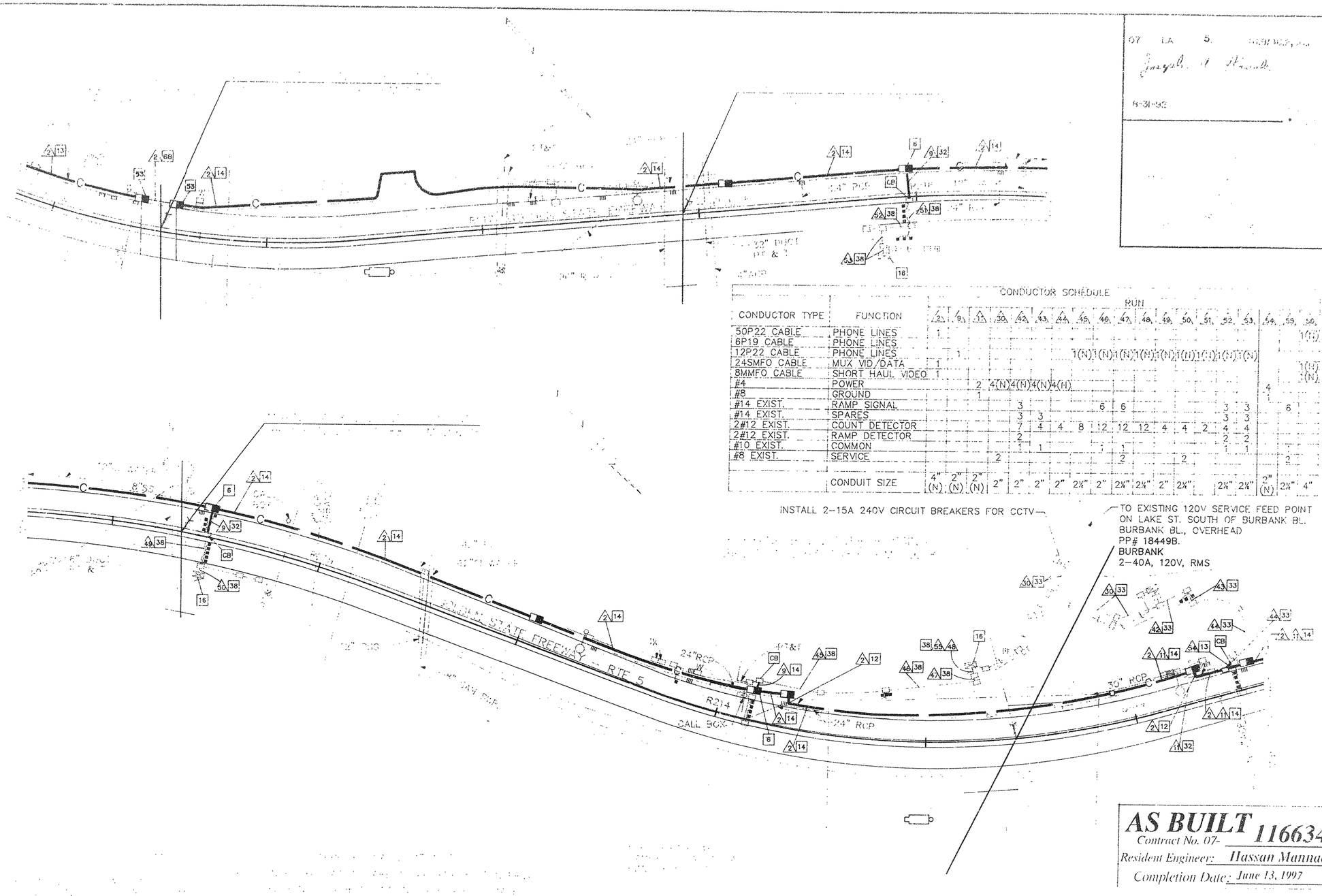
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-16

07 LA 5

8-31-92



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 2	9	11	30	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
50P22 CABLE	PHONE LINES	1																		1(N)
6P19 CABLE	PHONE LINES																			
12P22 CABLE	PHONE LINES		1						1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)			
24SMFO CABLE	MUX VID/DATA	1																		1(N)
8MMFO CABLE	SHORT HAUL VIDEO	1																		1(N)
#4	POWER			2	4(N)	4(N)	4(N)	4(N)										4		
#8	GROUND			1														1		
#14 EXIST.	RAMP SIGNAL					3				6	6					3	3		6	
#14 EXIST.	SPARES					3	3									3	3			
2#12 EXIST.	COUNT DETECTOR					7	4	4	8	12	12	12	4	4	2	4	4			
2#12 EXIST.	RAMP DETECTOR					2										2	2			
#10 EXIST.	COMMON					1	1				1					1	1			
#8 EXIST.	SERVICE				2						2			2					2	
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2"	2"	2"	2"	2½"	2"	2½"	2½"	2"	2½"		2½"	2½"	2" (N)	2½"	4"

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DESIGN OVERSIGHT
GLORIA GWYNNE

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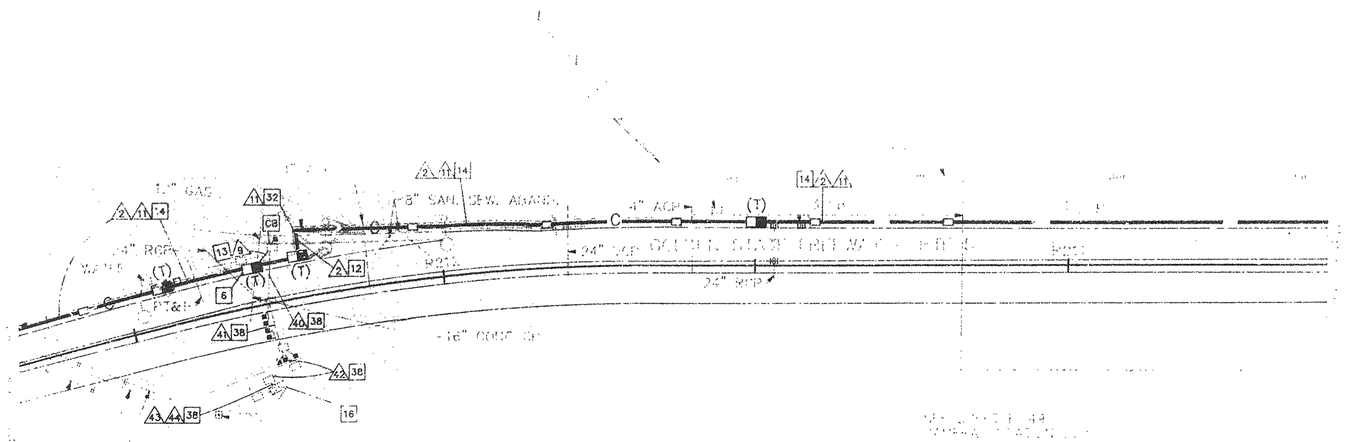
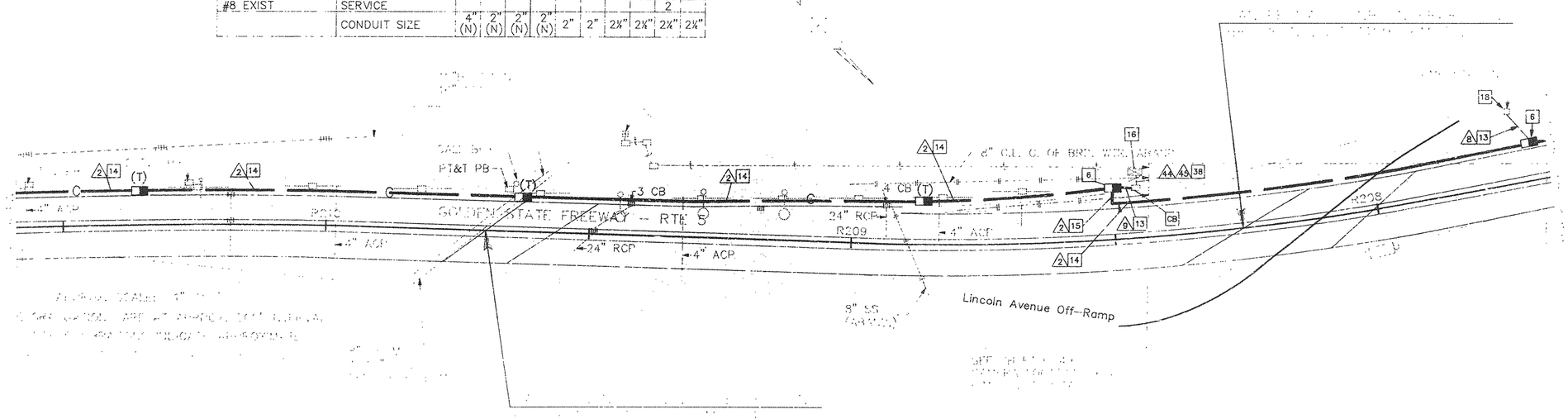


CONDUCTOR SCHEDULE												
CONDUCTOR TYPE	FUNCTION	RUN										
		2	8	9	11	40	41	42	43	44	45	
50P22 CABLE	PHONE LINES	1										
12P22 CABLE	PHONE LINES			1		1(N)	1(N)	1(N)	1(N)		1(N)	
6P19 CABLE	PHONE LINES		1									
24SMFO CABLE	MUX VID/DATA	1										
8MMFO B/O CABLE	SHORT HAUL VIDEO	1										
#4	POWER				2							
#8	GROUND				1							
2#12 EXIST	DEMAND LOOP DET.							1	1		1	
2#12 EXIST	PASSAGE LOOP DET.							1	1		1	
2#12 EXIST	COUNT LOOP DET.					1	3	5	5		4	
#14 EXIST.	RAMP SIGNAL							3		3		
#14 EXIST.	SPARES							3		3		
#10 EXIST	SIGNAL COMMON							1		1		
#8 EXIST	SERVICE									2		
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2" (N)	2"	2"	2½"	2½"	2½"	2½"	



07 LA 5 ... 20 153

Joseph A. Arnold

8-21-02

AS BUILT

Contract No. 07- 116634

Resident Engineer: Hassan Mannaa

Completion Date: June 13, 1997

DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3 '23

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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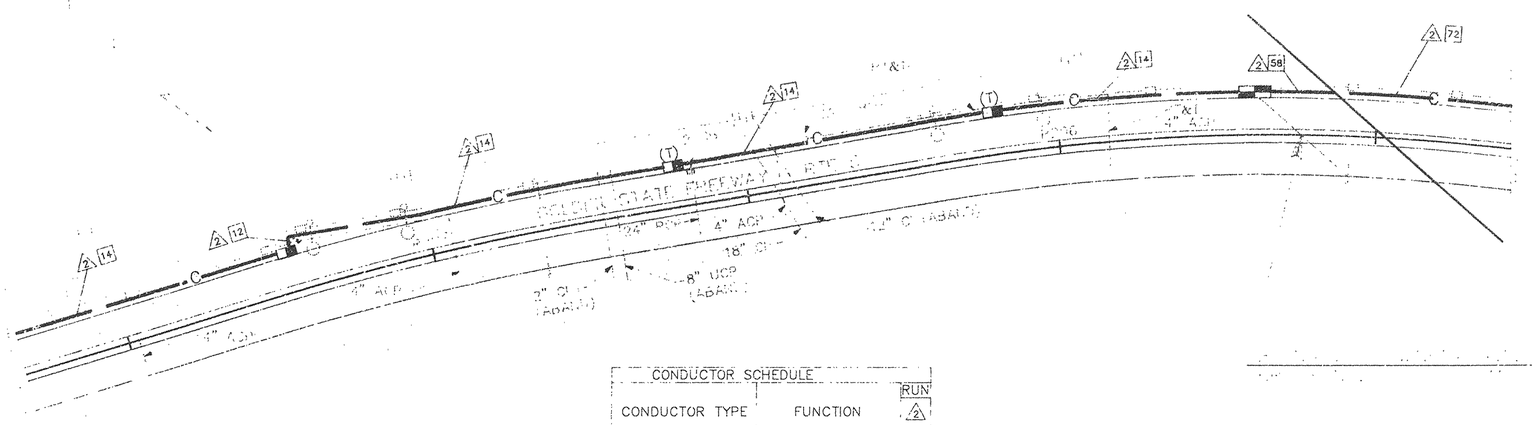
CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-18

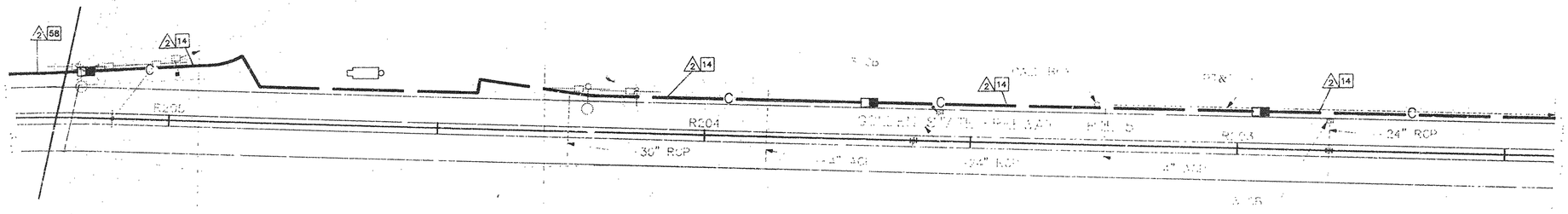
07 LA 5/10

Joseph A. Hrabak

8-31-92



CONDUCTOR SCHEDULE		
CONDUCTOR TYPE	FUNCTION	RUN 2
50P22 CABLE	PHONE LINES	1
24SMFO CABLE	MUX VID/DATA	1
8MMFO CABLE	SHORT HAUL VIDEO	1
	CONDUIT SIZE	4" (N)



AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

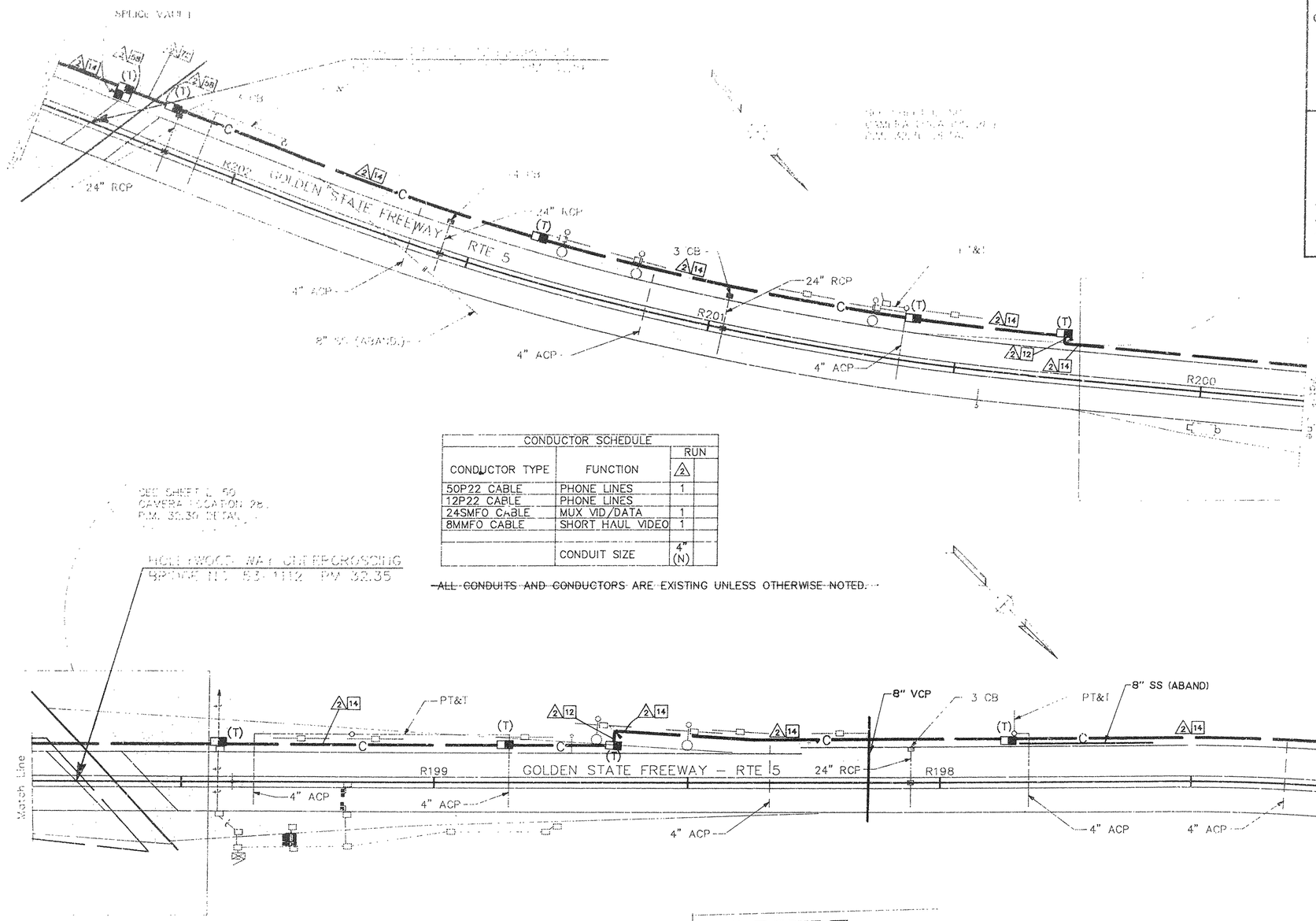
CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23



CONDUCTOR SCHEDULE			
CONDUCTOR TYPE	FUNCTION	RUN (2)	
50P22 CABLE	PHONE LINES	1	
12P22 CABLE	PHONE LINES		
24SMFO CABLE	MUX VID/DATA	1	
8MMFO CABLE	SHORT HAUL VIDEO	1	
	CONDUIT SIZE	4" (N)	

ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.

SEE SHEET L-99
CAVERN LOCATION 2&
P.M. 32.30 DETAIL

HOLLYWOOD WAY OVERCROSSING
BRIDGE NO. 53-1112 PM 32.35

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-20

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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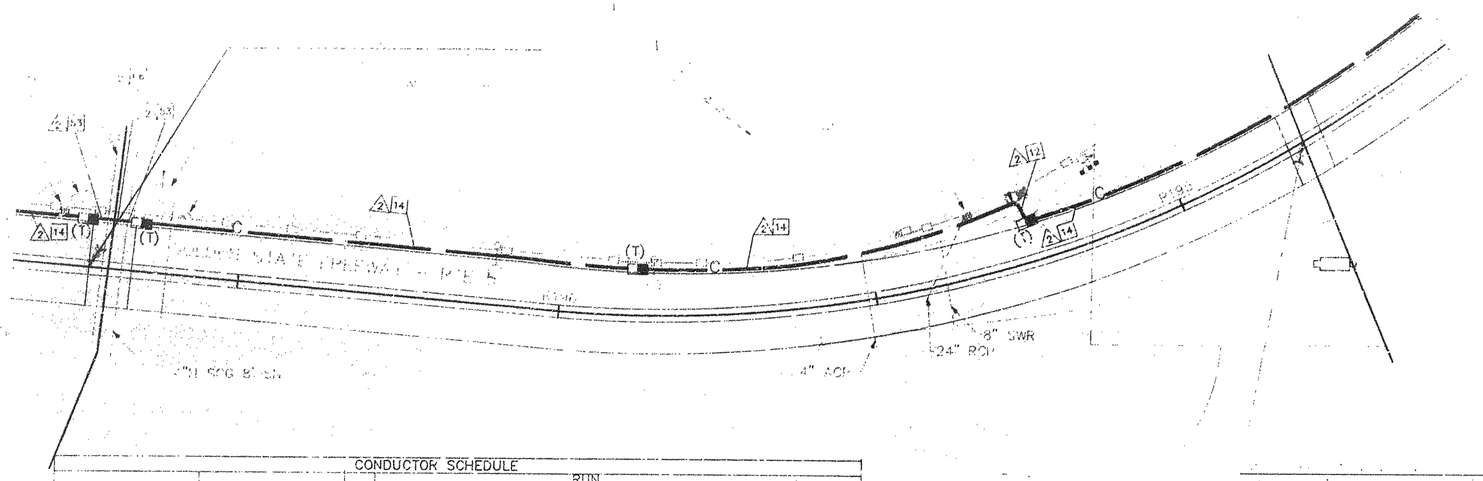
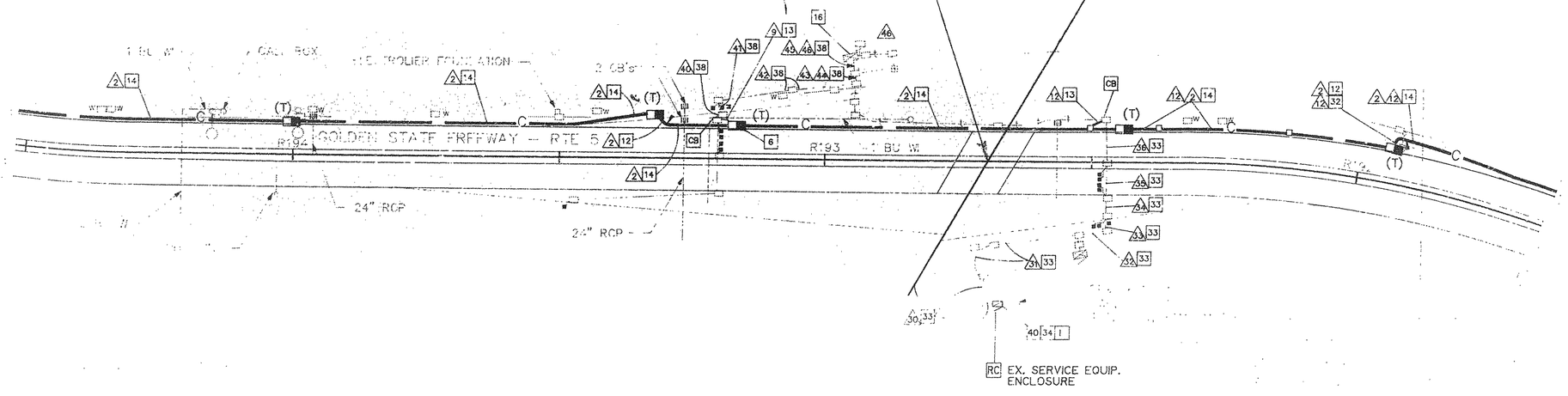
DATE REVISED
DATE RELEASED
03-18-92



CONDUCTOR SCHEDULE																			
CONDUCTOR TYPE	FUNCTION	RUN																	
		2	9	12	30	31	32	33	34	35	36	40	41	42	43	44	45	46
50P22 CABLE	PHONE LINES	1																	
12P22 CABLE	PHONE LINES		1									1(N)	1(N)	1(N)	1(N)		1(N)		
24SMFO CABLE	MUX VID/DATA	1																	
8MMFO CABLE	SHORT HAUL VIDEO	1																	
#2	POWER			2	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)								
#6	GROUND			1															
#14 EXIST.	RAMP SIGNAL						3	3					3	3		3		3	
#14 EXIST.	SPARES						3	3					3	3		3		3	
2#12 EXIST.	DLC						8	7	5	3	1	5	5	7	7		7		
#10 EXIST.	COMMON						1	1					1	1		1		1	
4#18 EXIST.	SHIELDED TEL. CABLE															1		1	
#8 EXIST.	SERVICE				2	2													2
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2"	2"	2½"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"



CCTV AND COMMUNICATIONS SYSTEM
(LAYOUT)

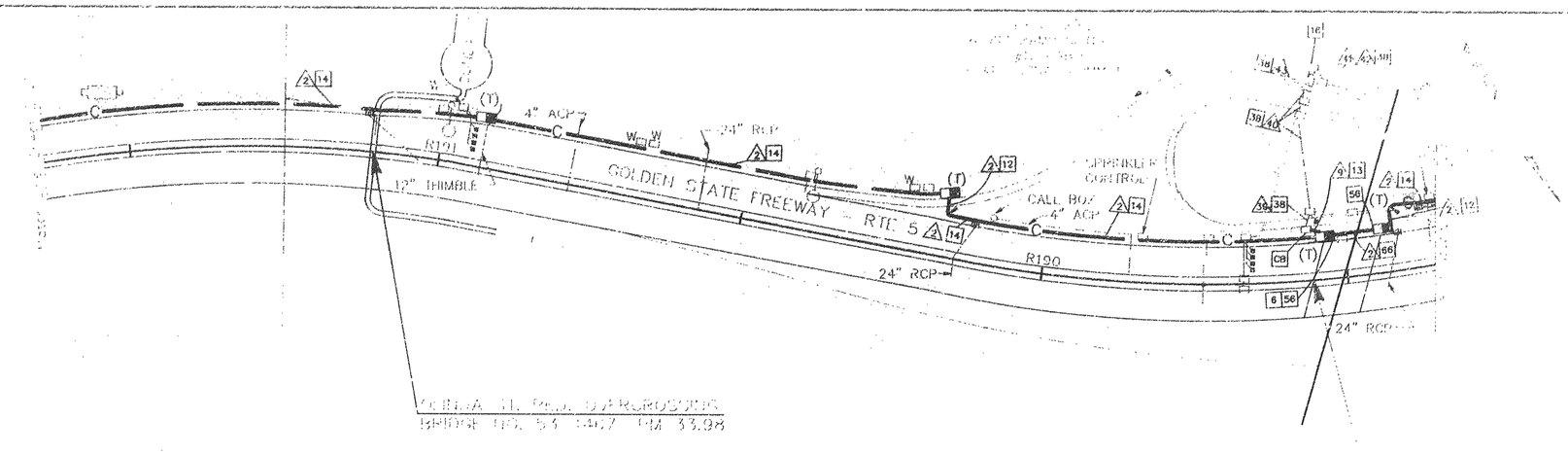
E-21

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

8-31-98

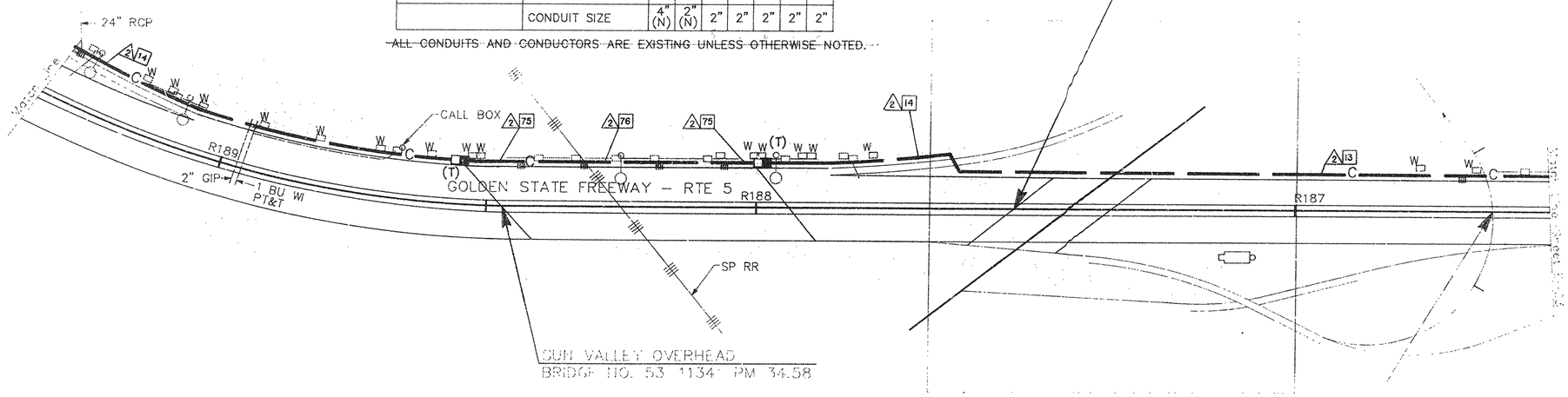
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 2	9	39	40	41	42	43
50P22 CABLE	PHONE LINES	1						
12P22 CABLE	PHONE LINES		1	1(N)	1(N)	1(N)		1(N)
24SMFO CABLE	MUX VID/DATA	1						
8MMFO CABLE	SHORT HAUL VIDEO	1						
DLC EXIST.	DETECTOR LOOPS			9	10	12		12
#8 EXIST.	SERVICE						2	2
#14 EXIST.	RAMP SIGNAL						3	3
#14 EXIST.	SPARES						3	3
#10 EXIST.	COMMON						1	1
	CONDUIT SIZE	4" (N)	2" (N)	2"	2"	2"	2"	2"

~~ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.~~



AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

8-31-92

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-22

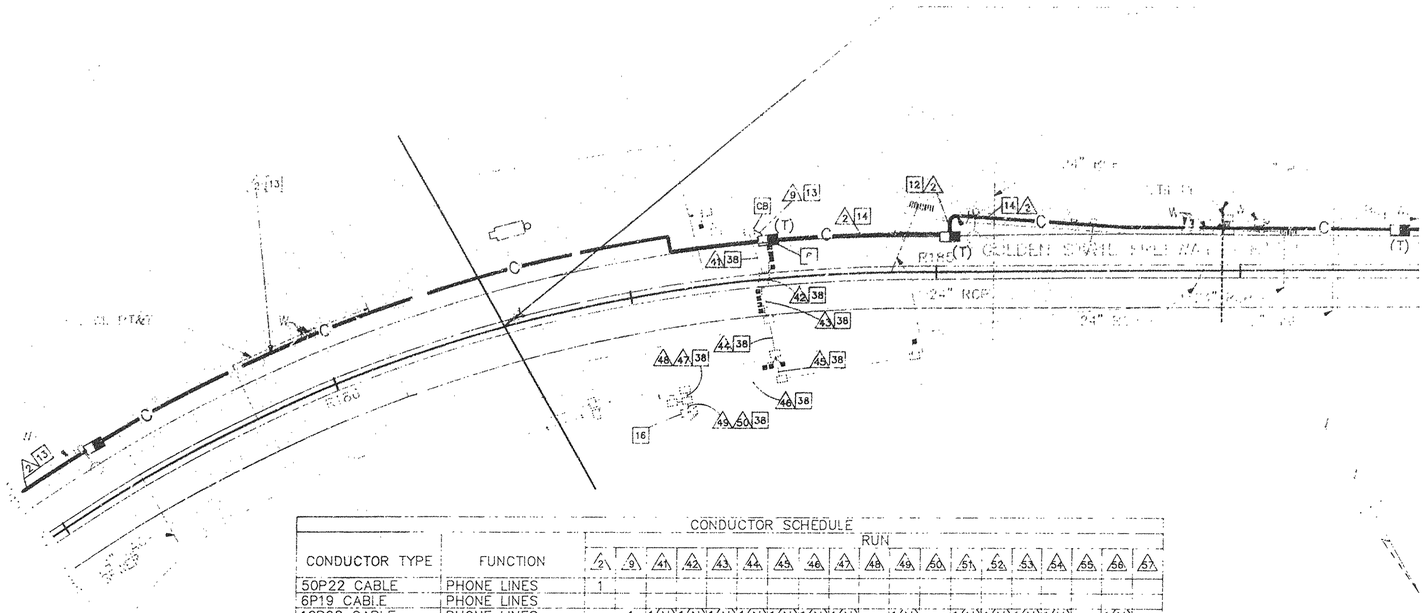
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN OVERSIGHT
GLORIA GWYNNE
CALCULATED
DESIGNED BY
CHECKED BY JK 3/23

10 16.9/46 2,S0.1 45 153

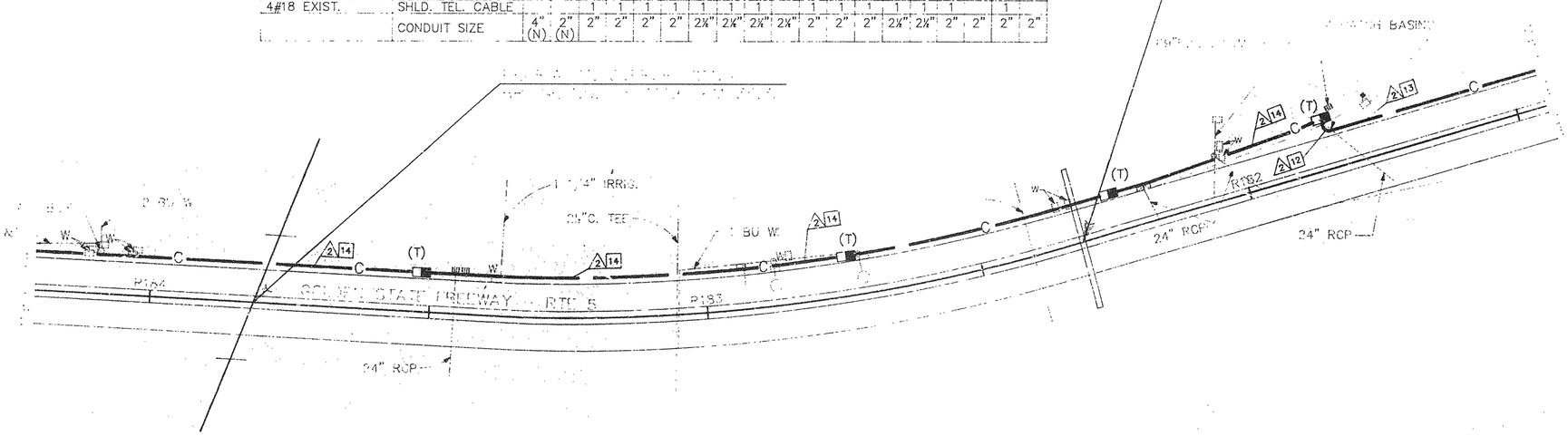
8 31-92

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 2	9	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
50P22 CABLE	PHONE LINES	1																		
6P19 CABLE	PHONE LINES																			
12P22 CABLE	PHONE LINES		1	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		1(N)		1(N)	1(N)	1(N)	1(N)		1(N)	
24SMFO CABLE	MUX VID/DATA	1																		
8MMFO CABLE	SHORT HAUL VIDEO	1																		
#14 EXIST.	RAMP SIGNAL							3	3		3		3		3	3		3		3
#14 EXIST.	SPARES							3	3		3		3		3	3		3		3
2#12 EXIST.	DETECTOR LOOP			2		2	4	6	7	7		7		5	7	8	8		8	
#10 EXIST.	COMMON							1	1		1		1		1	1		1		1
#8 EXIST.	SERVICE										2							2		2
4#18 EXIST.	SHLD. TEL. CABLE			1	1	1	1	1	1	1		1	1	1	1	1	1		1	
	CONDUIT SIZE	4" (N)	2" (N)	2"	2"	2"	2"	2½"	2½"	2½"	2½"	2"	2"	2"	2½"	2½"	2"	2"	2"	2"



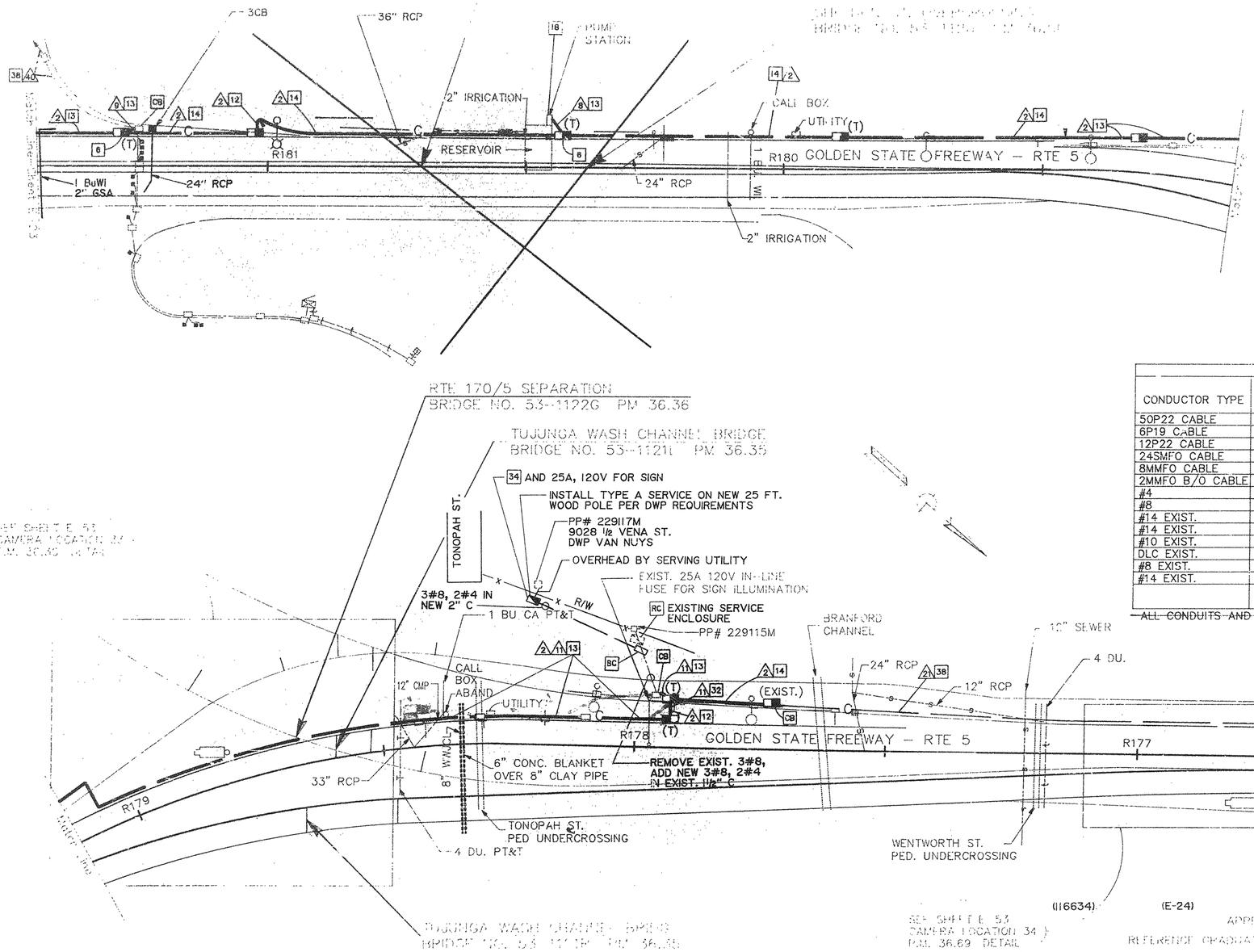
CCTV AND COMMUNICATIONS SYSTEM
(LAYOUT)

E-23

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23



CONDUCTOR SCHEDULE										
		RUN								
CONDUCTOR TYPE	FUNCTION	2	8	9	11	21	30	40	44	48	50
50P22 CABLE	PHONE LINES	1				1(N)					
6P19 CABLE	PHONE LINES		1								
12P22 CABLE	PHONE LINES			1				1(N)	1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1				1(N)					
8MMFO CABLE	SHORT HAUL VIDEO	1				1(N)					
2MMFO B/O CABLE	SHORT HAUL VIDEO										
#4	POWER				2		2(N)				
#8	GROUND				1						
#14 EXIST.	RAMP SIGNAL										6
#14 EXIST.	SPARES										3
#10 EXIST.	SIGNAL COMMON										1
DLC EXIST.	DETECTOR LOOP							5	5	5	4
#8 EXIST.	SERVICE						2				
#14 EXIST.	RAMP SIGNAL										
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2" (N)	4"	2"	2"	2"	2"	2"

ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.

10 16.9/46.2,50.1 46 153

Joseph A. Kwak

8-31-92

AS BUILT 116634

Contract No. 07-

Resident Engineer: Hassan Mannaa

Completion Date: June 13, 1997

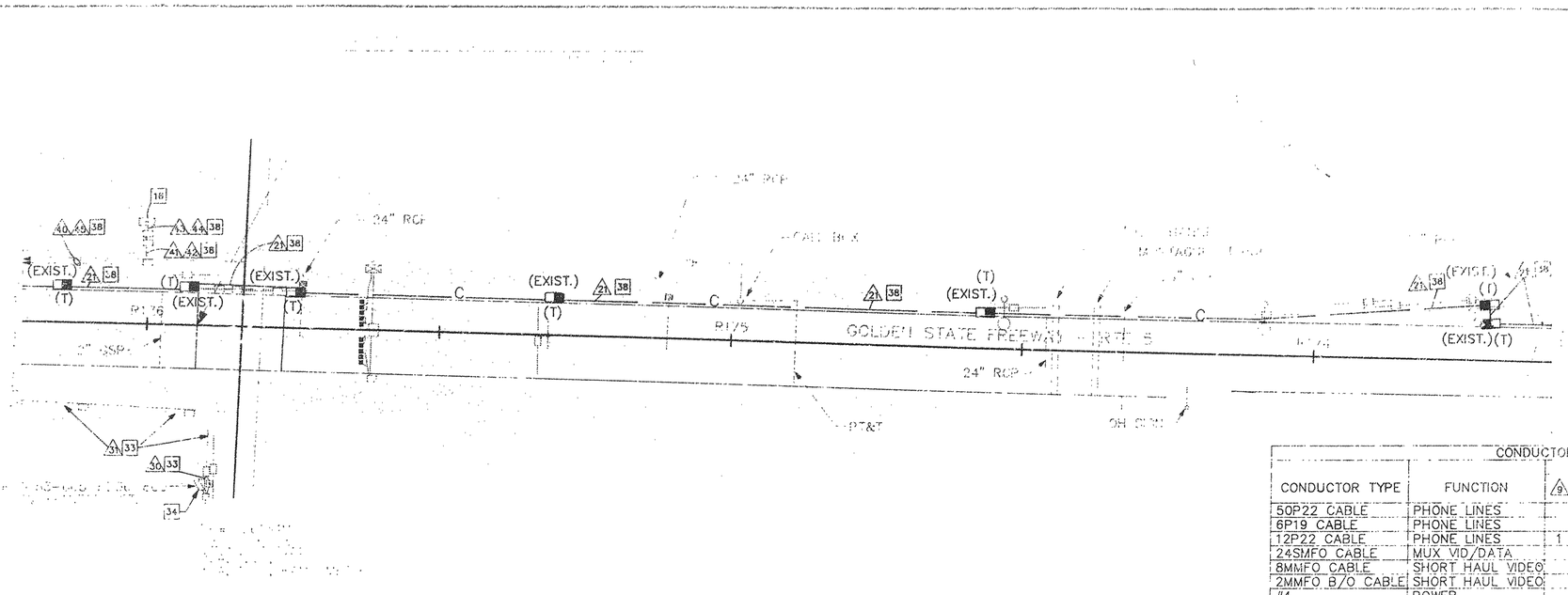
DESIGN OVERSIGHT GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

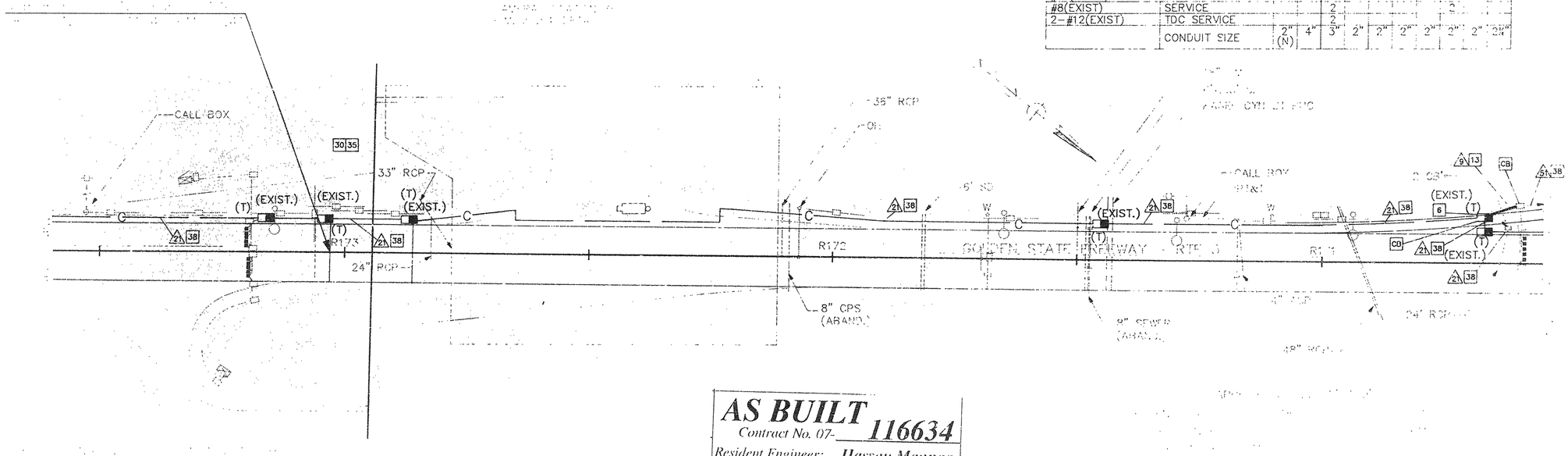
Caltrans

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-24



CONDUCTOR SCHEDULE											
		RUN									
CONDUCTOR TYPE	FUNCTION	9	21	30	40	41	42	43	44	49	51
50P22 CABLE	PHONE LINES		1(N)								
6P19 CABLE	PHONE LINES										
12P22 CABLE	PHONE LINES	1			1(N)	1(N)		1(N)			1(N)
24SMFO CABLE	MUX VID/DATA		1(N)								
8MMFO CABLE	SHORT HAUL VIDEO		1(N)								
2MMFO B/O CABLE	SHORT HAUL VIDEO										
#4	POWER			2(N)							
2-#12(EXIST)	DLC				5	9		9		4	2
4-#18(EXIST)	SHIELDED TEL. CABLE										
#14(EXIST)	RAMP SIGNAL						6		6	6	3
#14(EXIST)	SPARES						3		3	3	3
#10(EXIST)	SIGNAL COMMON						1		1	1	1
#8(EXIST)	SERVICE			2					2		
2-#12(EXIST)	TDC SERVICE			2							
	CONDUIT SIZE	2" (N)	4"	3"	2"	2"	2"	2"	2"	2"	2"



AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-25

JK 3/23

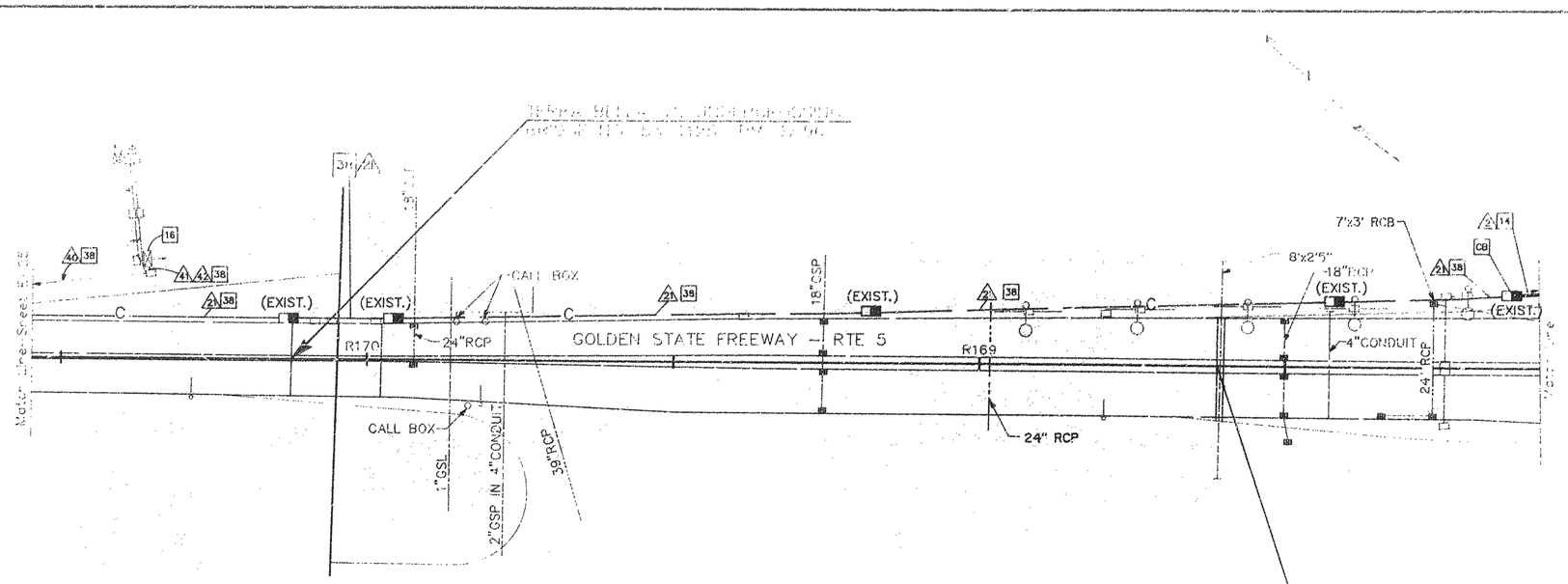
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

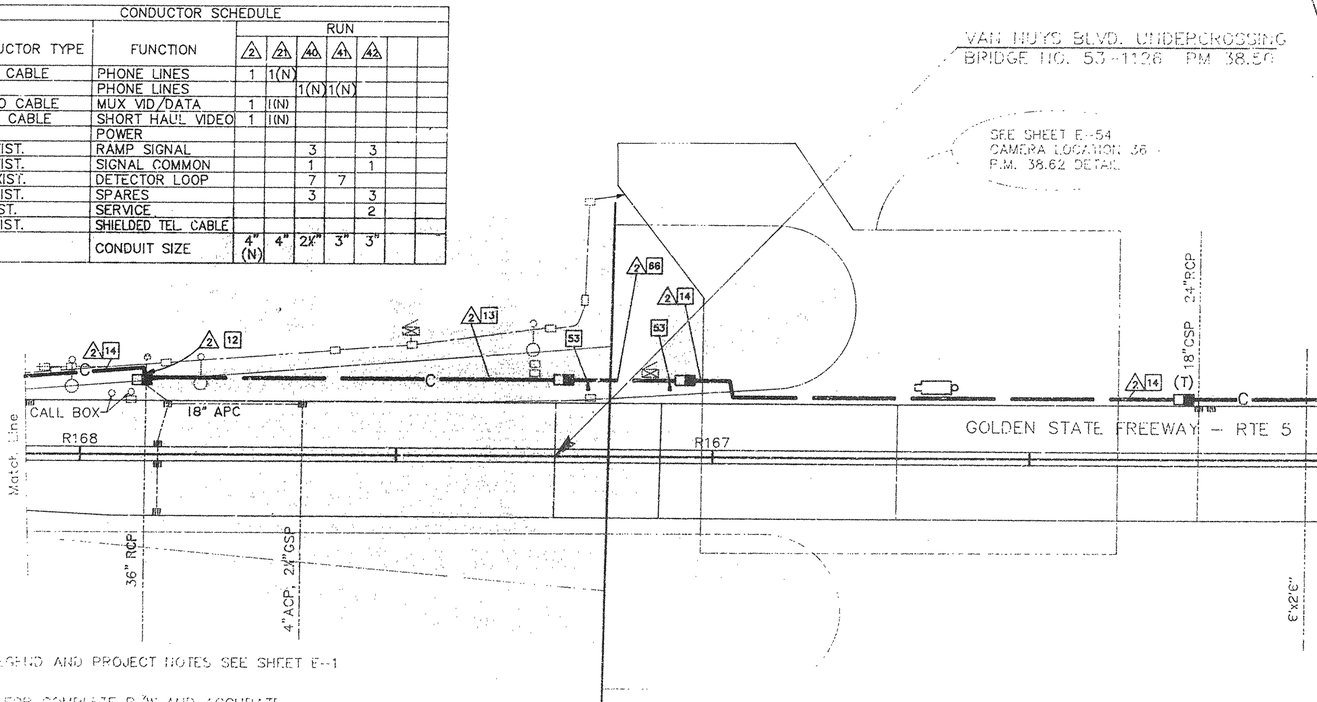
CALCULATED/ DESIGNED BY
DATE REVISED BY
CHECKED BY JK 3/23 DATE REVISED

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN						
		2	2A	4C	4	4A		
50P22 CABLE	PHONE LINES	1	1(N)					
12P22	PHONE LINES			1(N)	1(N)			
24SMFO CABLE	MUX VID/DATA	1	(N)					
8MMFO CABLE	SHORT HAUL VIDEO	1	(N)					
#4	POWER							
#14 EXIST.	RAMP SIGNAL			3		3		
#10 EXIST.	SIGNAL COMMON			1		1		
DLC EXIST.	DETECTOR LOOP			7	7			
#14 EXIST.	SPARES			3		3		
#8 EXIST.	SERVICE					2		
#12 EXIST.	SHIELDED TEL. CABLE							
	CONDUIT SIZE	4" (N)	4" (N)	2½"	3"	3"		



APPROX. SCALE: 1"=100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS
REFERENCE CALIBRATIONS INDICATE APPROXIMATE
RELATIVE DISTANCE IN THOUSANDS OF FEET.

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-26

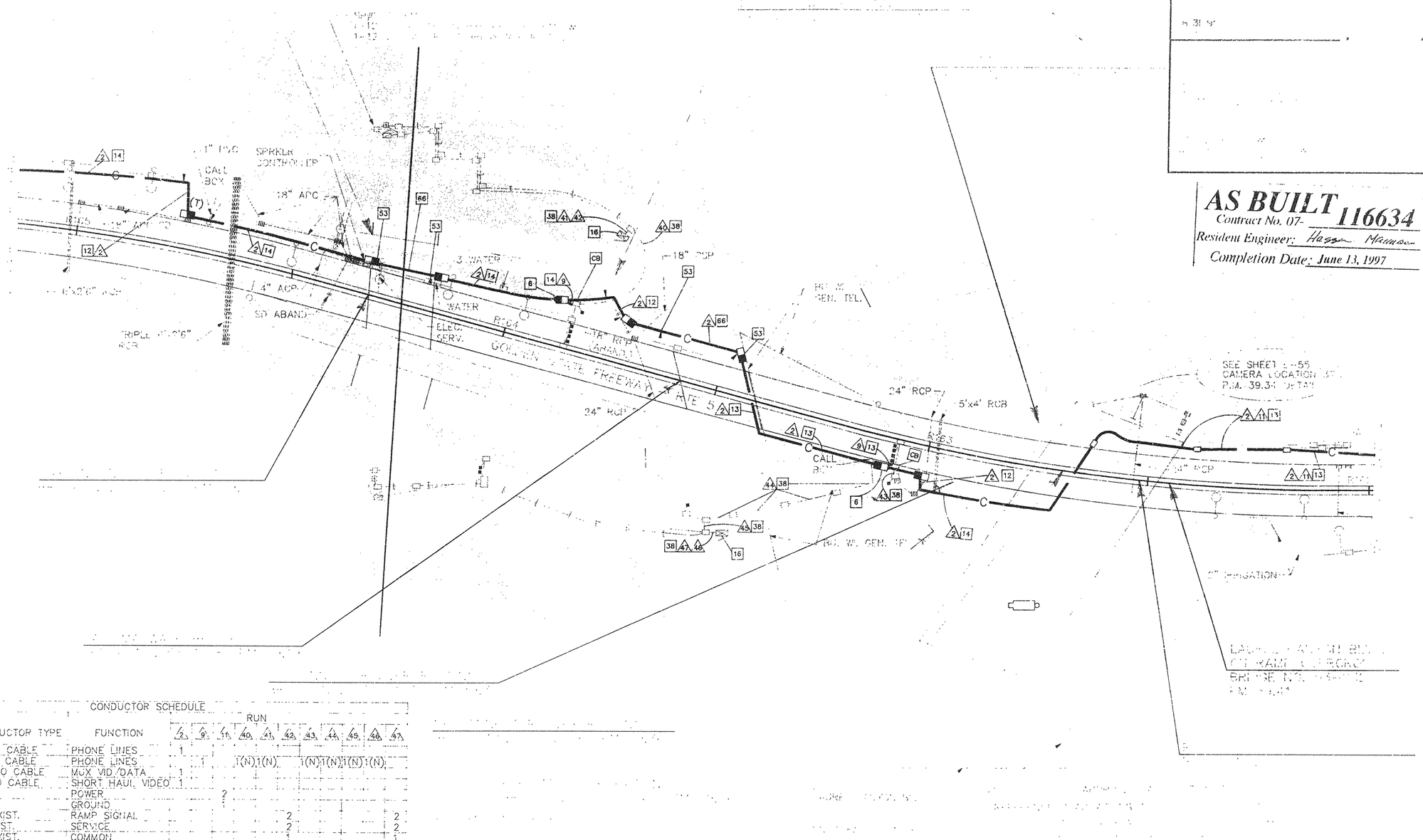
AS BUILT 116634
Contract No. 07-
Resident Engineer: Hoss Mousavi
Completion Date: June 13, 1997

Joseph A. Kwok
REGISTERED ENGINEER
No. 50791
Exp. 6/30/99
STATE OF CALIFORNIA

CHRISTOPHER J. CHRISTOPHER
2020 L STREET, SUITE 260
SACRAMENTO, CA 95814
(916) 448-7336
PROJECT DESIGN, ELECTRICAL
FACILITIES & SYSTEMS
TRAFFIC SIGNALS & LIGHTING
COMPUTER AIDED DESIGN

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

FORM 05-08-92-PE (REV. 3/88)



AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mamaan
Completion Date: June 13, 1997

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 2	9	11	40	41	42	43	44	45	46	47
50P22 CABLE	PHONE LINES	1										
12P22 CABLE	PHONE LINES		1		1(N)	1(N)		1(N)	1(N)	1(N)	1(N)	
24SMFO CABLE	MUX VID./DATA	1										
8MMFO CABLE	SHORT HAUL VIDEO	1										
#4	POWER			2								
#8	GROUND			1								
#14 EXIST.	RAMP SIGNAL						2					2
#8 EXIST.	SERVICE						2					2
#10 EXIST.	COMMON						1					1
2-#12 EXIST.	DECTECTOR LOOP				5	6		4	5	6	8	
4-#18 EXIST.	SHIELDED TEL. CABLE					1					1	
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2"	3"	3"	2"	2"	2½"	3"	3"

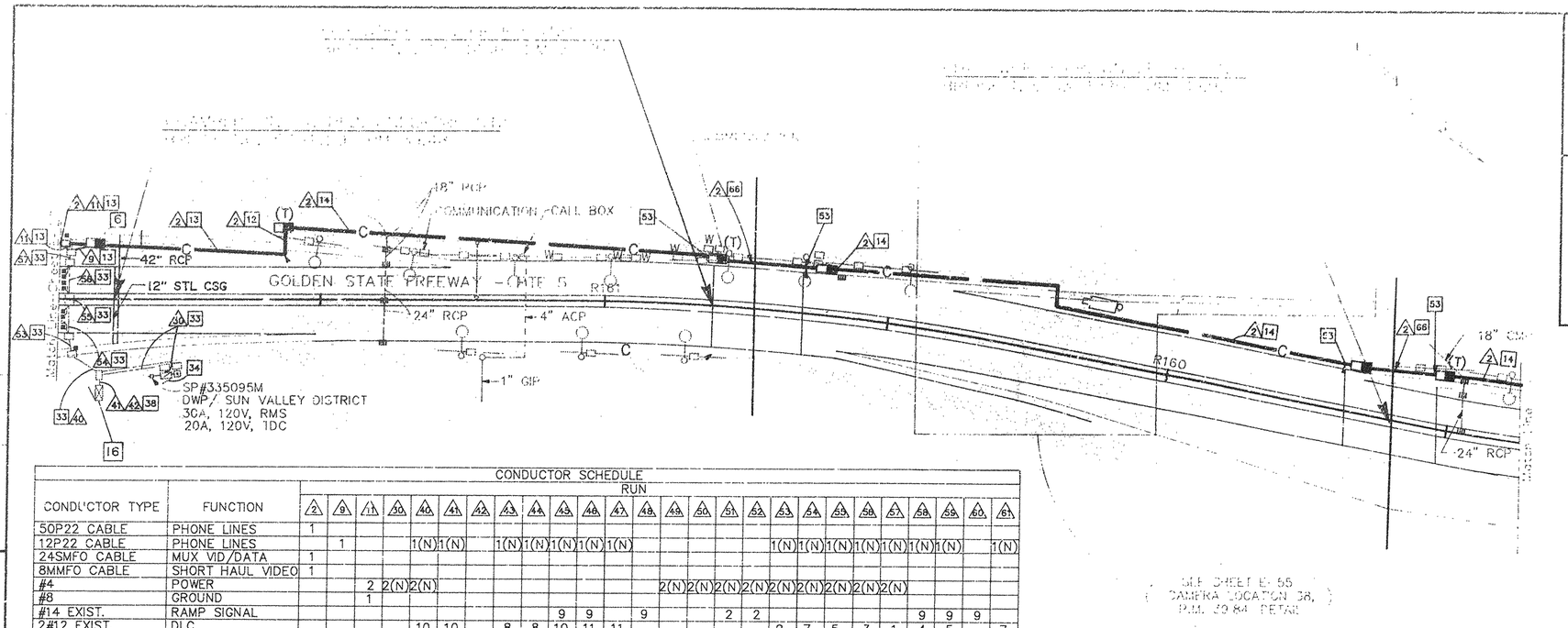
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

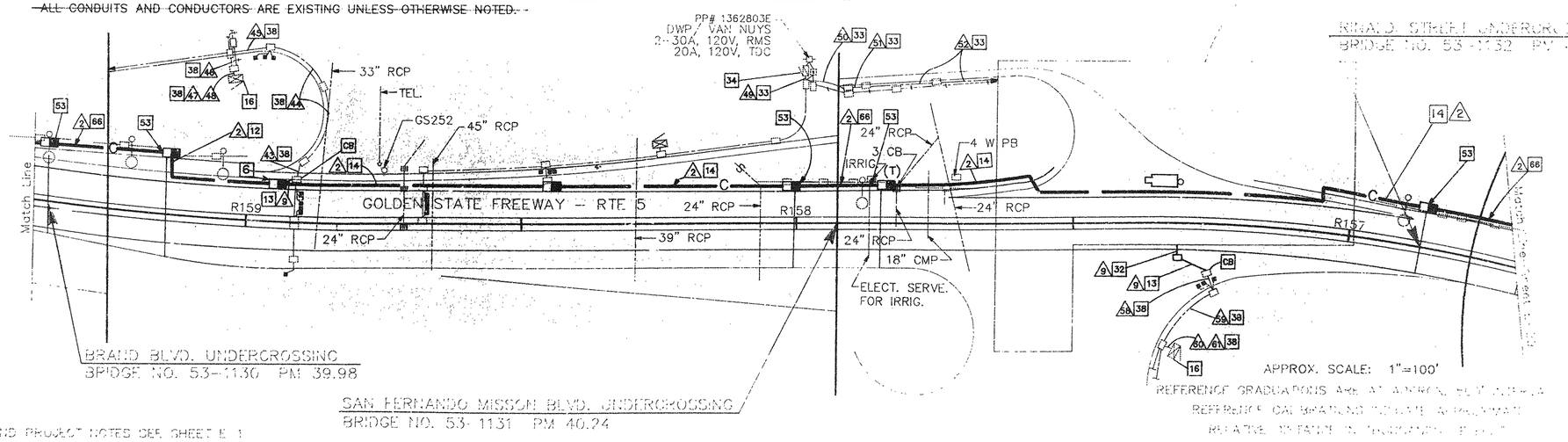
DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-27





CONDUCTOR SCHEDULE																											
		RUN																									
CONDUCTOR TYPE	FUNCTION	2	9	11	30	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
50P22 CABLE	PHONE LINES	1																									
12P22 CABLE	PHONE LINES		1			1(N)	1(N)		1(N)	1(N)	1(N)	1(N)	1(N)						1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		1(N)
24SMFO CABLE	MUX VID/DATA	1																									
8MMFO CABLE	SHORT HAUL VIDEO	1																									
#4	POWER			2	2(N)	2(N)									2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)				
#8	GROUND			1																							
#14 EXIST.	RAMP SIGNAL										9	9		9			2	2						9	9	9	
2#12 EXIST.	DLC					10	10		8	8	10	11	11						9	7	5	3	1	4	5		7
#12 EXIST.	SERV. FOR T.D.C.														2												
#10 EXIST.	COMMON										1	1		1			1	1						1	1	1	
#8 EXIST.	SERVICE				2			2				2		2	2	2	2	2								2	
4#18 EXIST.	SHIELDED TEL. CABLE						1						1			1	1	1									1
#14 EXIST.	METER ON											2		2												2	
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	3"	3"	3"	3"	2½"	2½"	3"	3"	3"	3"	3"	2"	2"	2"	3"	2½"	2"	2"	1¼"	2"	2"	3"	3"

~~ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.~~

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONDUCTING UTILITY LINES

AS BUILT

Contract No. 07-116634

Resident Engineer: Hassan Mannaa

Completion Date: June 13, 1997

CALCULATED BY
DESIGNED BY
CHECKED BY JK 3/23

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-28

FORM DS-CE-92-PF (REV. 3/88)

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

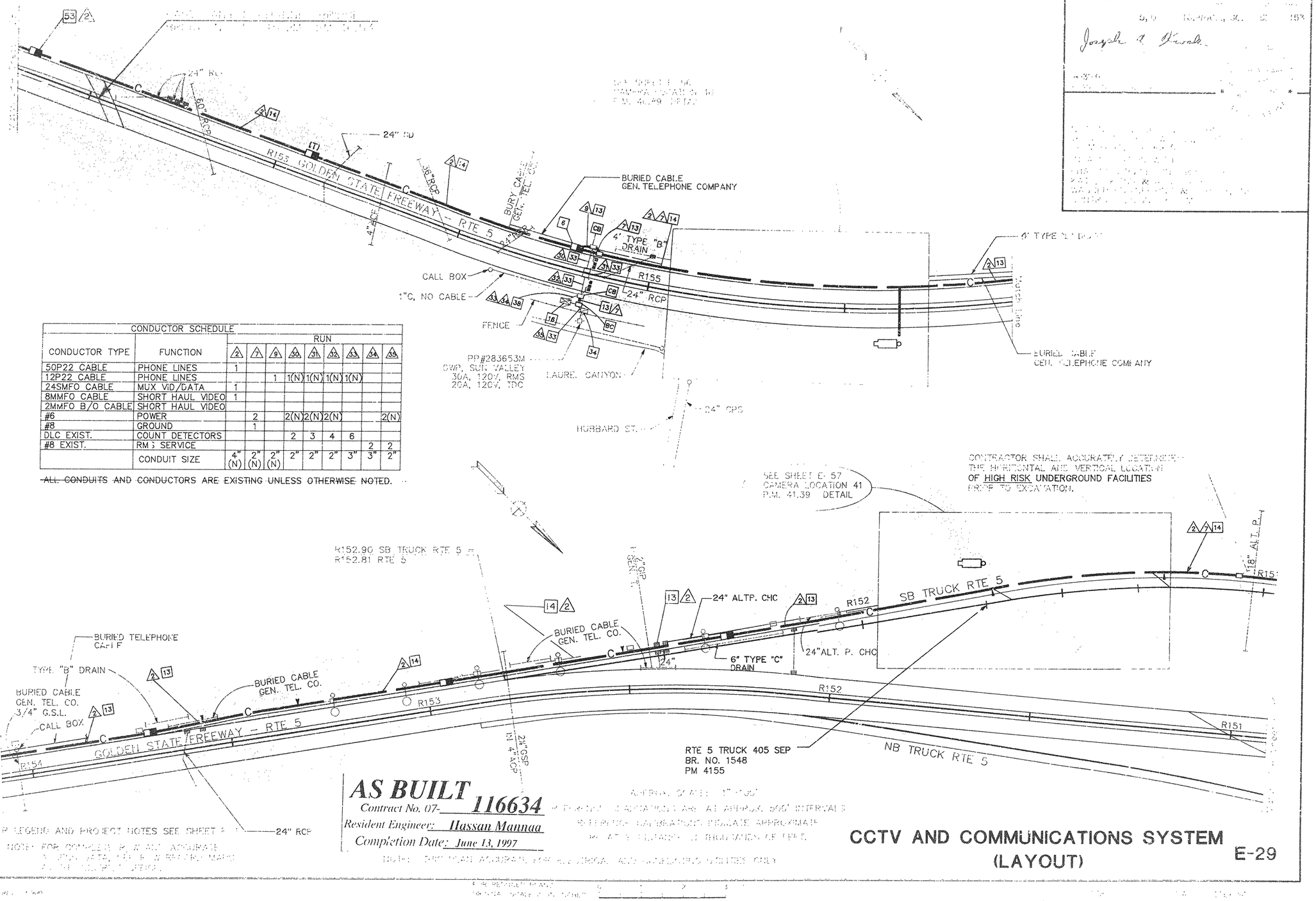
DESIGN OVERSIGHT
GLORIA GWYNNE

DESIGNED BY
CHECKED BY JK 3/23

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONDUCTOR SCHEDULE											
CONDUCTOR TYPE	FUNCTION	RUN									
		2	7	9	30	31	32	33	34	35	
50P22 CABLE	PHONE LINES	1									
12P22 CABLE	PHONE LINES			1	1(N)	1(N)	1(N)	1(N)			
24SMFO CABLE	MUX VID/DATA	1									
8MMFO CABLE	SHORT HAUL VIDEO	1									
2MMFO B/O CABLE	SHORT HAUL VIDEO										
#6	POWER		2		2(N)	2(N)	2(N)			2(N)	
#8	GROUND		1								
DLC EXIST.	COUNT DETECTORS				2	3	4	6			
#8 EXIST.	RM 3 SERVICE								2	2	
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2"	2"	2"	3"	3"	2"	

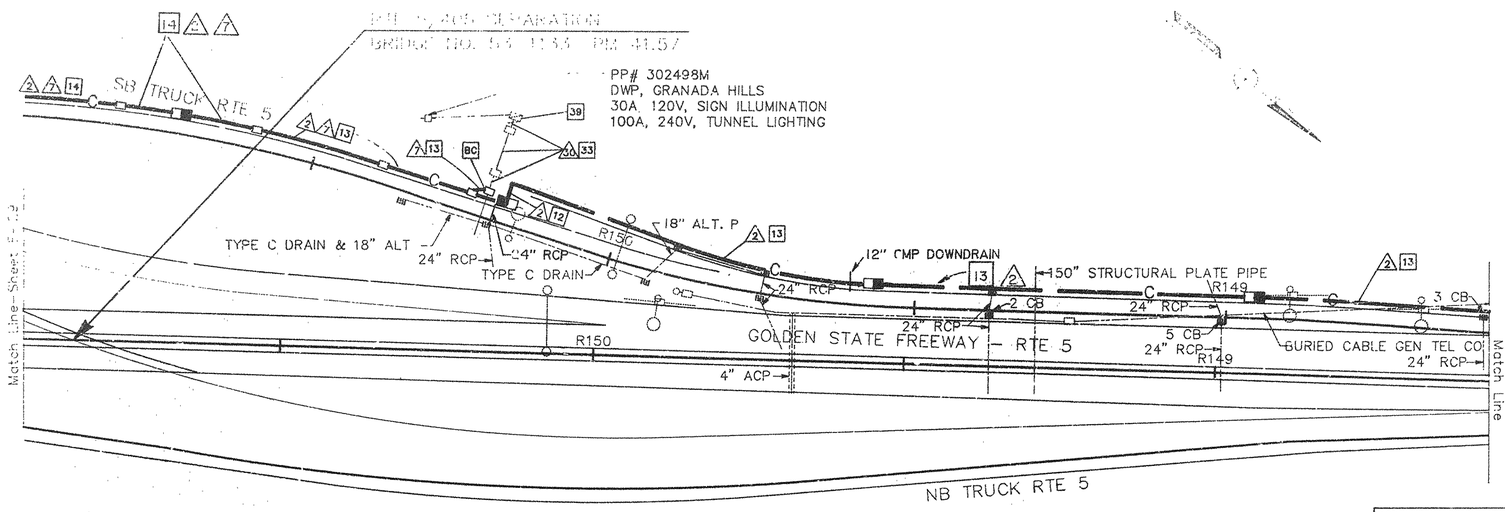
~~ALL CONDUITS~~ AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.



AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

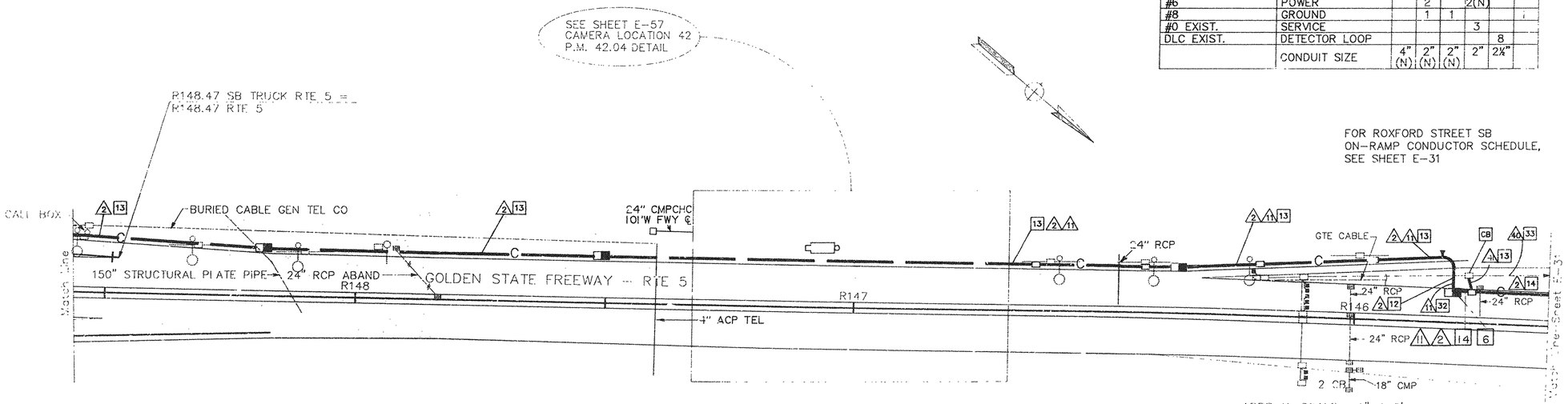
CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-29



CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN						
		2	7	11	30	40	41	
50P22 CABLE	PHONE LINES	1						
12P22 CABLE	PHONE LINES					I(N)	I	
24SMFO CABLE	MUX VID/DATA	1						
8MMFO B/O CABLE	SHORT HAUL VIDEO	1						
#4	POWER			2		2(N)	2	
#6	POWER		2		2(N)			
#8	GROUND		1	1			1	
#0 EXIST.	SERVICE				3			
DLC EXIST.	DETECTOR LOOP					8		
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2"	2½"		

FOR ROXFORD STREET SB ON-RAMP CONDUCTOR SCHEDULE, SEE SHEET E-31



APPROX. SCALE: 1"=100'

REFERENCE GRADIENTS ARE AT APPROX. FLOW LINE

REFER TO CALIBRATION DETAILS ON SHEET

REFER TO DETAILS ON DIAGRAMS OF EXIT

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-30

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

FOR REDUCED PLANS ORIGINAL SCALE IS 0 1 2 3 INCHES

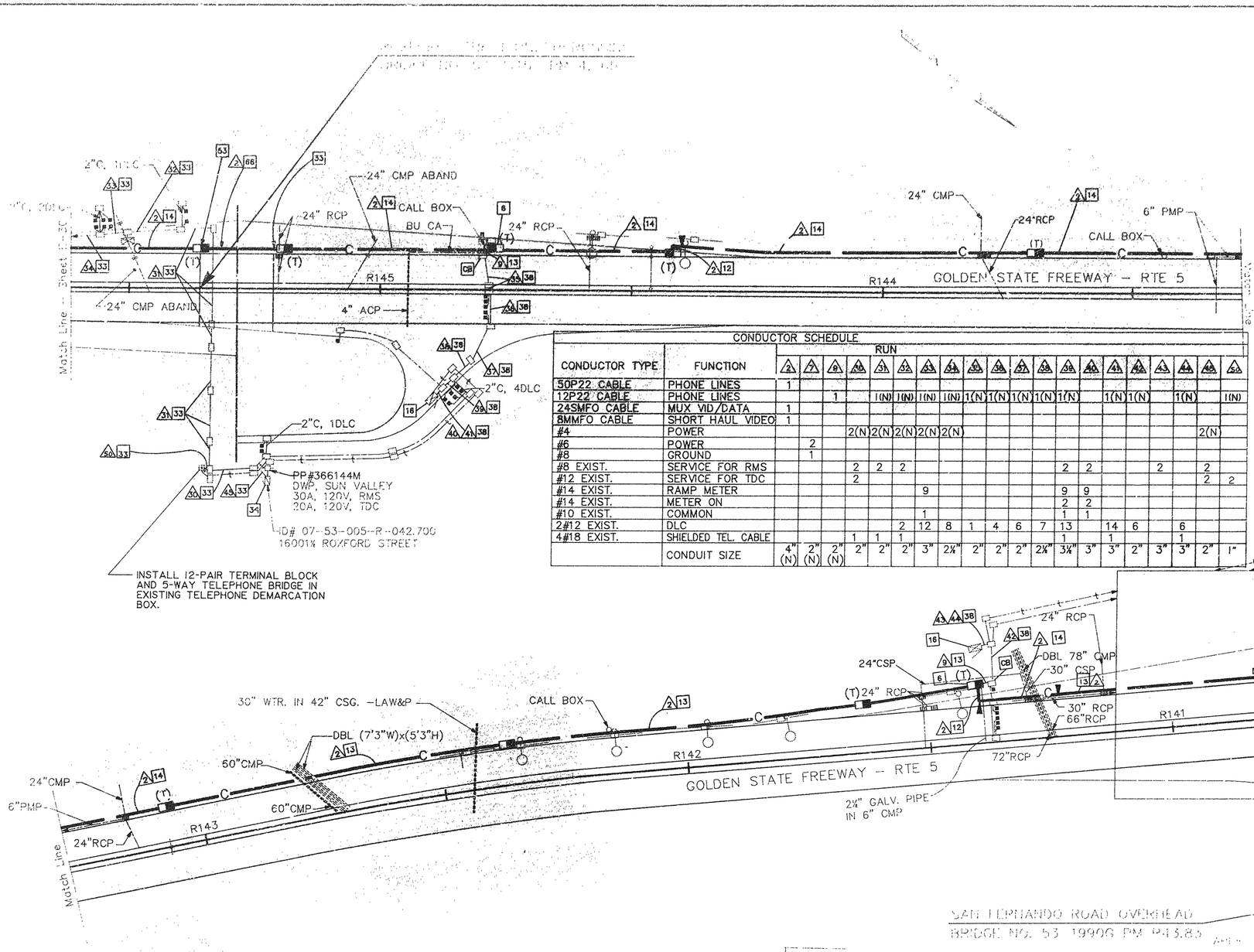
DESIGNED BY
CHECKED BY JK 3/23
DESIGN OVERSIGHT GLORIA GWYNNE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans

NATIONAL ENGINEERING CONSULTANTS
16200 VALLEY VIEW AVE., SUITE 140
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEYING, INC.
CONTROL DESIGN SYSTEMS

8-21-92
PLANS APPROVAL DATE

DIST 07 COUNTY LA ROUTE 5 POST MILES 42.0/42.5
EA 116634 PROJECT NO. 0700020152

FORM CT-CE 82 PE (REV. 3-88)



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 2	7	9	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	50
50P22 CABLE	PHONE LINES	1																			
12P22 CABLE	PHONE LINES			1		1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		1(N)	1(N)		1(N)		1(N)
24SMFO CABLE	MUX VID/DATA	1																			
8MMFO CABLE	SHORT HAUL VIDEO	1																			
#4	POWER				2(N)	2(N)	2(N)	2(N)	2(N)											2(N)	
#6	POWER		2																		
#8	GROUND		1																		
#8 EXIST.	SERVICE FOR RMS				2	2	2							2	2			2		2	
#12 EXIST.	SERVICE FOR TDC				2															2	2
#14 EXIST.	RAMP METER							9						9	9						
#14 EXIST.	METER ON													2	2						
#10 EXIST.	COMMON							1						1	1						
2#12 EXIST.	DLC						2	12	8	1	4	6	7	13		14	6		6		
4#18 EXIST.	SHIELDED TEL. CABLE				1	1	1							1		1			1		
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2"	2"	2"	3"	2½"	2"	2"	2"	2½"	3½"	3"	3"	2"	3"	3"	2"	1"

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

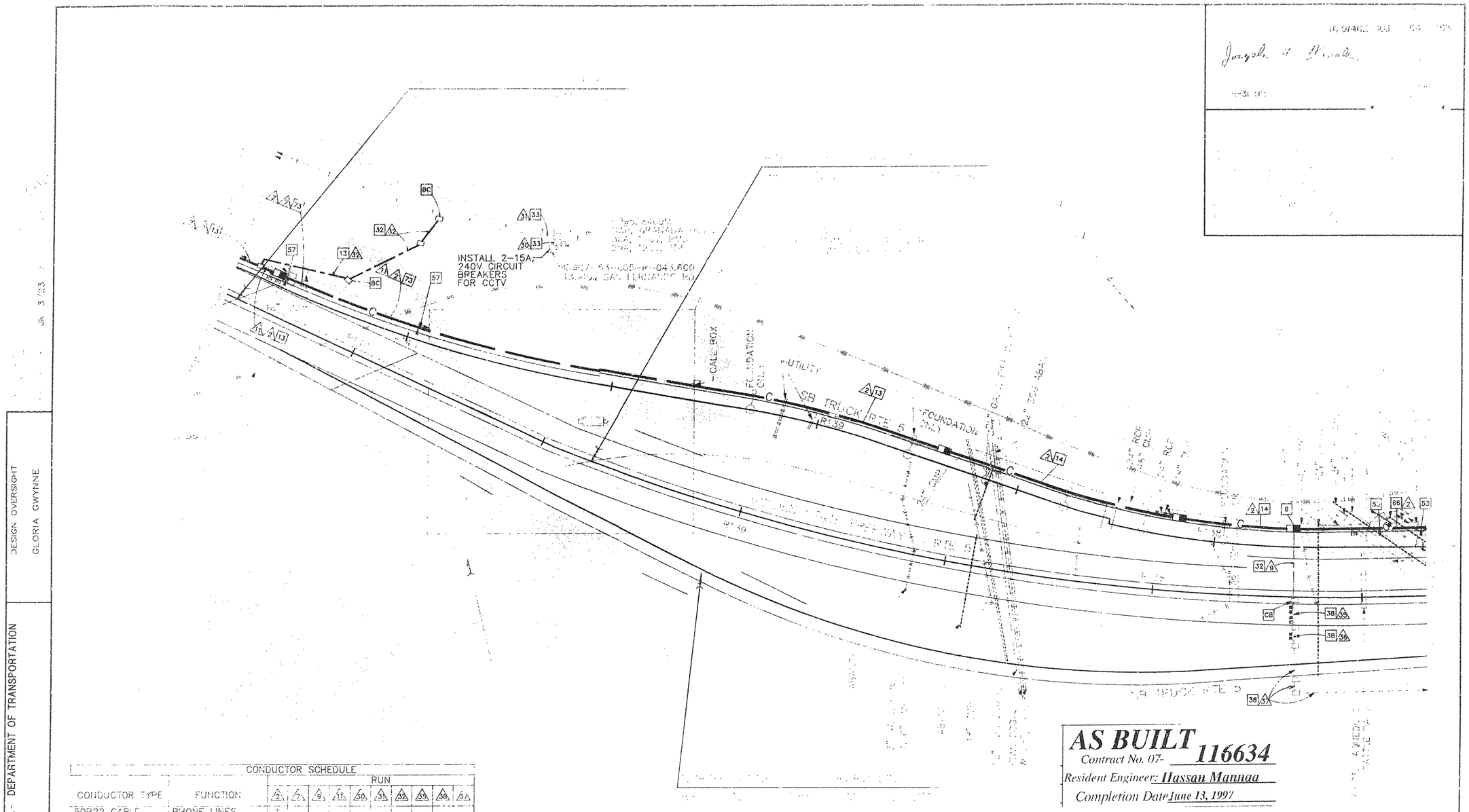
CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-31

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT: GLORIA GWYNNE
CALCULATED BY / DESIGNED BY / CHECKED BY: JK 3/23
DATE REVISED BY / DATE REVISED

FORM DC-OE-92-PF (REV 3/88)



CONDUCTOR SCHEDULE											
		RUN									
CONDUCTOR TYPE	FUNCTION	2	7	9	11	30	31	32	33	36	37
50P22 CABLE	PHONE LINES	1									
12P22 CABLE	PHONE LINES			1					1(N)	1(N)	1(N)
24SMFO CABLE	MUX VID/DATA	1									
8MMFO CABLE	SHORT HAUL VIDEO	1									
#6	POWER	2			2(N)	2(N)	2				
#4	POWER			2	2(N)	2(N)	2				
#8 EXIST.	SERV. FOR RMS				2	2					
#12 EXIST.	SERV. FOR TDC				2						
DLC EXIST.	DETECTOR LOOPS								2	5	6
#8	GROUND		1		1		1				
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2" (N)	3"	2"	2" (N)	2"	2"	2"

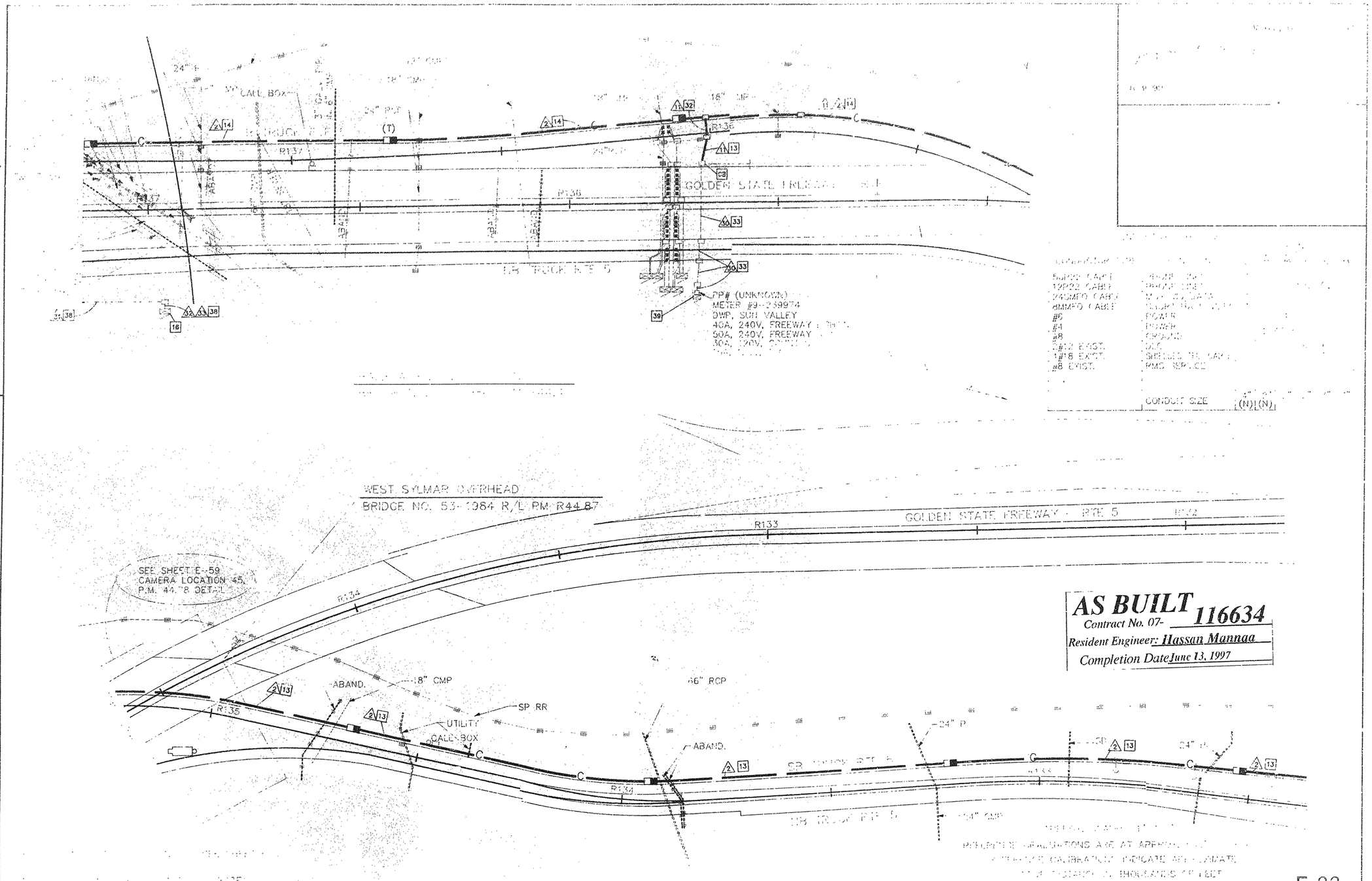
AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE



AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM

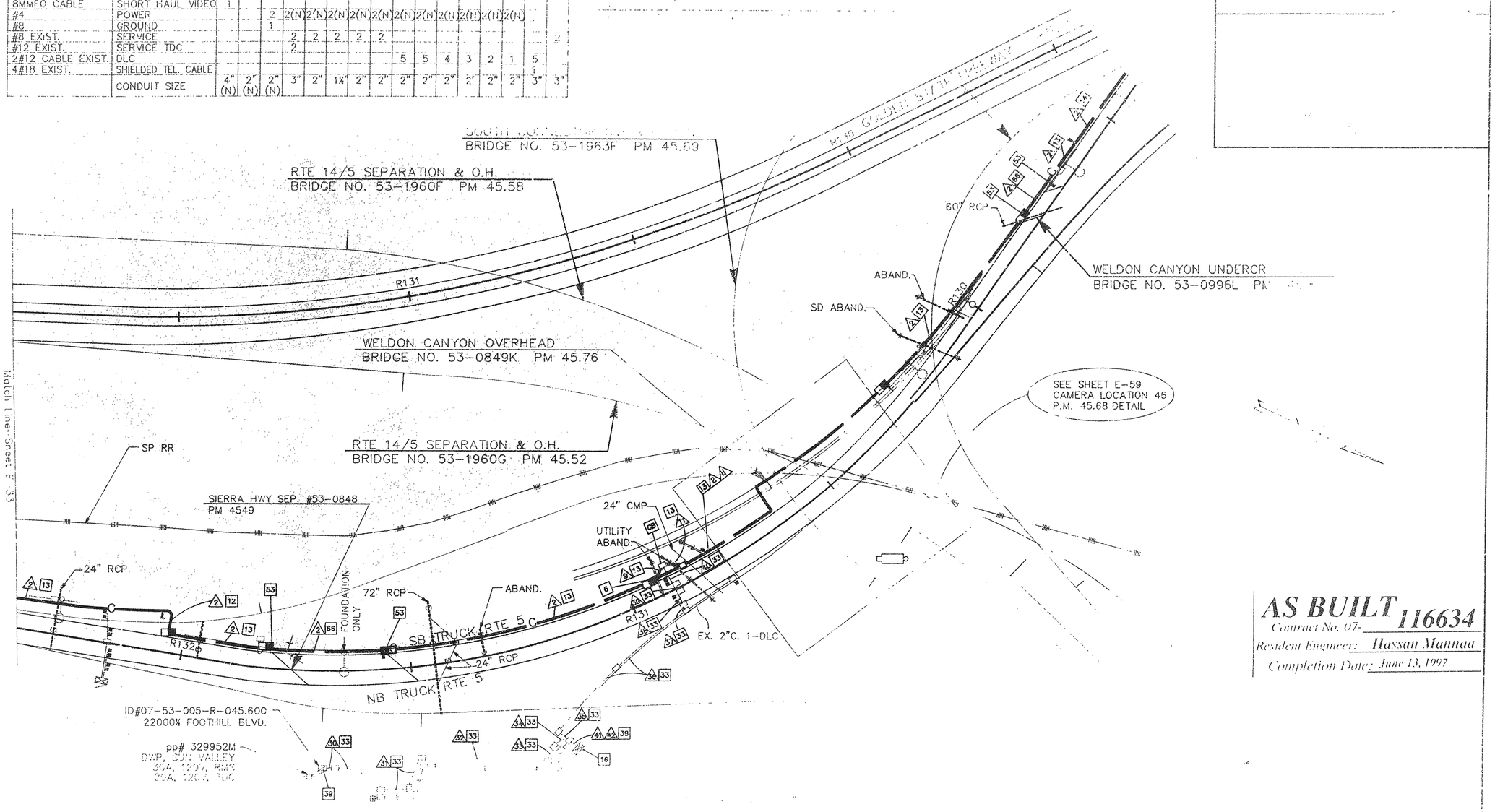
E-33

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 23	29	31	32	31	32	33	34	35	36	37	38	39	40	41	42
50P22 CABLE	PHONE LINES	1															
12P22 CABLE	PHONE LINES		1							1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1															
8MMFO CABLE	SHORT HAUL VIDEO	1															
#4	POWER			2	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)		
#8	GROUND			1													
#8 EXIST.	SERVICE				2	2	2	2	2								2
#12 EXIST.	SERVICE TDC				2												
2#12 CABLE EXIST.	DLC									5	5	4	3	2	1	5	
4#18 EXIST.	SHIELDED TEL. CABLE															1	
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	3"	2"	1¼"	2"	2"	2"	2"	2"	2"	2"	2"	3"	3"



AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

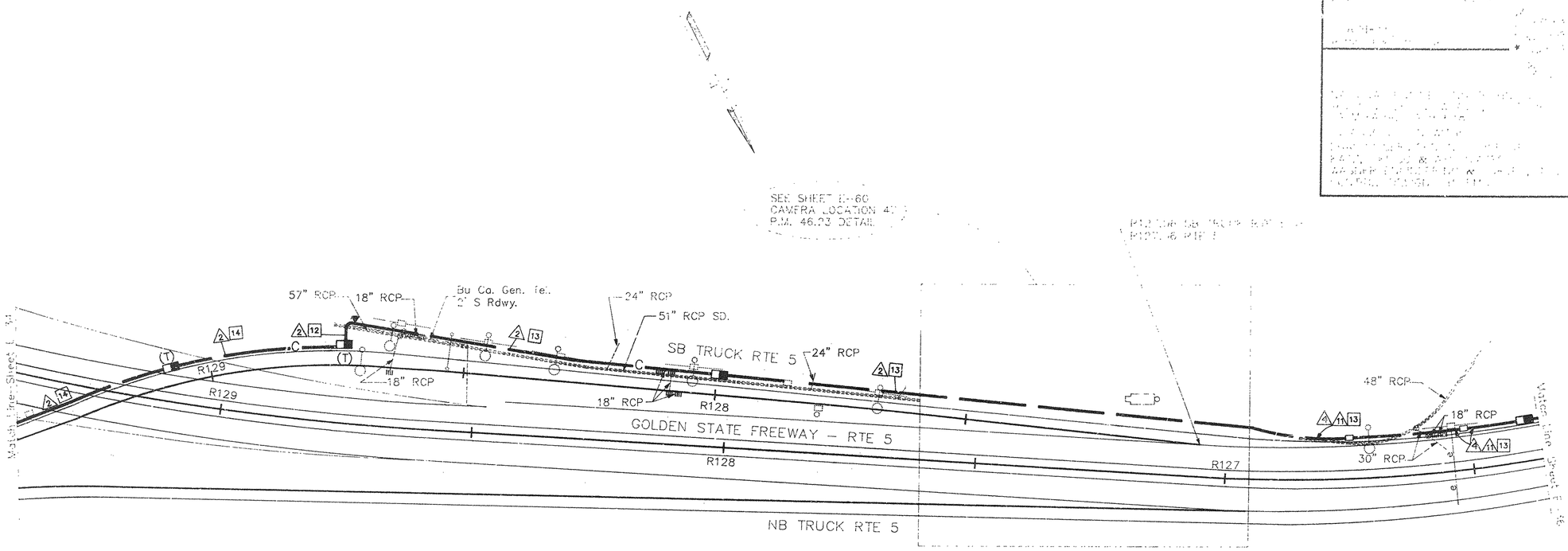
CCTV AND COMMUNICATIONS SYSTEM
(LAYOUT)

E-34

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

CALCULATED
DESIGNED BY
CHECKED BY JK 3/23



CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 2	RUN 1	RUN 4
50P22 CABLE	PHONE LINES	1		1
24SMFO CABLE	MUX VID/DATA	1		
8MMFO CABLE	SHORT HAUL VIDEO	1		
#4	POWER		2	
#8	GROUND		1	
	CONDUIT SIZE	4" (N)	2" (N)	4" (N)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

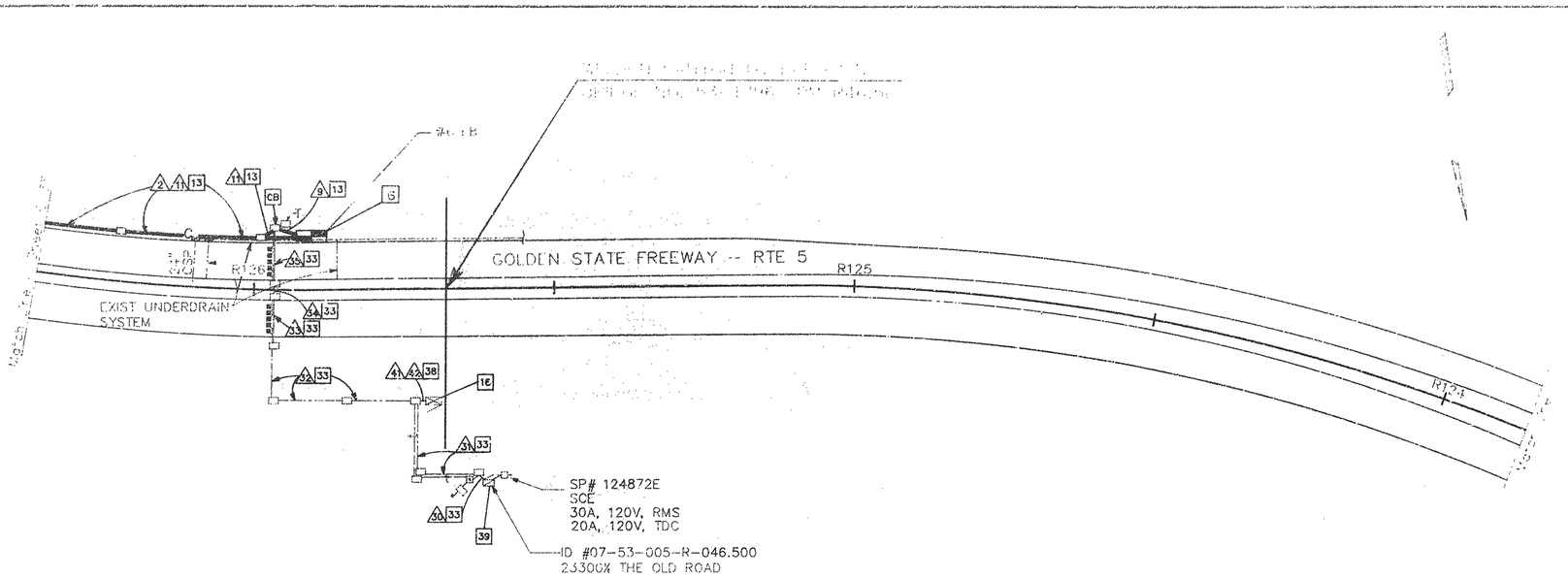
JK 3/23

Joseph A. Kwok

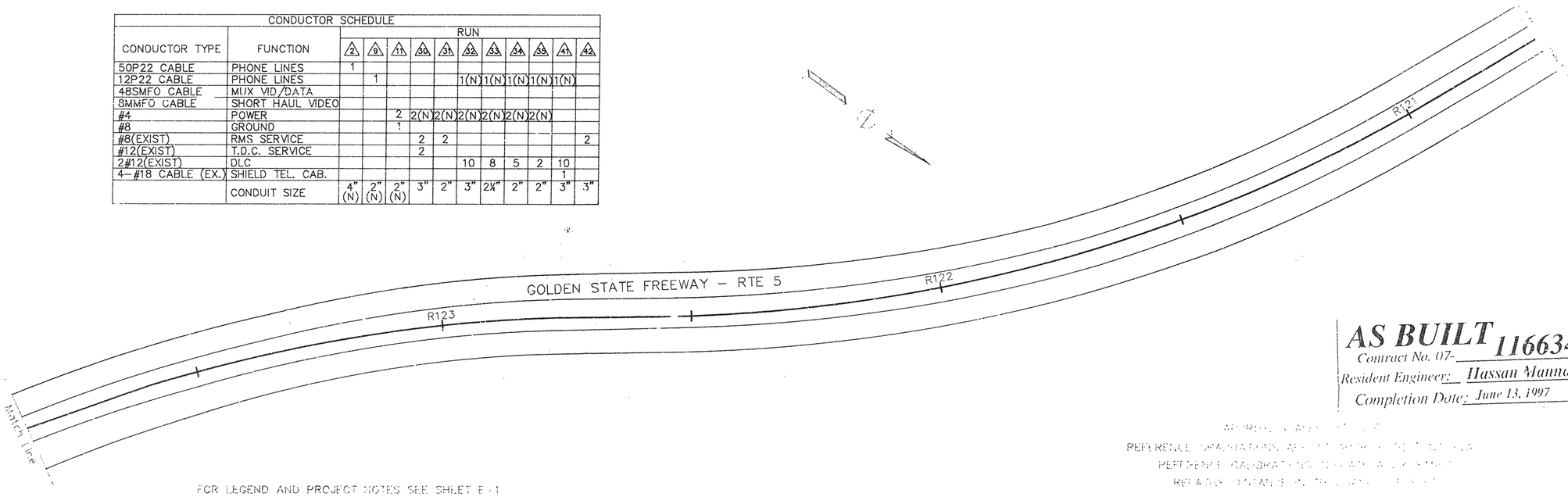
AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM
(LAYOUT)

E-35



CONDUCTOR SCHEDULE													
CONDUCTOR TYPE	FUNCTION	RUN											
		2	9	11	30	31	32	33	34	35	41	42	
50P22 CABLE	PHONE LINES	1											
12P22 CABLE	PHONE LINES		1				1(N)	1(N)	1(N)	1(N)	1(N)		
48SMFO CABLE	MUX VID/DATA												
8MMFO CABLE	SHORT HAUL VIDEO												
#4	POWER			2	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)			
#8	GROUND			1									
#8(EXIST)	RMS SERVICE				2	2							2
#12(EXIST)	T.D.C. SERVICE				2								
2#12(EXIST)	DLC						10	8	5	2	10		
4-#18 CABLE (EX.)	SHIELD TEL. CAB.										1		
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	3"	2"	3"	2½"	2"	2"	3"	3"	



FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

PERFORMANCE OF THE ELECTRICAL SYSTEMS
PERFORMANCE CALIBRATION TESTS
RELATIVE TO ANSI/IEEE 81

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-36

DESIGN OVERSIGHT
GLORIA GWYNNE

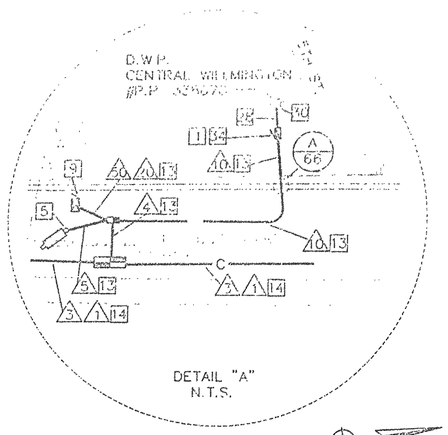
CALCULATED BY
DESIGNED BY
CHECKED BY JK 3/23 DATE REVISED

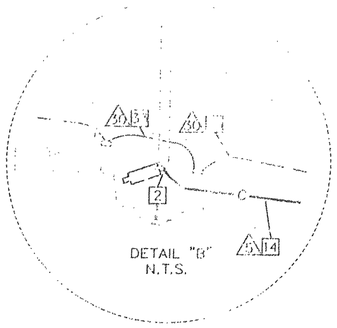
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

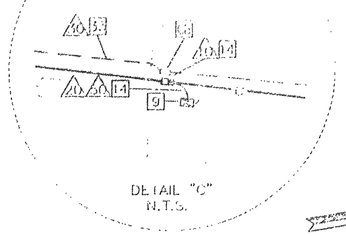
1:\663636.DWG 03 19 97

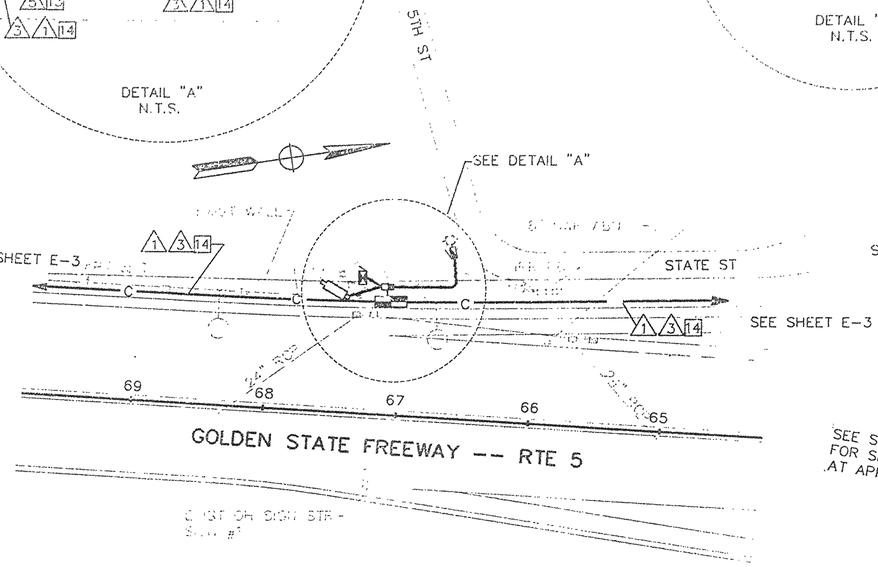
FORM CT-CE-82-PE (REV. 3-88)

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

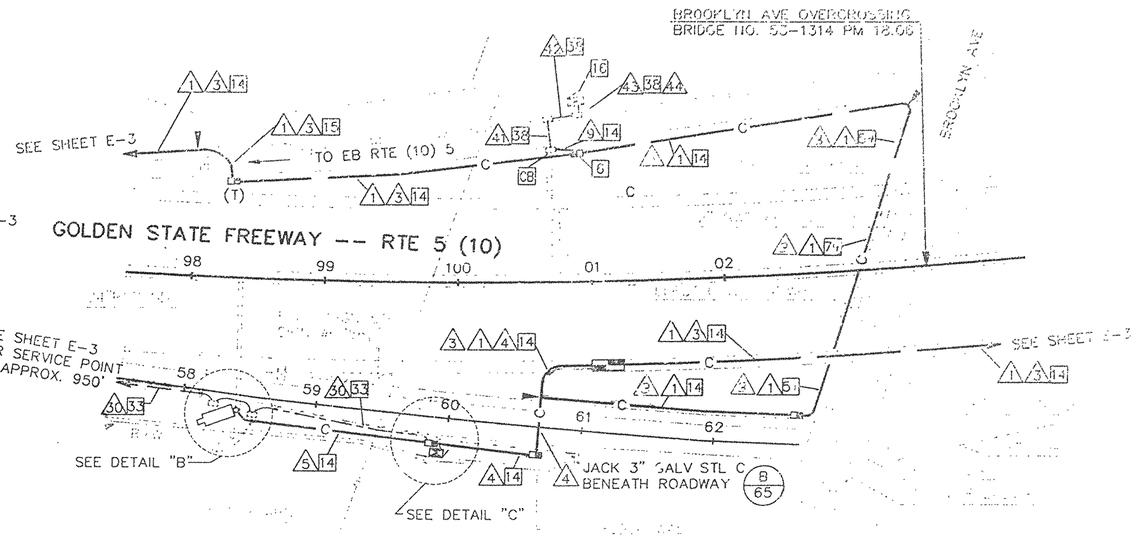








CAMERA LOCATION 1, PM17.22



CAMERA LOCATION 2, PM17.97

CONDUCTOR SCHEDULE CAMERA LOCATION 1

CONDUCTOR TYPE	FUNCTION	1	3	4	5	10	20	50
50P22 CABLE	PHONE LINES	1						
6P19 CABLE	PHONE LINES			1			1	
48SMFO CABLE	MUX VID/DATA	1						
8MMFO CABLE	SHORT HAUL VIDEO	1						
2MMFO B/O CABLE	SHORT HAUL VIDEO			1			1	
RG-6A/U COAX	BASEBAND VIDEO					1	1	
27C18 CABLE	CONTROL					1	1	
#6	POWER					2		2
#8	GROUND				1	1		2
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 2

CONDUCTOR TYPE	FUNCTION	1	3	4	5	9	11	17	20	41	42	43	44	45	46
50P22 CABLE	PHONE LINES	1					1								
6P19 CABLE	PHONE LINES			1				1							
12P22 CABLE	PHONE LINES					1		1		1(D)	1(D)	1(N)			
48SMFO CABLE	MUX VID/DATA	1						1							
8MMFO CABLE	SHORT HAUL VIDEO	1						1							
2MMFO B/O CABLE	SHORT HAUL VIDEO			1					1						
RG-6A/U COAX	BASEBAND VIDEO								1						
27C18 CABLE	CONTROL								1						
#4	POWER						2			2(N) 4					
#6 EXIST															
2#14 DLC (EXIST)	COUNT DETECTOR										1	5			
2#14 DLC (EXIST)	DEMAND DETECTOR										2	3			
2#14 DLC (EXIST)	PASSAGE DETECTOR										3				
#14 (EXIST)	SIGNAL										5	6			
#14 (EXIST)	SPARES										6		1		
#10 (EXIST)	SIGNAL COMMON										1		1		
#8 (EXIST)	SIGNAL DEVICE											2	2		
2#14 (EXIST)	QUEUE DETECTOR														
#8	GROUND						1					2			
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	4" (N)	4" (N)	4" (N)	4" (N)	3" (N)	1 1/2"	2"	2"	2 1/2"	2 1/2"	4" (N)

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY
SEE SHEET E-1 FOR LEGEND AND GENERAL NOTES

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 1 AND 2

SCALE: 1"= 50'

DESIGN OVERSIGHT: GLORIA GWYNNE

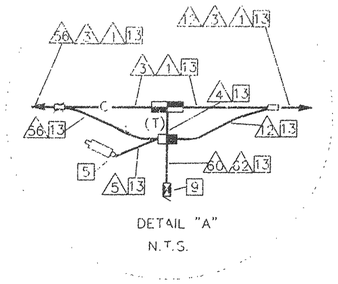
CALCULATED/DESIGNED BY | CHECKED BY | DATE | REVISED BY | DATE REVISED

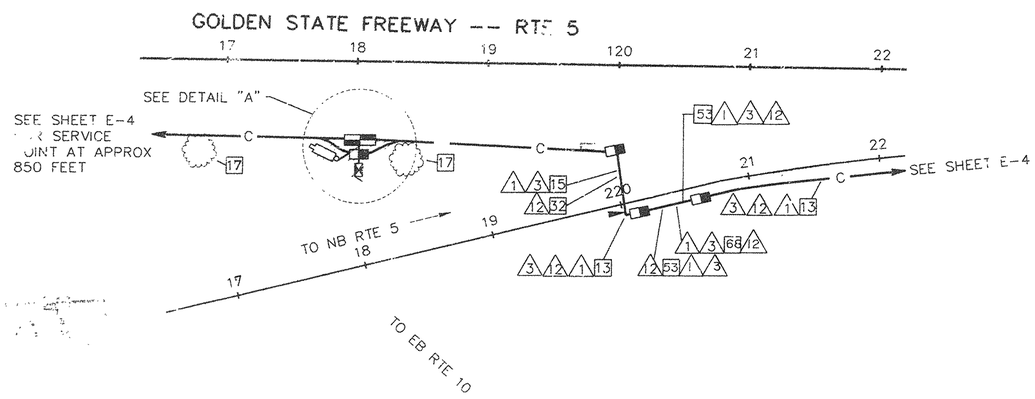
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

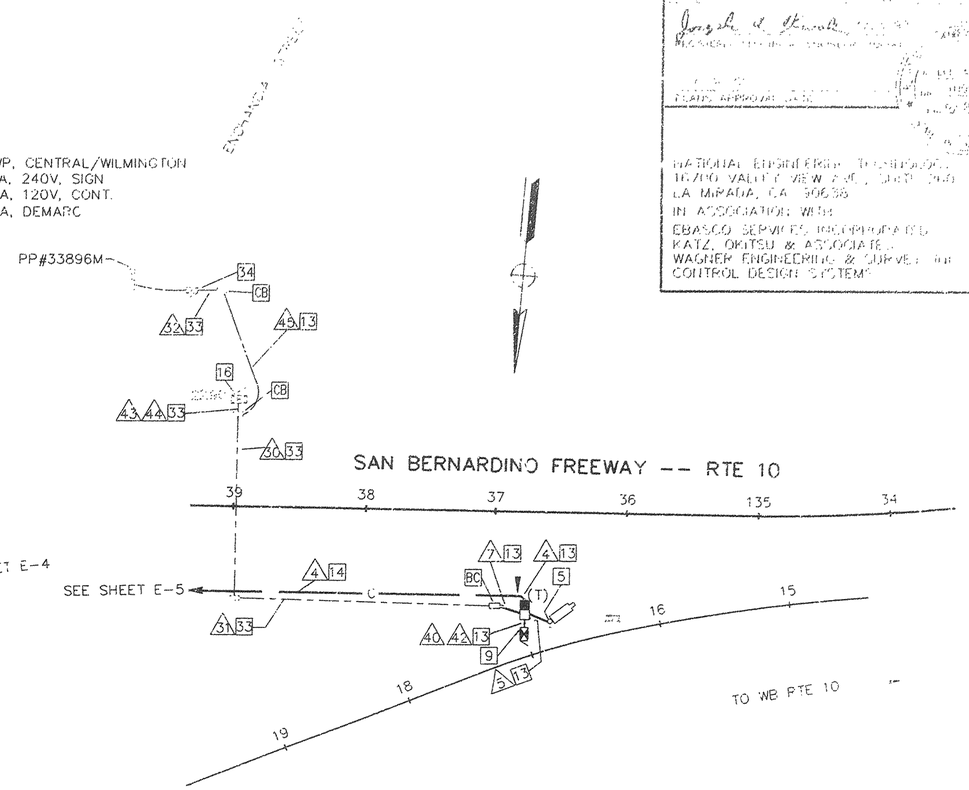
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES 0 1 2 3

FORM DC-OE-92-FF (REV. 3/00)

CU 37757 | EA 311334







CAMERA LOCATION 3, PM18.33

CONDUCTOR SCHEDULE CAMERA LOCATION 3

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8
50P22 CABLE	PHONE LINES	1							
6P19 CABLE	PHONE LINES				1				1
48SMFO CABLE	MUX VID/DATA	1							
8MMFO CABLE	SHORT HAUL VIDEO	1							
2MMFO B/S CABLE	SHORT HAUL VIDEO				1				1
RG-6A/U COAX	BASEBAND VIDEO				1				1
27C18 CABLE	CONTROL				1				1
#4	POWER					2			2
#6	POWER					2	5		
#8	GROUND				1				2
CONDUIT	SIZE	4" (E)	4" (N)	3" (E)	2" (N)	2" (E)	2" (N)	3" (E)	3" (N)

CAMERA LOCATION 4, PM00.40 (10 SPUR)

CONDUCTOR SCHEDULE CAMERA LOCATION 4

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8	9	10	11	12
6P19 CABLE	PHONE LINES	1								1			
12P22 CABLE	PHONE LINES	1			1	1(N)	1(N)						1(N)
2MMFO B/O CABLE	SHORT HAUL VIDEO	1								1			
RG-6A/U COAX	BASEBAND VIDEO		1							1			
27C18 CABLE	CONTROL		1							1			
#8	POWER												
#6	POWER			2	2(N)	2(N)	2(N)		2				
#8 (EXIST)	POWER						4						
#10 (EXIST)	POWER						2						
2#12 OLC (EXIST)	DETECTORS			6		5			7				
#8	GROUND			1				2	1(N)				
CONDUIT	SIZE	3" (E)	3" (N)	2" (E)	2"	2"	1"	1 1/2"	3" (N)	3"	2	1 1/2"	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 3 AND 4

SCALE: 1"= 50'

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

E-38

NATIONAL ENGINEERING TECHNOLOGY, INC.
16200 VALLEY VIEW AVE., SUITE 240
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES, INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEYING, INC.
CONTROL DESIGN SYSTEMS

DESIGN OVERSIGHT: GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

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

CU 07387 EA 116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, SO.:	61	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

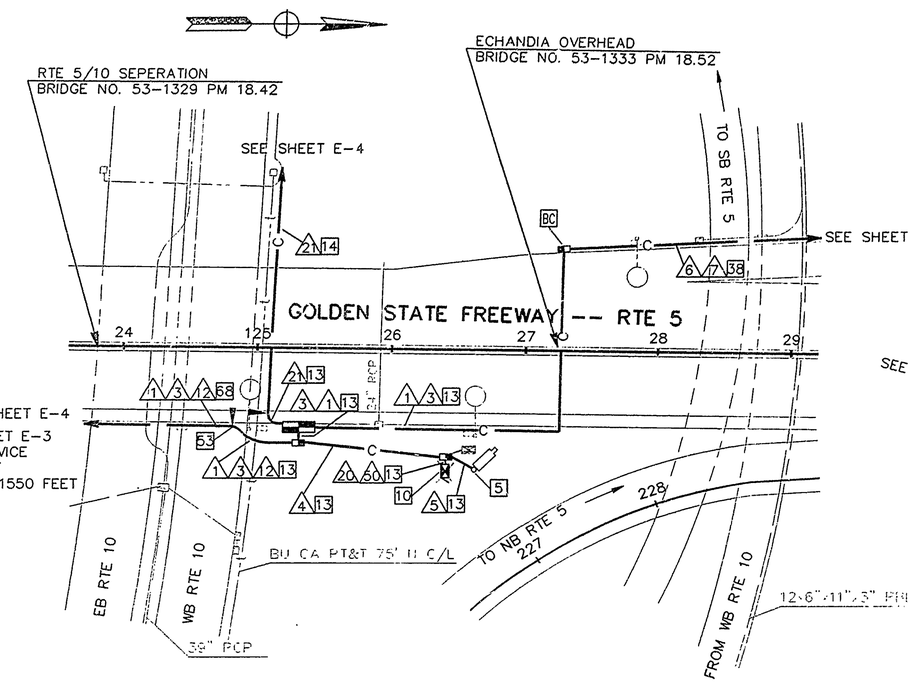
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DESIGN OVERSIGHT — GLORIA GWYNNE

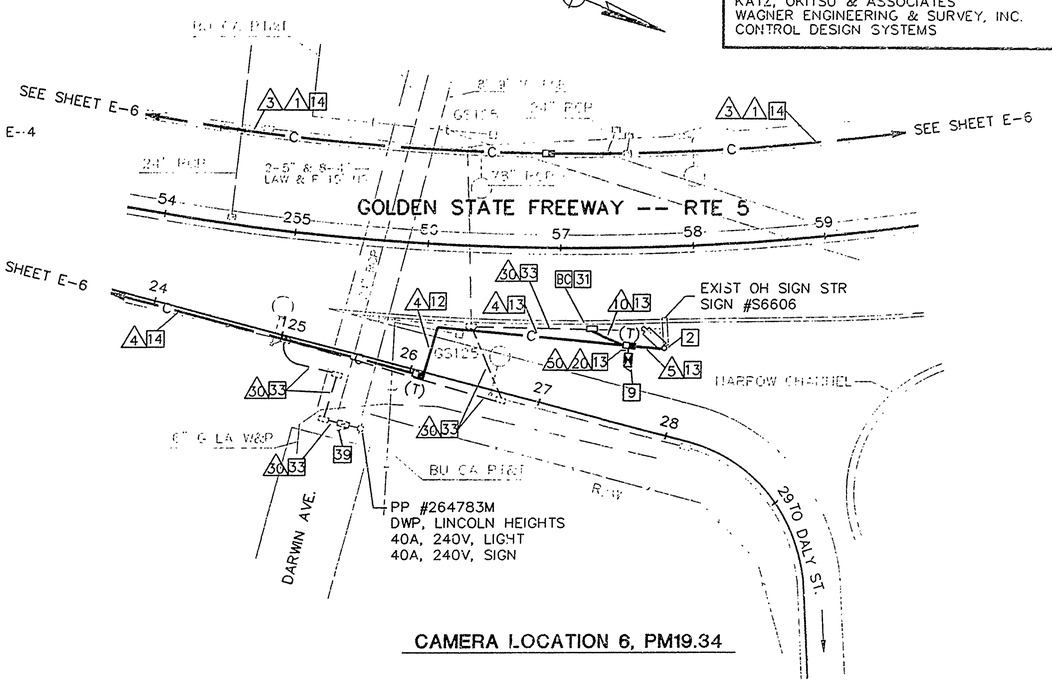
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CALCULATED/DESIGNED BY — CHECKED BY — DATE — REVISED BY — DATE REVISED

1166JE39.DWG WES 05/15/92



CAMERA LOCATION 5, PM18.47



CAMERA LOCATION 6, PM19.34

CONDUCTOR SCHEDULE CAMERA LOCATION 5

CONDUCTOR TYPE	FUNCTION	1	3	4	5	6	7	12	20	21	60
50P22 CABLE	PHONE LINES	1		2		1(N)			2		
6P19 CABLE	PHONE LINES									1	
12P22 CABLE	PHONE LINES									1	
48SMFO CABLE	MUX VID/DATA	1				1(N)					
8MMFO CABLE	SHORT HAUL VIDEO	1				1(N)					
2SMFO B/O CABLE	MUX VID/DATA			2					2		
2MMFO B/O CABLE	SHORT HAUL VIDEO			1					1	1	
RG-6A/U COAX	BASEBAND VIDEO				1				1		
27C18 CABLE	CONTROL				1				1		
#2	POWER			2				2			2
#8	GROUND			1	1			1			2
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	4"	4"	4" (N)	3" (N)	3" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 6

CONDUCTOR TYPE	FUNCTION	1	3	4	5	10	20	30	50
50P22 CABLE	PHONE LINES	1							
6P19 CABLE	PHONE LINES			1			1		
48SMFO CABLE	MUX VID/DATA	1							
8MMFO CABLE	SHORT HAUL VIDEO	1							
2MMFO B/O CABLE	SHORT HAUL VIDEO			1			1		
RG-6A/U COAX	BASEBAND VIDEO				1		1		
27C18 CABLE	CONTROL				1		1		
#8	POWER					2		2(N)	2
#8 (EXIST)								4	
#8	GROUND				1	1			2
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	1 1/2"	3" (N)

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 5 AND 6

SCALE: 1"= 50'

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

E-39

FORM DC-OE-92-PF (REV. 3/88)

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

CU	07387	EA	116634

CONDUCTOR SCHEDULE CAMERA LOCATION 7

CONDUCTOR TYPE	FUNCTION	1	3	4	5	9	10	20	30	40	41	42	43	50	51
50P22 CABLE	PHONE LINES	1													
6P19 CABLE	PHONE LINES			1				1							
12P22 CABLE	PHONE LINES					1				1(N)	1(N)	1(N)			1(N)
48SMFO CABLE	MUX VID/DATA	1													
8MMFO CABLE	SHORT HAUL VIDEO	1		2				2							
2MMFO B/O CABLE	SHORT HAUL VIDEO														
RG-6A/U COAX	BASEBAND VIDEO				1			1							
27C18 CABLE	CONTROL				1			1							
#8	POWER						2		2(N)					2	
#6 (EXIST)	POWER								4						
#14 (EXIST)	SIGNAL											3	3		
#14 (EXIST)	SPARE											3	3		
#10 (EXIST)	SIGNAL COMMON											1	1		
#8 (EXIST)	SIGNAL SERVICE												2		
2#12DLC (EXIST)	COUNT DETECTOR											1			1
2#14 DLC (EXIST)	DEMAND DETECTOR											1			1
2#14 DLC (EXIST)	PASSAGE DETECTOR										1	2			2
2#14 DLC (EXIST)	QUEUE DETECTOR														1
2#14 DLC (EXIST)	COUNT DETECTOR									4	4	4			4
#8	GROUND				1		1							2	
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	2" (N)	2" (N)	3" (N)	1 1/2"	1 1/2"	2"	2"	2 1\2"	3" (N)	2 1\2"

CONDUCTOR SCHEDULE CAMERA LOCATION 8

CONDUCTOR TYPE	FUNCTION	1	3	5	17	20	30	31	32	40	50	51
50P22 CABLE	PHONE LINES	1										
6P19 CABLE	PHONE LINES				1	1						
12P22 CABLE	PHONE LINES				1			1(N)		1		1(N)
48SMFO CABLE	MUX VID/DATA	1										
8MMFO CABLE	SHORT HAUL VIDEO	1										
2MMFO B/O CABLE	SHORT HAUL VIDEO				1	1						
RG-6A/U COAX	BASEBAND VIDEO			1		1						
27C18 CABLE	CONTROL			1		1						
#4	POWER						2(N)	2(N)		2	2	
#6 (EXIST)	POWER						3		3			
2 #18 (EXIST)	SHIELDED TEL CABLE						1					1
2#12 (EXIST)	DLC							6				6
#14 (EXIST)	RAMP METER							4	4			
#8	GROUND			1						1	2	
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	3" (N)	2"	2"	2"	2" (N)	3" (N)	2"

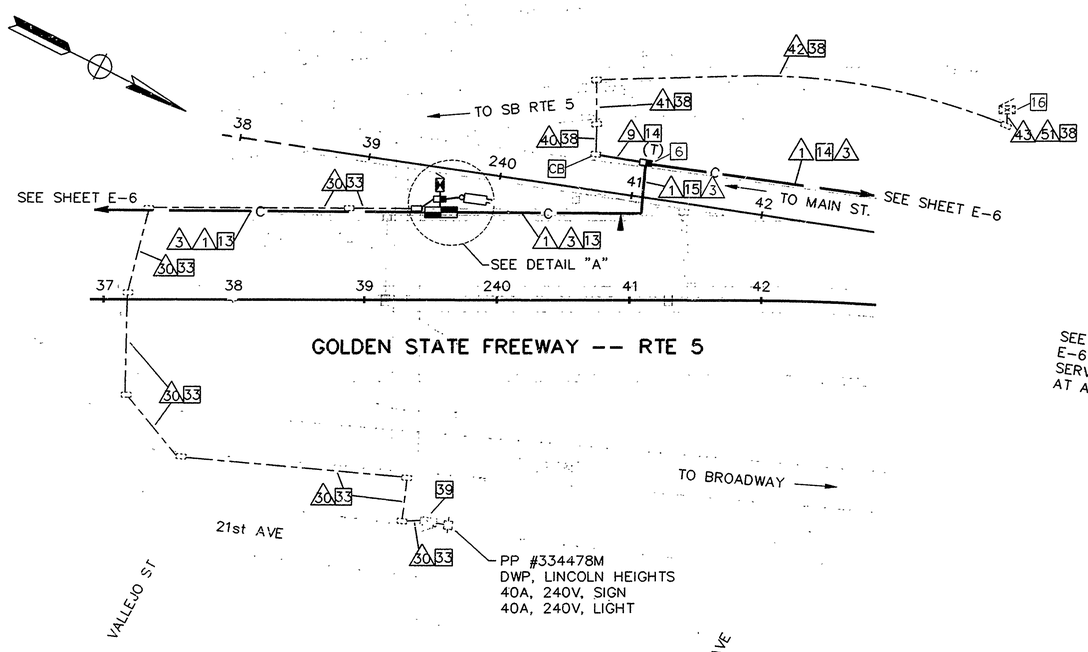
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, 50.1	62	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

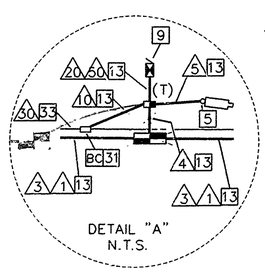
8-31-92
PLANS APPROVAL DATE

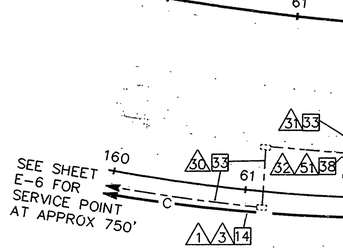
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. KWAK
No. 10991
Exp. 6/30/95
ELECTRICAL
STATE OF CALIFORNIA

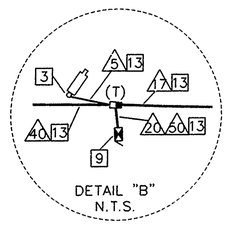
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



CAMERA LOCATION 7, PM19.59







CAMERA LOCATION 8, PM20.01

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 7 AND 8

SCALE: 1"= 50'

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

E-40

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DATE | REVISED BY | DATE REVISED

CALCULATED/ DESIGNED BY | CHECKED BY

WES 03/21/92
11663E40.DWG

FORM DC-OE-92-PF (REV. 3/88)

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

CU 07387 | EA 116634

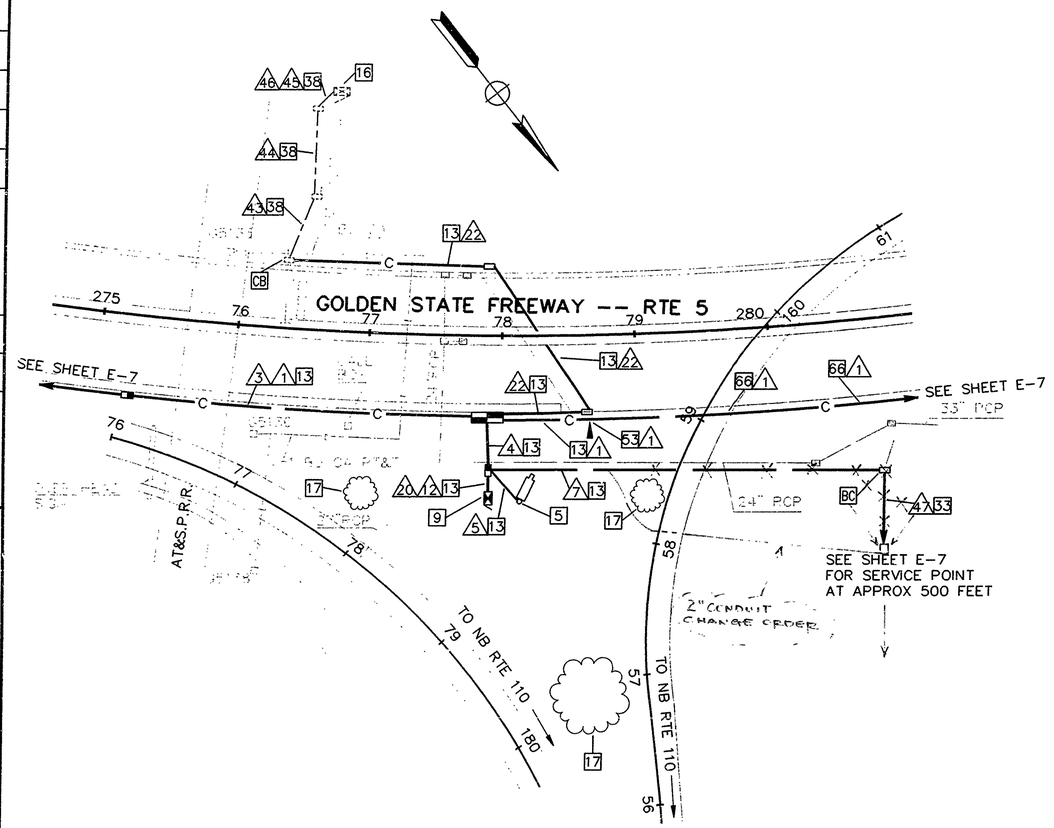
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, SO.1	63	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

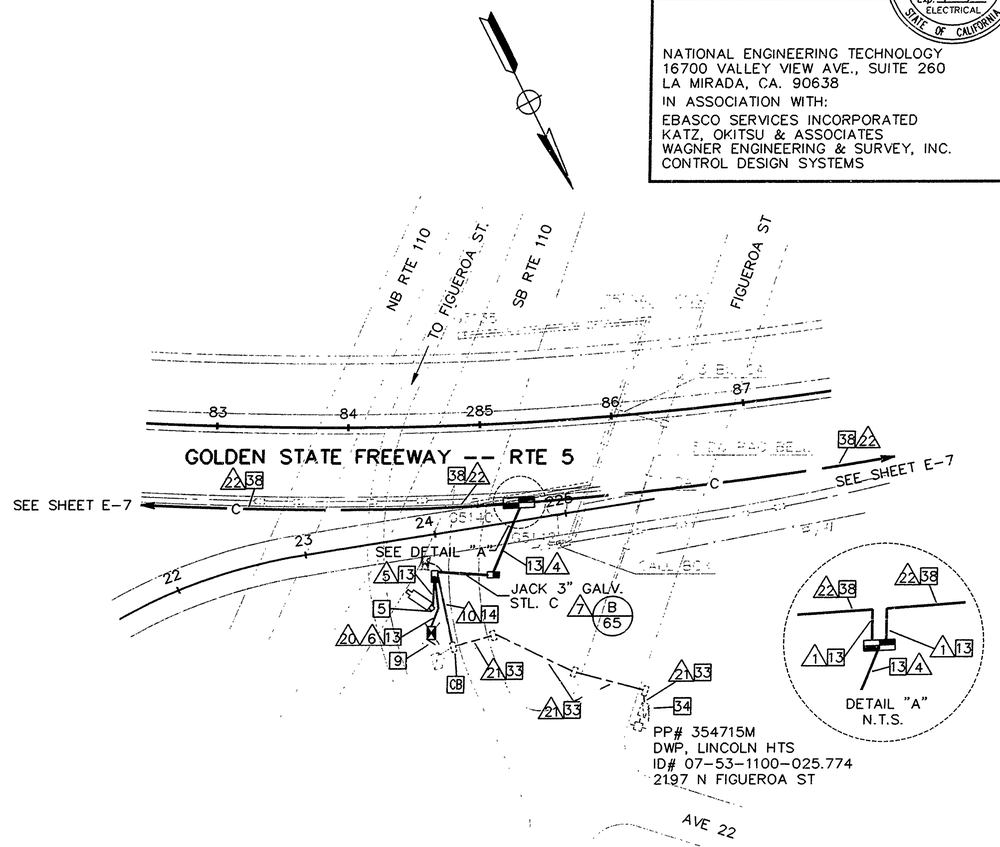
8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



CAMERA LOCATION 9, PM20.32



CAMERA LOCATION 10, PM20.44

CONDUCTOR SCHEDULE CAMERA LOCATION 9

CONDUCTOR TYPE	FUNCTION	1	3	4	5	7	12	20	22	43	44	45	46	47
50P22 CABLE	PHONE LINES	1												
6P19 CABLE	PHONE LINES			1				1						
12P22 CABLE	PHONE LINES			1		1			1	1(N)	1(N)	1(N)		1(N)
48SMFO CABLE	MUX VID/DATA	1												
8MMFO CABLE	SHORT HAUL VIDEO	1												
2MMFO B/O CABLE	SHORT HAUL VIDEO			1				1						
RG-6A/U COAX	BASEBAND VIDEO				1			1						
27C18 CABLE	CONTROL				1			1						
#6	POWER					2	2							2(N)
2-#12 (EXIST)	DETECTOR LOOP									3	6	7		4
#8 (EXIST)	RAMP METER SERVICE												2	
#8	GROUND				1	1	2							
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)	2" (N)	2"	2"	2 1/2"	2 1/2"	1 1/2"

CONDUCTOR SCHEDULE CAMERA LOCATION 10

CONDUCTOR TYPE	FUNCTION	1	4	5	6	7	10	20	21	22
50P22 CABLE	PHONE LINES	1								1(N)
6P19 CABLE	PHONE LINES		1			1		1		
48SMFO CABLE	MUX VID/DATA	1								1(N)
8MMFO CABLE	SHORT HAUL VIDEO	1								1(N)
2MMFO B/O CABLE	SHORT HAUL VIDEO		1			1		1		
RG-6A/U COAX	BASEBAND VIDEO			1				1		
27C18 CABLE	CONTROL			1				1		
#8	POWER				2		2		2(N)	
#8	GROUND			1	2		1			
#10 (EXIST)	POWER								2	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)	2"	4"

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 9 AND 10

SCALE: 1"= 50'

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

E-41

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
			C.H.	7-10

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

WES 07/10/92
116634E41.DWG

FORM DC-OE-92-PF (REV. 3/88)

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

CU	07387	EA	116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.3, 50.1	64	153

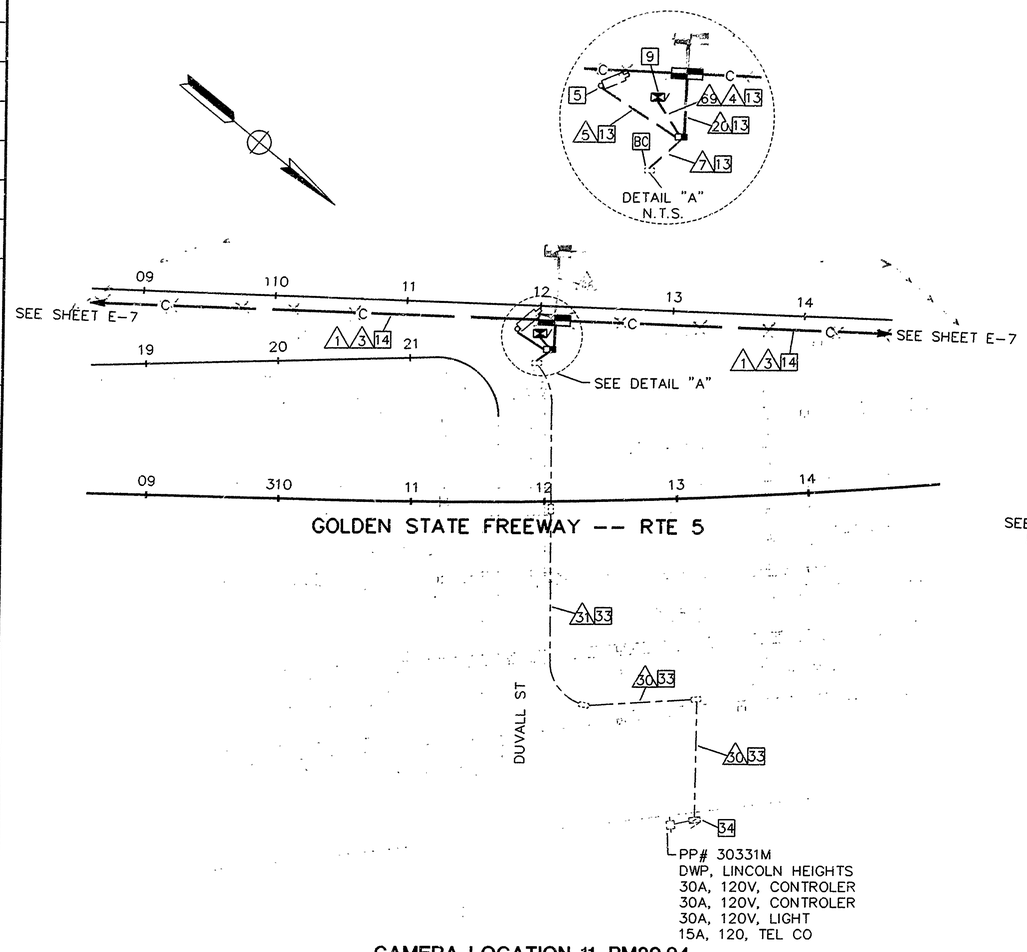
Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

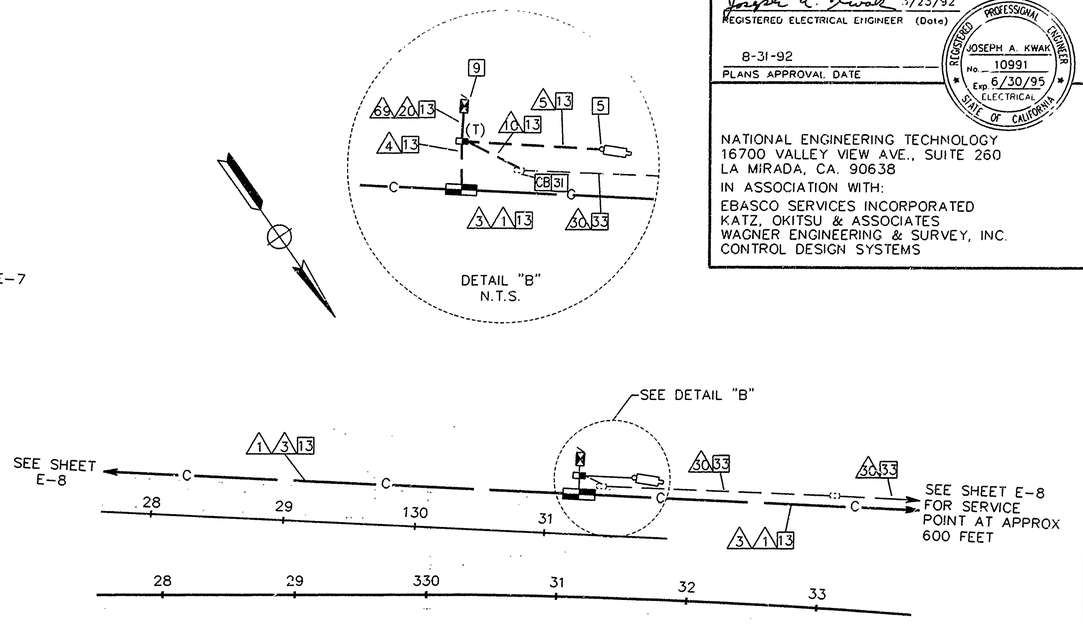
REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DESIGN OVERSIGHT — GLORIA GWYNNE
CALCULATED/DESIGNED BY
CHECKED BY
DATE REVISED BY
DATE REVISED
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
11663E42.DWG .MES 03/21/92



CAMERA LOCATION 11, PM20.94



CAMERA LOCATION 12, PM21.34

CONDUCTOR SCHEDULE CAMERA LOCATION 11

CONDUCTOR TYPE	FUNCTION	1	3	4	5	7	20	60	31	69
50P22 CABLE	PHONE LINES	1								
6P19 CABLE	PHONE LINES			1			1			
48SMFO CABLE	MUX VID/DATA	1								
8MMFO CABLE	SHORT HAUL VIDEO	1								
2MMFO B/O CABLE	SHORT HAUL VIDEO			1			1			
RG-6A/U COAX	BASEBAND VIDEO			1	1					
27C18 CABLE	CONTROL			1	1					
#8	POWER									
#6	POWER					2		2(N)	2(N)	2
#8 (EXIST)	POWER							2	2	
#6 (EXIST)	POWER RAMP							4	4	
#14 (EXIST)	RAMP METER								2	
#10 (EXIST)	COMMON								1	
#8	GROUND				1	1				2
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	1 1/2"	2"	2" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 12

CONDUCTOR TYPE	FUNCTION	1	3	4	5	10	20	60	69
50P22 CABLE	PHONE LINES	1							
6P19 CABLE	PHONE LINES			1			1		
48SMFO CABLE	MUX VID/DATA	1							
8MMFO CABLE	SHORT HAUL VIDEO	1							
2MMFO B/O CABLE	SHORT HAUL VIDEO			1			1		
RG-6A/U COAX	BASEBAND VIDEO				1		1		
27C18 CABLE	CONTROL				1		1		
#8	POWER					2		2(N)	2
#6 (EXIST)	POWER							2	
#8	GROUND				1	1			2
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	2"	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 11 AND 12

SCALE: 1"= 50'

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

E-42

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

CU	07387	EA	116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, 50.1	65	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. KWAK
No. 10991
Exp. 6/30/95
ELECTRICAL
STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

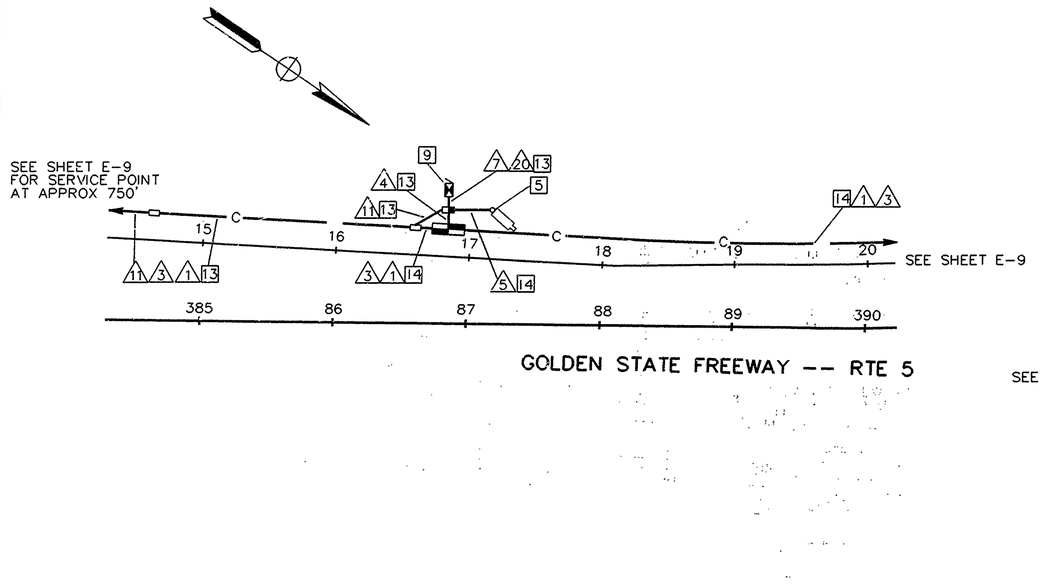
DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

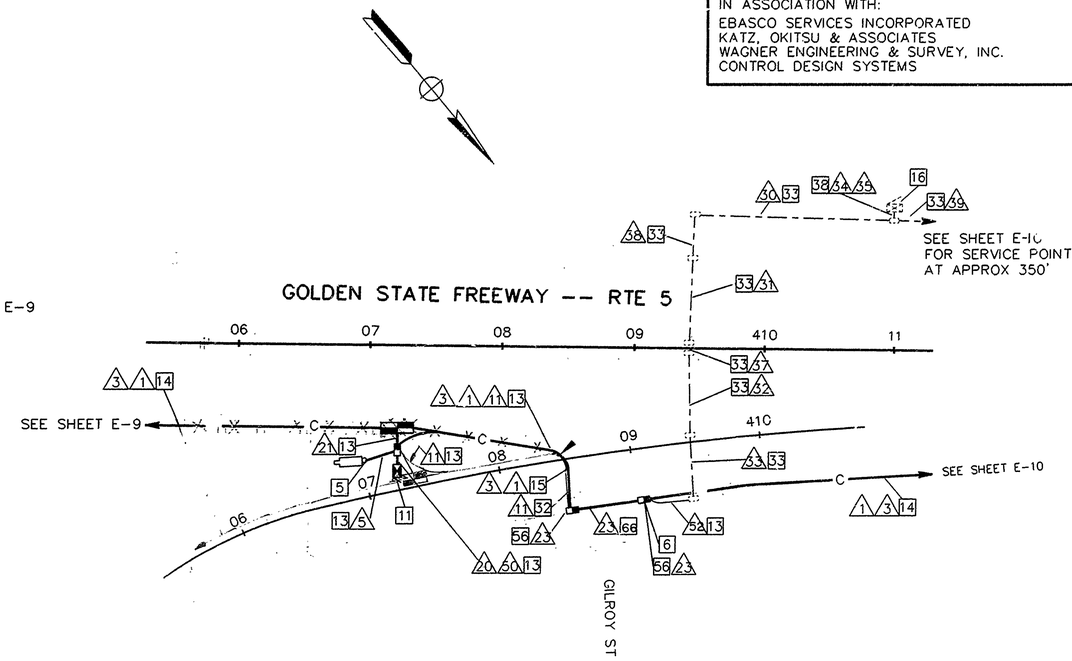
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

3/21/92 WES
116634E43.DWG



CAMERA LOCATION 13, PM22.36



CAMERA LOCATION 14, PM22.75

CONDUCTOR SCHEDULE CAMERA LOCATION 13

CONDUCTOR TYPE	FUNCTION	1	3	4	5	7	11	20
50P22 CABLE	PHONE LINES	1						
6P19 CABLE	PHONE LINES			1		1		
48SMFO CABLE	MUX VID/DATA	1						
8MMFO CABLE	SHORT HAUL VIDEO	1						
2MMFO B/O CABLE	SHORT HAUL VIDEO			1		1		
RG-6A/U COAX	BASEBAND VIDEO				1	1		
27C18 CABLE	CONTROL				1	1		
#8	POWER						2	2
#4	POWER						1	2
#8	GROUND				1			
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 14

CONDUCTOR TYPE	FUNCTION	1	3	5	11	20	21	23	30	31	32	33	34	35	37	38	39	50	52
50P22 CABLE	PHONE LINES	1						1											
6P19 CABLE	PHONE LINES					1	1												
12P22 CABLE	PHONE LINES								1(N)	1(N)	1(N)	1(N)	1(N)		1(N)	1(N)	1(N)		1
48SMFO CABLE	MUX VID/DATA	1																	
8MMFO CABLE	SHORT HAUL VIDEO	1				2	2	1											
2SMFO B/O CABLE	SHORT HAUL VIDEO					1	1												
RG-6A/U COAX	BASEBAND VIDEO			1		1													
27C18 CABLE	CONTROL			1		1													
#8 (EXIST)	POWER													2					
#4	POWER			2				2	2(N)	2(N)	2(N)	2(N)			2(N)	2(N)	2(N)	2	2
2#8 (EXIST)	TEL. SHIELD CABLE								1	1	1		1						
2#12 CABLE EXIST	DLC								12	8	4	1	12		6	11			
#8	GROUND			1	1			1										2	1
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	2" (N)	3" (N)	3" (N)	4" (N)	3"	2 1/2"	2"	2"	2"	2"	2"	3"	2"	3" (N)	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 13 AND 14

SCALE: 1"= 50'

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY.
SEE SHEEY E-1 FOR LEGEND AND GENERAL NOTES

E-43

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

FORM DC-OE-92-PF (REV. 3/88)

CU	07387	EA	116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, SG.1	68	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

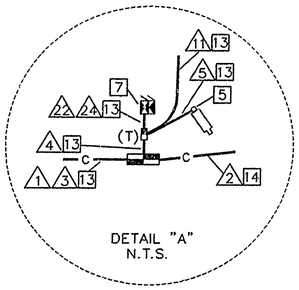
8-31-92
PLANS APPROVAL DATE

JOSEPH A KWAK No. 10991 Exp. 6/30/95 ELECTRICAL REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

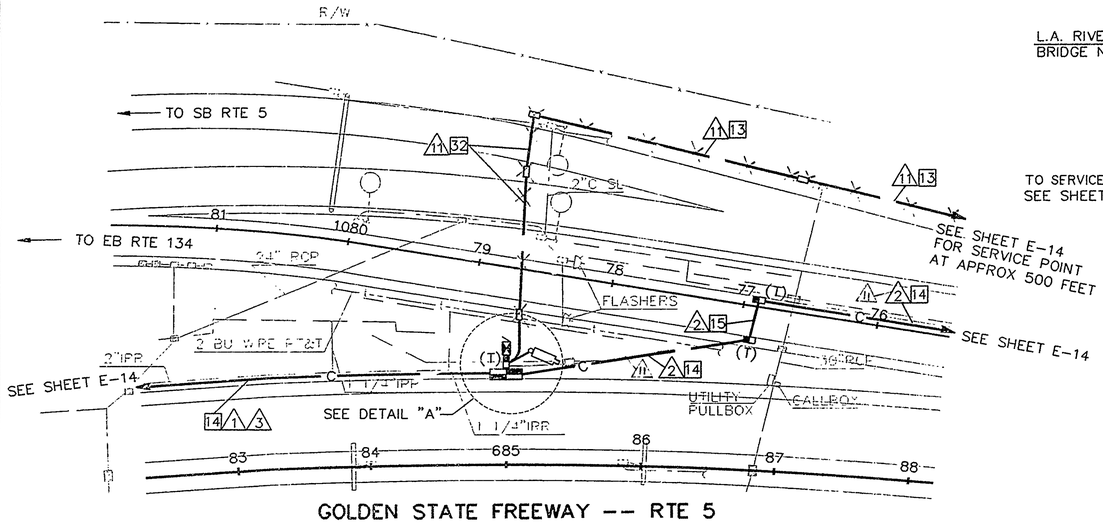
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DESIGN OVERSIGHT: GLORIA GWYNNE
CALCULATED/DESIGNED BY:
CHECKED BY:
DATE:
REVISED BY:
DATE REVISED:

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WES 05/15/92
1166JE46.DWG

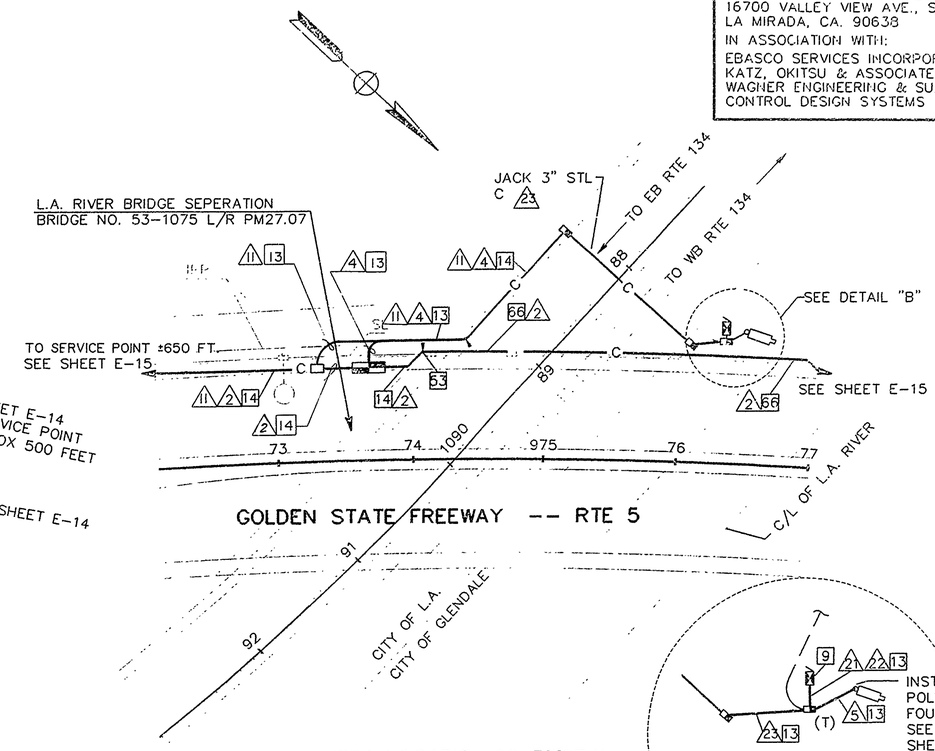


DETAIL "A"
N.T.S.

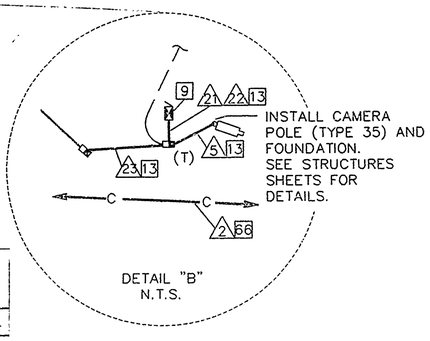


GOLDEN STATE FREEWAY -- RTE 5

CAMERA LOCATION 19, PM26.85



CAMERA LOCATION 20, PM27.11



DETAIL "B"
N.T.S.

INSTALL CAMERA POLE (TYPE 35) AND FOUNDATION. SEE STRUCTURES SHEETS FOR DETAILS.

CONDUCTOR SCHEDULE CAMERA LOCATION 19

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	11	20	22	24
50P22 CABLE	PHONE LINES	1	1		2				2	
6P19 CABLE	PHONE LINES									
48SMFO CABLE	MUX VID/DATA	1								
24SMFO CABLE	SHORT HAUL VIDEO		1							
8MMFO CABLE	SHORT HAUL VIDEO	1	1		2				2	
2SMFO B/O CABLE	SHORT HAUL VIDEO				3				3	
RG-6A/U COAX	BASEBAND VIDEO					1			1	
27C18 CABLE	CONTROL					1			1	
#8	POWER									
#6	POWER									
#4	POWER						2	2		2
#8	GROUND					1	1			2
CONDUIT	SIZE	4" (N)	4" (N)	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 20

CONDUCTOR TYPE	FUNCTION	2	4	5	11	21	22	23
50P22 CABLE	PHONE LINES	1						
6P19 CABLE	PHONE LINES		1			1		1
24SMFO CABLE	MUX VID/DATA	1						
2MMMFO B/O CABLE	MUX VID/DATA		1			1		1
8MMFO CABLE	SHOPT HAUL VIDEO	1						
RG-6A/U COAX	BASEBAND VIDEO			1		1		
27C18 CABLE	CONTROL			1		1		
#4	POWER				2		2	2
#8	GROUND			1	1		2	1
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hasan Mamoo
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 19 AND 20

SCALE: 1"= 50'

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

E-46

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

FORM DC-0E-92-PF (REV. 3/88)

CU	07387	EA	116634

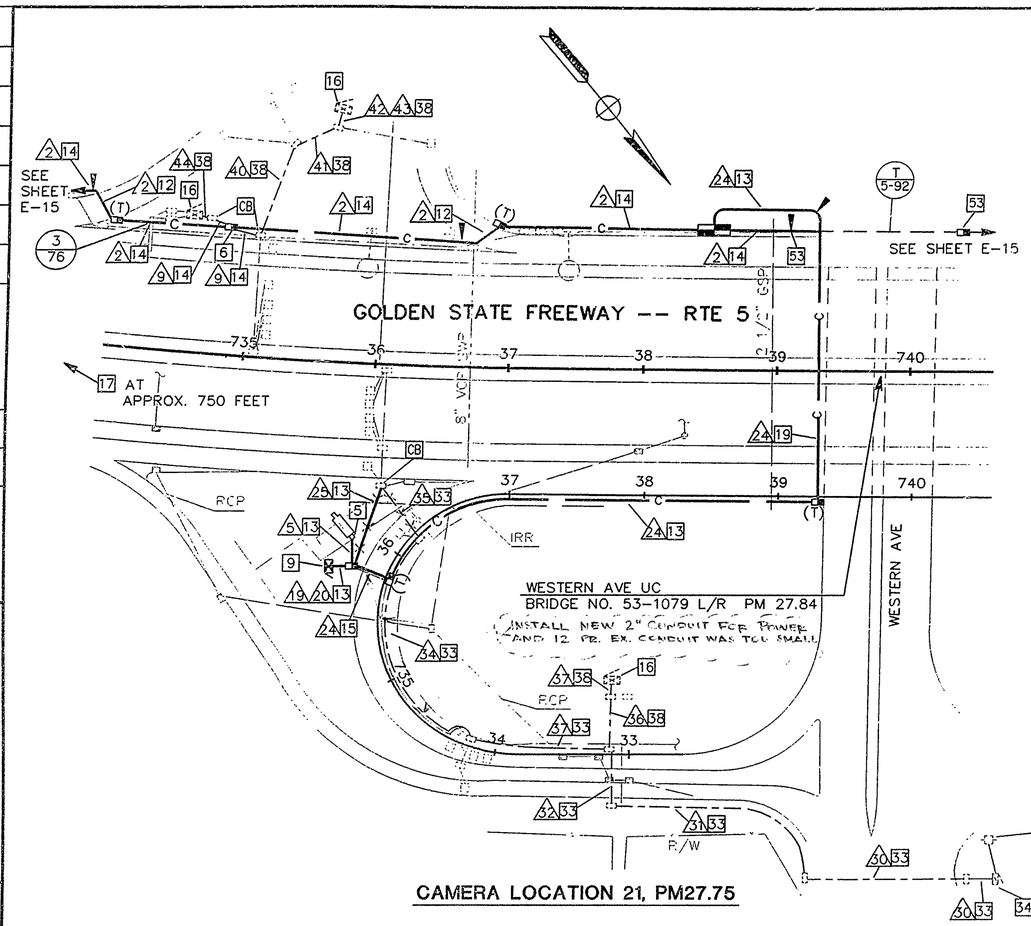
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	5,10	16.9/46.2, S0.1	69	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

3-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

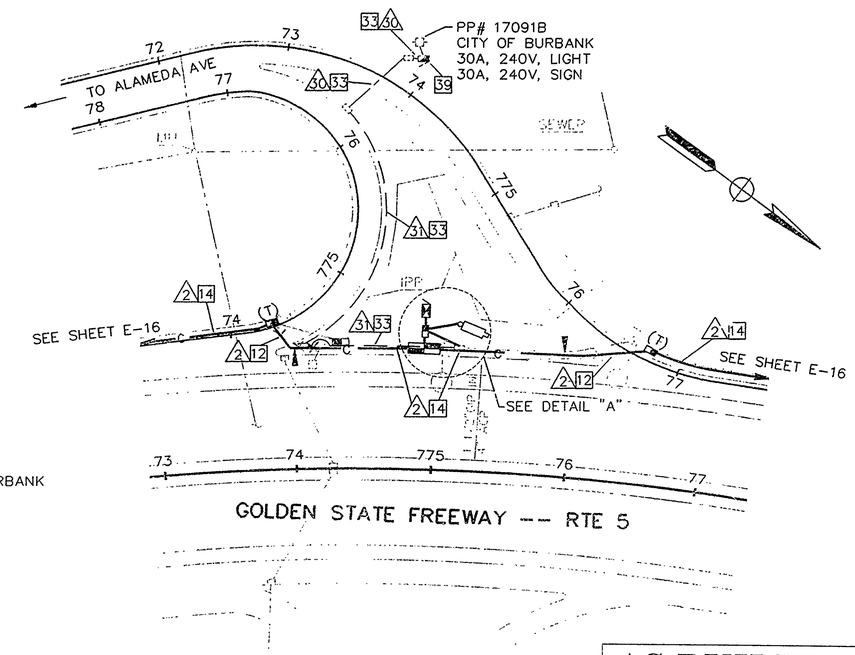
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

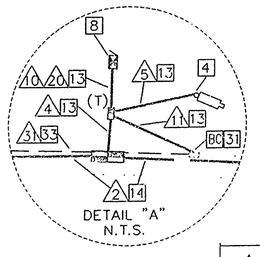


CAMERA LOCATION 21, PM27.75

CONDUCTOR SCHEDULE CAMERA LOCATION 22

CONDUCTOR TYPE	FUNCTION	2	4	5	10	11	20	30	31
50P22 CABLE	PHONE LINES	1							
6P19 CABLE	PHONE LINES		1				1		
24SMFO CABLE	MUX VID/DATA	1							
2SMFO B/O CABLE	MUX VID/DATA		2				2		
8MMFO CABLE	SHORT HAUL VIDEO	1							
2MMFO B/O CABLE	SHORT HAUL VIDEO		1				1		
RG-6A/U COAX	BASEBAND VIDEO			1			1		
27C18 CABLE	CONTROL			1			1		
#8	POWER				2	2		2(N)	2(N)
#8	GROUND			1	2	1			
#6 (EXIST)	POWER							4	2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)	1 1/2"	1 1/2"





CAMERA LOCATION 22, PM28.57

CONDUCTOR SCHEDULE CAMERA LOCATION 21

CONDUCTOR TYPE	FUNCTION	2	5	9	19	20	24	25	26	30	31	32	33	34	35	36	37	40	41	42	43	44	45
50P22 CABLE	PHONE LINES	1							1														1(N)
6P19 CABLE	PHONE LINES				1	1			1														
12P22 CABLE	PHONE LINES			1			1	1	1				1(N)	1(N)	1(N)	1(N)	1(N)	1(N)			1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1							1														1(N)
8MMFO CABLE	SHORT HAUL VIDEO	1							1														1(N)
2MMFO B/O CABLE	SHORT HAUL VIDEO				1	1			1														
RG-6A/U COAX	BASEBAND VIDEO		1		1																		
27C18 CABLE	CONTROL		1		1																		
#6	POWER				2			2		2(N)	2(N)	2(N)	2(N)	2(N)	2(N)								
#14 (EXIST)	RAMP SIGNAL												3			3			3	3			
#14 (EXIST)	METER ON SIGNAL																		1				
#14 (EXIST)	SPARES												3			3			4	4			
2-#12 CABLE (EXIST)	DEMAND LOOP DET.												2			2	2		1		4		
2-#12 CABLE (EXIST)	PASSAGE LOOP DET.												1			1	1		1		1		
2-#12 CABLE (EXIST)	COUNT LOOP DET.												7	6	5	7	7	5	5		5		
#10 (EXIST)	SIGNAL COMMON												1			1			1	1			
#8 (EXIST)	RMS SERVICES									2	2	2				2			2	2		2	
#10 (EXIST)	DEMARCATION SERV.									2													
#8	GROUND		1		2			1															
CONDUIT	SIZE	4" (N)	3" (N)	2" (N)	3" (N)	3" (N)	3" (N)	2" (N)	4" (N)	1 1/2"	1 1/2"	2"	2 1/2"	2"	2"	2 1/2"	2 1/2"	1 1/2"	2"	2 1/2"	2 1/2"	2"	4"

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

AS BUILT 116634
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 21 AND 22

SCALE: 1"= 50'

E-47

CU	07387	EA	116634

DESIGN OVERSIGHT: GLORIA GWYNNE
CALCULATED/DESIGNED BY:
CHECKED BY:
DATE REVISED BY:
DATE REVISED:
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WES 05/15/92
11663E47.DWG

FORM DC-OE-92-PF (REV. 3/88)

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, SO.I	70	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

PROFESSIONAL ENGINEER — REGISTERED — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

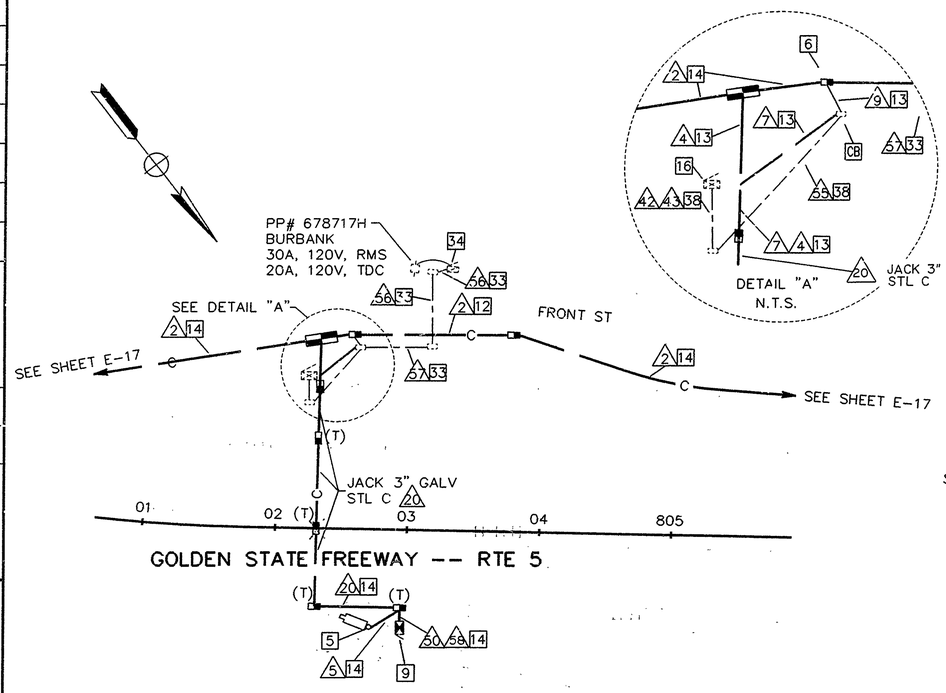
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

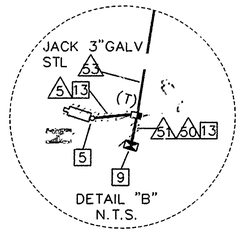
DESIGN OVERSIGHT — GLORIA GWYNNE

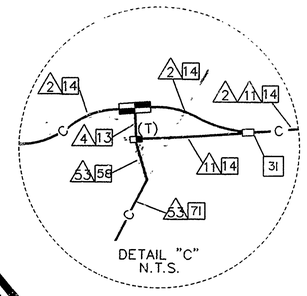
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

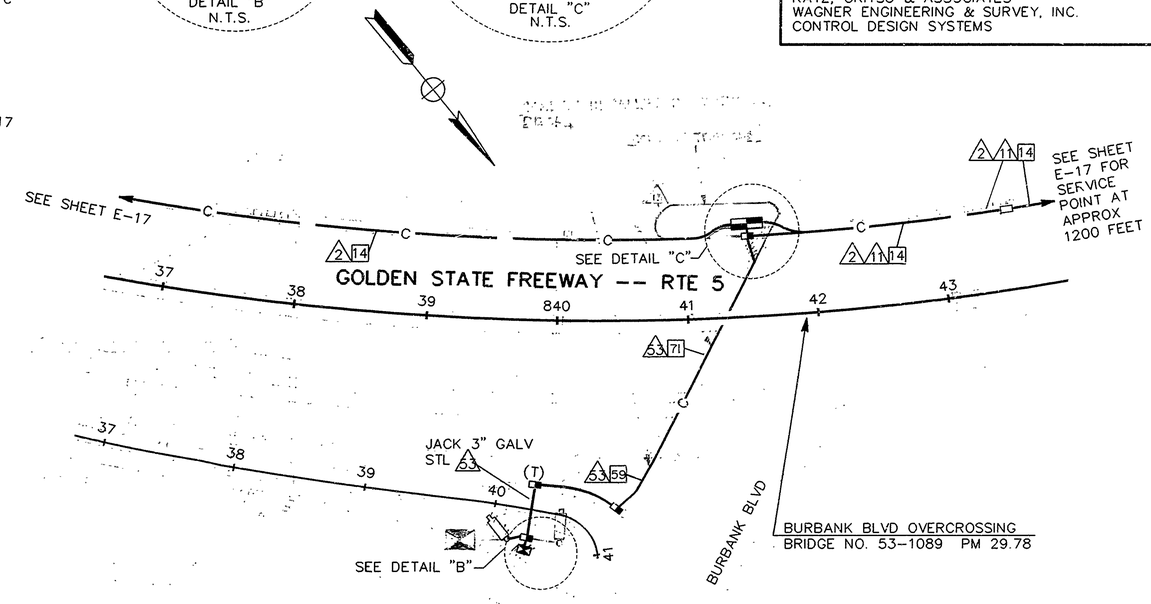
DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY
WCS 03/21/92
11663E48.DWG









CAMERA LOCATION 23, PM29.04

CONDUCTOR SCHEDULE CAMERA LOCATION 23

CONDUCTOR TYPE	FUNCTION	2	4	5	7	9	20	42	43	50	55	56	57	58
50P22 CABLE	PHONE LINES	1												
6P19 CABLE	PHONE LINES		1				1							1
12P22 CABLE	PHONE LINES					1			1(N)		1(N)			
24SMFO CABLE	MUX VID/DATA	1												
8MMFO CABLE	SHORT HAUL VIDEO	1												
2MMFO B/O CABLE	SHORT HAUL VIDEO		1				1							1
RG-6A/U COAX	BASEBAND VIDEO			1										1
27C18 CABLE	CONTROL			1										1
#6	POWER				2		2			2	2	2(N)	2(N)	
#8	GROUND			1	1		1			2				
#14 (EXIST)	RAMP SIGNAL							3			1			
#14 (EXIST)	METER-ON IND.							1			1		1	
#14 (EXIST)	SPARES							4			1		1	
2-#12 (EXIST)	COUNTER DETECTOR								9					
2-#12 (EXIST)	RAMP DETECTOR								2					
#10 (EXIST)	COMMON							2			1		1	
2-#18 (EXIST)	SHIELD TELE CABLE							1						
#8 (EXIST)	SERVICE							2				4		
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	2" (N)	3" (N)	2"	2"	3" (N)	2"	2"	2"	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 24

CONDUCTOR TYPE	FUNCTION	2	4	5	7	11	20	50	51	53
50P22 CABLE	PHONE LINES	1								
6P19 CABLE	PHONE LINES		1				1		1	1
24SMFO CABLE	MUX VID/DATA	1								
8MMFO CABLE	SHORT HAUL VIDEO	1								
2MMFO B/O CABLE	SHORT HAUL VIDEO		1				1		1	1
RG-6A/U COAX	BASEBAND VIDEO			1					1	
27C18 CABLE	CONTROL			1					1	
#4	POWER					2		2		2
#8	GROUND			1	1	1	1	2		1
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	2" (N)	3" (N)	3" (N)	3" (N)	3" (N)

CAMERA LOCATION 24, PM29.75

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 23 AND 24

SCALE: 1"= 50'

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

E-48

FORM DC-OE-92-PF (REV 3/88)

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

CU	07387	EA	116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, 50.1	71	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

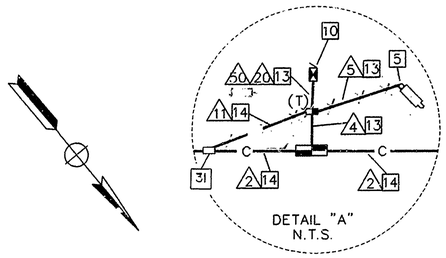
DESIGN OVERSIGHT — GLORIA GWYNNE

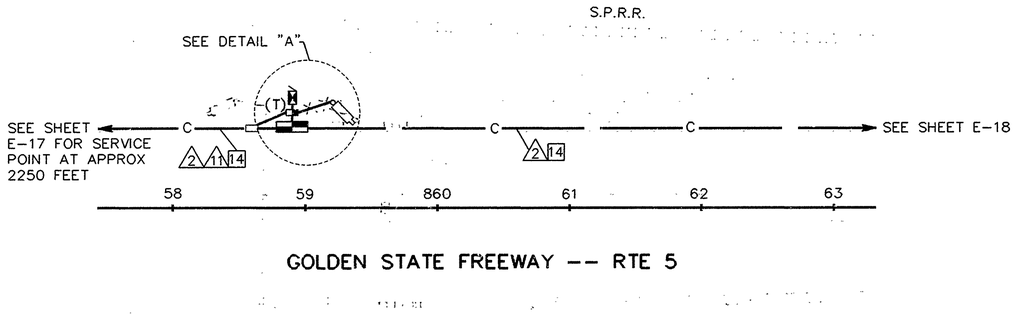
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

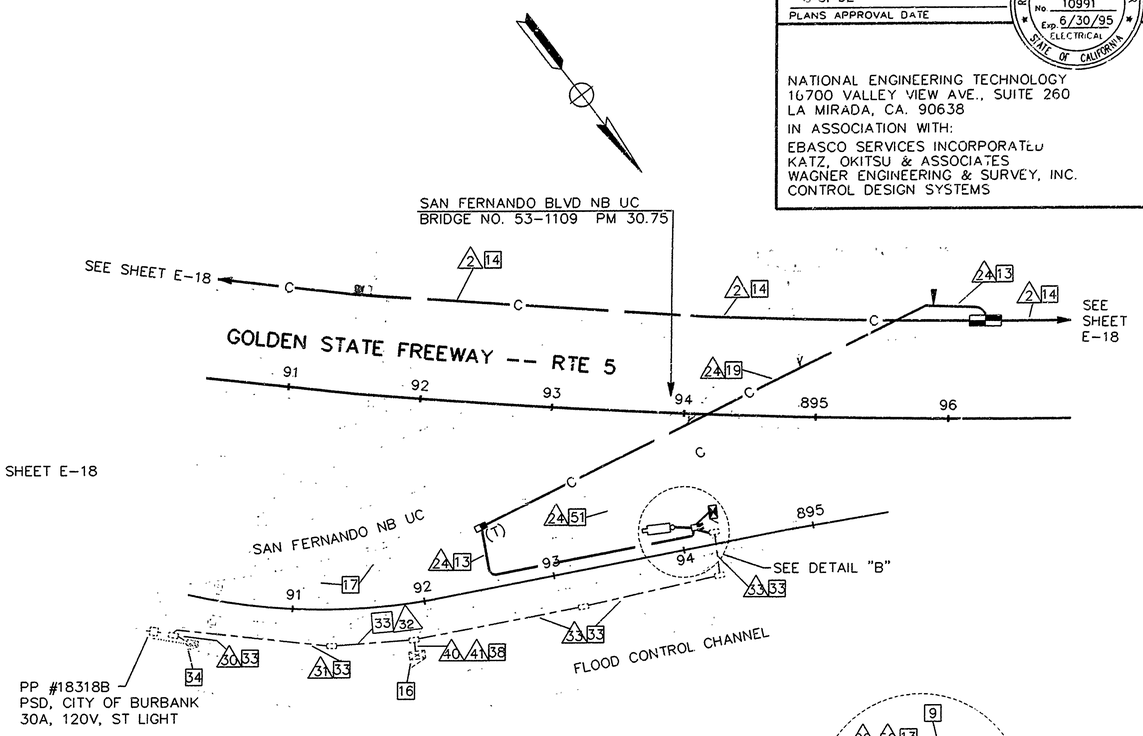
DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

11663E49.DWG WES 03/21/92







CAMERA LOCATION 25, PM30.17

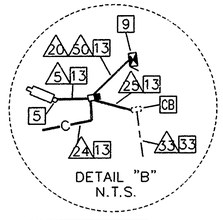
CONDUCTOR SCHEDULE CAMERA LOCATION 25

CONDUCTOR TYPE	FUNCTION	2	4	5	11	20	50
50P22 CABLE	PHONE LINES	1	2			2	
24SMFO CABLE	MUX VID/DATA	1					
2SMFO B/O CABLE	MUX VID/DATA		2			2	
8MMFO CABLE	SHORT HAUL VIDEO	1					
2MMFO B/O CABLE	SHORT HAUL VIDEO		1			1	
RG-6A/U COAX	BASEBAND VIDEO			1		1	
27C18 CABLE	CONTROL			1		1	
#8	POWER				2		2
#4	POWER				1	1	2
#8	GROUND						
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 26

CONDUCTOR TYPE	FUNCTION	2	5	20	24	25	30	31	32	33	40	41	50
50P22 CABLE	PHONE LINES	1											
6P19 CABLE	PHONE LINES			1	1								
12P22 CABLE	PHONE LINES				1	1				1(N)		1(N)	
24SMFO CABLE	MUX VID/DATA	1											
8MMFO CABLE	SHORT HAUL VIDEO	1		2	2								
2MMFO B/O CABLE	SHORT HAUL VIDEO												
RG-6A/U COAX	BASEBAND VIDEO		1	1									
27C18 CABLE	CONTROL		1	1									
#8	POWER					2	2(N)	2(N)	2(N)	2(N)			2
#8	GROUND		1			1							2
#8 (EXIST)	POWER						2	2	2		2		
2-#12 (EXIST)	DLC							5	5	2		7	
#14 (EXIST)	WARNING SIGNAL								1		1		
#14 (EXIST)	SPARES								3	3	6		
#10 (EXIST)	SIGNAL COMMON									1	1		
#14 (EXIST)	RAMP METER									3	3		
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	2"	2"	2"	2"	2 1/2"	2 1/2"	3" (N)

CAMERA LOCATION 26, PM30.77



AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 25 AND 26

SCALE: 1"= 50'

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

E-49

FORM DC-OE-92-PF (REV. 3/88)

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

CU	07387	EA	116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, SO.1	72	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

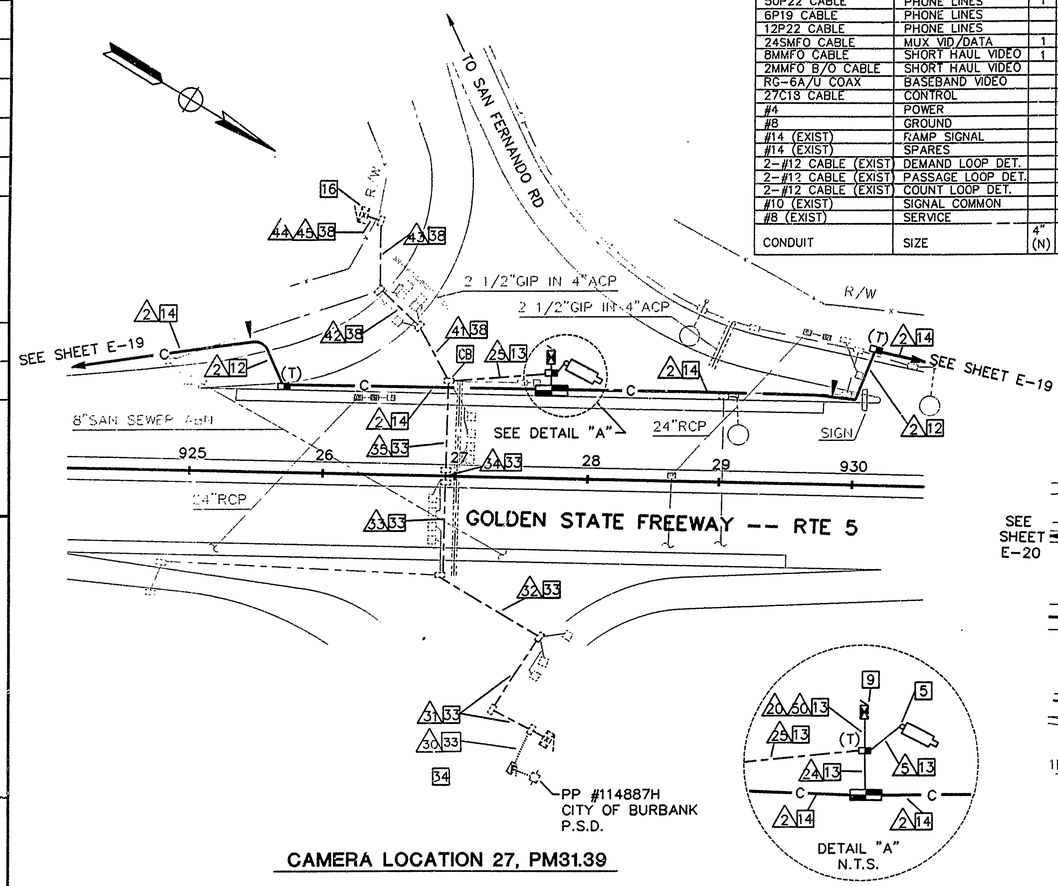
8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

CONDUCTOR SCHEDULE CAMERA LOCATION 28

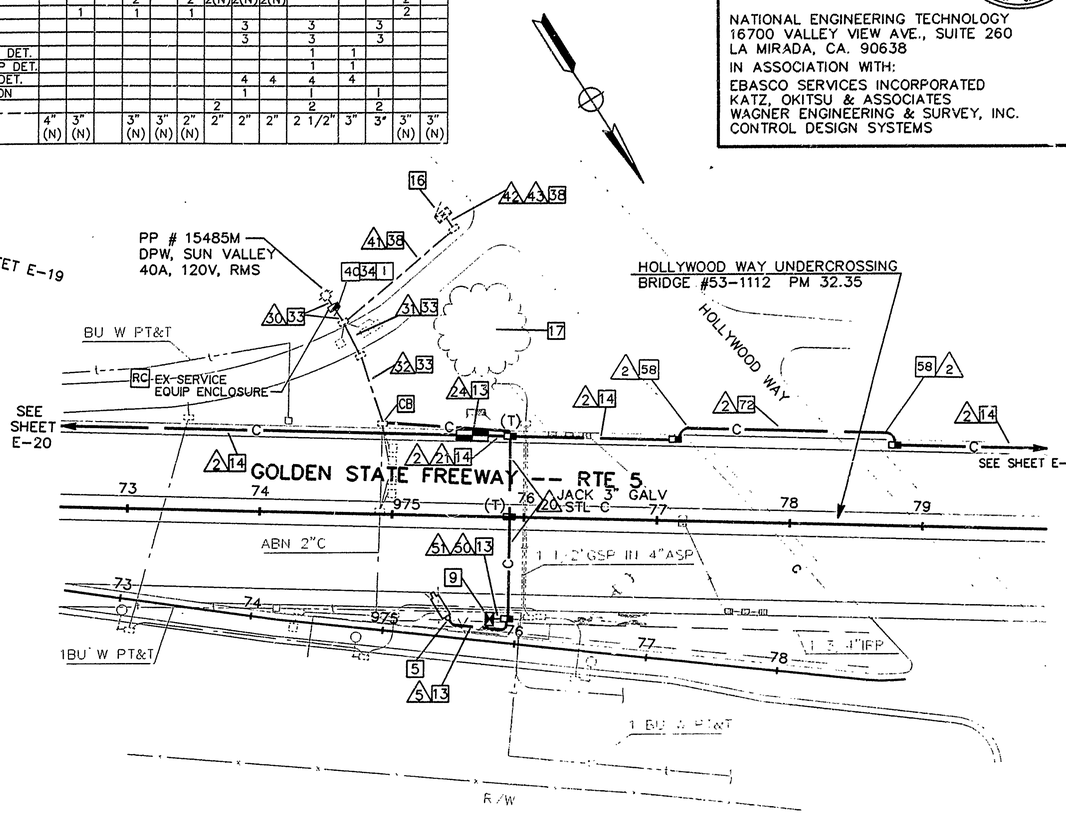
CONDUCTOR TYPE	FUNCTION	2	5	20	21	24	30	31	32	41	42	43	44	51
50P22 CABLE	PHONE LINES	1												
6P19 CABLE	PHONE LINES				1	1								1
12P22 CABLE	PHONE LINES					1	1	1(N)	1(N)	1(N)	1(N)			
24SMFO CABLE	MUX VID/DATA	1												
8MMFO CABLE	SHORT HAUL VIDEO	1												
2MMFO B/O CABLE	SHORT HAUL VIDEO				1	1								1
RG-6A/U COAX	BASEBAND VIDEO		1											1
27C18 CABLE	CONTROL		1											1
#4	POWER			2		2	2(N)	2(N)	2(N)				2	
#8	GROUND		1	1		1							2	
#14 (EXIST)	RAMP SIGNAL							3		3		3		
#14 (EXIST)	SPARES							3		3		3		
2-#12 CABLE (EXIST)	DEMAND LOOP DET.									1	1			
2-#12 CABLE (EXIST)	PASSAGE LOOP DET.									1	1			
2-#12 CABLE (EXIST)	COUNT LOOP DET.							4	4	4	4			
#10 (EXIST)	SIGNAL COMMON							1		1		1		
#8 (EXIST)	SERVICE						2			2		2		
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	2"	2"	2"	2 1/2"	3"	3"	3" (N)	3" (N)



CAMERA LOCATION 27, PM31.39

CONDUCTOR SCHEDULE CAMERA LOCATION 27

CONDUCTOR TYPE	FUNCTION	2	5	20	24	25	30	31	32	33	34	35	41	42	43	44	45	50
50P22 CABLE	PHONE LINES	1																
6P19 CABLE	PHONE LINES			1	1													
12P22 CABLE	PHONE LINES				1	1							1(N)	1(N)	1(N)	1(N)		
24SMFO CABLE	MUX VID/DATA	1																
8MMFO CABLE	SHORT HAUL VIDEO	1																
2MMFO B/O CABLE	SHORT HAUL VIDEO			1	1													
RG-6A/U COAX	BASEBAND VIDEO		1	1														
27C18 CABLE	CONTROL		1	1														
#8	POWER					2	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)					2
#8	GROUND		1			1												2
#14 (EXIST)	RAMP SIGNAL							3						3	6		6	
#14 (EXIST)	SPARES							3						3	3		3	
2-#12 CABLE (EXIST)	DEMAND LOOP DET.							1						1	2	2		
2-#12 CABLE (EXIST)	PASSAGE LOOP DET.							1						1	2	2		
2-#12 CABLE (EXIST)	COUNT LOOP DET.							5	5	2		2	5	5	6	6		
#10 (EXIST)	SIGNAL COMMON							1						1	1		1	
#8 (EXIST)	SERVICE						3	2	2	2	2	2	2	2	2		2	
4-#18 (EXIST)	SHLD TEL CABLE																	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	3" (N)	2"	2"	2"	2"	2"	2"	2"	2"	2 1/2"	2"	2"	3" (N)



CAMERA LOCATION 28, PM32.30

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hasan Mamoon
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 27 AND 28

SCALE: 1"= 50'

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

E-50

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

CU	07387	EA	116634

DESIGN OVERSIGHT: GLORIA GWYNNE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans
CALCULATED/DESIGNED BY: WES 03/21/92
CHECKED BY
DATE REVISED
REVISED BY
DATE
1166E50.DWG

FORM DC-OE-92-PF (REV. 3/88)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	5,10	16.9/46.2, 50.1	73	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

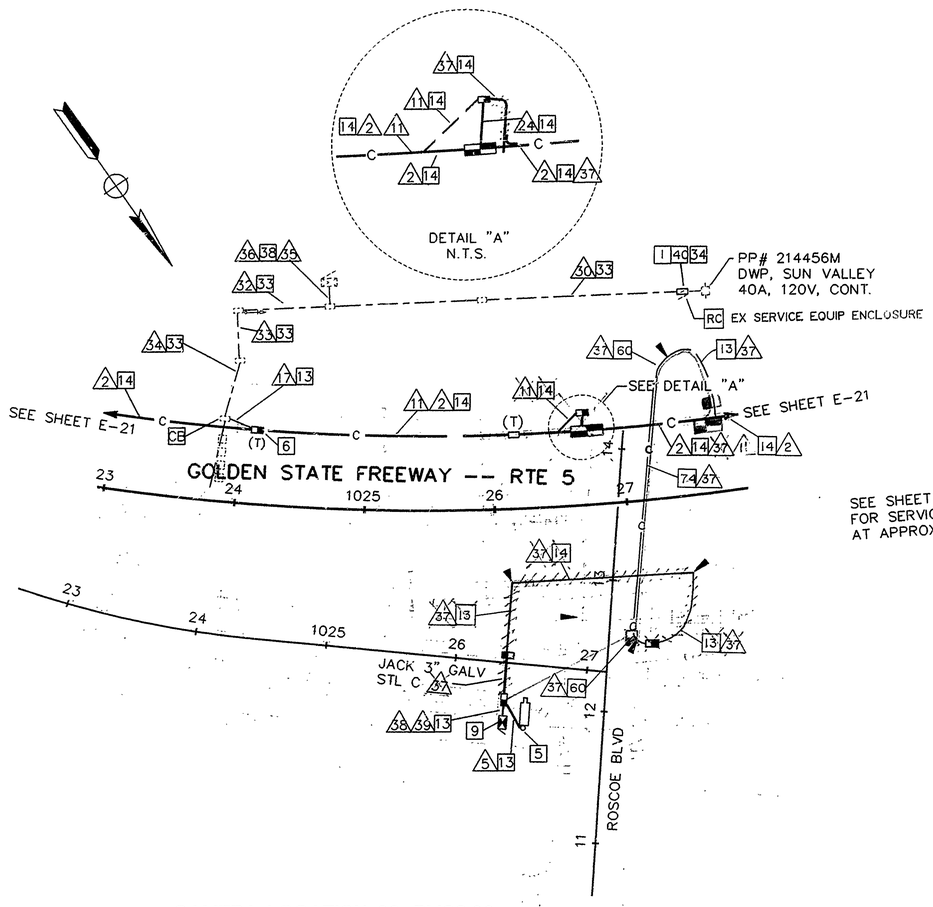
DESIGN OVERSIGHT
GLORIA GWYNNE

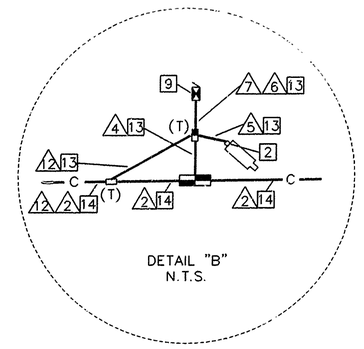
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

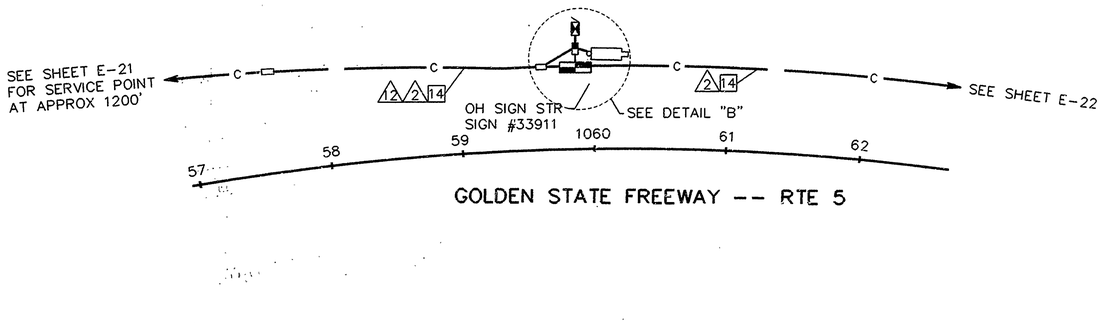
DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

1166JE51.DWG WES 03/21/92







CAMERA LOCATION 29, PM33.26

CONDUCTOR SCHEDULE CAMERA LOCATION 29

CONDUCTOR TYPE	FUNCTION	2	5	11	17	20	24	30	32	33	34	35	36	37	38	39	40
50P22 CABLE	PHONE LINES	1					1							1	1		
6P19 CABLE	PHONE LINES				1	1			1(N)	1(N)	1(N)		1(N)				
12P22 CABLE	PHONE LINES																
24SMFO CABLE	MUX VID/DATA	1															
2SMFO B/O CABLE	MUX VID/DATA																
8MMFO CABLE	SHORT HAUL VIDEO	1															
2MMFO B/O CABLE	SHORT HAUL VIDEO					1	1							1	1		1
RG-6A/U COAX	BASEBAND VIDEO		1												1		
27C18 CABLE	CONTROL		1												1		
#4	POWER			2	2	2		2(N)	2(N)	2(N)	2(N)			2		2	
#8 EXIST	POWER							2				2					
#14 EXIST	RAMP SIGNAL POWER								6	3		6					
# EXIST	SPARES								3	3		3					
2#12 EXIST	DETECTER CABLE								10	7	5		10				
#10	SIGNAL COMMON								1	1		1					
#8	GROUND		1	1	1	1								1		2	
CONDUIT	SIZE	4" (N)	3" (N)	2" (N)	2" (N)	3" (N)	3" (N)	1 1/2"	2 1/2"	2"	2"	2 1/2"	2 1/2"	3" (N)	3" (N)	3" (N)	3" (N)

CAMERA LOCATION 30, PM33.91

CONDUCTOR SCHEDULE CAMERA LOCATION 30

CONDUCTOR TYPE	FUNCTION	2	4	5	6	7	12
50P22 CABLE	PHONE LINES	1					
6P19 CABLE	PHONE LINES		1		1		
48SMFO CABLE	MUX VID/DATA						
24SMFO CABLE	MUX VID/DATA	1					
2SMFO B/O CABLE	MUX VID/DATA						
8MMFO CABLE	SHORT HAUL VIDEO	1			1		
2MMFO B/O CABLE	SHORT HAUL VIDEO		1		1		
RG-6A/U COAX	BASEBAND VIDEO			1	1		
27C18 CABLE	CONTROL			1			
#2	POWER					2	2
#8	GROUND			1		2	1
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	3" (N)	2" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 29 AND 30

SCALE: 1"= 50'

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

E-51

FORM DC-OE-92-PF (REV. 3/88)

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

CU	07387	EA	116634

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	10.9/16.2, SO.I	74	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

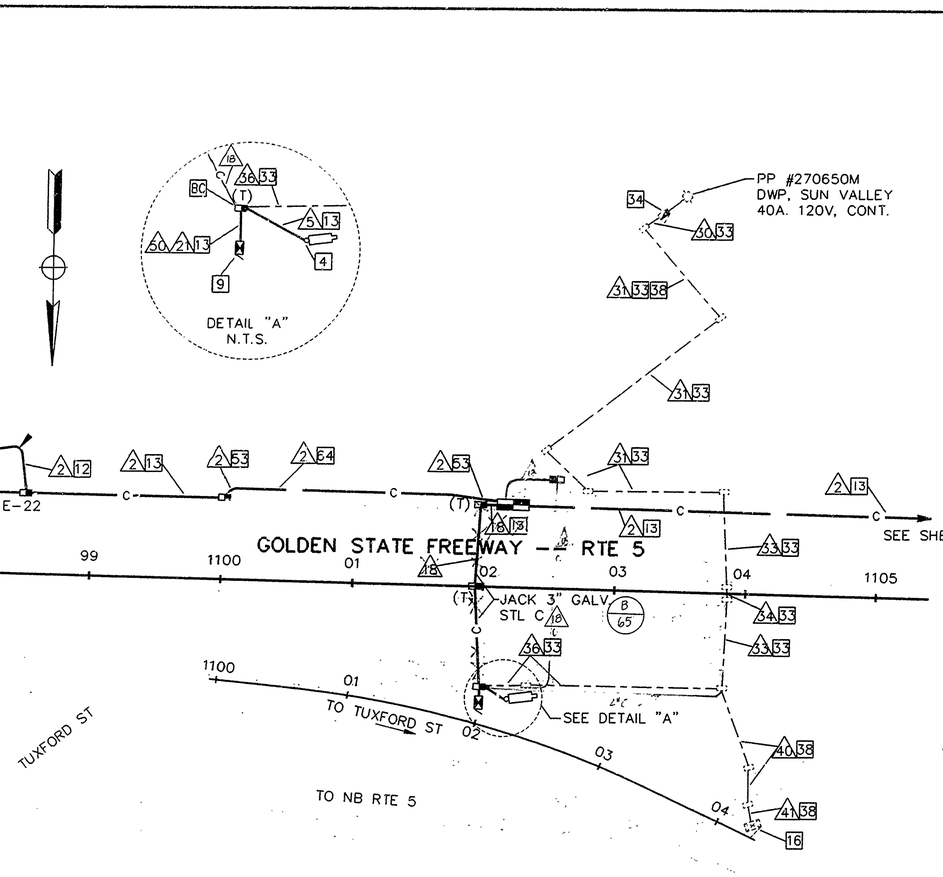
DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

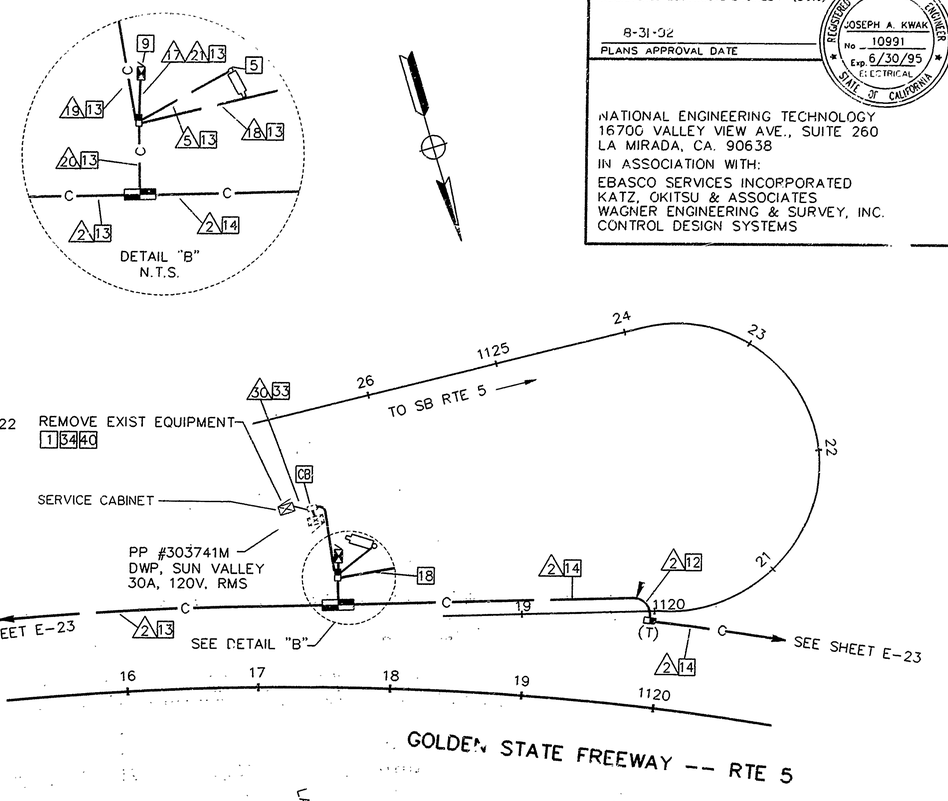
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gibans

1166 3E52.DWG WES 03/21/92



CAMERA LOCATION 31, PM34.70



CAMERA LOCATION 32, PM34.98

CONDUCTOR SCHEDULE CAMERA LOCATION 31

CONDUCTOR TYPE	FUNCTION	/2	/5	/18	/21	/30	/31	/33	/34	/36	/40	/41	/50
50P22 CABLE	PHONE LINES	1											1
6P19 CABLE	PHONE LINES			1									
12P22 CABLE	PHONE LINES			1						1(N)	1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1											
8MMFO CABLE	SHORT HAUL VIDEO	1											
2MMFO B/O CABLE	SHORT HAUL VIDEO			1									1
RG-6A/U COAX	BASEBAND VIDEO		1										1
27C18 CABLE	CONTROL		1										1
#4	POWER				2	2(N)	2(N)	2(N)	2(N)	2(N)			
#8	GROUND		1		2								
2-#12 CAE E (EXIST)	DLC						4	2		1	5	7	
#8 (EXIST)	SERVICE					2							
4-#18 (EXIST)	SHIELD TELE CABLE						1	1	1		1		
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2"	2"	2"	2"	2"	2"	2½"	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 32

CONDUCTOR TYPE	FUNCTION	/2	/5	/17	/18	/19	/20	/21	/30
50P22 CABLE	PHONE LINES	1							
6P19 CABLE	PHONE LINES			1	1		2		
12P22 CABLE	PHONE LINES								
24SMFO CABLE	MUX VID/DATA	1							
8MMFO CABLE	SHORT HAUL VIDEO	1							
2MMFO B/O CABLE	SHORT HAUL VIDEO			1			1		
RG-6A/U COAX	BASEBAND VIDEO		1	1					
27C18 CABLE	CONTROL		1	1					
#8	POWER					2		2	2(N)
#8	GROUND		1			1		2	
#14 (EXIST)	SPARES								
2-#12 CABLE (EXIST)	DEMAND LOOP DET.								
2-#12 CABLE (EXIST)	PASSAGE LOOP DET.								
2-#12 CABLE (EXIST)	COUNT LOOP DET.								
#10	SIGNAL COMMON								
4-#18 (EXIST)	SHIELD TELE. CABLE								
#8 (EXIST)	SERVICE								2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	2" (N)	3" (N)	3" (N)	2"

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 31 AND 32

SCALE: 1"= 50'

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

E-52

FORM DC-0E-92-PF (REV. 3/88)

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

CU	07387	EA	116634

< 24

24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,50.1	75	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DATE REVISED BY / DATE REVISED

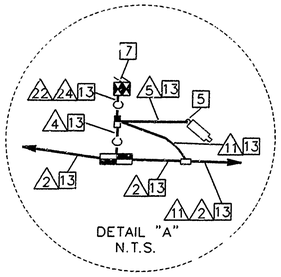
CALCULATED/DESIGNED BY

CHECKED BY

DESIGN OVERSIGHT — GLORIA GWYNNE

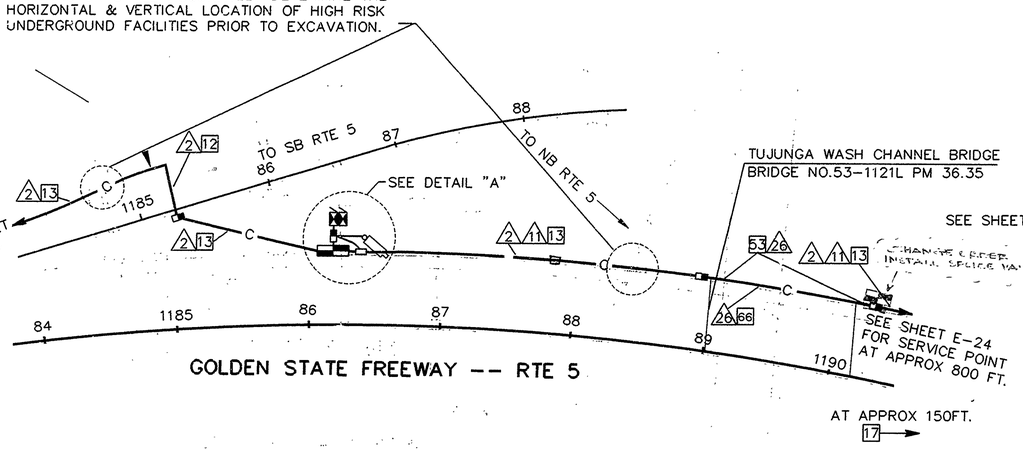
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

1166 3E53.DWG WES 03/21/92

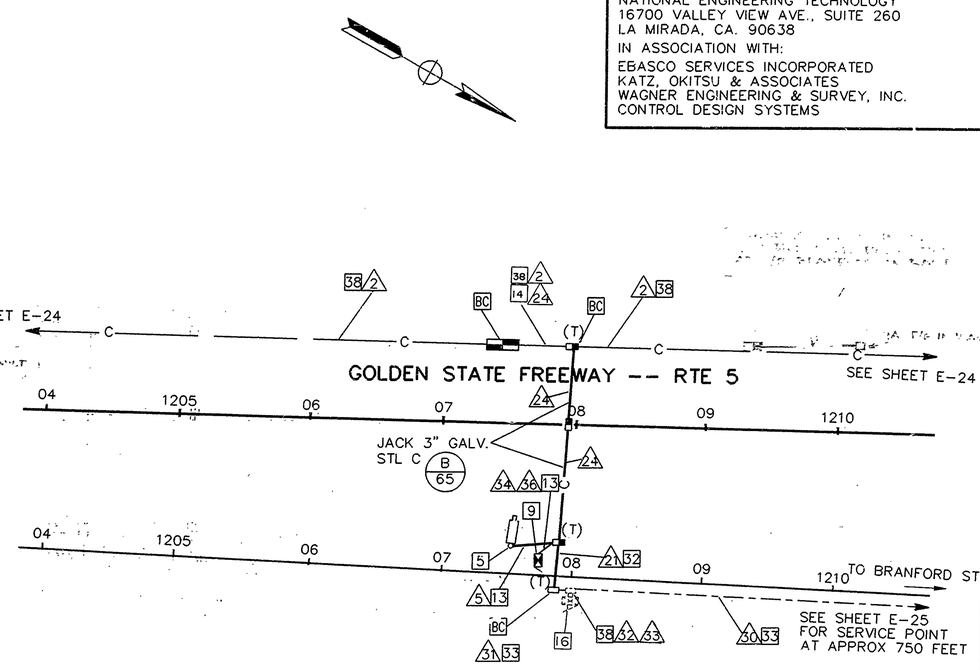


DETAIL "A"
N.T.S.

NOTE: CONTRACTOR SHALL ACCURATELY DETERMINE THE HORIZONTAL & VERTICAL LOCATION OF HIGH RISK UNDERGROUND FACILITIES PRIOR TO EXCAVATION.



CAMERA LOCATION 33, PM36.30



CAMERA LOCATION 34, PM36.69

CONDUCTOR SCHEDULE CAMERA LOCATION 33

CONDUCTOR TYPE	FUNCTION	2	4	5	11	22	24	26
50P22 CABLE	PHONE LINES	1	2			2		1
6P19 CABLE	PHONE LINES							
24SMFO CABLE	MUX VID/DATA	1						1
2SMFO B/O CABLE	MUX VID/DATA		3			3		
8MMFO CABLE	SHORT HAUL VIDEO	1	2			2		1
2MMFO B/O CABLE	SHORT HAUL VIDEO							
RG-6A/U COAX	BASEBAND VIDEO			1		1		
27C18 CABLE	CONTROL			1		1		
#4	POWER				2		2	2
#8	GROUND			1	1		2	1
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)	4" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 34

CONDUCTOR TYPE	FUNCTION	2	5	21	24	30	31	32	33	34	36
50P22 CABLE	PHONE LINES	1(N)									
6P19 CABLE	PHONE LINES				1					1	
12P22 CABLE	PHONE LINES			1	1		1	1(N)			
24SMFO CABLE	MUX VID/DATA	1(N)									
8MMFO CABLE	SHORT HAUL VIDEO	1(N)									
2MMFO B/O CABLE	SHORT HAUL VIDEO				1						
RG-6A/U COAX	BASEBAND VIDEO		1							1	
27C18 CABLE	CONTROL		1							1	
#4	POWER			2		2(N)	2(N)				2
#8	GROUND		1	1							2
#8 EXIST	POWER					2			2		
2#12 EXIST	DLC						12	12			
CONDUIT	SIZE	4"	3" (N)	2" (N)	3" (N)	2"	3"	3"	3"	3" (N)	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 33 AND 34

SCALE: 1"= 50'

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

E-53

FORM DC-OE-92-FF (REV 3/88)

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2

CU	07387	EA	116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,S0.1	76	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

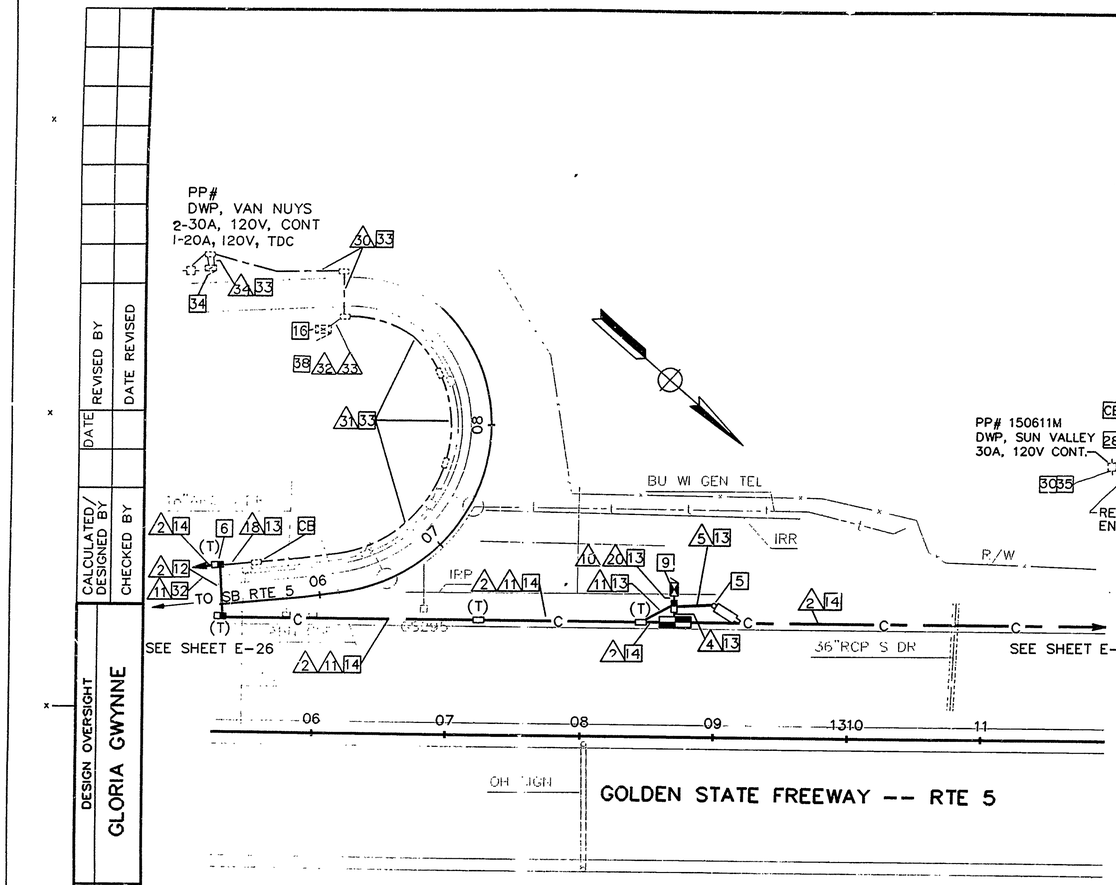
DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

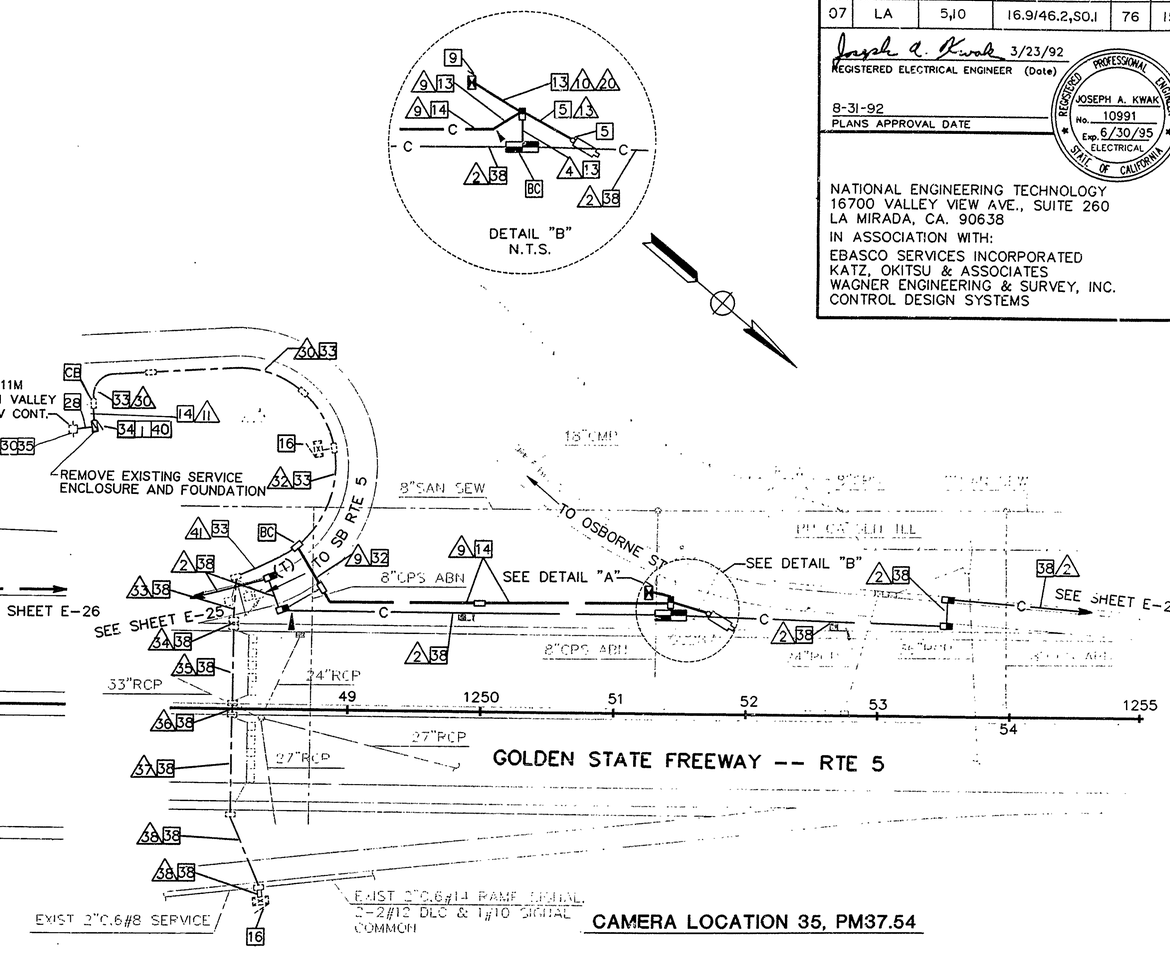
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

11663E54.DWG WES 03/21/92



CAMERA LOCATION 36, PM38.62



CAMERA LOCATION 35, PM37.54

CONDUCTOR SCHEDULE CAMERA LOCATION 36

CONDUCTOR TYPE	FUNCTION	2	4	5	10	11	18	20	30	31	32	33	34
50P22 CABLE	PHONE LINES	1						1					
6P19 CABLE	PHONE LINES		1										
12P22 CABLE	PHONE LINES						1			1(N)	1(N)		
24SMFO CABLE	MUX VID/DATA	1											
8MMFO CABLE	SHORT HAUL VIDEO	1	2					2					
2MMFO B/O CABLE	SHORT HAUL VIDEO												
RG-6A/U COAX	BASEBAND VIDEO			1				1					
27C18 CABLE	CONTROL			1				1					
#8	POWER												
#4	POWER				2	2	2		2(N)	2(N)			2(N)
#8	GROUND			1	2	1	1						
2#12 CABLE (EXIST)	DLC									15	15		
#8 (EXIST)	SERVICE								2			2	2
4-#18 (EXIST)	SHIELD TEL. CABLE										1		
#12 (EXIST)	TDC SERVICE												2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	2" (N)	3" (N)	2"	4"	3"	3"	2"

CONDUCTOR SCHEDULE CAMERA LOCATION 35

CONDUCTOR TYPE	FUNCTION	2	4	5	9	10	11	20	30	32	33	34	35	36	37	38	39	40	41
50P22 CABLE	PHONE LINES	1(N)																	
6P19 CABLE	PHONE LINES		1					1											
12P22 CABLE	PHONE LINES	1(N)	1		1						1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		1(N)
24SMFO CABLE	MUX VID/DATA	1(N)																	
8MMFO CABLE	SHORT HAUL VIDEO																		
2MMFO B/O CABLE	SHORT HAUL VIDEO		1					1											
RG-6A/U COAX	BASEBAND VIDEO			1				1											
27C18 CABLE	CONTROL			1				1											
#4	POWER				2	2	2		2(N)	2(N)									
#8	GROUND			1	1	2	1												
#14 (EXIST)	RAMP SIGNAL									3	3							3	3
#14 (EXIST)	SPARES									3	3							3	3
2-#12 CABLE (EXIST)	DEMAND LOOP DET.									2							1		2
2-#12 CABLE (EXIST)	PASSAGE LOOP DET.									1							1		1
2-#12 CABLE (EXIST)	COUNT LOOP DET.									5	5	5	2		3	5	5		5
#10 (EXIST)	SIGNAL COMMON									1	1							1	1
#8 (EXIST)	SERVICE						2		2									2	
4-18 (EXIST)	SHIELD TEL. CABLE									1	1	1	1	1	1	1			1
CONDUIT	SIZE	4"	3" (N)	3" (N)	2" (N)	3" (N)	2" (N)	3" (N)	2"	2 1/2"	2"	2"	2"	2"	2"	2"	2½"	2½"	2½"

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

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 35 AND 36

SCALE: 1"= 50'

E-54

FORM DC-OE-92-PF (REV. 3/88)

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

CU	07387	EA	116634

24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	5,10	16.9/46.2,SO.1	77	153

Joseph A Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. KWAK — No. 7991 — exp 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

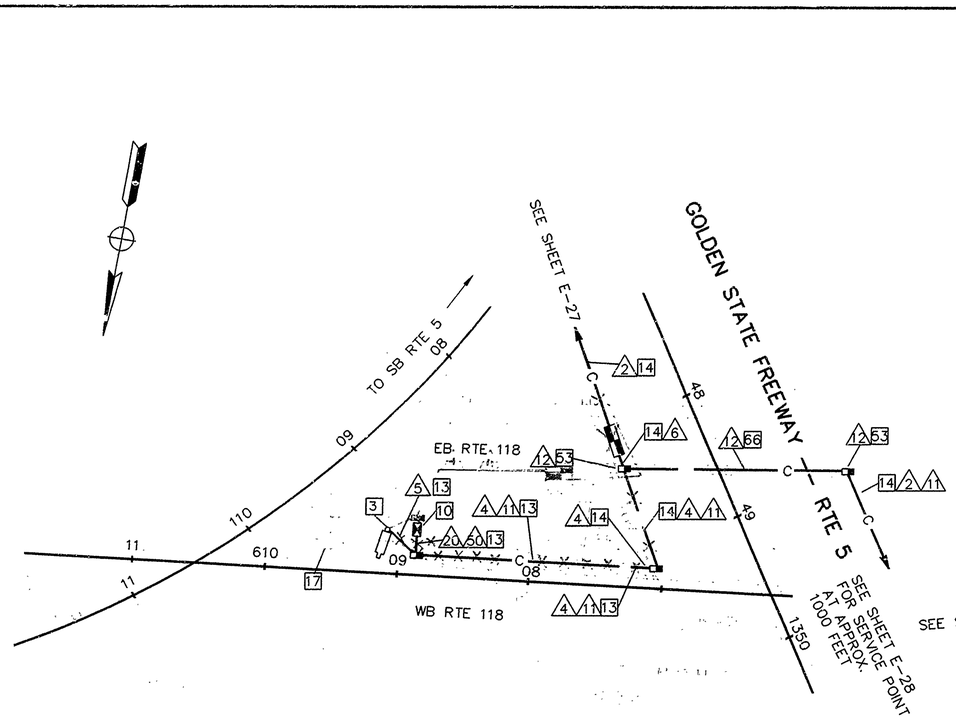
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DESIGN OVERSIGHT
GLORIA GWYNNE

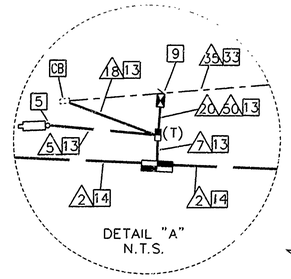
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

	DATE	REVISED BY	DATE REVISED
CALCULATED/ DESIGNED BY			
CHECKED BY			

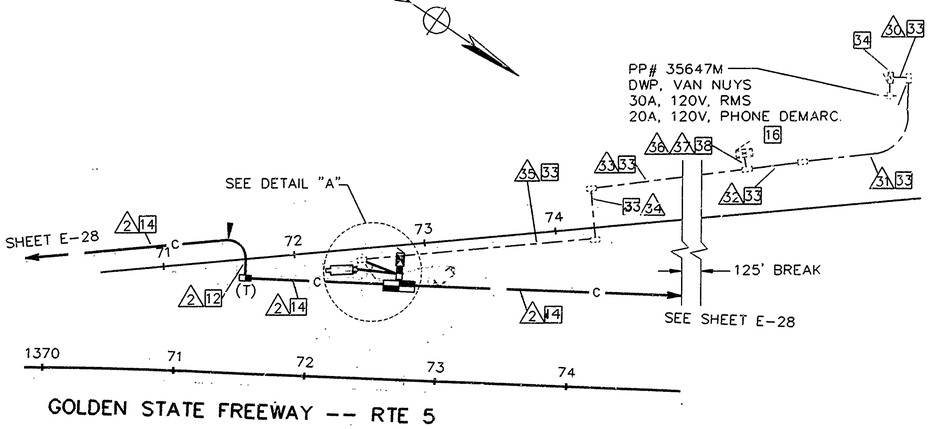
1166E55.DWG WES 03/21/92



CAMERA LOCATION 37, PM39.34



DETAIL "A"
N.T.S.



TO BRAND BLVD.

CONDUCTOR SCHEDULE CAMERA LOCATION 37

CONDUCTOR TYPE	FUNCTION	2	4	5	6	11	12	20	50
50P22 CABLE	PHONE LINES	1	2		1		1	2	
6P19 CABLE	PHONE LINES								
24SMFO CABLE	MUX VID/DATA	1			1		1		
2SMFO B/O CABLE	MUX VID/DATA		2		2			2	
8MMFO CABLE	SHORT HAUL VIDEO	1			1		1		
2MMFO B/O CABLE	SHORT HAUL VIDEO		1		1			1	
RG-6A/U COAX	BASEBAND VIDEO			1				1	
27C18 CABLE	CONTROL			1				1	
#4	POWER					2	2		2
#8	GROUND				1	1	1		2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	4" (N)	2" (N)	4" (N)	2" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 38

CONDUCTOR TYPE	FUNCTION	2	5	7	18	20	30	31	32	33	34	35	36	37	38
50P22 CABLE	PHONE LINES	1													
6P19 CABLE	PHONE LINES			1		1									
12P22 CABLE	PHONE LINES			1	1					1(N)	1(N)	1(N)		1(N)	
24SMFO CABLE	MUX VID/DATA	1													
8MMFO CABLE	SHORT HAUL VIDEO	1													
2MMFO B/O CABLE	SHORT HAUL VIDEO			1		1									
RG-6A/U COAX	BASEBAND VIDEO		1			1									
27C18 CABLE	CONTROL		1			1									
#8	POWER														
#6	POWER				2		2(N)	2(N)	2(N)	2(N)	2(N)	2(N)			2
#8	GROUND		1		1										2
#8 (EXIST)	POWER						2	2	2				2		
SHIELDED CABLE	DLC								2	13	10	7		15	
#10	SIGNAL COMMON									1	1		1		
#14	FUT. RAMP SIGNAL									9	9		9		
SHIELDED CABLE	TELE CABLE													1	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3"	2"	2"	3"	3"	2"	3"	3"	3" (N)

CAMERA LOCATION 38, PM39.84

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 37 AND 38

SCALE: 1"= 50'

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

E-55

FORM DC-OE-92-PF (REV 3/88)

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

	CU 07387	EA 116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5, 10	16.9/46.2, 50.1	78	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A KWAK — No. 10991 — Exp. 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

8-31-92
PLANS APPROVAL DATE

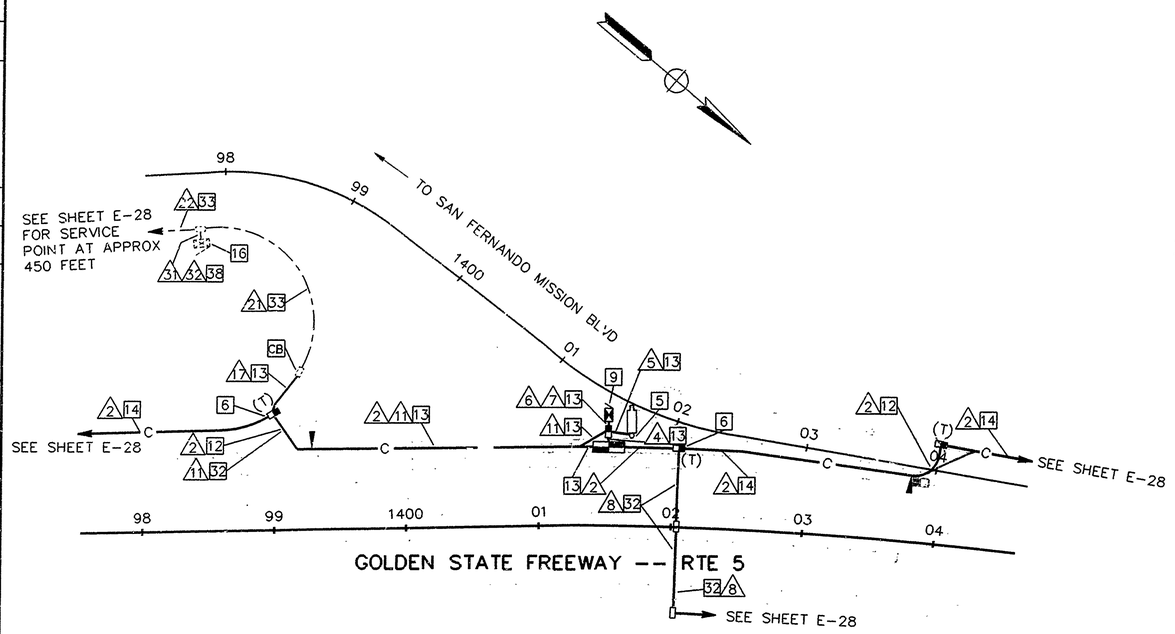
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DESIGN OVERSIGHT: GLORIA GWYNNE

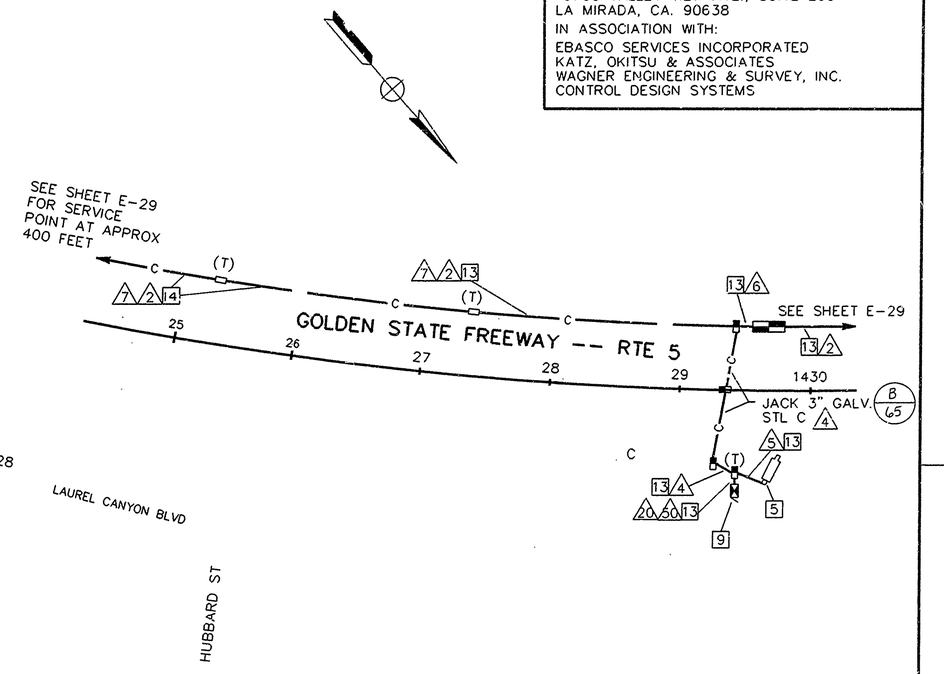
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CALCULATED/DESIGNED BY | CHECKED BY | DATE | REVISED BY | DATE REVISED

1166JE56.DWG WES 03/21/92



CAMERA LOCATION 39, PM40.36



CAMERA LOCATION 40, PM40.89

CONDUCTOR SCHEDULE CAMERA LOCATION 39

CONDUCTOR TYPE	FUNCTION	2	4	5	6	7	8	11	17	21	22	31	32
50P22 CABLE	PHONE LINES	1											
6P19 CABLE	PHONE LINES		1			1							
12P22 CABLE	PHONE LINES						1		1	1(N)		1(N)	
24SMFO CABLE	MUX VID/DATA	1											
8MMFO CABLE	SHORT HAUL VIDEO	1											
2MMFO B/O CABLE	SHORT HAUL VIDEO		1			1							
RG-6A/U COAX	BASEBAND VIDEO			1		1							
27C18 CABLE	CONTROL			1		1							
#4	POWER				2			2	2	2(N)	2(N)		
#8	GROUND			1	2			1	1				
#14 (EXIST)	RAMP SIGNAL									9	2		11
2-#12 CABLE (EXIST)	DLC									5	1	8	
#10 (EXIST)	SIGNAL COMMON									1	1		1
#8 (EXIST)	SERVICE										2		2
4-#18	SHIELDED TEL CABLE										1	2	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	3" (N)	2" (N)	2" (N)	2" (N)	2"	2"	3"	3"

CONDUCTOR SCHEDULE CAMERA LOCATION 40

CONDUCTOR TYPE	FUNCTION	2	4	5	6	7	20	50
50P22 CABLE	PHONE LINES	1			1			
6P19 CABLE	PHONE LINES		1		1		1	
24SMFO CABLE	MUX VID/DATA	1			1			
8MMFO CABLE	SHORT HAUL VIDEO	1			1			
2MMFO B/O CABLE	SHORT HAUL VIDEO		1		1		1	
RG-6A/U COAX	BASEBAND VIDEO			1			1	
27C18 CABLE	CONTROL			1			1	
#6	POWER		2			2		2
#8	GROUND		1	1		1		2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	4" (N)	2" (N)	3" (N)	3" (N)

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 39 AND 40

SCALE: 1"= 50'

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

E-56

FORM DC-OE-92-PF (REV. 3/88)

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

CU 07387 EA 116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	5,10	16.9/46 2,80.1	79	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A KWAK — No 10991 — Exp 6/30/95 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

A E-75 INSTALL CAMERA JUNCTION BOX BELOW CCTV TRIPOD MOUNT, ADJACENT TO TOWER VERTICAL MEMBER NEAREST TO CAMERA

A E-95 SEE DETAIL "C"

INSTALL 60' CAMERA TOWER AND FOUNDATION.

INSTALL 3" RIGID STEEL OR FIBERGLASS CONDUIT Δ5 USING CONDUIT SUPPORTS RECOMMENDED BY TOWER MANUFACTURER

CHAIN LINK FENCE (TYPE CL-6) WITH STD MAST ARM WITH 3 STRANDS OF BARBED WIRE

CAMERA TOWER FOOTING

3' CHAIN LINK GATE (TYPE CL-6)

DETAIL "A"
N.T.S.

DETAIL "C"
CAMERA TOWER DETAIL
N.T.S.

DETAIL "B"
N.T.S.

RTE TRUNK 405 SEPERATION
BRIDGE NO. 53-1548 PM 4155

SEE DETAIL "A"

SEE SHEET E-29 — TO SB RTE 5

SEE SHEET E-30 FOR SERVICE POINT AT APPROX 850'

SEE SHEET E-30

SEE SHEET E-31 FOR SERVICE POINT AT APPROX :900'

SEE DETAIL "B"

TRUCK RTE 5

SB RTE 405

NB RTE 405

03 04 1505 06 07 08

EXIST OH SIGN STR

GOLDEN STATE FREEWAY -- RTE 5

CAMERA LOCATION 41, PM41.39

CAMERA LOCATION 42, PM42.04

CONDUCTOR SCHEDULE CAMERA LOCATION 41

CONDUCTOR TYPE	FUNCTION	Δ2	Δ4	Δ5	Δ12	Δ22	Δ24	Δ26
50P22 CABLE	PHONE LINES	1	2			2		1
6P19 CABLE	PHONE LINES							
24SMFO CABLE	MUX VID/DATA	1						1
2SMFO B/O CABLE	MUX VID/DATA		3			3		
8MMFO CABLE	SHORT HAUL VIDEO	1	2			2		1
2MMFO B/O CABLE	SHORT HAUL VIDEO							
RG-6A/U COAX	BASEBAND VIDEO			1		1		
27C18 CABLE	CONTROL			1		1		
#2	POWER				2		2	2
#8	GROUND			1	1		2	1
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)	4" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 42

CONDUCTOR TYPE	FUNCTION	Δ2	Δ4	Δ5	Δ11	Δ22	Δ25
50P22 CABLE	PHONE LINES	1					
6P19 CABLE	PHONE LINES		1			1	
24SMFO CABLE	MUX VID/DATA	1					
8MMFO CABLE	SHORT HAUL VIDEO	1					
2MMFO B/O CABLE	SHORT HAUL VIDEO		1			1	
RG-6A/U COAX	BASEBAND VIDEO			1		1	
27C18 CABLE	CONTROL			1		1	
#4	POWER				2		2
#8	GROUND				1		2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)

AS BUILT 116634
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 41 AND 42

SCALE: 1"= 50'

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

E-57

DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

11663E57.DWG WES 03/21/92

FORM DC-OE-92-PF (REV 3/88)

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

CU 07387 EA 116634

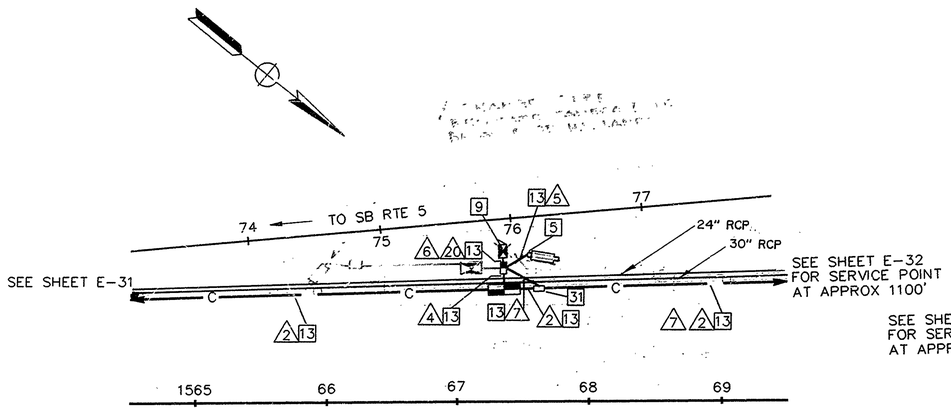
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,SO.1	80	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. KWAK
No 10991
Exp. 6/30/95
ELECTRICAL
STATE OF CALIFORNIA

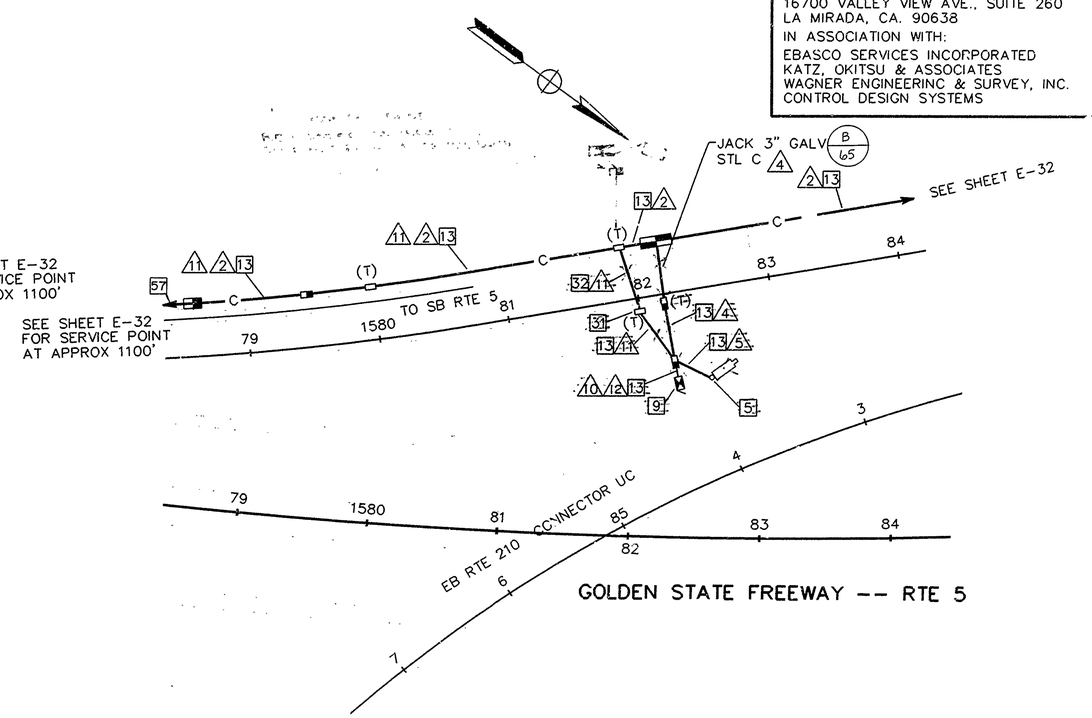
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



GOLDEN STATE FREEWAY -- RTE 5

TO EB RTE 210

CAMERA LOCATION 43, PM43.48



GOLDEN STATE FREEWAY -- RTE 5

CAMERA LOCATION 44, PM43.76

CONDUCTOR SCHEDULE CAMERA LOCATION 43

CONDUCTOR TYPE	FUNCTION	2	4	5	6	7	10
50P22 CABLE	PHONE LINES	1					
6P19 CABLE	PHONE LINES		1				1
24SMFO CABLE	MUX VID/DATA	1					
8MMFO CABLE	SHORT HAUL VIDEO	1					
2MMFO B/O CABLE	SHORT HAUL VIDEO		1				1
RG-6A/U COAX	BASEBAND VIDEO			1			1
27C18 CABLE	CONTROL			1			1
#6	POWER				2	2	
#8	GROUND			1	2	1	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 44

CONDUCTOR TYPE	FUNCTION	2	4	5	10	11	12
50P22 CABLE	PHONE LINES	1					
6P19 CABLE	PHONE LINES		1				1
24SMFO CABLE	MUX VID/DATA	1					
8MMFO CABLE	SHORT HAUL VIDEO	1					
2MMFO B/O CABLE	SHORT HAUL VIDEO		1				1
RG-6A/U COAX	BASEBAND VIDEO			1			1
27C18 CABLE	CONTROL			1			1
#8	POWER						
#4	POWER				2	2	
#8	GROUND			1	2	1	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 43 AND 44

SCALE: 1"= 50'

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

E-58

DESIGN OVERSIGHT	DATE	REVISED BY	DATE REVISED
GLORIA GWYNNE			
CALCULATED/DESIGNED BY			
CHECKED BY			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WES 03/21/92
1166.3E58.DWG

FORM DC-0E-92-PF (REV 3/88)

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

CU 07387	EA 116634

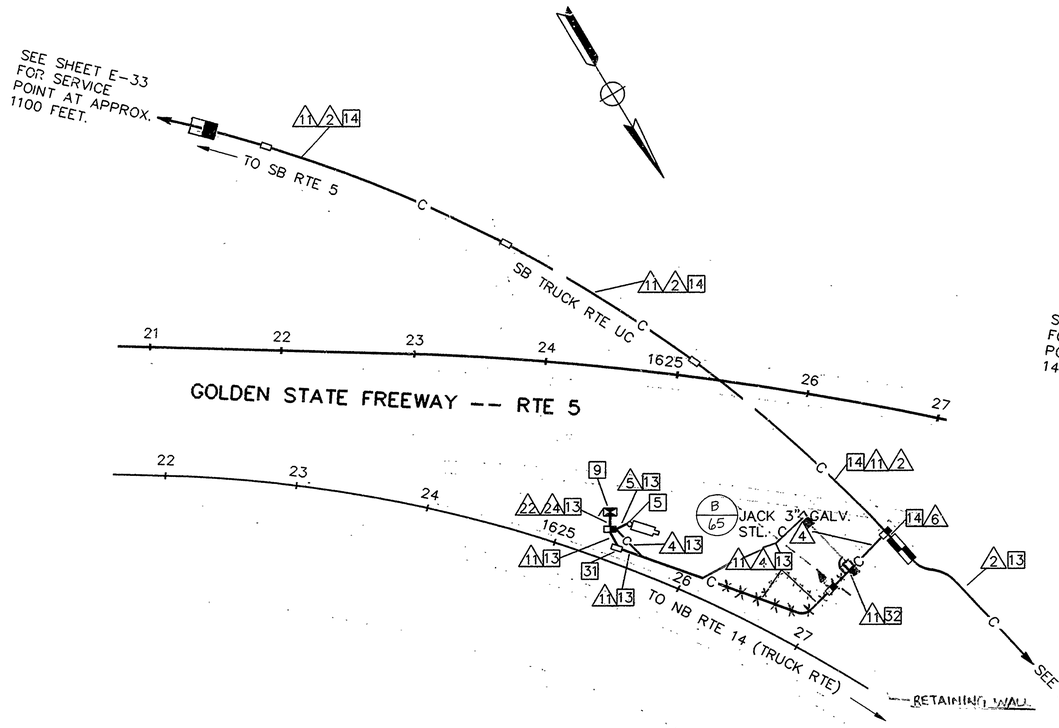
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJLCT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,20.1	81	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

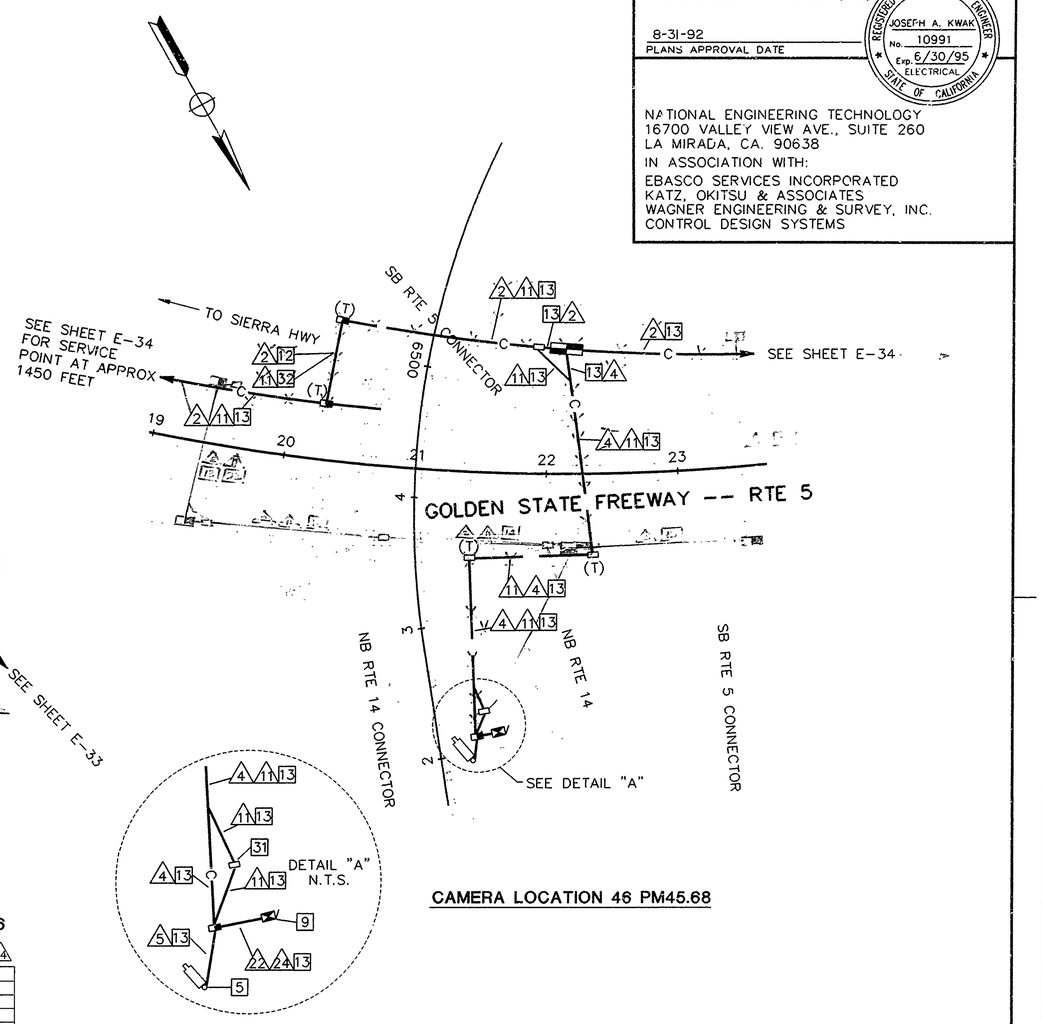
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. KWAK
No. 10991
Exp. 6/30/95
ELECTRICAL
STATE OF CALIFORNIA

8-31-92
PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



CAMERA LOCATION 45, PM44.78



CAMERA LOCATION 46 PM45.68

CONDUCTOR SCHEDULE CAMERA LOCATION 45

CONDUCTOR TYPE	FUNCTION	/2	/4	/5	/6	/11	/22	/24
50P22 CABLE	PHONE LINES	1			1			
6P19 CABLE	PHONE LINES		1		1		1	
24SMFO CABLE	MUX VID/DATA	1			1			
8MMFO CABLE	SHORT HAUL VIDEO	1			1			
2MMFO B/O CABLE	SHORT HAUL VIDEO		1		1		1	
RG-6A/U COAX	BASEBAND VIDEO			1			1	
27C18 CABLE	CONTROL			1			1	
#4	POWER					2		2
#8	GROUND			1		1		2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	4" (N)	2" (N)	3" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 46

CONDUCTOR TYPE	FUNCTION	/2	/4	/5	/11	/22	/24
50P22 CABLE	PHONE LINES	1					
6P19 CABLE	PHONE LINES		1			1	
24SMFO CABLE	MUX VID/DATA	1					
8MMFO CABLE	SHORT HAUL VIDEO	1					
2MMFO B/O CABLE	SHORT HAUL VIDEO		1			1	
RG-6A/U COAX	BASEBAND VIDEO			1		1	
27C18 CABLE	CONTROL			1		1	
#4	POWER				2		2
#8	GROUND			1	1		2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hasan Mamaee
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 45 AND 46

SCALE: 1"= 50'

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

E-59

DATE	REVISED BY	DATE REVISED
CALCULATED/ DESIGNED BY		
CHECKED BY		

DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

1166JE59.DWG WES 03/21/92

FORM DC-OE-92-PF (REV 3/88)

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

CU	07387
EA	116634

24

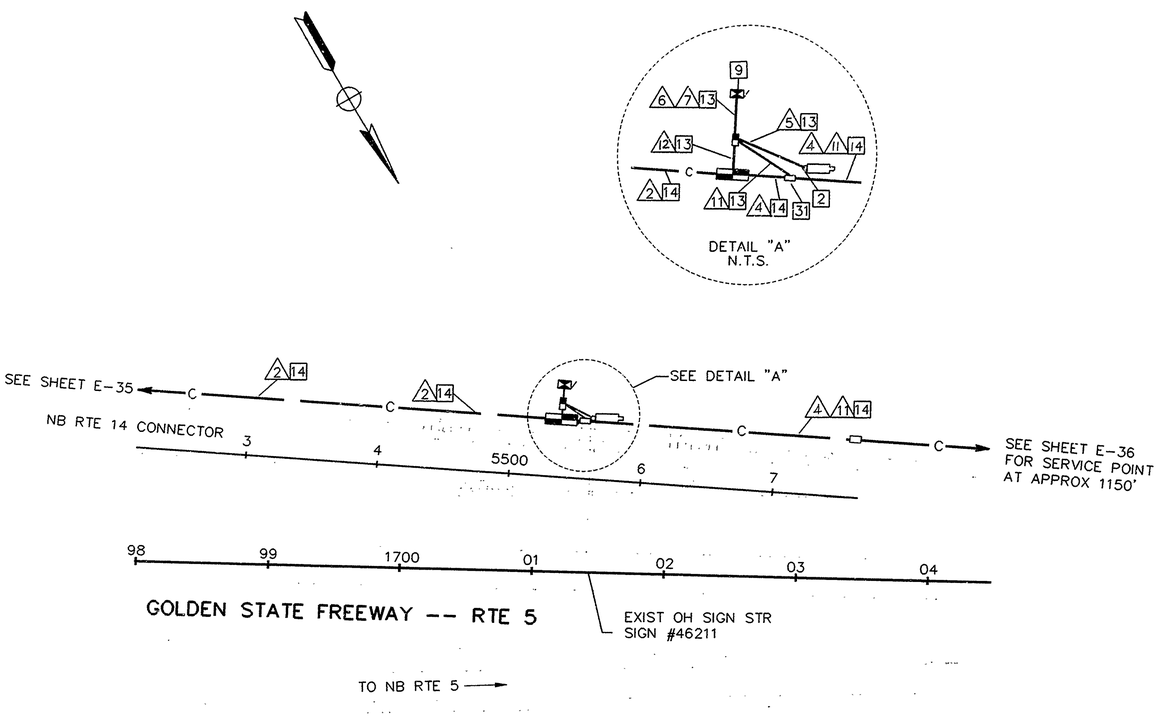
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,S0.1	82	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. KWAK
No 10991
Exp 6/30/95
ELECTRICAL
STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



CAMERA LOCATION 47, PM46.23

CONDUCTOR SCHEDULE CAMERA LOCATION 47

CONDUCTOR TYPE	FUNCTION	2	4	5	6	7	11	12
50P22 CABLE	PHONE LINES	1	1					
6P19 CABLE	PHONE LINES				1			1
24SMFO CABLE	MUX VID/DATA	1			1			1
8MMFO CABLE	SHORT HAUL VIDEO	1			1			1
2MMFO B/O CABLE	SHORT HAUL VIDEO							
RG-6A/U COAX	BASEBAND VIDEO			1	1			
27C18 CABLE	CONTROL			1	1			
#4	POWER					2	2	
#8	GROUND			1		2	1	
CONDUIT	SIZE	4" (N)	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM
LOCATION 47

SCALE: 1"= 50'

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

E-60

FORM DC-OE-92-PF (REV. 3/88)

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

CU 07387 EA 116634

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN OVERSIGHT GLORIA GWYNNE
CALCULATED/DESIGNED BY
CHECKED BY
DATE
REVISED BY
DATE REVISED
11663E60.DWG WES 03/21/92

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

REGISTERED ELECTRICAL ENGINEER

3-13-95
PLANS APPROVAL DATE

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

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

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

[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	CALCULATED/ DESIGNED BY	CHECKED BY
5/94	PW	5/94	AC	

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

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

CU 07396

EA 1186C1

< 24

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

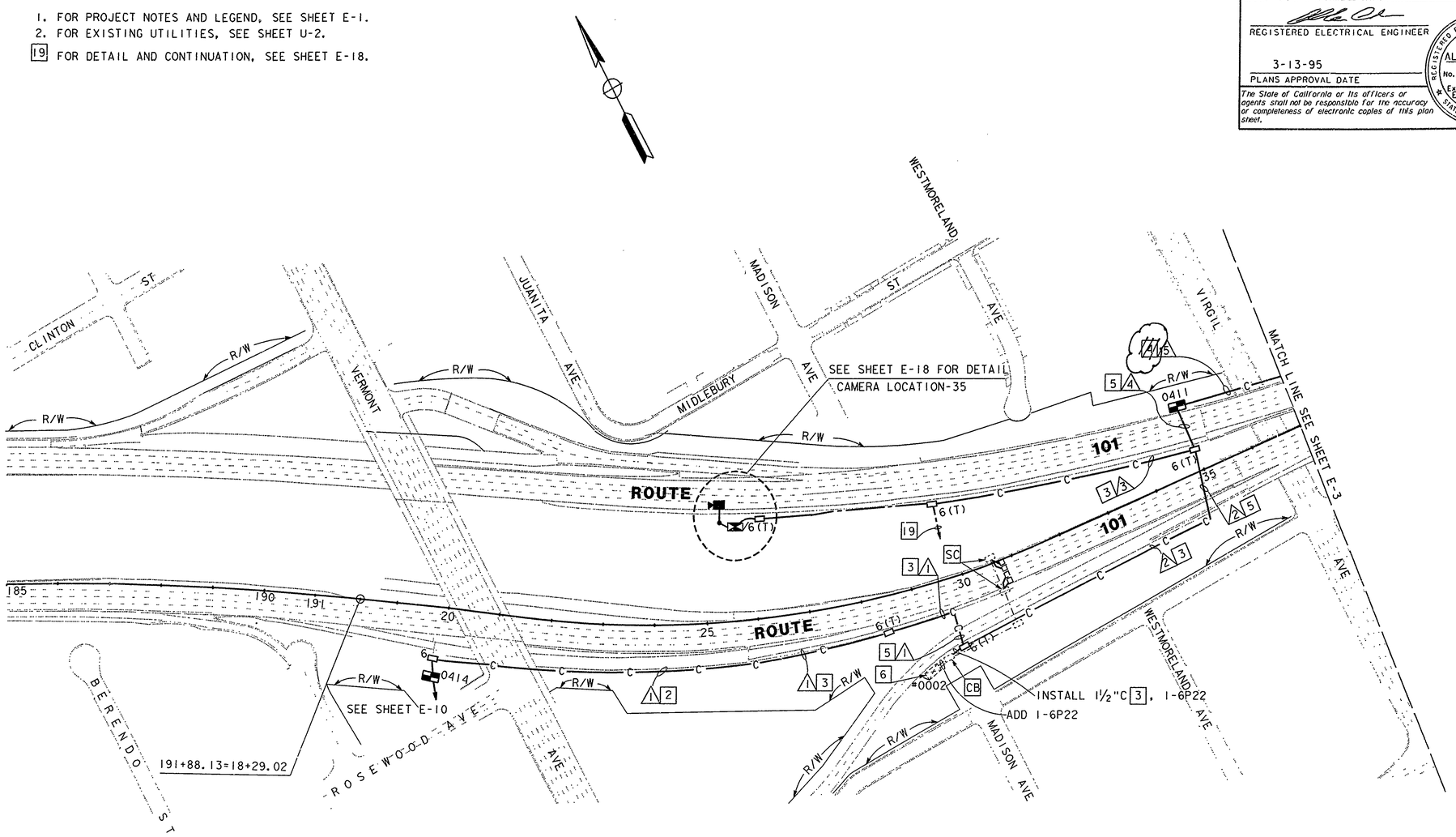
REGISTERED PROFESSIONAL ENGINEER
ALLEN CHEN
No. 14106
Exp. 6/30/97
ELECTRICAL
STATE OF CALIFORNIA

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. 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.



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	CONDUCTOR RUN 1	2	3	4	5
50P22 CABLE					1
6P22 CABLE			1	2	
2SMFO			1	1	
60SMFO	1	1		1	1
12SMFO	1	1		1	1
DLC					
INNERDUCT	1	1		1	1
CONDUIT SIZE	4"	4"	2"	4"&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

PROJECT ENGINEER: ALLEN CHEN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

	CALCULATED/ DESIGNED BY	DATE	REVISED BY
	CHECKED BY	AC	DATE REVISED

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

< 24

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

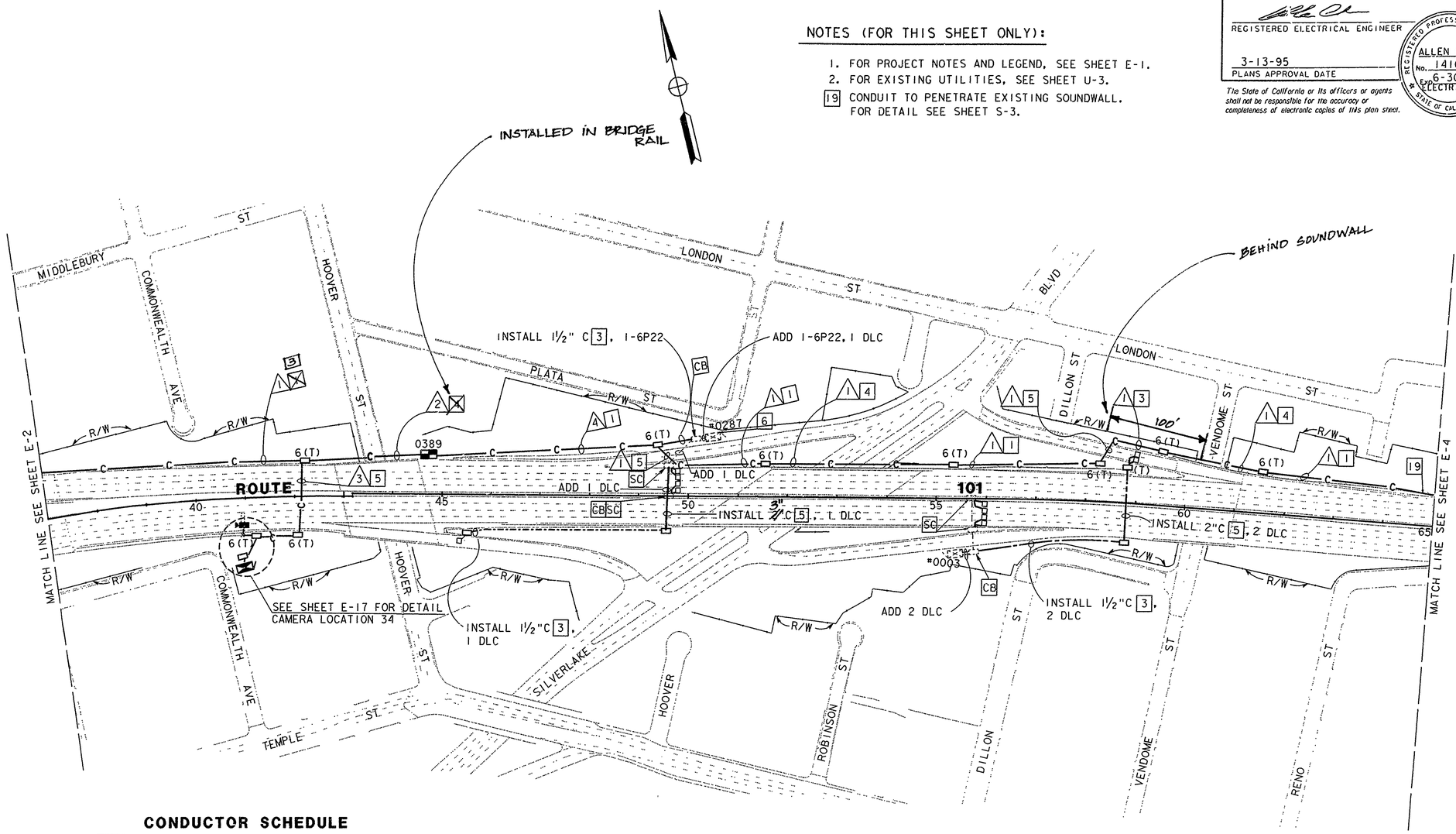
REGISTERED PROFESSIONAL ENGINEERS — ALLEN CHEN — No. 14106 — Exp. 6-30-97 — ELECTRICAL — STATE OF CALIFORNIA

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-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

PROJECT ENGINEER	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY / DATE REVISED
ALLEN CHEN	AL	AC	5/94	6/94

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

USERNAME => COOK
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CU 07396

EA 1186C1

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	33	83

REGISTERED ELECTRICAL ENGINEER

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

3-13-95
PLANS APPROVAL DATE

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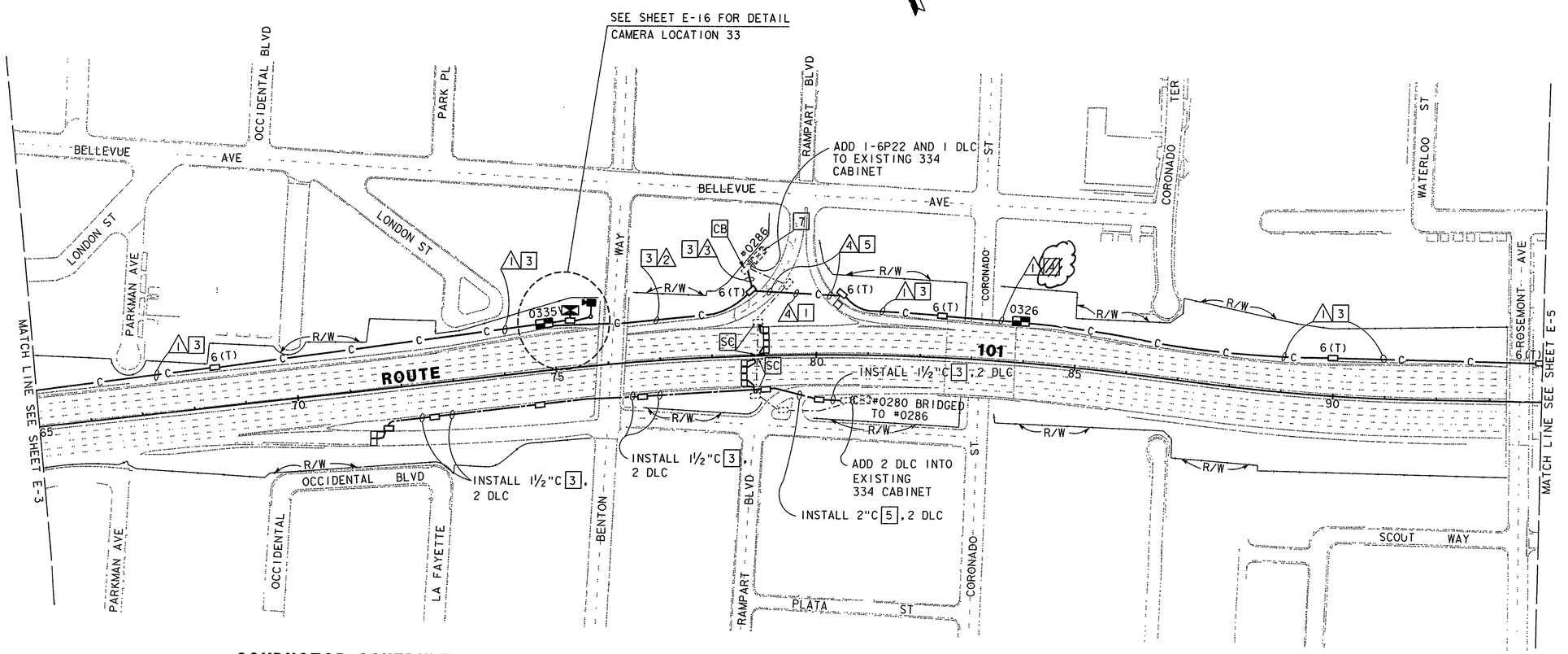
NOTES(FOR THIS SHEET ONLY):

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	2	3	4
50P22 CABLE		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" ϕ"	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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	AL
Caltrans IVHS DEVELOPMENT	ALLEN CHEN	CHECKED BY	AC

REVISED BY	DATE	DATE REVISED

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 => mikesl
DGN FILE => /usr/mikesl/P4/71186cu04.dg

CU 07396

EA 1186C1

< 24

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

REGISTERED ELECTRICAL ENGINEER

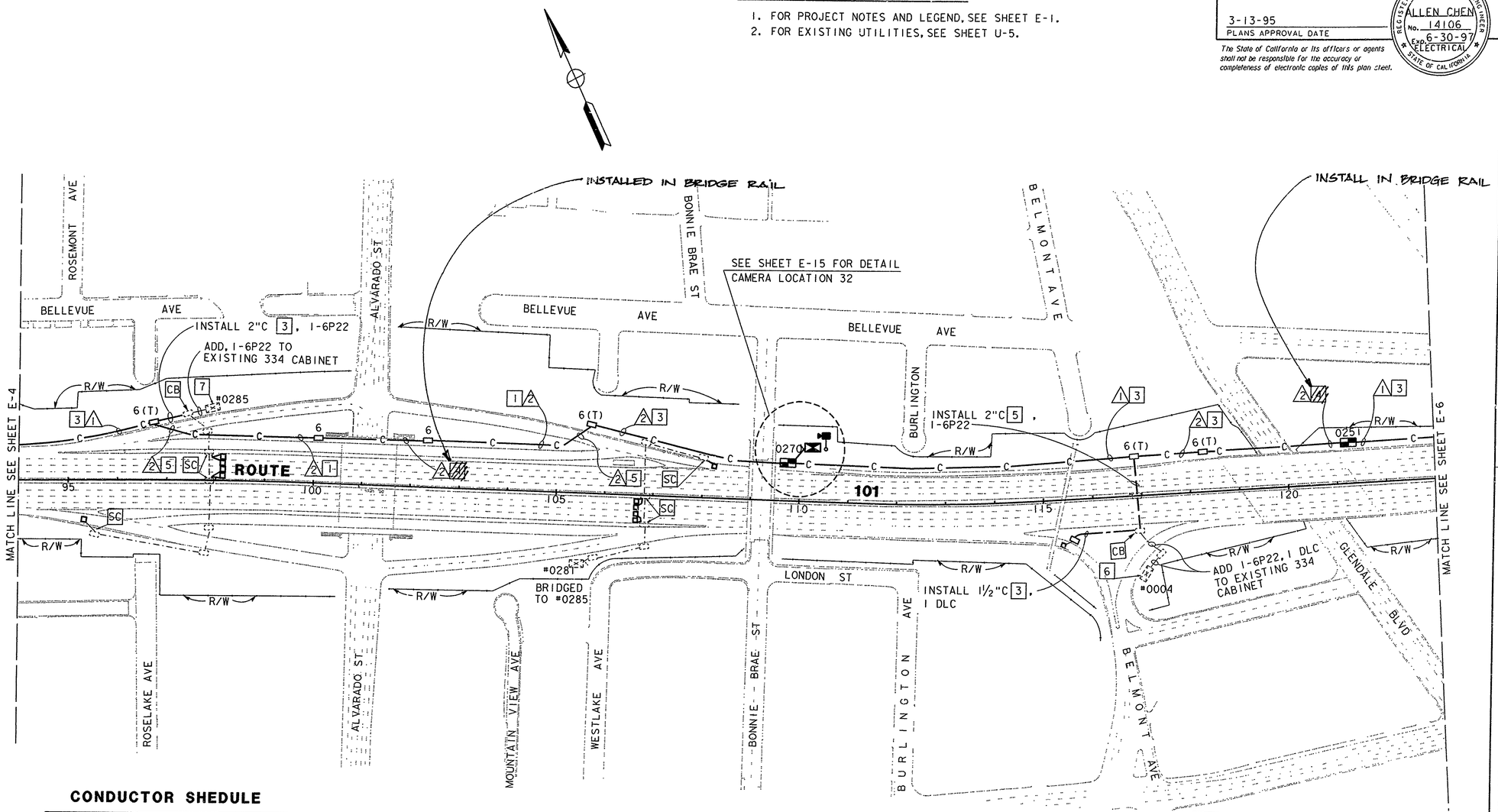
3-13-95
PLANS APPROVAL DATE

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			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" 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-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

PROJECT ENGINEER: ALLEN CHEN
CALCULATED/DESIGNED BY: AL DATE 5/94
CHECKED BY: AC 6/94
REVISED BY
DATE REVISED

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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CU 07396

EA 1186C1

< 24

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

REGISTERED ELECTRICAL ENGINEER

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

3-13-95
PLANS APPROVAL DATE

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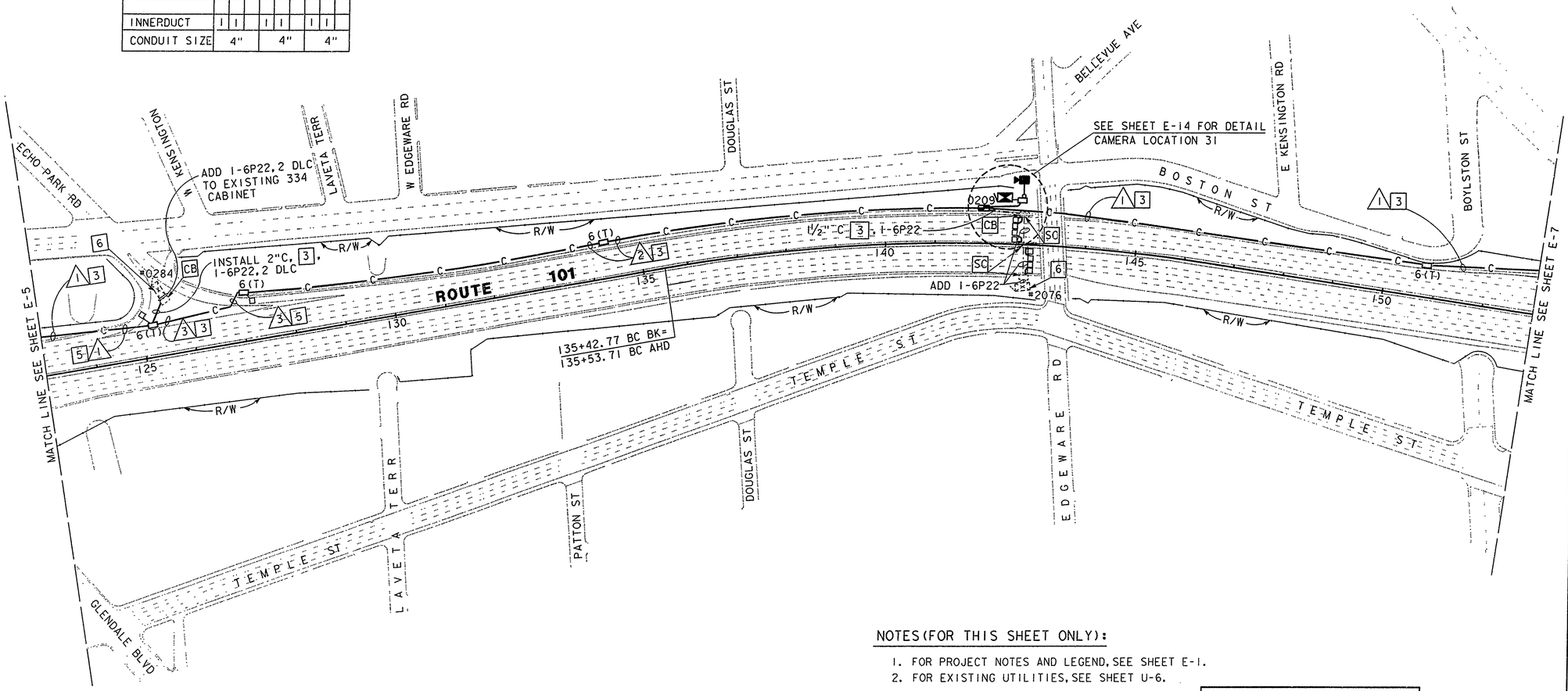
CONDUCTOR SCHEDULE

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

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL ONLY.

SCALE: 1"=100'

E-6

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

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CU 07396

EA 1186C1

< 24

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

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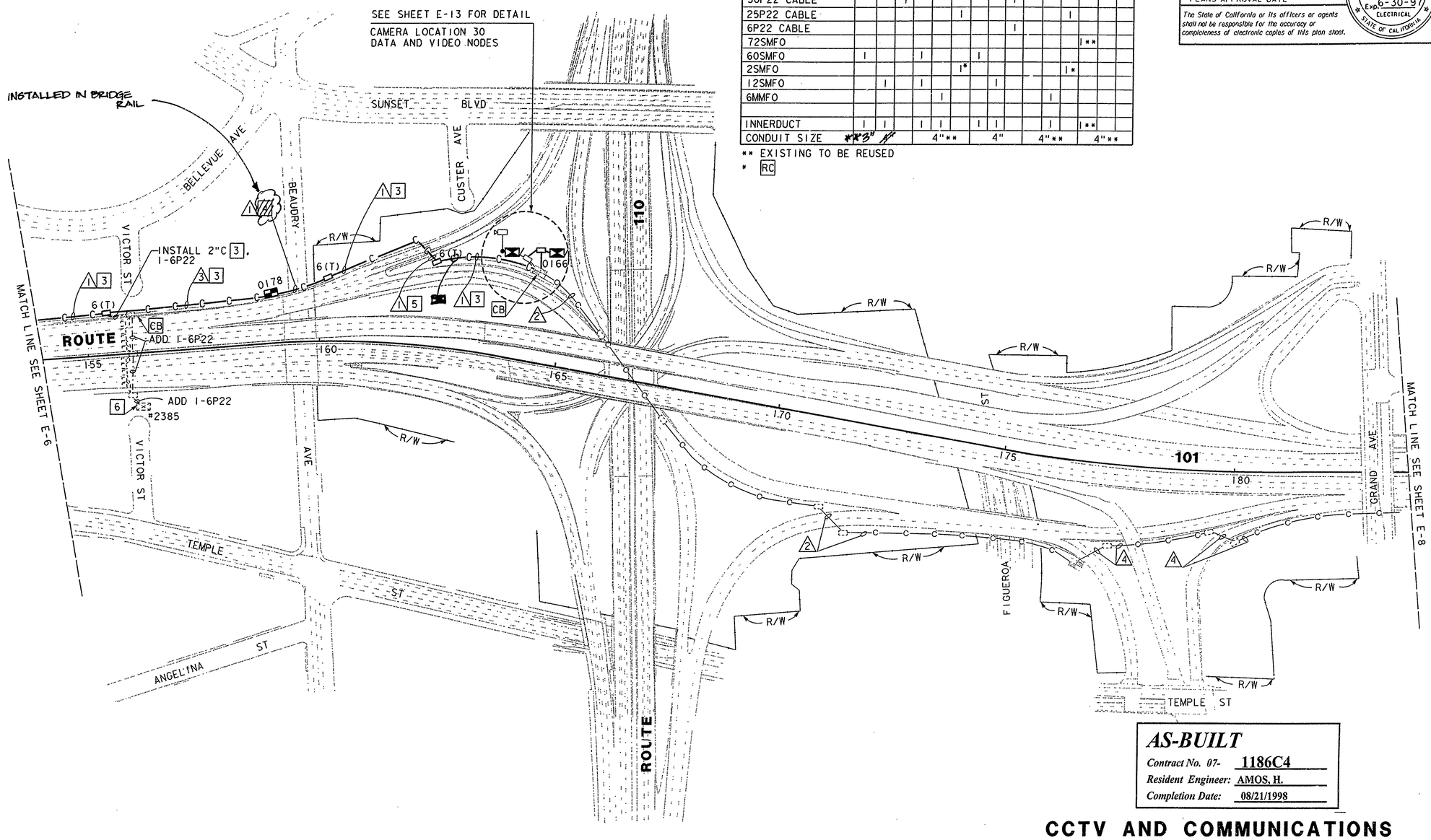
NOTE (FOR THIS SHEET ONLY):

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" Ø	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	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	AL	DATE 5/94	REVISED BY
Caltrans	ALLEN CHEN	CHECKED BY	AC	6/94	DATE REVISED
IVHS DEVELOPMENT					

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

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

CU 07396

EA 1186C1

LAST REVISION 08-31-94

TIME PLOTTED => 18-MAR-1995 12:09

< 24

< 24

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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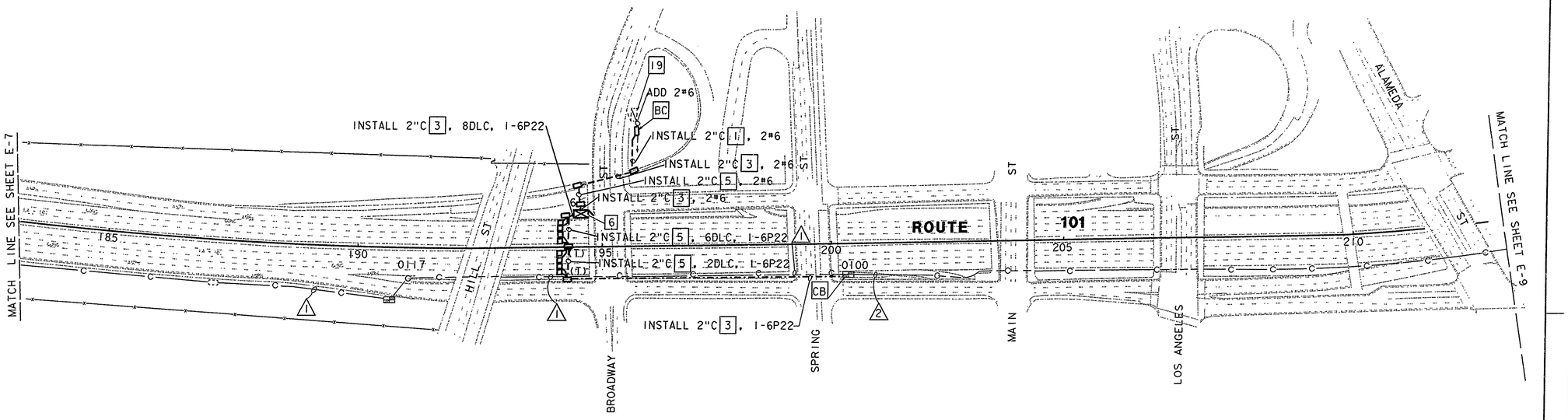

NOTES (FOR THIS SHEET ONLY):

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'

E-8

NOTE : THIS PLAN ACCURATE FOR ELECTRICAL WORK 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

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

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

CU 07396

EA 1186C1

< 24

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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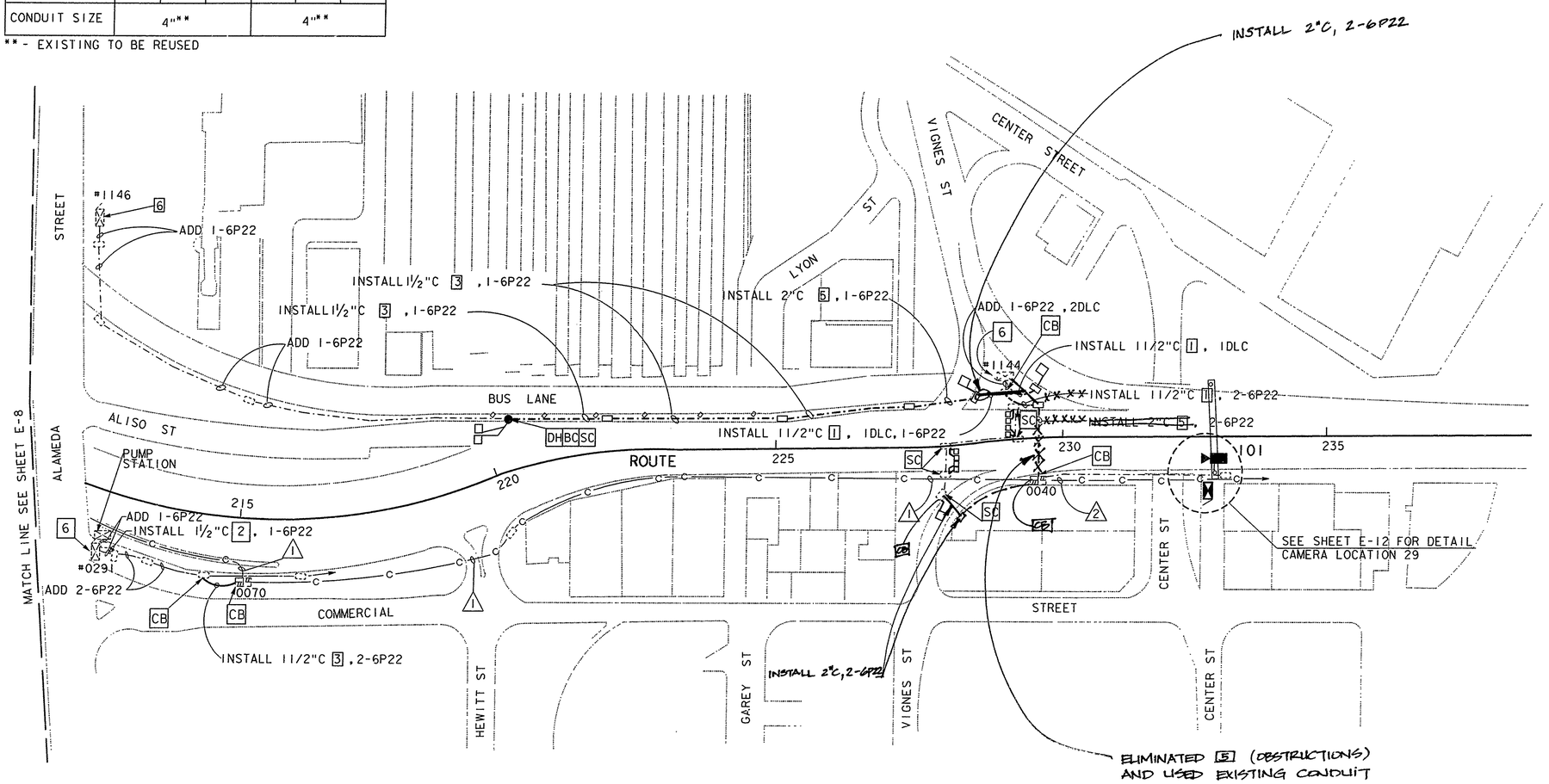

AS-BUILT
Contract No. 07- 1186C4
Resident Engineer: AMOS, H.
Completion Date: 08/21/1998

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1"=100'

E-9

NOTE : THIS PLAN ACCURATE FOR ELECTRICAL ONLY

CALCULATED/ DESIGNED BY	DATE	REVISED BY
AL	8/94	
CHECKED BY	DATE	DATE REVISED
AC	8/94	

PROJECT ENGINEER: ALLEN CHEN

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

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

< 24

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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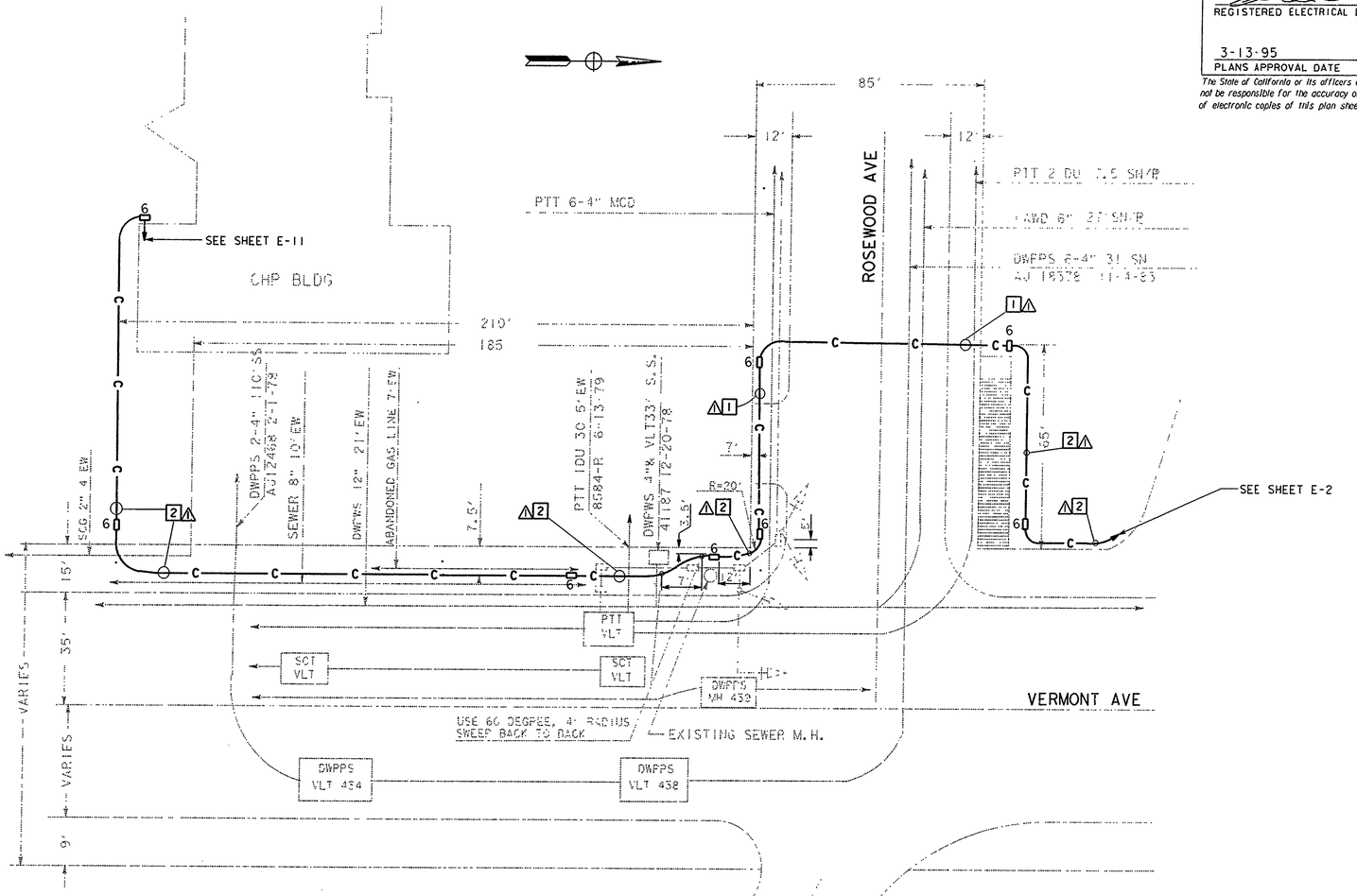
CONDUCTOR SCHEDULE

	⚠
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

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	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT
PROJECT ENGINEER: ALLEN CHEN
CALCULATED/DESIGNED BY
CHECKED BY
PW
AC
DATE 5/94
DATE REVISED 5/94
REVISED BY
LAST REVISION 00-00-00
TIME PLOTTED => 18-MAR-1995 14:25

< 24

< 24

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

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

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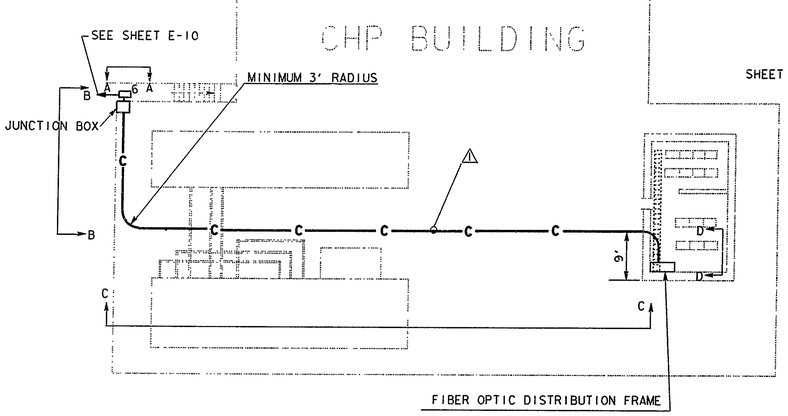
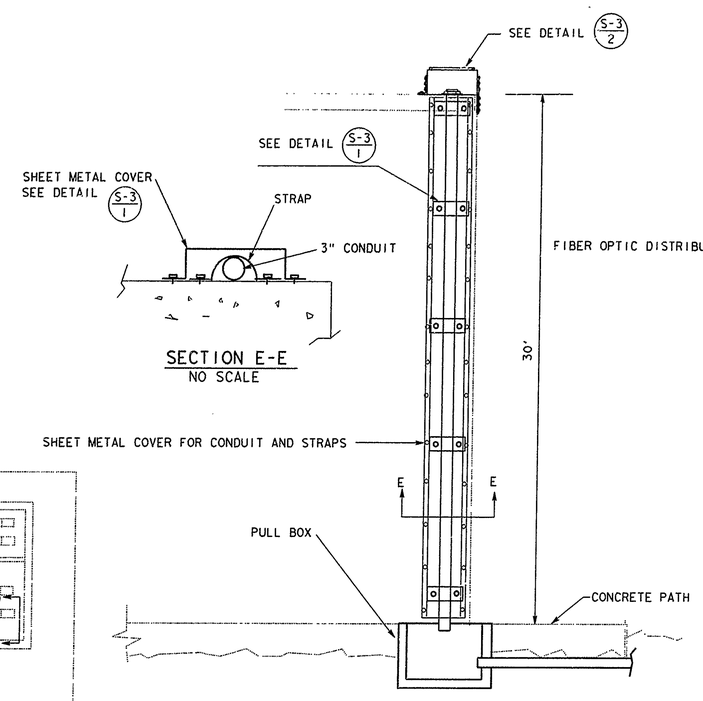
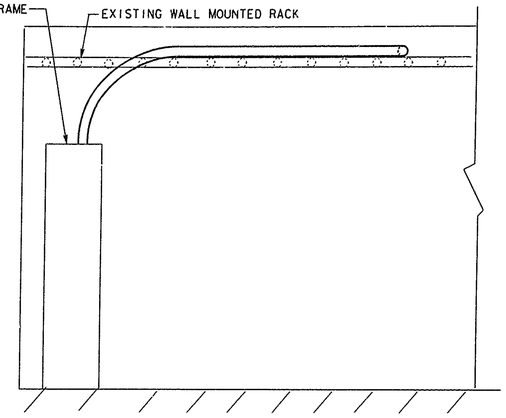
CONDUCTOR SCHEDULE

	⚠
12 SMFO CABLE	1
INNERDUCT	1
CONDUIT SIZE	3"





SECTION A-A
NO SCALE



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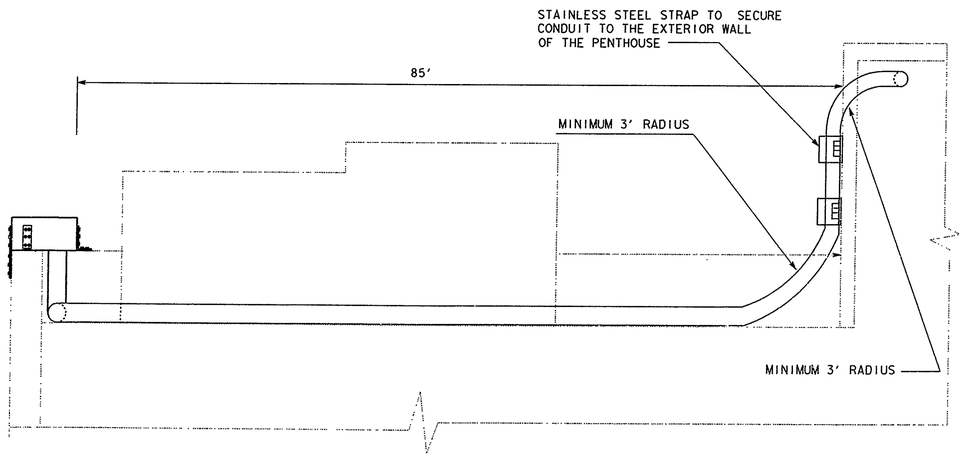

SECTION C-C
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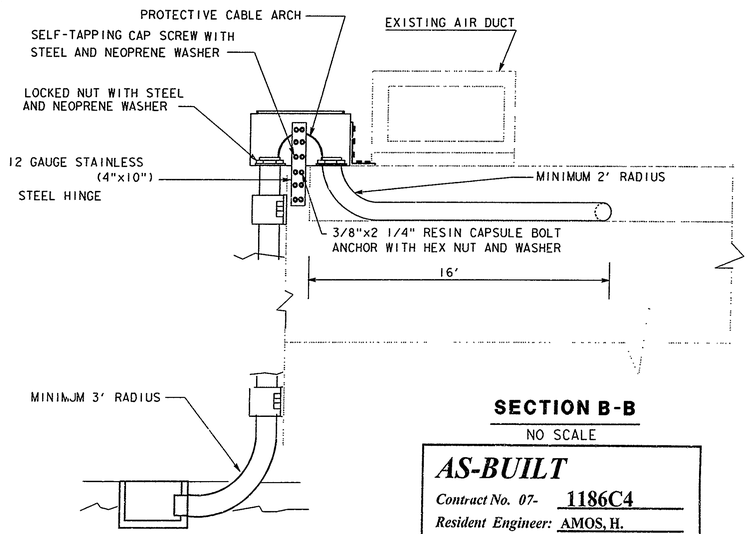

SECTION B-B
NO SCALE

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

CCTV AND COMMUNICATION SYSTEM ROUTING

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

E-11

DATE	REVISED BY	DATE	CALCULATED/ DESIGNED BY	DATE	CHECKED BY
5/94	PW	5/94	AC		

PROJECT ENGINEER: ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
IVHS DEVELOPMENT

LAST REVISION 00-00-00
TIME PLOTTED => 18-MAR-1995 14:25

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

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CU 07396

EA 1186C1

< 24

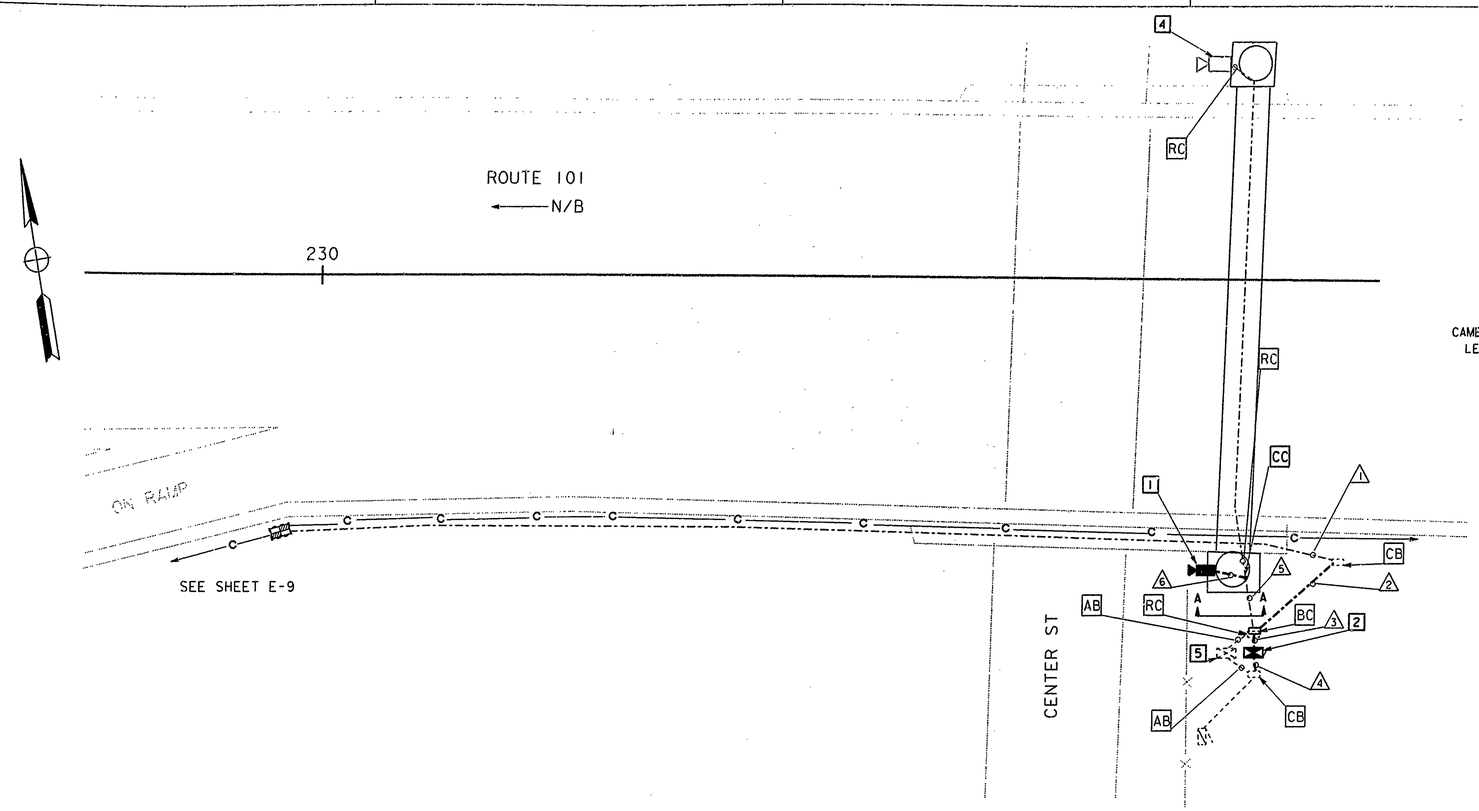
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	41	83

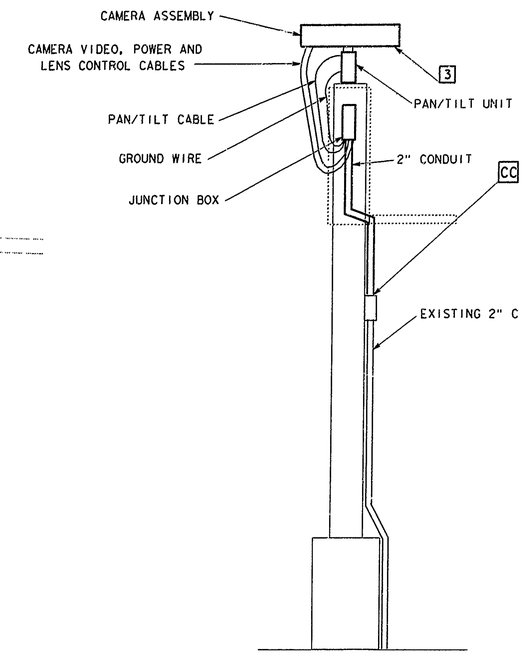
REGISTERED ELECTRICAL ENGINEER

3-13-95
PLANS APPROVAL DATE

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





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

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

TIME PLOTTED => 21-MAR-1995 15:25
LAST REVISION 00-00-00

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

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CU07396

EA1186C1

< 24

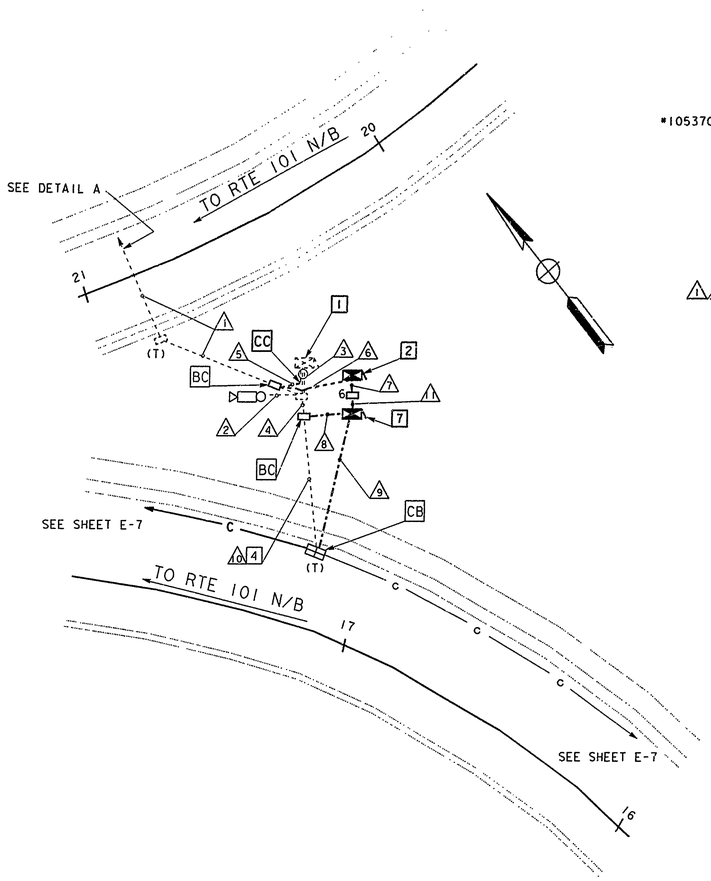
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	0.1/4.5	42	83

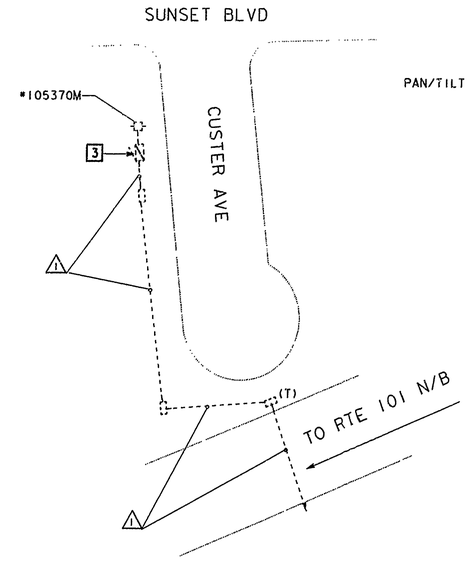
REGISTERED ELECTRICAL ENGINEER

3-13-95
PLANS APPROVAL DATE

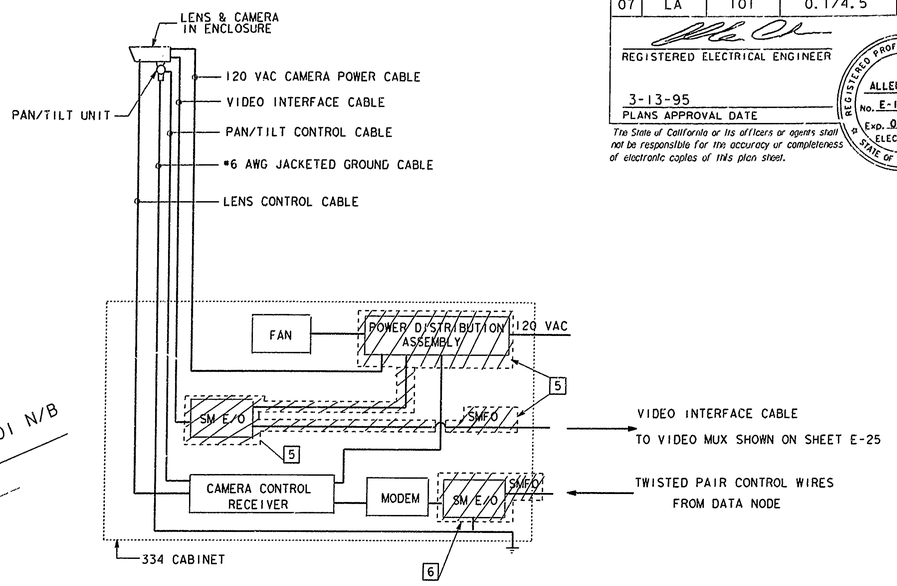
REGISTERED PROFESSIONAL ENGINEER — ALLEN CHEN — No. E-14106 — Exp. 06-30-97 — ELECTRICAL — STATE OF CALIFORNIA

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





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 111-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

CALCULATED/ DESIGNED BY	CHECKED BY	PW	DATE 5/94	REVISED BY	DATE REVISED
		AC	5/94		

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

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CU 07396

EA 1186C1

< 24

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

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

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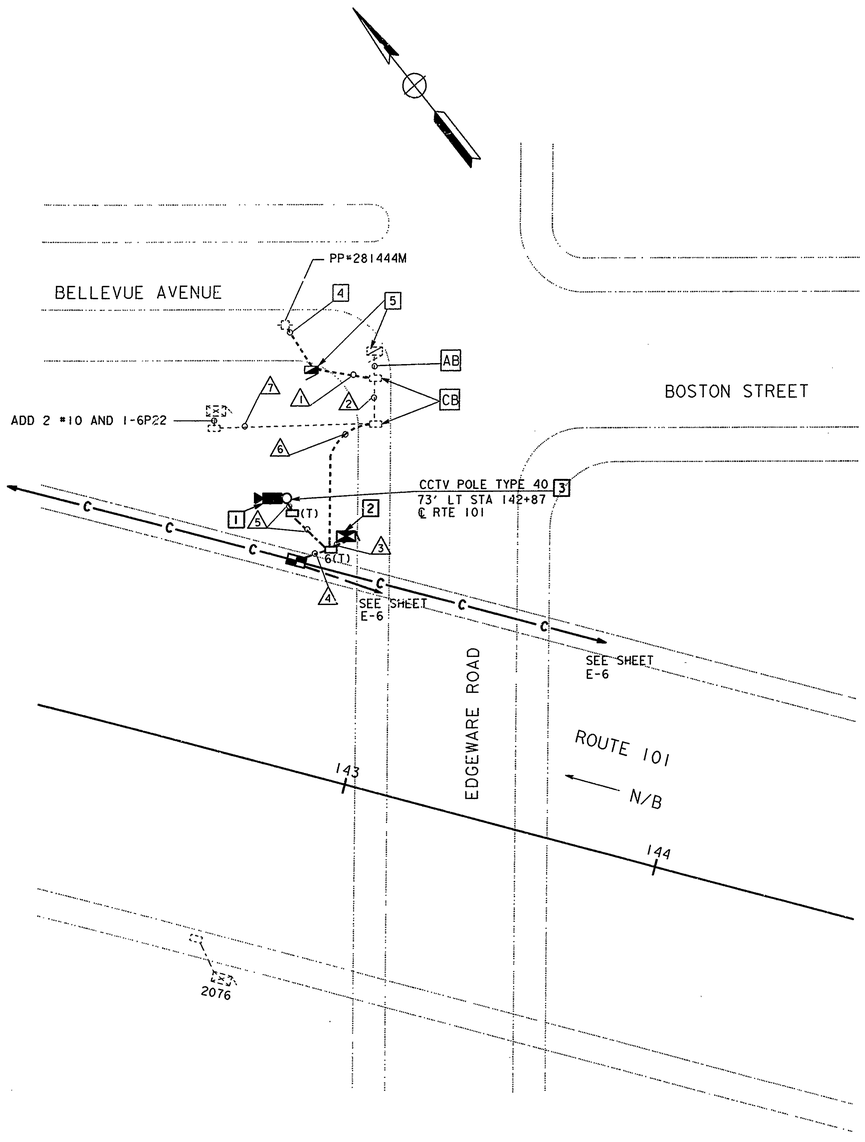

CONDUCTOR AND CONDUIT SCHEDULE

	1	2	3	4	5	6	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

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
PW	5/94		
AC	5/94		
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

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CU07396

EA1186C1

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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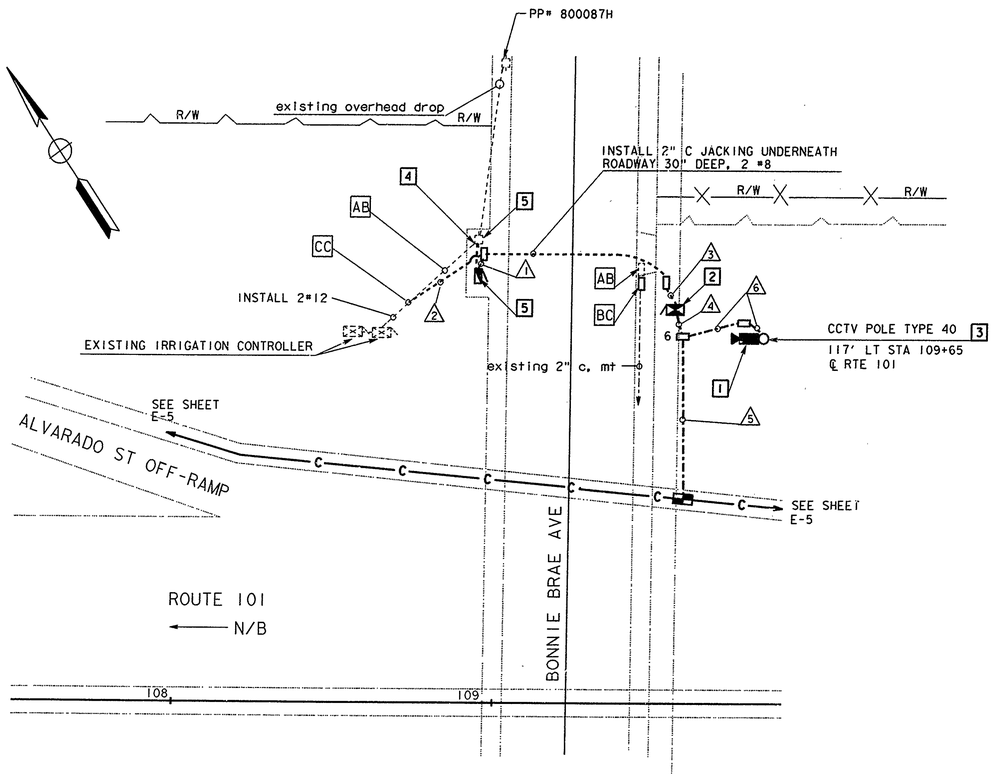

CONDUCTOR AND CONDUIT SCHEDULE

	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

CALCULATED/ DESIGNED BY	DATE	REVISED BY
PW	5/94	
CHECKED BY	DATE	REVISED
AC	5/94	

PROJECT ENGINEER: ALLEN CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans IVHS DEVELOPMENT

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

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CU07396

EA1186C1

< 24

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

REGISTERED ELECTRICAL ENGINEER

3-13-95
PLANS APPROVAL DATE

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

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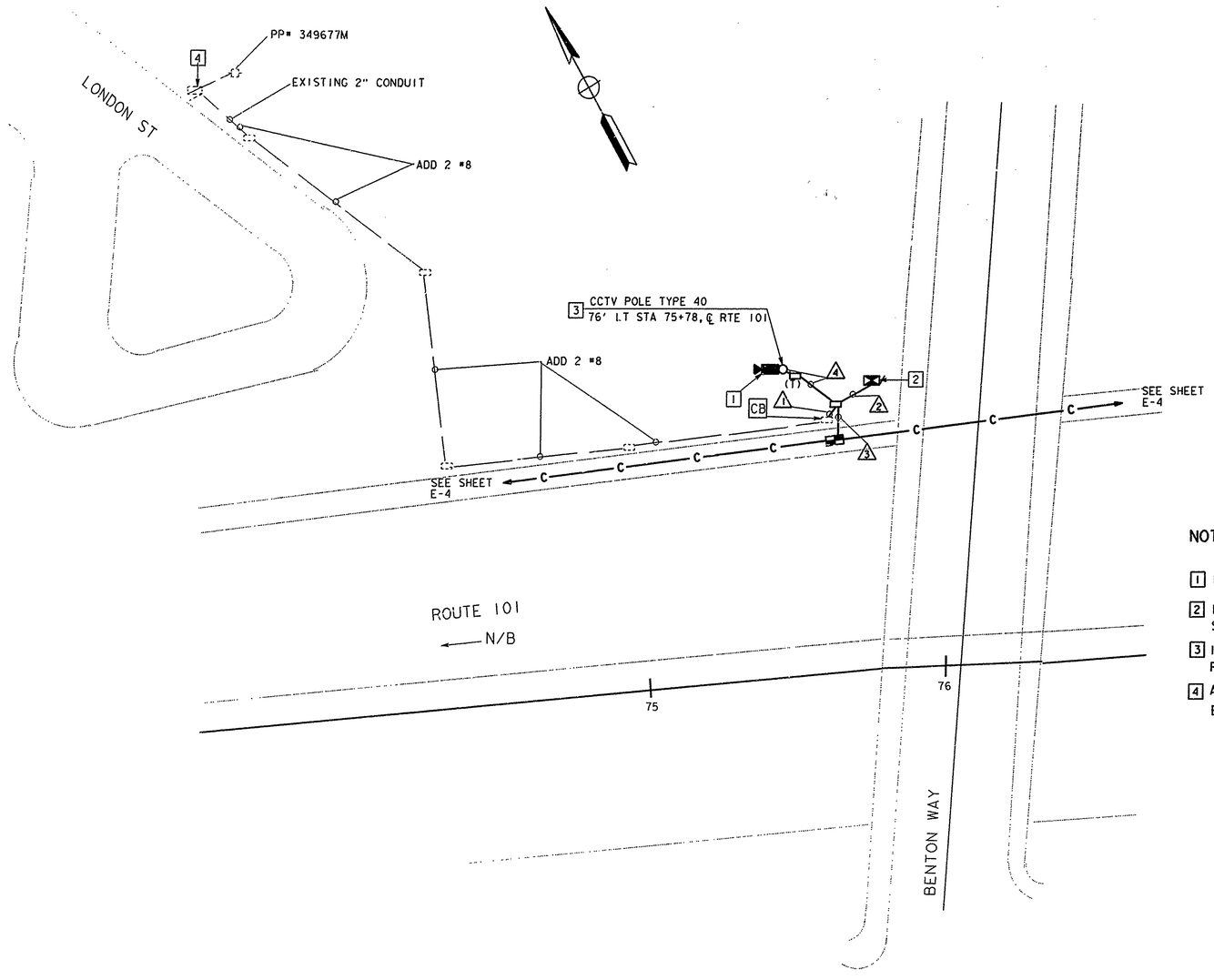

CONDUCTOR AND CONDUIT SCHEDULE

	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

DATE	REVISED BY	DATE REVISED
5/94	PW	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 => 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

< 24

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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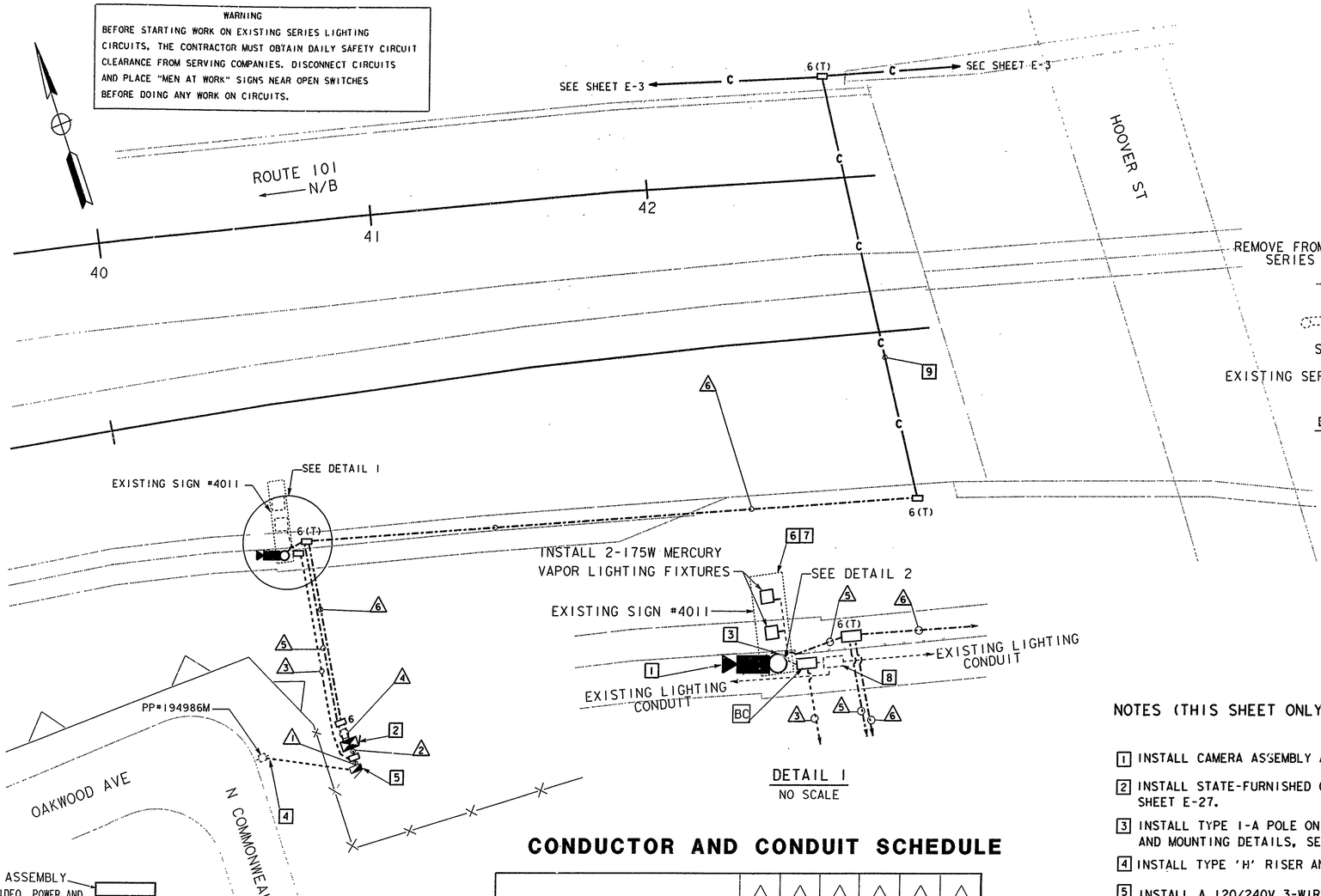
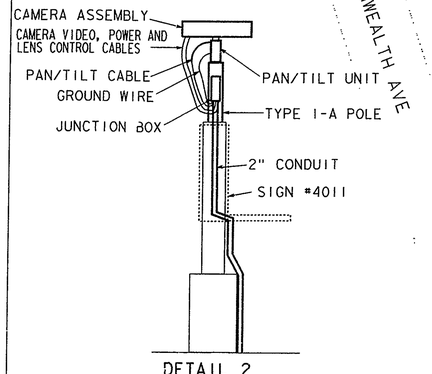
WARNING
BEFORE STARTING WORK ON EXISTING SERIES LIGHTING CIRCUITS, THE CONTRACTOR MUST OBTAIN DAILY SAFETY CIRCUIT CLEARANCE FROM SERVING COMPANIES. DISCONNECT CIRCUITS AND PLACE "MEN AT WORK" SIGNS NEAR OPEN SWITCHES BEFORE DOING ANY WORK ON CIRCUITS.



DETAIL 1
NO SCALE



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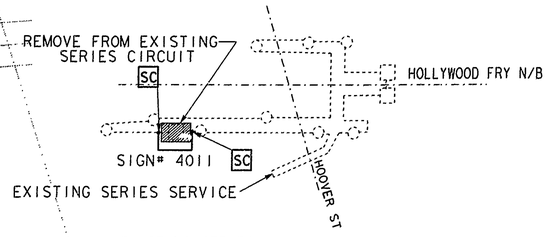
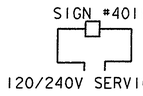


EXISTING SERIES CURCUIT FOR SIGN #4011



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 I-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	CHECKED BY	DATE	REVISED BY	DATE REVISED
	PW	AC	5/94		5/94

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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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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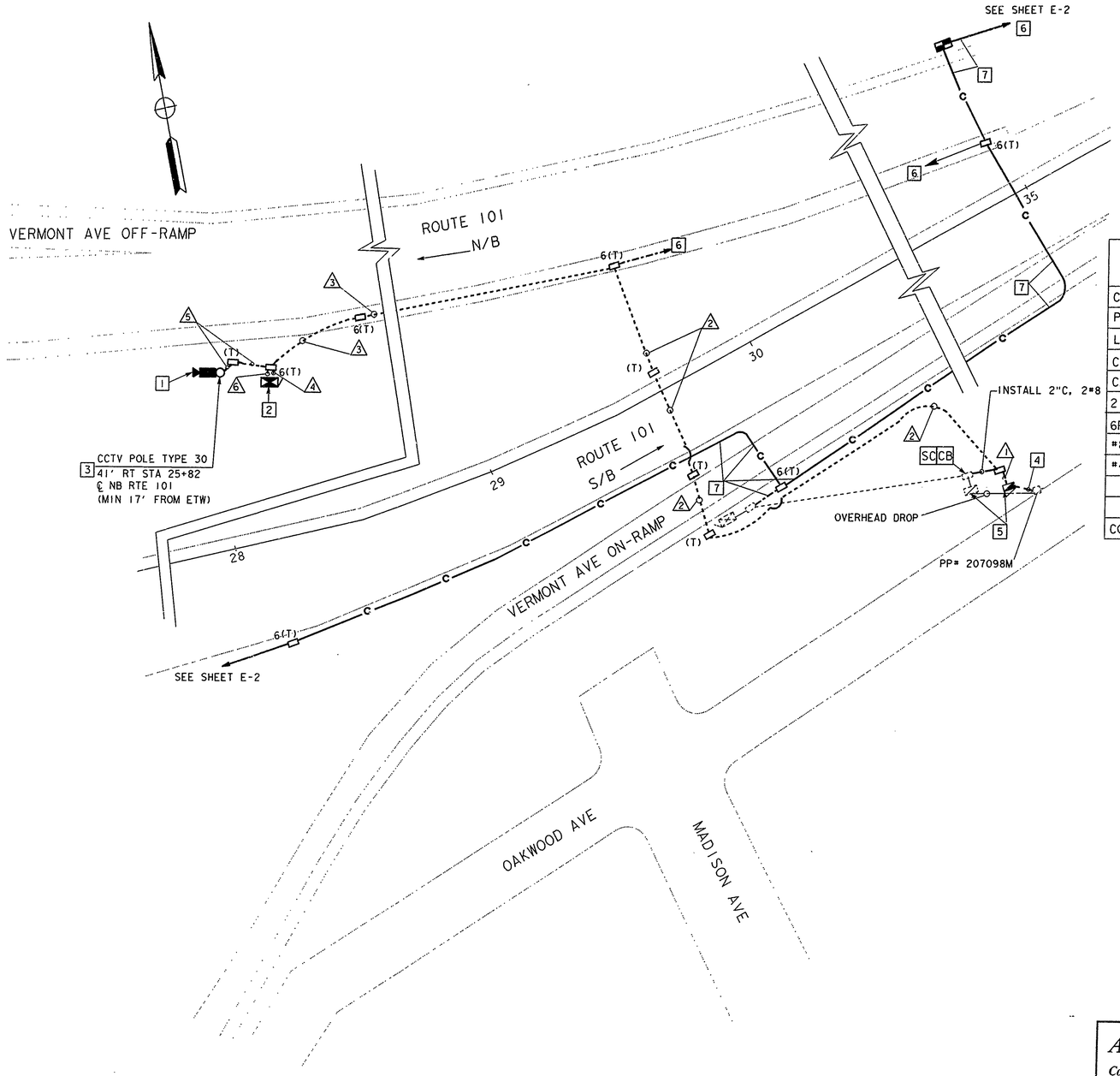

CONDUCTOR AND CONDUIT SCHEDULE

	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'

THIS PLAN IS ACCURATE FOR ELECTRICAL ONLY

E-18

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

PROJECT ENGINEER	CALCULATED/ DESIGNED BY	DATE	REVISED BY
ALLEN CHEN	PW	5/94	
	AC	5/94	DATE REVISED
	CHECKED BY		

LAST REVISION 00-00-00 TIME PLOTTED => 20-MAR-1995 08:23

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	65	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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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 (1 / 2)
- TYPE 334-TV CABINET
- EXISTING TELEPHONE BRIDGE
- TELEPHONE BRIDGE
- FIBER OPTIC CABLE

TABLE 1 - 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 Maruan
Completion Date: 04/20/1999

CCTV AND COMMUNICATIONS SYSTEM
(LEGEND AND NOTES)

E-1

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVERSIGHT
PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gibbons

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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
- POST MILE (TO NEAREST 10TH)
- FREEWAY NAME SHORT FORM
- TOS ELEMENT TYPE: TV = CCTV CAMERA; CMS = CHANGEABLE MESSAGE SIGN; HAR = HIGHWAY ADVISORY RADIO

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 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.

[7] INSTALL CCTV CAMERA POLE ON NEW FOUNDATION. SEE SHEETS E-54 AND C-12 FOR DETAILS. INSTALL CCTV CAMERA ASSEMBLY ON POLE.

[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.

	REVISED BY	DATE REVISED
DATE	ES	JZ
	2/95	5/95

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV AND COMMUNICATION SYSTEM (NOTES)

NO SCALE

E-2

LAST REVISION 00-00-00

TIME PLOTTED => 19-OCT-1995 15:32

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FORM DC-OE-82-PF (REV. 3/89)

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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. 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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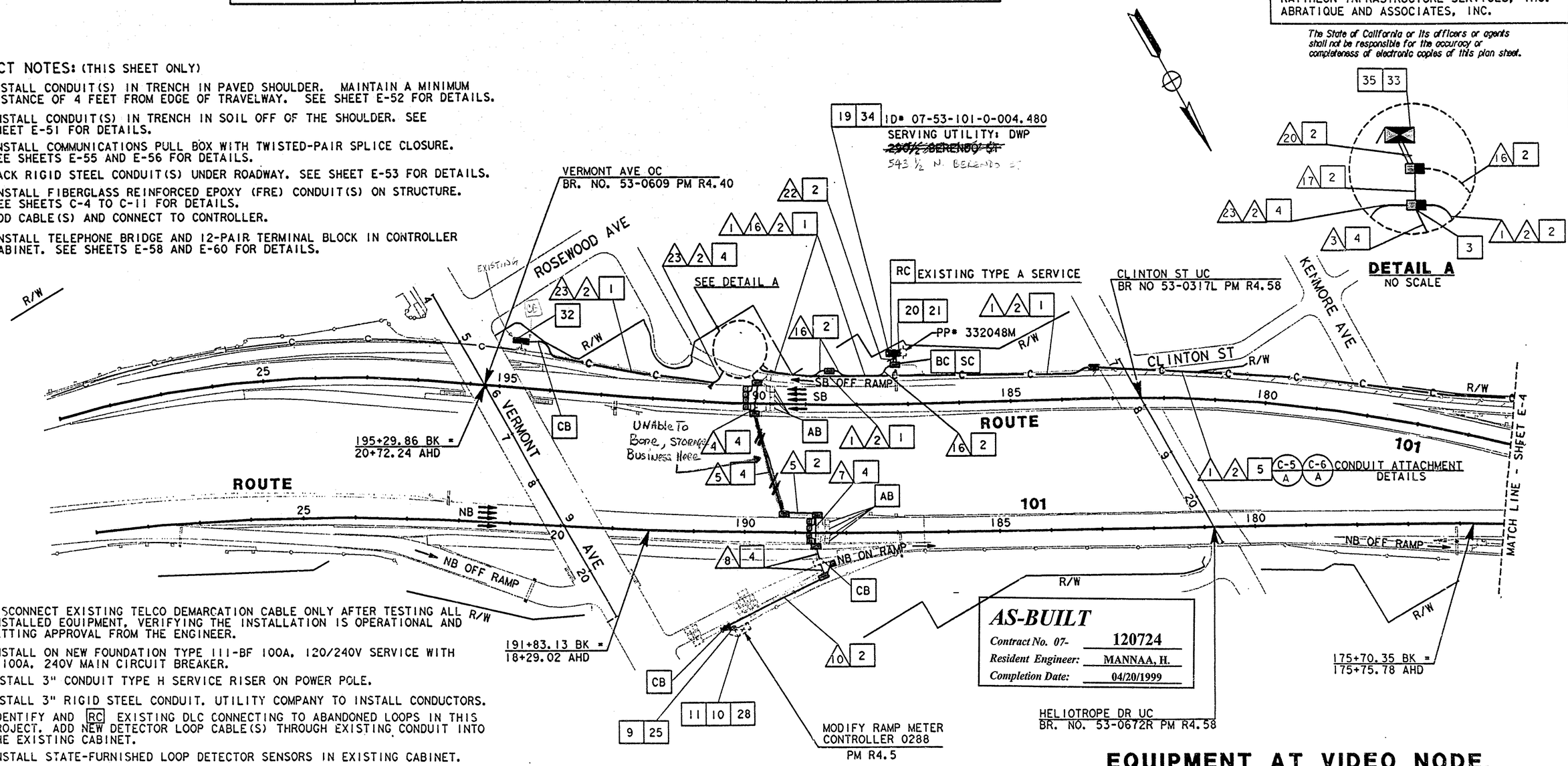
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	7	8	10	16	17	20	22	23
50P22 CABLE	DATA/PHONE	1												
6P22 CABLE	DATA/PHONE				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 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.
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

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 CC-DE-92-PE (REV. 3/88)

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CU 07387 EA 120721

LAST REVISION 00-00-00

TIME PLOTTED => 19-OCT-1995 16:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	68	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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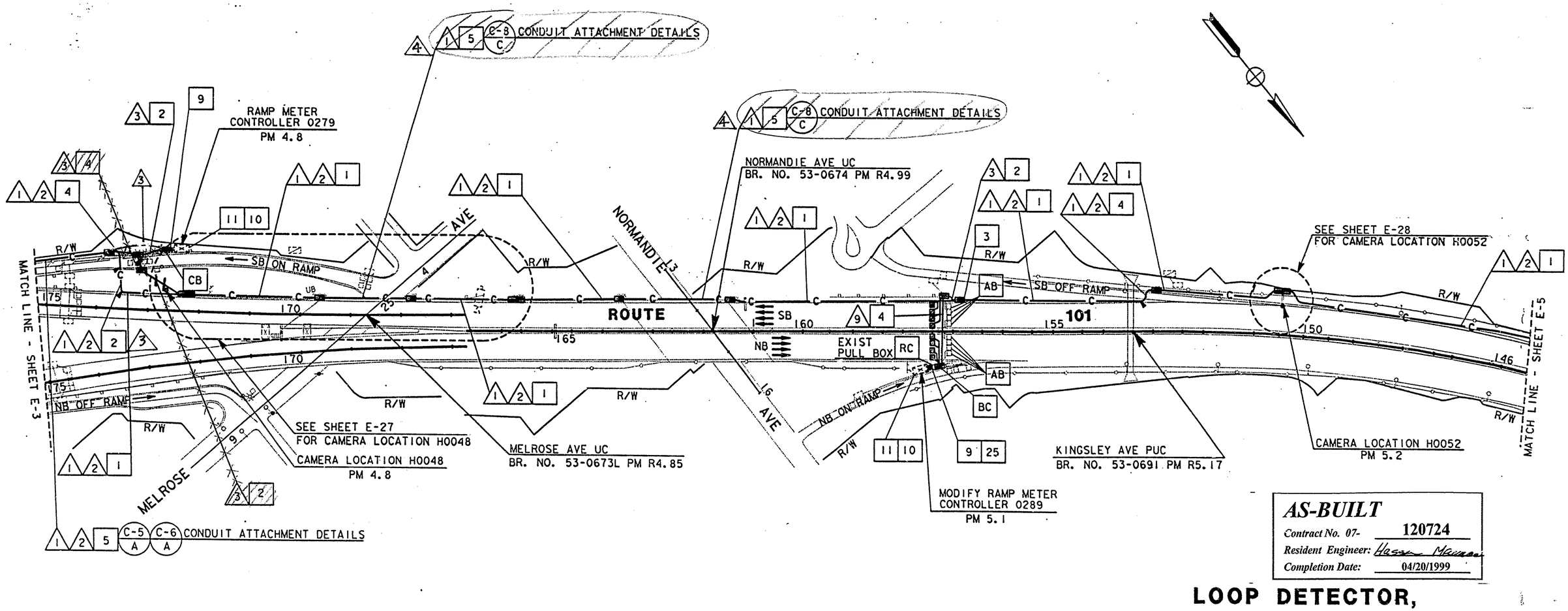
PROJECT NOTES: (THIS SHEET ONLY)

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. 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	2	3	4	5	6	7	8	9
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						4			
	INNERDUCT		1¼"	1¼"					1¼"	1¼"
CONDUIT	SIZE		4"		4"	2"	2"	2"**	3"**	

** EXISTING TO BE REUSED
CHANGED PER CCO #6



AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hasan Mamoon
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	DATE REVISED
2/95	ES	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 10:17

FORM DC-CE-92-PF (REV. 3/88)

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DGN FILE => /usr/trmarlak/P2/712072u04.

CU 07387 EA 120721

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.

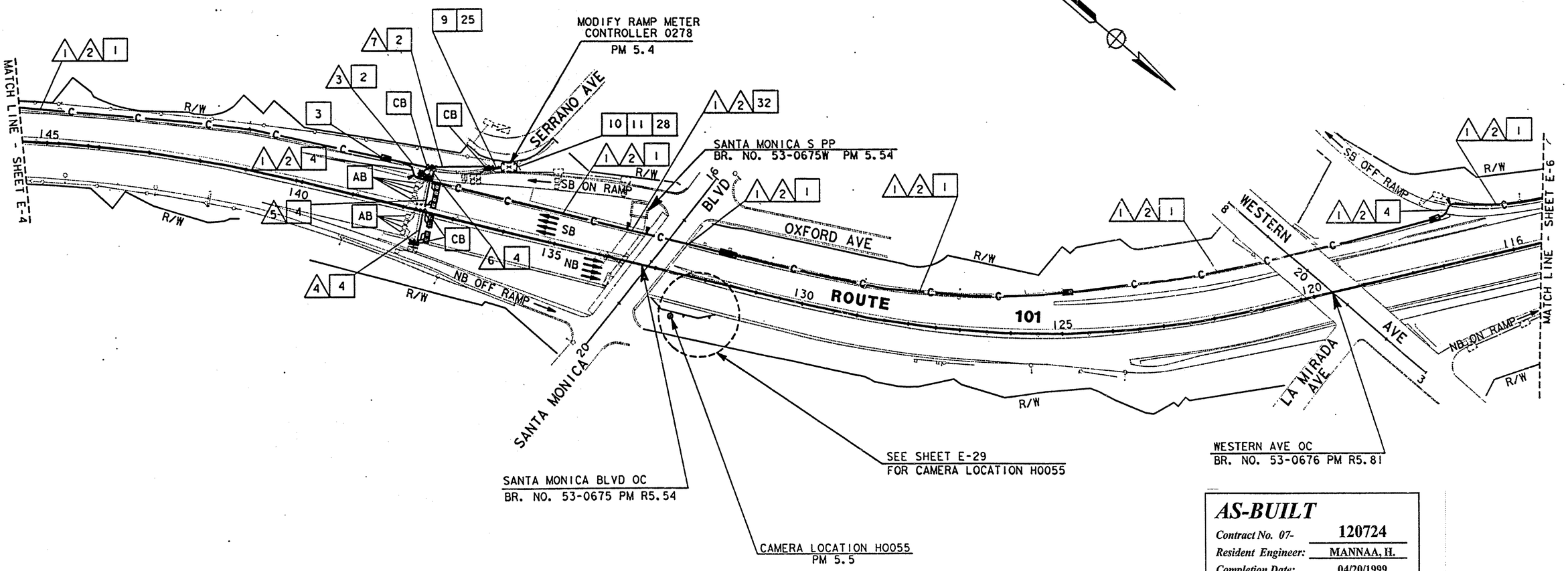
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
3. INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE SHEETS E-55 AND E-56 FOR DETAILS.
4. JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.
9. ADD CABLE(S) AND CONNECT TO CONTROLLER.
10. INSTALL TELEPHONE BRIDGE AND 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE SHEETS E-58 AND E-60 FOR DETAILS.
11. DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.
25. 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
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						2	6	8	9
	INNERDUCT		1¼"	1¼"						
CONDUIT	SIZE	4"			4"	2"	2"	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-5

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 10:17
LAST REVISION 00-00-00

FORM DC-OT-92-PF (REV. 3/88)

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USERNAME => trmarlak
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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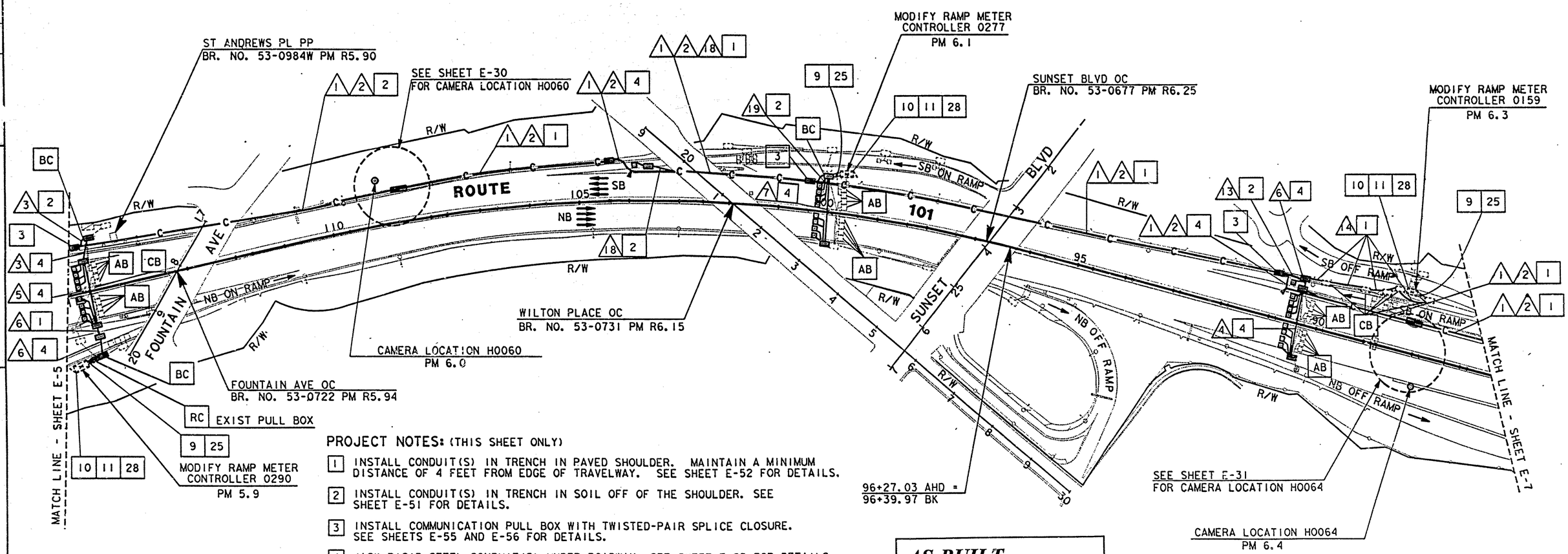
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	13	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"	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
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 08:29

FORM DC-OE-92-PF (REV. 3/88)

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USERNAME => mikesl
DGN FILE => /usr/mikesl/PO/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 El-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
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'

E-7

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

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

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

CU 07387 | EA 120721

TIME PLOTTED => 17-OCT-1995 08:29
LAST REVISION 00-00-00

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

FORM DC-CE 92-PE (REV. 3/88)

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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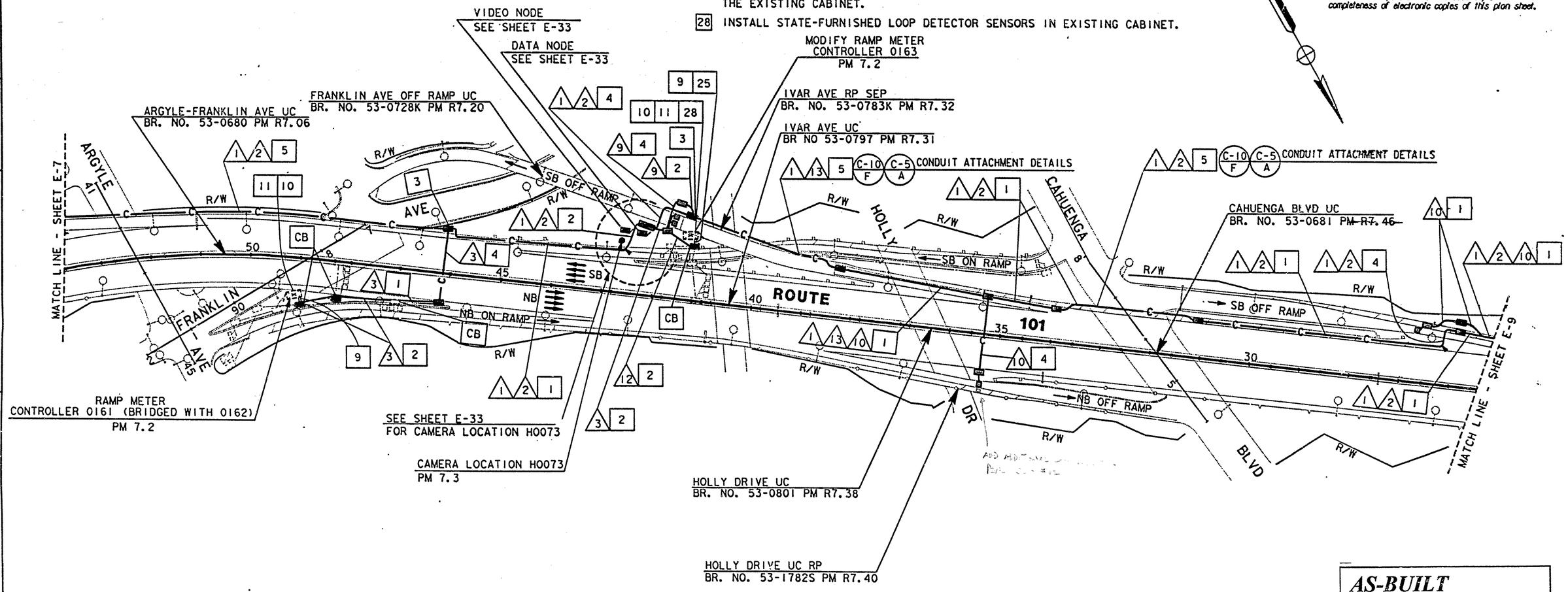
PROJECT NOTES: (THIS SHEET ONLY)

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.
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	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.

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

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FORM DC-OE-92-PF (REV. 3/88)
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DGN FILE => /usr/mikes!/PO/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 Ed 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)

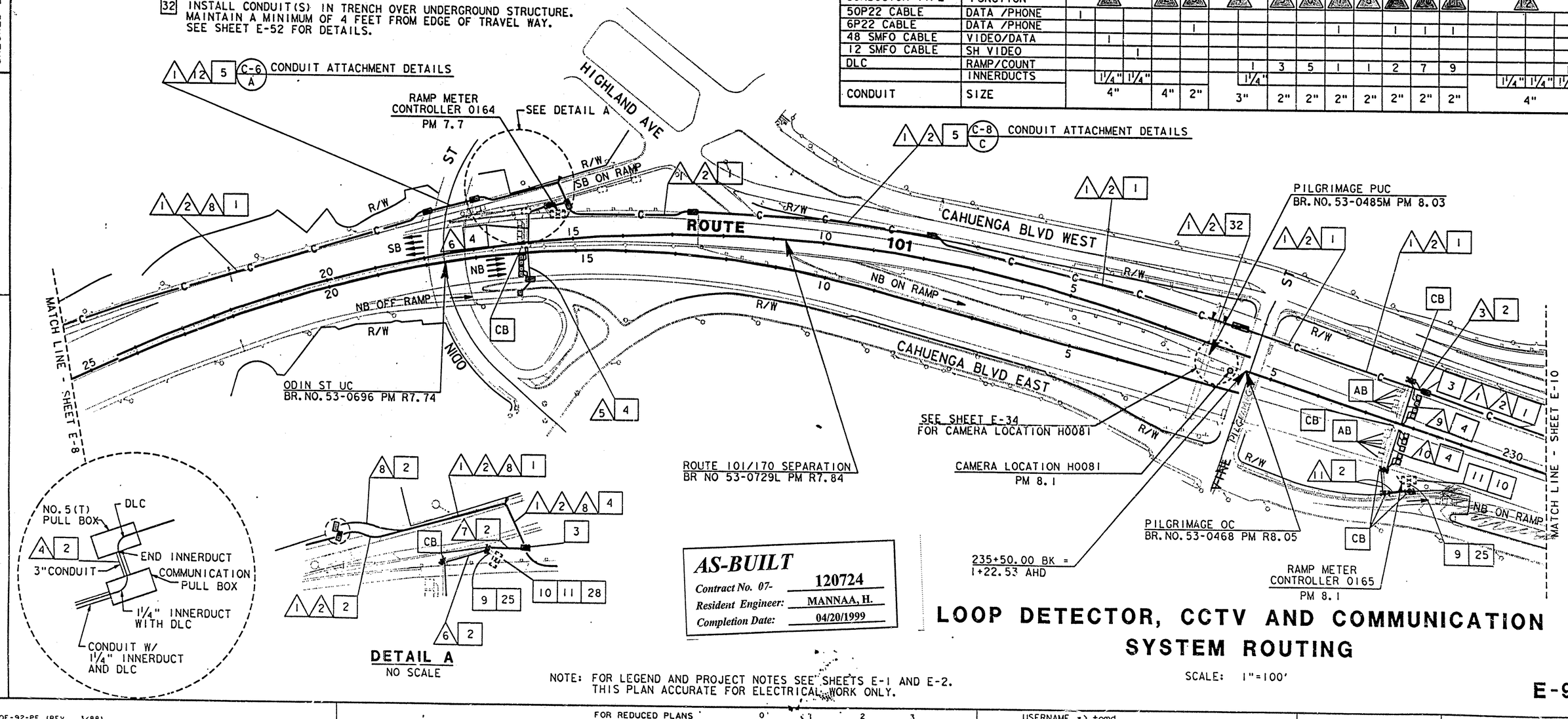
1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELWAY. SEE SHEET E-52 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-51 FOR DETAILS.
3. INSTALL COMMUNICATION PULL BOX WITH TWISTED-PAIR SPLICE CLOSURE. SEE 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

1 2 5 C-8 C CONDUIT ATTACHMENT DETAILS

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8	9	10	11	12
50P22 CABLE	DATA /PHONE	1											
6P22 CABLE	DATA /PHONE			1									
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	1
	INNERDUCTS	1¼"	1¼"		1¼"								1¼" 1¼" 1¼"
CONDUIT	SIZE	4"		4"	2"	3"	2"	2"	2"	2"	2"	2"	2" 4"



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 ES | CHECKED BY JZ | DATE 2/95 5/95 | REVISED BY | DATE REVISED

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

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DGN FILE => /usr/tomd/P39/712072u09.dgn

CU 07387 EA 120721

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

Elias Ed-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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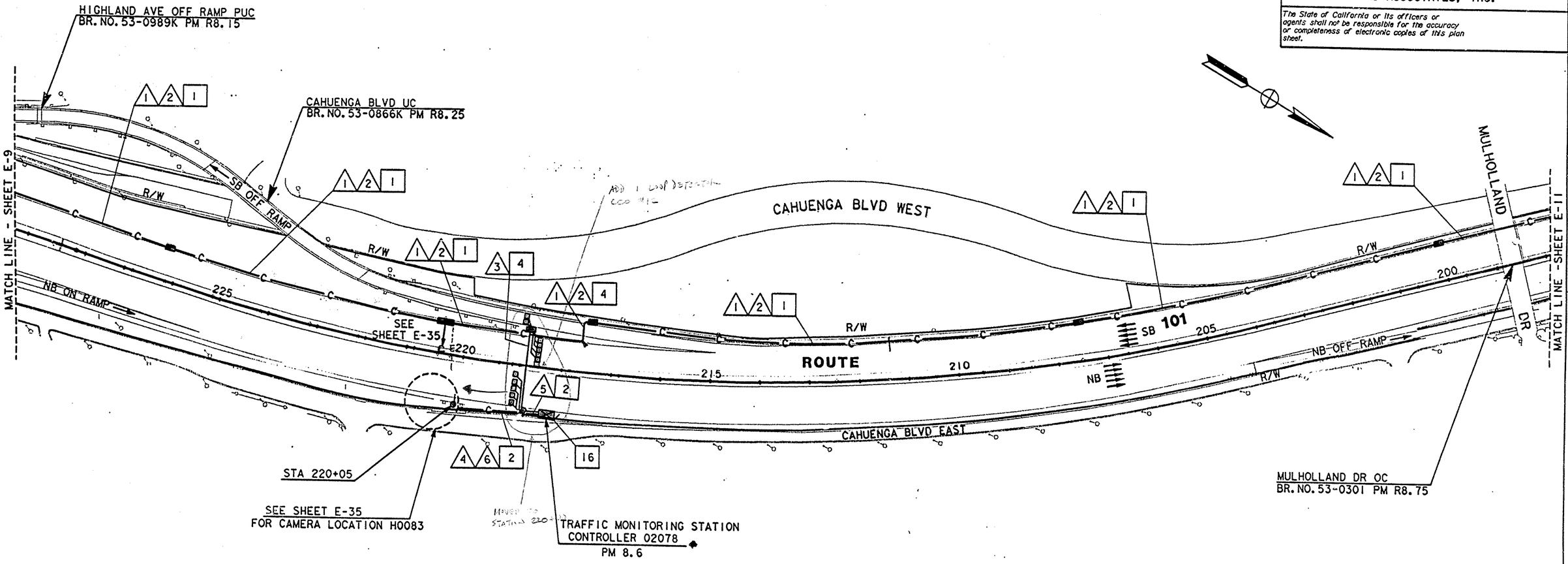
PROJECT NOTES: (THIS SHEET ONLY)

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.
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						1	1
48 SMFO CABLE	VIDEO/DATA		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



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

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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 Ed-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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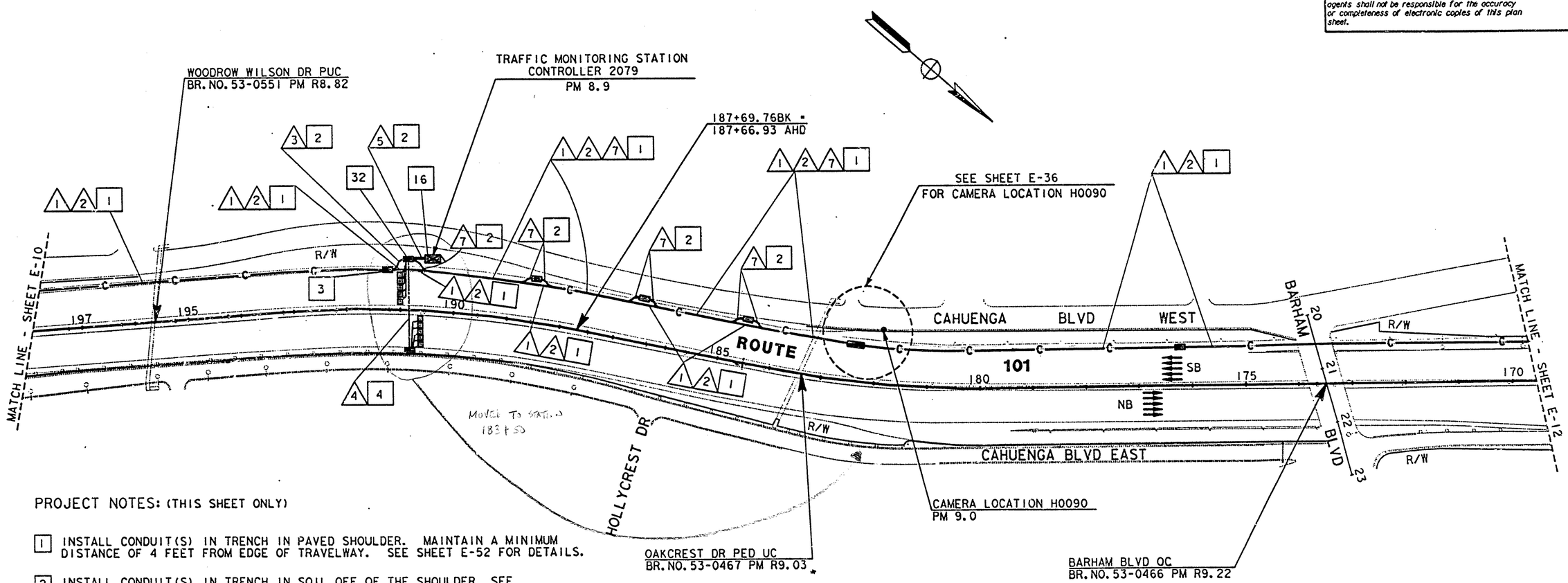
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1	1A	1B	2	3	4	5	6	7
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"	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/P39/712072ul1.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

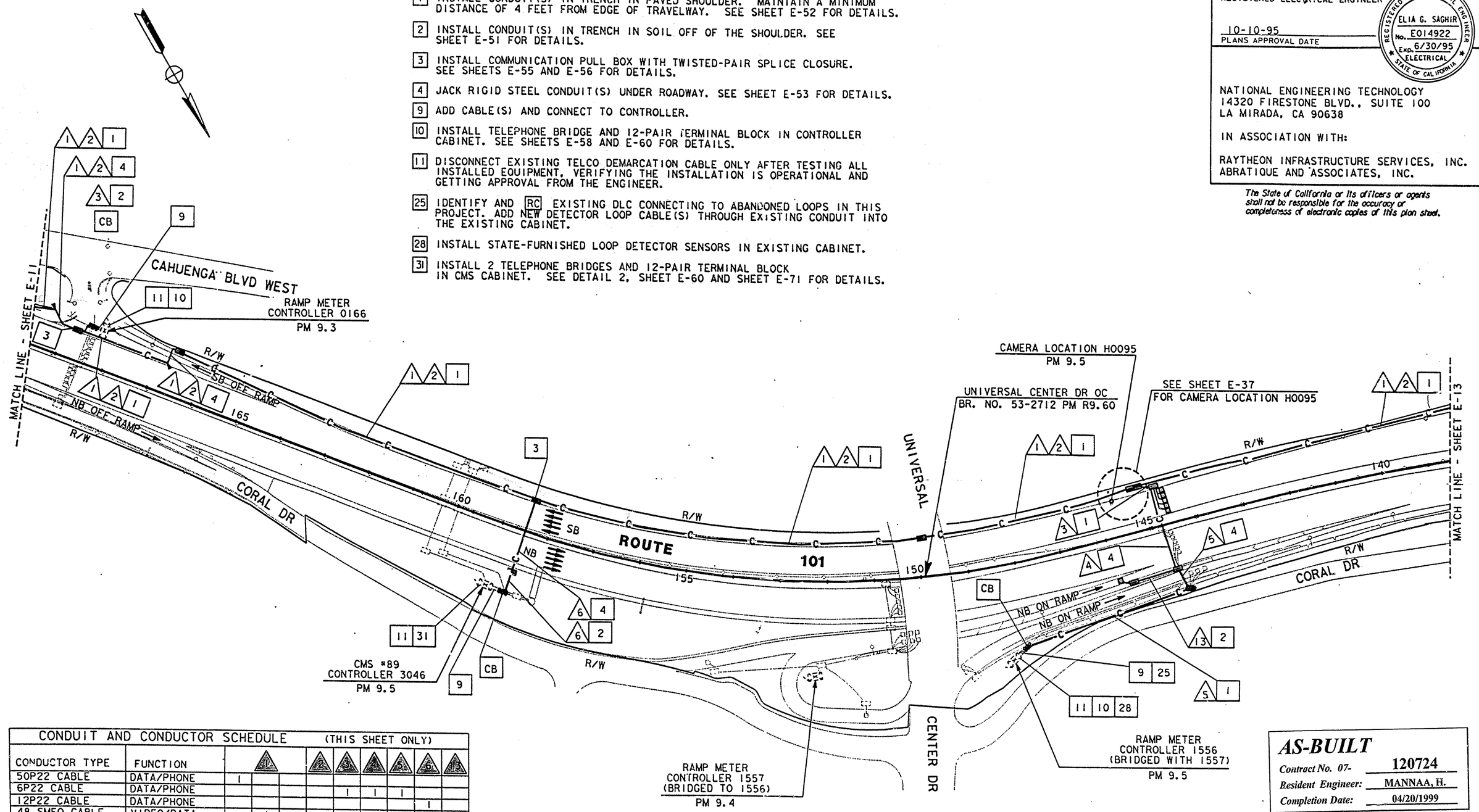
IN ASSOCIATION WITH:

RAYTHEON INFRASTRUCTURE SERVICES, INC.
ABRATIQUE AND ASSOCIATES, INC.

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

PROJECT NOTES: (THIS SHEET ONLY)

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



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	1
12P22 CABLE	DATA/PHONE						
48 SMFO CABLE	VIDEO/DATA		1				
12 SMFO CABLE	SH VIDEO			1			
DLC	RAMP/COUNT					5	6
	INNERDUCT		1 1/4"	1 1/4"			
CONDUIT	SIZE		4"		4"	2"	2"

7	8	9	10	11	12
2"	2"	2"	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'

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

E-12

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

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

FORM DC-OE-94 OE (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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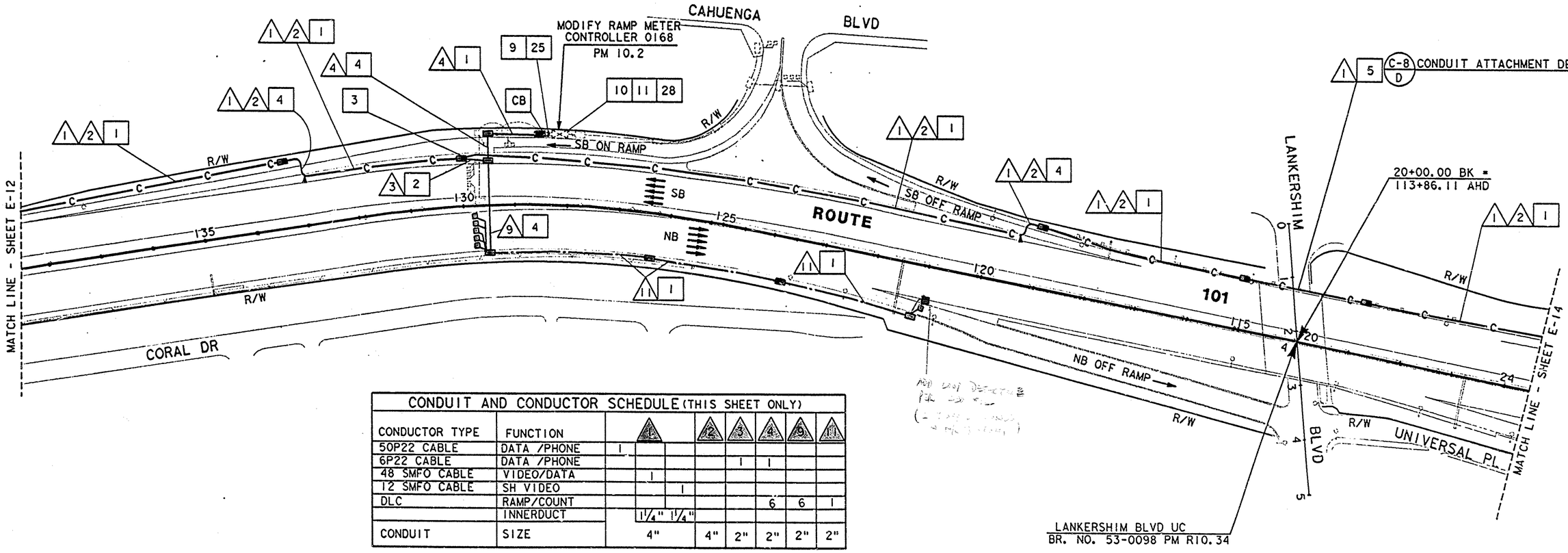
PROJECT NOTES: (THIS SHEET ONLY)

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	9	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
CHECKED BY	JZ
DATE	2/95
REVISED BY	
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
USERNAME => mikesl
DGN FILE => /usr/mikesl/PO/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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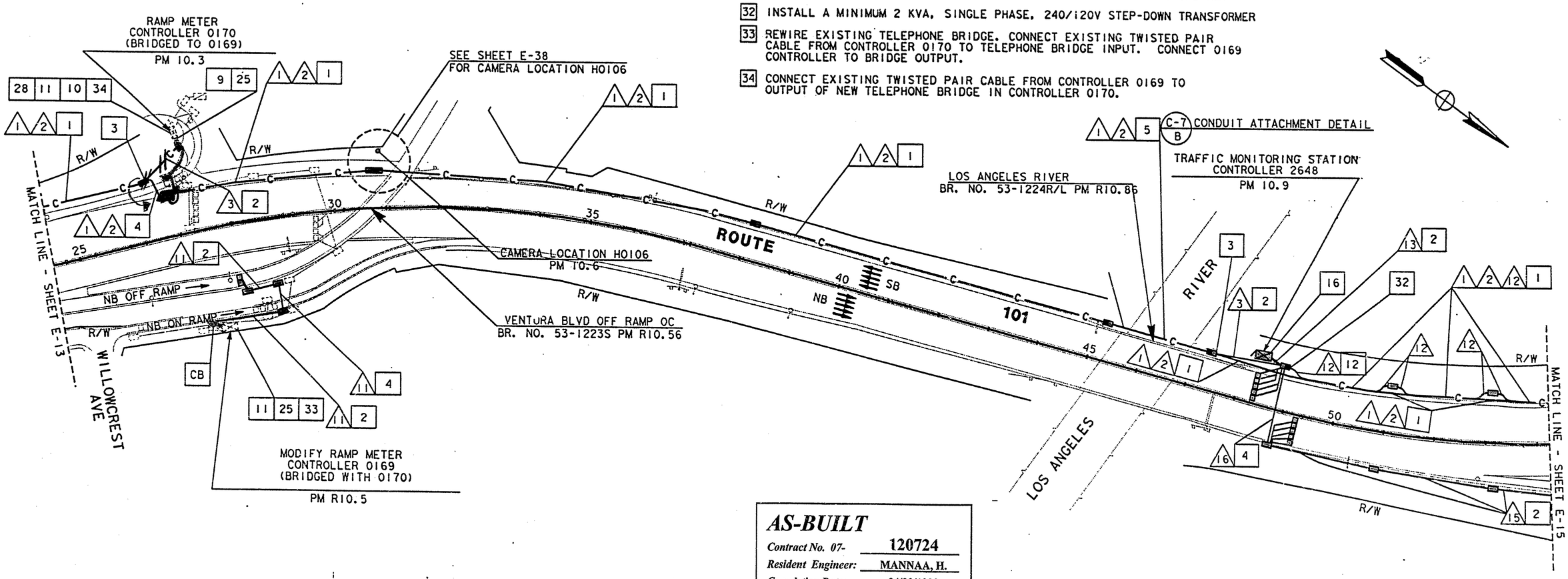
PROJECT NOTES: (THIS SHEET ONLY)

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	11	12	13	15	16
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

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

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
USERNAME => richard
DGN FILE => /usr/richard/PII/7I2072u14.
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.

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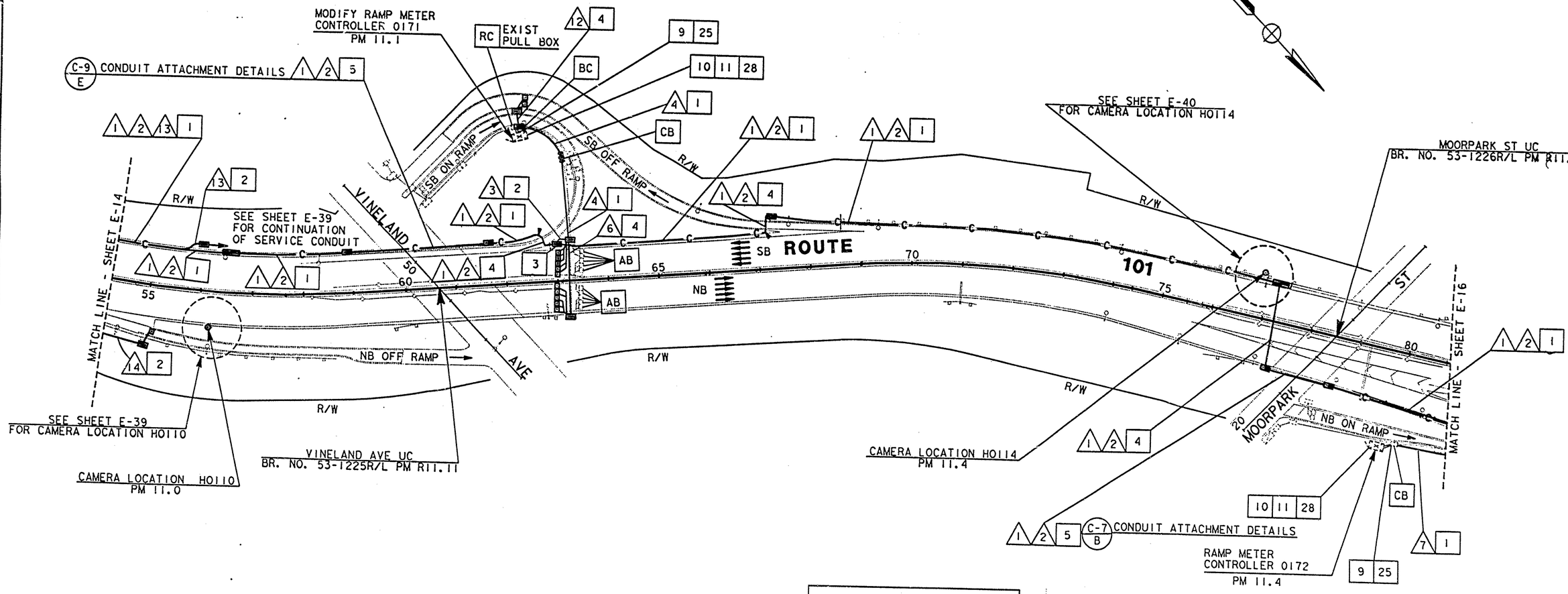
PROJECT NOTES: (THIS SHEET ONLY)

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	6	7	12	13	14
50P22 CABLE	DATA/PHONE	1								
6P22 CABLE	DATA/PHONE				1	1				
48 SMFO CABLE	VIDEO/DATA		1				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"

(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	CHECKED BY
ES	JZ
DATE 2/95	5/95
REVISED BY	DATE REVISED

PROJECT ENGINEER — PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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

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.

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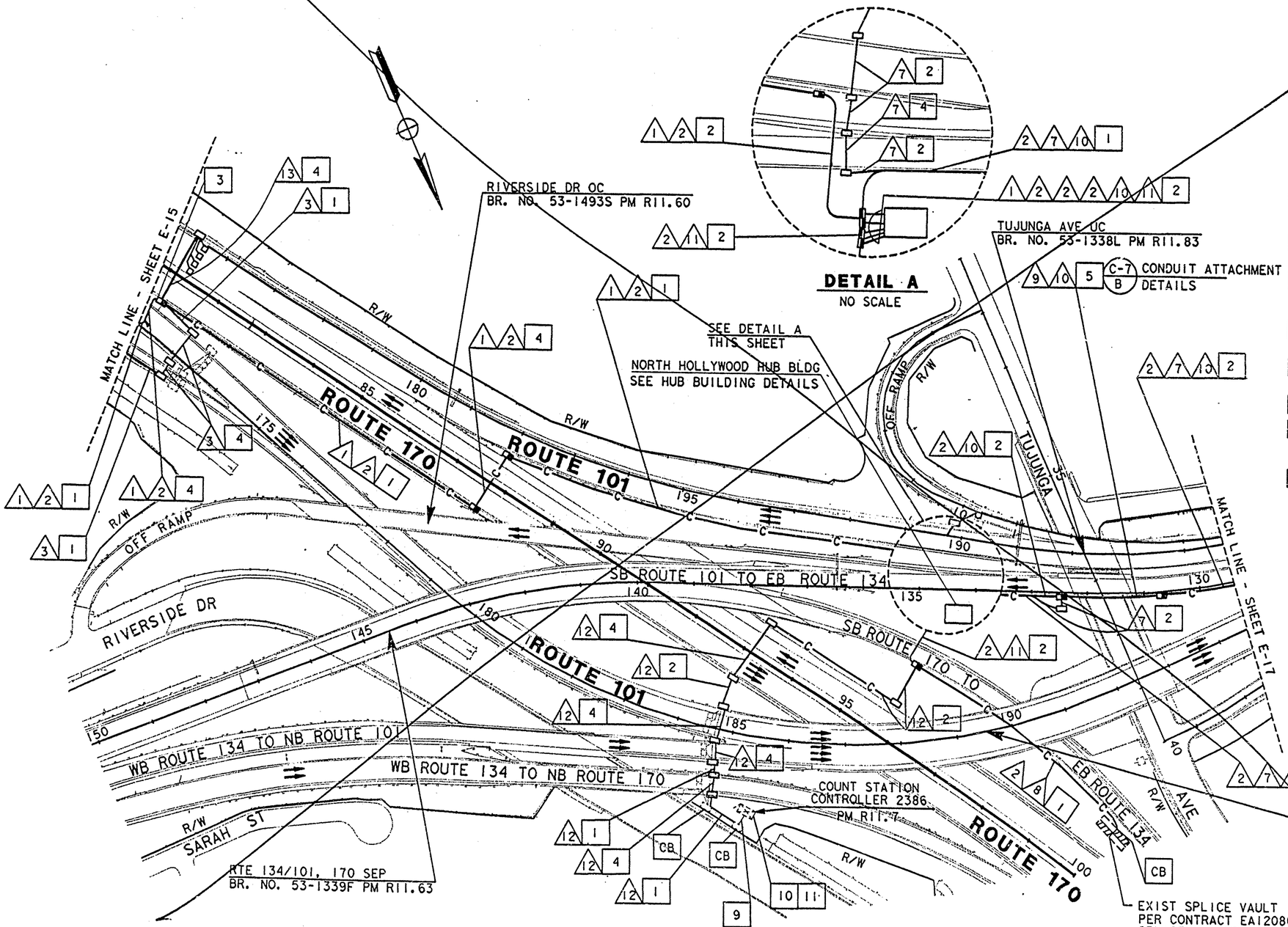
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

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							1		
24 SMFO CABLE	SH VIDEO						1					
DLC	RAMP/COUNT			4	7	1		1		1		4
	INNERDUCT	1¼" 1¼"					1¼" 1¼" 1¼" 1¼" 1¼"		1¼" 1¼"	1¼" 1¼"		
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.

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

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

XXXXXXXXXXXXXXXXXXXXXXXXXX

LAST REVISION 00-00-00 TIME PLOTTED => 19-OCT-1995 15:33

FORM DC-OE-92-PE (REV. 3/88)

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

USERNAME => mikesl
DGN FILE => /usr/inikesl/P0/712072ul6.dg

CU 07387 EA 120721

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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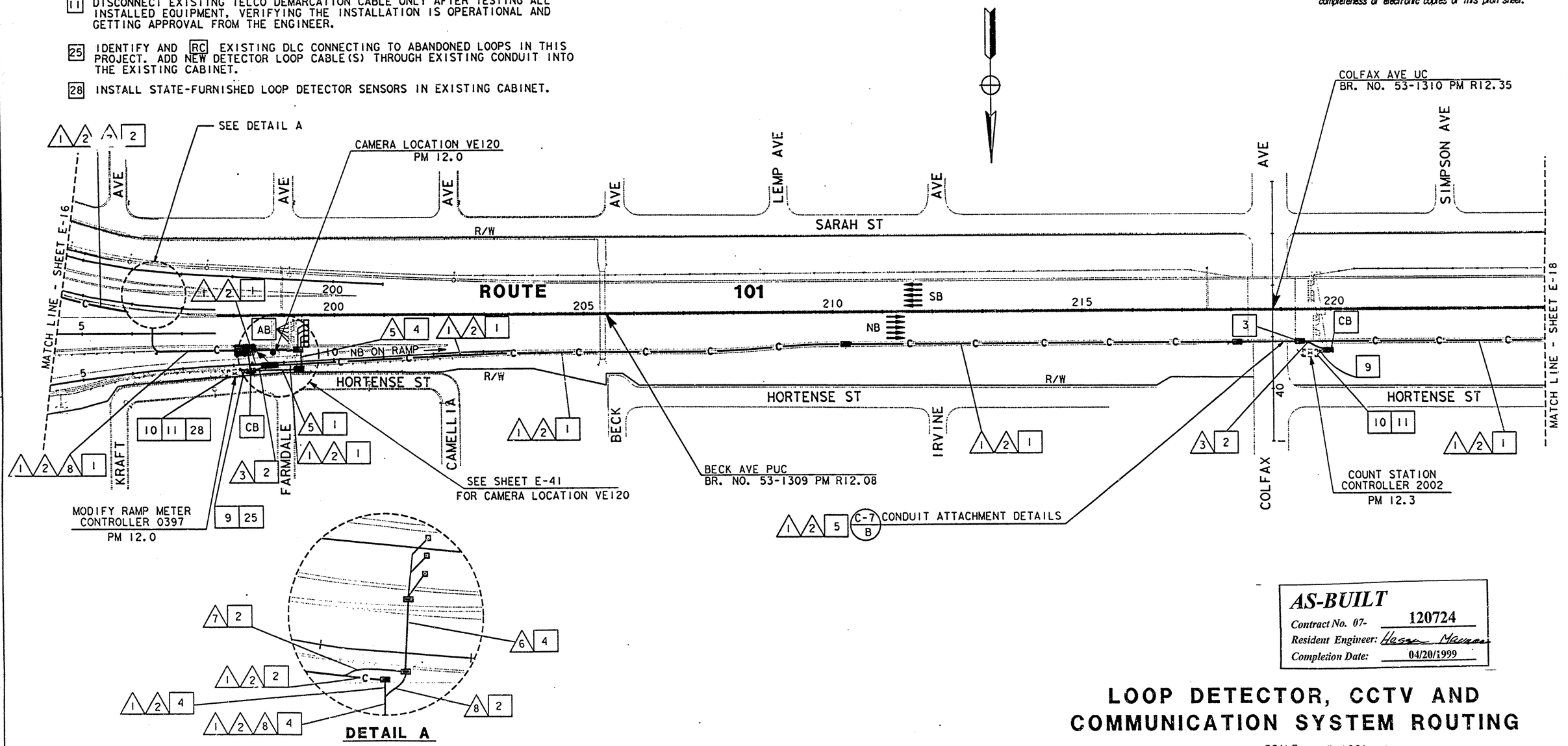
PROJECT NOTES: (THIS SHEET ONLY)

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"

(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.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hesse Mavassi
Completion Date: 04/20/1999

LOOP DETECTOR, CCTV AND COMMUNICATION SYSTEM ROUTING

SCALE: 1"=100'

E-17

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

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/P23/712072u17.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.

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.

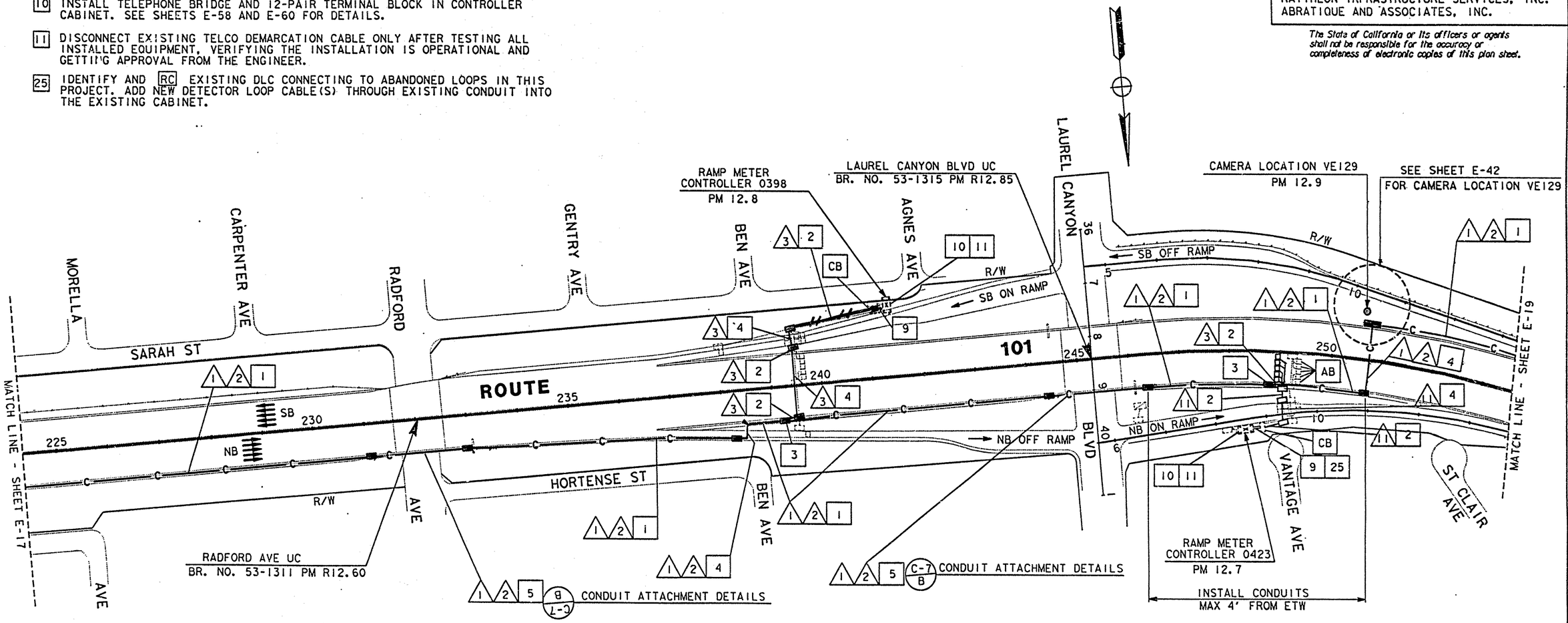
PROJECT NOTES: (THIS SHEET ONLY)

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.

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 Mikmar
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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

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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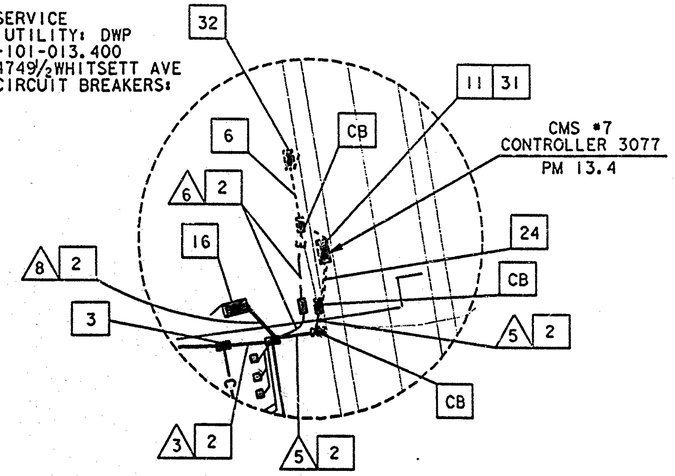
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

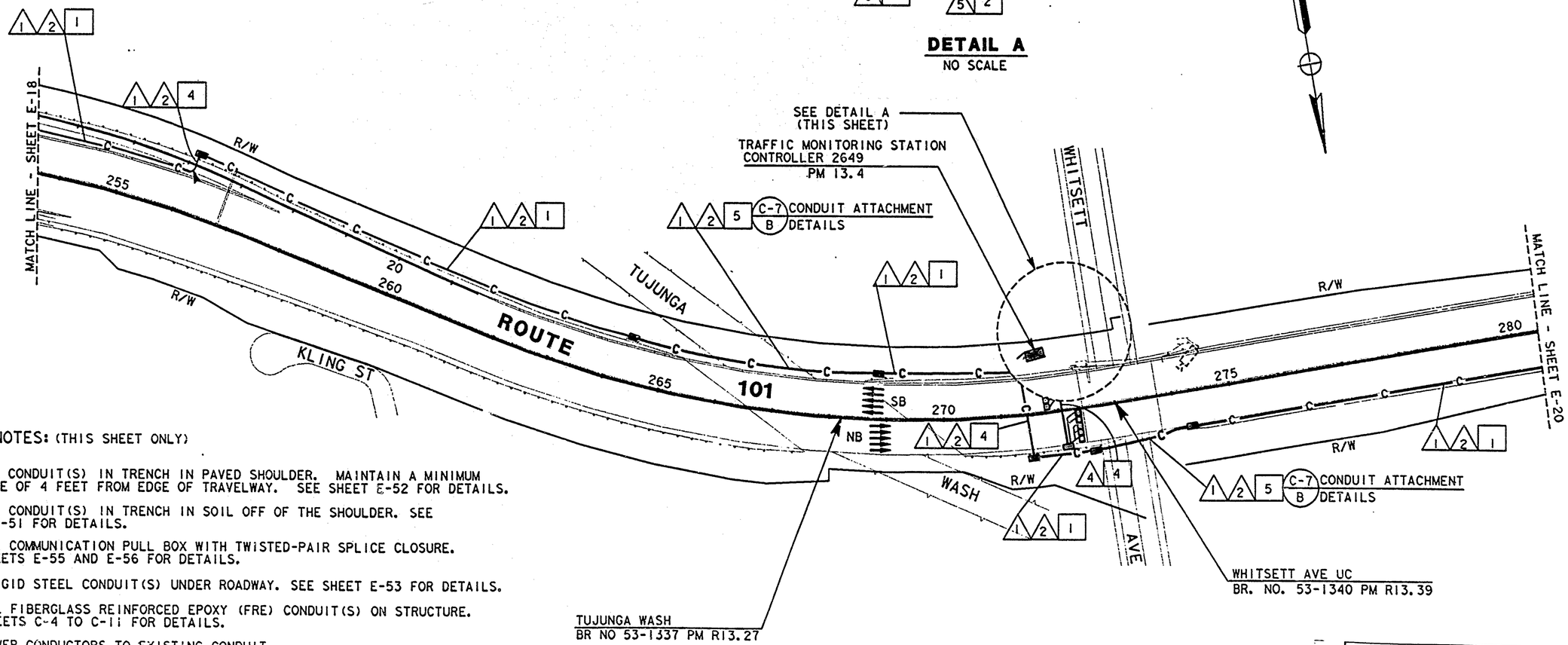
CONDUCTOR TYPE	FUNCTION	1	2	3	4	5	6	7	8
50P22 CABLE	DATA/PHONE	1							
6P22 CABLE	DATA/PHONE				1			1	
72 SMFO CABLE	VIDEO/DATA		1						
12 SMFO CABLE	SH VIDEO			1					
12P22 CABLE	DATA/PHONE				1		1		
#8	POWER							2	2
DLC	TMS					5		10	
	INNERDUCT		1¼"	1¼"					
CONDUIT	SIZE		4"	4"	2"	2"	2"	3"	3"

(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

DATE	REVISED BY	DATE REVISED
ES	JZ	5/95
2/95		

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gibbons

LAST REVISION 00-00-00
TIME PLOTTED => 19-OCT-1995 15:34

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

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

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

10-10-95
PLANS APPROVAL DATE

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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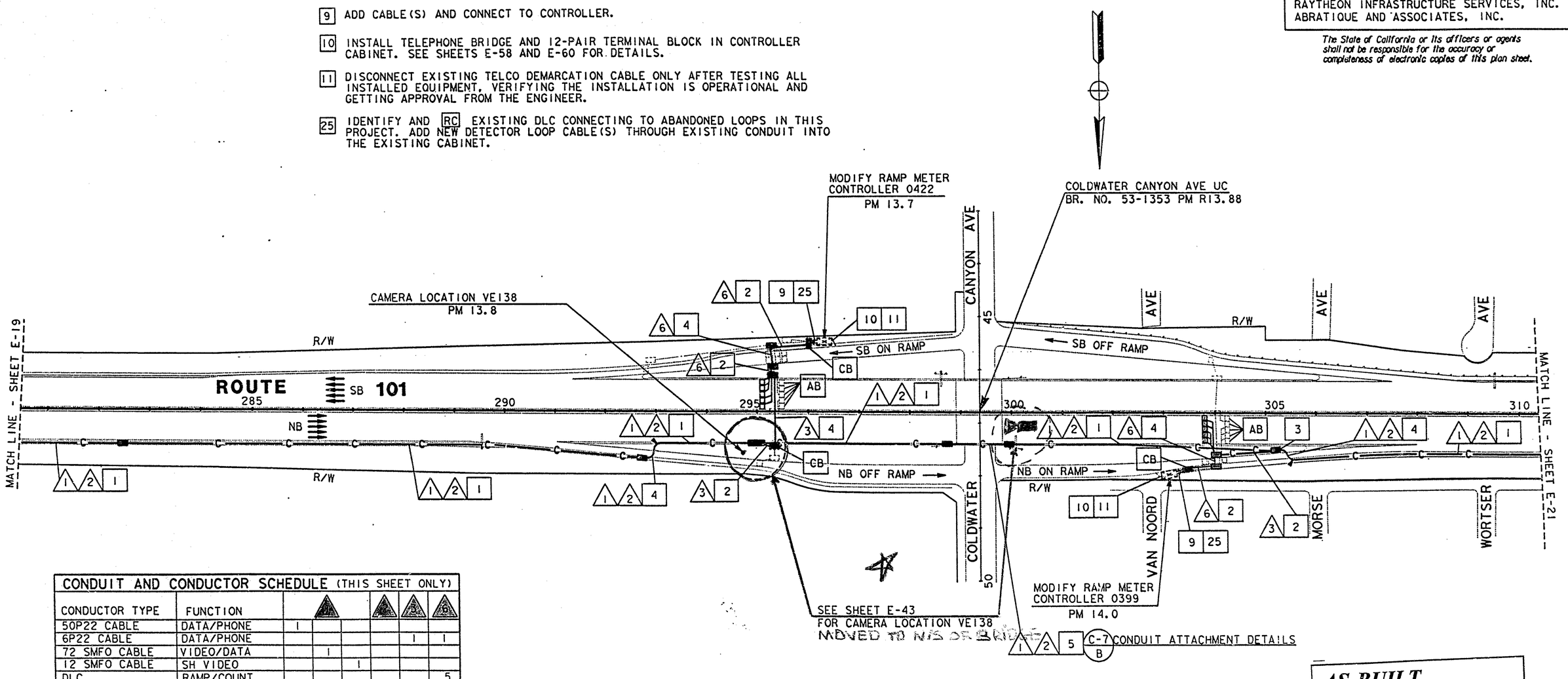
PROJECT NOTES: (THIS SHEET ONLY)

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	5
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

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

REVISED BY	DATE REVISED
ES	2/95
JZ	5/95

CALCULATED/DESIGNED BY
CHECKED BY

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

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

CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	85	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 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 111-BF 100A, 120/240V SERVICE WITH A 100A, 240V, 2P MAIN CIRCUIT BREAKER.
20. INSTALL 3" CONDUIT TYPE H SERVICE RISER ON POWER POLE.
21. INSTALL 3" RIGID STEEL CONDUIT. UTILITY COMPANY TO INSTALL CONDUCTORS.
32. INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR TMS.

DATE	REVISED BY	DATE REVISED
2/95	ES	5/95 JZ

CALCULATED/DESIGNED BY
CHECKED BY

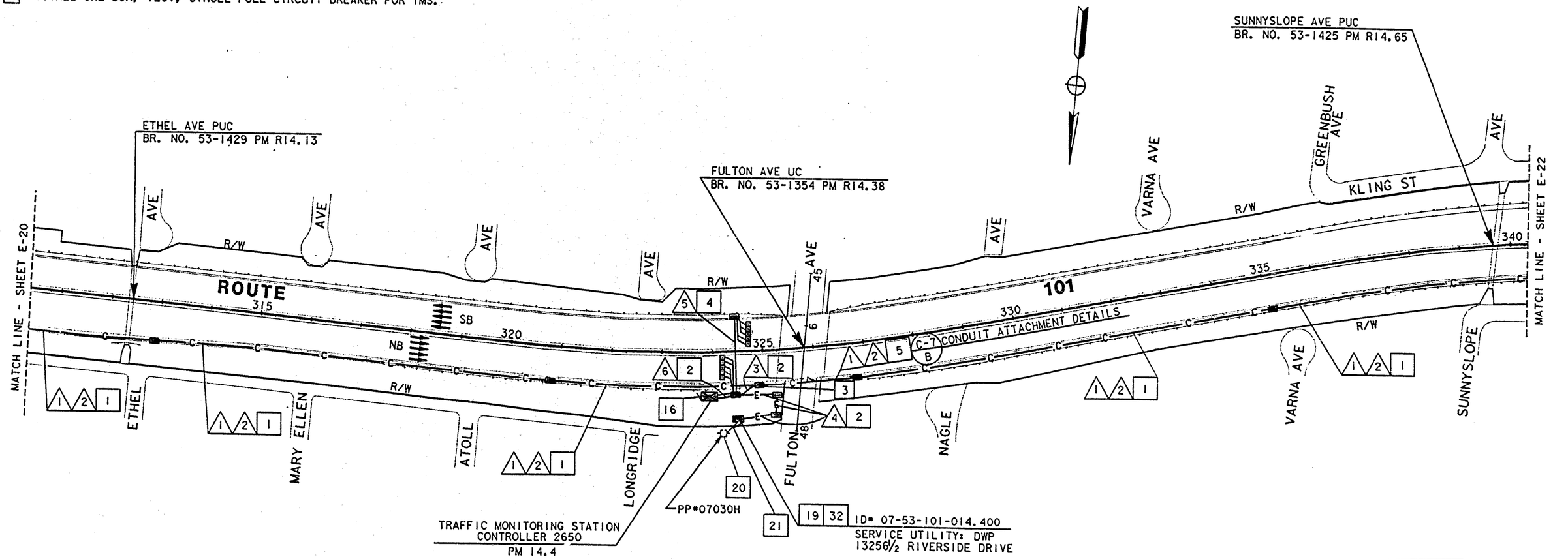
PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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				
#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



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

LAST REVISION 00-00-00
TIME PLOTTED => 19-OCT-1995 15:36

FORM DD-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/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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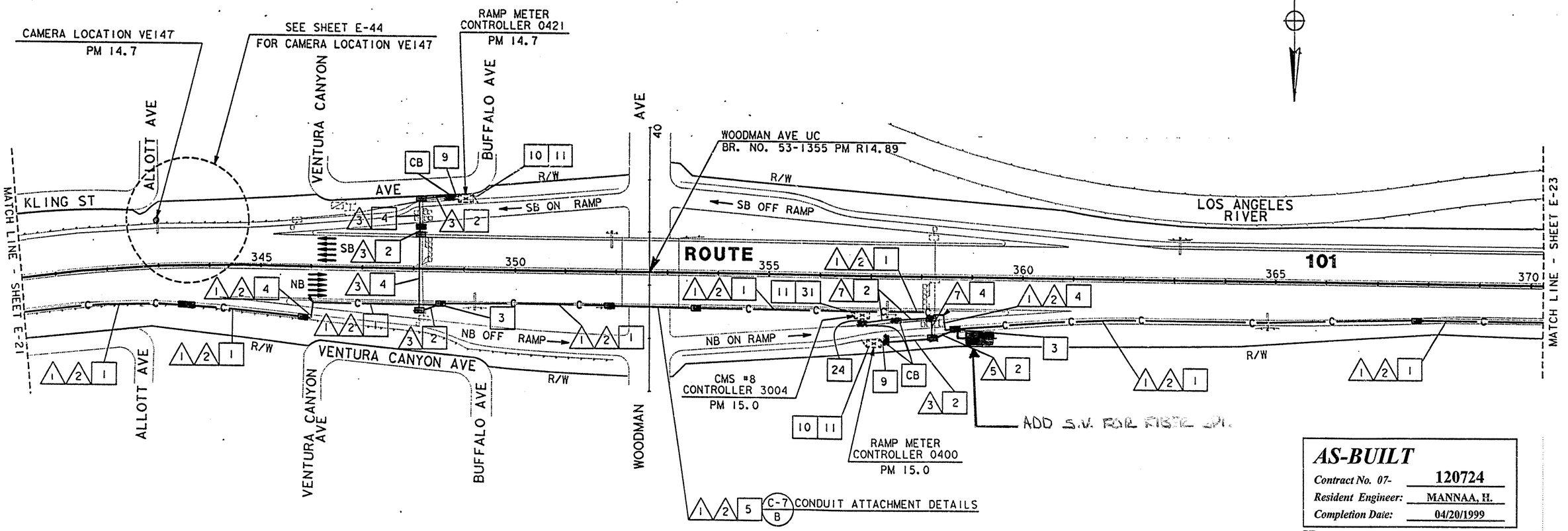
PROJECT NOTES: (THIS SHEET ONLY)

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		1¼"	1¼"			
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

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 09:03

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/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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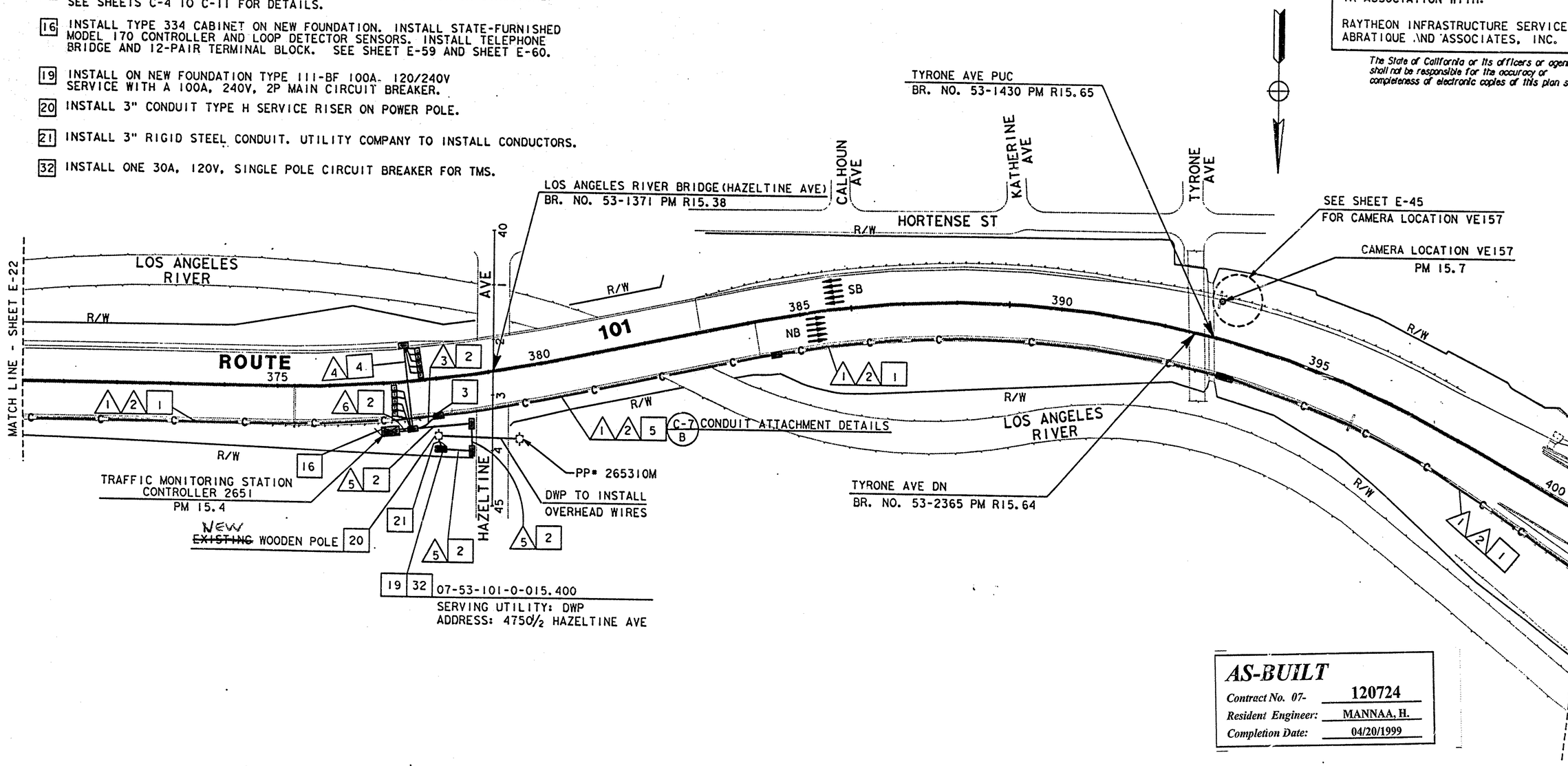
PROJECT NOTES: (THIS SHEET ONLY)

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	SH VIDEO		1				
#8	POWER					2	2
DLC	TMS				5		
	INNERDUCT	1¼"	1¼"				10
CONDUIT	SIZE	4"	4"	2"	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.

DATE	REVISED BY	DATE REVISED
2/95	ES	JZ 5/95

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 10:09

FORM DC TE-92-FF REV. 3/88)

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	88	154

Elia El-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.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	1			2	3	6	8
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.

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

USERNAME => mikesl
DGN FILE => /usr/mikesl/P0/712072u24.dg

CU 07387 | EA 120721

TIME PLOTTED => 17-OCT-1995 10:09

LAST REVISION 00-00-00

CALCULATED/ DESIGNED BY	ES	DATE 2/95
CHECKED BY	JZ	5/95

REVISED BY / DATE REVISED

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

XXXXXXXXXXXXXXXXXXXXXXXXXX

FORM DC-CE-92-PF (REV. 3/88)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	89	154

REGISTERED ELECTRICAL ENGINEER — 2/17/95

ELIA G. SAGHIR, No. E014922, Exp. 6/30/95, ELECTRICAL, REGISTERED PROFESSIONAL ENGINEER, 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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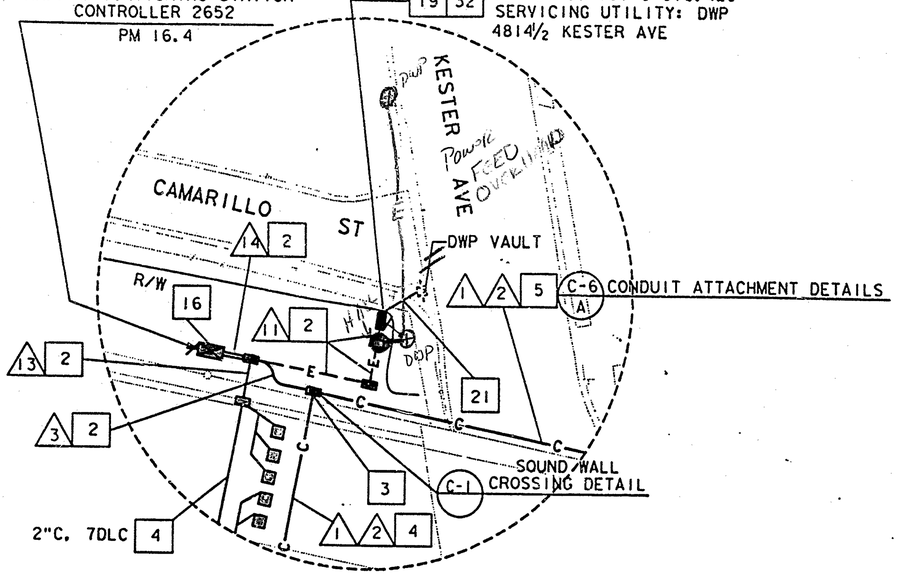
TRAFFIC MONITORING STATION
CONTROLLER 2652
PM 16.4

19 | 32 ID= 07-53-101-0-016.420
SERVICING UTILITY: DWP
4814½ KESTER AVE



DETAIL A
NO SCALE

KESTER AVE UC
BR. NO. 53-1375 PM R16.43

1 2 5 C-5 A CONDUIT ATTACHMENT DETAILS

SEE DETAIL A
THIS SHEET

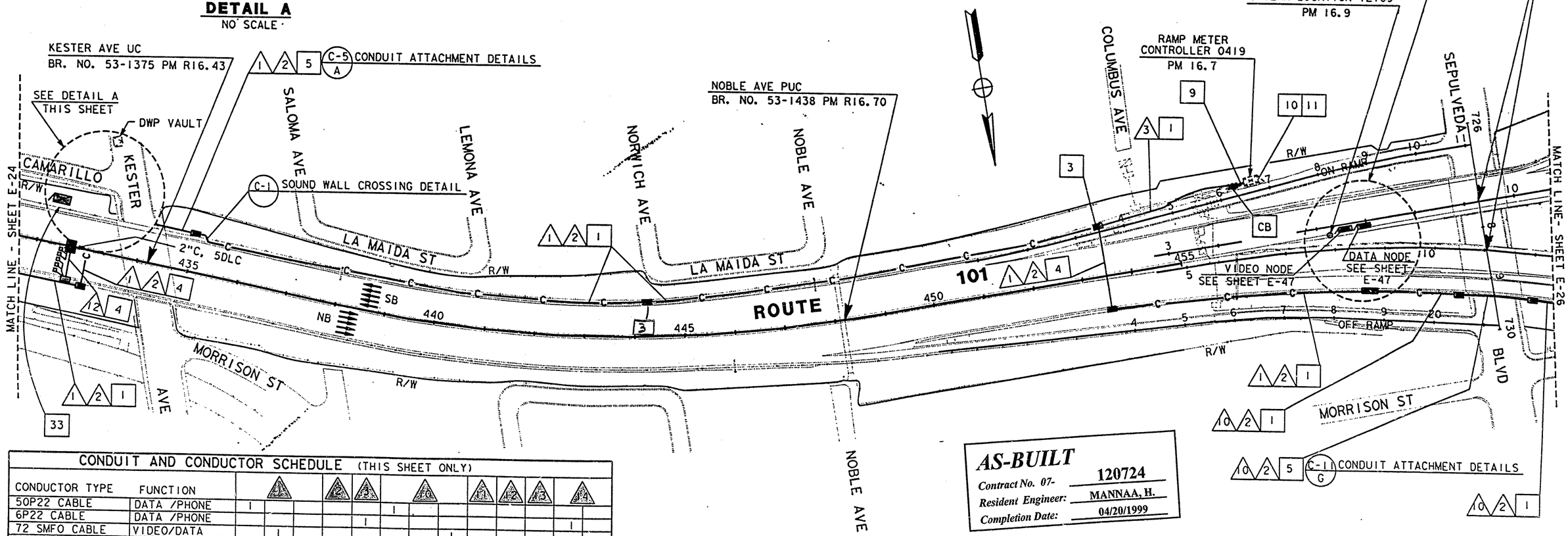
NOBLE AVE PUC
BR. NO. 53-1438 PM R16.70

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

RAMP METER
CONTROLLER 0419
PM 16.7



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	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

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

REVISED BY

PROJECT ENGINEER: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00

TIME PLOTTED => 17-OCT-1995 10:10

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USERNAME => mikesl
DGN FILE => /usr/mikesl/PO/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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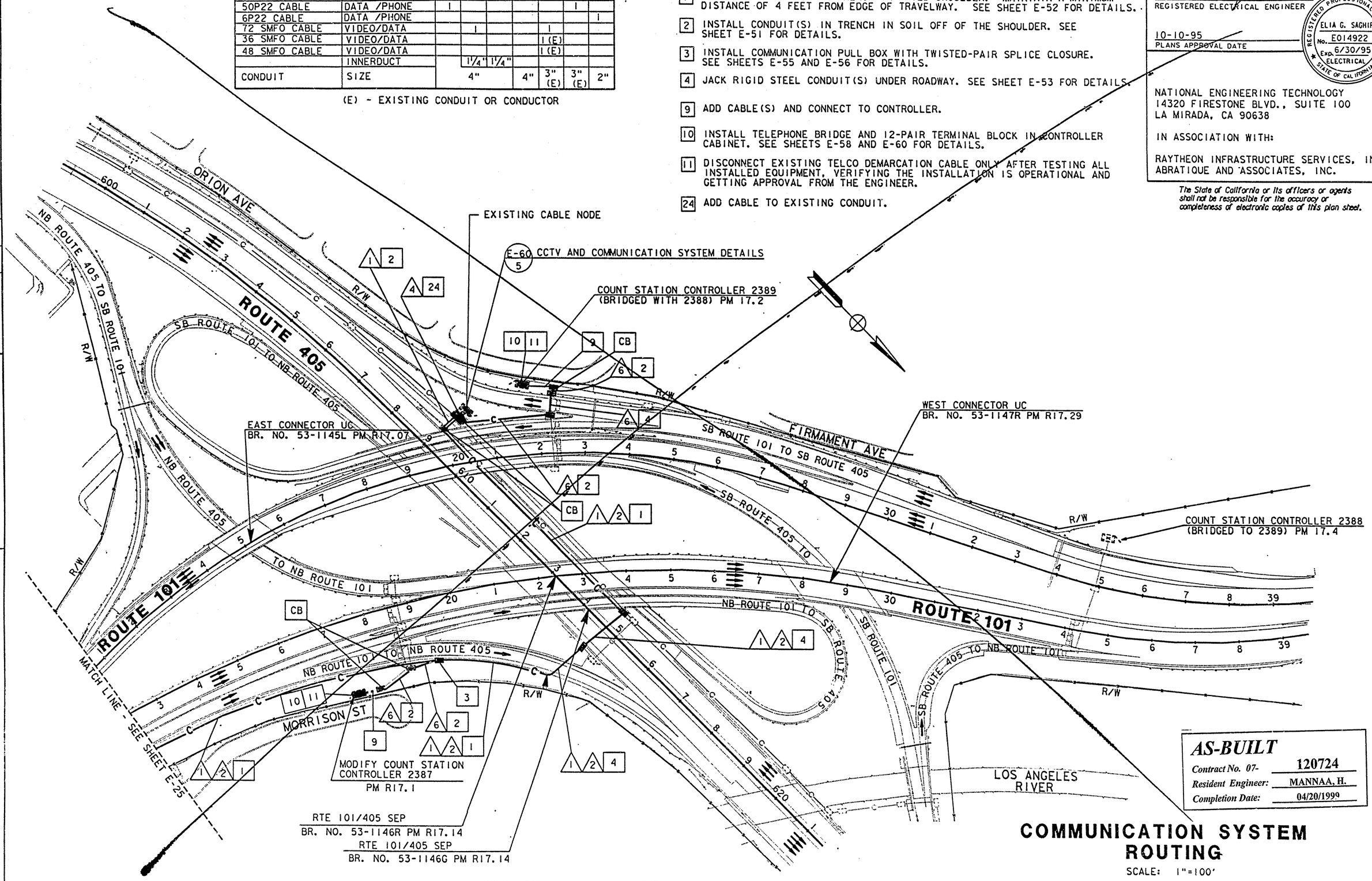
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

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

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 10:05
LAST REVISION 00-00-00

FORM DC-C-92-PF (REV. 3/88)
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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 G. Sachir 2/17/95
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

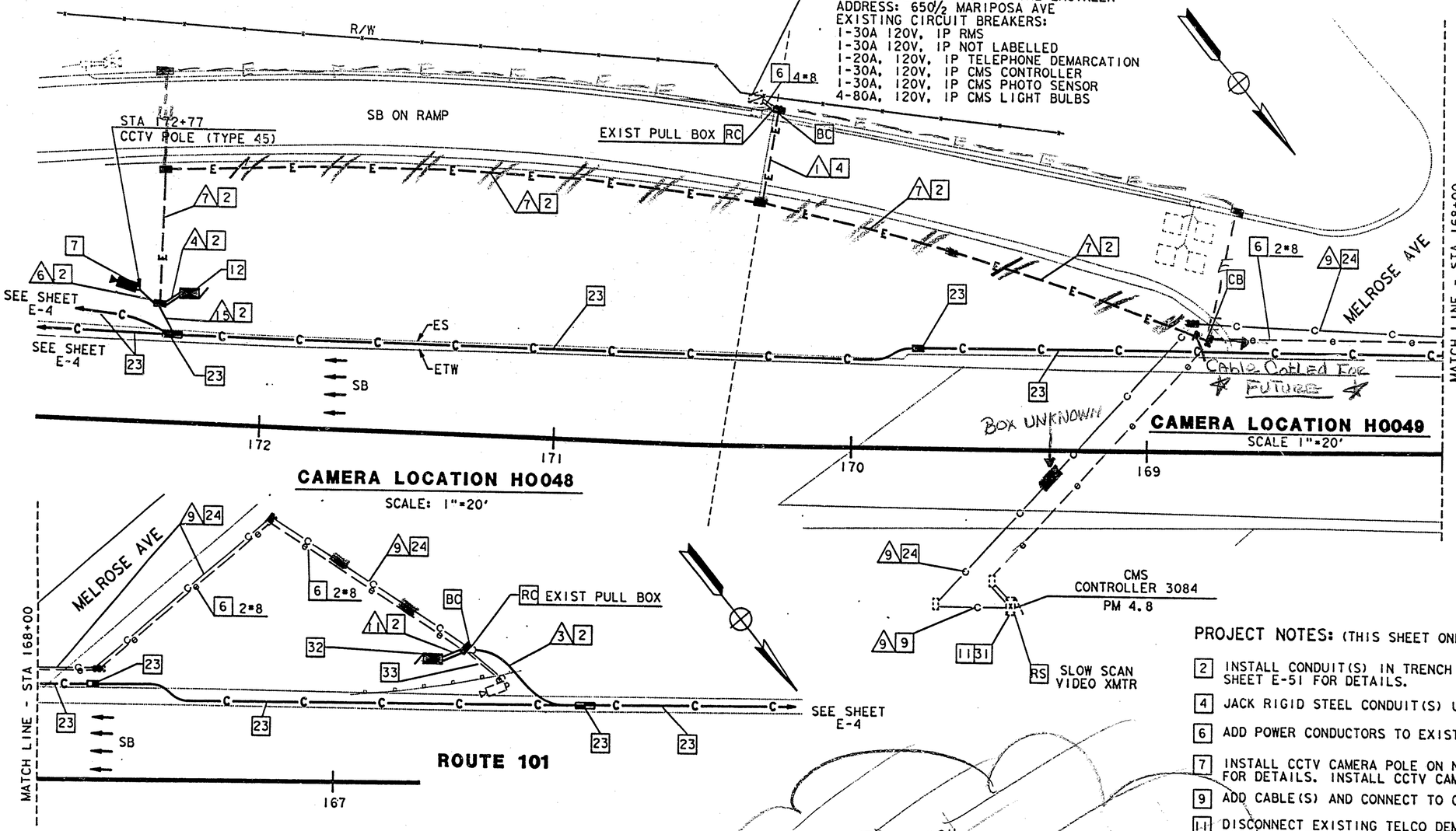
NATIONAL ENGINEERING TECHNOLOGY
14320 FIRESTONE BLVD., SUITE 100
LA MIRADA, CA 90638

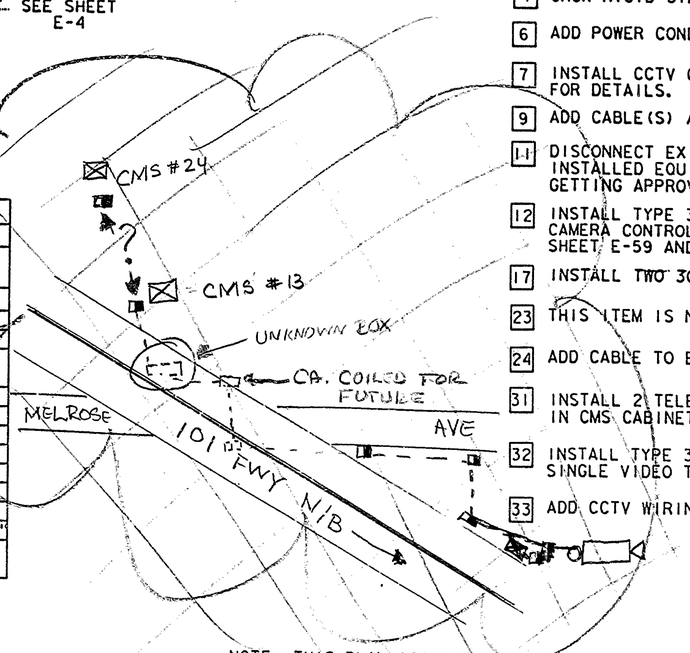
IN ASSOCIATION WITH:

RAYTHEON INFRASTRUCTURE SERVICES, INC.
ABRATIQUE AND ASSOCIATES, INC.

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.

17 EXISTING 120/240V SERVICE
SERVING UTILITY: DWP
ID# TO BE PROVIDED BY THE ENGINEER
ADDRESS: 650½ MARIPOSA AVE
EXISTING CIRCUIT BREAKERS:
1-30A 120V, 1P RMS
1-30A 120V, 1P NOT LABELLED
1-20A, 120V, 1P TELEPHONE DEMARCATION
1-30A, 120V, 1P CMS CONTROLLER
1-30A, 120V, 1P CMS PHOTO SENSOR
4-80A, 120V, 1P CMS LIGHT BULBS





CONDUCTOR TYPE	FUNCTION	RUN 1	3	4	6	7	9	11	5
6P22 CABLE	DATA /PHONE		1	1				1	1
12P22	DATA /PHONE		1						
2SMFO B/O CABLE	SH VIDEO			1			1		
SEE TABLE 1, SHEET E-1	CCTV WIRING			1		1		1	1
#8	POWER	4			2		2		
				1				2	
2P18	TELCO						1 (E)		
	INNERDUCT		1¼"						1¼"
	CONDUIT SIZE	2"	3"	3"	3"	2"	2"	2" (E)	3"	3"

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

(E) - EXISTING CONDUIT OR CONDUCTOR

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.

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

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

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

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LAST REVISION 00-00-00
TIME PLOTTED => 23-OCT-1995 12:45

FORM DC-OE-92-PE (REV. 3/88)

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USERNAME => mlkesl
/usr/mlkesl/P0/712072u27.dg

CU 07387 EA 120721

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.

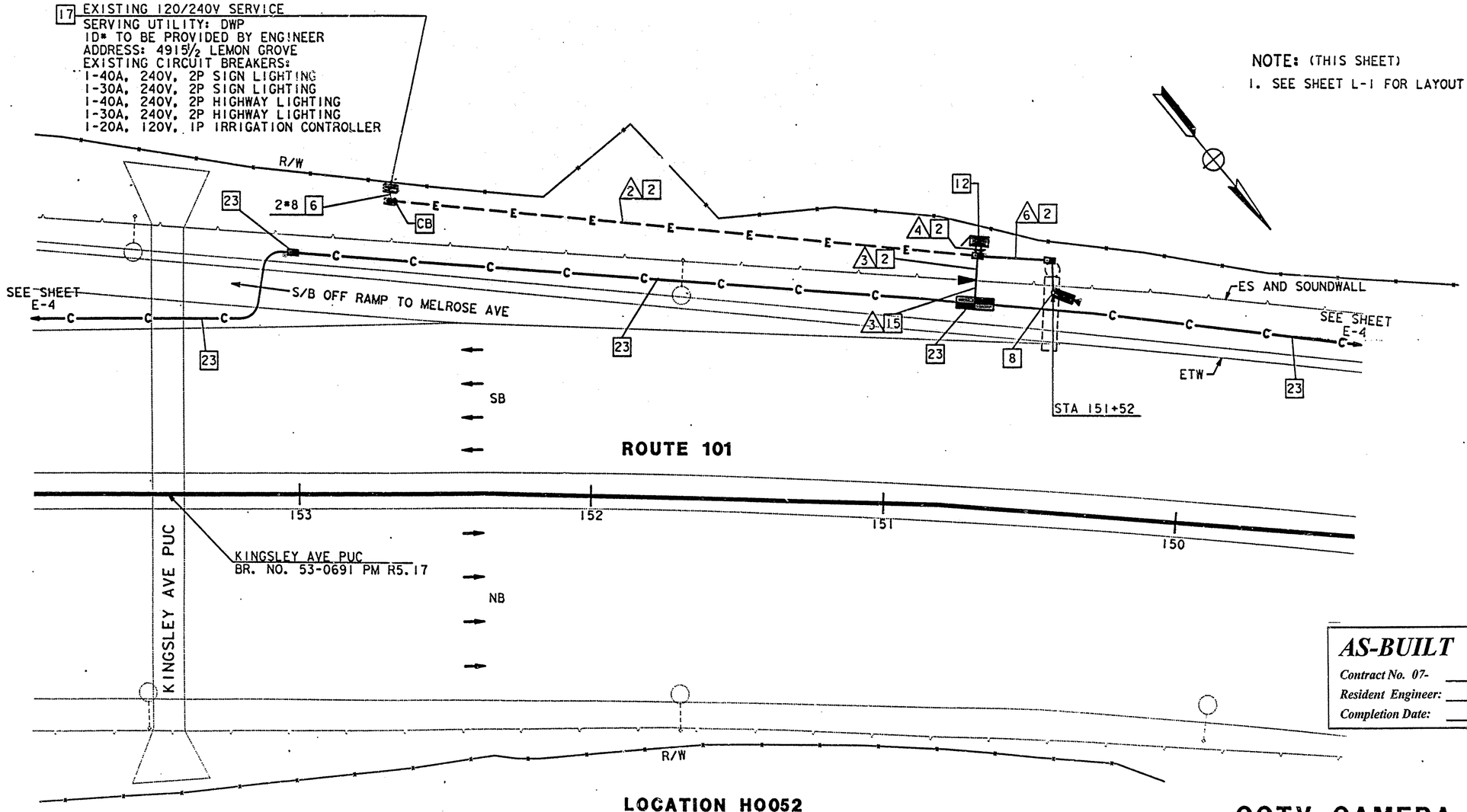
17 INSTALL ONE 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR CCTV.

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 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		1 1/4"			
	CONDUIT SIZE	2"	3"	3"	3"	2"

17 EXISTING 120/240V SERVICE
SERVING UTILITY: DWP
ID* TO BE PROVIDED BY ENGINEER
ADDRESS: 4915 1/2 LEMON GROVE
EXISTING CIRCUIT BREAKERS:
1-40A, 240V, 2P SIGN LIGHTING
1-30A, 240V, 2P SIGN LIGHTING
1-40A, 240V, 2P HIGHWAY LIGHTING
1-30A, 240V, 2P HIGHWAY LIGHTING
1-20A, 120V, 1P IRRIGATION CONTROLLER



NOTE: (THIS SHEET)
1. SEE SHEET L-1 FOR LAYOUT DETAILS.

LOCATION H0052

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.

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

E-28

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

XXXXXXXXXXXXXXXXXXXXXXXX

TIME PLOTTED => 17-OCT-1995 10:06
LAST REVISION 00-00-00

FORM DC-[illegible]E-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. Sachir 2/17/95
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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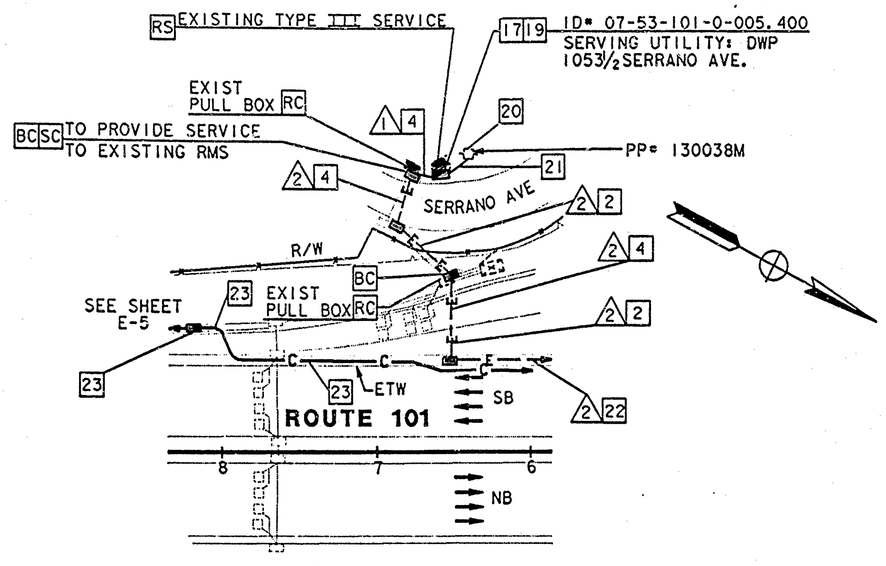
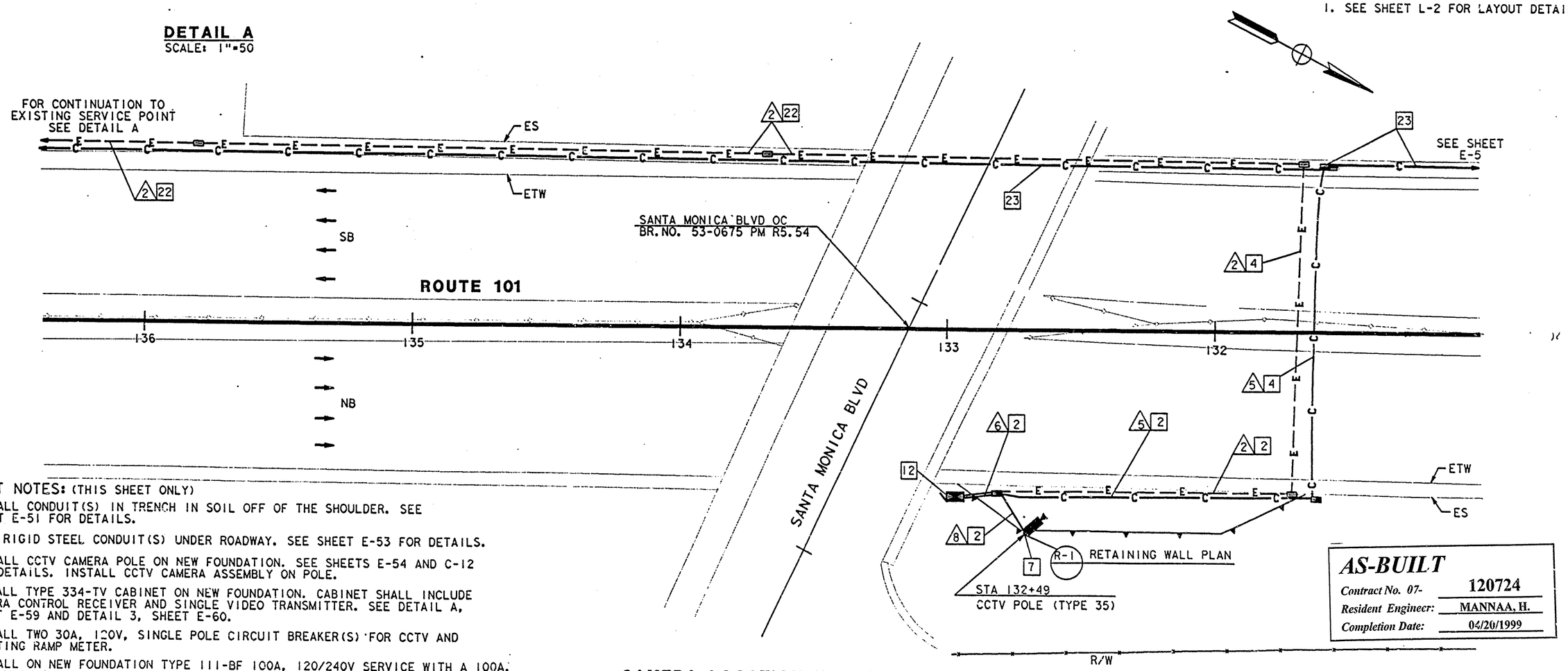


DETAIL A
SCALE: 1"=50

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 5	RUN 6	RUN 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	
#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 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 => 19-OCT-1995 15:36
LAST REVISION 00-00-00

FORM SC-CE-92-PF (REV. 3/88)

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

USERNAME => mlkesl
/usr/mlkesl/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

Edlia 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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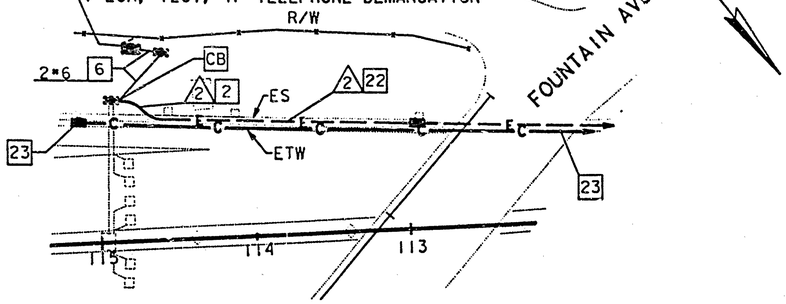
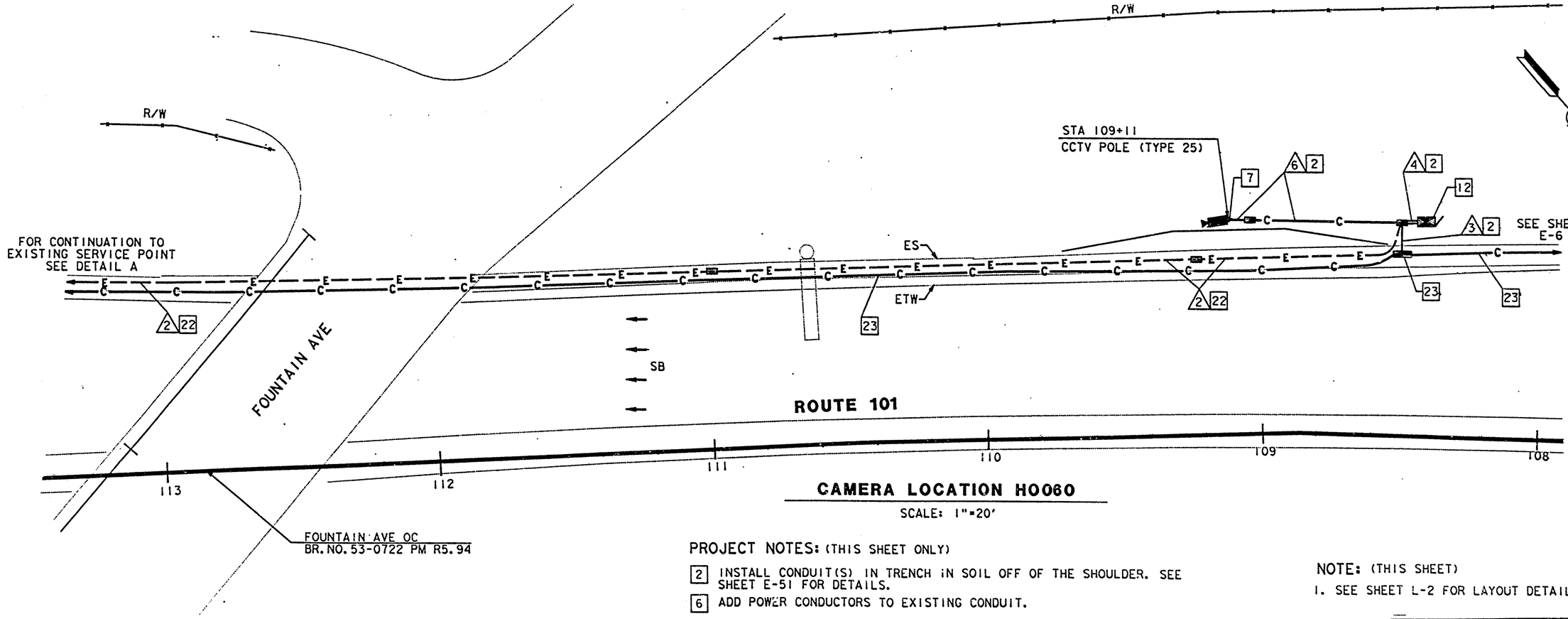
17 EXISTING 120/240V SERVICE
SERVING UTILITY: DWP
ID# TO BE PROVIDED BY THE ENGINEER
ADDRESS: 1260½ ANDREWS ST
EXISTING CIRCUIT BREAKERS:
1-20A, 120V, IP RAMP METERING
1-20A, 120V, IP TELEPHONE DEMARCATION



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
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"



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 L-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
DM	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 => 23-OCT-1995 12:19

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mlkesl /usr/mlkesl/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. Sachir 2/17/95
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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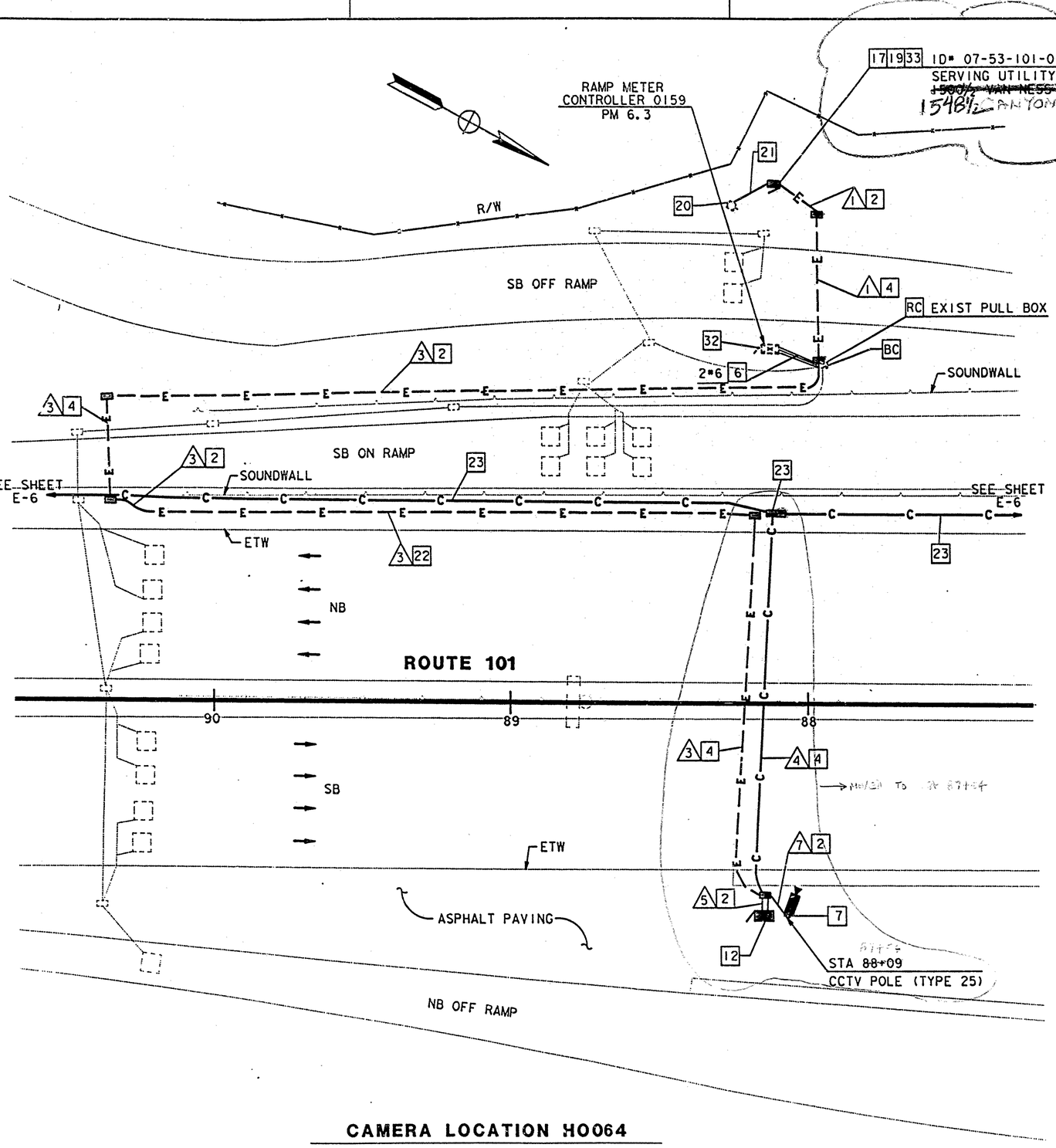

CAMERA LOCATION H0064

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 3	RUN 4	RUN 5	RUN 6	RUN 7
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

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

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
DM	2/95		
CHECKED BY			
ES	5/95		

LAST REVISION 00-00-00 — TIME PLOTTED => 17-OCT-1995 13:23

FORM DC-E-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	13	14 *
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			2	2		2
DLC	RAMP/COUNT		2	3		1			1
	INNERDUCT				1 1/4"				1 1/4"
	CONDUIT SIZE	2"	2"	2"	3"	2"	3"	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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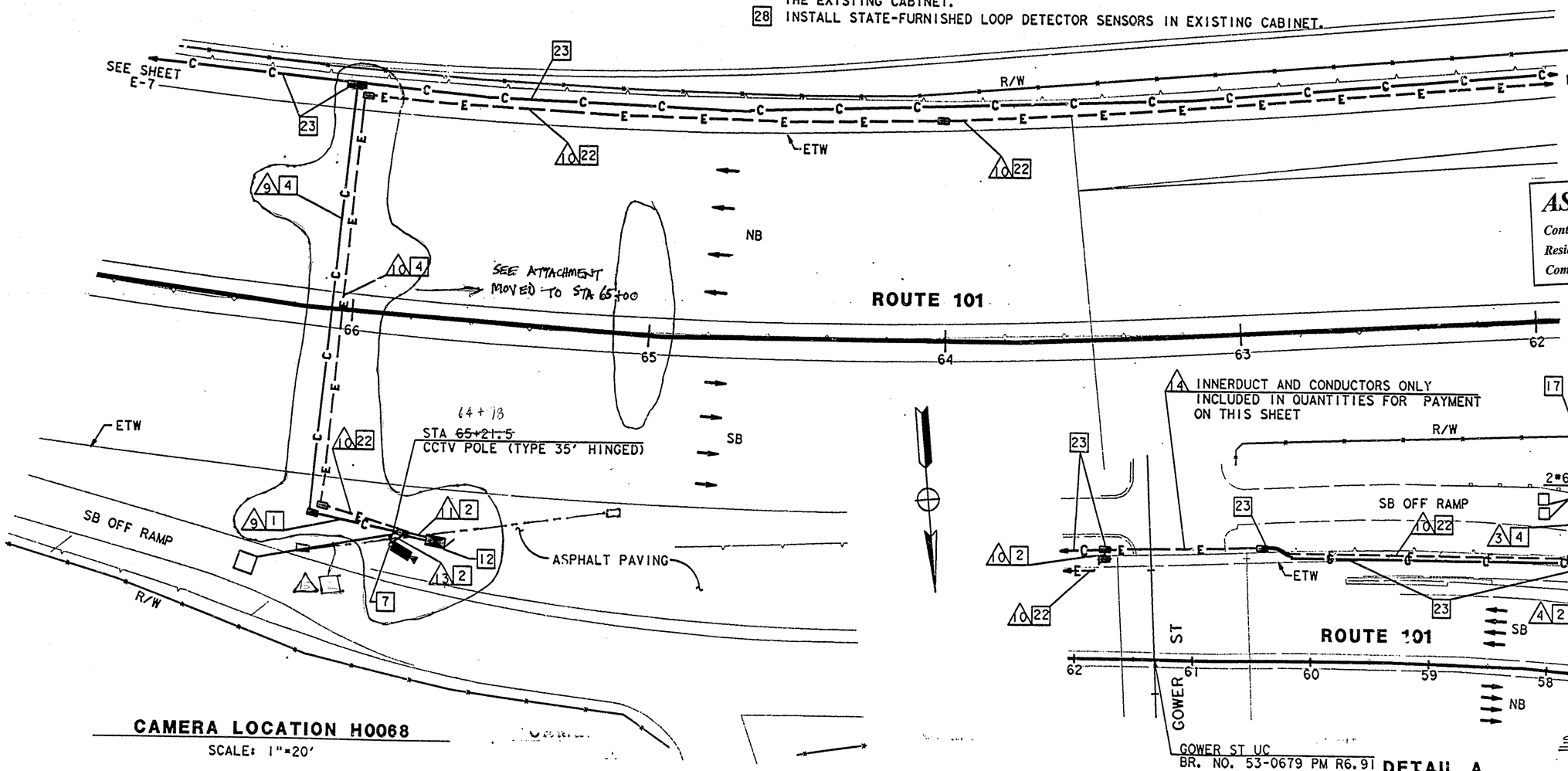


CAMERA LOCATION H0068
SCALE: 1"=20'

DETAIL A
SCALE: 1"=50'

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

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 15:37

FORM DC-OE-92-PE (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
				96A	

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

DATE	REVISED BY	DATE REVISED

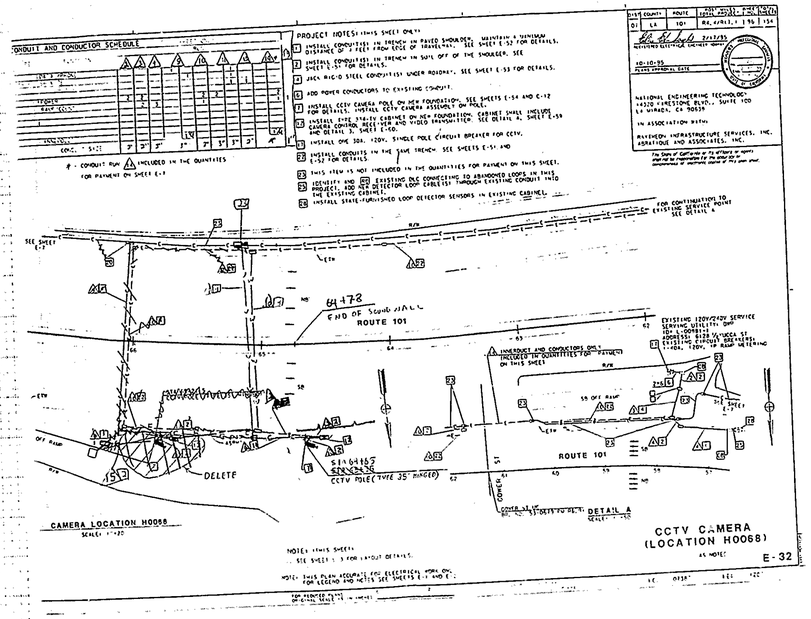
CALCULATED/ DESIGNED BY

CHECKED BY

PROJECT ENGINEER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



AS-BUILT

Contract No. 07- 120724

Resident Engineer: MANNAA, H.

Completion Date: 04/20/1999

Station

Cu. yds. Exc. Emb.

FOR REVISED PLANS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	97	154

Edin 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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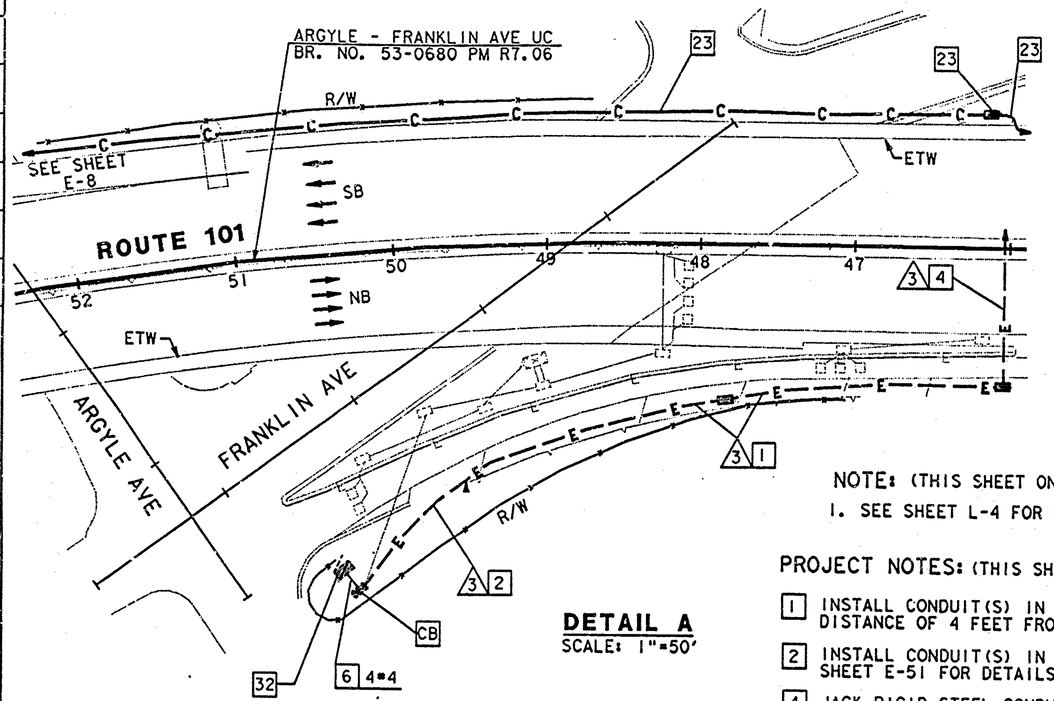


DETAIL A
SCALE: 1"=50'

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

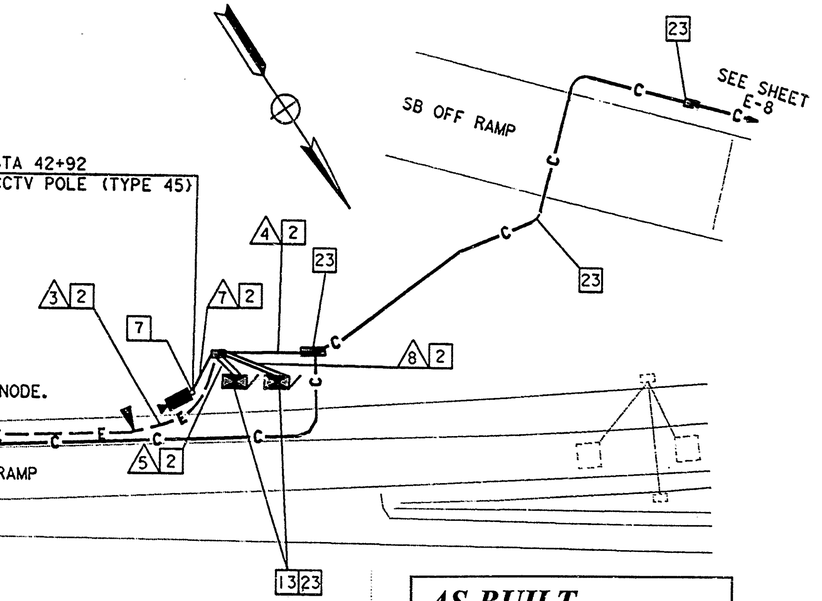
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 2	RUN 4	RUN 5	RUN 7	RUN 8
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

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
DM	2/95	ES	5/95
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 DOT-E-92-4F (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 E. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

PROFESSIONAL ENGINEER REGISTERED 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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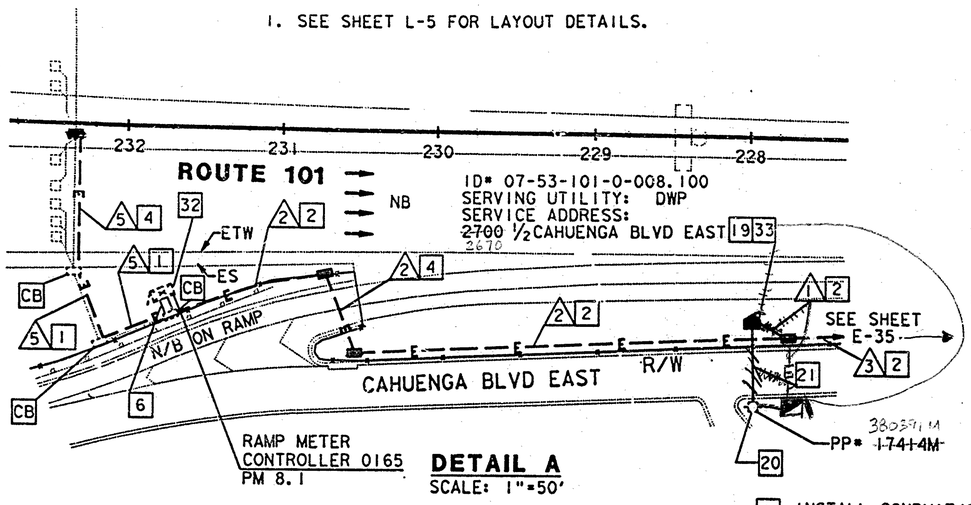
NOTE: (THIS SHEET)

1. SEE SHEET L-5 FOR LAYOUT DETAILS.

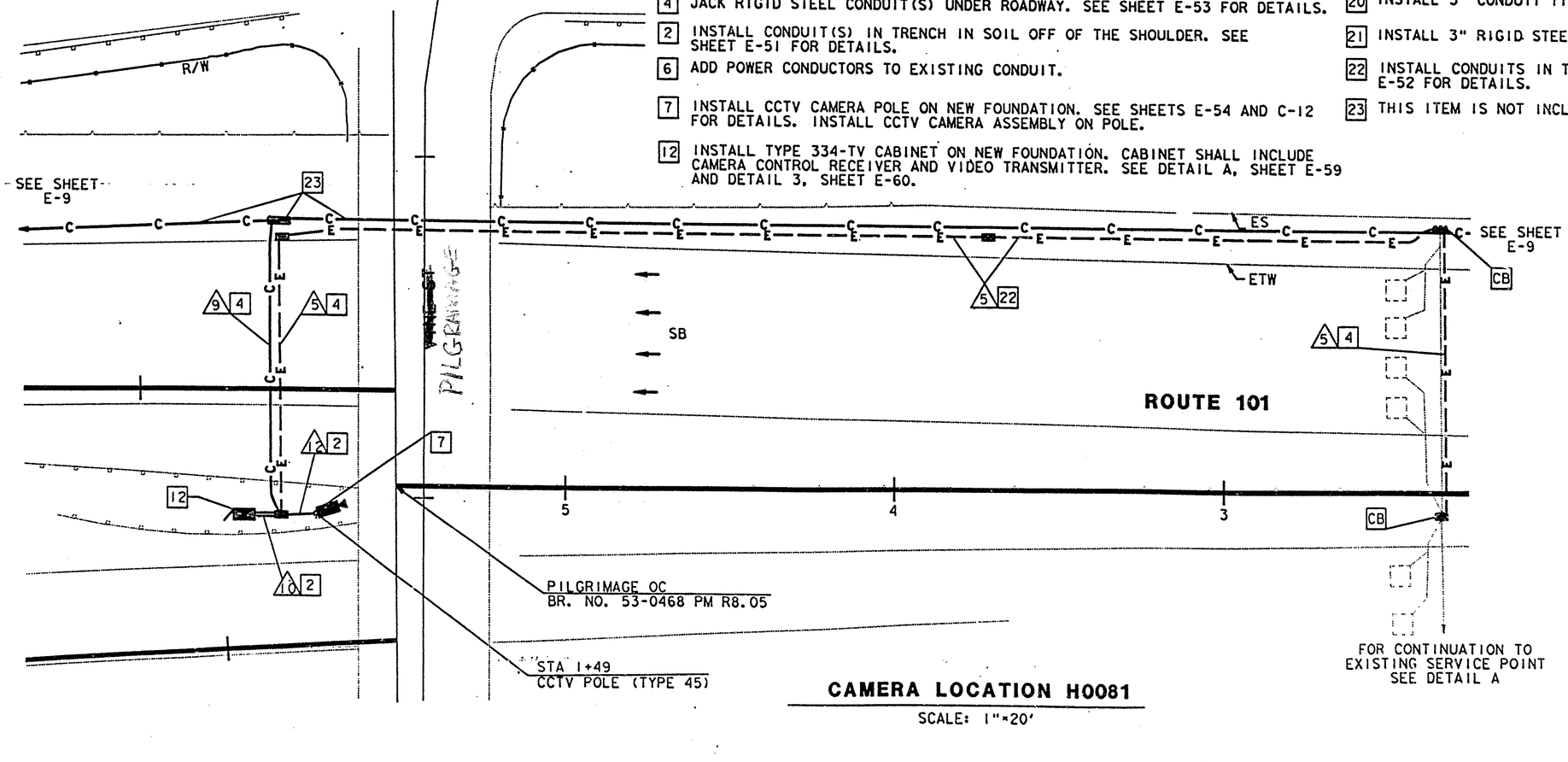


DETAIL A
SCALE: 1"=50'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)											
CONDUCTOR TYPE	FUNCTION	RUN									
		1	2	3	5	9			10	12	
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							
						1¼"	1¼	1¼"			
	CONDUIT SIZE	2"	2"	2"	2"	4"			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
2/95	DM	5/95 ES

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER
PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gibbons
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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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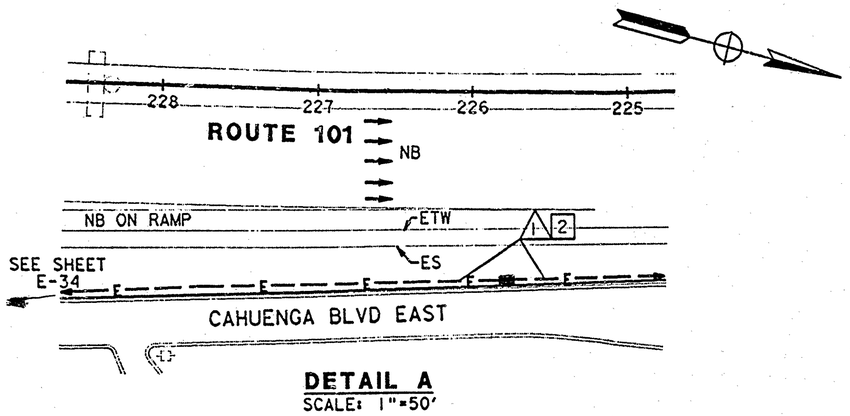


DETAIL A
SCALE: 1"=50'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 5	RUN 6	RUN 7
6P22 CABLE	DATA /PHONE		2		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	4		2			2
	INNERDUCT		1 1/4"				
	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.

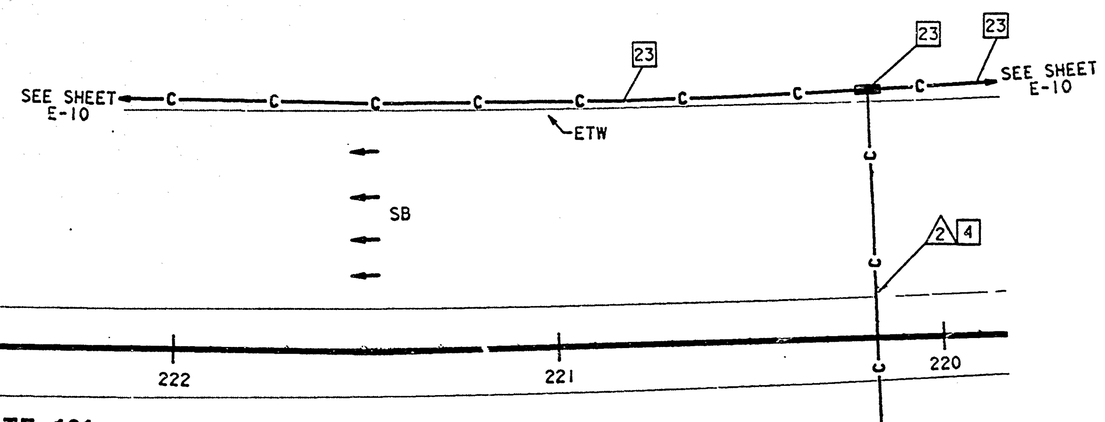
4 JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY. SEE SHEET E-53 FOR DETAILS.

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.



AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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

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

LAST REVISION 00-00-00

FORM 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. Sachir 2/17/95
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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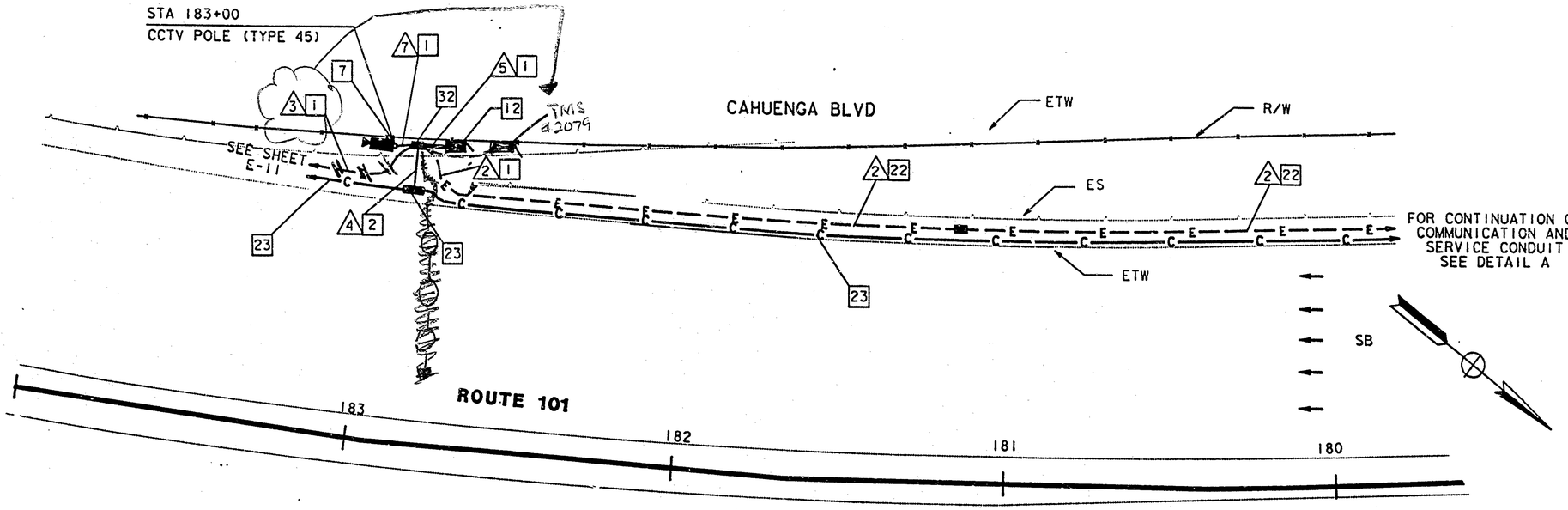


CAMERA LOCATION H0090

SCALE: 1"=20'

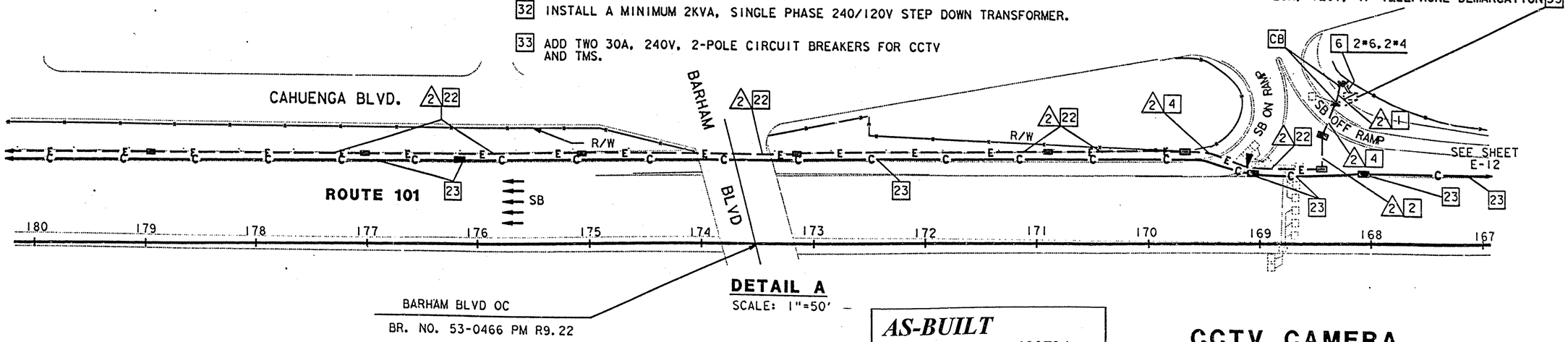
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
	FUNCTION	RUN						
		▲	▲	▲	▲			
6P22 CABLE	DATA /PHONE			1			1	
2SMFO B/O CABLE	SH VIDEO				1		1	
SEE TABLE 1, SHEET E-1	CCTV WIRING						1	1
#6	POWER	2				2		
#4	POWER	2	2					1
	INNERDUCT			1¼"				
	CONDUIT SIZE	2"	2"	3"	3"	3"	2"	

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



DETAIL A

SCALE: 1"=50'

AS-BUILT
Contract No. 07- 120724
Resident Engineer: Hasan Maruas
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 H0090)

SCALE: AS NOTED

E-36

DATE	REVISED BY	DATE REVISED
2/95	DM	5/95 ES

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

XXXXXXXXXXXXXXXXXXXXXXXXXXXX
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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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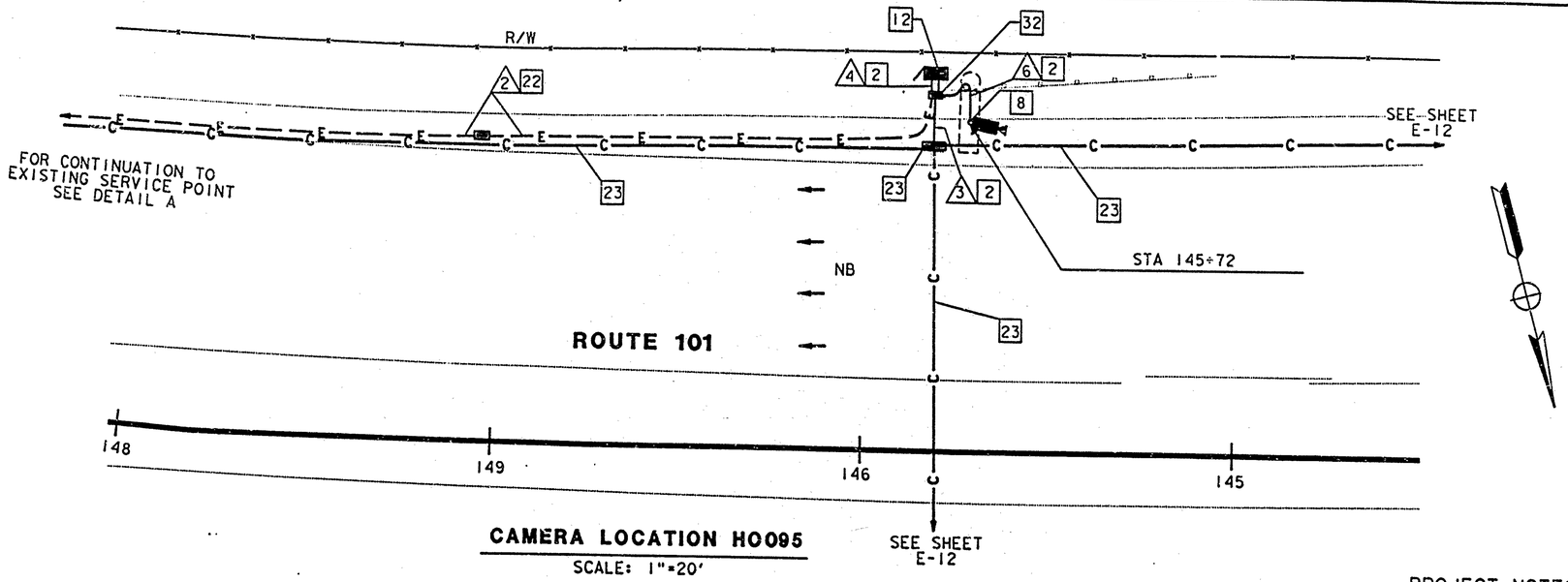
DGN FILE => /usr/mikesl/PO/712072u36.dg
CU 07387
EA 120721



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.

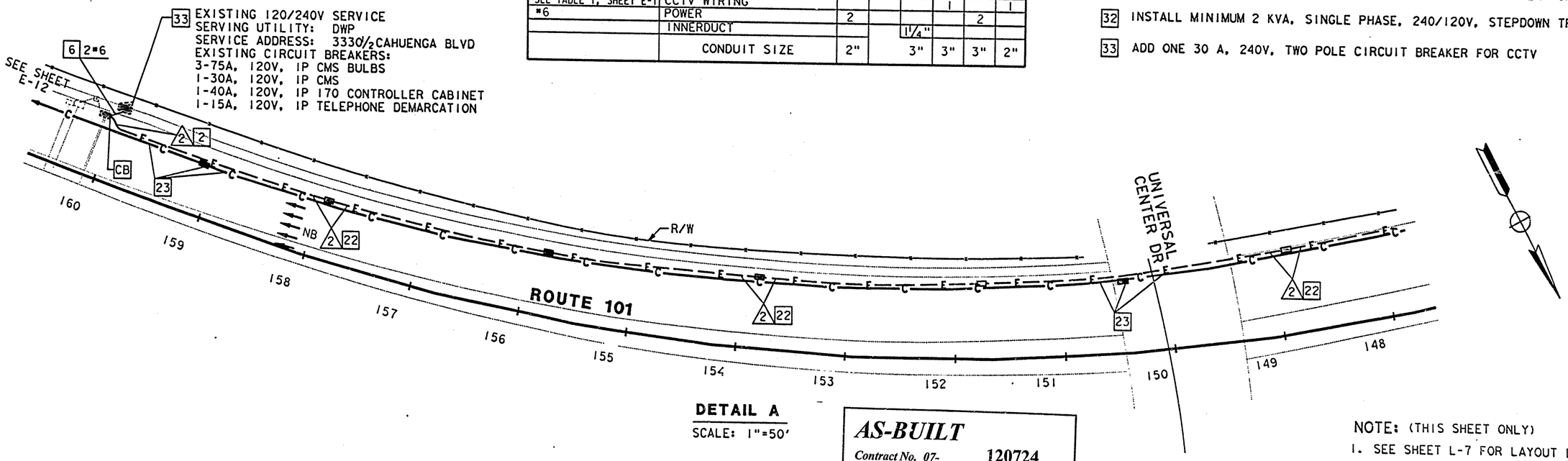
[8] INSTALL CCTV CAMERA ON EXISTING SIGN STRUCTURE. SEE SHEETS E-54 AND C-13 FOR DETAILS.

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

NOTE: (THIS SHEET ONLY)
1. SEE SHEET L-7 FOR LAYOUT DETAILS.

CCTV CAMERA (LOCATION HO095)

AS NOTED

E-37

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

Elias Ed. 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	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 10:37

FORM DC-SF-92-PF (REV. 3/88)

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

USERNAME => mikes!
/usr/mikes1/P0/712072u37.dg

CU 07387

EA 120721

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			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"

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.

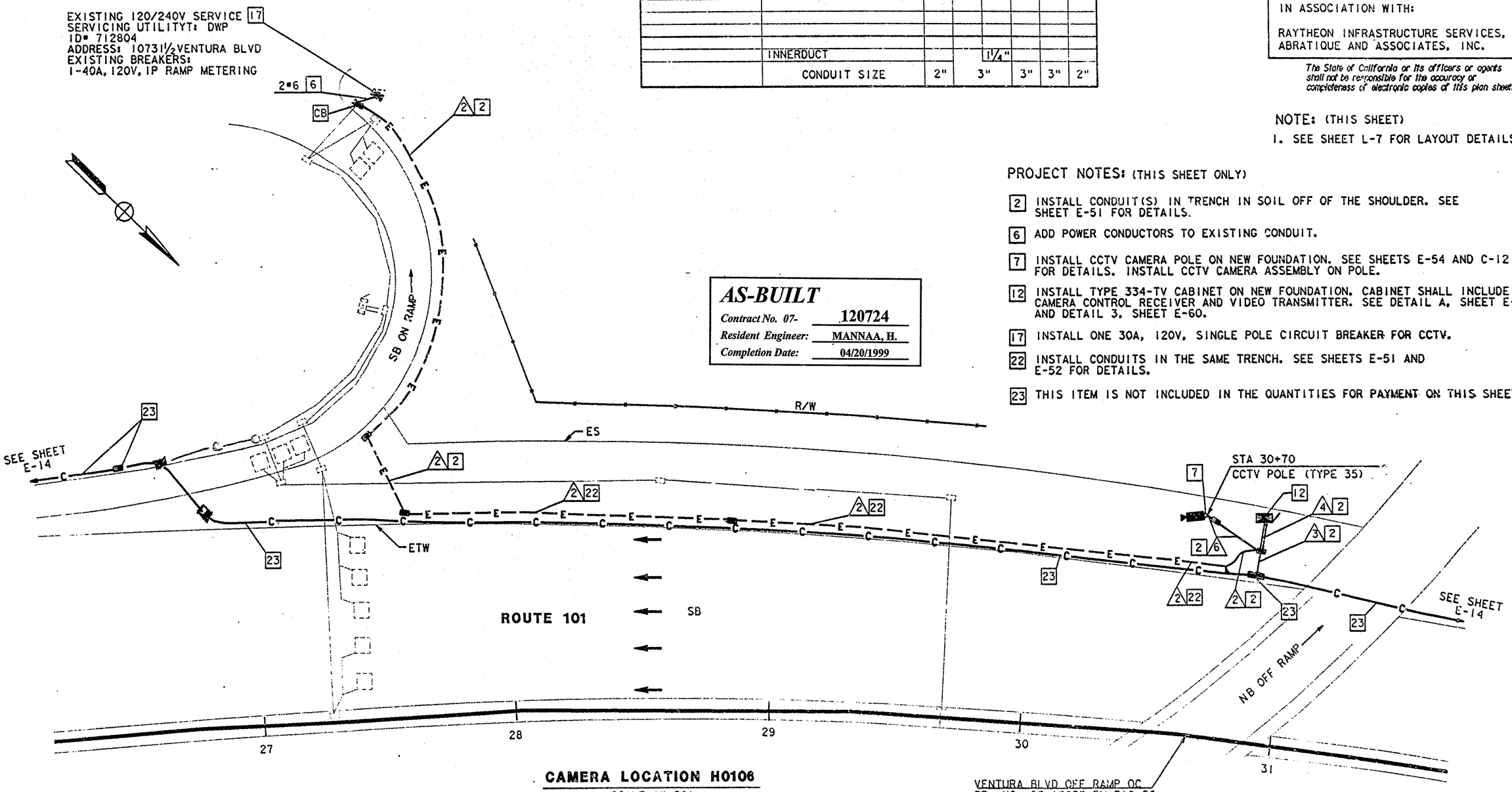
[12] INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

[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

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

	DATE	REVISED BY
DM	2/95	
ES	5/95	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

LAST REVISION 00-00-00 TIME PLOTTED => 19-OCT-1995 15:36

FORM DC-CT-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl /usr/mikesl/PO/712072u38.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	103	154

Elia G. Sachir 2/17/95
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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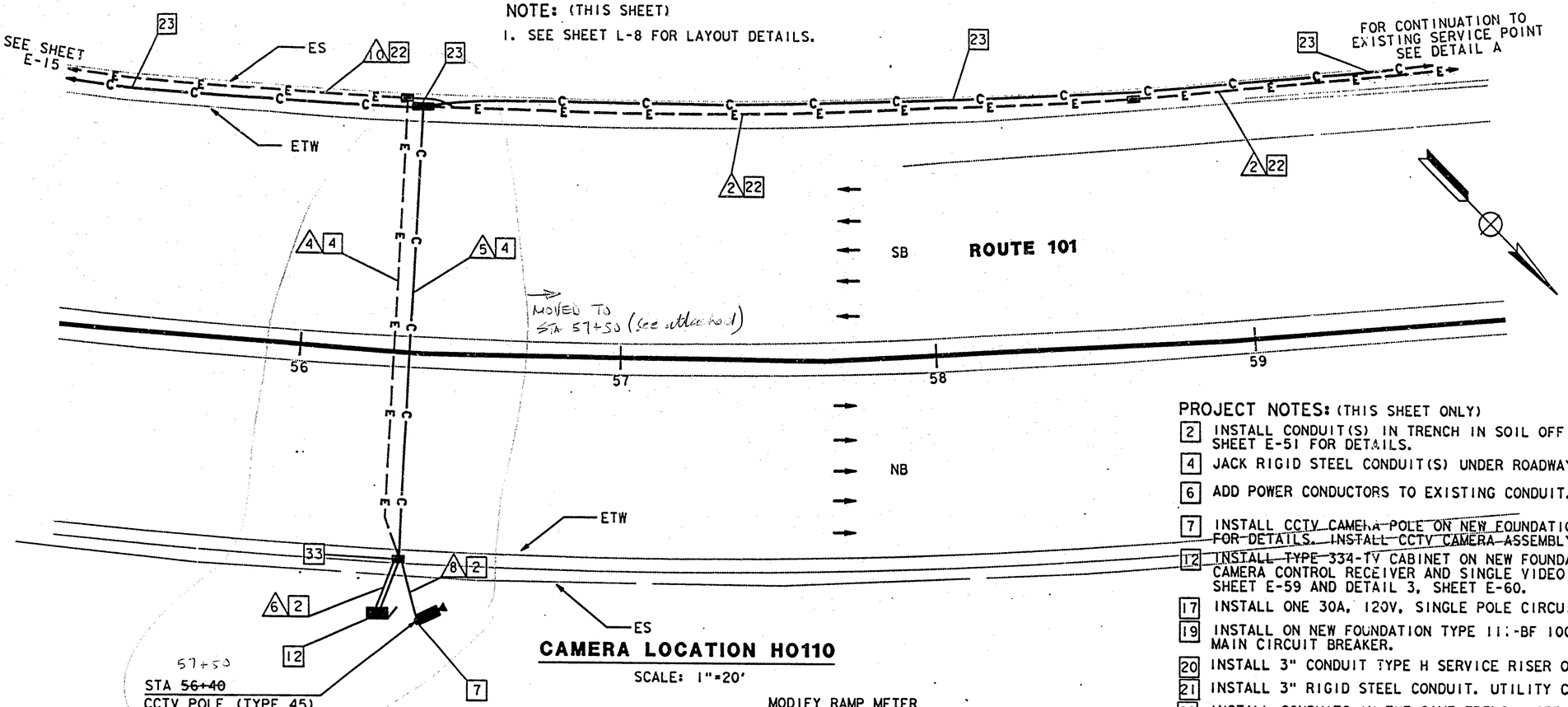
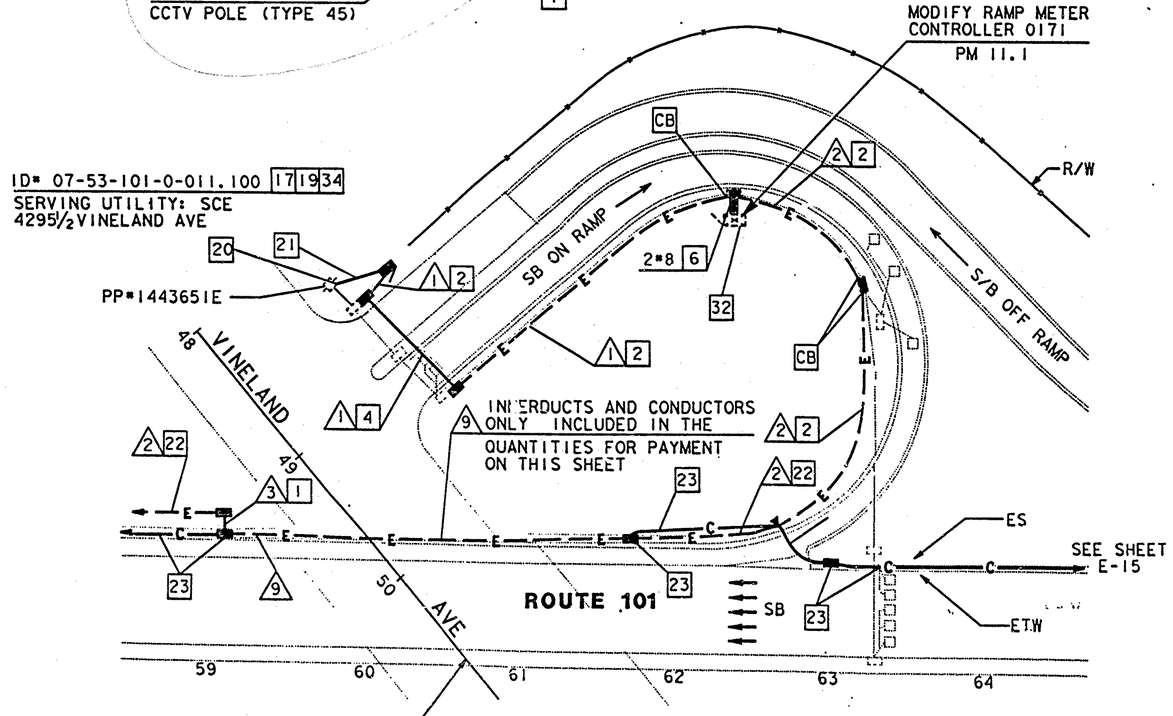
NOTE: (THIS SHEET)
1. SEE SHEET L-8 FOR LAYOUT DETAILS.



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.

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	8	9*	10
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								
#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"	2"	4"	2"

* - CONDUIT RUN (9) INCLUDED IN THE QUANTITIES FOR PAYMENT ON SHEET E-15

SEE SHEET 103A

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

CCTV CAMERA (LOCATION H0110)

SCALE: AS NOTED

E-39

DATE	REVISED BY	DATE REVISED
2/95	DM	5/95

CALCULATED/DESIGNED BY: ES
CHECKED BY: PAT SULLIVAN
PROJECT ENGINEER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 14:31

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl /usr/mikesl/P0/712072u39.dg
CU 07387
EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
				103A	

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

DATE	REVISED BY
	DATE REVISED

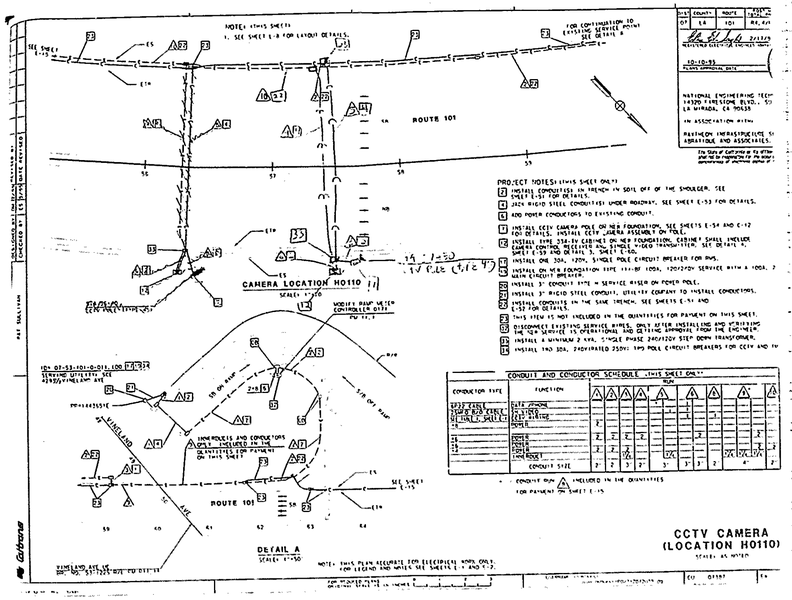
CALCULATED/ DESIGNED BY

CHECKED BY

PROJECT ENGINEER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



AS-BUILT

Contract No. 07- 120724

Resident Engineer: MANNAA, H.

Completion Date: 04/20/1999

Station

Cu. Exc.

Yds. Fill

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.

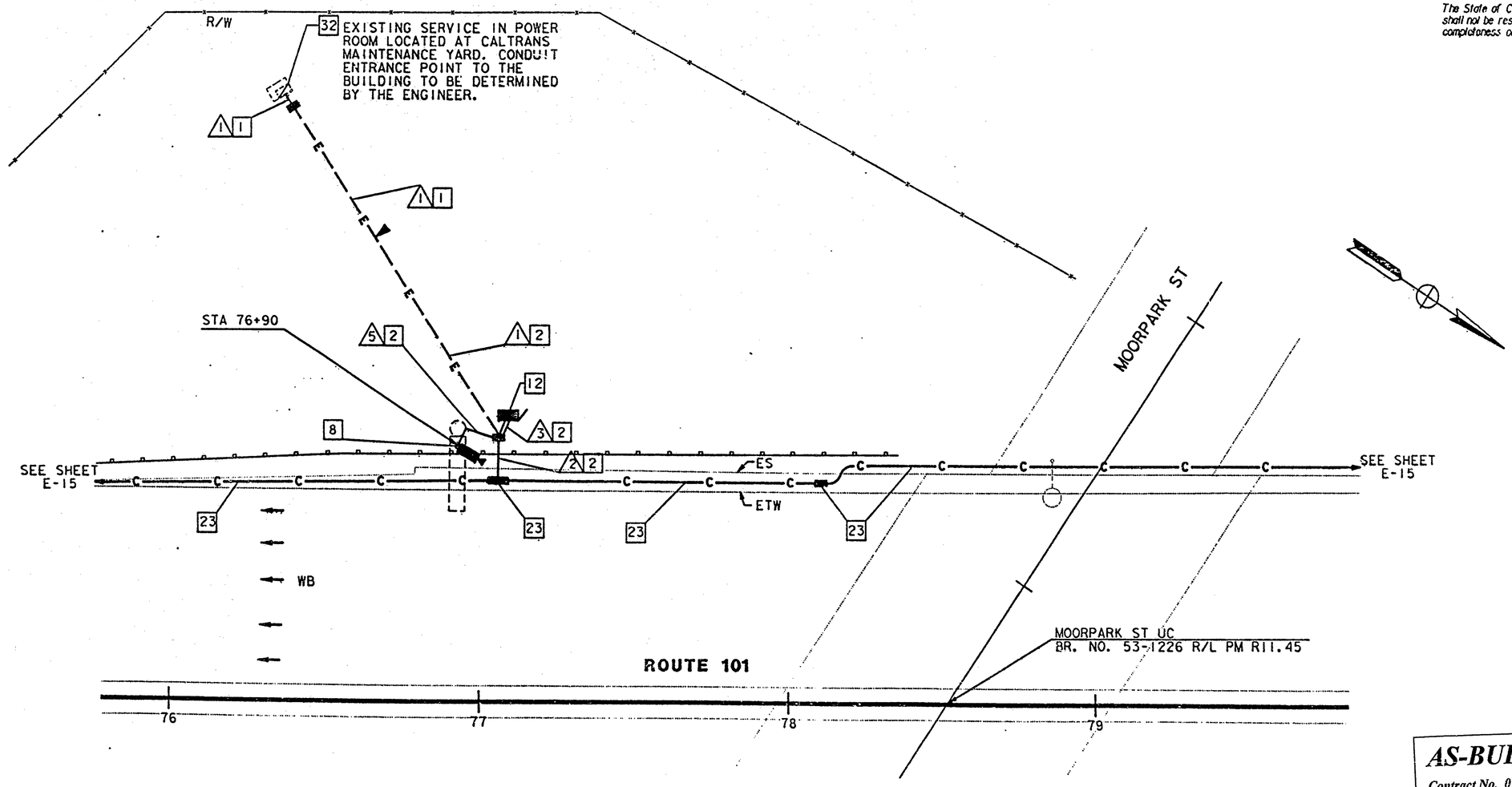
12 INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-59 AND DETAIL 3, SHEET E-60.

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		1 1/4"			
	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	DATE REVISED
2/95	DM	5/95 ES

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

XXXXXXXXXXXXXXXXXXXXXXXXXX

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 14:31

FORM DC-CE-92-PE (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl /usr/mikesl/P0/712072u40.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

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.

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.

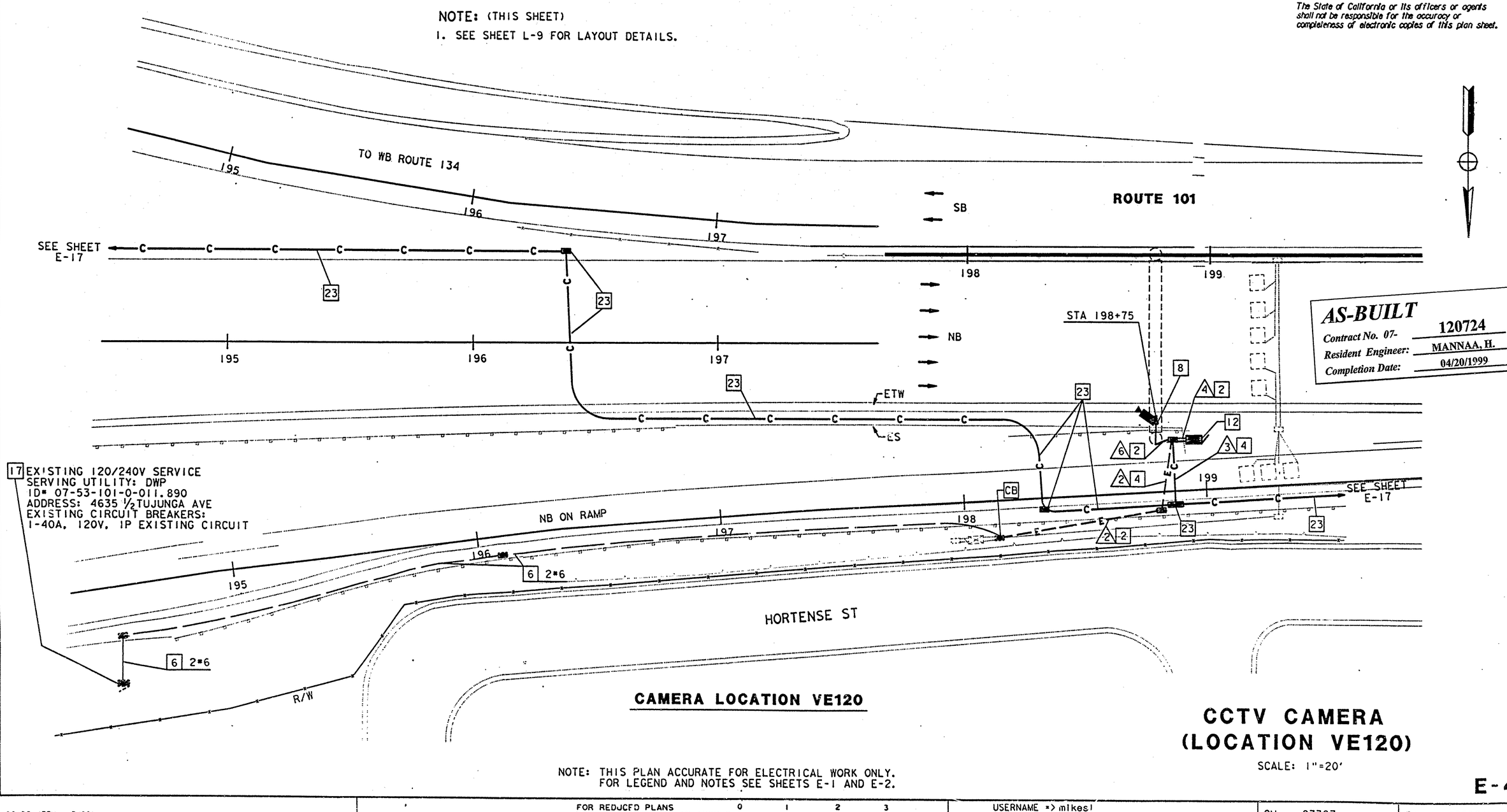
23 THIS ITEM IS NOT INCLUDED IN THE QUANTITIES FOR PAYMENT ON THIS SHEET.

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.



CAMERA LOCATION VE120

AS-BUILT
Contract No. 07- 120724
Resident Engineer: MANNAA, H.
Completion Date: 04/20/1999

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

DATE	REVISED BY	DATE REVISED
2/95	DM	ES 5/95

CALCULATED/DESIGNED BY
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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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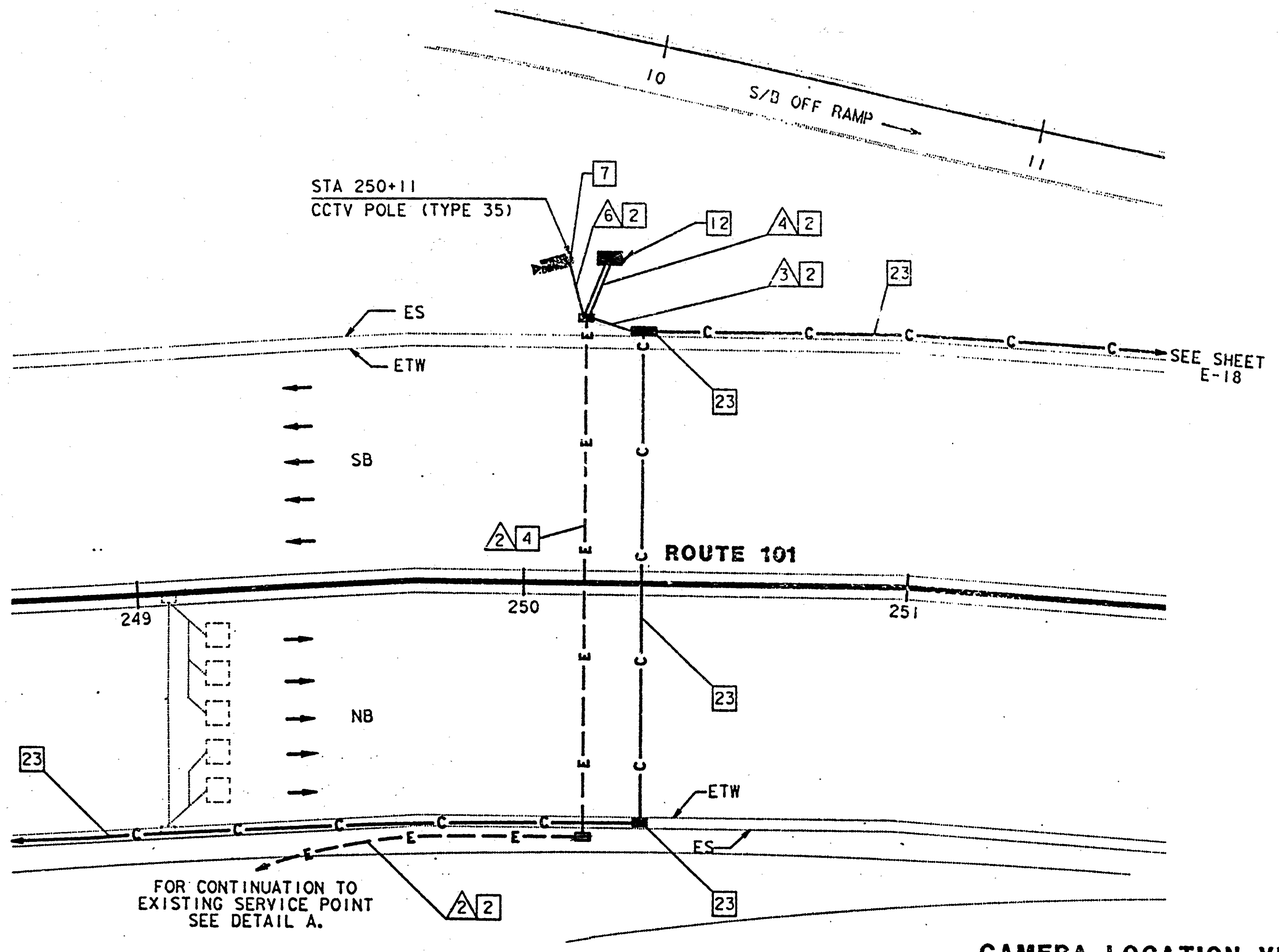
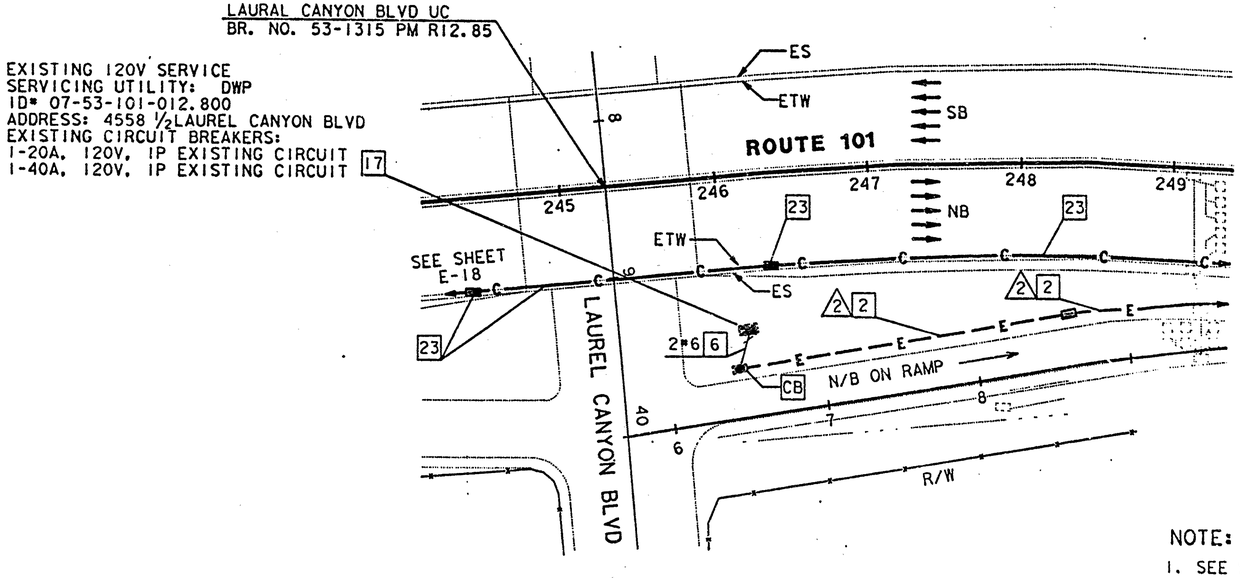


CAMERA LOCATION VE129

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'

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

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.

CCTV CAMERA (LOCATION VE129)

SCALE: AS NOTED

E-42

DATE	REVISED BY	DATE REVISED
2/95	DM	
5/95	ES	

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

LAST REVISION 00-00-00
TIME PLOTTED => 17-OCT-1995 12:56

FORM DC-IE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => trmarlak /usr/trmarlak/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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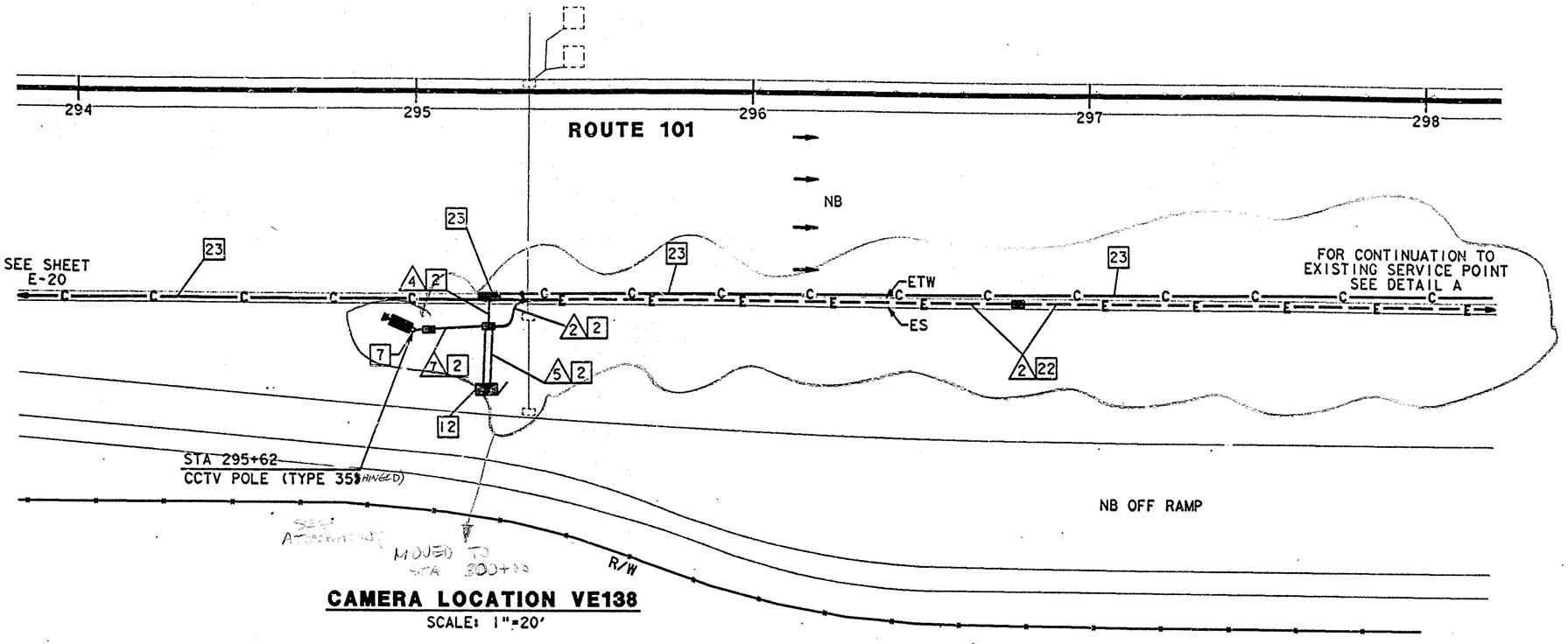
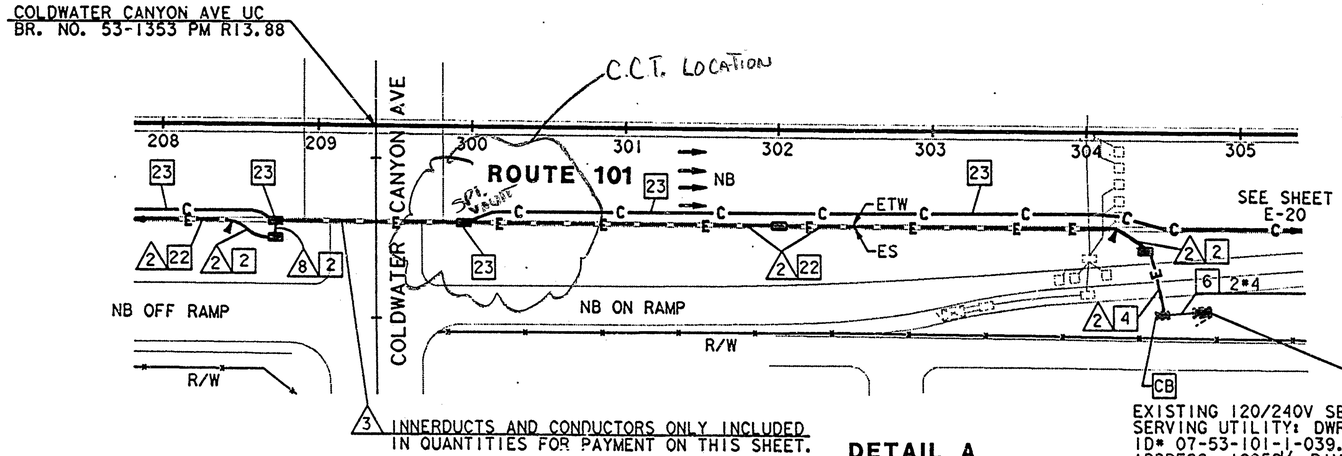


CAMERA LOCATION VE138
SCALE: 1"=20'



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, 1P RAMP METER

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN							
		2	3 *		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	
#4	POWER	2		2				2	2
	INNERDUCT		1¼"	1¼"	1¼"				1¼"
	CONDUIT SIZE	2"	4"		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

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

XXXXXXXXXXXXXXXXXXXXXXXXXX

LAST REVISION 00-00-00
TIME PLOTTED => 19-OCT-1995 15:38

FORM DC-DE-92-PF (REV. 3/88)

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

USERNAME => mlkesl
/usr/mlkesi/PO/712072u43.dg

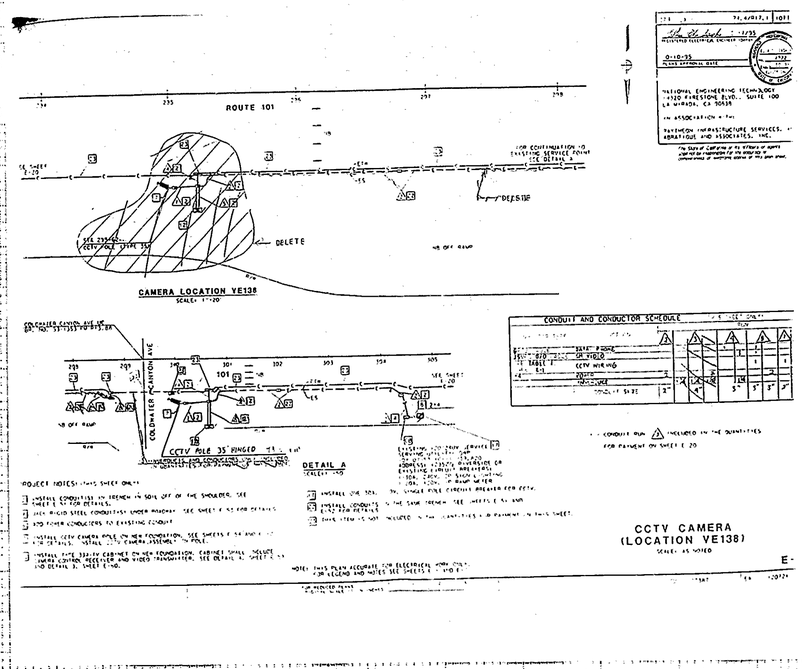
CU 07387 EA 120721

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
				107A	

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA



AS-BUILT

Contract No. 07- 120724

Resident Engineer: MANNAA, H.

Completion Date: 04/20/1999

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER

Caltrans

DATE	REVISED BY	DATE REVISED
	CALCULATED/ DESIGNED BY	
	CHECKED BY	

Station

Cu. Yds. Emb. Exc.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	108	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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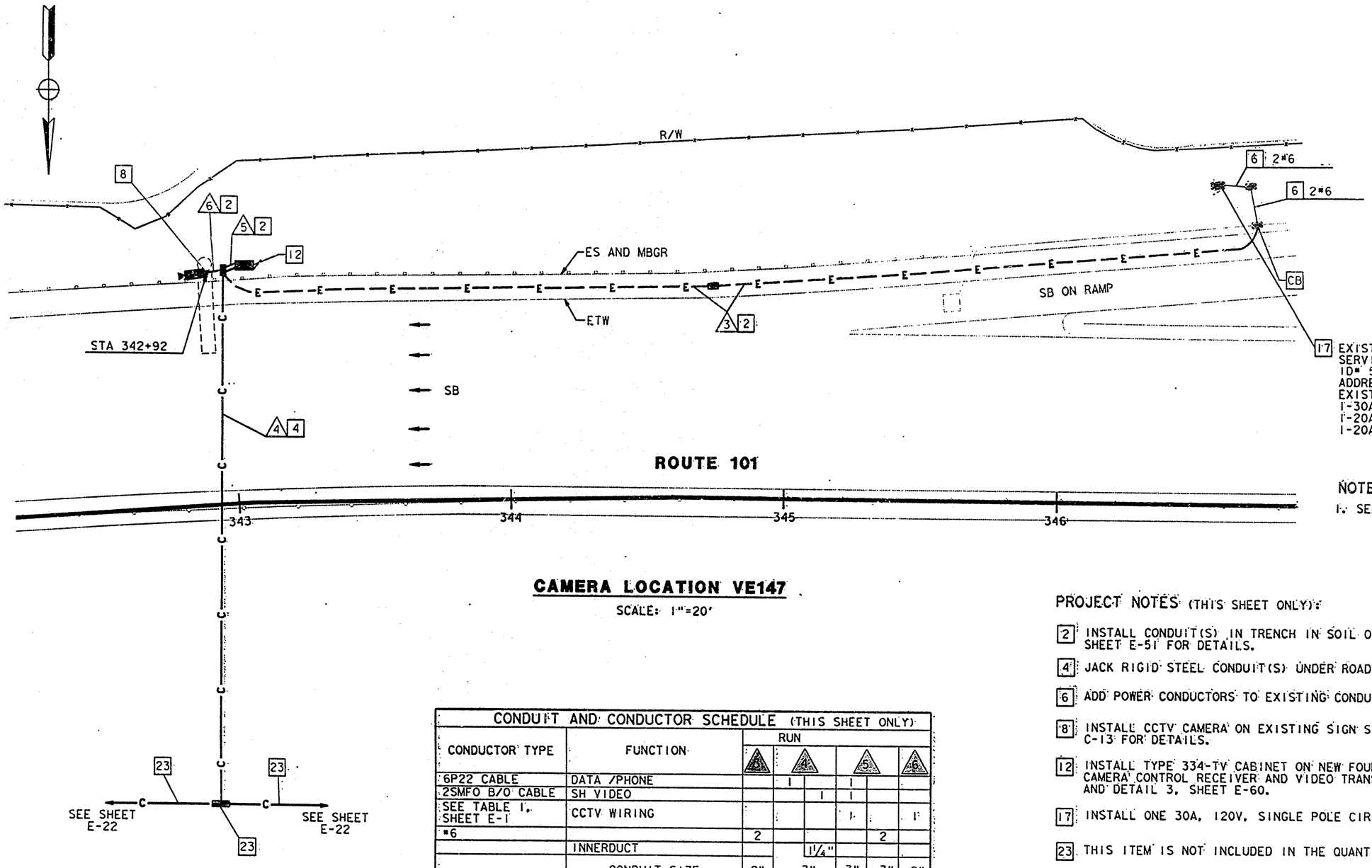

EXISTING 120/240V SERVICE
SERVICING UTILITY: DWP
ID# 53-101-014.781
ADDRESS: 4635½ BUFFALO AVE
EXISTING CIRCUIT BREAKERS:
1-30A, 240V, 2P SIGN LIGHTING
1-20A, 120V, 1P RAMP METER
1-20A, 120V, 1P TELEPHONE DEMARCATION CABINET

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 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		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

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

FORM DC-02-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => tfmarluk /usr/tfmarluk/P2/712072044
CU 07387
EA 120721
TIME PLOTTED => 17-OCT-1995 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	101	R4.4/R17.1	109	154

Elia G. Sachir 2/17/95
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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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.

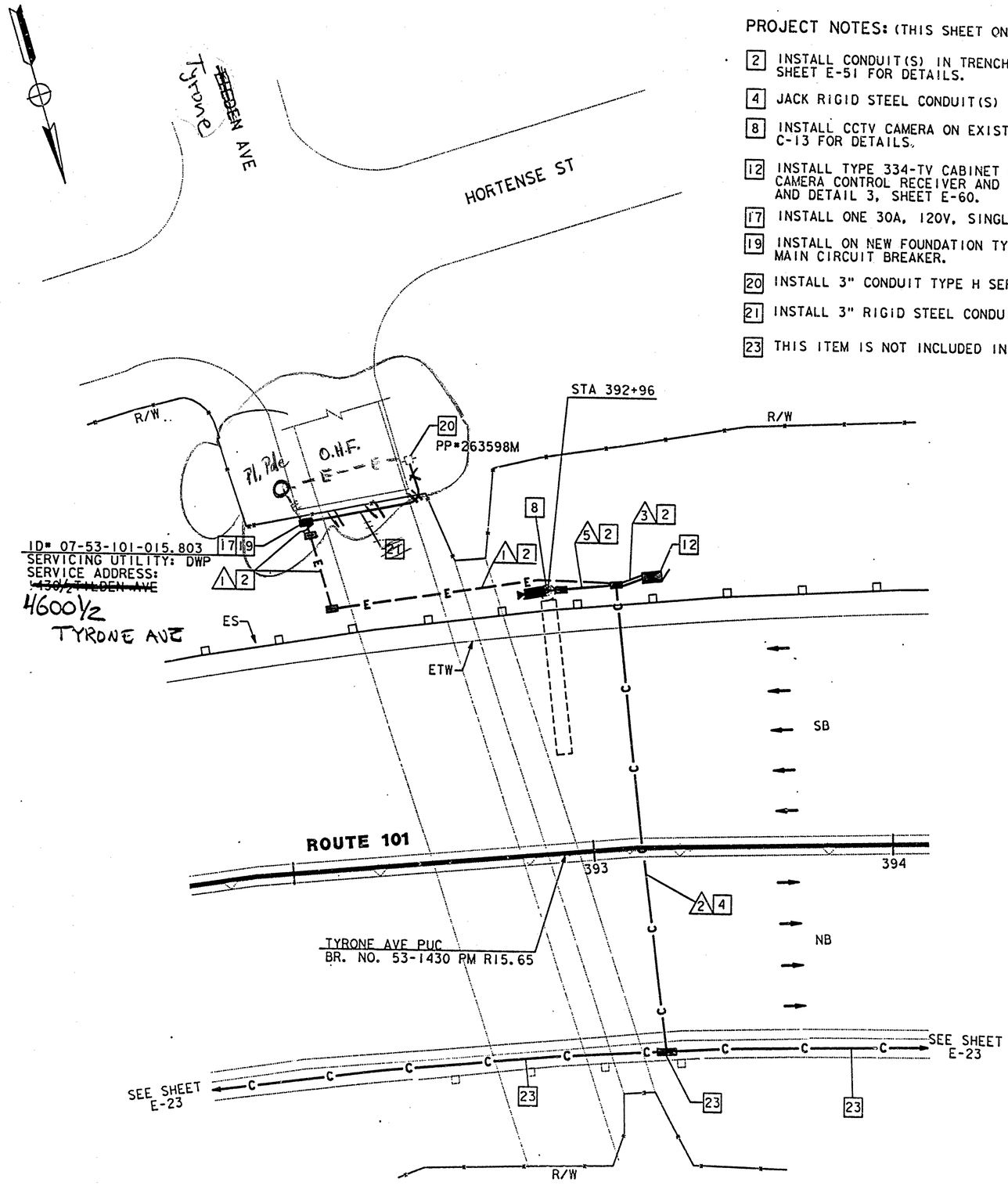
20 INSTALL 3" CONDUIT TYPE H SERVICE RISER ON POWER POLE.

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	2	3	4	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

DATE	REVISED BY	DATE REVISED
2/95	DM	5/95

CALCULATED/DESIGNED BY
CHECKED BY ES

PROJECT ENGINEER
PAT SULLIVAN

XXXXXXXXXXXXXXXXXXXXXXXXXXXX
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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/P0/712072u45.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 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.

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CAMERA LOCATION VE161

SCALE: 1"=20'

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)											
CONDUCTOR TYPE	FUNCTION	RUN 2	RUN 3*			RUN 4		RUN 5		RUN 7	RUN 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

DETAIL A

SCALE: 1"=50'

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

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	111	154

Elia G. Saghir 2/17/95
REGISTERED ELECTRICAL ENGINEER (Date)

10-10-95
PLANS APPROVAL DATE

PROFESSIONAL ENGINEER — REGISTERED — 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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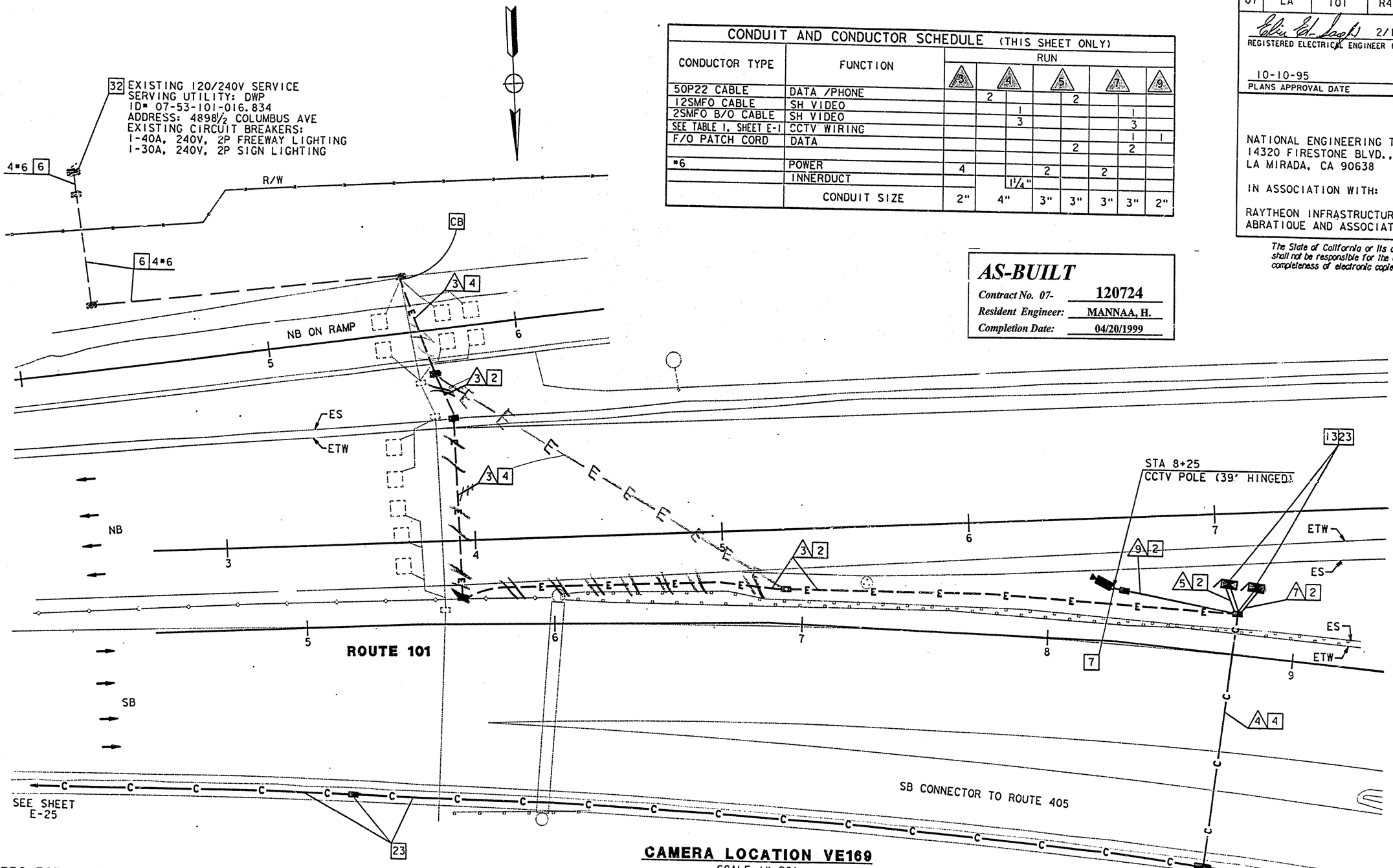
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 3	RUN 4	RUN 5	RUN 7	RUN 9
50P22 CABLE	DATA /PHONE		2	2		
12SMFO CABLE	SH VIDEO		1		1	
2SMFO B/O CABLE	SH VIDEO		3		3	
SEE TABLE I, 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

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-OE-92-PF (REV. 3/88)
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CU 07387
EA 120721

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

Caltrans Metric

Joaqueline 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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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

—— ——E—— —— SERVICE CONDUIT

—— ——e—— —— EXISTING SERVICE CONDUIT

CONDUIT LINE DELIMITER FOR CONSTRUCTION NOTES

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	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 — Caltrans — ITS DEVELOPMENT

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USERNAME => s124928
DGN FILE => 712075u01.dgn

CU 07388 | EA 120751

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

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8-R40.6	65	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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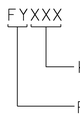
GENERAL NOTES:

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

CALCULATED/DESIGNED BY: HT
CHECKED BY: DL

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8-R40.6	66	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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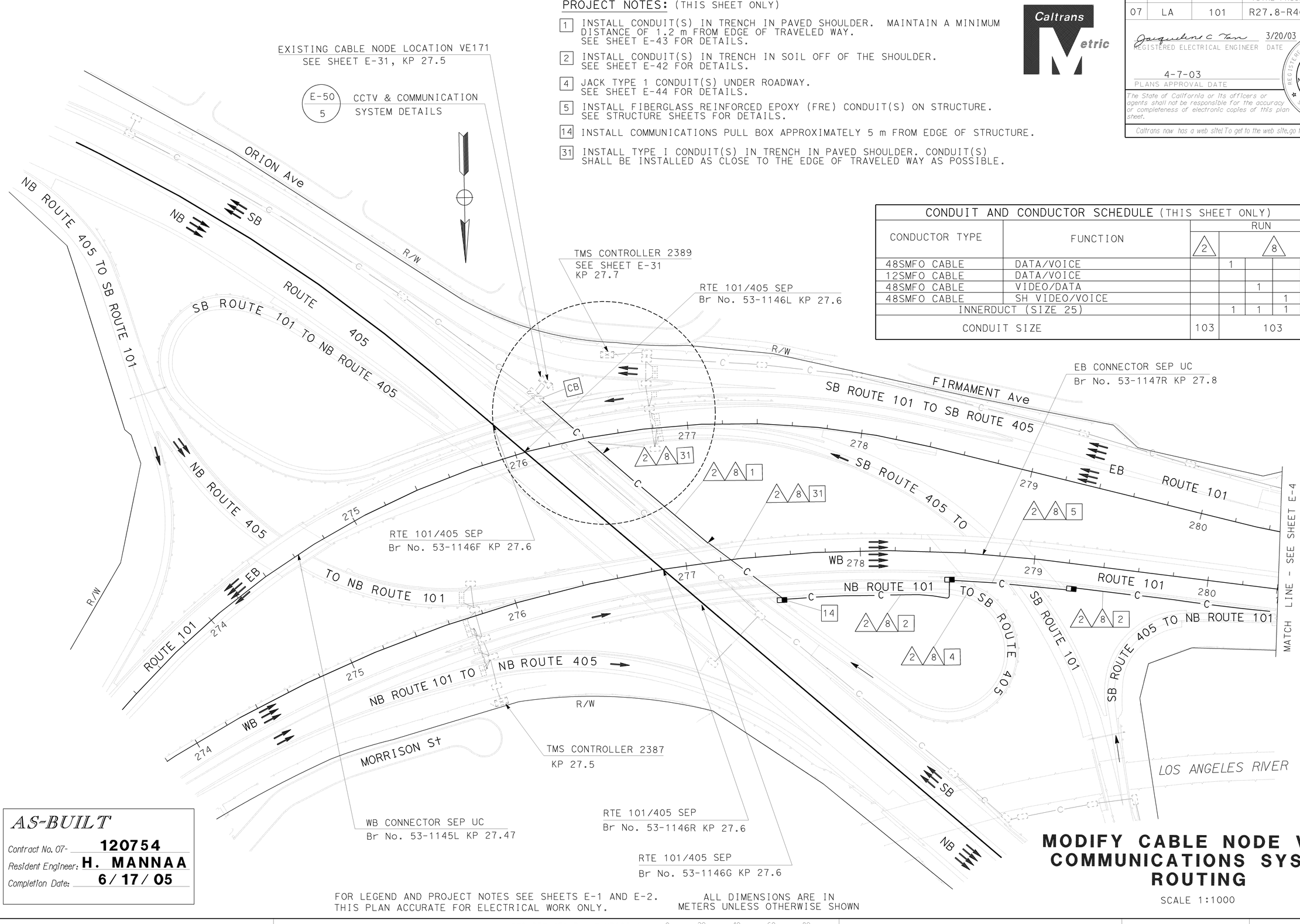
PROJECT NOTES: (THIS SHEET ONLY)

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.
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			



MODIFY CABLE NODE VE171 COMMUNICATIONS SYSTEM ROUTING

SCALE 1:1000

E-3

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.

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

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HT	DL

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

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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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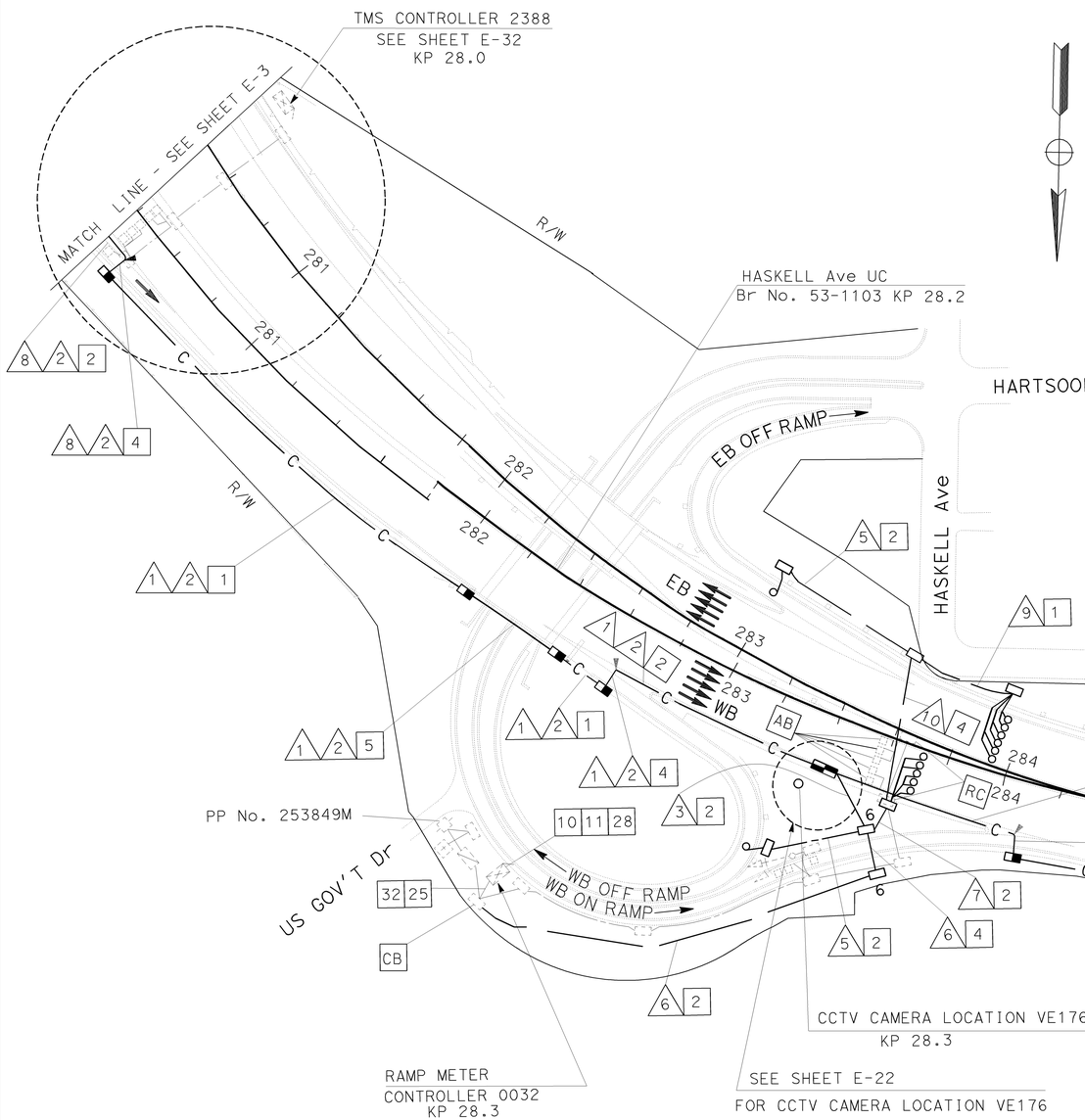
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

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



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.

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.

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.

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

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

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07	LA	101	R27.8-R40.6	68	178

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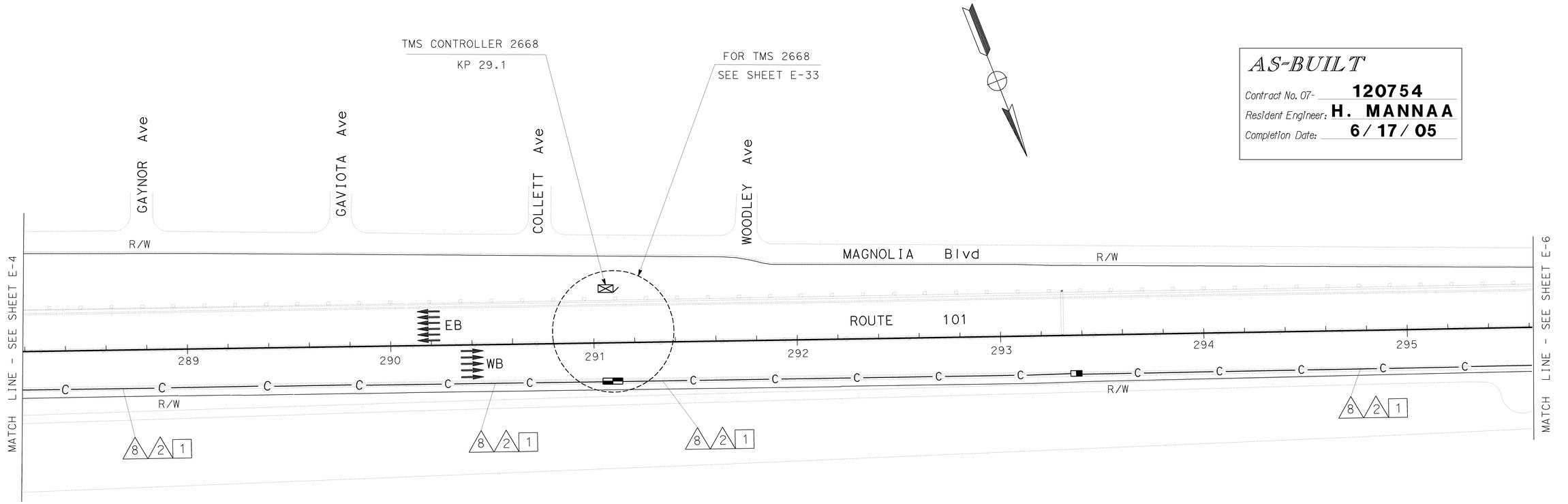
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUIT/CONDUCTOR	FUNCTION	RUN				
		8				2
48SMFO CABLE	DATA/VOICE	1				
12SMFO CABLE	DATA/VOICE					
48SMFO CABLE	VIDEO/DATA		1			
48SMFO CABLE	SH VIDEO/VOICE			1		
DLC	RAMP/COUNT					
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103

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

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

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

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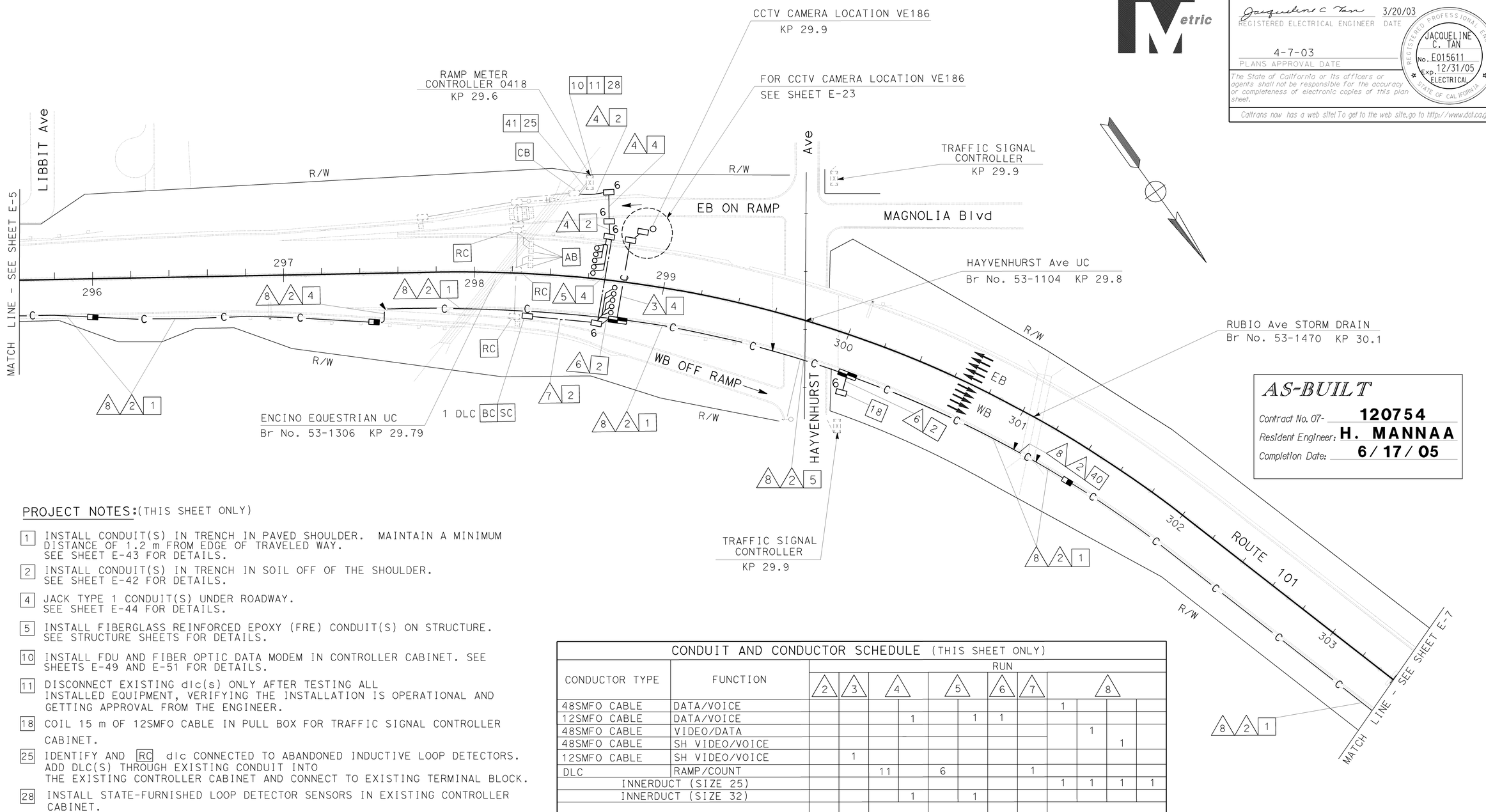
DATE	REVISED BY	DATE	REVISED BY
7/02	HT	7/02	CS

CALCULATED/DESIGNED BY: DL
CHECKED BY:

PROJECT ENGINEER: H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ITS DEVELOPMENT



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

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-6

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

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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

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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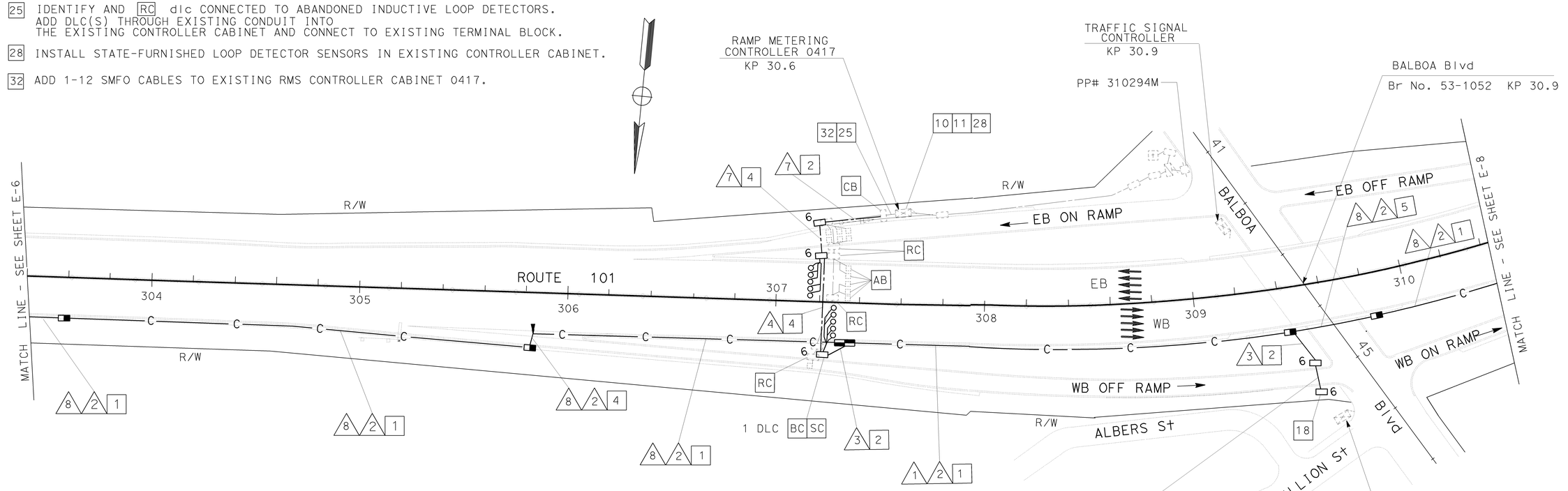
PROJECT NOTES: (THIS SHEET ONLY)

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

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 => 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.

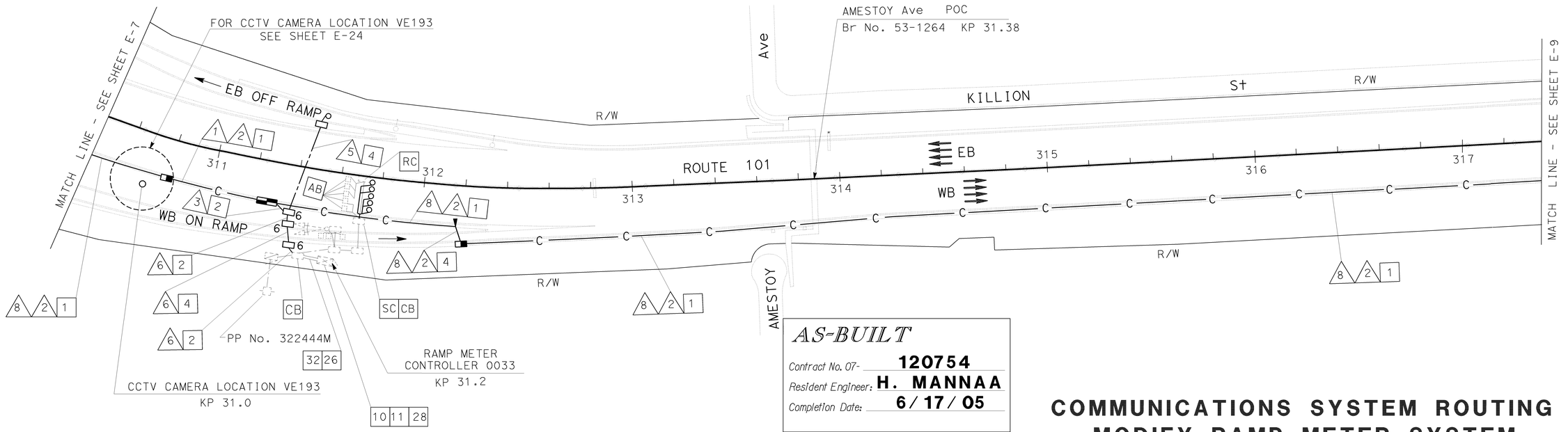
26 ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CONTROLLER CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER: HENRY H. TRINH

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

DATE REVISED 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 => 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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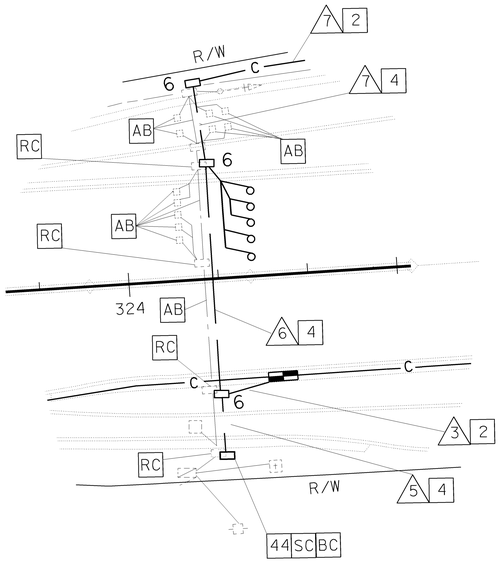
PROJECT NOTES: (THIS SHEET ONLY)

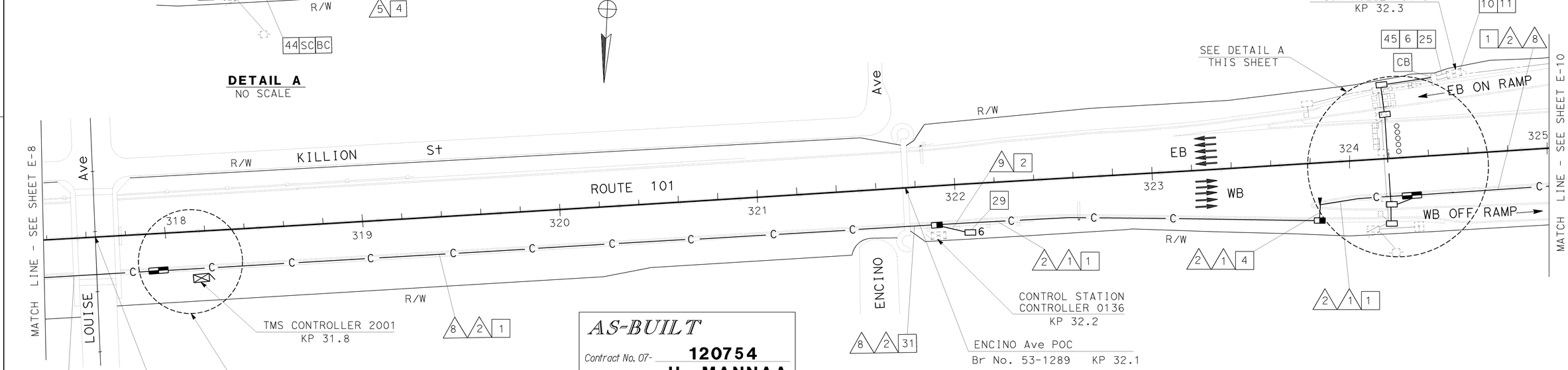
1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
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.



DETAIL A
NO SCALE

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



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

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
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2007
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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

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		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.

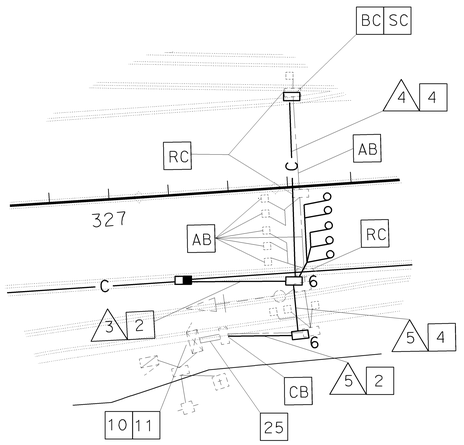
[11] DISCONNECT EXISTING dlc(s) ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND GETTING APPROVAL FROM THE ENGINEER.

[16] INSTALL FDU AND FIBER OPTIC MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-68 FOR DETAILS.

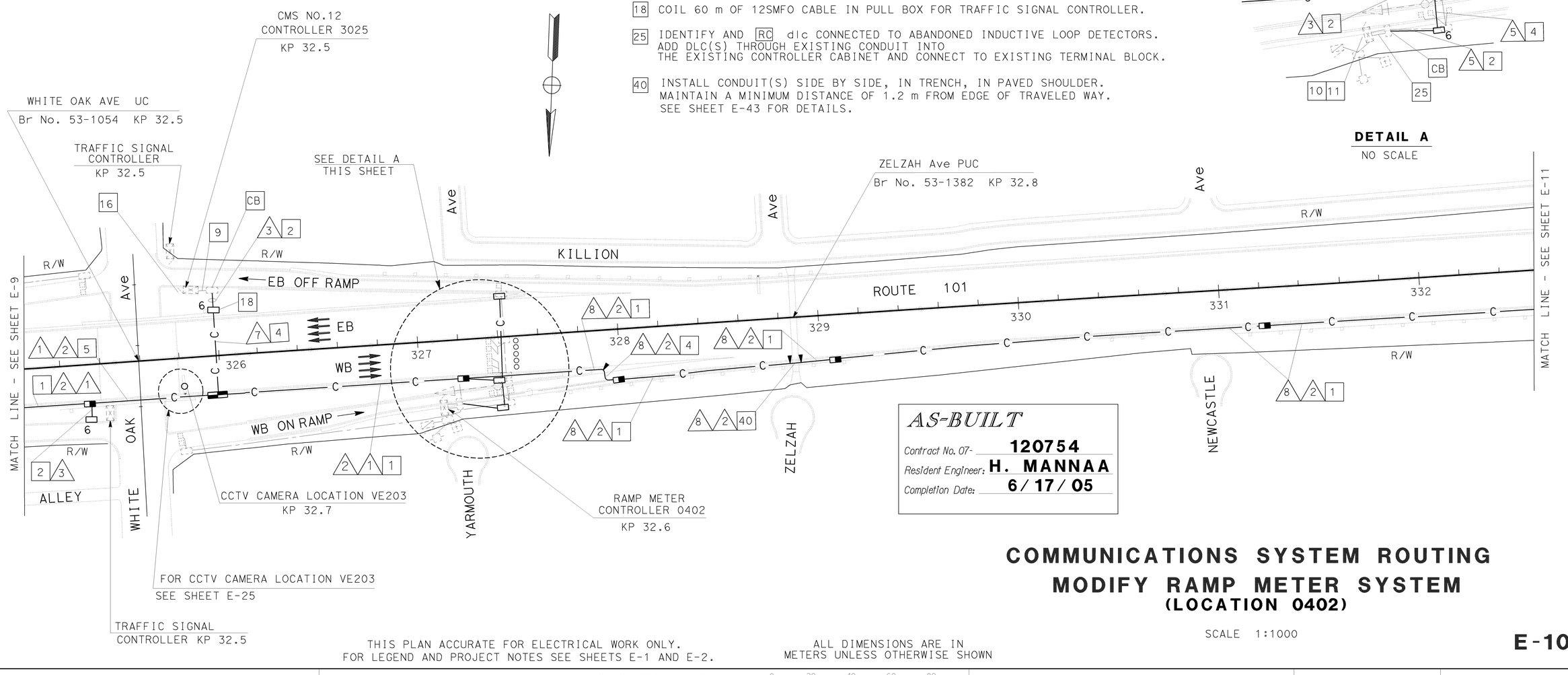
[18] COIL 60 m OF 12SMFO CABLE IN PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.

[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

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-10

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

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

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USERNAME => s124928
DGN FILE => 712075u10.dgn
CU 07388
EA 120751

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

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

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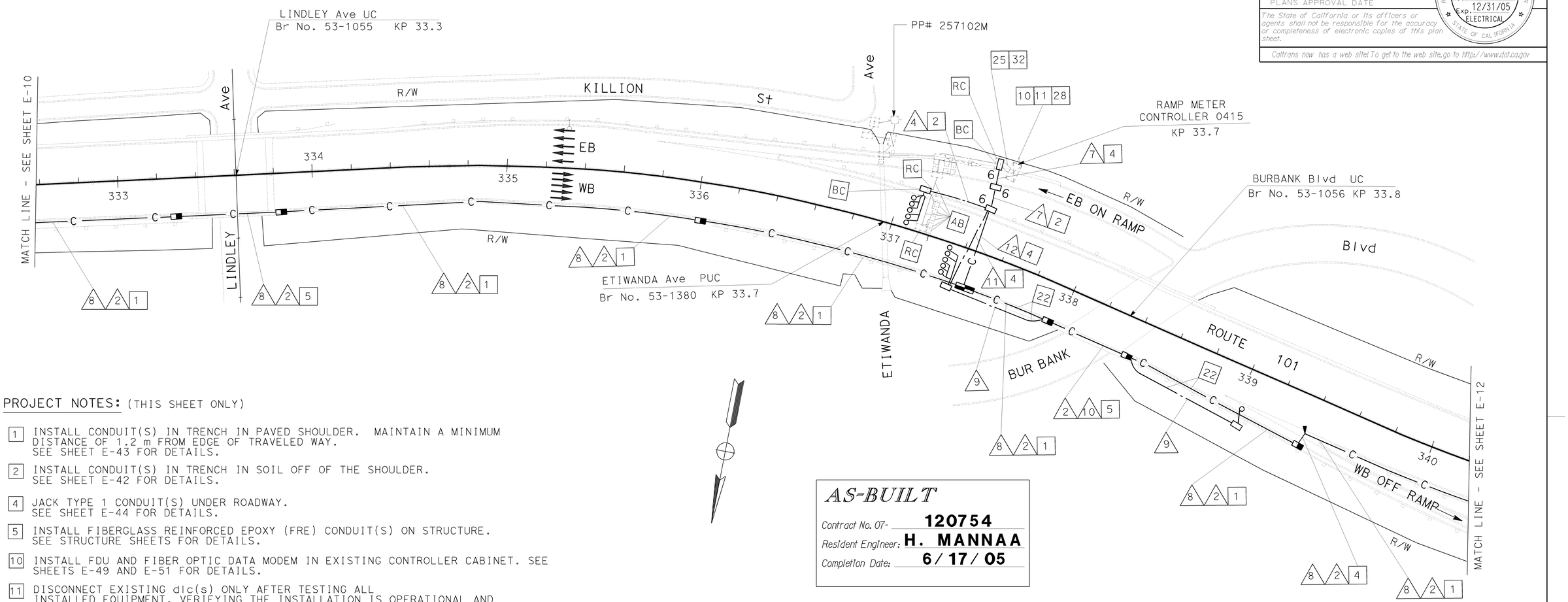

PROJECT NOTES: (THIS SHEET ONLY)

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.
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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER: HENRY H. TRINH

CALCULATED/ DESIGNED BY	HT	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 => 14:42

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

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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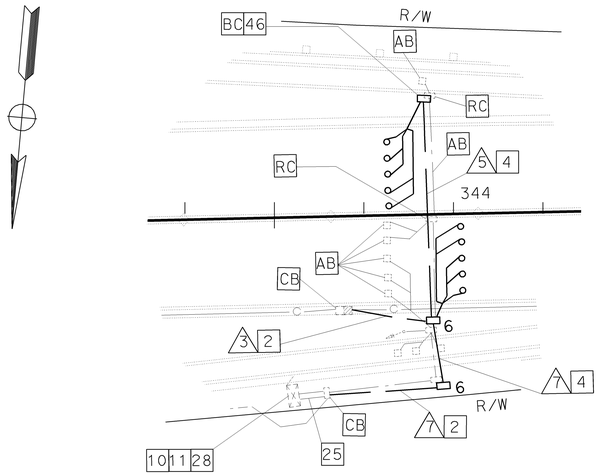
AS-BUILT

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.

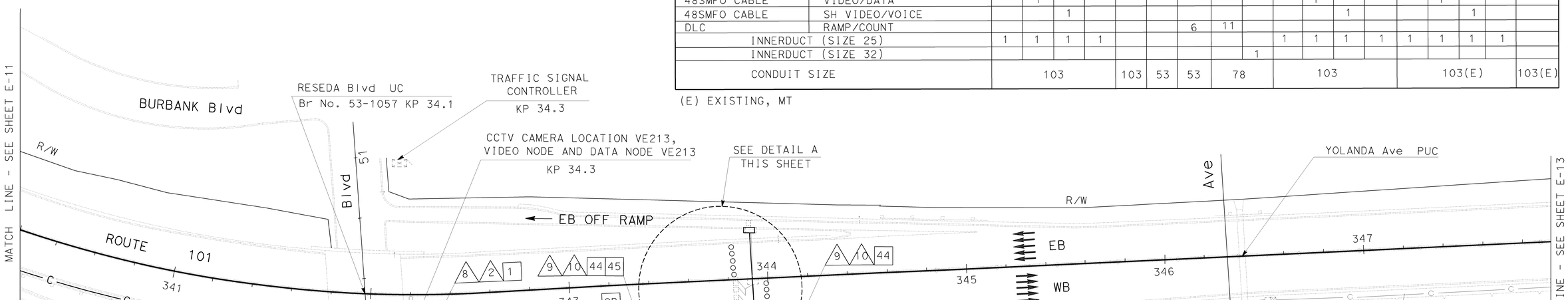


DETAIL A
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	1	1	1	2	3	5	7	7	8	8	8	8	9	9	9	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

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

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USERNAME => s124928
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

Joaqueline 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)

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.

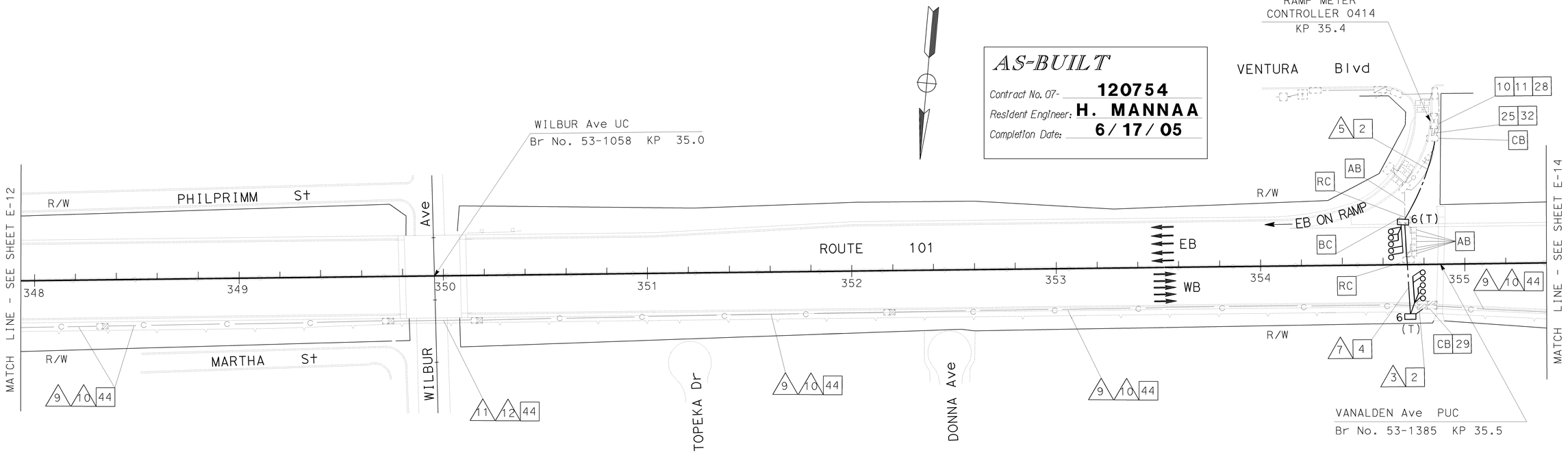
32 ADD 1-12 SMFO CABLES IN EXISTING CONDUITS AND CONNECT TO EXISTING RMS CONTROLLER 0414.

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

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-13

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

PROJECT ENGINEER: HENRY H. TRINH

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

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

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USERNAME => s124928
DGN FILE => 712075u13.dgn

CU 07388 EA 120751

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

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.

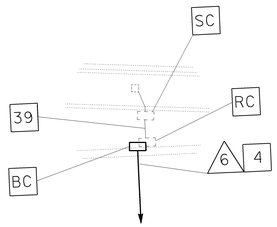
32 ADD 1-12 SMFO INTO EXISTING CONDUITS AND CONNECT TO EXISTING RMS CONTROLLER 0404.

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).

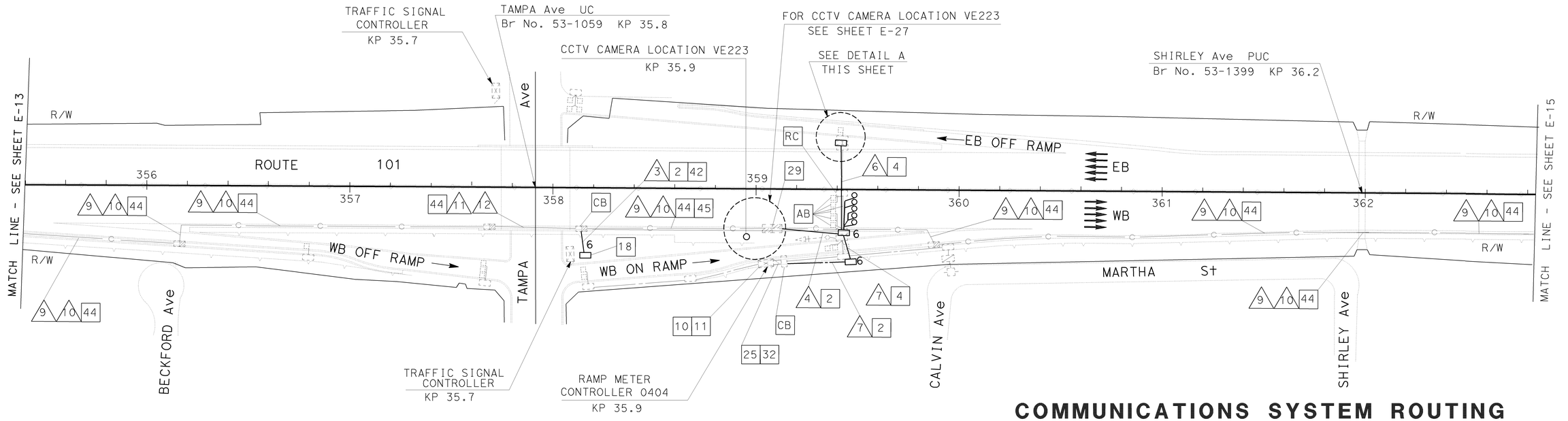


DETAIL A
NO SCALE

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

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 DL

CALCULATED/DESIGNED BY
CHECKED BY CS

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 712075u14.dgn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	78	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 (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)

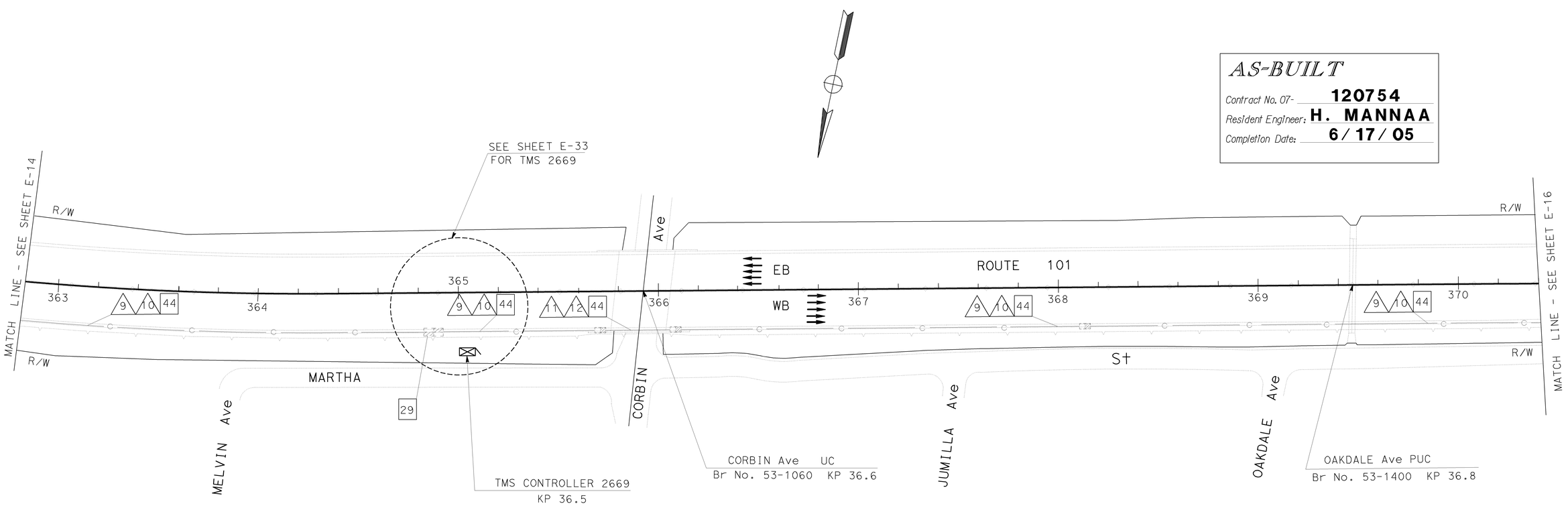
(E) EXISTING, MT

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

E-15

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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USERNAME => s124928
DGN FILE => 712075u15.dgn

CU 07388 EA 120751

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER
HENRY H. TRINH

CALCULATED/ DESIGNED BY	HT	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 => 14:42

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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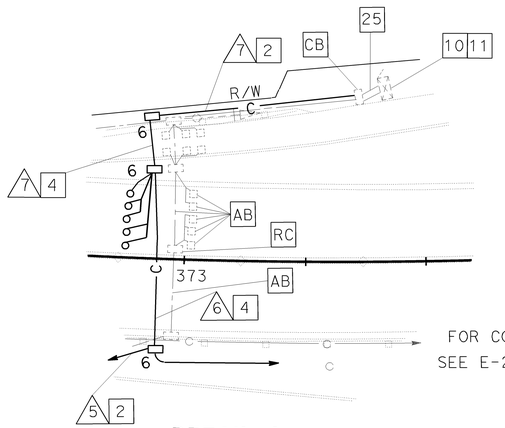
PROJECT NOTES: (THIS SHEET ONLY)

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)

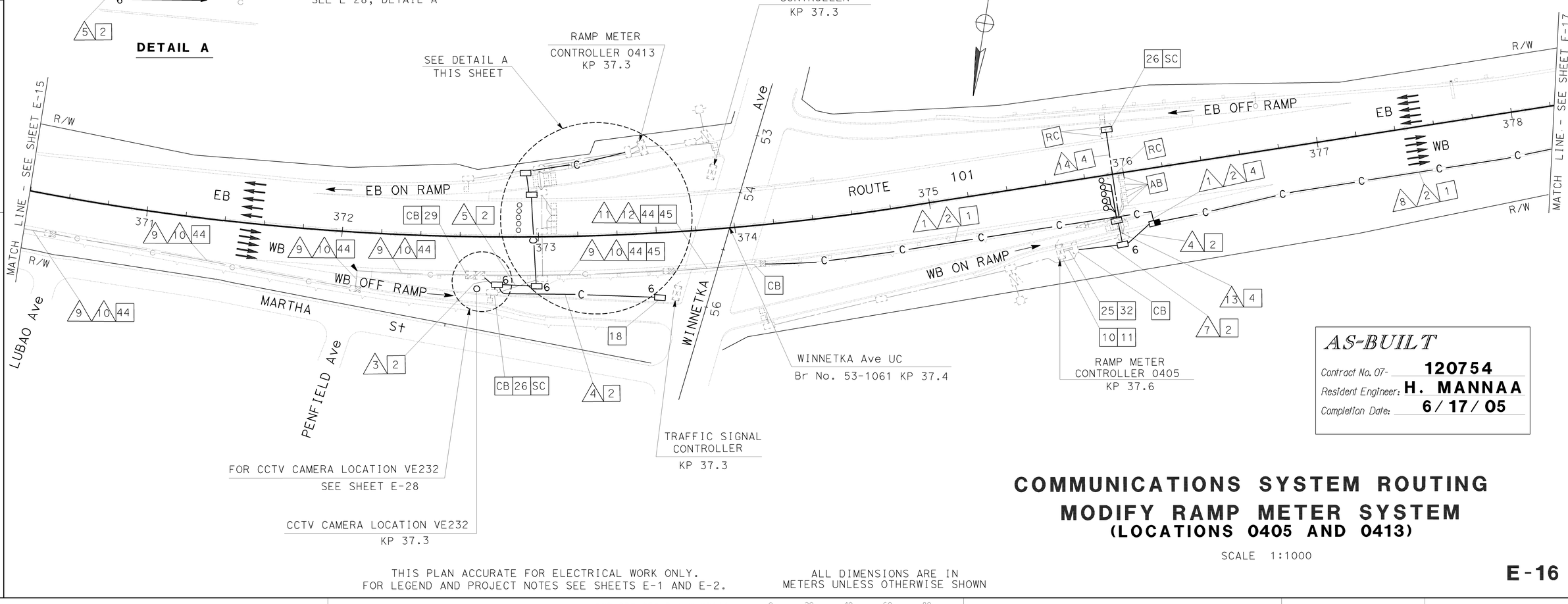
CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8	9	10	11	12	13	14
48SMFO CABLE	DATA/VOICE	1							1	1		1			
12SMFO CABLE	DATA/VOICE	1		2	1	1	1	1							
48SMFO CABLE	VIDEO/DATA	1							1	1		1			
48SMFO CABLE	SH VIDEO/VOICE	1							1	1		1			
DLC	RAMP/COUNT					1	1	6						6	1
INNERDUCT (SIZE 25)		1							1	1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



FOR CONTINUATION SEE E-28, DETAIL A

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

E-16

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	7/02
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PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
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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

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	CS
7/02	DATE REVISED 7/02	

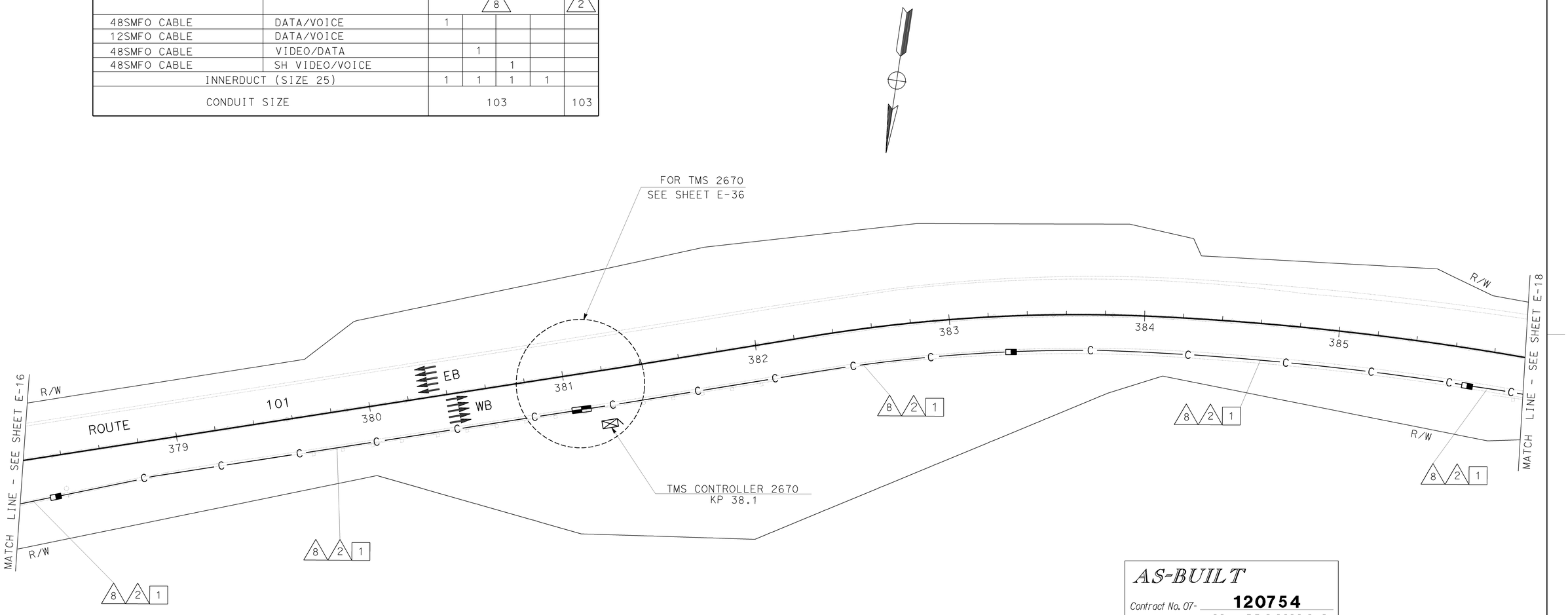
CALCULATED/DESIGNED BY HT
CHECKED BY DL

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 8				RUN 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.
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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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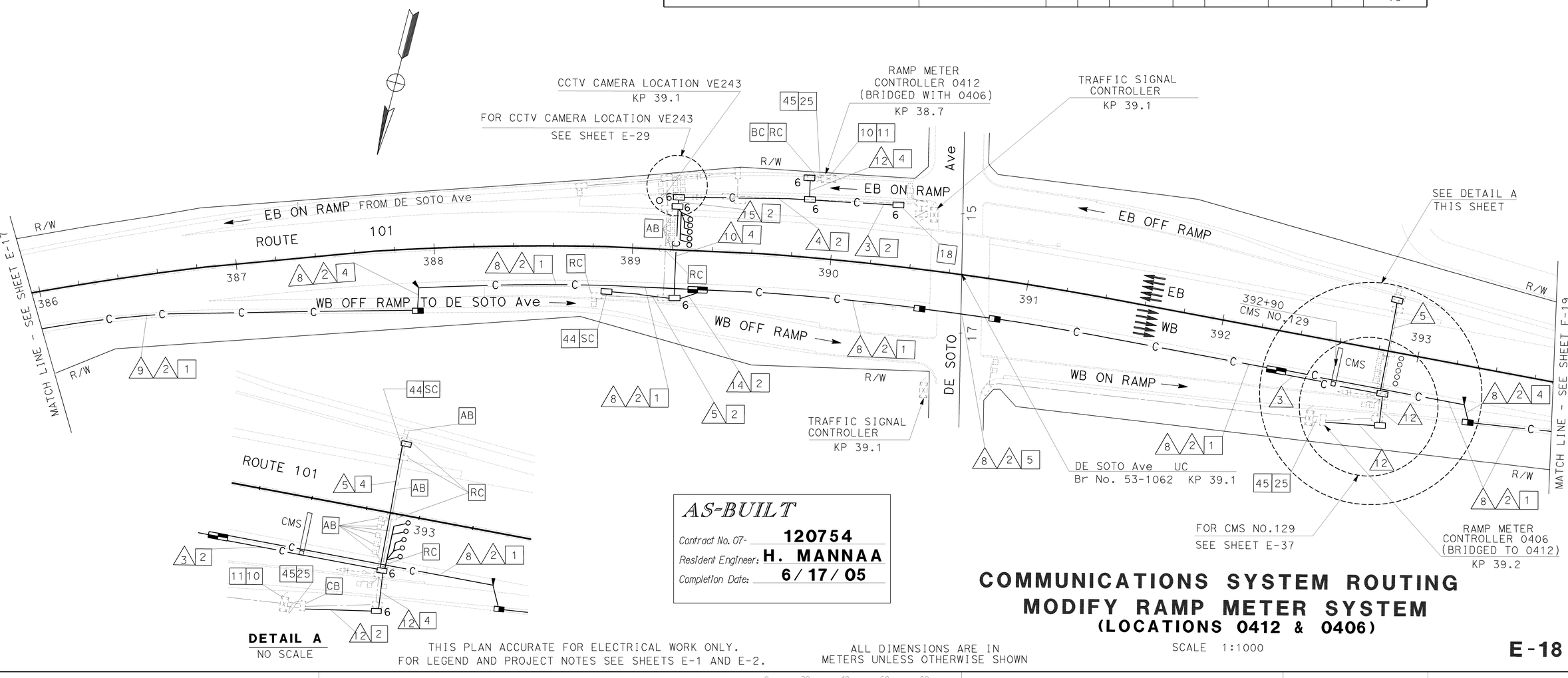
PROJECT NOTES: (THIS SHEET ONLY)

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

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

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

SCALE 1:1000

E-18

DATE	REVISED BY	CALCULATED/ DESIGNED BY
7/02	HT	CS
7/02	DL	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 => 712075u18.dgn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	82	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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DATE	REVISED BY	DATE REVISED
7/02	HT	7/02 DL

CALCULATED/DESIGNED BY
CHECKED BY CS 7/02

PROJECT ENGINEER
HENRY H. TRINH

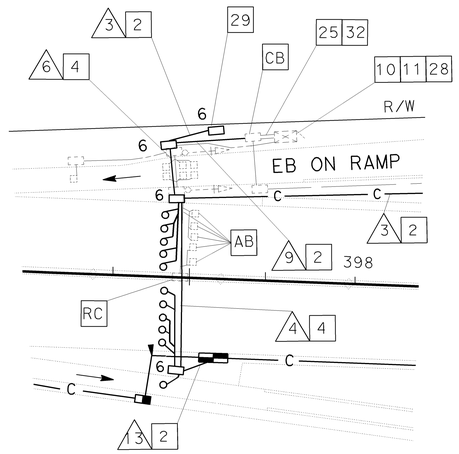
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

PROJECT NOTES: (THIS SHEET ONLY)

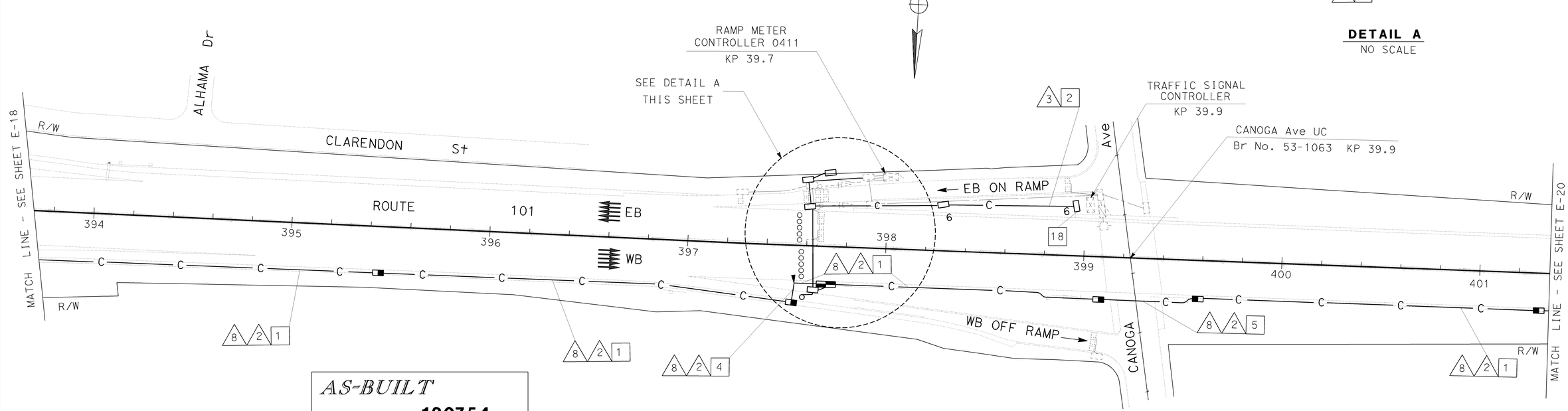
1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 1.2 m FROM EDGE OF TRAVELED WAY. SEE SHEET E-43 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL OFF OF THE SHOULDER. SEE SHEET E-42 FOR DETAILS.
4. JACK TYPE 1 CONDUIT(S) UNDER ROADWAY. SEE SHEET E-44 FOR DETAILS.
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 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

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USERNAME => s124928
DGN FILE => 712075u19.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	83	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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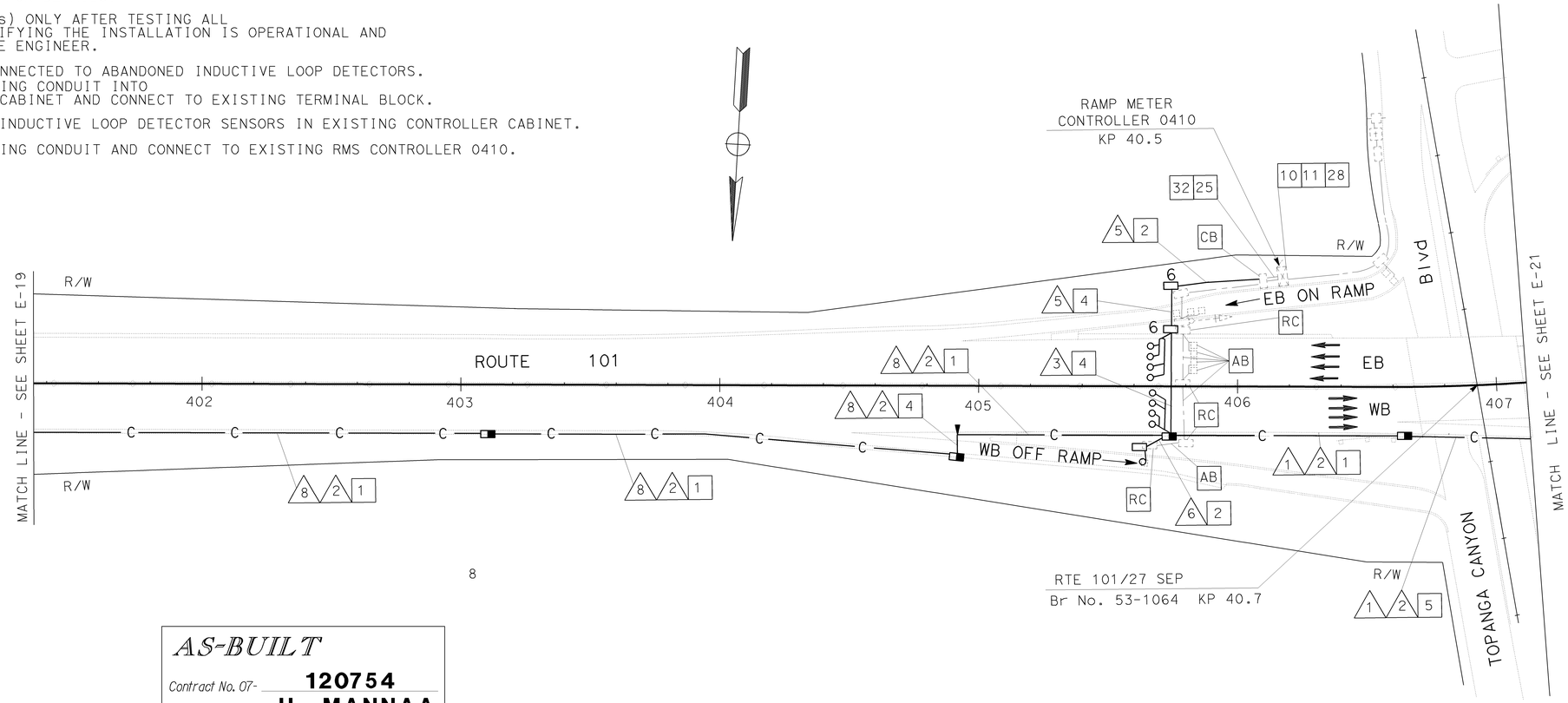
PROJECT NOTES: (THIS SHEET ONLY)

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.
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

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-20

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

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

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DGN FILE => 712075u20.dgn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	84	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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DATE	REVISED BY	DATE	REVISED BY
7/02	HT	7/02	CS

CALCULATED/DESIGNED BY: DL
CHECKED BY:

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		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.

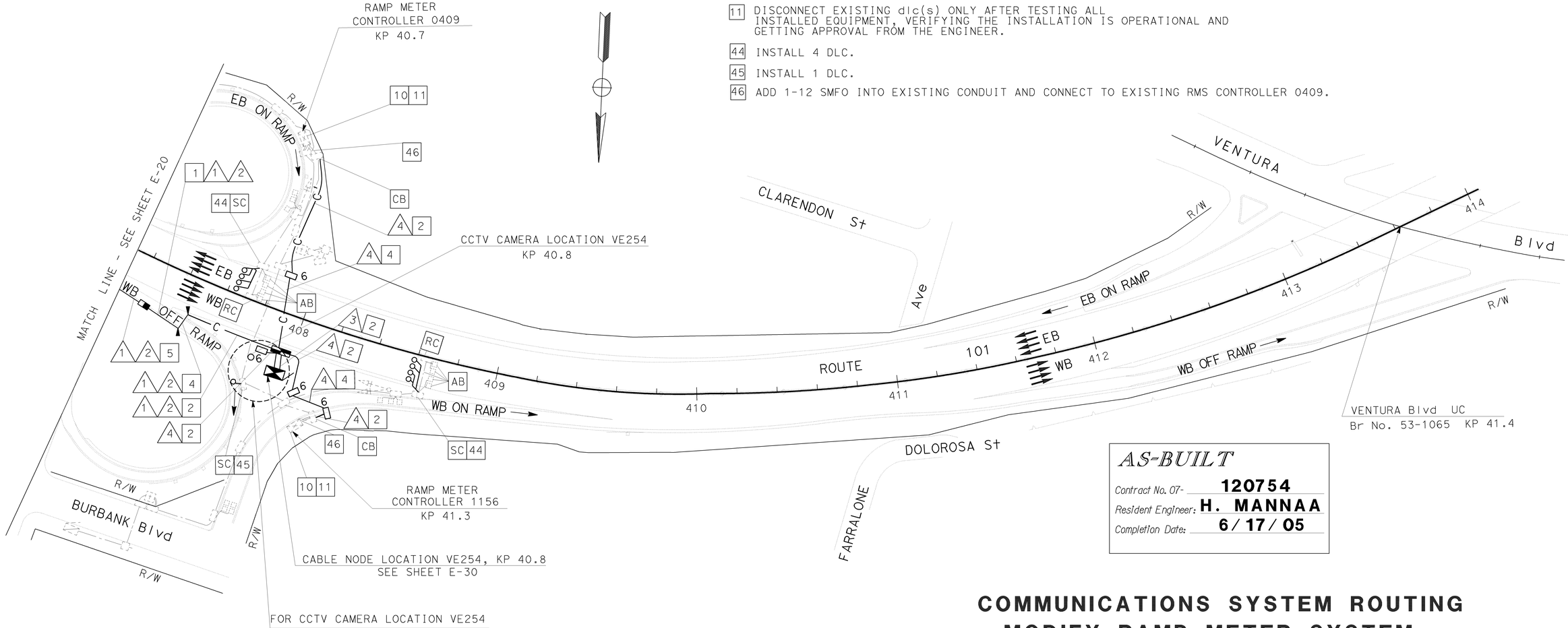
10 INSTALL FDU AND FIBER OPTIC DATA MODEM IN EXISTING CONTROLLER CABINET. SEE SHEETS E-49 AND E-51 FOR DETAILS.

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.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

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

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

CU 07388

EA 120751

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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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.

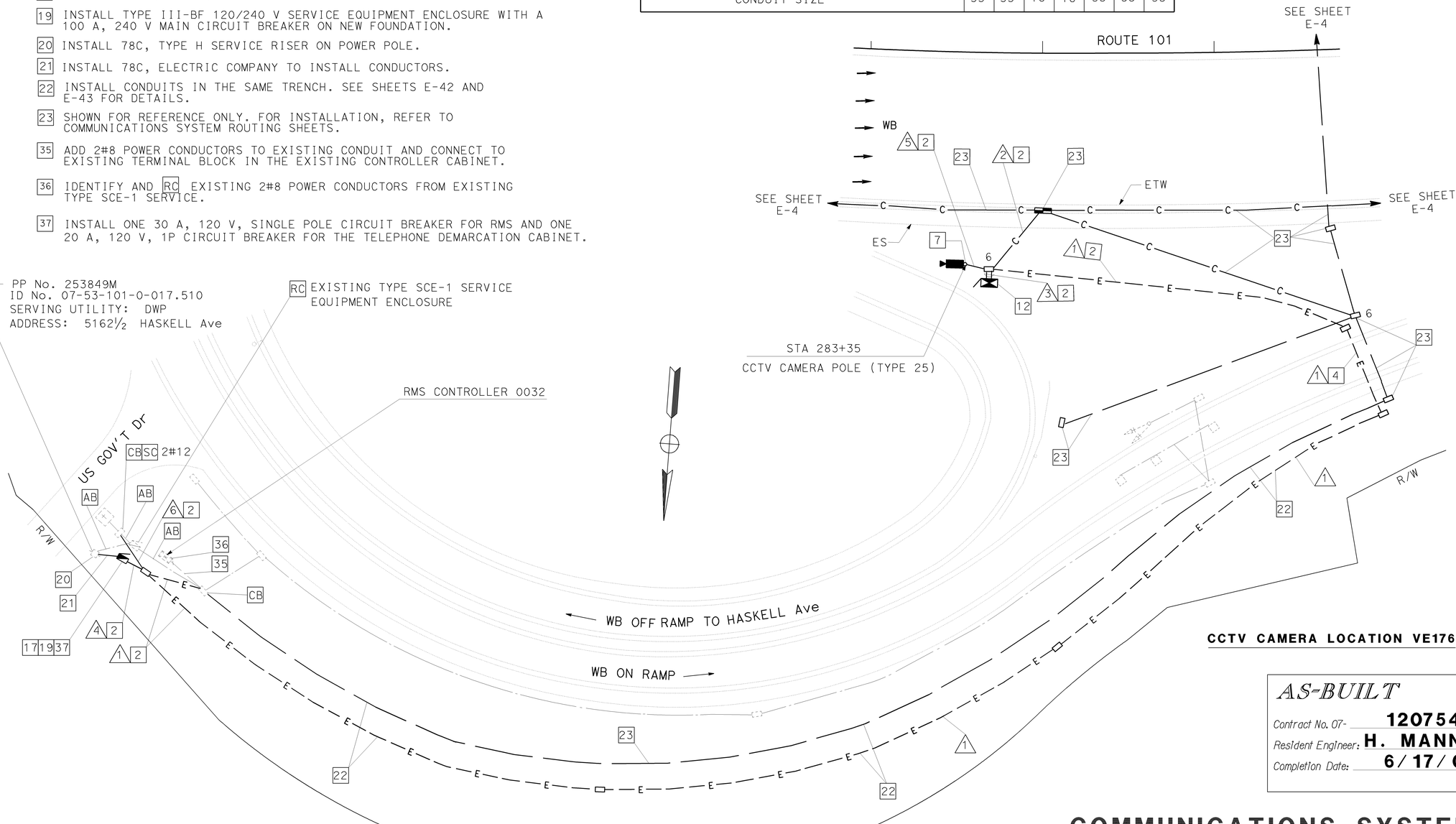
35 ADD 2#8 POWER CONDUCTORS TO EXISTING CONDUIT AND CONNECT TO EXISTING TERMINAL BLOCK IN THE EXISTING CONTROLLER CABINET.

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	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

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

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E-22

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

PROJECT ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

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DGN FILE => 712075u22.dgn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	101	R27.8/R40.6	86	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.
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 [17]
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

R/W
MAGNOLIA Blvd
HAYVENHURST
EB ON RAMP
STA 298+71
CCTV CAMERA POLE (TYPE 45)
ROUTE 101
EB
WB
SEE SHEET E-6
SEE SHEET E-6
SEE SHEET E-6
299
300
ES
ETW
HAYVENHURST Ave UC
Br No. 53-1104 KP 29.9
Ave
R/W

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

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

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

CU 07388

EA 120751

E-23

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

CHECKED BY

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

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
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.

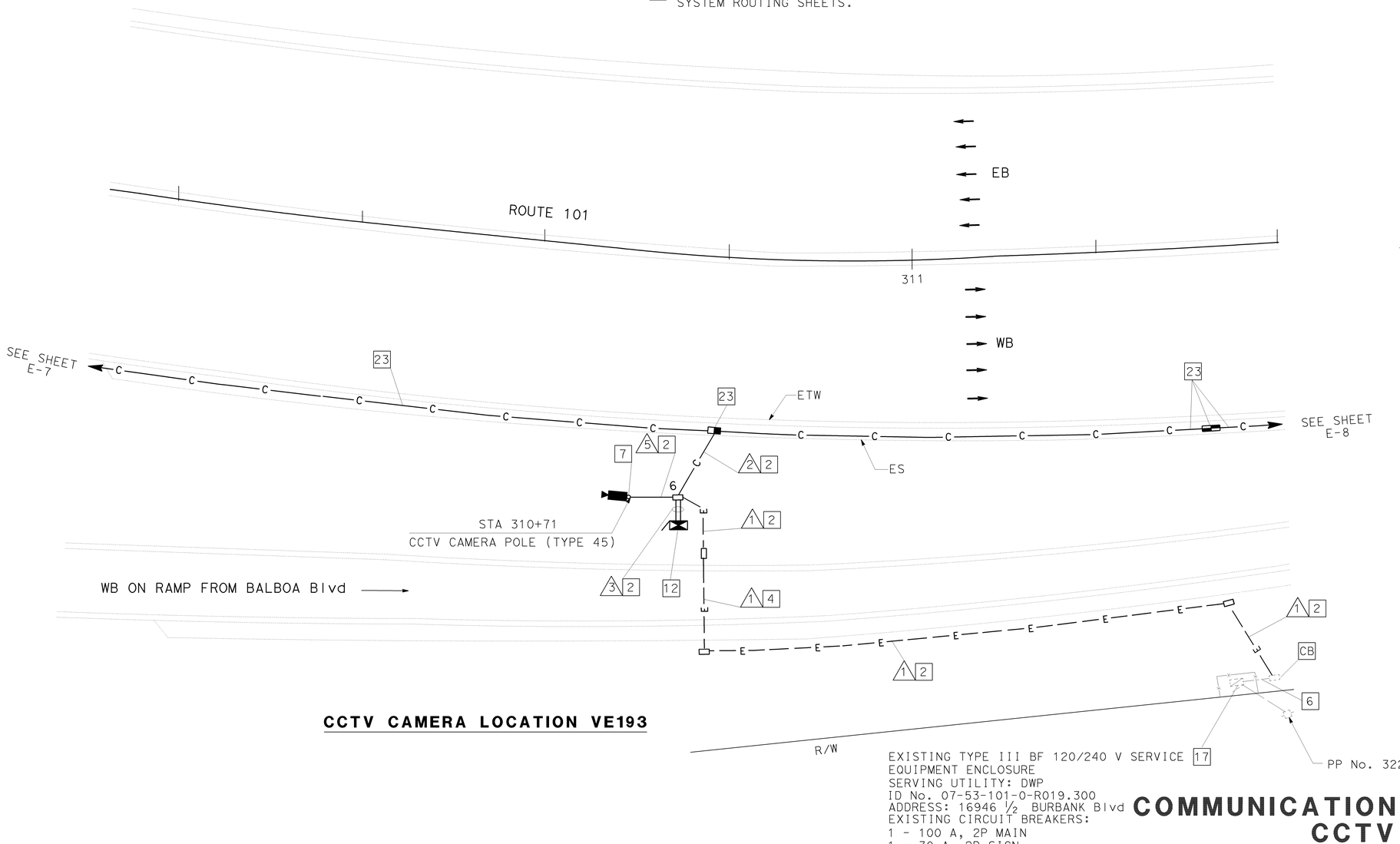
[6] ADD 2#8 POWER CONDUCTORS TO EXISTING CONDUIT.

[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

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

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 7/02		

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

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USERNAME => s124928
DGN FILE => 712075u24.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

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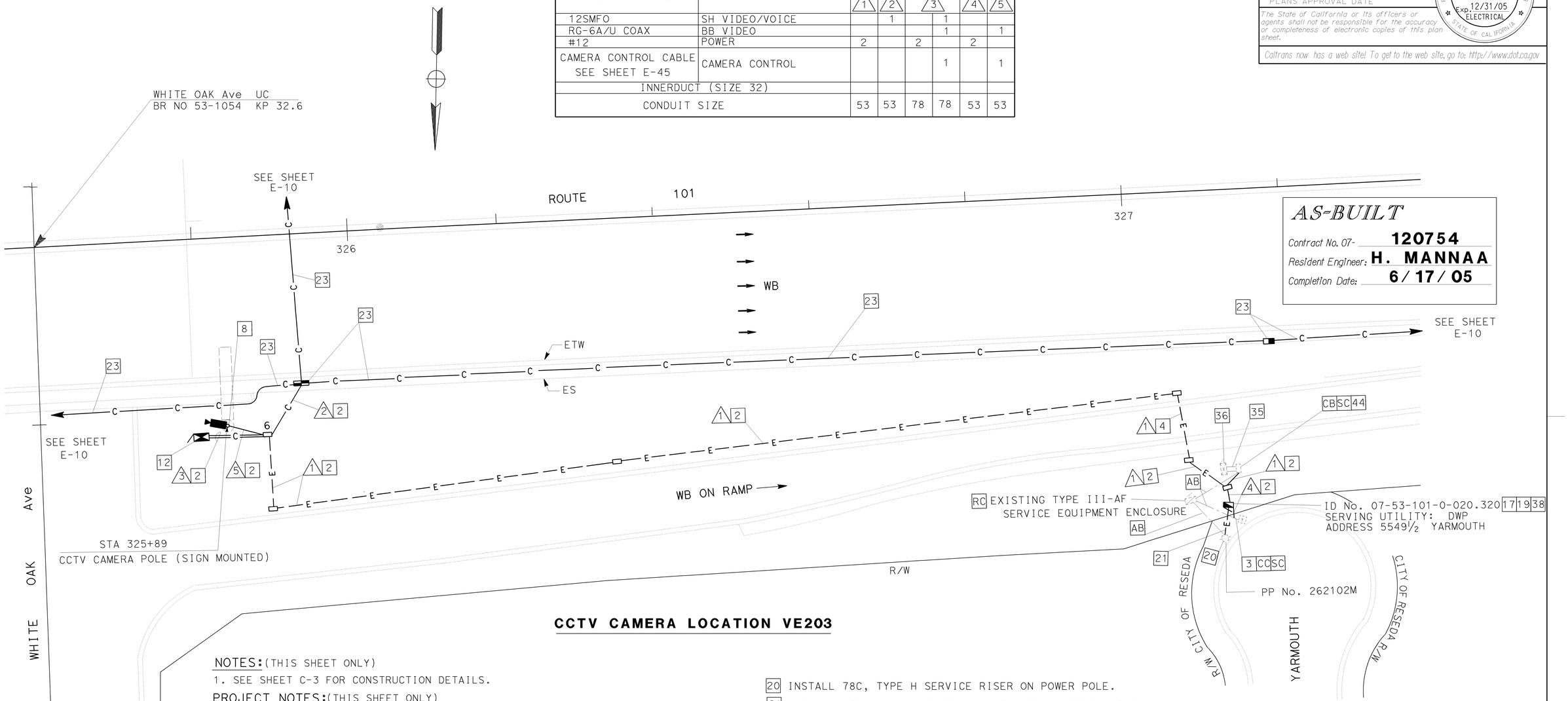
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 3	RUN 4	RUN 5
12SMFO	SH VIDEO/VOICE		1		1		
RG-6A/U COAX	BB VIDEO				1		1
#12	POWER	2		2		2	
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1		1
INNERDUCT (SIZE 32)							
CONDUIT SIZE		53	53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



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

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

COMMUNICATIONS SYSTEM ROUTING CCTV CAMERA (LOCATION VE203)

SCALE 1:200

E-25

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

PROJECT ENGINEER: HENRY H. TRINH

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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 => 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

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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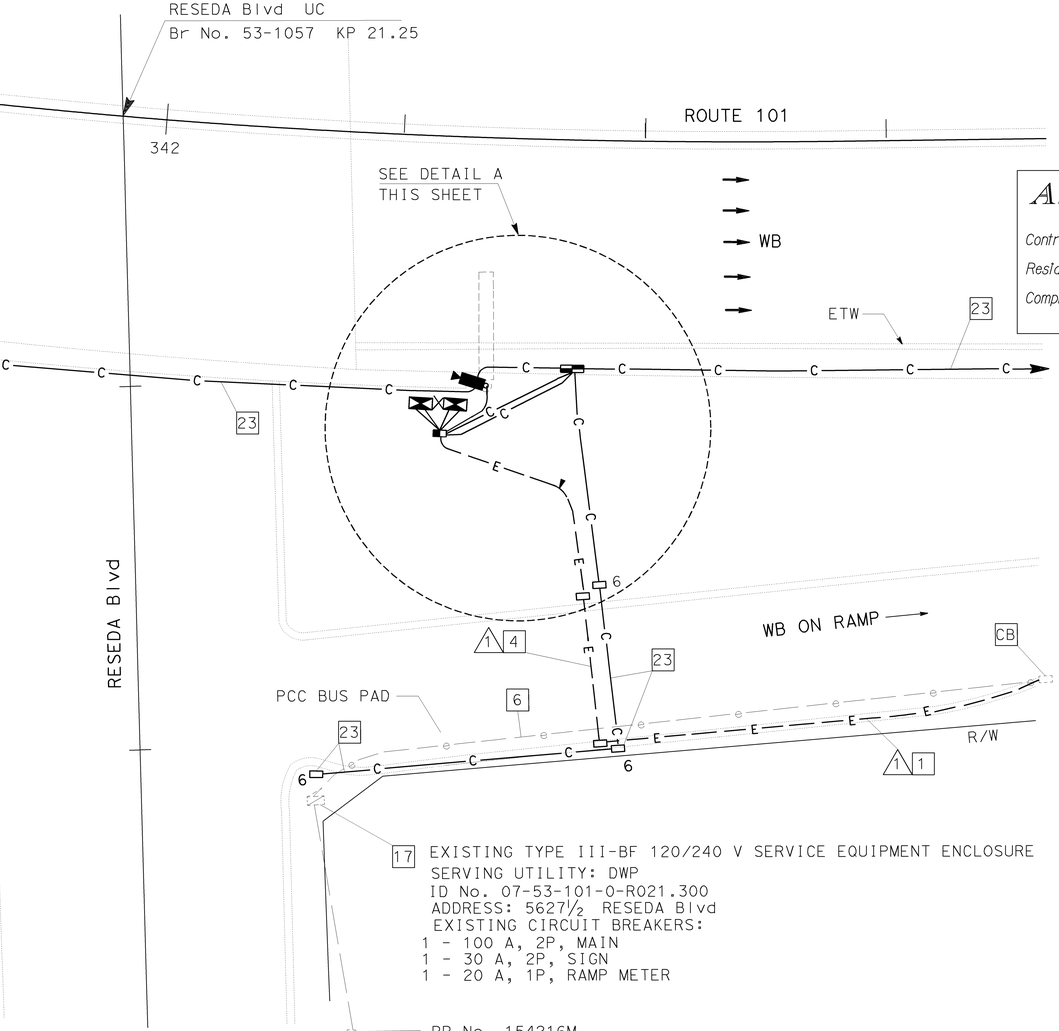
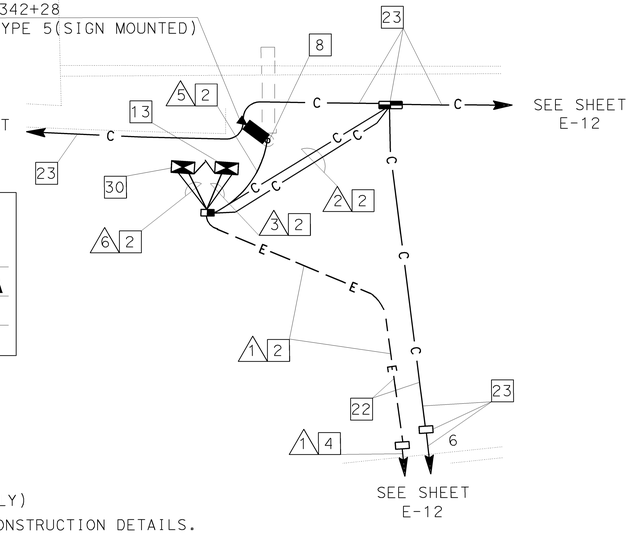
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2								RUN 3		RUN 5	RUN 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

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

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

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USERNAME => s124928
DGN FILE => 712075u26.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 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
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.

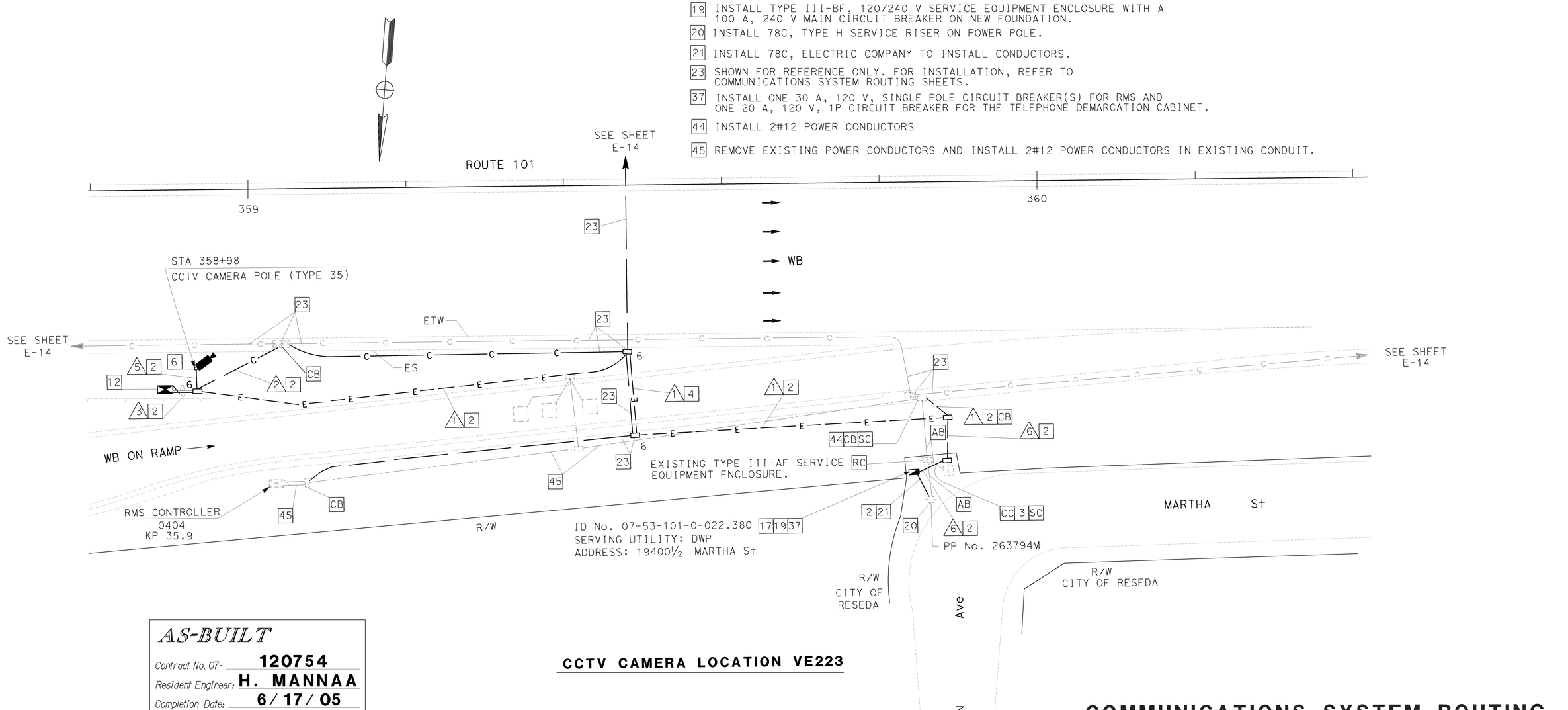
21 INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

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.



AS-BUILT

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

CCTV CAMERA LOCATION VE223

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

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DGN FILE => 712075u27.dgn

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EA 120751

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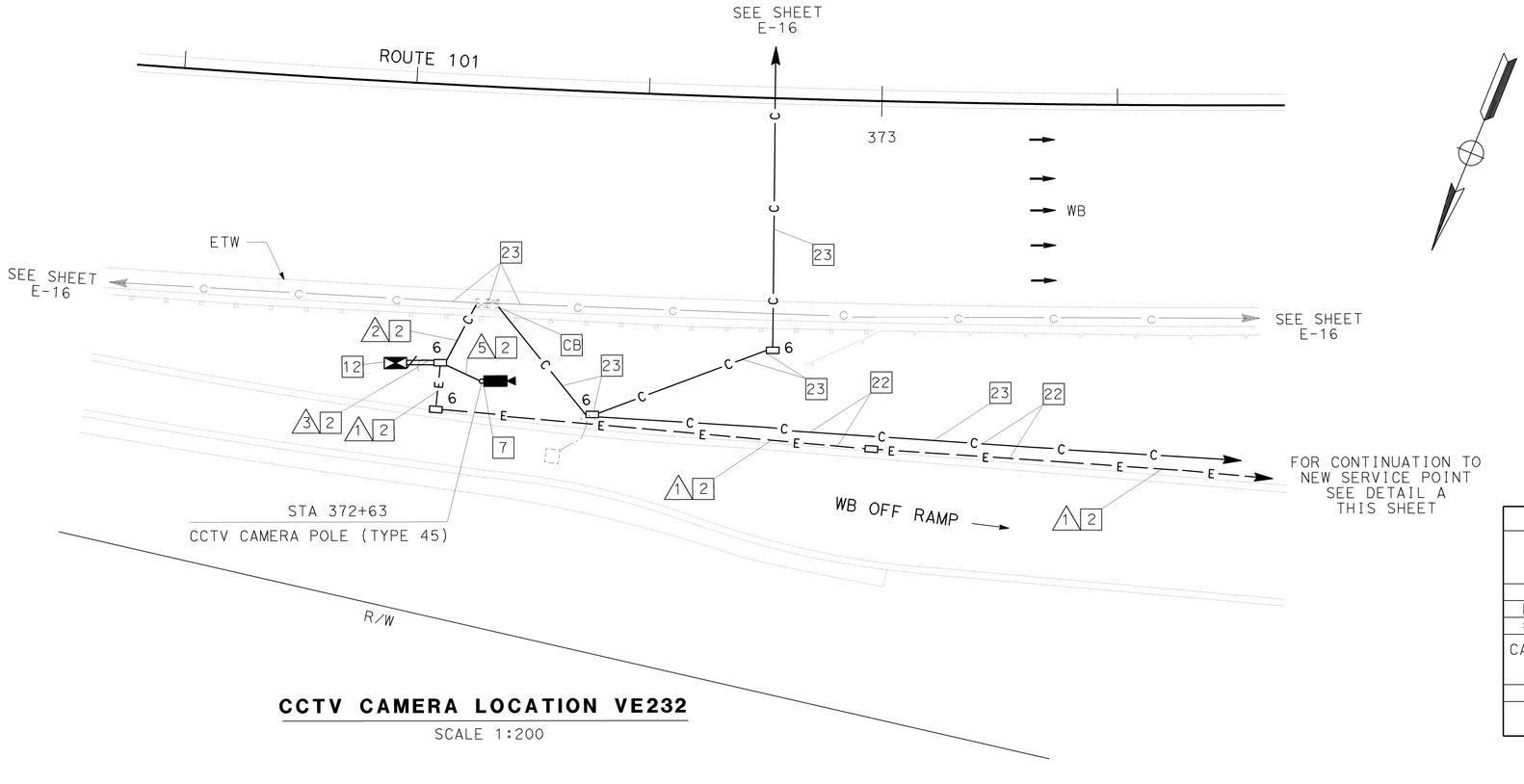


CCTV CAMERA LOCATION VE232

SCALE 1:200

AS-BUILT

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

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

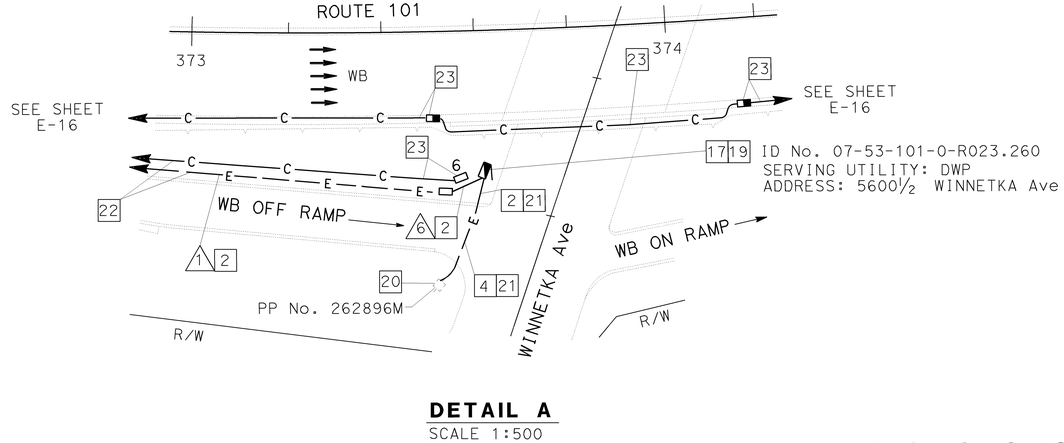
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 3	RUN 5	RUN 6	RUN 6
12SMFO	SH VIDEO/VOICE		1		1			
RG-6A/U COAX	BB VIDEO				1	1		
#8	POWER	2		2			2	
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL				1	1		
INNERDUCT (SIZE 32)								
CONDUIT SIZE		53	53	78	78	53	78	78

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
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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 => 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

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

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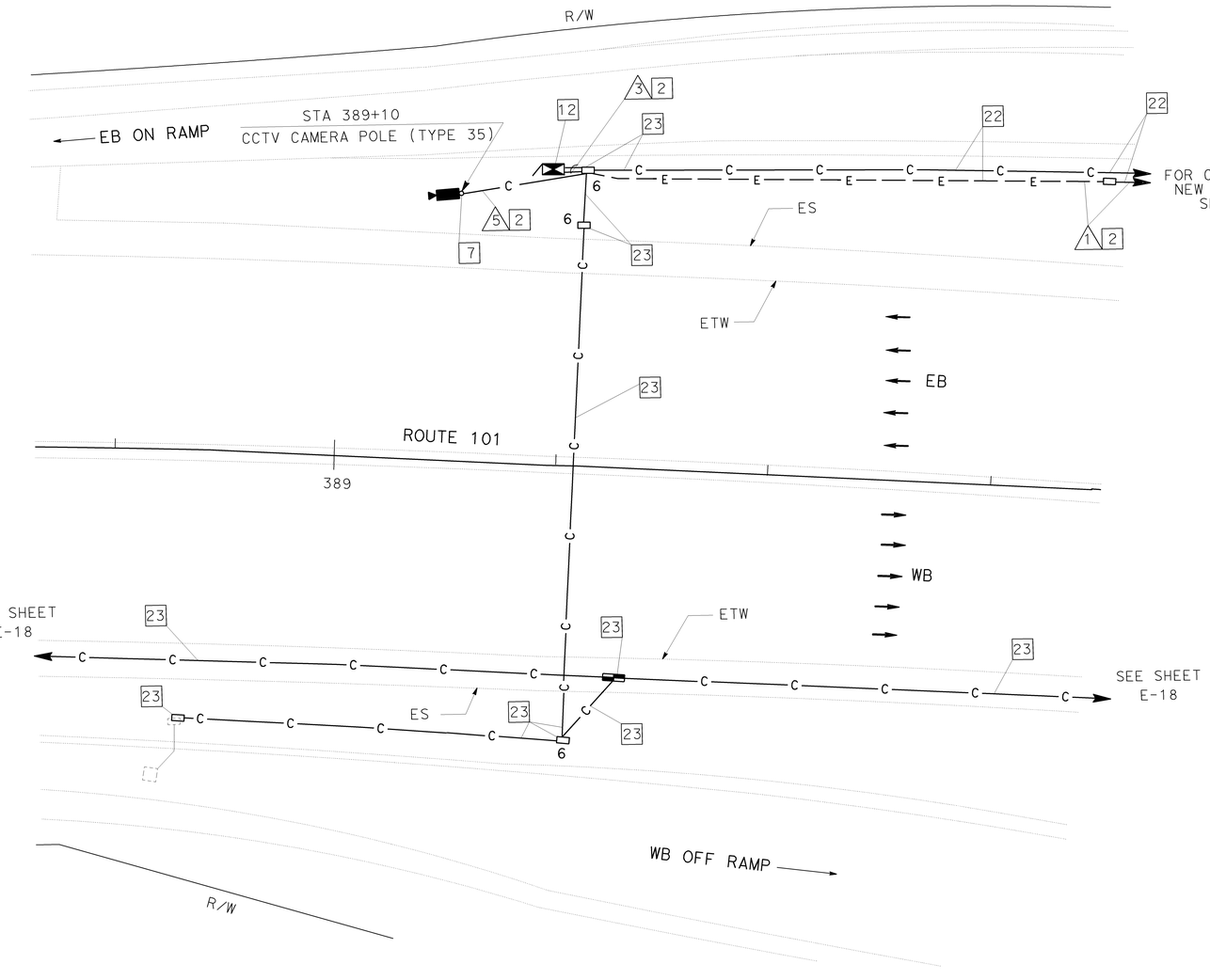
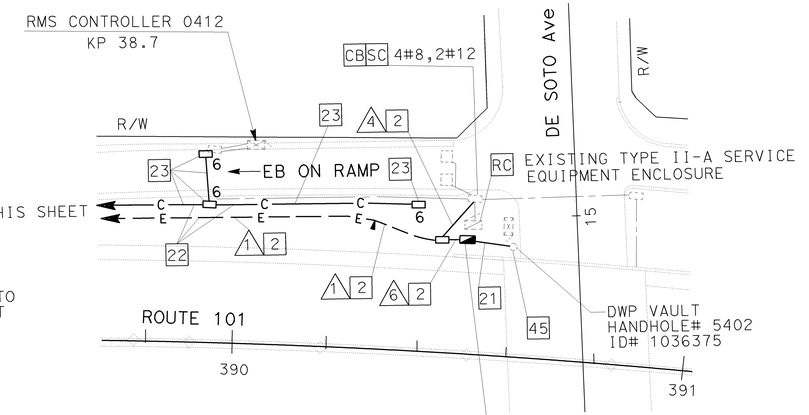
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN					
		1	3		4	5	6
12SMFO	SH VIDEO/VOICE			1			
RG-6A/U COAX	BB VIDEO			1		1	
#8	POWER	2	2		4		6
#12	POWER				2		2
CAMERA CONTROL CABLE SEE SHEET E-45	CAMERA CONTROL			1		1	
INNERDUCT (SIZE 32)							
CONDUIT SIZE		53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

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 7/02		

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

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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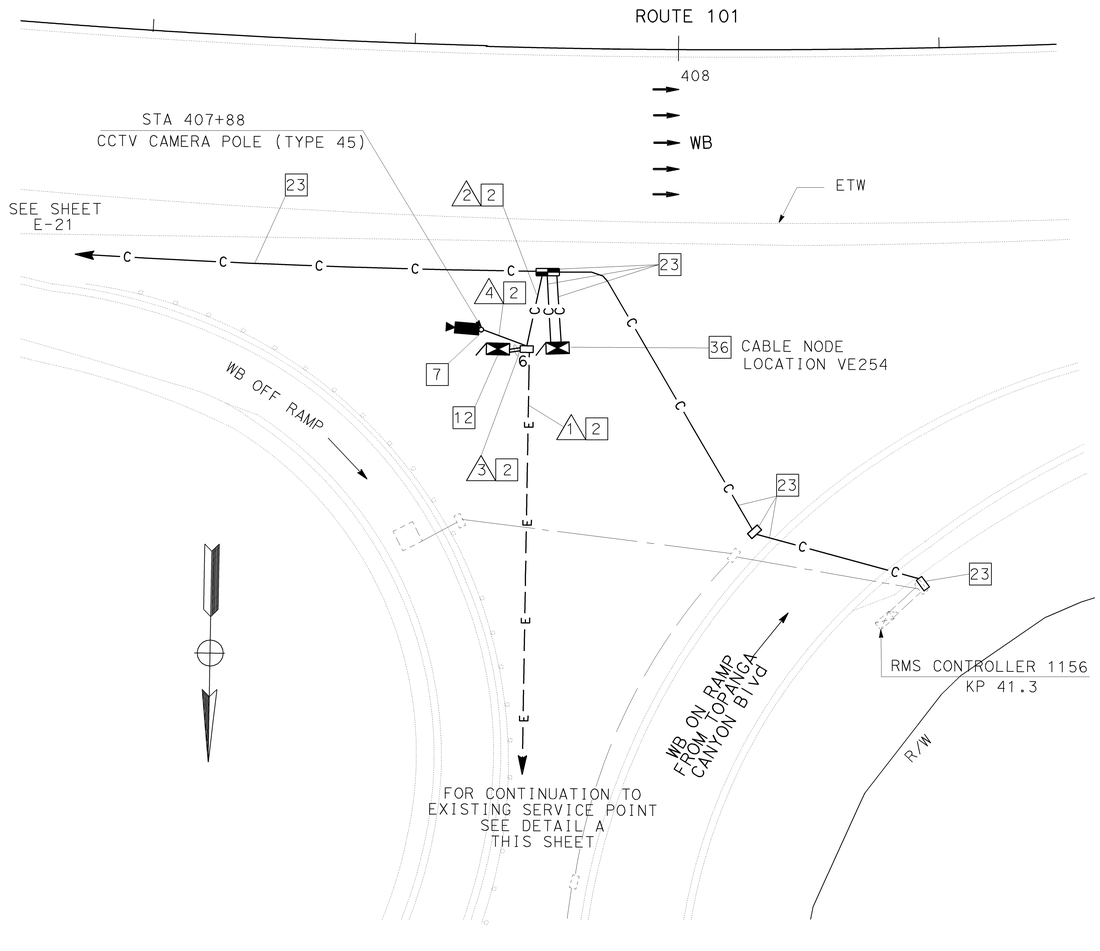
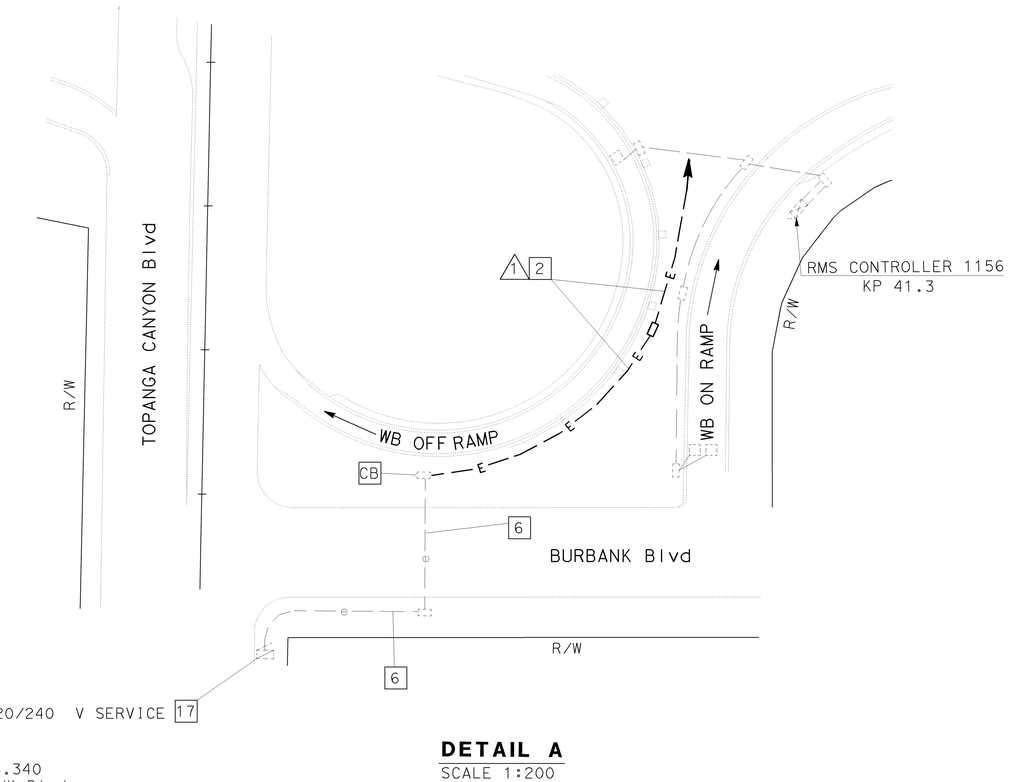


CCTV CAMERA AND CABLE NODE LOCATION VE254
SCALE 1:200

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



DETAIL A
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

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

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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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	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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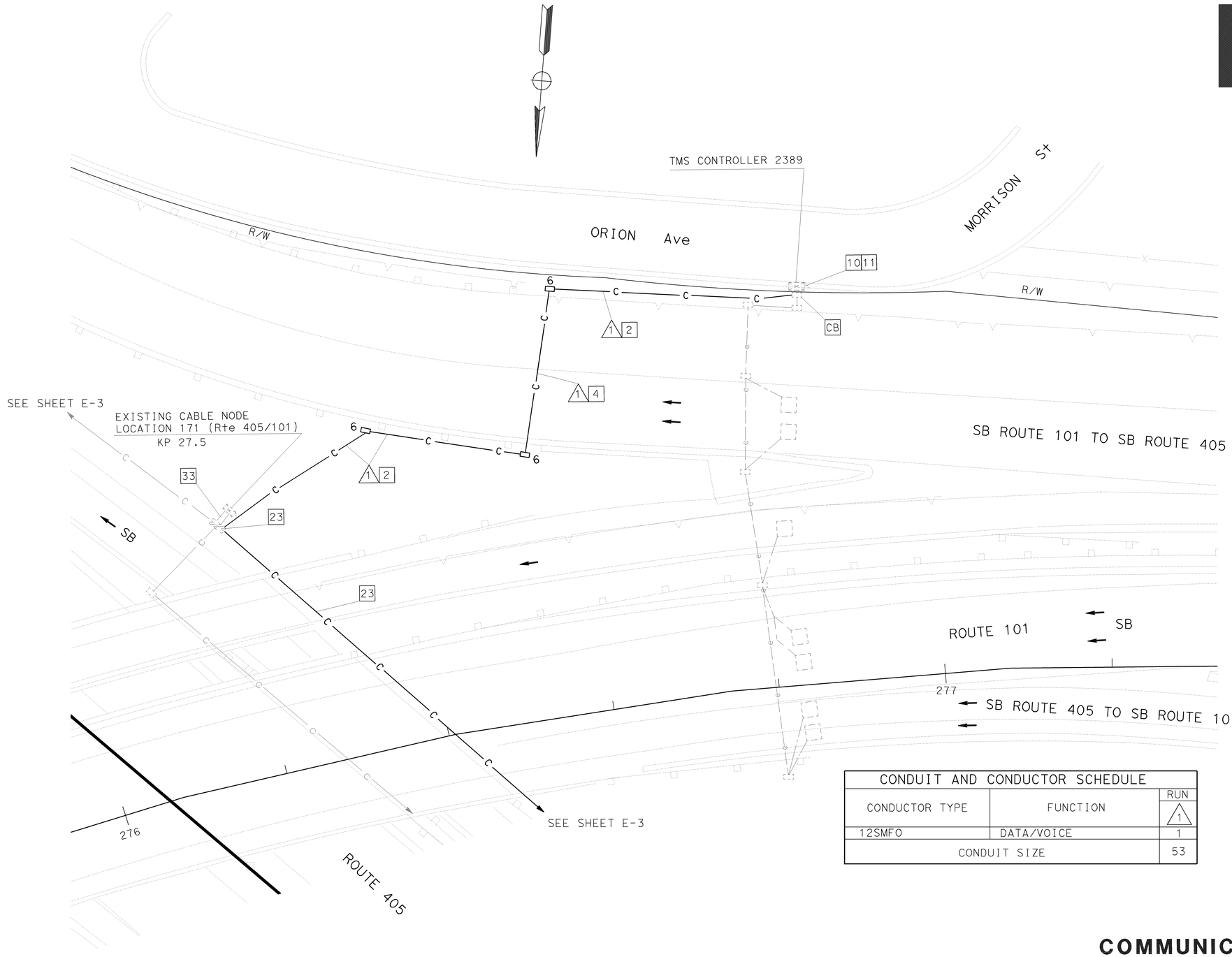

PROJECT NOTES: (THIS SHEET ONLY)

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.

CONDUIT AND CONDUCTOR SCHEDULE		
CONDUCTOR TYPE	FUNCTION	RUN 1
12SMFO	DATA/VOICE	1
CONDUIT SIZE		53

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

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

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E-31

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

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

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CU 07388

EA120751

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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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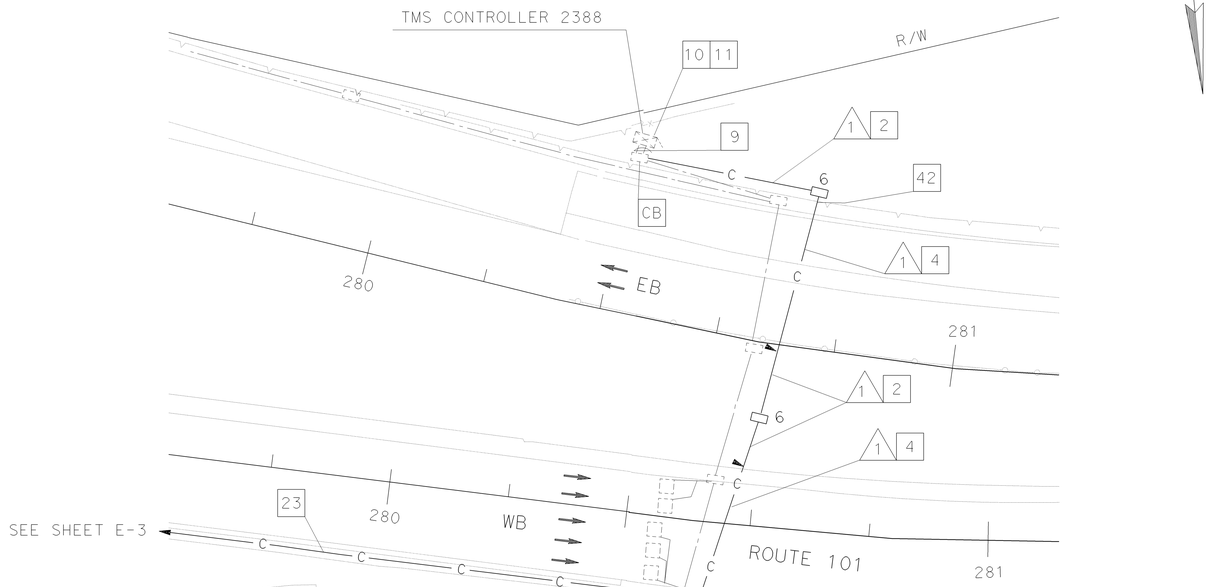

TMS LOCATION 2388

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.

CALCULATED/ DESIGNED BY	CS
CHECKED BY	DL

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

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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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	96	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
7/02	CS
7/02	DATE REVISED

CALCULATED/DESIGNED BY: CS
CHECKED BY: DL

PROJECT ENGINEER
HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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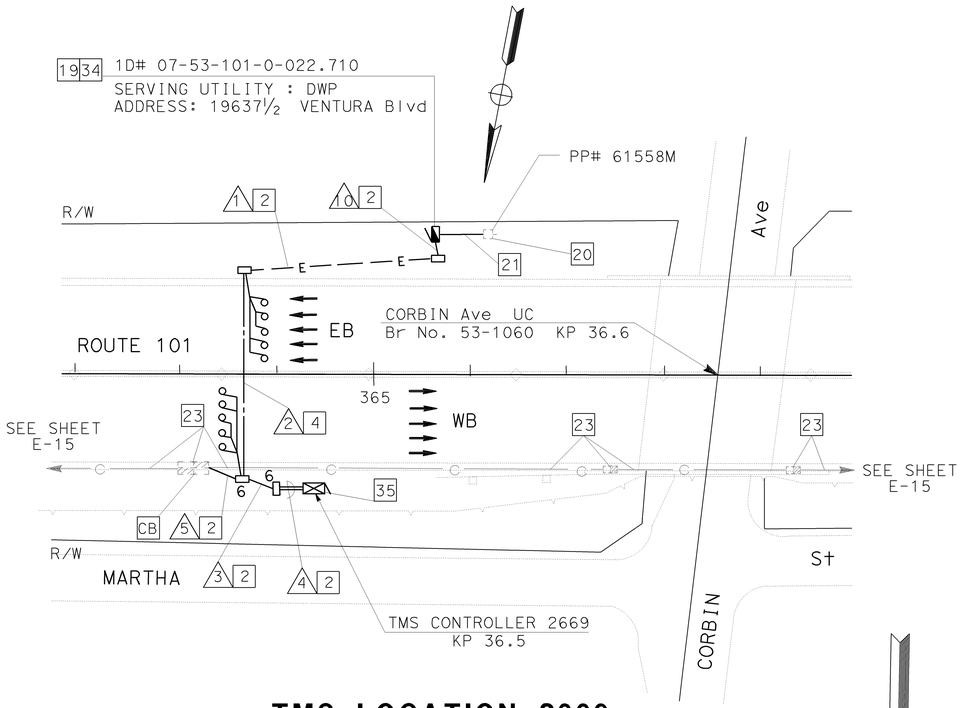
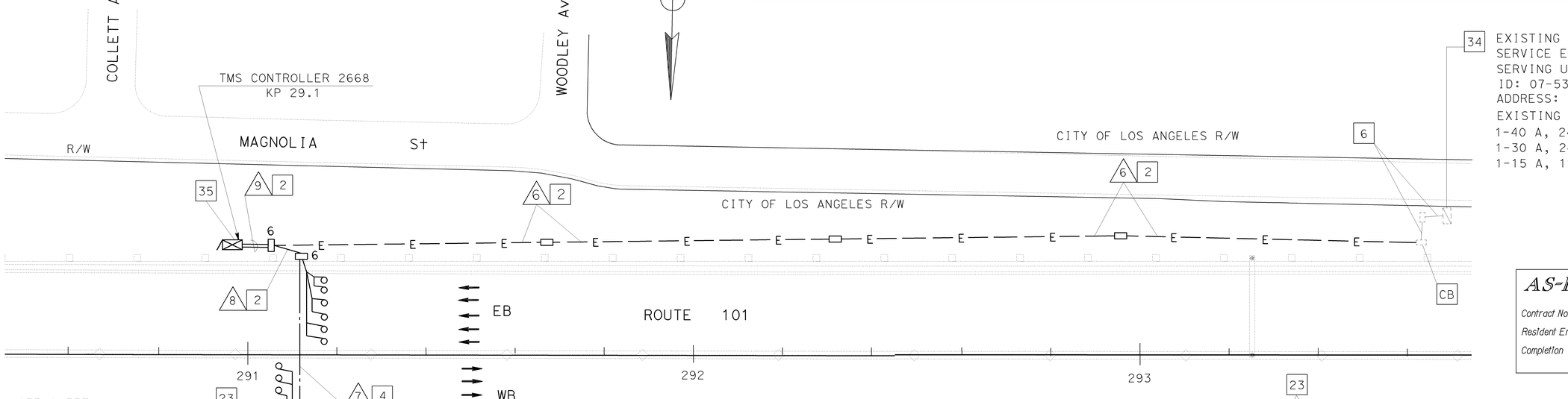


TMS LOCATION 2669

NO SCALE



TMS LOCATION 2668

FOR LEGEND AND 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.
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									2			2	
#6	POWER									2									
DLC	RAMP/COUNT		5	10			10				5		11			11			
INNERDUCT (SIZE 32)					1			1				1		1			1		
CONDUIT SIZE		53	78	78		78		78	53	53	103		78		78		78	78	78

34. EXISTING TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE, SERVING UTILITY: DWP
ID: 07-53-101-0-018.210
ADDRESS: 161701/2 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

COMMUNICATIONS SYSTEM ROUTING
TRAFFIC MONITORING STATION
(LOCATIONS 2668 AND 2669)

SCALE 1:500

E-33

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	97	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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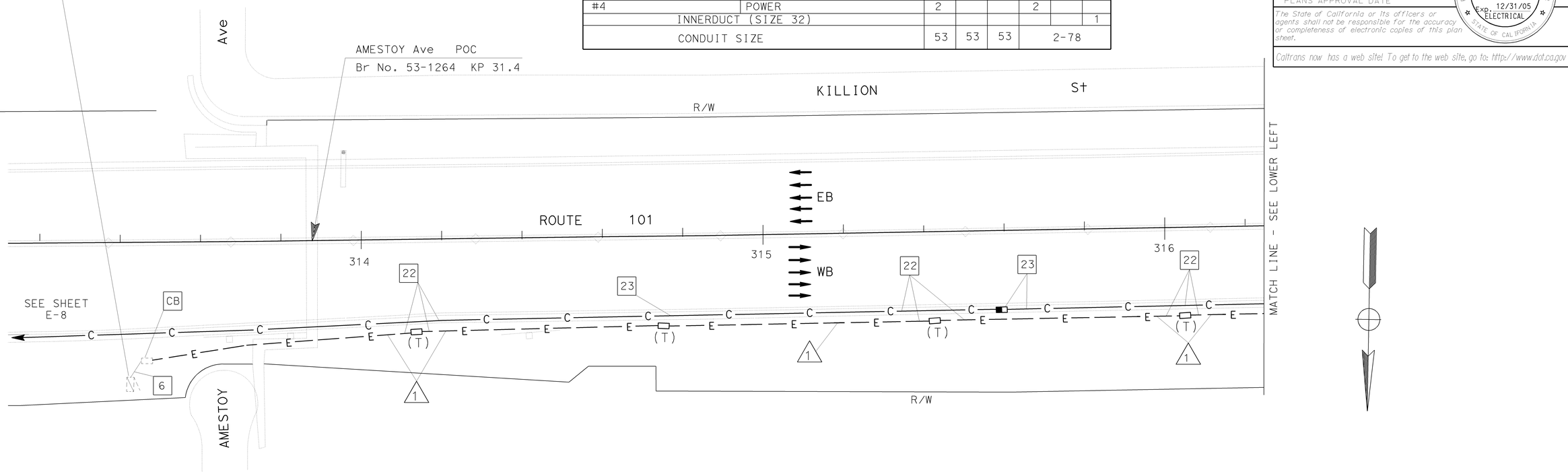
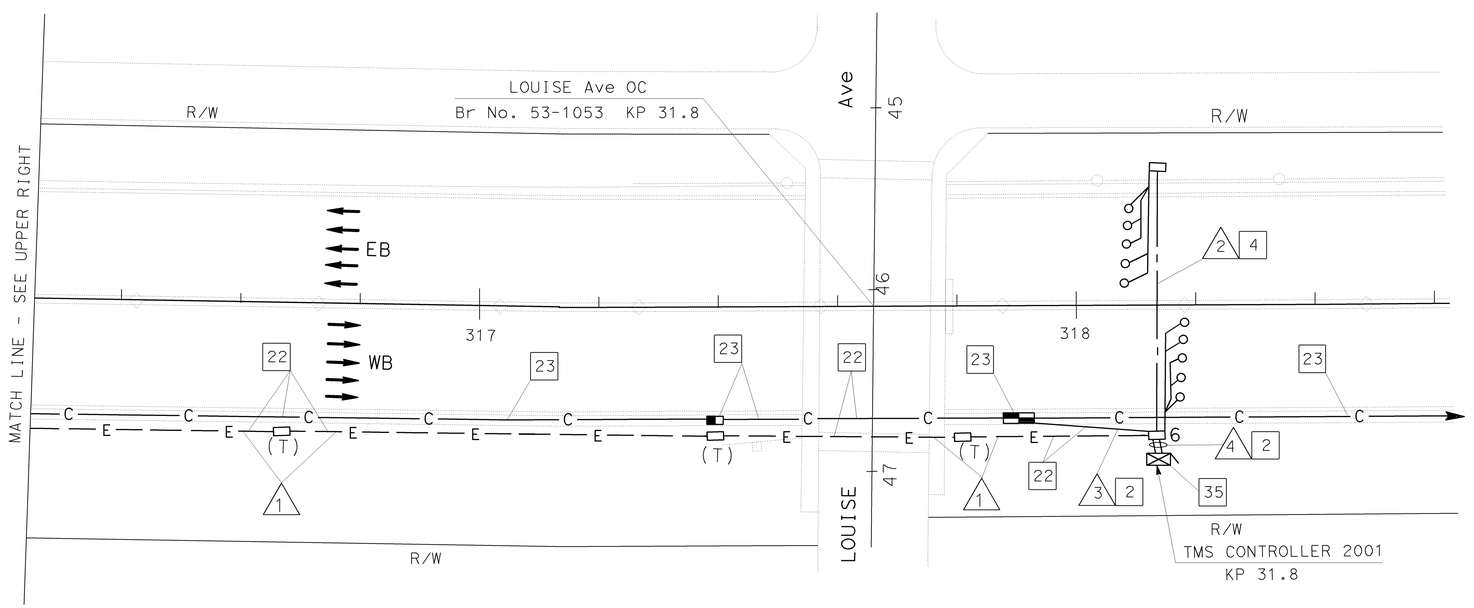
17 EXISTING TYPE III-BF 120/240 V SERVICE EQUIPMENT ENCLOSURE
SERVING UTILITY: DWP
ID: 07-53-101-0-R019.472
ADDRESS: 5528½ EDWARD E HORTON LN
EXISTING CIRCUIT BREAKER:
1-30 A, 240 V, 2P-SIGN

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 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

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
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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

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 ENGINEER: HENRY H. TRINH

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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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.

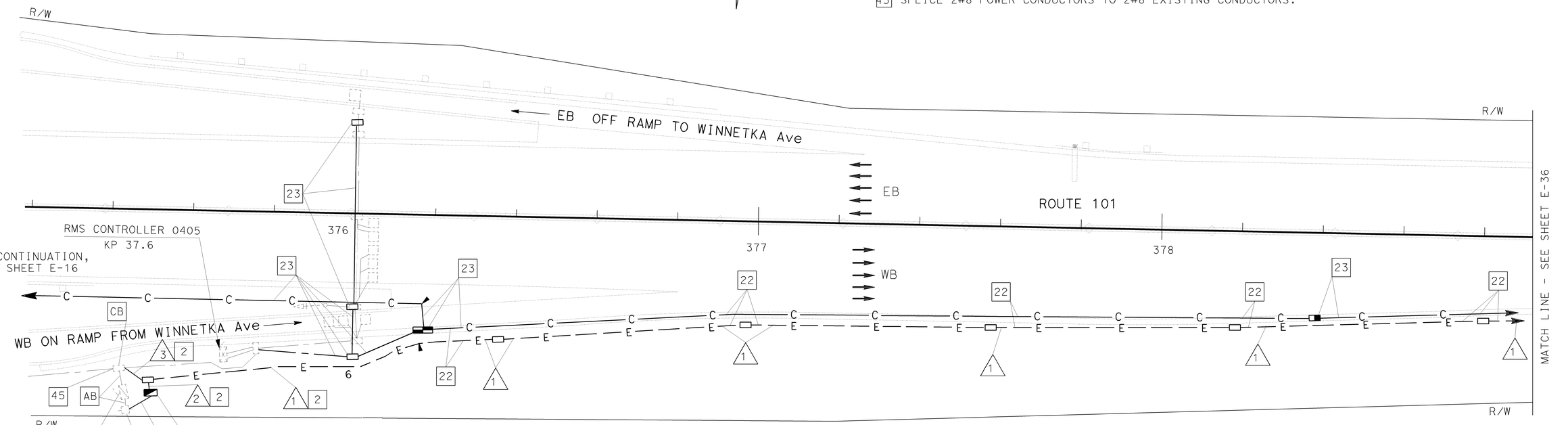
21 INSTALL 78C, ELECTRIC COMPANY TO INSTALL CONDUCTORS.

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

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

E-35

LAST REVISION 00-00-00
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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	99	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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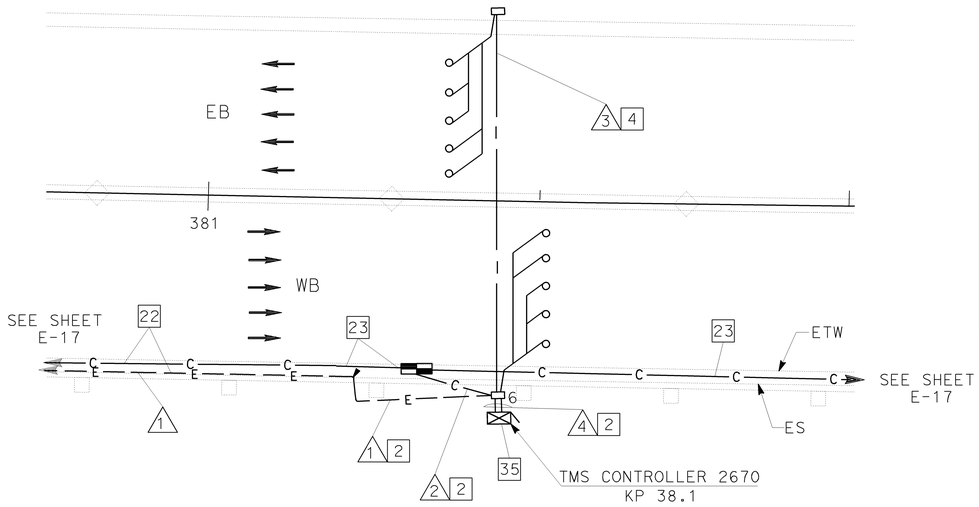


DETAIL A

NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 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.

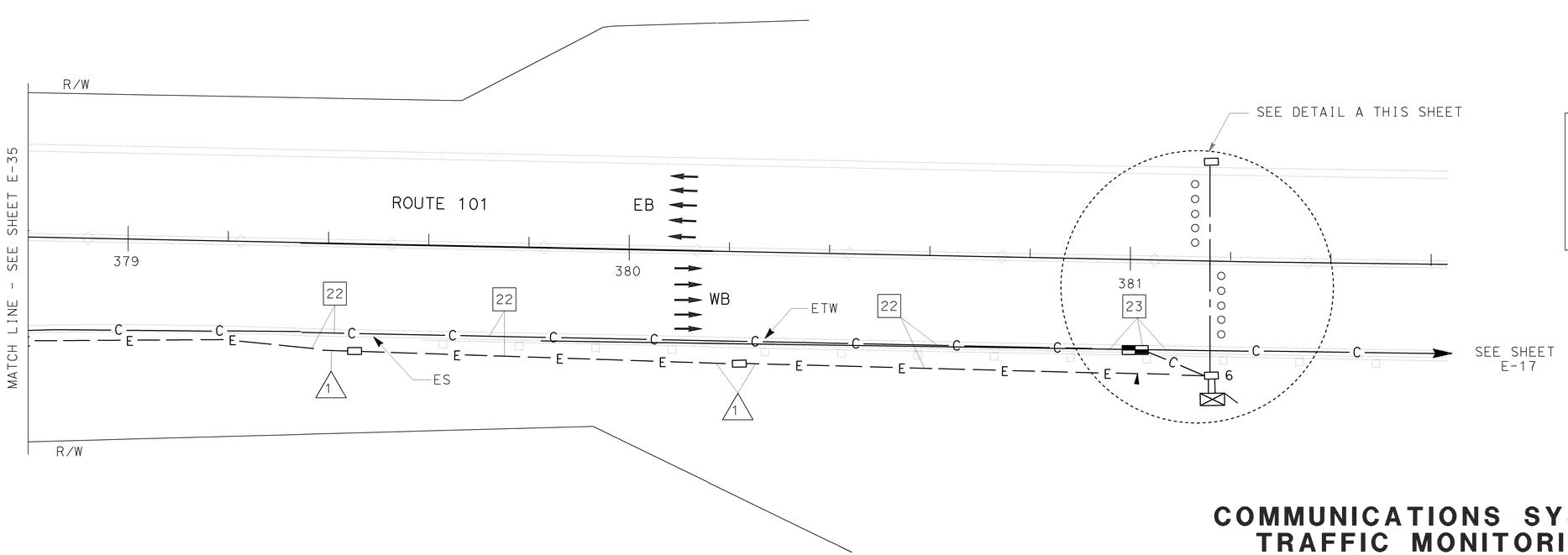
4 JACK TYPE 1 CONDUIT(S) UNDER ROADWAY.

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

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

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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	100	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)

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.

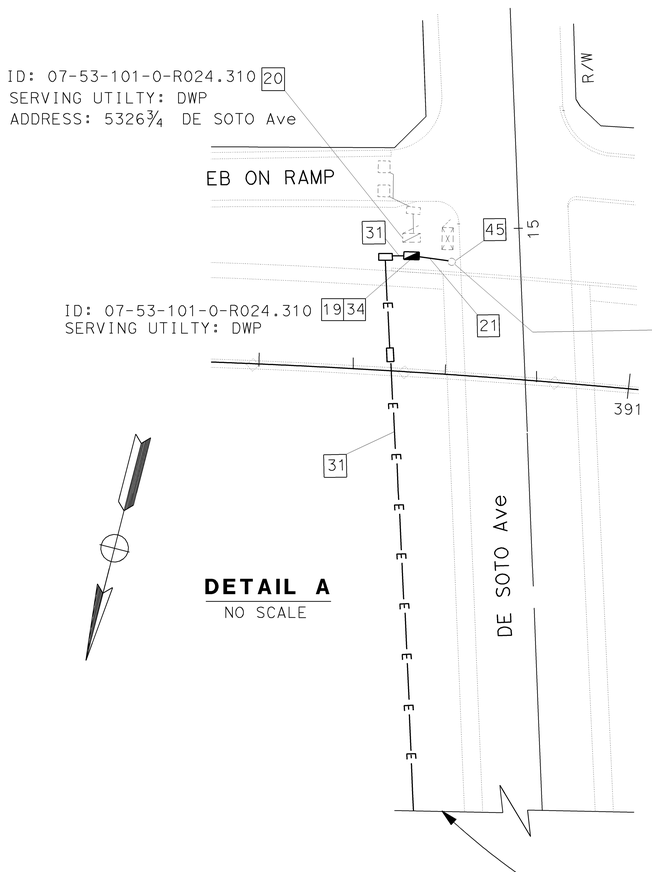
30 TRENCH AND INSTALL 2-78C, 2#6, STATE-FURNISHED CMS CONTROL CABLE (6P18, 24P18) IN SOIL AREA.

31 TRENCH AND INSTALL 2-78C, 2#6,12#1/0, IN SOIL AREA.

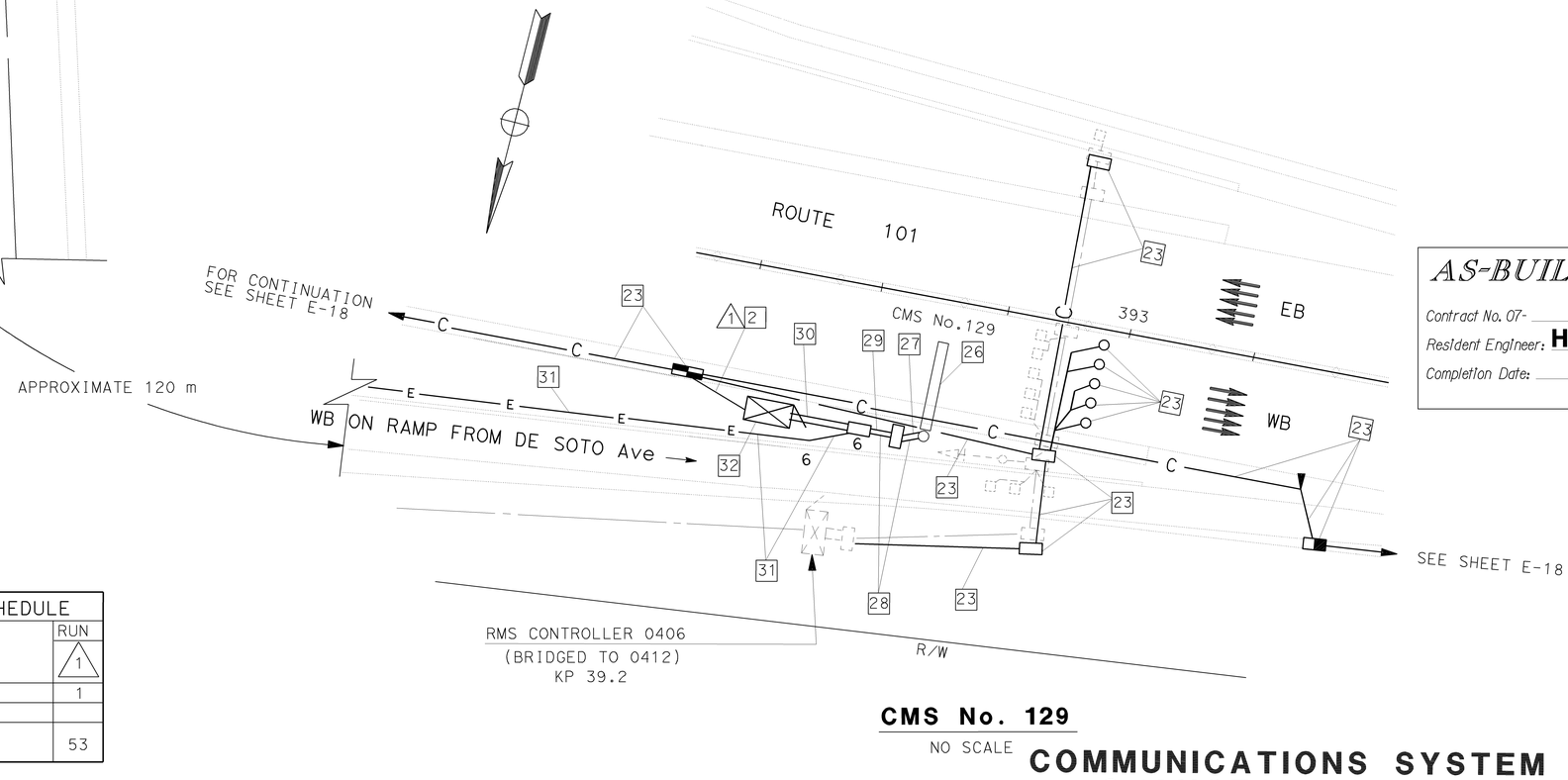
32 INSTALL STATE-FURNISHED TYPE 334 CMS CONTROLLER CABINET AND MODEL 170 CONTROLLER. CONSTRUCT CONCRETE PAD. INSTALL FDU AND FIBER OPTIC DATA MODEM, SEE SHEET E-68 AND E-49 FOR MORE DETAILS.

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



CMS No. 129
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE		
CONDUCTOR TYPE	FUNCTION	RUN △1
12SMFO CABLE	DATA/VOICE	1
INNERDUCT (SIZE 32)		
CONDUIT SIZE		53

COMMUNICATIONS SYSTEM ROUTING CHANGEABLE MESSAGE SIGN (No.129)

NO SCALE

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

E-37

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

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

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

USERNAME => s124928
DGN FILE => 712075u37.dgn

CU 07388

EA 120751

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	45	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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PROJECT NOTES: (FOR SHEETS E-2 TO E-21)

1. TRENCH AND INSTALL CONDUIT IN ASPHALT.
2. TRENCH AND INSTALL CONDUIT IN CONCRETE.
3. TRENCH AND INSTALL CONDUIT IN SOIL.
4. ATTACH CONDUIT TO STRUCTURE. SEE SHEET C-4 FOR BRIDGE ATTACHMENT TYPE AND DETAILS.
5. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
6. COIL 30 FEET OF 6P22 CABLE IN NEW PULL BOX FOR FUTURE COUNT STATION CONTROLLER.
7. TERMINATE TWISTED PAIR CABLE AND COIL 60 FEET IN SPLICE VAULT.
8. CONNECT 6P22 TO CONTROLLER. USE CONDUIT FROM PB INTO CABINET.
9. TERMINATE 12SMFO CABLE AND COIL 60 FEET IN SPLICE VAULT.
10. LOCATE SPLICE VAULT 17 FEET FROM EXISTING SHOULDER FOR ANTICIPATED HOV EXPANSION.
11. COIL 25 FEET 75P22 CABLE IN SPLICE VAULT FOR ANTICIPATED HOV EXPANSION.
12. COIL 25 FEET 12SMFO CABLE IN SPLICE VAULT FOR ANTICIPATED HOV EXPANSION.
13. COIL 25 FEET 24SMFO CABLE IN SPLICE VAULT FOR ANTICIPATED HOV EXPANSION.
14. LOCATE 6(E) PB 15 FEET FROM EXISTING SHOULDER FOR ANTICIPATED HOV EXPANSION.
15. LOCATE 6(T) PB AS CLOSE TO SOUND WALL BASE AS POSSIBLE FOR ANTICIPATED HOV EXPANSION.
16. COIL 30 FEET OF 6P22 CABLE IN NEW PB FOR IRRIGATION CONTROLLER CONNECTION.
17. COIL 30 FEET OF 6P22 CABLE IN NEW PB FOR TRAFFIC SIGNAL CONTROLLER.
18. CORE DRILL THROUGH SOUND WALL TO NEWLY LOCATED PULL BOX BEHIND SOUND WALL. SEE SHEET C-7.
19. LOCATE PULL BOX OFF THE PAVED SHOULDER OF THE FREEWAY IN SOIL SURFACE.
20. COIL 100 FEET OF 6P22 AND 2SMFO B/O CABLE FOR ANTICIPATED CAMERA LOCATION.
21. INSTALL TWISTED PAIR SPLICE CLOSURE ONLY.
22. MAINTAIN EXISTING DIAL-UP TELEPHONE SERVICE CABLE BETWEEN TELEPHONE SERVICE POINT AND CONTROLLER CABINET.
23. INSTALL TYPE A DETECTOR.
24. INSTALL 2"C, 1-DLC.
25. ADD 1-DLC IN EXISTING CONDUITS TO RAMP METER CONTROLLER.
26. INSTALL CONDUITS IN SAME TRENCH.
123. INSTALL 120/240V, 3-WIRE (METERED) TYPE III - BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND 30A, 120V, 1P CIRCUIT BREAKER FOR TRAFFIC COUNT STATION.
124. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENT. (CONDUCTORS BY OTHERS).

ABBREVIATIONS:

B/O	- BREAK OUT
CCR	- CAMERA CONTROL RECEIVER
CCTV	- CLOSED CIRCUIT TELEVISION
COMM	- COMMUNICATION
DACCS	- DIGITAL ACCESS CROSS CONNECTION SYSTEM
DEMARC	- DEMARCATION
DEMUX	- DEMULTIPLEX
DWP	- LA DEPARTMENT OF WATER AND POWER
E/O	- ELECTRIC TO OPTIC
GTE	- GENERAL TELEPHONE AND ELECTRIC
HAR	- HIGHWAY ADVISORY RADIO
JKFD	- JACKFIELD
MUX	- MULTIPLEX
OW	- ORDER WIRE(MULTIPLE VOICE CIRCUIT)
O/E	- OPTICAL TO ELECTRIC
PAC BELL	- PACIFIC BELL TELEPHONE COMPANY
PT&T	- PACIFIC TELEPHONE AND TELEGRAPH
RX	- RECEIVER
SD	- SAN DIEGO
SCE	- SOUTHERN CALIFORNIA EDISON
SCGS	- SOUTHERN CALIFORNIA GAS COMPANY
SCWC	- SOUTHERN CALIFORNIA WATER COMPANY
SM	- SINGLEMODE
SMFO	- SINGLEMODE FIBER OPTIC
T	- TERMINATE
TX	- TRANSMITTER
VMX	- VIDEO MULTIPLEXER
VX	- VIDEO TRANSMITTER

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 REQUIREMENTS OF EITHER SOUTHERN CALIFORNIA EDISON COMPANY(SCE)OR LOS ANGELES DEPARTMENT OF WATER AND POWER(DWP).
4. CONDUCTORS FROM POWER POLE(OR VAULT)TO SERVICE ENCLOSURE WILL BE INSTALLED BY UTILITY COMPANY.
5. 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.
6. STENCIL CAMERA IDENTIFICATION NUMBER ON POLE IN 3" CHARACTERS 10 FEET ABOVE BASE. SEE SHEET K1 AND K2.
7. GIVEN STATIONS ARE APPROXIMATE,EXACT EQUIPMENT AND POLE LOCATIONS TO BE DETERMINED BY ENGINEER.

LEGEND

	CCTV ASSEMBLY CAMERA AND POLE
	CCTV CAMERA POLE LOCATION
	SPLICE VAULT
	EXISTING SPLICE VAULT
	EXISTING CONTROLLER TO BE TIED TO COMMUNICATION SYSTEM
	MODEL 170 IN 334 CABINET(RAMP METERING)
	334 TV CABINET
	CABLE NODE CABINET (334-TV)
— — E — —	PROPOSED POWER SERVICE CONDUIT
— — e — —	EXISTING POWER SERVICE CONDUIT
	PROPOSED RAMP METER SIGNALS
	EXISTING DETECTOR LOOPS
	PROPOSED DETECTOR LOOPS
PP#XXX	POWER POLE NUMBER
XXSMFO	SINGLEMODE FIBER OPTIC CABLE SEE SHEET E-81 TO E-83 FOR ASSIGNMENT
XXP22	XX PAIR COPPER TELEPHONE CABLE SEE SHEET E-69 THROUGH E-76 FOR ASSIGNMENT
SDXXX	CCTV IDENTIFICATION NUMBER: (SD = SAN DIEGO; XXX = POST MILE DESIGNATOR TO ONE DECIMAL PLACE)
15	TYPE 15 PULL BOX

AS-BUILT
Contract No. 07- 120834
Resident Engineer:
Completion Date: 09/27/1999

LEGEND AND NOTES

E-1

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DATE	REVISED BY
PAT SULLIVAN	CHECKED BY	6/94	DATE REVISED
	RL	CF	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 14-JAN-1995 07:08

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/mikesl/PI/712083u01.dg
CU 07374
EA 120831

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u02.dgn DATE: Tue May 23 2000 TIME: 14:00

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	46	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

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DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

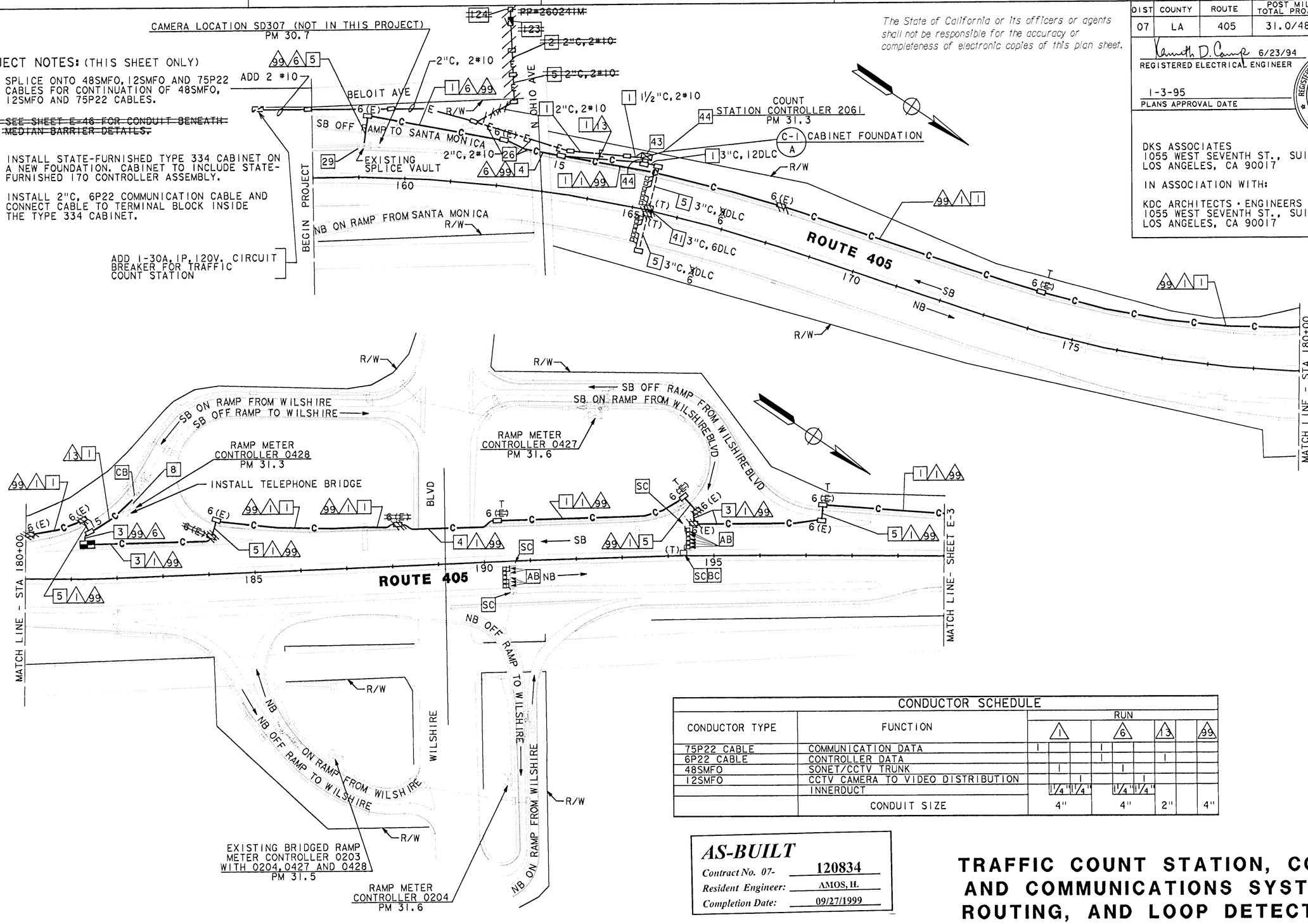
PROJECT NOTES: (THIS SHEET ONLY)

29 SPLICE ONTO 48SMFO, 12SMFO AND 75P22 CABLES FOR CONTINUATION OF 48SMFO, 12SMFO AND 75P22 CABLES.

~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE TYPE 334 CABINET.



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 6	RUN 13		RUN 99
75P22 CABLE	COMMUNICATION DATA	1	1			
6P22 CABLE	CONTROLLER DATA		1	1		
48SMFO	SONET/CCTV TRUNK	1	1			
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1	1			
	INNERDUCT	1 1/4" 1 1/4"	1 1/4" 1 1/4"			
	CONDUIT SIZE	4"	4"	2"		4"

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

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

TRAFFIC COUNT STATION, CCTV AND COMMUNICATIONS SYSTEM ROUTING, AND LOOP DETECTOR

SCALE: 1" = 100'

E-2

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
CHECKED BY	RL 10/93	RS 12/93	MZ 10/94

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
PAT SULLIVAN

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

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 => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07374

EA 120831

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u02.dgn DATE: Tue May 23 2000 TIME: 14:00

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u03.dgn DATE: Tue May 23 2000 TIME: 13:59

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	47	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 6	RUN 13	RUN	RUN 99
75P22 CABLE	COMMUNICATION DATA	1	1			
6P22 CABLE	CONTROLLER DATA	1	1	1		
48SMFO	SONET/CCTV TRUNK	1	1			
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1				
	INNERDUCT	1 1/4"	1 1/4"	1 1/4"		
	CONDUIT SIZE	4"	4"	2"		4"

PROJECT NOTES: (THIS SHEET ONLY)

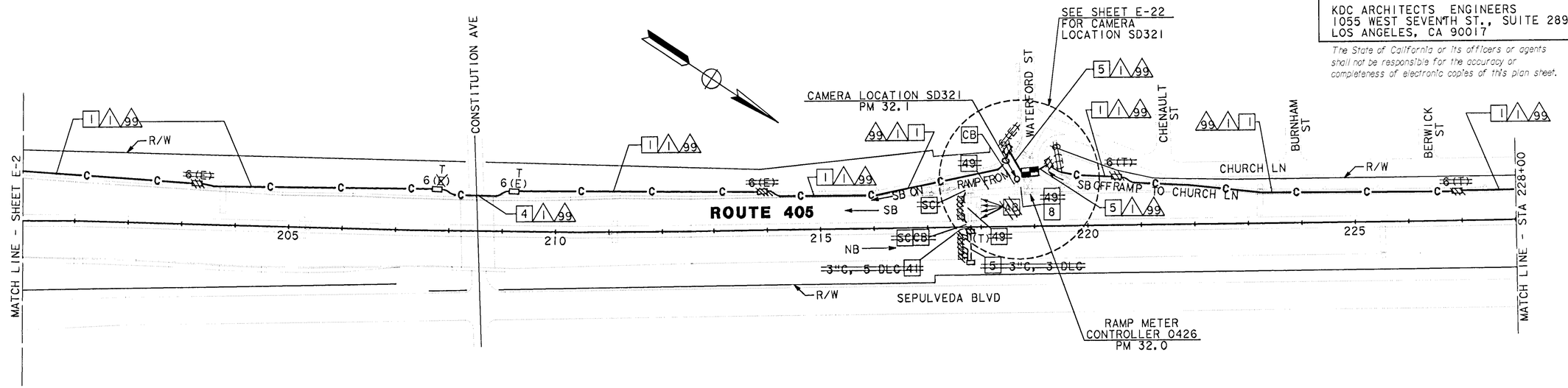
40 INSTALL 6(T) PULL BOX, (SEE DETAILS SHEET C-7).

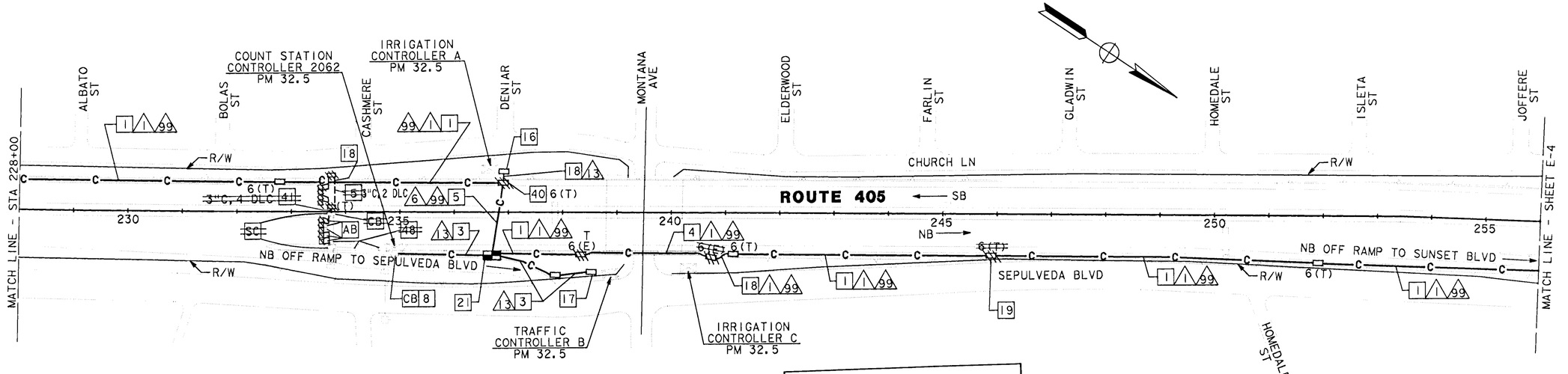
~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

~~48 ADD 4DLC IN EXISTING CONDUIT.~~

~~49 ADD 5DLC IN EXISTING CONDUIT.~~





AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-3

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

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DRAWN BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	RL	RS		10/93	MZ	10/94

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)
USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u03.dgn DATE: Tue May 23 2000 TIME: 13:59

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	6	7	13	18	19	20	31	99
75P22 CABLE	COMMUNICATION DATA	1	1	1						
6P22 CABLE	CONTROLLER DATA		1	2	1	3	4	4	1	
48SMFO	SONET/CCTV TRUNK	1	1	1						
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION		1	1						
2SMFO B/O CABLE	SHORT HAUL VIDEO					1	1	1		
	INNERDUCT	1 1/4"	1 1/4"	1 1/4"						
	CONDUIT SIZE	4"	4"	4"	2"	2"	4"	2"	4"	4"

PROJECT NOTES: (THIS SHEET ONLY)

30 INSTALL STATE-FURNISHED LOOP SENSOR.

~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

48 ADD 4DLC IN EXISTING CONDUIT.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	48	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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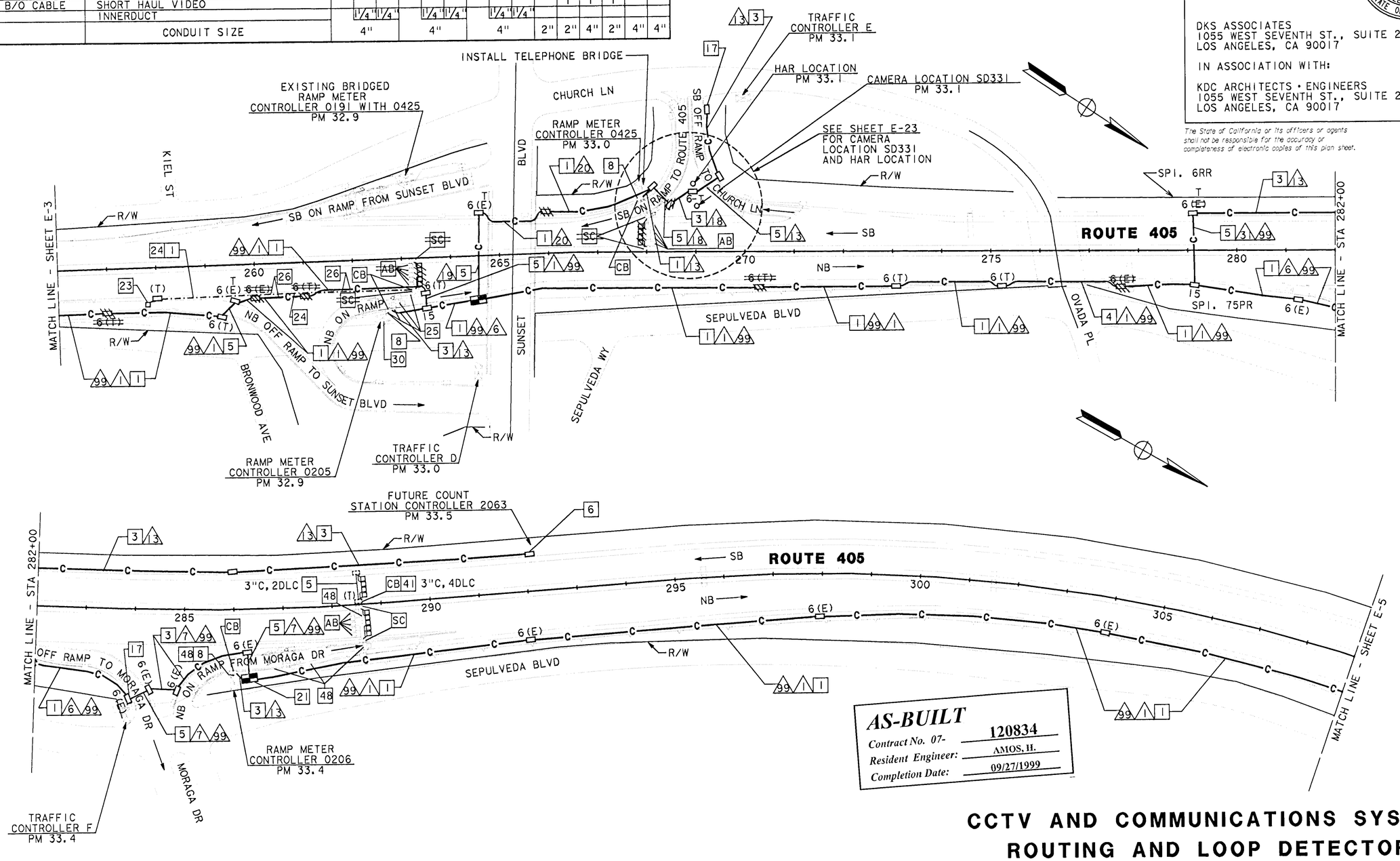

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-4

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

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	CHECKED BY	RL 10/93	MZ	10/94
		RS 12/93		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

USER ID: t7aferna@NODE F.F: /project/120831_ua/ab/t7aferna/712083u05.dgn DATE: Tue May 23 2000 TIME: 13:58

CONDUCTOR SCHEDULE											
CONDUCTOR TYPE	FUNCTION	RUN									
		1			6		10	13	27	99	
75P22 CABLE	COMMUNICATION DATA	1			1						
50P22 CABLE	COMMUNICATION DATA						1		1		
6P22 CABLE	CONTROLLER DATA				1			1	1		
48SMFO	SONET/CCTV TRUNK	1			1		1		1		
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1			1		1				
	INNERDUCT	1/4"	1/4"		1/4"	1/4"	1/4"		1/4"	1/4"	
	CONDUIT SIZE	4"			4"		4"	2"	4"	4"	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	49	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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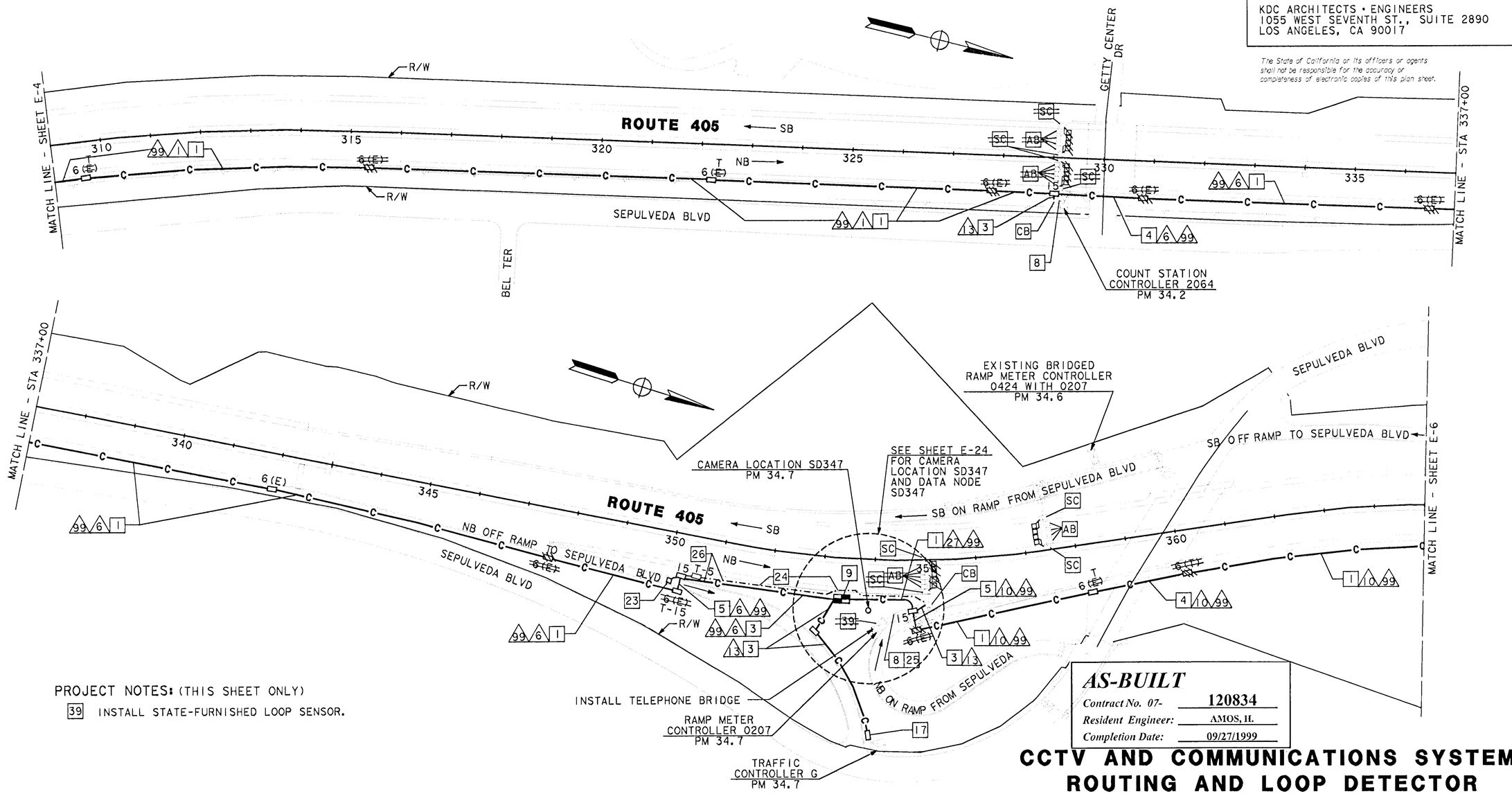

PROJECT NOTES: (THIS SHEET ONLY)

39 INSTALL STATE-FURNISHED LOOP SENSOR.

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

AS-BUILT

Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-5

DATE	REVISED BY
10/93	RL
12/93	RS
10/94	MZ

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

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

FORM DC-OE-92-PF (REV. 3/88)

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

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

CU 07374

EA 120831

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u05.dgn DATE: Tue May 23 2000 TIME: 13:58

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u06.dgn DATE: Tue May 23 2000 TIME: 13:57

CONDUCTOR SCHEDULE												
CONDUCTOR TYPE	FUNCTION	RUN 10		13		39		50		51		99
50P22 CABLE	COMMUNICATION DATA	1				1				1		
6P22 CABLE	CONTROLLER DATA			1				1		2		
48SMFO	SONET/CCTV TRUNK		1				1		1		1	
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION											1
2SMFO B/O CABLE	SHORT HAUL VIDEO											
	INNERDUCT	1 1/4"	1 1/4"			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	
	CONDUIT SIZE	4"		2"		4"		4"		4"		4"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	50	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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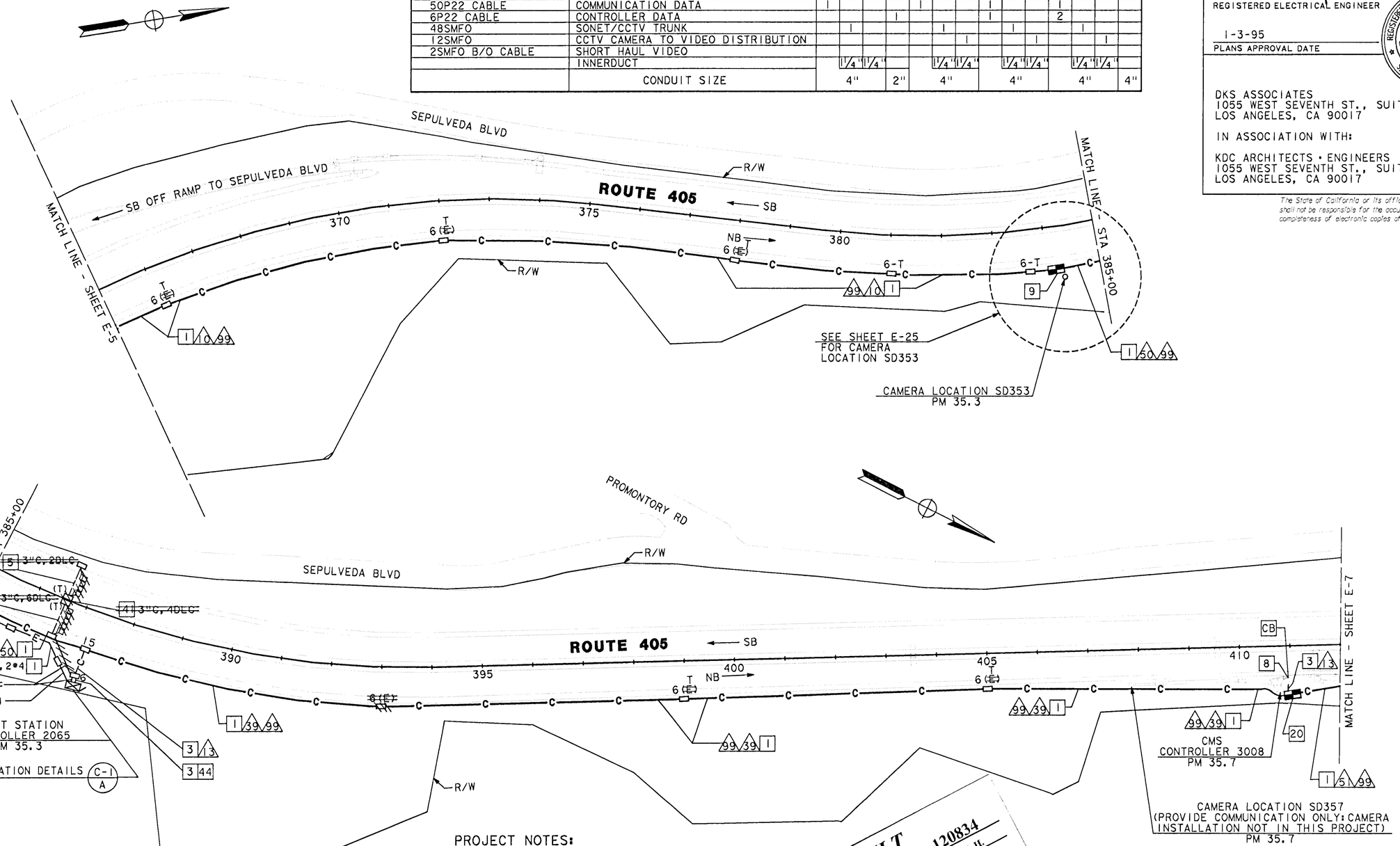

PROJECT NOTES:
(THIS SHEET ONLY)

41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE 334 CABINET.

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

TRAFFIC COUNT STATION AND CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-6

DESIGNED BY	CALCULATED/ DESIGNED BY	CHECKED BY	DRAWN BY	DESIGN OVERSIGHT
RL	RS		MZ	PAT SULLIVAN

DATE	REVISED BY	DATE REVISED
10/93		10/94
12/93		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

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

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u06.dgn DATE: Tue May 23 2000 TIME: 13:57

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u07.dgn DATE: Tue May 23 2000 TIME: 13:56

CONDUCTOR SCHEDULE														
CONDUCTOR TYPE	FUNCTION	RUN												
		13	14	39			50			51			99	
50P22 CABLE	COMMUNICATION DATA			1			1			1				
6P22 CABLE	CONTROLLER DATA	1	2				1			2				
48SMFO	SONET/CCTV TRUNK			1			1			1				
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION													
	INNERDUCT			1/4"1/4"1/4"			1/4"1/4"1/4"			1/4"1/4"1/4"				
	CONDUIT SIZE	2"	2"	4"			4"			4"			4"	

PROJECT NOTES: (THIS SHEET ONLY)

33 USE CONDUIT FROM PB INTO CABINET TO CONNECT ONE 6P22 TO DISTRICT EQUIPMENT IN CABINET. CONNECT OTHER 6P22 FROM BRIDGED ELEMENT TO TERMINAL BLOCK INSIDE CABINET. COIL 25 FEET OF THE OTHER 6P22 IN EXISTING PB FOR THE STATE EQUIPMENT.

~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT TO TERMINAL BLOCK INSIDE THE 334 CABINET.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	51	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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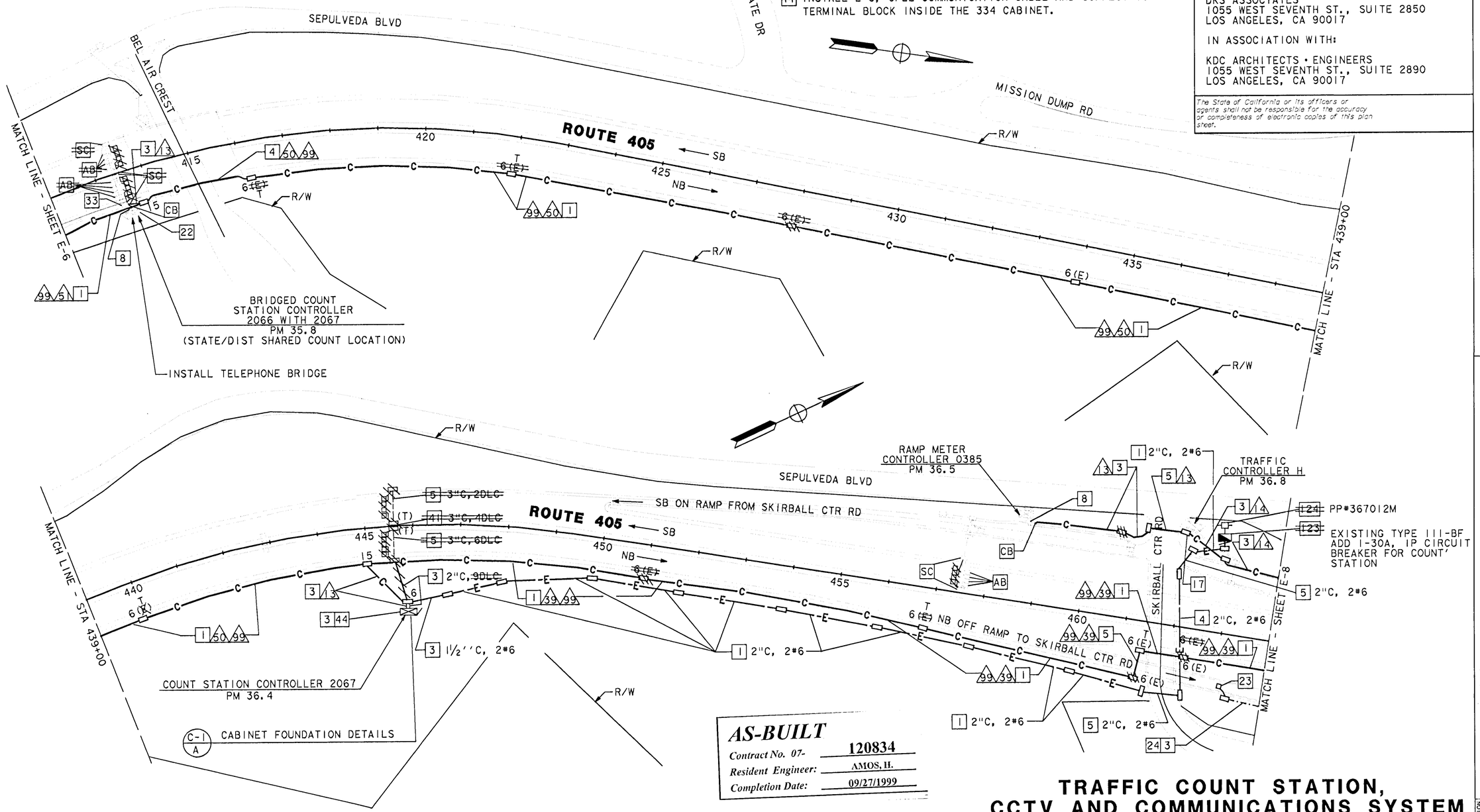

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

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

TRAFFIC COUNT STATION, CCTV AND COMMUNICATIONS SYSTEM ROUTING, AND LOOP DETECTOR

SCALE: 1" = 100'

E-7

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	CHECKED BY	RL 10/93	RS 12/93	MZ 10/94

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

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 => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07374

EA 12083[illegible]

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u07.dgn DATE: Tue May 23 2000 TIME: 13:56

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u08.dgn DATE: Tue May 23 2000 TIME: 13:55

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	52	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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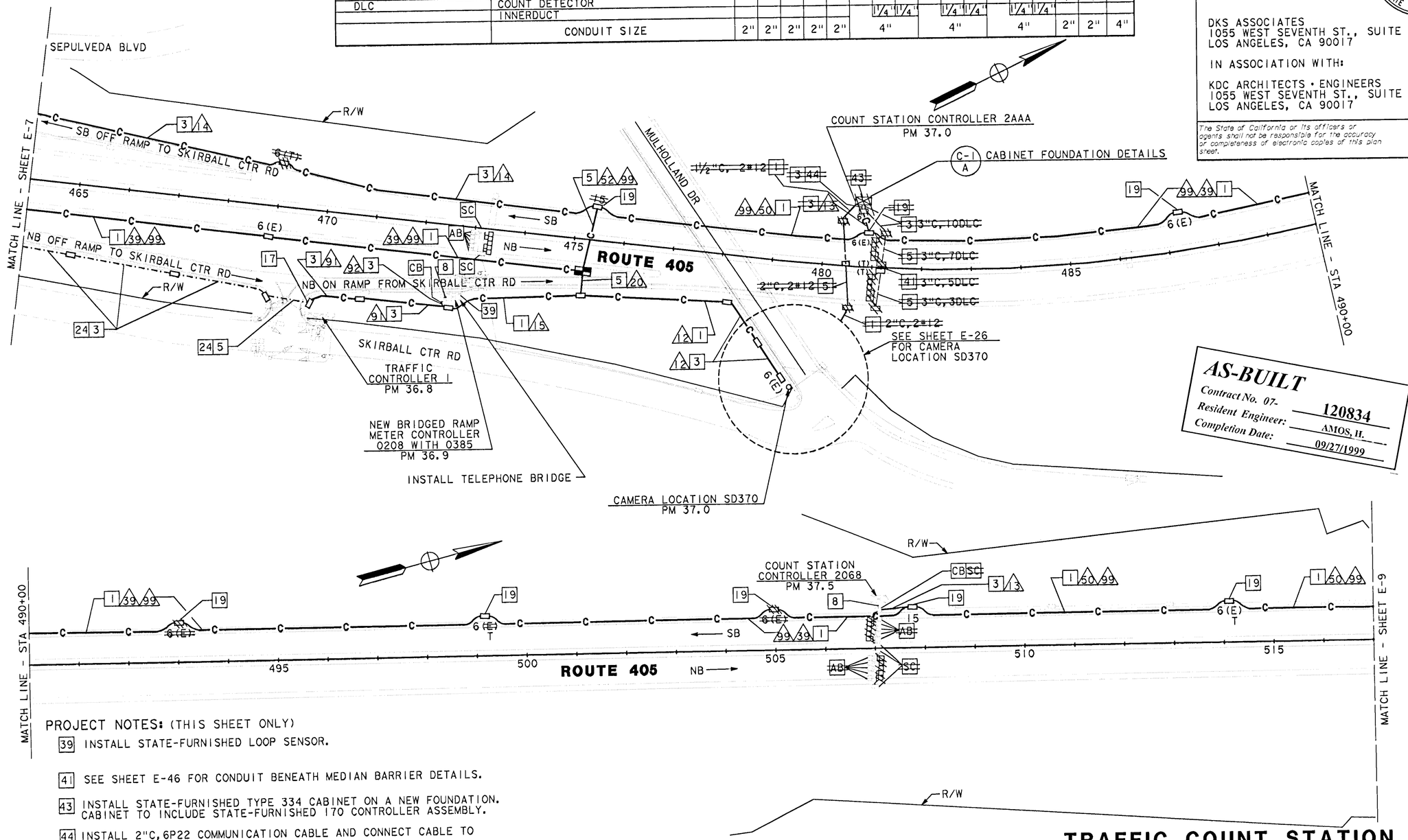
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN /2	/3	/4	/9	/20	39			/50			/52			/91	/92	/99
50P22 CABLE	COMMUNICATION DATA						1			1			1					
6P22 CABLE	CONTROLLER DATA	1	1	2	3	4							3			1	2	
48SMFO	SONET/CCTV TRUNK						1			1			1					
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION							1			1			1				
2SMFO B/O CABLE	SHORT HAUL VIDEO	1				1												
DLC	COUNT DETECTOR															1	1	
	INNERDUCT						1/4"	1/4"		1/4"	1/4"		1/4"	1/4"				
	CONDUIT SIZE	2"	2"	2"	2"	2"	4"			4"			4"			2"	2"	4"



PROJECT NOTES: (THIS SHEET ONLY)

39 INSTALL STATE-FURNISHED LOOP SENSOR.

41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C,6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE 334 CABINET.

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

TRAFFIC COUNT STATION, CCTV AND COMMUNICATIONS SYSTEM ROUTING, AND LOOP DETECTOR E-8

SCALE: 1" = 100'

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	RL	RS	10/93	MZ	10/94
PAT SULLIVAN			12/93		

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

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u08.dgn DATE: Tue May 23 2000 TIME: 13:55

USER ID: t7aferno@NODE FILE: /project/120831_ua/ab/t7aferna/712083u09.dgn DATE: Tue May 23 2000 TIME: 13:54

PROJECT NOTES: (THIS SHEET ONLY)

~~47 ADD 2 DLC IN EXISTING CONDUIT.~~

~~49 ADD 5 DLC IN EXISTING CONDUIT.~~

CONDUCTOR SCHEDULE												
CONDUCTOR TYPE	FUNCTION	RUN										
		13	14	39		50		51		99		
50P22 CABLE	COMMUNICATION DATA			1		1		1				
6P22 CABLE	CONTROLLER DATA	1	2					2				
48SMFO	SONET/CCTV TRUNK			1		1		1				
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION			1		1		1				
	INNERDUCT			1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"			
	CONDUIT SIZE	2"	2"	4"		4"		4"		4"		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	53	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS. ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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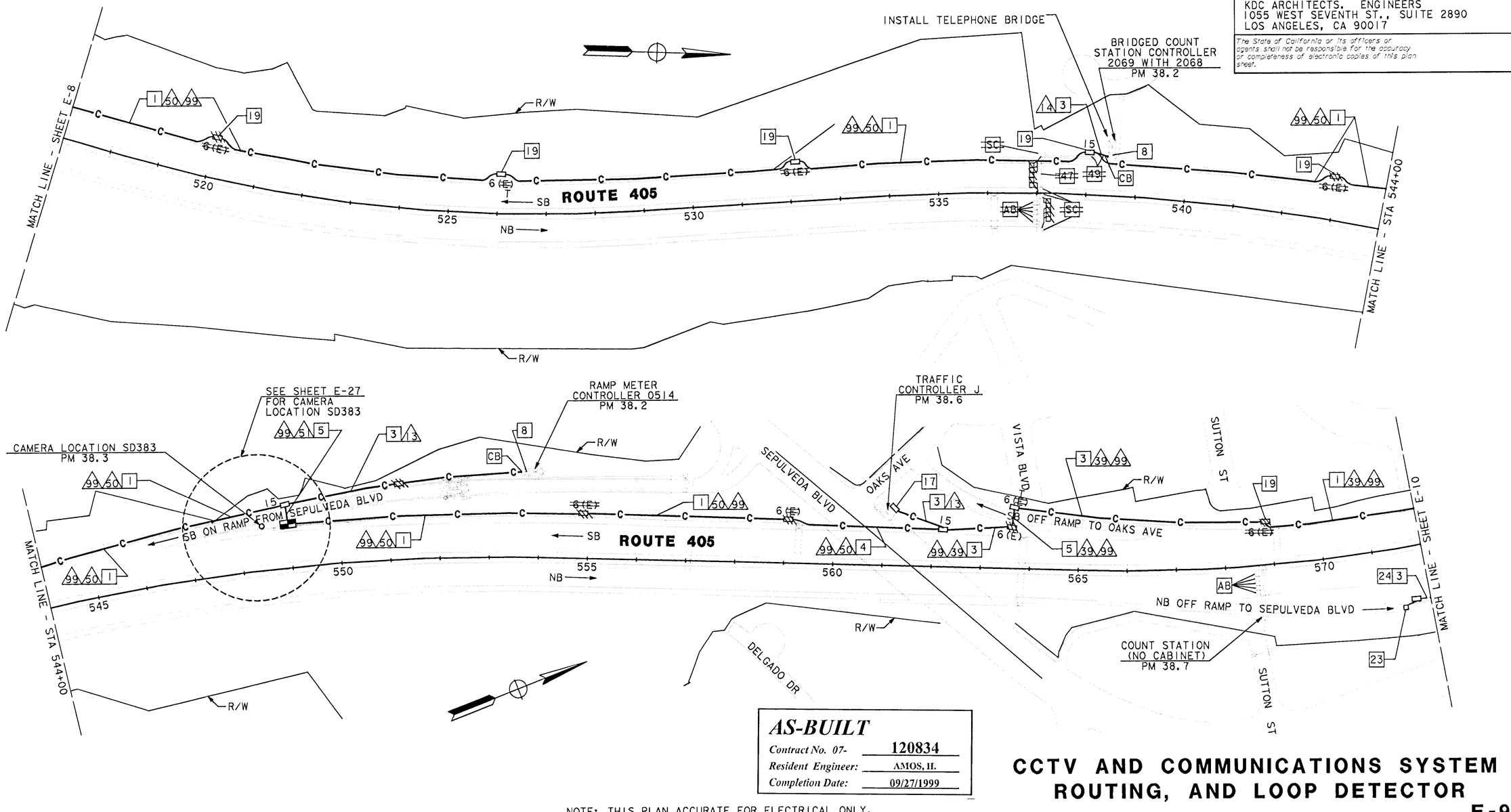

AS-BUILT

Contract No. 07- 120834

Resident Engineer: AMOS, H.

Completion Date: 09/27/1999

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

CCTV AND COMMUNICATIONS SYSTEM ROUTING, AND LOOP DETECTOR

SCALE: 1" = 100'

E-9

DATE	REVISED BY	DATE REVISED
10/93	RL	12/93 RS
	CALCULATED/ DESIGNED BY	CHECKED BY
	MZ	10/94

DESIGN OVERSIGHT — PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)

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

CU 07374 EA 120831

USER ID: t7aferno@NODE FILE: /project/120831_ua/ab/t7aferna/712083u09.dgn DATE: Tue May 23 2000 TIME: 13:54

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	54	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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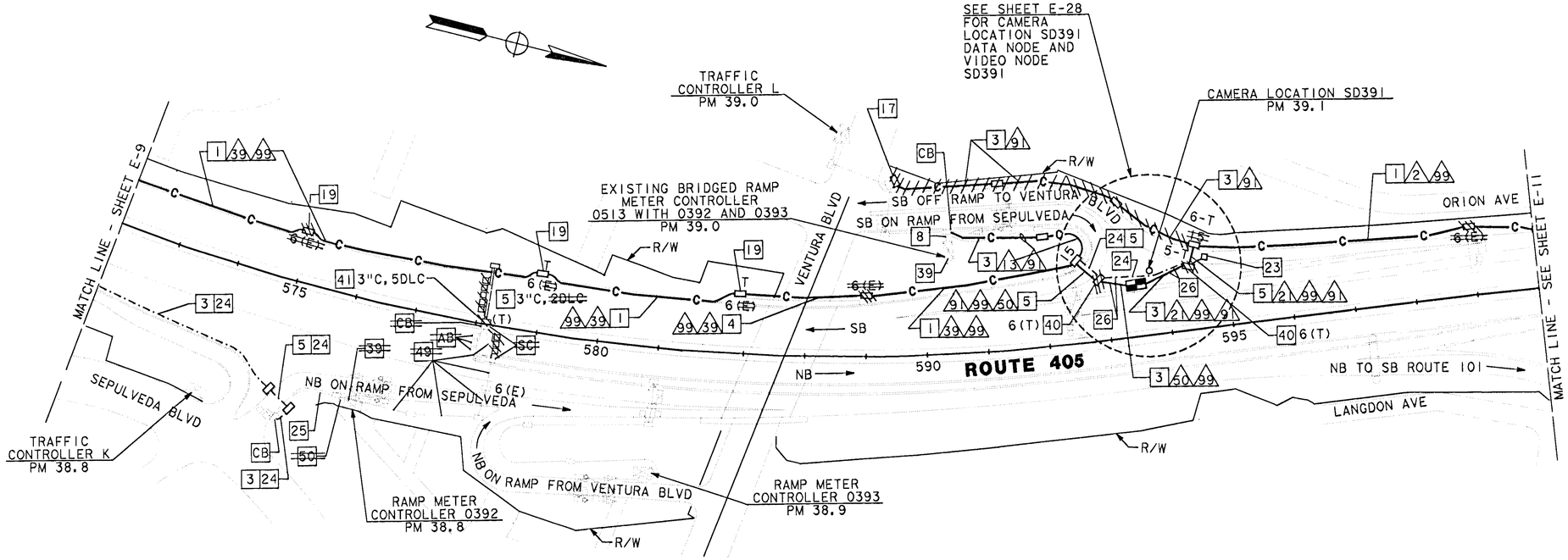
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 2	13	21	39	50	99	91
75P22 CABLE	COMMUNICATION DATA	1		1		1		
50P22 CABLE	COMMUNICATION DATA		1		1			1
6P22 CABLE	CONTROLLER DATA		1	1				
48SMFO	SONET/CCTV TRUNK	1		1		1		
36 ~~24~~SMFO	~~DATA/VIDEO NODE TO HUB TRUNK~~ SPARE	1		1		1		
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION		1		1			
DLC	COUNT DETECTOR		1					
	INNERDUCT	1 1/4" 1 1/4"		1 1/4" 1 1/4"	1 1/4" 1 1/4"	1 1/4" 1 1/4"		
	CONDUIT SIZE	4"	2"	4"	4"	4"	4"	2"

PROJECT NOTES: (THIS SHEET ONLY)

~~39 INSTALL STATE-FURNISHED LOOP SENSORS.~~
~~40 INSTALL 6(T) PULL BOX, (SEE DETAILS SHEET C-7).~~
~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~
~~49 ADD 5 DLC IN EXISTING CONDUIT.~~
~~50 ADD 6 DLC IN EXISTING CONDUIT.~~



AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-10

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

DATE	REVISED BY	DATE REVISED
10/93	RL	12/93 RS

CALCULATED/DESIGNED BY: MZ 10/94
CHECKED BY:

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

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

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u11.dgn DATE: Tue May 23 2000 TIME: 13:08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	55	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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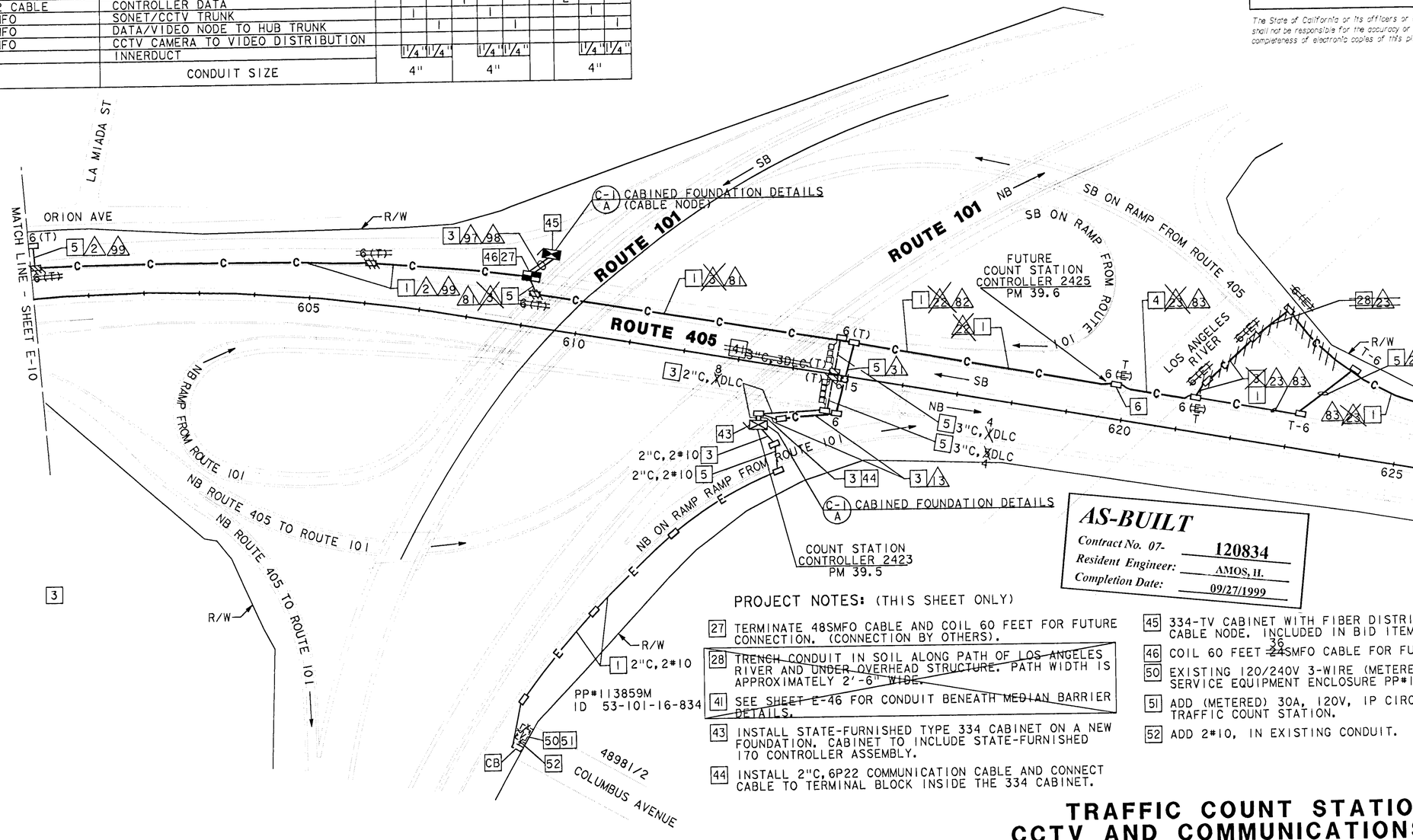
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 2	3	13	22	23	31	99	97	98
75P22 CABLE	COMMUNICATION DATA	1	1		1	2				
6P22 CABLE	CONTROLLER DATA			1					2	
48SMFO	SONET/CCTV TRUNK	1	1			1			1	
~~36~~24SMFO	DATA/VIDEO NODE TO HUB TRUNK									
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION									
	INNERDUCT	1-1/4"	1-1/4"		1-1/4"	1-1/4"			1-1/4"	1-1/4"
	CONDUIT SIZE	4"	4"	2"	4"	4"	4"	4"	4"	4"

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 81	82		83
75P22 CABLE	COMMUNICATION DATA	1	1		
6P22 CABLE	CONTROLLER DATA				2
48SMFO	SONET/CCTV TRUNK	1	1		1
36SMFO	DATA/VIDEO NODE TO HUB TRUNK				
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION				
	INNERDUCT	1-1/4"	1-1/4"		1-1/4"
	CONDUIT SIZE	4"	4"		4"



AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

PROJECT NOTES: (THIS SHEET ONLY)

27 TERMINATE 48SMFO CABLE AND COIL 60 FEET FOR FUTURE CONNECTION. (CONNECTION BY OTHERS).

~~28 TRENCH CONDUIT IN SOIL ALONG PATH OF LOS ANGELES RIVER AND UNDER OVERHEAD STRUCTURE. PATH WIDTH IS APPROXIMATELY 2'-6" WIDE.~~

~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE 334 CABINET.

45 334-TV CABINET WITH FIBER DISTRIBUTION FRAME FOR CABLE NODE. INCLUDED IN BID ITEM "CABLE NODE".

46 COIL 60 FEET ~~24~~36SMFO CABLE FOR FUTURE CONNECTION.

50 EXISTING 120/240V 3-WIRE (METERED) TYPE III-BF SERVICE EQUIPMENT ENCLOSURE PP#113859M.

51 ADD (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR TRAFFIC COUNT STATION.

52 ADD 2#10, IN EXISTING CONDUIT.

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

TRAFFIC COUNT STATION AND CCTV AND COMMUNICATIONS SYSTEM ROUTING E-11

SCALE: 1" = 100'

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	CHECKED BY	DRAWN BY	REVISED BY	DATE REVISED
PAT SULLIVAN	RL	RS	MZ		10/94
	DATE 10/93	12/93			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

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CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u11.dgn DATE: Tue May 23 2000 TIME: 13:08

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u12.dgn DATE: Tue May 23 2000 TIME: 13:07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	56	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 3 & 8	13	14	15	17	18	~~22~~ & 83	~~23~~ & 83	30
75P22 CABLE	COMMUNICATION DATA	1						1	1	
6P22 CABLE	CONTROLLER DATA		1	2	3	2	3		2	3
36~~24~~SMFO	SONET/CCTV TRUNK	1						1	1	
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1						1	1	
2SMFO B/O CABLE	SHORT HAUL VIDEO				1		1			1
DLC	NB COUNT LOOP						1			
	INNERDUCT	1 1/4"	1 1/4"					1 1/4"	1 1/4"	
	CONDUIT SIZE	4"	2"	2"	2"	2"	2"	4"	4"	4"

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SEE SHEET E-29 FOR CAMERA LOCATION SD398

CAMERA LOCATION SD398 PM 39.8

MATCH LINE - SHEET E-11

SEE SHT E-29

R/W

NEW BRIDGED COUNT STATION CONTROLLER 2070 WITH 2425 AND 2423 PM 40.0

INSTALL TELEPHONE BRIDGE C-1 CABINET FOUNDATION DETAILS A

26 1 2"C, 2#10

3 3"C, 12DLC

5 3"C, ~~6~~DLC

~~3"C, 6DLC~~ 4

ROUTE 405

SB ON RAMP FROM BURBANK BLVD

SB

NB

NEW BRIDGED RAMP METER CONTROLLER 0396 WITH 0512 PM 40.0

INSTALL TELEPHONE BRIDGE

IRRIGATION CONTROLLER M PM 40.0

630 635 645 650

651+69.59 BK= 51+67.59 AHD

MATCH LINE - STA 54+00

NB OFF RAMP TO BURBANK BLVD

TRAFFIC CONTROLLER O PM 40.3

BURBANK BLVD

MATCH LINE - STA 54+00

SB OFF RAMP TO BURBANK BLVD

NB ON RAMP FROM BURBANK BLVD

ADD 1 DLC

RAMP METER CONTROLLER 0512 PM 40.4

TRAFFIC CONTROLLER N PM 40.3

IRRIGATION CONTROLLER P PM 40.3

CAMERA LOCATION SD407 PM 40.7

SEE SHEET E-30 FOR CAMERA LOCATION SD407

MATCH LINE - SHEET E-13

55 60 65 70 75 80

PROJECT NOTES: (THIS SHEET ONLY)

39 INSTALL STATE-FURNISHED LOOP SENSORS.

~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE 334 CABINET.

47 ADD 2 DLC IN EXISTING CONDUIT.

54 ADD 1 DLC IN EXISTING CONDUIT.

55 LOOP DETECTOR TO CONSIST OF FOUR TURNS.

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

TRAFFIC COUNT STATION, CCTV AND COMMUNICATIONS SYSTEM ROUTING, AND LOOP DETECTOR

SCALE: 1" = 100'

E-12

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DATE	REVISED BY	
PAT SULLIVAN	CHECKED BY	RS	12/93	DATE REVISED
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		RL	10/93	MZ 10/94

Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)

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

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

CU 07374 EA 120831

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u12.dgn DATE: Tue May 23 2000 TIME: 13:07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	57	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST.,
SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS . ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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PROJECT NOTES: (THIS SHEET ONLY)

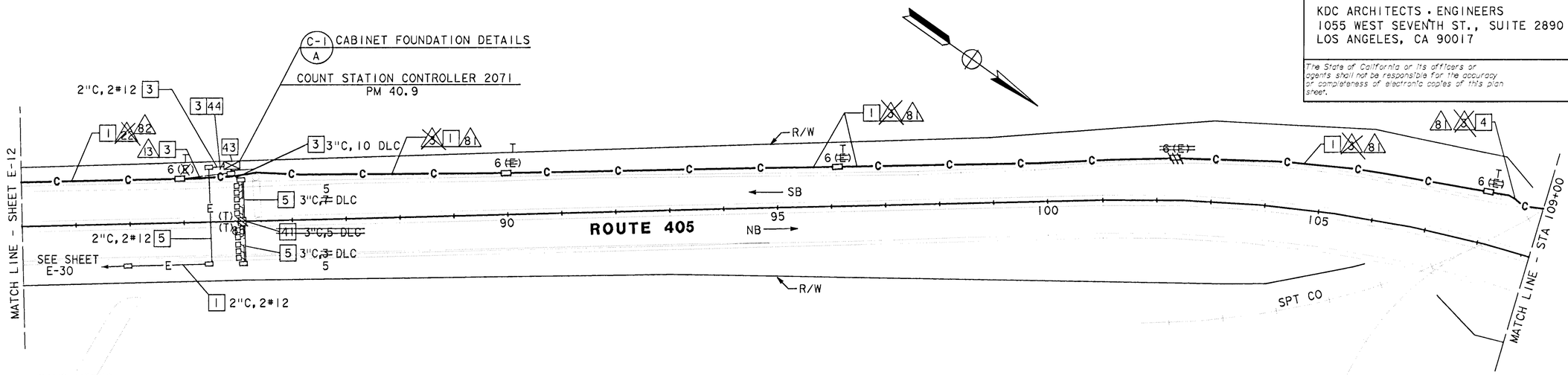
~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE TYPE 334 CABINET.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 3 & 81	13	14	15	22 & 82	23 & 83	26 & 84	29	36 & 85
75P22 CABLE	COMMUNICATION DATA	1				1				1
6P22 CABLE	CONTROLLER DATA		1	2	3	1	2	3	2	4
3624SMFO	DATA /VIDEO NODE HUB TRUNK	1				1	1	1	1	1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1				1	1	1	1	1
DLC	COUNT DETECTOR				1					
	INNERDUCT	1 1/4"				1 1/4"	1 1/4"	1 1/4"		1 1/4"
	CONDUIT SIZE	4"	2"	2"	2"	4"	4"	4"	4"	4"



AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

TRAFFIC COUNT STATION, CCTV AND COMMUNICATIONS SYSTEM ROUTING, AND LOOP DETECTOR

SCALE: 1" = 100'

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

E-13

DATE	REVISED BY	CALCULATED/ DESIGNED BY
10/93	RL	MZ
12/93	RS	
DATE REVISED	CHECKED BY	
10/94	PAT SULLIVAN	

DESIGN OVERSIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$
CU 07374
EA 120831

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u14.dgn DATE: Tue May 23 2000 TIME: 13:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	58	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST.,
SUITE 2850
LOS ANGELES, CA 90017

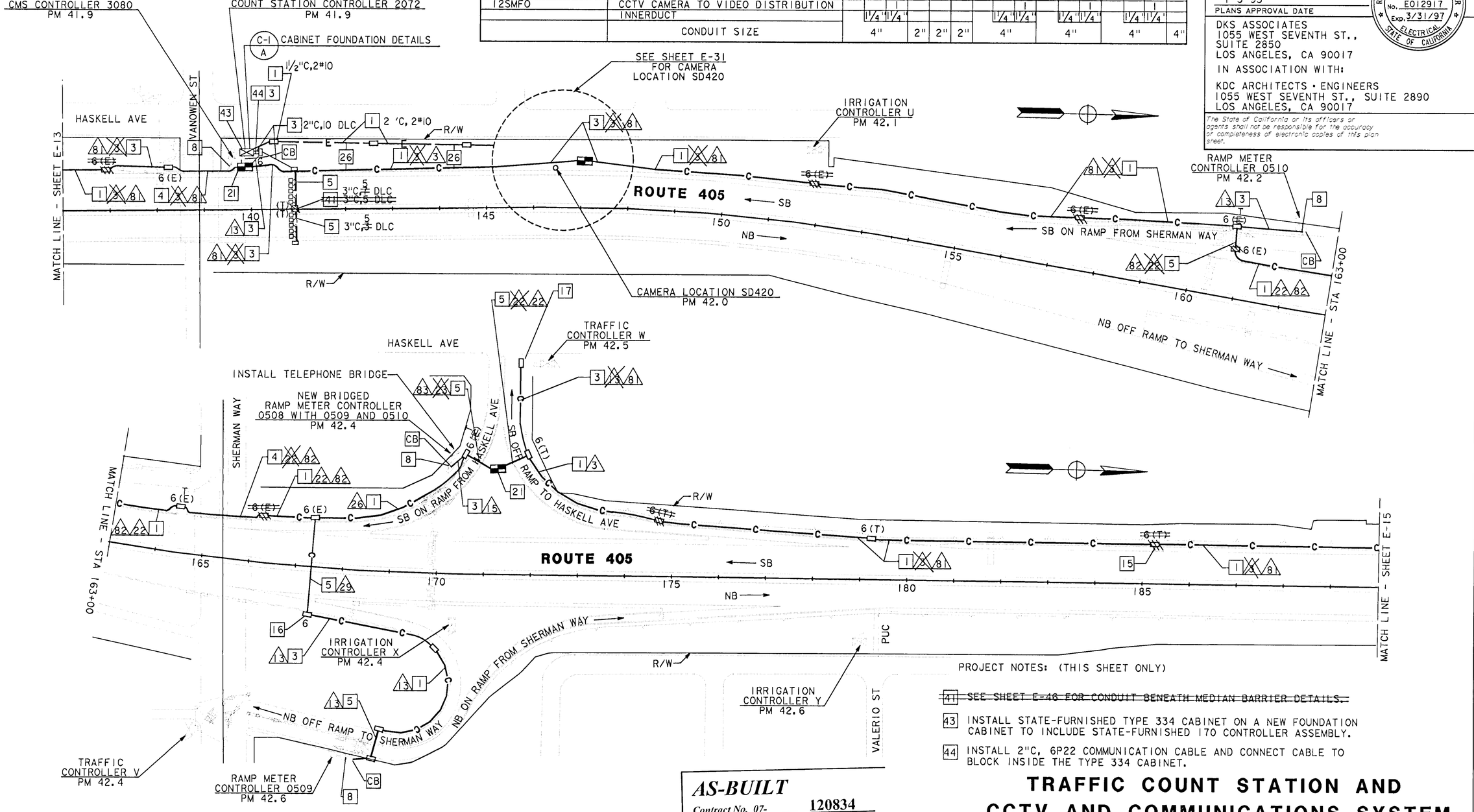
IN ASSOCIATION WITH:

KDC ARCHITECTS · ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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	FUNCTION	RUN 3 & 8	13 & 14	15	22 & 82	23 & 83	26 & 84	29
75P22 CABLE	COMMUNICATION DATA	1			1	1	1	
6P22 CABLE	CONTROLLER DATA		1	2	3	1	2	3	2
~~24SMFO~~ 36SMFO	DATA/VIDEO NODE TO HUB TRUNK	1						
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION		1		1	1	1	
	INNERDUCT	1¼" 1¼"			1¼" 1¼"	1¼" 1¼"	1¼" 1¼"	
	CONDUIT SIZE	4"	2"	2"	4"	4"	4"	4"



PROJECT NOTES: (THIS SHEET ONLY)

~~41 SEE SHEET E-48 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO BLOCK INSIDE THE TYPE 334 CABINET.

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

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

TRAFFIC COUNT STATION AND CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-14

DATE	REVISED BY
10/93	RL
12/93	RS
10/94	MZ

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u14.dgn DATE: Tue May 23 2000 TIME: 13:05

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u15.dgn DATE: Tue May 23 2000 TIME: 13:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	59	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST.,
SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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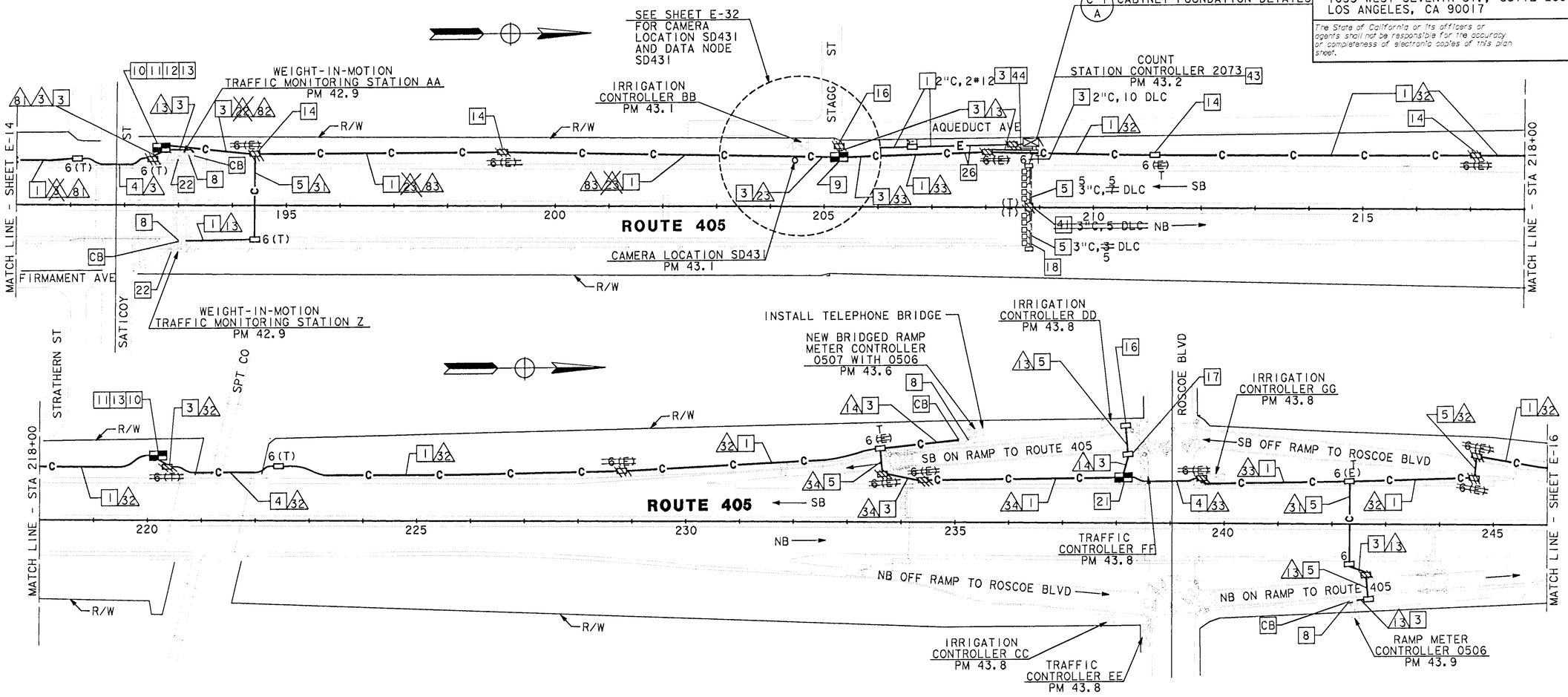
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 3/8	13/14	22/82	23/83	31	32	33	34
75P22 CABLE	COMMUNICATION DATA	1		1	1	1	1	1	1
6P22 CABLE	CONTROLLER DATA		1 2		2				2
~~24SMFO~~ 36SMFO	DATA/VIDEO NODE TO HUB TRUNK	1		1	1	1	1	1	1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1		1	1				
	INNERDUCT	1¼" 1¼"		1¼" 1¼"	1¼" 1¼"	1¼"	1¼" 1¼"	1¼" 1¼"	1¼" 1¼"
	CONDUIT SIZE	4"	2" 2"	4"	4"	4"	4"	4"	4"



PROJECT NOTES: (THIS SHEET ONLY)

~~41~~ ~~SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE TYPE 334 CABINET.

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

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

TRAFFIC COUNT STATION AND CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-15

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	RL	RS	10/93	MZ	10/94

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$
CU 07374
EA 120831

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u15.dgn DATE: Tue May 23 2000 TIME: 13:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	60	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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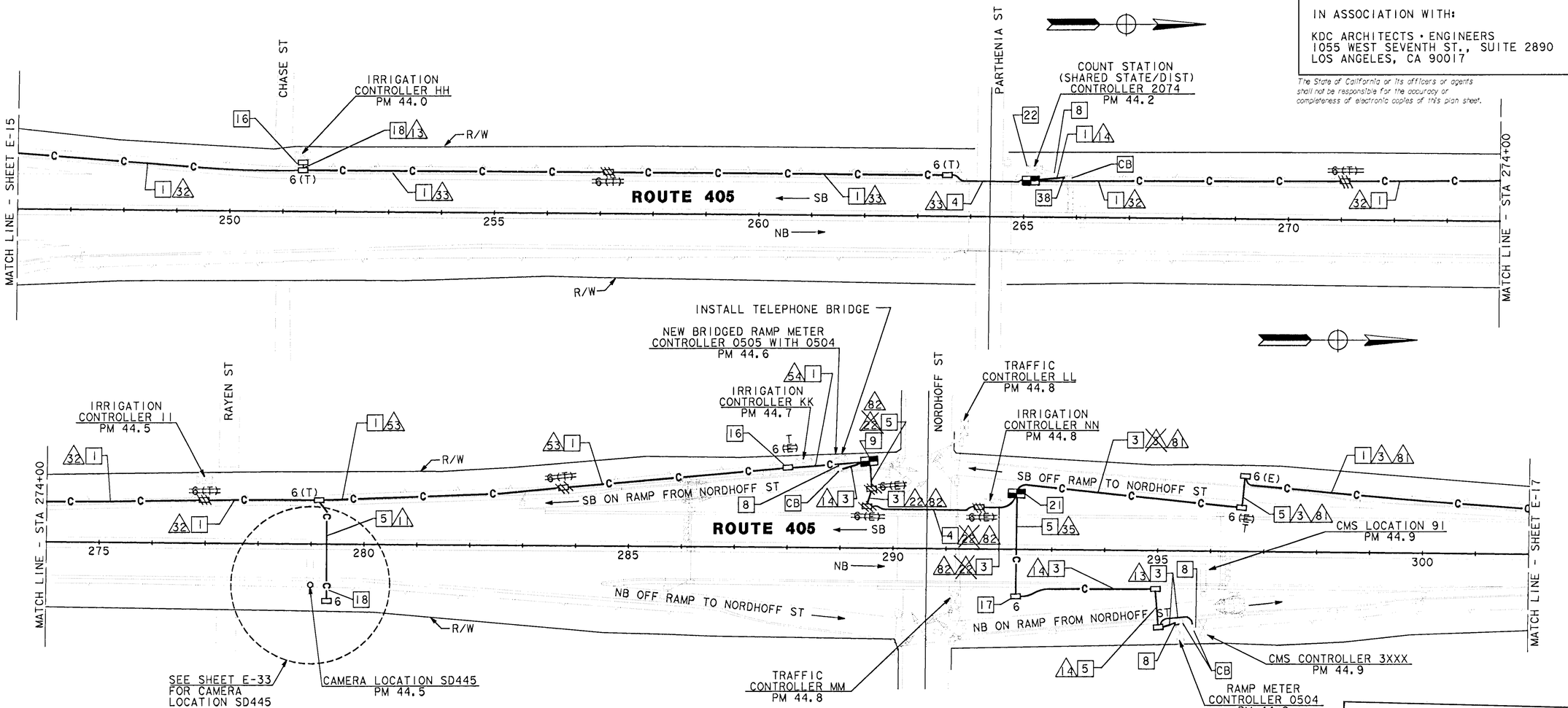
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 8	8	11	13	14	28	82	32	33	34	35	53	54
75P22 CABLE	COMMUNICATION DATA	1					1		1	1		1	1	1
6P22 CABLE	CONTROLLER DATA			1	1	2				1	2			2
~~24SMFO~~ 36SMFO	DATA/VIDEO NODE TO HUB TRUNK		1				1		1	1		3	1	
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION		1				1		1	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO		1										1	
	INNERDUCT	1 1/4"	1 1/4"				1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"		1 1/4"	1 1/4"
	CONDUIT SIZE	4"		4"	2"	2"	4"		4"	4"	4"	4"	4"	4"



PROJECT NOTES: (THIS SHEET ONLY)

38 USE CONDUIT FROM PB INTO CABINET TO CONNECT 1-6P22 TO DISTRICT EQUIPMENT IN CABINET. COIL 25 FEET OF THE OTHER 6P22 IN EXISTING PB FOR STATE EQUIPMENT.

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

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

E-16

DATE	REVISED BY	DATE REVISED
10/93	RL	12/93 RS

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$
CU 07374
EA 120831

SERID: t7aferna@NODE F.F.: /project/120831_ua/ab/t7aferna/712083u17.dgn DATE: Tue May 23 2000 TIME: 13:01

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	61	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

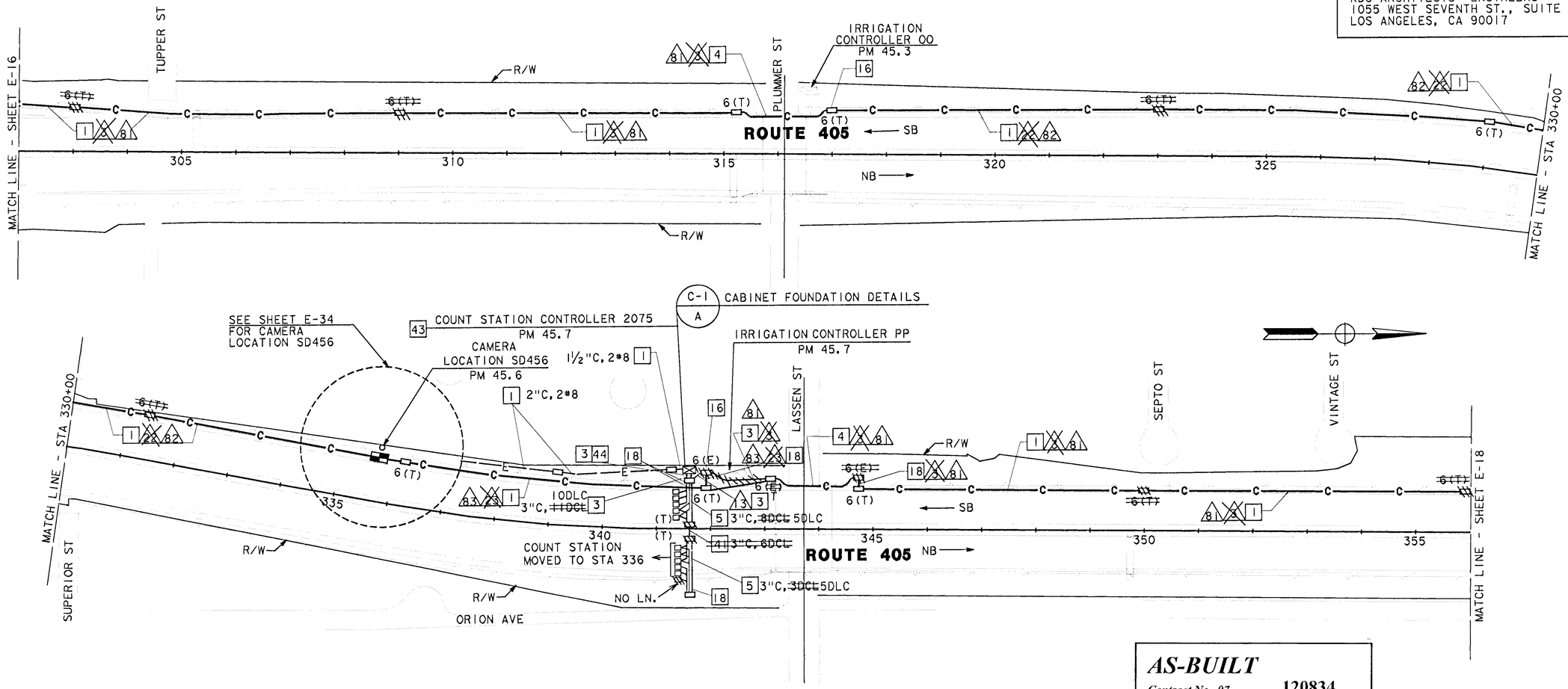
DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1 & 81	RUN 13	RUN 22 & 82	RUN 23 & 83
75P22 CABLE	COMMUNICATION DATA	1		1	1
6P22 CABLE	CONTROLLER DATA		1	1	2
~~24SMFO~~ 36SMFO	DATA/VIDEO NODE TO HUB TRUNK	1		1	1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1		1	1
	INNERDUCT	1¼"/1¼"		1¼"/1¼"	1¼"/1¼"
	CONDUIT SIZE	4"	2"	4"	4"



PROJECT NOTES: (THIS SHEET ONLY)

41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED TO CONTROLLER ASSEMBELY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE TYPE 334 CABINET.

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

TRAFFIC COUNT STATION, CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-17

DATE	REVISED BY	DATE REVISED
10/93	MZ	10/94
12/93	RS	

CALCULATED/DESIGNED BY: RL
CHECKED BY:

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

$$$$$$$$$$DGNSPEC$$$$$$$$$$ $$$$$$SYTIME$$$$$$ $$$$$$USER$$$$$$

FORM DC-OE-92-PF (REV. 3/88)

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

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

CU 07374 EA 120831

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u17.dgn DATE: Tue May 23 2000 TIME: 13:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	62	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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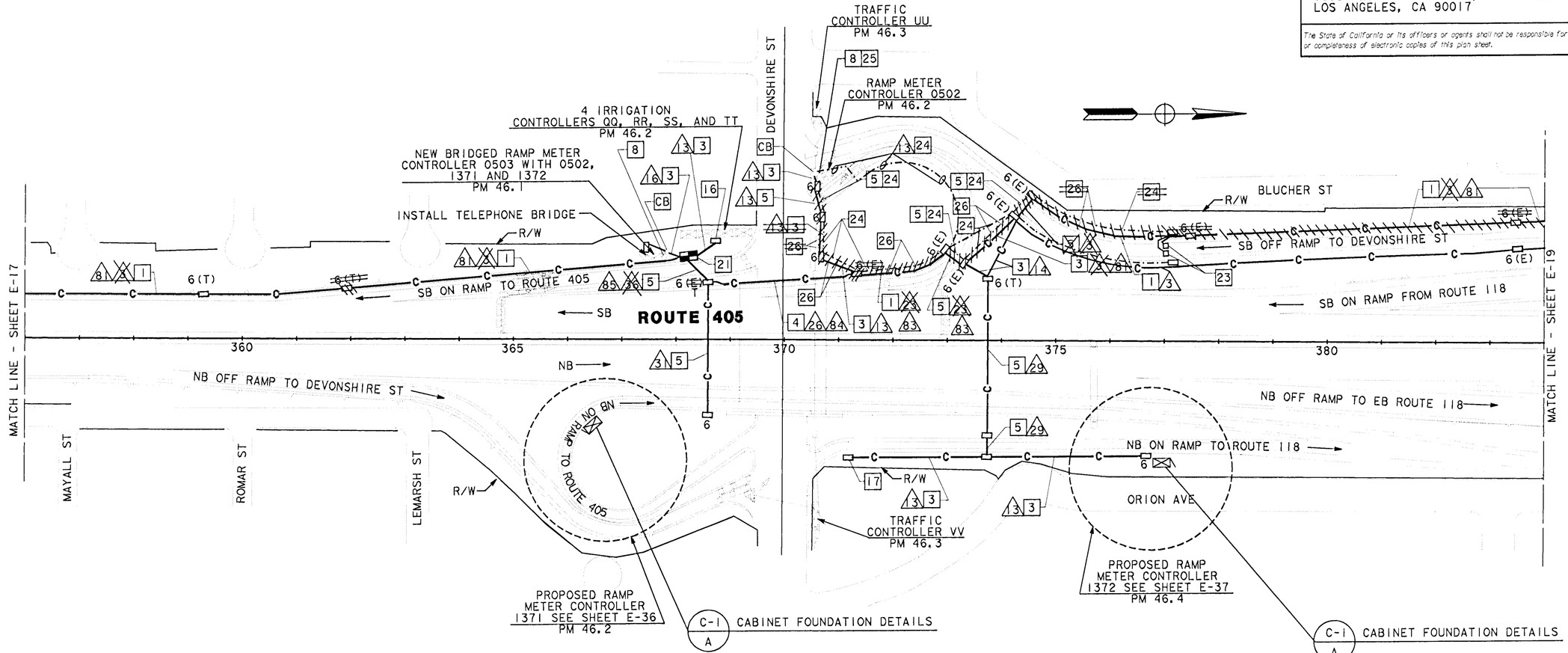
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 8	13	14	25 83	26 84	29	31	26 84	16
75P22 CABLE	COMMUNICATION DATA	1			1					
6P22 CABLE	CONTROLLER DATA		1	2	2	3	2	1	4	4
~~24SMFO~~ 36SMFO	DATA/VIDEO NODE TO HUB TRUNK	1			1	1			1	
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1			1	1			1	
DLC	COUNT DETECTOR		1							
	INNERDUCT	1¼" 1¼"			1¼" 1¼"	1¼" 1¼"			1¼" 1¼"	
	CONDUIT SIZE	4"	2"	2"	4"	4"	4"	4"	4"	2"



AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-18

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

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	RL	RS	10/93		12/93

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

CU 07374 EA 120831

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

FORM DC-OE-92-PF (REV. 3/88)

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u19.dgn DATE: Tue May 23 2000 TIME: 12:58

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	63	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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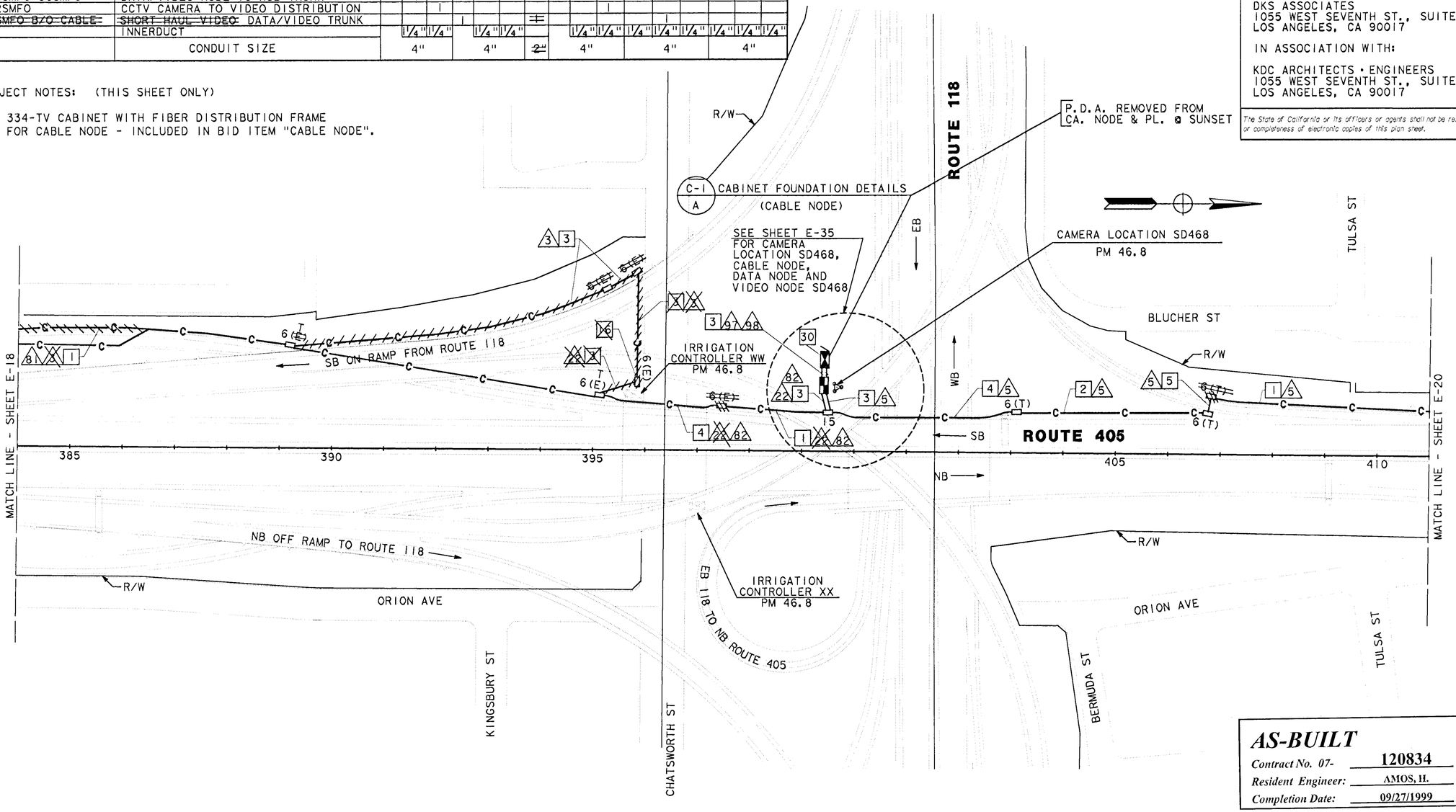
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 5	8	5	15	22	82	97	98
50P22 CABLE	COMMUNICATION DATA			1					
75P22 CABLE	COMMUNICATION DATA	1				1			
6P22 CABLE	CONTROLLER DATA				=	1			
~~24SMFO~~ 36SMFO	DATA/VIDEO NODE TO HUB TRUNK		1				1	1	
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION		1	1			1		
24SMFO ~~2SMFO B/O CABLE~~	~~SHORT HAUL VIDEO~~ DATA/VIDEO TRUNK			1	=		1		
	INNERDUCT	1¼" 1¼"		1¼" 1¼"		1¼" 1¼"		1¼" 1¼" 1¼"	1¼" 1¼" 1¼"
	CONDUIT SIZE	4"		4"	2"	4"		4"	4"

PROJECT NOTES: (THIS SHEET ONLY)

30 334-TV CABINET WITH FIBER DISTRIBUTION FRAME FOR CABLE NODE - INCLUDED IN BID ITEM "CABLE NODE".



AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

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

E-19

DATE	REVISED BY
10/93	RL
12/93	RS

DATE REVISED

CALCULATED/DESIGNED BY

CHECKED BY

DESIGN OVERSIGHT

PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00

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

FORM DC-OE-92-PF (REV. 3/88)

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

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

CU 07374

EA 120831

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u19.dgn DATE: Tue May 23 2000 TIME: 12:58

USERID t7aferna@NODE FILE /project/120831_ua/ab/t7aferna/712083u20.dan DATE Tue May 23 2000 TIME 12:45

CONDUCTOR SCHEDULE													
CONDUCTOR TYPE	FUNCTION	RUN	5	13	14	28	31	37	38
50P22 CABLE	COMMUNICATION DATA		1			1	1	1	1
6P22 CABLE	CONTROLLER DATA			1	2	3	1	1	2
	INNERDUCT		1¼" 1¼"			1¼" 1¼"		1¼" 1¼"	1¼" 1¼"
	CONDUIT SIZE		4"	2"	2"	4"	4"	4"	4"

SEE SHEET 64A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	64	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS · ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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PROPOSED RAMP METER CONTROLLER 1377 SEE SHEET E-38 PM 47.2

SB ON RAMP

CABINET FOUNDATION DETAILS C-1 A

2 IRRIGATION CONTROLLERS ZZ AND AAA PM 47.2

LUNDLOW ST

SAN FERNANDO MISSION RD

MATCH LINE - SHEET E-19

R/W

ROUTE 405

SB

NB

ORION ST

TRAFFIC CONTROLLER YY PM 47.2

TRAFFIC MONITOR STATION GGG PM 47.3

MATCH LINE - STA 439+00

PROPOSED BRIDGED RAMP METER CONTROLLER 1376 WITH 1373 SEE SHEET E-39 PM 47.6

2 IRRIGATION CONTROLLERS CCC AND DDD PM 47.7

TRAFFIC CONTROLLER EEE PM 47.8

C-1 A CABINET FOUNDATION DETAILS

BLUCHER ST

STRANDWOOD AVE

RINALDI ST

SB OFF RAMP TO RINALDI ST

SB ON RAMP FROM RINALDI ST

NB OFF RAMP TO ORION AVE

NB ON RAMP TO ROUTE 405

BLUCHER AVE

IRRIGATION CONTROLLER FFF PM 48.0

MATCH LINE - SHEET E-21

RAMP METER CONTROLLER 1373 SEE SHEET E-40 PM 47.9

SEE SHEET 64A

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

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

E-20

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	RL	RS	10/93	12/93	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

CU 07374 EA 120831

USERID t7aferna@NODE FILE /project/120831_ua/ab/t7aferna/712083u20.dan DATE Tue May 23 2000 TIME 12:45

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u20A.dgn DATE: Tue May 23 2000 TIME: 12:44

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	64A	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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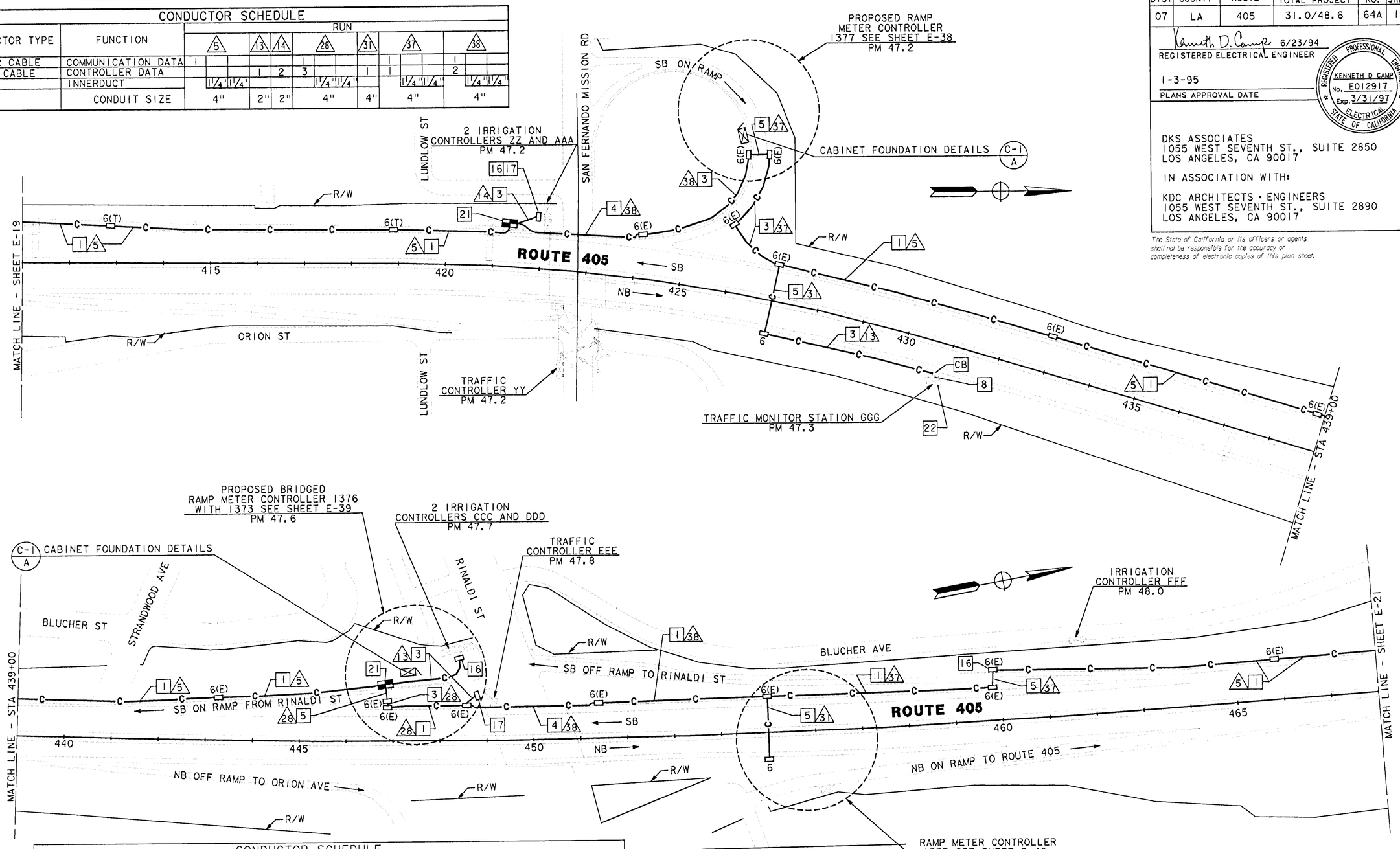
CONDUCTOR SCHEDULE																							
CONDUCTOR TYPE	FUNCTION	RUN																					
		5			13	14		28			31		37			38							
50P22 CABLE	COMMUNICATION DATA	1																					
6P22 CABLE	CONTROLLER DATA				1	2	3				1					2							
	INNERDUCT	1¼"	1¼"	1¼"				1¼"	1¼"	1¼"			1¼"	1¼"	1¼"			1¼"	1¼"	1¼"				
	CONDUIT SIZE	4"			2"	2"		4"			4"		4"			4"							



CONDUCTOR SCHEDULE																							
CONDUCTOR TYPE	FUNCTION	RUN																					
		5			13	14		28			31		37										
50P22 CABLE	COMMUNICATION DATA	1						1					1										
6P22 CABLE	CONTROLLER DATA				1	2	3				1		1										
24SMFO	DATA /VIDEO NODE HUB TRUNK																						
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION																						
DLC	CONDUIT DETECTOR																						
	INNERDUCT	1¼"	1¼"	1¼"				1¼"	1¼"	1¼"			1¼"	1¼"	1¼"								
	CONDUIT SIZE	4"			2"	2"		4"			4"		4"										

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

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

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-20A

REVISED BY	DATE REVISED
RL	10/93
RS	12/93

CALCULATED/DESIGNED BY
CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN OVERSIGHT
PAT SULLIVAN

Caltrans

LAST REVISION 00-00-00

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

$$$$$$$$$$DGNSPEC$$$$$$$$$$ $$$$$$SYTIME$$$$$$ $$$$$$USER$$$$$$

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u20A.dgn DATE: Tue May 23 2000 TIME: 12:44

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u21.dgn DATE: Tue May 23 2000 TIME: 12:43

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	65	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS · ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 5	13	37
50P22 CABLE	COMMUNICATION DATA	1		1
6P22 CABLE	CONTROLLER DATA			
	INNERDUCT	1¼"1¼"		1¼"1¼"
	CONDUIT SIZE	4"	2"	4"

PROJECT NOTES: (THIS SHEET ONLY)

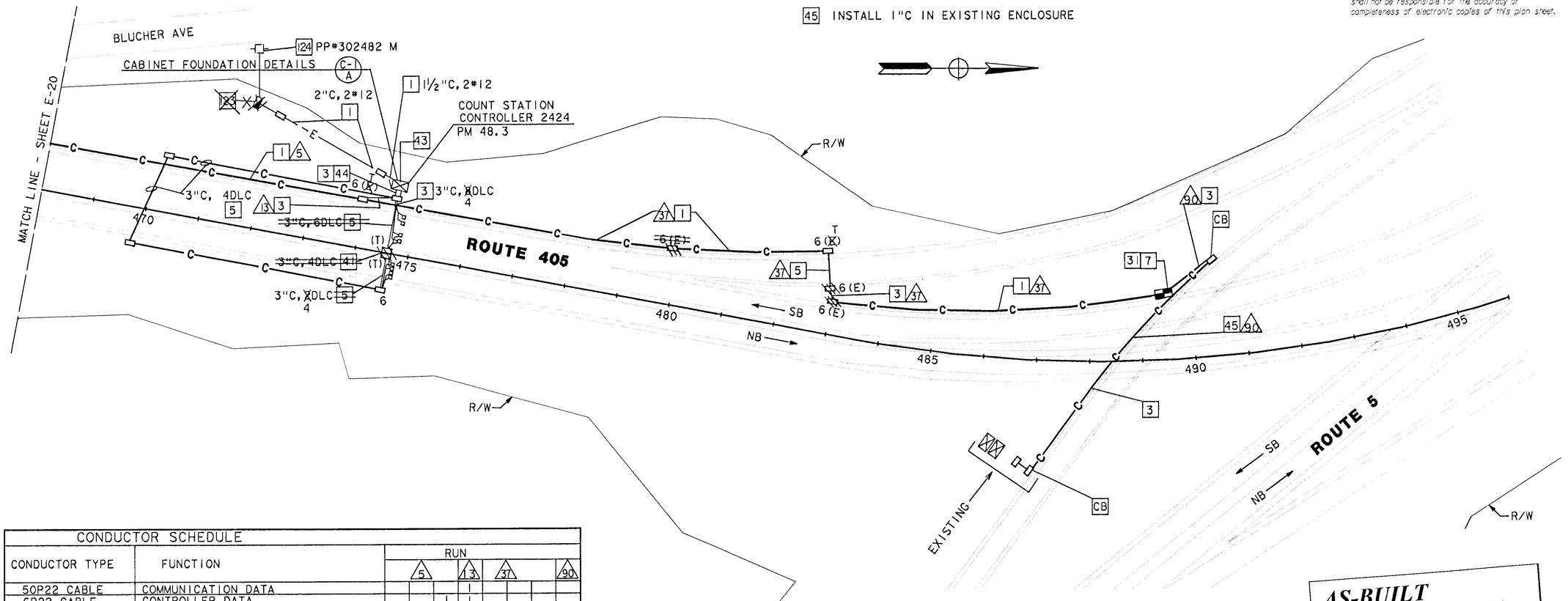
31 INSTALL TWISTED PAIR SPLICE CLOSURE AND TERMINATE 50P22 CABLE.

~~41 SEE SHEET E-46 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.~~

43 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

44 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE TYPE 334 CABINET.

45 INSTALL 1"C IN EXISTING ENCLOSURE



CONDUCTOR SCHEDULE					
CONDUCTOR TYPE	FUNCTION	RUN 5	13	37	90
50P22 CABLE	COMMUNICATION DATA		1		
6P22 CABLE	CONTROLLER DATA		1		
24SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1			
12SMFO	SHORT HAUL VIDEO				
2SMFO B/O CABLE					
	INNERDUCT	1¼"1¼"		1¼"1¼"	
	CONDUIT SIZE	4"	2"	4"	

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

TRAFFIC COUNT STATION AND CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-21

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

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
CHECKED BY	RL 10/93	MZ	10/94
	RS 12/93		

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

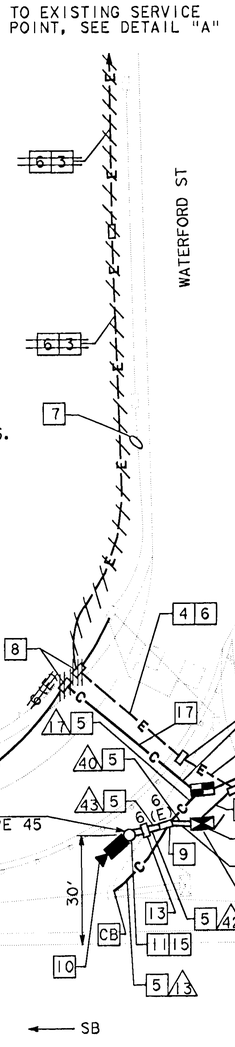
USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u21.dgn DATE: Tue May 23 2000 TIME: 12:43

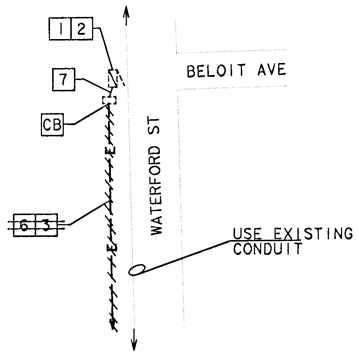
USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u22.dgn DATE: Tue May 23 2000 TIME: 12:43

NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240V, 3WIRE (METERED), TYPE 111-BF SERVICE EQUIPMENT ENCLOSURE: PP #107418M, 11372½ WATERFORD ST.
2. ADD (METERED) 30A, 120V, 1P BRANCH CIRCUIT BREAKER FOR CCTV CAMERA IN EXISTING SERVICE EQUIPMENT ENCLOSURE.
3. TRENCH CONDUIT IN PAVEMENT.
4. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
5. TRENCH CONDUIT IN ASPHALT.
6. INSTALL 2"C, 2#8.
7. ADD 2#8 WIRES IN EXISTING CONDUIT.
8. USE THE SAME PIT FOR JACKING CONDUITS.
9. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
10. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
11. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
12. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
13. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
14. INSTALL 1½"C, 2#8.
15. INSTALL 160 DEGREE CAMERA PAN STOPS TO RESTRICT VIEW INTO RESIDENTIAL AREA.
16. TRIM TREES ALONG WALL AS DIRECTED BY ENGINEER FOR IMPROVED CAMERA VISIBILITY.
17. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.

CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 13	17	40	42	43	44
6P22 CABLE	CONTROLLER DATA	1	2	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO		1	1			
RG-6A/U COAX	BASE BAND VIDEO			1	1		
CONTROL CABLE	CAMERA CONTROL					1	1
	CONDUIT SIZE	2"	2"	4"	2"	2"	4"





DETAIL "A"
SCALE 1" = 40'

CAMERA LOCATION SD321, PM 32.1
SCALE = 1"-20'

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	66	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA (LOCATION SD321)
SCALE AS NOTED

E-22

REVISED BY	DATE REVISED
DP	RS
DATE 10/93	12/93

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

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CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

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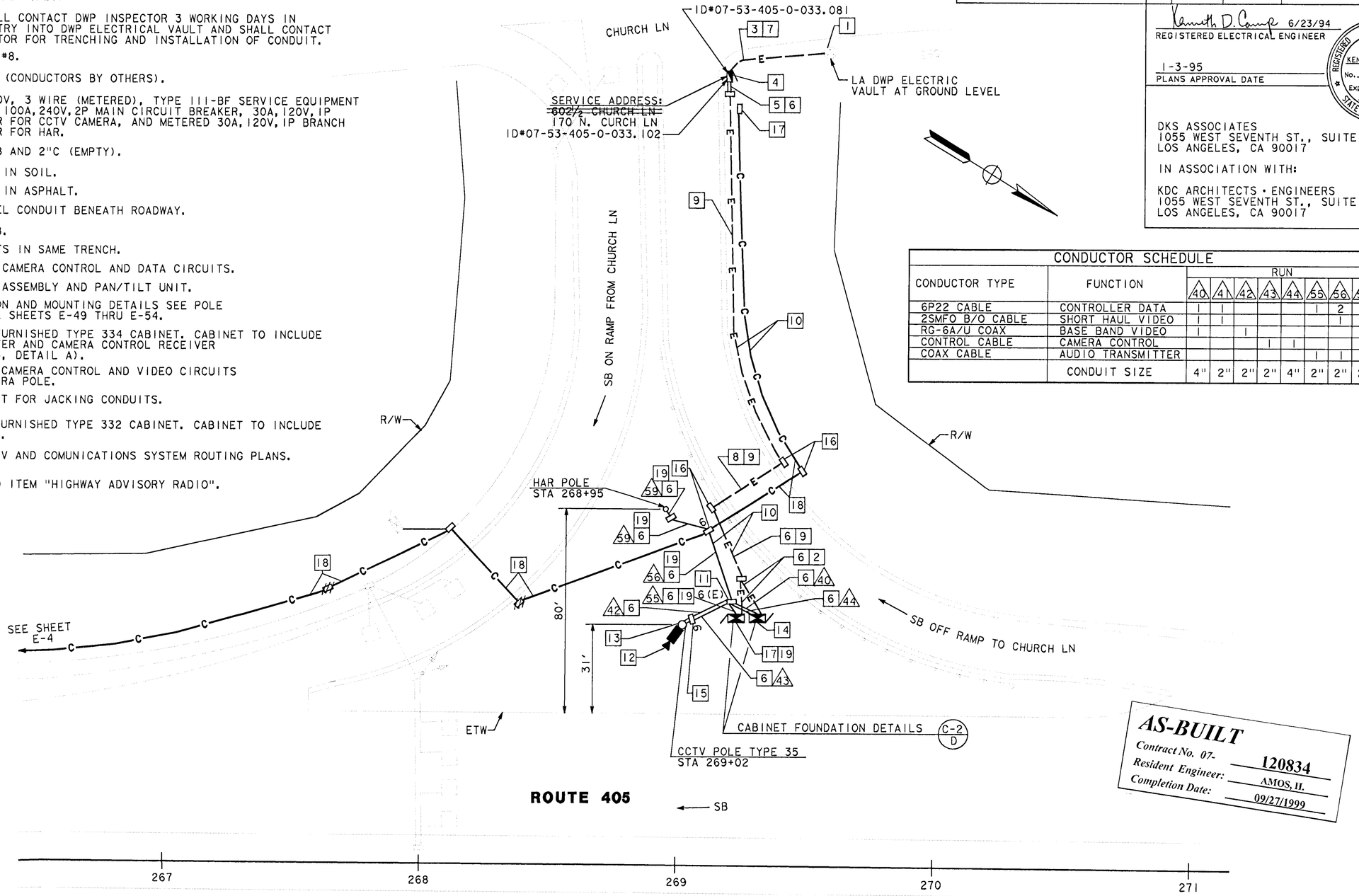
USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u22.dgn DATE: Tue May 23 2000 TIME: 12:43

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u23.dgn DATE: Tue May 23 2000 TIME: 12:41

NOTES: (THIS SHEET ONLY)

1. CONTRACTOR SHALL CONTACT DWP INSPECTOR 3 WORKING DAYS IN ADVANCE FOR ENTRY INTO DWP ELECTRICAL VAULT AND SHALL CONTACT LA CITY INSPECTOR FOR TRENCHING AND INSTALLATION OF CONDUIT.
2. INSTALL 1½"C, 2#8.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
4. INSTALL 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER, 30A, 120V, IP CIRCUIT BREAKER FOR CCTV CAMERA, AND METERED 30A, 120V, IP BRANCH CIRCUIT BREAKER FOR HAR.
5. INSTALL 2"C, 4#8 AND 2"C (EMPTY).
6. TRENCH CONDUIT IN SOIL.
7. TRENCH CONDUIT IN ASPHALT.
8. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
9. INSTALL 2"C, 4#8.
10. INSTALL CONDUITS IN SAME TRENCH.
11. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
12. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
13. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
14. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
15. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
16. USE THE SAME PIT FOR JACKING CONDUITS.
17. INSTALL STATE-FURNISHED TYPE 332 CABINET. CABINET TO INCLUDE HAR TRANSMITTER.
18. INCLUDED IN CCTV AND COMUNICATIONS SYSTEM ROUTING PLANS.
19. INCLUDED IN BID ITEM "HIGHWAY ADVISORY RADIO".



CONDUCTOR SCHEDULE									
CONDUCTOR TYPE	FUNCTION	RUN							
		△40	△41	△42	△43	△44	△55	△56	△59
6P22 CABLE	CONTROLLER DATA	1	1				1	2	
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1					1	
RG-6A/U COAX	BASE BAND VIDEO	1		1					
CONTROL CABLE	CAMERA CONTROL				1	1			
COAX CABLE	AUDIO TRANSMITTER						1	1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"	2"	2"	2"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	67	129

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Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, II.
Completion Date: 09/27/1999

CAMERA LOCATION SD331, PM 33.1
HAR LOCATION SD331, PM 33.1

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

CCTV CAMERA AND HIGHWAY ADVISORY RADIO (LOCATION SD331)

SCALE: 1" = 20'

E-23

DATE	REVISED BY
10/93	DP
12/93	RS

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u23.dgn DATE: Tue May 23 2000 TIME: 12:41

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	68	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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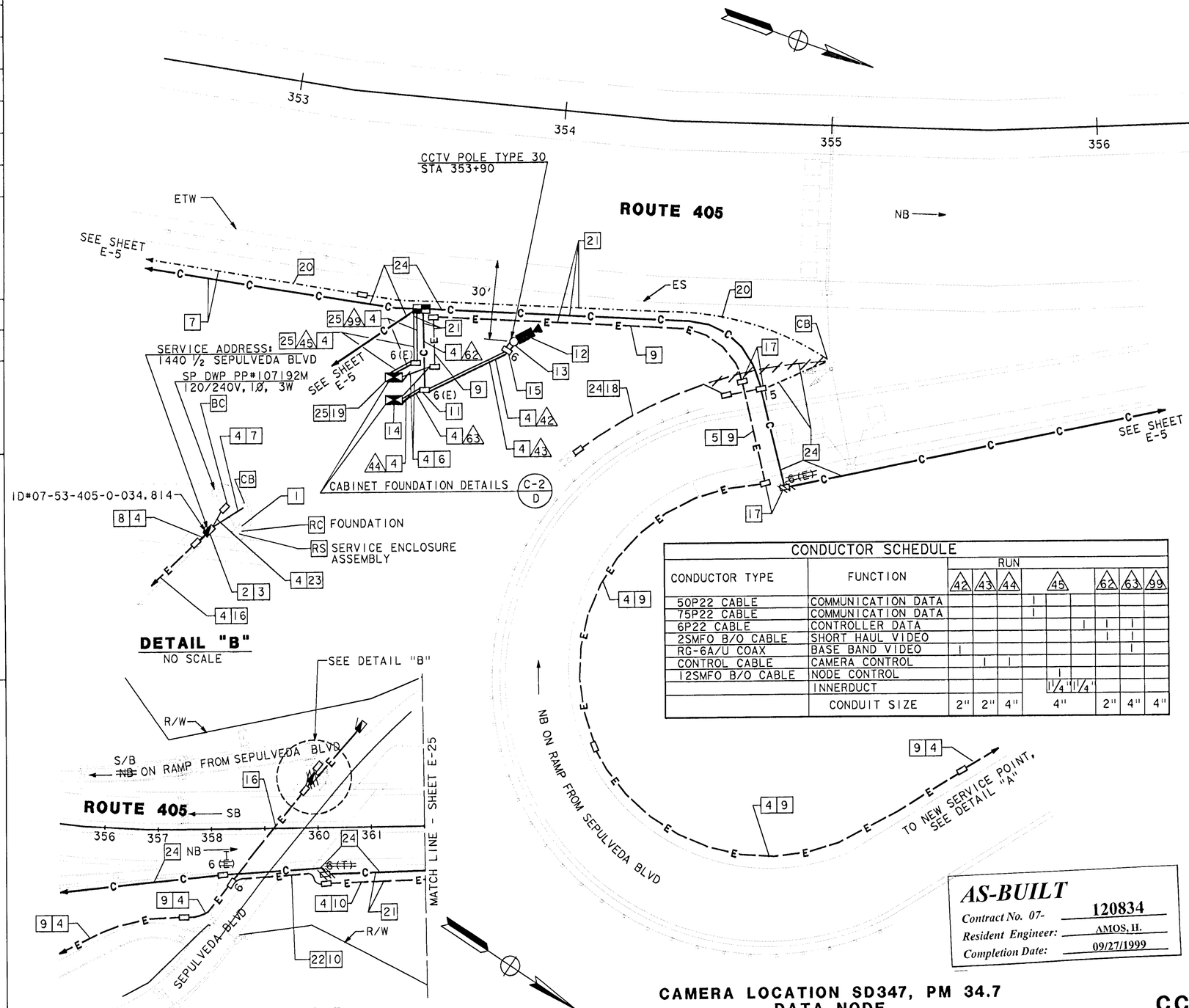

DETAIL "B"
NO SCALE

DETAIL "A"
SCALE: 1"=100'

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 42	43	44	45		62	63	99
50P22 CABLE	COMMUNICATION DATA				1				
75P22 CABLE	COMMUNICATION DATA				1				
6P22 CABLE	CONTROLLER DATA					1	1	1	
2SMFO B/O CABLE	SHORT HAUL VIDEO						1	1	
RG-6A/U COAX	BASE BAND VIDEO	1						1	
CONTROL CABLE	CAMERA CONTROL		1	1					
12SMFO B/O CABLE	NODE CONTROL				1				
	INNERDUCT				1 1/4"	1 1/4"			
	CONDUIT SIZE	2"	2"	4"	4"		2"	4"	4"

CAMERA LOCATION SD347, PM 34.7
DATA NODE
SCALE : 1" = 20'

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

NOTES: (THIS SHEET ONLY)

1. REMOVE EXISTING 120/240V UNMETERED SERVICE EQUIPMENT ENCLOSURE. CONTRACTOR SHALL CONTACT CALTRANS ENGINEER IN ADVANCE OF REMOVING EXISTING SERVICE EQUIPMENT ENCLOSURE. CONTACT DWP 48 HOURS IN ADVANCE TO TURN OFF POWER FROM POWER POLE.
2. INSTALL 120/240V, 3 WIRE (METERED) TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH METERED AND UNMETERED CIRCUITS, 100A, 240V, 2P MAIN CIRCUIT BREAKER; 3 (METERED) 30A, 120V, 1P CIRCUIT BREAKERS FOR CCTV CAMERA, 30A, 120V, 1P, CIRCUIT BREAKER FOR DATA NODE; AND (UNMETERED) 40A, 120V, 1P CIRCUIT BREAKER FOR EXISTING RAMP METER.
3. CONNECT EXISTING LOAD CIRCUITS TO UNMETERED CIRCUITS IN NEW SERVICE EQUIPMENT ENCLOSURE.
4. TRENCH CONDUIT IN SOIL.
5. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
6. INSTALL 1 1/2"C, 2#2.
7. INSTALL 2"C, 2#8.
8. INSTALL 2"C, 4#2 FOR CAMERA SD347 2#4 FOR TRAFFIC COUNT STATION AND DATA NODE SD347, 2#1/0 FOR CAMERA SD353 AND 2"C, EMPTY.
9. INSTALL 2"C, 4#2.
10. INSTALL 2", 2#1/0, 2#4
11. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
12. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
13. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
14. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL C).
15. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
16. INSTALL 2"C, 4#2 FOR CAMERA SD347, 2#4 FOR TRAFFIC COUNT STATION, AND DATA NODE SD347, 2#1/0 FOR CAMERA SD353.
17. USE THE SAME PIT FOR JACKING CONDUITS.
18. ADD 1-DLC IN EXISTING CONDUITS TO CONTROLLER.
19. INSTALL STATE-FURNISHED TYPE 334 CABINET, DATA NODE CABINET TO INCLUDE TWO D4 CHANNEL BANKS (SEE SHEET E-48, DETAIL C).
20. INSTALL 2"C, 1-DLC.
21. INSTALL CONDUITS IN THE SAME TRENCH.
22. ATTACH CONDUIT TO STRUCTURE (SEE SHEET C-5 FOR BRIDGE ATTACHMENT TYPE AND DETAILS).
23. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
24. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.
25. INCLUDED IN BID ITEM "EQUIPMENT AT DATA NODE SD347".

CCTV CAMERA AND EQUIPMENT AT DATA NODE (LOCATION SD 347)

SCALE AS NOTED

E-24

LAST REVISION 00-00-00

DESIGN OVERSIGHT: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
10/93	DP		
12/93	RS		

DATE REVISED

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CU 07374 | EA 120831

FORM DC-OE-92-PF (REV. 3/88)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	69	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
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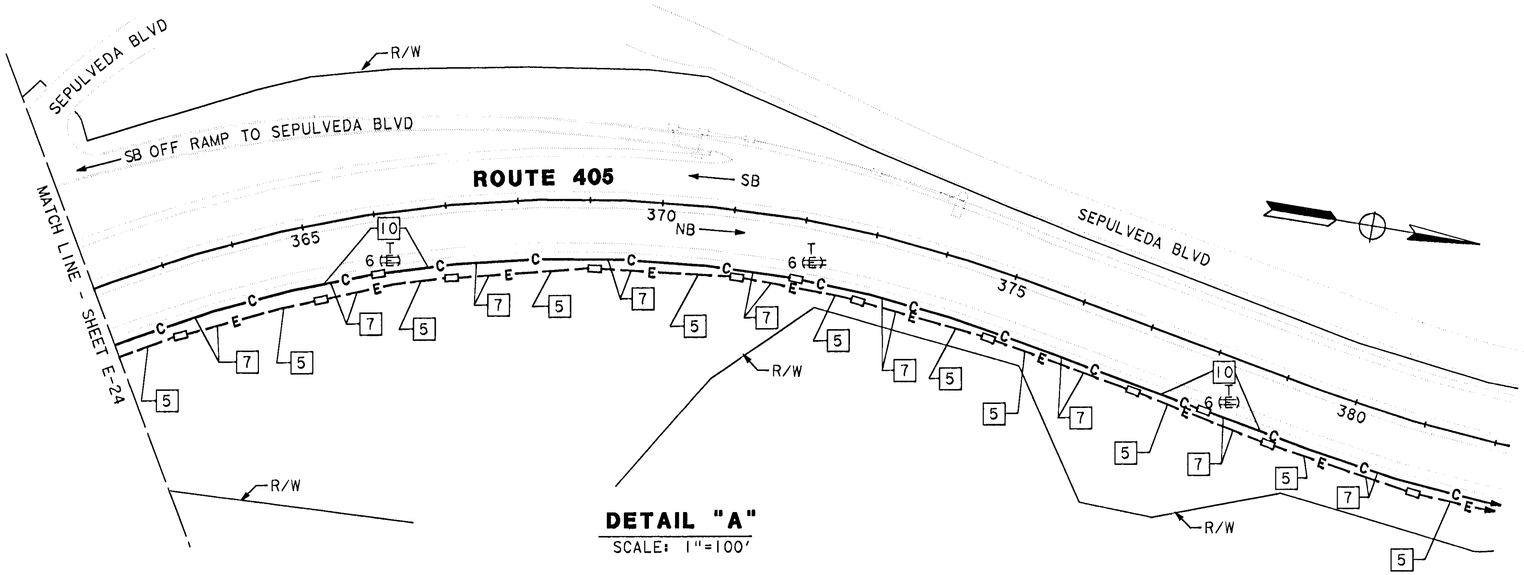
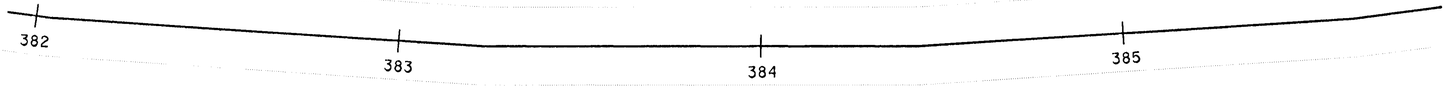
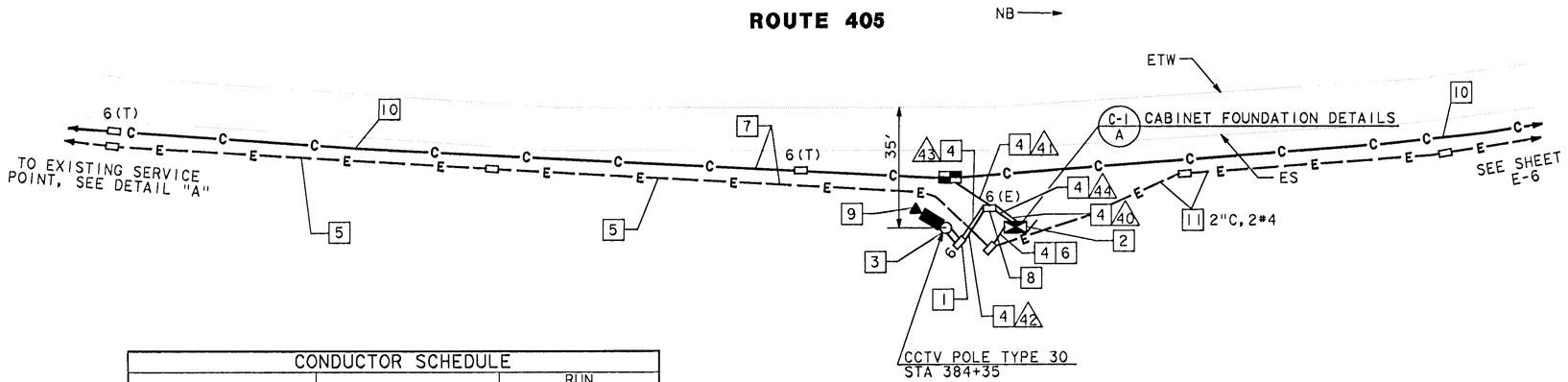


DETAIL "A"
SCALE: 1"=100'





CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN 40	41	42	43	44
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

CAMERA LOCATION SD353, PM 35.3
SCALE : 1" = 20'

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

NOTES: (THIS SHEET ONLY)

1. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
2. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER. (SEE SHEET E-48, DETAIL A).
3. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
4. TRENCH CONDUIT IN SOIL.
5. INSTALL 2"C, 2#1/0, 2#4
6. INSTALL 1½"C, 2#1/0.
7. INSTALL CONDUITS IN THE SAME TRENCH.
8. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
9. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
10. INCLUDED IN CCTV AND COMUNICATIONS SYSTEM ROUTING PLANS.
11. TRENCH AND INSTALL CONDUIT IN SOIL.

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA (LOCATION SD353)

SCALE AS NOTED

E-25

LAST REVISION 00-00-00

CALCULATED/ DESIGNED BY	CHECKED BY	DP	RS
DATE 10/93	12/93		
REVISED BY	DATE REVISED		

DESIGN OVERSIGHT — PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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FORM DC-OE-92-PF (REV. 3/88)

CU 07374 EA 120831

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u26.dgn DATE: Tue May 23 2000 TIME: 12:39

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	70	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

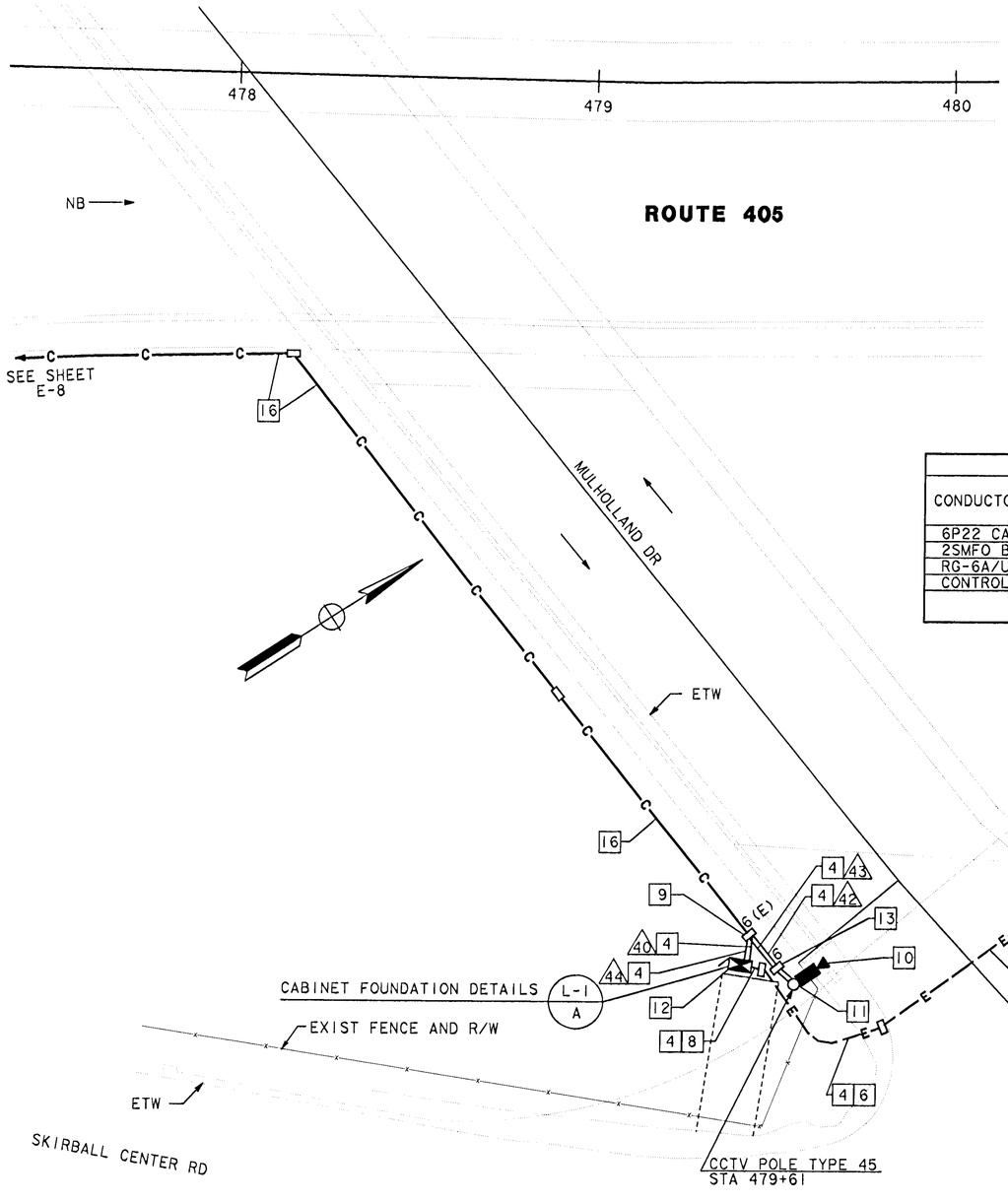
1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

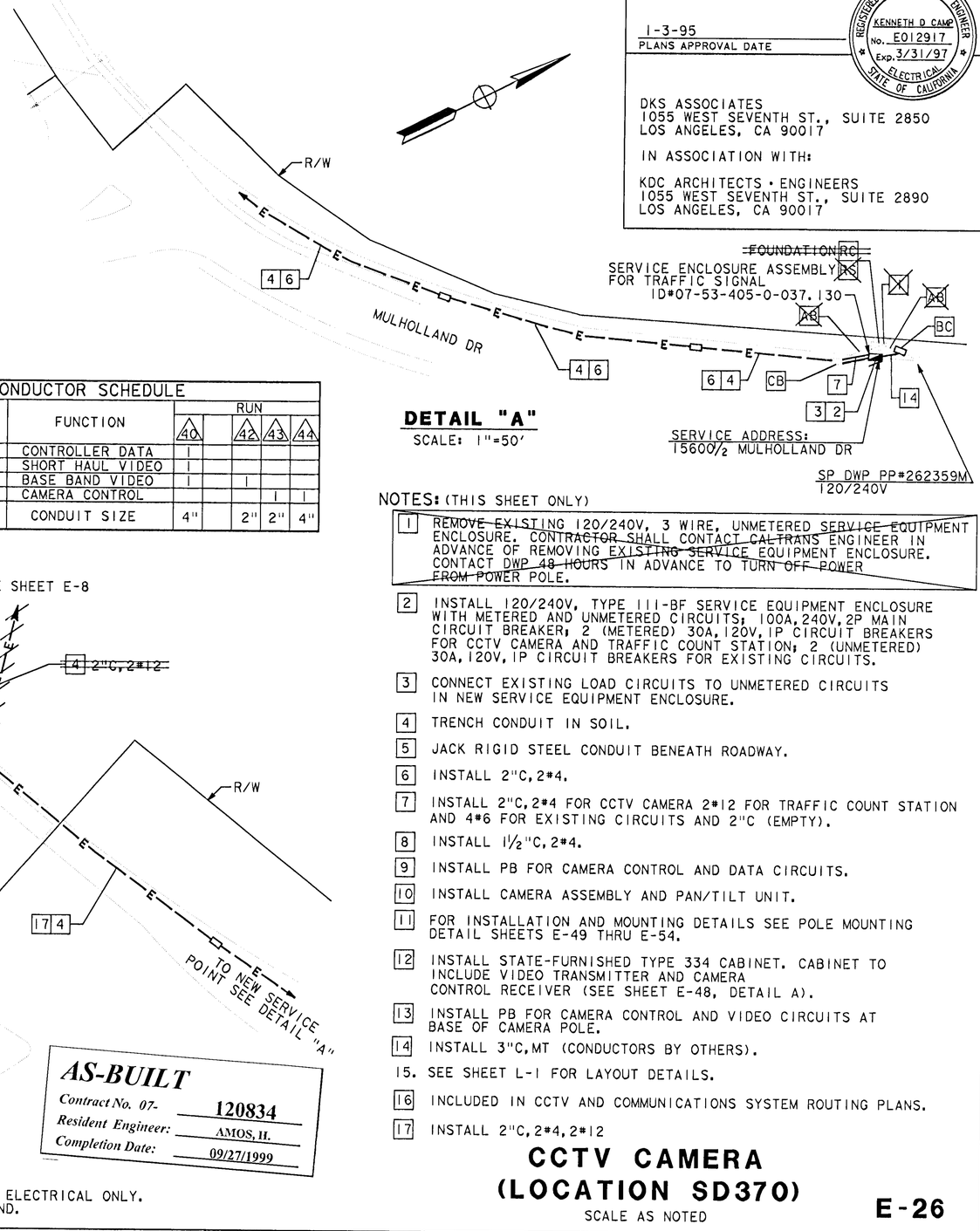
KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017



CAMERA LOCATION SD370, PM 37.0

SCALE : 1" - 20'

CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN 40		42	43	44
6P22 CABLE	CONTROLLER DATA	1				
2SMFO B/O CABLE	SHORT HAUL VIDEO	1				
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"		2"	2"	4"



DETAIL "A"

SCALE: 1"=50'

NOTES: (THIS SHEET ONLY)

1. ~~REMOVE EXISTING 120/240V, 3 WIRE, UNMETERED SERVICE EQUIPMENT ENCLOSURE. CONTRACTOR SHALL CONTACT CALTRANS ENGINEER IN ADVANCE OF REMOVING EXISTING SERVICE EQUIPMENT ENCLOSURE. CONTACT DWP 48 HOURS IN ADVANCE TO TURN OFF POWER FROM POWER POLE.~~
2. INSTALL 120/240V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH METERED AND UNMETERED CIRCUITS; 100A, 240V, 2P MAIN CIRCUIT BREAKER; 2 (METERED) 30A, 120V, 1P CIRCUIT BREAKERS FOR CCTV CAMERA AND TRAFFIC COUNT STATION; 2 (UNMETERED) 30A, 120V, 1P CIRCUIT BREAKERS FOR EXISTING CIRCUITS.
3. CONNECT EXISTING LOAD CIRCUITS TO UNMETERED CIRCUITS IN NEW SERVICE EQUIPMENT ENCLOSURE.
4. TRENCH CONDUIT IN SOIL.
5. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
6. INSTALL 2"C, 2#4.
7. INSTALL 2"C, 2#4 FOR CCTV CAMERA 2#12 FOR TRAFFIC COUNT STATION AND 4#6 FOR EXISTING CIRCUITS AND 2"C (EMPTY).
8. INSTALL 1½"C, 2#4.
9. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
10. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
11. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
12. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
13. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
14. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
15. SEE SHEET L-1 FOR LAYOUT DETAILS.
16. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.
17. INSTALL 2"C, 2#4, 2#12

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

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

CCTV CAMERA (LOCATION SD370)

SCALE AS NOTED

E-26

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN OVERSIGHT: PAT SULLIVAN
CALCULATED/DESIGNED BY | CHECKED BY
DP | RS
DATE 10/93 | 12/93
REVISED BY | DATE REVISED
LAST REVISION 00-00-00
TIME PLOTTED => $$$$$$$SYSTIME$$$$$$$

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$
CU 07374
EA 120831

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u26.dgn DATE: Tue May 23 2000 TIME: 12:39

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	71	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST.,
SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:
KDC ARCHITECTS-ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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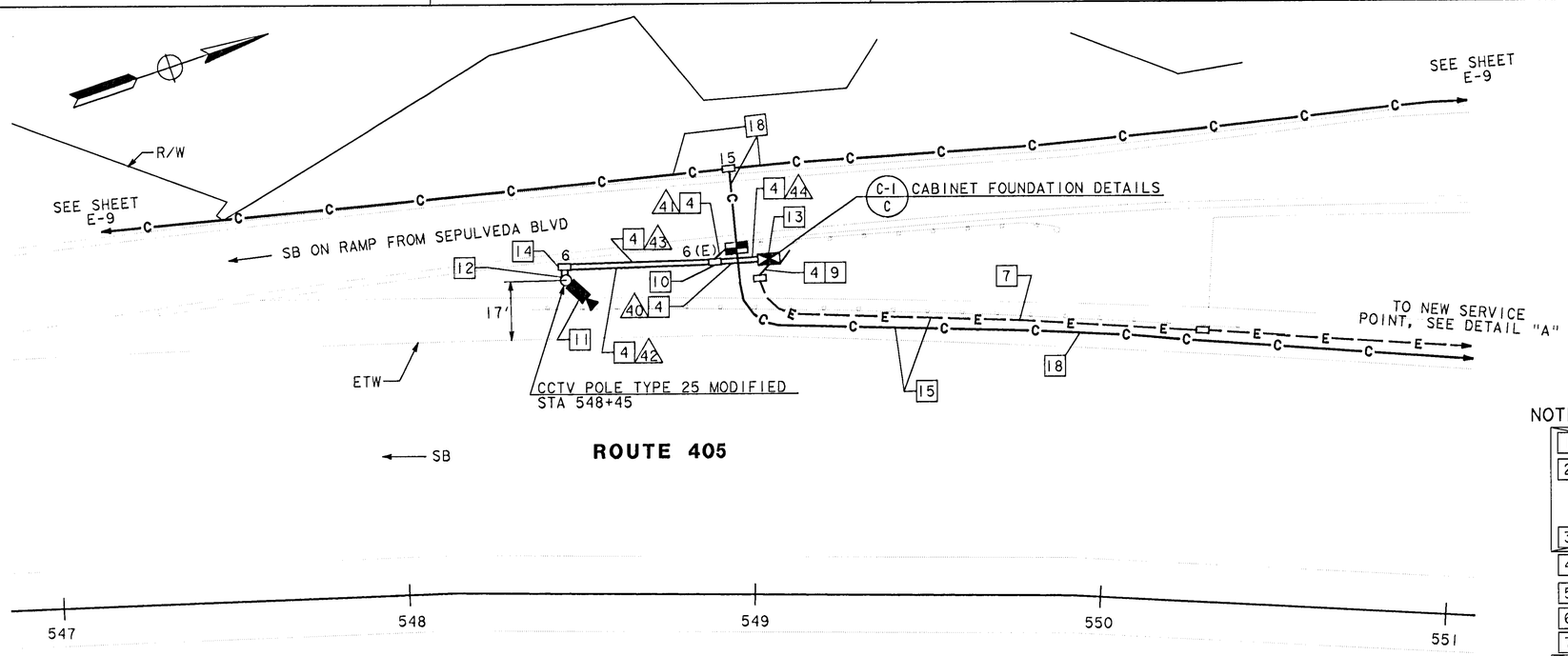
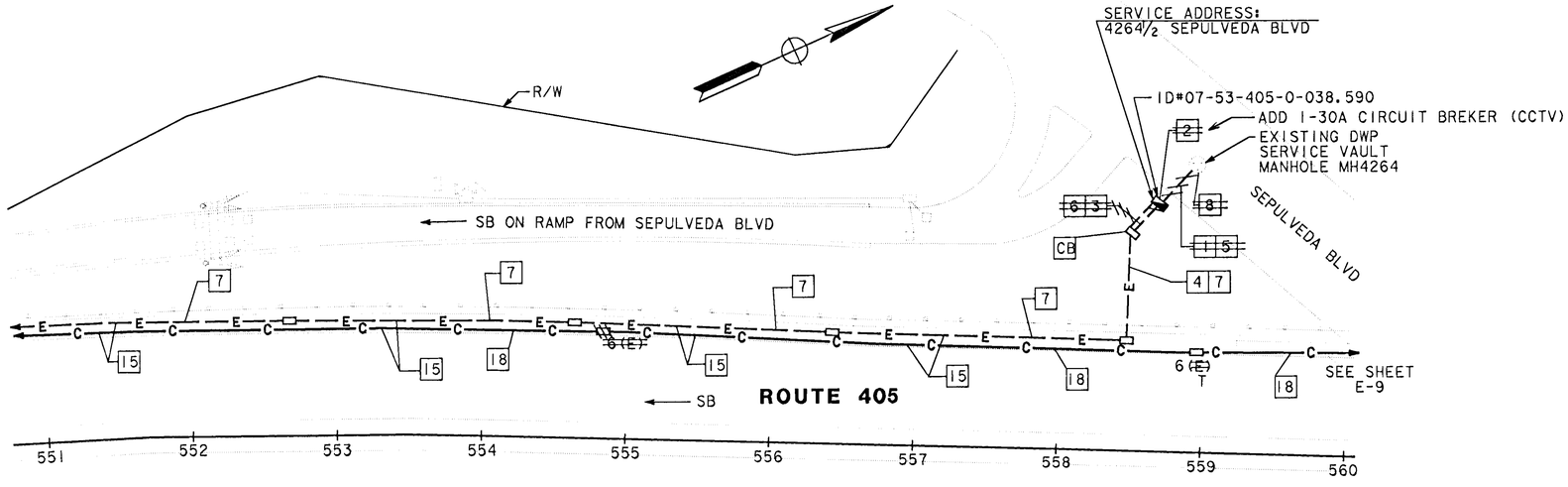


CAMERA LOCATION SD383, PM 38.3

SCALE: 1"=20'



DETAIL "A"

SCALE: 1"=50'

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE III- BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND (METERED) 30A, 120V, 1P BRANCH CIRCUIT BREAKER FOR CCTV CAMERA.
3. INSTALL 2"C, 2#4 AND 2"C (EMPTY)
4. TRENCH CONDUIT IN SOIL.
5. TRENCH CONDUIT IN ASPHALT.
6. TRENCH CONDUIT IN CONCRETE.
7. INSTALL 2"C, 2#4.
8. CONTRACTOR SHALL CONTACT DWP INSPECTOR 3 WORKING DAYS IN ADVANCE FOR ENTRY INTO DWP ELECTRICAL VAULT AND SHALL CONTACT LA CITY INSPECTOR FOR TRENCHING AND INSTALLATION OF CONDUIT.
9. INSTALL 1½"C, 2#4.
10. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
11. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
12. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
13. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
14. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
15. INSTALL CONDUIT IN THE SAME TRENCH.
16. SEE SHEET L-2 FOR LAYOUT DETAILS.
17. TYPE III-BF SERVICE EQUIPMENT ENCLOSURE ELECTRICAL COMPONENTS (BUS AND CIRCUIT BREAKERS) SHALL HAVE INTERRUPTING CAPACITY ISC=42,000 AMP (ISC-SHORT-CIRCUIT CURRENT).
18. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEMS ROUTING PLANS.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 40	4	42	43	44
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

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

CCTV CAMERA (LOCATION SD383)

SCALE AS NOTED

E-27

REVISED BY	DATE REVISED
DP	RS
DATE 10/93	12/93

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00

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

FORM DC-OE-92-PF (REV. 3/88)

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

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

CU 07374 EA 120831

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	72	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST.,
SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:
KDC ARCHITECTS-ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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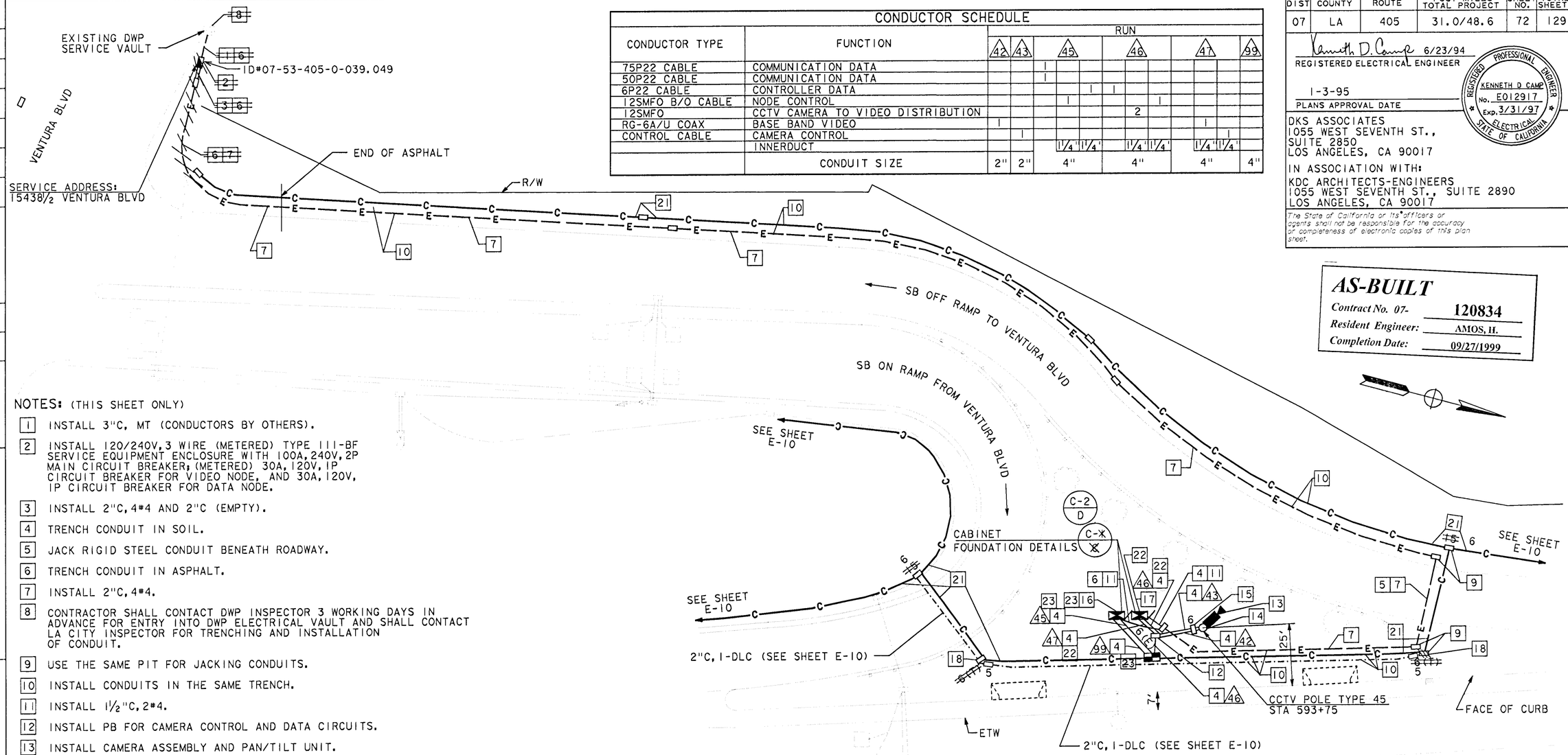
AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CONDUCTOR TYPE	FUNCTION	RUN 42	RUN 43	RUN 45	RUN 46	RUN 47	RUN 99
75P22 CABLE	COMMUNICATION DATA			1			
50P22 CABLE	COMMUNICATION DATA			1			
6P22 CABLE	CONTROLLER DATA			1	1		
12SMFO B/O CABLE	NODE CONTROL			1	1		
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION				2		
RG-6A/U COAX	BASE BAND VIDEO	1				1	
CONTROL CABLE	CAMERA CONTROL		1				1
	INNERDUCT			1 1/4" 1 1/4"	1 1/4" 1 1/4"	1 1/4" 1 1/4"	
	CONDUIT SIZE	2"	2"	4"	4"	4"	4"



NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED) TYPE 111-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER; (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR VIDEO NODE, AND 30A, 120V, 1P CIRCUIT BREAKER FOR DATA NODE.
3. INSTALL 2"C, 4#4 AND 2"C (EMPTY).
4. TRENCH CONDUIT IN SOIL.
5. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
6. TRENCH CONDUIT IN ASPHALT.
7. INSTALL 2"C, 4#4.
8. CONTRACTOR SHALL CONTACT DWP INSPECTOR 3 WORKING DAYS IN ADVANCE FOR ENTRY INTO DWP ELECTRICAL VAULT AND SHALL CONTACT LA CITY INSPECTOR FOR TRENCHING AND INSTALLATION OF CONDUIT.
9. USE THE SAME PIT FOR JACKING CONDUITS.
10. INSTALL CONDUITS IN THE SAME TRENCH.
11. INSTALL 1½"C, 2#4.
12. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
13. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
14. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
15. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
16. INSTALL STATE-FURNISHED TYPE 334 CABINET. DATA NODE CABINET TO INCLUDE TWO D4 CHANNEL BANKS (SEE SHEET E-48, DETAIL A).
17. INSTALL STATE-FURNISHED TYPE 334 CABINET. VIDEO NODE CABINET TO INCLUDE 16 CHANNEL VIDEO MULTIPLEXER AND 10 VIDEO RECEIVERS (SEE SHEET E-48, DETAIL B).
18. INSTALL 6(T) PULL BOX, (SEE DETAILS, SHEET C-7).
19. SEE SHEET L-3 FOR LAYOUT DETAILS.
20. TYPE 111-BF SERVICE EQUIPMENT ENCLOSURE ELECTRICAL COMPONENTS (BUS AND CIRCUIT BREAKERS) SHALL HAVE INTERRUPTING CAPACITY ISC=42,000 AMP (ISC-SHORT-CIRCUIT CURRENT).
21. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.
22. INCLUDED IN BID ITEM "EQUIPMENT AT VIDEO NODE SD 391."
23. INCLUDED IN BID ITEM "EQUIPMENT AT DATA NODE SD 391."

ROUTE 405

CAMERA LOCATION SD391, PM 39.1
VIDEO/DATA NODE

CCTV CAMERA, EQUIPMENT AT DATA NODE, AND EQUIPMENT AT VIDEO NODE

(LOCATION SD391)

SCALE: 1" = 20'

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

E-28

CALCULATED/ DESIGNED BY	CHECKED BY	DP	DATE 10/93	REVISED BY	DATE REVISED
		RS	12/93		

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)

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

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

CU 07374 EA 120831

USER ID: t7aferno@NODE FILE: /project/120831_ua/ab/t7aferno/712083u29.dgn DATE: Tue May 23 2000 TIME: 09:10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	73	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST.,
SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:
KDC ARCHITECTS-ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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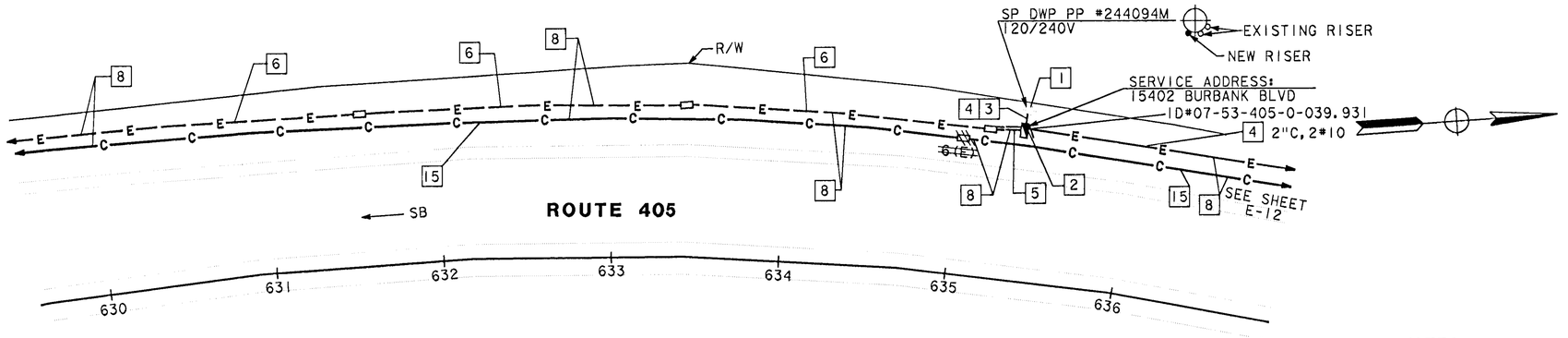
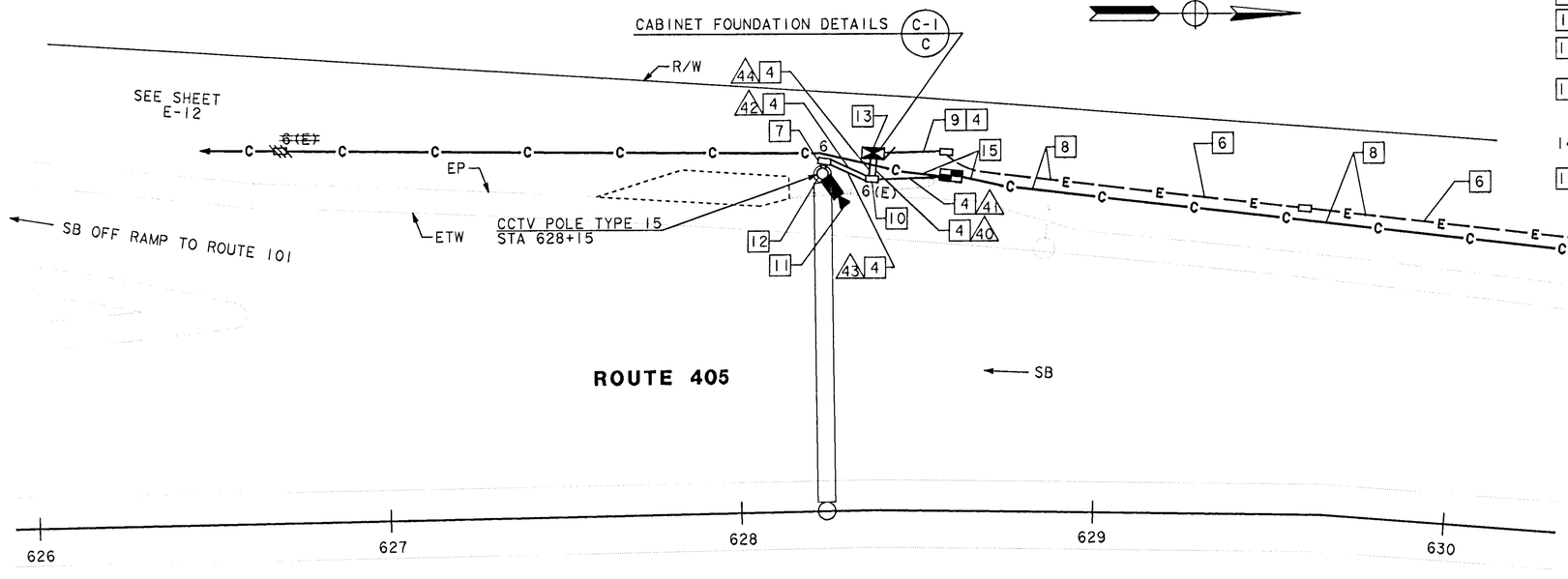


DETAIL "A"
SCALE: 1"=40'

CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN				
		40	41	42	43	44
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND 2 (METERED) 30A, 120V, 1P CIRCUIT BREAKERS FOR CCTV CAMERA AND TRAFFIC COUNT STATION.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
4. TRENCH CONDUIT IN SOIL.
5. INSTALL 2"C, 2#4 AND 2"C (EMPTY)
6. INSTALL 2"C, 2#4.
7. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF SIGN POLE.
8. INSTALL CONDUITS IN THE SAME TRENCH.
9. INSTALL 1½"C, 2#4.
10. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
11. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
12. FOR INSTALLATION AND MOUNTING DETAILS ON SIGN STRUCTURE, SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
13. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
14. SEE SHEET L-4 FOR LAYOUT DETAILS.
15. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.



CAMERA LOCATION SD398, PM 39.8
SCALE: 1"=20'

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA (LOCATION SD398)
SCALE AS NOTED

E-29

REVISED BY	DATE REVISED
DP	RS
DATE 10/93	12/93

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)

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

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

CU 07374 EA 120831

USER ID: t7aferno@NODE FILE: /project/120831_ua/ab/t7aferno/712083u29.dgn DATE: Tue May 23 2000 TIME: 09:10

USERID t7aferno@NODE F: /project/120831_ua/ab/t7aferno/712083u30.dgn DATE: Tue May 23 2000 TIME: 07:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	74	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 ELECTRICAL STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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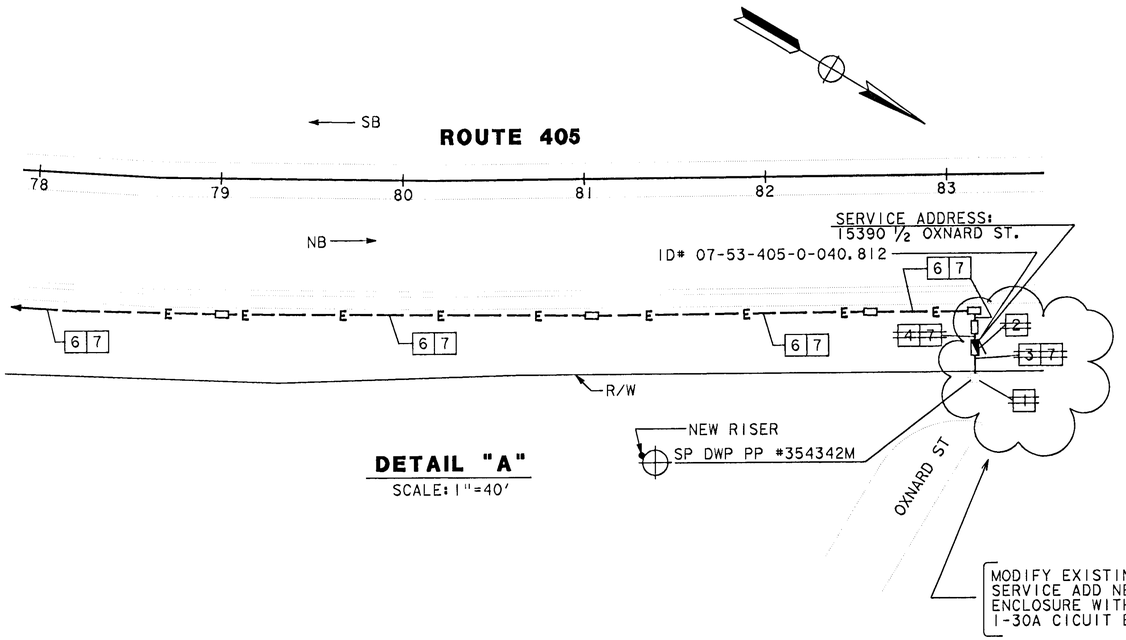
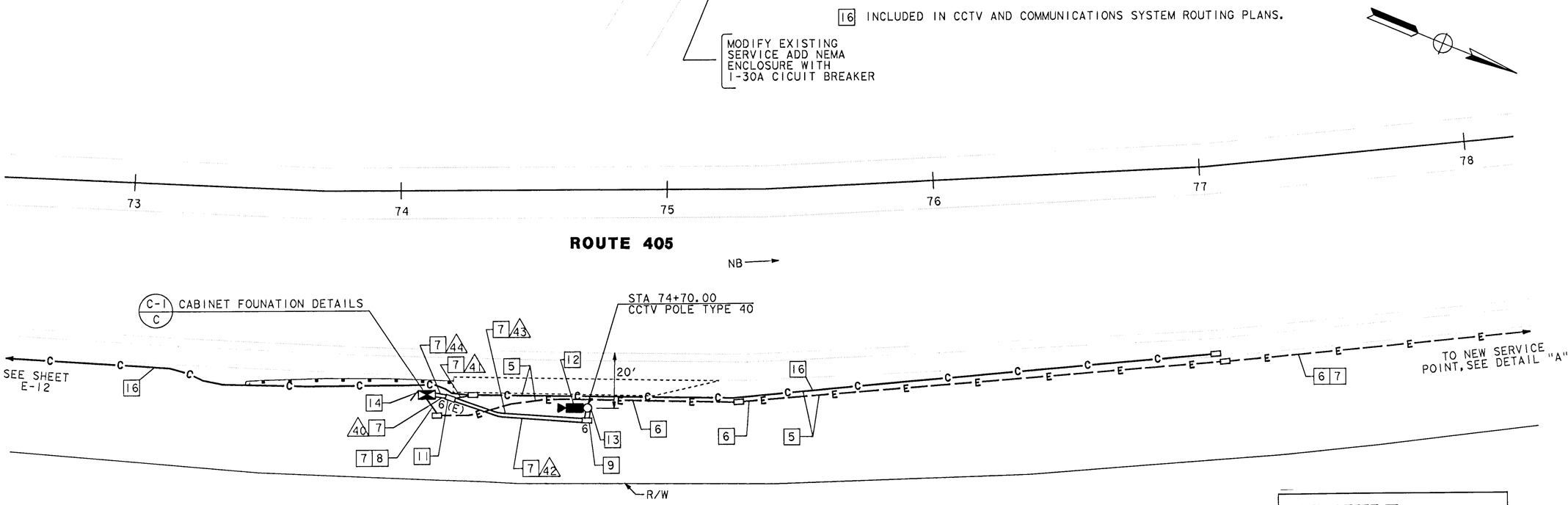


DETAIL "A"
SCALE: 1"=40'

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENT, (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE-III BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR CCTV CAMERA.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
4. INSTALL 2"C, 2#4 AND 2"C (EMPTY).
5. INSTALL CONDUITS IN THE SAME TRENCH.
6. INSTALL 2"C, 2#4.
7. TRENCH CONDUIT IN SOIL.
8. INSTALL 1 1/2"C, 2#4.
9. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
10. OMITTED
11. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
12. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
13. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
14. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
15. SEE SHEET L-5 FOR LAYOUT DETAILS.
16. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.



CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN 40	41	42	43	44
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

CAMERA LOCATION SD407, PM 40.7
SCALE: 1"=20'

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA (LOCATION SD407)

SCALE AS NOTED

E-30

CALCULATED/ DESIGNED BY	CHECKED BY	DP	DATE 10/93	REVISED BY
		RS	12/93	DATE REVISED

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

$$$$$$$$$$DONSPEC$$$$$$$$$$ $$$$$$SYTIME$$$$$$ $$$$$$USER$$$$$$

USERID t7aferno@NODE FILE: /project/120831_ua/ab/t7aferno/712083u30.dgn DATE: Tue May 23 2000 TIME: 07:40

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u31.dgn DATE: Tue May 23 2000 TIME: 07:39

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	75	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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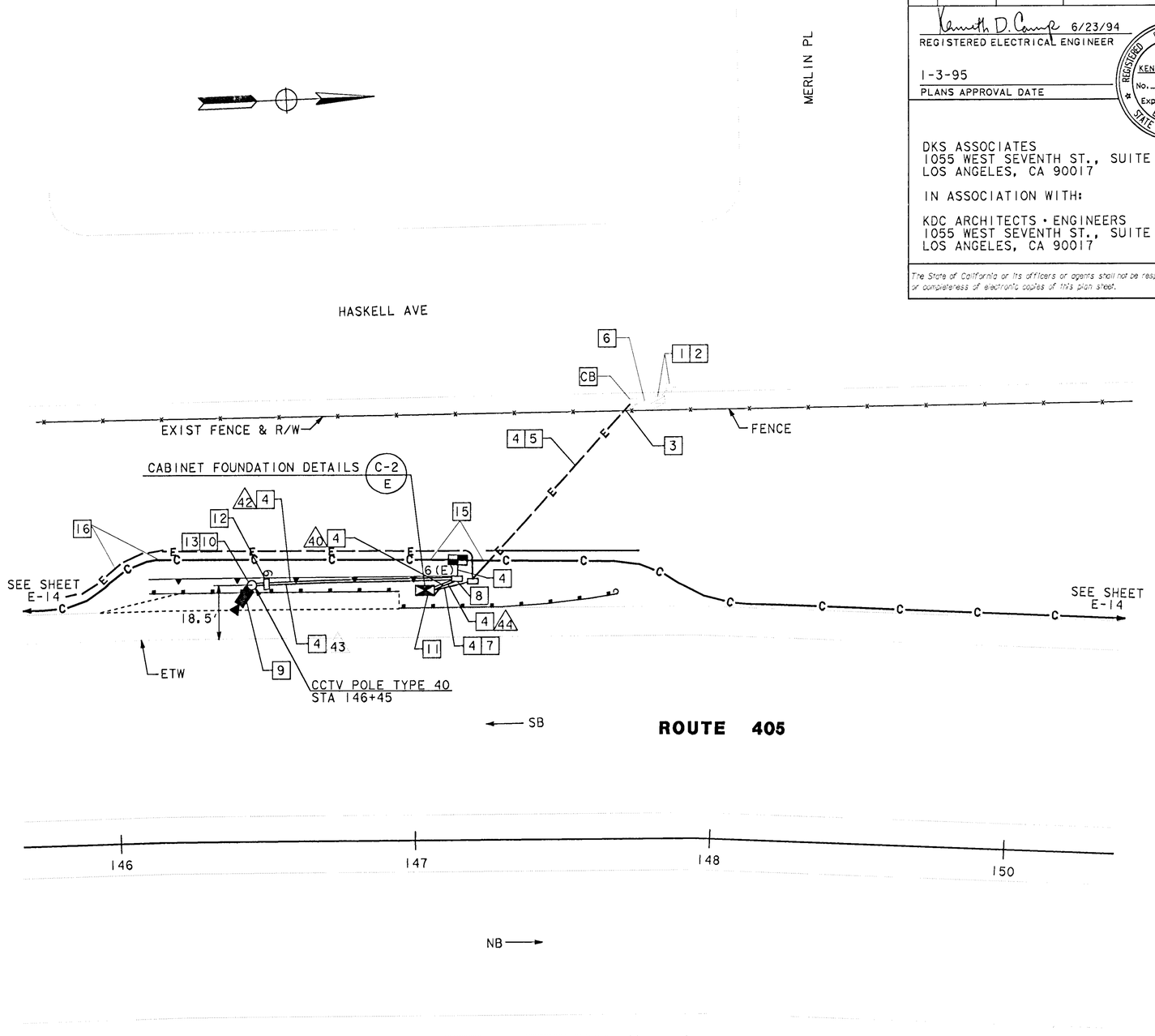
CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN 40	41	42	43	44
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE: PP#353983M 6929½ HASKELL AVE.
2. ADD 2 (METERED) 30A, 120V, IP BRANCH CIRCUIT BREAKERS FOR CCTV CAMERA AND TRAFFIC COUNT STATION IN EXISTING SERVICE EQUIPMENT ENCLOSURE.
3. TRENCH CONDUIT BENEATH CHAINLINK FENCE.
4. TRENCH CONDUIT IN SOIL.
5. INSTALL 2"C, 2#8, 2#10.
6. ADD 2#8 AND 2#10 IN EXISTING CONDUIT.
7. INSTALL 1½"C, 2#8.
8. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
9. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
10. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
11. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
12. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
13. INSTALL 160 DEGREE CAMERA PAN STOPS TO RESTRICT VIEW INTO RESIDENTIAL AREAS.
14. SEE SHEET L-6 FOR LAYOUT DETAIL.
15. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.
16. INSTALL CONDUITS IN SAME TRENCH.



CAMERA LOCATION SD420, PM 42.0

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA (LOCATION SD420)

SCALE: 1" = 20'

E-31

CALCULATED/ DESIGNED BY	DP	DATE 10/93	REVISED BY
CHECKED BY	RS	12/93	DATE REVISED

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00

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

$$$$$$$$$$DGNSPEC$$$$$$$$$$ $$$$$$SYTIME$$$$$$ $$$$$$USER$$$$$$

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

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u31.dgn DATE: Tue May 23 2000 TIME: 07:39

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	76	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER · KENNETH D CAMP · No. E012917 · Exp. 3/31/97 · ELECTRICAL · STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

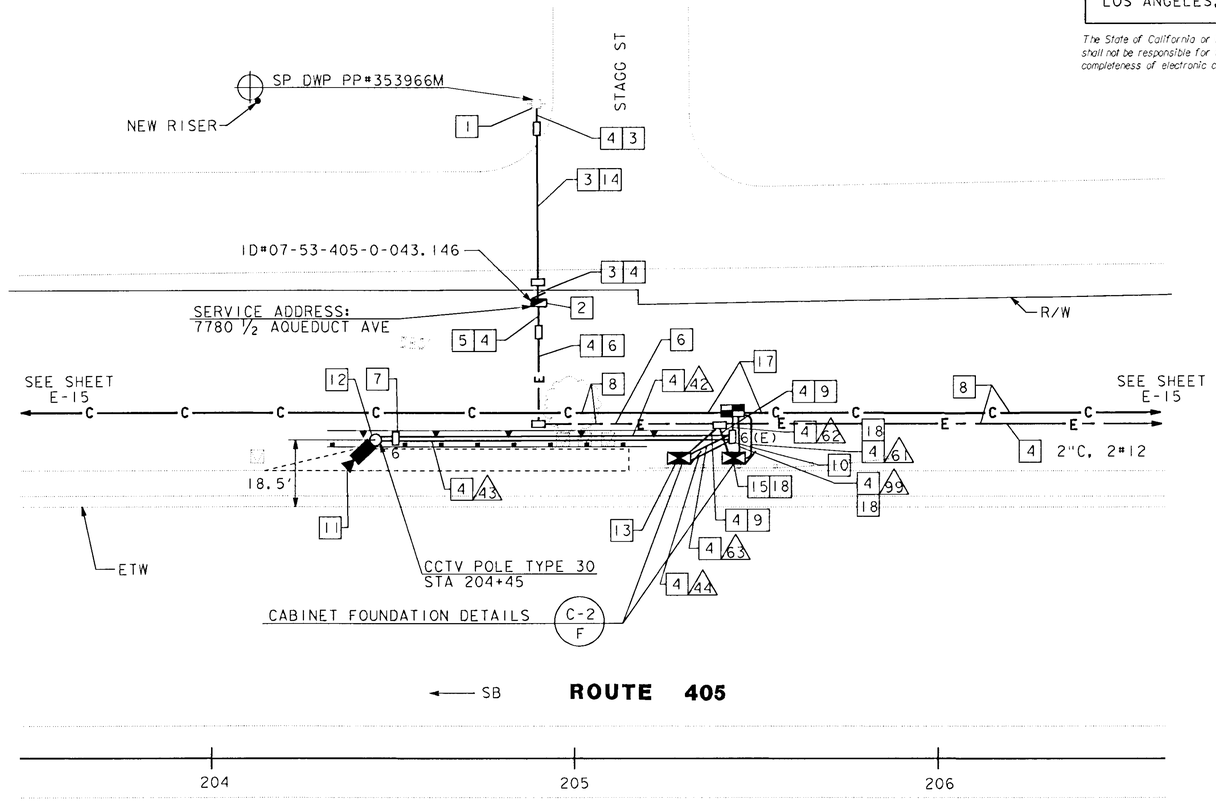
KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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	FUNCTION	RUN									
		42	43	44	61			62	63	99	
75P22 CABLE	COMMUNICATION DATA				2						
12SMFO B/O CABLE	NODE CONTROL					1					
2SMFO B/O CABLE	SHORT HAUL VIDEO							1	1		
RG-6A/U COAX	BASE BAND VIDEO	1								1	
CONTROL CABLE	CAMERA CONTROL		1	1							
6P22 CABLE	CONTROLLER DATA						1	1	1		
	INNERDUCT				1 1/4"	1 1/4"					
	CONDUIT SIZE	2"	2"	4"	4"			4"	4"	4"	

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE III-BF3 SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P CIRCUIT BREAKER; (METERED) 30A, 120V, 1P CIRCUIT BREAKERS FOR CCTV CAMERA, TRAFFIC COUNT STATION, AND DATA NODE.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
4. TRENCH CONDUIT IN SOIL.
5. INSTALL 2"C, 4#8 2#12 AND 2"C (EMPTY).
6. INSTALL 2"C, 4#8, 2#12.
7. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
8. INSTALL CONDUITS IN THE SAME TRENCH.
9. INSTALL 1 1/2"C, 2#8.
10. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
11. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
12. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
13. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL C).
14. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
15. INSTALL STATE-FURNISHED TYPE 334 CABINET. DATA NODE CABINET TO INCLUDE TWO D4 CHANNEL BANKS (SEE SHEET E-48, DETAIL C).
16. SEE SHEET L-7 FOR LAYOUT DETAILS.
17. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.
18. INCLUDED IN BID ITEM "EQUIPMENT AT DATA NODE SD431".



CAMERA LOCATION SD431, PM 43.1
DATA NODE

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA AND EQUIPMENT AT DATA NODE (LOCATION SD431)

SCALE: 1" = 20'

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

E-32

CALCULATED/DESIGNED BY: DP
CHECKED BY: RS
DATE: 10/93 | 12/93
REVISED BY | DATE REVISED
DESIGN OVERSIGHT: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 14-JAN-1995 11:40

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => mikesl
DGN FILE => /usr/mikesl/PI/712083u32.dg
CU 07374
EA 120831

SEP D: t7aferna@NODE F: E: /project/120831_ua/ab/t7aferna/712083u33.dan DATE: Tue May 23 2000 TIME: 07:38

CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN				
		40	41	42	43	44
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

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DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

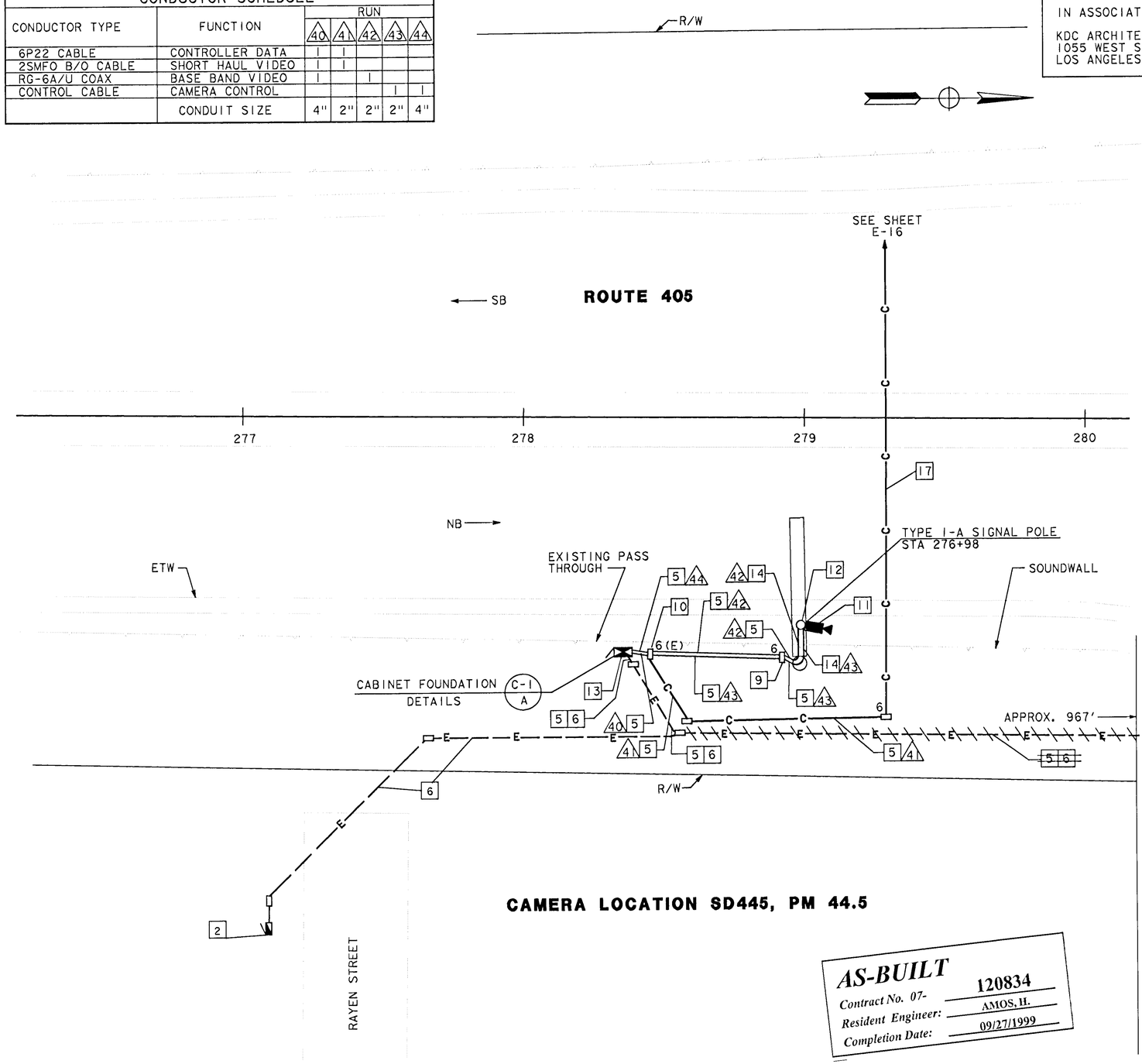
KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	77	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

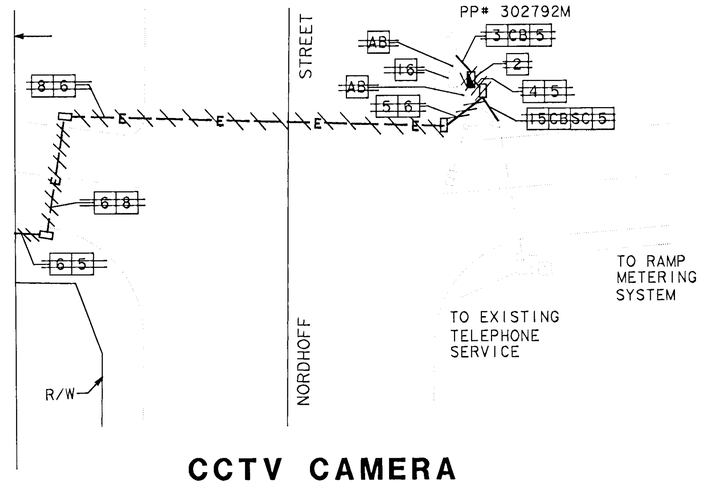


CAMERA LOCATION SD445, PM 44.5

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS, (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER, A (METERED) 30A, 120V, IP CIRCUIT BREAKER FOR CCTV CAMERA, A 30A, 120V, IP CIRCUIT BREAKER FOR EXISTING RAMP METER, AND A 20A, 120V, IP CIRCUIT BREAKER FOR EXISTING DEMARCATION BOX.
3. INSTALL 3"C MT, (CONDUCTORS BY OTHERS).
4. INSTALL 2"C, 2#6, 2#8, 2#12 AND 2"C (EMPTY).
5. TRENCH CONDUIT IN SOIL.
6. INSTALL 2"C, 2#6.
7. TRENCH CONDUIT IN ASPHALT.
8. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
9. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF SIGN POLE.
10. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
11. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
12. FOR INSTALLATION AND MOUNTING DETAILS ON SIGN STRUCTURE SEE POLE MOUNTING DETAILS SHEETS E-49 THRU E-54.
13. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER (SEE SHEET E-48, DETAIL A).
14. SEE SHEET E-51 FOR CONDUIT MOUNTING TO POLE.
15. INSTALL 2"C, 2#8, 2#12 FOR EXISTING RAMP METERING SYSTEM.
16. REMOVE EXISTING 120V SERVICE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER TWO WORKING DAYS PRIOR TO REMOVAL.
17. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.



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

CCTV CAMERA (LOCATION SD445)

SCALE: 1" = 20'

E-33

LAST REVISION 00-00-00

DATE	REVISED BY	CALCULATED/ DESIGNED BY	DESIGN OVERSIGHT
10/93	DP	CHECKED BY	PAT SULLIVAN
12/93	RS		
DATE REVISED			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

$$$$$$$$$$DONSPEC$$$$$$$$$$ $$$$$$SYTIME$$$$$$ $$$$$$USERID$$$$$$$$$$

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u33.dan DATE: Tue May 23 2000 TIME: 07:38

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	78	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP No. E012917 Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS · ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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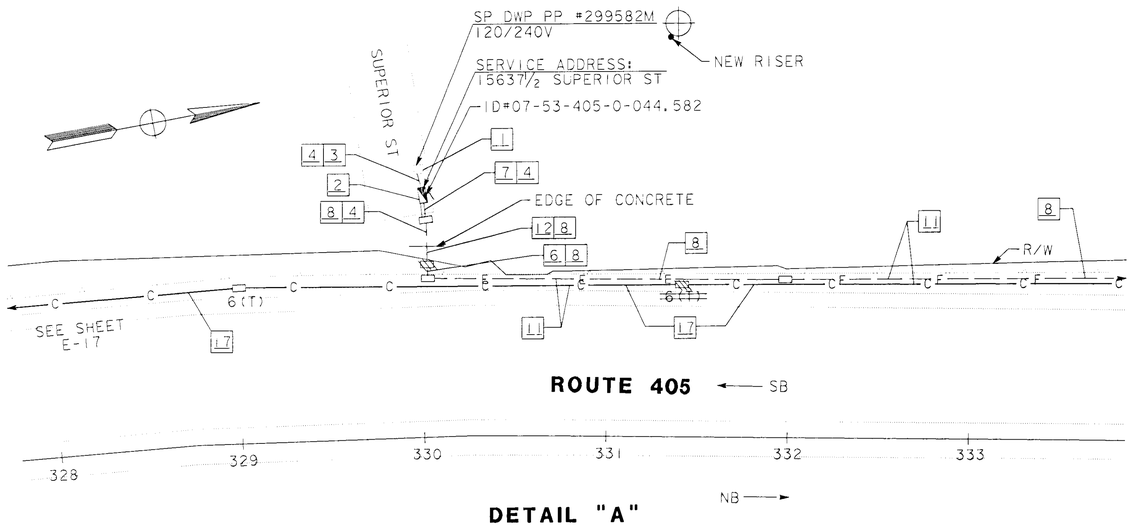
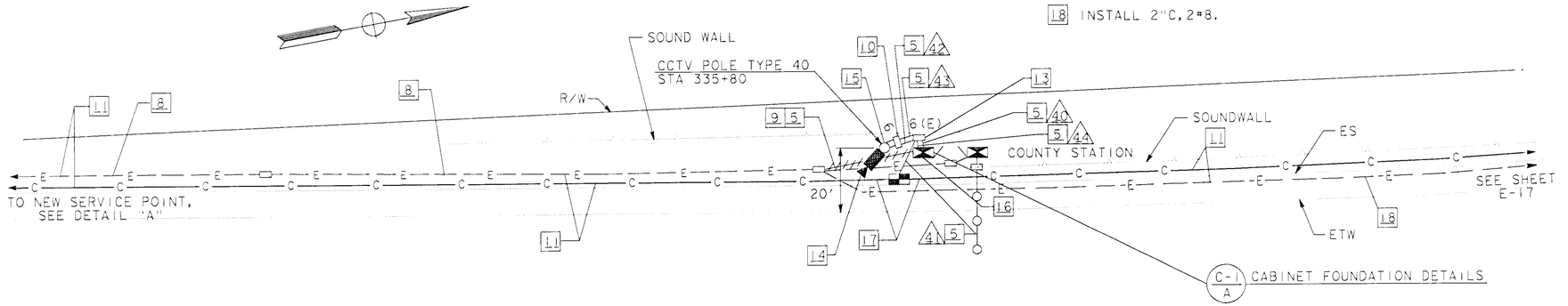


DETAIL "A"
SCALE: 1"=40'

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS, (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND 2 (METERED) 30A, 120V, 1P CIRCUIT BREAKERS FOR CCTV CAMERA AND TRAFFIC COUNT STATION.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
4. TRENCH CONDUIT IN CONCRETE.
5. TRENCH CONDUIT IN ASPHALT.
6. CORE 2" GALVANIZED STEEL CONDUIT THROUGH THE SOUND WALL. SEE DETAIL SHEET C-7.
7. INSTALL 2"C, 2#4, 2#8 AND 2"C (EMPTY).
8. INSTALL 2"C, 2#4, 2#8.
9. INSTALL 1½"C, 2#4.
10. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
11. INSTALL CONDUITS IN THE SAME TRENCH.
12. TRENCH CONDUIT IN SOIL.
13. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
14. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
15. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEETS E-49 THRU E-54.
16. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER. (SEE SHEET E-48, DETAIL A).
17. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.
18. INSTALL 2"C, 2#8.



CAMERA LOCATION SD456, PM 45.6
SCALE: 1" = 20'

CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN				
		40	41	42	43	44
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

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

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA (LOCATION SD456)

SCALE AS NOTED

E-34

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN OVERSIGHT — PAT SULLIVAN
CALCULATED/DESIGNED BY
CHECKED BY
DP — RS
DATE REVISED 12/93 — REVISED BY 10/93
LAST REVISION 00-00-00
TIME PLOTTED => $$$$$$$$SYSTIME$$$$$$$$

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$
CU 07374
EA 120831

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u35.dgn DATE: Tue May 23 2000 TIME: 07:31

TO NEW SERVICE POINT, SEE DETAIL "A"

ROUTE 118 CONN TO ROUTE 405

CHATSWORTH ST

EXISTING EDGE OF OVERHEAD RAMP

CABINET FOUNDATION DETAILS C-1 / A

SEE DETAIL"B"

80'CCTV TOWER STA 339+66

CABINET FOUNDATION DETAILS C-2 / D

ROUTE 118 CONNECTOR RAMP TO ROUTE 405

SEE SHEET E-19

RIP RAP PAVEMENT

ROUTE 405 CONNECTOR RAMP TO ROUTE 118

SEE SHEET E-19

ETW

EXISTING EDGE OF OVERHEAD RAMP

ROUTE 405 CONNECTOR RAMP TO ROUTE 405

SB

ROUTE 405

397 398 399 400

NB

DETAIL B
NO SCALE

CAMERA LOCATION SD468, PM 46.8
VIDEO/DATA NODE
SCALE: 1" = 20'

SERVICE ADDRESS:
15707 1/2 CHATSWORTH AVE

CHATSWORTH ST

ROUTE 118 CONNECTOR TO ROUTE 405

DETAIL A
SCALE: 1"=50'

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

NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE: 15707 1/2 CHATSWORTH ST.
2. ADD (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR VIDEO NODE AND (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR DATA NODE IN EXISTING SERVICE EQUIPMENT ENCLOSURE.
3. ADD 4#6 IN EXISTING CONDUIT.
4. TRENCH CONDUIT IN SOIL.
5. INSTALL 2"C, 4#6.
6. INSTALL 1 1/2"C, 2#6.
7. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
8. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
9. FOR INSTALLATION AND MOUNTING DETAILS SEE TOWER ATTACHMENT DETAILS, SHEET E-53.
10. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF TOWER.
11. INSTALL STATE-FURNISHED TYPE 334 CABINET. DATA NODE CABINET TO INCLUDE TWO D4 CHANNEL BANKS (SEE SHEET E-48, DETAIL B).
12. INSTALL STATE-FURNISHED TYPE 334 CABINET. VIDEO NODE CABINET TO INCLUDE 16 CHANNEL VIDEO MULTIPLEXER AND 3 VIDEO RECEIVERS (SEE SHEET E-48, DETAIL B).
13. CONNECT 6P22 TO CONTROLLER, USE CONDUIT FROM PB INTO CABINET.
14. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.
15. INCLUDED IN BID ITEM "EQUIPMENT AT DATA NODE SD468".
16. INCLUDED IN BID ITEM "EQUIPMENT AT VIDEO NODE SD468".

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 42	43	45	47	58	99
75P22 CABLE	COMMUNICATION DATA			1			
50P22 CABLE	COMMUNICATION DATA			1			
6P22 CABLE	CONTROLLER DATA				1		
12SMFO B/O CABLE	NODE CONTROL			1		1	
12SMFO	CCTV CAMERA TO VIDEO DIST						1
RG-6A/U COAX	BASE BAND VIDEO	1			1		
CONTROL CABLE	CAMERA CONTROL		1		1		
	INNERDUCT			1 1/4" 1 1/4"	1 1/4" 1 1/4"	1 1/4" 1 1/4"	
	CONDUIT SIZE	2"	2"	4"	4"	4"	4"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	79	129

Kenneth D. Camp 6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

CCTV CAMERA, EQUIPMENT AT DATA NODE, AND EQUIPMENT AT VIDEO NODE (LOCATION SD468)

SCALE AS NOTED

E-35

DATE	REVISED BY
10/93	DP
12/93	RS

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

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

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

CU 07374 EA 120831

FORM DC-OE-92-PF (REV. 3/88)

USER ID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u35.dgn DATE: Tue May 23 2000 TIME: 07:31

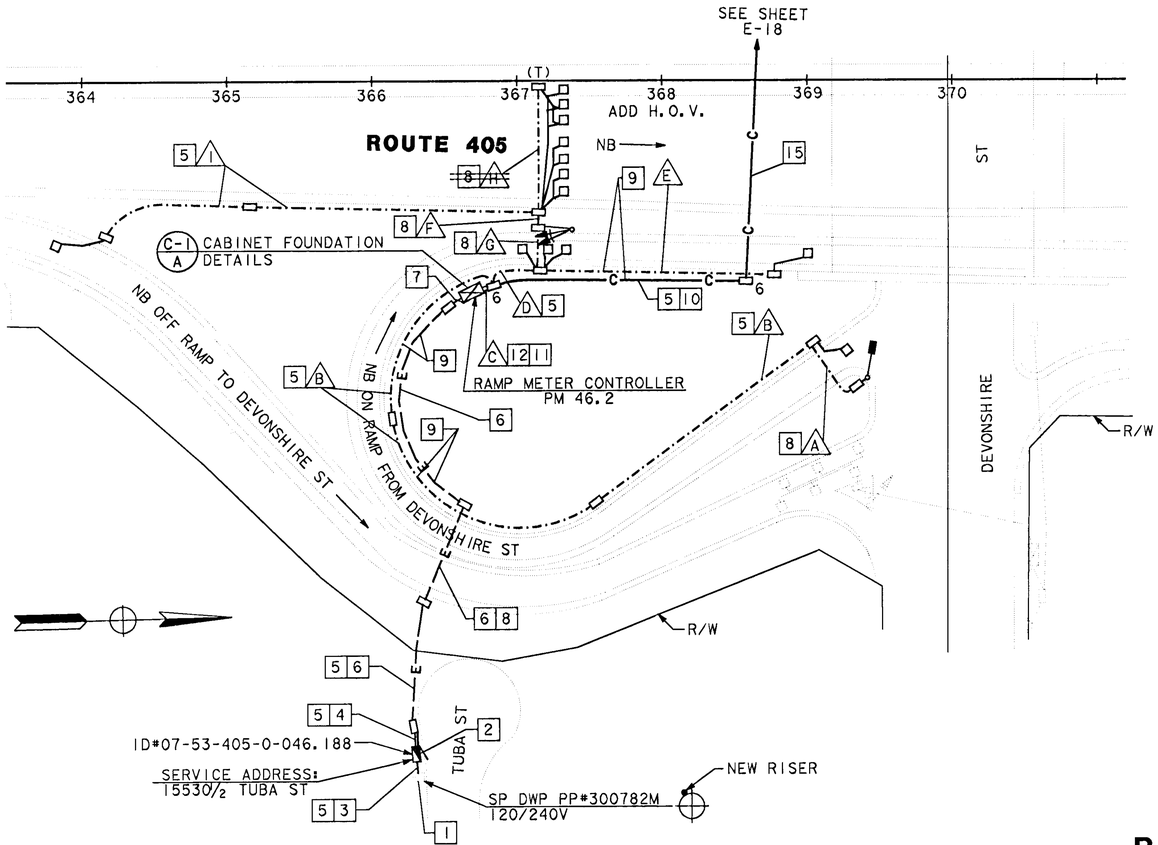
USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u36.dgn DATE: Tue May 23 2000 TIME: 07:30

RAMP METER CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	A	B	C	D	E	F	G	H	I
#14	RAMP SIGNAL			3	3			3		
	SPARES			3	3			3		
	TOTAL			6	6			6		
#10	SIGNAL COMMON			1	1			1		
	METER-ON SIGN	2	2	2						
	TOTAL	2	2	3	1			1		
DLC	QUEUE DETECTOR		1	1						
	DEMAND DETECTOR			1	1					
	PASSAGE DETECTOR			1	1					
	SURVELLANCE DETECTOR			6	6		6	6	2	
	COUNT DETECTOR			2	2	1	1	1		1
	SPARE (HOV)			1	1		1	1	1	
	TOTAL		1	12	11		8	8	3	1
	CONDUIT SIZE (INCHES)	2"	2"	2-3"	3"	1½"	2"	3"	2"	1½"

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 2P MAIN CIRCUIT BREAKER AND (METERED) 30A, 120V, IP CIRCUIT BREAKER FOR RAMP METERING SYSTEM.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
4. INSTALL 2"C, 2#6 AND 2"C (EMPTY).
5. TRENCH CONDUIT IN SOIL.
6. INSTALL 2"C, 2#6.
7. INSTALL 1½"C, 2#6.
8. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
9. INSTALL CONDUITS IN THE SAME TRENCH.
10. INSTALL 1-6P22 CABLE IN 2" CONDUIT.
11. INSTALL 6P22 IN CONDUIT RUN (C).
12. CONNECT 6P22 TO RAMP METERING EQUIPMENT IN CABINET.
13. FOR RAMP METERING DETAILS AND NOTES SEE SHEET E-41.
14. LOCATIONS OF POLES, PULL BOXES, CONTROLLER CABINET AND POSITIONING OF DETECTORS ARE SCHEMATIC UNLESS OTHERWISE NOTED. BEFORE BEGINNING ANY CONSTRUCTION OPERATIONS, THE NEW LOCATIONS SHALL BE VERIFIED BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
15. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	80	129

6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — VIOREL N PREDESCU No. 13472 Exp. 9/30/94 ELECTRICAL — STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

WILLIAM J. YANG AND ASSOCIATES
847 N. HOLLYWOOD WAY, SUITE 100
BURBANK, CA 91505-2826

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AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

RAMP METERING SYSTEM (LOCATION 1371)

SCALE: 1"=50'

E-36

DESIGN OVERSIGHT: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CALCULATED/DESIGNED BY | CHECKED BY | RWF 11/93 | PRO 12/93 | REVISED BY | DATE REVISED
LAST REVISION 00-00-00
TIME PLOTTED -> $$$$$$SYSTIME$$$$$$

USERID: t7aferna@NODE FILE: /project/120831_ua/ab/t7aferna/712083u36.dgn DATE: Tue May 23 2000 TIME: 07:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	81	129

6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
VIOREL N PREDESCU
No. 13472
Exp. 9/30/94
ELECTRICAL
STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

WILLIAM J. YANG AND ASSOCIATES
847 N. HOLLYWOOD WAY, SUITE 100
BURBANK, CA 91505-2826

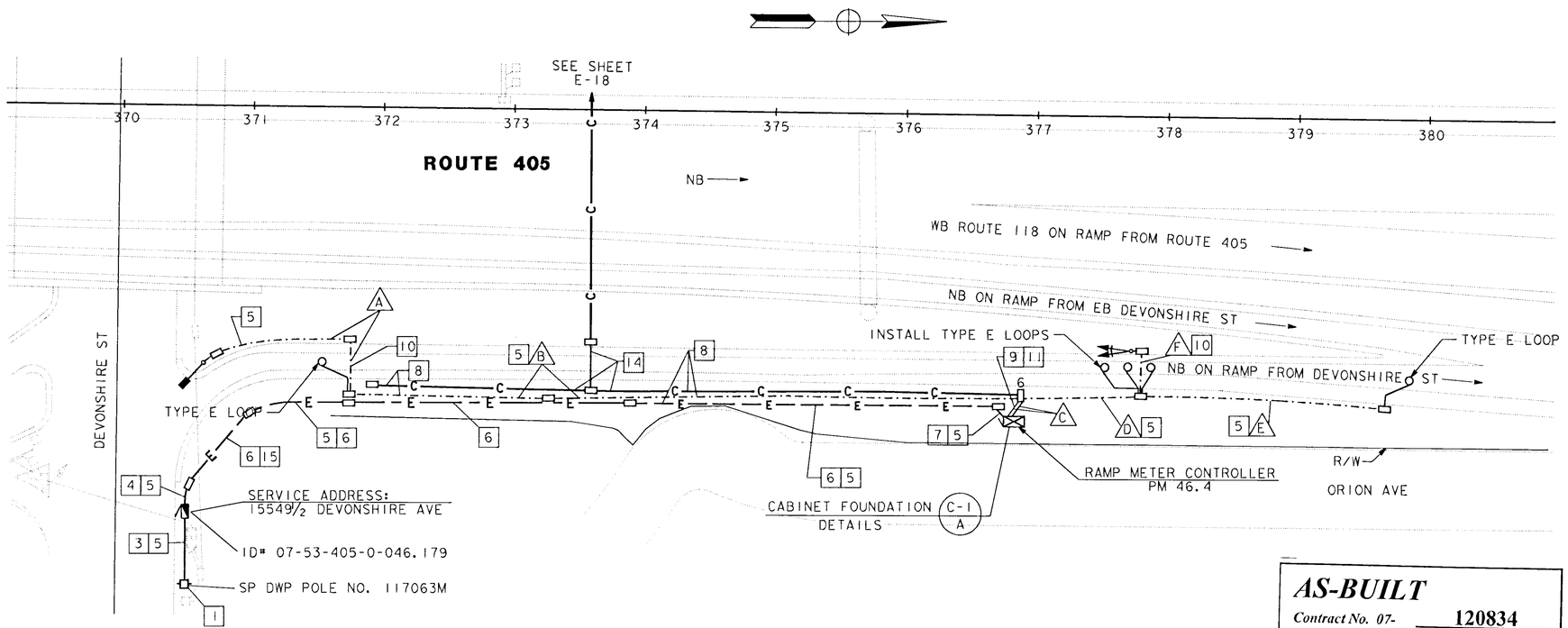
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY, (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR RAMP METERING SYSTEM.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
4. INSTALL 2"C, 2#4 AND 2"C (EMPTY).
5. TRENCH CONDUIT IN SOIL.
6. INSTALL 2"C, 2#4.
7. INSTALL 1½"C, 2#4.
8. INSTALL CONDUITS IN THE SAME TRENCH.
9. CONNECT 6P22 TO RAMP METERING EQUIPMENT IN CABINET.
10. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
11. INSTALL 6P22 IN CONDUIT RUN (C).
12. FOR RAMP METERING DETAILS AND NOTES SEE SHEET E-41.
13. LOCATIONS OF POLES, PULL BOXES, CONTROLLER CABINET AND POSITIONING OF DETECTORS ARE SCHEMATIC UNLESS OTHERWISE NOTED. BEFORE BEGINNING ANY CONSTRUCTION OPERATIONS, THE NEW LOCATIONS SHALL BE VERIFIED BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
14. INCLUDED IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.
15. TRENCH FOR CONDUIT IN CONCRETE

RAMP METER CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	A	B	C	D	E	F
#14	RAMP SIGNAL			3	3		3
	SPARES			3	3		3
	TOTAL			6	6		6
#10	SIGNAL COMMON			1	1		1
	METER-ON SIGN	2	2	2			
	TOTAL	2	2	3	1		1
DLC	QUEUE DETECTOR		1	1			
	DEMAND DETECTOR			1	1		
	PASSAGE DETECTOR			1	1		
	COUNT DETECTOR			1	1	1	
	TOTAL		1	4	3	1	
	CONDUIT SIZE (INCHES)	2"	2"	2-3"	2"	1½"	2"



AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

RAMP METERING SYSTEM (LOCATION 1372)

SCALE: 1" = 50'

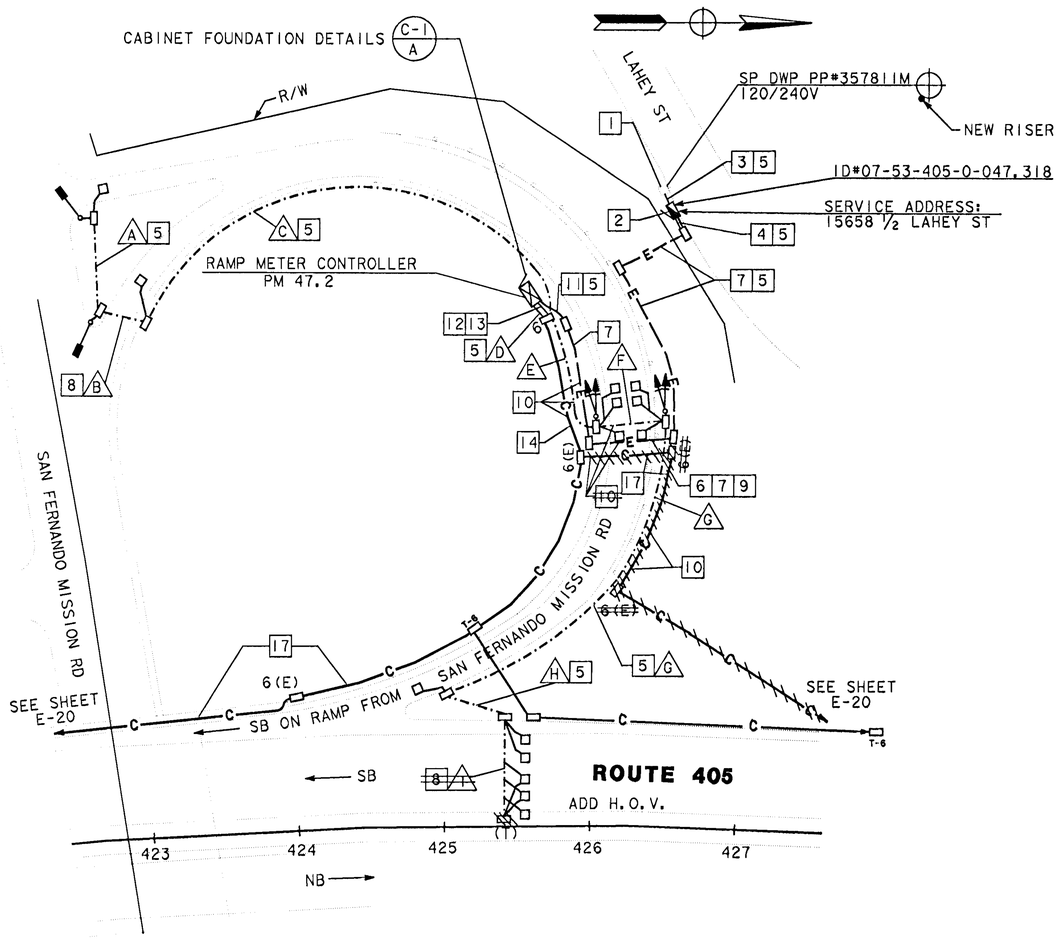
E-37

CALCULATED/ DESIGNED BY	RWF	DATE 11/93	REVISED BY
CHECKED BY	PRO	12/93	DATE REVISED

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 14-JAN-1995 12:35



RAMP METER CONDUCTOR SCHEDULE										
AWG OR CABLE	CONDUCTOR RUN	A	B	C	D	E	F	G	H	I
#14	RAMP SIGNAL				6	6	3			
	SPARES				3	3	3			
	TOTAL				9	9	6			
#10	SIGNAL COMMON				1	1	1			
	METER-ON SIGN	2	2	2	2					
	TOTAL	2	2	2	3	1	1			
DLC	QUEUE DETECTOR	1	1	2	2					
	DEMAND DETECTOR				2	2	1			
	PASSAGE DETECTOR				2	2	1			
	SURVEILLANCE DETECTOR				4	4	4	4	4	2
	COUNT DETECTOR				1	1	1	1		
	SPARE (HOV)				1	1	1	1	1	1
	TOTAL	1	1	2	12	10	8	6	5	3
	CONDUIT SIZE (INCHES)	1½"	2"	2"	2-3"	3"	2"	2"	2"	2"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	82	129

6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
VIOREL N PREDESCU
No. 13472
Exp. 9/30/94
ELECTRICAL
STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

WILLIAM J. YANG AND ASSOCIATES
847 N. HOLLYWOOD WAY, SUITE 100
BURBANK, CA 91505-2826

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NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENT (CONDUCTORS BY OTHERS).
2. INSTALL 120/240V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR RAMP METERING SYSTEM.
3. INSTALL 3"C, MT (CONDUCTORS BY OTHERS)
4. INSTALL 2"C, 2#8 AND 2"C (EMPTY).
5. TRENCH CONDUIT IN SOIL.
6. TRENCH CONDUITS IN ASPHALT.
7. INSTALL 2"C, 2#8.
8. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
9. CONTRACTOR SHALL CONTACT CALTRANS ENGINEER IN ADVANCE FOR TRENCHING THE ROADWAY.
10. INSTALL CONDUITS IN THE SAME TRENCH.
11. INSTALL 1½"C, 2#8.
12. INSTALL 6P22 IN CONDUIT RUN (D).
13. CONNECT 6P22 TO RAMP METERING EQUIPMENT IN CABINET.
14. INSTALL 2"C, 1-6P22.
15. FOR RAMP METERING DETAILS AND NOTES SEE SHEET E-41.
16. LOCATIONS OF POLES, PULL BOXES, CONTROLLER CABINET AND POSITIONING OF DETECTORS ARE SCHEMATIC UNLESS OTHERWISE NOTED. BEFORE BEGINNING ANY CONSTRUCTION OPERATIONS, THE NEW LOCATIONS SHALL BE VERIFIED BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
17. INCLUDE IN CCTV AND COMMUNICATIONS SYSTEM ROUTING PLANS.

AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

RAMP METERING SYSTEM (LOCATION 1377)

SCALE: 1" = 50'

E-38

	DATE	REVISED BY
CALCULATED/DESIGNED BY	RWF	11/93
CHECKED BY	PRO	12/93

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

CU 07374 EA 120831

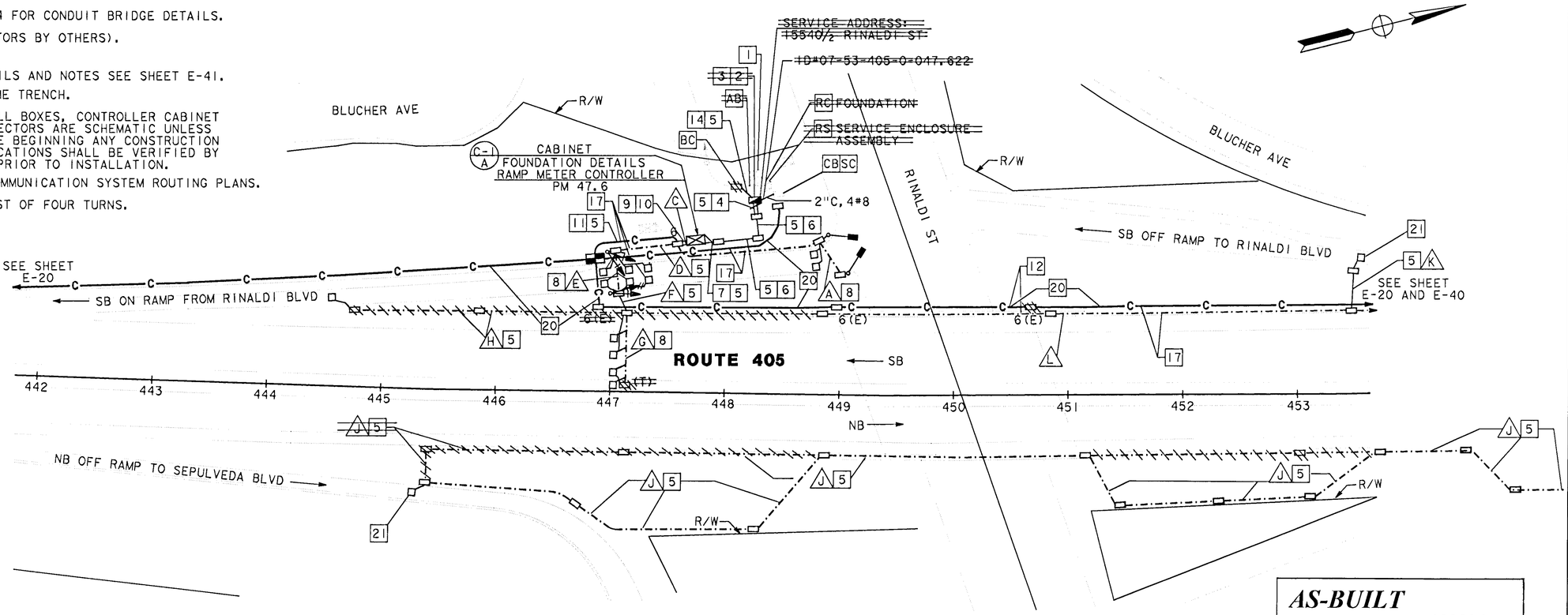
USER ID: t7aferno@NODE FILE: /project/120831_ua/ab/t7aferno/712083u39.dgn DATE: Tue May 23 2000 TIME: 07:27

NOTES: (THIS SHEET ONLY)

1. ~~REMOVE EXISTING 120/240V, 3 WIRE (UNMETERED) SERVICE EQUIPMENT ENCLOSURE. CONTRACTOR SHALL CONTACT CALTRANS ENGINEER IN ADVANCE OF REMOVING EXISTING SERVICE EQUIPMENT ENCLOSURE AND SHALL CONTACT DWP 48 HRS IN ADVANCE TO TURN OFF POWER FROM POWER POLE PP#262130M.~~ ADD 1-30A CIRCUIT BREAKER FOR RAMP METERING
2. ~~INSTALL 120/240V, 3 WIRE (METERED), TYPE 111-BF SERVICE EQUIPMENT ENCLOSURE WITH METERED AND UMETERED CIRCUITS, 100A, 240V, 2P MAIN CIRCUIT BREAKER; (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR RAMP METERING SYSTEM, AND (UNMETERED) (2) 20A, 120V, 1P CIRCUIT BREAKER FOR EXISTING IRRIGATION.~~
3. ~~CONNECT EXISTING LOAD CIRCUITS TO UNMETERED CIRCUITS IN NEW SERVICE EQUIPMENT ENCLOSURE.~~
4. INSTALL 2"C, 2#8 AND ~~2"C (EMPTY).~~
5. TRENCH CONDUIT IN SOIL.
6. INSTALL 2"C, 2#8.
7. INSTALL 1½"C, 2#8.
8. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
9. INSTALL 6P22 IN CONDUIT RUN (C).
10. CONNECT 6P22 TO RAMP METERING EQUIPMENT IN CABINET.
11. INSTALL 2"C, 1-6P22.
12. SEE SHEETS E-20 AND C-4 FOR CONDUIT BRIDGE DETAILS.
14. INSTALL 3"C, MT (CONDUCTORS BY OTHERS).
15. INSTALL 2"C, 4#8.
16. FOR RAMP METERING DETAILS AND NOTES SEE SHEET E-41.
17. INSTALL CONDUITS IN SAME TRENCH.
19. LOCATIONS OF POLES, PULL BOXES, CONTROLLER CABINET AND POSITIONING OF DETECTORS ARE SCHEMATIC UNLESS OTHERWISE NOTED. BEFORE BEGINNING ANY CONSTRUCTION OPERATIONS, THE NEW LOCATIONS SHALL BE VERIFIED BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
20. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.
21. LOOP DETECTOR TO CONSIST OF FOUR TURNS.

RAMP METER CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)	(L)
#14	RAMP SIGNAL			6	6	3						
	SPARES			3	3	3						
	NB COUNT DETECTORS											
	TOTAL			9	9	6						
#10	SIGNAL COMMON			1	1	1						
	METER-ON SIGN	2	2	2								
	TOTAL	2	2	3	1	1						
#8	SERVICE (BOOSTER)											
	TOTAL											
DLC	QUEUE DETECTOR		2	2								
	DEMAND DETECTOR			2	2	1						
	PASSAGE DETECTOR			2	2	1						
	SURVEILLANCE DETECTOR			3	3	3	3	1				
	SB COUNT DETECTOR			2	2	2	2		1		1	1
	NB COUNT DETECTOR									1		
	SPARE (HOV)			1	1	1	1	1				
	TOTAL		2	12	10	8	6	2	1	1	1	1
	CONDUIT SIZE (INCHES)	2"	2"	2-3"	3"	2"	2"	2"	1½"	1½"	1½"	2"



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	83	129

6/23/94
REGISTERED ELECTRICAL ENGINEER

1-3-95
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — VIOREL N PREDESCU No. 13472 Exp. 9/30/94 ELECTRICAL STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

WILLIAM J. YANG AND ASSOCIATES
847 N. HOLLYWOOD WAY, SUITE 100
BURBANK, CA 91505-2826

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AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

RAMP METERING SYSTEM (LOCATION 1376)

SCALE: 1" = 50'

E-39

CALCULATED/DESIGNED BY: RWF
CHECKED BY: PRO
DATE REVISED: 12/93
REVISED BY: DATE 11/93
DESIGN OVERSIGHT: PAT SULLIVAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
LAST REVISION 00-00-00
TIME PLOTTED => $$$$$$$SYTIM $$$$$$

USER ID: t7aferno@NODE FILE: /project/120831_ua/ab/t7aferno/712083u39.dgn DATE: Tue May 23 2000 TIME: 07:27

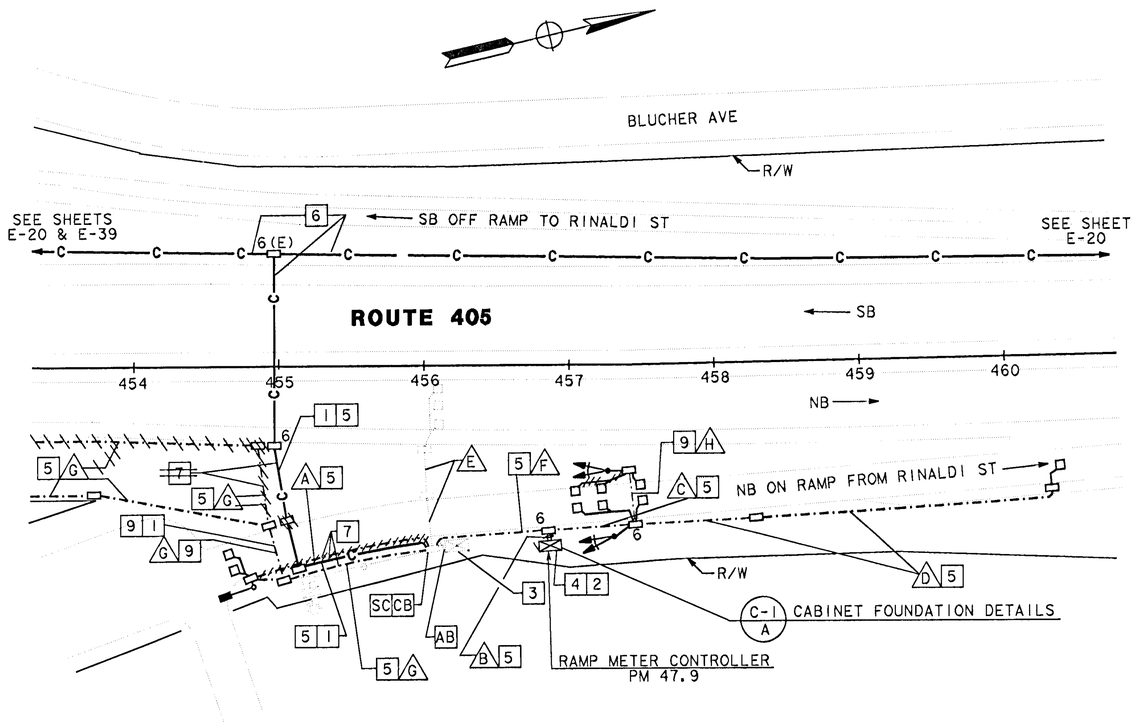
RAMP METER CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	A	B	C	D	E	F	G	H
#14	RAMP SIGNAL		6	6					3
	SPARES		3	3					3
	TOTAL		9	9					6
#10	SIGNAL COMMON		1	1					1
	METER-ON SIGN	2	2				2		
	TOTAL	2	3	1			2		1
#22	I-6P CABLE		1				1		
#8	SERVICE		2				2		
	TOTAL		2				2		
DLC	QUEUE DETECTOR	2	2				2		
	DEMAND DETECTOR		2	2					1
	PASSAGE DETECTOR		2	2					1
	SURVEILLANCE DETECTOR		3			3A	3		
	COUNT DETECTOR		1	1	1				
	SPARE (HOV)		1			1A	1		
	NB COUNT DETECTOR		1				1	1	
	TOTAL	2	12	5	1	4A	7	1	2
	CONDUIT SIZE (INCHES)	2"	2-3"	3"	1½"	E	3"	1½"	3"

E= EXISTING CONDUIT OR CONDUCTOR
A= ADD CONDUCTOR OR CABLE TO EXISTING CONDUIT.

NOTES: (THIS SHEET ONLY)

1. INSTALL 2"C, I-6P22.
2. INSTALL STATE-FURNISHED RAMP METER CABINET AND CONTROLLER.
3. REMOVE AND SALVAGE EXISTING TRAFFIC MONITORING STATION CABINET AND CONTROLLER.
4. CONNECT 6P22 TO RAMP METERING EQUIPMENT IN CABINET.
5. TRENCH CONDUIT IN SOIL.
6. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.
7. INSTALL CONDUITS IN THE SAME TRENCH.
8. LOCATIONS OF POLES, PULL BOXES, CONTROLLER CABINET AND POSITIONING OF DETECTORS ARE SCHEMATIC UNLESS OTHERWISE NOTED. BEFORE BEGINNING ANY CONSTRUCTION OPERATIONS, THE NEW LOCATIONS SHALL BE VERIFIED BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
9. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
10. FOR RAMP METERING DETAILS AND NOTES SEE SHEET E-41.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	31.0/48.6	84	129

6/23/94
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — YIOREL N PREDESCU — No. 13472 — Exp. 9/30/94 — ELECTRICAL — STATE OF CALIFORNIA

1-3-95
PLANS APPROVAL DATE

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

WILLIAM J. YANG AND ASSOCIATES
847 N. HOLLYWOOD WAY, SUITE 100
BURBANK, CA 91505-2826

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AS-BUILT
Contract No. 07- 120834
Resident Engineer: AMOS, H.
Completion Date: 09/27/1999

RAMP METERING SYSTEM (LOCATION 1373)

SCALE: 1" = 50'

E-40

DESIGN OVERSIGHT: PAT SULLIVAN
CALCULATED/DESIGNED BY:
CHECKED BY:
RWF
PRO
DATE 11/93 REVISED BY
12/93 DATE REVISED
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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

FORM DC-OE-92-PF (REV. 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3
USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$
CU 07374
EA 120831

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	20	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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

1. TRENCH AND INSTALL CONDUIT IN ASPHALT.
2. TRENCH AND INSTALL CONDUIT IN CONCRETE.
3. TRENCH AND INSTALL CONDUIT IN SOIL.
4. ATTACH CONDUIT TO STRUCTURE. SEE SHEET C-2 FOR BRIDGE ATTACHMENT TYPE AND DETAILS.
5. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
6. COIL 30 FEET OF 6P22 CABLE IN NEW PULL BOX FOR FUTURE COUNT STATION CONTROLLER.
7. COIL 60 FEET 75P22 CABLE IN SPLICE VAULT.
8. CONNECT 6P22 TO CONTROLLER. USE EXISTING CONDUIT FROM PB INTO CABINET. INSTALL NEW TELEPHONE BRIDGE CONNECT OTHER 6P22 TO BLOCK SEE SHEET E-18.
9. COIL 60 FEET 12SMFO CABLE IN SPLICE VAULT.
10. COIL 25 FEET OF 6P22 CABLE IN NEW PULL BOX FOR CONNECTION TO TYPE "D" CONTROLLER. CONNECTION BY OTHERS.
11. COIL 25 FEET OF 6P22 CABLE IN NEW PULL BOX FOR IRRIGATION CONTROLLER CONNECTION.
12. COIL 25 FEET OF 6P22 CABLE IN NEW PULL BOX FOR TRAFFIC SIGNAL CONTROLLER.
13. COIL 60 FEET 24SMFO CABLE IN SPLICE VAULT.

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 REQUIREMENTS OF LOS ANGELES DEPARTMENT OF WATER AND POWER(DWP).
4. CONDUCTORS FROM POWER POLE(OR VAULT)TO SERVICE ENCLOSURE WILL BE INSTALLED BY UTILITY COMPANY.
5. TRENCH FOR CONDUIT INSTALLATION BETWEEN POWER POLE(OR VAULT) AND SERVICE ENCLOSURE SHALL BE LEFT OPEN FOR INSPECTION AND APPROVAL BY DWP INSPECTOR BEFORE BACKFILL.
6. STENCIL CAMERA IDENTIFICATION NUMBER ON POLE IN 3" CHARACTERS 10 FEET ABOVE BASE. SEE SHEET K-1.
7. GIVEN STATIONS ARE APPROXIMATE,EXACT EQUIPMENT AND POLE LOCATIONS TO BE DETERMINED BY ENGINEER.

ABBREVIATIONS: (NOT LISTED IN CALTRANS STANDARD PLANS)

B/O	- BREAK OUT
CCTV	- CLOSED CIRCUIT TELEVISION
COMM	- COMMUNICATION
DACCS	- DIGITAL ACCESS CROSS CONNECTION SYSTEM
DEMARC	- DEMARCATION
DEMUX	- DEMULTIPLEX
DWP	- LA DEPARTMENT OF WATER AND POWER
GTE	- GENERAL TELEPHONE AND ELECTRIC
HO	- HOLLYWOOD
JKFD	- JACKFIELD
MUX	- MULTIPLEX
OW	- ORDER WIRE(MULTIPLE VOICE CIRCUIT)
PAC BELL	- PACIFIC BELL TELEPHONE COMPANY
PT&T	- PACIFIC TELEPHONE AND TELEGRAPH
RX	- RECEIVER
SCE	- SOUTHERN CALIFORNIA EDISON
SCGS	- SOUTHERN CALIFORNIA GAS COMPANY
SCWC	- SOUTHERN CALIFORNIA WATER COMPANY
SM	- SINGLEMODE
SMFO	- SINGLEMODE FIBER OPTIC
SPT CO	- SOUTHERN PACIFIC TRANSPORTATION COMPANY
T	- TERMINATE
TX	- TRANSMITTER
VMX	- VIDEO MULTIPLEXER

LEGEND (SHEETS E-2 TO E-12)

	CCTV ASSEMBLY CAMERA AND POLE
o	CCTV CAMERA POLE LOCATION
	EXISTING SPLICE VAULT
	SPLICE VAULT
	EXISTING CONTROLLER TO BE TIED TO COMMUNICATION SYSTEM
	334-TV CABINET
	CABLE NODE CABINET (334-TV)
— — E — —	PROPOSED POWER SERVICE CONDUIT
— — e — —	EXISTING POWER SERVICE CONDUIT
	EXISTING DETECTOR LOOPS
PP#XXX	POWER POLE NUMBER
XXSMFO	SINGLEMODE FIBER OPTIC CABLE SEE SHEET E-26 FOR ASSIGNMENTS
XXP22	XX PAIR TWISTED PAIR CABLE SEE SHEET E-24 THROUGH E-26 FOR ASSIGNMENTS
HOXXX	CCTV IDENTIFICATION NUMBER: (HO= HOLLYWOOD; XXX = POST MILE DESIGNATOR TO ONE DECIMAL PLACE)
	CRASH CUSHION
15	TYPE 15 PULL BOX

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

LEGEND AND NOTES

E-1

DESIGN OVERSIGHT	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	4/94	JKB	11/94
CALCULATED/DESIGNED BY	RL		
CHECKED BY	CF		5/94

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 09-JAN-1995 12:07

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/lenard/P3/712086u01.dg
CU 07374
EA 120861

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	21	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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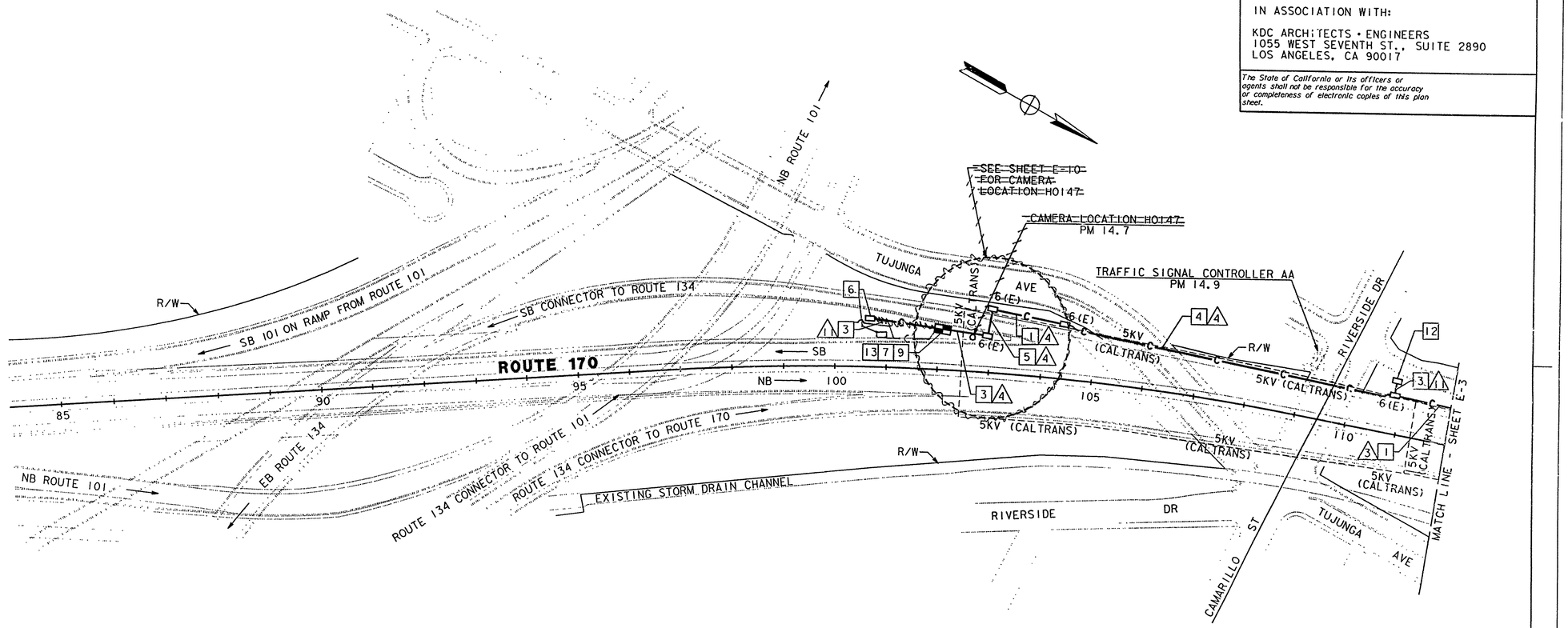
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 3	RUN 4	RUN 1
~~7SP22~~ CABLE	COMMUNICATION DATA	1	1	
6P22 CABLE	CONTROLLER DATA		1	1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1		1
24SMFO	NODE TO HUB TRUNK LINE	1	1	
	INNERDUCT	1 1/4" 1 1/4"	1 1/4" 1 1/4"	
	CONDUIT SIZE	4"	4"	2"

100F22 →



AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

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.

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

CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-2

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	RL	CF	3/94	JKB	11/94

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 07-JAN-1995 07:19

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => lenard
DGN FILE => /usr/lenard/P3/712086u02.dg

CU 07374

EA 120861

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	22	50

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Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

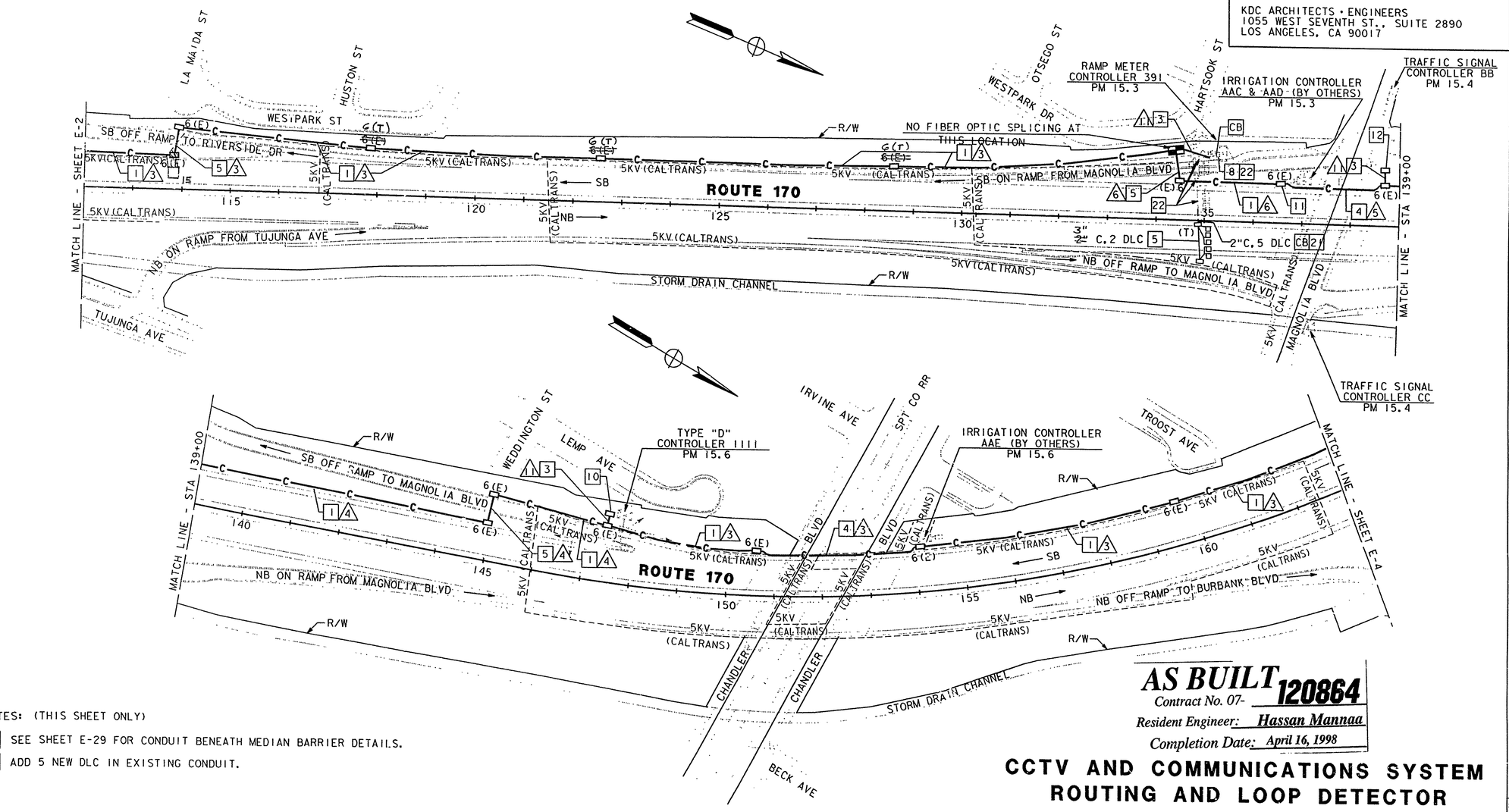
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 3	RUN 4	RUN 5	RUN 6	RUN 11
~~75P22~~ CABLE	COMMUNICATION DATA	1	1	1	1	
6P22 CABLE	CONTROLLER DATA		1	2	3	1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1	1	1	1	1
24SMFO	NODE TO HUB TRUNK LINE	1	1	1	1	
	INNERDUCT	1¼" 1¼"	1¼" 1¼"	1¼" 1¼"	1¼" 1¼"	
	CONDUIT SIZE	4"	4"	4"	4"	2"

160P22 →

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.



NOTES: (THIS SHEET ONLY)

21 SEE SHEET E-29 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

22 ADD 5 NEW DLC IN EXISTING CONDUIT.

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

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-3

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DRAWN BY	CHECKED BY	DATE REVISED	REVISED BY	DATE
PAT SULLIVAN	RL	JKB	CF	11/94		3/94
				4/94		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 07-JAN-1995 07:19

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => lenard
DGN FILE => /usr/lenard/P3/712086u03.dg

CU 07374

EA 120861

< 24

CONDUCTOR SCHEDULE																				
CONDUCTOR TYPE	FUNCTION	RUN																		
		3			4			5			6			11			12			14	
75P22 CABLE	COMMUNICATION DATA	1			1			1			1									
6P22 CABLE	CONTROLLER DATA				1			2			3			1			2			3	
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION			1			1			1			1							
2SMFO B/O CABLE	SHORT HAUL VIDEO																			1
24SMFO	NODE TO HUB TRUNK LINE							1			1									
	INNERDUCT	1 1/4"		1 1/4"	1 1/4"		1 1/4"	1 1/4"		1 1/4"	1 1/4"		1 1/4"							
	CONDUIT SIZE	4"			4"			4"			4"			2"			2"			4"	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	23	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

RAMP METER CONTROLLER 390 PM 16.0
TRAFFIC SIGNAL CONTROLLER DD PM 16.0
TRAFFIC SIGNAL CONTROLLER FF PM 16.0
SIMPSON AVE
MORELLA AVE
ALLEY
COLFAX
R/W
6(E)
SB ON RAMP FROM BURBANK BLVD
5KV (CALTRANS)
BLVD
SB
TYPE "D" CONTROLLER HHHH (DAMAGED) PM 16.1
SB OFF RAMP TO BURBANK BLVD
IRRIGATION CONTROLLER AAF (BY OTHERS) PM 16.3
GENTRY AVE
HATTERAS ST
CMS #56 CONTROLLER 3067 PM 16.3
ROUTE 170
MATCH LINE - SHEET E-3
165
170
175
180
185
190
NB
2"C, 5DLC CB 21
2"C, 2DLC 5
NO FIBER OPTIC SPLICING AT THIS LOCATION
NB ON RAMP FROM BURBANK BLVD
STORM DRAIN CHANNEL
NB OFF RAMP TO BURBANK BLVD
BURBANK AVE
TROOST AVE
TRAFFIC SIGNAL CONTROLLED KK PM 16.0
TRAFFIC SIGNAL CONTROLLER JJ PM 16.0
MATCH LINE - STA 191+00

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.

RAMP METER CONTROLLER 389 PM 16.6
TIARA ST
IRRIGATION CONTROLLER BBB PM 16.7
VANTAGE AVE
CALVERT ST
TYPE "D" CONTROLLER GGGG PM 16.7
WESTPARK DR
ALLEY
LAUREL CANYON BLVD
SB OFF RAMP TO LAUREL CANYON BLVD
MATCH LINE - SHEET E-5
195
200
205
210
215
SB
NB
NB ON RAMP FROM OXNARD ST
NB OFF RAMP TO OXNARD ST
2"C, 5DLC
2"C, 3DLC
IRRIGATION CONTROLLER AAA PM 16.6
CAMERA LOCATION HO165 PM 16.5
SEE SHEET E-11 FOR CAMERA LOCATION HO165
OXNARD ST
5KV (CALTRANS)
TRAFFIC SIGNAL CONTROLLER EE (PEDESTAL MOUNTED) PM 16.6
STORM DRAIN CHANNEL

NOTES: (THIS SHEET ONLY)

21 SEE SHEET E-29 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

22 ADD 5 NEW DLC IN EXISTING CONDUIT.

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

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AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-4

DESIGN OVERSIGHT	PAT SULLIVAN
CALCULATED/ DESIGNED BY	RL
CHECKED BY	CF
DATE	3/94 — 4/94
REVISED BY	JKB
DATE REVISED	11/94

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 => lenard
DGN FILE => /usr/lenard/P3/7l2086u04.dg

CU 07374

EA 120861

LAST REVISION 00-00-00

TIME PLOTTED => 07-JAN-1995 07:19

< 24

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	24	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KENNETH D CAMP
No. E012917
Exp. 3/31/97
ELECTRICAL
STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

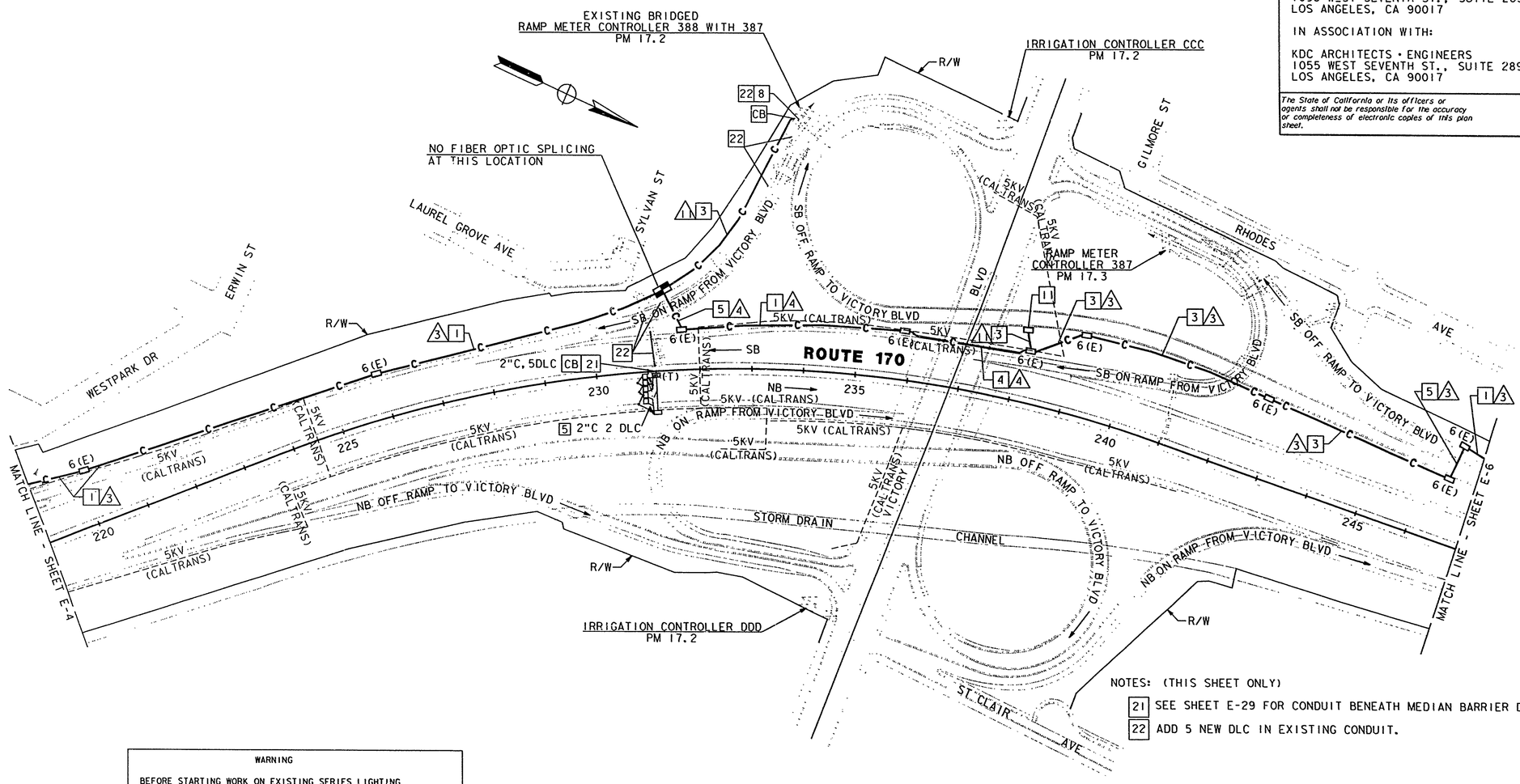
IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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	FUNCTION	RUN 3			RUN 4			RUN 1
75P22 CABLE	COMMUNICATION DATA	1			1			
6P22 CABLE	CONTROLLER DATA				1			1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION			1			1	
24SMFO	NODE TO HUB TRUNK LINE		1			1		
	INNERDUCT		1 1/4"	1 1/4"		1 1/4"	1 1/4"	
	CONDUIT SIZE	4"			4"			2"



NOTES: (THIS SHEET ONLY)

21 SEE SHEET E-29 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

22 ADD 5 NEW DLC IN EXISTING CONDUIT.

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.

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mansour
Completion Date: April 16, 1998

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

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-5

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
PAT SULLIVAN	RL	3/94	JKB	1/94
	CF	4/94		
	CHECKED BY			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 09-JAN-1995 12:08

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => lenard
DGN FILE => /usr/lenard/P3/712086u05.dg

CU 07374

EA 120861

< 24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	25	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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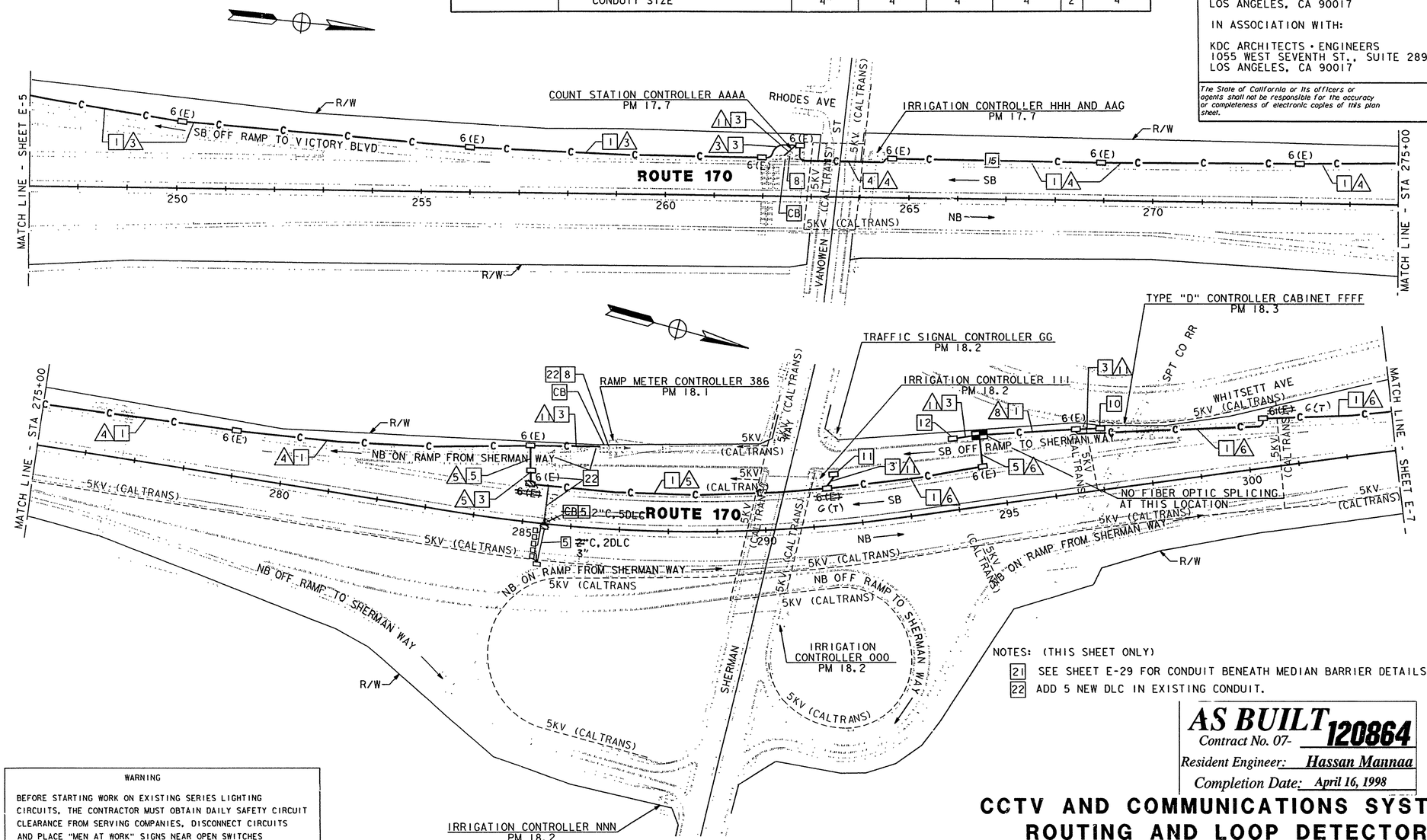
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 3	RUN 4	RUN 5	RUN 6	RUN 11	RUN 8
75P22 CABLE	COMMUNICATION DATA	1	1	1	1		1
6P22 CABLE	CONTROLLER DATA		1	2	3	1	4
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1	1	1	1		1
24SMFO	NODE TO HUB TRUNK LINE	1	1	1	1		1
	INNERDUCT	1¼" 1¼"	1¼" 1¼"	1¼" 1¼"	1¼" 1¼"		1¼" 1¼"
	CONDUIT SIZE	4"	4"	4"	4"	2"	4"



NOTES: (THIS SHEET ONLY)

21 SEE SHEET E-29 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

22 ADD 5 NEW DLC IN EXISTING CONDUIT.

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-6

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.

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

DATE	REVISED BY	DATE REVISED
RL 3/94	JKB	11/94
CF 4/94		

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 07-JAN-1995 08:15

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => jimt
DGN FILE => /usr/jimt/PO/712086u06.dgn

CU 07374

EA 120861

< 24

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 3	RUN 4	RUN 5	RUN 6	RUN 11
75P22 CABLE	COMMUNICATION DATA	1	1	1	1	
6P22 CABLE	CONTROLLER DATA		1	2	3	1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1	1	1	1	
24SMFO	NODE TO HUB TRUNK LINE	1	1	1	1	
	INNERDUCT	1/4"1/4"	1/4"1/4"	1/4"1/4"	1/4"1/4"	
	CONDUIT SIZE	4"	4"	4"	4"	2"

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.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	26	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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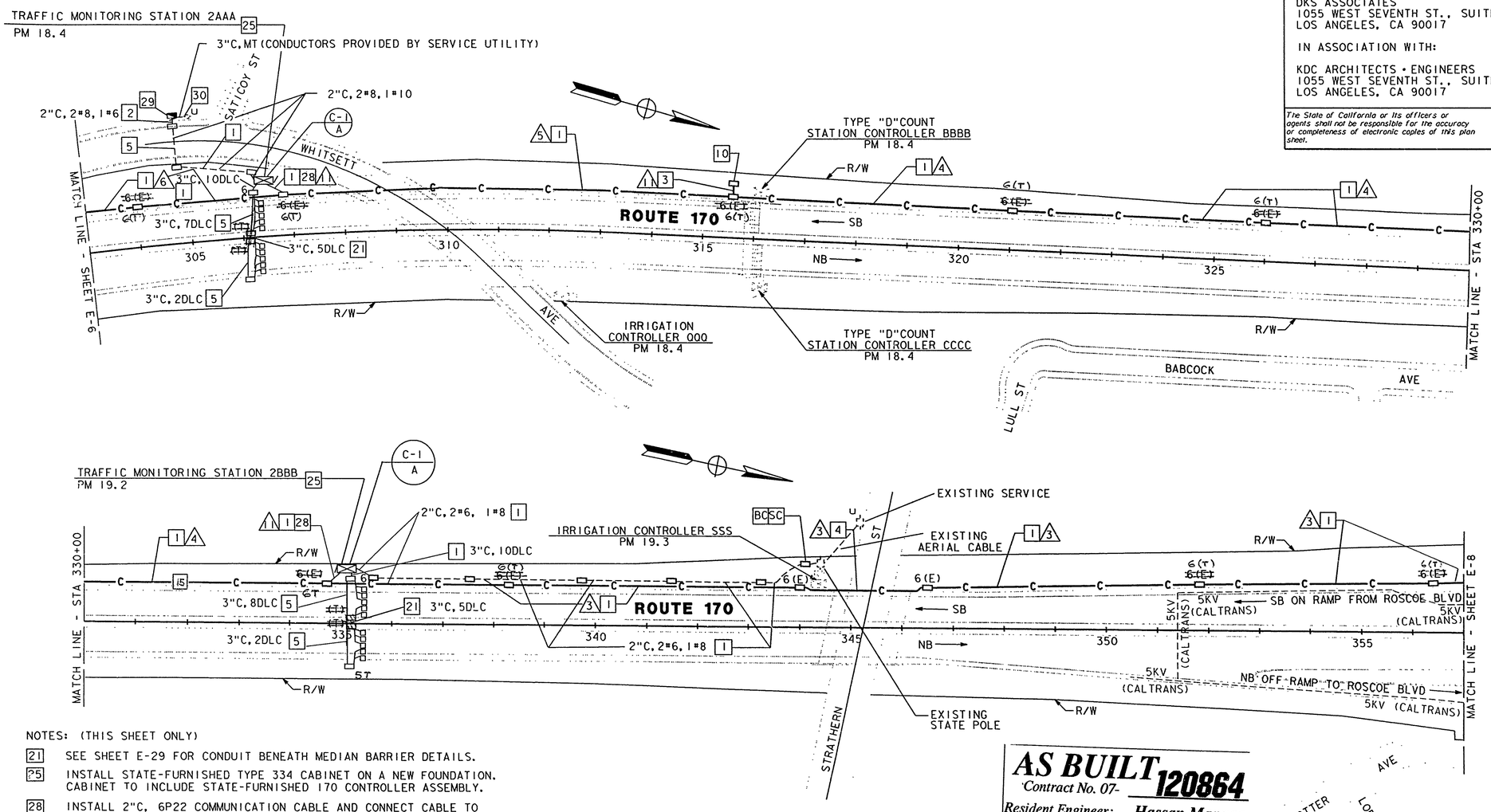

NOTES: (THIS SHEET ONLY)

21 SEE SHEET E-29 FOR CONDUIT BENEATH MEDIAN BARRIER DETAILS.

25 INSTALL STATE-FURNISHED TYPE 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER ASSEMBLY.

28 INSTALL 2"C, 6P22 COMMUNICATION CABLE AND CONNECT CABLE TO TERMINAL BLOCK INSIDE THE TYPE 334 CABINET.

29 INSTALL 120/240V, 3 WIRE (METER), TYPE III -BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND 30A, 120V, 1P CIRCUIT FOR TRAFFIC MONITORING STATION.

30 INSTALL 3"C, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS).

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

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

TRAFFIC MONITORING STATION AND CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-7

DATE	REVISED BY
3/94	JKB
4/94	11/94

CALCULATED/DESIGNED BY: RL
CHECKED BY: CF

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 07-JAN-1995 07:26

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => jlmt
DGN FILE => /usr/jlmt/712086u07.dgn

CU 07374

EA 120861

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	27	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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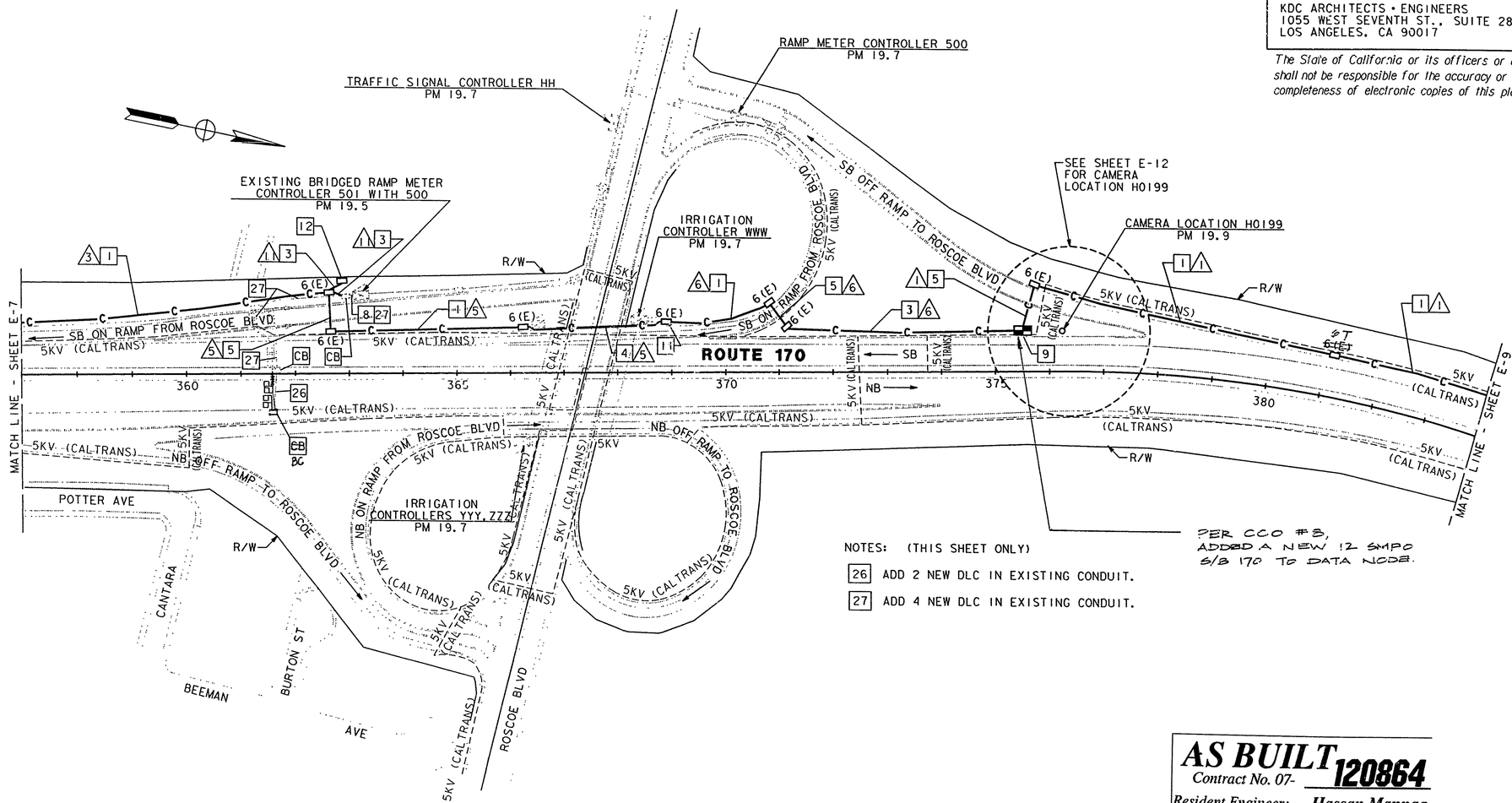
CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 3	RUN 5	RUN 6	RUN 11
75P22 CABLE	COMMUNICATION DATA	1	1	1	1	
6P22 CABLE	CONTROLLER DATA			2	3	1
12SMFO	CCTV CAMERA TO VIDEO DISTRIBUTION	1	1	1	1	1
24SMFO	NODE TO HUB TRUNK LINE	1	1	1	1	
	INNERDUCT	1 1/4" 1 1/4"	1 1/4" 1 1/4"	1 1/4" 1 1/4"	1 1/4" 1 1/4"	
	CONDUIT SIZE	4"	4"	4"	4"	2"

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.



NOTES: (THIS SHEET ONLY)

26 ADD 2 NEW DLC IN EXISTING CONDUIT.

27 ADD 4 NEW DLC IN EXISTING CONDUIT.

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

CCTV AND COMMUNICATIONS SYSTEM ROUTING AND LOOP DETECTOR

SCALE: 1" = 100'

E-8

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

	DATE	REVISED BY
CALCULATED/DESIGNED BY	RL	JKB
CHECKED BY	CF	DATE REVISED
	4/94	11/94

DESIGN OVERSIGHT
PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
TIME PLOTTED => 07-JAN-1995 08:15

FORM DC-OE-92-PF (REV. 3/88)

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

USERNAME => jlmt
DGN FILE => /usr/jlmt/PO/712086u08.dgn

CU 07374

EA 120861

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	2	7	11	99	97	98
75P22 CABLE	COMMUNICATION DATA	1	1	1				
6P22 CABLE	CONTROLLER DATA		1		1			
12SMFO	ROSCOE CAMERA TO DATA NODE	1	1					
24SMFO	NODE TO HUB TRUNK LINE	1	1	1			1	
	INNERDUCT	1¼" 1¼"	1¼" 1¼"	1¼" 1¼"			1¼" 1¼" 1¼"	1¼" 1¼" 1¼"
	CONDUIT SIZE	4"	4"	4"	2"	4"	4"	4"

PROJECT NOTES: (THIS SHEET ONLY)

14 INSTALL STATE-FURNISHED TYPE 334 CABINET. DATA NODE CABINET TO INCLUDE ONE D4 CHANNEL BANK. SEE SHEET E-15, DETAIL B. INCLUDED IN BID ITEM EQUIPMENT AT DATA NODE (HO203).

15 EXISTING DATA NODE TO BE LEFT INTACT AND UNDISTURBED.

16 EXISTING CAMERA CABINET TO BE LEFT INTACT AND UNDISTURBED.

17 SEE SHEETS E-19 AND E-27 FOR D4 CHANNEL ASSIGNMENTS AT DATA NODE.

18 EXISTING 2#4 AND 1#8 GROUND IN EXISTING 2"CONDUIT.

19 INSTALL 1½"C, 2#4 AND 1#8 GROUND.

20 334-TV CABINET WITH FIBER DISTRIBUTION FRAME FOR CABLE NODE. INCLUDED IN BID ITEM "EQUIPMENT AT DATA NODE (HO203)".

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	28	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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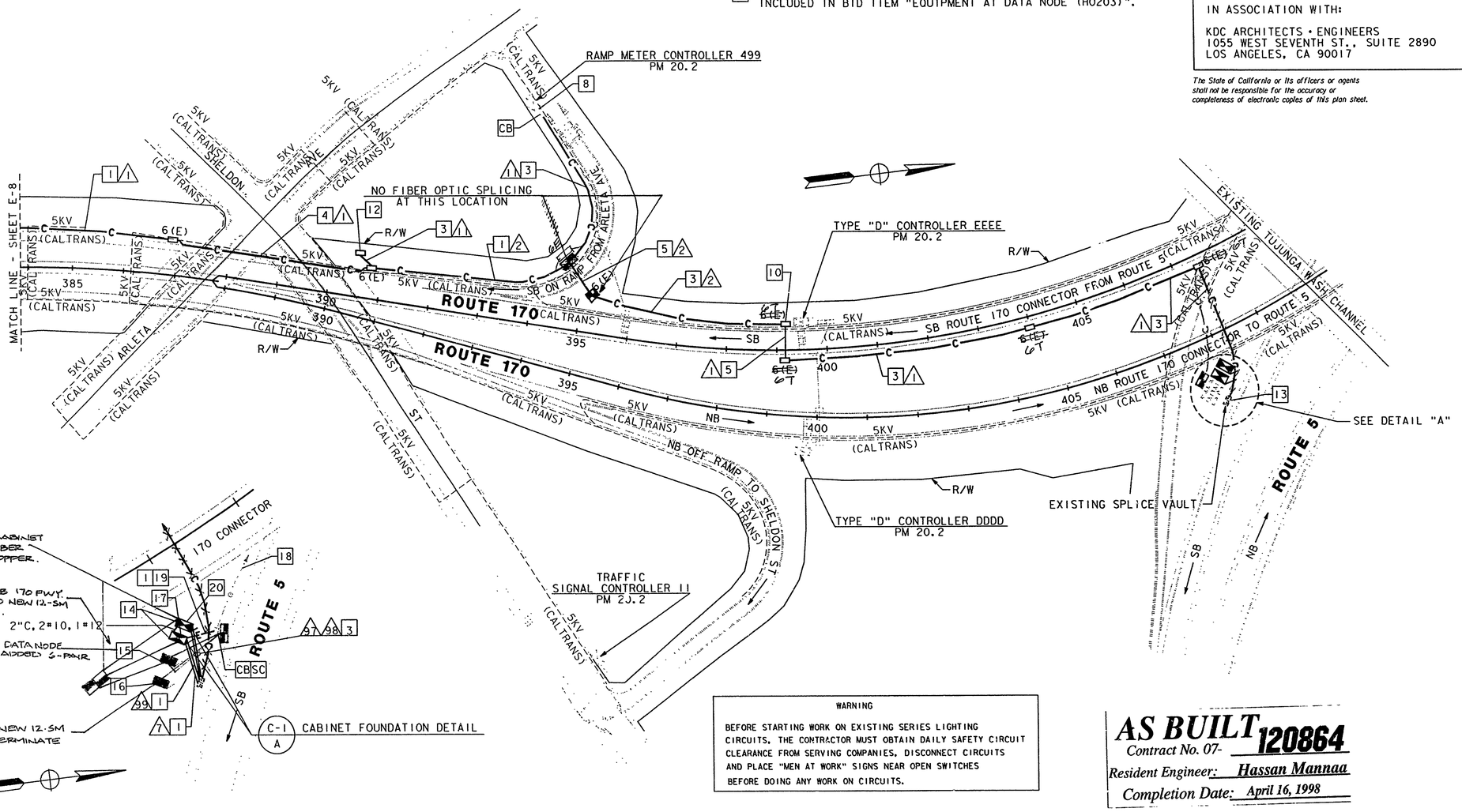

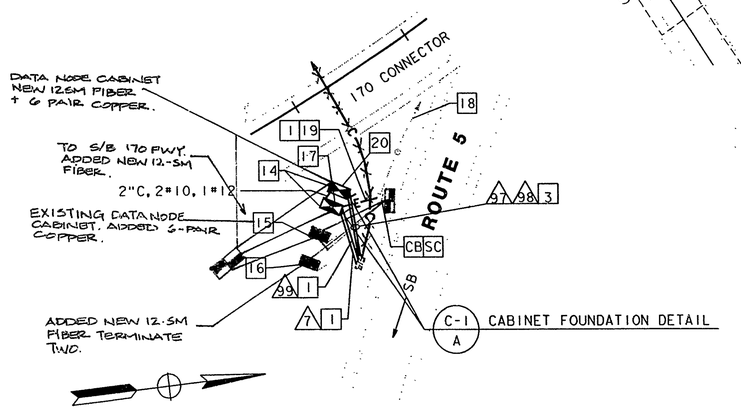

DETAIL "A"
SCALE: 1"=50'

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.

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

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

EQUIPMENT AT DATA NODE (HO 203), CCTV AND COMMUNICATIONS SYSTEM ROUTING

SCALE: 1" = 100'

E-9

DESIGN OVERSIGHT — PAT SULLIVAN
CALCULATED/DESIGNED BY — RL
CHECKED BY — CF
DATE 3/94 — 4/94
REVISED BY — JKB
DATE REVISED — 11/94
LAST REVISION 00-00-00
TIME PLOTTED => 09-JAN-1995 12:08

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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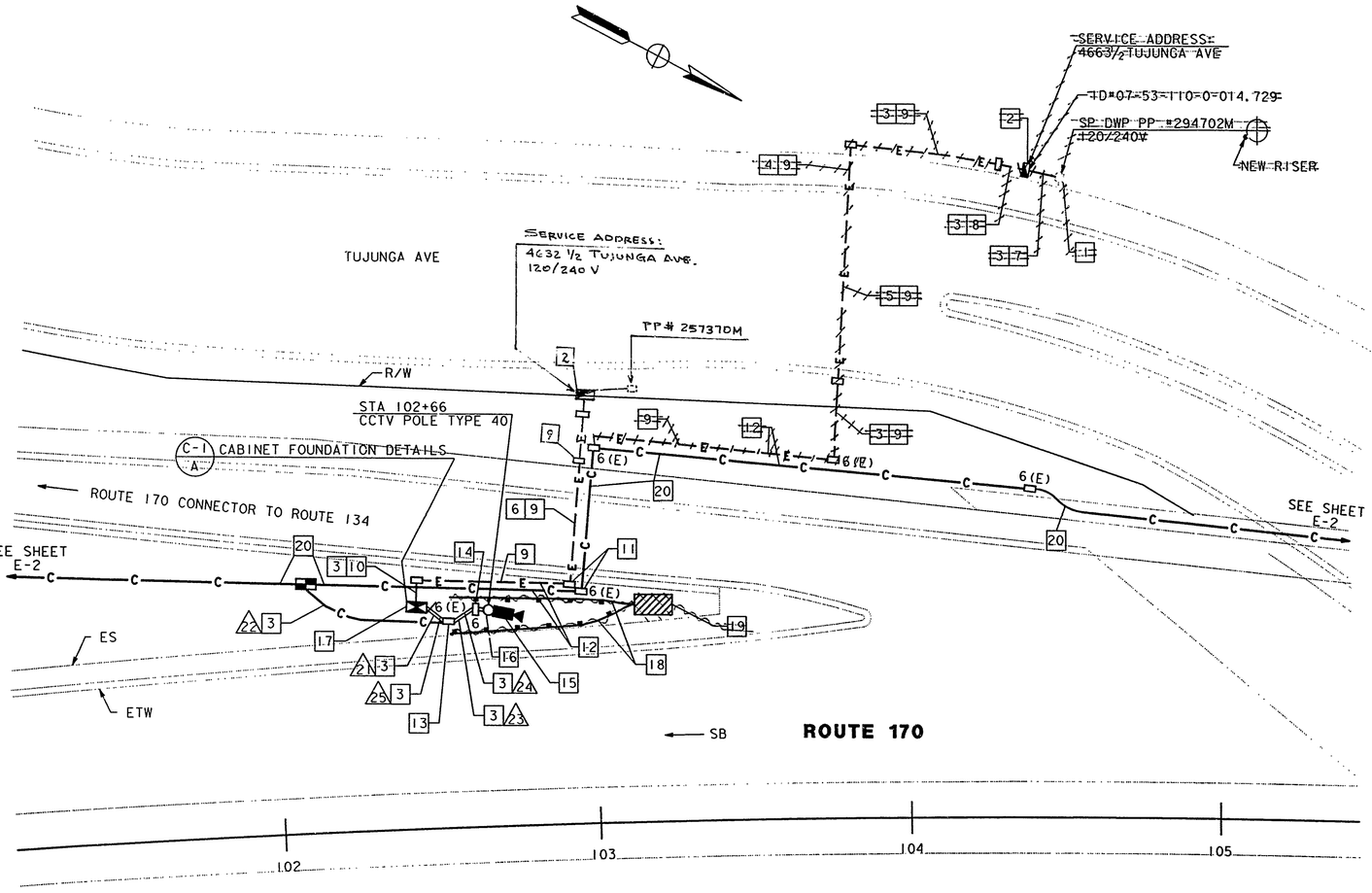
DGN FILE => /usr/lenard/P3/712086u09.dg
CU 07374
EA 120861

FORM DC-OE-92-PF (REV. 3/88)



CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN					
		(21)	(22)	(23)	(24)	(25)	
6P22 CABLE	CONTROLLER DATA	1	1				
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1				
RG-6A/U COAX	BASE BAND VIDEO	1		1			
CONTROL CABLE	CAMERA CONTROL				1	1	
	CONDUIT SIZE	4"	2"	2"	2"	4"	

CAMERA LOCATION HO147, PM 14.7
* THIS LOCATION WAS DELETED FROM THIS CONTRACT

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.

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

NOTES: (THIS SHEET ONLY)

1. INSTALL 3"C, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (WIRES BY OTHERS).
2. INSTALL 120/240V, 3 WIRE (METERED) TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100A, 240V, 2P MAIN CIRCUIT BREAKER AND 30A, 120V, IP CIRCUIT BREAKER FOR CCTV CAMERA.
3. TRENCH CONDUIT IN SOIL.
4. TRENCH CONDUIT IN CONCRETE.
5. TRENCH CONDUIT IN ASPHALT.
6. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
7. INSTALL 3"C, (WIRES BY OTHERS).
8. INSTALL 2"C, 2#8 AND 2"C (EMPTY).
9. INSTALL 2"C, 2#8.
10. INSTALL 1½"C, 2#8.
11. USE THE SAME PIT FOR JACKING CONDUITS.
12. INSTALL CONDUIT IN THE SAME TRENCH.
13. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
14. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
15. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
16. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEET E-16.
17. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER. SEE SHEET E-15, DETAIL A.
18. CONSTRUCT TWO 62.5 LF MBGR WITH TYPE 6 FLARE AND DOUBLE ANCHOR CAA WITH WOOD POSTS AND BLOCKS AND CAA (BREAKAWAY TYPE B) BEGIN AT STA 103+15 (STANDARD DETAIL A77E).
19. INSTALL CRASH CUSHION, SAND FILLED (STANDARD PLAN A81, ARRAY B).
20. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	29	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

CCTV CAMERA (LOCATION HO147)

SCALE: 1" = 20'

E-10

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
RL	CF	3/94		4/94

DESIGN OVERSIGHT — PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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CU 07374

EA 120861

< 24

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	30	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

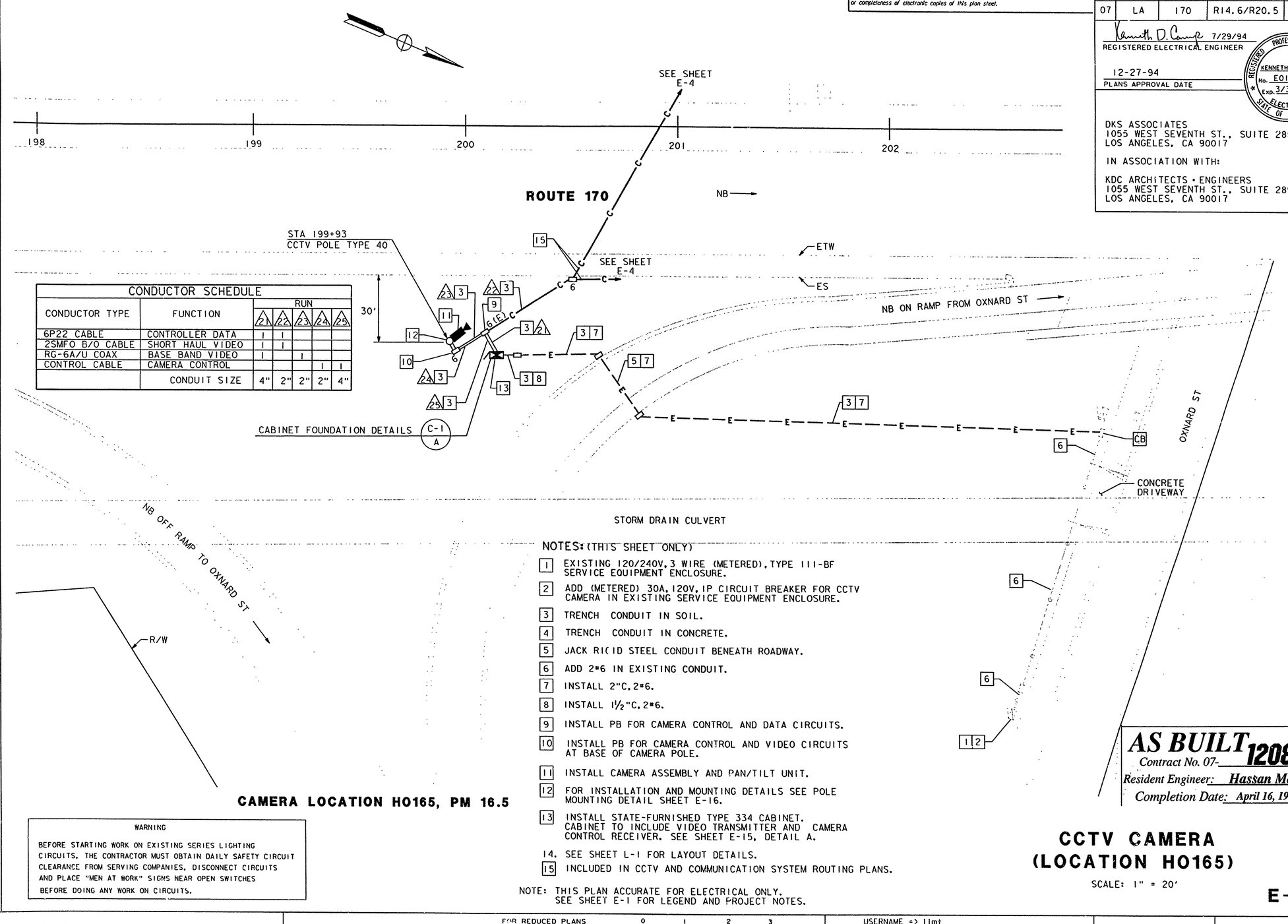
12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017



CAMERA LOCATION HO165, PM 16.5

CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN /21	/22	/23	/24	/25
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

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.

NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240V, 3 WIRE (METERED), TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
2. ADD (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR CCTV CAMERA IN EXISTING SERVICE EQUIPMENT ENCLOSURE.
3. TRENCH CONDUIT IN SOIL.
4. TRENCH CONDUIT IN CONCRETE.
5. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
6. ADD 2#6 IN EXISTING CONDUIT.
7. INSTALL 2"C, 2#6.
8. INSTALL 1½"C, 2#6.
9. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
10. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
11. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
12. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEET E-16.
13. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER. SEE SHEET E-15, DETAIL A.
14. SEE SHEET L-1 FOR LAYOUT DETAILS.
15. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.

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

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

CCTV CAMERA (LOCATION HO165)

SCALE: 1" = 20'

E-11

DESIGN OVERSIGHT — PAT SULLIVAN

DATE	REVISED BY	DATE REVISED
3/94	RL	CF 4/94

CALCULATED/DESIGNED BY — CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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FORM DC-OE-92-PF (REV. 3/88)

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CU 07374

EA 120861

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	170	R14.6/R20.5	31	50

Kenneth D. Camp 7/29/94
REGISTERED ELECTRICAL ENGINEER

12-27-94
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KENNETH D CAMP — No. E012917 — Exp. 3/31/97 — ELECTRICAL — STATE OF CALIFORNIA

DKS ASSOCIATES
1055 WEST SEVENTH ST., SUITE 2850
LOS ANGELES, CA 90017

IN ASSOCIATION WITH:

KDC ARCHITECTS • ENGINEERS
1055 WEST SEVENTH ST., SUITE 2890
LOS ANGELES, CA 90017

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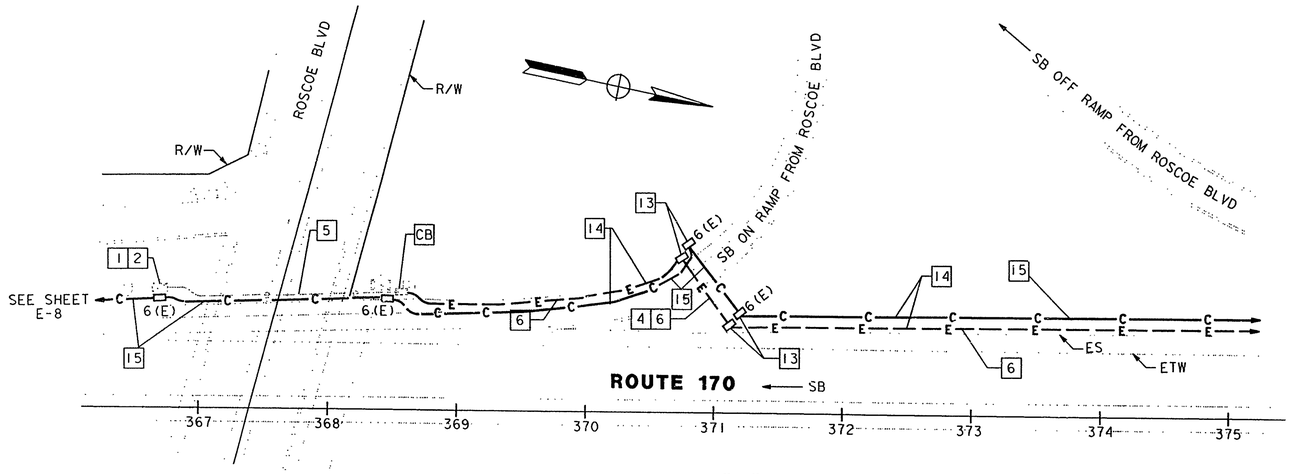
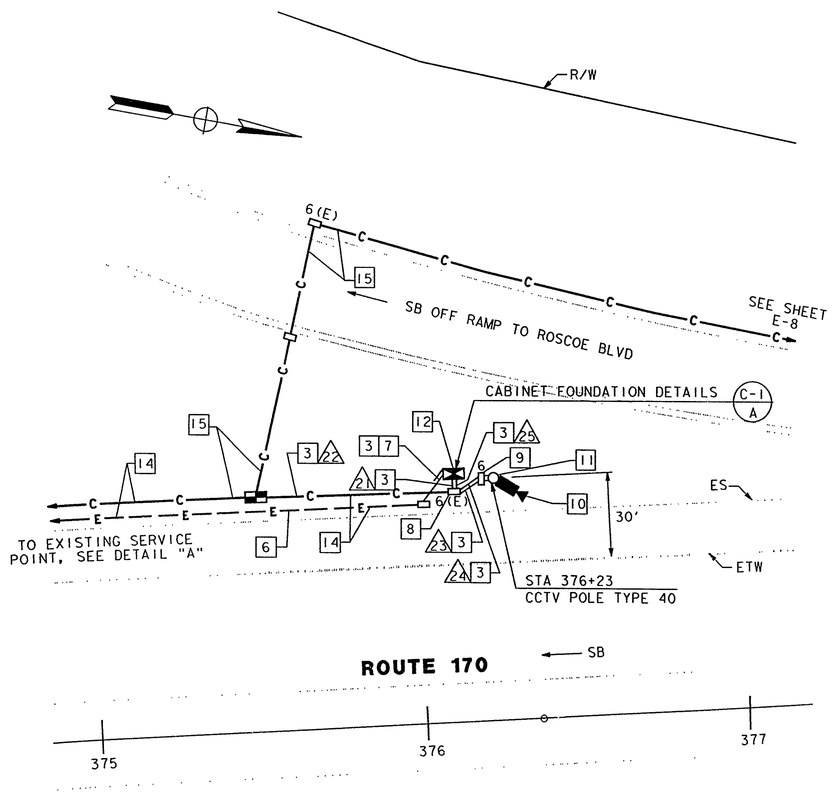


DETAIL "A"
SCALE: 1"=50'



CAMERA LOCATION HO199, PM 19.9
SCALE: 1" = 20'

CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN /2	/22	/23	/24	/25
6P22 CABLE	CONTROLLER DATA	1	1			
2SMFO B/O CABLE	SHORT HAUL VIDEO	1	1			
RG-6A/U COAX	BASE BAND VIDEO	1		1		
CONTROL CABLE	CAMERA CONTROL				1	1
	CONDUIT SIZE	4"	2"	2"	2"	4"

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.

NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240V, 3 WIRE (METERED), TYPE 111-BF SERVICE EQUIPMENT ENCLOSURE. PP#114207M.
2. ADD (METERED) 30A, 120V, 1P CIRCUIT BREAKER FOR CCTV CAMERA IN EXISTING SERVICE EQUIPMENT ENCLOSURE.
3. TRENCH CONDUIT IN SOIL.
4. JACK RIGID STEEL CONDUIT BENEATH ROADWAY.
5. ADD 2#4 IN EXISTING CONDUIT.
6. INSTALL 2"C, 2#4.
7. INSTALL 1½"C, 2#4.
8. INSTALL PB FOR CAMERA CONTROL AND DATA CIRCUITS.
9. INSTALL PB FOR CAMERA CONTROL AND VIDEO CIRCUITS AT BASE OF CAMERA POLE.
10. INSTALL CAMERA ASSEMBLY AND PAN/TILT UNIT.
11. FOR INSTALLATION AND MOUNTING DETAILS SEE POLE MOUNTING DETAIL SHEET E-16.
12. INSTALL STATE-FURNISHED TYPE 334 CABINET. CABINET TO INCLUDE VIDEO TRANSMITTER AND CAMERA CONTROL RECEIVER. SEE SHEET E-15, DETAIL A.
13. USE THE SAME PIT FOR JACKING CONDUITS.
14. INSTALL CONDUITS IN THE SAME TRENCH.
15. INCLUDED IN CCTV AND COMMUNICATION SYSTEM ROUTING PLANS.

AS BUILT 120864
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: April 16, 1998

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

CCTV CAMERA (LOCATION HO199)

SCALE AS NOTED

E-12

DATE	REVISED BY	CALCULATED/ DESIGNED BY
3/94	RL	
4/94	CF	CHECKED BY
11/94	JKB	

DATE REVISED

DESIGN OVERSIGHT: PAT SULLIVAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

/usr/jlmt/PO/712086ul2.dgn 07-JAN-1995 07:39 jlmt

LAST REVISION 00-00-00 TIME PLOTTED => 07-JAN-1995 07:39

FORM DC-OE-92-PF (REV. 3/88)

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DGN FILE => /usr/jlmt/PO/712086ul2.dgn

CU 07374

EA 120861

< 24

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	54	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

DAVID PADILLA No. E16233 Exp.12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

6-27-05
PLANS APPROVAL DATE

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GENERAL NOTES:

1. DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT AT EACH TMS AND RMS SITE AND VERIFYING THE INSTALLATION IS OPERATIONAL. ALL EXISTING TPC SHALL BE REMOVED AND EXISTING TELEPHONE BRIDGE AND TERMINAL BLOCK SHALL REMAIN IN THE CABINETS.
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. PULL BOXES SHALL NOT BE USED TO CHANGE ALIGNMENT OF COMMUNICATION CONDUIT. FIBER CABLES SHALL BE INSTALLED IN THE LOWER CONDUIT.
4. ALL NEW SERVICE EQUIPMENT ENCLOSURES SHALL ALSO HAVE:
   24- BREAKER PANEL
   (1) 1P, 20 A CIRCUIT BREAKER (SPARE)
   (1) 1P, 30 A CIRCUIT BREAKER (SPARE)
   (1) 2P, (SPACE FOR FUTURE)

   ALL RACEWAYS FOR SERVICE FEEDERS AND ANY OTHER ENERGIZED RACEWAYS SHALL BE BONDED BY APPROVED METHODS IN EVERY PULL BOX TO MAINTAIN A CONTINUOUS GROUND RETURN FROM THE SERVICE POINT TO THE LOAD.
5. FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.
6. WHENEVER ANY EQUIPMENT IS TO BE REMOVED, ALL ABANDONED COMPONETS SUCH AS PULL BOXES, FOUNDATIONS AND CABLES SHALL BE REMOVED AND CONDUIT SHALL BE ABANDONED IN PLACE.
7. ALL EXISTING IRRIGATION TO REMAIN AND BE MAINTAINED. EXISTING IRRIGATION NOT SHOWN FOR CLARITY.
8. ALL 12SMFO CABLES TERMINATING AT A COMMUNICATIONS PULL BOX MUST BE SPLICED IN THE NEW FIBER OPTIC SPLICE CLOSURE.
9. THE CONTRACTOR SHALL PROTECT ALL UTILITY FACILITIES IN PLACE DURING CONSTRUCTION.
10. IN LOCATIONS WHERE A SERVICE EQUIPMENT ENCLOSURE WILL BE UPGRADED, ALL EXISTING CIRCUITS MUST BE RECONNECTED TO THE NEW SERVICE CABINET AS DIRECTED BY THE ENGINEER. POWER CABLE AND CONDUITS MAY NEED TO BE EXTENDED. EXISTING SERVICE PANELS SHALL BE REMOVED. DETAILS OF THOSE CONDUITS ARE NOT SHOWN FOR CLARITY OF PLANS.
11. EXISTING CONDUITS AND FREEWAY ELEMENTS ARE SHOWN FOR REFERENCE ONLY UNLESS OTHERWISE NOTED.
12. WHENEVER THERE IS A NEED FOR SERVICE REMOVAL. THE SERVICE COMPANY AND THE ENGINEER SHALL BE NOTIFIED THREE DAYS IN ADVANCE.
13. EXCEPT FOR LOCATIONS APPROVED BY THE ENGINEER, EXISTING RMS LOCATIONS WITH METER-ON FOUNDATIONS, RAMP SIGNAL FOUNDATIONS AND WIRING SHALL BE REMOVED AND REPLACED.
14. INSTALL CONTROLLER CABINETS A MINIMUM OF 12 m FROM EDGE OF TRAVEL WAY.

ABBREVIATIONS: (NOT LISTED IN CALTRANS STANDARD PLANS)

4WTO	-	FOUR WIRE TRANSMIT ONLY
#	-	NUMBER
AWG	-	AMERICAN WIRE GAUGE
BOH	-	BRIDGE AND OVERHEAD
CCR	-	CAMERA CONTROL RECEIVER
CIA	-	CONTROLLER INTERFACE ASSEMBLY
CHAN	-	CHANNEL
C-MIC	-	CABINET MOUNT INTERFACE CENTER
CTX	-	CLEAR TO SEND
COAX	-	COAXIAL CABLE
COMM	-	COMMUNICATION
CONT	-	CONTROLLER
DN	-	DATA NODE
D4	-	4TH VERSION OF D-SIGNAL FOR TDM
DCS	-	DIGITAL CROSS CONNECT SWITCH
DEC	-	DECODER
DS1	-	DIGITAL TRANSMISSION RATE-1.544 MEGABITS PER SECOND
DTMF	-	DUAL-TONE MULTI-FREQUENCY DECODER
DWP	-	LA DEPARTMENT OF WATER AND POWER
(E)	-	EXISTING
FDU	-	FIBER DISTRIBUTION UNIT
FOAM	-	FIBER OPTIC AUDIO MODEM
FXO	-	FOREIGN EXCHANGE OFFICE
FXS	-	FOREIGN EXCHANGE SUBSCRIBER
INTRFCE	-	INTERFACE
IRR	-	IRRIGATION CONTROLLER
JKFD	-	JACKFIELD
MUX	-	MULTIPLEX
NHB	-	NORTH HOLLYWOOD HUB
P22	-	PAIR 22 AMERICAN WIRE GAUGE
PDA	-	POWER DISTRIBUTION ASSEMBLY
PR	-	PAIR
RX	-	RECEIVER
RMC	-	RAMP METER CONTROLLER
RMS	-	RAMP METERING SYSTEM
RTS	-	REQUEST TO SEND
SCE	-	SOUTHERN CALIFORNIA EDISON
SCADA	-	SUPERVISORY CONTROL AND DATA AQUISITION
SCGAS	-	SOUTHERN CALIFORNIA GAS COMPANY
SCWC	-	SOUTHERN CALIFORNIA WATER COMPANY
48SMFO	-	48 SINGLE MODE FIBER OPTIC CABLE
STC	-	SCREENED TRANSMISSION CABLE
TPC	-	TWISTED PAIR CABLE
TS	-	TRAFFIC SIGNAL
TX	-	TRANSMIT
VSAT	-	VERY SMALL APERTURE TERMINAL
VN	-	VIDEO NODE
VEN	-	VENTURA
VC	-	VENTURA COUNTY
VMX	-	VIDEO MULTIPLEXER
V-RX	-	VIDEO RECEIVER
V-TX	-	VIDEO TRANSMITTER
WIM	-	WEIGH IM MOTION CONTROLLER
XMTR	-	TRANSMITTER
TELCO	-	TELEPHONE COMPANY

LEGEND: (NOT LISTED IN CALTRANS STANDARD PLANS)

- NEW SPLICE VAULT
- EXISTING SPLICE VAULT
- MODEL 334 TV CABINET, FOR: CCTV, CABLE NODE DATA AND VIDEO NODES
- CCTV CAMERA POLE LOCATION
- EXISTING VSAT ANTENNA
- COMMUNICATION PULL BOX
- EXISTING DATA,VIDEO OR CABLE NODE MODEL 334 TV CABINET
- 170 MODEL 170 CONTROLLER
- OPTICAL FIBER CABLE
- EXISTING ELECTRIC VAULT
- —E—E ELECTRICAL POWER CONDUIT(S)
- —e—e EXISTING ELECTRICAL POWER CONDUIT(S)
- → - - - → EXISTING DRAINAGE FLOW LINE

AS-BUILT
Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

COMMUNICATION SYSTEM ROUTING
LEGEND AND NOTES

E-1

DATE	REVISED BY	DATE REVISED
6-05	DAVID PADILLA	6-05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA
PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 11:11

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DGN FILE => 712088ua001.dgn

CU 07388

EA 120881

CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN 1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1					
48SMFO CABLE	VOICE/DATA		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	55	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

6-27-05
PLANS APPROVAL DATE

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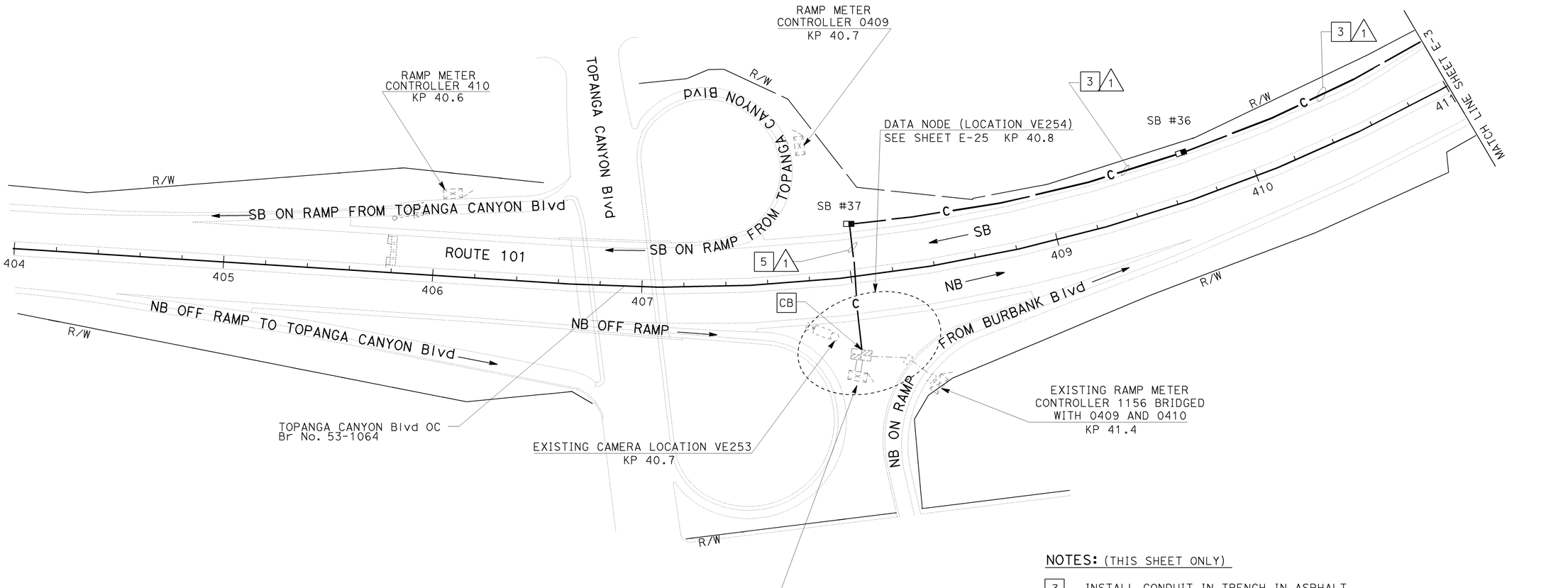

NOTES: (THIS SHEET ONLY)

3 INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

5 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-2

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE	CALCULATED/ DESIGNED BY	PROJECT ENGINEER
6-05	DAVID PADILLA	6-05	DAVID PADILLA	DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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

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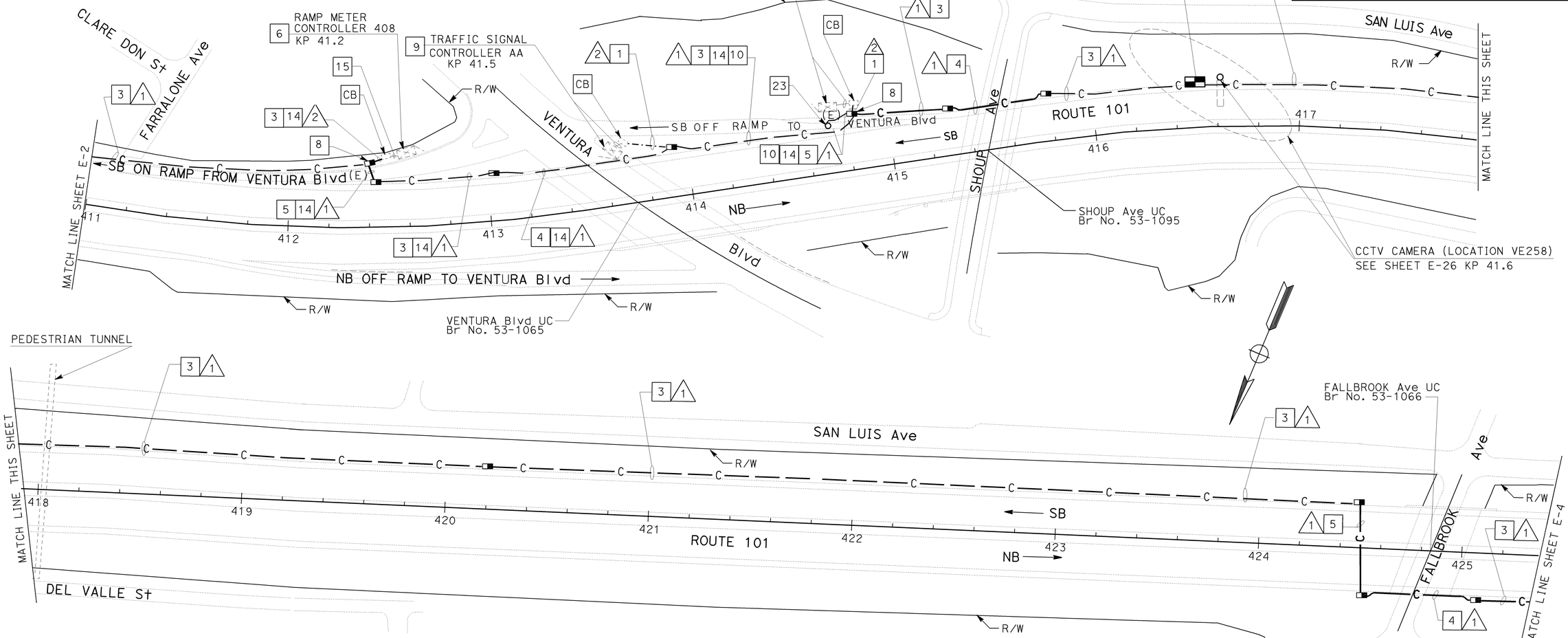
DGN FILE => 712088ug002.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 11:11

CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2
12SMFO CABLE	VOICE/DATA						1
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1					
48SMFO CABLE	VOICE/DATA		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53



NOTES:(THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN STRUCTURE. SEE STRUCTURAL PLANS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, FOAM AND STATE-FURNISHED LOOP SENSOR IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL C-MIC, FOAM IN EXISTING CONTROLLER CABINET. INSTALL 12SMFO IN EXISTING CONDUIT. SEE SHEET E-51.
10. ADD 12SMFO IN COMMUNICATION SYSTEM ROUTING CONDUIT.
14. INSTALL 1 DLC.
15. INSTALL 1-12SMFO AND 1 DLC IN EXISTING CONDUIT.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-3

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	56	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

6-27-05
PLANS APPROVAL DATE

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DATE	REVISED BY	DATE REVISED
6-05	DAVID PADILLA	6-05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA
PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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

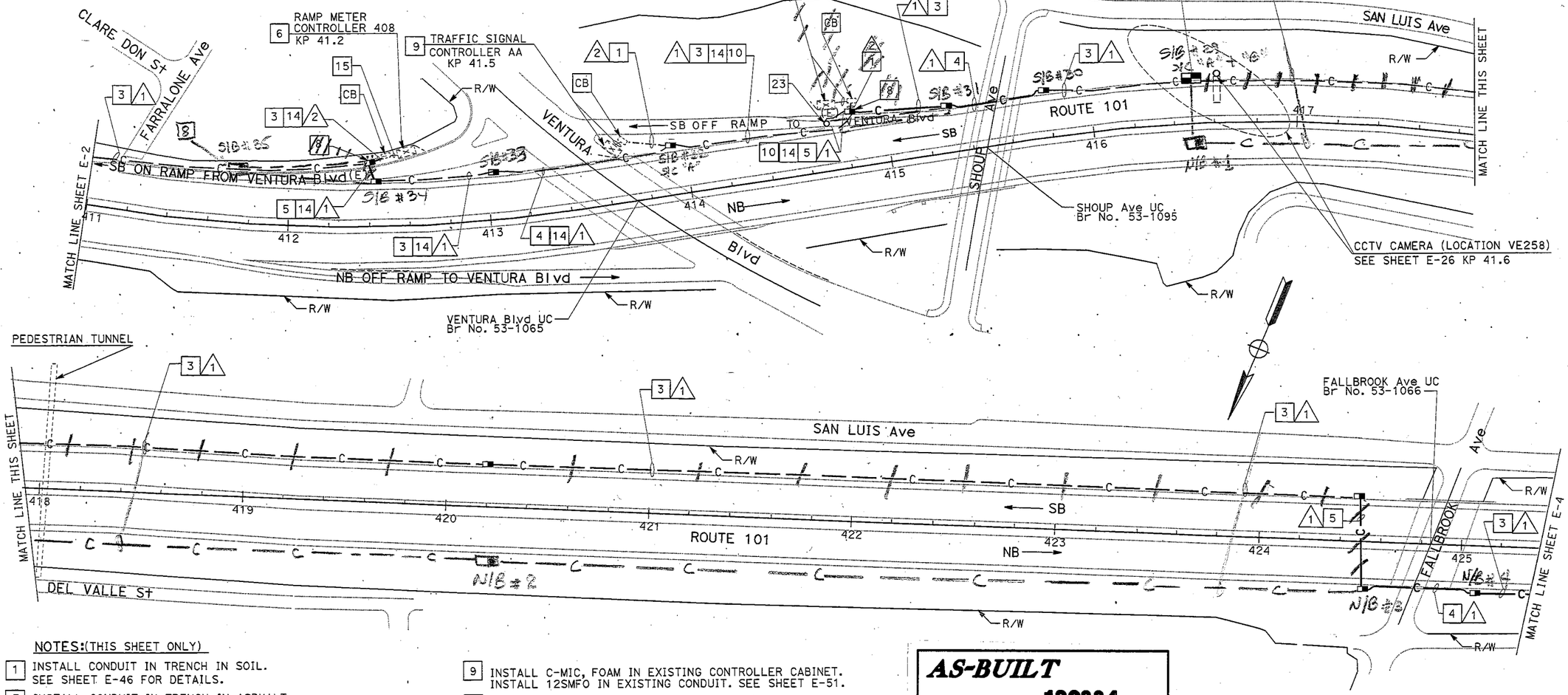
USERNAME => s123048
DGN FILE => 712088ua003.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 | DATE PLOTTED => 17-SEP-2008 | TIME PLOTTED => 11:12

CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2
12SMFO CABLE	VOICE/DATA						1
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1					
48SMFO CABLE	VOICE/DATA		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53



NOTES:(THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN STRUCTURE. SEE STRUCTURAL PLANS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, FOAM AND STATE-FURNISHED LOOP SENSOR IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL C-MIC, FOAM IN EXISTING CONTROLLER CABINET. INSTALL 12SMFO IN EXISTING CONDUIT. SEE SHEET E-51.
10. ADD 12SMFO IN COMMUNICATION SYSTEM ROUTING CONDUIT.
14. INSTALL 1 DLC.
15. INSTALL 1-12SMFO AND 1 DLC IN EXISTING CONDUIT.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-3

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	56	160

David Padilla
REGISTERED ELECTRICAL ENGINEER
6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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DATE	REVISED BY	DATE REVISED
6-05	DAVID PADILLA	6-05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA
PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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

USERNAME => trienard
DGN FILE => 712088ua003.dgn

CU 07388 | EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 07-JUL-2005
TIME PLOTTED => 07:02

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA,Ven	23,101	Var	57	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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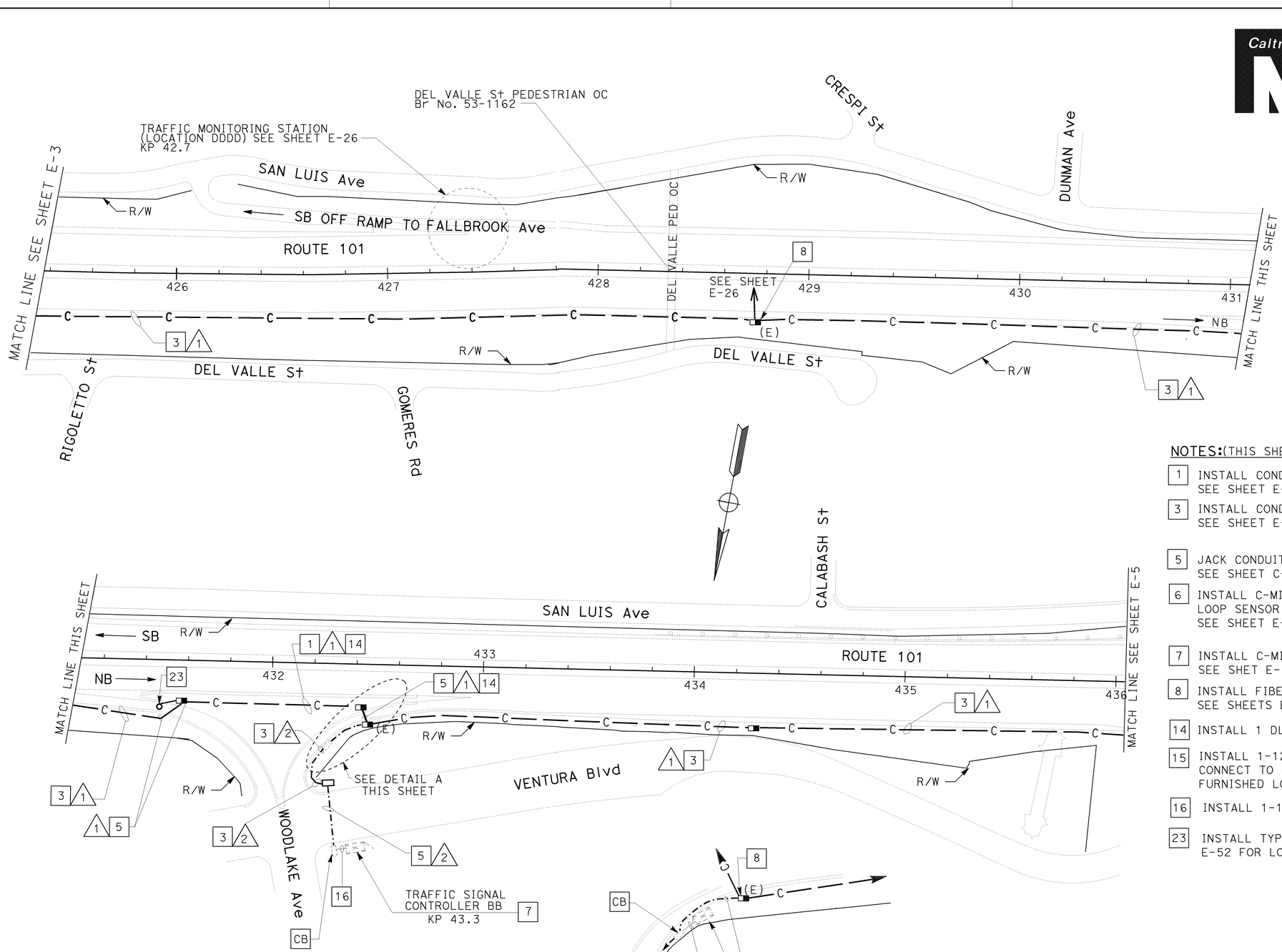
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**



DETAIL A
NO SCALE

CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 1					2	3
12SMFO CABLE	VOICE/DATA						1	2
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1						
48SMFO CABLE	VOICE/DATA		1					
48SMFO CABLE	VIDEO DISTRIBUTION			1				
	SIZE 25 INNERDUCT	1	1	1	1			
CONDUIT SIZE		103				103	53	53

NOTES:(THIS SHEET ONLY)

1 INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.

3 INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

5 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

6 INSTALL C-MIC, FOAM AND STATE-FURNISHED LOOP SENSOR IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.

7 INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHET E-51.

8 INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.

14 INSTALL 1 DLC.

15 INSTALL 1-12SMFO AND 1 DLC CABLES IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET. INSTALL STATE FURNISHED LOOP DETECTOR SENSOR.

16 INSTALL 1-12SMFO IN EXISTING CONDUIT.

23 INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-4

DATE	REVISED BY
6-05	DAVID PADILLA

DATE	REVISED BY
6-05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ITS DESIGN
Caltrans

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USERNAME => s123048
DGN FILE => 712088ua004.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 11:12

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	57	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — EXP. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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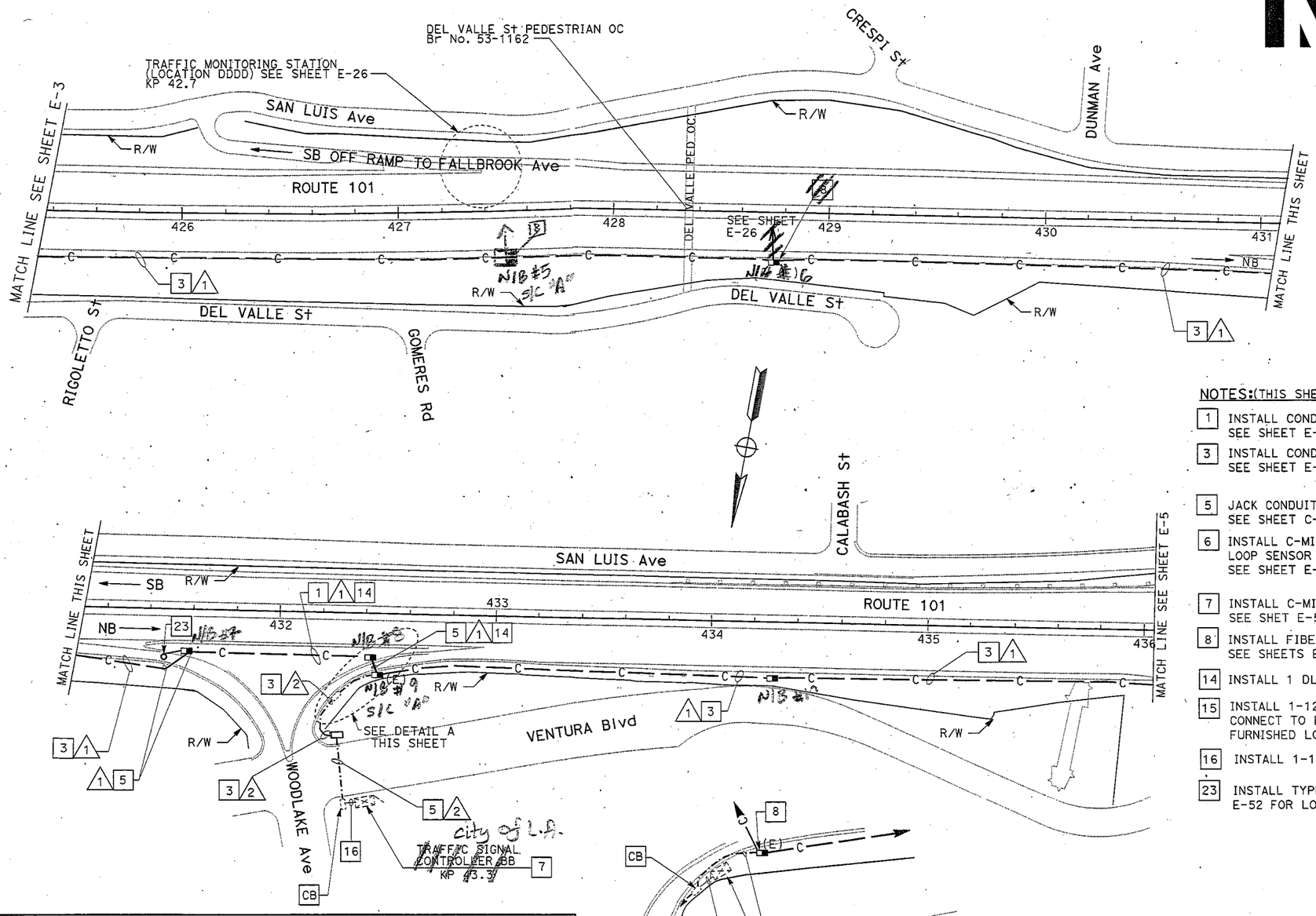
AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08



DETAIL A
NO SCALE

NOTES:(THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, FOAM AND STATE-FURNISHED LOOP SENSOR IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
14. INSTALL 1 DLC.
15. INSTALL 1-12SMFO AND 1 DLC CABLES IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET. INSTALL STATE FURNISHED LOOP DETECTOR SENSOR.
16. INSTALL 1-12SMFO IN EXISTING CONDUIT.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA						1	2
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1						
48SMFO CABLE	VOICE/DATA		1					
48SMFO CABLE	VIDEO DISTRIBUTION			1				
	SIZE 25 INNERDUCT	1	1	1	1			
CONDUIT SIZE		103				103	53	53

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-4

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
DAVID PADILLA	DAVID PADILLA	6-05		6-05

PROJECT ENGINEER — DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — ITS DESIGN

LAST REVISION 00-00-00 — DATE PLOTTED => 07-JUL-2005 — TIME PLOTTED => 07:02

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

USERNAME => trlenard
DGN FILE => 712088ua004.dgn

CU 07388 | EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	58	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp.12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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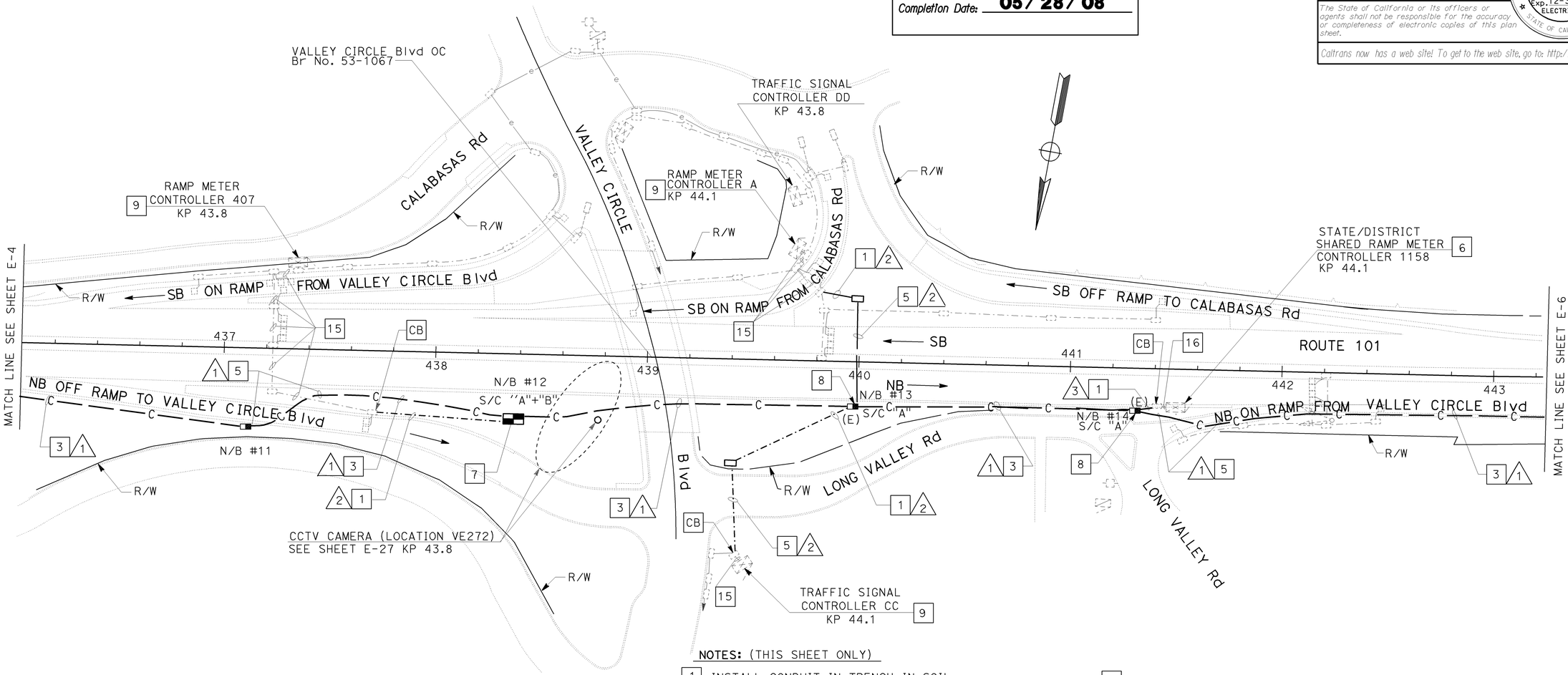
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

Caltrans Metric

DATE	REVISED BY
6-05	DATE REVISED
CALCULATED/ DESIGNED BY	DAVID PADILLA
CHECKED BY	DAVID PADILLA
PROJECT ENGINEER	DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ITS DESIGN
Caltrans



CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 1					2	3
12SMFO CABLE	VOICE/DATA						1	2
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1						
48SMFO CABLE	VOICE/DATA		1					
48SMFO CABLE	VIDEO DISTRIBUTION			1				
	SIZE 25 INNERDUCT	1	1	1	1			
CONDUIT SIZE		103				103	53	53

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL 2-C-MIC, AND 2 FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET.
15. INSTALL 12SMFO CABLE IN EXISTING CONDUIT AND CONNECT TO CONTROLLER CABINET.
16. INSTALL 2-12SMFO CABLES IN EXISTING CONDUIT.
17. EXISTING ELEMENTS ARE SHOWN FOR REFERENCE ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-5

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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USERNAME => s123048
DGN FILE => T12088ua005.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 11:12

CONDUCTOR SCHEDULE														
CONDUCTOR TYPE	FUNCTION	RUN												
		1					2	3			4			
12SMFO CABLE	VOICE/DATA						2	1			1			
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1								1				
48SMFO CABLE	VOICE/DATA		1								1			
48SMFO CABLE	VIDEO DISTRIBUTION			1								1		
DLC CABLE								1						
	SIZE 25 INNERDUCT	1	1	1	1				1	1	1	1		
CONDUIT SIZE		103				103	53	53	103					103

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL 2-C-MIC, 2-FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEETS E-49 FOR DETAILS.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
14. INSTALL 53C, 1DLC.
15. INSTALL 2-12SMFO CABLE IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.
16. INSTALL 1DLC CABLE IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. INSTALL C-MIC, 1-FOAM AND STATE-FURNISHED LOOP DETECTOR SENSOR IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
25. ADD 1DLC IN NEW CONDUIT.
26. INSTALL 12SMFO IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	59	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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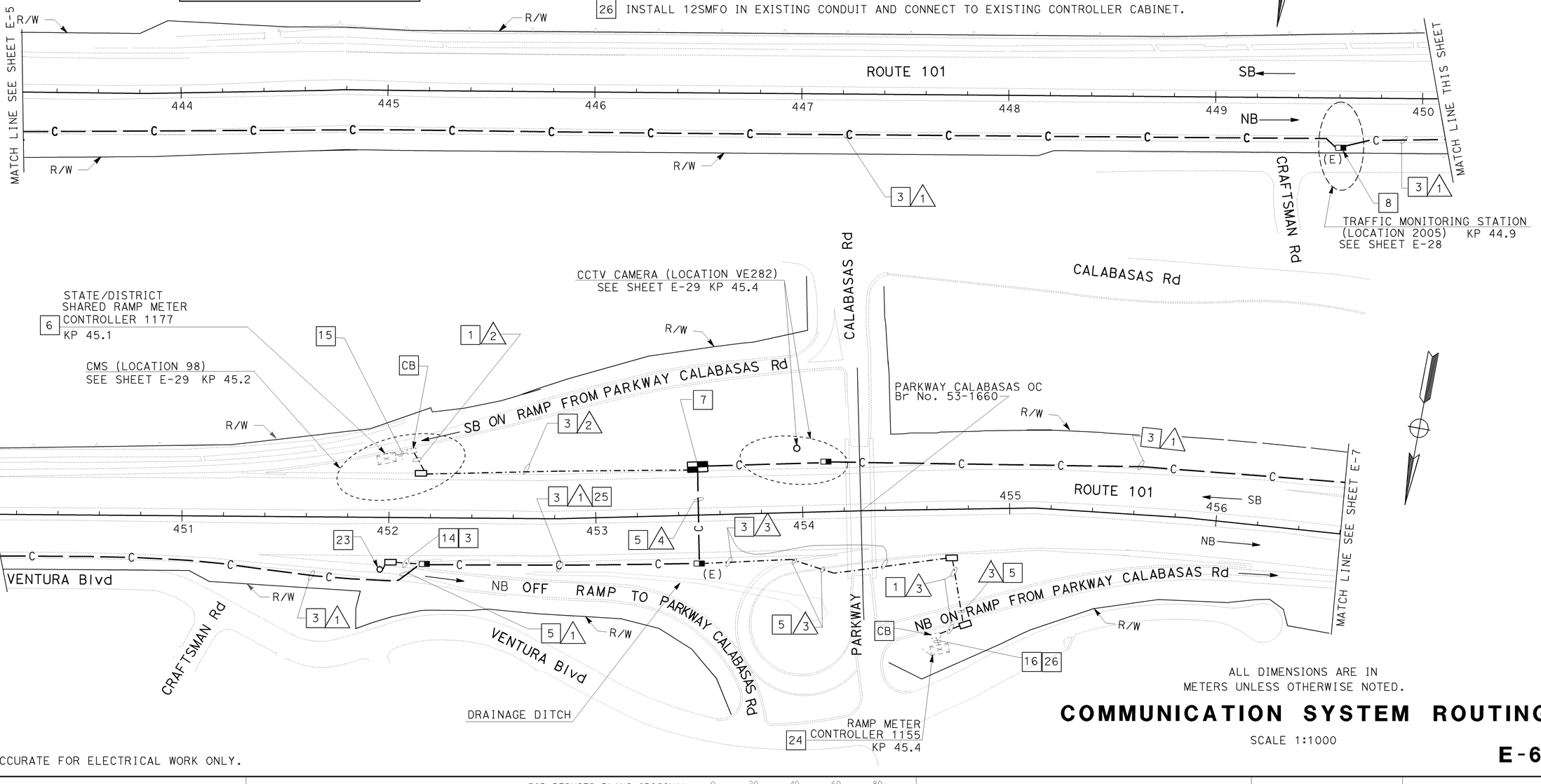

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-6

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

PROJECT ENGINEER — DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — ITS DESIGN

DATE	REVISED BY	DATE REVISED	CALCULATED/ DESIGNED BY	CHECKED BY
6-05	DAVID PADILLA	6-05	DAVID PADILLA	DAVID PADILLA

LAST REVISION 00-00-00 — DATE PLOTTED => 17-SEP-2008 — TIME PLOTTED => 11:12

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USERNAME => s123048
DGN FILE => 712088ua006.dgn

CU 07388

EA 120881

CONDUCTOR SCHEDULE																	
CONDUCTOR TYPE	FUNCTION	RUN															
		1					2	3				4					
12SMFO CABLE	VOICE/DATA						2	1					1				
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1									1						
48SMFO CABLE	VOICE/DATA		1										1				
48SMFO CABLE	VIDEO DISTRIBUTION			1										1			
DLC CABLE								1									
	SIZE 25 INNERDUCT	1	1	1	1					1	1	1	1				
CONDUIT SIZE		103				103	53	53		103				103			

AS-BUILT

Contract No. 07- 120884

Resident Engineer: H. MANNAA

Completion Date: 05/28/08

NOTES: (THIS SHEET ONLY)

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23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. INSTALL C-MIC, 1-FOAM, AND STATE-FURNISHED LOOP DETECTOR SENSOR IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
25. ADD 1DLC IN NEW CONDUIT.
26. INSTALL 12SMFO IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA,Ven	23,101	Var	59	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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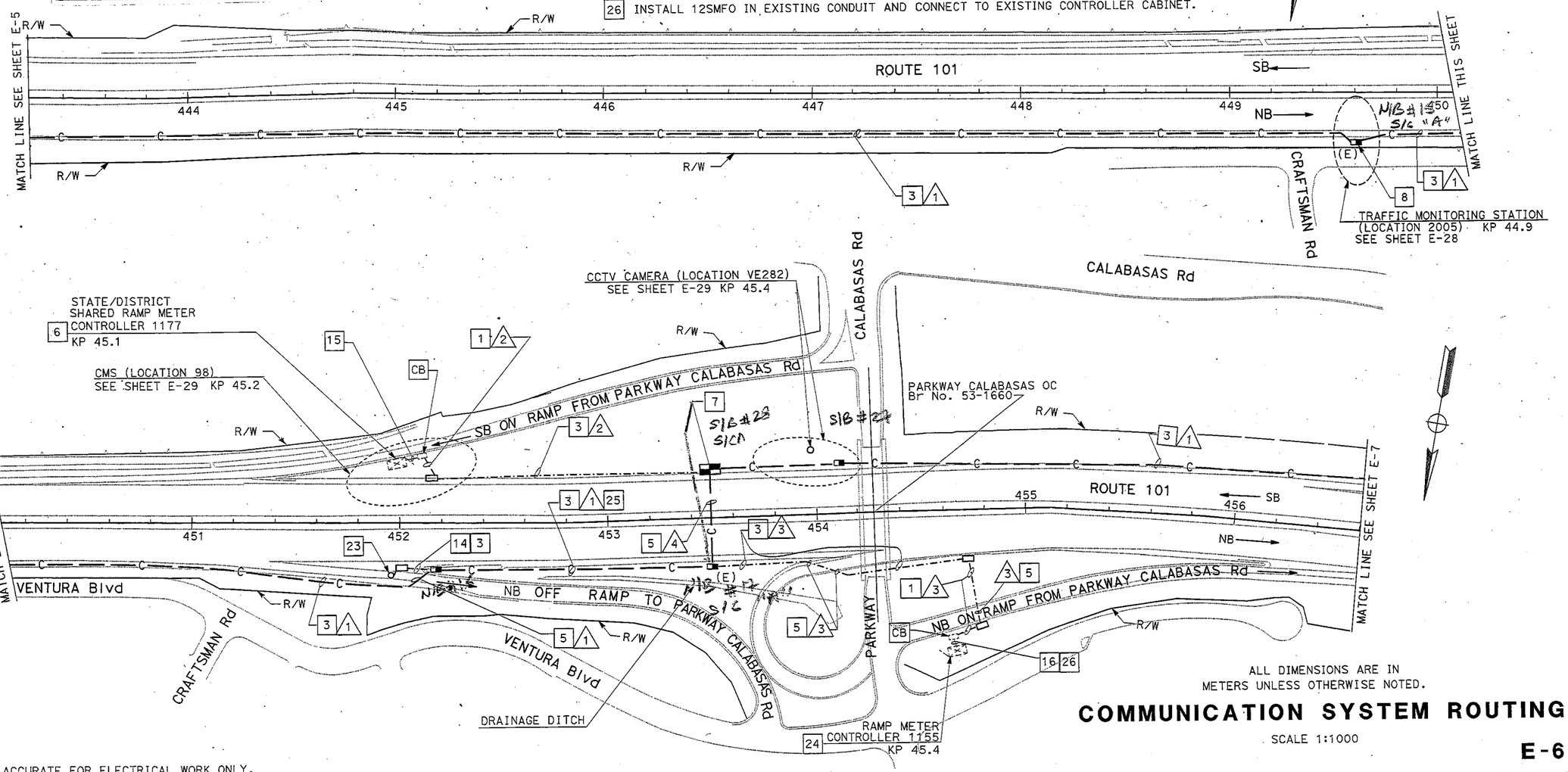

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COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-6

.THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
Caltrans ITS DESIGN	DAVID PADILLA	CHECKED BY DAVID PADILLA	6-05	DAVID PADILLA	6-05

LAST REVISION 00-00-00 | DATE PLOTTED => 29-JUN-2005 TIME PLOTTED => 08:37

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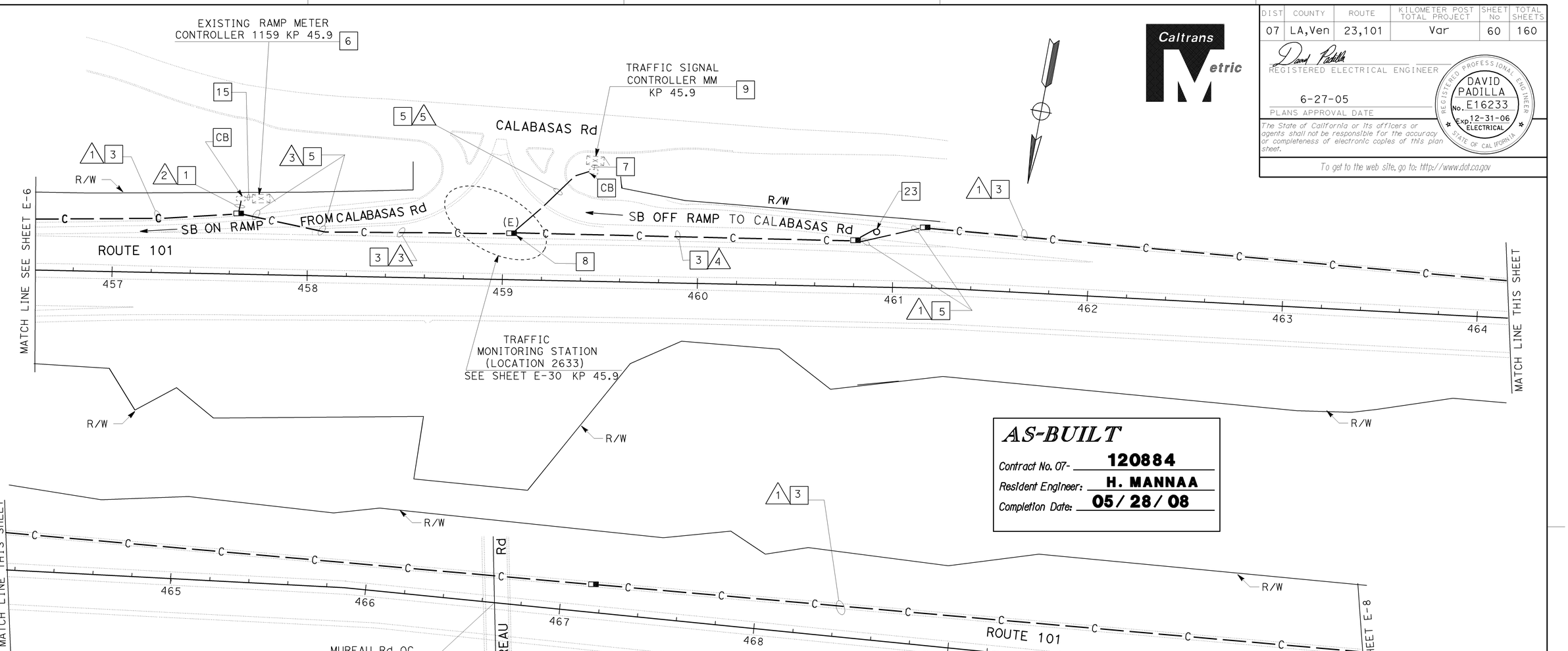
CU 07388 | EA 120881



NOTES:(THIS SHEET ONLY)

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7. INSTALL 12SMFO IN EXISTING CONDUIT.
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9. INSTALL C-MIC, AND FOAM, IN EXISTING CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
15. INSTALL 1-12SMFO AND 1 DLC CABLES IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3					RUN 4					RUN 5
12SMFO CABLE	VOICE/DATA						1	1										1
48SMFO CABLE	VOICE/DATA	1						1					1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1						1					1				
48SMFO CABLE	VIDEO DISTRIBUTION			1						1					1			
DLC CABLE							1				1					1		
	SIZE 25 INNERDUCT	1	1	1	1			1	1	1	1		1	1	1	1		
CONDUIT SIZE		103				103	53	103				103	103				103	53

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	60	160

REGISTERED ELECTRICAL ENGINEER
DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

6-27-05
PLANS APPROVAL DATE

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AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-7

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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

USERNAME => s123048
DGN FILE => 712088ua007.dgn

CU 07388

EA 120881

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 11:12

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	60	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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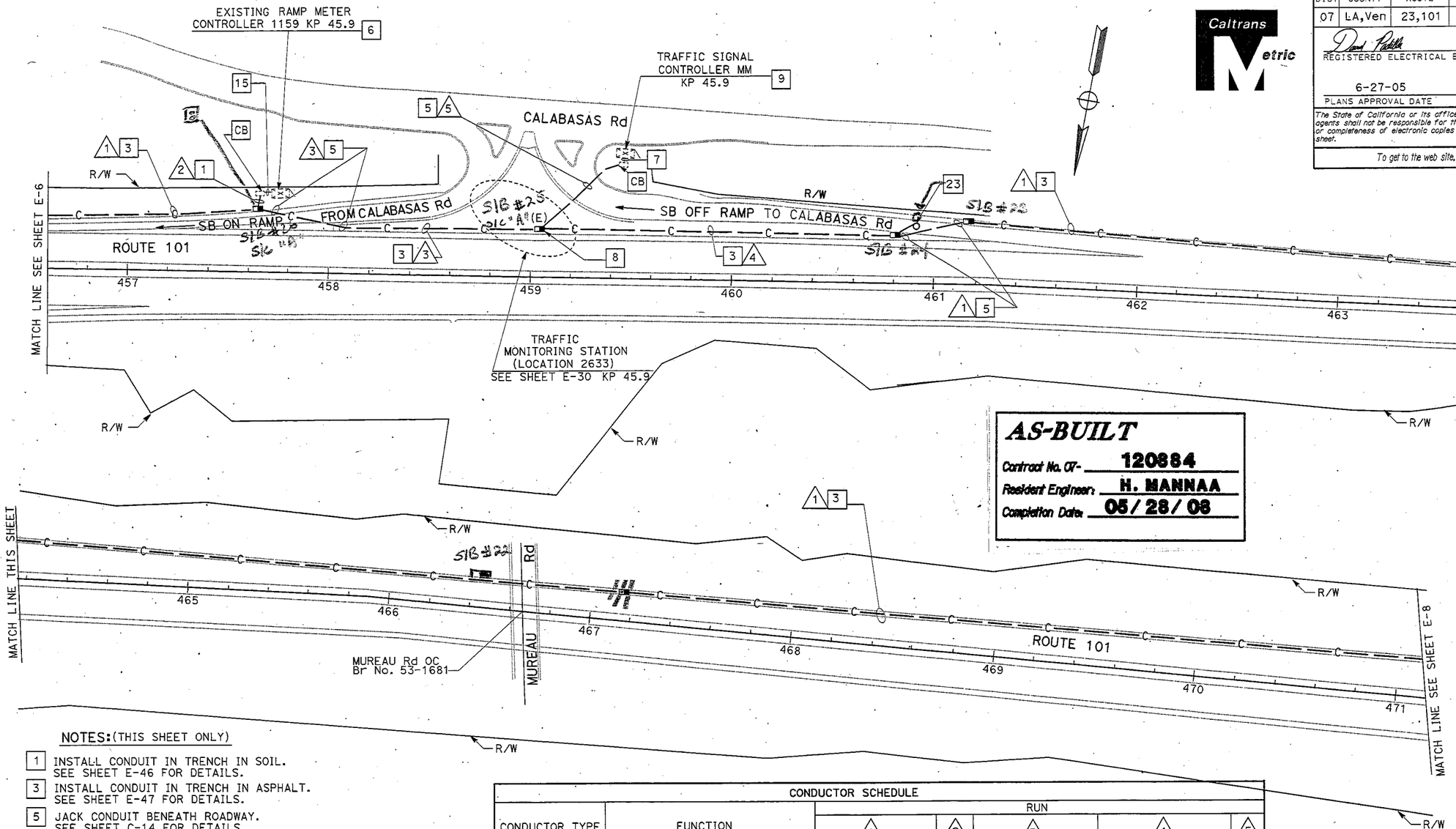

NOTES:(THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, FOAM, AND STATE-FURNISHED LOOP DETECTOR SENSOR IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL 12SMFO IN EXISTING CONDUIT.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL C-MIC, AND FOAM, IN EXISTING CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
15. INSTALL 1-12SMFO AND 1 DLC CABLES IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3					RUN 4						RUN 5
12SMFO CABLE	VOICE/DATA						1	1											1
48SMFO CABLE	VOICE/DATA	1						1					1						
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1						1					1					
48SMFO CABLE	VIDEO DISTRIBUTION			1						1					1				
DLC CABLE							1				1					1			
	SIZE 25 INNERDUCT	1	1	1	1			1	1	1	1		1	1	1	1			
CONDUIT SIZE		103				103	53	103				103	103				103	53	

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-7

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE	CALCULATED/ DESIGNED BY
6/05	DAVID PADILLA	6/05	DAVID PADILLA
	DATE REVISED		CHECKED BY

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => trmnguye
DGN FILE => 712088ua007.dgn

CU 07388 | EA 120881

LAST REVISION 00-00-00 | DATE PLOTTED => 29-JUN-2005 | TIME PLOTTED => 10:57

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	61	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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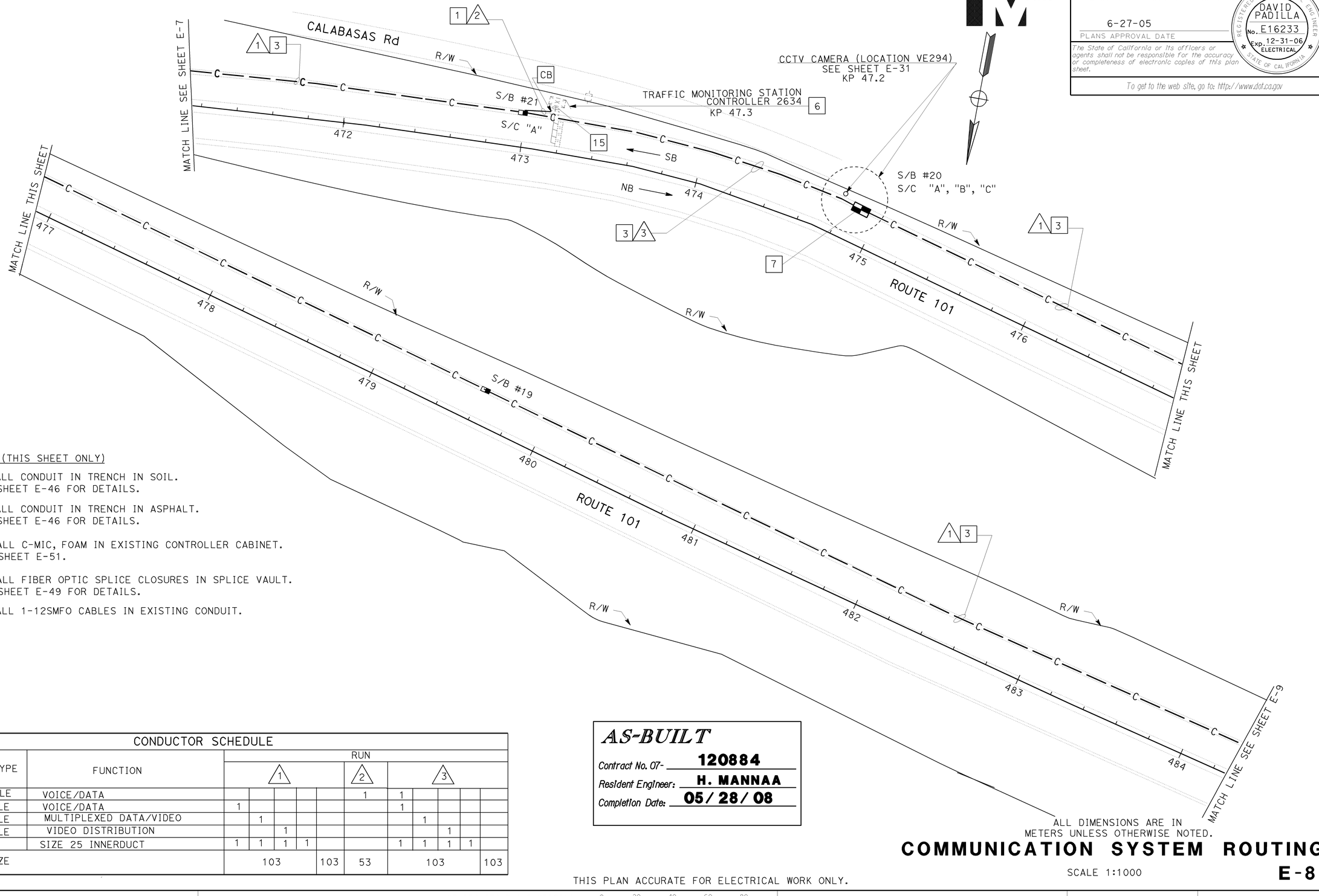

NOTES:(THIS SHEET ONLY)

1 INSTALL CONDUIT IN TRENCH IN SOIL.
SEE SHEET E-46 FOR DETAILS.

3 INSTALL CONDUIT IN TRENCH IN ASPHALT.
SEE SHEET E-46 FOR DETAILS.

6 INSTALL C-MIC, FOAM IN EXISTING CONTROLLER CABINET.
SEE SHEET E-51.

7 INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT.
SEE SHEET E-49 FOR DETAILS.

15 INSTALL 1-12SMFO CABLES IN EXISTING CONDUIT.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3				
12SMFO CABLE	VOICE/DATA						1	1				
48SMFO CABLE	VOICE/DATA	1						1				
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1						1			
48SMFO CABLE	VIDEO DISTRIBUTION			1						1		
	SIZE 25 INNERDUCT	1	1	1	1			1	1	1	1	
CONDUIT SIZE		103				103	53	103				103

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-8

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6/05	DAVID PADILLA

DATE	REVISED BY
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => s123048
DGN FILE => 712088ua008.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	62	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
Exp. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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DATE	REVISED BY
6/05	DAVID PADILLA
6/05	DATE REVISED

CALCULATED/ DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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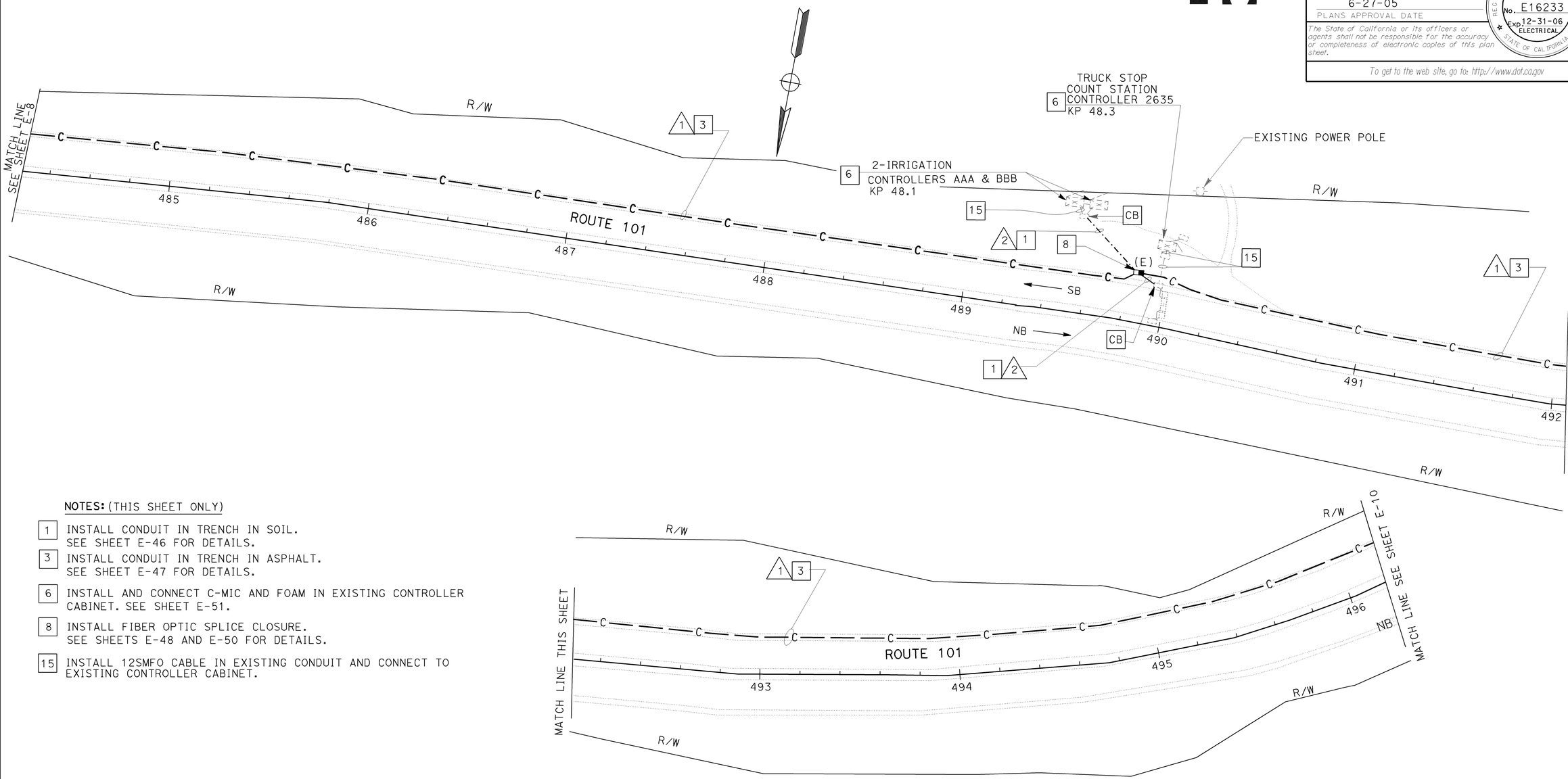
ITS DESIGN



NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
6. INSTALL AND CONNECT C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
15. INSTALL 12SMFO CABLE IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.

CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2
12SMFO CABLE	VOICE/DATA						1
48SMFO CABLE	VOICE/DATA	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-9

LAST REVISION 00-00-00
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DGN FILE => 712088ua009.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	62A	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA
No. E16233
Exp 12-31-06
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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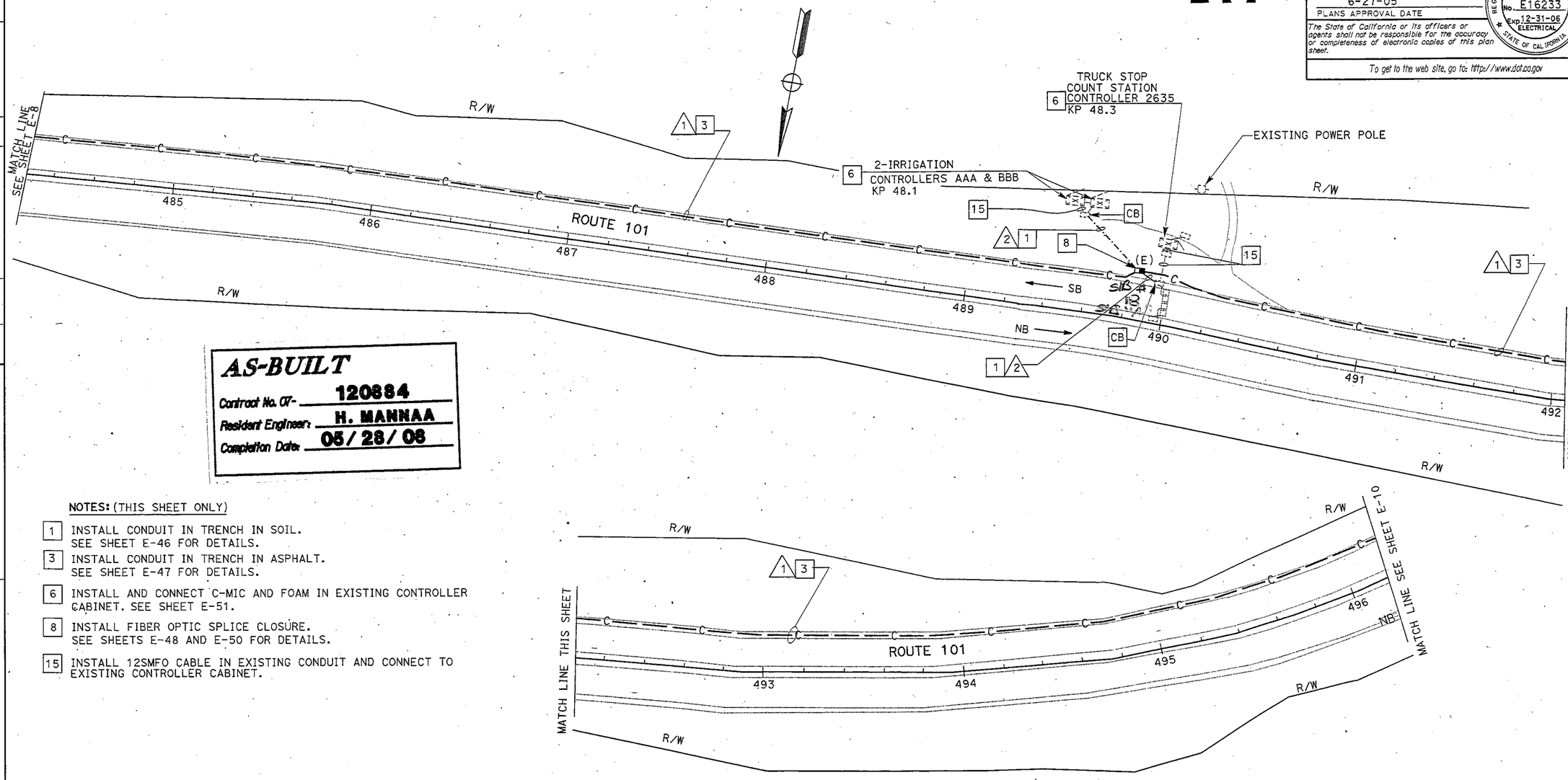
DATE	REVISED BY
6/05	DAVID PADILLA
6/05	DATE REVISED

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN



AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
6. INSTALL AND CONNECT C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
15. INSTALL 12SMFO CABLE IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2
12SMFO CABLE	VOICE/DATA						1
48SMFO CABLE	VOICE/DATA	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE 1:1000

E-9

LAST REVISION 00-00-00 DATE PLOTTED => 29-JUN-2005 TIME PLOTTED => 10:50

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DGN FILE => 712088ud009.dgn

CU 07388 | EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	63	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp.12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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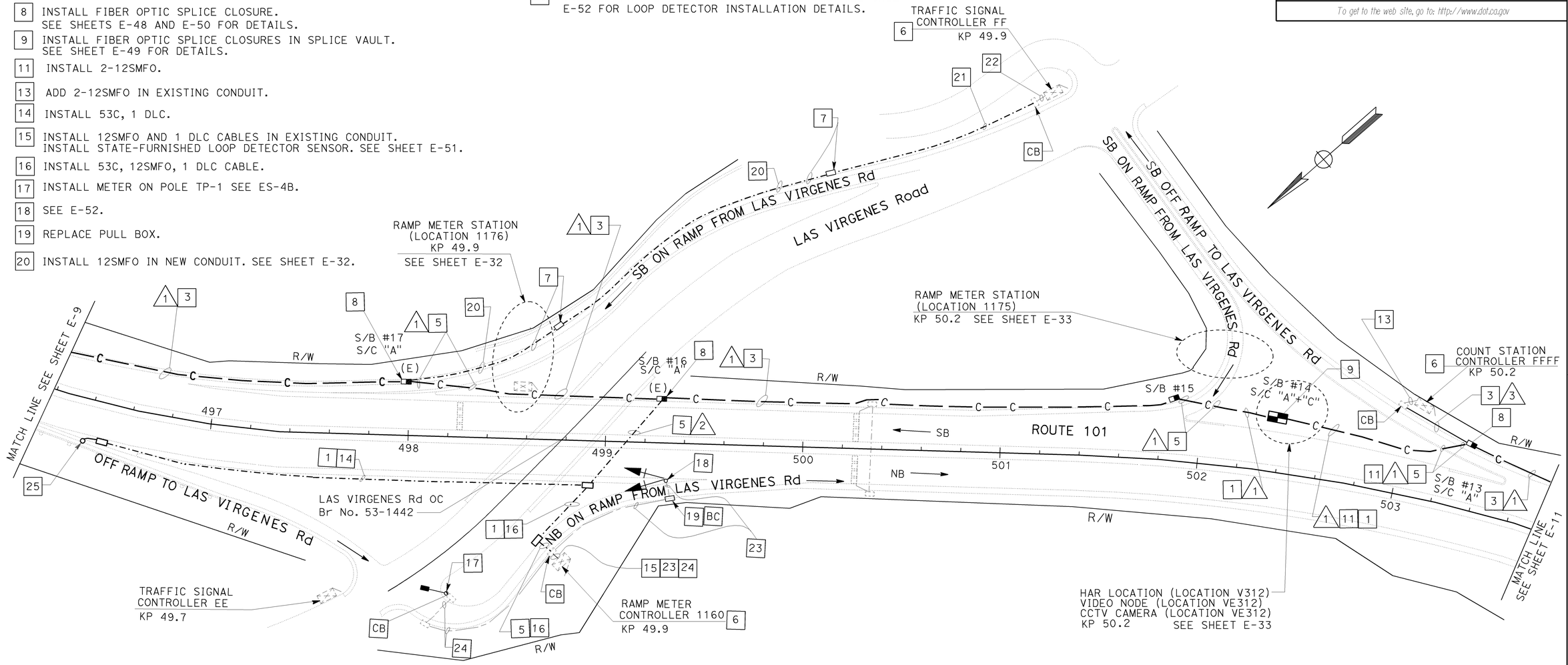
NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INCLUDED IN SHEET E-32.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
11. INSTALL 2-12SMFO.
13. ADD 2-12SMFO IN EXISTING CONDUIT.
14. INSTALL 53C, 1 DLC.
15. INSTALL 12SMFO AND 1 DLC CABLES IN EXISTING CONDUIT. INSTALL STATE-FURNISHED LOOP DETECTOR SENSOR. SEE SHEET E-51.
16. INSTALL 53C, 12SMFO, 1 DLC CABLE.
17. INSTALL METER ON POLE TP-1 SEE ES-4B.
18. SEE E-52.
19. REPLACE PULL BOX.
20. INSTALL 12SMFO IN NEW CONDUIT. SEE SHEET E-32.
21. INSTALL 53C IN ASPHALT. INSTALL 12SMFO.
22. ADD 12SMFO TO EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.
23. INSTALL 6#14, 1#10.
24. INSTALL 3#10.
25. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA						1	2
48SMFO CABLE	VOICE/DATA	1						
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
48SMFO CABLE	VIDEO DISTRIBUTION			1				
	SIZE 25 INNERDUCT	1	1	1	1			
CONDUIT SIZE		103				103	53	53

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-10

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
DAVID PADILLA	DAVID PADILLA	6/05		6/05

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 712088ua010.dgn

CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	64	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 EXP. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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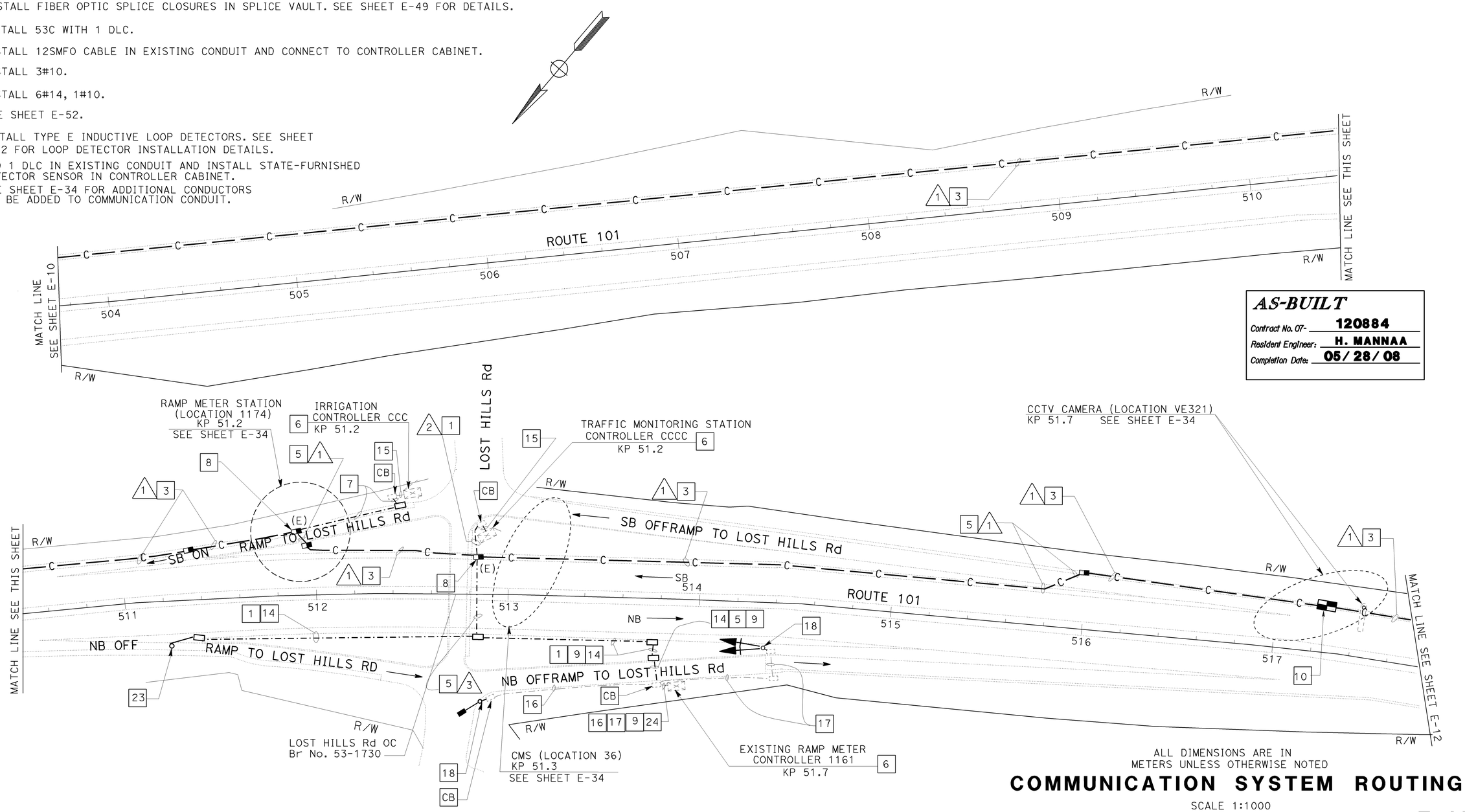
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. SEE E-34 FOR CONDUIT INSTALLATION. INSTALL 12SMFO FOR IRRIGATION CABINET.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 12SMFO.
10. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
14. INSTALL 53C WITH 1 DLC.
15. INSTALL 12SMFO CABLE IN EXISTING CONDUIT AND CONNECT TO CONTROLLER CABINET.
16. INSTALL 3#10.
17. INSTALL 6#14, 1#10.
18. SEE SHEET E-52.
23. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC IN EXISTING CONDUIT AND INSTALL STATE-FURNISHED DETECTOR SENSOR IN CONTROLLER CABINET.
25. SEE SHEET E-34 FOR ADDITIONAL CONDUCTORS TO BE ADDED TO COMMUNICATION CONDUIT.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1				2	3
12SMFO CABLE	VOICE/DATA					1	1
48SMFO CABLE	VOICE/DATA	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103			103	53	103



AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-11

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA
PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:08

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USERNAME => s123048
DGN FILE => 712088ua011.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	64	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL STATE OF CALIFORNIA

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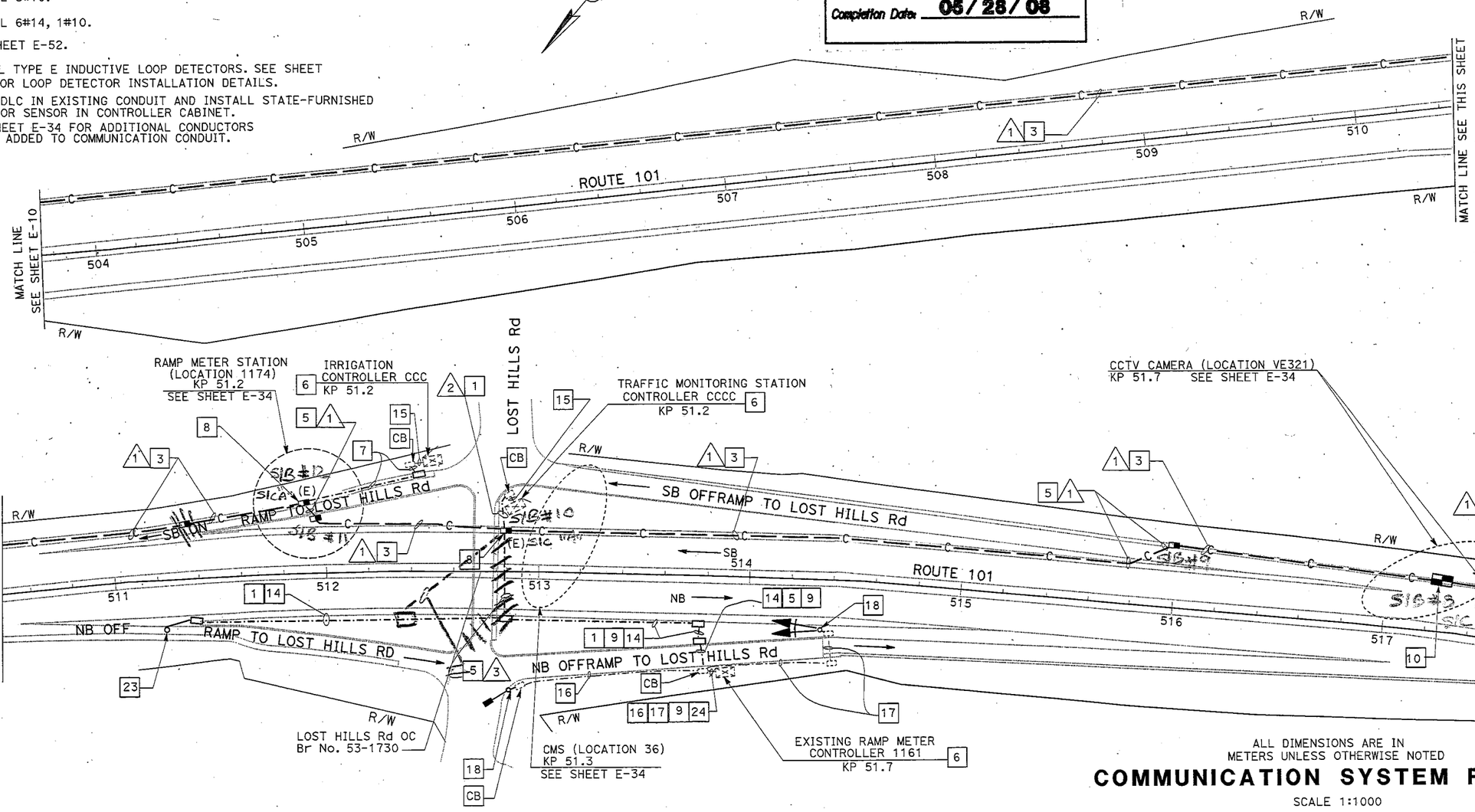
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. SEE E-34 FOR CONDUIT INSTALLATION. INSTALL 12SMFO FOR IRRIGATION CABINET.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 12SMFO.
10. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
14. INSTALL 53C WITH 1 DLC.
15. INSTALL 12SMFO CABLE IN EXISTING CONDUIT AND CONNECT TO CONTROLLER CABINET.
16. INSTALL 3#10.
17. INSTALL 6#14, 1#10.
18. SEE SHEET E-52.
23. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC IN EXISTING CONDUIT AND INSTALL STATE-FURNISHED DETECTOR SENSOR IN CONTROLLER CABINET.
25. SEE SHEET E-34 FOR ADDITIONAL CONDUCTORS TO BE ADDED TO COMMUNICATION CONDUIT.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					2	3
12SMFO CABLE	VOICE/DATA						1	1
48SMFO CABLE	VOICE/DATA	1						
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
48SMFO CABLE	VIDEO DISTRIBUTION			1				
	SIZE 25 INNERDUCT	1	1	1	1			
CONDUIT SIZE		103				103	53	103

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-11

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

PROJECT ENGINEER: DAVID PADILLA
CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA
REVISED BY: DATE 6/05
DATE REVISED: 6/05

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

USERNAME => trmnguye
DGN FILE => 712088ua011.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 29-JUN-2005
TIME PLOTTED => 10:58

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	65	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN STRUCTURE. SEE STRUCTURAL PLANS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. ADD 2-12SMFO CABLES IN EXISTING CONDUIT.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 12SMFO IN EXISTING CONDUIT.
10. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
14. INSTALL 53C, 1 DLC, 12SMFO.
15. INSTALL 53C, 1 DLC.
23. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC AND 12SMFO IN EXISTING CONDUIT AND INSTALL STATE-FURNISHED DETECTOR SENSORS IN CONTROLLER CABINET.
25. ADD 3#10 FOR METER ON SIGNAL.
26. ADD 6#14 AND 1#10 FOR RAMP SIGNAL.
27. SEE SHEET E-52.
28. ADD 1 DLC.

MATCH LINE SEE SHEET E-11 — R/W — ROUTE 101 — SB — NB — 518 519 520 521 522 523 — R/W — MATCH LINE SEE THIS SHEET

RAMP METER CONTROLLER 1173 KP 52.3

AGOURA Rd

LIBERTY CANYON Rd

MATCH LINE SEE THIS SHEET — R/W — S/B #7 — S/C "A" — SB ON RAMP FROM LIBERTY CANYON Rd — S/B #6 — S/B #5 — S/B #4 — SB OFF RAMP TO LIBERTY CANYON Rd — ROUTE 101 — 524 525 526 527 528 529 530 — NB — NB OFF RAMP TO LIBERTY CANYON Rd — NB ON RAMP FROM LIBERTY CANYON Rd — R/W — MATCH LINE SEE SHEET E-13

LIBERTY CANYON Rd OC Br No. 53-1731

EXISTING COUNT STATION CONTROLLER 2632 BRIDGED WITH RAMP METER CONTROLLERS 1173 AND 1162 KP 52.8

RAMP METER CONTROLLER 1162 KP 52.9

CCTV CAMERA (LOCATION VE329) KP 52.9 SEE SHEET E-35

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CONDUCTOR SCHEDULE													
CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2					RUN 3	RUN 4
12SMFO CABLE	VOICE/DATA											2	1
48SMFO CABLE	VOICE/DATA	1					1						
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					1					
48SMFO CABLE	VIDEO DISTRIBUTION			1					1				
DLC CABLE										1			
	SIZE 25 INNERDUCT	1	1	1	1		1	1	1	1			
CONDUIT SIZE		103				103	103				103	53	53

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-12

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
6/05	DAVID PADILLA	DAVID PADILLA	
6/05	DATE REVISED		

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

ITS DESIGN

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

USERNAME => s123048
DGN FILE => 712088ua012.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00

DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:08

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	66	160

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

Caltrans Metric

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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To get to the web site, go to: http://www.dot.ca.gov

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

MATCH LINE SEE SHEET E-12

R/W

ROUTE 101

SB

NB

MATCH LINE SEE THIS SHEET

PALO COMADO CANYON Rd OC
Br No. 53-1678

PALO COMADO CANYON Rd

SB OFF RAMP TO PALO COMADO CANYON Rd

SB ON RAMP

NB ON RAMP FROM PALO COMADO CANYON Rd

CCTV CAMERA
(LOCATION VE336)
SEE SHEET E-36
KP 54.1

IRRIGATION
CONTROLLER DDD
KP 54.1

RAMP METER
CONTROLLER 1163
KP 54.1

CHESEBRO Rd

DOROTHY Dr

EXISTING RAMP METER CONTROLLER 1172 BRIDGED WITH 1163
KP 54.2

CCTV, CCTV POLE, CONTROLLER CABINET AND ABANDONED PULL BOXES

SB OFF RAMP TO CHESEBRO Rd

LEWIS PEDESTRIAN OC
Br No. 53-998

LEWIS Rd

MATCH LINE SEE SHEET E-14

CHESEBRO CREEK

CHESEBRO CREEK UC
Br No. 53-755

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN BRIDGE. SEE STRUCTURAL SHEETS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, AND FOAM AND ADD 12SMFO TO EXISTING CONTROLLER CABINET. SEE SHEET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
9. ADD 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
10. ADD 2-12SMFO AND 6#14 AND 1#10 FOR RAMP SIGNAL IN EXISTING CONDUIT.
11. INSTALL 6#14 AND 1#10 FOR RAMP SIGNAL IN EXISTING CONDUIT.
12. INSTALL 3#10, 6#14 AND 1#10 IN EXISTING CONDUIT.
14. INSTALL 53C, 1 DLC.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC IN EXISTING CONDUIT AND INSTALL STATE-FURNISHED DETECTOR SENSORS IN CONTROLLER CABINET.
25. SEE SHEET E-52.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2					RUN 3	RUN 4	RUN 5
12SMFO CABLE	VOICE/DATA									1		1	2	1
48SMFO CABLE	VOICE/DATA	1					1							
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					1						
48SMFO CABLE	VIDEO DISTRIBUTION			1					1					
DLC CABLE												1		
	SIZE 25 INNERDUCT	1	1	1	1		1	1	1	1				
CONDUIT SIZE		103				103	103				103	53	53	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-13

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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

USERNAME => s123048
DGN FILE => 712088ua013.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 | DATE PLOTTED => 17-SEP-2008 | TIME PLOTTED => 12:08

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	66	160

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER
6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
Exp. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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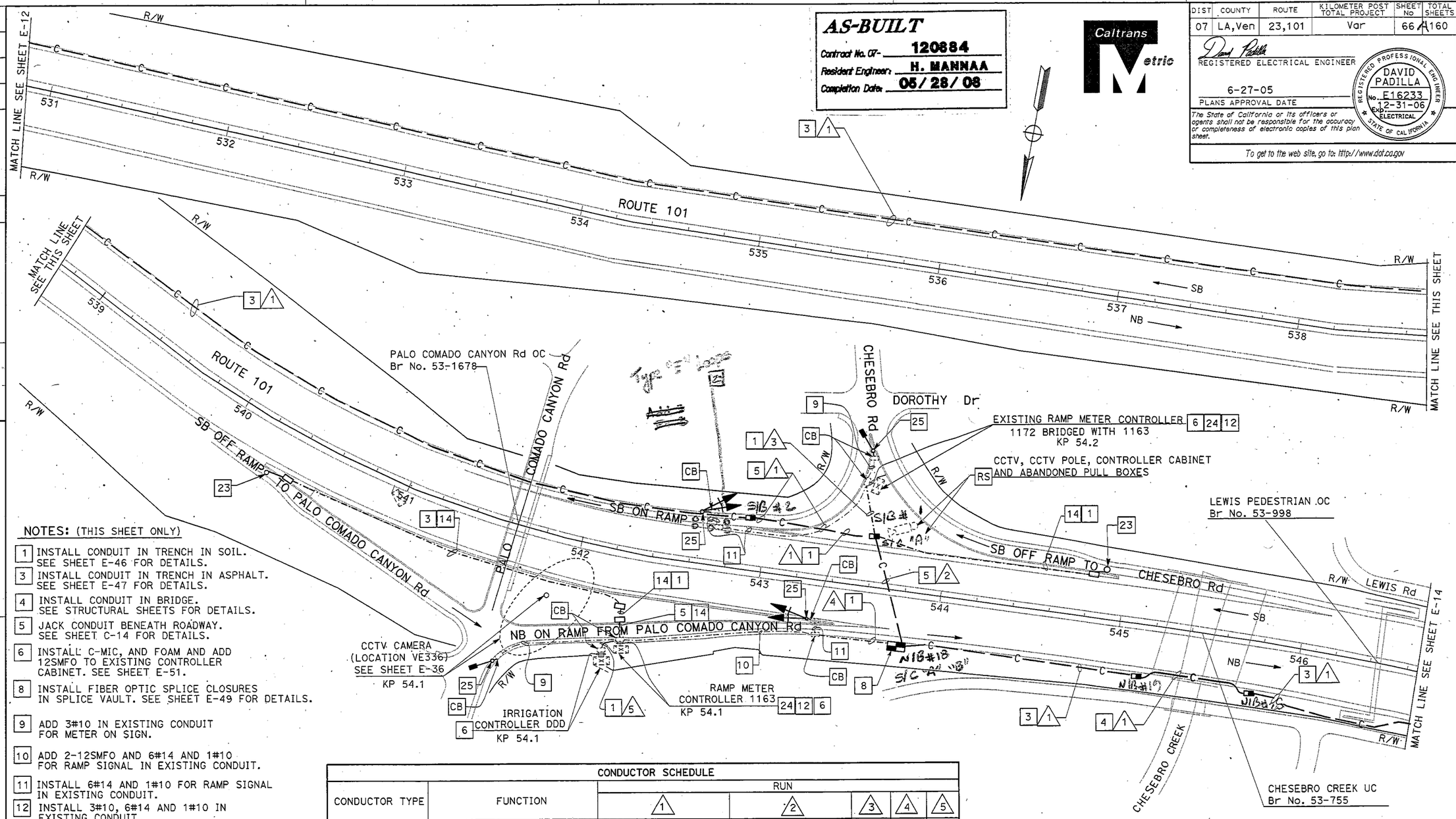
To get to the web site, go to: http://www.dot.ca.gov

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
6/05	DAVID PADILLA	DAVID PADILLA	
6/05	DATE REVISED		

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ITS DESIGN
Caltrans



NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN BRIDGE. SEE STRUCTURAL SHEETS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, AND FOAM AND ADD 12SMFO TO EXISTING CONTROLLER CABINET. SEE SHEET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
9. ADD 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
10. ADD 2-12SMFO AND 6#14 AND 1#10 FOR RAMP SIGNAL IN EXISTING CONDUIT.
11. INSTALL 6#14 AND 1#10 FOR RAMP SIGNAL IN EXISTING CONDUIT.
12. INSTALL 3#10, 6#14 AND 1#10 IN EXISTING CONDUIT.
14. INSTALL 53C, 1 DLC.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC IN EXISTING CONDUIT AND INSTALL STATE-FURNISHED DETECTOR SENSORS IN CONTROLLER CABINET.
25. SEE SHEET E-52.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2					RUN 3	RUN 4	RUN 5
12SMFO CABLE	VOICE/DATA									1		1	2	1
48SMFO CABLE	VOICE/DATA	1					1							
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					1						
48SMFO CABLE	VIDEO DISTRIBUTION			1					1					
DLC CABLE												1		
	SIZE 25 INNERDUCT	1	1	1	1		1	1	1	1				
CONDUIT SIZE		103				103	103				103	53	53	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-13

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

LAST REVISION 00-00-00 | DATE PLOTTED => 29-JUN-2005 | TIME PLOTTED => 10:58

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

USERNAME => trmnguye
DGN FILE => 712088ua013.dgn

CU 07388 | EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	67	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
Exp. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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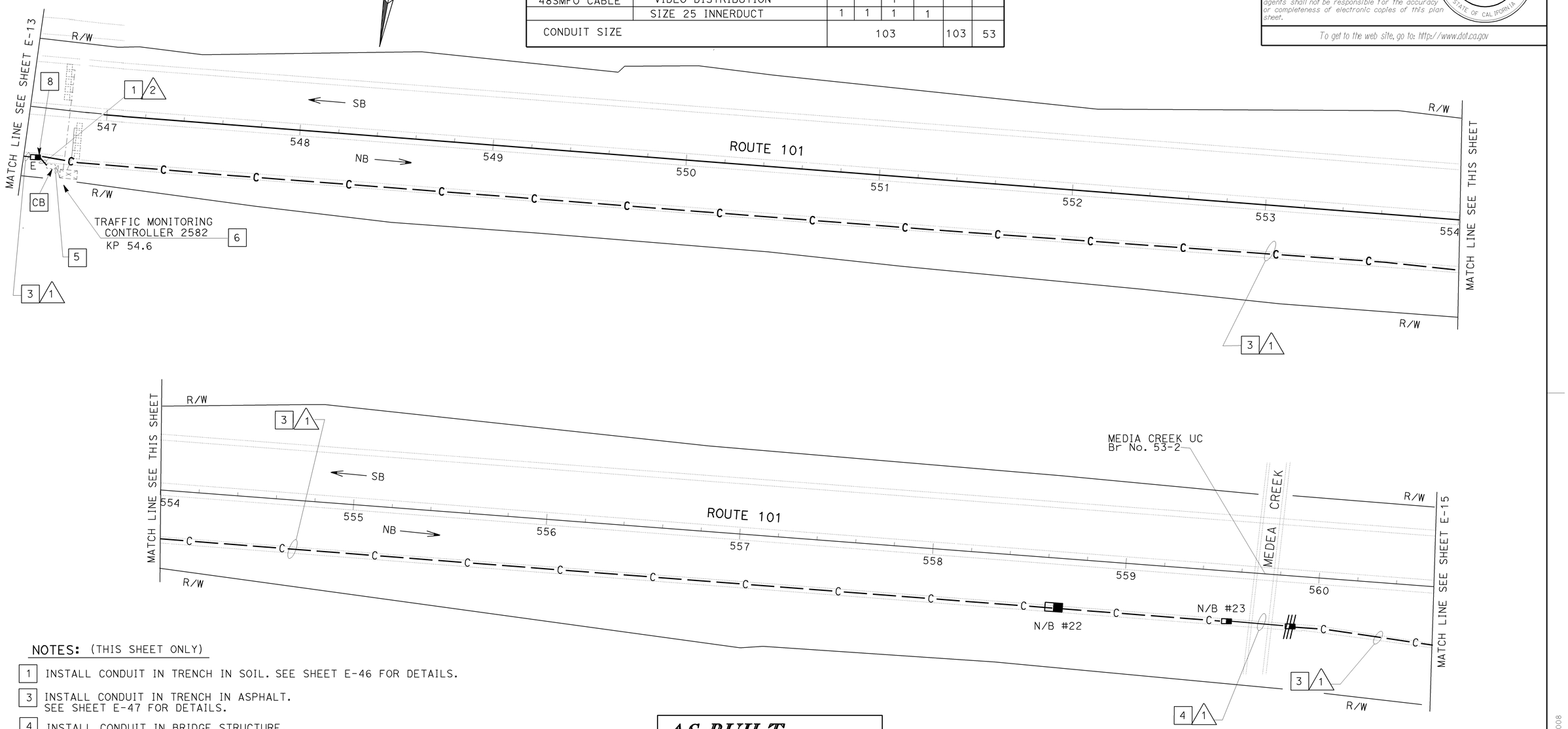
CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	
12SMFO CABLE	VOICE/DATA						1	
48SMFO CABLE	VOICE/DATA	1						
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1					
48SMFO CABLE	VIDEO DISTRIBUTION			1				
	SIZE 25 INNERDUCT	1	1	1	1			
CONDUIT SIZE		103					103	53



NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN BRIDGE STRUCTURE. SEE STRUCTURAL SHEETS FOR DETAILS.
5. INSTALL 12SMFO IN EXISTING CONDUIT.
6. INSTALL C-MIC, AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-14

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

PROJECT ENGINEER: DAVID PADILLA

DATE	REVISED BY
6/05	DAVID PADILLA

DATE	REVISED
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY
CHECKED BY

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

USERNAME => s123048
DGN FILE => 712088ua014.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:08

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	68	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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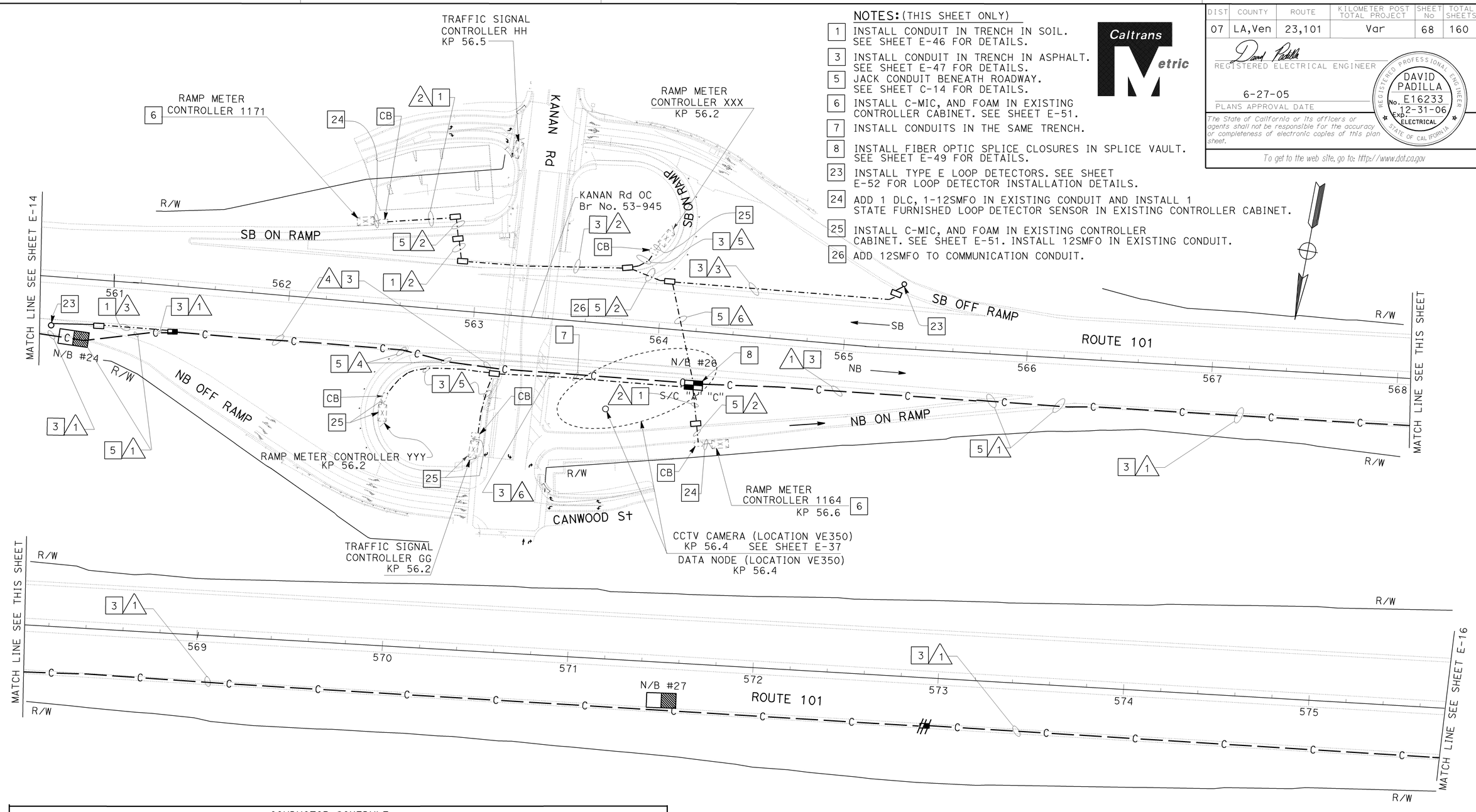
To get to the web site, go to: http://www.dot.ca.gov

Caltrans Metric

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC, AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL CONDUITS IN THE SAME TRENCH.
8. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC, 1-12SMFO IN EXISTING CONDUIT AND INSTALL 1 STATE FURNISHED LOOP DETECTOR SENSOR IN EXISTING CONTROLLER CABINET.
25. INSTALL C-MIC, AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51. INSTALL 12SMFO IN EXISTING CONDUIT.
26. ADD 12SMFO TO COMMUNICATION CONDUIT.



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					2	3	RUN 4					5	6
12SMFO CABLE	VOICE/DATA						1							1	2
48SMFO CABLE	VOICE/DATA	1							1						
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1							1					
48SMFO CABLE	VIDEO DISTRIBUTION			1							1				
DLC CABLE							1	1				1			
	SIZE 25 INNERDUCT	1	1	1	1				1	1	1	1			
CONDUIT SIZE		103				103	53	53	103				103	53	53

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-15

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
DAVID PADILLA	DAVID PADILLA	6/05		6/05

PROJECT ENGINEER — DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — ITS DESIGN

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

USERNAME => s123048
DGN FILE => 712088ua015.dgn

CU 07388 EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:08

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	69	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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To get to the Caltrans web site, go to: http://www.dot.ca.gov

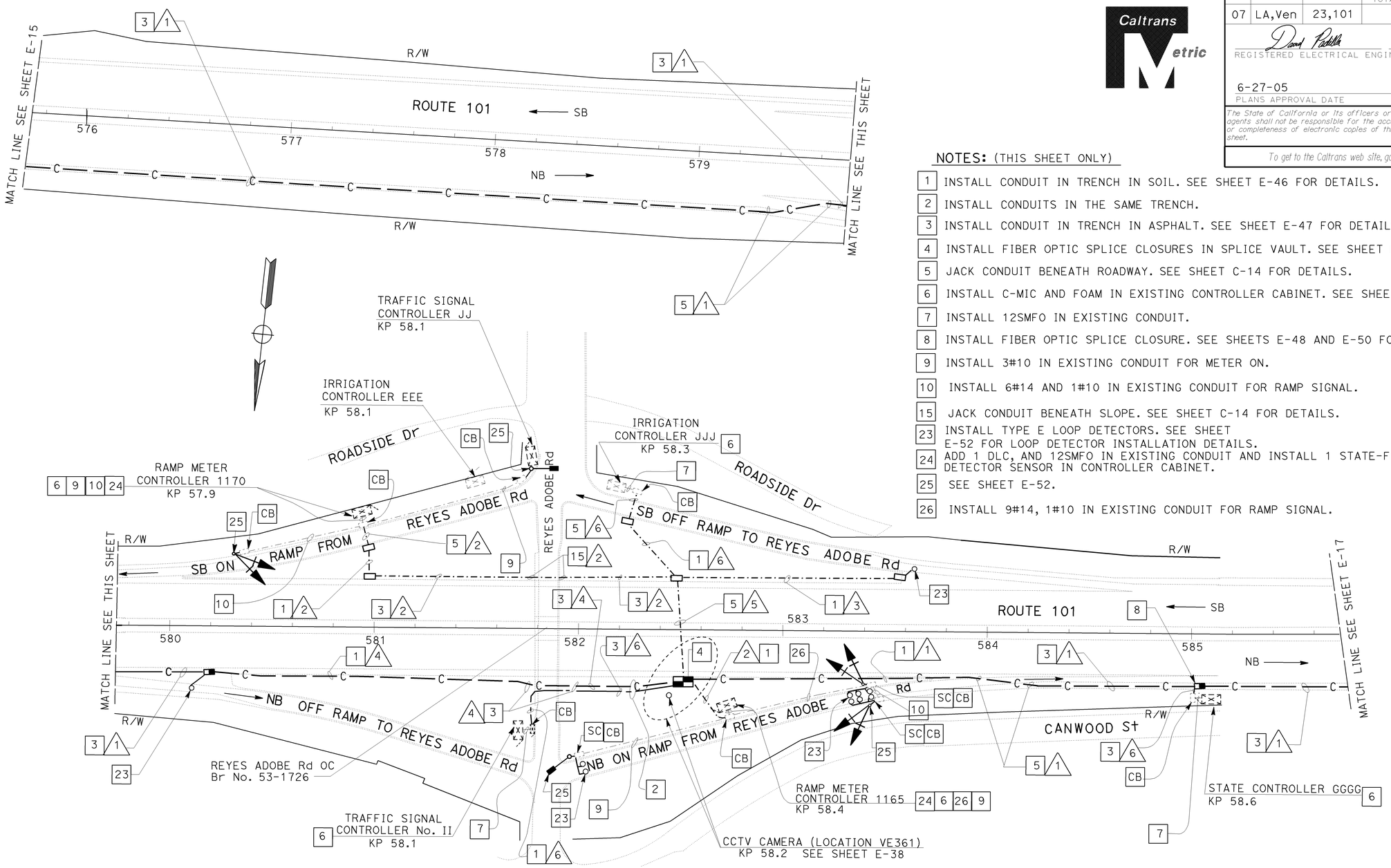
DATE	REVISED BY
6/05	DAVID PADILLA

DATE	DATE REVISED
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ITS DESIGN



NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
2. INSTALL CONDUITS IN THE SAME TRENCH.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL 12SMFO IN EXISTING CONDUIT.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON.
10. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT FOR RAMP SIGNAL.
15. JACK CONDUIT BENEATH SLOPE. SEE SHEET C-14 FOR DETAILS.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC, AND 12SMFO IN EXISTING CONDUIT AND INSTALL 1 STATE-FURNISHED LOOP DETECTOR SENSOR IN CONTROLLER CABINET.
25. SEE SHEET E-52.
26. INSTALL 9#14, 1#10 IN EXISTING CONDUIT FOR RAMP SIGNAL.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6
12SMFO CABLE	VOICE/DATA		1			2	1
48SMFO CABLE	VOICE/DATA	1			1		
48SMFO CABLE	MULTIPLEXED DATA/VIDEO	1			1		
48SMFO CABLE	VIDEO DISTRIBUTION	1			1		
DLC CABLE			1	1	1		
	SIZE 25 INNERDUCT	1 1 1 1			1 1 1 1		
CONDUIT SIZE		103	53	53	103	103	53

AS-BUILT
Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-16

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:08

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

USERNAME => s123048
DGN FILE => 712088ua016.dgn

CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	69A	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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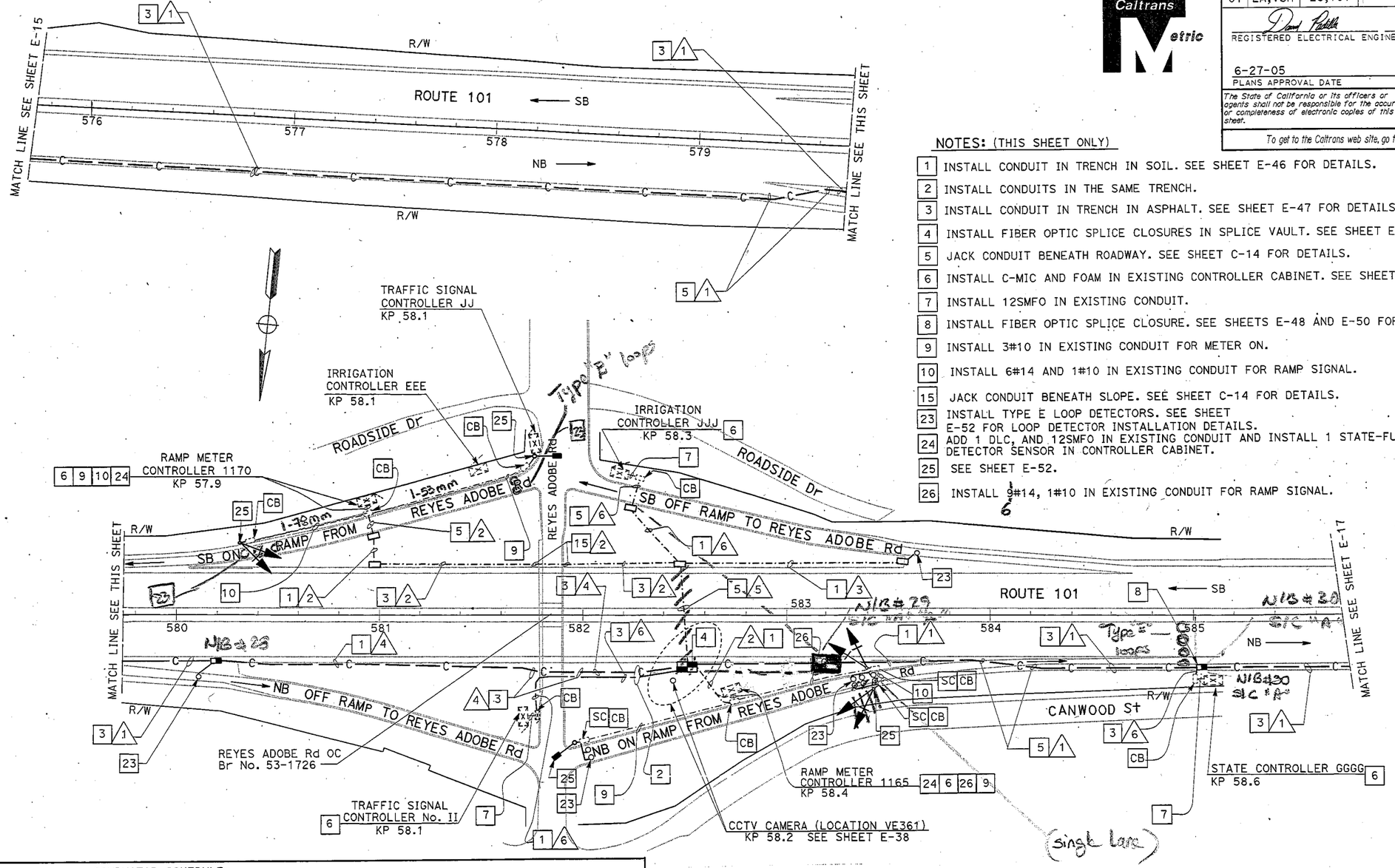


NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
2. INSTALL CONDUITS IN THE SAME TRENCH.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL 12SMFO IN EXISTING CONDUIT.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON.
10. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT FOR RAMP SIGNAL.
15. JACK CONDUIT BENEATH SLOPE. SEE SHEET C-14 FOR DETAILS.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC, AND 12SMFO IN EXISTING CONDUIT AND INSTALL 1 STATE-FURNISHED LOOP DETECTOR SENSOR IN CONTROLLER CABINET.
25. SEE SHEET E-52.
26. INSTALL 6#14, 1#10 IN EXISTING CONDUIT FOR RAMP SIGNAL.

CONDUCTOR SCHEDULE															
CONDUCTOR TYPE	FUNCTION	RUN													
		1					2	3	4					5	6
12SMFO CABLE	VOICE/DATA						1							2	1
48SMFO CABLE	VOICE/DATA	1							1						
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1							1					
48SMFO CABLE	VIDEO DISTRIBUTION			1							1				
DLC CABLE							1	1				1			
	SIZE 25 INNERDUCT	1	1	1	1				1	1	1	1			
CONDUIT SIZE		103				103	53	53	103				103	103	53

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-16

CALCULATED/ DESIGNED BY	CHECKED BY
DAVID PADILLA	DAVID PADILLA

DATE	REVISED BY
6/05	DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
PROJECT ENGINEER
DAVID PADILLA
ITS DESIGN

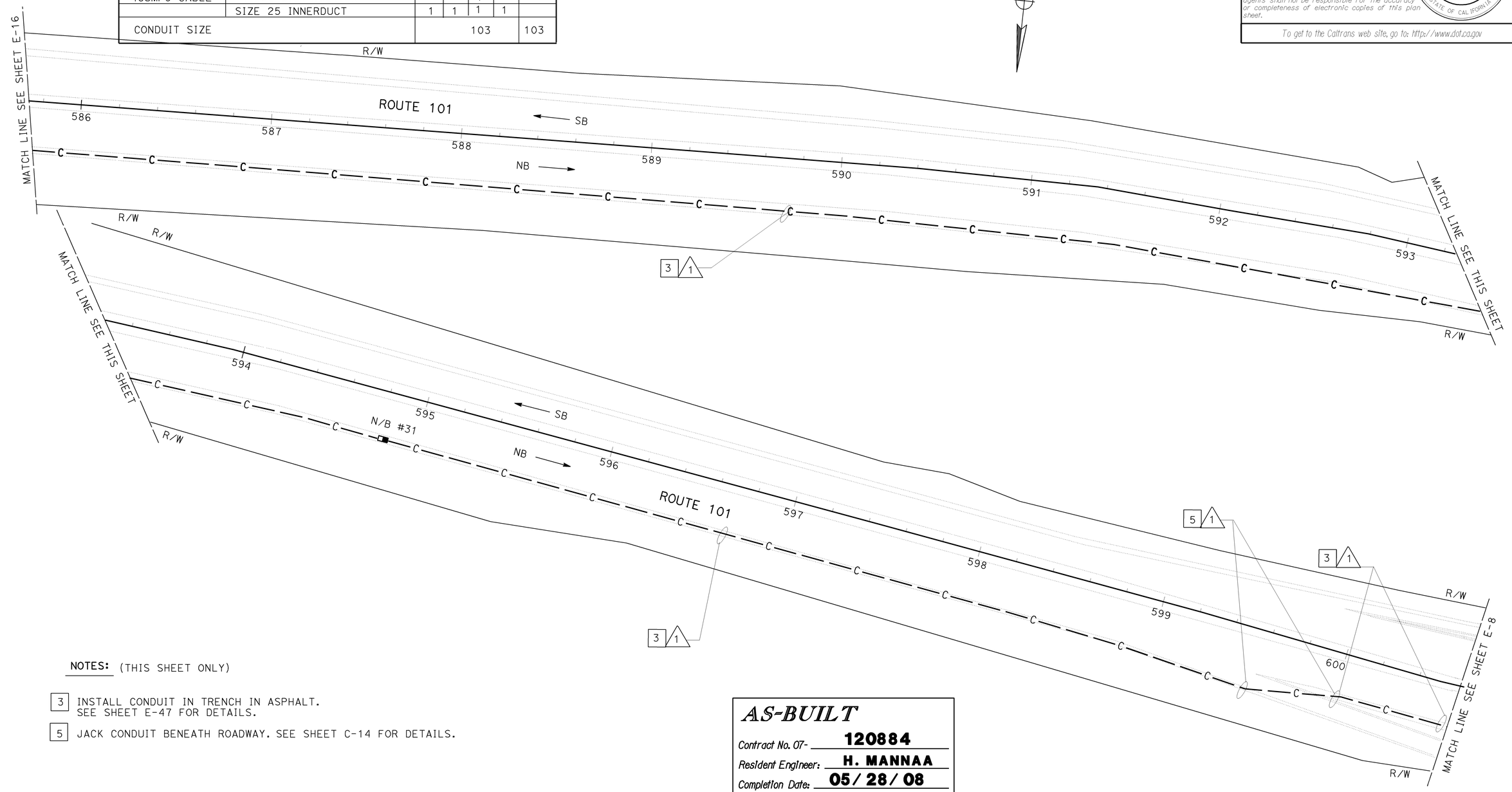
LAST REVISION 00-00-00
DATE PLOTTED => 08-JUL-2005
TIME PLOTTED => 09:19

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

USERNAME => trlenard
DGN FILE => 712088uc016.dgn

CU 07388 | EA 120881

CONDUCTOR SCHEDULE						
CONDUCTOR TYPE	FUNCTION	RUN 1				
48SMFO CABLE	VOICE/DATA	1				
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1			
48SMFO CABLE	VIDEO DISTRIBUTION			1		
	SIZE 25 INNERDUCT	1	1	1	1	
CONDUIT SIZE		103				103



NOTES: (THIS SHEET ONLY)

3 INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

5 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE 1:1000

E-17

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	70	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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DATE	REVISED BY
6-05	6-05

CALCULATED/ DESIGNED BY	CHECKED BY
DAVID PADILLA	DAVID PADILLA

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:08

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USERNAME => s123048
DGN FILE => 71208ug017.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	71	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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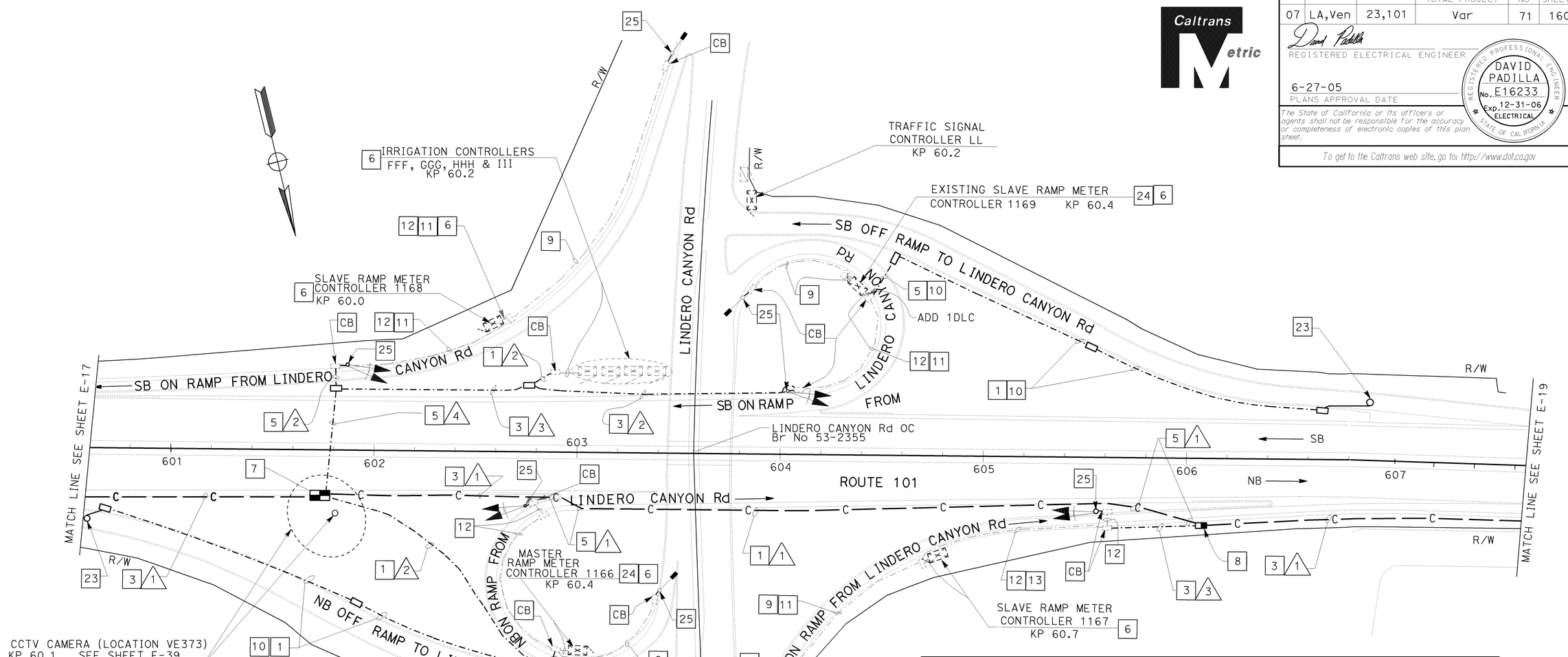
DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
6-05	DAVID PADILLA	DAVID PADILLA	DAVID PADILLA
6-05	DATE REVISED		

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ITS DESIGN
Caltrans



NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. ADD 12SMFO CABLE TO EXISTING CONDUIT AND INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
10. INSTALL 53C, 1 DLC.
11. INSTALL 12SMFO IN EXISTING CONDUIT.
12. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT.
13. INSTALL 2-12SMFO IN EXISTING CONDUIT.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC IN EXISTING CONDUIT AND INSTALL 1 STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.
25. SEE SHEET E-52.
26. INSTALL 53C, 1 DLC, 12SMFO.

CONDUCTOR SCHEDULE									
CONDUCTOR TYPE	FUNCTION	RUN 1					2	3	4
12SMFO CABLE	VOICE/DATA						1	2	3
48SMFO CABLE	VOICE/DATA	1							
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1						
48SMFO CABLE	VIDEO DISTRIBUTION			1					
	SIZE 25 INNERDUCT	1	1	1	1				
CONDUIT SIZE		103				103	53	103	103

AS-BUILT
Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-18

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USERNAME => s123048
DGN FILE => 712088ua018.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:08

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	71	160

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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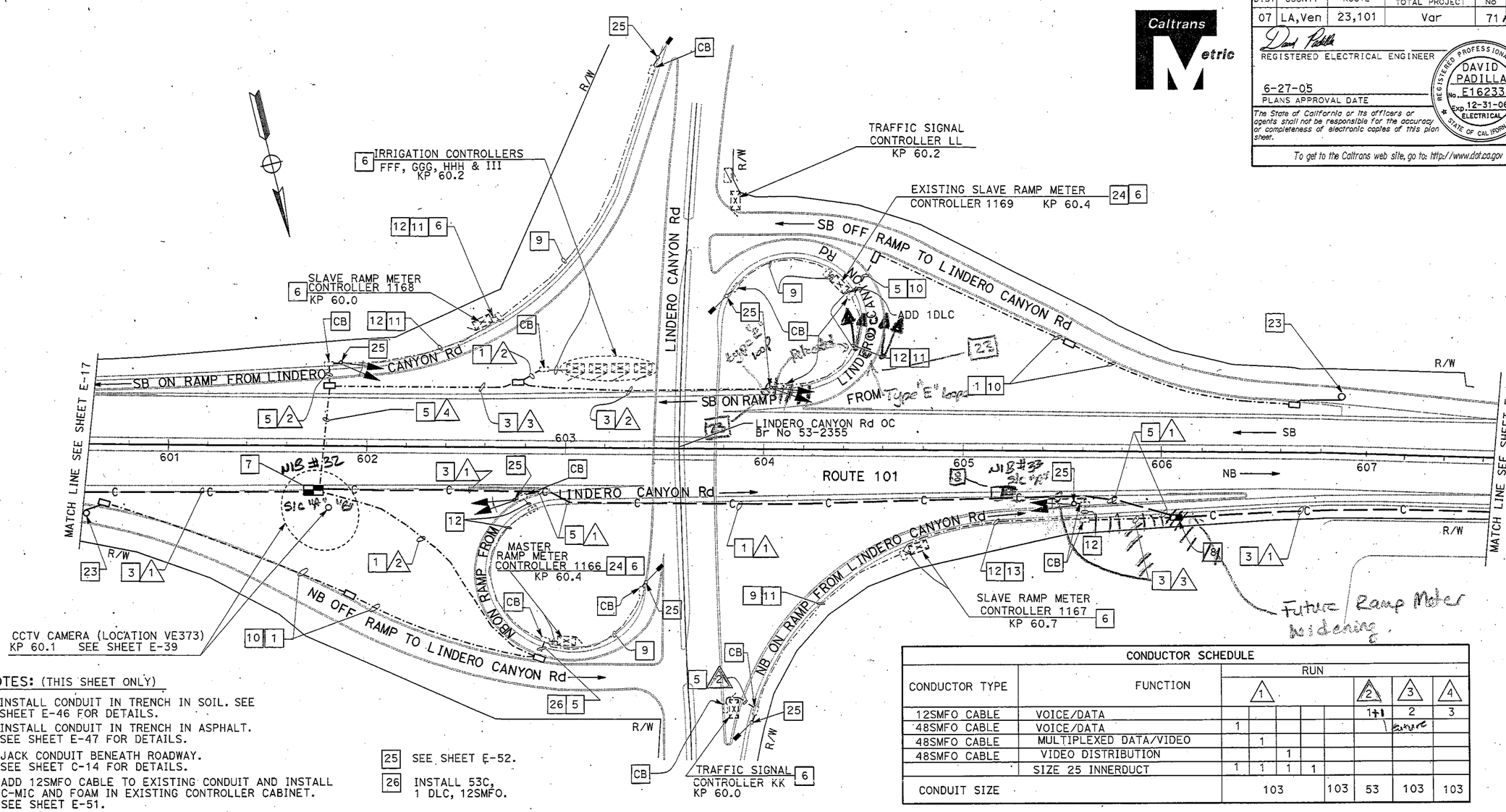
DATE	REVISED BY
6-05	DATE REVISED
CALCULATED/ DESIGNED BY	DAVID PADILLA
CHECKED BY	DAVID PADILLA
PROJECT ENGINEER	DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN



NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. ADD 12SMFO CABLE TO EXISTING CONDUIT AND INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT. SEE SHEET E-49 FOR DETAILS.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
10. INSTALL 53C, 1 DLC.
11. INSTALL 12SMFO IN EXISTING CONDUIT.
12. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT.
13. INSTALL 2-12SMFO IN EXISTING CONDUIT.
23. INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
24. ADD 1 DLC IN EXISTING CONDUIT AND INSTALL 1 STATE-FURNISHED LOOP DETECTOR SENSORS IN EXISTING CONTROLLER CABINET.
25. SEE SHEET E-52.
26. INSTALL 53C, 1 DLC, 12SMFO.

CONDUCTOR SCHEDULE									
CONDUCTOR TYPE	FUNCTION	RUN 1				2	3	3	4
12SMFO CABLE	VOICE/DATA					1+1	2		3
48SMFO CABLE	VOICE/DATA	1					Spare		
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1						
48SMFO CABLE	VIDEO DISTRIBUTION			1					
	SIZE 25 INNERDUCT	1	1	1	1				
CONDUIT SIZE		103				103	53	103	103

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-18

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USERNAME => trienard
DGN FILE => 712088ud018.dgn

CU 07388 | EA 120881

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CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN 1					
48SMFO CABLE	VOICE/DATA	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103					103

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	72	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
Exp. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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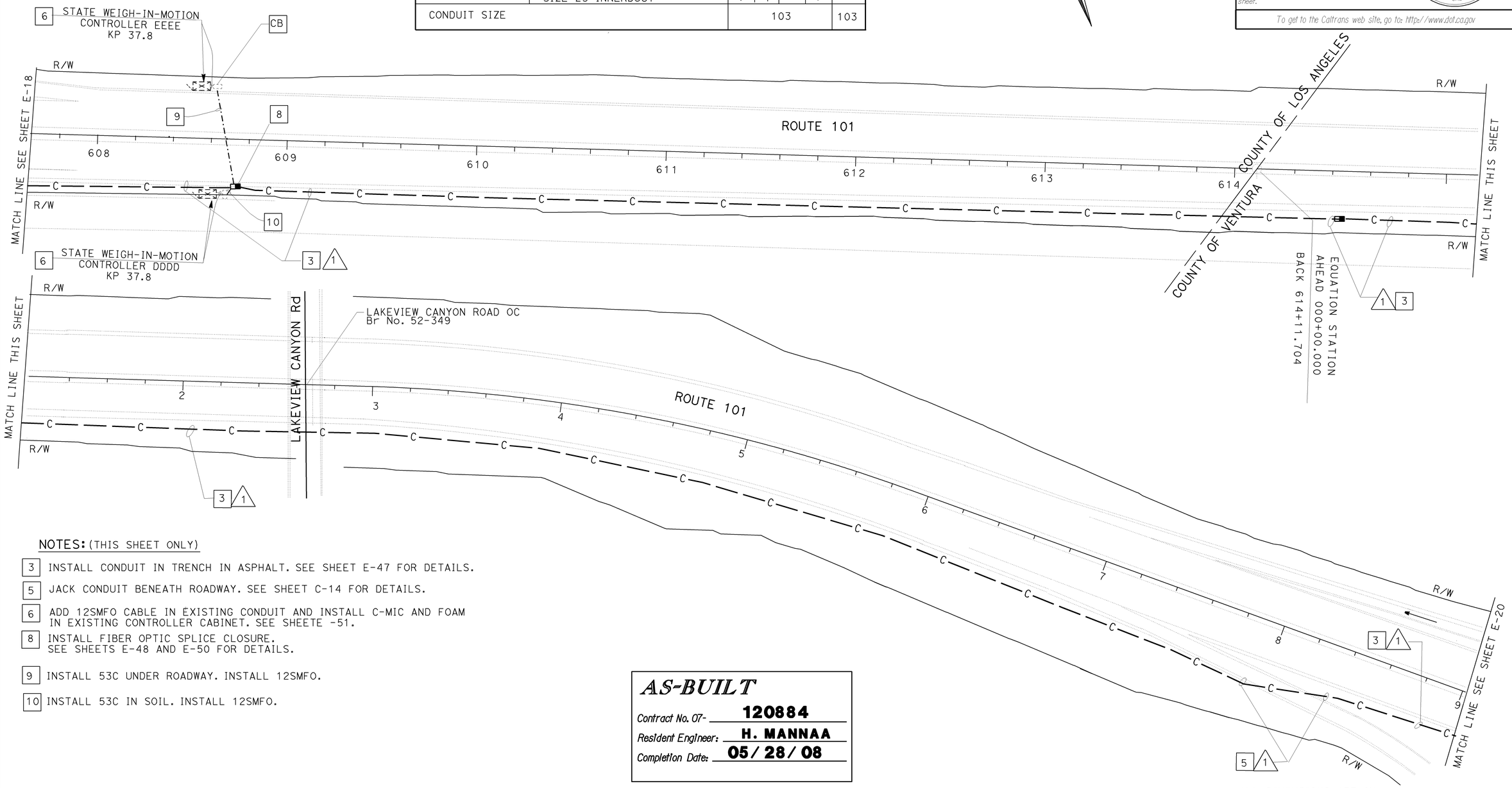

NOTES: (THIS SHEET ONLY)

3 INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

5 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

6 ADD 12SMFO CABLE IN EXISTING CONDUIT AND INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEETE -51.

8 INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.

9 INSTALL 53C UNDER ROADWAY. INSTALL 12SMFO.

10 INSTALL 53C IN SOIL. INSTALL 12SMFO.

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-19

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE REVISED
6-05	DAVID PADILLA	6-05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => s123048
DGN FILE => 712088ua019.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:08

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	72	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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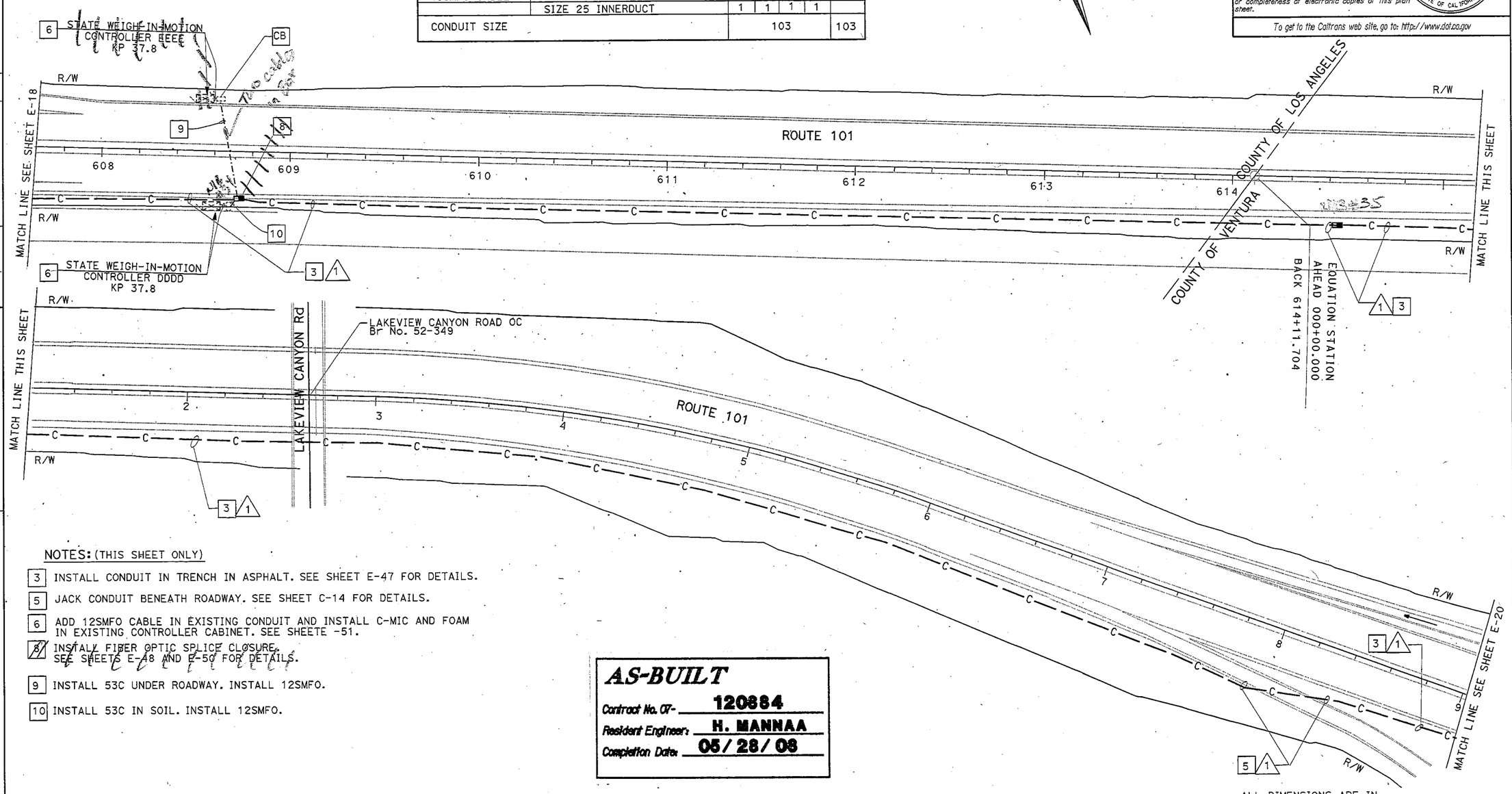
CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN 1					
48SMFO CABLE	VOICE/DATA	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	



NOTES: (THIS SHEET ONLY)

3 INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

5 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

6 ADD 12SMFO CABLE IN EXISTING CONDUIT AND INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEETE -51.

8 INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.

9 INSTALL 53C UNDER ROADWAY. INSTALL 12SMFO.

10 INSTALL 53C IN SOIL. INSTALL 12SMFO.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-19

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USERNAME => trlenard
DGN FILE => 712088ud019.dgn

CU 07388 | EA 120881

DATE	REVISED BY	DATE REVISED
6-05	DAVID PADILLA	6-05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 05-JUL-2005 | TIME PLOTTED => 07:12

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	73	160

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

Caltrans Metric

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA No. E16233 Exp.12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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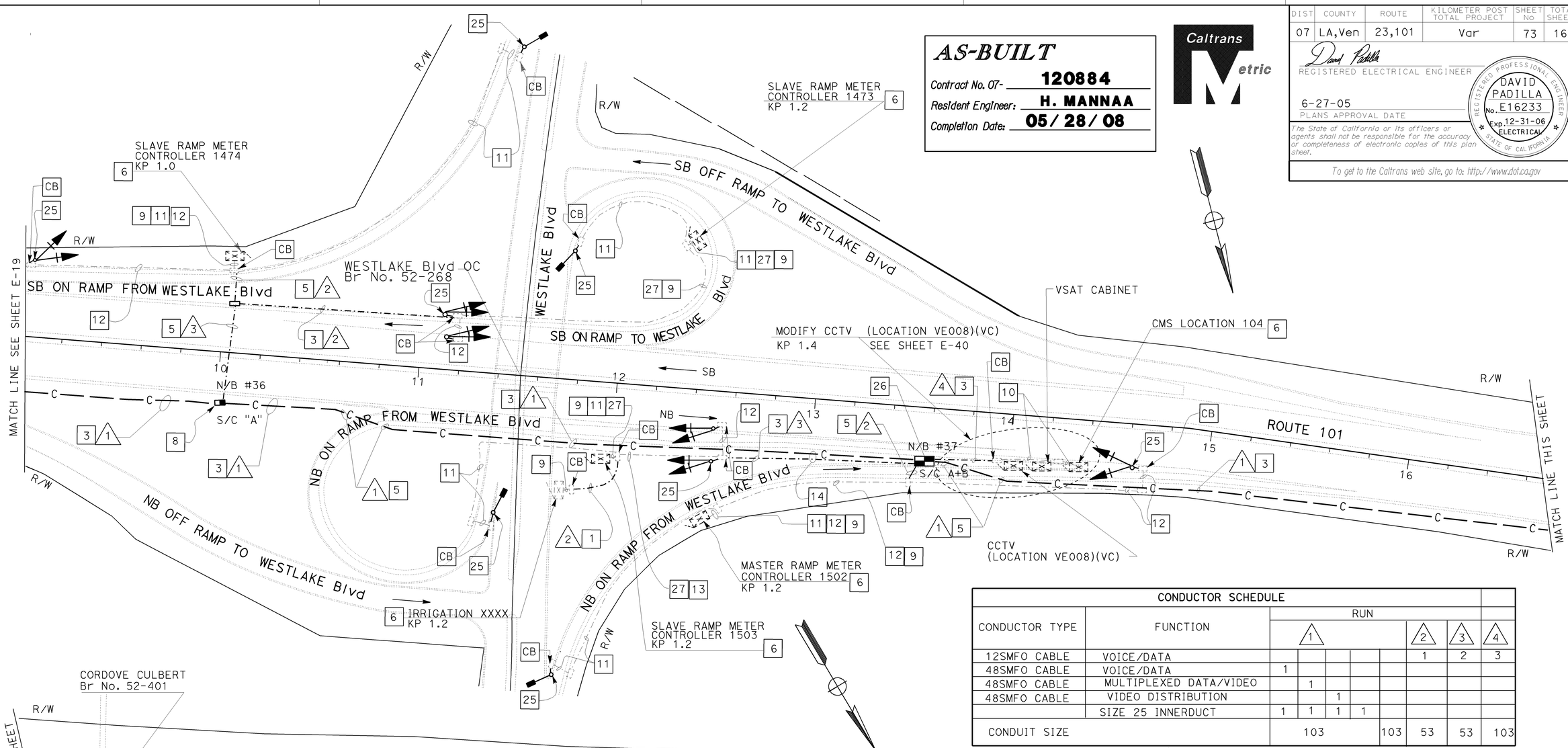

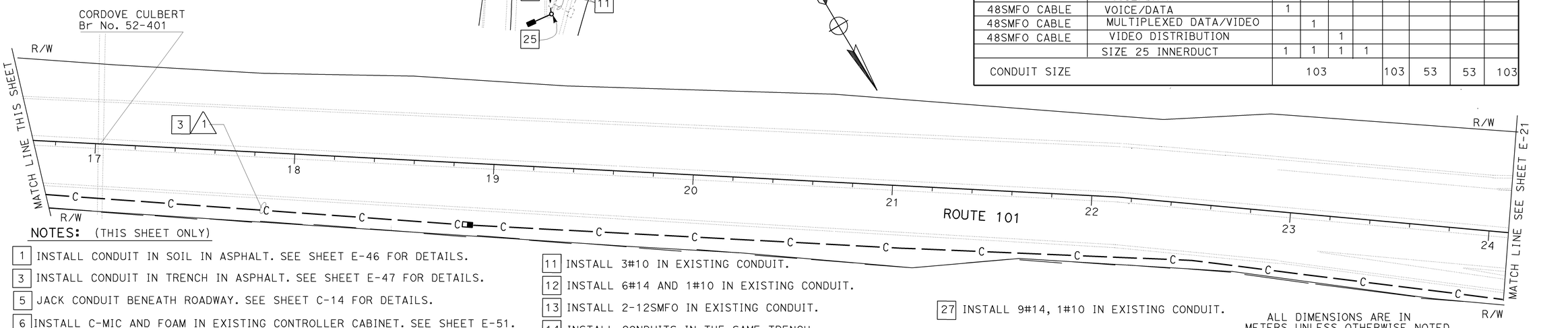

CONDUCTOR SCHEDULE									
CONDUCTOR TYPE	FUNCTION	RUN 1					2	3	4
12SMFO CABLE	VOICE/DATA						1	2	3
48SMFO CABLE	VOICE/DATA	1							
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1						
48SMFO CABLE	VIDEO DISTRIBUTION			1					
	SIZE 25 INNERDUCT	1	1	1	1				
CONDUIT SIZE		103				103	53	53	103

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN SOIL IN ASPHALT. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51. ADD 12SMFO AND CONNECT TO CONTROLLER.
8. INSTALL FIBER OPTIC SPLICE CLOSURE.
9. ADD 12SMFO IN EXISTING CONDUIT.
10. RC 12P22 CABLE. INSTALL 1-12SMFO IN EXISTING CONDUIT.
11. INSTALL 3#10 IN EXISTING CONDUIT.
12. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT.
13. INSTALL 2-12SMFO IN EXISTING CONDUIT.
14. INSTALL CONDUITS IN THE SAME TRENCH.
25. SEE SHEET E-52.
26. INSTALL FIBER OPTIC SPLICE CLOSURES IN SPLICE VAULT SEE SHEET E-49 FOR DETAILS.
27. INSTALL 9#14, 1#10 IN EXISTING CONDUIT.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-20

DATE	REVISED BY	DATE REVISED
6-05	DAVID PADILLA	6-05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
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USERNAME => s123048
DGN FILE => 712088ua020.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:08

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	74	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp.12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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DATE	REVISED BY
6-05	DAVID PADILLA

DATE	REVISED BY
6-05	DAVID PADILLA

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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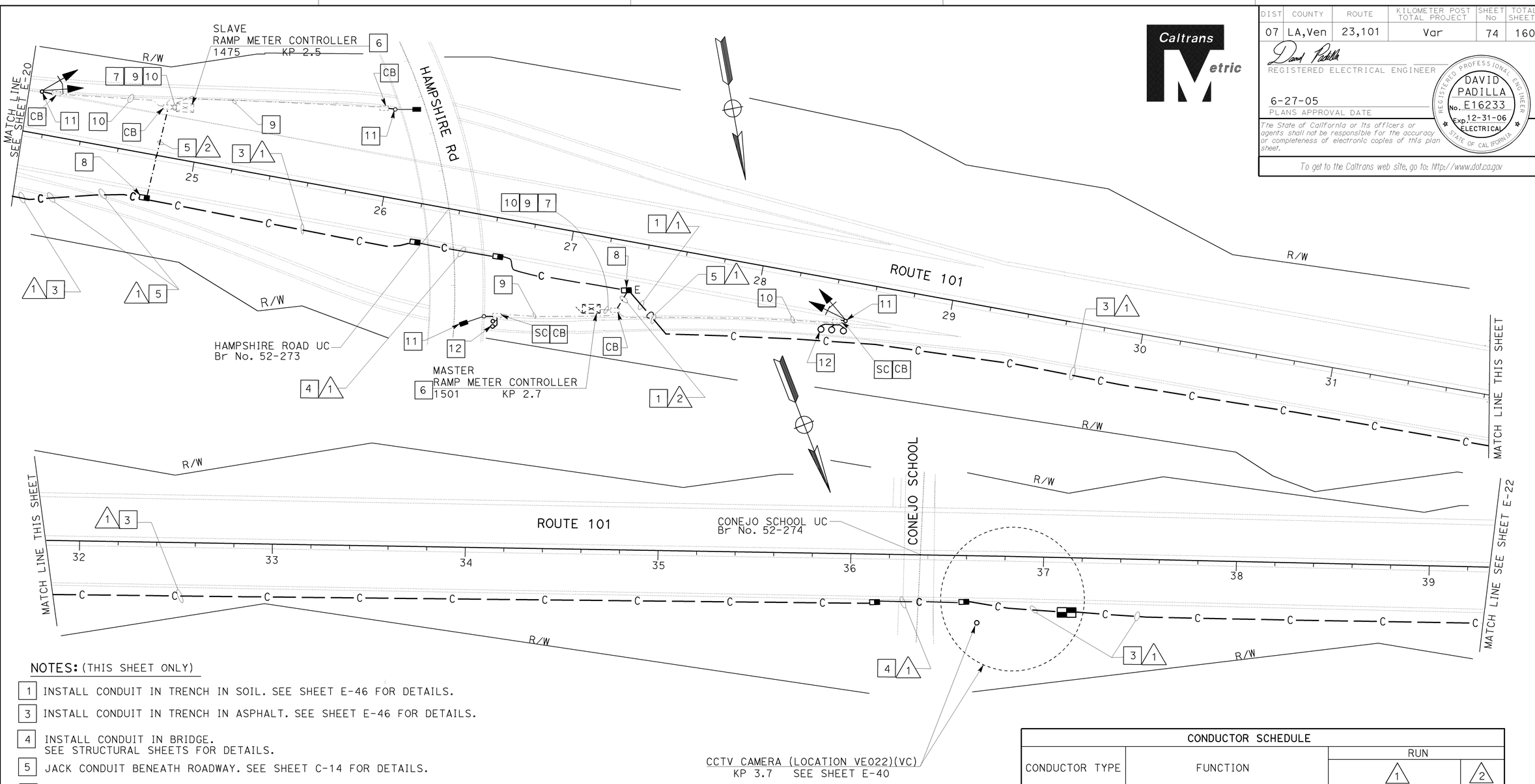

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-46 FOR DETAILS.
4. INSTALL CONDUIT IN BRIDGE. SEE STRUCTURAL SHEETS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FODM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. ADD 1-12SMFO IN EXISTING CONDUIT AND CONNECT TO CONTROLLER.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
10. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT FOR RAMP METER SIGNAL.
11. SEE SHEET E-52.
12. INSTALL TYPE E DETECTOR LOOPS. SEE SHEET E-52.

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2
12SMFO CABLE	VOICE/DATA						1
48SMFO CABLE	VOICE/DATA	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-21

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DGN FILE => 712088ua021.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	74	A160

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL STATE OF CALIFORNIA

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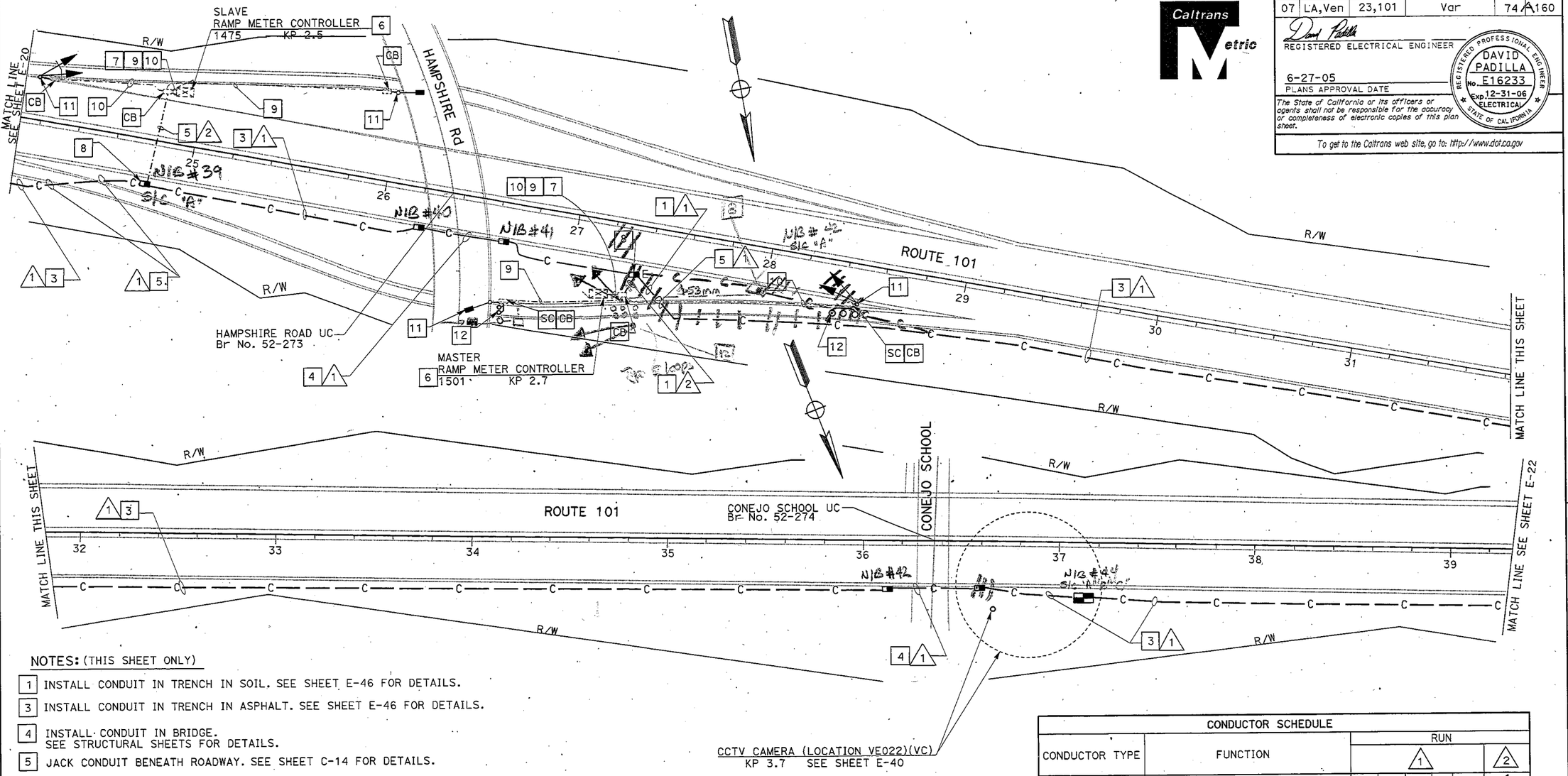

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-46 FOR DETAILS.
4. INSTALL CONDUIT IN BRIDGE. SEE STRUCTURAL SHEETS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FODM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. ADD 1-12SMFO IN EXISTING CONDUIT AND CONNECT TO CONTROLLER.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
10. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT FOR RAMP METER SIGNAL.
11. SEE SHEET E-52.
12. INSTALL TYPE E DETECTOR LOOPS. SEE SHEET E-52.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2
12SMFO CABLE	VOICE/DATA						1
48SMFO CABLE	VOICE/DATA	1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO		1				
48SMFO CABLE	VIDEO DISTRIBUTION			1			
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE: 1:1000

E-21

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

PROJECT ENGINEER: DAVID PADILLA
CALCULATED/DESIGNED BY: DAVID PADILLA DATE 6-05
CHECKED BY: DAVID PADILLA DATE 6-05
REVISED BY
DATE REVISED

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

USERNAME => trlenard
DGN FILE => 712088uc021.dgn

CU 07388 EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 07-JUL-2005
TIME PLOTTED => 07:03

CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN 1					2
12SMFO CABLE							1
48SMFO CABLE	VOICE/DATA		1				
48SMFO CABLE	MULTIPLEXED DATA/VIDEO			1			
48SMFO CABLE	VIDEO DISTRIBUTION				1		
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	103

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	75	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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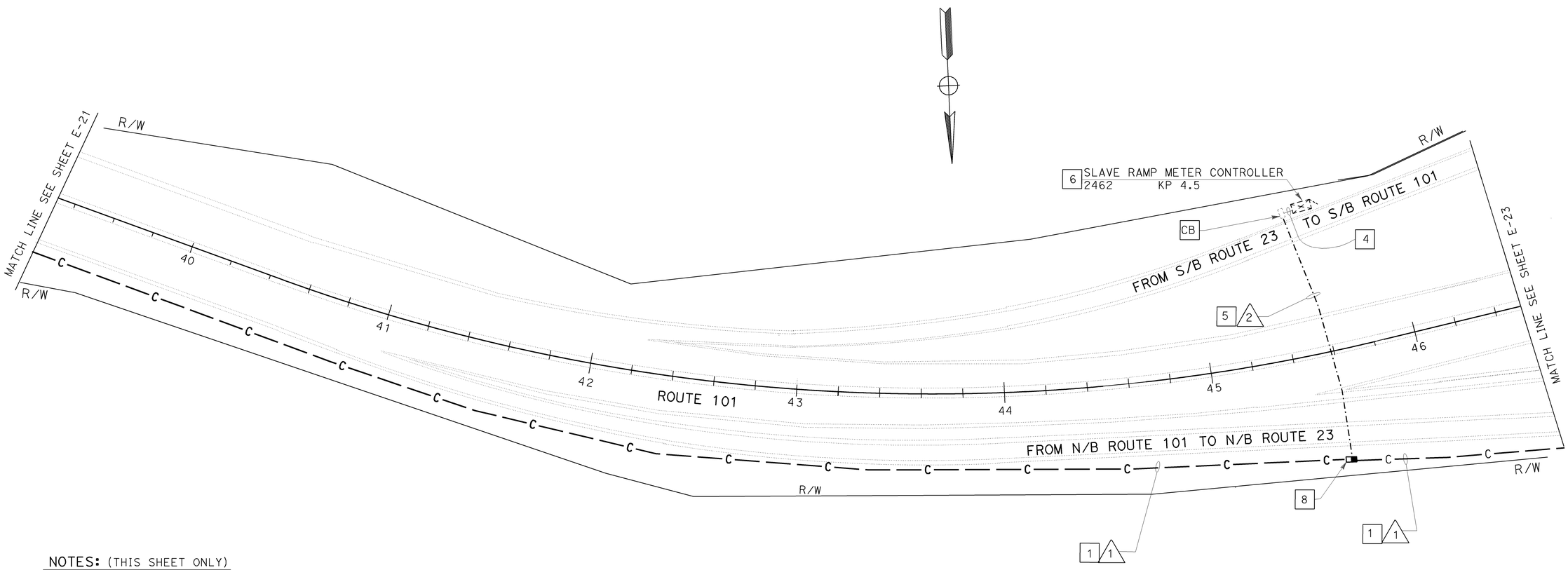


NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. ADD 12SMFO IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-22

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6-05	6-05 DATE REVISED

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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

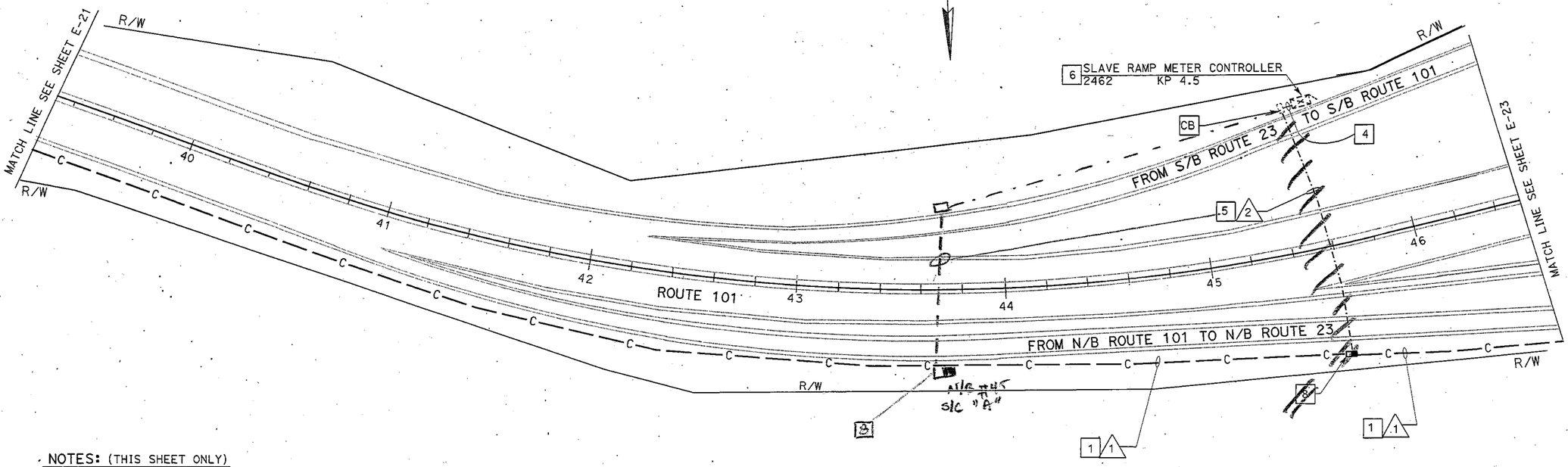
USERNAME => s123048
DGN FILE => 712088ua022.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:08

CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN					△1	△2
12SMFO CABLE								1
48SMFO CABLE	VOICE/DATA		1					
48SMFO CABLE	MULTIPLEXED DATA/VIDEO			1				
48SMFO CABLE	VIDEO DISTRIBUTION				1			
	SIZE 25 INNERDUCT	1	1	1	1			
CONDUIT SIZE		103					103	103



NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. ADD 12SMFO IN EXISTING CONDUIT AND CONNECT TO EXISTING CONTROLLER CABINET.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-22

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USERNAME => trienard
DGN FILE => 712088uc022.dgn

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	75A	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL STATE OF CALIFORNIA

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DATE	REVISED BY
6-05	DATE REVISED
CALCULATED/DESIGNED BY	DAVID PADILLA
CHECKED BY	DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DESIGN

PROJECT ENGINEER
DAVID PADILLA

CU 07388 | EA 120881

LAST REVISION 00-00-00 | DATE PLOTTED => 05-JUL-2005 | TIME PLOTTED => 08:07

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	76	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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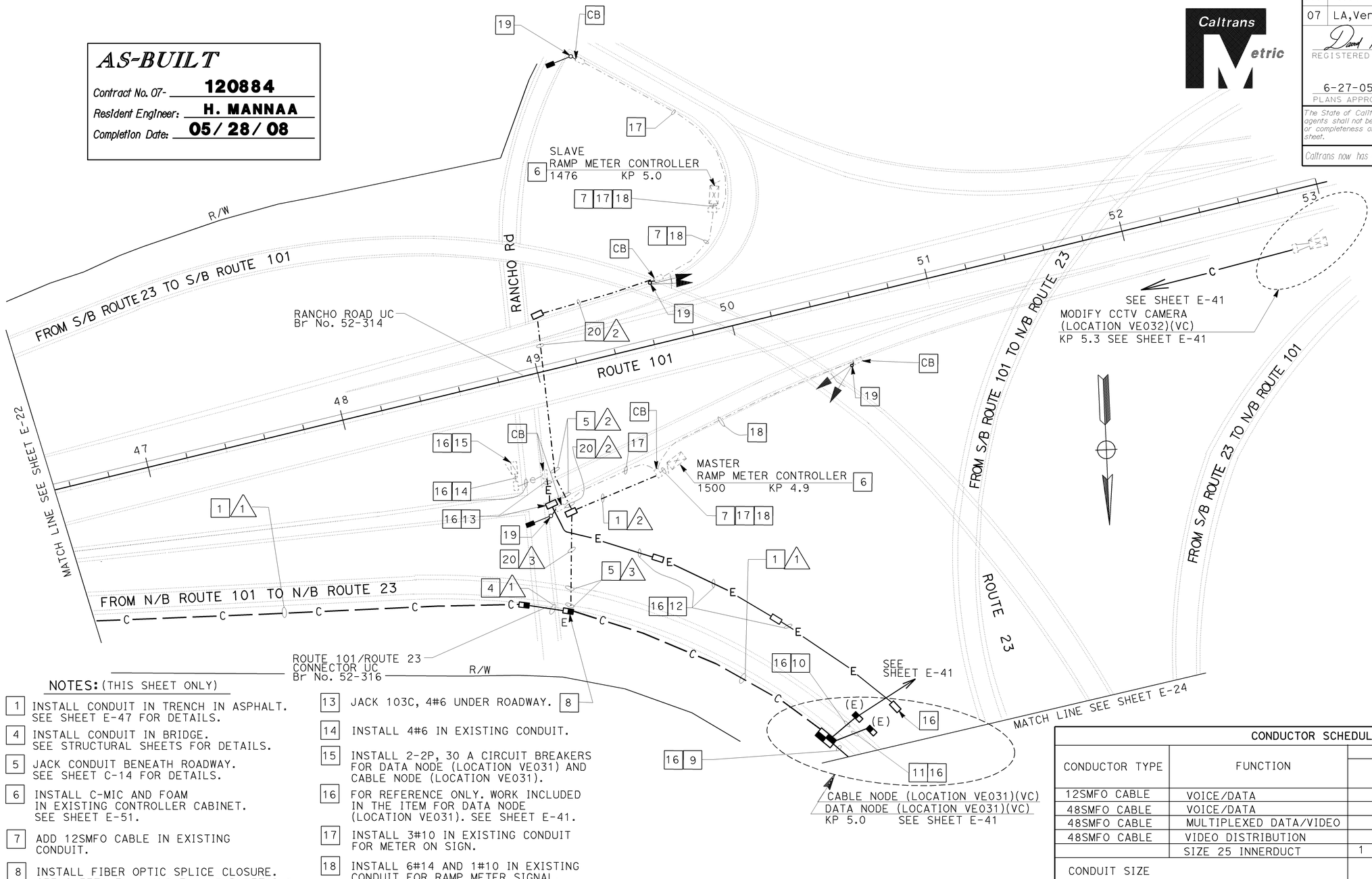

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN BRIDGE. SEE STRUCTURAL SHEETS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. ADD 12SMFO CABLE IN EXISTING CONDUIT.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 2-103C IN ASPHALT. INSTALL 2-72SMFO AND 1-48SMFO FROM EXISTING SPLICE VAULT AT STATION 34+40. SEE SHEET E-24.
10. JACK 2-103C UNDER ROADWAY. INSTALL 48SMFO AND 72SMFO.
11. JACK 2-103C UNDER ROADWAY. INSTALL 3-48SMFO AND 1-72SMFO.
12. INSTALL 103C, 4#6 TRENCH IN SOIL.
13. JACK 103C, 4#6 UNDER ROADWAY.
14. INSTALL 4#6 IN EXISTING CONDUIT.
15. INSTALL 2-2P, 30 A CIRCUIT BREAKERS FOR DATA NODE (LOCATION VE031) AND CABLE NODE (LOCATION VE031).
16. FOR REFERENCE ONLY. WORK INCLUDED IN THE ITEM FOR DATA NODE (LOCATION VE031). SEE SHEET E-41.
17. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
18. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT FOR RAMP METER SIGNAL.
19. SEE SHEET E-52.
20. INSTALL CONDUIT IN SOIL. SEE SHEET E-46 FOR DETAILS.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA					1	2
48SMFO CABLE	VOICE/DATA		1				
48SMFO CABLE	MULTIPLEXED DATA/VIDEO			1			
48SMFO CABLE	VIDEO DISTRIBUTION				1		
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-23

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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

USERNAME => s123048
DGN FILE => 712088ua023.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:09

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA,Ven	23,101	Var	76	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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Caltrans Metric

DATE	REVISED BY
6/05	DAVID PADILLA

DATE	DATE REVISED
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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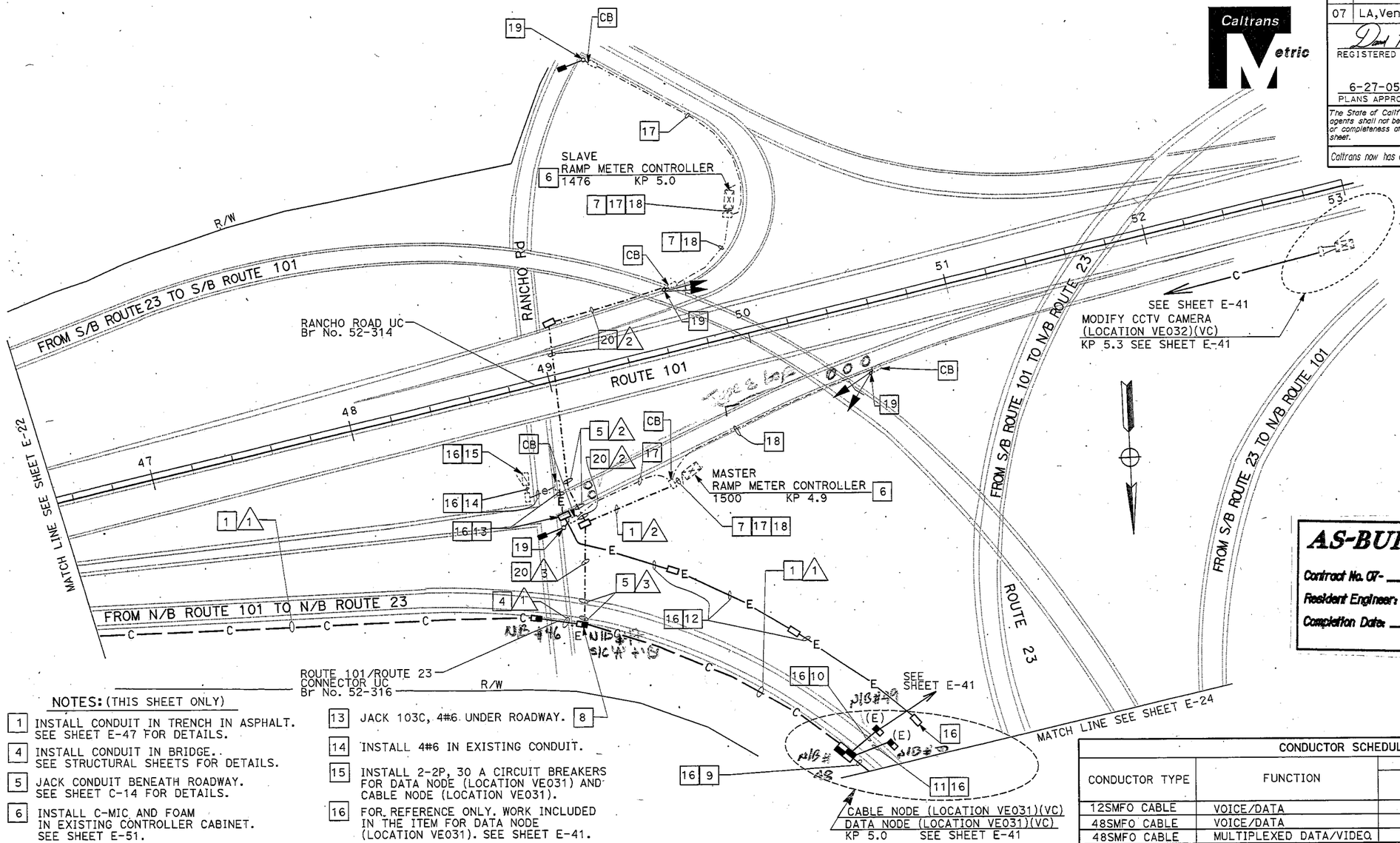
ITS DESIGN



AS-BUILT

Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL CONDUIT IN BRIDGE. SEE STRUCTURAL SHEETS FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
6. INSTALL C-MIC AND FOAM IN EXISTING CONTROLLER CABINET. SEE SHEET E-51.
7. ADD 12SMFO CABLE IN EXISTING CONDUIT.
8. INSTALL FIBER OPTIC SPLICE CLOSURE. SEE SHEETS E-48 AND E-50 FOR DETAILS.
9. INSTALL 2-103C IN ASPHALT. INSTALL 2-72SMFO AND 1-48SMFO FROM EXISTING SPLICE VAULT AT STATION 34+40. SEE SHEET E-24.
10. JACK 2-103C UNDER ROADWAY. INSTALL 48SMFO AND 72SMFO.
11. JACK 2-103C UNDER ROADWAY. INSTALL 3-48SMFO AND 1-72SMFO.
12. INSTALL 103C, 4#6 TRENCH IN SOIL.
13. JACK 103C, 4#6 UNDER ROADWAY.
14. INSTALL 4#6 IN EXISTING CONDUIT.
15. INSTALL 2-2P, 30 A CIRCUIT BREAKERS FOR DATA NODE (LOCATION VE031) AND CABLE NODE (LOCATION VE031).
16. FOR REFERENCE ONLY. WORK INCLUDED IN THE ITEM FOR DATA NODE (LOCATION VE031). SEE SHEET E-41.
17. INSTALL 3#10 IN EXISTING CONDUIT FOR METER ON SIGN.
18. INSTALL 6#14 AND 1#10 IN EXISTING CONDUIT FOR RAMP METER SIGNAL.
19. SEE SHEET E-52.
20. INSTALL CONDUIT IN SOIL. SEE SHEET E-46 FOR DETAILS.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1				RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA					1	2
48SMFO CABLE	VOICE/DATA		1				
48SMFO CABLE	MULTIPLEXED DATA/VIDEO			1			
48SMFO CABLE	VIDEO DISTRIBUTION				1		
	SIZE 25 INNERDUCT	1	1	1	1		
CONDUIT SIZE		103				103	53	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-23

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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

USERNAME => trstrk
DGN FILE => 712088ua023.dgn

CU 07388 | EA 120881

LAST REVISION 00-00-00 | DATE PLOTTED => 05-JUL-2005 | TIME PLOTTED => 09:53

NOTES: (THIS SHEET ONLY)

3 INSTALL 2-103C IN TRENCH IN ASPHALT.
SEE SHEET E-47 FOR DETAILS.

6 INSTALL 2-103C IN BRIDGE STRUCTURE SEE STRUCTURE PLANS FOR DETAILS.

7 INSTALL COILED 2-72SMFO AND 48SMFO FROM EXISTING SPLICE VAULT AT STATION 34+40 TO CABLE NODE (LOCATION VE031) AND DATA NODE (LOCATION VE031).

8 INCLUDED IN ON-GOING CONTRACT.

9 FOR REFERENCE ONLY. CABLE WORK INCLUDED IN THE ITEM FOR DATA NODE (LOCATION VE031). SEE SHEET E-41.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05 / 28 / 08

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	77	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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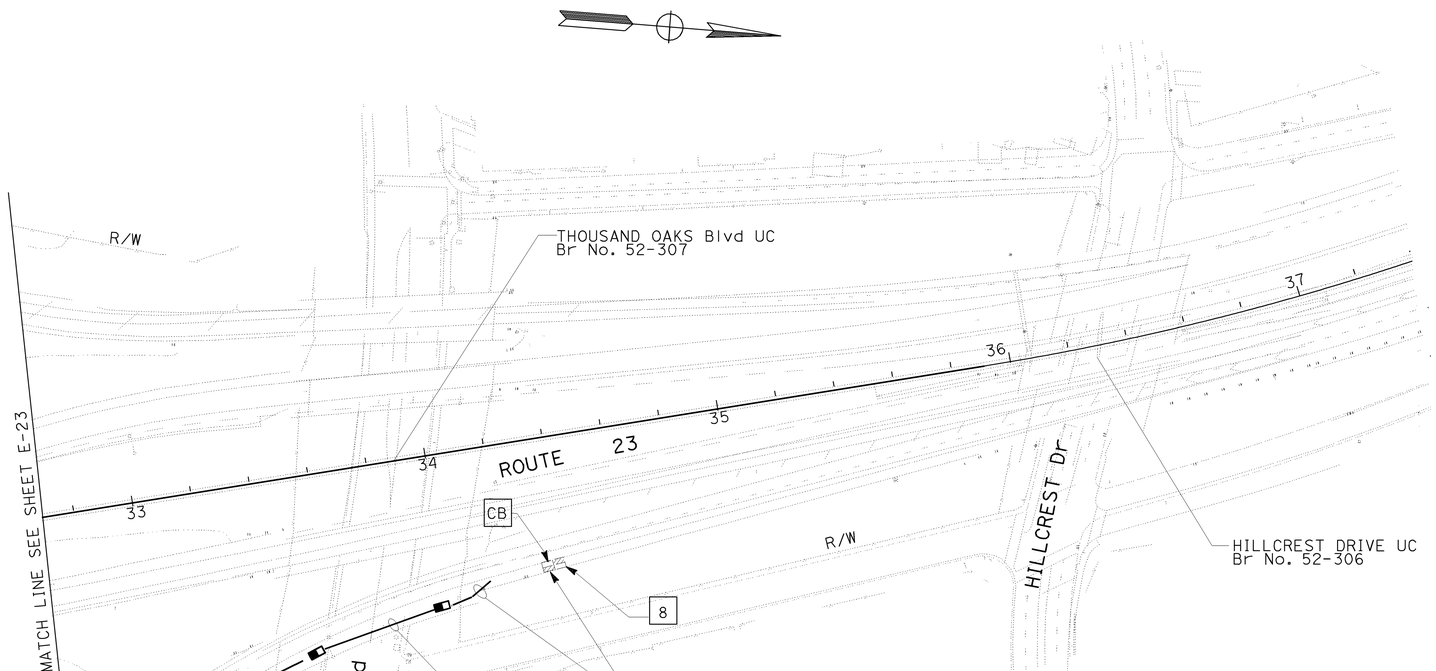

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-24

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	CALCULATED/ DESIGNED BY	PROJECT ENGINEER
6/05	DAVID PADILLA	DAVID PADILLA	DAVID PADILLA
DATE REVISED		CHECKED BY	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 712088ua024.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:09

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	77	160

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
EXP. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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NOTES:(THIS SHEET ONLY)

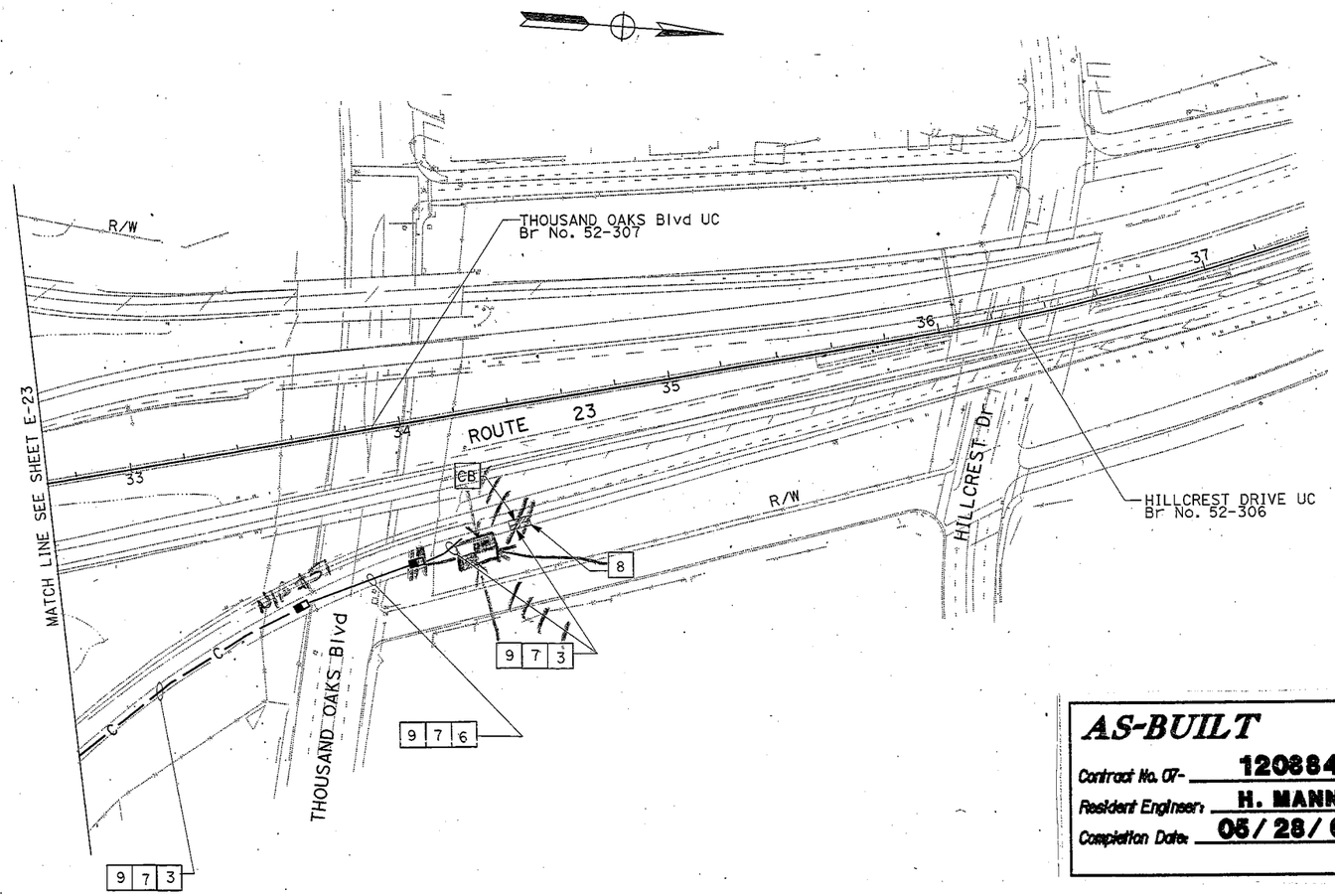
3. INSTALL 2-103C IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

6. INSTALL 2-103C IN BRIDGE STRUCTURE SEE STRUCTURE PLANS FOR DETAILS.

7. INSTALL COILED 2-72SMFO AND 48SMFO FROM EXISTING SPLICE VAULT AT STATION 34+40 TO CABLE NODE (LOCATION VE031) AND DATA NODE (LOCATION VE031).

8. INCLUDED IN ON-GOING CONTRACT.

9. FOR REFERENCE ONLY. CABLE WORK INCLUDED IN THE ITEM FOR DATA NODE (LOCATION VE031). SEE SHEET E-41.



AS-BUILT

Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-24

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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

USERNAME => trstrk
DGN FILE => 712088ua024.dgn

CU 07388

EA 120881

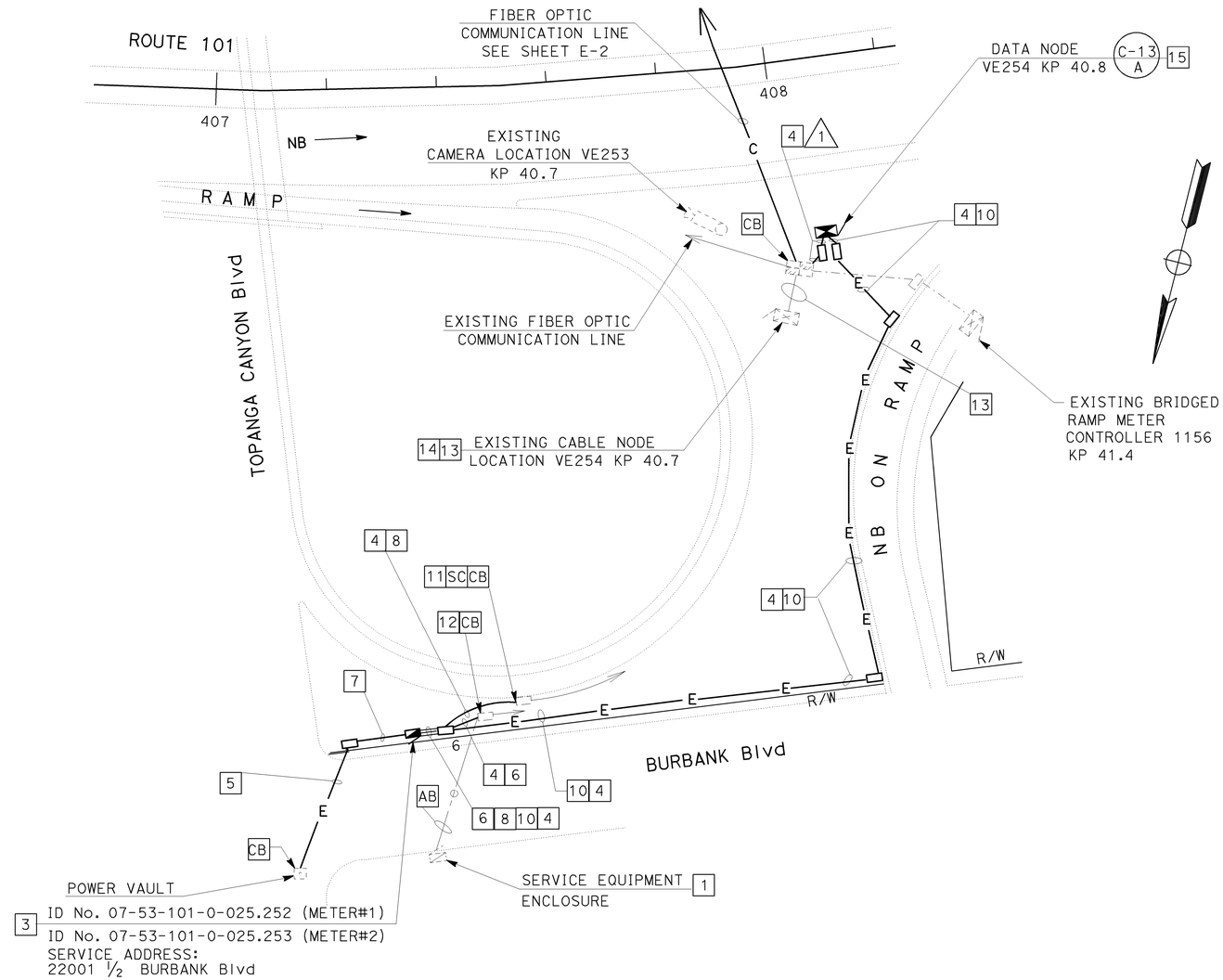
LAST REVISION 00-00-00
DATE PLOTTED => 05-JUN-2005
TIME PLOTTED => 09:53

REVISED BY	DATE	DATE REVISED
DAVID PADILLA	6/05	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN



CONDUCTOR SCHEDULE									
CONDUCTOR TYPE	FUNCTION	RUN 1							
48SMFO CABLE	MULTIPLEXED DATA/VIDEO								
48SMFO CABLE	VOICE/DATA		1						
48SMFO CABLE	VIDEO DISTRIBUTION								
12SMFO CABLE	MULTIPLEXED VOICE/DATA				1				
	SIZE 25 INNERDUCT	1	1	1	1	1	1	1	1
CONDUIT SIZE		103				103			

NOTES: (THIS SHEET ONLY)

1 RS EXISTING 120/240 V, 3 WIRE, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE AND ASSOCIATED PULL BOXES.

3 INSTALL 120/240 V, 3 WIRE, DUAL METER, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER, INSTALL 20 A, 120 V, 1P CIRCUIT BREAKERS FOR EACH CCTV CAMERA, DATA NODE ON METER 1. INSTALL 30 A, 120 V, 1P CIRCUIT BREAKERS FOR EXISTING LIGHTING, IRRIGATION AND SIGN LIGHTING CIRCUITS ON METER 2.

4 INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.

5 JACK 78C UNDER ROADWAY, MT (CABLES BY UTILITY COMPANY).

6 INSTALL 53C, ADD EXISTING SERVICE CABLES FOR RAMP METER AND TELEPHONE DEMARCATION CABINET.

7 INSTALL 78C, MT (CONDUCTORS BY OTHERS).

8 INSTALL 53C, 2#4 FOR EXISTING CCTV CAMERA.

10 INSTALL 53C, 2#4.

11 EXISTING CCTV VE253 CIRCUIT.

12 DISCONNECT POWER CABLE FROM EXISTING SERVICE AND RECONNECT TO NEW SERVICE FOR EXISTING RAMP METER AND TELEPHONE DEMARCATION CABINET CIRCUITS.

13 INSTALL 1 REPEATER SET FOR DATA NODE LOCATION VE031. CLEARLY LABEL IN/OUT CONNECTIONS.

14 INSTALL 2-48SMFO FOR VIDEO DISTRIBUTION AND MULTIPLEXED DATA/VIDEO IN EXISTING 103C. INSTALL 12SMFO. INSTALL 2 FDUS IN EXISTING CABLE NODE (VE254).

15 INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE DATA NODE EQUIPMENT. SEE SHEET E-55.

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

DATA NODE (LOCATION VE254)

SCALE 1:500

E-25

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	78	160

REGISTERED ELECTRICAL ENGINEER — DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

6-27-05
PLANS APPROVAL DATE

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DATE	REVISED BY
6/05	DAVID PADILLA

DATE	REVISED BY
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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

USERNAME => s123048
DGN FILE => 712088ua025.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:09

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	78	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 EXP. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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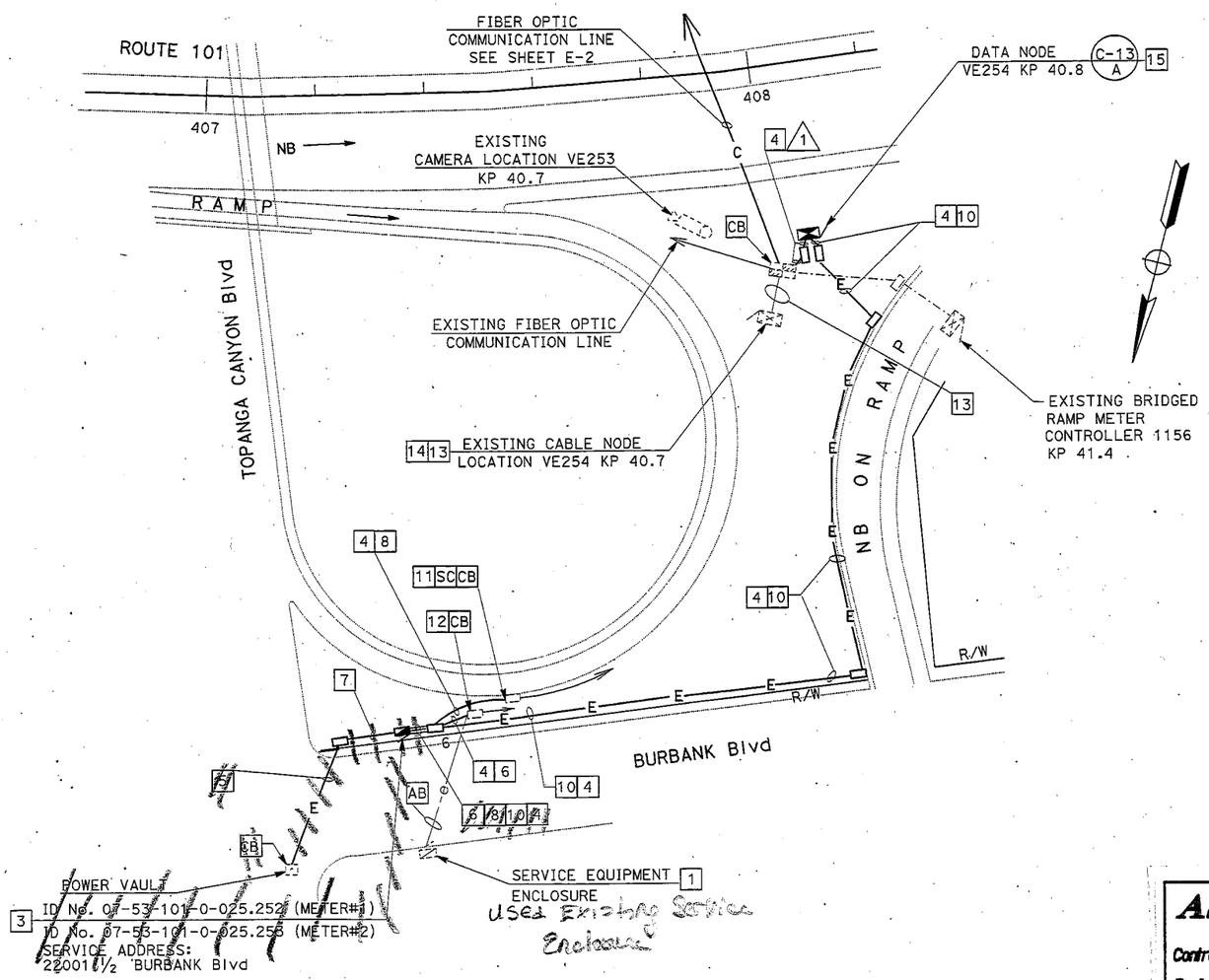


CONDUCTOR SCHEDULE									
CONDUCTOR TYPE	FUNCTION	RUN 1							
48SMFO CABLE	MULTIPLEXED DATA/VIDEO								
48SMFO CABLE	VOICE/DATA		1						
48SMFO CABLE	VIDEO DISTRIBUTION								
12SMFO CABLE	MULTIPLEXED VOICE/DATA				1				
	SIZE 25 INNERDUCT	1	1	1	1	1	1	1	1
CONDUIT SIZE		103				103			

NOTES: (THIS SHEET ONLY)

1. REMOVE EXISTING 120/240 V, 3 WIRE, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE AND ASSOCIATED PULL BOXES.
3. INSTALL 120/240 V, 3 WIRE, DUAL METER, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER, INSTALL 20 A, 120 V, 1P CIRCUIT BREAKERS FOR EACH CCTV CAMERA, DATA NODE ON METER 1. INSTALL 30 A, 120 V, 1P CIRCUIT BREAKERS FOR EXISTING LIGHTING, IRRIGATION AND SIGN LIGHTING CIRCUITS ON METER 2.
4. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
5. JACK 78C UNDER ROADWAY, MT (CABLES BY UTILITY COMPANY).
6. INSTALL 53C, ADD EXISTING SERVICE CABLES FOR RAMP METER AND TELEPHONE DEMARCATION CABINET.
7. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
8. INSTALL 53C, 2#4 FOR EXISTING CCTV CAMERA.
10. INSTALL 53C, 2#4.
11. EXISTING CCTV VE253 CIRCUIT.
12. DISCONNECT POWER CABLE FROM EXISTING SERVICE AND RECONNECT TO NEW SERVICE FOR EXISTING RAMP METER AND TELEPHONE DEMARCATION CABINET CIRCUITS.
13. INSTALL 1 REPEATER SET FOR DATA NODE LOCATION VE031. CLEARLY LABEL IN/OUT CONNECTIONS.
14. INSTALL 2-48SMFO FOR VIDEO DISTRIBUTION AND MULTIPLEXED DATA/VIDEO IN EXISTING 103C. INSTALL 12SMFO. INSTALL 2 FDUS IN EXISTING CABLE NODE (VE254).
15. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE DATA NODE EQUIPMENT. SEE SHEET E-55.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

DATA NODE (LOCATION VE254)

SCALE 1:500

E-25

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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

USERNAME => trienard
DGN FILE => 712088ua025.dgn

CU 07388 EA 120881

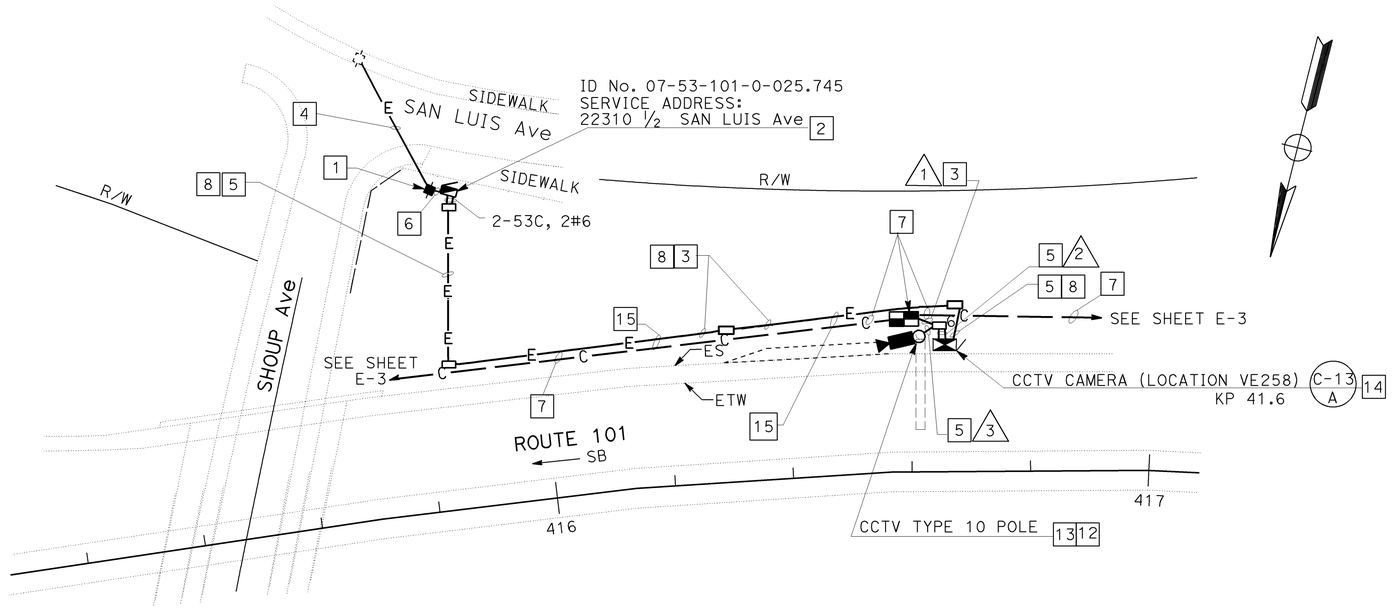
LAST REVISION 00-00-00 DATE PLOTTED => 07-JUL-2005 TIME PLOTTED => 07:03

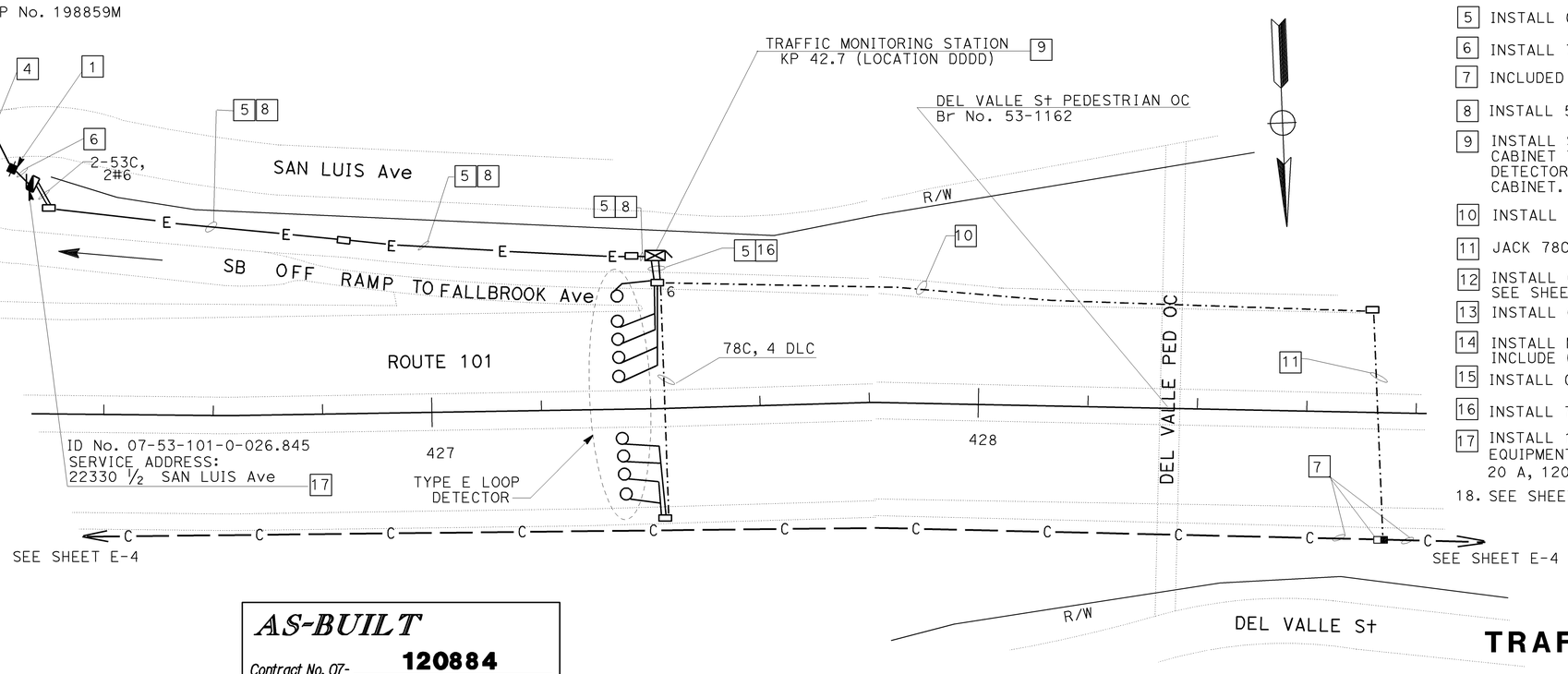
DATE	REVISED BY
6/05	DATE REVISED

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN





DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	79	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1	1	
12SMFO CABLE	SHORT HAUL VIDEO	1	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
	CONDUIT SIZE	78	2-78	78

NOTES: (THIS SHEET ONLY)

1. INSTALL 7.6 m WOOD POST AT 2 m DEPTH. INSTALL 78C RISER ON POST, MT (CONDUCTORS BY OTHERS).
2. INSTALL 120/240 V, 3 WIRE, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER AND 20 A, 120 V, 1P CIRCUIT BREAKER FOR CCTV CAMERA LOCATION VE258.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. OVERHEAD POWER CABLES BY UTILITY COMPANY.
5. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. INSTALL 53C, 2#6.
9. INSTALL STATE-FURNISHED MODEL 334 CABINET ON NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
10. INSTALL 78C IN ASPHALT. INSTALL 12SMFO.
11. JACK 78C UNDER ROADWAY. INSTALL 12SMFO.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 10 ON SIGN. SEE RSP ES-16B FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. INSTALL CONDUITS IN THE SAME TRENCH.
16. INSTALL 78C IN ASPHALT. INSTALL 9 DLC AND 12SMFO.
17. INSTALL 120/240 V, 3 WIRE, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER 20 A, 120 V, 1P FOR TRAFFIC MONITORING STATION (LOCATION DDDD).
18. SEE SHEET C-1 FOR CCTV VE258 CONSTRUCTION DETAILS.

AS-BUILT

Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

TRAFFIC MONITORING STATION (LOCATION DDDD) CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE258)

SCALE 1:500

E-26

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6/05	DAVID PADILLA

DATE	DATE REVISED
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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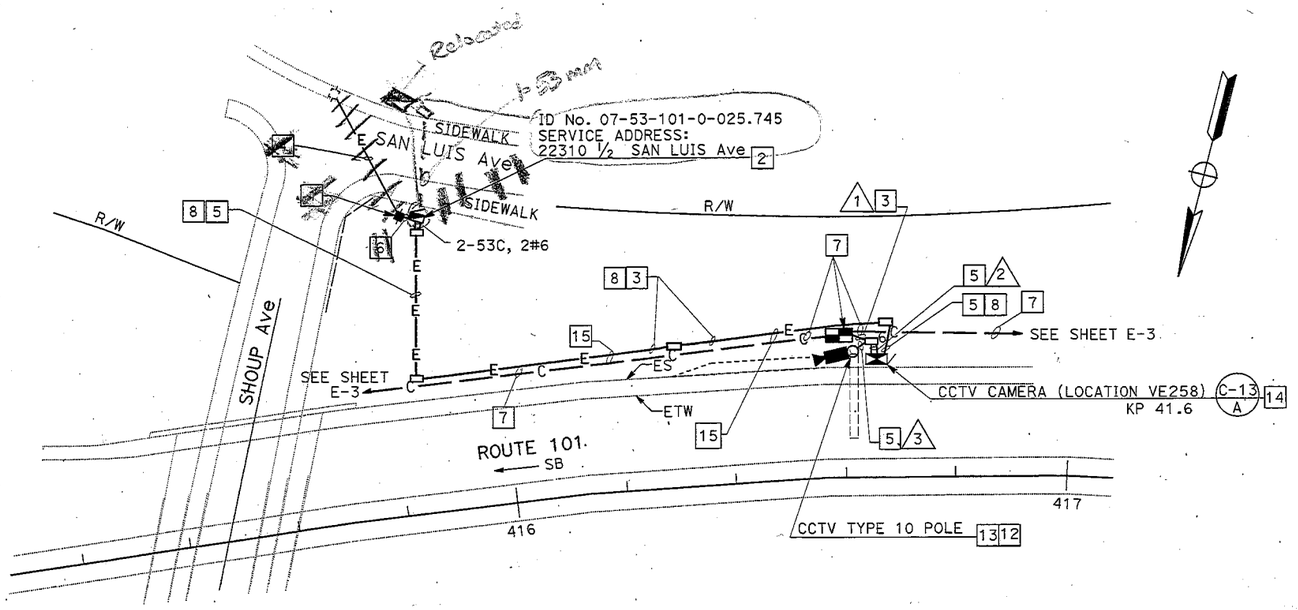
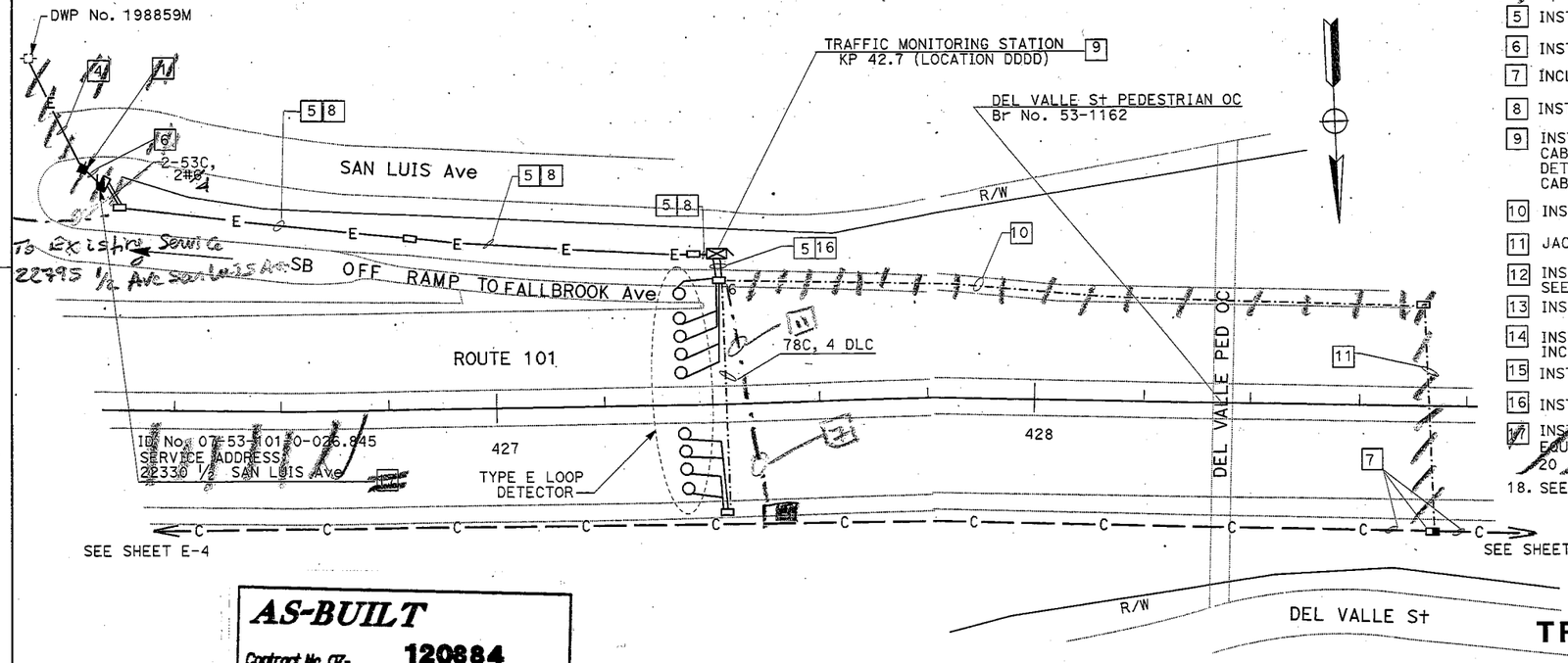
CU 07388

EA 120881





AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	79A	160

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — EXP. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1	1	
12SMFO CABLE	SHORT HAUL VIDEO	1	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
	CONDUIT SIZE	78	2-78	78

NOTES: (THIS SHEET ONLY)

1. INSTALL 7.6 m WOOD POST AT 2 m DEPTH. INSTALL 78C RISER ON POST, MT (CONDUCTORS BY OTHERS).
2. INSTALL 120/240 V, 3 WIRE, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER AND 20 A, 120 V, 1P CIRCUIT BREAKER FOR CCTV CAMERA LOCATION VE258.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. OVERHEAD POWER CABLES BY UTILITY COMPANY.
5. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. INSTALL 53C, 2#6.
9. INSTALL STATE-FURNISHED MODEL 334 CABINET ON NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
10. INSTALL 78C IN ASPHALT. INSTALL 12SMFO.
11. JACK 78C UNDER ROADWAY. INSTALL 12SMFO.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 10 ON SIGN. SEE RSP ES-16B FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. INSTALL CONDUITS IN THE SAME TRENCH.
16. INSTALL 78C IN ASPHALT. INSTALL 9 DLC AND 12SMFO.
17. INSTALL 120/240 V, 3 WIRE, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER 20 A, 120 V, 1P FOR TRAFFIC MONITORING STATION (LOCATION DDDD).
18. SEE SHEET C-1 FOR CCTV VE258 CONSTRUCTION DETAILS.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

TRAFFIC MONITORING STATION (LOCATION DDDD) CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE258)

SCALE 1:500

E-26

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => trstrk
DGN FILE => 712088ua026.dgn

CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA,Ven	23,101	Var	80	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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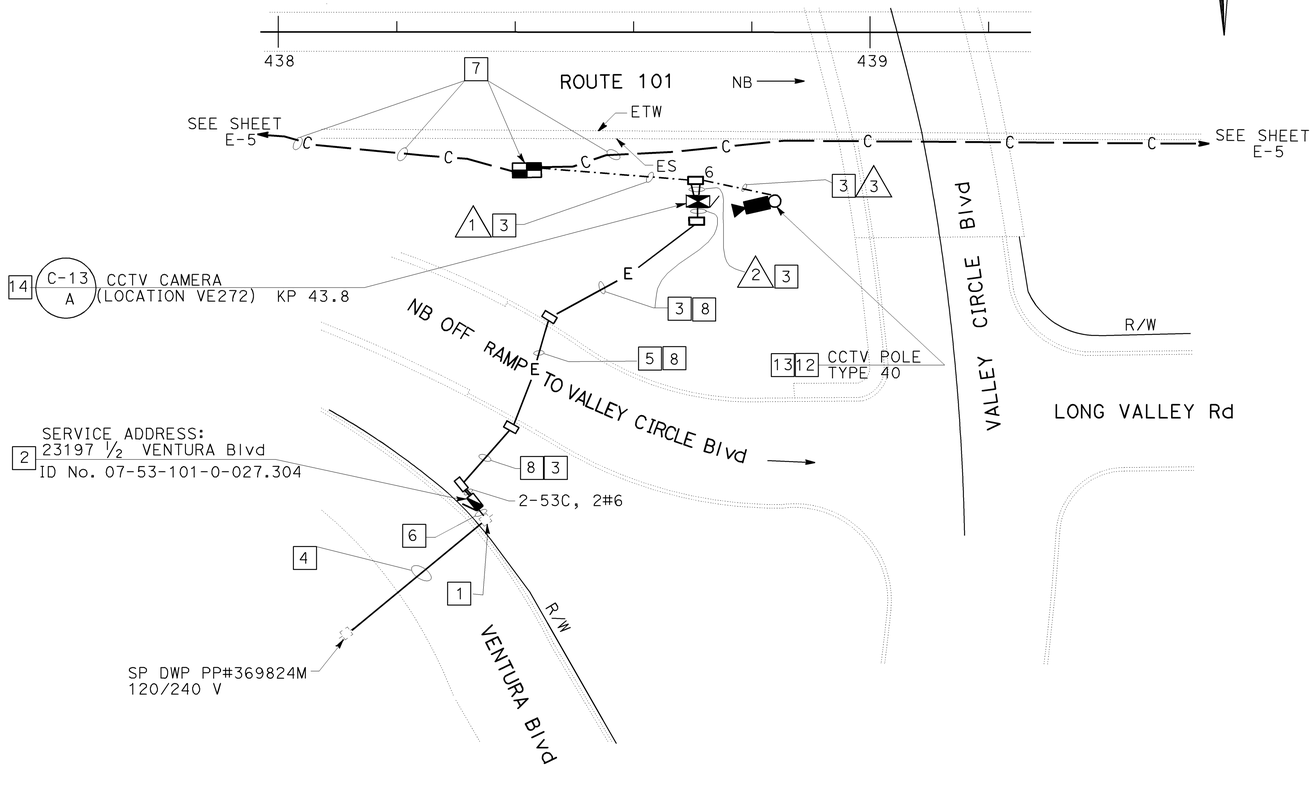
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**



NOTES: (THIS SHEET ONLY)

1. EXISTING 7.6 m WOOD POST. INSTALL 78C RISER, MT (CONDUCTORS BY OTHERS).
2. INSTALL 120/240 V, 3 WIRE, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER AND 20 A, 120 V, 1P CIRCUIT BREAKER FOR CCTV CAMERA.
3. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
4. OVERHEAD POWER CABLES BY UTILITY COMPANY.
5. JACK CONDUIT BENEATH ROADWAY.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. INSTALL 53C, 2#6.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 40. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.

16. SEE SHEET C-2 FOR CCTV VE272 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1	1	
12SMFO CABLE	SHORT HAUL VIDEO	1	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
CONDUIT SIZE		78	2-78	78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE272)

SCALE 1:500

E-27

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DGN FILE => 712088ug027.dgn

CU 07388 | EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:09

DATE	REVISED BY
6/05	DAVID PADILLA

DATE	DATE REVISED
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	81	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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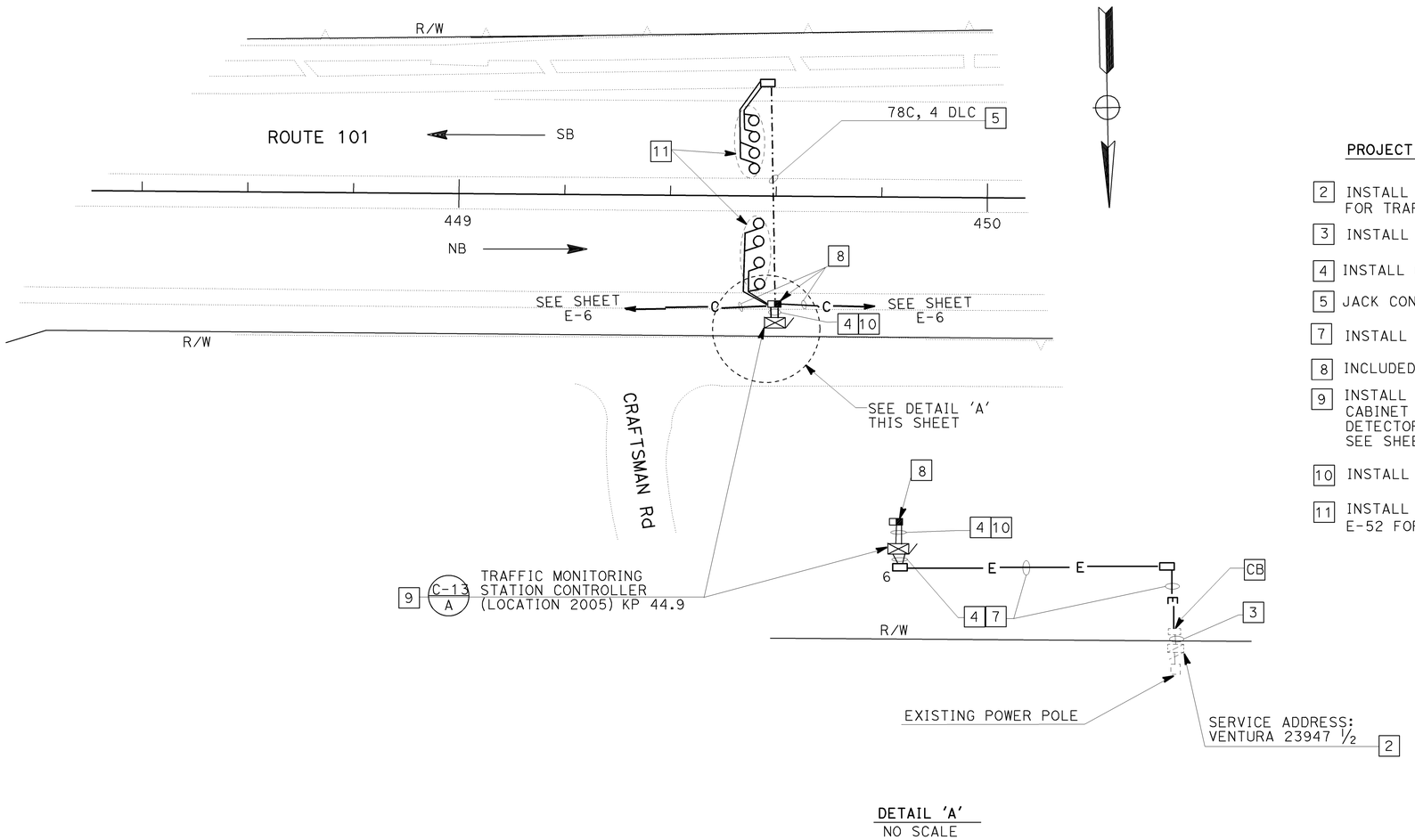

DETAIL 'A'
NO SCALE

PROJECT NOTES: (THIS SHEET ONLY)

2 INSTALL 20 A, 120 V, 1P CIRCUIT BREAKER FOR TRAFFIC MONITORING STATION.

3 INSTALL 2#8 IN EXISTING CONDUIT.

4 INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.

5 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

7 INSTALL 53C, 2#8.

8 INCLUDED IN COMMUNICATION SYSTEM ROUTING.

9 INSTALL STATE-FURNISHED MODEL 334 CABINET ON NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL C-MIC AND FODM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.

10 INSTALL 2-53C. INSTALL 12SMFO AND 8 DLC.

11 INSTALL TYPE E LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

TRAFFIC MONITORING STATION (LOCATION 2005)

SCALE 1:500

E-28

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6/05	DATE REVISED

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CU 07388

EA 120881

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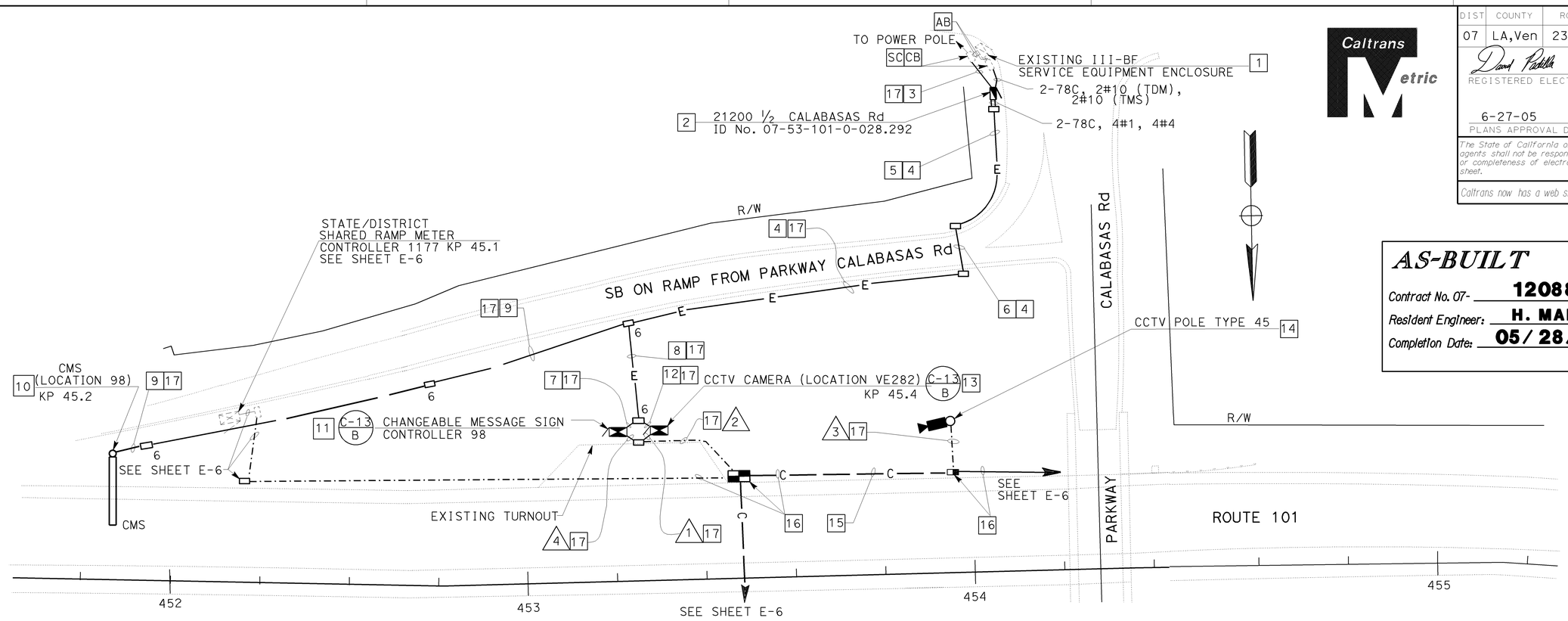

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	82	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

NOTES: (THIS SHEET ONLY)

1. RELOCATE TYPE III-BF SERVICE EQUIPMENT ENCLOSURE FOR RMS (LOCATION 1176) SEE SHEET E-32.
2. INSTALL 120/240 V, TYPE III-CF METERED, SERVICE EQUIPMENT ENCLOSURE WITH:
   (1) 2P, 100 A MAIN DISCONNECT EACH METER.
   METER ONE-1P, 20 A CIRCUIT BREAKER FOR CCTV;
   2P, 40 A CIRCUIT BREAKER FOR CMS;
   1P, 30 A CIRCUIT BREAKER FOR CMS CONTROLLER.
   METER TWO-1P, 20 A CIRCUIT BREAKER FOR TMS;
   1P, 20 A CIRCUIT BREAKER FOR TDM.
3. INSTALL 53C. MT (CONDUCTORS BY OTHERS).
4. INSTALL 2-78C, 4#1 AND 4#4
5. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
6. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
7. INSTALL 2-78C, 2#4 AND STATE-FURNISHED CMS CONTROL CABLES (6P18, 24P18).
8. INSTALL 2-78C, 4#4 AND STATE-FURNISHED CMS CONTROL CABLES.
9. INSTALL 2-78C, 4#1 AND STATE-FURNISHED CMS CONTROL CABLES.
10. INSTALL STATE-FURNISHED MODEL 500 LED CMS PANEL ON NEW SIGN STRUCTURE. SEE SHEET C-3 FOR DETAILS.
11. INSTALL STATE-FURNISHED CMS CABINET AND CONTROLLER ASSEMBLY ON NEW FOUNDATION. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-56. INSTALL CABINET 12 m FROM ETW.
12. INSTALL 78C, 2#4.
13. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
14. INSTALL CCTV POLE, CCTV CAMERA ASSEMBLY WITH PAN AND TILT UNIT. SEE SHEET E-43 FOR DETAILS AND RSP ES-16A, RSP ES-16B.
15. INSTALL RUN 3 CONDUCTORS IN NEW COMMUNICATION ROUTING CONDUIT.
16. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
17. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
18. SEE SHEET C-3 FOR CMS 98 CONSTRUCTION DETAILS.
19. SEE SHEET C-4 FOR CCTV VE282 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE					
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4
12SMFO CABLE	VOICE/DATA	1	2		1
12SMFO CABLE	SHORT HAUL VIDEO	1	1		
RG-6A/U COAX CABLE	BASE BAND VIDEO	1	1	1	
CCTV CONTROL CABLE	CAMERA CONTROL	1	1	1	
CONDUIT SIZE		103	103	53	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

CHANGEABLE MESSAGE SIGN (LOCATION 98) CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE282)

SCALE 1:500

E-29

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY
DAVID PADILLA	DAVID PADILLA	6/05	6/05 DATE REVISED

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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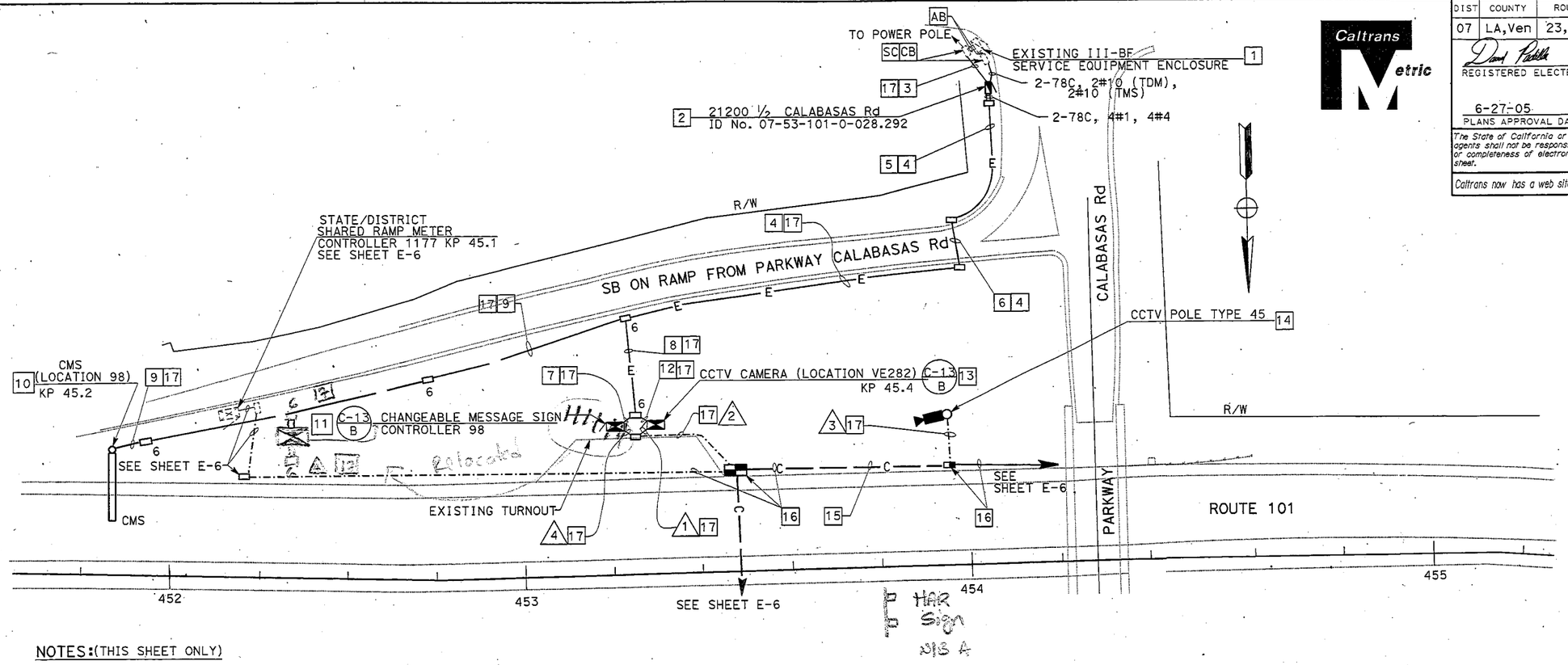
CU 07388

EA 120881



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	82	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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DATE	REVISED BY
6/05	DATE REVISED

CALCULATED/DESIGNED BY	DAVID PADILLA
CHECKED BY	DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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NOTES:(THIS SHEET ONLY)

1. RELOCATE TYPE III-BF SERVICE EQUIPMENT ENCLOSURE FOR RMS (LOCATION 1176) SEE SHEET E-32.
2. INSTALL 120/240 V, TYPE III-CF METERED, SERVICE EQUIPMENT ENCLOSURE WITH: (1) 2P, 100 A MAIN DISCONNECT EACH METER. METER ONE-1P, 20 A CIRCUIT BREAKER FOR CCTV; 2P, 40 A CIRCUIT BREAKER FOR CMS; 1P, 30 A CIRCUIT BREAKER FOR CMS CONTROLLER. METER TWO-1P, 20 A CIRCUIT BREAKER FOR TMS; 1P, 20 A CIRCUIT BREAKER FOR TDM.
3. INSTALL 53C. MT (CONDUCTORS BY OTHERS).
4. INSTALL 2-78C, 4#1 AND 4#4
5. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
6. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
7. INSTALL 2-78C, 2#4 AND STATE-FURNISHED CMS CONTROL CABLES (6P18, 24P18).
8. INSTALL 2-78C, 4#4 AND STATE-FURNISHED CMS CONTROL CABLES.
9. INSTALL 2-78C, 4#1 AND STATE-FURNISHED CMS CONTROL CABLES.
10. INSTALL STATE-FURNISHED MODEL 500 LED CMS PANEL ON NEW SIGN STRUCTURE. SEE SHEET C-3 FOR DETAILS.
11. INSTALL STATE-FURNISHED CMS CABINET AND CONTROLLER ASSEMBLY ON NEW FOUNDATION. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-56. INSTALL CABINET 12 m FROM ETW.
12. INSTALL 78C, 2#4.
13. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
14. INSTALL CCTV POLE, CCTV CAMERA ASSEMBLY WITH PAN AND TILT UNIT. SEE SHEET E-43 FOR DETAILS AND RSP ES-16A, RSP ES-16B.
15. INSTALL RUN 3 CONDUCTORS IN NEW COMMUNICATION ROUTING CONDUIT.
16. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
17. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
18. SEE SHEET C-3 FOR CMS 98 CONSTRUCTION DETAILS.
19. SEE SHEET C-4 FOR CCTV VE282 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE					
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4
12SMFO CABLE	VOICE/DATA	1	2		1
12SMFO CABLE	SHORT HAUL VIDEO	1	1		
RG-6A/U COAX CABLE	BASE BAND VIDEO	1	1	1	
CCTV CONTROL CABLE	CAMERA CONTROL	1	1	1	
	CONDUIT SIZE	103	103	53	53

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

CHANGEABLE MESSAGE SIGN (LOCATION 98) CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE282)

SCALE 1:500

E-29

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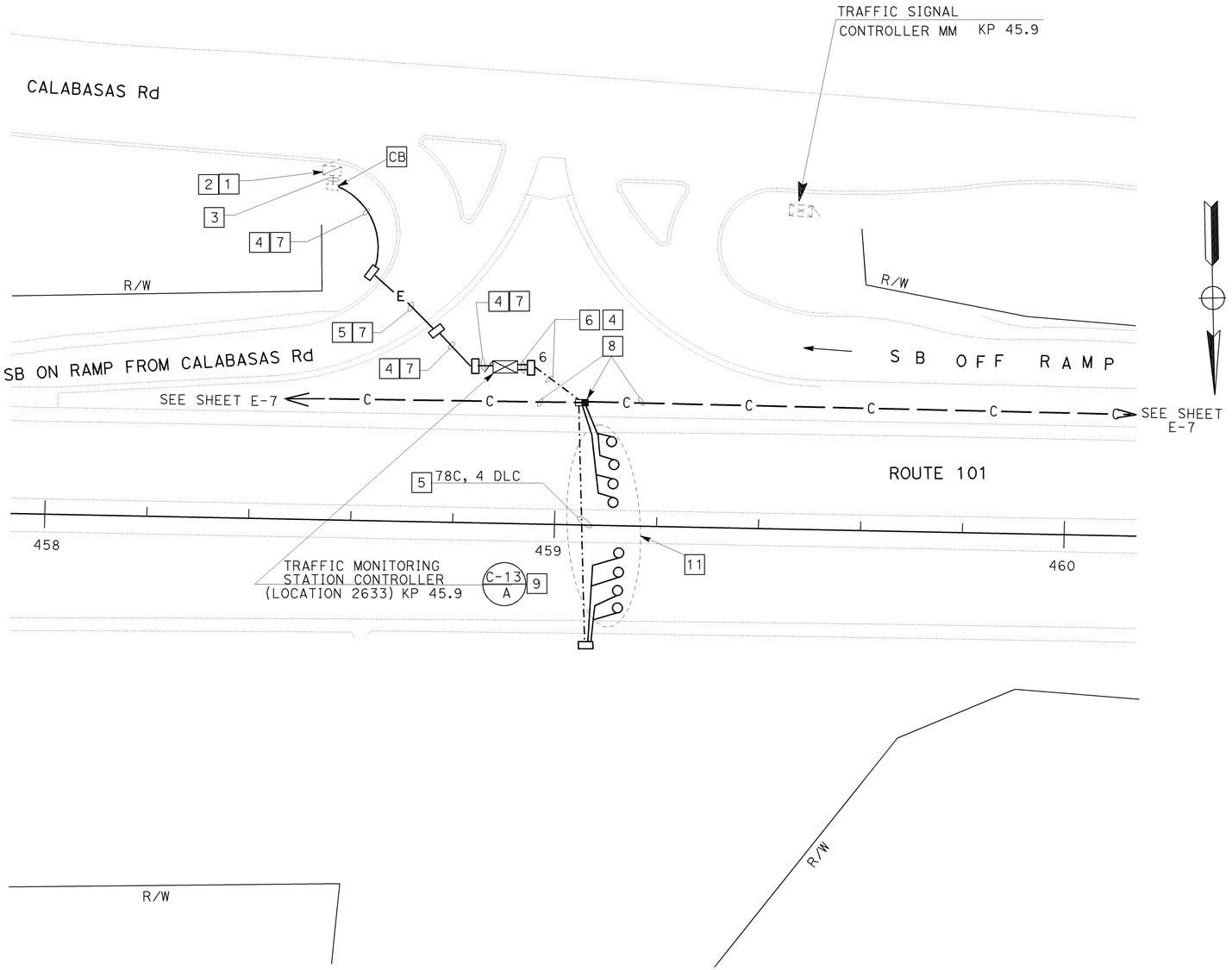
EA 120881



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	83	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
12-31-06
Exp. ELECTRICAL
STATE OF CALIFORNIA

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PROJECT NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240 V, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE. 24227 1/2B CALABASAS Rd.
2. INSTALL 20 A, 120 V, 1P CIRCUIT BREAKER FOR TRAFFIC MONITORING STATION IN EXISTING SERVICE METER # 2.
3. ADD 2#8 POWER CABLES IN EXISTING CONDUIT AND CONNECT TO NEW TMS CIRCUIT BREAKER.
4. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
5. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS..
6. INSTALL 53C, WITH 8 DLC, 1-12SMFO.
7. INSTALL 53C, 2#8.
8. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
9. INSTALL STATE-FURNISHED MODEL 334 CABINET ON NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
11. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

TRAFFIC MONITORING STATION (LOCATION 2633)

SCALE 1:500

E-30

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

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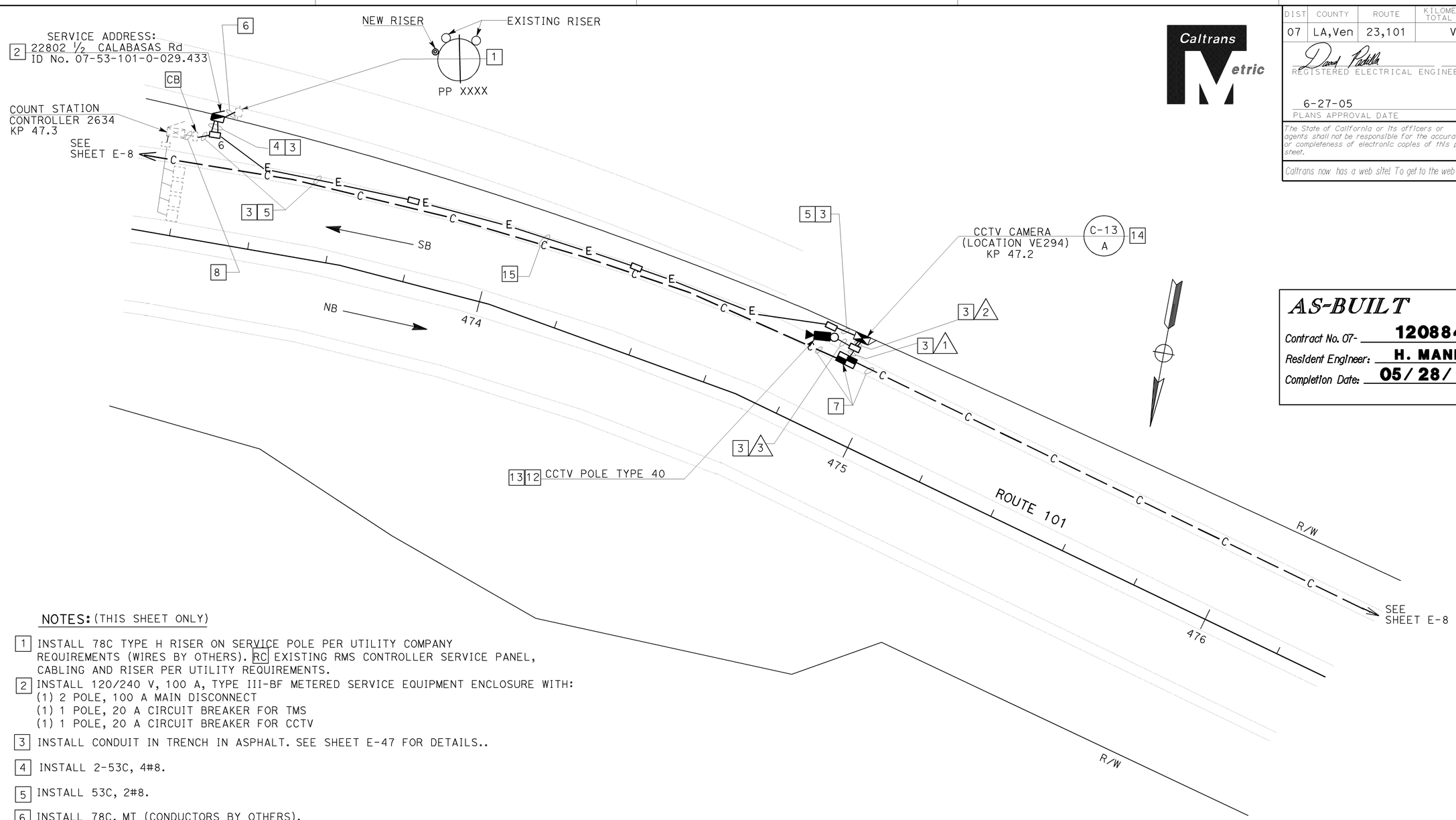
LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:09



NOTES: (THIS SHEET ONLY)

1. INSTALL 78C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (WIRES BY OTHERS). RC EXISTING RMS CONTROLLER SERVICE PANEL, CABLING AND RISER PER UTILITY REQUIREMENTS.
2. INSTALL 120/240 V, 100 A, TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
   (1) 2 POLE, 100 A MAIN DISCONNECT
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR TMS
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR CCTV
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS..
4. INSTALL 2-53C, 4#8.
5. INSTALL 53C, 2#8.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. ADD 2#8 POWER CABLES. RC OLD POWER CABLE.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 40. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. INSTALL CONDUITS IN THE SAME TRENCH.
16. SEE SHEET C-5 CCTV VE294 FOR CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1	1	
12SMFOCABLE	SHORT HAUL VIDEO	1	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
	CONDUIT SIZE	78	2-78	78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE294)

SCALE 1:500

E-31

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	84	160

REGISTERED ELECTRICAL ENGINEER — DAVID PADILLA

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA No. E16233 EXP. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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AS-BUILT

Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 712088ua031.dgn

CU 07388

EA 120881

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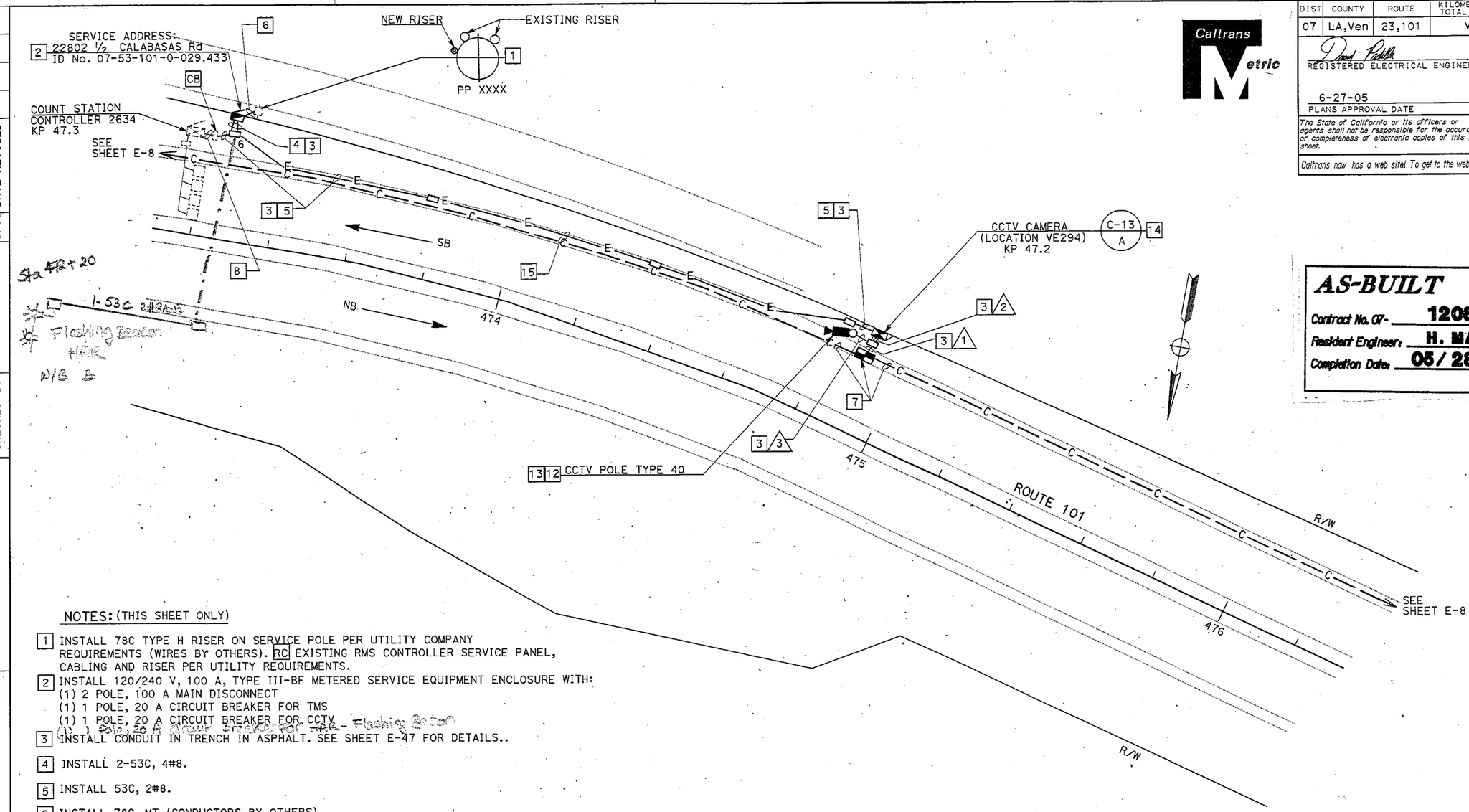
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:09



NOTES: (THIS SHEET ONLY)

1. INSTALL 78C TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (WIRES BY OTHERS). RC EXISTING RMS CONTROLLER SERVICE PANEL, CABLING AND RISER PER UTILITY REQUIREMENTS.
2. INSTALL 120/240 V, 100 A, TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
   (1) 2 POLE, 100 A MAIN DISCONNECT
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR TMS
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR CCTV
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR FBB - Flashing Beacon
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS..
4. INSTALL 2-53C, 4#8.
5. INSTALL 53C, 2#8.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. ADD 2#8 POWER CABLES. RC OLD POWER CABLE.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 40. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. INSTALL CONDUITS IN THE SAME TRENCH.
16. SEE SHEET C-5 CCTV VE294 FOR CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1	1	
12SMFOCABLE	SHORT HAUL VIDEO	1	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
	CONDUIT SIZE	78	2-78	78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE294)

SCALE 1:500

E-31

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	84	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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AS-BUILT

Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY:

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 712088ua031.dgn

CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA,Ven	23,101	Var	85	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp.12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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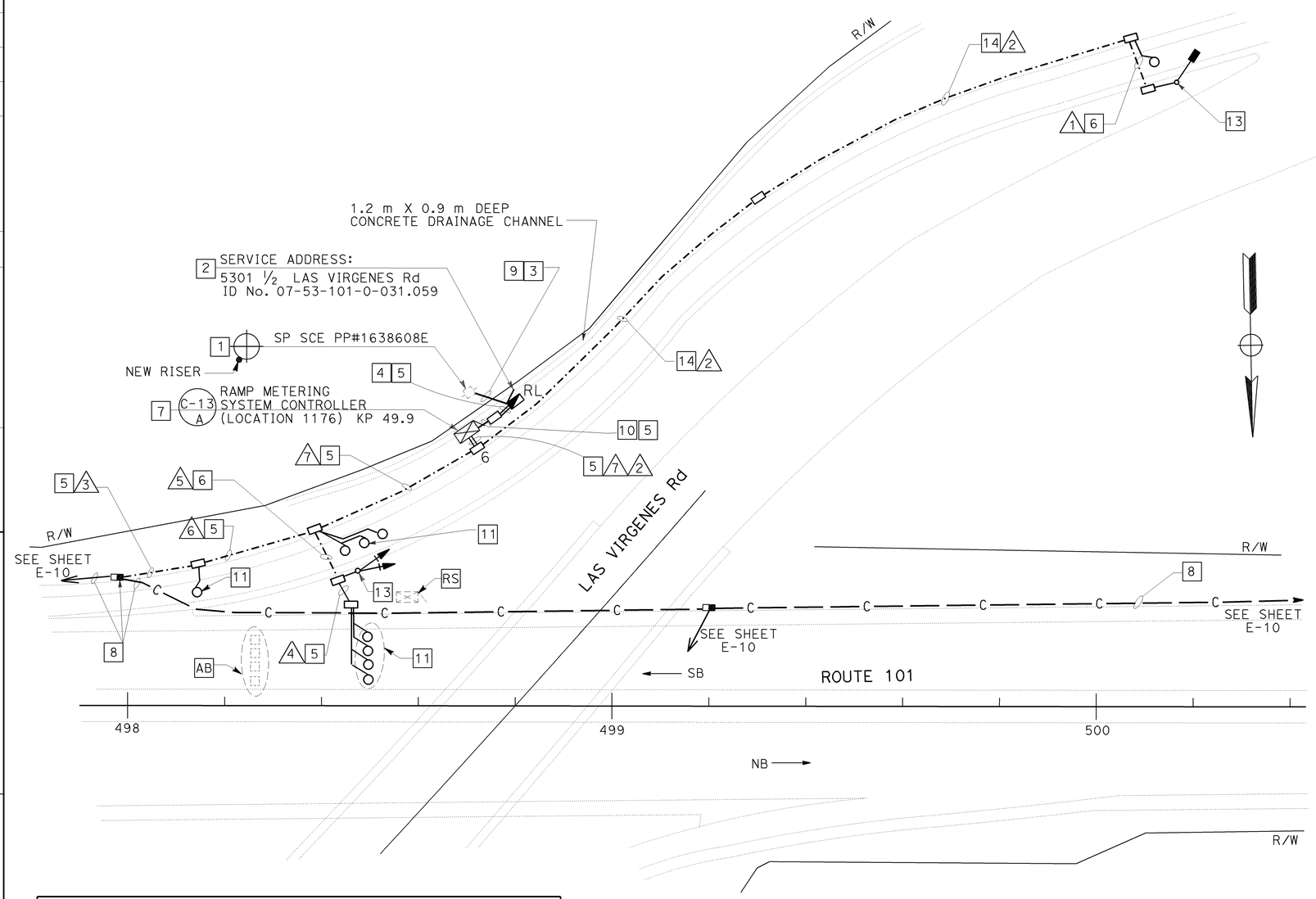

NOTES: (THIS SHEET ONLY)

1. INSTALL 78C, MT, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS). RC EXISTING SERVICE.
2. INSTALL RELOCATED 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE. SEE SHEET E-29. CABINET TO INCLUDE 100 A, 240 V, 2P MAIN CIRCUIT BREAKER, AND 20 A, 120 V, 1P CIRCUIT BREAKER FOR RAMP METERING SYSTEM.
3. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
4. INSTALL 2-53C, 2#8.
5. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
6. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
7. INSTALL STATE-FURNISHED MODEL 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED MODEL 170 CONTROLLER, LOOP DETECTOR SENSORS. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
8. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
9. JACK FOR CONDUIT BENEATH 1.2 m X 0.9 m DRAINAGE CHANNEL.
10. INSTALL 53C, 2#8.
11. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
13. SEE SHEET E-52 DETAILS C AND D FOR DETAILS.
14. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7
#14	RAMP SIGNAL					3		3
	SPARES					3		3
	TOTAL					6		6
#10	SIGNAL COMMON					1		1
	METER ON SIGN	3	3					
	TOTAL	3	3			1		1
DLC	QUEUE DETECTOR		1					
	DEMAND DETECTOR							1
	PASSAGE DETECTOR							1
	SURVEILLANCE DETECTOR				4	4		4
	COUNT DETECTOR						1	1
	TOTAL		1		4	4	1	7
12SMFO	VOICE/DATA			1			1	1
	CONDUIT SIZE	78	53	53	53	78	53	103

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

RAMP METER SYSTEM (LOCATION 1176)

SCALE 1:500

E-32

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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USERNAME => s123048
DGN FILE => 712088ua032.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:09

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	86	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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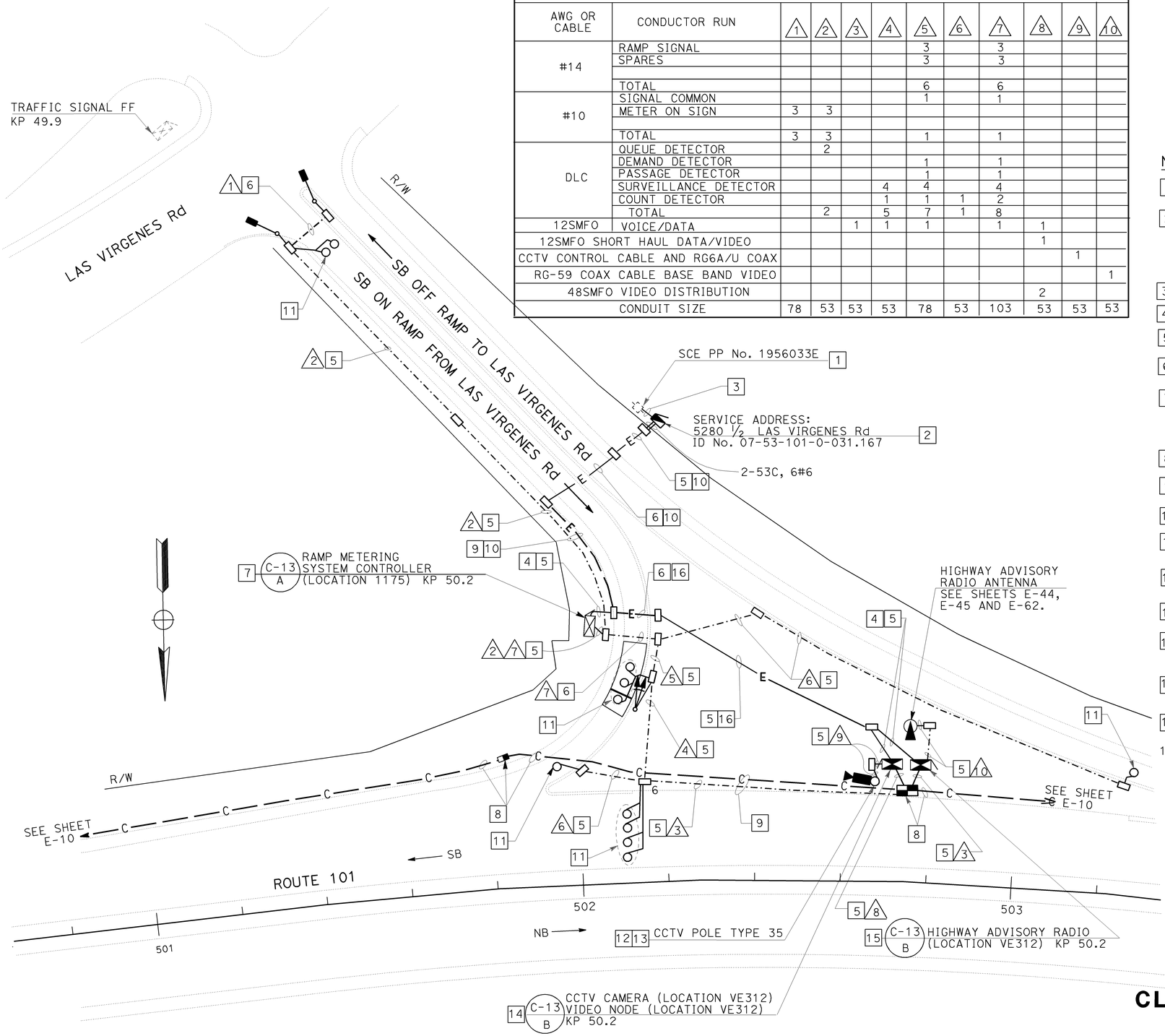
CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10
#14	RAMP SIGNAL					3		3			
	SPARES					3		3			
	TOTAL					6		6			
#10	SIGNAL COMMON					1		1			
	METER ON SIGN	3	3								
	TOTAL	3	3			1		1			
DLC	QUEUE DETECTOR		2								
	DEMAND DETECTOR					1		1			
	PASSAGE DETECTOR					1		1			
	SURVEILLANCE DETECTOR				4	4		4			
	COUNT DETECTOR				1	1	1	2			
	TOTAL		2		5	7	1	8			
12SMFO	VOICE/DATA			1	1	1		1	1		
12SMFO SHORT HAUL DATA/VIDEO									1		
CCTV CONTROL CABLE AND RG6A/U COAX										1	
RG-59 COAX CABLE BASE BAND VIDEO											1
48SMFO VIDEO DISTRIBUTION									2		
CONDUIT SIZE		78	53	53	53	78	53	103	53	53	53



NOTES: (THIS SHEET ONLY)

1. INSTALL 78C,MT, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (WIRES BY OTHERS). RC EXISTING SERVICE.
2. INSTALL 120/240 V, 3 WIRE METERED, TYPE III- BF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER, 20 A, 120 V, 1P CIRCUIT BREAKER FOR RAMP METERING SYSTEM, 20 A, 120 V, 1P CIRCUIT BREAKER FOR CCTV CAMERA AND 20 A, 120 V, 1P CIRCUIT BREAKER FOR HAR TRANSMITTER.
3. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
4. INSTALL 53C, 2#6.
5. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
6. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
7. INSTALL STATE-FURNISHED MODEL 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
8. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
9. INSTALL CONDUITS IN THE SAME TRENCH.
10. INSTALL 53C, 6#6.
11. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 35. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE VIDEO NODE AND CCTV CAMERA EQUIPMENT. SEE SHEET E-55.
15. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE HAR EQUIPMENT. SEE SHEET E-54.
16. INSTALL 53C, 4#6.
17. SEE SHEET C-6 FOR CCTV VE312 CONSTRUCTION DETAILS.

AS-BUILT
Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

RAMP METER SYSTEM (LOCATION 1175)
CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE312)
HIGHWAY ADVISORY RADIO (LOCATION VE312)

SCALE 1:500

E-33

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6/05	DAVID PADILLA

DATE	DATE REVISED
6/05	DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA
PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => s123048
DGN FILE => 712088ug033.dgn

CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	86	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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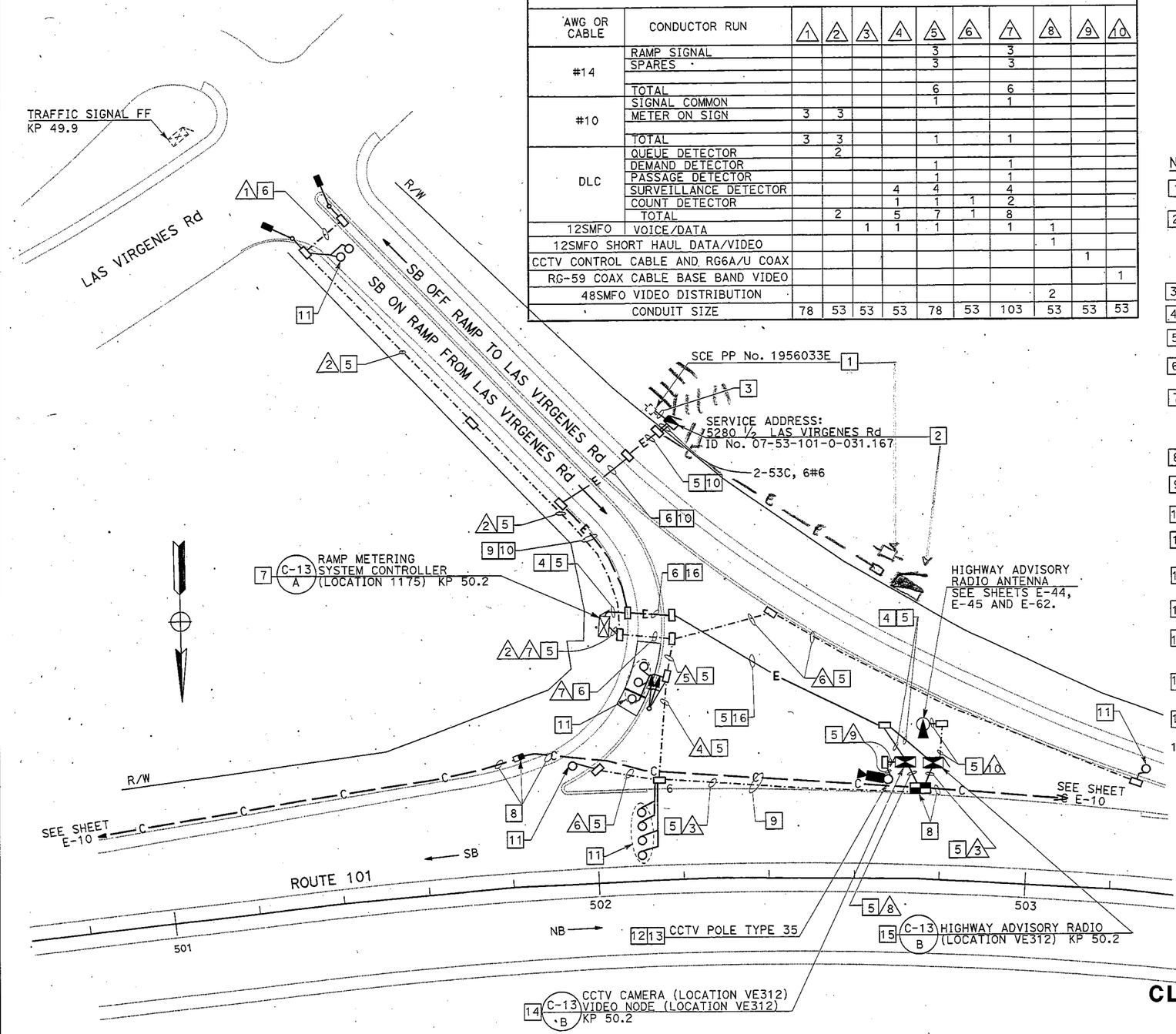
CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10
#14	RAMP SIGNAL					3		3			
	SPARES					3		3			
	TOTAL					6		6			
#10	SIGNAL COMMON					1		1			
	METER ON SIGN	3	3								
	TOTAL	3	3			1		1			
DLC	QUEUE DETECTOR		2								
	DEMAND DETECTOR					1		1			
	PASSAGE DETECTOR					1		1			
	SURVEILLANCE DETECTOR				4	4		4			
	COUNT DETECTOR				1	1	1	2			
	TOTAL		2		5	7	1	8			
12SMFO	VOICE/DATA			1	1	1		1	1		
12SMFO SHORT HAUL DATA/VIDEO									1		
CCTV CONTROL CABLE AND RG6A/U COAX										1	
RG-59 COAX CABLE BASE BAND VIDEO											1
48SMFO VIDEO DISTRIBUTION									2		
CONDUIT SIZE		78	53	53	53	78	53	103	53	53	53



NOTES: (THIS SHEET ONLY)

1. INSTALL 78C,MT, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (WIRES BY OTHERS). RC EXISTING SERVICE.
2. INSTALL 120/240 V, 3 WIRE METERED, TYPE III- BF SERVICE EQUIPMENT ENCLOSURE WITH 100 A, 240 V, 2P MAIN CIRCUIT BREAKER, 20 A, 120 V, 1P CIRCUIT BREAKER FOR RAMP METERING SYSTEM, 20 A, 120 V, 1P CIRCUIT BREAKER FOR CCTV CAMERA AND 20 A, 120 V, 1P CIRCUIT BREAKER FOR HAR TRANSMITTER.
3. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
4. INSTALL 53C, 2#6.
5. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
6. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
7. INSTALL STATE-FURNISHED MODEL 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
8. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
9. INSTALL CONDUITS IN THE SAME TRENCH.
10. INSTALL 53C, 6#6.
11. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 35. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE VIDEO NODE AND CCTV CAMERA EQUIPMENT. SEE SHEET E-55.
15. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE HAR EQUIPMENT. SEE SHEET E-54.
16. INSTALL 53C, 4#6.
17. SEE SHEET C-6 FOR CCTV VE312 CONSTRUCTION DETAILS.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

RAMP METER SYSTEM (LOCATION 1175)
CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE312)
HIGHWAY ADVISORY RADIO (LOCATION VE312)

SCALE 1:500

E-33

DATE	REVISED BY
6/05	DAVID PADILLA

CALCULATED/ DESIGNED BY	CHECKED BY
DAVID PADILLA	DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 712088ua033.dgn

CU 07388 | EA 120881

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	87	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
Exp. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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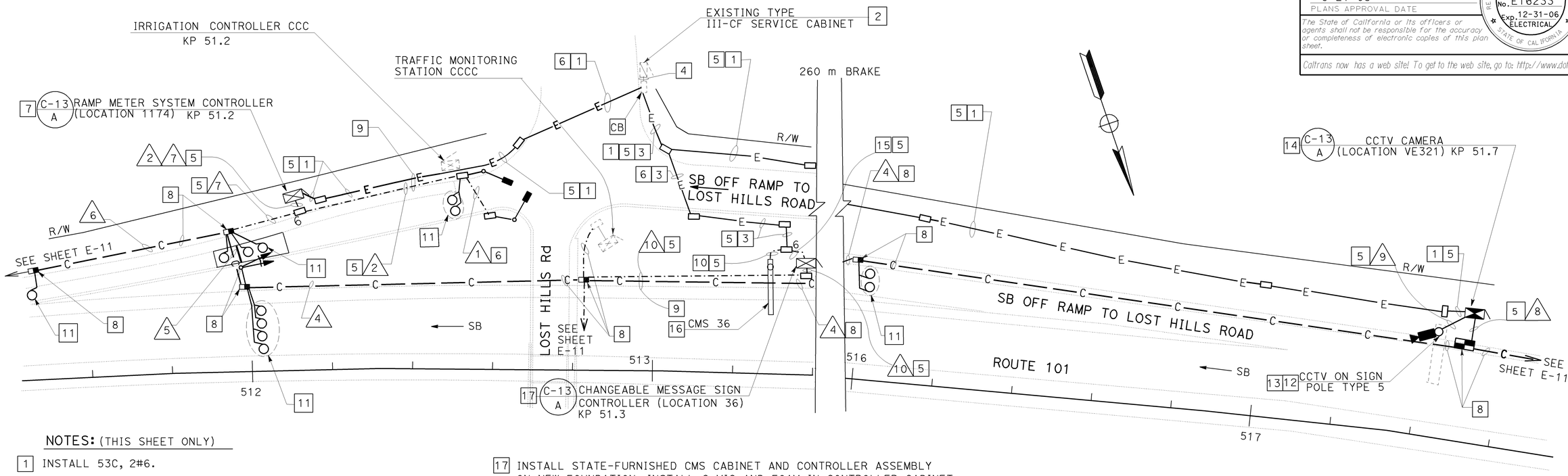

NOTES: (THIS SHEET ONLY)

1. INSTALL 53C, 2#6.
2. EXISTING TYPE III-CF SERVICE EQUIPMENT ENCLOSURE.
   METER ONE: INSTALL 20 A, 1P CIRCUIT BREAKER FOR RMS;
   20 A, 1P CIRCUIT BREAKER FOR CCTV.
   METER TWO: INSTALL 2P, 40 A CIRCUIT BREAKER FOR CMS;
   30 A, 1P CIRCUIT BREAKER FOR CMS CONTROLLER.
3. INSTALL 78C, 4#4, 2#6.
4. INSTALL 4#4, 6#6 IN EXISTING CONDUIT.
5. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
6. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
7. INSTALL STATE-FURNISHED MODEL 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS.INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
8. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
9. INSTALL CONDUITS IN THE SAME TRENCH.
10. INSTALL 78C, 4#4 AND STATE-FURNISHED CONTROL CABLES.
11. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 5 ON EXISTING SIGN. SEE SHEET RSP ES-16B FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-53.
15. INSTALL 2-78C, STATE-FURNISHED CMS CONTROL CABLES AND 2#6.
16. INSTALL STATE-FURNISHED MODEL 500 LED CMS PANEL ON NEW CMS SIGN STRUCTURE. SEE SHEET C-7 FOR DETAILS.
17. INSTALL STATE-FURNISHED CMS CABINET AND CONTROLLER ASSEMBLY ON NEW FOUNDATION. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-56 FOR DETAILS. INSTALL CABINET 12 m FROM ETW.
18. SEE SHEET C-8 FOR CCTV VE321 CONSTRUCTION DETAILS.
19. SEE SHEET C-7 FOR CMS 36 CONSTRUCTION DETAILS.

AS-BUILT
Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	4	5	6	7	8	9	10
#14	RAMP SIGNAL				3		3			
	SPARES				3		3			
	TOTAL				6		6			
#10	SIGNAL COMMON				1		1			
	METER ON SIGN	3	3							
	TOTAL	3	3		1		1			
DLC	QUEUE DETECTOR		2							
	DEMAND DETECTOR						1			
	PASSAGE DETECTOR						1			
	SURVEILLANCE DETECTOR				4		4			
	COUNT DETECTOR			2	2	1	3			
	TOTAL		2	2	6	1	9			
12SMFO VOICE/DATA				1	1		1	1		1
12SMFO SHORT HAUL DATA/VIDEO								1		
RG-6A/U COAX CABLE									1	
CCTV CONTROL CABLE									1	
CONDUIT SIZE		78	53	SEE SHEET E-11			103	78	78	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

RAMP METER SYSTEM (LOCATION 1174)
CHANGEABLE MESSAGE SIGN (LOCATION 36)
CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE321)

SCALE 1:500

E-34

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:09

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USERNAME => s123048
DGN FILE => 712088ua034.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	87	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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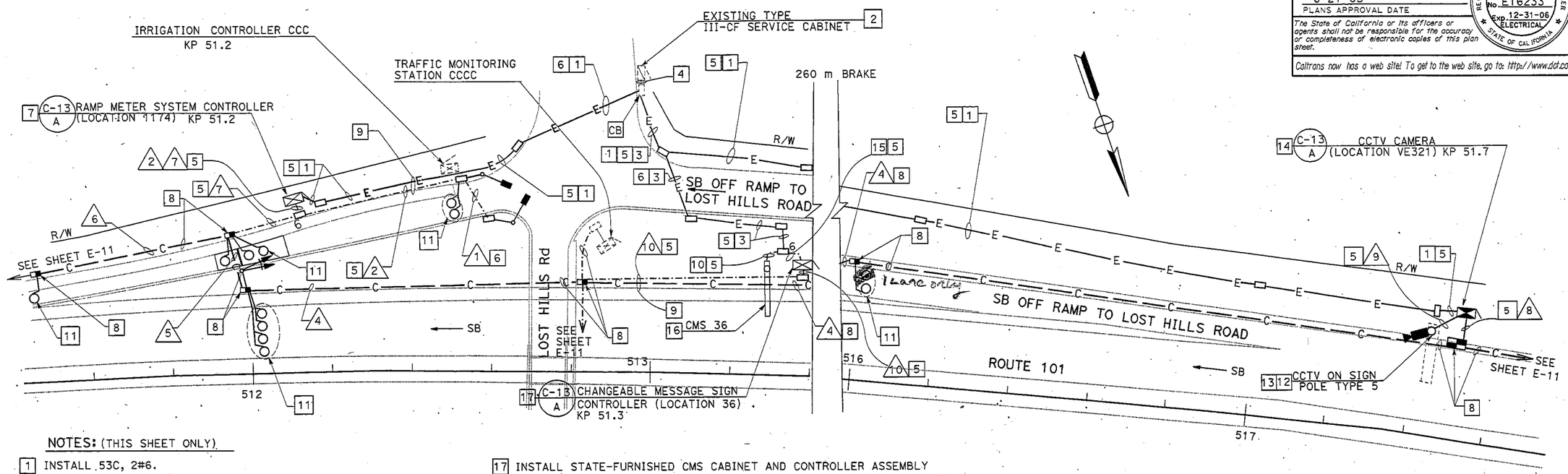
DATE	REVISED BY
6/05	DATE REVISED
DAVID PADILLA	DAVID PADILLA
CALCULATED/ DESIGNED BY	CHECKED BY

PROJECT ENGINEER — DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — ITS DESIGN



NOTES: (THIS SHEET ONLY)

1. INSTALL 53C, 2#6.
2. EXISTING TYPE III-CF SERVICE EQUIPMENT ENCLOSURE. METER ONE: INSTALL 20 A, 1P CIRCUIT BREAKER FOR RMS; 20 A, 1P CIRCUIT BREAKER FOR CCTV. METER TWO: INSTALL 2P, 40 A CIRCUIT BREAKER FOR CMS; 30 A, 1P CIRCUIT BREAKER FOR CMS CONTROLLER.
3. INSTALL 78C, 4#4, 2#6.
4. INSTALL 4#4, 6#6 IN EXISTING CONDUIT.
5. INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.
6. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
7. INSTALL STATE-FURNISHED MODEL 334 CABINET ON A NEW FOUNDATION. CABINET TO INCLUDE STATE-FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS.INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-51 FOR DETAILS.
8. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
9. INSTALL CONDUITS IN THE SAME TRENCH.
10. INSTALL 78C, 4#4 AND STATE-FURNISHED CONTROL CABLES.
11. INSTALL TYPE E INDUCTIVE LOOP DETECTORS. SEE SHEET E-52 FOR LOOP DETECTOR INSTALLATION DETAILS.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 5 ON EXISTING SIGN. SEE SHEET RSP ES-16B FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-53.
15. INSTALL 2-78C, STATE-FURNISHED CMS CONTROL CABLES AND 2#6.
16. INSTALL STATE-FURNISHED MODEL 500 LED CMS PANEL ON NEW CMS SIGN STRUCTURE. SEE SHEET C-7 FOR DETAILS.
17. INSTALL STATE-FURNISHED CMS CABINET AND CONTROLLER ASSEMBLY ON NEW FOUNDATION. INSTALL C-MIC AND FOAM IN CONTROLLER CABINET. SEE SHEET E-56 FOR DETAILS. INSTALL CABINET 12 m FROM ETW.
18. SEE SHEET C-8 FOR CCTV VE321 CONSTRUCTION DETAILS.
19. SEE SHEET C-7 FOR CMS 36 CONSTRUCTION DETAILS.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	4	5	6	7	8	9	10
#14	RAMP SIGNAL				3		3			
	SPARES				3		3			
	TOTAL				6		6			
#10	SIGNAL COMMON				1		1			
	METER ON SIGN	3	3							
	TOTAL	3	3		1		1			
DLC	QUEUE DETECTOR		2							
	DEMAND DETECTOR						1			
	PASSAGE DETECTOR						1			
	SURVEILLANCE DETECTOR				4		4			
	COUNT DETECTOR			2	2	1	3			
	TOTAL		2	2	6	1	9			
12SMFO VOICE/DATA				1	1		1	1		1
12SMFO SHORT HAUL DATA/VIDEO								1		
RG-6A/U COAX CABLE									1	
CCTV CONTROL CABLE									1	
CONDUIT SIZE		78	53	SEE SHEET E-11			103	78	78	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

RAMP METER SYSTEM (LOCATION 1174)
CHANGEABLE MESSAGE SIGN (LOCATION 36)
CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE321)

SCALE 1:500

E-34

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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USERNAME => trienard
DGN FILE => 712088ua034.dgn

CU 07388 | EA 120881

LAST REVISION 00-00-00 | DATE PLOTTED => 07-JUL-2005 | TIME PLOTTED => 01:03

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	88	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 EXP. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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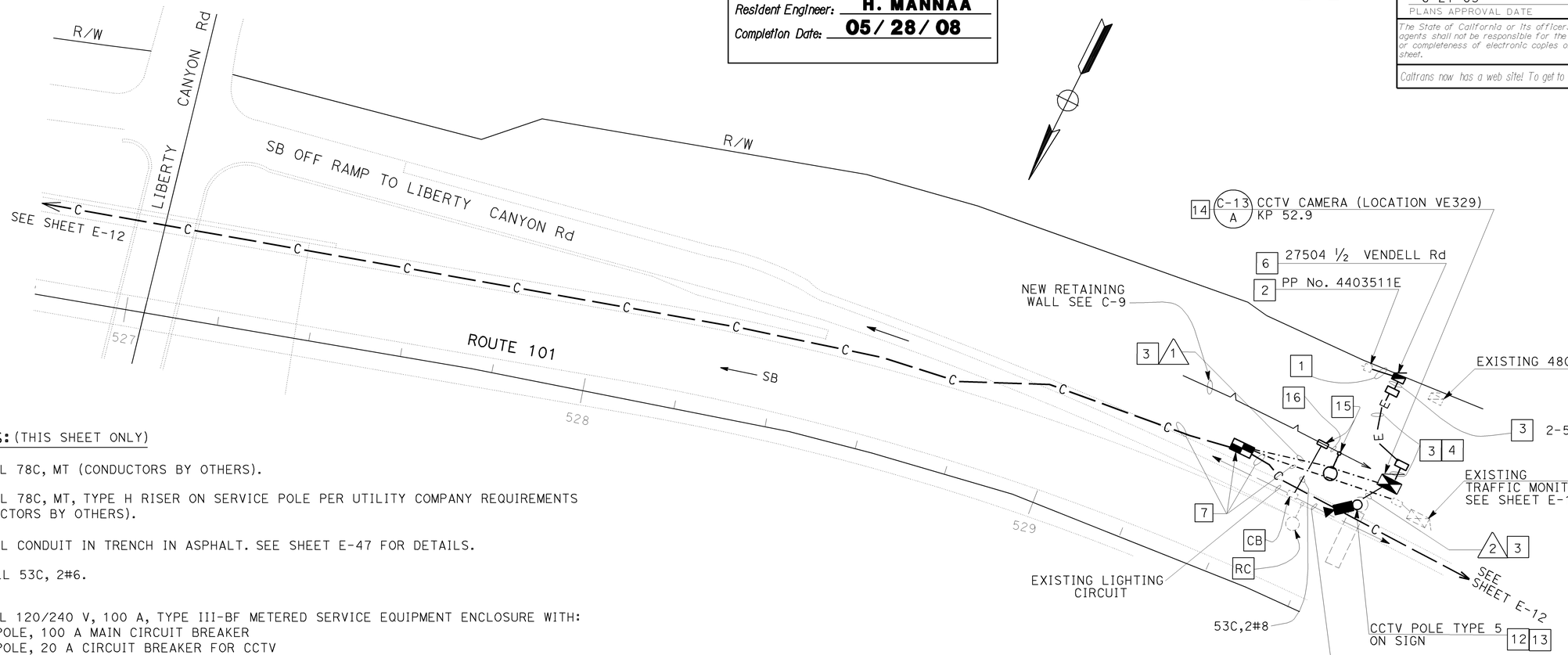
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**



NOTES: (THIS SHEET ONLY)

1. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
2. INSTALL 78C, MT, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS).
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. INSTALL 53C, 2#6.
6. INSTALL 120/240 V, 100 A, TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
   (1) 2 POLE, 100 A MAIN CIRCUIT BREAKER
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR CCTV
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 5 ON EXISTING SIGN. SEE SHEET RSP ES-16B FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. INSTALL NEW TYPE 21 LIGHTING STANDARD, AND 9A PULL BOX ON RETAINING WALL. SEE ES-6A, ES-9A, B11-55.
16. INSTALL 53C IN NEW RETAINING WALL. INSTALL 2#8.
17. SEE SHEET C-9 FOR CCTV VE329 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE			
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2
12SMFO CABLE	VOICE/DATA	1	
12SMFO CABLE	SHORT HAUL VIDEO	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1
CCTV CONTROL CABLE	CAMERA CONTROL		1
	CONDUIT SIZE	78	78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE329)

SCALE 1:500

E-35

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — ITS DESIGN

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY
DAVID PADILLA	DAVID PADILLA	6/05	6/05 DATE REVISED

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:09

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USERNAME => s123048
DGN FILE => 712088ug035.dgn

CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA,Ven	23,101	Var	88	60

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — EXP. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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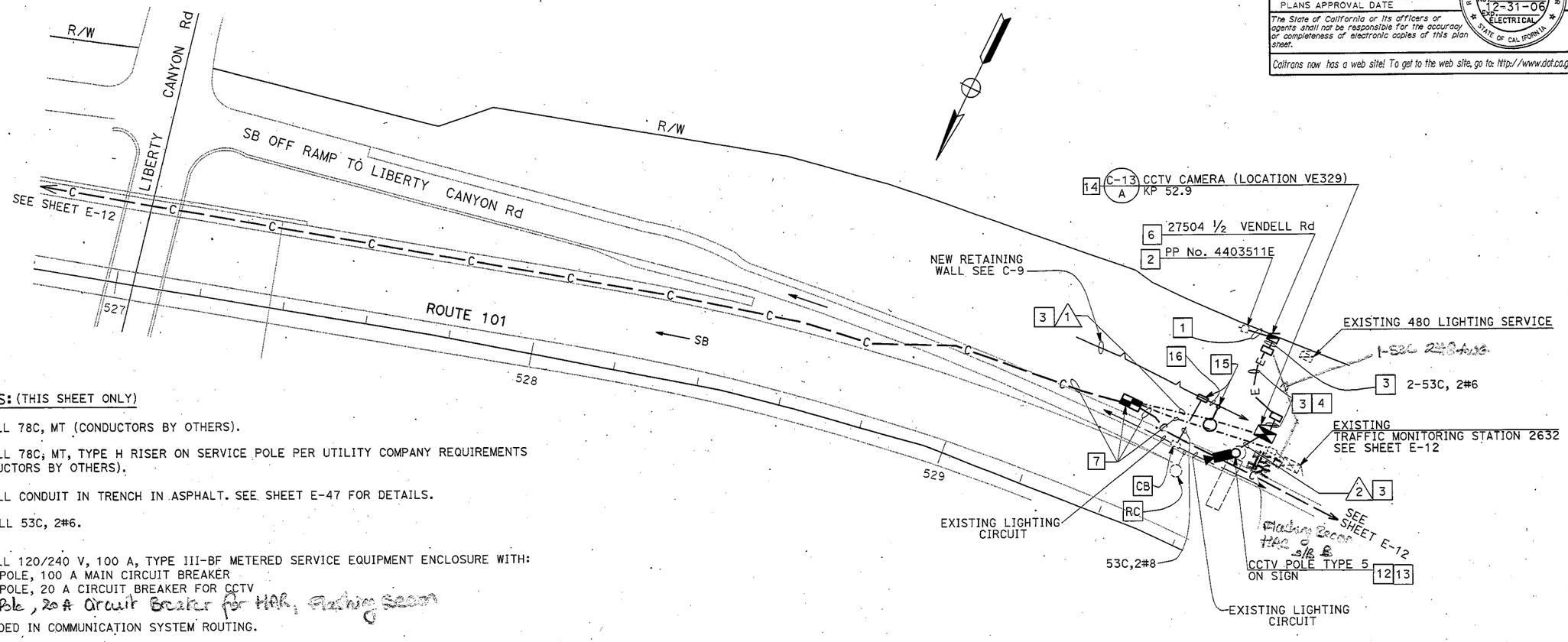
DATE	REVISED BY	DATE	REVISED BY
6/05	DAVID PADILLA	6/05	DATE REVISED

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN



NOTES: (THIS SHEET ONLY)

1 INSTALL 78C, MT (CONDUCTORS BY OTHERS).

2 INSTALL 78C, MT, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS).

3 INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

4 INSTALL 53C, 2#6.

6 INSTALL 120/240 V, 100 A, TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
(1) 2 POLE, 100 A MAIN CIRCUIT BREAKER
(1) 1 POLE, 20 A CIRCUIT BREAKER FOR CCTV
(1) 1 Pole, 20 A Circuit Breaker for HAR, Flashing Beacon

7 INCLUDED IN COMMUNICATION SYSTEM ROUTING.

12 INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.

13 INSTALL CCTV POLE TYPE 5 ON EXISTING SIGN. SEE SHEET RSP ES-16B FOR DETAILS.

14 INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.

15 INSTALL NEW TYPE 21 LIGHTING STANDARD, AND 9A PULL BOX ON RETAINING WALL. SEE ES-6A, ES-9A, B11-55.

16 INSTALL 53C IN NEW RETAINING WALL. INSTALL 2#8.

17. SEE SHEET C-9 FOR CCTV VE329 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE			
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2
12SMFO CABLE	VOICE/DATA	1	
12SMFO CABLE	SHORT HAUL VIDEO	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1
CCTV CONTROL CABLE	CAMERA CONTROL		1
	CONDUIT SIZE	78	78

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE329)

SCALE 1:500

E-35

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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USERNAME => trstrk
DGN FILE => 712088ua035.dgn

CU 07388 | EA 120881

LAST REVISION 00-00-00 | DATE PLOTTED => 05-JUL-2005 | TIME PLOTTED => 09:54

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	89	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp. 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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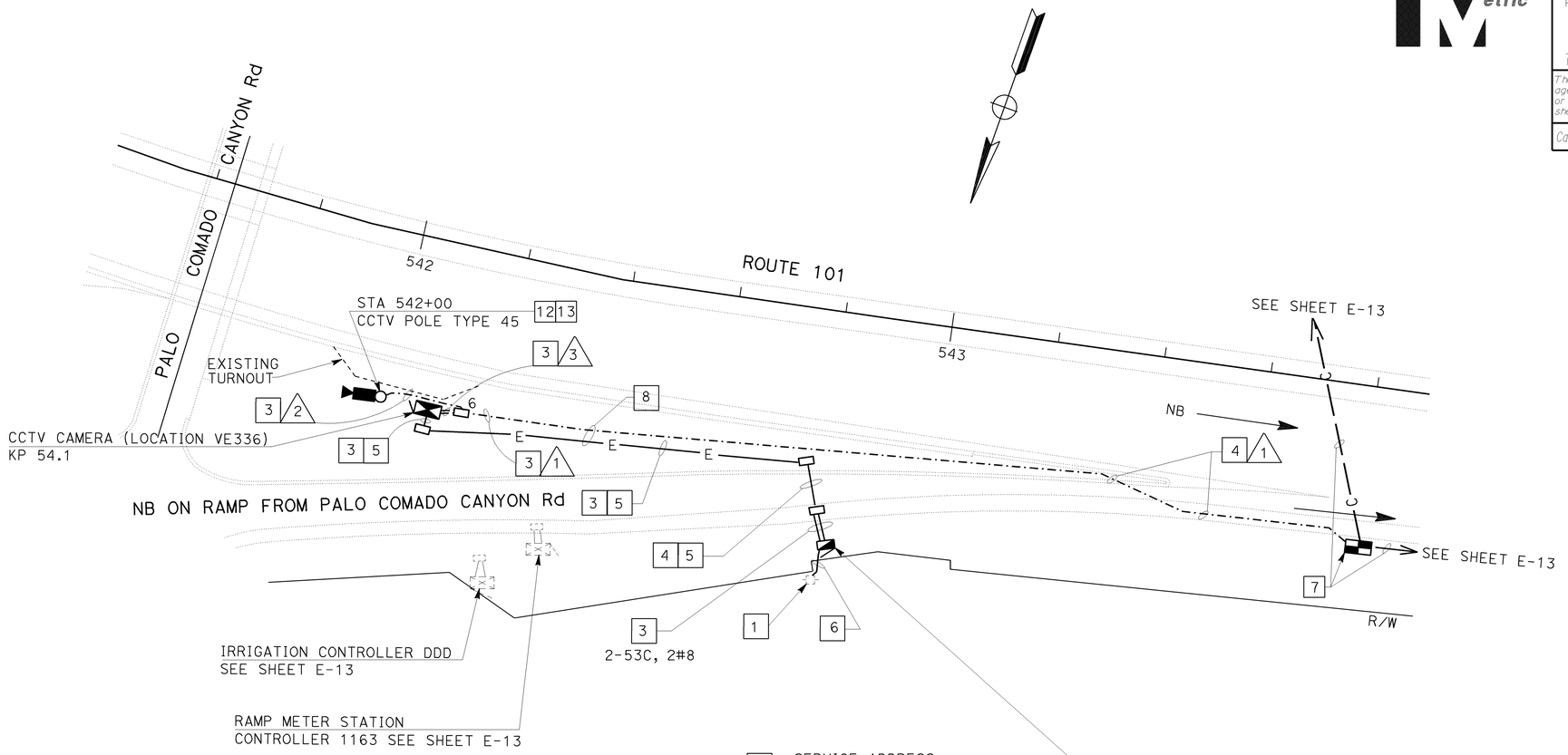
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**



NOTES: (THIS SHEET ONLY)

1. INSTALL 78C, MT, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS). RC EXISTING SERVICE PANEL, WIRING AND RISER PER SERVICE COMPANY REQUIREMENTS.
2. INSTALL 120/240 V, 100 A, TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
   (1) 2 POLE, 100 A MAIN CIRCUIT BREAKER
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR RMS
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR CCTV
3. INSTALL CONDUIT IN SOIL. SEE SHEET E-46 FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
5. INSTALL 53C, 2#8.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. INSTALL CONDUITS IN THE SAME TRENCH.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. RECONNECT EXISTING CIRCUITS TO NEW SERVICE CABINET.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1		1
12SMFO CABLE	SHORT HAUL VIDEO	1		1
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
	CONDUIT SIZE	78	78	2-78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE336)

SCALE 1:500

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-36

DATE	REVISED BY
6/05	DAVID PADILLA

CALCULATED/ DESIGNED BY	CHECKED BY
DAVID PADILLA	DAVID PADILLA

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:09

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USERNAME => s123048
DGN FILE => 712088ua036.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA,Ven	23,101	Var	89 A	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — EXP. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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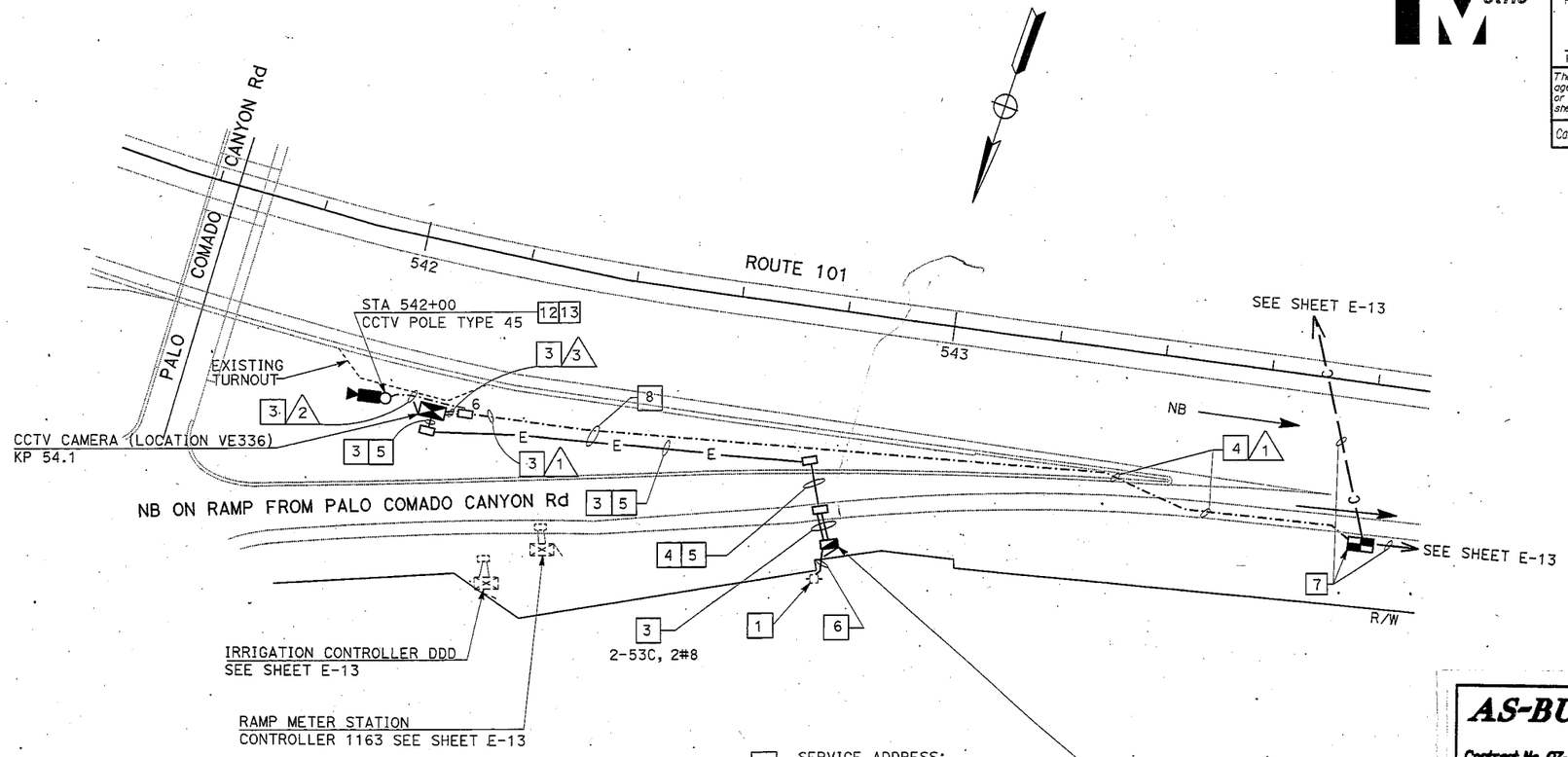
DATE	REVISED BY
6/05	DATE REVISED
CALCULATED/ DESIGNED BY	DAVID PADILLA
CHECKED BY	DAVID PADILLA
PROJECT ENGINEER	DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN



Hdr Sign
Sta A
Sta 555+20

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

NOTES: (THIS SHEET ONLY)

1. INSTALL 78C, MT, TYPE H RISER ON SERVICE POLE PER UTILITY COMPANY REQUIREMENTS (CONDUCTORS BY OTHERS). RC EXISTING SERVICE PANEL, WIRING AND RISER PER SERVICE COMPANY REQUIREMENTS.
2. INSTALL 120/240 V, 100 A, TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
   (1) 2 POLE, 100 A MAIN CIRCUIT BREAKER
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR RMS
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR CCTV
3. INSTALL CONDUIT IN SOIL. SEE SHEET E-46 FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.
5. INSTALL 53C, 2#8.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. INSTALL CONDUITS IN THE SAME TRENCH.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. RECONNECT EXISTING CIRCUITS TO NEW SERVICE CABINET.

CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1		1
12SMFO CABLE	SHORT HAUL VIDEO	1		1
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
	CONDUIT SIZE	78	78	2-78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE336)

SCALE 1:500

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-36

LAST REVISION 00-00-00 | DATE PLOTTED => 07-JUL-2005 | TIME PLOTTED => 07:04

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USERNAME => trienard
DGN FILE => 71208ud036.dgn

CU 07388 | EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	90	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

DAVID PADILLA No. E16233 Exp 12-31-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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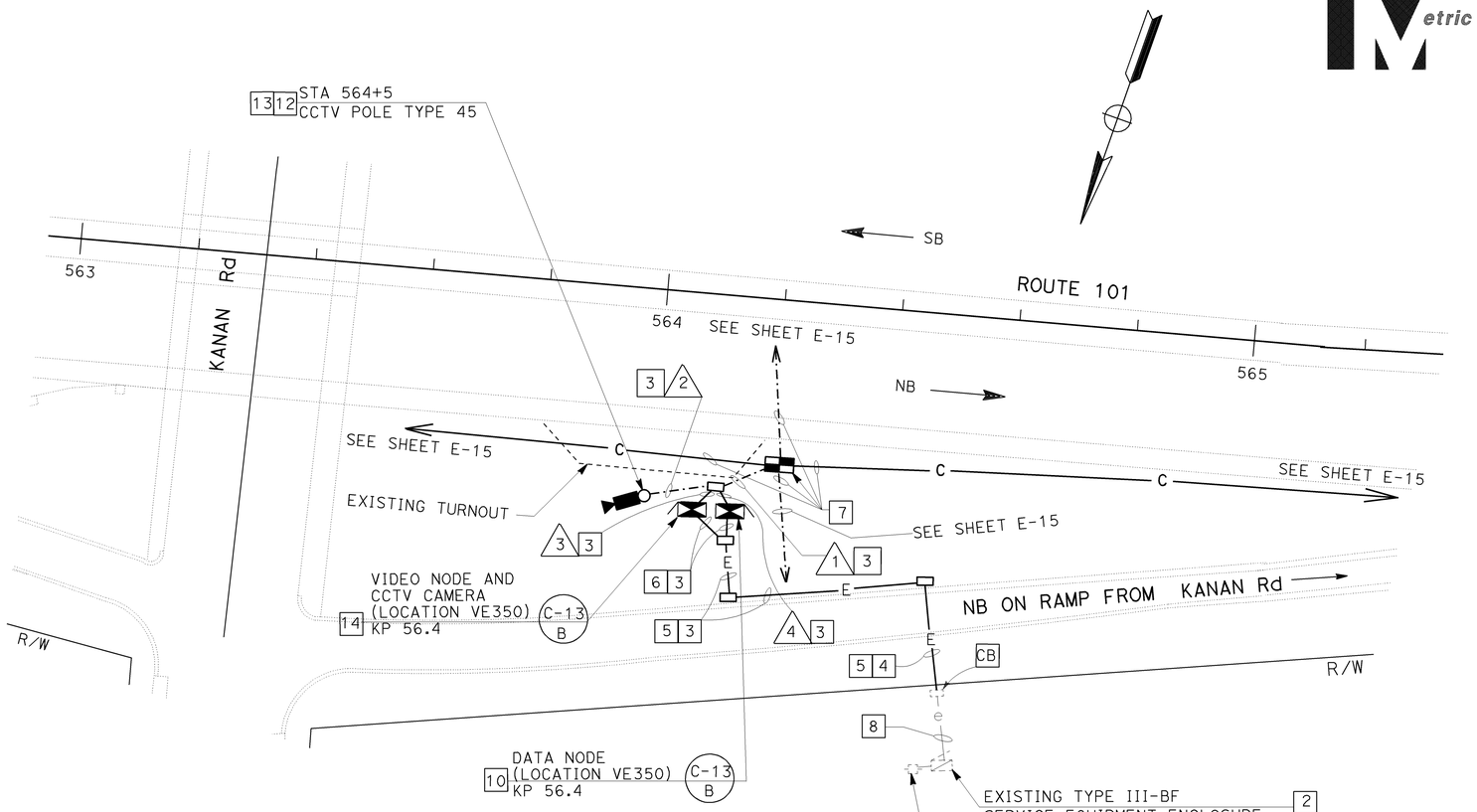
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**



NOTES: (THIS SHEET ONLY)

2 INSTALL 2-1P, 20 A CIRCUIT BREAKER FOR CCTV AND DATA NODE.

3 INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.

4 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

5 INSTALL 53C, 4#8.

6 INSTALL 53C, 2#8.

7 INCLUDED IN COMMUNICATION SYSTEM ROUTING.

8 ADD 4#8 POWER CABLES.

10 INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE DATA NODE EQUIPMENT. SEE SHEET E-54.

12 INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.

13 INSTALL CCTV POLE. SEE RSP ES-16A FOR DETAILS.

14 INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV AND VIDEO NODE EQUIPMENT. SEE SHEET E-54.

CONDUCTOR SCHEDULE					
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4
48SMFO CABLE	VOICE/DATA	2			2
48SMFO CABLE	VIDEO DISTRIBUTION	2		2	
12SMFO CABLE	MULTIPLEXED DATA/VIDEO	2		1	1
12SMFO CABLE	VOICE/DATA			1	1
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1	
CCTV CONTROL CABLE	CAMERA CONTROL		1	1	
	CONDUIT SIZE	78	78	78	78

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE350) DATA NODE (LOCATION VE350)

SCALE 1:500

E-37

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6/05	DAVID PADILLA

CALCULATED/ DESIGNED BY	CHECKED BY
DAVID PADILLA	DAVID PADILLA

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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

USERNAME => s123048
DGN FILE => 712088ua037.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2008 TIME PLOTTED => 12:09

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	90	160

REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — EXP 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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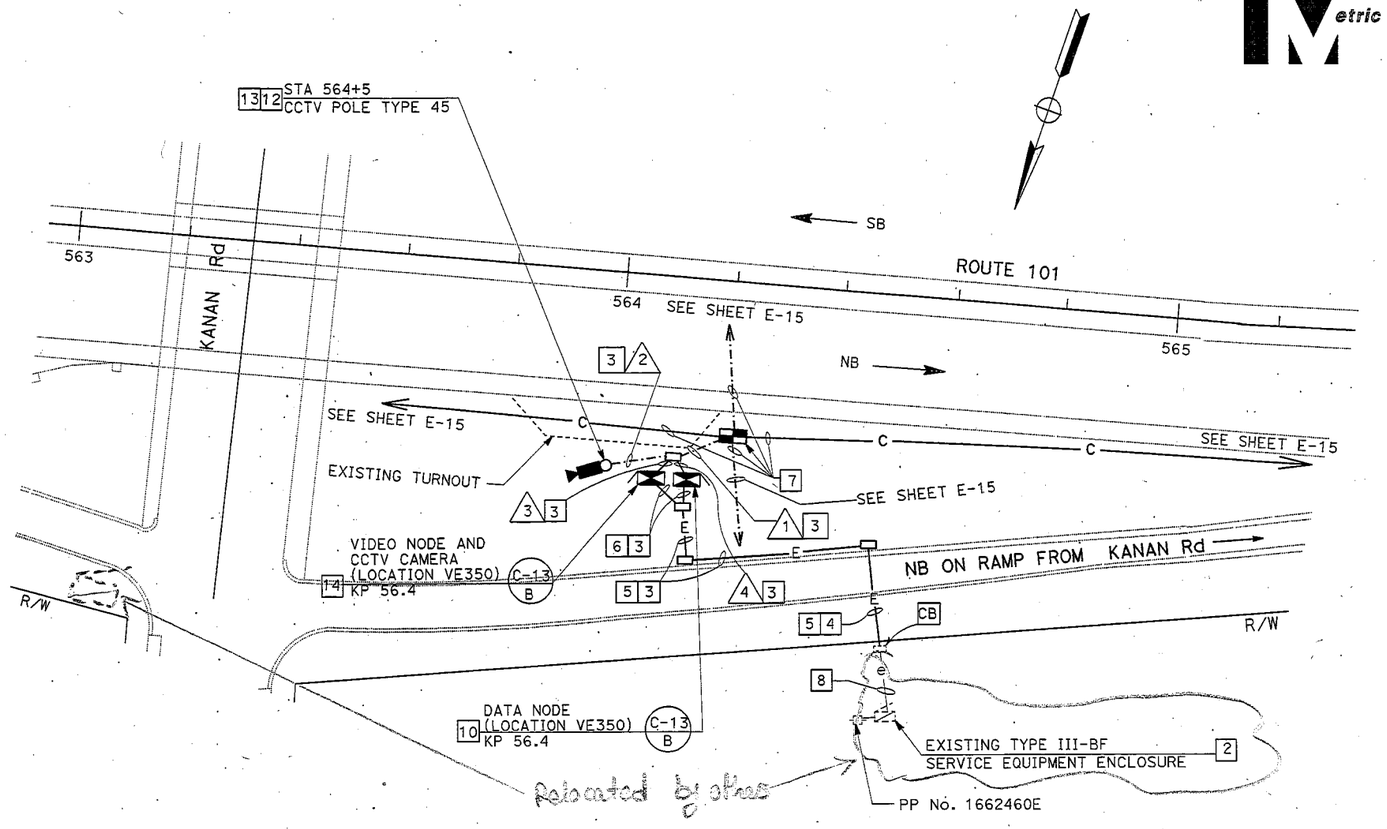
AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08



NOTES: (THIS SHEET ONLY)

2 INSTALL 2-1P, 20 A CIRCUIT BREAKER FOR CCTV AND DATA NODE.

3 INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.

4 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

5 INSTALL 53C, 4#8.

6 INSTALL 53C, 2#8.

7 INCLUDED IN COMMUNICATION SYSTEM ROUTING.

8 ADD 4#8 POWER CABLES.

10 INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE DATA NODE EQUIPMENT. SEE SHEET E-54.

12 INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.

13 INSTALL CCTV POLE. SEE RSP ES-16A FOR DETAILS.

14 INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV AND VIDEO NODE EQUIPMENT. SEE SHEET E-54.

CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3	RUN 4
48SMFO CABLE	VOICE/DATA	2			2
48SMFO CABLE	VIDEO DISTRIBUTION	2		2	
12SMFO CABLE	MULTIPLEXED DATA/VIDEO	2		1	1
12SMFO CABLE	VOICE/DATA			1	1
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1	
CCTV CONTROL CABLE	CAMERA CONTROL		1	1	
	CONDUIT SIZE	78	78	78	78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE350) DATA NODE (LOCATION VE350)

SCALE 1:500

E-37

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USERNAME => trstrk
DGN FILE => 712088ua037.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 05-JUL-2005
TIME PLOTTED => 09:55

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

PROJECT ENGINEER
DAVID PADILLA

CALCULATED/DESIGNED BY: DAVID PADILLA — DATE 6/05 — REVISED BY
CHECKED BY: DAVID PADILLA — 6/05 — DATE REVISED

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	91	160

Caltrans Metric

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. E16233
Exp. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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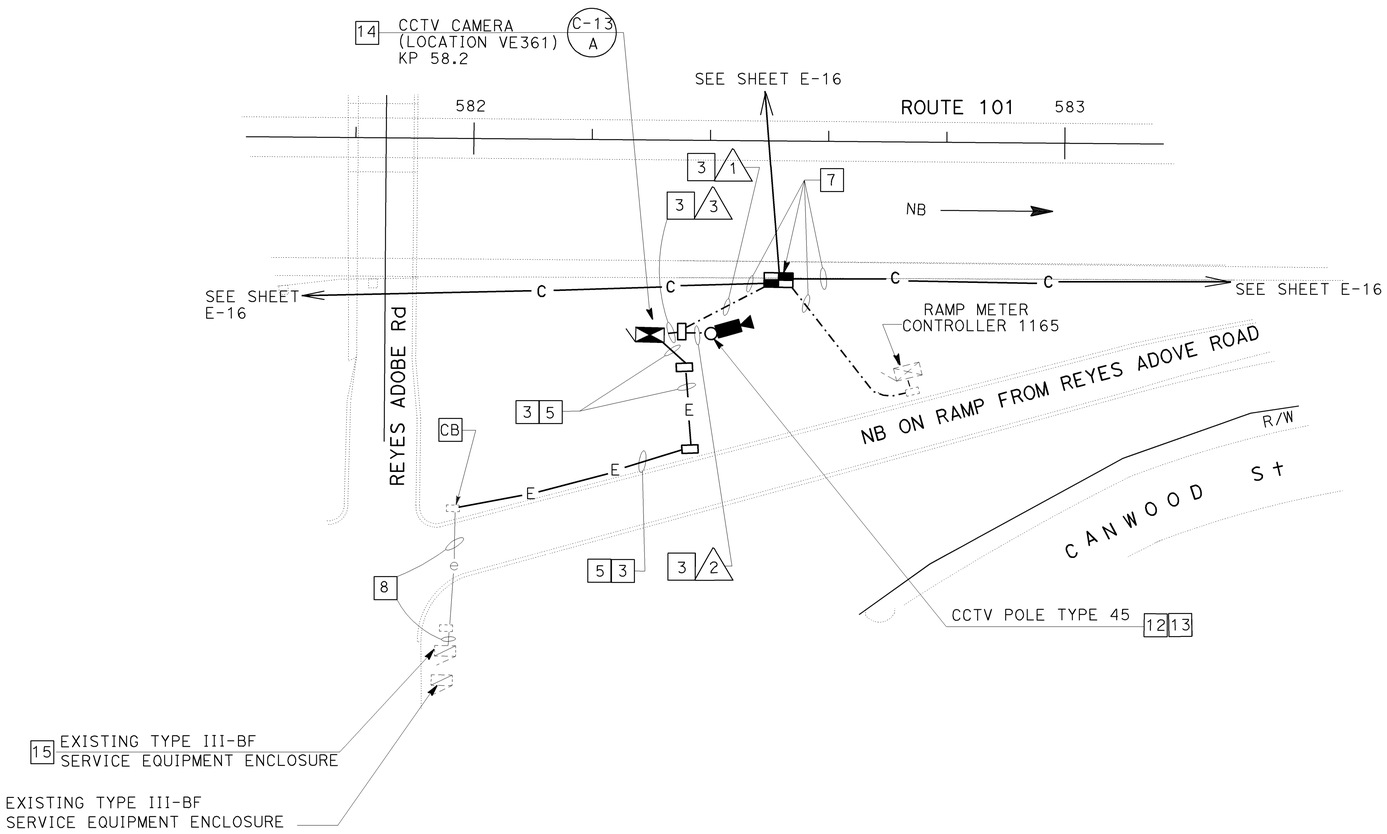
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**



NOTES: (THIS SHEET ONLY)

3 INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.

5 INSTALL 53C, 2#8.

7 INCLUDED IN COMMUNICATION SYSTEM ROUTING.

8 INSTALL 2#8 FOR CCTV IN EXISTING CONDUIT.

12 INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.

13 INSTALL CCTV POLE. SEE SHEET RSP ES-16A FOR DETAILS.

14 INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.

15 INSTALL NEW 1P, 20 A CIRCUIT BREAKER FOR CCTV.

17. SEE SHEET C-10 FOR CCTV VE361 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE				
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2	RUN 3
12SMFO CABLE	VOICE/DATA	1		1
12SMFO CABLE	SHORT HAUL VIDEO	1		1
RG-6A/U COAX CABLE	BASE BAND VIDEO		1	1
CCTV CONTROL CABLE	CAMERA CONTROL		1	1
	CONDUIT SIZE	78	78	2-78

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE361)

SCALE 1:500

E-38

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => s123048
DGN FILE => 712088ua038.dgn

CU 07388

EA 120881

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2008
TIME PLOTTED => 12:10

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	92	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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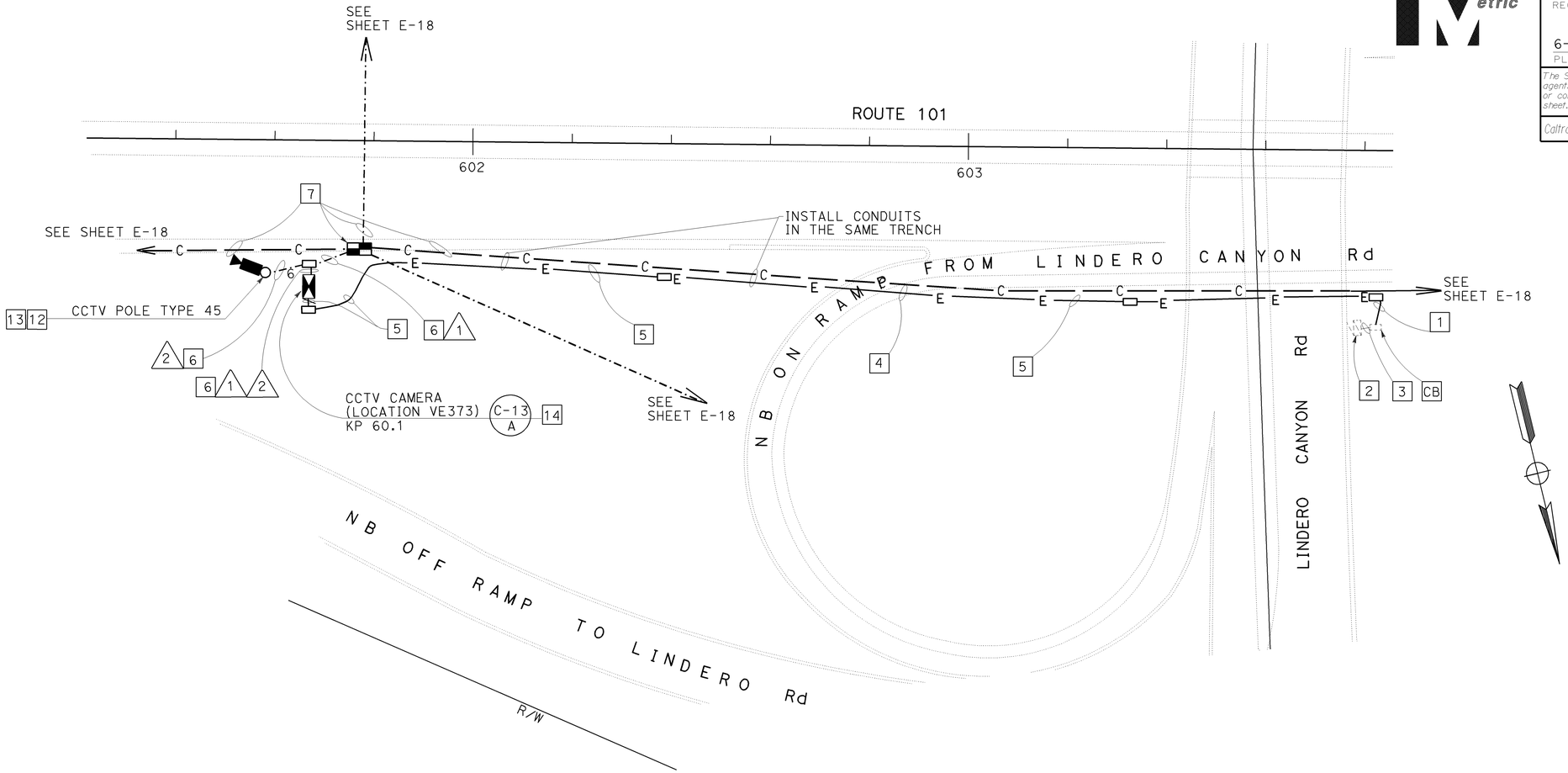
AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**



NOTES: (THIS SHEET ONLY)

1. INSTALL 53C, 2#6 IN SLOPED SOILED AREA.
2. INSTALL 1-2P, 20 A BREAKER FOR CCTV CAMERA CONTROLLER (LOCATION VE601) IN EXISTING TYPE III-CF SERVICE EQUIPMENT ENCLOSURE.
3. INSTALL 2#6 IN EXISTING CONDUIT.
4. JACK 53C, 2#6 BENEATH ROADWAY.
5. INSTALL 53C, 2#6 IN TRENCH IN SOIL.
6. INSTALL 53C IN TRENCH IN SOIL.
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 45. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
16. SEE SHEET C-11 FOR CCTV VE373 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE			
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2
12SMFO CABLE	VOICE/DATA	1	
12SMFO CABLE	SHORT HAUL VIDEO	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1
CCTV CONTROL CABLE	CAMERA CONTROL		1
	CONDUIT SIZE	78	78

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE373)

SCALE 1:500

E-39

DATE	REVISED BY	DATE REVISED
6/05	DAVID PADILLA	6/05

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA
PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DESIGN

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CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	93	160

David Padilla
REGISTERED ELECTRICAL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA — No. E16233 — Exp. 12-31-06 — ELECTRICAL — STATE OF CALIFORNIA

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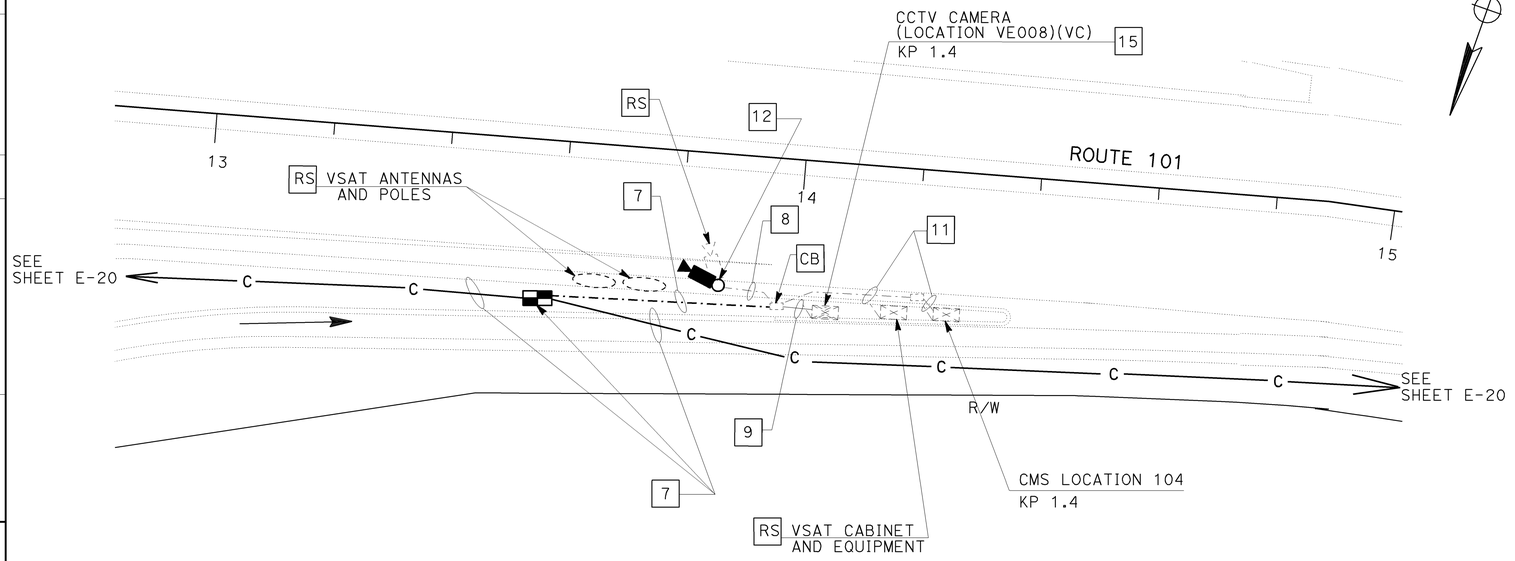

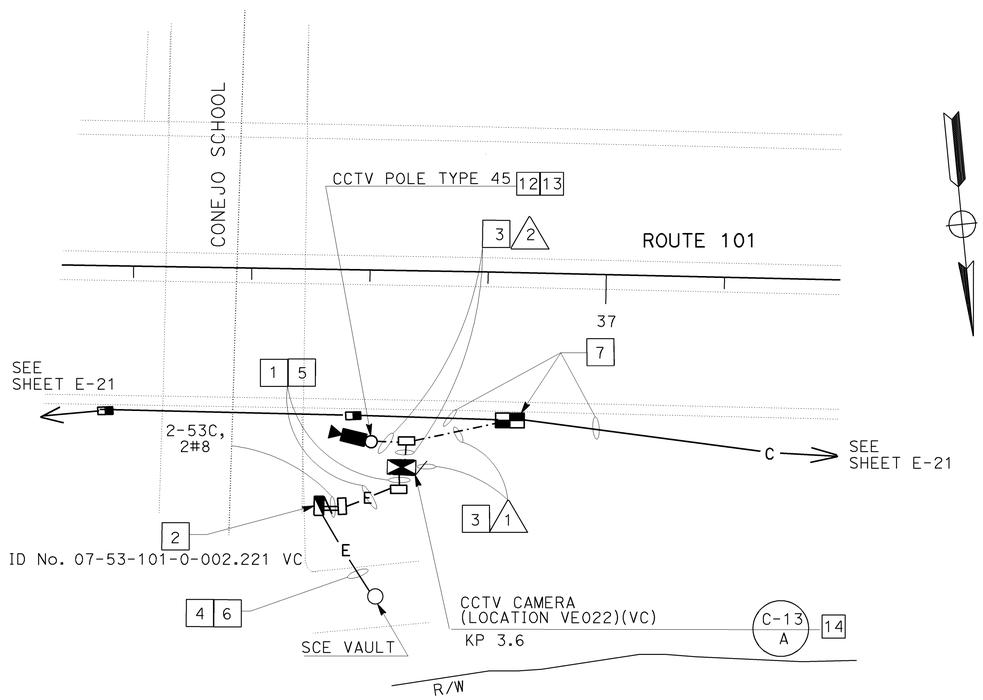

AS-BUILT

Contract No. 07- **120884**

Resident Engineer: **H. MANNAA**

Completion Date: **05/28/08**

NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT IN SOIL. SEE SHEET E-46 FOR DETAILS.
2. INSTALL 120/240 V, 100 A TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
   (1) 2 POLE, 100 A MAIN DISCONNECT
   (1) 1 POLE, 20 A CIRCUIT BREAKER FOR CCTV.
3. INSTALL CONDUIT IN TRENCH IN ASPHALT. SEE SHEET E-47 FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY PER POWER COMPANY REQUIREMENTS. SEE SHEET C-14 FOR DETAILS.
5. INSTALL 53C, 2#8.
6. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
7. INCLUDED IN COMMUNICATION SYSTEM ROUTING.
8. RS EXISTING CABLES. INSTALL RG-6A/U COAX CABLE AND CCTV CONTROL CABLE.
9. RS EXISTING CABLES. INSTALL 2-12SMFO CABLE, RG-6A/U COAX CABLE AND CCTV CONTROL CABLE.
11. SEE SHEET E-20.
12. INSTALL CAMERA ASSEMBLY WITH PAN/TILT UNIT ON EXISTING POLE. SEE SHEET E-43 FOR DETAILS.
13. INSTALL CCTV POLE TYPE 45. SEE SHEET RSP ES-16A FOR DETAILS.
14. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV EQUIPMENT. SEE SHEET E-53.
15. RS ALL EXISTING SLOW SCAN CCTV AND VSAT EQUIPMENT. INSTALL NEW CCTV EQUIPMENT IN EXISTING CCTV CABINET. SEE SHEET E-53.

17. SEE SHEET C-12 FOR CCTV VE022 CONSTRUCTION DETAILS.

CONDUCTOR SCHEDULE			
CONDUCTOR TYPE	FUNCTION	RUN 1	RUN 2
12SMFO CABLE	VOICE/DATA	1	
12SMFO CABLE	SHORT HAUL DATA/VIDEO	1	
RG-6A/U COAX CABLE	BASE BAND VIDEO		1
CCTV CONTROL CABLE	CAMERA CONTROL		1
CONDUIT SIZE		53	78

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

MODIFY CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE008)(VC)
CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE022)(VC)

SCALE 1:500

E-40

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6/05	DAVID PADILLA

DATE REVISED	DAVID PADILLA	CHECKED BY
6/05	DAVID PADILLA	CALCULATED/ DESIGNED BY

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ITS DESIGN
Caltrans

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CU 07388

EA 120881

CONDUCTOR SCHEDULE								
CONDUCTOR TYPE	FUNCTION	RUN						
		5			6		7	
12SMFO CABLE	VOICE/DATA	1			1			
12SMFO CABLE	SHORT HAUL VIDEO		1		1			
RG-6A/U COAX CABLE	BASE BAND VIDEO					1		1
CCTV CONTROL CABLE	CAMERA CONTROL					1		1
	SIZE 25 INNERDUCT	1	1		1			
CONDUIT SIZE		53			Exist		Exist	

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	94	160

REGISTERED CIVIL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID PADILLA No. 16233 Exp. 12-31-06 ELECTRICAL — STATE OF CALIFORNIA

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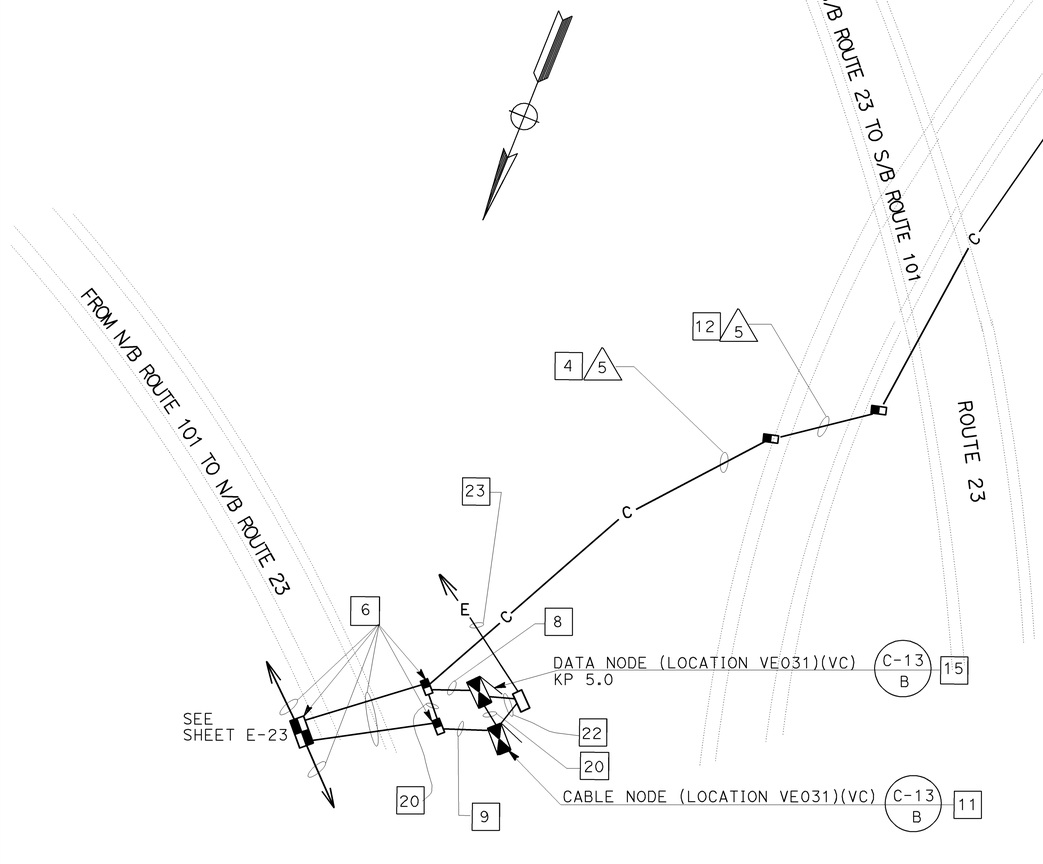

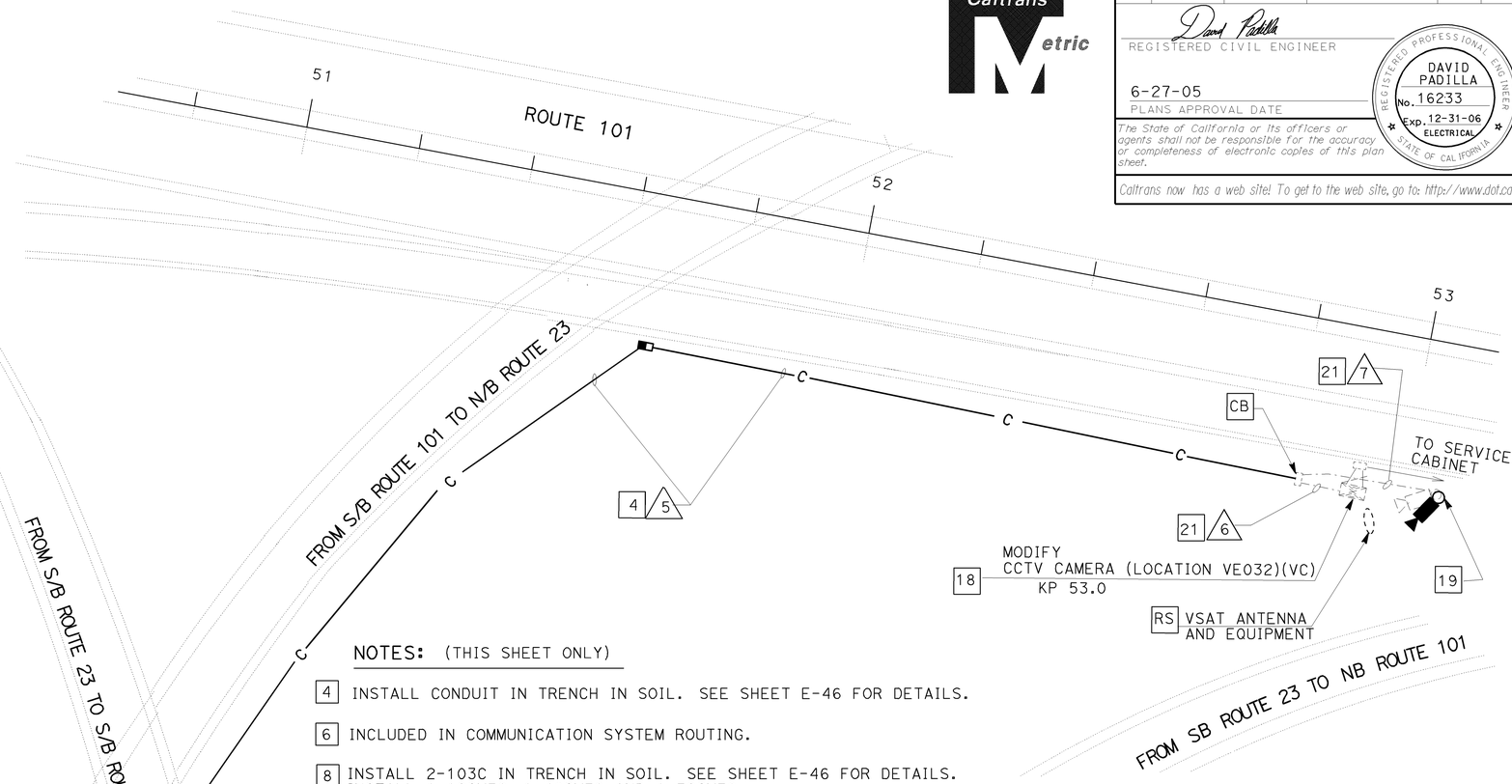

NOTES: (THIS SHEET ONLY)

4 INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.

6 INCLUDED IN COMMUNICATION SYSTEM ROUTING.

8 INSTALL 2-103C IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS. INSTALL 1-12SMFO, 1-48SMFO AND 1-72SMFO.

9 INSTALL 2-103C IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS. INSTALL 1-12SMFO, 3-48SMFO AND 1-72SMFO.

11 INSTALL MODEL 334 TV CABINET WITH CABLE NODE EQUIPMENT. SEE SHEETS E-55.

12 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

15 INSTALL MODEL 334 TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE DATA NODE EQUIPMENT. SEE SHEET E-55.

18 RS ALL EXISTING SLOW SCAN CCTV AND ALL VSAT EQUIPMENT. INSTALL NEW CCTV EQUIPMENT IN EXISTING CCTV CABINET. SEE SHEET E-53.

19 RS EXISTING CAMERA. INSTALL NEW CAMERA ASSEMBLY WITH PAN/TILT UNIT ON EXISTING POLE. SEE SHEET E-43 AND RSP ES-16A.

20 INSTALL 103C, 1-12SMFO IN SOIL.

21 RC ALL CABLES.

22 INSTALL 78C, 2#6.

23 SEE SHEET E-23.

AS-BUILT

Contract No. 07- **120884**
Resident Engineer: **H. MANNAA**
Completion Date: **05/28/08**

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE NOTED

DATA NODE (LOCATION VE031)(VC) CABLE NODE (LOCATION VE031)(VC) MODIFY CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE032)(VC)

SCALE 1:500

E-41

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6-05	DAVID PADILLA

CALCULATED/ DESIGNED BY	CHECKED BY
DAVID PADILLA	DAVID PADILLA

PROJECT ENGINEER
DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
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DGN FILE => 712088ua041.dgn

CU 07388

EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA,Ven	23,101	Var	94	160

Caltrans Metric

David Padilla
REGISTERED CIVIL ENGINEER

6-27-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVID PADILLA
No. 16233
Exp. 12-31-06
ELECTRICAL
STATE OF CALIFORNIA

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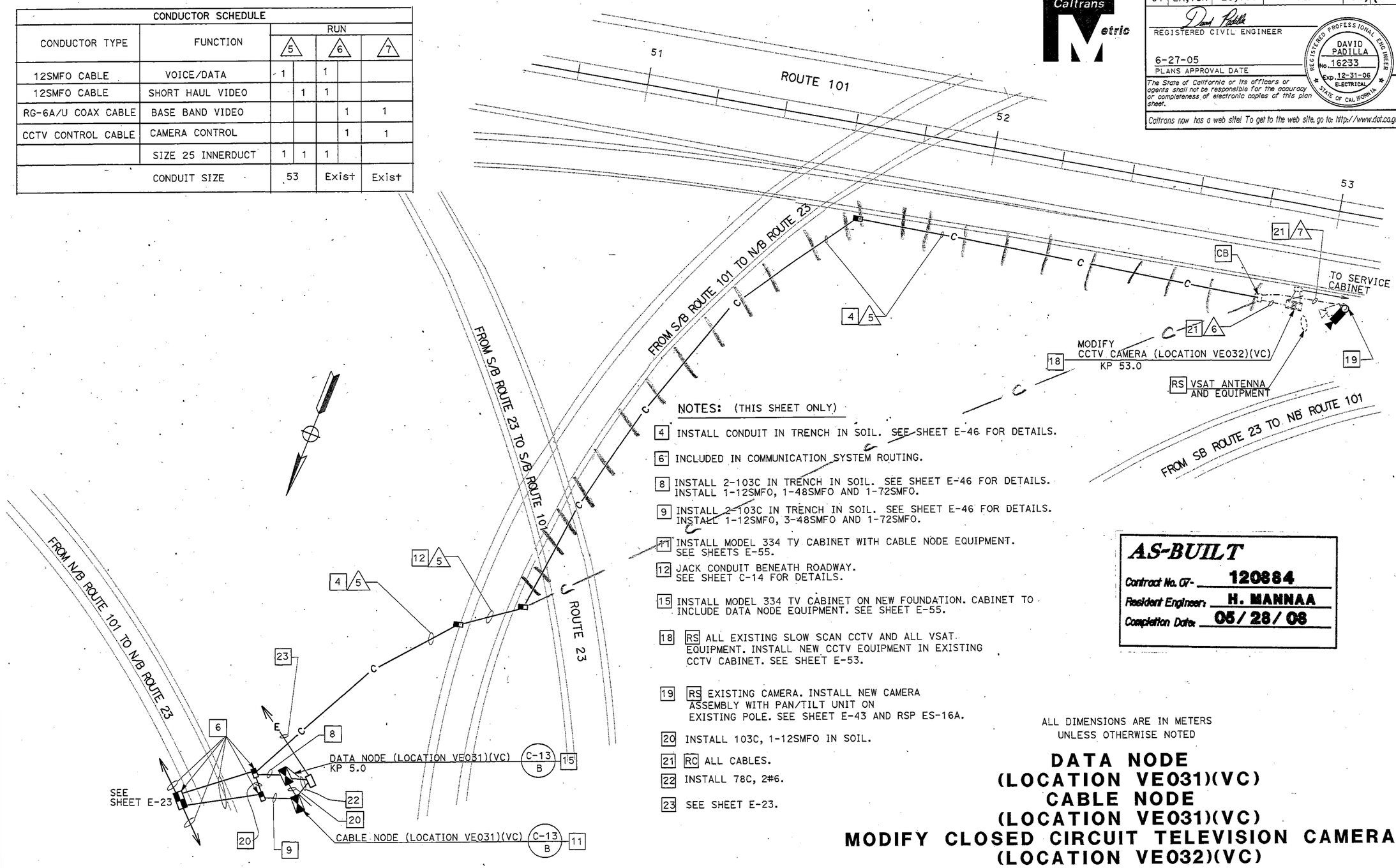
CONDUCTOR SCHEDULE							
CONDUCTOR TYPE	FUNCTION	RUN 5		RUN 6		RUN 7	
12SMFO CABLE	VOICE/DATA	1		1			
12SMFO CABLE	SHORT HAUL VIDEO		1	1			
RG-6A/U COAX CABLE	BASE BAND VIDEO				1	1	
CCTV CONTROL CABLE	CAMERA CONTROL				1	1	
	SIZE 25 INNERDUCT	1	1	1			
	CONDUIT SIZE	53		Exist		Exist	



NOTES: (THIS SHEET ONLY)

4 INSTALL CONDUIT IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS.

6 INCLUDED IN COMMUNICATION SYSTEM ROUTING.

8 INSTALL 2-103C IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS. INSTALL 1-12SMFO, 1-48SMFO AND 1-72SMFO.

9 INSTALL 2-103C IN TRENCH IN SOIL. SEE SHEET E-46 FOR DETAILS. INSTALL 1-12SMFO, 3-48SMFO AND 1-72SMFO.

11 INSTALL MODEL 334 TV CABINET WITH CABLE NODE EQUIPMENT. SEE SHEETS E-55.

12 JACK CONDUIT BENEATH ROADWAY. SEE SHEET C-14 FOR DETAILS.

15 INSTALL MODEL 334 TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE DATA NODE EQUIPMENT. SEE SHEET E-55.

18 RS ALL EXISTING SLOW SCAN CCTV AND ALL VSAT EQUIPMENT. INSTALL NEW CCTV EQUIPMENT IN EXISTING CCTV CABINET. SEE SHEET E-53.

19 RS EXISTING CAMERA. INSTALL NEW CAMERA ASSEMBLY WITH PAN/TILT UNIT ON EXISTING POLE. SEE SHEET E-43 AND RSP ES-16A.

20 INSTALL 103C, 1-12SMFO IN SOIL.

21 RC ALL CABLES.

22 INSTALL 78C, 2#6.

23 SEE SHEET E-23.

AS-BUILT
Contract No. 07- 120884
Resident Engineer: H. MANNAA
Completion Date: 05/28/08

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE NOTED

DATA NODE (LOCATION VE031)(VC) CABLE NODE (LOCATION VE031)(VC) MODIFY CLOSED CIRCUIT TELEVISION CAMERA (LOCATION VE032)(VC)

SCALE 1:500

E-41

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DATE	REVISED BY
6-05	DATE REVISED

CALCULATED/DESIGNED BY: DAVID PADILLA
CHECKED BY: DAVID PADILLA

PROJECT ENGINEER: DAVID PADILLA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 DATE PLOTTED => 07-JUL-2005 TIME PLOTTED => 07:04

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CU 07388 EA 120881

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	22	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU No. E15305 Exp.3/31/07 ELECTRICAL — STATE OF CALIFORNIA

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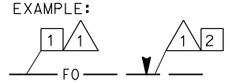
LEGEND

- SERVICE CONDUIT
- EXISTING SERVICE CONDUIT
- LOCATION OF PROPOSED CCTV CAMERA AND POLE
- MODEL 334-TV CONTROLLER CABINET FOR CCTV CAMERA, VIDEO NODE, DATA NODE, AND CABLE NODE
- SPLICE VAULT
- COMMUNICATION PULL BOX
- STAINLESS STEEL TYPE 4X JUNCTION BOX (914 mm H X 762 mm W X 305 mm D)
- FIBER OPTIC TERMINATION CLOSURE (OUTSIDE TYPE) (482 mm H X 406 mm W X 152 mm D)
- EXISTING CCTV CAMERA AND POLE
- EXISTING MODEL 334-TV CONTROLLER CABINET
- EXISTING SPLICE VAULT
- JUNCTION BOX (160 mm H X 100 mm W X 100 mm D)
- DELIMITER FOR PROJECT NOTES

EXAMPLE:



GENERAL NOTES

1. THE LOCATION OF EXISTING CONTROLLER CABINETS, SERVICE ENCLOSURES, AND POWER POLES ARE APPROXIMATE. THE LOCATION OF PROPOSED PULL BOXES AND SPLICE VAULTS ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
2. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL FACILITIES, THE CONTRACTOR SHALL PROVIDE 72 HOUR ADVANCE WRITTEN NOTICE TO ALL AGENCIES CONCERNED.
3. UNLESS OTHERWISE NOTED, ALL COMMUNICATION CONDUIT BENDS SHALL BE 1.3 m RADIUS FACTORY BENDS.
4. COMMUNICATION CONDUIT SHALL BE CENTERED IN THE PAVED SHOULDER OR AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER.
5. TRENCHING IN PAVEMENT ALLOWED ONLY WHERE SHOWN ON PLANS.
6. FOR NOTES PERTAINING TO UTILITIES SEE SHEET U-1.
7. ALL PULL BOXES AND SPLICE VAULTS SHALL BE INSTALLED IN UNPAVED AREA UNLESS NOTED OTHERWISE.
8. WHEN EXISTING LOOP DETECTORS 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.
9. INSTALL PULL ROPE AND PLUG ENDS EACH UNUSED INNERDUCTS AND CONDUITS.
10. FOR BRIDGE CONDUIT ATTACHMENTS AND TYPE 4X STAINLESS STEEL JUNCTION BOX AND FIBER OPTIC TERMINATION CLOSURE INSTALLATIONS, SEE BRIDGE STRUCTURE PLANS.
11. COIL 1 METER OF EACH FIBER OPTIC CABLE IN STAINLESS STEEL TYPE 4X JUNCTION BOX.

TABLE 1 - CCTV WIRING

CONDUCTOR TYPE	FUNCTION	QUANTITY
RG-6A/U COAX CABLE	CAMERA VIDEO INTERFACE CABLE	1
RS232 (5#22) CABLE	CAMERA CONTROL CABLE	1
3#18	POWER CABLE	1

PROJECT NOTES: (FOR SHEETS E-1 THROUGH E-6)

1. TRENCH AND INSTALL CONDUIT IN UNPAVED AREA. SEE SHEET E-17 FOR DETAILS.
2. TRENCH AND INSTALL CONDUIT IN PAVEMENT. SEE SHEET E-18 FOR DETAILS.
3. ATTACH CONDUIT TO STRUCTURE. SEE BRIDGE STRUCTURE PLANS FOR BRIDGE CONDUIT ATTACHMENT TYPE AND DETAIL.
4. JACK TYPE 1 CONDUIT BENEATH ROADWAY. SEE SHEET E-19 FOR DETAILS.
6. TERMINATE 12SMFO CABLE IN FIBER OPTIC TERMINATION CLOSURE. FIBER OPTIC TERMINATION CLOSURE IS SHOWN AS REFERENCE ONLY.
11. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION REFER TO LOCATION PLAN.
13. INSTALL SPLICE VAULT WITH FIBER OPTIC SPLICE CLOSURE(S).
14. INSTALL FIBER OPTIC SPLICE CLOSURE IN TYPE 4X STAINLESS STEEL JUNCTION BOX. TYPE 4X STAINLESS STEEL JUNCTION BOX IS SHOWN AS REFERENCE ONLY.

EQUIPMENT IDENTIFICATION

TI025
- POST MILE ACCURATE TO 1/10 MILE (WITHOUT DECIMAL)
- FREEWAY ROUTE ACRONYM

ABBREVIATIONS

ADMIN.	ADMINISTRATION
IC	INTERCONNECT
1P	1-POLE
72SMFO	FIBER OPTIC CABLE, 72 SINGLEMODE FIBERS
36SMFO	FIBER OPTIC CABLE, 36 SINGLEMODE FIBERS
12SMFO	FIBER OPTIC CABLE, 12 SINGLEMODE FIBERS
AVC	AUTOMATIC VEHICLE CLASSIFICATION
CCR	CAMERA CONTROL RECEIVER
CN	CABLE NODE
DACCS	DIGITAL ACCESS CROSS CONNECT SWITCH
DN	DATA NODE
FDU	FIBER DISTRIBUTION UNIT
FOAM	FIBER OPTIC AUDIO MODEM
LADWP	LOS ANGELES DEPARTMENT OF WATER AND POWER
SCE	SOUTHERN CALIFORNIA EDISON
SURV	SURVEILLANCE
RMS	RAMP METERING SYSTEM
UP RR	UNION PACIFIC RAILROAD
VN	VIDEO NODE
VRx	VIDEO RECEIVER
VTx	VIDEO TRANSMITTER

AS-BUILT
Contract No. 07- 129954
Resident Engineer: BERNARD ALONZO
Completion Date: 5/15/07

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

COMMUNICATION SYSTEM ROUTING
LEGEND AND NOTES
(SHEETS E-2 THROUGH E-14)

NO SCALE

E-1

DATE	REVISED BY
3/04	9/04 DATE REVISED

CALCULATED/ DESIGNED BY	CHECKED BY
LRS	CC

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CU 07388 EA 129951

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	23	93

Caltrans Metric

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — EXP. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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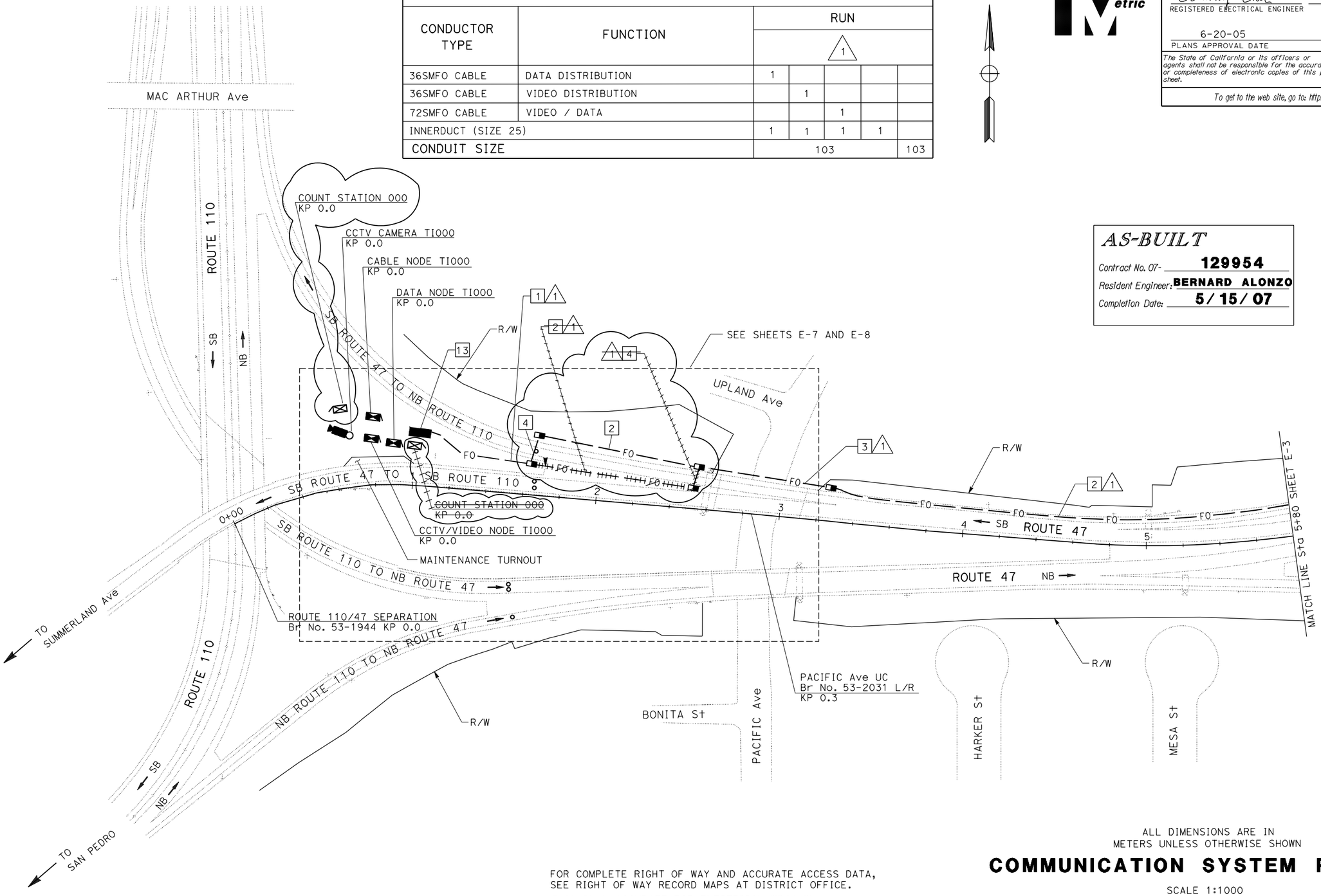
To get to the web site, go to: http://www.dot.ca.gov

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN △1				
36SMFO CABLE	DATA DISTRIBUTION	1				
36SMFO CABLE	VIDEO DISTRIBUTION		1			
72SMFO CABLE	VIDEO / DATA			1		
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103



FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

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

AS-BUILT

Contract No. 07- **129954**

Resident Engineer: **BERNARD ALONZO**

Completion Date: **5/15/07**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-2

DATE	REVISED BY
3/04	LRS
9/04	DATE REVISED

CALCULATED/DESIGNED BY: LRS
CHECKED BY: CC

PROJECT ENGINEER: CONWAY CHU

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

LAST REVISION 00-00-00
DATE PLOTTED => 30-APR-2014
TIME PLOTTED => 15:33

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u002.dgn

CU 07388

EA 129951

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN							
		1					2		
36SMFO CABLE	DATA DISTRIBUTION	1						1	
36SMFO CABLE	VIDEO DISTRIBUTION		1					1	
72SMFO CABLE	VIDEO / DATA			1			1		
INNERDUCT (SIZE 25)		1	1	1	1				
CONDUIT SIZE		103				103	53	53	53

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	24	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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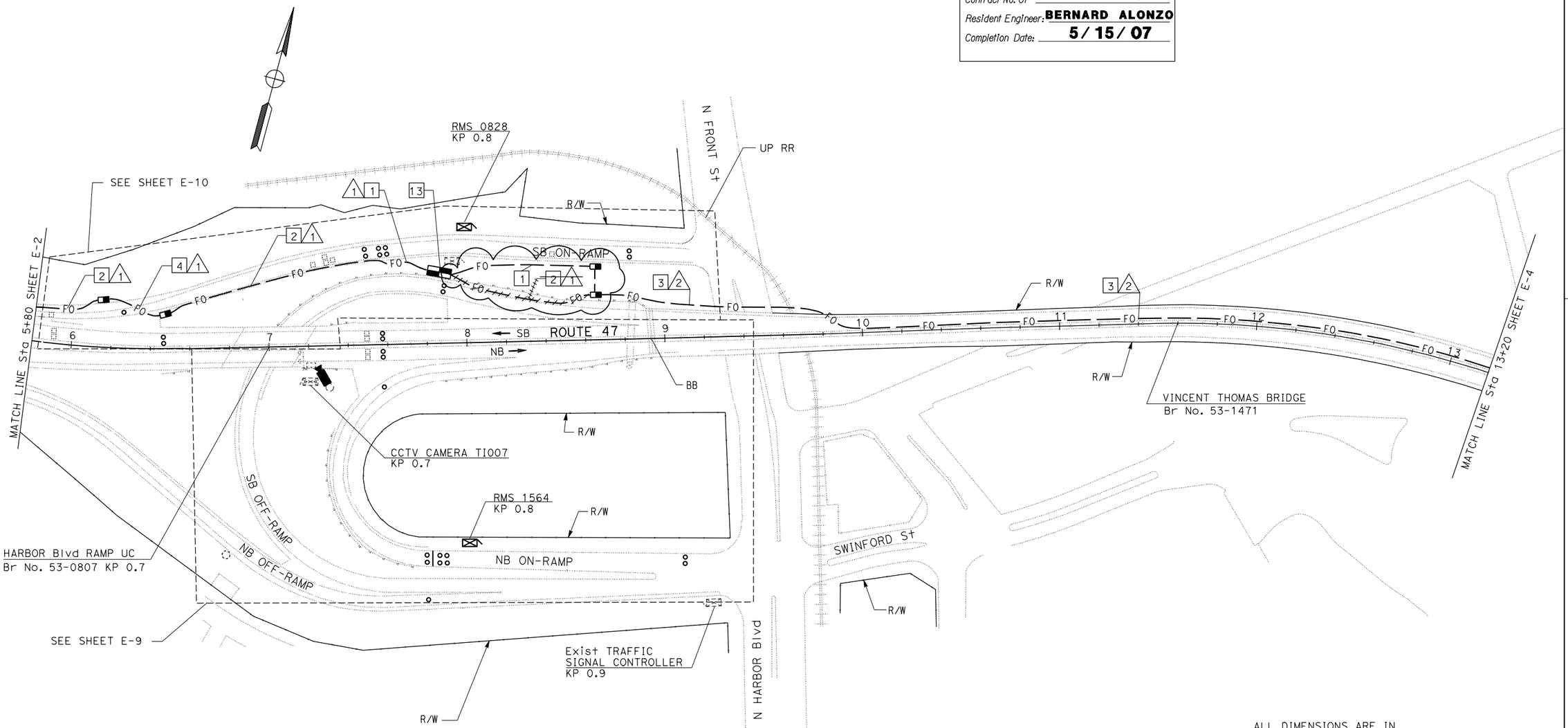
AS-BUILT

Contract No. 07- **129954**
Resident Engineer: **BERNARD ALONZO**
Completion Date: **5/15/07**



FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-3

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
3/04	LRS	LRS	CC
9/04	DATE REVISED		

PROJECT ENGINEER: CONWAY CHU

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

LAST REVISION 00-00-00 | DATE PLOTTED => 30-APR-2014 | TIME PLOTTED => 15:35

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u003.dgn

CU 07388 | EA 129951

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	25	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
Exp. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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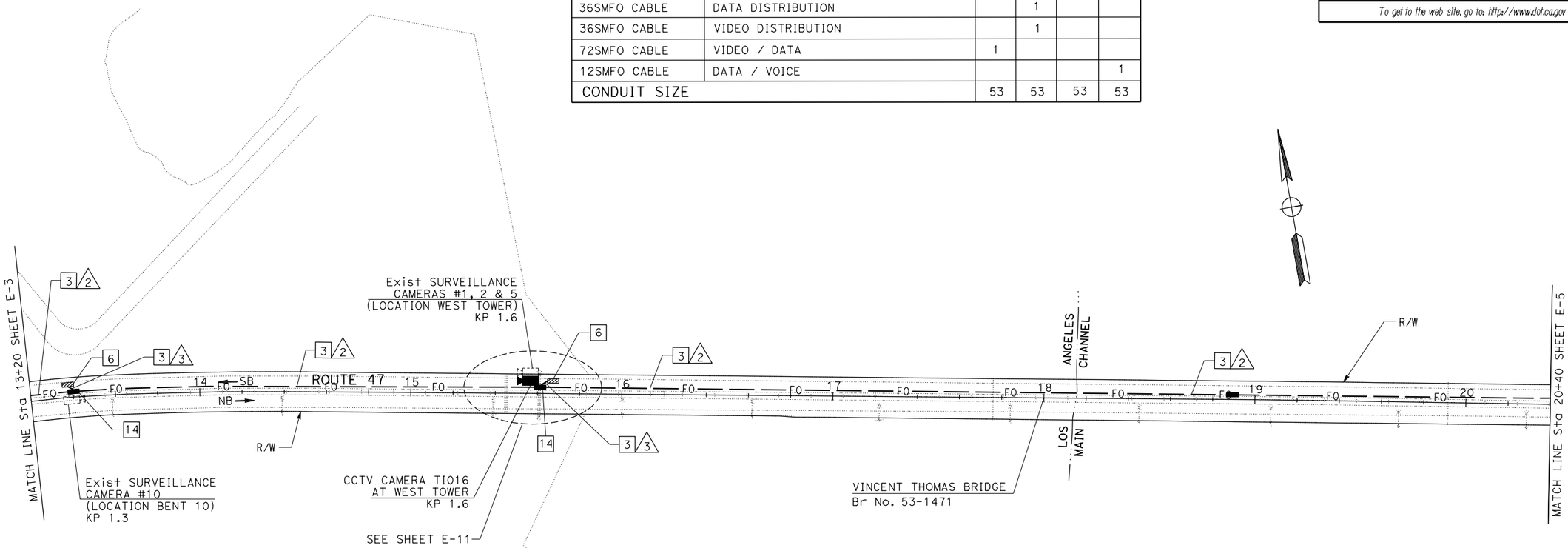
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 2		RUN 3	
36SMFO CABLE	DATA DISTRIBUTION		1		
36SMFO CABLE	VIDEO DISTRIBUTION		1		
72SMFO CABLE	VIDEO / DATA	1			
12SMFO CABLE	DATA / VOICE				1
CONDUIT SIZE		53	53	53	53



AS-BUILT

Contract No. 07- 129954
Resident Engineer: BERNARD ALONZO
Completion Date: 5/15/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-4

DATE	REVISED BY
3/04	DATE REVISED
9/04	

CALCULATED/DESIGNED BY: LRS
CHECKED BY: CC

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00
DATE PLOTTED => 30-APR-2014
TIME PLOTTED => 15:36

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u004.dgn

CU 07388

EA 129951

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	26	93

Caltrans Metric

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — EXP. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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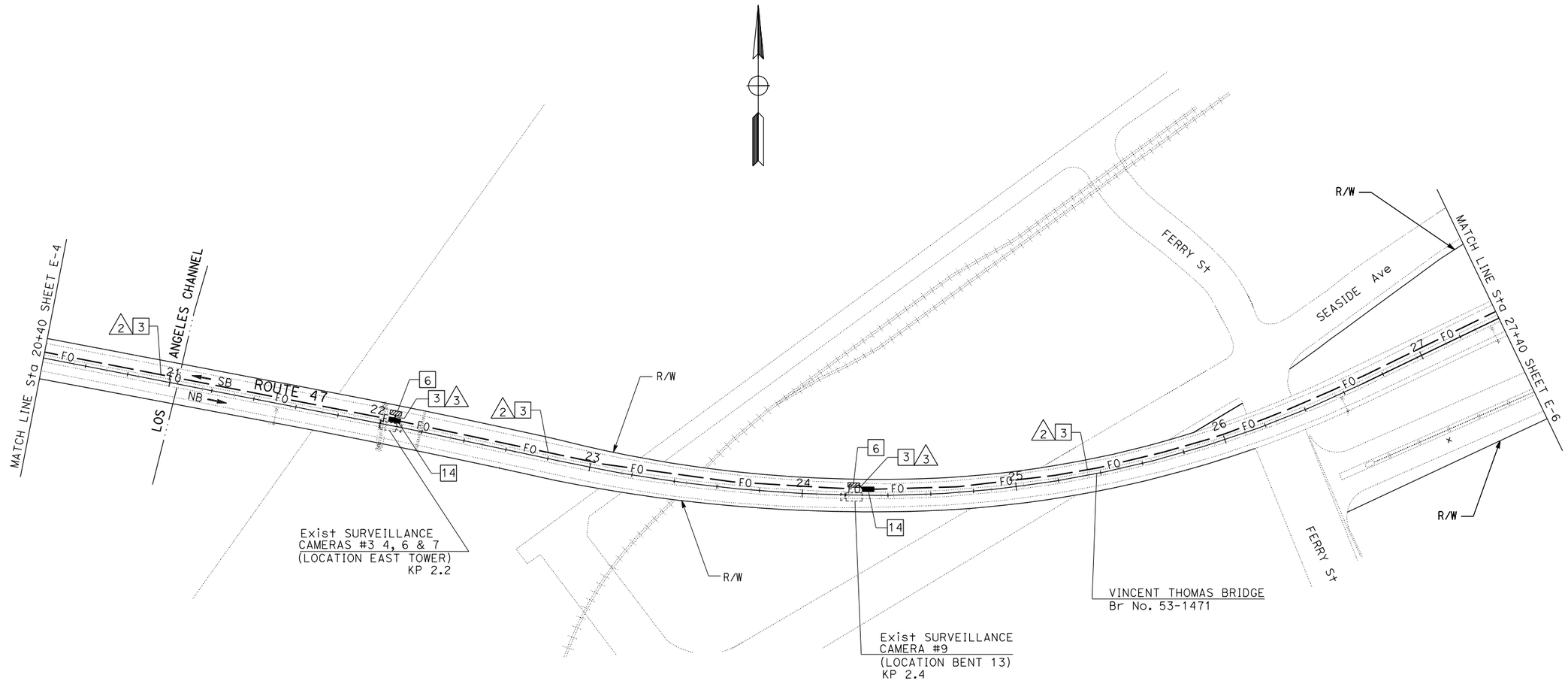
To get to the web site, go to: http://www.dot.ca.gov

AS-BUILT

Contract No. 07- 129954
Resident Engineer: BERNARD ALONZO
Completion Date: 5/15/07

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN			
			△2		△3
36SMFO CABLE	DATA DISTRIBUTION		1		
36SMFO CABLE	VIDEO DISTRIBUTION		1		
72SMFO CABLE	VIDEO / DATA	1			
12SMFO CABLE	DATA / VOICE				1
CONDUIT SIZE		53	53	53	53



FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-5

DATE	REVISED BY	DATE	REVISED
3/04	LRS	9/04	CC

CALCULATED/DESIGNED BY
CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

PROJECT ENGINEER
CONWAY CHU

LAST REVISION 00-00-00
DATE PLOTTED => 30-APR-2014
TIME PLOTTED => 15:37

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u005.dgn

CU 07388

EA 129951

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	27	93

Caltrans Metric

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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AS-BUILT

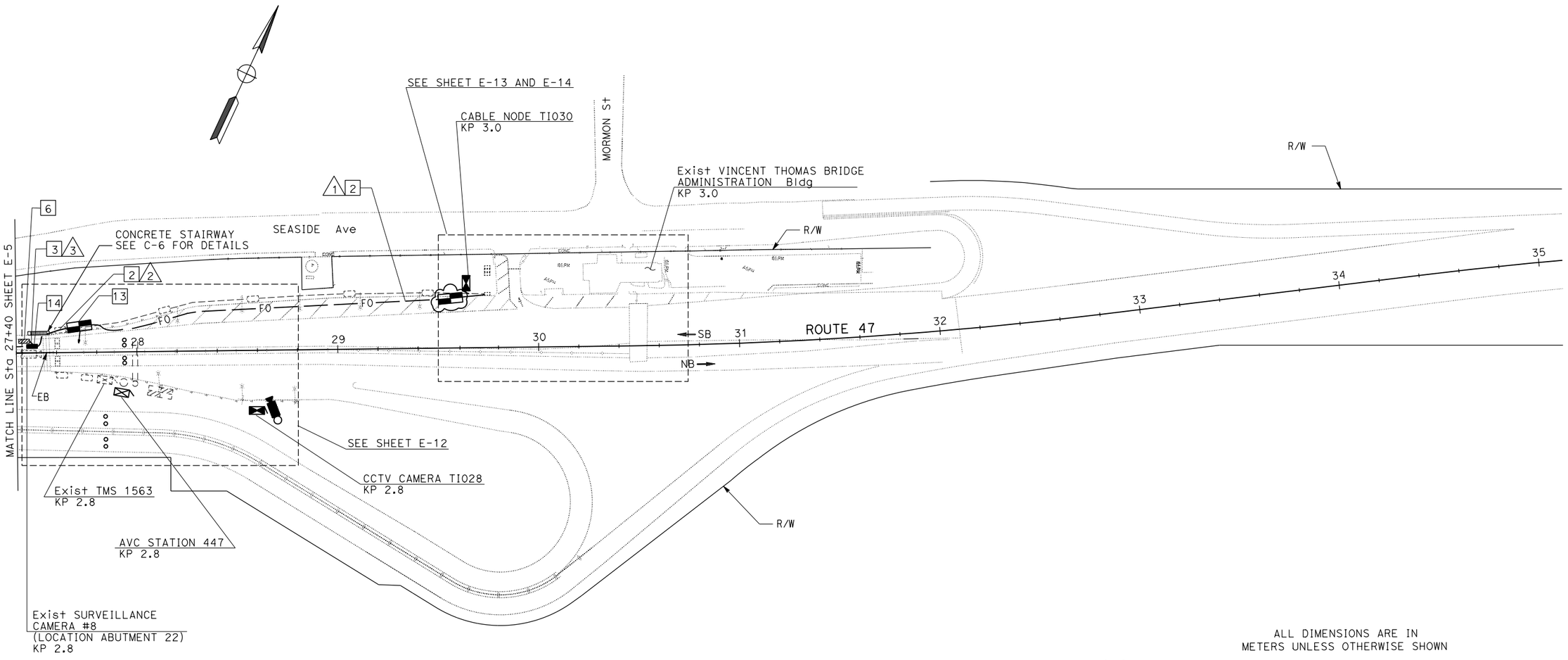
Contract No. 07- **129954**

Resident Engineer: **BERNARD ALONZO**

Completion Date: **5/15/07**

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN								
		1					2			3
36SMFO CABLE	DATA DISTRIBUTION	1					1			
36SMFO CABLE	VIDEO DISTRIBUTION		1				1			
72SMFO CABLE	VIDEO / DATA			1			1			
12SMFO CABLE	DATA / VOICE									1
INNERDUCT (SIZE 25)		1	1	1	1					
CONDUIT SIZE		103				103	53	53	53	53



FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-6

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
3/04	LRS		
9/04	CC		

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 30-APR-2014 TIME PLOTTED => 15:43

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u006.dgn

CU 07388

EA 129951

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	28	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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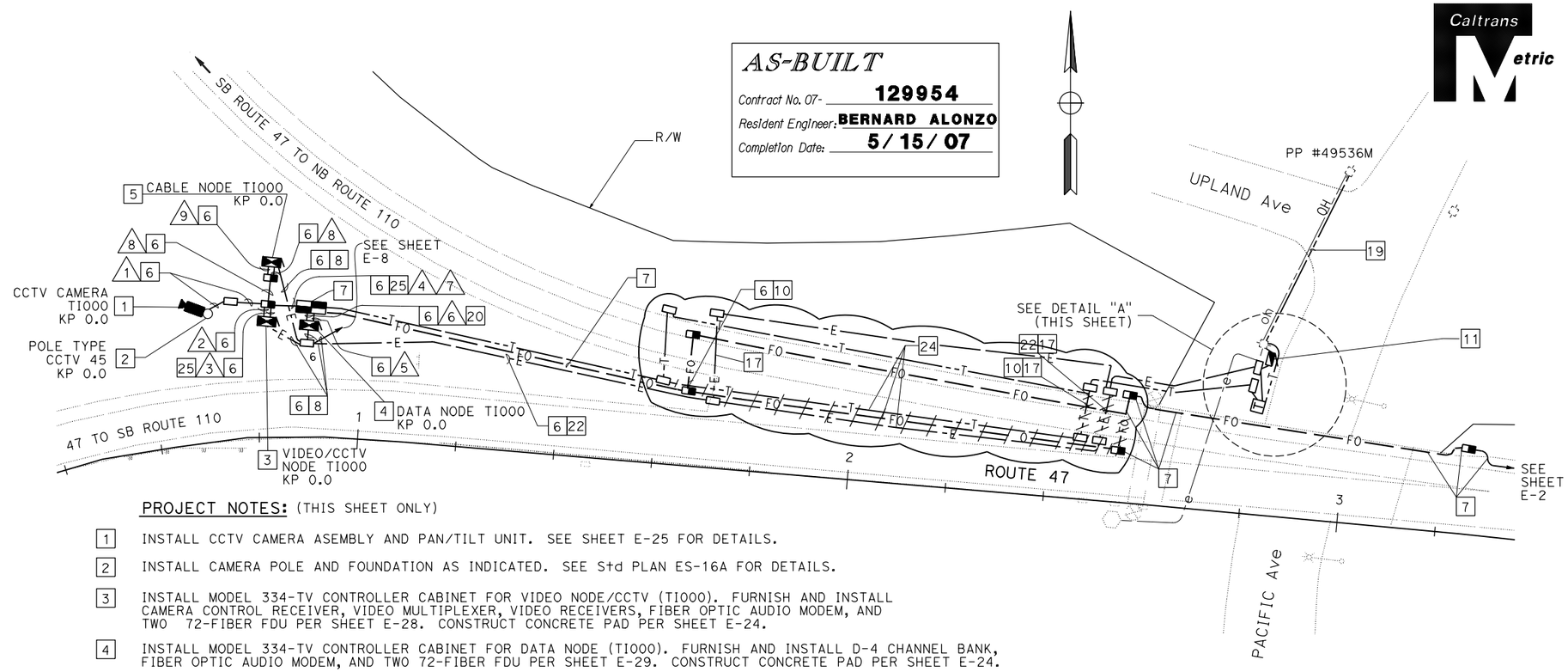
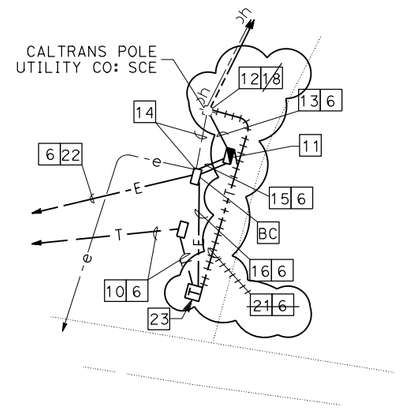
AS-BUILT
Contract No. 07- 129954
Resident Engineer: BERNARD ALONZO
Completion Date: 5/15/07





DETAIL "A"
SCALE 1:200

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CCTV CAMERA ASEMBLY AND PAN/TILT UNIT. SEE SHEET E-25 FOR DETAILS.
2. INSTALL CAMERA POLE AND FOUNDATION AS INDICATED. SEE Std PLAN ES-16A FOR DETAILS.
3. INSTALL MODEL 334-TV CONTROLLER CABINET FOR VIDEO NODE/CCTV (TI000). FURNISH AND INSTALL CAMERA CONTROL RECEIVER, VIDEO MULTIPLEXER, VIDEO RECEIVERS, FIBER OPTIC AUDIO MODEM, AND TWO 72-FIBER FDU PER SHEET E-28. CONSTRUCT CONCRETE PAD PER SHEET E-24.
4. INSTALL MODEL 334-TV CONTROLLER CABINET FOR DATA NODE (TI000). FURNISH AND INSTALL D-4 CHANNEL BANK, FIBER OPTIC AUDIO MODEM, AND TWO 72-FIBER FDU PER SHEET E-29. CONSTRUCT CONCRETE PAD PER SHEET E-24.
5. INSTALL TWO 72-FIBER FDU IN A TYPE 334-TV CONTROLLER CABINET FOR CABLE NODE. TERMINATE 72SMFO. CONSTRUCT CONCRETE PAD PER SHEET E-24. TERMINATE TELEPHONE CABLE IN TERMINAL BLOCK.
6. TRENCH AND INSTALL CONDUIT IN UNPAVED AREA.
7. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION REFER TO SHEET E-2.
8. INSTALL 53C, 2#4.
10. INSTALL 41C, 2 CAT-5E CABLES.
11. INSTALL 120/240 V, 100 A TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE AND FOUNDATION WITH:
    (1) 240 V, 2P, 100 A CB FOR MAIN DISCONNECT
    (1) 120 V, 1P, 30 A CB FOR CCTV/VIDEO NODE
    (1) 120 V, 1P, 20 A CB FOR IRRIGATION (EXISTING)
    (1) 120 V, 1P, 30 A CB FOR DATA NODE
    (1) 120 V, 1P, 30 A CB FOR CABLE NODE
    (1) 120 V, 1P, 20 A CB FOR DEMARCATION
    (1) 120 V, 1P, 30 A CB FOR COUNT STATION
    ADDRESS: 661 ½ PACIFIC Ave
    ID No. 07-53-047R-000.279
12. INSTALL 78C, MT, TYPE H SERVICE RISER AND CONDUIT ON EXISTING POLE. UTILITY COMPANY TO INSTALL CONDUCTORS. REMOVE AND SALVAGE EXISTING POLE-MOUNTED SERVICE FOR IRRIGATION.
13. INSTALL 78C, MT (CONDUCTORS BY OTHERS).
14. PULL BACK EXISTING SERVICE CABLES FROM EXISTING SERVICE TO NEW PULL BOX. ABANDON EXISTING CONDUIT.
15. INSTALL 2-53C, 8#4 (VN/CCTV, CN, DN, COUNT STATION), 2#10 (DEMARC) AND EXISTING SERVICE CABLES (IRRIGATION) FROM NEW PULL BOX TO NEW TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
16. INSTALL 53C, 2#10
17. JACK CONDUIT BENEATH ROADWAY.
18. ~~INSTALL 41C, MT, TELEPHONE TYPE H RISER AND CONDUIT ON EXISTING POLE, CONDUCTORS BY OTHERS.~~
19. TELEPHONE CONDUCTORS BY OTHERS.
20. INSTALL 6 CAT-5E CABLES.
21. ~~INSTALL 41C, MT (CONDUCTORS BY OTHERS).~~

CONDUIT AND CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8	9
12SMFO CABLE	DATA / VOICE					1				
12SMFO CABLE	VIDEO / VOICE		1		1					
36SMFO CABLE	DATA DISTRIBUTION					1				
36SMFO CABLE	VIDEO DISTRIBUTION		1		1					
72SMFO CABLE	VIDEO / DATA				1				1	
SEE TABLE 1, SHEET E-1	CCTV WIRING	1		1						
2P22	DATA / VOICE			1			1	1		
INNERDUCT (SIZE 25)										
CONDUIT SIZE		53	103	103	103	103	103	103	103	103

22. INSTALL 78C, 8#4.
23. INSTALL TYPE C TELEPHONE DEMARCATION CABINET.
24. INSTALL CONDUITS IN THE SAME TRENCH.
25. INSTALL 4 CAT-5E CABLES.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

CABLE NODE (LOCATION TI000)
VIDEO NODE/CLOSED CIRCUIT TELEVISION CAMERA (LOCATION TI000)
DATA NODE (LOCATION TI000)

SCALE 1:500

E-7

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
3/04	LRS	CC	
9/04	DATE REVISED		

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 01-MAY-2014 TIME PLOTTED => 07:15

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u007.dgn

CU 07388 | EA 129951

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	29	93

Caltrans Metric

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 ELECTRICAL — STATE OF CALIFORNIA

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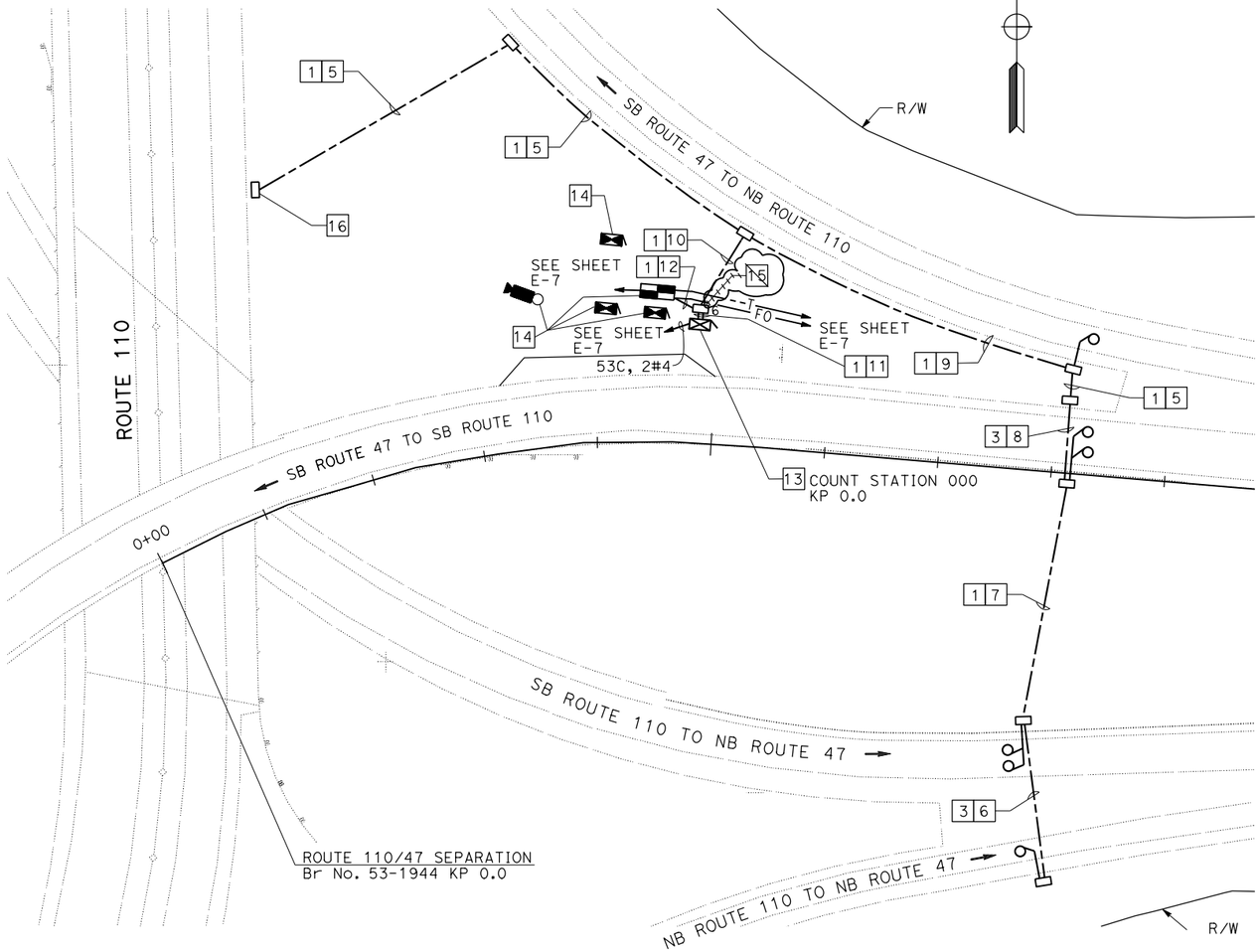

PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN UNPAVED AREA.
3. JACK CONDUIT BENEATH ROADWAY.
4. INSTALL 78C, 3 DLC.
5. INSTALL 53C, 5 DLC.
6. INSTALL 78C, 1 DLC.
7. INSTALL 53C, 3 DLC.
8. INSTALL 78C, 5 DLC.
9. INSTALL 53C, 6 DLC.
10. INSTALL 78C, 11 DLC.
11. INSTALL 103C, 11 DLC AND 103C, MT.
12. ~~INSTALL 53C, 12SMFO.~~ INSTALL 53C, 6P22 CABLE.
13. INSTALL STATE-FURNISHED MODEL 334 CABINET AND MODEL 170 CONTROLLER. INSTALL LOOP DETECTOR SENSORS, TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN CONTROLLER CABINET AND INTERFACE CABLE. CONSTRUCT CONCRETE PAD PER SHEET E-24.
14. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION REFER TO SHEET E-7 AND COMMUNICATION SYSTEM ROUTING.
15. ~~COIL 20 m OF 12SMFO CABLE IN PULL BOX.~~
16. COIL 50 m EACH OF 5 DLC CABLES IN PULL BOX.

AS-BUILT

Contract No. 07- **129954**
Resident Engineer: **BERNARD ALONZO**
Completion Date: **5/15/07**

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COUNT STATION (LOCATION 000)

SCALE 1:500

E-8

DATE	REVISED BY
3/04	CC
9/04	DATE REVISED

CALCULATED/DESIGNED BY: CC
CHECKED BY: CHECKED BY

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 | DATE PLOTTED => 01-MAY-2014 | TIME PLOTTED => 07:35

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u008.dgn

CU 07388 | EA 129951

PROJECT NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240 V, TYPE III-CF METERED SERVICE EQUIPMENT ENCLOSURE. ADD: (1) 120 V, 1P, 30 A CB FOR RMS.
2. ADD 2#6.
3. INSTALL 53C, 2#6.
4. INSTALL 78C, 2#6.
13. REMOVE EXISTING 4#18 (DATA/PHONE), 4P18 (DATA/PHONE) AND 5 dlc. EXISTING 53C, 1#10 (GROUND), AND 4#2 (POWER) TO REMAIN.
20. TRENCH AND INSTALL CONDUIT IN UNPAVED AREA.
23. JACK TYPE 1 CONDUIT BENEATH ROADWAY.
25. INSTALL CONDUITS IN THE SAME TRENCH.
26. INSTALL CCTV CAMERA ASSEMBLY AND PAN-TILT UNIT ON EXISTING CAMERA POLE. SEE SHEET E-25 FOR DETAILS.
34. INSTALL STATE-FURNISHED MODEL 334 CABINET, 170 CONTROLLER, LOOP DETECTOR SENSORS, FIBER OPTIC AUDIO MODEM, FDU, AND INTERFACE CABLES PER SHEET E-26. CONSTRUCT CONCRETE PAD PER SHEET E-24.
35. INSTALL CAMERA CONTROL RECEIVER, VIDEO TRANSMITTER, FIBER OPTIC DATA MODEM, FDU AND INTERFACE CABLES IN EXISTING CONTROLLER CABINET PER SHEET E-27.
46. INSTALL TYPE E LOOP DETECTORS.
51. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATION SYSTEM ROUTING PLANS.
55. COIL 20 m OF 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL.
56. PROTECT IN-PLACE.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	30	93

Caltrans Metric

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — EXP. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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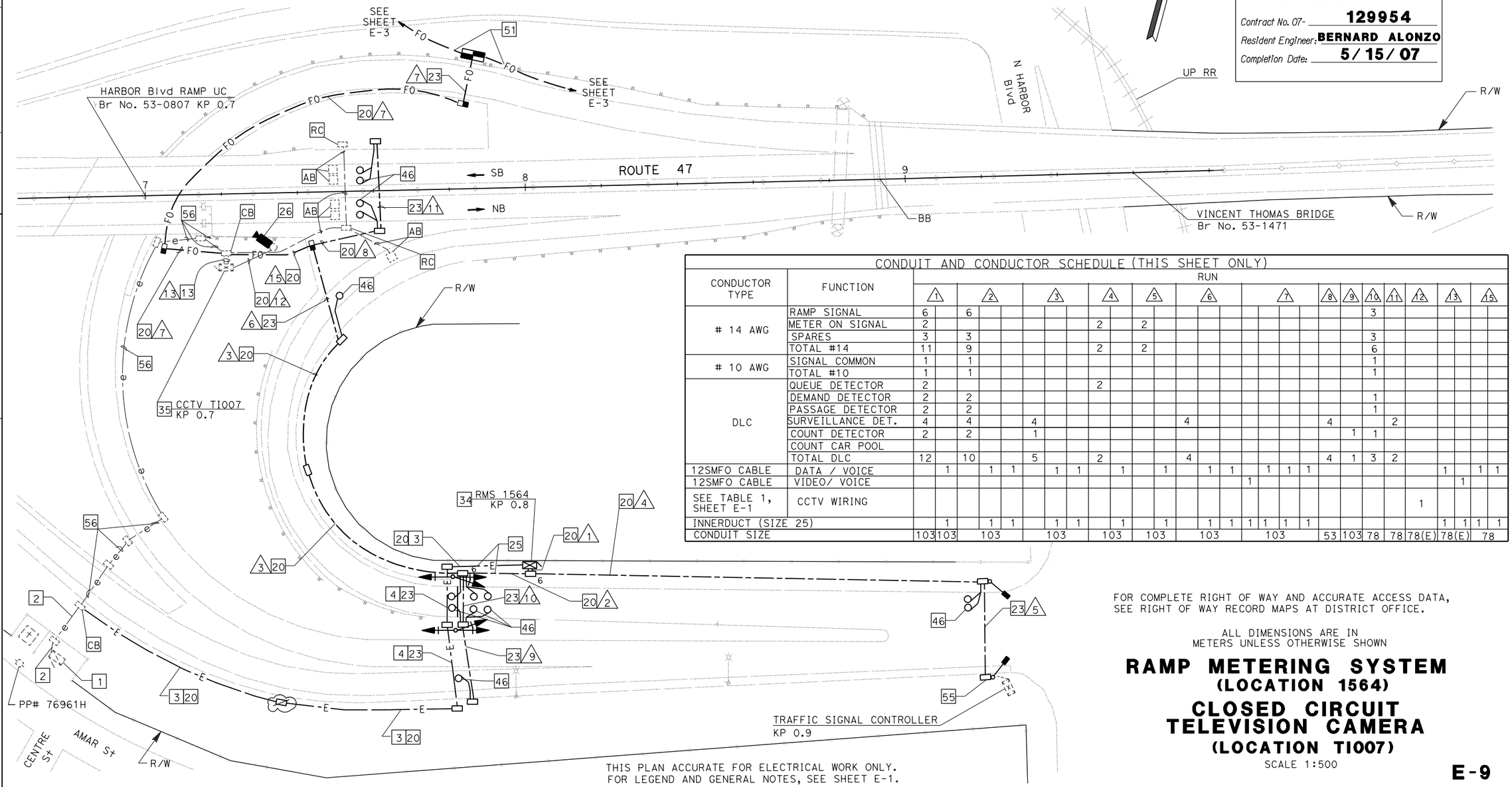
AS-BUILT
Contract No. 07- **129954**
Resident Engineer: **BERNARD ALONZO**
Completion Date: **5/15/07**



CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8	9	10	11	12	13	15
# 14 AWG	RAMP SIGNAL	6	6								3				
	METER ON SIGNAL	2			2	2									
	SPARES	3	3								3				
	TOTAL #14	11	9		2	2					6				
# 10 AWG	SIGNAL COMMON	1	1								1				
	TOTAL #10	1	1								1				
DLC	QUEUE DETECTOR	2			2										
	DEMAND DETECTOR	2	2								1				
	PASSAGE DETECTOR	2	2								1				
	SURVEILLANCE DET.	4	4	4			4		4			2			
	COUNT DETECTOR	2	2	1						1	1				
	COUNT CAR POOL														
	TOTAL DLC	12	10	5	2		4		4	1	3	2			
12SMFO CABLE	DATA / VOICE		1	1	1	1	1	1						1	1 1
12SMFO CABLE	VIDEO/ VOICE							1						1	
SEE TABLE 1, SHEET E-1	CCTV WIRING												1		
INNERDUCT (SIZE 25)		1	1	1	1	1	1	1	1	1	1	1		1	1 1
CONDUIT SIZE		103	103	103	103	103	103	103	53	103	78	78	78(E)	78(E)	78

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

RAMP METERING SYSTEM (LOCATION 1564)
CLOSED CIRCUIT TELEVISION CAMERA (LOCATION TI007)

SCALE 1:500

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

E-9

DATE	REVISED BY	DATE REVISED
3/04	LRS	9/04
CALCULATED/ DESIGNED BY		CHECKED BY
		CC

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 | DATE PLOTTED => 01-MAY-2014 | TIME PLOTTED => 07:36

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u009.dgn

CU 07388 | EA 129951

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 120/240 V, 100 A, TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE AND FOUNDATION WITH:
   (1) 240 V, 2P, 100 A CB FOR MAIN DISCONNECT
   (1) 120 V, 1P, 30 A CB FOR RMS

   ADDRESS: 601 ½ N. FRONT St, ID No. 07-53-047R-000.900
2. INSTALL 53C, MT (CONDUCTORS BY OTHERS).
3. INSTALL 53C, 2#6 AND 53C, MT.
5. INSTALL 53C, 2#6.
20. TRENCH AND INSTALL CONDUIT IN UNPAVED AREA.
21. TRENCH AND INSTALL CONDUIT IN PAVEMENT.
23. JACK TYPE 1 CONDUIT BENEATH ROADWAY.
25. INSTALL CONDUITS IN THE SAME TRENCH.
34. INSTALL STATE-FURNISHED MODEL 334 CABINET AND MODEL 170 CONTROLLER. INSTALL FIBER OPTIC AUDIO MODEM, FDU, LOOP DETECTOR SENSORS AND INTERFACE CABLE PER SHEET E-26. CONSTRUCT CONCRETE PAD PER SHEET E-24.
46. INSTALL TYPE E LOOP DETECTORS.
51. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION REFER TO COMMUNICATION SYSTEM ROUTING PLANS.

CONDUIT AND CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8	9	10
# 14 AWG	RAMP SIGNAL	6			3			6			
	METER ON SIGNAL	2	2						2	2	
	SPARES	3			3			3			
	TOTAL #14	11	2		6			9	2	2	
# 10 AWG	SIGNAL COMMON	1			1			1			
	TOTAL #10	1			1			1			
DLC	QUEUE DETECTOR	2	2								
	DEMAND DETECTOR	2			1			2			
	PASSAGE DETECTOR	2			1			2			
	SURVEILLANCE DET.	2			2	2		2			
	COUNT DETECTOR	3			3	1	1	3			2
	COUNT CAR POOL										
	TOTAL DLC	11	2		7	3	1	9			2
12SMFO CABLE	DATA / VOICE		1	1	1			1			1
INNERDUCT (SIZE 25)			1		1			1			1
CONDUIT SIZE		103	103	53	53	103	53	78	103	53	78	103

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	31	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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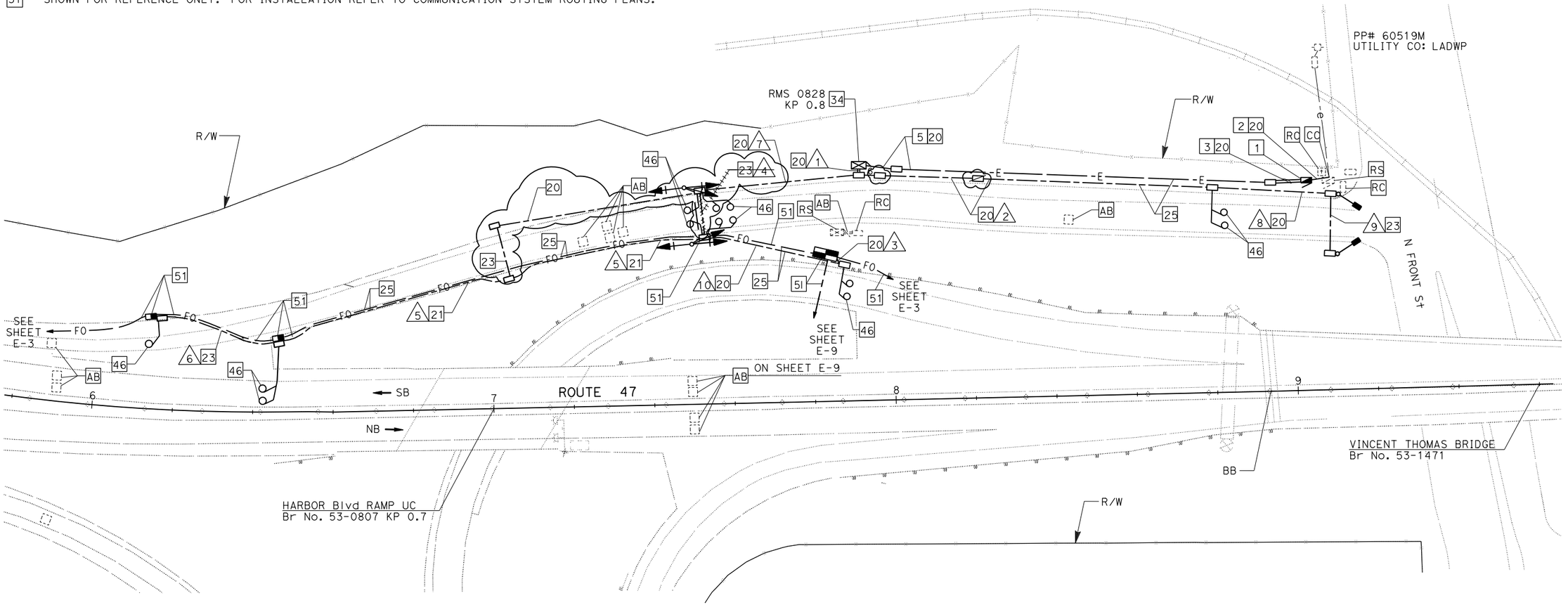
AS-BUILT

Contract No. 07- **129954**
Resident Engineer: **BERNARD ALONZO**
Completion Date: **5/15/07**



FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA,
SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

RAMP METERING SYSTEM (LOCATION 0828)

SCALE 1:500

E-10

DATE	REVISED BY	DATE REVISED
3/04	LRS	9/04

CALCULATED/DESIGNED BY: CC
CHECKED BY:

PROJECT ENGINEER: CONWAY CHU

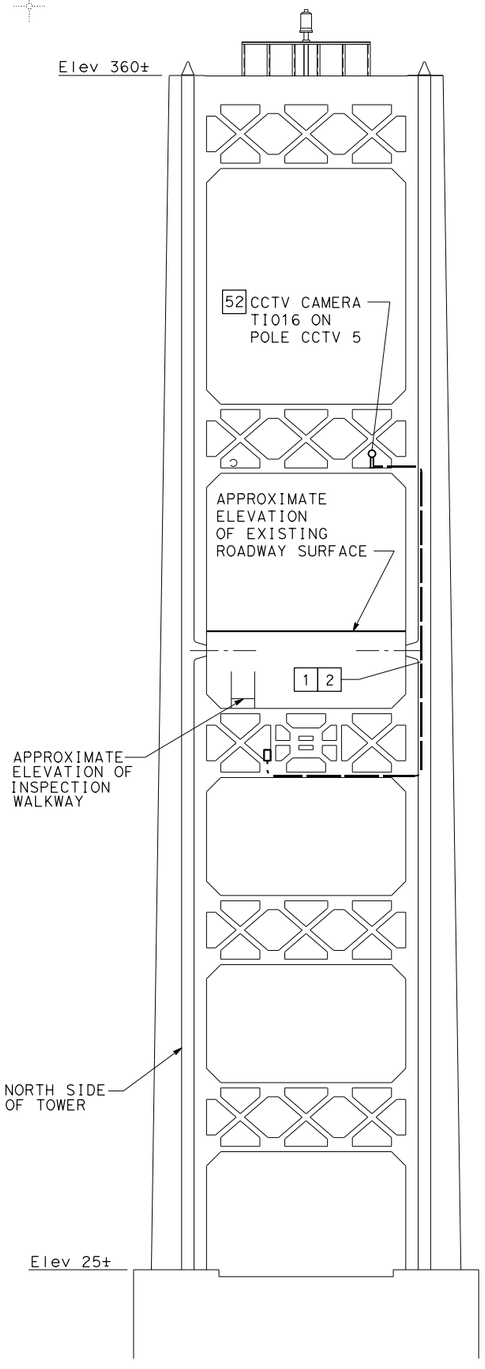
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **ITS DEVELOPMENT**

LAST REVISION 00-00-00 | DATE PLOTTED => 01-MAY-2014 | TIME PLOTTED => 08:11

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u010.dgn

CU 07388 | EA 129951



WEST TOWER ELEVATION

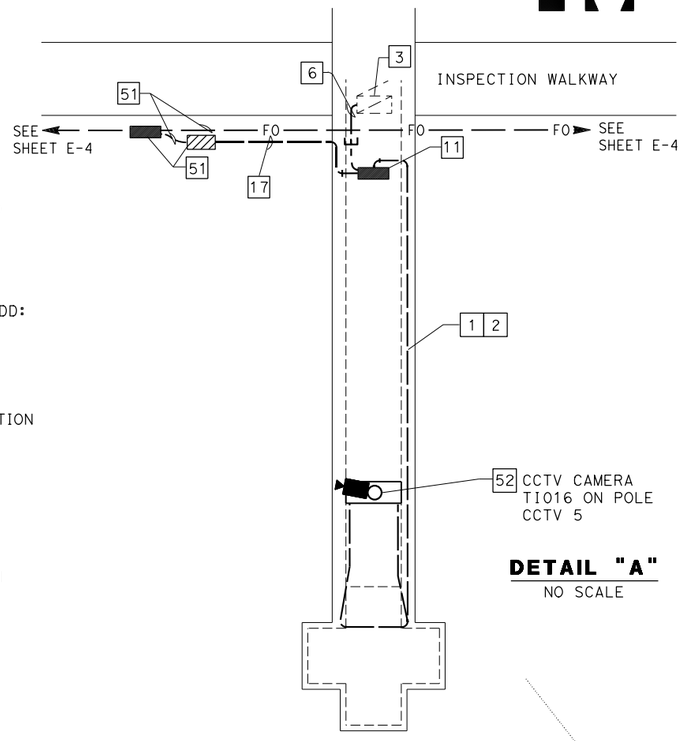
(VIEW LOOKING EAST)
NO SCALE

PROJECT NOTES: (THIS SHEET ONLY)

1. ATTACH CONDUITS FROM THE STAINLESS STEEL TYPE 4X JUNCTION BOX TO THE TOWER. TYPE 4X STAINLESS STEEL JUNCTION BOX IS SHOWN AS REFERENCE ONLY. FOR ATTACHMENT DETAILS, REFER TO CONSTRUCTION DETAILS IN THE STRUCTURAL BRIDGE PLANS. THE CONTRACTOR SHALL PROVIDE THE REQUIRED EXPANSION JOINTS AND ANY ADDITIONAL JUNCTION BOXES AS NECESSARY TO MEET BEND REQUIREMENTS. SEE DETAIL "A" OF THIS SHEET AND STRUCTURAL BRIDGE PLANS FOR DETAILS.
2. INSTALL 2-27C, CCTV WIRING PER TABLE 1 OF SHEET E-1.
3. EXISTING 120 V/480 V, TYPE 3R SERVICE EQUIPMENT ENCLOSURE, ADD: ~~(1) 120 V, 1P, 30 A CB FOR CCTV CAMERA~~ TAP TO EXISTING 20A BREAKER.
6. INSTALL 53C, 2#8.
11. INSTALL MODEM, FOAM, VTx AND CCR IN TYPE 4X STAINLESS STEEL JUNCTION BOX PER SHEET E-27. TYPE 4X STAINLESS STEEL JUNCTION BOX IS SHOWN AS REFERENCE ONLY.
17. INSTALL 53C, 12SMFO.
51. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATION SYSTEM ROUTING PLANS.
52. FOR CCTV POLE ATTACHMENT DETAILS TO CCTV CAMERA AND TOWER STRUCTURE, REFER TO Std PLANS SHEET ES-16B AND CONSTRUCTION DETAILS IN STRUCTURAL BRIDGE PLANS.

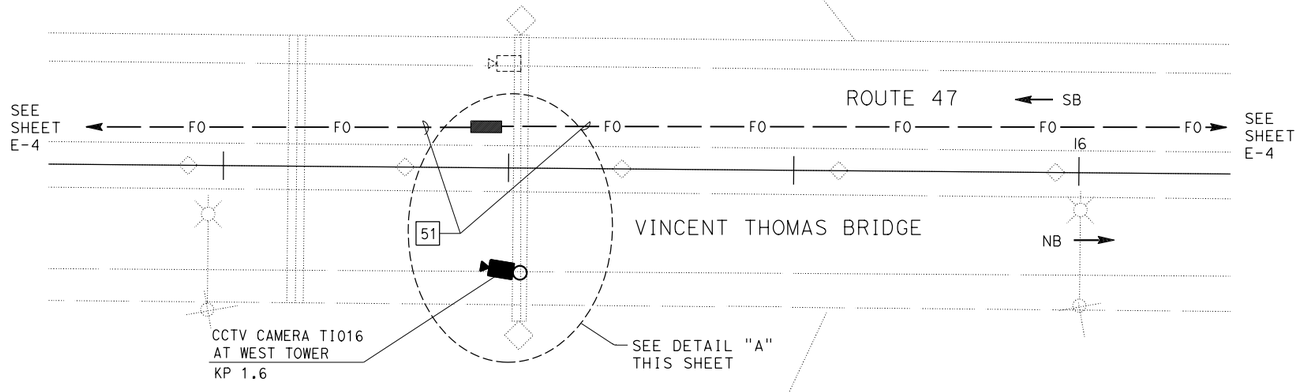
AS-BUILT

Contract No. 07- 129954
Resident Engineer: BERNARD ALONZO
Completion Date: 5/15/07



DETAIL "A"

NO SCALE



CCTV TI016, KP 1.6

SCALE 1:200

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA (LOCATION TI016)

SCALE AS NOTED

E-11

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	47	0.0/3.0	32	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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DATE	REVISED BY
3/04	LRS
9/04	DATE REVISED

CALCULATED/DESIGNED BY: CC
CHECKED BY:

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u011.dgn

CU 07388

EA 129951

LAST REVISION 00-00-00
DATE PLOTTED => 01-MAY-2014
TIME PLOTTED => 08:07

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	47	0.0/3.0	33	93

Caltrans Metric

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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CALCULATED/DESIGNED BY: CC
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PROJECT ENGINEER: CONWAY CHU

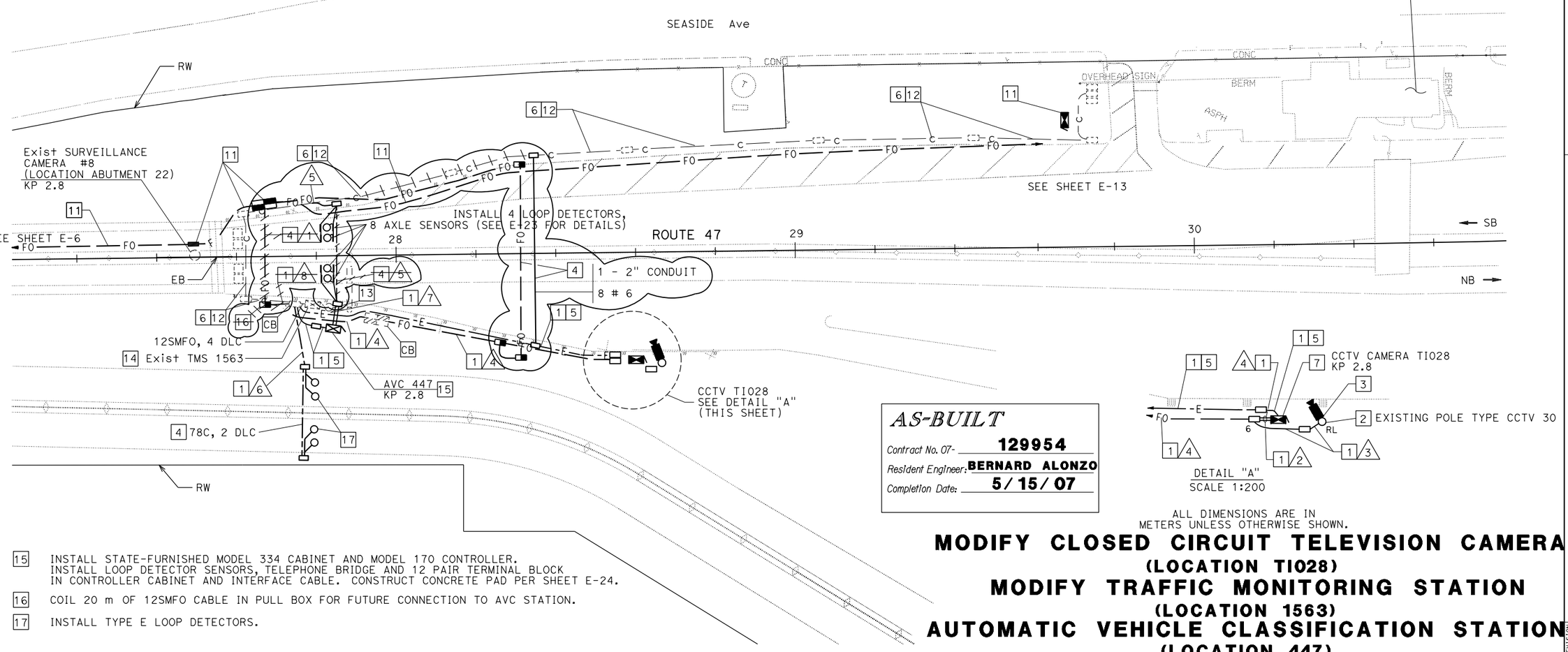
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **ITS DEVELOPMENT**

PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN UNPAVED AREA.
2. INSTALL EXISTING CAMERA POLE RELOCATED FROM STA 27+85 ON NEW FOUNDATION. SEE Std PLAN ES-16A FOR DETAILS.
3. INSTALL CCTV CAMERA ASEMBLY AND PAN/TILT UNIT, SEE SHEET E-25 FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY.
5. INSTALL 53C, 2#6.
6. ADD 4#6.
7. INSTALL MODEL 334-TV CABINET. FURNISH AND INSTALL CAMERA CONTROL RECEIVER, VIDEO TRANSMITTER, FIBER OPTIC AUDIO MODEM, FIBER DISTRIBUTION UNIT, AND INTERFACE CABLE PER SHEET E-27. CONSTRUCT CONCRETE PAD PER SHEET E-24.
11. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION, REFER TO COMMUNICATION SYSTEM ROUTING PLANS.
12. REMOVE EXISTING 4SMFO IN EXISTING CONDUIT.
13. RL EXISTING CAMERA POLE TO NEW LOCATION AT STA 28+65.
14. INSTALL FIBER OPTIC AUDIO MODEM, FDU, LOOP DETECTOR SENSORS AND INTERFACE CABLES. TERMINATE 12SMFO CABLE IN FDU.

CONDUIT AND CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8
12SMFO CABLE	DATA / VOICE	2							1
12SMFO CABLE	VIDEO / DATA	1			1				
SEE TABLE 1, SHEET E-1	CCTV WIRING		1	1					
DLC	DETECTOR LEAD-IN CABLE					2	4	4	
STC	SCREENED TRANSMISSION CABLE					4		8	
CONDUIT SIZE		103	103	53	53	78	53	2-103	103



AS-BUILT

Contract No. 07- 129954
Resident Engineer: BERNARD ALONZO
Completion Date: 5/15/07

15. INSTALL STATE-FURNISHED MODEL 334 CABINET AND MODEL 170 CONTROLLER. INSTALL LOOP DETECTOR SENSORS, TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK IN CONTROLLER CABINET AND INTERFACE CABLE. CONSTRUCT CONCRETE PAD PER SHEET E-24.
16. COIL 20 m OF 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO AVC STATION.
17. INSTALL TYPE E LOOP DETECTORS.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

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

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

MODIFY CLOSED CIRCUIT TELEVISION CAMERA (LOCATION TI028)
MODIFY TRAFFIC MONITORING STATION (LOCATION 1563)
AUTOMATIC VEHICLE CLASSIFICATION STATION (LOCATION 447)

SCALE 1:500

E-12

LAST REVISION 00-00-00 | DATE PLOTTED => 01-MAY-2014 | TIME PLOTTED => 08:08

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u012.dgn

CU 07388 | EA 129951

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C, 2#6.
2. INSTALL 53C, 6#6.
3. INSTALL 53C, 4#6.
12. REMOVE EXISTING 4SMFO IN EXSTING CONDUIT.
20. TRENCH AND INSTALL CONDUIT IN UNPAVED AREA.
22. TRENCH AND INSTALL CONDUIT IN PAVEMENT.
35. INSTALL FOUR 72-FIBER FDU IN A MODEL 334-TV CONTROLLER CABINET. TERMINATE 72SMFO IN FDU PER SHEET E-35 AND COIL 10 m OF 2-36SMFO CABLES IN CABINET. CONSTRUCT CONCRETE PAD PER SHEET E-24.
51. SHOWN FOR REFERENCE ONLY. FOR INSTALLATION REFER TO COMMUNICATION SYSTEM ROUTING PLANS.

AS-BUILT
Contract No. 07- **129954**
Resident Engineer: **BERNARD ALONZO**
Completion Date: **5/15/07**

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	47	0.0/3.0	34	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

6-20-05
PLANS APPROVAL DATE

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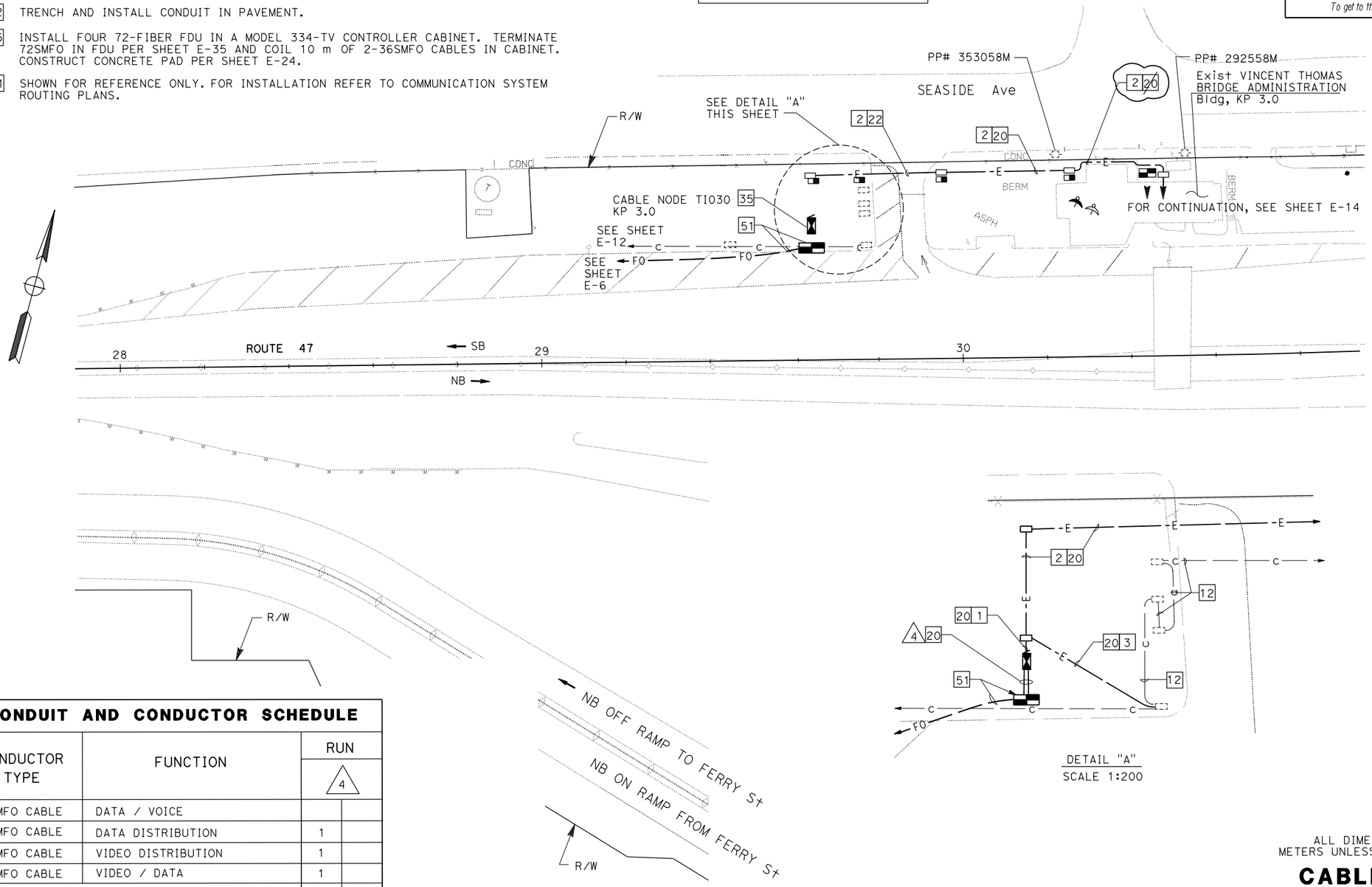

DETAIL "A"
SCALE 1:200

CONDUIT AND CONDUCTOR SCHEDULE			
CONDUCTOR TYPE	FUNCTION	RUN △4	
12SMFO CABLE	DATA / VOICE		
36SMFO CABLE	DATA DISTRIBUTION	1	
36SMFO CABLE	VIDEO DISTRIBUTION	1	
72SMFO CABLE	VIDEO / DATA	1	
CONDUIT SIZE		103	103

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
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FOR LEGEND AND GENERAL NOTES, SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CABLE NODE (LOCATION TI030)

SCALE 1:500

E-13

DATE	REVISED BY	CALCULATED/ DESIGNED BY	CHECKED BY
3/04	LRS		
9/04	DATE REVISED	CC	

PROJECT ENGINEER
CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

DATE PLOTTED => 01-MAY-2014
TIME PLOTTED => 08:08
00-00-00

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s135033
DGN FILE => 712995u013.dgn

CU 07388

EA 129951

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	47	0.0/3.0	35	93

Conway Chu
REGISTERED ELECTRICAL ENGINEER

6-20-05
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CONWAY CHU — No. E15305 — Exp. 3/31/07 — ELECTRICAL — STATE OF CALIFORNIA

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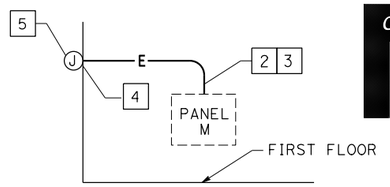
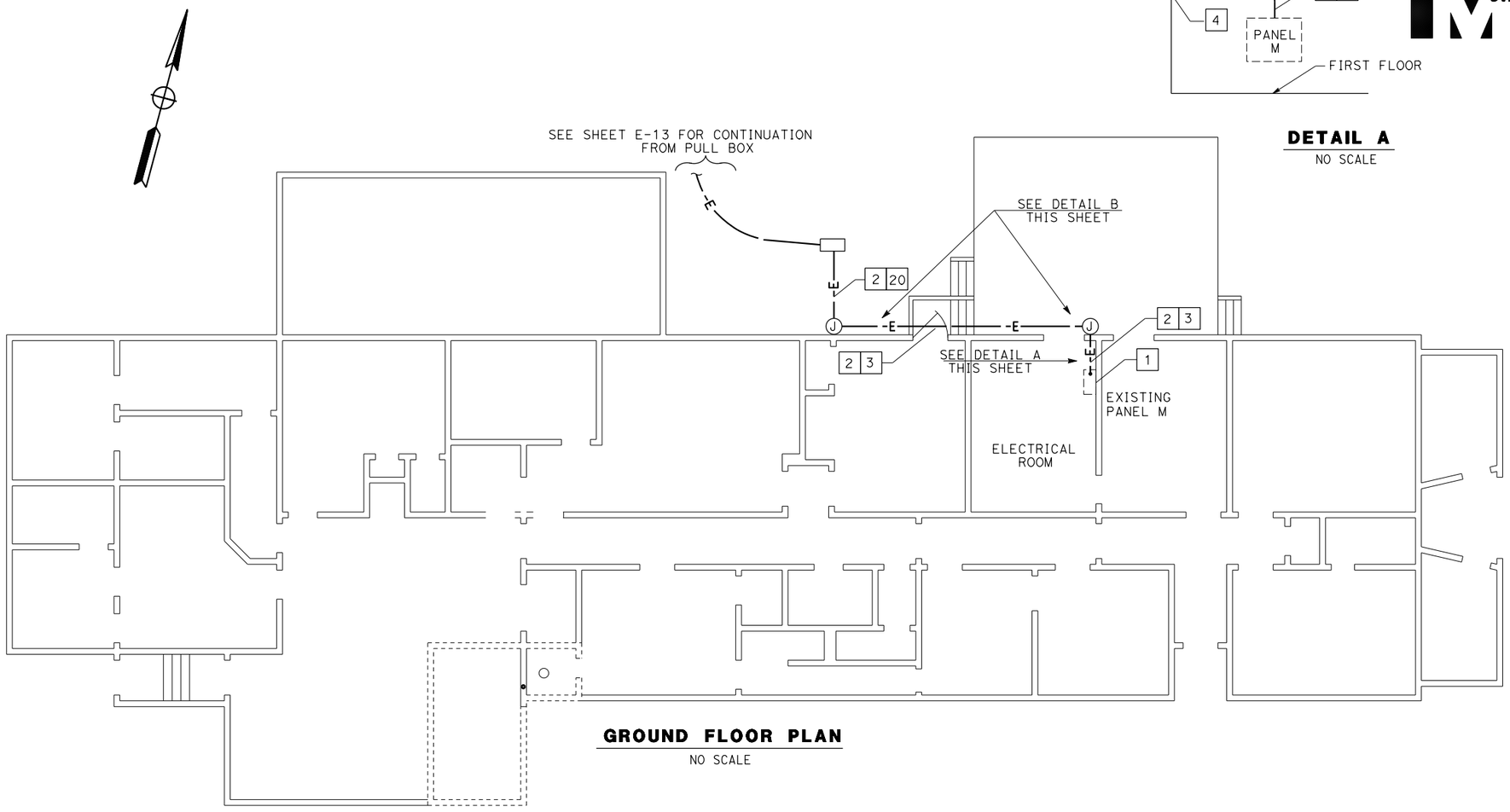
LEGEND: (THIS SHEET)
Ⓙ - JUNCTION BOX

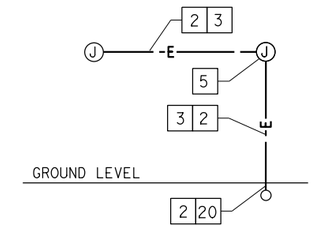


DETAIL A
NO SCALE



GROUND FLOOR PLAN
NO SCALE

ROOF LEVEL



DETAIL B
NO SCALE

PROJECT NOTES: (THIS SHEET ONLY)

1. EXISTING PANEL M ENCLOSURE. ADD:
   (1) 120 V, 1P, 20 A CB FOR TELEPHONE DEMARCATION CABINET.
   (1) 120 V, 1P, 30 A CB FOR AVC STATION.
   (1) 120 V, 1P, 30 A CB FOR CABLE NODE.
2. INSTALL 53C, 6#6.
3. CLAMP CONDUIT TO BUILDING WALL.
4. CORE THROUGH BUILDING WALL AND GROUT.
5. INSTALL 53C ELBEE CONNECTOR.
20. INSTALL CONDUIT IN UNPAVED AREA.

AS-BUILT
Contract No. 07- **129954**
Resident Engineer: **BERNARD ALONZO**
Completion Date: **5/15/07**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

WORK AT VINCENT THOMAS BRIDGE ADMINISTRATION BUILDING

NO SCALE

E-14

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

DATE	REVISED BY
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9/04	DATE REVISED

CALCULATED/DESIGNED BY: CC
CHECKED BY:

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 DATE PLOTTED => 01-MAY-2014 TIME PLOTTED => 07:42

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 712995u014.dgn

CU 07388 EA 129951