# INFORMATION HANDOUT

**For Contract No. 07-299504**
**At 07-LA-1-2.6/30.7**

**Identified by**
**Project ID 0713000313**

## MATERIALS INFORMATION

Site Investigation Report

As-Built Fiber Optics

List of the preconstruction operational status-check results

473

COPY

473

# SITE INVESTIGATION REPORT

## LEAD INVESTIGATION ON ROUTE 1 (KP 29.6/30.8) BETWEEN HUGHES TERRACE AND FIJI WAY LOS ANGELES COUNTY, CALIFORNIA

CONTRACT 43A0012
TASK ORDER NO. 07-1660U1-KC
EA 1660U1

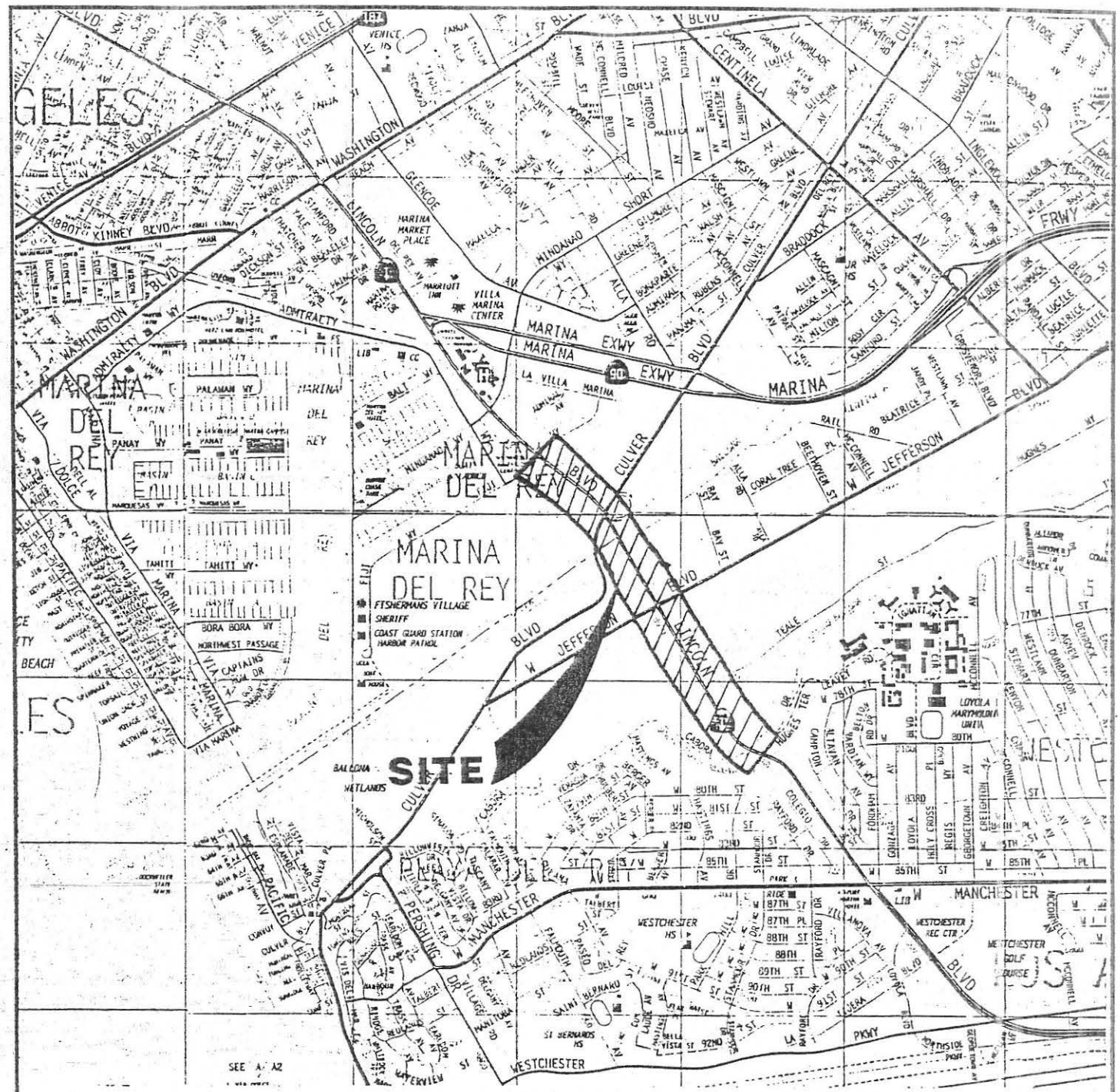
GEOCON

GEOTECHNICAL
&
ENVIRONMENTAL
CONSULTANTS

PREPARED FOR

CALIFORNIA DEPARTMENT
OF TRANSPORTATION
DISTRICT 7
LOS ANGELES, CALIFORNIA

OCTOBER 1999




SOURCE: 1999 THOMAS BROTHERS MAP
LOS ANGELES COUNTY, CALIFORNIA

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NO SCALE

GEOCON
ENVIRONMENTAL CONSULTANTS INCORPORATED
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 858 558-6100 - FAX 858 558-8437

# VICINITY MAP

## ROUTE 1 - LINCOLN BOULEVARD
## LOS ANGELES COUNTY, CALIFORNIA

| | | | | | |
|---|---|---|---|---|---|
| JCK / TA | | DSK / E0000 | DATE 10-12-1999 | PROJECT NO. 08900-06-52 | FIG. 1 |

1EVICMAP

## TABLE I
## SUMMARY OF ANALYTICAL LABORATORY RESULTS

| Sample Identification | Depth in Meters | Total Lead EPA Test Method 6010 (mg/kg) | Soluble Lead—WET EPA Test Method 7420 (mg/l) | Soluble Lead via WET-DI Water (mg/l) | Soil pH EPA Test Method 9045 |
|---|---|---|---|---|---|
| B2-S | 0.15 | 77 | 18 | --- | 7.0 |
| B2-1 | 0.30 | 99 | 6.2 | --- | --- |
| B3-S | 0.15 | 50 | 4.1 | --- | --- |
| B3-1 | 0.30 | 197 | 15 | 0.31 | --- |
| B4-S | 0.15 | 8.3 | --- | --- | --- |
| B4-1 | 0.30 | 21 | --- | --- | --- |
| B5-S | 0.15 | 179 | 18 | --- | --- |
| B5-1 | 0.30 | 48 | --- | --- | --- |
| B6-S | 0.15 | 31 | --- | --- | --- |
| B6-1 | 0.30 | 6.5 | --- | --- | --- |
| B7-S | 0.15 | 124 | 10 | --- | --- |
| B7-1 | 0.30 | 60 | 5.0 | --- | --- |
| B8-S | 0.15 | 117 | 9.7 | --- | --- |
| B8-1 | 0.30 | 89 | 4.4 | --- | 7.8 |
| B9-S | 0.15 | 227 | 15 | 0.20 | --- |
| B9-1 | 0.30 | 27 | --- | --- | --- |
| B10-S | 0.15 | 71 | 3.8 | --- | 8.0 |
| B10-1 | 0.30 | 134 | 10 | --- | --- |
| B11-S | 0.15 | 165 | 8.9 | --- | --- |
| B11-1 | 0.30 | 21 | --- | --- | --- |
| B12-S | 0.15 | 426 | --- | --- | --- |
| B12-1 | 0.30 | 245 | --- | 0.62 | --- |
| B13-S | 0.15 | 79 | 10 | --- | --- |
| B13-1 | 0.30 | 54 | 4.0 | --- | --- |
| B14-S | 0.15 | 245 | 24 | ND | --- |
| B14-1 | 0.30 | 17 | --- | --- | --- |
| B15-S | 0.15 | 188 | 13 | --- | --- |
| B15-1 | 0.30 | 88 | 6.1 | --- | --- |
| B16-S | 0.15 | 454 | --- | --- | --- |
| B16-1 | 0.30 | 61 | 2.0 | --- | --- |
| B19-S | 0.15 | 431 | --- | --- | --- |
| B19-1 | 0.30 | 150 | 12 | --- | --- |
| B21-S | 0.15 | 285 | 19 | 0.23 | --- |
| B21-1 | 0.30 | 154 | 10 | --- | --- |
| B23-S | 0.15 | 289 | 22 | ND | --- |
| B23-1 | 0.30 | 199 | 16 | --- | 8.2 |
| B25-S | 0.15 | 333 | 24 | ND | --- |

## TABLE I (continued)
## SUMMARY OF ANALYTICAL LABORATORY RESULTS

| Sample Identification | Depth in Meters | Total Lead EPA Test Method 6010 (mg/kg) | Soluble Lead—WET EPA Test Method 7420 (mg/l) | Soluble Lead via WET-DI Water (mg/l) | Soil pH EPA Test Method 9045 |
|---|---|---|---|---|---|
| B25-1 | 0.30 | 43 | --- | --- | --- |
| B27-S | 0.15 | 534 | --- | --- | --- |
| B27-1 | 0.30 | 70 | 5.5 | --- | --- |

**Notes**:

mg/kg = milligrams per kilogram
mg/l = milligrams per liter
--- = analysis not performed
EPA = United States Environmental Protection Agency

ACSTP-P001(530)E
ACIM-105-3(034)E

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 1 | 308 |

STATE OF CALIFORNIA
# DEPARTMENT OF TRANSPORTATION
## PROJECT PLANS FOR CONSTRUCTION ON
# STATE HIGHWAY

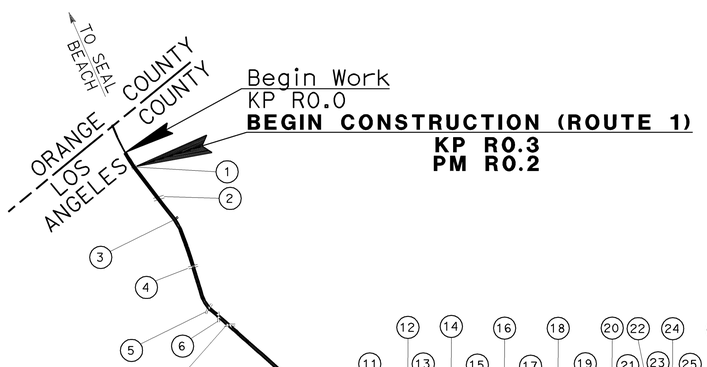
**IN LOS ANGELES COUNTY AT VARIOUS LOCATIONS ON ROUTE 1 FROM 0.3 KM WEST OF LOS ANGELES/ORANGE COUNTY LINE TO 1.0 KM WEST OF COASTLINE DRIVE AND ON ROUTE 105 FROM 0.4 KM WEST OF ROUTE 1 TO 0.5 KM EAST OF LA CIENEGA BOULEVARD**

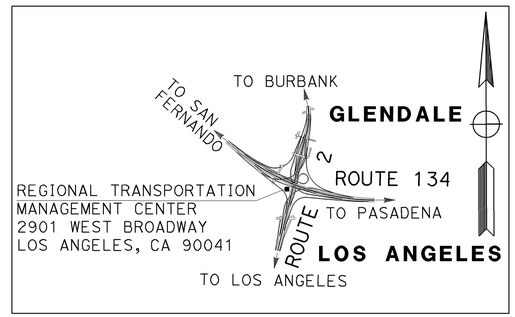
To be supplemented by Standard Plans dated July, 2004

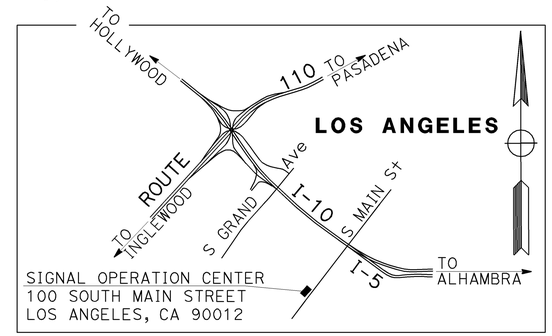
INDEX OF SHEETS


| Sheet No. | Description |
|---|---|
| 1 | Title and Location Map |
| 2 | Key Map and Line Index |
| 3-22 | Utility Plans |
| 23-24 | Construction Area Signs |
| 25-304 | Electrical Plans |
| 305-308 | Revised Standard Plans |


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



LOCATION MAP

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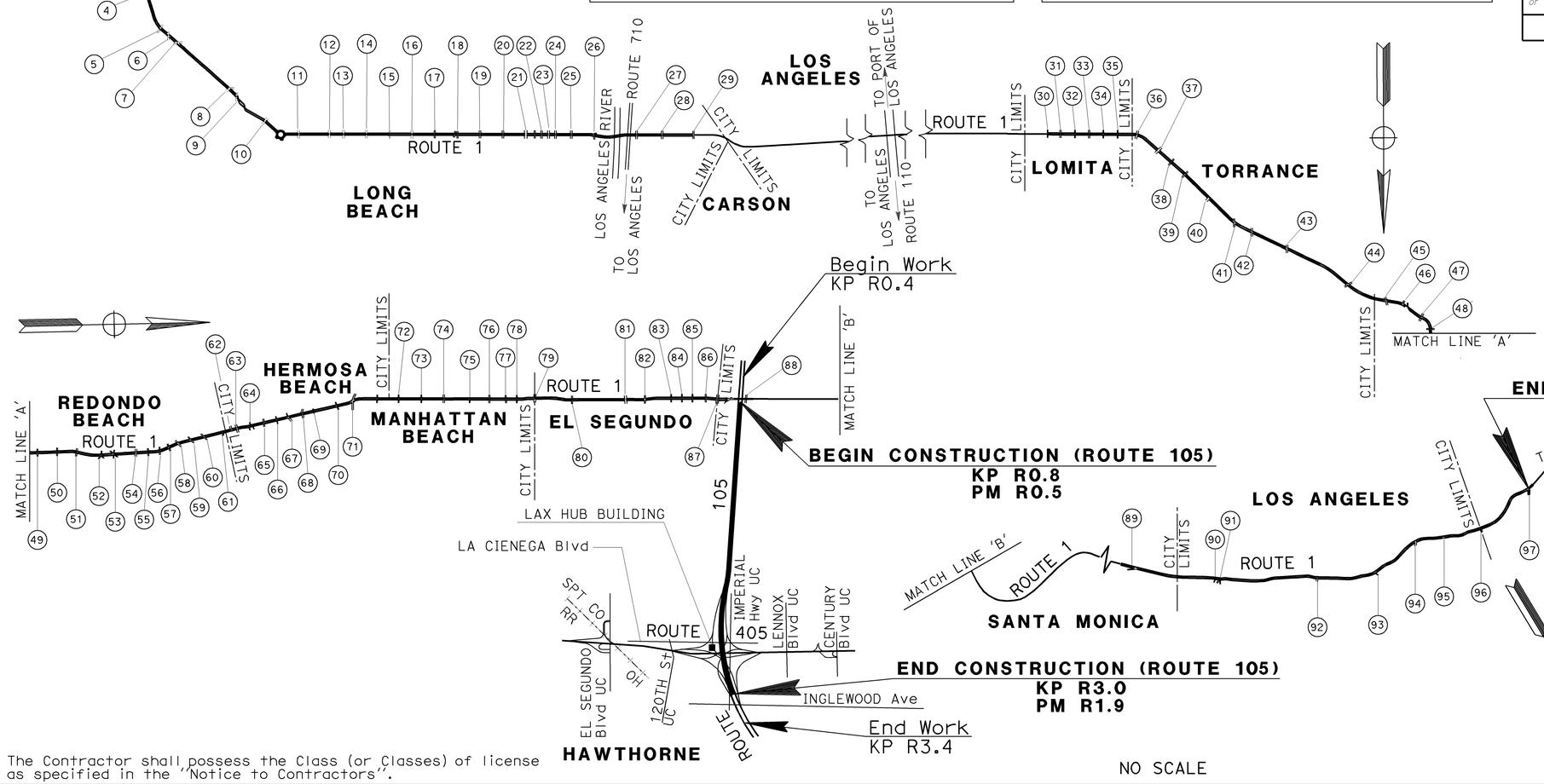


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Approved s to impact on the State facilities and conformance with applicable State standard and practices and that technical oversight was performed as described in the California Department of Transportation A & E Consultant Services Manual.

| PROJECT ENGINEER | DATE | DESIGN OVERSIGHT | REGISTRATION NO. | DATE |
|---|---|---|---|---|
| AYMAN SALAMA | 7/6 | YEFIM ZABEZHINSKY | E 012635 | 7/6 |

Ayman Salama 08/06
Project Engineer Date
Registered Civil Engineer

REGISTERED PROFESSIONAL ENGINEER
AYMAN E. SALAMA
No. 56085
Exp. 12/31/07
CIVIL
STATE OF CALIFORNIA

September 25, 2006
Plans Approval Date

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

NO SCALE

CH2M HILL
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SANTA ANA, CA 92707

Contract No. **07-257304**

LAST REVISION 00-00-00 DATE PLOTTED => 19-OCT-2006 08:35

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

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ab001.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 25 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## GENERAL NOTES: (FOR SHEET E-2 TO SHEET E-258)

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT THE DISTRICT OFFICE.
2. ALL EXISTING sic PULL BOXES AND 90 DEGREE CONDUIT BENDS SHALL BE REPLACED WITH NEW No. 6 PULL BOXES AND 45 DEGREE BENDS PER DETAIL A, SHEET E-256.
3. ALL NEW INDUCTIVE SYSTEM LOOPS SHALL HAVE NEW STUB-OUT.

## ABBREVIATIONS: (FOR SHEET E-2 TO SHEET E-277)

| | |
|---|---|
| # | - NUMBER |
| 12SMFO | - 12 SINGLE MODE FIBER OPTIC CABLE |
| 60SMFO | - 60 SINGLE MODE FIBER OPTIC CABLE |
| ATCS | - ADAPTIVE TRAFFIC CONTROL SIGNAL |
| CAT6 | - CATEGORY 6 |
| CCM | - CAMERA CONTROL MODEM |
| CCR | - CAMERA CONTROL RECEIVER |
| CIA | - CONTROLLER INTERFACE ASSEMBLY |
| CHAN | - CHANNEL |
| C-MIC | - CABINET MOUNT INTERFACE CENTER |
| COMM | - COMMUNICATION |
| DACCS | - DIGITAL ACCESS AND CROSS CONNECT SYSTEM |
| DEMUX | - DEMULTIPLEXER |
| DN | - DATA NODE |
| DS-1 | - DIGITAL SIGNAL LEVEL 1 |
| DSX-1 | - DIGITAL SIGNAL CROSS-CONNECT LEVEL 1 |
| FDU | - FIBER DISTRIBUTION UNIT |
| FOTM | - FIBER OPTIC TRAFFIC MODEM |
| FODM | - FIBER OPTIC DATA MODEM |
| INTRFCE | - INTERFACE |
| JKFD | - JACKFIELD |
| LAX | - LOS ANGELES INTERNATIONAL AIRPORT |
| LCU | - LOCAL CONTROL UNIT |
| MUX | - MULTIPLEXER |
| PDA | - POWER DISTRIBUTION ASSEMBLY |
| PR | - PAIR |
| RX | - RECEIVER |
| SCE | - SOUTHERN CALIFORNIA EDISON |
| SCGAS | - SOUTHERN CALIFORNIA GAS COMPANY |
| SDXX | - SYSTEM LOOP DETECTOR NO. XX |
| SM | - SINGLEMODE |
| SONET | - SYNCHRONOUS OPTICAL NETWORK |
| TDM | - TIME DIVISION MULTIPLEXER |
| TEL | - TELEPHONE |
| TELCO | - TELEPHONE COMPANY |
| TMC | - TRAFFIC MANAGEMENT CENTER |
| TPC | - TWISTED PAIR CABLE |
| TTMC | - TEMPORARY TRAFFIC MANAGEMENT CENTER |
| VN | - VIDEO NODE |
| VDMUX | - VIDEO DEMULTIPLEXER |
| VMX or VMUX | - VIDEO MULTIPLEXER |
| V-RX or VRD | - VIDEO RECEIVER/DATA TRANSCEIVER |
| V-TX or VTD | - VIDEO TRANSMITTER/DATA TRANSCEIVER |
| XMTR | - TRANSMITTER |

## LEGEND: (FOR SHEET E-2 TO SHEET E-239)

- MODEL 334-TV CABINET
- CCTV CAMERA POLE LOCATION
- FIBER OPTIC CABLE
- SPLICE VAULT
- DESIGNATED SPLICE
- EXISTING SPLICE VAULT

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LEGEND AND NOTES)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-1**

| | | |
|---|---|---|
| CALCULATED/DESIGNED BY | MR | DATE 4/06 REVISED BY |
| CHECKED BY | KM | 4/06 DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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TIME PLOTTED => 14:04

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 26 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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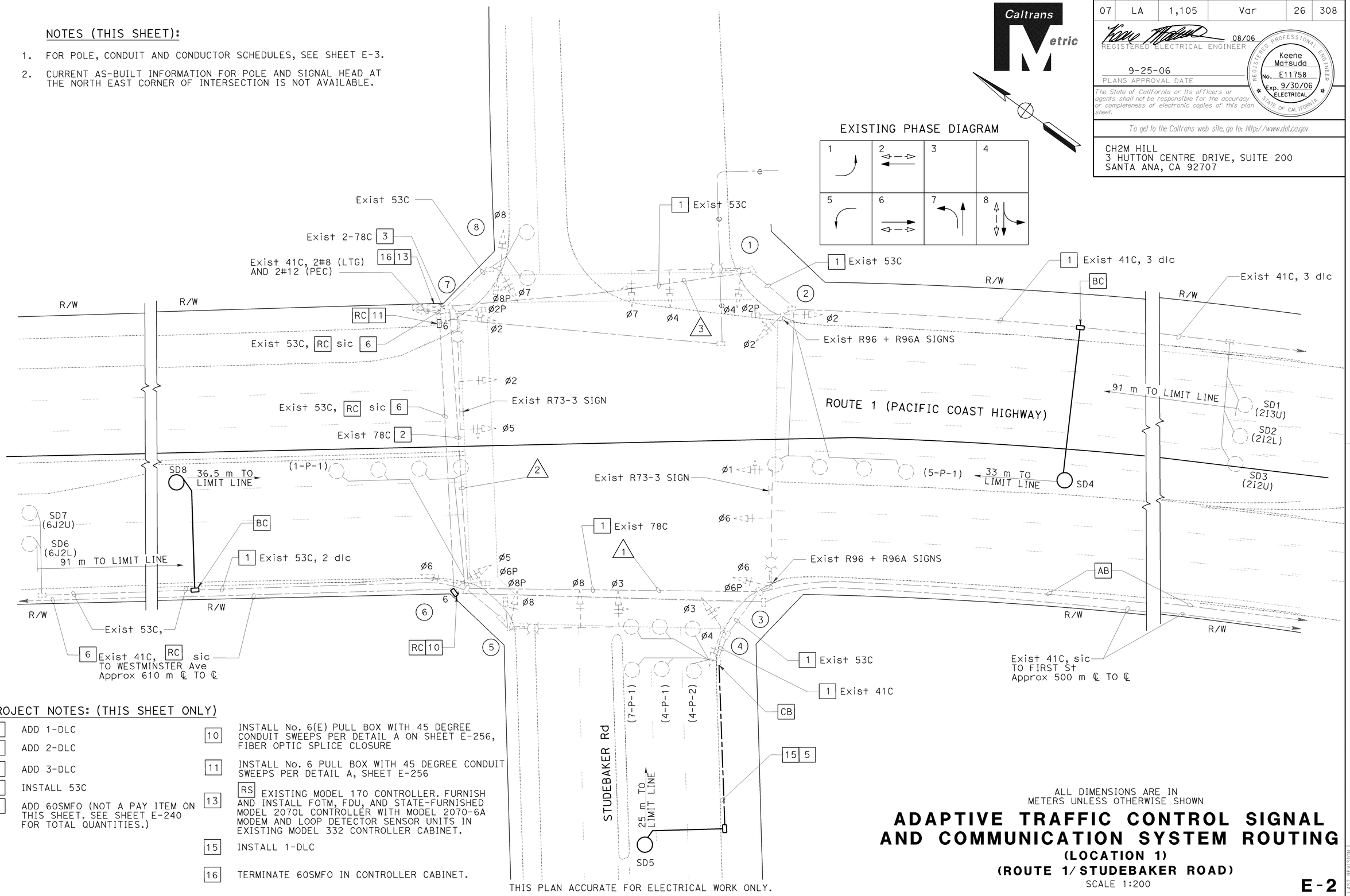
## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-3.
2. CURRENT AS-BUILT INFORMATION FOR POLE AND SIGNAL HEAD AT THE NORTH EAST CORNER OF INTERSECTION IS NOT AVAILABLE.




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 3 | ADD 3-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256 |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, FDU, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 15 | INSTALL 1-DLC |
| 16 | TERMINATE 60SMFO IN CONTROLLER CABINET. |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 1)

## (ROUTE 1/ STUDEBAKER ROAD)

SCALE 1:200

**E-2**

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY |
|---|---|---|
| REVISED BY | KM | CHECKED BY |
| DATE REVISED | 4/06 | |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphiis
DGN FILE => 725730ua002.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 27 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE *

| CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| ø1 | 3 | 3 | 3 | 3/3 |
| ø2 | - | - | 3 | 3/3 |
| ø3 | 3 | 3 | - | 3 |
| ø4 | 3 | 3 | 3 | 6 |
| ø5 | - | 3 | - | 3 |
| ø6 | 3 | 3 | - | 3 |
| ø7 | - | - | 3 | 3/3 |
| ø8 | - | 3 | - | 3/3 |
| ø2P | - | - | 2 | 2/2 |
| ø6P | 2 | 2 | - | 2 |
| ø8P | - | 2 | - | 4 |
| ø2PPB | - | - | 1 | 1/1 |
| ø6PPB | 1 | 1 | - | 1 |
| ø8PPB | - | 1 | - | 1 |
| PPB COMMON | 1 | 1 | 1 | 1/1 |
| SPARES | 3 | 3 | 3 | 3/3 |
| TOTAL | 19 | 28 | 20 | 61 |
| ø1 | - | 1 | - | 1 |
| ø2 | 2 | 2 | 2 | 2/2 |
| ø3 | - | - | - | 1 |
| ø4 | 2 | 2 | - | 2 |
| ø5 | - | - | 1 | 1 |
| ø6 | 2 | 2 | - | 2 |
| ø7 | 1 | 1 | - | 1 |
| ø8 | - | - | - | 3 |
| TOTAL | 7 | 8 | 3 | 15 |
| LUMINAIRE | 2 | 2 | 2 | - |
| SIGNAL COMMON | 1 | 1 | 1 | 1/1 |
| TOTAL | 3 | 3 | 3 | 2 |
| CONDUIT SIZE (mm) | 78 | 78 | 53 | 2-78 |

* CURRENT AS-BUILT INFORMATION NOT AVAILABLE.
THIS TABLE IS FOR REFERENCE ONLY.

## EXISTING POLE AND EQUIPMENT SCHEDULE

| | POLE DATA | | | LPS LUM | | SIGNAL MOUNTING | | | PPB | | POLE LOCATION (m) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT | SMA (m) | MA (m) | WATTS | VEH | MA | PED | ø | ARROW | E | B | C | N | NON-ILLUM SIGN (DOUBLE FACE) |
| 1 | 26A-4-113 | 10.7 | 13.7 | 4.6 | 180 | SV-1-T | 2-mas | - | 2 | ← | 4.0 | - | 7.6 | - | PACIFIC COAST HIGHWAY |
| 2 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-1-CS | - | - | - | 4.0 | 7.6 | - | - |
| 3 | 26A-4-113 | 10.7 | 13.7 | 4.6 | 180 | SV-1-T | 2-mas | SP-1-CS | - | - | EXISTING | | | - | STUDEBAKER ROAD |
| 4 | 1-A | 3.1 | - | - | - | TV-2-T | - | - | 6 | → | EXISTING | | | - | - |
| 5 | 26A-4-113 | 10.7 | 13.7 | 4.6 | 180 | SV-1-T | 2-mas | SP-1-CS | 6 | ← | EXISTING | | | - | PACIFIC COAST HIGHWAY |
| 6 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-1-CS | 8 | → | EXISTING | | | - | - |
| 7 | 26A-4-113 | 10.7 | 13.7 | 4.6 | 180 | SV-1-T | 2-mas | SP-1-CS | 8 | ← | EXISTING | | | - | STUDEBAKER ROAD |
| 8 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-1-CS | 2 | → | EXISTING | | | - | - |

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 1)**
**(ROUTE 1/ STUDEBAKER ROAD)**

NO SCALE

**E-3**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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Caltrans

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TIME PLOTTED => 14:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua003.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 28 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


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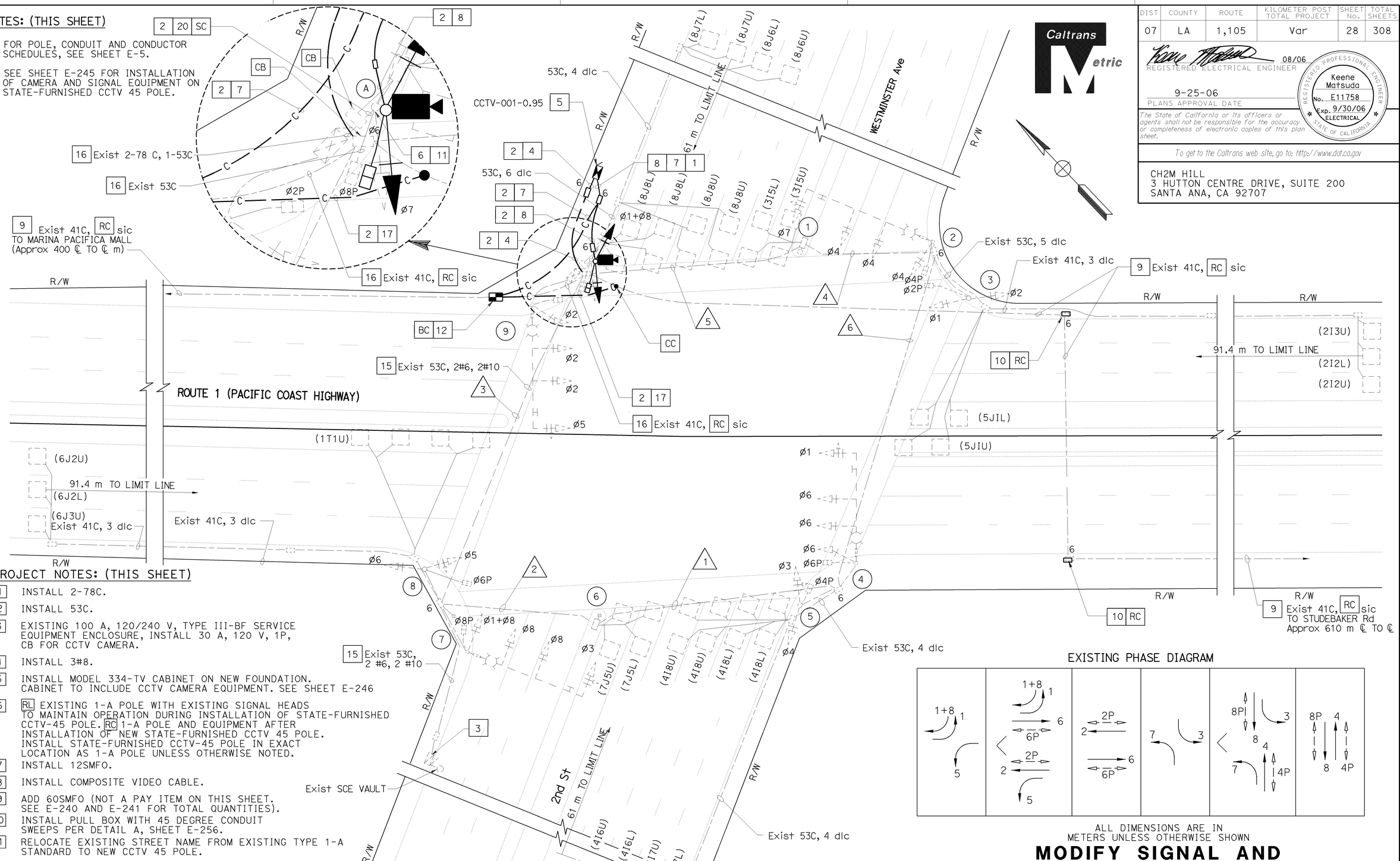
## NOTES: (THIS SHEET)

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-5.
2. SEE SHEET E-245 FOR INSTALLATION OF CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.




## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
11. RELOCATE EXISTING STREET NAME FROM EXISTING TYPE 1-A STANDARD TO NEW CCTV 45 POLE.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).
20. INSTALL 12CSC FOR VEHICLE AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 2)

## (ROUTE 1/ 2ND STREET - WESTMINSTER AVENUE)

SCALE 1:200

E-4

| DATE 4/06 | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| MR | KM | 4/06 | |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua004.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 29 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| #14 | ø1=8 R† TURN ARROW | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø1 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø2 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø5 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø6 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø7 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø8 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø6P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø8P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø2PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø4PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø6PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø8PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 |
| | SPARES | 2 | 2 | 2 | 2 | 2 | 2 |
| | TOTAL | 41 | 41 | 41 | 41 | 41 | 41 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRES | 2 | 2 | 2 | - | - | 2 |
| #6 | SIGNAL SERVICE | - | - | 2 | - | - | - |
| #8 | SIGNAL SERVICE | - | - | 2 | - | - | - |
| dlc | ø1 | - | - | 1 | - | - | 1 |
| | ø2 | - | - | - | 3 | 3 | 3 |
| | ø3 | - | - | - | - | 2 | - |
| | ø4 | - | - | - | 6 | 6 | 6 |
| | ø5 | - | - | - | 2 | 2 | - |
| | ø6 | - | - | 3 | - | - | 3 |
| | ø7 | - | 2 | 2 | - | - | - |
| | ø8 | - | - | - | - | - | - |
| | TOTAL dlc's | - | 2 | 6 | 11 | 13 | 12 |
| | | | | | | | |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | SMA (m) | LMA (m) | LUMINAIRE INTEGRALBLST LPS * | VEH SIG MTG POLE | VEH SIG MTG MAST ARM | PED SIG MTG | PPB PHASE | REFLECTORIZED STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1-A | - | - | - | - | - | - | 2 | - |
| 2 | 28-5-113 | 15.2 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 2 | PACIFIC COAST Hwy |
| 3 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 4 | - |
| 4 | 26-5-113 | 13.7 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 4 | ← WESTMINSTER Ave 2nd STREET → |
| 5 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 6 | - |
| 6 | 1-A | - | - | - | - | - | - | 6 | - |
| 7 | 28-5-113 | 15.2 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 6 | PACIFIC COAST Hwy |
| 8 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 8 | - |
| 9 | 26-5-113 | 13.7 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 8 | ← WESTMINSTER Ave 2nd STREET → |

* - SEMI CUT-OFF, TYPE IV PEC

## NEW POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | VEH SIG MTG POLE | PED SIG MTG | PPB ø | PPB ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| A | CCTV 45 | - | - | - | SV-2-T | SP-1-T | 2 | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 2)

## (ROUTE 1/2ND STREET-WESTMINSTER AVENUE)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-5**

| DESIGN OVERSIGHT | CALCULATED/DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED |
|---|---|---|---|---|
| YEFIM ZABEZHINSKY | MR | KM | | 4/06 |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 30 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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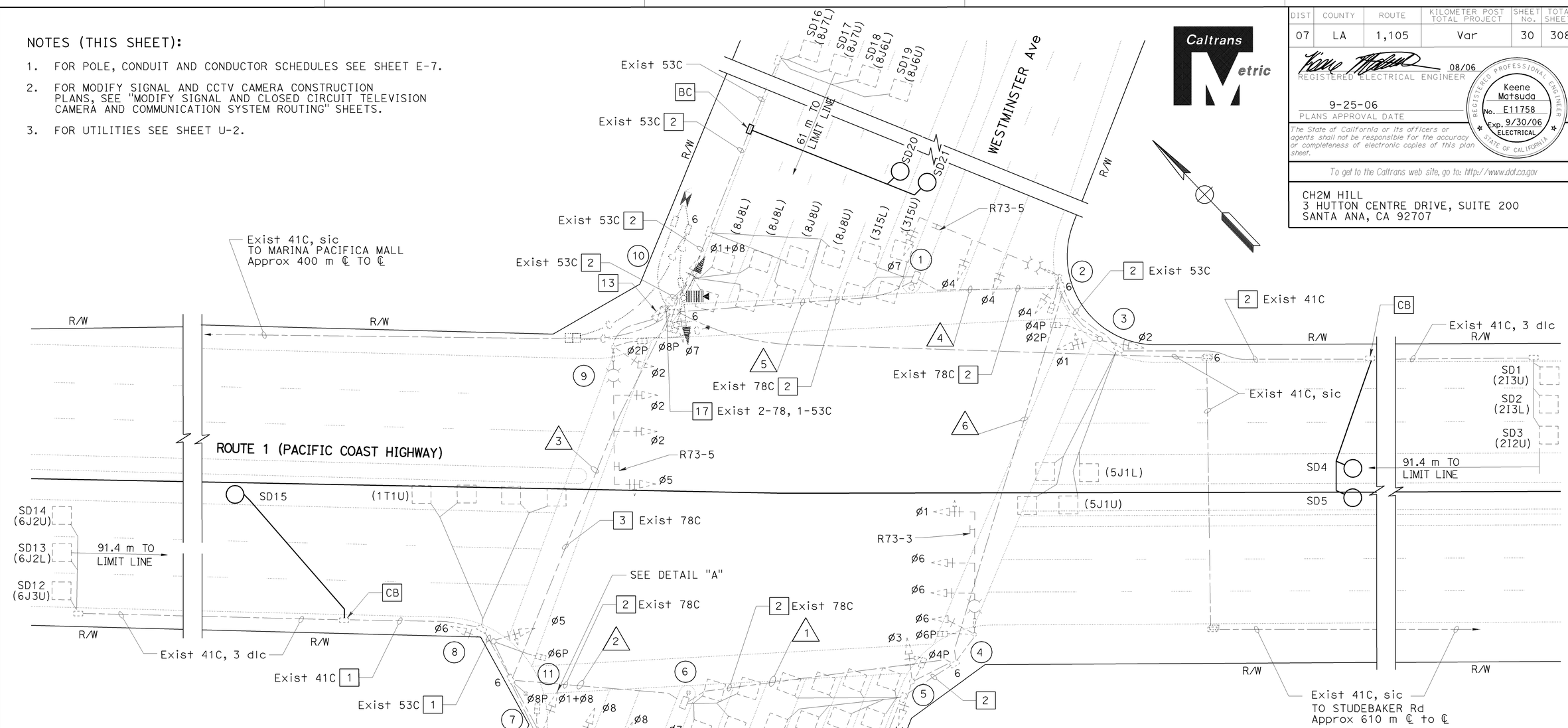
SANTA ANA, CA 92707


NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-7.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-2.




PROJECT NOTES: (THIS SHEET ONLY)

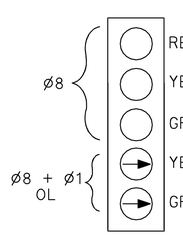
1 ADD 1-DLC

2 ADD 2-DLC

3 ADD 3-DLC

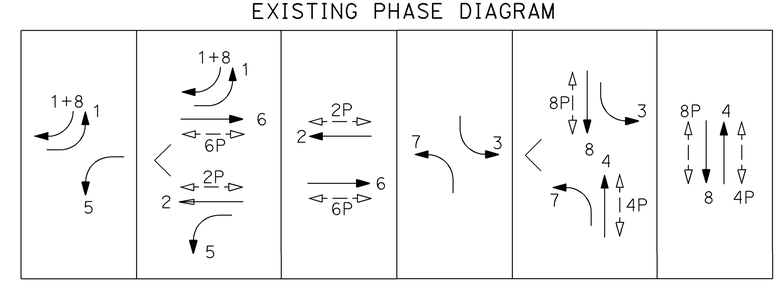
13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

17 ADD 5-DLC




DETAIL "A"

EXISTING PHASE DIAGRAM



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 2)
## (ROUTE 1/ 2ND STREET - WESTMINSTER AVENUE)

SCALE 1:200

E-6

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphiis
DGN FILE => 725730ua006.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 31 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| #14 | ø1=8 R† TURN ARROW | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø1 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø2 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø5 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø6 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø7 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø8 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø6P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø8P | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø2PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø4PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø6PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø8PPB | 1 | 1 | 1 | 1 | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 |
| | SPARES | 2 | 2 | 2 | 2 | 2 | 2 |
| | TOTAL | 41 | 41 | 41 | 41 | 41 | 41 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRES | 2 | 2 | 2 | - | - | 2 |
| #6 | SIGNAL SERVICE | - | - | 2 | - | - | - |
| dlc | ø1 | - | - | 1 | - | - | 1 |
| | ø2 | - | - | - | 3 | 3 | 3 |
| | ø3 | - | - | - | - | 2 | - |
| | ø4 | - | - | - | 6 | 6 | 6 |
| | ø5 | - | - | - | 2 | 2 | - |
| | ø6 | - | - | 3 | - | - | 3 |
| | ø7 | - | 2 | 2 | - | - | - |
| | ø8 | - | - | - | - | - | - |
| | TOTAL dlc's | - | 2 | 6 | 11 | 13 | 12 |
| | | | | | | | |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | STANDARD TYPE | SMA (m) | LMA (m) | LUMINAIRE INTEGRALBLST LPS * | VEH SIG MTG POLE | VEH SIG MTG MAST ARM | PED SIG MTG | PPB PHASE | REFLECTORIZED STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1-A | - | - | - | - | - | - | 2 | - |
| 2 | 28-5-113 | 15.2 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 2 | PACIFIC COAST Hwy |
| 3 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 4 | - |
| 4 | 26-5-113 | 13.7 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 4 | ← WESTMINSTER Ave 2nd STREET → |
| 5 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 6 | - |
| 6 | 1-A | - | - | - | - | - | - | 6 | - |
| 7 | 28-5-113 | 15.2 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 6 | PACIFIC COAST Hwy |
| 8 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 8 | - |
| 9 | 26-5-113 | 13.7 | 3.7 | 180 | SV-1-T | MAT/2MAS | SP-1-T | 8 | ← WESTMINSTER Ave 2nd STREET → |
| 10 | CCTV45 | - | - | - | SV-2-T | - | SP-1-T | 2 | - |

* - SEMI CUT-OFF, TYPE IV PEC

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 2)
## (ROUTE 1/2ND STREET- WESTMINSTER AVENUE)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-7

| DATE | REVISED BY |
|---|---|
| 8/06 | KM |

CALCULATED/DESIGNED BY MR
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 32 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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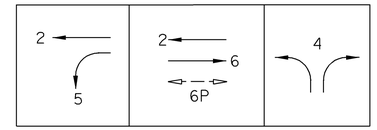
SANTA ANA, CA 92707

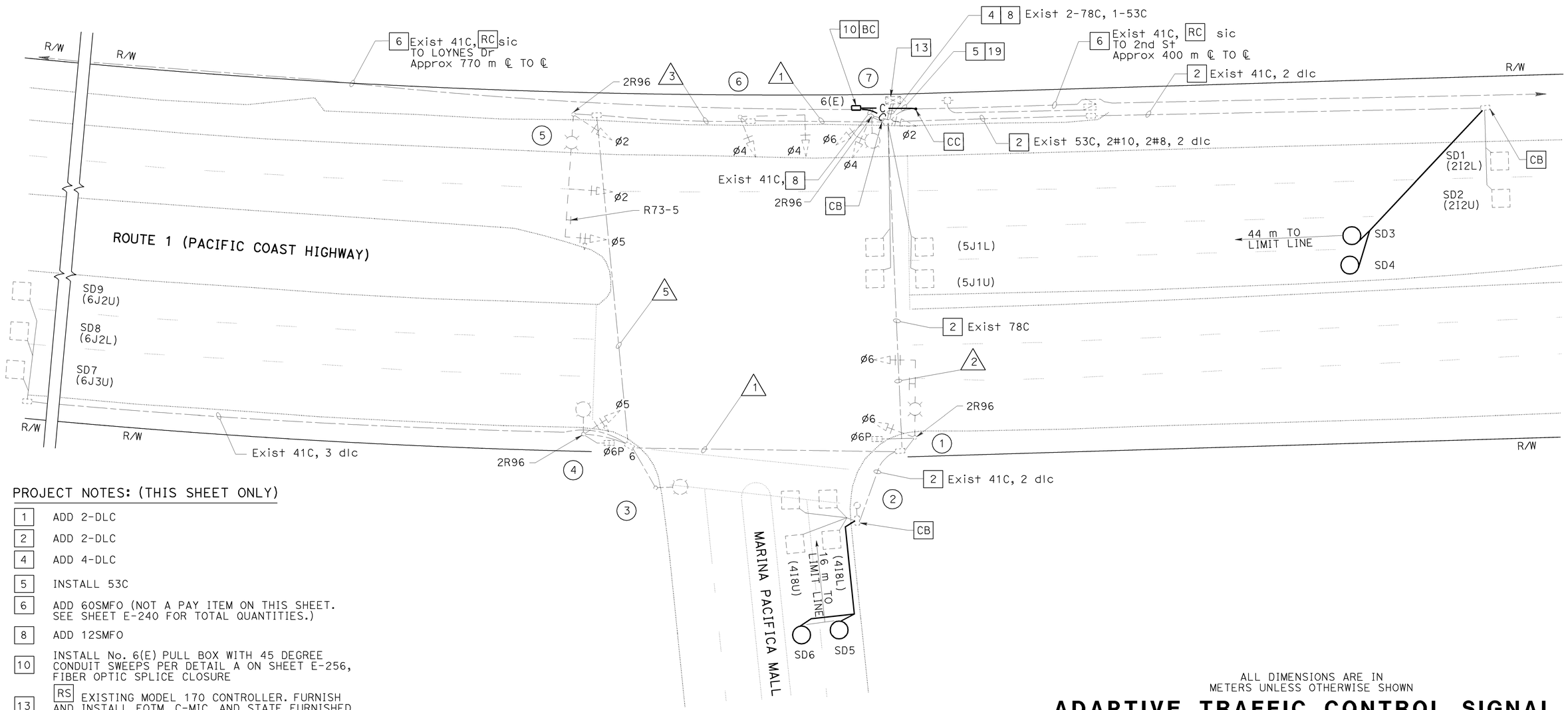
Caltrans Metric

## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-9.

EXISTING PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 2-DLC |
| 2 | ADD 2-DLC |
| 4 | ADD 4-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET |
| 15 | INSTALL 2-DLC |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ONTHIS SHEET, SEE SHEET E-240 FOR TOTAL QUANTITES.) |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 3)

## (ROUTE 1/MARINA PACIFICA MALL)

SCALE 1:200

**E-8**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:05

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua008.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 33 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | LUMINAIRE INTEGRALBLST | SIGNAL MOUNTING VEHICLE | | PED | PPB | REFLECTORIZED STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|
| No. | DESCRIPTION | SMA (m) | LMA (m) | LPS (W) | POLE | MAST ARM | | ø | |
| 1 | 19-2-113 | 9.1 | 3.7 | 180 | SV-1-T | - | SP-1-T | - | MARINA PACIFICA MALL |
| 2 | PPB POST | - | - | - | - | - | - | 6 | - |
| 3 | 15 | - | 3.7 | 180 | - | - | - | 6 | - |
| 4 | 15 | - | 3.7 | 180 | SV-2-T | - | SP-1-T | - | - |
| 5 | 26-3-113 | 13.7 | 3.7 | 180 | SV-1-T | mat/mas | - | - | MARINA PACIFICA MALL |
| 6 | 16-1-113 | 4.6 | - | - | SV-1-T | mas | - | - | - |
| 7 | 15 | - | 3.7 | 180 | SV-3-TA | - | - | - | - |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| #14 | ø2 | 3 | 3 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 | 3 | 3 |
| | ø5 | 3 | 3 | 3 | 3 | 3 |
| | ø6 | 3 | 3 | 3 | 3 | 3 |
| | ø6P | 2 | 2 | 2 | 2 | 2 |
| | ø6PPB | 1 | 1 | 1 | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 |
| | SPARES | 2 | 2 | 2 | 2 | 2 |
| | TOTAL | 18 | 18 | 18 | 18 | 18 |
| | | | | | | |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | - |
| | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 |
| dlc 2#14 CABLE TYPE C | ø2 DETECTOR | - | - | - | - | - |
| | ø4 DETECTOR | - | 2 | - | - | - |
| | ø5 DETECTOR | - | - | - | - | - |
| | ø6 DETECTOR | 3 | 3 | - | - | - |
| | | | | | | |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 3)**

**(ROUTE 1/MARINA PACIFICA MALL)**

NO SCALE

**E-9**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| 4/06 | MR | | YEFIM ZABEZHINSKY |
| 4/06 | KM | CHECKED BY | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 34 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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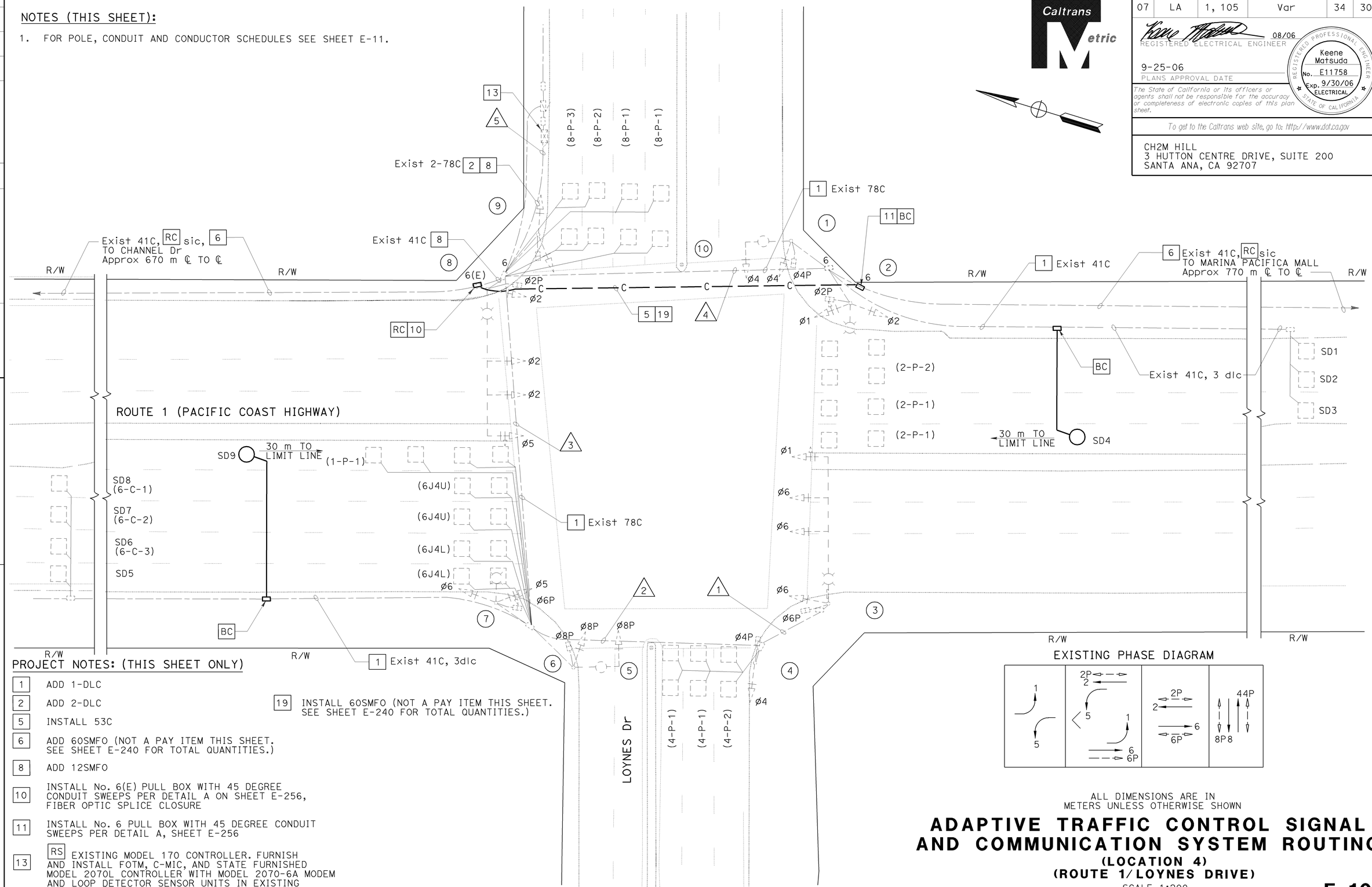
SANTA ANA, CA 92707


Caltrans Metric

NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-11.




EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256 |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 4)
## (ROUTE 1/LOYNES DRIVE)

SCALE 1:200

**E-10**

| | | | |
|---|---|---|---|
| | | DATE 4/06 | REVISED BY |
| | | 4/06 | DATE REVISED |
| MR | | | |
| KM | | | |
| CALCULATED/ DESIGNED BY | | | |
| CHECKED BY | | | |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua010.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 35 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| #14 | ø1 | 3 | 3 | 3 | 3 | 6 |
| | ø2 | - | - | - | 3 | 3 |
| | ø4 | 3 | 3 | 3 | 3 | 6 |
| | ø5 | - | - | 3 | - | 3 |
| | ø6 | 3 | 3 | 3 | - | 3 |
| | ø8 | 3 | 3 | 3 | - | 3 |
| | ø2P | - | - | - | 2 | 2 |
| | ø4P | 2 | 2 | 2 | 2 | 4 |
| | ø6P | 2 | 2 | 2 | - | 2 |
| | ø8P | - | - | 2 | - | 2 |
| | ø2PPB | - | - | - | 1 | 1 |
| | ø4PPB | 1 | 1 | 1 | 1 | 2 |
| | ø6PPB | 1 | 1 | 1 | - | 1 |
| | ø8PPB | - | - | 1 | - | 1 |
| | PPB COMMON | 1 | 1 | 1 | - | 1 |
| | SPARES | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 22 | 22 | 28 | 18 | 46 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 2 |
| | LUMINAIRE | 2 | 2 | 2 | 2 | - |
| #8 | SERVICE | - | - | - | - | 2 |
| 2#14 LOOP DETECTOR CABLE | ø1 DETECTOR | - | - | - | 1 | 1 |
| | ø2 DETECTOR | - | - | - | 5 | 5 |
| | ø4 DETECTOR | - | 2 | - | - | 2 |
| | ø5 DETECTOR | - | - | 1 | - | 1 |
| | ø6 DETECTOR | - | - | 5 | - | 5 |
| | ø8 DETECTOR | - | - | - | - | 3 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | LUMINAIRE | SIGNAL MOUNTING | | | PPB | REFLECTORIZED STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|
| | | | | LPS WATTS (W) | VEHICLE | | PED | | |
| No. | DESCRIPTION | SMA (m) | LMA (m) | | POLE | MAST ARM | | ø | |
| 1 | 19A-2-113 | 7.6 | 3.7 | 180 | SV-1-T | mas | SP-2-CS | 2 | PACIFIC COAST HIGHWAY |
| 2 | 15 | - | 3.7 | 180 | SV-2-T | - | SP-1-T | 4 | - |
| 3 | 28-5-113 | 16.8 | 3.7 | 180 | SV-1-T | mat 2-mas | SP-1-T | 4 | LOYNES DRIVE |
| 4 | 15 | - | 3.7 | 180 | SV-2-T | - | SP-1-T | 6 | - |
| 5 | PPB POST | - | - | - | - | - | - | 6 | - |
| 6 | 17A-2-113 | 4.6 | 3.7 | 180 | SV-1-T | mas | SP-2-CS | 6 | PACIFIC COAST HIGHWAY |
| 7 | 15 | - | 3.7 | 180 | SV-2-T | - | SP-1-T | 8 | - |
| 8 | 28-5-113 | 15.2 | 3.7 | 180 | SV-1-T | mat 2-mas | SP-1-T | 8 | LOYNES DRIVE |
| 9 | 15 | - | 3.7 | 180 | SV-2-T | - | SP-1-T | 2 | - |
| 10 | PPB POST | - | - | - | - | - | - | 2 | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 4)**
**(ROUTE 1/LOYNES DRIVE)**

NO SCALE

**E-11**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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|---|---|
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| 4/06 | KM |

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YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:04

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 36 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
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SANTA ANA, CA 92707

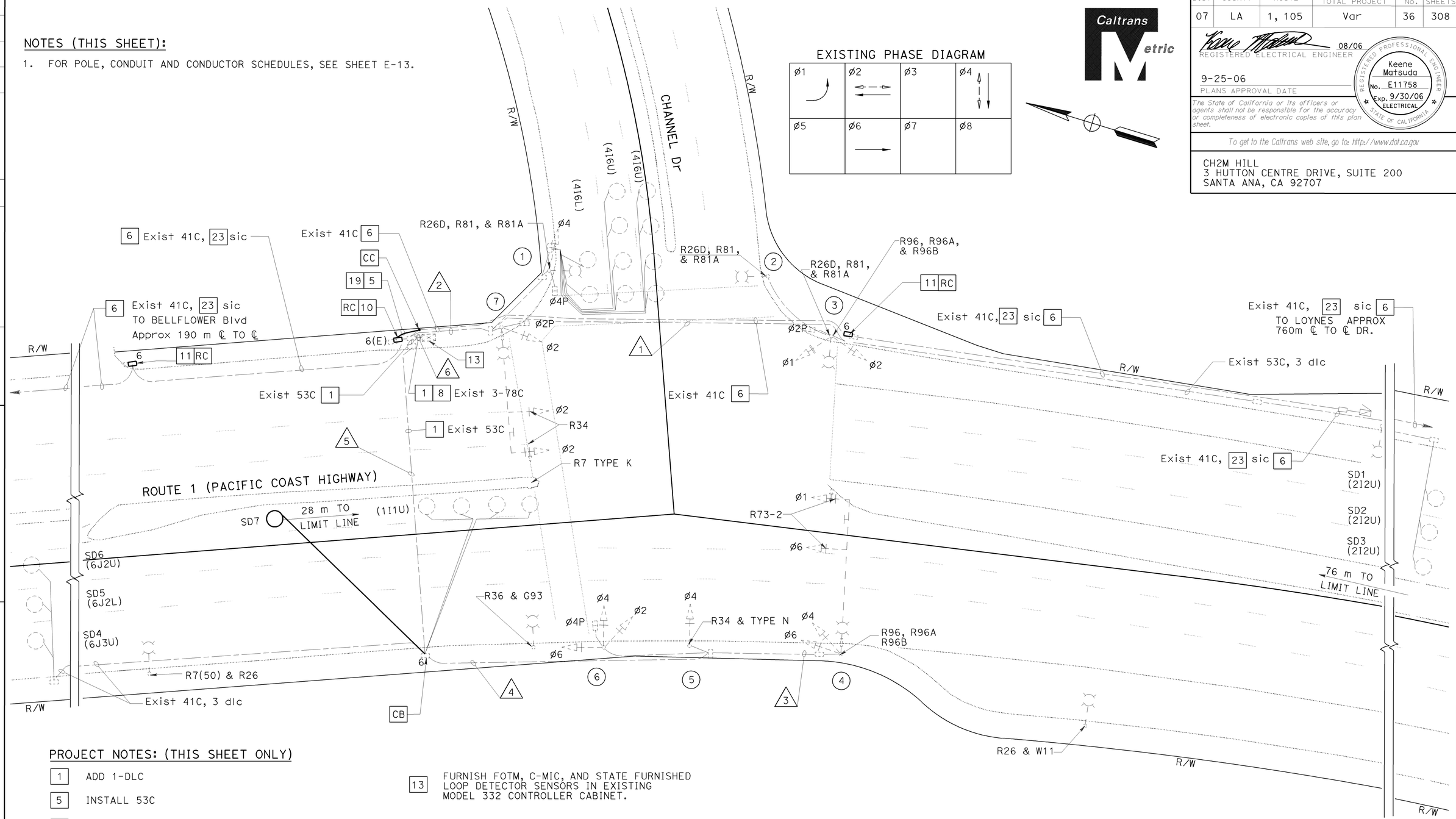
Caltrans Metric

## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-13.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| Ø1 | Ø2 | Ø3 | Ø4 |
| Ø5 | Ø6 | Ø7 | Ø8 |




## PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 FURNISH FOTM, C-MIC, AND STATE FURNISHED LOOP DETECTOR SENSORS IN EXISTING MODEL 332 CONTROLLER CABINET.

23 DO NOT PERMANENTLY REMOVE sic. CONTACT CITY OF LONG BEACH MAINTENANCE DEPARTMENT (562) 570-2768 PRIOR TO ANY WORK. PROTECT sic DURING INSTALLATION OF 60SMFO AND 12 SMFO. MAINTAIN EXISTING FUNCTION OF sic.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 5)

## (ROUTE 1/ CHANNEL DRIVE)

SCALE 1:200

**E-12**

| DATE | BY | REVISED | DATE REVISED |
|---|---|---|---|
| 4/06 | MR | KM | 4/06 |

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 1305

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua012.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 37 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| #14 | ø1 | 3 | 3 | 3 | 3 | 3 | 6 |
| | ø2 | - | 3 | - | 3 | 3 | 6 |
| | ø4 | - | 3 | 3 | 3 | 3 | 6 |
| | ø6 | - | - | 3 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | - | - | - | 2 |
| | ø4P | - | 2 | - | 2 | 2 | 4 |
| | ø2PPB | 1 | 1 | - | - | - | 1 |
| | ø4PPB | - | 1 | - | 1 | 1 | 2 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 10 | 19 | 13 | 19 | 19 | 38 |
| 2#14 dlc | ø1 P DETECTOR | - | - | - | - | 1 | 1 |
| | ø2 C DETECTOR | 3 | 3 | - | - | - | 3 |
| | ø4 C DETECTOR | - | - | - | - | 2 | 2 |
| | ø6 C DETECTOR | - | - | - | - | 3 | 3 |
| | TOTAL | 3 | 3 | - | - | 6 | 9 |
| | INTERCONNECT | - | - | - | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | - | - | - | - | - | - |
| | | - | - | - | - | - | - |
| | | - | - | - | - | - | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 |
| | TOTAL | 3 | 3 | 3 | 3 | 3 | 3 |
| #6 | SIGNAL SERVICE | - | - | - | - | - | 2 |
| | EMERGENCY VEHICLE DETECTOR | - | - | - | - | - | - |
| | | - | - | - | - | - | - |
| CONDUIT SIZE (mm) | | | | | | | |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| POLE No. | POLE TYPE | SMA (m) | VEH SIG MTG MA | VEH SIG MTG POLE | LUMINAIRE MA LENGTH (m) | LUMINAIRE HPS WATTS (W) | PED SIGNAL | PPB QUAD | PPB ø | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | POLE LOCATION A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15 | - | - | SV-1-T | 3.7 | 250 | SP-1-CS | 1 | 2 | - | - | - | - | - | - | - |
| 2 | 16 | - | - | - | 3.7 | 250 | - | 1 | 2 | - | - | - | - | - | - | - |
| 3 | 15 | - | - | SV-2 | 3.7 | 250 | SP-1-CS | - | - | - | - | - | - | - | - | - |
| 4 | 29-5-129 | 16.8 | 2-mat | SV-2-T | 3.7 | 250 | - | - | - | RSNS | CHANNEL DRIVE | - | - | - | - | - |
| 5 | 1-A | - | - | TV-1-T | - | - | - | - | - | - | - | - | - | - | - | - |
| 6 | 1-A | - | - | SV-3-T | - | - | SP-1-CS | - | - | - | - | - | - | - | - | - |
| 7 | 26-4-129 | 13.7 | 2-mat | SV-1-T | 3.7 | 250 | SP-1-CS | 1 | 4 | RSNS | CHANNEL DRIVE | - | - | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 5)**
**(ROUTE 1/CHANNEL DRIVE)**

NO SCALE

**E-13**

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YEFIM ZABEZHINSKY

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|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 38 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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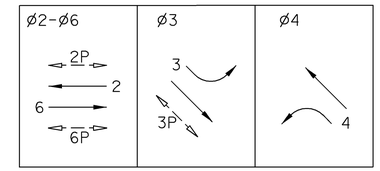
SANTA ANA, CA 92707

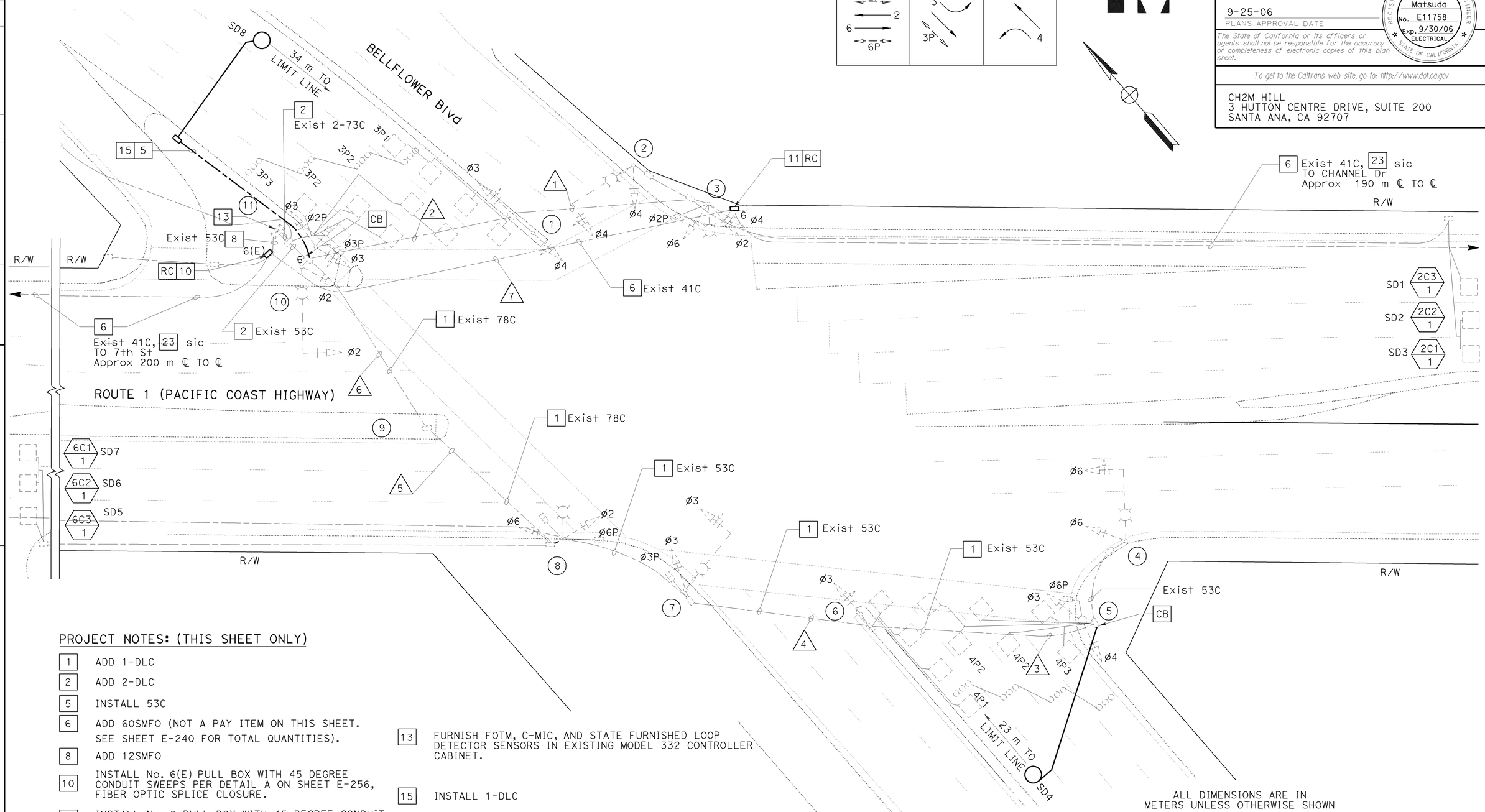
Caltrans Metric

## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-15.

EXISTING PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | FURNISH FOTM, C-MIC, AND STATE FURNISHED LOOP DETECTOR SENSORS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 15 | INSTALL 1-DLC |
| 23 | DO NOT PERMANENTLY REMOVE sic. CONTACT CITY OF LONG BEACH MAINTENANCE DEPARTMENT (562) 570-2768 PRIOR TO ANY WORK. PROTECT sic DURING INSTALLATION OF 60SMFO AND 12SMFO. MAINTAIN EXISTING FUNCTION OF sic. |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 6)

## (ROUTE 1/BELLFLOWER BOULEVARD)

SCALE 1:200

**E-14**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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TIME PLOTTED => 13:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua014.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 39 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 28 CONDUCTOR CABLE | 1 | 1 | 2 | 2 | 1 | 1 | 2 |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | - | 2 | 2 |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | 2 |
| #12 | SIGN LIGHTING | 2 | 2 | 2 | 2 | - | - | 2 |
| dlc 2#16 | Ø1 DETECTOR | - | - | - | - | 1 | 1 | 1 |
| | Ø2 DETECTOR | - | - | - | - | - | - | 2 |
| | Ø3 DETECTOR | - | - | 1 | 1 | - | - | 1 |
| | Ø4 DETECTOR | - | - | - | - | - | 5 | 5 |
| | Ø5 DETECTOR | - | - | - | - | - | - | 1 |
| | Ø6 DETECTOR | 2 | 2 | 2 | 2 | - | - | 2 |
| | Ø7 DETECTOR | - | - | - | - | - | 1 | 1 |
| | Ø8 DETECTOR | - | - | 5 | 5 | - | - | 5 |
| | TOTAL | 2 | 2 | 8 | 8 | 1 | 7 | 18 |
| | INTERCONNECT | - | - | - | - | - | - | 2 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 3-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE (W) | VEH SIG MTG | | PED SIG MTG | PED PUSH BTN |
|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | | POLE | MA | | PHASE |
| 1 | 1-A | 3.0 | - | - | - | TV-1-T | - | - | 2 |
| 2 | 19A-2-113 | - | 7.6 | 4.6 | 180 LPS | SV-1-T | MAT | - | 2 |
| 3 | 15 | - | - | - | 180 LPS | SV-2-T | - | SP-1-CS | - |
| 4 | 19A-2-113 | - | 7.6 | 4.6 | 180 LPS | SV-1-T | MAT | - | - |
| 5 | 1-A | 3.0 | - | - | - | TV-2-T | - | SP-1-CS | 6 |
| 6 | 33 | - | - | - | - | TV-1-T | - | - | 6 |
| 7 | 19A-2-113 | - | 7.6 | 4.6 | 180 LPS | SV-1-T | MAT | SP-1-CS | 6 |
| 8 | 15 | - | - | - | 180 LPS | SV-2-T | - | SP-1-CS | 3 |
| 9 | PPB-POST | - | - | - | - | - | - | - | 3 |
| 10 | 19A-2-113 | - | 9.1 | 4.6 | 180 LPS | SV-1-T | MAT | SP-1-CS | 3 |
| 11 | 1-A | 3.0 | - | - | - | SV-2-T | - | SP-1-CS | 2 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 6)**

**(ROUTE 1/BELLFLOWER BOULEVARD)**

NO SCALE

**E-15**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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| 4/06 | KM |

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TIME PLOTTED => 13:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua015.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 40 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
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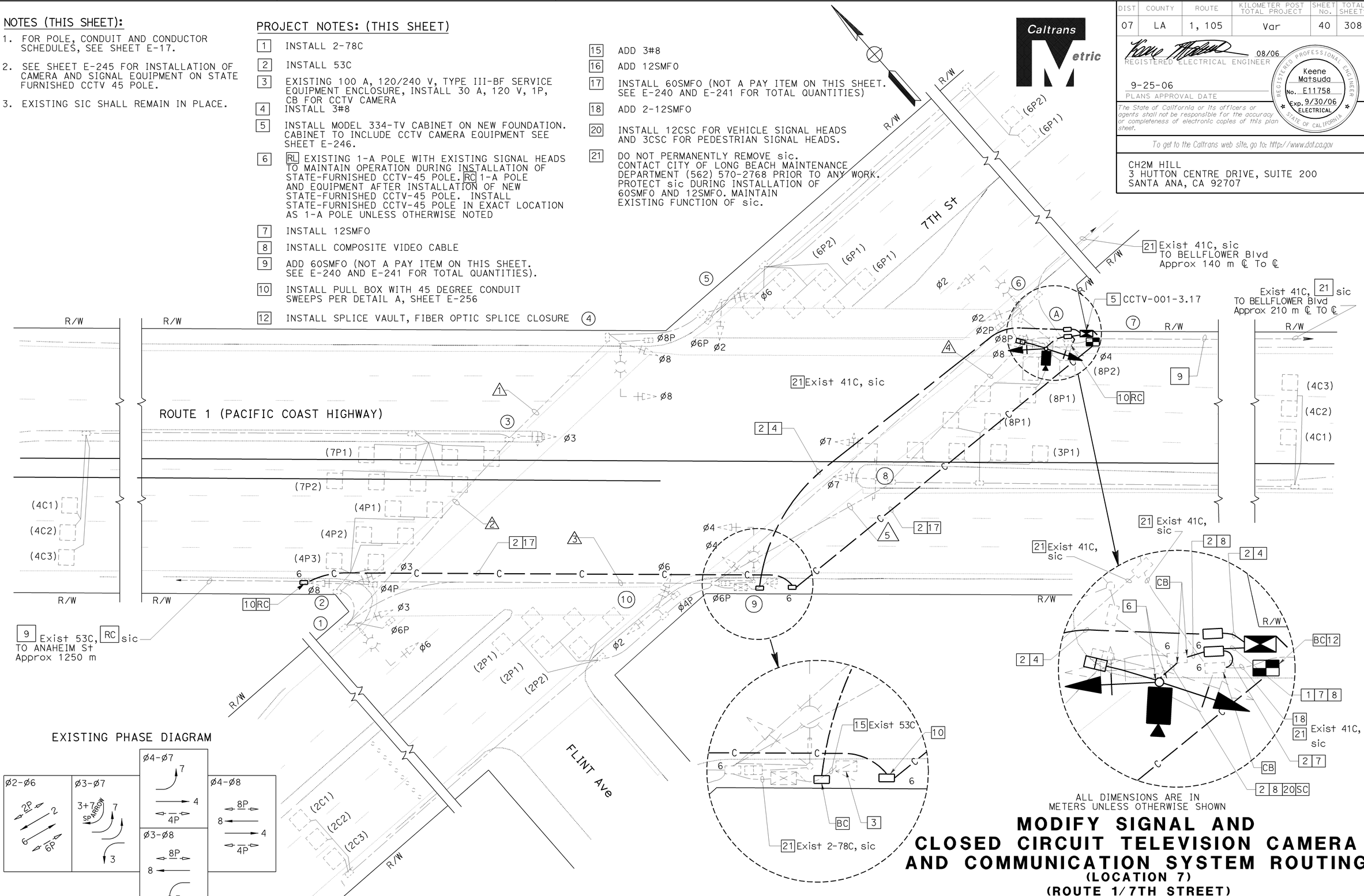
SANTA ANA, CA 92707


## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-17.
2. SEE SHEET E-245 FOR INSTALLATION OF CAMERA AND SIGNAL EQUIPMENT ON STATE FURNISHED CCTV 45 POLE.
3. EXISTING SIC SHALL REMAIN IN PLACE.

## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C
2. INSTALL 53C
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA
4. INSTALL 3#8
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT SEE SHEET E-246.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV-45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED
7. INSTALL 12SMFO
8. INSTALL COMPOSITE VIDEO CABLE
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE
15. ADD 3#8
16. ADD 12SMFO
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES)
18. ADD 2-12SMFO
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.
21. DO NOT PERMANENTLY REMOVE sic. CONTACT CITY OF LONG BEACH MAINTENANCE DEPARTMENT (562) 570-2768 PRIOR TO ANY WORK. PROTECT sic DURING INSTALLATION OF 60SMFO AND 12SMFO. MAINTAIN EXISTING FUNCTION OF sic.




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 7)

## (ROUTE 1/7TH STREET)

SCALE 1:200

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**E-16**

| DATE | REVISED BY | DATE | REVISED BY |
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TIME PLOTTED => 13:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua016.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 41 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| #14 | Ø2 | 3 | 3 | 3 | 3 | 3 | |
| | Ø3 | | 3 | 3 | | 3 | |
| | Ø4 | 3 | 3 | 3 | 3 | 3 | |
| | Ø6 | 3 | 3 | 3 | | | |
| | Ø7 | | | | 3 | 3 | |
| | Ø6&7 SP G ARROW | 1 | 1 | 1 | | | |
| | Ø6&7 SP Y ARROW | 1 | 1 | 1 | | | |
| | Ø8 | | | 3 | | | |
| | Ø2P | | | | 2 | 2 | |
| | Ø4P | 2 | 2 | 2 | 2 | 2 | |
| | Ø6P | 2 | 2 | 2 | | | |
| | Ø8P | | | 2 | | | |
| | Ø2PPB | | | | 1 | 1 | |
| | Ø4PPB | 1 | 1 | 1 | 1 | 1 | |
| | Ø6PPB | 1 | 1 | 1 | | | |
| | Ø8PPB | | | 1 | | | |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | |
| | SPARES | 3 | 3 | 3 | 3 | 3 | |
| | TOTAL | 21 | 24 | 30 | 19 | 22 | |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | |
| | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | |
| | SIGN LIGHTING | 3 | 2 | 2 | - | - | |
| | TOTAL | 6 | 5 | 5 | 3 | 3 | |
| dlc | Ø2C DETECTORS | | | | | | |
| | Ø2P DETECTORS | | | | | | |
| | Ø3P DETECTORS | | | | | 2 | |
| | Ø4C DETECTORS | | | | | 3 | |
| | Ø4P DETECTORS | | | | 2 | 2 | |
| | Ø6C DETECTORS | 2 | 2 | 2 | | | |
| | Ø6P DETECTORS | 2 | 2 | 2 | | | |
| | Ø7P DETECTORS | | 2 | 2 | | | |
| | Ø8C DETECTORS | | 3 | 3 | | | |
| | Ø8P DETECTORS | | | 2 | | | |
| | TOTAL | 4 | 9 | 11 | 2 | 7 | |
| 12 PR #19 | INTERCONNECT | | | | | | 2 |
| | CONDUIT SIZE (mm) | 63 | 78 | 78 | 63 | 78 | 41 |

## NEW POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIG MTG | PPB | | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SMA (m) | LMA (m) | MAST ARM (m) | POLE | | Ø | ARROW | | |
| A | CCTV 45 | - | - | - | SV-2-T | SP-1-T | 2 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | LUMINAIRE | VEH SIG MTG | | PED SIG MTG | PPB PHASE |
|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SIG MA (m) | LUM MA (m) | HPS (W) | POLE | MA | | |
| 1 | 17-2-113 | 6.0 | 4.5 | 180 LPS | SV-1-T | MAT | SP-1-CS | 8 |
| 2 | 15 | - | - | 180 LPS | SV-2-T | - | SP-1-CS | 6 |
| 3 | 1-A | - | - | - | TV-1-T | - | - | 6 |
| 4 | 17A-2-113 | 6.0 | 4.5 | 180 LPS | SV-1-T | MAT | SP-1-CS | 6 |
| 5 | 1-A | - | - | - | TV-2 | - | SP-1-CS | 4 |
| 6 | 17A-2-113 | 6.0 | 4.5 | 180 LPS | SV-1 | MAT | SP-1-CS | 4 |
| 7 | 1-A | - | - | - | TV-2-T | - | SP-1-CS | 2 |
| 8 | 33 | - | - | - | SV-1-T | MAS | - | 3 |
| 9 | 17A-2-113 | 6.0 | 4.5 | 180 LPS | SV-1-T | MAT | SP-1-CS | 2 |
| 10 | 1-A | - | - | | TV-2-T | - | SP-1-CS | 8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 7)**

**(ROUTE 1/7TH STREET)**

NO SCALE

**E-17**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 42 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

Caltrans Metric

## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-19.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
4. FOR UTILITIES SEE SHEET U-3.
5. EXISTING SIC SHALL REMAIN IN PLACE.

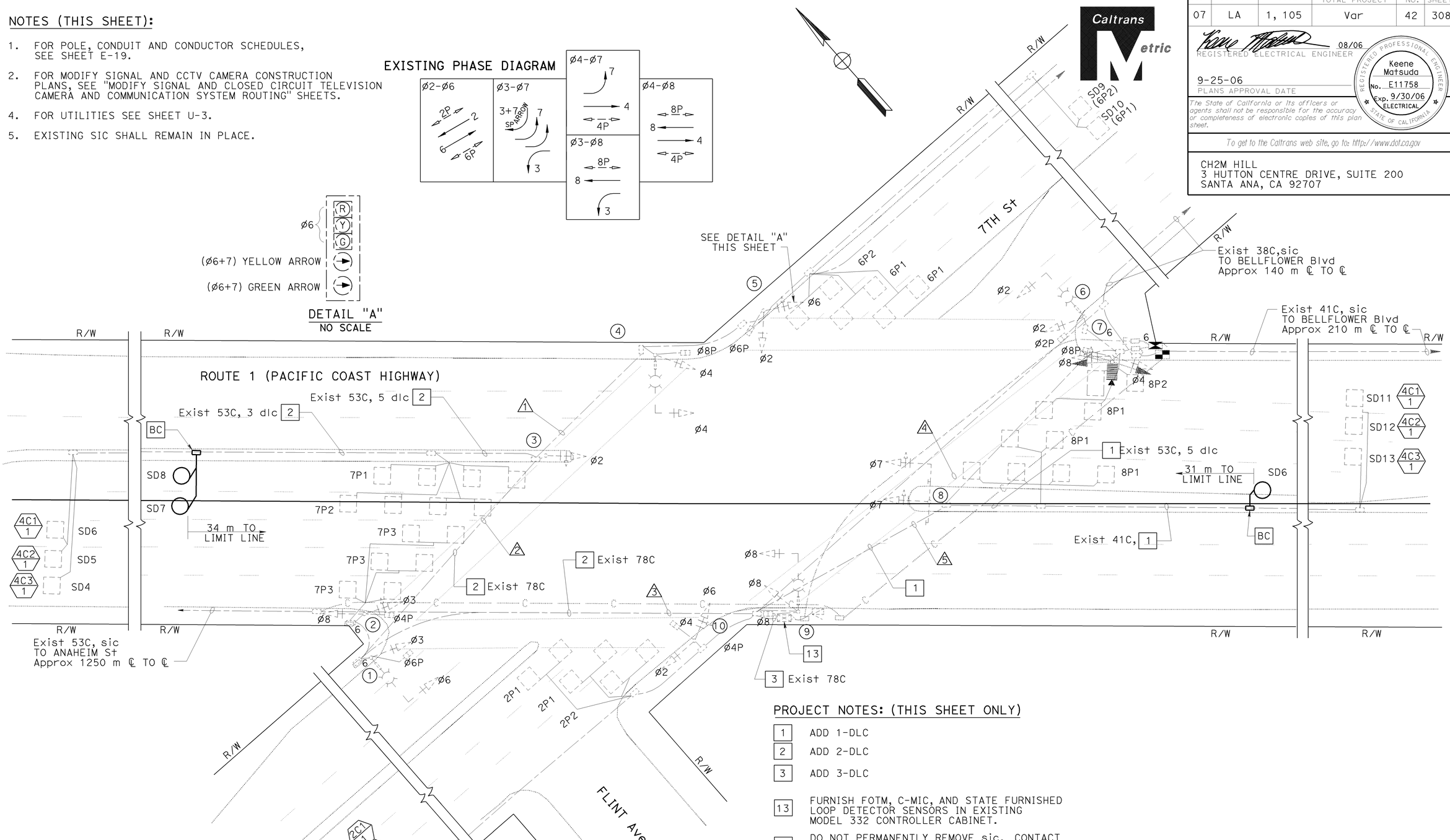
EXISTING PHASE DIAGRAM







DETAIL "A"
NO SCALE




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 3 | ADD 3-DLC |
| 13 | FURNISH FOTM, C-MIC, AND STATE FURNISHED LOOP DETECTOR SENSORS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 14 | DO NOT PERMANENTLY REMOVE sic. CONTACT CITY OF LONG BEACH MAINTENANCE DEPARTMENT (562) 570-2768 PRIOR TO ANY WORK. |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 7)
## (ROUTE 1/7TH STREET)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-18**

| DATE 4/06 | MR | REVISED BY | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| 4/06 | KM | DATE REVISED | CHECKED BY |

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 13:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trienard
DGN FILE => 725730ua018.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 43 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| #14 | Ø2 | 3 | 3 | 3 | 3 | 3 | |
| | Ø3 | | 3 | 3 | | 3 | |
| | Ø4 | 3 | 3 | 3 | 3 | 3 | |
| | Ø6 | 3 | 3 | 3 | | | |
| | Ø7 | | | | 3 | 3 | |
| | Ø6&7 SP G ARROW | 1 | 1 | 1 | | | |
| | Ø6&7 SP Y ARROW | 1 | 1 | 1 | | | |
| | Ø8 | | | 3 | | | |
| | Ø2P | | | | 2 | 2 | |
| | Ø4P | 2 | 2 | 2 | 2 | 2 | |
| | Ø6P | 2 | 2 | 2 | | | |
| | Ø8P | | | 2 | | | |
| | Ø2PPB | | | | 1 | 1 | |
| | Ø4PPB | 1 | 1 | 1 | 1 | 1 | |
| | Ø6PPB | 1 | 1 | 1 | | | |
| | Ø8PPB | | | 1 | | | |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | |
| | SPARES | 3 | 3 | 3 | 3 | 3 | |
| | TOTAL | 21 | 24 | 30 | 19 | 22 | |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | |
| | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | |
| | SIGN LIGHTING | 3 | 2 | 2 | - | - | |
| | TOTAL | 6 | 5 | 5 | 3 | 3 | |
| dlc | Ø2C DETECTORS | | | | | | |
| | Ø2P DETECTORS | | | | | | |
| | Ø3P DETECTORS | | | | | 2 | |
| | Ø4C DETECTORS | | | | | 3 | |
| | Ø4P DETECTORS | | | | 2 | 2 | |
| | Ø6C DETECTORS | 2 | 2 | 2 | | | |
| | Ø6P DETECTORS | 2 | 2 | 2 | | | |
| | Ø7P DETECTORS | | 2 | 2 | | | |
| | Ø8C DETECTORS | | 3 | 3 | | | |
| | Ø8P DETECTORS | | | 2 | | | |
| | TOTAL | 4 | 9 | 11 | 2 | 7 | |
| 12 PR #19 | INTERCONNECT | | | | | | 2 |
| | CONDUIT SIZE (mm) | 63 | 78 | 78 | 63 | 78 | 41 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | SMA (m) | LMA (m) | LUMINAIRE HPS (W) | VEH SIG MTG POLE | MA | PED SIG MTG | PPB PHASE |
|---|---|---|---|---|---|---|---|---|
| 1 | 17-2-113 | 6.0 | 4.5 | 180 LPS | SV-1-T | MAT | SP-1-CS | 8 |
| 2 | 15 | - | - | 180 LPS | SV-2-T | - | SP-1-CS | 6 |
| 3 | 1-A | - | - | - | TV-1-T | - | - | 6 |
| 4 | 17A-2-113 | 6.0 | 4.5 | 180 LPS | SV-1-T | MAT | SP-1-CS | 6 |
| 5 | 1-A | - | - | - | TV-2 | - | SP-1-CS | 4 |
| 6 | 17A-2-113 | 6.0 | 4.5 | 180 LPS | SV-1 | MAT | SP-1-CS | 4 |
| 7 | 1-A | - | - | - | TV-2-T | - | SP-1-CS | 2 |
| 8 | 33 | - | - | - | SV-1-T | MAS | - | 3 |
| 9 | 17A-2-113 | 6.0 | 4.5 | 180 LPS | SV-1-T | MAT | SP-1-CS | 2 |
| 10 | 1-A | - | - | | TV-2-T | - | SP-1-CS | 8 |

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 7)
## (ROUTE 1/7TH STREET)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-19**

| | | | |
|---|---|---|---|
| | MR | 4/06 | REVISED BY |
| | KM | 4/06 | DATE REVISED |

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| 07 | LA | 1, 105 | Var | 44 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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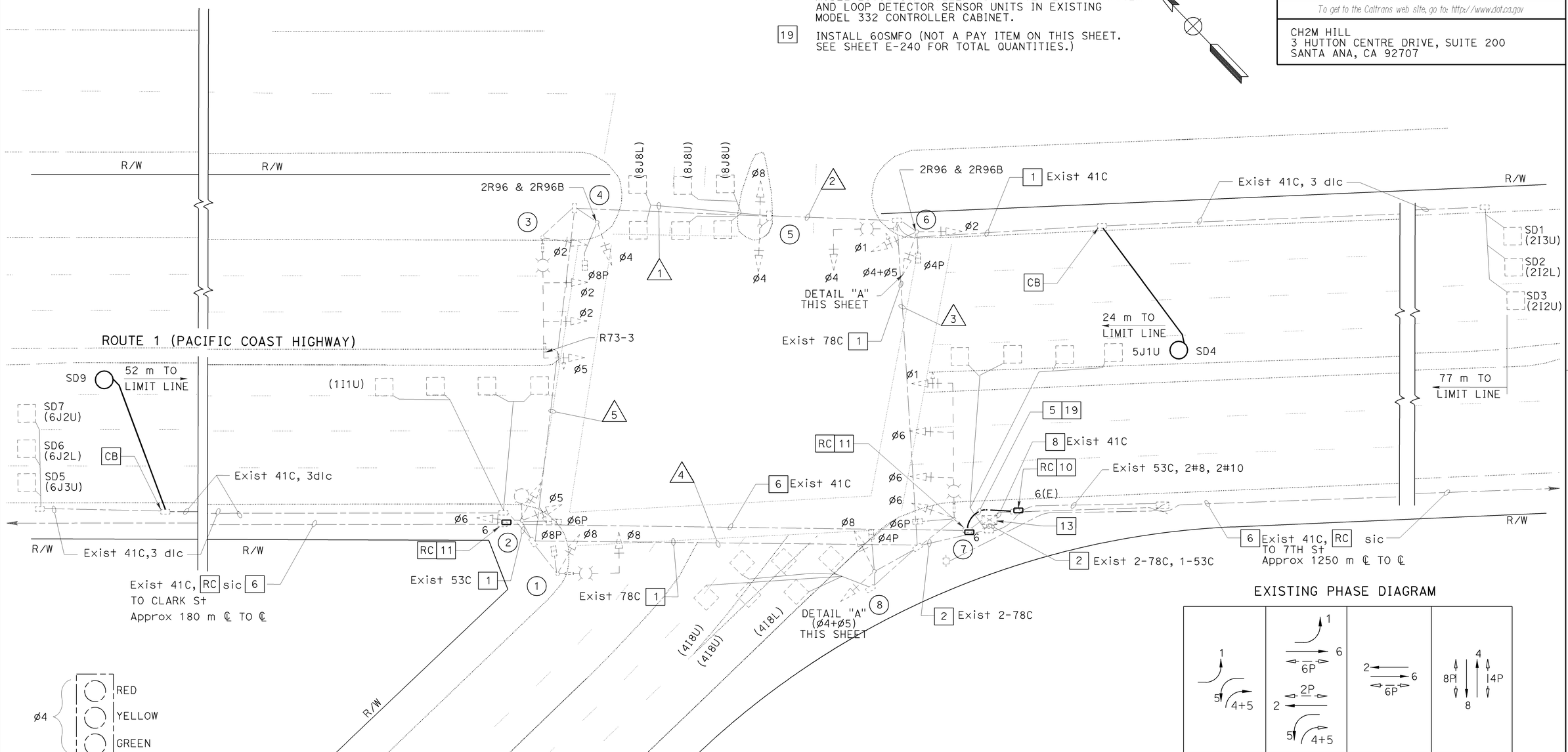
Caltrans Metric

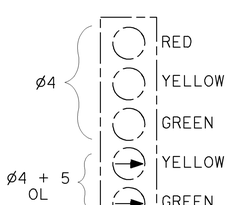
## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-21.

## PROJECT NOTES: (THIS SHEET ONLY)

- [1] ADD 1-DLC
- [2] ADD 2-DLC
- [5] INSTALL 53C
- [6] ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES)
- [8] ADD 12SMFO
- [10] INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- [11] INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- [RS] [13] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [19] INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)




DETAIL "A"
NO SCALE

EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 8)

## (ROUTE 1/ ANAHEIM STREET)

SCALE 1:200

**E-20**

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| DATE REVISED | 4/06 | |

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Caltrans

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trienard
DGN FILE => 725730ua020.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 45 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| #14 | ø1 | 3 | 3 | 3 | 3 | 3 |
| | ø2 | 3 | 3 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 | 3 | 3 |
| | ø5 | 3 | 3 | 3 | 3 | 3 |
| | ø6 | 3 | 3 | 3 | 3 | 3 |
| | ø8 | 3 | 3 | 3 | 3 | 3 |
| | ø4+5 | 2 | 2 | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 | 2 | 2 |
| | ø6P | 2 | 2 | 2 | 2 | 2 |
| | ø8P | 2 | 2 | 2 | 2 | 2 |
| | ø4PPB | 1 | 1 | 1 | 1 | 1 |
| | ø6PPB | 1 | 1 | 1 | 1 | 1 |
| | ø8PPB | 1 | 1 | 1 | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 |
| | SPARES | 2 | 2 | 2 | 2 | 2 |
| | TOTAL | 32 | 32 | 32 | 32 | 32 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 | 2 | - |
| #8 | SIGNAL SERVICE | - | - | - | - | - |
| dlc TYPE C | ø1 DETECTOR | - | - | - | 1 | - |
| | ø2 DETECTOR | - | - | 3 | - | - |
| | ø4 DETECTOR | - | - | - | - | - |
| | ø5 DETECTOR | - | - | - | - | - |
| | ø6 DETECTOR | - | - | - | 3 | - |
| | ø8 DETECTOR | - | 2 | 2 | - | - |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | LUMINAIRE INTEGRALBLST | SIGNAL MOUNTING VEHICLE | | SIGNAL MOUNTING PED | PPB | REFLECTORIZED STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|
| No. | DESCRIPTION | SMA (m) | LMA (m) | LPS (W) | POLE | MAST ARM | | ø | |
| 1 | 19-2-113 | 7.6 | 3.7 | 180 | SV-1-T | mas | SP-1-T | 6 | - |
| 2 | 15 | - | 3.7 | 180 | SV-2-TA | - | SP-1-T | 8 | - |
| 3 | 26-5-113 | 13.7 | 3.7 | 180 | SV-1-T | ma+ 2-mas | - | - | ANAHEIM STREET |
| 4 | 1-A | - | - | - | TV-1-T | - | SP-1-T | 8 | - |
| 5 | 1-A | - | - | - | TV-2-T | - | - | - | - |
| 6 | 19-2-113 | 9.1 | 3.7 | 180 | SV-2-T | ma | SP-1-T | 4 | - |
| 7 | 26-5-133 | 13.7 | 3.7 | 180 | SV-1-T | ma+ 2-mas | SP-1-T | 4 | ANAHEIM STREET |
| 8 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 6 | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 8)**

**(ROUTE 1/ ANAHEIM STREET)**

NO SCALE

**E-21**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | | | |
|---|---|---|---|
| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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Caltrans

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USERNAME => trienard
DGN FILE => 725730ua021.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 46 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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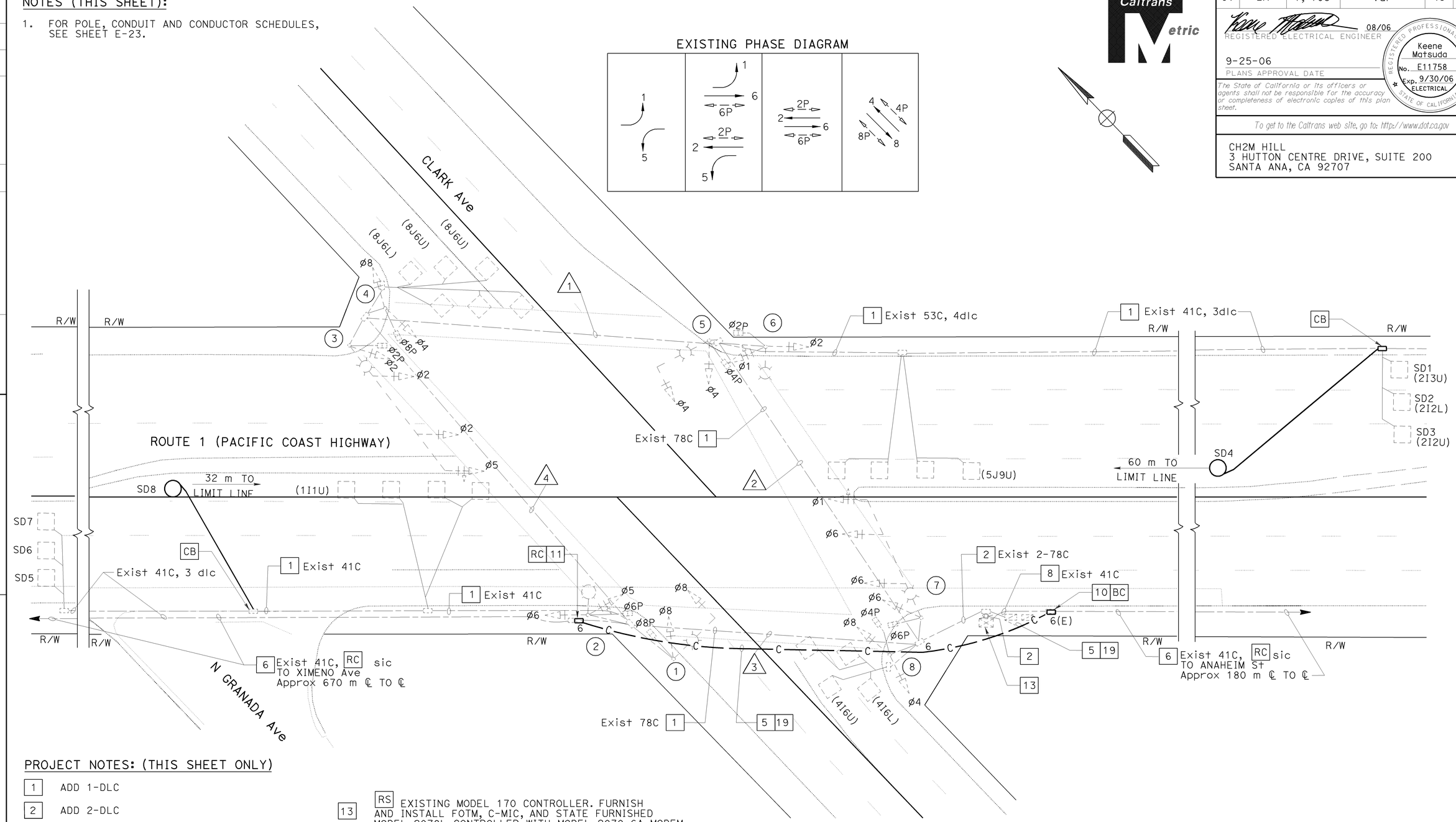
NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-23.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256 |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 9)

## (ROUTE 1/ CLARK AVENUE)

SCALE 1:200

E-22

| | DATE | REVISED BY |
|---|---|---|
| | 4/06 | MR |
| | 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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TIME PLOTTED => 13:07

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua022.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 47 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| #14 | Ø1 | 3 | 3 | 3 | 3 |
| | Ø2 | 3 | 3 | 3 | 3 |
| | Ø4 | 3 | 3 | 3 | 3 |
| | Ø5 | 3 | 3 | 3 | 3 |
| | Ø6 | 3 | 3 | 3 | 3 |
| | Ø8 | 3 | 3 | 3 | 3 |
| | Ø2P | 2 | 2 | 2 | 2 |
| | Ø4P | 2 | 2 | 2 | - |
| | Ø6P | 2 | 2 | 2 | 2 |
| | Ø8P | 2 | 2 | 2 | 2 |
| | Ø2PPB | 1 | 1 | 1 | - |
| | Ø4PPB | 1 | 1 | 1 | - |
| | Ø6PPB | 1 | 1 | 1 | 1 |
| | Ø8PPB | 1 | 1 | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 |
| | SPARES | 2 | 2 | 2 | 2 |
| | TOTAL | 33 | 33 | 33 | 33 |
| | | | | | |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 | 2 |
| #8 | SIGNAL SERVICE | - | - | - | - |
| 2#14 LOOP DETECT CABLE TYPE C | Ø1 DETECTOR | - | - | 1 | 1 |
| | Ø2 DETECTOR | - | 3 | - | - |
| | Ø4 DETECTOR | - | - | - | - |
| | Ø5 DETECTOR | - | 2 | 1 | - |
| | Ø6 DETECTOR | - | - | 3 | - |
| | Ø8 DETECTOR | - | - | 2 | 2 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | LUMINAIRE INTEGRALBLST | SIGNAL MOUNTING VEHICLE | | PED | PPB | REFLECTORIZED STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|
| No. | DESCRIPTION | SMA(m) | LMA(m) | LPS (W) | POLE | MAST ARM | | Ø | |
| 1 | 19-1-113 | 9.1 | 3.7 | 180 | SV-1-T | mas | SP-1-T | 6 | - |
| 2 | 15 | - | 3.7 | 180 | SV-2-TA | - | SP-1-T | 8 | - |
| 3 | 28-5-113 | 16.8 | 3.7 | 180 | SV-1-TA | mat 2-mas | SP-1-T | 8 | CLARK STREET |
| 4 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 2 | - |
| 5 | 17-113 | 6.1 | 3.7 | 180 | SV-1-T | mas | SP-1-T | 2 | - |
| 6 | 15 | - | 3.7 | 180 | SV-2-TA | - | SP-1-T | 4 | - |
| 7 | 28-5-113 | 16.8 | 3.7 | 180 | SV-1-TA | mat 2-mas | SP-1-T | 4 | CLARK STREET |
| 8 | 1-A | - | - | - | TV-2-T | - | SP-1-T | 6 | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 9)**
**(ROUTE 1/CLARK AVENUE)**

NO SCALE

**E-23**

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| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

| CALCULATED/DESIGNED BY | MR |
|---|---|
| CHECKED BY | KM |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trienard
DGN FILE => 725730ua023.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:07

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 48 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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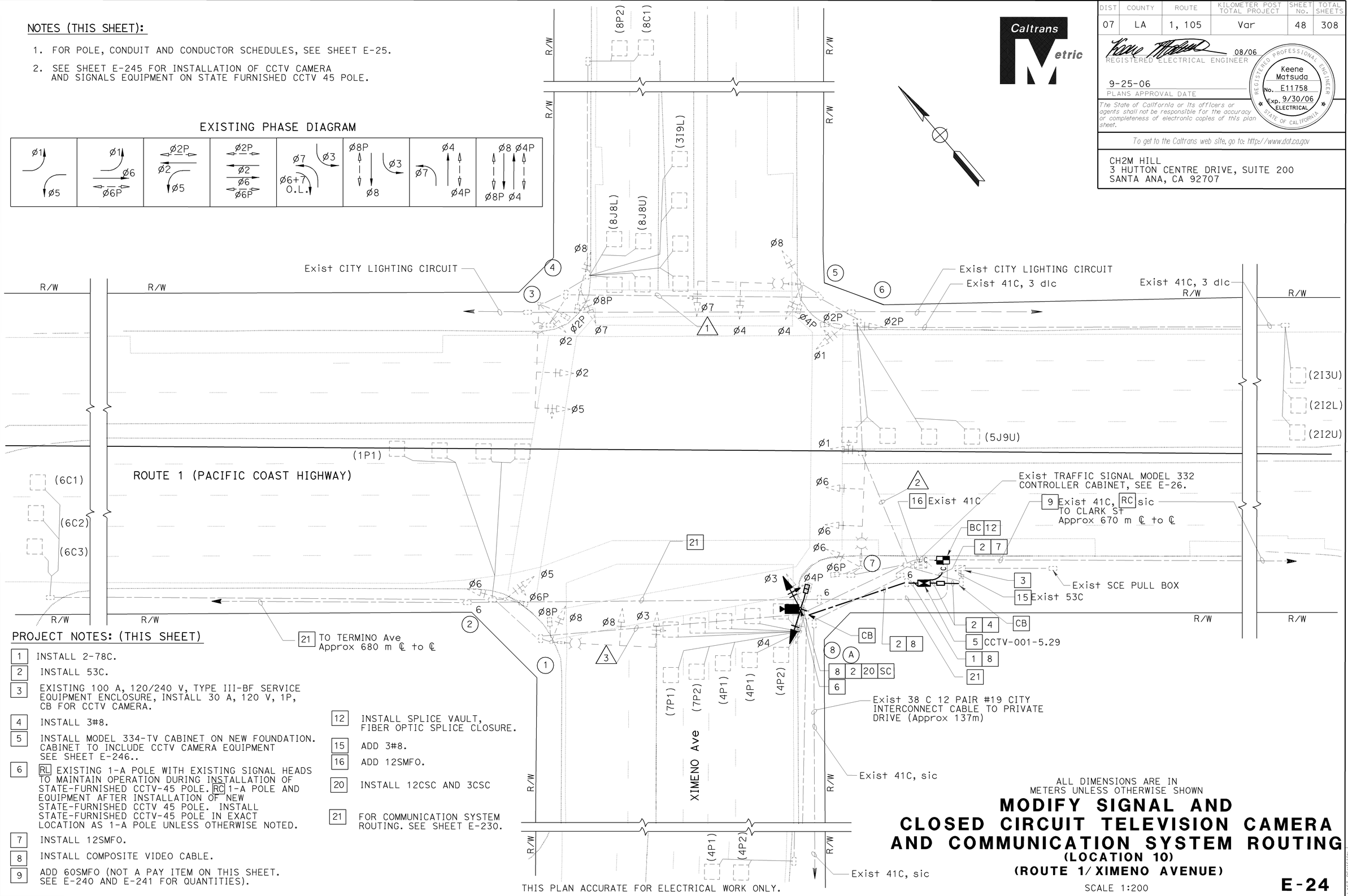
Caltrans Metric

## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-25.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNALS EQUIPMENT ON STATE FURNISHED CCTV 45 POLE.

## EXISTING PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT SEE SHEET E-246..
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR QUANTITIES).
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
20. INSTALL 12CSC AND 3CSC
21. FOR COMMUNICATION SYSTEM ROUTING. SEE SHEET E-230.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 10)

## (ROUTE 1/ XIMENO AVENUE)

SCALE 1:200

**E-24**

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| REVISED BY | | | |
| DATE REVISED | | | |
| 4/06 | KM | CHECKED BY | YEFIM ZABEZHINSKY |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua024.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 49 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| #14 | ø1 | - | 3 | - | 3 |
| | ø2 | 3 | 3 | - | 3 |
| | ø3 | - | - | 3 | 3 |
| | ø4 | - | 3 | - | 3 |
| | ø5 | 3 | 3 | 3 | 6 |
| | ø6 | - | - | 3 | 3 |
| | ø7 | 3 | 3 | - | 3 |
| | ø8 | 3 | 3 | 3 | 6 |
| | ø6+7 OL | - | - | 2 | 2 |
| | ø2P | 2 | 2 | - | 2 |
| | ø4P | - | 2 | - | 4 |
| | ø6P | - | - | 2 | 2 |
| | ø8P | 2 | 2 | 2 | 4 |
| | ø2PPB | 1 | 1 | - | 1 |
| | ø4PPB | - | 1 | - | 2 |
| | ø6PPB | - | - | 1 | 1 |
| | ø6PPB | - | - | 1 | 1 |
| | ø8PPB | 1 | 1 | 1 | 2 |
| | PPB COMMON | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 6 |
| | TOTAL | 22 | 28 | 24 | 64 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 2 |
| | LUMINAIRES | 2 | 2 | 2 | - |
| #8 | | - | - | - | 2 |
| dlc | ø1 | - | - | 1 | 1 |
| | ø2 | - | 3 | - | 3 |
| | ø3 | 1 | - | - | 1 |
| | ø4 | - | - | - | 4 |
| | ø5 | - | 1 | - | 1 |
| | ø6 | - | - | 3 | 3 |
| | ø7 | - | - | - | 2 |
| | ø8 | 4 | 4 | - | 4 |
| CONDUIT SIZE (mm) | | 63 | 78 | 63 | 2-78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIG MTG | PPB | | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SMA (m) | LMA (m) | MAST ARM (m) | POLE | | ø | ARROW | | |
| A | CCTV 45 | - | - | - | SV-2-T | SP-1-T | 6 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE (W) | VEH SIG MTG | | PED SIG MTG | PED PUSH BTN |
|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | | POLE | MA | | PHASE |
| 1 | 26A-4-113 | - | 12.2 | 3.7 | 180 LPS | SV-1-T | MAS/MAT | SP-1-T | 6 |
| 2 | 1-A | 3.0 | - | - | - | TV-1-T | | SP-1-T | 8 |
| 3 | 26-4-113 | - | 12.2 | 3.7 | 180 LPS | SV-1-T | MAS/MAT | SP-1-T | 8 |
| 4 | 1-A | 3.0 | - | - | - | TV-2-T | | SP-1-T | 2 |
| 5 | 26-4-113 | - | 12.2 | 3.7 | 180 LPS | SV-2-T | MAS/MAT | SP-1-T | 2 |
| 6 | 1-A | 3.0 | - | - | - | TV-2-T | | SP-1-T | 4 |
| 7 | 26-5-113 | - | 12.2 | 3.7 | 180 LPS | SV-1-T | MAT/2 MAS | SP-1-T | 4 |
| 8 | 1-A | 3.0 | - | - | - | TV-2-T | | SP-1-T | 6 |

* = See sheet E-24 for new pole location A and deletion of pole location 8

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 10)**

**(ROUTE 1/ XIMENO AVENUE)**

NO SCALE

**E-25**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| 4/06 | KM | CHECKED BY | YEFIM ZABEZHINSKY |

REVISED BY / DATE REVISED

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Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 13:07

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trienard
DGN FILE => 725730ua025.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 50 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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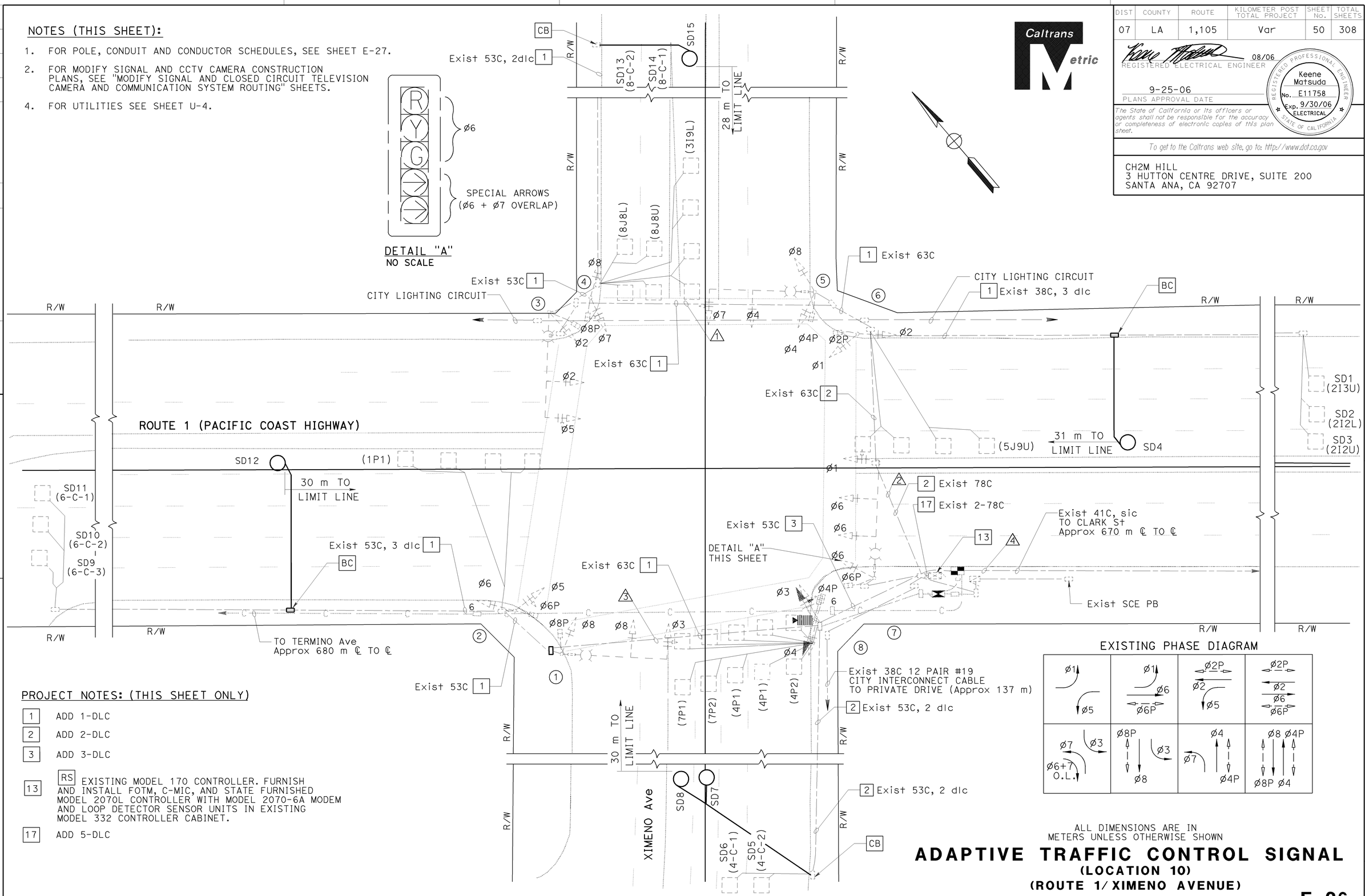
## NOTES (THIS SHEET):

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-27.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
4. FOR UTILITIES SEE SHEET U-4.




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 3 | ADD 3-DLC |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 17 | ADD 5-DLC |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 10)
## (ROUTE 1/ XIMENO AVENUE)

SCALE 1:200

**E-26**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

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TIME PLOTTED => 13:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua026.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 51 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| #14 | ø1 | - | 3 | - | 3 |
| | ø2 | 3 | 3 | - | 3 |
| | ø3 | - | - | 3 | 3 |
| | ø4 | - | 3 | - | 3 |
| | ø5 | 3 | 3 | 3 | 6 |
| | ø6 | - | - | 3 | 3 |
| | ø7 | 3 | 3 | - | 3 |
| | ø8 | 3 | 3 | 3 | 6 |
| | ø6+7 OL | - | - | 2 | 2 |
| | ø2P | 2 | 2 | - | 2 |
| | ø4P | - | 2 | - | 4 |
| | ø6P | - | - | 2 | 2 |
| | ø8P | 2 | 2 | 2 | 4 |
| | ø2PPB | 1 | 1 | - | 1 |
| | ø4PPB | - | 1 | - | 2 |
| | ø6PPB | - | - | 1 | 1 |
| | ø6PPB | - | - | 1 | 1 |
| | ø8PPB | 1 | 1 | 1 | 2 |
| | PPB COMMON | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 6 |
| | TOTAL | 22 | 28 | 24 | 64 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 2 |
| | LUMINAIRES | 2 | 2 | 2 | - |
| #8 | | - | - | - | 2 |
| dlc | ø1 | - | - | 1 | 1 |
| | ø2 | - | 3 | - | 3 |
| | ø3 | 1 | - | - | 1 |
| | ø4 | - | - | - | 4 |
| | ø5 | - | 1 | - | 1 |
| | ø6 | - | - | 3 | 3 |
| | ø7 | - | - | - | 2 |
| | ø8 | 4 | 4 | - | 4 |
| CONDUIT SIZE (mm) | | 35 | 78 | 35 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | LUMINAIRE (W) | VEH SIG MTG POLE | VEH SIG MTG MA | PED SIG MTG | PED PUSH BTN PHASE |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 26A-4-113 | - | 12.2 | 3.7 | 180 LPS | SV-1-T | MAS/MAT | SP-1-T | 6 |
| 2 | 1-A | 3.0 | - | - | - | TV-1-T | - | SP-1-T | 8 |
| 3 | 26-4-113 | - | 12.2 | 3.7 | 180 LPS | SV-1-T | MAS/MAT | SP-1-T | 8 |
| 4 | 1-A | 3.0 | - | - | - | TV-2-T | - | SP-1-T | 2 |
| 5 | 26-4-113 | - | 12.2 | 3.7 | 180 LPS | SV-2-T | MAS/MAT | SP-1-T | 2 |
| 6 | 1-A | 3.0 | - | - | - | TV-2-T | - | SP-1-T | 4 |
| 7 | 26-5-113 | - | 12.2 | 3.7 | 180 LPS | SV-1-T | MAT/2 MAS | SP-1-T | 4 |
| 8 | 1-A* | 3.0 | - | - | - | TV-2-T | - | SP-1-T | 6 |

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 10)
## (ROUTE 1/ XIMENO AVENUE)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-27**

| | | | |
|---|---|---|---|
| | | MR | 4/06 |
| | | KM | 4/06 |
| | | REVISED BY | DATE REVISED |
| CALCULATED/ DESIGNED BY | | | |
| CHECKED BY | | | |
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | | |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua027.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 52 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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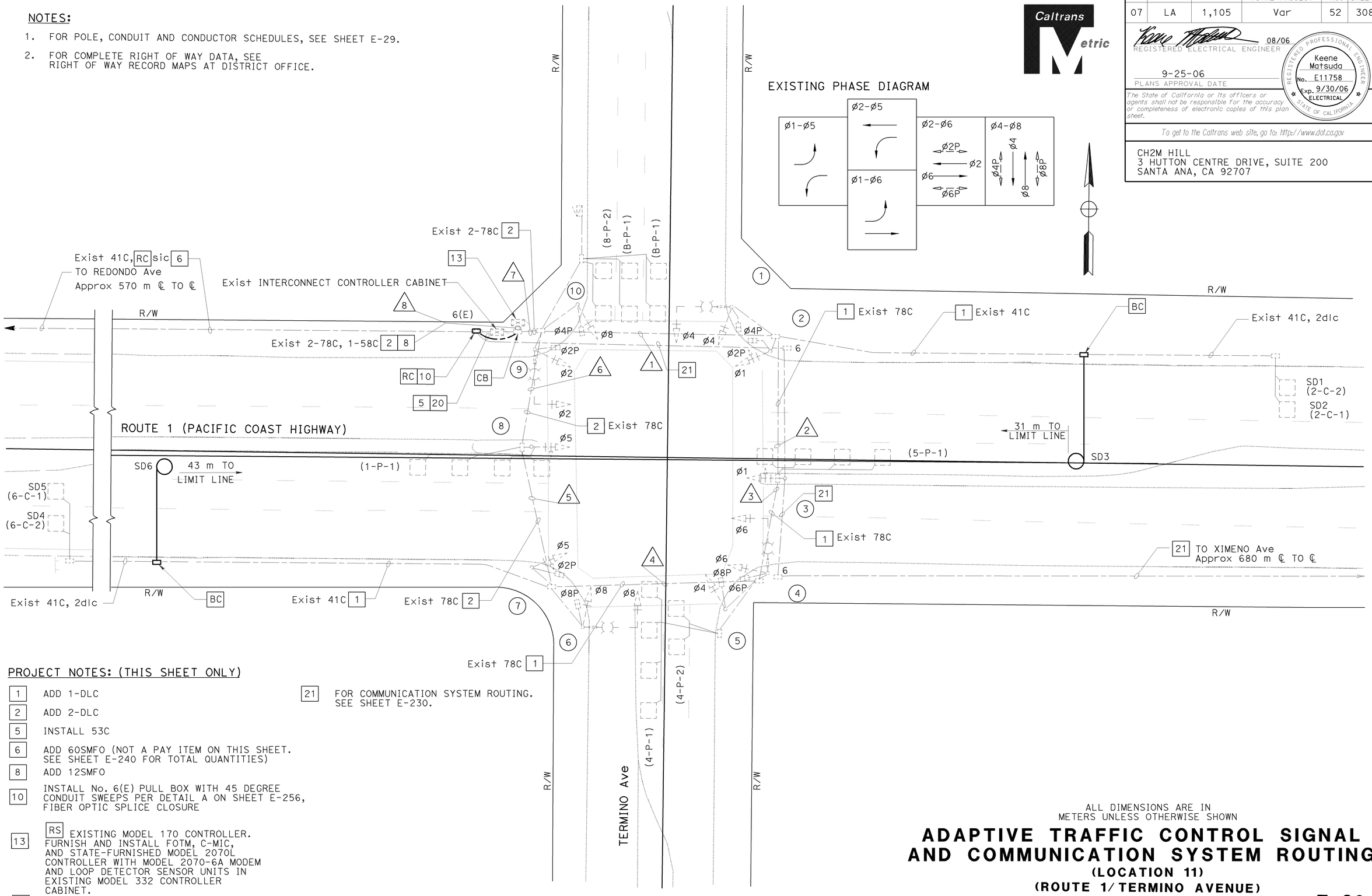
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-29.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

20 INSTALL 12SMFO

21 FOR COMMUNICATION SYSTEM ROUTING. SEE SHEET E-230.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 11)

## (ROUTE 1/ TERMINO AVENUE)

SCALE 1:200

E-28

| | | | |
|---|---|---|---|
| | | DATE 4/06 | REVISED BY MR |
| | | 4/06 | DATE REVISED KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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USERNAME => trlim
DGN FILE => 725730ua028.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 53 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| #14 | ø1 | 3 | 3 | - | - | - | - | 3 | 3 |
| | ø2 | - | - | - | - | - | - | 3 | 3 |
| | ø4 | 3 | - | - | - | - | - | 3 | 3 |
| | ø5 | - | - | - | - | 3 | 3 | 3 | 3 |
| | ø6 | 3 | 3 | 3 | - | - | - | 3 | 3 |
| | ø8 | - | - | - | 3 | 3 | 3 | 3 | 3 |
| | ø2P | 2 | - | - | - | - | - | 4 | 4 |
| | ø4P | 2 | - | - | 2 | 2 | 2 | 4 | 4 |
| | ø6P | 2 | 2 | 2 | - | 2 | 2 | 4 | 4 |
| | ø8P | - | - | - | - | 2 | 2 | 4 | 4 |
| | ø2PPB | 1 | - | - | - | - | - | 1 | 1 |
| | ø4PPB | 1 | 1 | 1 | - | - | - | 1 | 1 |
| | ø6PPB | - | - | - | 1 | 1 | 1 | 1 | 1 |
| | ø8PPB | - | - | - | - | 1 | 1 | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 |
| | TOTALS | 21 | 15 | 12 | 10 | 18 | 18 | 46 | 46 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| | TOTALS | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 |
| 2#12 LOOP DETECTOR CABLE | ø1 DETECTOR | - | - | - | - | - | 1 | 1 | 1 |
| | ø2 DETECTOR | 2 | - | - | - | - | - | 2 | 2 |
| | ø4 DETECTOR | - | - | - | 2 | 2 | 2 | 2 | 2 |
| | ø5 DETECTOR | 1 | 1 | - | - | - | - | 1 | 1 |
| | ø6 DETECTOR | - | - | - | - | 2 | 2 | 2 | 2 |
| | ø8 DETECTOR | - | - | - | - | - | - | 2 | 2 |
| | TOTALS | 3 | 1 | - | 2 | 4 | 5 | 10 | 10 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 | 2-78<br>1-53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | TYPE | MAST ARM SIG(m) | MAST ARM LUM(m) | LUMINAIRE | TYPE OF MOUNTING VEH HEAD | TYPE OF MOUNTING PED HEAD | PPB | MAST ARM DOUBLE FACE REFLECTIVE STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|
| 1 | 17-2-113 | 6.1 | 3.7 | 135 lps | SV-1-T mas | SP-1-CS | ø2P | PACIFIC COAST HIGHWAY |
| 2 | 1-A | - | - | - | TV-1 | SP-1-CS | ø4P | - |
| 3 | 1 (2.1m) | - | - | - | TV-1 | - | ø4P | - |
| 4 | 17-2-133 | 6.1 | 3.7 | 135 lps | SV-1-T mas | SP-1-CS | ø4P | TERMINO Ave |
| 5 | 1-A | - | - | - | TV-1 | SP-1-CS | ø6P | - |
| 6 | 17-2-133 | 6.1 | 3.7 | 135 lps | SV-1-T mas | SP-1-CS | ø6P | PACIFIC COAST HIGHWAY |
| 7 | 1-A | - | - | - | TV-1 | SP-1-CS | ø8P | - |
| 8 | 1-A | - | - | - | TV-1 | - | ø8P | - |
| 9 | 17-2-133 | 6.1 | 3.7 | 135 lps | SV-1-T mas | SP-1-CS | ø8P | TERMINO Ave |
| 10 | 1-A | - | - | - | TV-1 | SP-1-CS | ø2P | - |
| 11 | 17-2-133 | 6.1 | 3.7 | 135 lps | SV-1-T mas | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 11)**

**(ROUTE 1/ TERMINO AVENUE)**

NO SCALE

**E-29**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | | | |
|---|---|---|---|
| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:54

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 54 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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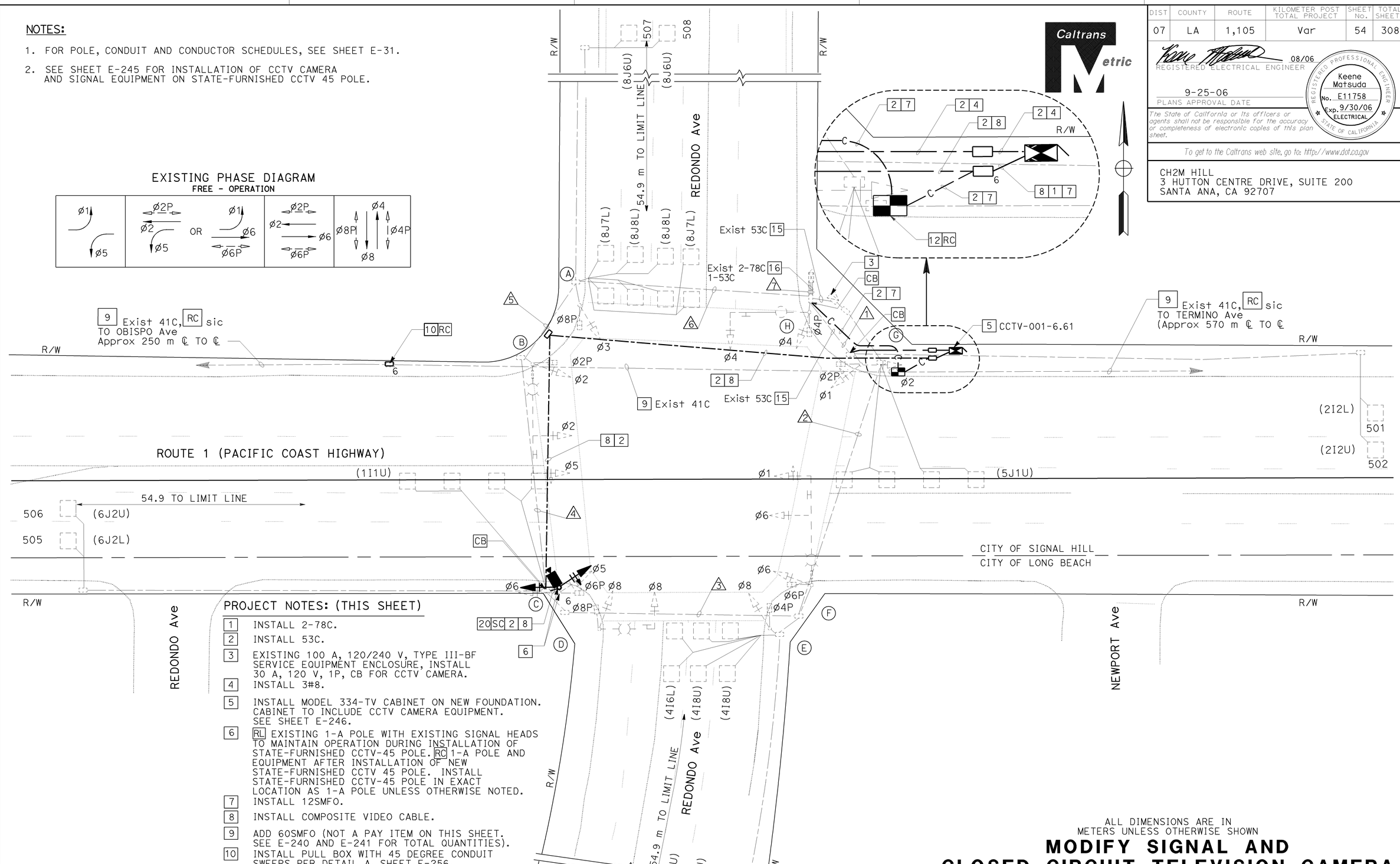
SANTA ANA, CA 92707

Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-31.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.




## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
20. INSTALL 12CSC AND 3CSC.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 12)

## (ROUTE 1/REDONDO AVENUE)

SCALE 1:200

**E-30**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

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TIME PLOTTED => 13:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => T25730ua030.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 55 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| (2) 22 CONDUCTOR CABLE AND (1) 12#19 CONDUCTOR CABLE | 22 CONDUCTOR CABLE | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 2#19 CONDUCTOR CABLE | 2 | | | | | | 2 |
| #10 | Ø5 DETECTORS | 2 | 2 | 2 | 2 | 2 | 2 | |
| dlc | Ø5 DETECTORS | 1 | | | | | | 1 |
| | Ø5 DETECTORS | 2 | | | | | | 2 |
| | | | | | | | | |
| | Ø5 DETECTORS | | | | | | 4 | 4 |
| | Ø5 DETECTORS | | | | 1 | 1 | 1 | 1 |
| | Ø5 DETECTORS | | | | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| | Ø5 DETECTORS | 3 | 3 | | | | | 3 |
| #12 PHOTO CELL | | 3 FROM SERVICE POLE (H) | | | | | | |
| #6 SERVICE | | | | | | | | 3 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 1-53 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | VEH SIG MTG POLE | PED SIG MTG | PPB Ø | PPB ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| (C) | CCTV 45 | - | - | - | SV-2-T | SP-1-CS | 8 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | HEIGHT (m) | SMA (m) | LMA (m) | LUMINAIRE (W) | STREET NAME SIGN | VEH SIG MTG MA | VEH SIG MTG POLE | PED SIG MTG | PED PUSH BTN TYPE | PED PUSH BTN PHASE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (A) | 1-A | 3.0 | - | - | - | - | - | TV-1-T | SP-1-CS | B | 2 | |
| (B) | 26A-4-113 | 10.6 | 12.2 | 4.6 | 180 LPSV | REDONDO Ave | MAS | SV-1-T | SP-1-CS | B | 8 | |
| (C) | 1-A | 3.0 | - | - | - | - | - | TV-2-T | SP-1-CS | B | 8 | |
| (D) | 19A-4-113 | 10.6 | 6.0 | 4.6 | 180 LPSV | PAC COAST Hwy | MAS | SV-1-T | SP-1-CS | B | 6 | |
| (E) | 1-A | 3.0 | - | - | - | - | - | TV-1-T | SP-1-CS | B | 6 | |
| (F) | 26A-4-113 | 10.6 | 9.1 | 4.6 | 180 LPSV | REDONDO Ave | MAS | SV-1-T | SP-1-CS | B | 4 | |
| (G) | 1-A | 3.0 | - | - | - | - | - | TV-2-T | SP-1-CS | B | 4 | |
| (H) | 26A-4-113 | 10.6 | 10.6 | 4.6 | 180 LPSV | PAC COAST Hwy | MAS | SV-1-T | SP-1-CS | B | 2 | TYPE III PEC |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 12)**

**(ROUTE 1/REDONDO AVENUE)**

NO SCALE

**E-31**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

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YEFIM ZABEZHINSKY

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TIME PLOTTED => 13:54

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 56 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

PLANS APPROVAL DATE 9-25-06

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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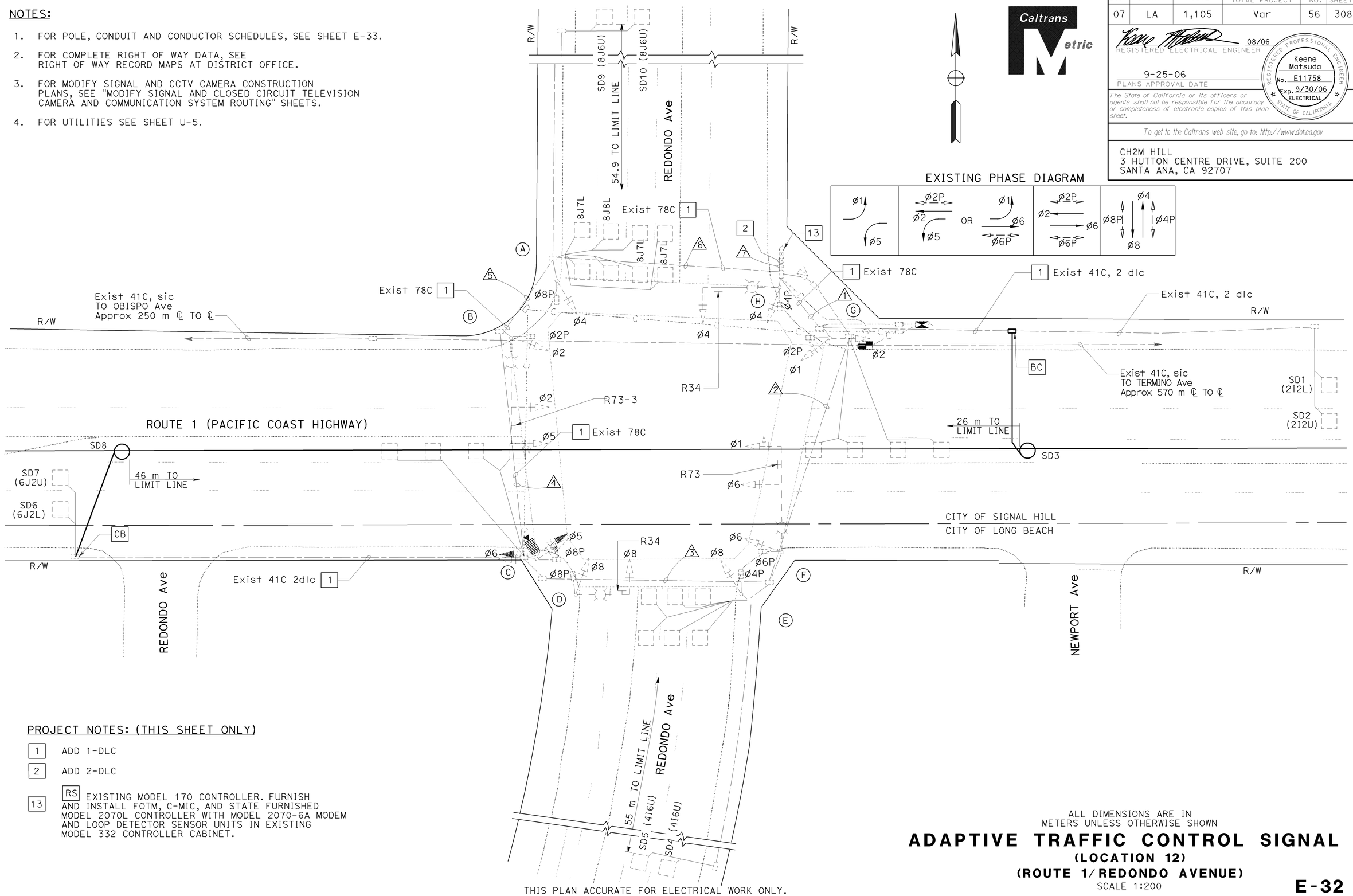
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-33.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
4. FOR UTILITIES SEE SHEET U-5.




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 12)

## (ROUTE 1/REDONDO AVENUE)

SCALE 1:200

E-32

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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TIME PLOTTED => 13:55

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua032.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 57 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CALBE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| (2) 22 CONDUCTOR CABLE AND (1) 12#19 CONDUCTOR CABLE | 22 CONDUCTOR CABLE | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 2#19 CONDUCTOR CABLE | 2 | | | | | | 2 |
| #10 | Ø5 DETECTORS | 2 | 2 | 2 | 2 | 2 | 2 | |
| dlc | Ø5 DETECTORS | 1 | | | | | | 1 |
| | Ø5 DETECTORS | 2 | | | | | | 2 |
| | | | | | | | | |
| | Ø5 DETECTORS | | | | | | 4 | 4 |
| | Ø5 DETECTORS | | | | 1 | 1 | 1 | 1 |
| | Ø5 DETECTORS | | | | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| | Ø5 DETECTORS | 3 | 3 | | | | | 3 |
| #12 PHOTO CELL | | 3 FROM SERVICE POLE (H) | | | | | | |
| #6 SERVICE | | | | | | | | 3 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 1-53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | LUMINAIRE (W) | STREET NAME SIGN | VEH SIG MTG MA | POLE | PED SIG MTG | PED PUSH BTN TYPE | PHASE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (A) | 1-A | 3.0 | - | - | - | - | - | TV-1-T | SP-1-CS | B | 2 | |
| (B) | 26A-4-113 | 10.6 | 12.2 | 4.6 | 180 LPSV | REDONDO Ave | MAS | SV-1-T | SP-1-CS | B | 8 | |
| (C) | 1-A | 3.0 | - | - | - | - | - | TV-2-T | SP-1-CS | B | 8 | |
| (D) | 19A-4-113 | 10.6 | 6.0 | 4.6 | 180 LPSV | PAC COAST Hwy | MAS | SV-1-T | SP-1-CS | B | 6 | |
| (E) | 1-A | 3.0 | - | - | - | - | - | TV-1-T | SP-1-CS | B | 6 | |
| (F) | 26A-4-113 | 10.6 | 9.1 | 4.6 | 180 LPSV | REDONDO Ave | MAS | SV-1-T | SP-1-CS | B | 4 | |
| (G) | 1-A | 3.0 | - | - | - | - | - | TV-2-T | SP-1-CS | B | 4 | |
| (H) | 26A-4-113 | 10.6 | 10.6 | 4.6 | 180 LPSV | PAC COAST Hwy | MAS | SV-1-T | SP-1-CS | B | 2 | TYPE III PEC |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 12)
## (ROUTE 1/REDONDO AVENUE)

NO SCALE

**E-33**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
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| 4/06 | MR |
| 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 58 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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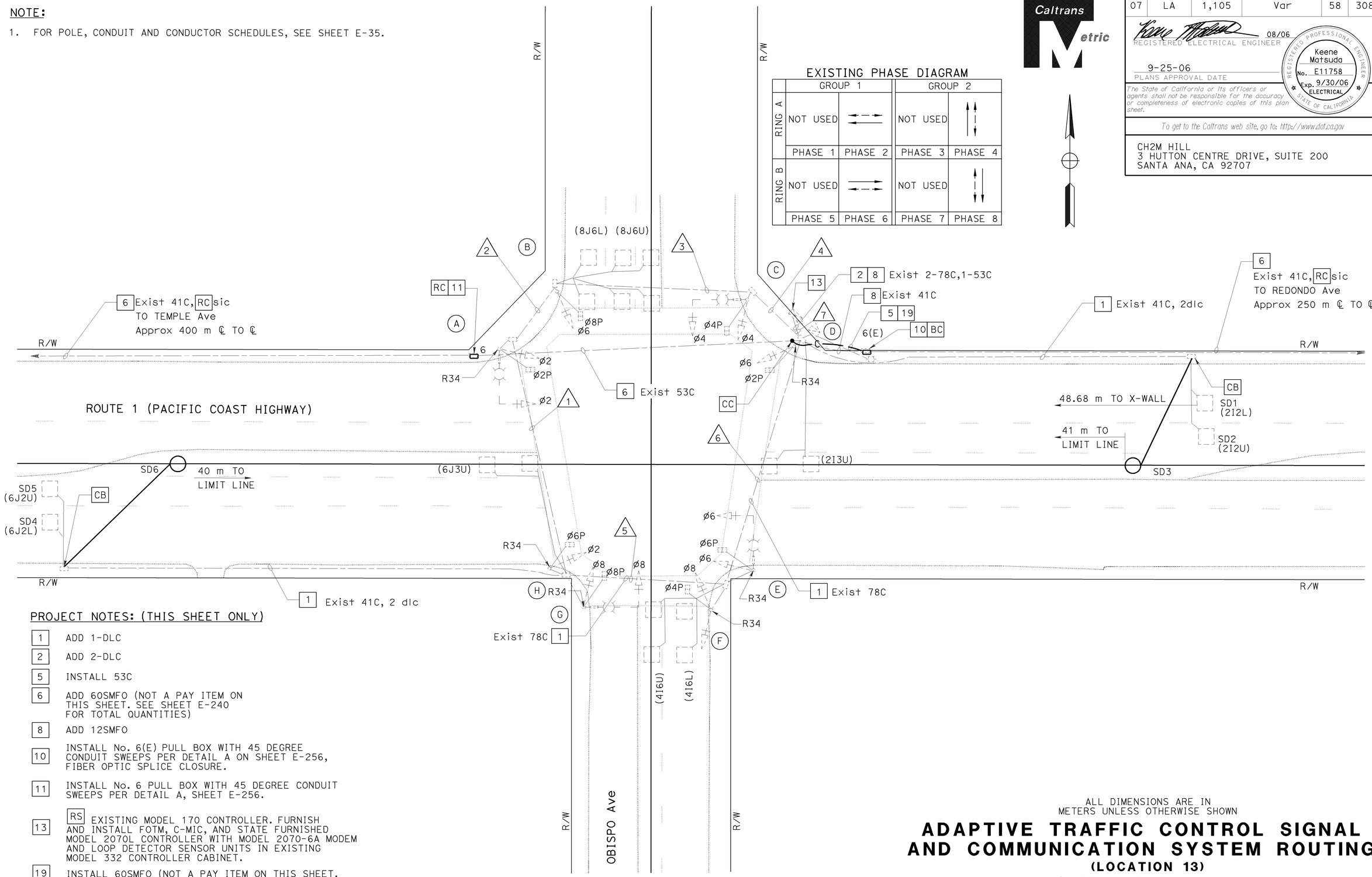
Caltrans Metric

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-35.

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | NOT USED | | NOT USED | |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | NOT USED | | NOT USED | |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES) |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 13)

## (ROUTE 1/ OBISPO AVENUE)

SCALE 1:200

E-34

| | | | |
|---|---|---|---|
| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua034.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 59 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| TWD 28 #14 CONDUCTOR CABLE | Ø6 | - | - | - | - | - | 3 | 3 |
| | Ø8 | - | - | - | - | 3 | 3 | 3 |
| | Ø2 | 3 | 3 | 3 | 3 | - | - | 3 |
| | Ø4 | - | - | 3 | 3 | - | 3 | 6 |
| | Ø6P | - | - | - | - | 2 | 2 | 2 |
| | Ø8P | 2 | 2 | 2 | 2 | - | - | 2 |
| | Ø2P | - | 2 | 2 | 2 | - | - | 2 |
| | Ø4P | - | - | - | 2 | - | 2 | 4 |
| | Ø6PPB | - | - | - | - | 1 | 1 | 1 |
| | Ø8PPB | 1 | 1 | 1 | 1 | - | - | 1 |
| | Ø2PPB | - | - | 1 | 1 | - | - | 1 |
| | Ø4PPB | - | - | - | - | - | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 6 |
| | TOTALS | 10 | 12 | 16 | 18 | 10 | 19 | 37 |
| | | | | | | | | |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| #8 | LUMINAIRE | - | 2 | 2 | 2 | 2 | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | 2 |
| | 12 PAIR #19 CABLE | - | - | - | - | - | - | 2 |
| 2#12 TYPE A DETECT CABLE | Ø6 | 3 | 3 | 3 | 3 | - | - | 3 |
| | Ø8 | - | - | 2 | 2 | - | - | 2 |
| | Ø2 | - | - | - | - | - | - | 3 |
| | Ø4 | - | - | - | - | - | 2 | 2 |
| | TOTAL | 3 | 3 | 5 | 5 | 0 | 2 | 10 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SIG (m) | LUM (m) | LPS (m) | TYPE | Ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 10.7 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | OBISPO Ave | 3.1 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 6 | S | TV-1-T | SP-1-T | - | - | - |
| C | 19-2-113 | 10.7 | 9.1 | 3.7 | 180 | B | 6 | S | mas,SV-1-T | SP-1-T | PACIFIC COAST HIGHWAY | - | - |
| D | 1-A | 3.1 | - | - | - | B | 8 | W | TV-1-T | SP-1-T | - | - | - |
| E | 17-2-113 | 10.7 | 6.1 | 3.7 | 180 | B | 8 | W | mas,SV-1-T | SP-1-T | OBISPO Ave | 0.3 | 0.8 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-2-T | SP-1-T | - | - | 0.8 |
| G | 17-2-113 | 10.7 | 4.6 | 3.7 | 180 | B | 2 | N | mas,SV-1-T | SP-1-T | PACIFIC COAST HIGHWAY | 0.3 | 0.8 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | - | 1.1 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 13)**
**(ROUTE 1/ OBISPO AVENUE)**

NO SCALE

**E-35**

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|---|---|
| 4/06 | MR |
| 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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TIME PLOTTED => 13:45

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua035.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 60 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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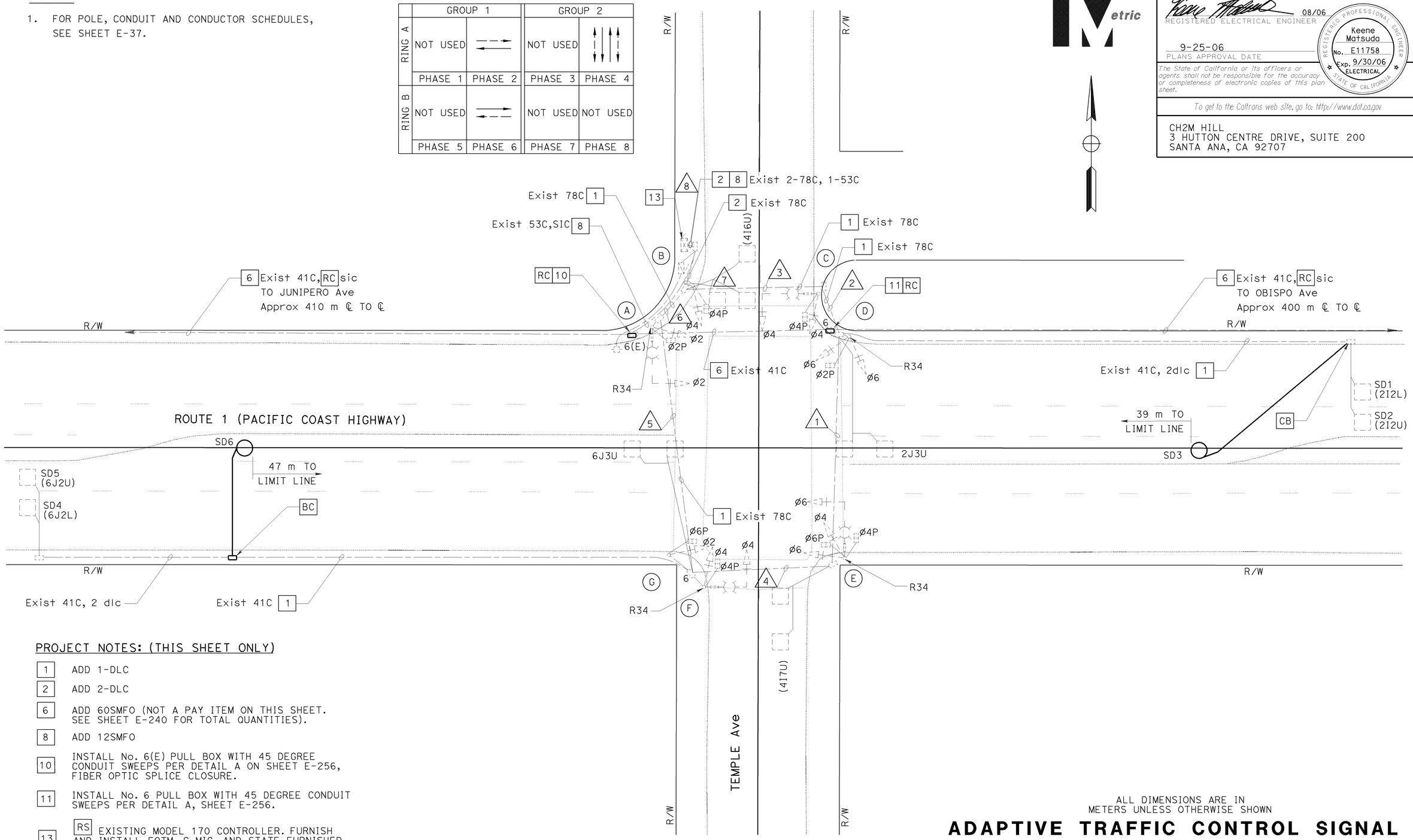
SANTA ANA, CA 92707


NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-37.

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | NOT USED | | NOT USED | |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | NOT USED | | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 14)

## (ROUTE 1/ TEMPLE AVENUE)

SCALE 1:200

E-36

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

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DESIGN OVERSIGHT
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Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua036.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 61 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| TWD 29 #14 CONDUCTOR CABLE | Ø6 | 3 | 3 | 3 | - | - | - | 3 | 3 |
| | Ø4 | - | - | 3 | 3 | 3 | 3 | 6 | 6 |
| | Ø2 | - | - | - | - | 3 | 3 | 3 | 3 |
| | Ø6P | - | - | - | 2 | 2 | 2 | 2 | 2 |
| | Ø4P | - | - | 2 | 2 | 2 | 2 | 4 | 4 |
| | Ø2P | - | 2 | 2 | - | - | 2 | 4 | 4 |
| | Ø6PPB | - | - | - | 1 | 1 | 1 | 1 | 1 |
| | Ø4PPB | - | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | Ø2PPB | - | - | 1 | - | - | - | 1 | 1 |
| | PPB COMMON | - | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 5 |
| | TOTAL | 6 | 10 | 16 | 13 | 16 | 18 | 34 | 34 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| #8 | LUMINAIRE | - | - | 2 | 2 | 2 | 2 | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | - | 2 |
| 12 PAIR #19 CABLE | | - | - | - | - | - | - | - | 2 |
| 2#12 TYPE A dlc | Ø6 C DETECTOR | - | - | - | - | 3 | 3 | 3 | 3 |
| | Ø4 C DETECTOR | 1 | 1 | 1 | - | - | - | 2 | 2 |
| | Ø2 C DETECTOR | - | 3 | 3 | - | - | - | 3 | 3 |
| | TOTAL | 1 | 4 | 4 | 0 | 3 | 3 | 8 | 8 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SIG (m) | LUM (m) | LPS (W) | TYPE | Ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | TEMPLE Ave | 3.1 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 6 | S | TV-1-T | SP-1-T | - | 1.5 | 0.8 |
| C | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 6 | S | mas,SV-1-T | SP-1-T | - | 1.5 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | W | TV-1-T | SP-1-T | - | 0.9 | 0.8 |
| E | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B/B | 4/2 | W/S | mas,SV-2-TB | SP-2-T | TEMPLE Ave | - | 0.8 |
| F | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 2 | N | mas,SV-1-T | SP-1-T | - | 0.3 | 0.8 |
| G | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | - | 0.8 |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 14)**
**(ROUTE 1/ TEMPLE AVENUE)**

NO SCALE

**E-37**

| | | | |
|---|---|---|---|
| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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TIME PLOTTED => 13:46

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 62 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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SANTA ANA, CA 92707

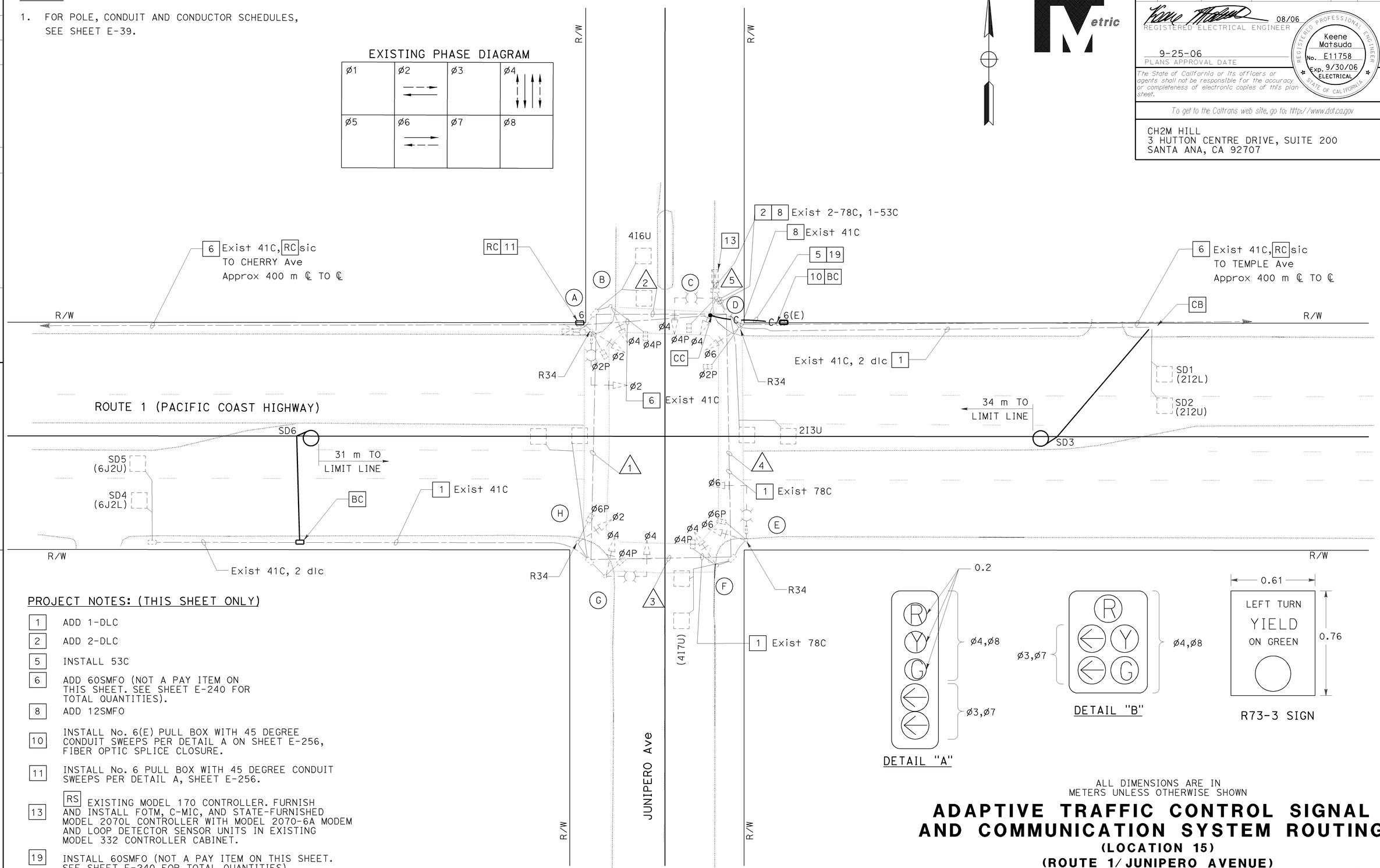
Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-39.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES) |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 15)

## (ROUTE 1/ JUNIPERO AVENUE)

SCALE 1:200

E-38

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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Caltrans

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua038.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 63 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| TWD 28 #14 CONDUCTOR CABLE | Ø6 | - | - | - | 3 | 3 |
| | Ø4 | - | 3 | 3 | 3 | 6 |
| | Ø2 | 3 | 3 | - | - | 3 |
| | Ø6P | - | - | 2 | 2 | 2 |
| | Ø4P | - | 3 | 2 | 2 | 4 |
| | Ø2P | - | 3 | - | - | 2 |
| | Ø6PPB | - | - | 1 | 1 | 1 |
| | Ø4PPB | - | 1 | 1 | 1 | 2 |
| | Ø2PPB | - | 1 | - | - | 1 |
| | PPB COMMON | - | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 6 | 18 | 13 | 16 | 32 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 2 |
| #8 | LUMINAIRE | 2 | 2 | 2 | - | - |
| #6 | SIGNAL SERVICE | - | 2 | - | - | 2 |
| 12 PAIR #19 CABLE | | - | - | - | - | 2 |
| 2#12 TYPE A dlc | Ø6 C DETECTOR | 3 | 3 | - | - | 3 |
| | Ø4 C DETECTOR | - | 1 | - | 1 | 2 |
| | Ø2 C DETECTOR | - | - | - | - | 3 |
| | TOTAL | 3 | 4 | 0 | 1 | 8 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SIG (m) | LUM (m) | LPS (W) | TYPE | Ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 10.7 | 7.6 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | JUNIPERO AVENUE | 0.6 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 8 | S | TV-1-T | SP-1-T | - | 0.3 | 0.8 |
| C | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 8 | S | mas,SV-1-T | SP-1-T | - | 0.6 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | - | 0.8 |
| E | 17-2-113 | 10.7 | 7.6 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | JUNIPERO AVENUE | -0.6 | 0.8 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-1-T | SP-1-T | - | 0.6 | 0.8 |
| G | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 2 | N | mas,SV-1-T | SP-1-T | - | -0.9 | 0.8 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | -0.6 | 0.8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 15)**

**(ROUTE 1/ JUNIPERO AVENUE)**

NO SCALE

**E-39**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | DATE 4/06 | MR | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| REVISED BY | DATE REVISED | KM | CHECKED BY |

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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TIME PLOTTED => 13:46

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua039.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 64 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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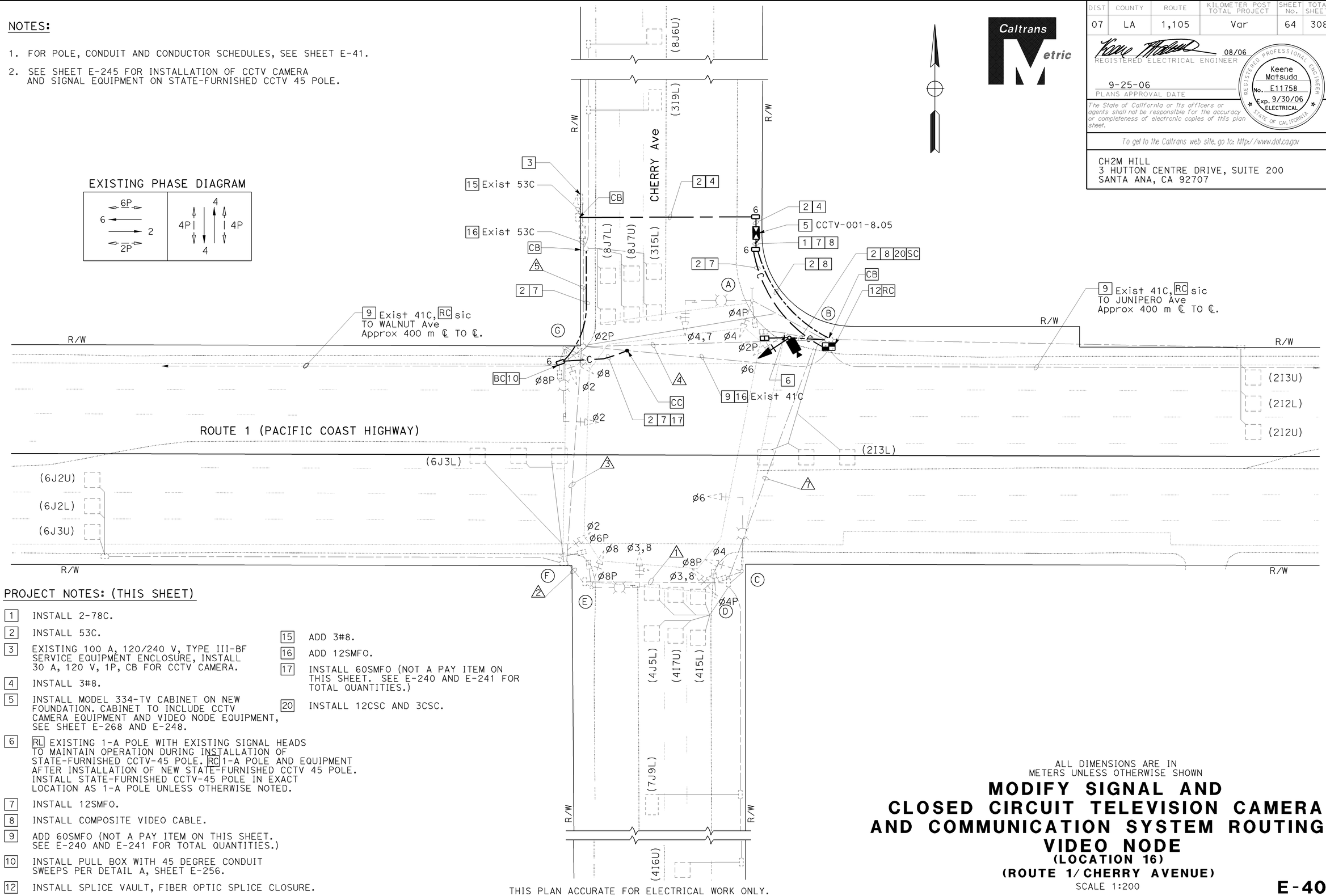
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-41.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

EXISTING PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT AND VIDEO NODE EQUIPMENT, SEE SHEET E-268 AND E-248.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
20. INSTALL 12CSC AND 3CSC.

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

**(LOCATION 16)**

**(ROUTE 1/ CHERRY AVENUE)**

SCALE 1:200

**E-40**

| DATE 4/06 | REVISED BY | DATE REVISED |
|---|---|---|
| MR | KM | 4/06 |

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DGN FILE => 725730ua040.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 65 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG TO CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| STATE CABLE | 28 SCC | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| | TOTAL | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| 2#16 dlc (TYPE B) | ø2 | - | - | - | 4 | 4 | 4 | - |
| | ø3 | - | - | - | - | - | 2 | - |
| | ø4 | 3 | 3 | 3 | - | 3 | 3 | - |
| | ø6 | - | - | 4 | - | 4 | 4 | - |
| | ø7 | 2 | 2 | 2 | - | 2 | 2 | - |
| | ø8 | - | - | - | - | - | 3 | - |
| | TOTAL | 5 | 5 | 9 | 4 | 13 | 18 | - |
| | | | | | | | | |
| | 12 PR #19 sic | - | - | - | - | 2 | 2 | - |
| | MICROWAVE | - | - | - | 2 | 2 | 2 | - |
| TOTAL SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 | 2-78 | 78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB ø | ARROW | HPS LUM | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| B | CCTV 45 | - | - | - | SV-2-T | SP-1-T | 4 | → | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MA | POLE | PED SIG MTG | PPB ø | ARROW | LPS LUMINAIRE (W) | STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 24-4-113 | 9.1 | 3.6 | MAS-5A | SV-1-T | SP-1-T | 2 | ← | 180 | PAC COAST Hwy |
| B | 1-A | - | - | - | TV-1-T | SP-1-T | 4 | → | - | - |
| C | 26-4-113 | 7.6 | 3.6 | MAS (R) | SV-1-T | SP-1-T | 4 | ← | 180 | CHERRY Ave |
| D | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| E | 17-2-113 | 4.6 | 3.6 | MAS-5A | SV-1-T | SP-1-T | 6 | ← | 180 | PAC COAST Hwy |
| F | 1-A | - | - | - | TV-1-T | SP-1-T | 8 | → | - | - |
| G | 26-4-113 | 7.6 | 3.6 | MAS (R) | SV-1-T SV-1-T | SP-1-T SP-1-T | 8/2 | ← → | 180 | CHERRY Ave |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

**(LOCATION 16)**

**(ROUTE 1/ CHERRY AVENUE)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-41**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
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DGN FILE => 725730ua041.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 66 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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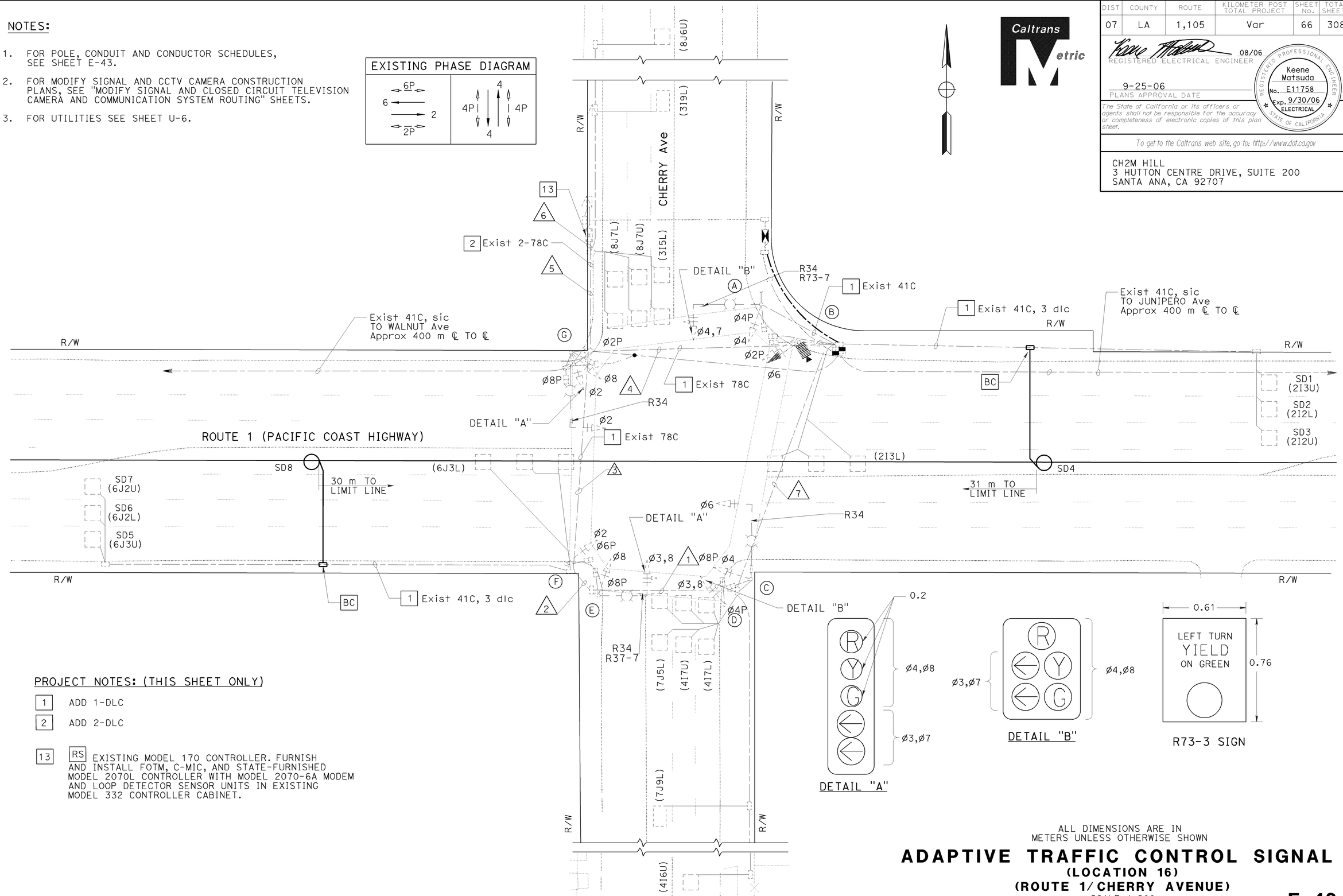
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-43.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-6.

EXISTING PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 16)
## (ROUTE 1/ CHERRY AVENUE)

SCALE 1:200

**E-42**

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|---|---|
| MR | 4/06 |
| KM | 4/06 |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua042.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 67 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG TO CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| STATE CABLE | 28 SCC | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| | TOTAL | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| 2#16 dlc (TYPE B) | ø2 | - | - | - | 4 | 4 | 4 | - |
| | ø3 | - | - | - | - | - | 2 | - |
| | ø4 | 3 | 3 | 3 | - | 3 | 3 | - |
| | ø6 | - | - | 4 | - | 4 | 4 | - |
| | ø7 | 2 | 2 | 2 | - | 2 | 2 | - |
| | ø8 | - | - | - | - | - | 3 | - |
| | TOTAL | 5 | 5 | 9 | 4 | 13 | 18 | - |
| | | | | | | | | |
| | 12 PR #19 SIC | - | - | - | - | 2 | 2 | - |
| | MICROWAVE SIC | - | - | - | 2 | 2 | 2 | - |
| TOTAL SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 | 2-78 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | SMA (m) | LMA (m) | VEH SIG MTG MA | POLE | PED SIG MTG | PPB ø | ARROW | LPS LUMINAIRE (W) | STREET NAME SIGN |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 24-4-113 | 9.1 | 3.6 | MAS-5A | SV-1-T | SP-1-T | 2 | ← | 180 | PAC COAST Hwy |
| B | 1-A | - | - | - | TV-1-T | SP-1-T | 4 | → | - | - |
| C | 26-4-113 | 7.6 | 3.6 | MAS (R) | SV-1-T | SP-1-T | 4 | ← | 180 | CHERRY Ave |
| D | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| E | 17-2-113 | 4.6 | 3.6 | MAS-5A | SV-1-T | SP-1-T | 6 | ← | 180 | PAC COAST Hwy |
| F | 1-A | - | - | - | TV-1-T | SP-1-T | 8 | → | - | - |
| G | 26-4-113 | 7.6 | 3.6 | MAS (R) | SV-1-T<br>SV-1-T | SP-1-T<br>SP-1-T | 8/2 | ←<br>→ | 180 | CHERRY Ave |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 16)
## (ROUTE 1/ CHERRY AVENUE)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-43**

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:46

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 68 | 308 |

Keene Matsuda 08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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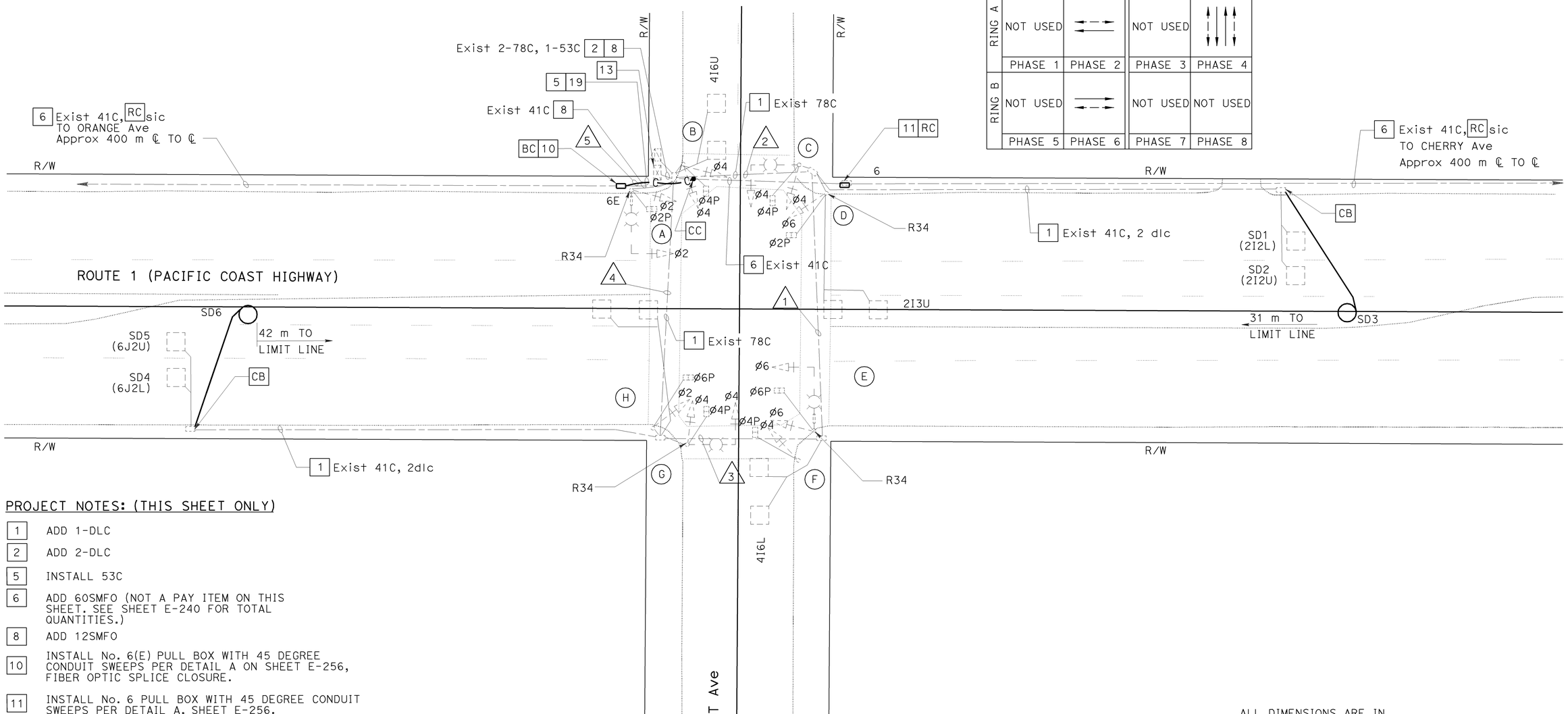
NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-45.

## EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | NOT USED | | NOT USED | |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | NOT USED | | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |




## PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES)

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 17)

## (ROUTE 1/ WALNUT AVENUE)

SCALE 1:200

**E-44**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE 4/06 | REVISED BY |
|---|---|---|---|
| MR | KM | | |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua044.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:46

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 69 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SIG (m) | LUM (m) | LPS(W) | TYPE | ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | WALNUT AVENUE | -2.1 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 8 | S | TV-1-T | SP-1-T | - | 0.6 | 0.8 |
| C | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 8 | S | mas,SV-1-T | SP-1-T-05 | - | 0.9 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | - | 0.8 |
| E | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T-05 | WALNUT AVENUE | 1.2 | 0.8 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-1-T | SP-1-T-05 | - | - | 0.8 |
| G | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 2 | N | mas,SV-1-T | SP-1-T-05 | - | 1.2 | 0.8 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | - | 0.8 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| TWD 28 #14 CONDUCTOR CABLE | ø6 | 3 | 3 | - | - | 3 |
| | ø4 | - | 3 | 3 | 3 | 6 |
| | ø2 | - | - | - | 3 | 3 |
| | ø6P | - | - | 2 | 2 | 2 |
| | ø4P | - | 2 | 2 | 2 | 4 |
| | ø2P | - | 2 | - | - | 2 |
| | ø6PPB | - | - | 1 | 1 | 1 |
| | ø4PPB | - | 1 | 1 | 1 | 2 |
| | ø2PPB | - | 1 | - | - | 1 |
| | | | | | | |
| | PPB COMMON | - | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 6 | 16 | 13 | 16 | 32 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 2 |
| #8 | LUMINAIRE | 2 | 2 | - | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | 2 |
| 12 PAIR #19 CABLE | | - | - | - | - | 2 |
| 2#12 TYPE A dlc | ø6 C DETECTOR | - | - | - | 3 | 3 |
| | ø4 C DETECTOR | 1 | 1 | - | - | 2 |
| | ø2 C DETECTOR | - | 3 | - | - | 3 |
| | TOTAL | 1 | 4 | 0 | 3 | 8 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 17)**

**(ROUTE 1/ WALNUT AVENUE)**

NO SCALE

**E-45**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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| 07 | LA | 1,105 | Var | 70 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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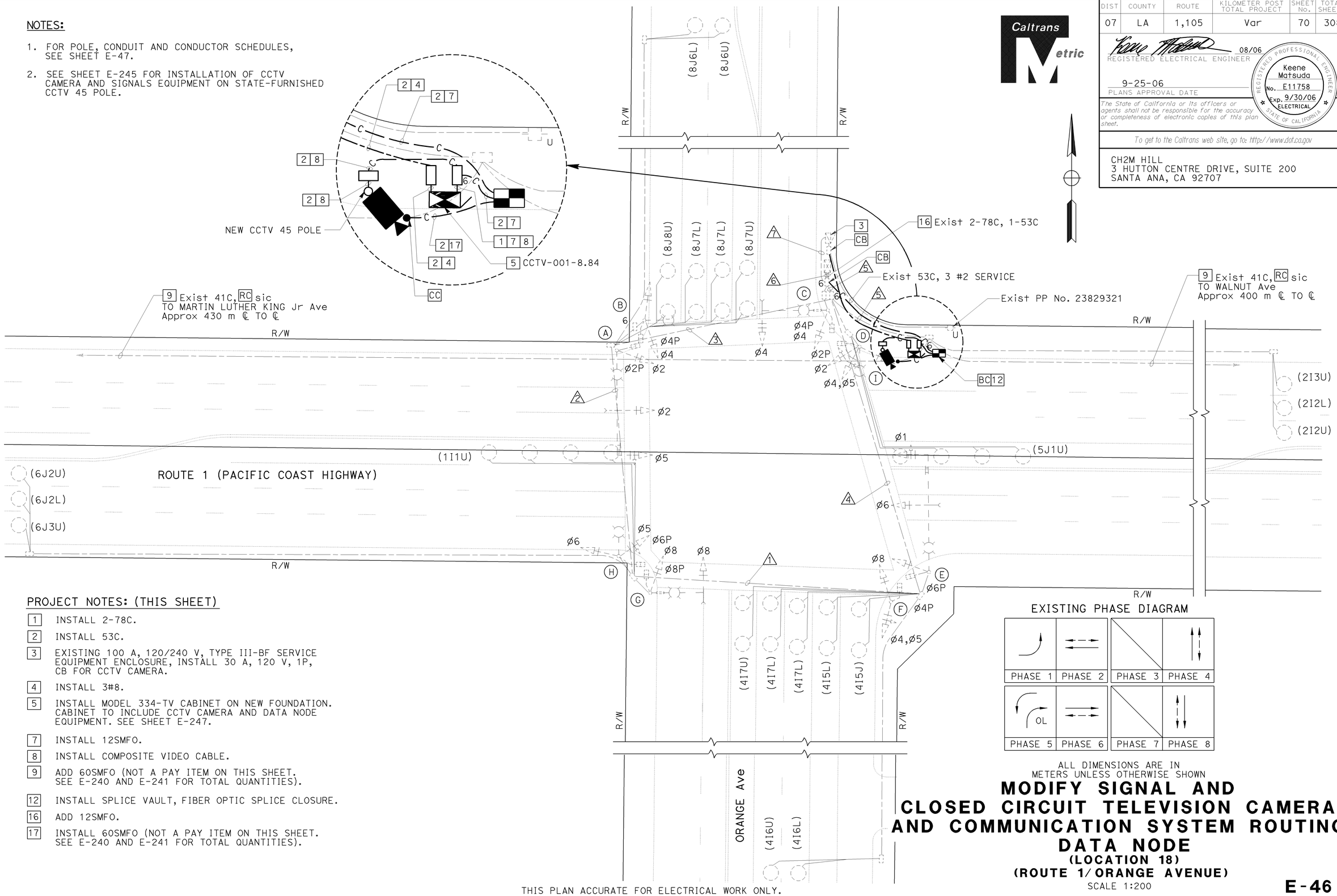
SANTA ANA, CA 92707

Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-47.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNALS EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.




PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA AND DATA NODE EQUIPMENT. SEE SHEET E-247.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING DATA NODE

**(LOCATION 18)**
**(ROUTE 1/ ORANGE AVENUE)**

SCALE 1:200

**E-46**

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| REVISED BY | | | YEFIM ZABEZHINSKY |
| DATE REVISED | KM | CHECKED BY | |

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Caltrans

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua046.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 71 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| | 28 CONDUCTOR SCHEDULE WIRING PER CITY OF LONG BEACH SPECS | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| | 12 PAIRS #19 INTERCONNECT CABLE PER CITY OF LONG BEACH SPECS | - | 1 | 1 | - | - | 3 | 3 | 2 |
| #8 | LUMINAIRES | 2 | 2 | 2 | 2 | 2 | - | 2 | - |
| LOOP LEAD-IN DUAL CONDUCTOR CABLE | Ø1 DETECTORS | - | 1 | 1 | - | 1 | 1 | - | - |
| | Ø2 DETECTORS | - | - | - | - | 3 | 3 | - | - |
| | Ø4 DETECTORS | - | - | - | 4 | 4 | 4 | - | - |
| | Ø5 DETECTORS | - | - | - | 1 | 2 | 2 | - | - |
| | Ø6 DETECTORS | - | 3 | 3 | - | 3 | 3 | - | - |
| | Ø8 DETECTORS | - | - | 5 | - | 5 | 5 | - | - |
| #6 | EVPE CABLE | - | - | - | - | - | 2 | 3 | - |
| #12 | INTERCONNECT CABLE | - | - | - | - | 3 | - | 3 | - |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 | 2-78 1-53 | 53 | 78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| I | CCTV 45 | - | - | - | - | - | - | → | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPS LUMINAIRE (W) | VEHICLE SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | QUAD | ARROW | REFLECTORIZED SNS (DOUBLE-FACE) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26-4-129 | 9.1 | 12.2 | 3.7 | 250 | MAT, MAS | SV-1-T | SP-1-CS | 8 | E | ← | ORANGE Ave | - |
| B | 15 | 9.1 | - | 3.7 | 250 | - | SV-2-1A | SP-1-CS | 2 | S | → | - | - |
| C | 19-4-129 | 9.1 | 7.6 | 3.7 | 250 | MAS | SV-1-T | SP-1-CS | 2 | S | ← | PACIFIC COAST Hwy | PHOTO ELECTRIC |
| D | 15 | 9.1 | - | 3.7 | 250 | - | SV-3-TA | SP-1-CS | 4 | W | → | - | - |
| E | 26-4-129 | 9.1 | 12.2 | 3.7 | 250 | MAT, MAS | SV-1-T | SP-1-CS | 4 | W | ← | ORANGE Ave | - |
| F | 15 | 9.1 | - | 3.7 | 250 | - | SV-1-T | SP-1-CS | 6 | N | → | - | - |
| G | 19-4-129 | 9.1 | 7.6 | 3.7 | 250 | MAS | SV-1-T | SP-1-CS | 6 | N | ← | PACIFIC COAST Hwy | - |
| H | 15 | 9.1 | - | 3.7 | 250 | - | SV-2-TA | SP-1-CS | 8 | E | → | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING DATA NODE

**(LOCATION 18)**

**(ROUTE 1/ORANGE AVENUE)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-47**

| DATE | REVISED BY | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| 4/06 | MR | | |
| 4/06 | KM | CHECKED BY | YEFIM ZABEZHINSKY |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 72 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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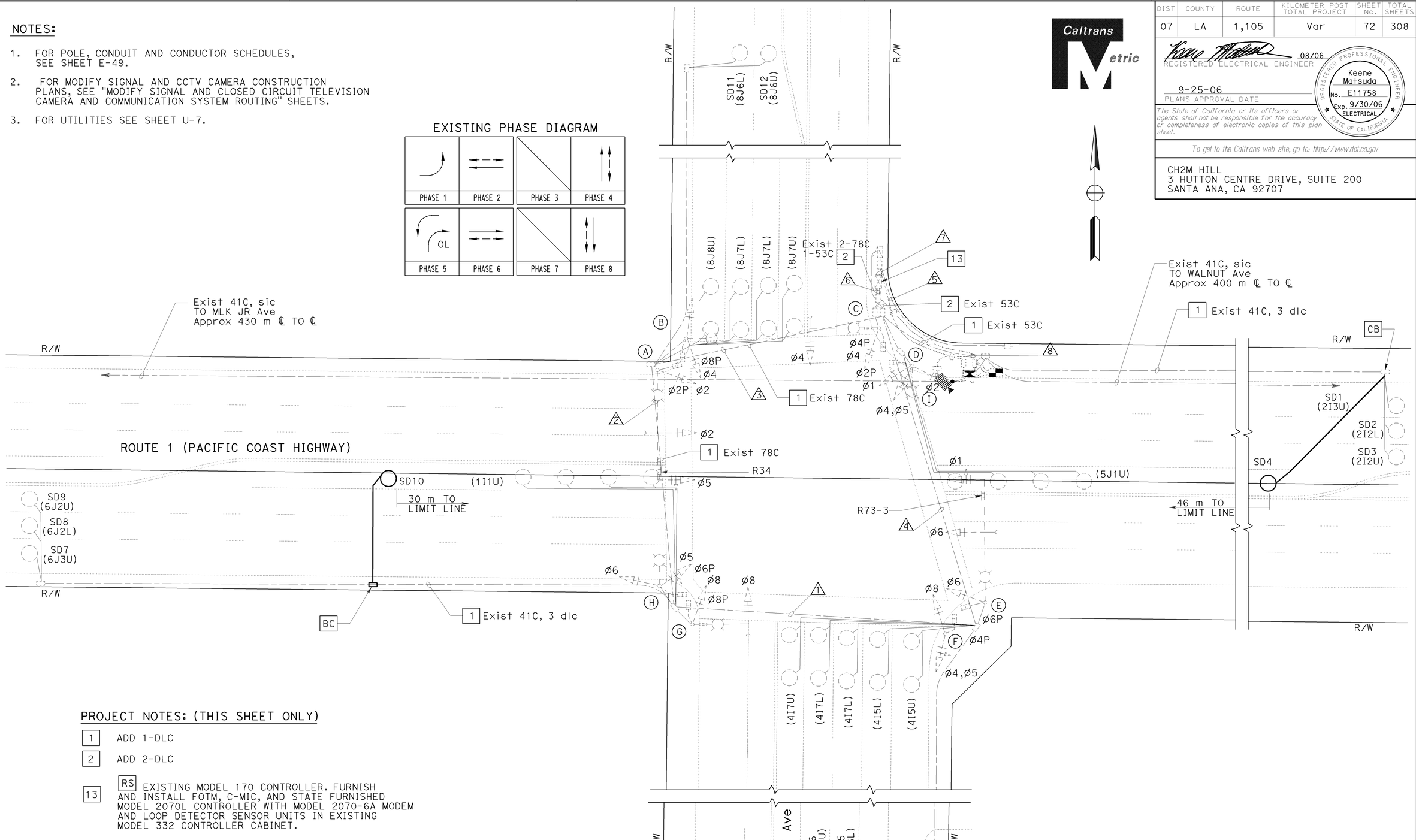
SANTA ANA, CA 92707


NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-49.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-7.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 18)
## (ROUTE 1/ORANGE AVENUE)

SCALE 1:200

**E-48**

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|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
DGN FILE => 725730ua048.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:46

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 73 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| | 28 CONDUCTOR SCHEDULE WIRING PER CITY OF LONG BEACH SPECS | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| | 12 PAIRS #19 INTERCONNECT CABLE PER CITY OF LONG BEACH SPECS | - | 1 | 1 | - | - | 3 | 3 | 2 |
| #8 | LUMINAIRES | 2 | 2 | 2 | 2 | 2 | - | 2 | - |
| LOOP LEAD-IN DUAL CONDUCTOR CABLE | Ø1 DETECTORS | - | 1 | 1 | - | 1 | 1 | - | - |
| | Ø2 DETECTORS | - | - | - | - | 3 | 3 | - | - |
| | Ø4 DETECTORS | - | - | - | 4 | 4 | 4 | - | - |
| | Ø5 DETECTORS | - | - | - | 1 | 2 | 2 | - | - |
| | Ø6 DETECTORS | - | 3 | 3 | - | 3 | 3 | - | - |
| | Ø8 DETECTORS | - | - | 5 | - | 5 | 5 | - | - |
| #6 | EVPE CABLE | - | - | - | - | - | 3 | 2 | - |
| #12 | INTERCONNECT CABLE | - | - | - | - | 3 | - | 3 | - |
| | | | | | | | | | |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 | 2-78 1-53 | 53 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPS LUMINAIRE (W) | VEHICLE SIG MTG MAST ARM (m) | VEHICLE SIG MTG POLE | PED SIG MTG | PPB Ø | PPB QUAD | PPB ARROW | REFLECTORIZED SNS (DOUBLE-FACE) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26-4-129 | 9.1 | 12.2 | 3.7 | 250 | MAT, MAS | SV-1-T | SP-1-CS | 8 | E | ← | ORANGE Ave | - |
| B | 15 | 9.1 | - | 3.7 | 250 | - | SV-2-1A | SP-1-CS | 2 | S | → | - | - |
| C | 19-4-129 | 9.1 | 7.6 | 3.7 | 250 | MAS | SV-1-T | SP-1-CS | 2 | S | ← | PACIFIC COAST Hwy | PHOTO ELECTRIC |
| D | 15 | 9.1 | - | 3.7 | 250 | - | SV-3-TA | SP-1-CS | 4 | W | → | - | - |
| E | 26-4-129 | 9.1 | 12.2 | 3.7 | 250 | MAT, MAS | SV-1-T | SP-1-CS | 4 | W | ← | ORANGE Ave | - |
| F | 15 | 9.1 | - | 3.7 | 250 | - | SV-1-T | SP-1-CS | 6 | N | → | - | - |
| G | 19-4-129 | 9.1 | 7.6 | 3.7 | 250 | MAS | SV-1-T | SP-1-CS | 6 | N | ← | PACIFIC COAST Hwy | - |
| H | 15 | 9.1 | - | 3.7 | 250 | - | SV-2-TA | SP-1-CS | 8 | E | → | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 18)
## (ROUTE 1/ ORANGE AVENUE)

NO SCALE

**E-49**

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmariak
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CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 74 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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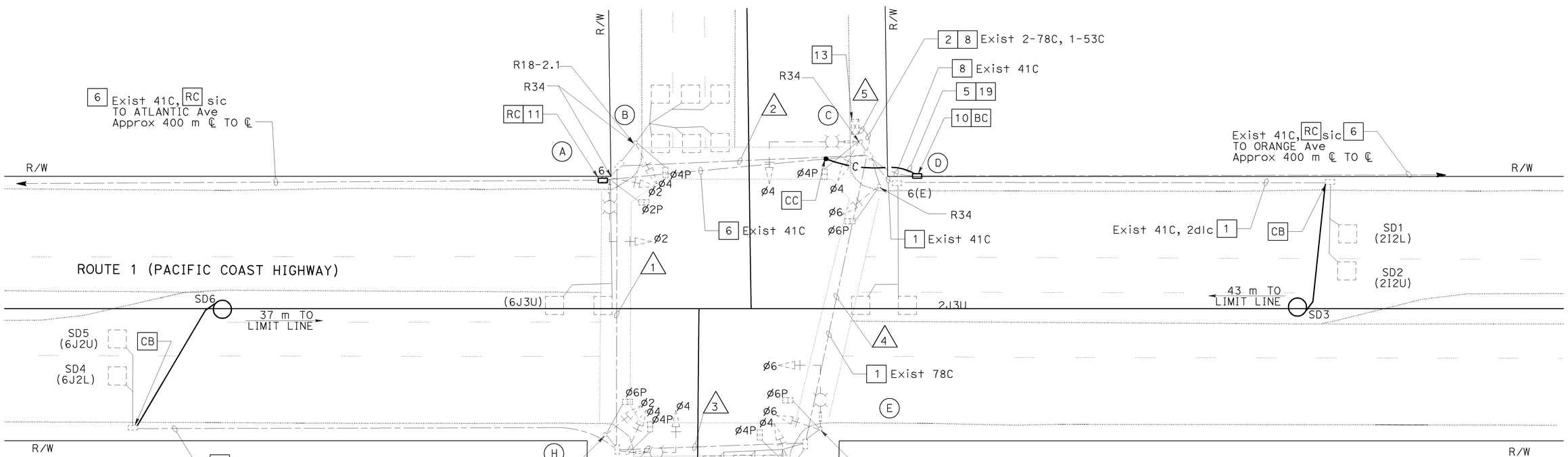
NOTE:

1. FOR POLE, CONDUIT CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-51.




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256 |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | NOT USED | ← → | NOT USED | ↑ ↓ ↑ ↓ |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | NOT USED | ← → | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 19)

## (ROUTE 1/ MARTIN LUTHER KING JR AVENUE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-50**

| DATE | REVISED BY | DATE REVISED |
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CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 75 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| TWD 28 #14 CONDUCTOR CABLE | ø6 | - | - | - | 3 | 3 |
| | ø4 | - | 3 | 3 | 3 | 6 |
| | ø2 | 3 | 3 | - | - | 3 |
| | ø6P | - | - | 2 | 2 | 2 |
| | ø4P | - | 2 | 2 | 2 | 4 |
| | ø2P | - | 2 | - | - | 2 |
| | ø6PPB | - | - | 1 | 1 | 1 |
| | ø4PPB | - | 1 | 1 | 1 | 2 |
| | ø2PPB | - | 1 | - | - | 1 |
| | PPB COMMON | - | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 6 | 16 | 13 | 16 | 32 |
| | | | | | | |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 2 |
| #8 | LUMINAIRE | 2 | 2 | - | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | 2 |
| 12 PAIR #19 CABLE | | - | - | - | - | 2 |
| 2#12 TYPE A dlc | ø6 C DETECTOR | 2 | 3 | - | - | 3 |
| | ø4 C DETECTOR | - | 2 | - | 2 | 4 |
| | ø2 C DETECTOR | - | - | - | - | 3 |
| | TOTAL | 2 | 5 | 0 | 2 | 10 |
| | | | | | | |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SIG(m) | LUM(m) | LPS (W) | TYPE | ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | MARTIN LUTHER KING AVE. | -2.1 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 8 | S | TV-1-T | SP-1-T | - | 0.6 | 0.8 |
| C | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 8 | S | mas,SV-1-T | SP-1-T-05 | PACIFIC COAST HIGHWAY | 0.9 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | - | 0.8 |
| E | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T-05 | MARTIN LUTHER KING AVE. | 1.2 | 0.8 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-1-T | SP-1-T-05 | - | - | 0.8 |
| G | 17-1-113 | 9.1 | 4.6 | 3.7 | 180 | B | 2 | N | mas,SV-1-T | SP-1-T-05 | PACIFIC COAST HIGHWAY | 1.2 | 0.8 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | - | 0.8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 19)**

**(ROUTE 1/MARTIN LUTHER KING JR AVENUE)**

NO SCALE

**E-51**

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CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 76 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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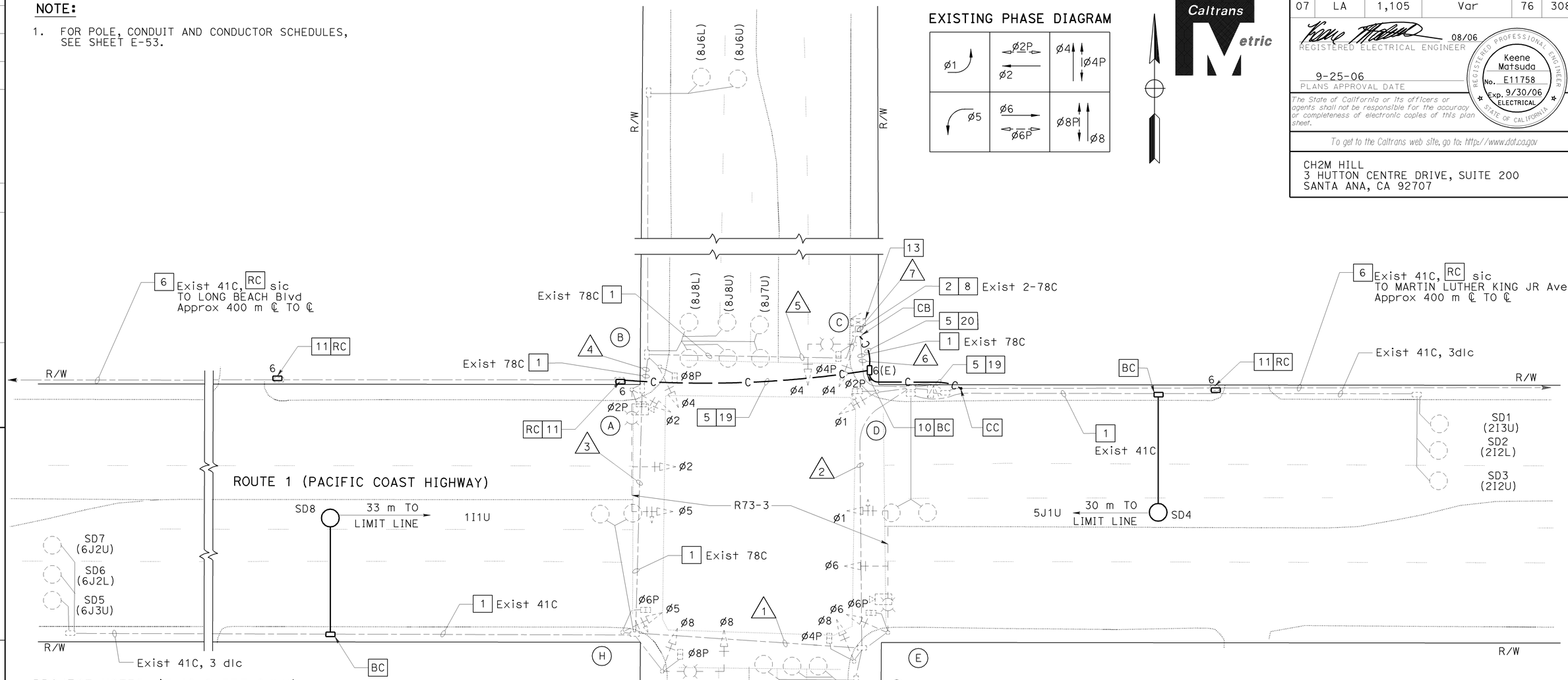
**NOTE:**

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-53.




THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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

1. ADD 1-DLC
2. ADD 2-DLC
5. INSTALL 53C
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)
8. ADD 12 SMFO
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)
20. INSTALL 12SMFO

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 20)

## (ROUTE 1/ ATLANTIC AVENUE)

SCALE 1:200

**E-52**

| DATE | REVISED BY | DATE REVISED |
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CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 77 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIGNAL MOUNTING | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SIG MA(m) | LUM MA(m) | MAST ARM | POLE | | ø | ARROW | | |
| A | 26-4-129 | 12.2 | 4.6 | mas | SV-1-T | SP-1-T | 8 | ← | 200 | STREET NAME SIGN |
| B | 1-A | - | - | - | TV-1-T | SP-1 | 2 | → | - | - |
| C | 17-2-113 | - | - | mat | SV-1-T | SP-1-T | 2 | ← | - | - |
| D | 1-A | - | - | - | TV-1-T | SP-1 | 4 | → | - | - |
| E | 26-4-129 | 12.2 | 4.6 | mas | SV-1-T | SP-1-T | 4 | ← | 200 | STREET NAME SIGN |
| F | 1-A | - | - | - | TV-1-T | SP-1 | 6 | → | - | - |
| G | 17-2-113 | - | - | mat | SV-1-T | SP-1-T | 8 | ← | - | - |
| H | 1-A | - | - | - | TV-1-T | SP-1 | 6 | → | - | - |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| dlc | ø1 | 1 | 1 | - | - | - | 1 | 1 |
| | ø2 | - | - | - | - | - | 3 | 3 |
| | ø5 | - | - | - | - | - | 1 | 1 |
| | ø6 | 3 | 3 | - | - | - | 3 | 3 |
| | ø4 | - | 5 | - | - | - | 5 | 5 |
| | ø8 | - | - | - | - | 5 | - | 5 |
| | TOTAL DLC | 4 | 9 | - | - | 5 | 13 | 18 |
| #6 | SIGNAL SERVICE | - | - | - | - | - | 2 | 2 |
| #8 | LUMINAIRE | 2 | 2 | - | 2 | 2 | 2 | 2 |
| | EXISTING SIC | - | - | - | 1 | 1 | 1 | 1 |
| | 28-CONDUCTOR-CABLE | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | VIDEO DETECTION CABLE | - | 1 | - | 1 | 1 | 1 | 2 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 20)**

**(ROUTE 1/ ATLANTIC AVENUE)**

NO SCALE

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**E-53**

| DATE | REVISED BY | DATE | REVISED BY |
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DGN FILE => 725730ua053.dgn

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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 78 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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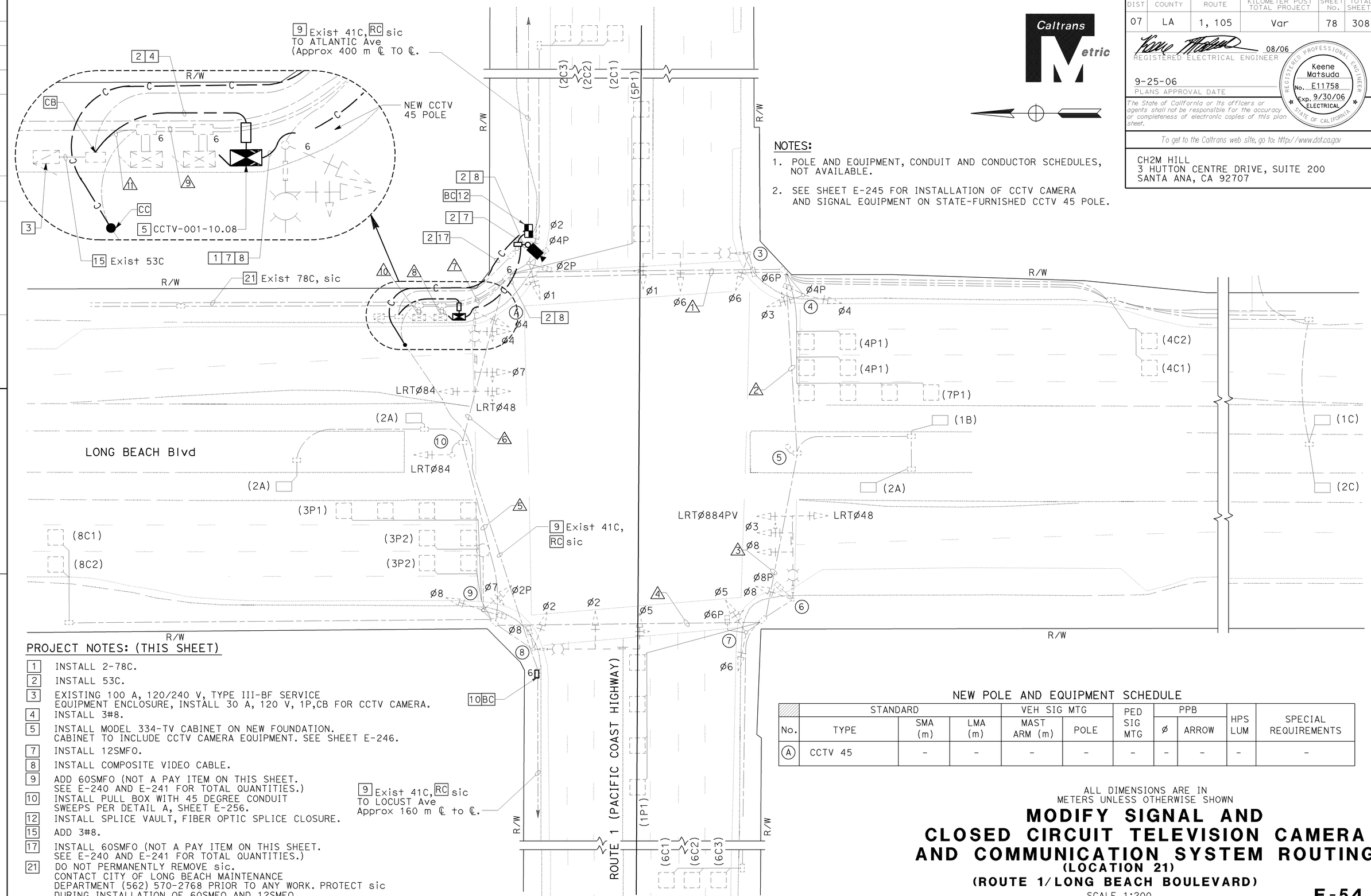


## NOTES:

1. POLE AND EQUIPMENT, CONDUIT AND CONDUCTOR SCHEDULES, NOT AVAILABLE.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P,CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
21. DO NOT PERMANENTLY REMOVE sic. CONTACT CITY OF LONG BEACH MAINTENANCE DEPARTMENT (562) 570-2768 PRIOR TO ANY WORK. PROTECT sic DURING INSTALLATION OF 60SMFO AND 12SMFO MAINTAIN EXISTING FUNCTION OF sic.

## NEW POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIG MTG | PPB | | HPS LUM | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SMA (m) | LMA (m) | MAST ARM (m) | POLE | | Ø | ARROW | | |
| A | CCTV 45 | - | - | - | - | - | - | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 21)

## (ROUTE 1/LONG BEACH BOULEVARD)

SCALE 1:200

**E-54**

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| 07 | LA | 1, 105 | Var | 79 | 308 |

08/06
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9-25-06
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Exp. 9/30/06
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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 21)**
**(ROUTE 1/LONG BEACH BOULEVARD)**

NO SCALE

**E-55**

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| | | |
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DGN FILE => 725730ua055.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
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08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
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REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
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Exp. 9/30/06
ELECTRICAL
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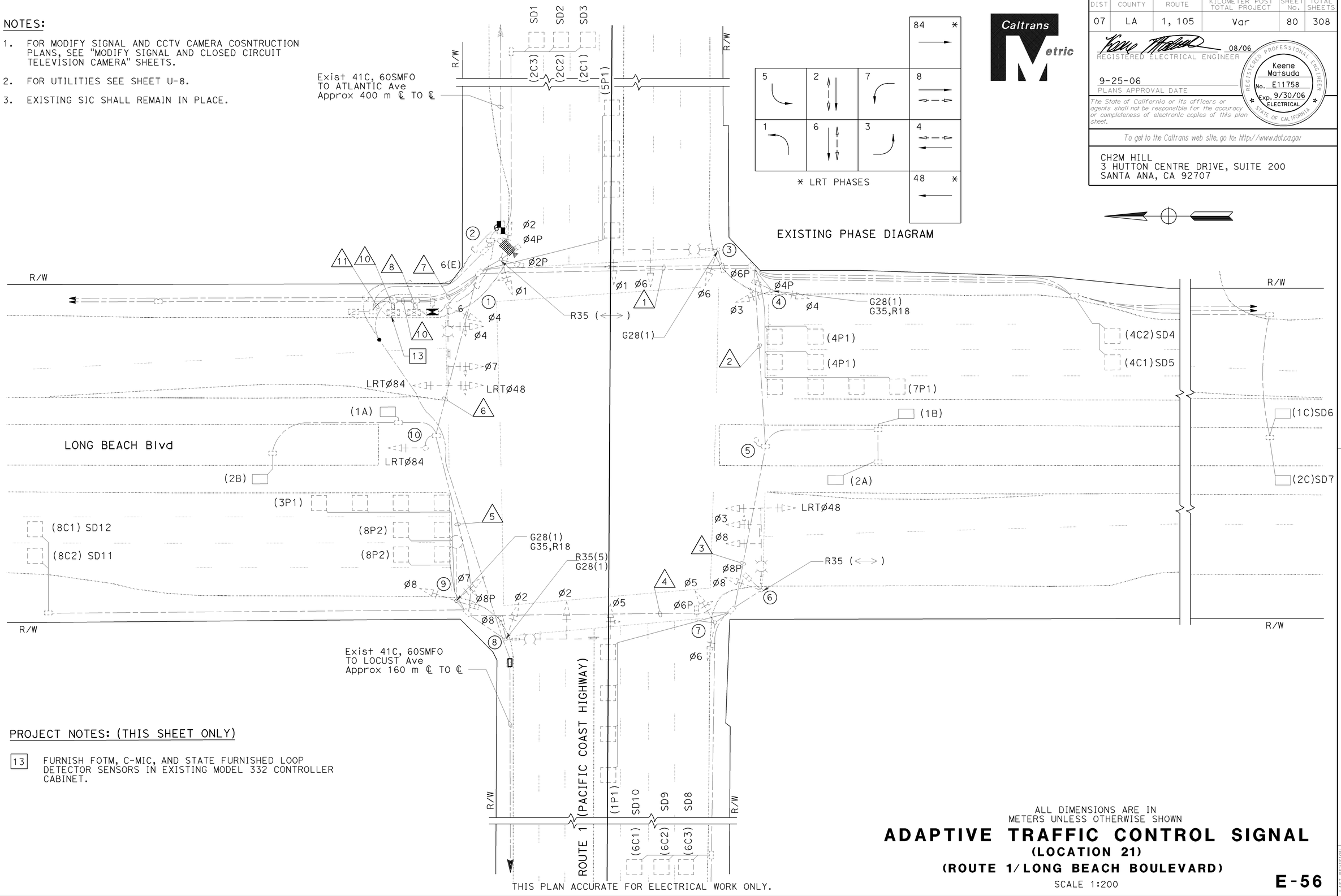
NOTES:

1. FOR MODIFY SIGNAL AND CCTV CAMERA COSNTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA" SHEETS.
2. FOR UTILITIES SEE SHEET U-8.
3. EXISTING SIC SHALL REMAIN IN PLACE.




PROJECT NOTES: (THIS SHEET ONLY)

13 FURNISH FOTM, C-MIC, AND STATE FURNISHED LOOP DETECTOR SENSORS IN EXISTING MODEL 332 CONTROLLER CABINET.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 21)

## (ROUTE 1/LONG BEACH BOULEVARD)

SCALE 1:200

**E-56**

| DATE 4/06 | REVISED BY | MR |
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 725730ua056.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 81 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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No. E11758
Exp. 9/30/06
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STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


**THIS SHEET INTENTIONALLY LEFT BLANK**

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METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 21)
## (ROUTE 1/LONG BEACH BOLUEVARD)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-57**

| | DATE | |
|---|---|---|
| CALCULATED/ DESIGNED BY | MR | 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 82 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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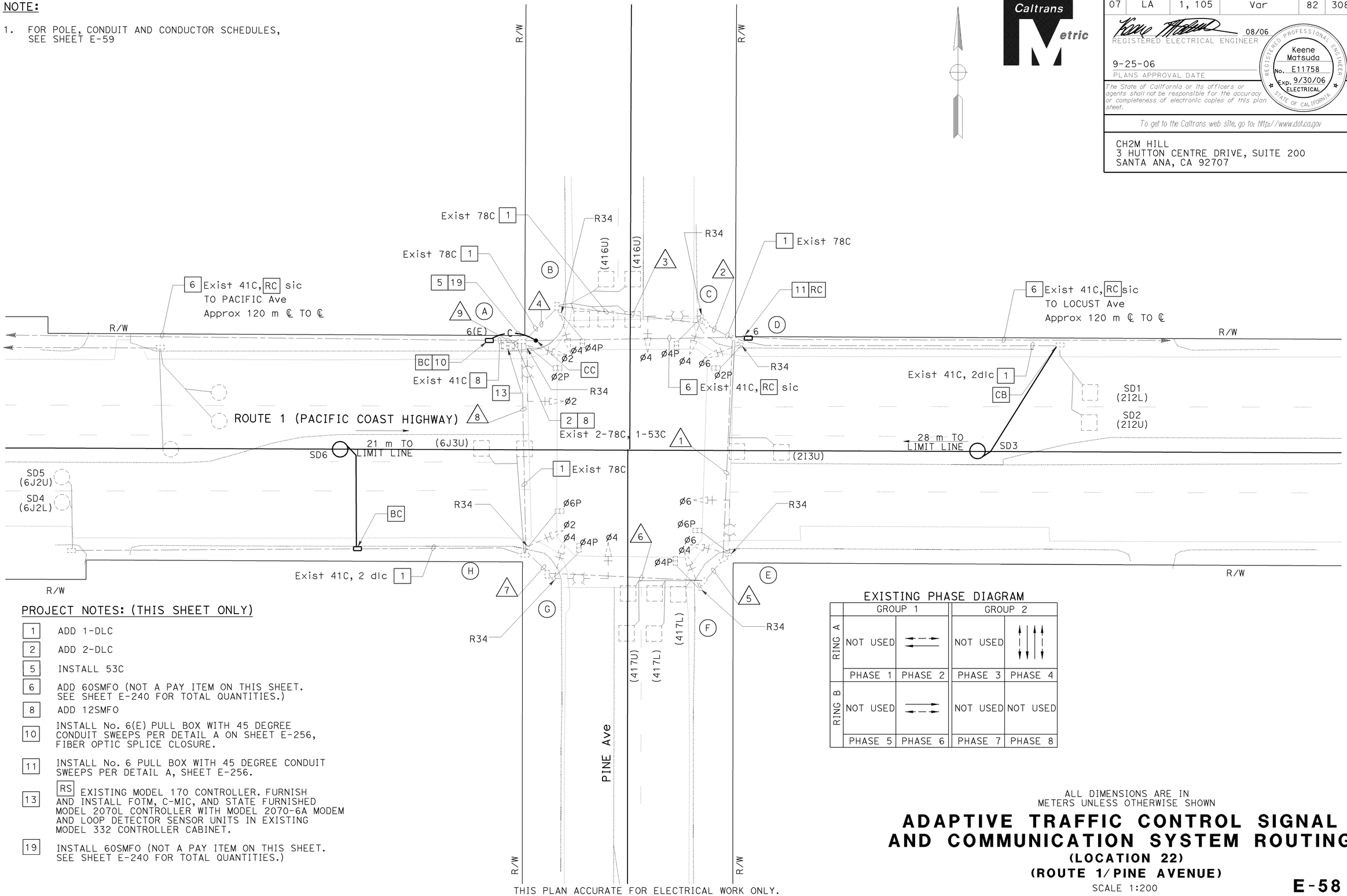
Caltrans Metric

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-59




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

## EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | NOT USED | ← → | NOT USED | ↑ ↓ ↑ ↓ |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | NOT USED | → ← | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 22)

## (ROUTE 1/PINE AVENUE)

SCALE 1:200

**E-58**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| REVISED BY | KM | CHECKED BY | YEFIM ZABEZHINSKY |
| DATE REVISED | 4/06 | | |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua058.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 83 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| TWD 28 #14 CONDUCTOR CABLE | ø6 | 3 | 3 | 3 | 3 | - | - | - | - | 3 |
| | ø4 | - | - | 3 | 3 | - | 3 | 3 | 3 | 6 |
| | ø2 | - | - | - | - | - | - | - | - | 3 |
| | ø6P | - | - | - | - | 2 | 2 | 2 | 2 | 2 |
| | ø4P | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 4 |
| | ø2P | - | 2 | 2 | 2 | - | - | - | - | 2 |
| | ø6PPB | - | - | - | - | - | 1 | 1 | 1 | 1 |
| | ø4PPB | 1 | 1 | 1 | 1 | - | - | - | - | 1 |
| | ø2PPB | - | - | 1 | 1 | - | - | - | - | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | - | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 8 | 10 | 16 | 16 | 7 | 12 | 12 | 12 | 31 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| #8 | LUMINAIRE | - | - | 2 | 2 | 2 | 2 | 2 | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | - | - | 2 |
| 12 PAIR #19 CABLE | | - | - | - | - | - | - | - | - | 2 |
| 2#12 TYPE A dlc | ø6 | - | - | - | - | - | - | - | 3 | 3 |
| | ø4 | - | - | - | 2 | - | 2 | 2 | 2 | 4 |
| | ø2 | - | 3 | 3 | 3 | - | - | - | - | 3 |
| | TOTAL | 0 | 3 | 3 | 5 | 0 | 2 | 2 | 5 | 10 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SIG (m) | LUM (m) | LPS (W) | TYPE | ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | PINE AVENUE | 0.3 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 6 | S | TV-1-T | SP-1-T | - | - | 0.8 |
| C | 17-2-113 | 9.1 | 4.6 | 3.7 | 180 | B | 6 | S | mas,SV-1-T | SP-1-T | PACIFIC COAST HIGHWAY | 0.6 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | W | TV-1-T | SP-1-T | - | 0.6 | 0.8 |
| E | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | W | mas,SV-1-T | SP-1-T | PINE AVENUE | 0.9 | 0.8 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-1-T | SP-1-T | - | 0.6 | 0.8 |
| G | 17-2-113 | 9.1 | 4.6 | 3.7 | 180 | B | 2 | N | mas,SV-1-T | SP-1-T | PACIFIC COAST HIGHWAY | 0.6 | 0.8 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | 0.9 | 0.8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 22)**

**(ROUTE 1/PINE AVENUE)**

NO SCALE

**E-59**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DESIGN OVERSIGHT | CALCULATED/DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED |
|---|---|---|---|---|
| YEFIM ZABEZHINSKY | MR | KM | 4/06 | 4/06 |

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TIME PLOTTED => 13:48

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|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 84 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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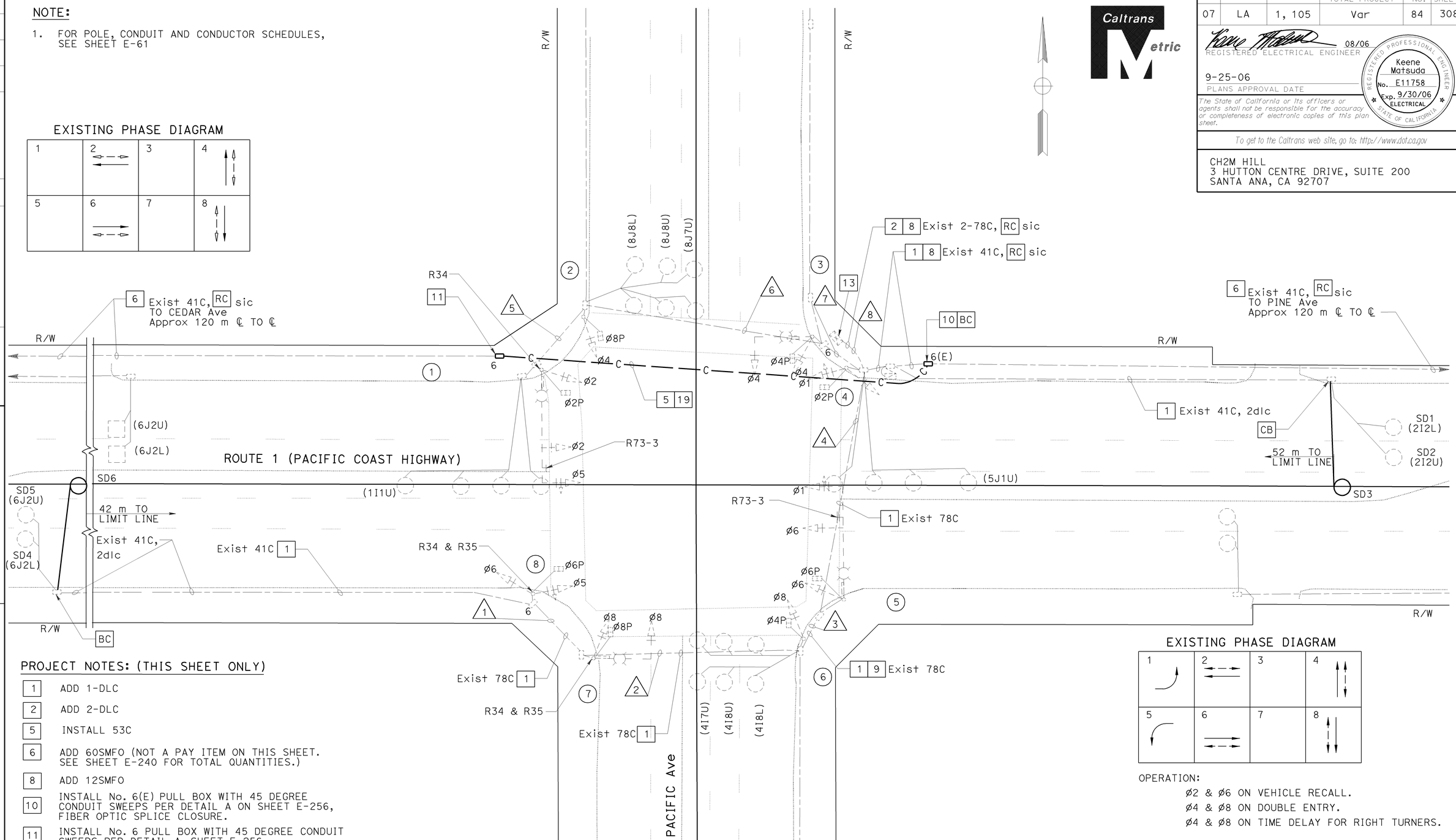
Caltrans Metric

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-61

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

EXISTING PHASE DIAGRAM




OPERATION:

ø2 & ø6 ON VEHICLE RECALL.
ø4 & ø8 ON DOUBLE ENTRY.
ø4 & ø8 ON TIME DELAY FOR RIGHT TURNERS.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 23)

## (ROUTE 1/PACIFIC AVENUE)

SCALE 1:200

**E-60**

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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Caltrans

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trienard
DGN FILE => 725730ua060.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 85 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | 28 CONDUCTOR CABLE | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 4 |
| #10 | LUMINAIRE | - | 2 | 2 | 2 | 2 | 2 | 2 | 4 |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | - | 2 |
| #12 | SIGN LIGHTING | - | - | - | 2 | 2 | 2 | 2 | 4 |
| dlc 2#16 | Ø1 DETECTOR | - | - | - | - | 1 | 1 | 1 | 1 |
| | Ø2 DETECTOR | - | - | - | - | - | - | - | 2 |
| | Ø3 DETECTOR | - | - | - | - | - | - | - | - |
| | Ø4 DETECTOR | - | - | 5 | 5 | - | - | - | 5 |
| | Ø5 DETECTOR | - | - | - | - | - | - | - | 1 |
| | Ø6 DETECTOR | 2 | 2 | 2 | 2 | - | - | - | 2 |
| | Ø7 DETECTOR | - | - | - | - | - | - | - | - |
| | Ø8 DETECTOR | - | - | - | - | - | 5 | 5 | 5 |
| | TOTAL | 2 | 2 | 7 | 7 | 1 | 6 | 6 | 16 |
| | INTERCONNCT | - | - | - | - | - | - | - | 2 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | SIGNAL MA LENGTH (m) | VEH HEAD MOUNTING | LUMINAIRE | | PPB | | STREET NAME SIGN | | POST LOCATION (m) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | | | MA LENGTH(m) | HPS WATTS | NO. | Ø | TYPE | LEGEND | A | B | C | D | E |
| 1 | 26-4-129 | 13.7 | MAS,SV-1-T | 3.7 | 250 | 1 | 8 | II | PACIFIC AVENUE | - | - | 4.9 | - | - |
| 2 | 15 | - | SV-1-T | 3.7 | 250 | 1 | 2 | - | - | 2.4 | - | - | - | - |
| 3 | 17-2-113 | 6.1 | MAS,SV-1-T | 3.7 | 250 | 1 | 2 | DFR | PACIFIC COAST HIGHWAY | - | - | 1.8 | - | - |
| 4 | 1-A | - | TV-2-T | - | - | 1 | 4 | - | - | 2.1 | - | - | - | - |
| 5 | 26-4-129 | 12.2 | MAS,SV-1-T | 3.7 | 250 | 1 | 4 | II | PACIFIC AVENUE | - | - | 2.4 | - | - |
| 6 | 1-A | - | TV-1-T | - | - | 1 | 6 | - | - | 2.7 | - | - | - | - |
| 7 | 17-2-113 | 6.1 | MAS,SV-1-T | 3.7 | 250 | 1 | 6 | DFR | PACIFIC COAST HIGHWAY | - | - | 0.610 | - | - |
| 8 | 1-A | - | TV-2-T | - | - | 1 | 8 | - | - | 2.4 | - | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 23)**

**(ROUTE 1/PACIFIC AVENUE)**

NO SCALE

**E-61**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 86 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

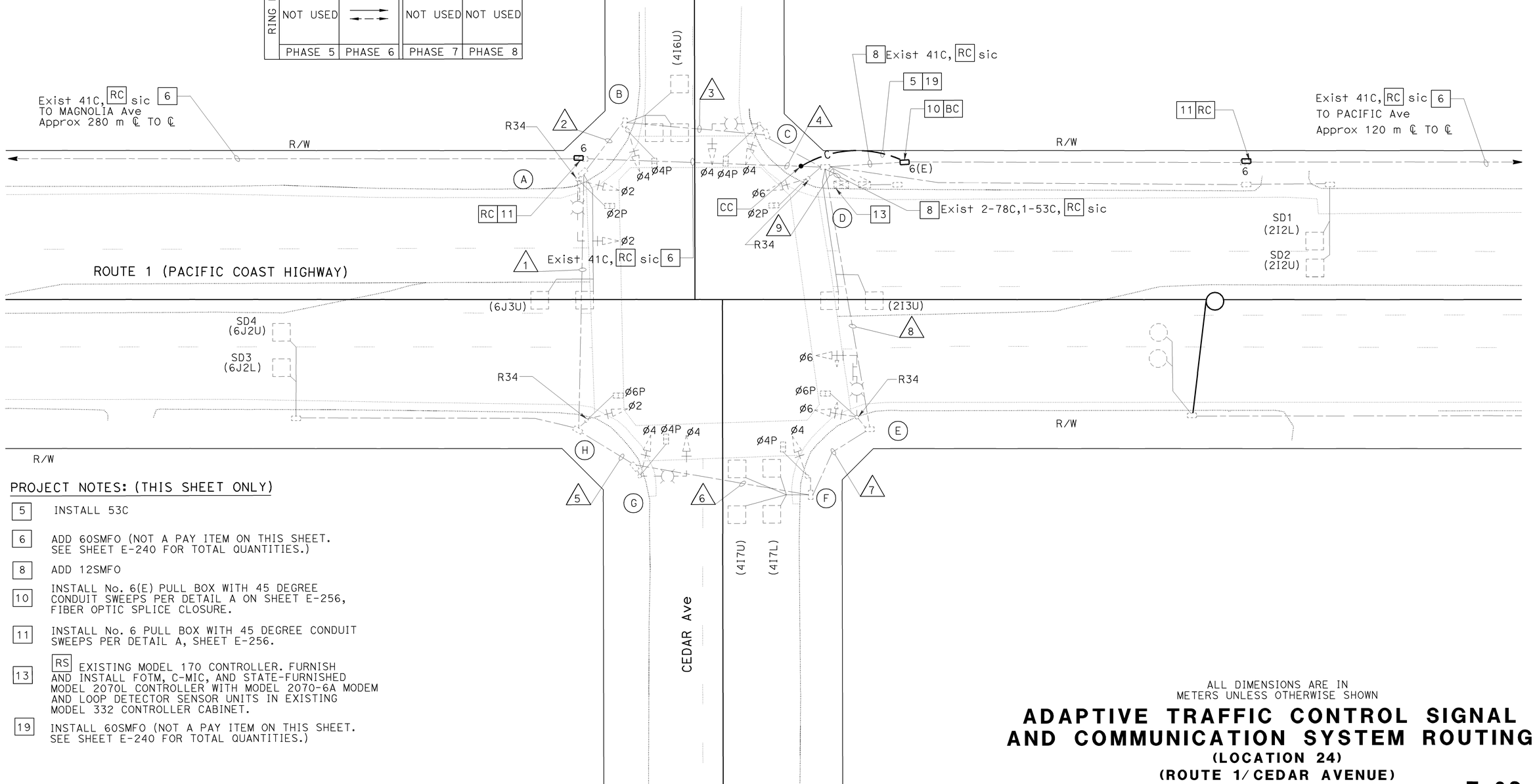
Caltrans Metric

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-63

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | NOT USED | | NOT USED | |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | NOT USED | | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |




PROJECT NOTES: (THIS SHEET ONLY)

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 24)
## (ROUTE 1/ CEDAR AVENUE)

SCALE 1:200

E-62

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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TIME PLOTTED => 13:48

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua062.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 87 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| TWD 28 #14 CONDUCTOR CABLE | Ø6 | - | - | - | - | - | - | - | 3 | 3 |
| | Ø4 | - | - | 3 | 3 | - | 3 | 3 | 3 | 6 |
| | Ø2 | 3 | 3 | 3 | 3 | - | - | - | - | 3 |
| | Ø6P | - | - | - | - | 2 | 2 | 2 | 2 | 2 |
| | Ø4P | - | - | 2 | 2 | - | 2 | 2 | 2 | 4 |
| | Ø2P | - | 2 | 2 | 2 | - | - | - | - | 2 |
| | Ø6PPB | - | - | - | - | - | 1 | 1 | 1 | 1 |
| | Ø4PPB | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | Ø2PPB | - | - | 1 | 1 | - | - | - | - | 1 |
| | PPB COMMON | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 6 | 10 | 16 | 16 | 7 | 13 | 13 | 16 | 32 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| #8 | LUMINAIRE | - | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | - | - | 2 |
| | 12 PAIR #19 CABLE | - | - | - | - | - | - | - | - | 2 |
| 2#12 TYPE A dlc | Ø6 DETECTOR | 2 | 3 | 3 | 3 | - | - | - | - | 3 |
| | Ø4 DETECTOR | - | - | 1 | 1 | - | - | 2 | 2 | 3 |
| | Ø2 DETECTOR | - | - | - | - | - | - | - | - | 3 |
| | TOTAL | 2 | 3 | 4 | 4 | 0 | 0 | 2 | 2 | 9 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SIG(m) | LUM(m) | LPS | TYPE | Ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 9.1 | 6.1 | 3.7 | 180W | B | 4 | E | mas,SV-1-T | SP-1-T | CEDAR AVENUE | 2.4 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 6 | S | TV-1-T | SP-1-T | - | 2.4 | 0.8 |
| C | 17-1-113 | 9.1 | 4.6 | 3.7 | 180W | B | 6 | S | mas,SV-1-T | SP-1-T | - | 2.4 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | W | TV-1-T | SP-1-T | - | 2.4 | 0.8 |
| E | 17-2-113 | 9.1 | 6.1 | 3.7 | 180W | B | 4 | W | mas,SV-1-T | SP-1-T | CEDAR AVENUE | 2.4 | 0.8 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-1-T | SP-1-T | - | 2.4 | 0.8 |
| G | 17-1-113 | 9.1 | 4.6 | 3.7 | 180W | B | 2 | N | mas,SV-1-T | SP-1-T | - | 2.4 | 0.8 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | 2.4 | 0.8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 24)**
**(ROUTE 1/CEDAR AVENUE)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-63**

| | DATE | REVISED BY |
|---|---|---|
| | 4/06 | MR |
| | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:49

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trienard
DGN FILE => 725730ua063.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 88 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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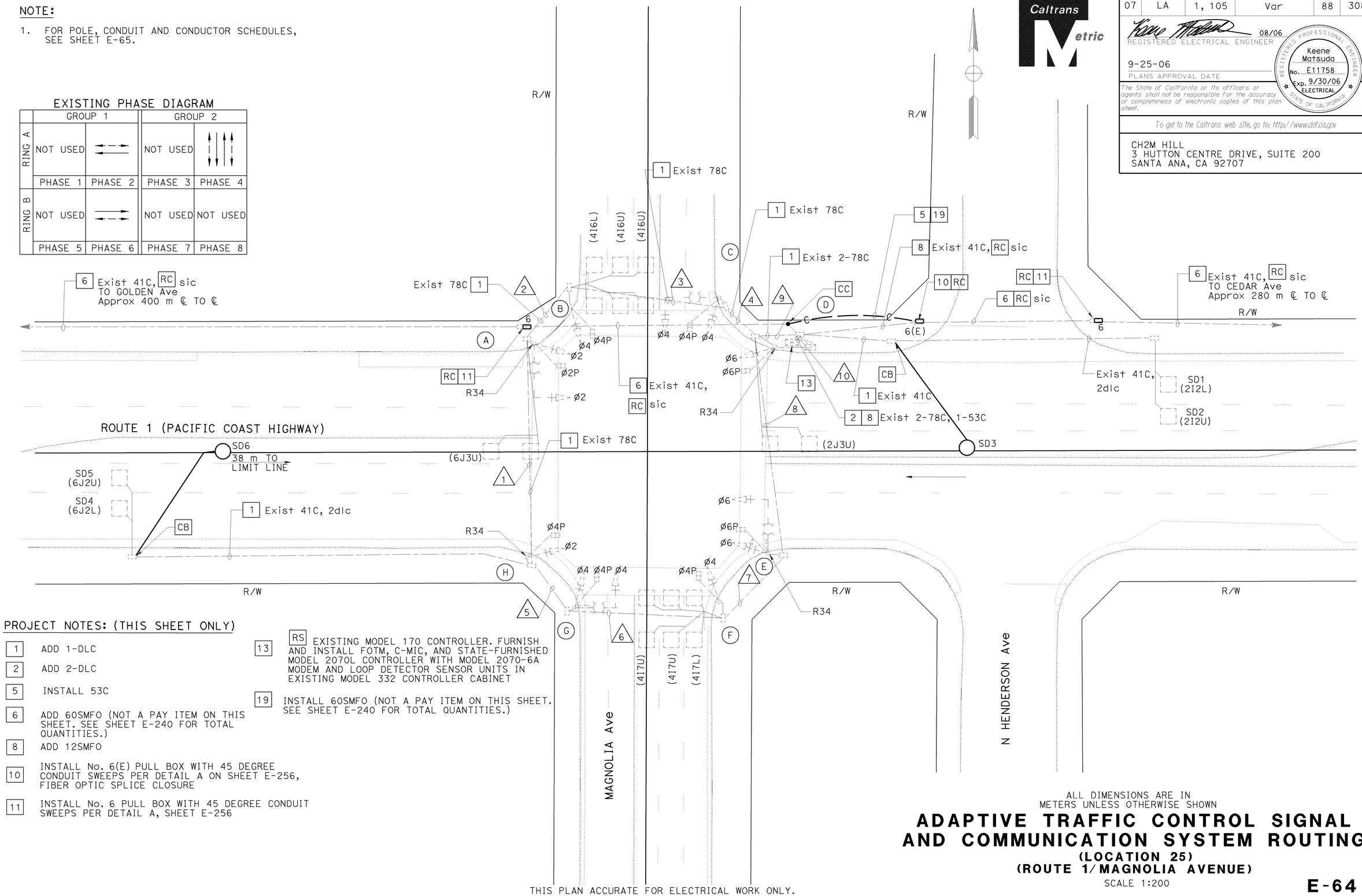
SANTA ANA, CA 92707

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-65.

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | NOT USED | ←→ | NOT USED | ↑↓ |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | NOT USED | →← | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 25)
## (ROUTE 1/MAGNOLIA AVENUE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-64

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:49

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trienard
DGN FILE => 725730ua064.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 89 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| TWD 28 #14 CONDUCTOR CABLE | Ø6 | - | - | - | - | - | - | - | 3 | 3 | 3 |
| | Ø4 | - | - | 3 | 3 | - | 3 | 3 | 3 | 6 | 6 |
| | Ø2 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 |
| | Ø6P | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 |
| | Ø4P | - | - | 2 | 2 | - | 2 | 2 | 2 | 4 | 4 |
| | Ø2P | - | 2 | 2 | 2 | - | - | - | - | 2 | 2 |
| | Ø6PPB | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 |
| | Ø4PPB | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | Ø2PPB | - | - | 1 | 1 | - | - | - | - | 1 | 1 |
| | PPB COMMON | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 |
| | TOTAL | 6 | 10 | 16 | 16 | 7 | 13 | 13 | 16 | 32 | 32 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| #8 | LUMINAIRE | - | 2 | 2 | 2 | - | 2 | 2 | 2 | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | - | - | - | 2 |
| | 12 PAIR #19 CABLE | - | - | - | - | - | - | - | - | - | 2 |
| 2#12 TYPE A dlc | Ø6 | 2 | 3 | 3 | 3 | - | - | - | - | 3 | 3 |
| | Ø4 | - | - | 2 | 2 | - | - | 2 | 2 | 4 | 4 |
| | Ø2 | - | - | - | - | - | - | - | - | 1 | 3 |
| | TOTAL | 2 | 3 | 5 | 5 | 0 | 0 | 2 | 2 | 8 | 10 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | MAST ARM | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SIG(m) | LUM(m) | LPS (W) | TYPE | Ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | E | mas,SV-1-T | SP-1-T | MAGNOLIA AVENUE | 3.4 | 0.8 |
| B | 1-A | 3.1 | - | - | - | B | 6 | S | TV-1-T | SP-1-T | - | 3.1 | 0.8 |
| C | 17-2-113 | 9.1 | 4.6 | 3.7 | 180 | B | 6 | S | mas,SV-1-T | SP-1-T | PACIFIC COAST HIGHWAY | 2.4 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | W | TV-1-T | CS-1-T | - | 0.3 | 0.8 |
| E | 17-2-113 | 9.1 | 6.1 | 3.7 | 180 | B | 4 | W | mas,SV-1-T | SP-1-T | MAGNOLIA AVENUE | 1.2 | 0.8 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-1-T | SP-1-T | - | 2.4 | 0.8 |
| G | 17-2-113 | 9.1 | 4.6 | 3.7 | 180 | B | 2 | N | mas,SV-1-T | SP-1-T | PACIFIC COAST HIGHWAY | 1.8 | 0.8 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | 2.4 | 0.8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 25)**

**(ROUTE 1/MAGNOLIA AVENUE)**

NO SCALE

**E-65**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | | |
|---|---|---|
| MR | DATE 4/06 | REVISED BY |
| KM | 4/06 | DATE REVISED |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
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TIME PLOTTED => 13:49

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 90 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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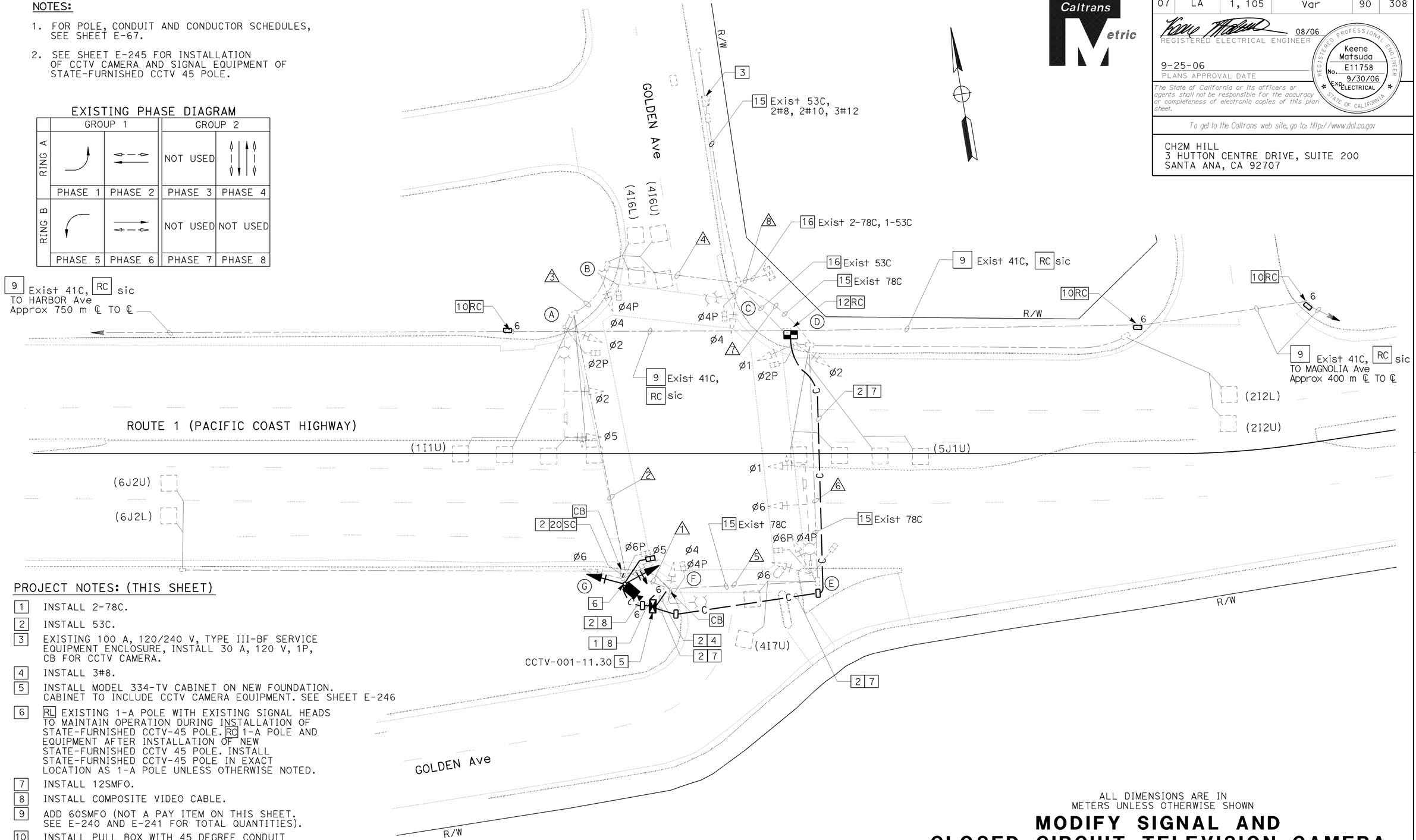
Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-67.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT OF STATE-FURNISHED CCTV 45 POLE.

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | | | NOT USED | |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | | | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |




PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 26)
## (ROUTE 1/GOLDEN AVENUE)

SCALE 1:200

E-66

| | DATE | REVISED BY |
|---|---|---|
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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 13:49

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlenard
DGN FILE => 725730ua066.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 91 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| 26 CONDUCTOR CABLE | #14 | ø1 | - | 3 | 3 | 3 | - | - | - | 3 |
| | | ø2 | 3 | - | - | - | 3 | 3 | 3 | 3 |
| | | ø3 | - | - | - | 3 | 3 | 3 | 3 | 6 |
| | | ø4 | - | - | - | - | - | 3 | 3 | 3 |
| | | ø5 | - | - | 3 | 3 | - | - | 3 | 6 |
| | | ø6 | 2 | - | - | - | 2 | 2 | 2 | 2 |
| | | ø7 | - | - | - | 2 | 2 | 2 | 2 | 4 |
| | | ø8 | - | - | 2 | 2 | - | - | 2 | 4 |
| | | ø2PPB | - | - | - | - | 1 | 1 | 1 | 1 |
| | | ø4PPB | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | | ø6PPB | - | - | - | 1 | - | - | - | 1 |
| | | PPB COMMON | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 |
| | | TOTAL | 10 | 6 | 13 | 19 | 16 | 19 | 24 | 43 |
| #10 | | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| #8 | | LUMINAIRE | - | - | 2 | 2 | - | 2 | 2 | - |
| #6 | | SIGNAL SERVICE | - | - | - | - | - | - | - | 2 |
| 12 PAIR #19 CABLE | | | - | - | - | - | - | - | - | 2 |
| 2#12 dlc (TYPE A) | | ø1 | - | - | - | - | - | - | 1 | 1 |
| | | ø2 | - | 2 | 2 | 2 | - | - | - | 2 |
| | | ø4 | - | - | - | 2 | - | 1 | 1 | 3 |
| | | ø5 | - | - | 1 | 1 | - | - | - | 1 |
| | | ø6 | - | - | - | - | - | - | 2 | 2 |
| | | TOTAL | 0 | 2 | 3 | 5 | 0 | 1 | 4 | 9 |
| | | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 78 | * |

* - 2-78C, 1-53C

## NEW POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIG MTG | PPB | | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SMA (m) | LMA (m) | MAST ARM (m) | POLE | | ø | ARROW | | |
| G | CCTV 45 | - | - | - | SV-2-TA | SP-1-T | 8 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | ARMS (m) | | LUMINAIRE | PED | PPB | | VEH SIG MTG | | PED SIG MTG | STREET NAME SIGN | PLACEMENT (m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SIGNAL (m) | LUM (m) | LPS (W) | TYPE | PHASE | QUAD | MA | POLE | | LEGEND | A | B |
| A | 26-4-113 | 9.1 | 13.7 | 3.7 | 180 | B | 4 | E | MAT, MAS | SV-1-T | SP-1-T | GOLDEN AVENUE | 3.7 | 7.6 |
| B | 1-A | 3.0 | - | - | - | B | 6 | S | - | *TV-2-T | SP-1-T | - | 7.6 | B/W |
| C | 15TS | 9.1 | - | 3.7 | 180 | B | 6 | S | - | *SV-1-T | SP-1-T | - | 3.4 | 7.6 |
| D | 1-A | 3.0 | - | - | - | B | 4 | W | - | TV-2-T | SP-1-T | - | 2.4 | 7.6 |
| E | 26-4-113 | 9.1 | 13.7 | 3.7 | 180 | B | 4/2 | W/N | MAT, MAS | SV-2-T | SP-2-T | GOLDEN AVENUE | PER | 7.6 |
| F | 15TS | 9.1 | - | 3.7 | 180 | B | 2 | N | - | *SV-2-T | SP-1-T | - | 0 | B/W |
| G | 1-A | 3.0 | - | - | - | B | 4 | E | - | TV-2-T | SP-1-T | - | 0.3 | B/W |

B/W = BACK OF WALK
* = 3-3.6 VEHICLE SEC

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 26)**

**(ROUTE 1/ GOLDEN AVENUE)**

NO SCALE

**E-67**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

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DESIGN OVERSIGHT
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TIME PLOTTED => 14:04

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 92 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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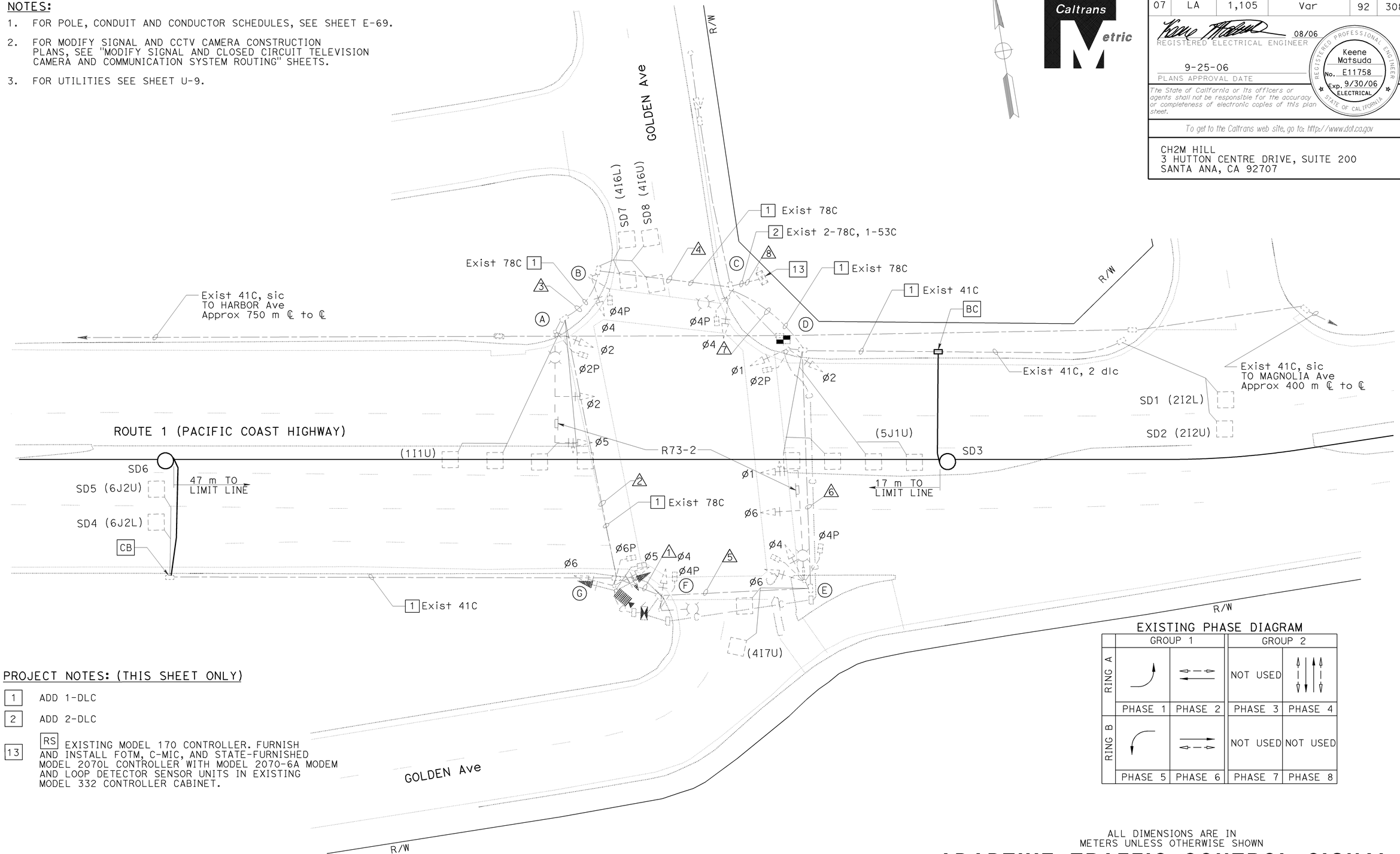
SANTA ANA, CA 92707

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-69.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-9.




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | | | NOT USED | |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | | | NOT USED | NOT USED |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 26)

## (ROUTE 1/ GOLDEN AVENUE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-68

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 07:42

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua068.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 93 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## NOTE:

FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

## PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM IN THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
4. SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-208).

## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

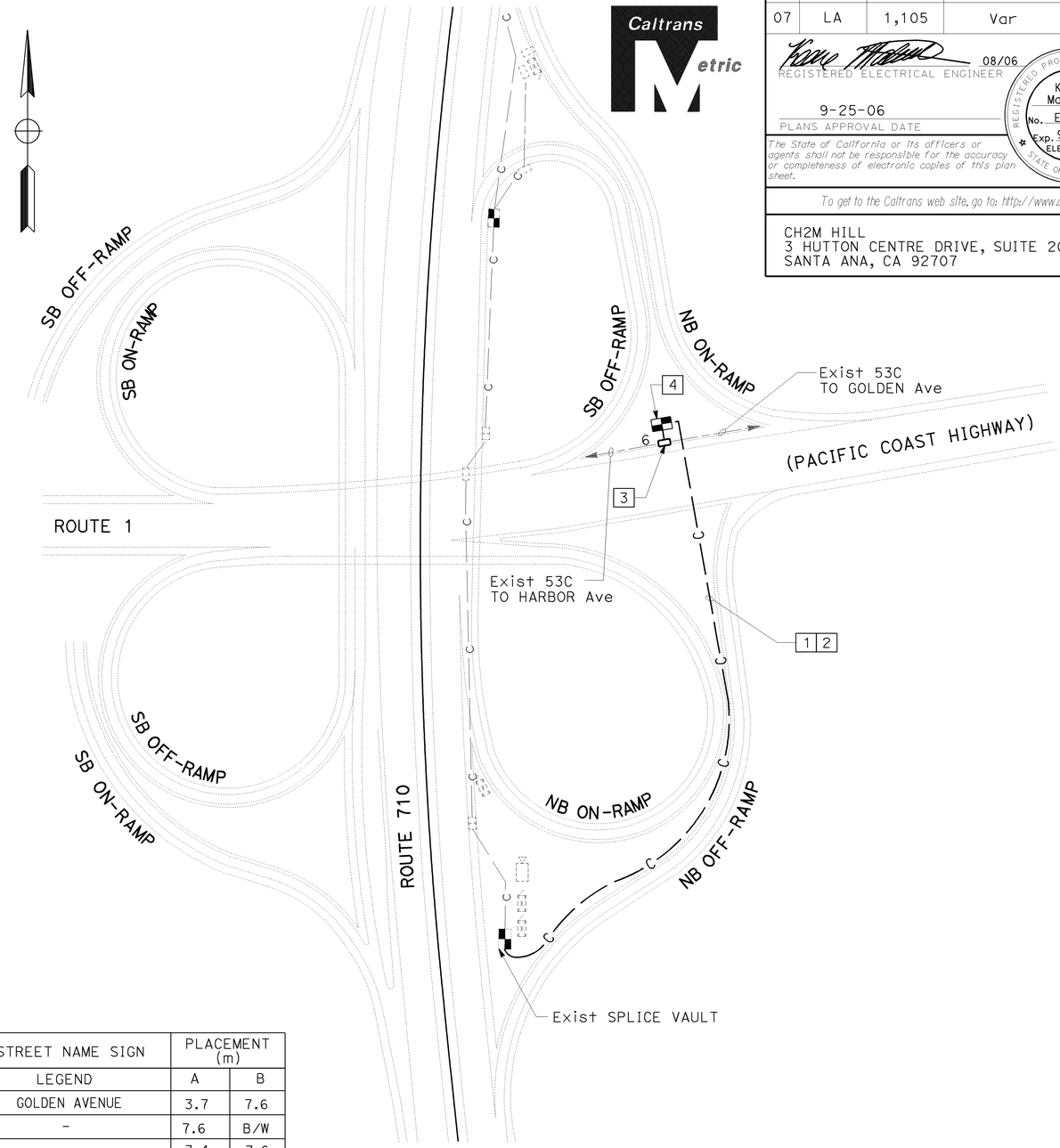
| AWG OR CABLE | | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| 26 CONDUCTOR CABLE | #14 | Ø1 | - | 3 | 3 | 3 | - | - | - | 3 |
| | | Ø2 | 3 | - | - | - | 3 | 3 | 3 | 3 |
| | | Ø3 | - | - | - | 3 | 3 | 3 | 3 | 6 |
| | | Ø4 | - | - | - | - | - | 3 | 3 | 3 |
| | | Ø5 | - | - | 3 | 3 | - | - | 3 | 6 |
| | | Ø6 | 2 | - | - | - | 2 | 2 | 2 | 2 |
| | | Ø7 | - | - | - | 2 | 2 | 2 | 2 | 4 |
| | | Ø8 | - | - | 2 | 2 | - | - | 2 | 4 |
| | | Ø2PPB | - | - | - | - | 1 | 1 | 1 | 1 |
| | | Ø4PPB | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | | Ø6PPB | - | - | - | 1 | - | - | - | 1 |
| | | PPB COMMON | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 |
| | | TOTAL | 10 | 6 | 13 | 19 | 16 | 19 | 24 | 43 |
| #10 | | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| #8 | | LUMINAIRE | - | - | 2 | 2 | - | 2 | 2 | - |
| #6 | | SIGNAL SERVICE | - | - | - | - | - | - | - | 2 |
| 12 PAIR #19 CABLE | | | - | - | - | - | - | - | - | 2 |
| 2#12 dlc (TYPE A) | | Ø1 | - | - | - | - | - | - | 1 | 1 |
| | | Ø2 | - | 2 | 2 | 2 | - | - | - | 2 |
| | | Ø4 | - | - | - | 2 | - | 1 | 1 | 3 |
| | | Ø5 | - | - | 1 | 1 | - | - | - | 1 |
| | | Ø6 | - | - | - | - | - | - | 2 | 2 |
| | | TOTAL | 0 | 2 | 3 | 5 | 0 | 1 | 4 | 9 |
| | | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 78 | * |

* - 2-78C, 1-53C

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD HEIGHT (m) | ARMS (m) SIGNAL (m) | ARMS (m) LUM (m) | LUMINAIRE LPS (W) | PED TYPE | PPB PHASE | PPB QUAD | VEH SIG MTG MA | VEH SIG MTG POLE | PED SIG MTG | STREET NAME SIGN LEGEND | PLACEMENT (m) A | PLACEMENT (m) B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26-4-113 | 9.1 | 13.7 | 3.7 | 180 | B | 4 | E | MAT, MAS | SV-1-T | SP-1-T | GOLDEN AVENUE | 3.7 | 7.6 |
| B | 1-A | 3.0 | - | - | - | B | 6 | S | - | *TV-2-T | SP-1-T | - | 7.6 | B/W |
| C | 15 | 9.1 | - | 3.7 | 180 | B | 6 | S | - | *SV-1-T | SP-1-T | - | 3.4 | 7.6 |
| D | 1-A | 3.0 | - | - | - | B | 4 | W | - | TV-2-T | SP-1-T | - | 2.4 | 7.6 |
| E | 26-4-113 | 9.1 | 13.7 | 3.7 | 180 | B | 4/2 | W/N | MAT, MAS | SV-2-T | SP-2-T | GOLDEN AVENUE | PER | 7.6 |
| F | 15 | 9.1 | - | 3.7 | 180 | B | 2 | N | - | *SV-2-T | SP-1-T | - | 0 | B/W |
| G | 1-A | 3.0 | - | - | - | B | 4 | E | - | TV-2-T | SP-1-T | - | 0.3 | B/W |

B/W = BACK OF WALK
* = 3-3.6 VEHICLE SEC




**ROUTE 1 / ROUTE 710**
1:1000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 26)
## (ROUTE 1/GOLDEN AVENUE)

SCALE AS SHOWN

**E-69**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 8/06 | MR | 8/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trrene
DGN FILE => 725730ua069.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 94 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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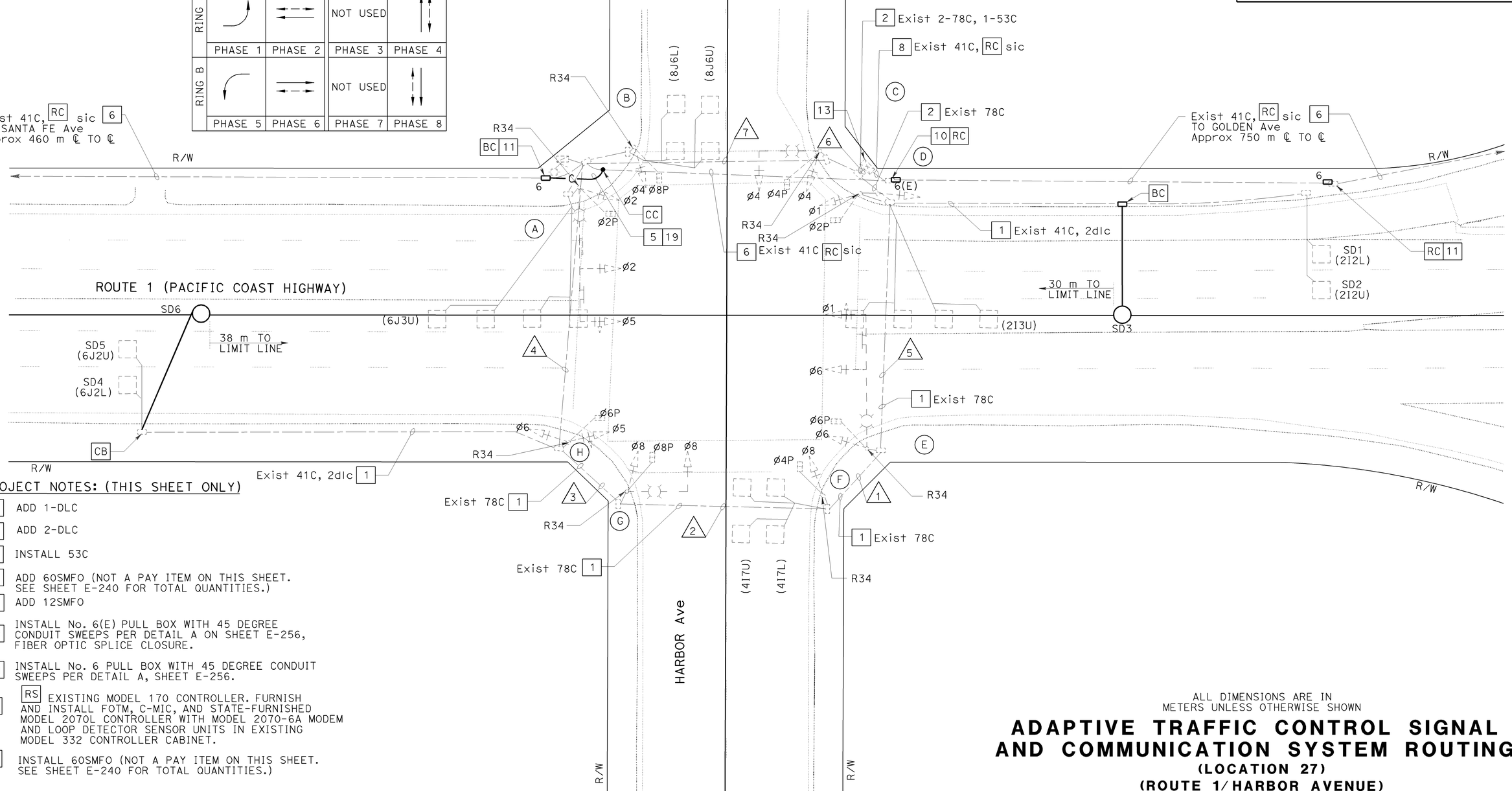
Caltrans Metric

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-71

EXISTING PHASE DIAGRAM

| | GROUP 1 | | GROUP 2 | |
|---|---|---|---|---|
| RING A | | | NOT USED | |
| | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| RING B | | | NOT USED | |
| | PHASE 5 | PHASE 6 | PHASE 7 | PHASE 8 |




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 27)

## (ROUTE 1/HARBOR AVENUE)

SCALE 1:200

E-70

| | DATE | REVISED BY |
|---|---|---|
| | 4/06 | MR |
| | 4/06 | KM |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trrene
DGN FILE => 725730ug070.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 95 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| TWD 28 #14 CONDUCTOR CABLE | ø2 | - | - | - | - | 3 | - | 3 | 3 |
| | ø4 | - | 3 | 3 | 3 | - | - | 3 | 6 |
| | ø6 | - | - | - | 3 | - | - | - | 3 |
| | ø2P | 2 | 2 | 2 | 2 | - | - | - | 2 |
| | ø4P | - | 2 | 2 | 2 | - | - | 2 | 4 |
| | ø6P | - | - | - | - | - | - | 2 | 2 |
| | ø2PPB | - | 1 | 1 | 1 | - | - | - | 1 |
| | ø4PPB | 1 | 1 | 1 | 1 | - | - | 1 | 2 |
| | ø6PPB | - | - | - | - | - | - | 1 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | - | - | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | - | 3 | 6 |
| | TOTAL | 7 | 13 | 13 | 16 | 6 | - | 16 | 32 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | - | 1 | 2 |
| #8 | LUMINAIRE | 2 | 2 | 2 | 2 | - | - | 2 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | - | 2 |
| | 12 PAIR #19 CABLE | - | - | - | - | - | - | - | 2 |
| 2#12 TYPE A dlc | ø6 | - | - | - | 2 | - | - | - | 3 |
| | ø4 | - | 2 | 2 | 2 | - | - | - | 4 |
| | ø2 | - | - | - | - | - | - | 3 | 3 |
| | TOTAL | 0 | 2 | 2 | 4 | 0 | - | 3 | 10 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | - | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | MAST ARM (m) | | LUMINAIRE | PPB | | | SIGNAL MOUNTING | | STREET NAME SIGN | PLACEMENT(m) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SIG | LUM | LPS | TYPE | ø | QUAD | VEHICLE | PED | MESSAGE | A | B |
| A | 26-4-113 | 9.1 | 12.2 | 3.7 | 180W | B | 4 | E | mas,SV-1-T | SP-1-T | HARBOR AVENUE | 2.7 | 1.5 |
| B | 1-A | 3.1 | - | - | - | B | 6 | S | TV-1-T | SP-1-T | - | 3.1 | 0.8 |
| C | 17-1-113 | 9.1 | 6.1 | 3.7 | 180W | B | 6 | S | mas,SV-1-T | SP-1-T | - | 3.1 | 0.8 |
| D | 1-A | 3.1 | - | - | - | B | 4 | W | TV-1-T | CS-1-T | - | 3.1 | 1.5 |
| E | 26-4-113 | 9.1 | 12.2 | 3.7 | 180W | B | 4 | W | mas,SV-1-T | SP-1-T | HARBOR AVENUE | 1.8 | 1.5 |
| F | 1-A | 3.1 | - | - | - | B | 2 | N | TV-1-T | SP-1-T | - | 1.8 | 1.5 |
| G | 17-1-113 | 9.1 | 6.1 | 3.7 | 180W | B | 2 | N | mas,SV-1-T | SP-1-T | - | 1.8 | 1.5 |
| H | 1-A | 3.1 | - | - | - | B | 4 | E | TV-1-T | SP-1-T | - | 1.8 | 1.5 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 27)**

**(ROUTE 1/HARBOR AVENUE)**

NO SCALE

**E-71**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |

| DATE | REVISED |
|---|---|
| 4/06 | KM |

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YEFIM ZABEZHINSKY

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 96 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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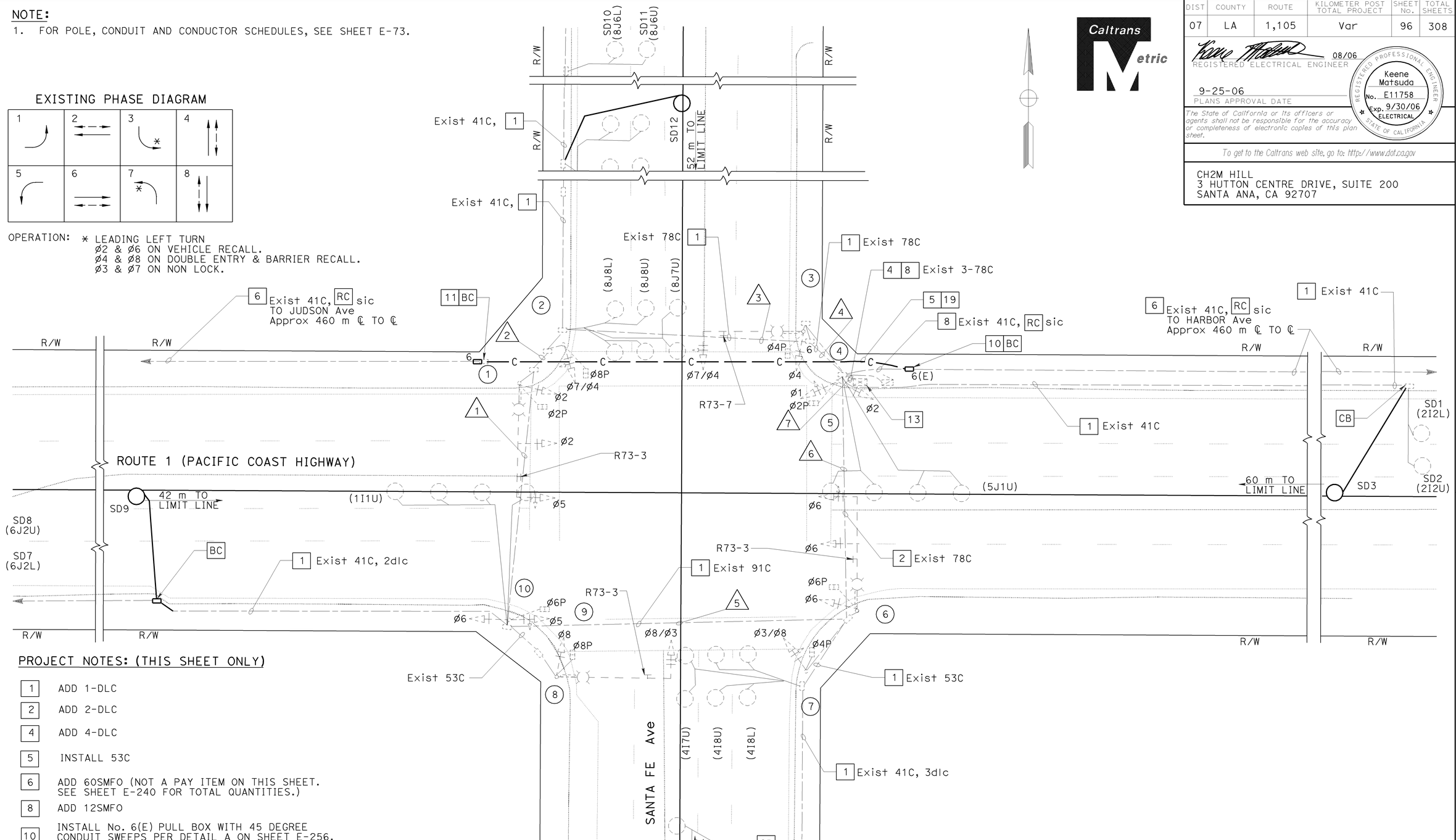
SANTA ANA, CA 92707

NOTE:
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-73.

EXISTING PHASE DIAGRAM




OPERATION: * LEADING LEFT TURN
Ø2 & Ø6 ON VEHICLE RECALL.
Ø4 & Ø8 ON DOUBLE ENTRY & BARRIER RECALL.
Ø3 & Ø7 ON NON LOCK.




THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 4 | ADD 4-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 28)

## (ROUTE 1/ SANTA FE AVENUE)

SCALE 1:200

E-72

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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TIME PLOTTED => 14:02

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trannda
DGN FILE => 725730ua072.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 97 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| | 28 CONDUCTOR CABLE | 1 | 1 | 2 | 2 | 1 | 1 | 2 |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | - | 2 | 2 |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | 2 |
| #12 | SIGN LIGHTING | 2 | 2 | 2 | 2 | - | - | 2 |
| dlc 2#16 | Ø1 DETECTOR | - | - | - | - | 1 | 1 | 1 |
| | Ø2 DETECTOR | - | - | - | - | - | - | 2 |
| | Ø3 DETECTOR | - | - | 1 | 1 | - | - | 1 |
| | Ø4 DETECTOR | - | - | - | - | - | 5 | 5 |
| | Ø5 DETECTOR | - | - | - | - | - | - | 1 |
| | Ø6 DETECTOR | 2 | 2 | 2 | 2 | - | - | 2 |
| | Ø7 DETECTOR | - | - | - | - | - | 1 | 1 |
| | Ø8 DETECTOR | - | - | 5 | 5 | - | - | 5 |
| | TOTAL | 2 | 2 | 8 | 8 | 1 | 7 | 18 |
| | INTERCONNECT | - | - | - | - | - | - | 2 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 91 | 78 | 3-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | STANDARD TYPE | SIGNAL MA LENGTH (m) | MA VEH HEAD MOUNTING | LUMINAIRE MA LENGTH(m) | LUMINAIRE HPS WATTS | PPB NO. | PPB Ø | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | POST LOCATION (m) A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26-4-113 | 12.2 | mas,SV-1-T | 3.7 | 250 | 1 | 8 | DFR | SANTA FE AVENUE | - | - | 0.6 | - | - |
| 2 | 1-A | - | TV-1-T | 3.7 | | 1 | 2 | - | - | 0.2 | - | - | - | - |
| 3 | 26-4-129 | 12.2 | mas,SV-1-T | 3.7 | 250 | - | - | II | PACIFIC COAST HIGHWAY | - | - | - | 1.1 | 1.8 |
| 4 | PPB-POST | - | - | - | - | 1 | 2 | - | - | - | - | 1.8 | - | - |
| 5 | 1-A | - | TV-2-T | - | - | 1 | 4 | - | - | 0.2 | - | - | - | - |
| 6 | 26-4-113 | 12.2 | mas,SV-1-T | 3.7 | 250 | 1 | 4 | DFR | SANTA FE AVENUE | - | - | 2.1 | - | - |
| 7 | 1-A | - | TV-1-T | - | - | 1 | 6 | - | - | 1.8 | - | - | - | - |
| 8 | 26-4-129 | 12.2 | mas,SV-1-T | 3.7 | 250 | - | - | II | PACIFIC COAST HIGHWAY | - | - | 0.6 | - | 1.3 |
| 9 | PPB-POST | - | - | - | - | 1 | 6 | - | - | - | - | 2.1 | - | - |
| 10 | 1-A | - | TV-2-T | - | - | 1 | 8 | - | - | 3.7 | - | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 28)**

**(ROUTE 1/SANTA FE AVENUE)**

NO SCALE

**E-73**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | BY | REVISED | DATE REVISED |
|---|---|---|---|
| 4/06 | MR | KM | 4/06 |

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TIME PLOTTED => 14:02

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 98 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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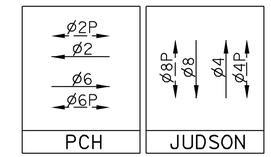
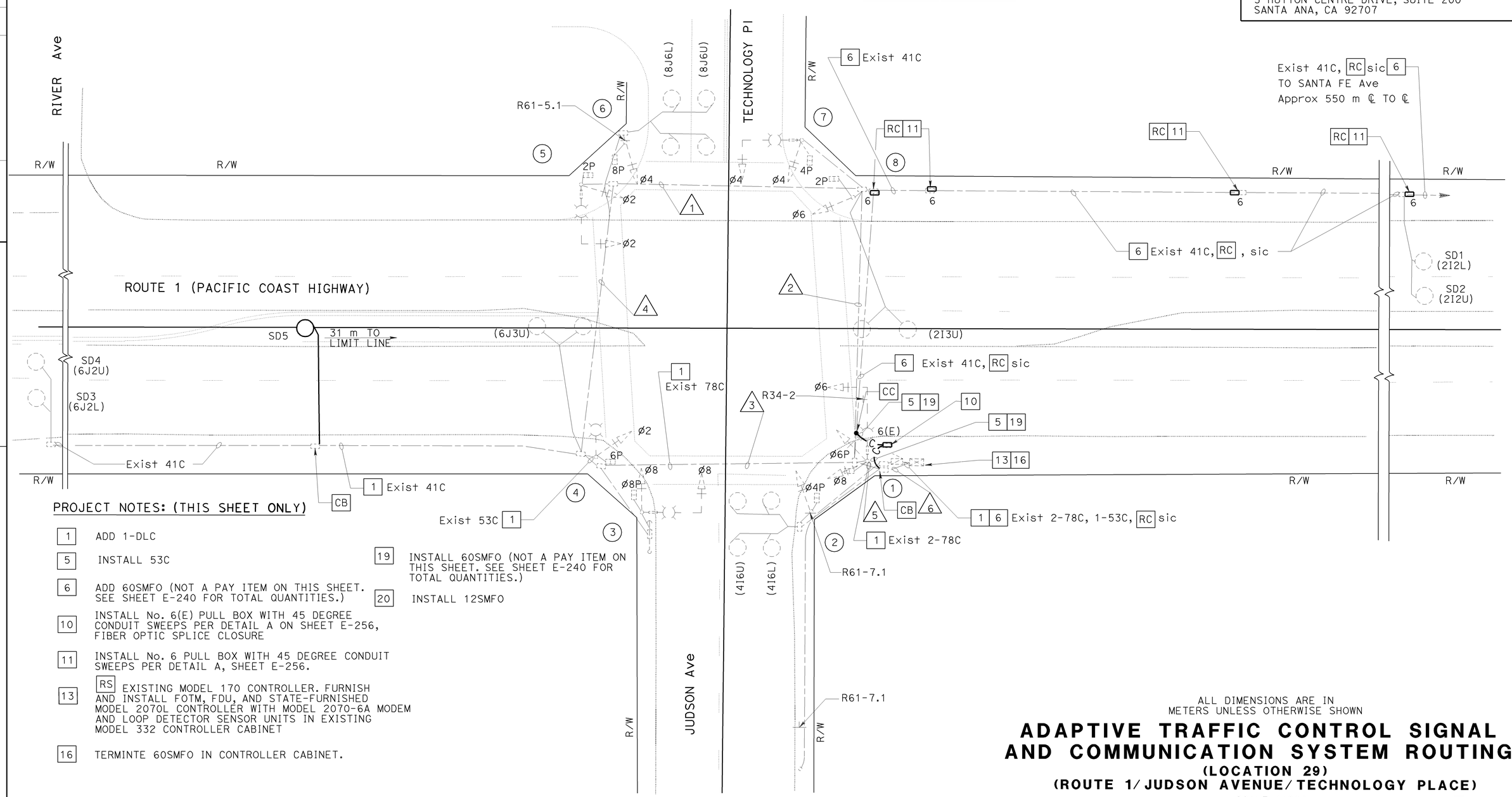
SANTA ANA, CA 92707

Caltrans Metric

NOTES:
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES. SEE SHEET E-75.
2. NUMBER OF ADDITIONAL sic PULL BOXES NOT SHOWN ON PLANS IN BETWEEN INTERSECTIONS TO BE REPLACED WITH No. 6 PULL BOX AND 45 DEGREE CONDUIT SWEEPS PER DETAIL A SHEET E-256.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, FDU, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET

16 TERMINTE 60SMFO IN CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

20 INSTALL 12SMFO

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 29)

## (ROUTE 1/ JUDSON AVENUE/ TECHNOLOGY PLACE)

SCALE 1:200

E-74

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 725730ua074.dgn

CU 07382 EA 257301

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|---|---|---|---|---|---|
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Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 |
| | 28 CONDUCTOR CABLE WIRING PER CALTRANS STANDARDS | 2 | 2 | 2 | 2 | 4 | 4 |
| #8 | LUMINAIRE | 2 | 2 | 2 | - | 2 | 2 |
| LOOP LEAD-IN DUAL CONDUCTOR CABLE | ø2 DETECTOR | - | 3 | - | - | 3 | 3 |
| | ø4 DETECTOR | - | - | - | - | - | 2 |
| | ø6 DETECTOR | - | - | 3 | - | 3 | 3 |
| | ø8 DETECTOR | 2 | 2 | - | - | 2 | 2 |
| #6 | SERVICE | - | - | - | - | 3 | 3 |
| #12 | PHOTO CELL | - | - | - | - | - | - |
| | 12 PR #19 sic | - | - | - | - | 1 | 1 |
| | CONDUIT SIZE (mm) | 53 | 78 | 78 | 78 | 2-78 | 1-53<br>2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE | STREET NAME SIGN | SIGNAL MOUNTING | | | PPB | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | VEHICLE | | PED | ø | ARROW |
| No. | TYPE | HEIGHT(m) | SMA(m) | LMA(m) | LPS | LEGEND | POLE | MAST ARM | | | |
| 1 | 24-4-113 | 9.1 | 7.6 | 3.6 | 200 W | JUDSON AVENUE | SV-1-T | mas | SP-1-CS | 4 | ← |
| 2 | 1-A | 3.0 | - | - | - | - | TV-1-T | - | SP-1-CS | 6 | → |
| 3 | 17-2-113 | 9.1 | 6.1 | 3.6 | 200 W | PACIFIC COAST HIGHWAY | SV-1-T | mas | SP-1-CS | 6 | ← |
| 4 | 15 | 9.1 | - | 3.6 | 200 W | - | TV-1-T | - | SP-1-CS | 8 | → |
| 5 | 24-4-113 | 9.1 | 7.6 | 3.6 | 200 W | TECHNOLOGY PLACE | SV-1-T | mas | SP-1-CS | 8 | ← |
| 6 | 1-A | 3.0 | - | - | - | - | TV-1-T | - | SP-1-CS | 2 | → |
| 7 | 17-2-113 | 9.1 | 6.1 | 3.6 | 200 W | PACIFIC COAST HIGHWAY | SV-1-T | mas | SP-1-CS | 2 | ← |
| 8 | 1-A | 3.0 | - | - | - | - | TV-1-T | - | SP-1-CS | 4 | → |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 29)**

**(ROUTE 1/ JUDSON AVENUE/ TECHNOLOGY PLACE)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-75**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

CALCULATED/ DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 07:46

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua075.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 100 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

8 ADD 12SMFO

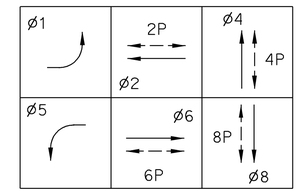
10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

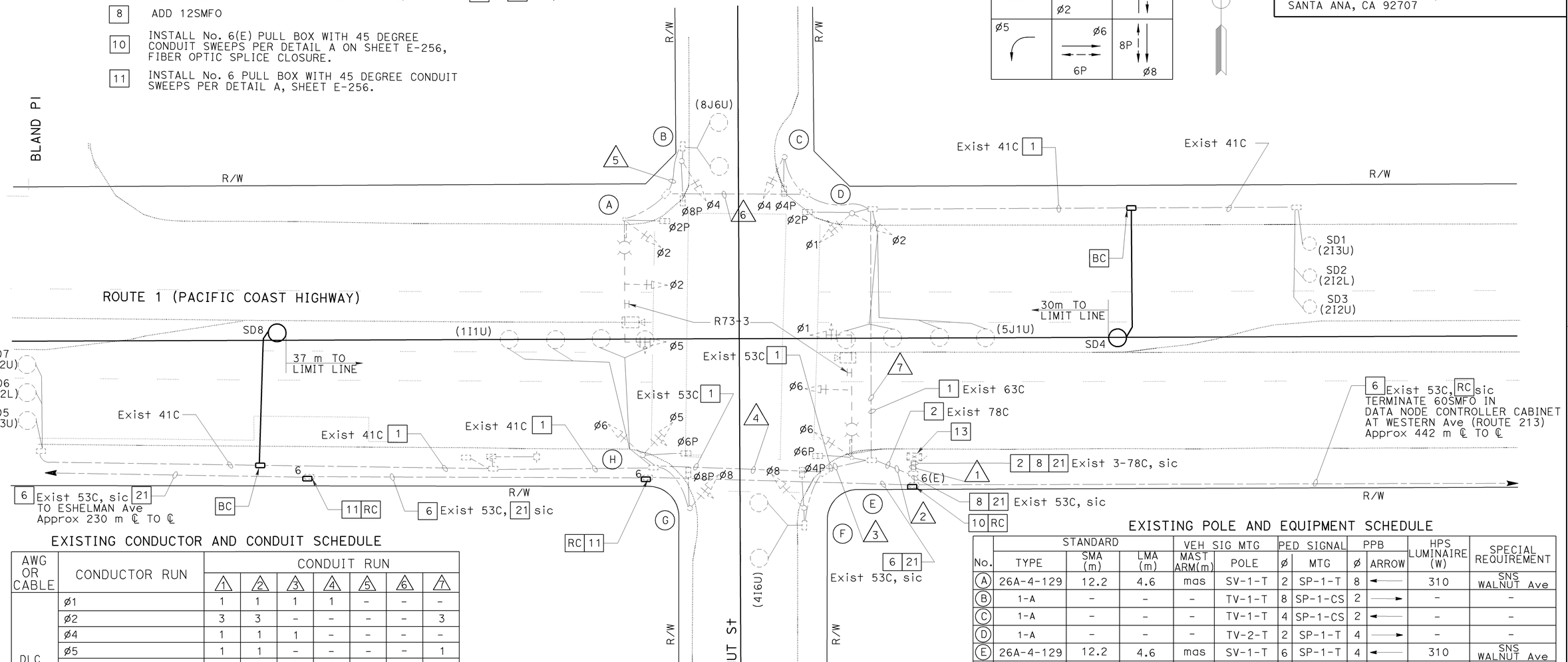
11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOAM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

21 RC sic, ADD SIC 12 PR #19

EXISTING PHASE DIAGRAM




EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| DLC | Ø1 | 1 | 1 | 1 | 1 | - | - | - |
| | Ø2 | 3 | 3 | - | - | - | - | 3 |
| | Ø4 | 1 | 1 | 1 | - | - | - | - |
| | Ø5 | 1 | 1 | - | - | - | - | 1 |
| | Ø6 | 3 | 3 | 3 | 3 | - | - | - |
| | Ø8 | 1 | 1 | - | - | 1 | 1 | 1 |
| | TOTAL DLC | 10 | 10 | 5 | 4 | 1 | 1 | 5 |
| #6 | SIGNAL SERVICE | 2 | 2 | 2 | 2 | - | - | - |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 12 CONDUCTOR CABLE | | 8 | 8 | 3 | 2 | 1 | 2 | 4 |
| 12 PR #19 INTERCONNECT CABLE | | 1 | - | - | - | - | - | - |
| 3-CONDUCTOR CABLE | | 8 | 8 | 3 | 2 | 1 | 2 | 4 |
| VIDEO IMAGING DETECTION | | 2 | 2 | 1 | 1 | - | 1 | 1 |
| CONDUIT SIZE (mm) | | 3-78C | 78C | 53C | 53C | 53C | 53C | 63C |

EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | VEH SIG MTG MAST ARM(m) | VEH SIG MTG POLE | PED SIGNAL Ø | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26A-4-129 | 12.2 | 4.6 | mas | SV-1-T | 2 | SP-1-T | 8 | ← | 310 | SNS WALNUT Ave |
| B | 1-A | - | - | - | TV-1-T | 8 | SP-1-CS | 2 | → | - | - |
| C | 1-A | - | - | - | TV-1-T | 4 | SP-1-CS | 2 | ← | - | - |
| D | 1-A | - | - | - | TV-2-T | 2 | SP-1-T | 4 | → | - | - |
| E | 26A-4-129 | 12.2 | 4.6 | mas | SV-1-T | 6 | SP-1-T | 4 | ← | 310 | SNS WALNUT Ave |
| F | 1-A | - | - | - | TV-1-T | 4 | SP-1-CS | 6 | → | - | - |
| G | 1-A | - | - | - | TV-1-T | 8 | SP-1-CS | 6 | ← | - | - |
| H | 1-A | - | - | - | TV-2-T | 6 | SP-1-T | 8 | → | - | - |

SNS = STREET NAME SIGN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 30)

## (ROUTE 1/ WALNUT STREET)

SCALE 1:200

E-76

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans

LAST REVISION 00-00-00 DATE PLOTTED => 27-SEP-2006 TIME PLOTTED => 14:02

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trannda
DGN FILE => 725730ua076.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 101 | 308 |

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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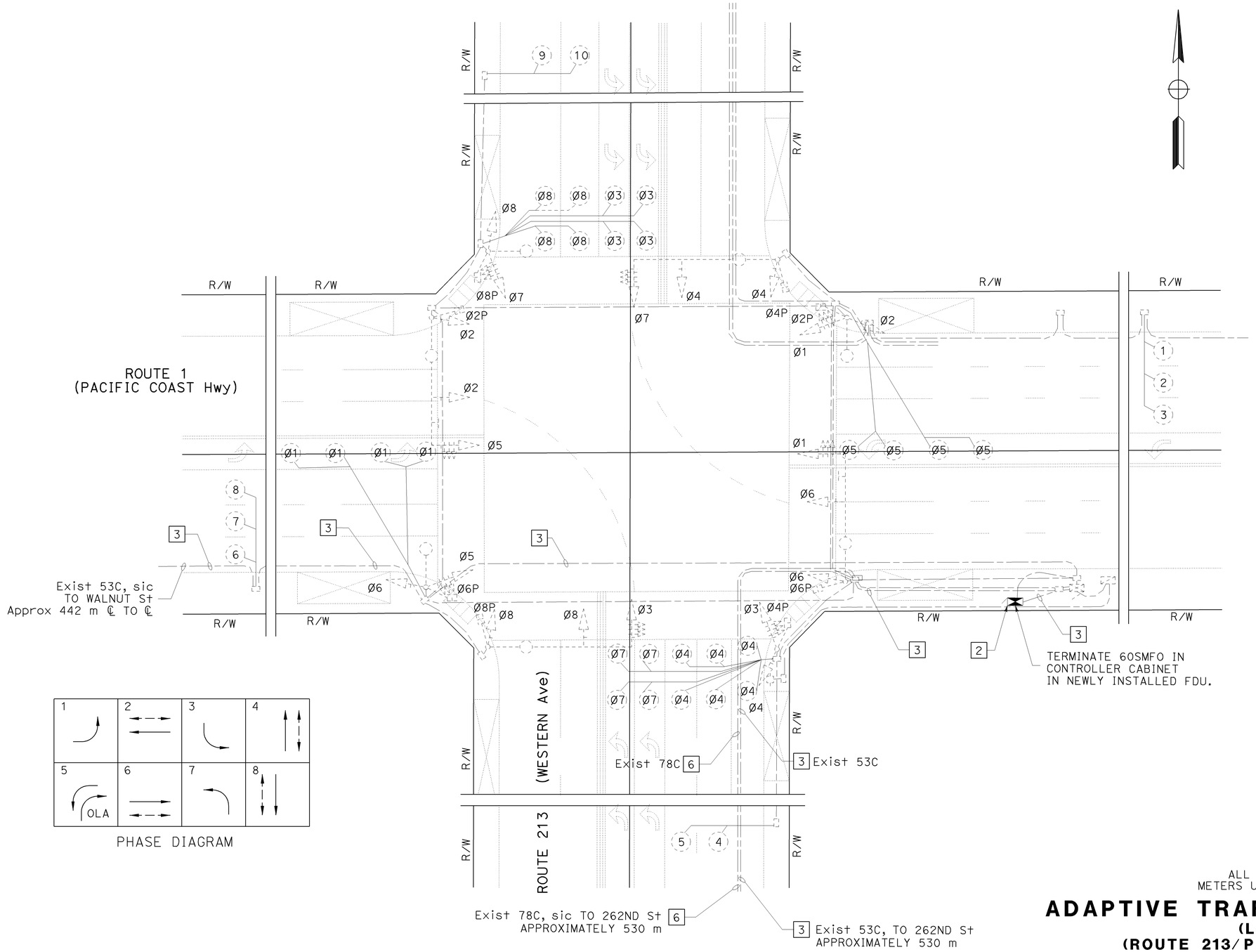
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606


Caltrans Metric

## PROJECT NOTES: (THIS SHEET)

2 INSTALL FDU

3 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITY).







PHASE DIAGRAM

NOTE:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 30)

## (ROUTE 213/PACIFIC COAST HIGHWAY)

SCALE 1:200

E-77

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 8/06 | MH | 8/06 | GW |

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

USERNAME => trannda
DGN FILE => 725730ua077.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:02

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 102 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

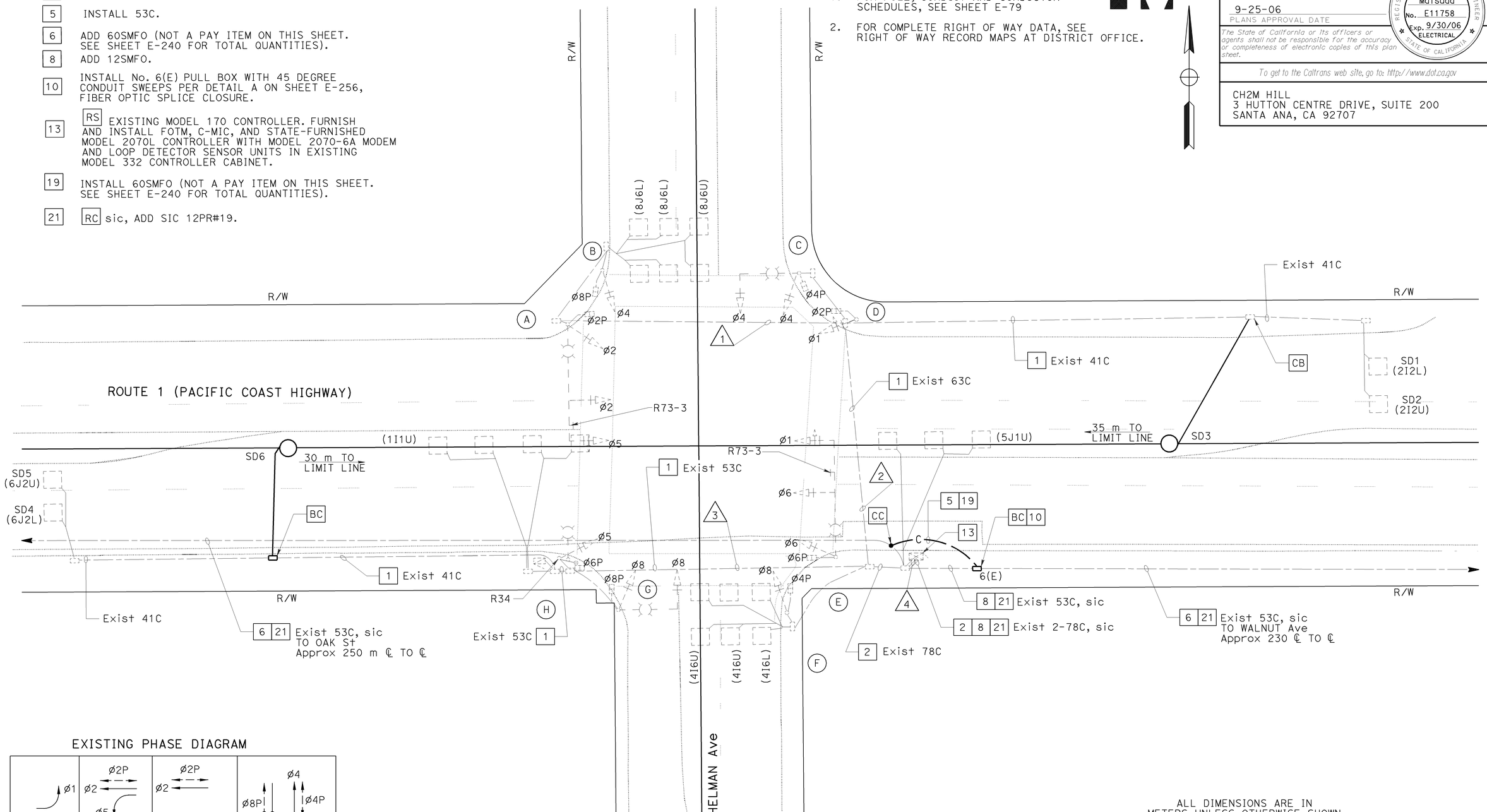
Caltrans Metric

## PROJECT NOTES: (THIS SHEET ONLY)

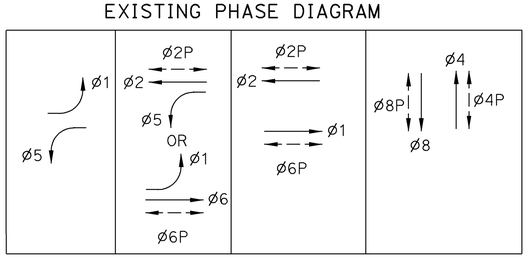
1. ADD 1-DLC.
2. ADD 2-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
8. ADD 12SMFO.
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
21. RC sic, ADD SIC 12PR#19.

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-79
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




## EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 31)

## (ROUTE 1/ESHELMAN AVENUE)

SCALE 1:200

**E-78**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 07:49

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua078.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 103 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| | Ø1 | - | 3 | - | 3 |
| | Ø2 | 3 | 3 | - | 3 |
| | Ø4 | 3 | 3 | - | 3 |
| | Ø5 | 3 | 3 | 3 | 6 |
| | Ø6 | - | - | - | 3 |
| | Ø8 | - | - | 3 | 3 |
| | Ø2 PED | 2 | 2 | - | 2 |
| | Ø4 PED | - | 2 | - | 2 |
| | Ø6 PED | - | - | 2 | 2 |
| | Ø8 PED | 2 | 2 | 2 | 4 |
| | Ø2 PPB | 1 | 1 | - | 1 |
| | Ø4 PPB | - | 1 | - | 1 |
| | Ø6 PPB | - | - | 1 | 2 |
| | Ø8 PPB | - | - | - | - |
| | PPB COMMON | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 6 |
| | TOTAL | 19 | 25 | 16 | 44 |
| | Ø1 DETECTOR | - | - | 1 | 1 |
| | Ø2 DETECTOR | - | 2 | - | 2 |
| | Ø4 DETECTOR | - | - | - | 2 |
| | Ø5 DETECTOR | - | - | - | 1 |
| | Ø6 DETECTOR | - | - | 2 | 2 |
| | Ø8 DETECTOR | 2 | 2 | - | 2 |
| | TOTAL | 2 | 4 | 3 | 10 |
| | LUMINAIRE | 2 | 2 | 2 | - |
| | SIGNAL COMMON | 1 | 1 | 1 | 2 |
| | TOTAL | 3 | 3 | 3 | 2 |
| CONDUIT SIZE (mm) | | 53 | 63 | 53 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE | IISNS LEGEND | SIGNAL MOUNTING | | | | PPB | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | VEHICLE | | | PED | | | |
| No. | TYPE | HEIGHT(m) | SMA(m) | LMA(m) | HPS (W) | | | | | | Ø | ARROW | |
| A | - | 9.1 | 12.2 | 3.7 | 200 | - | mas | mas | SV-1-T | SP-1-CS | 8 | ← | - |
| B | 1-A | 3.1 | - | - | - | - | - | - | TV-1-T | SP-1-CS | 2 | → | - |
| C | - | 9.1 | 7.6 | 3.7 | 200 | - | - | mas | SV-1-T | SP-1-CS | 2 | ← | - |
| D | 15 | 9.1 | - | - | - | - | - | - | TV-1-T | SP-1-CS | 4 | → | - |
| E | - | 9.1 | 12.2 | 3.7 | 200 | - | mas | mas | SV-1-T | SP-1-CS | 4 | ← | - |
| F | 1-A | 3.1 | - | - | - | - | - | - | TV-1-T | SP-1-CS | 6 | → | - |
| G | - | 9.1 | 9.1 | 3.7 | 200 | - | - | mas | SV-1-T | SP-1-CS | 6 | ← | - |
| H | 1-A | 3.1 | - | - | - | - | - | - | TV-1-T | SP-1-CS | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 31)**

**(ROUTE 1/ESHELMAN AVENUE)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-79**

| | | | |
|---|---|---|---|
| CALCULATED/DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:02

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 104 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

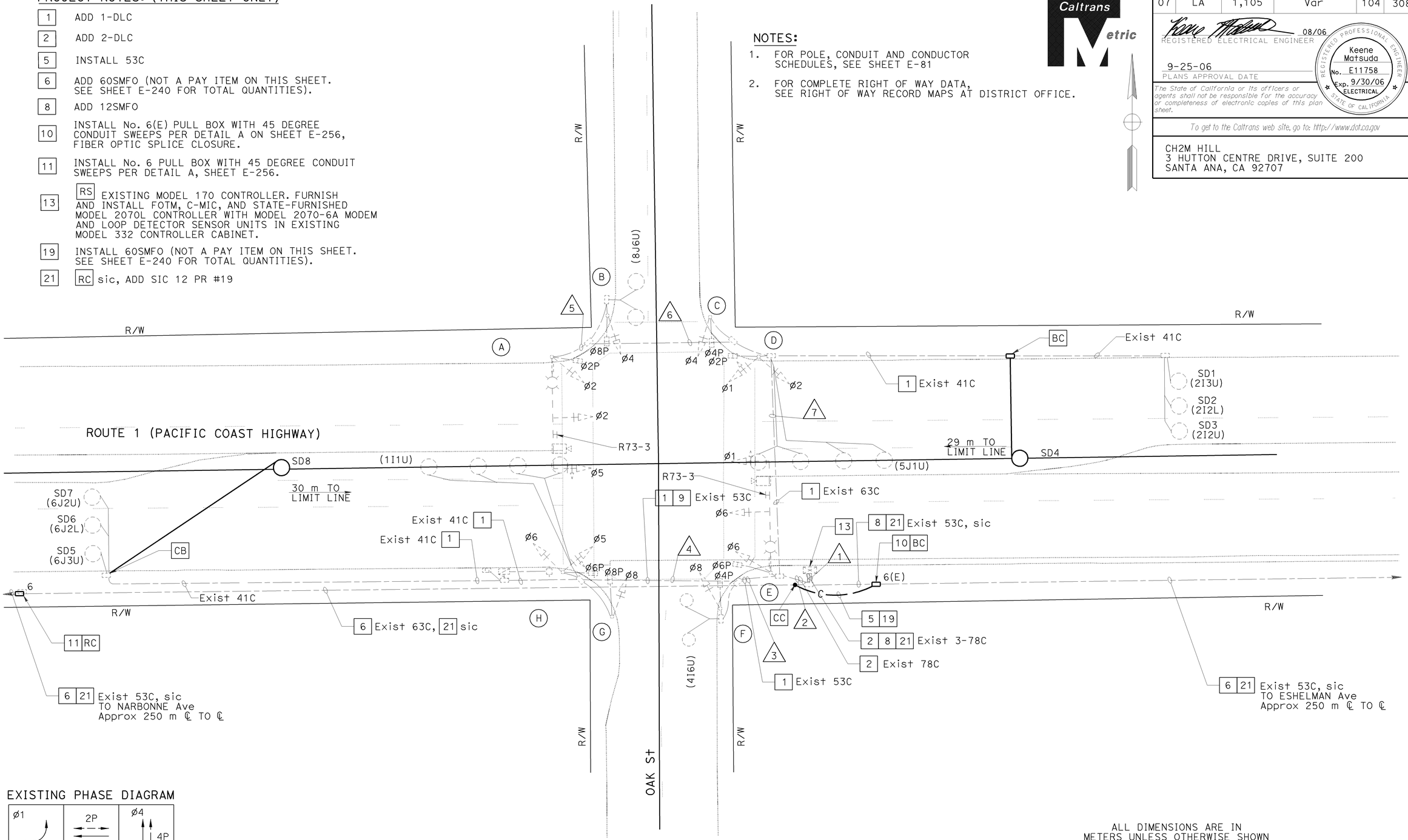

Caltrans Metric

## PROJECT NOTES: (THIS SHEET ONLY)

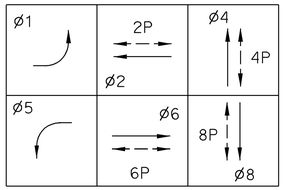
1. ADD 1-DLC
2. ADD 2-DLC
5. INSTALL 53C
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
8. ADD 12SMFO
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
21. RC sic, ADD SIC 12 PR #19

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-81
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




## EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 32)

## (ROUTE 1/OAK STREET)

SCALE 1:200

**E-80**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:02

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trannda
DGN FILE => 725730ua080.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 105 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL ø | PED SIGNAL MTG | PPB ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26A-4-129 | 12.2 | 4.6 | mas | SV-1-T | 2 | SP-1-T | 8 | ← | 310 | SNS OAK STREET |
| B | 1-A | - | - | - | TV-1-T | 8 | SP-1-CS | 2 | → | - | - |
| C | 1-A | - | - | - | TV-1-T | 4 | SP-1-CS | 2 | ← | - | - |
| D | 1-A | - | - | - | TV-2-T | 2 | SP-1-T | 4 | → | - | - |
| E | 26A-4-129 | 12.2 | 4.6 | mas | SV-1-T | 6 | SP-1-T | 4 | ← | 310 | SNS OAK STREET |
| F | 1-A | - | - | - | TV-1-T | 4 | SP-1-CS | 6 | → | - | - |
| G | 1-A | - | - | - | TV-1-T | 8 | SP-1-CS | 6 | ← | - | - |
| H | 1-A | - | - | - | TV-2-T | 6 | SP-1-T | 8 | → | - | - |

SNS = STREET NAME SIGN

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| DLC | ø1 | 1 | 1 | 1 | 1 | - | - | - |
| | ø2 | 3 | 3 | - | - | - | - | 3 |
| | ø4 | 1 | 1 | 1 | - | - | - | - |
| | ø5 | 1 | 1 | - | - | - | - | 1 |
| | ø6 | 3 | 3 | 3 | 3 | - | - | - |
| | ø8 | 1 | 1 | - | - | 1 | 1 | 1 |
| | TOTAL DLC | 10 | 10 | 5 | 4 | 1 | 1 | 5 |
| #6 | SIGNAL SERVICE | 2 | 2 | 2 | 2 | - | - | - |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 12 CONDUCTOR CABLE | | 8 | 8 | 3 | 2 | 1 | 2 | 4 |
| 12 PR #19 INTERCONNECT CABLE | | 1 | - | - | - | - | - | - |
| 3-CONDUCTOR CABLE | | 8 | 8 | 3 | 2 | 1 | 2 | 4 |
| VIDEO IMAGING DETECTION | | 2 | 2 | 1 | 1 | - | 1 | 1 |
| CONDUIT SIZE (mm) | | 3-78C | 78C | 53C | 53C | 53C | 53C | 63C |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 32)**
**(ROUTE 1/OAK STREET)**

**E-81**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:02

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 106 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

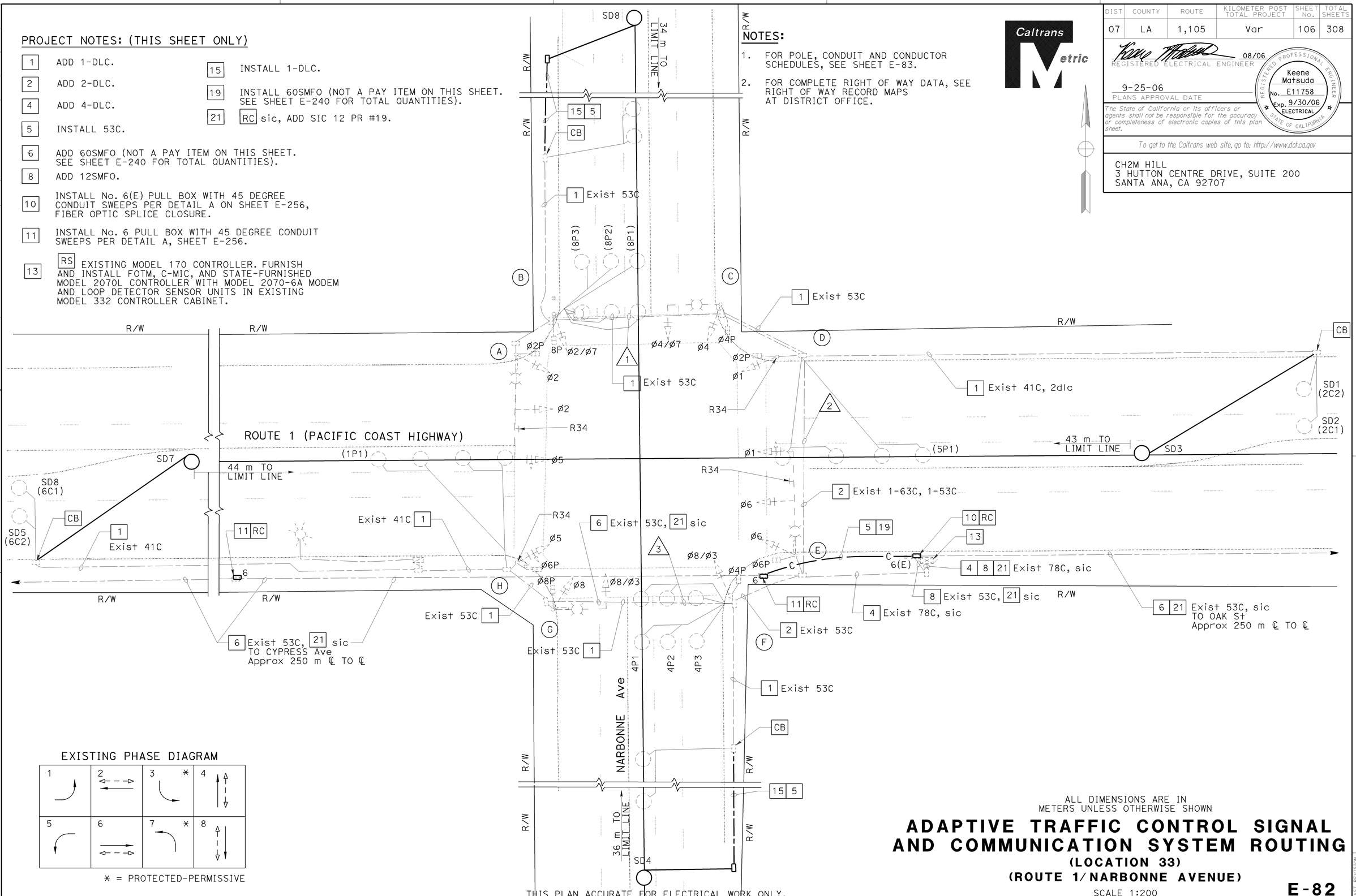
Caltrans Metric

## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC.
2. ADD 2-DLC.
4. ADD 4-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
8. ADD 12SMFO.
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
15. INSTALL 1-DLC.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
21. RC sic, ADD SIC 12 PR #19.

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-83.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

### EXISTING PHASE DIAGRAM




* = PROTECTED-PERMISSIVE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 33)

## (ROUTE 1/NARBONNE AVENUE)

SCALE 1:200

**E-82**

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY |
|---|---|---|
| REVISED BY | | |
| DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:58

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua082.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 107 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | PLACEMENT DIMENSIONS A (m) | PLACEMENT DIMENSIONS B (m) | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL Ø | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26-4-113 | 12.2 | 3.7 | - | - | mas | SV-1-T | 2 | SP-1-CS | 8 | ← | 200 | INTEGRAL BALLAST TYPE IV PEC | II | NARBONNE AVENUE |
| B | 15 | - | 2.4 | 1.2 | 0.8 | - | SV-1-T | 8 | SP-1-CS | 2 | → | 200 | - | - | - |
| C | 24-4-113 | 7.6 | 2.4 | 1.5 | 0.8 | mas | SV-1-T | 4 | SP-1-CS | 2 | ← | 200 | INTEGRAL BALLAST TYPE IV PEC | II | PACIFIC COAST HIGHWAY |
| D | 1-A | - | - | - | - | - | TV-1-T | 2 | SP-1-CS | 4 | → | - | - | - | - |
| E | 26-4-113 | 12.2 | 4.6 | - | - | mas | SV-1-T | 6 | SP-1-CS | 4 | ← | 200 | INTEGRAL BALLAST TYPE IV PEC | II | NARBONNE AVENUE |
| F | 1-A | - | - | - | - | - | TV-1-T | 4 | SP-1-CS | 6 | → | - | - | - | - |
| G | 24-4-113 | 7.6 | 4.6 | 0.6 | 0.8 | mas | SV-1-T | 8 | SP-1-CS | 6 | ← | 200 | INTEGRAL BALLAST TYPE IV PEC | II | PACIFIC COAST HIGHWAY |
| H | 1-A | - | - | - | - | - | TV-1-T | 6 | SP-1-CS | 8 | → | - | - | - | - |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | CONDUIT RUN 2 | CONDUIT RUN 3 |
|---|---|---|---|---|
| #14 | Ø5 | 3 | 3 | 3 |
| | Ø4 | - | - | - |
| | Ø8 | 3 | 3 | 3 |
| | Ø2 | 3 | 3 | - |
| | Ø1 | - | 3 | - |
| | Ø6P | - | - | - |
| | Ø8P | - | - | 2 |
| | Ø2P | 2 | - | 2 |
| | Ø4P | - | 2 | - |
| | Ø6PPB | - | - | 1 |
| | Ø8PPB | 1 | 1 | 1 |
| | Ø2PPB | - | - | 1 |
| | Ø4PPB | - | 1 | - |
| | PPB COMMON | 1 | 1 | 1 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 22 | 28 | 19 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | TOTAL | 1 | 1 | 1 |
| #8 | LUMINAIRE | 2 | 2 | 2 |
| | SIGNAL SERVICE | - | - | 2 |
| | TOTAL | 2 | 2 | 4 |
| DLC | Ø6C DETECTOR | - | - | 2 |
| | Ø8P DETECTOR | 3 | 3 | - |
| | Ø2C DETECTOR | - | 2 | - |
| | Ø4P DETECTOR | - | - | - |
| | Ø1P DETECTOR | - | - | 1 |
| | Ø5P DETECTOR | - | 1 | - |
| | TOTAL | 3 | 6 | 3 |
| #12 | ILLUMINATED SIGNS | - | 2 | 2 |
| CONDUIT SIZE (mm) | | 53 | 63<br>53 | 53 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 33)**

**(ROUTE 1/NARBONNE AVENUE)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-83**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | MR | DATE 4/06 REVISED BY |
| CALCULATED/DESIGNED BY | KM | | 4/06 DATE REVISED |
| CHECKED BY | | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00 DATE PLOTTED => 27-SEP-2006 TIME PLOTTED => 14:15

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua083.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 108 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## PROJECT NOTES: (THIS SHEET ONLY)

5 INSTALL 53C.

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

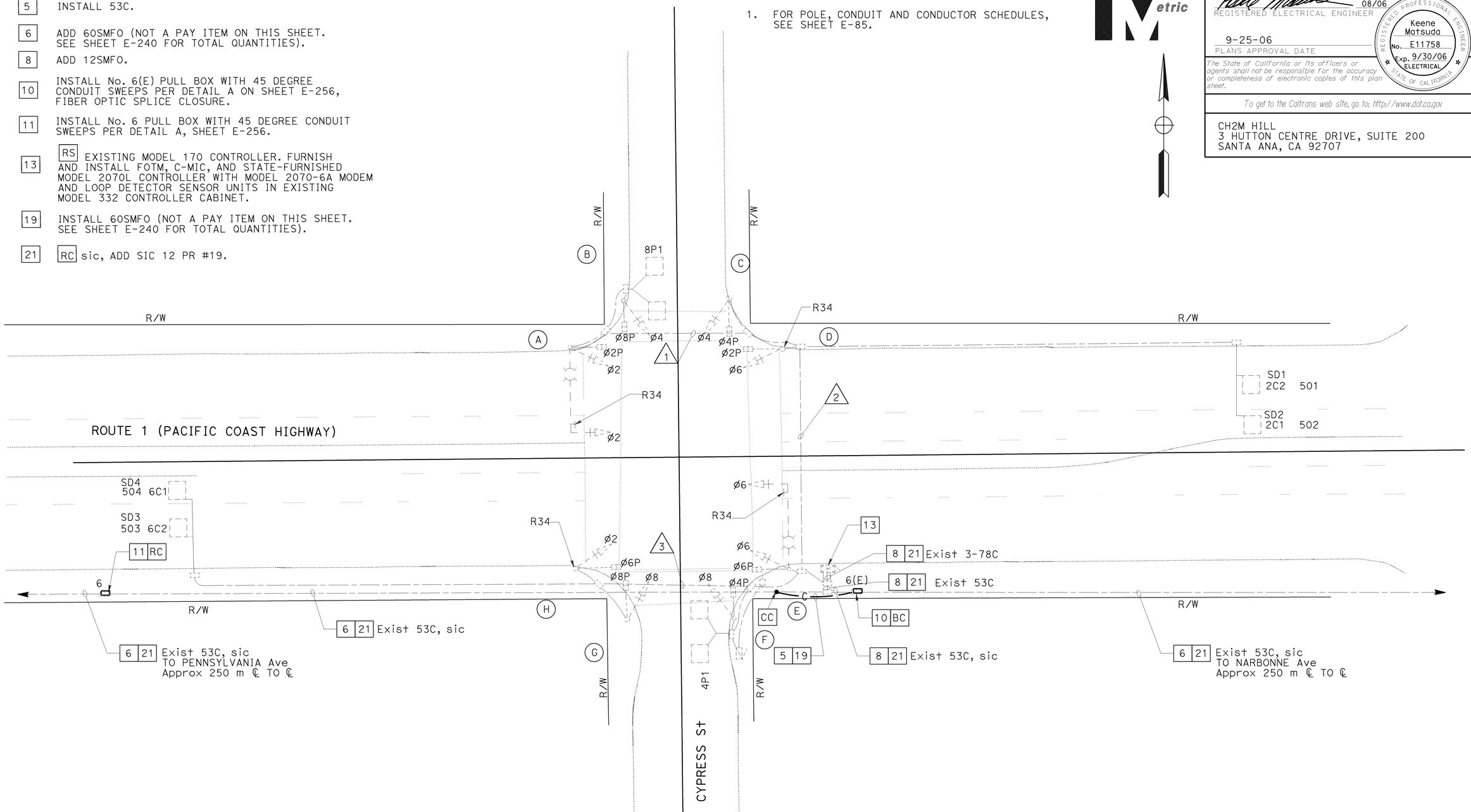
13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

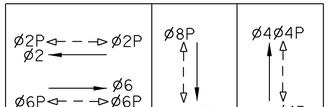
21 RC sic, ADD SIC 12 PR #19.

## NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-85.




EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 34)

## (ROUTE 1/CYPRESS STREET)

SCALE 1:200

**E-84**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua084.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:59

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 109 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | CONDUIT RUN 2 | CONDUIT RUN 3 |
|---|---|---|---|---|
| #14 | Ø6 | - | 3 | - |
| | Ø8 | - | - | 3 |
| | Ø2 | 3 | 3 | 3 |
| | Ø4 | 3 | 3 | - |
| | Ø6P | - | - | 2 |
| | Ø8P | 2 | 2 | 2 |
| | Ø2P | 2 | 2 | - |
| | Ø4P | - | 2 | - |
| | Ø6PPB | - | - | 1 |
| | Ø8PPB | 1 | 1 | 1 |
| | Ø2PPB | 1 | 1 | - |
| | Ø4PPB | - | 1 | - |
| | PPB COMMON | 1 | 1 | 1 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 16 | 22 | 16 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | TOTAL | 1 | 1 | 1 |
| #8 | LUMINAIRE | 2 | 2 | 2 |
| | SIGNAL SERVICE | - | - | - |
| | TOTAL | 2 | 2 | 2 |
| DLC | Ø6C DETECTOR | - | - | 2 |
| | Ø8P DETECTOR | 1 | 1 | - |
| | Ø2C DETECTOR | - | 2 | - |
| | Ø4P DETECTOR | - | - | - |
| | TOTAL | 1 | 3 | 2 |
| CONDUIT SIZE (mm) | | 53 | 63 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | PLACEMENT DIMENSIONS A | PLACEMENT DIMENSIONS B | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL Ø | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 19-3-113 | 9.1 | 3.7 | - | - | mas | SV-1-T | 2 | SP-1-CS | 8 | ← | 200 | INTEGRAL BALLAST TYPE IV PEC |
| B | 1-A | - | - | - | - | - | TV-1-T | 8 | SP-1-CS | 2 | → | - | - |
| C | 1-A | - | - | - | - | - | TV-1-T | 4 | SP-1-CS | 2 | ← | - | - |
| D | 1-A | - | - | - | - | - | TV-1-T | 2 | SP-1-CS | 4 | → | - | - |
| E | 19-3-113 | 9.1 | 3.7 | - | - | mas | SV-1-T | 6 | SP-1-CS | 4 | ← | 200 | INTEGRAL BALLAST TYPE IV PEC |
| F | 1-A | - | - | - | - | - | TV-1-T | 4 | SP-1-CS | 6 | → | - | - |
| G | 1-A | - | - | - | - | - | TV-1-T | 8 | SP-1-CS | 6 | ← | - | - |
| H | 1-A | - | - | - | - | - | TV-1-T | 6 | SP-1-CS | 8 | → | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 34)**

**(ROUTE 1/CYPRESS STREET)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-85**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua085.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 110 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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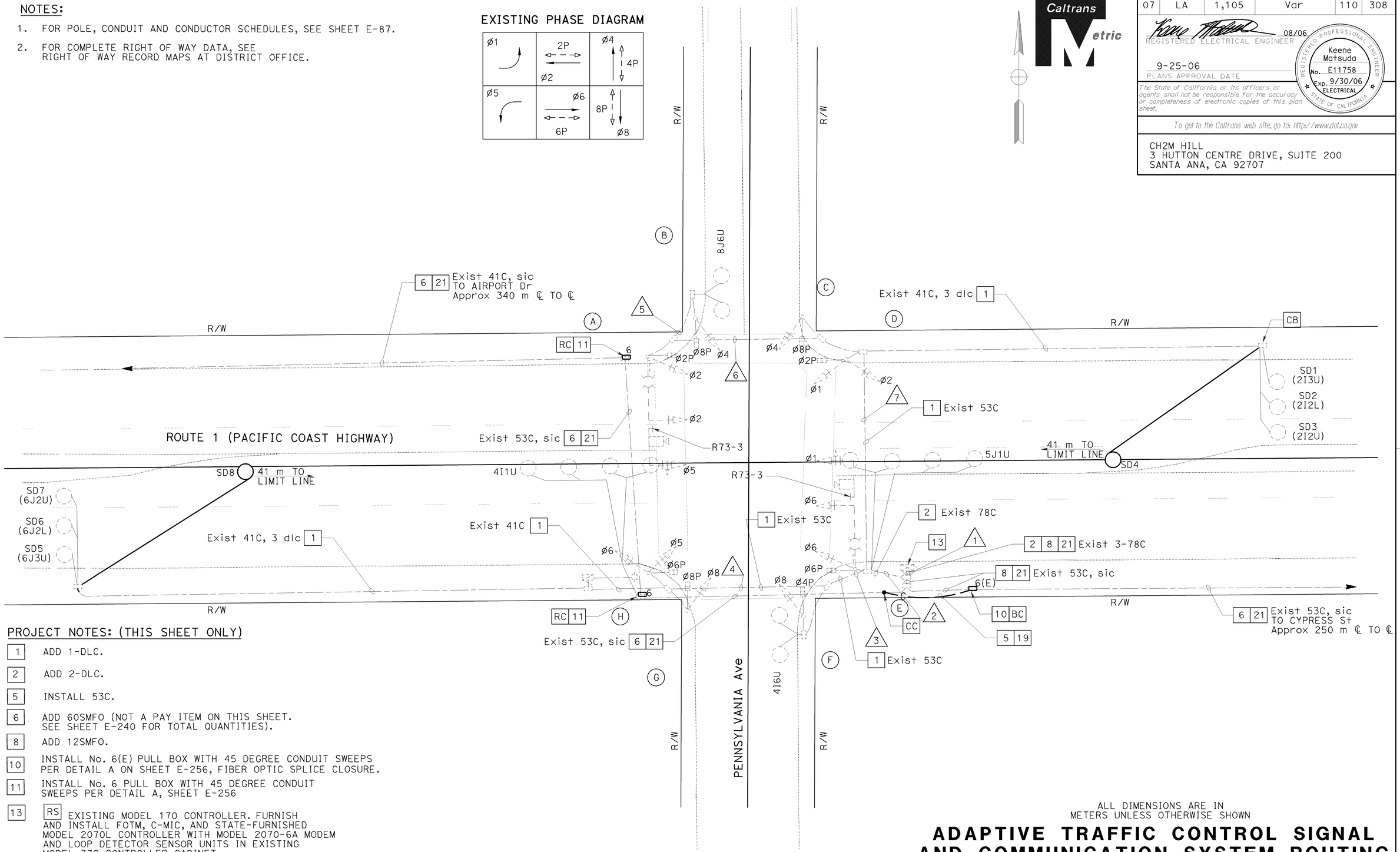
SANTA ANA, CA 92707


NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-87.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC. |
| 2 | ADD 2-DLC. |
| 5 | INSTALL 53C. |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO. |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256 |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 21 | RC sic, ADD SIC 12 PR #19. |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 35)

## (ROUTE 1/PENNSYLVANIA AVENUE)

SCALE 1:200

E-86

| | | | |
|---|---|---|---|
| DATE 4/06 | REVISED BY | MR | CALCULATED/DESIGNED BY |
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:59

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua086.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 111 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| DLC | ø1 | 1 | 1 | 1 | 1 | - | - | - |
| | ø2 | 3 | 3 | - | - | - | - | 3 |
| | ø4 | 1 | 1 | 1 | - | - | - | - |
| | ø5 | 1 | 1 | - | - | - | - | 1 |
| | ø6 | 3 | 3 | 3 | 3 | - | - | - |
| | ø8 | 1 | 1 | - | - | 1 | 1 | 1 |
| | TOTAL DLC | 10 | 10 | 5 | 4 | 1 | 1 | 5 |
| #6 | SIGNAL SERVICE | 2 | 2 | 2 | 2 | - | - | - |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 12 CONDUCTOR CABLE | | 8 | 8 | 3 | 2 | 1 | 2 | 4 |
| 12 PR #19 INTERCONNECT CABLE | | 1 | - | - | - | - | - | - |
| 3-CONDUCTOR CABLE | | 8 | 8 | 3 | 2 | 1 | 2 | 4 |
| VIDEO IMAGING DETECTION | | 2 | 2 | 1 | 1 | - | 1 | 1 |
| CONDUIT SIZE (mm) | | 3-78C | 78C | 53C | 53C | 53C | 53C | 53C |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | PLACEMENT DIMENSIONS A | B | VEH SIG MTG MAST ARM | POLE | PED SIGNAL ø | MTG | PPB ø | ARROW | HPS LUMINAIRE | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26A-4-129 | 12.2 | 4.6 | - | - | mas | SV-1-T | 2 | SP-1-T | 8 | ← | 310W | SNS PENNSYLVANIA AVENUE |
| B | 1-A | - | - | - | - | - | TV-1-T | 8 | SP-1-T | 2 | → | - | - |
| C | 1-A | - | - | - | - | - | TV-1-T | 4 | SP-1-T | 2 | ← | - | - |
| D | 1-A | - | - | - | - | - | TV-2-T | 2 | SP-1-T | 4 | → | - | - |
| E | 26A-4-129 | 12.2 | 4.6 | - | - | mas | SV-1-T | 6 | SP-1-T | 4 | ← | 310W | SNS PENNSYLVANIA AVENUE |
| F | 1-A | - | - | - | - | - | TV-1-T | 4 | SP-1-T | 6 | → | - | - |
| G | 1-A | - | - | - | - | - | TV-1-T | 8 | SP-1-T | 6 | ← | - | - |
| H | 1-A | - | - | - | - | - | TV-2-T | 6 | SP-1-T | 8 | → | - | - |

SNS = STREET NAME SIGN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 35)**

**(ROUTE 1/PENNSYLVANIA AVENUE)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-87**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => trstrk
DGN FILE => 725730ua087.dgn
CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 112 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

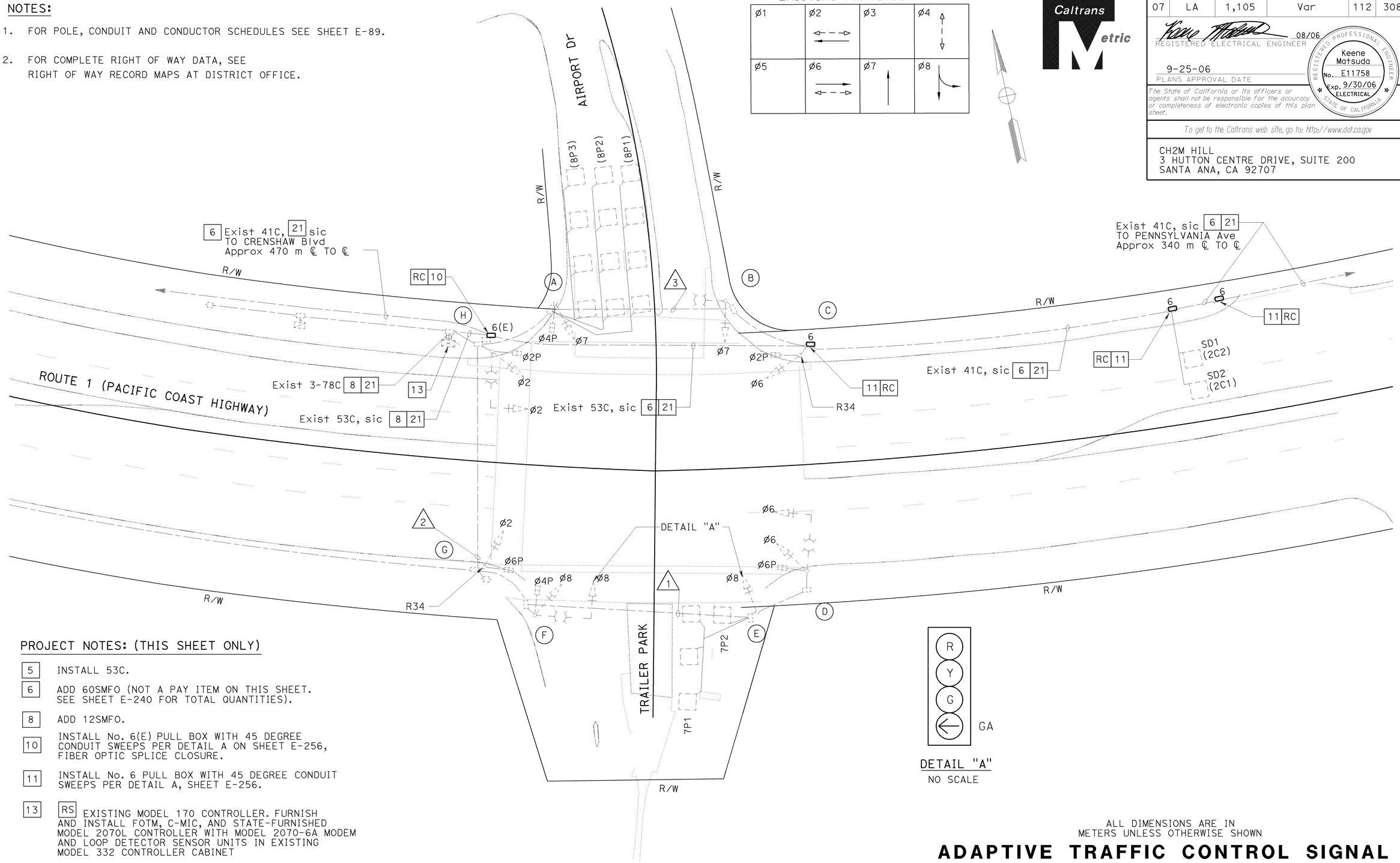

Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-89.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| Ø1 | Ø2 | Ø3 | Ø4 |
| Ø5 | Ø6 | Ø7 | Ø8 |




## PROJECT NOTES: (THIS SHEET ONLY)

- 5 INSTALL 53C.
- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
- 8 ADD 12SMFO.
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET
- 21 RC sic, ADD SIC, 12 PR #19.




DETAIL "A"
NO SCALE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 36)

## (ROUTE 1/ AIRPORT DRIVE/ TRAILER PARK)

SCALE 1:200

**E-88**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
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YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:59

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua088.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 113 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | CONDUIT RUN 2 | CONDUIT RUN 3 |
|---|---|---|---|---|
| #14 | Ø6 | 3 | 3 | 3 |
| | Ø8 | 3 | 3 | - |
| | Ø2 | - | 3 | - |
| | Ø7 | - | - | 3 |
| | Ø6P | 2 | 2 | - |
| | Ø4P | - | 2 | - |
| | Ø2P | - | - | 2 |
| | Ø6PPB | 1 | 1 | - |
| | Ø4PPB | - | 1 | - |
| | Ø2PPB | - | - | 1 |
| | PPB COMMON | 1 | 1 | 1 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 13 | 19 | 13 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | TOTAL | 1 | 1 | 1 |
| #8 | LUMINAIRE | 2 | 2 | 2 |
| | SIGNAL SERVICE | - | - | - |
| | TOTAL | 2 | 2 | 2 |
| DLC | Ø6C DETECTOR | - | 2 | - |
| | Ø8P DETECTOR | - | - | - |
| | Ø2C DETECTOR | - | - | 2 |
| | Ø7P DETECTOR | 2 | 2 | - |
| | TOTAL | 2 | 4 | 2 |
| CONDUIT SIZE (mm) | | 53 | 53 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | PLACEMENT DIMENSIONS A | PLACEMENT DIMENSIONS B | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL Ø | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 1-A | - | - | - | - | - | TV-1-T | 4 | SP-1-T | 2 | → | 200 | INTEGRAL BALLAST TYPE IV PEC |
| B | 15 | - | 3.7 | - | - | - | SV-1-T | - | - | 2 | ← | - | - |
| C | 1-A | - | - | - | - | - | TV-1-T | 2 | SP-1-T | - | | 200 | INTEGRAL BALLAST TYPE IV PEC |
| D | 17-1-113 | 6.1 | 3.7 | - | - | mas | SV-1-T | 6 | SP-1-T | - | | - | - |
| E | 1-A | - | - | - | - | - | TV-1-T | - | - | 6 | → | 200 | INTEGRAL BALLAST TYPE IV PEC |
| F | 17-1-113 | 6.1 | 3.7 | - | - | mas | SV-1-T | 4 | SP-1-T | 6 | ← | - | - |
| G | 1-A | - | - | - | - | - | TV-1-T | 6 | SP-1-T | 4 | → | 200 | INTEGRAL BALLAST TYPE IV PEC |
| H | 19-1-113 | 9.1 | 3.7 | - | - | mas | SV-1-T | 2 | SP-1-T | 4 | ← | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 36)

## (ROUTE 1/AIRPORT DRIVE/TRAILER PARK)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-89

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |

| DATE | REVISED |
|---|---|
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua089.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 114 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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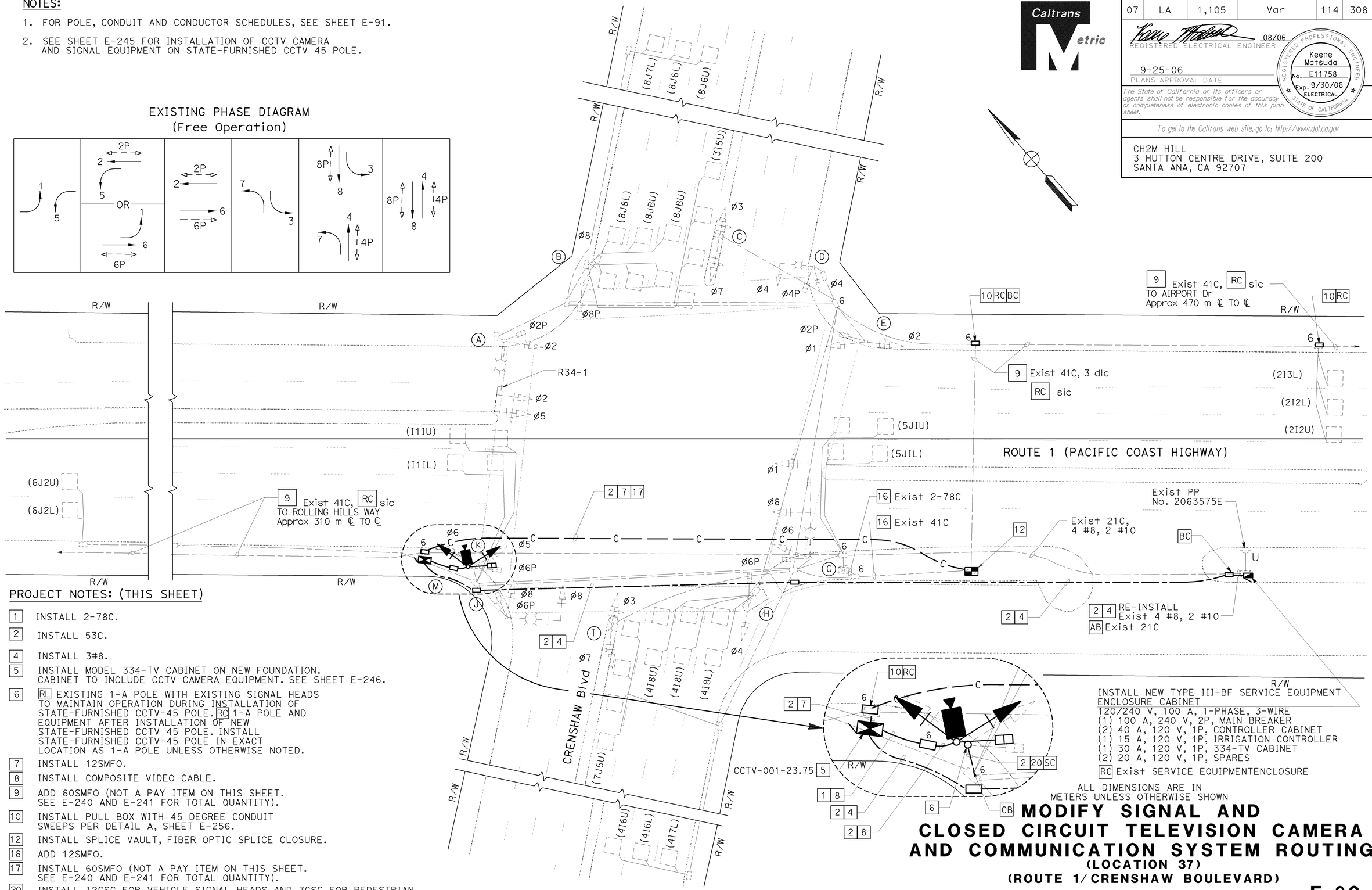
## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-91.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

EXISTING PHASE DIAGRAM
(Free Operation)




R/W
INSTALL NEW TYPE III-BF SERVICE EQUIPMENT ENCLOSURE CABINET
120/240 V, 100 A, 1-PHASE, 3-WIRE
(1) 100 A, 240 V, 2P, MAIN BREAKER
(2) 40 A, 120 V, 1P, CONTROLLER CABINET
(1) 15 A, 120 V, 1P, IRRIGATION CONTROLLER
(1) 30 A, 120 V, 1P, 334-TV CABINET
(2) 20 A, 120 V, 1P, SPARES
RC Exist SERVICE EQUIPMENTENCLOSURE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITY).
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITY).
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 37)**

**(ROUTE 1/CRENSHAW BOULEVARD)**

SCALE 1:200

**E-90**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 115 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| #14 | ø1 | 3 | 3 | | | | | 3 | 3 | 6 |
| | ø2 | | | | 3 | | 3 | | 3 | 3 |
| | ø3 | | | 3 | | 3 | 3 | | 6 | 6 |
| | ø4 | | | | | | 3 | | 6 | 6 |
| | ø5 | 3 | 3 | | | | | 3 | 3 | 6 |
| | ø6 | | 3 | | | | | | 6 | 6 |
| | ø7 | | | 3 | | 3 | 3 | | 6 | 6 |
| | ø8 | | 3 | | 3 | | 3 | | 6 | 6 |
| | ø2P | | | | 2 | | 2 | | 2 | 4 |
| | ø4P | | | | | | 2 | | 4 | 4 |
| | ø6P | | 2 | | | | | | 2 | 2 |
| | ø8P | | | | | | 2 | | 4 | 4 |
| | ø2PPB | | | | 2 | 2 | 2 | | 2 | 2 |
| | ø4PPB | | | | 2 | | 2 | 2 | 4 | 4 |
| | ø6PPB | | 2 | 2 | | | | | 2 | 2 |
| | ø8PPB | 2 | 2 | | 2 | | 2 | | 4 | 4 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 |
| | TOTAL #14 | 11 | 21 | 11 | 17 | 11 | 30 | 11 | 69 | 77 |
| #12 | IISNS * | | 2 | | 2 | | 2 | | | |
| ** | INTERCONNECT CABLE | | | | | | | | | 1 |
| 3#20 CABLE | EVPE | - | 1 | - | 1 | - | 2 | - | 4 | 4 |
| #10 | LUMINAIRE | | 2 | | 2 | | 2 | | | |
| | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | TOTAL #10 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 2 | 2 |
| #8 | SERVICE | | | | | | | | 2 | 2 |
| dlc | ø1 DETECTORS | 2 | 2 | | | | | | 2 | 2 |
| | ø3 DETECTORS | | | | 1 | | 1 | | 1 | 1 |
| | ø4 DETECTORS | | | | | | | | 3 | 3 |
| | ø5 DETECTORS | | | | | | | 2 | | 2 |
| | ø7 DETECTORS | | | | | | | | 1 | 1 |
| | ø8 DETECTORS | | | | 3 | | 3 | | 3 | 3 |
| | ø1C DETECTORS | | 2 | | | | | | 2 | 2 |
| | ø2C DETECTORS | | | | | | | | | 2 |
| | ø4C DETECTORS | | | | | | | | 3 | 3 |
| | ø5C DETECTORS | | | | | | | | | 2 |
| | ø6C DETECTORS | | 2 | | | | | | 2 | 2 |
| | ø8C DETECTORS | | | | 3 | | 3 | | 3 | 3 |
| | WB SAMPLING DETECTORS | | 2 | | | | | | 2 | 2 |
| | EB SAMPLING DETECTORS | | | | | | | | | 2 |
| | TOTAL | 2 | 8 | | 7 | | 7 | 2 | 22 | 30 |
| | CONDUIT SIZE (mm) | 53 | 2-53 | 53 | 2-53 | 53 | 2-53 | 53 | 2-63 2-53 | 4-78 |

* INTERNALLY ILLUMINATED STREET NAME SIGN
** 12 PAIR #19 SHIELDED CABLE

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB ø | ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| (M) | CCTV 45 | - | - | - | SV-2-TA | SP-1-T | 8 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | LUMINAIRE HPS (W) | PPB ø | ARROW | VEH SIG MTG MA | POLE | PED SIG MTG | STREET NAME SIGN TYPE | LEGEND | PLACEMENT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (A) | 17 | 5.4 | 3.6 | 200 | 8 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| (B) | 1-A | - | - | - | 2 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |
| (C) | 1-A | - | - | - | 2 | - | - | TV-1-T SV-1 | - | - | - | - | - | - |
| (D) | 17 | 5.4 | 3.6 | 200 | 2 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| (E) | 1-A | - | - | - | 4 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |
| (G) | 17 | 5.4 | 3.6 | 200 | 4 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| (H) | 1-A | - | - | - | 6 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |
| (I) | 1-A | - | - | - | 6 | - | - | TV-1-T SV-1 | - | - | - | - | - | - |
| (J) | 17 | 5.4 | 3.6 | 200 | 6 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| (K) | 1-A | - | - | - | 8 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |

## EXISTING EVPE DETECTOR SCHEDULE

| POLE No. | PREEMPT PHASE | DIRECTION |
|---|---|---|
| (A) | ø2 & ø5 | WB |
| (D) | ø4 & ø7 | NB |
| (G) | ø1 & ø6 | EB |
| (J) | ø3 & ø8 | SB |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 37)**

**(ROUTE 1/CRENSHAW BOULEVARD)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-91**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:16

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 116 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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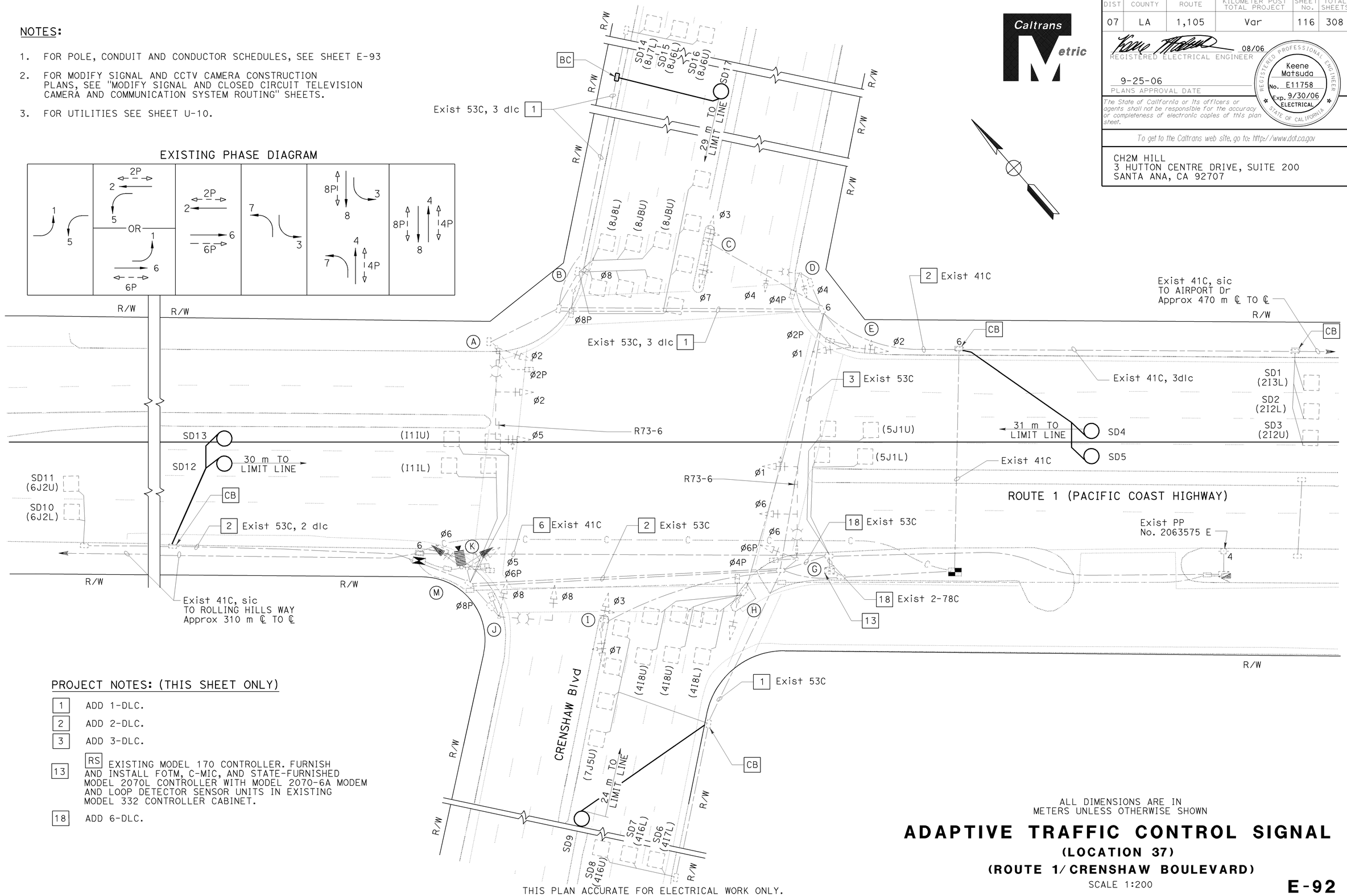
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-93
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-10.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC.

2 ADD 2-DLC.

3 ADD 3-DLC.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

18 ADD 6-DLC.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 37)

## (ROUTE 1/ CRENSHAW BOULEVARD)

SCALE 1:200

E-92

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY | YEFIM ZABEZHINSKY |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
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Keene Matsuda
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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø1 | 3 | 3 | | | | | 3 | 3 | 6 |
| | Ø2 | | | | 3 | | 3 | | 3 | 3 |
| | Ø3 | | | 3 | | 3 | 3 | | 6 | 6 |
| | Ø4 | | | | | | 3 | | 6 | 6 |
| | Ø5 | 3 | 3 | | | | | 3 | 3 | 6 |
| | Ø6 | | 3 | | | | | | 6 | 6 |
| | Ø7 | | | 3 | | 3 | 3 | | 6 | 6 |
| | Ø8 | | 3 | | 3 | | 3 | | 6 | 6 |
| | Ø2P | | | | 2 | | 2 | | 2 | 4 |
| | Ø4P | | | | | | 2 | | 4 | 4 |
| | Ø6P | | 2 | | | | | | 2 | 2 |
| | Ø8P | | | | | | 2 | | 4 | 4 |
| | Ø2PPB | | | | 2 | 2 | 2 | | 2 | 2 |
| | Ø4PPB | | | | 2 | | 2 | 2 | 4 | 4 |
| | Ø6PPB | | 2 | 2 | | | | | 2 | 2 |
| | Ø8PPB | 2 | 2 | | 2 | | 2 | | 4 | 4 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 |
| | TOTAL #14 | 11 | 21 | 11 | 17 | 11 | 30 | 11 | 69 | 77 |
| #12 | IISNS * | | 2 | | 2 | | 2 | | | |
| ** | INTERCONNECT CABLE | | | | | | | | | 1 |
| 3#20 CABLE | EVPE | - | 1 | - | 1 | - | 2 | - | 4 | 4 |
| #10 | LUMINAIRE | | 2 | | 2 | | 2 | | | |
| | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | TOTAL #10 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 2 | 2 |
| #8 | SERVICE | | | | | | | | 2 | 2 |
| dlc | Ø1 DETECTORS | 2 | 2 | | | | | | 2 | 2 |
| | Ø3 DETECTORS | | | | 1 | | 1 | | 1 | 1 |
| | Ø4 DETECTORS | | | | | | | | 3 | 3 |
| | Ø5 DETECTORS | | | | | | | 2 | | 2 |
| | Ø7 DETECTORS | | | | | | | | 1 | 1 |
| | Ø8 DETECTORS | | | | 3 | | 3 | | 3 | 3 |
| | Ø1C DETECTORS | | 2 | | | | | | 2 | 2 |
| | Ø2C DETECTORS | | | | | | | | | 2 |
| | Ø4C DETECTORS | | | | | | | | 3 | 3 |
| | Ø5C DETECTORS | | | | | | | | | 2 |
| | Ø6C DETECTORS | | 2 | | | | | | 2 | 2 |
| | Ø8C DETECTORS | | | | 3 | | 3 | | 3 | 3 |
| | WB SAMPLING DETECTORS | | 2 | | | | | | 2 | 2 |
| | EB SAMPLING DETECTORS | | | | | | | | | 2 |
| | TOTAL | 2 | 8 | | 7 | | 7 | 2 | 22 | 30 |
| | CONDUIT SIZE (mm) | 53 | 2-53 | 53 | 2-53 | 53 | 2-53 | 53 | 2-63 2-53 | 4-78 |

* INTERNALLY ILLUMINATED STREET NAME SIGN
** 12 PAIR #19 SHIELDED CABLE

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | LUMINAIRE HPS (W) | PPB Ø | PPB ARROW | VEH SIG MTG MA | VEH SIG MTG POLE | PED SIG MTG | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | PLACEMENT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 17 | 5.4 | 3.6 | 200 | 8 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| B | 1-A | - | - | - | 2 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |
| C | 1-A | - | - | - | 2 | - | - | TV-1-T SV-1 | - | - | - | - | - | - |
| D | 17 | 5.4 | 3.6 | 200 | 2 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| E | 1-A | - | - | - | 4 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |
| G | 17 | 5.4 | 3.6 | 200 | 4 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| H | 1-A | - | - | - | 6 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |
| I | 1-A | - | - | - | 6 | - | - | TV-1-T SV-1 | - | - | - | - | - | - |
| J | 17 | 5.4 | 3.6 | 200 | 6 | - | MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| K | 1-A | - | - | - | 8 | - | - | TV-1-T | SP-1-T | - | - | - | - | - |

## EXISTING EVPE DETECTOR SCHEDULE

| POLE No. | PREEMPT PHASE | DIRECTION |
|---|---|---|
| A | Ø2 & Ø5 | WB |
| D | Ø4 & Ø7 | NB |
| G | Ø1 & Ø6 | EB |
| J | Ø3 & Ø8 | SB |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 37)

## (ROUTE 1/CRENSHAW BOULEVARD)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-93**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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| 07 | LA | 1,105 | Var | 118 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

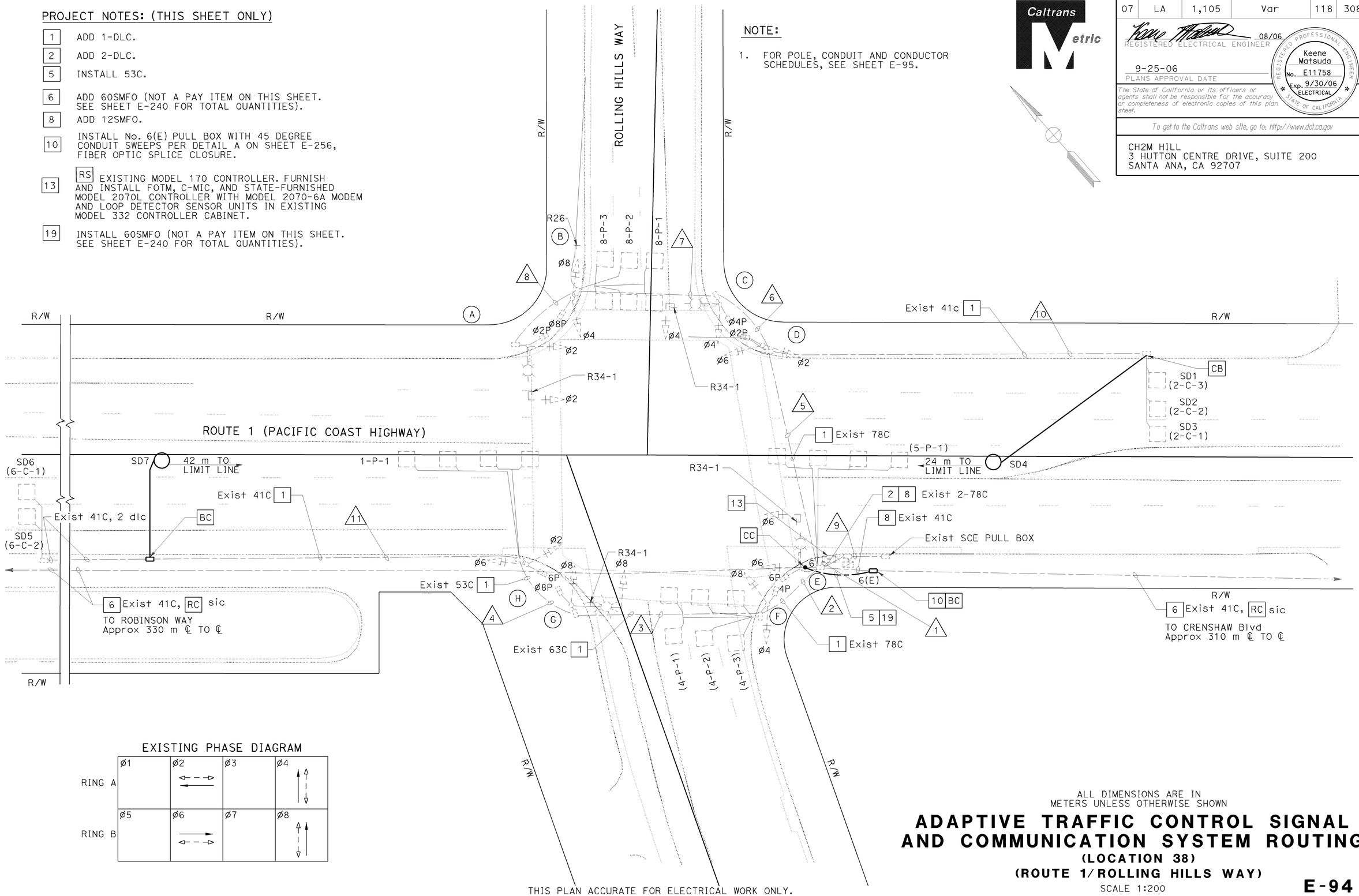
Caltrans Metric

## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC.
2. ADD 2-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
8. ADD 12SMFO.
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

## NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-95.




## EXISTING PHASE DIAGRAM

| | ø1 | ø2 | ø3 | ø4 |
|---|---|---|---|---|
| RING A | | ← - - → ← | | ↑ - - ↓ |
| RING B | ø5 | ø6 | ø7 | ø8 |
| | | ← - - → ← | | ↑ - - ↓ ↑ |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 38)

## (ROUTE 1/ROLLING HILLS WAY)

SCALE 1:200

**E-94**

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:59

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua094.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 119 | 308 |

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #14 | ø1 | 3 | - | - | - | - | - | - | - | - | - | - |
| | ø2 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - |
| | ø4 | 6 | 3 | - | - | 3 | 3 | 3 | - | - | - | - |
| | ø5 | 3 | - | - | - | 3 | 3 | 3 | 3 | - | - | - |
| | ø6 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | - |
| | ø8 | 6 | 3 | 3 | - | 3 | 3 | 3 | - | - | - | - |
| | ø2P | 2 | - | - | - | 2 | 2 | 2 | 2 | - | - | - |
| | ø4P | 4 | 2 | - | - | 2 | 2 | - | - | - | - | - |
| | ø6P | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - |
| | ø8P | 4 | 2 | 2 | 2 | - | 2 | 2 | 2 | - | - | - |
| | ø2PPB | 1 | - | - | - | 1 | 1 | 1 | - | - | - | - |
| | ø4PPB | 1 | - | - | - | 1 | - | - | - | - | - | - |
| | ø6PPB | 1 | 1 | 1 | - | - | - | - | - | - | - | - |
| | ø8PPB | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - |
| | PPB COMMON | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - |
| | SPARES | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - |
| | TOTAL | 52 | 24 | 19 | 13 | 28 | 24 | 22 | 13 | - | - | - |
| #12 | SIGN LIGHTING | 4 | 2 | 2 | - | 2 | 2 | 2 | 2 | - | - | - |
| #10 | SIGNAL COMMON | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - |
| | LUMINAIRE | - | 2 | 2 | - | 2 | 2 | 2 | 2 | - | - | - |
| | TOTAL | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | - | - | - |
| DLC 2#12 | ø1 LOOP DETECTOR | 1 | 1 | 1 | 1 | - | - | - | - | - | - | - |
| | ø2 LOOP DETECTOR | 3 | - | - | - | 3 | - | - | - | - | 3 | - |
| | ø4 LOOP DETECTOR | 3 | 3 | - | - | - | - | - | - | - | - | - |
| | ø5 LOOP DETECTOR | 1 | - | - | - | - | - | - | - | - | - | - |
| | ø6 LOOP DETECTOR | 2 | 2 | 2 | 2 | - | - | - | - | - | - | 2 |
| | ø8 LOOP DETECTOR | 3 | - | - | - | 3 | 3 | 3 | - | - | - | - |
| | TOTAL | 13 | 6 | 3 | 3 | 6 | 3 | 3 | - | - | 3 | 2 |
| 12 PAIR #19 SHIELDED INTERCONNECT CABLE | | 2 | - | - | - | - | - | - | - | - | - | - |
| #8 | SERVICE | - | - | - | - | - | - | - | - | 3 | - | - |
| CONDUIT SIZE (mm) | | 2-78 | 78 | 63 | 53 | 78 | 63 | 63 | 41 | 53 | 41 | 41 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | LUM HPS (W) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB ø | ILLUMINATED STREET NAME SIGN LEGEND |
|---|---|---|---|---|---|---|---|---|---|
| A | 26-4-113 | 9.1 | 3.7 | 200 | MAS | SV-1-T | SP-1-T | 8P | ROLLING HILLS WAY |
| B | 1-A | - | - | - | - | TV-2-T | SP-1-T | 2 | - |
| C | 17-2-113 | 6.1 | 3.7 | 200 | MAS | SV-1-T | SP-1-T | 2P | PACIFIC COAST HIGHWAY |
| D | 1-A | - | - | - | - | TV-2-T | SP-1-T | 4P | - |
| E | 26-4-113 | 9.1 | 3.7 | 200 | MAS | SV-1-T | SP-1-T | 4P | ROLLING HILLS WAY |
| F | 1-A | - | - | - | - | TV-2-T | SP-1-T | 6P | - |
| G | 17-2-113 | 6.1 | 3.7 | 200 | MAS | SV-1-T | SP-1-T | 6P | PACIFIC COAST HIGHWAY |
| H | 1-A | - | - | - | - | TV-2-T | SP-1-T | 8P | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 38)**

**(ROUTE 1/ROLLING HILLS WAY)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-95**

| DATE 4/06 | REVISED BY |
|---|---|
| 4/06 | DATE REVISED |

CALCULATED/DESIGNED BY MR
CHECKED BY KM

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 DATE PLOTTED => 27-SEP-2006 TIME PLOTTED => 14:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua095.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 120 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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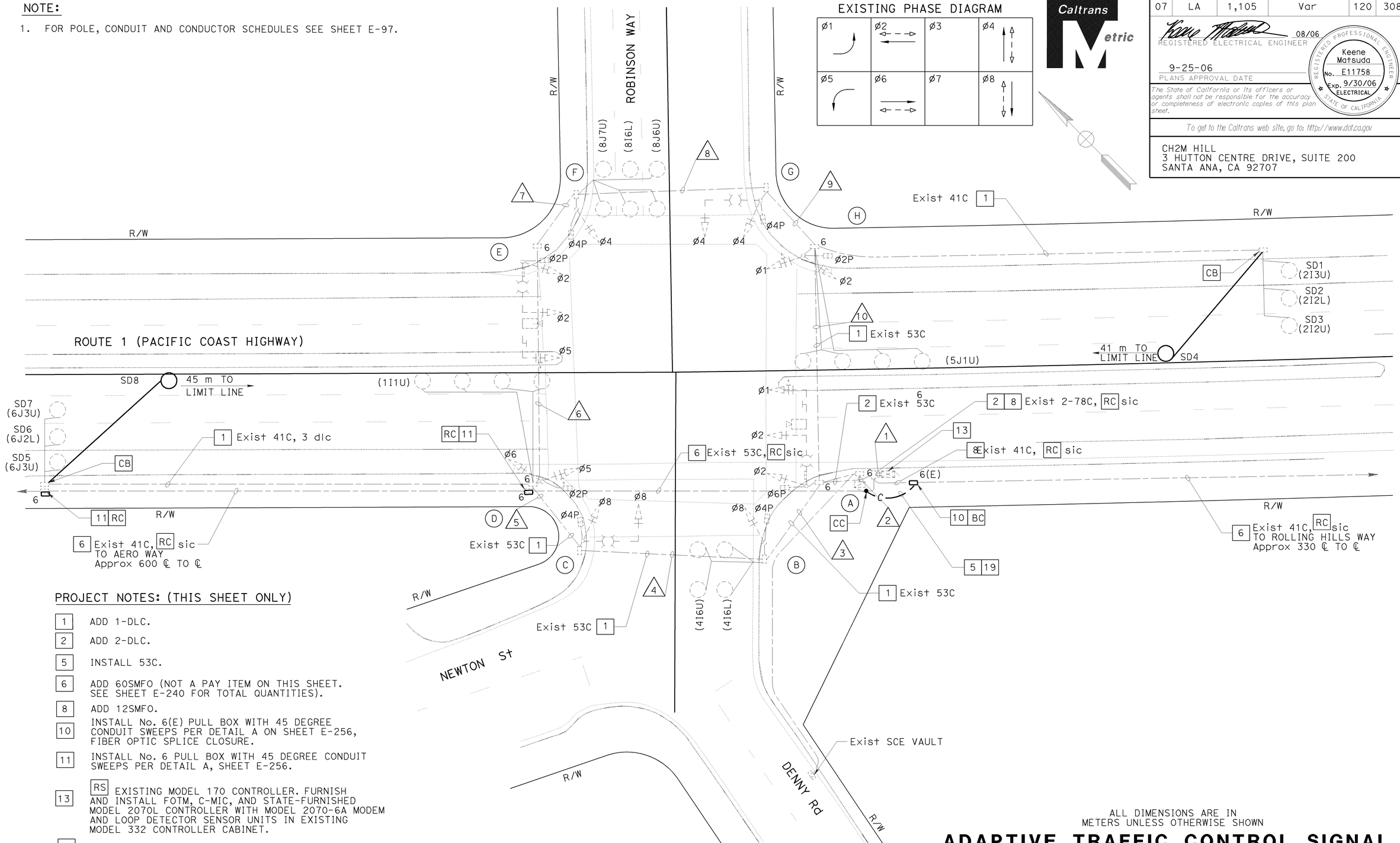
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-97.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC. |
| 2 | ADD 2-DLC. |
| 5 | INSTALL 53C. |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO. |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 39)

## (ROUTE 1/NEWTON STREET/ROBINSON WAY)

SCALE 1:200

E-96

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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LAST REVISION 00-00-00
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TIME PLOTTED => 06:59

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua096.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 121 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

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|---|---|
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| 4/06 | KM |

| CALCULATED/ DESIGNED BY | MR |
|---|---|
| CHECKED BY | KM |

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Caltrans

**THIS SHEET INTENTIONALLY LEFT BLANK**

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METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 39)**

**(ROUTE 1/NEWTON STREET/ROBINSON WAY)**

**E-97**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:32

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua097.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 122 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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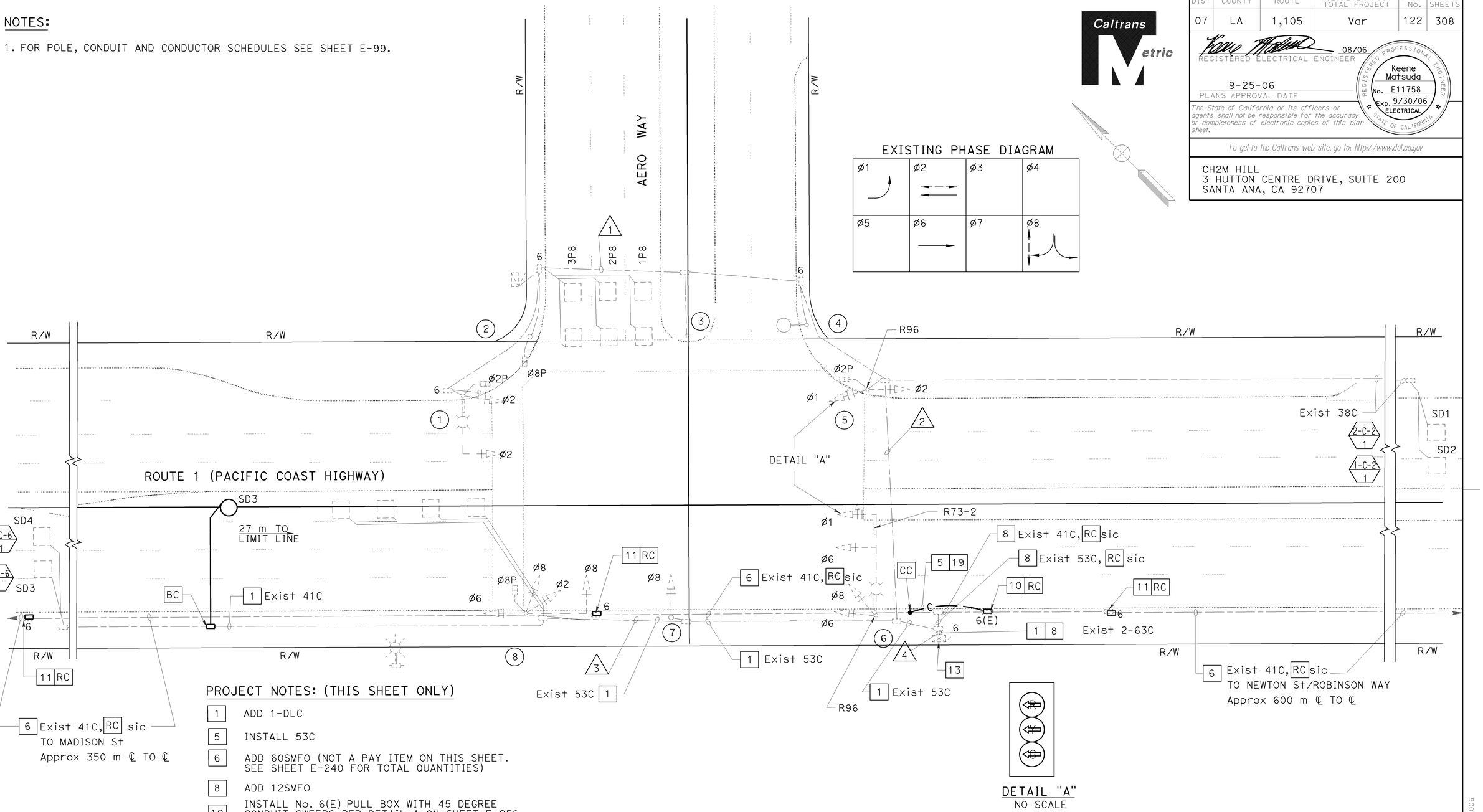
SANTA ANA, CA 92707

Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-99.




DETAIL "A"
NO SCALE

PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES) |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 40)
## (ROUTE 1/ AERO WAY)

SCALE 1:200

**E-98**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:32

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua098.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 123 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| | ø1 | - | 3 | - | 3 |
| | ø2 | 3 | 3 | 3 | 6 |
| | ø6 | - | - | 3 | 3 |
| | ø8 | - | - | 3 | 3 |
| | ø2P | 2 | 2 | - | 2 |
| | ø8P | 2 | 2 | 2 | 4 |
| | ø2PPB | 1 | 1 | - | 1 |
| | ø8PPB | 1 | 1 | 1 | 2 |
| | SPARES | 3 | 3 | 3 | 6 |
| | PPB NEUTRAL | 1 | 1 | 1 | 2 |
| | TOTAL | 13 | 16 | 16 | 32 |
| | SIGNAL LIGHTING | 2 | 2 | - | 2 |
| | TOTAL | 2 | 2 | - | 2 |
| | LUMINAIRE | 2 | 2 | - | 2 |
| | SIGNAL COMMON | 1 | 1 | - | 1 |
| | SIGNAL (No.8) | 2 | 2 | - | 2 |
| | TOTAL | 3 | 3 | - | 3 |
| | 1-C-6, 2-C-6 | - | - | 2 | 2 |
| | 2-P-8, 3-P-8 | 3 | 3 | - | 3 |
| | 1-P-1 | - | - | 1 | 1 |
| | 1-C-2, 2-C-2 | - | 2 | - | 2 |
| | TOTAL | 3 | 5 | 3 | 8 |
| | INTERCONNECT CABLE | - | - | - | 2 |
| CONDUIT SIZE (mm) | | 53 | 63 | 53 | 2-63 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPS LUMINAIRE (W) | IISNS LEGEND | SIGNAL MOUNTING POLE | MA | PED | PPB TYPE | PHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 9.1 | 7.6 | 3.7 | 250 | AERO WAY | SV-1-T | mas | SP-1-T | B | 8 |
| 2 | 1-A | 2.1 | - | - | - | - | - | - | TP-1 | B | 2 |
| 3 | PPB | 1.2 | - | - | - | - | - | - | - | B | 2 |
| 4 | 15 | 9.1 | - | 3.7 | 250 | - | - | - | - | B | 2 |
| 5 | 1-A | 3.1 | - | - | - | - | TV-2-T | - | SP-1-T | - | - |
| 6 | | 9.1 | 10.7 | 3.7 | 250 | AERO WAY | SV-2-T | 2-mas | - | - | - |
| 7 | 1-A | 3.1 | - | - | - | - | TV-1-T | - | - | - | - |
| 8 | | 5.2 | 6.1 | - | - | - | SV-3-T | mas | SP-1-T | B | 8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 40)**
**(ROUTE 1/AERO WAY)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-99**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua099.dgn

CU 07382
EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:32

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 124 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

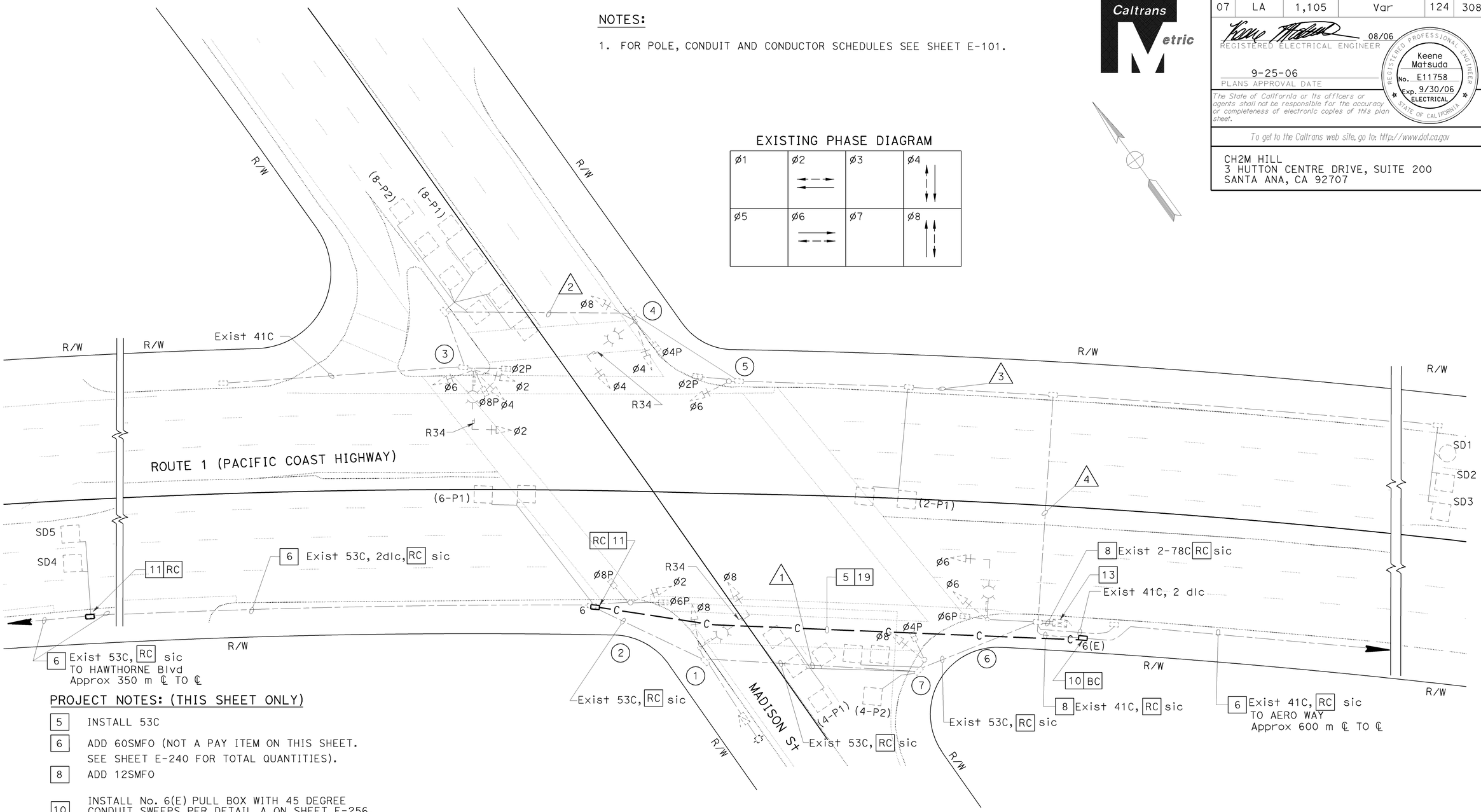

Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-101.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| Ø1 | Ø2 | Ø3 | Ø4 |
| Ø5 | Ø6 | Ø7 | Ø8 |




## PROJECT NOTES: (THIS SHEET ONLY)

- 5 INSTALL 53C
- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
- 8 ADD 12SMFO
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- 19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 41)

## (ROUTE 1/ MADISON STREET)

SCALE 1:200

**E-100**

| | DATE | REVISED BY |
|---|---|---|
| | 4/06 | MR |
| | 4/06 | KM |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:32

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua100.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 125 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE INTERGRAL BLST (W) | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | | POLE | MA | | ø |
| 1 | 17-2-113 | 9.1 | 6.1 | 3.7 | 250 HPS | SV-1-T | mas | - | 6 |
| 2 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-2-T | 8 |
| 3 | 17-2-113 | 9.1 | 6.1 | 3.7 | 250 HPS | SV-2-T<br>SV-1-T | mas | SP-2-T | 8,2 |
| 4 | 17-2-113 | 9.1 | 6.1 | 3.7 | 250 HPS | SV-2-T | mas | SP-1-T | 2 |
| 5 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | 4 |
| 6 | 17-2-113 | 9.1 | 6.1 | 3.7 | 250 HPS | SV-1-T | mas | SP-1-T | 4 |
| 7 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | 6 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| #14 | ø2 | 3 | 3 | 3 | 3 |
| | ø4 | - | 3 | 3 | 3 |
| | ø6 | - | 3 | 3 | 3 |
| | ø8 | 3 | - | 3 | 3 |
| | ø2P | - | 2 | 2 | 2 |
| | ø4P | - | - | 2 | 2 |
| | ø6P | 2 | - | - | - |
| | ø8P | 2 | 2 | 2 | 2 |
| | ø2PPB | - | 1 | 1 | 1 |
| | ø4PPB | - | - | 1 | 1 |
| | ø6PPB | 1 | - | - | - |
| | ø8PPB | 1 | 1 | 1 | 1 |
| | PPB NEUTRAL | 1 | 1 | 1 | 1 |
| | SPARES | 3 | 3 | 3 | 3 |
| | TOTAL | 16 | 19 | 25 | 25 |
| 2 #14 CABLE | ø2P DETECTORS | - | - | 1 | 1 |
| | ø4P DETECTORS | - | - | - | - |
| | ø6P DETECTORS | 1 | - | - | - |
| | ø8P DETECTORS | - | 2 | 2 | 2 |
| | ø2C DETECTORS | - | - | - | 2 |
| | ø6C DETECTORS | 2 | - | - | - |
| | WB SAMPLING DETECTORS | - | 2 | 2 | 2 |
| | EB SAMPLING DETECTORS | - | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | 2 | 2 | 2 | 2 |
| | | - | - | - | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 | 2 |
| | TOTAL | 3 | 3 | 3 | 3 |
| #8 | SERVICE | 2 | - | - | - |
| | 12-PAIR #19 SHIELDED INTERCONNECT CABLE | 1 | - | - | - |
| | CONDUIT SIZE (mm) | - | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 41)**

**(ROUTE 1/MADISON STREET)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-101**

| | | |
|---|---|---|
| DATE 4/06 | MR | REVISED BY |
| 4/06 | KM | DATE REVISED |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:32

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 126 | 308 |

08/06
REGISTERED CIVIL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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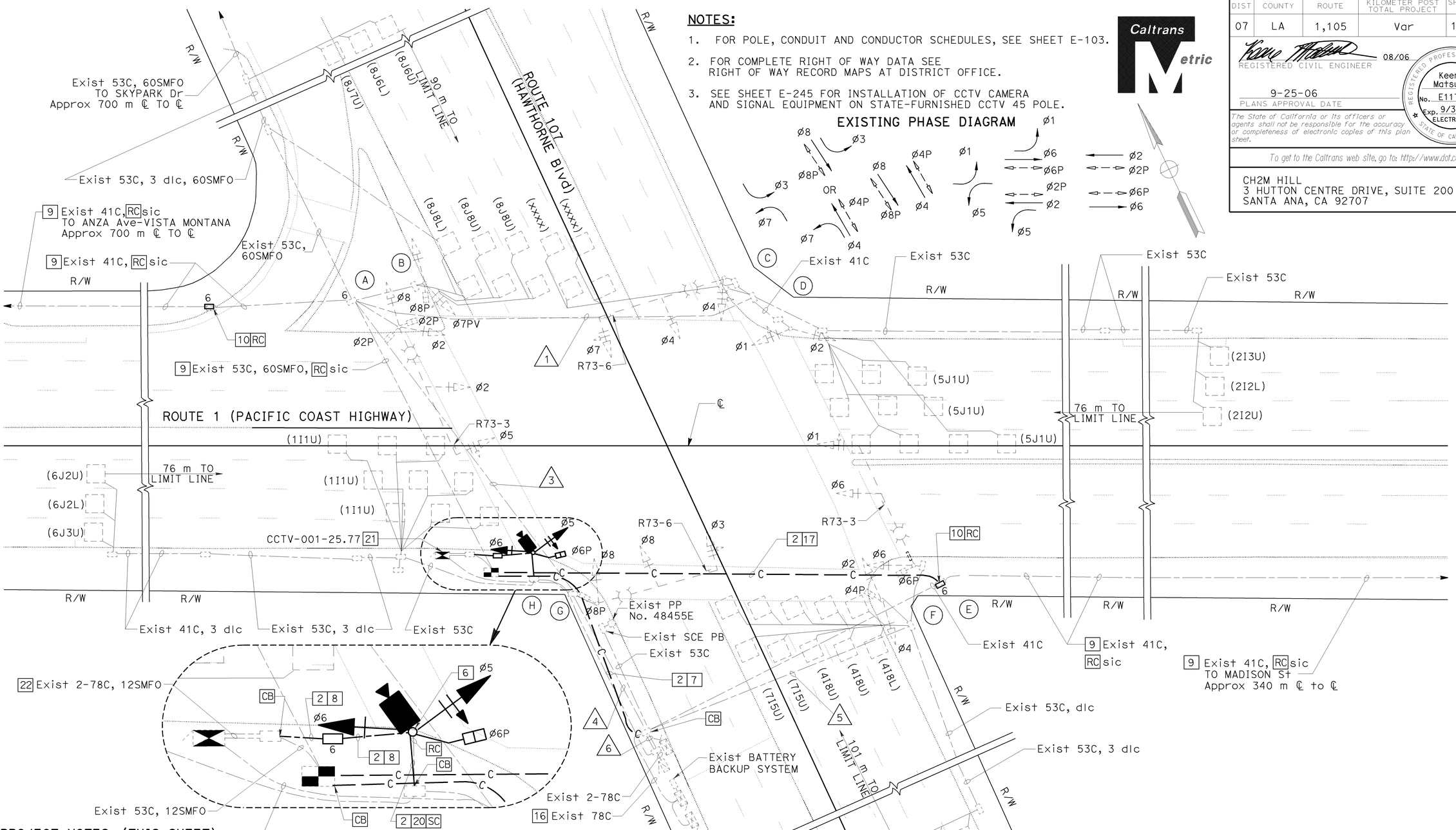
SANTA ANA, CA 92707


Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-103.
2. FOR COMPLETE RIGHT OF WAY DATA SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.




## PROJECT NOTES: (THIS SHEET)

2 INSTALL 53C

6 RL EXISTING TYPE 1-A STANDARD WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE FURNISHED CCTV 45 POLE. RC EXISTING TYPE 1-A STANDARD AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV 45 POLE IN EXACT LOCATION AS EXISTING TYPE 1-A STANDARD UNLESS OTHERWISE NOTED.

7 INSTALL 12SMFO.

8 INSTALL COMPOSITE VIDEO CABLE.

9 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).

10 INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

16 ADD 12SMFO.

17 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES).

20 INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

21 INSTALL DATA NODE EQUIPMENT IN EXISTING MODEL 334-TV CABINET SEE SHEET E-247.

22 ADD COMPOSITE VIDEOCABLE.

THIS PLAN ACCURATE FOR EXISTING UTILITIES ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING AND DATA NODE

**(LOCATION 42)**

**(ROUTE 1/HAWTHORNE BOULEVARD)**

SCALE 1:200

**E-102**

| | DATE | REVISED BY | DATE | REVISED BY | CP |
|---|---|---|---|---|---|
| | 8/06 | JS | 8/06 | KM | 6/06 |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 14:32

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua102.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 127 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| #14 | Ø7 | 3 | | 3 | 3 | | 3 |
| | Ø8 | | | 3 | 3 | | 3 |
| | Ø1 | 3 | | 3 | 3 | 3 | 6 |
| | Ø2 | 3 | | 3 | 3 | | 3 |
| | Ø3 | | | | 3 | 3 | 6 |
| | Ø4 | 3 | | 3 | 3 | 3 | 6 |
| | Ø5 | | | 3 | 3 | | 3 |
| | Ø6 | | | | 3 | 3 | 6 |
| | Ø8P | | | 2 | 2 | | 2 |
| | Ø2P | 2 | | 2 | 2 | | 2 |
| | Ø4P | 2 | | 2 | 2 | 2 | 4 |
| | Ø6P | | | | 2 | 2 | 4 |
| | Ø8PPB | | | 1 | 1 | | 1 |
| | Ø2PPB | 1 | | 1 | 1 | | 1 |
| | Ø4PPB | 1 | | 1 | 1 | 1 | 2 |
| | Ø6PPB | | | | 1 | 1 | 2 |
| | SPARES | 3 | | 3 | 3 | 3 | 6 |
| | PPB COMMON | 1 | | 1 | 1 | 1 | 2 |
| | TOTAL | 22 | | 31 | 40 | 22 | 62 |
| #12 | IISNS | 2 | | 2 | 2 | 2 | 2 |
| #10 | SIGNAL COMMON | 1 | | 1 | 1 | 1 | 2 |
| | LUMINAIRE | 2 | | 2 | 2 | 2 | |
| | TOTAL | 3 | | 3 | 3 | 3 | 2 |
| dlc | Ø7 DETECTORS | | | | | 1 | 1 |
| | Ø8 DETECTORS | | | 5 | 5 | | 5 |
| | Ø1 DETECTORS | | | | 1 | | 1 |
| | Ø2 DETECTORS | 3 | | 3 | 3 | | 3 |
| | Ø3 DETECTORS | 1 | | 1 | 1 | | 1 |
| | Ø4 DETECTORS | | | | | 5 | 5 |
| | Ø5 DETECTORS | 1 | | 1 | 1 | | 1 |
| | Ø6 DETECTORS | | | | 3 | | 3 |
| | TOTAL | 5 | | 10 | 14 | 6 | 20 |
| #6 | SERVICE | | | | 2 | | 2 |
| EVPE CABLE | 4 | 1 | | 3 | 3 | 1 | 4 |
| | INTERCONNECT | | | 2 | 2 | | 3 |
| | CONDUIT SIZE (mm) | 78 | | 2-63 | 2-63<br>2-53 | 78 | 3-78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | PPB ARROW | HPS LUM | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| H | CCTV 45 | - | - | - | SV-2-TA | SP-1-T | 6 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | HEIGHT (m) | SIG MA (m) | LUM ARM (m) | LUMINAIRE HPS WATTS | ISNS | SIG MTG VEHICLE | SIG MTG PED | PPB PHASE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 26A-4-113 | 10.7 | 13.7 | 4.6 | 310 | HAWTHORNE Blvd | 2 MAS | SV-1-T(R) | 8 | TYPE IV PEC |
| B | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 2 | - |
| C | 26A-4-129 | 10.7 | 12.2 | 4.6 | 310 | PACIFIC COAST Hwy | 3 MAS | SV-1-T(R) | 2(R) | TYPE IV PEC |
| D | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 4 | REUSE POLE & FOUND. |
| E | 26A-4-113 | 10.7 | 13.7 | 4.6 | 310 | HAWTHORNE Blvd | 2 MAS | SV-1-T | 4 | TYPE IV PEC |
| F | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 6 | INSTALL NEW FOUNDATION |
| G | 26A-4-129 | 10.7 | 12.2 | 4.6 | 310 | PACIFIC COAST Hwy | 3 MAS | SV-1-T | 6 | TYPE IV PEC |
| H | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 8 | REUSE POLE & FOUND. |

(R) = RELOCATED
ISNS = ILLUMINATED STREET NAME SIGN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING AND DATA NODE

**(LOCATION 42)**
**(ROUTE 1/HAWTHORNE BOULEVARD)**

NO SCALE

**E-103**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | CALCULATED/DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|---|
| 8/06 | MR | 8/06 | KM | YEFIM ZABEZHINSKY |

CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 128 | 308 |

08/06
REGISTERED CIVIL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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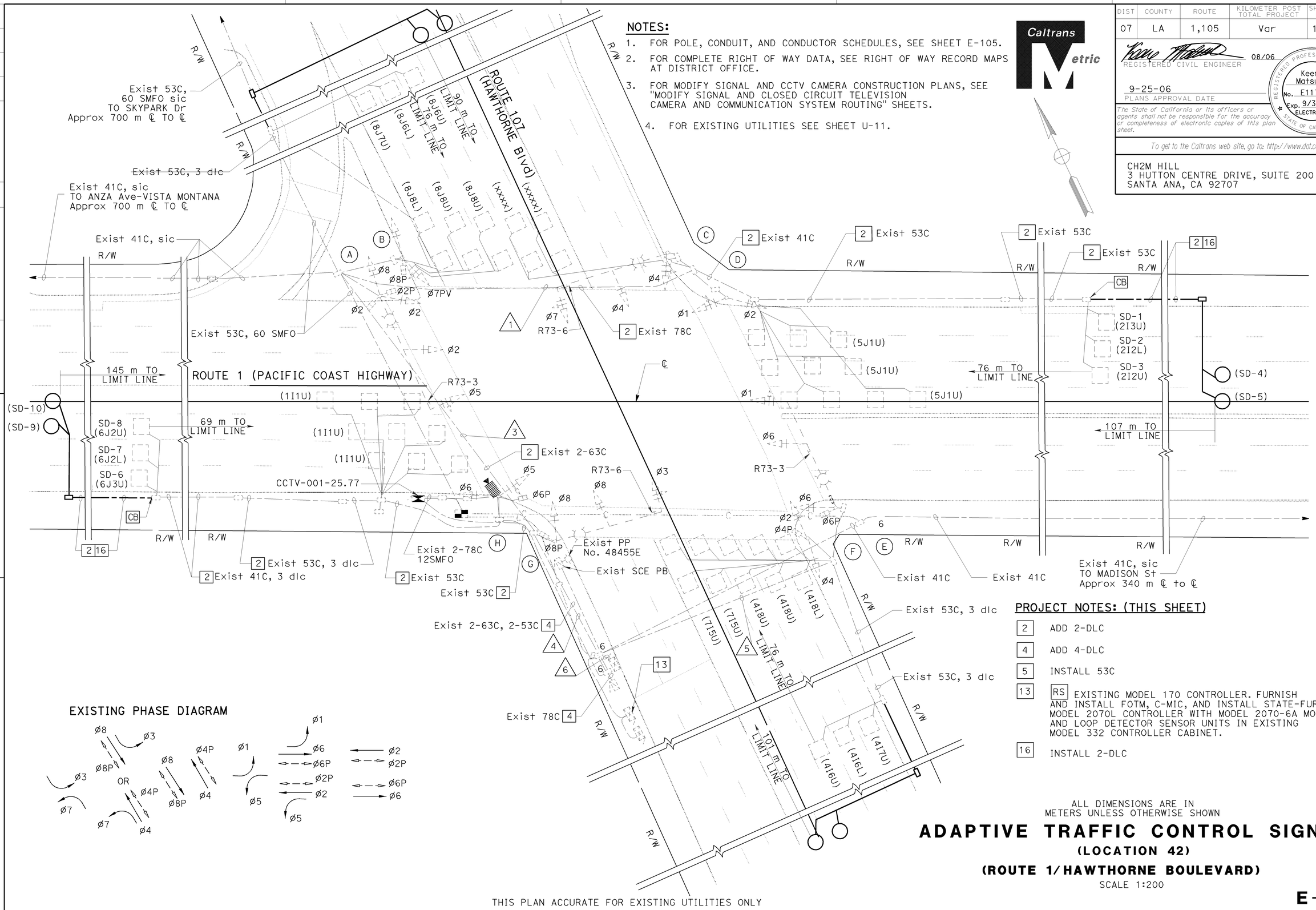
SANTA ANA, CA 92707

Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT, AND CONDUCTOR SCHEDULES, SEE SHEET E-105.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
4. FOR EXISTING UTILITIES SEE SHEET U-11.




## PROJECT NOTES: (THIS SHEET)

| | |
|---|---|
| 2 | ADD 2-DLC |
| 4 | ADD 4-DLC |
| 5 | INSTALL 53C |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 16 | INSTALL 2-DLC |

## EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 42)

## (ROUTE 1/HAWTHORNE BOULEVARD)

SCALE 1:200

THIS PLAN ACCURATE FOR EXISTING UTILITIES ONLY

**E-104**

| | | | |
|---|---|---|---|
| CP | 6/06 | | |
| REVISED BY | DATE REVISED | | |
| DATE 8/06 | 8/06 | | |
| JS | KM | | |
| CALCULATED/ DESIGNED BY | CHECKED BY | | |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:00

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trannda
DGN FILE => 725730ua0104.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 129 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| #14 | Ø7 | 3 | | 3 | 3 | | 3 |
| | Ø8 | | | 3 | 3 | | 3 |
| | Ø1 | 3 | | 3 | 3 | 3 | 6 |
| | Ø2 | 3 | | 3 | 3 | | 3 |
| | Ø3 | | | | 3 | 3 | 6 |
| | Ø4 | 3 | | 3 | 3 | 3 | 6 |
| | Ø5 | | | 3 | 3 | | 3 |
| | Ø6 | | | | 3 | 3 | 6 |
| | Ø8P | | | 2 | 2 | | 2 |
| | Ø2P | 2 | | 2 | 2 | | 2 |
| | Ø4P | 2 | | 2 | 2 | 2 | 4 |
| | Ø6P | | | | 2 | 2 | 4 |
| | Ø8PPB | | | 1 | 1 | | 1 |
| | Ø2PPB | 1 | | 1 | 1 | | 1 |
| | Ø4PPB | 1 | | 1 | 1 | 1 | 2 |
| | Ø6PPB | | | | 1 | 1 | 2 |
| | SPARES | 3 | | 3 | 3 | 3 | 6 |
| | PPB COMMON | 1 | | 1 | 1 | 1 | 2 |
| | TOTAL | 22 | | 31 | 40 | 22 | 62 |
| #12 | IISNS | 2 | | 2 | 2 | 2 | 2 |
| #10 | SIGNAL COMMON | 1 | | 1 | 1 | 1 | 2 |
| | LUMINAIRE | 2 | | 2 | 2 | 2 | |
| | TOTAL | 3 | | 3 | 3 | 3 | 2 |
| dlc | Ø7 DETECTORS | | | | | 1 | 1 |
| | Ø8 DETECTORS | | | 5 | 5 | | 5 |
| | Ø1 DETECTORS | | | | 1 | | 1 |
| | Ø2 DETECTORS | 3 | | 3 | 3 | | 3 |
| | Ø3 DETECTORS | 1 | | 1 | 1 | | 1 |
| | Ø4 DETECTORS | | | | | 5 | 5 |
| | Ø5 DETECTORS | 1 | | 1 | 1 | | 1 |
| | Ø6 DETECTORS | | | | 3 | | 3 |
| | TOTAL | 5 | | 10 | 14 | 6 | 20 |
| #6 | SERVICE | | | | 2 | | 2 |
| EVPE CABLE | 4 | 1 | | 3 | 3 | 1 | 4 |
| | INTERCONNECT | | | 2 | 2 | | 3 |
| | CONDUIT SIZE (mm) | 78 | | 2-63 | 2-63<br>2-53 | 78 | 3-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | HEIGHT (m) | SIG MA (m) | LUM ARM (m) | LUMINAIRE HPS WATTS | ISNS | SIG MTG VEHICLE | SIG MTG PED | PPB PHASE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 26A-4-113 | 10.7 | 13.7 | 4.6 | 310 | HAWTHORNE Blvd | 2 MAS | SV-1-T(R) | 8 | TYPE IV PEC |
| B | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 2 | - |
| C | 26A-4-129 | 10.7 | 12.2 | 4.6 | 310 | PACIFIC COAST Hwy | 3 MAS | SV-1-T(R) | 2(R) | TYPE IV PEC |
| D | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 4 | REUSE POLE & FOUND. |
| E | 26A-4-113 | 10.7 | 13.7 | 4.6 | 310 | HAWTHORNE Blvd | 2 MAS | SV-1-T | 4 | TYPE IV PEC |
| F | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 6 | INSTALL NEW FOUNDATION |
| G | 26A-4-129 | 10.7 | 12.2 | 4.6 | 310 | PACIFIC COAST Hwy | 3 MAS | SV-1-T | 6 | TYPE IV PEC |
| H | 1-A | 3.0 | - | - | - | - | - | TV-2-T | 8 | REUSE POLE & FOUND. |

(R) = RELOCATED
ISNS = ILLUMINATED STREET NAME SIGN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

**(LOCATION 42)**

**(ROUTE 1/HAWTHORNE BOULEVARD)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-105**

| CALCULATED/ DESIGNED BY | MR | DATE 8/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 8/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 05:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trannda
DGN FILE => 725730ua105.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 130 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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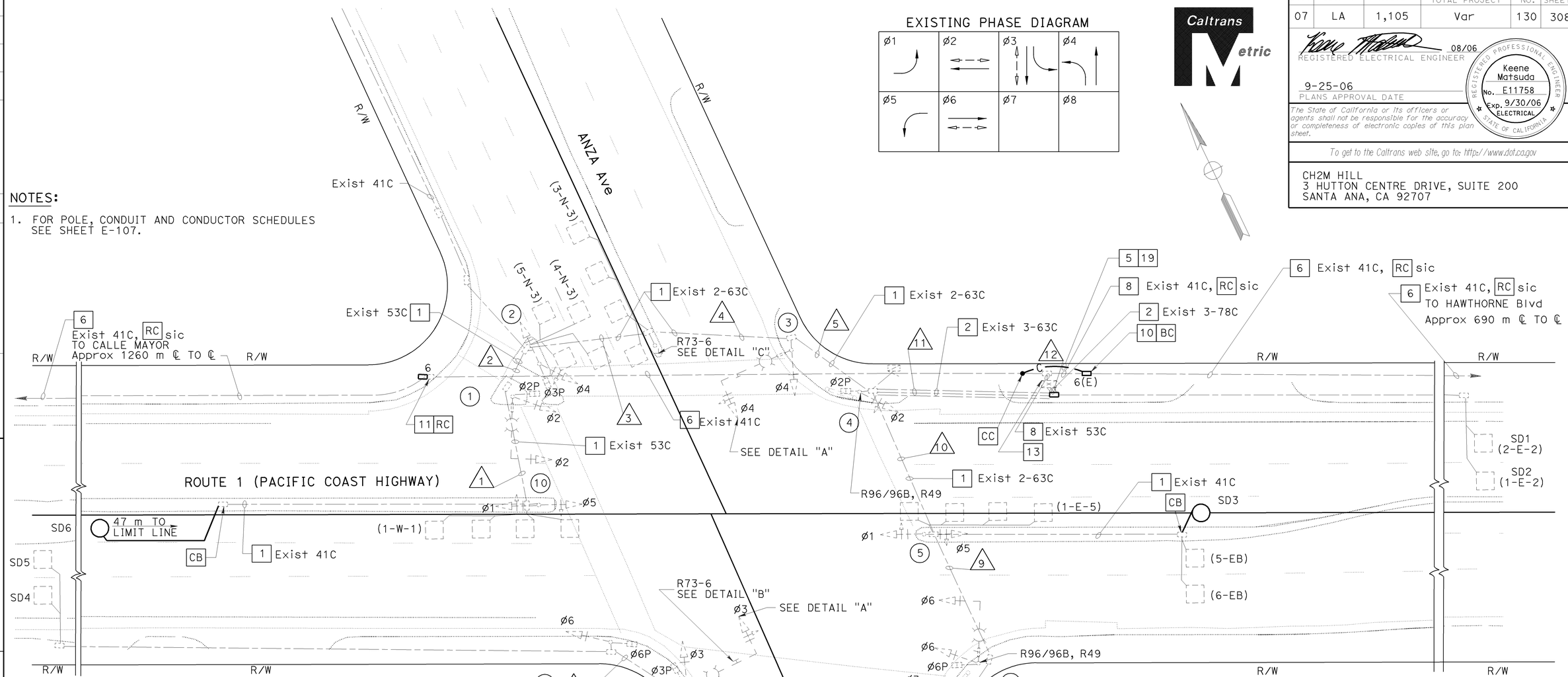
Caltrans Metric

## EXISTING PHASE DIAGRAM



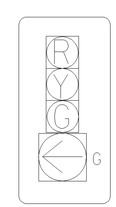

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-107.

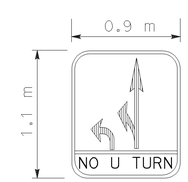



## PROJECT NOTES: (THIS SHEET ONLY)

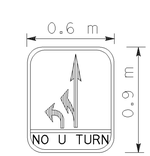
| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |




DETAIL "A"
NO SCALE




MODIFIED R73-6 SIGN
DETAIL "B"
NO SCALE




MODIFIED R73-6
DETAIL "C"
NO SCALE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 43)

## (ROUTE 1/ANZA AVENUE/VISTA MONTANA)

SCALE 1:200

**E-106**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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Caltrans

LAST REVISION 00-00-00
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TIME PLOTTED => 05:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trannda
DGN FILE => 725730ua106.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 131 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


Caltrans Metric

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #14 | ø1 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 6 | 6 |
| | ø2 | - | 3 | 3 | 3 | 3 | - | - | - | - | - | 6 | 6 |
| | ø3 | - | - | 3 | 3 | 3 | - | 3 | 3 | 3 | 3 | 6 | 6 |
| | ø4 | - | - | 3 | 3 | 3 | - | - | 3 | 3 | 3 | 6 | 6 |
| | ø5 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 6 | 6 |
| | ø6 | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø2 PED | - | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 | 2 |
| | ø6 PED | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | ø3 PED | - | - | 2 | 2 | 2 | - | 2 | 2 | 2 | 2 | 4 | 4 |
| | ø2 PPB | - | - | 1 | 1 | 1 | - | - | - | - | - | 1 | 1 |
| | ø6 PPB | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø3 PPB | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 |
| | TOTAL | 11 | 16 | 25 | 25 | 25 | 10 | 16 | 19 | 19 | 25 | 53 | 53 |
| 2#14 CABLE | ø1 DETECTOR | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - | - | 1 | 1 |
| | ø2 DETECTOR | - | - | - | - | - | - | - | - | - | - | - | 2 |
| | ø3 DETECTOR | - | - | 2 | 3 | 3 | - | - | - | - | - | 3 | 5 |
| | ø4 DETECTOR | - | - | - | - | - | - | - | 5 | 5 | 5 | 5 | 5 |
| | ø5 DETECTOR | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 |
| | ø6 DETECTOR | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | WB SAMPLING DETECTOR | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 | 2 |
| | EB SAMPLING DETECTOR | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 |
| | TOTAL | 3 | 3 | 7 | 8 | 8 | 2 | 2 | 7 | 7 | 10 | 18 | 20 |
| #10 | LUMINAIRE | - | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | 2 | - | - |
| | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 2 |
| | TOTAL | 1 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 2 | 2 |
| #12 | IISNS | - | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | 2 | - | - |
| #8 | SIGNAL SERVICE | - | - | - | - | - | - | - | - | - | - | 2 | 2 |
| | CONDUIT SIZE (mm) | 53 | 53 | 2-63 | 2-63 | 2-63 | 53 | 53 | 2-63 | 2-63 | 2-63 | 3-63 | 3-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | LUMINAIRE HPS (W) | IISNS LEGEND | SIGNAL MOUNTING VEHICLE POLE | VEHICLE MA | PED | PPB ø |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 9.1 | 5.5 | 3.7 | 200 | ANZA AVENUE | SV-1-T | mas | SP-1-T | 3 |
| 2 | 1-A | 3.1 | - | - | - | - | TV-2-T | - | SP-1-T | 2 |
| 3 | 17 | 9.1 | 5.5 | 3.7 | 200 | PACIFIC COAST HIGHWAY | SV-1-T | mas | - | 2 |
| 4 | 1-A | 3.1 | - | - | - | - | TV-1 | - | SP-1-T | - |
| 5 | 1-A | 3.1 | - | - | - | - | LT-2-T | - | - | - |
| 6 | 17 | 9.1 | 5.5 | 3.7 | 200 | ANZA AVENUE | SV-1-T | mas | SP-1-T | - |
| 7 | 1-A | 3.1 | - | - | - | - | TV-2-T | - | - | 6 |
| 8 | 17-3-113 | 9.1 | 6.1 | 3.7 | 200 | PACIFIC COAST HIGHWAY | SV-1-T | mas | SP-1-T | 6 |
| 9 | 1-A | 3.1 | - | - | - | - | TV-1 | - | SP-1-T | 8 |
| 10 | 1-A | 3.1 | - | - | - | - | LT-2-T | - | - | 3 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 43)**

**(ROUTE 1/ANZA AVENUE/VISTA MONTANA)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-107**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |

| DATE | REVISED BY |
|---|---|
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 05:54

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 132 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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SANTA ANA, CA 92707

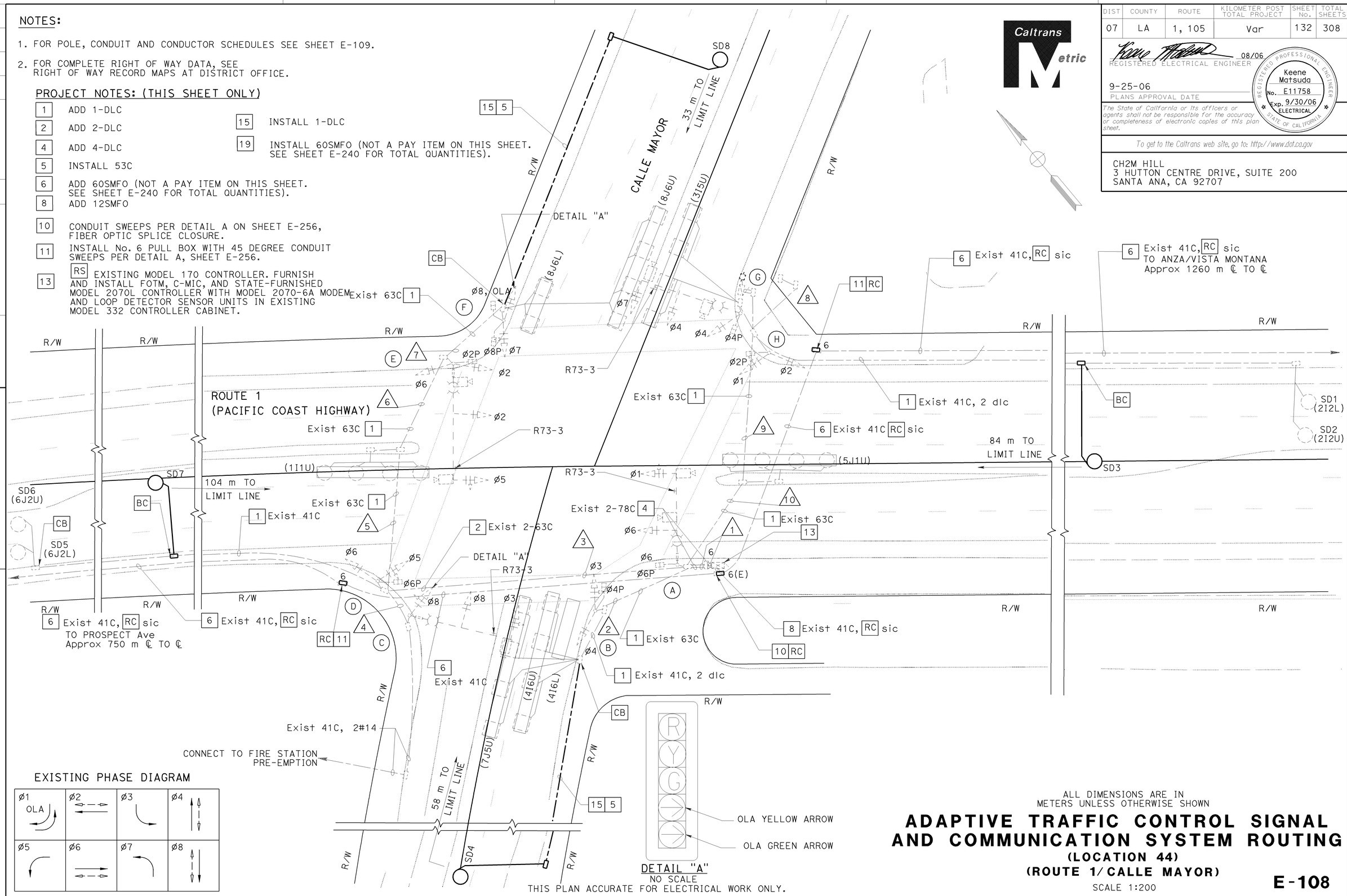
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-109.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

### PROJECT NOTES: (THIS SHEET ONLY)

- [1] ADD 1-DLC
- [2] ADD 2-DLC
- [4] ADD 4-DLC
- [5] INSTALL 53C
- [6] ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
- [8] ADD 12SMFO
- [10] CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- [11] INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [15] INSTALL 1-DLC
- [19] INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).




### EXISTING PHASE DIAGRAM




### DETAIL "A"

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 44)

## (ROUTE 1/CALLE MAYOR)

SCALE 1:200

**E-108**

| DESIGN OVERSIGHT | CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY | DATE REVISED |
|---|---|---|---|---|---|
| YEFIM ZABEZHINSKY | CHECKED BY | KM | 4/06 | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua108.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 06:04

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 133 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| DLC | ø1 | 1 | - | 1 | - | 1 | - | - | - | - | - |
| | ø2 | 2 | - | - | - | - | - | - | - | 2 | 2 |
| | ø3 | 1 | - | - | - | - | - | - | 1 | 1 | 1 |
| | ø4 | 1 | 1 | - | - | - | - | - | - | - | - |
| | ø5 | 1 | - | - | - | - | - | - | - | - | 1 |
| | ø6 | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| | ø7 | 2 | - | 2 | - | - | - | - | - | - | - |
| | ø8 | 1 | 1 | - | - | - | - | - | - | - | - |
| #6 | SIGNAL SERVICE | 2 | - | 2 | - | 2 | 2 | 2 | - | - | - |
| #10 | LUMINAIRE | 2 | - | - | - | - | - | - | - | 2 | 2 |
| | IISNS | - | - | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 |
| #14 | FIRE STATION PREE-EMPTION | 2 | - | 2 | 2 | - | - | - | - | - | - |
| | 28-CONDUCTOR CABLE | 4 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 |
| | EVPE (3#20 CABLE) | 4 | - | 2 | 1 | 1 | 1 | - | 1 | 1 | 1 |
| | VIDEO IMAGING DETECTION | 4 | - | 2 | 1 | 1 | 1 | - | 1 | 1 | 1 |
| | CONDUIT SIZE (mm) | 2-78C | 63C | 2-63C | 63C | 63C | 63C | 63C | 63C | 63C | 63C |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | ø | ARROW | | |
| A | 26A-4-129 | 12.2 | 4.6 | mas,mat | SV-1-T | SP-1-T | 4 | ← | 250 | - |
| B | 1-A | - | - | - | TV-2-T | SP-1-T | 6 | → | - | - |
| C | 26A-4-129 | 12.2 | 4.6 | mas,mat | SV-1-T | SP-1-T | 6 | ← | 250 | - |
| D | 1-A | - | - | - | TV-2-T | SP-1-T | 8 | → | - | - |
| E | 26A-4-129 | 12.2 | 4.6 | mas,mat | SV-1-T<br>SV-1-T | SP-1-T | 8 | ← | 250 | - |
| F | 1-A | - | - | - | TV-2-T | SP-1-T | 2 | → | - | - |
| G | 26A-4-129 | 15.2 | 4.6 | mas,mat | SV-1-T | SP-1-T | 2 | ← | 250 | - |
| H | 1-A | - | - | - | TV-2-T | SP-1-T | 4 | → | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 44)**
**(ROUTE 1/CALLE MAYOR)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-109**

| | | | |
|---|---|---|---|
| MR | DATE 4/06 | REVISED BY | |
| KM | 4/06 | DATE REVISED | |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
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|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 134 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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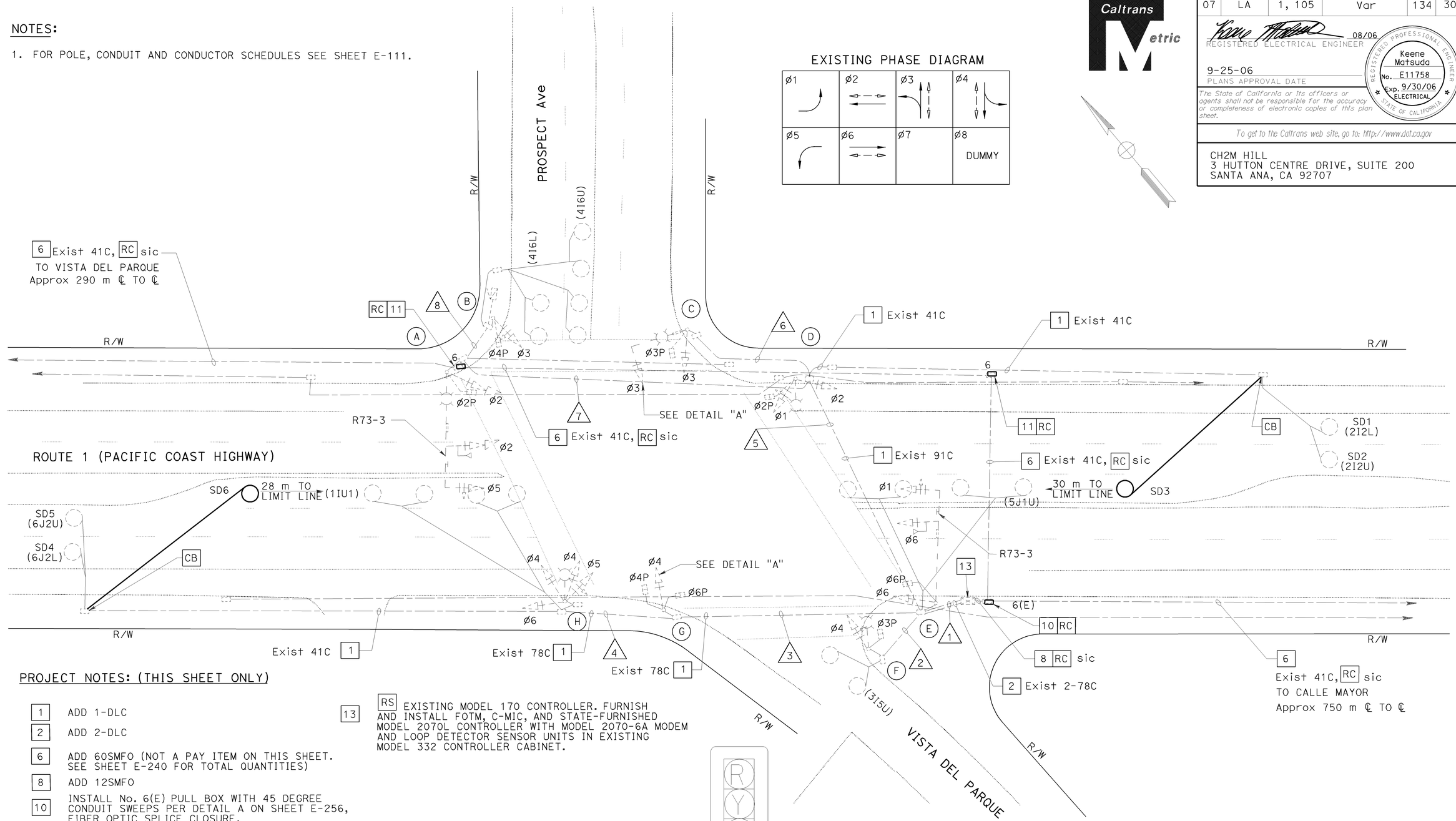
SANTA ANA, CA 92707

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-111.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |

DETAIL "A"
NO SCALE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 45)

## (ROUTE 1/ PROSPECT AVENUE)

SCALE 1:200

**E-110**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | DATE 4/06 | MR | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| REVISED BY | 4/06 | KM | CHECKED BY |
| DATE REVISED | | | |

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua110.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 06:04

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 135 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| DLC | ø1 | 1 | - | 1 | 1 | - | - | - | - |
| | ø2 | 2 | - | - | - | 2 | - | - | - |
| | ø3 | 1 | 1 | - | - | - | - | - | - |
| | ø4 | 2 | - | - | - | 2 | - | 2 | 2 |
| | ø5 | 1 | - | - | - | - | - | - | - |
| | ø6 | 2 | - | 2 | 2 | - | - | - | - |
| | TOTAL | 9 | 1 | 3 | 3 | 4 | - | 2 | 2 |
| #8 | LUMINAIRE | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| #10 | IISNS | - | - | - | - | 2 | 2 | 2 | 2 |
| #6 | SERVICE | 2 | - | - | - | 2 | - | 2 | 2 |
| 28-CONDUCTOR CABLE | SIGNALS | 4 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |
| 3-CONDUCTOR CABLE | EV DETECTOR | 2 | - | - | - | 1 | 1 | 1 | - |
| | CONDUIT SIZE (mm) | 2-78 | 53 | 78 | 78 | 91 | 78 | 91 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | ø | ARROW | | |
| A | 26-4-161 | 12.2 | 2.4 | mas,mat | SV-1-T | SP-1-T | 4 | ← | 200 | IISNS PROSPECT AVENUE |
| B | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | → | - | - |
| C | 17-2-129 | - | - | mat | SV-1-T | SP-1-T | 2 | ← | 200 | IISNS PACIFIC COAST HGHWAY |
| D | 15TS | - | 4.6 | - | SV-2-TA | SP-1-T | 3 | → | 200 | - |
| E | 27-4-161 | 12.2 | - | mas,mat | SV-1-T | SP-1-T | 3 | ← | - | IISNS VISTA DEL PARQUE |
| F | 15TS | - | 4.6 | - | SV-1-T | SP-1-T | 6 | ← | 200 | - |
| G | 1-A | - | - | - | TV-1-T | SP-2-T | 6 | → | - | - |
| H | 15 | - | - | - | SV-3-TA SV-1-T | - | 4 | → | 200 | - |

SNS = STREET NAME SIGN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 45)**

**(ROUTE 1/PROSPECT AVENUE)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-111**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | | |
| CALCULATED/DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 136 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

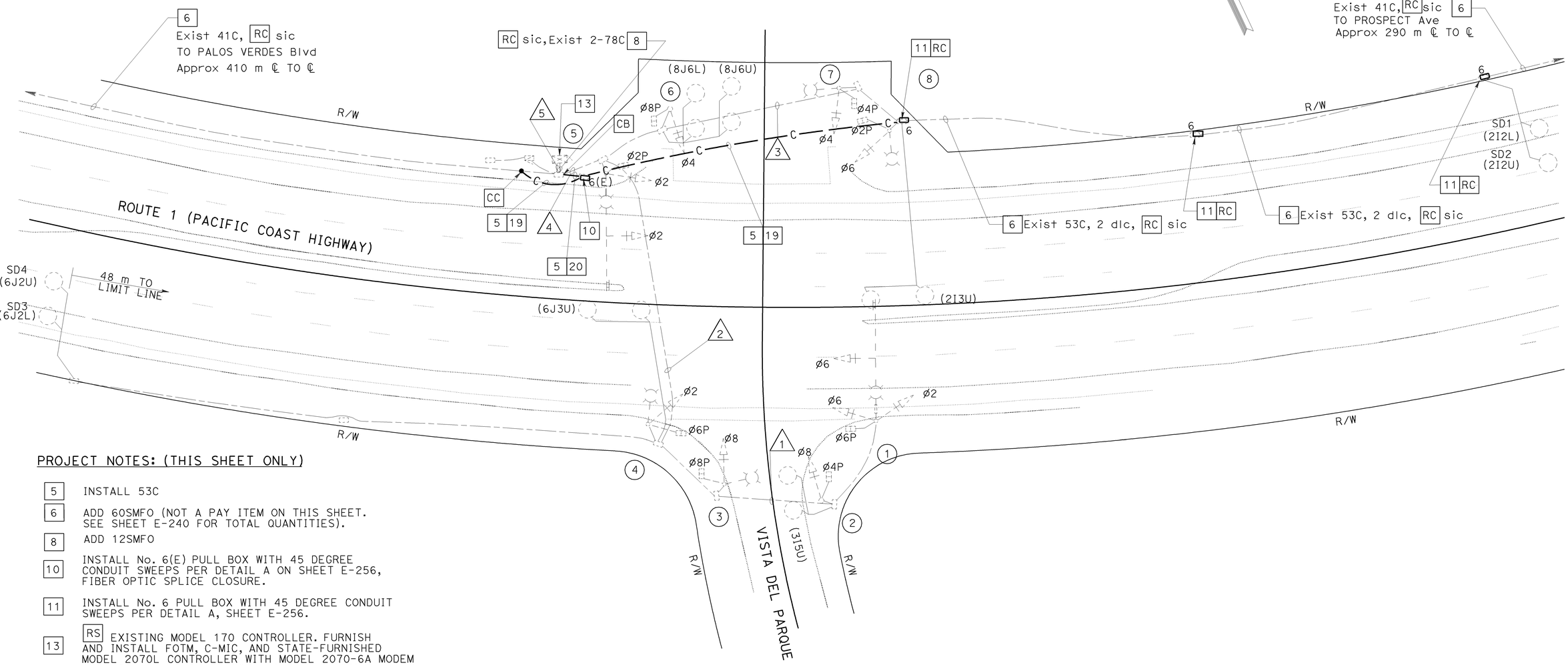
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-113.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 20 | INSTALL 12SMFO. |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 46)

## (ROUTE 1/ VISTA DEL PARQUE)

SCALE 1:200

**E-112**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua112.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 06:04

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 137 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 2-28-CONDUCTOR CABLE | | 1 | 1 | 1 | 2 | 2 |
| #8 | LUMINAIRE | 2 | 2 | 2 | 2 | - |
| dlc | ø2 DETECTOR | - | - | 2 | 2 | 2 |
| | ø4 DETECTOR | - | - | - | 2 | 2 |
| | ø6 DETECTOR | - | 2 | - | 2 | 2 |
| | ø8 DETECTOR | 1 | 1 | - | 1 | 1 |
| #6 | SERVICE | - | - | - | - | 3 |
| #12 | IISNS | 2 | 2 | 2 | 2 | - |
| 12 PR #20 INTERCONNECT | | - | - | 1 | 1 | 2 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE HPS (W) | ISNS LEGEND | SIGNAL MOUNTING | | | | PPB | | POLE LOCATION | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | | | VEHICLE | | | PED | ø | ARROW | A (m) | B (m) |
| 1 | 26-4-113 | 9.1 | 13.7 | 4.6 | 200 | - | - | 2-mas | SV-1-T | SP-1-CS | 8 | ← | - | - |
| 2 | 1-A | 9.1 | - | - | - | - | - | - | TV-1-T | SP-1-CS | - | - | 3.1 | 0.6 |
| 3 | 15 | 9.1 | - | 4.6 | 200 | - | - | - | SV-1-T | SP-1-CS | - | - | 2.0 | 1.2 |
| 4 | 15 | 9.1 | - | 4.6 | 200 | - | - | - | SV-1-T | SP-1-CS | 4 | → | 1.3 | 0.9 |
| 5 | 26-4-113 | 9.1 | 13.7 | 4.6 | 200 | VISTA DEL PARQUE | - | 2-mas | SV-1-T | SP-1-CS | 4 | ← | 0.4 | 0.9 |
| 6 | 1-A | 9.1 | - | - | - | - | - | - | TV-1-T | SP-1-CS | - | - | 0.8 | - |
| 7 | 15 | 9.1 | - | 4.6 | 200 | - | - | - | SV-1-T | SP-1-CS | - | - | 2.3 | 1.2 |
| 8 | 15 | 9.1 | - | 4.6 | 200 | - | - | - | SV-1-T | SP-1-CS | 8 | → | 2.0 | 1.9 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 46)**

**(ROUTE 1/ VISTA DEL PARQUE)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-113**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => trmikesl
DGN FILE => 725730ua113.dgn
CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 138 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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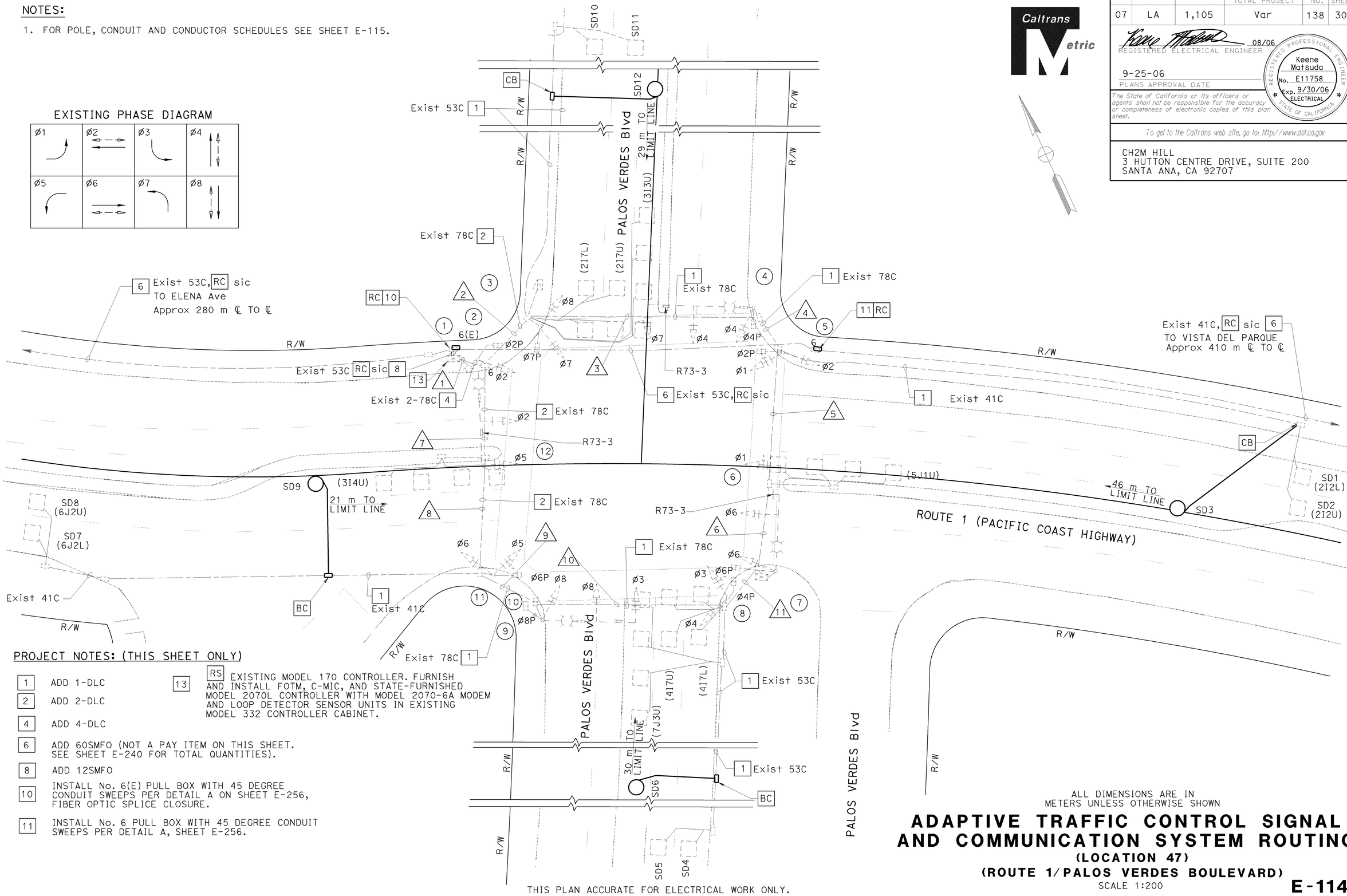
SANTA ANA, CA 92707

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-115.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 4 | ADD 4-DLC |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 47)

## (ROUTE 1/PALOS VERDES BOULEVARD)

SCALE 1:200

**E-114**

| | DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|---|
| | 4/06 | MR | 4/06 | KM |

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DESIGN OVERSIGHT
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua114.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 139 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| #8 DLC | Ø1 DETECTOR | 1 | - | - | - | - | - | 1 | - | - | - | - |
| | Ø2 DETECTOR | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - |
| | Ø3 DETECTOR | 1 | 1 | - | - | - | - | - | - | - | - | - |
| | Ø4 DETECTOR | 4 | - | - | - | - | - | 4 | 4 | 4 | 4 | - |
| | Ø5 DETECTOR | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | - |
| | Ø6 DETECTOR | 2 | - | - | - | - | - | 2 | 2 | - | - | - |
| | Ø7 DETECTOR | 1 | - | - | - | - | - | 1 | 1 | 1 | 1 | - |
| | Ø8 DETECTOR | 4 | 4 | - | - | - | - | - | - | - | - | - |
| | TOTAL | 16 | 8 | 3 | 3 | 1 | - | 8 | 7 | 5 | 5 | - |
| #8 | LUMINAIRE | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| #10 | IISNS | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| #6 | SIGNAL SERVICE | 2 | 2 | - | - | - | - | - | - | - | - | - |
| | EVP CABLE | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - |
| CONDUIT SIZE (mm) | | 2-78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| POLE No. | POLE TYPE | SIGNAL MA LENGTH (m) | LUMINAIRE MA LENGTH (m) | LUMINAIRE HPS WATTS | SIGNAL MOUNTING VEHICLE | SIGNAL MOUNTING PED | PED PUSH BUTTON NO. | PED PUSH BUTTON Ø | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | POLE LOCATION(m) A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26-4-129 | 12.2 | 4.6 | 250 | 2-mas SV-1-T | SP-1-T | - | - | II | PALOS VERDES BOULEVARD | - | - | - | - | - |
| 2 | PPB POST | - | - | - | - | - | 1 | 8 | - | - | - | - | - | - | - |
| 3 | 1-A | - | - | - | TV-2-T | SP-1-T | 1 | 2 | - | - | - | - | - | - | - |
| 4 | 26-4-129 | 12.2 | 2.4 | 250 | 2-mas SV-1-T | SP-1-T | 1 | 2 | II | PACIFIC COAST HIGHWAY | - | - | 2.7 | - | 0.8 |
| 5 | 1-A | - | - | - | TV-2-T | SP-1-T | 1 | 4 | - | - | - | - | - | - | - |
| 6 | PPB POST | - | - | - | - | - | 1 | 4 | - | - | - | - | - | - | - |
| 7 | 26-4-129 | 12.2 | 4.6 | 250 | 2-mas SV-1-T | SP-1-T | 1 | 4 | II | PALOS VERDES BOULEVARD | - | - | - | - | - |
| 8 | 1-A | - | - | - | TV-2-T | SP-1-T | 1 | 6 | - | - | - | - | - | - | - |
| 9 | 26-4-129 | 10.7 | 2.4 | 250 | 2-mas SV-1-T | SP-1-T | - | - | II | PACIFIC COAST HIGHWAY | - | - | - | - | - |
| 10 | PPB POST | - | - | - | - | - | 1 | 6 | - | - | - | - | 4.6 | - | 0.8 |
| 11 | 1-A | - | - | - | TV-2-T | SP-1-T | 1 | 8 | - | - | - | - | - | - | - |
| 12 | PPB POST | - | - | - | - | - | 1 | 8 | - | - | - | - | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 47)**

**(ROUTE 1/PALOS VERDES BOULEVARD)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-115**

| REVISED BY | DATE REVISED |
|---|---|
| MR | 4/06 |

| CALCULATED/DESIGNED BY | DATE |
|---|---|
| KM | 4/06 |

CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua115.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 140 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

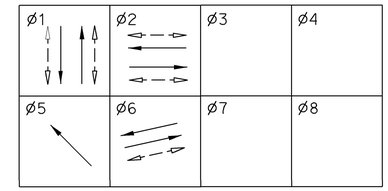
## PROJECT NOTES: (THIS SHEET ONLY)

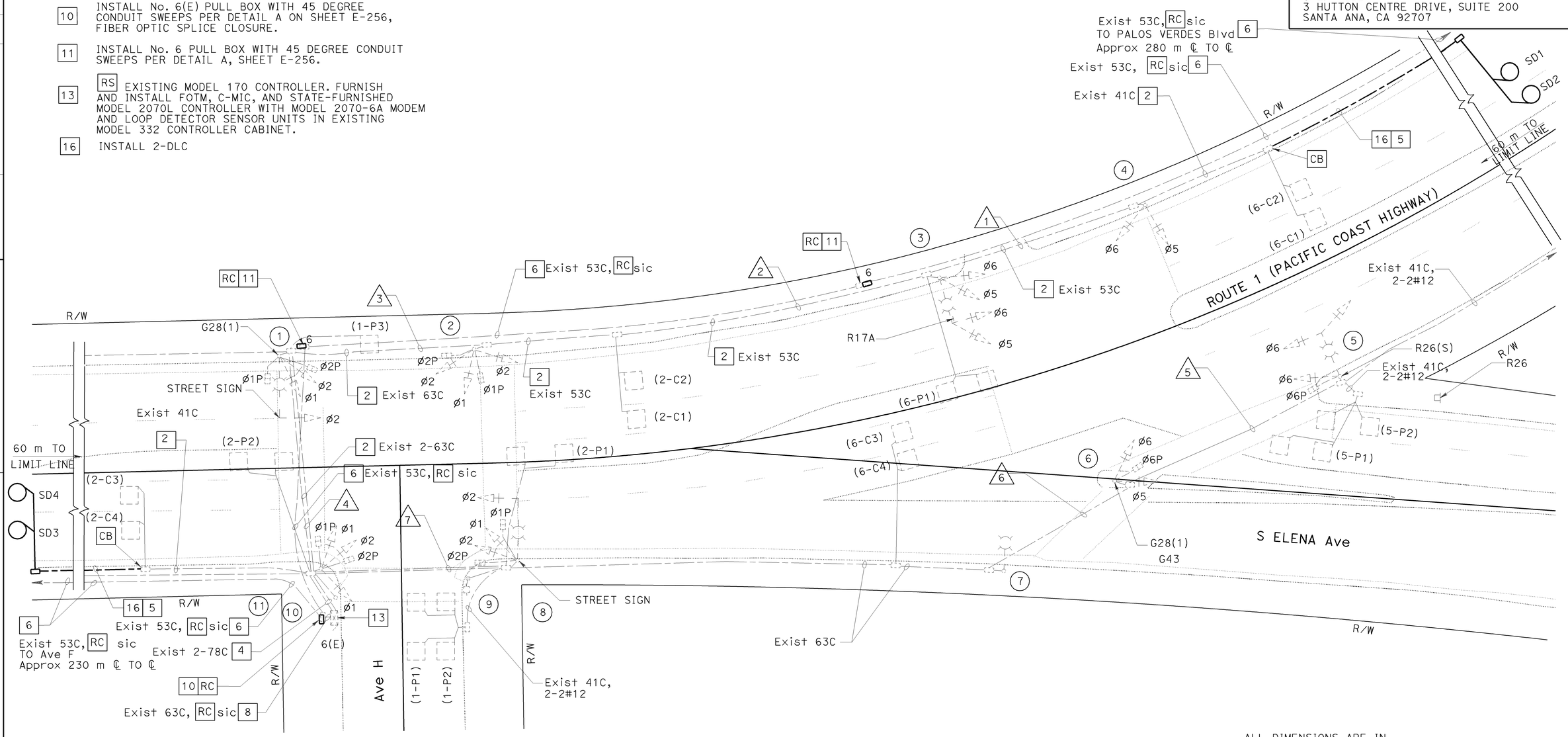
- 2 ADD 2-DLC.
- 4 ADD 4-DLC.
- 5 INSTALL 53C
- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
- 8 ADD 12SMFO
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- 16 INSTALL 2-DLC

## NOTES:

1. FOR POLE, CONDUIT, CONDUCTOR SCHEDULES SEE SHEET E-117.

## EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 48)

## (ROUTE 1/ AVENUE H & ELENA AVENUE)

SCALE 1:200

**E-116**

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|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

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TIME PLOTTED => 06:05

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua116.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 141 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH (W) HPS | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | mas | SP-2-T | 2 1 |
| 2 | 1-A | 3.1 | - | - | - | TV-3-T | - | SP-2-T | 2 1 |
| 3 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | △ | - | - |
| 4 | 1-A | 3.1 | - | - | - | TV-2-T | - | - | - |
| 5 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | △ | SP-1-T | 6 |
| 6 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-1-T | 6 |
| 7 | 15 | 9.1 | - | 2.4 | 250 | - | - | - | - |
| 8 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | mas | SP-2-T | 1 |
| 9 | PPB POST | 1.2 | - | - | - | - | - | - | 2 |
| 10 | PPB POST | 1.2 | - | - | - | - | - | - | 2 |
| 11 | 1-A | 3.1 | - | - | - | TV-3-T | - | SP-2-T | 1 |

△ SPECIAL MAST ARM MOUNT

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| #14 | ø2 | - | - | 3 | 3 | - | - | 3 |
| | ø6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ø5 | 3 | 3 | 3 | 3 | - | 3 | 3 |
| | ø1 | - | - | 3 | 3 | - | - | 3 |
| | ø2P | - | - | 2 | 2 | - | - | 2 |
| | ø6P | - | - | - | - | 2 | 2 | 2 |
| | ø1P | - | - | 2 | 2 | - | - | 2 |
| | ø2PPB | - | - | 2 | 2 | - | - | 2 |
| | ø6PPB | - | - | - | - | 2 | 2 | 2 |
| | ø1PPB | - | - | 2 | 2 | - | - | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 9 | 9 | 23 | 23 | 10 | 13 | 27 |
| 2#12 CABLE | ø2P DETECTOR | - | - | - | - | - | - | 1 |
| | ø2C DETECTOR | - | - | 2 | 2 | - | - | - |
| | ø6P DETECTOR | - | 1 | 1 | 1 | - | - | - |
| | ø6C DETECTOR | 2 | 2 | 2 | 2 | - | - | 2 |
| | ø5P DETECTOR | - | - | - | - | 2 | 2 | 2 |
| | ø1P DETECTOR | - | - | - | 1 | - | - | 2 |
| | NB DETECTOR | - | - | - | 2 | - | - | - |
| | SB DETECTOR | - | - | - | - | 2 | 2 | 2 |
| | TOTAL | 2 | 3 | 5 | 8 | 4 | 4 | 9 |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - | - | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | - | - | - | 2 | - | - | 2 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRE | - | 2 | 2 | 2 | 2 | 2 | 2 |
| | TOTAL | 1 | 3 | 3 | 3 | 3 | 3 | 3 |
| #8 | SERVICE | - | - | - | - | - | - | - |
| ** | EMERGENCY VEHICLE DETECTOR | - | - | - | 2 | 2 | 2 | 2 |
| CONDUIT SIZE (mm) | | 53 | 53 | 63 | 2-63 | 63 | 63 | 2-63 |

** CABLE AS SPECIFIED BY THE MANUFACTURER

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 48)**

**(ROUTE 1/AVENUE H/ELENA BOULEVARD)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-117**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 142 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


Caltrans Metric

## PROJECT NOTES: (THIS SHEET ONLY)

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

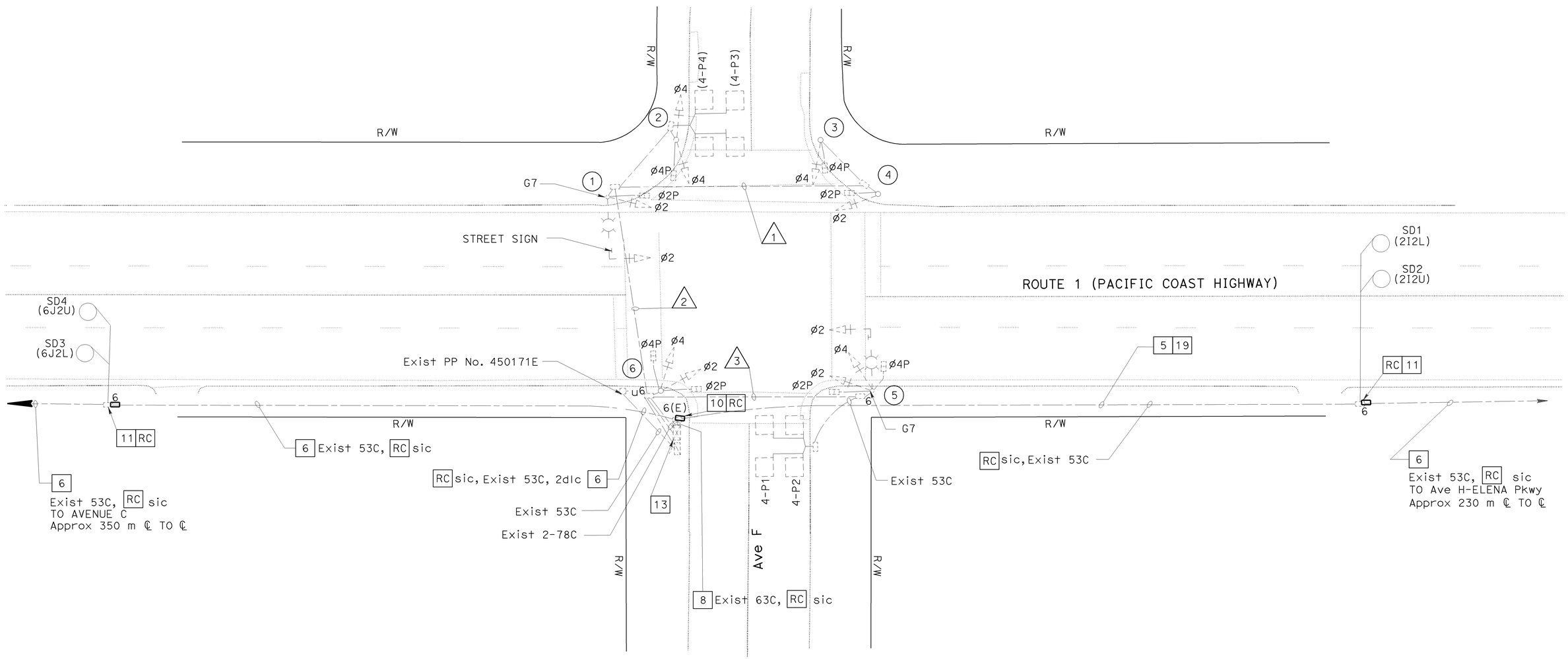
11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-119.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




### EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 49)**

**(ROUTE 1/ AVENUE F)**

SCALE 1:200

**E-118**

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:23

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua118.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 143 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH (W) | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPS | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-1-T | 4 |
| 2 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-1-T | - |
| 3 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | - |
| 4 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | 4 |
| 5 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | mas | SP-2-T | 4 |
| 6 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-2-T | 4 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| #14 | ø2 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 |
| | ø4PPB | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 15 | 15 | 15 |
| 2#12 | ø4P DETECTOR | - | 2 | 2 |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | - | 2 | 2 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | LUMINAIRE | - | 2 | 2 |
| | TOTAL | 1 | 3 | 3 |
| #8 | SERVICE | - | - | - |
| | EMERGENCY VEHICLE DETECTOR | - | - | 1 |
| CONDUIT SIZE (mm) | | 63 | 63 | 63 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 49)**
**(ROUTE 1/ AVENUE F)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-119**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DATE PLOTTED => 27-SEP-2006
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua119.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 144 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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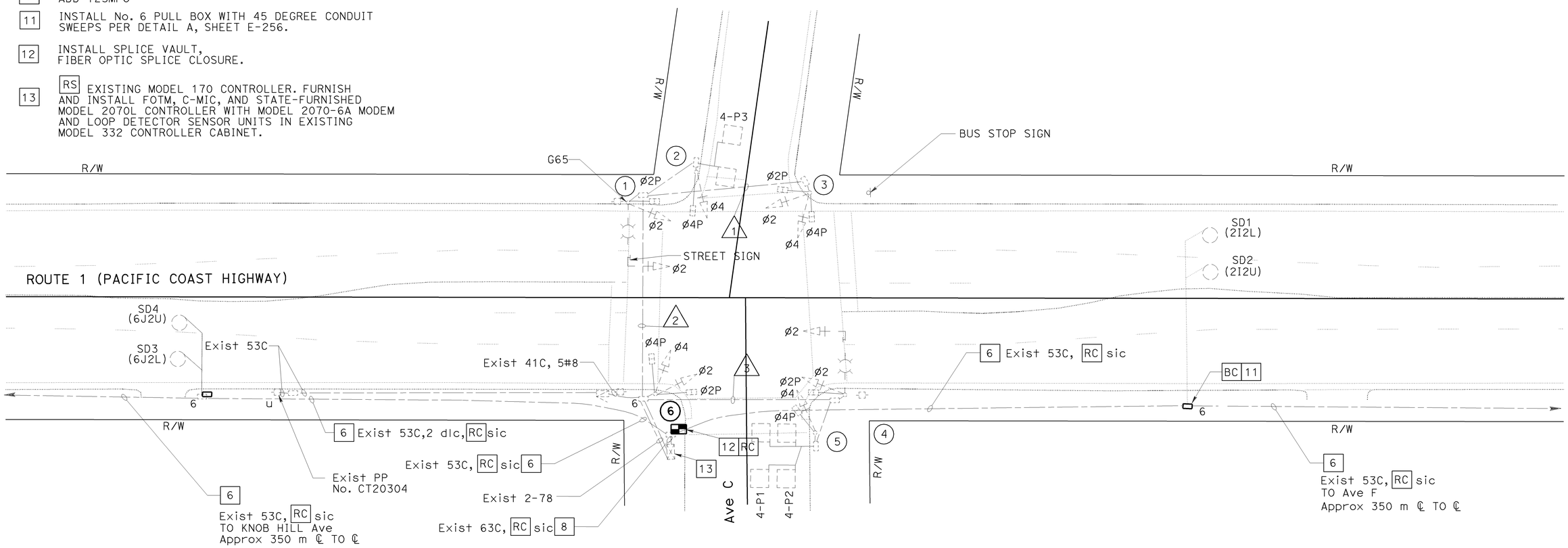
## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-121.

## PROJECT NOTES: (THIS SHEET ONLY)

- [6] ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
- [8] ADD 12SMFO
- [11] INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- [12] INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 50)**

**(ROUTE 1/ AVENUE C)**

SCALE 1:200

**E-120**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE REVISED |
|---|---|---|
| MR | KM | 4/06 |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 725730ua120.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 145 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | (W) HPS | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-1-T | 4 |
| 2 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | - |
| 3 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-2-T | 4 |
| 4 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-1-T | 4 |
| 5 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | - |
| 6 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-2-T | 4 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| #14 | ø2 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 |
| | ø4PPB | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 15 | 15 | 15 |
| 2#12 | ø4P DETECTOR | - | 1 | 2 |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | - | 2 | 2 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | LUMINAIRE | - | 2 | 2 |
| | TOTAL | 1 | 3 | 3 |
| #8 | SERVICE | - | - | - |
| | EMERGENCY VEHICLE DETECTOR | - | - | 1 |
| CONDUIT SIZE (mm) | | 63 | 63 | 63 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 50)**
**(ROUTE 1/ AVENUE C)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-121**

| DATE | REVISED BY | CALCULATED/ DESIGNED BY | MR |
|---|---|---|---|
| 4/06 | DATE REVISED | CHECKED BY | KM |

DESIGN OVERSIGHT
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| 07 | LA | 1,105 | Var | 146 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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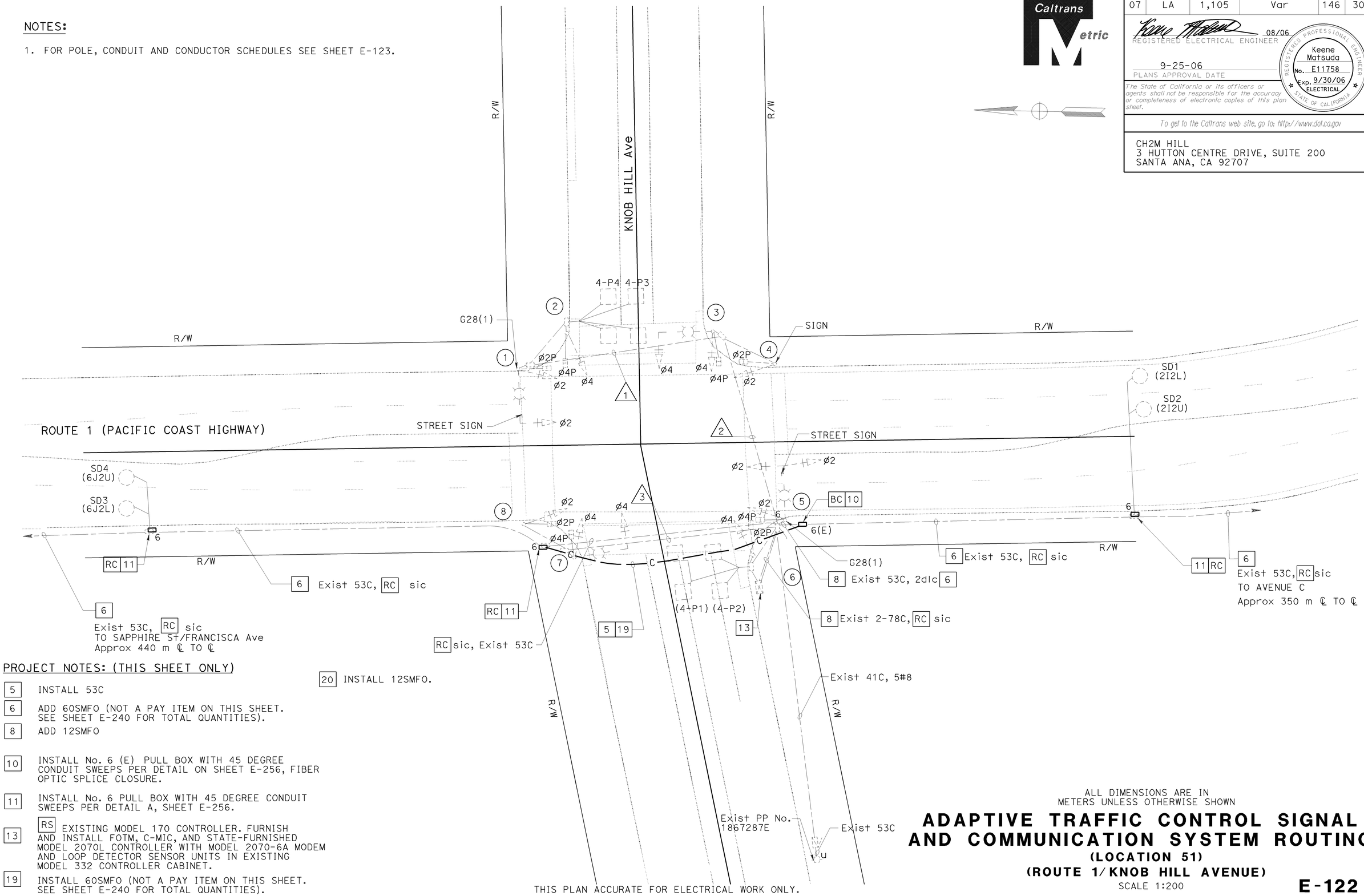
SANTA ANA, CA 92707


Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-123.




PROJECT NOTES: (THIS SHEET ONLY)

5 INSTALL 53C

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

8 ADD 12SMFO

10 INSTALL No. 6 (E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).

20 INSTALL 12SMFO.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 51)

## (ROUTE 1/ KNOB HILL AVENUE)

SCALE 1:200

E-122

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua122.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 147 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH | SIGNAL MOUNTING | | PED | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | (W) HPS | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-1-T | 4 |
| 2 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | - |
| 3 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-1-T | - |
| 4 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | 4 |
| 5 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | △ | SP-1-T | 4 |
| 6 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | - |
| 7 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-1-T | - |
| 8 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | 4 |

△ SPECIAL MAST ARM MOUNT

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| #14 | ø2 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 |
| | ø4PPB | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 15 | 15 | 15 |
| 2#12 | ø4P DETECTOR | 2 | 2 | - |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | 2 | 2 | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 |
| | TOTAL | 3 | 3 | 3 |
| #8 | SERVICE | - | - | - |
| | EMERGENCY VEHICLE DETECTOR | - | - | 1 |
| CONDUIT SIZE (mm) | | 63 | 63 | 63 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 51)**

**(ROUTE 1/KNOB HILL AVENUE)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-123**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 148 | 308 |

Keene Matsuda 08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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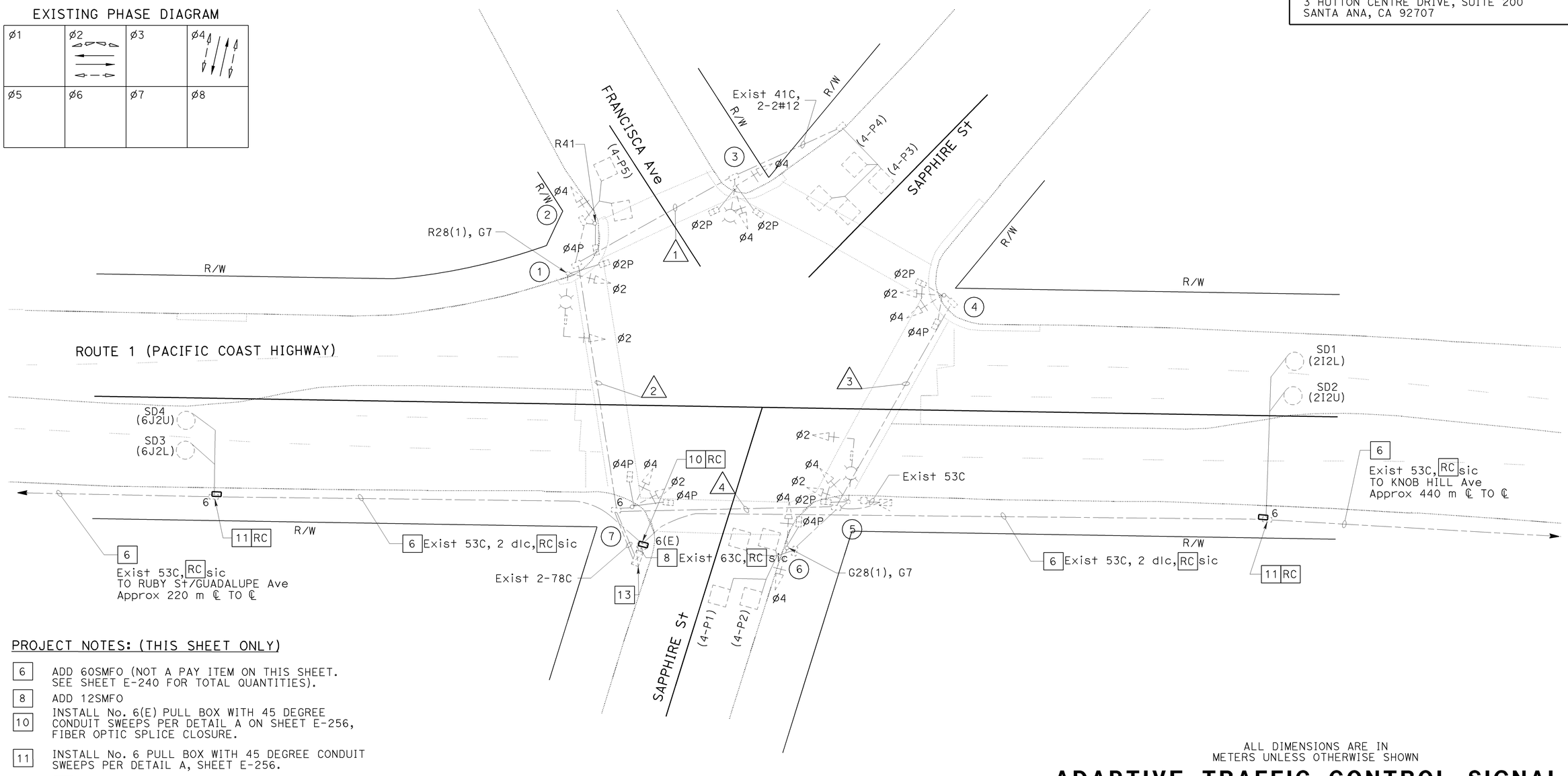
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-125.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |




PROJECT NOTES: (THIS SHEET ONLY)

- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
- 8 ADD 12SMFO
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 52)

## (ROUTE 1/SAPPHIRE STREET/FRANCISCA AVENUE)

SCALE 1:200

E-124

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
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DGN FILE => 725730ua124.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 149 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | (W) HPS | VEHICLE POLE | VEHICLE MA | PED | ø |
| 1 | 19-2-129 | 9.1 | 7.6 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | 4 |
| 2 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | - |
| 3 | 15 | 9.1 | - | 2.4 | 250 | SV-2-TA | - | SP-2-T | - |
| 4 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-2-T | 4 |
| 5 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | MAS | SP-1-T | 4 |
| 6 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-1-T | - |
| 7 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-2-T | 4 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| #14 | ø2 | - | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 | 3 |
| | ø4/SPECIAL RED BALL | - | 1 | - | 1 |
| | (ø1) | - | 2 | - | 2 |
| | ø2P | 2 | 2 | 2 | 2 |
| | ø4P | - | - | 2 | 2 |
| | ø4P(ø1P) | - | 2 | - | - |
| | ø4PPB | - | - | 2 | 2 |
| | ø4PPB(ø1PPB) | - | 2 | - | - |
| | SPARES | 3 | 3 | 3 | 3 |
| | TOTAL | 8 | 18 | 15 | 18 |
| 2#12 | ø4P DETECTORS | 2 | 2 | - | 2 |
| | ø4P (ø1P) DETECTORS | - | 1 | - | - |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | - | 2 | - | 2 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | - | 2 |
| | TOTAL | 3 | 3 | 1 | 3 |
| #8 | SERVICE | - | - | - | 2 |
| | EMERGENCY VEHICLE DETECTOR | - | - | - | 1 |
| CONDUIT SIZE (mm) | | 63 | 63 | 63 | 63 |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
## (LOCATION 52)
## (ROUTE 1/SAPPHIRE STREET/FRANCISCA AVENUE)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-125**

| | | |
|---|---|---|
| CALCULATED/DESIGNED BY | MR | DATE 4/06 REVISED BY |
| CHECKED BY | KM | 4/06 DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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DGN FILE => 725730ua125.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 150 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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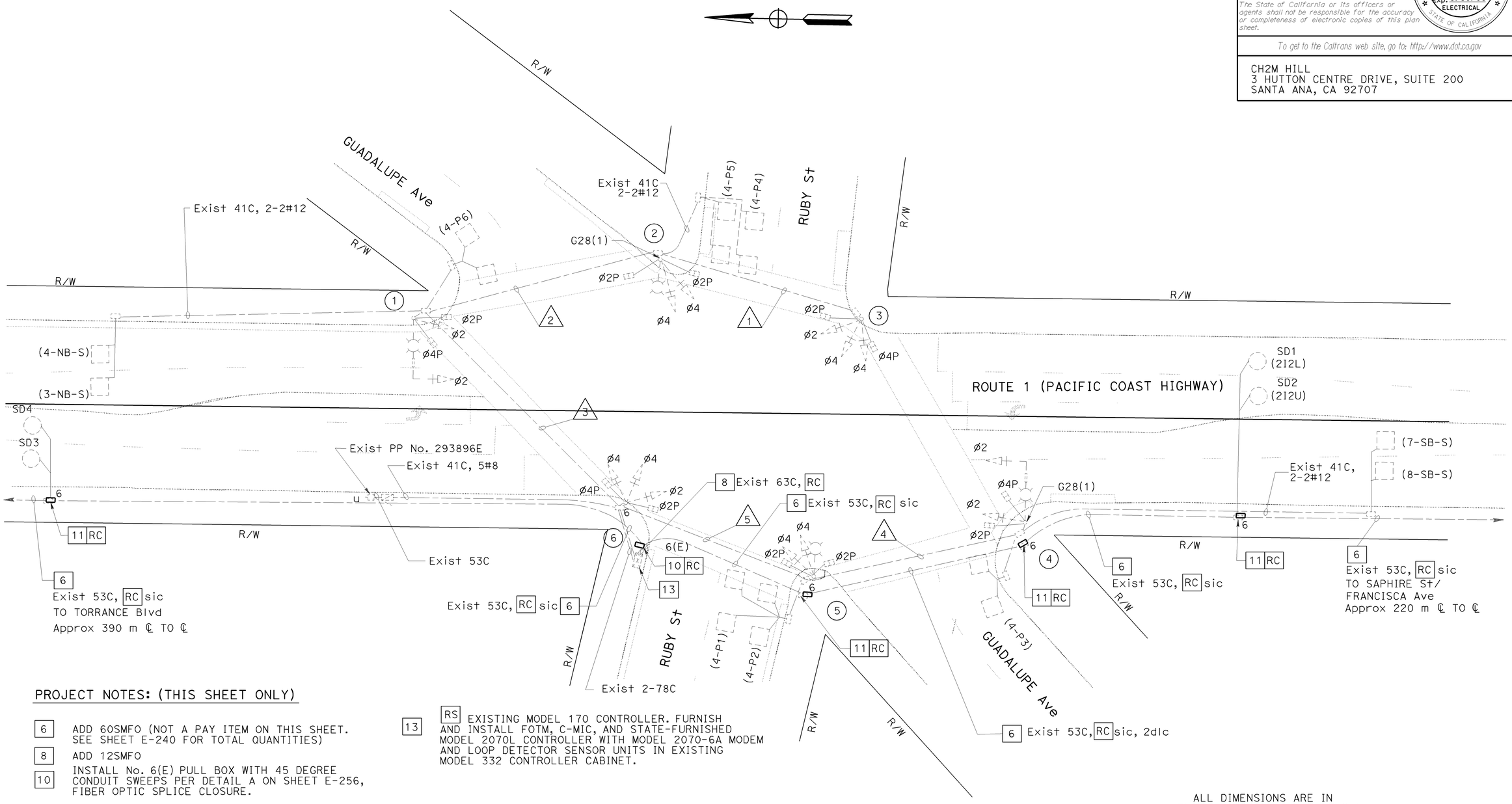
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-127.




## PROJECT NOTES: (THIS SHEET ONLY)

- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES)
- 8 ADD 12SMFO
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 53)

## (ROUTE 1/RUBY STREET/GUADALUPE AVENUE)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE 1:200

**E-126**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | MR | DATE 4/06 REVISED BY |
| CALCULATED/DESIGNED BY | KM | 4/06 | DATE REVISED |
| CHECKED BY | | | |

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DGN FILE => 725730ua126.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 151 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | (W) HPS | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-2-T | 4 |
| 2 | 15 | 9.1 | - | 2.4 | 250 | SV-2-TA | - | SP-2-T | - |
| 3 | 1-A | 3.1 | - | - | - | TV-3-T | - | SP-2-T | 4 |
| 4 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | mas | SP-2-T | 4 |
| 5 | 15 | 9.1 | - | 2.4 | 250 | SV-2-TA | - | SP-2-T | - |
| 6 | 1-A | 3.1 | - | - | - | TV-3-T | - | SP-2-T | 4 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| #14 | ø2 | 3 | 3 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 | - | 3 |
| | ø4/SPECIAL RED BALL | 1 | 1 | 1 | - | 1 |
| | ø2P | 2 | 2 | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 | 2 | 2 |
| | ø4PPB | 2 | 2 | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 16 | 16 | 16 | 12 | 16 |
| 2#12 CABLE | ø4P DETECTORS | - | 2 | 3 | 1 | 3 |
| | NB SAMPLING DETECTORS | - | - | 2 | - | - |
| | SB SAMPIING DETECTORS | - | - | - | 2 | 2 |
| | TOTAL | - | 2 | 5 | 3 | 5 |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | - | - | 2 | 2 | 2 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRE | - | 2 | 2 | 2 | 2 |
| | TOTAL | 1 | 3 | 3 | 3 | 3 |
| #8 | SERVICE | - | - | - | - | - |
| | EMERGENCY VEHICLE DETECTOR | - | - | 1 | - | - |
| CONDUIT SIZE (mm) | | 63 | 63 | 63 | 63 | 63 |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 53)**

**(ROUTE 1/RUBY STREET/GUADALUPE AVENUE)**

**E-127**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | | | |
|---|---|---|---|
| MR | DATE 4/06 | REVISED BY | |
| KM | 4/06 | DATE REVISED | |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 152 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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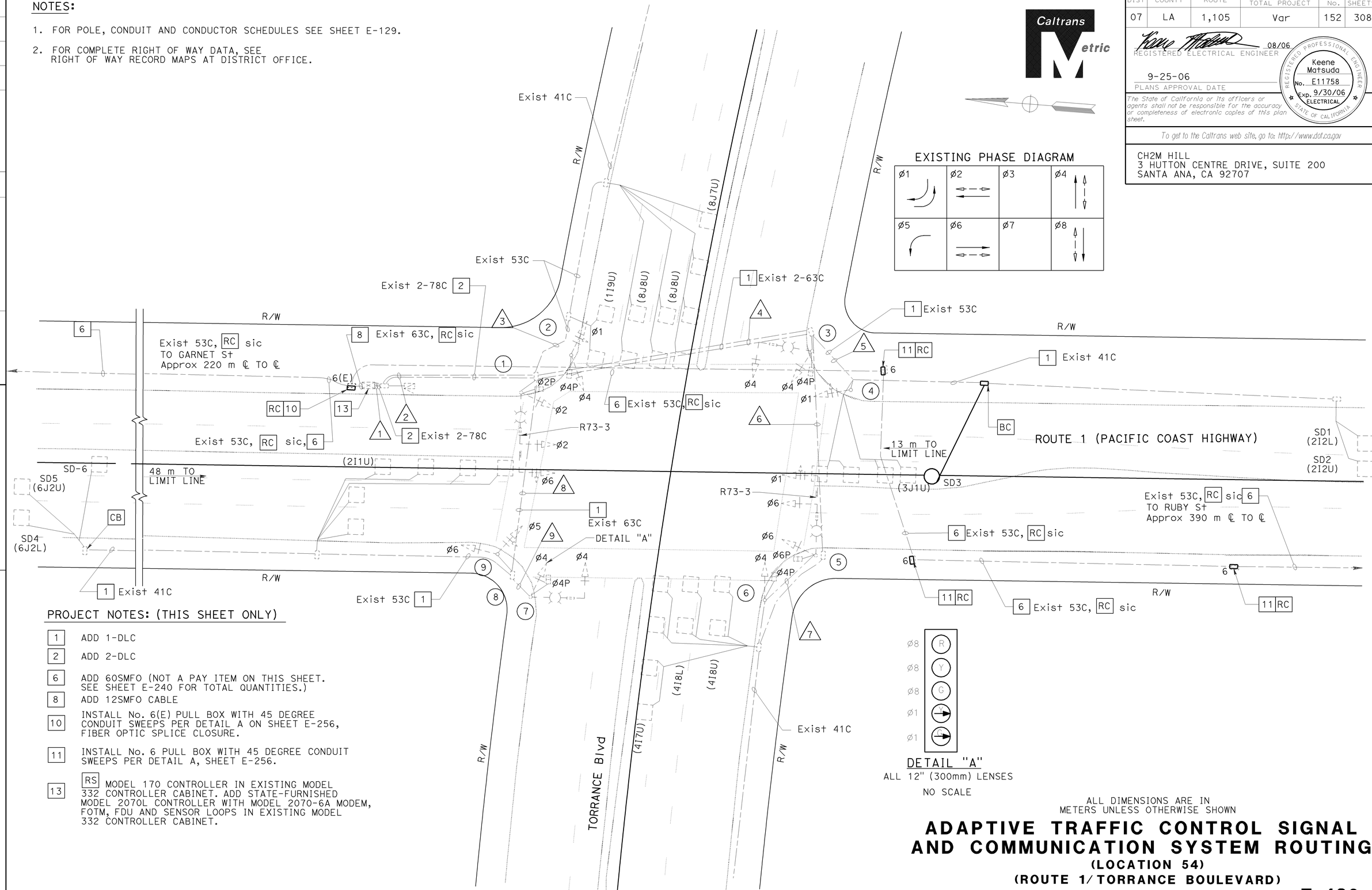
SANTA ANA, CA 92707

Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-129.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO CABLE |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET. |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 54)

## (ROUTE 1/ TORRANCE BOULEVARD)

SCALE 1:200

**E-128**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua128.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:21

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 153 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø1 | 5 | 5 | 2 | 3 | 3 | 3 | - | 2 | - |
| | Ø2 | 3 | 3 | - | 3 | 3 | - | - | - | - |
| | Ø3 | - | - | - | - | - | - | - | - | - |
| | Ø4 | 6 | 6 | 3 | 3 | - | 3 | 3 | 3 | - |
| | Ø5 | 3 | 3 | - | - | - | - | - | 3 | 3 |
| | Ø6 | 6 | 6 | - | 3 | - | 3 | - | 3 | 3 |
| | Ø7 | - | - | - | - | - | - | - | - | - |
| | Ø8 | - | - | - | - | - | - | - | - | - |
| | Ø2P | 2 | 2 | - | 2 | 2 | - | - | - | - |
| | Ø4P | 2 | 2 | - | 2 | - | 2 | 2 | - | - |
| | Ø6P | 4 | 4 | - | 2 | - | 2 | - | 2 | 2 |
| | Ø8P | 2 | 2 | 2 | - | - | - | - | 2 | - |
| | Ø2PPB | 1 | 1 | 1 | 1 | - | - | - | - | - |
| | Ø4PPB | 1 | 1 | - | 1 | 1 | 1 | - | - | - |
| | Ø6PPB | 2 | 2 | - | 1 | - | 1 | 1 | 1 | - |
| | Ø8PPB | 1 | 1 | - | - | - | - | - | 1 | 1 |
| | PPB COMMON | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | SPARES | 6 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 46 | 46 | 12 | 25 | 13 | 19 | 10 | 21 | 13 |
| DLC | Ø1 DETECTOR | 3 | 3 | - | - | - | - | - | 2 | - |
| | Ø2 DETECTOR | 2 | 2 | - | 2 | 2 | - | - | - | - |
| | Ø3 DETECTOR | - | - | - | - | - | - | - | - | - |
| | Ø4 DETECTOR | 5 | 5 | - | 3 | - | 5 | - | - | - |
| | Ø5 DETECTOR | 1 | 1 | - | 1 | 1 | - | - | - | - |
| | Ø6 DETECTOR | 2 | 2 | - | - | - | - | - | 2 | - |
| | Ø7 DETECTOR | - | - | - | - | - | - | - | - | - |
| | Ø8 DETECTOR | 4 | 4 | - | - | - | - | - | - | - |
| | TOTAL | 17 | 17 | - | 6 | 3 | 5 | - | 4 | - |
| #10 | LUMINAIRE | - | 4 | - | 2 | - | 2 | - | 2 | - |
| | SIGNAL COMMON | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | TOTAL | 2 | 6 | 1 | 3 | 1 | 3 | 1 | 3 | 1 |
| #12 | IISNS | - | 4 | - | 2 | - | 2 | - | 2 | - |
| #8 | SIGNAL SERVICE | 2 | - | - | - | - | - | - | - | - |
| | EYP CABLE | 4 | 4 | - | 1 | - | - | - | 1 | - |
| CONDUIT SIZE (mm) | | 2-78 | 2-78 | 53 | 2-63 | 53 | 2-63 | 53 | 2-63 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| POLE No. | POLE TYPE | SIGNAL MA LENGTH (m) | LUMINAIRE MA LENGTH (m) | LUMINAIRE HPS WATTS | SIGNAL MOUNTING VEHICLE | SIGNAL MOUNTING PED | PED PUSH BUTTON NO. | PED PUSH BUTTON Ø | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | POLE LOCATION(m) A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19-4-129 | 9.1 | 2.4 | 250 | 2-MAS SV-1-T | SP-1-T | 1 | 8 | II | TORRANCE BOULEVARD | - | - | - | - | - |
| 2 | 1-A | - | - | - | TV-2-T | SP-1-T | 1 | 2 | - | - | - | - | - | - | - |
| 3 | 26-4-129 | 9.1 | 2.4 | 250 | MAS SV-1-T | SP-1-T | 1 | 2 | II | PACIFIC COAST HIGHWAY | - | - | 3.4 | - | 0.8 |
| 4 | 1-A | - | - | - | TV-2-T | SP-1-T | 1 | 4 | - | - | - | - | - | - | - |
| 5 | 19-4-129 | 9.1 | 2.4 | 250 | 2-MAS SV-1-T | SP-1-T | 1 | 4 | II | TORRANCE BOULEVARD | - | - | - | - | - |
| 6 | 1-A | - | - | - | TV-1-T | - | 1 | 6 | - | - | - | - | - | - | - |
| 7 | 26-4-129 | 9.1 | 2.4 | 250 | MAS SV-1-T | SP-1-T | - | - | II | PACIFIC COAST HIGHWAY | - | - | - | - | - |
| 8 | PPB POST | - | - | - | - | | 1 | 6 | - | - | - | - | 3.6 | - | 0.8 |
| 9 | 1-A | - | - | - | TV-2-T | SP-1-T | 1 | 8 | - | - | - | - | - | - | - |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 54)**
**(ROUTE 1/TORRANCE BOULEVARD)**

NO SCALE

**E-129**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY
CALCULATED/DESIGNED BY: MR
CHECKED BY: KM
REVISED BY: DATE 4/06
DATE REVISED: 4/06

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:21

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => trmnguye
DGN FILE => 725730ua129.dgn
CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 154 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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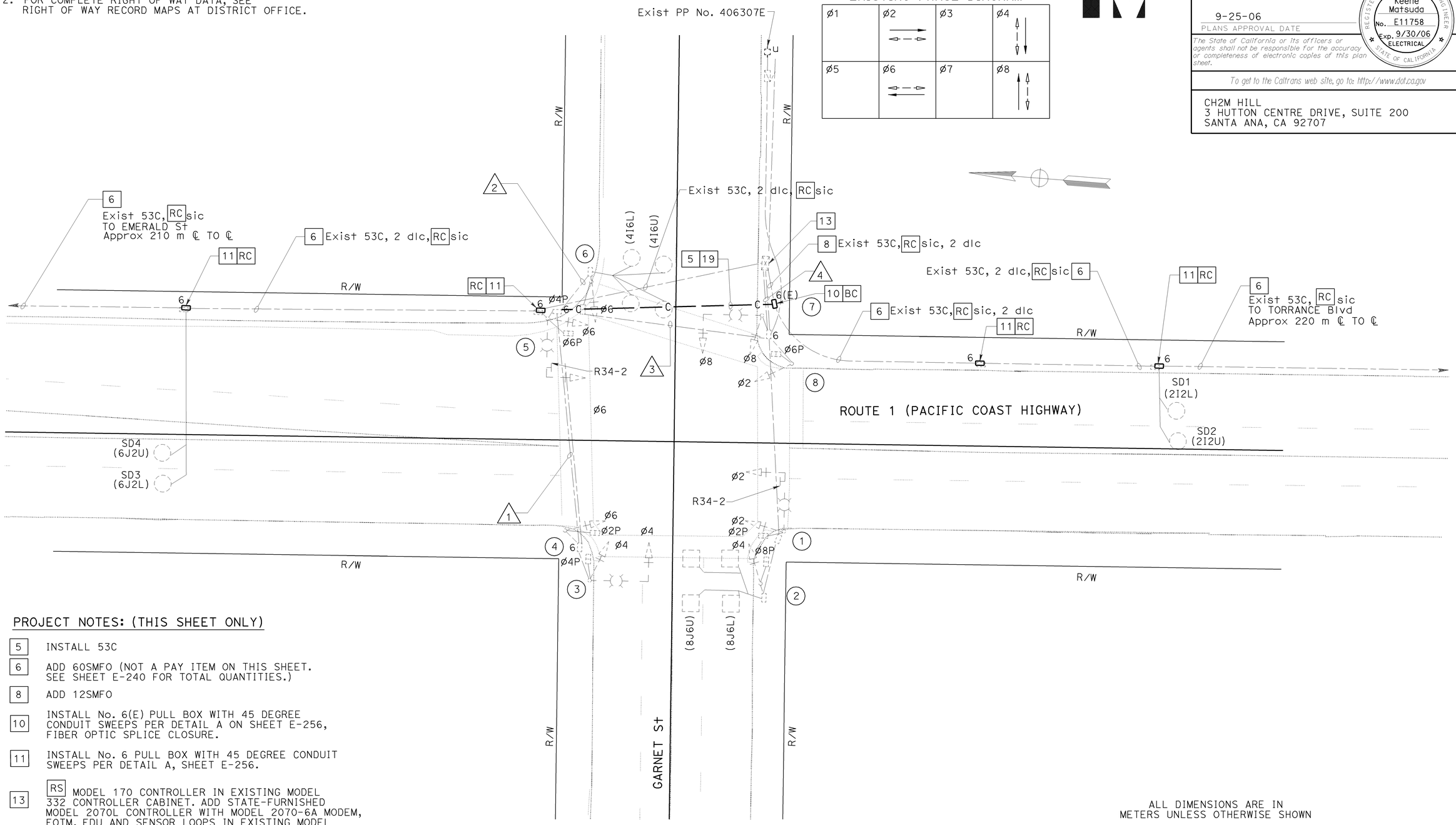
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-131.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| Ø1 | Ø2 | Ø3 | Ø4 |
| Ø5 | Ø6 | Ø7 | Ø8 |




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 55)

## (ROUTE 1/GARNET STREET)

SCALE 1:200

**E-130**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE REVISED |
|---|---|---|
| MR | KM | 4/06 |

CALCULATED/DESIGNED BY: MR
CHECKED BY: KM

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 15:21

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua130.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 155 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

| DATE REVISED |
|---|
| |
| |
| |
| |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | SIGNAL | LUMINAIRE | | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | MA (m) | MA (m) | (W) | VEH | MA | PED | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | MAS | SV-1-T | SP-1-T | 8 |
| 2 | 1-A | 3.1 | - | - | - | - | TV-1 | SP-1-T | - |
| 3 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | MAS | SV-1-T | SP-1-T | - |
| 4 | 1-A | 3.1 | - | - | - | - | TV-1 | SP-1-T | 4 |
| 5 | 19-2-129 | 9.1 | 9.1 | 3.7 | 250 | MAS | SV-1-T | SP-1-T | 4 |
| 6 | 1-A | 3.1 | - | - | - | - | TV-1-T | SP-1-T | - |
| 7 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | MAS | SV-1-T | SP-1-T | - |
| 8 | 1-A | 3.1 | - | - | - | - | TV-1-T | SP-1-T | 8 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 28-CONDUCTOR CABLE | SIGNALS | 2 | 2 | 2 | 2 |
| 2#12 | DLC CABLE | - | 1 | 1 | 2 |
| #12 | IISNS | 2 | - | 2 | - |
| #10 | SIGNAL COMMON | - | - | - | - |
| | LUMINAIRE | 2 | - | 2 | - |
| | TOTAL | 2 | - | 2 | - |
| #8 | SERVICE | - | - | - | 2 |
| | FIRE PRE-EMPT | 1 | - | 2 | 2 |
| | CONDUIT SIZE (mm) | 78 | 53 | 78 | 2-78 |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 55)**

**(ROUTE 1/GARNET STREET)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-131**

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:21

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua131.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 156 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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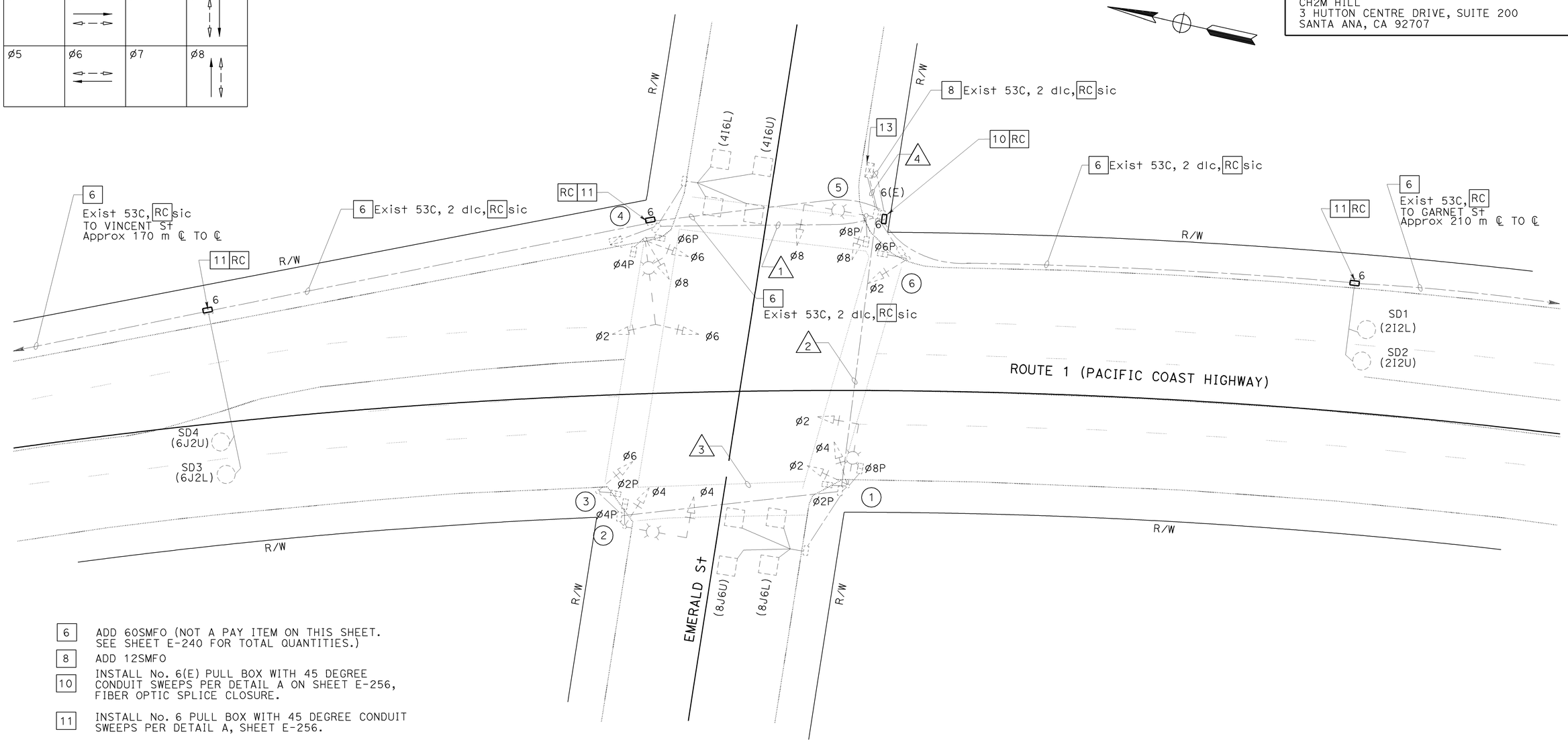
Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-133.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |




6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 56)

## (ROUTE 1/EMERALD STREET)

SCALE 1:200

**E-132**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua132.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 157 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | SIGNAL | LUMINAIRE | | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | MA (m) | MA (m) | (W) | MA | VEH | PED | ø |
| 1 | 17 | 8.7 | 5.5 | 3.7 | 250 | MAS | SV-2-TA | SP-2-T | 8 |
| 2 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | MAS | SV-1-T | SP-1-T | - |
| 3 | 1-A | 3.1 | - | - | - | - | TV-1 | SP-1-T | 4 |
| 4 | 19 | 9.1 | 9.1 | 3.7 | 250 | SPECIAL MAS | SV-2-TA | SP-2-T | 4 |
| 5 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | MAS | SV-1-T | SP-1-T | - |
| 6 | 1-A | 3.1 | - | - | - | - | TV-1-T | SP-1-T | 8 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| #14 | ø2 | 3 | 3 | 3 | 3 |
| | ø4 | 1 | 3 | - | 3 |
| | ø6 | 3 | 3 | - | 3 |
| | ø8 | 3 | - | - | 3 |
| | ø2P | - | 2 | - | 2 |
| | ø4P | 2 | 2 | - | 2 |
| | ø6P | 2 | - | 2 | 2 |
| | ø8P | - | 2 | - | 2 |
| | ø4PPB | 2 | 2 | - | 2 |
| | ø8PPB | - | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 | 3 |
| | TOTAL | 18 | 22 | 10 | 27 |
| 2#12 | DLC CABLE | 1 | 1 | - | 2 |
| #12 | IISNS | 2 | 2 | - | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | - | - |
| | TOTAL | 3 | 3 | 1 | 1 |
| #8 | SERVICE | 2 | - | - | 2 |
| | FIRE PRE-EMPT | 2 | - | - | 3 |
| | CONDUIT SIZE (mm) | 63 | 63 | 53 | 2-78 |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 56)**
**(ROUTE 1/EMERALD STREET)**
NO SCALE

**E-133**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:21

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 158 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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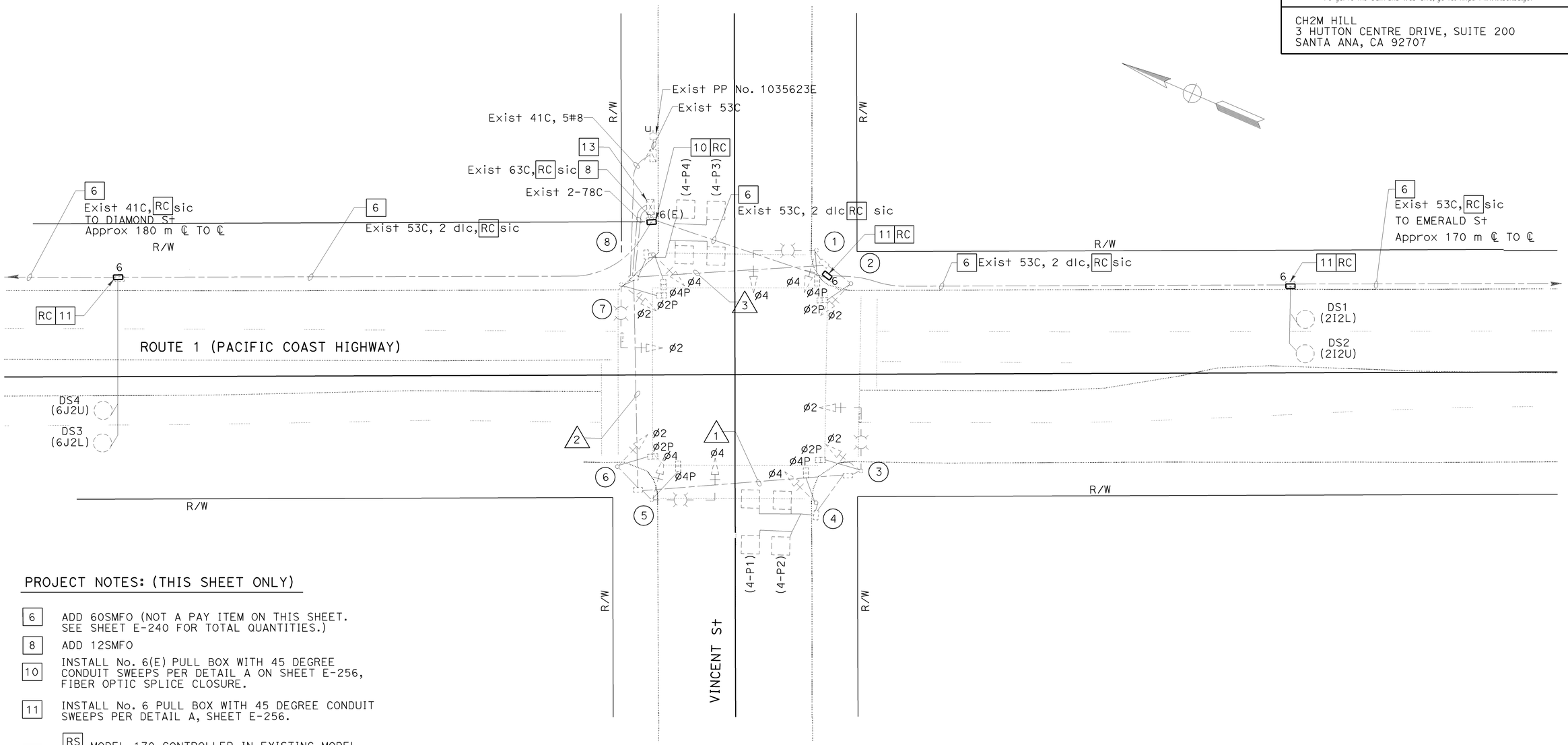
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-135.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




PROJECT NOTES: (THIS SHEET ONLY)

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 57)

## (ROUTE 1/ VINCENT STREET)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE 1:200

**E-134**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua134.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:21

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 159 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | (W) HPS | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | - |
| 2 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | 4 |
| 3 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | 4 |
| 4 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | - |
| 5 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | - |
| 6 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | 4 |
| 7 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | 4 |
| 8 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | - |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| #14 | ø2 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 |
| | ø4PPB | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 15 | 15 | 15 |
| 2#12 | ø4P DETECTORS | 2 | 2 | - |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | 2 | 2 | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 |
| | TOTAL | 3 | 3 | 3 |
| #8 | SERVICE | - | - | - |
| | EMERGENCY VEHICLE DETECTOR | - | - | 1 |
| CONDUIT SIZE (mm) | | 63 | 63 | 63 |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 57)**

**(ROUTE 1/ VINCENT STREET)**

NO SCALE

**E-135**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 160 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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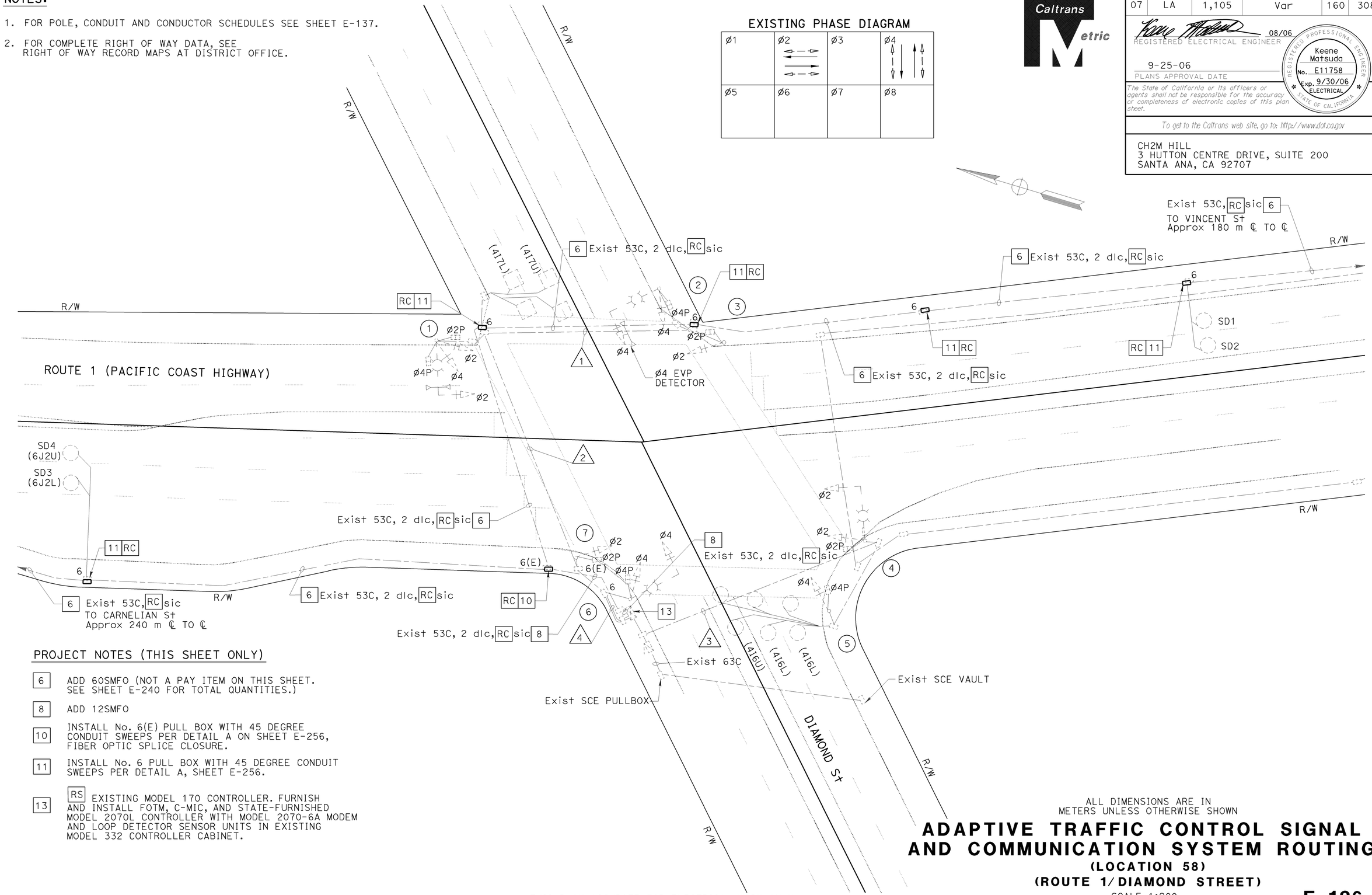
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-137.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

### EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |




## PROJECT NOTES (THIS SHEET ONLY)

- 6 — ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)
- 8 — ADD 12SMFO
- 10 — INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 — INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 — RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 58)**

**(ROUTE 1/DIAMOND STREET)**

SCALE 1:200

**E-136**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:21

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua136.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 161 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| #14 | Ø2 | 3 | 3 | 3 | 6 |
| | Ø4 | 3 | 3 | 3 | 6 |
| | Ø2P | 2 | 2 | 2 | 4 |
| | Ø4P | 2 | 2 | 2 | 4 |
| | Ø4PPB | 1 | 1 | 1 | 2 |
| | IISNS | - | 2 | 2 | 2 |
| | TOTAL | 11 | 13 | 13 | 24 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 2 |
| | LUMINAIRE | - | 2 | 2 | 2 |
| | TOTAL | 1 | 3 | 3 | 4 |
| | Ø4 | - | 2 | 2 | 4 |
| | TOTAL | - | 2 | 2 | 4 |
| | INTERCONNECT | - | - | - | - |
| CONDUIT SIZE (mm) | | 53 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | Ø | ARROW | | |
| A | 19-2-129 | 7.6 | 2.4 | MAS | SV-2-T | SP-2-T | B | ← | 250 | - |
| B | 17-2-129 | 6.1 | 2.4 | MAS | SV-1-T | SP-1-T | - | - | 250 | - |
| C | 1-A | - | - | - | TV-1 | SP-1-T | B | → | - | - |
| D | 19-2-129 | 7.6 | 4.6 | MAS | SV-1-T | SP-1-T | B | ← | 200 | - |
| E | 1-A | - | - | - | TV-1-T | SP-1-T | - | - | - | - |
| F | 17-2-129 | 6.1 | 2.4 | MAS | SV-1-T | SP-1-T | - | - | 250 | - |
| G | 1-A | - | - | - | TV-1 | SP-1-T | B | → | - | - |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 58)**
**(ROUTE 1/DIAMOND STREET)**
NO SCALE

**E-137**

| DATE | REVISED BY | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| 4/06 | MR | KM | YEFIM ZABEZHINSKY |
| 4/06 | DATE REVISED | CHECKED BY | |

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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:05

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => trmikesl
DGN FILE => 725730ua137.dgn
CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 162 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-139.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

## PROJECT NOTES: (THIS SHEET ONLY)

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

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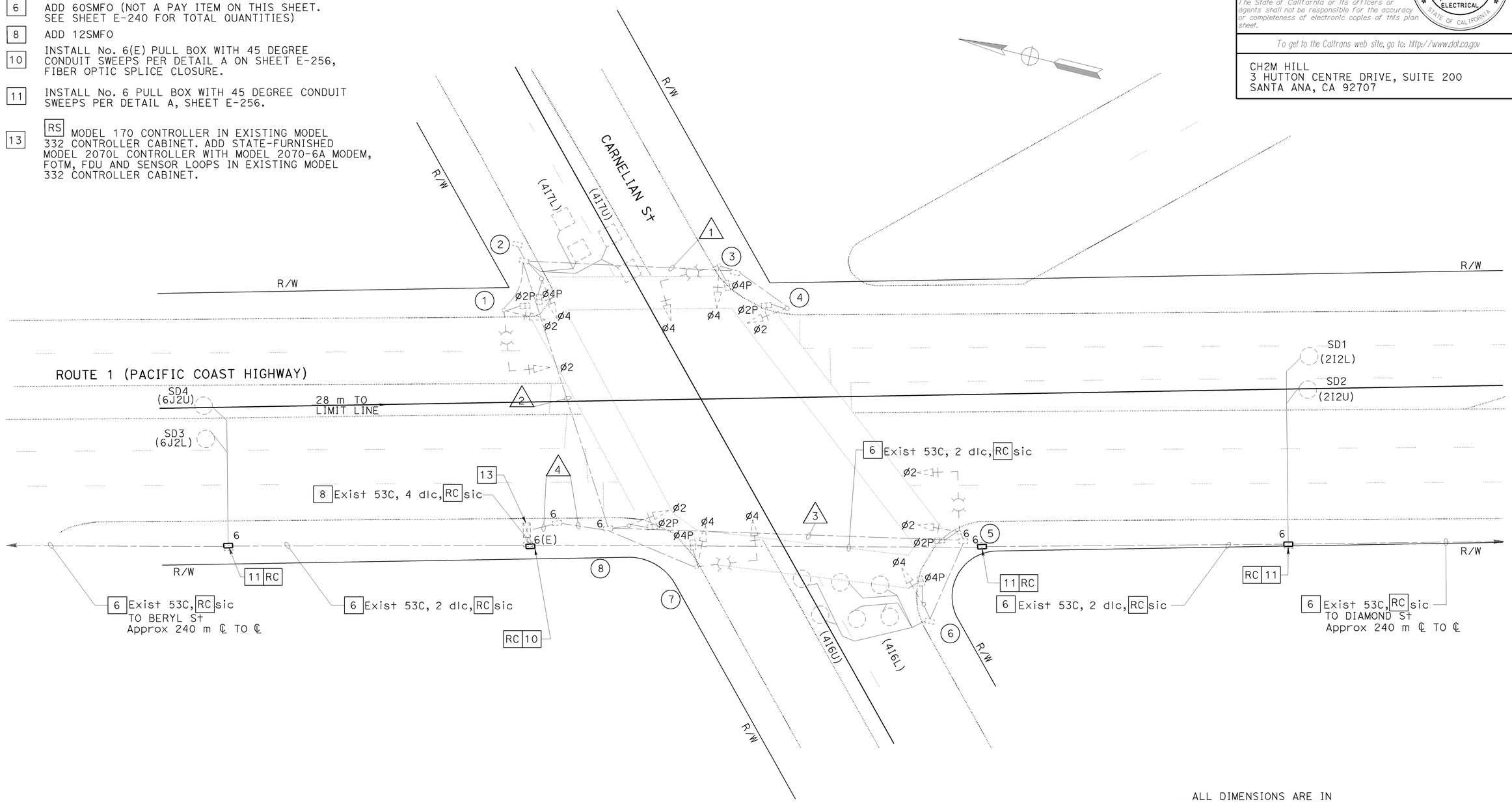


ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 59)

## (ROUTE 1/CARNELIAN STREET)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE 1:200

**E-138**

| | DATE | REVISED BY | DATE REVISED |
|---|---|---|---|
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Caltrans

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:21

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua138.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 163 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| | ø2 | 1 | 1 | 1 | 2 |
| | IISNS | - | 2 | 2 | - |
| | LUMINAIRE | 2 | 2 | 2 | - |
| | SERVICE | - | 2 | - | 2 |
| | ø4 DETECTORS | - | 2 | 2 | 4 |
| | 25 PAIR #19 Sic | - | - | - | - |
| | CONDUIT SIZE (mm) | 53 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | SIGNAL | LUMINAIRE-HPS | | SIGNAL MOUNTING | | | PPB | | ILLUMINATED SIGN MESSAGE (DBL FACE) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | MA (m) | MA (m) | WATTS (W) | VEH | MA | PED | PHASE | ARROW | |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | 4 | ← | CARNELIAN STREET |
| 2 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | - | - | - |
| 3 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | - | - | - |
| 4 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | 4 | → | - |
| 5 | 19-2-129 | 9.1 | 9.1 | 3.7 | 250 | SV-1-T | MAS | SP-1-T | 4 | ← | CARNELIAN STREET |
| 6 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | - | - | - |
| 7 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | - | - | - |
| 8 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | 4 | → | - |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 59)**

**(ROUTE 1/CARNELIAN STREET)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-139**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:22

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua139.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 164 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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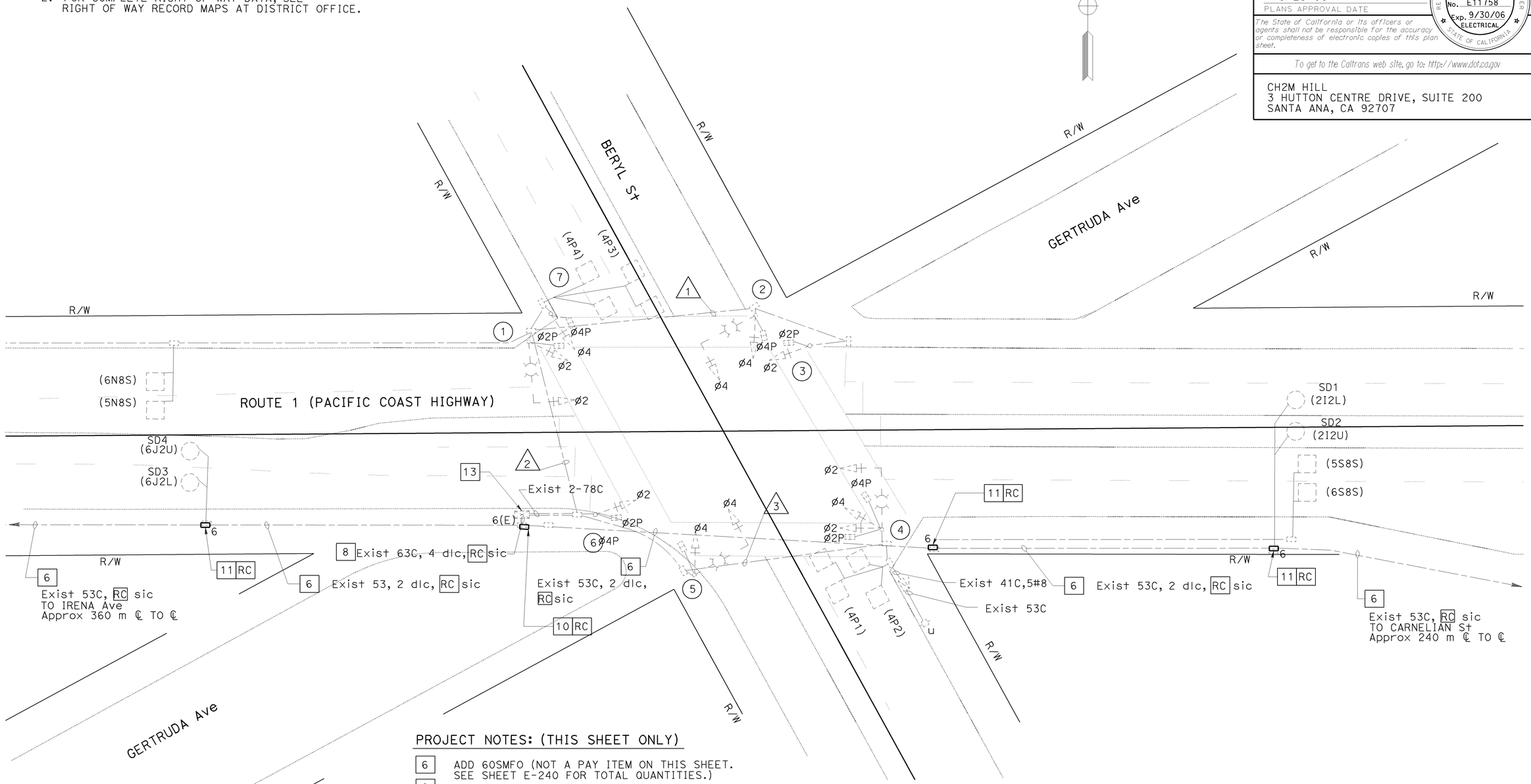
NOTES:

1. FOR POLE AND CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-141.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




PROJECT NOTES: (THIS SHEET ONLY)

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.

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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 60)

## (ROUTE 1/BERYL STREET)

SCALE 1:200

**E-140**

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
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TIME PLOTTED => 15:22

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua140.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 165 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPS (W) | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | MAS | SP-2-T | - |
| 2 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | - |
| 3 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | 4 |
| 4 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | MAS | SP-2-T | 4 |
| 5 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-1-T | MAS | SP-1-T | - |
| 6 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | 4 |
| 7 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | 4 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| #14 | ø2 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 |
| | ø4PPB | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 15 | 15 | 15 |
| 2#12 CABLE | ø4P DETECTORS | - | 2 | 2 |
| | NB SAMPLING DETECTORS | - | 2 | - |
| | SB SAMPLING DETECTORS | - | - | 2 |
| | TOTAL | - | 4 | 4 |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | - | 2 | 2 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 |
| | TOTAL | 3 | 3 | 3 |
| #8 | SERVICE | - | - | 2 |
| | EMERGENCY VEHICLE DETECTOR | - | - | 1 |
| CONDUIT SIZE (mm) | | 53 | 63 | 53 |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 60)**
**(ROUTE 1/BERYL STREET)**
NO SCALE

**E-141**

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 166 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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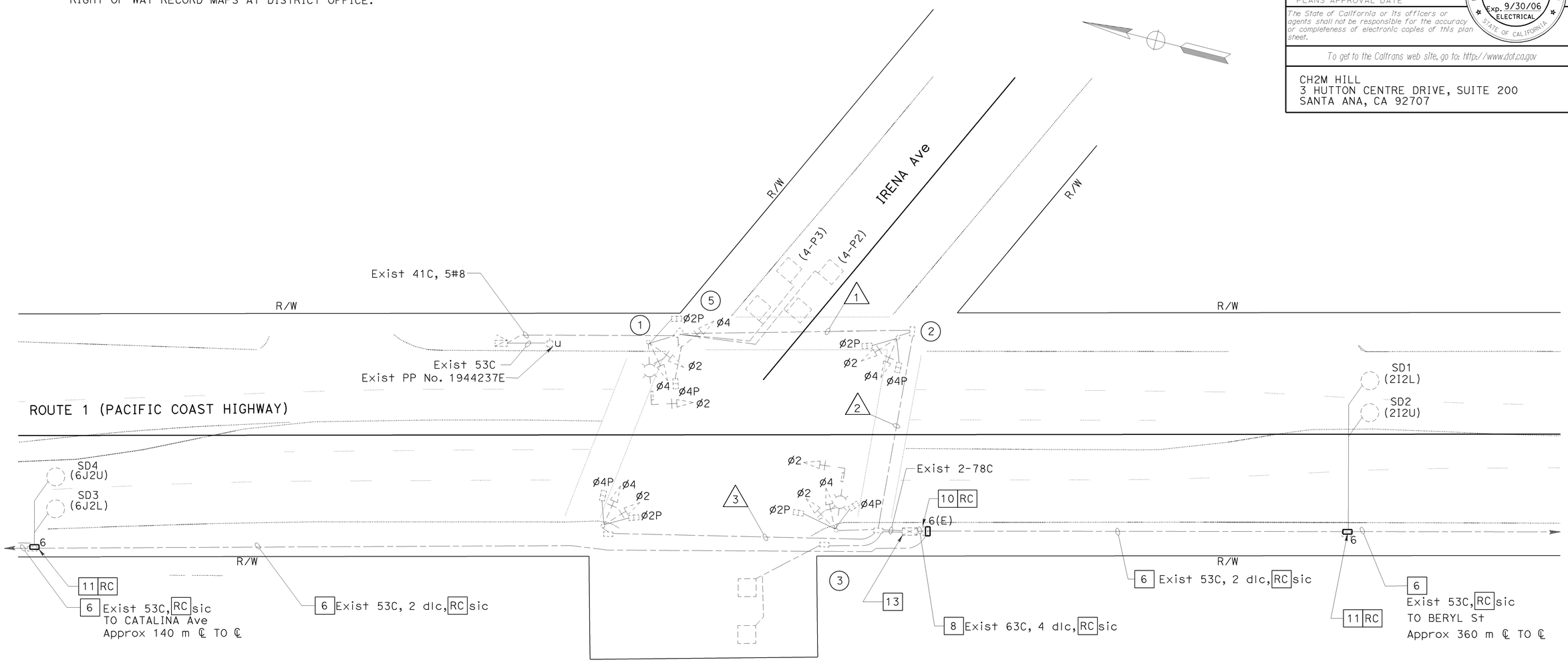
SANTA ANA, CA 92707


## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-143.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




## PROJECT NOTES: (THIS SHEET ONLY)

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 61)**

**(ROUTE 1/IRENA AVENUE)**

SCALE 1:200

**E-142**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua142.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:47

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 167 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE W/O GLARE SH | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPS (W) | POLE | MA | | ø |
| 1 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-3-TA | MAS | SP-2-T | 4 |
| 2 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-2-T | 4 |
| 3 | 17-2-129 | 9.1 | 6.1 | 2.4 | 250 | SV-2-TA | MAS | SP-2-T | 4 |
| 4 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-2-T | 4 |
| 5 | 1-A | 3.1 | - | - | - | TV-1-T | - | - | - |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| #14 | ø2 | 3 | 3 | 3 |
| | ø4 | 3 | 3 | 3 |
| | ø2P | 2 | 2 | 2 |
| | ø4P | 2 | 2 | 2 |
| | ø4PPB | 2 | 2 | 2 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 15 | 15 | 15 |
| 2#12 | ø4P DETECTORS | 2 | 2 | - |
| | 25 PAIR #19 SHIELDED INTERCONNECT CABLE | - | - | - |
| #12 | INTERNALLY ILLUMINATED STREET NAME SIGN | 2 | 2 | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | - |
| | TOTAL | 3 | 3 | 1 |
| #8 | SERVICE | 2 | 2 | - |
| | EMERGENCY VEHICLE DETECTOR | 2 | 2 | - |
| CONDUIT SIZE (mm) | | 63 | 63 | 63 |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 61)**
**(ROUTE 1/IRENA AVENUE)**

NO SCALE

**E-143**

| | | | |
|---|---|---|---|
| MR | DATE 4/06 | REVISED BY | |
| KM | 4/06 | DATE REVISED | |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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TIME PLOTTED => 08:15

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 168 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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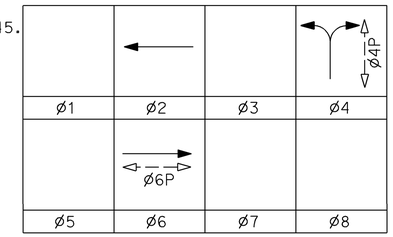
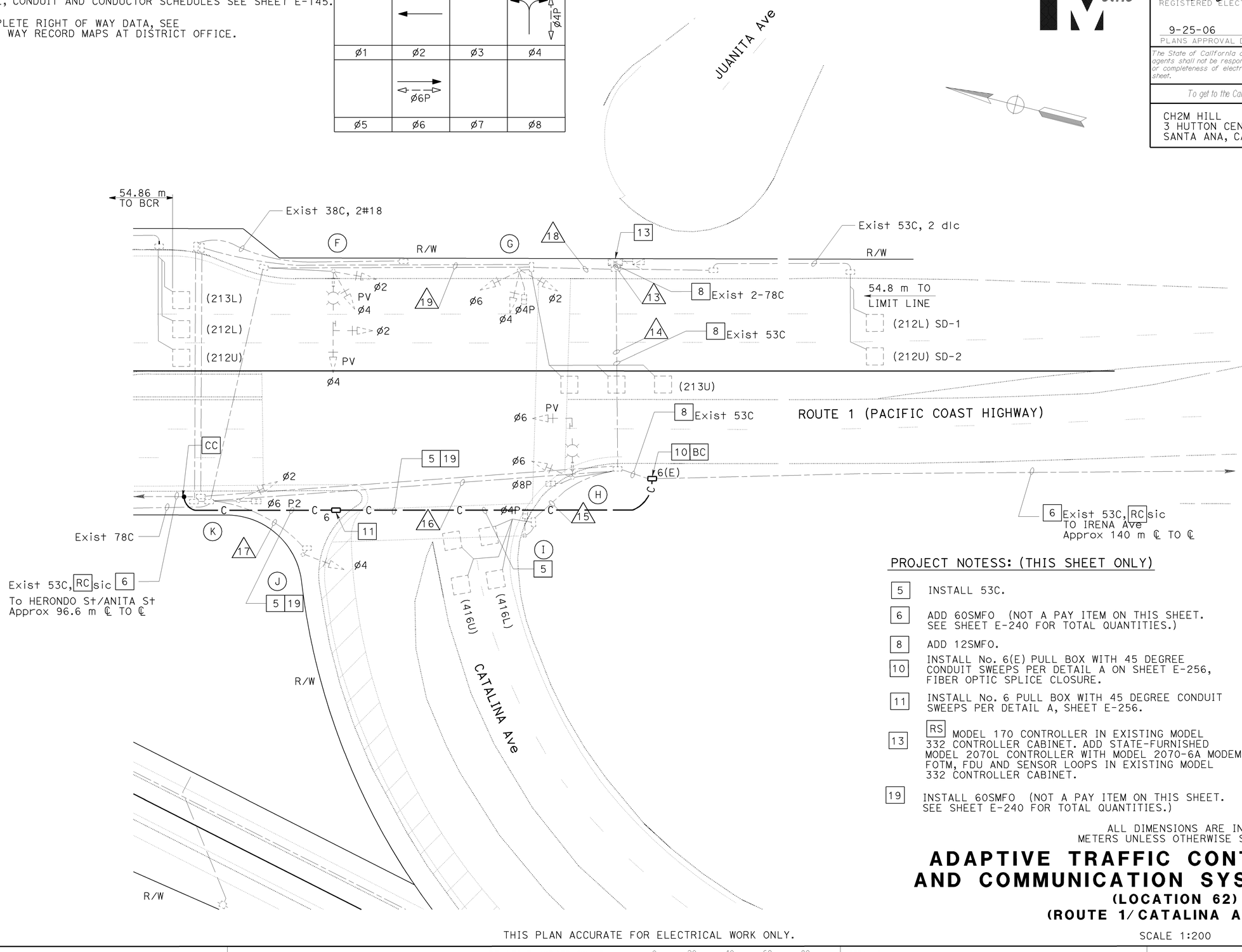
NOTE:

FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-145.

FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM




PROJECT NOTESS: (THIS SHEET ONLY)

5 INSTALL 53C.

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 62)

## (ROUTE 1/CATALINA AVENUE)

SCALE 1:200

**E-144**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | KM |

| CALCULATED/DESIGNED BY | CHECKED BY |
|---|---|
| MR | KM |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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TIME PLOTTED => 06:47

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua144.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 169 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | 28 CONDUCTOR CABLE | 4 | 2 | 1 | 2 | 1 | 3 | 2 | - |
| | 12 CONDUCTOR CABLE | - | - | - | - | - | - | - | - |
| | 9 CONDUCTOR CABLE | - | - | - | - | - | - | - | - |
| | 5 CONDUCTOR CABLE | - | - | - | - | - | - | - | - |
| | 3 CONDUCTOR CABLE | - | - | - | - | - | - | - | - |
| DLC | ø1 | - | - | - | - | - | - | - | - |
| | ø2 | 3 | - | - | - | - | 1 | - | - |
| | ø3 | - | - | - | - | - | - | - | - |
| | ø4 | 2 | 2 | 2 | - | - | - | - | - |
| | ø5 | - | - | - | - | - | - | - | - |
| | ø6 | 4 | 2 | - | 2 | - | - | - | - |
| | ø7 | - | - | - | - | - | - | - | - |
| | ø8 | - | - | - | - | - | - | - | - |
| | TOTAL | 9 | 4 | 2 | 2 | - | 1 | - | - |
| #12 | IISNS | 4 | 2 | - | - | - | 2 | 2 | - |
| #10 | SIGNAL COMMON | 6 | 4 | 2 | 2 | 2 | 2 | 2 | - |
| | LUMINAIRE | 3 | 2 | 1 | 1 | 1 | 1 | 1 | - |
| | TOTAL | 9 | 6 | 3 | 3 | 3 | 3 | 3 | - |
| | EYP CABLE | 2 | 1 | - | - | - | 1 | 1 | - |
| CONDUIT SIZE (mm) | | 2-78 | 78 | 53 | 53 | 53 | 53 | 53 | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE | IISNS LEGEND | SIGNAL MOUNTING | | | PPB | | POLE LOCATION | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT(m) | SMA (m) | LMA (m) | (W) HPS | | MA | VEH | PED | ø | QUAD | A | B | C |
| F | 17 | 9.1 | 5.5 | 2.4 | 200 | - | MAS,MAS | SV-2-TA | - | - | - | - | - | - |
| G | 15 | 9.1 | - | 2.4 | 200 | - | - | SV-3-TA | SP-1-T | 4 | S | - | - | - |
| H | 17 | 9.1 | 5.5 | 2.4 | 200 | ← CATALINA AVENUE | MAS | SV-1-T | SP-1-T | 4 | N | - | - | - |
| I | 15 | 9.1 | - | 2.4 | 200 | - | - | - | SP-1-T | 8 | E | - | - | - |
| J | 15 | 9.1 | - | 2.4 | 200 | - | - | SV-1-T | - | 6 | E | - | - | - |
| K | 1-A | 3.1 | - | - | - | - | - | TV-1-T | SP-1-T | - | - | - | - | - |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 62)**
**(ROUTE 1/CATALINA AVENUE)**

NO SCALE

**E-145**

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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Caltrans

LAST REVISION 00-00-00
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TIME PLOTTED => 08:15

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 170 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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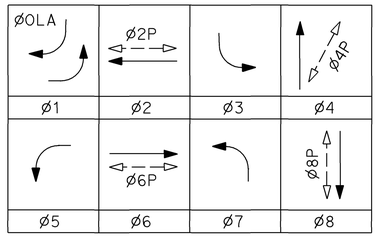
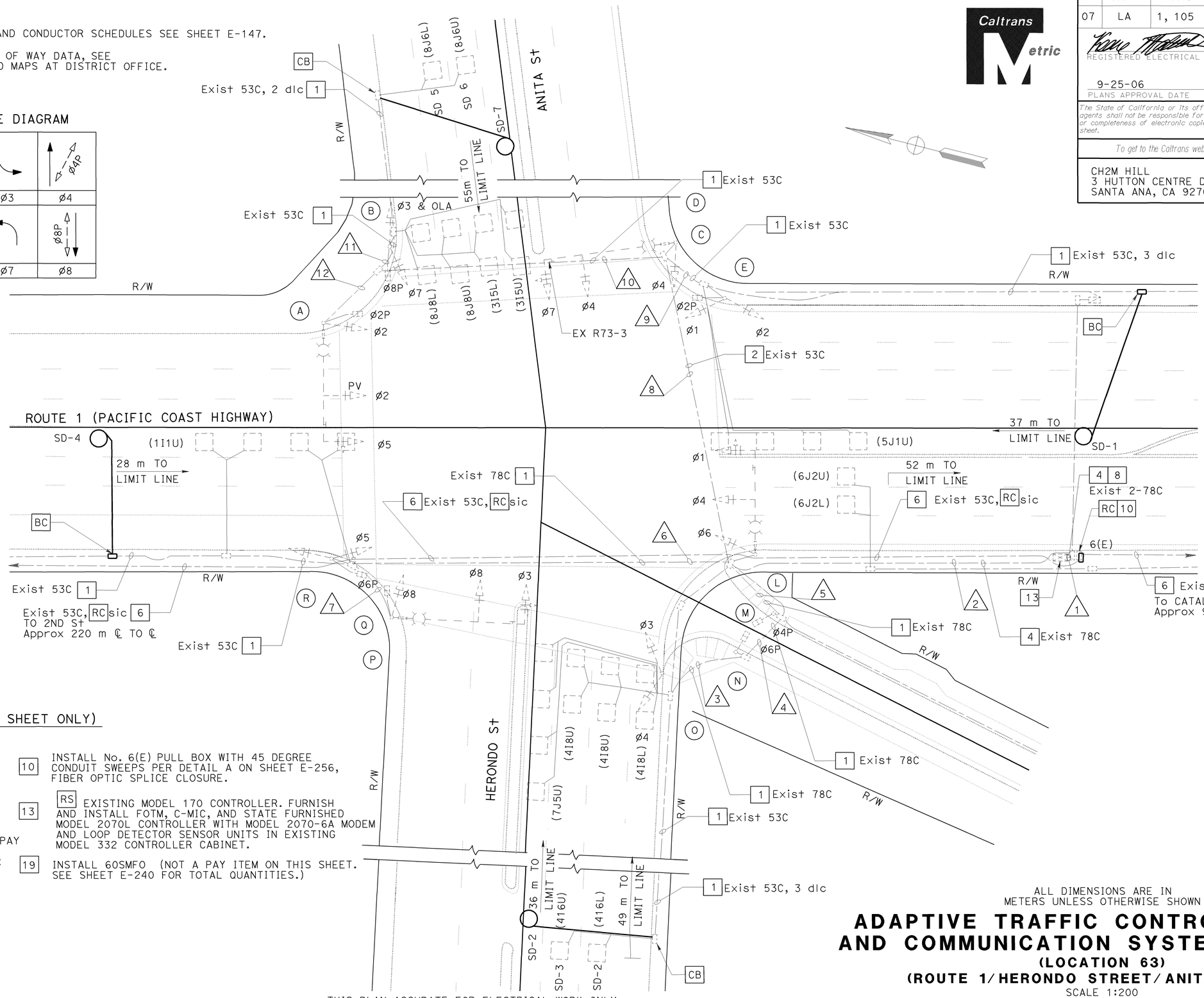
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-147.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC. |
| 2 | ADD 2-DLC. |
| 4 | ADD 4-DLC. |
| 5 | INSTALL 53C. |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO. |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.) |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 63)

## (ROUTE 1/HERONDO STREET/ANITA STREET)

SCALE 1:200

E-146

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua146.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:47

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
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| 07 | LA | 1, 105 | Var | 171 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | 28 CONDUCTOR CABLE | 4 | 4 | 1 | 1 | 1 | 2 | - | 2 | 1 | 2 | 1 | - |
| | 12 CONDUCTOR CABLE | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9 CONDUCTOR CABLE | - | - | - | - | - | - | 1 | - | - | - | - | - |
| | 5 CONDUCTOR CABLE | - | - | - | - | - | - | 3 | - | - | - | - | 4 |
| | 3 CONDUCTOR CABLE | - | - | - | - | - | - | - | - | - | - | - | 1 |
| dlc | ø1 | 1 | 1 | - | - | - | 1 | - | - | - | - | - | - |
| | ø2 | 3 | 3 | - | - | - | - | - | 3 | 3 | - | - | - |
| | ø3 | 2 | 2 | - | - | - | - | - | 2 | - | 2 | 2 | - |
| | ø4 | 4 | 4 | 4 | 4 | 4 | - | - | - | - | - | - | - |
| | ø5 | 1 | 1 | - | - | - | - | - | 1 | 1 | - | - | - |
| | ø6 | 2 | 2 | - | - | - | 2 | - | - | - | - | - | - |
| | ø7 | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | - | - |
| | ø8 | 4 | 4 | - | - | - | - | - | 4 | - | 4 | 4 | - |
| | TOTAL | 16 | 16 | 5 | 5 | 5 | 3 | - | 10 | 4 | 6 | 6 | - |
| #12 | IISNS | 6 | 6 | - | - | - | 2 | 2 | 4 | - | 2 | - | 2 |
| #10 | SIGNAL COMMON | 5 | 5 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 1 |
| | LUMINAIRE | 6 | 6 | - | - | - | 2 | 2 | 4 | - | 2 | - | 2 |
| | TOTAL | 11 | 11 | 1 | 1 | 1 | 3 | 3 | 7 | 1 | 4 | 1 | 3 |
| | EYP CABLE | 4 | 4 | - | - | - | 1 | 1 | 2 | - | 1 | - | 1 |
| CONDUIT SIZE (mm) | | 2-78 | 78 | 78 | 78 | 78 | 78 | 53 | 53 | 53 | 53 | 53 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE | ISNS LEGEND | SIGNAL MOUNTING | | | PPB | | POLE LOCATION (m) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPSV (W) | | MA | VEH | PED | ø | QUAD | A | B | C |
| A | 26-4-129 | 9.1 | 13.7 | 2.4 | 200 | ← HERONDO STREET ANITA/190 TH STREET → | 2MAS | SV-1-T | SP-1-T | 3 | S | - | - | - |
| B | 1-A | 3.1 | - | - | - | - | - | TV-1-T | SP-1-T | 2 | W | - | - | - |
| C | PPB POST | 1.2 | - | - | - | - | - | - | - | 2 | S | - | - | - |
| D | 26-4-129 | 9.1 | 13.7 | 2.4 | 200 | PACIFIC COAST HIGHWAY | MAS,MAS | SV-1-T | - | - | - | - | - | - |
| E | 1-A | 3.1 | - | - | - | - | - | TV-2-T | SP-1-T | - | - | - | - | - |
| L | 24-3-129 | 9.1 | 10.7 | 2.4 | 200 | ← HERONDO STREET ANITA/190 TH STREET → | 2MAS | SV-1-T | SP-1-T | - | - | - | - | - |
| M | 1-A | 3.1 | - | - | - | - | - | - | SP-1-T | 4 | N | 1.5 | - | 0.8 |
| N | TRUSS TYPE | 7.0 | - | - | - | - | - | - | SP-1-T | 4 | N | - | 1.2 | 0.8 |
| O | 1-A | 3.1 | - | - | - | - | - | TV-2-T | - | 6 | N | - | - | 0.8 |
| P | 26-4-129 | 9.1 | 13.7 | 2.4 | 200 | PACIFIC COAST HIGHWAY | 2MAS | SV-1-T | - | - | - | - | - | - |
| Q | PPB | 3.1 | - | - | - | - | - | - | - | 6 | N | - | - | - |
| R | 1-A | 3.1 | - | - | - | - | - | TV-2-T | SP-1-T | 8 | - | - | - | - |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 63)**
**(ROUTE 1/HERONDO STREET/ANITA STREET)**

NO SCALE

**E-147**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | MR | KM |
| CALCULATED/DESIGNED BY | CHECKED BY | DATE 4/06 | 4/06 |
| REVISED BY | DATE REVISED | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua147.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00

DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:15

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 172 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

Caltrans Metric

## NOTES:

1. FOR POLE AND CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-149.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

## PROJECT NOTES: (THIS SHEET ONLY)

5 INSTALL 53C.

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)

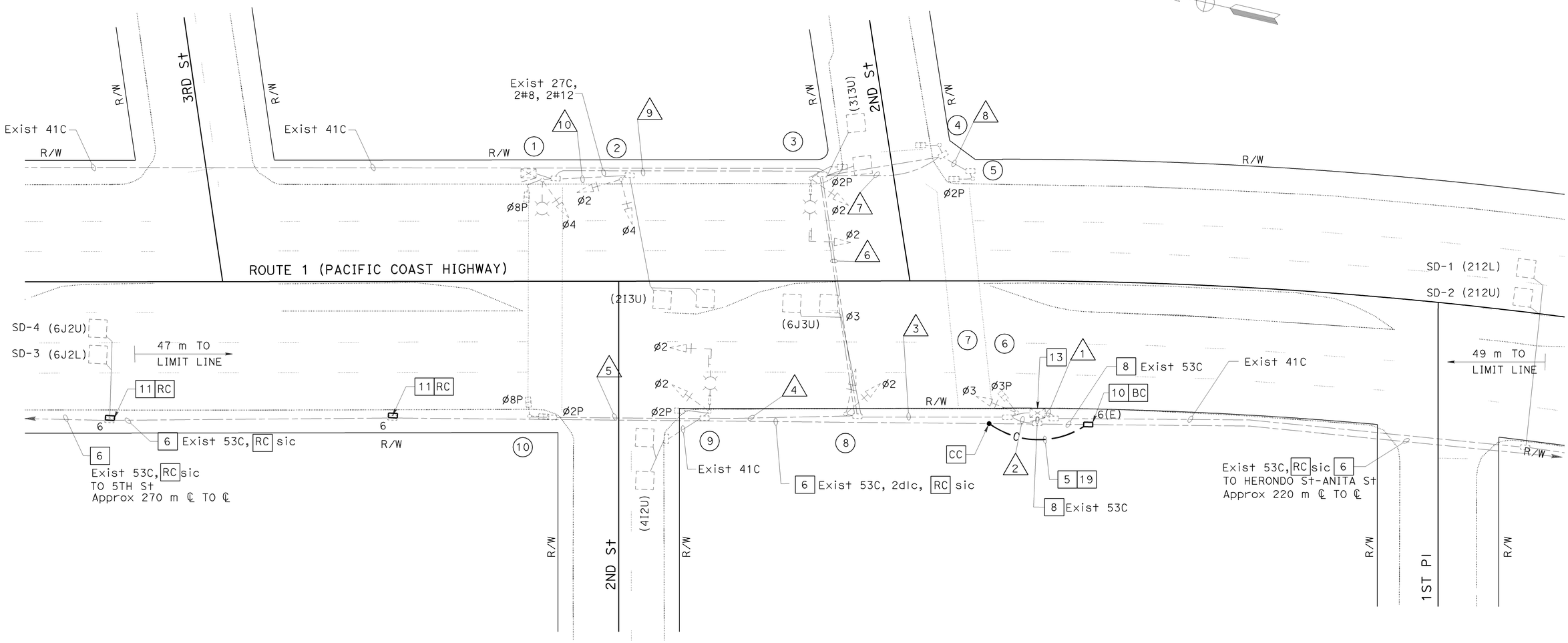
8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES.)




EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| Ø1 | Ø2 | Ø3 | Ø4 |
| Ø5 | Ø6 DUMMY | Ø7 | Ø8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 64)

## (ROUTE 1/ 2ND STREET)

SCALE 1:200

**E-148**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| 4/06 | KM | CHECKED BY | YEFIM ZABEZHINSKY |

REVISED BY / DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ug148.dgn

CU 07382 | EA 257301

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:47

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 173 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø1 | - | - | - | - | - | - | - | - | - | - |
| | Ø2 | 6 | 6 | 6 | 3 | - | 3 | - | - | 3 | - |
| | Ø3 | 3 | 3 | 3 | - | - | - | - | - | - | - |
| | Ø4 | 3 | 3 | 3 | - | - | 3 | - | - | 3 | 3 |
| | Ø5 | - | - | - | - | - | - | - | - | - | - |
| | Ø6 | - | - | - | - | - | - | - | - | - | - |
| | Ø7 | - | - | - | - | - | - | - | - | - | - |
| | Ø8 | - | - | - | - | - | - | - | - | - | - |
| | Ø2PED | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | - | - |
| | Ø8PED | 4 | 4 | 4 | 2 | 2 | 2 | 2 | - | 2 | 2 |
| | Ø2PPB | 2 | 2 | 2 | 1 | 1 | 1 | 1 | - | - | - |
| | Ø8PPB | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | PPB COMMON | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | SPARES | 6 | 6 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 32 | 32 | 32 | 13 | 10 | 16 | 10 | 7 | 13 | 10 |
| dlc | Ø1 DETECTOR | - | - | - | - | - | - | - | - | - | - |
| | Ø2 DETECTOR | 1 | 1 | 1 | - | - | 1 | - | - | 1 | - |
| | Ø3 DETECTOR | 1 | 1 | 1 | - | - | 1 | - | - | - | - |
| | Ø4 DETECTOR | 1 | 1 | 1 | 1 | - | - | - | - | - | - |
| | Ø5 DETECTOR | - | - | - | - | - | - | - | - | - | - |
| | Ø6 DETECTOR | 1 | 1 | 1 | - | - | - | - | - | - | - |
| | NB SAMPLING DETECTOR | 2 | 2 | 2 | - | - | 2 | - | - | - | - |
| | SB SAMPLING DETECTOR | 2 | - | - | - | - | - | - | - | - | - |
| | TOTAL | 8 | 6 | 6 | 1 | - | 4 | - | - | 1 | - |
| #10 | SIGNAL COMMON | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| #12 | IISNS | - | - | - | 2 | - | 2 | - | - | 2 | - |
| #8 | SIGNAL SERVICE | 2 | 2 | 2 | - | - | 2 | - | - | 2 | - |
| 25 PAIR #19 | INTERCONNECT | - | - | - | - | - | - | - | - | - | - |
| | EYP CABLE | 3 | 3 | 3 | 1 | - | 1 | - | - | 1 | - |
| CONDUIT SIZE (mm) | | 2-78 | 41/53 | 41/53 | 41 | 41 | 41/63 | 41 | 53 | 41 | 41 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| POLE No. | POLE TYPE | SMA LENGTH (m) | LUMINAIRE MA LENGTH (m) | LUMINAIRE HPS WATTS | SIGNAL MOUNTING VEHICLE | SIGNAL MOUNTING PED | PED PUSH BUTTON NO. | PED PUSH BUTTON Ø | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | POLE LOCATION (m) A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15 | - | 2.4 | 200 | SV-1-T | SP-1-T | 1 | 8 | - | - | | SEE | PLAN | | |
| 2 | 1-C | - | - | - | TV-2-T | - | - | - | - | - | - | - | - | - | - |
| 3 | 17 | 5.5 | 2.4 | 200 | MAS SV-1-T | SP-1-T | 1 | 2 | I.I. | 2ND STREET | - | - | - | - | - |
| 4 | 1-A | - | - | - | - | TP-1-T | 1 | 2 | - | - | - | - | - | - | - |
| 5 | 1-A | 3.1 | - | - | - | TP-1-T | 1 | 8 | - | - | - | 0.6 | - | - | 0.8 |
| 6 | MARBELITE | - | 1.8 | 200 | SV-1-T | SP-1-T | - | 8 | - | - | - | - | - | - | - |
| 7 | PPB POST | - | - | - | - | - | 1 | 8 | - | - | - | - | - | - | 0.8 |
| 8 | 1-C | - | - | - | TV-2-T | - | - | - | - | - | - | - | - | - | - |
| 9 | 17 | 5.5 | 2.4 | 200 | MAS SV-1-T | SP-1-T | 1 | 2 | I.I. | 2ND STREET | - | - | - | - | - |
| 10 | 1-A | - | - | - | - | TP-2-T | 1/1 | 8/2 | - | - | - | - | - | - | - |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
## (LOCATION 64)
## (ROUTE 1/2ND STREET)

NO SCALE

**E-149**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |

| DATE REVISED | |
|---|---|
| 4/06 | KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:15

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua149.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 174 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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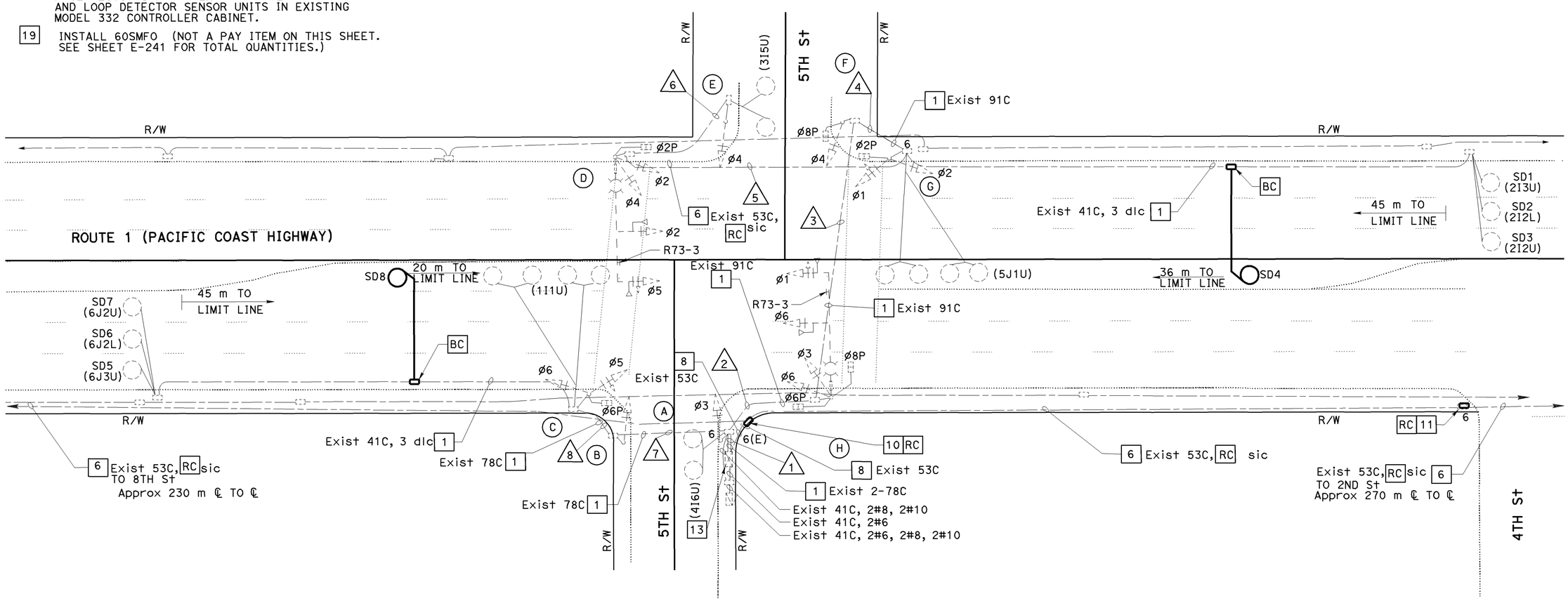
Caltrans Metric

## PROJECT NOTES: (THIS SHEET ONLY)

- [1] ADD 1-DLC
- [2] ADD 2-DLC
- [5] INSTALL 53C
- [6] ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- [8] ADD 12SMFO
- [10] INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- [11] INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [19] INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-151.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




## EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 65)**
**(ROUTE 1/5TH STREET)**

SCALE 1:200

**E-150**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE REVISED |
|---|---|---|
| | | |

CALCULATED/DESIGNED BY: MR
CHECKED BY: KM

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua150.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 175 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| dlc | ø1 | 1 | - | - | - | - | - | 1 | 1 |
| | ø2 | 3 | 3 | 3 | 3 | - | - | - | - |
| | ø3 | 1 | 1 | 1 | 1 | 1 | 1 | - | - |
| | ø4 | 1 | - | - | - | - | - | - | - |
| | ø5 | 1 | 1 | 1 | 1 | - | - | - | - |
| | ø6 | 3 | - | - | - | - | - | 3 | 3 |
| | TOTAL | 10 | 5 | 5 | 5 | 1 | 1 | 4 | 4 |
| #8 | LUMINAIRE | - | 2 | 2 | 2 | 2 | - | 2 | 2 |
| #10 | IISNS | - | 2 | 2 | 2 | 2 | - | - | - |
| 28-CONDUCTOR CABLE | SIGNALS | 4 | 2 | 2 | 2 | 2 | 1 | 2 | 1 |
| 3-CONDUCTOR CABLE | EV DETECTOR | 4 | 4 | 2 | 2 | 2 | - | - | - |
| | CONDUIT SIZE (mm) | 2-78 | 91 | 91 | 91 | 78 | 78 | 78 | 78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT |
|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | ø | ARROW | | |
| A | 1-A | - | - | - | TV-1-T | - | 6 | → | - | - |
| B | 1-A | - | - | - | TV-1-T | - | 6 | ← | - | - |
| C | 15TS | - | - | - | SV-2-TA | SP-1-T | - | - | 200 | - |
| D | 26-4-161 | 12.2 | 3.7 | MAT MAS | SV-2-TA | SP-1-T | - | - | 200 | IISNS , 5TH STREET |
| E | 1-A | - | - | - | TV-1-T | - | 2 | → | - | - |
| F | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | ← | - | - |
| G | 15TS | - | - | - | SV-2-TA | SP-1-T | 8 | → | 200 | - |
| H | 26-4-161 | 12.2 | 3.7 | MAT MAS | SV-2-TA | SP-2-T | 8 | ← | 200 | IISNS , 5TH STREET |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 65)**
**(ROUTE 1/5TH STREET)**
NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-151**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:15

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => trmikesl
DGN FILE => 725730ua151.dgn
CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 176 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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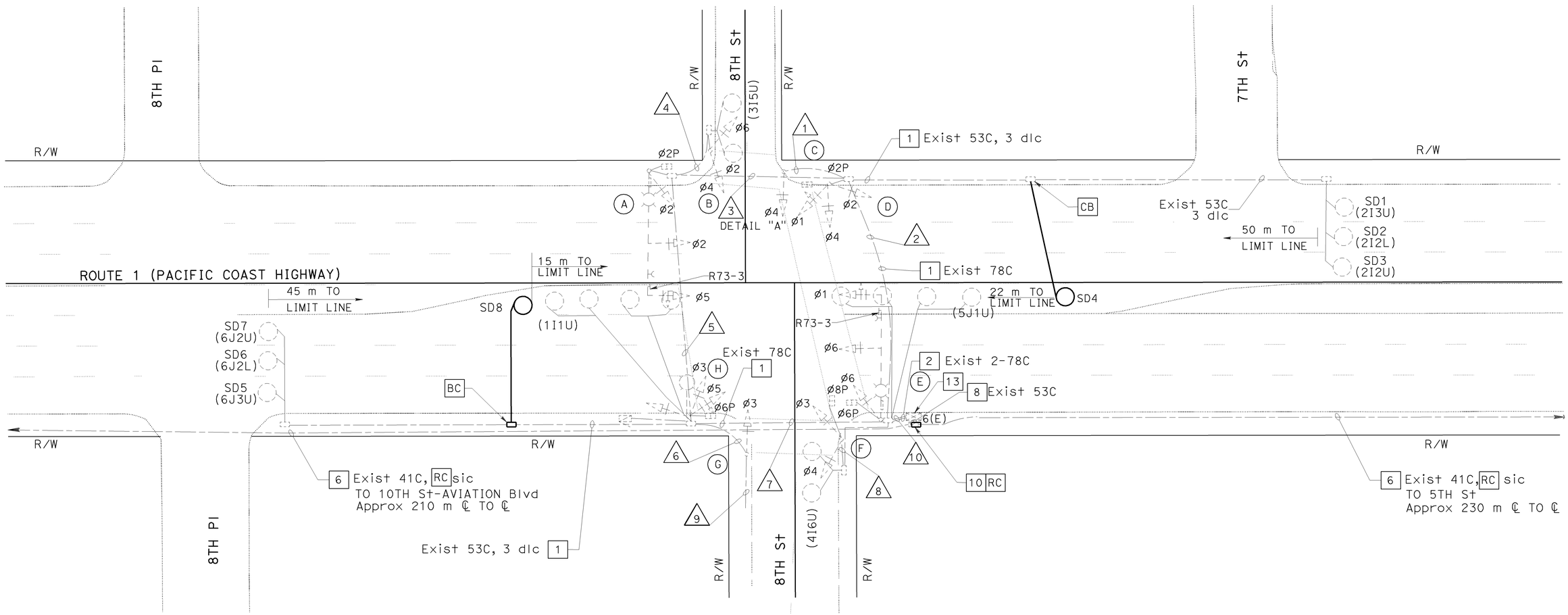
Caltrans Metric

## NOTES:

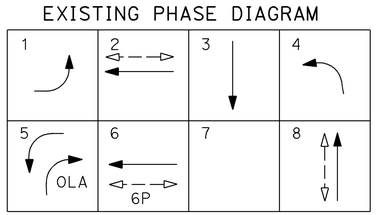
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-153.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

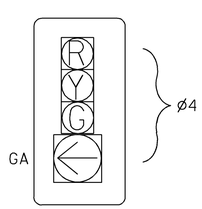
## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC.
2. ADD 2-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8. ADD 12SMFO
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL "A" ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)




EXISTING PHASE DIAGRAM




DETAIL "A"

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 66)**

**(ROUTE 1/ 8TH STREET)**

SCALE 1:200

**E-152**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | | |
| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua152.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
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| 07 | LA | 1, 105 | Var | 177 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 28-CONDUCTOR CABLE | SIGNALS | - | 2 | 2 | - | - | - | 2 | - | - | 4 |
| 12-CONDUCTOR CABLE | SIGNALS | 1 | - | - | 1 | - | 1 | - | 1 | - | - |
| #6 | SERVICE | - | - | - | - | - | - | 2 | - | 2 | 2 |
| #10 | LUMINAIRES | - | 2 | 2 | - | - | - | 3 | - | 3 | - |
| #12 | IISNS | - | 2 | 2 | - | - | - | 2 | - | 2 | - |
| dlc | ø1 | - | - | - | - | - | - | 1 | - | - | 1 |
| | ø2 | - | 3 | - | - | - | - | - | - | - | 3 |
| | ø3 | - | 1 | 1 | 1 | - | - | - | - | - | 1 |
| | ø4 | - | 1 | 1 | 1 | - | - | - | 1 | - | 1 |
| | ø5 | - | - | - | - | - | - | - | - | - | 1 |
| | ø6 | - | - | - | - | - | - | 3 | - | - | 3 |
| | EVPE CABLE | - | 3 | 3 | 2 | - | - | - | - | - | 4 |
| | CONDUIT SIZE (mm) | 53C | 78C | 78C | 53C | 78C | 53C | 78C | 53C | 41C | 2-78C |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE W/TYPE IV PEC (W) | IISNS 120V W/PEC |
|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | ø | ARROW | | |
| A | 26-4-129 | 12.2 | 3.7 | MAS MAS | SV-1-T | SP-1-T | - | - | 250 | 8TH STREET |
| B | 1-A | - | - | - | TV-2-T | - | 2 | → | - | - |
| C | 1-A | - | - | - | TV-1-T | - | 2 | ← | - | - |
| D | 1-C | - | - | - | TV-3-T | SP-2-T | 4 | → | - | - |
| E | 26-4-129 | 12.2 | 3.7 | MAS MAS | SV-1-T | SP-1-T | 4 | ← | 250 | 8TH STREET |
| F | 1-A | - | - | - | TV-2-T | SP-1-T | 6 | → | - | - |
| G | 1-A | - | - | - | TV-1-T | - | 6 | ← | - | - |
| H | 15 | - | 3.7 | - | SV-3-TA | SP-1-T | - | - | 250 | - |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
## (LOCATION 66)
## (ROUTE 1/8TH STREET)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-153**

| DATE | REVISED BY | DATE | CALCULATED/ DESIGNED BY | MR | DESIGN OVERSIGHT |
|---|---|---|---|---|---|
| 4/06 | REVISED | 4/06 | CHECKED BY | KM | YEFIM ZABEZHINSKY |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 178 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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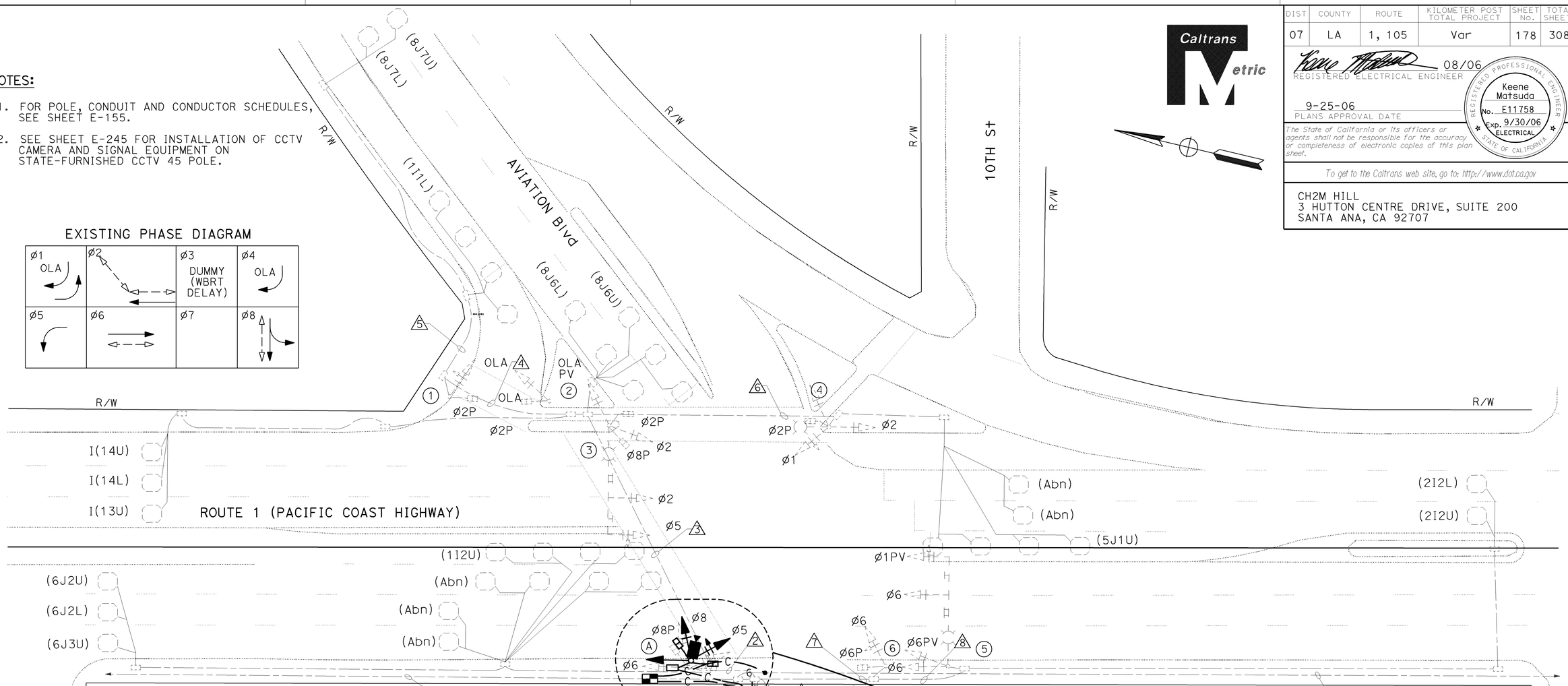
SANTA ANA, CA 92707

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-155.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT AND DATA NODE EQUIPMENT, SEE SHEET E-247.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITY).
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITY).
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING DATA NODE

(LOCATION 67)
(ROUTE 1/AVIATION BOULEVARD/10TH STREET)

SCALE 1:200

E-154

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:26

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua154.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 179 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 | ø1 | 6 | 3 | 3 | - | - | 3 | 3 | 3 |
| | ø2 | 3 | 3 | 3 | - | - | 3 | - | - |
| | ø3 | - | - | - | - | - | - | - | - |
| | ø4 | - | - | - | - | - | - | - | - |
| | ø5 | 3 | 3 | 3 | - | - | - | - | - |
| | ø6 | 6 | 3 | - | - | - | - | 3 | 3 |
| | ø7 | - | - | - | - | - | - | - | - |
| | ø8 | 6 | 3 | 3 | - | - | 3 | 3 | 3 |
| | OLA | 3 | 3 | 3 | 3 | - | - | - | - |
| | ø2PED | 2 | 2 | 2 | 2 | - | 2 | - | - |
| | ø4PED | - | - | - | - | - | - | - | - |
| | ø6PED | 2 | 2 | - | - | - | - | 2 | - |
| | ø8PED | 2 | 2 | 2 | - | - | - | - | - |
| | ø2PPB | 1 | 1 | 1 | 1 | - | 1 | - | - |
| | ø4PPB | - | - | - | - | - | - | - | - |
| | ø6PPB | 2 | - | - | - | - | - | 1 | - |
| | ø8PPB | 1 | 1 | 1 | - | - | - | - | - |
| | PPB COMMON | 2 | 1 | 1 | 1 | - | 1 | 1 | - |
| | SPARES | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 45 | 30 | 25 | 10 | 3 | 16 | 16 | 12 |
| 2#12 dlc (TYPE A) | ø1 DETECTORS | 2 | 2 | 1 | 1 | 1 | - | - | - |
| | ø2 DETECTORS | 2 | - | - | - | - | - | 2 | 2 |
| | ø3 DETECTORS | - | - | - | - | - | - | - | - |
| | ø4 DETECTORS | - | - | - | - | - | - | - | - |
| | ø5 DETECTORS | 1 | 1 | 1 | - | - | 1 | - | - |
| | ø6 DETECTORS | 3 | 3 | - | - | - | - | - | - |
| | ø7 DETECTORS | - | - | - | - | - | - | - | - |
| | ø8 DETECTORS | 4 | 4 | 4 | 2 | 2 | - | - | - |
| | NB SAMPLING DETECTORS | 3 | 3 | 3 | - | - | - | - | - |
| | SB SAMPLING DETECTORS | 2 | - | - | - | - | - | 2 | 2 |
| | TOTAL | 17 | 13 | 9 | 3 | 3 | 1 | 4 | 4 |
| #10 | LUMINAIRE | - | 2 | 2 | - | - | 2 | 2 | 2 |
| | SIGNAL COMMON | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | TOTAL | 2 | 3 | 3 | 1 | 1 | 3 | 3 | 3 |
| #12 | IISNS | - | 2 | 2 | - | - | - | 2 | 2 |
| #8 | SIGNAL SERVICE | 2 | - | - | - | - | - | - | - |
| 25 PR #19 | INTERCONNECT CABLE | 2 | - | - | - | - | - | - | - |
| - | EVP CABLE | 3 | 1 | 1 | - | - | - | 2 | 1 |
| CONDUIT SIZE (mm) | | 3-78 | 2-78 | 63 | 53 | 41 | 53 | 53 | 53 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB ø | ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| A | CCTV 45 | - | - | - | SV-3-TA | SP-2-T | 8 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | HPS (W) | PPB No. | PPB PHASE | VEH SIG MTG MA | VEH SIG MTG POLE | PED SIG MTG | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | PLACEMENT A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1-A | - | - | - | 1 | 2 | - | TV-1-T | SP-1-T | - | - | | | | | |
| 2 | 1-A | - | - | - | 1 | 2 | - | TV-1-T | SP-1-T | - | - | _ | _ | _ | _ | _ |
| 3 | 26-4-129 | 10.6 | 2.4 | 200 | 2 | 2,8 | MAST, MAS | SV-2-TA | SP-2-T | II | ← AVIATION BL / 10th ST → | _ | _ | _ | _ | _ |
| 4 | MARBELITE | - | 1.8 | 200 | 1 | 2 | - | SV-3-TB | SP-1-T | - | - | _ | _ | _ | _ | _ |
| 5 | 26-4-129 | 10.6 | 2.4 | 200 | - | - | MAST, MAS | SV-2-TA | - | II | ← AVIATION BL / 10th ST → | _ | _ | _ | _ | _ |
| 6 | 1-A | - | - | - | 1 | 6 | - | TV-1-T | SP-1-T | - | - | _ | _ | _ | _ | _ |
| 7 | PP8 POST | - | - | - | 1 | 6 | - | - | - | - | - | _ | _ | _ | _ | _ |
| 8 | 1-A | - | - | - | 1 | 8 | - | TV-3-T | SP-2-T | - | - | _ | _ | _ | _ | _ |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING DATA NODE

**(LOCATION 67)**

**(ROUTE 1/AVIATION BOULEVARD/10TH STREET)**

NO SCALE

**E-155**

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua155.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 180 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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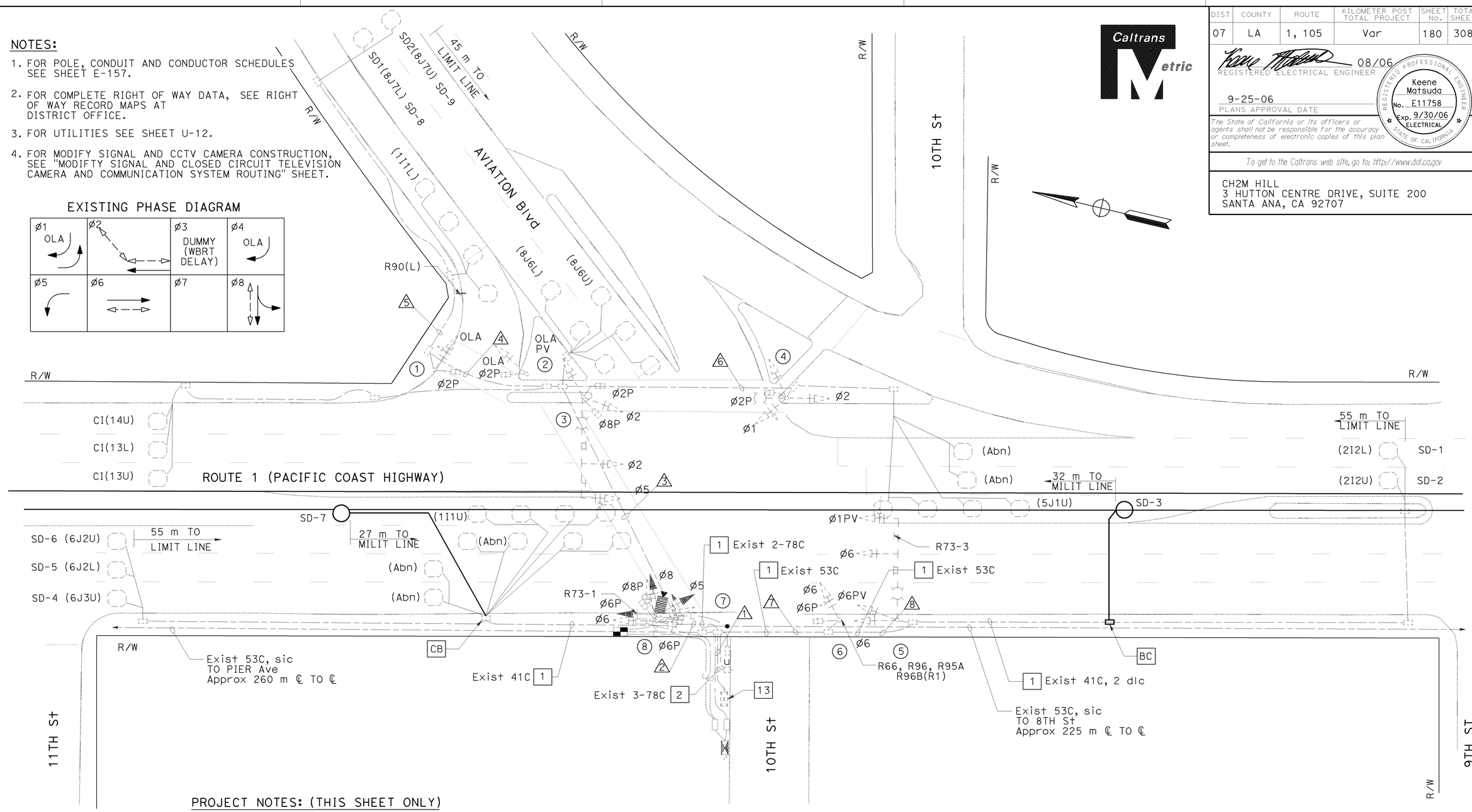
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-157.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR UTILITIES SEE SHEET U-12.
4. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION, SEE "MODIFTY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEET.

EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 OLA | ø2 | ø3 DUMMY (WBRT DELAY) | ø4 OLA |
| ø5 | ø6 | ø7 | ø8 |




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC.

2 ADD 2-DLC.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 67)

## (ROUTE 1/ AVIATION BOULEVARD/ 10TH STREET)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-156**

| REVISED BY | DATE REVISED |
|---|---|
| MR | 4/06 |

CALCULATED/ DESIGNED BY: KM
CHECKED BY:

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 08:26

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua156.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 181 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 | ø1 | 6 | 3 | 3 | - | - | 3 | 3 | 3 |
| | ø2 | 3 | 3 | 3 | - | - | 3 | - | - |
| | ø3 | - | - | - | - | - | - | - | - |
| | ø4 | - | - | - | - | - | - | - | - |
| | ø5 | 3 | 3 | 3 | - | - | - | - | - |
| | ø6 | 6 | 3 | - | - | - | - | 3 | 3 |
| | ø7 | - | - | - | - | - | - | - | - |
| | ø8 | 6 | 3 | 3 | - | - | 3 | 3 | 3 |
| | OLA | 3 | 3 | 3 | 3 | - | - | - | - |
| | ø2PED | 2 | 2 | 2 | 2 | - | 2 | - | - |
| | ø4PED | - | - | - | - | - | - | - | - |
| | ø6PED | 2 | 2 | - | - | - | - | 2 | - |
| | ø8PED | 2 | 2 | 2 | - | - | - | - | - |
| | ø2PPB | 1 | 1 | 1 | 1 | - | 1 | - | - |
| | ø4PPB | - | - | - | - | - | - | - | - |
| | ø6PPB | 2 | - | - | - | - | - | 1 | - |
| | ø8PPB | 1 | 1 | 1 | - | - | - | - | - |
| | PPB COMMON | 2 | 1 | 1 | 1 | - | 1 | 1 | - |
| | SPARES | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 45 | 30 | 25 | 10 | 3 | 16 | 16 | 12 |
| 2#12 dlc (TYPE A) | ø1 DETECTORS | 2 | 2 | 1 | 1 | 1 | - | - | - |
| | ø2 DETECTORS | 2 | - | - | - | - | - | 2 | 2 |
| | ø3 DETECTORS | - | - | - | - | - | - | - | - |
| | ø4 DETECTORS | - | - | - | - | - | - | - | - |
| | ø5 DETECTORS | 1 | 1 | 1 | - | - | 1 | - | - |
| | ø6 DETECTORS | 3 | 3 | - | - | - | - | - | - |
| | ø7 DETECTORS | - | - | - | - | - | - | - | - |
| | ø8 DETECTORS | 4 | 4 | 4 | 2 | 2 | - | - | - |
| | NB SAMPLING DETECTORS | 3 | 3 | 3 | - | - | - | - | - |
| | SB SAMPLING DETECTORS | 2 | - | - | - | - | - | 2 | 2 |
| | TOTAL | 17 | 13 | 9 | 3 | 3 | 1 | 4 | 4 |
| #10 | LUMINAIRE | - | 2 | 2 | - | - | 2 | 2 | 2 |
| | SIGNAL COMMON | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | TOTAL | 2 | 3 | 3 | 1 | 1 | 3 | 3 | 3 |
| #12 | ISNS | - | 2 | 2 | - | - | - | 2 | 2 |
| #8 | SIGNAL SERVICE | 2 | - | - | - | - | - | - | - |
| 25 PR #19 | INTERCONNECT CABLE | 2 | - | - | - | - | - | - | - |
| - | EVP CABLE | 3 | 1 | 1 | - | - | - | 2 | 1 |
| CONDUIT SIZE (mm) | | 3-78 | 2-78 | 63 | 53 | 41 | 53 | 53 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | HPS (W) | PPB No. | PPB PHASE | VEH SIG MTG MA | VEH SIG MTG POLE | PED SIG MTG | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | PLACEMENT A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1-A | - | - | - | 1 | 2 | - | TV-1-T | SP-1-T | - | - | A | B | C | D | E |
| 2 | 1-A | - | - | - | 1 | 2 | - | TV-1-T | SP-1-T | - | - | _ | _ | _ | _ | _ |
| 3 | 26-4-129 | 10.6 | 2.4 | 200 | 2 | 2,8 | MAS, MAS | SV-2-TA | SP-2-T | II | ← AVIATION BL / 10th ST → | _ | _ | _ | _ | _ |
| 4 | MARBELITE | - | 1.8 | 200 | 1 | 2 | - | SV-3-TB | SP-1-T | - | - | _ | _ | _ | _ | _ |
| 5 | 26-4-129 | 10.6 | 2.4 | 200 | - | - | MAS, MAS | SV-2-TA | - | II | ← AVIATION BL / 10th ST → | _ | _ | _ | _ | _ |
| 6 | 1-A | - | - | - | 1 | 6 | - | TV-1-T | SP-1-T | - | - | _ | _ | _ | _ | _ |
| 7 | PP8 POST | - | - | - | 1 | 6 | - | - | - | - | - | _ | _ | _ | _ | _ |
| 8 | 1-A | - | - | - | 1 | 8 | - | TV-3-T | SP-2-T | - | - | _ | _ | _ | _ | _ |

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 67)
## (ROUTE 1/ AVIATION BOULEVARD/ 10TH STREET)
NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-157**

| REVISED BY | DATE REVISED |
|---|---|
| MR | 4/06 |
| KM | 4/06 |

CALCULATED/ DESIGNED BY: MR
CHECKED BY: KM

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

Caltrans Metric

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua157.dgn

CU 07382
EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:16

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 182 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

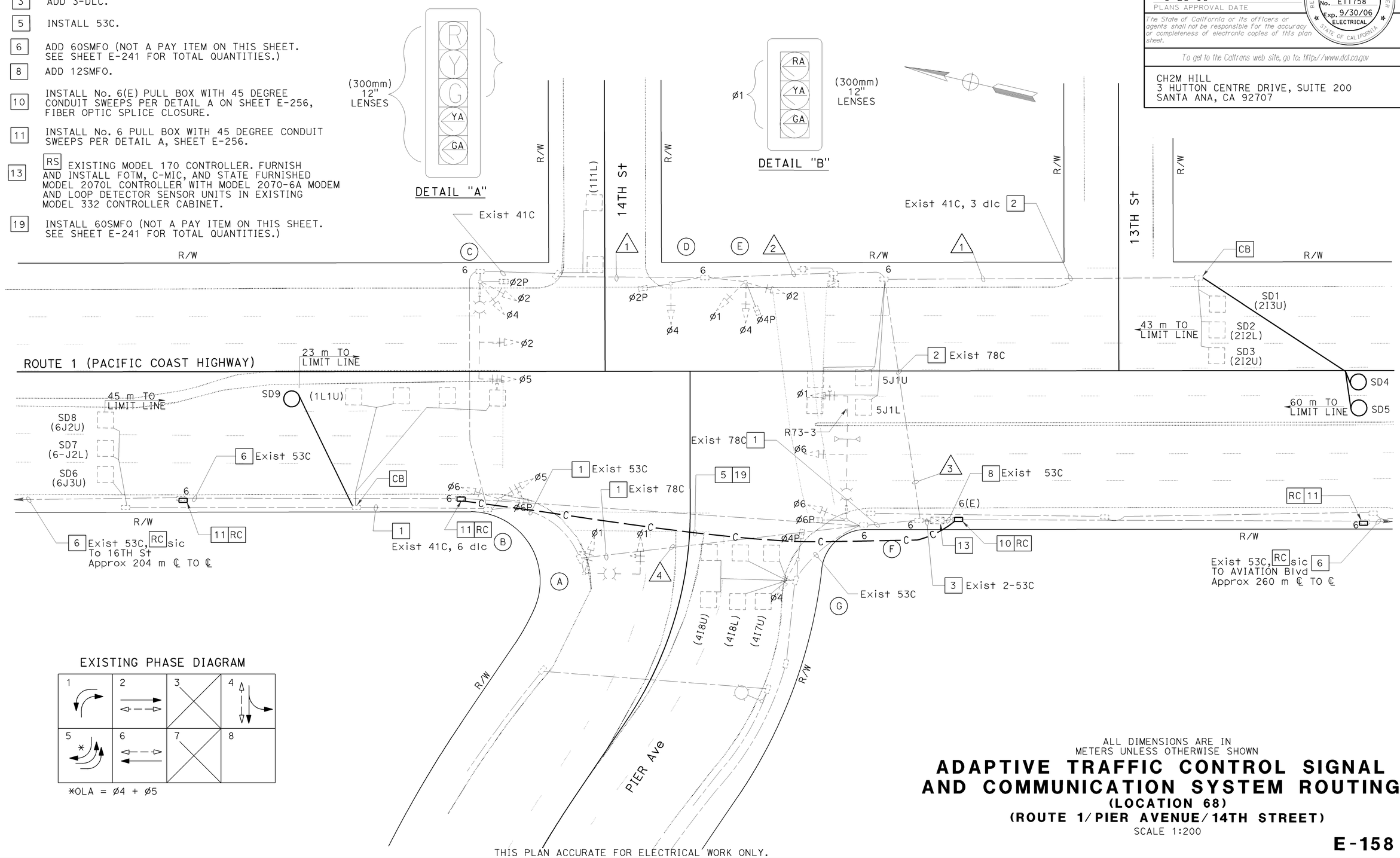
Caltrans Metric

## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC.
2. ADD 2-DLC.
3. ADD 3-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8. ADD 12SMFO.
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-159.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




EXISTING PHASE DIAGRAM




*OLA = Ø4 + Ø5

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 68)**

**(ROUTE 1/PIER AVENUE/14TH STREET)**

SCALE 1:200

**E-158**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:48

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua158.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 183 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | VEH SIG MTG MAST Arm | VEH SIG MTG POLE | PED SIGNAL MTG | PPB ø | HPS LUMINAIRE |
|---|---|---|---|---|---|---|---|---|
| A | 17-2-129 | 6.1 | 2.4 | MAS | SV-1-T | - | 6 | 200 W |
| B | 1-A | - | - | - | TV-2-T | SP-1-T | - | - |
| C | 26-4-129 | 12.2 | 2.4 | MAS,MAS | SV-2-TA | SP-1-T | 2 | 200 W |
| D | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | - |
| E | 1-A | - | - | - | TV-3-T | SP-1-T | 4 | - |
| F | 26-4-129 | 12.2 | 2.4 | MAS,MAS | SV-2-T | SP-1-T | 4 | 200 W |
| G | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | - |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| #14 | ø1 | - | 3 | 3 | 3 |
| | ø2 | 3 | 3 | 3 | - |
| | ø3 | - | - | - | - |
| | ø4 | 3 | 3 | 3 | - |
| | ø5 | 3 | 3 | 3 | 3 |
| | ø6 | - | - | - | 3 |
| | ø7 | - | - | - | - |
| | ø8 | - | - | - | - |
| | SCC-28 | 2 | 2 | 2 | 2 |
| | OL"A", ø4 & ø5 | - | 2 | 2 | - |
| | EVPE CABLE | 1 | 1 | 1 | 1 |
| | ø2P | 2 | 2 | 2 | - |
| | ø4P | - | 2 | 2 | - |
| | ø6P | - | - | - | 2 |
| | ø8P | - | - | - | - |
| | ø2PPB | 2 | 2 | 2 | - |
| | ø4PPB | - | 2 | 2 | - |
| | ø6PPB | - | - | - | 2 |
| | ø8PPB | - | - | - | - |
| | PPB COMMON | 1 | 1 | 1 | 1 |
| | SPARES | 3 | 3 | 3 | 3 |
| | TOTAL | 20 | 29 | 29 | 20 |
| #12 | SIGN LIGHTING | 2 | 2 | 2 | - |
| #14 | SIGNAL COMMON | 1 | 1 | 1 | 1 |
| #12 dlc | ø1 DETECTOR | 1 | 1 | 1 | 1 |
| | ø2 DETECTOR | - | - | 3 | - |
| | ø3 DETECTOR | - | - | - | - |
| | ø4 DETECTOR | - | - | - | - |
| | ø5 DETECTOR | - | - | 2 | - |
| | ø6 DETECTOR | - | - | - | 3 |
| | ø7 DETECTOR | - | - | - | - |
| | ø8 DETECTOR | - | - | - | - |
| | TOTAL | 4 | 4 | 9 | 5 |
| #10 | LUMINAIRE | 2 | 2 | 2 | 2 |
| #8 | SIGNAL SERVICE | - | - | 2 | - |
| | INTERCONNECT | - | - | - | - |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 68)**

**(ROUTE 1/PIER AVENUE/14TH STREET)**

NO SCALE

**E-159**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | | | |
|---|---|---|---|
| MR | DATE 4/06 | REVISED BY | |
| KM | 4/06 | DATE REVISED | |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:16

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 184 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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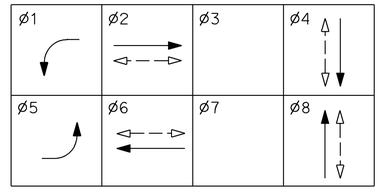
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

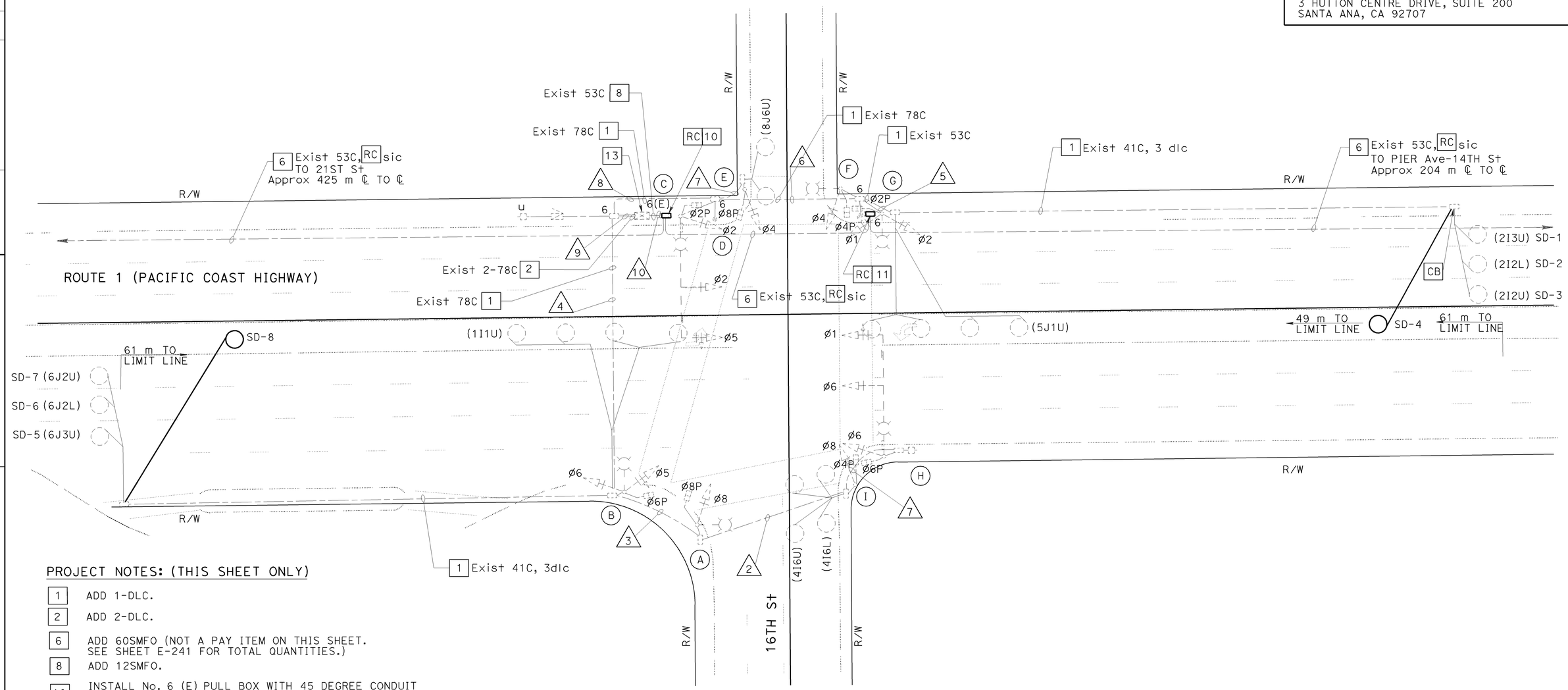

Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-161.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC. |
| 2 | ADD 2-DLC. |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO. |
| 10 | INSTALL No. 6 (E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 69)

## (ROUTE 1/16TH STREET)

SCALE 1:200

**E-160**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:49

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua160.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 185 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| MULTI | 28-CONDUCTOR CABLE | 1 | 2 | 2 | 2 | - | 2 | 1 | 2 | 2 | - |
| #6 | SERVICE | - | - | - | - | - | - | - | - | 2 | - |
| #8 | LUMINAIRE | 2 | 2 | 2 | 2 | - | 2 | - | 2 | - | - |
| #10 | IISNS | 2 | 2 | 2 | 2 | - | - | - | 2 | - | - |
| 12 PR #19 | INTERCONNECT | - | - | - | - | - | - | - | - | - | 2 |
| dlc | ø1 | - | - | - | 1 | - | - | - | - | 1 | - |
| | ø2 | - | - | - | - | 3 | 3 | - | 3 | 3 | - |
| | ø4 | - | 2 | 2 | 2 | - | - | - | - | 2 | - |
| | ø5 | - | - | - | - | 1 | 1 | - | 1 | 1 | - |
| | ø6 | - | - | - | 3 | - | - | - | - | 3 | - |
| | ø8 | - | - | - | - | - | - | 1 | 1 | 1 | - |
| | TOTAL | - | 2 | 2 | 6 | 4 | 4 | 1 | 5 | 11 | - |
| | CONDUIT SIZE (mm) | 53 | 78 | 78 | 78 | 53 | 78 | 53 | 78 | 2-78 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | SMA (m) | LMA (m) | HPS (W) | SIGNAL MOUNTING | | | PPB | | IISNS LEGEND | POLE LOCATION (m) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | | | | MAST ARM | POLE | PED | ø | ARROW | | B | E | C |
| A | 15 | - | 2.4 | 200 | - | SV-1-T | SP-1-T | 6 | ← | - | - | 2.7 | - |
| B | 15 | - | 2.4 | 200 | - | SV-2-TA | SP-1-T | 8 | → | - | 0.6 | - | - |
| C | 26-4-129 | 12.2 | 2.4 | 200 | 2-MAS | SV-1-T | SP-1-T | - | - | 6TH STREET | - | 3.7 | - |
| D | PPB POST | - | - | - | - | - | - | 8 | ← | - | - | - | - |
| E | 1-A | - | - | - | - | TV-1-T | SP-1-T | 2 | → | - | - | - | - |
| F | 1-A | - | - | - | - | TV-1-T | SP-1-T | 2 | ← | - | - | - | 1.2 |
| G | 15 | - | 2.4 | 200 | - | SV-2-TA | SP-1-T | 4 | → | - | 1.8 | - | - |
| H | 26-4-129 | 12.2 | 3.6 | 200 | 2-MAS | SV-1-T | SP-1-T | 4 | ← | 6TH STREET | - | - | 1.8 |
| I | 1-A | - | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - | - | 1.2 |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 69)**
**(ROUTE 1/16TH STREET)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-161**

| REVISED BY | DATE REVISED |
|---|---|
| MR | 4/06 |
| KM | 4/06 |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua161.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 186 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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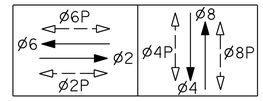
SANTA ANA, CA 92707

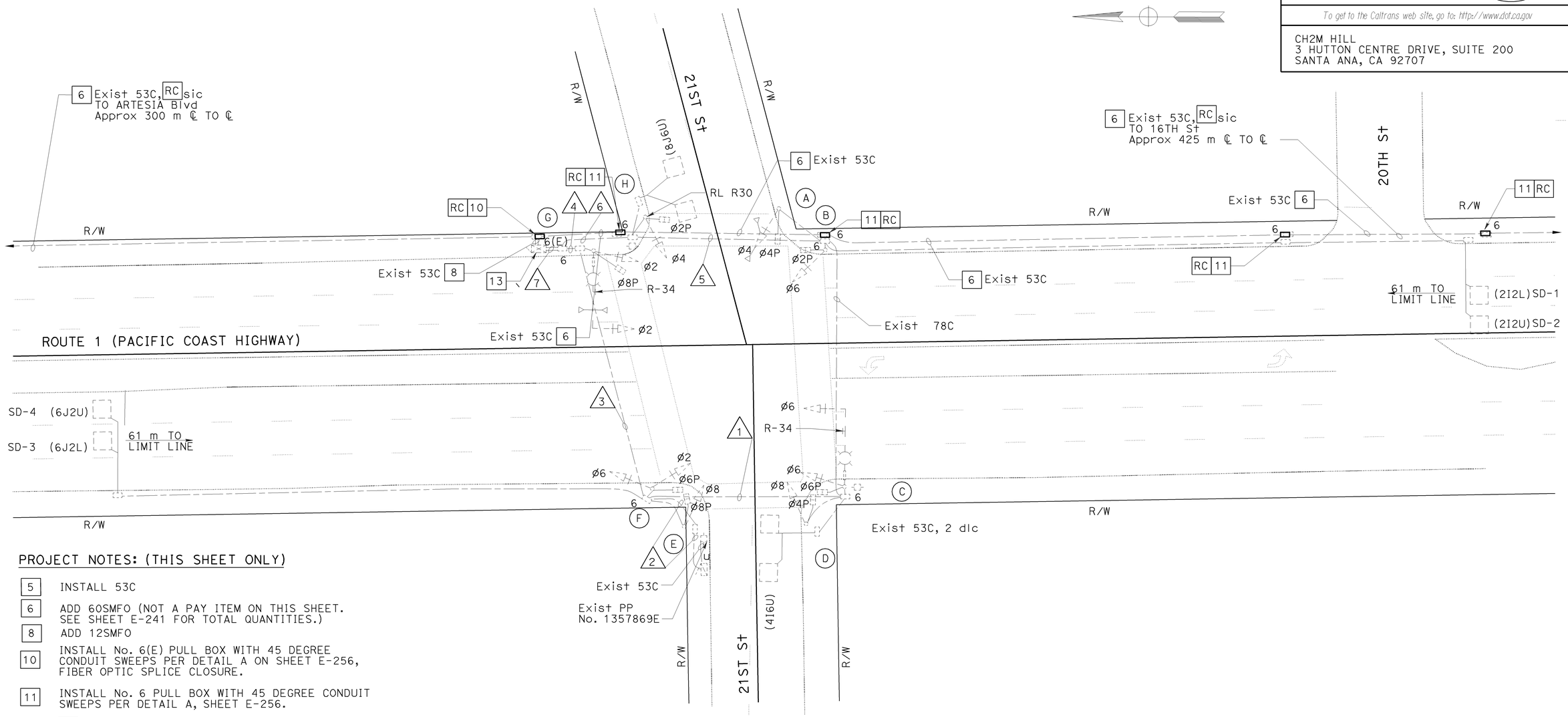
Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-163.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| RS 13 | EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 70)

## (ROUTE 1/ 21ST STREET)

SCALE 1:200

**E-162**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| REVISED BY | KM | CHECKED BY | YEFIM ZABEZHINSKY |
| DATE REVISED | 4/06 | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 08:36

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua162.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 187 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| #14 | Ø2 | - | - | 3 | 3 | - | - | 3 |
| | Ø4 | - | - | - | - | 3 | 3 | 3 |
| | Ø6 | 3 | - | 3 | 3 | 3 | 3 | 6 |
| | Ø8 | 3 | - | 3 | 3 | - | - | 3 |
| | Ø2P | - | - | - | - | 2 | 2 | 2 |
| | Ø4P | 2 | - | 2 | 2 | 2 | 2 | 4 |
| | Ø6P | 2 | - | 2 | 2 | - | - | 2 |
| | Ø8P | - | - | 2 | 2 | - | - | 2 |
| | Ø2PPB | - | - | - | - | 1 | 1 | 1 |
| | Ø4PPB | 1 | - | 1 | 1 | 1 | 1 | 2 |
| | Ø6PPB | 1 | - | 1 | 1 | - | - | 1 |
| | Ø8PPB | - | - | 1 | 1 | - | - | 1 |
| | PPB COMMON | 1 | - | 1 | 1 | 1 | 1 | 2 |
| | SIGNAL COMMON #10 | 1 | - | 1 | 1 | 1 | 1 | 2 |
| | TOTAL | 14 | - | 20 | 20 | 14 | 14 | 34 |
| SCC | SIGNAL CONDUCTOR CABLE 3 | - | - | - | - | - | - | - |
| | SIGNAL CONDUCTOR CABLE 28 | 2 | - | 2 | 2 | 2 | 2 | 4 |
| #12 | SIGN LIGHTING | 3 | 3 | 3 | - | - | - | - |
| #10 | LUMINAIRE | 3 | 3 | 3 | - | - | - | - |
| #6 | SIGNAL SERVICE | - | 2 | 2 | 2 | - | - | 2 |
| | TOTAL | 6 | 8 | 8 | 2 | - | - | 2 |
| | EVP CABLE | - | - | - | 1 | 1 | 1 | 2 |
| dlc | Ø2 DETECTOR | - | - | - | - | 2 | 2 | 2 |
| | Ø4 DETECTOR | 1 | - | 1 | 1 | - | - | 1 |
| | Ø6 DETECTOR | - | - | 2 | 2 | - | - | 2 |
| | Ø8 DETECTOR | - | - | - | - | - | 1 | 1 |
| | TOTAL | 1 | - | 3 | 3 | 2 | 3 | 6 |
| | CONDUIT SIZE (mm) | 78 | 53 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST Arm | POLE | PED SIGNAL MTG | PPB Ø | ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT IISNS MESSAGE |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | ← | - | - |
| B | 1-A | - | - | - | TV-1-T | SP-1-T | 4 | → | - | - |
| C | 19-3-129 | 7.6 | 3.7 | MAS | SV-1-T | SP-1-T | 4 | ← | 200 | 21ST STREET |
| D | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| E | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | ← | - | - |
| F | 1-A | - | - | - | TV-2-T | SP-1-T | 8 | → | - | - |
| G | 19-3-129 | 7.6 | 3.7 | MAS | SV-1-T | SP-1-T | 8 | ← | 200 | 21ST STREET |
| H | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | → | - | - |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 70)**
**(ROUTE 1/21ST STREET)**

NO SCALE

**E-163**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | CALCULATED/DESIGNED BY | MR |
| | | CHECKED BY | KM |
| | | DATE 4/06 | REVISED BY |
| | | 4/06 | DATE REVISED |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 08:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua163.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 188 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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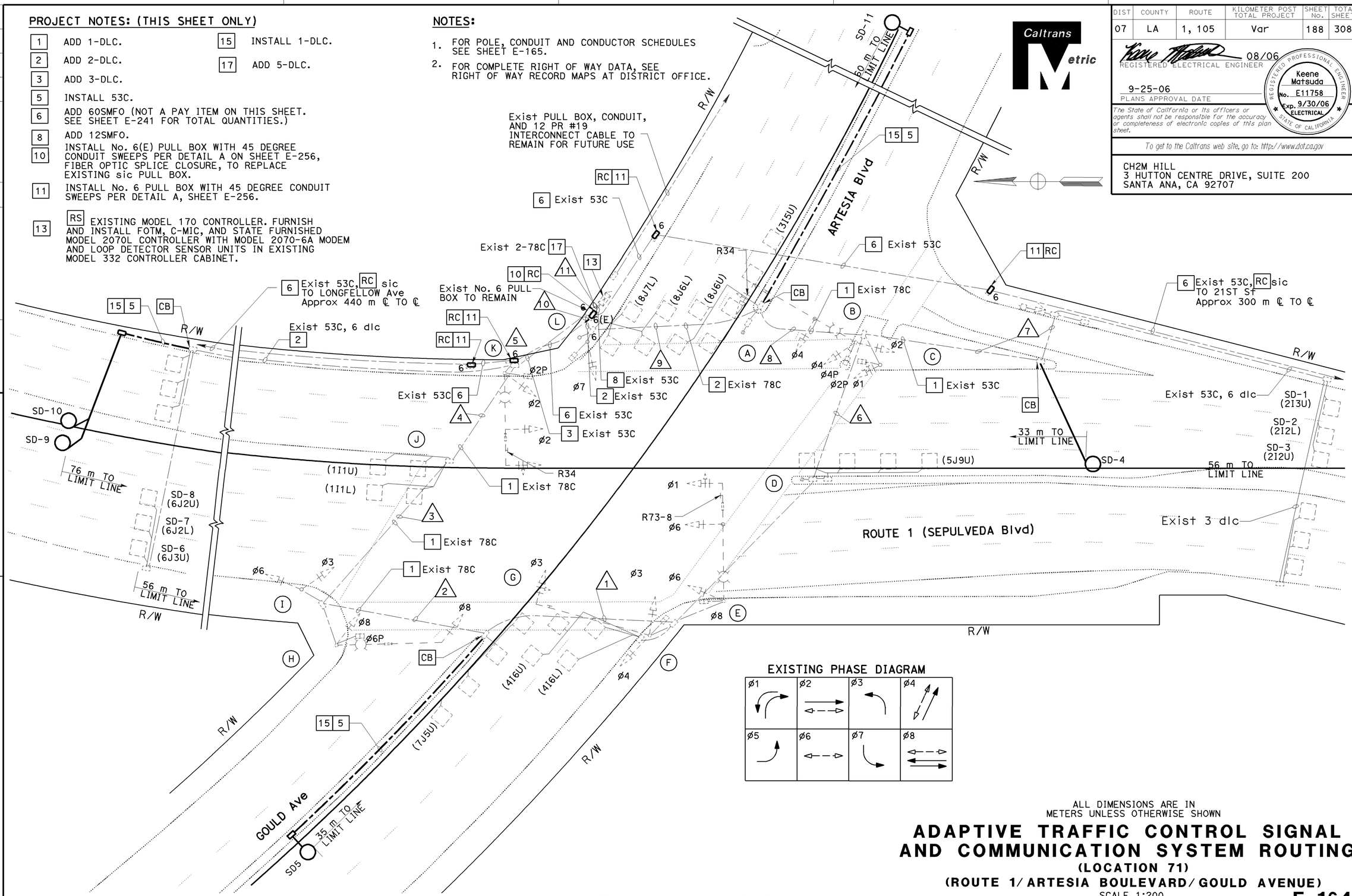
SANTA ANA, CA 92707

## PROJECT NOTES: (THIS SHEET ONLY)

- [1] ADD 1-DLC.
- [2] ADD 2-DLC.
- [3] ADD 3-DLC.
- [5] INSTALL 53C.
- [6] ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- [8] ADD 12SMFO.
- [10] INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE, TO REPLACE EXISTING sic PULL BOX.
- [11] INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [15] INSTALL 1-DLC.
- [17] ADD 5-DLC.

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-165.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




### EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 71)

## (ROUTE 1/ARTESIA BOULEVARD/GOULD AVENUE)

SCALE 1:200

**E-164**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

CALCULATED/DESIGNED BY — CHECKED BY

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 — DATE PLOTTED => 28-SEP-2006 — TIME PLOTTED => 07:05

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua164.dgn

CU 07382 — EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 189 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

| CALCULATED/ DESIGNED BY | |
|---|---|
| CHECKED BY | |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

**THIS SHEET INTENTIONALLY LEFT BLANK**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 71)**

**(ROUTE 1/ARTESIA BOULEVARD/GOULD AVENUE)**

NO SCALE

**E-165**

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:16

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 190 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

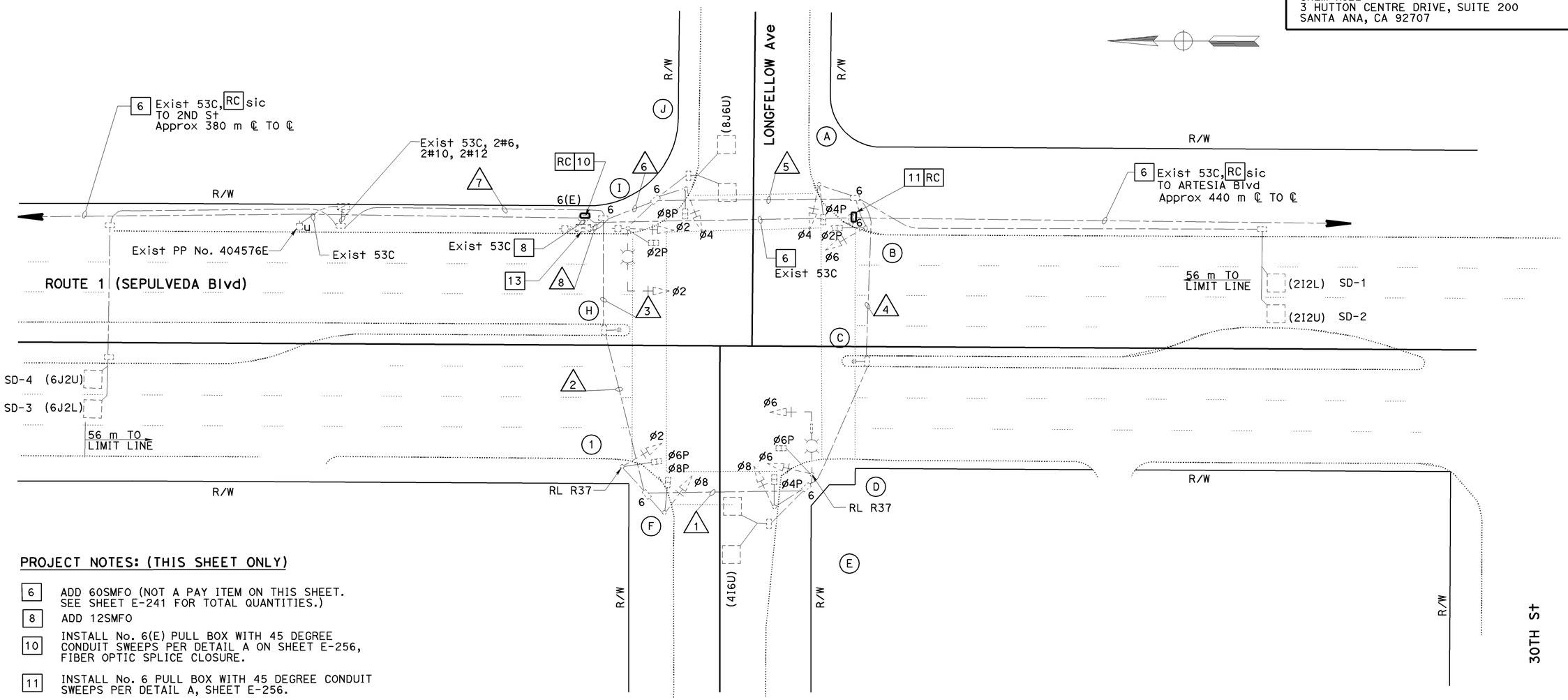
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-167.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

### EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| ø1 | ø2 | ø3 | ø4 |
| ø5 | ø6 | ø7 | ø8 |




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 72)**

**(ROUTE 1/LONGFELLOW AVENUE)**

SCALE 1:200

**E-166**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|---|---|
| | 4/06 | DATE REVISED | KM | CHECKED BY | YEFIM ZABEZHINSKY |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 07:08

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua166.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 191 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø2 | - | 3 | 3 | - | - | 3 | - | 6 |
| | Ø4 | - | - | - | - | 3 | 3 | - | 3 |
| | Ø6 | 3 | 3 | 3 | - | 3 | 3 | - | 6 |
| | Ø8 | 3 | 3 | 3 | - | - | - | - | 3 |
| | Ø2P | - | - | - | - | 2 | 2 | - | 2 |
| | Ø4P | 2 | 2 | 2 | - | 2 | 2 | - | 4 |
| | Ø6P | 2 | 2 | 2 | - | - | - | - | 2 |
| | Ø8P | - | - | - | - | - | 2 | - | 2 |
| | Ø2PPB | - | - | - | - | 1 | 1 | - | 1 |
| | Ø4PPB | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 |
| | Ø6PPB | 1 | 1 | 1 | - | - | - | - | 1 |
| | Ø8PPB | - | 1 | 1 | - | - | 1 | - | 2 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 |
| | SIGNAL COMMON #10 | 1 | 1 | 1 | - | 1 | 1 | - | 2 |
| | TOTAL | 14 | 18 | 18 | 2 | 14 | 20 | - | 38 |
| SCC | SIGNAL CONDUCTOR CABLE 3 | - | - | - | - | - | - | - | - |
| | SIGNAL CONDUCTOR CABLE 28 | 2 | 2 | 2 | 1 | 2 | 2 | - | 4 |
| #12 | SIGN LIGHTING | 3 | 3 | 3 | - | - | 3 | 3 | - |
| #10 | LUMINAIRE | 3 | 3 | 3 | - | - | 3 | 3 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | 2 | 2 |
| | TOTAL | 6 | 6 | 6 | - | - | 6 | 6 | 2 |
| | EVPE | - | - | - | - | - | 2 | - | 2 |
| 2#12 dlc | Ø2 DETECTOR | - | - | - | - | 2 | 2 | - | 2 |
| | Ø4 DETECTOR | 1 | 1 | 1 | - | - | - | - | 1 |
| | Ø6 DETECTOR | - | - | - | - | - | - | 2 | 2 |
| | Ø8 DETECTOR | - | - | - | - | - | 1 | - | 1 |
| | TOTAL | 1 | 1 | 1 | - | 2 | 3 | 2 | 6 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 53 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT IISNS MESSAGE |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | ← | - | - |
| B | 1-A | - | - | - | TV-1-T | SP-1-T | 4 | → | - | - |
| C | PPB POST | - | - | - | - | - | 4 | ↔ | - | - |
| D | 17-2-129 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | 4 | → | 200 | LONGFELLOW AVENUE |
| E | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| F | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | ← | - | - |
| G | 1-A | - | - | - | TV-1-T | SP-1-T | 8 | → | - | - |
| H | PPB POST | - | - | - | - | - | 8 | ↔ | - | - |
| I | 17-2-129 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | 8 | ← | 200 | LONGFELLOW AVENUE |
| J | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | → | - | - |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 72)**

**(ROUTE 1/LONGFELLOW AVENUE)**

NO SCALE

**E-167**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua167.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 192 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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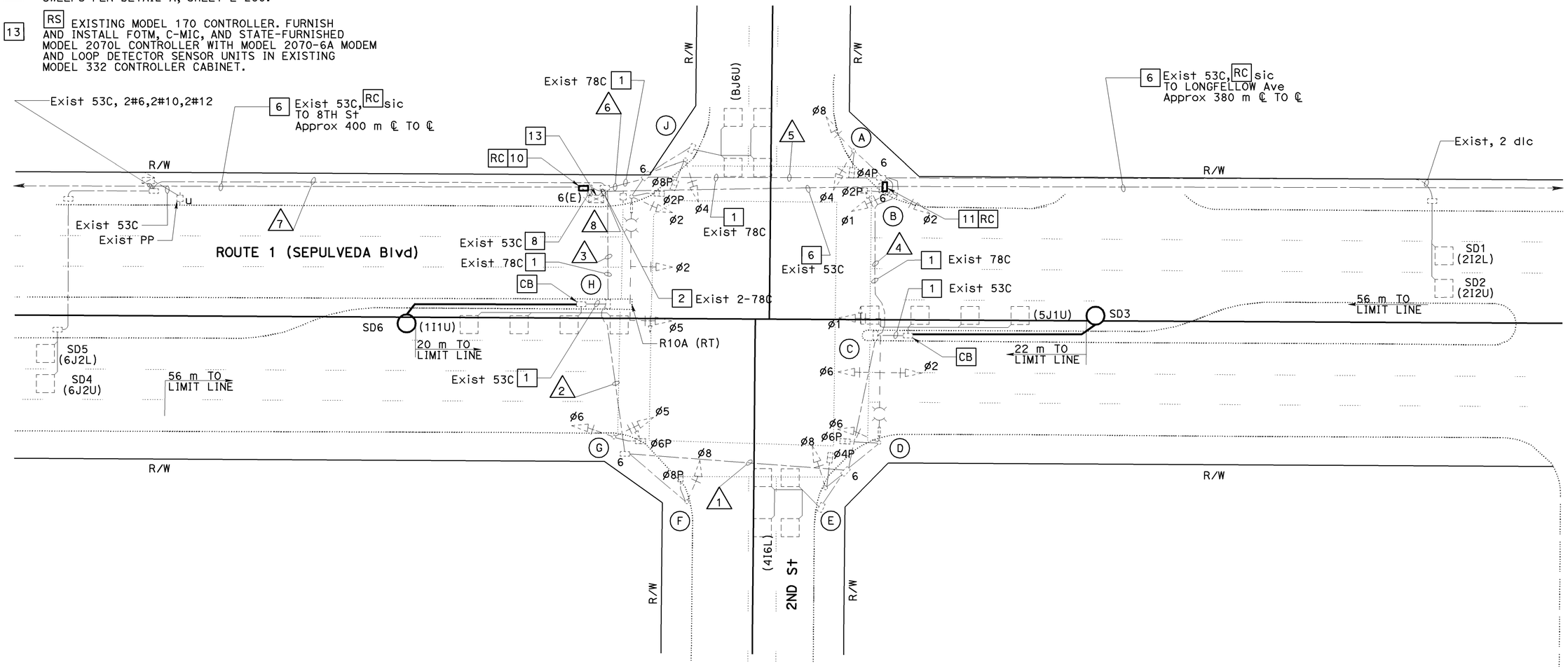
SANTA ANA, CA 92707

## PROJECT NOTES: (THIS SHEET ONLY)

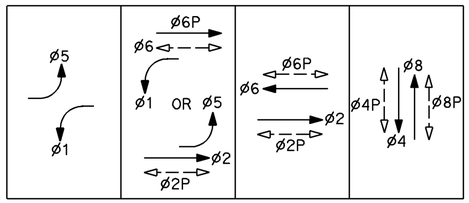
- [1] ADD 1-DLC.
- [2] ADD 2-DLC.
- [5] INSTALL 53C.
- [6] ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- [8] ADD 12SMFO.
- [10] INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- [11] INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [15] INSTALL 1-DLC.
- [19] INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-169.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 73)

## (ROUTE 1/2ND STREET)

SCALE 1:200

**E-168**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY — CHECKED BY

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 — DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 07:11

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua168.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 193 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø1 | 3 | 3 | 3 | - | 3 | 3 | - | 6 |
| | Ø2 | 3 | - | - | - | 3 | 3 | - | 6 |
| | Ø4 | - | - | - | - | 3 | 3 | - | 3 |
| | Ø5 | - | 3 | 3 | - | - | 3 | - | 6 |
| | Ø6 | 3 | 3 | 3 | - | - | - | - | 3 |
| | Ø8 | 3 | 3 | 3 | - | 3 | 3 | - | 6 |
| | Ø2P | - | - | - | - | 2 | 2 | - | 2 |
| | Ø4P | 2 | 2 | 2 | - | 2 | 2 | - | 4 |
| | Ø6P | 2 | 2 | 2 | - | - | - | - | 2 |
| | Ø8P | - | 2 | 2 | - | - | 2 | - | 4 |
| | Ø2PPB | - | - | - | - | 1 | 1 | - | 1 |
| | Ø4PPB | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 |
| | Ø6PPB | 1 | 1 | 1 | - | - | - | - | 1 |
| | Ø8PPB | - | 1 | 1 | - | - | 1 | - | 2 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 |
| | SIGNAL COMMON #10 | 1 | 1 | 1 | - | 1 | 1 | - | 2 |
| | TOTAL | 20 | 23 | 23 | 2 | 20 | 26 | - | 49 |
| SCC | SIGNAL CONDUCTOR CABLE 3 | - | - | - | - | - | - | - | - |
| | SIGNAL CONDUCTOR CABLE 28 | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 |
| #12 | SIGN LIGHTING | 3 | 3 | 3 | - | - | 3 | 3 | - |
| #10 | LUMINAIRE | 3 | 3 | 3 | - | - | 3 | 3 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | 2 | 2 |
| | TOTAL | 6 | 6 | 6 | - | - | 6 | 8 | 2 |
| | EVPE | - | - | - | - | - | 2 | - | 2 |
| 2#12 dlc | Ø1 DETECTOR | - | - | 1 | - | - | - | - | 1 |
| | Ø2 DETECTOR | - | - | - | - | 2 | 2 | - | 2 |
| | Ø4 DETECTOR | 1 | 1 | 1 | - | - | - | - | 1 |
| | Ø5 DETECTOR | - | - | - | 1 | 1 | 1 | - | 1 |
| | Ø6 DETECTOR | - | - | - | - | - | - | 2 | 2 |
| | Ø8 DETECTOR | - | - | - | - | - | 1 | - | 1 |
| | TOTAL | 1 | 1 | 2 | 1 | 3 | 4 | 2 | 8 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 53 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT IISNS MESSAGE |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 1-A | - | - | - | TV-2-T | SP-1-T | 2 | ← | - | - |
| B | 1-A | - | - | - | TV-2-T | SP-1-T | 4 | → | - | - |
| C | PPB POST | - | - | - | - | - | 4 | ↔ | - | - |
| D | 26-4-129 | 12.2 | 3.7 | MAT 2-MAS | SV-1-T | SP-1-T | 4 | ← | 200 | 2ND STREET |
| E | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| F | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | ← | - | - |
| G | 1-A | - | - | - | TV-2-T | SP-1-T | 8 | → | - | - |
| H | PPB POST | - | - | - | - | - | 8 | ↔ | - | - |
| I | 26-3-129 | 12.2 | 3.7 | MAT MAS | SV-1-T | SP-1-T | 8 | ← | 200 | 2ND STREET |
| J | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | → | - | - |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 73)**
**(ROUTE 1/2ND STREET)**
NO SCALE

**E-169**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | CALCULATED/DESIGNED BY | MR |
| | | CHECKED BY | KM |
| | | REVISED BY | DATE 4/06 |
| | | DATE REVISED | 4/06 |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 08:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua169.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 194 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-171.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

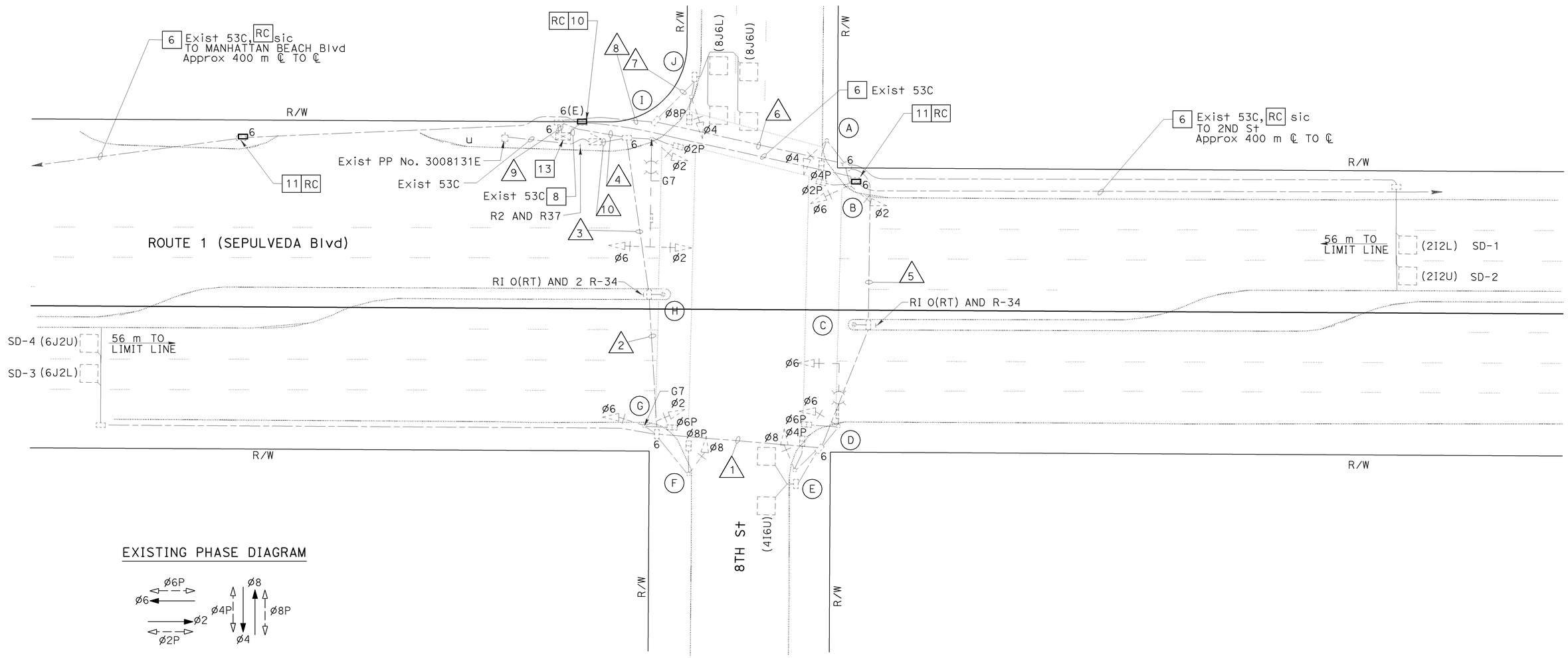
6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 74)

## (ROUTE 1/ 8TH STREET)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-170**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | KM | 4/06 |

CALCULATED/DESIGNED BY MR
CHECKED BY KM
DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 07:47

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua170.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 195 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø2 | - | 3 | 3 | 3 | - | 3 | - | 3 | 6 | - |
| | Ø4 | - | - | - | - | - | 3 | 6 | 3 | 3 | - |
| | Ø6 | 3 | 3 | 3 | 3 | - | 3 | - | 3 | 6 | - |
| | Ø8 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | - |
| | Ø2P | - | - | - | 2 | - | 2 | - | 2 | 4 | - |
| | Ø4P | 2 | 2 | 2 | 2 | - | 2 | - | 2 | 4 | - |
| | Ø6P | 2 | 2 | 2 | 2 | - | - | - | - | 2 | - |
| | Ø8P | - | 2 | 2 | 2 | - | - | 4 | 2 | 4 | - |
| | Ø2PPB | - | - | - | - | - | 1 | 2 | 1 | 1 | - |
| | Ø4PPB | 1 | 1 | 1 | 1 | 1 | 1 | - | 1 | 2 | - |
| | Ø6PPB | 1 | 1 | 1 | 1 | - | - | - | - | 1 | - |
| | Ø8PPB | - | 1 | 1 | 1 | - | - | - | - | 1 | - |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | - |
| | SIGNAL COMMON #10 | 1 | 1 | 1 | 1 | - | 1 | 2 | 1 | 2 | - |
| | TOTAL | 14 | 20 | 20 | 22 | 2 | 17 | 16 | 19 | 41 | - |
| SCC | SIGNAL CONDUCTOR CABLE 3 | - | - | - | - | 1 | - | - | - | - | - |
| | SIGNAL CONDUCTOR CABLE 28 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | 2 | - |
| #12 | SIGN LIGHTING | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 |
| #10 | LUMINAIRE | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 |
| #6 | SIGNAL SERVICE | - | - | - | 2 | - | - | - | - | 2 | 2 |
| | TOTAL | 6 | 6 | 6 | 8 | - | - | - | - | 2 | 8 |
| | EVPE | - | - | - | 1 | - | - | 1 | - | 2 | - |
| 2#12 dlc | Ø2 DETECTOR | - | - | - | - | - | 2 | - | 2 | 2 | - |
| | Ø4 DETECTOR | 1 | 1 | 1 | 1 | - | - | - | - | 1 | - |
| | Ø6 DETECTOR | - | 1 | 1 | 1 | - | - | - | - | 1 | - |
| | Ø8 DETECTOR | - | - | - | - | - | - | 2 | 2 | 2 | - |
| | TOTAL | 1 | 2 | 2 | 2 | - | 2 | 2 | 4 | 6 | - |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 53 | 78 | 2-78 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT IISNS MESSAGE |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | ← | - | - |
| B | 1-A | - | - | - | TV-2-T | SP-1-T | 4 | → | - | - |
| C | PPB POST | - | - | - | - | - | 4 | ↔ | - | - |
| D | 17-2-129 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | 4 | ← | 200 | 8TH STREET |
| E | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| F | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | ← | - | - |
| G | 18-1-129 | - | - | - | TV-1-T SV-1-T | SP-1-T | 8 | → | - | - |
| H | PPB POST | - | - | - | - | - | 8 | ↔ | - | - |
| I | 24-4-113 | 10.7 | 3.7 | MAS | SV-1-T | SP-1-T | 8 | ← | 200 | 8TH STREET |
| J | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | → | - | - |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 74)**

**(ROUTE 1/8TH STREET)**

NO SCALE

**E-171**

| CALCULATED/DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua171.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 196 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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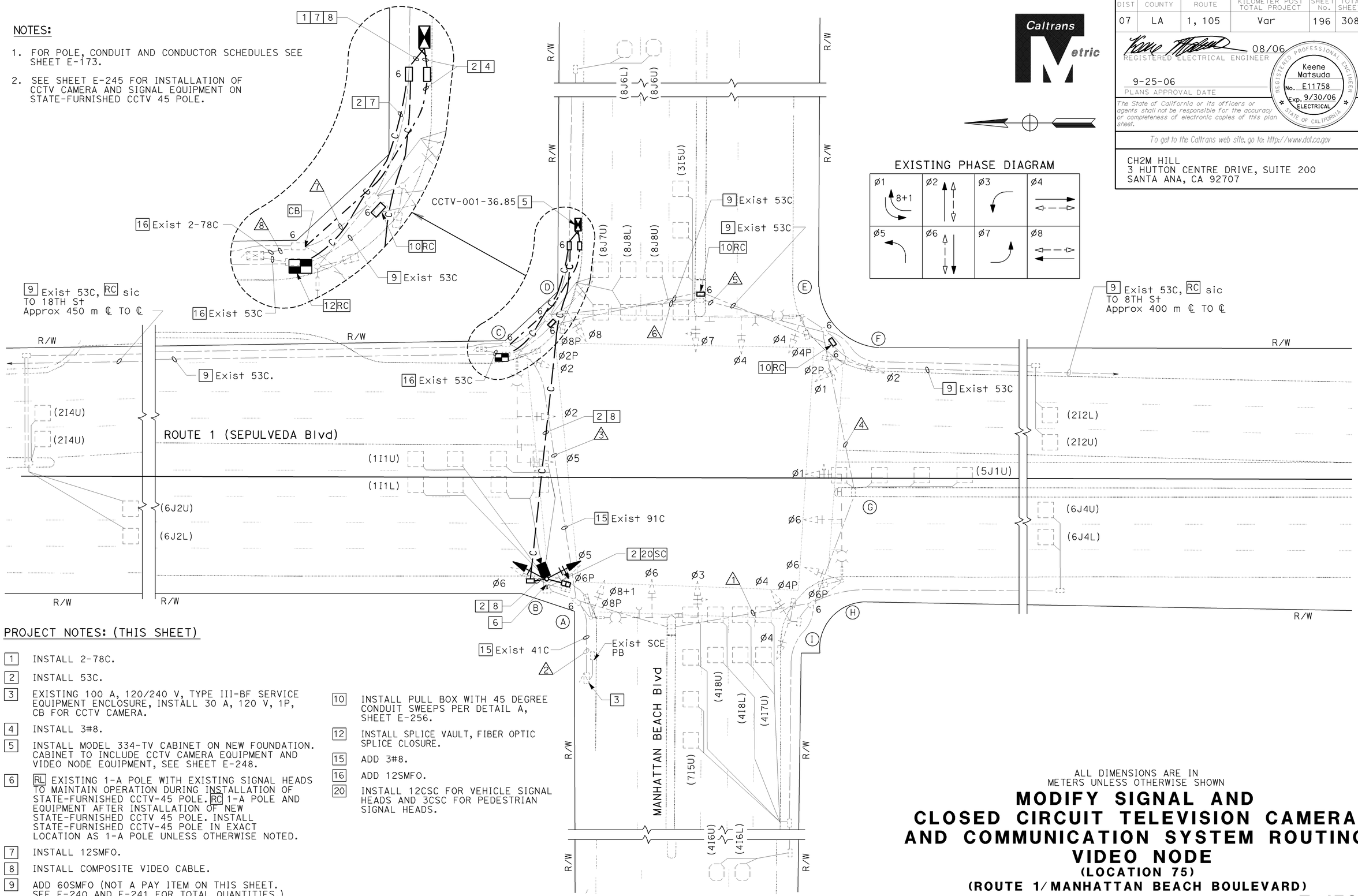
SANTA ANA, CA 92707


Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-173.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.




## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT AND VIDEO NODE EQUIPMENT, SEE SHEET E-248.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

## (LOCATION 75)

## (ROUTE 1/ MANHATTAN BEACH BOULEVARD)

SCALE 1:200

**E-172**

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY |
|---|---|---|
| REVISED BY | | CHECKED BY |
| 4/06 | KM | |
| DATE REVISED | | |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:50

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua172.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 197 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø1 | 3 | - | 3 | - | 3 | 3 | 3 | 6 |
| | Ø2 | - | - | - | - | 3 | 3 | 3 | 3 |
| | Ø3 | 3 | - | 3 | - | - | - | - | 3 |
| | Ø4 | 3 | - | 3 | - | 3 | 3 | 3 | 6 |
| | Ø5 | - | - | 3 | - | - | - | - | 3 |
| | Ø6 | 3 | - | 3 | - | - | - | - | 3 |
| | Ø7 | - | - | - | - | 3 | 3 | 3 | 3 |
| | Ø8 | - | - | 3 | - | - | - | - | 3 |
| | Ø8+1 | - | - | 2 | - | - | - | 2 | 4 |
| | Ø2P | - | - | - | - | 2 | 2 | 2 | 2 |
| | Ø4P | 2 | - | 2 | - | 2 | 2 | 2 | 4 |
| | Ø6P | 2 | - | 2 | - | - | - | - | 2 |
| | Ø8P | - | - | 2 | - | - | - | 2 | 4 |
| | Ø2PPB | - | - | - | - | 1 | 1 | 1 | 1 |
| | Ø4PPB | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | Ø6PPB | 1 | - | 1 | - | - | - | - | 1 |
| | Ø8PPB | - | - | 1 | - | - | - | - | 1 |
| | PPB COMMON | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | SIGNAL COMMON #10 | 1 | - | 1 | - | 1 | 1 | 1 | 2 |
| | TOTAL | 20 | - | 31 | 2 | 20 | 20 | 24 | 55 |
| SCC | Sig COND CABLE 3 | - | - | - | - | - | - | - | - |
| | Sig COND CABLE 28 | 2 | - | 2 | 1 | 2 | 2 | 2 | 4 |
| #12 | SIGN LIGHTING | 3 | 3 | 3 | - | 3 | 3 | 3 | - |
| #10 | LUMINAIRE | 3 | 3 | 3 | - | 3 | 3 | 3 | - |
| #6 | SIGNAL SERVICE | - | 2 | 2 | - | - | - | - | 2 |
| | TOTAL No. OF CABLES | 6 | 8 | 8 | - | 6 | 6 | 6 | 2 |
| * | EVPE | 1 | - | 2 | - | 1 | 1 | 1 | 4 |
| 2#12 dlc (TYPE A) | Ø1 DETECTORS | - | - | 2 | - | - | - | - | 2 |
| | Ø2 DETECTORS | - | - | - | - | 2 | 2 | 2 | 2 |
| | Ø3 DETECTORS | - | - | - | - | - | 1 | 1 | 1 |
| | Ø4 DETECTORS | 5 | - | 5 | - | - | - | 5 | 5 |
| | Ø5 DETECTORS | - | - | - | 1 | 1 | 1 | 1 | 1 |
| | Ø6 DETECTORS | - | - | - | - | - | - | - | 2 |
| | Ø7 DETECTORS | 1 | - | 1 | - | - | - | - | 1 |
| | Ø8 DETECTORS | - | - | - | - | - | 1 | 5 | 5 |
| | SURVEILLANCE DET | 2 | - | - | - | - | - | - | 4 |
| | TOTAL | 8 | - | 8 | 1 | 3 | 5 | 14 | 27 |
| | CONDUIT SIZE (mm) | 78 | 53 | 78 | 78 | 78 | 78 | 78 | 2-78 |

* - 3 #20 CABLE

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| B | CCTV 45 | - | - | - | SV-2-TA | SP-1-T | 8 | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | LUMINAIRE HPS (W) | PPB QUAD | PHASE | VEH SIG MTG MA ARM | POLE | PED SIG MEG | STREET NAME SIGN TYPE | LEGEND | PLACEMENT A | B | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 24A-4-113 | 10.6 | 3.6 | 200 | E | 6 | MAT, MAS | SV-1-T | SP-1-T | II | SEPULVEDA BLVD | A | B | C |
| B | 1-A | - | - | - | S | 8 | | TV-2-T | SP-1-T | - | - | - | - | - |
| C | 26-4-129 | 13.7 | 3.6 | 200 | S | 8 | MAT, MAS | SV-1-T | SP-1-T | II | MANHATTAN BCH BLVD | - | - | - |
| D | 1-A | - | - | - | W | 2 | | TV-2-T | SP-1-T | - | - | - | - | - |
| E | 26-4-129 | 13.7 | - | 200 | W | 2 | MAT, MAS | SV-1-T | SP-1-T | II | SEPULVEDA BLVD | - | - | - |
| F | 1-A | - | - | - | N | 4 | | TV-2-T | SP-1-T | - | - | - | - | - |
| G | PP8 POST | - | - | - | N | 4 | - | - | - | - | - | - | - | - |
| H | 26-4-129 | 13.7 | 3.6 | 200 | N | 4 | MAT, MAS | SV-1-T | SP-1-T | II | MANHATTAN BCH BLVD | - | - | - |
| I | 1-A | - | - | - | E | 6 | | TV-2-T | SP-1-T | - | - | - | - | - |

II - INTERNALLY ILLUMINATED

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

**(LOCATION 75)**

**(ROUTE 1/MANHATTAN BEACH BOULEVARD)**

NO SCALE

**E-173**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:43

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 198 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

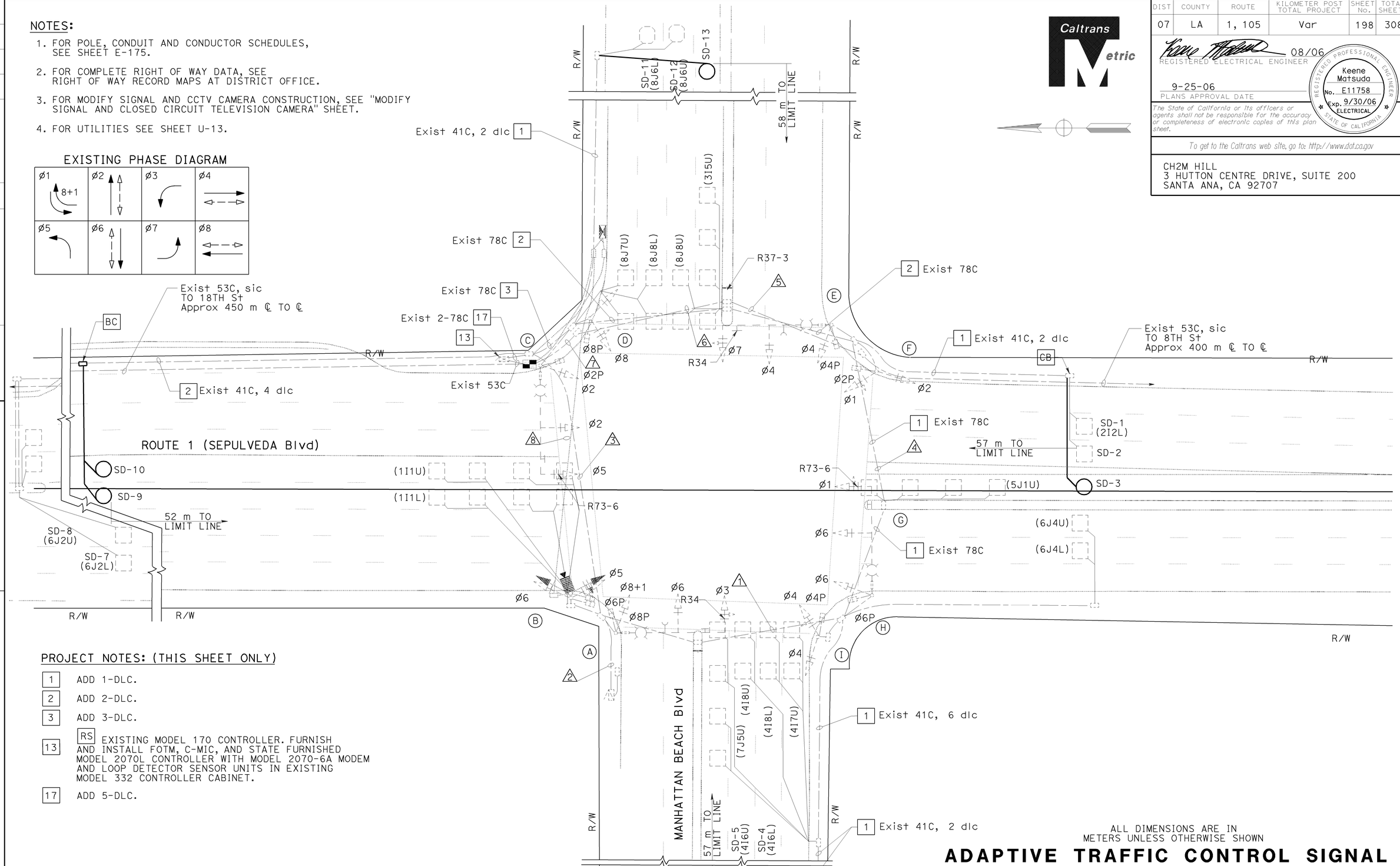
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-175.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA" SHEET.
4. FOR UTILITIES SEE SHEET U-13.

### EXISTING PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC.

2 ADD 2-DLC.

3 ADD 3-DLC.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

17 ADD 5-DLC.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 75)

## (ROUTE 1/MANHATTAN BEACH BOULEVARD)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-174**

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY | YEFIM ZABEZHINSKY |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:50

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => T25730ua174.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 199 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø1 | 3 | - | 3 | - | 3 | 3 | 3 | 6 |
| | Ø2 | - | - | - | - | 3 | 3 | 3 | 3 |
| | Ø3 | 3 | - | 3 | - | - | - | - | 3 |
| | Ø4 | 3 | - | 3 | - | 3 | 3 | 3 | 6 |
| | Ø5 | - | - | 3 | - | - | - | - | 3 |
| | Ø6 | 3 | - | 3 | - | - | - | - | 3 |
| | Ø7 | - | - | - | - | 3 | 3 | 3 | 3 |
| | Ø8 | - | - | 3 | - | - | - | - | 3 |
| | Ø8+1 | - | - | 2 | - | - | - | 2 | 4 |
| | Ø2P | - | - | - | - | 2 | 2 | 2 | 2 |
| | Ø4P | 2 | - | 2 | - | 2 | 2 | 2 | 4 |
| | Ø6P | 2 | - | 2 | - | - | - | - | 2 |
| | Ø8P | - | - | 2 | - | - | - | 2 | 4 |
| | Ø2PPB | - | - | - | - | 1 | 1 | 1 | 1 |
| | Ø4PPB | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | Ø6PPB | 1 | - | 1 | - | - | - | - | 1 |
| | Ø8PPB | - | - | 1 | - | - | - | - | 1 |
| | PPB COMMON | 1 | - | 1 | 1 | 1 | 1 | 1 | 2 |
| | SIGNAL COMMON #10 | 1 | - | 1 | - | 1 | 1 | 1 | 2 |
| | TOTAL | 20 | - | 31 | 2 | 20 | 20 | 24 | 55 |
| SCC | Sig COND CABLE 3 | - | - | - | - | - | - | - | - |
| | Sig COND CABLE 28 | 2 | - | 2 | 1 | 2 | 2 | 2 | 4 |
| #12 | SIGN LIGHTING | 3 | 3 | 3 | - | 3 | 3 | 3 | - |
| #10 | LUMINAIRE | 3 | 3 | 3 | - | 3 | 3 | 3 | - |
| #6 | SIGNAL SERVICE | - | 2 | 2 | - | - | - | - | 2 |
| * | TOTAL No. OF CABLES | 6 | 8 | 8 | - | 6 | 6 | 6 | 2 |
| | EVPE | 1 | - | 2 | - | 1 | 1 | 1 | 4 |
| 2#12 dlc (TYPE A) | Ø1 DETECTORS | - | - | 2 | - | - | - | - | 2 |
| | Ø2 DETECTORS | - | - | - | - | 2 | 2 | 2 | 2 |
| | Ø3 DETECTORS | - | - | - | - | - | 1 | 1 | 1 |
| | Ø4 DETECTORS | 5 | - | 5 | - | - | - | 5 | 5 |
| | Ø5 DETECTORS | - | - | - | 1 | 1 | 1 | 1 | 1 |
| | Ø6 DETECTORS | - | - | - | - | - | - | - | 2 |
| | Ø7 DETECTORS | 1 | - | 1 | - | - | - | - | 1 |
| | Ø8 DETECTORS | - | - | - | - | - | 1 | 5 | 5 |
| | SURVEILLANCE DET | 2 | - | - | - | - | - | - | 4 |
| | TOTAL | 8 | - | 8 | 1 | 3 | 5 | 14 | 27 |
| | CONDUIT SIZE (mm) | 78 | 53 | 78 | 78 | 78 | 78 | 78 | 2-78 |

* - 3 #20 CABLE

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | SMA (m) | LMA (m) | LUMINAIRE HPS (W) | PPB QUAD | PHASE | VEH SIG MTG MA ARM | POLE | PED SIG MEG | STREET NAME SIGN TYPE | LEGEND | PLACEMENT A | B | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 24A-4-113 | 10.6 | 3.6 | 200 | E | 6 | MAT, MAS | SV-1-T | SP-1-T | II | SEPULVEDA BLVD | A | B | C |
| B | 1-A | - | - | - | S | 8 | | TV-2-T | SP-1-T | - | - | - | - | - |
| C | 26-4-129 | 13.7 | 3.6 | 200 | S | 8 | MAT, MAS | SV-1-T | SP-1-T | II | MANHATTAN BCH BLVD | - | - | - |
| D | 1-A | - | - | - | W | 2 | | TV-2-T | SP-1-T | - | - | - | - | - |
| E | 26-4-129 | 13.7 | - | 200 | W | 2 | MAT, MAS | SV-1-T | SP-1-T | II | SEPULVEDA BLVD | - | - | - |
| F | 1-A | - | - | - | N | 4 | | TV-2-T | SP-1-T | - | - | - | - | - |
| G | PP8 POST | - | - | - | N | 4 | - | - | - | - | - | - | - | - |
| H | 26-4-129 | 13.7 | 3.6 | 200 | N | 4 | MAT, MAS | SV-1-T | SP-1-T | II | MANHATTAN BCH BLVD | - | - | - |
| I | 1-A | - | - | - | E | 6 | | TV-2-T | SP-1-T | - | - | - | - | - |

II - INTERNALLY ILLUMINATED

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

**(LOCATION 75)**

**(ROUTE 1/MANHATTAN BEACH BOULEVARD)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-175**

| DATE | REVISED BY |
|---|---|
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 200 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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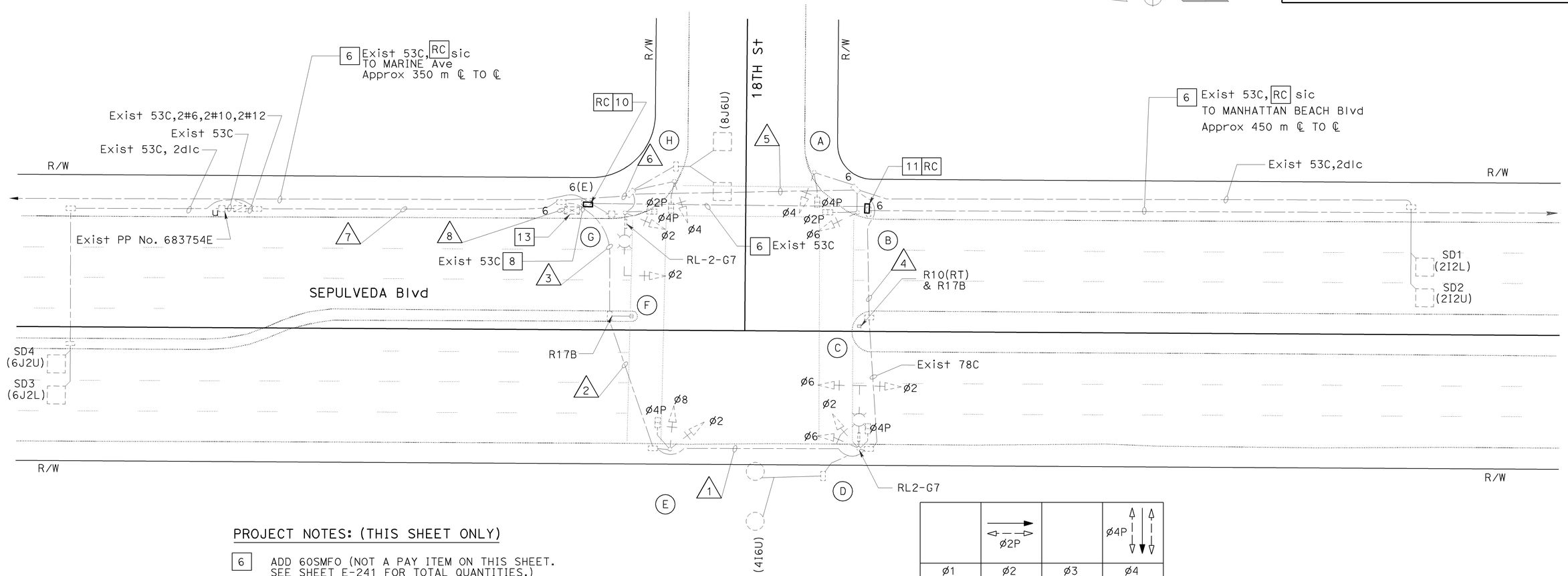
SANTA ANA, CA 92707

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-177.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




PROJECT NOTES: (THIS SHEET ONLY)

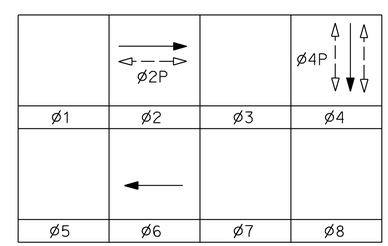
6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.




PHASE DIAGRAM

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 76)

## (ROUTE 1/18TH STREET)

SCALE 1:200

**E-176**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| REVISED BY | KM | CHECKED BY | YEFIM ZABEZHINSKY |
| DATE REVISED | 4/06 | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua176.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00

DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:50

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 201 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 | Ø2 | 3 | 3 | 3 | - | - | 3 | - | 6 |
| | Ø6 | 3 | 3 | 3 | - | 3 | 3 | - | 6 |
| | Ø4 | 3 | 3 | 3 | - | - | - | - | 3 |
| | Ø2P | - | - | - | - | 2 | 2 | - | 2 |
| | Ø4P | 2 | 2 | 2 | - | 2 | 2 | - | 4 |
| | Ø2PPB | - | - | - | - | 1 | 1 | - | 1 |
| | Ø4PPB | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 |
| | SIGNAL COMMON #10 | 1 | 1 | 1 | - | 1 | 1 | - | 2 |
| | TOTAL | 14 | 14 | 14 | 2 | 11 | 14 | - | 28 |
| SCC | SIGNAL CONDUCTOR CABLE 3 | - | - | - | - | - | - | - | - |
| | SIGNAL CONDUCTOR CABLE 28 | 2 | 2 | 2 | 1 | 2 | 2 | - | 4 |
| #12 | SIGN LIGHTING | 3 | 3 | 3 | - | - | 3 | 3 | - |
| #10 | LUMINAIRE | 3 | 3 | 3 | - | - | 3 | 3 | - |
| #6 | SIGNAL SERVICE | - | - | - | - | - | - | 2 | 2 |
| | TOTAL | 6 | 6 | 6 | - | - | 6 | 8 | 2 |
| | EVPE | - | 1 | 1 | - | - | 1 | - | 2 |
| 2#12 dlc | Ø2 DETECTOR | - | - | - | - | 2 | 2 | - | 2 |
| | Ø6 DETECTOR | - | - | - | - | - | - | 2 | 2 |
| | Ø4 DETECTOR | - | - | - | - | - | 1 | - | 1 |
| | TOTAL | - | - | - | - | 2 | 3 | 2 | 5 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 78 | 78 | 53 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST Arm | POLE | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT IISNS MESSAGE |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 1-A | - | - | - | - | TP-1-T | 2 | ← | - | - |
| B | 1-A | - | - | - | TV-1-T | SP-1-T | 4 | → | - | - |
| C | PPB POST | - | - | - | - | - | 4 | ↔ | - | - |
| D | 19-4-129 | 6.1 | 3.7 | MAS MAS | SV-1-T | SP-1-T | 4 | ← | 200 | 18TH STREET |
| E | 1-A | - | - | - | TV-2-T | SP-1-T | 4 | ← | - | - |
| F | PPB POST | - | - | - | - | - | 4 | ↔ | - | - |
| G | 17-2-129 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | 4 | ← | 200 | 18TH STREET |
| H | 1-A | - | - | - | - | TP-1-T | 2 | → | - | - |

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 76)**
**(ROUTE 1/18TH STREET)**

NO SCALE

**E-177**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| 4/06 | MR | | |
| 4/06 | KM | CHECKED BY | YEFIM ZABEZHINSKY |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:50

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua177.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 202 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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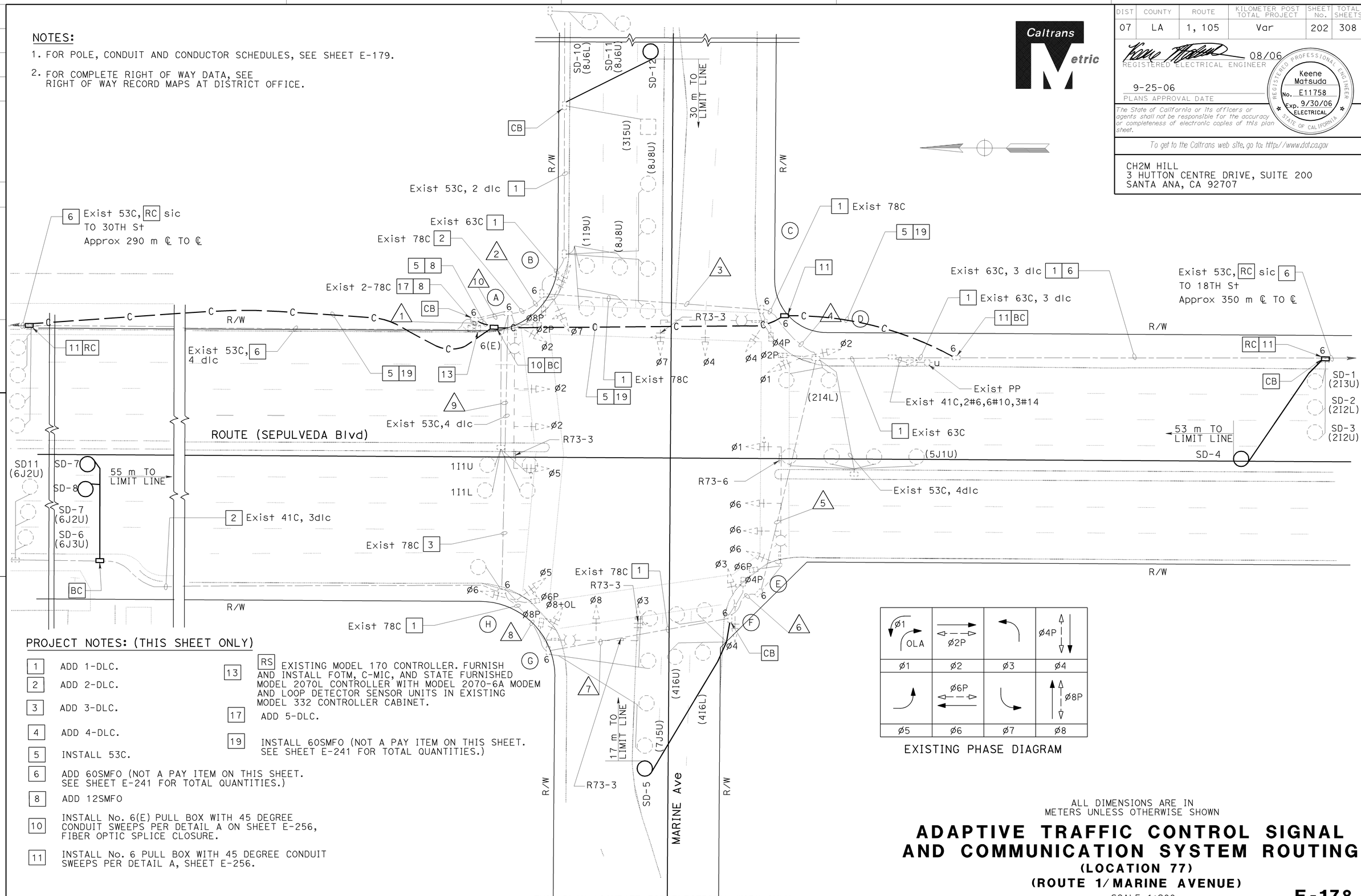
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-179.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC. |
| 2 | ADD 2-DLC. |
| 3 | ADD 3-DLC. |
| 4 | ADD 4-DLC. |
| 5 | INSTALL 53C. |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 RS | EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 17 | ADD 5-DLC. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.) |




EXISTING PHASE DIAGRAM

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 77)

## (ROUTE 1/MARINE AVENUE)

SCALE 1:200

**E-178**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:50

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua178.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 203 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| #14 | 28-CONDUCTOR CABLE ("C1",1,2,2P,3,4,4P) | 2 | 1 | 1 | 1 | 1 | 1 | - | 1 | 1 | 2 |
| | 28-CONDUCTOR CABLE ("C2",5,6,6P,7,8,8P) | 2 | 1 | 1 | 1 | 1 | 1 | - | 1<br>1 | 1<br>1 | 2 |
| | PEC (TYPE II) CONTROL | - | - | - | 3 | - | - | - | - | - | - |
| #10 | IISNS | - | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - |
| | LUMINAIRE | - | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - |
| #6 | SERVICE | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 |
| dlc/P | Ø1 DETECTOR | 2 | - | - | - | - | - | - | - | 2 | 2 |
| | Ø2 DETECTOR | 3/2 | 3/2 | 3/2 | 3/2 | - | - | - | - | - | 3/2 |
| | Ø3 DETECTOR | 1 | 1 | - | - | - | - | - | - | - | 1 |
| | Ø4 DETECTOR | 2 | - | - | - | - | - | 2 | 2 | 2 | 2 |
| | Ø5 DETECTOR | 1 | 1 | 1 | 1 | - | - | - | - | - | 1 |
| | Ø6 DETECTOR | 3/3 | - | - | - | - | - | - | - | 3/3 | 3/3 |
| | Ø7 DETECTOR | 1 | - | - | - | - | - | - | 1 | 1 | 1 |
| | Ø8 DETECTOR | 4/2 | 4/2 | - | - | - | - | - | - | - | 4/2 |
| 3#20 | EVPE CABLE | 4 | 2 | 2 | 1 | 1 | - | - | 1 | 1 | 4 |
| 25 PAIR #19 | INTERCONNECT CABLE | 2 | 1 | 1 | 1 | - | - | - | - | - | 1 |
| 6 PAIR #19 | INTERCONNECT CABLE (CITY SYSTEM) | 1 | 1 | - | - | - | - | - | - | - | 1 |
| | CONDUIT SIZE (mm) | 2-78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT | IISNS LEGEND |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | Ø | ARROW | | | |
| A | 29-5-113 | 16.8 | 4.6 | 1-MAT<br>2-MAS | SV-1-T | SP-1-T | 8 | ← | 250 | ► IISNS | MARINE AVEUNE |
| B | 1-A | - | - | - | TV-2-T | SP-1-T | 2 | → | - | - | - |
| C | 26-4-113 | 12.2 | 3.7 | 1-MAT<br>1-MAS | SV-1-T | SP-1-T | 2 | ← | 250 | ► IISNS | SEPULVEDA |
| D | 1-A | - | - | - | TV-2-T | SP-1-T | 4 | → | - | - | - |
| E | 26-4-113 | 13.7 | 3.7 | 1-MAT<br>2-MAS | SV-1-T | SP-1-T | 4 | ← | 250 | ► IISNS | MARINE AVEUNE |
| F | 1-A | - | - | - | TV-2-T | SP-1-T | 6 | → | - | - | - |
| G | 24-4-113 | 10.7 | 3.7 | 1-MAT<br>1-MAS | SV-1-T | SP-1-T | 6 | ← | 250 | ► IISNS | SEPULVEDA |
| H | 1-A | - | - | - | TV-2-T | SP-1-T | 8 | → | - | - | - |

► EMERGENCY VEHICLE PREEMPTION DETECTOR

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 77)**

**(ROUTE 1/MARINE AVENUE)**

NO SCALE

**E-179**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:50

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 204 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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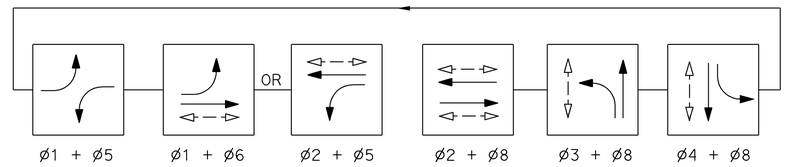
SANTA ANA, CA 92707

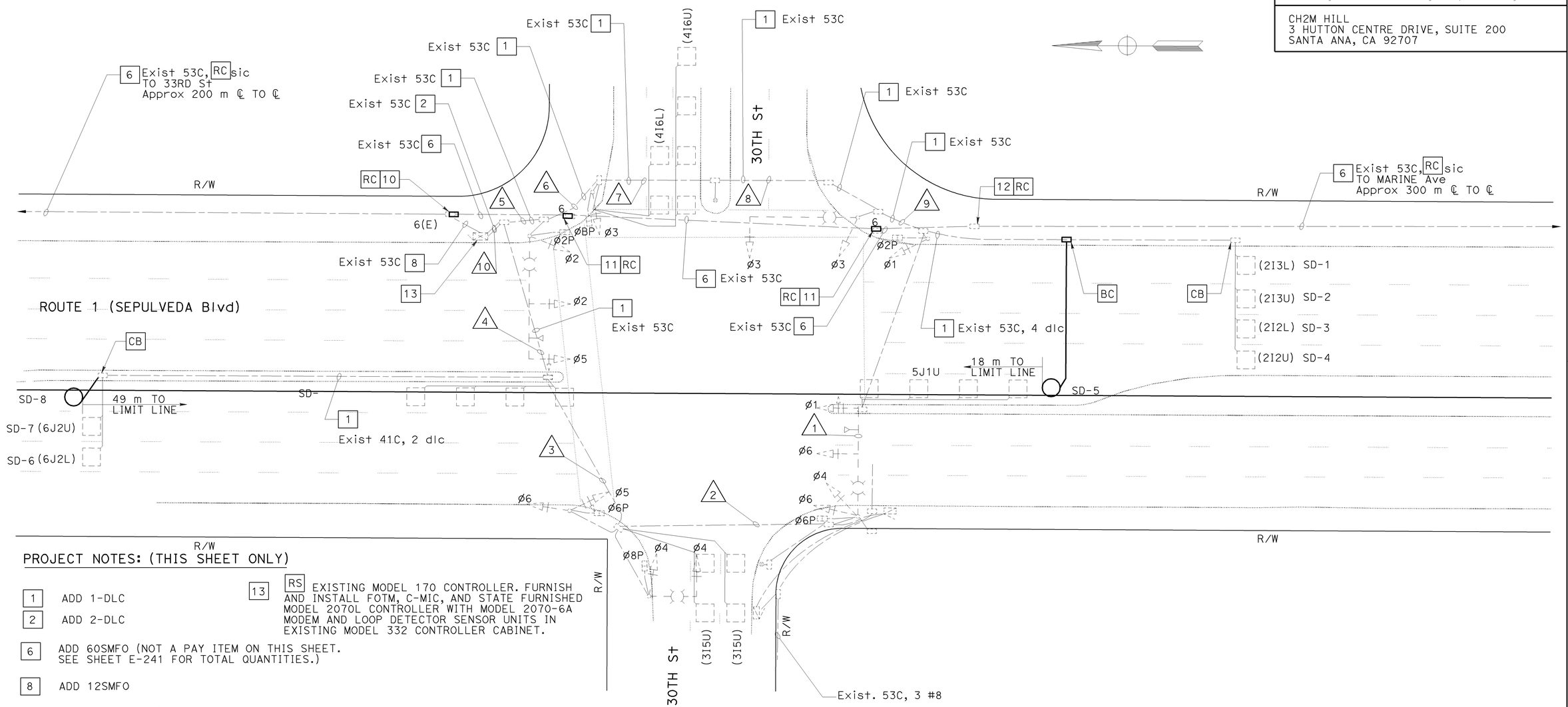
Caltrans Metric

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-181.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC

2 ADD 2-DLC

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 78)

## (ROUTE 1/ 30TH STREET)

SCALE 1:200

**E-180**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
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| 4/06 | MR | 4/06 | KM |

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YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:45

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua180.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 205 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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| | | | |
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| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

**THIS SHEET INTENTIONALLY LEFT BLANK**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 78)**
**(ROUTE 1/30TH STREET)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-181**

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:48

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua181.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 206 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

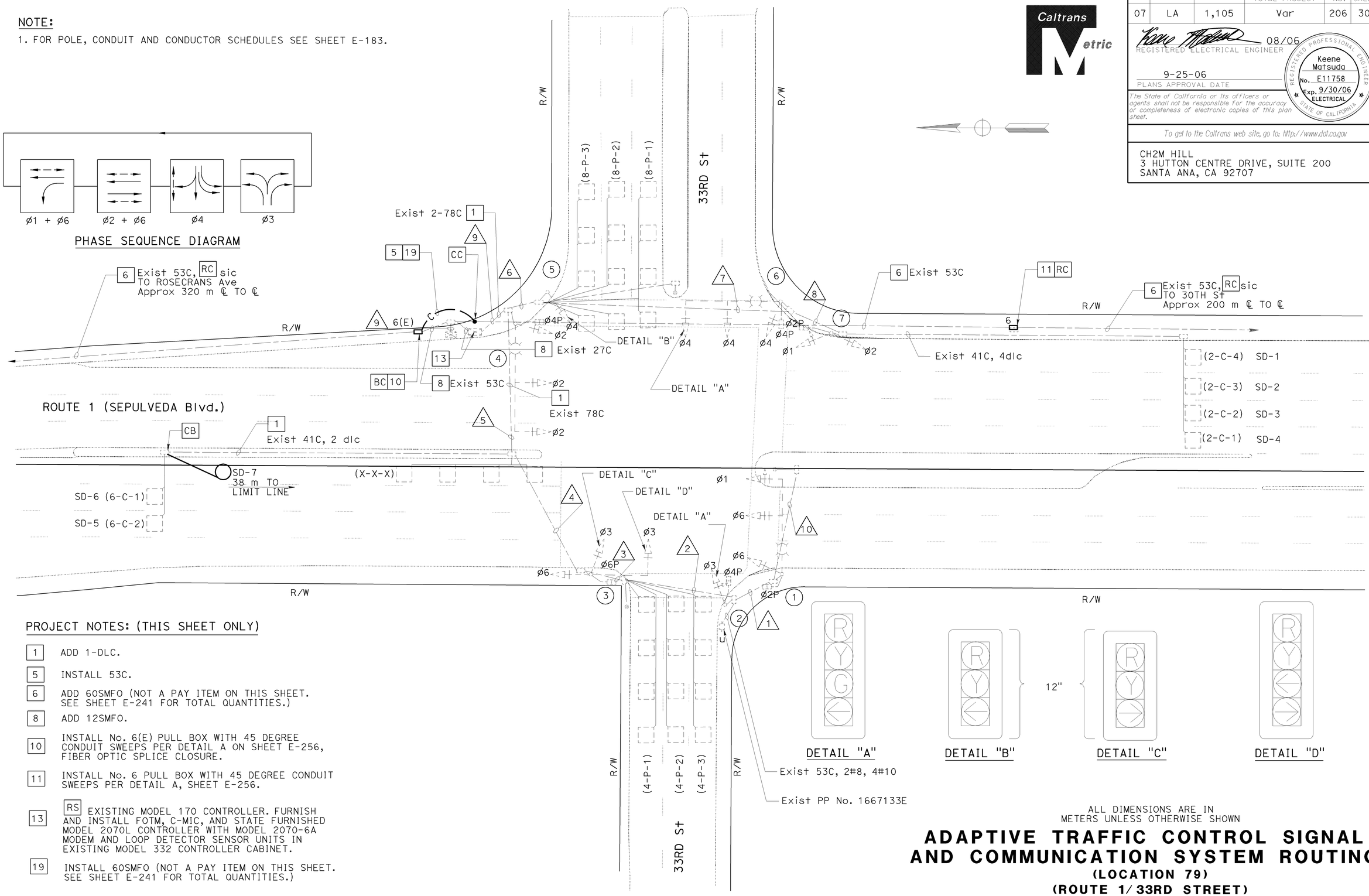
Caltrans Metric

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-183.




PHASE SEQUENCE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC.

5 INSTALL 53C.

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 79)

## (ROUTE 1/ 33RD STREET)

SCALE 1:200

**E-182**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE 4/06 | REVISED BY |
|---|---|---|---|
| | MR | | KM |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:45

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphiis
DGN FILE => 725730ua182.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 207 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| #14 | Ø1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | - |
| | Ø2 | - | - | - | - | - | 3 | 3 | 3 | 6 | - |
| | Ø4 | - | - | - | - | - | 3 | 3 | - | 3 | - |
| | Ø6 | 3 | 3 | 3 | 3 | 3 | - | - | - | 3 | - |
| | Ø8 | - | 3 | 3 | 3 | 3 | - | - | - | 3 | - |
| | Ø2P | - | - | - | - | - | 2 | 2 | 2 | 2 | - |
| | Ø6P | 2 | 2 | 2 | 3 | 2 | - | - | - | 2 | - |
| | Ø4P | - | 2 | 2 | 2 | 2 | 2 | 2 | - | 4 | - |
| | Ø2PPB | - | - | - | - | - | 1 | 1 | - | 1 | - |
| | Ø6PPB | - | 1 | 1 | 1 | 1 | - | - | - | 1 | - |
| | Ø4PPB | 1 | 1 | 1 | - | 1 | 1 | 1 | 1 | 2 | 1 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 | 1 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 9 | 3 |
| | TOTAL | 13 | 19 | 19 | 19 | 19 | 19 | 19 | 12 | 44 | 5 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | - |
| | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | 6 | - |
| | TOTAL | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 9 | - |
| 2#12 | 4-P,4-P-2,4-P-3 | - | - | 3 | 3 | 3 | - | - | - | 3 | - |
| | 1-P-1 | - | - | - | - | 1 | - | - | - | 1 | - |
| | 6-C-1,6-C-2 | - | - | - | - | 2 | - | - | - | 2 | - |
| | 8-P-1,8-P-2,8-P-3 | - | - | - | - | - | 3 | - | - | 3 | - |
| | 8-C-1,8-C-2,8-C-3,8-C-4 | - | - | - | - | - | 4 | 4 | 4 | 4 | - |
| | TOTAL | - | - | 3 | 3 | 6 | 7 | 4 | 4 | 13 | - |
| 2#8 | SERVICE | - | 2 | 2 | 2 | 2 | - | - | - | 2 | - |
| | CONDUIT SIZE (mm) | 53 | 53 | 53 | 63 | 78 | 78 | 78 | 63 | 2-78 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE | SIGNAL MOUNTING | | | PPB | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | | | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | HPS (W) | POLE | MA | | TYPE | Ø | |
| 1 | 24-2-113 | 9.1 | 10.7 | 3.7 | 250 | SV-1-T | MAS MAT | SP-1-T | B | Ø4 | |
| 2 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | B | Ø6 | |
| 3 | 16-1-113 | 3.1 | 6.1 | - | - | SV-2-TA | MAS | SP-1-T | - | - | |
| 4 | 19-2-113 | 9.1 | 7.6 | 3.7 | 250 | SV-1-T | MAS | SP-1-T | - | - | |
| 5 | 1-A | 3.1 | - | - | - | TV-1 | - | - | B | Ø2 | |
| 6 | 19-3-113 | 9.1 | 9.1 | 3.7 | 250 | SV-1-T | MAS MAT | SP-1-T | B | Ø2 | |
| 7 | 1-A | 3.1 | - | - | - | TV-3-T | - | SP-1-T | B | Ø4 | |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 79)**
**(ROUTE 1/33RD STREET)**

NO SCALE

**E-183**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

CALCULATED/DESIGNED BY: MR — DATE REVISED: 4/06
CHECKED BY: KM — DATE REVISED: 4/06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua183.dgn

CU 07382 | EA 257301

LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 15:45

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 208 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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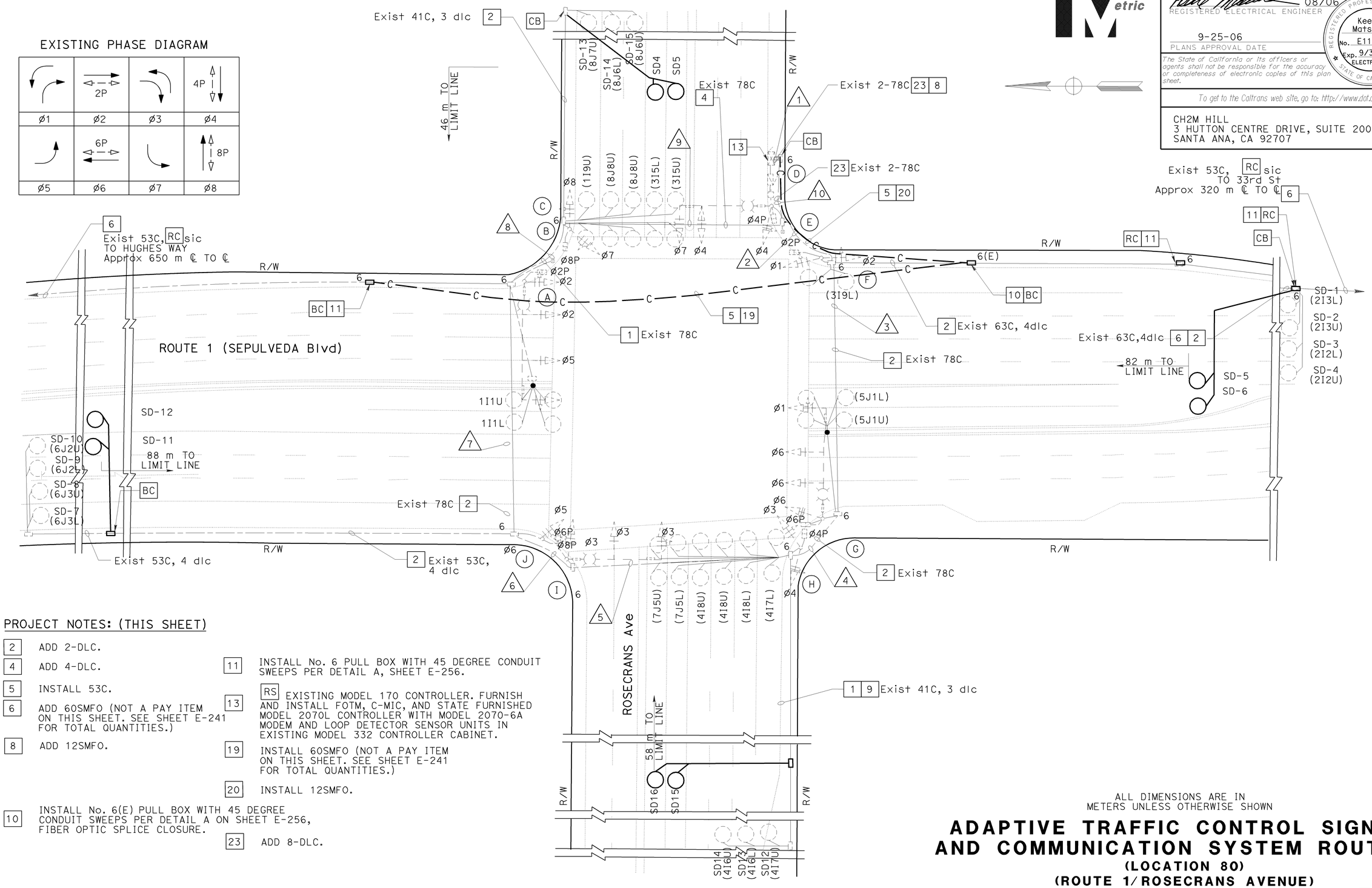
SANTA ANA, CA 92707


NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-185.

EXISTING PHASE DIAGRAM

| ø1 | ø2 | ø3 | ø4 |
|---|---|---|---|
| | 2P | | 4P |
| ø5 | ø6 | ø7 | ø8 |
| | 6P | | 8P |




PROJECT NOTES: (THIS SHEET)

- 2 ADD 2-DLC.
- 4 ADD 4-DLC.
- 5 INSTALL 53C.
- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- 8 ADD 12SMFO.
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- 19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- 20 INSTALL 12SMFO.
- 23 ADD 8-DLC.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 80)

## (ROUTE 1/ROSECRANS AVENUE)

SCALE 1:200

E-184

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:45

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua184.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 209 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
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SANTA ANA, CA 92707


## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| #14 | 28-CONDUCTOR CABLE ("C1",1,2,2P,3,4,4P) | 2 | 1 | 1 | 1 | - | 1 | 1 | 1 | 1 | 2 |
| | 28-CONDUCTOR CABLE ("C2",5,6,6P,7,8,8P) | 2 | 1 | 1 | - | - | 1 | 1 | 1 | 1 | 2 |
| | PEC (TYPE II) CONTROL | - | - | - | - | - | - | - | - | - | 3 |
| #10 | IISNS | - | 2 | 2 | - | - | 2 | 2 | 2 | 2 | - |
| | LUMINAIRE | - | 2 | 2 | - | - | 2 | 2 | 2 | 2 | - |
| #6 | SERVICE | 2 | - | - | - | - | - | - | - | - | - |
| dlc/P | ø1 DETECTOR | 2 | - | - | - | - | - | 2 | 2 | 2 | 2 |
| | ø2 DETECTOR | 4/3 | 4/3 | - | - | - | - | - | - | - | 4/3 |
| | ø3 DETECTOR | 4 | - | - | - | - | - | - | - | 4 | 4 |
| | ø4 DETECTOR | 3/3 | 3/3 | 3/3 | - | - | - | - | - | - | 3/3 |
| | ø5 DETECTOR | 2 | 2 | - | - | - | - | - | - | - | 2 |
| | ø6 DETECTOR | 4 | - | - | - | - | - | 4 | 4 | 4 | 4 |
| | ø7 DETECTOR | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 |
| | ø8 DETECTOR | 3/2 | - | - | - | - | - | - | 3/2 | 3/2 | 3/2 |
| 3#20 | EVPE CABLE | 4 | 1 | 1 | - | - | 1 | 1 | 2 | 2 | 4 |
| 25 PR #19 | INTERCONNECT CABLE | 2 | 1 | - | - | - | - | - | 1 | 1 | 2 |
| | CONDUIT SIZE (mm) | 2-78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT | IISNS LEGEND |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | ø | ARROW | | | |
| A | 29-5-113 | 16.8 | 4.6 | 1-MAT 2-MAS | SV-1-T | SP-1-T | | - | 250 | IISNS | ROSECRANS AVEUNE |
| B | PED POST | - | - | - | - | - | 8 | ← | - | - | - |
| C | 1-A | - | - | - | TV-2-T | SP-1-T | 2 | → | - | - | - |
| D | 26-4-113 | 13.7 | 3.7 | 1-MAT 1-MAS | SV-1-T | SP-1-T | | - | 250 | IISNS | SEPULVEDA |
| E | PED POST | - | - | - | - | - | 2 | ← | - | - | - |
| F | 1-A | - | - | - | TV-2-T | SP-1-T | 4 | → | - | - | - |
| G | 29-5-129 | 15.2 | 4.6 | 1-MAT 2-MAS | SV-1-T | SP-1-T | 4 | ← | 250 | IISNS | ROSECRANS AVEUNE |
| H | 1-A | - | - | - | TV-2-T | SP-1-T | 6 | → | - | - | - |
| I | 26-4-129 | 13.7 | 3.7 | 1-MAT 1-MAS | SV-1-T | SP-1-T | 6 | ← | 250 | IISNS | SEPULVEDA |
| J | 1-A | - | - | - | TV-2-T | SP-1-T | 8 | → | - | - | - |

EMERGENCY VEHICLE PRE-EMPTION DETECTOR

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 80)**

**(ROUTE 1/ROSECRANS AVENUE)**

NO SCALE

**E-185**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | | | |
|---|---|---|---|
| MR | 4/06 | REVISED BY | DATE REVISED |
| KM | 4/06 | | |
| CALCULATED/DESIGNED BY | | | |
| CHECKED BY | | | |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:45

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 210 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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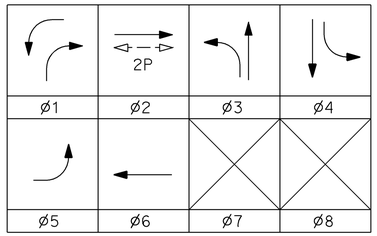
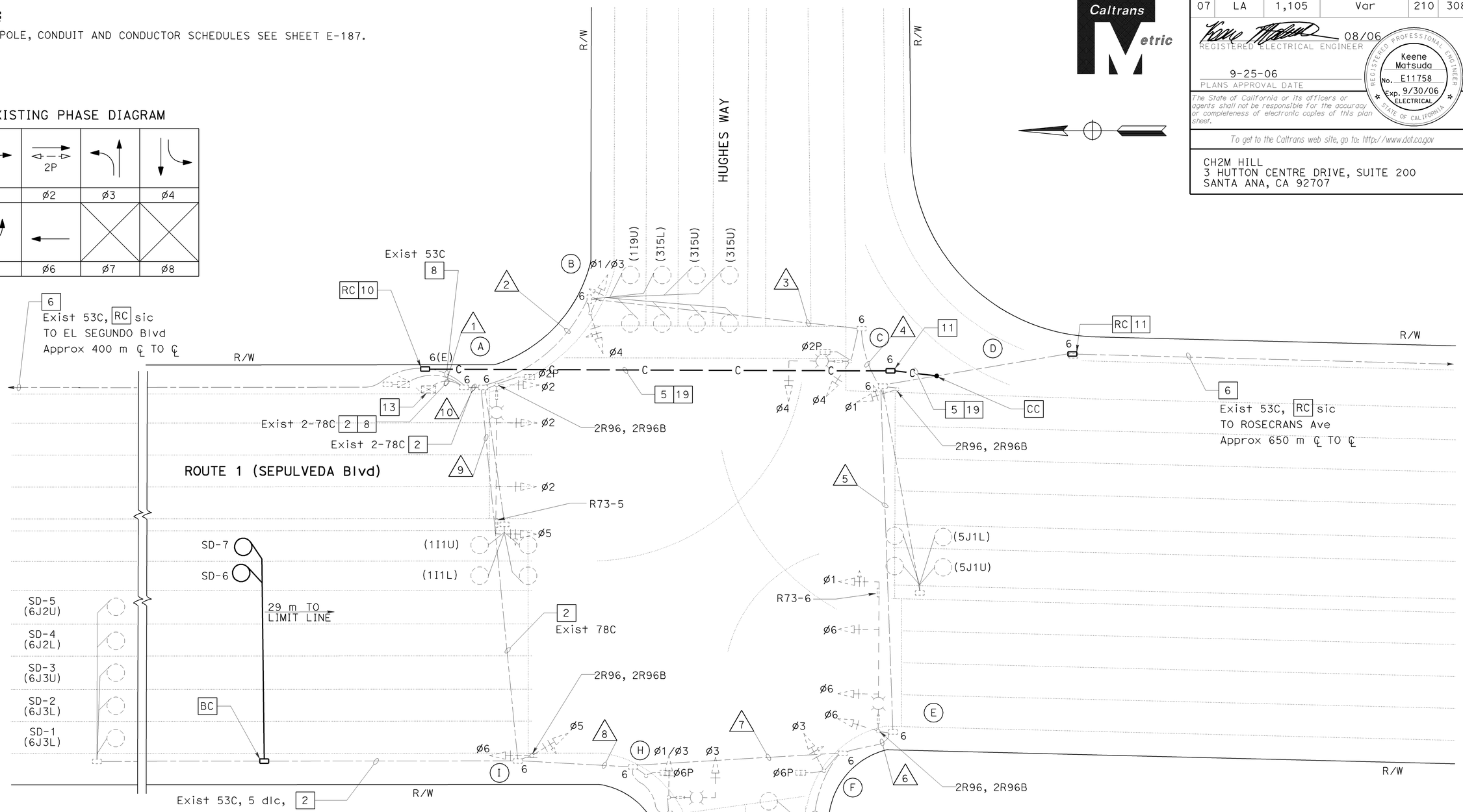
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

**NOTES:**

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-187.

EXISTING PHASE DIAGRAM




**PROJECT NOTES: (THIS SHEET)**

- 2 ADD 2-DLC.
- 5 INSTALL 53C.
- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- 8 ADD 12SMFO.
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- 19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 81)

## (ROUTE 1/HUGHES WAY)

SCALE 1:200

**E-186**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DESIGN OVERSIGHT — YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua186.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 211 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| #14 | 28-CONDUCTOR CABLE ("C",1,2,3,4,4P) | 2 | 1 | 1 | 1 | 1 | 1 | - | 1 | 1 | 2 |
| | 28-CONDUCTOR CABLE ("C2",5,6,6P) | 2 | 1 | 1 | 1 | 1 | 1 | - | 1 | 1 | 2 |
| | PEC (TYPE II) CONTROL | - | - | - | - | - | - | - | - | - | 3 |
| #10 | IISNS | - | 2 | 2 | 2 | 2 | - | - | 2 | 2 | 4 |
| | LUMINAIRES | - | 2 | 2 | 2 | 2 | - | - | 2 | 2 | 4 |
| #6 | SERVICE | 2 | - | - | - | - | - | - | - | - | - |
| dlc/P | ø1 DETECTOR | 2 | - | - | - | - | - | - | - | 2 | 2 |
| | ø2 DETECTOR | 4 | 4 | 4 | 4 | - | - | - | - | - | 4 |
| | ø3 DETECTOR | 4 | 4 | - | - | - | - | - | - | - | 4 |
| | ø4 DETECTOR | 1 | - | - | - | - | - | 1 | 1 | 1 | 1 |
| | ø5 DETECTOR | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 |
| | ø6 DETECTOR | 3/2 | - | - | - | - | - | - | - | 3/2 | 3/2 |
| 3#20 | EVPE CABLE | 4 | 3 | 3 | 1 | 1 | - | - | - | - | 4 |
| 25 PR #19 | INTERCONNECT CABLE | 2 | 1 | 1 | 1 | - | - | - | - | - | 1 |
| | CONDUIT SIZE (mm) | 2-78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) | SPECIAL REQUIREMENT | IISNS LEGEND |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | ø | ARROW | | | |
| A | 29-5-113 | 16.8 | 4.6 | 1-MAI 2-MAS | SV-1-T | SP-1-T | - | - | 250 | IISNS | HUGHES WAY |
| B | 1-A | - | - | - | TV-2-T | - | 2 | → | - | - | - |
| C | 19-2-113 | 7.6 | 3.7 | MAS | SV-1-T | SP-1-T | 2 | → | 250 | IISNS | SEPULVEDA Blvd |
| D | 15 | - | 3.7 | - | SV-1-T | - | - | - | 250 | - | - |
| E | 29-5-113 | 16.8 | 4.6 | 1-MAI 2-MAS | SV-1-T | - | - | - | 250 | IISNS | HUGHES WAY |
| F | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | ← | - | - | - |
| G | 17-2-113 | 4.6 | 3.7 | MAS | SV-1-T | - | 6 | ← | 250 | IISNS | SEPULVEDA Blvd |
| H | 1A-7 | - | - | - | - | TP-1 | - | - | - | - | - |
| I | 15 | - | 3.7 | - | SV-2-T | - | - | - | 250 | - | - |

EMERGENCY VEHICLE PRE-EMPTION DETECTOR

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 81)**
**(ROUTE 1/HUGHES WAY)**

NO SCALE

**E-187**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
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| 4/06 | KM |

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YEFIM ZABEZHINSKY

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua187.dgn

CU 07382
EA 257301

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:46

| Ø5 | Ø6 | Ø7 | Ø8 |
|---|---|---|---|

NOTES:

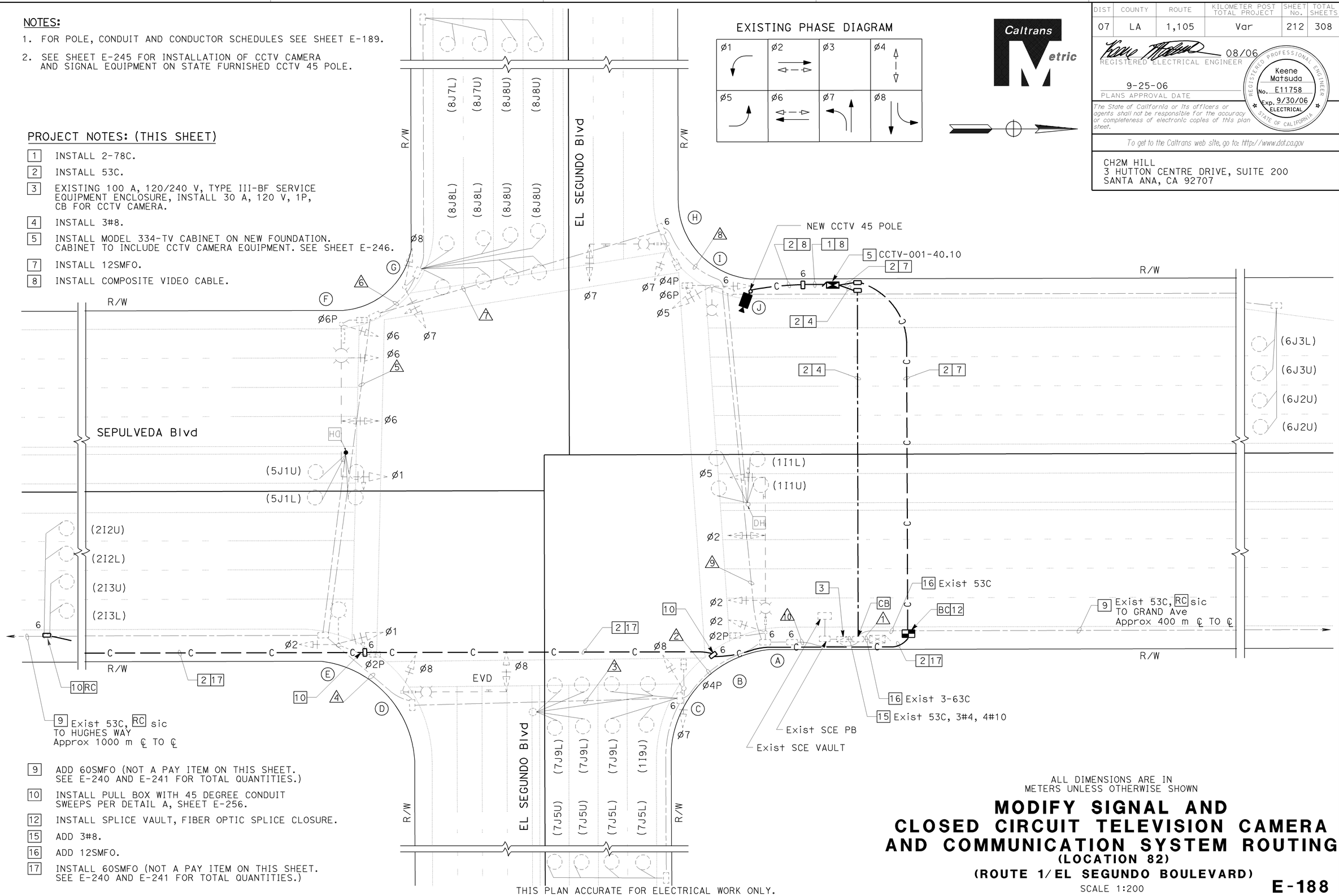
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-189.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE FURNISHED CCTV 45 POLE.

PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.

EXISTING PHASE DIAGRAM




9 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)

10 INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

12 INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.

15 ADD 3#8.

16 ADD 12SMFO.

17 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

(LOCATION 82)

(ROUTE 1/EL SEGUNDO BOULEVARD)

SCALE 1:200

E-188

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 212 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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|---|---|---|---|
| 4/06 | KM | CHECKED BY | YEFIM ZABEZHINSKY |

| DATE REVISED | BY |
|---|---|

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USERNAME => trphils
DGN FILE => 725730ua188.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 27-SEP-2006 TIME PLOTTED => 15:46

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 213 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| #14 | 28 CONDUCTOR CABLE ("C1" 1,2,2P) | 2 | 1 | 1 | 1 | 1 | - | - | - | 1 | 2 |
| | 28 CONDUCTOR CABLE ("C2" 5,6,6P,7,8,8P) | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | PEC (TYPE II) CONTROL | - | - | - | - | - | - | - | - | - | 3 |
| #10 | IISNS | - | 2 | 2 | 2 | 2 | - | - | 2 | 2 | 2 |
| | LUMINAIRES | - | 2 | 2 | 2 | 2 | - | - | 2 | 2 | 2 |
| #6 | SERVICE | 2 | - | - | - | - | - | - | - | - | - |
| dlc | ø1 DETECTORS | 2 | - | - | - | - | - | - | - | - | 2 |
| | ø2 DETECTORS | 4 | 4 | 4 | 4 | - | - | - | - | - | 4 |
| | ø5 DETECTORS | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 |
| | ø6 DETECTORS | 4 | - | - | - | - | - | - | - | 4 | 4 |
| | ø7 DETECTORS | 4/4 | 4/4 | 2 | - | - | - | - | - | - | 4/4 |
| | ø8 DETECTORS | 4/4 | - | - | - | - | 4/2 | 4/2 | 4/2 | 4/2 | 4/4 |
| 3#20 | EVPE CABLE | 4 | 2 | 2 | 1 | 1 | - | - | 1 | 1 | 4 |
| 25 PR#19 | INTERCONNECT CABLE | 1/1 | 1 | 1 | 1 | - | - | - | - | - | 1 |
| CONDUIT SIZE (mm) | | 3-63 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB ø | ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| J | CCTV 45 | - | - | - | - | - | - | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEHICLE SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB ø | ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENTS | IISNS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 29-5-113 | 16.8 | 4.6 | MAT, 2MAS | SV-1-T | SP-1-T | - | - | 250 | IISNS | EL SEGUNDO BLVD |
| B | PED POST | - | - | - | - | - | 4 | ← | - | - | - |
| C | 1-A | - | - | - | TV-2-T | SP-1-T | 2 | → | - | - | - |
| D | 26-3-113 | 12.2 | 3.6 | MAS | SV-1-T | - | 2 | ← | 250 | IISNS | SEPULVEDA |
| E | 15 | - | 3.6 | - | SV-2-TA | SP-1-T | - | - | 250 | - | - |
| F | 29-5-113 | 16.8 | 4.6 | MAT, 2MAS | SV-1-T | SP-1-T | - | - | 250 | IISNS | EL SEGUNDO BLVD |
| G | 1-A | - | - | - | SV-2-T | - | 6 | → | - | - | - |
| H | 19-3-113 | 9.1 | 3.6 | MAS | SV-1-T | SP-1-T | 6 | ← | 250 | IISNS | SEPULVEDA |
| I | 15 | - | 3.6 | - | SV-2-TA | SP-1-T | 4 | → | 250 | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 82)**

**(ROUTE 1/EL SEGUNDO BOULEVARD)**

NO SCALE

**E-189**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-191.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEET.
3. FOR UTILITIES SEE SHEET U-14.

## PROJECT NOTES: (THIS SHEET ONLY)

2 ADD 2-DLC.

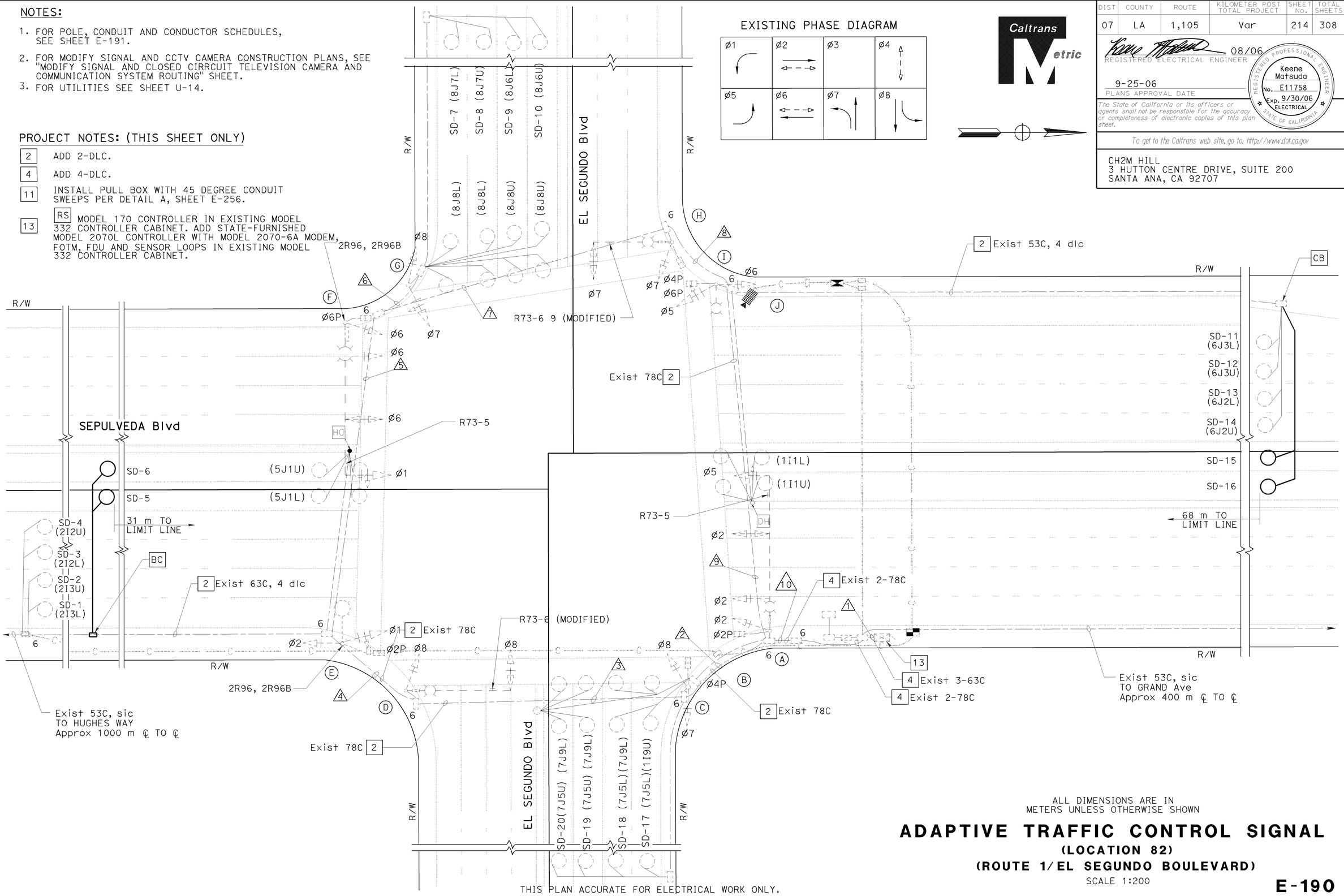
4 ADD 4-DLC.

11 INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.

EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 82)

## (ROUTE 1/EL SEGUNDO BOULEVARD)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-190**

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 214 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| REVISED BY | DATE REVISED | CHECKED BY | YEFIM ZABEZHINSKY |
| 4/06 | KM | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua190.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00

DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:50

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 215 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| #14 | 28 CONDUCTOR CABLE ("C1" 1,2,2P) | 2 | 1 | 1 | 1 | 1 | - | - | - | 1 | 2 |
| | 28 CONDUCTOR CABLE ("C2" 5,6,6P,7,8,8P) | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | PEC (TYPE II) CONTROL | - | - | - | - | - | - | - | - | - | 3 |
| #10 | IISNS | - | 2 | 2 | 2 | 2 | - | - | 2 | 2 | 2 |
| | LUMINAIRES | - | 2 | 2 | 2 | 2 | - | - | 2 | 2 | 2 |
| #6 | SERVICE | 2 | - | - | - | - | - | - | - | - | - |
| dlc | ø1 DETECTORS | 2 | - | - | - | - | - | - | - | - | 2 |
| | ø2 DETECTORS | 4 | 4 | 4 | 4 | - | - | - | - | - | 4 |
| | ø5 DETECTORS | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 |
| | ø6 DETECTORS | 4 | - | - | - | - | - | - | - | 4 | 4 |
| | ø7 DETECTORS | 4/4 | 4/4 | 2 | - | - | - | - | - | - | 4/4 |
| | ø8 DETECTORS | 4/4 | - | - | - | - | 4/2 | 4/2 | 4/2 | 4/2 | 4/4 |
| 3#20 | EVPE CABLE | 4 | 2 | 2 | 1 | 1 | - | - | 1 | 1 | 4 |
| 25 PR#19 | INTERCONNECT CABLE | 1/1 | 1 | 1 | 1 | - | - | - | - | - | 1 |
| CONDUIT SIZE (mm) | | 3-63 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | SMA (m) | LMA (m) | VEHICLE SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB ø | ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENTS | IISNS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 29-5-113 | 16.8 | 4.6 | MAT, 2MAS | SV-1-T | SP-1-T | - | - | 250 | IISNS | EL SEGUNDO Blvd |
| B | PED POST | - | - | - | - | - | 4 | ← | - | - | - |
| C | 1A | - | - | - | TV-2-T | SP-1-T | 2 | → | - | - | - |
| D | 26-3-113 | 12.2 | 3.6 | MAS | SV-1-T | - | 2 | ← | 250 | IISNS | SEPULVEDA Blvd |
| E | 15 | - | 3.6 | - | SV-2-TA | SP-1-T | - | - | 250 | - | - |
| F | 29-5-113 | 16.8 | 4.6 | MAT, 2MAS | SV-1-T | SP-1-T | - | - | 250 | IISNS | EL SEGUNDO Blvd |
| G | 1A | - | - | - | SV-2-T | - | 6 | → | - | - | - |
| H | 19-3-113 | 9.1 | 3.6 | MAS | SV-1-T | SP-1-T | 6 | ← | 250 | IISNS | SEPULVEDA Blvd |
| I | 15 | - | 3.6 | - | SV-2-TA | SP-1-T | 4 | → | 250 | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

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# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 82)

## (ROUTE 1/EL SEGUNDO BOULEVARD)

NOSCALE

**E-191**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:51

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua191.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 216 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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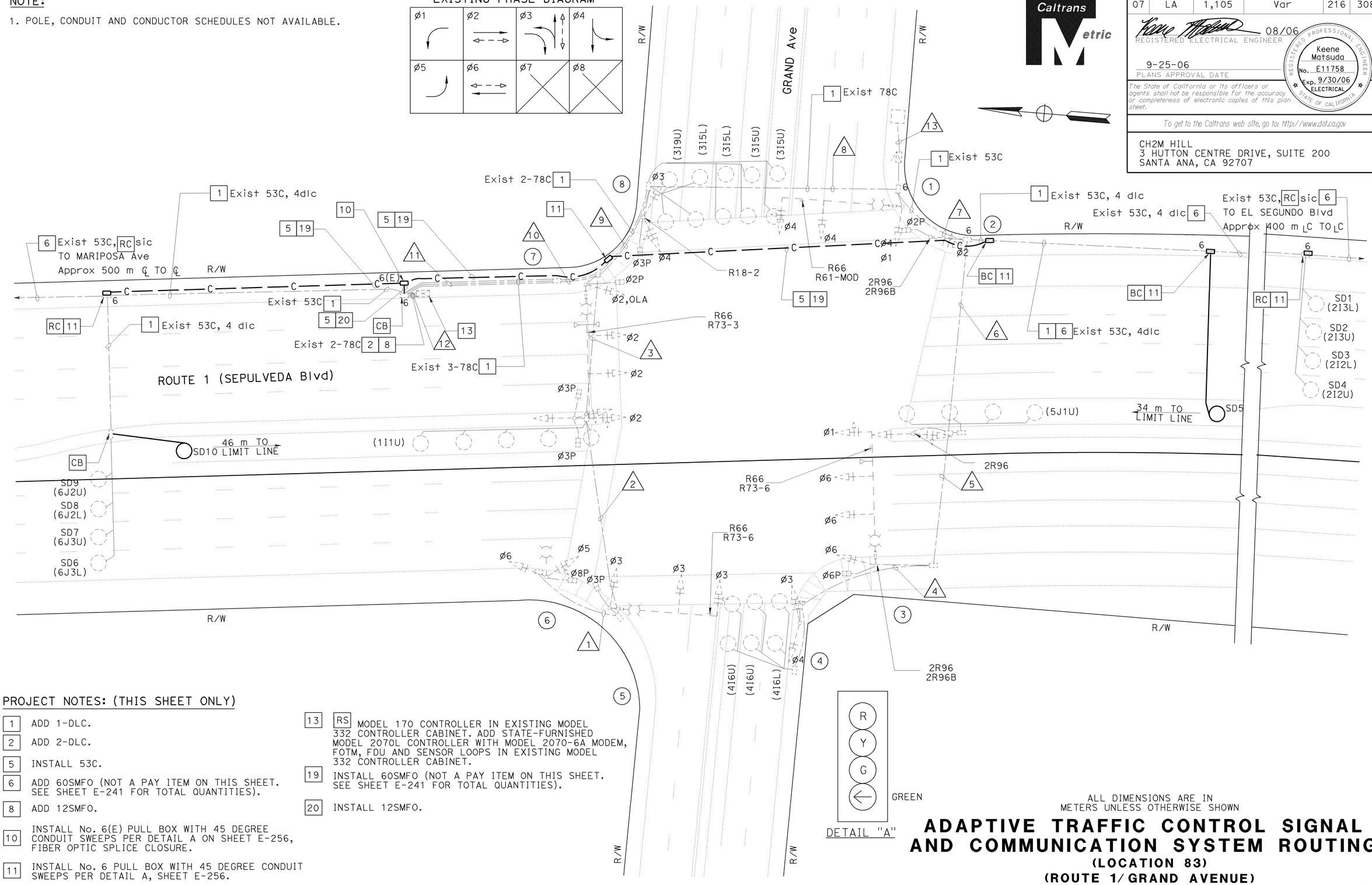
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


NOTE:

1. POLE, CONDUIT AND CONDUCTOR SCHEDULES NOT AVAILABLE.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC.
2. ADD 2-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
8. ADD 12SMFO.
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
20. INSTALL 12SMFO.




DETAIL "A"

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 83)

## (ROUTE 1/GRAND AVENUE)

SCALE 1:200

**E-192**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE REVISED |
|---|---|---|
| | | |

CALCULATED/DESIGNED BY: MR — CHECKED BY: KM

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua192.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 06:51

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 217 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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| | | | |
|---|---|---|---|
| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

**THIS SHEET INTENTIONALLY LEFT BLANK**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 83)**
**(ROUTE 1/ GRAND AVENUE)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-193**

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 07:01

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 218 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

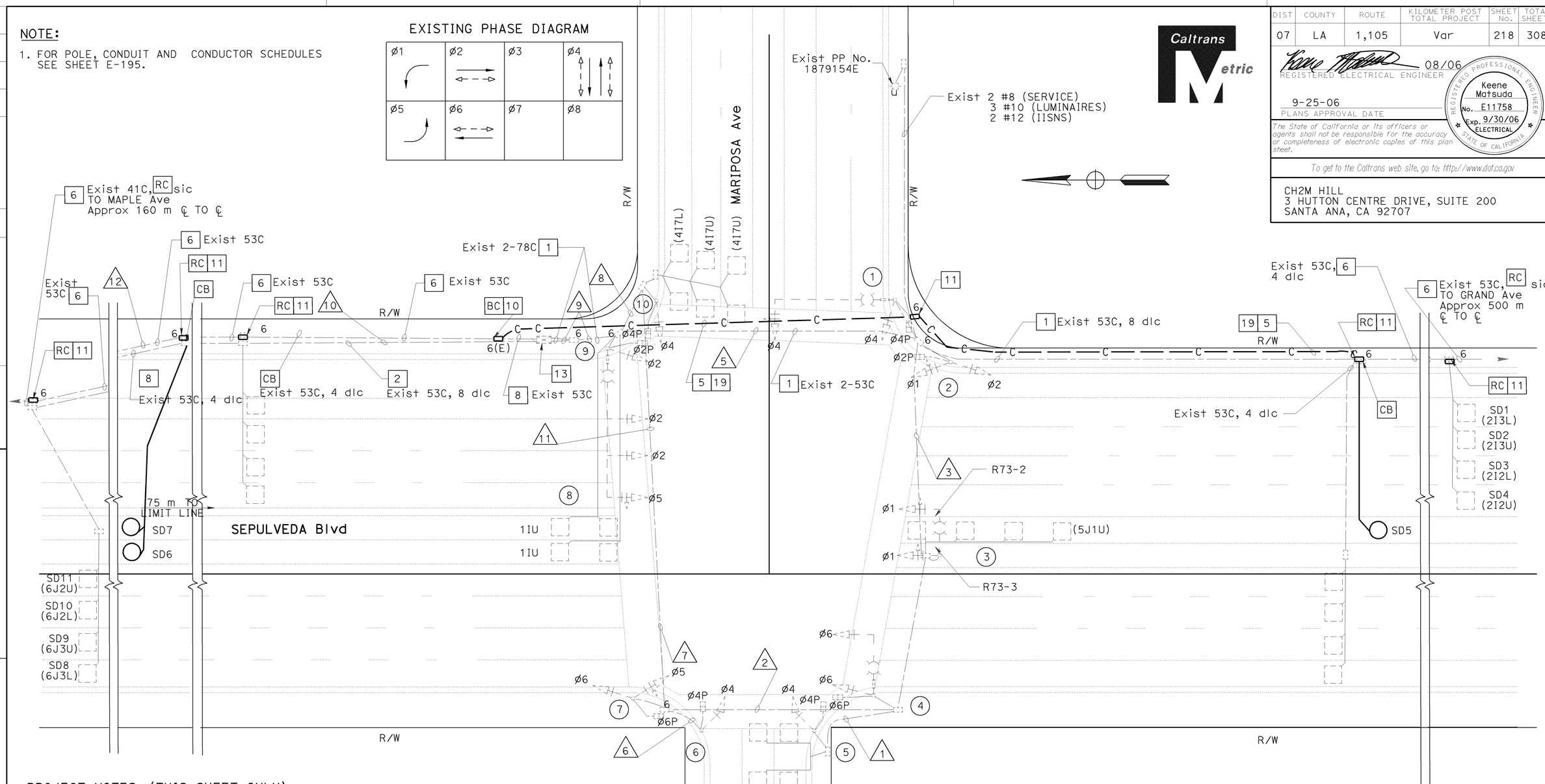

Caltrans Metric

**NOTE:**

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-195.

EXISTING PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC.

2 ADD 2-DLC.

5 INSTALL 53C.

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).

13 RS MODEL 170 CONTROLLER IN EXISTING MODEL 332 CONTROLLER CABINET. ADD STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM, FOTM, FDU AND SENSOR LOOPS IN EXISTING MODEL 332 CONTROLLER CABINET.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 84)

## (ROUTE 1/MARIPOSA AVENUE)

SCALE 1:200

**E-194**

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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TIME PLOTTED => 06:51

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua194.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 219 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #14 | ø1 | - | - | 3 | 3 | - | - | - | 6 | - | 3 | - |
| | ø2 | - | - | - | - | - | - | - | 3 | - | - | - |
| | ø4 | 3 | 3 | - | 3 | 3 | 3 | 3 | 6 | - | - | - |
| | ø5 | - | - | 3 | 3 | - | 3 | - | 6 | - | 3 | - |
| | ø6 | - | 3 | - | - | - | 3 | - | 3 | - | - | - |
| | ø2P | - | - | - | 2 | - | - | - | 4 | - | - | - |
| | ø4P | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | - | 2 | - |
| | ø6P | - | 2 | - | - | - | 2 | - | 4 | - | - | - |
| | ø2PPB | - | - | - | 1 | - | - | 1 | 1 | - | - | - |
| | ø4PPB | - | 1 | 1 | 1 | - | 1 | - | 3 | - | 1 | - |
| | ø6PPB | 1 | 1 | - | - | 1 | 1 | - | 1 | - | - | - |
| #12 | IISNS | - | 2 | - | 2 | - | 2 | - | - | - | - | - |
| 25 PR #19 | INTERCONNECT | - | - | - | 1 | - | - | - | 1 | - | - | 1 |
| #14 | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | - | 1 | - |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | - | 3 | - |
| | TOTAL | 10 | 16 | 13 | 19 | 10 | 16 | 12 | 50 | - | 13 | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | - | 1 | 1 | 2 | - | - | - |
| | LUMINAIRE | - | 2 | - | 2 | - | 2 | - | - | - | - | - |
| | TOTAL | 1 | 3 | 1 | 3 | - | 3 | 1 | 2 | - | - | - |
| 4#18 SHIELDED | OPTICOM ø1 | - | - | - | - | - | - | - | - | - | - | - |
| | OPTICOM ø2 | - | - | - | - | - | - | - | 1 | - | - | - |
| | OPTICOM ø4 | - | - | - | 1 | - | - | - | 1 | - | - | - |
| | OPTICOM ø5 | - | - | - | - | - | - | - | - | - | - | - |
| | OPTICOM ø6 | - | 1 | - | - | - | 1 | - | 1 | - | - | - |
| dlc | ø1 DETECTOR | - | - | - | - | - | - | - | 1 | - | 1 | - |
| | ø2 DETECTOR | - | - | - | 4 | - | - | - | 4 | - | - | - |
| | ø4 DETECTOR | 2 | 2 | - | - | - | 2 | 2 | 4 | - | - | - |
| | ø5 DETECTOR | - | - | 1 | 1 | - | - | - | 1 | - | - | - |
| | ø6 DETECTOR | - | - | - | - | - | - | - | - | 4 | - | - |
| | SAMPLING DET | - | - | - | 4 | - | - | - | 4 | 4 | - | - |
| #8 | SERVICE | - | - | - | - | - | 2 | - | 2 | - | - | - |
| CONDUIT SIZE (mm) | | 53 | 53 | 53 | 2-53 | 53 | 63 | 53 | 2-78 | 53 | 53 | 53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| POLE No. | POLE TYPE | POLE HEIGHT (m) | SMA LENGTH (m) | LUMINAIRE MA LENGTH (m) | LUMINAIRE HPS | SIGNAL MOUNTING VEH | SIGNAL MOUNTING MA | SIGNAL MOUNTING PED | PPB ø | PPB ARROW | ILLUMINATED SIGN MESSAGE (DBL FACE) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24A-4-113 | - | 10.7 | 4.6 | 310 | SV-1-T | MAS | SP-1-T | 2 | ← | SEPULVEDA Blvd (ROUTE 1) |
| 2 | 1-A | 3.1 | - | - | - | TV-2-T | - | - | 4 | → | - |
| 3 | 33 | 6.1 | 3.1 / 1.5 | - | - | SV-1-T | MAS | SP-1-T | 4 | ↔ | - |
| 4 | 19A-2-113 | - | 7.6 | 4.6 | 310 | SV-1-T | MAS | SP-1-T | 4 | ← | MARIPOSA AVEUNE |
| 5 | 1-A | - | - | - | - | TV-1 | - | SP-1-T | 6 | → | - |
| 6 | 1-A | - | - | - | - | TV-1 | - | SP-1-T | 6 | ← | - |
| 7 | 1-A | 3.1 | - | - | - | TV-2-T | - | SP-1-T | 4 | → | - |
| 8 | 1-A | - | - | - | - | LT-2 | - | SP-2-T | 4 | ↔ | - |
| 9 | 29A-4-113 | - | 16.8 | 4.6 | 310 | SV-1-T | MAS MAS | SP-1-T | 4 | ← | - |
| 10 | 1-A | - | - | - | - | TV-1 | - | SP-1-T | 2 | → | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 84)**

**(ROUTE 1/MARIPOSA AVENUE)**

NO SCALE

**E-195**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

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CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:51

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua195.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 220 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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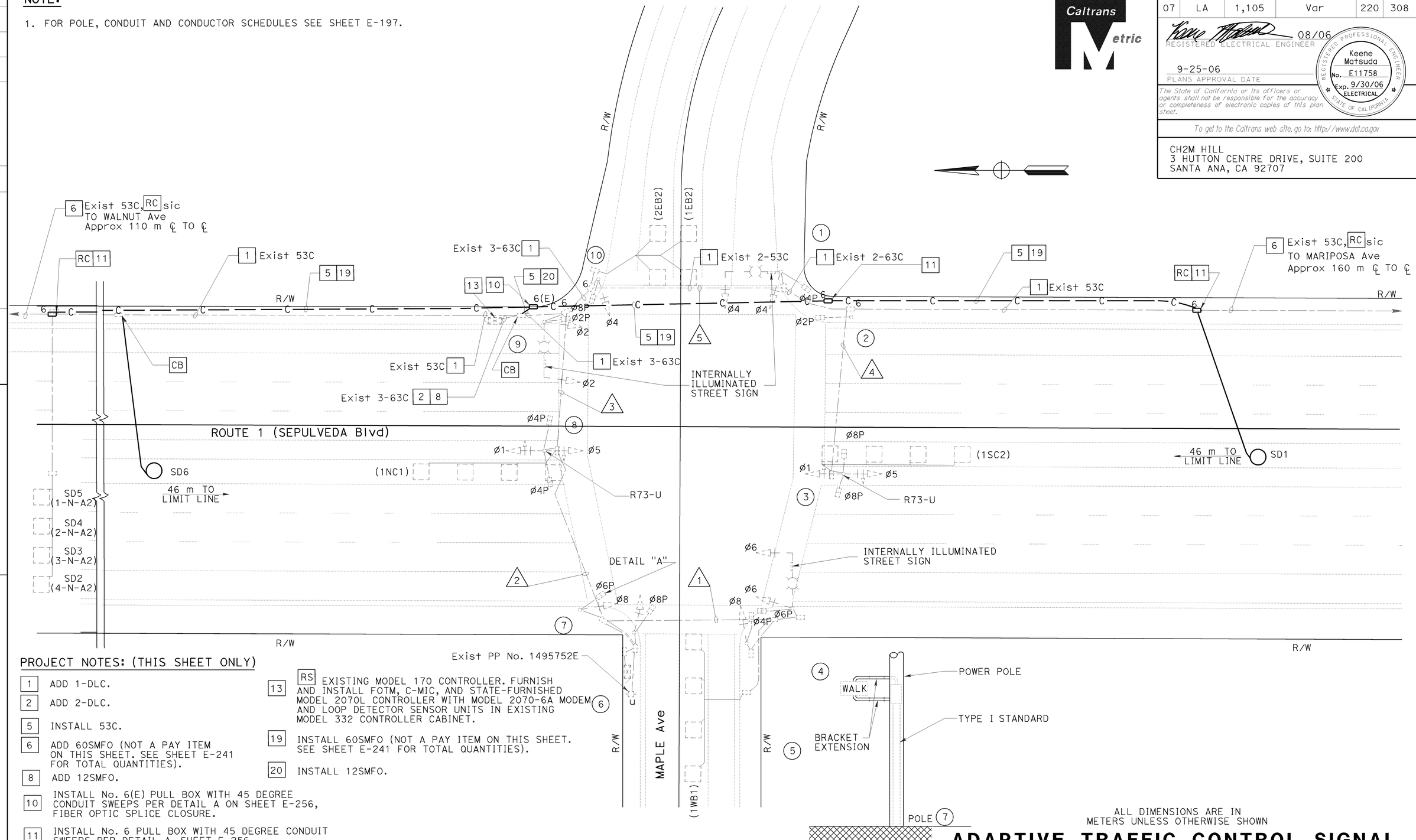
SANTA ANA, CA 92707

**NOTE:**

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-197.




DETAIL "A"

## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC.
2. ADD 2-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
8. ADD 12SMFO.
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
20. INSTALL 12SMFO.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 85)**

**(ROUTE 1/MAPLE AVENUE)**

SCALE 1:200

**E-196**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | REVISED BY | DATE REVISED |
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| MR | KM | 4/06 |

CALCULATED/DESIGNED BY — CHECKED BY

DESIGN OVERSIGHT — YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua196.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 06:51

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 221 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE WITH GLARE SH (W) | SIGNAL MOUNTING | | | PPB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | | POLE | MA | | TYPE | ø |
| 1 | 19-A-5 | 10.8 | 7.6 | 4.6 | 700 MV | SV-1-T | MAS | SP-1-T | B | A1 |
| 2 | 1-A | 2.1 | - | - | - | - | - | TP-1 | B | B1 |
| 3 | 1-A | 3.1 | - | - | - | LT-2 | - | SP-2-T | B | B1 |
| 4 | 19-A-5 | 10.9 | 7.6 | 4.6 | 700 MV | SV-1-T | MAS | SP-1-T | B | B1 |
| 5 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1 | B | A2 |
| 6 | 1-A | 3.1 | - | - | - | TV-1<br>TV-1-T | - | SP-1-T | B | A2 |
| 7 | 1-A | 2.1 | - | - | - | - | - | TP-1-T | B | B2 |
| 8 | 1-A | 3.1 | - | - | - | LT-2 | - | SP-2-T | B | B2 |
| 9 | 19-A-5 | 10.9 | 7.6 | 4.6 | 700 MV | SV-1-T | MAS | SP-1-T | B | B2 |
| 10 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1 | B | A1 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| | øC1 | - | - | 3 | 3 | 3 |
| | øA2 | 3 | 3 | 3 | - | - |
| | øC2 | - | - | 3 | 3 | 3 |
| | øA1 | - | - | - | - | - |
| | øB1 | - | - | - | - | 3 |
| | øB2 | 3 | 3 | 3 | - | - |
| | øA2 P | 2 | 2 | 2 | - | - |
| | øA1 P | - | - | - | - | 2 |
| | øB1 P | 2 | 2 | 2 | 2 | 2 |
| | øB2 P | - | 2 | 2 | - | - |
| | øA2 PPB | 1 | 1 | 1 | - | - |
| | øA1 PPB | - | - | - | - | 1 |
| | øB1 PPB | 1 | 1 | 1 | 1 | 1 |
| | øB2 PPB | - | 1 | 1 | - | - |
| | SPARES | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 15 | 18 | 24 | 12 | 28 |
| | INTERCONNECT AND SAMPLING DETECTOR OUTPUTS | - | - | - | - | 1 |
| | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | 2 | - | 2 |
| | TOTAL | 3 | 3 | 3 | 1 | 3 |
| | øC1 DETECTOR | - | - | 1 | - | - |
| | øC2 DETECTOR | - | - | - | 1 | 1 |
| | øB1 DETECTOR | 1 | 1 | 1 | - | - |
| | øB2 DETECTOR | - | - | - | - | - |
| | øA1 DETECTOR | - | - | - | - | - |
| | øA2 DETECTOR | - | - | - | - | 4 |
| | TOTAL | 1 | 1 | 2 | 1 | 5 |
| | SERVICE(SIGNAL) | - | 2 | 2 | - | - |
| | SIGN LIGHTING | 2 | 2 | 2 | - | 2 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 |
| | AIR CONDITIONER | - | 2 | 2 | - | - |
| | EVPE | - | - | - | - | 1 |
| CONDUIT SIZE (mm) | | | | | | |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 85)**
**(ROUTE 1/MAPLE AVENUE)**

NO SCALE

**E-197**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
|---|---|
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| 4/06 | KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
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Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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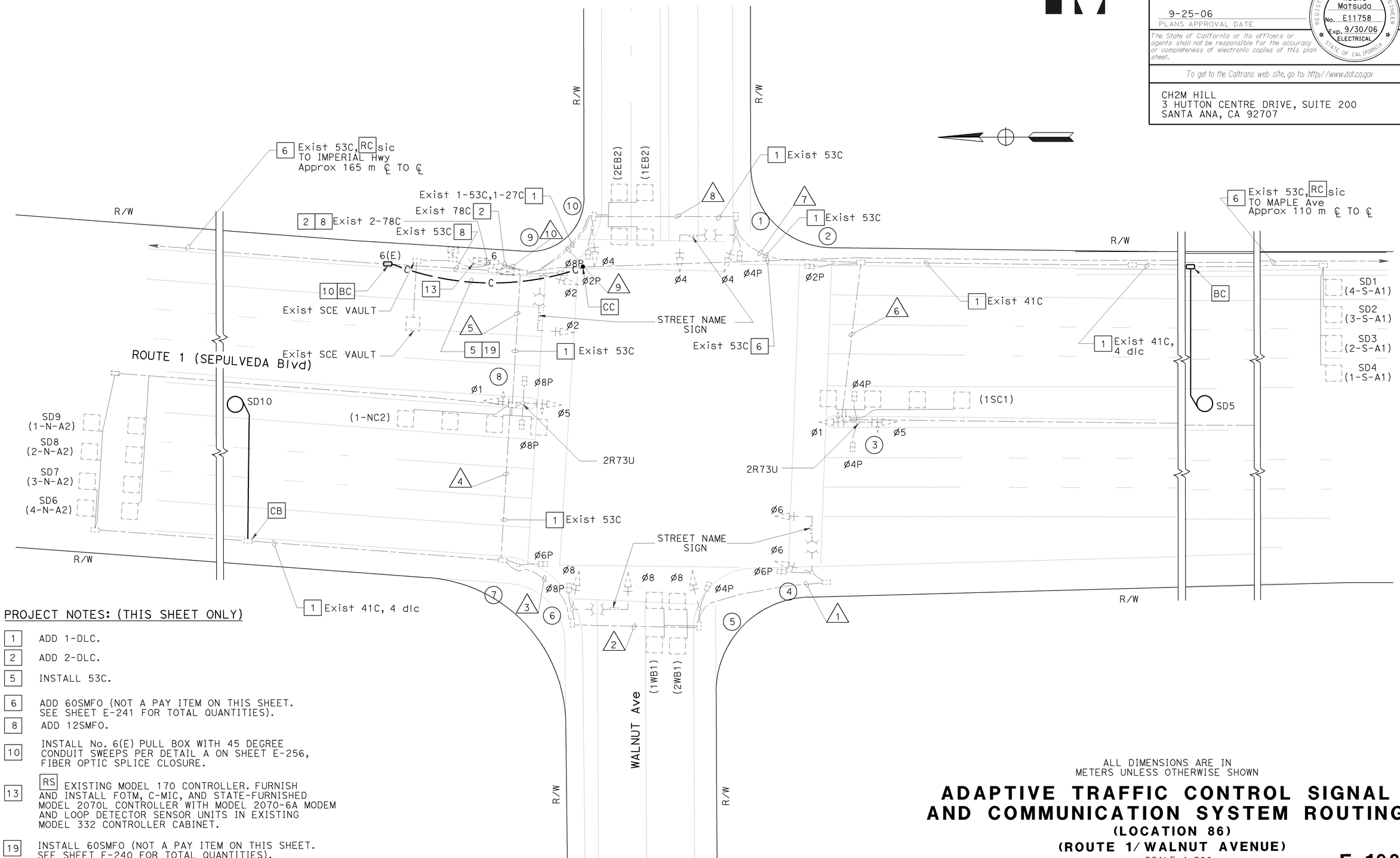
NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-199.




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC. |
| 2 | ADD 2-DLC. |
| 5 | INSTALL 53C. |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES). |
| 8 | ADD 12SMFO. |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES). |

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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 86)

## (ROUTE 1/ WALNUT AVENUE)

SCALE 1:200

**E-198**

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY |
|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:51

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua198.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 223 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | | LUMINAIRE WITH GLARE SH (W) | SIGNAL MOUNTING | | | PPB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VEHICLE | | PED | | |
| No. | TYPE | HEIGHT (m) | SMA (m) | LMA (m) | | POLE | MA | | TYPE | ø |
| 1 | 17-A-3 | 10.9 | 6.1 | 3.7 | 700 MV | SV-1-T | MAS | SP-1-T | - | A1 |
| 2 | 1-A | 2.1 | - | - | - | - | - | TP-1 | - | B1 |
| 3 | 1-A | 3.1 | - | - | - | LT-2-T | - | SP-2-T | - | B1 |
| 4 | 19-A-5 | 10.9 | 7.6 | 4.6 | 700 MV | SV-1-T | MAS | SP-1-T | - | B1 |
| 5 | 1-A | 3.1 | - | - | - | TV-1 | - | SP-1-T | - | A2 |
| 6 | 17-A-5 | 10.9 | 6.1 | 3.7 | 700 MV | SV-1-T | MAS | SP-1-T | - | A2 |
| 7 | 1-A | 2.1 | - | - | - | - | - | TP-1-T | - | B2 |
| 8 | 1-A | 3.1 | - | - | - | LT-2-T | - | SP-2-T | - | B2 |
| 9 | 19-A-5 | 10.9 | 7.6 | 4.6 | 700 MV | SV-1-T | MAS | SP-1-T | - | B2 |
| 10 | 1-A | 3.1 | - | - | - | TV-1-T | - | SP-1-T | - | A1 |

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| #14 | øA1 | - | - | - | - | - | - | - | - | - | 3 |
| | øA2 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 |
| | øB1 | - | - | - | - | - | - | - | 3 | 3 | 3 |
| | øB2 | - | 3 | 3 | 3 | 3 | - | - | - | - | 3 |
| | øC1 | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 |
| | øC2 | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 |
| | øA1 P | - | - | - | - | - | - | 2 | 2 | 2 | 2 |
| | øA2 P | 2 | 2 | 2 | 2 | 2 | - | - | - | - | 2 |
| | øB1 P | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | øB2 P | - | - | 2 | 2 | 2 | - | - | - | 2 | 2 |
| | PPB (øA1) | - | - | - | - | - | - | - | 2 | 2 | 2 |
| | PPB (øA2) | - | 2 | 2 | 2 | 2 | - | - | - | - | 2 |
| | PPB (øB1) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | PPB (øB2) | - | - | - | 2 | 2 | - | - | - | - | 2 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 10 | 17 | 19 | 21 | 27 | 13 | 15 | 20 | 22 | 37 |
| #12 | STREET NAME SIGN | 2 | 2 | 2 | 2 | 2 | - | - | 2 | 2 | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| #8 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | - | - | 2 | 2 | - |
| dlc | øA1 DETECTOR | - | - | - | - | - | 4 | 4 | 4 | 4 | 4 |
| | øA2 DETECTOR | - | - | - | - | 4 | - | - | - | - | 4 |
| | øB1 DETECTOR | - | 1 | 1 | 1 | 1 | - | - | - | - | 1 |
| | øB2 DETECTOR | - | - | - | - | - | - | - | - | 2 | 2 |
| | øC1 DETECTOR | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 |
| | øC2 DETECTOR | - | - | - | - | 1 | - | - | - | - | 1 |
| 3#20 | EVPE | - | - | - | - | - | - | - | - | - | 2 |
| CONDUIT SIZE (mm) | | | | | | | | | | | |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 86)**

**(ROUTE 1/ WALNUT AVENUE**

NO SCALE

**E-199**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:51

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua199.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 224 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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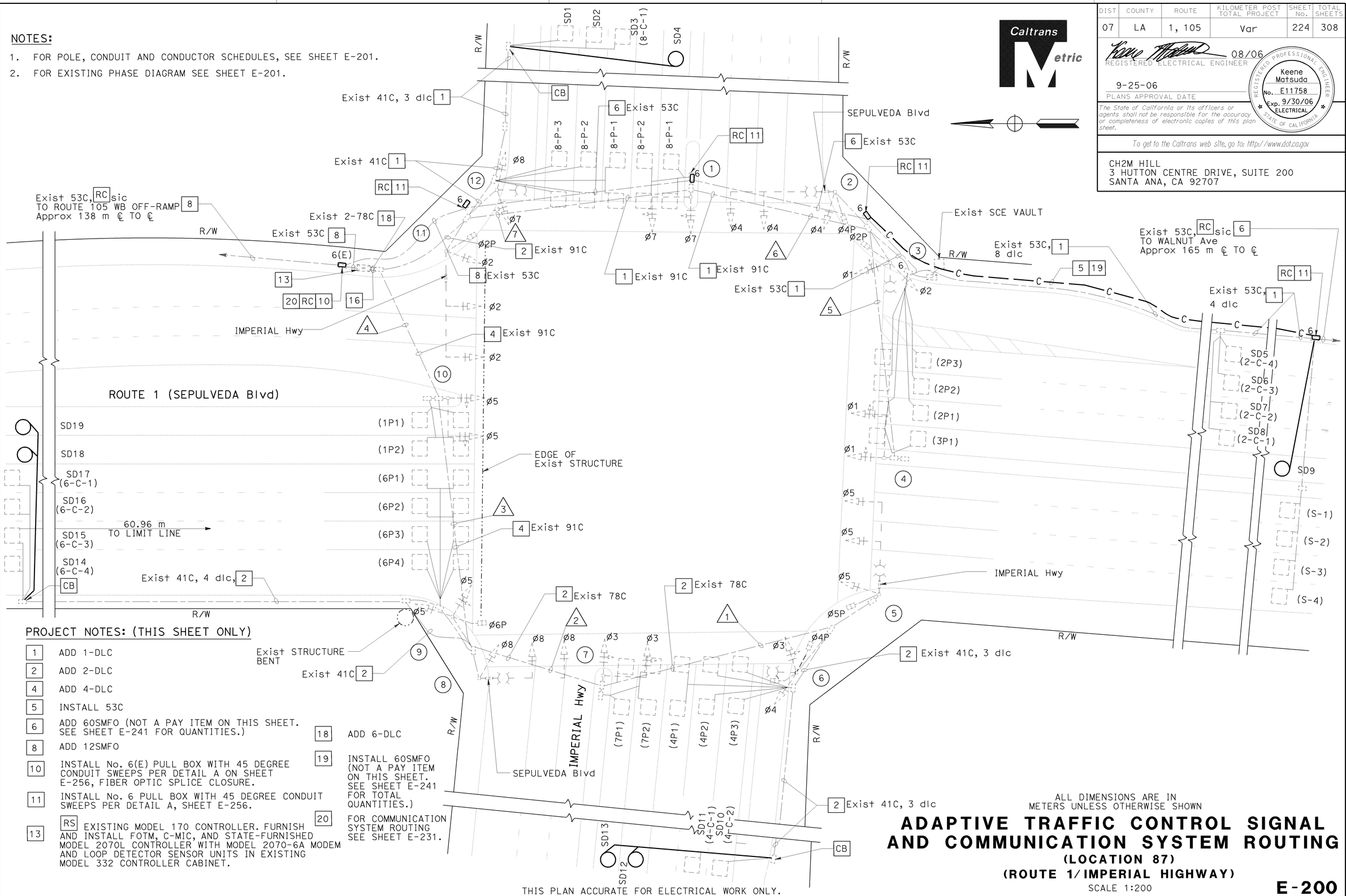
Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-201.
2. FOR EXISTING PHASE DIAGRAM SEE SHEET E-201.




PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 4 | ADD 4-DLC |
| 5 | INSTALL 53C |
| 6 | ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR QUANTITIES.) |
| 8 | ADD 12SMFO |
| 10 | INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE. |
| 11 | INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256. |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 18 | ADD 6-DLC |
| 19 | INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.) |
| 20 | FOR COMMUNICATION SYSTEM ROUTING SEE SHEET E-231. |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 87)

## (ROUTE 1/IMPERIAL HIGHWAY)

SCALE 1:200

**E-200**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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YEFIM ZABEZHINSKY

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Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:23

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmartin
DGN FILE => 725730ua200.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 225 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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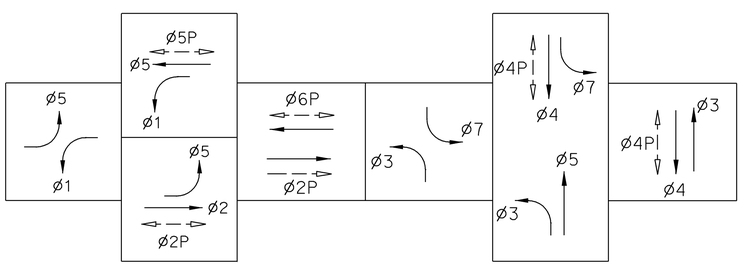
SANTA ANA, CA 92707


## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | LUMINAIRE (W) | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|
| | | | | | VEHICLE | | PED | |
| No. | TYPE | SMA (m) | LMA (m) | | POLE | MA | | ø |
| 1 | 33 | 4.6 | - | - | SV-1-T | MAS | - | 2 |
| 2 | 26-4-113 | 12.2 | 4.6 | 200 HPS | SV-1-T | MAS MAS | SP-1-CS | 2 |
| 3 | 15 | - | 4.6 | 200 HPS | SV-2-TA | - | SP-1-CS | 4 |
| 4 | 33 | 4.6 | - | - | SV-1-T | MAS | - | 4 |
| 5 | 26-4-113 | 12.2 | 4.6 | 200 HPS | SV-1-T | MAS MAS | SP-1-CS | 4 |
| 6 | 15 | - | 4.6 | 200 HPS | SV-2-TA | - | SP-1-CS | 6 |
| 7 | 33 | 4.6 | - | - | SV-1-T | MAS | - | 6 |
| 8 | 18-4-113 | 9.1 | 4.6 | 200 HPS | SV-1-T | MAS MAS | - | 6 |
| 9 | 1-A | - | - | - | TV-2-T | - | SP-1-CS | - |
| 10 | 33 | 4.6 | - | - | SV-1-T | MAS | - | - |
| 11 | 27-4-113 | 12.2 | - | - | SV-1-T | MAS MAS | SP-1-CS | - |
| 12 | 15 | - | 4.6 | 200 HPS | SV-2-TA | - | - | 2 |

## EXISTING PHASE DIAGRAM




## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| #14 | ø1 | - | - | - | - | 3 | 3 | 3 |
| | ø2 | - | - | - | - | - | 3 | 3 |
| | ø3 | 3 | 3 | 3 | 3 | - | - | - |
| | ø4 | 3 | 3 | 3 | 3 | - | 3 | 3 |
| | ø5 | - | - | 3 | 3 | - | - | - |
| | ø6 | 3 | 3 | 3 | 3 | - | - | - |
| | ø7 | - | - | - | - | - | - | 3 |
| | ø8 | - | - | 3 | 3 | - | - | - |
| | ø2P | - | - | - | - | - | 2 | 2 |
| | ø4P | 2 | 2 | 2 | 2 | - | 2 | 2 |
| | ø6P | 2 | 2 | 2 | 2 | - | - | - |
| | ø2PPB | - | - | - | - | - | 1 | 1 |
| | ø4PPB | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | ø6PPB | 1 | 1 | 1 | 1 | - | - | - |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| #12 | SIGN LIGHTING | 2 | 2 | 2 | 2 | - | 2 | 2 |
| #10 | LUMINAIRES | 2 | 2 | 2 | 2 | - | 2 | 2 |
| | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| #8 | SERVICE | - | - | - | - | - | 2 | 2 |
| dlc | ø1 DETECTORS | - | - | - | 2 | - | - | - |
| | ø2P DETECTORS | - | - | - | - | - | 3 | 3 |
| | ø2C DETECTORS | - | - | - | - | - | 4 | 4 |
| | ø3 DETECTORS | - | - | - | - | - | - | 2 |
| | ø4P DETECTORS | 3 | 3 | 3 | 3 | - | - | - |
| | ø4C DETECTORS | 3 | 3 | 3 | 3 | - | - | - |
| | ø5 DETECTORS | - | - | - | - | 1 | 1 | 1 |
| | ø6P DETECTORS | - | - | 3 | 4 | - | - | - |
| | ø6C DETECTORS | - | - | 4 | 4 | - | - | - |
| | ø7 DETECTORS | - | 2 | 2 | 2 | - | - | - |
| | ø8P DETECTORS | - | - | - | - | - | - | - |
| | ø8C DETECTORS | - | - | - | - | - | - | - |
| | SAMPLING DETECTORS | - | - | - | - | - | 4 | 4 |
| CONDUIT SIZE (mm) | | | | | | | | |

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 87)**
**(ROUTE 1/IMPERIAL HIGHWAY)**
NO SCALE

**E-201**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 08:56

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 226 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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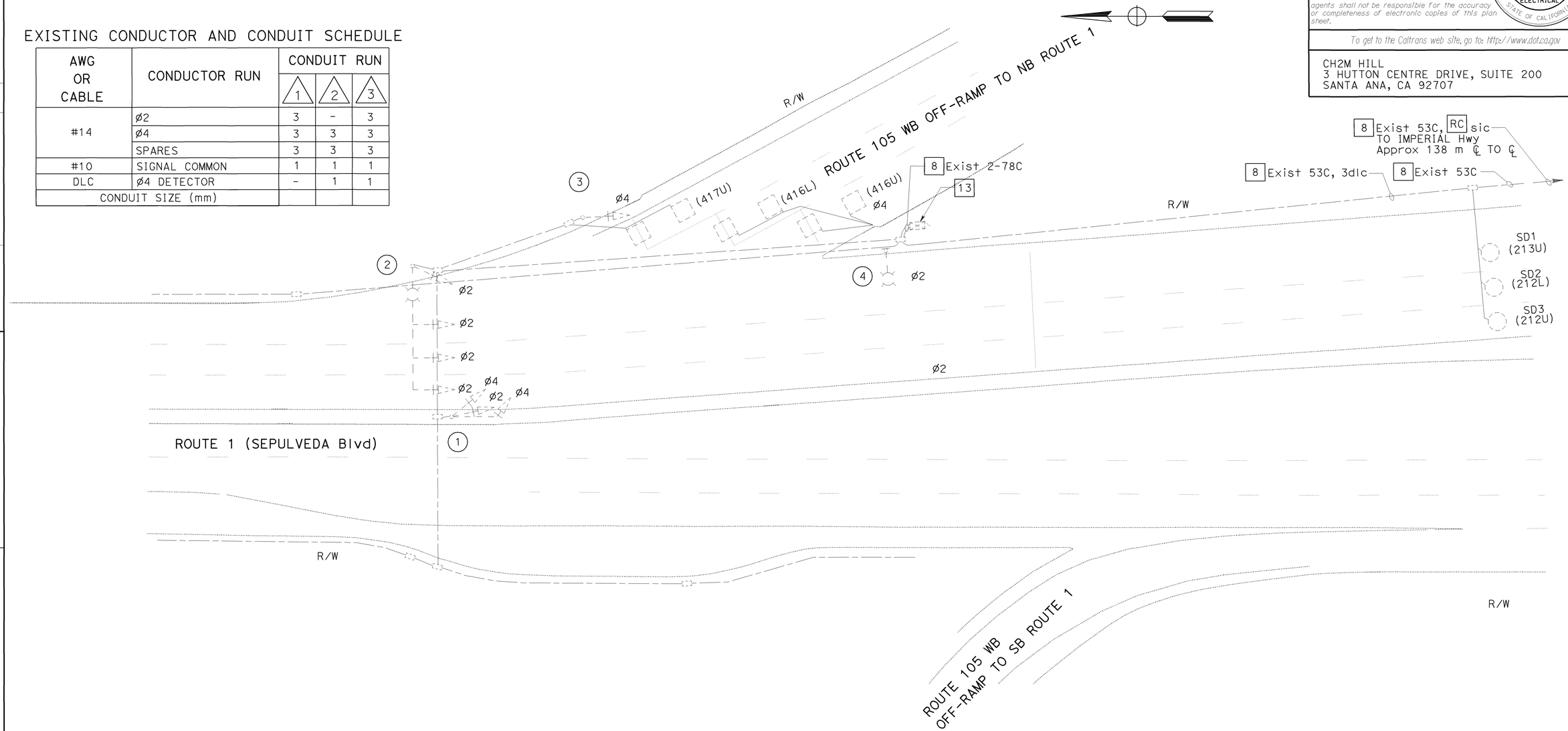
## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | CONDUIT RUN 2 | CONDUIT RUN 3 |
|---|---|---|---|---|
| #14 | ø2 | 3 | - | 3 |
| | ø4 | 3 | 3 | 3 |
| | SPARES | 3 | 3 | 3 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 |
| DLC | ø4 DETECTOR | - | 1 | 1 |
| CONDUIT SIZE (mm) | | | | |




## PROJECT NOTES: (THIS SHEET ONLY)

8 ADD 12SMFO

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD | | | | LUMINAIRE HPS (W) | SIGNAL MOUNTING | | | PPB |
|---|---|---|---|---|---|---|---|---|
| | | | | | VEHICLE | | Ped | PHASE |
| No. | TYPE | SIG MA(m) | LUM MA(m) | | POLE | MA | | |
| 1 | 16-2-113 | 6.096 | - | - | SV-2-T | MAS | - | - |
| 2 | 19-2-113 | 9.144 | - | 200 | SV-1-T | MAS | - | - |
| 3 | 1 | - | - | - | TV-1-T | - | - | - |
| 4 | 15 | - | - | 200 | SV-2-T | - | - | - |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 88)

## (ROUTE 1/ROUTE 105 FREEWAY WB OFF-RAMP)

SCALE 1:200

**E-202**

| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|---|
| 4/06 | DATE REVISED | KM | CHECKED BY | YEFIM ZABEZHINSKY |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmartin
DGN FILE => 725730ua202.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 27-SEP-2006 TIME PLOTTED => 16:23

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 227 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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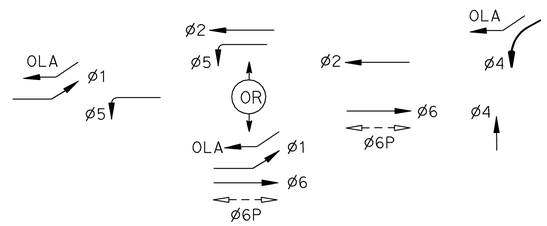
SANTA ANA, CA 92707

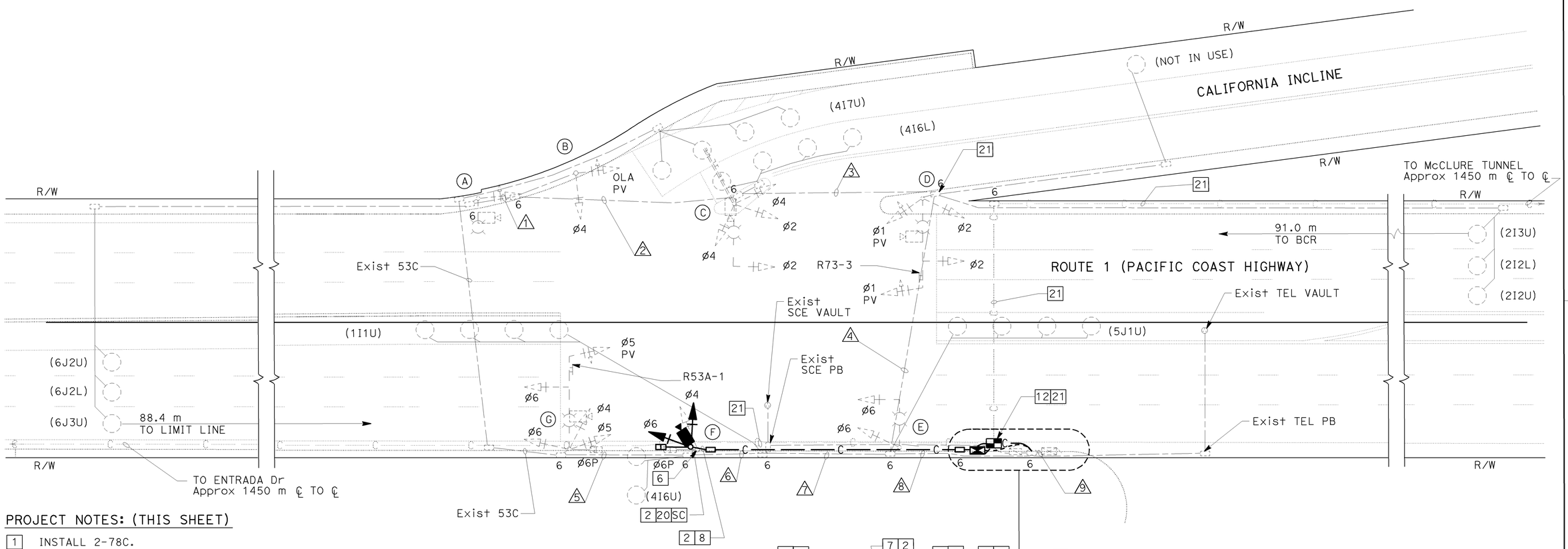

Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-204.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

EXISTING SIGNAL PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.
21. FOR COMMUNICATION SYSTEM ROUTING SEE SHEET E-235.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 89)

## (ROUTE 1/CALIFORNIA INCLINE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-203

| DATE 4/06 | REVISED BY | CALCULATED/ DESIGNED BY | MR |
|---|---|---|---|
| 4/06 | DATE REVISED | CHECKED BY | KM |

DESIGN OVERSIGHT: YEFIM ZABESHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmartin
DGN FILE => 725730ua203.dgn

CU 07382

EA 257301

LAST REVISION 00-00-00

DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 09:48

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1, 105 | Var | 228 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Ø2 | | | | | | | | | |
| | Ø4 | | | | | | | | | |
| | Ø5 | | | | | | | | | |
| | Ø6 | | | | | | | | | |
| | OLA | | | | | | | | | |
| | Ø6 P | | | | | | | | | |
| | SIGNAL COMMON | | | | | | | | | |
| | SPARES | | | | | | | | | |
| #12 | SIGN LIGHTING | - | - | 1 | 1 | - | - | - | 1 | 1 |
| 2 #12 dlc TYPE A | Ø1 DETECTORS | - | - | - | - | - | - | 1 | 1 | 1 |
| | Ø2 DETECTORS | - | - | - | 3 | - | - | - | 3 | 3 |
| | Ø4 DETECTORS | - | - | 1 | 1 | 1 | 2 | 2 | 3 | 3 |
| | Ø5 DETECTORS | - | - | - | - | - | - | - | 1 | 1 |
| | Ø6 DETECTORS | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 |
| | TOTAL | 3 | 3 | 4 | 7 | 1 | 2 | 3 | 11 | 11 |
| | VIDEO DETECTOR CABLE | 1 | 1 | 2 | 3 | 1 | 1 | 1 | 4 | 4 |
| #6 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78C | 2-78C 1-53C |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | ARROW | HPS LUM | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| (F) | CCTV 45 | - | - | - | SV-1-TA | SP-1-T | - | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEG SIG MTG MA | POLE | PED SIG MTG | P Ø | ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| (A) | 15 | — | 3.7 | — | SV-1-T | — | — | — | 200 | — |
| (B) | 1-A | — | — | — | TV-2-T | — | — | — | — | — |
| (C) | SIGN STRUCTURE | 5.5 | — | MAS | SV-3-TA | — | — | — | — | — |
| (D) | 19-4-129 | 9.1 | 3.7 | 2-MAS | SV-2-TA | — | — | — | 200 | — |
| (E) | 17-2-129 | 5.5 | 3.7 | MAS | SV-1-T | — | — | — | 200 | — |
| (F) | 1-A | — | — | — | TV-1 | SP-1-T | — | — | — | — |
| (G) | 19-4-129 | 9.1 | 3.7 | 2-MAS | SV-3-TA | SP-1-T | — | — | 200 | — |

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 89)**

**(ROUTE 1/CALIFORNIA INCLINE)**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-204**

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 09:48

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| 07 | LA | 1, 105 | Var | 229 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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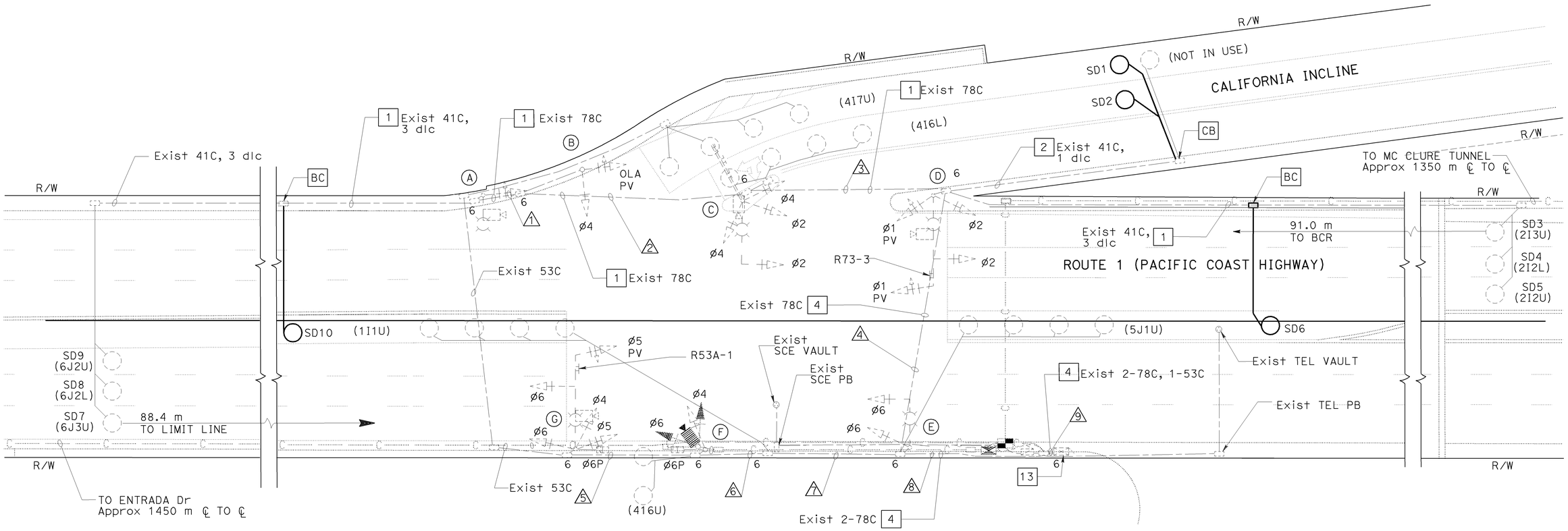
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-206.
2. FOR MODIFY SIGNAL AND CCTV CONSTRUCTION PLAN, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEET.
3. FOR UTILITIES SEE SHEET U-15.




PROJECT NOTES: (THIS SHEET ONLY)

1 ADD 1-DLC.

2 ADD 2-DLC.

4 ADD 4-DLC.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 89)

## (ROUTE 1/ CALIFORNIA INCLINE)

SCALE 1:200

E-205

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USERNAME => trmartin
DGN FILE => 725730ua205.dgn

CU 07382

EA 257301

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REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Ø2 | | | | | | | | | |
| | Ø4 | | | | | | | | | |
| | Ø5 | | | | | | | | | |
| | Ø6 | | | | | | | | | |
| | OLA | | | | | | | | | |
| | Ø6 P | | | | | | | | | |
| | SIGNAL COMMON | | | | | | | | | |
| | SPARES | | | | | | | | | |
| #12 | SIGN LIGHTING | - | - | 1 | 1 | - | - | - | 1 | 1 |
| 2 #2 dlc TYPE A | Ø1 DETECTORS | - | - | - | - | - | - | 1 | 1 | 1 |
| | Ø2 DETECTORS | - | - | - | 3 | - | - | - | 3 | 3 |
| | Ø4 DETECTORS | - | - | 1 | 1 | 1 | 2 | 2 | 3 | 3 |
| | Ø5 DETECTORS | - | - | - | - | - | - | - | 1 | 1 |
| | Ø6 DETECTORS | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 |
| | TOTAL | 3 | 3 | 4 | 7 | 1 | 2 | 3 | 11 | 11 |
| | VIDEO DETECTOR CABLE | 1 | 1 | 2 | 3 | 1 | 1 | 1 | 4 | 4 |
| #6 | LUMINAIRE | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 2-78C | 2-78 1-53 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEG SIG MTG MA | POLE | PED SIG MTG | P Ø | ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| Ⓐ | 15 | — | 3.7 | — | SV-1-T | — | — | — | 200 | — |
| Ⓑ | 1-A | — | — | — | TV-2-T | — | — | — | — | — |
| Ⓒ | SIGN STRUCTURE | 5.5 | — | MAS | SV-3-TA | — | — | — | — | — |
| Ⓓ | 19-4-129 | 9.1 | 3.7 | 2-MAS | SV-2-TA | — | — | — | 200 | — |
| Ⓔ | 17-2-129 | 5.5 | 3.7 | MAS | SV-1-T | — | — | — | 200 | — |
| Ⓕ | 1-A | — | — | — | TV-1 | SP-1-T | — | — | — | — |
| Ⓖ | 19-4-129 | 9.1 | 3.7 | 2-MAS | SV-3-TA | SP-1-T | — | — | 200 | — |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 89)

## (ROUTE 1/CALIFORNIA INCLINE)

NO SCALE

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**E-206**

| DATE 4/06 | REVISED BY | MR |
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REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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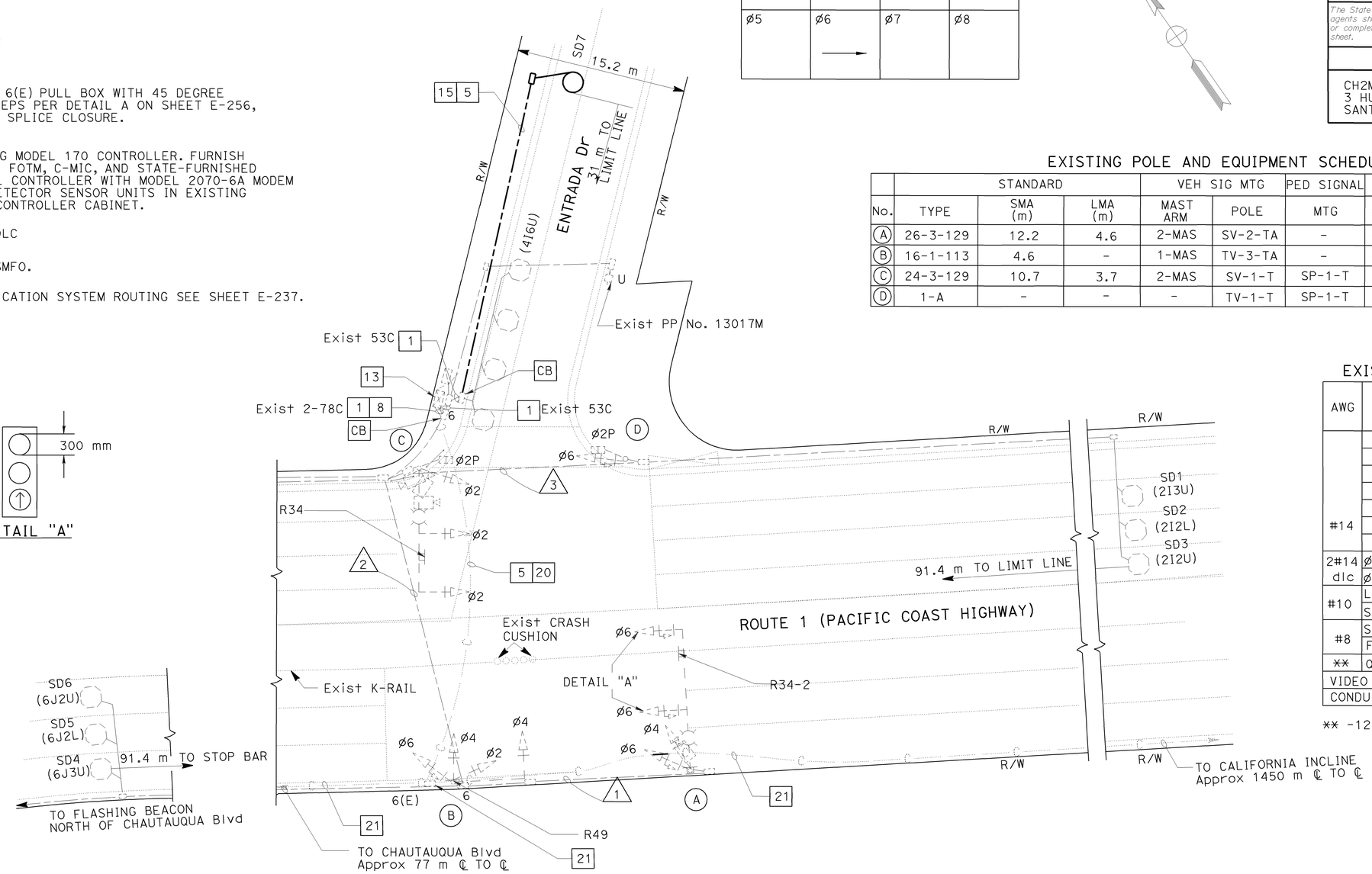
Caltrans Metric

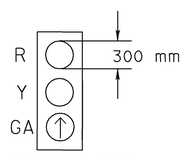
## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC
5. INSTALL 53C
8. ADD 12SMFO
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
15. INSTALL 1-DLC
20. INSTALL 12SMFO.
21. FOR COMMUNICATION SYSTEM ROUTING SEE SHEET E-237.

## EXISTING PHASE DIAGRAM

| | | | |
|---|---|---|---|
| Ø1 | Ø2 Ø2P Ø2 | Ø3 | Ø4 |
| Ø5 | Ø6 | Ø7 | Ø8 |




DETAIL "A"

## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | HPS LUMINAIRE (W) |
|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SMA (m) | LMA (m) | MAST ARM | POLE | MTG | Ø | ARROW | |
| A | 26-3-129 | 12.2 | 4.6 | 2-MAS | SV-2-TA | - | - | - | 200 |
| B | 16-1-113 | 4.6 | - | 1-MAS | TV-3-TA | - | - | - | - |
| C | 24-3-129 | 10.7 | 3.7 | 2-MAS | SV-1-T | SP-1-T | 2 | - | 200 |
| D | 1-A | - | - | - | TV-1-T | SP-1-T | 2 | - | - |

## EXISTING CONDUCTOR SCHEDULE

| AWG | CONDUCTOR RUN | CIRCUIT RUN 1 | 2 | 3 |
|---|---|---|---|---|
| #14 | Ø2 | - | 3 | - |
| | Ø4 | 3 | 3 | - |
| | Ø6 | 3 | 3 | 3 |
| | Ø2P | - | - | 2 |
| | Ø2 PPB | - | - | 2 |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 9 | 12 | 10 |
| 2#14 | Ø2C DETECTORS | - | - | 3 |
| dlc | Ø6C DETECTORS | - | 3 | - |
| #10 | LUMINAIRES | 2 | 2 | - |
| | SIGNAL COMMON | 1 | 1 | 1 |
| #8 | SERVICE FOR Q LOOPS | - | - | - |
| | FLASHING BEACON | - | 2 | - |
| ** | Q DETECTORS | - | 1 | - |
| VIDEO DETECTOR CABLE | | 1 | 1 | - |
| CONDUIT SIZE (mm) | | 41 | 63 | 53 |

** -12 PAIR #19 SHIELDED CABLE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 90)**

**(ROUTE 1/ENTRADA DRIVE)**

SCALE 1:200

**E-207**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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DGN FILE => 725730ua207.dgn

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08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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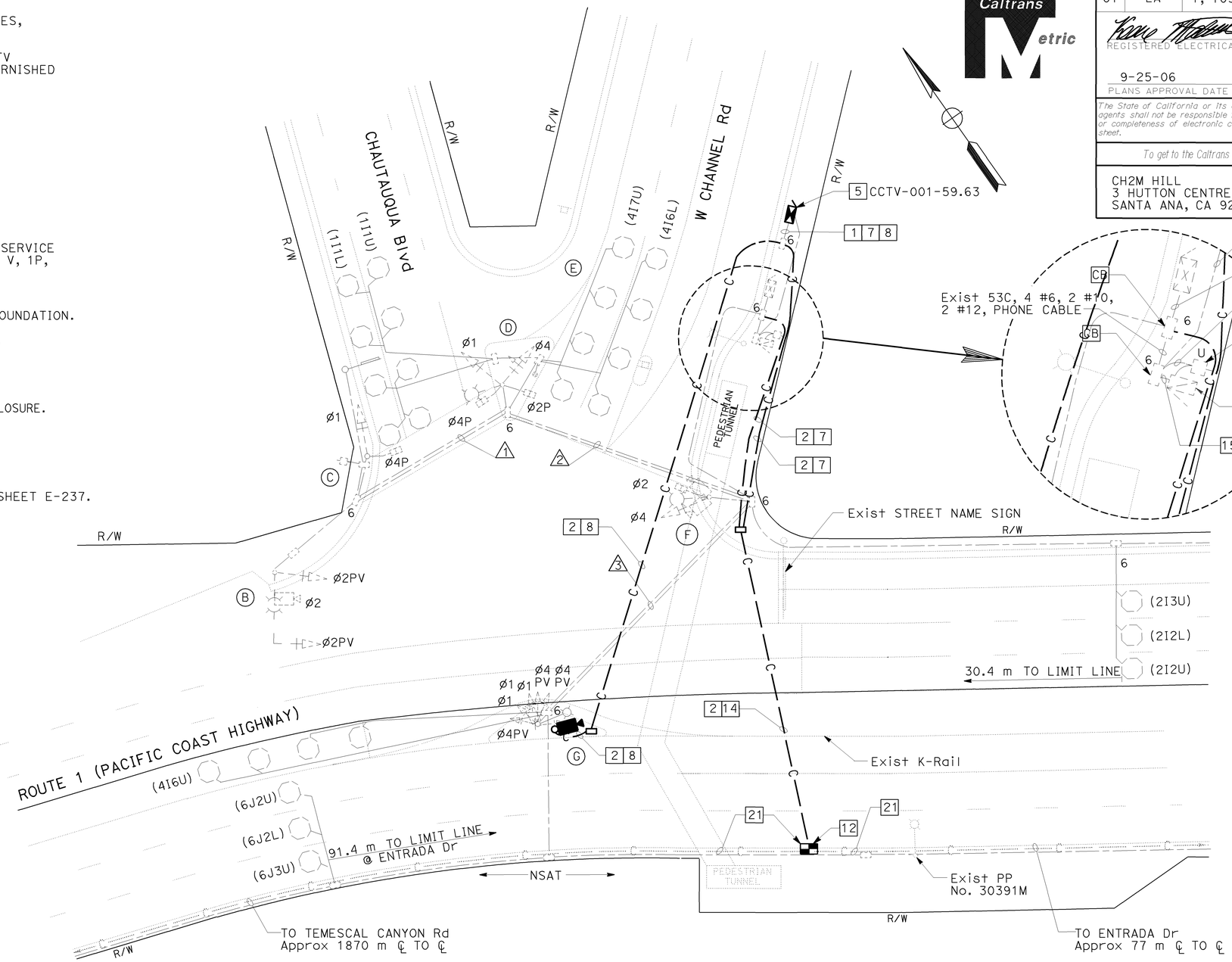
## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-209.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

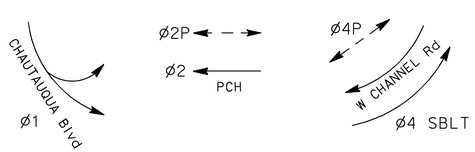
## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA AND VIDEO NODE EQUIPMENT, SEE SHEET E-248.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
14. INSTALL 2-12SMFO.
15. ADD 3#8.
16. ADD 12SMFO.
21. FOR COMMUNICATION SYSTEM ROUTING SEE SHEET E-237.




### SIGNAL PHASE DIAGRAM

CHAUTAUQUA Blvd /W CHANNEL Rd

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

## (LOCATION 91)

## (ROUTE 1/ CHAUTAUQUA BOULEVARD)

SCALE 1:200

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**E-208**

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9-25-06
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No. E11758
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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø2 | 2 | 2 | 2 | 4 |
| | Ø4 | | | | |
| | Ø1 | | | | |
| | Ø2P | | | | |
| | Ø4P | | | | |
| | Ø2 PPB | | | | |
| | Ø4 PPB | | | | |
| | PPB & DETECTOR COMMON | | | | |
| | SPARES | | | | |
| 2#12 dlc | Ø4 DETECTORS | - | 2 | 1 | 3 |
| | Ø1 DETECTORS | - | 2 | - | 2 |
| | TOTAL dlc | - | 4 | 1 | 8 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 2 |
| | LUMINAIRES | 2 | 2 | 2 | 4 |
| VIDEO DETECTOR CABLE | | 1 | 1 | 1 | 4 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 2-78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| G | CCTV 45 | - | - | - | - | - | - | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB Ø | ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 15 | - | 3.7 | - | SV-4-TA SV-2-TA(5.5 m) | - | - | - | 200 | - |
| B | 17 | 6.1 | 3.7 | MAS | SV-1-T | - | - | - | 200 | - |
| C | 1-A | - | - | - | TV-1-T | SP-1-T | 4 | → | - | - |
| D | X-A | - | 3.7 | - | SV-2-TA | SP-2-T | 4 | ⇄ | 200 | - |
| E | PPB POST | - | - | - | - | - | 2 | → | - | - |
| F | 15 | - | 3.7 | - | SV-1-T | SP-1-T | 2 | ← | 200 | - |

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

**(LOCATION 91)**

**(ROUTE 1/CHAUTAUQUA BOULEVARD)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-209**

| | | | |
|---|---|---|---|
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REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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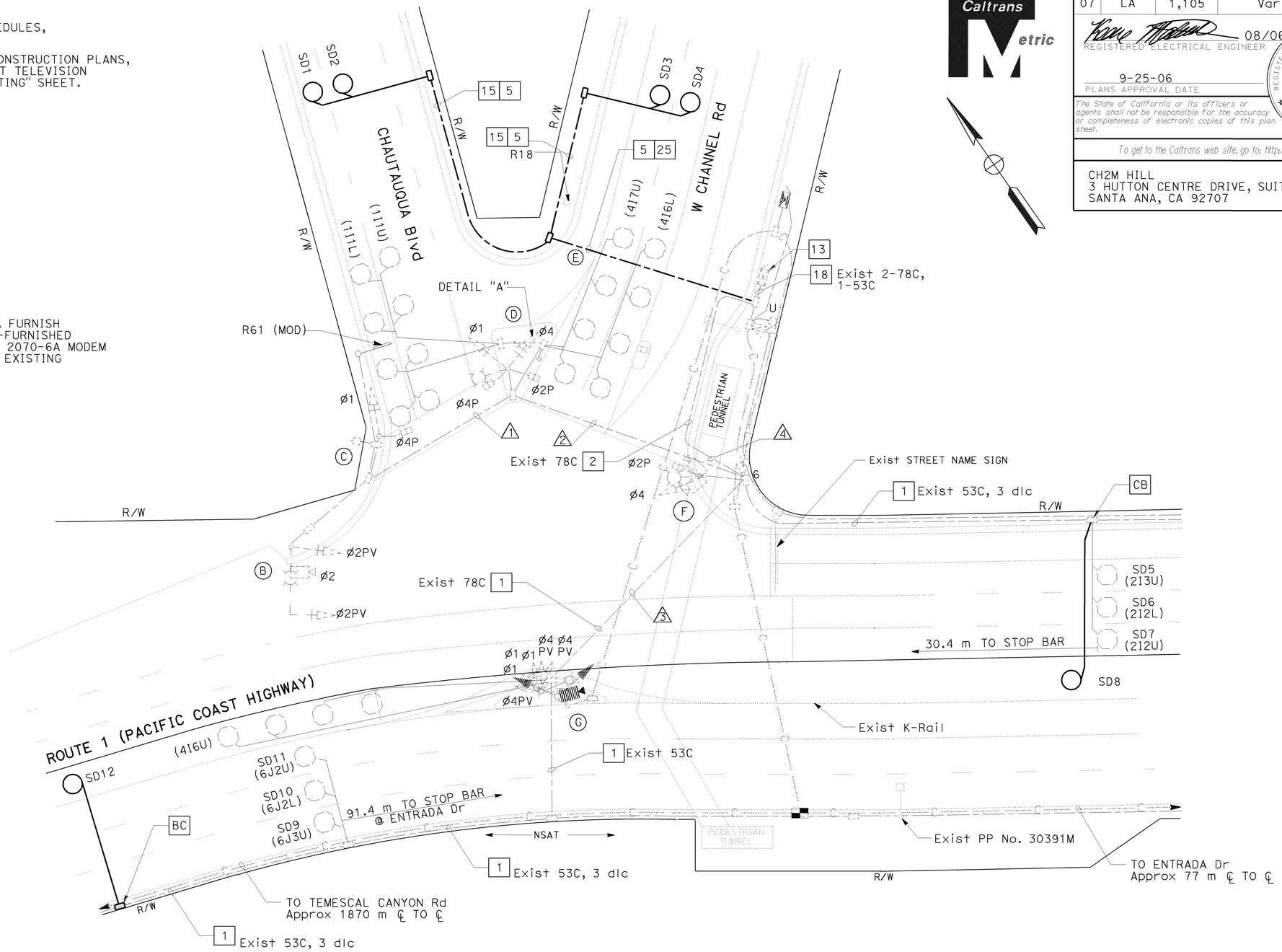
## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-211.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEET.
3. FOR UTILITIES SEE SHEET U-16.

## PROJECT NOTES: (THIS SHEET ONLY)

- [1] ADD 1-DLC
- [2] ADD 2-DLC
- [5] INSTALL 53C
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [15] INSTALL 2-DLC
- [18] ADD 6-DLC.
- [25] INSTALL 4-DLC.

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# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 91)

## (ROUTE 1/ CHAUTAUQUA BOULEVARD)

SCALE 1:200

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**E-210**

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø2 | | | | |
| | Ø4 | | | | |
| | Ø1 | | | | |
| | Ø2P | | | | |
| | Ø4P | | | | |
| | Ø2 PPB | 2 | 2 | 2 | 4 |
| | Ø4 PPB | | | | |
| | PPB & DETECTOR COMMON | | | | |
| | SPARES | | | | |
| 2#12 dlc | Ø4 DETECTORS | - | 2 | 1 | 3 |
| | Ø1 DETECTORS | - | 2 | - | 2 |
| | TOTAL dlc | - | 4 | 1 | 8 |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 2 |
| | LUMINAIRES | 2 | 2 | 2 | 4 |
| VIDEO DETECTOR CABLE | | 1 | 1 | 1 | 4 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB Ø | ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 15 | - | 3.7 | - | SV-4-TA SV-2-TA(5.5 m) | - | - | - | 200 | - |
| B | 17 | 6.1 | 3.7 | MAS | SV-1-T | - | - | - | 200 | - |
| C | 1-A | - | - | - | TV-1-T | SP-1-T | 4 | → | - | - |
| D | X-A | - | 3.7 | - | SV-2-TA | SP-2-T | 4 | ⇄ | 200 | - |
| E | PPB POST | - | - | - | - | - | 2 | → | - | - |
| F | 15 | - | 3.7 | - | SV-1-T | SP-1-T | 2 | ← | 200 | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

**(LOCATION 91)**
**(ROUTE 1/CHAUTAUQUA BOULEVARD)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-211**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:15

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 236 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-213.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

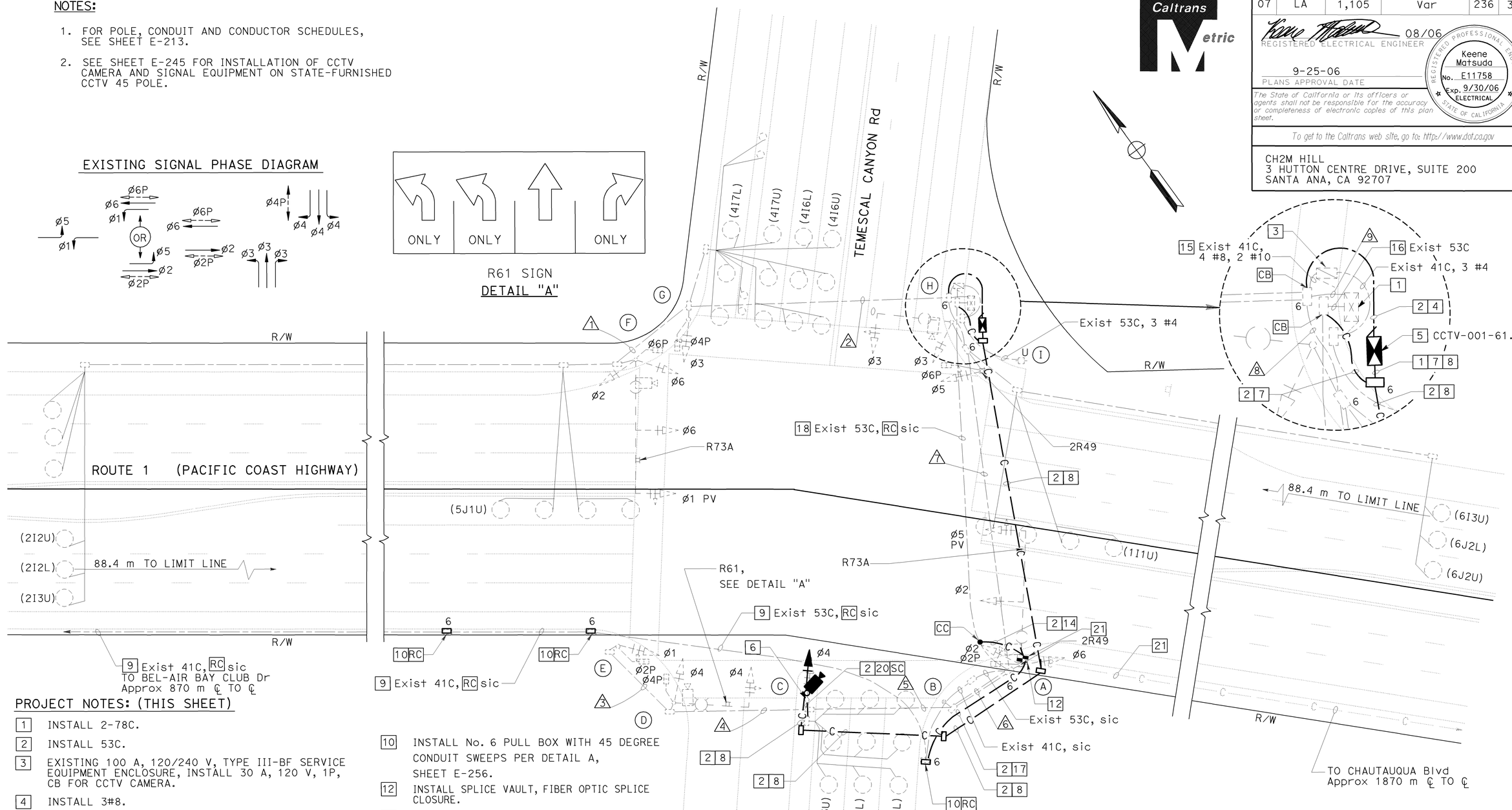
EXISTING SIGNAL PHASE DIAGRAM







R61 SIGN
DETAIL "A"




PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA AND DATA NODE EQUIPMENT, SEE SHEET E-247.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
10. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
14. INSTALL 2-12SMFO.
15. ADD 3#8.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
18. ADD 2-12SMFO.
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.
21. FOR COMMUNICATION SYSTEM ROUTING SEE SHEET E-239.

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING DATA NODE

## (LOCATION 92)

## (ROUTE 1/ TEMESCAL CANYON ROAD)

SCALE 1:200

E-212

| DATE | REVISED BY | DATE REVISED |
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua212.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 237 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 |
| | Ø2 | | | | | | | | | |
| | Ø3 | | | | | | | | | |
| | Ø4 | | | | | | | | | |
| | Ø5 | | | | | | | | | |
| | Ø6 | | | | | | | | | |
| | Ø2 PH | | | | | | | | | |
| | Ø4 PH | | | | | | | | | |
| | Ø6 PH | | | | | | | | | |
| | Ø2 PPB | | | | | | | | | |
| | Ø4 PPB | | | | | | | | | |
| | Ø6 PPB | | | | | | | | | |
| | PPB COMMON | | | | | | | | | |
| | SIGNAL COM | | | | | | | | | |
| | SPARES | | | | | | | | | |
| #10 | LUMINAIRE | 2 | 2 | - | 2 | 2 | 2 | 2 | 2 | 4 |
| | TOTAL | 2 | 2 | - | 2 | 2 | 2 | 2 | 2 | 4 |
| 2 #12 TYPE A dlc | Ø1 DETECTOR | - | - | - | - | - | - | - | 1 | 1 |
| | Ø2 DETECTOR | 3 | 3 | - | - | - | - | - | | 3 |
| | Ø3 DETECTOR | - | - | - | - | - | - | - | 3 | 3 |
| | Ø4 DETECTOR | - | 4 | - | - | - | - | - | - | 4 |
| | Ø5 DETECTOR | 1 | 1 | - | - | - | - | - | - | 1 |
| | Ø6 DETECTOR | - | - | - | - | - | - | - | 3 | 3 |
| | SAMPLING DETECTORS | 3 | 3 | - | - | - | - | - | - | 3 |
| | BICYCLE DETECTORS | - | 2 | - | - | - | - | - | - | 2 |
| | TOTAL | 7 | 13 | - | - | 3 | 3 | 3 | 7 | 20 |
| | VIDEO DETECTOR CABLE | 1 | 1 | - | 1 | 1 | 1 | 2 | 2 | 4 |
| #8 | SIGNAL SERVICE | - | - | - | - | - | - | - | - | - |
| 12 PR#19 | INTERCONNECT | - | - | - | - | - | - | - | - | - |
| | CONDUIT SIZE (mm) | 78 | 78 | 53 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | PPB ARROW | HPS LUM | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| Ⓒ | CCTV 45 | - | - | - | SV-1-TA | - | 2 | ⟶ ⟵ | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| Ⓐ | 26-4-129 | 13.7 | 3.7 | 2-MAS | SV-1-T | SP-1-T | - | - | 250 | - |
| Ⓑ | PPB POST | - | - | - | - | - | 2 | ⟶ | - | - |
| Ⓒ | 1-A | - | - | - | TV-1-T | - | 2 | ⟵ ⟶ | - | - |
| Ⓓ | 17-2-129 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | 2 | ⟵ | 250 | - |
| Ⓔ | 1 | - | - | - | TV-1 | SP-1-T | 4 | ⟶ | - | - |
| Ⓕ | 26-4-129 | 13.7 | 3.7 | 2-MAS | SP-1-T | SP-1-T | 4 | ⟵ | 250 | - |
| Ⓖ | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | ⟶ | - | - |
| Ⓗ | 17-2-129 | 6.1 | 3.7 | MAS | SV-1-T | - | 6 | ⟵ | 250 | - |
| Ⓘ | 1 | - | - | - | TV-1 | SP-1-T | - | - | - | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING DATA NODE

**(LOCATION 92)**

**(ROUTE 1/ TEMESCAL CANYON ROAD)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-213**

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

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YEFIM ZABEZHINSKY

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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 238 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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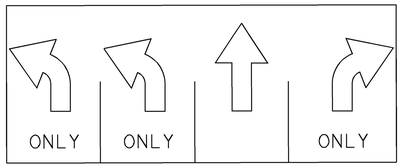
SANTA ANA, CA 92707

Caltrans Metric

## NOTES:

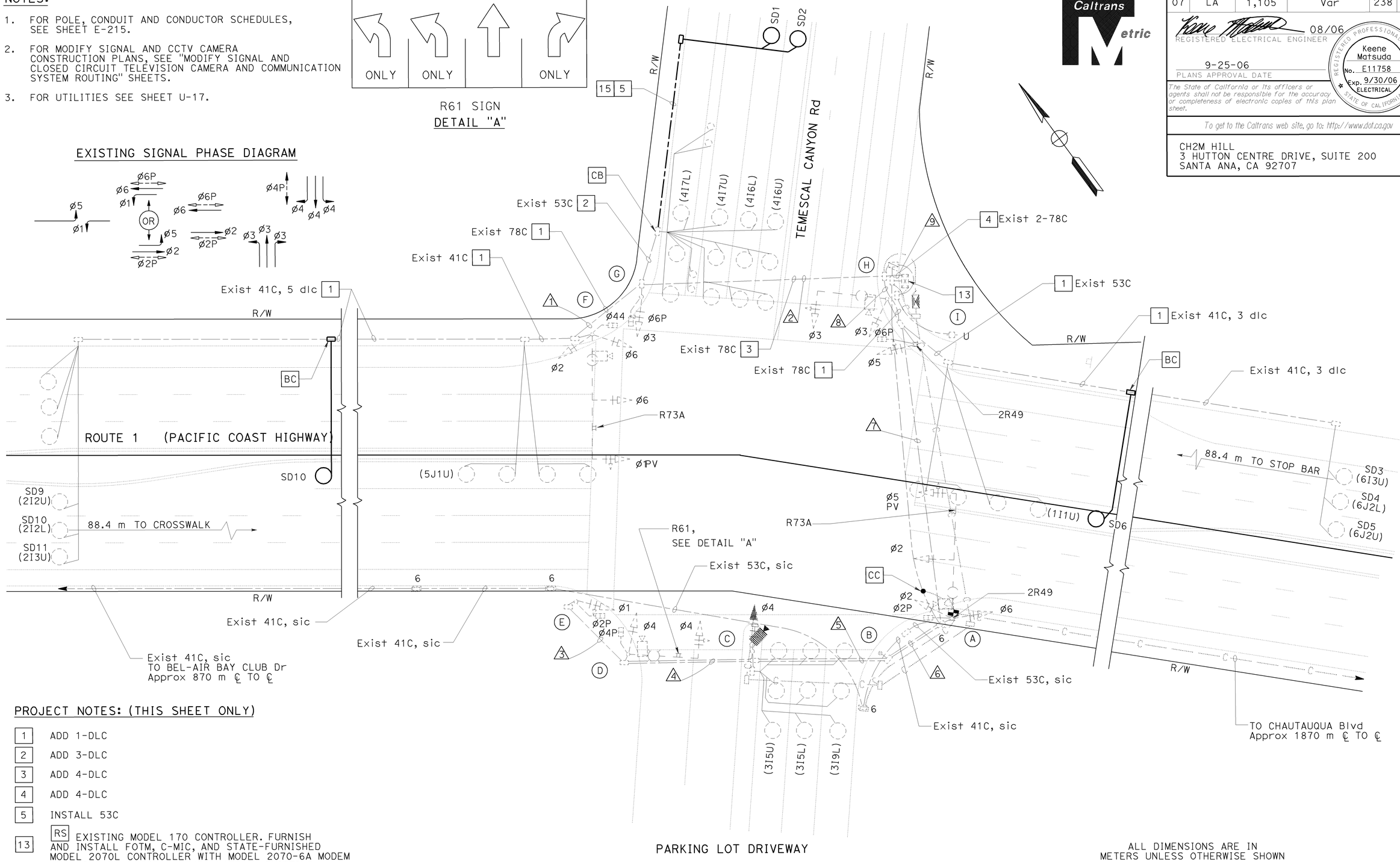
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-215.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-17.




R61 SIGN
DETAIL "A"

EXISTING SIGNAL PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 3-DLC |
| 3 | ADD 4-DLC |
| 4 | ADD 4-DLC |
| 5 | INSTALL 53C |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 15 | INSTALL 2-DLC |

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# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 92)
## (ROUTE 1/ TEMESCAL CANYON ROAD)

SCALE 1:200

**E-214**

| | | | |
|---|---|---|---|
| REVISED BY | DATE REVISED | DATE 4/06 | |
| MR | KM | 4/06 | |
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LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 15:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua214.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 239 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 |
| | Ø2 | 3 | 3 | - | - | - | - | 3 | 3 | 6 |
| | Ø3 | - | 3 | - | - | - | - | - | - | 3 |
| | Ø4 | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 |
| | Ø5 | - | - | - | - | - | - | 3 | 3 | 3 |
| | Ø6 | 3 | 3 | - | - | - | - | 3 | 3 | 6 |
| | Ø2 PH | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | Ø4 PH | - | 2 | - | 2 | 2 | 2 | 2 | 2 | 4 |
| | Ø6 PH | 2 | 2 | - | - | - | - | - | 2 | 4 |
| | Ø2 PPB | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 |
| | Ø4 PPB | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 |
| | Ø6 PPB | - | 2 | - | - | - | - | - | - | 2 |
| | PPB COMMON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | SIGNAL COM | | | | | | | | | |
| | SPARES | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 |
| | TOTAL | 17 | 24 | 14 | 18 | 18 | 18 | 27 | 29 | 53 |
| #10 | LUMINAIRE | 2 | 2 | - | 2 | 2 | 2 | 2 | 2 | 4 |
| | TOTAL | 2 | 2 | - | 2 | 2 | 2 | 2 | 2 | 4 |
| 2 #12 TYPE A dlc | Ø1 DETECTOR | - | - | - | - | - | - | - | 1 | 1 |
| | Ø2 DETECTOR | 3 | 3 | - | - | - | - | - | | 3 |
| | Ø3 DETECTOR | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| | Ø4 DETECTOR | - | 4 | - | - | - | - | - | - | 4 |
| | Ø5 DETECTOR | 1 | 1 | - | - | - | - | - | - | 1 |
| | Ø6 DETECTOR | - | - | - | - | - | - | - | 3 | 3 |
| | SAMPLING DETECTORS | 3 | 3 | - | - | - | - | - | - | 3 |
| | BICYCLE DETECTORS | - | 2 | - | - | - | - | - | - | 2 |
| | | | | | | | | | | |
| | TOTAL | 7 | 13 | - | - | 3 | 3 | 3 | 7 | 20 |
| | VIDEO DETECTOR CABLE | 1 | 1 | - | 1 | 1 | 1 | 2 | 2 | 4 |
| #8 | SIGNAL SERVICE | - | - | - | - | - | - | - | - | - |
| 12 PR #19 | INTERCONNECT | - | - | - | - | - | - | - | - | - |
| | CONDUIT SIZE (mm) | 78 | 78 | 53 | 78 | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | STANDARD SMA (m) | STANDARD LMA (m) | VEH SIG MTG MAST ARM | VEH SIG MTG POLE | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| Ⓐ | 26-4-129 | 13.7 | 3.7 | 2-MAS | SV-2-T | SP-1-T | - | - | 250 | - |
| Ⓑ | PPB POST | - | - | - | - | - | 2 | → | - | - |
| Ⓒ | 1-A | - | - | - | TV-1-T | - | 2 | ←→ | - | - |
| Ⓓ | 17-2-129 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | 2 | ← | 250 | - |
| Ⓔ | 1 | - | - | - | TV-1 | SP-1-T | 4 | → | - | - |
| Ⓕ | 19 | 9.1 | 3.7 | 2-MAS | SV-2-T | SP-1-T | 4 | ← | 250 | - |
| Ⓖ | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| Ⓗ | 17-2-129 | - | 3.7 | MAS | SV-1-T | - | 6 | ← | 250 | - |
| Ⓘ | 1 | - | - | - | TV-1 | SP-1-T | - | - | - | - |

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 92)
## (ROUTE 1/ TEMESCAL CANYON ROAD)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-215**

| | DATE | REVISED BY |
|---|---|---|
| MR | 4/06 | KM |
| | 4/06 | DATE REVISED |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua215.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 240 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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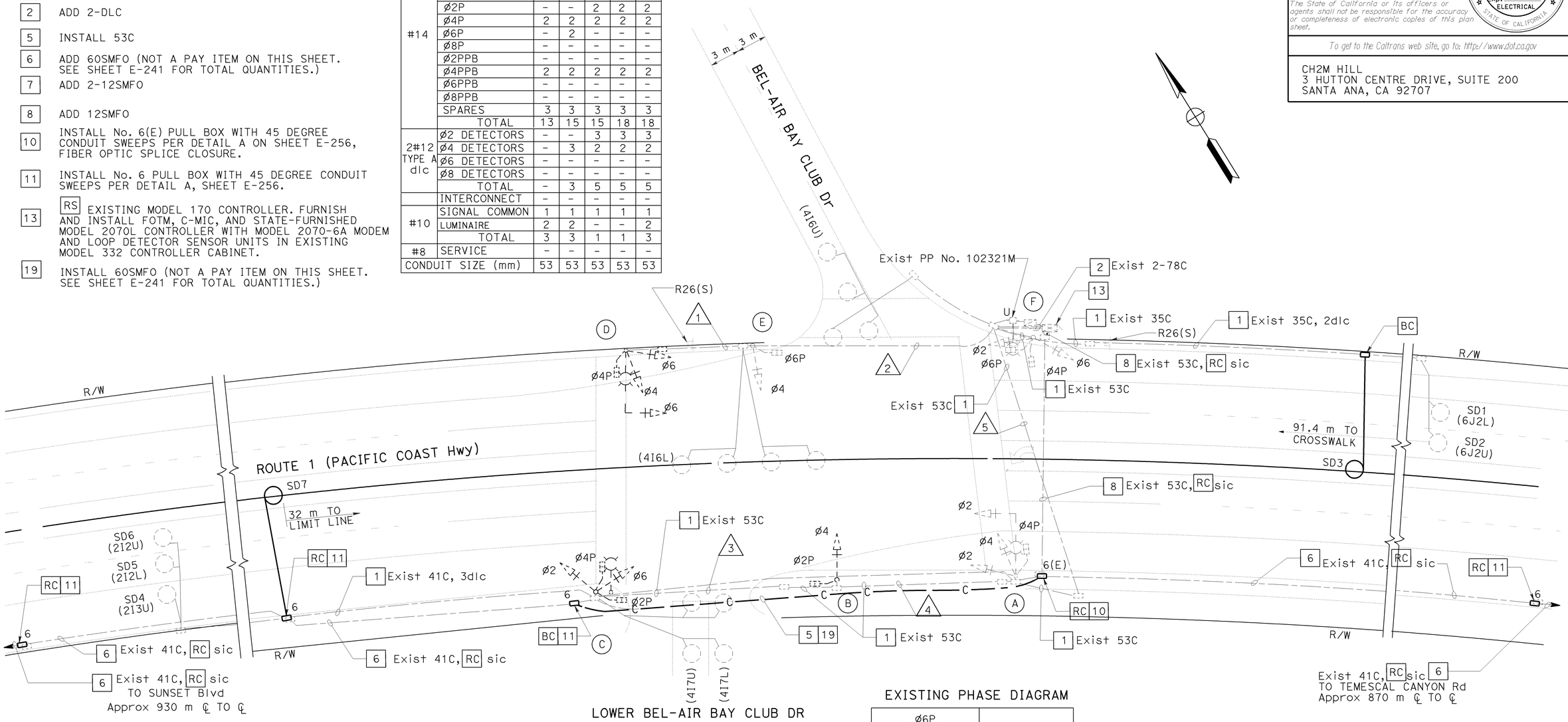
## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC
2. ADD 2-DLC
5. INSTALL 53C
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
7. ADD 2-12SMFO
8. ADD 12SMFO
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

## EXISTING CONDUCTOR AND CONDUIT SCHEDULE

| AWG | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| #14 | Ø2 | - | - | 3 | 3 | 3 |
| | Ø4 | 3 | 3 | - | 3 | 3 |
| | Ø6 | 3 | 3 | 3 | 3 | 3 |
| | Ø8 | - | - | - | - | - |
| | Ø2P | - | - | 2 | 2 | 2 |
| | Ø4P | 2 | 2 | 2 | 2 | 2 |
| | Ø6P | - | 2 | - | - | - |
| | Ø8P | - | - | - | - | - |
| | Ø2PPB | - | - | - | - | - |
| | Ø4PPB | 2 | 2 | 2 | 2 | 2 |
| | Ø6PPB | - | - | - | - | - |
| | Ø8PPB | - | - | - | - | - |
| | SPARES | 3 | 3 | 3 | 3 | 3 |
| | TOTAL | 13 | 15 | 15 | 18 | 18 |
| 2#12 TYPE A dlc | Ø2 DETECTORS | - | - | 3 | 3 | 3 |
| | Ø4 DETECTORS | - | 3 | 2 | 2 | 2 |
| | Ø6 DETECTORS | - | - | - | - | - |
| | Ø8 DETECTORS | - | - | - | - | - |
| | TOTAL | - | 3 | 5 | 5 | 5 |
| | INTERCONNECT | - | - | - | - | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 |
| | LUMINAIRE | 2 | 2 | - | - | 2 |
| | TOTAL | 3 | 3 | 1 | 1 | 3 |
| #8 | SERVICE | - | - | - | - | - |
| CONDUIT SIZE (mm) | | 53 | 53 | 53 | 53 | 53 |

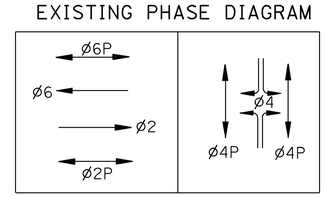



LOWER BEL-AIR BAY CLUB DR

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB Ø | HPS LUMINAIRE (W) | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|
| A | 17-2-129 | 6.1 | 3.7 | MAS | SV-2-TB | SP-1-T | 4 | 200 | ——— |
| B | 1-A | ——— | ——— | ——— | TV-1 | SP-1-T | ——— | ——— | ——— |
| C | 1-A | ——— | ——— | ——— | TV-2-T | SP-2-T | 4 | ——— | ——— |
| D | 17-2-129 | 6.1 | 3.7 | MAS | SV-2-TB | SP-1-T | 4 | 200 | ——— |
| E | 1-A | ——— | ——— | ——— | TV-1 | SP-1-T | ——— | ——— | ——— |
| F | 1-A | ——— | ——— | ——— | TV-2-T | SP-2-T | 4 | ——— | ——— |

## EXISTING PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

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# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 93)

## (ROUTE 1/ BEL-AIR BAY CLUB DRIVE)

SCALE 1:200

**E-216**

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua216.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 241 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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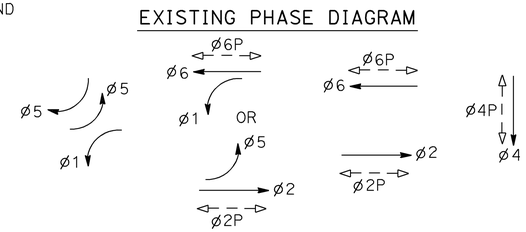
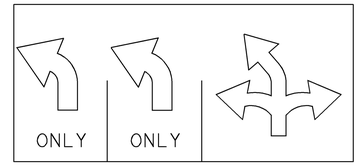
## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-218.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEP PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
14. INSTALL 2-12SMFO.
15. ADD 3#8.
16. ADD 12SMFO.
18. ADD 2-12SMFO.



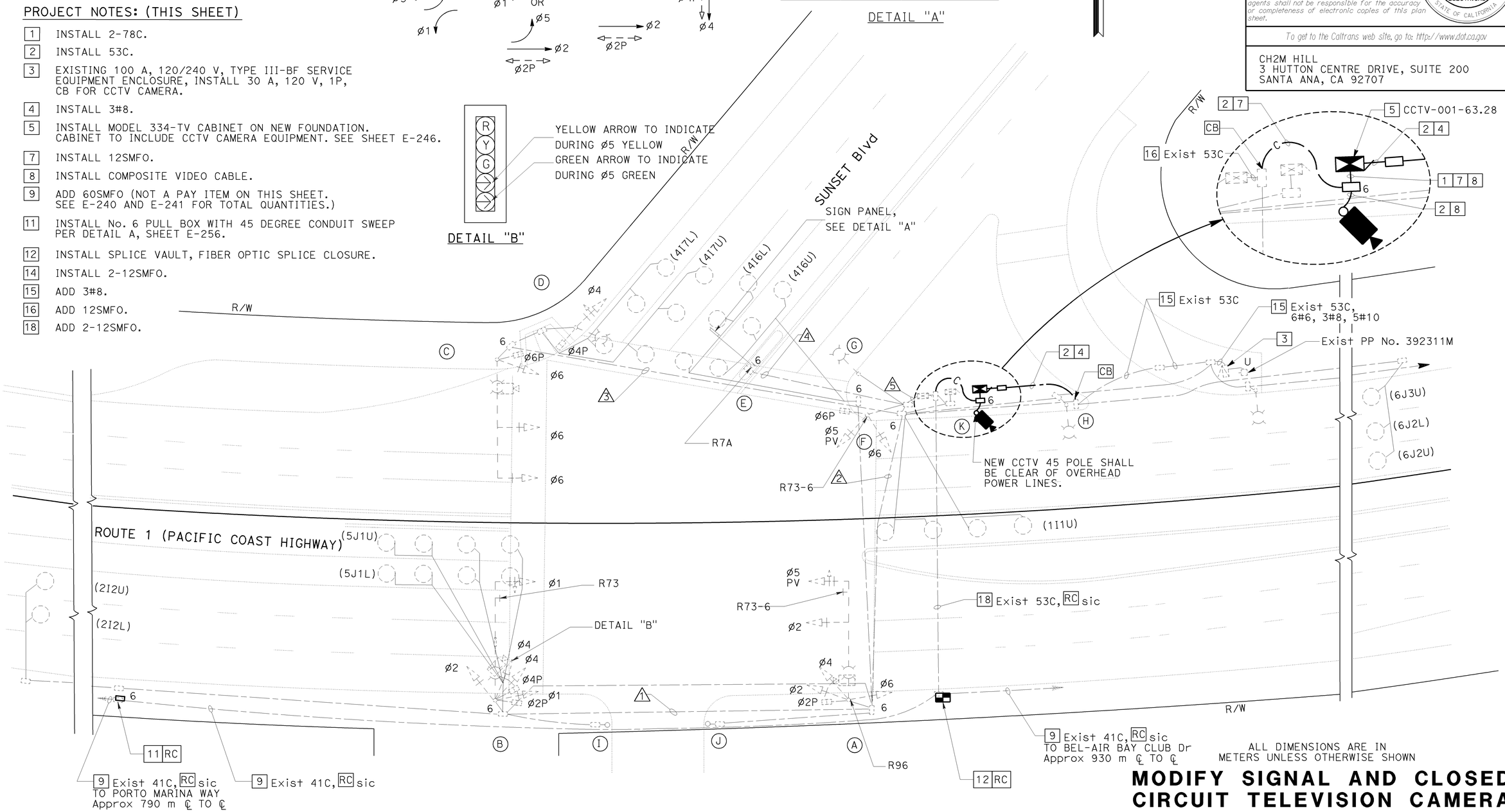




DETAIL "A"




YELLOW ARROW TO INDICATE DURING Ø5 YELLOW
GREEN ARROW TO INDICATE DURING Ø5 GREEN

DETAIL "B"

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# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 94)**
**(ROUTE 1/ SUNSET BOULEVARD)**
SCALE 1:200

**E-217**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua217.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 242 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | ø1 | | | | | |
| | ø2 | | | | | |
| | SPECIAL GREEN AND YELLOW ARROW | | | | | |
| | ø4 | | | | | |
| | ø5 | | | | | |
| | ø6 | | | | | |
| | ø2 P | 2 | 2 | 2 | 1 | 4 |
| | ø4 P | | | | | |
| | ø6 P | | | | | |
| | ø2 PPB | | | | | |
| | ø4 PPB | | | | | |
| | ø6 PPB | | | | | |
| | SPARES | | | | | |
| | TOTAL | | | | | |
| 2 #12 CABLE | ø1 DETECTORS | - | - | - | - | 1 |
| | ø2 DETECTORS | 2 | 2 | - | - | 2 |
| | ø4 DETECTORS | - | - | 2 | - | 4 |
| | ø5 DETECTORS | 2 | 2 | - | - | 2 |
| | ø6 DETECTORS | - | - | - | - | 3 |
| | TOTAL | 4 | 4 | 2 | - | 12 |
| 12 PR #19 | INTERCONNECT | - | - | - | - | - |
| #12 | SIGN LIGHTING | - | - | - | 2 | - |
| | INTERNALLY ILLUMINATED STREET NAME SIGN | - | 2 | 2 | 2 | - |
| | TOTAL | - | 2 | 2 | 4 | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 |
| #8 | LUMINAIRE | 2 | 2 | 2 | - | - |
| | SERVICE | - | - | - | - | 2 |
| | VIDEO DETECTOR CABLE | 1 | 2 | 1 | - | 3 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 2-78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIG MTG | PPB | | HPS LUM | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SMA (m) | LMA (m) | MAST ARM (m) | POLE | | ø | ARROW | | |
| K | CCTV 45 | - | - | - | - | - | - | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| | STANDARD | | | VEH SIG MTG | | PED SIG MTG | PPB | | | HPS LUMINAIRE (W) | STREET NAME SIGN | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | TYPE | SMA (m) | LMA (m) | MAST ARM (m) | POLE | | ø | QUAD | ARROW | | | |
| A | 26-4-113 | 12.2 | 3.7 | 2 - MAS | SV-1-T SV-2-TB | SP-1-T | - | - | - | 250 | SUNSET BLVD (IISNS) | - |
| B | 26-4-113 | 12.2 | 3.7 | 1 - MAS | SV-1-T SV-3-TB | SP-2-T | 4 | - | ← | 250 | SUNSET BLVD (IISNS) | - |
| C | 26-4-113 | 12.2 | 3.7 | 2 - MAS | SV-1-T | SP-1-T | 4 | - | → | 250 | - | - |
| D | 15 | - | 3.7 | - | SV-1-T | SP-1-T | 6 | - | → | 250 | - | - |
| E | SIGN POST | - | - | - | - | - | 6 | - | ↔ | - | - | - |
| F | 15 | - | 3.7 | - | SV-2-TB | SP-1-T | 6 | - | ← | 250 | - | - |
| G | 15 | - | 3.7 | - | - | - | - | - | - | 250 | - | - |
| H | 15 | - | 3.7 | - | - | - | - | - | - | 250 | - | - |
| I | PPB POST | - | - | - | - | - | 2 | - | → | - | - | - |
| J | PPB POST | - | - | - | - | - | 2 | - | ← | - | - | - |

IISNS = INTERNALLY ILLUMINATED STREET NAME SIGN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 94)**

**(ROUTE 1/SUNSET BOULEVARD)**

NO SCALE

**E-218**

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| DATE | REVISED BY | DATE REVISED |
|---|---|---|
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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 243 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

PLANS APPROVAL DATE 9-25-06

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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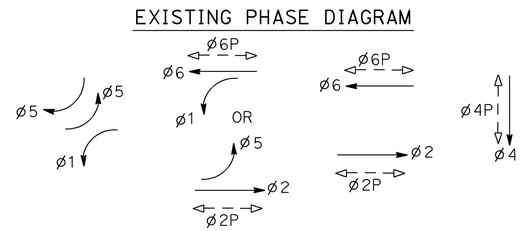
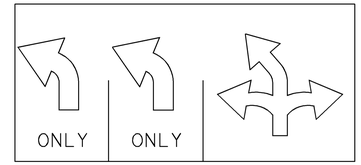
## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-220.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-18.

## PROJECT NOTES: (THIS SHEET)

- [2] ADD 2-DLC
- [3] ADD 3-DLC
- [5] INSTALL 53C.
- [6] ADD 6-DLC
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [15] INSTALL 1-DLC
- [16] INSTALL 3-DLC



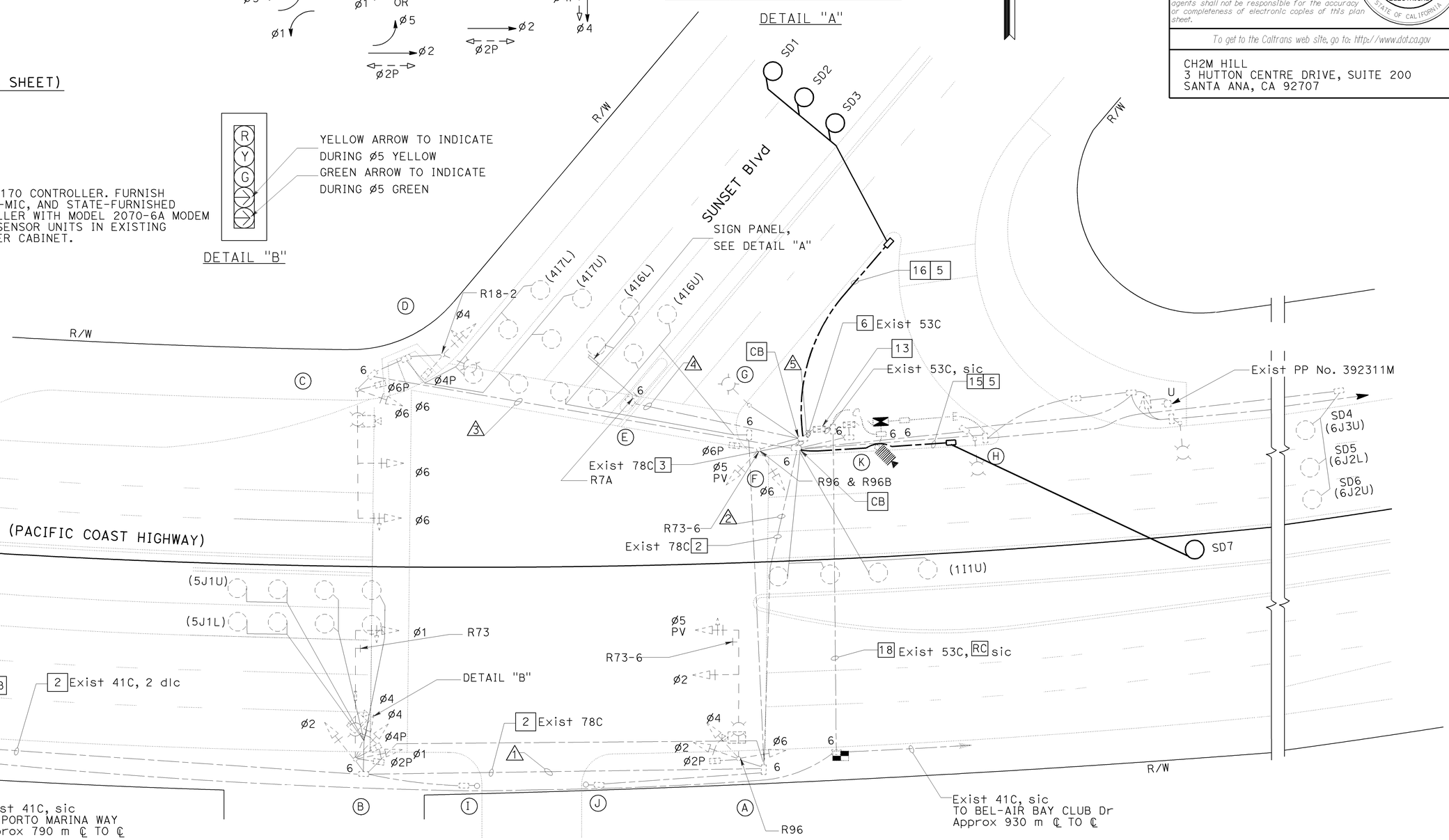




DETAIL "A"




YELLOW ARROW TO INDICATE DURING Ø5 YELLOW
GREEN ARROW TO INDICATE DURING Ø5 GREEN

DETAIL "B"




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

## (LOCATION 94)

## (ROUTE 1/ SUNSET BOULEVARD)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-219**

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY |
|---|---|---|
| REVISED BY | | |
| DATE REVISED | KM | CHECKED BY |

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YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua219.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 244 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | ø1 | 2 | 2 | 2 | 1 | 4 |
| | ø2 | | | | | |
| | SPECIAL GREEN AND YELLOW ARROW | | | | | |
| | ø4 | | | | | |
| | ø5 | | | | | |
| | ø6 | | | | | |
| | ø2 P | | | | | |
| | ø4 P | | | | | |
| | ø6 P | | | | | |
| | ø2 PPB | | | | | |
| | ø4 PPB | | | | | |
| | ø6 PPB | | | | | |
| | SPARES | | | | | |
| | TOTAL | | | | | |
| 2 #12 CABLE | ø1 DETECTORS | - | - | - | - | 1 |
| | ø2 DETECTORS | 2 | 2 | - | - | 2 |
| | ø4 DETECTORS | - | - | 2 | - | 4 |
| | ø5 DETECTORS | 2 | 2 | - | - | 2 |
| | ø6 DETECTORS | - | - | - | - | 3 |
| | TOTAL | 4 | 4 | 2 | - | 12 |
| 12 PR #19 | INTERCONNECT | - | - | - | - | - |
| #12 | SIGN LIGHTING | - | - | - | 2 | - |
| | INTERNALLY ILLUMINATED STREET NAME SIGN | - | 2 | 2 | 2 | - |
| | TOTAL | - | 2 | 2 | 4 | - |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 | 1 |
| #8 | LUMINAIRE | 2 | 2 | 2 | - | - |
| | SERVICE | - | - | - | - | 2 |
| | VIDEO DETECTOR CABLE | 1 | 2 | 1 | - | 3 |
| | CONDUIT SIZE (mm) | 78 | 78 | 78 | 78 | 2-78 |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| STANDARD No. | TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB ø | QUAD | ARROW | HPS LUMINAIRE (W) | STREET NAME SIGN | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26-4-113 | 12.2 | 3.7 | 2 - MAS | SV-1-T SV-2-TB | SP-1-T | - | - | - | 250 | SUNSET BLVD (IISNS) | - |
| B | 26-4-113 | 12.2 | 3.7 | 1 - MAS | SV-1-T SV-3-TB | SP-2-T | 4 | - | ← | 250 | SUNSET BLVD (IISNS) | - |
| C | 26-4-113 | 12.2 | 3.7 | 2 - MAS | SV-1-T | SP-1-T | 4 | - | → | 250 | - | - |
| D | 15 | - | 3.7 | - | SV-1-T | SP-1-T | 6 | - | → | 250 | - | - |
| E | SIGN POST | - | - | - | - | - | 6 | - | ↔ | - | - | - |
| F | 15 | - | 3.7 | - | SV-2-TB | SP-1-T | 6 | - | ← | 250 | - | - |
| G | 15 | - | 3.7 | - | - | - | - | - | - | 250 | - | - |
| H | 15 | - | 3.7 | - | - | - | - | - | - | 250 | - | - |
| I | PPB POST | - | - | - | - | - | 2 | - | → | - | - | - |
| J | PPB POST | - | - | - | - | - | 2 | - | ← | - | - | - |

IISNS = INTERNALLY ILLUMINATED STREET NAME SIGN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 94)
## (ROUTE 1/SUNSET BOULEVARD)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-220**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

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DGN FILE => 725730ua220.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 245 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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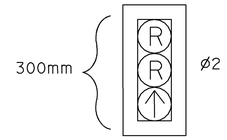
## PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8. ADD 12SMFO
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)



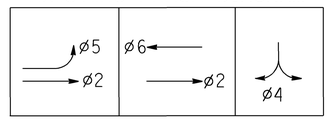

DETAIL "A"

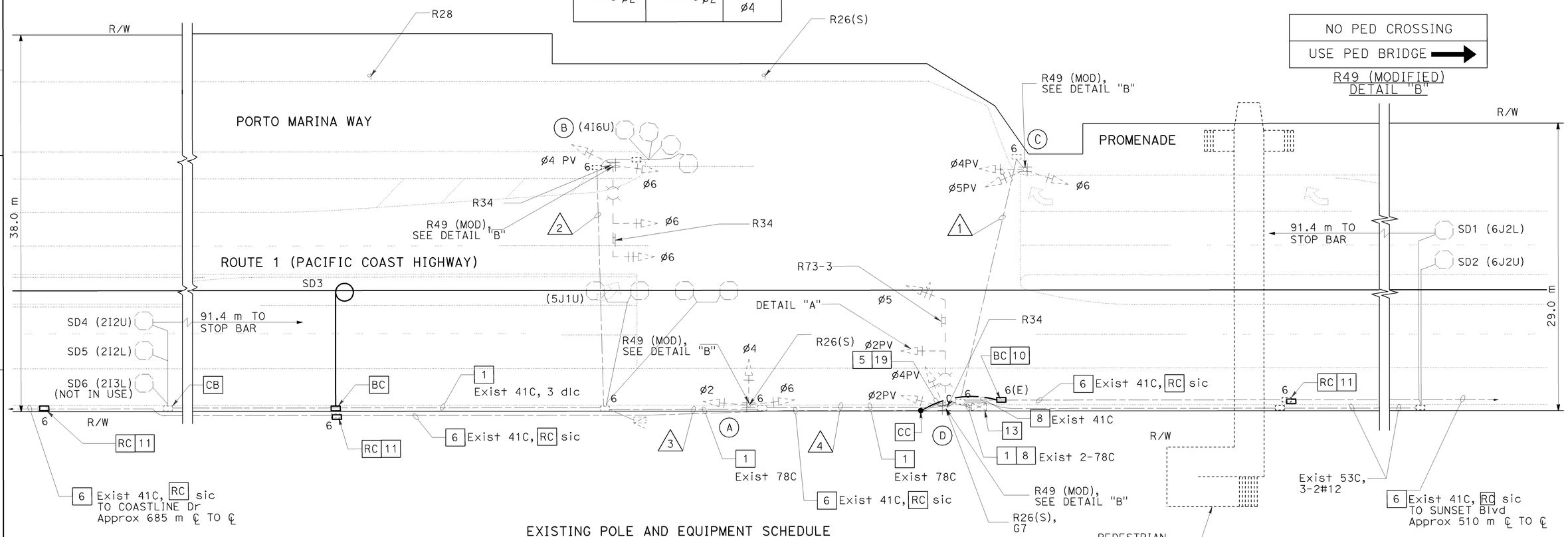
## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| #14 | ø2 | 2 | 2 | 2 | 2 |
| | ø4 | | | | |
| | ø5 | | | | |
| | ø6 | | | | |
| | SPARES | | | | |
| | TOTAL | | | | |
| #10 | SIGNAL COMMON | 1 | 1 | 1 | 1 |
| 2#12 TYPE A dlc | ø2 DETECTORS | - | - | 3 | 3 |
| | ø4 DETECTORS | - | 1 | 1 | 1 |
| | ø5 DETECTORS | - | - | 1 | 1 |
| | ø6 DETECTORS | - | - | - | - |
| | TOTAL | - | 1 | 5 | 5 |
| #10 | LUMINAIRE | - | 2 | 2 | 2 |
| #8 | SIGNAL SERVICE | - | - | 2 | 2 |
| ** | INTERCONNECT | - | - | - | - |
| | CONDUIT SIZE (m) | 78 | 78 | 78 | 78 |

** 12 PAIR #19 SHIELDED CABLE

## EXISTING PHASE DIAGRAM




## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB O | PPB ARROW | HPS LUMINAIRE W/O GLARE SHIELD (W) | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| (A) | 1-A | - | - | - | TV-3-T | - | - | - | - | - |
| (B) | 19 | 9.1 | 3.7 | MAT MAS | SV-2-TA | - | - | - | 200 | - |
| (C) | 1-A | - | - | - | TV-3-T | - | - | - | - | - |
| (D) | 24A | 10.7 | 4.6 | 2-MAS | SV-2-TB | - | - | - | 200 | - |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 95)**

**(ROUTE 1/PORTO MARINA WAY)**

SCALE 1:200

**E-221**

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| DATE | BY | REVISED | DATE REVISED |
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| 4/06 | MR | KM | 4/06 |

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LAST REVISION 00-00-00
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TIME PLOTTED => 16:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trkathy
DGN FILE => 725730ua221.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 246 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

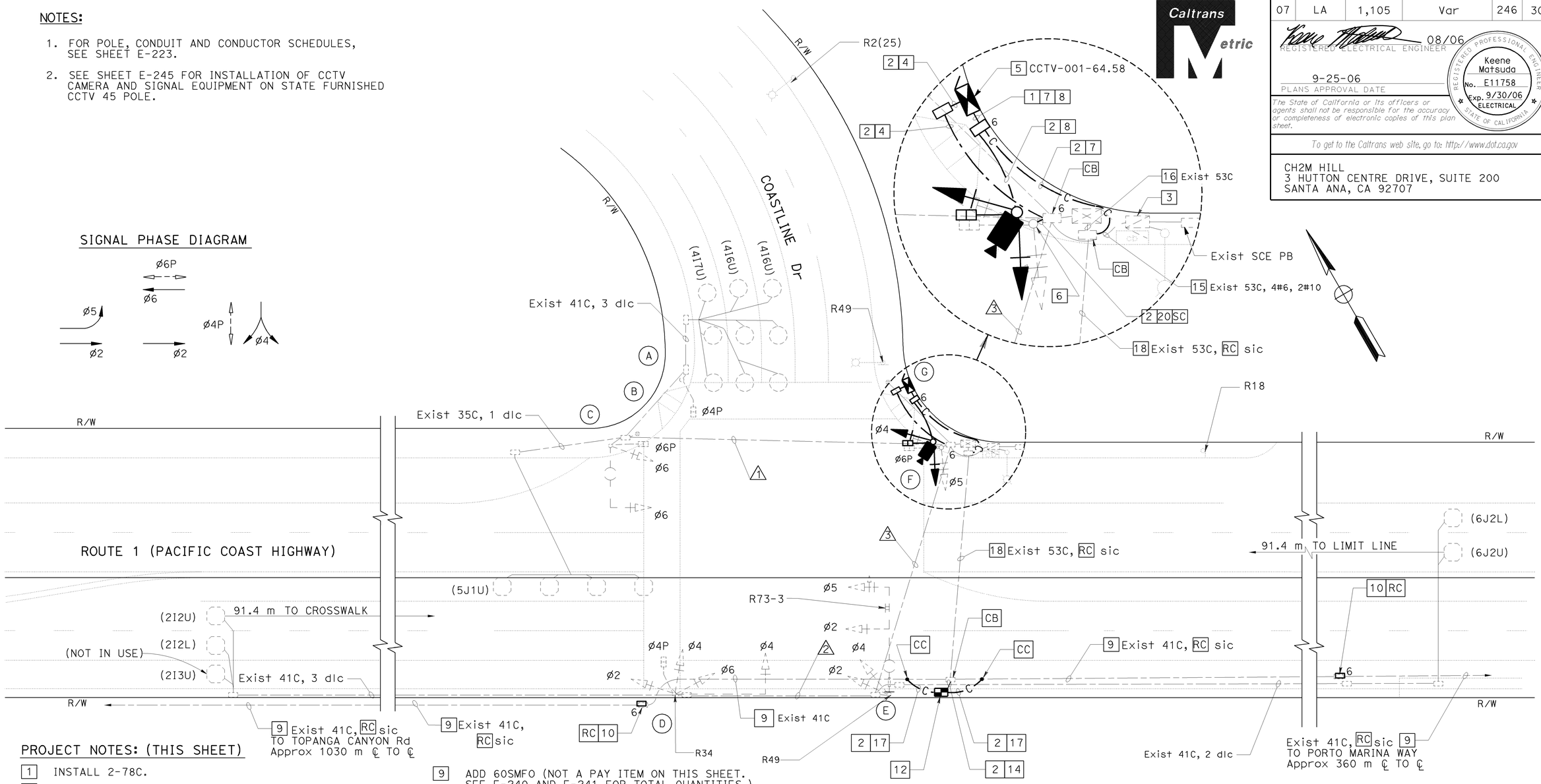
Caltrans Metric

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-223.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE FURNISHED CCTV 45 POLE.

SIGNAL PHASE DIAGRAM




PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
10. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
14. INSTALL 2-12SMFO.
15. ADD 3#8.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
18. ADD 2-12SMFO.
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (LOCATION 96)

## (ROUTE 1/ COASTLINE DRIVE)

SCALE 1:200

**E-222**

| | DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|---|
| | 4/06 | MR | 4/06 | KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 09:04

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua222.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 247 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

| DATE | REVISED BY |
|---|---|
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| 4/06 | DATE REVISED |
| | KM |

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## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 |
|---|---|---|---|---|
| #14 | Ø2 | - | 3 | 3 |
| | Ø4 | - | 3 | 3 |
| | Ø5 | - | - | 3 |
| | Ø6 | 3 | 3 | 3 |
| | Ø4P | 2 | 2 | 2 |
| | Ø6P | 2 | - | - |
| | Ø4PPB | 2 | 2 | 2 |
| | Ø6PPB | 2 | - | - |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 14 | 16 | 19 |
| #12 | SIGN LIGHTING | 2 | - | 2 |
| 2#12 dlc | Ø2 DETECTOR | - | 3 | 3 |
| | Ø4 DETECTOR | 3 | - | - |
| | Ø5 DETECTOR | 1 | - | - |
| | Ø6 DETECTOR | - | - | 2 |
| | TOTAL | 4 | 3 | 5 |
| ** | INTERCONNECT | - | - | - |
| #10 | LUMINAIRE | 2 | - | 2 |
| | SIGNAL COMMON | 1 | 1 | 1 |
| | TOTAL | 3 | 1 | 3 |
| #8 | SIGNAL SERVICE | - | - | - |
| CONDUIT SIZE (mm) | | 53 | 53 | 53 |

** 12 PAIR #19 SHIELDED CABLE

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | ARROW | HPS Lum | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| (F) | CCTV 45 | - | - | - | SV-2-TA | SP-1-T | - | - | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEG SIG MTG MA | POLE | PED SIG MTG | PPB Ø | ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| (A) | 1-A | - | - | - | - | TP-1-T | 6 | → | - | - |
| (B) | PPB POST | - | - | - | - | - | 4 | ← | - | - |
| (C) | 17 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | - | - | 200 | COASTLINE → (IISNS) |
| (D) | 16 | 6.1 | - | MAS | SV-3-TA | SP-1-T | 4 | ← | - | - |
| (E) | 24 | 10.7 | 3.7 | 2-MAS | SV-2-TA | - | - | - | 200 | COASTLINE (IISNS) |
| (F) | 1-A | - | - | - | TV-2-T | SP-1 | - | - | - | - |
| (G) | PPB POST | - | - | - | - | - | 6 | ← | - | - |

IISNS - INTERNALLY ILLUMINATED STREET NAME SIGN.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 96)**

**(ROUTE 1/COASTLINE DRIVE)**

NO SCALE

**E-223**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:06

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 248 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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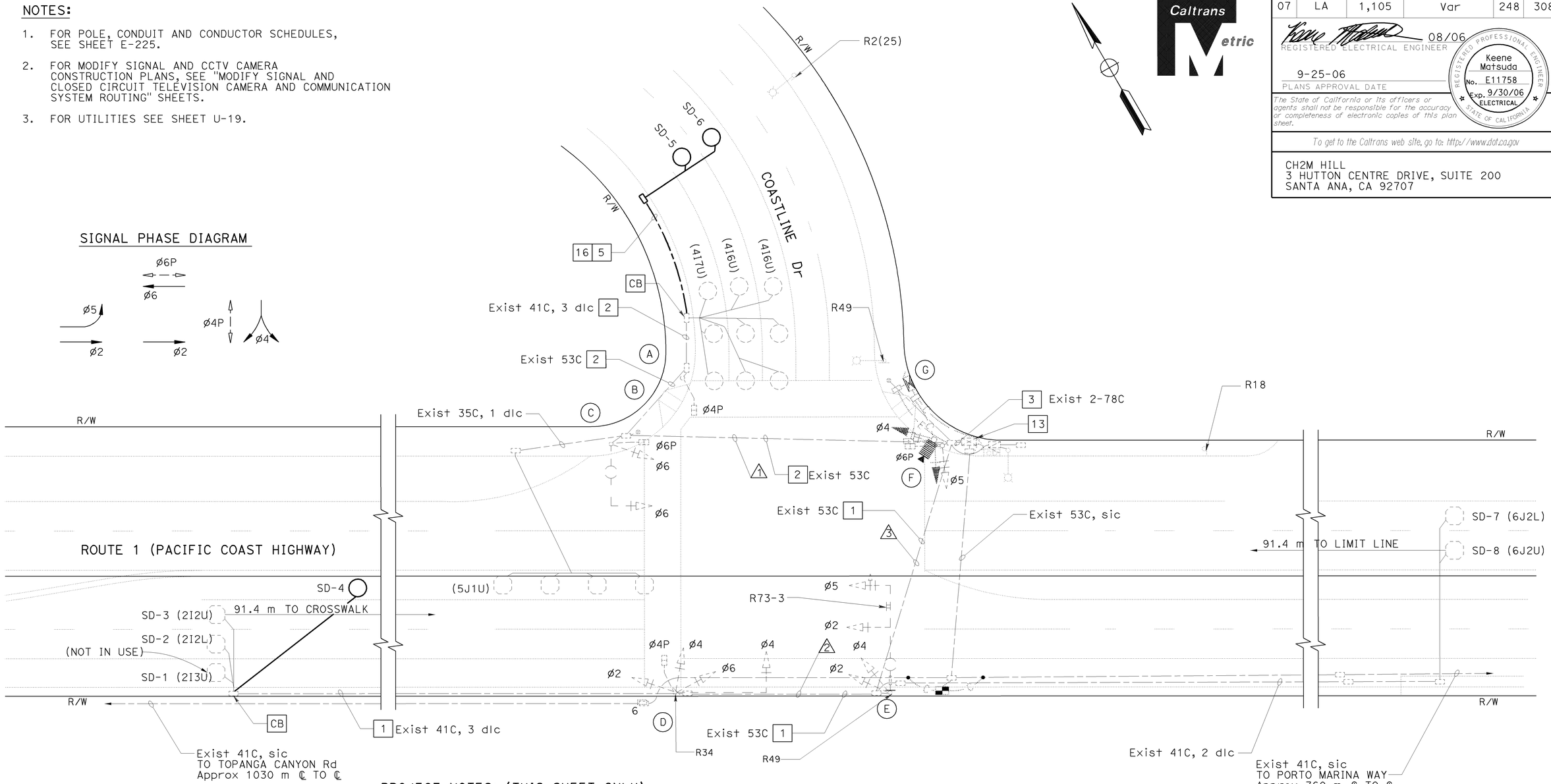
SANTA ANA, CA 92707

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-225.
2. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING" SHEETS.
3. FOR UTILITIES SEE SHEET U-19.

## SIGNAL PHASE DIAGRAM




## PROJECT NOTES: (THIS SHEET ONLY)

| | |
|---|---|
| 1 | ADD 1-DLC |
| 2 | ADD 2-DLC |
| 3 | ADD 3-DLC |
| 5 | INSTALL 53C |
| 13 | RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET. |
| 16 | INSTALL 2-DLC |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

**(LOCATION 96)**

**(ROUTE 1/COASTLINE DRIVE)**

SCALE 1:200

**E-224**

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

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DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:06

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua224.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 249 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 |
|---|---|---|---|---|
| #14 | Ø2 | - | 3 | 3 |
| | Ø4 | - | 3 | 3 |
| | Ø5 | - | - | 3 |
| | Ø6 | 3 | 3 | 3 |
| | Ø4P | 2 | 2 | 2 |
| | Ø6P | 2 | - | - |
| | Ø4PPB | 2 | 2 | 2 |
| | Ø6PPB | 2 | - | - |
| | SPARES | 3 | 3 | 3 |
| | TOTAL | 14 | 16 | 19 |
| #12 | SIGN LIGHTING | 2 | - | 2 |
| dlc | Ø2 DETECTOR | - | 3 | 3 |
| | Ø4 DETECTOR | 3 | - | - |
| | Ø5 DETECTOR | 1 | - | - |
| | Ø6 DETECTOR | - | - | 2 |
| | TOTAL | 4 | 3 | 5 |
| ** | INTERCONNECT | - | - | - |
| #10 | LUMINAIRE | 2 | - | 2 |
| | SIGNAL COMMON | 1 | 1 | 1 |
| | TOTAL | 3 | 1 | 3 |
| #8 | SIGNAL SERVICE | - | - | - |
| CONDUIT SIZE (mm) | | 53 | 53 | 53 |

** 12 PAIR #19 SHIELDED CABLE

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEG SIG MTG MA | POLE | PED SIG MTG | PPB Ø | ARROW | HPS LUMINAIRE (W) | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| Ⓐ | A-1 | - | - | - | - | TP-1-T | 6 | → | - | - |
| Ⓑ | PPB POST | - | - | - | - | - | 4 | ← | - | - |
| Ⓒ | 17 | 6.1 | 3.7 | MAS | SV-1-T | SP-1-T | - | - | 200 | COASTLINE → (IISNS) |
| Ⓓ | 16 | 6.1 | - | MAS | SV-3-TA | SP-1-T | 4 | ← | - | - |
| Ⓔ | 24 | 10.7 | 3.7 | 2-MAS | SV-2-TA | - | - | - | 200 | COASTLINE (IISNS) |
| Ⓕ | A-1 | - | - | - | TV-2-T | SP-1 | - | - | - | - |
| Ⓖ | PPB POST | - | - | - | - | - | 6 | ← | - | - |

IISNS - INTERNALLY ILLUMINATED STREET NAME SIGN.

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 96)
## (ROUTE 1/COASTLINE DRIVE)
NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-225**

| DATE | REVISED BY |
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| 4/06 | KM |

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LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:02

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => trmnguye
DGN FILE => 725730ua225.dgn
CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 250 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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SANTA ANA, CA 92707

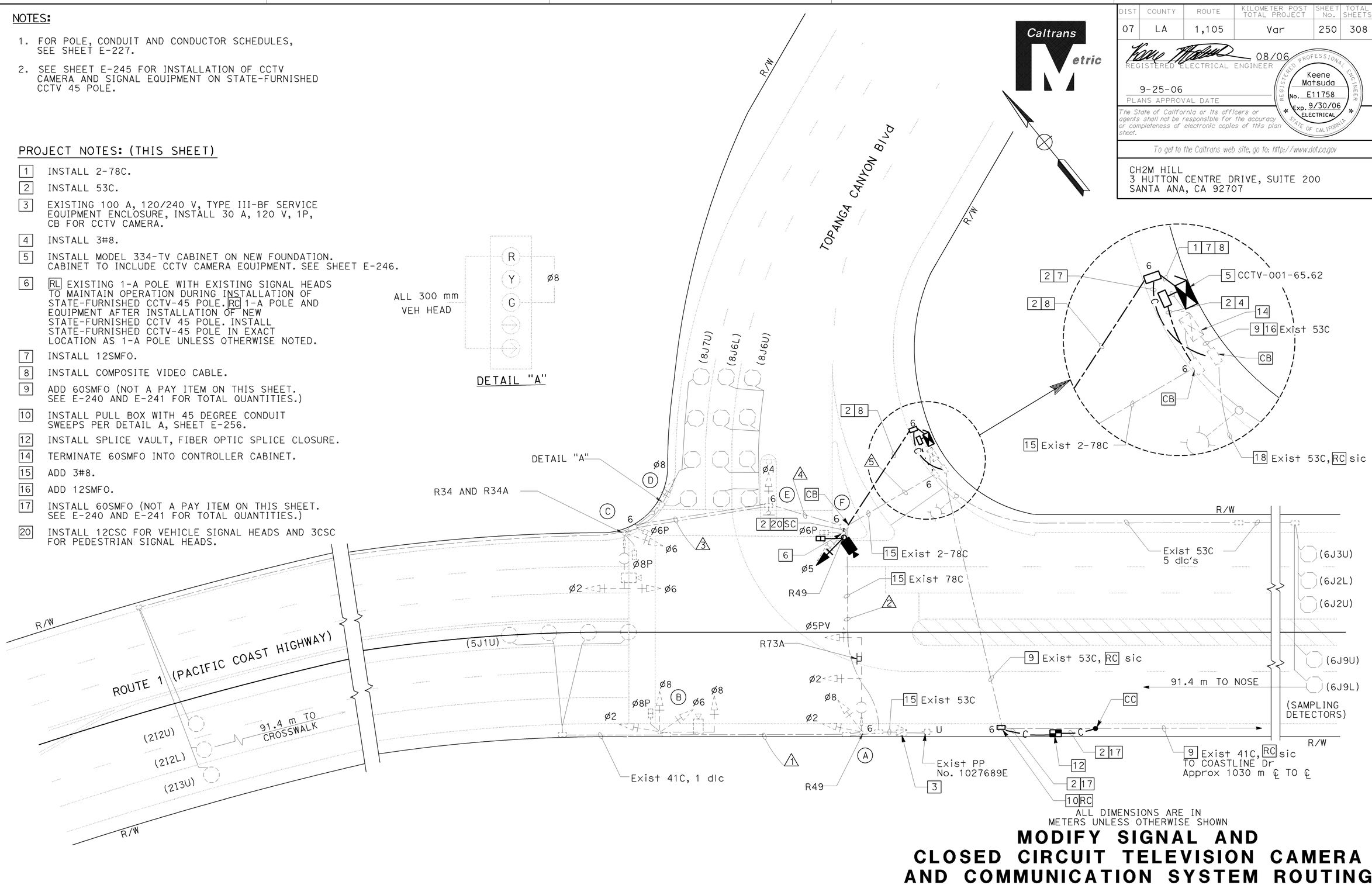
Caltrans Metric

## NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-227.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.

## PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-246.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
14. TERMINATE 60SMFO INTO CONTROLLER CABINET.
15. ADD 3#8.
16. ADD 12SMFO.
17. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 97)**

**(ROUTE 1/ TOPANGA CANYON BOULEVARD)**

SCALE 1:200

**E-226**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE 4/06 | MR | CALCULATED/ DESIGNED BY |
|---|---|---|
| REVISED BY | KM | CHECKED BY |
| DATE REVISED | 4/06 | |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:03

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua226.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 251 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø2 | 2 | 2 | 2 | 2 | 4 |
| | Ø6 | | | | | |
| | Ø8 | | | | | |
| | SPECIAL GREEN ARROW & YELLOW ARROW | | | | | |
| | Ø5 | | | | | |
| | Ø6 P | | | | | |
| | Ø8 P | | | | | |
| | Ø6 PPB | | | | | |
| | Ø8 PPB | | | | | |
| | SPARES | | | | | |
| | SIGNAL COMMON | - | - | - | - | - |
| dlc | Ø2 DETECTORS | - | - | 3 | 3 | 3 |
| | Ø6 | - | - | - | - | - |
| | Ø8 | - | - | 1 | 3 | 3 |
| | Ø5 | 1 | 1 | - | - | 1 |
| | EB SAMPLING DETECTORS | - | - | - | - | - |
| | TOTAL | - | - | 4 | 6 | 7 |
| ** | INTERCONNECT | - | - | - | - | - |
| | LUMINAIRES | - | 2 | 2 | 2 | 2 |
| | ILLUMINATED SIGN | - | - | 2 | 2 | - |
| #8 | SERVICE | - | 2 | - | - | 2 |
| | VIDEO DETECTOR CABLE | 1 | 1 | 1 | 1 | 2 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 |

## NEW POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM (m) | POLE | PED SIG MTG | PPB Ø | PPB ARROW | HPS LUM | SPECIAL REQUIREMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| (F) | CCTV 45 | - | - | - | SV-1-TA | SP-1-T | 6 | → | - | - |

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB Ø | PPB ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| (A) | 24 | 10.7 | 3.7 | 2-MAS | SV-2-TA | - | - | - | 200 | TOPANGA Cyn Blvd (REFL) |
| (B) | 16 | 6.1 | - | MAS | SV-3-TA | SP-1-T | 8 | ← | - | - |
| (C) | 17-2-129 | 6.1 | 3.7 | * | SV-1-T | SP-2-T | 8 | ← | 200 | TOPANGA Cyn Blvd (REFL) |
| (D) | SIGN POST | - | - | - | SV-1-T | - | 6 | → | - | - |
| (E) | SIGN POST | - | - | - | SV-1-T | - | 6 | ← | - | - |
| (F) | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| (G) | 15 | - | 3.7 | - | - | - | - | - | 200 | - |

REFL = REFLECTIVE STREET NAME SIGN
* = Exist SPECIAL MOUNTING

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

**(LOCATION 97)**

**(ROUTE 1/TOPANGA CANYON BOULEVARD)**

NO SCALE

**E-227**

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:03

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua227.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 252 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707


Caltrans Metric

## NOTES:

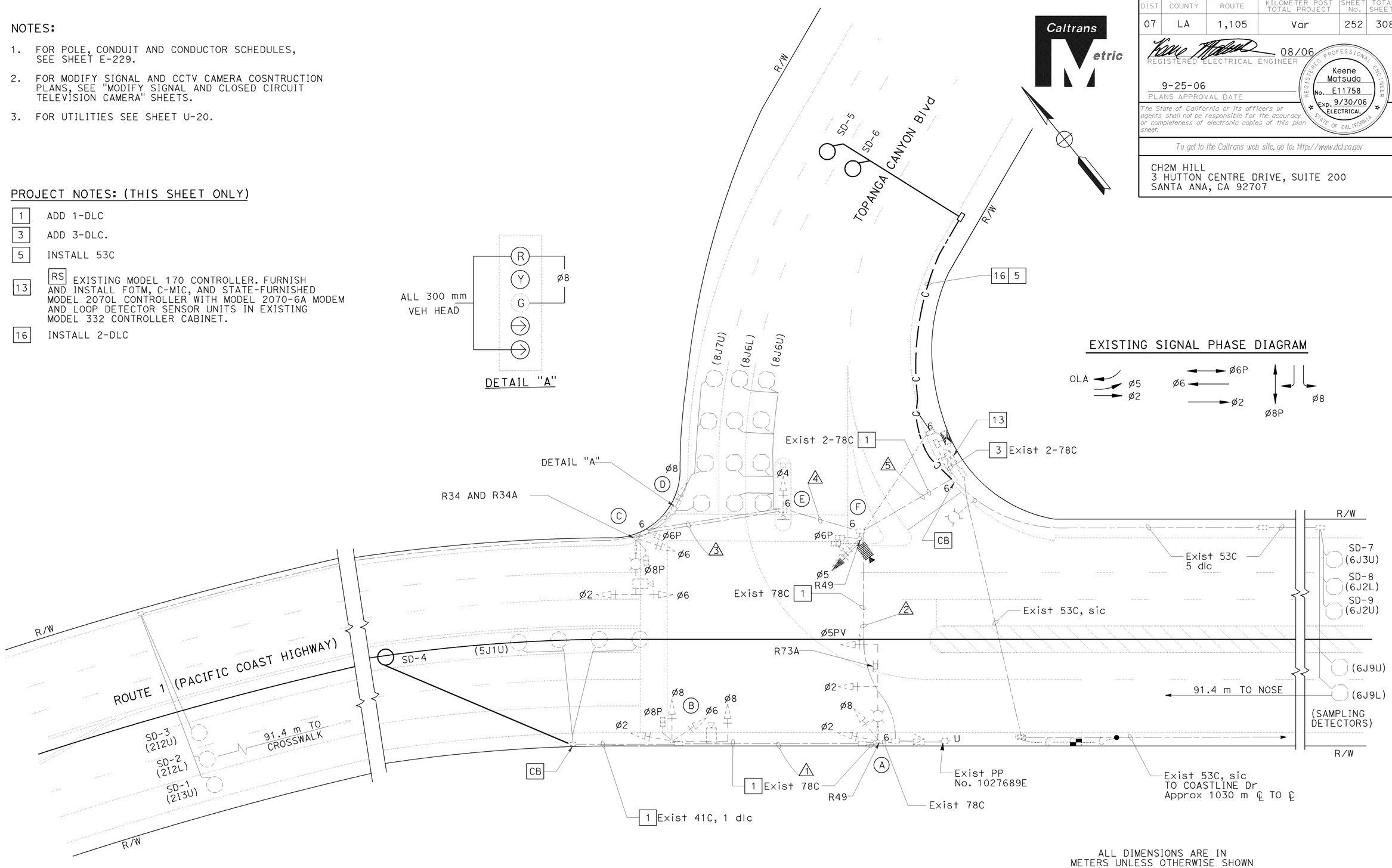
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-229.
2. FOR MODIFY SIGNAL AND CCTV CAMERA COSNTRUCTION PLANS, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA" SHEETS.
3. FOR UTILITIES SEE SHEET U-20.

## PROJECT NOTES: (THIS SHEET ONLY)

- [1] ADD 1-DLC
- [3] ADD 3-DLC.
- [5] INSTALL 53C
- [13] [RS] EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- [16] INSTALL 2-DLC




DETAIL "A"




## EXISTING SIGNAL PHASE DIAGRAM




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# ADAPTIVE TRAFFIC CONTROL SIGNAL

**(LOCATION 97)**

**(ROUTE 1/TOPANGA CANYON BOULEVARD)**

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-228**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY — CHECKED BY

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 16:03

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmnguye
DGN FILE => 725730ua228.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 253 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## EXISTING CONDUIT AND CONDUCTOR SCHEDULE

| AWG OR CABLE | CONDUCTOR RUN | CONDUIT RUN 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 28 CONDUCTOR CABLE | Ø2 | 2 | 2 | 2 | 2 | 4 |
| | Ø6 | | | | | |
| | Ø8 | | | | | |
| | SPECIAL GREEN ARROW & YELLOW ARROW | | | | | |
| | Ø5 | | | | | |
| | Ø6 P | | | | | |
| | Ø8 P | | | | | |
| | Ø6 PPB | | | | | |
| | Ø8 PPB | | | | | |
| | SPARES | | | | | |
| | SIGNAL COMMON | - | - | - | - | - |
| dlc | Ø2 DETECTORS | - | - | 3 | 3 | 3 |
| | Ø6 | - | - | - | - | - |
| | Ø8 | - | - | 1 | 3 | 3 |
| | Ø5 | 1 | 1 | - | - | 1 |
| | E/B SAMPLING DETECTORS | - | - | - | - | - |
| | TOTAL | - | - | 4 | 6 | 7 |
| ** | INTERCONNECT | - | - | - | - | - |
| | LUMINAIRES | - | 2 | 2 | 2 | 2 |
| | ILLUMINATED SIGN | - | - | 2 | 2 | - |
| #8 | SERVICE | - | 2 | - | - | 2 |
| | VIDEO DETECTOR CABLE | 1 | 1 | 1 | 1 | 2 |
| CONDUIT SIZE (mm) | | 78 | 78 | 78 | 78 | 2-78 |

** -12 PAIR #19 SHIELDED CABLE

## EXISTING POLE AND EQUIPMENT SCHEDULE

| No. | STANDARD TYPE | SMA (m) | LMA (m) | VEH SIG MTG MAST ARM | POLE | PED SIGNAL MTG | PPB ø | PPB ARROW | HPS LUMINAIRE (W) | STREET NAME SIGNS |
|---|---|---|---|---|---|---|---|---|---|---|
| Ⓐ | 24 | 10.7 | 3.7 | 2-MAS | SV-2-TA | - | - | - | 200 | TOPANGA Cyn Blvd (REFL) |
| Ⓑ | 16 | 6.1 | - | MAS | SV-3-TA | SP-1-T | 8 | ← | - | - |
| Ⓒ | 17-2-129 | 6.1 | 3.7 | * | SV-1-T | SP-2-T | 8 | ← | 200 | TOPANGA Cyn Blvd (REFL) |
| Ⓓ | SIGN POST | - | - | - | SV-1-T | - | 6 | → | - | - |
| Ⓔ | SIGN POST | - | - | - | SV-1-T | - | 6 | ← | - | - |
| Ⓕ | 1-A | - | - | - | TV-1-T | SP-1-T | 6 | → | - | - |
| Ⓖ | 15 | - | 3.7 | - | - | - | - | - | 200 | - |

REFL = REFLECTIVE STREET NAME SIGN
* = Exist SPECIAL MOUNTING

# ADAPTIVE TRAFFIC CONTROL SIGNAL
## (LOCATION 97)
## (ROUTE 1/ TOPANGA CANYON BOULEVARD)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-229**

| DATE 4/06 | REVISED BY | MR |
|---|---|---|
| 4/06 | DATE REVISED | KM |

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DATE PLOTTED => 27-SEP-2006
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USERNAME => trmnguye
DGN FILE => 725730ua229.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 254 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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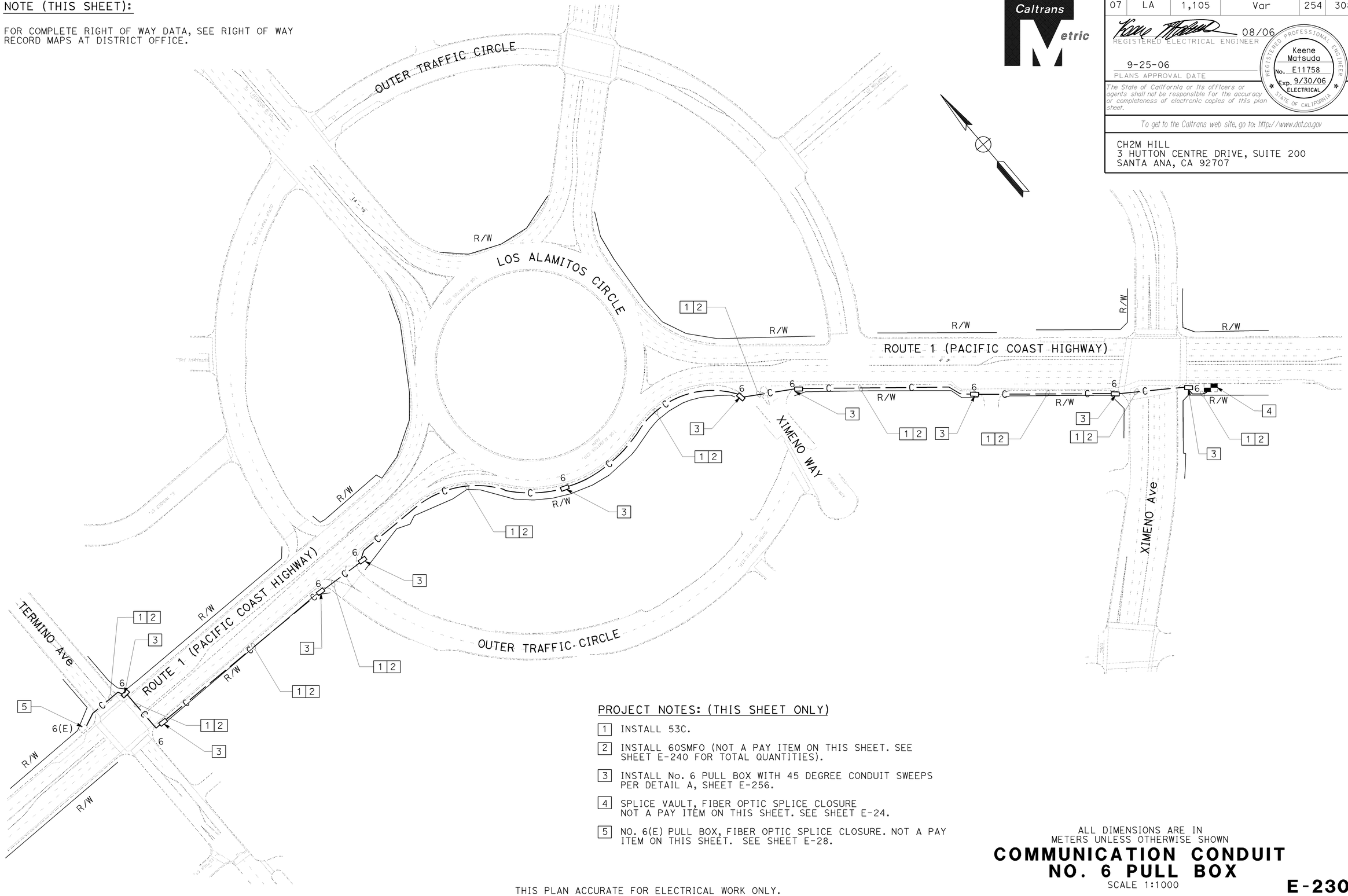
Caltrans Metric

NOTE (THIS SHEET):

FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.




PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-240 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
4. SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-24.
5. NO. 6(E) PULL BOX, FIBER OPTIC SPLICE CLOSURE. NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-28.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# COMMUNICATION CONDUIT NO. 6 PULL BOX

SCALE 1:1000

E-230

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
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| 4/06 | KM |

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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 725730ua230.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 255 | 308 |

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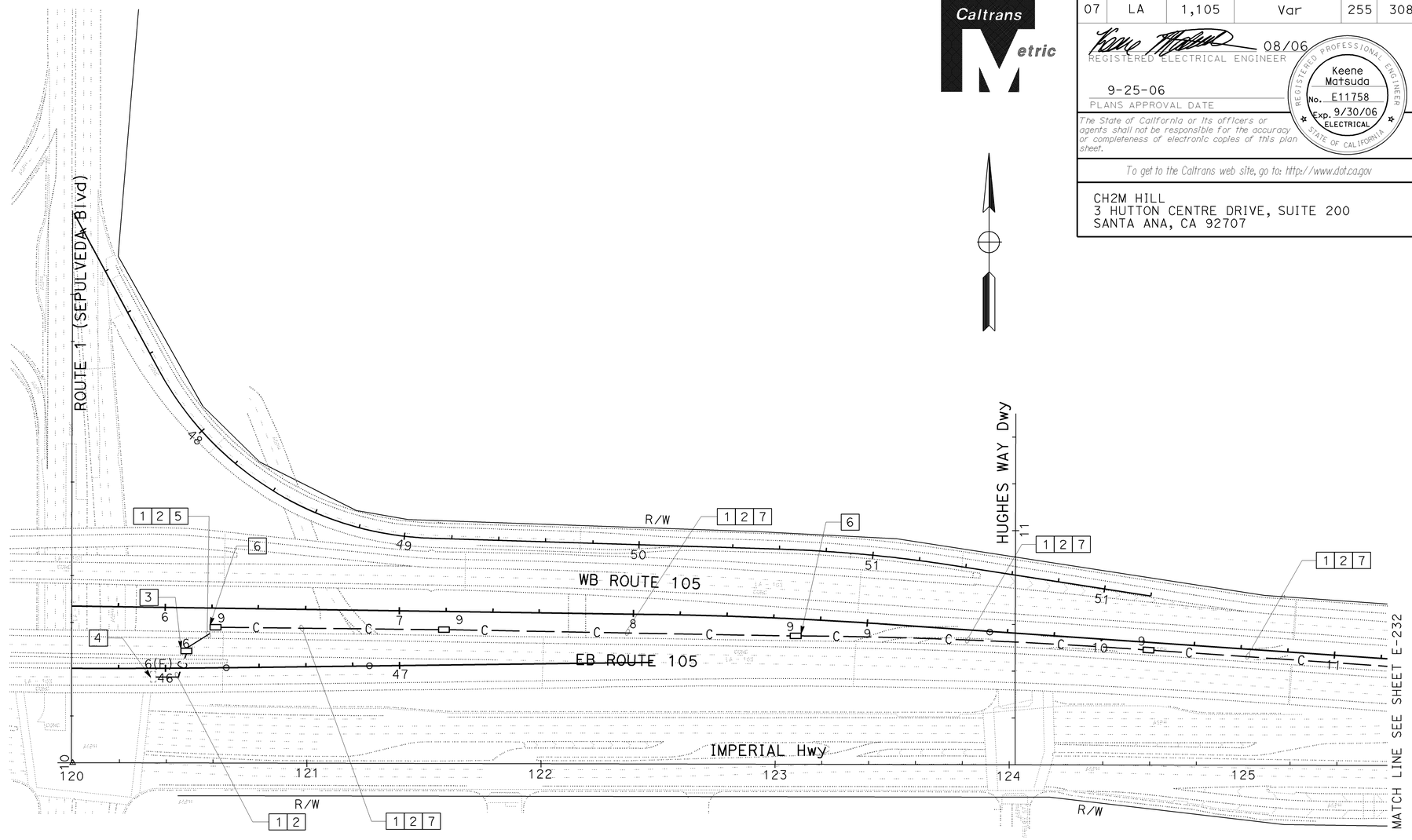


PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
4. NO. 6(E) PULL BOX, FIBER OPTIC SPLICE CLOSURE. NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-200.
5. ATTACH CONDUIT UP ROUTE 105 VIADUCT SUPPORT COLUMN AND UNDER ROUTE 105 DECK WITH CONDUIT CLAMP AT 1.5 m MAXIMUM INTERVALS ON CENTER. (SEE DETAIL SHEETS E-259 & E-260).
6. INSTALL No. 9 STRUCTURE PULL BOX WITH 53C KNOCKOUTS PER STANDARD PLAN ES-9E.
7. ATTACH CONDUIT TO OUTER EDGE OF ROUTE 105 BRIDGE RAIL WITH CONDUIT STRAPS AT 1.5 m MAXIMUM INTERVALS ON CENTER. (SEE DETAIL SHEETS E-259 & E-260).

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# COMMUNICATION CONDUIT (BRIDGE) NO. 9 PULL BOX

SCALE 1:1000

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-231**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

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DGN FILE => 725730ua231.dgn

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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
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| 07 | LA | 1,105 | Var | 256 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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NOTE:

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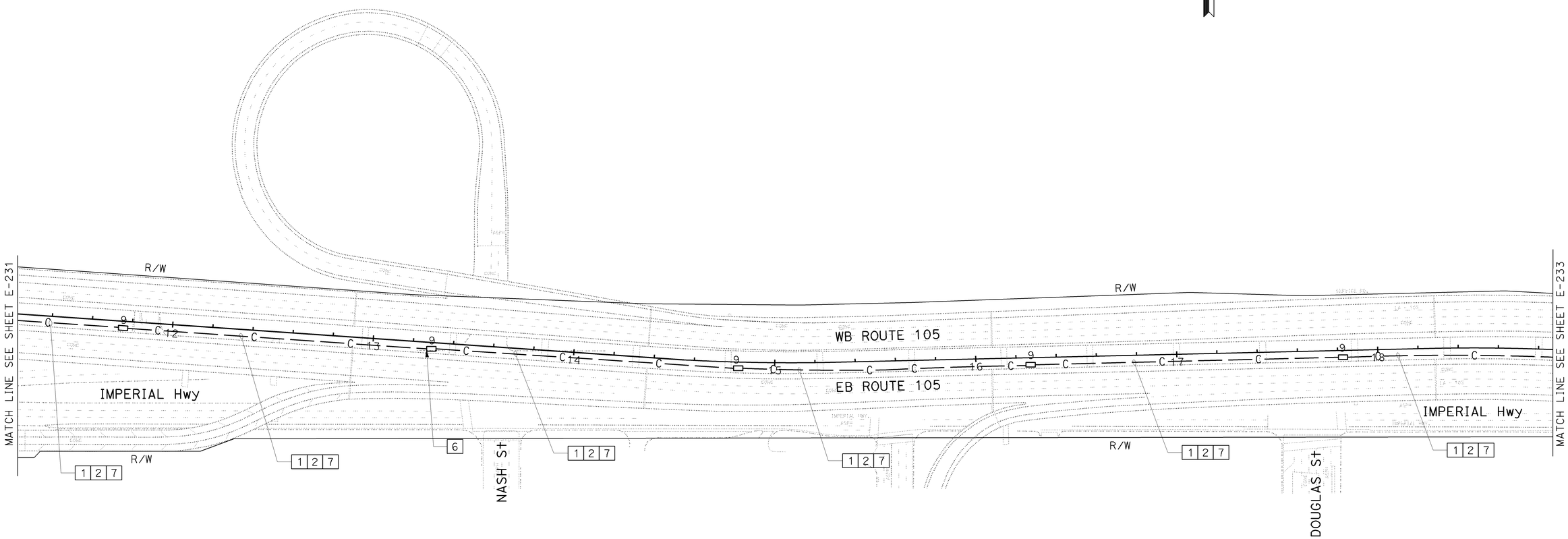


PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
6. INSTALL No. 9 STRUCTURE PULL BOX WITH 53C KNOCKOUTS PER STANDARD PLAN ES-9E.
7. ATTACH CONDUIT TO OUTER EDGE OF ROUTE 105 BRIDGE RAIL WITH CONDUIT STRAPS AT 1.5 m MAXIMUM INTERVALS ON CENTER. (SEE DETAIL SHEETS E-259 & E-260).

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# COMMUNICATION CONDUIT (BRIDGE) NO. 9 PULL BOX

SCALE 1:1000

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-232**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | | |
| CALCULATED/DESIGNED BY | MR | DATE 4/06 | REVISED BY |
| CHECKED BY | KM | 4/06 | DATE REVISED |

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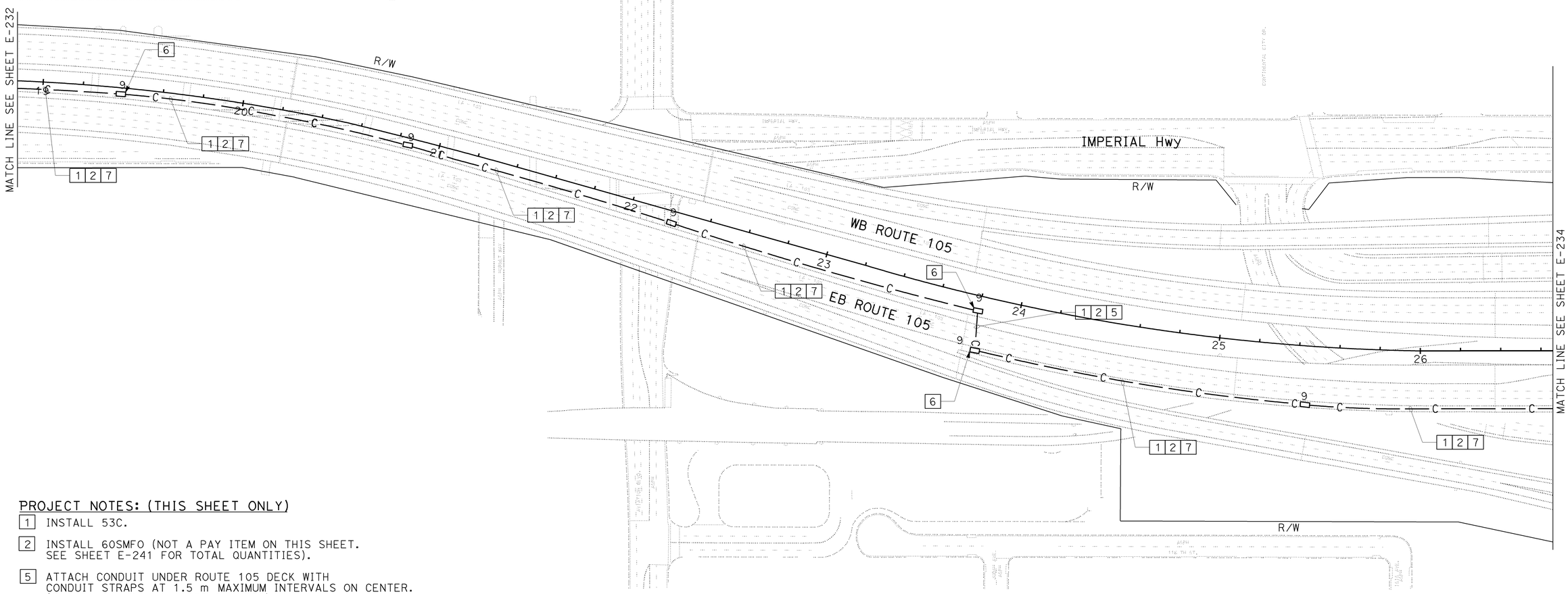


PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
5. ATTACH CONDUIT UNDER ROUTE 105 DECK WITH CONDUIT STRAPS AT 1.5 m MAXIMUM INTERVALS ON CENTER. (SEE DETAIL SHEET E-259 & E-260).
6. INSTALL No. 9 STRUCTURE PULL BOX WITH 53C KNOCKOUTS PER STANDARD PLAN ES-9E.
7. ATTACH CONDUIT TO OUTER EDGE OF ROUTE 105 BRIDGE RAIL WITH CONDUIT STRAPS AT 1.5 m MAXIMUM INTERVALS ON CENTER. (SEE DETAIL SHEET E-259 & E-260).

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# COMMUNICATION CONDUIT (BRIDGE) NO. 9 PULL BOX

SCALE 1:1000

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-233**

| DATE | REVISED BY | DATE | REVISED |
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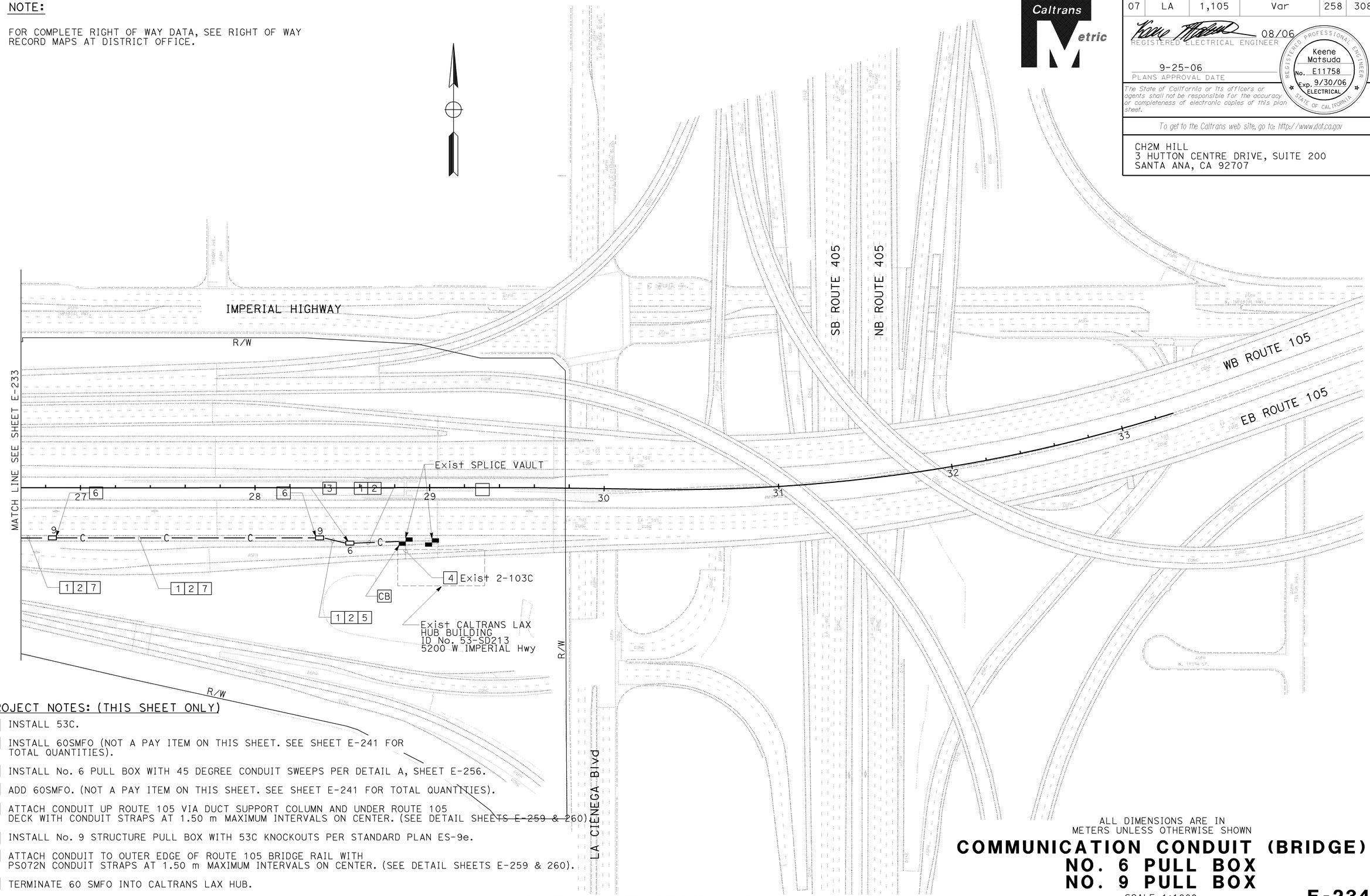


PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
4. ADD 60SMFO. (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
5. ATTACH CONDUIT UP ROUTE 105 VIA DUCT SUPPORT COLUMN AND UNDER ROUTE 105 DECK WITH CONDUIT STRAPS AT 1.50 m MAXIMUM INTERVALS ON CENTER. (SEE DETAIL SHEETS E-259 & 260)
6. INSTALL No. 9 STRUCTURE PULL BOX WITH 53C KNOCKOUTS PER STANDARD PLAN ES-9e.
7. ATTACH CONDUIT TO OUTER EDGE OF ROUTE 105 BRIDGE RAIL WITH PS072N CONDUIT STRAPS AT 1.50 m MAXIMUM INTERVALS ON CENTER. (SEE DETAIL SHEETS E-259 & 260).
8. TERMINATE 60 SMFO INTO CALTRANS LAX HUB.

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# COMMUNICATION CONDUIT (BRIDGE)
# NO. 6 PULL BOX
# NO. 9 PULL BOX

SCALE 1:1000

**E-234**

| | DATE | REVISED BY | DATE | REVISED |
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DGN FILE => 725730ua234.dgn

CU 07382

EA 257301

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08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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## NOTE:

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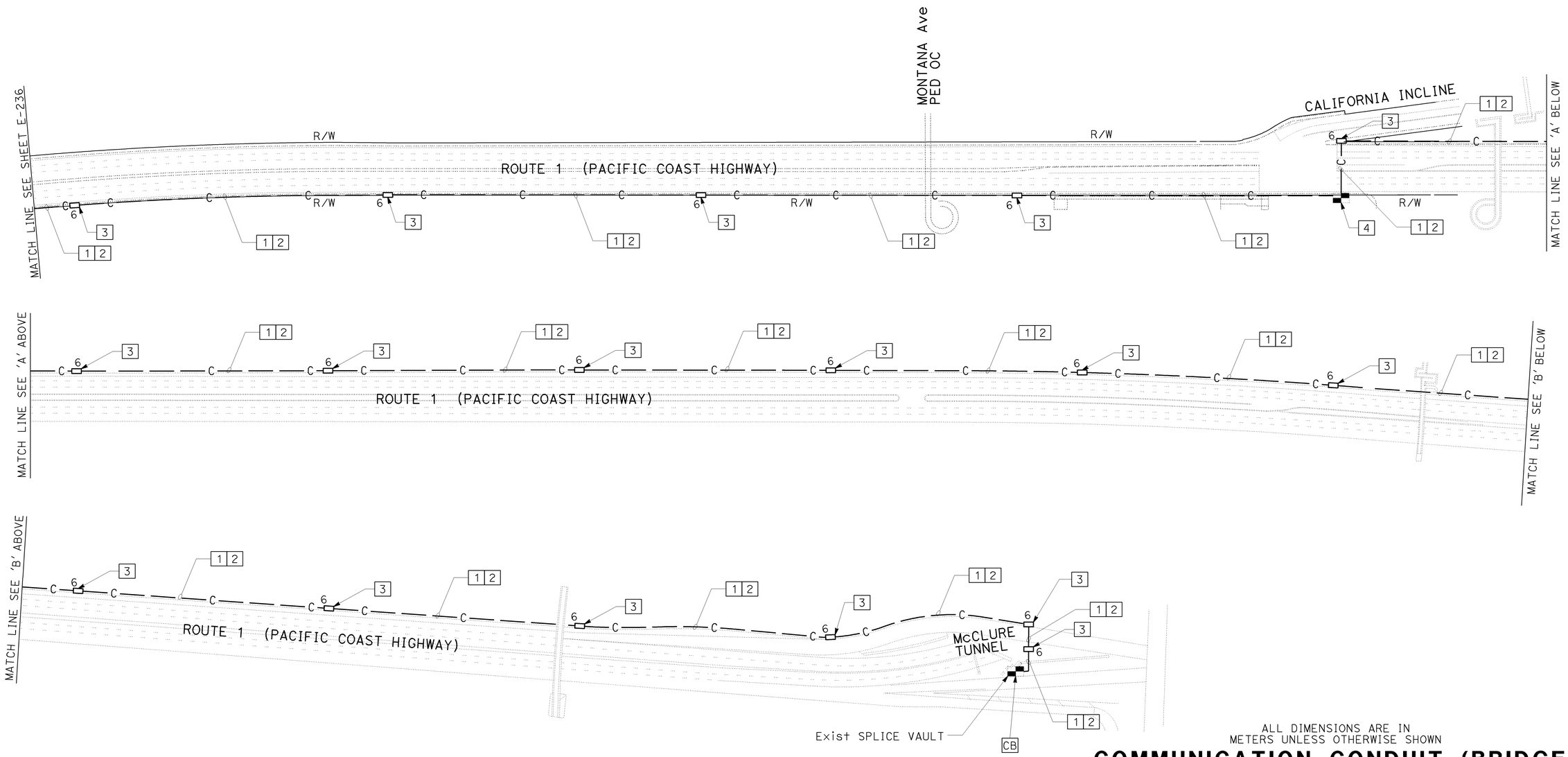
## PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
4. SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-203).

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# COMMUNICATION CONDUIT (BRIDGE) NO. 6 PULL BOX

SCALE 1:1000

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**E-235**

| DATE | REVISED BY | DATE REVISED |
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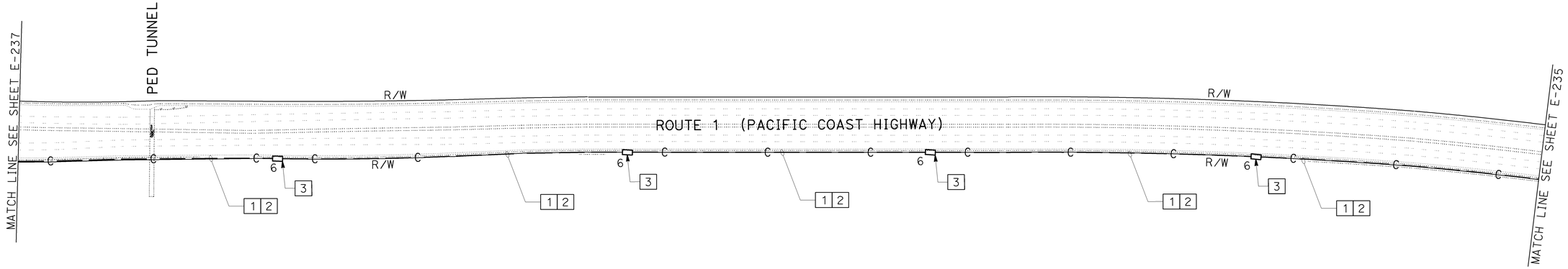
1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

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# COMMUNICATION CONDUIT NO. 6 PULL BOX

SCALE 1:1000

**E-236**

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DGN FILE => 725730ua236.dgn

CU 07382

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## PROJECT NOTES: (THIS SHEET ONLY)

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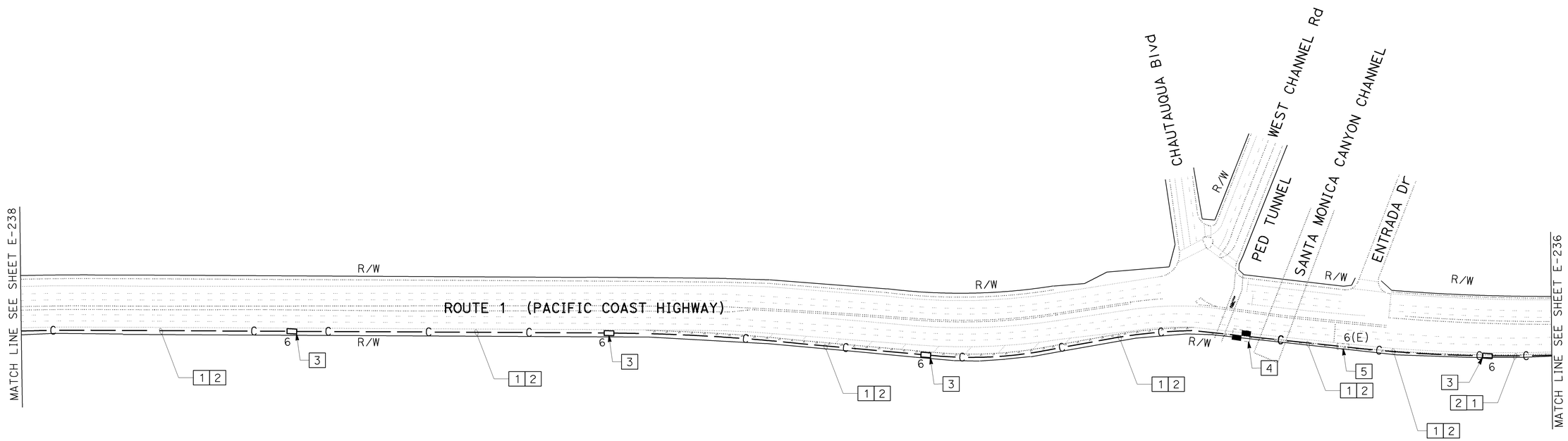
2. INSTALL 60SMFO (NOT A PAY ITEM IN THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
4. SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-208).
5. NO. 6(E) PULL BOX, (NOT A PAY ITEM ON THIS SHEET. SEE E-207).




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# COMMUNICATION SYSTEM ROUTING

## (COMMUNICATION CONDUIT)

## (KP R56.7/R61.5)

SCALE 1:1000

**E-237**

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SANTA ANA, CA 92707

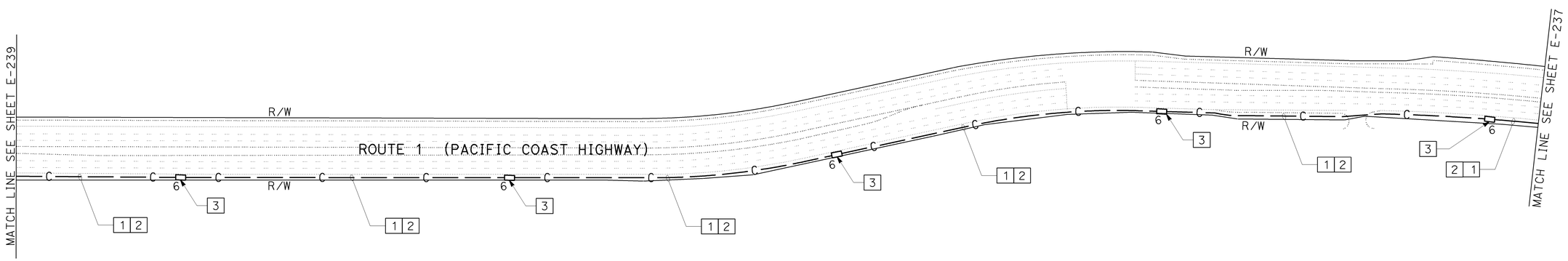

Caltrans Metric

## NOTE:

FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

## PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# COMMUNICATION CONDUIT NO. 6 PULL BOX

SCALE 1:1000

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-238**

| | | |
|---|---|---|
| CALCULATED/ DESIGNED BY | MR | DATE 4/06 REVISED BY |
| CHECKED BY | KM | 4/06 DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:14

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua238.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 263 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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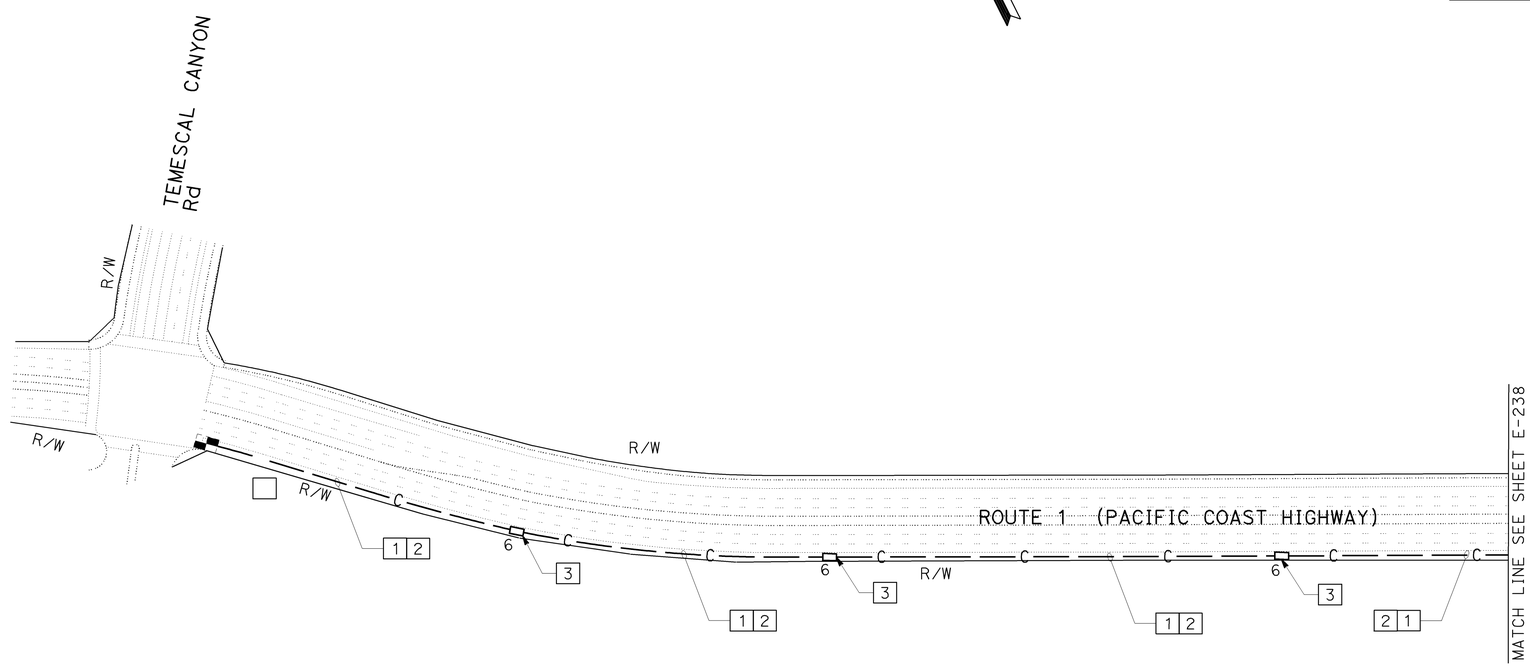
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


NOTE:

FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

1. INSTALL 53C.
2. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
4. SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE (NOT A PAY ITEM ON THIS SHEET. SEE E-212).




ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# COMMUNICATION CONDUIT NO. 6 PULL BOX

SCALE 1:1000

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-239**

| | |
|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY |
| CALCULATED/DESIGNED BY | MR |
| CHECKED BY | KM |
| DATE REVISED | 4/06 |
| DATE REVISED | 4/06 |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
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CU 07382

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 264 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

TABLE 1
REPLACE PULL BOX AND 60 SINGLE MODE FIBER OPTIC CABLE
(QUANTITIES)

| FROM | KP | TO | KP | REPLACE * PULL BOX | 60SMFO** (m) |
|---|---|---|---|---|---|
| STUDEBAKER Rd | 0.3 | 2ND St - WESTMINSTER Ave | 0.9 | 9 | 680 |
| 2ND St - WESTMINSTER Ave | 0.9 | MARINA PACIFICA MALL | 1.3 | 6 | 449 |
| MARINA PACIFICA MALL | 1.3 | LOYNES Dr | 2.1 | 12 | 809 |
| LOYNES Dr | 2.1 | CHANNEL Dr | 2.7 | 10 | 732 |
| CHANNEL Dr | 2.7 | BELLFLOWER Blvd | 3.0 | 3 | 240 |
| BELLFLOWER Blvd | 3.0 | 7TH St | 3.2 | 3 | 152 |
| 7TH St | 3.2 | ANAHEIM St | 4.4 | 28 | 1288 |
| ANAHEIM St | 4.4 | CLARK Ave | 4.6 | 3 | 250 |
| CLARK Ave | 4.6 | XIMENO Ave | 5.3 | 16 | 689 |
| XIMENO Ave | 5.3 | TERMINO Ave | 6.1 | 10 | 825 |
| TERMINO Ave | 6.1 | REDONDO Ave | 6.6 | 8 | 520 |
| REDONDO Ave | 6.6 | OBISPO Ave | 6.8 | 3 | 364 |
| OBISPO Ave | 6.8 | TEMPLE Ave | 7.2 | 8 | 467 |
| TEMPLE Ave | 7.2 | JUNIPERO Ave | 7.6 | 8 | 411 |
| JUNIPERO Ave | 7.6 | CHERRY Ave | 8.0 | 6 | 508 |
| CHERRY Ave | 8.0 | WALNUT Ave | 8.5 | 10 | 499 |
| WALNUT Ave | 8.5 | ORANGE Ave | 8.8 | 8 | 428 |
| ORANGE Ave | 8.8 | MARTIN LUTHER KING JR Ave | 9.3 | 6 | 481 |
| MARTIN LUTHER KING JR Ave | 9.3 | ATLANTIC Ave | 9.7 | 7 | 420 |
| ATLANTIC Ave | 9.7 | LONG BEACH Blvd | 10.1 | 5 | 487 |
| LONG BEACH Blvd | 10.1 | PINE Ave | 10.4 | 5 | 387 |
| PINE Ave | 10.4 | PACIFIC Ave | 10.5 | 1 | 173 |
| PACIFIC Ave | 10.5 | CEDAR Ave | 10.6 | 1 | 174 |
| CEDAR Ave | 10.6 | MAGNOLIA Ave | 10.9 | 1 | 303 |
| MAGNOLIA Ave | 10.9 | GOLDEN Ave | 11.3 | 4 | 461 |
| GOLDEN Ave | 11.3 | HARBOR Ave | 12.1 | 7 | 833 |
| HARBOR Ave | 12.1 | SANTA FE Ave | 12.5 | 15 | 468 |
| SANTA FE Ave | 12.5 | JUDSON Ave -TECHNOLOGY PLACE | 13.4 | 10 | 608 |
| JUDSON Ave -TECHNOLOGY PLACE | 13.4 | WESTERN Ave | 21.1 | 9 | 510 |
| WESTERN Ave | 21.1 | WALNUT St | 21.5 | 6 | 377 |
| WALNUT St | 21.5 | ESHELMAN Ave | 21.7 | 0 | 259 |
| ESHELMAN Ave | 21.7 | OAK St | 22.0 | 2 | 290 |
| OAK St | 22.0 | NARBONNE Ave | 22.2 | 3 | 317 |
| NARBONNE Ave | 22.2 | CYPRESS St | 22.5 | 2 | 284 |
| CYPRESS St | 22.5 | PENNSYLVANIA Ave | 22.7 | 2 | 288 |
| PENNSYLVANIA AVE | 22.7 | AIRPORT Dr - TRAILER PARK | 23.0 | 2 | 431 |
| AIRPORT Dr - TRAILER PARK | 23.0 | CRENSHAW Blvd | 23.8 | 4 | 478 |
| CRENSHAW Blvd | 23.8 | ROLLING HILLS WAY | 23.9 | 5 | 421 |
| ROLLING HILLS WAY | 23.9 | NEWTON St - ROBINSON WAY | 24.3 | 4 | 343 |
| NEWTON St - ROBINSON WAY | 24.3 | AERO WAY | 24.9 | 4 | 617 |
| AERO WAY | 24.9 | MADISON St | 25.4 | 8 | 650 |
| MADISON St | 25.4 | HAWTHORNE Blvd | 25.8 | 7 | 155 |
| HAWTHORNE Blvd | 25.8 | ANZA Ave - VISTA MONTANA | 26.5 | 4 | 747 |
| ANZA Ave - VISTA MONTANA | 26.5 | CALLE MAYOR | 27.7 | 13 | 1316 |
| CALLE MAYOR | 27.7 | PROSPECT Ave | 28.5 | 19 | 832 |
| PROSPECT Ave | 28.5 | VISTA DEL PARQUE | 28.7 | 11 | 391 |
| VISTA DEL PARQUE | 28.7 | PALOS VERDES Blvd | 29.1 | 3 | 433 |
| PALOS VERDES Blvd | 29.1 | Ave H - ELENA Ave | 29.4 | 5 | 317 |
| Ave H - ELENA Ave | 29.4 | Ave F | 29.6 | 2 | 264 |
| Ave F | 29.6 | Ave C | 30.0 | 1 | 375 |
| Ave C | 30.0 | KNOB HILL Ave | 30.4 | 10 | 417 |
| KNOB HILL Ave | 30.4 | SAPPHIRE St - FRANCISCA Ave | 30.8 | 7 | 472 |
| SAPPHIRE St - FRANCISCA Ave | 30.8 | RUBY St - GUADALUPE Ave | 31.0 | 5 | 236 |
| RUBY St - GUADALUPE Ave | 31.0 | TORRANCE Blvd | 31.4 | 1 | 467 |
| TORRANCE Blvd | 31.4 | GARNET St | 31.6 | 4 | 185 |
| GARNET St | 31.6 | EMERALD St | 31.8 | 2 | 245 |
| EMERALD St | 31.8 | VINCENT St | 32.0 | 1 | 210 |
| VINCENT St | 32.0 | DIAMOND St | 32.1 | 0 | 235 |
| DIAMOND St | 32.1 | CARNELIAN St | 32.3 | 0 | 270 |
| CARNELIAN St | 32.3 | BERYL St | 32.6 | 2 | 278 |
| BERYL St | 32.6 | IRENA Ave | 32.9 | 1 | 364 |
| IRENA Ave | 32.9 | CATALINA Ave | 33.1 | 3 | 186 |
| CATALINA Ave | 33.1 | HERONDO St - ANITA St | 33.2 | 1 | 131 |
| HERONDO St - ANITA St | 33.2 | 2ND St | 33.4 | 5 | 295 |
| 2ND St | 33.4 | 5TH St | 33.6 | 3 | 335 |

* NUMBER OF ADDITIONAL sic PULL BOXES NOT SHOWN ON PLANS IN BETWEEN INTERSECTIONS TO BE REPLACED WITH No. 6 PULL BOX AND 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

** APPROXIMATE LENGTH OF CABLE IS FROM CONTROLLER TO CONTROLLER.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# REPLACE PULL BOX
# 60 SINGLEMODE FIBER OPTIC CABLE
## (QUANTITIES)

E-240

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

CALCULATED/DESIGNED BY
CHECKED BY

REVISED BY
DATE REVISED
DATE

LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:14

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => triim
DGN FILE => 725730ua240.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
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| 07 | LA | 1,105 | Var | 265 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


TABLE 1 (CONTINUATION)
REPLACE PULL BOX AND 60 SINGLE MODE FIBER OPTIC CABLE (QUANTITIES)

| FROM | KP | TO | KP | REPLACE * PULL BOX | 60SMFO** (m) |
|---|---|---|---|---|---|
| 5TH St | 33.6 | 8TH St | 33.9 | 2 | 257 |
| 8TH St | 33.9 | AVIATION Blvd - 10TH Ave | 34.1 | 6 | 267 |
| AVIATION Blvd - 10TH St | 34.1 | PIER Ave - 14TH St | 34.3 | 4 | 276 |
| PIER Ave - 14TH St | 34.3 | 16TH St | 34.8 | 3 | 309 |
| 16TH St | 34.8 | 21ST St | 35.0 | 9 | 469 |
| 21ST St | 35.0 | ARTESIA Blvd - GOULD Ave | 35.3 | 3 | 301 |
| ARTESIA Blvd - GOULD Ave | 35.3 | LONGFELLOW Ave | 35.7 | 9 | 477 |
| LONGFELLOW Ave | 35.7 | 2ND St | 36.0 | 7 | 409 |
| 2ND St | 36.0 | 8TH St | 36.4 | 8 | 430 |
| 8TH St | 36.4 | MANHATTAN BEACH Blvd | 36.9 | 9 | 436 |
| MANHATTAN BEACH Blvd | 36.9 | 18TH St | 37.3 | 6 | 455 |
| 18TH St | 37.3 | MARINE Ave | 37.7 | 3 | 382 |
| MARINE Ave | 37.7 | 30TH St | 38.0 | 4 | 389 |
| 30TH St | 38.0 | 33RD St | 38.1 | 2 | 235 |
| 33RD St | 38.1 | ROSECRANS Ave | 38.5 | 3 | 326 |
| ROSECRANS Ave | 38.5 | HUGHES WAY | 38.5 | 10 | 785 |
| HUGHES WAY | 38.5 | EL SEGUNDO Blvd | 39.1 | 6 | 627 |
| EL SEGUNDO Blvd | 39.1 | GRAND Ave | 40.1 | 13 | 758 |
| GRAND Ave | 40.1 | MARIPOSA Ave | 40.5 | 8 | 778 |
| MARIPOSA Ave | 40.5 | MAPLE Ave | 40.9 | 2 | 413 |
| MAPLE Ave | 40.9 | WALNUT Ave | 41.3 | 1 | 185 |
| WALNUT Ave | 41.3 | IMPERIAL HIGHWAY | 41.6 | 2 | 179 |
| IMPERIAL HIGHWAY | 41.6 | WB 105 Fwy OFF-RAMP | 41.9 | 4 | 138 |
| IMPERIAL HIGHWAY | - | CALTRANS LAX - 405 HUB BUILDING | - | 2 | 710 |
| McCLURE TUNNEL | - | CALIFORNIA INCLINE | 58.1 | 13 | - |
| CALIFORNIA INCLINE | 58.1 | ENTRADA Dr | 59.6 | 24 | 985 |
| ENTRADA Dr | 59.6 | CHAUTAUQUA Blvd | 59.6 | 1 | 911 |
| CHAUTAUQUA Blvd | 59.6 | TEMESCAL CANYON Rd | 61.5 | 28 | 1265 |
| TEMESCAL CANYON Rd | 61.5 | BEL-AIR BAY CLUB Dr | 62.3 | 13 | 1638 |
| BEL-AIR BAY CLUB Dr | 62.4 | SUNSET Blvd | 63.3 | 15 | 1064 |
| SUNSET Blvd | 63.3 | PORTO MARINA WAY | 64.1 | 12 | 1062 |
| PORTO MARINA WAY | 64.1 | COASTLINE Dr | 64.6 | 8 | 774 |
| COASTLINE Dr | 64.6 | TOPANGA CANYON Blvd | 65.6 | 17 | 964 |
| TOTAL | | | | 628 | 50839 |

* NUMBER OF ADDITIONAL sic PULL BOXES NOT SHOWN ON PLANS IN BETWEEN INTERSECTIONS TO BE REPLACED WITH No. 6 PULL BOX AND 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

** APPROXIMATE LENGTH OF CABLE IS FROM CONTROLLER TO CONTROLLER.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# REPLACE PULL BOX 60 SINGLEMODE FIBER OPTIC CABLE
## (QUANTITIES)

NO SCALE

**E-241**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

CALCULATED/DESIGNED BY | CHECKED BY

DATE | REVISED BY | DATE REVISED

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua241.dgn

CU 07382 | EA 257301

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| 07 | LA | 1,105 | Var | 266 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

PLANS APPROVAL DATE 9-25-06

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

TABLE 2
ADAPTIVE TRAFFIC CONTROL SIGNAL, COMMUNICATION SYSTEM ROUTING
(QUANTITIES)

| SHEET | CCTV CAMERA ASSEMBLY | CLOSED CIRCUIT TELEVISION POLE TYPE CCTV 45 | 3#8 CONDUCTORS | COMPOSITE VIDEO CABLE | VEHICULAR SIGNAL | PEDESTRIAN SIGNAL | LIGHT EMITTING DIODE MODULE FOR SIGNALS | PPB | MODEL 334-TV CABINET | FOCM | V-TX | V-RX | FDU | CCM | * MODEL 2070L CONTROLLER | * MODEL 2070-6A MODEM | (N) FOTM | (N) C-MIC | (N) FIBER OPTIC SPLICE CLOSURE | 12SMFO | (N) NO. 6 PULL BOX | (N) NO. 6(E) PULL BOX | (N) NO. 5 PULL BOX | SPLICE VAULT | (N) LOOP DETECTOR LEAD-IN CABLE (dlc) | (N) TYPE E LOOP DETECTOR | * LOOP DETECTOR SENSOR UNITS | (N) 53C | 78C | CURB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EA | EA | m | m | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | m | EA | EA | EA | EA | m | EA | EA | m | m | EA |
| E-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 289 | 3 | 3 | 19 | 0 | 3 |
| E-4 | 1 | 1 | 11 | 5 | 2 | 1 | 8 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 16 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 41 | 0 | 0 |
| E-6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 690 | 4 | 4 | 0 | 0 | 4 |
| E-8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 0 | 1 | 0 | 0 | 306 | 2 | 2 | 9 | 0 | 2 |
| E-10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 19 | 1 | 1 | 2 | 0 | 241 | 1 | 1 | 44 | 0 | 2 |
| E-12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 70 | 1 | 1 | 6 | 0 | 1 |
| E-14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 188 | 2 | 2 | 20 | 0 | 2 |
| E-16 | 1 | 1 | 50 | 3 | 2 | 1 | 8 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 151 | 0 | 0 |
| E-18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 353 | 3 | 3 | 0 | 0 | 2 |
| E-20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 232 | 2 | 2 | 6 | 0 | 2 |
| E-22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 0 | 308 | 2 | 2 | 51 | 0 | 2 |
| E-24 | 1 | 1 | 3 | 14 | 2 | 1 | 9 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 504 | 5 | 5 | 0 | 0 | 4 |
| E-28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 | 2 | 0 | 2 | 0 | 264 | 2 | 2 | 5 | 0 | 2 |
| E-30 | 1 | 1 | 29 | 45 | 2 | 0 | 7 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 16 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 103 | 0 | 0 |
| E-32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 212 | 2 | 2 | 0 | 0 | 2 |
| E-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 10 | 1 | 1 | 0 | 0 | 226 | 2 | 2 | 8 | 0 | 2 |
| E-36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 13 | 1 | 1 | 1 | 0 | 252 | 2 | 2 | 0 | 0 | 2 |
| E-38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 10 | 1 | 0 | 1 | 0 | 202 | 2 | 2 | 8 | 0 | 2 |
| E-40 | 1 | 1 | 24 | 21 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 68 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 74 | 0 | 0 |
| E-42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 205 | 2 | 2 | 0 | 0 | 2 |
| E-44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 | 2 | 0 | 0 | 0 | 175 | 2 | 2 | 7 | 0 | 2 |
| E-46 | 1 | 1 | 16 | 6 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 19 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 45 | 0 | 0 |
| E-48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 262 | 2 | 2 | 0 | 0 | 2 |
| E-50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 1 | 1 | 0 | 0 | 212 | 2 | 2 | 9 | 0 | 2 |
| E-52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 1 | 2 | 0 | 150 | 2 | 2 | 38 | 0 | 2 |
| E-54 | 1 | 1 | 9 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 12 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 48 | 0 | 0 |
| E-56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 0 | 167 | 2 | 2 | 6 | 0 | 2 |
| E-60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 | 0 | 0 | 216 | 1 | 1 | 48 | 0 | 1 |
| E-62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 9 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 11 | 0 | 1 |
| E-64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 14 | 2 | 1 | 1 | 0 | 184 | 2 | 2 | 15 | 0 | 2 |
| E-66 | 1 | 1 | 73 | 4 | 2 | 1 | 9 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 56 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 54 | 0 | 0 |
| E-68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 185 | 2 | 2 | 0 | 0 | 2 |
| E-70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 199 | 2 | 2 | 6 | 0 | 2 |
| E-72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | 0 | 1 | 1 | 0 | 444 | 4 | 4 | 46 | 0 | 4 |
| E-74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 3 | 2 | 1 | 0 | 0 | 94 | 1 | 1 | 6 | 0 | 1 |
| E-76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 2 | 0 | 220 | 2 | 2 | 0 | 0 | 2 |
| E-77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 462 | 0 | 0 |
| E-78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0 | 1 | 1 | 0 | 205 | 2 | 2 | 12 | 0 | 2 |
| E-80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 1 | 1 | 1 | 0 | 203 | 2 | 2 | 9 | 0 | 2 |
| E-82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 0 | 534 | 4 | 4 | 28 | 0 | 4 |
| E-84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 |
| E-86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 9 | 2 | 1 | 0 | 0 | 262 | 2 | 2 | 12 | 0 | 2 |
| E-88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-90 | 1 | 1 | 95 | 4 | 2 | 1 | 8 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 78 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 160 | 0 | 0 |
| E-92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 601 | 6 | 6 | 0 | 0 | 4 |
| E-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 7 | 0 | 0 | 1 | 0 | 232 | 2 | 2 | 8 | 0 | 2 |
| E-96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 0 | 0 | 269 | 2 | 2 | 6 | 0 | 2 |
| E-98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 7 | 3 | 0 | 1 | 0 | 114 | 1 | 1 | 8 | 0 | 1 |
| E-100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 108 | 0 | 0 |
| E-102 | 1 | 1 | 33 | 6 | 2 | 1 | 9 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 35 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 163 | 2 | 0 |
| E-104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 20 | 0 | 0 | 0 | 0 | 1013 | 4 | 4 | 0 | 0 | 2 |
| E-105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | 0 | | 0 | 0 | 0 | 0 | 0 | 4 | 4 | | 0 | 2 |
| E-106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 4 | 2 | 0 | 0 | 0 | 217 | 2 | 2 | 7 | 0 | 2 |
| E-108 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 4 | 0 | 617 | 4 | 4 | 0 | 0 | 4 |
| E-110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 263 | 2 | 2 | 0 | 0 | 2 |
| E-112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 0 |
| E-114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 0 | 413 | 4 | 4 | 11 | 0 | 4 |
| E-116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 0 | 662 | 4 | 4 | 94 | 0 | 2 |
| E-118 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 75 | 0 | 0 |
| E-120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 |
| E-122 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 74 | 0 | 0 |
| E-124 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-126 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 53 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

FOR CONTINUATION, SEE SHEET E-243

* STATE-FURNISHED
(N) NOT A SEPARATE PAY ITEM, FOR REFERENCE ONLY.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(QUANTITIES)

NO SCALE

E-242

DATE | REVISED BY | DATE REVISED
CALCULATED/DESIGNED BY | CHECKED BY
DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 16:14

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 267 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

PLANS APPROVAL DATE 9-25-06

Keene Matsuda No. E11758 Exp. 9/30/06 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*


CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


TABLE 2 (CONTINUATION)
ADAPTIVE TRAFFIC CONTROL SIGNAL, COMMUNICATION SYSTEM ROUTING
(QUANTITIES)

| SHEET | CCTV CAMERA ASSEMBLY | CLOSED CIRCUIT TELEVISION POLE TYPE CCTV 45 | 3#6 CONDUCTORS | COMPOSITE VIDEO CABLE | VEHICULAR SIGNAL | PEDESTRIAN SIGNAL | LIGHT EMITTING DIODE MODULE FOR SIGNALS | PPB | MODEL 334-TV CABINET | FOCM | V-TX | V-RX | FDU | CCM | * MODEL 2070L CONTROLLER | * MODEL 2070-6A MODEM | (N) FOTM | (N) C-MIC | (N) FIBER OPTIC SPLICE CLOSURE | 12SMFO | (N) NO. 6 PULL BOX | (N) NO. 6(E) PULL BOX | (N) NO. 5 PULL BOX | SPLICE VAULT | (N) LOOP DETECTOR LEAD-IN CABLE (dlc) | (N) TYPE E LOOP DETECTOR | * LOOP DETECTOR SENSOR UNITS | (N) 53C | 78C | CURB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EA | EA | m | m | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | m | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA |
| E-128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 5 | 0 | 1 | 0 | 209 | 2 | 2 | 0 | 0 | 2 |
| E-130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 |
| E-132 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 |
| E-134 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-136 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 12 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-138 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 |
| E-140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 |
| E-142 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-144 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 24 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 53 | 0 | 0 |
| E-146 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 0 | 464 | 4 | 4 | 15 | 0 | 4 |
| E-148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 |
| E-150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 0 | 169 | 2 | 2 | 0 | 0 | 2 |
| E-152 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 132 | 2 | 2 | 0 | 0 | 2 |
| E-154 | 1 | 1 | 15 | 20 | 3 | 2 | 15 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 35 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 55 | 4 | 0 |
| E-156 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 145 | 2 | 2 | 0 | 0 | 2 |
| E-158 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 307 | 3 | 3 | 57 | 0 | 2 |
| E-160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 246 | 2 | 2 | 0 | 0 | 2 |
| E-162 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 4 | 1 | 0 | 0 | 128 | 0 | 0 | 0 | 0 | 0 |
| E-164 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 3 | 0 | 498 | 5 | 5 | 100 | 0 | 4 |
| E-166 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-168 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 132 | 2 | 2 | 0 | 0 | 2 |
| E-170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-172 | 1 | 1 | 58 | 43 | 2 | 1 | 9 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 21 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 73 | 4 | 0 |
| E-174 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 530 | 5 | 5 | 0 | 0 | 4 |
| E-176 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-178 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 1 | 1 | 0 | 571 | 5 | 5 | 114 | 0 | 4 |
| E-180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 2 | 1 | 1 | 0 | 174 | 2 | 2 | 0 | 0 | 2 |
| E-182 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 0 | 0 | 84 | 1 | 1 | 8 | 0 | 1 |
| E-184 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 30 | 2 | 1 | 2 | 0 | 868 | 4 | 4 | 80 | 0 | 2 |
| E-186 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 1 | 0 | 228 | 2 | 2 | 54 | 0 | 1 |
| E-188 | 1 | 1 | 44 | 10 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 7 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 185 | 20 | 0 |
| E-190 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 642 | 4 | 4 | 0 | 0 | 2 |
| E-192 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 222 | 2 | 2 | 103 | 0 | 2 |
| E-194 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | 4 | 1 | 0 | 0 | 367 | 3 | 3 | 90 | 0 | 2 |
| E-196 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 9 | 3 | 1 | 0 | 0 | 202 | 2 | 2 | 138 | 0 | 2 |
| E-198 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 240 | 2 | 2 | 22 | 0 | 1 |
| E-200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 47 | 3 | 1 | 0 | 0 | 1174 | 6 | 6 | 0 | 0 | 4 |
| E-202 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 101 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 53 | 0 | 0 |
| E-203 | 1 | 1 | 9 | 28 | 2 | 1 | 8 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 8 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| E-205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 438 | 4 | 4 | 0 | 0 | 3 |
| E-207 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 34 | 0 | 0 | 1 | 0 | 33 | 1 | 1 | 64 | 0 | 1 |
| E-208 | 1 | 1 | 3 | 42 | 2 | 0 | 6 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 113 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 104 | 0 | 0 |
| E-210 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 472 | 6 | 6 | 57 | 0 | 4 |
| E-212 | 1 | 1 | 11 | 67 | 1 | 0 | 3 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 67 | 4 | 0 |
| E-214 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 354 | 4 | 4 | 22 | 0 | 3 |
| E-216 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 25 | 4 | 1 | 1 | 0 | 222 | 2 | 2 | 48 | 0 | 2 |
| E-217 | 1 | 1 | 26 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 70 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 18 | 2 | 0 |
| E-219 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 517 | 6 | 6 | 15 | 0 | 3 |
| E-221 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 1 | 1 | 0 | 96 | 1 | 1 | 9 | 0 | 1 |
| E-222 | 1 | 1 | 15 | 6 | 2 | 1 | 9 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 59 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 30 | 2 | 0 |
| E-224 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 360 | 3 | 3 | 14 | 0 | 2 |
| E-226 | 1 | 1 | 42 | 16 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 7 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 37 | 4 | 0 |
| E-228 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 244 | 3 | 3 | 33 | 0 | 2 |
| E-230 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 277 | 0 | 0 |
| E-231 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-232 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-233 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-234 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-235 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 1946 | 0 | 0 |
| E-236 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-237 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-238 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E-239 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 19 | 19 | 566 | 345 | 28 | 13 | 118 | 13 | 19 | 19 | 19 | 0 | 6 | 0 | 97 | 97 | 97 | 111 | 93 | 1289 | 287 | 72 | 80 | 21 | 23121 | 199 | 199 | 6233 | 44 | 168 |

* STATE FURNISHED
(N) NOT A SEPARATE PAY ITEM, FOR REFERENCE ONLY.

# ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
## (QUANTITIES)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

E-243

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

CALCULATED/DESIGNED BY | CHECKED BY

DATE | REVISED BY | DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 12:24

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 268 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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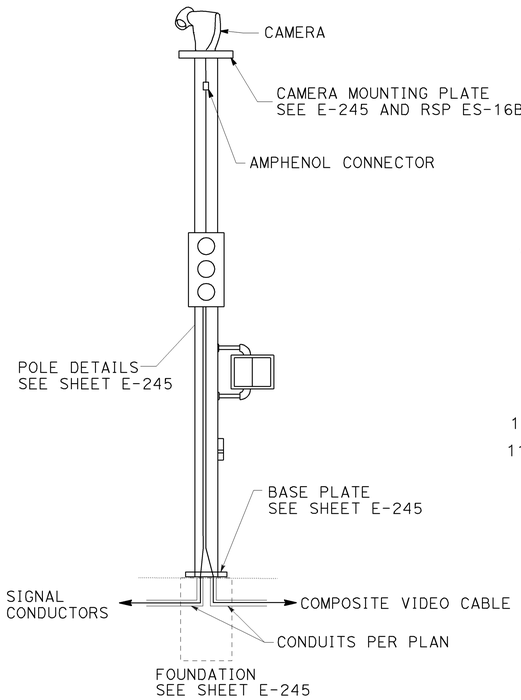
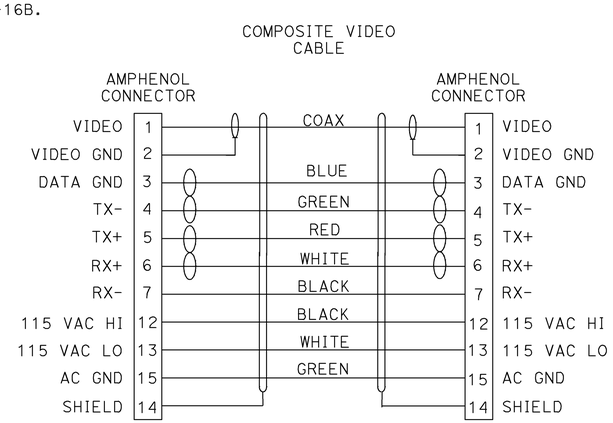
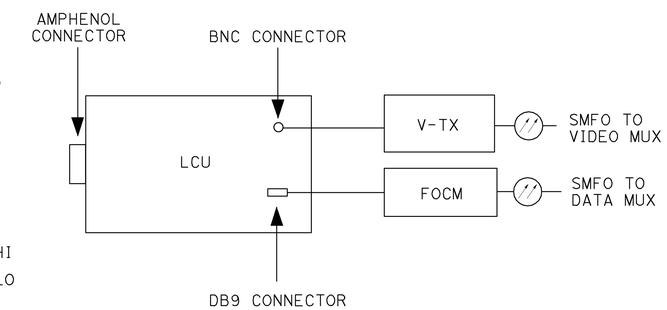
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

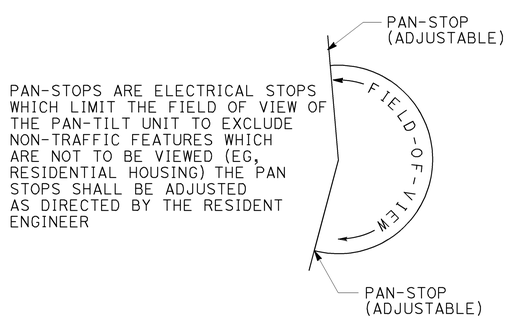

MODIFIED CCTV 45 POLE WITH CAMERA ASSEMBLY



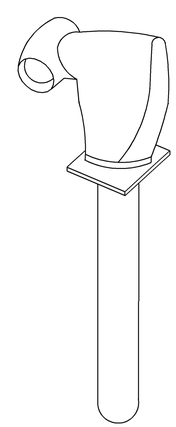




## NOTES: (WIRING DIAGRAM)

1. THE CONTRACTOR SHALL PROVIDE COMPOSITE VIDEO CABLE LENGTH FROM AMPHENOL CONNECTOR AT THE CAMERA TO THEIR RESPECTIVE END POINTS AS SHOWN IN THIS SHEET.
2. ALL CABLES SHALL BE ALUMINUM SHIELDED TO PREVENT CROSS TALK.
3. IN THE CCTV CAMERA CABINET, THE NUMBER IDENTIFIES THE SPECIFIC CONDUCTOR TO BE USED FOR THE INDICATED FUNCTION.
4. INSTALL CONNECTORS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
5. WATERPROOF ALL CONNECTORS AND CABLES USING WATER-TIGHT GROMMETS, SEALING COMPOUNDS, AND TAPE.




PAN-STOPS ARE ELECTRICAL STOPS WHICH LIMIT THE FIELD OF VIEW OF THE PAN-TILT UNIT TO EXCLUDE NON-TRAFFIC FEATURES WHICH ARE NOT TO BE VIEWED (EG, RESIDENTIAL HOUSING) THE PAN STOPS SHALL BE ADJUSTED AS DIRECTED BY THE RESIDENT ENGINEER



TYPICAL CCTV CAMERA

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (ELECTRICAL DIAGRAM, PAN/TILT UNIT AND POLE DETAILS)

NO SCALE

**E-244**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 27-SEP-2006
TIME PLOTTED => 16:14

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trlim
DGN FILE => 725730ua244.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 269 | 308 |

Caltrans Metric

Ayman Salama 08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Ayman E. Salama
No. 56085
Exp. 12-31-07
CIVIL
STATE OF CALIFORNIA

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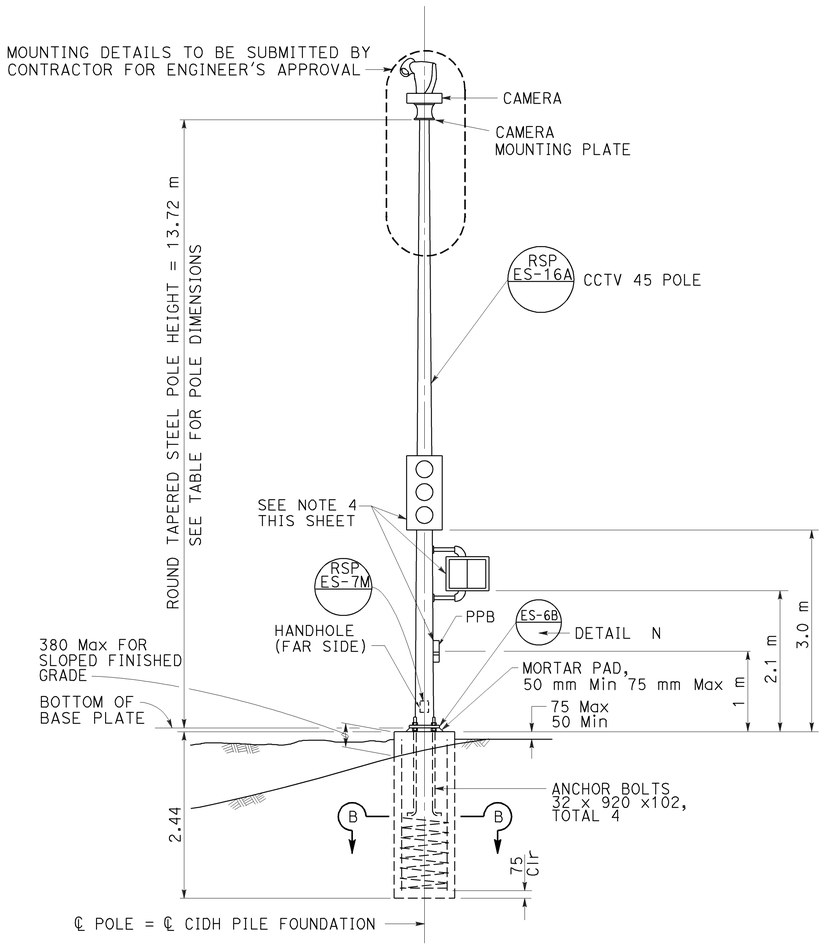
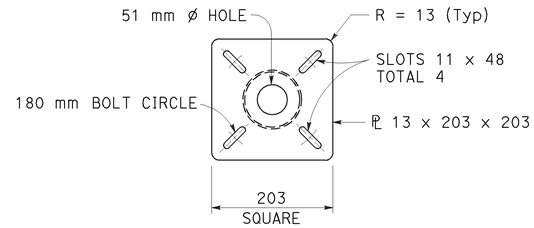
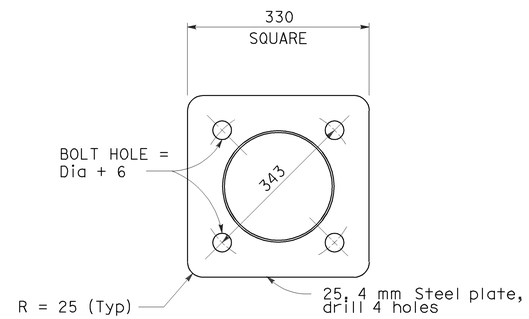
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

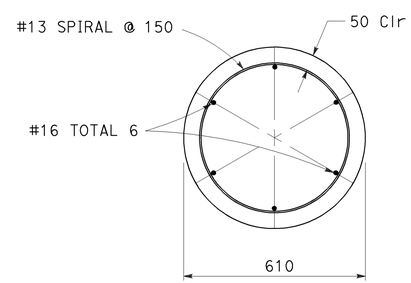

ELEVATION




CAMERA MOUNTING PLATE




BASE PLATE




SECTION B-B

## GENERAL NOTES (THIS SHEET):

SPECIFICATIONS
DESIGN : AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS DATED 2001.

LOADING
WIND LOADINGS : 161 km/h

UNIT STRESSES
STRUCTURAL STEEL : fy = 330 Mpa TAPERED STEEL TUBE
fy = 250 Mpa UNLESS OTHERWISE NOTED
ANCHOR BOLTS = A307
REINFORCED CONCRETE : f'c = 25 MPa
fy = 415 MPa

## NOTES (THIS SHEET):

1. THE CONTRACTOR SHALL VERIFY CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL .
2. ALL STEEL SHALL BE GALVANIZED AFTER FABRICATION.
3. DURING POLE ERECTION, THE POST SHALL BE RAKED AS NECESSARY WITH THE USE OF LEVELING NUTS TO PROVIDE A PLUMB POLE AXIS.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE AS SHOWN ON PLAN.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (ELECTRICAL SYSTEMS POLE DETAILS)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-245

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 8/06 | MR | 8/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DATE PLOTTED => 27-SEP-2006
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| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 270 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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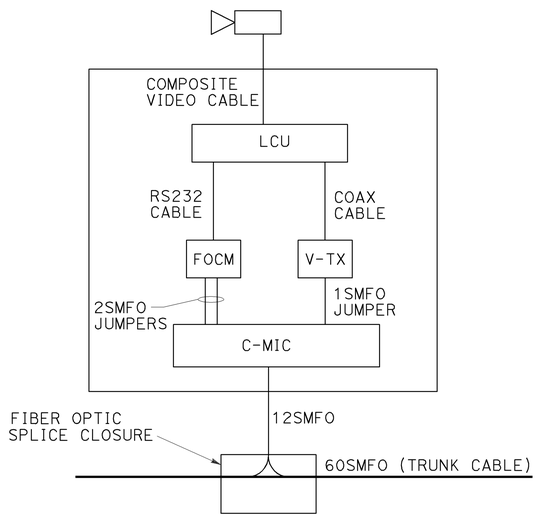
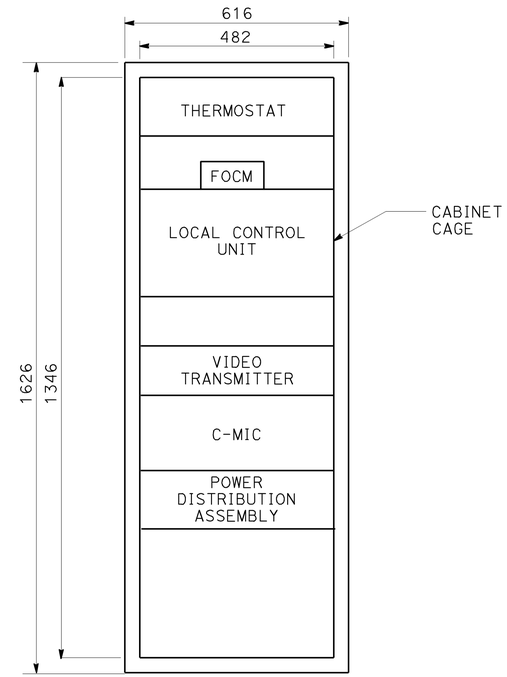



CCTV CAMERA WIRING DIAGRAM

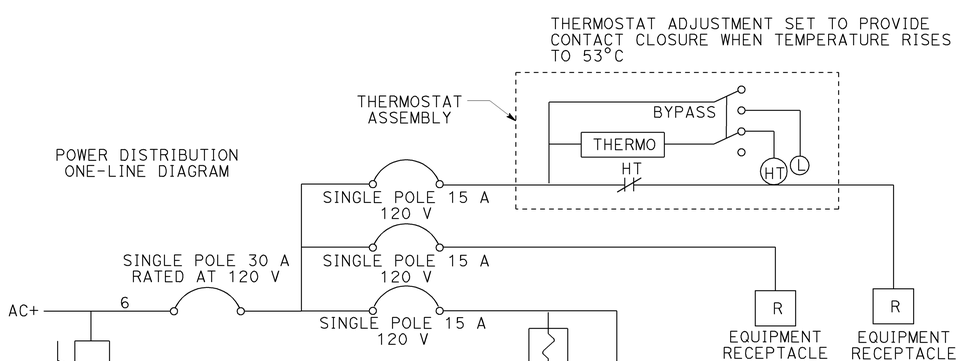



CCTV CAMERA MODEL 334-TV CABINET

FOR LOCATIONS SEE SHEETS E-9 AND E-32

LEGEND: (THIS SHEET)

| | |
|---|---|
| | RELAY CONTACT NORMALLY CLOSED |
| THERMO | ADJUSTABLE CALIBRATED THERMOSTAT |
| | THERMOSTATIC CONTROL |
| | SURGE PROTECTOR |
| | CIRCUIT BREAKER |
| L | INDICATOR LAMP |
| F | FAN |
| W/GFCI | WITH GROUND FAULT CIRCUIT INTERRUPTER |
| HT | RELAY COIL - HIGH TEMPERATURE |
| 8 | WIRE SIZE, IF NOT INDICATED SHALL BE #14 AWG |




POWER DISTRIBUTION ASSEMBLY

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (CLOSED CIRCUIT TELEVISION CAMERA CABINET AND WIRING DETAILS)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-246**

| | | | |
|---|---|---|---|
| DESIGN OVERSIGHT | YEFIM ZABEZHINSKY | | |
| CALCULATED/DESIGNED BY | MR | DATE REVISED | 4/06 |
| CHECKED BY | KM | DATE REVISED | 4/06 |

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TIME PLOTTED => 16:15

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 271 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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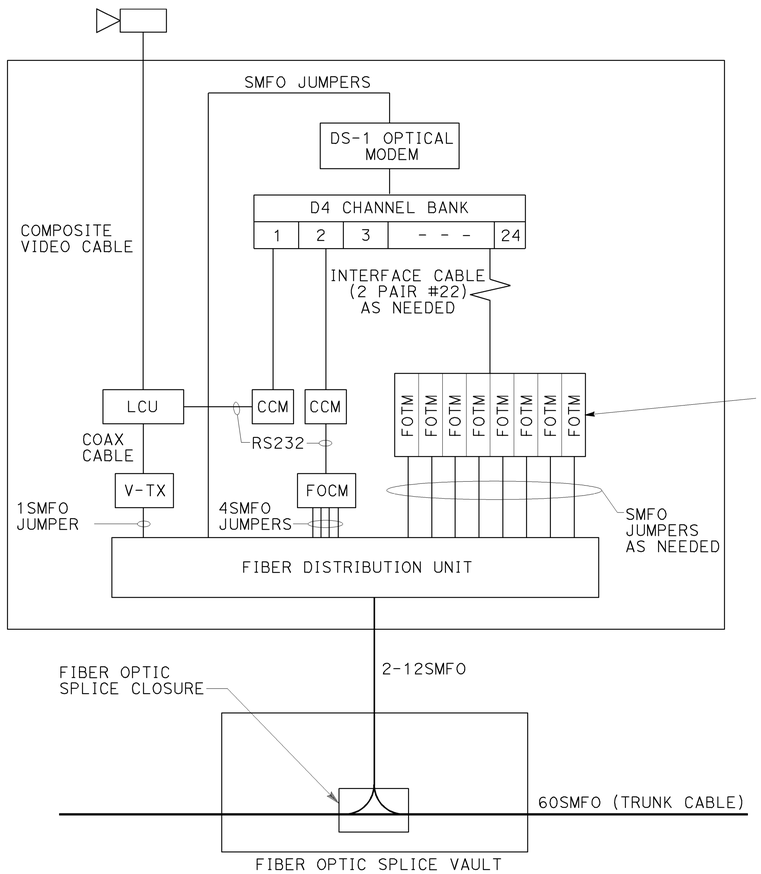
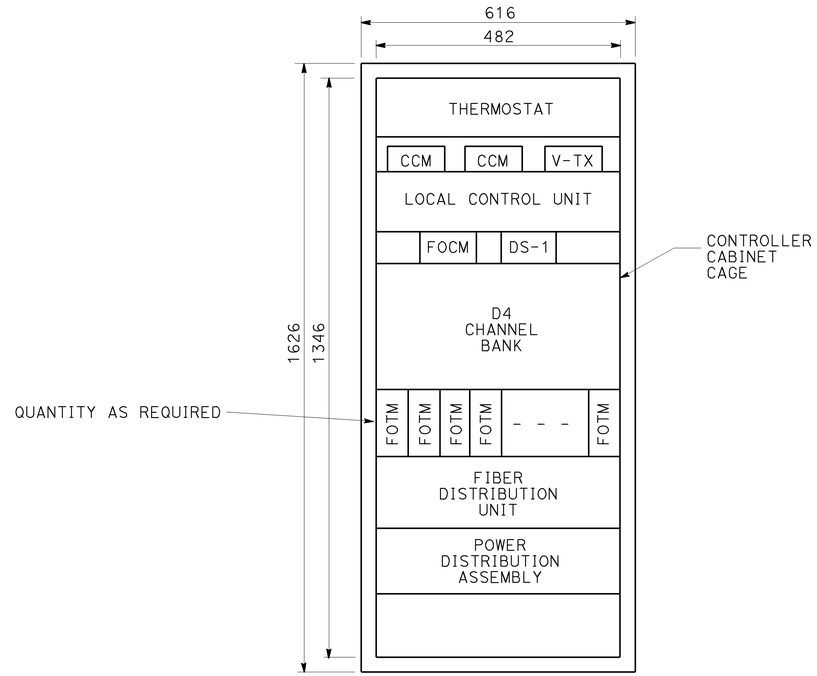



CCTV CAMERA AND DATA NODE WIRING DIAGRAM

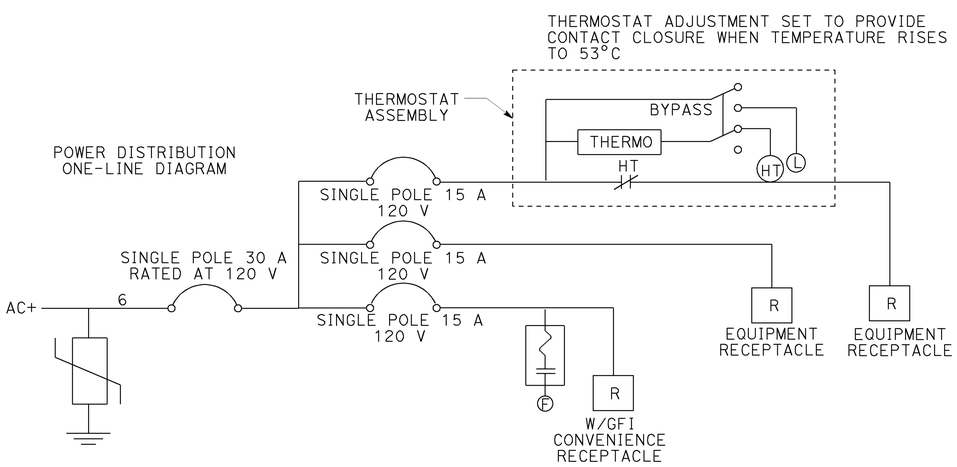



CCTV CAMERA AND DATA NODE
MODEL 334-TV CABINET

FOR LOCATION SEE SHEET E-21

## LEGEND: (THIS SHEET)

| | |
|---|---|
| | RELAY CONTACT NORMALLY CLOSED |
| THERMO | ADJUSTABLE CALIBRATED THERMOSTAT |
| | THERMOSTATIC CONTROL |
| | SURGE PROTECTOR |
| | CIRCUIT BREAKER |
| L | INDICATOR LAMP |
| F | FAN |
| W/GFCI | WITH GROUND FAULT CIRCUIT INTERRUPTER |
| HT | RELAY COIL - HIGH TEMPERATURE |
| 8 | WIRE SIZE, IF NOT INDICATED SHALL BE #14 AWG |




POWER DISTRIBUTION ASSEMBLY
FOR DATA NODE

ALL DIMENSIONS ARE IN
MILLIMETERS UNLESS OTHERWISE NOTED

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING DATA NODE

## (DATA NODE CABINET AND WIRING DETAILS)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-247**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ud247.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 272 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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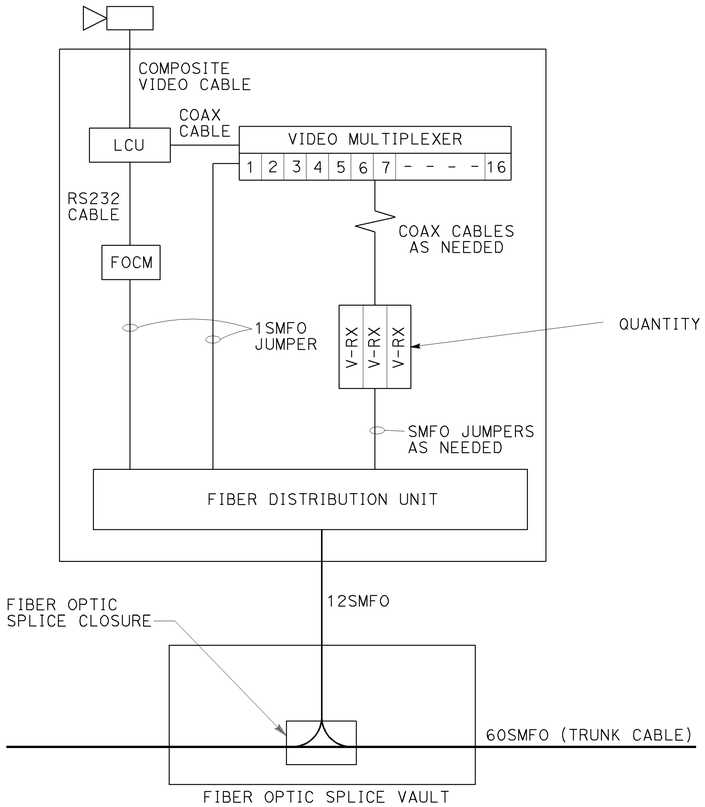
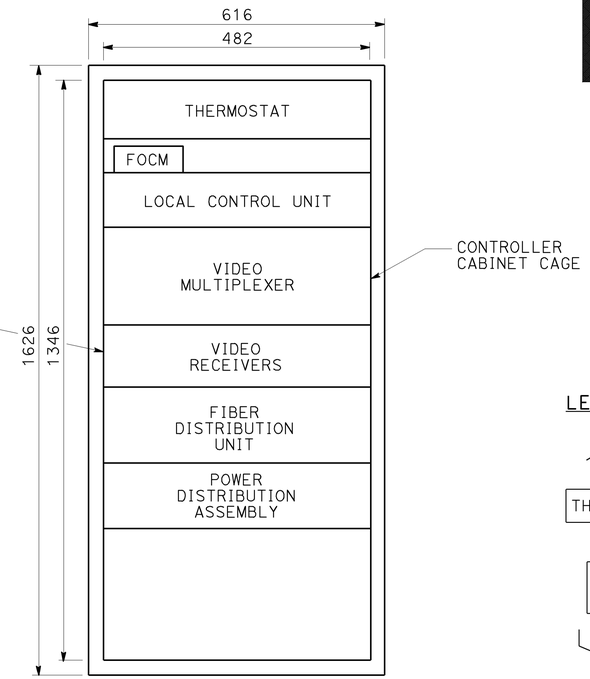



CCTV CAMERA AND VIDEO NODE WIRING DIAGRAM

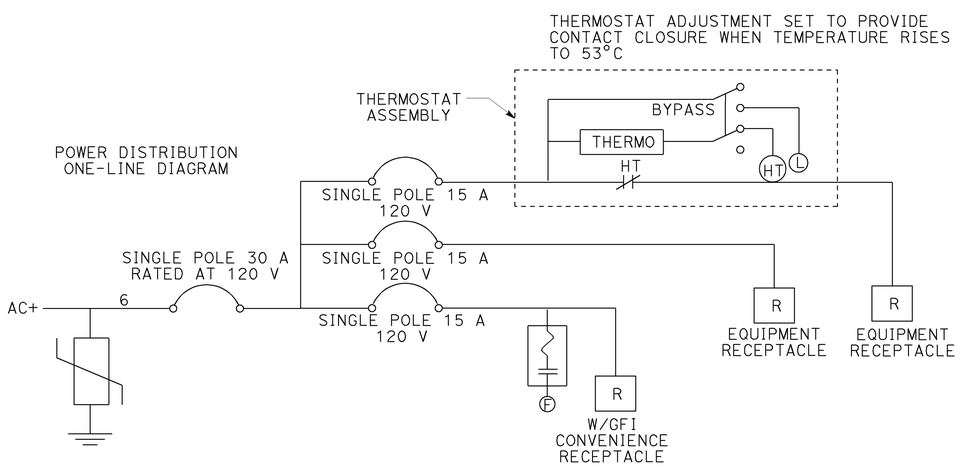



CCTV CAMERA AND VIDEO NODE MODEL 334-TV CABINET

FOR LOCATION SEE SHEET E-36

## LEGEND: (THIS SHEET)

| | |
|---|---|
| | RELAY CONTACT NORMALLY CLOSED |
| THERMO | ADJUSTABLE CALIBRATED THERMOSTAT |
| | THERMOSTATIC CONTROL |
| | SURGE PROTECTOR |
| | CIRCUIT BREAKER |
| L | INDICATOR LAMP |
| F | FAN |
| W/GFCI | WITH GROUND FAULT CIRCUIT INTERRUPTER |
| HT | RELAY COIL - HIGH TEMPERATURE |
| 8 | WIRE SIZE, IF NOT INDICATED SHALL BE #14 AWG |
| R | DUPLEX RECEPTACLES |




POWER DISTRIBUTION ASSEMBLY FOR VIDEO NODE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

## (VIDEO NODE CABINET AND WIRING DETAILS)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-248

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 06:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua248.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 273 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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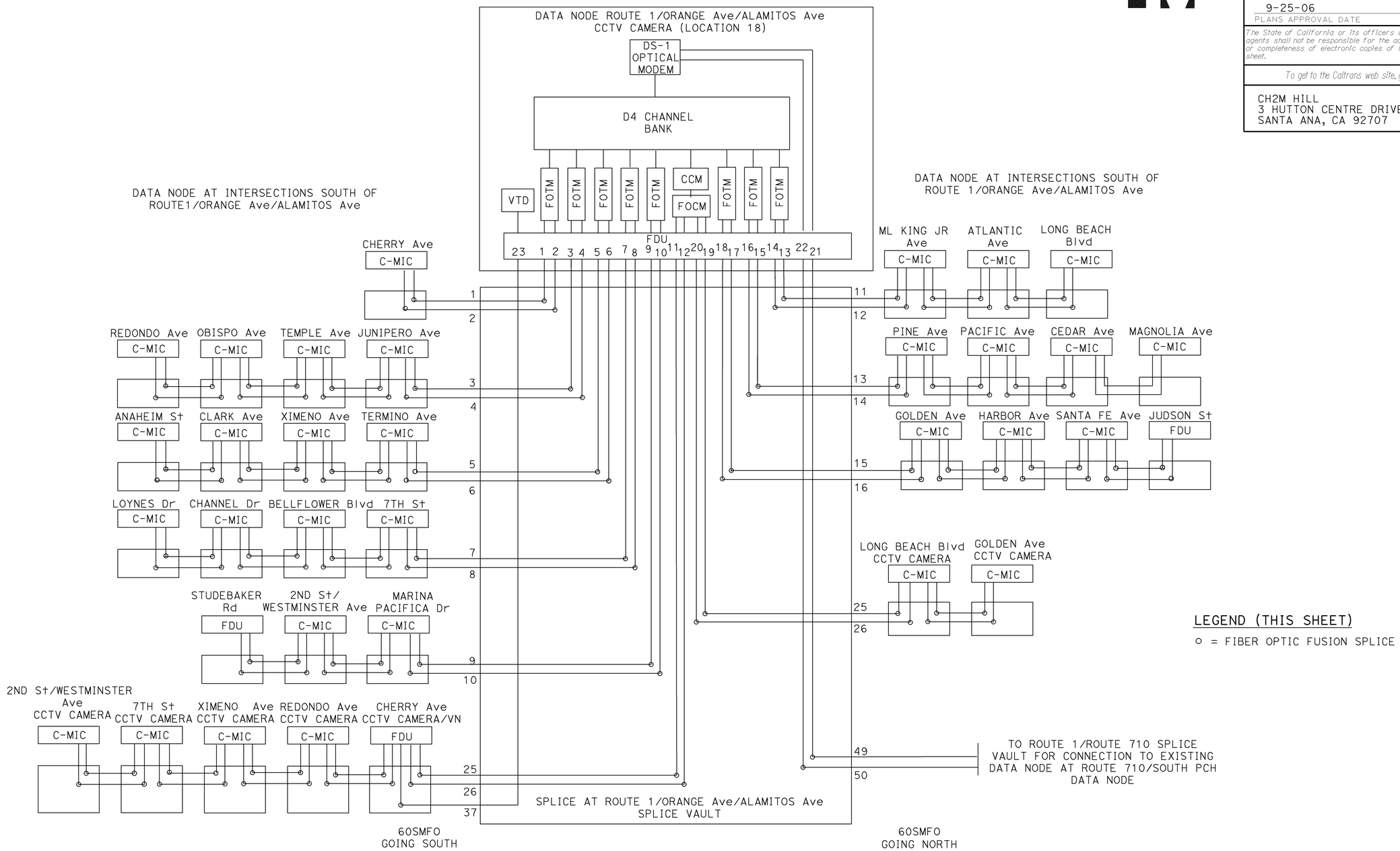


LEGEND (THIS SHEET)

○ = FIBER OPTIC FUSION SPLICE

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (DATA NODE FIBER OPTIC SPLICING AND TERMINATION DIAGRAM)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-249**

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua249.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 274 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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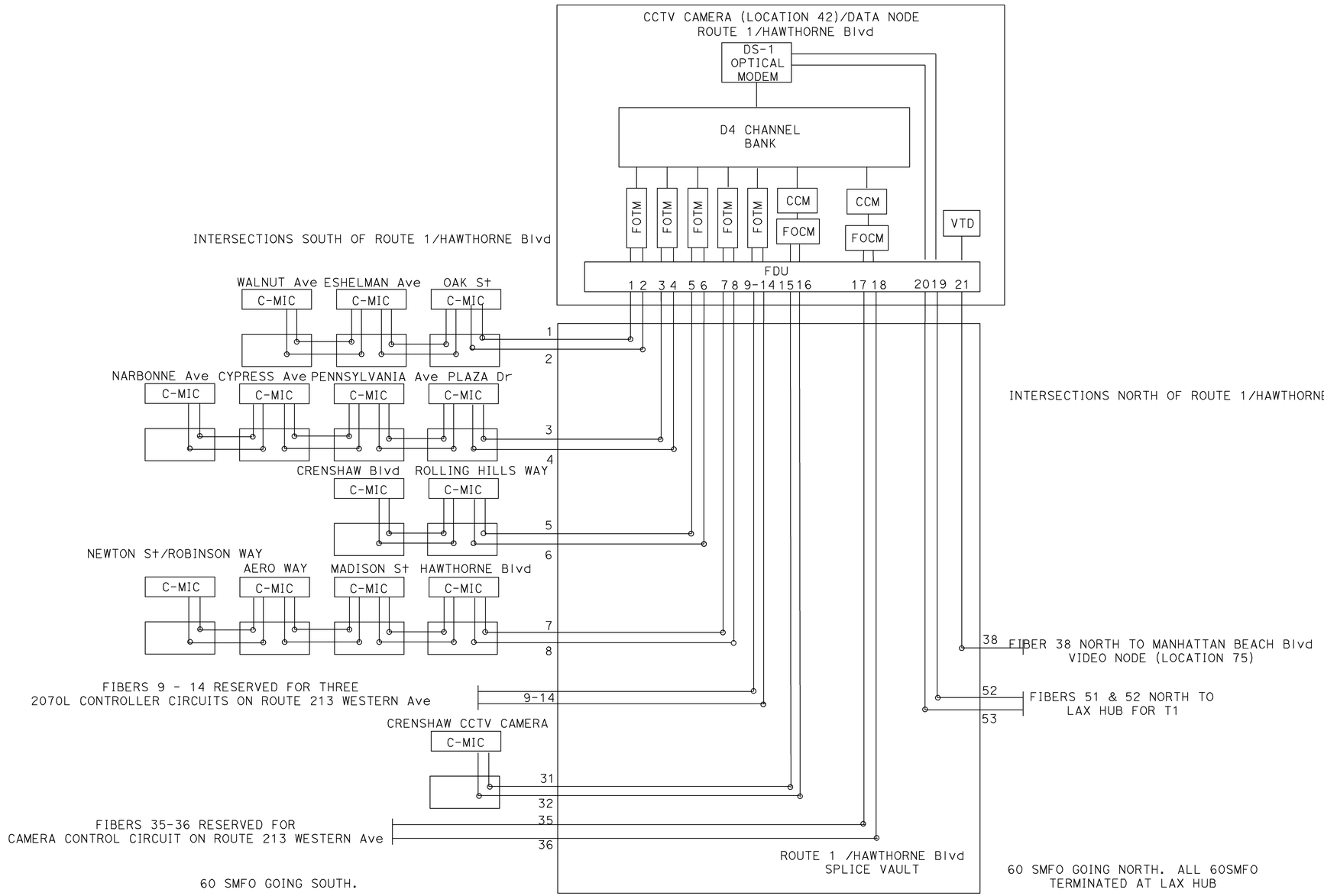


LEGEND (THIS SHEET):

o = FIBER OPTIC FUSION SPLICE

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (DATA NODE FIBER OPTIC SPLICING AND TERMINATION DIAGRAM)

NO SCALE

**E-250**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|---|
| REVISED BY | DATE REVISED | KM | CHECKED BY | YEFIM ZABEZHINSKY |

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LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:54

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trstrk
DGN FILE => 725730ua250.dgn

CU 07382 | EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 275 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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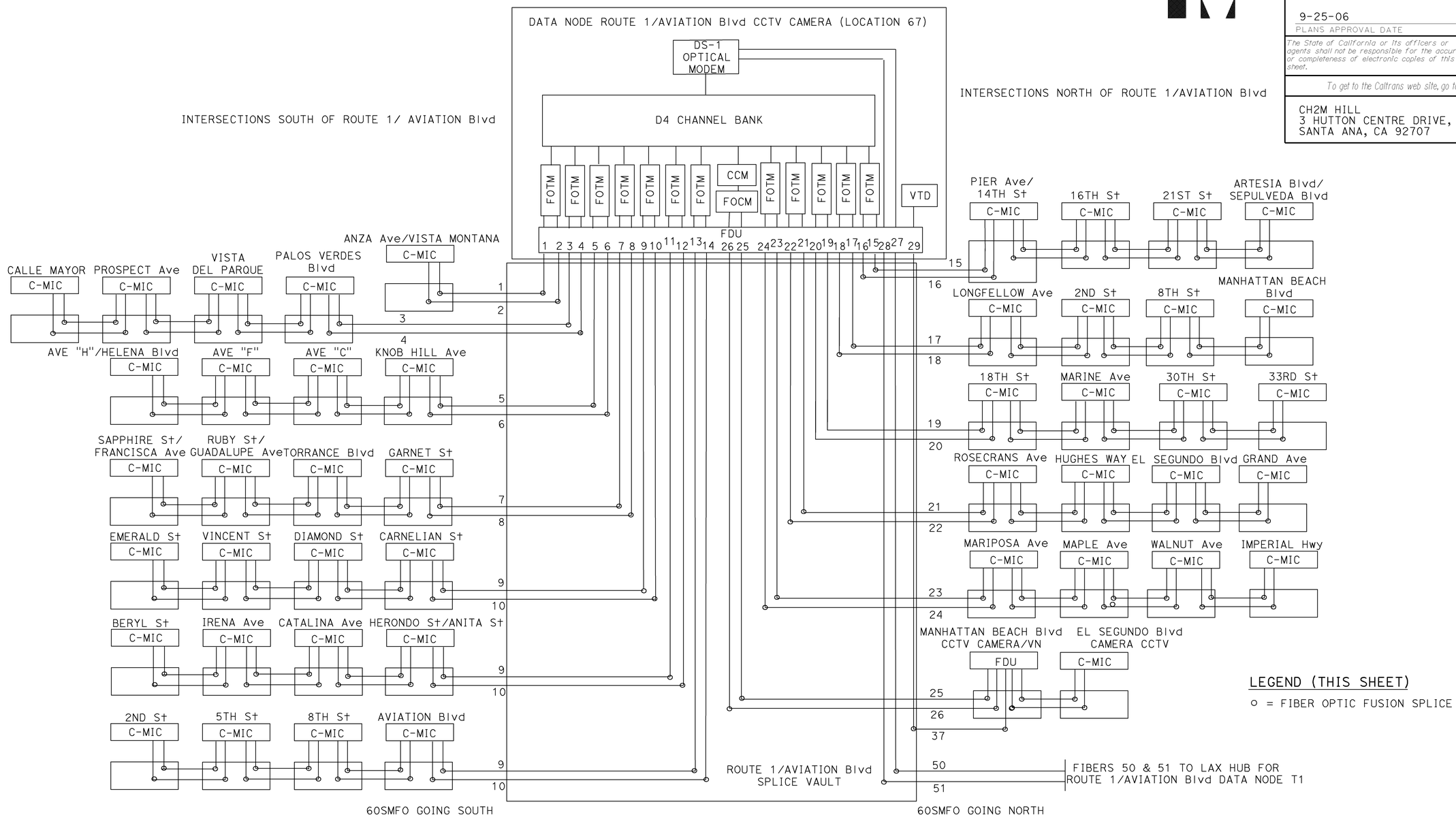


LEGEND (THIS SHEET)

o = FIBER OPTIC FUSION SPLICE

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (DATA NODE FIBER OPTIC SPLICING AND TERMINATION DIAGRAM)

NO SCALE

**E-251**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 05:46

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesi
DGN FILE => 725730ua251.dgn

CU 07382 EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 276 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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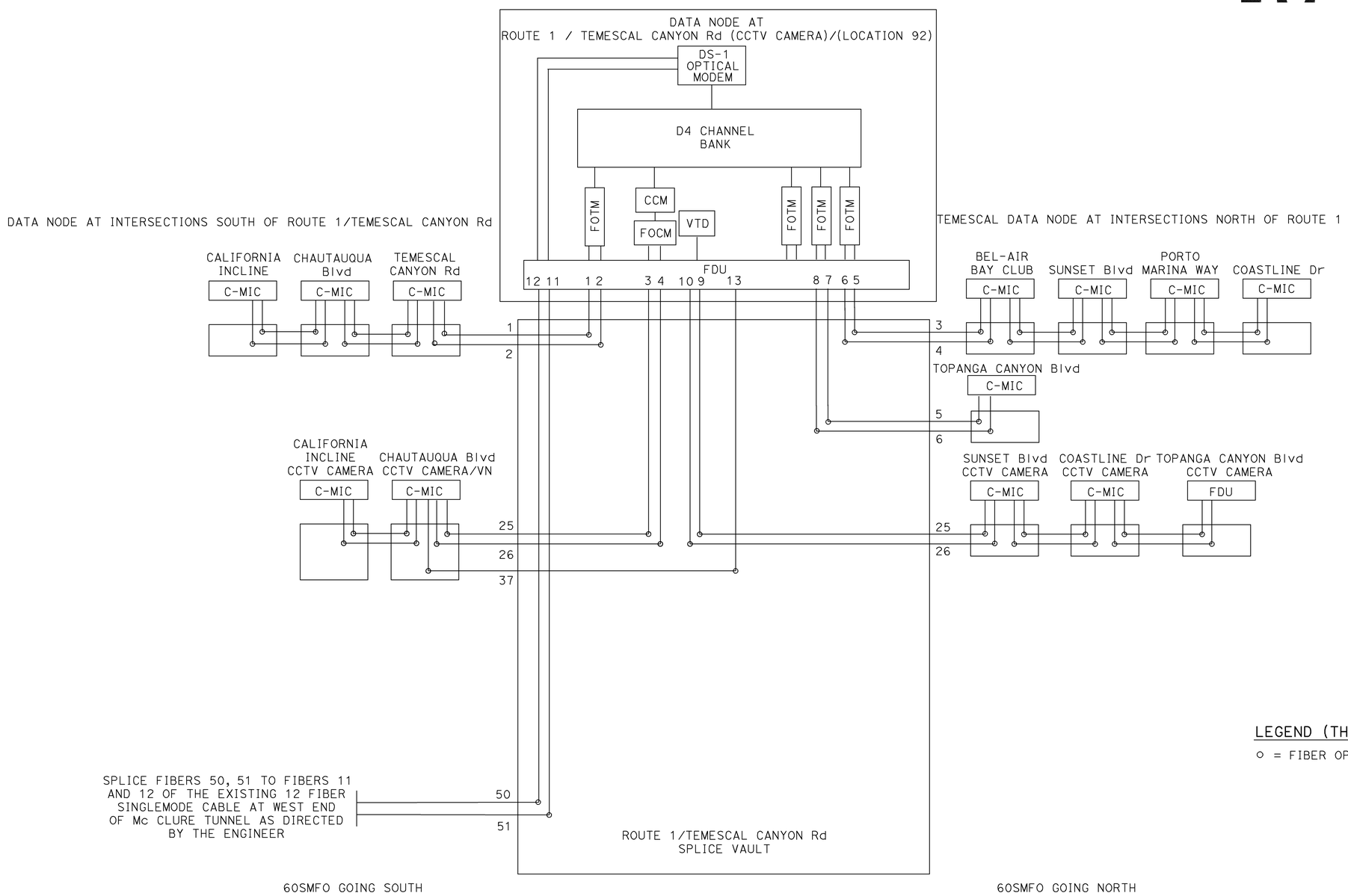


LEGEND (THIS SHEET)

○ = FIBER OPTIC FUSION SPLICE

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (DATA NODE FIBER OPTIC SPLICING AND TERMINATION DIAGRAM)

NO SCALE

**E-252**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 4/06 | MR | 4/06 KM |

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 05:47

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua252.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 277 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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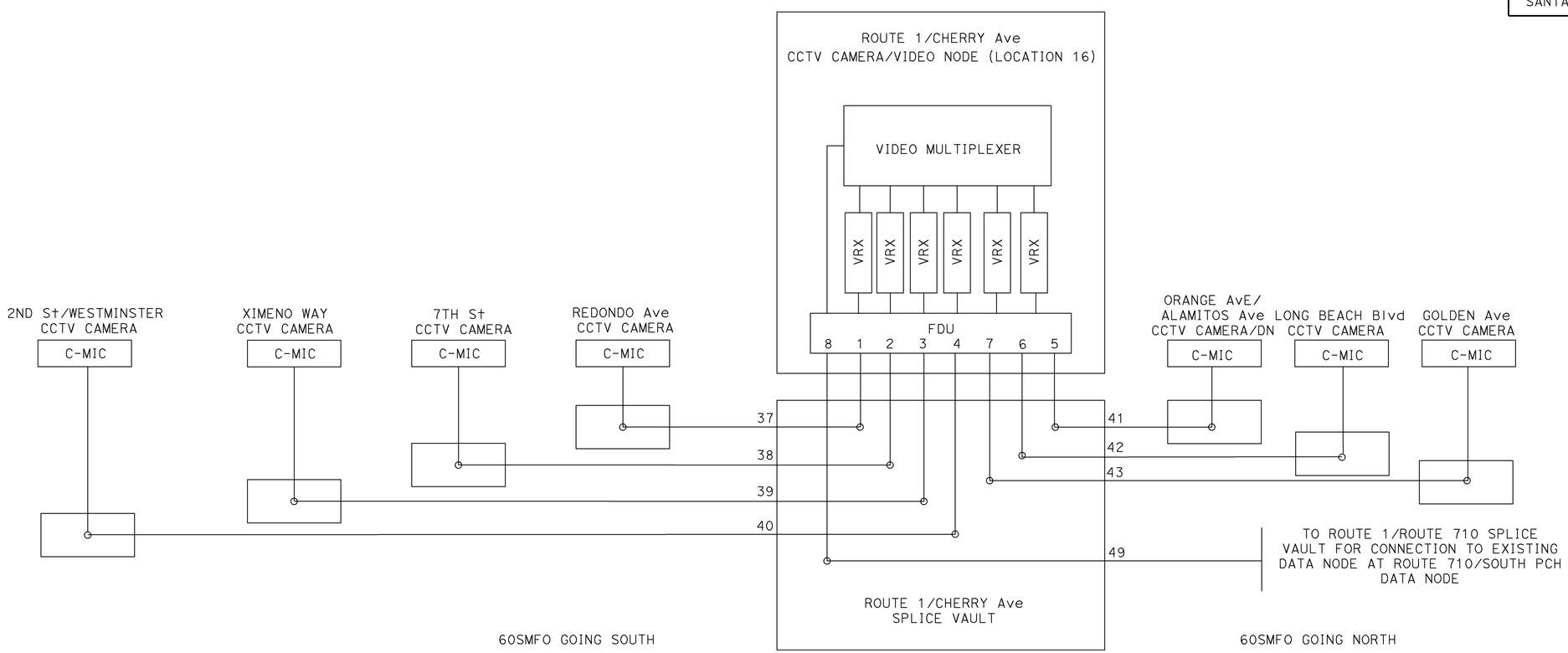


LEGEND (THIS SHEET)

○ = FIBER OPTIC FUSION SPLICE

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (VIDEO NODE FIBER OPTIC SPLICING AND TERMINATION DIAGRAM)

NO SCALE

**E-253**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| CALCULATED/ DESIGNED BY | MR | DATE 4/06 | REVISED BY |
|---|---|---|---|
| CHECKED BY | KM | 4/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 26-SEP-2006
TIME PLOTTED => 08:47

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ug253.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 278 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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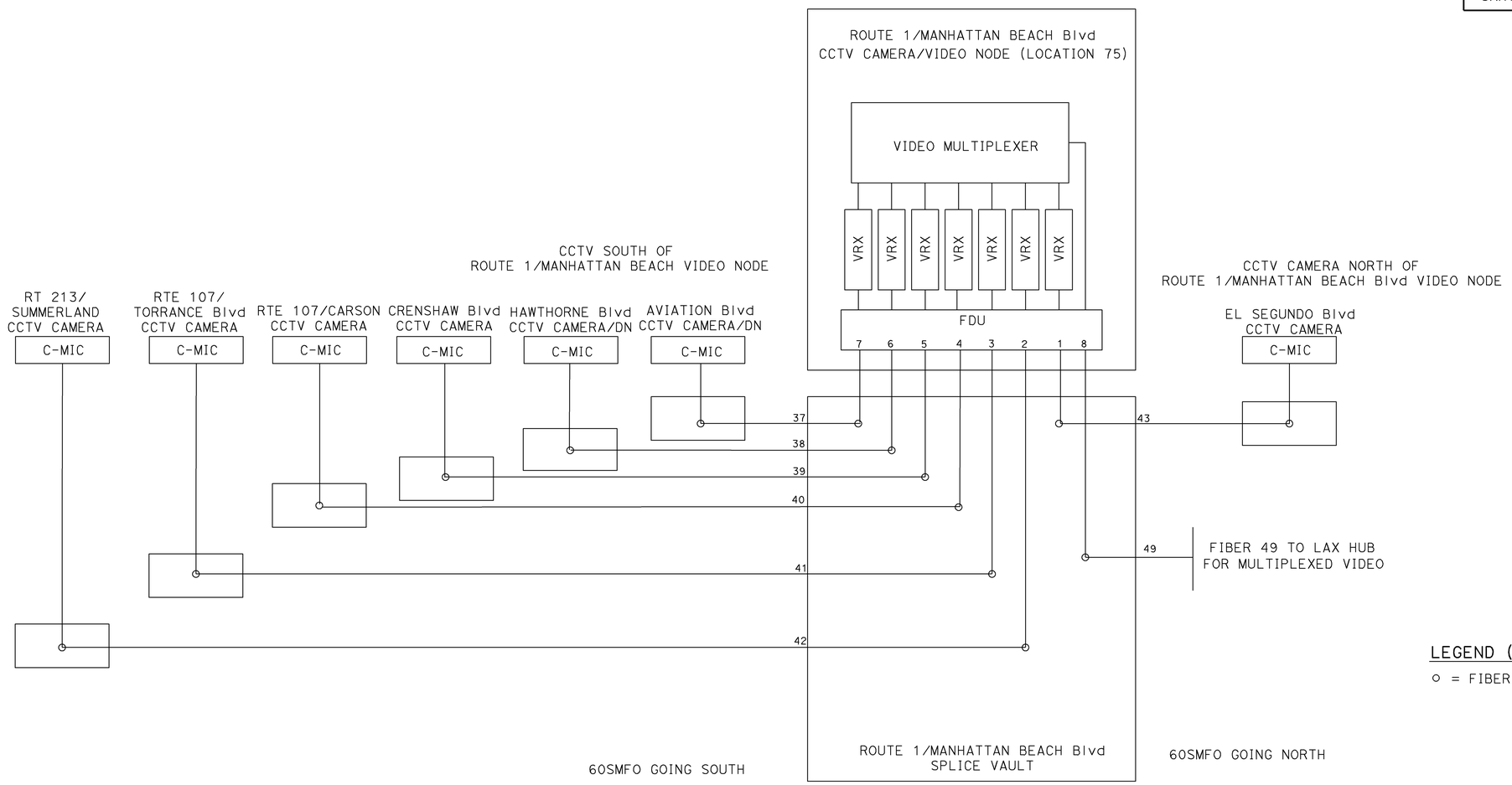


LEGEND (THIS SHEET)

o = FIBER OPTIC FUSION SPLICE

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (VIDEO NODE FIBER OPTIC SPLICING AND TERMINATION DIAGRAM)

NO SCALE

**E-254**

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| DATE | REVISED BY | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
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| 4/06 | MR | | YEFIM ZABEZHINSKY |
| 4/06 | KM | CHECKED BY | |

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USERNAME => trmikesl
DGN FILE => 725730ua254.dgn

CU 07382

EA 257301

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08/06
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9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
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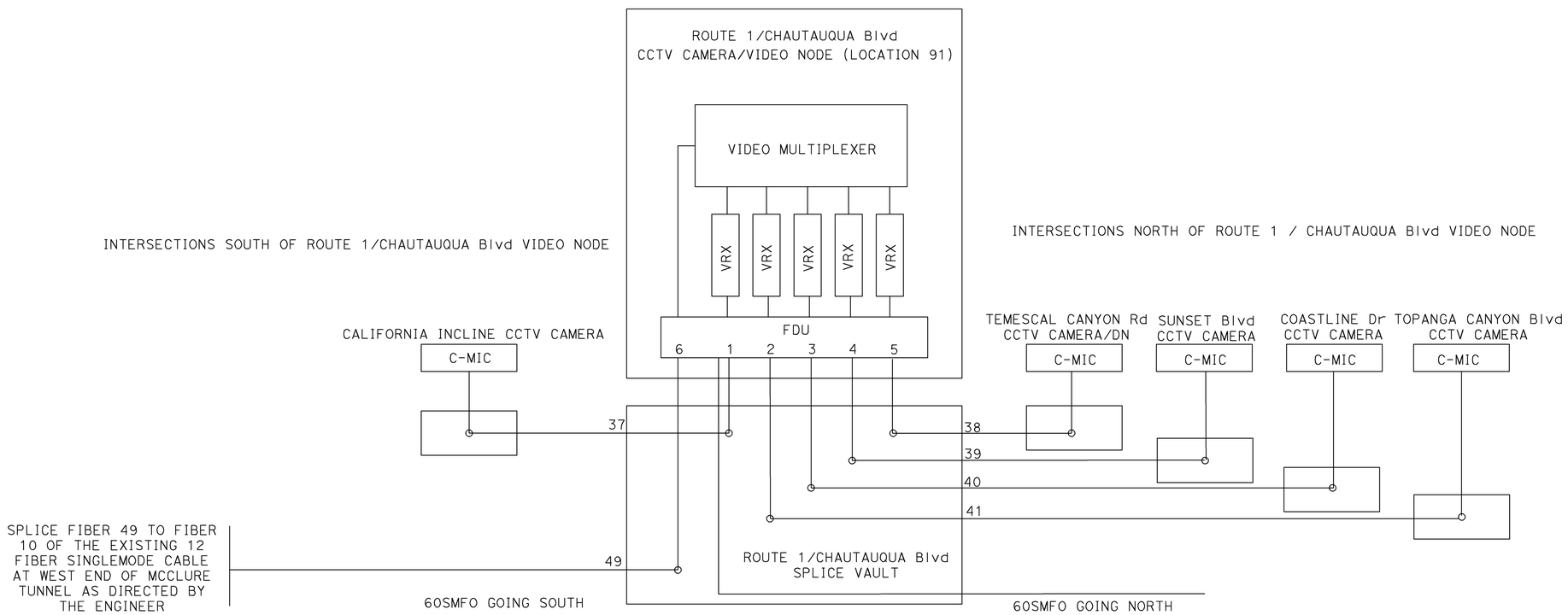


LEGEND

o = FIBER OPTIC FUSION SPLICE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (VIDEO NODE FIBER OPTIC SPLICING AND TERMINATION DIAGRAM)

NO SCALE

**E-255**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| | |
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| CALCULATED/DESIGNED BY | MR |
| CHECKED BY | KM |
| DATE REVISED | 4/06 |
| REVISED BY | DATE REVISED |

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CU 07382

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| 07 | LA | 1,105 | Var | 280 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

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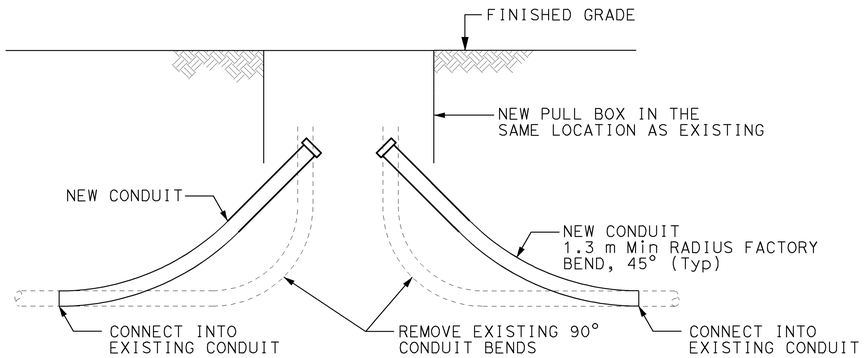
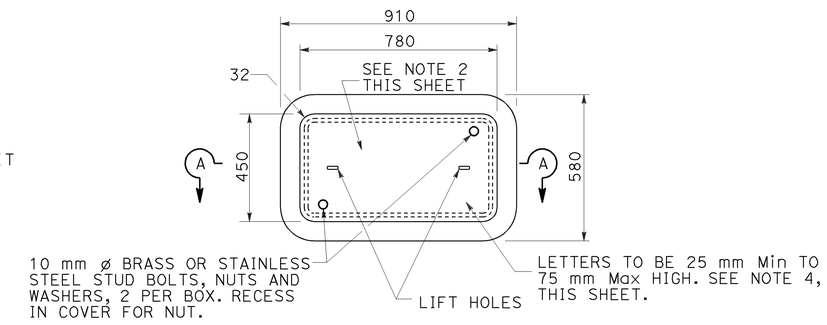
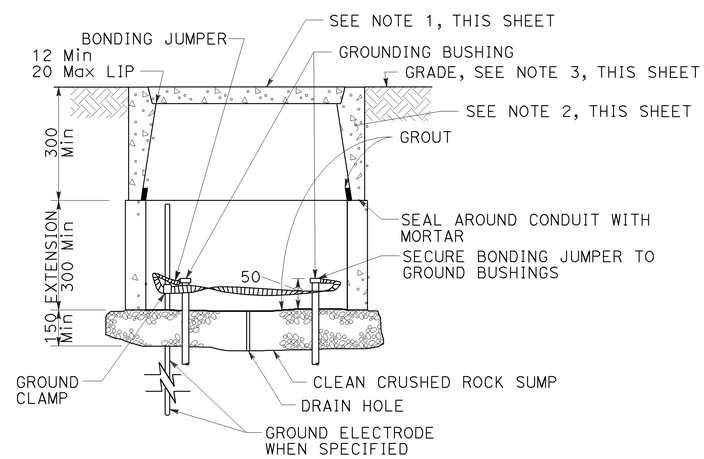



DETAIL A
PULL BOX REPLACEMENT AND CONDUIT SWEEP MODIFICATION




TOP VIEW




SECTION A-A

No. 6(E) PULL BOX

NOTES: (THIS SHEET)

1. COVER EDGE THICKNESS SHALL BE 50 mm AND EDGE TAPER SHALL BE 3 mm.
2. STEEL REINFORCING SHALL BE AS REGULARLY USED IN THE STANDARD PRODUCTS OF THE RESPECTIVE MANUFACTURER.
3. TOP OF PULL BOXES SHALL BE FLUSHED WITH SURROUNDING GRADE OR TOP OF ADJACENT CURB, EXCEPT THAT IN UNPAVED AREAS WHERE PULL BOX IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION. POLE OR OTHER PROTECTIVE CONSTRUCTION, THE BOX SHALL BE PLACED WITH ITS TOP 30 mm ABOVE SURROUNDING GRADE. WHERE PRACTICABLE, PULL BOXES SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND PULL BOXES SHOWN ADJACENT TO STANDARDS SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED. WHEN PULL BOX IS INSTALLED IN SIDEWALK AREA, THE DEPTH OF THE PULL BOX SHALL BE ADJUSTED SO THAT THE TOP OF THE PULL BOX IS FLUSHED WITH THE TOP OF THE SIDEWALK.
4. PULL BOX COVERS SHALL BE MARKED AS FOLLOWS: "CALTRANS" ON ALL PULL BOXES; "COMMUNICATION" COMMUNICATION CIRCUITS; "CCTV" CLOSED CIRCUIT TELEVISION CIRCUITS.
5. THE NOMINAL DIMENSIONS OF THE OPENING IN WHICH THE COVER SETS SHALL BE THE SAME AS THE COVER DIMENSIONS EXCEPT THE LENGTH AND WIDTH DIMENSIONS SHALL BE 3 mm GREATER.
6. ALL COVERS AND BOXES SHALL BE INTERCHANGEABLE WITH CALIFORNIA STANDARD MALE AND FEMALE GAGES. WHEN INTERCHANGED WITH A STANDARD MALE OR FEMALE GAGE, THE TOP SURFACES SHALL BE FLUSHED WITHIN 3 mm. TOP OUTSIDE EDGE OF ALL CONCRETE COVERS AND PULL BOXES SHALL HAVE A 6 mm MINIMUM RADIUS.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (PULL BOX DETAILS)

NO SCALE

**E-256**

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| DATE 4/06 | MR | CALCULATED/ DESIGNED BY | DESIGN OVERSIGHT |
|---|---|---|---|
| REVISED BY | | | |
| DATE REVISED | 4/06 | CHECKED BY | YEFIM ZABEZHINSKY |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua256.dgn

CU 07382 | EA 257301

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 05:47

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 281 | 308 |

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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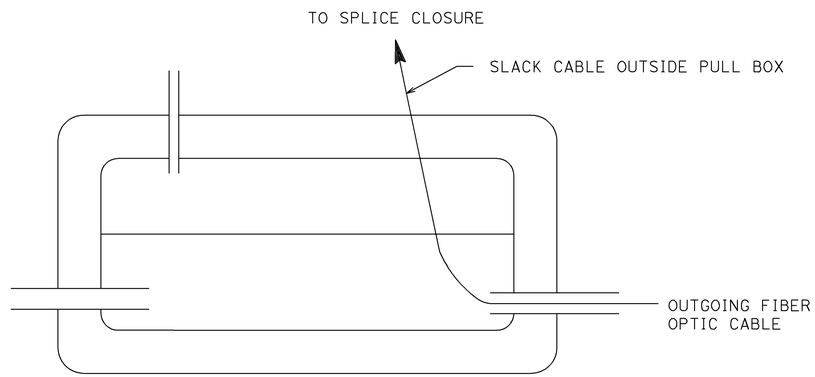
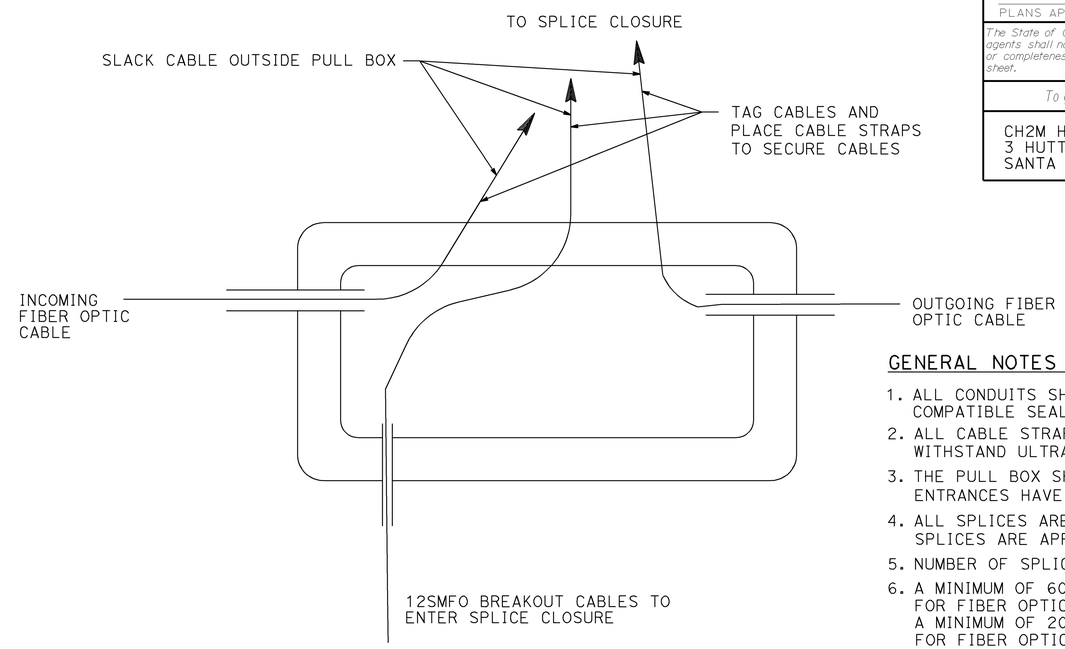


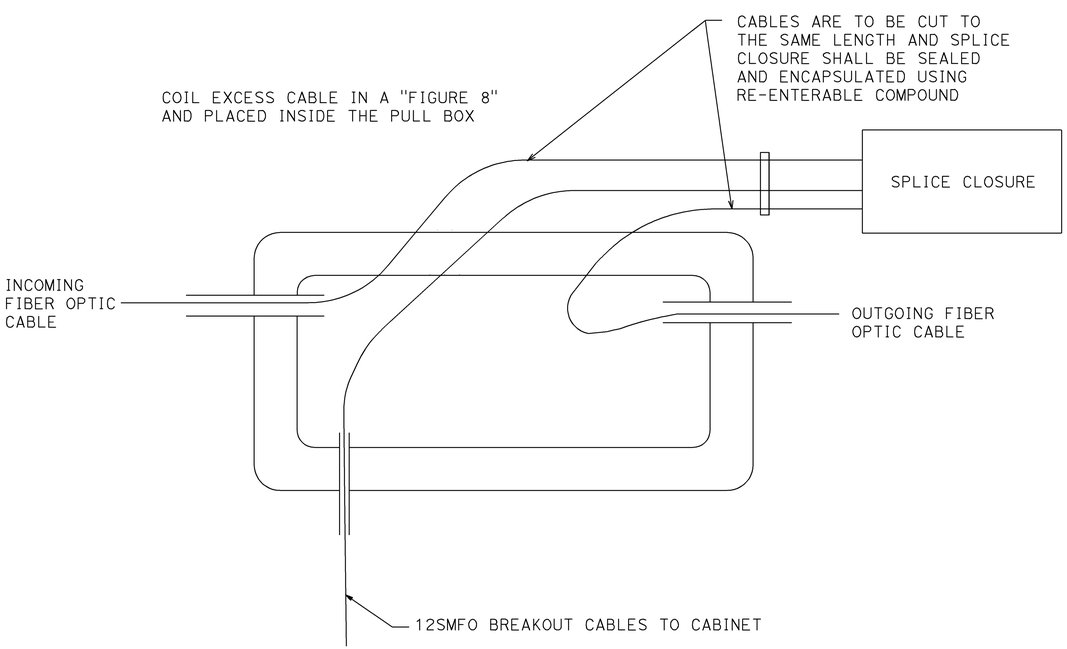

STEP 1



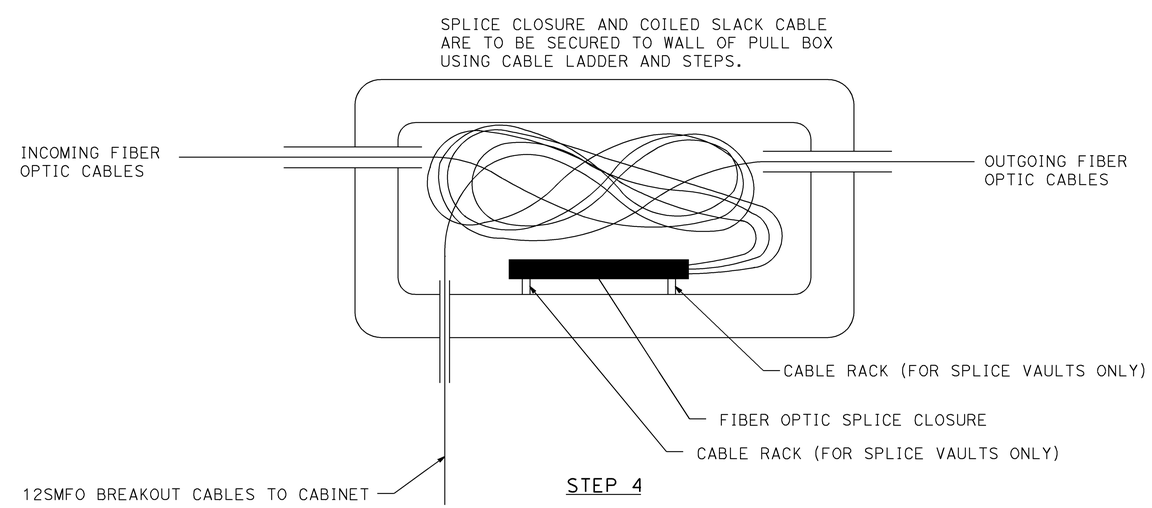

STEP 2

## GENERAL NOTES (THIS SHEET)

1. ALL CONDUITS SHALL BE SEALED WITH COMPATIBLE SEALANT.
2. ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRA-VIOLET EXPOSURE.
3. THE PULL BOX SHALL BE CAULKED AFTER ALL KNOWN ENTRANCES HAVE BEEN MADE.
4. ALL SPLICES ARE MID-SPAN UNLESS THROUGH SPLICES ARE APPROVED BY THE ENGINEER.
5. NUMBER OF SPLICE CLOSURES MAY VARY.
6. A MINIMUM OF 60 m OF SLACK SHALL BE PROVIDED FOR FIBER OPTIC CABLES AT SPLICE VAULTS, AND A MINIMUM OF 20 m OF SLACK SHALL BE PROVIDED FOR FIBER OPTIC CABLES AT No. 6(E) PULL BOXES. THE SLACK CABLE SHALL BE DIVIDED EQUALLY ON EACH SIDE OF FIBER OPTIC SPLICE CLOSURES.




STEP 3




STEP 4

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (SPLICE DETAIL)

NO SCALE

**E-257**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE | REVISED BY |
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| 4/06 | MR | 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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Caltrans

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TIME PLOTTED => 05:47

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua257.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 282 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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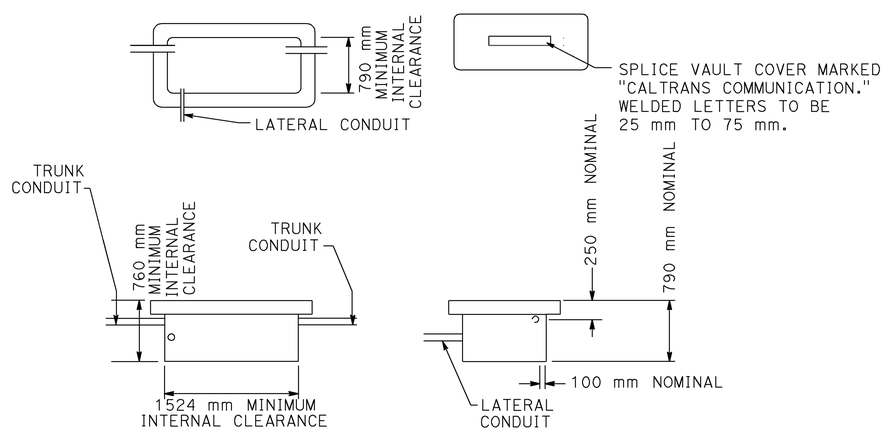
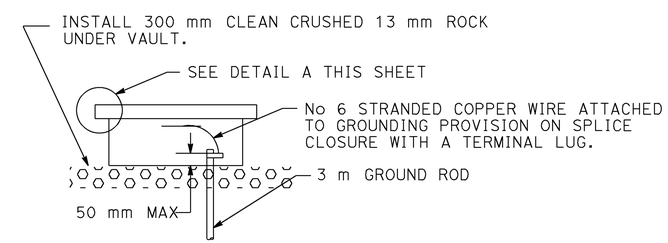
## GENERAL NOTES (THIS SHEET)

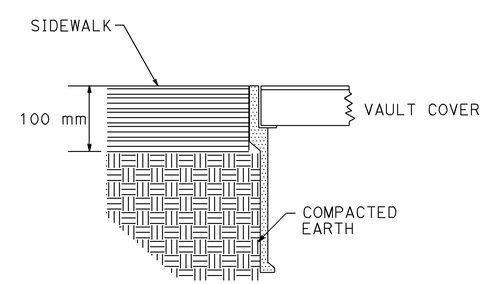
1. ALL GROUND CONNECTIONS SHALL BE COATED WITH OXIDATION PROHIBITING COMPOUND.
2. ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRA-VIOLET EXPOSURE.
3. THE VAULT SHALL BE CAULKED AFTER ALL KNOWN ENTRANCES HAVE BEEN MADE.
4. VAULT SHALL HAVE INTEGRAL BASE OR SHALL BE GROUTED PER STANDARD SPECIFICATION FOR PULL BOXES.
5. NUMBER OF SPLICE CLOSURES MAY VARY.




SPLICE VAULT DIMENSIONS




SPLICE VAULT INSTALLATION




DETAIL A
INSTALLATION IN SIDEWALK

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING

## (SPLICE VAULT DETAILS)

NO SCALE

**E-258**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY |
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| 4/06 | MR |

| DATE REVISED | |
|---|---|
| 4/06 | KM |

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YEFIM ZABEZHINSKY

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USERNAME => trmikesl
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CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 283 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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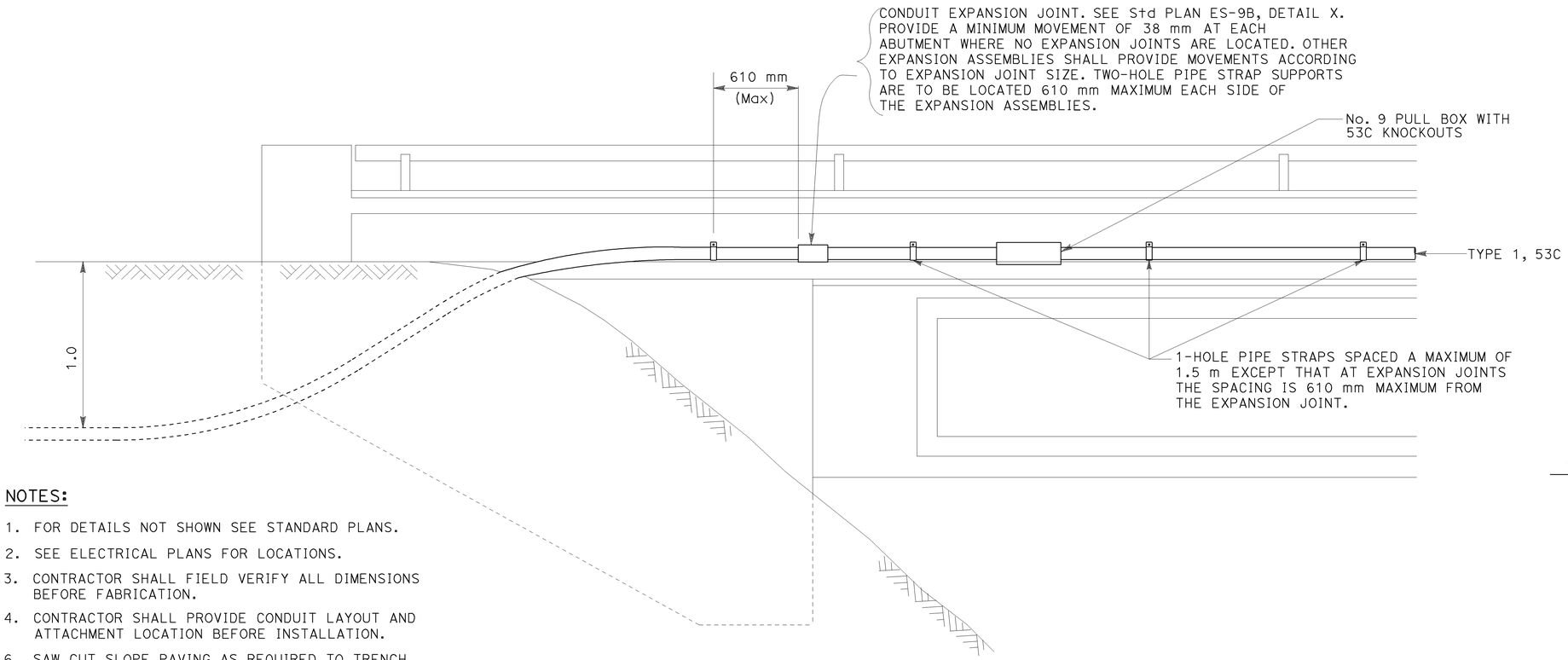
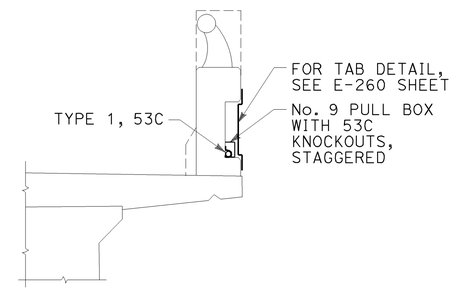



TYPICAL CONDUIT STRAPPING INSTALLATION

SIDE VIEW OF BRIDGE RAIL, ABUTMENT, AND GIRDER




SECTION VIEW OF BRIDGE RAIL

NOTES:

1. FOR DETAILS NOT SHOWN SEE STANDARD PLANS.
2. SEE ELECTRICAL PLANS FOR LOCATIONS.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION.
4. CONTRACTOR SHALL PROVIDE CONDUIT LAYOUT AND ATTACHMENT LOCATION BEFORE INSTALLATION.
6. SAW CUT SLOPE PAVING AS REQUIRED TO TRENCH, REPLACE SLOPE PAVING AFTER BACKFILL.
7. TWO-HOLE PIPE STRAPS SHALL BE USED AT EACH ABUTMENT.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# COMMUNICATION CONDUIT (BRIDGE)

## (DETAILS)

NO SCALE

**E-259**

| REVISED BY | DATE | DATE REVISED |
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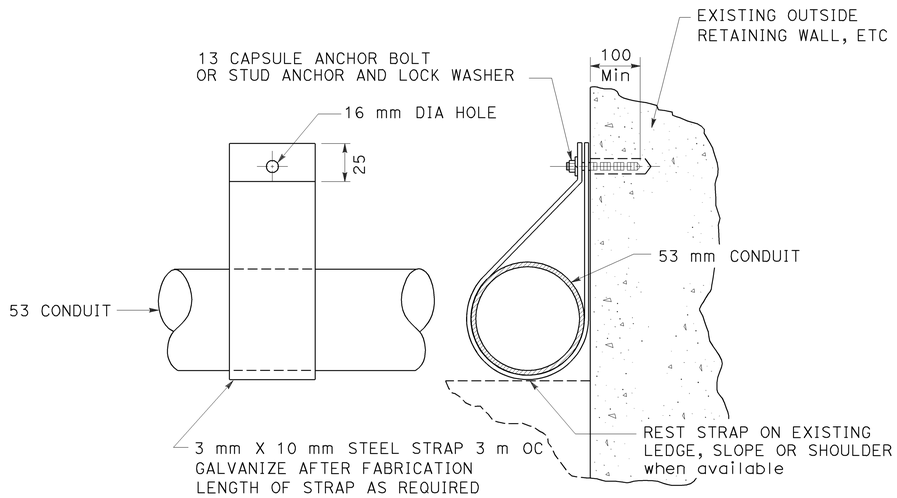
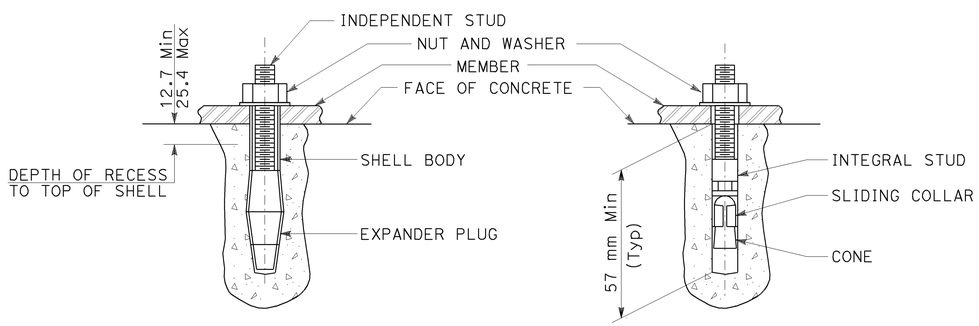


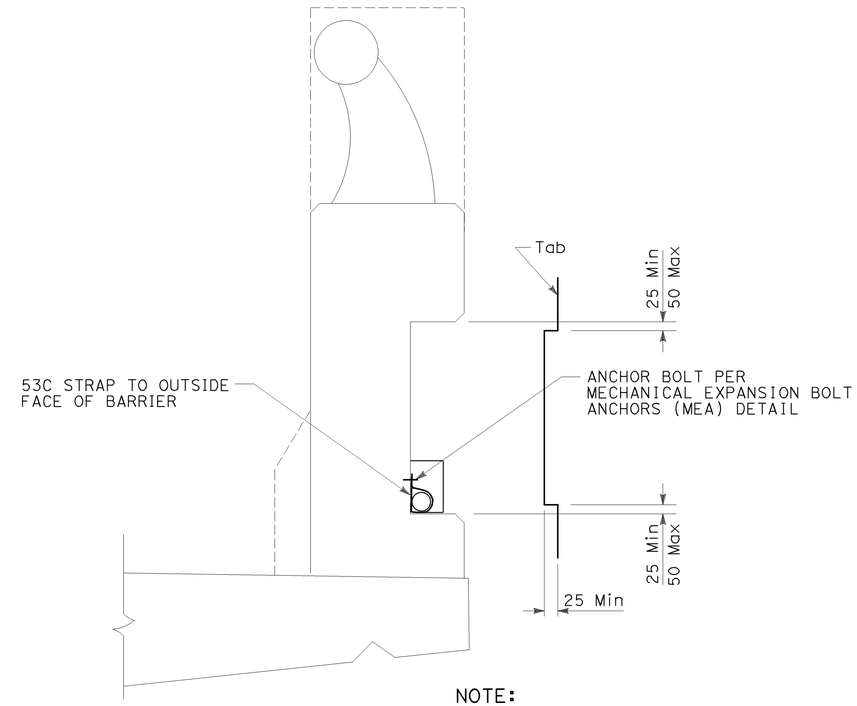

**ELEVATION** **SECTION**

## PIPE ANCHOR TYPE 1




**TYPICAL SHELL - TYPE MEA** **TYPICAL STUD - TYPE MEA**

## MECHANICAL EXPANSION BOLT ANCHORS (MEA)




NOTE:

LENGTH OF TAB = 1/2 OVERHANG THICKNESS PLUS EDGE DISTANCE FOR SHROUD.

## BRIDGE RAIL TAB DETAIL

ALL DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE SHOWN

# COMMUNICATION SYSTEM ROUTING
## (DETAILS)

NO SCALE

**E-260**

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| DATE 4/06 | REVISED BY | MR | CALCULATED/ DESIGNED BY |
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| 4/06 | DATE REVISED | KM | CHECKED BY |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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DGN FILE => 725730ua260.dgn

CU 07382 EA 257301

LAST REVISION 00-00-00 DATE PLOTTED => 28-SEP-2006 TIME PLOTTED => 06:12

# COMMUNICATION CABLE 60SMFO ASSIGNMENT TABLE

| | STUDEBAKER Rd 207OL CONTROLLER | 2ND St - WESTMINSTER Ave 207OL CONTROLLER | 2ND St - WESTMINISTER Ave CCTV CAMERA VIDEO | MARINA PACIFICA MALL 207OL CONTROLLER | LOYNES Dr 207OL CONTROLLER | CHANNEL Dr 207OL CONTROLLER | BELLFLOWER Blvd 207OL CONTROLLER | 7TH St 207OL CONTROLLER | 7TH St CCTV CAMERA VIDEO | ANAHEIM St 207OL CONTROLLER | CLARK Ave 207OL CONTROLLER | XIMENO Ave 207OL CONTROLLER | XIMENO Ave CCTV CAMERA VIDEO | TERMINO Ave 207OL CONTROLLER | REDONDO Ave 207OL CONTROLLER | REDONDO Ave CCTV CAMERA VIDEO | OBISPO Ave 207OL CONTROLLER | TEMPLE Ave 207OL CONTROLLER | JUNIPERO Ave 207OL CONTROLLER | CHERRY Ave 207OL CONTROLLER | ASSIGNMENT (SOUTH) | CHERRY Ave CCTV CAMERA/ VIDEO NODE | ASSIGNMENT (NORTH) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| FIBER | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | X | X | | X | | | | | | | | | | | | | | | | | | | |
| 2 | X | X | | X | | | | | | | | | | | | | | | | | | | |
| 3 | 0 | | | | X | X | X | X | | | | | | | | | | | | | | | |
| 4 | 0 | | | | X | X | X | X | | | | | | | | | | | | | | | |
| 5 | 0 | | | | | | | | | X | X | X | | X | | | | | | | | | |
| 6 | 0 | | | | | | | | | X | X | X | | X | | | | | | | | | |
| 7 | 0 | | | | | | | | | | | | | | X | | X | X | X | | | | |
| 8 | 0 | | | | | | | | | | | | | | X | | X | X | X | | | | |
| 9 | 0 | | | | | | | | | | | | | | | | | | | X | | | |
| 10 | 0 | | | | | | | | | | | | | | | | | | | X | | | |
| 11 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 14 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 17 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 21 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 22 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 23 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 24 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 0 | | X | | | | | | X | | | | | | | X | | | | | CCR TX | X | CCR TX |
| 26 | 0 | | X | | | | | | X | | | | | | | X | | | | | CCR RX | X | CCR RX |
| 27 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 28 | 0 | | | | | | | | | | | | | | | 8.0 | | | | | | | |
| 29 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 31 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 33 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 34 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 35 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 36 | 0 | | | | | | | | | | | | | | | X | | | | | REDONDO BEACH Blvd Ave CCTV CAMERA | X | |
| 37 | 0 | | | | | | | | | | | | X | | | | | | | | XIMENO WAY | X | |
| 38 | 0 | | | | | | | | X | | | | | | | | | | | | 7TH St CCTV CAMERA | X | |
| 39 | 0 | | X | | | | | | | | | | | | | | | | | | 2ND St/WESTMINSTER Ave CAM | X | |
| 40 | 0 | | | | | | | | | | | | | | | | | | | | | X | ORANGE Ave CCTV CAMERA |
| 41 | 0 | | | | | | | | | | | | | | | | | | | | | X | LONG BEACH Blvd CAM |
| 42 | 0 | | | | | | | | | | | | | | | X | | | | | | X | GOLDEN Ave CCTV CAMERA |
| 43 | 0 | | | | | | | | | | | | | | | X | | | | | | | |
| 44 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 45 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 46 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 47 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 48 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 49 | 0 | | | | | | | | | | | | | | | | | | | | | X | CHERRY Ave VIDEO MUX |
| 50 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 51 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 52 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 53 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 54 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 55 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 56 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 57 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 58 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 59 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 0 | | | | | | | | | | | | | | | | | | | | | | |

SEE SHEET E-262 FOR CONTINUATION

LEGEND: (THIS SHEET ONLY)
X - TERMINATED ACTIVE
O - TERMINATED INACTIVE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 285 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

PLANS APPROVAL DATE 9-25-06

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — 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.

To get to the Caltrans web site, go to: http://www.dot.ca.gov

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, VIDEO NODE AND DATA NODE

NO SCALE

E-261

DATE REVISED BY | DATE REVISED: 8/06 | 8/06
CALCULATED/DESIGNED BY | CHECKED BY
DESIGN OVERSIGHT: YEFIM ZABEZHINSKY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:15

# COMMUNICATION CABLE 60SMFO ASSIGNMENT TABLE

| | WALNUT Ave 2070L CONTROLLER | LEMON Ave (FUTURE) 2070L CONTROLLER | ORANGE Ave 2070L CONTROLLER | ASSIGNMENT (SOUTH) | ORANGE Ave CCTV CAMERA/DATA NODE | ASSIGNMENT (NORTH) | MARTIN LUTHER KING JR Ave 2070L CONTROLLER | ATLANTIC Ave 2070L CONTROLLER | LONG BEACH Blvd 2070L CONTROLLER | LONG BEACH Blvd CCTV CAMERA VIDEO | FUTURE 2070L CONTROLLER | PINE Ave 2070L CONTROLLER | PACIFIC Ave 2070L CONTROLLER | CEDAR Ave 2070L CONTROLLER | MAGNOLIA Ave 2070L CONTORLLER | GOLDEN Ave 2070L CONTROLLER | GOLDEN Ave CCTV CAMERA VIDEO | HARBOR Ave 2070L CONTROLLER | SANTA FE Ave 2070L CONTROLLER | JUDSON Ave 2070L CONTROLLER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KP | 8.0 | - | 8.8 | | 8.8 | | 9.3 | 9.7 | 10.1 | 10.1 | - | 10.4 | 10.5 | 10.6 | 10.9 | 11.3 | 11.3 | 12.1 | 12.5 | 13.4 |
| FIBER | | | | | | | | | | | | | | | | | | | | 0 |
| 1 | | | | TSMOD001-TX | X | | | | | | | | | | | | | | | 0 |
| 2 | | | | TSMOD001- RX | X | | | | | | | | | | | | | | | 0 |
| 3 | | | | TSMOD002 - TX | X | | | | | | | | | | | | | | | 0 |
| 4 | | | | TSMOD002 - RX | X | | | | | | | | | | | | | | | 0 |
| 5 | | | | TSMOD003 - TX | X | | | | | | | | | | | | | | | 0 |
| 6 | | | | TSMOD003 - RX | X | | | | | | | | | | | | | | | 0 |
| 7 | | | | TSMOD004-TX | X | | | | | | | | | | | | | | | 0 |
| 8 | | | | TSMOD004- RX | X | | | | | | | | | | | | | | | 0 |
| 9 | X | X | X | TSMOD005 - TX | X | | | | | | | | | | | | | | | 0 |
| 10 | X | X | X | TSMOD005 - RX | X | | | | | | | | | | | | | | | 0 |
| 11 | | | | | X | TSMOD006 - TX | X | X | X | | X | | | | | | | | | 0 |
| 12 | | | | | X | TSMOD006 - RX | X | X | X | | X | | | | | | | | | 0 |
| 13 | | | | | X | TSMOD007 - TX | | | | | | X | X | X | X | | | | | 0 |
| 14 | | | | | X | TSMOD007 - RX | | | | | | X | X | X | X | | | | | 0 |
| 15 | | | | | X | TSMOD008 - TX | | | | | | | | | | X | | X | X | X |
| 16 | | | | | X | TSMOD008 - RX | | | | | | | | | | X | | X | X | X |
| 17 | | | | | | | | | | | | | | | | | | | | 0 |
| 18 | | | | | | | | | | | | | | | | | | | | 0 |
| 19 | | | | | | | | | | | | | | | | | | | | 0 |
| 20 | | | | | | | | | | | | | | | | | | | | 0 |
| 21 | | | | | | | | | | | | | | | | | | | | 0 |
| 22 | | | | | | | | | | | | | | | | | | | | 0 |
| 23 | | | | | | | | | | | | | | | | | | | | 0 |
| 24 | | | | | | | | | | | | | | | | | | | | 0 |
| 25 | | | | CCR TX | X | CCR TX | | | | X | | | | | | | X | | | 0 |
| 26 | | | | CCR TRX | X | CCR TRX | | | | X | | | | | | | X | | | 0 |
| 27 | | | | | | | | | | | | | | | | | | | | 0 |
| 28 | | | | | | | | | | | | | | | | | | | | 0 |
| 29 | | | | | | | | | | | | | | | | | | | | 0 |
| 30 | | | | | | | | | | | | | | | | | | | | 0 |
| 31 | | | | | | | | | | | | | | | | | | | | 0 |
| 32 | | | | | | | | | | | | | | | | | | | | 0 |
| 33 | | | | | | | | | | | | | | | | | | | | 0 |
| 34 | | | | | | | | | | | | | | | | | | | | 0 |
| 35 | | | | | | | | | | | | | | | | | | | | 0 |
| 36 | | | | | | | | | | | | | | | | | | | | 0 |
| 37 | | | | | | | | | | | | | | | | | | | | 0 |
| 38 | | | | | | | | | | | | | | | | | | | | 0 |
| 39 | | | | | | | | | | | | | | | | | | | | 0 |
| 40 | | | | | X | | | | | | | | | | | | | | | 0 |
| 41 | | | | | | | | | | X | | | | | | | | | | 0 |
| 42 | | | | | | | | | | | | | | | | | X | | | 0 |
| 43 | | | | | | | | | | | | | | | | | | | | 0 |
| 44 | | | | | | | | | | | | | | | | | | | | 0 |
| 45 | | | | | | | | | | | | | | | | | | | | 0 |
| 46 | | | | | | | | | | | | | | | | | | | | 0 |
| 47 | | | | | | | | | | | | | | | | | | | | 0 |
| 48 | | | | | | | | | | | | | | | | | | | | 0 |
| 49 | | | | | | | | | | | | | | | | | | | | 0 |
| 50 | | | | | X | ORANGE Ave DATA NODE DS1 TX | | | | | | | | | | | | | | 0 |
| 51 | | | | | X | ORANGE Ave DATA NODE DS1 RX | | | | | | | | | | | | | | 0 |
| 52 | | | | | | | | | | | | | | | | | | | | 0 |
| 53 | | | | | | | | | | | | | | | | | | | | 0 |
| 54 | | | | | | | | | | | | | | | | | | | | 0 |
| 55 | | | | | | | | | | | | | | | | | | | | 0 |
| 56 | | | | | | | | | | | | | | | | | | | | 0 |
| 57 | | | | | | | | | | | | | | | | | | | | 0 |
| 58 | | | | | | | | | | | | | | | | | | | | 0 |
| 59 | | | | | | | | | | | | | | | | | | | | 0 |
| 60 | | | | | | | | | | | | | | | | | | | | |

SEE SHEET E-261 FOR CONTINUATION

LEGEND: (THIS SHEET ONLY)
X - TERMINATED ACTIVE
O - TERMINATED INACTIVE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

Caltrans Metric

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 286 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 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.*

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, VIDEO NODE AND DATA NODE

NO SCALE

**E-262**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 8/06 | | 8/06 |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:16

# COMMUNICATION CABLE 60SMFO ASSIGNMENT TABLE

| | ASSIGNMENT (SOUTH) | WESTERN Ave EXISTING 2070L CONTROLLER | WALNUT St 2070L CONTROLLER | ESHELMAN Ave 2070L CONTROLLER | OAK St 2070L CONTROLLER | NARBONNE Ave 2070L CONTROLLER | CYPRESS St 2070L CONTROLLER | PENNSYLVANIA Ave 2070L CONTROLLER | AIRPORT Dr 2070L CONTROLLER | CRENSHAW Blvd 2070L CONTROLLER | CRENSHAW Blvd CAMERA CONTROL | ROLLING HILLS WAY 2070L CONTROLLER | NEWTON St - ROBINSON WAY 2070L CONTROLLER | AERO WAY 2070L CONTROLLER | MADISON St 2070L CONTROLLER | HAWTHORNE Blvd 2070L CONTROLLER | ASSIGNMENT (SOUTH) | HAWTHORNE Blvd CCTV CAMERA/DATA NODE | ASSIGNMENT (NORTH) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KP | | 21.1 | 21.5 | 21.7 | 22.0 | 22.2 | 22.5 | 22.7 | 23.0 | 23.8 | 23.8 | 23.9 | 24.3 | 24.9 | 25.4 | 25.8 | | 25.8 | |
| FIBER | | | | | | | | | | | | | | | | | | | |
| 1 | | X | X | X | X | | | | | | | | | | | | TSMOD009 - TX | X | |
| 2 | | X | X | X | X | | | | | | | | | | | | TSMOD009 - RX | X | |
| 3 | | 0 | | | | X | X | X | X | | | | | | | | TSMOD010 - TX | X | |
| 4 | | 0 | | | | X | X | X | X | | | | | | | | TSMOD010 - RX | X | |
| 5 | | 0 | | | | | | | | X | | X | | | | | TSMOD011 - TX | X | |
| 6 | | 0 | | | | | | | | X | | X | | | | | TSMOD011 - RX | X | |
| 7 | | 0 | | | | | | | | | | | X | X | X | X | TSMOD012 - TX | X | |
| 8 | | 0 | | | | | | | | | | | X | X | X | X | TSMOD012 - RX | X | |
| 9 | ROUTE 213 TSMOD028 - TX | 0 | | | | | | | | | | | | | | | ROUTE 213 TSMOD028 - TX | X | |
| 10 | ROUTE 213 TSMOD028 - RX | 0 | | | | | | | | | | | | | | | ROUTE 213 TSMOD028 - RX | X | |
| 11 | ROUTE 213 TSMOD029 - TX | 0 | | | | | | | | | | | | | | | ROUTE 213 TSMOD029 - TX | X | |
| 12 | ROUTE 213 TSMOD029 - RX | 0 | | | | | | | | | | | | | | | ROUTE 213 TSMOD029 - RX | X | |
| 13 | ROUTE 213 TSMOD030 - TX | 0 | | | | | | | | | | | | | | | ROUTE 213 TSMOD030 - TX | X | |
| 14 | ROUTE 213 TSMOD030 - RX | 0 | | | | | | | | | | | | | | | ROUTE 213 TSMOD030 - RX | X | |
| 15 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 16 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 17 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 18 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 19 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 20 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 21 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 22 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 23 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 24 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 25 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 26 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 27 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 28 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 29 | | 0 | | | | | | | | | | | | | | | | | |
| 30 | | 0 | | | | | | | | | | | | | | | | | |
| 31 | | 0 | | | | | | | | | X | | | | | | CCR ROUTE 1 TX | X | |
| 32 | | 0 | | | | | | | | | X | | | | | | CCR ROUTE 1 RX | X | |
| 33 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 34 | | 0 | | | | | | | | | | | | | | | | 0 | |
| 35 | CCR ROUTE 213 TX | 0 | | | | | | | | | | | | | | | CCR ROUTE 213 TX | X | |
| 36 | CCR ROUTE 213 RX | 0 | | | | | | | | | | | | | | | CCR ROUTE 213 RX | X | |
| 37 | | 0 | | | | | | | | | | | | | | | | | |
| 38 | | 0 | | | | | | | | | | | | | | | | X | HAWTHORNE Blvd CAM |
| 39 | | 0 | | | | | | | | | X | | | | | | | | CRENSHAW Blvd CAM |
| 40 | | 0 | | | | | | | | | | | | | | | | X | CARSON St (RTE 107) CAM |
| 41 | | 0 | | | | | | | | | | | | | | | | X | TORRANCE Blvd (RTE 107) CAM |
| 42 | SUMMERLAND Ave (RTE 213) CAM | 0 | | | | | | | | | | | | | | | | | SUMMERLAND Ave (RTE 213) CAM |
| 43 | | 0 | | | | | | | | | | | | | | | | | |
| 44 | | 0 | | | | | | | | | | | | | | | | | |
| 45 | | 0 | | | | | | | | | | | | | | | | | |
| 46 | | 0 | | | | | | | | | | | | | | | | | |
| 47 | | 0 | | | | | | | | | | | | | | | | | |
| 48 | | 0 | | | | | | | | | | | | | | | | | |
| 49 | | 0 | | | | | | | | | | | | | | | | | |
| 50 | | 0 | | | | | | | | | | | | | | | | | |
| 51 | | 0 | | | | | | | | | | | | | | | | | |
| 52 | | 0 | | | | | | | | | | | | | | | | X | HAWTHORNE Blvd DATA NODE DS1 TX |
| 53 | | 0 | | | | | | | | | | | | | | | | X | HAWTHORNE Blvd DATA NODE DS1 RX |
| 54 | | 0 | | | | | | | | | | | | | | | | | |
| 55 | | 0 | | | | | | | | | | | | | | | | | |
| 56 | | 0 | | | | | | | | | | | | | | | | | |
| 57 | | 0 | | | | | | | | | | | | | | | | | |
| 58 | | 0 | | | | | | | | | | | | | | | | | |
| 59 | | 0 | | | | | | | | | | | | | | | | | |
| 60 | | 0 | | | | | | | | | | | | | | | | | |

LEGEND: (THIS SHEET ONLY)
X - TERMINATED ACTIVE
O - TERMINATED INACTIVE

SEE SHEET E-264 FOR CONTINUATION

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 287 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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*To get to the Caltrans web site, go to: http://www.dot.ca.gov*

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

**MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, DATA NODE, VIDEO NODE**

**E-263**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

| DATE | REVISED BY | DATE REVISED |
|---|---|---|

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:16

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trrene
DGN FILE => 725730ua263.dgn

CU 07382 | EA 257301

# COMMUNICATION CABLE 60SMFO ASSIGNMENT TABLE

| KP | ANZA Ave - VISTA MONTANA 2070L CONTROLLER | CALLE MAYOR 2070L CONTROLLER | PROSPECT Ave 2070L CONTROLLER | VISTA DEL PARQUE 2070L CONTROLLER | PALOS VERDES Blvd 2070L CONTROLLER | Ave H - ELENA Ave 2070L CONTROLLER | Ave F 2070L CONTROLLER | Ave C 2070L CONTROLLER | KNOB HILL Ave 2070L CONTROLLER | SAPPHIRE St - FRANCISCA Ave 2070L CONTROLLER | RUBY St - CUADALUPE Ave 2070L CONTROLLER | TORRANCE Blvd 2070L CONTROLLER | GARNET St 2070L CONTROLLER | EMERALD St 2070L CONTROLLER | VINCENT St 2070L CONTROLLER | DIAMOND St 2070L CONTROLLER | CARNELIAN St 2070L CONTROLLER | BERYL St 2070L CONTROLLER | IRENA Ave 2070L CONTROLLER | CATALINA Ave 2070L CONTROLLER | HERONDO St - ANITA St 2070L CONTROLLER | 2ND St 2070L CONTROLLER | 5TH St 2070L CONTROLLER | 8TH St 2070L CONTROLLER | AVIATION Blvd - 10TH St 2070L CONTROLLER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KP | 26.5 | 27.7 | 28.5 | 28.7 | 29.1 | 29.4 | 29.6 | 30.0 | 30.4 | 30.8 | 31.0 | 131.4 | 31.6 | 31.8 | 32.0 | 32.1 | 32.3 | 32.6 | 32.9 | 33.1 | 33.1 | 33.4 | 33.6 | 33.9 | 34.1 |
| FIBER | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | X | X | X | X | | | | | | | | | | | | | | | | | | | | |
| 4 | | X | X | X | X | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | X | X | X | X | | | | | | | | | | | | | | | | |
| 6 | | | | | | X | X | X | X | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | X | X | X | X | | | | | | | | | | | | |
| 8 | | | | | | | | | | X | X | X | X | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | X | X | X | X | | | | | | | | |
| 10 | | | | | | | | | | | | | | X | X | X | X | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | X | X | X | X | | | | |
| 12 | | | | | | | | | | | | | | | | | | X | X | X | X | | | | |
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SEE SHEET E-265 FOR CONTINUATION

LEGEND: (THIS SHEET ONLY)
X - TERMINATED ACTIVE
O - TERMINATED INACTIVE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

Caltrans Metric

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 288 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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CH2M HILL
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SANTA ANA, CA 92707

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, VIDEO NODE AND DATA NODE

NO SCALE

**E-264**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 8/06 | | 8/06 | |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:16

# COMMUNICATION CABLE 60SMFO ASSIGNMENT TABLE

| | ASSIGNMENT (SOUTH) | AVIATION Blvd - 10TH St CCTV CAMERA/DATA NODE | | PIER Ave - 14TH St 2070L CONTROLLER | 16TH St 2070L CONTROLLER | 21ST St 2070L CONTROLLER | ARTESIA Blvd - GOULD Ave 2070L CONTROLLER | LONGFELLOW Ave 2070L CONTROLLER | 2ND St 2070L CONTROLLER | 8TH St 2070L CONTROLLER | MANHATTAN BEACH Blvd 2070L CONTROLLER | ASSIGNMENT (SOUTH) | MANHATTAN BEACH Blvd CCTV CAMERA/VIDEO NODE | ASSIGNMENT (NORTH) | 18TH St 2070L CONTROLLER | MARINE Ave 2070L CONTROLLER | 30TH St 2070L CONTROLLER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KP | | 34.1 | | 34.3 | 34.8 | 35.0 | 35.3 | 35.7 | 36.0 | 36.4 | 36.9 | | 36.9 | | 37.3 | 37.7 | 38.0 |
| FIBER | | | | | | | | | | | | | | | | | |
| | TSMOD013 - TX | X | | | | | | | | | | | | | | | |
| 2 1 | TSMOD013- RX | X | | | | | | | | | | | | | | | |
| 3 | TSMOD014 - TX | X | | | | | | | | | | | | | | | |
| 4 | TSMOD014 - RX | X | | | | | | | | | | | | | | | |
| 5 | TSMOD015 - TX | X | | | | | | | | | | | | | | | |
| 6 | TSMOD015- RX | X | | | | | | | | | | | | | | | |
| 7 | TSMOD016 - TX | X | | | | | | | | | | | | | | | |
| 8 | TSMOD016 - RX | X | | | | | | | | | | | | | | | |
| 9 | TSMOD017 - TX | X | | | | | | | | | | | | | | | |
| 10 | TSMOD017 - RX | X | | | | | | | | | | | | | | | |
| 11 | TSMOD018 - TX | X | | | | | | | | | | | | | | | |
| 12 | TSMOD018 - RX | X | | | | | | | | | | | | | | | |
| 13 | TSMOD019 - TX | X | | | | | | | | | | | | | | | |
| 14 | TSMOD019 - RX | X | | | | | | | | | | | | | | | |
| 15 | | X | TSMOD020 - TX | X | X | X | X | | | | | | | | | | |
| 16 | | X | TSMOD020 - RX | X | X | X | X | | | | | | | | | | |
| 17 | | X | TSMOD021 - TX | | | | | X | X | X | X | | | | | | |
| 18 | | X | TSMOD021 - RX | | | | | X | X | X | X | | | | | | |
| 19 | | X | TSMOD022 - TX | | | | | | | | | | | | X | X | X |
| 20 | | X | TSMOD022 - RX | | | | | | | | | | | | X | X | X |
| 21 | | X | TSMOD023 - TX | | | | | | | | | | | | | | |
| 22 | | X | TSMOD023 - RX | | | | | | | | | | | | | | |
| 23 | | X | TSMOD024 - TX | | | | | | | | | | | | | | |
| 24 | | X | TSMOD024 - RX | | | | | | | | | | | | | | |
| 25 | | X | CCR TX | | | | | | | | | | X | | | | |
| 26 | | X | CCR RX | | | | | | | | | | X | | | | |
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| 36 | | | | | | | | | | | | | | | | | |
| 37 | | X | AVIATION Blvd CAM | | | | | | | | | AVIATION Blvd CAM | X | | | | |
| 38 | | | | | | | | | | | | HAWTHORNE Blvd CAM | X | | | | |
| 39 | | | | | | | | | | | | CRENSHAW Blvd CAM | X | | | | |
| 40 | | | | | | | | | | | | SUMMERLAND Ave CAM | X | | | | |
| 41 | | | | | | | | | | | | | X | EL SEGUNDO Blvd CAM | | | |
| 41 | | | | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | |
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| 48 | | | | | | | | | | | | | | | | | |
| 49 | | | | | | | | | | | | | X | MANHATTAN BEACH Blvd VN | | | |
| 50 | | X | AVIATION Blvd DN DS1 TX | | | | | | | | | | | | | | |
| 51 | | X | AVIATION Blvd DN DS1 RX | | | | | | | | | | | | | | |
| 52 | | | | | | | | | | | | | | | | | |
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SEE SHEET E-264 FOR CONTINUATION

SEE SHEET E-266 FOR CONTINUATION

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O - TERMINATED INACTIVE

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Caltrans Metric

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 289 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, VIDEO NODE AND DATA NODE

NO SCALE

**E-265**

| DATE | REVISED BY | DATE | REVISED BY |
|---|---|---|---|
| 8/06 | | 8/06 | |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:16

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 290 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707


## COMMUNICATION CABLE 60SMFO ASSIGNMENT TABLE

| | 33RD St 2070L CONTROLLER | ROSECRANS Ave 2070L CONTROLLER | HUGHES WAY 2070L CONTROLLER | EL SEGUNDO Blvd 2070L CONTROLLER | EL SEGUNDO Blvd CCTV VIDEO | GRAND Ave 2070L CONTROLLER | MARIPOSA Ave 2070L CONTROLLER | MAPLE Ave 2070L CONTROLLER | WALNUT Ave 2070L CONTROLLER | IMPERIAL HIGHWAY 2070L CONTROLLER | WB 105 FWY OFF-RAMP 2070L CONTROLLER | ASSIGNMENT | LAX HUB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KP | 38.1 | 38.5 | 39.1 | 40.1 | 40.1 | 40.5 | 40.9 | 41.3 | 41.6 | 41.7 | 41.9 | | - |
| FIBER | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | 0 |
| 2 | | | | | | | | | | | | | 0 |
| 3 | | | | | | | | | | | | | 0 |
| 4 | | | | | | | | | | | | | 0 |
| 5 | | | | | | | | | | | | | 0 |
| 6 | | | | | | | | | | | | | 0 |
| 7 | | | | | | | | | | | | | 0 |
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| 10 | | | | | | | | | | | | | 0 |
| 11 | | | | | | | | | | | | | 0 |
| 12 | | | | | | | | | | | | | 0 |
| 13 | | | | | | | | | | | | | 0 |
| 14 | | | | | | | | | | | | | 0 |
| 15 | | | | | | | | | | | | | 0 |
| 16 | | | | | | | | | | | | | 0 |
| 17 | | | | | | | | | | | | | 0 |
| 18 | | | | | | | | | | | | | 0 |
| 19 | X | | | | | | | | | | | | 0 |
| 20 | X | | | | | | | | | | | | 0 |
| 21 | | X | X | X | | X | | | | | | | 0 |
| 22 | | X | X | X | | X | | | | | | | 0 |
| 23 | | | | | | | X | X | X | X | X | | 0 |
| 24 | | | | | | | X | X | X | X | X | | 0 |
| 25 | | | | | X | | | | | | | | 0 |
| 26 | | | | | X | | | | | | | | 0 |
| 27 | | | | | | | | | | | | | 0 |
| 28 | | | | | | | | | | | | | 0 |
| 29 | | | | | | | | | | | | | 0 |
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| 32 | | | | | | | | | | | | | 0 |
| 33 | | | | | | | | | | | | | 0 |
| 34 | | | | | | | | | | | | | 0 |
| 35 | | | | | | | | | | | | | 0 |
| 36 | | | | | | | | | | | | | 0 |
| 37 | | | | | | | | | | | | | 0 |
| 38 | | | | | | | | | | | | | 0 |
| 39 | | | | | | | | | | | | | 0 |
| 40 | | | | | | | | | | | | | 0 |
| 41 | | | | | | | | | | | | | 0 |
| 41 | | | | | | | | | | | | | 0 |
| 42 | | | | | | | | | | | | | 0 |
| 43 | | | | | X | | | | | | | | 0 |
| 44 | | | | | | | | | | | | | 0 |
| 45 | | | | | | | | | | | | | 0 |
| 46 | | | | | | | | | | | | | 0 |
| 47 | | | | | | | | | | | | | 0 |
| 48 | | | | | | | | | | | | | 0 |
| 49 | | | | | | | | | | | | MANHATTAN BEACH Blvd VN | X |
| 50 | | | | | | | | | | | | AVIATION Blvd DN DS1 TX | X |
| 51 | | | | | | | | | | | | AVIATION Blvd DN DS1 RX | X |
| 52 | | | | | | | | | | | | HAWTHORNE Blvd DN DS1 TX | X |
| 53 | | | | | | | | | | | | HAWTHORNE Blvd DN DS1 RX | X |
| 54 | | | | | | | | | | | | | 0 |
| 55 | | | | | | | | | | | | | 0 |
| 56 | | | | | | | | | | | | | 0 |
| 57 | | | | | | | | | | | | | 0 |
| 58 | | | | | | | | | | | | | 0 |
| 59 | | | | | | | | | | | | | 0 |
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SEE SHEET E-265 FOR CONTINUATION

LEGEND: (THIS SHEET ONLY)
X - TERMINATED ACTIVE
0 - TERMINATED INACTIVE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, VIDEO NODE AND DATA NODE

NO SCALE

**E-266**

| DATE | REVISED BY |
|---|---|
| 8/06 | DATE REVISED |

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Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:16

# COMMUNICATION CABLE 60SMFO ASSIGNMENT TABLE

| | WEST McCLURE TUNNEL | CALIFORNIA INCLINE 2070L CONTROLLER | CALIFORNIA INCLINE CCTV VIDEO | FUTURE 2070L CONTROLLER | CHAUTAUQUA Blvd - ENTRADA Dr 2070L CONTROLLER | ASSIGNMENT (SOUTH) | CHAUTAUQUA Blvd - ENTRADA Dr CCTV CAMERA /VIDEO NODE | ASSIGNMENT (NORTH) | TEMESCAL CANYON Rd 2070L CONTROLLER | ASSIGNMENT (SOUTH) | TEMESCAL CANYON Rd CCTV CAMERA/DATA NODE | ASSIGNMENT (NORTH) | BEL-AIR BAY CLUB Dr 2070L CONTROLLER | SUNSET Blvd 2070L CONTROLLER | SUNSET Blvd CCTV VIDEO | PORTO MARINA WAY 2070L CONTROLLER | COASTLINE Dr 2070L CONTROLLER | COASTLINE Dr CCTV CAMERA VIDEO | TOPANGA CANYON Blvd 2070L CONTROLLER | TOPANGA CANYON Blvd CCTV CAMERA VIDEO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KP | 56.7 | 58.1 | 58.1 | - | 59.6 | | 59.6 | | 61.5 | | 61.5 | | 62.3 | 63.3 | 63.3 | 64.1 | 64.6 | 64.6 | 65.6 | 65.6 |
| FIBER | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | X | | X | X | | | | X | TSMOD025-TX | X | | | | | | | | | 0 |
| 2 | 0 | X | | X | X | | | | X | TSMOD025-RX | X | | | | | | | | | 0 |
| 3 | 0 | | | | | | | | | | X | TSMOD026-TX | X | X | | X | X | | | 0 |
| 4 | 0 | | | | | | | | | | X | TSMOD026-RX | X | X | | X | X | | | 0 |
| 5 | 0 | | | | | | | | | | X | TSMOD027-TX | | | | | | | X | 0 |
| 6 | 0 | | | | | | | | | | X | TSMOD027-RX | | | | | | | X | 0 |
| 7 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 8 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 9 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 10 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 11 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 12 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 13 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 14 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 15 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 16 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 17 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 18 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 19 | 0 | | | | | | | | | | | | | | | | | | | 0 |
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| 21 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 22 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 23 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 24 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 25 | 0 | | X | | | | X | | | CCR-TX | X | CCR-TX | | | X | | | X | | X |
| 26 | 0 | | X | | | | X | | | CCR-RX | X | CCR-RX | | | X | | | X | | X |
| 27 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 28 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 29 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 30 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 31 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 32 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 33 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 34 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 35 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 36 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 37 | 0 | | X | | | CALIFORNIA INCLINE VIDEO | X | TEMESCAL CANYON Rd VIDEO | | | X | | | | | | | | | 0 |
| 38 | 0 | | | | | | X | SUNSET Blvd VIDEO | | | | | | | X | | | | | 0 |
| 39 | 0 | | | | | | X | COASTLINE Dr VIDEO | | | | | | | | | | X | | 0 |
| 40 | 0 | | | | | | X | TOPANGA CANYON Blvd VIDEO | | | | | | | | | | | | X |
| 41 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 41 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 42 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 43 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 44 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 45 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 46 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 47 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 48 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 49 | X | | | | | CHAUTAUQUA Rd VIDEO MUX | X | | | | | | | | | | | | | 0 |
| 50 | X | | | | | TEMESCAL Blvd DN DS1 TX | | | | | X | | | | | | | | | 0 |
| 51 | X | | | | | TEMESCAL Blvd DN DS1 RX | | | | | X | | | | | | | | | 0 |
| 52 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 53 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 54 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 55 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 56 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 57 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 58 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 59 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 60 | 0 | | | | | | | | | | | | | | | | | | | 0 |

LEGEND: (THIS SHEET ONLY)
X - TERMINATED ACTIVE
O - TERMINATED INACTIVE

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Caltrans Metric

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 291 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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SANTA ANA, CA 92707

# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, VIDEO NODE AND DATA NODE

NO SCALE

**E-267**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| 8/06 | | 8/06 |

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 292 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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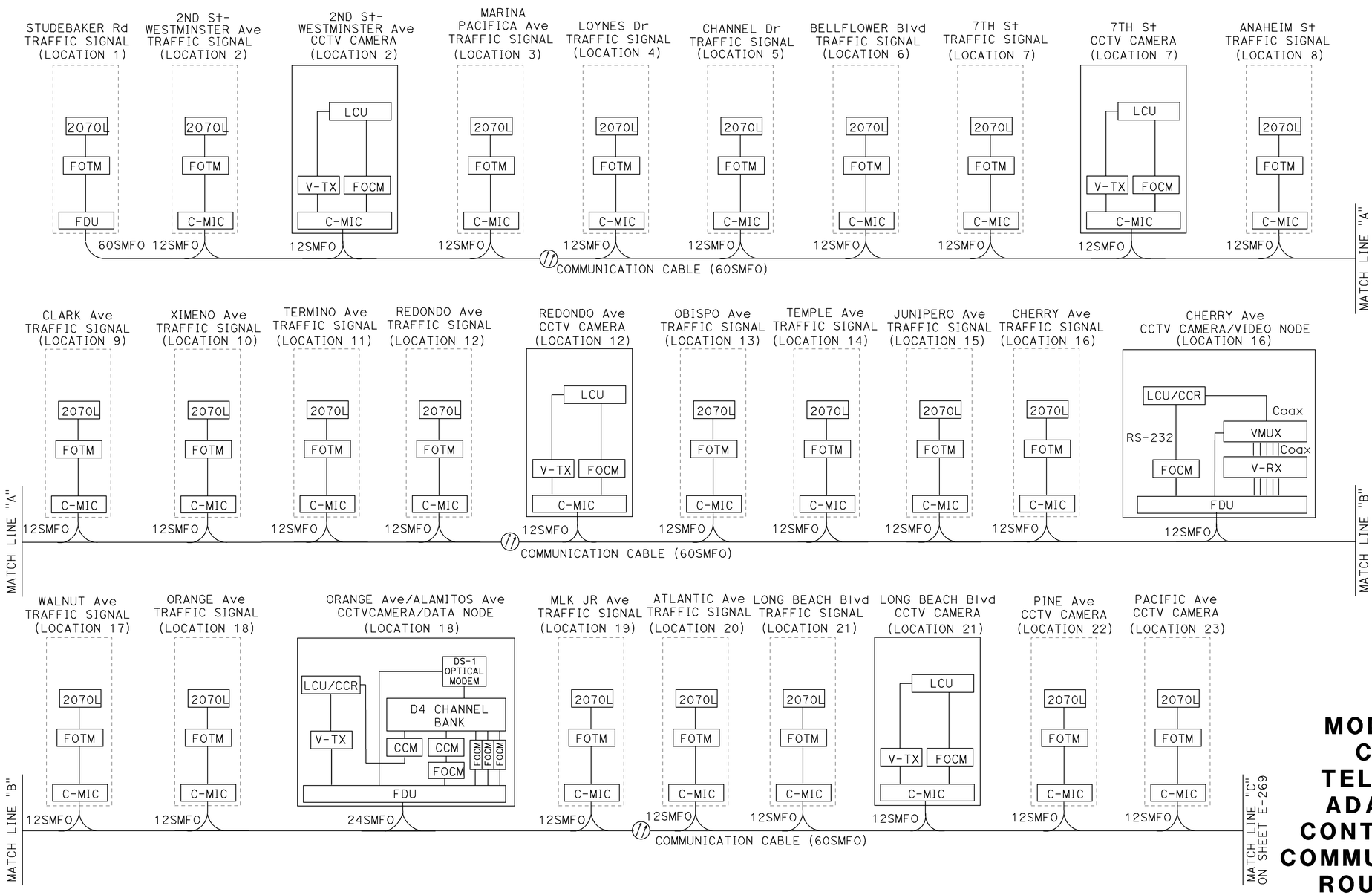
Caltrans Metric




# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING DATA NODE VIDEO NODE

**(SCHEMATIC)**

**(ROUTE 1 - STUDEBAKER ROAD TO PACIFIC AVENUE)**

NO SCALE

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**E-268**

| DATE | REVISED BY | DATE REVISED |
|---|---|---|
| | | |

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DATE PLOTTED => 28-SEP-2006
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RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trmikesl
DGN FILE => 725730ua268.dgn

CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 293 | 308 |

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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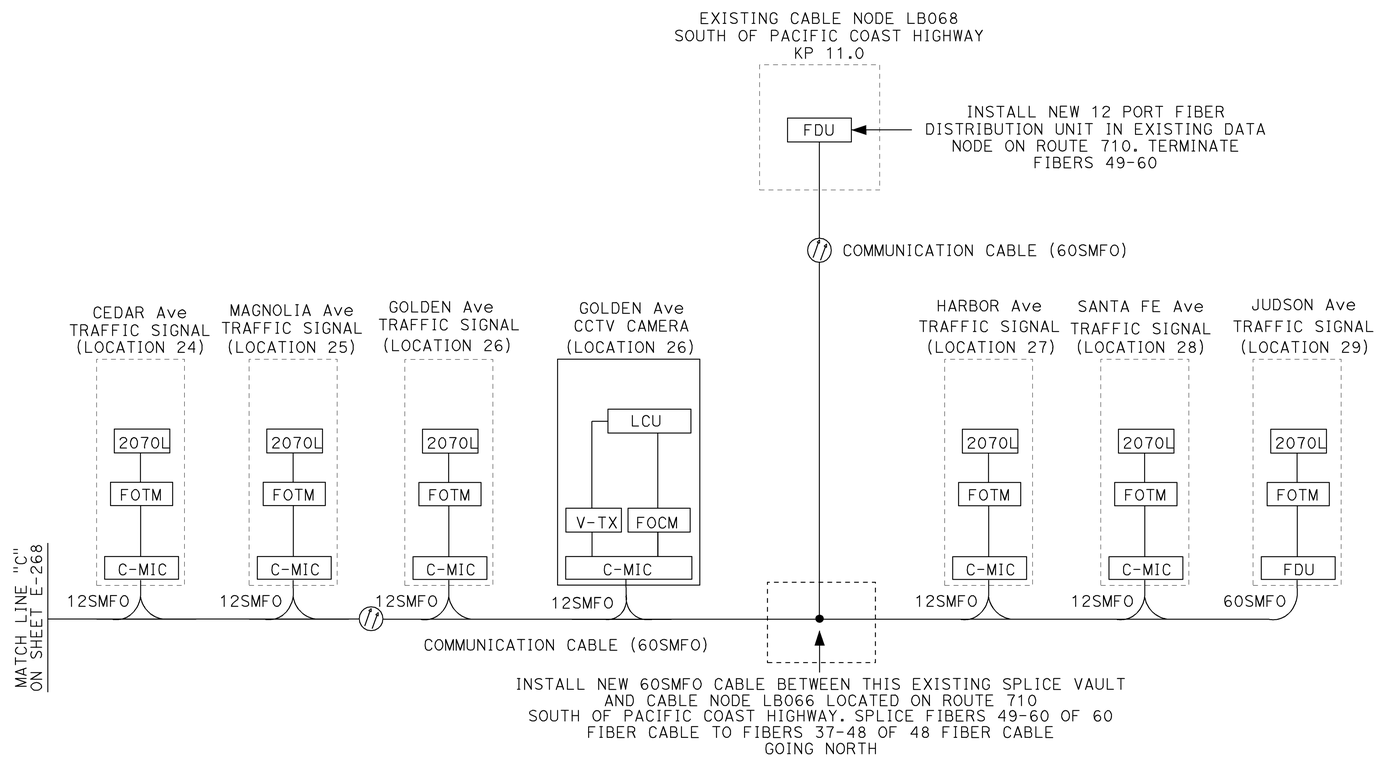


# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING DATA NODE VIDEO NODE

**(SCHEMATIC)**

**(ROUTE 1 - CEDAR AVENUE TO JUDSON STREET)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-269**

| DATE | REVISED BY |
|---|---|
| | DATE REVISED |

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USERNAME => trmikesl
DGN FILE => 725730ua269.dgn

CU 07382

EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 294 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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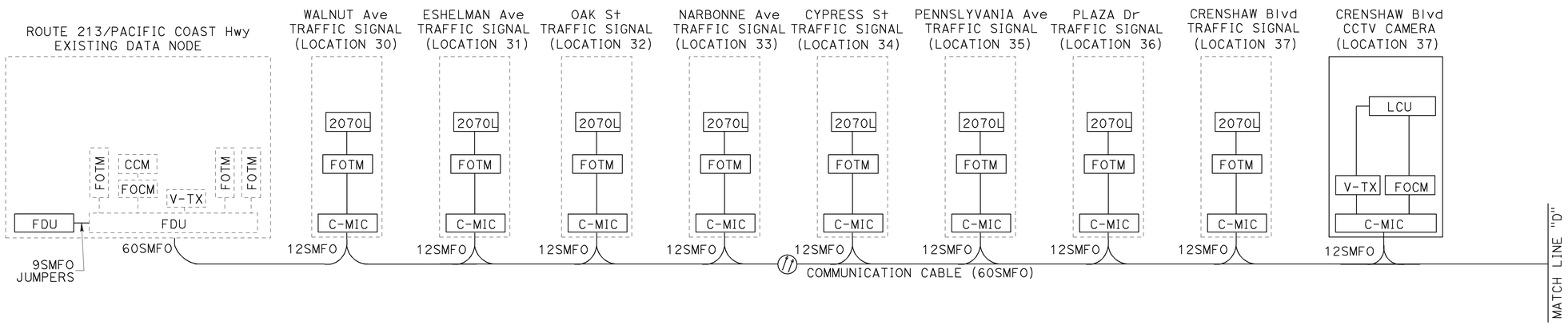


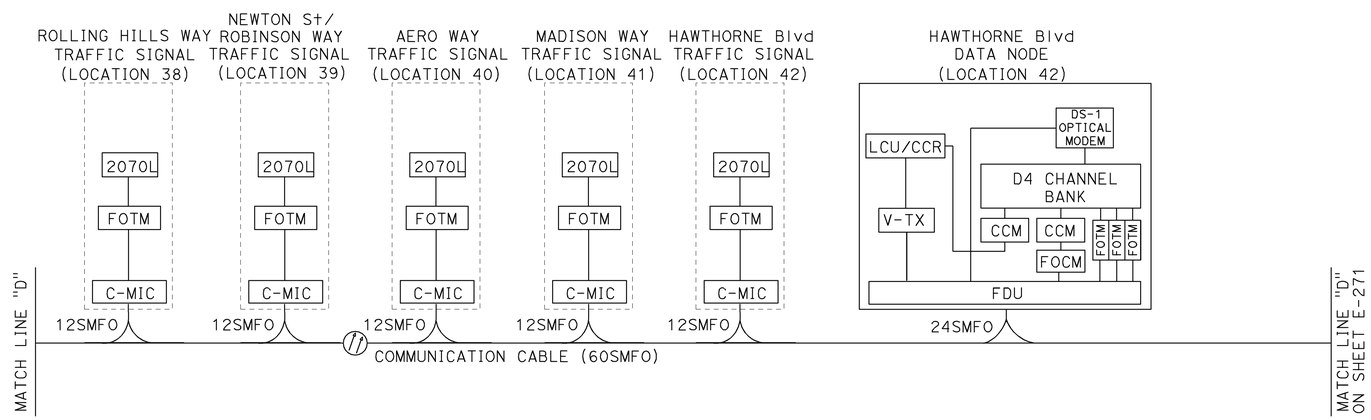


# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING DATA NODE VIDEO NODE

**(SCHEMATIC)**

**(ROUTE 1 - WALNUT STREET TO HAWTHORNE BOULEVARD)**

NO SCALE

**E-270**

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DGN FILE => 725730ua270.dgn

CU 07382

EA 257301

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 295 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
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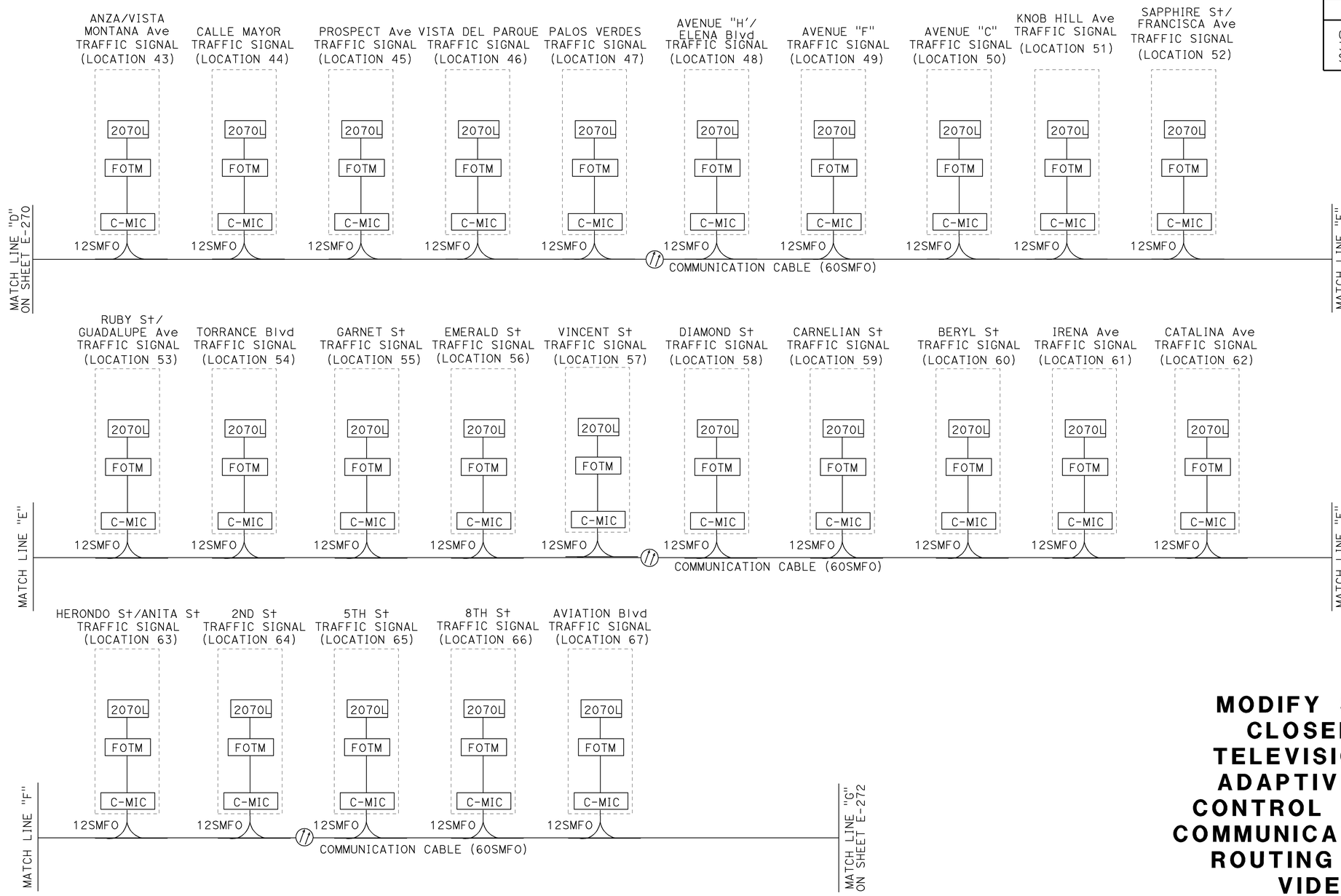


# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING DATA NODE VIDEO NODE

**(SCHEMATIC)**

**(ROUTE 1 - ANZA AVE/VISTA MONTANA TO AVIATION BLVD)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-271**

| DATE | REVISED BY | DATE REVISED |
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DGN FILE => 725730ua271.dgn

CU 07382

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|---|---|---|---|---|---|
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08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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No. E11758
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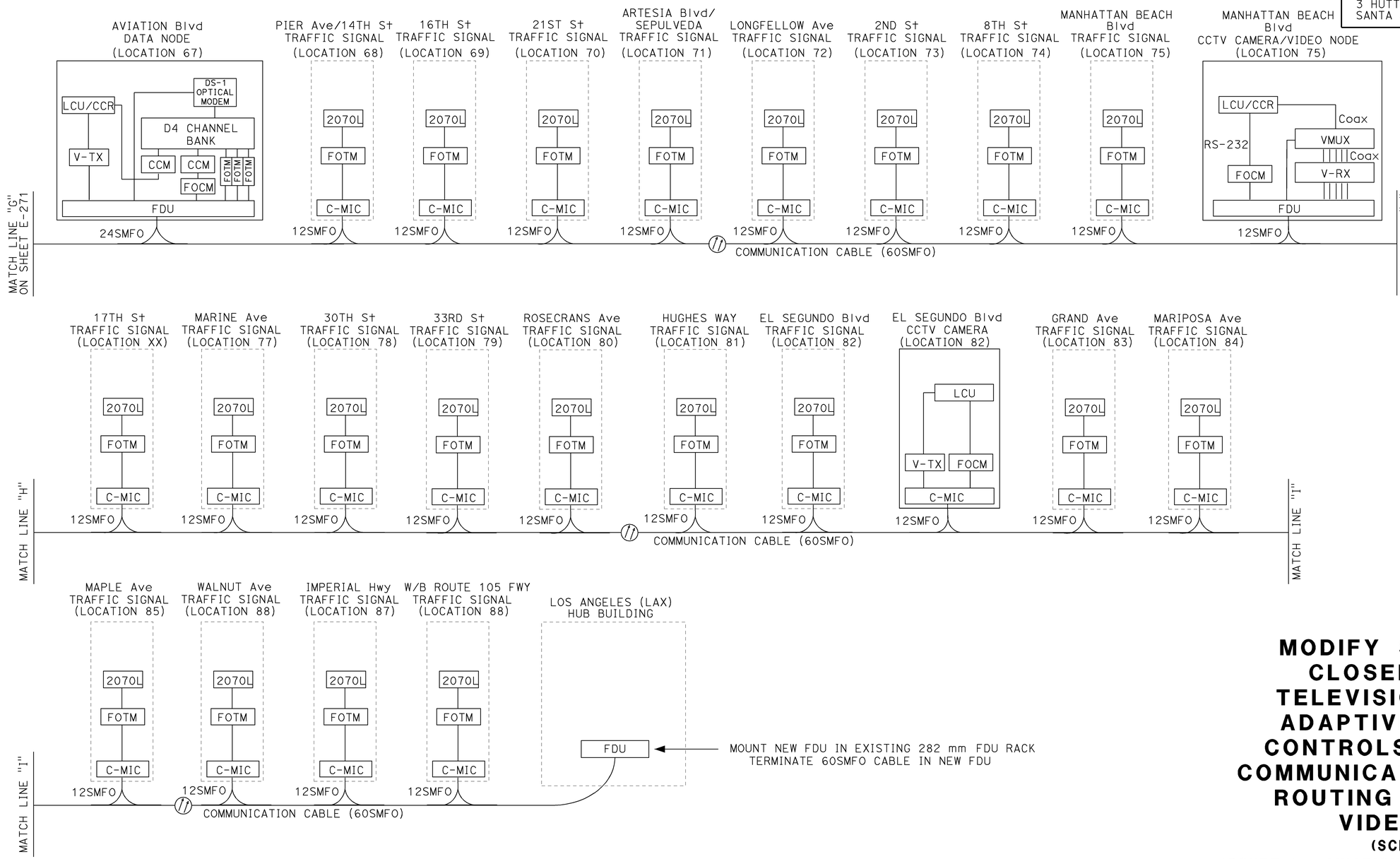


# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROLSIGNAL AND COMMUNICATION SYSTEM ROUTING DATA NODE VIDEO NODE

**(SCHEMATIC)**

**(ROUTE 1 - AVIATION BOULEVARD TO LAX HUB)**

NO SCALE

**E-272**

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

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DGN FILE => 725730ua272.dgn

CU 07382

EA 257301

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Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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No. E11758
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ELECTRICAL
STATE OF CALIFORNIA

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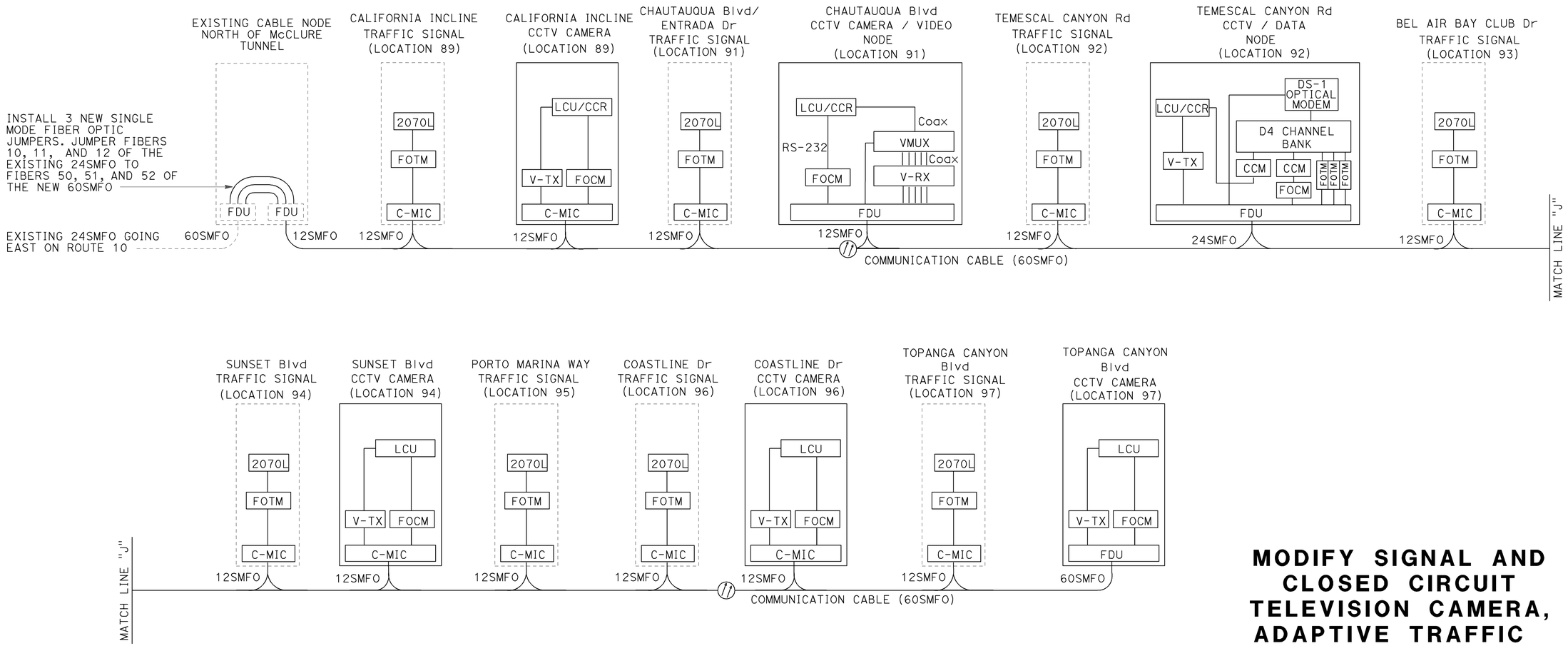


# MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING, VIDEO NODE AND DATA NODE

**(SCHEMATIC)**

**(ROUTE 1 - CALIFORNIA INCLINE TO TOPANGA CANYON)**

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

**E-273**

| DATE 8/06 | REVISED BY | DATE REVISED |
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| | | |

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DGN FILE => 725730ua273.dgn

CU 07382

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| 07 | LA | 1,105 | Var | 298 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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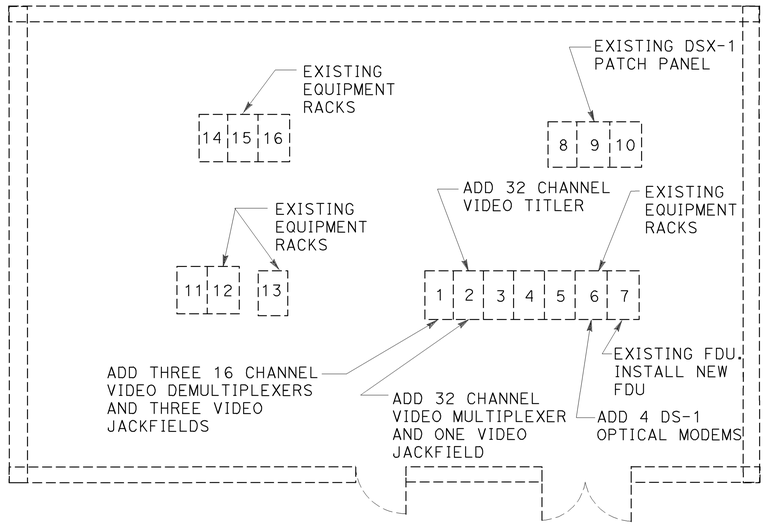
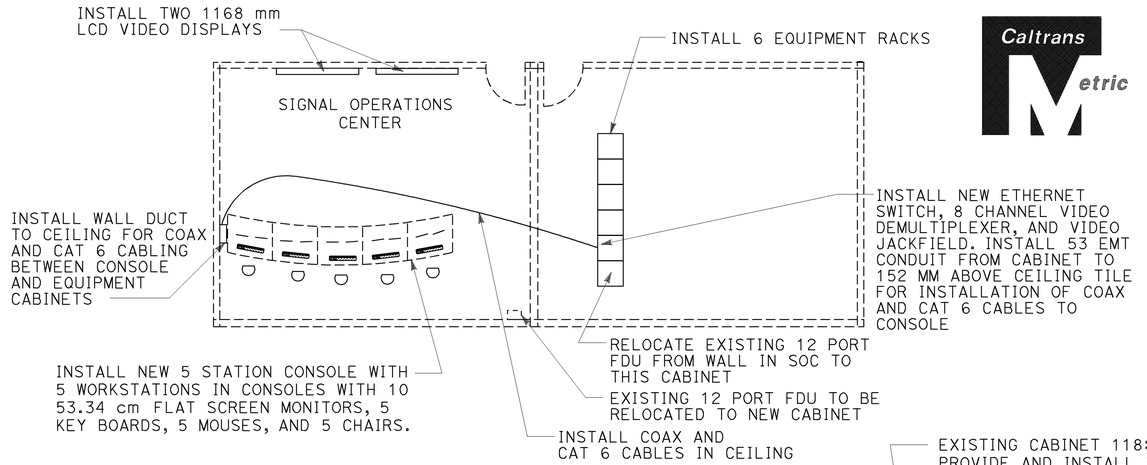
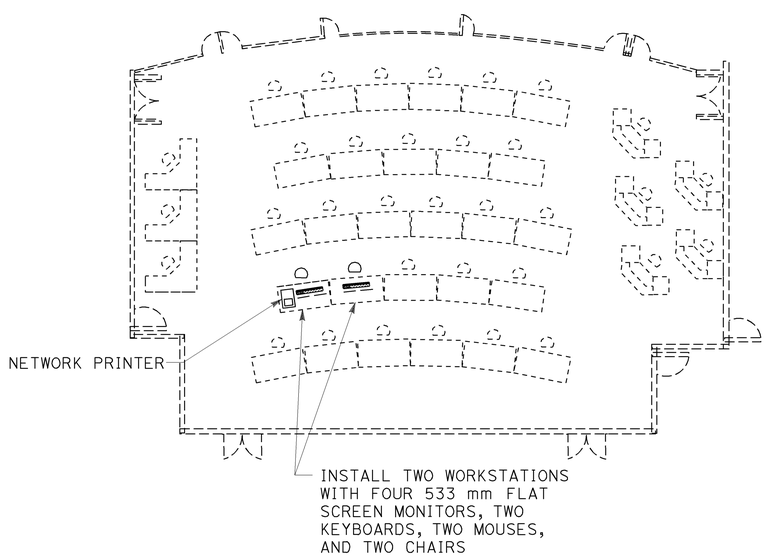


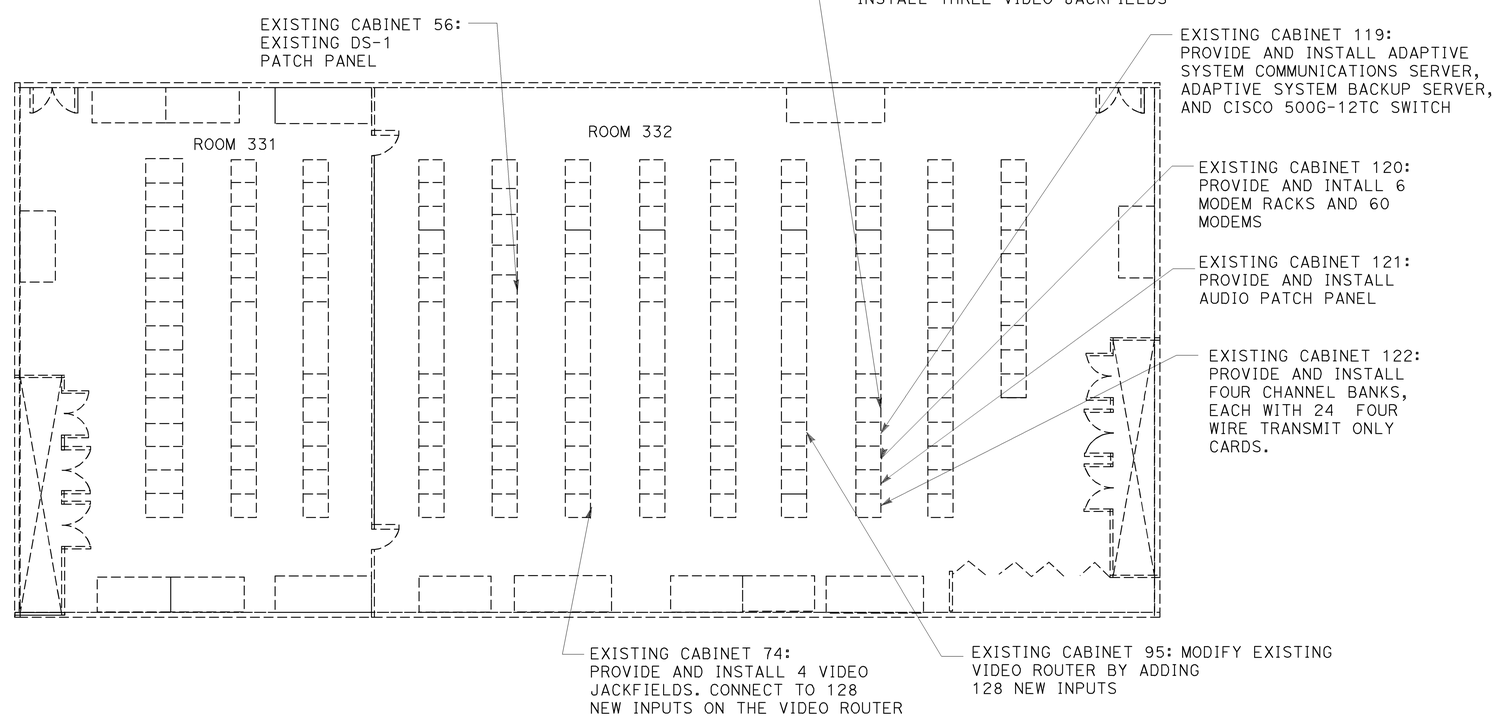

**LAX HUB BUILDING**




**SIGNAL OPERATIONS CENTER (SOC)**




**LOS ANGELES REGIONAL TRANSPORTATION MANAGEMENT CENTER (RTMC)**
**FOURTH FLOOR**




**LOS ANGELES REGIONAL TRANSPORTATION MANAGEMENT CENTER (RTMC)**
**ROOM 332**

# WORK AT REGIONAL TRANSPORTATION MANAGEMENT CENTER
# WORK AT SIGNAL OPERATIONS CENTER
# WORK AT LAX HUB BUILDING
## (VIDEO NODE TO SIGNAL OPERATION ROOM)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-274**

| DATE | REVISED BY | DATE | REVISED BY |
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DGN FILE => 725730ua274.dgn

CU 07382

EA 257301

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08/06
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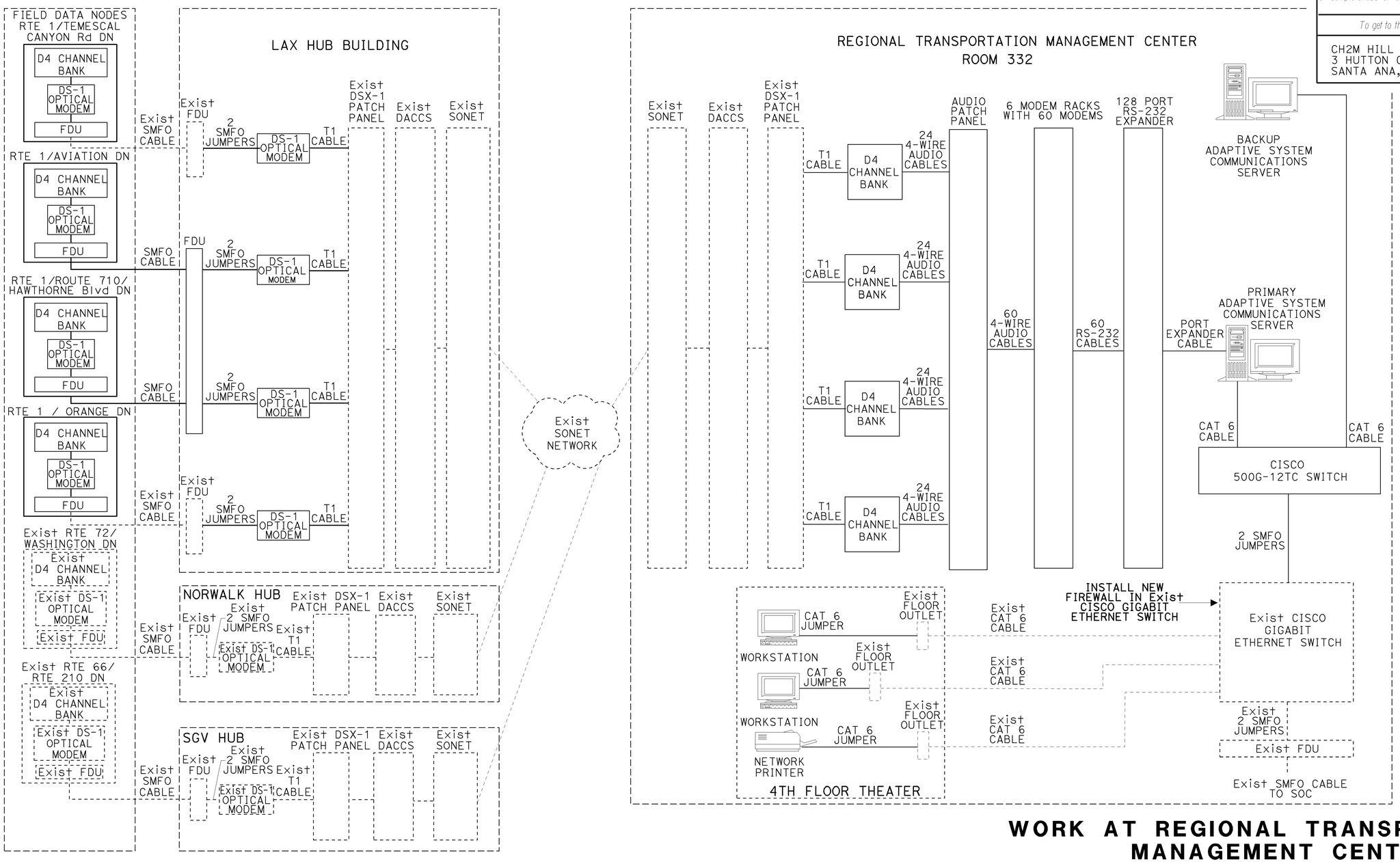
## DATA DISTRIBUTION - DATA NODES TO REGIONAL TRANSPORTATION MANAGEMENT CENTER




# WORK AT REGIONAL TRANSPORTATION MANAGEMENT CENTER, WORK AT LAX HUB BUILDING

## DATA DISTRIBUTION
## (DATA NODE TO REGIONAL TRANSPORTATION MANAGEMENT CENTER)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

**E-275**

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USERNAME => trmikesl
DGN FILE => 725730ua275.dgn

CU 07382 | EA 257301

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|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 300 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
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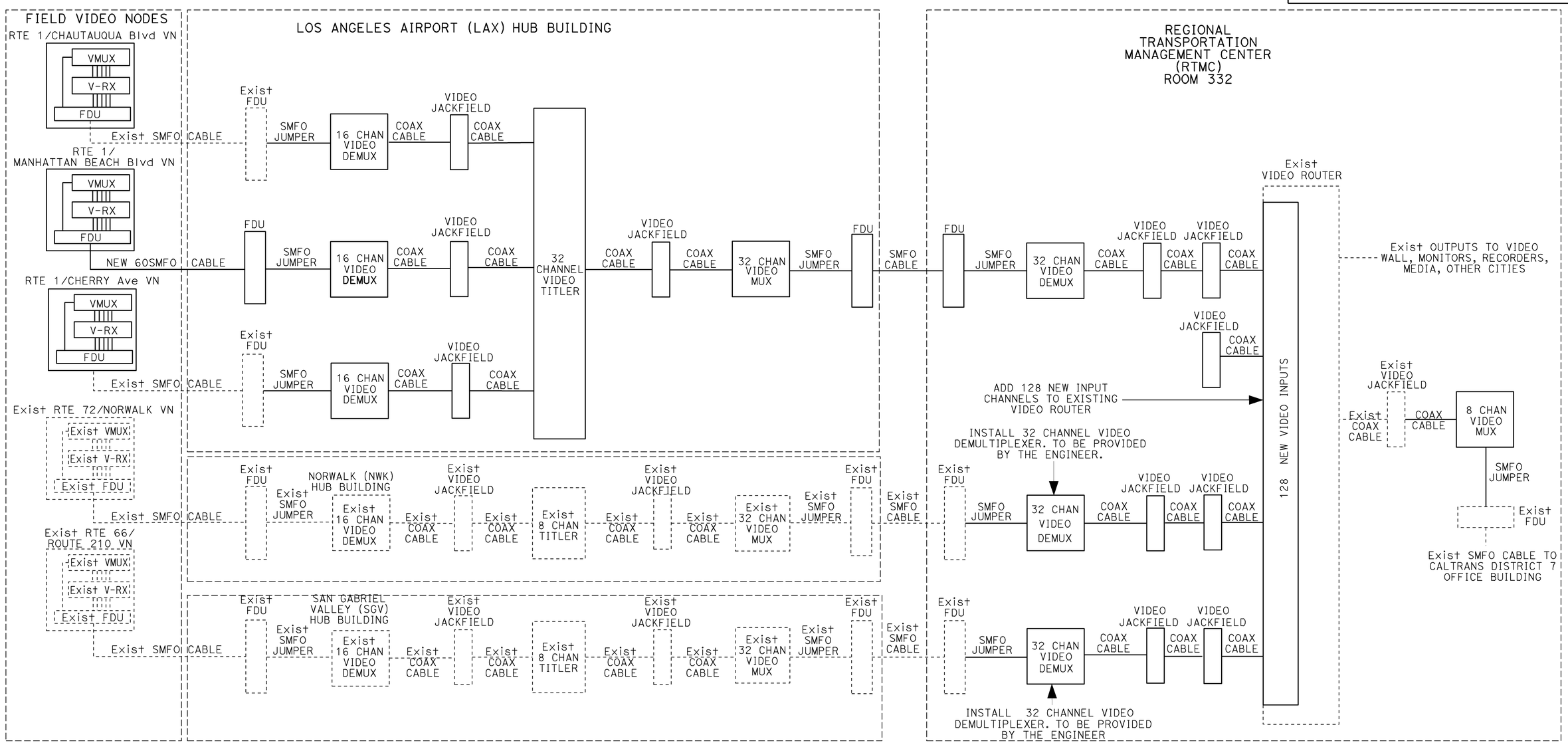
## VIDEO DISTRIBUTION - VIDEO NODES TO REGIONAL TRANSPORTATION MANAGEMENT CENTER (RTMC)




# WORK AT REGIONAL TRANSPORTATION MANAGEMENT CENTER, WORK AT LOS ANGELES AIRPORT HUB BUILDING

## VIDEO DISTRIBUTION

## (VIDEO NODE TO REGIONAL TRANSPORTATION MANAGEMENT CENTER)

NO SCALE

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E-276

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:35

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USERNAME => trmikesl
DGN FILE => 725730ua276.dgn

CU 07382 | EA 257301

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| 07 | LA | 1,105 | Var | 301 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
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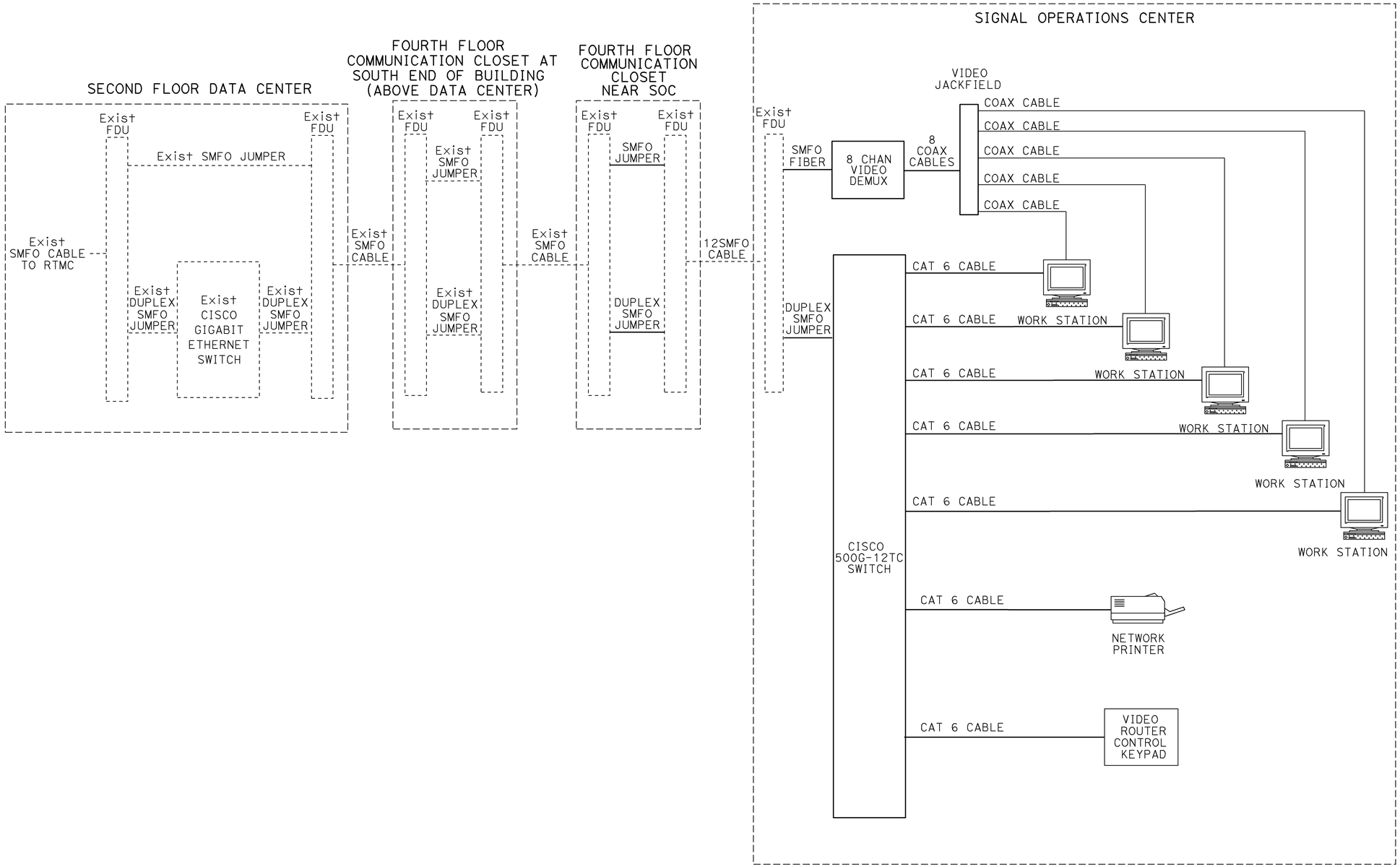
# TRAFFIC MANAGEMENT CENTER (TMC) INTERCONNECT DIAGRAM
(100 S. MAIN STREET, LOS ANGELES)




## WORK AT SIGNAL OPERATIONS CENTER

NO SCALE

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**E-277**

| DATE | REVISED BY | DATE | REVISED BY |
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08/06
REGISTERED ELECTRICAL ENGINEER

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PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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No. E11758
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## DATA NODE AT ROUTE 1/ORANGE AVENUE (LOCATION 18)

| TDM CHAN | TMC INTERFACE | ORANGE Ave INTERFACE | FUNCTION | CABLE TYPE | FIBER NUMBER |
|---|---|---|---|---|---|
| 1 | 4WTO | 4WTO | LOCAL CCR | N/A | N/A |
| 2 | 4WTO | 4WTO | RTE 1 CCR | FO-PC 003-656 | 25,26 |
| 3 | 4WTO | 4WTO | TS MODEM 1 | FO-PC 003-656 | 1,2 |
| 4 | 4WTO | 4WTO | TS MODEM 2 | FO-PC 003-656 | 3,4 |
| 5 | 4WTO | 4WTO | TS MODEM 3 | FO-PC 003-656 | 5,6 |
| 6 | 4WTO | 4WTO | TS MODEM 4 | FO-PC 003-656 | 7,8 |
| 7 | 4WTO | 4WTO | TS MODEM 5 | FO-PC 003-656 | 9,10 |
| 8 | 4WTO | 4WTO | TS MODEM 6 | FO-PC 003-656 | 11,12 |
| 9 | 4WTO | 4WTO | TS MODEM 7 | FO-PC 003-656 | 13,14 |
| 10 | 4WTO | 4WTO | TS MODEM 8 | FO-PC 003-656 | 15,16 |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |

## DATA NODE AT ROUTE 1/HAWTHORNE BOULEVARD (LOCATION 42)

| TDM CHAN | TMC INTERFACE | HAWTHORNE Blvd INTERFACE | FUNCTION | CABLE TYPE | FIBER NUMBER |
|---|---|---|---|---|---|
| 1 | 4WTO | 4WTO | LOCAL CCR | N/A | N/A |
| 2 | 4WTO | 4WTO | RTE 1 CCR | FO-PC 003-656 | 31,32 |
| 3 | 4WTO | 4WTO | RTE 107 CCR | FO-PC 003-656 | 33,34 |
| 4 | 4WTO | 4WTO | RTE 213 CCR | FO-PC 003-656 | 35,36 |
| 5 | 4WTO | 4WTO | TS MODEM 9 | FO-PC 003-656 | 1,2 |
| 6 | 4WTO | 4WTO | TS MODEM 10 | FO-PC 003-656 | 3,4 |
| 7 | 4WTO | 4WTO | TS MODEM 11 | FO-PC 003-656 | 5,6 |
| 8 | 4WTO | 4WTO | TS MODEM 12 | FO-PC 003-656 | 7,8 |
| 9 | 4WTO | 4WTO | TS MODEM 28 | FO-PC 003-656 | 9,10 |
| 10 | 4WTO | 4WTO | TS MODEM 29 | FO-PC 003-656 | 11,12 |
| 11 | 4WTO | 4WTO | TS MODEM 30 | FO-PC 003-656 | 13,14 |
| 12 | 4WTO | 4WTO | TS MODEM 31 | FO-PC 003-656 | 15,16 |
| 13 | 4WTO | 4WTO | TS MODEM 32 | FO-PC 003-656 | 17,18 |
| 14 | 4WTO | 4WTO | TS MODEM 33 | FO-PC 003-656 | 19,20 |
| 15 | 4WTO | 4WTO | TS MODEM 34 | FO-PC 003-656 | 21,22 |
| 16 | 4WTO | 4WTO | TS MODEM 35 | FO-PC 003-656 | 23,24 |
| 17 | 4WTO | 4WTO | TS MODEM 36 | FO-PC 003-656 | 25,26 |
| 18 | 4WTO | 4WTO | TS MODEM 37 | FO-PC 003-656 | 27,28 |

# DATA NODE
## (CIRCUIT ASSIGNMENT TABLES)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-278

| REVISED BY | DATE | DATE REVISED |
|---|---|---|
| MR | 8/06 | 8/06 |

CALCULATED/DESIGNED BY: KM
CHECKED BY:

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:35

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 303 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
STATE OF CALIFORNIA

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*To get to the Caltrans web site, go to: http://www.dot.ca.gov*

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

**DATA NODE AT ROUTE 1/AVIATION BOULEVARD (LOCATIONS 67)**

| TDM CHAN | TMC INTERFACE | AVIATION Blvd INTERFACE | FUNCTION | CABLE TYPE | NUMBER |
|---|---|---|---|---|---|
| 1 | 4WTO | 4WTO | LOCAL CCR | N/A | N/A |
| 2 | 4WTO | 4WTO | CCR | CRR | 25,26 |
| 3 | 4WTO | 4WTO | TS MODEM 13 | FO-PC 003-656 | 1,2 |
| 4 | 4WTO | 4WTO | TS MODEM 14 | FO-PC 003-656 | 3,4 |
| 5 | 4WTO | 4WTO | TS MODEM 15 | FO-PC 003-656 | 5,6 |
| 6 | 4WTO | 4WTO | TS MODEM 16 | FO-PC 003-656 | 7,8 |
| 7 | 4WTO | 4WTO | TS MODEM 17 | FO-PC 003-656 | 9,10 |
| 8 | 4WTO | 4WTO | TS MODEM 18 | FO-PC 003-656 | 11,12 |
| 9 | 4WTO | 4WTO | TS MODEM 19 | FO-PC 003-656 | 13,14 |
| 10 | 4WTO | 4WTO | TS MODEM 20 | FO-PC 003-656 | 15,16 |
| 11 | 4WTO | 4WTO | TS MODEM 21 | FO-PC 003-656 | 17,18 |
| 12 | 4WTO | 4WTO | TS MODEM 22 | FO-PC 003-656 | 19,20 |
| 13 | 4WTO | 4WTO | TS MODEM 23 | FO-PC 003-656 | 21,22 |
| 14 | 4WTO | 4WTO | TS MODEM 24 | FO-PC 003-656 | 23,24 |
| 15 | | | | | |

**DATA NODE AT ROUTE 1/TEMESCAL CANYON ROAD (LOCATION 92)**

| TDM CHAN | TMC INTERFACE | TEMESCAL CANYON Rd INTERFACE | FUNCTION | CABLE TYPE | NUMBER |
|---|---|---|---|---|---|
| 1 | 4WTO | 4WTO | LOCAL CCR | N/A | N/A |
| 2 | 4WTO | 4WTO | CCR | CRR | 25,26 |
| 3 | 4WTO | 4WTO | TS MODEM 25 | FO-PC 003-656 | 1,2 |
| 4 | 4WTO | 4WTO | TS MODEM 26 | FO-PC 003-656 | 3,4 |
| 5 | 4WTO | 4WTO | TS MODEM 27 | FO-PC 003-656 | 5,6 |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

# DATA NODE
## (CIRCUIT ASSIGNMENT TABLES)

NO SCALE

**E-279**

| | | | |
|---|---|---|---|
| CALCULATED/DESIGNED BY | MR | DATE 8/06 | REVISED BY |
| CHECKED BY | KM | 8/06 | DATE REVISED |

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:35

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => trmikesl
DGN FILE => 725730ua279.dgn
CU 07382
EA 257301

| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 07 | LA | 1,105 | Var | 304 | 308 |

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Keene Matsuda
No. E11758
Exp. 9/30/06
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.*

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

## VIDEO NODE CIRCUIT ASSIGNMENTS (ROUTE 1/CHERRY AVENUE)

| MUX CHAN | CAMERA LOCATION | KP | TERMINATION | |
|---|---|---|---|---|
| | | | CABLE ID | FIBER |
| 1 | CHERRY Ave | 8.0 | N/A | N/A |
| 2 | REDONDO Ave | 6.6 | | 37 |
| 3 | XIMENO Ave | 5.3 | | 38 |
| 4 | 7TH St | 3.2 | | 39 |
| 5 | 2ND St/WESTMINSTER Ave | 0.9 | | 40 |
| 6 | ORANGE Ave | 8.8 | | 41 |
| 7 | LONG BEACH Blvd | 10.1 | | 42 |
| 8 | GOLDEN Ave | 11.3 | | 43 |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |

## VIDEO NODE CIRCUIT ASSIGNMENTS (ROUTE 1/CHAUTAUQUA BOULEVARD)

| MUX CHAN | CAMERA LOCATION | KP | TERMINATION | |
|---|---|---|---|---|
| | | | CABLE ID | FIBER |
| 1 | CALIFORNIA INCLINE | 58.1 | | 37 |
| 2 | CHAUTAUQUA Blvd | 59.6 | N/A | N/A |
| 3 | TEMESCAL Canyon Rd | 61.5 | | 38 |
| 4 | SUNSET Blvd | 63.3 | | 39 |
| 5 | COASTLINE Dr | 64.6 | | 40 |
| 6 | TOPANGA Canyon Blvd | 62.6 | | 41 |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |

## VIDEO NODE CIRCUIT ASSIGNMENTS (ROUTE 1/MANHATTAN BEACH BOULEVARD)

| MUX CHAN | CAMERA LOCATION | KP | TERMINATION | |
|---|---|---|---|---|
| | | | CABLE ID | FIBER |
| 1 | AVIATION Blvd | 34.1 | | 37 |
| 2 | MANHATTAN BEACH Blvd | 36.9 | N/A | N/A |
| 3 | HAWTHORNE Blvd | 25.8 | | 38 |
| 4 | CRENSHAW Blvd | 23.8 | | 39 |
| 5 | ROUTE 107 / CARSON Ave | | | 40 |
| 6 | ROUTE 107 / TORRANCE Blvd | | | 41 |
| 7 | ROUTE 213 / SUMMERLAND Blvd | | | 42 |
| 8 | EL SEGUNDO Blvd | 40.1 | | 43 |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |

# VIDEO NODE
## (CIRCUIT ASSIGNMENT TABLES)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

E-280

| DATE | REVISED BY |
|---|---|
| 4/06 | MR |
| 4/06 | KM |

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 28-SEP-2006
TIME PLOTTED => 06:35

# CCTV CAMERAS Daily Status Log-August 2016

## 11 Cameras

| Cam ID | Control Protocol | CTR ID | Pesa Input | In ATMS ? | Route | Dir | PM | Cross Street | DATA NODE | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th | 11th | 12th | 13th | 14th | 15th | 16th | 17th | 18th | 19th | 20th | 21st | 22nd | 23rd | 24th | 25th | 26th | 27th | 28th | 29th | 30th | 31st | Detailed Explanation Nature of Problem |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 213 | NTCIP | 4 | 643 | No | 1 | S | 3.29 | Ximeno Ave | Orange Ave | CTR | CTR | CTR | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT |
| 214 | NTCIP | 5 | 644 | No | 1 | N | 4.1 | Redondo Ave | Orange Ave | CTR | CTR | CTR | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT |
| 215 | NTCIP | 6 | 645 | No | 1 | N | 5 | Cherry ave | Orange Ave | CTR | CTR | CTR | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT |
| 216 | NTCIP | 7 | 646 | No | 1 | N | 5.52 | Orange Ave | Orange Ave | CTR | CTR | CTR | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT |
| 217 | NTCIP | 8 | 647 | No | 1 | N | 6.26 | Long Beach Blvd | Orange Ave | CTR | CTR | CTR | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT |
| 218 | NTCIP | 9 | 648 | No | 1 | S | 7.02 | Golden Ave | Orange Ave | CTR | CTR | CTR | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT |
| 220 | NTCIP | 10 | 650 | No | 1 | S | 14.63 | Crenshaw Blvd | Hawthorne Blvd | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | CTR | CTR | CTR | CTR | CTR | CTR | CTR | CTR | | | | | | | | |
| 224 | NTCIP | 13 | 654 | No | 1 | S | 16.01 | Hawthorne Blvd | Hawthorne Blvd | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT, NEEDS REPAIR |
| 225 | NTCIP | 14 | 655 | No | 1 | S | 21.27 | Aviation Blvd | Aviation Blvd | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | MISSING LCU |
| 226 | NTCIP | 15 | 656 | No | 1 | S | 22.9 | Manhattan Beach Blvd | Aviation Blvd | CTR | CTR | CTR | CTR | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | CTR | CTR | CTR | CTR | CTR | CTR | CTR | CTR | | | | | | | | |
| 227 | NTCIP | 16 | 657 | No | 1 | S | 24.9 | El Segundo Ave | Aviation Blvd | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | | | | | | | | FIBER CUT, NEED REPAIR |

Note: NV=No Video, BV=Bad Video (Video In and Out, etc..), P=Position needs adjustment; L= Wrongly labeled, X=No video at the Output, although Input video is good, CTR=control issue, C= Under Construction

OUTPUTS IN SOC, DO: 85-92