Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	1	46

IM-015-4(206)E

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SAN DIEGO COUNTY
ABOUT 11.2 MILES NORTH OF ESCONDIDO
FROM 0.8 MILE SOUTH OF ESCONDIDO HIGHWAY OVERCROSSING
TO SAN LUIS REY RIVER BRIDGE

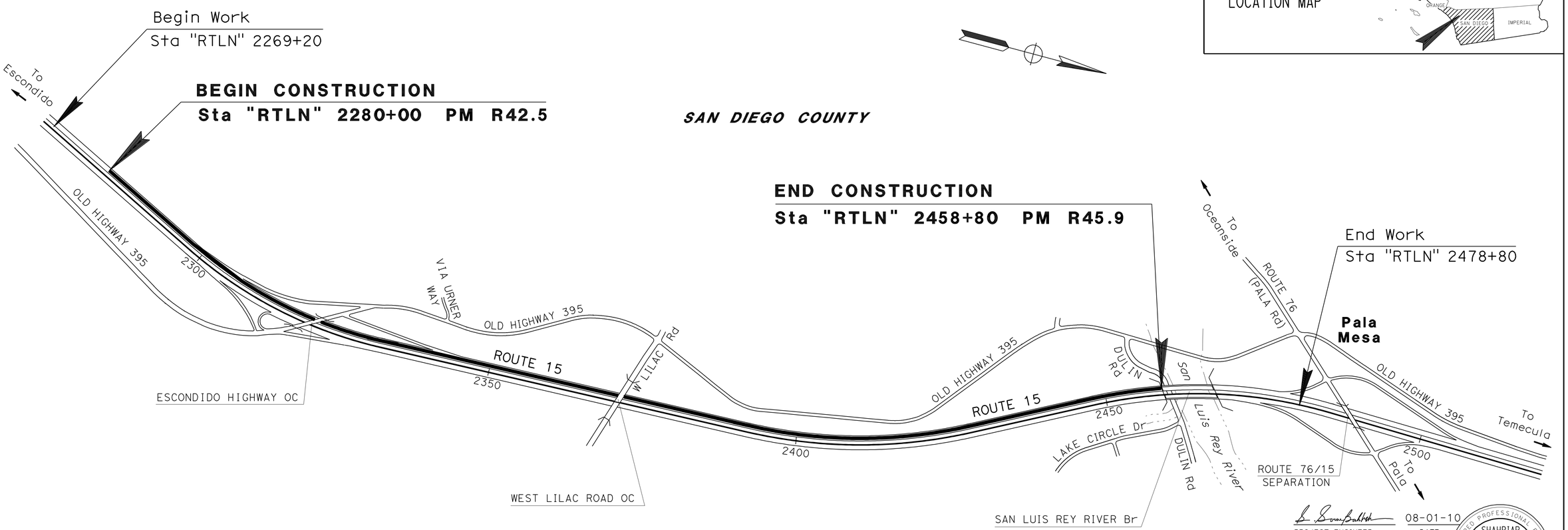
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

INDEX OF PLANS

Sheet No.	Description
1	Title and Location Map
2	Typical Cross Sections
3	Project Control
4-9	Layout
10	Construction Details
11	Construction Area Signs
12-21	Stage Construction and Quantities
22-24	Traffic Handling Plan
25-26	Pavement Delineation Details and Quantities
27-28	Summary of Quantities
29-33	Electrical Plans
34-46	New and Revised Standard Plans

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

LOCATION MAP



NO SCALE

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

PROJECT MANAGER: CHRIS M THOMAS

DESIGN ENGINEER: SHAHRIAR SOROURBAKHSH

PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE: 08-01-10

REGISTERED PROFESSIONAL ENGINEER — SHAHRIAR SOROURBAKHSH — No. 52814 — Exp. 12-31-11 — CIVIL — STATE OF CALIFORNIA

October 4, 2010
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No.	11-289704
PROJECT ID	1100020026

LAST REVISION 10-28-10

DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	2	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

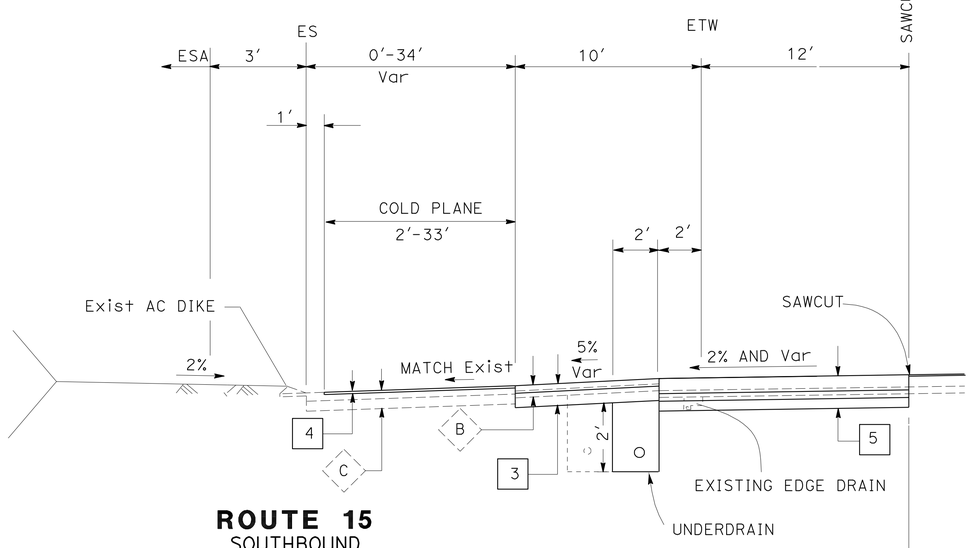
1. DIMENSIONS OF PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. EXISTING UTILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
4. FOG SEAL COAT SHALL BE APPLIED TO ALL HMA SURFACES EXCEPT TRAVELED WAY AND DETOURS.
5. HMA-A= HOT MIX ASPHALT (TYPE-A)
6. FOR LOCATIONS AND LIMITS OF COLD PLANE SEE LAYOUT AND QUANTITY SHEETS
7. ESA = ENVIRONMENTALLY SENSITIVE AREA

LEGEND:

1	1.00′ JPCP 0.50′ HMA-A 0.65′ AB-CLASS 2
2	0.35′ HMA-A 0.95′ AB-CLASS 2
3	0.50′ HMA-A 0.95′ AB-CLASS 2
4	0.15′ COLD PLANE AC PAVEMENT 0.15′ HMA-A
5	1.00′ CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE) 0.50′ HMA-A 0.65′ AB-CLASS 2
A	Exist 0.80′ PCC 0.45′ CTB
B	Exist 0.35′ AC 0.45′ AB
C	Exist 0.55′ AC 0.65′ AB

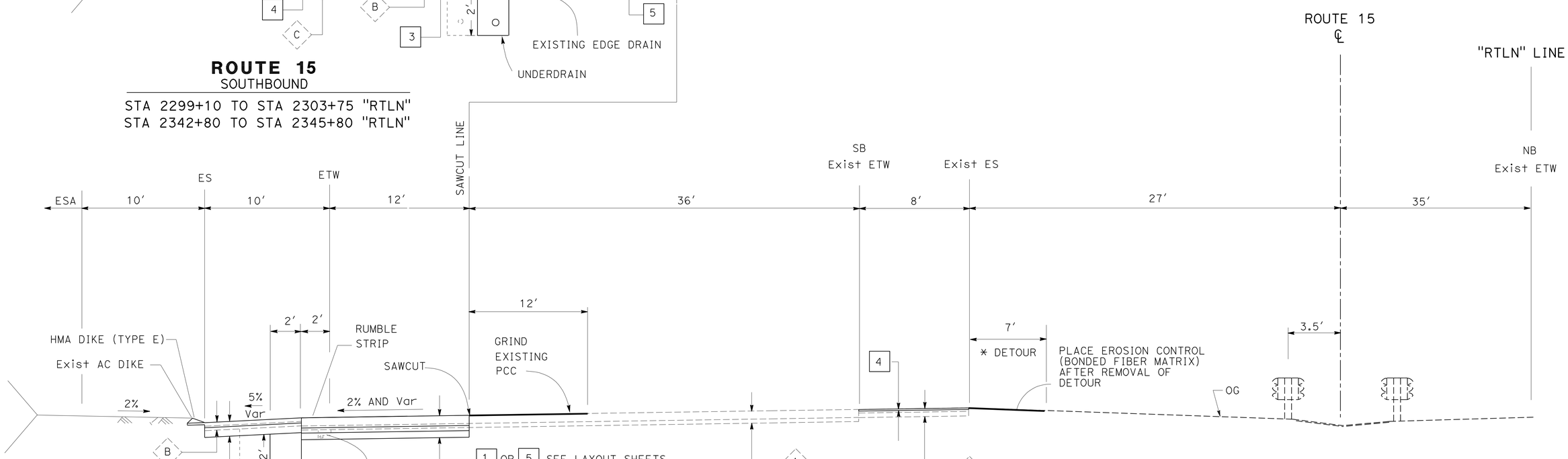
DESIGN DESIGNATION (SB ROUTE 15)

ADT (2010)	135,000	D	63%
ADT (2030)	235,000	T	10%
DHV	16,700	V	70 MPH
ESAL	33,314,600	TI	15.5



ROUTE 15
SOUTHBOUND

STA 2299+10 TO STA 2303+75 "RTLN"
STA 2342+80 TO STA 2345+80 "RTLN"



ROUTE 15
SOUTHBOUND

STA 2289+20 TO STA 2457+80 "RTLN"

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: GARRY WILLIAMS
CHECKED BY: SHAHRIAR SOROURBAKHSH
REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	3	46

Wayne G. Strong 07-29-10
PROFESSIONAL LAND SURVEYOR DATE

10-04-10
PLANS APPROVAL DATE

PROFESSIONAL LAND SURVEYOR WAYNE GLEN STRONG L.S. 5024 Exp. 12/31/2011 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. CONTACT DISTRICT 11 OFFICE OF LAND SURVEYS, PHONE (858)467-4305, FOR ADDITIONAL INFORMATION OR QUERIES REGARDING THIS SURVEY PROJECT CONTROL.
2. BASIS OF BEARINGS AND COORDINATES
   FOR THIS PROJECT IS THE CALIFORNIA COORDINATE SYSTEM OF 1983, HPGN EPOCH ADJUSTMENT [CCS 83 (1991.35)], ZONE 6. 2ND ORDER PROJECT CONTROL STATIONS WERE ESTABLISHED IN FEBRUARY 1999 BASED ON THE CRITERIA SET FORTH IN THE FEDERAL GEODETIC CONTROL SUBCOMMITTEE'S "GEOMETRIC GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATIVE POSITIONING TECHNIQUES" REPRINTED AUGUST 1, 1989.

   THIS GPS STATIC SURVEY WAS CONSTRAINED TO 1ST ORDER STATION "SDGPS 11" AND "A" ORDER STATION "SDGPS 03", PER THE ABOVE-REFERENCED STANDARDS.
3. BASIS OF ELEVATIONS
   FOR THIS PROJECT IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). ELEVATIONS WERE ESTABLISHED BY CALTRANS TRIGONOMETRIC LEVELING PROCEDURES CONSTRAINING TO 1ST ORDER VERTICAL STATION "SDGPS 03", BEING ELEVATION 308.26'. (SEE CALTRIG LEVEL RUN SEPTEMBER-DECEMBER, 1998)
4. IN THE EVENT GPS MACHINE CONTROL/GUIDANCE IS USED FOR THIS PROJECT, THE CONTRACTOR SHALL CONTACT OR MEET WITH DISTRICT 11 LAND SURVEY DIVISION TO OBTAIN THE CONTROL NECESSARY TO ESTABLISH A PROJECT CALIBRATION COMPATIBLE FOR ALL USERS.

ABBREVIATIONS:

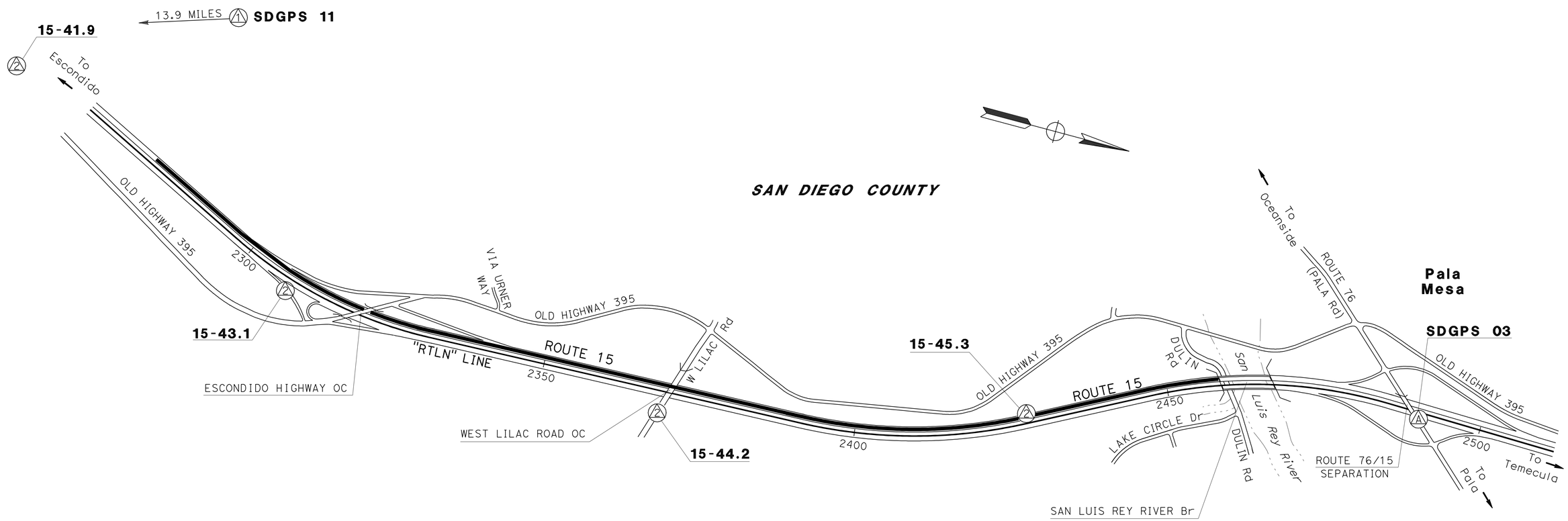
CADT	CALIFORNIA DEPARTMENT OF TRANSPORTATION
CDOT	CALIFORNIA DEPARTMENT OF TRANSPORTATION
SD CO ENG	SAN DIEGO COUNTY ENGINEER

LEGEND:

- (A) "A" ORDER STATION
- (1) 1ST ORDER STATION
- (2) 2ND ORDER STATION

CONTROL FOR DESIGN AND CONSTRUCTION

STATION DESIGNATION	ORDER	NORTHING	EASTING	ELEVATION	DESCRIPTION
SDGPS 03	A	2,065,546.37	6,284,088.94	308.26	2¼" CDOT DISK IN BRIDGE ABUTMENT
SDGPS 11	1ST	1,991,402.61	6,299,721.58	721.00	SD CO ENG DISK IN BRIDGE ABUTMENT
15-41.9	2ND	2,042,243.18	6,284,205.05	330.17	2¼" CADT BRASS DISK IN DRAIN
15-43.1	2ND	2,047,803.12	6,286,729.15	571.00	2¼" CADT BRASS DISK IN DRAIN
15-44.2	2ND	2,053,949.67	6,287,079.23	840.64	2¼" CADT BRASS DISK IN DRAIN
15-45.3	2ND	2,059,556.87	6,285,618.86	438.41	2¼" CADT BRASS DISK IN DRAIN



PROJECT CONTROL

NO SCALE

PC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® OFFICE OF LAND SURVEYS

FUNCTIONAL SUPERVISOR: BRUCE URQUHART
CALCULATED-DESIGNED BY: WAYNE STRONG
CHECKED BY: NED SALMAN
REVISED BY / DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:33

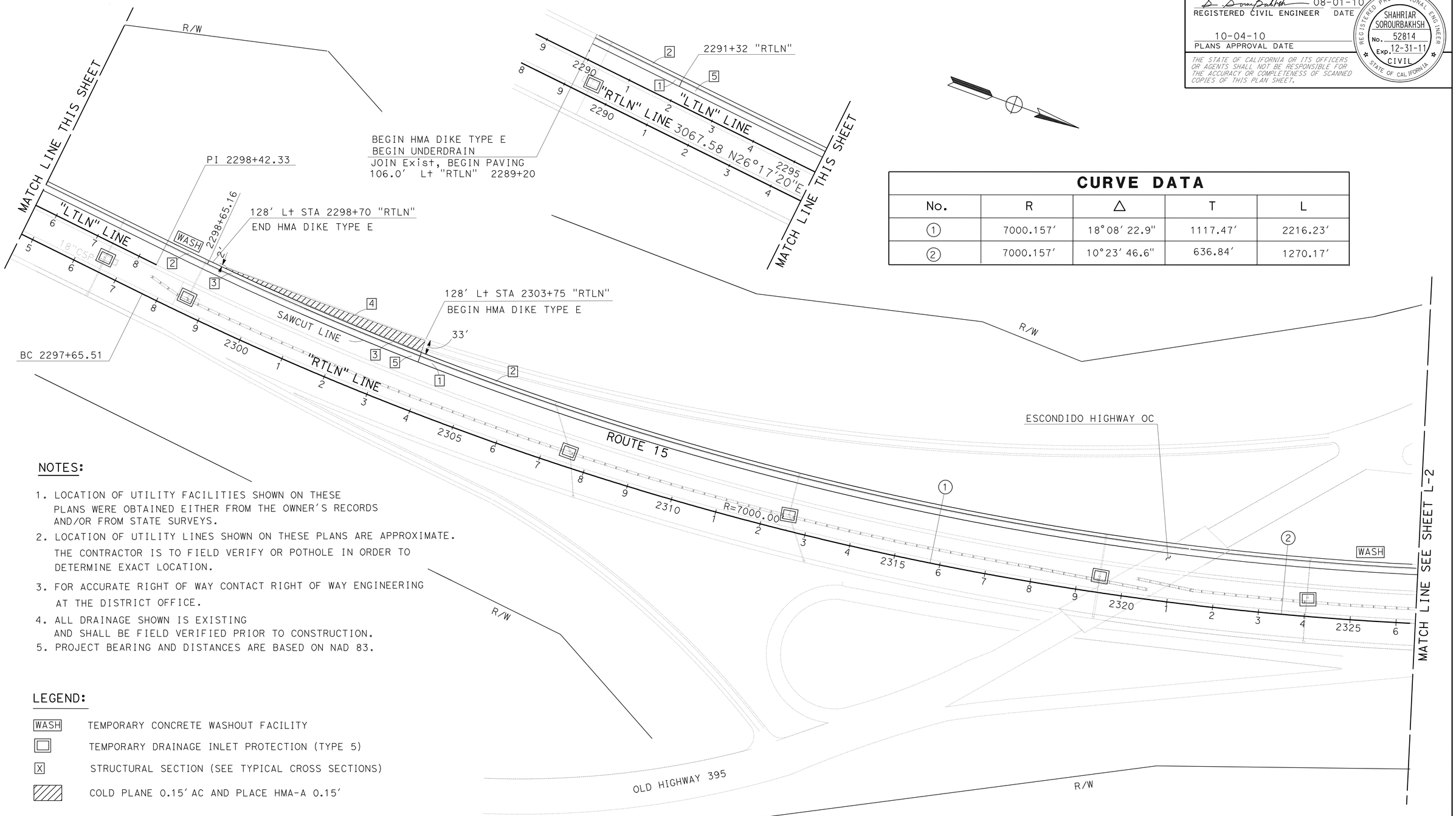
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	4	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CURVE DATA

No.	R	Δ	T	L
1	7000.157′	18°08′22.9"	1117.47′	2216.23′
2	7000.157′	10°23′46.6"	636.84′	1270.17′

NOTES:

1. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS WERE OBTAINED EITHER FROM THE OWNER'S RECORDS AND/OR FROM STATE SURVEYS.
2. LOCATION OF UTILITY LINES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR IS TO FIELD VERIFY OR POTHOLE IN ORDER TO DETERMINE EXACT LOCATION.
3. FOR ACCURATE RIGHT OF WAY CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
4. ALL DRAINAGE SHOWN IS EXISTING AND SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
5. PROJECT BEARING AND DISTANCES ARE BASED ON NAD 83.

LEGEND:

WASH — TEMPORARY CONCRETE WASHOUT FACILITY

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 5)

X — STRUCTURAL SECTION (SEE TYPICAL CROSS SECTIONS)

COLD PLANE 0.15′ AC AND PLACE HMA-A 0.15′

Exist UTILITIES	TYPE	OWNER
——— -e——— —	ELECTRIC LINE	SDG&E

LAYOUT

SCALE: 1"=100′

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY / DATE REVISED

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	5	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

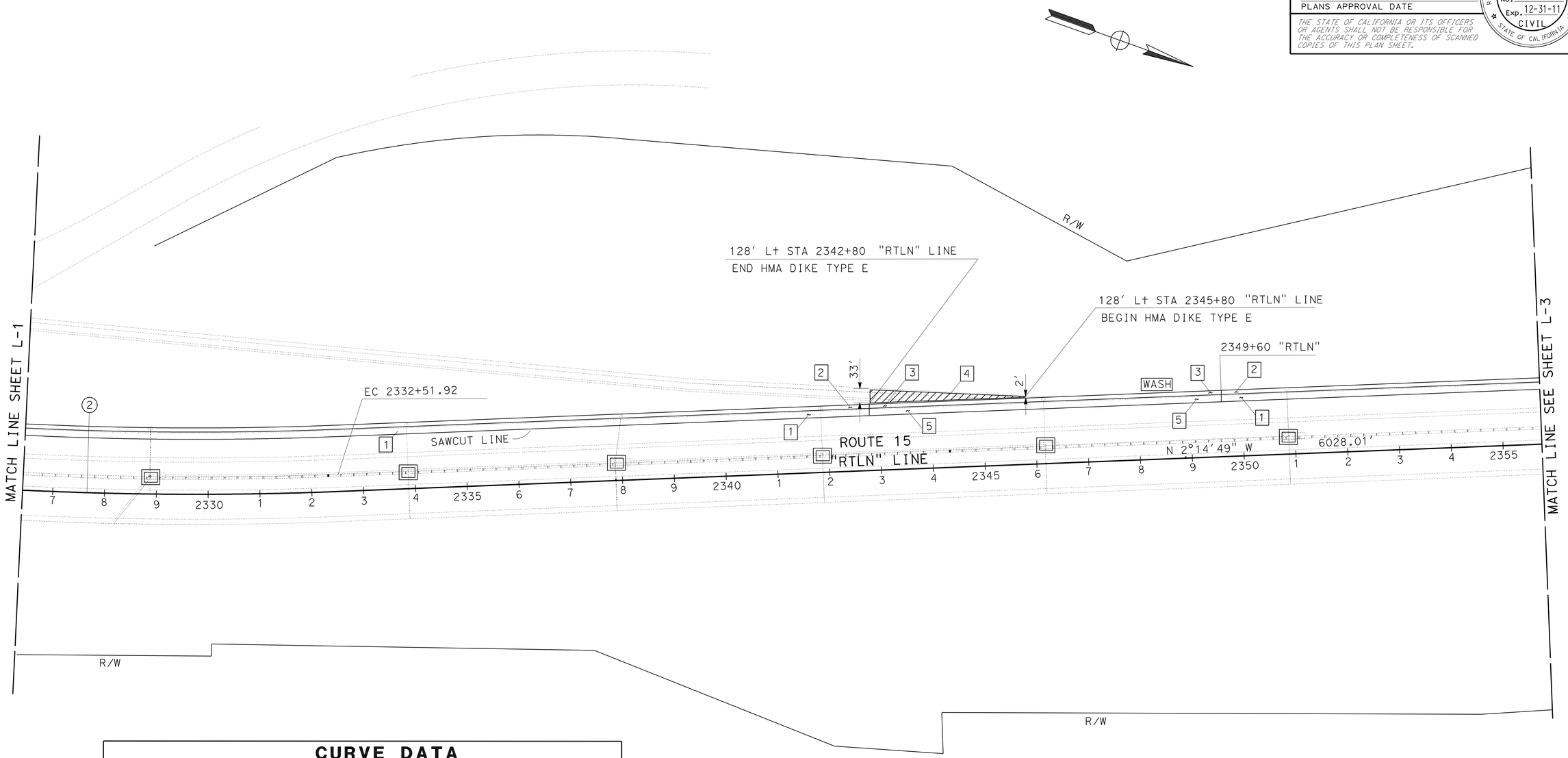
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. FOR ACCURATE RIGHT OF WAY CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



CURVE DATA

No.	R	△	T	L
2	7000.157'	10°23'46.6"	636.84'	1270.17'

LAYOUT

SCALE: 1"=100'

L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	6	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

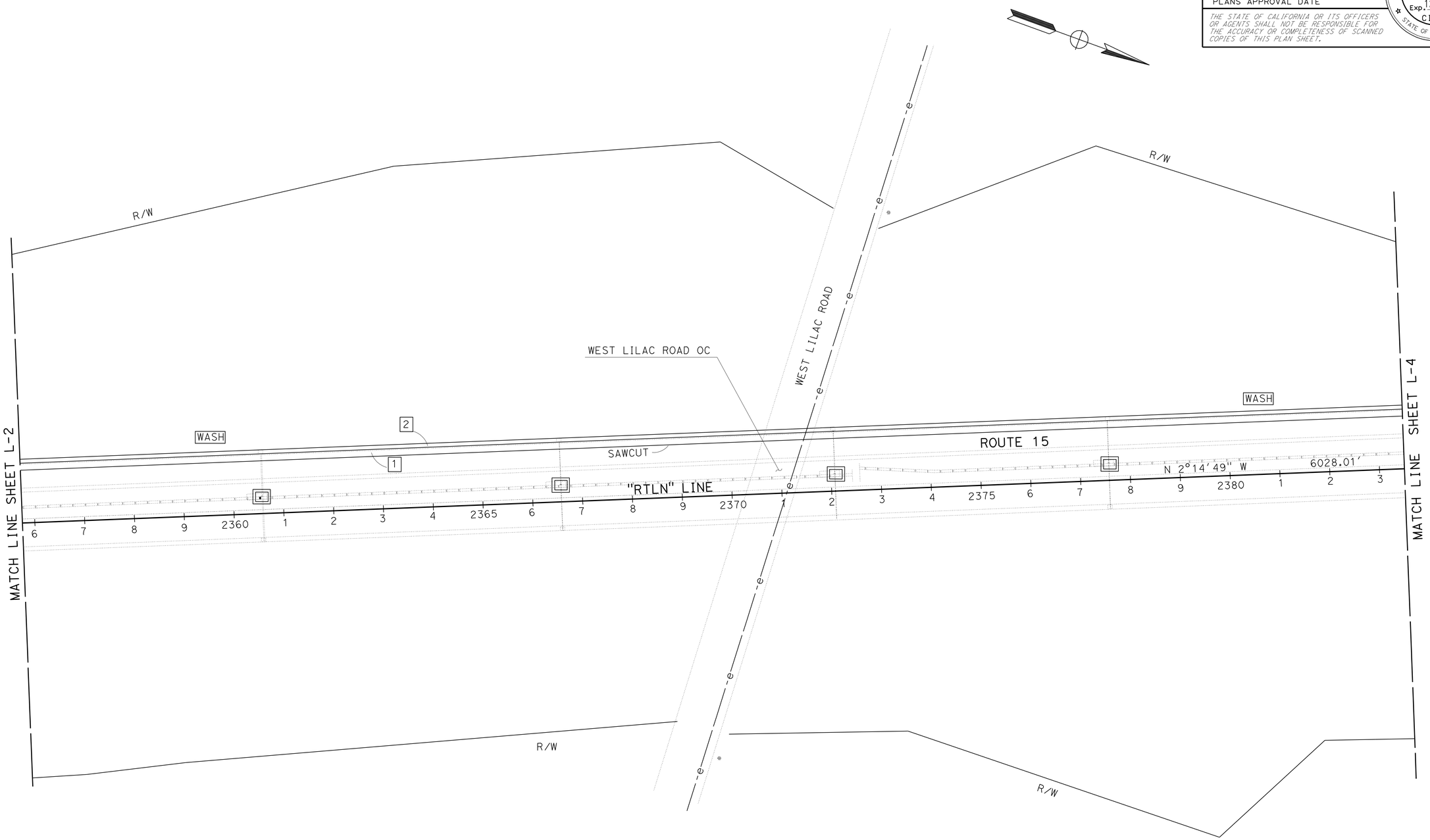
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. FOR ACCURATE RIGHT OF WAY CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



LAYOUT

SCALE: 1"=100'

L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	7	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

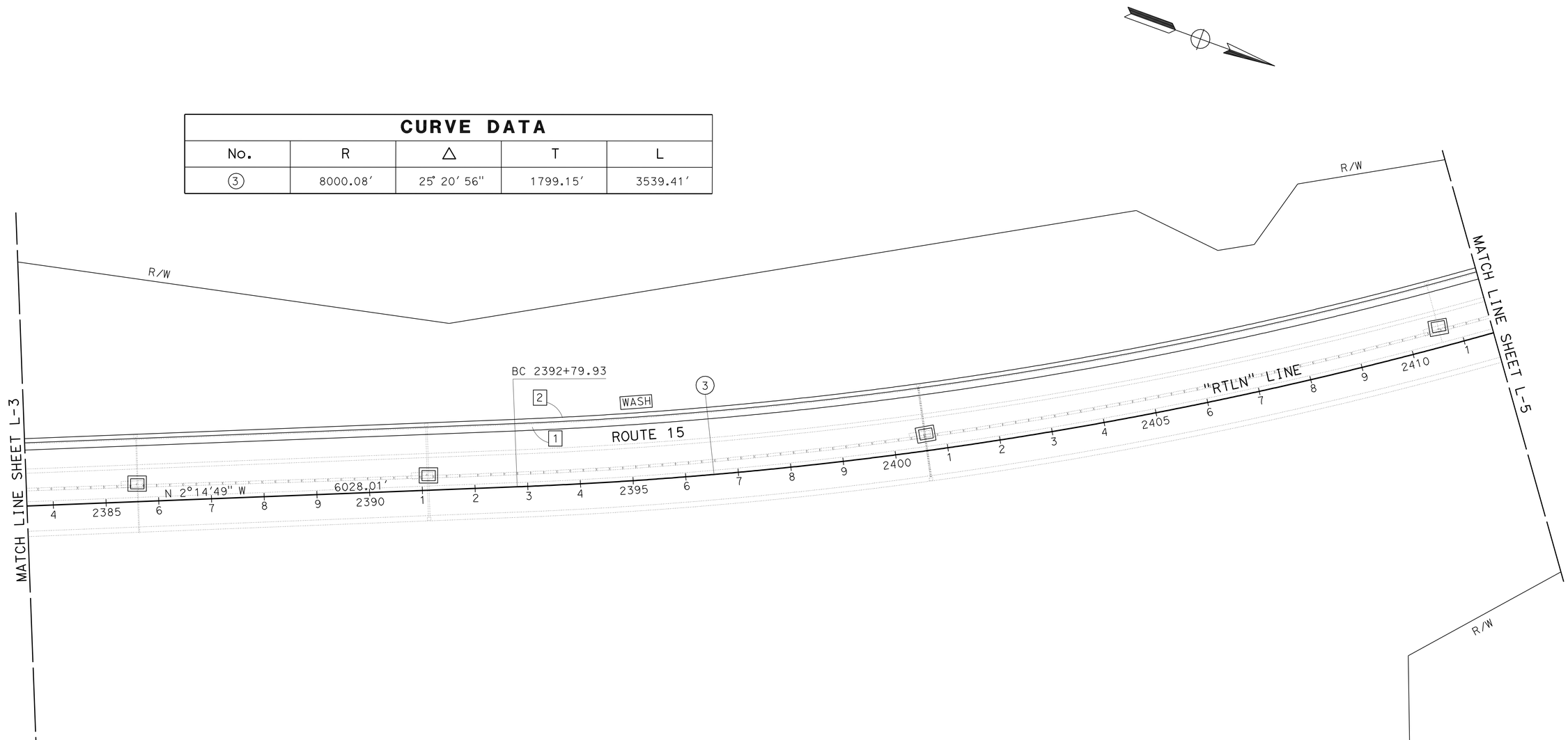
REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. FOR ACCURATE RIGHT OF WAY CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA				
No.	R	△	T	L
3	8000.08′	25° 20′ 56"	1799.15′	3539.41′



LAYOUT

SCALE: 1"=100′ **L-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-NOV-2010
10-28-10 TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	8	46

08-01-10
REGISTERED CIVIL ENGINEER DATE

10-04-10
PLANS APPROVAL DATE

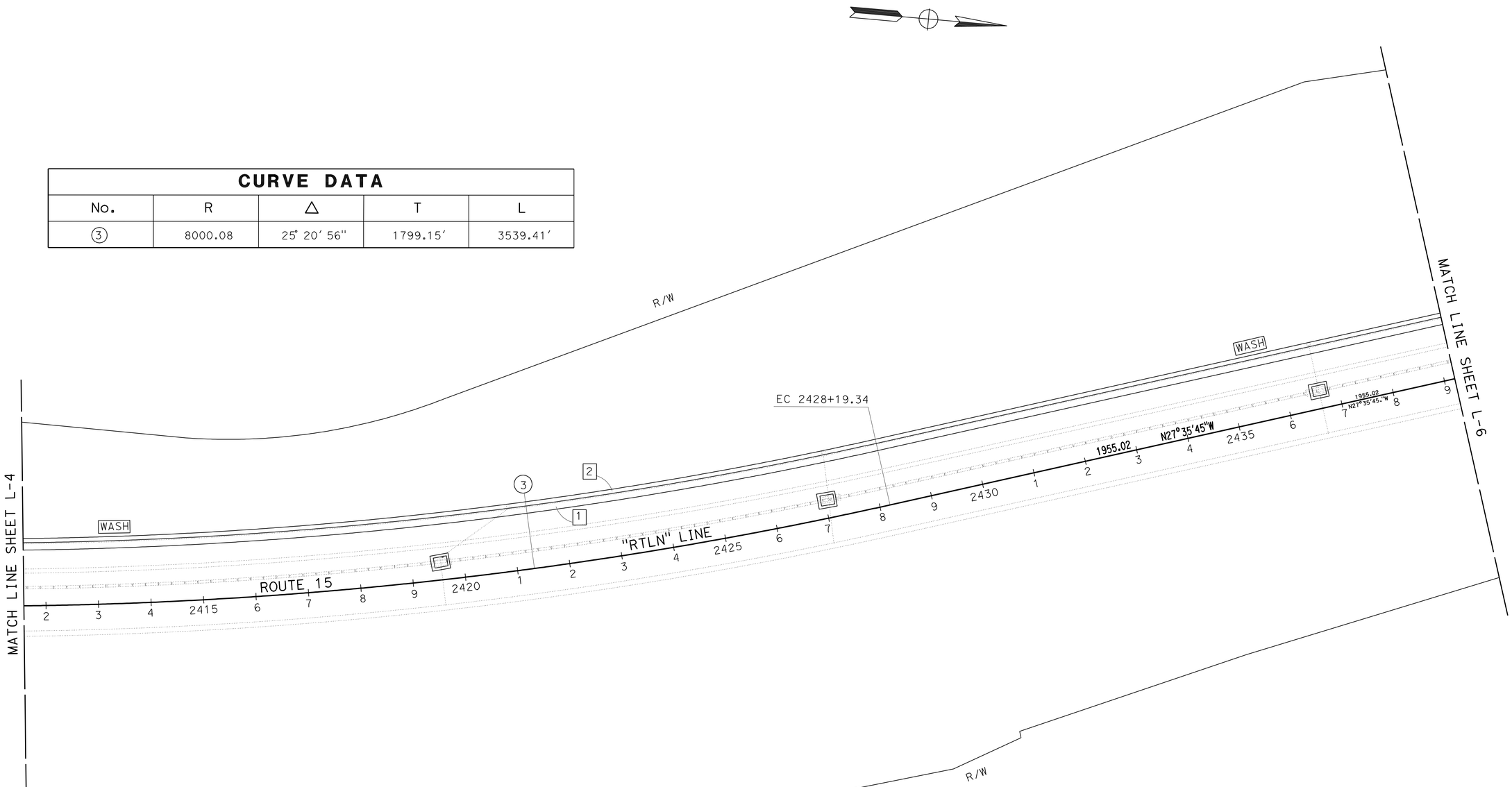
REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. FOR ACCURATE RIGHT OF WAY CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA				
No.	R	Δ	T	L
3	8000.08	25° 20′ 56″	1799.15′	3539.41′



LAYOUT

SCALE: 1"=100′ **L-5**

REVISED BY | DATE REVISED
SHAHRIAR SOROURBAKHSH | GARRY WILLIAMS
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	9	46

08-01-10
REGISTERED CIVIL ENGINEER DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

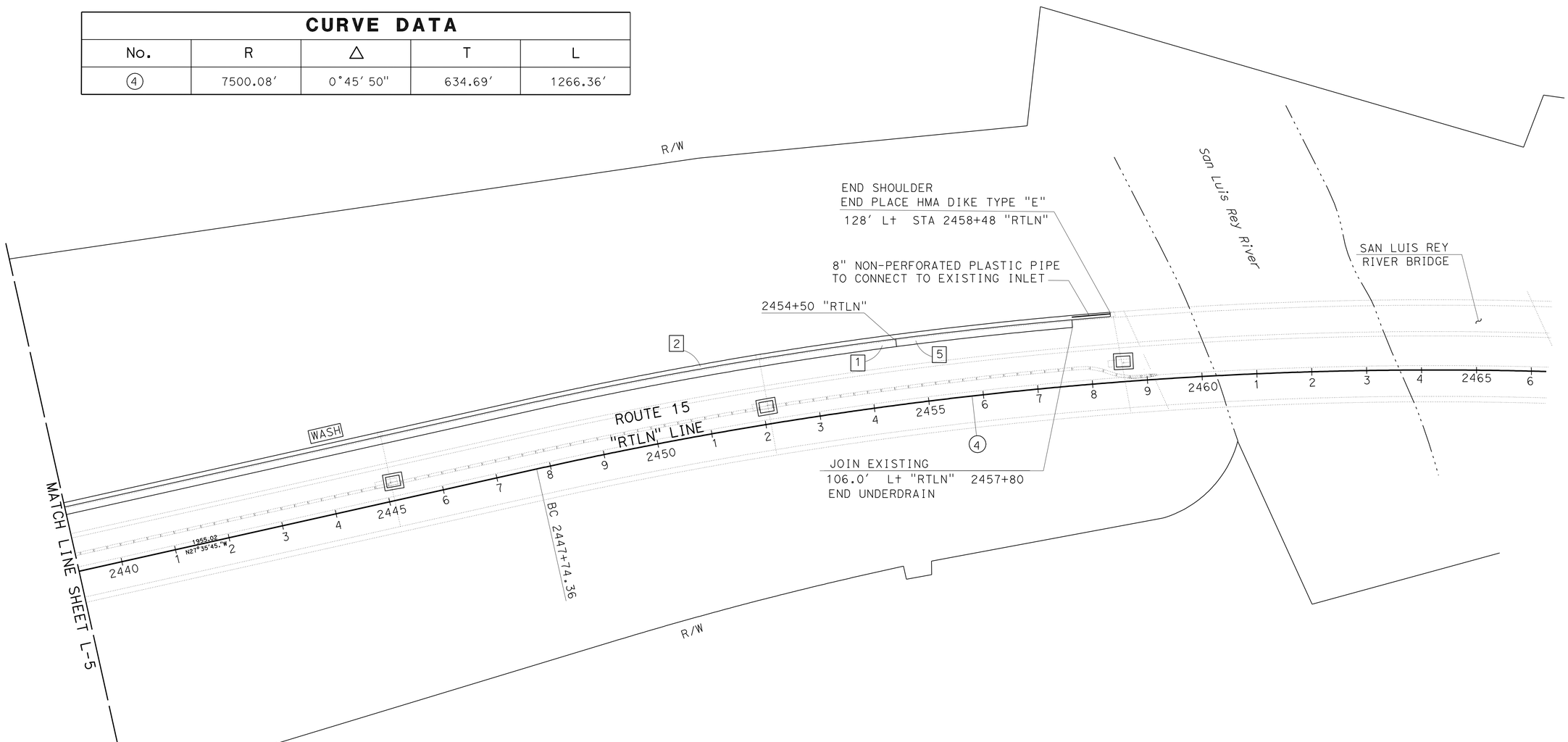
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. FOR ACCURATE RIGHT OF WAY CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

No.	R	△	T	L
4	7500.08′	0°45′50″	634.69′	1266.36′



LAYOUT

SCALE: 1"=100′ **L-6**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	10	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

PLANS APPROVAL DATE 10-04-10

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

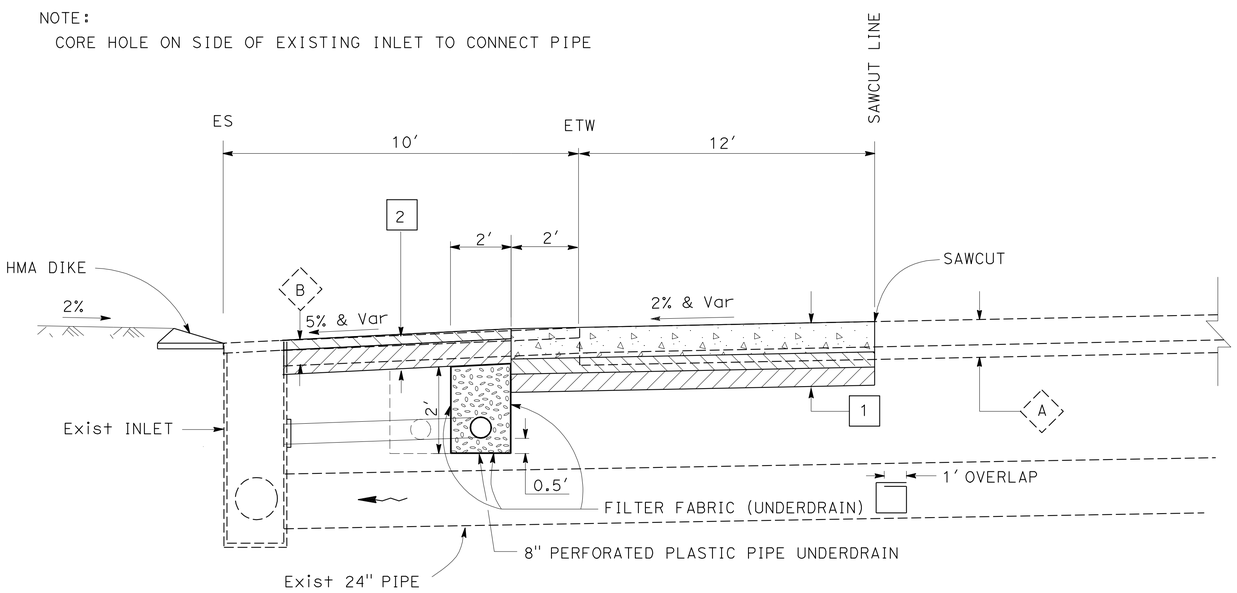
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

- JPCP
- HMA-A
- AB-CLASS 2
- PERMEABLE MATERIAL
- DIRECTION OF FLOW

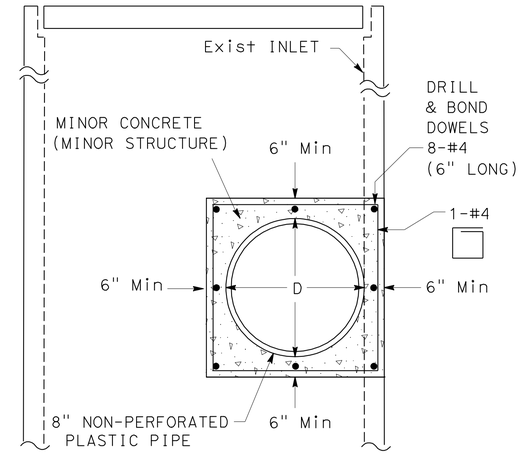
1	1.00′ JPCP 0.50′ HMA-A 0.65′ AB-CLASS 2
2	0.35′ HMA-A 0.95′ AB-CLASS 2
A	Exist 0.80′ PCC 0.45′ CTB
B	Exist 0.35′ AC 0.45′ AB

NOTE:
CORE HOLE ON SIDE OF EXISTING INLET TO CONNECT PIPE



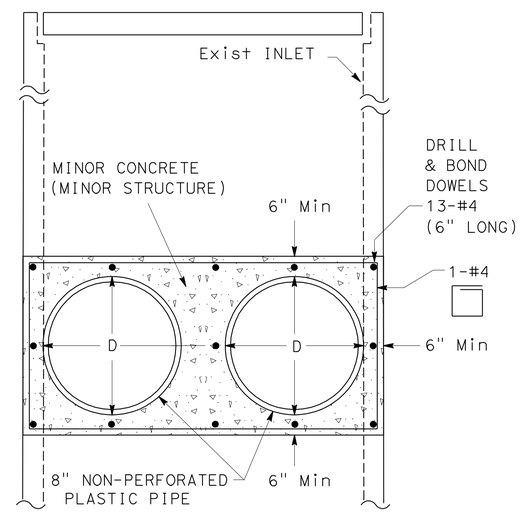
TYPICAL SECTION

ELEVATION



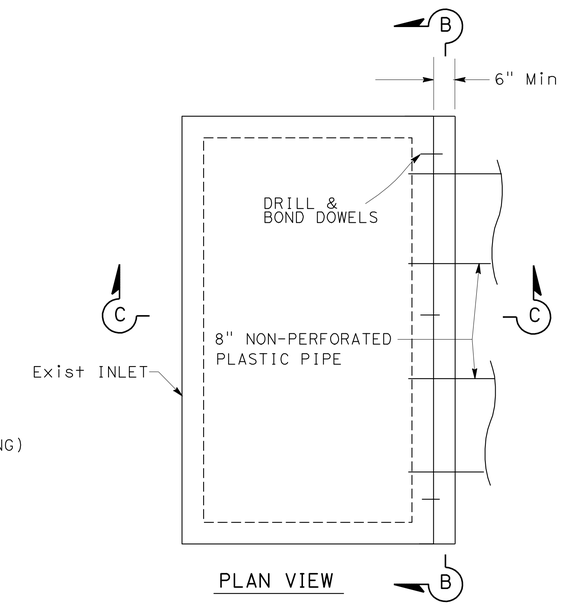
SECTION B-B

SINGLE CONNECTION



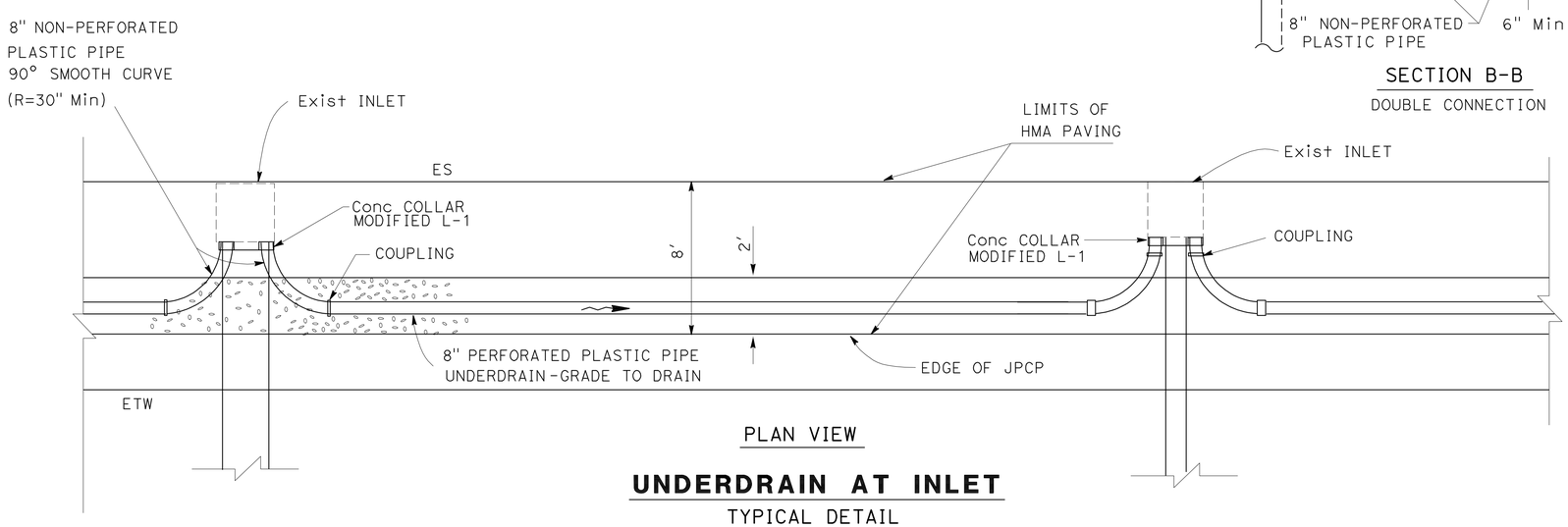
SECTION B-B

DOUBLE CONNECTION



PLAN VIEW

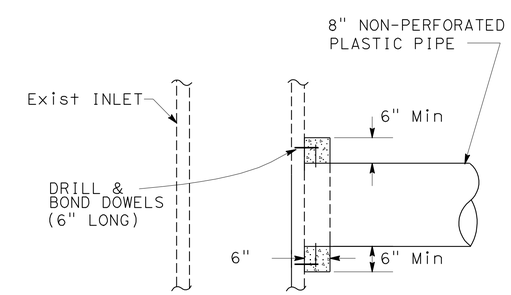
TYPICAL INLET



PLAN VIEW

UNDERDRAIN AT INLET

TYPICAL DETAIL



SECTION C-C

CONCRETE COLLAR MODIFIED L-1

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS

CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH

CHECKED BY: GARRY WILLIAMS

REVISED BY

DATE REVISED

LAST REVISION 10-28-10

DATE PLOTTED => 01-NOV-2010

TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	11	46

REGISTERED CIVIL ENGINEER 09-07-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 54839 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA

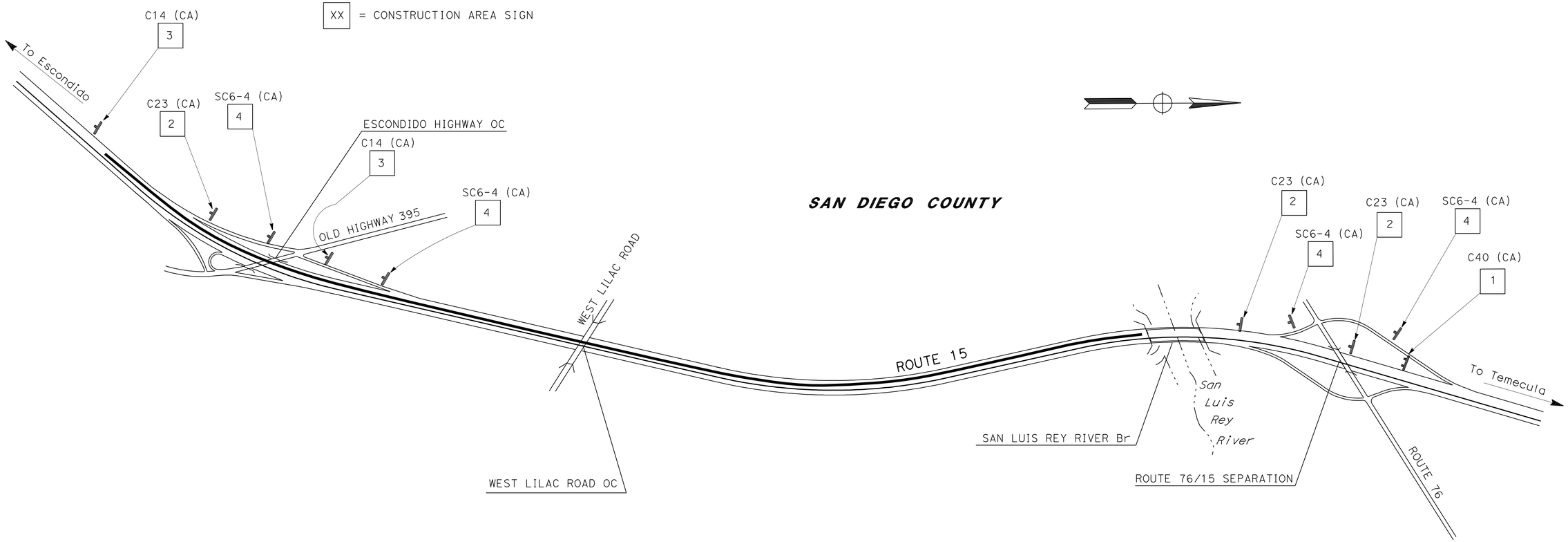
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

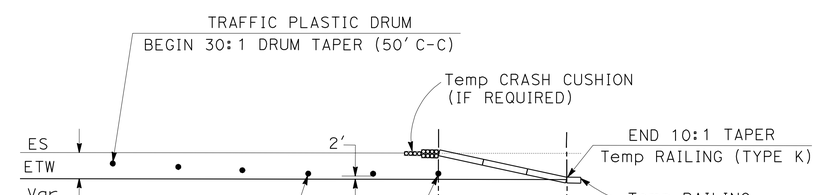
1. EXACT LOCATION OF CONSTRUCTION AREA SIGNS WILL BE DETERMINED BY THE ENGINEER.
2. FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SIGN CODES ARE SHOWN UNLESS DESIGNATED BY (CA), INDICATING CALIFORNIA MUTCD.
3. SEE TRAFFIC HANDLING AND STAGE CONSTRUCTION PLANS FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
4. EXISTING UTILITIES ARE NOT SHOWN ON THIS PLAN SHEET. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND ADJUST THE FIELD LOCATION OF SIGN POSTS IN CONSULTATION WITH THE ENGINEER.

LEGEND

XX = CONSTRUCTION AREA SIGN



TYPICAL PLACEMENT OF TRAFFIC PLASTIC DRUM



CONSTRUCTION AREA SIGNS

SIGN No.	CODE	PANEL SIZE (In)	No. OF POST AND SIZE (In)	No. OF SIGNS
1	C40 (CA)	108 X 42	2-4 X 6 (S)	1
2	C23 (CA)	48 X 48	1-4 X 6 (S)	3
3	C14 (CA)	48 X 24	1-4 X 4 (S)	2
4	SC6-4 (CA)	48 X 60	PORTABLE	4
			TOTAL	10

(S) DENOTES STATIONARY MOUNTED SIGN

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

REVISED BY	DATE REVISED
THANH NGUYEN	SHAHIN T ADIBI

CALCULATED-DESIGNED BY / CHECKED BY

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

LAST REVISION 09-29-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:34

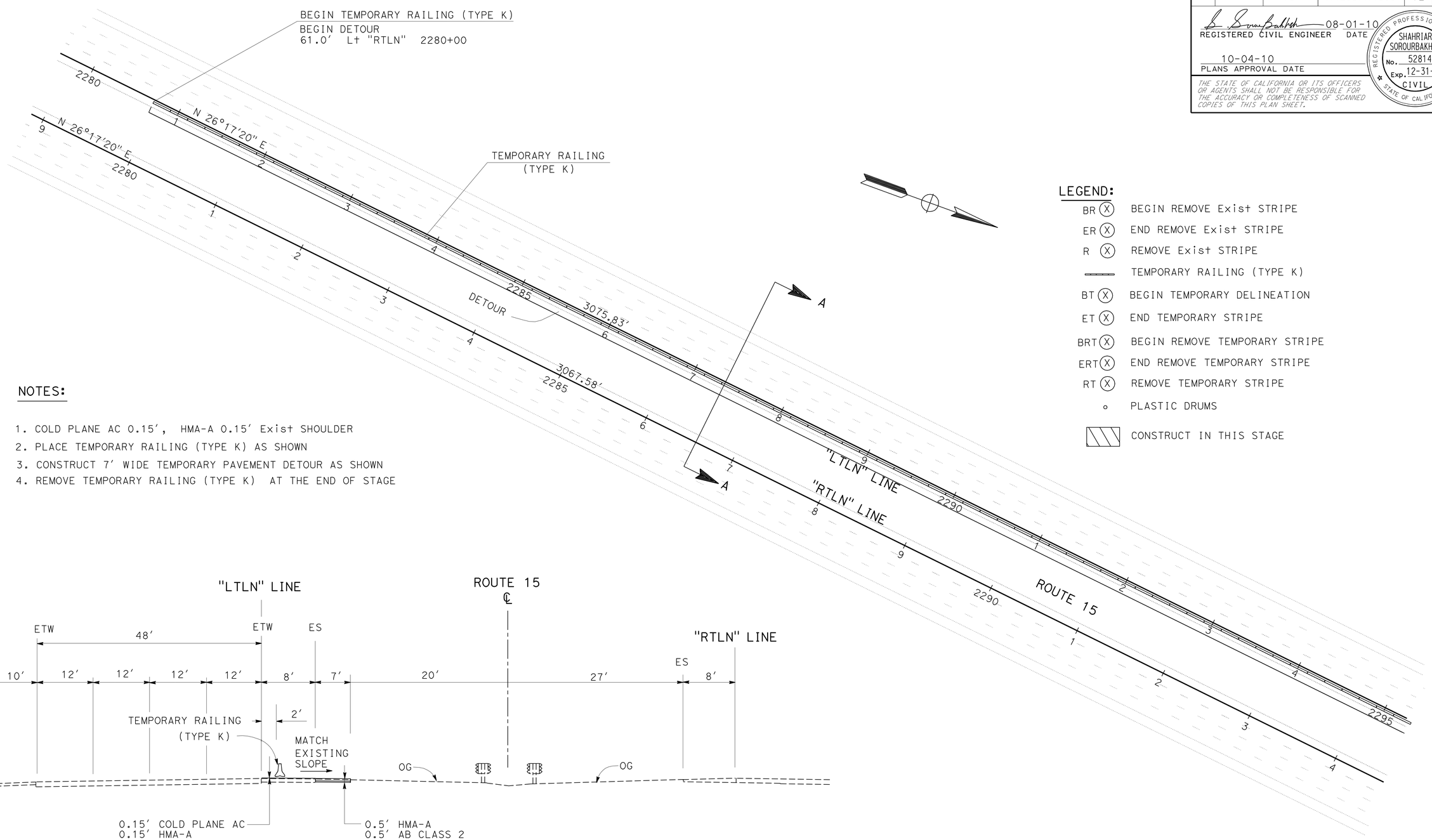
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	12	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



LEGEND:

- BR (X) BEGIN REMOVE Exist STRIPE
- ER (X) END REMOVE Exist STRIPE
- R (X) REMOVE Exist STRIPE
- TEMPORARY RAILING (TYPE K)
- BT (X) BEGIN TEMPORARY DELINEATION
- ET (X) END TEMPORARY STRIPE
- BRT (X) BEGIN REMOVE TEMPORARY STRIPE
- ERT (X) END REMOVE TEMPORARY STRIPE
- RT (X) REMOVE TEMPORARY STRIPE
- PLASTIC DRUMS
- CONSTRUCT IN THIS STAGE

NOTES:

1. COLD PLANE AC 0.15', HMA-A 0.15' Exist SHOULDER
2. PLACE TEMPORARY RAILING (TYPE K) AS SHOWN
3. CONSTRUCT 7' WIDE TEMPORARY PAVEMENT DETOUR AS SHOWN
4. REMOVE TEMPORARY RAILING (TYPE K) AT THE END OF STAGE

SECTION A-A
STA 2280+00 TO STA 2457+80

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 1

SCALE: 1"=50'

SC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	13	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

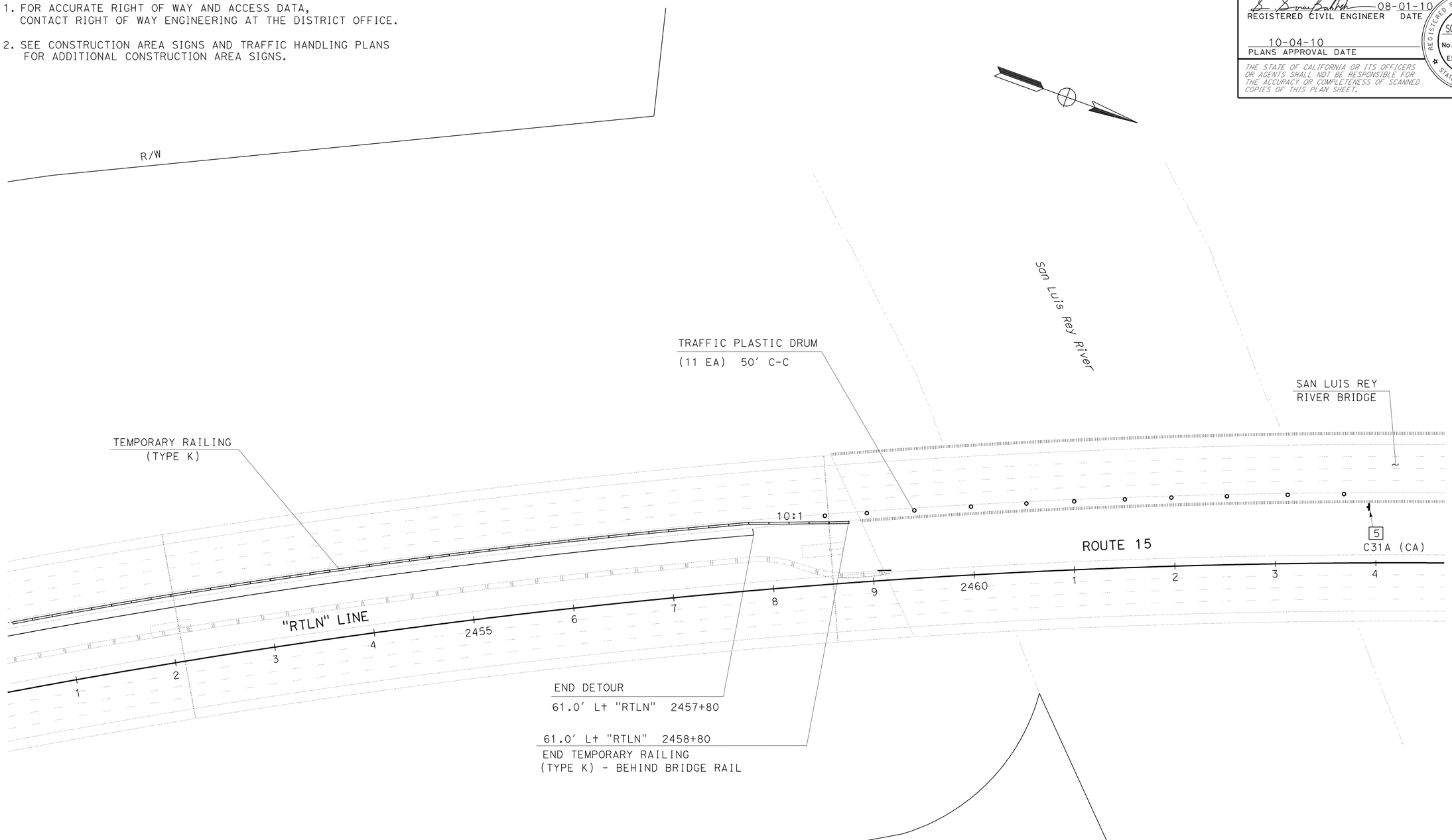
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE CONSTRUCTION AREA SIGNS AND TRAFFIC HANDLING PLANS FOR ADDITIONAL CONSTRUCTION AREA SIGNS.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 1

SCALE 1"=50'

SC-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS

CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS

REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:34

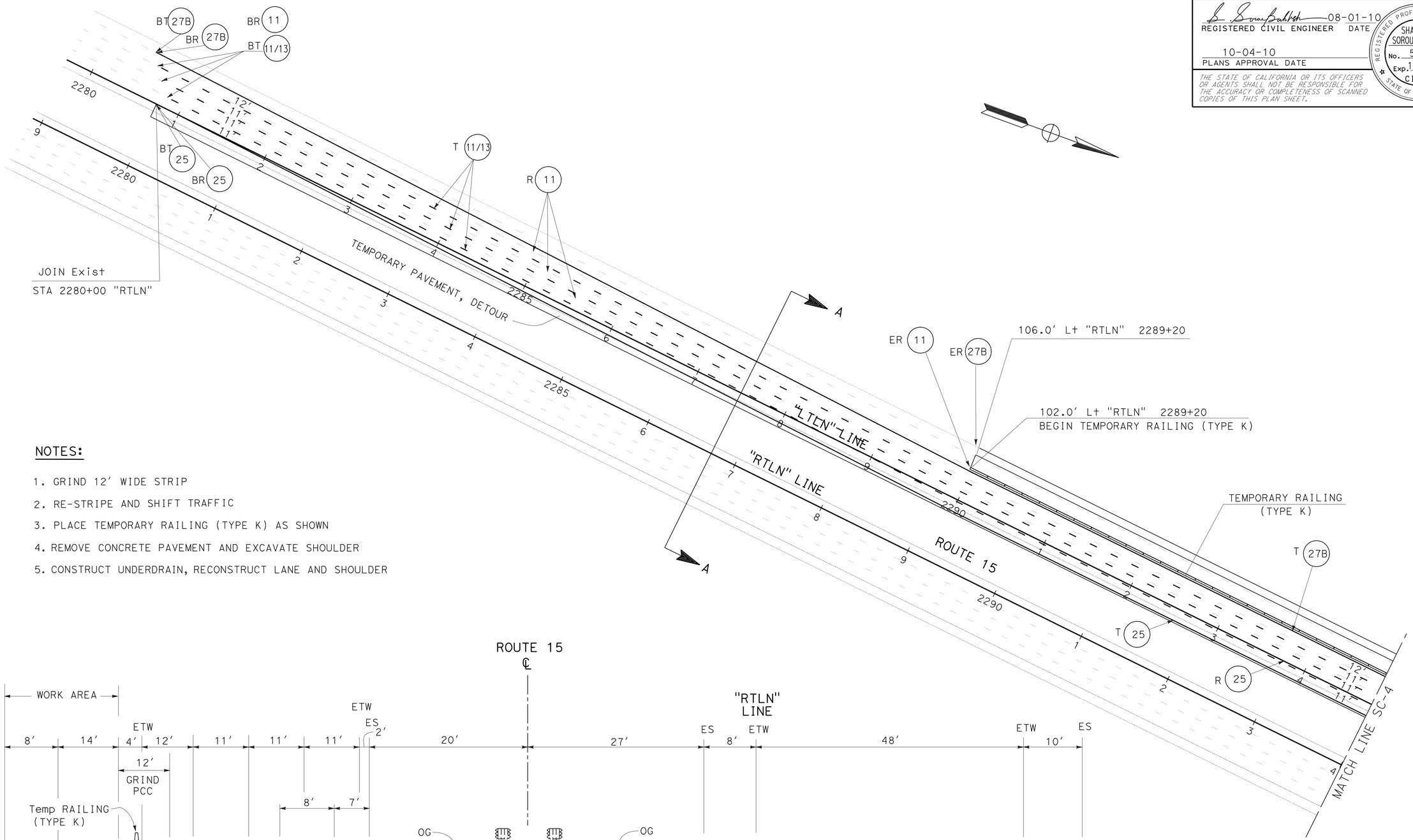
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	14	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



NOTES:

1. GRIND 12' WIDE STRIP
2. RE-STRIPE AND SHIFT TRAFFIC
3. PLACE TEMPORARY RAILING (TYPE K) AS SHOWN
4. REMOVE CONCRETE PAVEMENT AND EXCAVATE SHOULDER
5. CONSTRUCT UNDERDRAIN, RECONSTRUCT LANE AND SHOULDER

SECTION A-A

STA 2289+20 TO STA 2457+80

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 2

SCALE: 1"=50'

SC-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN
FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-NOV-2010
10-28-10 TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	15	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

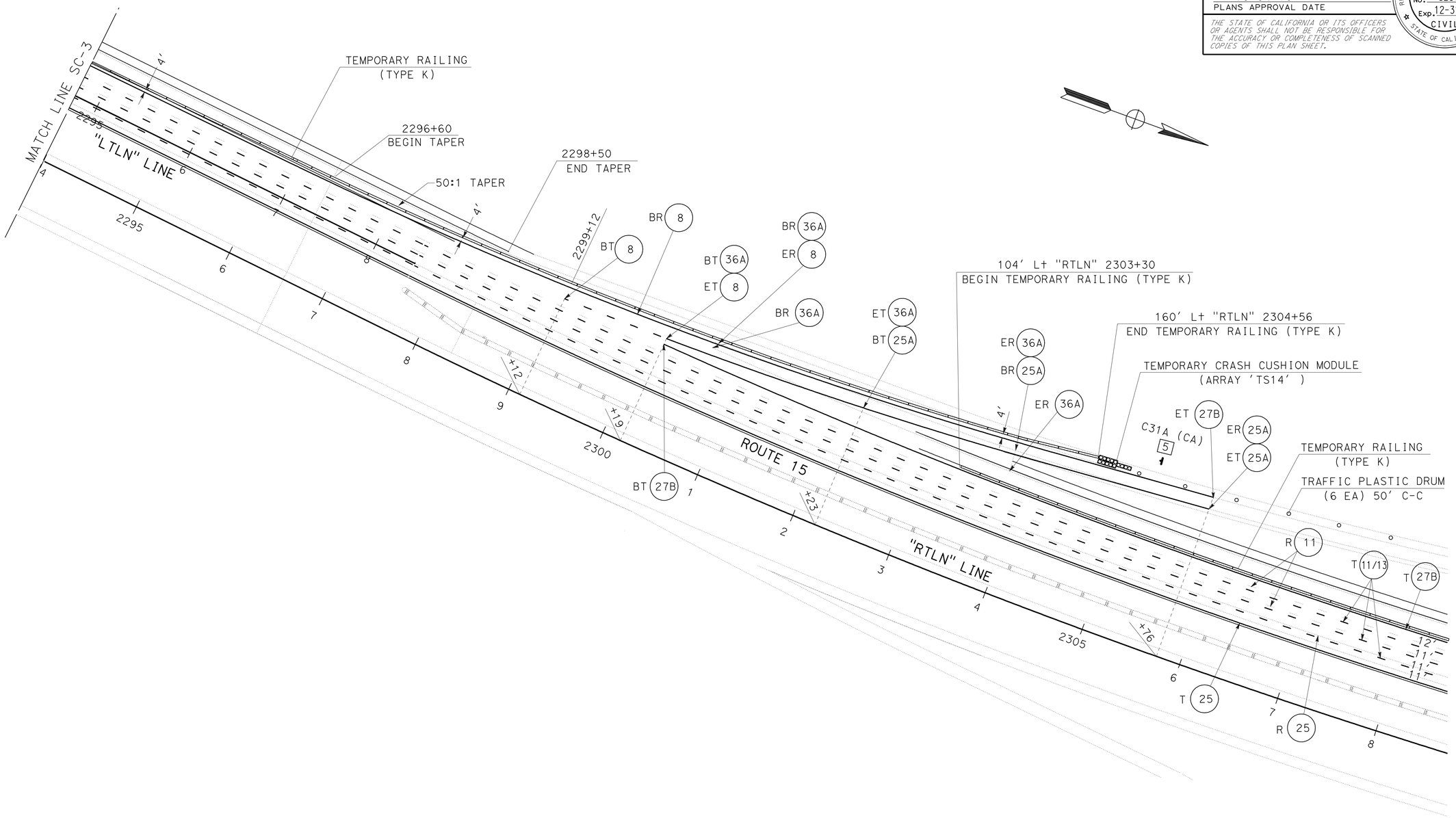
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

SEE CONSTRUCTION AREA SIGNS AND TRAFFIC HANDLING PLANS FOR ADDITIONAL CONSTRUCTION AREA SIGNS.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 2

SCALE: 1"=50'

SC-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:34
10-28-10

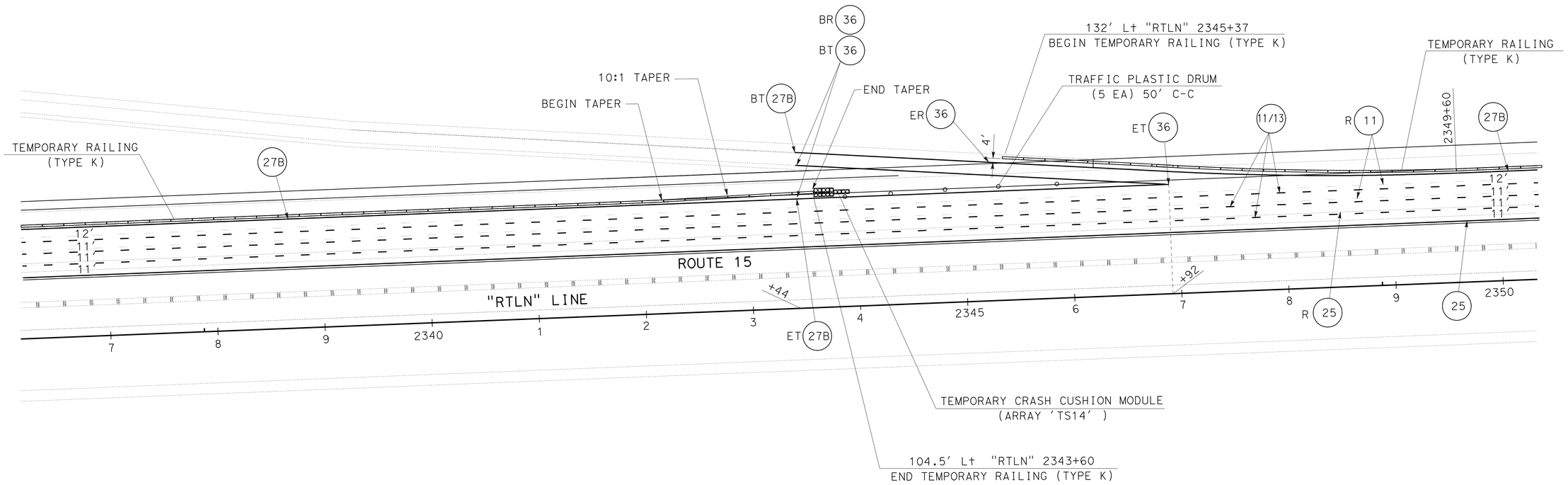
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	16	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 2

SCALE: 1"=50'

SC-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:34
10-28-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	17	46

08-01-10
REGISTERED CIVIL ENGINEER DATE

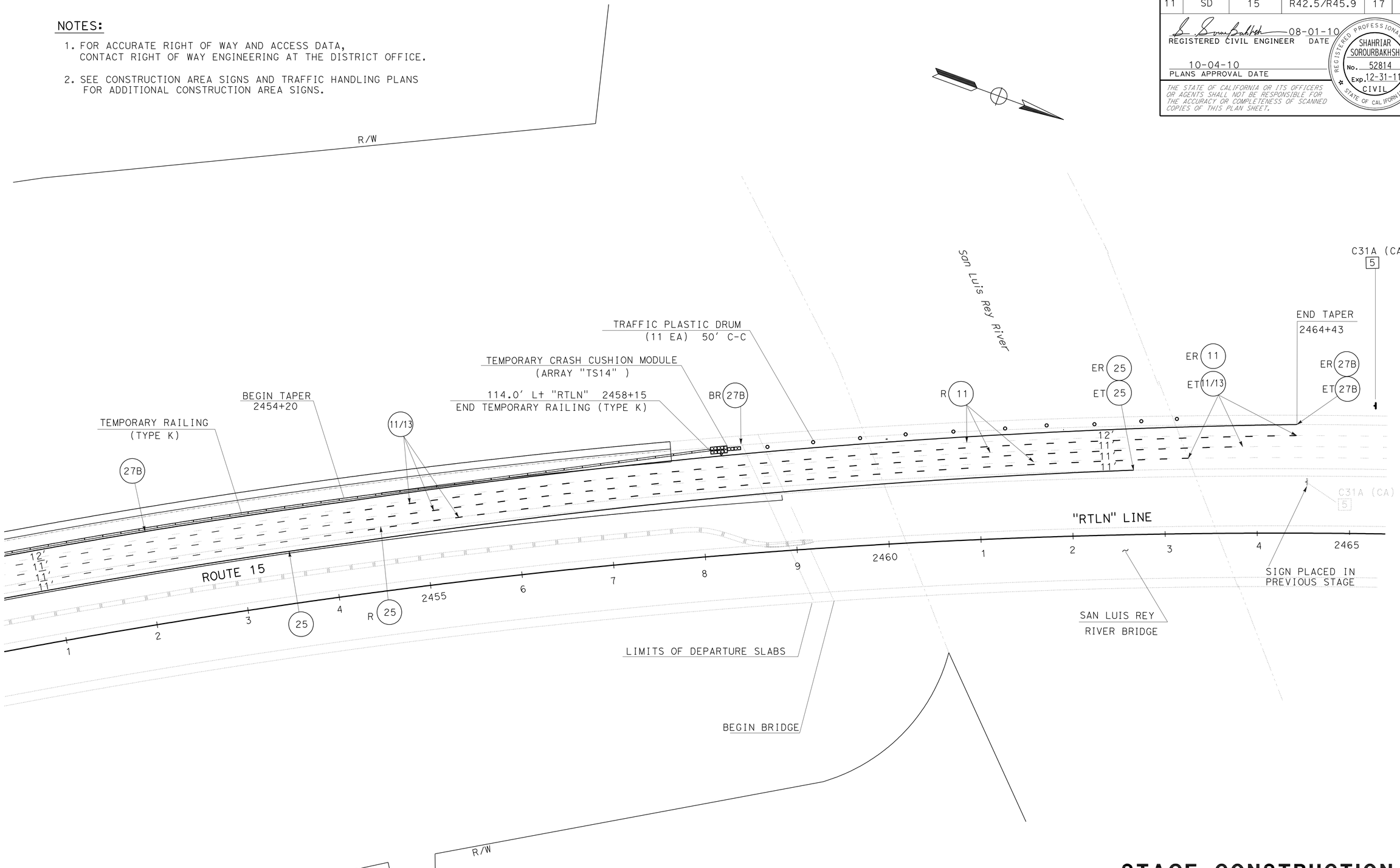
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE CONSTRUCTION AREA SIGNS AND TRAFFIC HANDLING PLANS FOR ADDITIONAL CONSTRUCTION AREA SIGNS.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 2

SCALE: 1"=50'

SC-6

REVISED BY	DATE REVISED

SHAHRIAR SOROURBAKHSH	GARRY WILLIAMS
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	CHRIS M THOMAS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	18	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

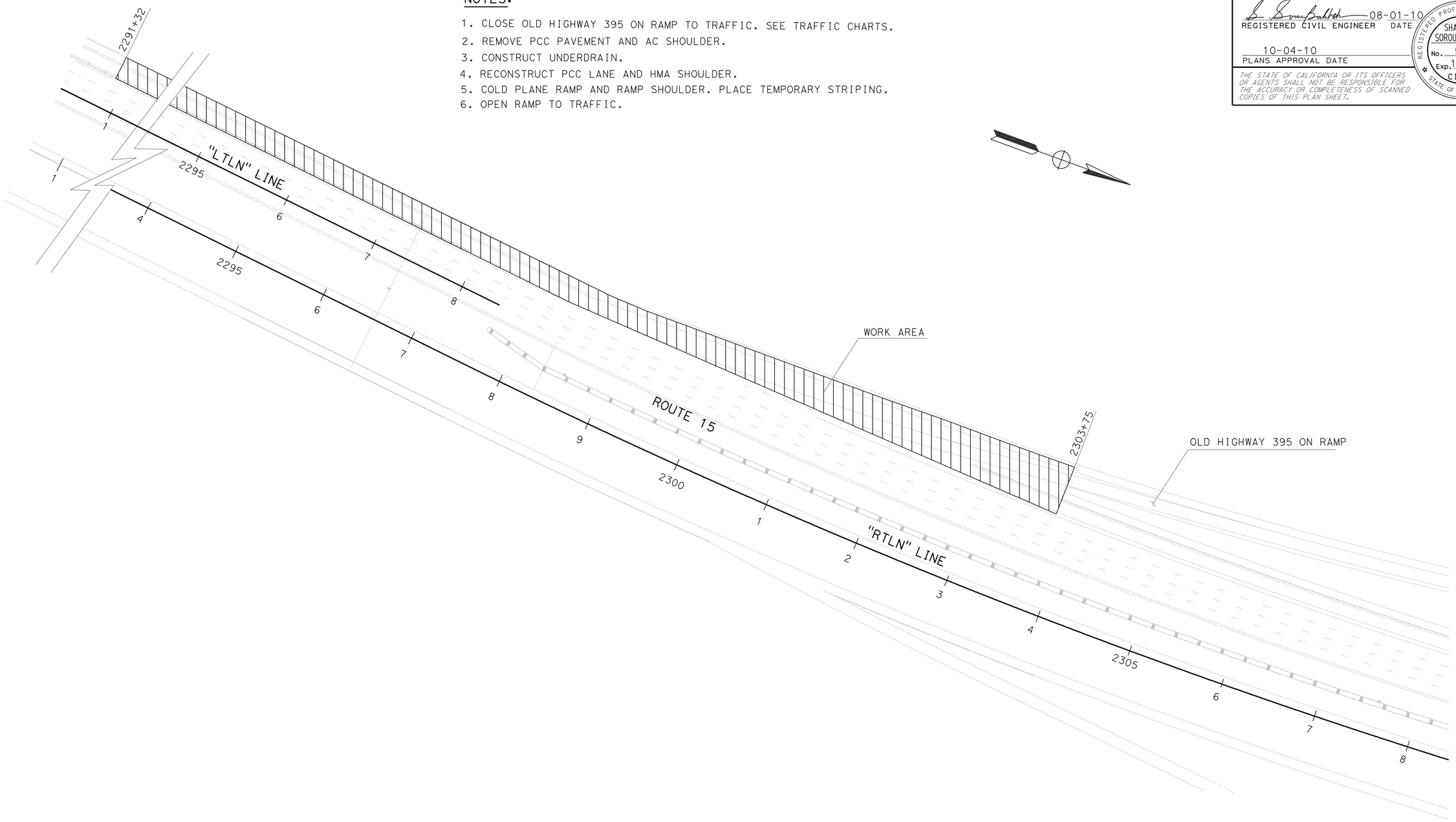
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. CLOSE OLD HIGHWAY 395 ON RAMP TO TRAFFIC. SEE TRAFFIC CHARTS.
2. REMOVE PCC PAVEMENT AND AC SHOULDER.
3. CONSTRUCT UNDERDRAIN.
4. RECONSTRUCT PCC LANE AND HMA SHOULDER.
5. COLD PLANE RAMP AND RAMP SHOULDER. PLACE TEMPORARY STRIPING.
6. OPEN RAMP TO TRAFFIC.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 3

SCALE: 1"=50'

SC-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	19	46

08-01-10
REGISTERED CIVIL ENGINEER DATE

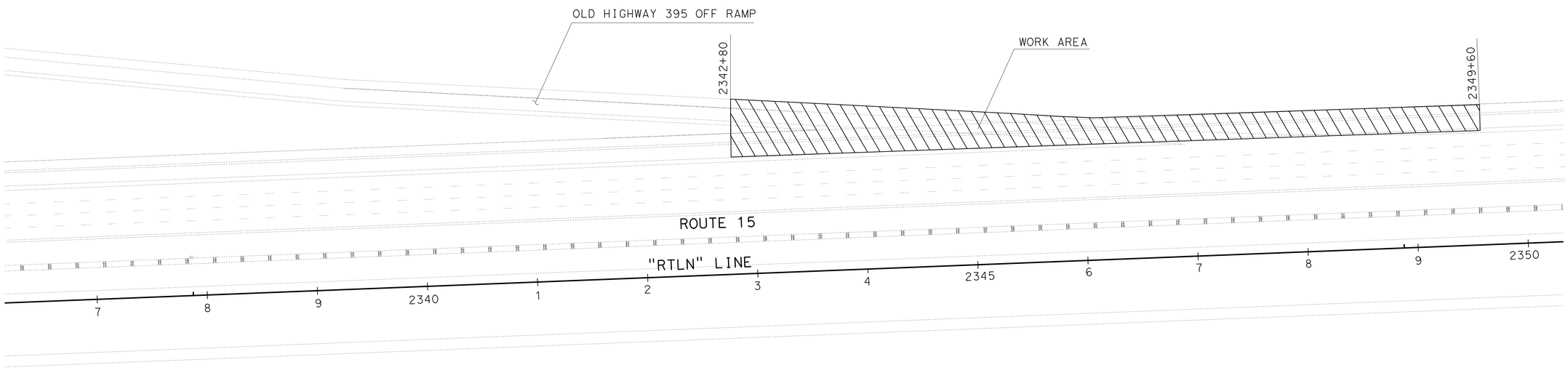
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. CLOSE OLD HIGHWAY 395 OFF RAMP TO TRAFFIC. SEE TRAFFIC CHARTS.
2. REMOVE PCC PAVEMENT AND AC SHOULDER.
3. CONSTRUCT UNDERDRAIN.
4. RECONSTRUCT PCC LANE AND HMA SHOULDER.
5. COLD PLANE RAMP AND RAMP SHOULDER. PLACE TEMPORARY STRIPING.
6. OPEN RAMP TO TRAFFIC.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 3

SCALE: 1"=50'

SC-8

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	20	46

08-01-10
REGISTERED CIVIL ENGINEER DATE

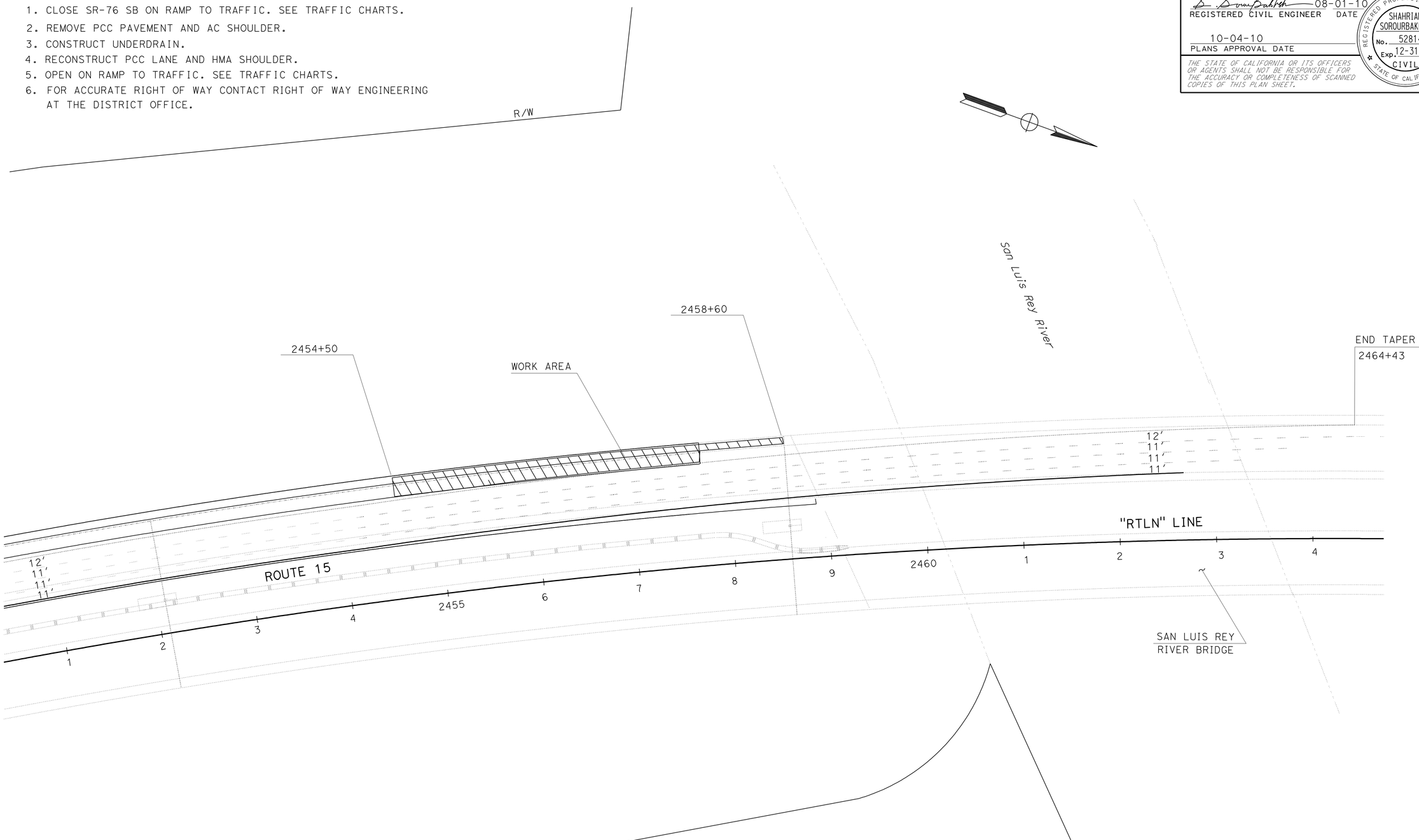
10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. CLOSE SR-76 SB ON RAMP TO TRAFFIC. SEE TRAFFIC CHARTS.
2. REMOVE PCC PAVEMENT AND AC SHOULDER.
3. CONSTRUCT UNDERDRAIN.
4. RECONSTRUCT PCC LANE AND HMA SHOULDER.
5. OPEN ON RAMP TO TRAFFIC. SEE TRAFFIC CHARTS.
6. FOR ACCURATE RIGHT OF WAY CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION
STAGE 3

SCALE: 1"=50'

SC-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	21	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TEMPORARY PAVEMENT DELINEATION (LESS THAN 180 DAYS)

LOCATION			TEMPORARY PAVEMENT MARKER					TEMPORARY TRAFFIC STRIPE (PAINT)		REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAVEMENT MARKER (N)
				(EA)				(1-COAT)			
				NON-REFLECTIVE	RETROREFLECTIVE						
LINE	FROM STATION	TO STATION	DETAIL No.	TYPE A WHITE	TYPE C RED-CLEAR	TYPE G CLEAR	TYPE H YELLOW	BROKEN STRIPE (LF)	SOLID STRIPE (LF)	(LF)	(EA)
RTLN	2280+00	2463+20	11/13	4,580	-	1,145		54,960		13,740	5,725
			27B						18,320	18,320	
			25				382		18,320	18,320	382
	2301+00	2302+30	36A	6					260	260	6
	2300+20	2301+20	8					100		21	
	2302+80	2305+80	25A				13		300	300	13
	2301+20	2305+80	27B						460	460	
	2343+50	2347+00	36			29			700	700	29
	SUBTOTAL			4,586		1,174	395	55,060	38,360	52,121	6,155
	TOTAL			6,155				93,420		52,121 *	6,155 *

* SEE TABLE BELOW FOR GRAND TOTAL

TEMPORARY RAILING (TYPE K)

LINE	LOCATION	STATION LIMITS	(LF)
RTLN	SB INSIDE SHOULDER STAGE 1	2280+00 TO 2458+80	17,880
RTLN	SB OUTSIDE SHOULDER STAGE 2	2289+20 TO 2298+00	880
RTLN	SB OUTSIDE SHOULDER STAGE 2	2303+30 TO 2343+60	4,030
RTLN	SB OUTSIDE SHOULDER STAGE 2	2348+00 TO 2458+15	11,015
RTLN	SB ON RAMP STAGE 2	2298+00 TO 2304+56	656
RTLN	SB OFF RAMP STAGE 2	2345+37 TO 2348+00	263
		TOTAL	34,724

TEMPORARY CRASH CUSHION MODULE

LINE	LOCATION	STAGE	STATION LIMITS	TYPE TS14 (EA)
RTLN	SB LANES	2	2304+56	14
RTLN	SB LANES	2	2343+60	14
RTLN	SB LANES	2	2458+15	14
			TOTAL	42

REMOVE PAINTED TRAFFIC STRIPE

LINE	LOCATION	STATION	DETAIL	(LF)	REMARKS
RTLN	SB LANES	2280+00 TO 2463+20	11	11,000	Exist
RTLN	SB LANES	2280+00 TO 2463+20	8	80	
			36A	320	
			27B	950	
			25A	200	
			36	200	
SUBTOTAL				12,750	
TOTAL FROM ABOVE TABLE				52,121	
TOTAL				64,871	

TRAFFIC PLASTIC DRUM

LINE	LOCATION	PLAN SHEET	STAGE	(EA)
RTLN	SB LANES	SC-2	1	11
RTLN	SB LANES	SC-4	2	6
RTLN	SB LANES	SC-5	2	5
RTLN	SB LANES	SC-6	2	11
		TOTAL		33

REMOVE PAVEMENT MARKER (N)

LINE	LOCATION	STATION	DETAIL	(EA)
RTLN	SB LANES	2280+00 TO 2463+20	TYPE G	764
			TYPE A	3,054
			TYPE H	381
SUBTOTAL				4,199
TOTAL FROM ABOVE TABLE				6,155
TOTAL				10,354

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

CONSTRUCTION AREA SIGNS

SIGN No.	TYPE	PANEL SIZE (INCH)	No. OF POST AND SIZE (INCH)	No. OF SIGN
5	C31A (CA)	48 x 48	1-4 X 6 (S)	3
			TOTAL	3

(S) DENOTES STATIONARY MOUNTED SIGN

STAGE CONSTRUCTION QUANTITIES

SCQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans
FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	22	46

REGISTERED CIVIL ENGINEER DATE 09-07-10

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 54839 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. EXACT LOCATION OF CONSTRUCTION AREA SIGNS WILL BE DETERMINED BY THE ENGINEER.
2. FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SIGN CODES ARE SHOWN UNLESS DESIGNATED BY (CA), INDICATING CALIFORNIA MUTCD.
3. ROTATE ARROW ON SC9 (CA) PANEL TO REFLECT DIRECTION OF DETOUR.
4. SEE CONSTRUCTION AREA SIGN AND STAGE CONSTRUCTION PLANS FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
5. EXISTING UTILITIES ARE NOT SHOWN ON THESE PLAN SHEETS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND ADJUST THE FIELD LOCATION OF THE SIGN POSTS IN CONSULTATION WITH THE ENGINEER.

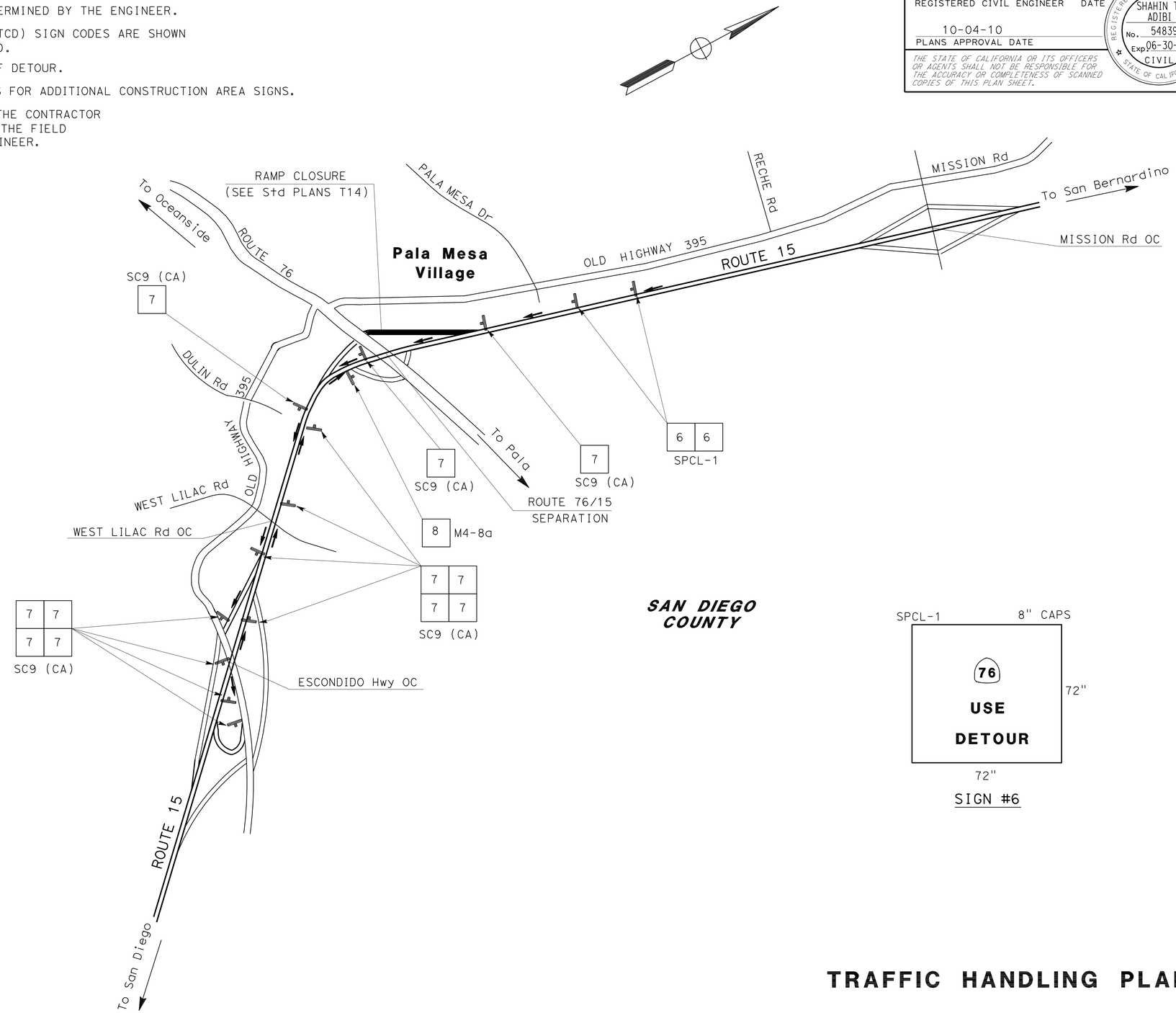
LEGEND

XX = CONSTRUCTION AREA SIGNS

SPCL = SPECIAL CONSTRUCTION AREA SIGN

Caps = CAPITAL LETTERING

→ = DETOUR DIRECTION OF TRAVEL



SAN DIEGO COUNTY

SPCL-1 8" CAPS

76

USE

DETOUR

72"

72"

SIGN #6

THIS PLAN IS ACCURATE FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN

NO SCALE

TH-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® **TRAFFIC DESIGN**

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

CALCULATED-DESIGNED BY: THANH NGUYEN

CHECKED BY: SHAHIN T ADIBI

REVISED BY

DATE REVISED

LAST REVISION 10-28-10

DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:35

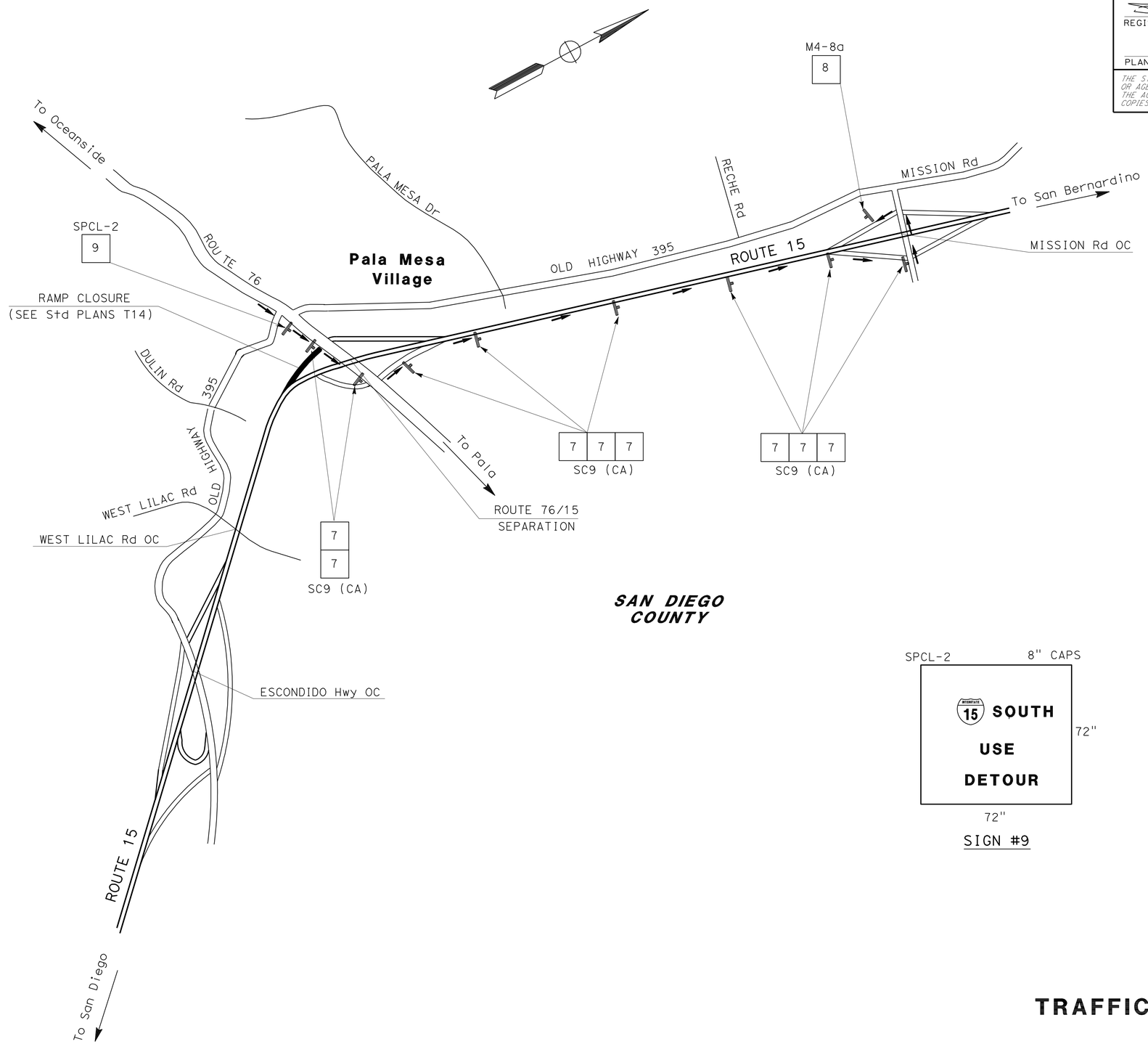
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	23	46

09-07-10
REGISTERED CIVIL ENGINEER DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHIN T. ADIBI
No. 54839
Exp. 06-30-12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SPCL-2 8" CAPS

INTERSTATE 15 SOUTH
USE
DETOUR

72" 72"

SIGN #9

THIS PLAN IS ACCURATE FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN

NO SCALE

TH-2

REVISED BY	DATE REVISED
THANH NGUYEN	SHAHIN T ADIBI

CALCULATED-DESIGNED BY / CHECKED BY

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:35

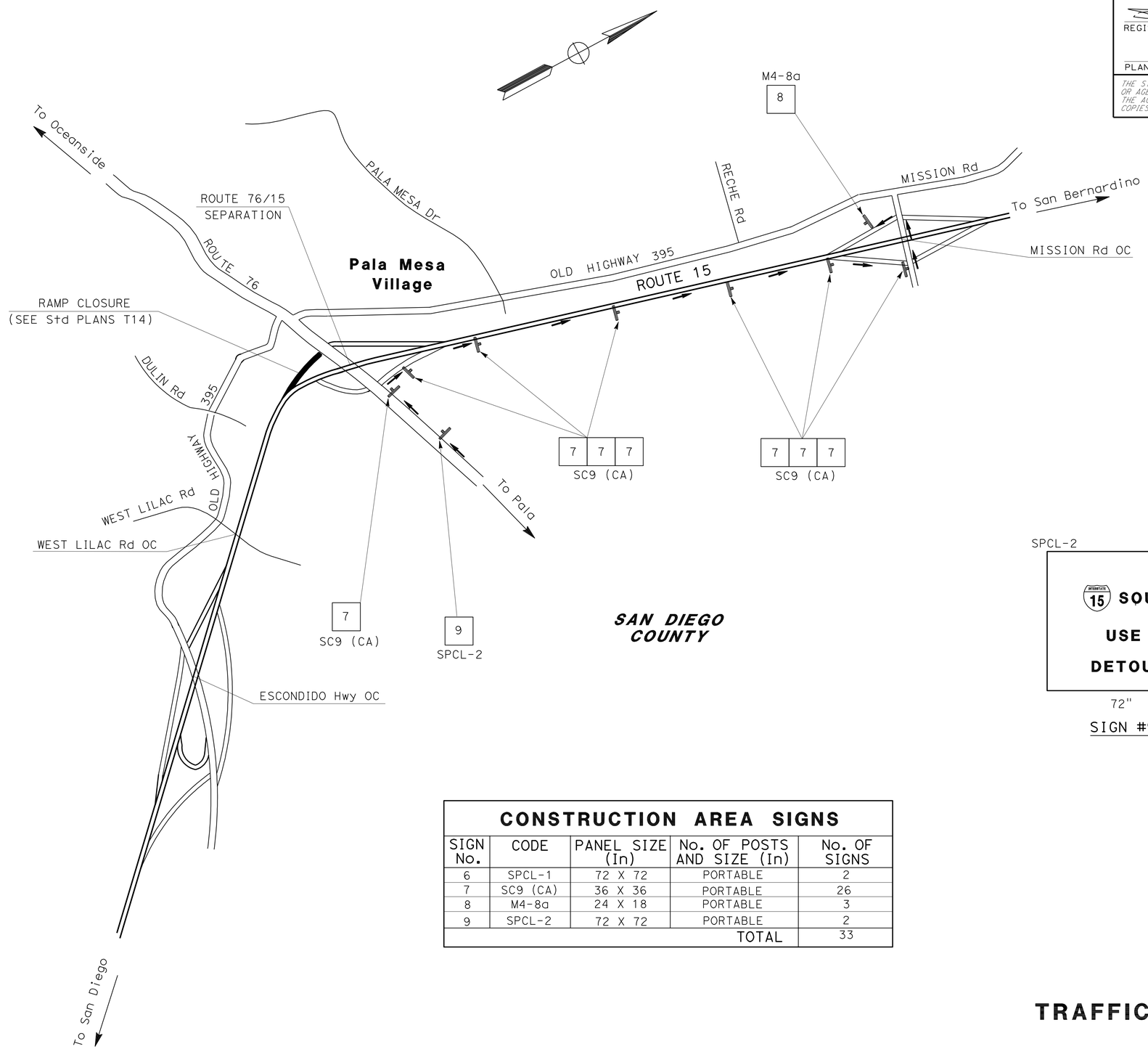
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	24	46

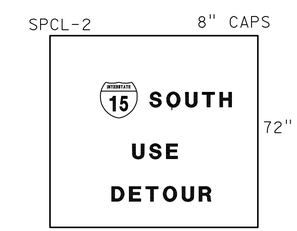
REGISTERED CIVIL ENGINEER 09-07-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 54839 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.





SIGN #9

CONSTRUCTION AREA SIGNS

SIGN No.	CODE	PANEL SIZE (In)	No. OF POSTS AND SIZE (In)	No. OF SIGNS
6	SPCL-1	72 X 72	PORTABLE	2
7	SC9 (CA)	36 X 36	PORTABLE	26
8	M4-8a	24 X 18	PORTABLE	3
9	SPCL-2	72 X 72	PORTABLE	2
			TOTAL	33

THIS PLAN IS ACCURATE FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN

NO SCALE

TH-3

REVISED BY | DATE REVISED
THANH NGUYEN | SHAHIN T ADIBI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	25	46

09-07-10
REGISTERED CIVIL ENGINEER DATE

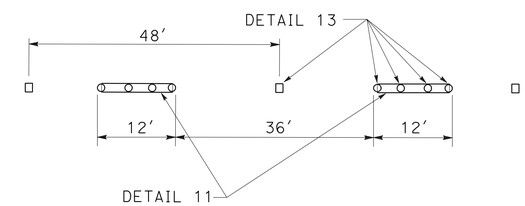
10-04-10
PLANS APPROVAL DATE

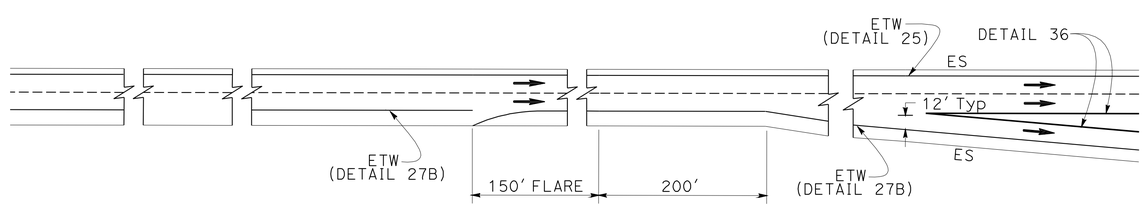
REGISTERED PROFESSIONAL ENGINEER
SHAHIN T. ADIBI
No. 54839
Exp. 06-30-12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

DETAIL 11/13 COMBINATION

TYPICAL





RIGHT EDGELINE FLARE DETAIL

[FOR USE ON ALL EXIT RAMPS EXCEPT WHERE LANE(S) TRAP OFF]

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL
CALCULATED-DESIGNED BY: THANH NGUYEN
CHECKED BY: SHAHIN T ADIBI
REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	26	46

REGISTERED CIVIL ENGINEER 09-07-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 54839 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PAVEMENT MARKER SUMMARY / TRAFFIC STRIPE SUMMARY

ROUTE	DIRECTION	LOCATION POSTMILE	DETAIL No.	NON-REFLECTIVE (EA) TYPE A White	RETROREFLECTIVE (EA) TYPE C Red&CLEAR	TYPE D Yellow	TYPE G Clear	TYPE H Yellow	PAINT (LF) 2-COAT	THERMOPLASTIC (LF) 8" (SOLID)	4" (BROKEN 17-7)	REMARKS
15	SB	FROM R45.9	11/13	4,764			1,191		57,024			REPLACE EXISTING 13 WITH 11/13 FOR ~ LENGTH = 19008
			25					397	19,008			LENGTH = 19008 Ft
			27B *						19,008			LENGTH = 19008 Ft
			14		32							LENGTH = 130 Ft
			36				28			634		LENGTH = 317 Ft FOR EXIT RAMP
			36A				28			634		LENGTH = 317 Ft FOR EACH ON RAMP
		TO R42.5	8								475	LENGTH = 264 Ft FOR 76 ON RAMP & LENGTH = 211 Ft FOR OLD HIGHWAY 395 ON RAMP
			SUBTOTAL	4,764	32		1,247	397	95,040			
			TOTAL	4,764	1,676				95,040	1,268	475	SEE NOTE 3

NOTES:

1. ALL PAVEMENT DELINEATION SHALL BE REPLACED-IN-KIND UNLESS OTHERWISE STATED.
*2. PLACE RIGHT EDGELINE FLARE DETAIL AT EXIT TO OLD HIGHWAY 395
3. SEE STAGE CONSTRUCTION SHEETS FOR ADDITIONAL PAVEMENT DELINEATION QUANTITIES.

MILEPOST MARKER

ROUTE	DIRECTION	POSTMILE	QUANTITY (EA)
15	SB	R42.5	1
		R43.0	1
		R43.5	1
		R44.0	1
		R44.5	1
		R45.0	1
		R45.5	1
		TOTAL	7

PAVEMENT DELINEATION QUANTITIES

PDQ-1

REVISED BY | DATE REVISED
THANH NGUYEN | SHAHIN T ADIBI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	27	46

REGISTERED CIVIL ENGINEER 08-01-10 DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHRIAR SOROURBAKHSH No. 52814 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STRUCTURAL SECTION SUMMARY

LINE	LOCATION	STATION LIMITS	JPCP (CY)	CONCRETE PAVEMENT RAPID STRENGTH CONCRETE (CY)	CLASS-2 AB (CY)	HMA-A (TON)
RTLN	SB LANE 4	2289+20 TO 2291+32	110		72	107
RTLN	SB LANE 4	2303+75 TO 2342+80	2,025		1,316	1,964
RTLN	SB LANE 4	2349+60 TO 2454+50	5,439		3,536	5,277
RTLN	SB LANE (STAGE 3)	2342+80 TO 2349+60		353	229	342
RTLN	SB LANE (STAGE 3)	2291+32 TO 2303+75		645	419	625
RTLN	SB LANE (STAGE 3)	2454+50 TO 2457+80		171	111	166
RTLN	SB SHOULDER	2289+20 TO 2457+80			4,746	3,496
RTLN	SB DETOUR (STAGE 1)	2280+00 TO 2457+80			2,305	4,609
RTLN	INSIDE SHOULDER (STAGE 1)	2280+00 TO 2457+80				1,587
RTLN	ON RAMP LANE AND SHOULDER COLD PLANE HMA (STAGE 3)	2299+10 TO 2303+75				90
RTLN	OFF RAMP LANE AND SHOULDER COLD PLANE HMA (STAGE 3)	2342+80 TO 2345+80				58
		TOTAL	7,574	1,169	12,734	18,321

SEAL LONGITUDINAL ISOLATION JOINT

LINE	LOCATION	STATION LIMITS	(LF)
RTLN	SB LANE	2289+20 TO 2457+80	16,860
		TOTAL	16,860

EDGE DRAIN REMOVAL (N)

LINE	LOCATION	STATION LIMITS	(LF)
RTLN	SB SHOULDER	2289+20 TO 2457+80	16,860

COLD PLANE ASPHALT CONCRETE PAVEMENT

LINE	LOCATION	STATION LIMITS	(SQYD)
RTLN	INSIDE SHOULDER STAGE 1	2280+00 TO 2457+80	15,804
RTLN	ON RAMP LANE AND SHOULDER	2299+10 TO 2303+75	904
RTLN	OFF RAMP LANE AND SHOULDER	2342+80 TO 2345+80	584
		TOTAL	17,292

REMOVE CONCRETE PAVEMENT AND BASE

LINE	LOCATION	STATION LIMITS	(CY)
RTLN	SB LANE 4	2289+20 TO 2457+80	9375

EROSION CONTROL (BONDED FIBER MATRIX)

LINE	LOCATION	STATION LIMITS	(SQFT)
RTLN	SB MEDIAN	2280+00 TO 2457+80	124,460

MINOR HOT MIX ASPHALT

LINE	LOCATION	STATION LIMITS	(TON)
RTLN	SB DIKE	2289+20 TO 2457+80	417

ROADWAY EXCAVATION

LINE	LOCATION	STATION LIMITS	(CY)
RTLN	SB SHOULDER	2289+20 TO 2457+80	6494
RTLN	SB LANE	2289+20 TO 2457+80	9430
RTLN	DETOUR	2280+00 TO 2457+80	4610
RTLN	DETOUR REMOVAL	2280+00 TO 2457+80	4610
		TOTAL	25,144

TEMPORARY CONCRETE WASHOUT FACILITY

LINE	LOCATION	STATION LIMITS	(EA)
RTLN	SB SHOULDER	2280+00 TO 2457+80	9

PLACE HOT MIX ASPHALT DIKE

LINE	LOCATION	STATION LIMITS	TYPE E (LF)
RTLN	SB SHOULDER	2289+20 TO 2298+70	950
RTLN	SB SHOULDER	2303+75 TO 2342+80	3905
RTLN	SB SHOULDER	2345+80 TO 2458+48	11,200
		TOTAL	16,055

GRIND EXISTING CONCRETE PAVEMENT

LINE	LOCATION	STATION LIMITS	(SQYD)
RTLN	SB LANE	2289+20 TO 2457+80	22,480

TEMPORARY DRAINAGE INLET PROTECTION

LINE	LOCATION	STATION LIMITS	(EA)
RTLN	SB SHOULDER		27

TACK COAT

LINE	LOCATION	STATION LIMITS	TON
RTLN	SB SHOULDER	2289+20 TO 2457+80	3.55
RTLN	SB TEMPORARY DETOUR	2289+20 TO 2457+80	3.11
		TOTAL	6.66

SHOULDER RUMBLE STRIP (CONCRETE PAVEMENT, ROLLED-IN INDENTATIONS)

LINE	LOCATION	STATION LIMITS	(STA)
RTLN	SB SHOULDER	2289+20 TO 2298+70	9.50
RTLN	SB SHOULDER	2303+75 TO 2342+80	39.05
RTLN	SB SHOULDER	2347+80 TO 2458+80	112
		TOTAL	160.55

ASPHALTIC EMULSION (FOG SEAL COAT)

LINE	LOCATION	STATION LIMITS	(TON)
RTLN	SB SHOULDER	2289+20 TO 2457+80	5.33

(N) NOT A SEPARATE PAT ITEM, FOR INFORMATION ONLY.

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-NOV-2010
10-28-10 TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	28	46

08-01-10
REGISTERED CIVIL ENGINEER DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHRIAR SOROURBAKHSH
No. 52814
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

8" PERFORATED UNDERDRAIN

LINE	LOCATION	EXISTING INLET (N)	VENT (N)	OUTLET (N)	8" PERFORATED PLASTIC PIPE UNDERDRAIN (LF)	8" NON-PERFORATED PLASTIC PIPE (LF)	MINOR CONCRETE (MINOR STRUCTURE) (CY)	DESCRIPTION
RTLN	2289+30	X		X		5	0.07	CONCRETE COLLAR MODIFIED L-1
					710	10		
	2296+50	X	X	X			0.14	
					190	10		
	2298+50	X	X	X				
					840	10		
	2307+00	X	X	X				
					540	10		
	2312+50	X	X	X				
					690	10		
	2319+50	X	X	X				
					440	10		
	2324+00	X	X	X				
					475	10		
	2328+85	X	X	X				
					490	10		
	2333+85	X	X	X				
					390	10		
	2337+85	X	X	X				
					390	10		
	2341+85	X	X	X				
					420	10		
	2346+15	X	X	X				
					360	10		
	2350+85	X	X	X				
					905	10		
	2360+60	X	X	X				
					590	10		
	2366+60	X	X	X				
					540	10		
	2372+10	X	X	X				
					535	10		
	2377+55	X	X	X				
					795	10		
	2385+60	X	X	X				
					540	10		
	2391+10	X	X	X				
					950	10		
	2400+70	X	X	X				
					985	10		
	2410+65	X	X	X				
					1025	10		
	2421+00	X	X	X				
					595	10		
	2427+05	X	X	X				
					955	10		
	2436+70	X	X	X				
					835	10		
	2445+15	X	X	X				
					685	10		
	2452+10	X	X	X			.14	
					630	10		
	2458+50	X		X		105	.07	
				TOTAL	16,500	370	3.6	

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: CHRIS M THOMAS
CALCULATED-DESIGNED BY: SHAHRIAR SOROURBAKHSH
CHECKED BY: GARRY WILLIAMS
REVISED BY / DATE REVISED

LAST REVISION 10-28-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	29	46

Fariba Ramos 09-08-10
REGISTERED CIVIL ENGINEER DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FARIBA RAMOS No. E15619 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

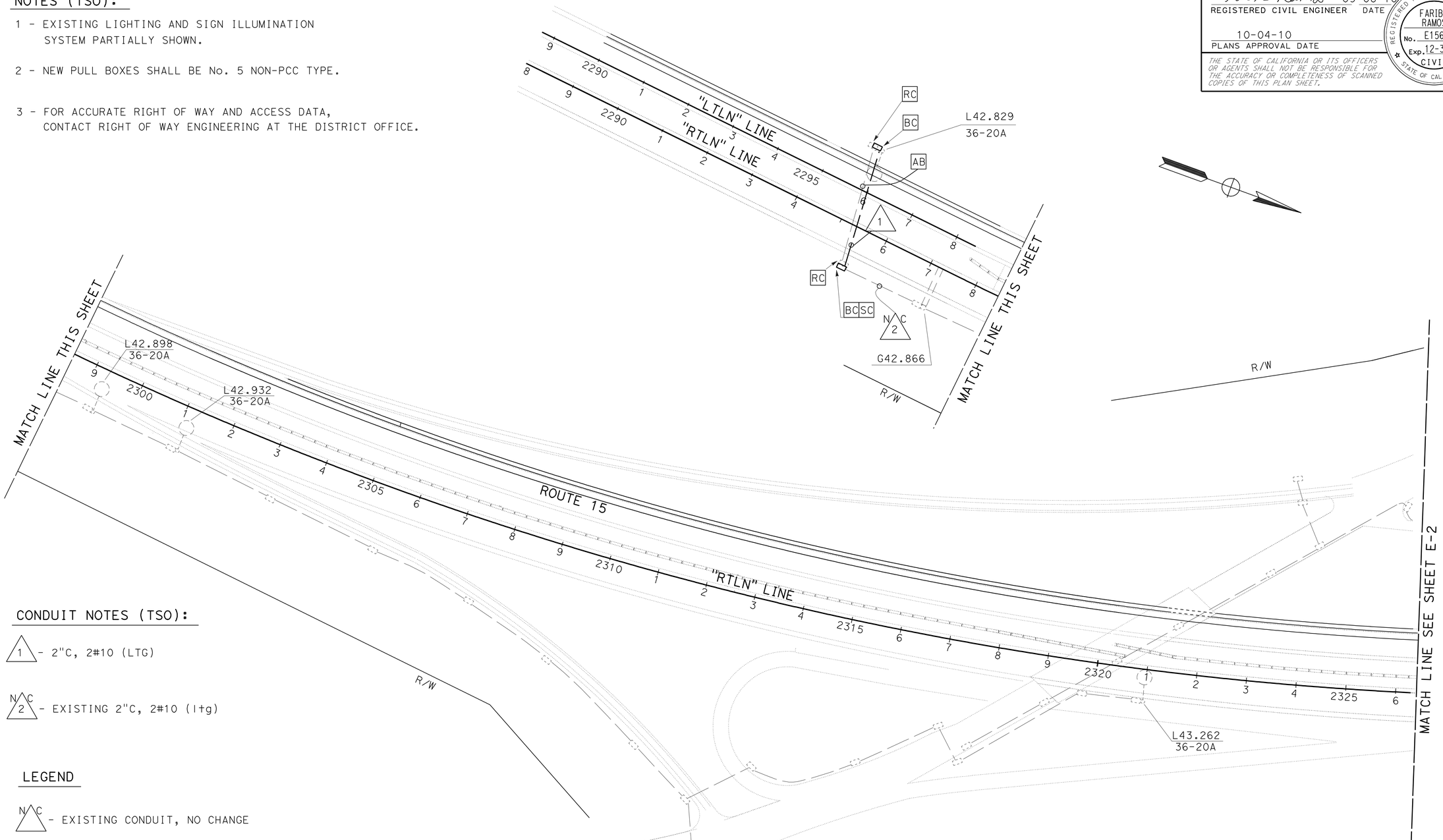
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES (TSO):

1 - EXISTING LIGHTING AND SIGN ILLUMINATION SYSTEM PARTIALLY SHOWN.

2 - NEW PULL BOXES SHALL BE No. 5 NON-PCC TYPE.

3 - FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



CONDUIT NOTES (TSO):

1 - 2"C, 2#10 (LTG)

N C 2 - EXISTING 2"C, 2#10 (ltg)

LEGEND

N C - EXISTING CONDUIT, NO CHANGE

NWR - NO WORK REQUIRED

TSO - THIS SHEET ONLY

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1"=100'

E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC ELECTRICAL

FUNCTIONAL SUPERVISOR: DALE WILSON
CALCULATED-DESIGNED BY: ENRIQUE BERNAL
CHECKED BY: FARIBA RAMOS
REVISED BY / DATE REVISED

LAST REVISION 10-20-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	30	46

REGISTERED CIVIL ENGINEER DATE 09-08-10

PLANS APPROVAL DATE 10-04-10

REGISTERED PROFESSIONAL ENGINEER FARIBA RAMOS No. E15619 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES (TSO):

1 - RS SIGN LIGHTING FIXTURES AND SIGN CONTROL.
SEE E-1 FOR SERVICE POINT, E3.12, 480 V.

2 - EXISTING LIGHTING AND SIGN ILLUMINATION SYSTEM PARTIALLY SHOWN.

3 - NEW PULL BOXES SHALL BE No. 5 NON-PCC TYPE.

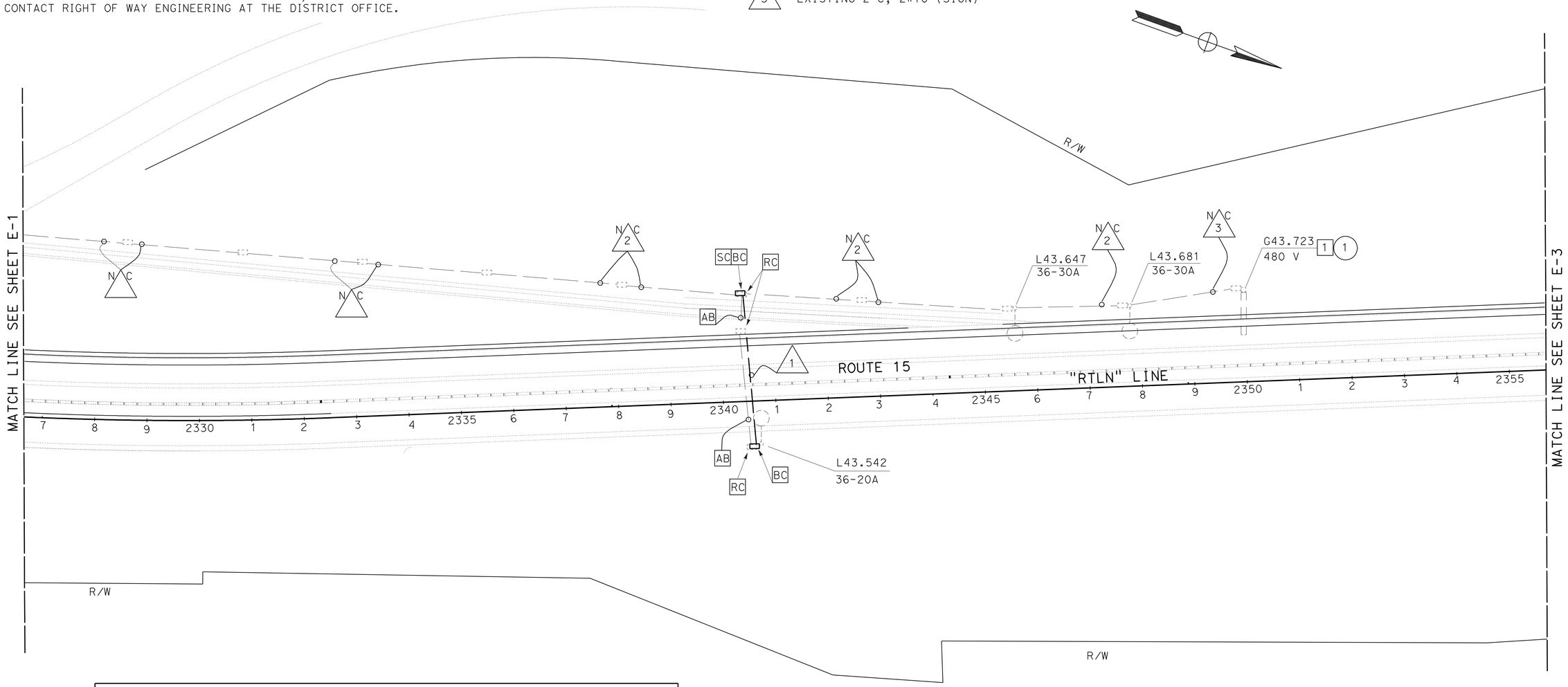
FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONDUIT NOTES (TSO):

1 - 2"C, 2#10 (LTG)

N C 2 - EXISTING 2"C, 2#10 (ltg)
2#10 (SIGN)

N C 3 - EXISTING 2"C, 2#10 (SIGN)



ILLUMINATED SIGNS AND APPURTENANCES

SIGN No.	QUANTITY OF 85 W ISL FIXTURES	VOLTAGE	LOAD	REMARKS
1	2	480 V	174 W	SEE Std PLANS ES-15A

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1"=100'

E-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC ELECTRICAL

FUNCTIONAL SUPERVISOR: DALE WILSON
CALCULATED-DESIGNED BY: FARIBA RAMOS
CHECKED BY: ENRIQUE BERNAL
REVISED BY
DATE REVISED

LAST REVISION 10-20-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	31	46

REGISTERED CIVIL ENGINEER DATE 09-08-10

PLANS APPROVAL DATE 10-04-10

REGISTERED PROFESSIONAL ENGINEER FARIBA RAMOS No. E15619 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES (TSO):

1 - EXISTING LIGHTING AND SIGN ILLUMINATION SYSTEM PARTIALLY SHOWN.

2 - SD 120/240 VOLTS, MAIN 2P-70 AMP 2P-40 AMP (sign), 2P-30 AMP (SPARE).

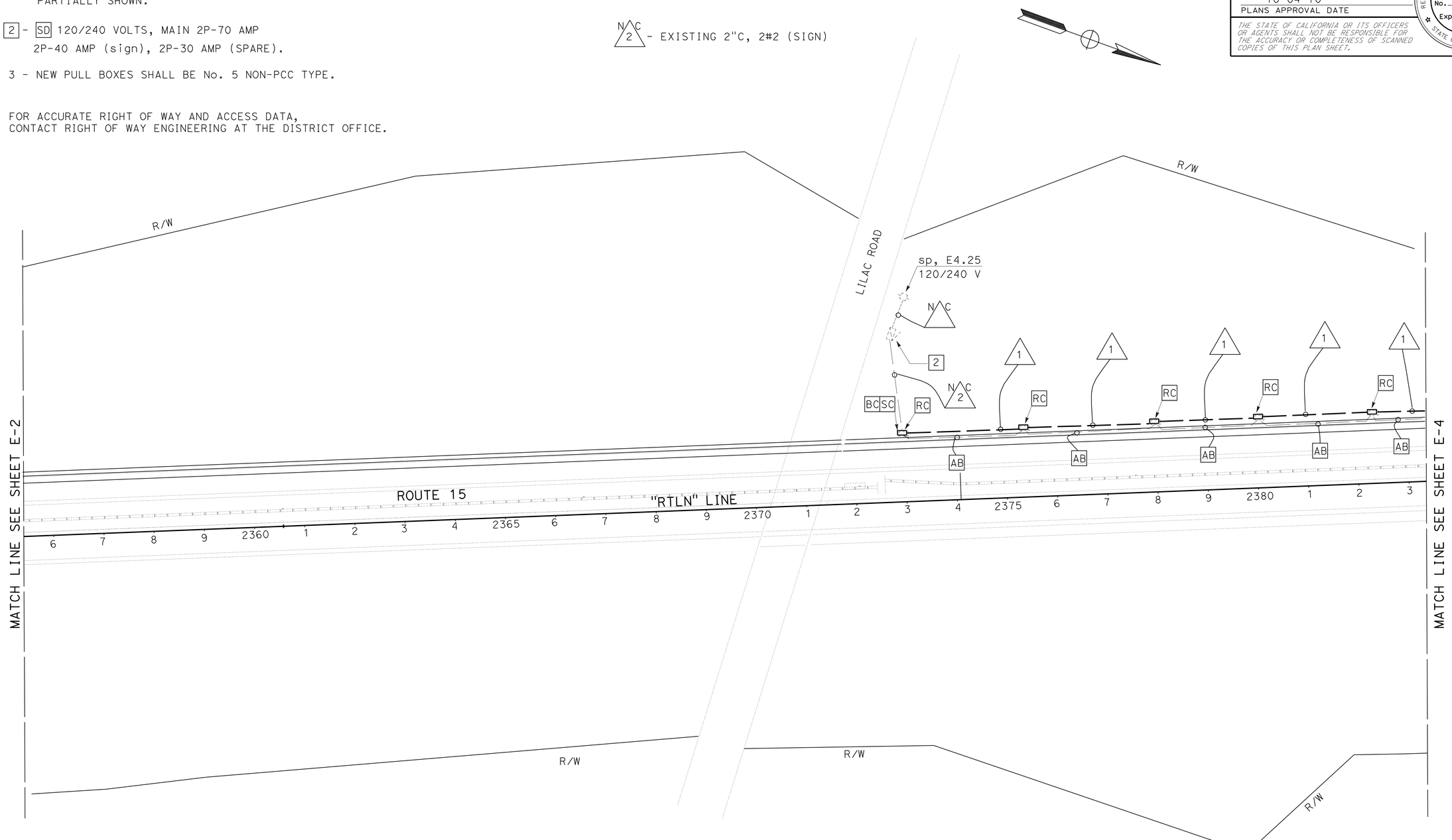
3 - NEW PULL BOXES SHALL BE No. 5 NON-PCC TYPE.

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONDUIT NOTES (TSO):

1 - 2"C, 2#2 (SIGN)

N C 2 - EXISTING 2"C, 2#2 (SIGN)



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1"=100'

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® **TRAFFIC ELECTRICAL**

FUNCTIONAL SUPERVISOR: DALE WILSON

CALCULATED-DESIGNED BY: FARIBA RAMOS

CHECKED BY: ENRIQUE BERNAL

REVISED BY / DATE REVISED

LAST REVISION 10-20-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	32	46

Fariba Ramos 09-08-10
REGISTERED CIVIL ENGINEER DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FARIBA RAMOS No. E15619 Exp. 12-31-11 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES (TSO):

1 - RS SIGN LIGHTING FIXTURES AND SIGN CONTROL.

2 - EXISTING LIGHTING AND SIGN ILLUMINATION SYSTEM PARTIALLY SHOWN.

3 - NEW PULL BOXES SHALL BE No. 5 NON-PCC TYPE.

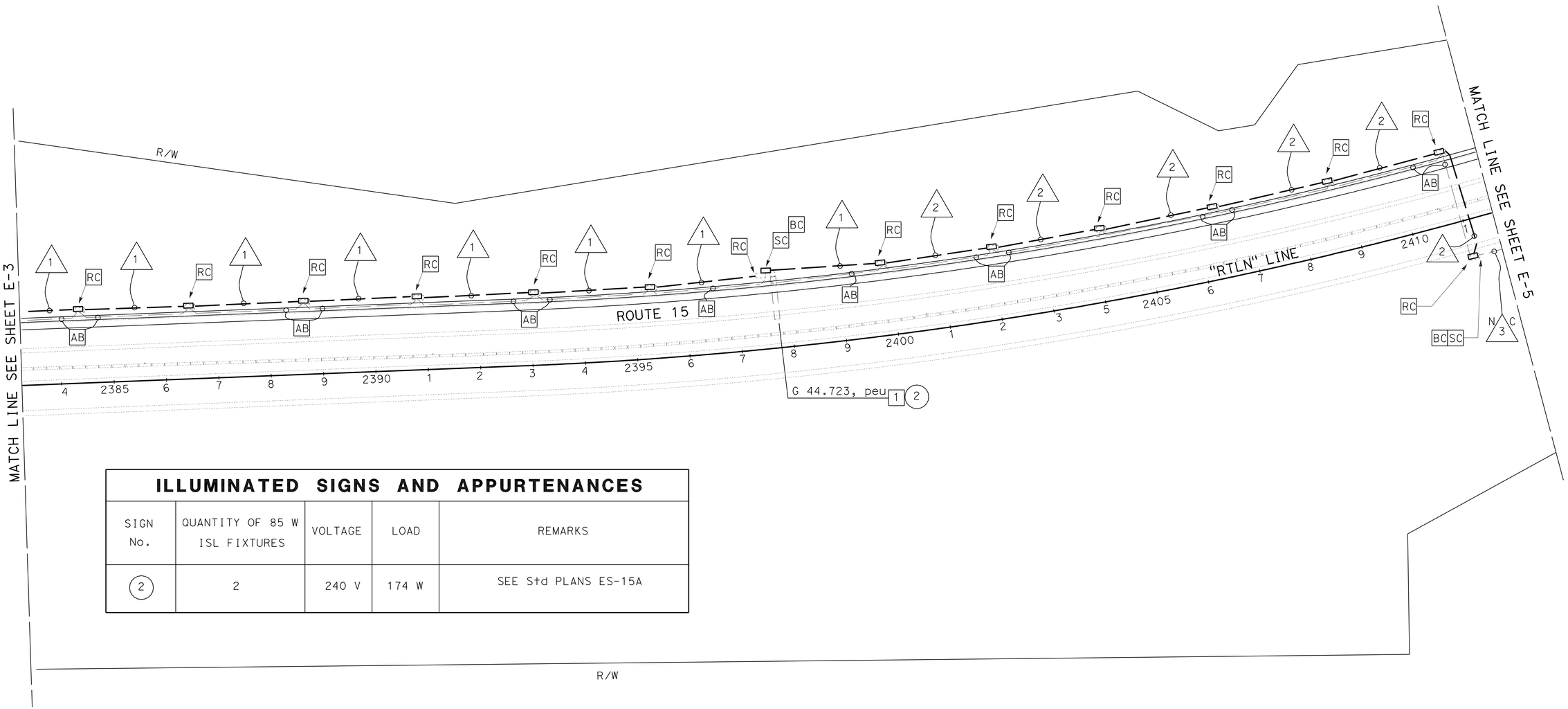
FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONDUIT NOTES (TSO):

1 - 2"C, 2#2 (SIGN)

2 - 2"C, 2#4 (SIGN)

N C 3 - Exist 2"C, 2#4 (SIGN)



ILLUMINATED SIGNS AND APPURTENANCES

SIGN No.	QUANTITY OF 85 W ISL FIXTURES	VOLTAGE	LOAD	REMARKS
2	2	240 V	174 W	SEE Std PLANS ES-15A

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1"=100'

E-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC ELECTRICAL

FUNCTIONAL SUPERVISOR: DALE WILSON
CALCULATED-DESIGNED BY: FARIBA RAMOS
CHECKED BY: ENRIQUE BERNAL
REVISED BY
DATE REVISED

LAST REVISION 10-20-10 | DATE PLOTTED => 01-NOV-2010 | TIME PLOTTED => 14:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	33	46

Farib Ramos 09-08-10
REGISTERED CIVIL ENGINEER DATE

10-04-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FARIBA RAMOS
No. E15619
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

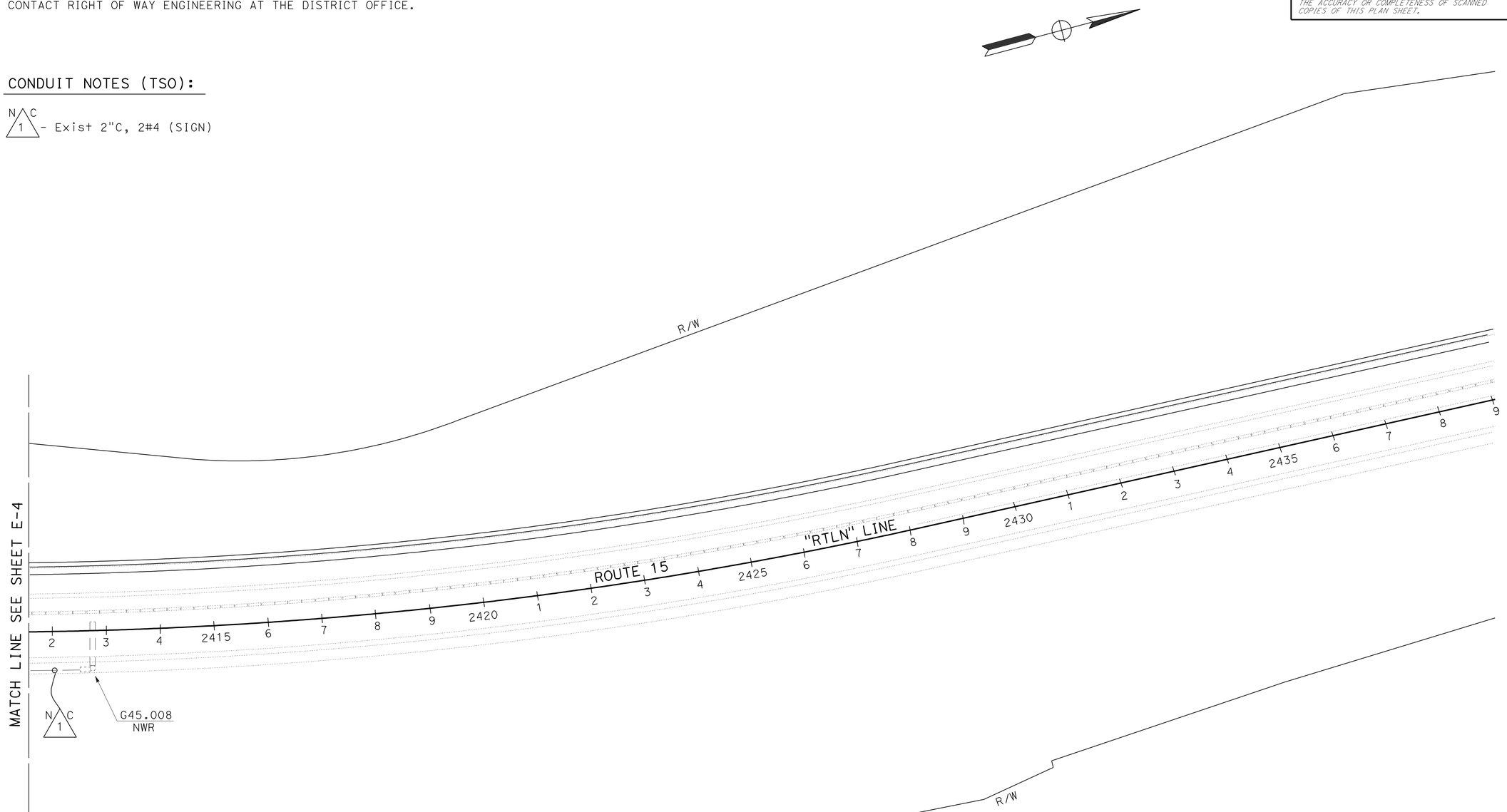
NOTES (TSO):

1 - EXISTING LIGHTING AND SIGN ILLUMINATION SYSTEM PARTIALLY SHOWN.

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CONDUIT NOTES (TSO):

N C 1 - Exist 2"C, 2#4 (SIGN)



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1"=100'

E-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC ELECTRICAL

FUNCTIONAL SUPERVISOR: DALE WILSON
CALCULATED-DESIGNED BY: FARIBA RAMOS
CHECKED BY: ENRIQUE BERNAL
REVISED BY
DATE REVISED

LAST REVISION 10-28-10
DATE PLOTTED => 01-NOV-2010
TIME PLOTTED => 14:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	34	46

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
Robert B. Schott 3695
Robert B Schott
Signature
11-04-08
Renewal Date
08-11-08
Date
STATE OF CALIFORNIA

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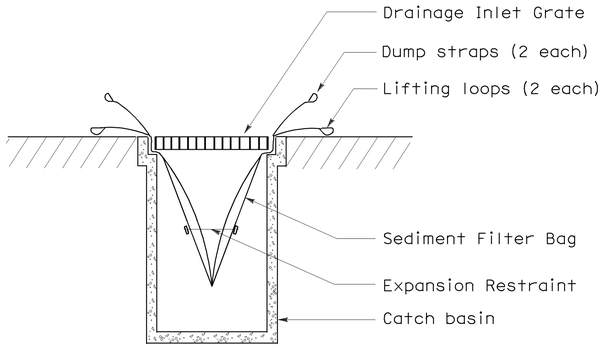
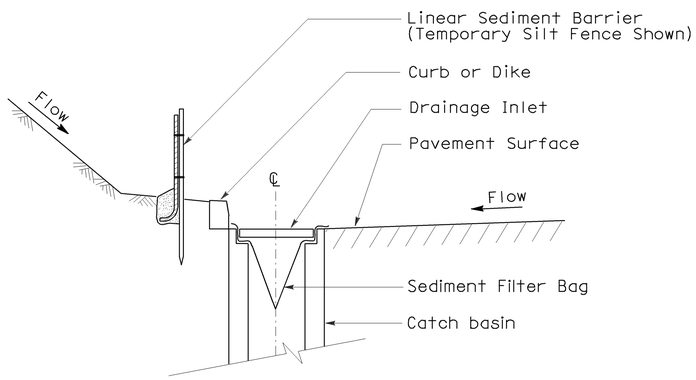
To accompany plans dated 10-04-10

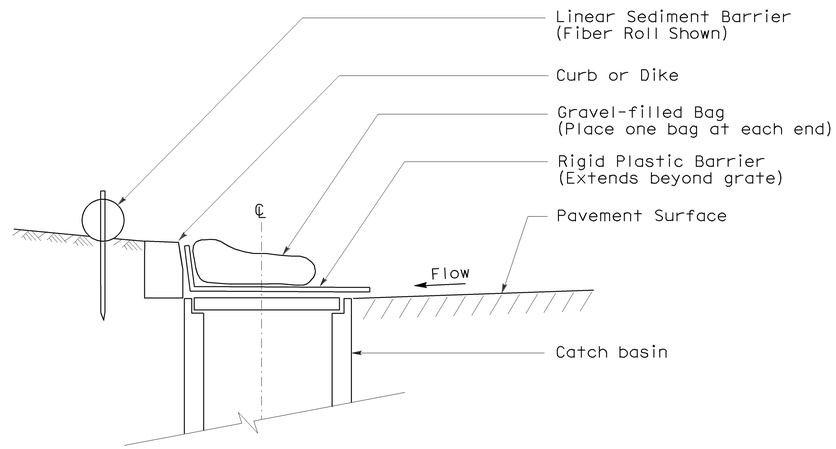


SECTION B-B

SEDIMENT FILTER BAG DETAIL



SECTION A-A

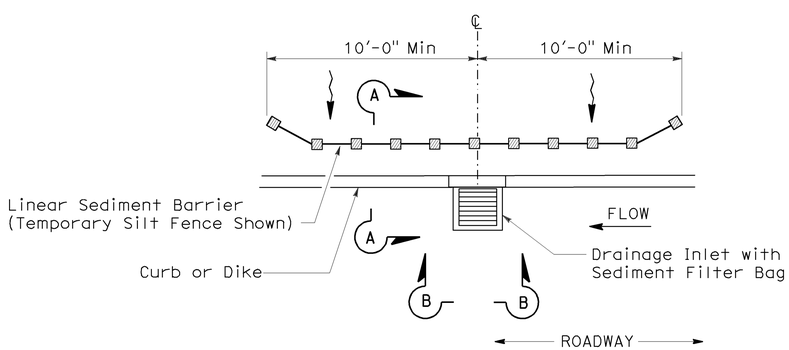


SECTION

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6A) (CATCH BASIN WITH GRATE)

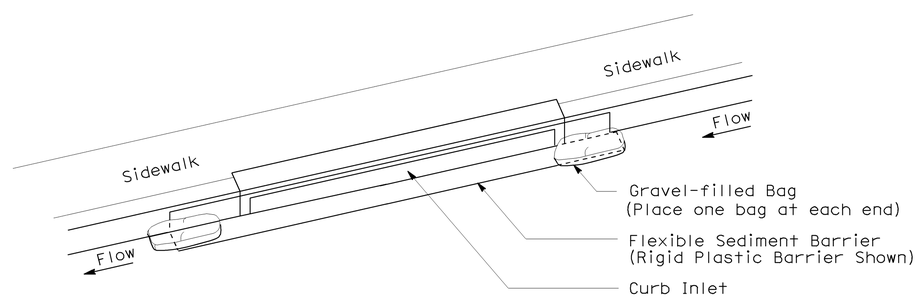
NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 5) (SEDIMENT FILTER BAG)



PERSPECTIVE

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6B) (CURB INLET WITHOUT GRATE)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	35	46

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Jeffery G. McRae No. E14512 Exp. 6-30-08 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.

To accompany plans dated 10-04-10

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
2. Luminaires shall be the cutoff type, ANSI Type Ⅲ medium cutoff lighting distribution, unless otherwise specified.
3. Variations noted adjacent to symbol on project plans.

Electrolier (see project notes or project plans)

Luminaire on wood pole

STANDARD NOTES:

- AB — Abandon. If applied to conduit, remove conductors.
- BC — Install pull box in existing conduit run.
- BP — Pedestrian barricade, type as indicated on plan.
- CB — Install conduit into existing pull box.
- CC — Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF — Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH — Detector handhole.
- FA — Foundation to be abandoned.
- IS — Install sign on signal mast arm.
- NS — No slip base on standard.
- PEC — Photoelectric control.
- PEU — Photoelectric unit.
- RC — Equipment or material to be removed and become the property of the Contractor.
- RE — Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL — Relocate equipment.
- RR — Remove and reuse equipment.
- RS — Remove and salvage equipment.
- SC — Splice new to existing conductors.
- SD — Service disconnect.
- SF — Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP — Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED	EXISTING	
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type Ⅰ, Ⅱ, Ⅲ, Ⅳ or Ⅴ as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

SOFFIT AND WALL MOUNTED LUMINAIRES

Pendant, 70 W HPS unless otherwise specified.

Flush, 70 W HPS unless otherwise specified.

Wall surface, 70 W HPS unless otherwise specified.

Existing soffit or wall luminaire to remain unmodified.

Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	36	46

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Jeffery G. McRae No. E14512 Exp. 6-30-08 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.

To accompany plans dated 10-04-10

CONDUIT

PROPOSED	EXISTING	
		Lighting Conduit, unless otherwise indicated or noted
		Traffic signal conduit
C	c	Communication conduit
T	t	Telephone conduit
F	f	Fire alarm conduit
FO	fo	Fiber optic conduit
		Conduit termination (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

PROPOSED	EXISTING	
OH	oh	Overhead lines
U	U	Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
III		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
T	t	Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION

Type of installation

TYPE H SERVICE - 28'-10" ← Pole height above grade

ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
PV	PV	Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
R	Y	Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.
3. Signal indication shall be LED.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

2006 REVISED STANDARD PLAN RSP ES-1B

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	37	46

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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To accompany plans dated 10-04-10

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345

10 ISL SCI 1.0

- Sign number - Place on post or structure
- Transformer rating (kVA)
- Lighting control type
- Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"

- Mast arm length, if shown. Do not place on standard or structure.
- Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC

- Number and size of conductors and cables
- Size of conduit in inches

Ø1, Ø2, Ø2P, etc.	Traffic phase identification for signal faces, detectors and phase diagrams
1 2 3	Project note numbers
A B C	Equipment description, installation or item numbers
1 2 3	Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100

- Wind velocity = 100 mph
- Case 3 arm loading
- Standard type
- Standard Plan sheet number
- Detail number or letter

MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
CMS	cms	Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
EMS	ems	Extinguishable message sign
M V	m v	Detection device M = Microwave sensor V = Video image sensor

WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED EXISTING

Pull box-No. 5 unless otherwise indicated or noted.

3 9A(21)

Pull box-Additional designations or descriptions

3 = No. 3½ pull box
5 = No. 5 pull box
6 = No. 6 pull box
7 = No. 7 (Ceiling pull box)
8 = No. 8 (Pendant soffit pull box)
9 = No. 9 pull box
9A = No. 9A pull box

(C) = Communications pull box
(E) = Pull box with extension
(S) = Sprinkler control pull box
(21) = Anchor bolts and conduit for future installation of Type 21 Standard
(T) = Traffic pull box

VEHICLE DETECTORS

5 J 9 U

- U = Upper
- L = Lower
- Slot number in input file
- Input file (I or J)
- Phase

PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
DH	dh	Detector handhole
		Microwave or video detection zone

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	38	46

William K. Farnbach
REGISTERED CIVIL ENGINEER

June 5, 2009
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
William K. Farnbach
No. C49042
Exp. 9-30-10
CIVIL
STATE OF CALIFORNIA

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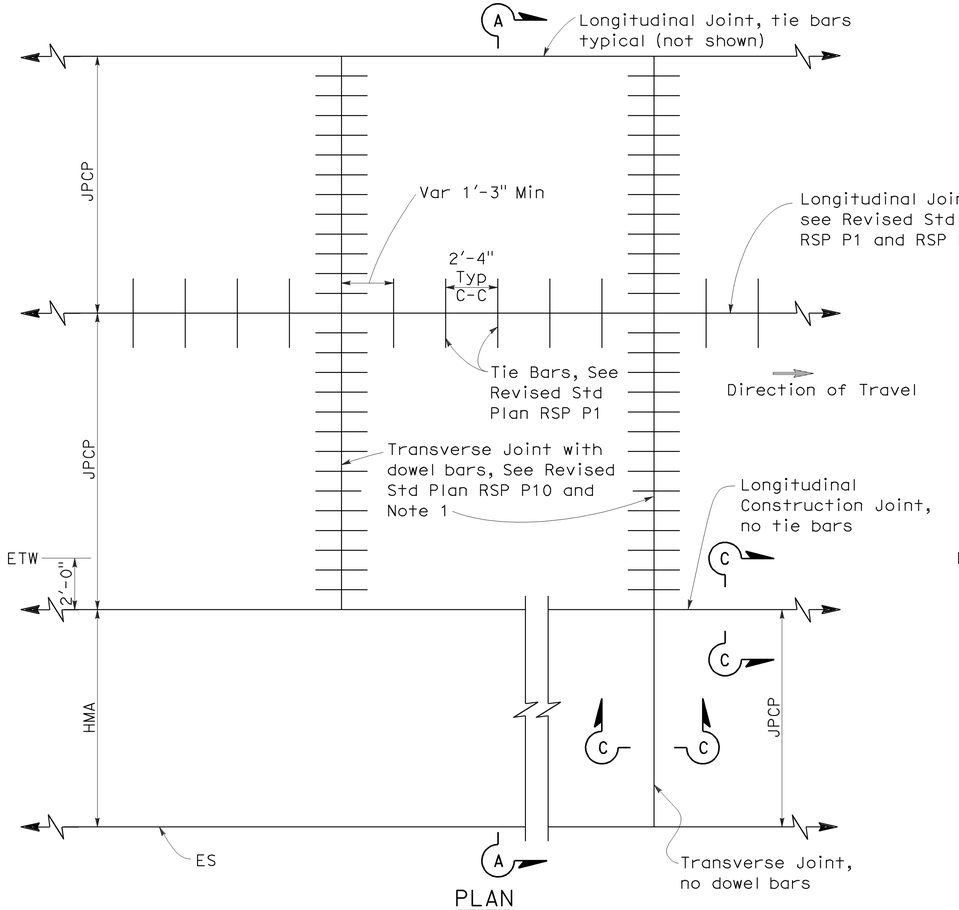
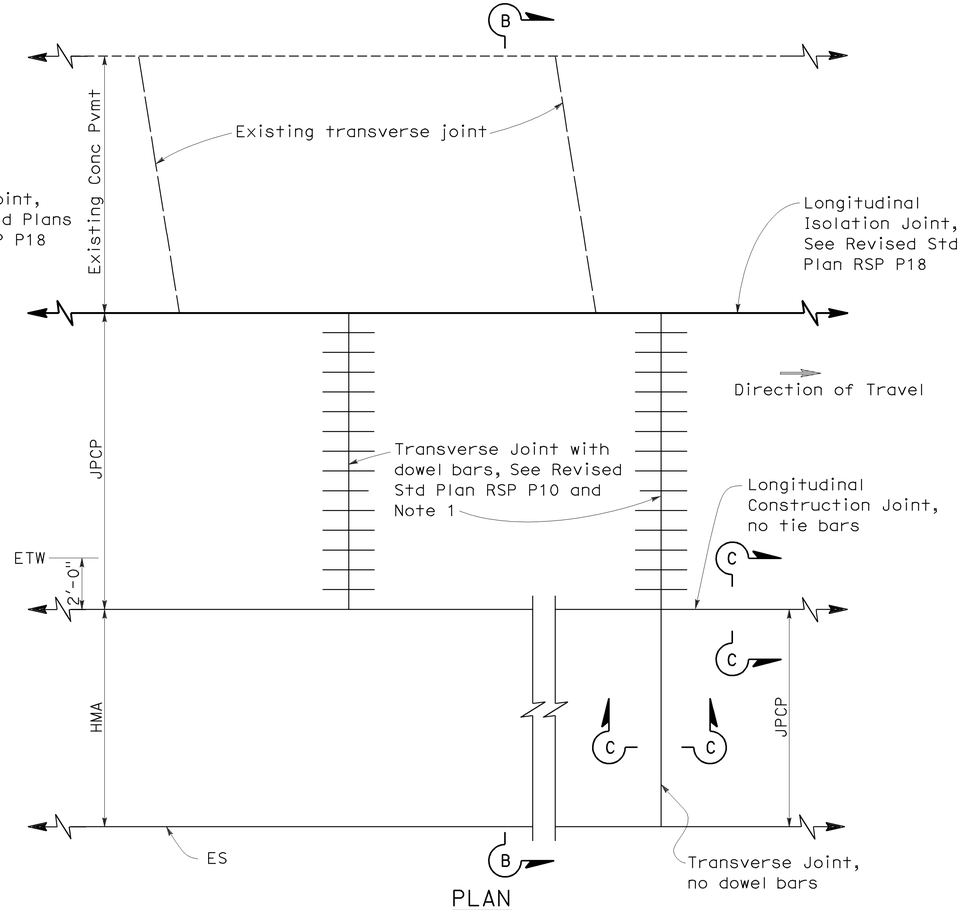
To accompany plans dated 10-04-10



PLAN

NEW CONSTRUCTION

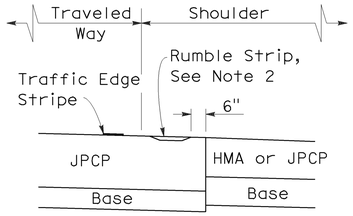


PLAN

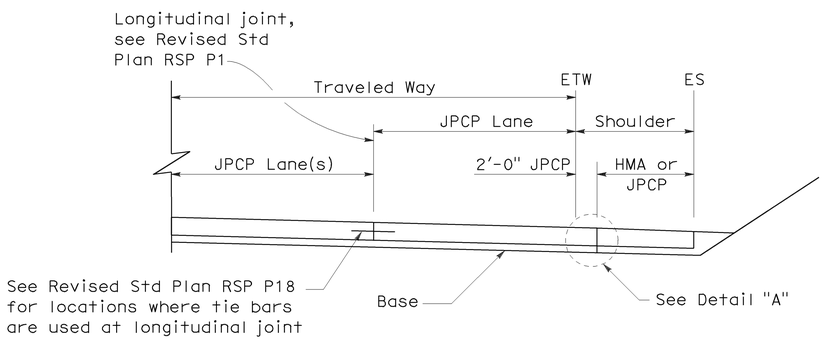
LANE/SHOULDER ADDITION OR RECONSTRUCTION

NOTES:

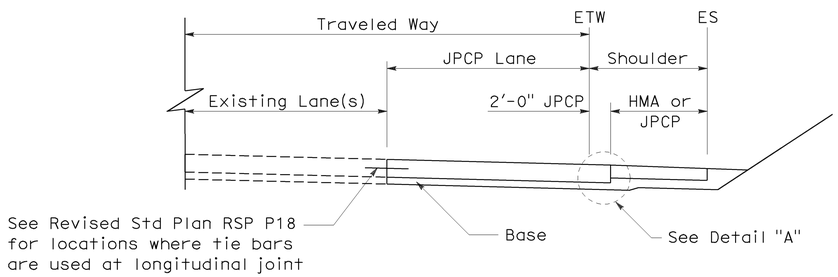
1. Transverse joints shall be constructed at right angles to the longitudinal pavement joints in new Jointed Plain Concrete Pavement and spaced at successive repeated intervals of 12', 15', 13' and 14'.
2. For locations of rumble strips, see project plans. For rumble strip details not shown, see Standard Plans A40A and A40B.
3. Joint spacing patterns do not apply to intersections.



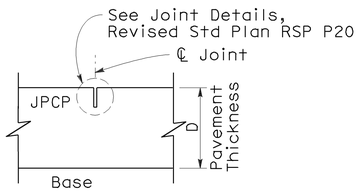
DETAIL "A"



SECTION A-A



SECTION B-B



SECTION C-C

TRANSVERSE/LONGITUDINAL JOINT

(no dowel bars/tie bars)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINTED PLAIN CONCRETE PAVEMENT-WIDENED SLAB DETAILS

NO SCALE

RSP P2 DATED JUNE 5, 2009 SUPERCEDES STANDARD PLAN P2
DATED MAY 1, 2006 - PAGE 120 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P2

2006 REVISED STANDARD PLAN RSP P2

5-19-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	39	46

William K. Farnbach
REGISTERED CIVIL ENGINEER

May 15, 2009
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER William K. Farnbach No. C49042 Exp. 9-30-10 CIVIL STATE OF CALIFORNIA

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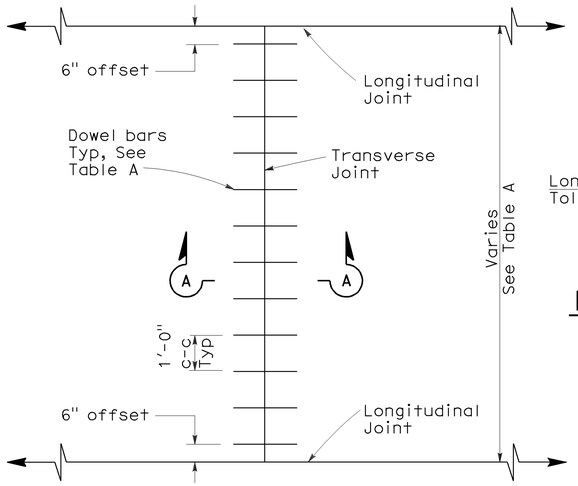
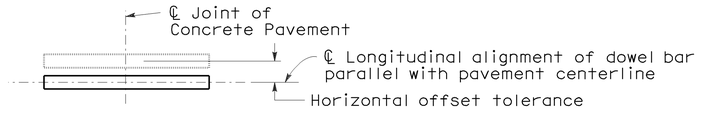
To accompany plans dated 10-04-10

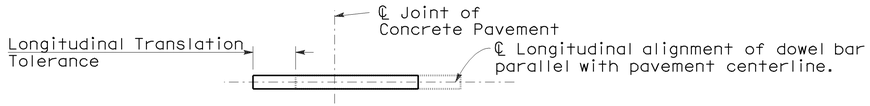


TRANSVERSE JOINT DOWEL BAR LAYOUT



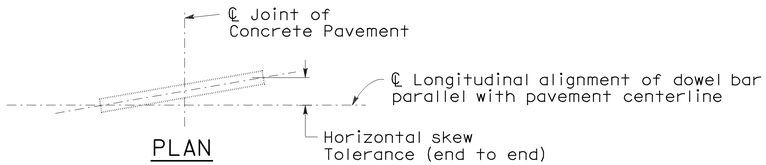
PLAN

HORIZONTAL OFFSET TOLERANCE



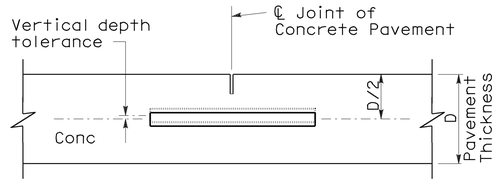
PLAN

LONGITUDINAL TRANSLATION TOLERANCE



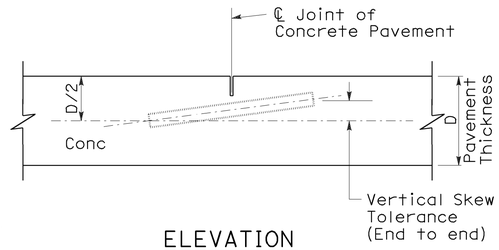
PLAN

HORIZONTAL SKEW TOLERANCE



ELEVATION

VERTICAL DEPTH TOLERANCE



ELEVATION

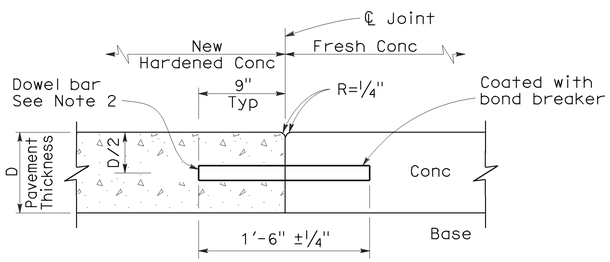
VERTICAL SKEW TOLERANCE

NOTES:

1. See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
2. 1½" Dia smooth dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1¼" Dia smooth dowel bars.
3. For widths not shown, see Project Plans.
4. If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the ¼" radius, as shown.

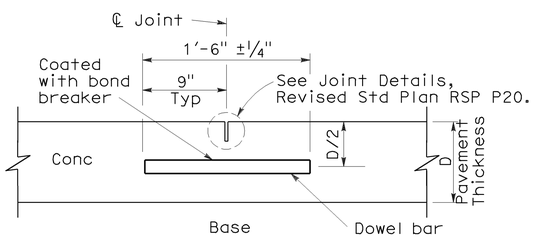
TABLE A (See Note 3)

Dowel Bar Transverse Spacing Table	
Width between Longitudinal Joints	Number of Dowels between Longitudinal Joints
14'-0"	14
13'-0"	13
12'-0"	12
11'-0"	11
10'-0"	10
8'-0"	8
5'-0"	5
4'-0"	4

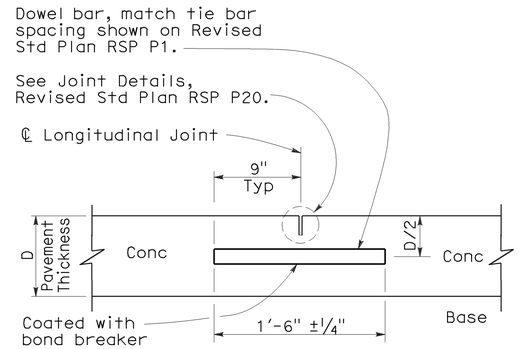


SECTION A-A

TRANSVERSE CONSTRUCTION JOINT DETAIL

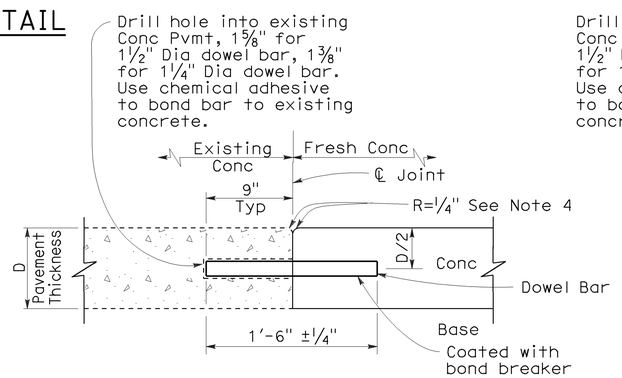


TRANSVERSE CONTRACTION JOINT



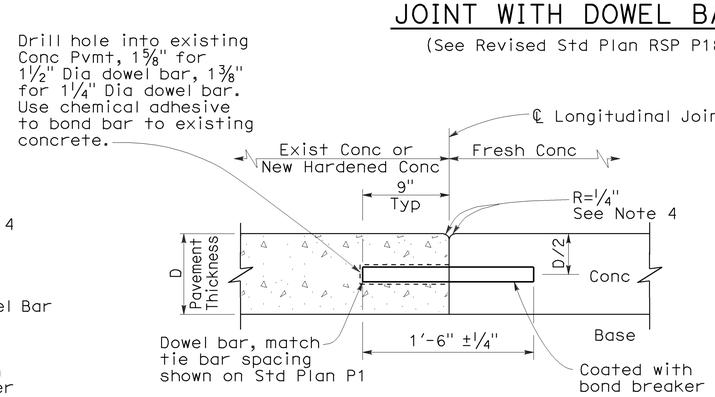
LONGITUDINAL CONTRACTION JOINT WITH DOWEL BARS

(See Revised Std Plan RSP P18)



TRANSVERSE CONSTRUCTION JOINT FOR EXISTING CONCRETE PAVEMENT

(Drill and bond locations)



LONGITUDINAL CONSTRUCTION JOINT WITH DOWEL BARS

(See Revised Std Plan RSP P18)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT-DOWEL BAR DETAILS

NO SCALE

RSP P10 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P10 DATED MAY 1, 2006 - PAGE 124 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P10

2006 REVISED STANDARD PLAN RSP P10

5-8-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	40	46

William K. Farnbach
REGISTERED CIVIL ENGINEER

May 15, 2009
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
William K. Farnbach
No. C49042
Exp. 9-30-10
CIVIL
STATE OF CALIFORNIA

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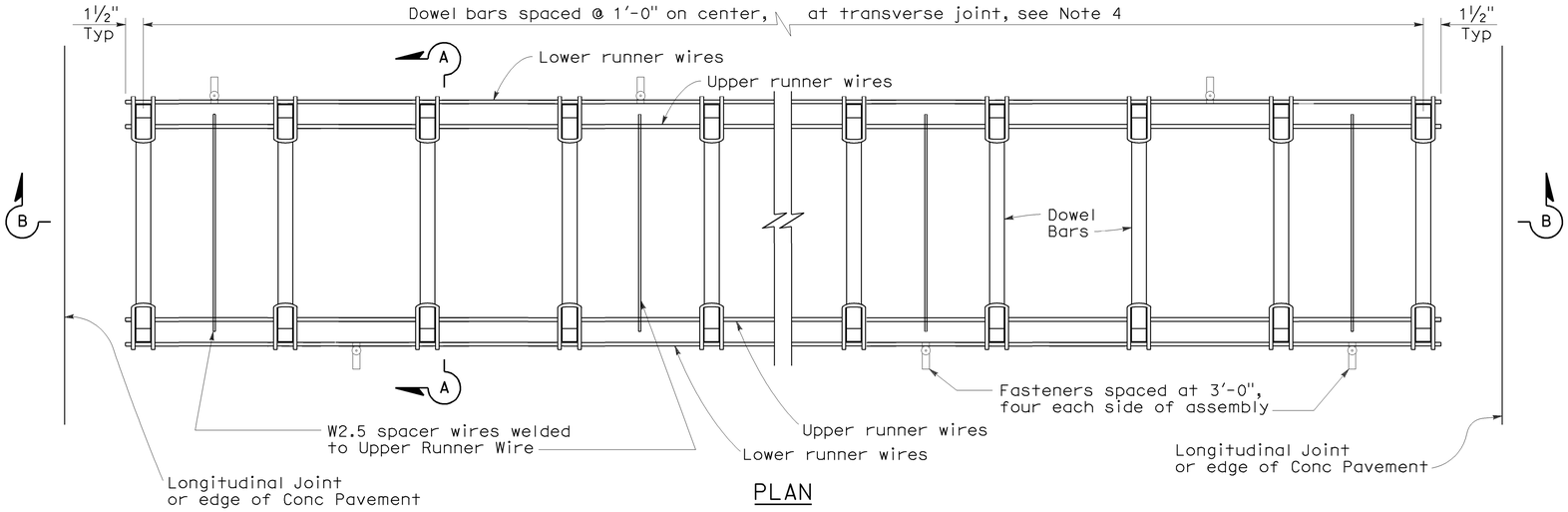
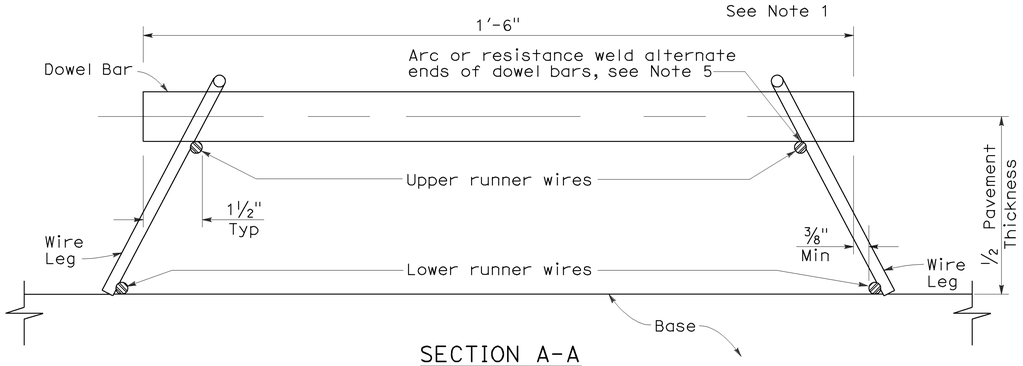
To accompany plans dated 10-04-10



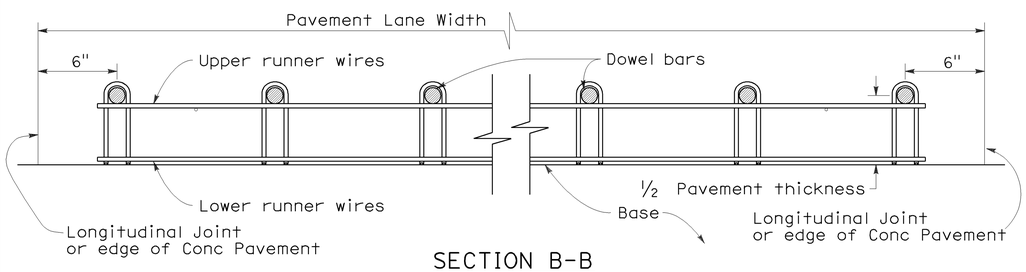
PLAN

DOWEL BAR BASKET (TRANSVERSE JOINT)

See Note 1

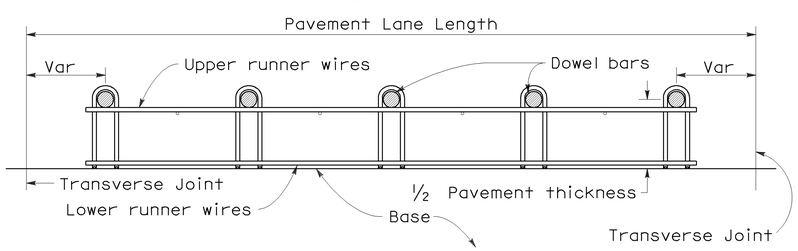


SECTION A-A



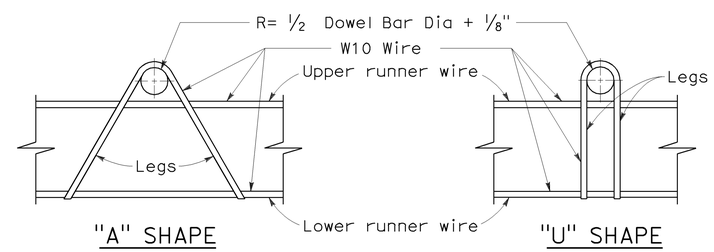
SECTION B-B

See Note 1



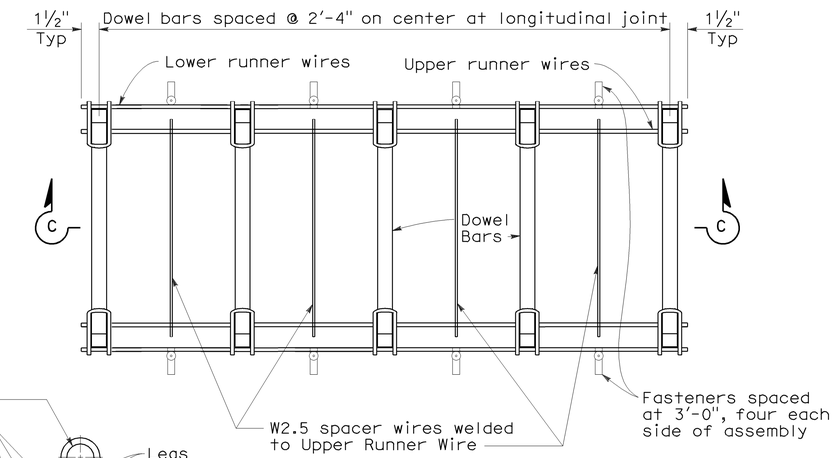
SECTION C-C

See Notes 1 and 4



"A" SHAPE "U" SHAPE

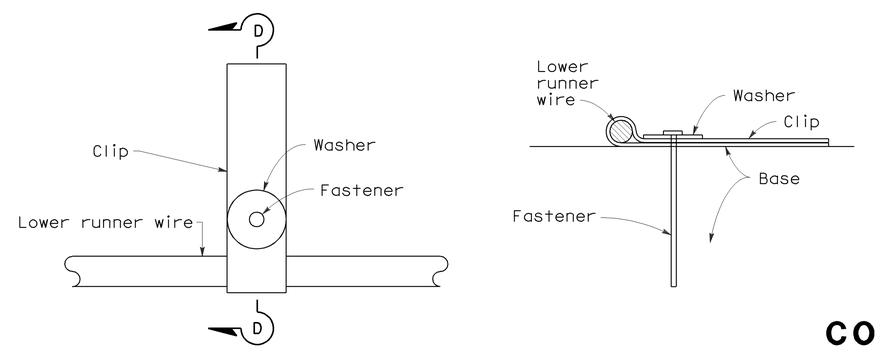
ASSEMBLY FRAME DETAILS



PLAN

DOWEL BAR BASKET (LONGITUDINAL JOINT)

See Note 1



PLAN SECTION D-D

FASTENER DETAIL

NOTES:

1. "U" frame shape assembly shown. "U" frame shape or "A" frame shape are acceptable.
2. Wire sizes shown are minimum required.
3. All wire intersections are to be resistance welded.
4. Use tie bar spacing for longitudinal dowel bar locations. See Revised Std Plans RSPs P1, P2, and P3 for tie bar requirements.
5. Weld may be at top or bottom of dowel bar.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT-DOWEL BAR BASKET DETAILS

NO SCALE

RSP P12 DATED MAY 15, 2009 SUPERSEDES RSP P12 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P12 DATED MAY 1, 2006 - PAGE 125 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P12

2006 REVISED STANDARD PLAN RSP P12

5-8-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	41	46

William K. Farnbach
REGISTERED CIVIL ENGINEER

June 5, 2009
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
William K. Farnbach
No. C49042
Exp. 9-30-10
CIVIL
STATE OF CALIFORNIA

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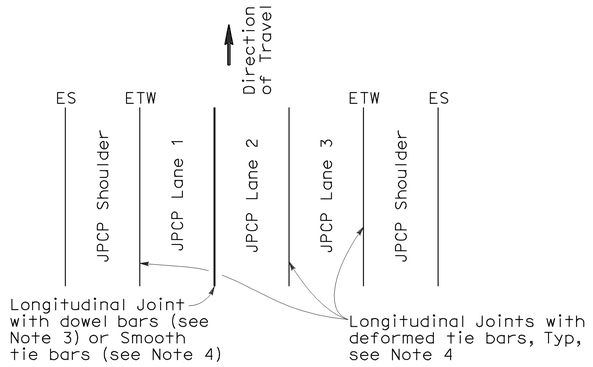
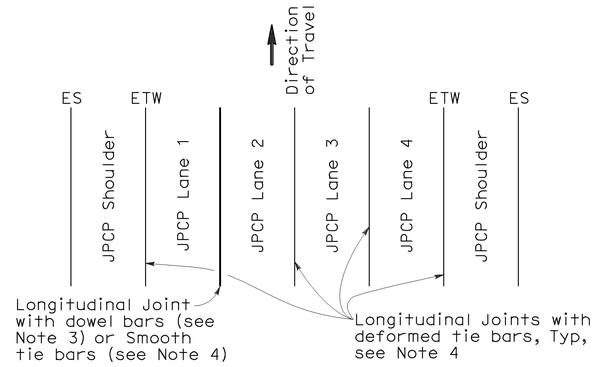
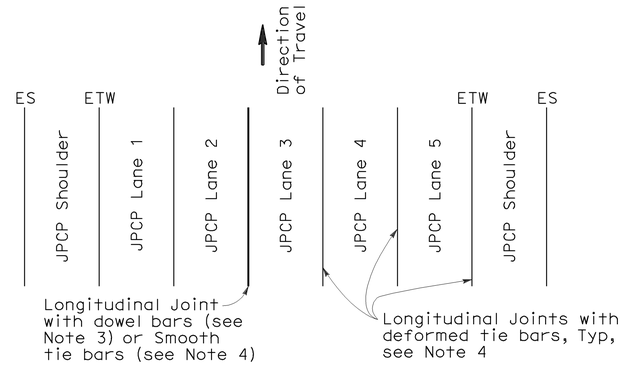
To accompany plans dated 10-04-10



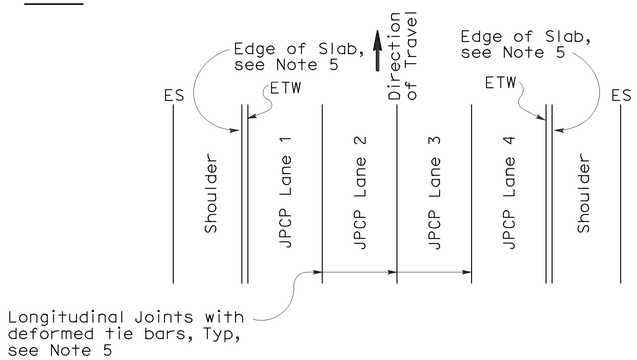
3 LANES WITH TIED CONCRETE SHOULDERS
PLAN



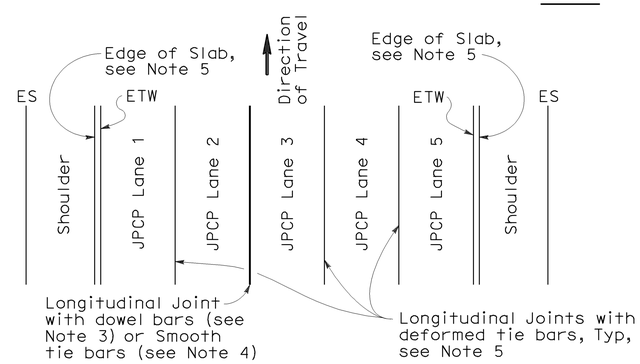
4 LANES WITH TIED CONCRETE SHOULDERS
PLAN



5 LANES WITH TIED CONCRETE SHOULDERS
PLAN



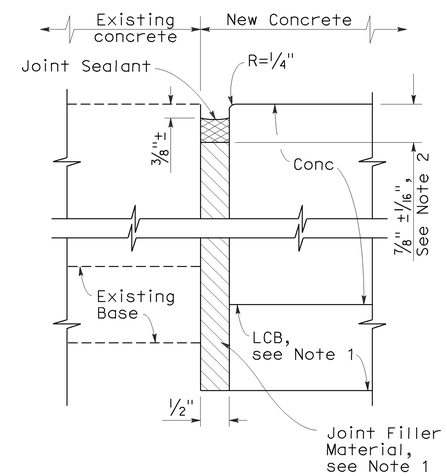
4 LANES OR LESS WITH WIDENED SLAB
PLAN



5 LANES WITH WIDENED SLAB
PLAN

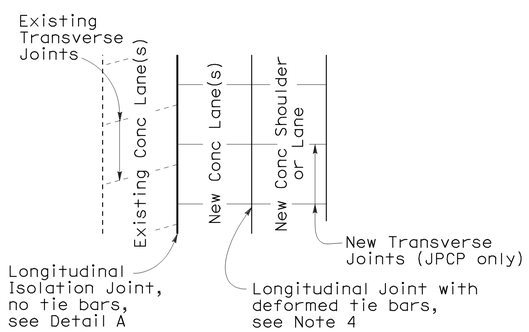
NEW CONSTRUCTION

Location of Longitudinal Joints
(For JPCP)



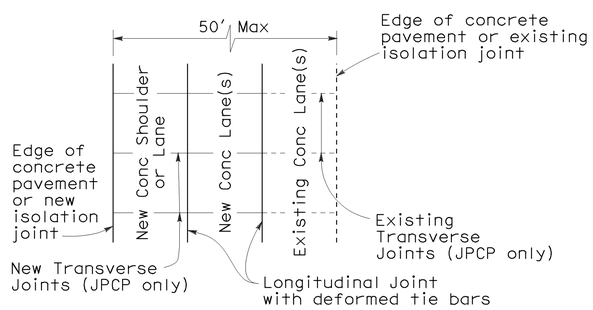
DETAIL A

ISOLATION JOINT



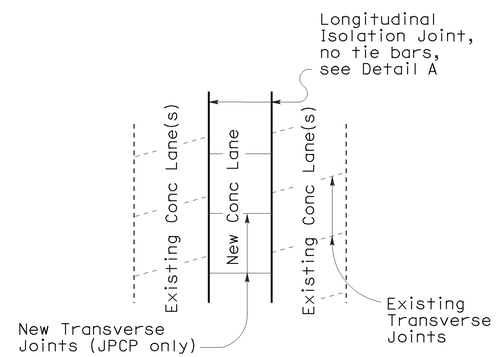
CASE 1
PLAN

Transverse Joints do not align between new and existing



CASE 2
PLAN

Transverse Joints align between new and existing



CASE 3 (INTERIOR LANE REPLACEMENT)
PLAN

Transverse Joints do not align between new and existing

LANE/SHOULDER ADDITION OR RECONSTRUCTION

(For JPCP and CRCP)

NOTES:

1. Where Lean Concrete Base is not used as base material, the joint filler material used for the longitudinal isolation joint shall only extend to the bottom of the new concrete slab. See Detail A.
2. Use 5/8" ±1/16" dimension for silicone sealant.
3. See Revised Standard Plan RSP P10 for longitudinal joint with dowel bars.
4. See Revised Standard Plan RSP P1.
5. See Revised Standard Plan RSP P2.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT-LANE SCHEMATICS AND ISOLATION JOINT DETAIL

NO SCALE

RSP P18 DATED JUNE 5, 2009 SUPERSEDES RSP P18 DATED MAY 15, 2009, RSP P18 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P18 DATED MAY 1, 2006 - PAGE 127 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P18

2006 REVISED STANDARD PLAN RSP P18

5-14-09

NOTE:

1. Tie bars, dowel bars, and reinforcement are not shown in joint seal details, see Revised Standard Plans RSP P1, RSP P3, RSP P10, RSP P35, RSP P45, or RSP P46 as applicable.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	42	46

William K. Farnbach
REGISTERED CIVIL ENGINEER

May 15, 2009
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER William K. Farnbach No. C49042 Exp. 9-30-10 CIVIL STATE OF CALIFORNIA

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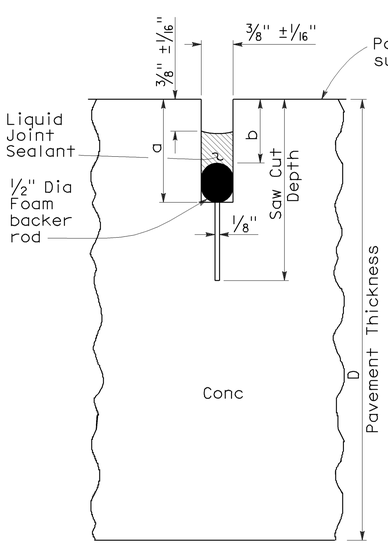
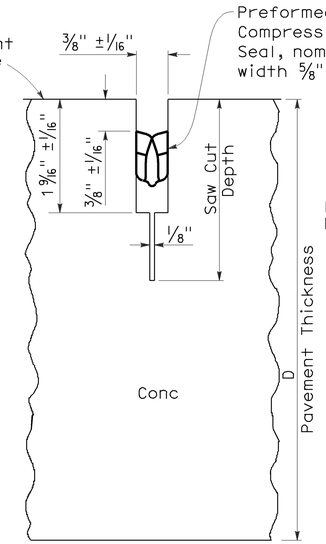
To accompany plans dated 10-04-10



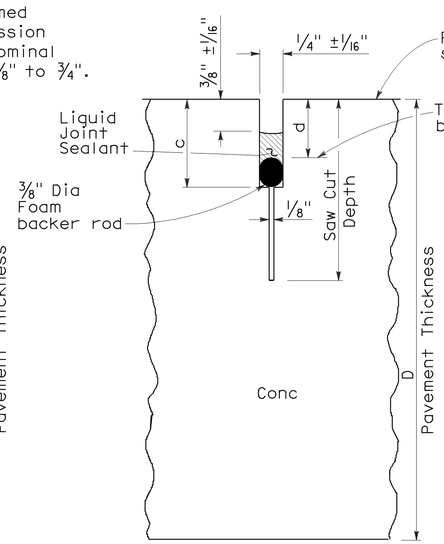
LIQUID SEALANT



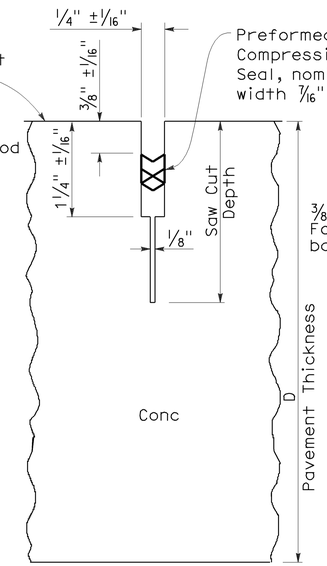
COMPRESSION SEAL

TYPE A1

Transverse Contraction Joints



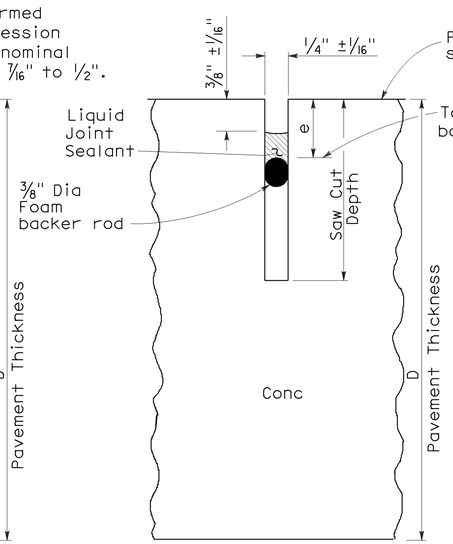
LIQUID SEALANT



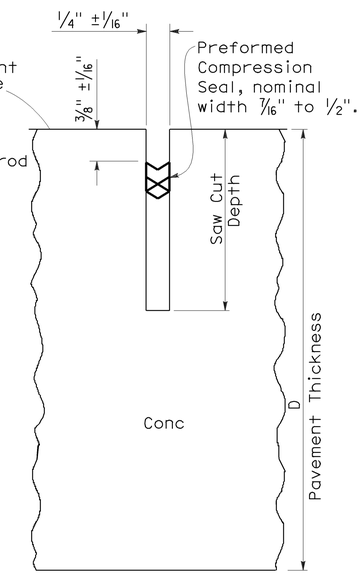
COMPRESSION SEAL

TYPE A2

Longitudinal Contraction Joints



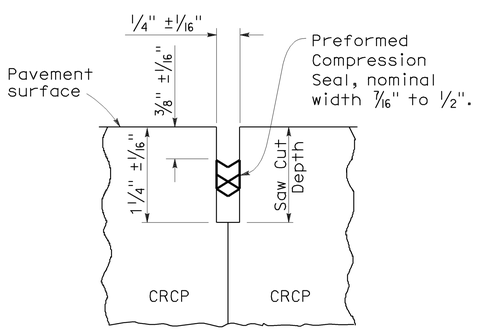
LIQUID SEALANT



COMPRESSION SEAL

TYPE B

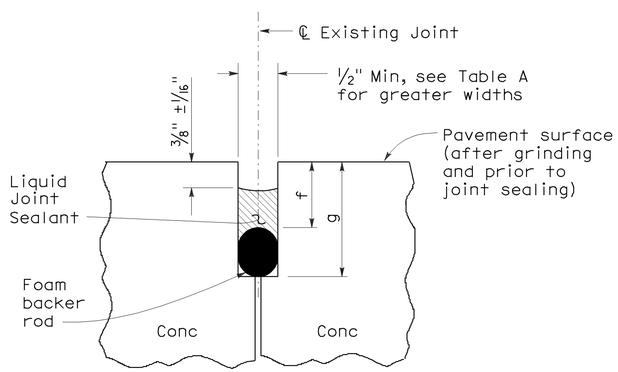
Longitudinal or Transverse Contraction Joint



COMPRESSION SEAL

TYPE C

Transverse and Longitudinal Construction Joints (For CRCP)



LIQUID SEALANT

TYPE R

Retrofit Transverse and Longitudinal Joints

LIQUID SEALANT RESERVOIR DEPTH

LIQUID SEALANT MATERIAL	3/8" Joint Width Type A1		1/4" Joint Width Type A2		1/4" Joint Width Type B
	DIMENSION		DIMENSION		DIMENSION
	a	b	c	d	e
SILCONE	1" ±1/16"	5/8" ±1/16"	15/16" ±1/16"	9/16" ±1/16"	9/16" ±1/16"
ASPHALT RUBBER	1 3/16" ±1/16"	3/4" ±1/16"	1 1/16" ±1/16"	11/16" ±1/16"	11/16" ±1/16"

TABLE A (TYPE R JOINT)

Sawn Joint Width	Backer Rod Diameter ± 1/16"	DIMENSION "f"	DIMENSION "g"
1"	1 5/16"	7/8"	2 1/4"
7/8"	1 3/16"	13/16"	2"
3/4"	1"	3/4"	1 3/4"
5/8"	7/8"	11/16"	1 1/2"
1/2"	11/16"	5/8"	1 1/4"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT-JOINT DETAILS

NO SCALE

RSP P20 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P20
DATED MAY 1, 2006 - PAGE 128 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P20

2006 REVISED STANDARD PLAN RSP P20

5-8-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	43	46

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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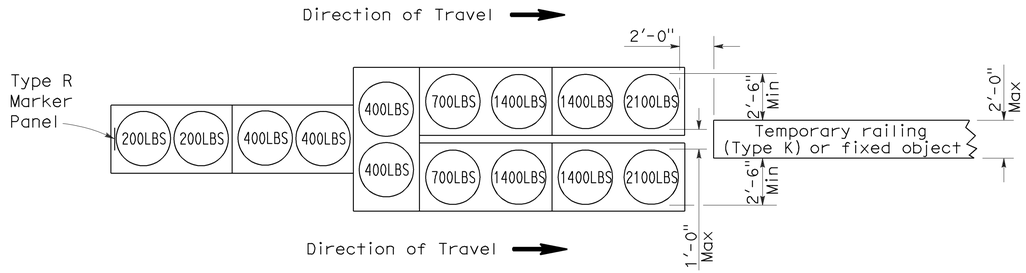
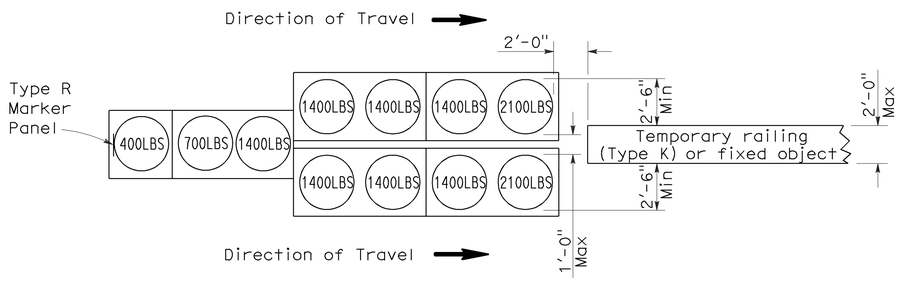
To accompany plans dated 10-04-10



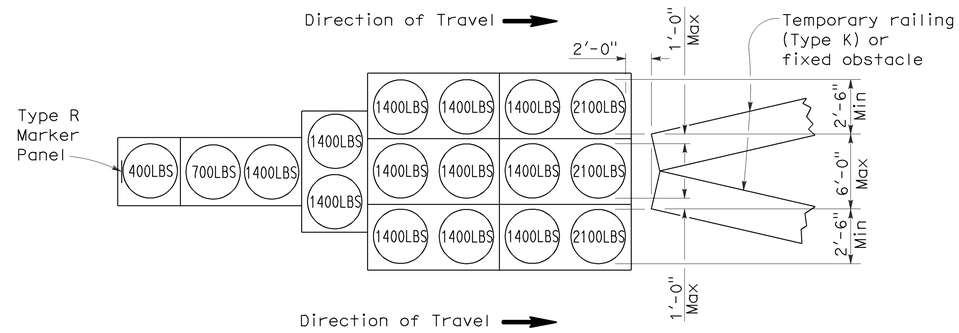
ARRAY 'TU14'

Approach speed 45 mph or more



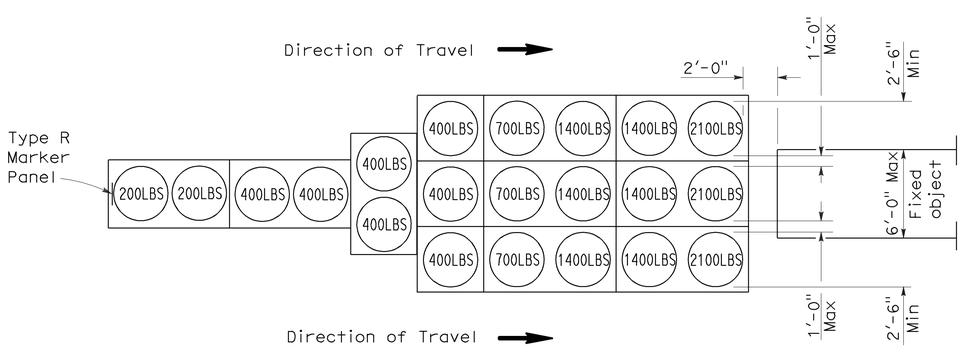
ARRAY 'TU11'

Approach speed less than 45 mph



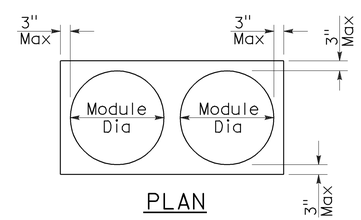
ARRAY 'TU17'

Approach speed less than 45 mph

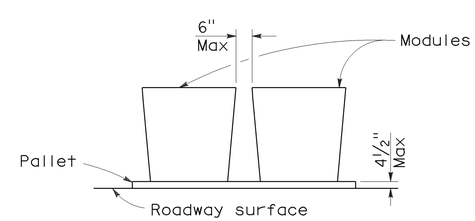


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	44	46

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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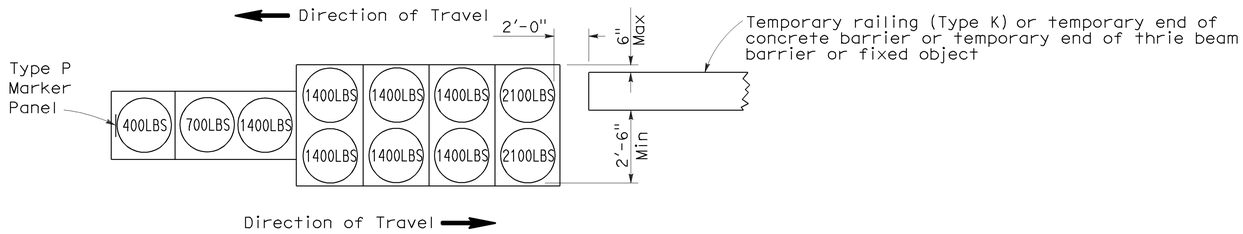
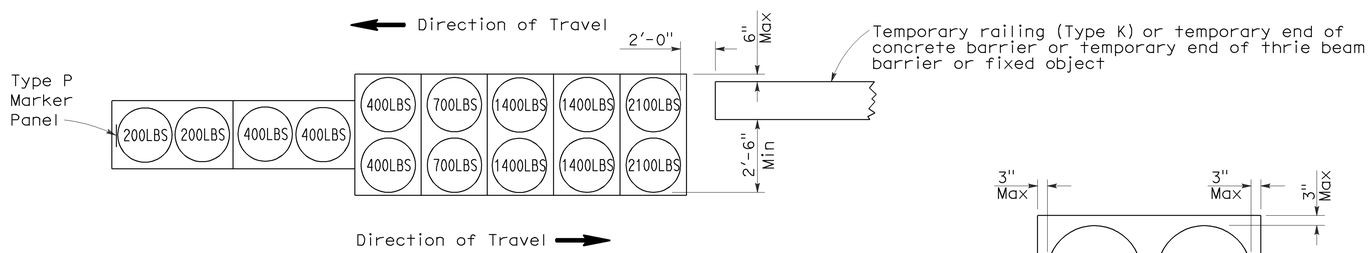
To accompany plans dated 10-04-10



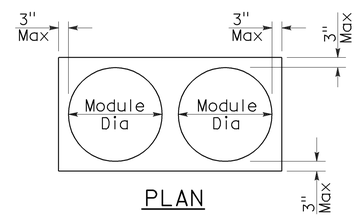
ARRAY 'TB11'

Approach speed less than 45 mph

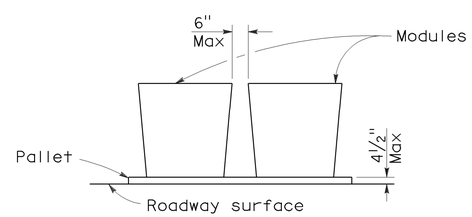


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	45	46

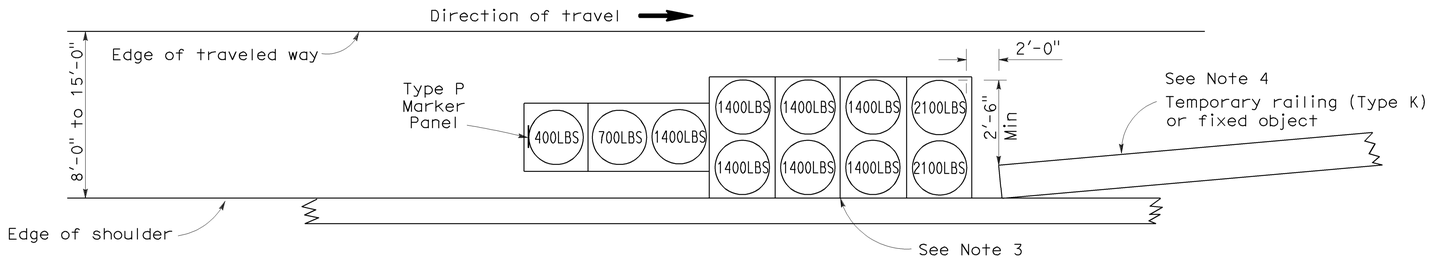
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

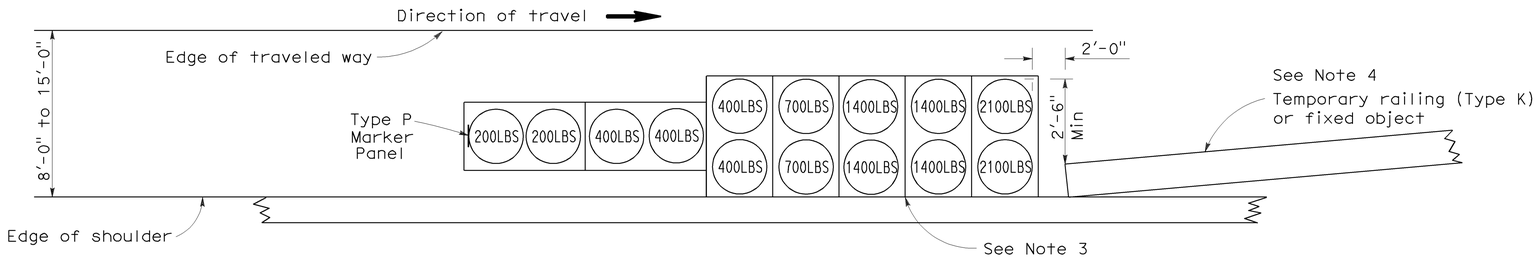
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 10-04-10



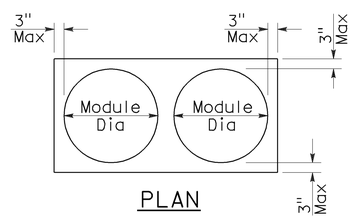
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

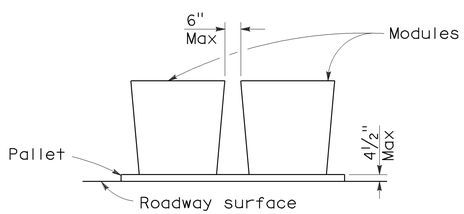


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
4. If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	15	R42.5/R45.9	46	46

Greg W. Edwards
REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Greg W. Edwards
No. C36386
Exp. 6-30-08
CIVIL
STATE OF CALIFORNIA

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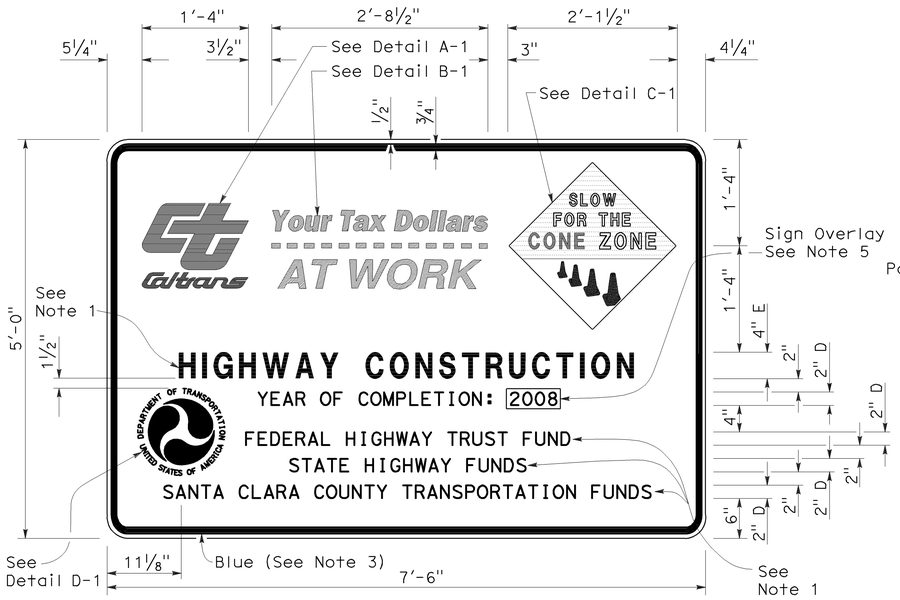
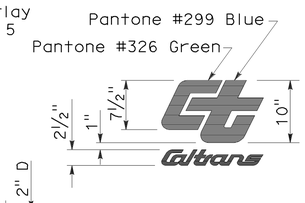
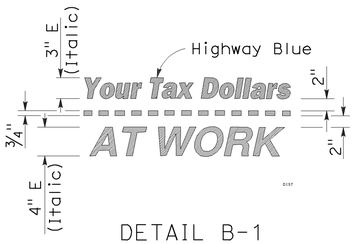
To accompany plans dated 10-04-10



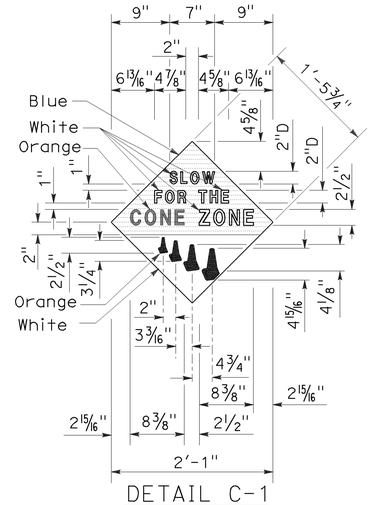
TYPE 1



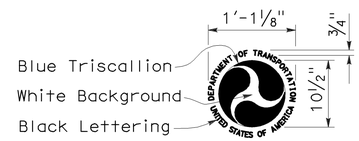
DETAIL A-1



DETAIL B-1
(See Note 3)



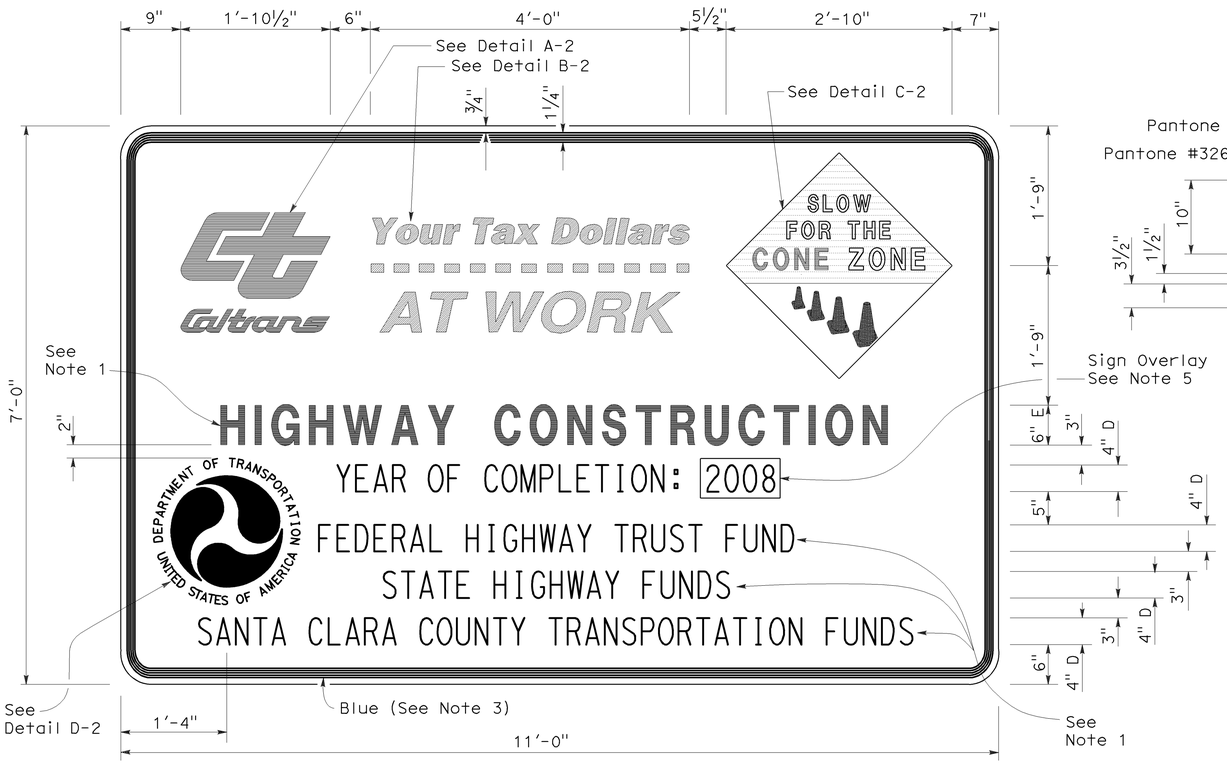
DETAIL C-1
(See Note 4)



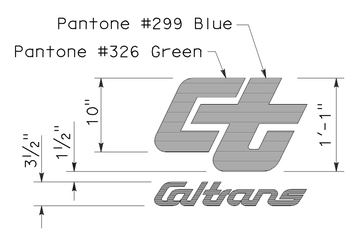
DETAIL D-1
(See Note 6)

NOTES:

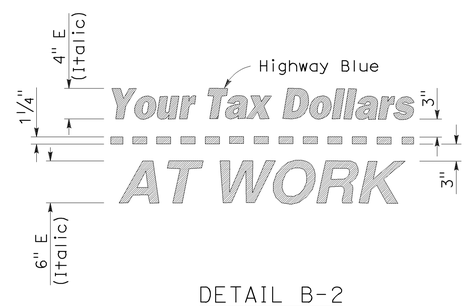
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



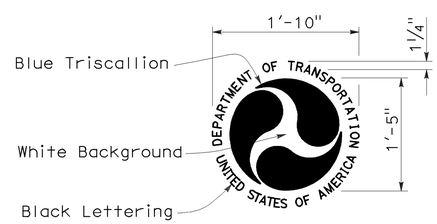
TYPE 2



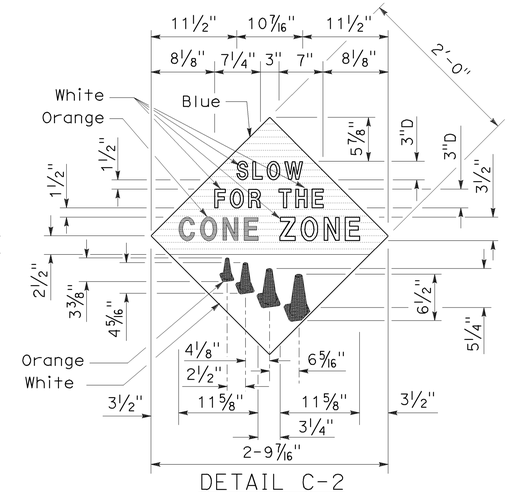
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06