Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	1	192

ACNHP-P091(142)E

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY AT VARIOUS LOCATIONS FROM 0.2 MILE EAST OF LONG BEACH BOULEVARD UNDERCROSSING IN LONG BEACH TO ORANGE COUNTY LINE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

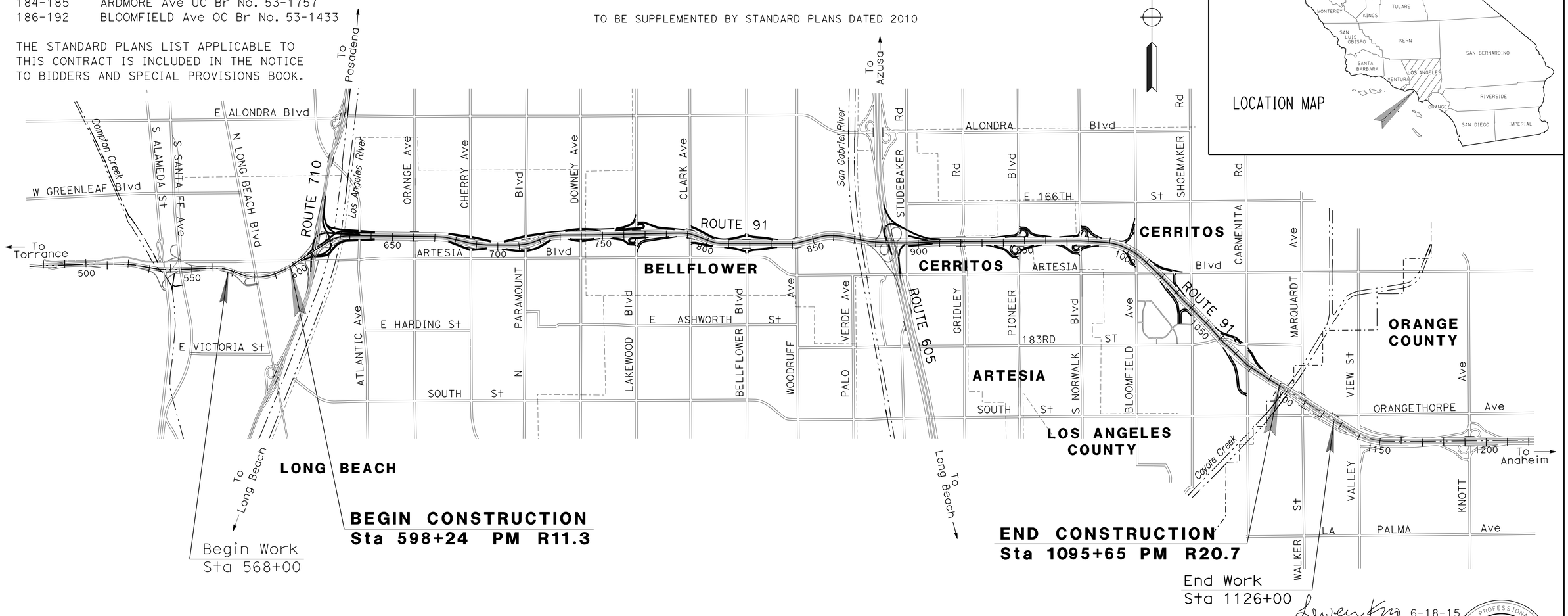
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-16	TYPICAL CROSS SECTIONS
17-57	CONSTRUCTION DETAILS
58-77	UTILITY PLANS
78	CONSTRUCTION AREA SIGNS
79-89	TRAFFIC HANDLING PLANS AND DETAILS
90-94	PAVEMENT DELINEATION DETAILS AND QUANTITIES
95-101	SIGN PLANS, DETAILS, AND QUANTITIES
102-113	SUMMARY OF QUANTITIES
114-131	ELECTRICAL PLANS
132-183	REVISED STANDARD PLANS

STRUCTURE PLANS

184-185	ARDMORE Ave UC Br No. 53-1757
186-192	BLOOMFIELD Ave OC Br No. 53-1433

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



BEGIN CONSTRUCTION
Sta 598+24 PM R11.3

Begin Work
Sta 568+00

END CONSTRUCTION
Sta 1095+65 PM R20.7

End Work
Sta 1126+00

Lewen Kuo 6-18-15
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

August 10, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12-31-16
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.

PROJECT MANAGER DIAA YASSIN
DESIGN MANAGER OJI KALU

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

NO SCALE

CONTRACT No.	07-306204
PROJECT ID	0714000151

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	2	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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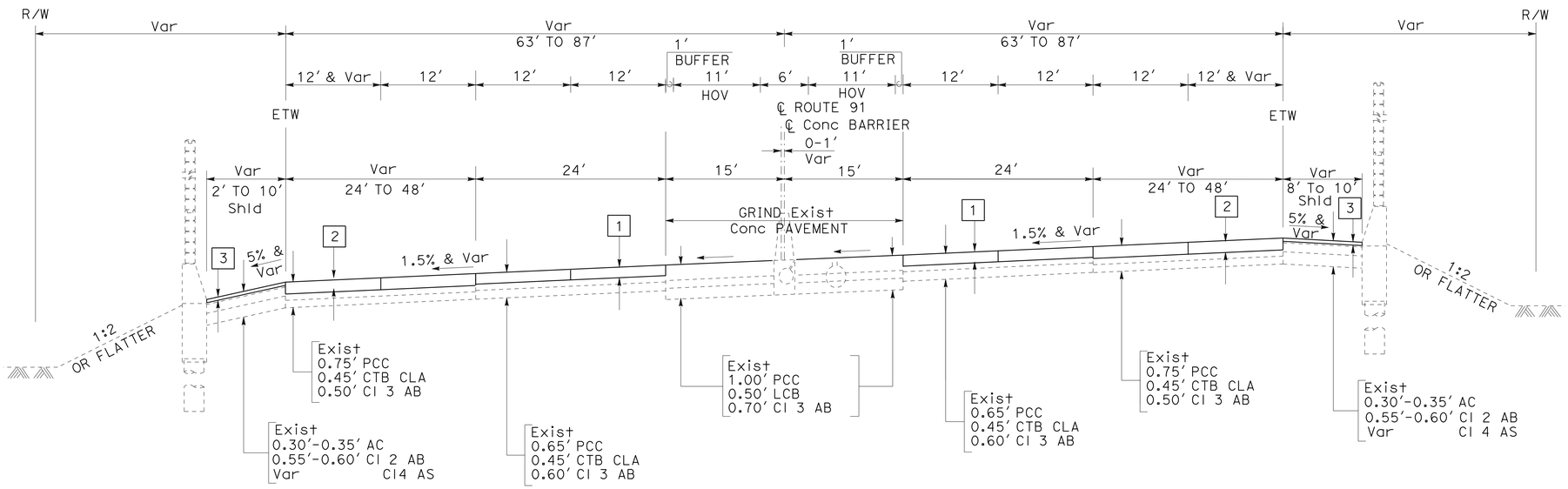
ABBREVIATIONS:

RSC - RAPID STRENGTH Conc
RAC - RUBBERIZED ASPHALT Conc
RSCCB - RAPID SETTING CEMENT Conc BASE
IPSR - INDIVIDUAL PRECAST SLAB REPLACEMENT
RHMA-G - RUBBERIZED HOT MIX ASPHALT-GAP GRADE

PAVEMENT CLIMATE REGION:

SOUTH COAST



ROUTE 91

Sta 598+24.46 TO Sta 603+77.69 Sta 686+20.70 TO Sta 691+59.48
Sta 693+98.55 TO Sta 697+13.11

TYPICAL PAVEMENT STRUCTURE SECTIONS

1
- 0.65' IPSR
- - - - BASE BOND BREAKER

2
- 0.75' IPSR
- - - - BASE BOND BREAKER

3
- 0.15' COLD PLANE AC Pvmt
- 0.15' RHMA-G

4
- 0.95' JOINTED PLAIN Conc PAVEMENT-RAPID STRENGTH Conc (JPCP-RSC)
- - - - BASE BOND BREAKER
- 0.35' LEAN Conc BASE-RAPID SETTING (LCB-RS)
- 0.70' CLASS 3 AGGREGATE BASE (Cl 3, AB)

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	3	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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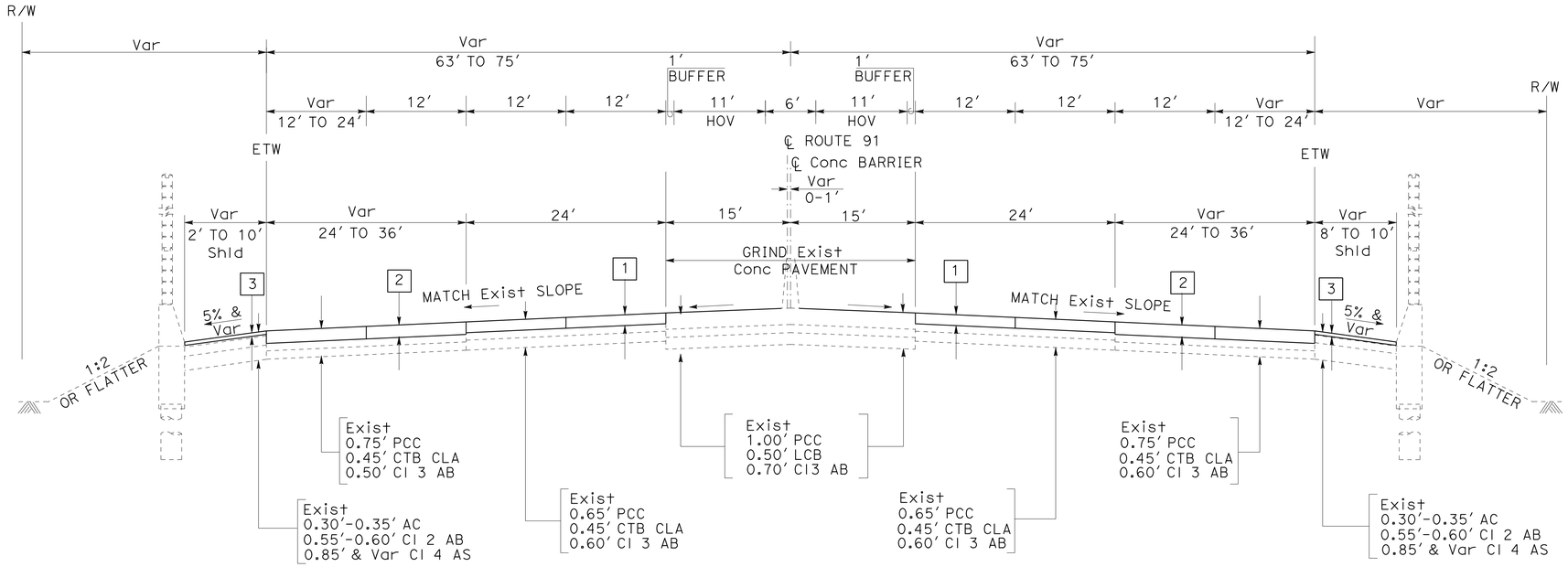
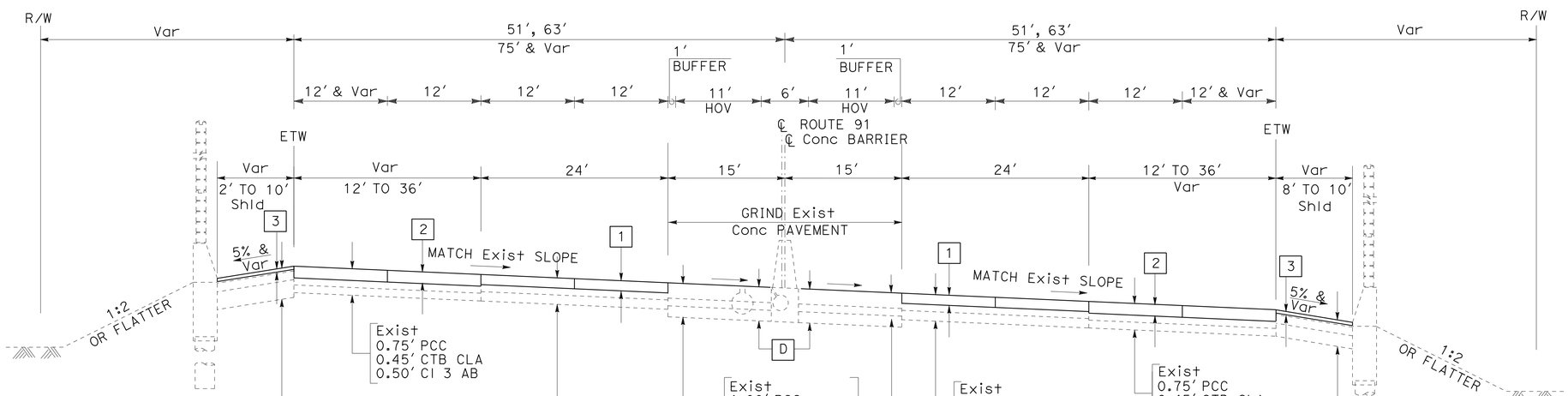


ROUTE 91

Sta 609+95.27 TO Sta 614+60.30
Sta 634+32.64 TO Sta 638+61.48
Sta 653+67.02 TO Sta 665+14.56
Sta 736+26.48 TO Sta 744+90.61

Sta 618+85.36 TO Sta 621+99.60
Sta 640+78.54 TO Sta 652+01.96
Sta 666+93.63 TO Sta 675+26.72



ROUTE 91

Sta 621+99.60 TO Sta 623+82.54
Sta 675+26.73 TO Sta 678+36.61
Sta 725+57.71 TO Sta 731+89.37

Sta 633+81.46 TO Sta 634+32.64
Sta 680+09.74 TO Sta 686+20.70
Sta 733+63.41 TO Sta 736+26.47

TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	4	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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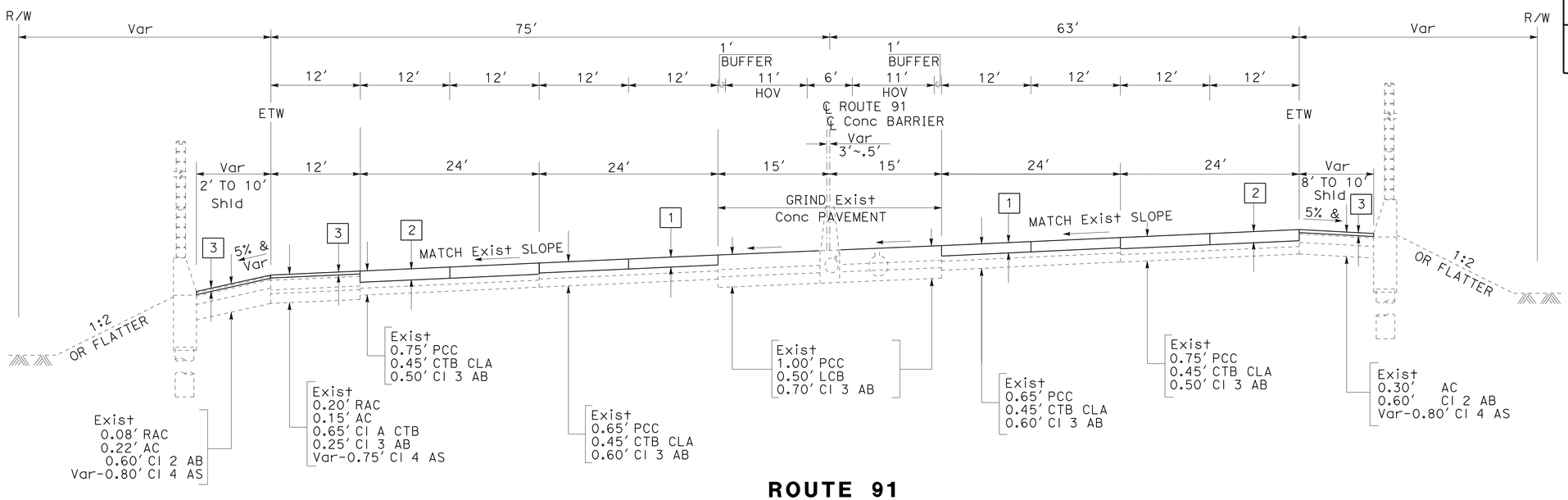
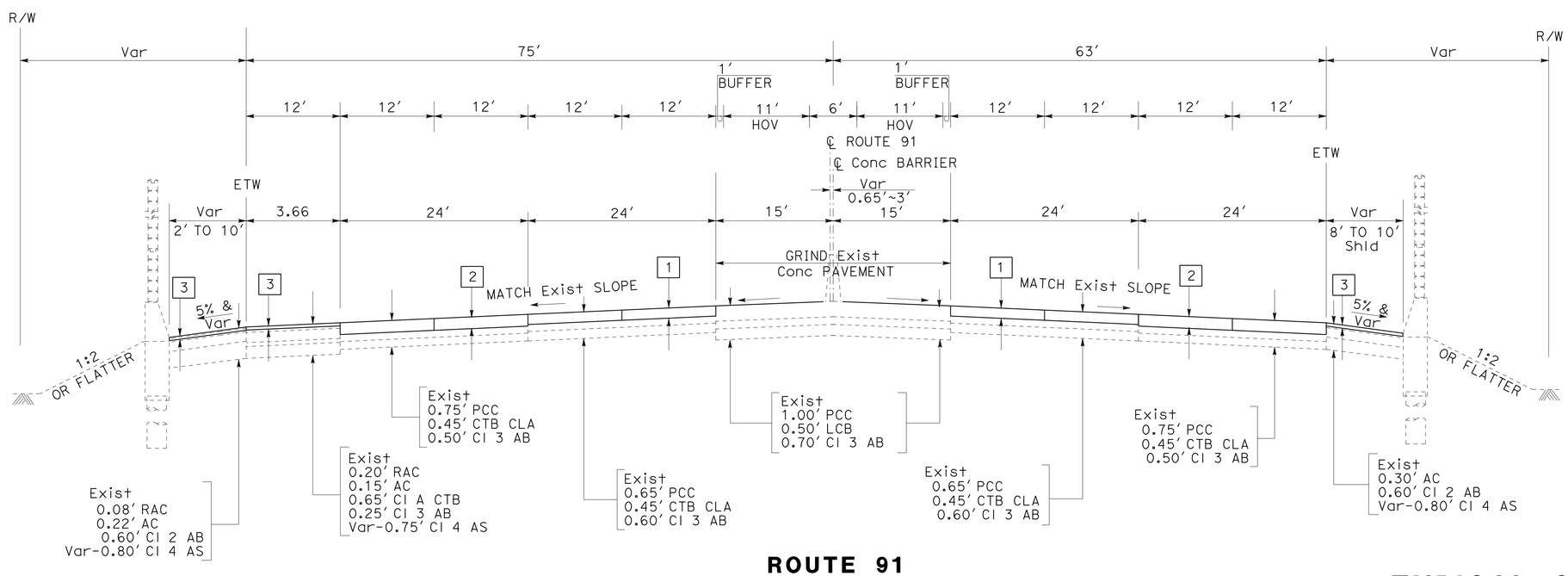


ROUTE 91

Sta 714+40.61 TO Sta 717+91.47 Sta 720+43.99 TO Sta 725+57.71



ROUTE 91

Sta 697+13.11 TO Sta 705+00.62 Sta 706+97.01 TO Sta 714+40.61

TYPICAL CROSS SECTIONS

NO SCALE

X-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	5	192

REGISTERED CIVIL ENGINEER — DATE: 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL — STATE OF CALIFORNIA

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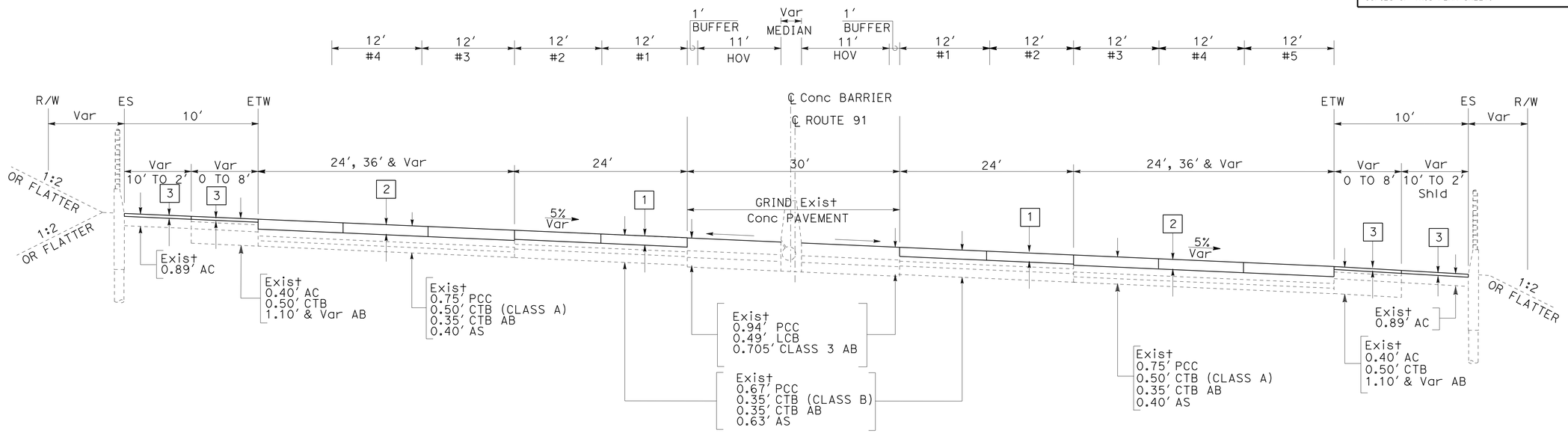
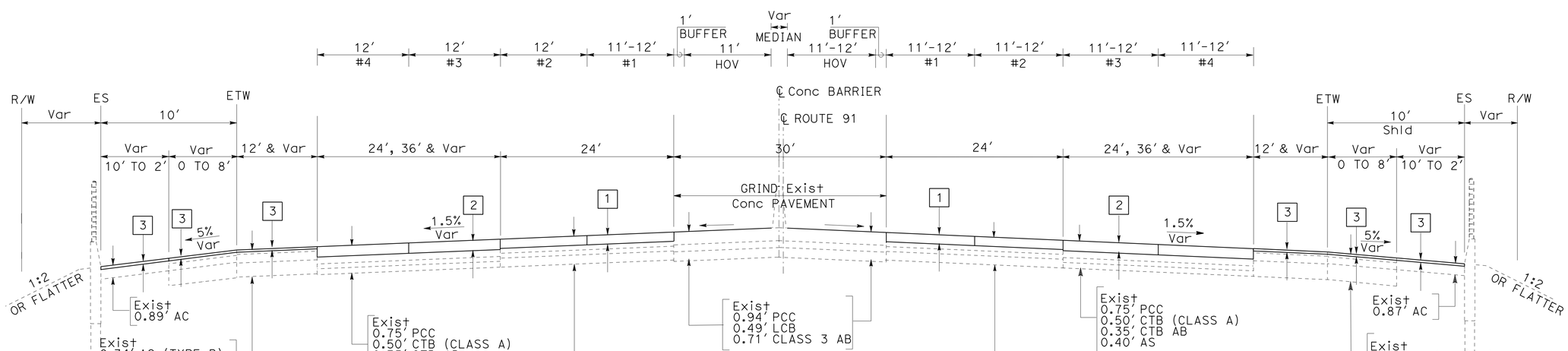


ROUTE 91

MEDIAN SUPERELEVATION SECTION

Sta 791+39.05 TO Sta 804+08.54



ROUTE 91

MEDIAN TANGENT SECTION

Sta 746+72.80 TO Sta 791+39.05

Sta 816+61.31 TO Sta 843+35.93

TYPICAL CROSS SECTIONS

NO SCALE

X-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	6	192

REGISTERED CIVIL ENGINEER — DATE: 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL — STATE OF CALIFORNIA

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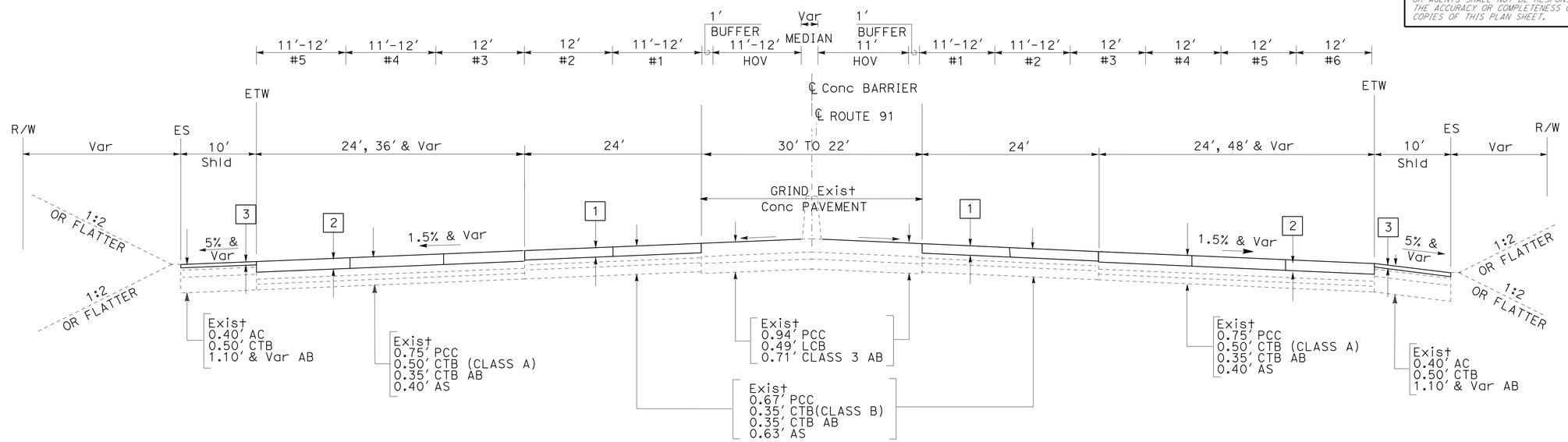
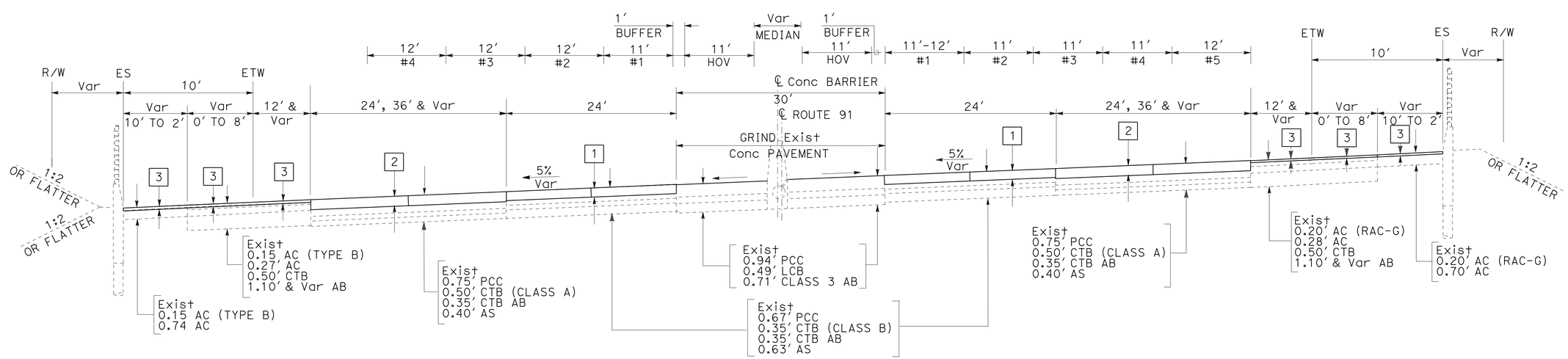


ROUTE 91
MEDIAN TANGENT SECTION
Sta 853+92.58 TO Sta 859+29.07



ROUTE 91
MEDIAN SUPERELEVATION SECTION
Sta 804+08.54 TO Sta 816+61.31

TYPICAL CROSS SECTIONS
NO SCALE

X-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	7	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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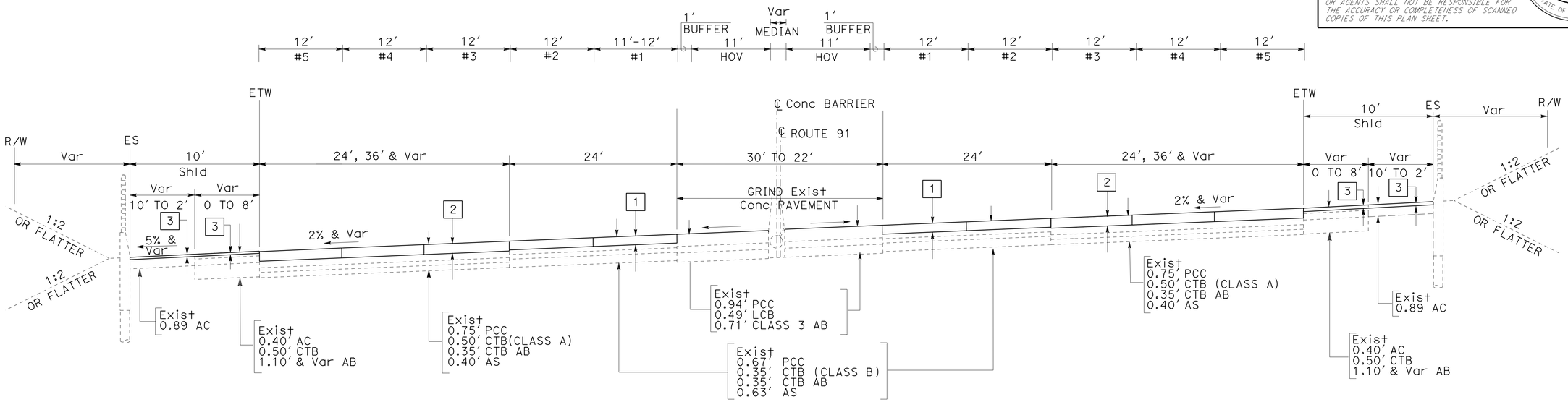
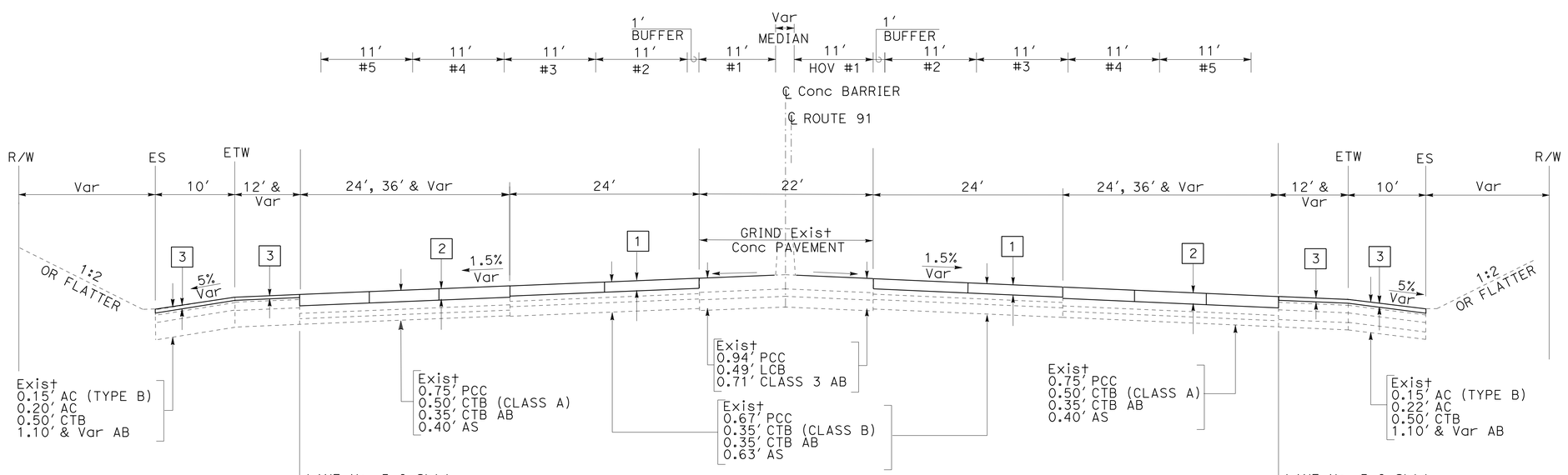


ROUTE 91

MEDIAN SUPERELEVATION SECTION

Sta 843+35.93 TO Sta 853+92.58



ROUTE 91

MEDIAN TANGENT SECTION

Sta 877+63.76 TO Sta 880+71.85
Sta 891+07.81 TO Sta 993+60.39
Sta 1021+89.17 TO Sta 1070+45.13
Sta 1088+66.12 TO Sta 1095+65.90

TYPICAL CROSS SECTIONS

NO SCALE

X-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU

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DATE REVISED

DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

LAST REVISION 00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	8	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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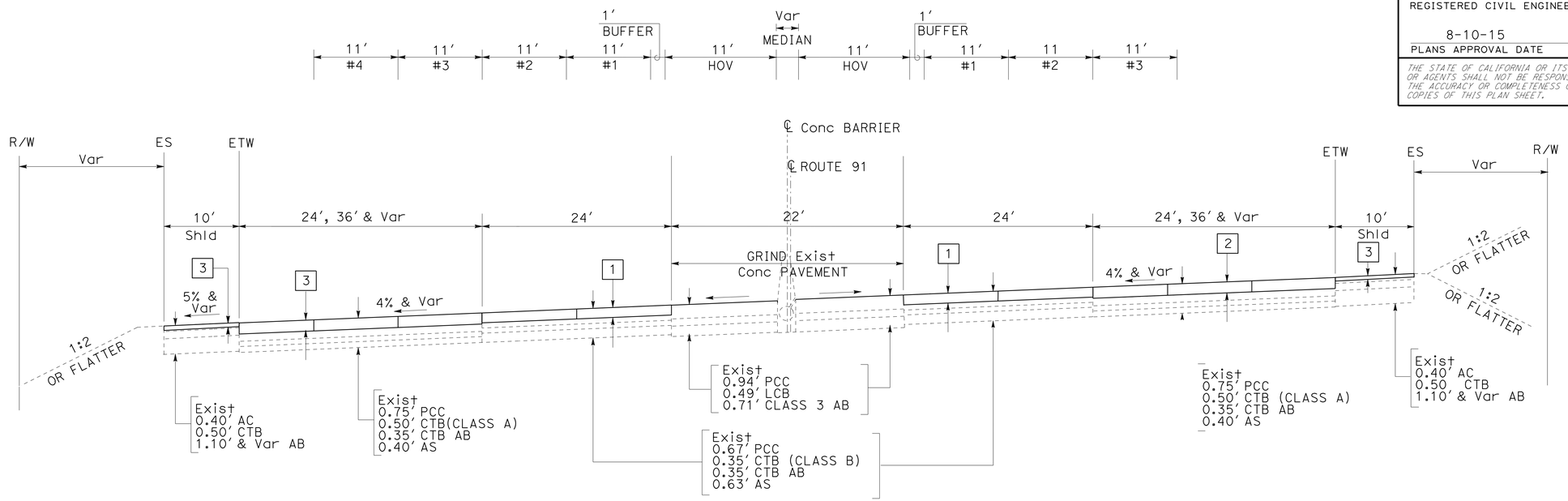
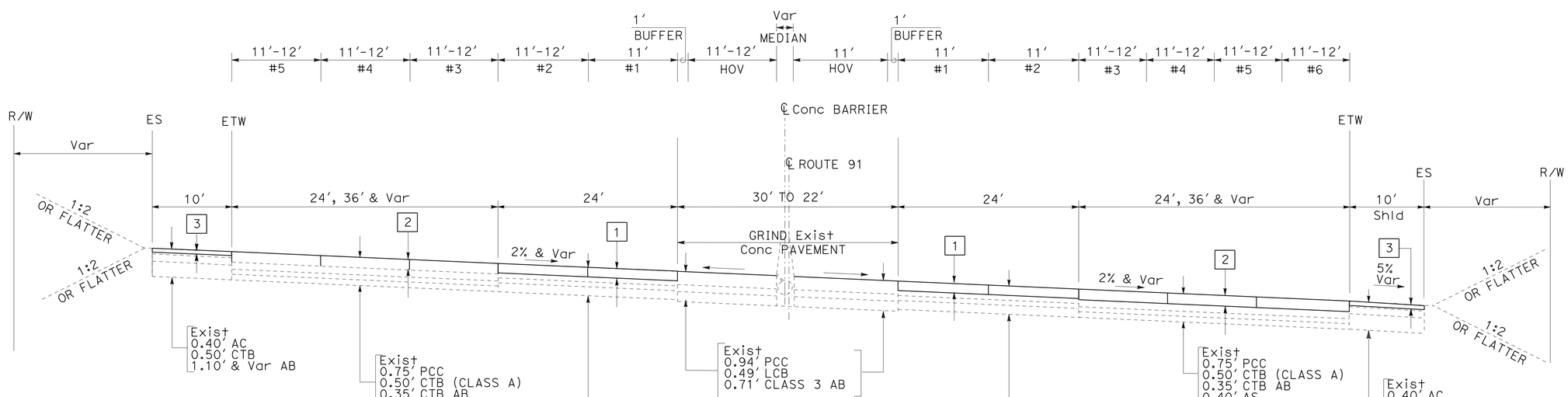


ROUTE 91

MEDIAN SUPERELEVATION SECTION

Sta 880+71.85 TO Sta 891+07.81



ROUTE 91

MEDIAN SUPERELEVATION SECTION

Sta 859+29.07 TO Sta 877+63.76

TYPICAL CROSS SECTIONS

NO SCALE

X-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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LAST REVISION 00-00-00

DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	9	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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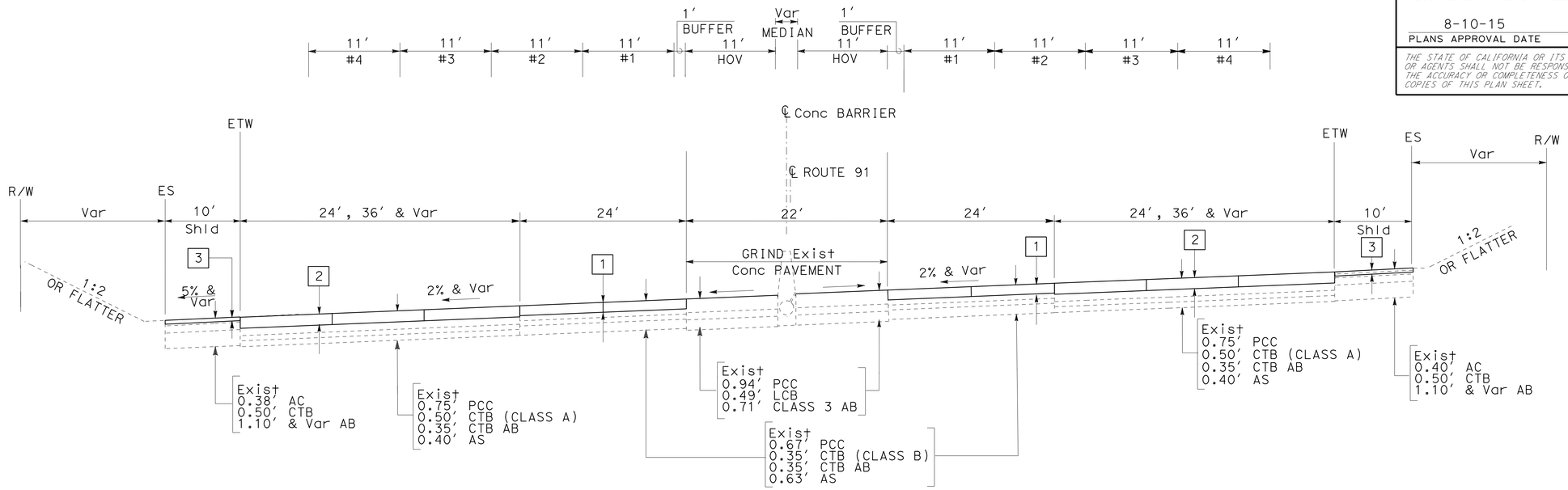
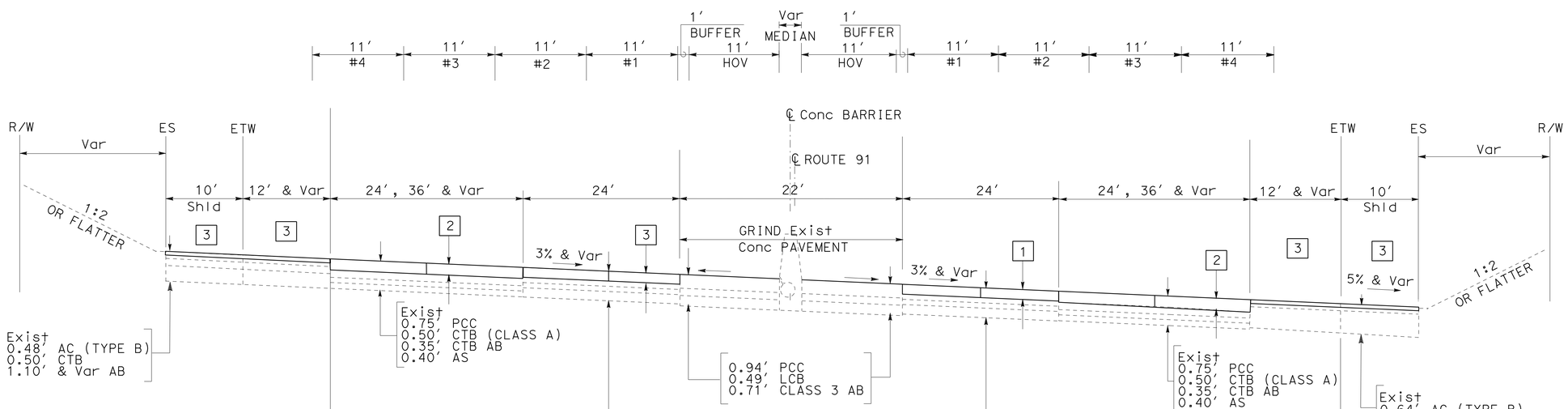


ROUTE 91

MEDIAN SUPERELEVATION SECTION

Sta 1071+69.80 TO Sta 1088+66.12



ROUTE 91

MEDIAN SUPERELEVATION SECTION

Sta 993+60.39 TO Sta 1021+89.17

TYPICAL CROSS SECTIONS

NO SCALE

X-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	10	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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RAMP No.		RAMP NAME
1	WB 91	ATLANTIC Ave ON-RAMP
2	WB 91	ATLANTIC Ave OFF-RAMP
3	EB 91	ATLANTIC Ave ON-RAMP
4	EB 91	ATLANTIC Ave OFF-RAMP
5	WB 91	CHERRY Ave ON-RAMP
6	WB 91	CHERRY Ave OFF-RAMP
7	EB 91	CHERRY Ave ON-RAMP
8	EB 91	CHERRY Ave OFF-RAMP
9	WB 91	PARAMOUNT Blvd ON-RAMP
10	WB 91	PARAMOUNT Blvd OFF-RAMP
11	EB 91	PARAMOUNT Blvd ON-RAMP
12	EB 91	PARAMOUNT Blvd OFF-RAMP
13	WB 91	DOWNEY Ave ON-RAMP
14	WB 91	DOWNEY Ave OFF-RAMP
15	EB 91	DOWNEY Ave ON-RAMP
16	EB 91	DOWNEY Ave OFF-RAMP
17	WB 91	SB LAKEWOOD Blvd ON-RAMP
18	WB 91	NB LAKEWOOD Blvd ON-RAMP
19	WB 91	LAKEWOOD Blvd OFF-RAMP
20	EB 91	SB LAKEWOOD Blvd ON-RAMP
21	EB 91	NB LAKEWOOD Blvd ON-RAMP
22	EB 91	LAKEWOOD Blvd OFF-RAMP
23	WB 91	CLARK Ave OFF-RAMP
24	EB 91	CLARK Ave ON-RAMP
25	WB 91	BELLFLOWER Blvd ON-RAMP
26	WB 91	BELLFLOWER Blvd OFF-RAMP
27	EB 91	BELLFLOWER Blvd ON-RAMP
28	EB 91	BELLFLOWER Blvd OFF-RAMP
29	WB 91	STUDEBAKER Rd OFF-RAMP
30	EB 91	STUDEBAKER Rd ON-RAMP

CONNECTORS

Conn B - EB ROUTE 91 TO SB ROUTE 710 Conn

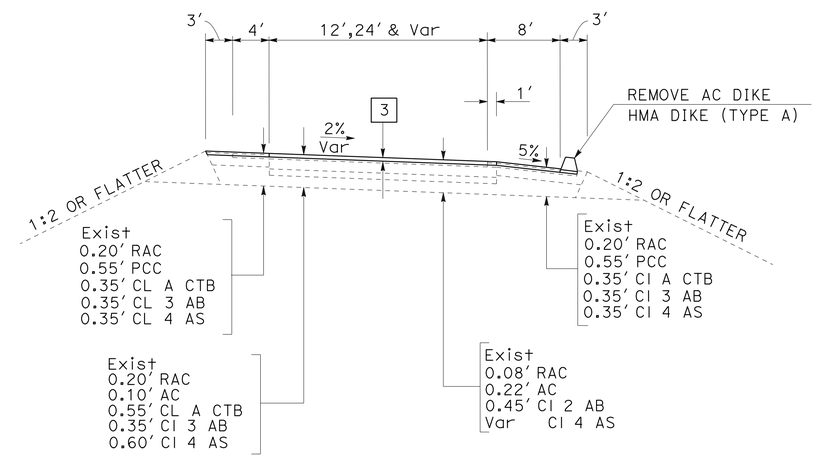
Conn C - EB ROUTE 91 TO NB ROUTE 710 Conn

Conn D - WB ROUTE 91 TO SB ROUTE 710,
WB ROUTE 91 TO NB ROUTE 710 Conn

Conn E - WB ROUTE 91 TO NB ROUTE 605 Conn

Conn F - WB ROUTE 91 TO SB ROUTE 605 Conn

RAMP No.		RAMP NAME
31	WB 91	SB PIONEER Blvd ON-RAMP
32	WB 91	NB PIONEER Blvd ON-RAMP
33	WB 91	PIONEER Blvd OFF-RAMP
34	EB 91	SB PIONEER Blvd ON-RAMP
35	EB 91	NB PIONEER Blvd ON-RAMP
36	EB 91	PIONEER Blvd OFF-RAMP
37	WB 91	SB NORWALK Blvd ON-RAMP
38	WB 91	NB NORWALK Blvd ON-RAMP
39	WB 91	NORWALK Blvd OFF-RAMP
40	EB 91	SB NORWALK Blvd ON-RAMP
41	EB 91	NB NORWALK Blvd ON-RAMP
42	EB 91	NORWALK Blvd OFF-RAMP
43	WB 91	BLOOMFIELD Ave ON-RAMP
44	EB 91	BLOOMFIELD Ave OFF-RAMP
45	WB 91	ARTESIA Blvd ON-RAMP
46	WB 91	ARTESIA Blvd OFF-RAMP
47	EB 91	PARK PLAZA DR ON-RAMP
48	EB 91	PARK PLAZA DR OFF-RAMP
49	WB 91	183RD ST ON-RAMP
50	WB 91	CARMENITA Rd OFF-RAMP
51	EB 91	CARMENITA Rd OFF-RAMP



RAMP No. 1, 4

TYPICAL CROSS SECTIONS

NO SCALE

X-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CHECKED BY LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 DATE PLOTTED => 16-SEP-2015 TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	11	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12-31-16
CIVIL
STATE OF CALIFORNIA

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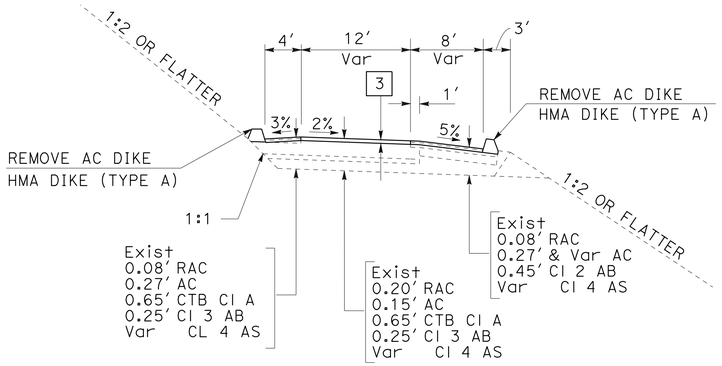

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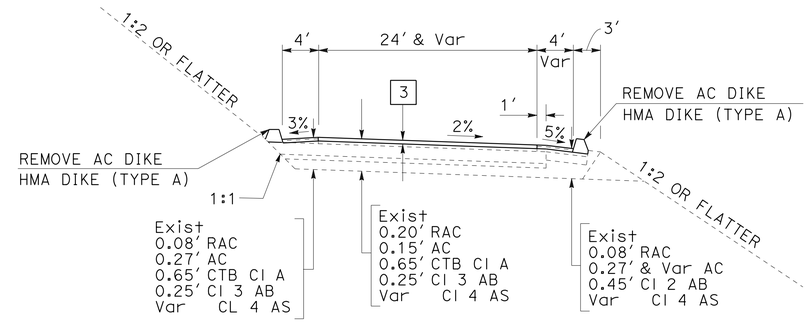
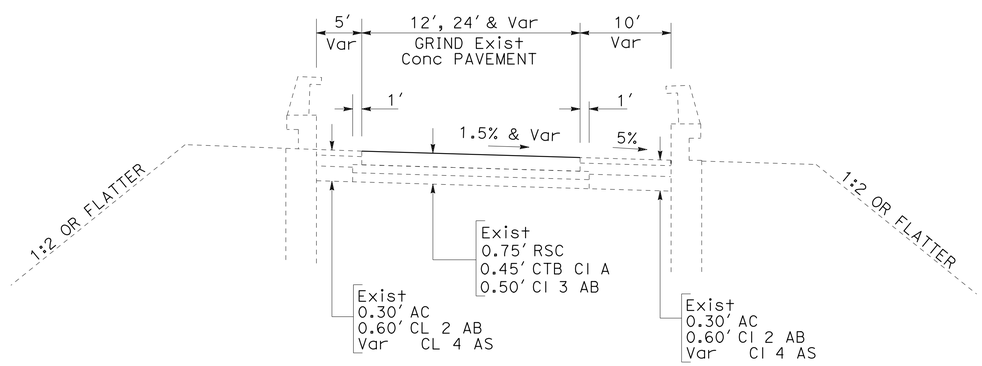


RAMP No. 2, 5, 6, 8, 14, 16



CONNECTORS B, C, D

TYPICAL CROSS SECTIONS

NO SCALE

X-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU
CALCULATED-DESIGNED BY: GORDON F KUO
CHECKED BY: LEWEN KUO
REVISED BY
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LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	12	192

Lewen Kuo 6-18-15
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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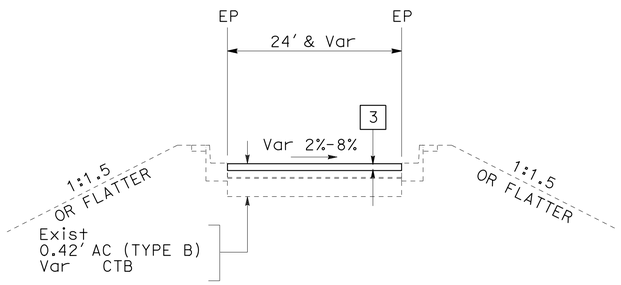

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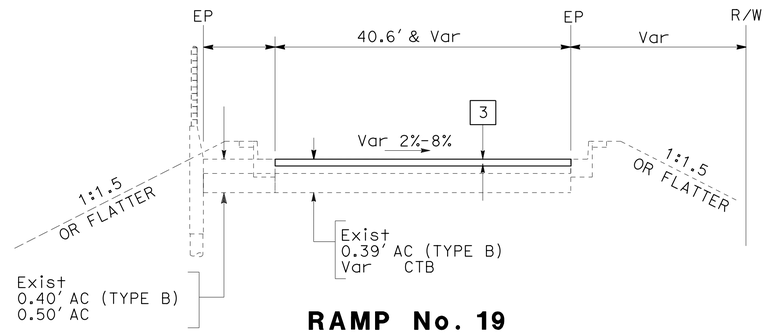

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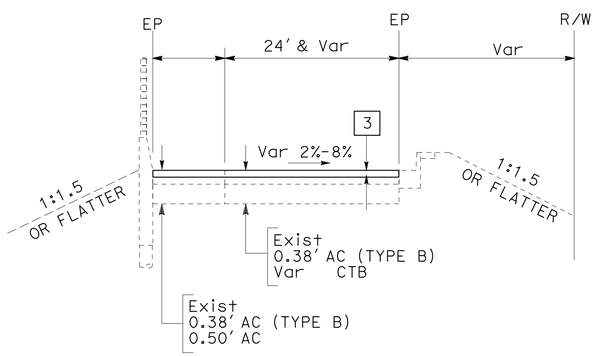

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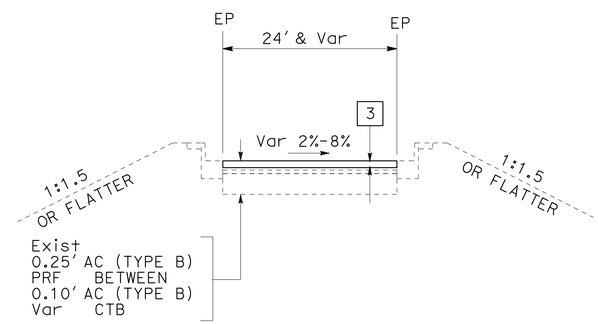

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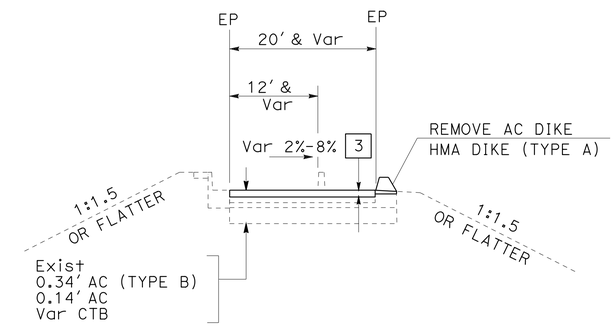

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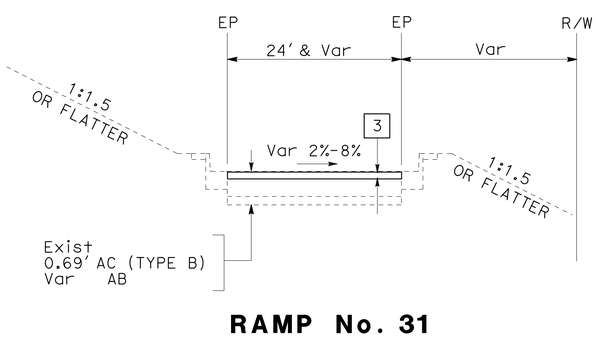

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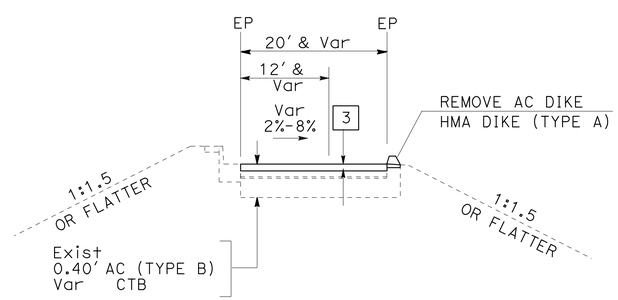
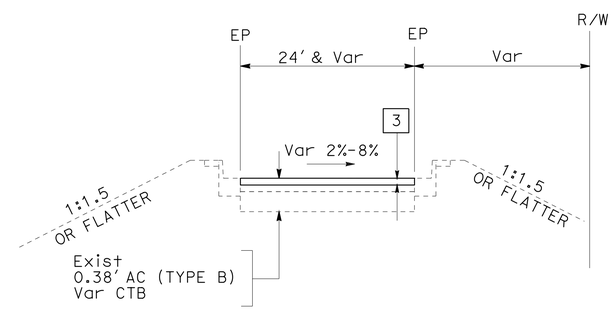


RAMP No. 34, 41 & 50



RAMP No. 33

TYPICAL CROSS SECTIONS

NO SCALE

X-11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU

CALCULATED-DESIGNED BY: GORDON F KUO
CHECKED BY: LEWEN KUO

REVISED BY | DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	13	192

Lewen Kuo 6-18-15
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12-31-16
CIVIL
STATE OF CALIFORNIA

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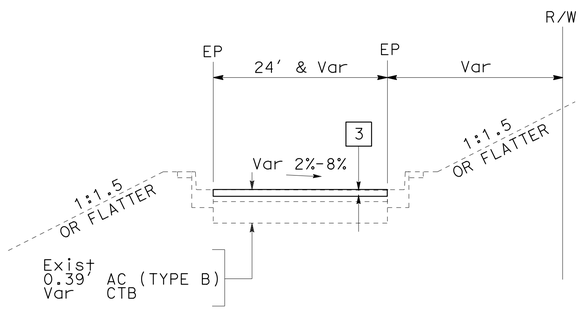

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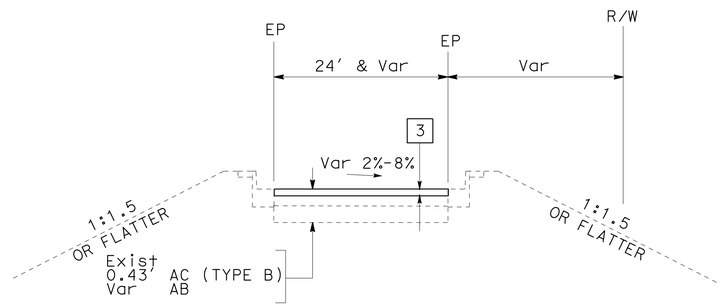
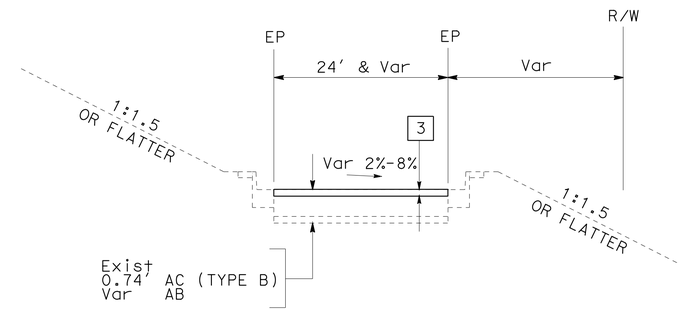


RAMP No. 39 & 43



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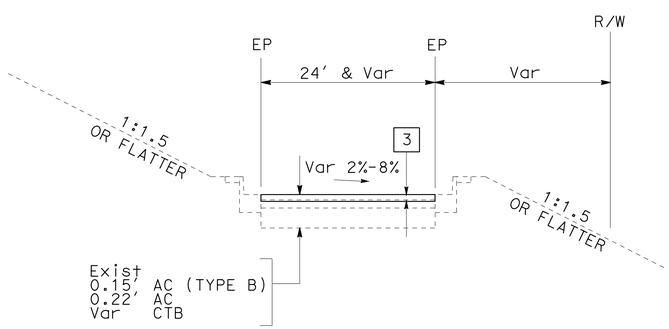

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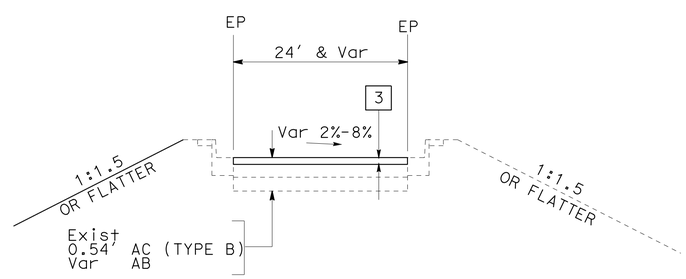

RAMP No. 46

TYPICAL CROSS SECTIONS

NO SCALE

X-12

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
GORDON F KUO	LEWEN KUO

FUNCTIONAL SUPERVISOR: M OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	14	192

Lewen Kuo 6-18-15
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12-31-16
CIVIL
STATE OF CALIFORNIA

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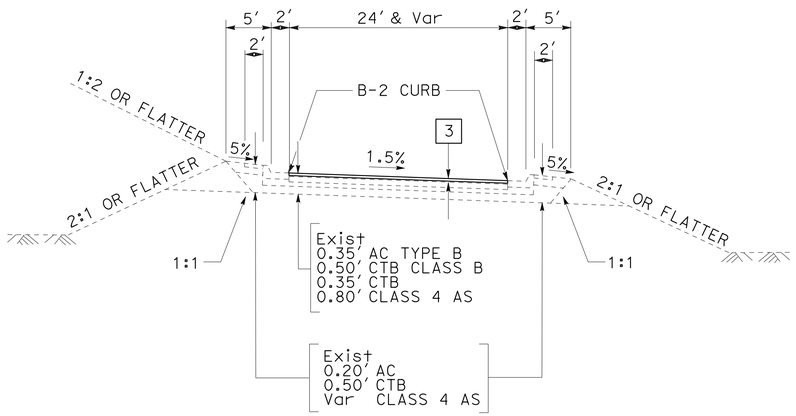
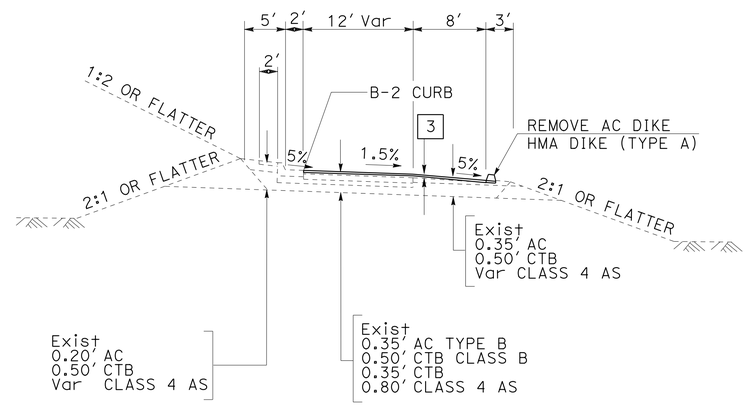


RAMP No. 30, 35, 36, 37, 38, 40, 42,



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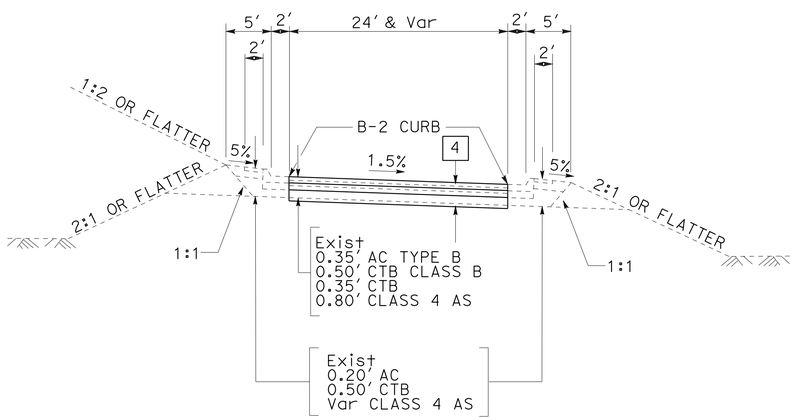

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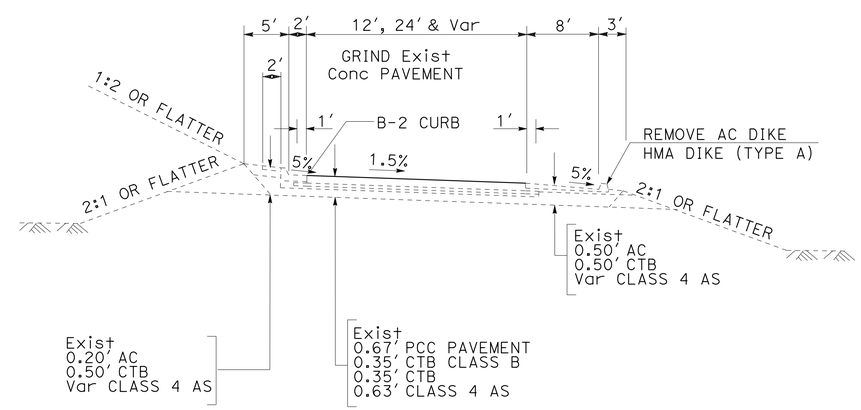

CONNECTORS E, F

TYPICAL CROSS SECTIONS

NO SCALE

X-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU
CALCULATED-DESIGNED BY: GORDON F KUO
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LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

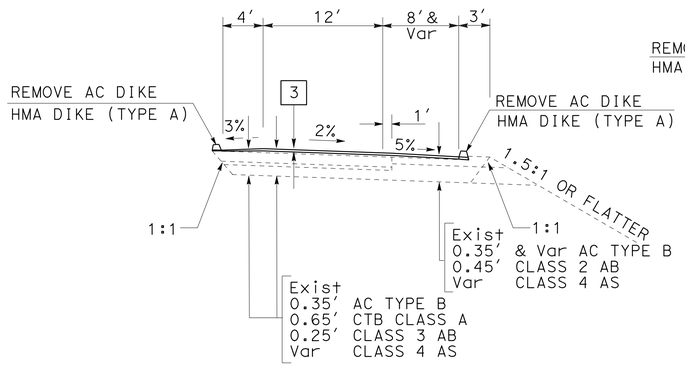
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	15	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 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.



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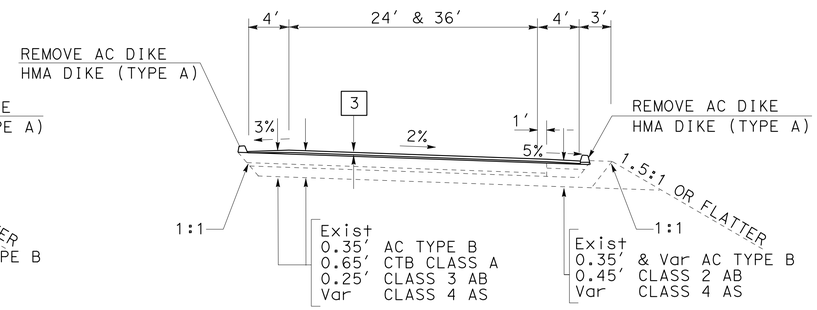

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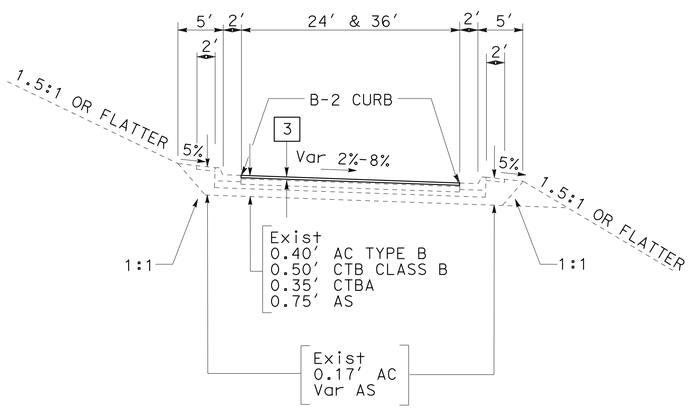
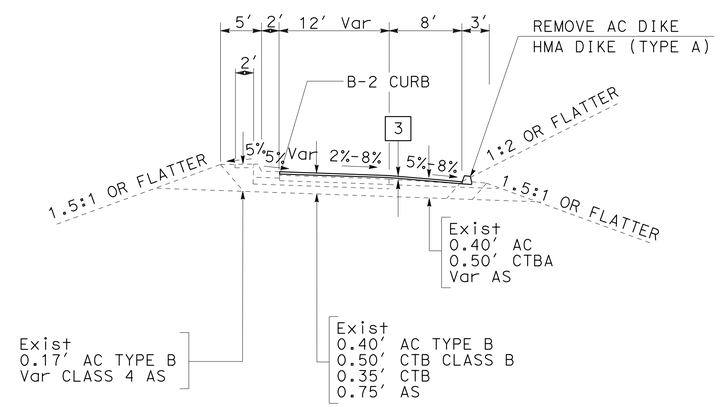


RAMP No. 20, 21, 24, 25, 26, 27, 28



RAMP No. 20, 21, 24, 25, 26, 27, 28

TYPICAL CROSS SECTIONS

NO SCALE

X-14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN
FUNCTIONAL SUPERVISOR: M OJI KALU
CALCULATED-DESIGNED BY: GORDON F KUO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

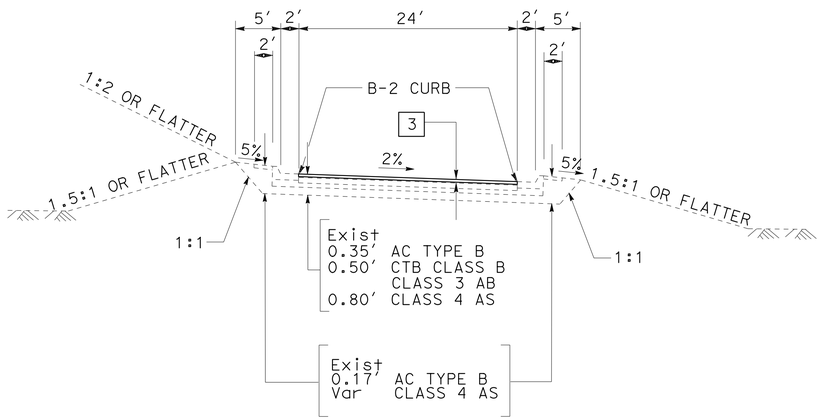
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	16	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 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.



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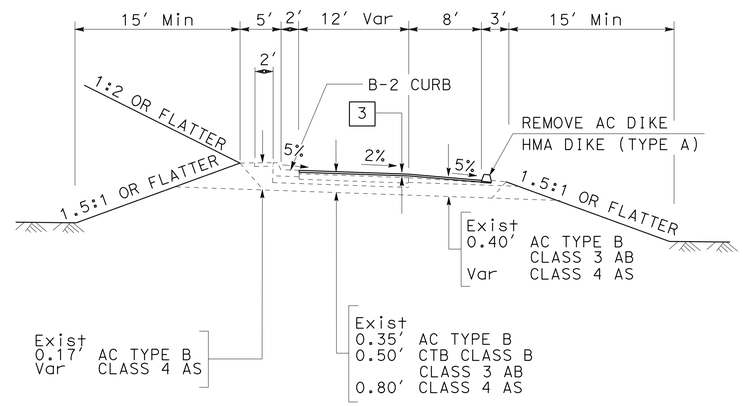

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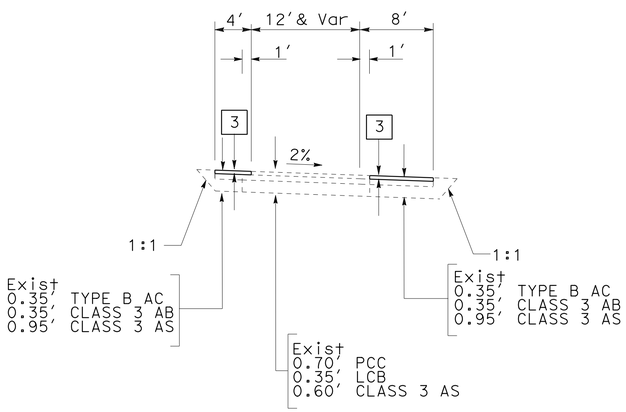
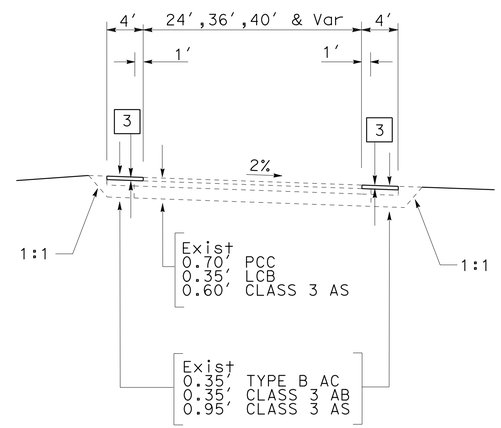


RAMP No. 48



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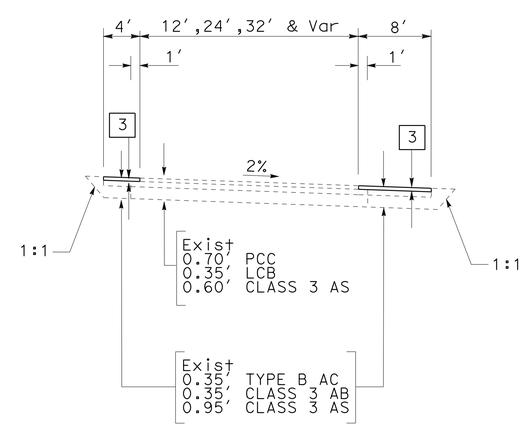

RAMP No. 47

TYPICAL CROSS SECTIONS

NO SCALE

X-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU
CALCULATED-DESIGNED BY: GORDON F KUO
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REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	17	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

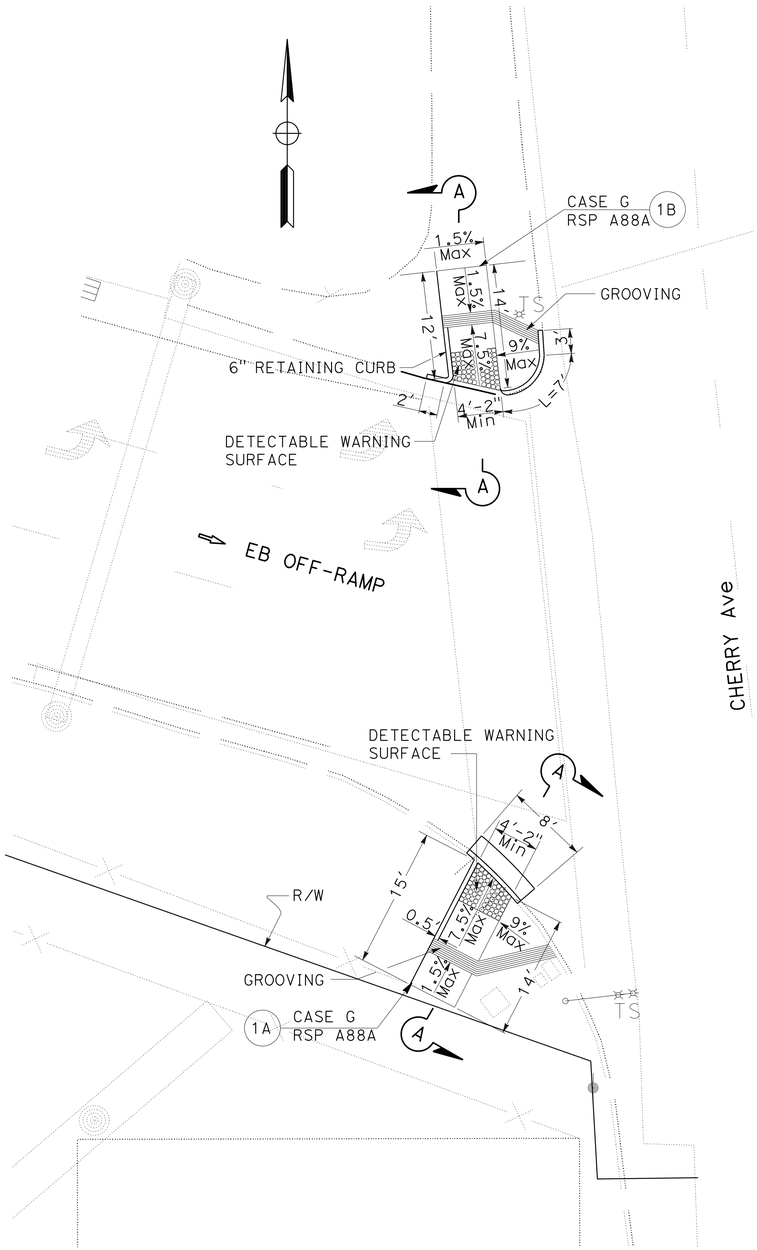
8-10-15
PLANS APPROVAL DATE

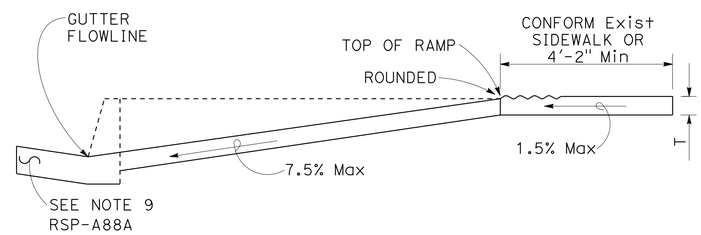
REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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.

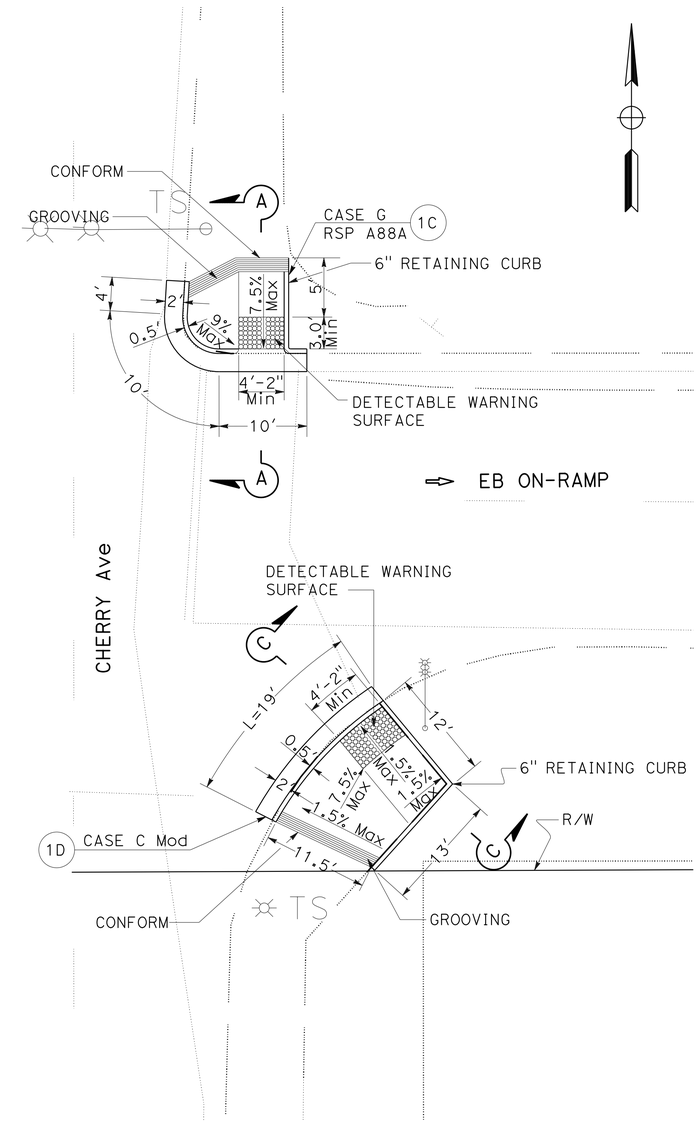
NOTES:

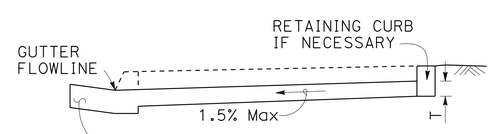
1. UTILITY PULL BOXES AND PED PUSH BUTTONS (PPB) WILL BE ADJUSTED TO GRADE AND OUTSIDE THE AREA OF DETECTABLE WARNING SURFACE (DWS) PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION.
2. AS SITE CONDITIONS DICTATE AND/OR DUE TO SOME LIMITING FACTOR AS A RESULT OF PRE-CONSTRUCTION FIELD SURVEY, ANY MODIFIED CASE COULD BE SUBSTITUTED TO REPLACE WHAT IS SHOWN AND RECOMMENDED ON THE PLAN.
3. FOR OTHER DETAILS NOT SHOWN, SEE REVISED STANDARD PLAN A88A AND A88B
4. ALL CONCRETE AND ASPHALT REMOVALS MUST BE SAWCUT IN CONTINUOUS LINES.
5. THE R/W LINES ARE OUTSIDE OF THE CURB RAMP WORK AREA, UNLESS OTHERWISE SHOWN. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.
6. VERIFY CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OF FABRICATING MATERIALS.
7. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS





SECTION A-A





SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
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LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	18	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

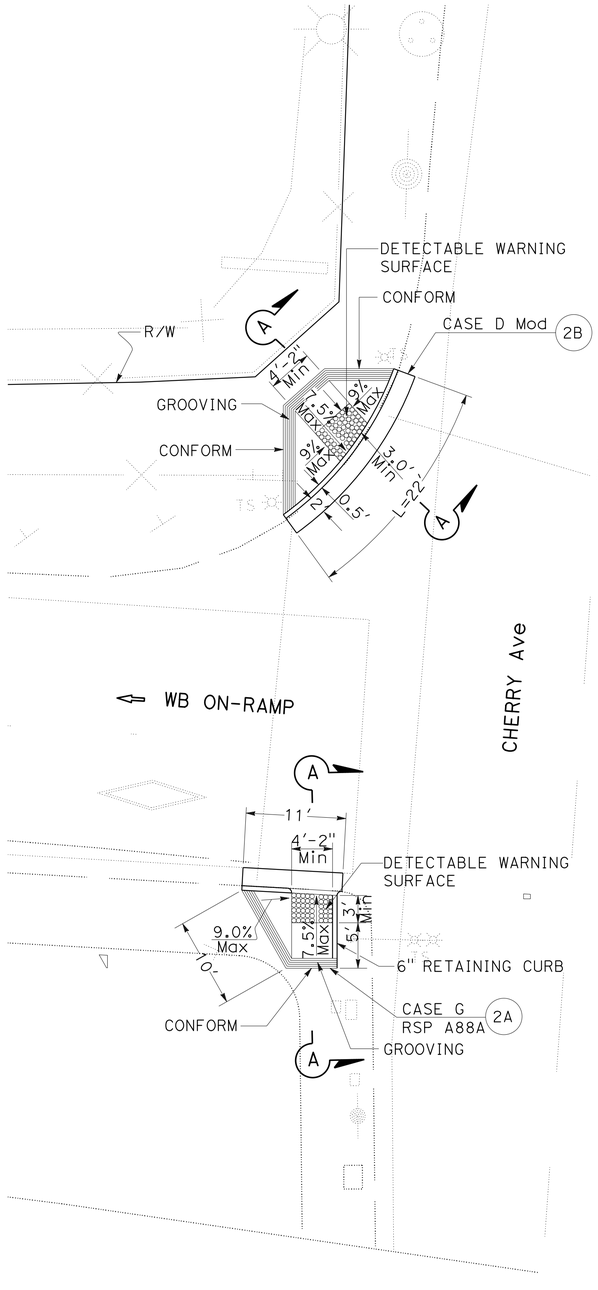
8-10-15
PLANS APPROVAL DATE

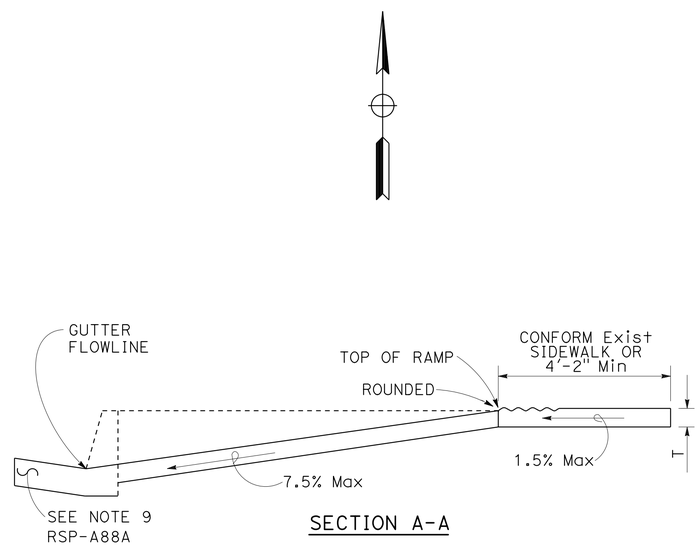
REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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.

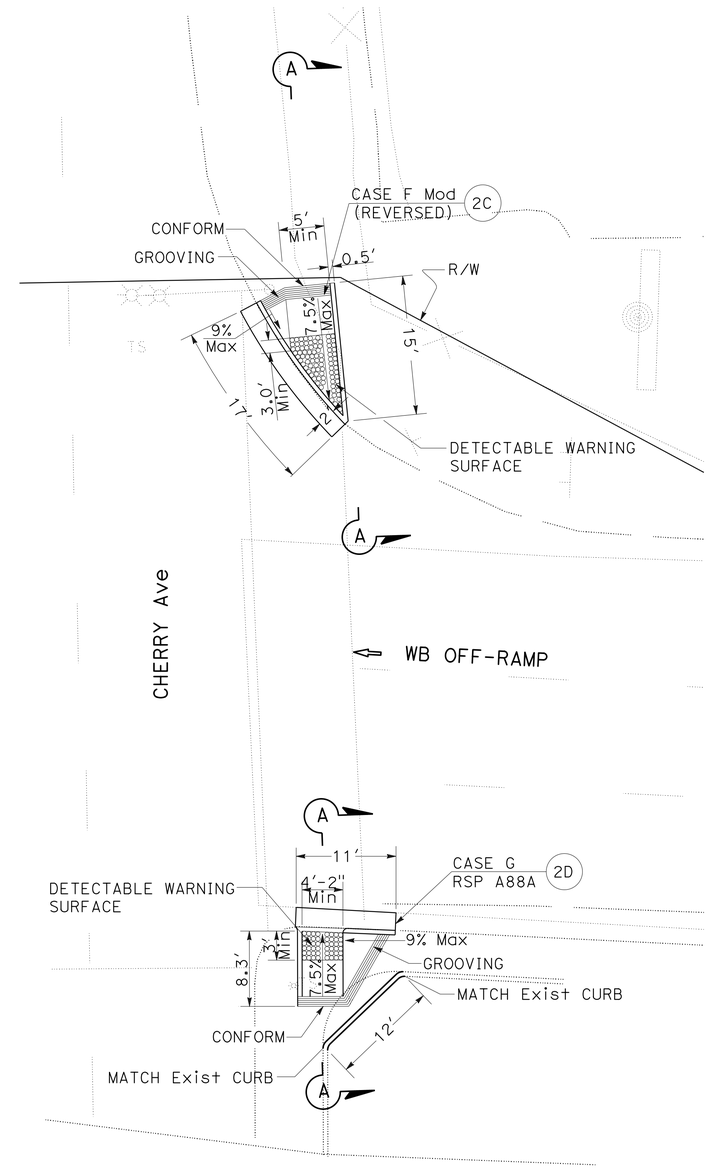
NOTES:

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS
2. THE LOCATION OF THE ROADSIDE SIGN TO BE RELOCATED DURING CONSTRUCTION WILL BE DECIDED BY THE ENGINEER.





SECTION A-A



CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	19	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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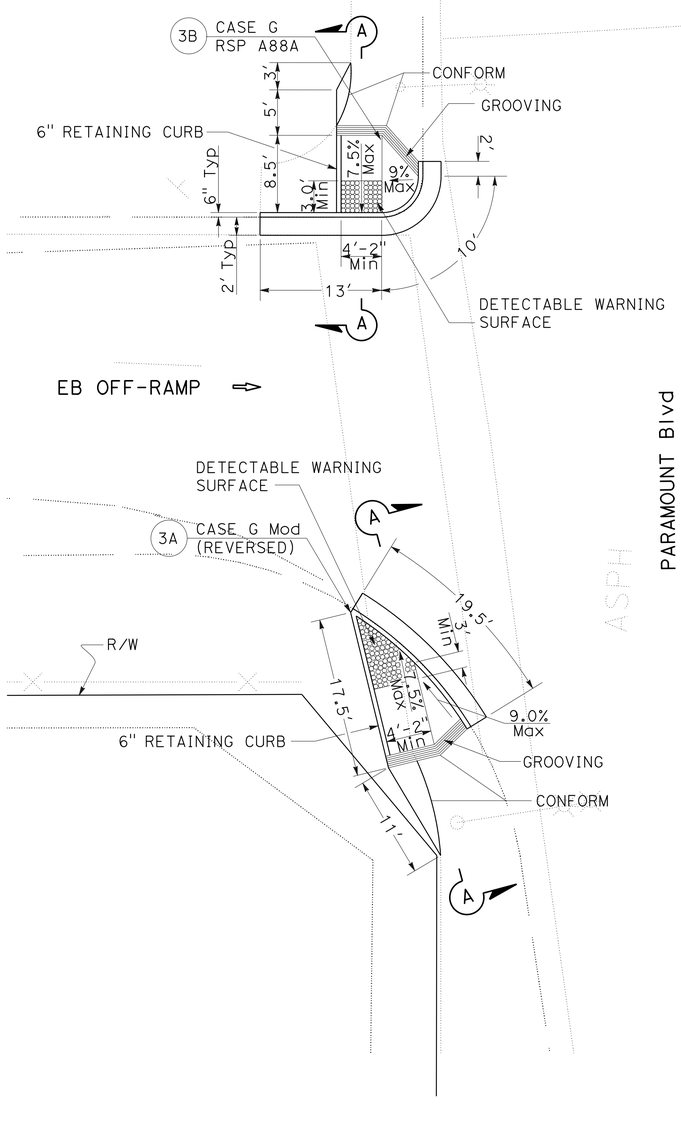
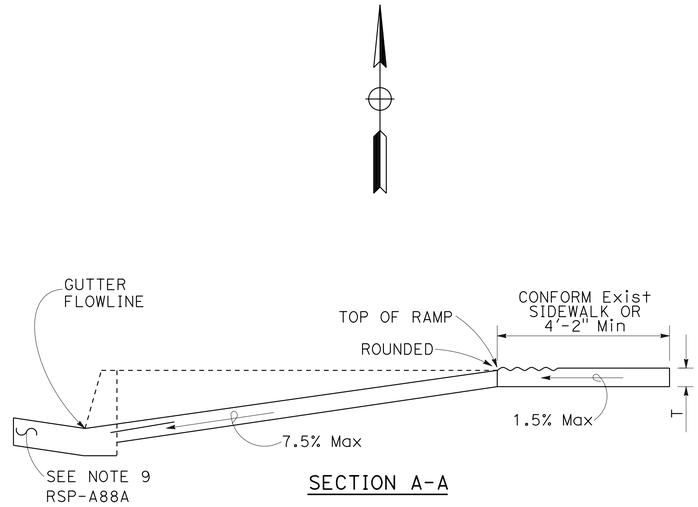
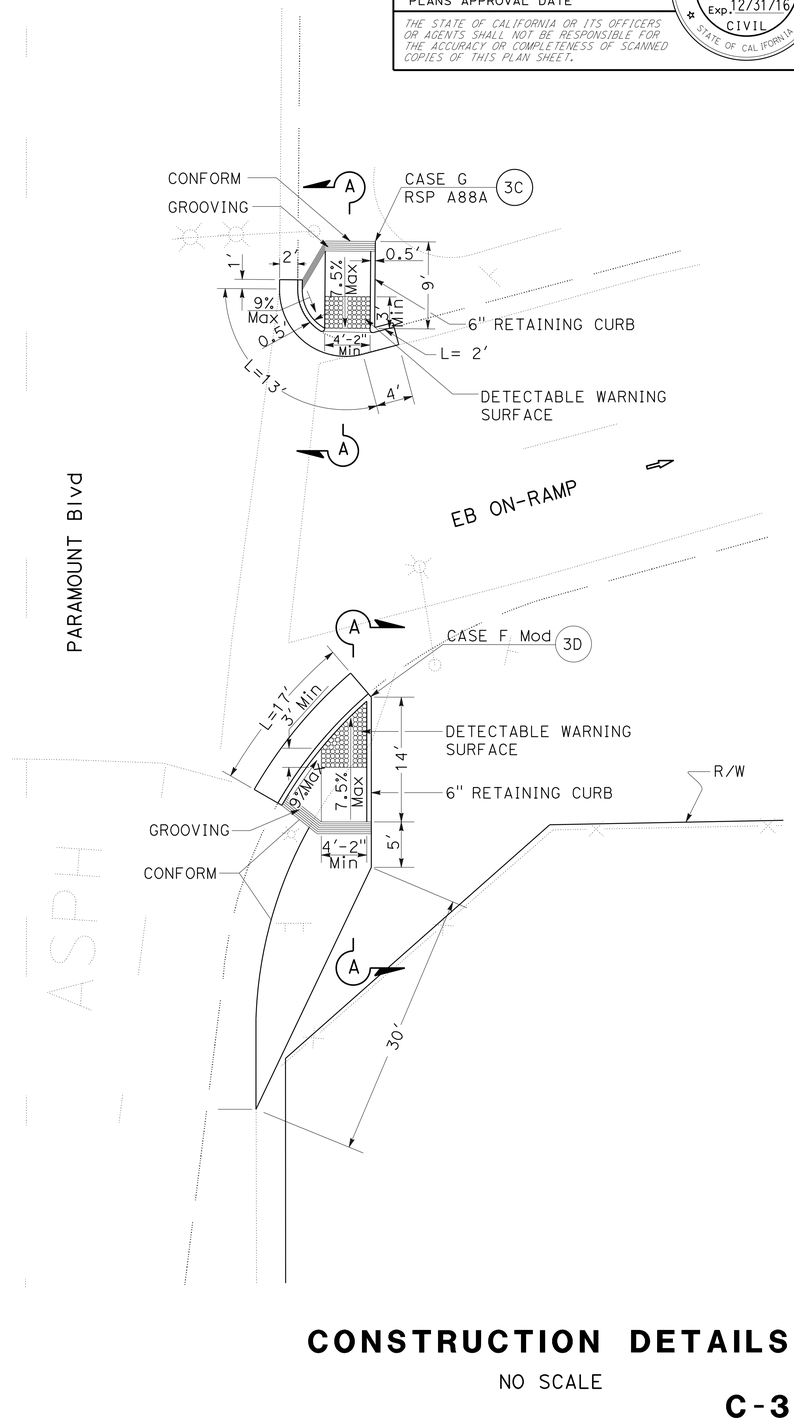
NOTES:

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS
2. THE LOCATION OF THE ROADSIDE SIGN TO BE RELOCATED DURING CONSTRUCTION WILL BE DECIDED BY THE ENGINEER.





SECTION A-A



CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN
FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY / DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	20	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

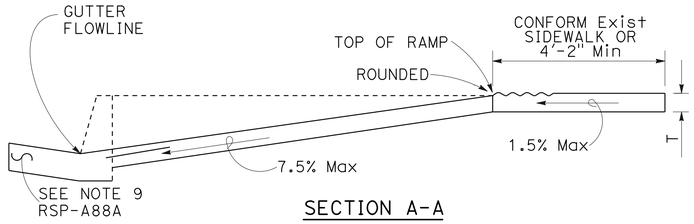
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

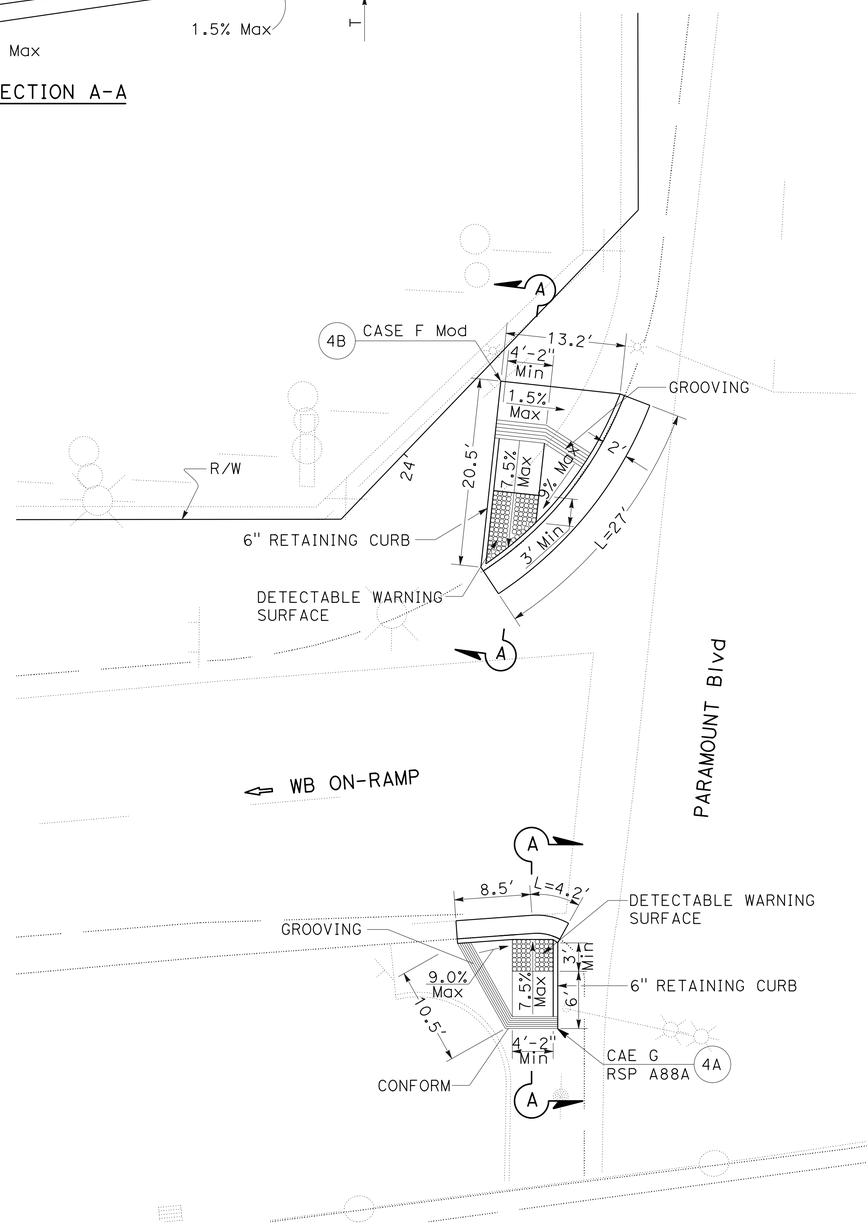
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

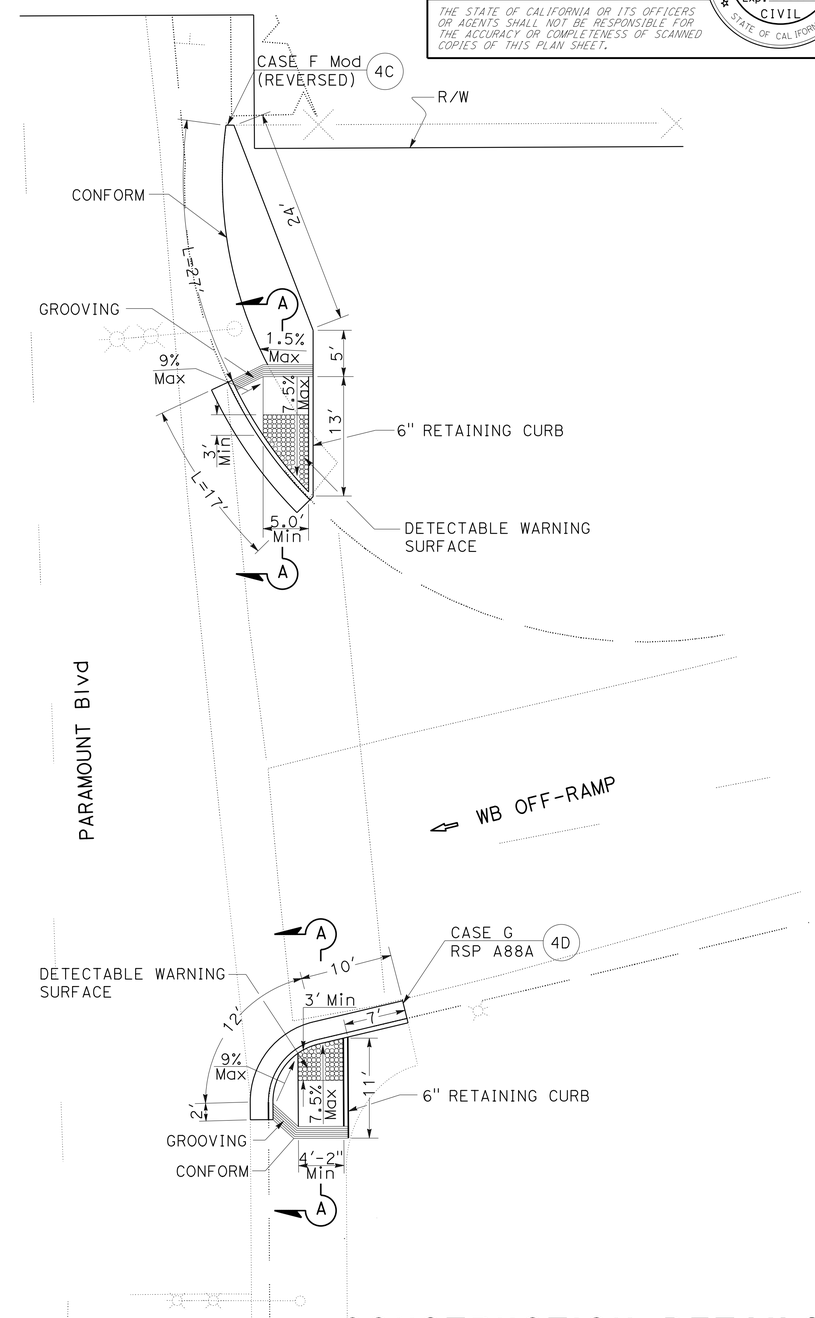
NOTE

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS



SECTION A-A





CONSTRUCTION DETAILS

NO SCALE

C-4

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
VINCENT VALIDO	LEWEN KUO

FUNCTIONAL SUPERVISOR
M. OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® DESIGN

DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

LAST REVISION 6-5-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	21	192

REGISTERED CIVIL ENGINEER — DATE: 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL — STATE OF CALIFORNIA

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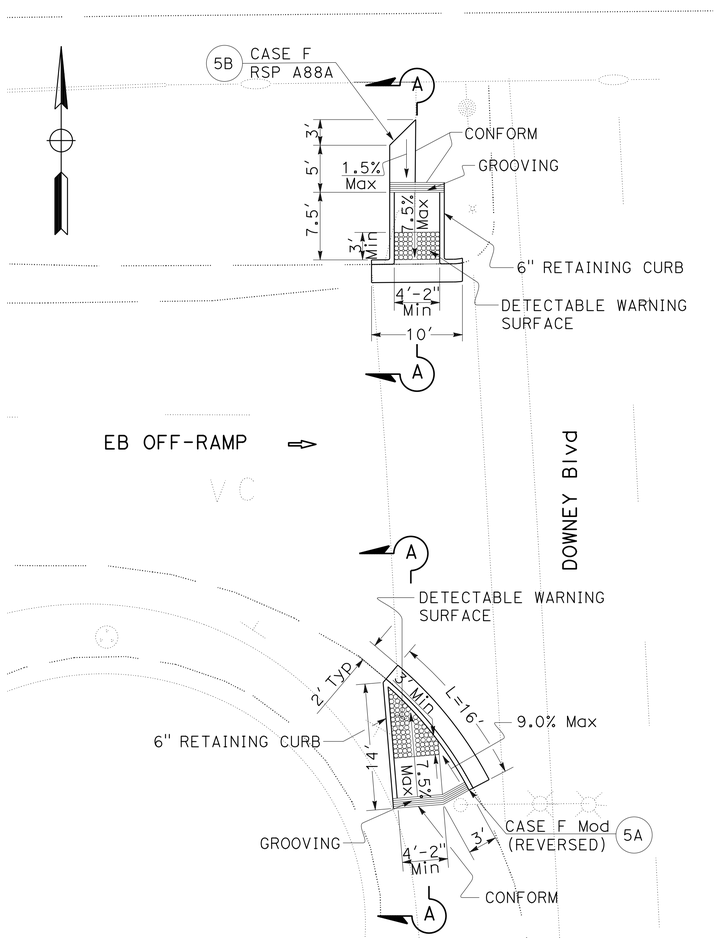
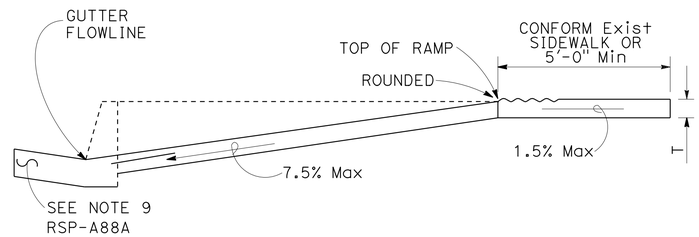
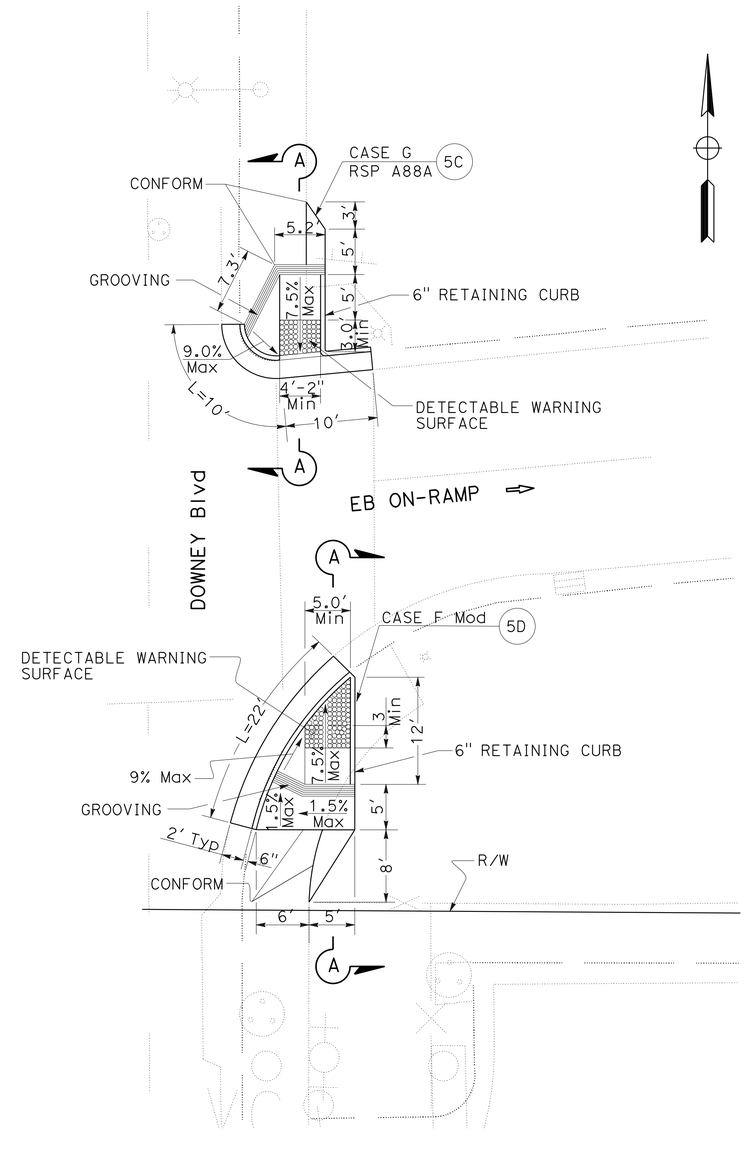
NOTE

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS





SECTION A-A



CONSTRUCTION DETAILS

NO SCALE

C-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	22	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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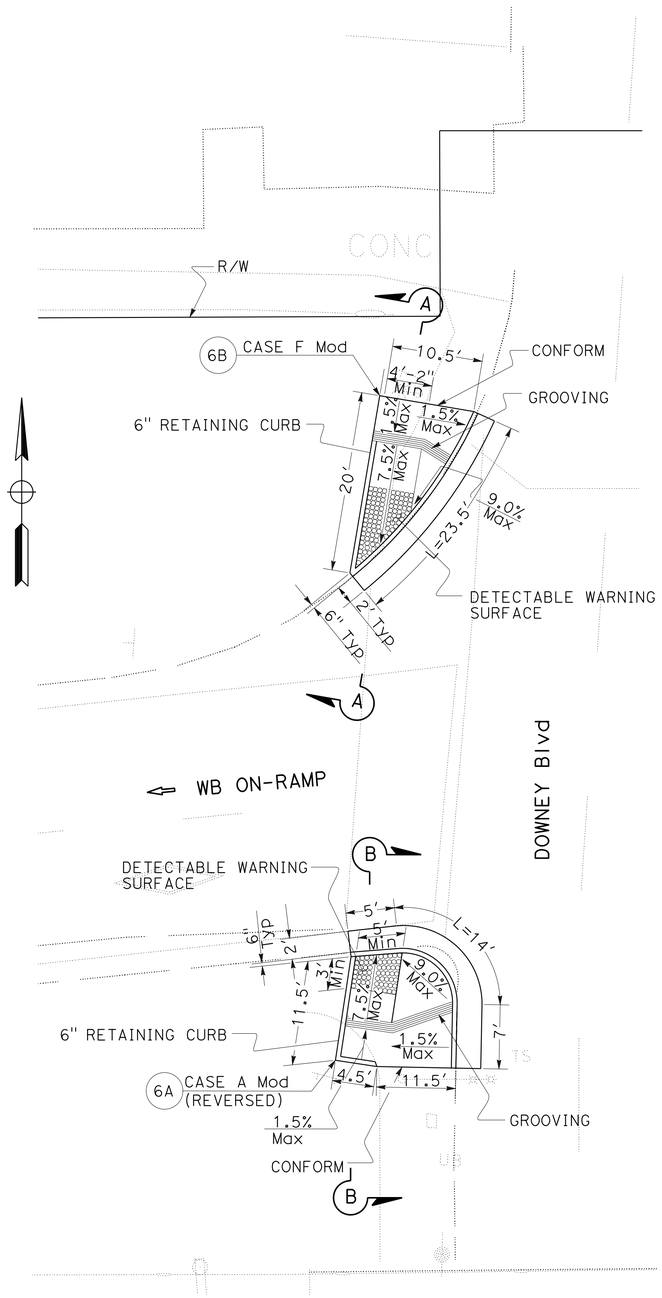
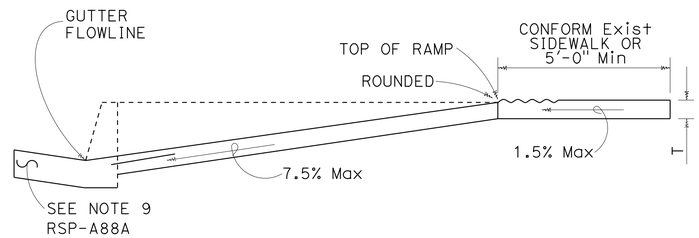
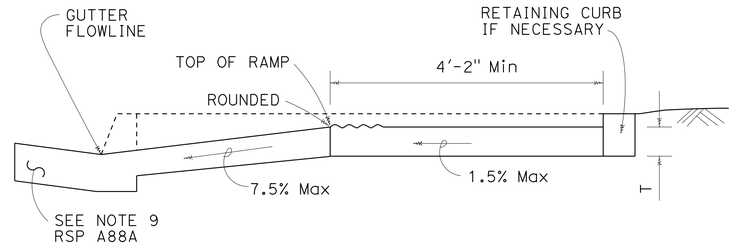
NOTE

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS



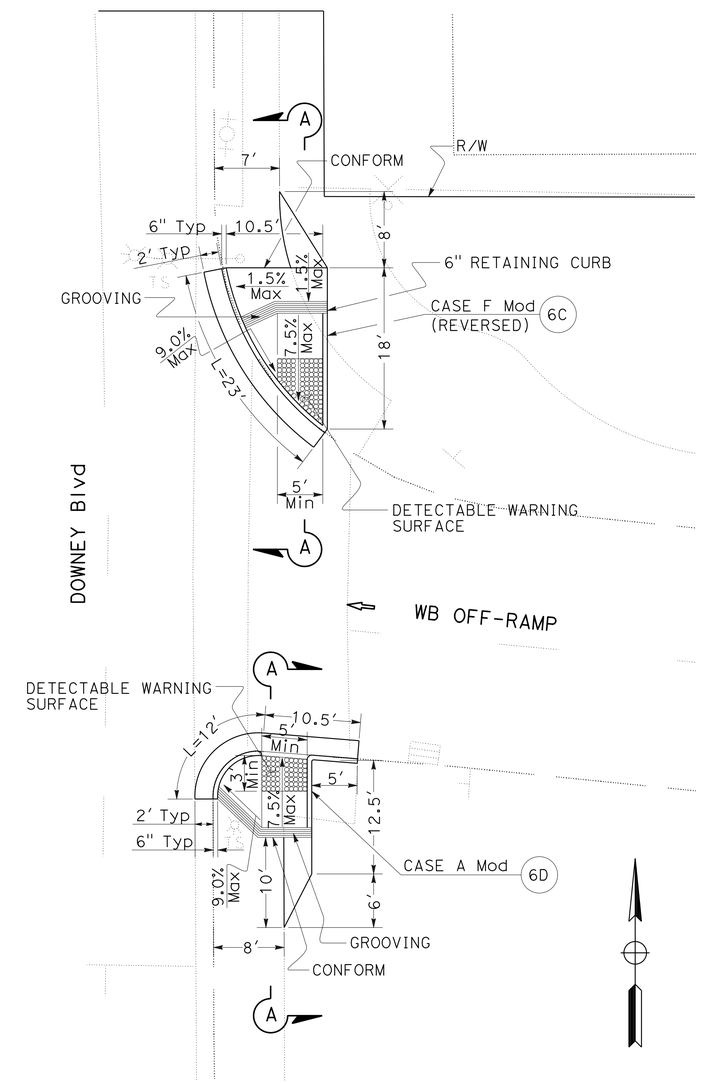


SECTION A-A



SECTION B-B

DEPRESS ENTIRE SIDEWALK AS REQUIRED



CONSTRUCTION DETAILS

NO SCALE

C-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	23	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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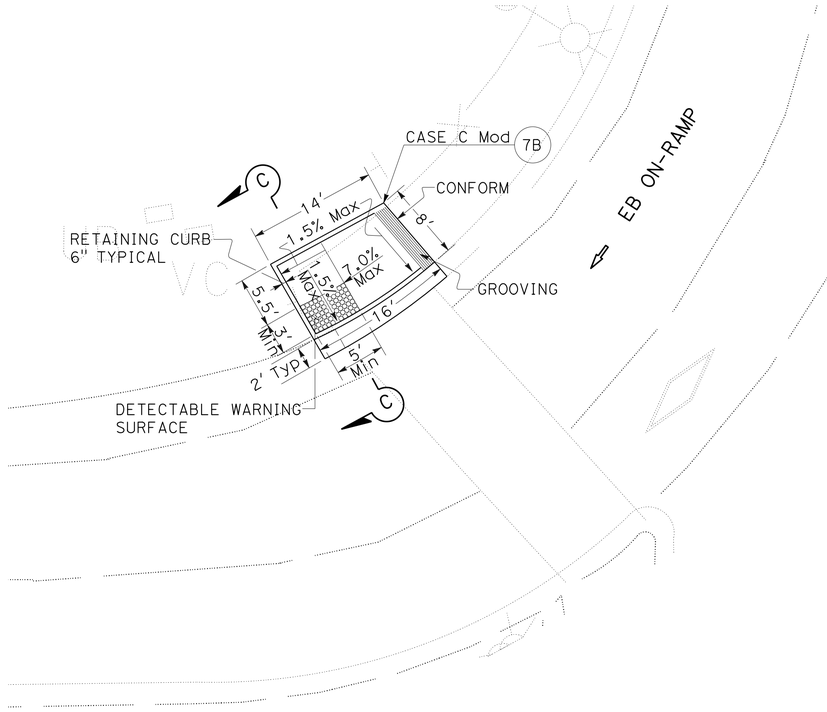
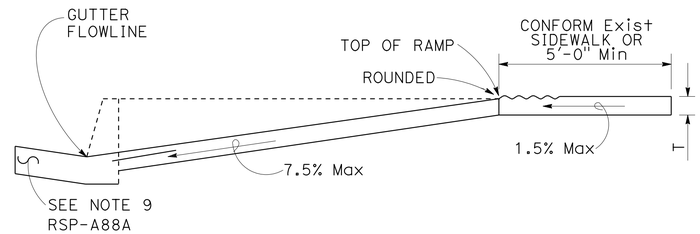
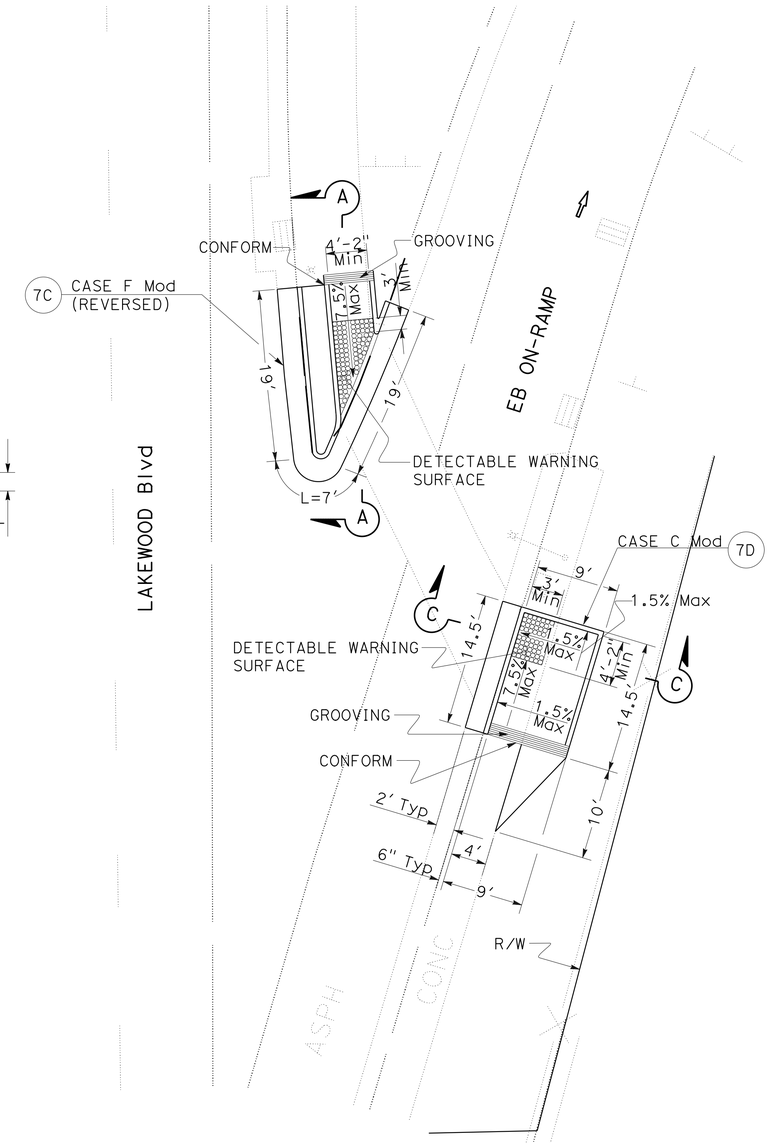
NOTES:

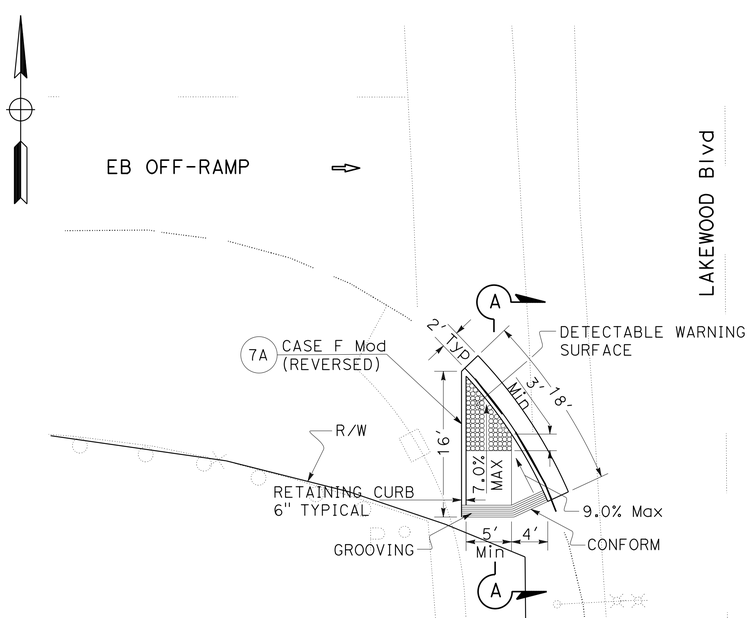
1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS
2. THE LOCATION OF THE ROADSIDE SIGN TO BE RELOCATED DURING CONSTRUCTION WILL BE DECIDED BY THE ENGINEER.

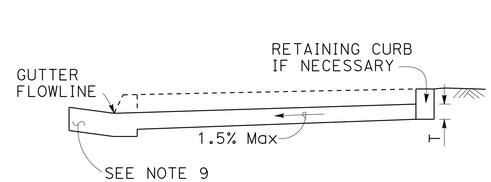




SECTION A-A







SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-7

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
FUNCTIONAL SUPERVISOR: M. OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

LAST REVISION 12-30-13 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	24	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

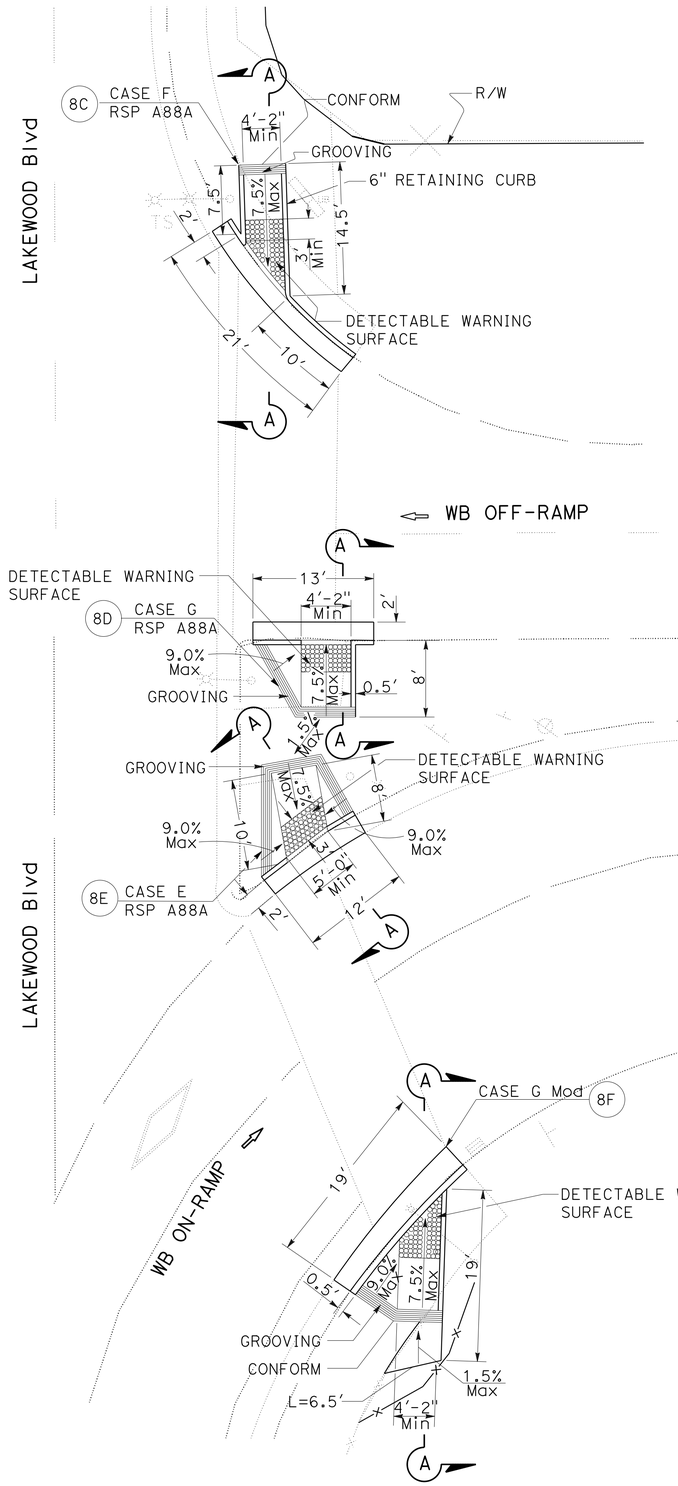
8-10-15
PLANS APPROVAL DATE

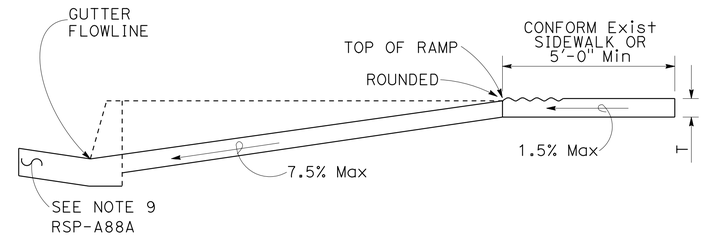
REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp 12/31/16 CIVIL STATE OF CALIFORNIA

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.

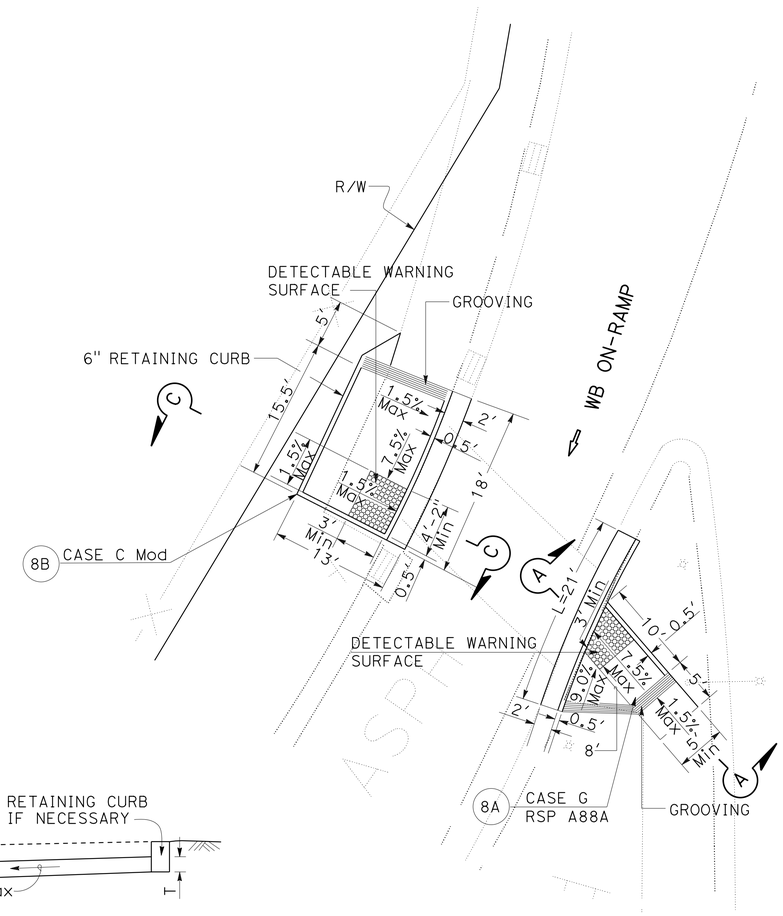
NOTE

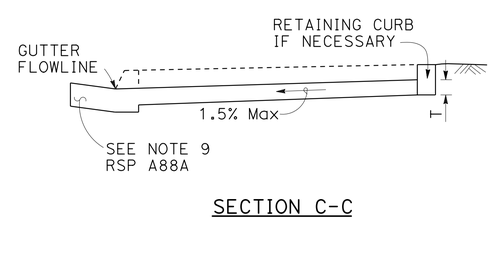
1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS





SECTION A-A





SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR M. OJI KALU
CALCULATED-DESIGNED BY VINCENT VALIDO
CHECKED BY LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	25	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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NOTES:

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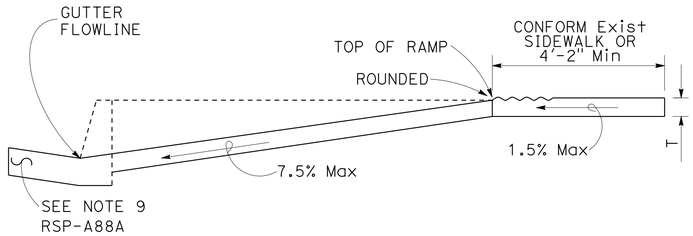
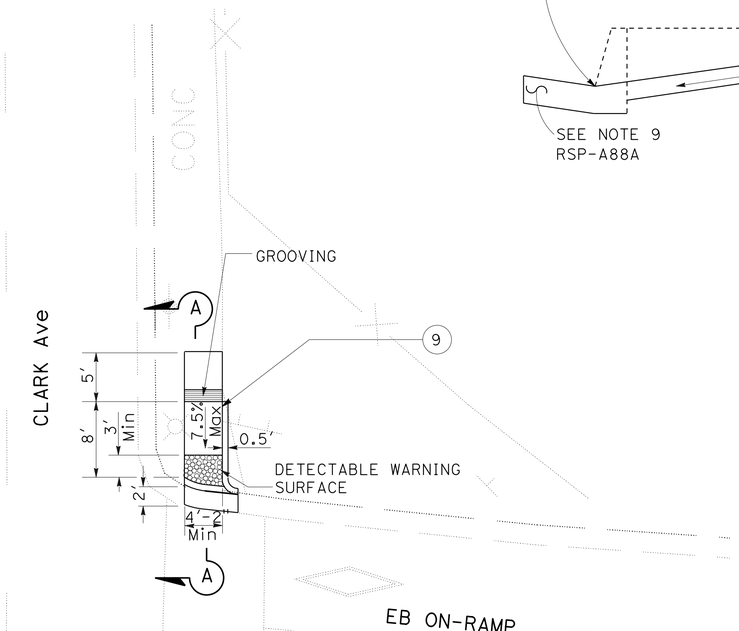
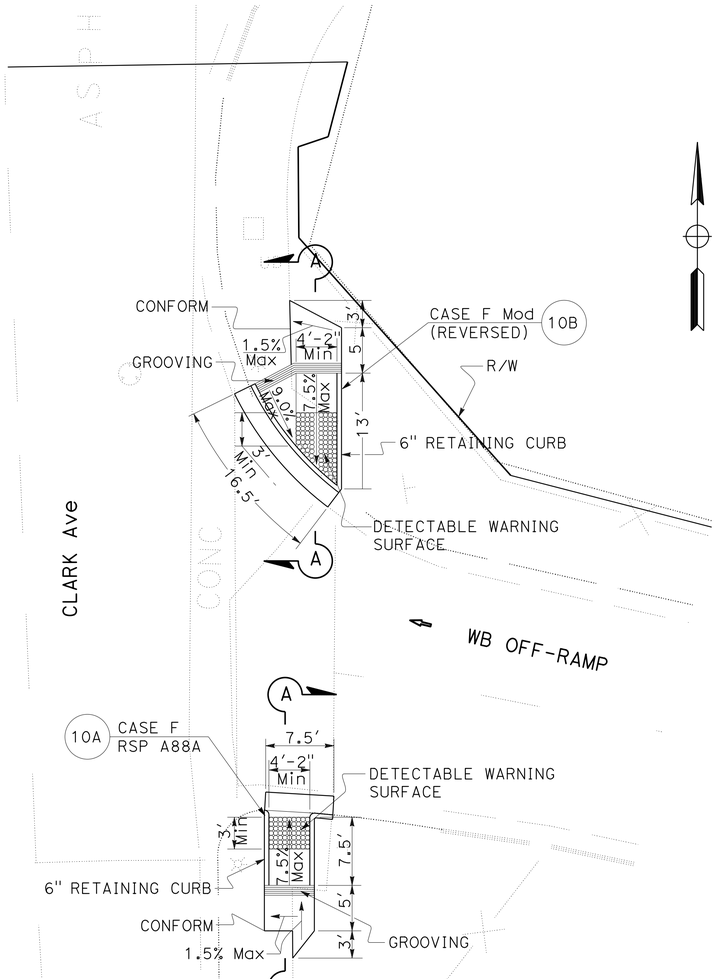
2. THE LOCATION OF THE ROADSIDE SIGN TO BE RELOCATED DURING CONSTRUCTION WILL BE DECIDED BY THE ENGINEER.



SECTION A-A





CONSTRUCTION DETAILS

NO SCALE

C-9

REVISED BY	DATE REVISED
VINCENT VALIDO	LEWEN KUO
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	M. OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® DESIGN

LAST REVISION 6-5-15

DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	26	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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NOTE

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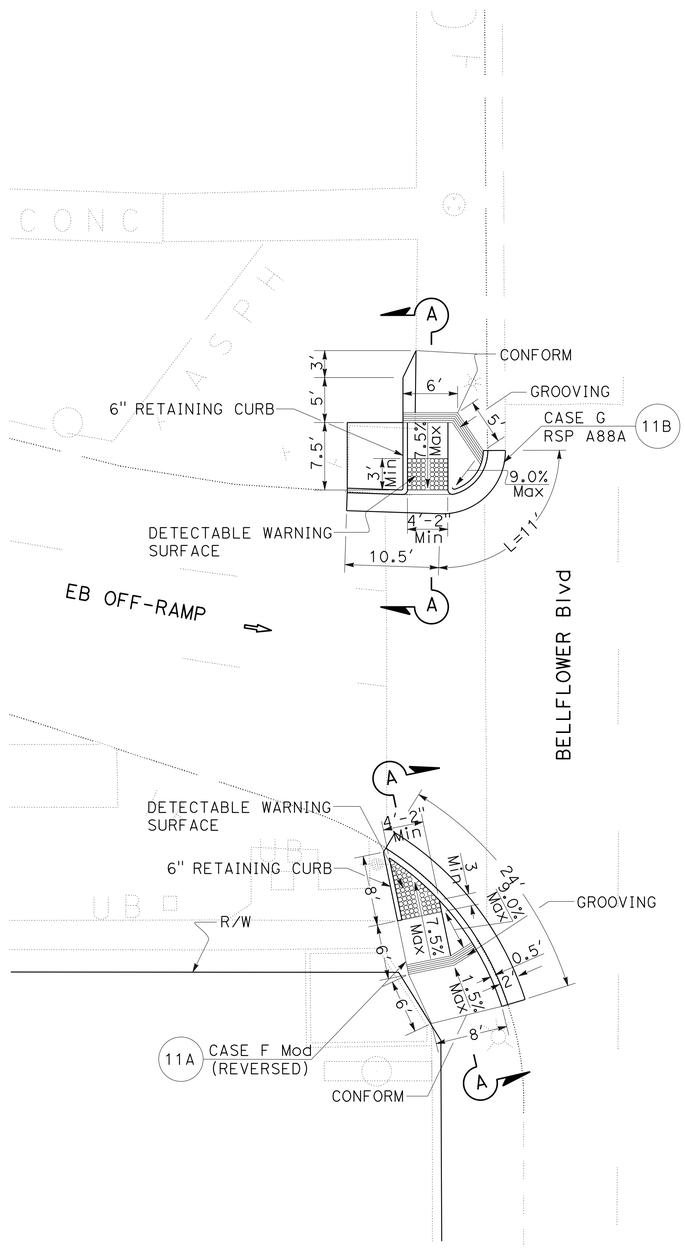

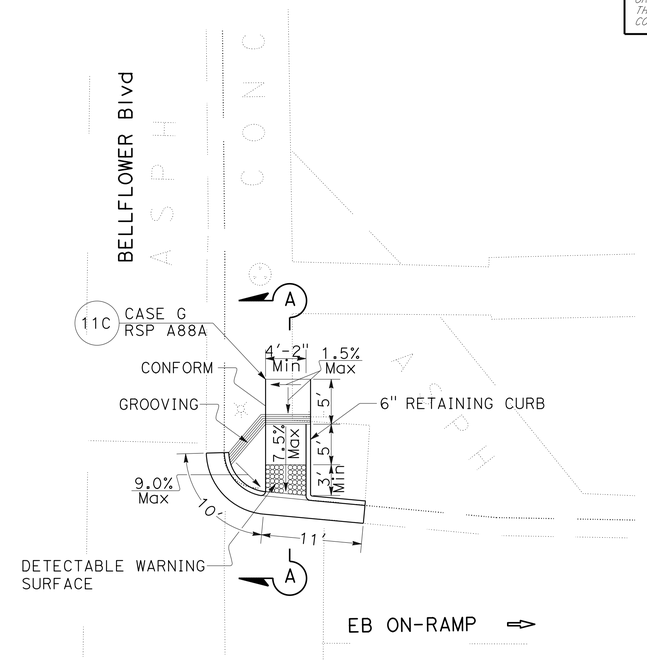

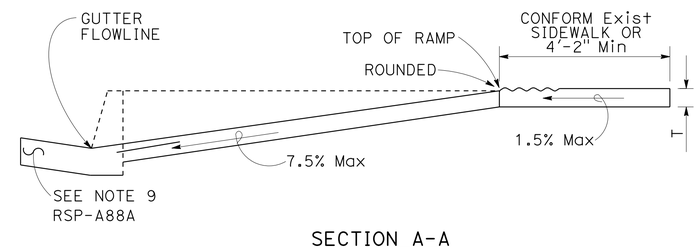

SECTION A-A

CONSTRUCTION DETAILS

NO SCALE

C-10

VINCENT VALIDO	REVISED BY
LEWEN KUO	DATE REVISED
CALCULATED-DESIGNED BY	
CHECKED BY	
FUNCTIONAL SUPERVISOR	
M. OJI KALU	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 12-30-13
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	27	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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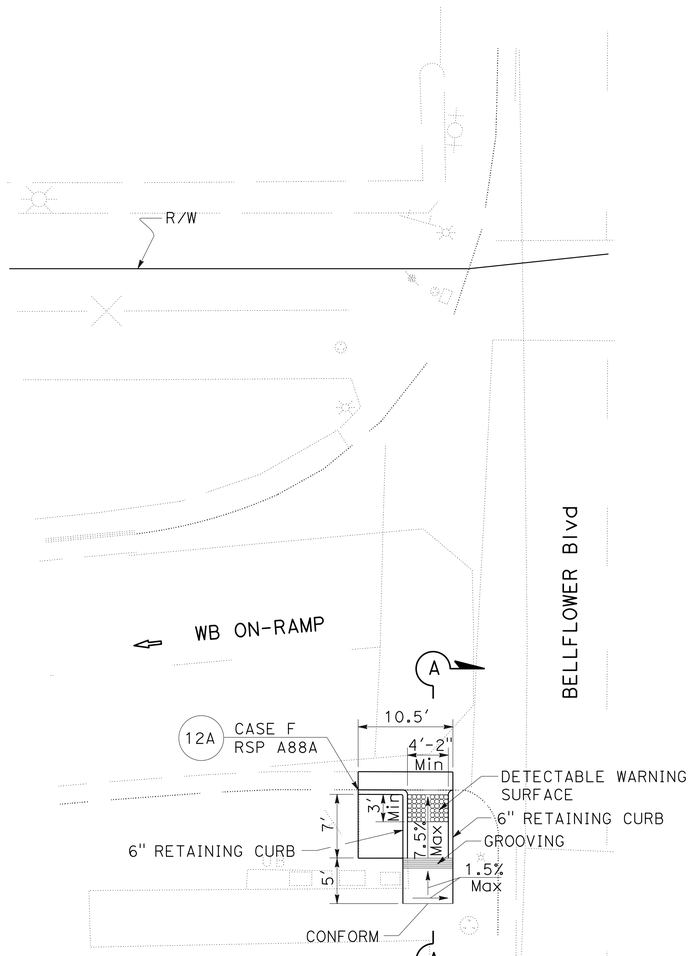
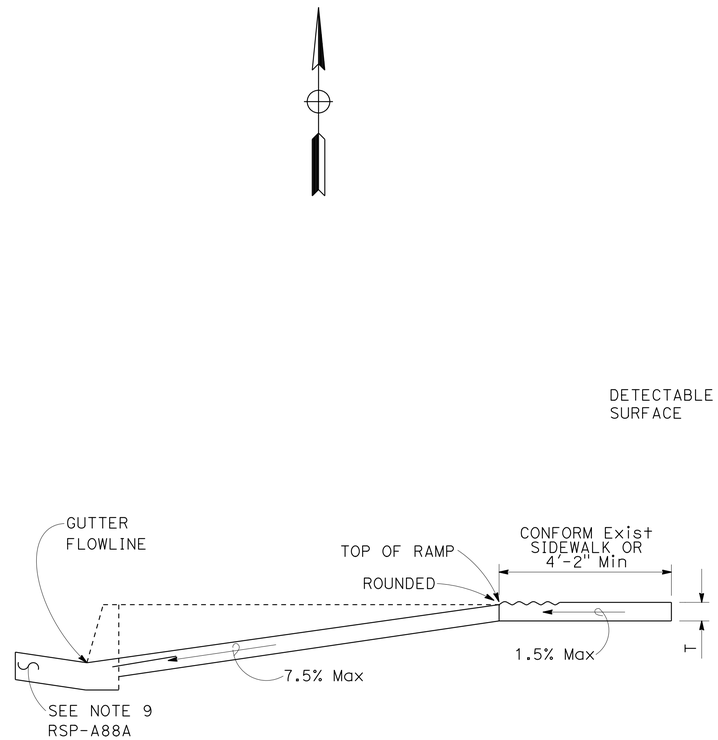
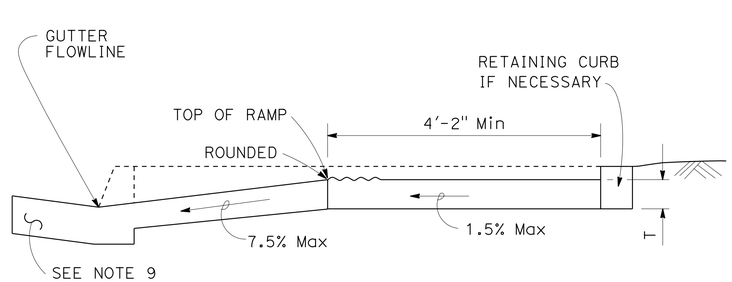


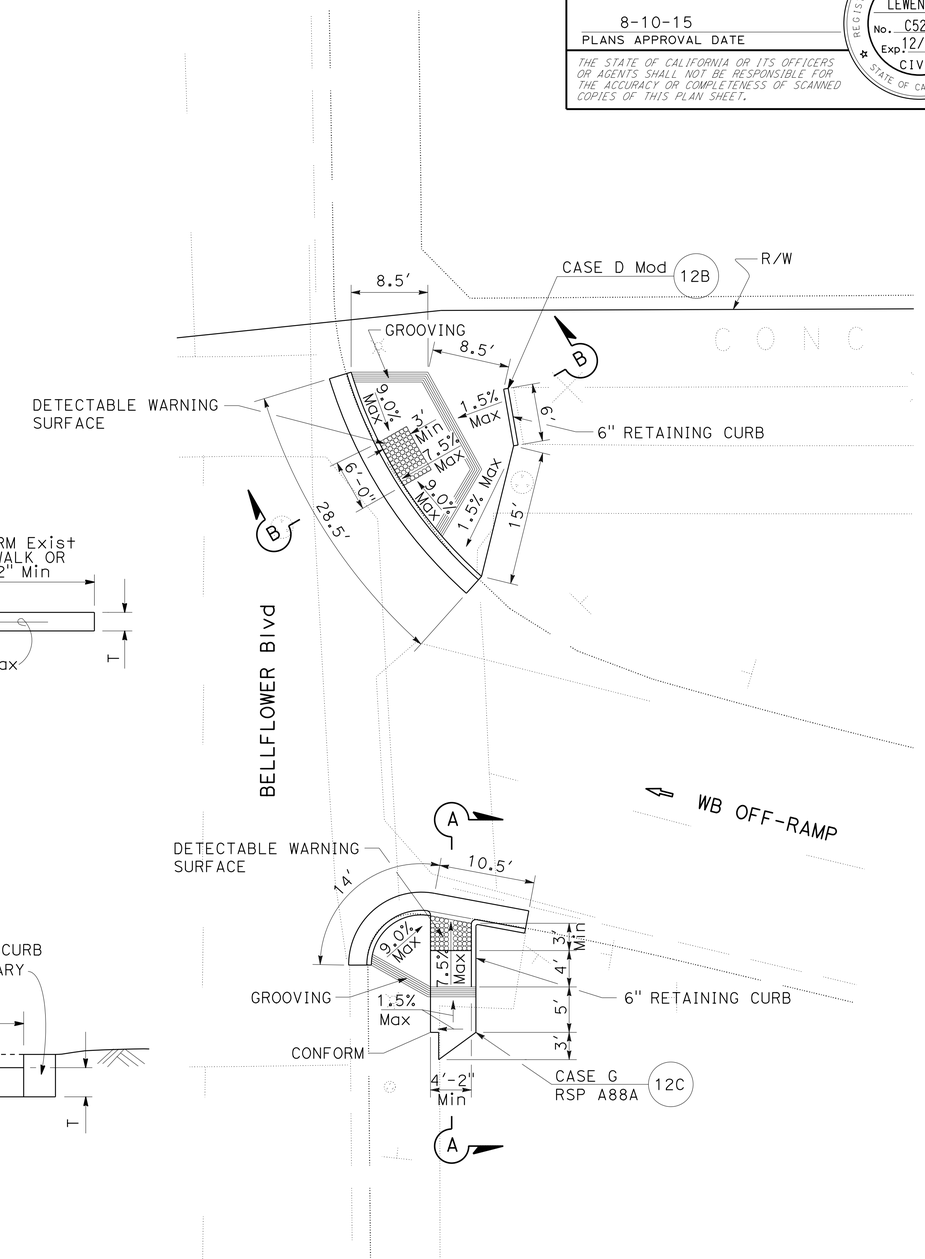


SECTION A-A



SECTION B-B

DEPRESS ENTIRE SIDEWALK AS REQUIRED



CONSTRUCTION DETAILS

NO SCALE

C-11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-4-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	28	192

REGISTERED CIVIL ENGINEER — DATE: 6-18-15

PLANS APPROVAL DATE: 8-10-15

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL — STATE OF CALIFORNIA

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1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS
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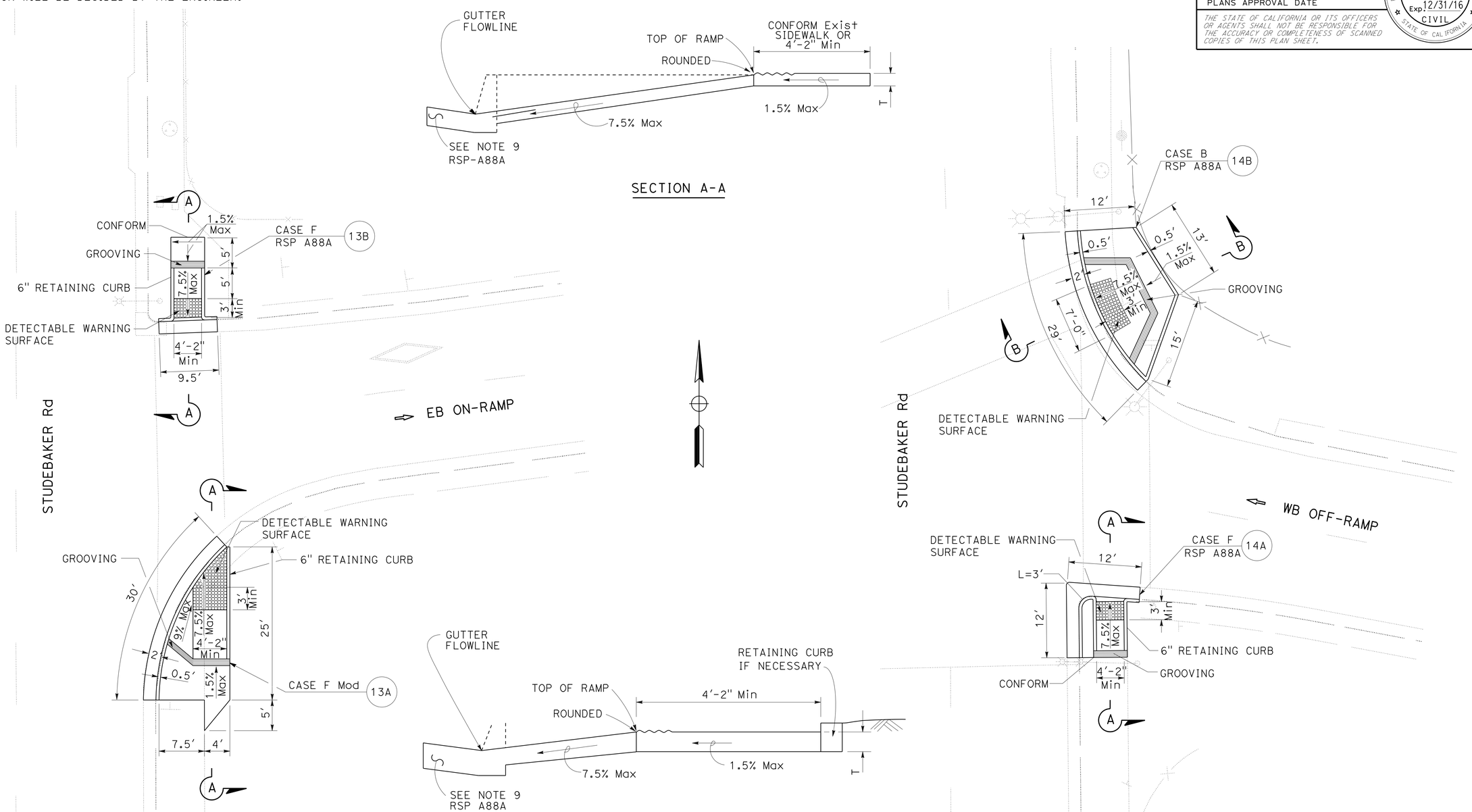

CONSTRUCTION DETAILS

NO SCALE

C-12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU

CALCULATED-DESIGNED BY: VINCENT VALIDO

CHECKED BY: LEWEN KUO

REVISED BY

DATE REVISED

LAST REVISION 12-30-13

DATE PLOTTED => 16-SEP-2015

TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	29	192

REGISTERED CIVIL ENGINEER — DATE 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL — STATE OF CALIFORNIA

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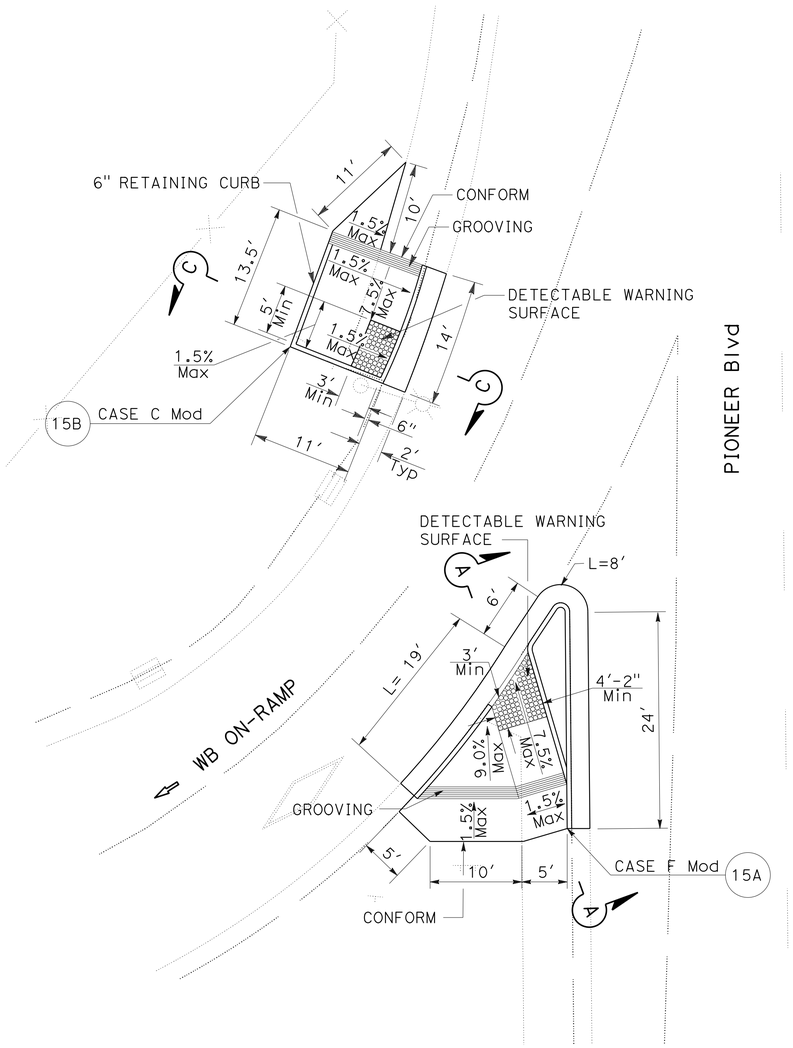
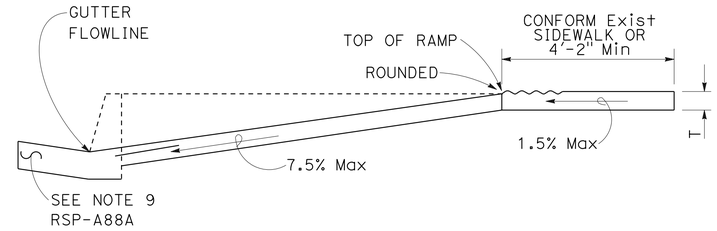
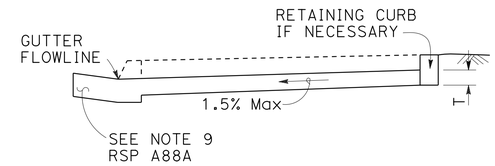
NOTE:

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS

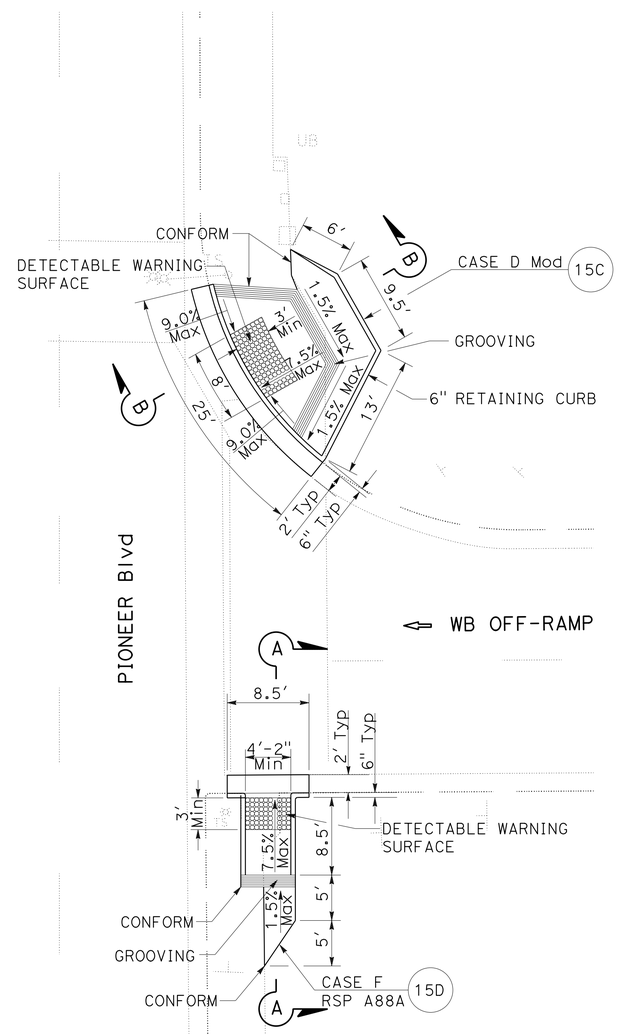


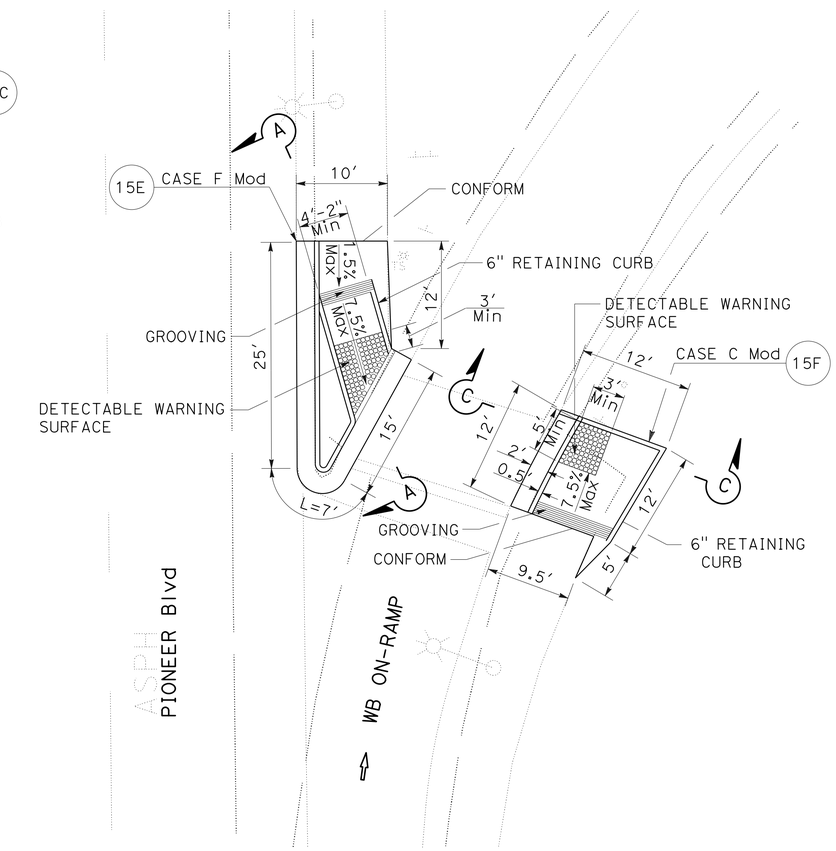


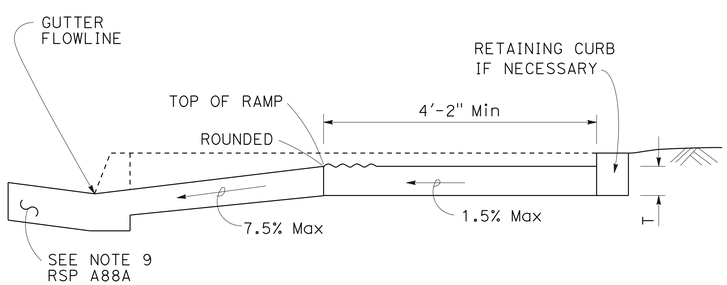
SECTION A-A



SECTION B-B







SECTION B-B

DEPRESS ENTIRE SIDEWALK AS REQUIRED

CONSTRUCTION DETAILS

NO SCALE

C-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 12-30-13 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	30	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

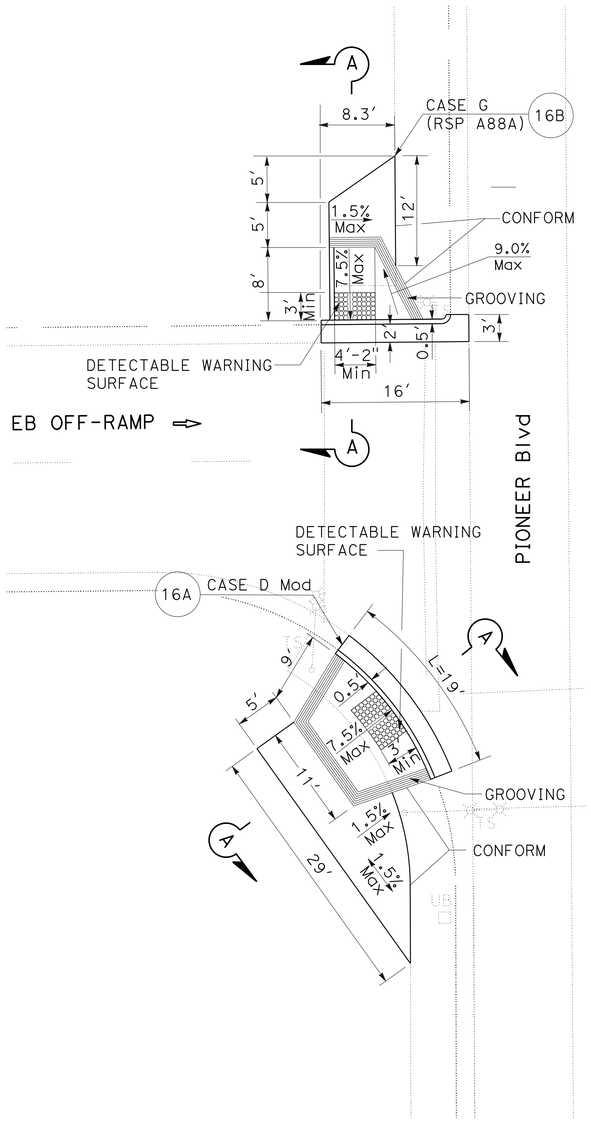
8-10-15
PLANS APPROVAL DATE

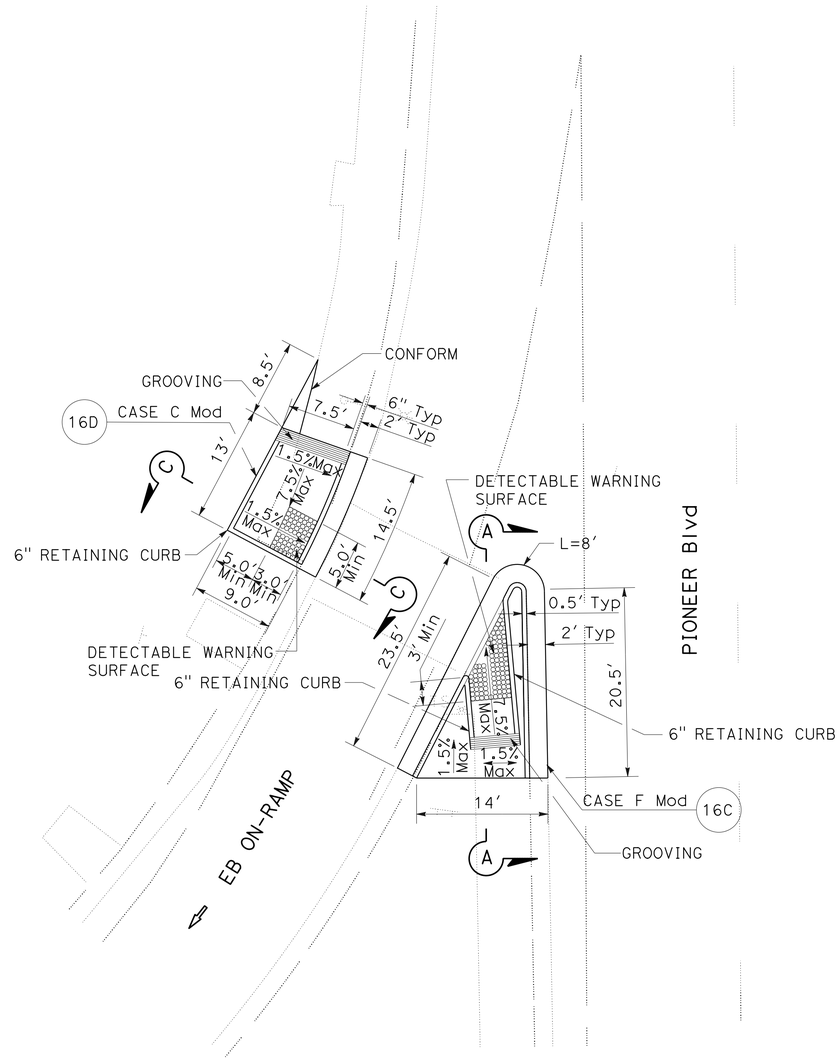
REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

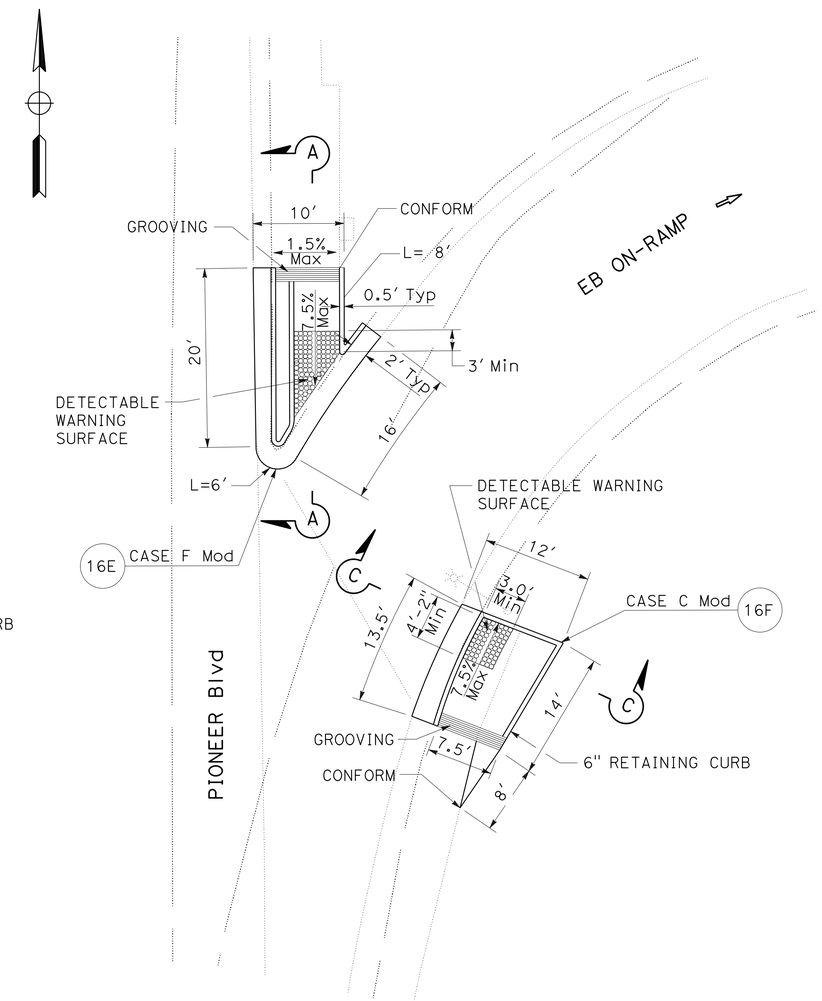
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

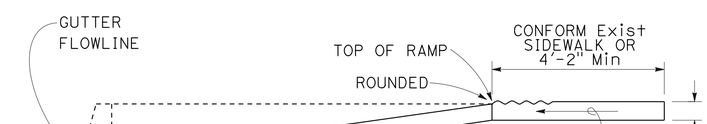
NOTES:

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS
2. THE LOCATION OF THE ROADSIDE SIGN TO BE RELOCATED DURING CONSTRUCTION WILL BE DECIDED BY THE ENGINEER.









SECTION A-A

SECTION B-B

CONSTRUCTION DETAILS

NO SCALE

C-14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	31	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

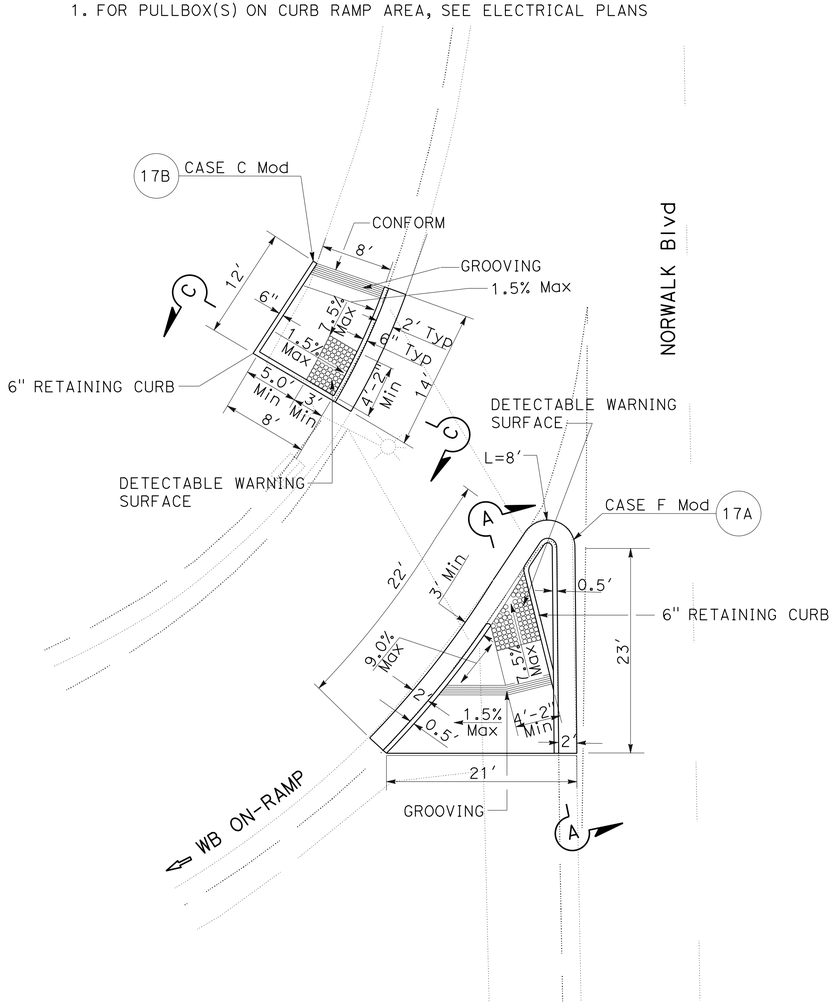
8-10-15
PLANS APPROVAL DATE

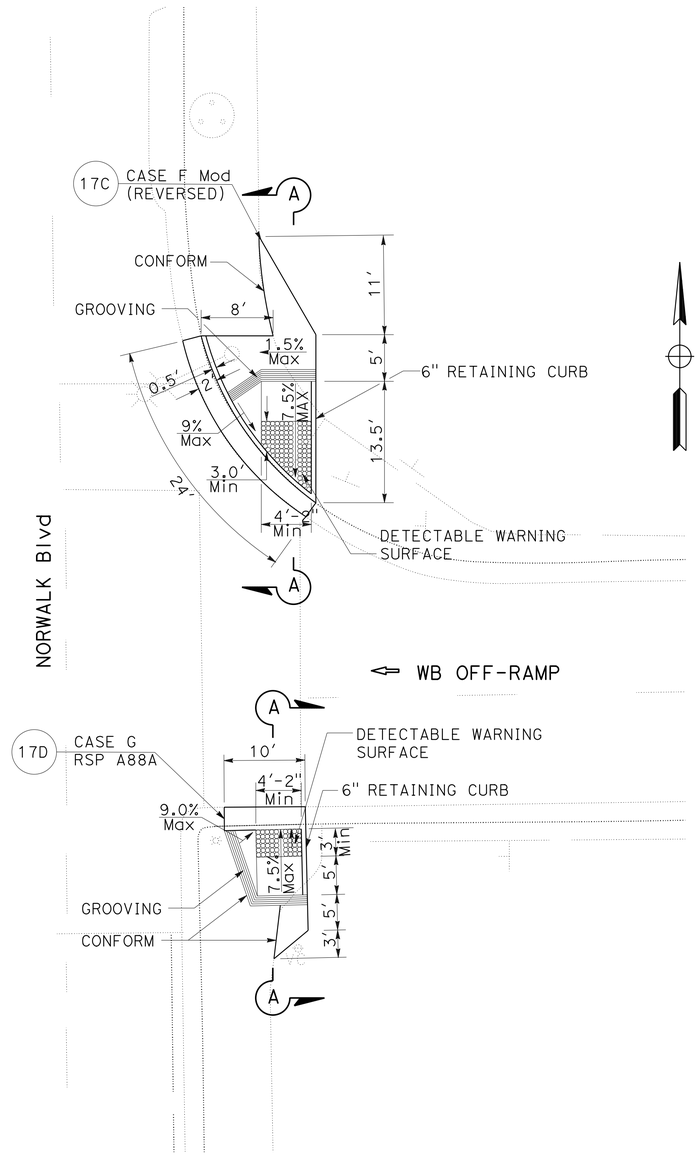
REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

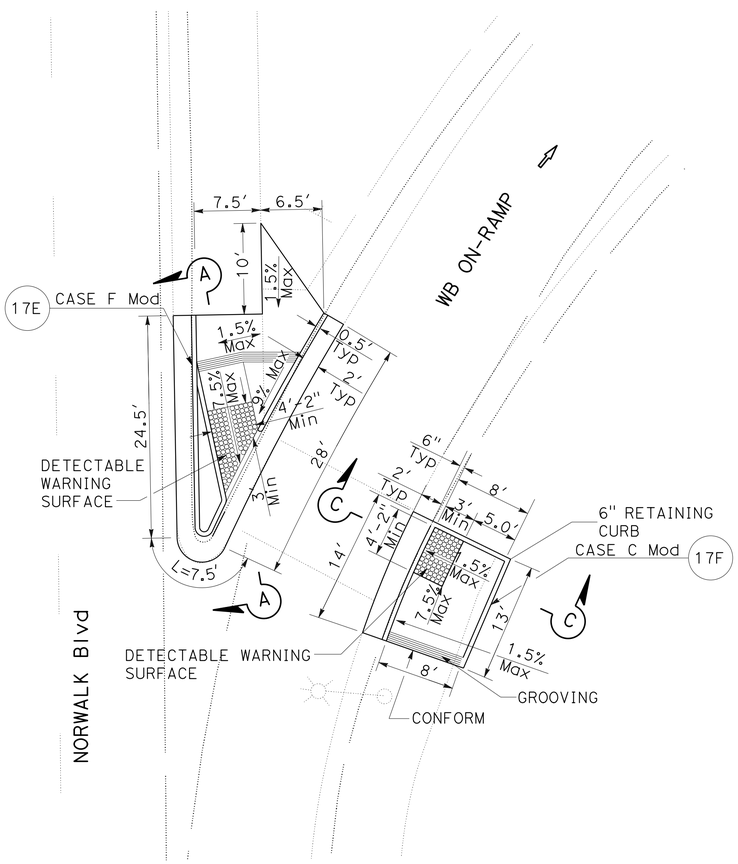
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

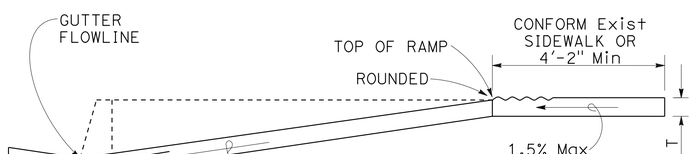
NOTE:

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS

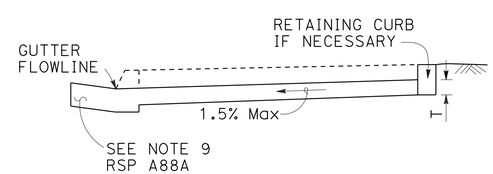








SECTION A-A



SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN
FUNCTIONAL SUPERVISOR M. OJI KALU
CALCULATED-DESIGNED BY VINCENT VALIDO
CHECKED BY LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	32	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

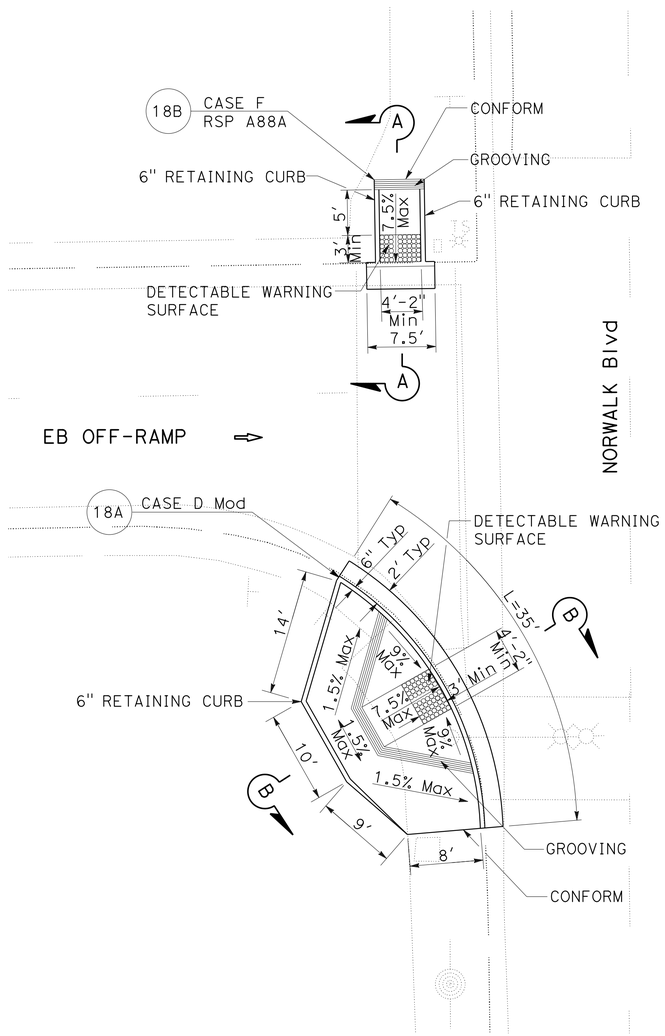
8-10-15
PLANS APPROVAL DATE

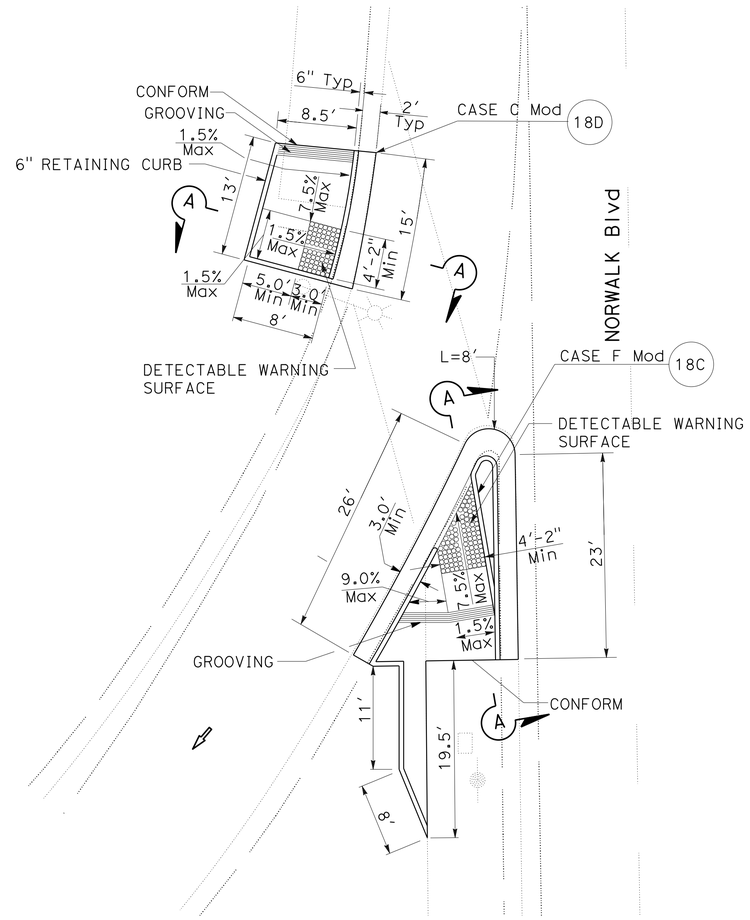
REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

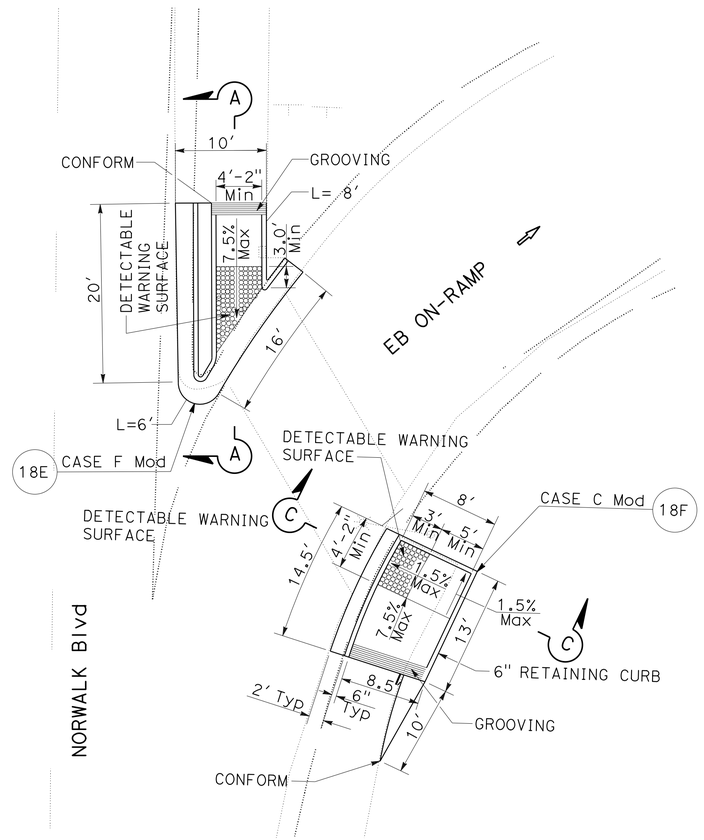
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

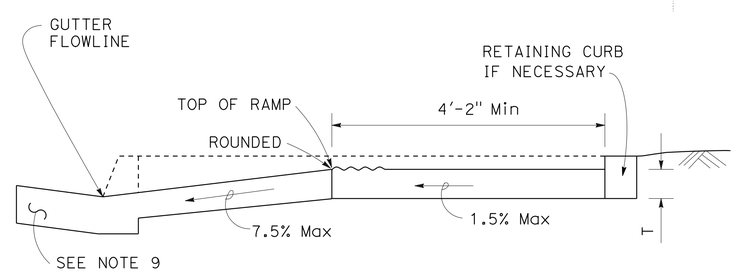
1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS
2. THE LOCATION OF THE ROADSIDE SIGN THAT WILL BE RELOCATED DURING CONSTRUCTION WILL BE DECIDED BY THE ENGINEER.





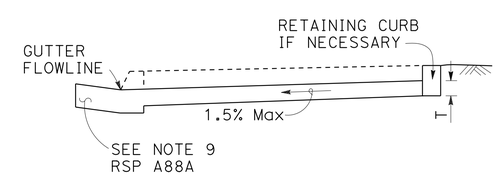


SECTION A-A



SECTION B-B

Depress entire sidewalk as required



SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR M. OJI KALU
CALCULATED-DESIGNED BY VINCENT VALIDO
CHECKED BY LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 12-30-13 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	33	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

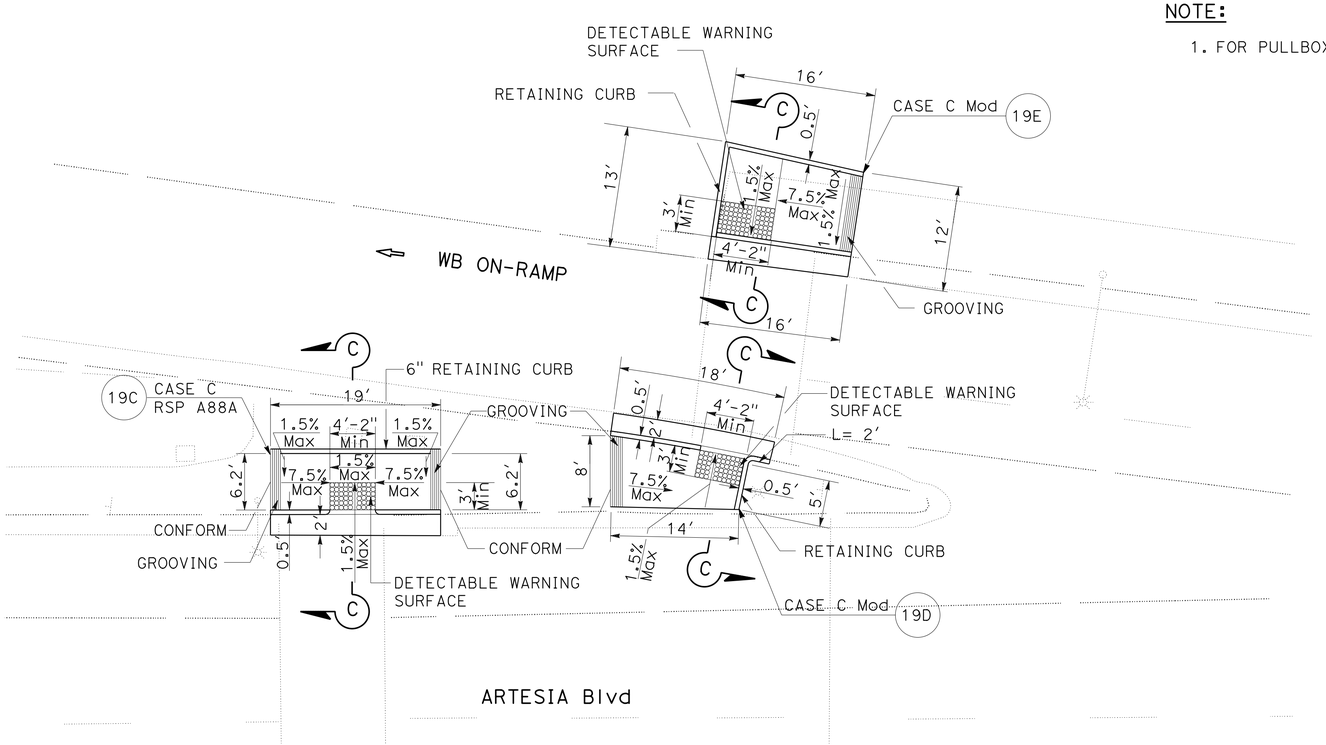
8-10-15
PLANS APPROVAL DATE

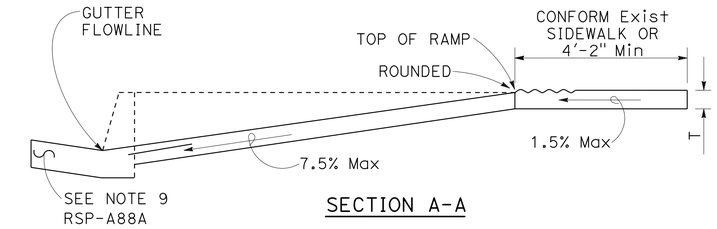
REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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.

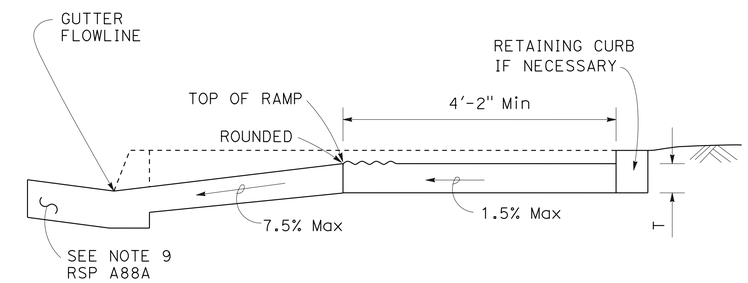
NOTE:

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS



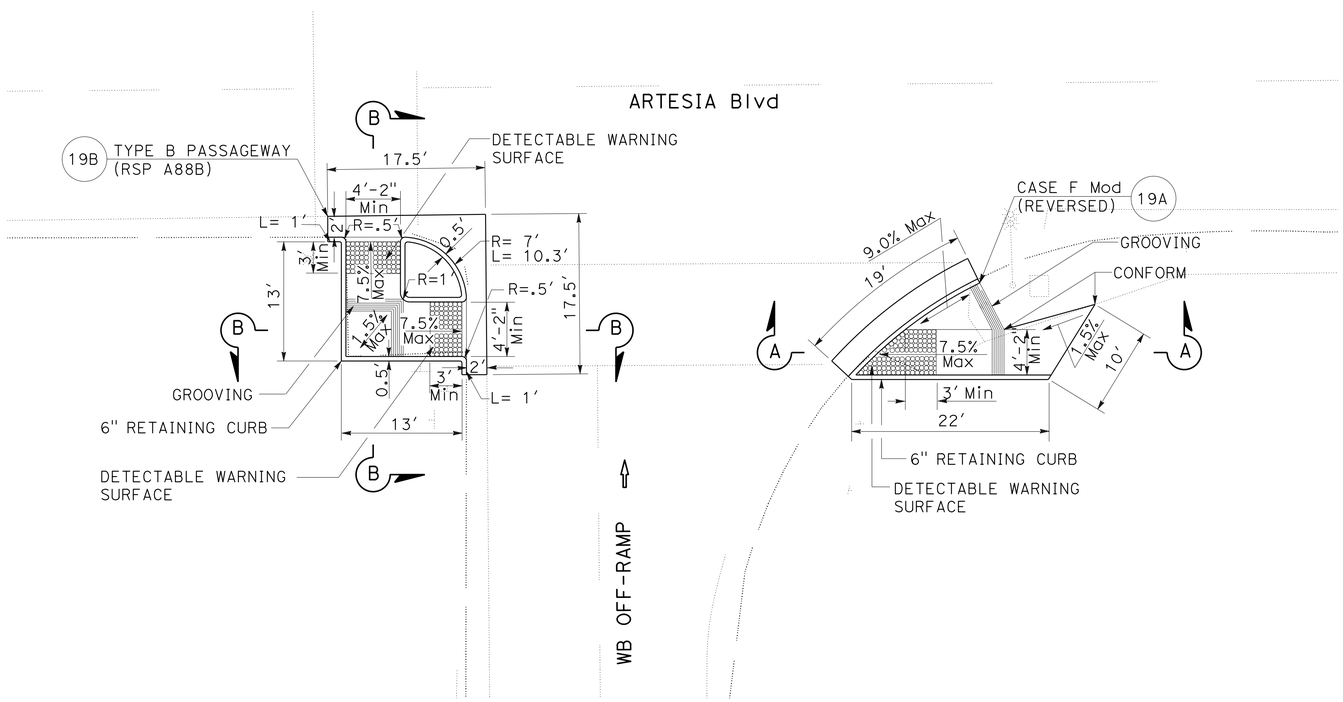


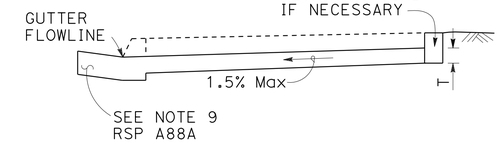
SECTION A-A



SECTION B-B

DEPRESS ENTIRE SIDEWALK AS REQUIRED





SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	34	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

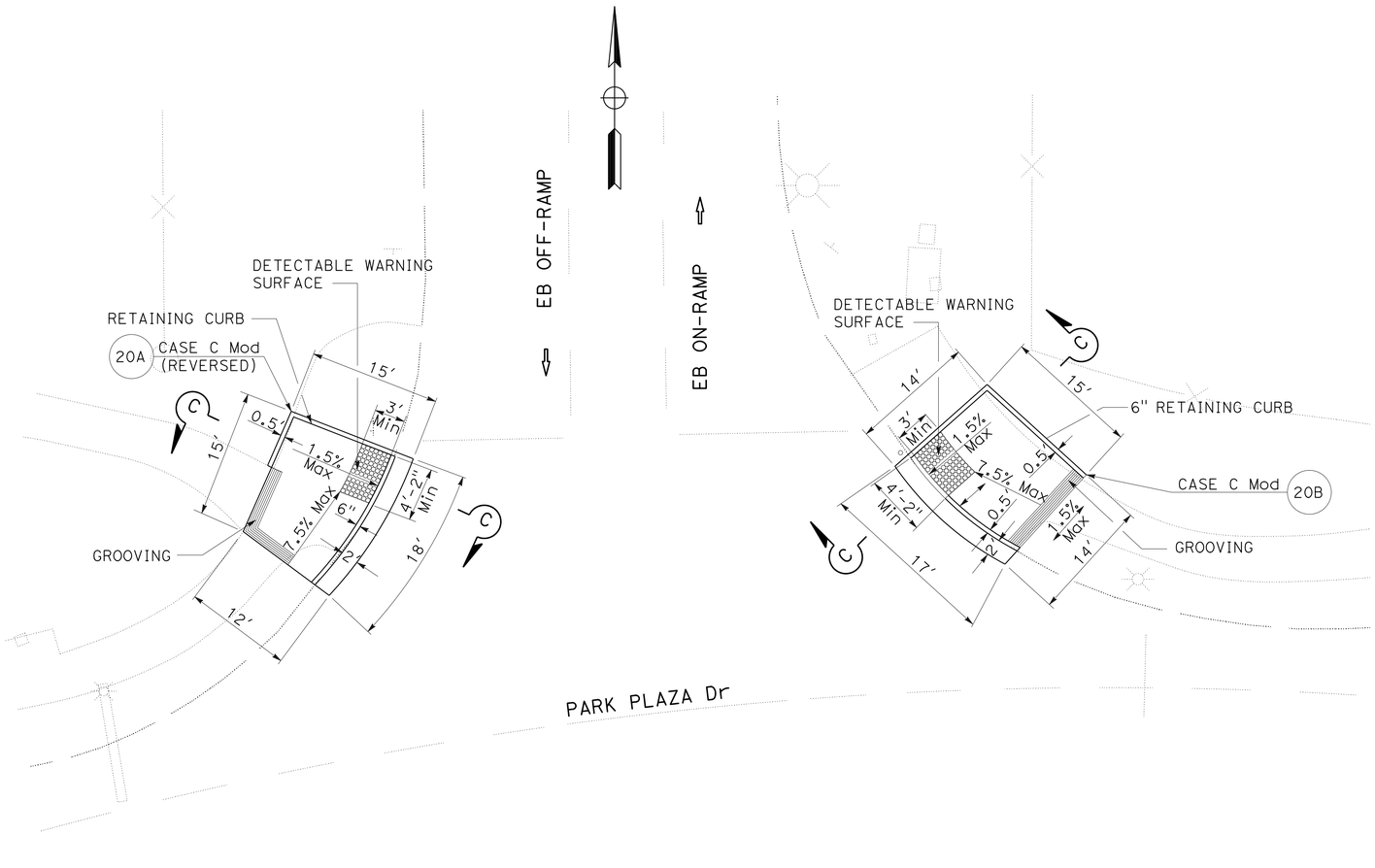
8-10-15
PLANS APPROVAL DATE

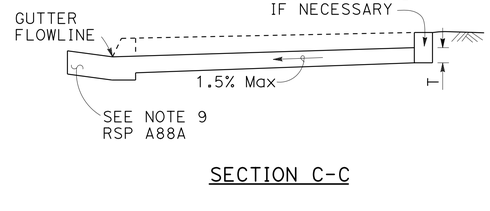
REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

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 PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS





SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-18

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 12-30-13
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	35	192

REGISTERED CIVIL ENGINEER — DATE: 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL — STATE OF CALIFORNIA

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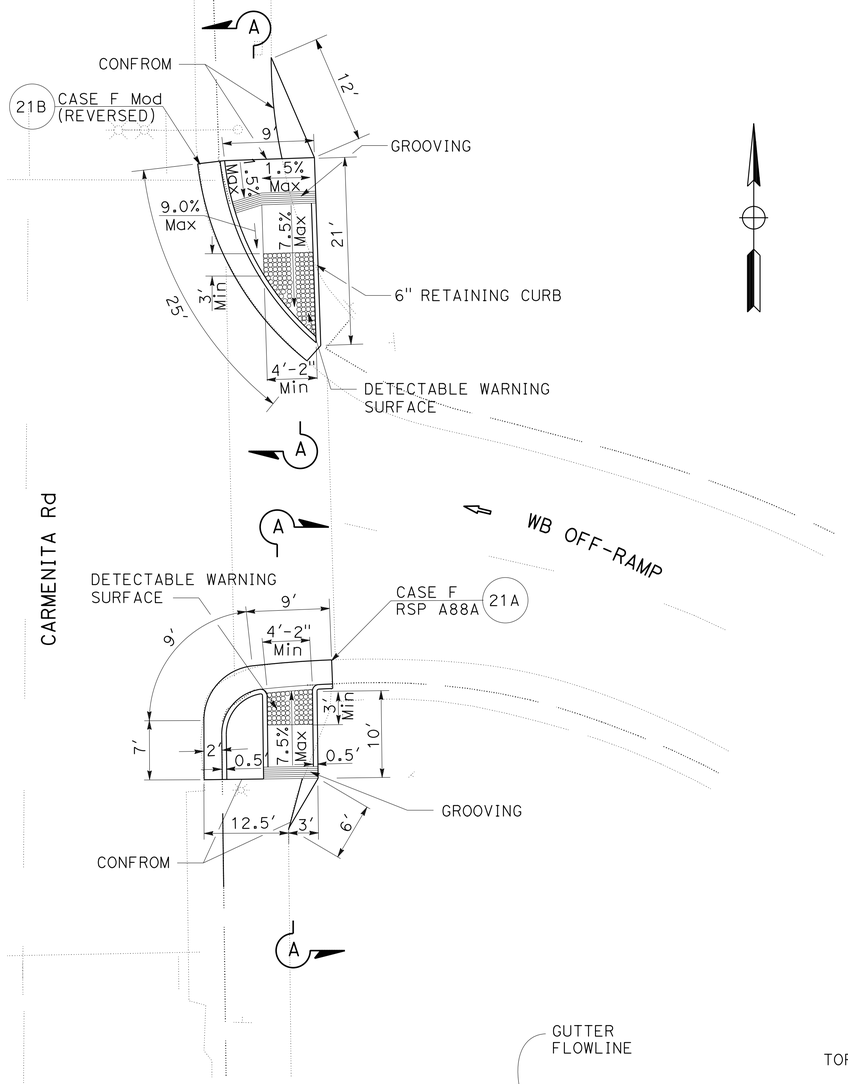
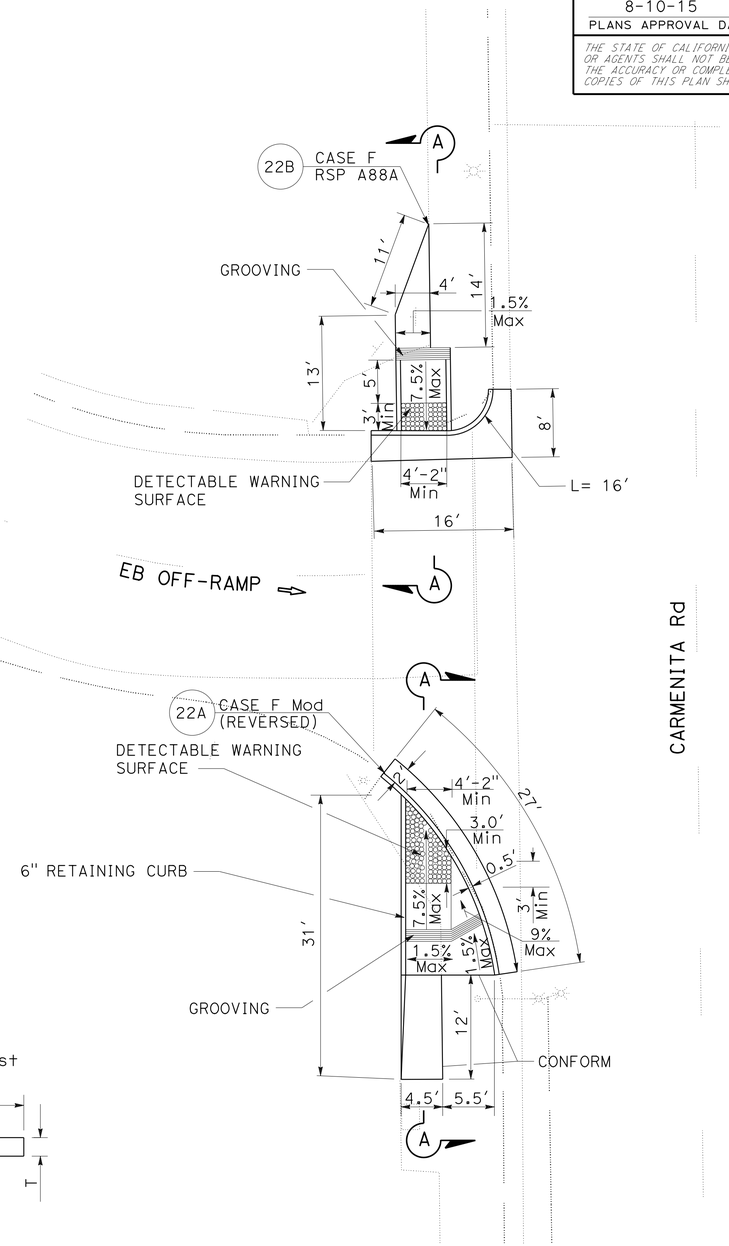
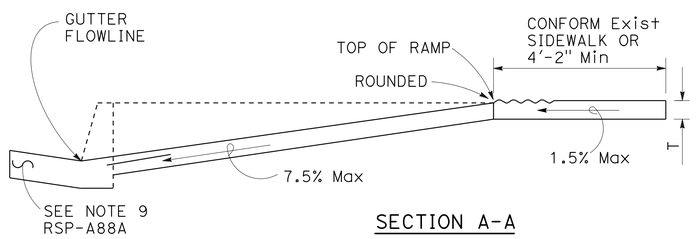
NOTE:

1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS







SECTION A-A

CONSTRUCTION DETAILS

NO SCALE

C-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY / DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	36	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

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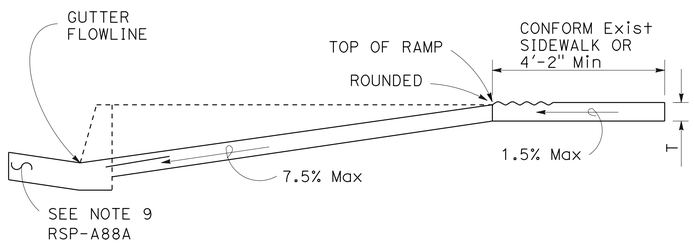
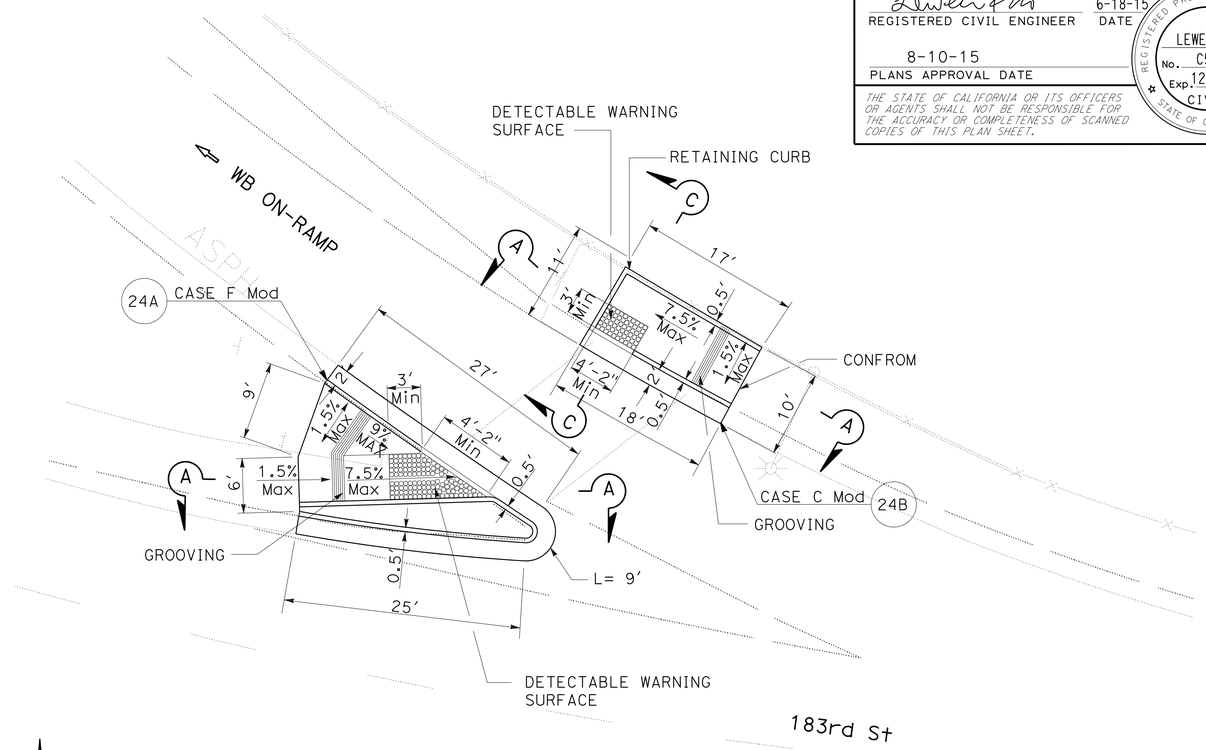
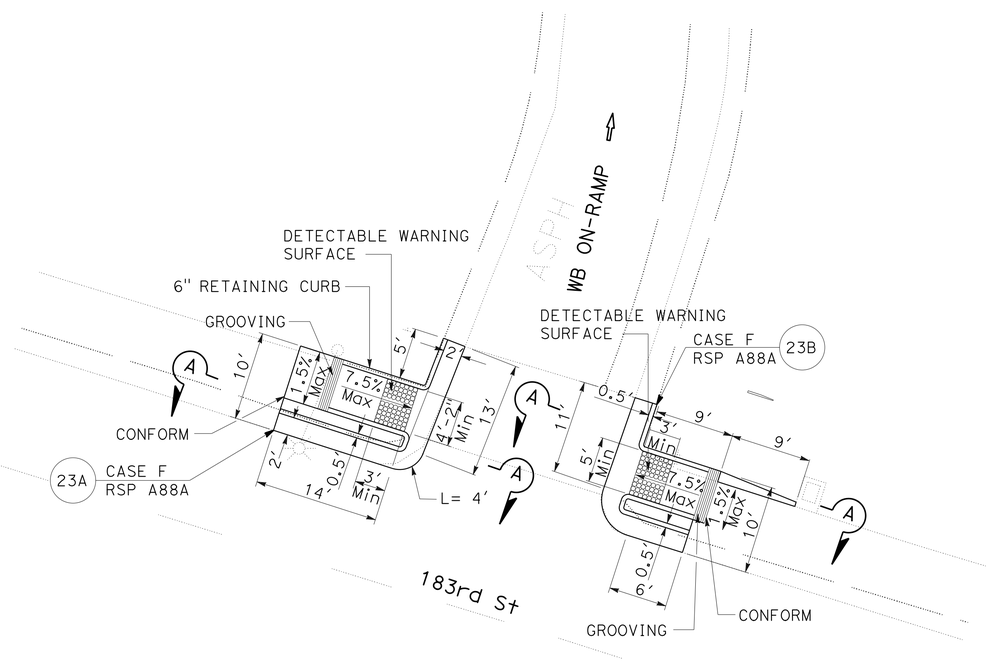
NOTES:

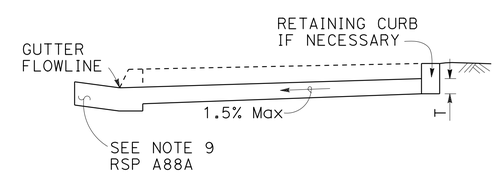
1. FOR PULLBOX(S) ON CURB RAMP AREA, SEE ELECTRICAL PLANS
2. THE LOCATION OF THE ROADSIDE SIGN THAT WILL BE RELOCATED DURING CONSTRUCTION WILL BE DECIDED BY THE ENGINEER.



SECTION A-A







SECTION C-C

CONSTRUCTION DETAILS

NO SCALE

C-20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-5-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	37	192

REGISTERED CIVIL ENGINEER — DATE 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 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.

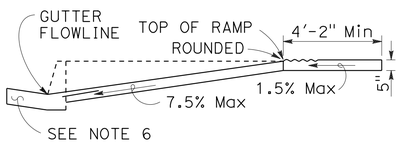
NOTES:

1. UTILITY PULL BOXES AND PED PUSH BUTTONS (PPB) WILL BE ADJUSTED TO GRADE AND OUTSIDE THE AREA OF DETECTABLE WARNING SURFACE (DWS) PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION.
2. DETECTABLE WARNING SURFACE MAY HAVE TO BE CUT TO ALLOW REMOVAL OF UTILITY COVERS WHILE MAINTAINING FULL DETECTABLE WARNING WIDTH AND DEPTH.
3. AS SITE CONDITIONS DICTATE AND/OR DUE TO SOME LIMITING FACTOR AS A RESULT OF PRE-CONSTRUCTION FIELD SURVEY , ANY MODIFIED CASE COULD BE SUBSTITUTED TO REPLACE WHAT IS SHOWN AND RECOMMENDED ON THE PLAN.
4. IF NECESSARY, FLARE OR EXTEND RETAINING CURB AND CURB RAMPS FROM BACK OF EXISTING SIDEWALK WITHIN THE STATE R/W TO ATTAIN OR EXCEED THE MINIMUM WIDTH REQUIREMENTS.
5. IN LOCATIONS WHERE MINIMUM 7% SLOPE RAMP REQUIREMENT IS NOT ATTAINABLE DUE TO EXISTING LIMITING ROADWAY SLOPE, A MINIMUM OF 15 FT LENGTH OF RAMP LENGTH IS REQUIRED TO CONFORM.
6. FOR OTHER DETAILS AND NOTES NOT SHOWN, SEE REVISED STANDARD PLAN A88A AND A88B

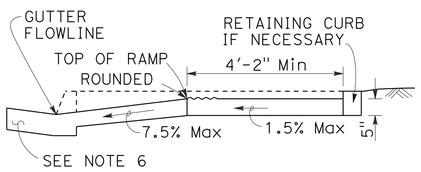
LEGEND:

- Exist PPB (PEDESTRIAN PUSH BUTTON) POST

DWS - DETECTABLE WARNING SURFACE

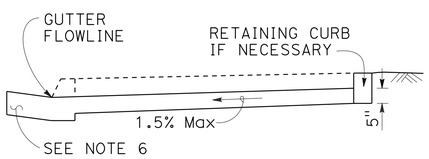


SECTION A-A

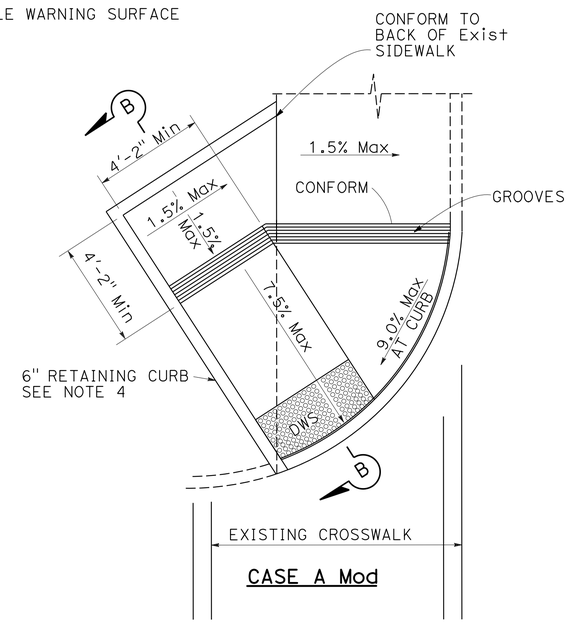


SECTION B-B

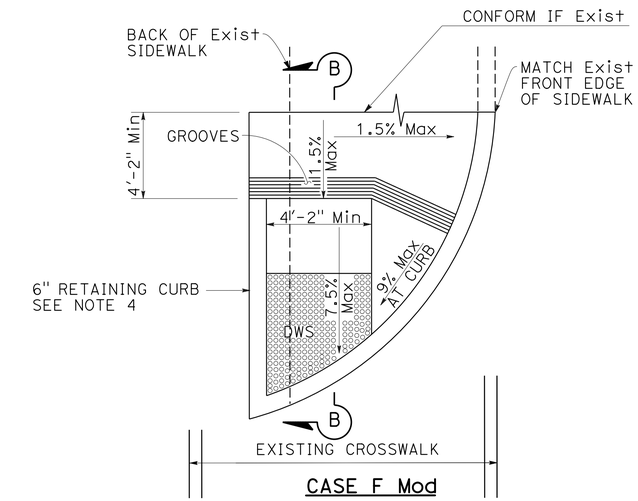
Depress entire sidewalk as required



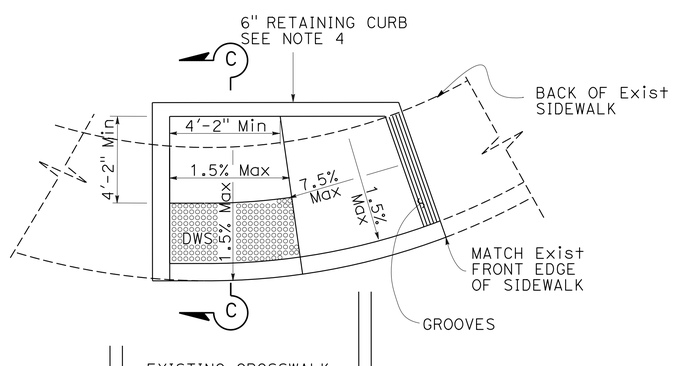
SECTION C-C



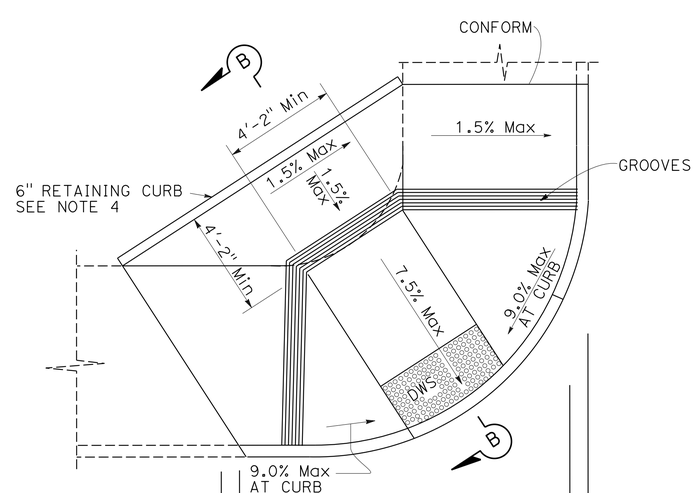
CASE A Mod



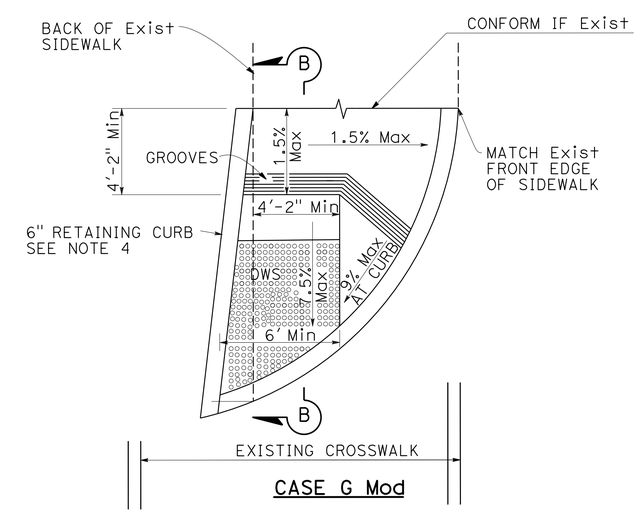
CASE F Mod



CASE C Mod



CASE D Mod



CASE G Mod

CURB RAMPS

CONSTRUCTION DETAILS

NO SCALE

C-21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans — DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU

CALCULATED-DESIGNED BY: VINCENT VALIDO — CHECKED BY: LEWEN KUO

REVISED BY — DATE REVISED

LAST REVISION 06-05-15 — DATE PLOTTED => 16-SEP-2015 — TIME PLOTTED => 13:54

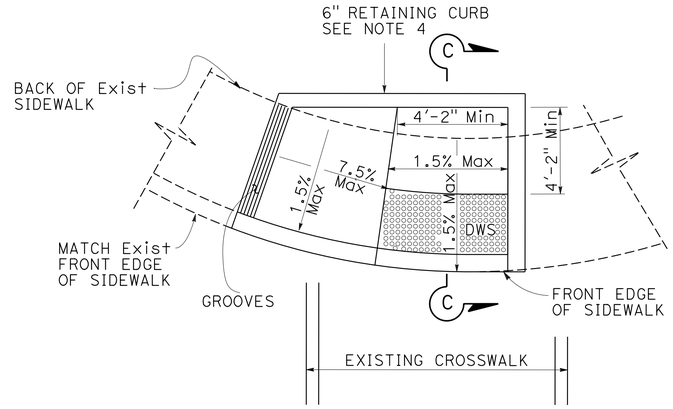
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	38	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

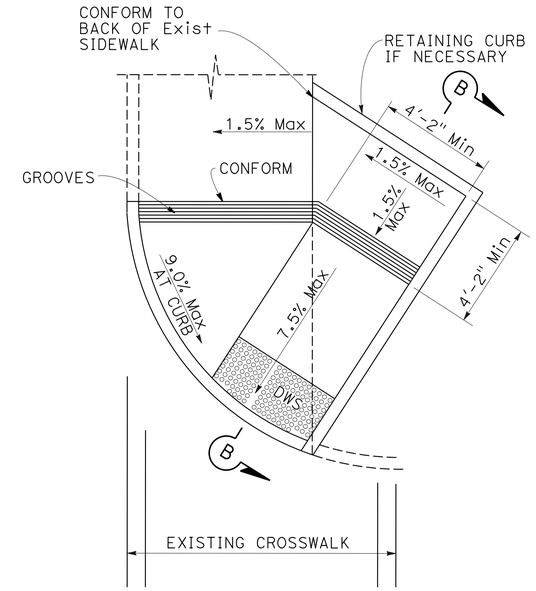
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

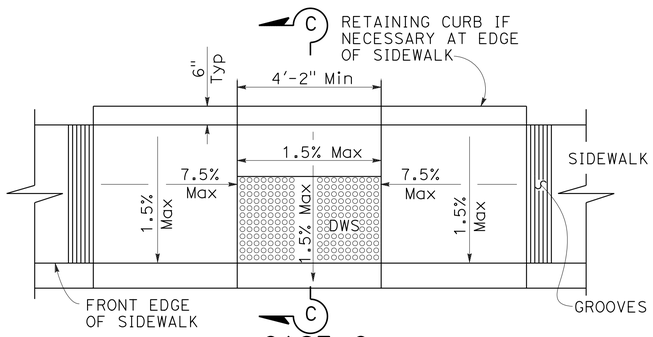
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



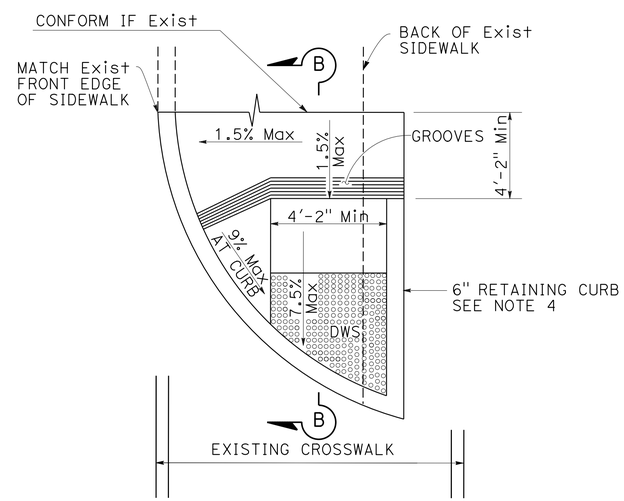
CASE C Mod (REVERSED)



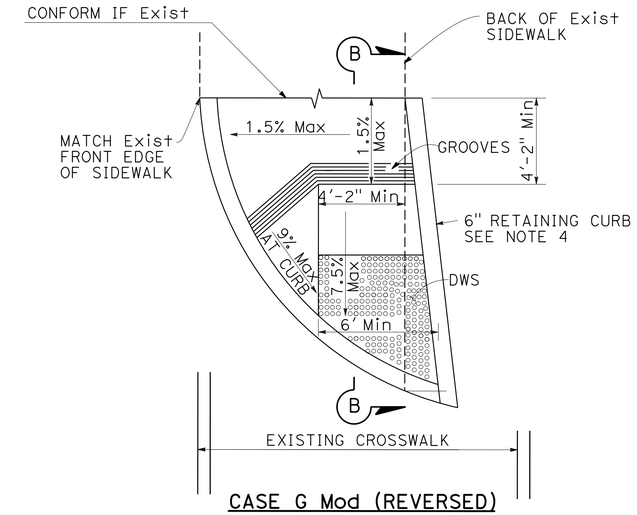
CASE A Mod (REVERSED)



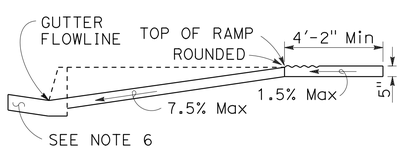
CASE C



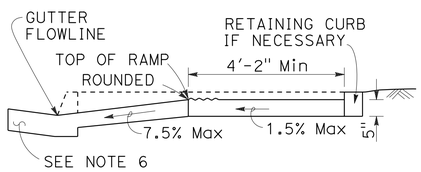
CASE F Mod (REVERSED)



CASE G Mod (REVERSED)

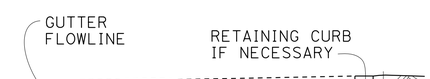


SECTION A-A



SECTION B-B

Depress entire sidewalk as required



SECTION C-C

CURB RAMPS

CONSTRUCTION DETAILS

NO SCALE

C-22

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	39	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

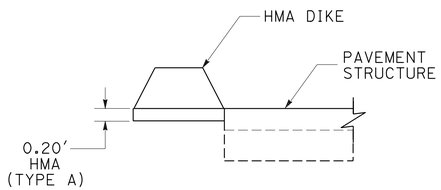
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

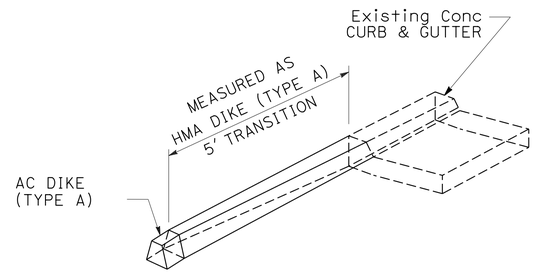
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR HMA SHOULDERS ONLY, EXTEND TOP LAYER OF HMA PLACED ON THE SHOULDER UNDER DIKE WITH NO JOINT AT THE ES. FOR PROJECTS WITH OGFC SHOULDERS, DO NOT EXTEND OGFC UNDER DIKE. SEE PROJECT PLANS FOR MODIFIED DIKE DETAIL.
2. FILL AND COMPACT WITH EXCAVATED MATERIAL TO TOP OF DIKE.

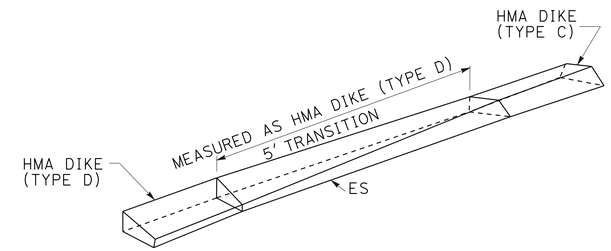


HMA DIKE



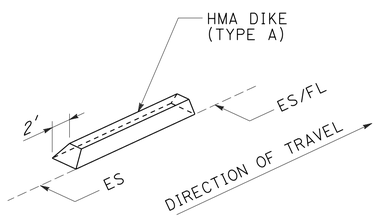
HMA DIKE TRANSITION

BETWEEN Conc CURB & GUTTER AND Exist AC DIKE (TYPE A) OR (TYPE A)(Mod)



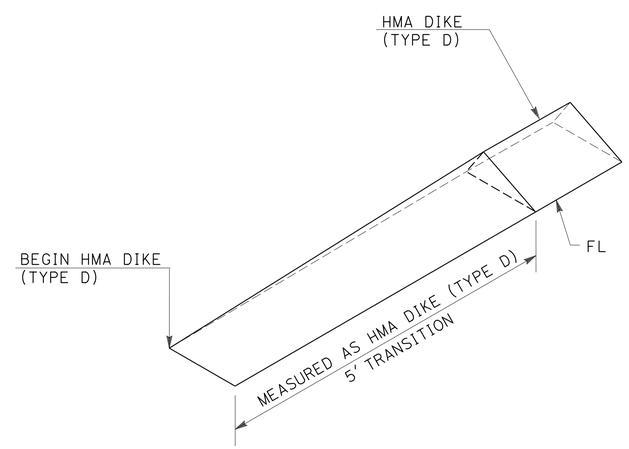
HMA DIKE TRANSITION

(TYPE C) TO (TYPE D)



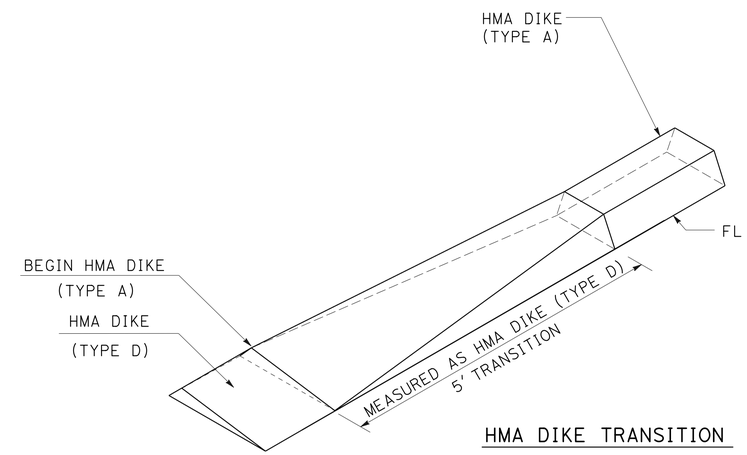
HMA DIKE TRANSITION

END DETAIL OF HMA DIKE (TYPE A)



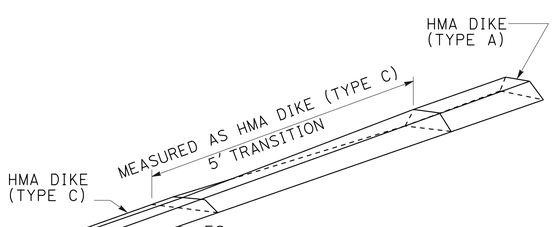
HMA DIKE TRANSITION

END HMA DIKE (TYPE D)



HMA DIKE TRANSITION

(TYPE D) TO (TYPE A)



HMA DIKE TRANSITION

(TYPE C) TO (TYPE A)

CURB AND HMA DIKE TRANSITIONS

CONSTRUCTION DETAILS

NO SCALE

C-23

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY / DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	40	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

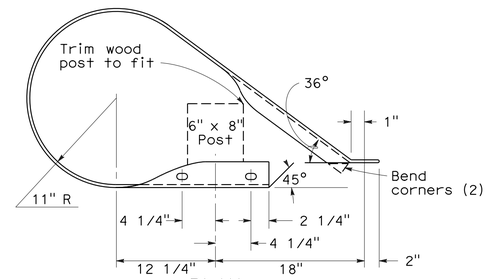
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

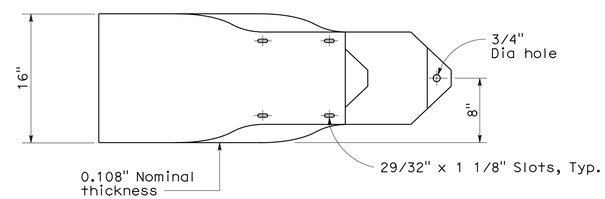
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. Slotted hole for bolted connection of rail element to block and post.

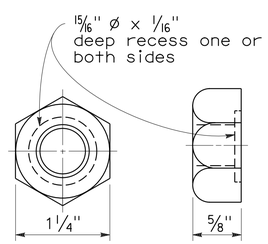


PLAN

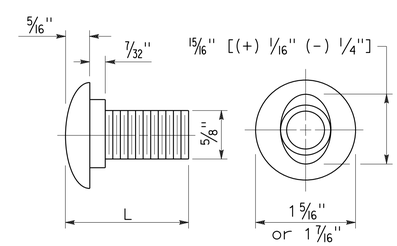


ELEVATION

END CAP
(TYPE C)



5/8" ø RECESS NUT



5/8" ø BUTTON HEAD BOLT

L	THREAD LENGTH
1 3/8"	full thread length
2"	full thread length
10"	4" Min thread length
1'-6"	4" Min thread length
** 2 3/4"	2" Min thread length
** 1'-7"	4" Min thread length

** For nested rail applications.

CONSTRUCTION DETAILS

NO SCALE

C-24

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY / DATE REVISED

LAST REVISION 3-17-14
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

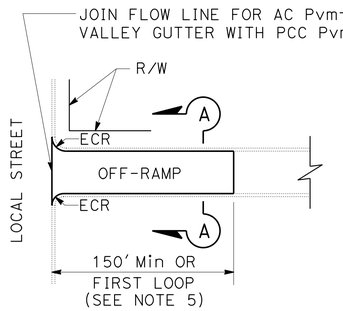
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	41	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

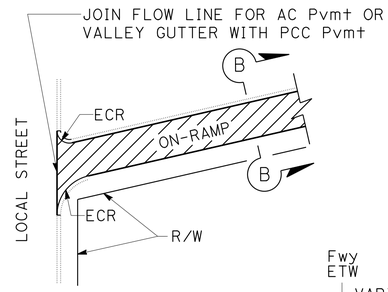
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 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.



PCC RAMP TERMINUS
OFF-RAMP



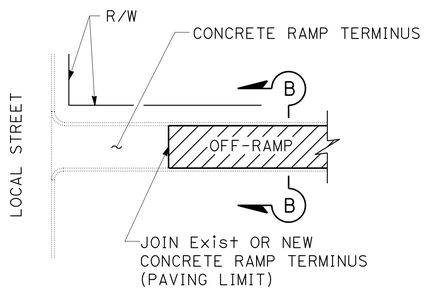
ON-RAMP

ABBREVIATION:

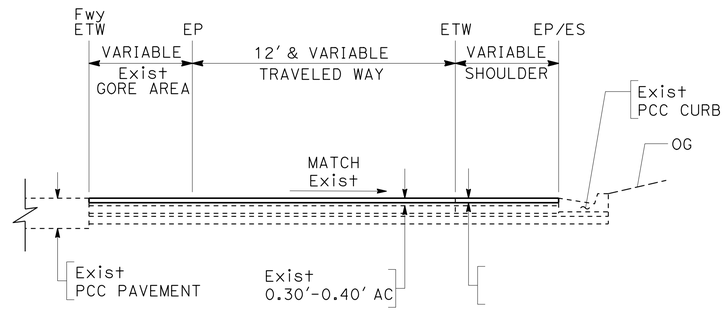
RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADE)

LEGEND:

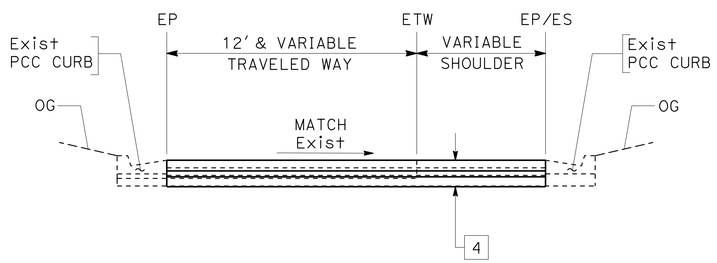
0.15' COLD PLANE AC PAVEMENT
0.15' RHMA-G



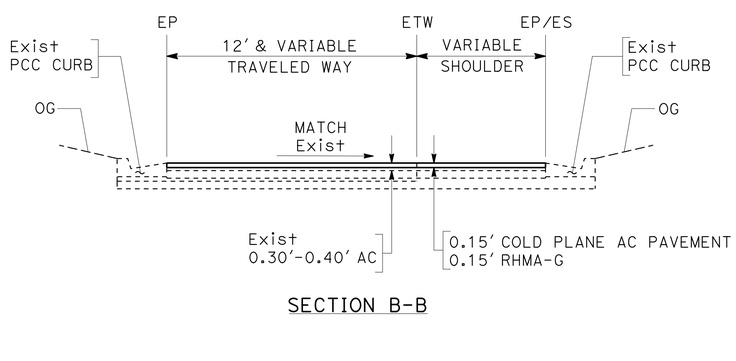
OFF-RAMP



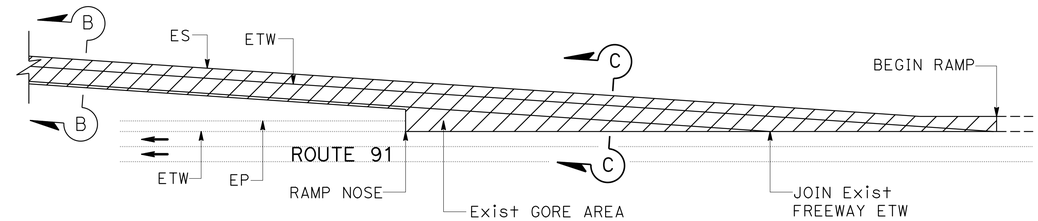
SECTION C-C



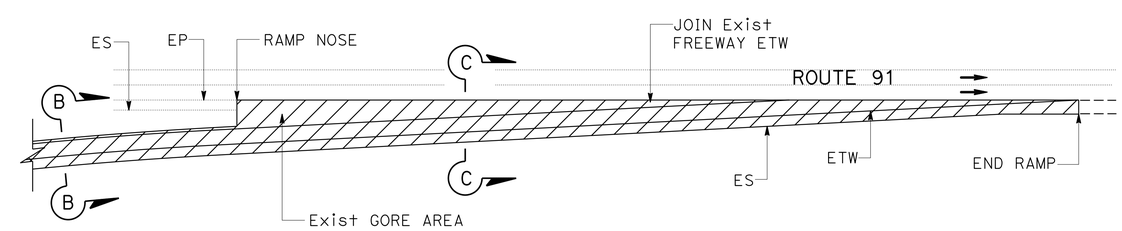
SECTION A-A



SECTION B-B



OFF-RAMP



ON-RAMP

NOTES:

1. FOR ACCURATE ACCESS RIGHT OF WAY DATA CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. Exist UTILITY FACILITIES AND DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. EXACT PAVING LIMITS WILL BE DETERMINED BY THE ENGINEER.
4. OMIT COLD PLANING AND AC ON BRIDGE DECKS, PCC RAMP TERMINI AND PCC PAVEMENT.
5. 150' MINIMUM FOR UNSIGNALIZED INTERSECTION OR THE FIRST LOOP FOR SIGNALIZED INTERSECTION

TYPICAL RAMP PAVING DETAILS

CONSTRUCTION DETAILS

NO SCALE

C-25

REVISED BY | DATE REVISED
VINCENT VALIDO | LEWEN KUO
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | M. OJI KALU
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	42	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

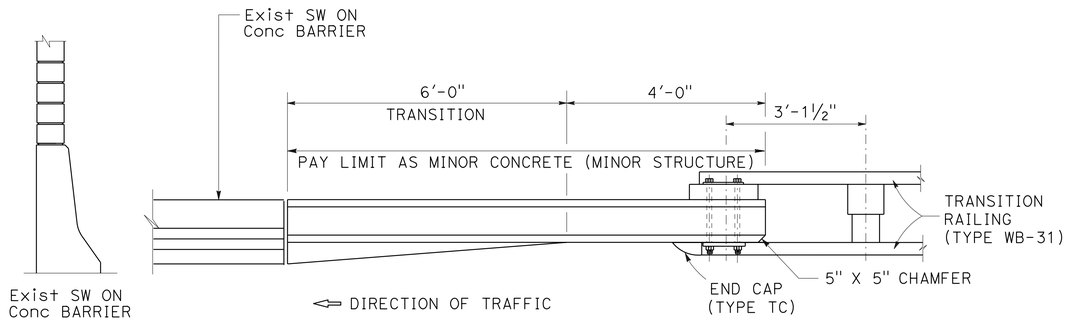
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

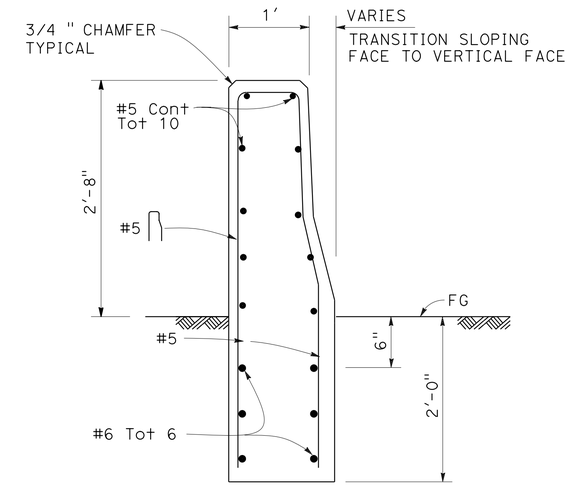
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

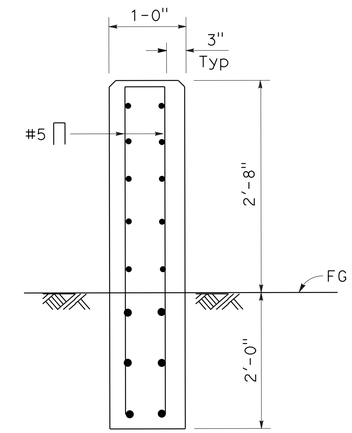
1. FOR DETAILS NOT SHOWN, SEE STANDARD PLANS.
2. VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIAL.
3. ALL PLATES AND BOLTS ARE GALVANIZED.
4. CUT AND REMOVE RAILING AS REQUIRED.



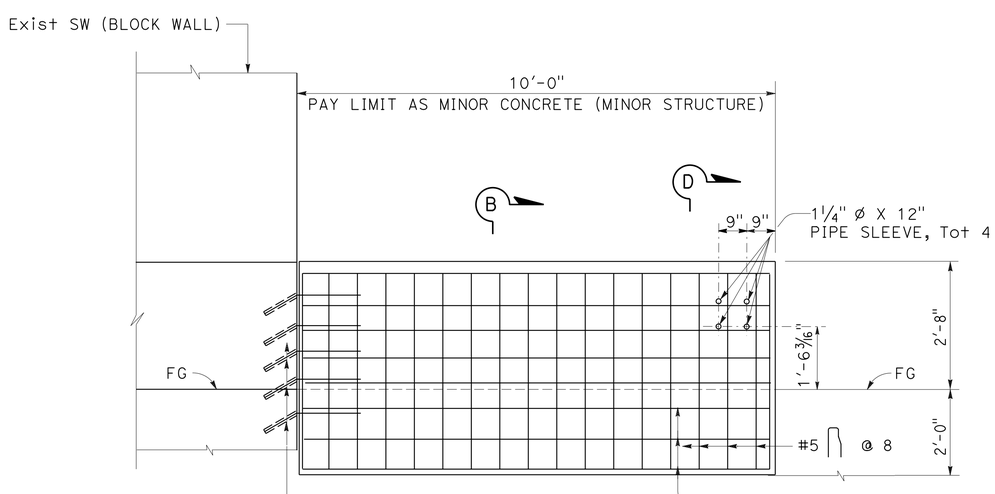
PLAN



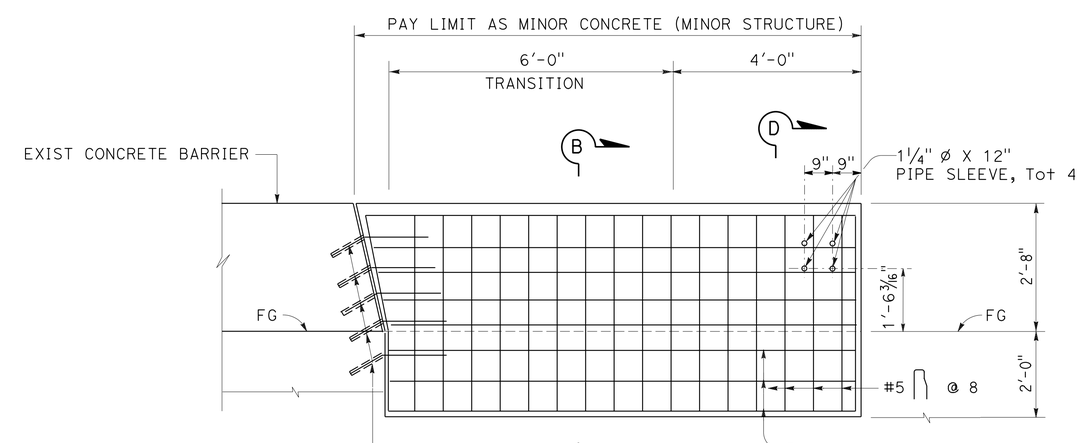
SECTION B-B



SECTION D-D



ELEVATION



ELEVATION

CONSTRUCTION DETAILS

NO SCALE

C-26

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN
FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY / DATE REVISED

LAST REVISION 03-23-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

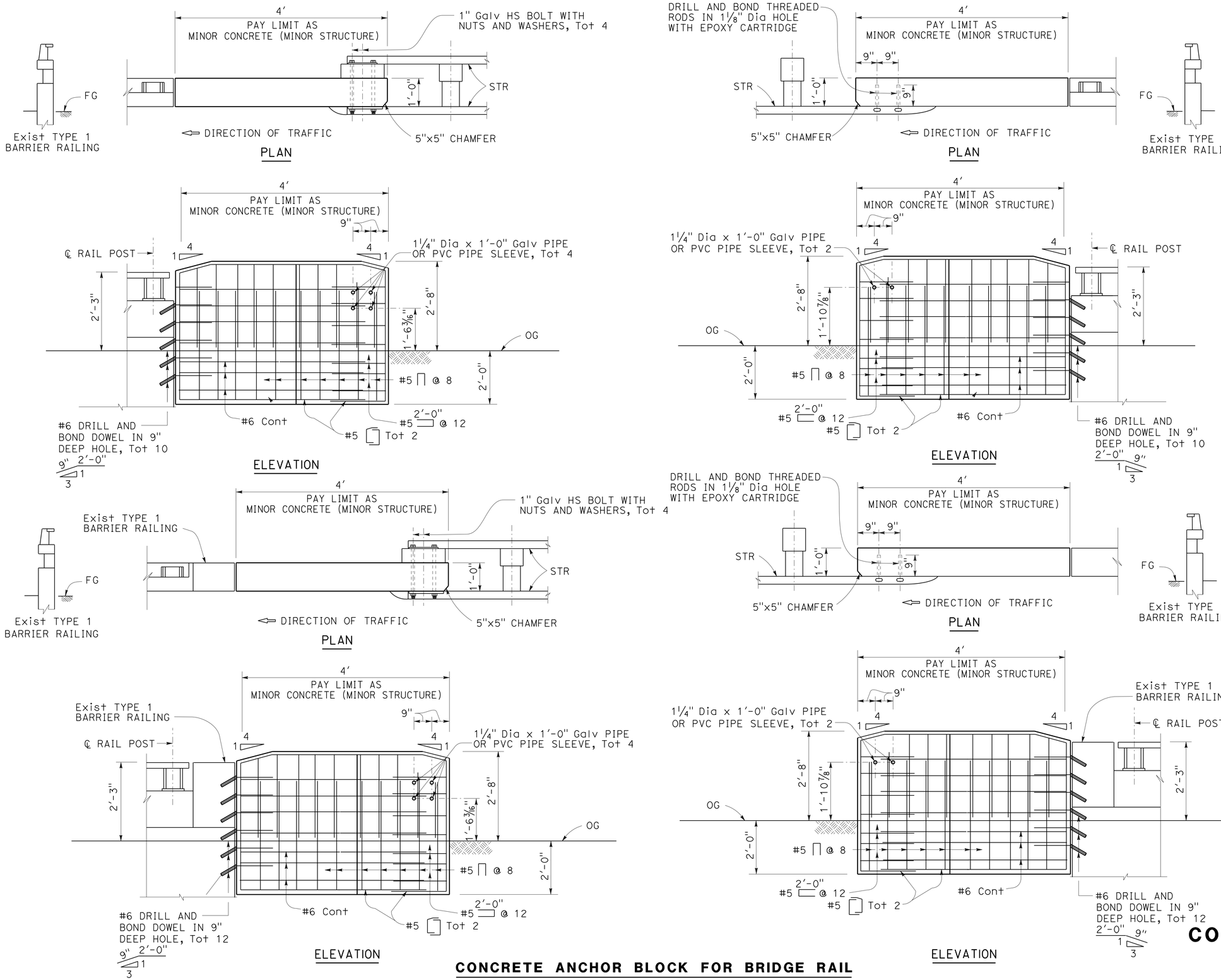
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	43	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 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.



CONCRETE ANCHOR BLOCK FOR BRIDGE RAIL

CONSTRUCTION DETAILS

NO SCALE

C-27

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
FUNCTIONAL SUPERVISOR: OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION 3-23-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	44	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

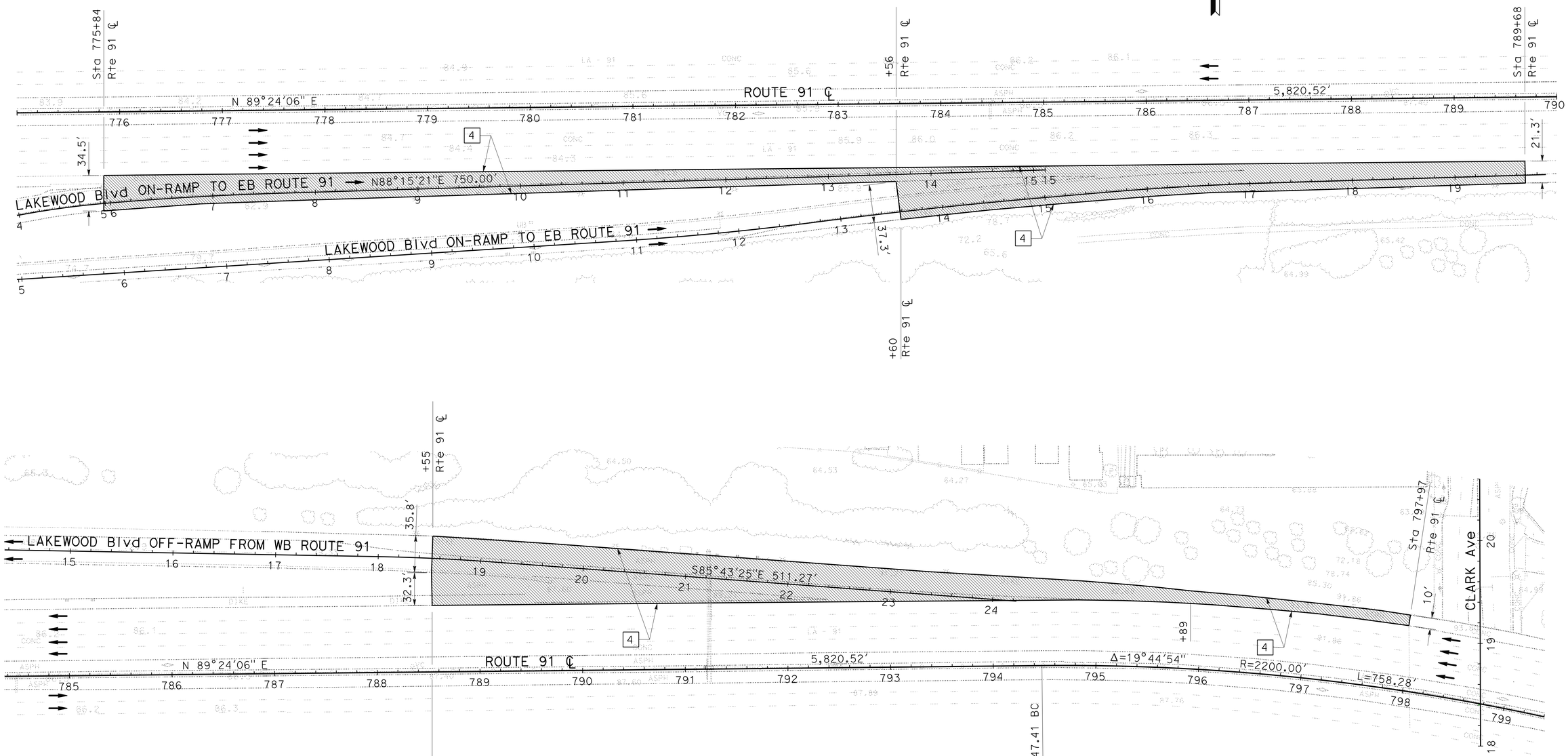
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. VERIFY CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIALS.
3. FOR ROADWAY EXCAVATION QUANTITY, PLEASE SEE THE QUANTITY TABLES.
4. GUTTER IS TYPICALLY TWO FEET WIDE.

LEGEND:

- TYPE 4 STRUCTURE SECTION



CONSTRUCTION DETAILS

NO SCALE

C-28

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	45	192

Lewen Kuo 6-18-15
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

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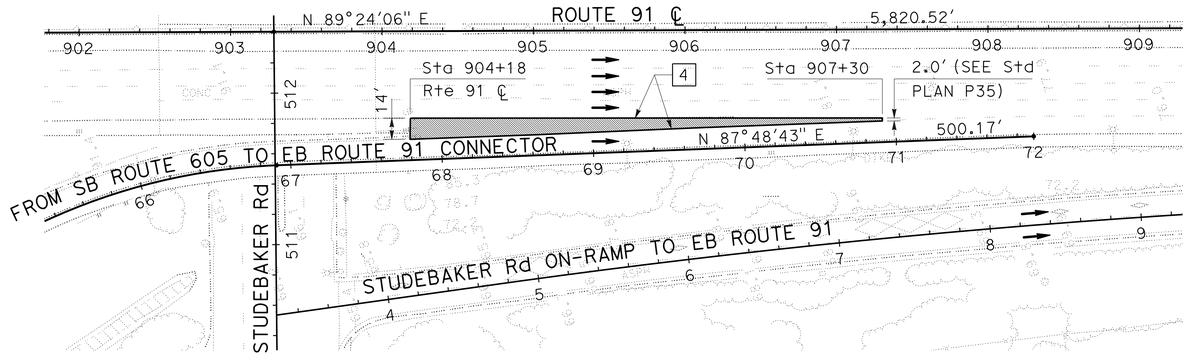

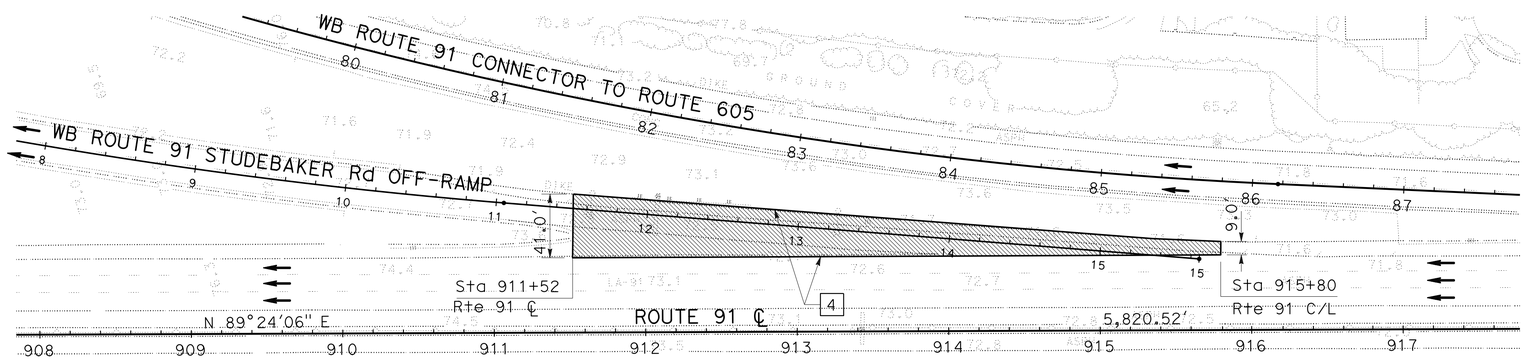

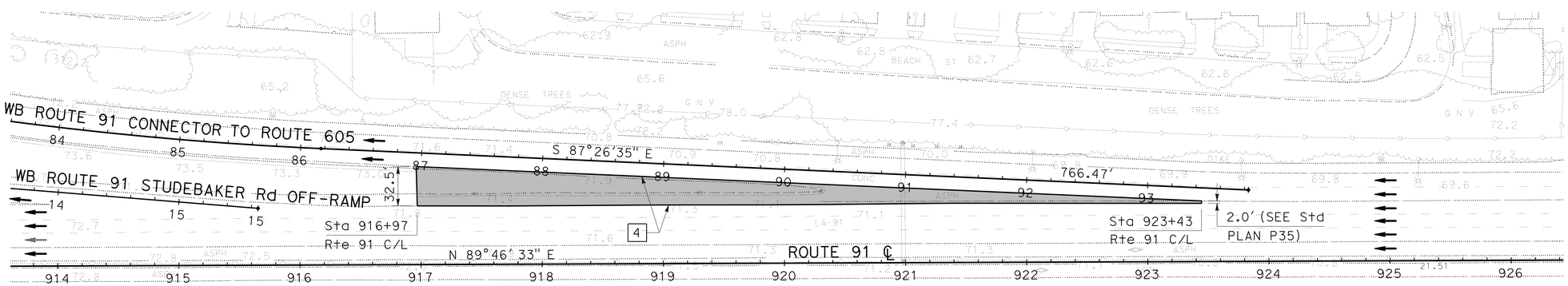

CONSTRUCTION DETAILS

NO SCALE

C-29

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 6-15-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	46	192

REGISTERED CIVIL ENGINEER — DATE 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL — STATE OF CALIFORNIA

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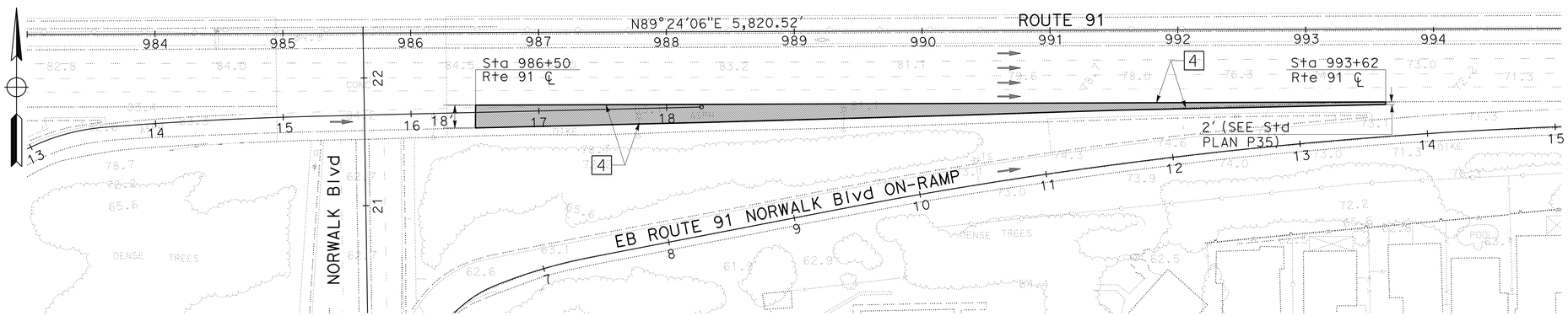

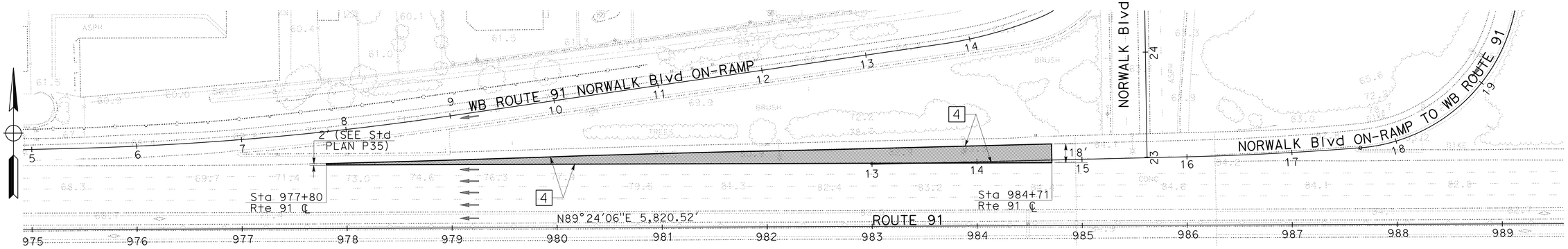

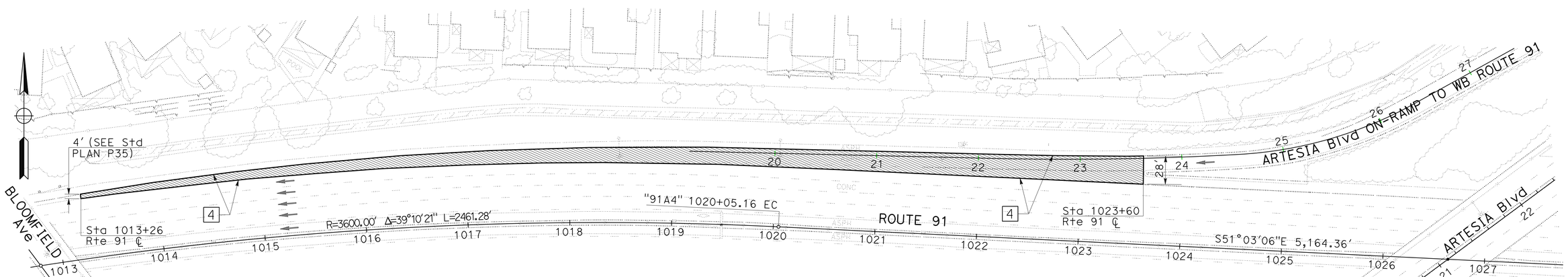

CONSTRUCTION DETAILS

NO SCALE

C-30

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY / DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	47	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12-31-16
CIVIL
STATE OF CALIFORNIA

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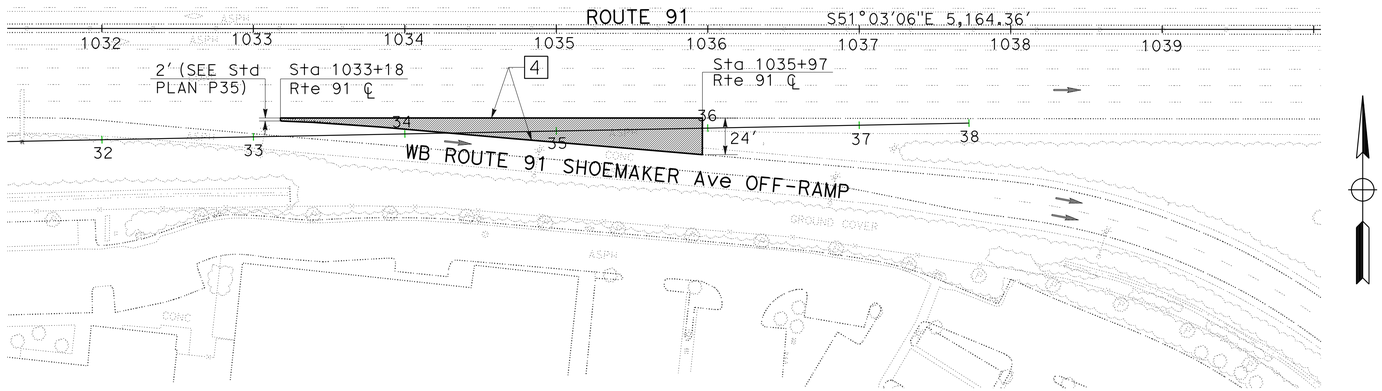

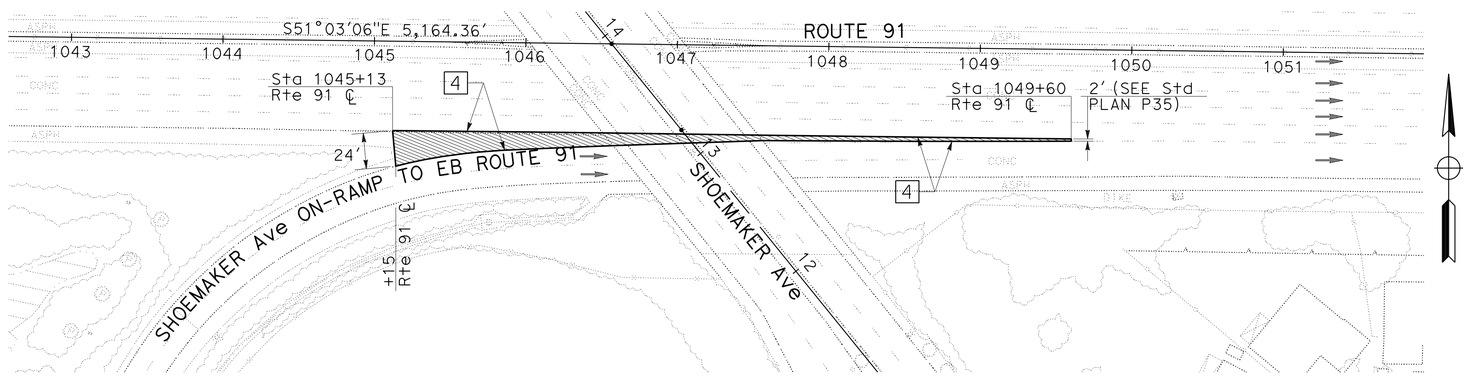

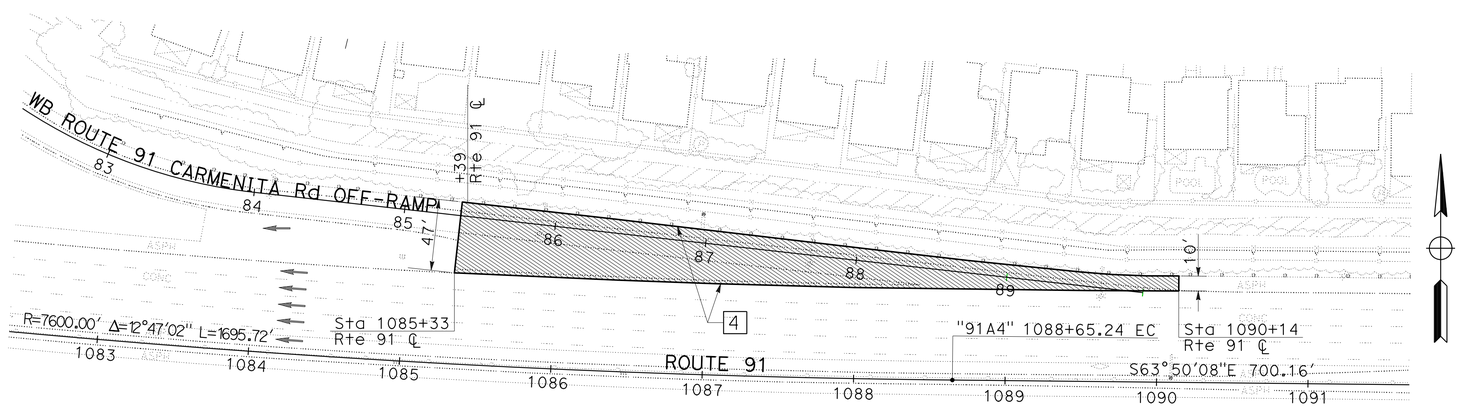

CONSTRUCTION DETAILS

NO SCALE

C-31

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
VINCENT VALIDO	LEWEN KUO

FUNCTIONAL SUPERVISOR: M OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans®

DESIGN

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DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	48	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA

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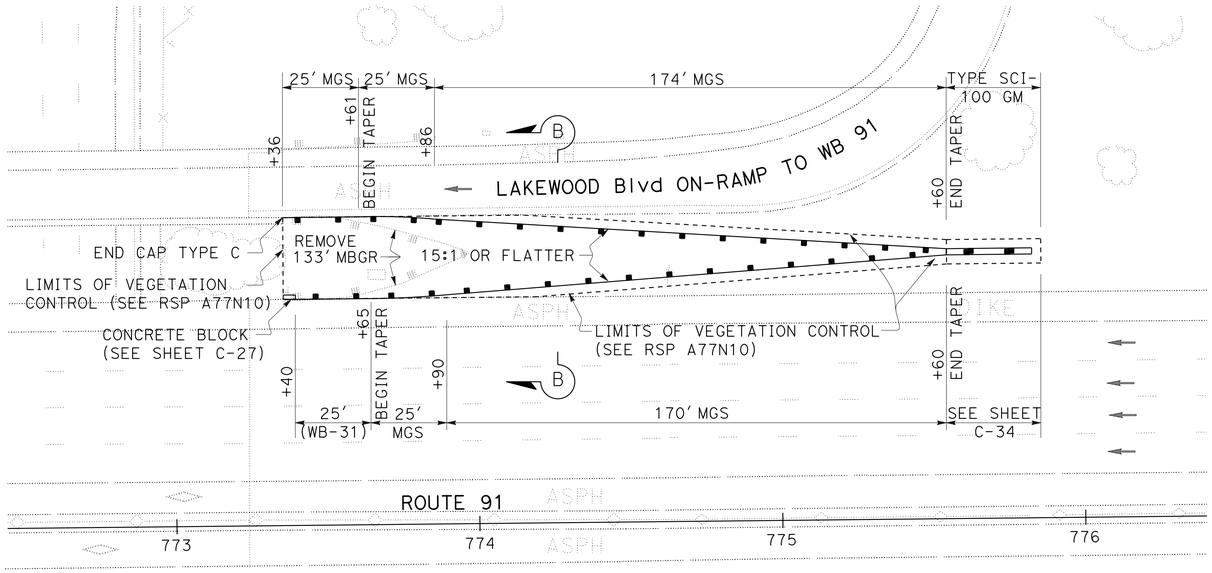
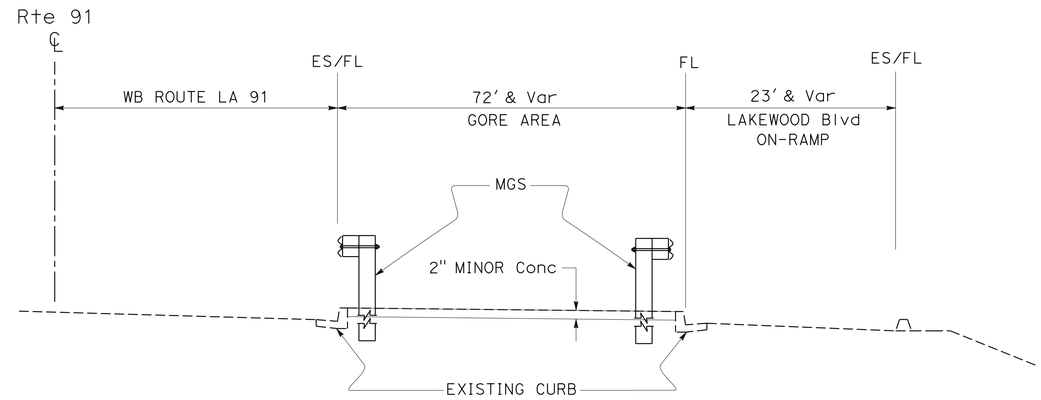
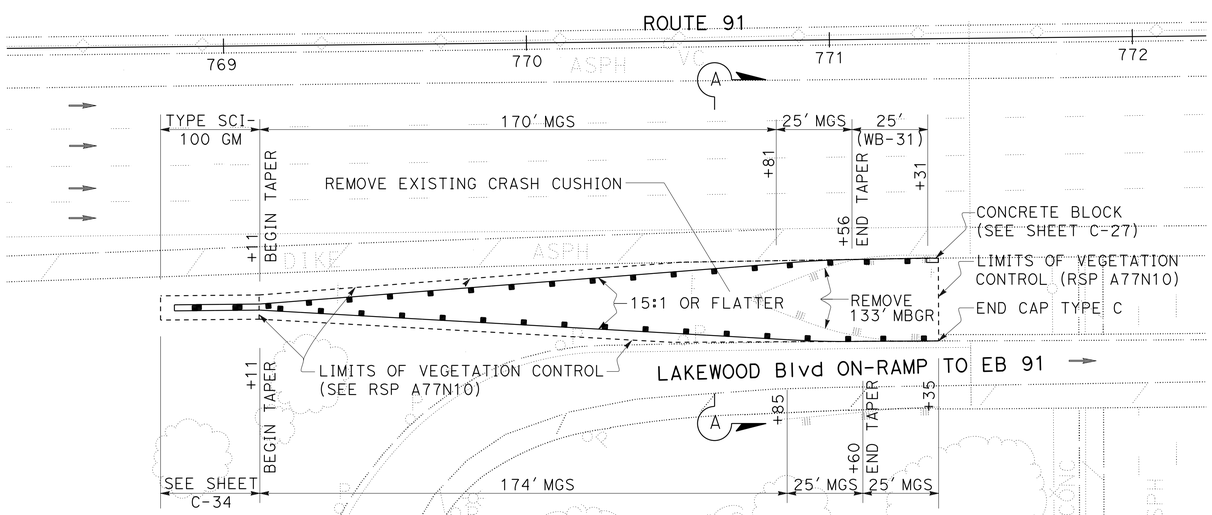


PLAN



SECTION B-B



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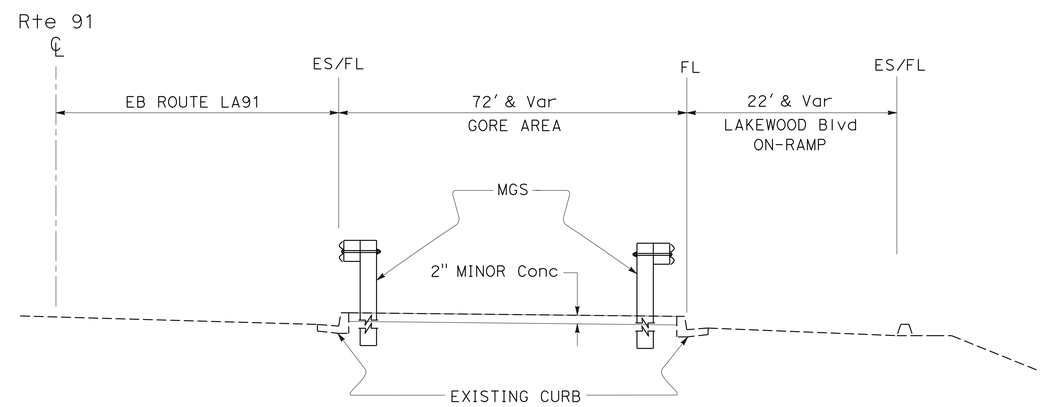

SECTION A-A

CONSTRUCTION DETAILS

MGS-91/19 SEPARATION

NO SCALE

C-32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: M OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
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DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	49	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

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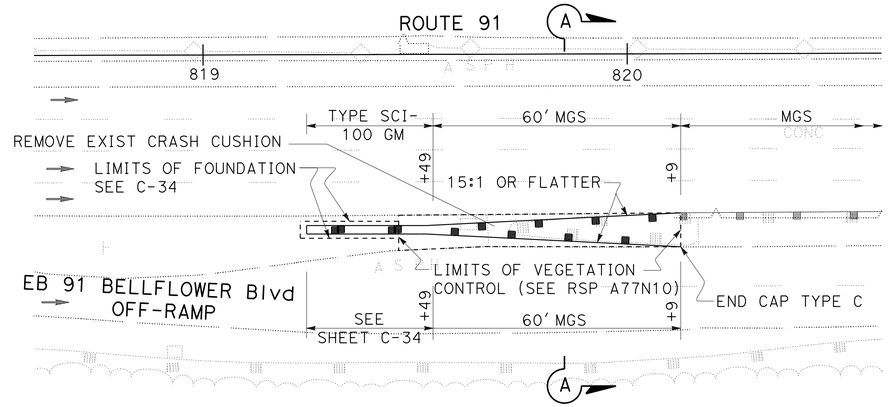

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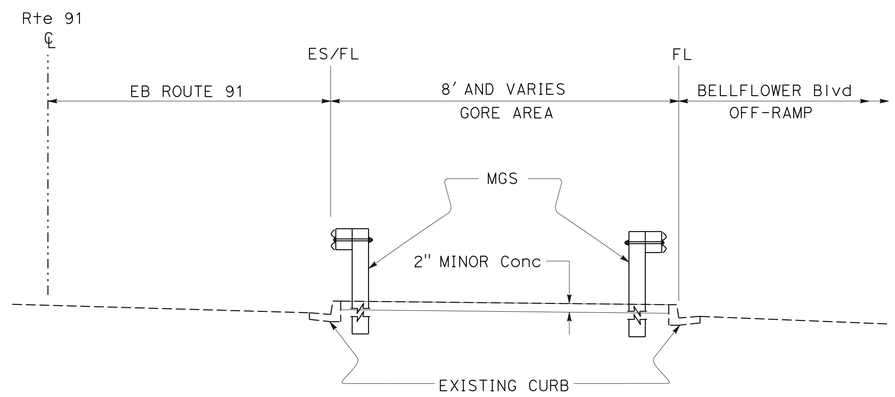

SECTION A-A

CONSTRUCTION DETAILS

MGS-EB 91 BELLFLOWER Blvd OFF-RAMP

NO SCALE

C-33

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU

VINCENT VALIDO — LEWEN KUO

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	50	192

REGISTERED CIVIL ENGINEER — DATE 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL — STATE OF CALIFORNIA

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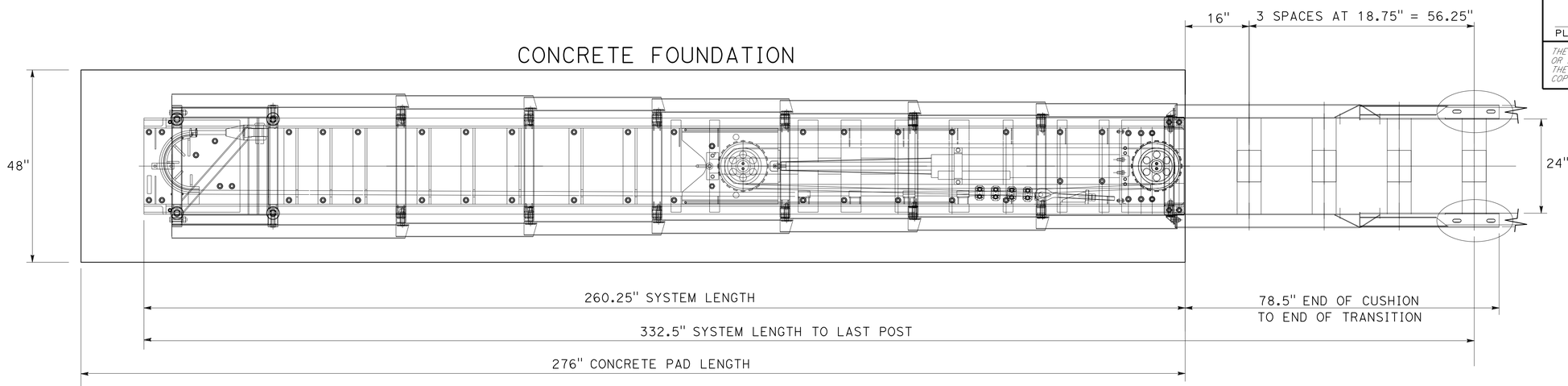
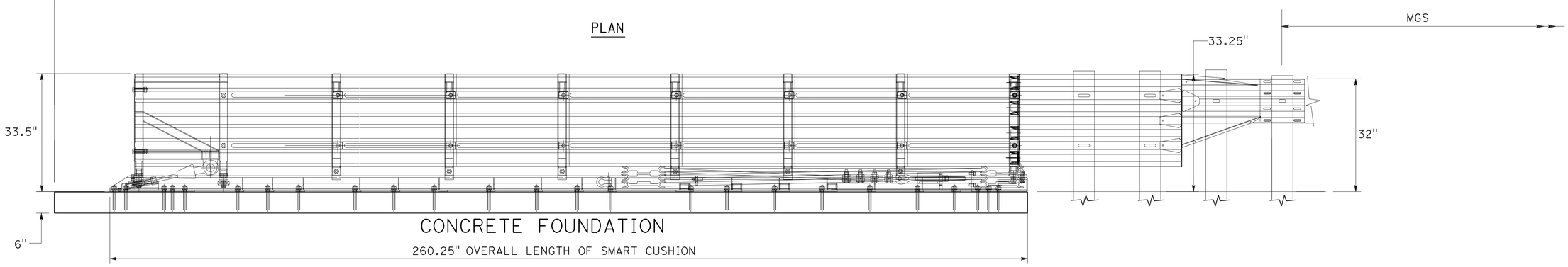
NOTE:

FOR CRASH CUSHION SCI-100GM DETAILS NOT SHOWN, REFER TO MANUFACTURES INCTRUCTION AND DETAILS ON THEIR WEBSITE: http:\www.workareaprotection.com

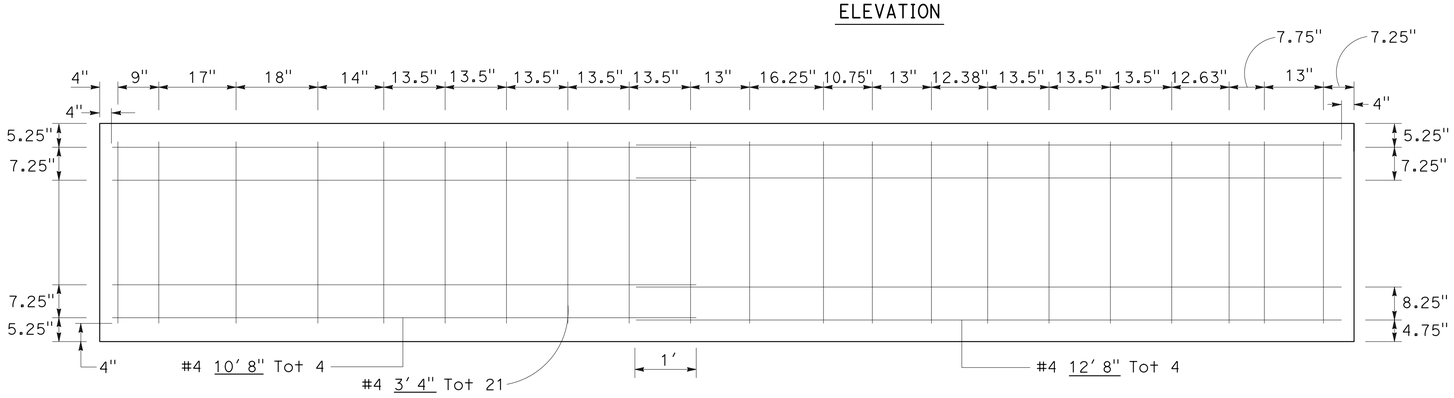
CONCRETE FOUNDATION



PLAN



ELEVATION



FOUNDATION PLAN

FOUNDATION ELEVATION

CONSTRUCTION DETAILS
CRASH CUSHION (TYPE SCI-100GM)

NO SCALE

C-34

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: M OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
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LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	51	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DEBORAH WONG No. 58313 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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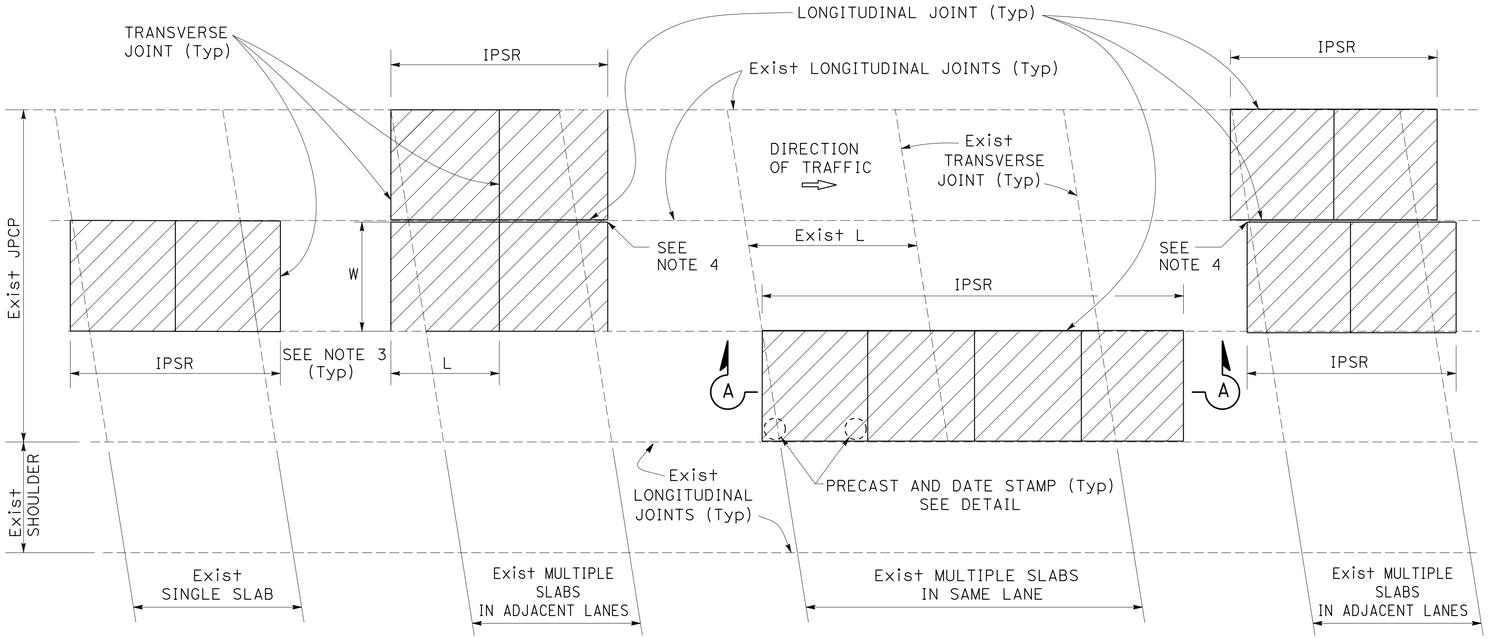


PLAN

NOTES:

1. FOR DETAILS NOT SHOWN, SEE CONSTRUCTION DETAILS SHEETS FOR IPSR.
2. FOR DOWEL BAR AND JOINT DETAILS, SEE CONSTRUCTION JOINT DETAILS FOR IPSR.
3. 6′ Min DIMENSION OF EXISTING PAVEMENT SLABS MUST REMAIN.
4. PRECAST PANELS MAY BE TRIMMED 2" Max. AT EDGES THAT ARE NOT DOWELED OR SLOTTED.
5. FOR IMPRESSION DEPTH AND DATE STAMP DETAIL, SEE REVISED STANDARD PLAN RSP P8. USE PR FOR PRECAST REINFORCED AND PT FOR PRECAST PRETENSIONED ALTERNATIVES TO REPLACE P.

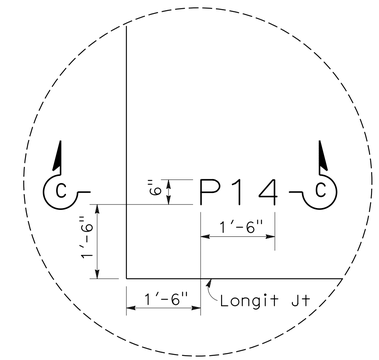
ABBREVIATIONS:

IPSR INDIVIDUAL PRECAST SLAB REPLACEMENT

LEGEND:

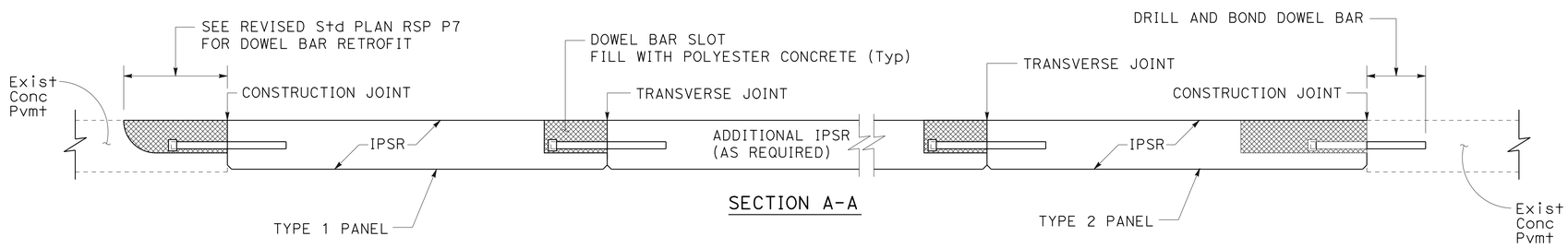
REPLACE CONCRETE PAVEMENT WITH IPSR

POLYESTER CONCRETE



PRECAST STAMP DETAIL

FOR SECTION C-C, SEE NOTE 5



SECTION A-A

SLAB REPLACEMENT

CONSTRUCTION DETAILS

INDIVIDUAL PRECAST SLAB REPLACEMENT

NO SCALE

C-35

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: DEBORAH WONG
CALCULATED-DESIGNED BY: DEBORAH WONG
CHECKED BY: KRISTEN STAHL
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	52	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DEBORAH WONG No. 58313 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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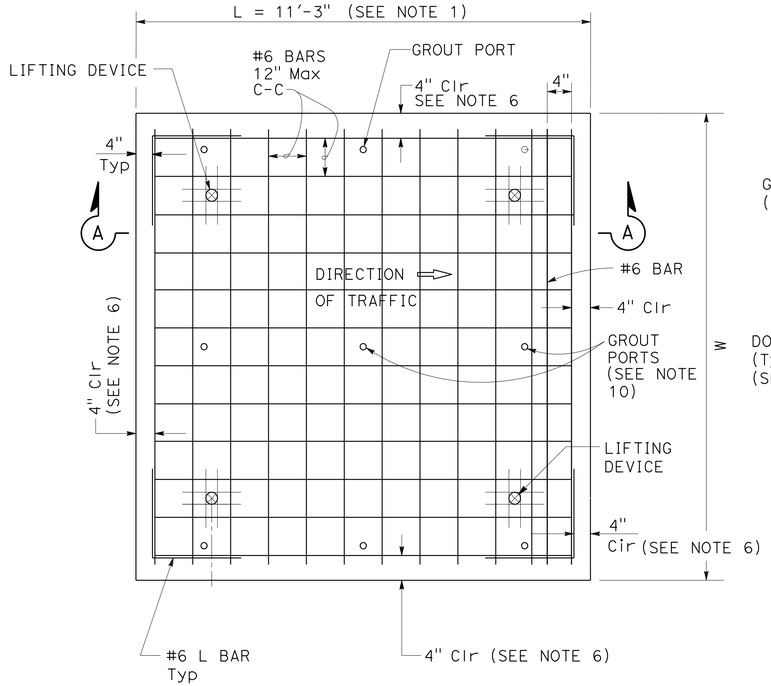
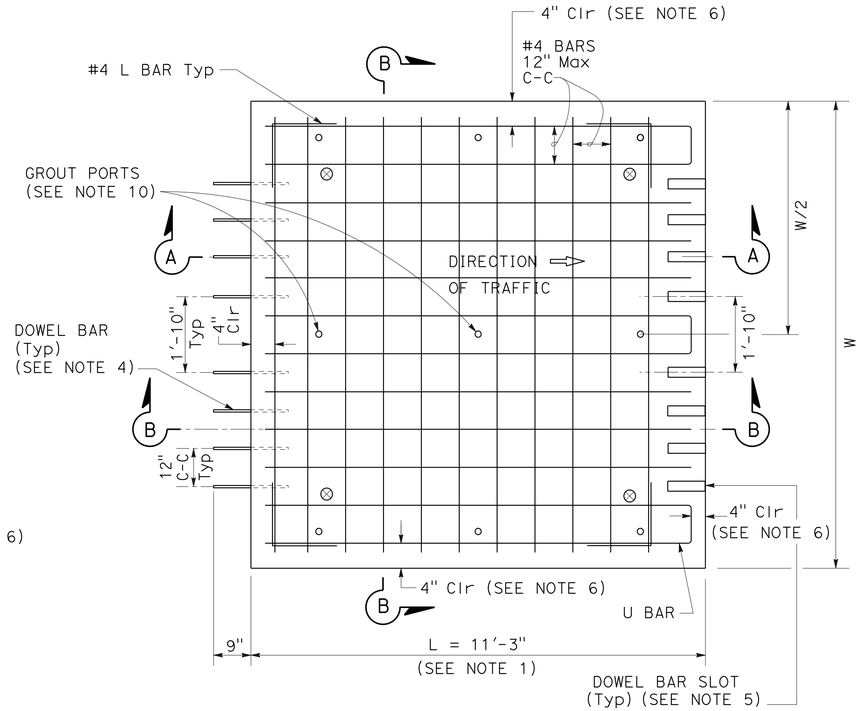


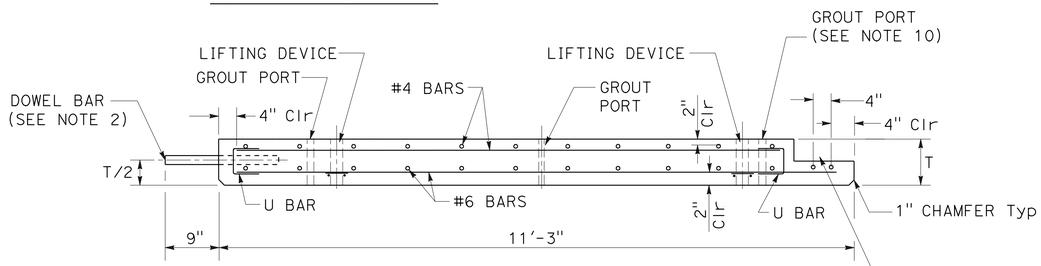
REBAR MAT (BOTTOM)



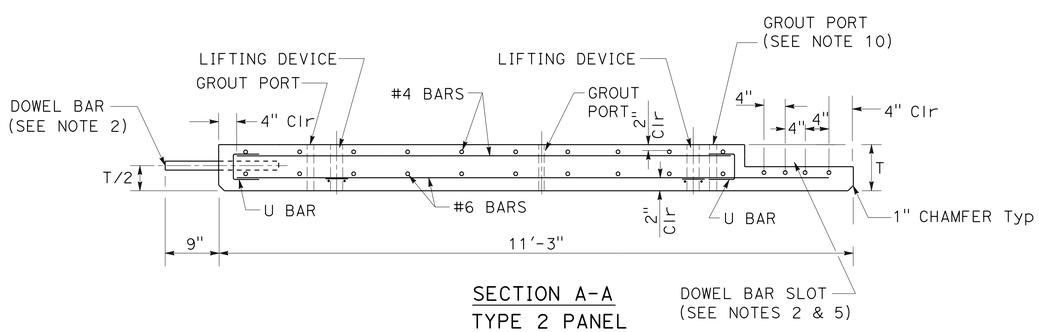
REBAR MAT (TOP)

NOTES:

1. ADJUST L FROM 8' TO 15' TO CONFORM TO BRIDGES AND CHANGES IN PAVEMENT TYPES.
2. FOR DOWEL BARS AND JOINT DETAILS, SEE CONSTRUCTION JOINT DETAILS FOR IPSR.
3. VERIFY ALL DIMENSIONS BEFORE PANEL FABRICATION.
4. ADJUST REINFORCEMENT BARS, LIFTING DEVICES, AND GROUT PORTS TO ACCOMMODATE DOWEL BARS, AND DOWEL BAR SLOTS.
5. DOWEL BAR SLOT OFFSET AND SPACING MUST MATCH OFFSET AND SPACING OF DOWELS IN ADJACENT PRECAST PAVEMENT.
6. IF W OR L DIMENSION IS REDUCED, THE 4" OF COVER MUST REMAIN.
7. FOR PRECAST PANEL THICKNESS, SEE TYPICAL CROSS-SECTION.
8. DETERMINE THE TYPE AND FINAL LOCATIONS OF LIFTING DEVICES.
9. THE POSITIONS OF THE SLOTS AND DOWEL BARS SHOWN ARE BASED ON PLACEMENT OF THE PANELS IN THE DIRECTION OF TRAFFIC.
   THE POSITIONS OF THE SLOTS AND DOWEL BARS MAY BE REVERSED IF THE PANEL IS PLACED IN THE OPPOSITE DIRECTION OF TRAFFIC.
10. DETERMINE THE QUANTITY, LOCATION, AND SPACING OF THE UNDERSLAB GROUT PORTS, PROVIDE AT LEAST ONE GROUT PORT ON EACH CORNER OF THE PANEL AT 2.5' ± 0.5' FROM THE EDGES OF THE PANEL AND PROVIDE ADDITIONAL POSTS WITH NO MORE THAN 5' DISTANCE MEASURED ALONG THE EDGE OF THE PANEL AND BETWEEN EACH OTHER.
11. FOR T < 8", USE PRECAST PRETENSION REPLACEMENT PANEL.



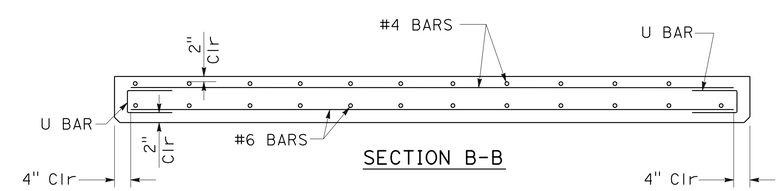
SECTION A-A
TYPE 1 PANEL



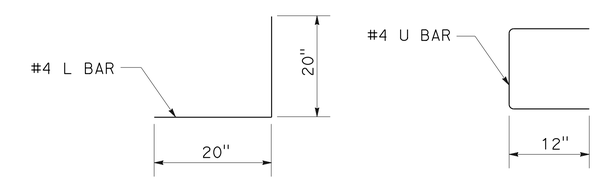
SECTION A-A
TYPE 2 PANEL
(PLAN VIEW NOT SHOWN)

LEGEND:

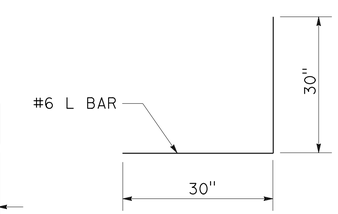
⊗ LIFTING DEVICE (SEE NOTE 4,8)
○ 1¼" Dia GROUT PORT



SECTION B-B



PLAN PLAN



PLAN

PRECAST REINFORCED REPLACEMENT PANEL

CONSTRUCTION DETAILS

INDIVIDUAL PRECAST SLAB REPLACEMENT

NO SCALE

C-36

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR DEBORAH WONG
CALCULATED-DESIGNED BY DEBORAH WONG
CHECKED BY KRISTEN STAHL
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	53	192

M. Parvini 6-18-15
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MEHDI PARVINI No. C63186 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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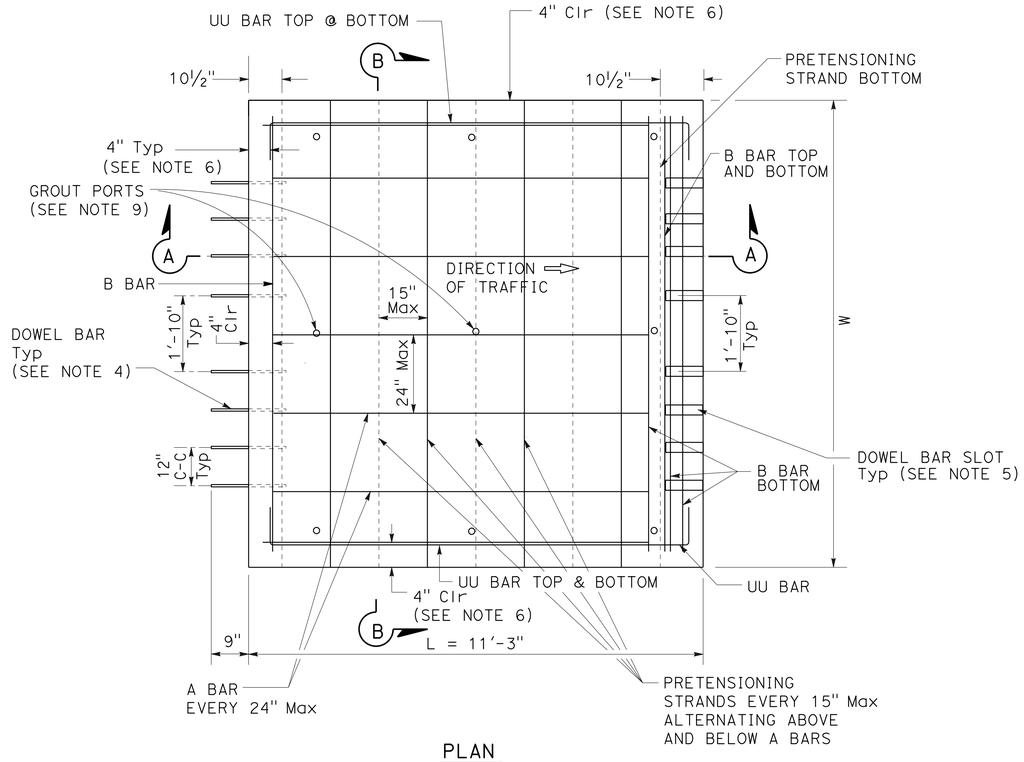


PLAN

NOTES:

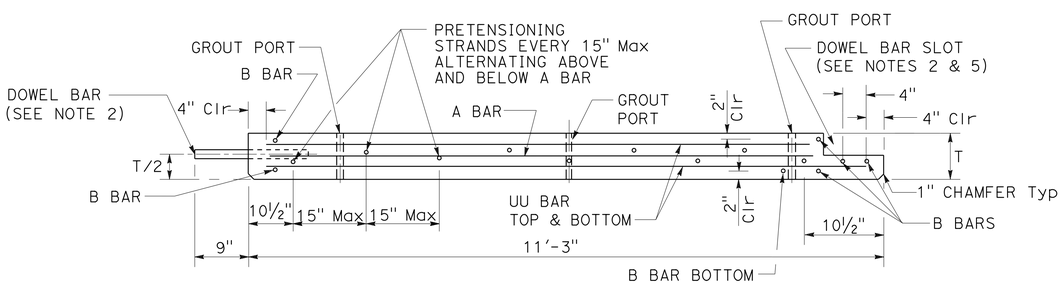
1. ADJUST L FROM 8' TO 15' TO CONFORM TO BRIDGES AND CHANGES IN PAVEMENT TYPES.
2. FOR DOWEL BARS AND JOINT DETAILS, SEE CONSTRUCTION JOINT DETAILS FOR IPSR.
3. VERIFY ALL REINFORCEMENT DIMENSIONS BEFORE PANEL FABRICATION.
4. ADJUST REINFORCEMENT BARS, LIFTING DEVICES, AND GROUT PORTS TO ACCOMMODATE DOWEL BARS, DOWEL BAR SLOTS, AND PRETENSIONING STRANDS.
5. DOWEL BAR SLOT OFFSET AND SPACING MUST MATCH OFFSET AND SPACING OF DOWELS IN ADJACENT PRECAST PAVEMENT.
6. IF W OR L DIMENSION IS REDUCED, THE 4" OF COVER MUST REMAIN.
7. DETERMINE THE TYPE, NUMBER, AND FINAL LOCATIONS OF LIFTING DEVICES.
8. THE POSITIONS OF THE SLOTS AND DOWEL BARS SHOWN ARE BASED ON PLACEMENT OF THE PANELS IN THE DIRECTION OF TRAFFIC.
   THE POSITIONS OF THE SLOTS AND DOWEL BARS MAY BE REVERSED IF THE PANEL IS PLACED IN THE OPPOSITE DIRECTION OF TRAFFIC.
9. DETERMINE THE QUANTITY, LOCATION, AND SPACING OF THE UNDERSLAB GROUT PORTS, PROVIDE AT LEAST ONE GROUT PORT ON EACH CORNER OF THE PANEL AT 2.5' ± 0.5' FROM THE EDGES OF THE PANEL AND PROVIDE ADDITIONAL POSTS WITH NO MORE THAN 5' DISTANCE MEASURED ALONG THE EDGE OF THE PANEL AND BETWEEN EACH OTHER.

LEGEND:

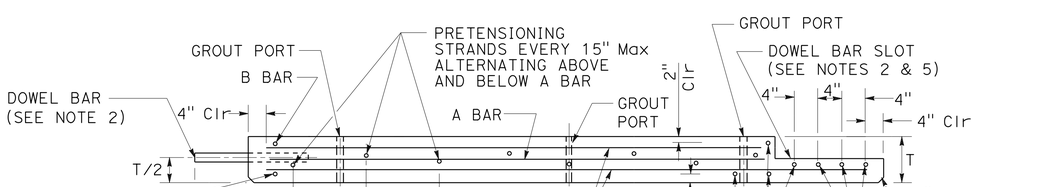
○ GROUT PORT

10'-5"
A BAR 7 #4

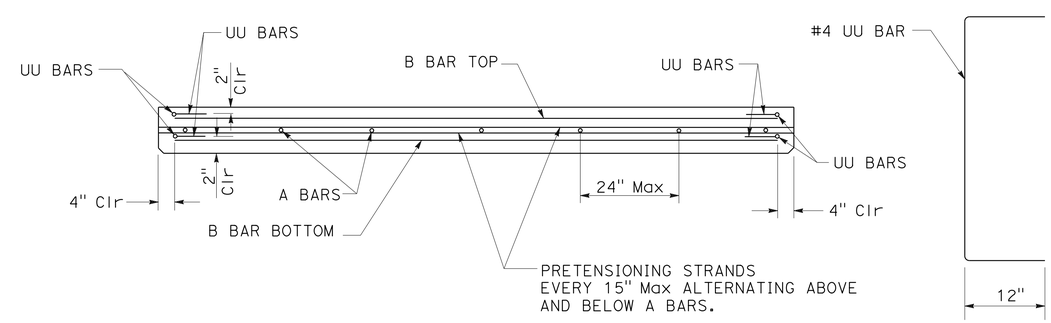
11'-8"
B BAR 6 #4 TYPE 1
8 #4 TYPE 2



SECTION A-A
TYPE 1 PANEL



SECTION A-A
TYPE 2 PANEL
(PLAN VIEW NOT SHOWN)



SECTION B-B

PLAN

CONSTRUCTION DETAILS

INDIVIDUAL PRECAST SLAB REPLACEMENT

NO SCALE

PRECAST PRETENSION REPLACEMENT PANEL

C-37

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	54	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DEBORAH WONG No. 58313 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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NOTES:

1. FOR DETAILS NOT SHOWN, SEE REVISED STANDARD PLAN RSP P7, P10, AND P18.
2. FOR JOINTS BETWEEN 1/4" AND 3/4", SEE TABLE 2.
3. FOR JOINTS > 3/4 TO 1 1/2", SEE CLOSURE JOINT DETAIL.
4. PAVEMENT THICKNESS (T) INCLUDES 1/2" GROUT.

LEGEND:

- FOAM INSERT
- JOINT SEAL (SILICONE)
- POLYESTER CONCRETE
- UNDERSLAB GROUT
- JOINT FILLER MATERIAL

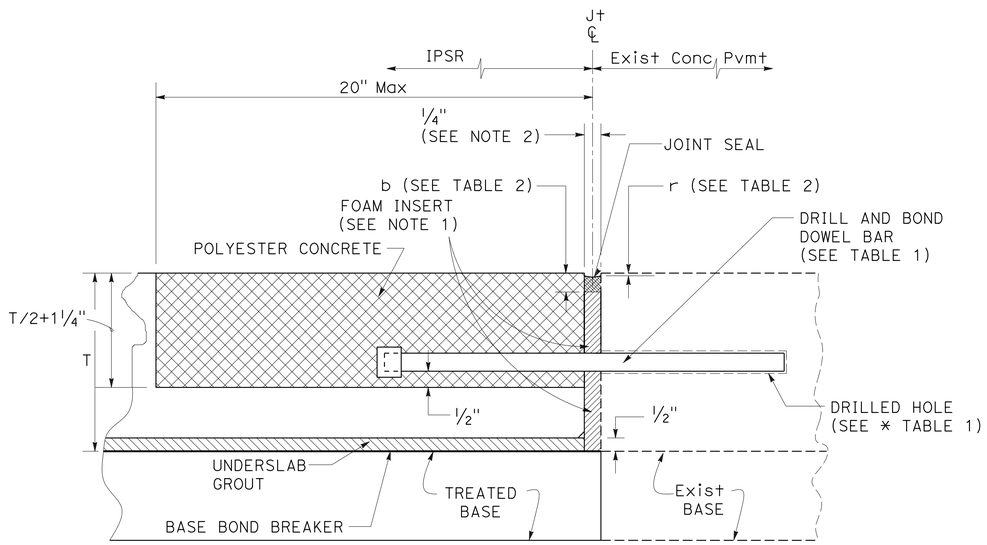
ABBREVIATIONS:

IPSR	INDIVIDUAL PRECAST SLAB REPLACEMENT
×	JOINT WIDTH

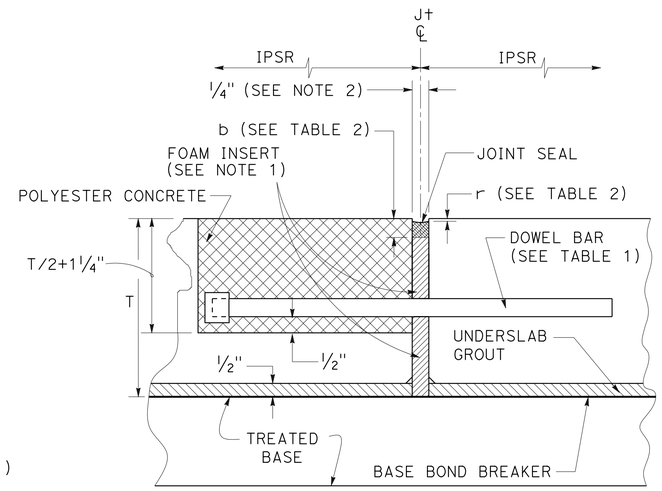
TABLE 1

DOWEL BAR DIAMETER TABLE			
PAVEMENT THICKNESS	0.60′ - 0.65′	> 0.65′- 0.85′	> 0.85′
Min DOWEL* BAR Dia	1"	1 1/4"	1 1/2"

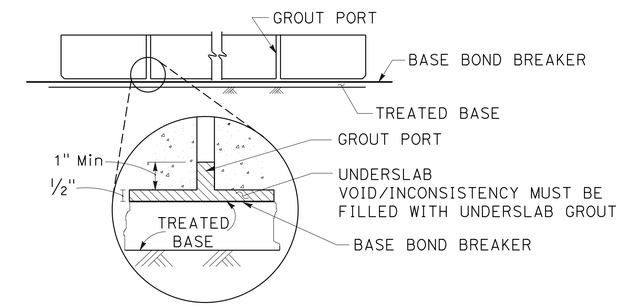
* THE DRILLED HOLE DIAMETER MUST BE 1/8" TO 3/16" LARGER THAN THE BAR DIAMETER.



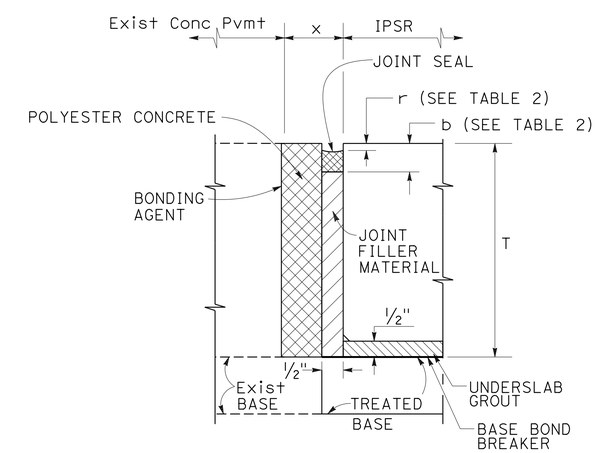
TYPE 2 PANEL



TYPE 1 PANEL



UNDERSLAB GROUT PORT AND POLYETHELENE SHEETING



CLOSURE JOINT DETAIL

FOR JOINTS > 3/4" TO 1 1/2" WIDE

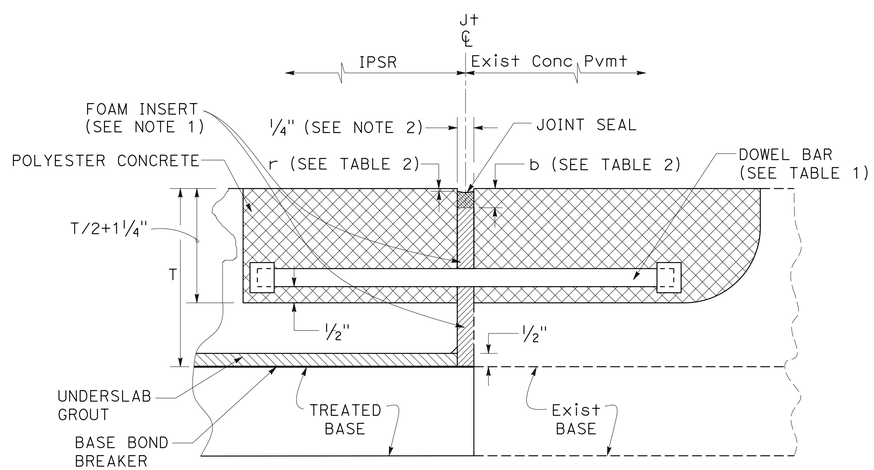


TABLE 2

JOINT WIDTH	LIQUID JOINT SEALANT DIMENSIONS DEPTHS (SILICONE)	
	b ± 1/16"	r ± 1/16"
1/4"	1/2"	1/4"
3/8"	1/2"	1/4"
1/2"	9/16"	5/16"
5/8"	5/8"	5/16"
3/4"	3/4"	3/8"

CONSTRUCTION JOINT DETAILS

CONSTRUCTION DETAILS

INDIVIDUAL PRECAST SLAB REPLACEMENT

NO SCALE

C-38

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07	LA	91	R11.3/R20.7	55	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DEBORAH WONG No. 58313 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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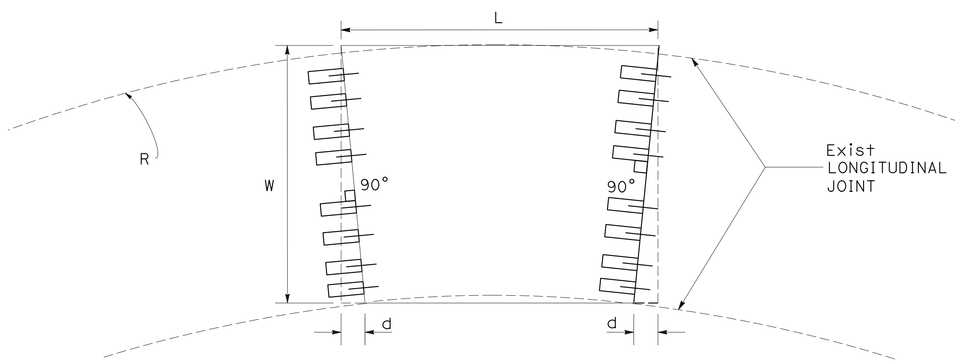
NOTES:

1. R IS DETERMINED BY THE ENGINEER.
2. VERIFY FIELD MEASUREMENTS BEFORE FABRICATING AND PLACING PRECAST PANELS AT THE CORRECT LOCATIONS AND DIMENSIONS.
3. RETROFIT DOWEL SLOTS IN EXISTING PAVEMENT MUST MATCH PRECAST DOWEL PLACEMENT.
4. VERIFY WIDTH, W IN THE FIELD; ACTUAL W = EXISTING LANE WIDTH +1" FOR 1/2" SIDE-TO-SIDE CLEARANCE. LENGTH, L = 11′-3".
5. FOR DIMENSIONS NOT SHOWN, VERIFY (d) WITH THE ENGINEER. FOR (d) NOT SHOWN, VERIFY DIMENSION WITH THE ENGINEER.
6. FOR W AND L NOT SHOWN, d =6L-(6L(R-W)/R)
   d = INCHES
   L,R,W = FEET



PANEL SKEW DIMENSIONS (d)				
W	12′-4"	12′-2"	12′	11′-10"
R	d"	d"	d"	d"
900′	0.92	0.91	0.90	0.89
1,000′	0.83	0.82	0.81	0.80
1,200′	0.69	0.68	0.67	0.67
1,500′	0.56	0.55	0.54	0.53
1,800′	0.46	0.46	0.45	0.44
2,000′	0.42	0.41	0.41	0.40
2,300′	0.36	0.36	0.35	0.35
2,500′	0.33	0.33	0.32	0.32
3,000′	0.28	0.27	0.27	0.27
3,500′	0.24	0.23	0.23	0.23
4,000′	0.21	0.21	0.20	0.20

SEE NOTES 4 & 6

INDIVIDUAL PRECAST SLAB REPLACEMENT PANEL ON A CURVE

CONSTRUCTION DETAILS

INDIVIDUAL PRECAST SLAB REPLACEMENT

NO SCALE

C-39

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07	LA	91	R11.3/R20.7	56	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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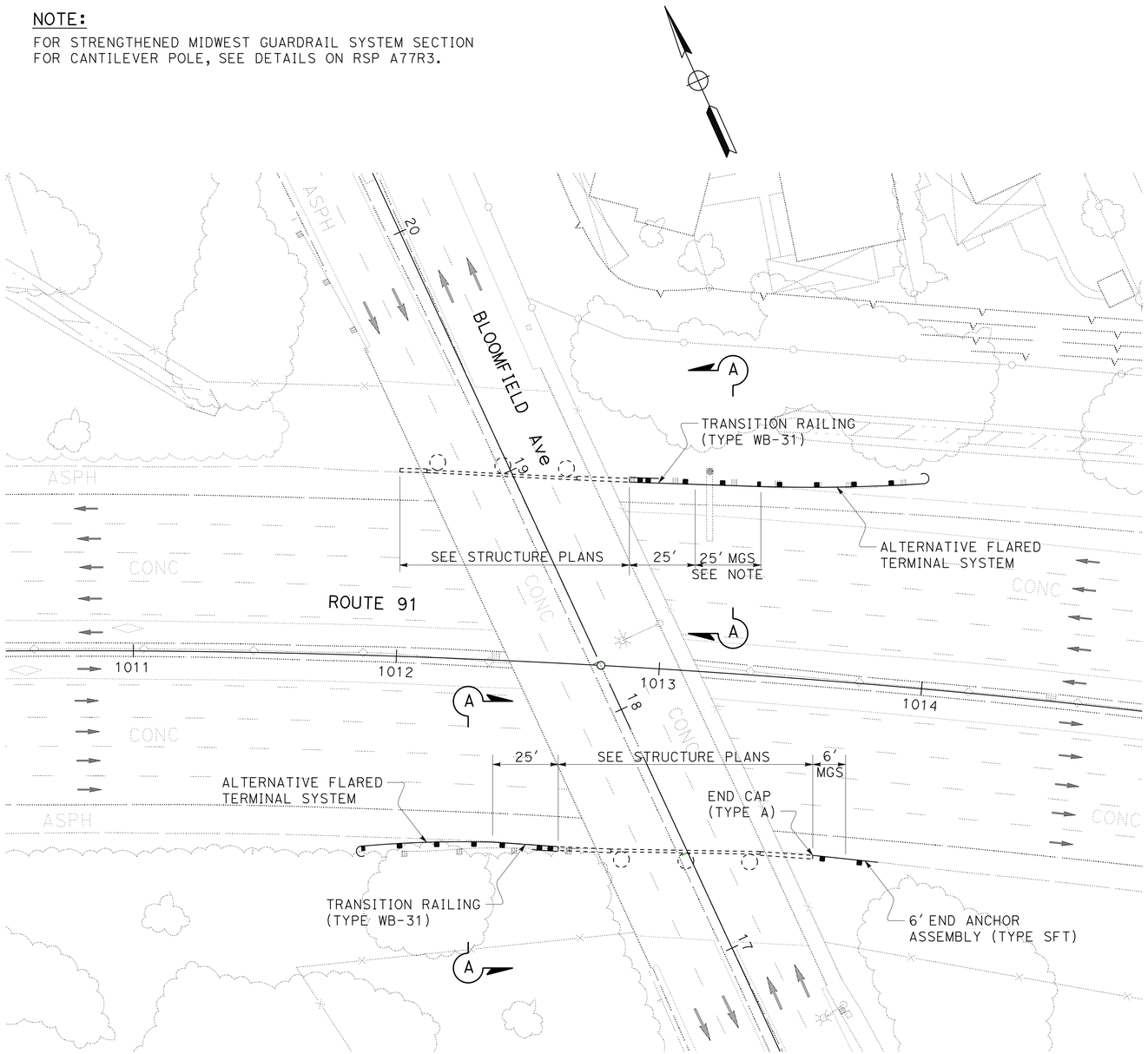
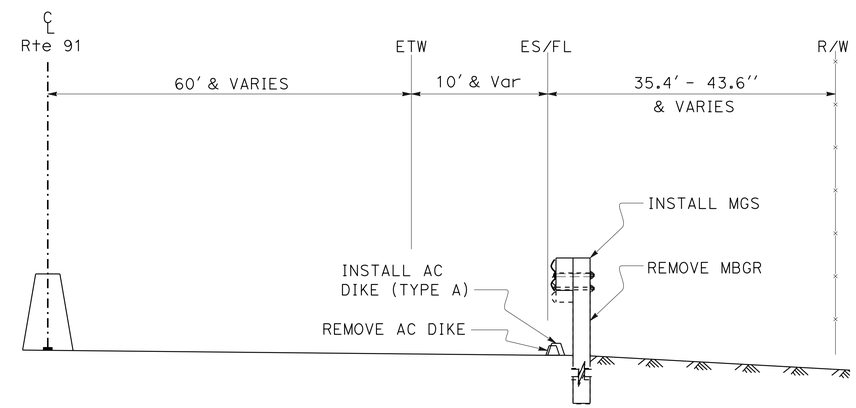
NOTE:

FOR STRENGTHENED MIDWEST GUARDRAIL SYSTEM SECTION FOR CANTILEVER POLE, SEE DETAILS ON RSP A77R3.





SECTION A-A
TYPICAL

CONSTRUCTION DETAILS

NO SCALE

C-40

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07	LA	91	R11.3/R20.7	57	192

Lewen Kuo 6-18-15
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEWEN KUO
No. C52464
Exp. 12-31-16
CIVIL
STATE OF CALIFORNIA

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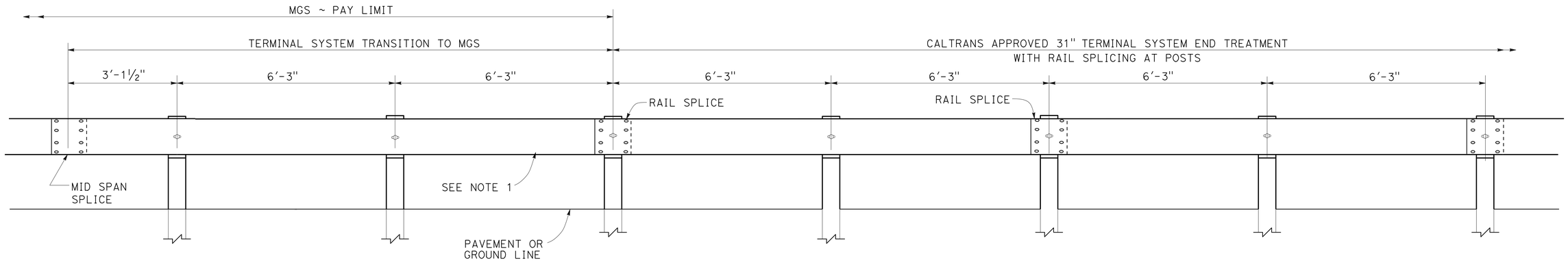
NOTE:

USE 15'-7½" LENGTH RAIL.



TRANSITION DETAIL FOR 31" TERMINAL SYSTEM END TREATMENT WITH RAIL SPLICING AT POSTS TO MIDWEST GUARDRAIL SYSTEM

CONSTRUCTION DETAILS

NO SCALE

C-41

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07	LA	91	R11.3/R20.7	58	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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NOTES:

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2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
3. UTILITY OWNERSHIP ON THIS PROJECT:

OIL	ALL AMERICAN PIPELINE (AAP)
OIL	ARCO
TELEPHONE	AMERICAN TELEPHONE AND TELEGRAPH (AT&T)
OIL	CHEVRON
GAS, WATER	CITY OF LONG BEACH (COLB)
WATER, SEWER	CITY OF BELLFLOWER (COB)
WATER	CITY OF CERRITOS (COC)
WATER	CITY OF SANTA FE SPRINGS (COSFS)
OIL	CRIMSON PIPELINE
OIL	DOUGLAS OIL
TELEPHONE	GENERAL TELEPHONE COMPANY (GTC)
GAS	KINDER MORGAN
WATER, SEWER	LOS ANGELES COUNTY (LAC)
SEWER	LOS ANGELES COUNTY SANITATION DISTRICT (LACSD)
TELEPHONE	MCI INC (MCI)
GAS	PACIFIC LIGHTING
OIL	POWERS OIL COMPANY (POC)
OIL	RICHFIELD OIL
ELECTRIC	SOUTHERN CALIFORNIA EDISON (SCE)
GAS	SOUTHERN CALIFORNIA GAS COMPANY (SCG)
OIL	SHELL
TELEPHONE	SUNESYS
OIL	TEXAS OIL
OIL	UNION OIL
TELEPHONE	VERIZON

DEFINITIONS:

1. HIGH PRESSURE = PIPELINES GREATER THAN 6" NOMINAL PIPE DIAMETER, OR PIPELINES WITH NORMAL OPERATING PRESSURES GREATER THAN 60 PSIG.
2. LOW PRESSURE = PIPELINES 6" OR SMALLER NOMINAL PIPE DIAMETER WITH NORMAL OPERATING PRESSURES OF 60 PSIG OR LESS.

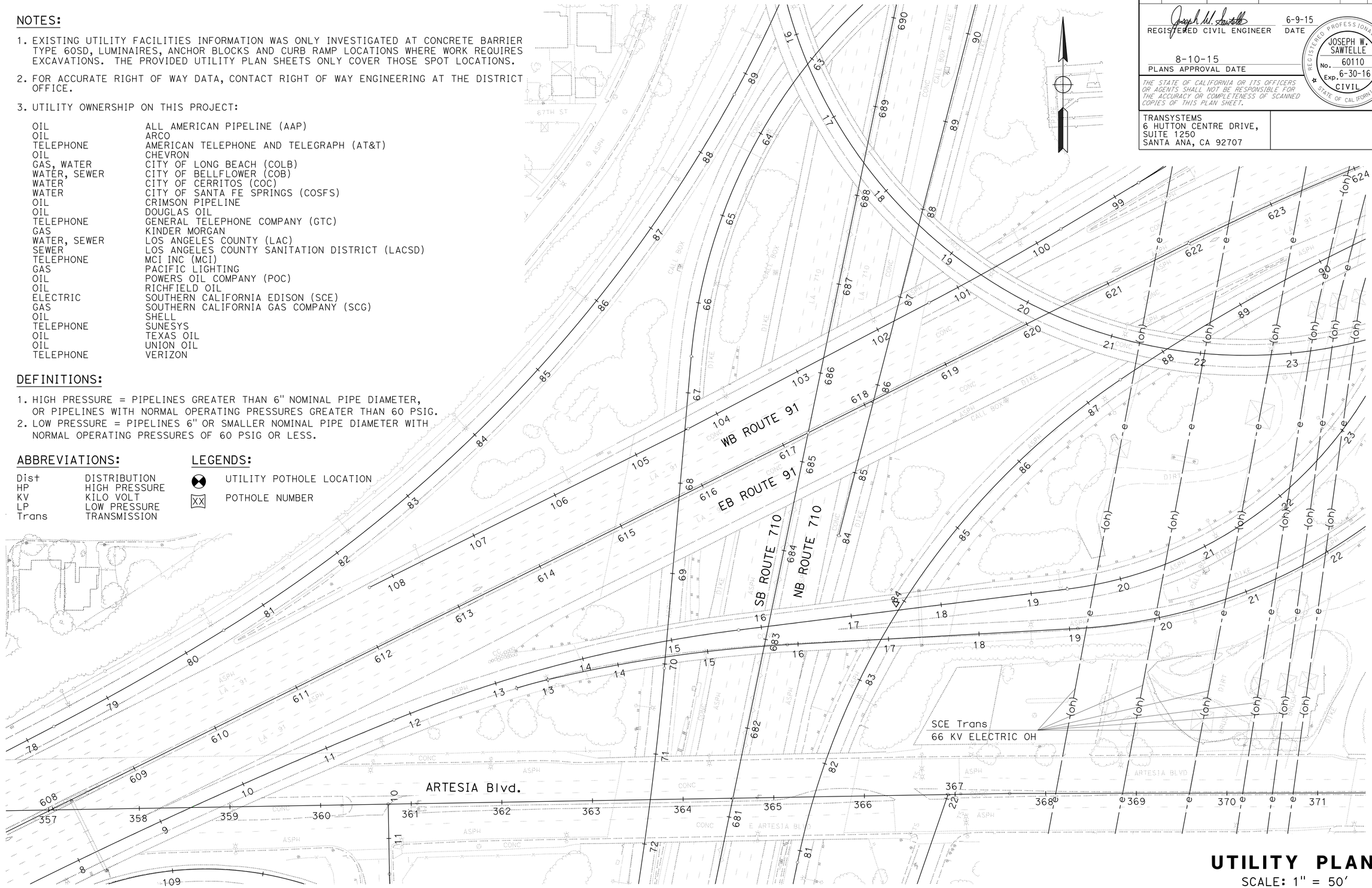
ABBREVIATIONS:

Dist	DISTRIBUTION
HP	HIGH PRESSURE
KV	KILO VOLT
LP	LOW PRESSURE
Trans	TRANSMISSION

LEGENDS:

UTILITY POTHOLE LOCATION

POTHOLE NUMBER



UTILITY PLAN

SCALE: 1" = 50'

U-1

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Caltrans

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CALCULATED-DESIGNED BY: TRIET DANG

CHECKED BY: JOE SAWTELLE

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	59	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

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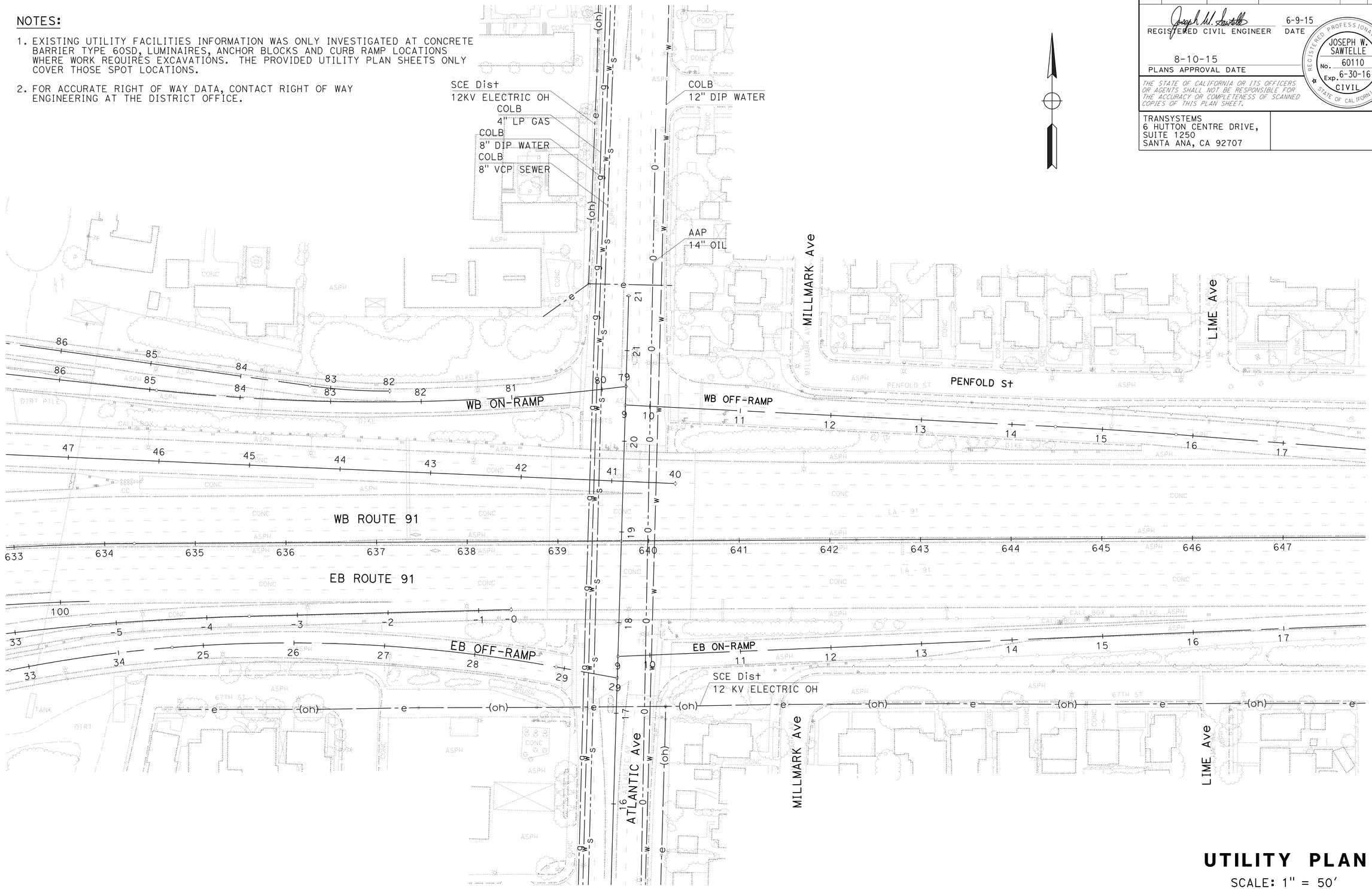

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UTILITY PLAN

SCALE: 1" = 50'

U-2

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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REGISTERED CIVIL ENGINEER 6-9-15 DATE

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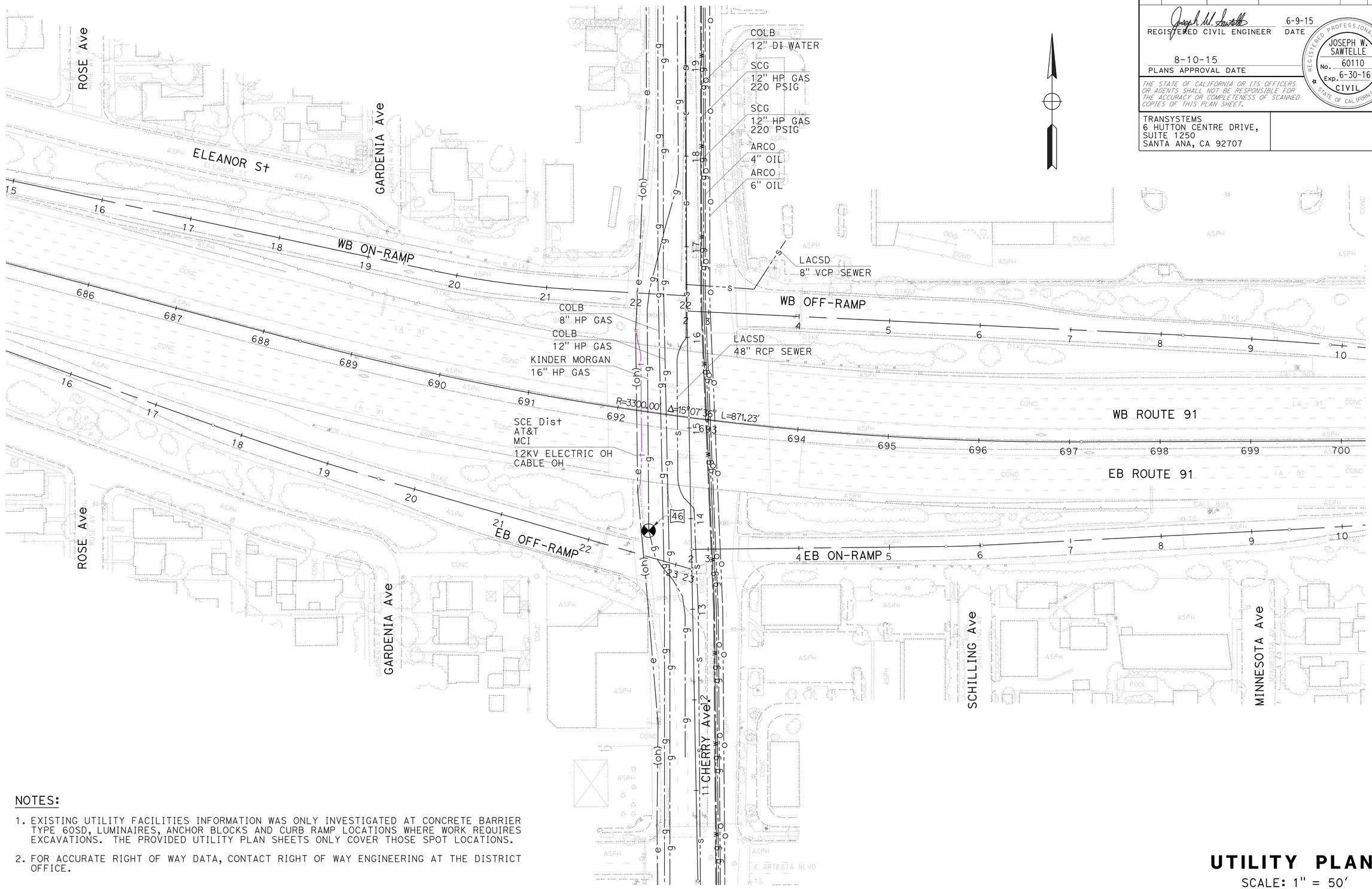

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2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

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UTILITY PLAN

SCALE: 1" = 50'

U-3

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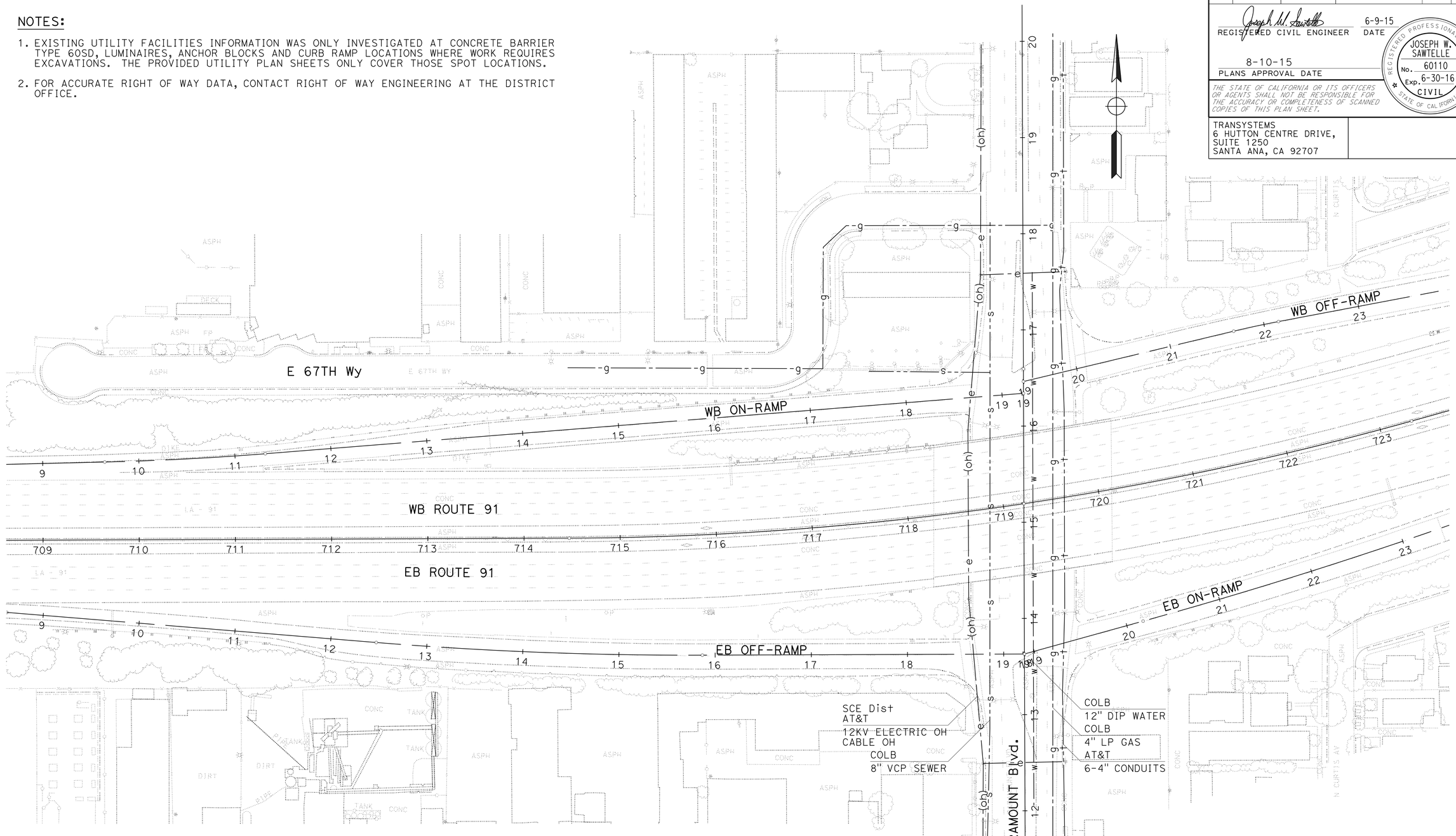

UTILITY PLAN

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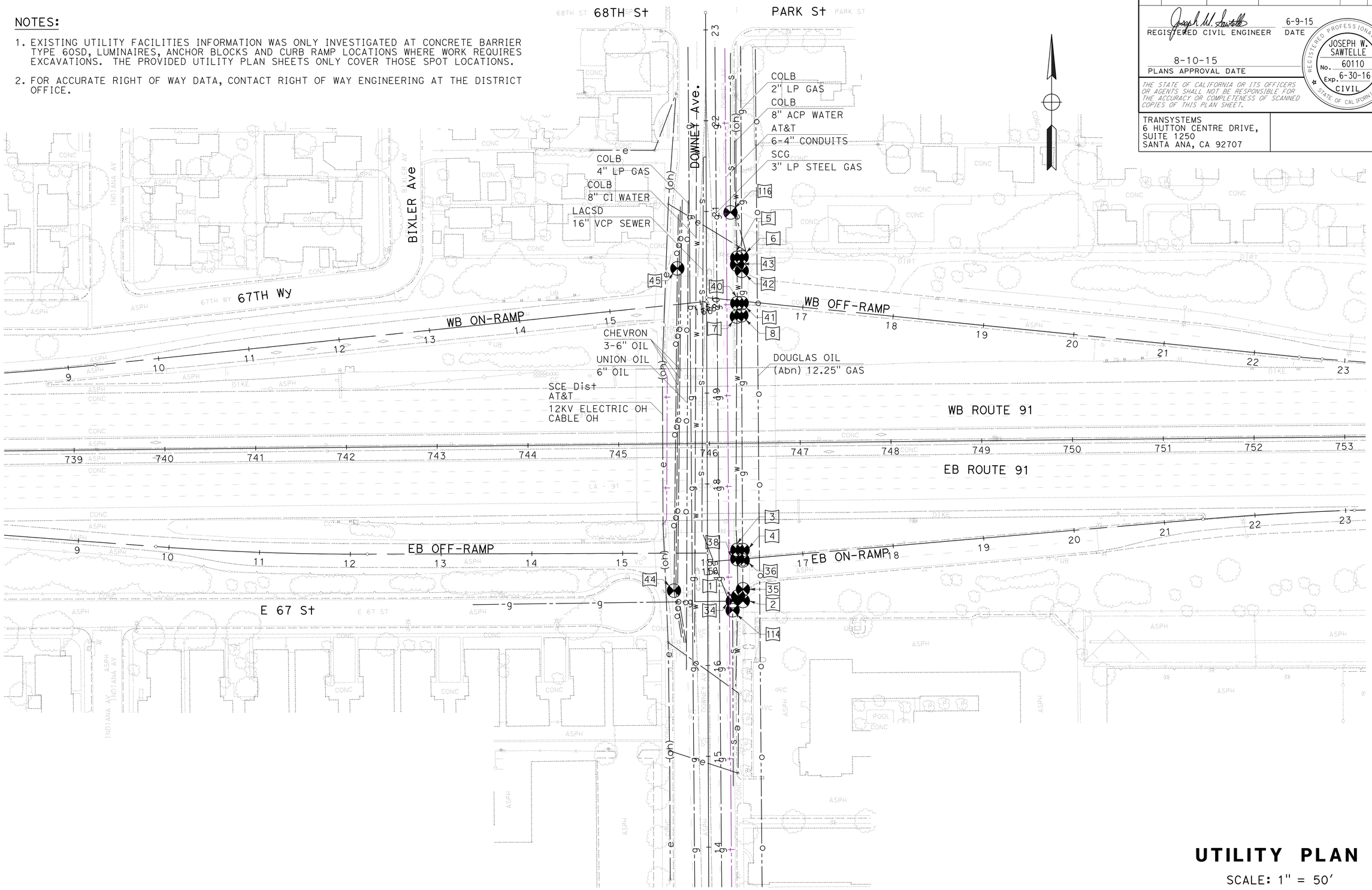

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UTILITY PLAN

SCALE: 1" = 50'

U-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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8-10-15
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REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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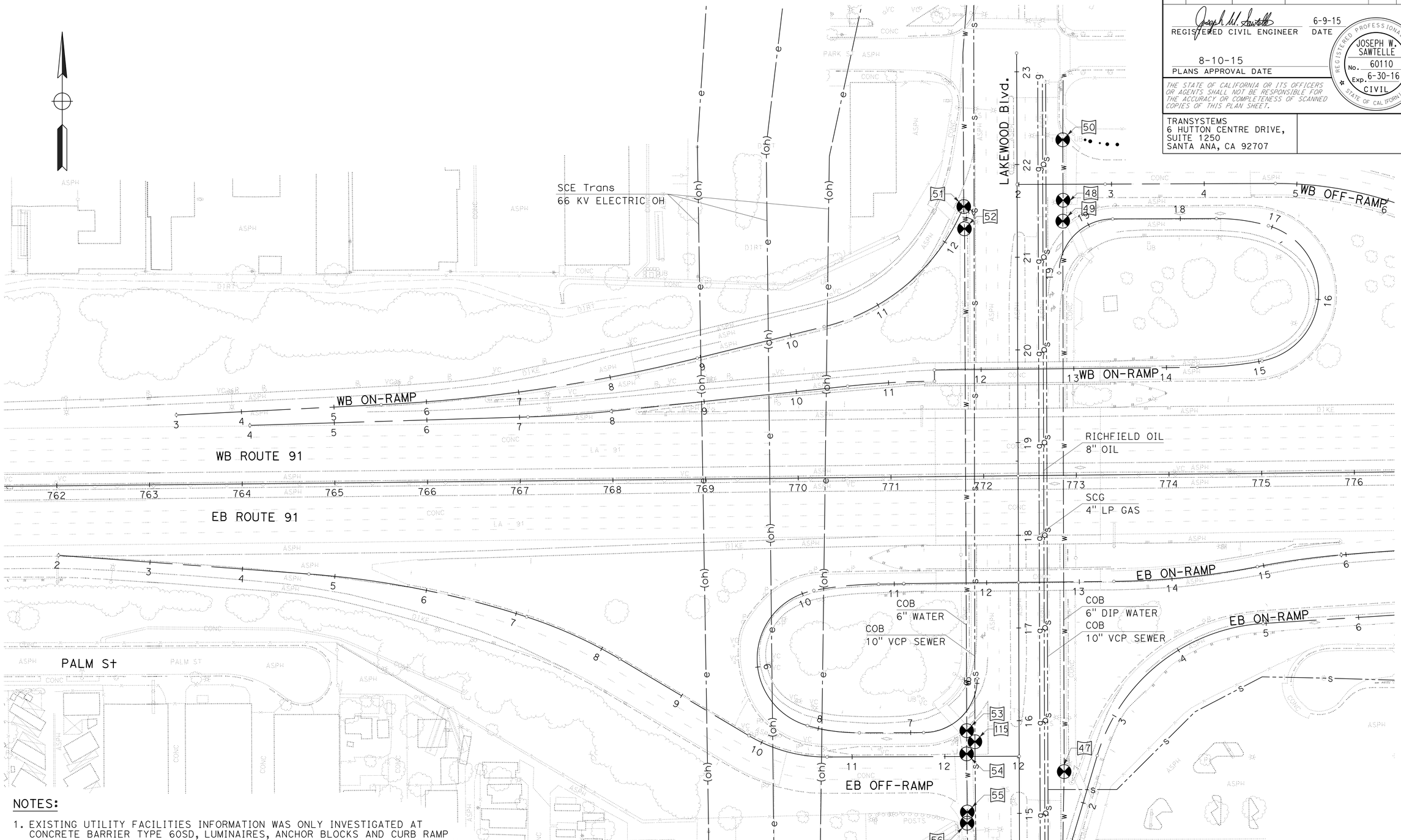

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2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1" = 50'

U-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	64	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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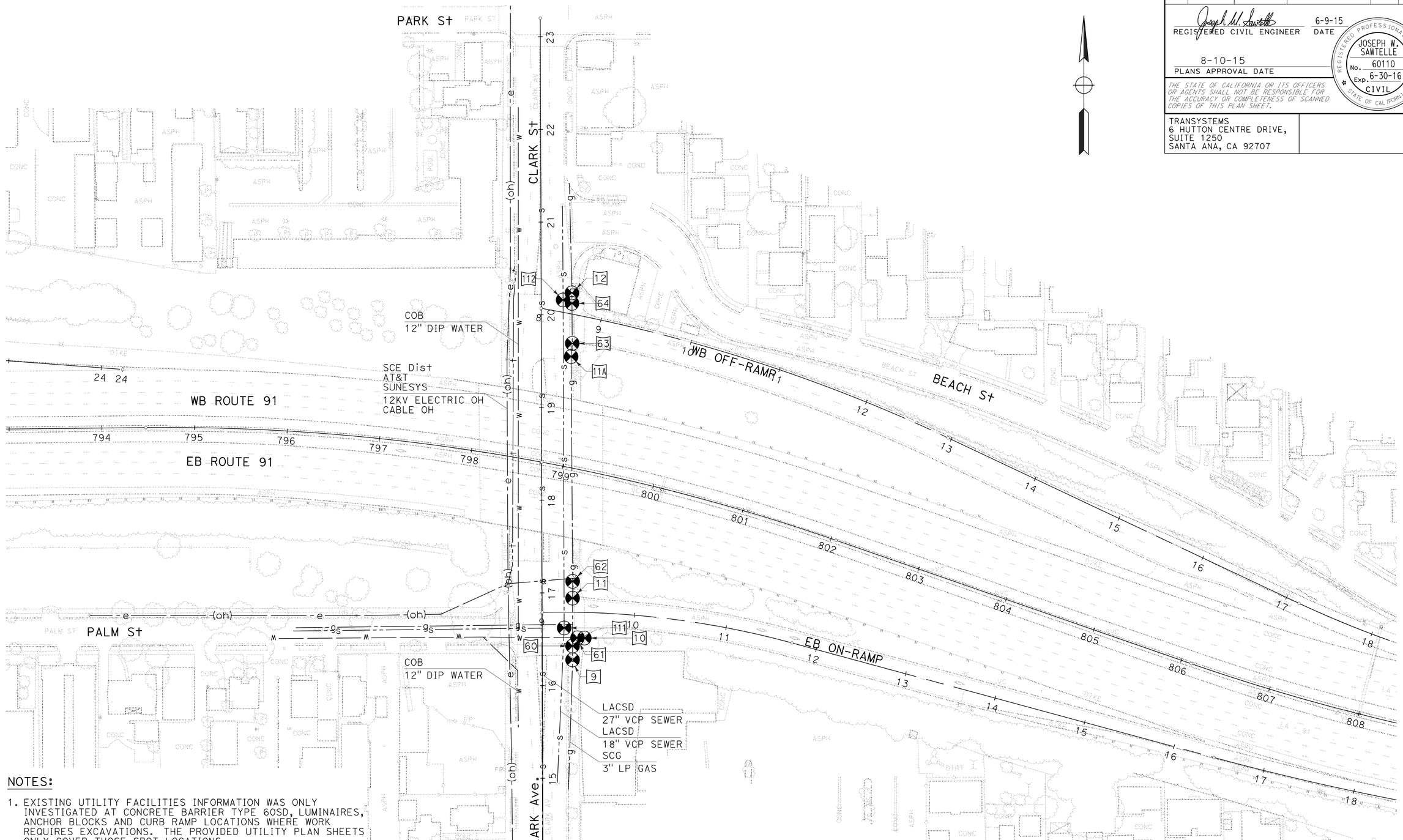
TRANSYSTEMS
6 HUTTON CENTRE DRIVE,
SUITE 1250
SANTA ANA, CA 92707



NOTES:

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

UTILITY PLAN

SCALE: 1" = 50'

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

U-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN
CALCULATED-DESIGNED BY: JOE SAWTELLE
CHECKED BY: TRIET DANG
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	65	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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SUITE 1250
SANTA ANA, CA 92707

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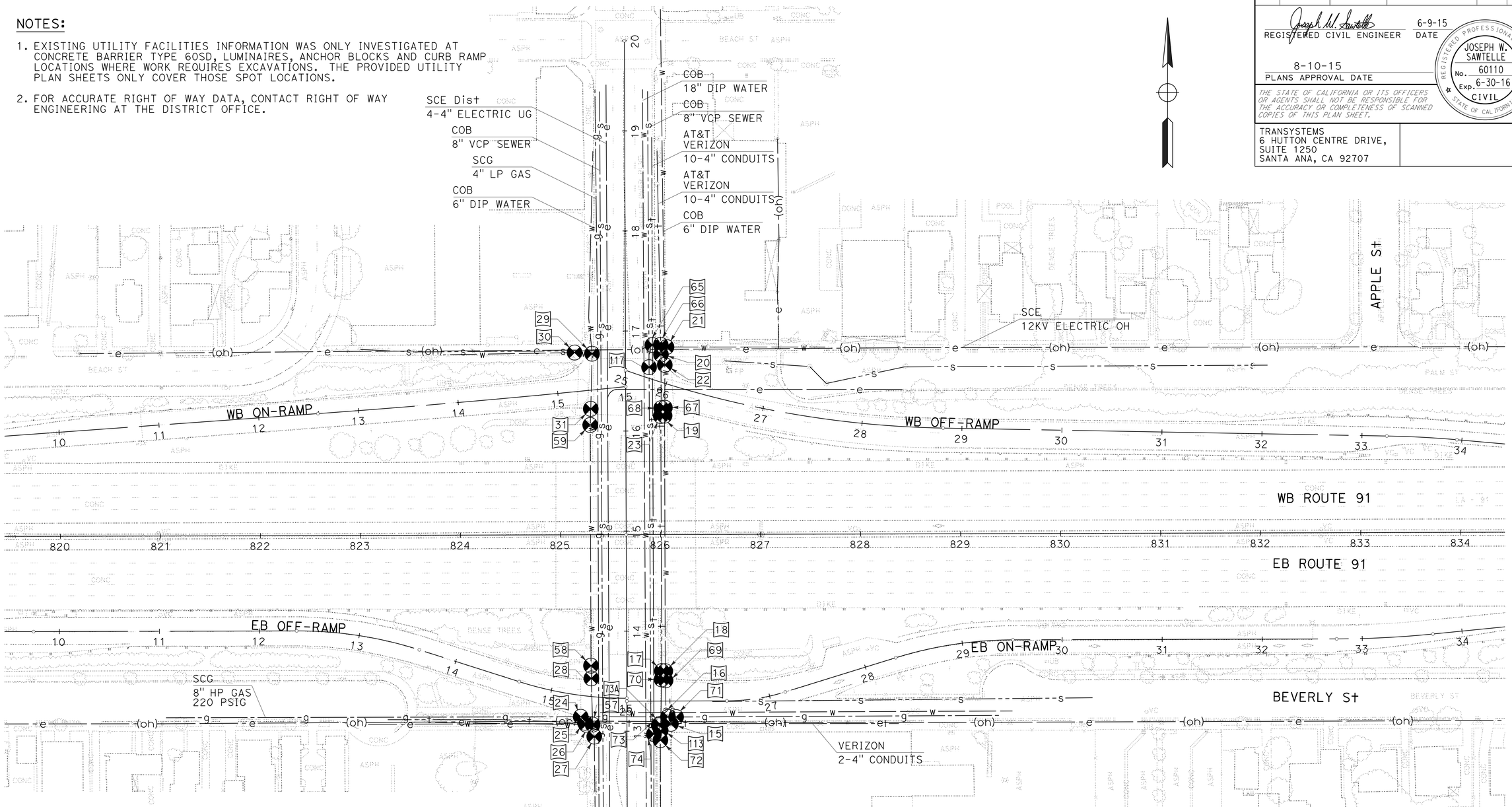

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1" = 50'

U-8

REVISED BY	DATE REVISED
TRIET DANG	JOE SAWTELLE
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	JAMAL SALMAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	66	192

REGISTERED CIVIL ENGINEER — DATE: 6-9-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH W. SAWTELLE — No. 60110 — Exp. 6-30-16 — CIVIL — STATE OF CALIFORNIA

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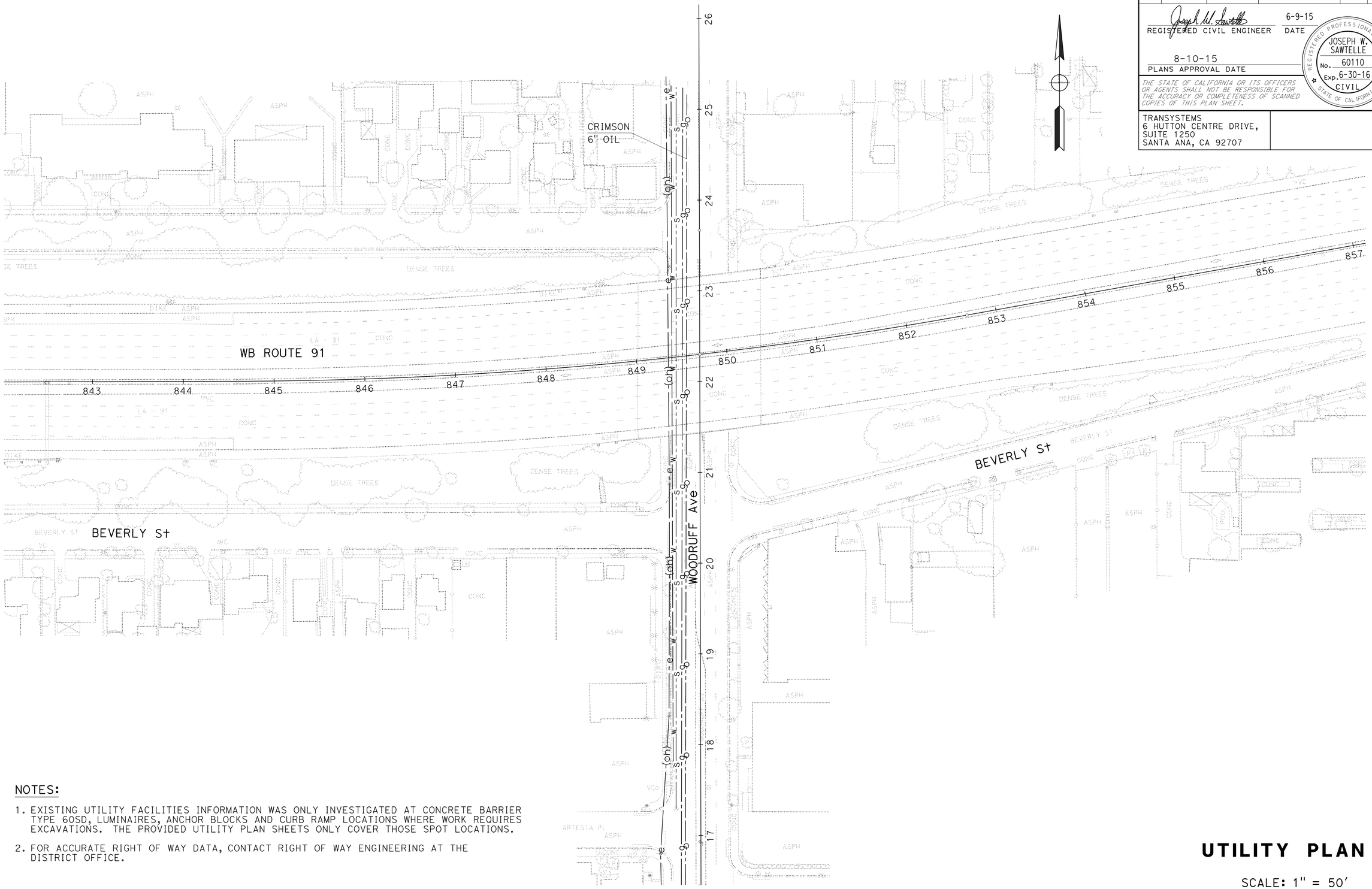
SANTA ANA, CA 92707



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UTILITY PLAN

SCALE: 1" = 50'

U-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN

CALCULATED-DESIGNED BY: TRIET DANG — CHECKED BY: JOE SAWTELLE

REVISED BY — DATE REVISED

LAST REVISION 00-00-00 — DATE PLOTTED => 16-SEP-2015 — TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	67	192

REGISTERED CIVIL ENGINEER — DATE: 6-9-15

PLANS APPROVAL DATE: 8-10-15

REGISTERED PROFESSIONAL ENGINEER — JOSEPH W. SAWTELLE — No. 60110 — Exp. 6-30-16 — CIVIL — STATE OF CALIFORNIA

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TRANSYSTEMS
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SANTA ANA, CA 92707

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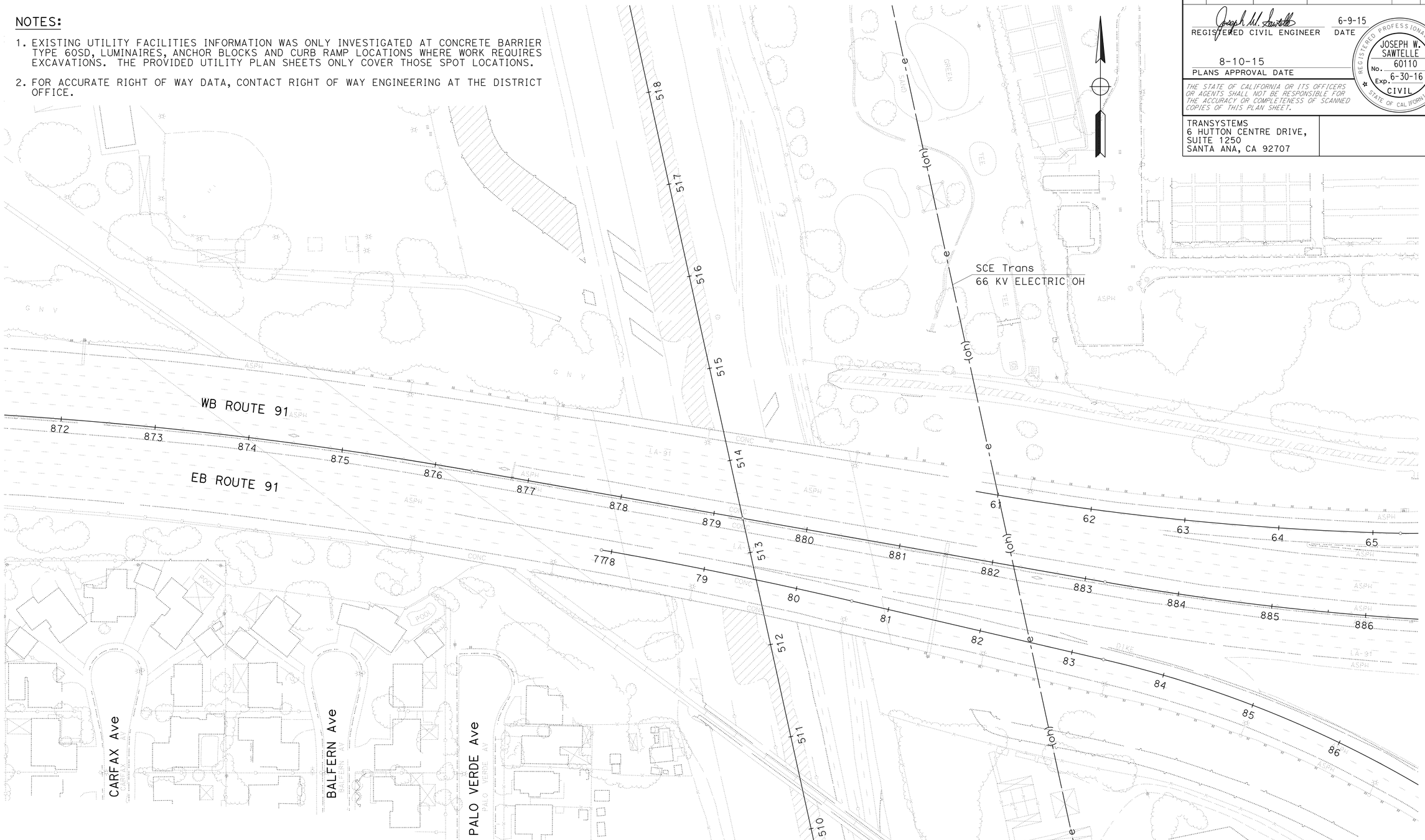

UTILITY PLAN

SCALE: 1" = 50'

U-10

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN

CALCULATED-DESIGNED BY: TRIET DANG

CHECKED BY: JOE SAWTELLE

REVISED BY

DATE REVISED

LAST REVISION 00-00-00

DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	68	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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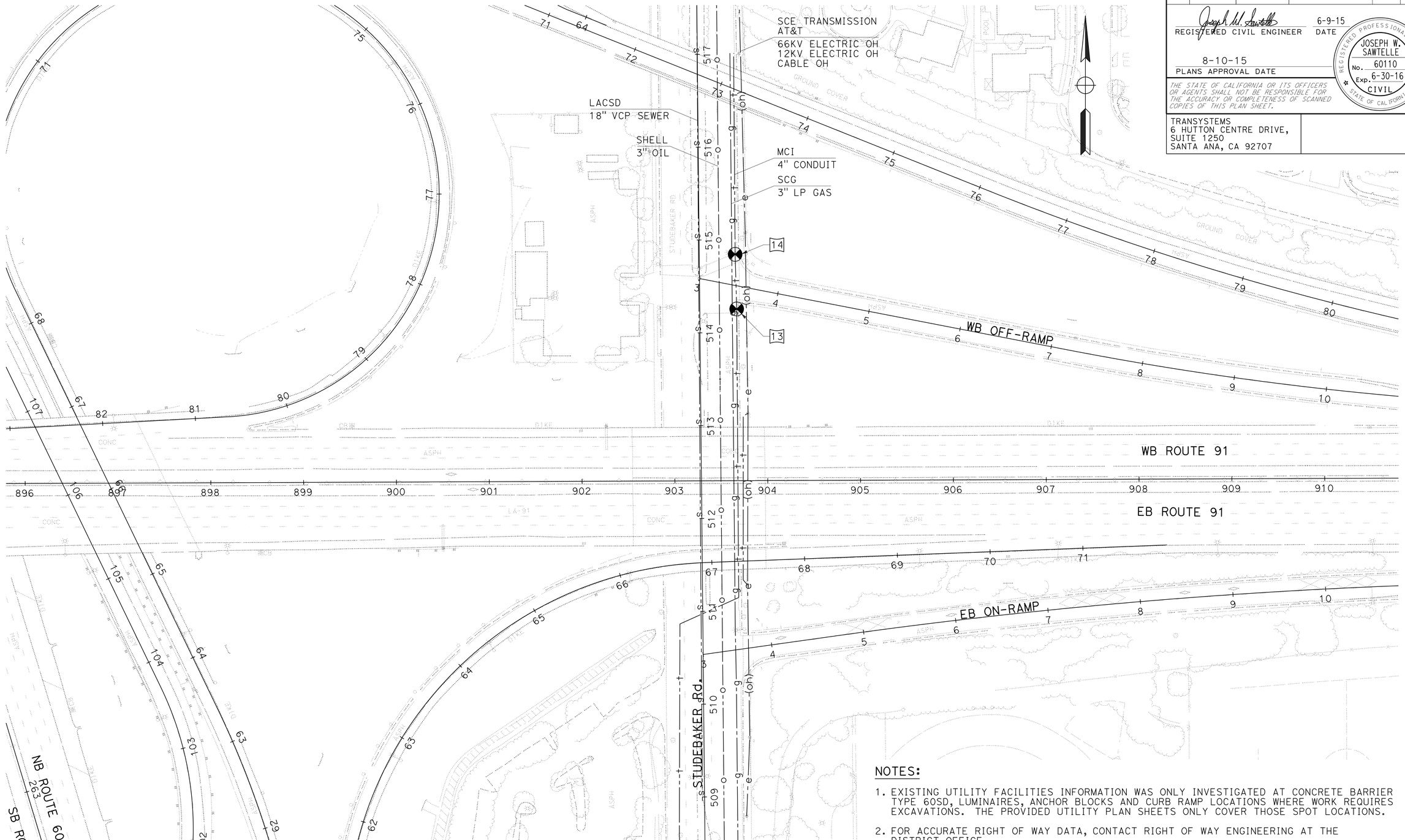
SANTA ANA, CA 92707



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UTILITY PLAN

SCALE: 1" = 50'

U-11

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: TRIET DANG
CHECKED BY: JOE SAWTELLE
CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	69	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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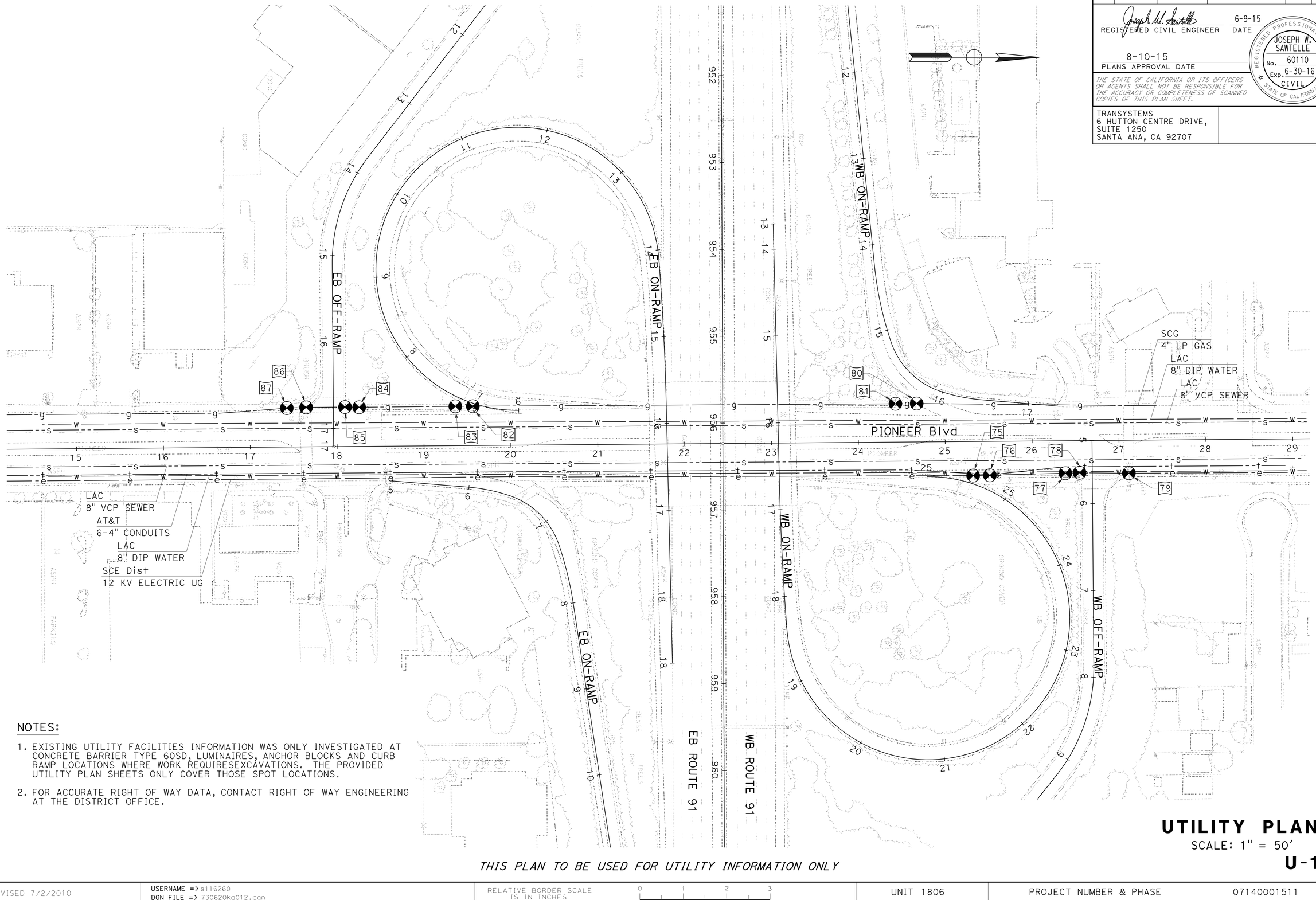

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THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1" = 50'

U-12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN
CALCULATED-DESIGNED BY: TRIET DANG
CHECKED BY: JOE SAWTELLE
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	70	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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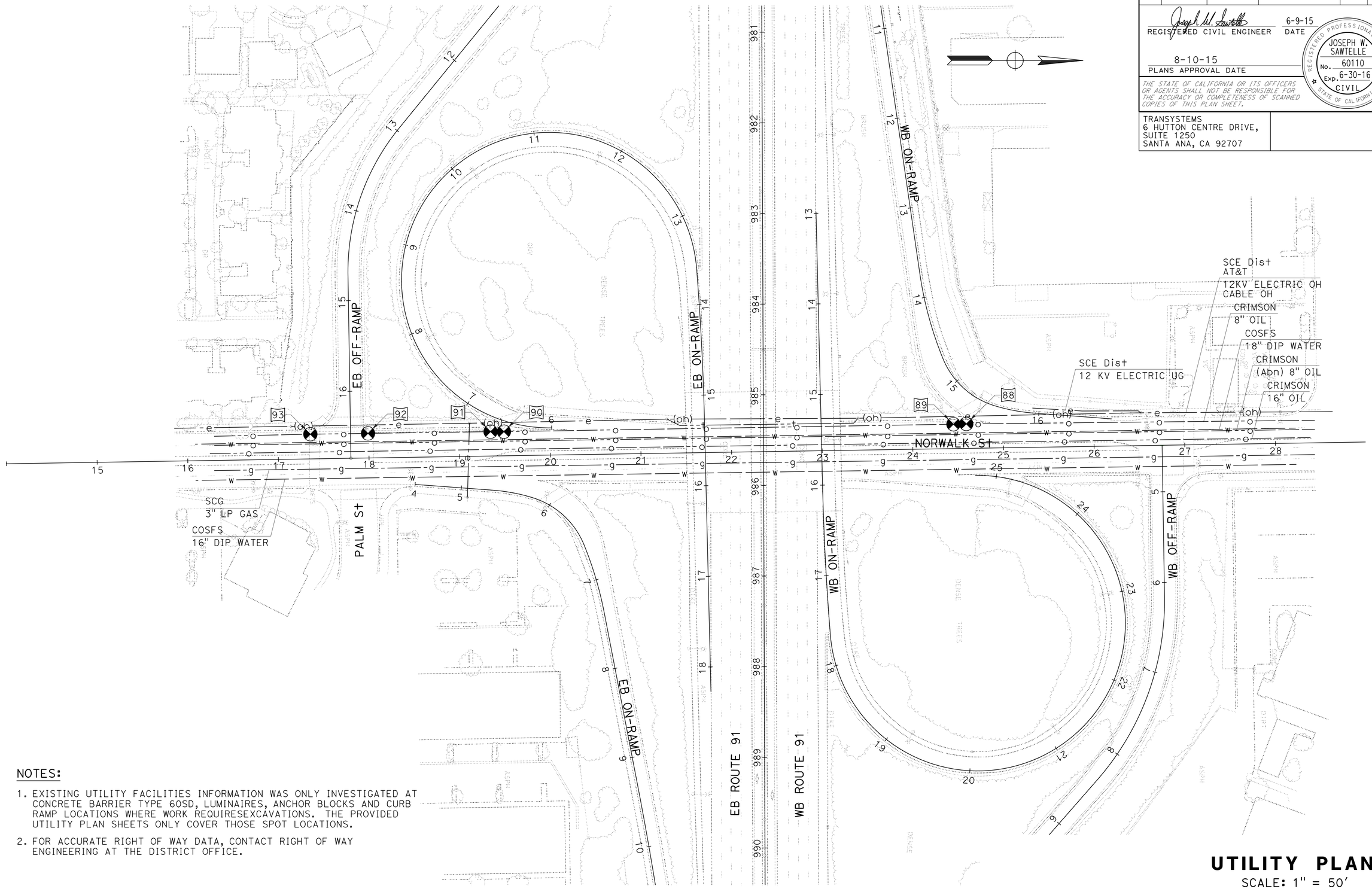

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UTILITY PLAN

SCALE: 1" = 50'

U-13

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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CALCULATED-DESIGNED BY: TRIET DANG
CHECKED BY: JOE SAWTELLE
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	71	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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6 HUTTON CENTRE DRIVE,
SUITE 1250
SANTA ANA, CA 92707

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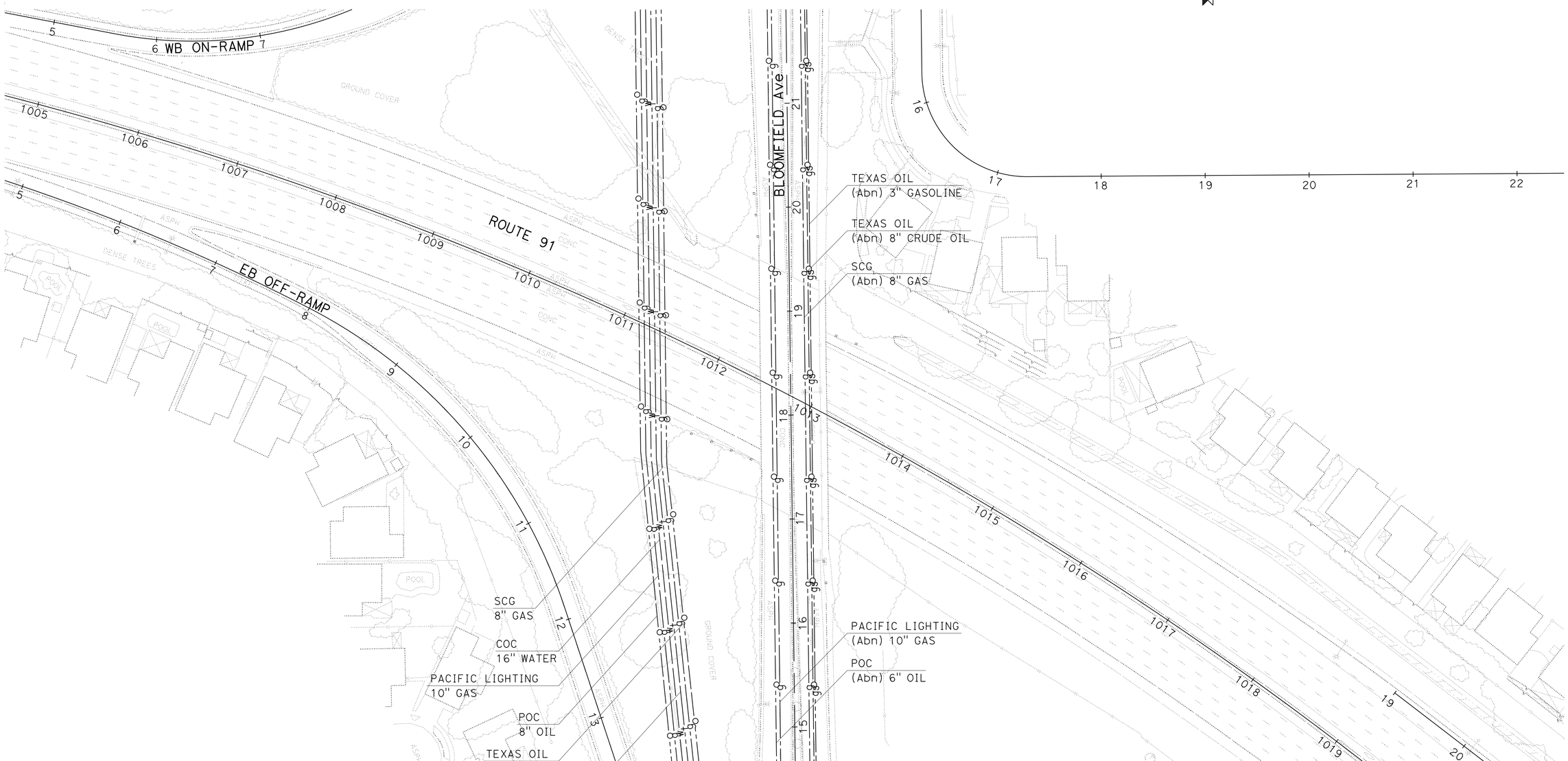

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1" = 50'

U-14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN

CALCULATED-DESIGNED BY: TRIET DANG

CHECKED BY: JOE SAWTELLE

REVISED BY

DATE REVISED

LAST REVISION 00-00-00

DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	72	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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TRANSYSTEMS
6 HUTTON CENTRE DRIVE,
SUITE 1250
SANTA ANA, CA 92707

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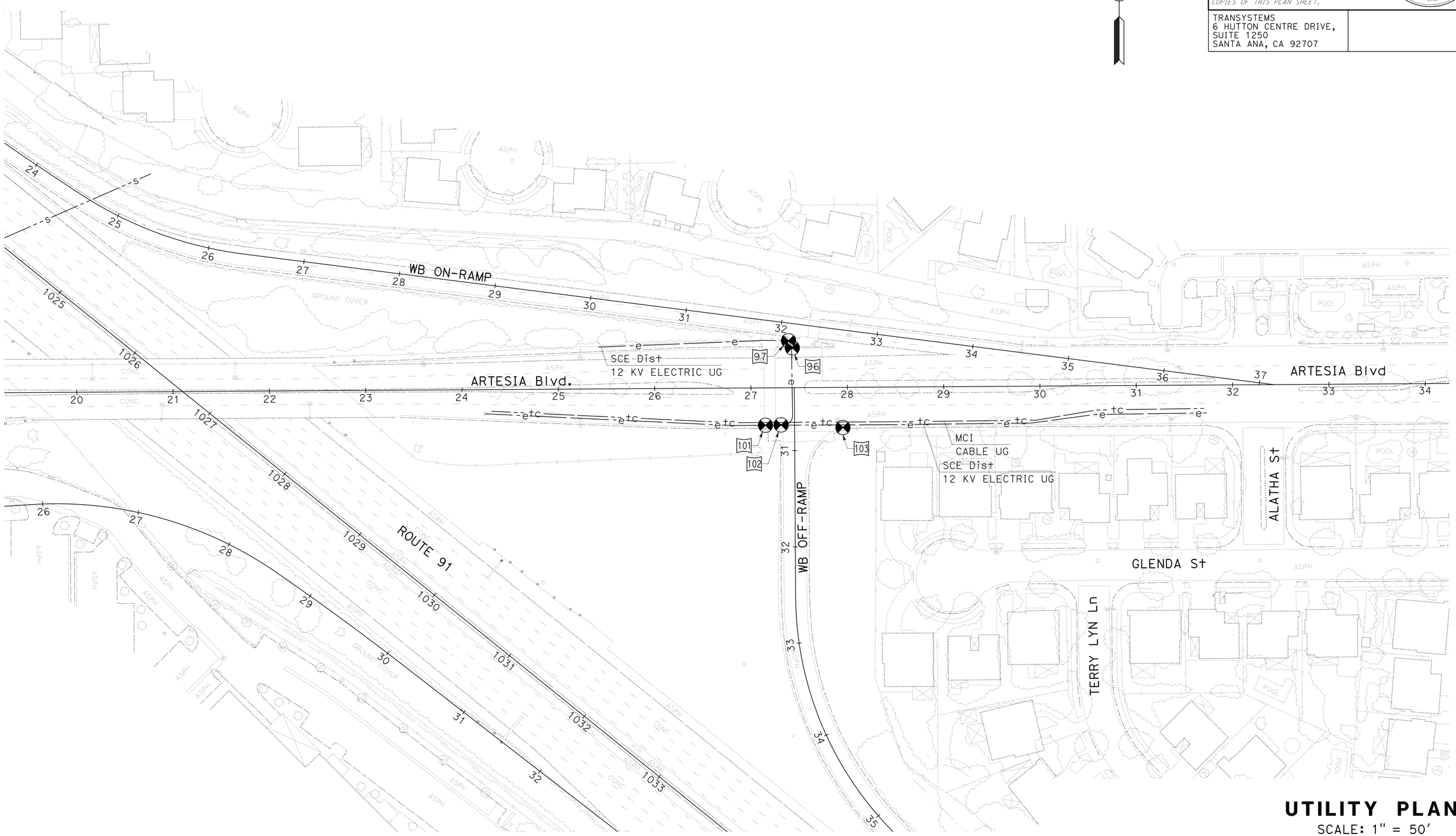

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1" = 50'

U-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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CALCULATED-DESIGNED BY: TRIET DANG
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REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	73	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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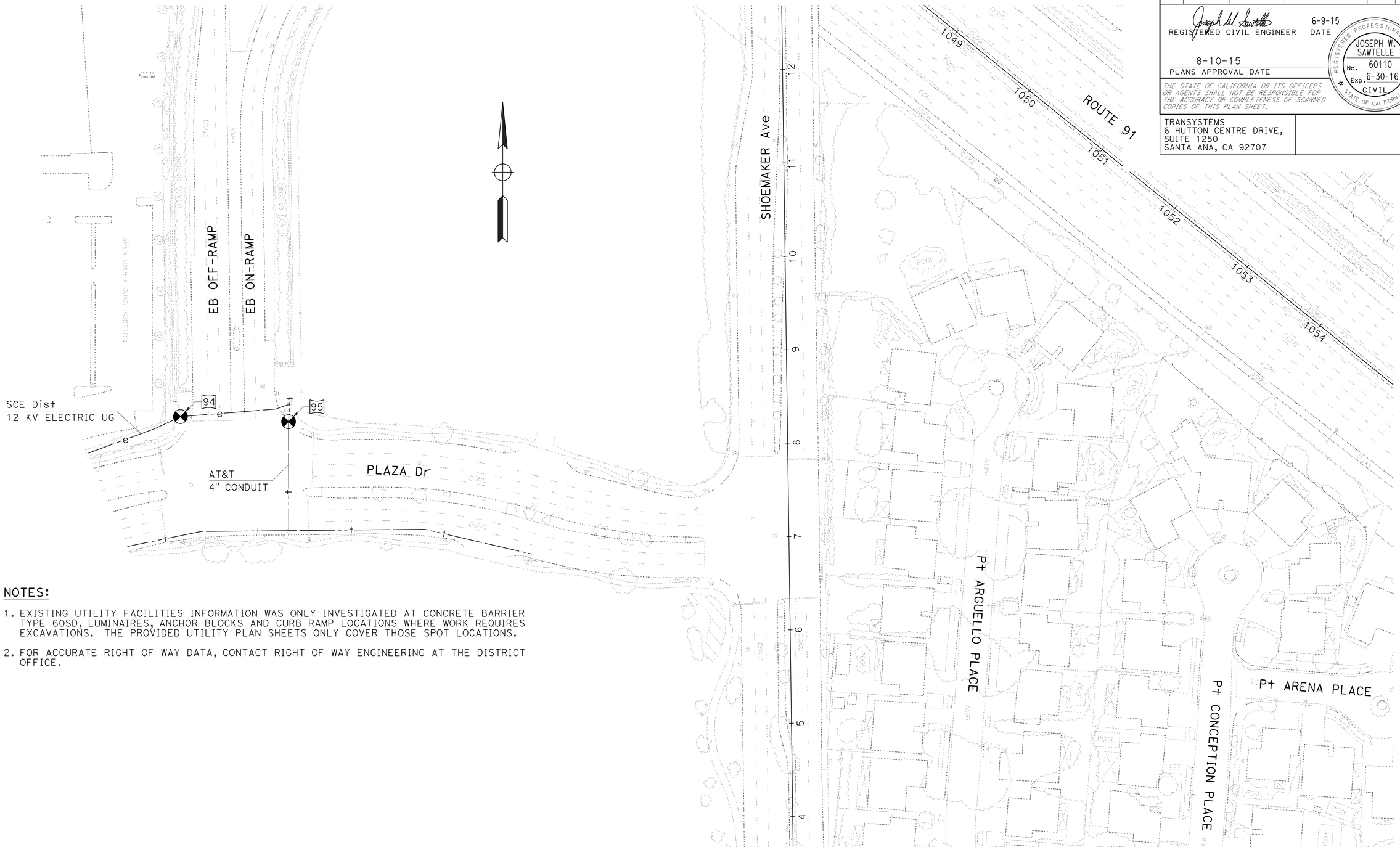
SANTA ANA, CA 92707



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UTILITY PLAN

SCALE: 1" = 50'

U-16

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN
CALCULATED-DESIGNED BY: TRIET DANG
CHECKED BY: JOE SAWTELLE
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	74	192

REGISTERED CIVIL ENGINEER — DATE: 6-9-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOSEPH W. SAWTELLE — No. 60110 — Exp. 6-30-16 — CIVIL — STATE OF CALIFORNIA

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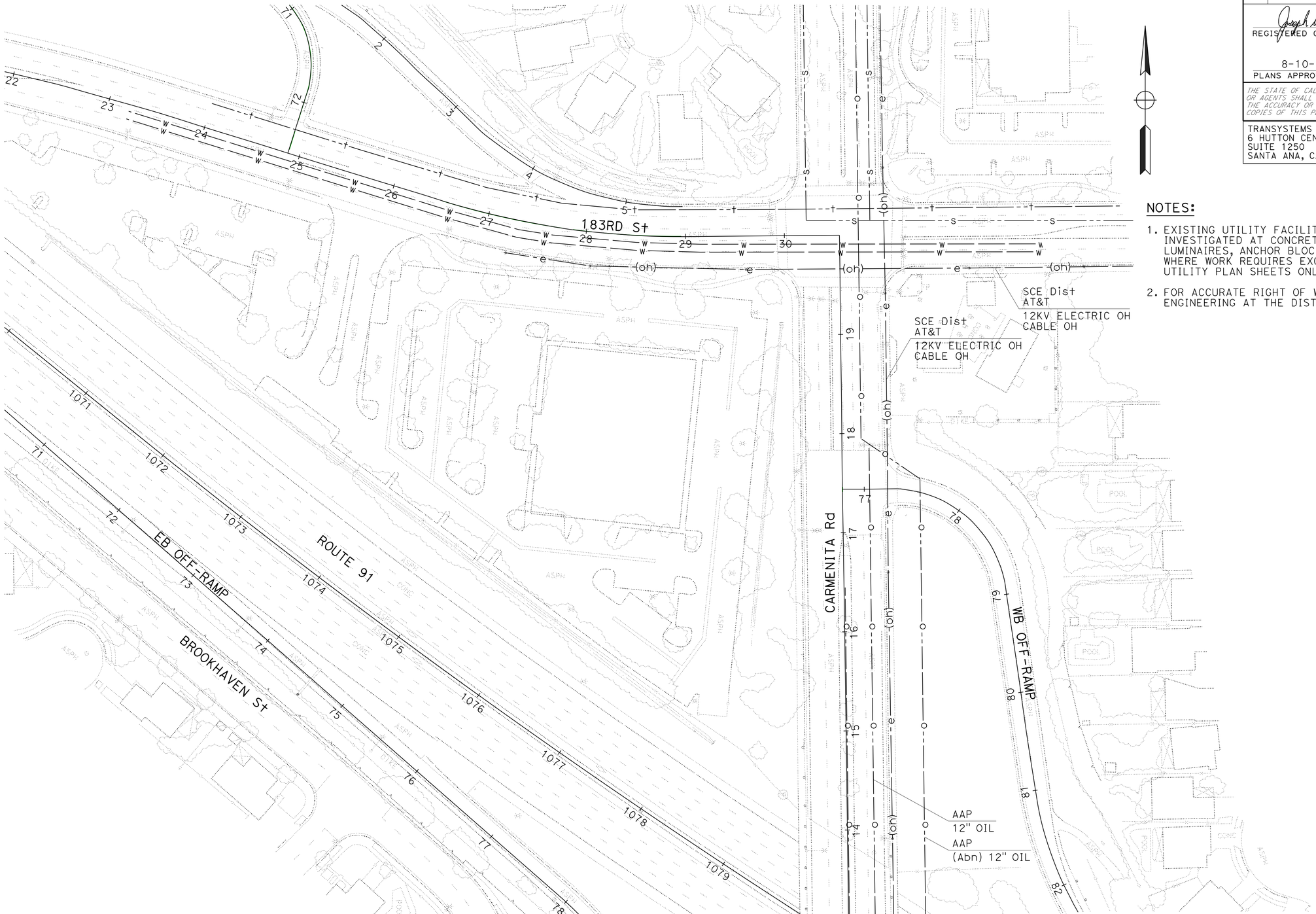
SANTA ANA, CA 92707



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UTILITY PLAN

SCALE: 1" = 50'

U-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN

CALCULATED-DESIGNED BY: TRIET DANG

CHECKED BY: JOE SAWTELLE

REVISED BY / DATE REVISED

LAST REVISION 00-00-00 — DATE PLOTTED => 16-SEP-2015 — TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	75	192

REGISTERED CIVIL ENGINEER — DATE: 6-9-15

PLANS APPROVAL DATE: 8-10-15

REGISTERED PROFESSIONAL ENGINEER — JOSEPH W. SAWTELLE — No. 60110 — Exp. 6-30-16 — CIVIL — STATE OF CALIFORNIA

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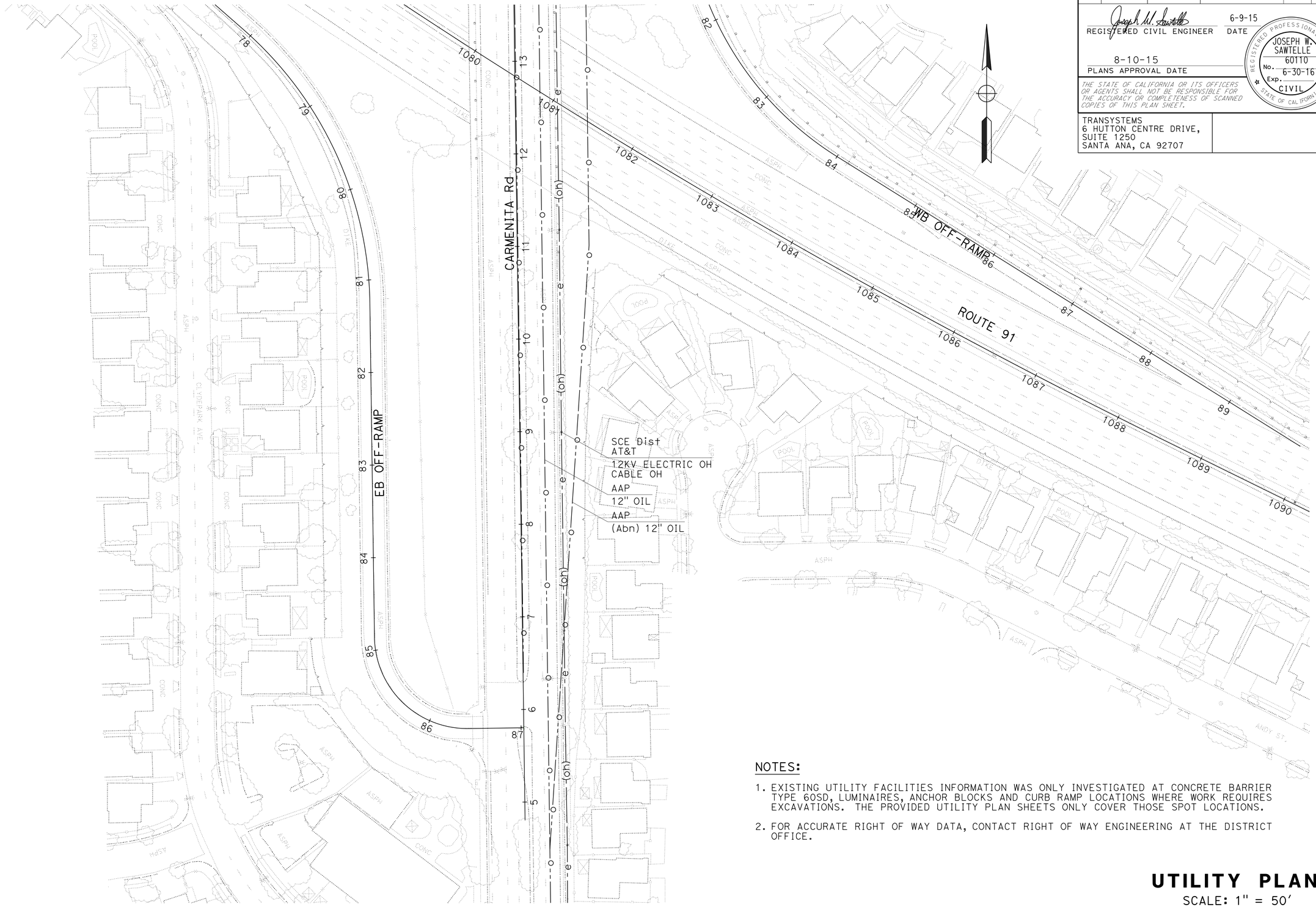
SANTA ANA, CA 92707



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UTILITY PLAN

SCALE: 1" = 50'

U-18

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN

CALCULATED-DESIGNED BY: TRIET DANG

CHECKED BY: JOE SAWTELLE

REVISED BY | DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	76	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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TRANSYSTEMS
6 HUTTON CENTRE DRIVE,
SUITE 1250
SANTA ANA, CA 92707

POTHOLE LOCATION TABLE

No.	UTILITY OWNER	SHEET	NORTHING	EASTING	TOP ELEVATION	DEPTH
1	CITY OF LONG BEACH	U-5	1777500.61	6515777.13	55.55	3.72
2	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777495.55	6515782.43	55.81	3.90
3	CITY OF LONG BEACH	U-5	1777551.83	6515776.39	54.36	5.10
4	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777551.68	6515782.18	55.67	4.08
5	CITY OF LONG BEACH	U-5	1777873.43	6515776.21	56.44	3.90
6	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777874.33	6515781.12	56.59	3.92
7	CITY OF LONG BEACH	U-5	1777808.80	6515775.78	56.60	3.70
8	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777810.19	6515780.79	56.19	4.38
9	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777469.00	6521053.22	61.09	3.82
10	CITY OF BELLFLOWER	U-7	1777492.54	6521065.86	61.89	2.70
11	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777535.62	6521053.23	61.39	2.62
11A	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777796.21	6521051.68	61.96	2.30
12	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777864.92	6521052.49	61.29	2.98
13	MCI, INC	U-11	1777595.23	6531424.29	63.29	3.38
14	MCI, INC	U-11	1777654.03	6531422.61	62.23	4.90
15	VERIZON	U-8	1777157.58	6523706.00	63.26	4.46
16	SOUTHERN CALIFORNIA GAS COMPANY	U-8	1777164.55	6523703.08	59.83	7.50
17	AT&T/VERIZON	U-8	1777210.30	6523696.93	60.49	7.24
18	CITY OF BELLFLOWER	U-8	1777210.25	6523700.40	64.04	3.96
19	CITY OF BELLFLOWER	U-8	1777465.59	6523699.71	63.82	4.23
20	AT&T/VERIZON	U-8	1777526.77	6523696.06	65.90	1.85
21	CITY OF BELLFLOWER	U-8	1777534.18	6523701.64	63.92	4.21
22	CITY OF BELLFLOWER	U-8	1777516.36	6523699.88	63.66	4.30
23	AT&T/VERIZON	U-8	1777465.24	6523695.91	63.82	4.25
24	SOUTHERN CALIFORNIA GAS COMPANY	U-8	1777164.65	6523615.92	62.92	4.30
25	VERIZON	U-8	1777158.64	6523620.09	63.34	4.28
26	CITY OF BELLFLOWER	U-8	1777156.73	6523621.19	63.94	3.41
27	CITY OF BELLFLOWER	U-8	1777144.85	6523629.41	63.93	3.51
28	CITY OF BELLFLOWER	U-8	1777203.01	6523626.47	63.59	3.61
29	CITY OF BELLFLOWER	U-8	1777527.52	6523627.23	63.79	3.87
30	CITY OF BELLFLOWER	U-8	1777528.66	6523609.70	65.53	3.10
31	CITY OF BELLFLOWER	U-8	1777472.37	6523625.91	63.91	3.61
34	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777495.40	6515771.33	53.60	5.45
35	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777508.41	6515782.54	55.64	3.82
36	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777540.23	6515782.24	55.85	3.40
38	CITY OF LONG BEACH	U-5	1777541.78	6515776.26	54.17	4.74
40	CITY OF LONG BEACH	U-5	1777823.34	6515776.24	56.85	3.06
41	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777823.67	6515781.10	56.20	3.80
42	SOUTHERN CALIFORNIA GAS COMPANY	U-5	1777859.18	6515781.21	56.78	3.30
43	CITY OF LONG BEACH	U-5	1777865.83	6515776.02	56.85	2.90
44	CHEVRON	U-5	1777506.96	6515706.50	55.54	3.54
45	CHEVRON	U-5	1777861.83	6515710.22	56.92	3.04
46	KINDER MORGAN	U-3	1777195.58	6510419.47	52.40	4.80
47	CITY OF BELLFLOWER	U-6	1777377.38	6518432.36	55.45	6.00
48	CITY OF BELLFLOWER	U-6	1777993.72	6518431.20	53.88	8.24
49	CITY OF BELLFLOWER	U-6	1777971.21	6518430.84	53.58	8.54
50	CITY OF BELLFLOWER	U-6	1778058.99	6518430.81	55.04	7.16
51	CITY OF BELLFLOWER	U-6	1777986.96	6518324.01	55.94	6.66
52	CITY OF BELLFLOWER	U-6	1777962.98	6518324.80	58.50	4.06
53	CITY OF BELLFLOWER	U-6	1777421.54	6518327.25	55.15	7.08
54	CITY OF BELLFLOWER	U-6	1777396.51	6518327.13	57.71	4.40

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1" = 50'

U-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN
CALCULATED-DESIGNED BY: TRIET DANG
CHECKED BY: JOE SAWTELLE
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	77	192

REGISTERED CIVIL ENGINEER 6-9-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. SAWTELLE No. 60110 Exp. 6-30-16 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.

TRANSYSTEMS
6 HUTTON CENTRE DRIVE,
SUITE 1250
SANTA ANA, CA 92707

POTHOLE LOCATION TABLE

No.	UTILITY OWNER	SHEET	NORTHING	EASTING	TOP ELEVATION	DEPTH
55	CITY OF BELLFLOWER	U-6	1777333.76	6518327.83	57.70	3.72
56	CITY OF BELLFLOWER	U-6	1777321.76	6518327.70	57.77	4.32
57	CITY OF BELLFLOWER	U-8	1777156.85	6523627.77	63.83	3.42
58	CITY OF BELLFLOWER	U-8	1777215.75	6523626.14	63.59	4.16
59	CITY OF BELLFLOWER	U-8	1777456.26	6523625.35	63.78	4.42
60	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777484.00	6521053.20	60.90	3.30
61	CITY OF BELLFLOWER	U-7	1777492.84	6521058.56	62.05	2.16
62	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777553.70	6521053.29	61.46	2.53
63	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777810.41	6521052.85	61.88	2.36
64	SOUTHERN CALIFORNIA GAS COMPANY	U-7	1777853.64	6521052.54	61.69	2.64
65	AT&T/VERIZON	U-8	1777536.20	6523687.57	63.81	3.84
66	AT&T/VERIZON	U-8	1777536.43	6523695.87	63.88	4.20
67	CITY OF BELLFLOWER	U-8	1777473.56	6523700.00	63.82	3.52
68	AT&T/VERIZON	U-8	1777473.07	6523696.29	63.77	3.54
69	CITY OF BELLFLOWER	U-8	1777201.05	6523700.67	64.06	3.24
70	AT&T/VERIZON	U-8	1777202.04	6523696.68	60.13	7.16
71	SOUTHERN CALIFORNIA GAS COMPANY	U-8	1777164.39	6523711.22	61.81	5.60
72	AT&T/VERIZON	U-8	1777141.27	6523695.50	59.41	8.38
73	AT&T/VERIZON	U-8	1777156.27	6523693.88	64.39	8.26
73A	AT&T/VERIZON	U-8	1777157.42	6523695.02	64.52	2.70
74	AT&T/VERIZON	U-8	1777147.36	6523689.03	63.22	2.70
75	SOUTHERN CALIFORNIA EDISON/VERIZON	U-12	1777718.91	6536718.07	59.85	3.90
76	SOUTHERN CALIFORNIA EDISON/VERIZON	U-12	1777738.15	6536717.83	59.55	3.88
77	SOUTHERN CALIFORNIA EDISON	U-12	1777825.05	6536715.41	59.76	4.10
78	SOUTHERN CALIFORNIA EDISON	U-12	1777841.42	6536714.86	59.08	4.12
79	SOUTHERN CALIFORNIA EDISON	U-12	1777898.13	6536715.44	60.45	4.92
80	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1777653.91	6536635.12	59.43	3.62
81	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1777629.42	6536635.45	60.38	4.06
82	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1777142.93	6536638.26	58.40	3.58
83	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1777122.82	6536638.35	54.54	3.94
84	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1777012.05	6536639.46	58.37	4.18
85	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1776995.85	6536639.20	57.99	3.86
86	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1776951.01	6536639.60	57.71	3.94
87	SOUTHERN CALIFORNIA GAS COMPANY	U-12	1776928.82	6536640.37	57.82	4.24
88	CRIMSON PIPELINE	U-13	1777666.00	6539589.84	56.47	5.94
89	CRIMSON PIPELINE	U-13	1777651.80	6539590.16	56.43	5.96
90	CRIMSON PIPELINE	U-13	1777155.90	6539598.40	57.75	4.04
91	CRIMSON PIPELINE	U-13	1777141.15	6539598.38	57.36	4.36
92	CRIMSON PIPELINE	U-13	1777005.97	6539600.29	57.38	4.26
93	CRIMSON PIPELINE	U-13	1776942.39	6539601.18	57.53	3.98
94	SOUTHERN CALIFORNIA EDISON	U-16	1774414.39	6544298.60	53.17	2.60
95	AT&T	U-16	1774408.98	6544414.37	51.58	3.88
96	SOUTHERN CALIFORNIA EDISON	U-15	1776277.22	6544023.85	55.24	3.88
97	SOUTHERN CALIFORNIA EDISON	U-15	1776284.65	6544019.93	56.99	2.60
101	SOUTHERN CALIFORNIA EDISON/MCI, Inc	U-15	1776196.85	6543996.01	55.91	4.16
102	SOUTHERN CALIFORNIA EDISON/MCI, Inc	U-15	1776197.22	6544012.23	55.83	3.82
103	SOUTHERN CALIFORNIA EDISON/MCI, Inc	U-15	1776194.48	6544076.43	54.27	3.76
111	SANITARY SEWER	U-7	1777503.46	6521044.14	55.37	9.20
112	SANITARY SEWER	U-7	1777857.30	6521042.96	54.77	10.10
113	AT&T/VERIZON	U-8	1777150.89	6523695.82	63.21	4.30
114	SANITARY SEWER	U-5	1777485.30	6515771.15	52.81	6.20
115	SANITARY SEWER	U-6	1777409.62	6518336.09	53.93	7.70
116	SANITARY SEWER	U-5	1777923.42	6515768.77	54.65	5.68
117	SANITARY SEWER	U-8	1777514.08	6523684.20	62.20	5.60

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN
SCALE: 1" = 50'

U-20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: JAMAL SALMAN
CALCULATED-DESIGNED BY: TRIET DANG
CHECKED BY: JOE SAWTELLE
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	78	196

REGISTERED CIVIL ENGINEER — DATE 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL — STATE OF CALIFORNIA

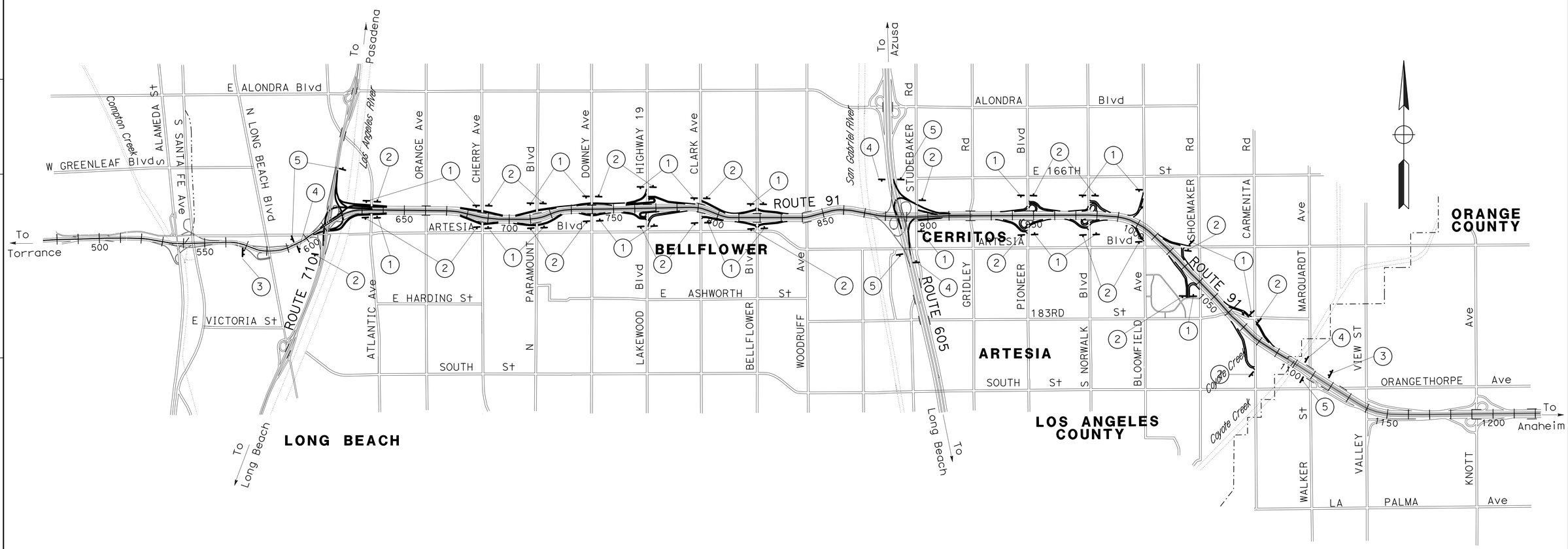
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN NUMBER	CODE	SIGN MESSAGE	PANEL SIZE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
1	W20-1	ROAD WORK AHEAD	36" x 36"	1 - 4" x 4"	23
2	G20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	25
3	C40(CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	144" x 60"	2 - 6" x 8"	2
4	W20-1	ROAD WORK AHEAD	48" x 48"	1 - 4" x 6"	4
5	G20-2	END ROAD WORK	48" x 24"	1 - 4" x 6"	5
				TOTAL	59



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU

CALCULATED-DESIGNED BY: GORDON F KUO
CHECKED BY: LEWEN KUO

REVISED BY
DATE REVISED

LAST REVISION 06-15-15 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:56

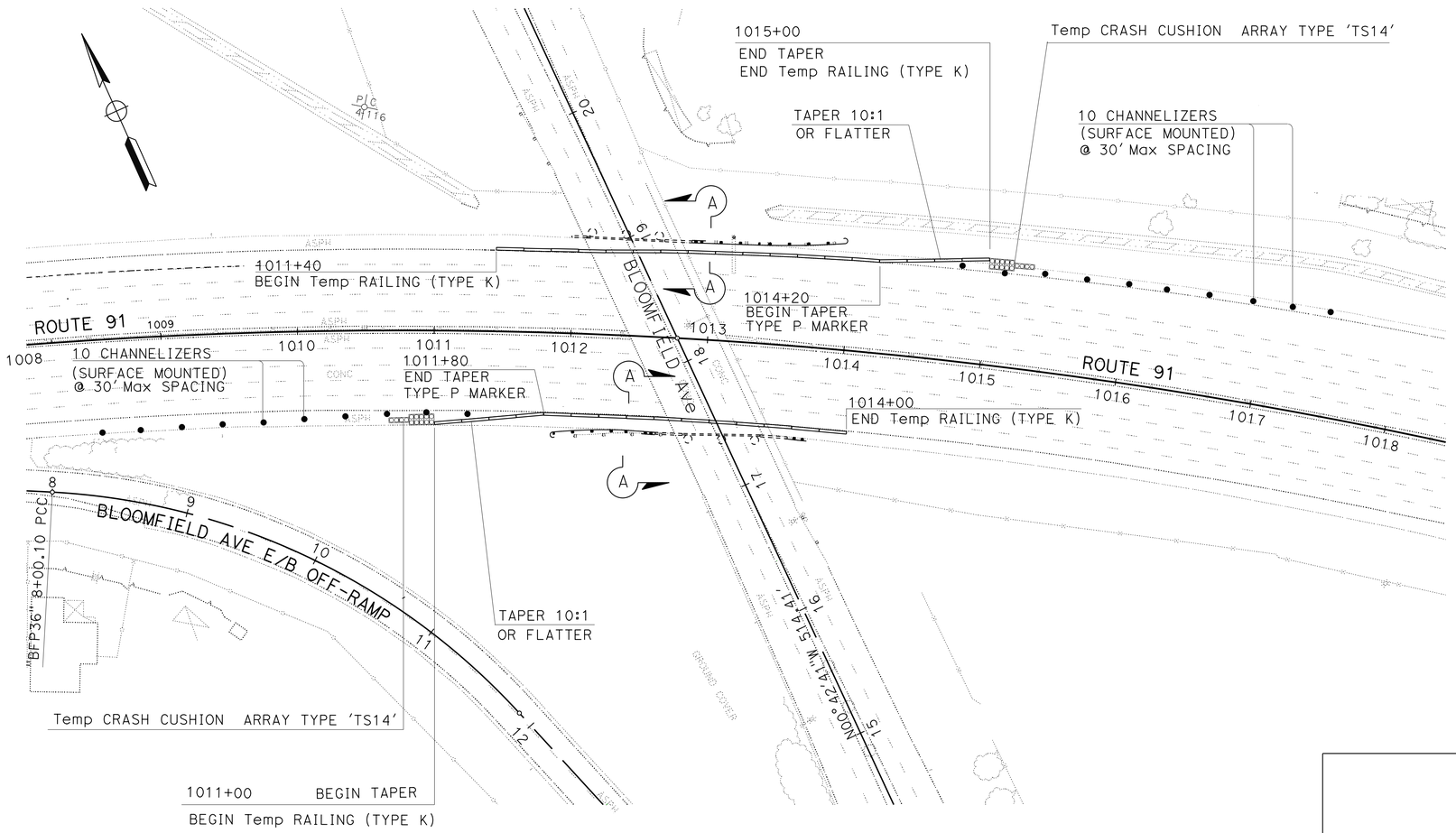
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	79	192

REGISTERED CIVIL ENGINEER — DATE: 6-18-15

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEWEN KUO No. C52464 Exp. 12/31/16 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.



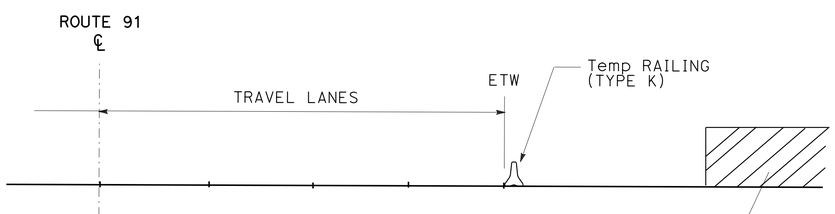
PLAN
SCALE: 1" = 50'

LEGENDS:

- • CHANNELIZER (SURFACE MOUNTED)
- TEMPORARY CRASH CUSHION ARRAY
- TEMPORARY RAILING (TYPE K)

TRAFFIC HANDLING QUANTITIES

DIRECTION	TEMPORARY RAILING (TYPE K)	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE
	LF	EA	EA
EAST BOUND	300	10	14
WEST BOUND	360	10	14
TOTAL	660	20	28



TYPICAL SECTION A-A
NO SCALE

TRAFFIC HANDLING PLAN

APPROVED FOR TRAFFIC HANDLING WORK ONLY

TH-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: VINCENT VALIDO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:56

BORDER LAST REVISED 7/2/2010 | USERNAME => s116260 | DGN FILE => 730620md001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1806 | PROJECT NUMBER & PHASE 07140001511

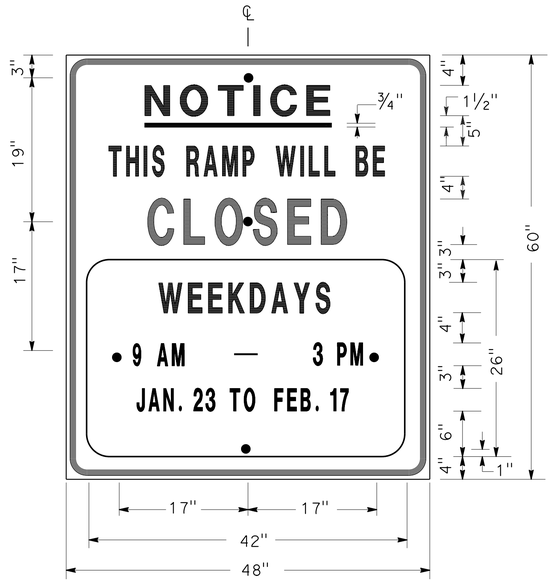
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	80	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

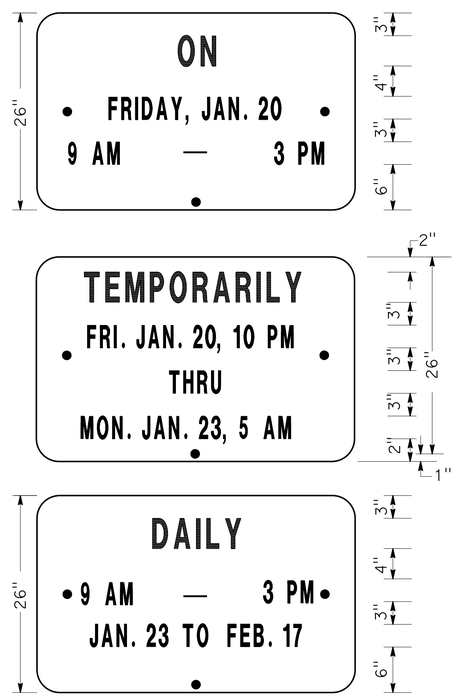
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 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 SP-1



ALTERNATE OVERLAY PANELS (TYPICAL)

SPECIAL ADVANCE NOTICE PUBLICITY SIGN

NOTES: SIGN SP-1

1. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
2. BOLT HOLES MUST BE 3/8" DIAMETER.
3. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
4. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.

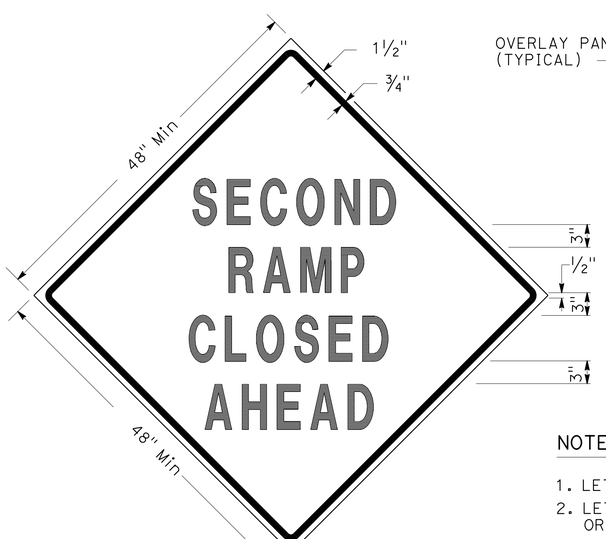
SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"
* CONDENSED SPACING IF NECESSARY								

SIGN SP-4

NOTES: SIGN SP-4

1. LETTERS - 6" SERIES C.
2. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
3. BOLT HOLES MUST BE 3/8" DIAMETER.
4. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
5. SIGNS MUST BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH REVISED STANDARD PLAN RSP T14.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES



SIGN SP-3

SIGN SP-5

NOTES: SIGNS SP-3 & SP-5

1. LETTERS - 6" SERIES D.
2. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
3. BOLT HOLES MUST BE 3/8" DIAMETER.
4. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
5. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.
6. SIGN SP-5 MUST BE USED IF THE OFF-RAMP TO BE CLOSED FOLLOWS A FREEWAY OFF-CONNECTOR.

SPECIAL SIGNS FOR EXIT RAMP CLOSURES

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS
SHEET 1 OF 2

NO SCALE

THD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: DENIS KATAYAMA
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

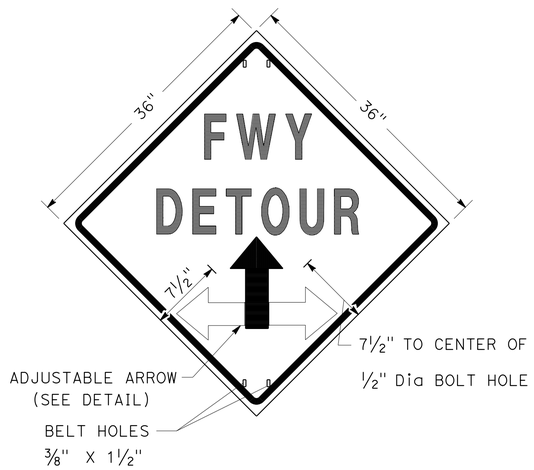
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	81	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

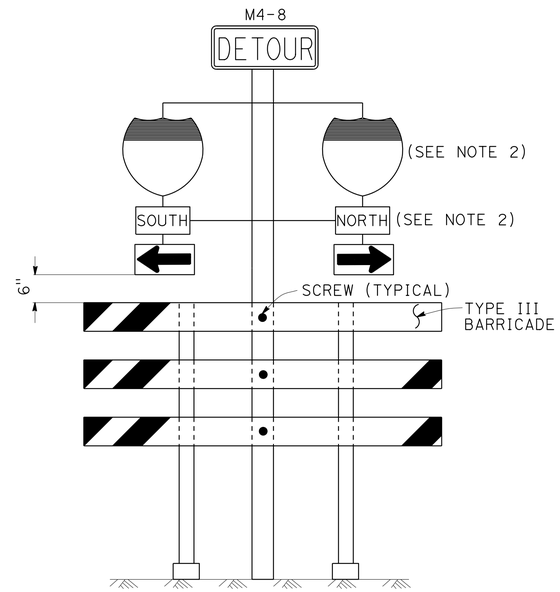
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

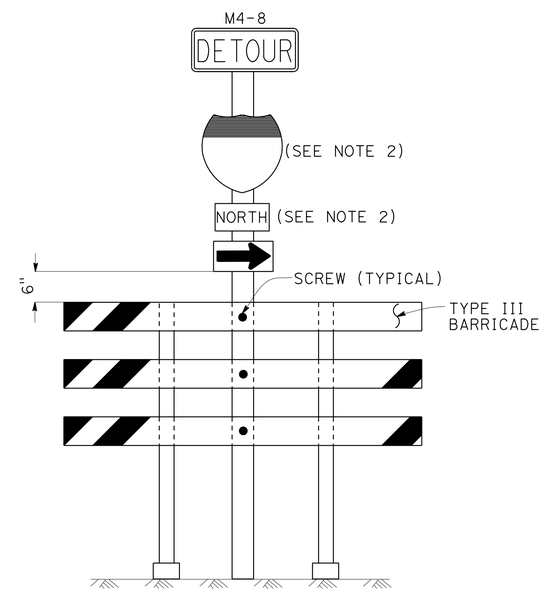
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

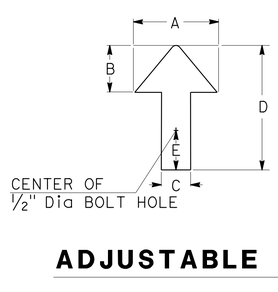
NOTES: SIGN SP-2

1. LETTERS - 6" SERIES E.
2. LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
3. BASE MATERIAL FOR SIGNS AND ARROWS MUST BE ALUMINUM (MINIMUM 0.06").
4. BELTS (LUGGAGE STRAPS) MUST BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
5. SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

NOTES: SIGNS SP-6 & SP-7

1. IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
2. USE APPROPRIATE ROUTE MARKER [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)].

SPECIAL PORTABLE FREEWAY DETOUR SIGNS



DIMENSIONS				
A	B	C	D	E
6"	3"	2"	8"	1"

ADJUSTABLE ARROW DETAIL

ABBREVIATION

(CA) CALIFORNIA CODE

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS

SHEET 2 OF 2

NO SCALE

THD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: DENIS KATAYAMA
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION: DATE PLOTTED => 16-SEP-2015 TIME PLOTTED => 13:56
00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	82	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

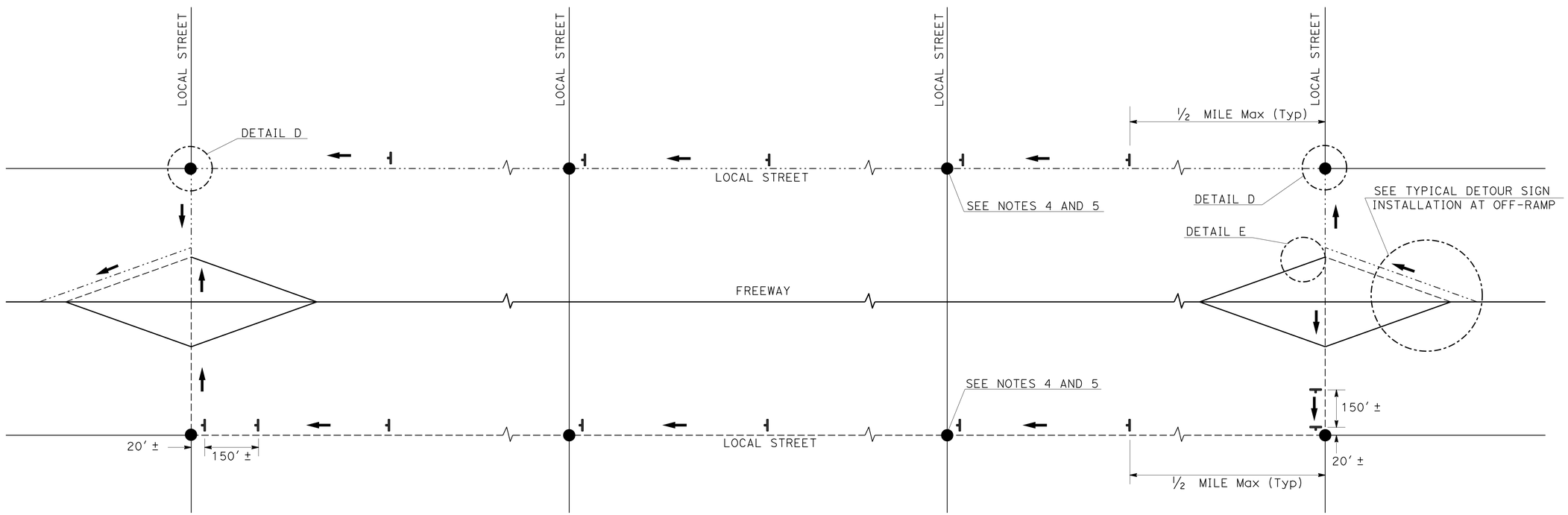
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

- SIGN SP-2
- AND/OR — DESIGNATED DETOUR ROUTE
- DETOUR DIRECTION
- CONTROLLED INTERSECTION

NOTES:

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. DO NOT INSTALL SP-2 SIGNS ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
4. SP-2 SIGNS MUST BE POSTED AT EACH CONTROLLED INTERSECTION (EXCEPT AT COMMERCIAL PROPERTY, RESIDENTIAL COMPLEX OR T-INTERSECTION FROM ONE-WAY STREET) ALONG THE DESIGNATED DETOUR ROUTE.
5. UNLESS OTHERWISE SHOWN ON OTHER THD PLANS, WHEN CONTROLLED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE ARE CLOSELY SPACED, PLACE SP-2 SIGNS AT CONTROLLED INTERSECTIONS AT A DISTANCE NOT TO EXCEED 1/4 MILE FROM THE PRECEDING DETOUR SIGN.
6. SEE SHEET THD-4 FOR DETAILS D, E, AND TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP.



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

SHEET 1 OF 3

NO SCALE

THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DTM

FUNCTIONAL SUPERVISOR: DENIS KATAYAMA
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	83	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

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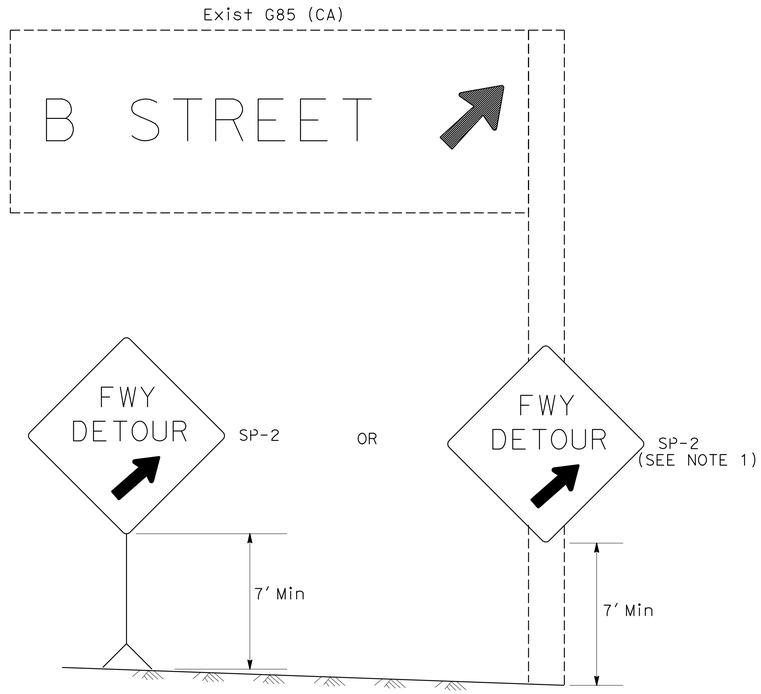
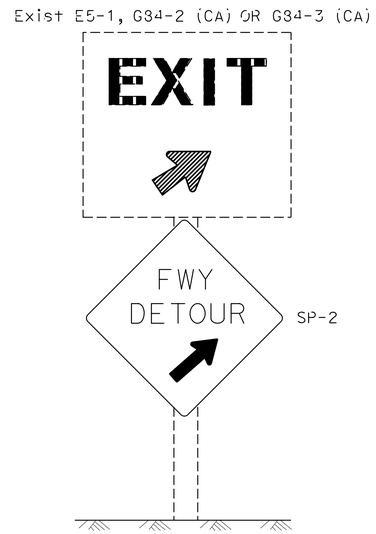
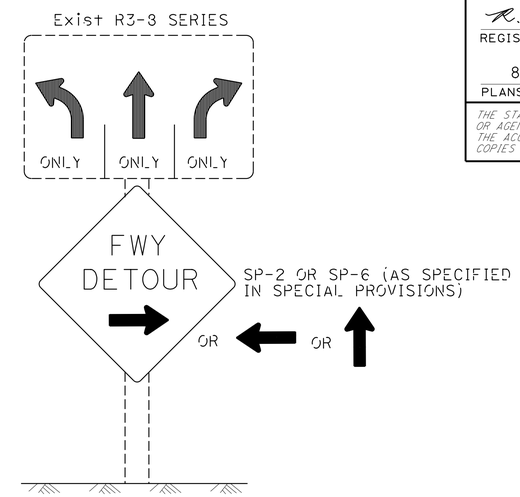


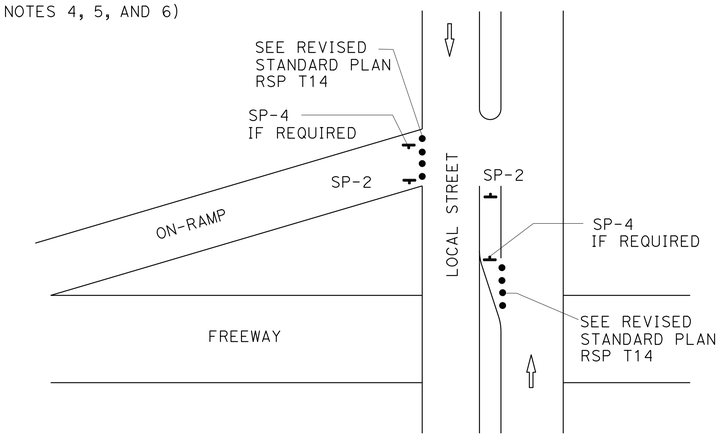
DETAIL A (SEE NOTE 3)



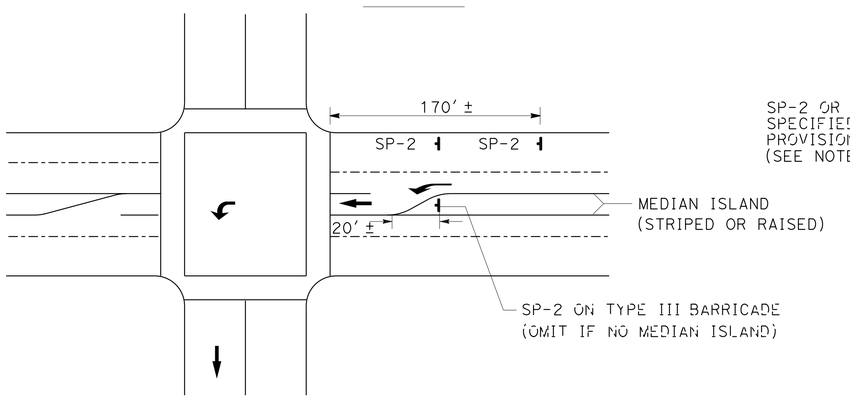
DETAIL B (SEE NOTE 3)



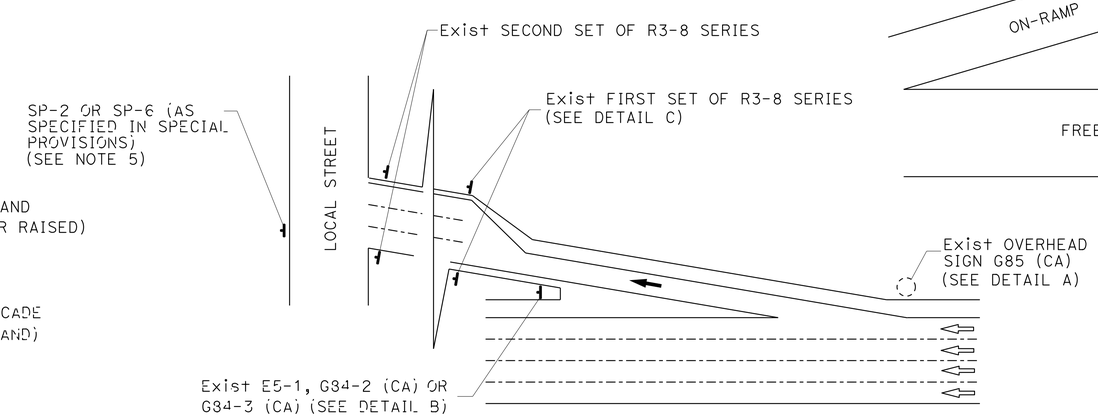
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL E



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

LEGEND:

- • TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- → DETOUR DIRECTION
- ◌ EXISTING OVERHEAD SIGN

NOTES: SIGN SP-2

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. DO NOT INSTALL SP-2 SIGNS ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
4. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-6 SIGN DETAILS.
5. IF R3-8 SERIES SIGNS ARE NOT PRESENT AT THE OFF-RAMP, SP-2 OR SP-6 SIGNS MUST BE FASTENED ONTO EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
6. EXCEPT FOR DETAILS A & B, OMIT SP-2 SIGNS IF RAMP HAS MANDATORY SINGLE MOVE.

SIGN CODE LEGEND

XXYY-Y: FEDERAL SIGN CODE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE SHEET 2 OF 3

NO SCALE

THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: DENIS KATAYAMA
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION DATE PLOTTED => 16-SEP-2015
00-00-00 TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	84	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

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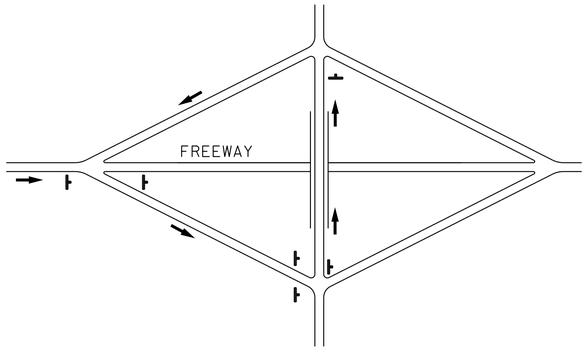
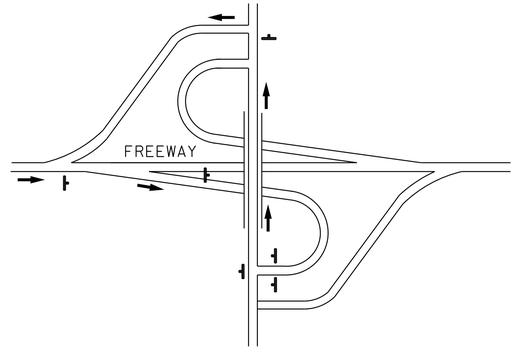
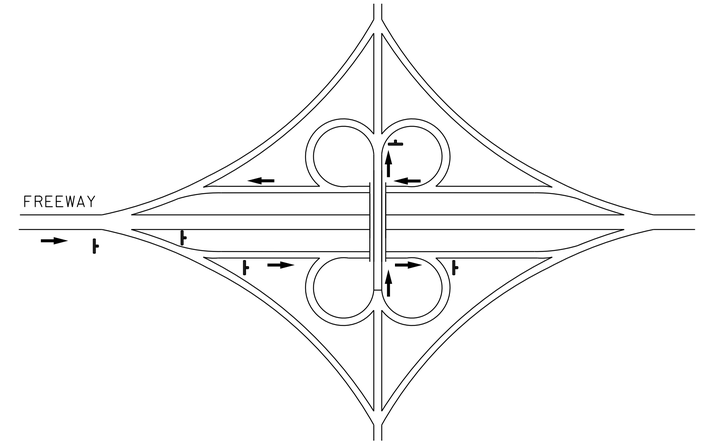


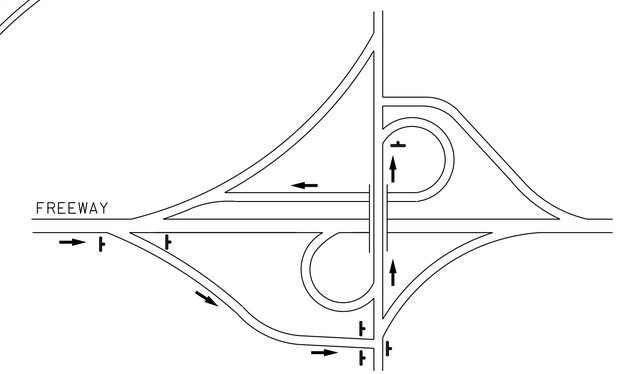
TYPE I



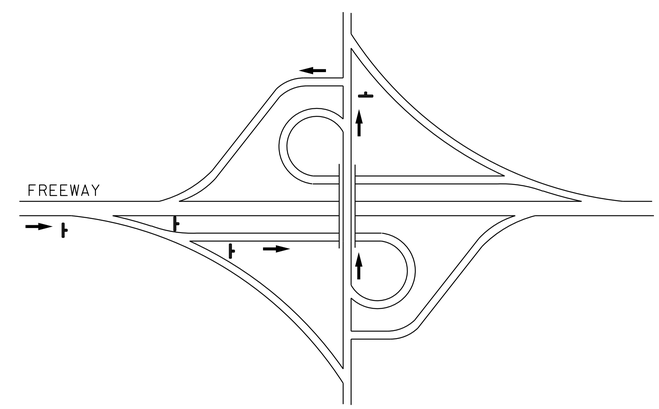
TYPE II



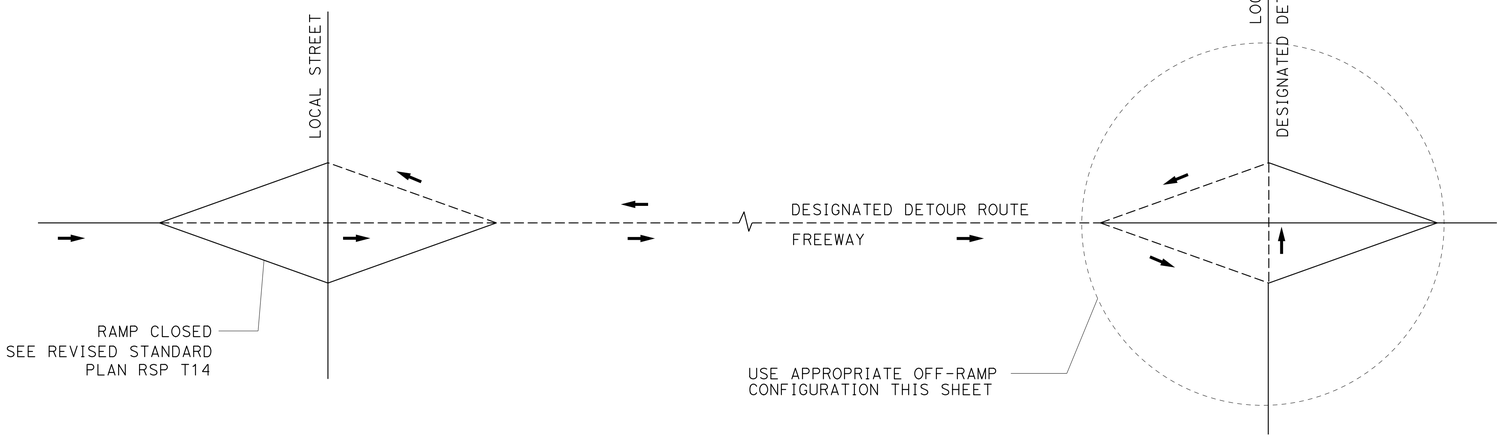
TYPE III



TYPE IV



TYPE V



TYPE OF OFF-RAMP CONFIGURATION	MINIMUM No. OF SP-2
TYPE I	6
TYPE II	6
TYPE III	5
TYPE IV	6
TYPE V	4

TYPICAL DETOUR SIGN INSTALLATION FOR OFF-RAMP CLOSURE

NOTES:

1. FOR RAMP CONFIGURATIONS NOT SHOWN, THE EXACT LOCATIONS AND MINIMUM NUMBER OF SP-2 SIGNS MUST BE DETERMINED BY THE ENGINEER.
2. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-2 SIGN DETAILS.

LEGEND:

- SIGN SP-2
- DETOUR DIRECTION
- ----- DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE
SHEET 3 OF 3

NO SCALE

THD-5

REVISED BY	JC
DATE REVISED	2/14
CALCULATED-DESIGNED BY	ALBERT K YU
CHECKED BY	JOCELYN C CHIANG
FUNCTIONAL SUPERVISOR	DENIS KATAYAMA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 DATE PLOTTED => 16-SEP-2015 TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	85	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

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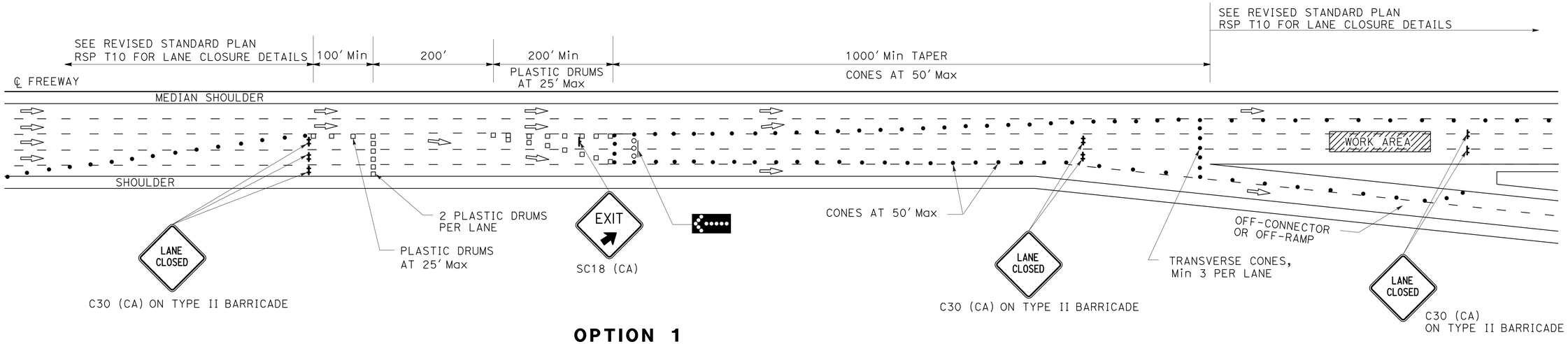
LEGEND:

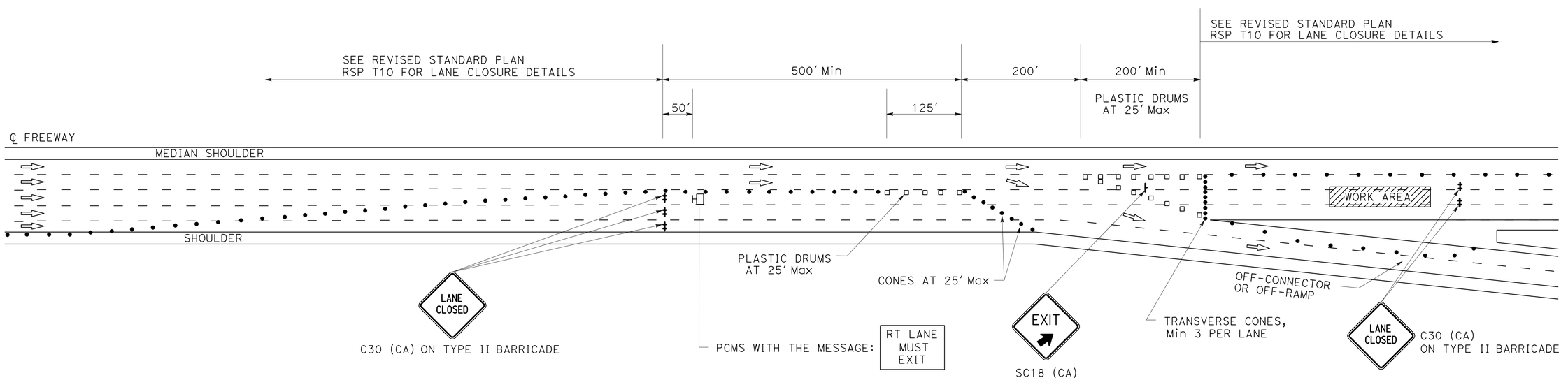
- TRAFFIC CONE
- TRAFFIC PLASTIC DRUM
- TEMPORARY TRAFFIC CONTROL SIGN
- BARRICADES
- PCMS
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER

ABBREVIATIONS

(CA) CALIFORNIA CODE



OPTION 1



OPTION 2

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR SLIP-RAMP AT OFF-CONNECTOR OR OFF-RAMP

NO SCALE

THD-6

REVISED BY	JC
DATE REVISED	2/14
CALCULATED-DESIGNED BY	ALBERT K YU
CHECKED BY	JOCELYN C CHIANG
FUNCTIONAL SUPERVISOR	DENIS KATAYAMA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	86	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 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:

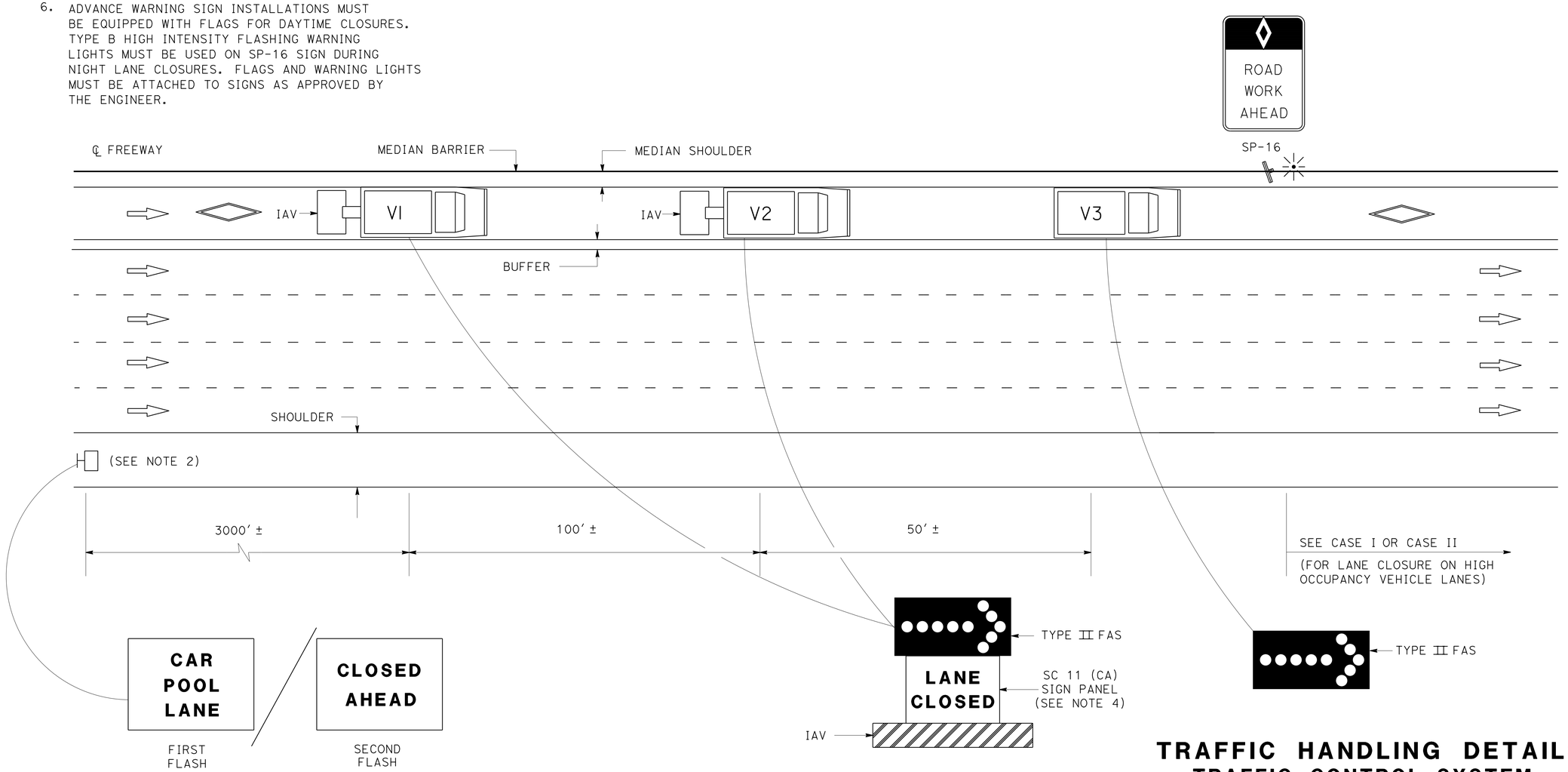
1. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. ACTIVATE PCMS PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE HOV LANE.
3. PROVIDE A MINIMUM SIGHT DISTANCE OF 1500′ IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.
5. PLACE PCMS ON THE MEDIAN SHOULDER WHERE SUFFICIENT ROOM (SUCH AS CHP ENFORCEMENT AREAS) EXISTS.
6. ADVANCE WARNING SIGN INSTALLATIONS MUST BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS MUST BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS MUST BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.

LEGEND:

V1, V2	SHADOW VEHICLES
V3	WORK/APPLICATION VEHICLE
	PCMS
	PORTABLE FLASHING BEACON
	TEMPORARY TRAFFIC CONTROL SIGN
	FLASHING ARROW SIGN (FAS)

ABBREVIATIONS

IAV	IMPACT ATTENUATOR VEHICLE
(CA)	CALIFORNIA CODE
CHP	CALIFORNIA HIGHWAY PATROL



PCMS OR TRUCK MOUNTED CMS MESSAGE

(SEE NOTE 5)

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR HIGH OCCUPANCY VEHICLE LANES WITH MEDIAN SHOULDERS LESS THAN 8 FEET

NO SCALE

THD-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DTM
FUNCTIONAL SUPERVISOR: DENIS KATAYAMA
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	87	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

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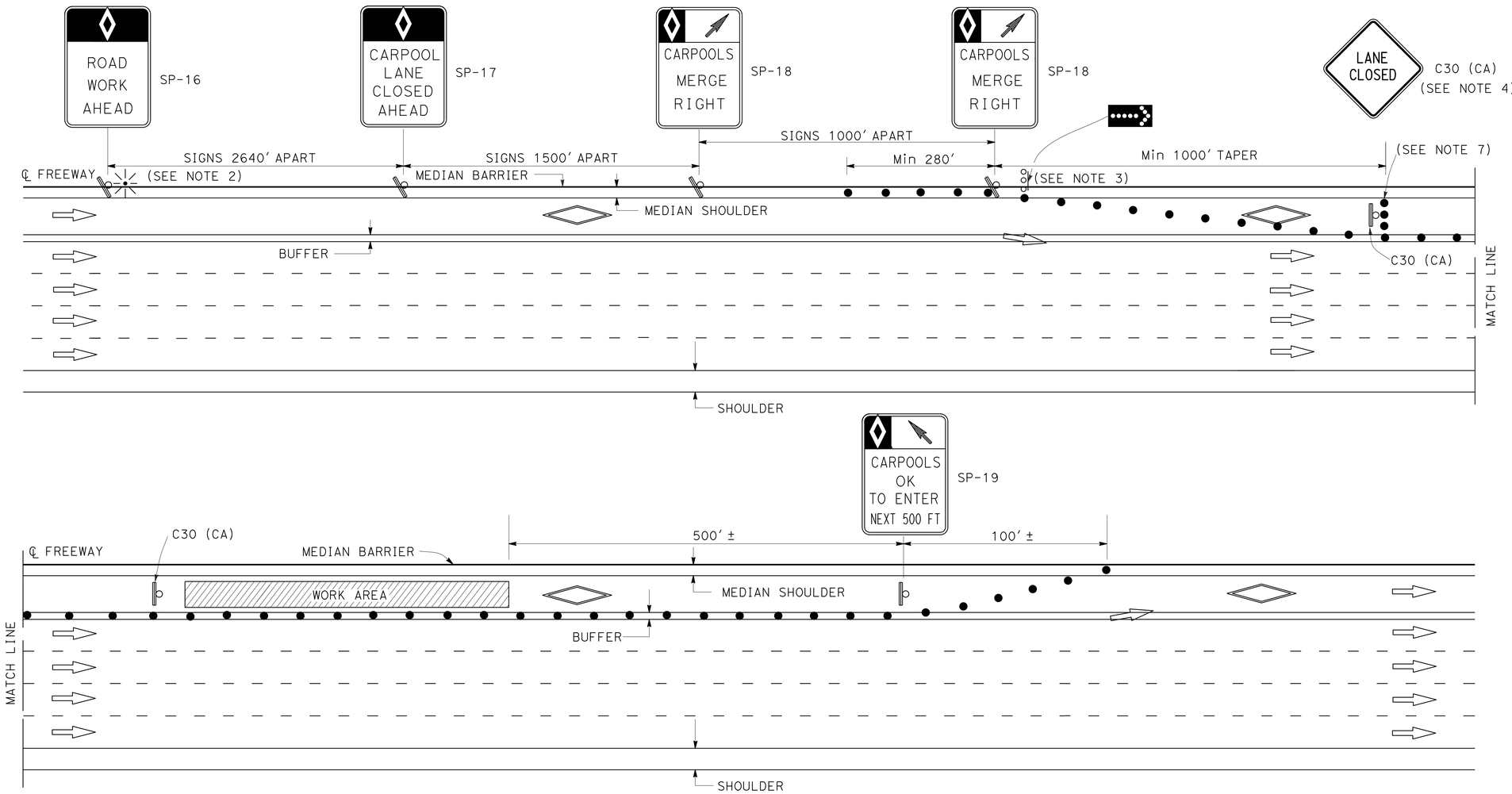

LEGEND:

- ● TRAFFIC CONE
- PORTABLE FLASHING BEACON
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER

ABBREVIATIONS

(CA) CALIFORNIA CODE

SIGN PANEL

	SIZE (MIN)
SP-16	36" X 54"
SP-17	36" X 54"
SP-18	36" X 48"
SP-19	36" X 60"
C30 (CA)	30" X 30"
G20-2	48" X 24"

NOTES: FOR CASE I AND CASE II

1. AT LEAST ONE PERSON MUST BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON NIGHT LANE CLOSURES OR DAY-TIME CLOSURES EXCEEDING 1 MILE LENGTH, INCLUDING TAPERS.
2. ADVANCE WARNING SIGN INSTALLATIONS MUST BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS MUST BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS MUST BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.
3. THE FLASHING ARROW SIGN MUST BE TYPE I.
4. PLACE C30 (CA) SIGNS EVERY 2000' THROUGHOUT THE LENGTH OF LANE CLOSURE.
5. A MINIMUM 1500' OF SIGHT DISTANCE MUST BE PROVIDED WHERE POSSIBLE FOR VEHICLES APPROACHING THE FLASHING ARROW SIGN. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
6. PORTABLE DELINEATORS PLACED AT ONE-HALF THE SPACING INDICATED FOR TRAFFIC CONES MAY BE USED INSTEAD OF CONES FOR DAYTIME CLOSURES.
7. A MINIMUM OF 3 CONES MUST BE PLACED TRANSVERSELY ACROSS CLOSED LANES WHERE TAPERS END AND EVERY 2000'. TWO TYPE II BARRICADES MAY BE USED INSTEAD OF 3 CONES. THE ALIGNMENT OF CONES OR BARRICADES MAY BE SHIFTED FROM THE TRANSVERSE ALIGNMENT TO PROVIDE ACCESS TO WORK.
8. IF AN INGRESS/EGRESS AREA IS WITHIN 5250' UPSTREAM OR DOWNSTREAM OF THE WORK AREA, LANE CLOSURES MUST BE EXTENDED TO THAT AREA AS SHOWN IN CASE II.
9. SIGNS SP-16, 17, 18, AND 19 MAY BE OVERLAID ON EXISTING CARPOOL SIGNS IN MEDIANS AS APPROVED BY THE ENGINEER.
10. SIGNS SP-16, 17, 18, AND C30 (CA) MUST BE BLACK ON ORANGE BACKGROUND. SIGN SP-19 MUST BE BLACK ON WHITE BACKGROUND. DIAMONDS ON SIGNS MUST BE WHITE.
11. FOR CLOSURE OF LANE(S) ADJACENT TO HOV LANES, SEE CASE II.
12. THE MAXIMUM SPACING BETWEEN CONES MUST BE APPROXIMATELY 50' IN TAPERS AND 100' ON TANGENTS.

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR HIGH OCCUPANCY VEHICLE LANES AT NON-INGRESS/EGRESS AREAS
CASE I

NO SCALE

THD-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: DENIS KATAYAMA
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	88	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

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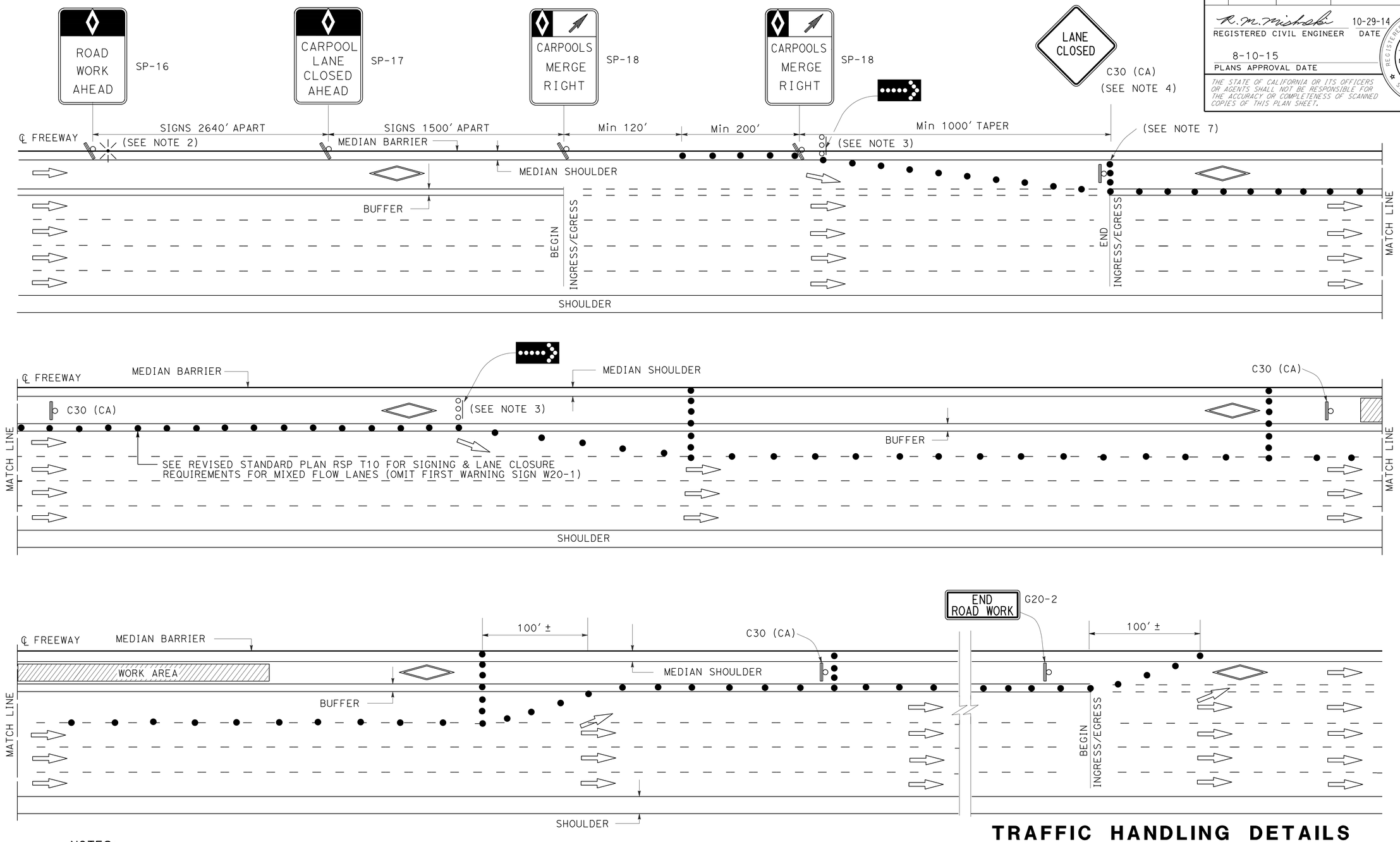

NOTES:

1. SEE CASE I FOR NOTES, LEGEND, SIGN PANEL, AND ABBREVIATIONS FOR THIS SHEET.
2. CLOSURES OF ONE MIXED FLOW TRAFFIC LANE ADJACENT TO HOV LANE SHOWN ON THIS SHEET. MULTIPLE MIXED FLOW LANE CLOSURES ARE SIMILAR.

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR HIGH OCCUPANCY VEHICLE LANES AND ADJACENT FREEWAY LANES BETWEEN INGRESS/EGRESS AREAS
CASE II

NO SCALE

THD-9

REVISED BY	DATE REVISED
JC	2/14

CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
FUNCTIONAL SUPERVISOR: DENIS KATAYAMA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	89	192

R.M. Mishreki 10-29-14
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.M. MISHREKI No. C68484 Exp. 9-30-15 CIVIL STATE OF CALIFORNIA

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NOTES:

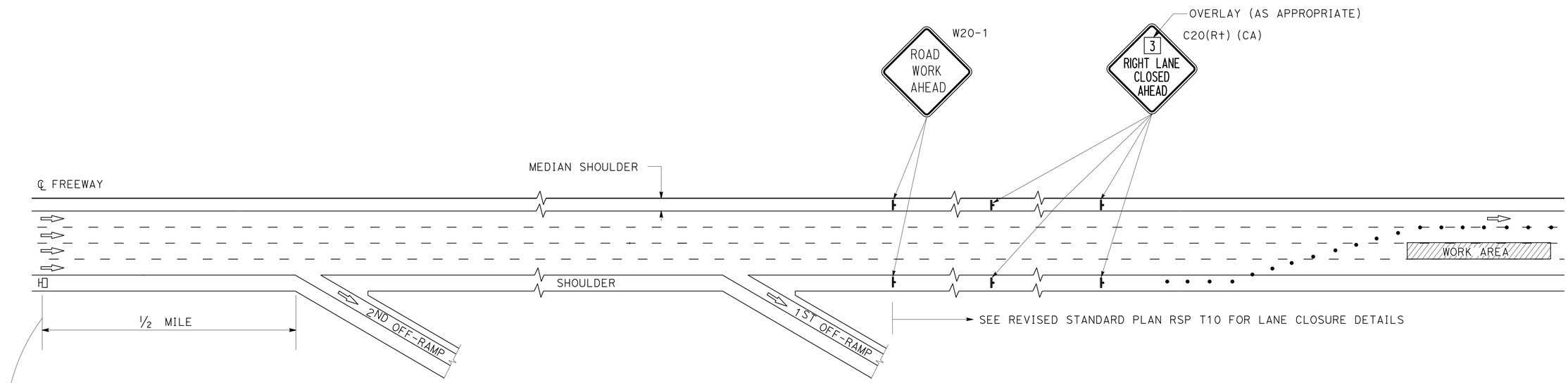
1. EXACT LOCATION OF PCMS WILL BE DETERMINED BY THE ENGINEER TO PROVIDE ADEQUATE VISIBILITY.
2. PCMS MESSAGE DISPLAYED WILL BE APPROVED BY THE ENGINEER.
3. CHANGE PCMS MESSAGE AT THE BEGINNING OF CURE PERIOD TO REFLECT NUMBER OF CLOSED LANES.

ABBREVIATIONS:

(CA) CALIFORNIA CODE

LEGEND:

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- PCMS



FIRST FLASH	**X (NO OF LANES)RIGHT/LEFT**	1ST LINE (TYPICAL)
	LANES	2ND LINE (TYPICAL)
	CLOSED	3RD LINE (TYPICAL)
SECOND FLASH	**A ST**	LIMIT OF CLOSURE (TYPICAL)
	TO	
	B DR	LIMIT OF CLOSURE (TYPICAL)

WORDING FORMAT FOR PCMS MESSAGE

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR CONCRETE PAVEMENT AND APPROACH SLAB REPLACEMENT

NO SCALE

THD-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: DENIS KATAYAMA
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	90	192

Lewen Kuo 6-18-15
REGISTERED CIVIL ENGINEER DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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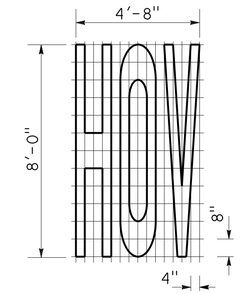
NOTES:

1. USE TYPE C RED-CLEAR RETROREFLECTIVE MARKERS ON DETAIL D AT SEGMENTS WITHIN LIMITS OF DETAIL 14M.
2. DETAIL D MUST BE INSTALLED ON THE SAME LOCATION AFTER REMOVING THE EXISTING STRIPING WHICH DELINEATES BETWEEN HOV AND MIXED FLOW LANE.
3. THE RIGHT EDGE OF DETAIL D MUST ALIGN OVER THE RIGHT EDGE OF THE EXISTING STRIPING WHICH DELINEATES BETWEEN HOV AND MIXED FLOW LANE.
4. CONTRACTOR MUST REFERENCE ANY PAVEMENT DELINEATION TO BE REPLACED ON THE SAME LOCATION BEFORE OBLITERATING THEM.

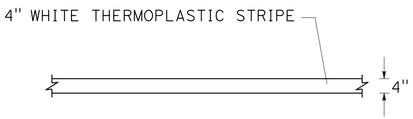
LEGENDS

- TYPE A PAVEMENT MARKER
- TYPE C PAVEMENT MARKER
- TYPE G PAVEMENT MARKER
- TYPE H PAVEMENT MARKER
- 4" PAINT BLACK TRAFFIC STRIPE (2-COAT)
- 4" YELLOW THERMOPLASTIC STRIPE
- 4" WHITE THERMOPLASTIC STRIPE
- 8" WHITE THERMOPLASTIC STRIPE
- DIRECTION OF TRAVEL



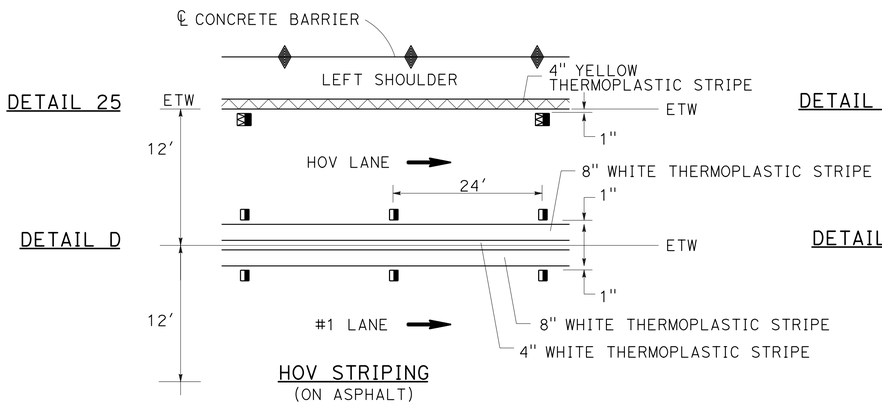
A=18 ft²

"HOV" PAVEMENT MARKING

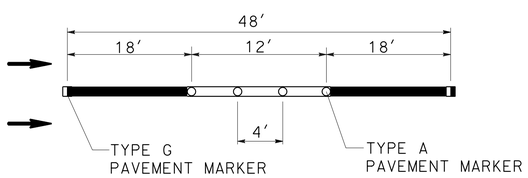


DETAIL 50 Mod

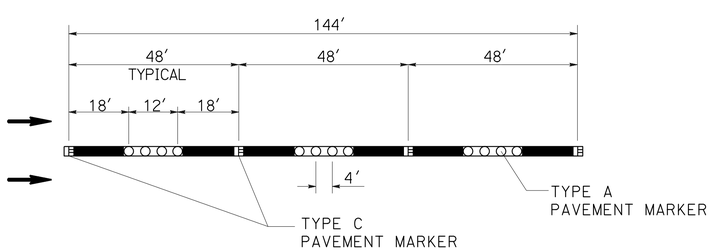
ASPHALT PAVEMENT STRIPING DETAILS



HOV STRIPING
(ON ASPHALT)

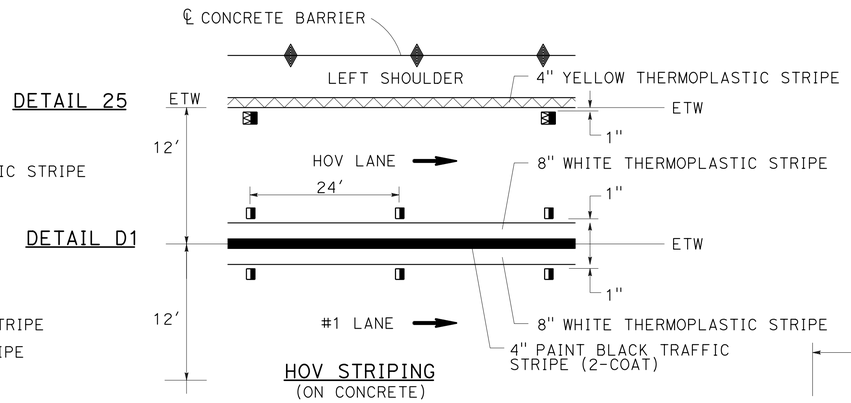


DETAIL 13 Mod

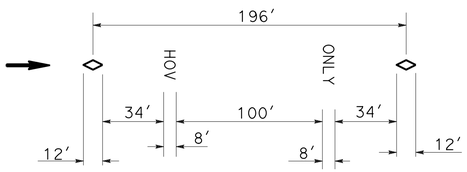


DETAIL 14 Mod

CONCRETE PAVEMENT STRIPING DETAILS

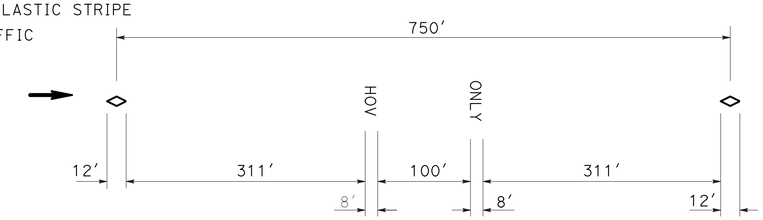


HOV STRIPING
(ON CONCRETE)



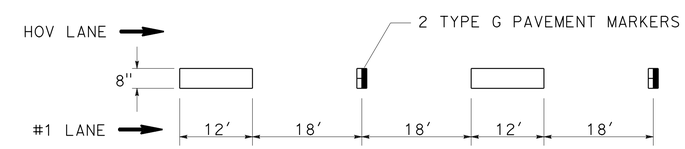
DETAIL A

HOV LANE INGRESS/EGRESS MARKING
HOV ON/RAMP LANE MARKING



DETAIL B

HOV LANE MARKING



DETAIL C

HOV LANE INGRESS/EGRESS STRIPING DETAIL

PAVEMENT DELINEATION DETAILS

NO SCALE

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR M. OJI KALU
CALCULATED-DESIGNED BY VINCENT VALIDO
CHECKED BY LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	91	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

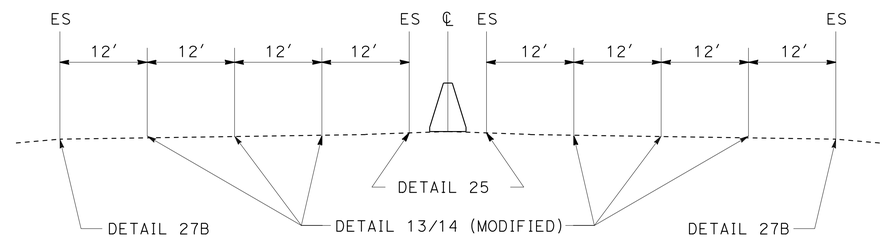
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

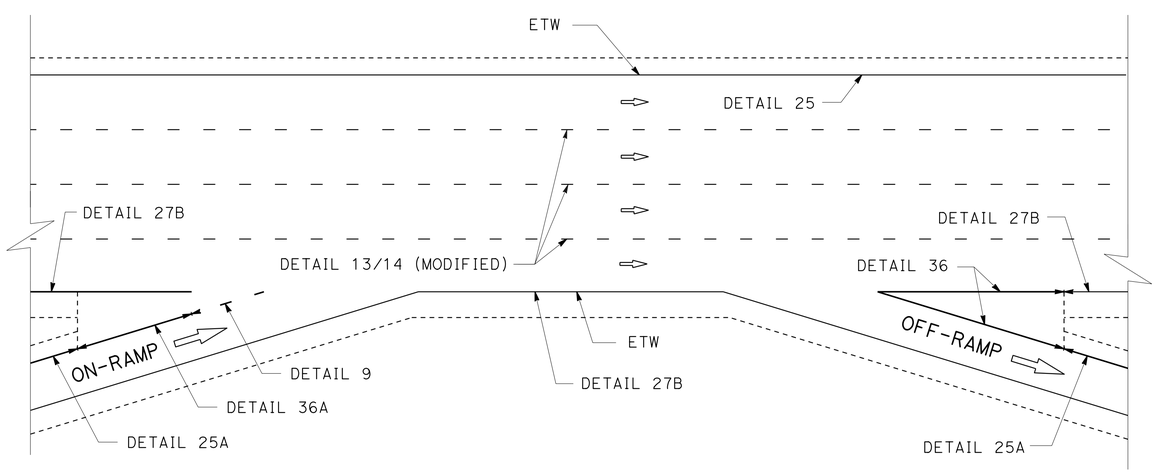
1. SEE PAVEMENT DELINEATION QUANTITIES FOR LOCATIONS AND TYPES OF TRAFFIC STRIPES AND PAVEMENT MARKINGS.

LEGEND:

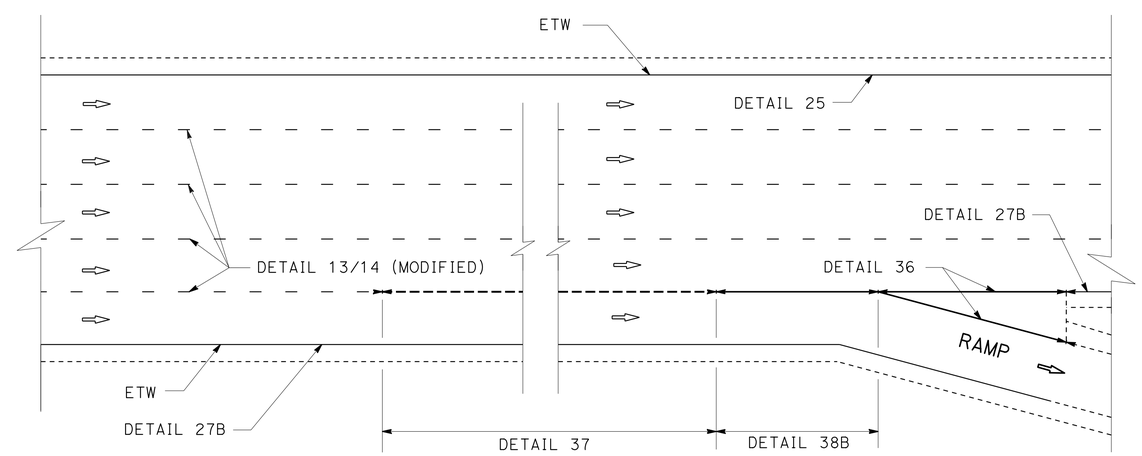
⇨ DIRECTION OF TRAVEL



TYPICAL SECTION



TYPICAL RAMPS



TYPICAL LANE DROP

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: OJI KALU

CALCULATED-DESIGNED BY: GORDON F KUO
CHECKED BY: LEWEN KUO

REVISED BY
DATE REVISED

LAST REVISION 6-15-15
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	92	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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RAMP PAVEMENT DELINEATION QUANTITIES (1)

LOCATION		THERMOPLASTIC TRAFFIC STRIPE										PAVEMENT MARKER (RETROREFLECTIVE)		THERMOPLASTIC PAVEMENT MARKING			
		4" (BROKEN 17-7)		4" SOLID WHITE		4" SOLID YELLOW	8" SOLID WHITE	8" SOLID WHITE	8" SOLID WHITE	8" SOLID WHITE	8" SOLID WHITE			CROSSWALKS, DIADONAL & LIMIT LINES	WORDS, SYMBOLS & NUMBERS	ARROWS	WORDS
		DETAIL 8	DETAIL 9	DETAIL 27B	DETAIL 50M	DETAIL 25A	DETAIL 36	DETAIL 36A	DETAIL 36B	DETAIL 38	DETAIL 38B	TYPE G	TYPE H				
RAMP No.	DESCRIPTION	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	SQFT	SQFT	SQFT	SQFT
1	ATLANTIC Ave ON RAMP		195	1180	1037	1899	478					70	80	124	33	50	
2	ATLANTIC Ave OFF RAMP		585	3011		1931	1065				364	76	81	179	126	380	
3	ATLANTIC Ave ON RAMP		1266	958		521	282					42	23	109	189	450	
4	ATLANTIC Ave OFF RAMP		232	859		455	371					24	20	130	0	50	
5	CHERRY Ave ON RAMP		0	1300		423	274					15	19	101	172	25	
6	CHERRY Ave OFF RAMP		479	960		560	292					26	24	110	63	380	
7	CHERRY Ave ON RAMP		602	1228		626	310					29	27	121	126	380	
8	CHERRY Ave OFF RAMP		416	998		750	180					20	32	106	0	50	
9	PARAMOUNT Blvd ON RAMP		406	947		499	235					22	22	116	0	50	
10	PARAMOUNT Blvd OFF RAMP		305	1167		541	481					30	24	90	63	234	
11	PARAMOUNT Blvd ON RAMP		314	1003		568	308					23	25	120	63	234	
12	PARAMOUNT Blvd OFF RAMP		347	1132		743	128					17	32	121	0	50	
13	DOWNEY Ave ON RAMP		0	1257		538	297					16	23	105	161	25	
14	DOWNEY Ave OFF RAMP		368	946		523	244					22	23	101	63	234	
15	DOWNEY Ave ON RAMP		440	938		644	262					24	28	73	126	150	
16	DOWNEY Ave OFF RAMP		346	725		514	156					18	22	84	0	50	
17	SB LAKEWOOD Blvd ON RAMP		209	766		557	208					17	24	67	0	50	
18	NB LAKEWOOD Blvd ON RAMP		0	1467		965	241					14	41	85	86	29	
19	LAKEWOOD Blvd OFF RAMP		986	1117		629	337					39	27	111	44	256	
20	SB LAKEWOOD Blvd ON RAMP		1960	2253		1697	278					56	72	107	170	413	
21	NB LAKEWOOD Blvd ON RAMP		0	1110		1582	168					11	67	89	97	29	
22	LAKEWOOD Blvd OFF RAMP		182	2152		1337	230					17	57	72	183	14	
23	CLARK Ave ON RAMP		547	1219		775	308					28	33	76	126	296	
24	CLARK Ave OFF RAMP		0	1429		697	192					12	30	97	172	14	
25	BELLFLOWER Blvd ON RAMP		0	1407		755	124					9	32	108	0	28	
26	BELLFLOWER Blvd OFF RAMP		333	1119		688	233					21	30	82	126	181	
27	BELLFLOWER Blvd ON RAMP		377	1401		795	335					26	34	83	126	153	
28	BELLFLOWER Blvd OFF RAMP		0	1674		830	157					11	36	94	97	78	
	SUBTOTALS		10895	35723	1037	23042	8174				364	735	988	2861	2412	4333	
	SHEET PDQ-1 SUBTOTAL	10895		59802			8538					1723		9606			

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: GORDON F KUO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	93	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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RAMP PAVEMENT DELINEATION QUANTITIES (2)

LOCATION		THERMOPLASTIC TRAFFIC STRIPE									PAVEMENT MARKER (RETROREFLECTIVE)		THERMOPLASTIC PAVEMENT MARKING		
		4" (BROKEN 17-7)		4" SOLID WHITE	4" SOLID YELLOW	8" SOLID WHITE	8" SOLID WHITE	8" SOLID WHITE	8" SOLID WHITE	8" SOLID WHITE			CROSSWALKS, DIADONAL & LIMIT LINES	WORDS, SYMBOLS & NUMBERS	ARROWS
		DETAIL 8	DETAIL 9	DETAIL 27B	DETAIL 25A	DETAIL 36	DETAIL 36A	DETAIL 36B	DETAIL 38	DETAIL 38A	TYPE G	TYPE H			
RAMP No.	DESCRIPTION	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	SQFT	SQFT	SQFT
29	STUDEBAKER Rd OFF RAMP		557	1313	794	250					26	34	70	126	234
30	STUDEBAKER Rd ON RAMP			1664	1383	252					15	59	90	172	14
31	SB PIONEER Blvd ON RAMP			2123	1080	207					13	46	74	172	40
32	NB PIONEER Blvd ON RAMP			855	680	200					12	29	51		25
33	PIONEER Blvd OFF RAMP		678	1614	1224	300					31	52	70	126	240
34	SB PIONEER Blvd ON RAMP		716	1425	1050	314					32	45	73	126	126
35	NB PIONEER Blvd ON RAMP			893	684	269					15	30	51		40
36	PIONEER Blvd OFF RAMP			1079	731	313					17	31	70		40
37	SB NORWALK Blvd ON RAMP			1037	833	213					13	36	68		14
38	NB NORWALK Blvd ON RAMP			836	699	150					10	30	78		25
39	NORWALK Blvd OFF RAMP		394	1533	1074	291					24	46	72	126	240
40	SB NORWALK Blvd ON RAMP		748	1452	906	421					37	39	66	126	234
41	NB NORWALK Blvd ON RAMP			701	874	156					11	37	48		14
42	NORWALK Blvd OFF RAMP			1002	753	184					12	32	65		25
43	BLOOMFIELD Ave ON RAMP			1384	439	305					17	19	32		56
44	BLOOMFIELD Ave OFF RAMP		638	1246	853	334					31	37	66	126	234
45	ARTESIA Blvd ON RAMP			1813	868	376					20	37	48	86	31
46	ARTESIA Blvd OFF RAMP		273	1227	727	283					21	31	97	126	126
47	PARK PLAZA Dr ON RAMP		1026	1666	1259	281					37	53	46		180
48	PARK PLAZA Dr OFF RAMP		1215	1307	953	160					36	41	71		50
49	183Rd St ON RAMP			2051	1325	528					26	56	106		50
50	CARMENITA Rd OFF RAMP		452	1508	1042	381					29	44	80	126	234
51	CARMENITA Rd OFF RAMP		306	1243	810	308					23	35	77	126	126
	SUBTOTALS		7003	30972	21041	6476					508	899	1569	1564	2398
	SHEET PDQ-2 TOTAL		7003	52013		6476					1407		5531		

PAVEMENT DELINEATION QUANTITIES

PDQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

FUNCTIONAL SUPERVISOR: M. OJI KALU
CALCULATED-DESIGNED BY: GORDON F KUO
CHECKED BY: LEWEN KUO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	94	192

REGISTERED CIVIL ENGINEER 6-18-15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER LEWEN KUO No. C52464 Exp. 12/31/16 CIVIL STATE OF CALIFORNIA

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MAINLINE PAVEMENT DELINEATION QUANTITIES

LOCATION		THERMOPLASTIC TRAFFIC STRIPE												TRAFFIC STRIPE			THERMOPLASTIC PAVEMENT MARKING					PAVEMENT MARKER						REMOVE			
		4 INCHES								8 INCHES				4 INCHES (2 COAT BLACK PAINT)								RETROREFLECTIVE									
		WHITE BROKEN			SOLID			HOV LANE		WHITE SOLID			BROKEN																		
		DETAIL 9 (17-7)	DETAIL 13 Mod (36-12)	DETAIL 14 Mod (36-12)	DETAIL 25A YELLOW STRIPE	DETAIL 25M YELLOW STRIPE	DETAIL 27B OR 4" SOLID WHITE STRIPE	4" WHITE STRIPE	4" YELLOW STRIPE	DETAIL "D1" 8" SOLID WHITE	DETAIL 36	DETAIL 38B	DETAIL 37 8" (BROKEN 12-3)	DETAIL 13 Mod (36-12)	DETAIL 14 Mod (36-12)	WITHIN DETAIL D1 8" SOLID WHITE	ARROW	SYMBOL	WORDS	DIAGONALS	CHEVRON	TYPE C	TYPE G	TYPE H	RED-YELLOW	TYPE HR	NON-REFLECTIVE TYPE A	THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC TRAFFIC STRIPE (YELLOW)	THERMOPLASTIC PAVEMENT MARKINGS	PAVEMENT MARKER
FROM	TO	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	SQFT	SQFT	SQFT	SQFT	SQFT	EA	EA	EA	EA	EA	EA	LF	LF	SQFT	EA
PM 11.32 LONG BEACH BLVD UC	PM 13.0 CHERRY AVE	-	65305	2454	-	18766	19127	15518	31036	31840	1470	-	3166	65305	2454	15920	-	308	792	200	264	262	1771	1776	-	-	5438	42175	19678	1564	8161
PM 13.0 CHERRY AVE	PM 13.6 PARAMOUNT BLVD	-	19996	876	-	5709	6759	6266	12533	10648	1266	-	1824	19996	876	5324	-	110	288	100	-	140	539	884	-	-	1665	7526	6864	498	2593
PM 13.6 PARAMOUNT BLVD	PM 14.1 DOWNEY AVE	-	8219	866	-	2362	3806	4331	8661	10584	889	-	1788	8219	866	5292	-	110	288	160	-	137	281	497	-	24	685	5000	4633	558	1671
PM 14.1 DOWNEY AVE	PM 14.61 LAKEWOOD BLVD	-	2953	1009	-	5531	5730	5531	10735	10720	1085	-	2124	2953	1009	5360	126	110	288	200	-	263	970	550	28	-	1642	10289	1752	724	7218
PM 14.61 LAKEWOOD BLVD	PM 15.61 BELLFLOWER BLVD	-	33759	1874	-	10958	12316	10532	21063	21160	1478	-	310.1	33759	1874	10580	-	176	504	130	-	147	816	1156	56	-	2965	24029	1381	810	4501
PM 15.61 BELLFLOWER BLVD	PM 16.95 JCT Rte 605	-	44708	1010	-	13648	13205	11207	22415	22944	1612	-	5253	44708	1010	11472	-	220	648	130	-	379	1047	1189	28	-	3807	35587	9534	998	5558
PM 16.95 JCT Rte 605	PM 18.10 PIONEER BLVD	-	33464	710	-	12467	11840	9736	21890	24484	1551	-	3408	33464	710	12242	-	198	576	280	-	237	808	1293	56	-	2000	14289	2445	1054	1595
PM 18.10 PIONEER BLVD	PM 19.17 BLOOMFIELD Ave	-	38410	1120	-	12040	10510	9460	20840	22620	1510	-	2956	38410	1120	11310	-	176	504	360	-	247	859	1243	28	-	2982	16932	4048	1040	1410
PM 19.17 BLOOMFIELD Ave	PM 20.45 CARMENITA Rd	-	43260	1108	-	13412	13016	11104	22140	22280	1598	-	3507	43260	1108	11140	-	220	648	250	-	268	988	1365	84	-	3441	14806	3301	1118	1388
PM 20.45 CARMENITA Rd	PM 20.74 LA/OC LINE	-	7625	432	-	2707	2795	2330	4650	5920	690	-	-	7625	432	2960	-	66	144	60	-	9	195	258	14	-	677	6365	295	270	1930
SUBTOTAL			297699	11459		97600	99104	86015	175963	183200	13149		24336	297699	11459	91600	126	1694	4680	1870	264	2089	8274	10211	294	24	25302	176998	53931	8634	36025
TOTAL THIS SHEET, PDQ-3			309128			458682				196349			24336	400758			8634					20892					25302			8634	36025
TOTAL FROM PDQ-1		10895				59802				8538							9606					1723									
TOTAL FROM PDQ-2		7003				52013				6476							5531					1407									
GRAND TOTAL		17898	309128			570497				211363			24336	400758			23771					24022					25302	230929		8634	36025

PAVEMENT DELINEATION QUANTITIES

PDQ-3

REVISED BY | DATE REVISED

VINCENT VALIDO | LEWEN KUO

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: M. OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® DESIGN

LAST REVISION 06-12-15 | DATE PLOTTED => 16-SEP-2015 TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	95	192

REGISTERED CIVIL ENGINEER 8/3/15 DATE

8-10-15
PLANS APPROVAL DATE

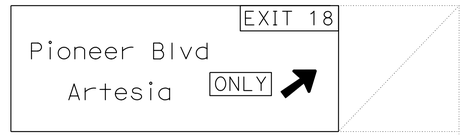
REGISTERED PROFESSIONAL ENGINEER SULIASTI SUTANTO No. C77282 Exp 6/30/17 CIVIL STATE OF CALIFORNIA

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:

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

G85-5 (CA) Mod

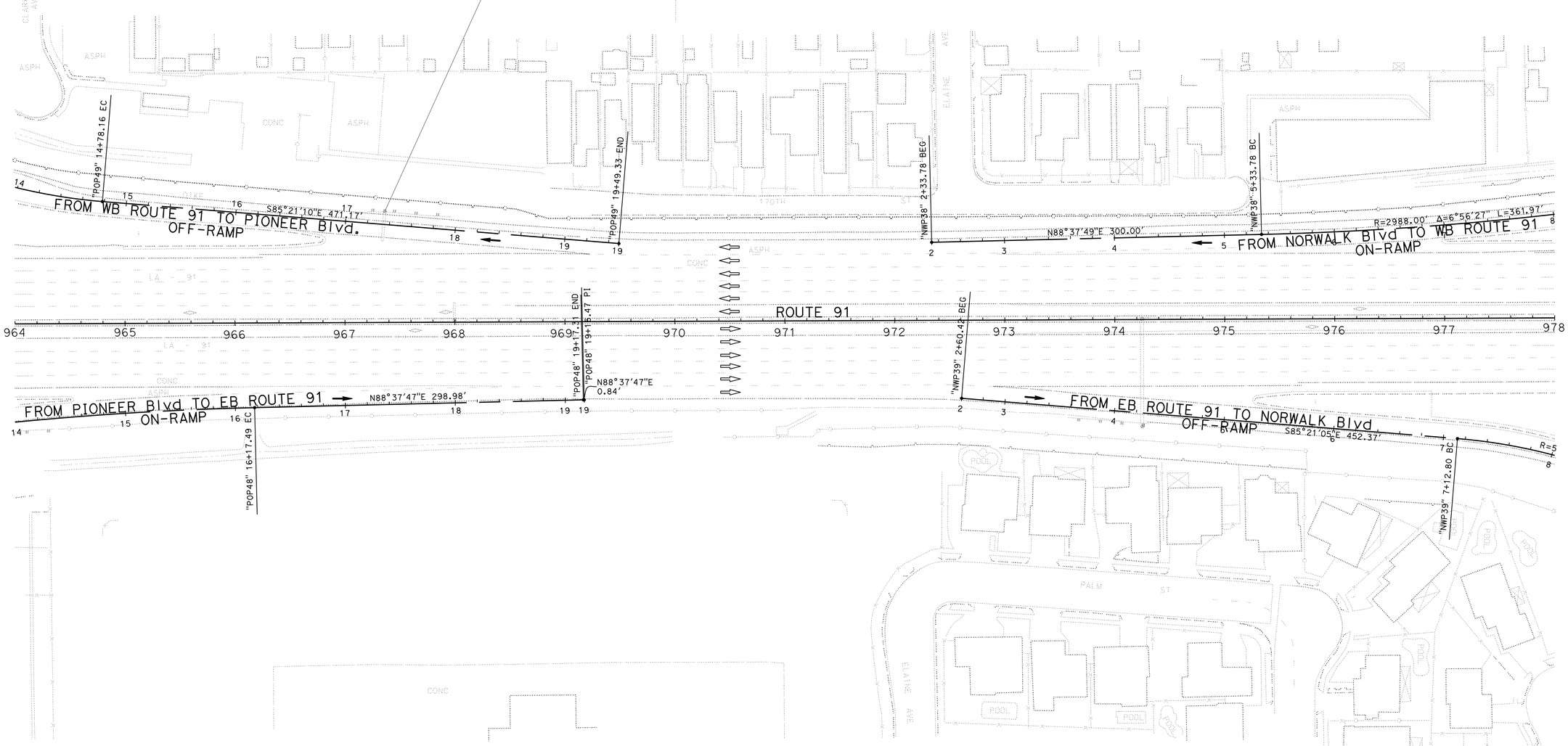


LEGEND:

- (XX) OVERHEAD SIGN INDENTIFICATION (WITH NUMBER)
- (RSP) REMOVE SIGN PANEL
- (ISB) INSTALL SIGN PANEL ON EXISTING FRAME

SIGN (1) (RSP) (ISP)

FWBT Sta 17+35 "POP49"
(PM 18.38)



SIGN PLAN
SCALE: 1"=50'

APPROVED FOR SIGN WORK ONLY

S-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: MOHAMMED CHOWDHURY

CALCULATED-DESIGNED BY: SULIASTI SUTANTO
CHECKED BY: MOHAMMED CHOWDHURY

REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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REGISTERED CIVIL ENGINEER 8/3/15 DATE

8-10-15
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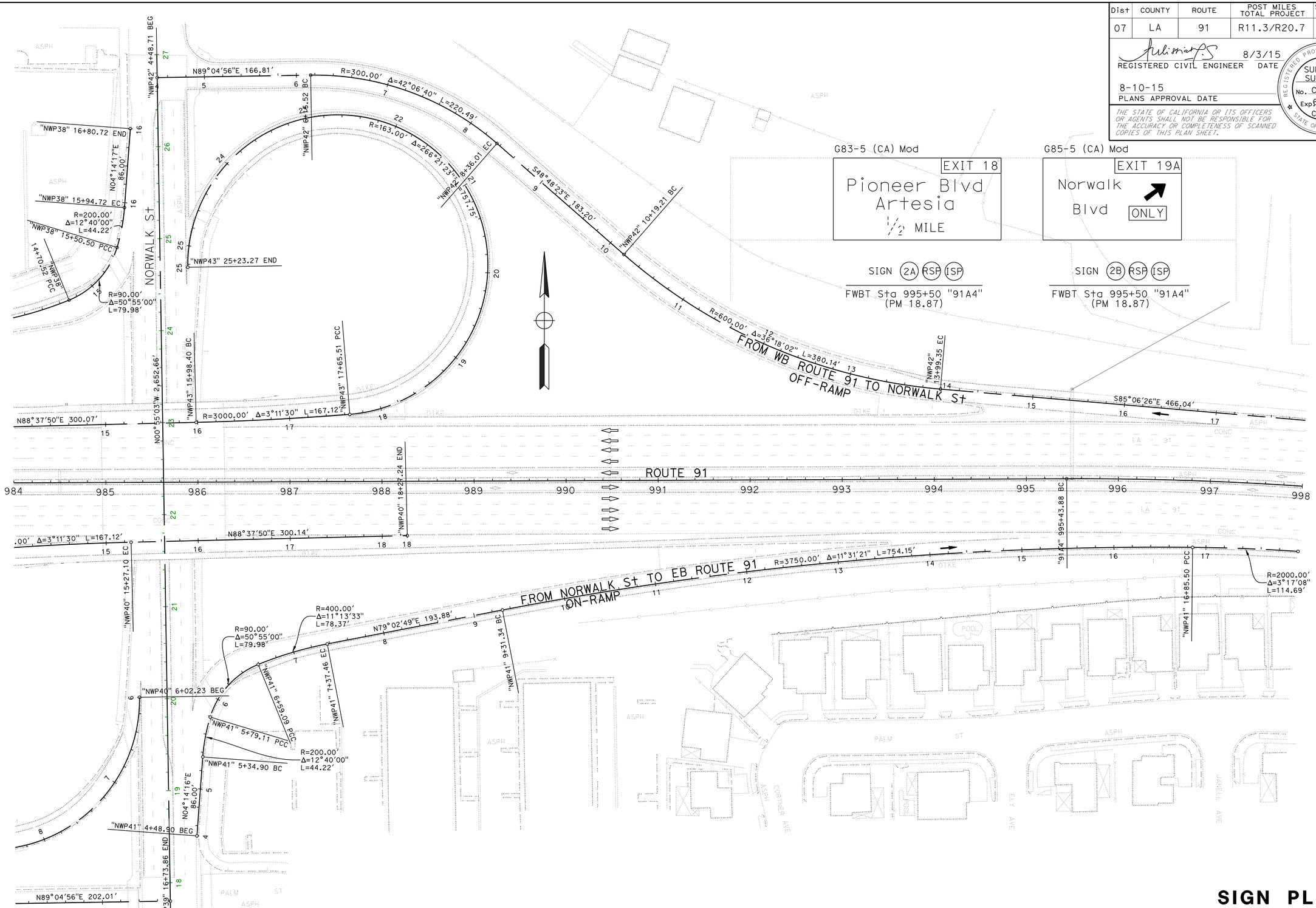
REGISTERED PROFESSIONAL ENGINEER SULIASTI SUTANTO No. C77282 Exp 6/30/17 CIVIL STATE OF CALIFORNIA

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 PLAN

SCALE: 1"=50'

APPROVED FOR SIGN WORK ONLY

S-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® **TRAFFIC DESIGN**

FUNCTIONAL SUPERVISOR: MOHAMMED CHOWDHURY
CALCULATED-DESIGNED BY: SULIASTI SUTANTO
CHECKED BY: MOHAMMED CHOWDHURY
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	97	192

REGISTERED CIVIL ENGINEER 8/3/15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SULIASTI SUTANTO
No. C77282
Exp 6/30/17
CIVIL
STATE OF CALIFORNIA

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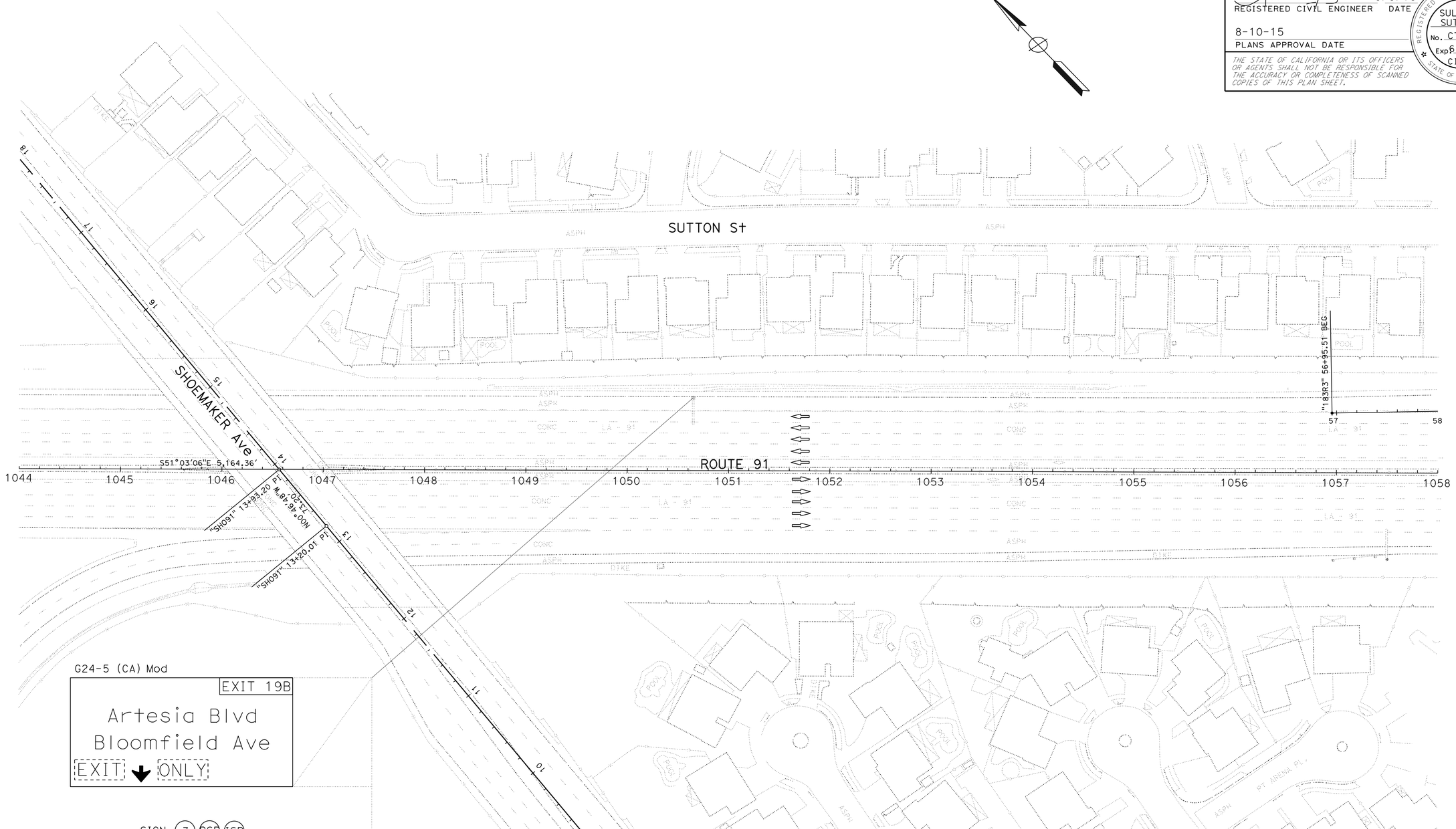


G24-5 (CA) Mod

EXIT 19B

Artesia Blvd
Bloomfield Ave

EXIT ↓ ONLY

SIGN (3) (RSP) (ISP)

FWBT Sta 1050+65 "91A4"
(PM 19.89)

SIGN PLAN

SCALE: 1"=50'

APPROVED FOR SIGN WORK ONLY

S-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: MOHAMMED CHOWDHURY

CALCULATED-DESIGNED BY: SULIASTI SUTANTO
CHECKED BY: MOHAMMED CHOWDHURY

REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	98	192

REGISTERED CIVIL ENGINEER 8/3/15 DATE

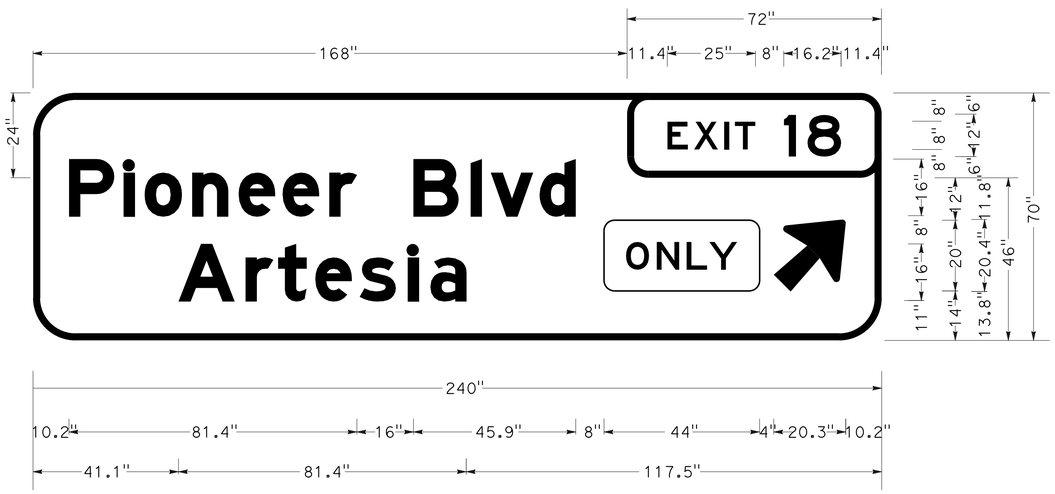
8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SULIASTI SUTANTO No. C77282 Exp. 6/30/17 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 CODE LEGEND:

XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).



12.0" Radius, 2.0" Border, White on Green;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E; [18] E;
12.0" Radius, 2.0" Border, White on Green;
[Pioneer Blvd] E Mod 60} spacing; [Artesia] E Mod 70} spacing; Arrow 16CAP-1L - 25.0" 45{;

SIGN (1) (RSP) (ISP)

FWBT Sta 17+35 "POP49"
(PM 18.38)

FURNISH FORMED PANEL SIGN (OVERHEAD) FOR RETROREFLECTIVE SHEETING (TYPE XI)

W61B (CA)

[ONLY] E;
3.0" Radius, No border, Black on Yellow;

SIGN DETAILS

NO SCALE

APPROVED FOR SIGN WORK ONLY

SD-1

REVISED BY | DATE REVISED
RICHARD KHAW | SULIASTI SUTANTO
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
MOHAMMED CHOWDHURY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 16-SEP-2015 | TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	99	192

REGISTERED CIVIL ENGINEER 8/3/15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SULIASTI SUTANTO No. C77282 Exp. 6/30/17 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.

W61B (CA)

[ONLY] E;
3.0" Radius, No border, Black on Yellow;

SIGN (2A) (RSP) (ISP)

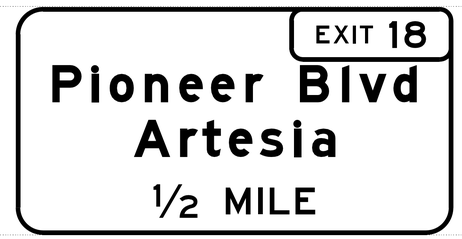
FWBT Sta 995+50 "91A4"
(PM 18.87)

FURNISH FORMED PANEL SIGN
(OVERHEAD) FOR RETROREFLECTIVE
SHEETING (TYPE XI)

SIGN (2B) (RSP) (ISP)

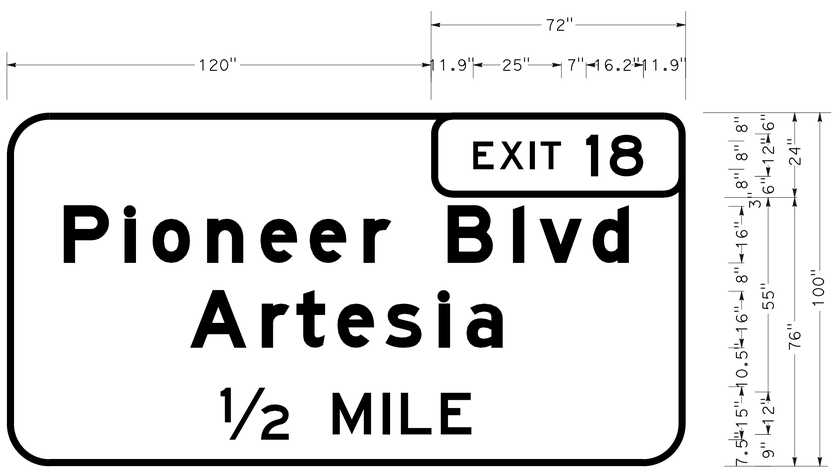
FWBT Sta 995+50 "91A4"
(PM 18.87)

FURNISH FORMED PANEL SIGN
(OVERHEAD) FOR RETROREFLECTIVE
SHEETING (TYPE XI)

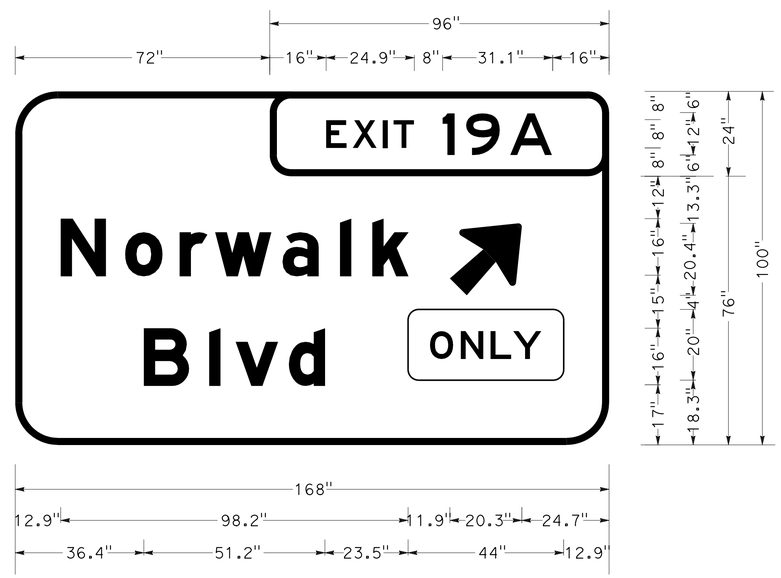


W61B (CA)

Exist SIGN STRUCTURE



12.0" Radius, 2.0" Border, White on Green;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E; [18] E;
12.0" Radius, 2.0" Border, White on Green;
[Pioneer Blvd] E Mod; [Artesia] E Mod; [59/64 MILE] E;



12.0" Radius, 2.0" Border, White on Green;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E; [19A] E;
12.0" Radius, 2.0" Border, White on Green;
[Norwalk] E Mod; [Blvd] E Mod; Arrow 16CAP-1L - 25.0" 45{;

SIGN DETAILS
NO SCALE

SD-2

APPROVED FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: MOHAMMED CHOWDHURY
CALCULATED-DESIGNED BY: RICHARD KHAW
CHECKED BY: SULIASTI SUTANTO
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 16-SEP-2015
TIME PLOTTED => 13:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	91	R11.3/R20.7	100	192

REGISTERED CIVIL ENGINEER 8/3/15 DATE

8-10-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SULIASTI SUTANTO No. C77282 Exp. 6/30/17 CIVIL STATE OF CALIFORNIA

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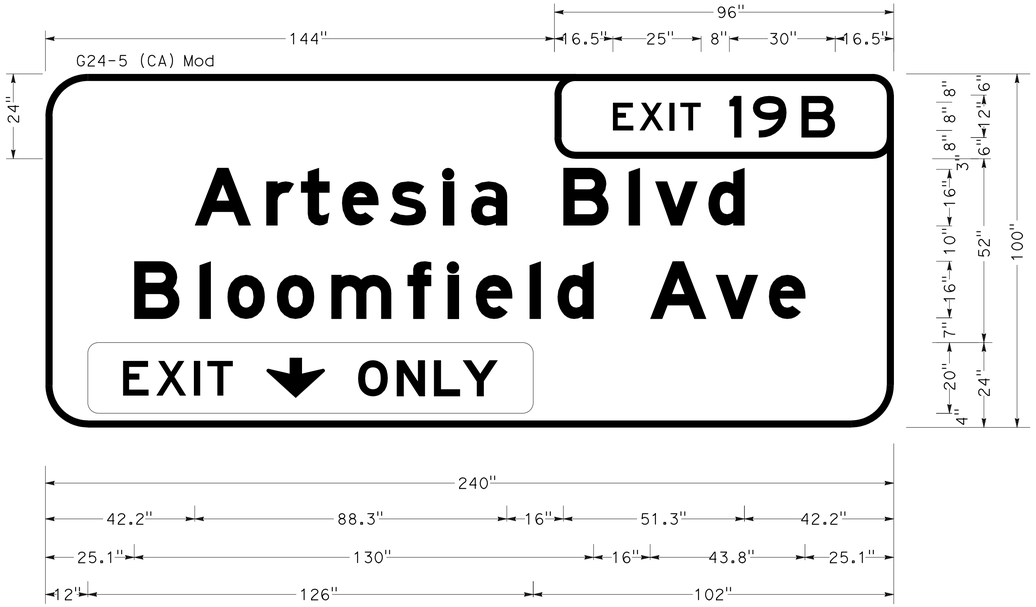
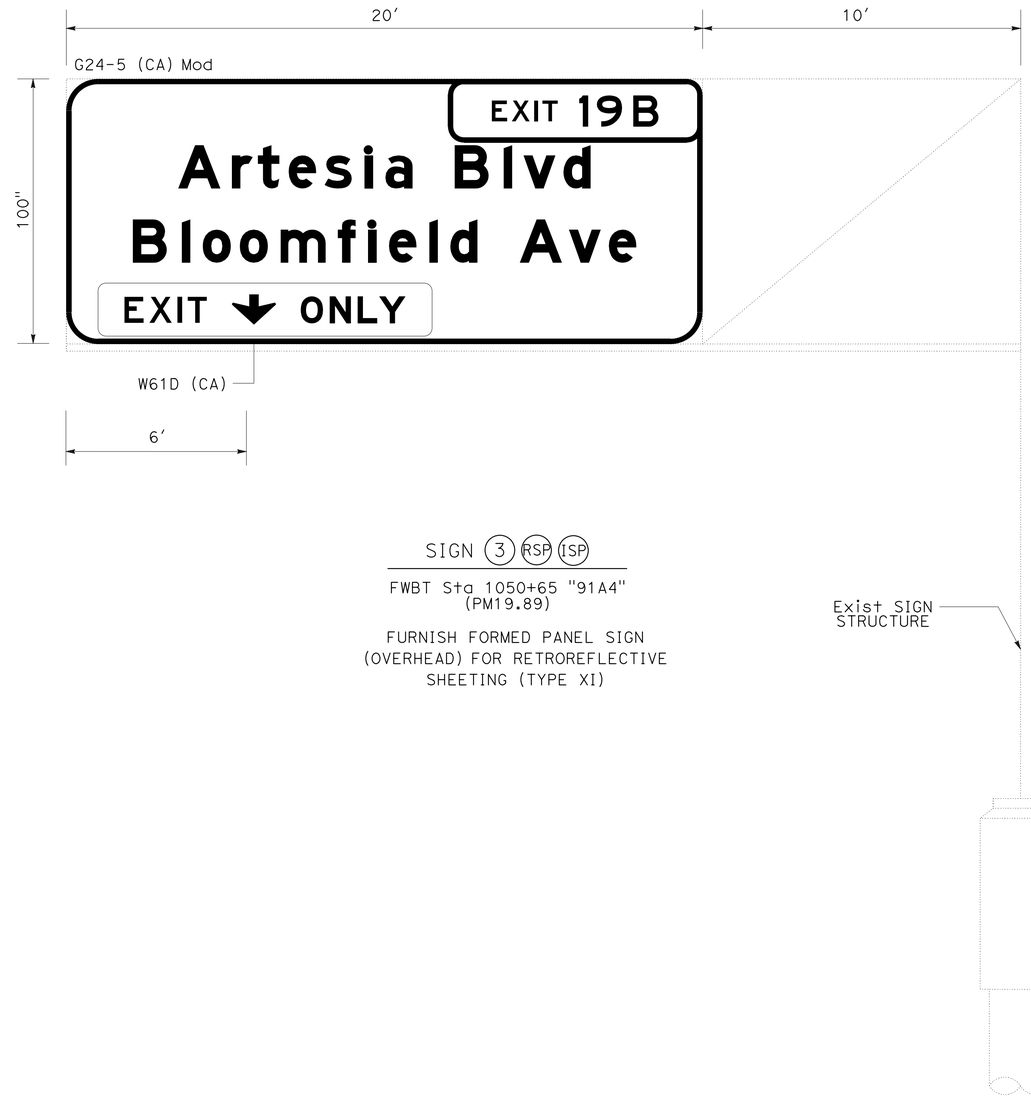


12.0" Radius, 2.0" Border, White on Green;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E; [19B] E;

12.0" Radius, 2.0" Border, White on Green;
[Artesia Blvd] E Mod; [Bloomfield Ave] E Mod;
12.0" Radius, 2.0" Border, White on Green;

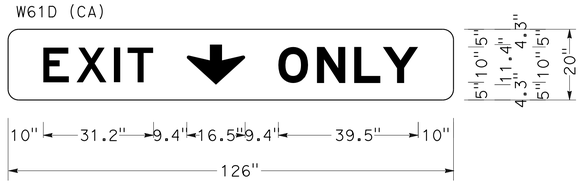


SIGN (3) (RSP) (ISP)

FWBT Sta 1050+65 "91A4"
(PM19.89)

FURNISH FORMED PANEL SIGN (OVERHEAD) FOR RETROREFLECTIVE SHEETING (TYPE XI)

W61D (CA)



3.0" Radius, No border, White on Yellow;
[EXIT] Black E; Down Arrow Custom - 11.3" 270{ Black;
[ONLY] Black E Mod;

SIGN DETAILS

NO SCALE

SD-3

APPROVED FOR SIGN WORK ONLY

REVISED BY | DATE REVISED
RICHARD KHAW | SULIASTI SUTANTO
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: MOHAMMED CHOWDHURY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

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