Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	201	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

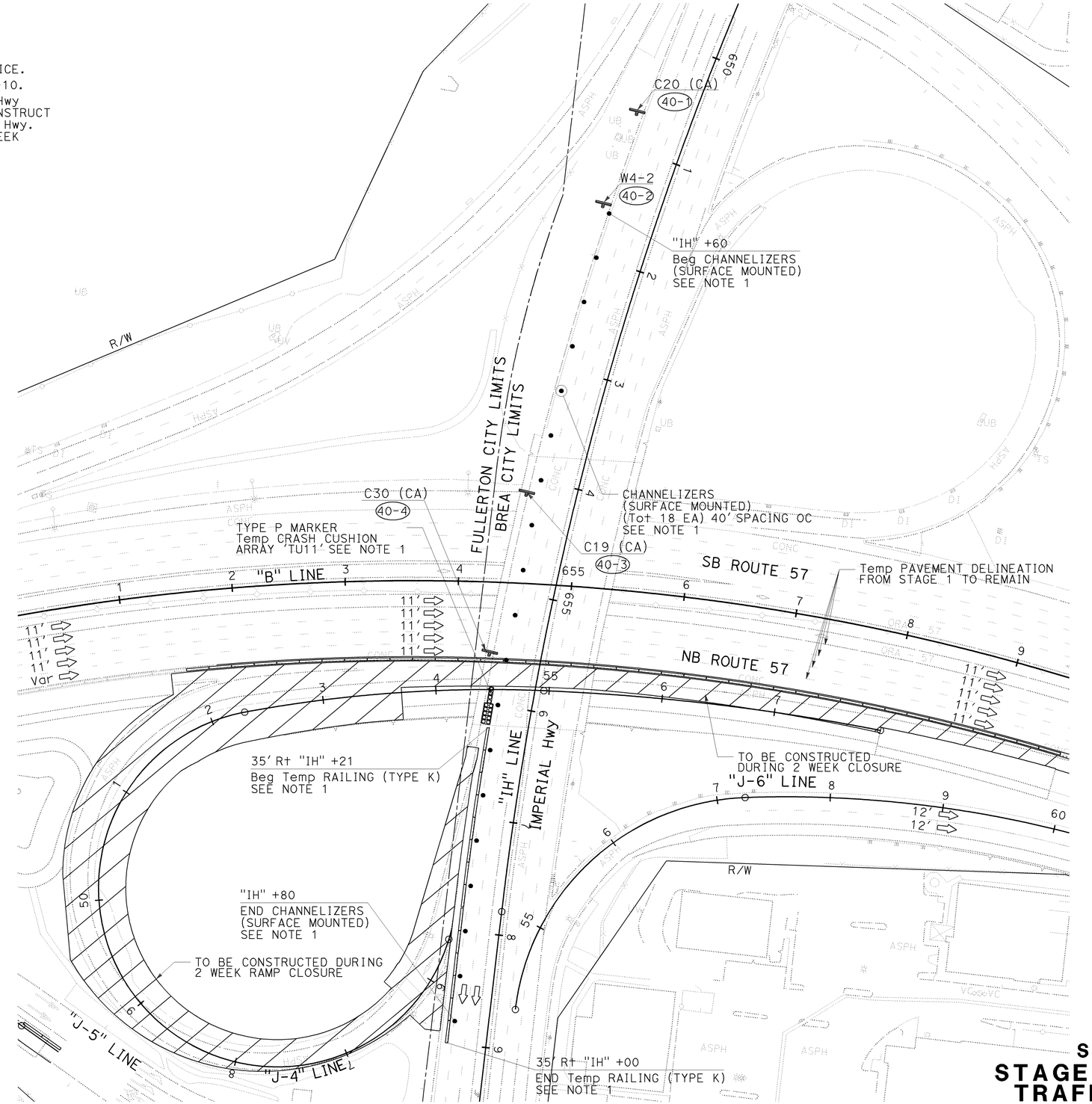
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. FOR LEGEND AND NOTES SEE SHEET SC-10.
3. CLOSE OUTSIDE EB LANE ON IMPERIAL Hwy DURING WEEKEND CLOSURE ONLY, TO CONSTRUCT JOIN AREA OF NB ON-RAMP & IMPERIAL Hwy. WEEKEND CLOSURE IS INCLUDED IN 2-WEEK Max RAMP CLOSURE.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE 4 (PHASE 2)
STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

SCALE: 1" = 50'

SC-40

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 09:36

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F032ma040.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	202	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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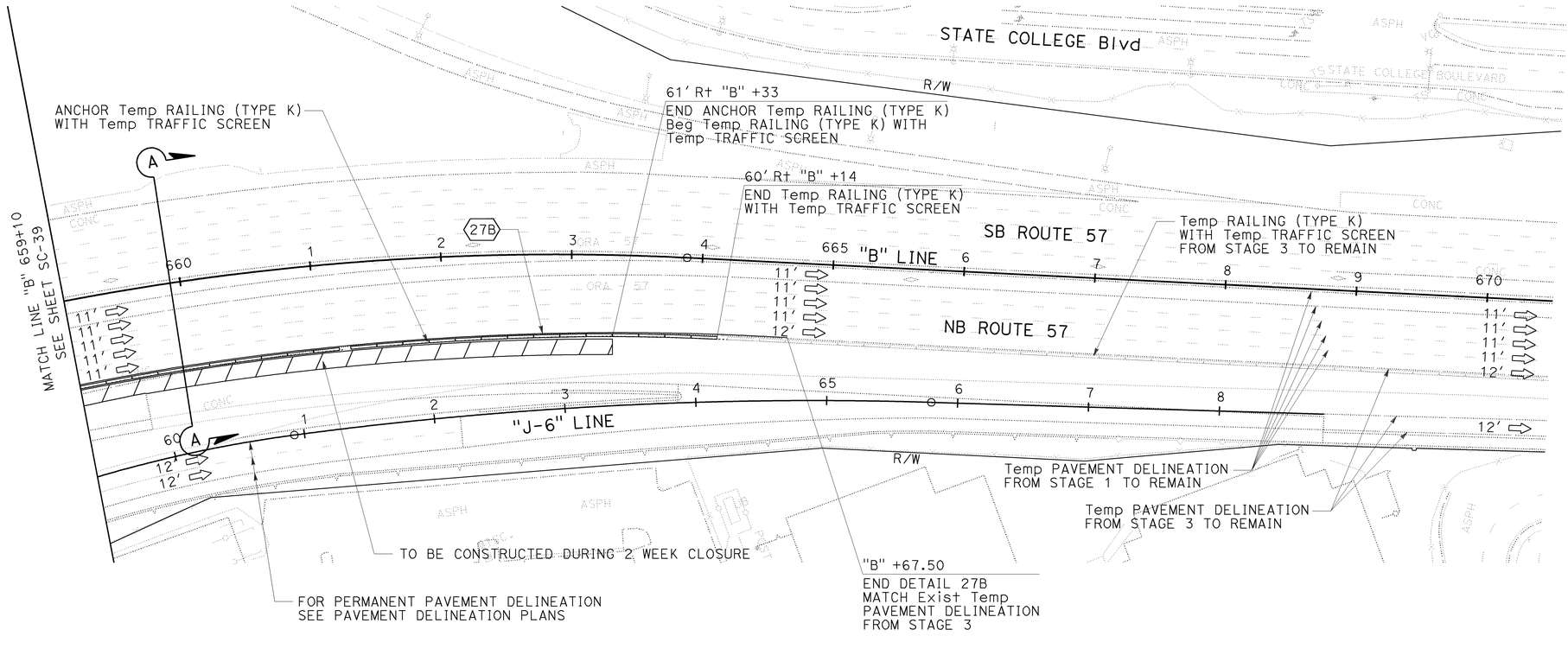
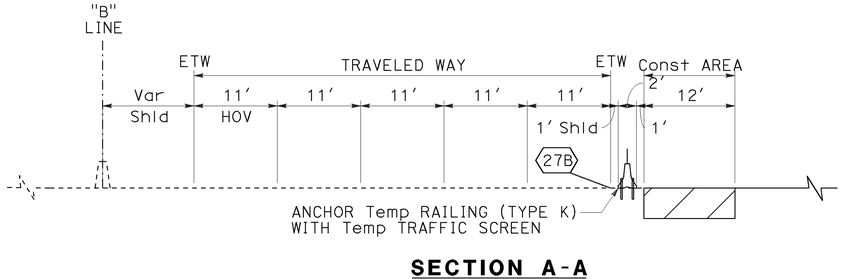
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. FOR LEGEND AND NOTES SEE SHEET SC-10.





SECTION A-A
NO SCALE

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE 4
STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

SCALE: 1" = 50'

SC-41

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 09:37

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c0F032ma041.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	203	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

THOMAS M. IONTA
No. C45818
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

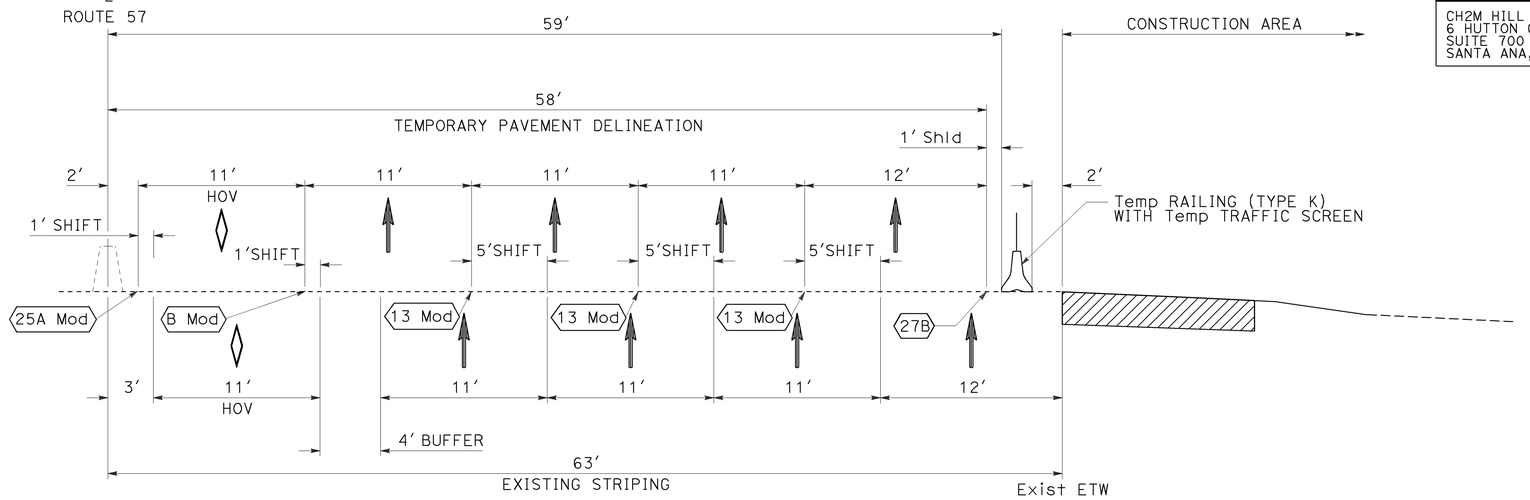
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

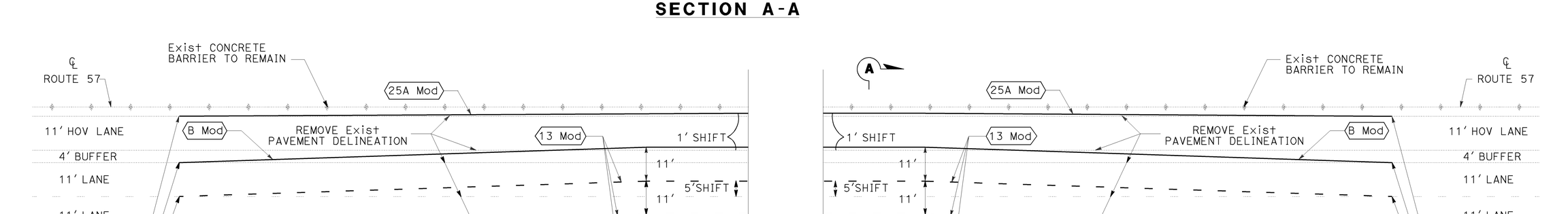
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. CONTRACTOR SHALL BE LIMITED TO THE AMOUNT OF EXISTING PAVEMENT DELINEATION REMOVED IN ONE NIGHT, SUCH THAT ALL TEMPORARY PAVMENT DELINEATION SHOWN ON THIS TEMPORARY PAVEMENT DELINEATION SCHEMATIC IS COMPLETED IN THE SAME NIGHT. TEMPORARY PAVEMENT DELINEATION TO BE ACCOMPLISHED DURING APPROVED LANE CLOSURE HOURS ONLY.
2. REMOVE EXISTING CONFLICTING PAVEMENT DELINEATION



SECTION A-A



ROUTE 57 NB TEMPORARY PAVEMENT DELINEATION SCHEMATIC PLAN

(TYPICAL FOR SB DIRECTION)

STAGE CONSTRUCTION (DETAILS)

NO SCALE

SCD-1

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 09:38

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c0F032mb001.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	204	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

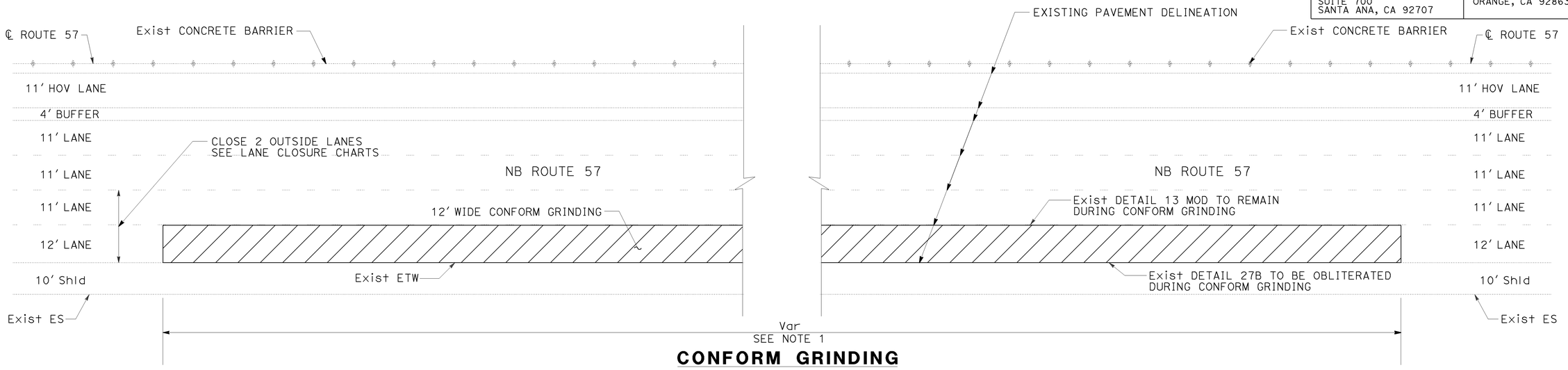
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

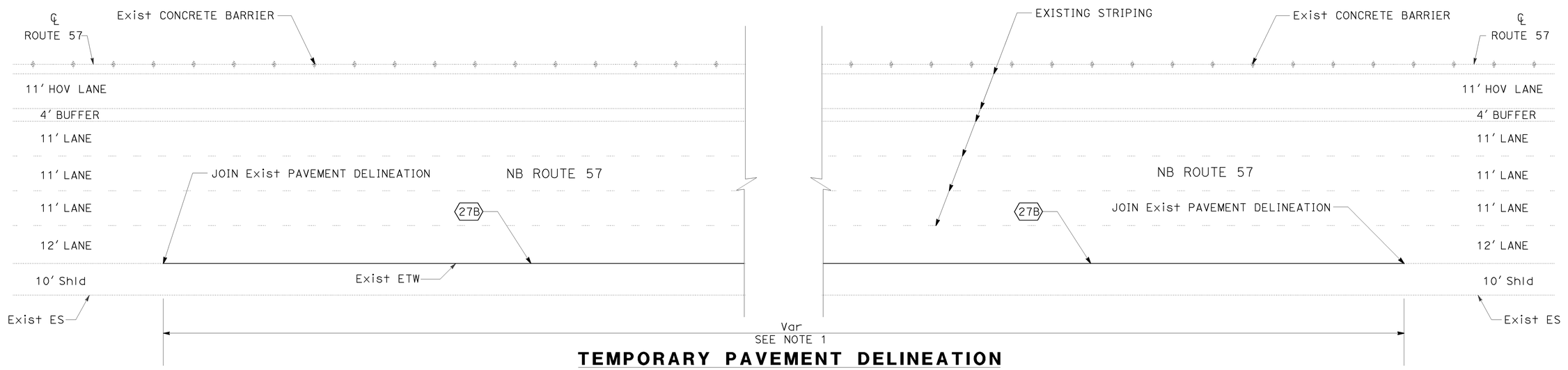
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. CONTRACTOR SHALL BE LIMITED TO THE AMOUNT OF CONFORM GRINDING AND REPLACEMENT OF EXISTING DETAIL 27B PAVEMENT DELINEATION THAT CAN BE PERFORMED IN ONE NIGHT, SUCH THAT ALL TEMPORARY PAVEMENT DELINEATION SHOWN ON THIS CONFORM GRINDING AND TEMPORARY PAVEMENT DELINEATION SCHEMATIC IS COMPLETED IN THE SAME NIGHT. CONFORM GRINDING AND TEMPORARY PAVEMENT DELINEATION TO BE ACCOMPLISHED DURING APPROVED LANE CLOSURE HOURS ONLY.



CONFORM GRINDING



TEMPORARY PAVEMENT DELINEATION

CONFORM GRINDING & TEMPORARY PAVEMENT DELINEATION SCHEMATIC PLAN

(PRIOR TO BEGINNING STAGE 1 WORK)

STAGE CONSTRUCTION (DETAILS)

NO SCALE

SCD-2

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 09:39

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	205	856

REGISTERED CIVIL ENGINEER — DATE: 06/15/09

PLANS APPROVAL DATE: 1-25-10

THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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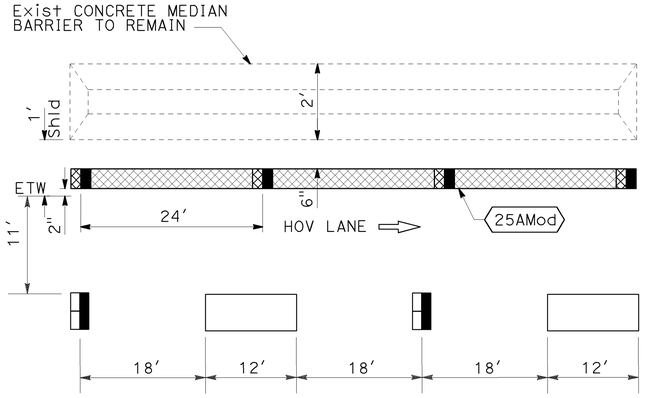
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

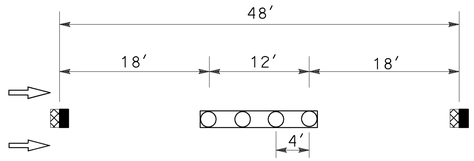
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

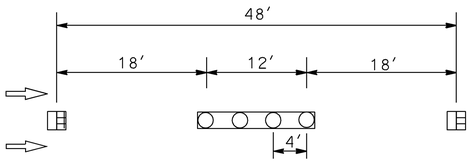
1. ALL CONFLICTING STRIPING, AND PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO STARTING WORK ON EACH STAGE. ALL CONFLICTING SIGNING SHALL BE REMOVED OR COVERED AS DIRECTED BY THE ENGINEER PRIOR TO STARTING WORK ON EACH STAGE.
2. ALL STAGE CONSTRUCTION TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL BE PAINT (2 COAT).
3. LANE WIDTHS SHALL BE 11 FEET MINIMUM UNLESS OTHERWISE NOTED.
4. A MINIMUM CLEARANCE OF 2 FEET SHALL BE PROVIDED BETWEEN EXISTING OR Temp EDGE OF TRAVELED WAY AND Temp RAILING (TYPE K) UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL NOTIFY THE ENGINEER WITH REGARD TO MESSAGES FOR CLOSURES ON PORTABLE CHANGEABLE MESSAGE SIGNS FIVE (5) WORKING DAYS PRIOR TO CLOSURE.
6. REMOVAL OF TRAFFIC STRIPES AND PAVEMENT MARKINGS BY GRINDING METHOD IN PAVEMENT AREAS THAT ARE TO REMAIN IN PLACE AFTER CONTRACT COMPLETION WILL NOT BE ALLOWED.
7. CHANNELIZERS SHALL BE PLACED IN CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SHALL BE CEMENTED TO THE SURFACE WITH ADHESIVE RECOMMENDED BY THE MANUFACTURER, EXCEPT EPOXY ADHESIVE SHALL NOT BE USED IN AREAS WHERE REMOVAL OF THE CHANNELIZER WILL BE REQUIRED AND THE PAVEMENT SURFACE WILL REMAIN IN PLACE.
8. FOR ADDITIONAL PAVEMENT DELINEATION DETAILS SEE SHEET PDD-1. FOR TEMPORARY STRIPING USE PAINT INSTEAD OF THERMOPLASTIC.



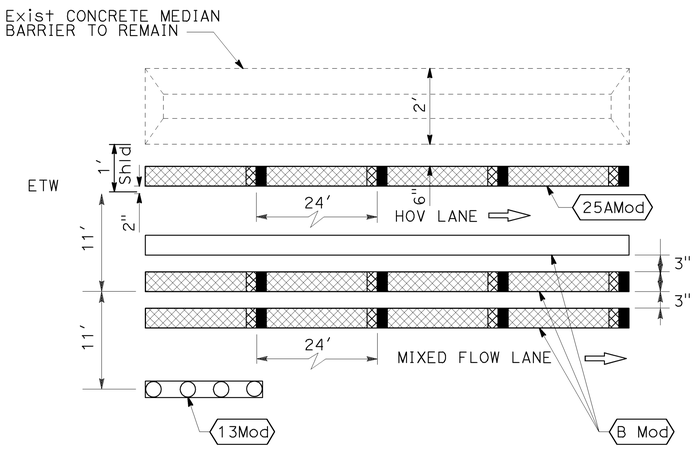
DETAIL A
DURING STAGE CONSTRUCTION
HOV INGRESS/EGRESS MARKING
NO SCALE



DETAIL 13 Mod
NO SCALE



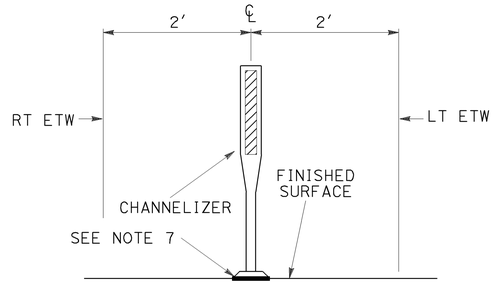
DETAIL 14 Mod
NO SCALE



DETAIL B Mod
Temp HOV BUFFER
NO SCALE
SEE NOTE 8

LEGEND:

- TYPE A PAVEMENT MARKER
- TYPE C PAVEMENT MARKER
- TYPE G PAVEMENT MARKER
- TYPE H RAISED PAVEMENT MARKER
- 4" PAINTED WHITE TRAFFIC STRIPE (2-COATS)
- 4" PAINTED YELLOW TRAFFIC STRIPE (2-COATS)
- 8" PAINTED WHITE TRAFFIC STRIPE (2-COATS)
- DIRECTION OF TRAVEL



CHANNELIZER (SURFACE MOUNTED)
TYPICAL LEFT AND RIGHT SHOULDER INSTALLATION
UNLESS NOTED OTHERWISE
NO SCALE

STAGE CONSTRUCTION (DETAILS)
NO SCALE

SCD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 25-JAN-2010
00-00-00 TIME PLOTTED => 09:40

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c0F032mb003.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	206	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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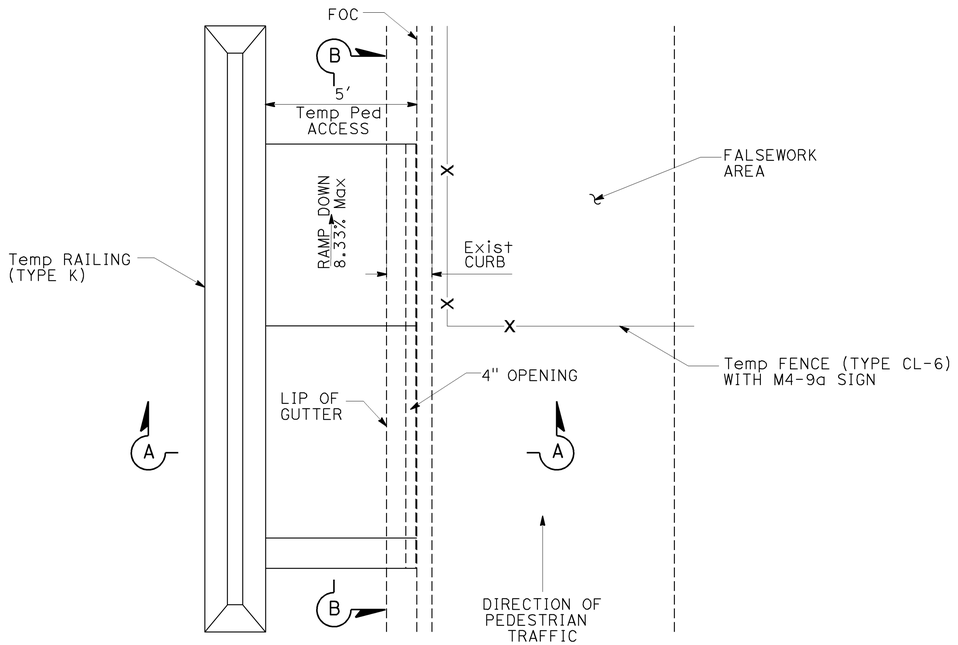
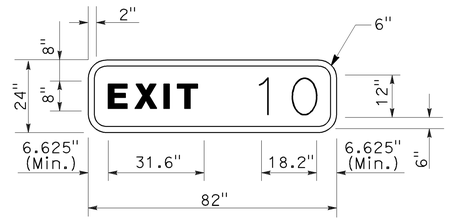
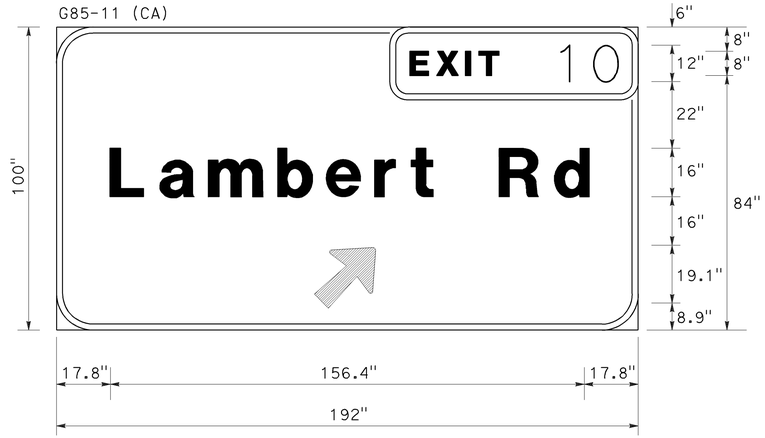
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

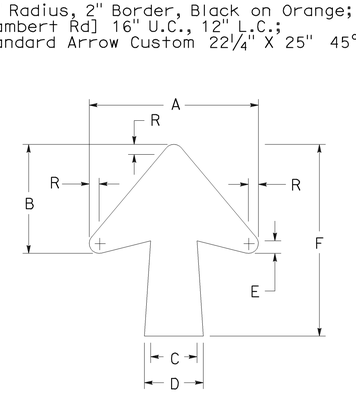


PLAN
NO SCALE





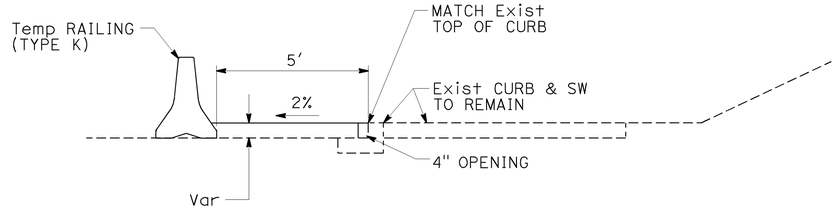
12" Radius, 2" Border, Black on Orange;
[Lambert Rd] 16" U.C., 12" L.C.;
Standard Arrow Custom 22¼" X 25" 45°



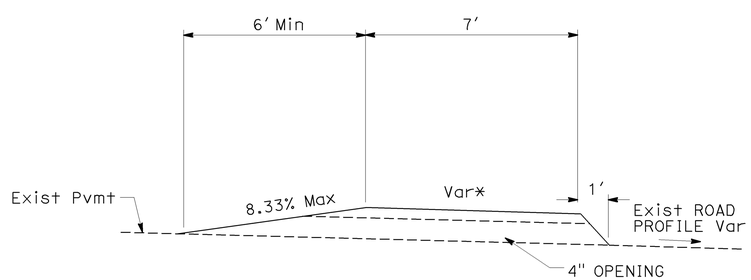
DIAGONAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	F	R
22-1/4	17	5-3/8	6-3/16	1-3/4	25	1

SIGN 21-1 DETAIL
NO SCALE



SECTION A-A
NO SCALE



* MATCH Exist ROAD PROFILE

SECTION B-B
NO SCALE

Temp PEDESTRIAN WALKWAY

(TYPICAL AT BASTANCHURY Rd, ROLLING HILLS Dr, ASSOCIATED Rd, BIRCH St, 4 LOCATIONS PER UC)

STAGE CONSTRUCTION (DETAILS)

NO SCALE

SCD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY / DATE REVISED

LAST REVISION DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 09:40
00-00-00

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c0F032mb004.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	207	856

REGISTERED CIVIL ENGINEER — 11-16-09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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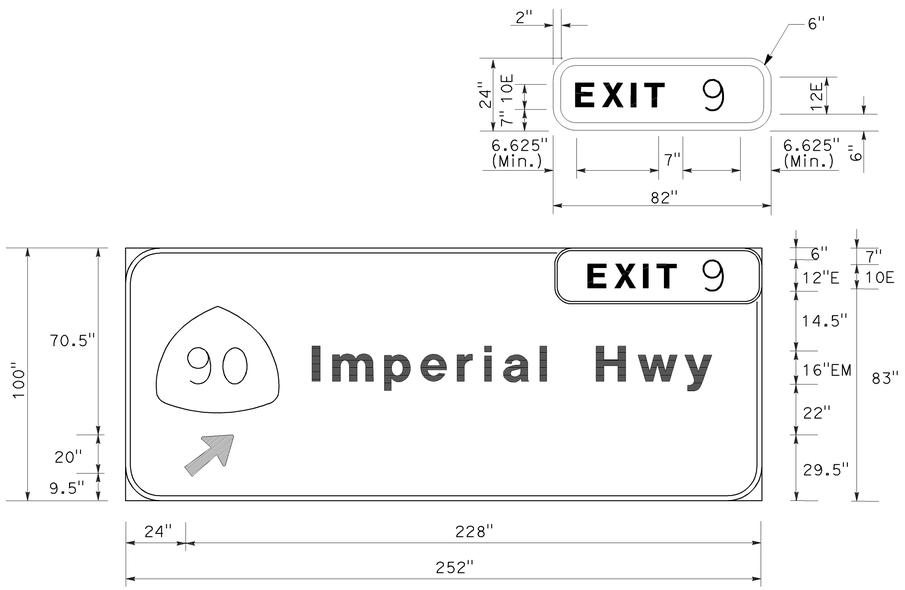
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

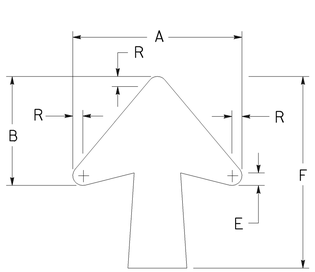
NOTE:

1. FOR PERMANENT OVERHEAD SIGN DETAILS SEE SIGN PLANS.



12" Radius, 2" Border, White on Green
[Imperial Hwy] 16" U.C., 12" L.C.;
Route Shield Size 36" X 36";
Standard Arrow Custom 22¼" X 25" 45°;

SIGN (G)
FNBT "B" LINE STA 626+00

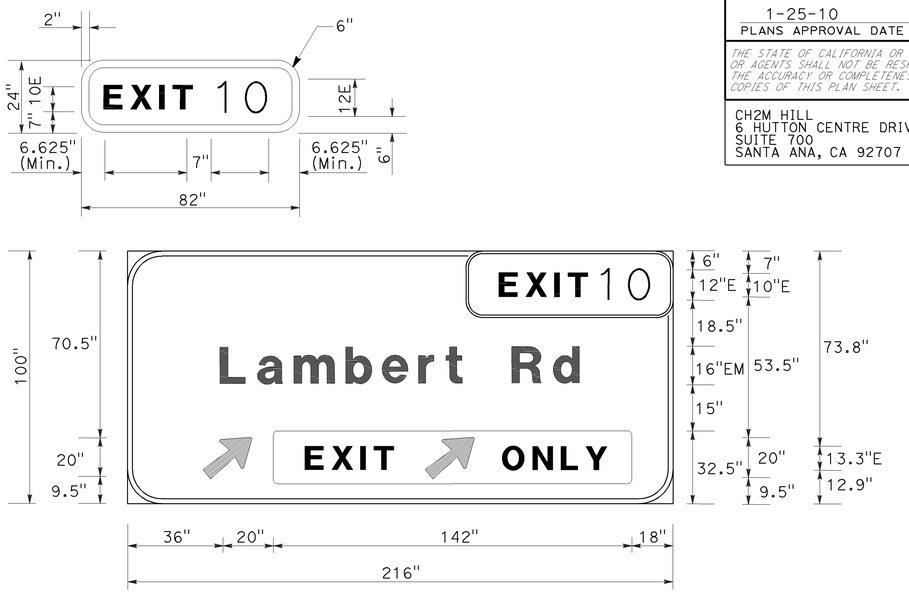


DIAGONAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	F	R
22-1/4	17	5-3/8	6-3/16	1-3/4	25	1

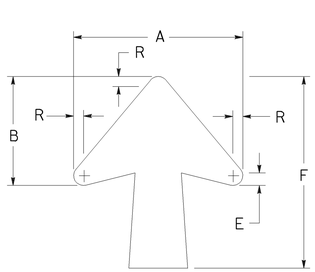
Temp OVERHEAD SIGN G DETAIL

(MOUNTED ON PERMANENT OVERHEAD SIGN FRAME
DURING STAGE CONSTRUCTION)
STAGE 4 ONLY



12" Radius, 2" Border, White on Green;
[Lambert Rd] 16" U.C., 12" L.C.;
Standard Arrow Custom 22¼" X 25" 45°;
Rectangle Yellow

SIGN (O)
FNBT "B" LINE STA 697+99.18



DIAGONAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	F	R
22-1/4	17	5-3/8	6-3/16	1-3/4	25	1

Black on Yellow;
[EXIT ONLY] 13.3" U.C., 10" L.C.
Standard Arrow Custom 22¼" X 25" 45°

Temp OVERHEAD SIGN O DETAIL

(MOUNTED ON PERMANENT OVERHEAD SIGN FRAME
DURING STAGE CONSTRUCTION)
STAGES 3 & 4 ONLY

STAGE CONSTRUCTION (DETAILS)

NO SCALE

SCD-5

CALCULATED-DESIGNED BY
CHECKED BY
RYAN MITRY
MIKE ROBINSON
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR
THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 25-JAN-2010
00-00-00 TIME PLOTTED => 09:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	208	856

REGISTERED CIVIL ENGINEER — DATE: 06/15/09

1-25-10
PLANS APPROVAL DATE

THOMAS M. IONTA
No. C45818
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	LOCATION	DETAIL	PAINT TRAFFIC STRIPE (2-COAT)					PAVEMENT MARKER				PAINT PAVEMENT MARKING (2-COAT)		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER	TYPE III BARRICADE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY FENCE (TYPE CL-6 WITH PRIVACY SCREEN)	TEMPORARY GATE (TYPE CL-6 WITH PRIVACY SCREEN)
			4" BROKEN WHITE	4" SOLID WHITE	4" SOLID YELLOW	8" BROKEN WHITE	8" SOLID WHITE	NON-REFLECTIVE TYPE A	RETRO REFLECTIVE TYPE G	RETRO REFLECTIVE TYPE H	RETRO REFLECTIVE TYPE C	ARROWS	12" WHITE LINES											
			LF	LF	LF	LF	LF	EA	EA	EA	EA	SQFT	SQFT	LF	LF	EA	EA	LF	SQFT	EA	EA	LF	LF	EA
SC-10	ROUTE 57 "B"	13 Mod	4860					405		103								1215		508				
	ROUTE 57 "B"	B Mod		1620	3240					135								4860		135				
	ROUTE 57 "B"	25A Mod			1620					68								1620		68				
	ROUTE 57 "B"	27B		853														853						
	ROUTE 57 "B"	36					495		22									990		22				
	ROUTE 57 "B"	36A	380	389														501						
	ROUTE 57 "B"													700	700	21	14							
	SB OFF-RAMP "I-7"	27B		642														642						
	SB OFF-RAMP "I-7"													660	660									
SC-11	ROUTE 57 "B"	13 Mod	5100					425		108								1275		533				
	ROUTE 57 "B"	14 Mod	1350					113			30							338		143				
	ROUTE 57 "B"	B Mod		2150	4300					180								6450		180				
	ROUTE 57 "B"	25A Mod			2150					90								2150		90				
	ROUTE 57 "B"	27B		2150														2150						
	ROUTE 57 "B"	36A	12															7						
	ROUTE 57 "B"													2160	2160									
SC-12	ROUTE 57 "B"	13 Mod	7350					613		155								1838		768				
	ROUTE 57 "B"	B Mod		1405	2810					118								4215		118				
	ROUTE 57 "B"	A				1045			44									524		44				
	ROUTE 57 "B"	25A Mod			2450					103								2450		103				
	ROUTE 57 "B"	27B		2450														2450						
	ROUTE 57 "B"													2460	2460									
SC-13	BASTANCHURY Rd "BR"	27B		1195														1195						
	BASTANCHURY Rd "BR"													1440	720	29	44					683	546	
SC-14	ROUTE 57 "B"	13 Mod	7200					600		151								1800		751				
	ROUTE 57 "B"	B Mod		798	1596					67								2394		67				
	ROUTE 57 "B"	A				1602			67									802		67				
	ROUTE 57 "B"	25A Mod			2400					100								2400		100				
	ROUTE 57 "B"	27B		2400														2400						
	ROUTE 57 "B"													2400	2400								478	
SUBTOTAL			26,252	16,052	20,566	2647	495	2156	133	1378	30			9820	9100	50	58	45,518		3697		683	1024	
SHEET TOTAL			66,012					2156	1541					9820	9100	50	58	45,518		3697		683	1024	

STAGE CONSTRUCTION QUANTITIES

SCQ-1

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 09:42 | 00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	209	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — 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.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	LOCATION	DETAIL	PAINT TRAFFIC STRIPE (2-COAT)					PAVEMENT MARKER				PAINT PAVEMENT MARKING (2-COAT)		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER	TYPE III BARRICADE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY FENCE (TYPE CL-6 WITH PRIVACY SCREEN)	TEMPORARY GATE (TYPE CL-6 WITH PRIVACY SCREEN)
			4" BROKEN WHITE	4" SOLID WHITE	4" SOLID YELLOW	8" BROKEN WHITE	8" SOLID WHITE	NON-REFLECTIVE TYPE A	RETRO REFLECTIVE TYPE G	RETRO REFLECTIVE TYPE H	RETRO REFLECTIVE TYPE C	ARROWS	12" WHITE LINES											
			LF	LF	LF	LF	LF	EA	EA	EA	EA	SQFT	SQFT	LF	LF	EA	EA	LF	SQFT	EA	EA	LF	LF	EA
SC-15	ROUTE 57 "B"	13 Mod	5850					488		123								1463		611				
	ROUTE 57 "B"	14 Mod	1350					113			30							338		143				
	ROUTE 57 "B"	B Mod		2400	4800					200								7200		200				
	ROUTE 57 "B"	25A Mod			2400					100								2400		100				
	ROUTE 57 "B"	27B		2400														2400						
	ROUTE 57 "B"													2400	2400								1691	
SC-16	ROUTE 57 "B"	13 Mod	5985					499		126								1496		625				
	ROUTE 57 "B"	B Mod		1995	3990					167								5985		167				
	ROUTE 57 "B"	25A Mod			1995					84								1995		84				
	ROUTE 57 "B"	27B		1785														1785						
	ROUTE 57 "B"	36					271		13									542		13				
	ROUTE 57 "B"													1120	1120	17	35						182	
	NB OFF-RAMP "J-5"	25A			516					23								516		23				
	NB OFF-RAMP "J-5"	27B		792														792						
	NB OFF-RAMP "J-5"	36					276		13									552		13				
	NB OFF-RAMP "J-5"													1260	1260									
SC-17	ROUTE 57 "B"	13 Mod	3300					275		70								825		345				
	ROUTE 57 "B"	B Mod		1100	2200					92								3300		92				
	ROUTE 57 "B"	25A Mod			1100					46								1100		46				
	ROUTE 57 "B"	27B		636														636						
	ROUTE 57 "B"	36A		230														230						
	ROUTE 57 "B"													620	620									
	IMPERIAL Hwy "IH"																						90	
	NB LOOP ON-RAMP "J-4"	27B		565														565						
	NB LOOP ON-RAMP "J-4"	36A	222				110		5									290		5				
	NB LOOP ON-RAMP "J-4"													620	620	26	25							
	NB OFF-RAMP "J-5"	25A			219					11								219		11				
	NB OFF-RAMP "J-5"	27B		219														219						
	NB OFF-RAMP "J-5"													460	460									
	NB ON-RAMP "J-6"	27B		377														377						
	NB ON-RAMP "J-6"	25A			377					17								377		17				
	NB ON-RAMP "J-6"													500	500		11							
SUBTOTAL			16,707	12,499	17,597		657	1375	31	1059	30			6980	6980	43	71	35,601		2495			1963	
SHEET TOTAL			47,460					1375		1120				6980	6980	43	71	35,601		2495			1963	

STAGE CONSTRUCTION QUANTITIES

SCQ-2

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	210	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	LOCATION	DETAIL	PAINT TRAFFIC STRIPE (2-COAT)					PAVEMENT MARKER				PAINT PAVEMENT MARKING (2-COAT)		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER	TYPE III BARRICADE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY FENCE (TYPE CL-6 WITH PRIVACY SCREEN)	TEMPORARY GATE (TYPE CL-6 WITH PRIVACY SCREEN)
			4" BROKEN WHITE	4" SOLID WHITE	4" SOLID YELLOW	8" BROKEN WHITE	8" SOLID WHITE	NON-REFLECTIVE TYPE A	RETRO REFLECTIVE TYPE G	RETRO REFLECTIVE TYPE H	RETRO REFLECTIVE TYPE C	ARROWS	12" WHITE LINES											
			LF	LF	LF	LF	LF	EA	EA	EA	EA	SQFT	SQFT	LF	LF	EA	EA	LF	SQFT	EA	EA	LF	LF	EA
SC-18	ROUTE 57 "B"	13 Mod	3420					285		73								855		358				
	ROUTE 57 "B"	B Mod		1140	2280					95								3420		95				
	ROUTE 57 "B"	25A Mod			1140					48								1140		48				
	ROUTE 57 "B"	27B		678														678						
	ROUTE 57 "B"	36A		175														175						
	ROUTE 57 "B"	11	65															17						
	ROUTE 57 "B"													640	560								306	
	NB ON-RAMP "J-6"	25A			110					6								110		6				
	NB ON-RAMP "J-6"	27B		1149														1149						
	NB ON-RAMP "J-6"	36A	285				174		8									432		8				
	NB ON-RAMP "J-6"													1220	1220								547	
SC-19	ROUTE 57 "B"	13 Mod	3000					250		64								750		314				
	ROUTE 57 "B"	B Mod		1000	2000					84								3000		84				
	ROUTE 57 "B"	25A Mod			1000					42								1000		42				
	ROUTE 57 "B"	27B		1000														1000						
	ROUTE 57 "B"	11	759															190						
	ROUTE 57 "B"													1880	1000		11						870	
SC-20	ROUTE 57 "B"	13 Mod	2400					200		51								600		251				
	ROUTE 57 "B"	14 Mod	600					50			14							150		64				
	ROUTE 57 "B"	B Mod		1000	2000					84								3000		84				
	ROUTE 57 "B"	25A Mod			1000					42								1000		42				
	ROUTE 57 "B"	27B		1000														1000						
	ROUTE 57 "B"													1000	1000									
SUBTOTAL			10,529	7142	9530		174	785	8	589	14			4740	3780		11	19,666		1396			1723	
SHEET TOTAL			27,375					785		611				4740	3780		11	19,666		1396			1723	

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

REVISED BY | DATE REVISED

STAGE CONSTRUCTION QUANTITIES

SCQ-3

LAST REVISION | DATE PLOTTED => 25-JAN-2010
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

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DGN FILE => c0F032mc003.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	211	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	LOCATION	DETAIL	PAINT TRAFFIC STRIPE (2-COAT)					PAVEMENT MARKER				PAINT PAVEMENT MARKING (2-COAT)		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER	TYPE III BARRICADE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY FENCE (TYPE CL-6 WITH PRIVACY SCREEN)	TEMPORARY GATE (TYPE CL-6 WITH PRIVACY SCREEN)
			4" BROKEN WHITE	4" SOLID WHITE	4" SOLID YELLOW	8" BROKEN WHITE	8" SOLID WHITE	NON-REFLECTIVE TYPE A	RETRO REFLECTIVE TYPE G	RETRO REFLECTIVE TYPE H	RETRO REFLECTIVE TYPE C	ARROWS	12" WHITE LINES											
			LF	LF	LF	LF	LF	EA	EA	EA	EA	SQFT	SQFT	LF	LF	EA	EA	LF	SQFT	EA	EA	LF	LF	EA
SC-21	ROUTE 57 "B"	13 Mod	1770					148		38								443		186				
	ROUTE 57 "B"	14 Mod	750					63			17							188		80				
	ROUTE 57 "B"	B Mod		840	1680					70								2520		70				
	ROUTE 57 "B"	25A Mod			840					35								840		35				
	ROUTE 57 "B"	27B		719														719						
	ROUTE 57 "B"	36					122		7									244		7				
	ROUTE 57 "B"													720	720									4
	NB OFF-RAMP "K-2"	27B		122														122						
	NB OFF-RAMP "K-2"	36					122		7									244		7				
	NB OFF-RAMP "K-2"													140	140									
SC-22	ROUTE 57 "B"	13 Mod	3660					305		78								915		383				
	ROUTE 57 "B"	B Mod		870	1740					73								2610		73				
	ROUTE 57 "B"	A				350			15									176		15				
	ROUTE 57 "B"	25A Mod			1220					51								1220		51				
	ROUTE 57 "B"	27B		1071														1071						
	ROUTE 57 "B"	36					149		8									149		8				
	ROUTE 57 "B"													740	740		21							
	NB OFF-RAMP "K-2"	25A			670					29								670		29				
	NB OFF-RAMP "K-2"	27B		818														818						
	NB OFF-RAMP "K-2"	36					150		11									150		11				
	NB OFF-RAMP "K-2"													1420	1420									
SC-23	ROUTE 57 "B"	13 Mod	870					73		20								218		93				
	ROUTE 57 "B"	A				290			13									146		13				
	ROUTE 57 "B"	25A Mod			290					13								290		13				
SC-24	ROUTE 57 "B"	27B		290														290						
	ROUTE 57 "B"	25A			799					35								799		35				
	ROUTE 57 "B"	27B		1500														1500						
	ROUTE 57 "B"													360	360		21							
SC-25	ROUTE 57 "B"	25A			662					29								662		29				
	ROUTE 57 "B"	27B		1737														1737						
	ROUTE 57 "B"	36A	163	251			251		11									802		11				
	ROUTE 57 "B"												117	1580	1580				117					
SUBTOTAL			7213	8218	7901	640	794	589	72	471	17		117	4960	4960		42	19,542	117	1149				4
SHEET TOTAL			24,766					589	560			117		4960	4960		42	19,542	117	1149				4

STAGE CONSTRUCTION QUANTITIES

SCQ-4

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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BORDER LAST REVISED 4/11/2008

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DGN FILE => c0F032mc004.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	212	856

REGISTERED CIVIL ENGINEER — DATE: 06/15/09

THOMAS M. IONTA, No. C45818, Exp. 12-31-10, CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	LOCATION	DETAIL	PAINT TRAFFIC STRIPE (2-COAT)					PAVEMENT MARKER				PAINT PAVEMENT MARKING (2-COAT)		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER	TYPE III BARRICADE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY FENCE (TYPE CL-6 WITH PRIVACY SCREEN)	TEMPORARY GATE (TYPE CL-6 WITH PRIVACY SCREEN)
			4" BROKEN WHITE	4" SOLID WHITE	4" SOLID YELLOW	8" BROKEN WHITE	8" SOLID WHITE	NON-REFLECTIVE TYPE A	RETRO REFLECTIVE TYPE G	RETRO REFLECTIVE TYPE H	RETRO REFLECTIVE TYPE C	ARROWS	12" WHITE LINES											
			LF	LF	LF	LF	LF	EA	EA	EA	EA	SQFT	SQFT	LF	LF	EA	EA	LF	SQFT	EA	EA	LF	LF	EA
	ROUTE 57 "B"	27B		737														737						
SC-26	ROUTE 57 "B"	36A	137															42						
	ROUTE 57 "B"												197	400	400		14		197					
SC-27	ROUTE 57 "B"													340	340	18	14							
	ROLLING HILLS Dr "RH"											30		80					30	12		503	485	
	BIRCH STREET "BS"	25A			546					24								546		24				
	BIRCH STREET "BS"	27B		855														855						
	BIRCH STREET "BS"	11	750															188						
SC-28	BIRCH STREET "BS"													860	860	35	44						239	
	ROUTE 57 "B"	36					184		9									368		9				
	ROUTE 57 "B"	27B		236														236						
	ROUTE 57 "B"													240	240									
	ROUTE 57 "B"	27B		660														660						
	ROUTE 57 "B"	36					180		9									360		9				
	ROUTE 57 "B"													620	620		21							
SC-29	NB OFF-RAMP "K-2"	25A			670					29								670		29				
	NB OFF-RAMP "K-2"	27B		853														853						
	NB OFF-RAMP "K-2"	36					184		9									368		9				
	NB OFF-RAMP "K-2"												37	660	660				37					
	ROUTE 57 "B"	27B		408														408						
	ROUTE 57 "B"													420	420									
SC-30	NB OFF-RAMP "K-2"	25A			792					34								792		34				
	NB OFF-RAMP "K-2"	27B		792														792						
	NB OFF-RAMP "K-2"												38	820	820				38					
	ASSOCIATED ROAD "AR"	24			1749													1749						
SC-31	ASSOCIATED ROAD "AR"	27B		1589														1589						
	ASSOCIATED ROAD "AR"													960	460	48	44						352	
	IMPERIAL Hwy "IH"	38					100		5									200		5				
SC-32	IMPERIAL Hwy "IH"	40	78															12						
	IMPERIAL Hwy "IH"											15		140		4	11		15	5				
SUBTOTAL			965	6130	3757		648		32	87		45	272	5540	4820	105	148	11,425	317	119	17	503	1076	
SHEET TOTAL			11,500						119			317		5540	4820	105	148	11,425	317	119	17	503	1076	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED

STAGE CONSTRUCTION QUANTITIES

SCQ-5

LAST REVISION | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 09:42 | 00-00-00

BORDER LAST REVISED 4/11/2008

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CU 12220

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	213	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10 PLANS APPROVAL DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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ORANGE, CA 92863

STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	LOCATION	DETAIL	PAINT TRAFFIC STRIPE (2-COAT)					PAVEMENT MARKER				PAINT PAVEMENT MARKING (2-COAT)		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER	TYPE III BARRICADE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY FENCE (TYPE CL-6 WITH PRIVACY SCREEN)	TEMPORARY GATE (TYPE CL-6 WITH PRIVACY SCREEN)
			4" BROKEN WHITE	4" SOLID WHITE	4" SOLID YELLOW	8" BROKEN WHITE	8" SOLID WHITE	NON-REFLECTIVE TYPE A	RETRO REFLECTIVE TYPE G	RETRO REFLECTIVE TYPE H	RETRO REFLECTIVE TYPE C	ARROWS	12" WHITE LINES											
			LF	LF	LF	LF	LF	EA	EA	EA	EA	SQFT	SQFT	LF	LF	EA	EA	LF	SQFT	EA	EA	LF	LF	EA
	ROUTE 57 "B"	25A			170					9								170		9				
SC-33	ROUTE 57 "B"	27B		780														780						
	ROUTE 57 "B"													920	920									
	ROUTE 57 "B"	25A			592					26								592		26				
	ROUTE 57 "B"	27B		1277														1277						
SC-34	ROUTE 57 "B"	36A	259	153			153		7									536		7				
	ROUTE 57 "B"	37				409			2		28							164						
	ROUTE 57 "B"													1020	1020	21	14							
	ROUTE 57 "B"	27B		1000														1000						
SC-35	ROUTE 57 "B"	36A	40															14						
	ROUTE 57 "B"	37				1000			2		68							400						
	ROUTE 57 "B"												387	180	180				387					
	ROUTE 57 "B"	13 Mod	303					26		8								76		34				
	ROUTE 57 "B"	27B		763														763						
SC-36	ROUTE 57 "B"	36					306		14									612		14				
	ROUTE 57 "B"	37				460			2		32							184						
	ROUTE 57 "B"												265	380	380		14		265					
	ROUTE 57 "B"	27B		237														237						
	ROUTE 57 "B"	36					452		20									904		20				
SC-37	ROUTE 57 "B"												46	780	780		21		46					
	NB OFF-RAMP "J-5"	36					463		21									926		21				
	NB OFF-RAMP "J-5"	25A			197					10								197		10				
	NB OFF-RAMP "J-5"													140	140									
	ROUTE 57 "B"	27B		405														405						
	ROUTE 57 "B"													800	800									
SC-38	NB OFF-RAMP "J-5"	27B		1142														1142						
	NB OFF-RAMP "J-5"	25A			1142					49								1142		49				
	NB OFF-RAMP "J-5"												131	1160	1160				131					
SUBTOTAL			602	5757	2101	1869	1374	26	68	102	128		829	5380	5380	21	49	11,521	829	190				
SHEET TOTAL			11,703					26	298			829		5380	5380	21	49	11,521	829	190				

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

STAGE CONSTRUCTION QUANTITIES

SCQ-6

LAST REVISION DATE PLOTTED => 25-JAN-2010
00-00-00 TIME PLOTTED => 09:42

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c0F032mc006.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	214	856

REGISTERED CIVIL ENGINEER — DATE: 06/15/09

PLANS APPROVAL DATE: 1-25-10

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — 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.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	LOCATION	DETAIL	PAINT TRAFFIC STRIPE (2-COAT)					PAVEMENT MARKER				PAINT PAVEMENT MARKING (2-COAT)		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER	TYPE III BARRICADE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY FENCE (TYPE CL-6 WITH PRIVACY SCREEN)	TEMPORARY GATE (TYPE CL-6 WITH PRIVACY SCREEN)
			4" BROKEN WHITE	4" SOLID WHITE	4" SOLID YELLOW	8" BROKEN WHITE	8" SOLID WHITE	NON-REFLECTIVE TYPE A	RETRO REFLECTIVE TYPE G	RETRO REFLECTIVE TYPE H	RETRO REFLECTIVE TYPE C	ARROWS	12" WHITE LINES											
			LF	LF	LF	LF	LF	EA	EA	EA	EA	SQFT	SQFT	LF	LF	EA	EA	LF	SQFT	EA	EA	LF	LF	EA
SC-39	ROUTE 57 "B"	27B		730														730						
	ROUTE 57 "B"													860	860									
	NB OFF-RAMP "J-5"	27B		207														207						
	NB OFF-RAMP "J-5"	25A			207					10								207		10				
	NB OFF-RAMP "J-5"													240	240									
	IMPERIAL Hwy "IH"													80		9	11							
SC-40	IMPERIAL Hwy "IH"													300		18	11							
SC-41	ROUTE 57 "B"	27B		558														558						
	ROUTE 57 "B"													520	520									
SCD-2	ROUTE 57 "B"	27B		11,240														11,240						
SUBTOTAL				12,735	207					10				2000	1620	27	22	12,942		10				
SHEET TOTAL			12,942						10					2000	1620	27	22	12,942		10				
SHEET TOTAL FROM SCQ-1			66,012					2156	1541					9820	9100	50	58	45,518		3697		683	1024	
SHEET TOTAL FROM SCQ-2			47,460					1375	1120					6980	6980	43	71	35,601		2495			1963	
SHEET TOTAL FROM SCQ-3			27,375					785	611					4740	3780		11	19,666		1396			1723	
SHEET TOTAL FROM SCQ-4			24,766					589	560			117		4960	4960		42	19,542	117	1149				4
SHEET TOTAL FROM SCQ-5			11,500						119			317		5540	4820	105	148	11,425	317	119	17	503	1076	
SHEET TOTAL FROM SCQ-6			11,703					26	298			829		5380	5380	21	49	11,521	829	190				
SHEET TOTAL FROM SCQ-7			12,942						10					2000	1620	27	22	12,942		10				
TOTAL FROM PDQ-1			46,668					5797	6583											10,659				
GRAND TOTAL			248,426					10,728	10,842			1263		39,420	36,640	246	401	156,214	1263	19,715	17	1186	5786	4

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED

SUPERVISOR
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

STAGE CONSTRUCTION QUANTITIES

SCQ-7

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 09:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	215	856

REGISTERED CIVIL ENGINEER — DATE: 06/15/09

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CONSTRUCTION AREA SIGNS (STAGE CONSTRUCTION)

SHEET No.	SIGN ID	MUTCD SIGN CODE	PANEL SIZE (INCHES)	DESCRIPTION	"C" Dim (Ft)	WOOD POST LENGTH		No. OF POST		TOTAL QUANTITIES (EA)	REMARKS
						4 x 6	6 x 6	ONE POST	TWO POST		
SC-10	10-1	C24 (CA)	48 x 48	SHOULDER WORK AHEAD	7	15'-6"		X		1	
	10-2	C24 (CA)	48 x 48	SHOULDER WORK AHEAD	7	15'-6"		X		1	
	10-3	C30A (CA)	48 x 48	SHOULDER CLOSED	7		18'-0"	X		1	
		W7-3A (2.5)	30 x 24	NEXT 2.5 MILES							
	10-4	C30A (CA)	48 x 48	SHOULDER CLOSED	7	15'-6"		X		1	
SC-13	13-1	C20 (CA)	36 x 36	RIGHT LANE CLOSED AHEAD	5	12'-6"		X		1	
	13-2	W4-2R	36 x 36	LANE MERGE SYMBOL	5	12'-6"		X		1	
	13-3	W4-2R	36 x 36	LANE MERGE SYMBOL	5	12'-6"		X		1	
	13-4	C20 (CA)	36 x 36	RIGHT LANE CLOSED AHEAD	5	12'-6"		X		1	
SC-16	16-1	C30A (CA)	48 x 48	SHOULDER CLOSED	7		18'-0"	X		1	
		W7-3A (1)	30 x 24	NEXT 1 MILE							
	16-2	C31A (CA)	48 x 48	NO SHOULDER	7	15'-6"		X		1	
	16-3	W13-2	48 x 60	EXIT 25 MPH	7	16'-6"		X		1	
	16-4	W1-2R	48 x 48	RIGHT CURVE SYMBOL	7		18'-0"	X		1	
		W13-1	24 x 24	25 MPH							
SC-17	17-1	C24 (CA)	48 x 48	SHOULDER WORK AHEAD	7	15'-6"		X		1	
	17-2	C30A (CA)	48 x 48	SHOULDER CLOSED	7	15'-6"		X		1	
	17-3	C24 (CA)	48 x 48	SHOULDER WORK AHEAD	7	15'-6"		X		1	
	17-4	C24 (CA)	48 x 48	SHOULDER WORK AHEAD	7	15'-6"		X		1	
	17-5	C30A (CA)	48 x 48	SHOULDER CLOSED	7	15'-6"		X		1	
SC-21	21-1	G85-11 (CA)	192 x 100	LAMBERT RD	7	15'-6"			X	1	
SC-22	22-1	W13-2	48 x 60	EXIT 40 MPH	7	16'-6"		X		1	
	22-2	C31A (CA)	48 x 48	NO SHOULDER	7	15'-6"		X		1	
SC-27	27-1	R11-2	48 x 30	ROAD CLOSED	1					6	INSTALL ON TYPE III BARRICADE
	27-2	R11-2	48 x 30	ROAD CLOSED	1					6	INSTALL ON TYPE III BARRICADE
	27-3	C30A (CA)	48 x 48	SHOULDER CLOSED	7	15'-6"		X		1	
	27-4	C24 (CA)	48 x 48	SHOULDER WORK AHEAD	7	15'-6"		X		1	
SC-28	28-1	W21-5bR	48 x 48	RIGHT SHOULDER CLOSED AHEAD	5	13'-6"		X		1	
	28-2	W21-5bR	48 x 48	RIGHT SHOULDER CLOSED AHEAD	5	13'-6"		X		1	
	28-3	G85-11 (CA)	192 x 100	LAMBERT RD	7	15'-6"			X	1	
SHEET TOTAL										37	

STAGE CONSTRUCTION QUANTITIES

SCQ-8

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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00-00-00

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c0F032mc008.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	216	856

REGISTERED CIVIL ENGINEER — 11-16-09 DATE

1-25-10 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CONSTRUCTION AREA SIGNS (STAGE CONSTRUCTION)

SHEET No.	SIGN ID	MUTCD SIGN CODE	PANEL SIZE (INCHES)	DESCRIPTION	"C" Dim (Ft)	WOOD POST LENGTH		No. OF POST		TOTAL QUANTITIES (EA)	REMARKS
						4 x 6	6 x 6	ONE POST	TWO POST		
SC-29	29-1	W13-2	48 x 60	EXIT 40 MPH	7	16'-6"		X		1	
	29-2	C31A (CA)	48 x 48	NO SHOULDER	7	15'-6"		X		1	
SC-30	30-1	W1-2R	48 x 48	RIGHT CURVE SYMBOL	7		18'-0"	X		1	
		W13-1	24 x 24	25 MPH							
SC-31	31-1	C20 (CA)	36 x 36	RIGHT LANE CLOSED AHEAD	5	12'-6"		X		1	
	31-2	W4-2R	36 x 36	LANE MERGE SYMBOL	5	12'-6"		X		1	
	31-3	W4-2R	36 x 36	LANE MERGE SYMBOL	5	12'-6"		X		1	
	31-4	C20 (CA)	36 x 36	RIGHT LANE CLOSED AHEAD	5	12'-6"		X		1	
SC-32	32-1	C19 (CA)	36 x 36	RAMP CLOSED AHEAD	5		16'-0"	X		1	
		C20 (CA)	36 x 36	RIGHT LANE CLOSED AHEAD							
	32-2	R3-7 R	30 x 30	RIGHT LANE MUST TURN RIGHT	5	12'-0"		X		1	
	32-3	SC6-4	48 x 60	RAMP CLOSED TBD THRU TBD	5	14'-6"		X		1	
	32-4	C30 (CA)	36 x 36	RAMP CLOSED	5	12'-6"		X		1	
	32-5	R5-10c	24 x 12	PEDESTRIANS PROHIBITED	1					5	INSTALL ON TYPE III BARRICADE
SC-35	35-1	W74 (CA)	48 x 48	THRU TRAFFIC MERGE LEFT	7	15'-6"		X		1	
SC-36	36-1	R18A (CA)	36 x 30	RIGHT LANE MUST EXIT	7	14'-0"		X		1	
	36-2	G85-11 (CA)	192 x 100	LAMBERT RD	7	15'-6"			X	1	
	36-3	G85-11 (CA)	216 x 100	LAMBERT RD	1					1	Temp OH SIGN O
SC-37	37-1	G83 (CA)	252 x 100	IMPERIAL HWY	1					1	Temp OH SIGN G
	37-2	C31A (CA)	48 x 48	NO SHOULDER	7	15'-6"		X		1	
SC-39	39-1	C19 (CA)	36 x 36	RAMP CLOSED AHEAD	5	12'-6"		X		1	
	39-2	C30 (CA)	36 x 36	RAMP CLOSED	5	12'-6"		X		1	
SC-40	40-1	C20 (CA)	36 x 36	RIGHT LANE CLOSED AHEAD	5	12'-6"		X		1	
	40-2	W4-2R	36 x 36	LANE MERGE SYMBOL	5	12'-6"		X		1	
	40-3	C19 (CA)	36 x 36	RAMP CLOSED AHEAD	5	12'-6"		X		1	
	40-4	C30 (CA)	36 x 36	RAMP CLOSED	5	12'-6"		X		1	
SHEET TOTAL										28	
SHEET TOTAL FROM SCQ-8										37	
TOTAL FROM CS-1										31	
TOTAL FROM THQ-1										90	
GRAND TOTAL										186	

STAGE CONSTRUCTION QUANTITIES

SCQ-9

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 09:44

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c0F032mc009.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	217	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS (DETOUR) AND PORTABLE CHANGEABLE MESSAGE SIGNS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER.
2. CONSTRUCTION AREA SIGNS (DETOUR) SHALL BE LOCATED APPROXIMATELY 100 FEET AWAY FROM THE INTERSECTION.
3. EXACT MESSAGES ON PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) TO BE DETERMINED BY THE ENGINEER.

CLOSURE:

RAMP - IMPERIAL Hwy NB ROUTE 57 OFF-RAMP

DETOUR:

LAMBERT Rd NB OFF-RAMP, WB LAMBERT Rd, SB STATE COLLEGE Blvd OR LAMBERT Rd NB OFF-RAMP, EB LAMBERT Rd, SB KRAEMER Blvd

ABBREVIATION:

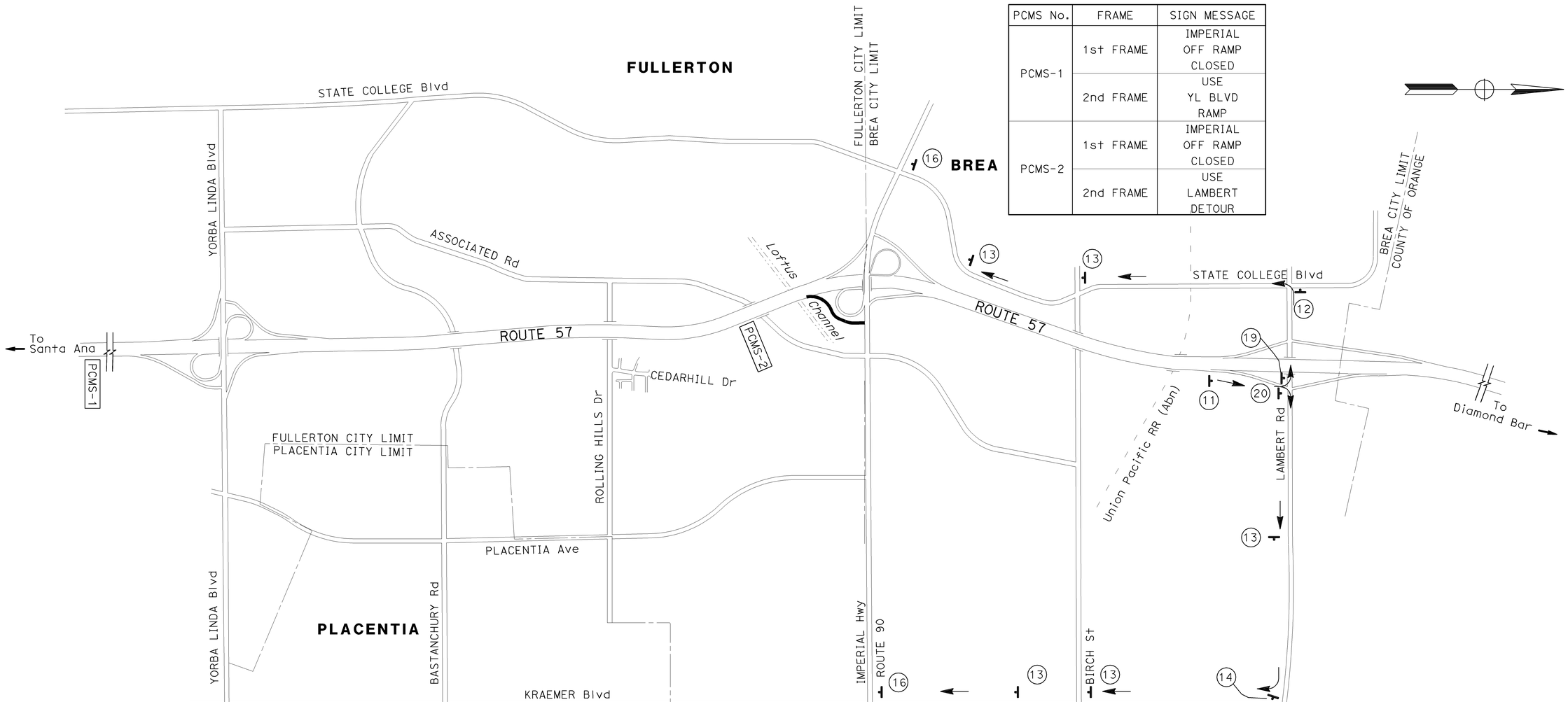
PCMS: PORTABLE CHANGEABLE MESSAGE SIGN

LEGEND:

- CONSTRUCTION AREA SIGNS (DETOUR), 1 POST
- DIRECTION OF TRAVEL
- CLOSURE
- (No.) CONSTRUCTION AREA SIGNS (DETOUR) SEE SHEET THD-1
- PCMS-1 PORTABLE CHANGEABLE MESSAGE SIGN

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS No.	FRAME	SIGN MESSAGE
PCMS-1	1st FRAME	IMPERIAL OFF RAMP CLOSED
	2nd FRAME	USE YL BLVD RAMP
PCMS-2	1st FRAME	IMPERIAL OFF RAMP CLOSED
	2nd FRAME	USE LAMBERT DETOUR



TRAFFIC HANDLING PLAN (DETOUR)

NO SCALE

TH-1

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 DATE PLOTTED => 25-JAN-2010 TIME PLOTTED => 09:44

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F032md001.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	218	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

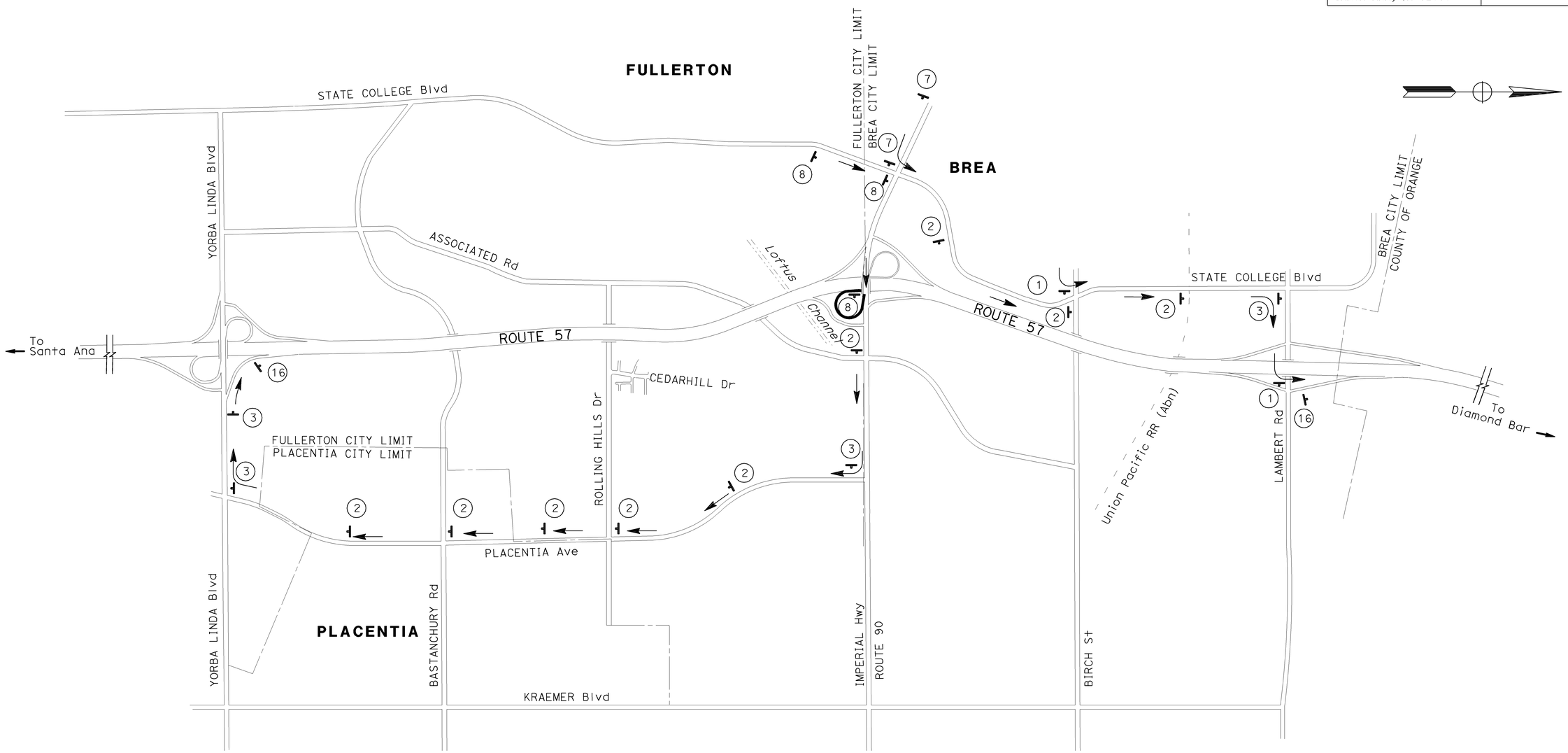
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CLOSURE:

RAMP - IMPERIAL Hwy NB ROUTE 57 LOOP ON-RAMP

DETOUR:

NB STATE COLLEGE Blvd, EB LAMBERT Rd, NB ROUTE 57 OR
EB IMPERIAL Hwy, SB PLACENTIA Ave, WB YORBA LINDA Blvd, NB ROUTE 57



TRAFFIC HANDLING PLAN (DETOUR)

NO SCALE

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

TH-2

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 09:45

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c0F032md002.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	219	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

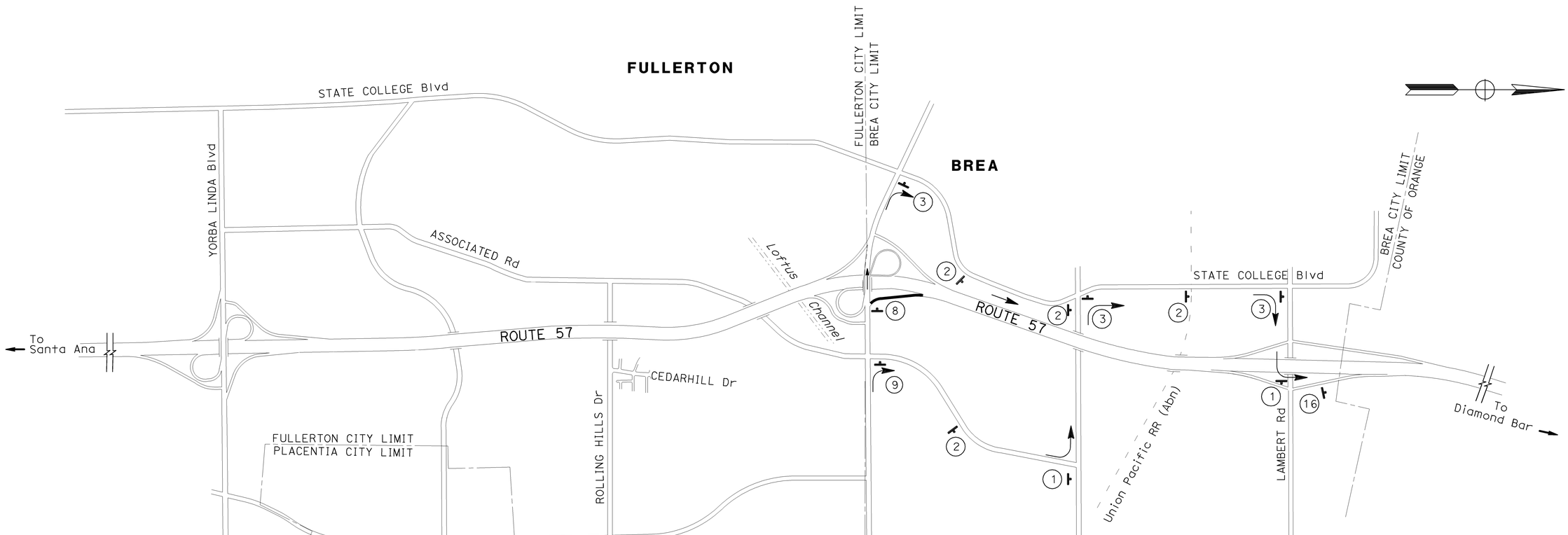
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CLOSURE:

RAMP - IMPERIAL Hwy NB ROUTE 57 DIAMOND ON-RAMP

DETOUR:

IMPERIAL Hwy, NB STATE COLLEGE Blvd, EB LAMBERT Rd, NB ROUTE 57 OR
NB ASSOCIATED Rd, WB BIRCH St, NB STATE COLLEGE Blvd, EB LAMBERT Rd, NB ROUTE 57



TRAFFIC HANDLING PLAN (DETOUR)

NO SCALE

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

TH-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED

LAST REVISION: 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:08

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F032md003.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	220	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

WORK AREA:

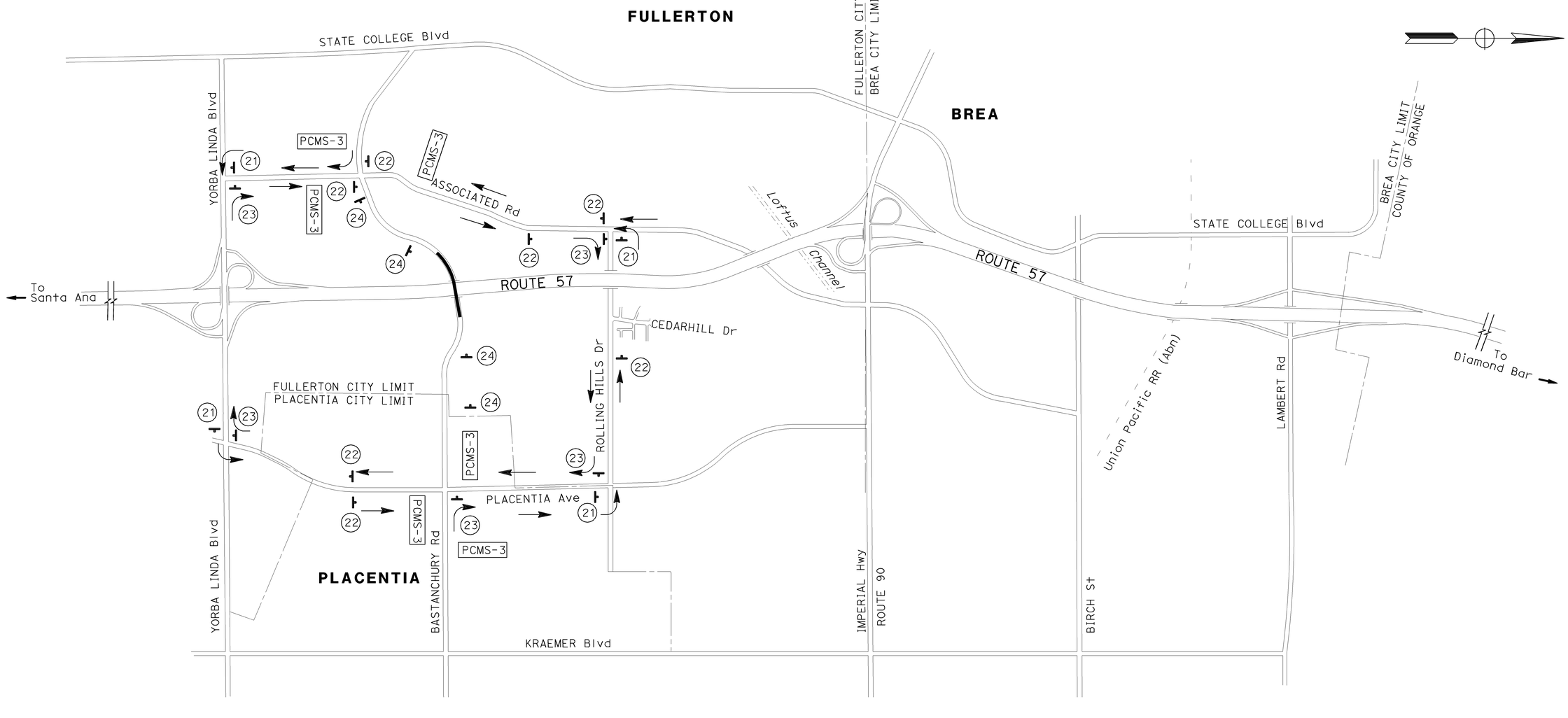
LOCAL STREET - BASTANCHURY Rd AT ROUTE 57 UNDERCROSSING.
REDUCED TO 1-LANE IN EACH DIRECTION. REDUCED VERTICAL CLEARANCE UNDER FALSEWORK.

DETOUR:

SB ASSOCIATED Rd, EB YORBA LINDA Blvd, NB PLACENTIA Ave, OR NB ASSOCIATED Rd,
EB ROLLING HILLS Dr, SB PLACENTIA Ave, OR EB ROLLING HILLS Dr, SB PLACENTIA Ave,
OR SB PLACENTIA Ave , WB YORBA LINDA Blvd, NB ASSOCIATED Rd

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS No.	FRAME	SIGN MESSAGE
PCMS-3	1st FRAME	BAST/57 REDUCED VERT CLR
	2nd FRAME	OVER SIZE TRUCKS USE DETOUR



TRAFFIC HANDLING PLAN (DETOUR)

NO SCALE

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

TH-4

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:09

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c0F032md004.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	221	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

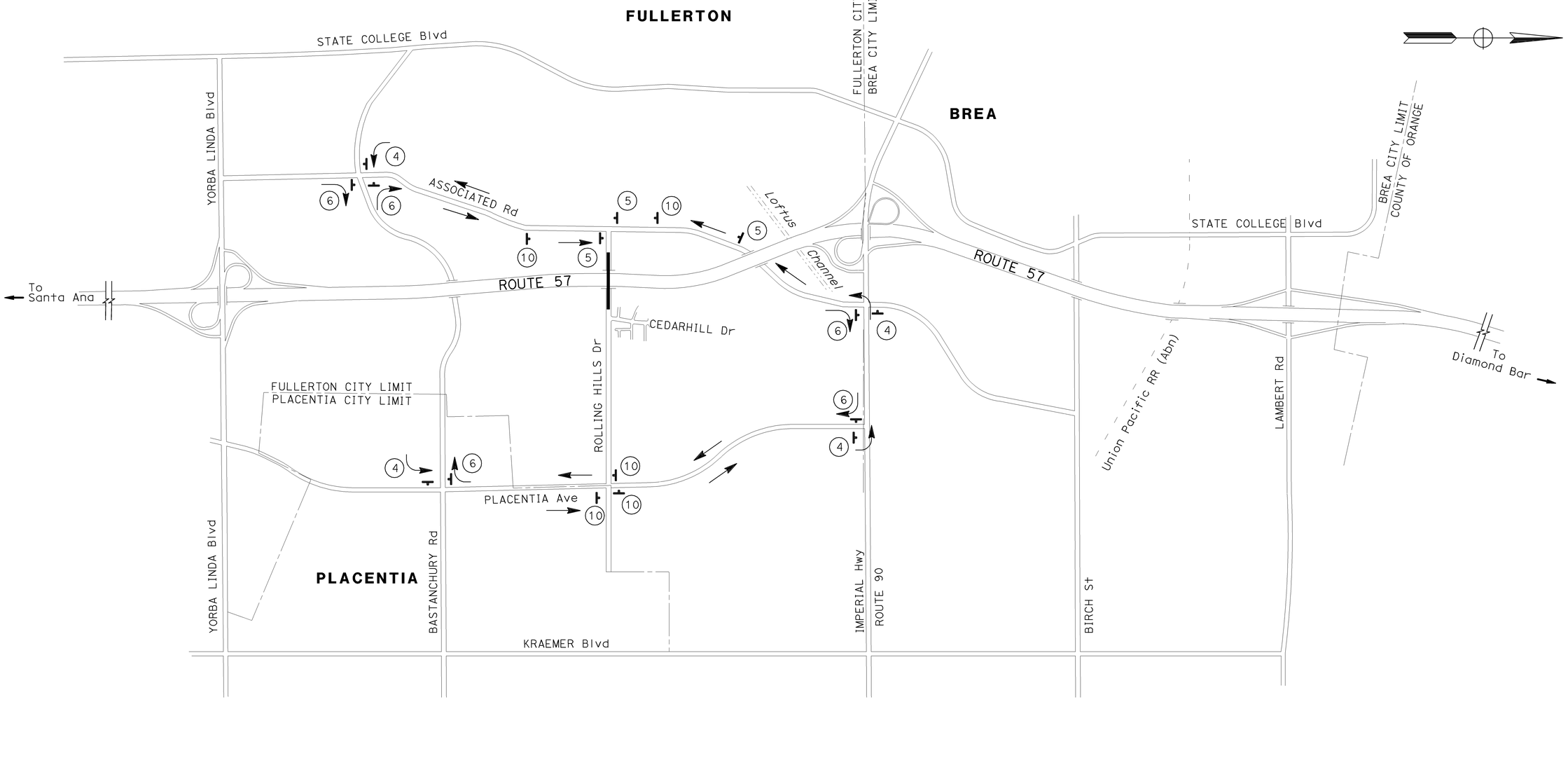
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CLOSURE:

LOCAL STREET - ROLLING HILLS Dr AT ROUTE 57 UNDERCROSSING

DETOUR:

NB ASSOCIATED Rd, EB IMPERIAL Hwy, SB PLACENTIA Ave, OR SB ASSOCIATED Rd,
EB BASTANCHURY Rd, NB PLACENTIA Ave, OR NB PLACENTIA Ave, WB IMPERIAL Hwy,
SB ASSOCIATED Rd



TRAFFIC HANDLING PLAN (DETOUR)

NO SCALE

TH-5

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

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CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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00-00-00

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F032md005.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	222	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CLOSURE:

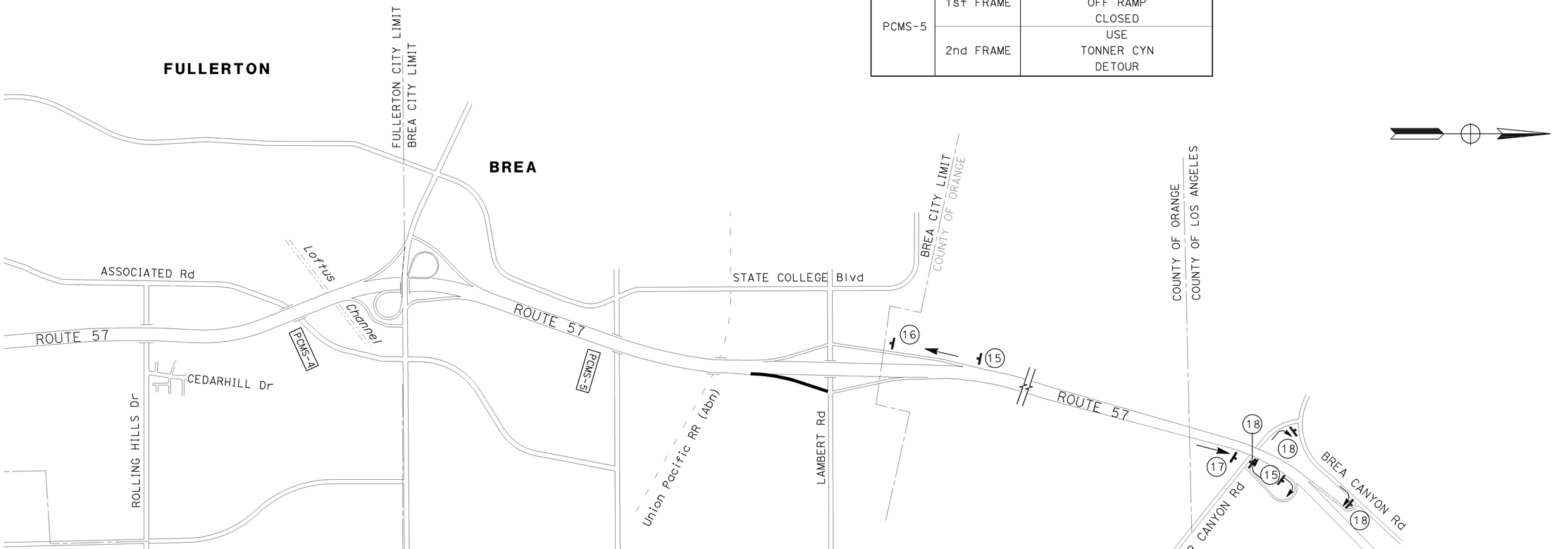
RAMP - LAMBERT Rd NB ROUTE 57 OFF-RAMP

DETOUR:

TONNER CANYON Rd NB OFF-RAMP, WB TONNER CANYON Rd, NB BREA CANYON Rd, SB ROUTE 57 ON-RAMP, LAMBERT Rd OFF-RAMP

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS No.	FRAME	SIGN MESSAGE
PCMS-4	1st FRAME	LAMBERT OFF RAMP CLOSED
	2nd FRAME	USE IMPERIAL RAMP
PCMS-5	1st FRAME	LAMBERT OFF RAMP CLOSED
	2nd FRAME	USE TONNER CYN DETOUR



TRAFFIC HANDLING PLAN (DETOUR)

NO SCALE

TH-6

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED

LAST REVISION — DATE PLOTTED => 25-JAN-2010 — TIME PLOTTED => 10:11
00-00-00

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F032md006.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	223	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. USE 6" CAP LETTERS FOR ALL STREET NAMES.
   USE 4" CAP LETTERS FOR SC6-4 (CA) Mod SIGNS.
2. HEIGHT, LATERAL POSITION, AND COLOR OF SIGNS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR STREETS AND HIGHWAYS, 2003 EDITION.

M4-10 (L†)
G27-2 (57)
M3-1
(1)

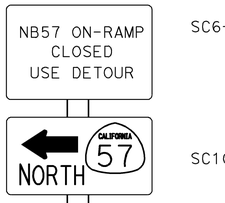
SC3
G27-2 (57)
M3-1
(2)

M4-10 (R†)
G27-2 (57)
M3-1
(3)

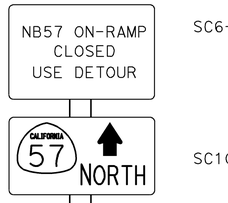
G7 (Mod)
M4-10 (L†)
(4)

G7 (Mod)
SC3
(5)

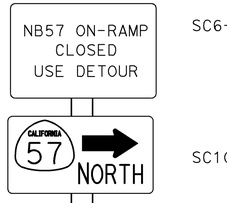
G7 (Mod)
M4-10 (R†)
(6)



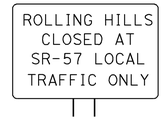
SC6-4 (CA) Mod
SC10 (CA) Mod
(7)



SC6-4 (CA) Mod
SC10 (CA) Mod
(8)

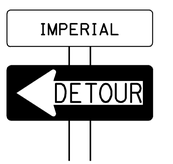


SC6-4 (CA) Mod
SC10 (CA) Mod
(9)

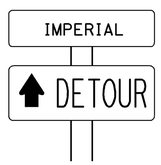


SC6-4 (CA) Mod
(10)

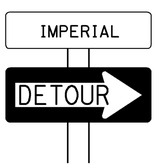
G7 (Mod)
M4-8
M6-2
(11)



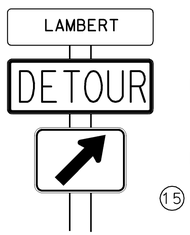
G7 (Mod)
M4-10 (L†)
(12)



G7 (Mod)
SC3
(13)

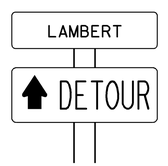


G7 (Mod)
M4-10 (R†)
(14)

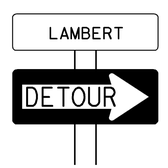


G7 (Mod)
M4-8
M6-2
(15)

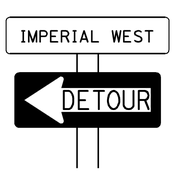
M4-8a
(16)



G7 (Mod)
SC3
(17)



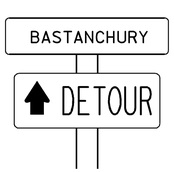
G7 (Mod)
M4-10 (R†)
(18)



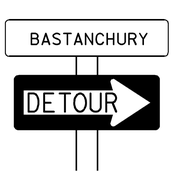
G7 (Mod)
M4-10 (L†)
(19)

G7 (Mod)
M4-10 (R†)
(20)

G7 (Mod)
M4-10 (L†)
(21)



G7 (Mod)
SC3
(22)



G7 (Mod)
M4-10 (R†)
(23)

TRAFFIC HANDLING DETAILS

NO SCALE

THD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:11

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F032me001.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	224	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CONSTRUCTION AREA SIGNS (DETOUR)

SIGN No.	SIGN CODE	PANEL SIZE (INCHES)	"C" Dim (Ft)	WOOD POST LENGTH		No. OF POST							TOTAL QUANTITY (EA)
				4 x 4	4 x 6	ONE POST	TH-1	TH-2	TH-3	TH-4	TH-5	TH-6	
(1)	M4-10 (Lt) G27-2(57) M3-1	48 x 18 21 x 18 24 x 18	7		17'-0"	x		2	2				4
(2)	SC3 G27-2(57) M3-1	48 x 18 21 x 18 24 x 18	7		17'-0"	x		9	4				13
(3)	M4-10 (Rt) G27-2(57) M3-1	48 x 18 21 x 18 24 x 18	7		17'-0"	x		4	3				7
(4)	G7 (Mod) M4-10 (Lt)	54 x 12 48 x 18	7	13'-6"		x					4		4
(5)	G7 (Mod) SC3	54 x 12 48 x 18	7	13'-6"		x					3		3
(6)	G7 (Mod) M4-10 (Rt)	54 x 12 48 x 18	7	13'-6"		x					5		5
(7)	SC6-4 (CA) Mod SC10 (CA) Mod	48 x 30 48 x 24	5		14'-6"	x		2					2
(8)	SC6-4 (CA) Mod SC10 (CA) Mod	48 x 30 48 x 24	5		14'-6"	x		3	1				4
(9)	SC6-4 (CA) Mod SC10 (CA) Mod	48 x 30 48 x 24	5		14'-6"	x			1				1
(10)	SC6-4 (CA) Mod	48 x 30	5		14'-6"	x					5		5
(11)	G7 (Mod) M4-8 M6-2	48 x 12 21 x 18 24 x 18	7		17'-0"	x	1						1
(12)	G7 (Mod) M4-10 (Lt)	48 x 12 48 x 18	7	13'-6"		x	1						1
(13)	G7 (Mod) SC3	48 x 12 48 x 18	7	13'-6"		x	5						5
(14)	G7 (Mod) M4-10 (Rt)	48 x 12 48 x 18	7	13'-6"		x	1						1
(15)	G7 (Mod) M4-8 M2-6	48 x 12 24 x 12 21 x 15	7	14'-0"		x						2	2
(16)	M4-8a	24 x 18	7	12'-0"		x	2	2	1			1	6
(17)	G7 (Mod) SC3	48 x 12 48 x 18	7	13'-6"		x						1	1
(18)	G7 (Mod) M4-10 (Rt)	48 x 12 48 x 18	7	13'-6"		x						3	3
(19)	G7 (Mod) M4-10 (Lt)	54 x 12 48 x 18	7	13'-6"		x	1						1
(20)	G7 (Mod) M4-10 (Rt)	54 x 12 48 x 18	7	13'-6"		x	1						1
(21)	G7 (Mod) M4-10 (Lt)	54 x 12 48 x 18	7	13'-6"		x				4			4
(22)	G7 (Mod) SC3	54 x 12 48 x 18	7	13'-6"		x				7			7
(23)	G7 (Mod) M4-10 (Rt)	54 x 12 48 x 18	7	13'-6"		x				5			5
(24)	W12-2 (15'-0")	48 x 48	5		13'-6"	x				4			4
SUBTOTAL (SHEETS TH-1 TO TH-6)													90*

NOTE:
* SEE SCQ-9 FOR TOTAL QUANTITY OF CONSTRUCTION AREA SIGNS.

TRAFFIC HANDLING PLAN (DETOUR QUANTITIES) THQ-1

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:12

BORDER LAST REVISED 4/11/2008
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USERNAME => trmnguye
DGN FILE => c0F032mf001.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	225	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

1-25-10
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REGISTERED PROFESSIONAL ENGINEER — THOMAS M. IONTA — No. C45818 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

STATIONARY MOUNTED-CONSTRUCTION AREA SIGNS

SIGN ID	SIGN CODE	PANEL SIZE (INCHES)	DESCRIPTION	"C" Dim (Ft)	WOOD POST LENGTH			NO. OF POST		SIGN QUANTITY
					4 x 4	4 x 6	6 x 6	ONE POST	TWO POST	
(A)	W20-1	48 X 48	ROAD WORK AHEAD	7		15'-6"		×		13
(B)	C40(CA)	144 X 60	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	7			17'-0"		×	1
(C)	C40(CA)	108 X 42	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	7		15'-0"			×	2
(D)	G20-2	48 X 24	END ROAD WORK	7	12'-6"			×		2
(E)	G20-2	36 X 18	END ROAD WORK	7	12'-0"			×		12
(F)	EA 21694	132 X 90	STATE TRANSPORTATION BOND FUNDS PROP 1B	7			17'-0"		×	1
									SUBTOTAL	31*

NOTE:

* SEE SCQ-9 FOR TOTAL QUANTITY OF CONSTRUCTION AREA SIGNS.

NOTES:

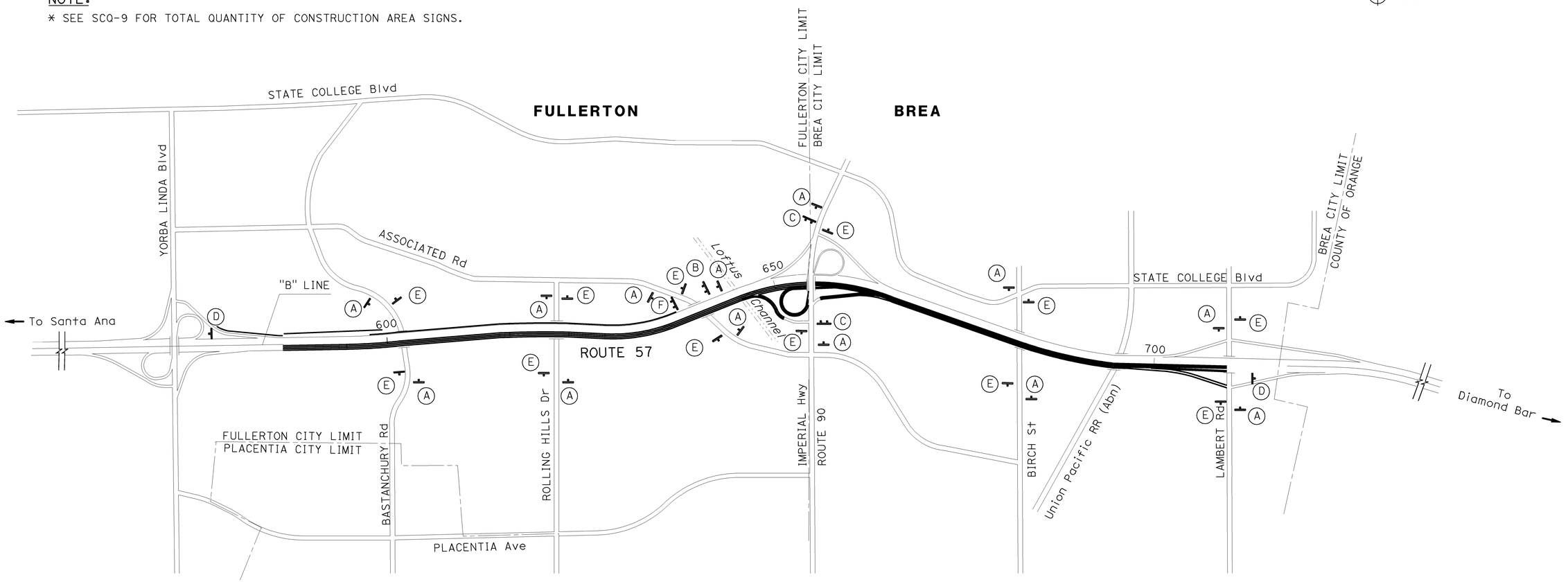
1. LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER.
2. CONSTRUCTION AREA SIGNS SHALL BE LOCATED APPROXIMATELY 100 FEET AWAY FROM THE INTERSECTION.

LEGEND:

(A) CONSTRUCTION AREA SIGNS

CONSTRUCTION AREA SIGN, 1 POST

CONSTRUCTION AREA SIGN, 2 POST



THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

REVISED BY | DATE REVISED
RYAN MITRY | MIKE ROBINSON
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 25-JAN-2010 TIME PLOTTED => 10:13
00-00-00

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F0321a001.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	226	856

REGISTERED CIVIL ENGINEER — 06/15/09 DATE

THOMAS M. IONTA No. C45818 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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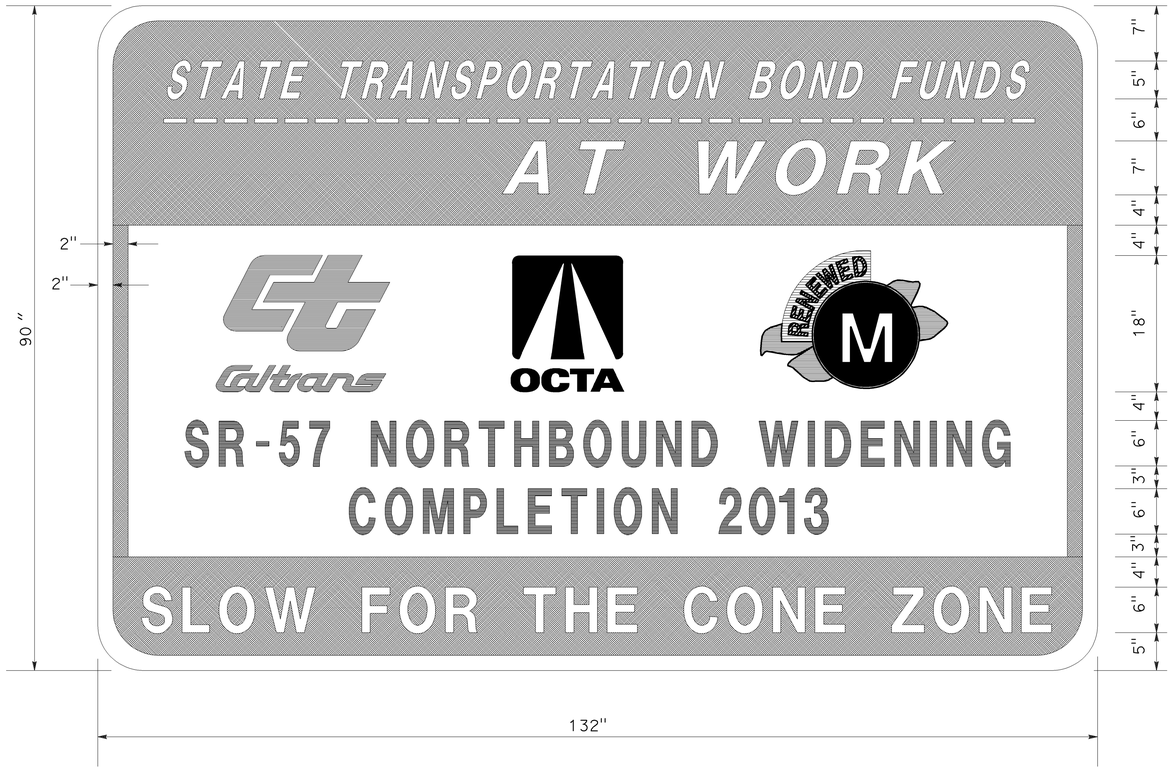
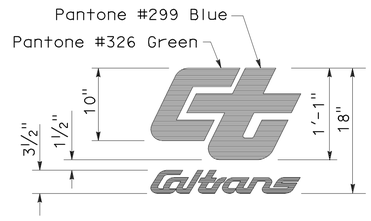
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

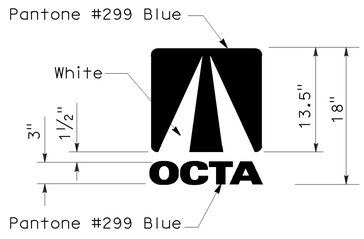
OCTA
550 S. MAIN STREET
ORANGE, CA 92863



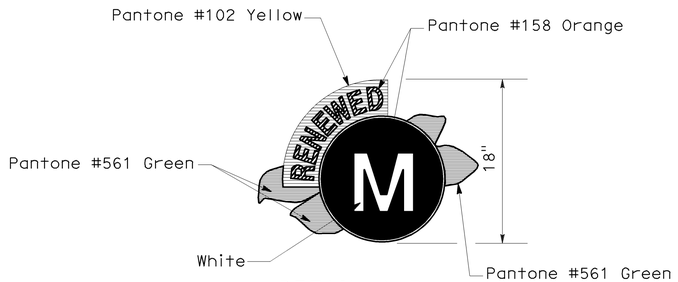
TYPE 1



DETAIL A-1



DETAIL A-2



DETAIL A-3

COLORS: BORDER- PURPLE (PANTONE #520)
LEGEND - BLACK, WHITE, AND ORANGE
BACKGROUND - PURPLE (PANTONE #520) AND WHITE
CT LOGO - GREEN (PANTONE #326) AND BLUE (PANTONE #299)

1. Vector files for logos to be supplied to the sign manufacturer upon request.
2. Comply with 2006 Standard Plans S93 and S94 for sign panel.
3. Comply with ASTM Type II retroreIfective sheeting (or higher grade) for all colors except black.
4. Legend and artwork may be transparent film, ink, or applied decals.
5. Overlay entire sign face with premium grade graffiti film.
6. Comply with retroreflective sheeting manufacturer's recommendations for transparent film, ink, applied decals, and graffiti film.

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

CONSTRUCTION AREA SIGN

CONSTRUCTION PROJECT FUNDING
IDENTIFICATION SIGN
NO SCALE

CS-2

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MIKE ROBINSON
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:13

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0F0321a002.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	227	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

1-25-10
PLANS APPROVAL DATE

KAY HSU No. C 63558 Exp. 9/30/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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

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

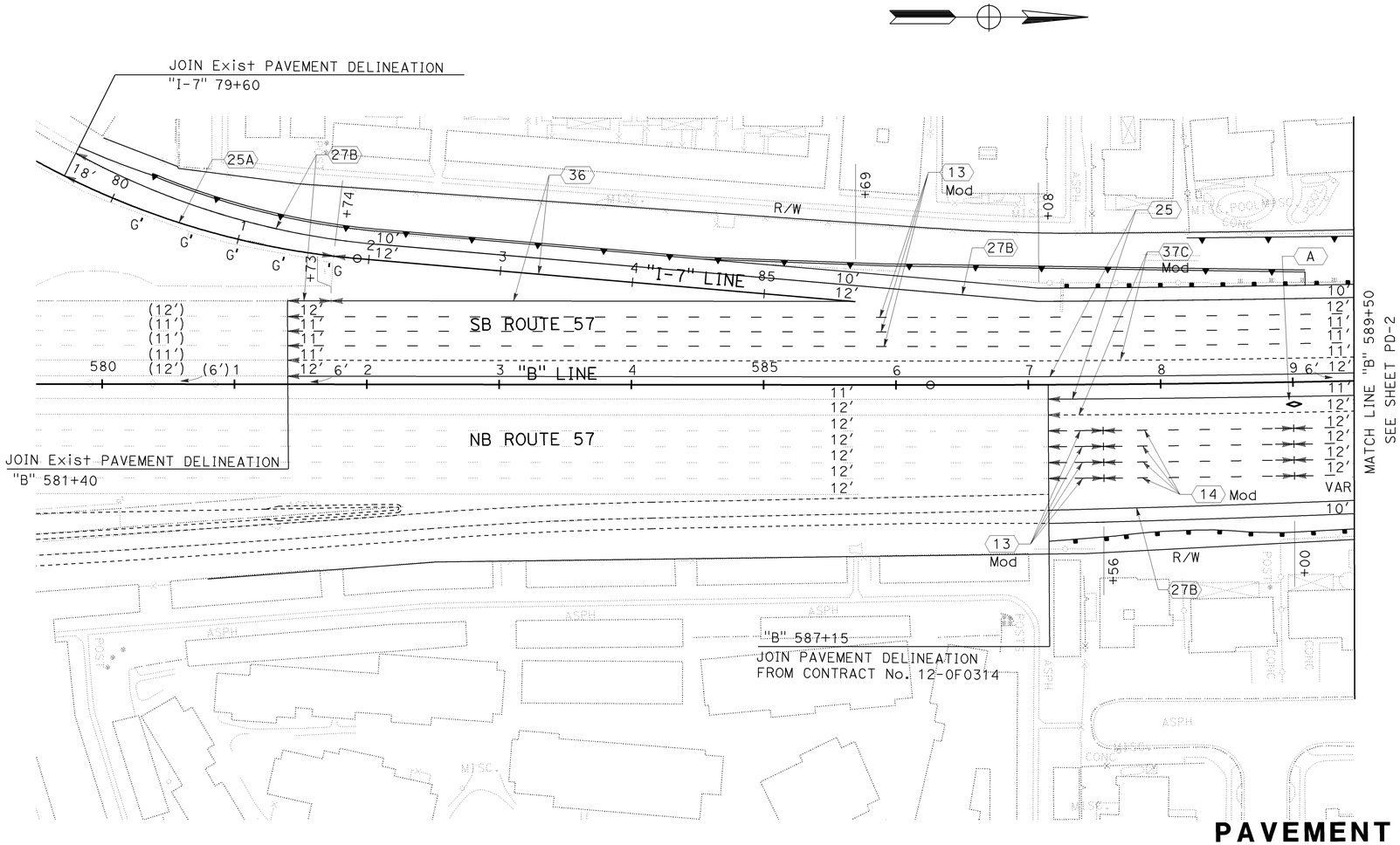
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

LEGEND:

⟨#⟩	PAVEMENT DELINEATION DETAIL No.
⟨A⟩	PAVEMENT MARKING DETAIL, SEE SHEET PDD-1
	CHANGE OF PAVEMENT DELINEATION DETAIL
XX′	NEW WIDTH
(XX′)	EXISTING WIDTH
'F	TYPE F DELINEATOR
'G	TYPE G DELINEATOR

NOTES:

1. ALL TRAFFIC STRIPES AND PAVEMENT MARKINGS ARE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. PLACE ARROWS 8 FEET BEFORE LIMIT LINE OR CROSSWALK.
3. ALL CROSSWALKS SHALL HAVE A 10 FEET INSIDE WIDTH.
4. REMOVE ALL CONFLICTING PAVEMENT DELINEATION.
5. EXACT LOCATION OF PAVEMENT MARKINGS SHALL BE DETERMINED BY THE ENGINEER.



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50′

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:14

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0f032na001.dgn

CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	228	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

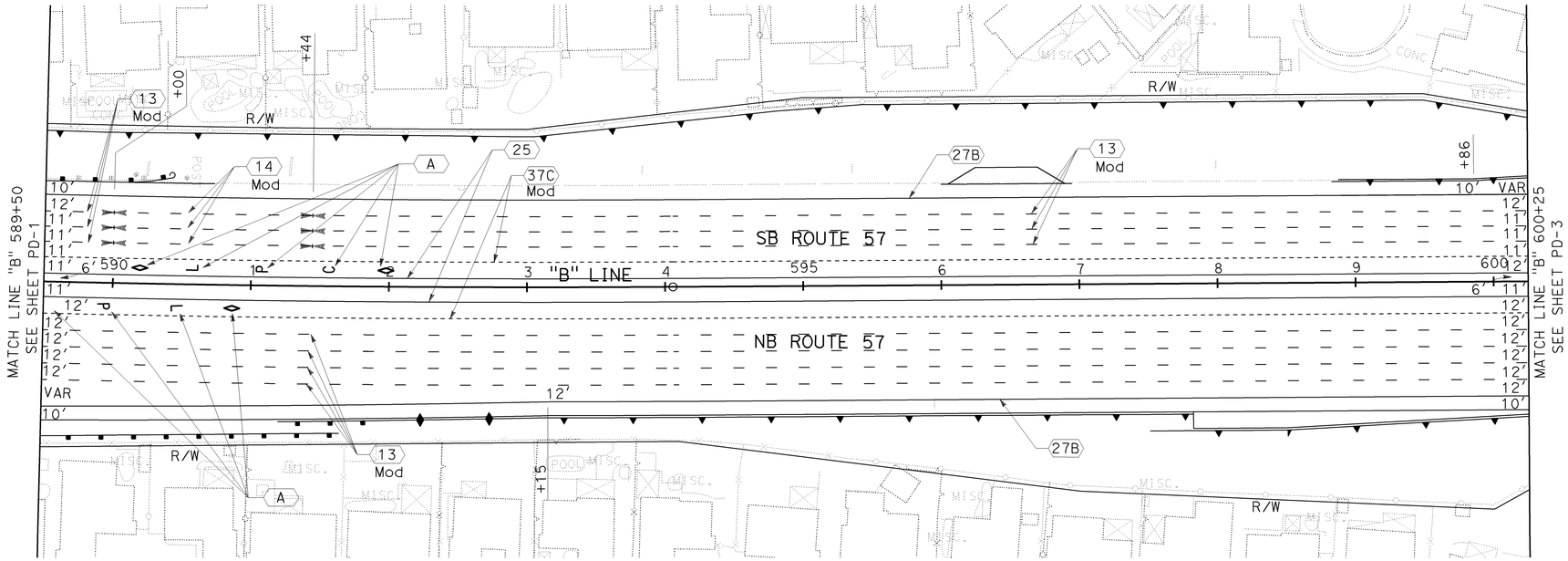
KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:15

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c0f032na002.dgn
CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	229	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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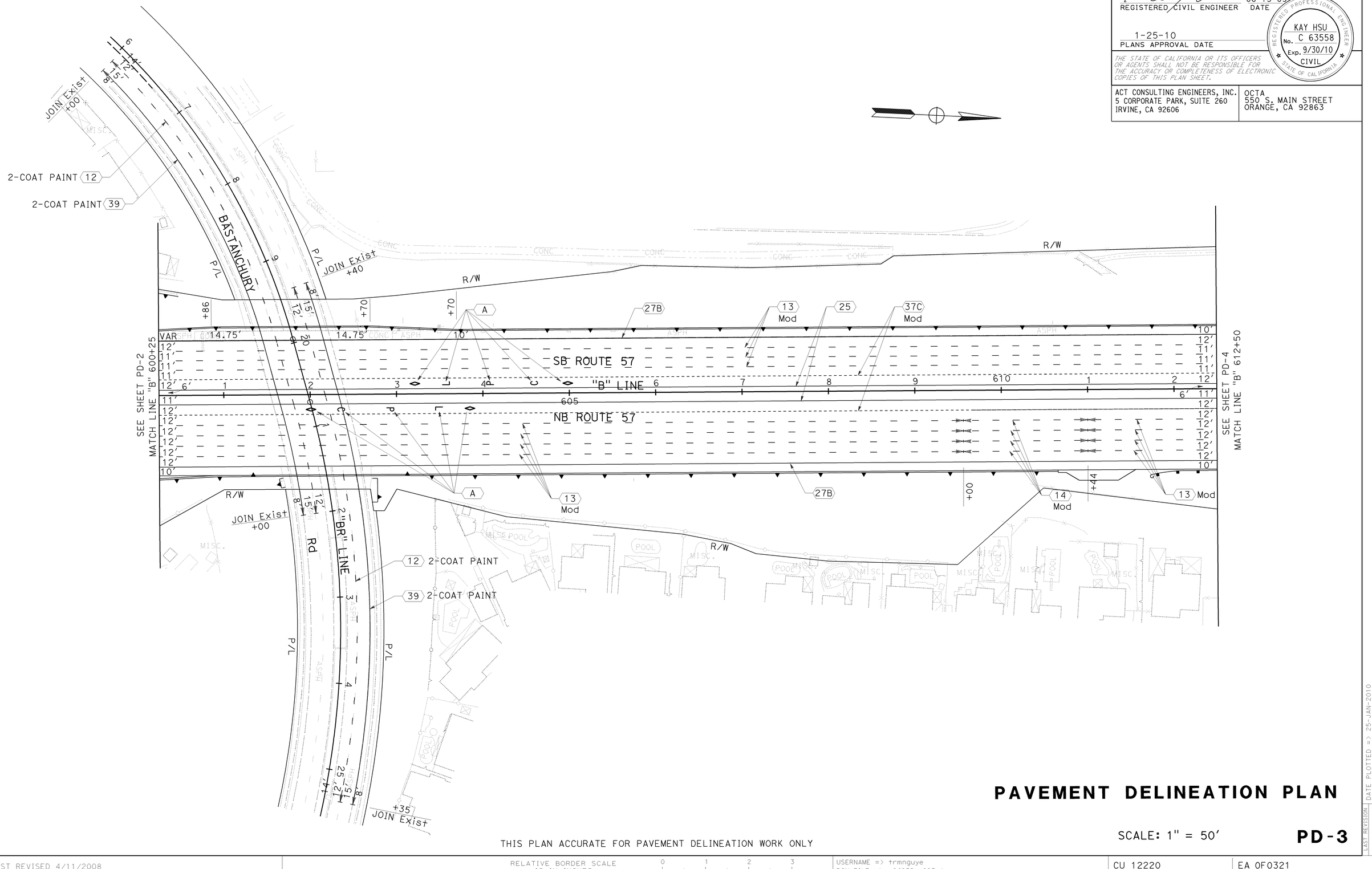
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:16

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c0f032na003.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	230	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

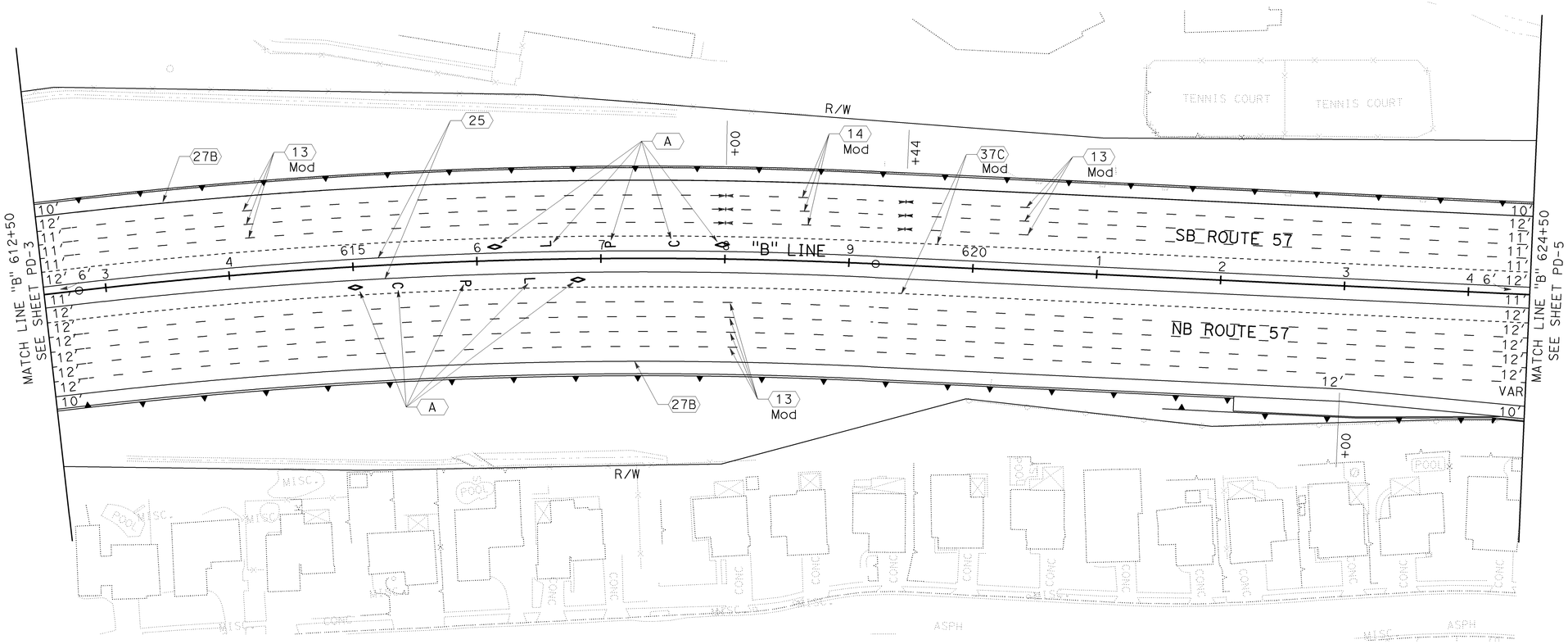
1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
STATE OF CALIFORNIA

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

SCALE: 1" = 50'

PD-4

REVISED BY | DATE REVISED
KAY HSU | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:17

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c0f032na004.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	231	856

REGISTERED CIVIL ENGINEER — DATE: 06-15-09

KAY HSU No. C 63558 Exp. 9/30/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PD-5

REVISED BY | DATE REVISED
KAY HSU | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
THOMAS IONTA
CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 08:53

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmikesl | DGN FILE => c0f032na005.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	232	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

KAY HSU No. C 63558 Exp. 9/30/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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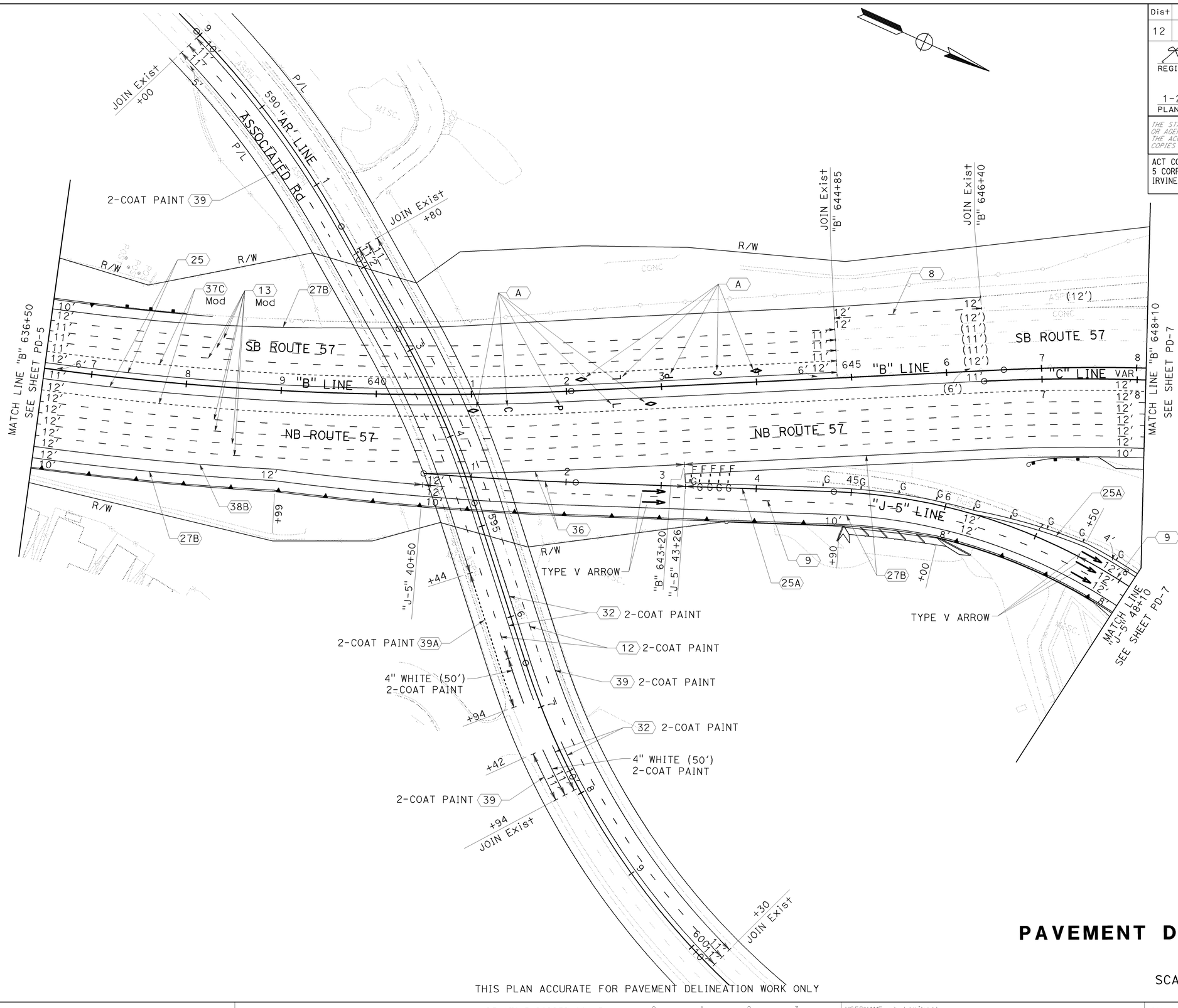
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA | CALCULATED-DESIGNED BY: KAY HSU | CHECKED BY: HON YOW | REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 08:53 | 00-00-00

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmikesi | DGN FILE => c0f032na006.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	233	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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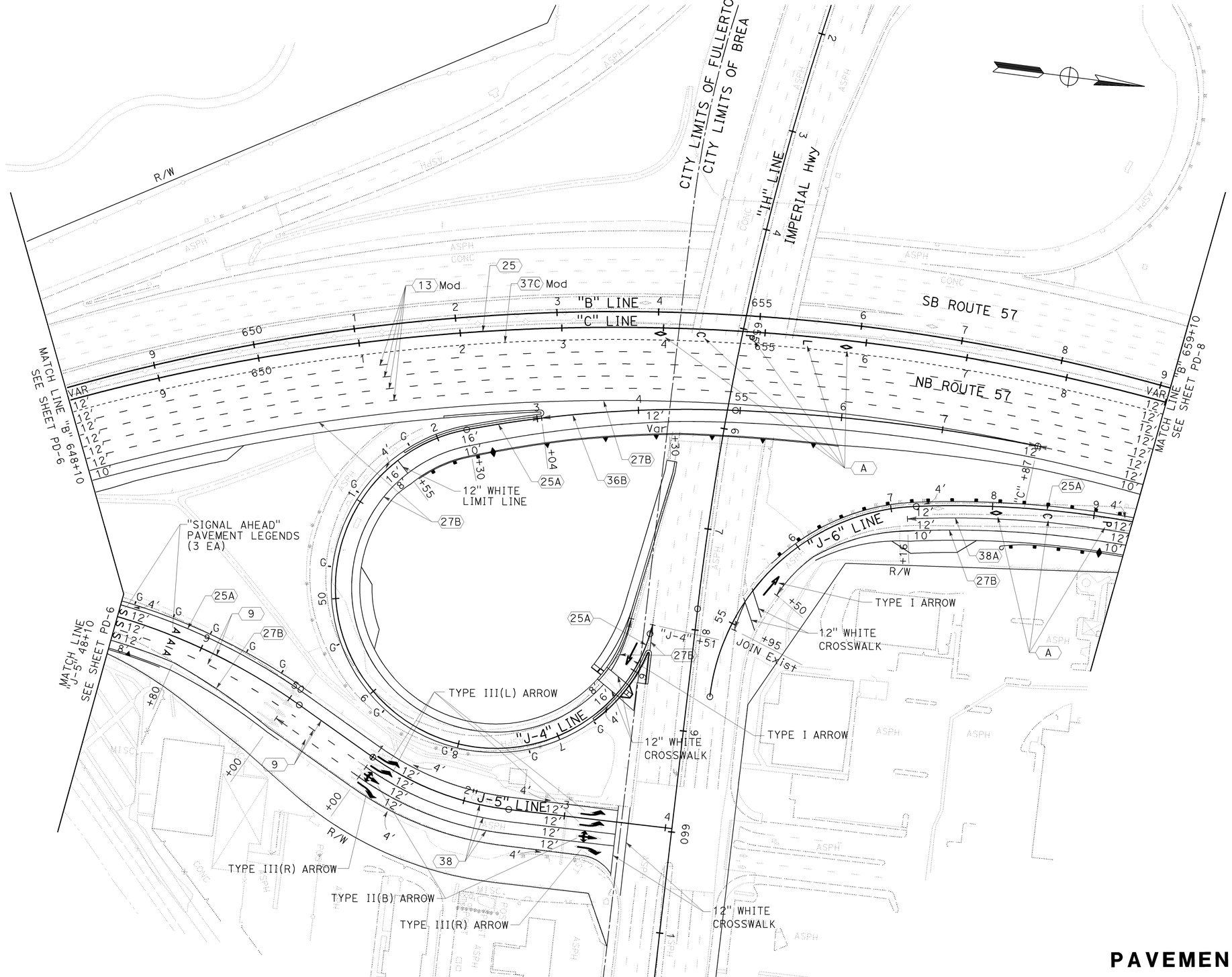
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-7

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 08:53

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmikesl
DGN FILE => c0f032na007.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	234	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

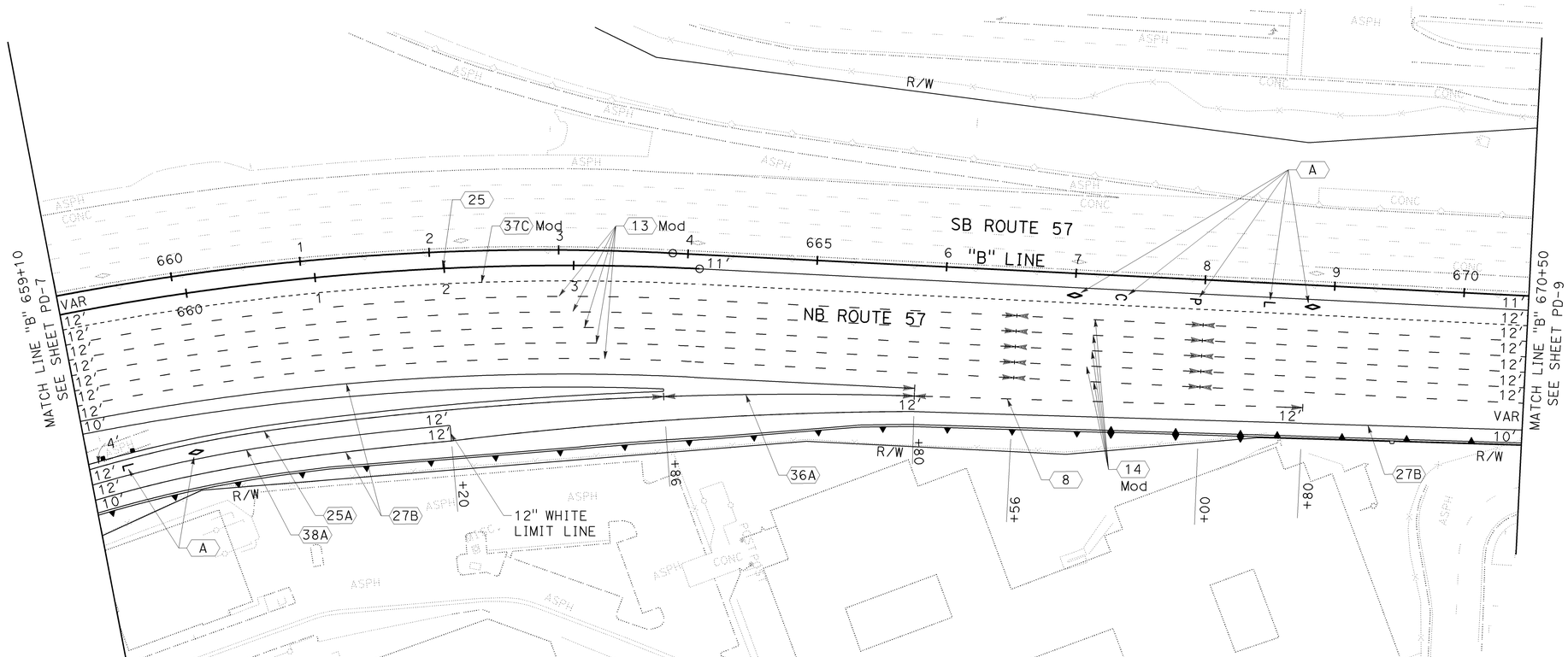
KAY HSU No. C 63558 Exp. 9/30/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PD-8

REVISED BY | DATE REVISED
KAY HSU | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
THOMAS IONTA
CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 08:53

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmikesl
DGN FILE => c0f032na008.dgn

CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	235	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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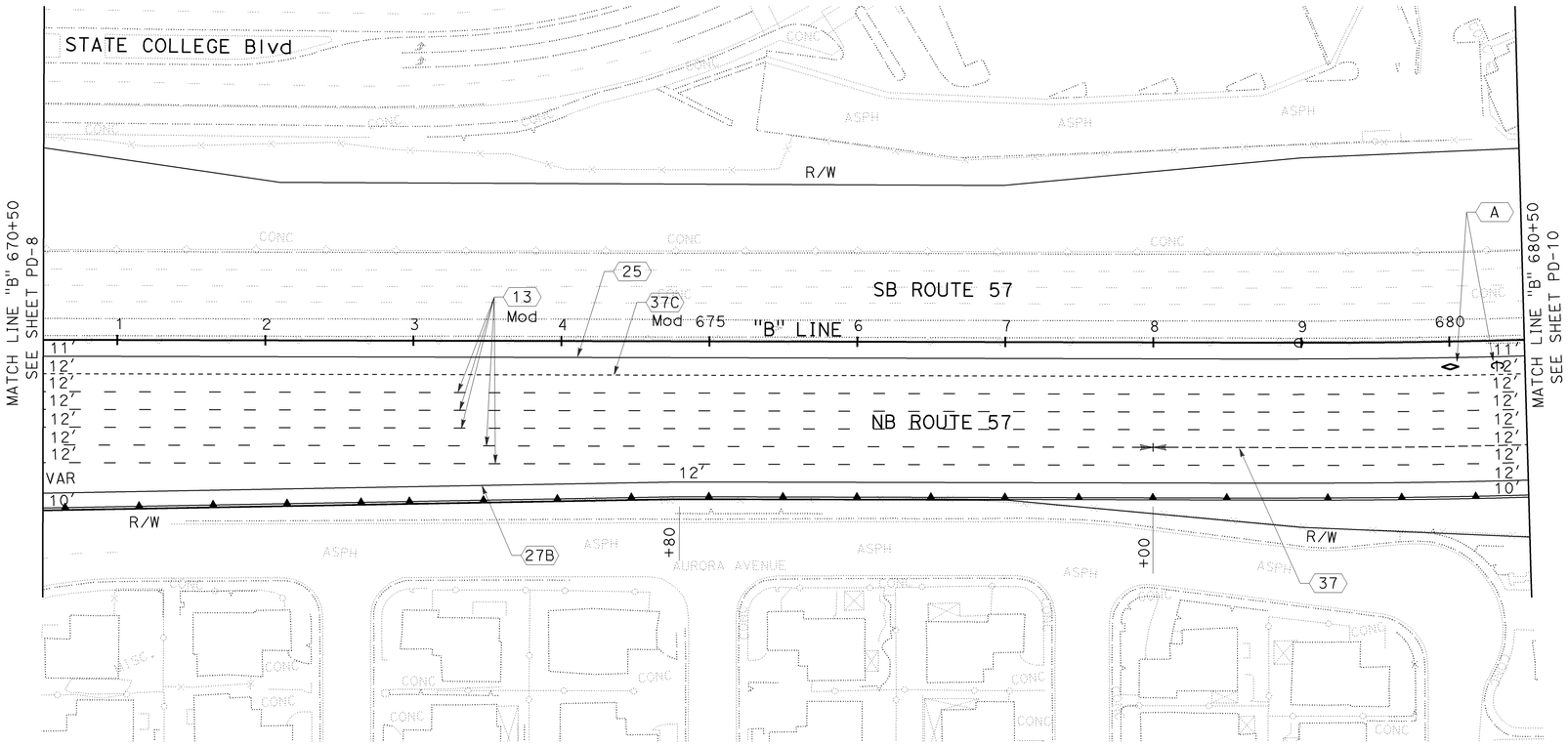
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PD-9

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 08:54

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmikesi
DGN FILE => c0f032na009.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	236	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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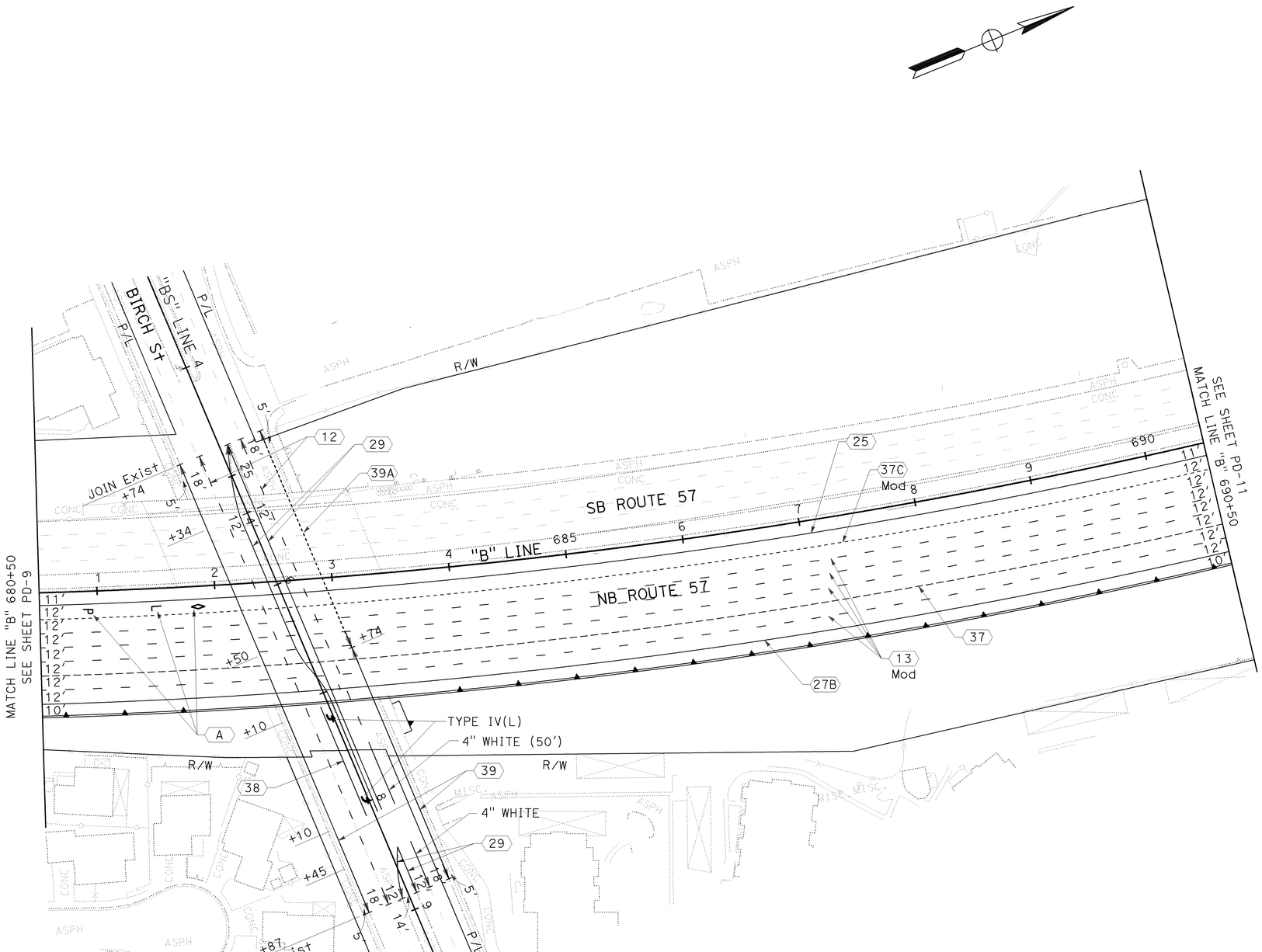
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-10

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 0854

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmikesl
DGN FILE => c0f032na010.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	237	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

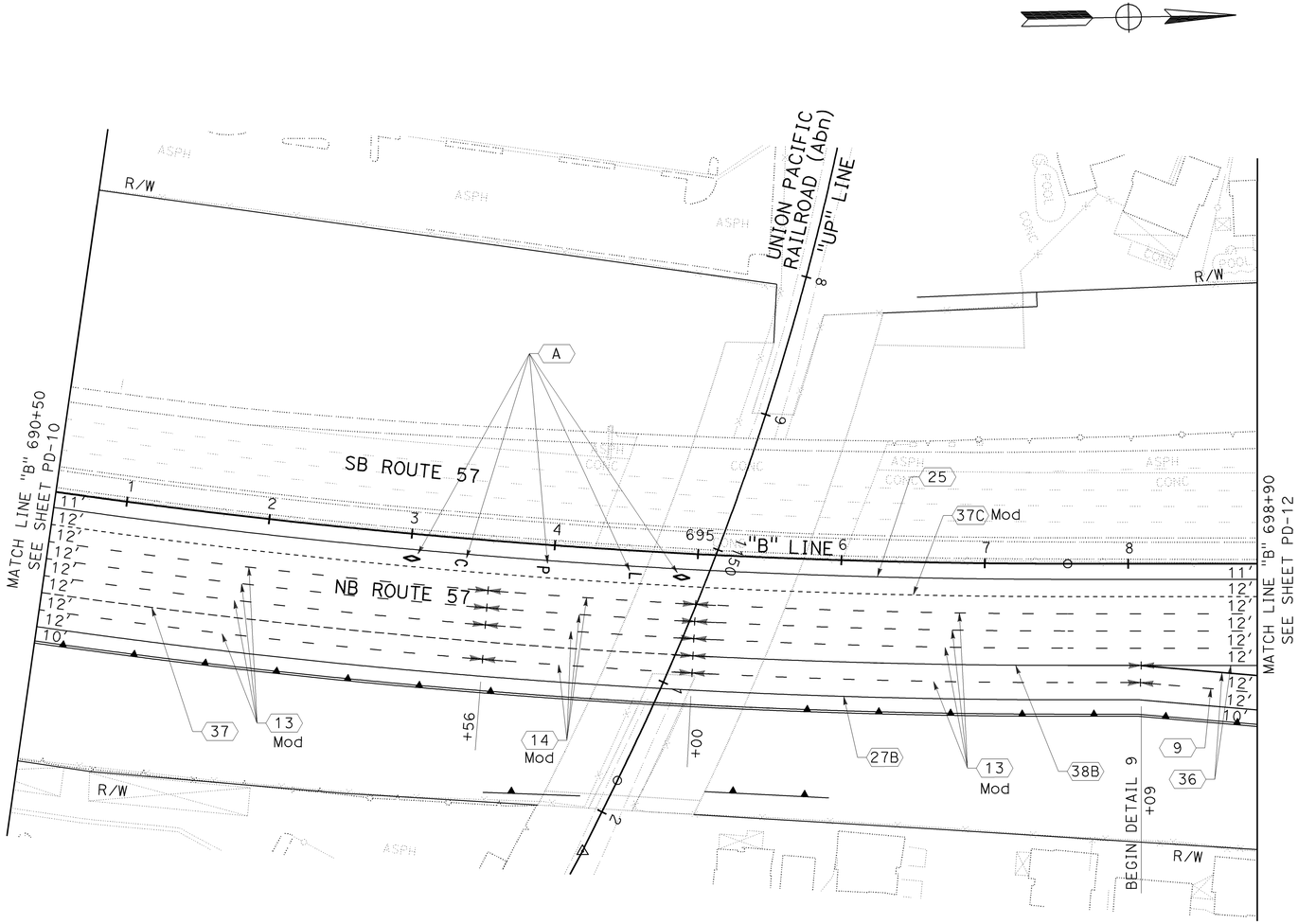
1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
STATE OF CALIFORNIA

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-11

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW

DATE REVISED	REVISED BY

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 08:54

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmikesl
DGN FILE => c0f032na011.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	238	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

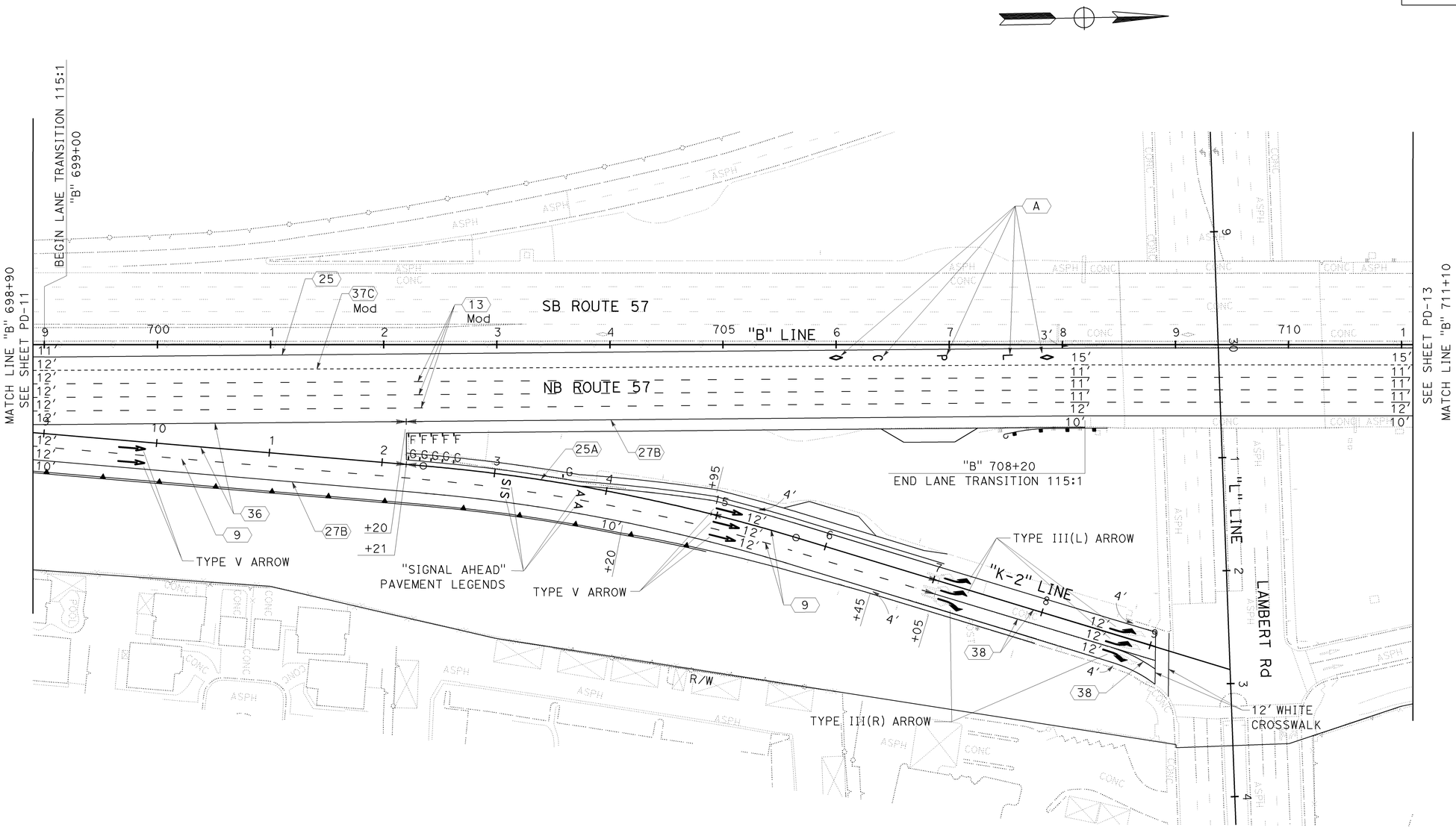
KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PD-12

REVISED BY | DATE REVISED
KAY HSU | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
THOMAS IONTA
CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 08:54

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmikesl
DGN FILE => c0f032na012.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	239	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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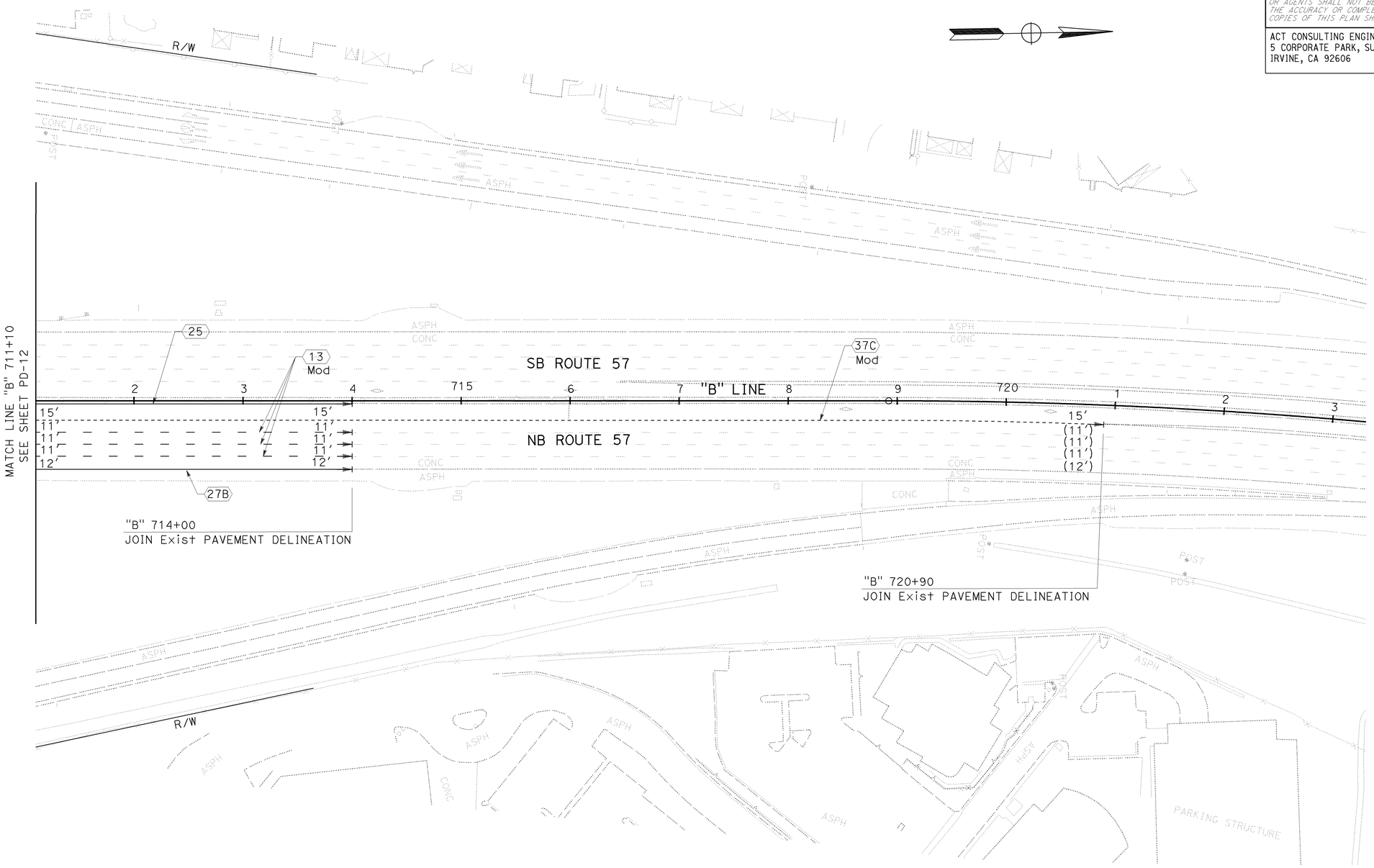
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50′

PD-13

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

REVISED BY | DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 08:54

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmikesl
DGN FILE => c0f032na013.dgn

CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	240	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAY HSU
No. C 63558
Exp. 9/30/10
CIVIL
STATE OF CALIFORNIA

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IRVINE, CA 92606

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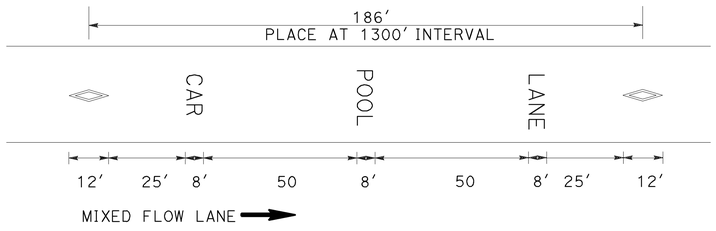
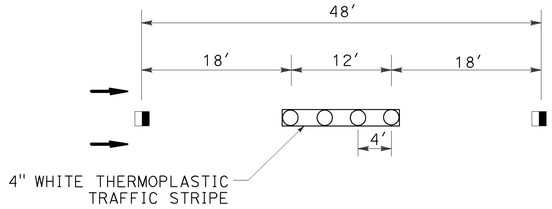
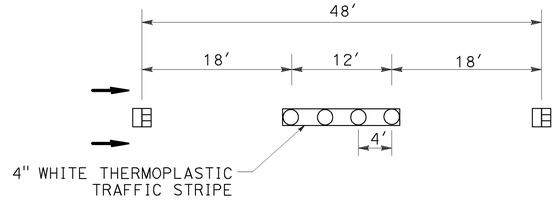
ORANGE, CA 92863



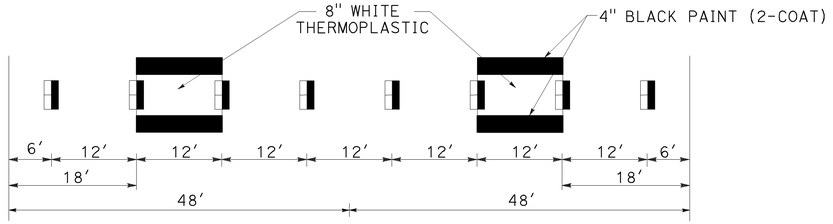
DETAIL "A"
HOV LANE PAVEMENT MARKING



DETAIL 13 Mod



DETAIL 14 Mod



DETAIL 37C Mod

LEGEND

- TYPE G One-way Clear Retroreflective
- TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE A WHITE NON-REFLECTIVE MARKER
- 4" BLACK PAINT TRAFFIC STRIPE (2-COAT)
- 4 WHITE THERMOPLASTIC TRAFFIC STRIPE
- 8" WHITE THERMOPLASTIC TRAFFIC STRIPE
- Direction of Travel

NOTES:

1. SEE STANDARD PLAN FOR PAVEMENT MARKING SYMBOLS, LANELINE DELINEATION AND WORDS DETAILS.
2. PERMANENT TRAFFIC STRIPES SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

REVISED BY	DATE REVISED

KAY HSU — CALCULATED-DESIGNED BY
HON YOW — CHECKED BY
THOMAS IONTA — CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
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KAY HSU
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550 S. MAIN STREET
ORANGE, CA 92863

PAVEMENT DELINEATION QUANTITIES

SHEET No.	LOCATION	THERMOPLASTIC TRAFFIC STRIPE												PAINT TRAFFIC STRIPE (2-COAT)									PAVEMENT MARKER						THERMOPLASTIC PAVEMENT MARKING			DELINEATOR (CLASS 1)		REMOVE				
																							NON-REFLECTIVE		RETROREFLECTIVE													
		DETAIL 8 4" WHITE BROKEN (17'-7')	DETAIL 9 4" WHITE BROKEN (17'-7')	DETAIL 13 Mod 4" WHITE BROKEN (36'-12')	DETAIL 14 Mod 4" WHITE BROKEN (36'-12')	DETAIL 25 4" SOLID YELLOW	DETAIL 25A 4" SOLID YELLOW	DETAIL 32 4" SOLID YELLOW	DETAIL 27B 4" SOLID WHITE	DETAIL 36, 36A, 36B 8" SOLID WHITE	DETAIL 38, 38A, 38B 8" SOLID WHITE	DETAIL 37 8" WHITE BROKEN (12'-3')	DETAIL 37C Mod 8" WHITE BROKEN (36'-12')	DETAIL 37C Mod 4" BLACK BROKEN (36'-12')	DETAIL 12 4" WHITE BROKEN (36'-12')	DETAIL 32 4" YELLOW BROKEN (36'-12')	DETAIL 27B 4" SOLID WHITE	DETAIL 29 4" DOUBLE YELLOW	4" SOLID WHITE	DETAIL 39 6" SOLID WHITE	DETAIL 39A 6" WHITE BROKEN (8'-4')	DETAIL 38, 38A, 38B 8" SOLID WHITE	TYPE A	TYPE AY	TYPE C	TYPE D	TYPE G	TYPE H	ARROWS	WORDS & SYMBOL	12" WHITE LINE	TYPE F	TYPE G	YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	THERMOPLASTIC TRAFFIC STRIPE (WHITE)	THERMOPLASTIC PAVEMENT MARKING	DELINEATOR	PAVEMENT MARKER
		LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	SQFT	SQFT	SQFT	EA	EA	LF	LF	SQFT	EA	EA
PD-1	"B" LINE			2794	576	1045	174		649	395			1045	2090									253		13		194	127		11				5399	2981	11		617
	"I-7" LINE						178		712	395																	17	8					5	178	1107		5	26
PD-2	"B" LINE			7093	432	2150			2150				2150	4300									608		10		360	269		161				10,750	5913	161		1138
PD-3	"B" LINE			7999	576	2450			2450				2450	4900									687		13		410	305		172				7650	5848	172		1152
	"BR" LINE														1195				1195								26								2390			26
PD-4	"B" LINE			7968	432	2400			2400				2400	4800									681		10		402	301		172				5600	5400	172		1073
PD-5	"B" LINE			7824	576	2400			2400		50	1050	2400	4800									672		85		410	298		172				12,000	6650	172		1352
	"RH" LINE																740	800		740	60																	
PD-6	"B" LINE	155		7145		2320			2320	270	450		325	650									599				110	280		172				3620	4906	172	19	870
	"J-5" LINE		820				484		760	276																	31	20		165		5	14	484	1275	165		51
	"AR" LINE							1636							1440	1636			100		250					79	31	174						1636	1790			205
PD-7	"B" LINE			4400		1100			977				1100	2200									371				185	155		86				5500	4154	86		598
	"J-4" LINE						753		1359	483																	21	31	33		76		8	753	1842	76	8	53
	"J-5" LINE		580				484		490		250																47	20	398	189	160		5	484	909	782	5	68
	"J-6" LINE						445		390		212																	18	33	51	60			440	452	60		24
PD-8	"B" LINE			4980	720	1140			2400		50		1140	2280									438		16		198	169		86				5700	4730	86		714
	"J-6" LINE						446		1100	194	280																	19		17	24			446	1463	24		35
PD-9	"B" LINE			5000		1000			1000			250	1000	2000									521		19		171	162		28				5000	2800	28		624
PD-10	"B" LINE			4000		1000			1000			1000	1000	2000									333		69		171	141		58				5000	2750	58		611
	"BS" LINE														670			724	92	626	200	100					15	60	30					3080	1172	30		
PD-11	"B" LINE			2784	576	840			840		308	341	840	1680									248		38		170	107		86				4200	2618	86		486
	"K-2" LINE		81							81																	7								105			7
PD-12	"B" LINE			3660		1220			890	330	400		1220	2440									309				255	146		86				4660	3393	86		665
	"K-2" LINE		1025				684		1015	330	430																75	29	417	126	36	5	6	684	2074	453	11	142
PD-13	"B" LINE			870		290			290				980	1960									77				50	36						290	578			122
SUB-TOTAL		155	2506	66,517	3888	19,355	3648	1636	25,592	2754	2430			36,100	3305	1636	740	1524	192	2561	510	100	5797		272	79	3357	2875	911	1838	356	10	38					
TOTAL		2661		70,405		50,231				5184		2641	18,050	46,668*									5797 *		6583*				3105			48		83,554	67,300	2880	48	10,659*

NOTE:

* SEE SCQ-7 FOR GRAND TOTAL QUANTITIES OF PAINT TRAFFIC STRIPE (2-COAT), PAVEMENT MARKER (NON-REFLECTIVE), PAVEMENT MARKER (RETROREFLECTIVES), AND REMOVE PAVEMENT MARKER.

PAVEMENT DELINEATION QUANTITIES

PDQ-1

CALCULATED-DESIGNED BY: KAY HSU
CHECKED BY: HON YOW
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:22

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032nc001.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	242	856

REGISTERED CIVIL ENGINEER — 11-16-09 DATE

1-25-10
PLANS APPROVAL DATE

HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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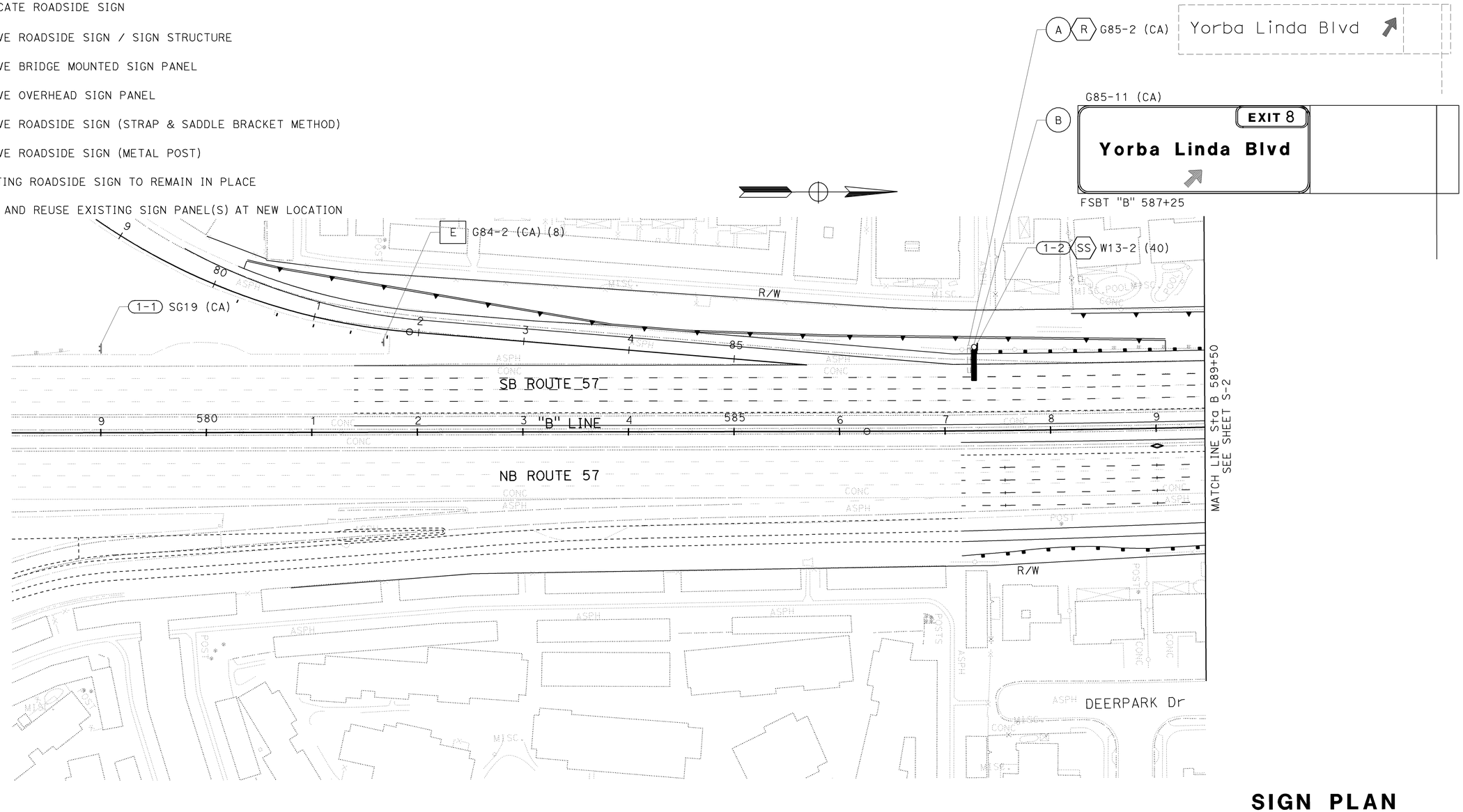
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

LEGEND

- (X-X) ROADSIDE SIGN (IDENTIFIED BY NUMBER)
- (A) OVERHEAD SIGN (IDENTIFIED BY LETTER)
- (SS) INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)
- (MR) METAL (RAIL MOUNTED SIGN)
- (MW) METAL (WALL MOUNTED SIGN)
- (EF) INSTALL SIGN PANEL ON EXISTING FRAME
- (EP) INSTALL ROADSIDE SIGN PANEL ON EXISTING POST
- (RL) RELOCATE ROADSIDE SIGN
- (R) REMOVE ROADSIDE SIGN / SIGN STRUCTURE
- (RB) REMOVE BRIDGE MOUNTED SIGN PANEL
- (RH) REMOVE OVERHEAD SIGN PANEL
- (RS) REMOVE ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)
- (RM) REMOVE ROADSIDE SIGN (METAL POST)
- [E] EXISTING ROADSIDE SIGN TO REMAIN IN PLACE
- [SR] SAVE AND REUSE EXISTING SIGN PANEL(S) AT NEW LOCATION

NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGN TO BE DETERMINED BY THE ENGINEER.
2. SEE SIGNAL AND LIGHTING PLANS FOR ADDITIONAL SIGNS.



THIS PLAN ACCURATE FOR SIGN WORK ONLY

SIGN PLAN

SCALE: 1" = 50'

S-1

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:22

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032oa001.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	243	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

HON WAI YOW No. C 43276 Exp. 3/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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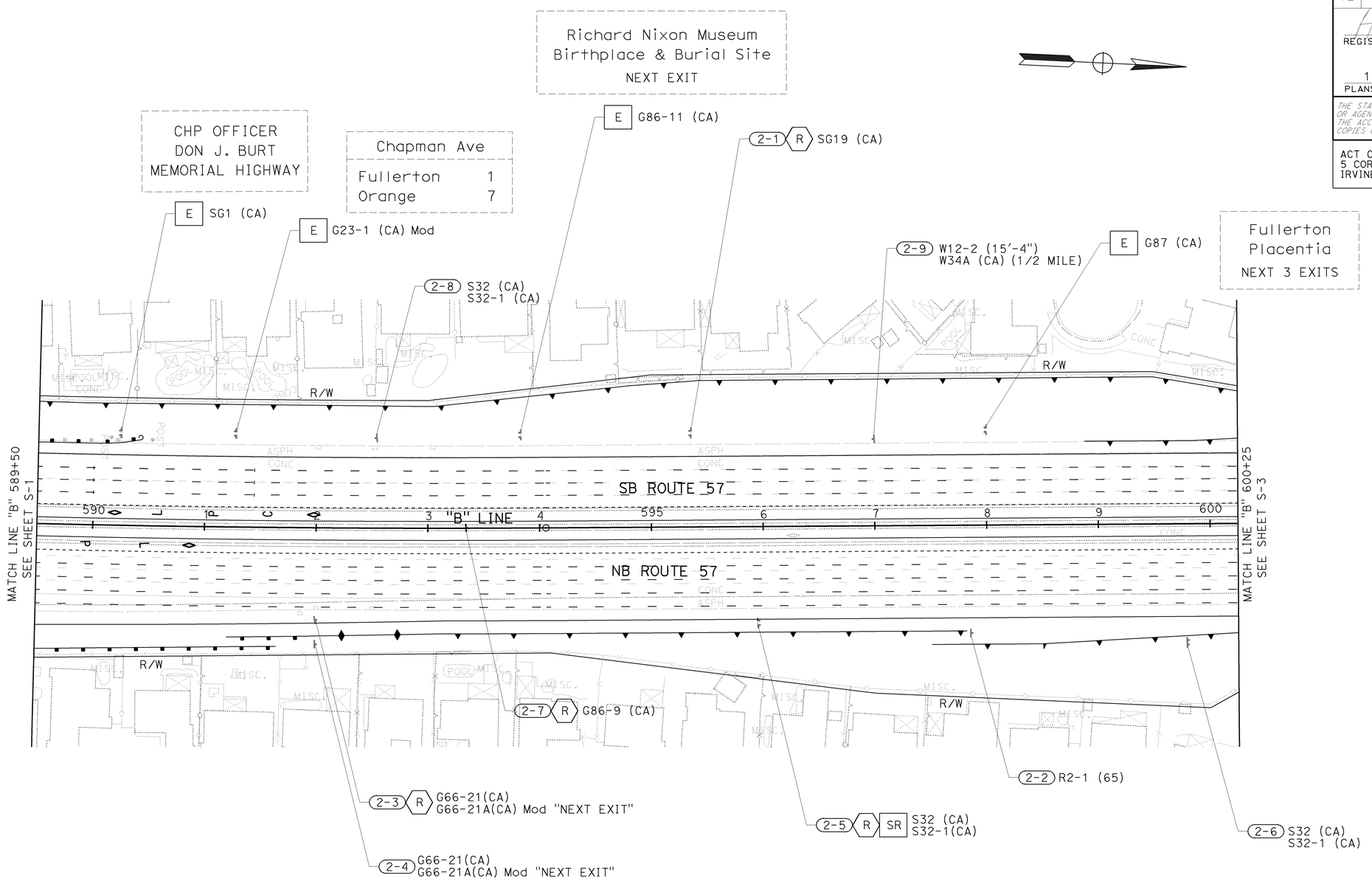
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



SIGN PLAN

SCALE: 1" = 50′

S-2

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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USERNAME => trrichf
DGN FILE => c0f032oa002.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	244	856

REGISTERED CIVIL ENGINEER — DATE: 06-15-09

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OCTA
550 S. MAIN STREET
ORANGE, CA 92863

C R G86-12 (CA) — Yorba Linda Blvd NEXT EXIT

G86-13 (CA)

D — EXIT 8 — Yorba Linda Blvd NEXT EXIT

FSBT "B" 600+75

G11-4.1 (CA) MR 3-11

G11-4.1 (CA) R 3-10

3-1 R G-SPECIAL — Southern California College of Optometry NEXT EXIT

3-4 R G85-7 (CA)

Q RH R87-1 (CA) Mod
EF

3-7 R R6-1 (CA) (55)

3-5 R W12-2 (15'-4")
W34A (CA) (1/2 MILE)

S32 (CA)
S32-1 (CA) SR R 3-6

3-14 SS R86-2 (CA)

"BR" LINE 9 BASTANCHURY Rd

R/W

SB ROUTE 57

"B" LINE

NB ROUTE 57

MATCH LINE "B" 600+25
SEE SHEET S-2

MATCH LINE "B" 612+50
SEE SHEET S-4

3-13 EP SR50-2 (CA)

3-12 R6-3 (CA)

G11-4.1 (CA) R 3-8

G11-4.1 (CA) MR 3-9

R28 (CA) (R†) RL 3-15

TO 6' WEST FROM

DEERPARK Dr

EXIT 9 — 90 Imperial Hwy NEXT RIGHT

G86-13 (CA) 3-3

G86-13 (CA) R 3-2

G23-2 (CA) R E

Imperial Hwy 90 3/4
Lambert Rd 1 3/4
Tonner Canyon Rd 3

G23-2 (CA)

F — 90 Imperial Hwy 3/4
Lambert Rd 1 3/4
Tonner Canyon Rd 3

FNBT "B" 603+25

THIS PLAN ACCURATE FOR SIGN WORK ONLY

SIGN PLAN

SCALE: 1" = 50'

S-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: JENNY SHIAO

CHECKED BY: HON YOW

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
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BORDER LAST REVISED 2/1/2008

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USERNAME => trrichf
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CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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REGISTERED CIVIL ENGINEER — DATE: 06-15-09

HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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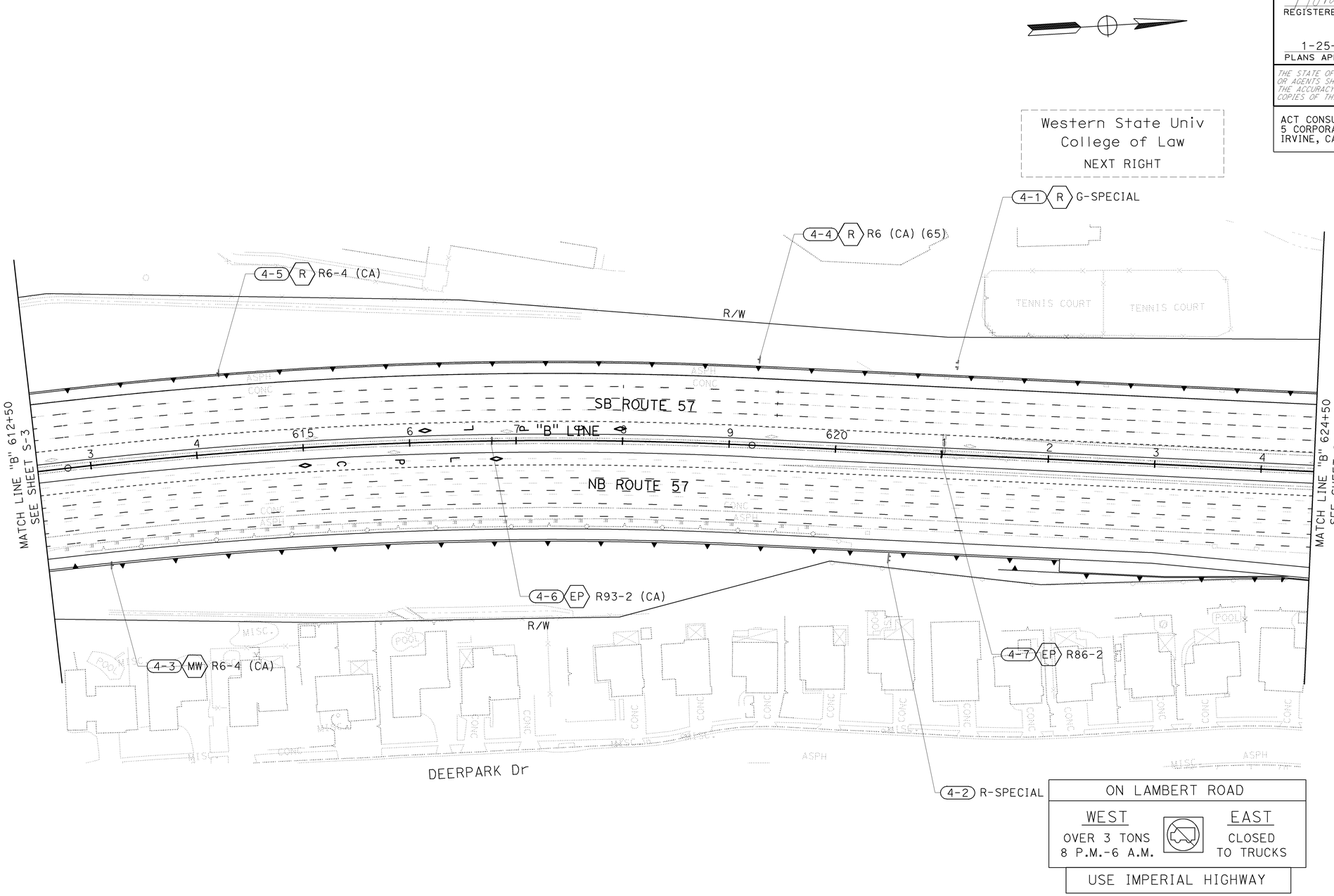

SIGN PLAN

SCALE: 1" = 50'

S-4

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW

REVISED BY | DATE REVISED

LAST REVISION: 00-00-00
DATE PLOTTED => 25-JAN-2010
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DGN FILE => c0f032oa004.dgn

CU 12220

EA 0F0321

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12	Ora	57	18.4/20.9	246	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
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550 S. MAIN STREET
ORANGE, CA 92863

H R G23-2 (CA)

Yorba Linda Blvd 3/4
Nutwood Ave 1 1/2
Chapman Ave

G23-6 (CA)

I

Yorba Linda Blvd 3/4
Nutwood Ave 1 1/2
Chapman Ave

FSBT "B" 626+40

5-12 R G11-4.1(CA)

5-9 R G86-13 (CA)

EXIT 8
Yorba Linda Blvd
NEXT RIGHT

5-13 MR G11-4.1(CA)

5-11 R G86-8 (CA)

"RH" LINE
ROLLING HILLS Dr
TENNIS COURT
CONC
ASPH
R/W

MATCH LINE "B" 624+50
SEE SHEET S-4

625 6 7 8 9 630 "B" LINE 2 3 4 635 6

MATCH LINE "B" 636+50
SEE SHEET S-6

SB ROUTE 57

NB ROUTE 57

R/W

5-6 R G86-1 (CA)

Craig Park
NEXT RIGHT

5-7 MW R18A (CA)
(Rt)

5-4 R G66-56 (CA)

Craig Park
EXIT 9

5-8 W4-7

5-10 G86-1 (CA)

5-3 R SR R-SPECIAL

PEPPERWOOD Rd

ON LAMBERT ROAD
WEST: OVER 3 TONS 8 P.M.-6 A.M.
EAST: CLOSED TO TRUCKS
USE IMPERIAL HIGHWAY

5-5 G66-56 (CA)

5-1 R G11-4.1(CA)

5-2 MR G11-4.1(CA)

J R G86-3 (CA)

Imperial Hwy 90
Brea
NEXT EXIT

G83 (CA)

G

EXIT 9
90 **Imperial Hwy**
EXIT ONLY

FNBT "B" 626+00

THIS PLAN ACCURATE FOR SIGN WORK ONLY

SIGN PLAN

SCALE: 1" = 50'

S-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

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HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

REVISED BY | DATE REVISED

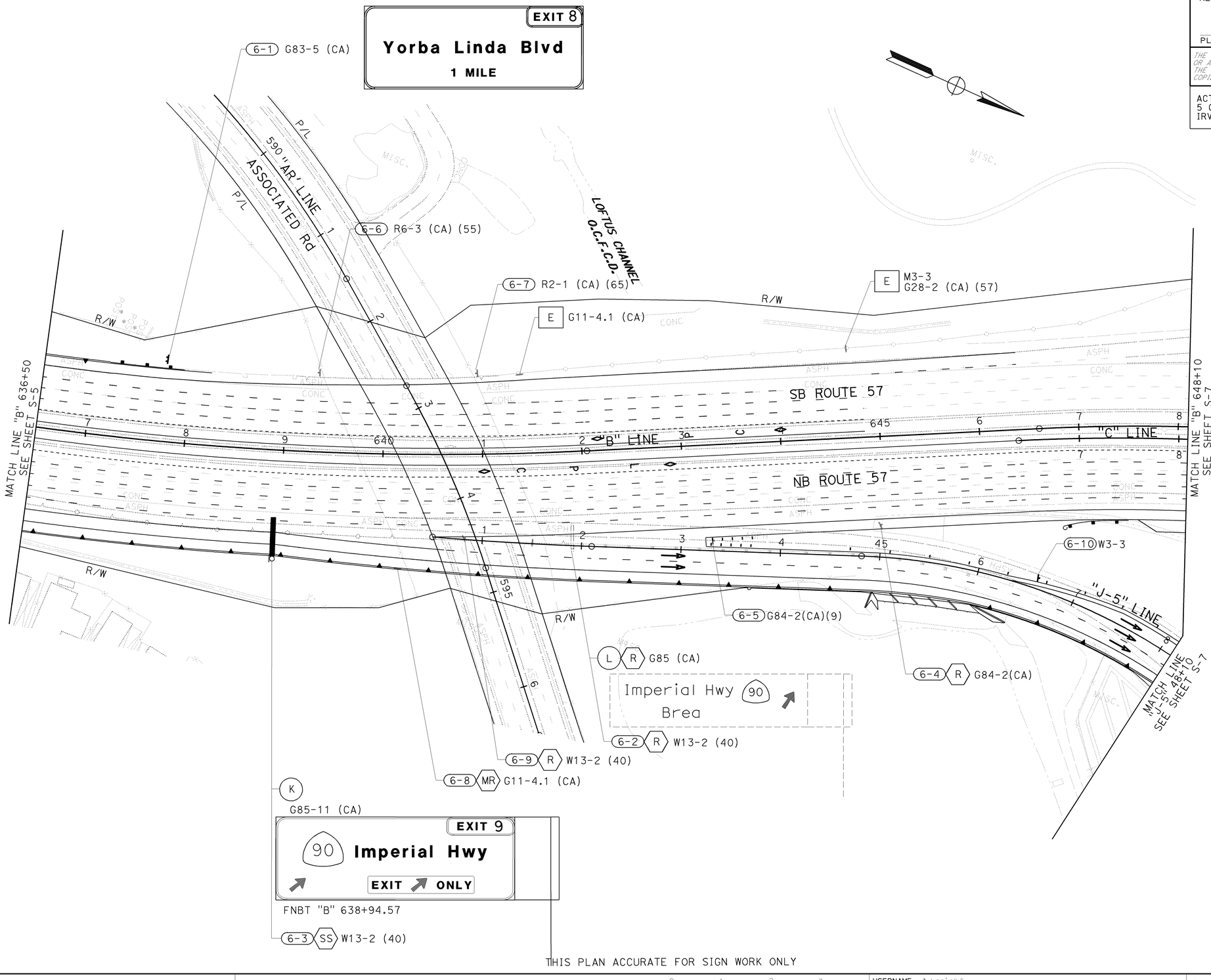
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW

SUPERVISOR: THOMAS IONTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

EXIT 8
Yorba Linda Blvd
1 MILE



THIS PLAN ACCURATE FOR SIGN WORK ONLY

SIGN PLAN

SCALE: 1" = 50'

S-6

LAST REVISION: DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:22 | 00-00-00

BORDER LAST REVISED 2/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0f032oa006.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	248	856

REGISTERED CIVIL ENGINEER — DATE: 06-15-09

HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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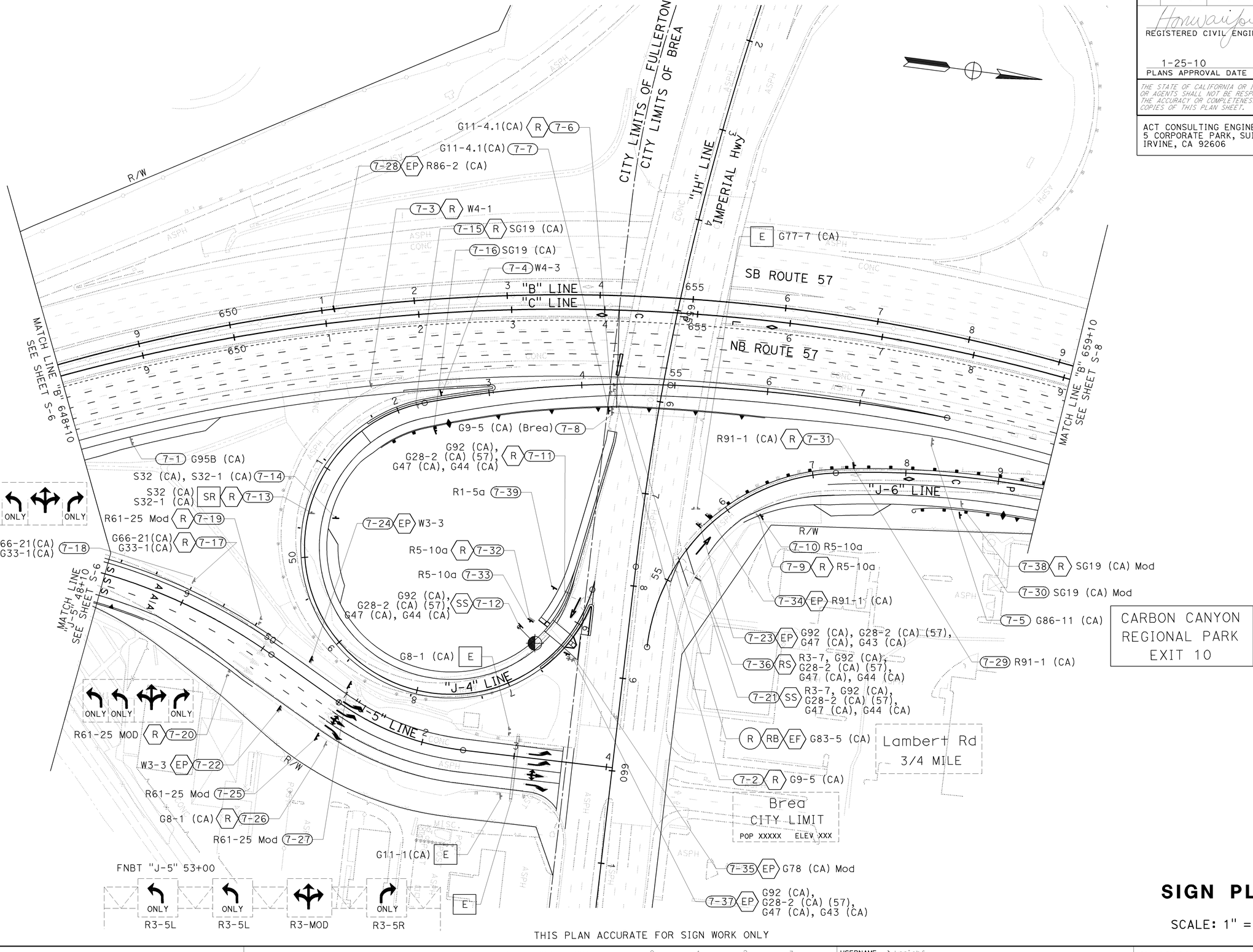
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



SIGN PLAN

SCALE: 1" = 50'

S-7

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: JENNY SHIAO

CHECKED BY: HON YOW

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:22

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0f032oa007.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	249	856

REGISTERED CIVIL ENGINEER — DATE: 06-15-09

HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
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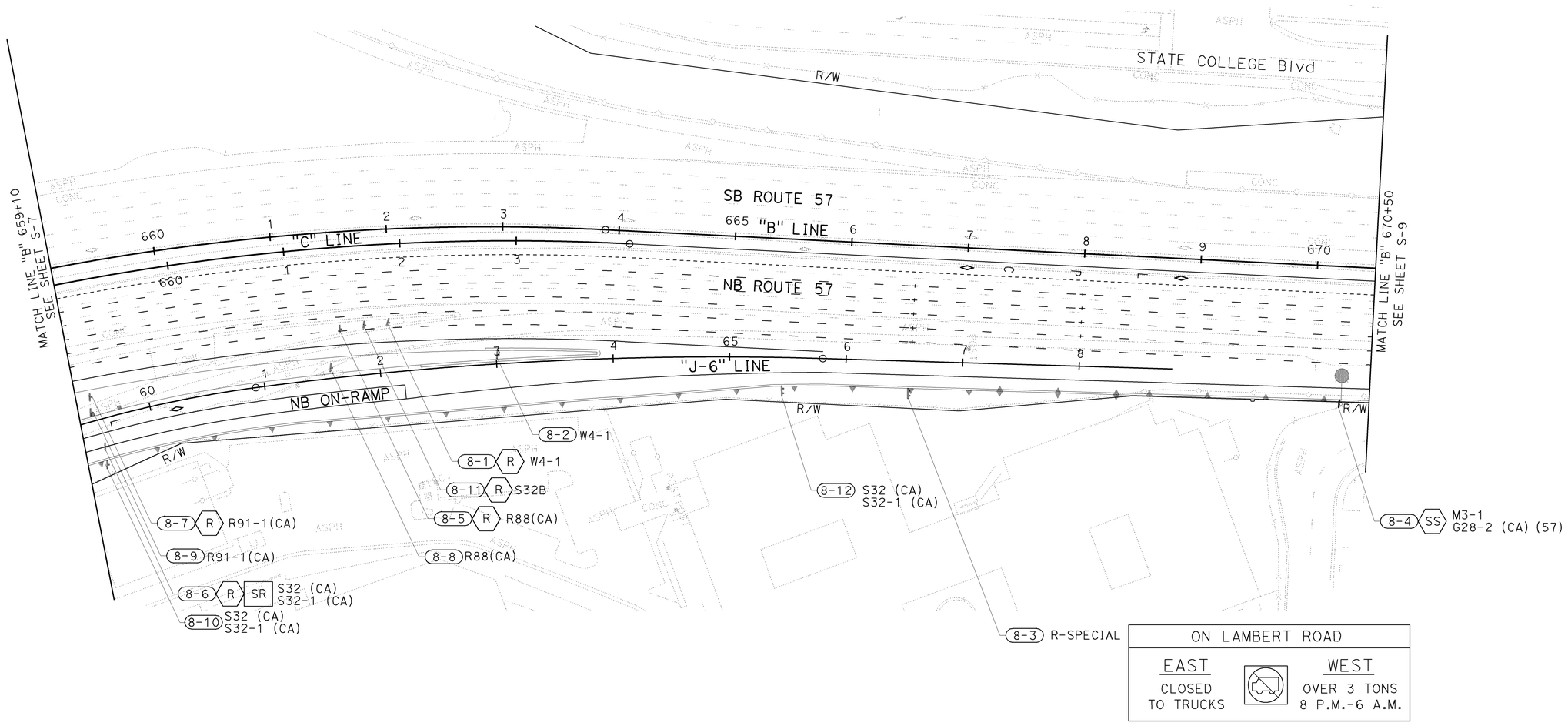
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



ON LAMBERT ROAD	
EAST	WEST
CLOSED TO TRUCKS	OVER 3 TONS 8 P.M.-6 A.M.

SIGN PLAN

SCALE: 1" = 50'

S-8

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:22
00-00-00

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0f032aa008.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	250	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp.3/31/10
CIVIL
STATE OF CALIFORNIA

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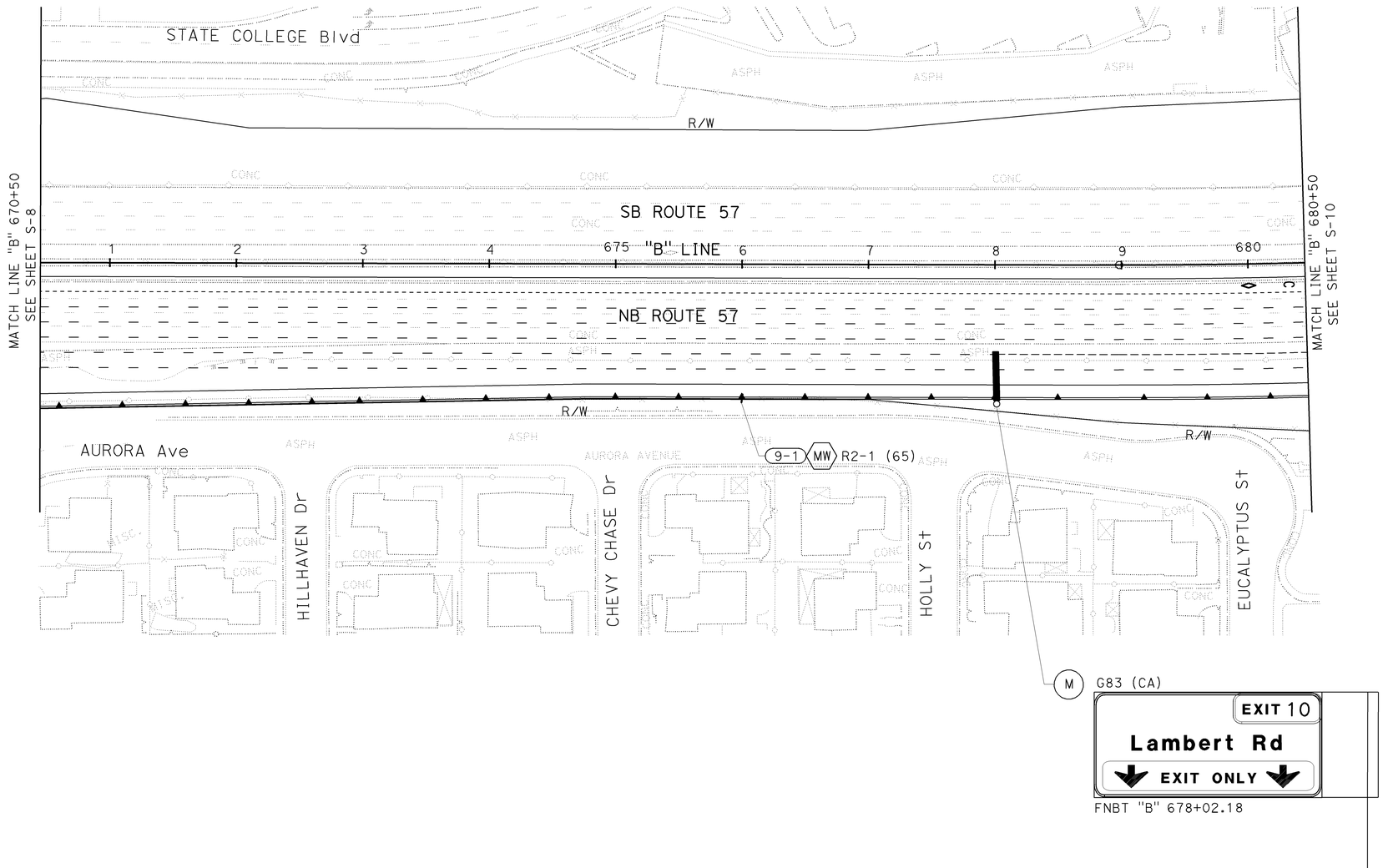
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



SIGN PLAN

SCALE: 1" = 50'

S-9

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:22

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032oa009.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	251	856

06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp.3/31/10
CIVIL
STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS, INC.
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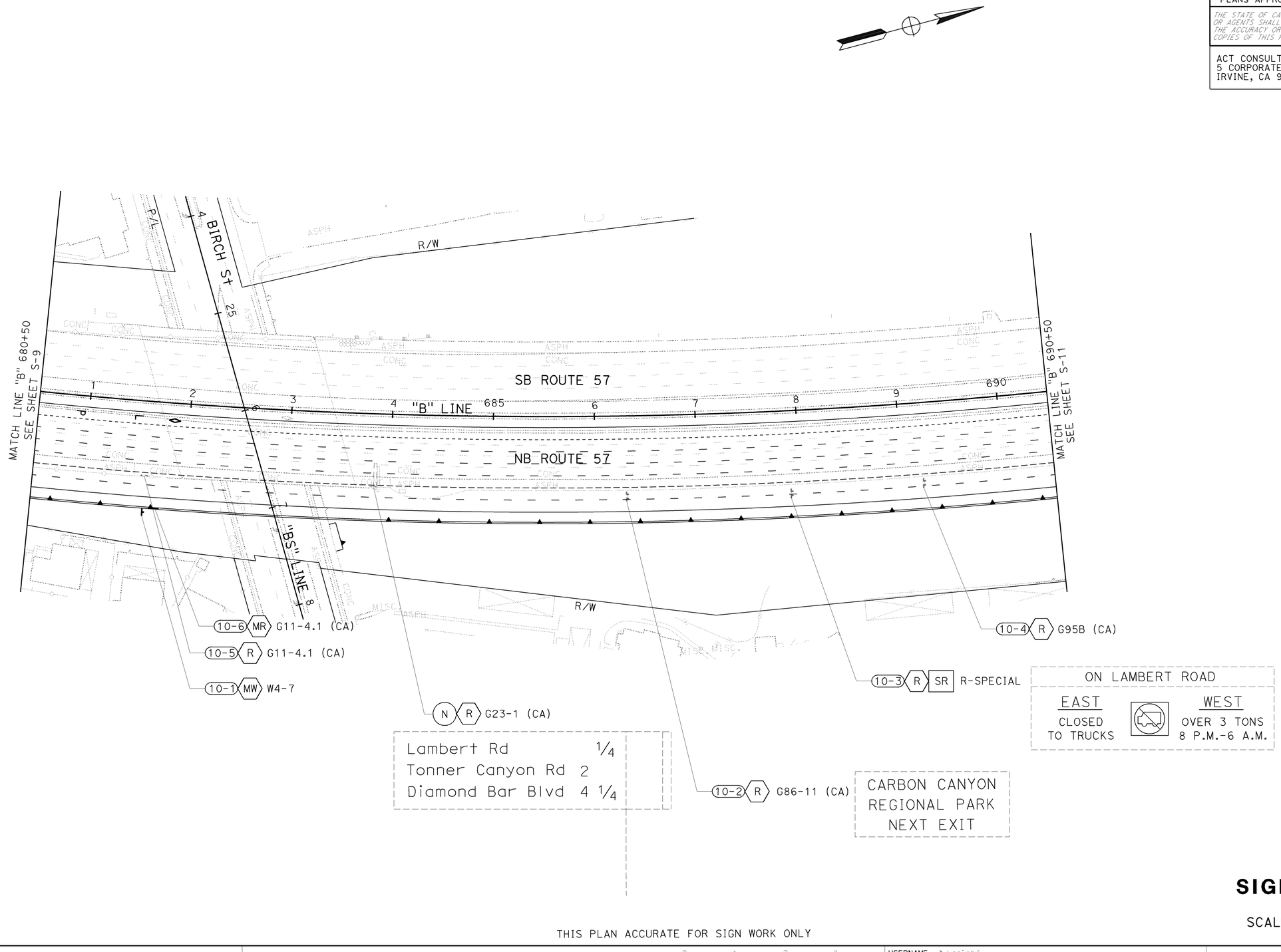
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



SIGN PLAN

SCALE: 1" = 50'

S-10

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:23

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032oa010.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	252	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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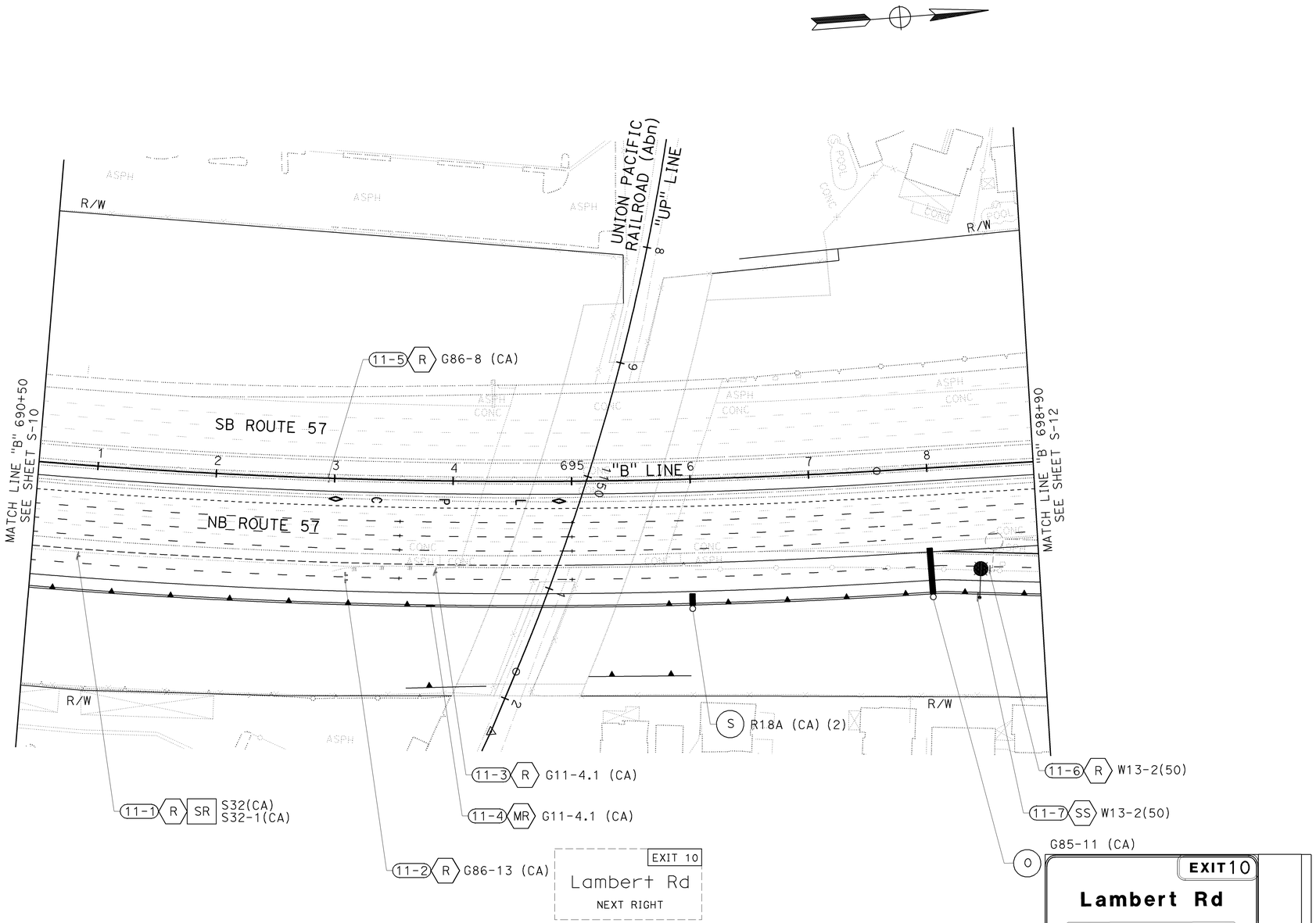
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



THIS PLAN ACCURATE FOR SIGN WORK ONLY

SIGN PLAN

SCALE: 1" = 50'

S-11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 25-JAN-2010
00-00-00 TIME PLOTTED => 10:23

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032oa011.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	253	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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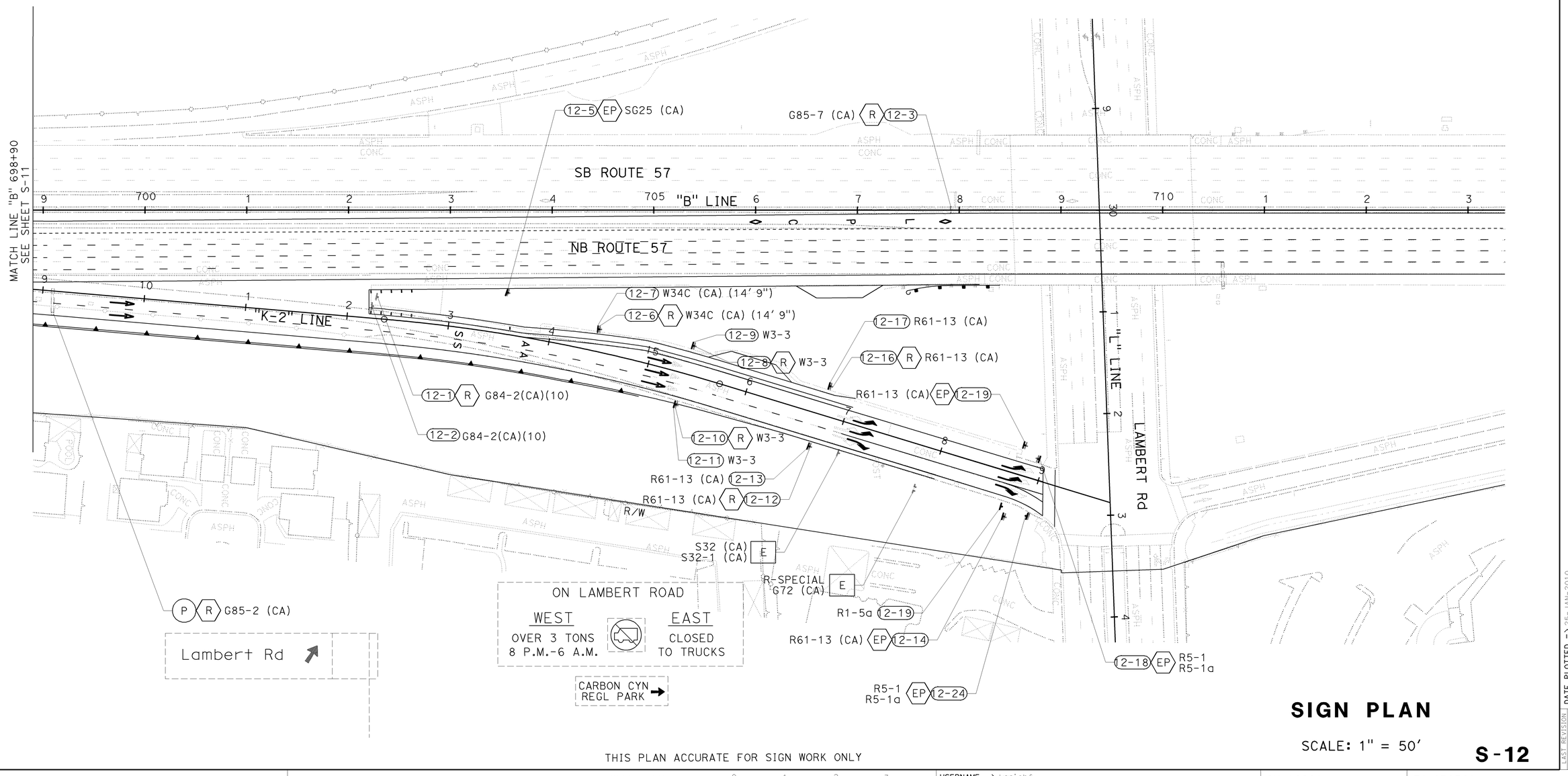
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



SIGN PLAN

SCALE: 1" = 50'

S-12

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW

REVISED BY	DATE REVISED

LAST REVISION: DATE PLOTTED => 25-JAN-2010
00-00-00 TIME PLOTTED => 10:23

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0f032oa012.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	254	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp.3/31/10
CIVIL
STATE OF CALIFORNIA

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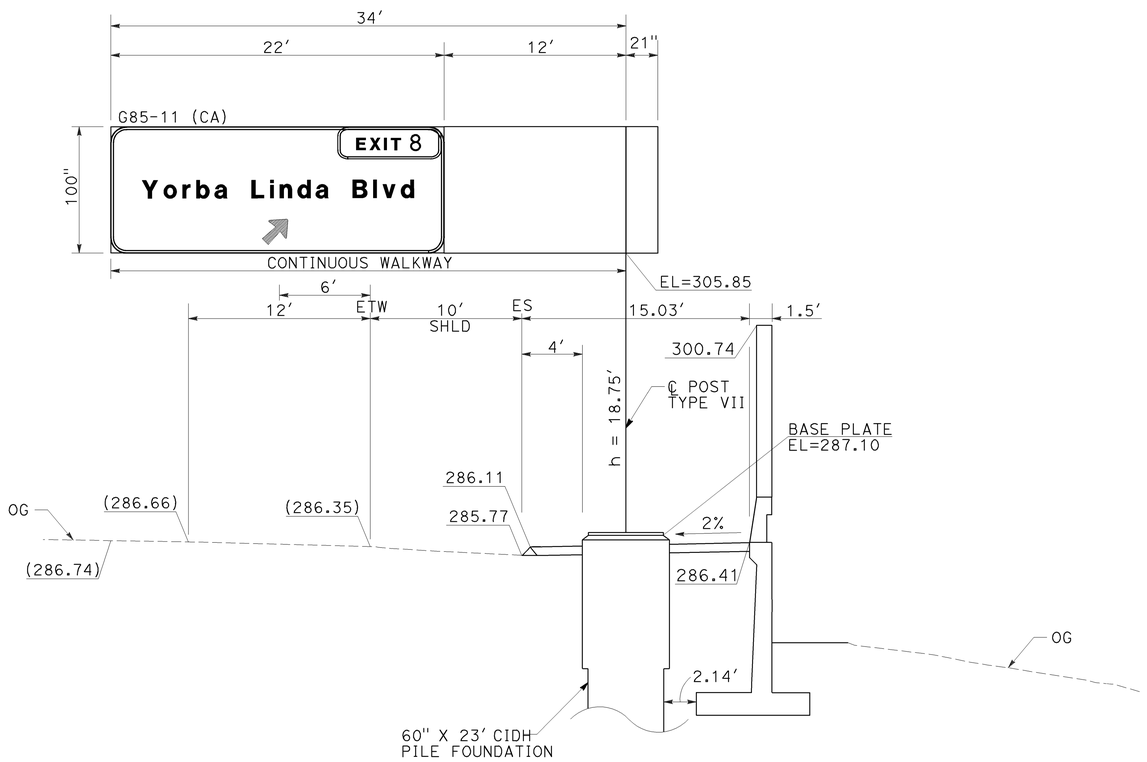
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

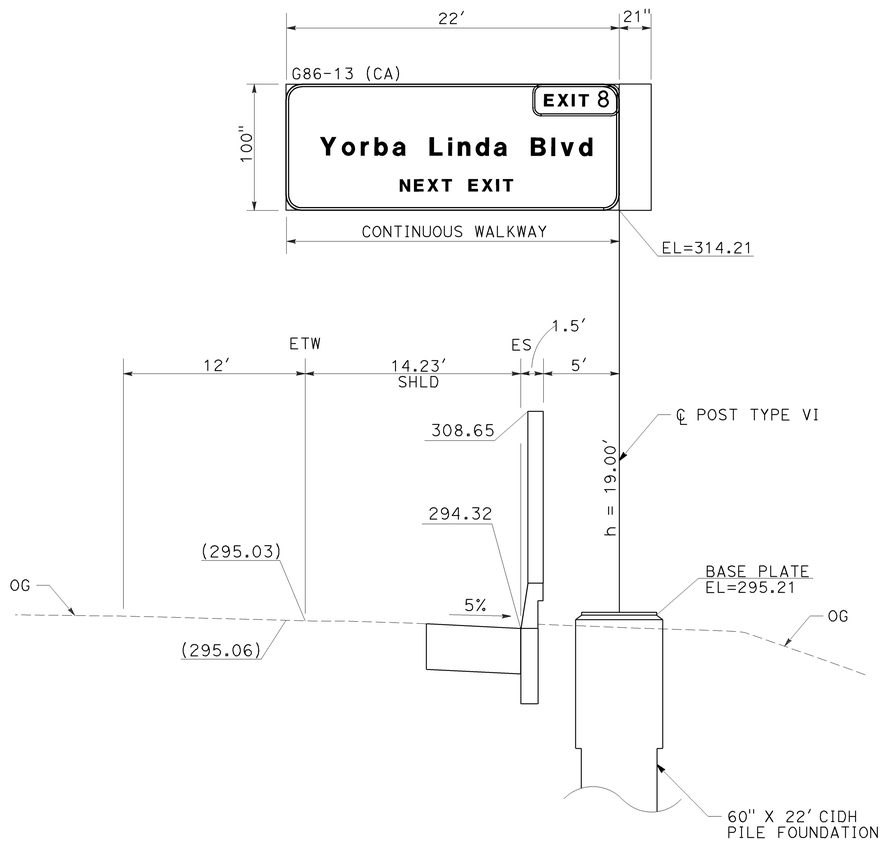
NOTE:

1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.



SIGN (B)
FSBT "B" LINE STA 587+25

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED



SIGN (D)
FSBT "B" LINE STA 600+75

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED

SIGN DETAILS

NO SCALE

SD-1

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:23

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032ob001.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	255	856

REGISTERED CIVIL ENGINEER — DATE: 06-15-09

HON WAI YOW No. C 43276 Exp. 3/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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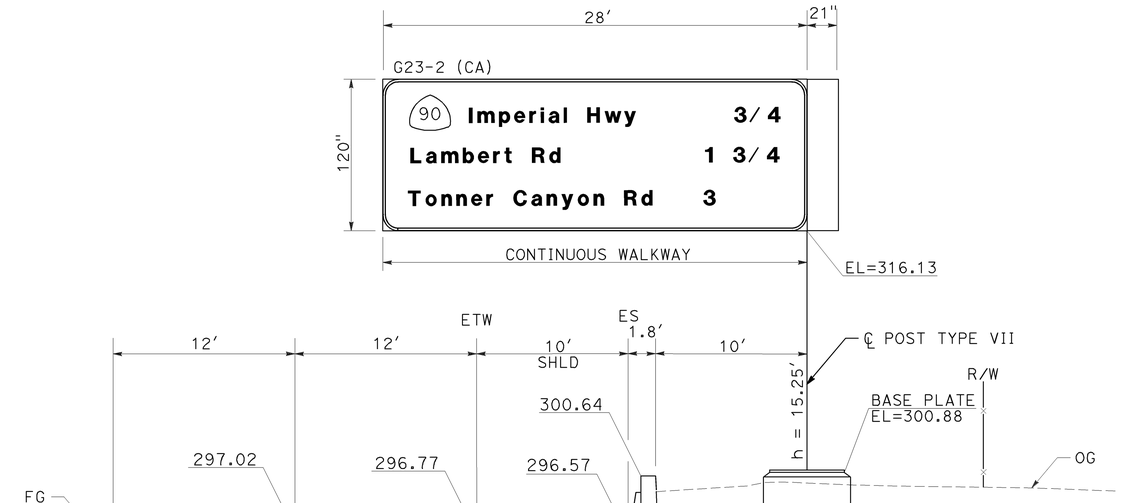
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

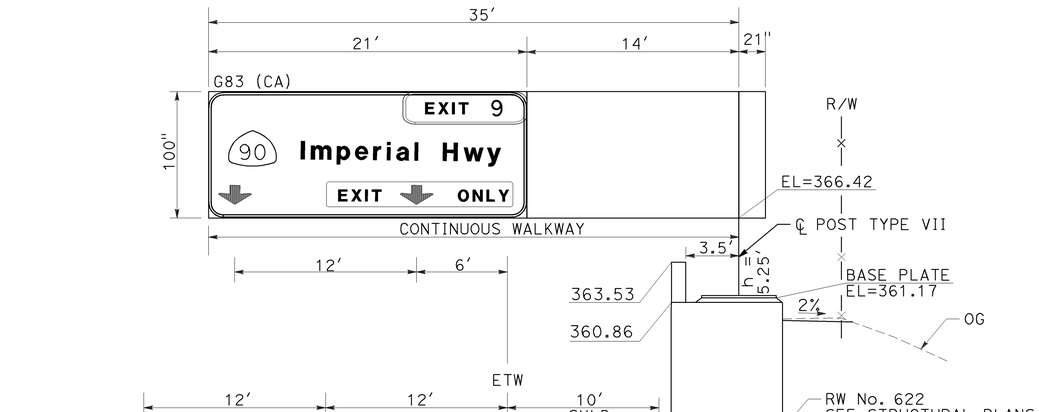
NOTE:

1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.



SIGN (F)
FNBT "B" LINE STA 603+25

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED



SIGN (G)
FNBT "B" LINE STA 626+00

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED

SIGN DETAILS

NO SCALE

SD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:23

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0f032ob002.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	256	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS, INC.
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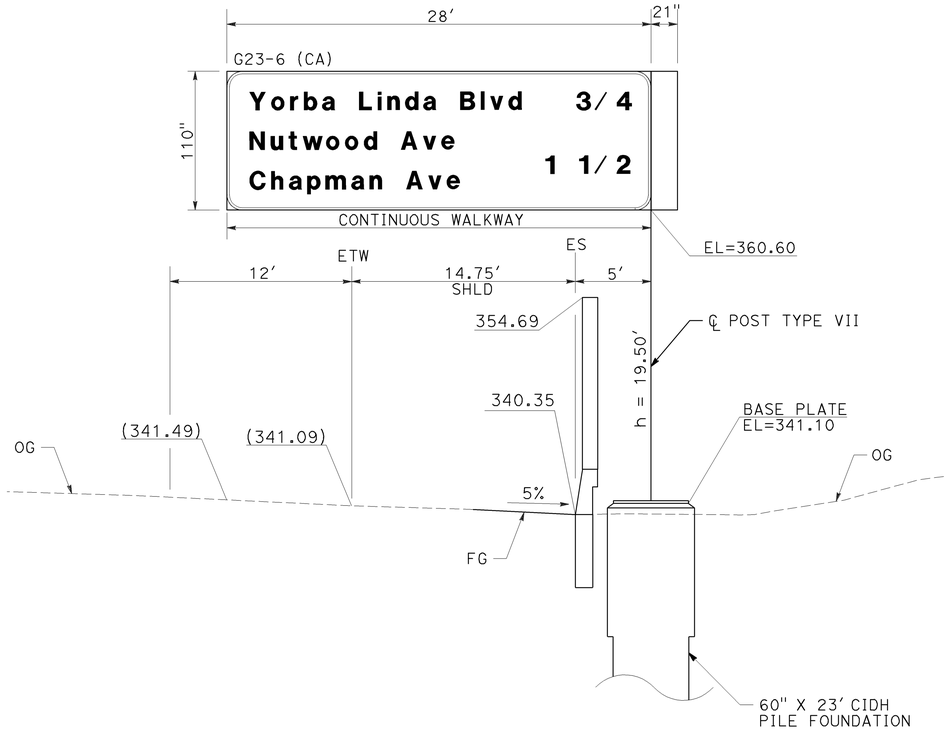
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

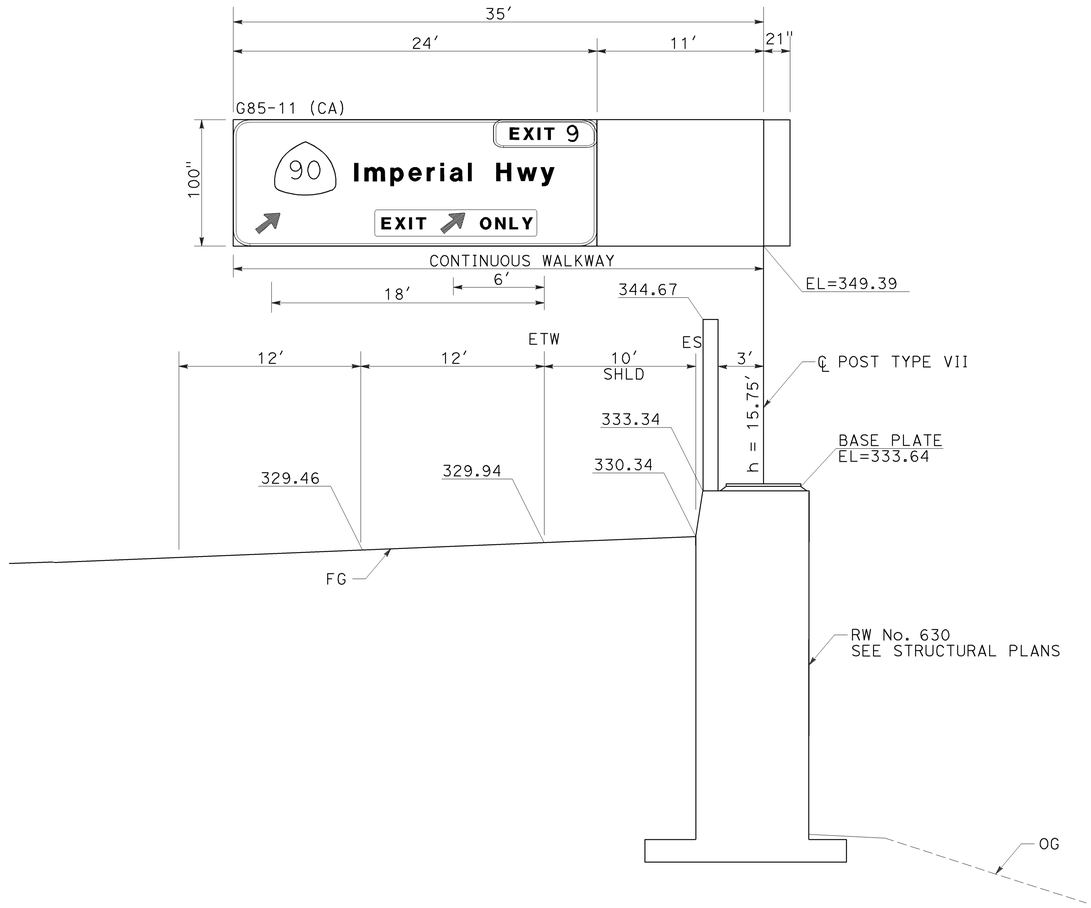
NOTE:

1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.



SIGN (I)
FSBT "B" LINE STA 626+40

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED



SIGN (K)
FNBT "B" LINE STA 638+94.57

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED

SIGN DETAILS

NO SCALE **SD-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:23

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032ob003.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	257	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

HON WAI YOW No. C 43276 Exp.3/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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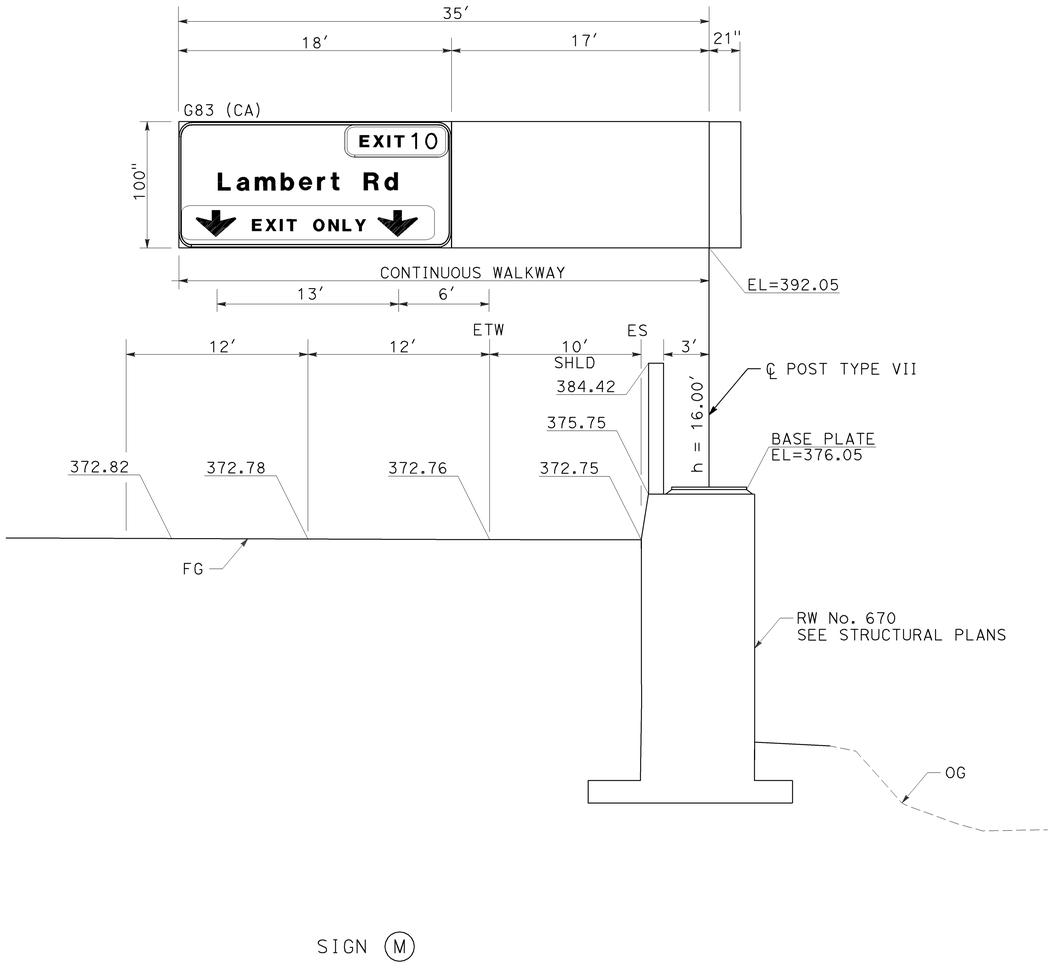
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

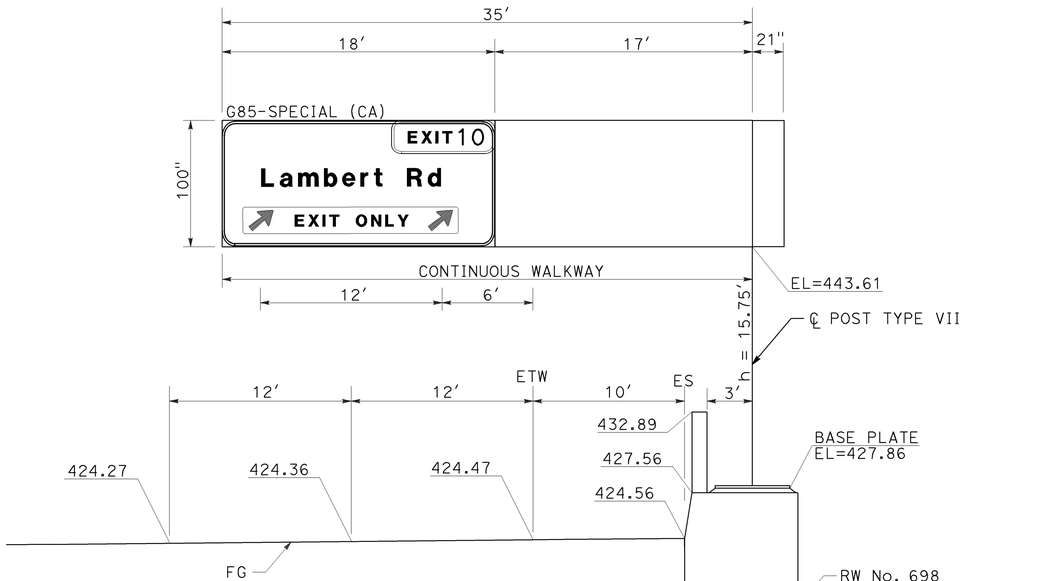
NOTE:

1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.



SIGN (M)
FNBT "B" LINE STA 678+02.18

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED



SIGN (O)
FNBT "B" LINE STA 697+99.18

1. INSTALL SIGN STRUCTURE (TRUSS)
2. INSTALL TYPE A LAMINATED PANEL & MOUNTING BEAMS
3. ILLUMINATED

SIGN DETAILS

NO SCALE

SD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:24
00-00-00

BORDER LAST REVISED 2/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0f032ob004.dgn | CU 12220 | EA 0F0321

NOTE:

1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	258	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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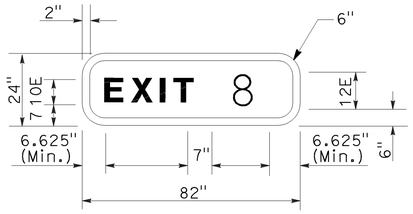
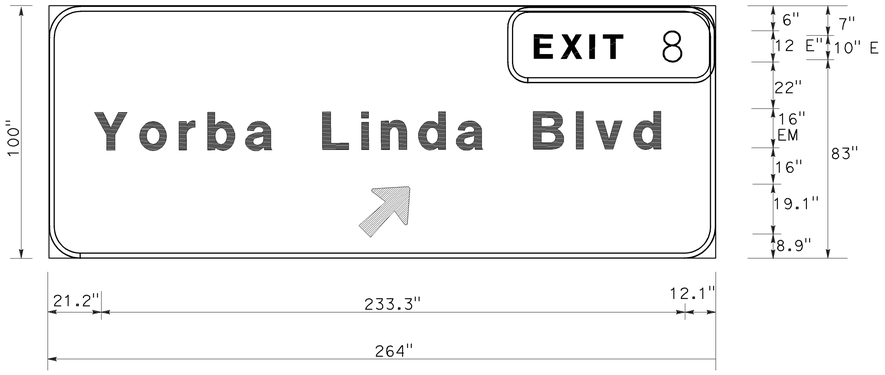
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



G85-11 (CA)



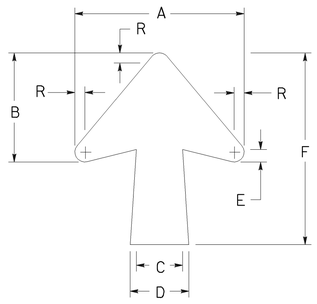
12" Radius, 2" Border, White on Green;
[Yorba Linda Blvd] 16" U.C., 12" L.C.;
Standard Arrow Custom 22 1/4 " X 25" 45°

SIGN (B)
FSBT "B" LINE STA 587+25

G86-13 (CA)

12" Radius, 2" Border, White on Green;
[Yorba Linda Blvd] 16" U.C., 12" L.C.;
[NEXT EXIT] 12" U.C.

SIGN (D)
FSBT "B" LINE STA 600+75



DIAGONAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	F	R
22-1/4	17	5-3/8	6-3/16	1-3/4	25	1

SIGN DETAILS

NO SCALE

SD-5

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:24

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0f032ob005.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	259	856

REGISTERED CIVIL ENGINEER 06-15-09 DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER HON WAI YOW No. C 43276 Exp. 3/31/10 CIVIL STATE OF CALIFORNIA

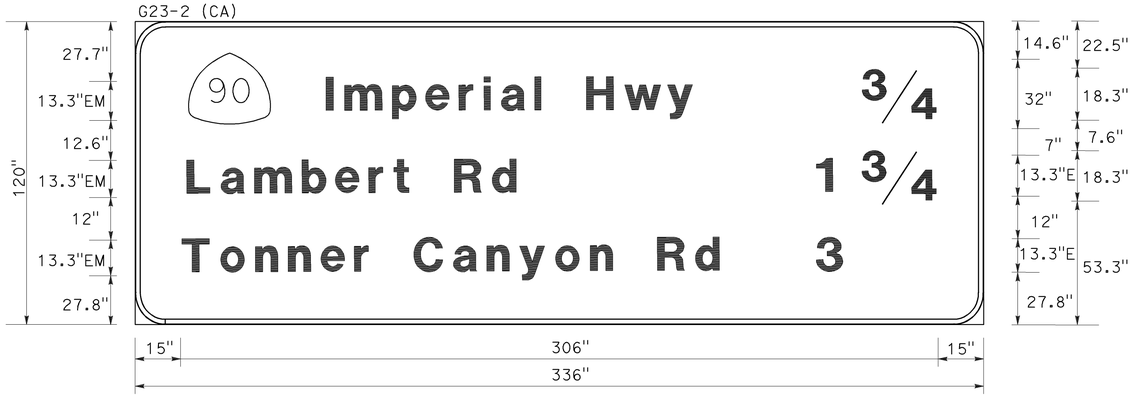
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

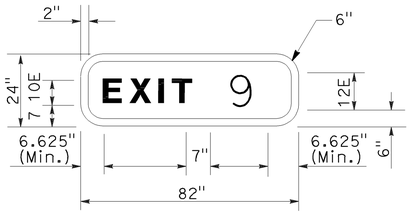
NOTE:

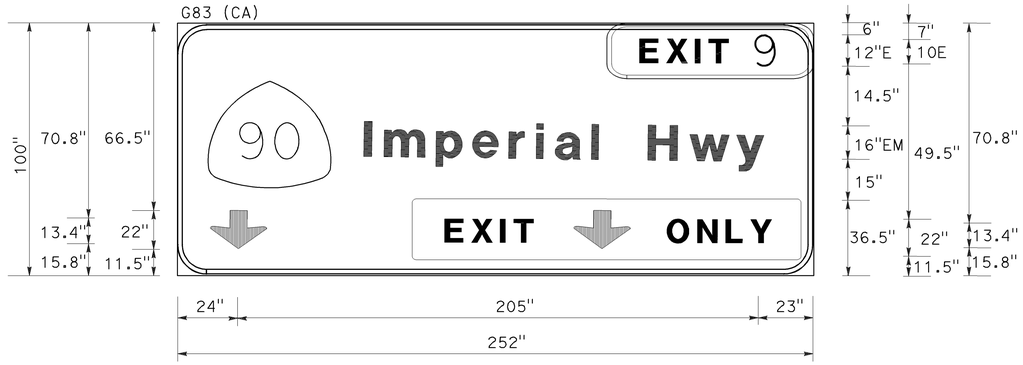
1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.



12" Radius, 2" Border, White on Green;
[Imperial Hwy] 13.3" U.C., 10" L.C.;
[Lambert Rd] 13.3" U.C., 10" L.C.;
[Tonner Canyon Rd] 13.3" U.C., 10" L.C.;
Route Shield Size 35" X 32"

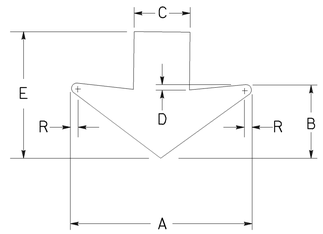
SIGN (F)
FNBT "B" LINE STA 603+25





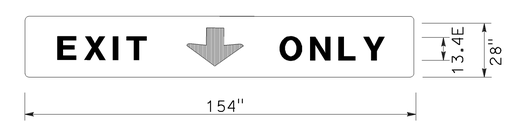
12" Radius, 2" Border, White on Green
[Imperial Hwy] 16" U.C., 12" L.C.;
Route Shield Size 36" X 36";
Standard Vertical Down Arrow 32" X 22";
Rectangle Yellow with Black Standard Vertical Down Arrow 28" X 154"

SIGN (G)
FNBT "B" LINE STA 626+00



VERTICAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	R
32	16	6.5	3	22	1



SIGN DETAILS

NO SCALE

SD-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:24

NOTE:

1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	260	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

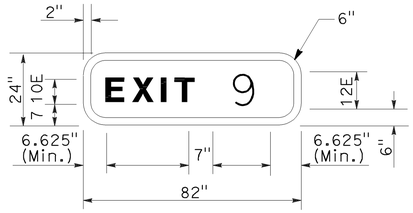
1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp.3/31/10
CIVIL
STATE OF CALIFORNIA

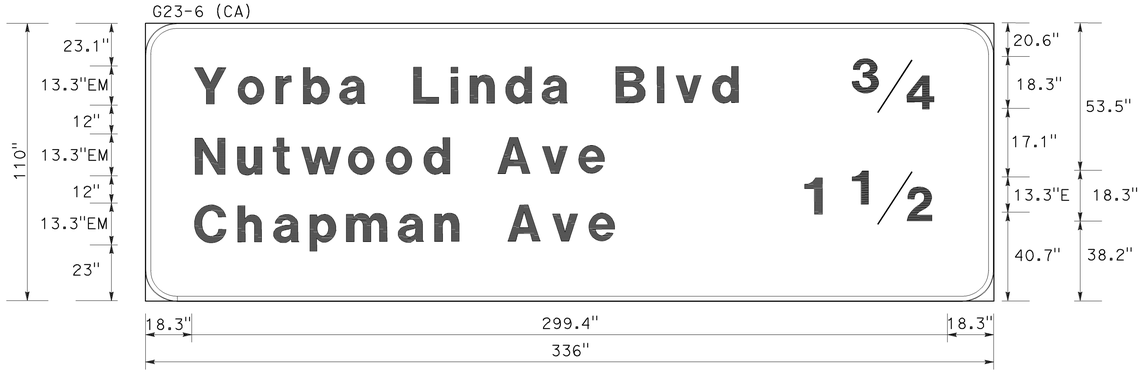
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



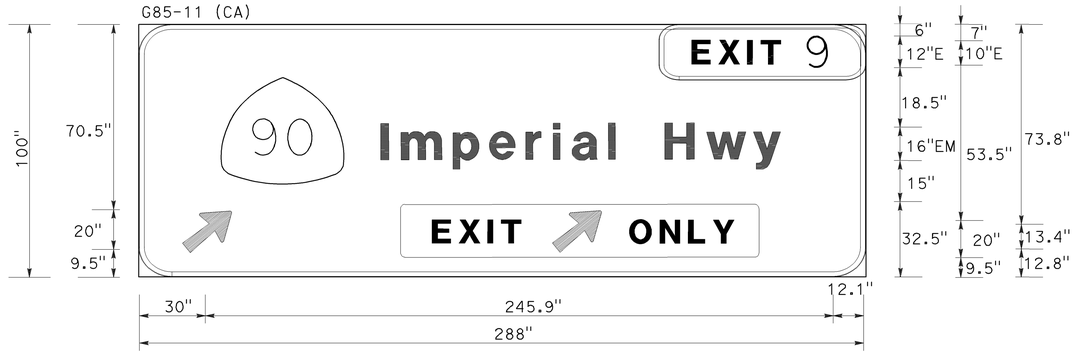
G23-6 (CA)



12" Radius, 2" Border, White on Green;
[Yorba Linda Blvd 3/4] 13.3" U.C., 10" L.C.;
[Nutwood Ave] 13.3" U.C., 10" L.C.;
[1 1/2] 16"
[Chapman Ave] 13.3" U.C., 10" L.C.

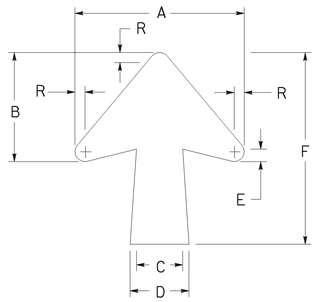
SIGN (I)
FSBT "B" LINE STA 626+40

G85-11 (CA)



12" Radius, 2" Border, White on Green;
[Imperial Hwy] 16" U.C., 12" L.C.;
Route Shield Size 36" X 36";
Standard Arrow Custom 22 1/4 " X 25" 45°;
Standard Arrow Custom 22 1/4 " X 25" 45°;
Rectangle Yellow

SIGN (K)
FNBT "B" LINE STA 638+94.57



DIAGONAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	F	R
22-1/4	17	5-3/8	6-3/16	1-3/4	25	1

SIGN DETAILS

NO SCALE

SD-7

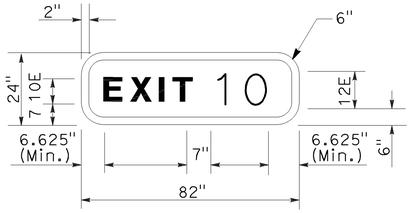
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY
DATE REVISED

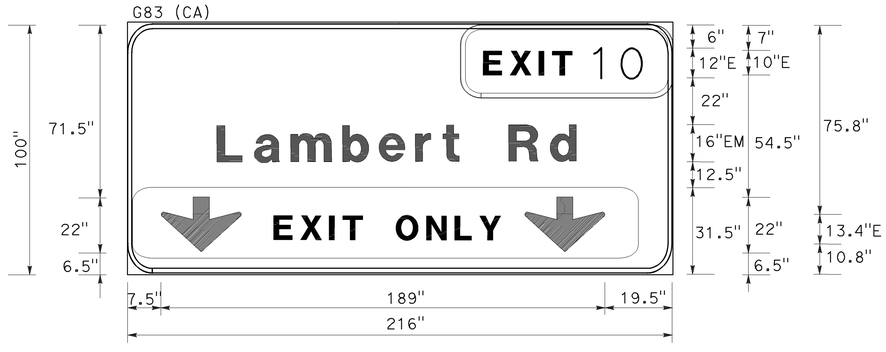
LAST REVISION DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:24
00-00-00

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032ob007.dgn
CU 12220
EA 0F0321

NOTE:

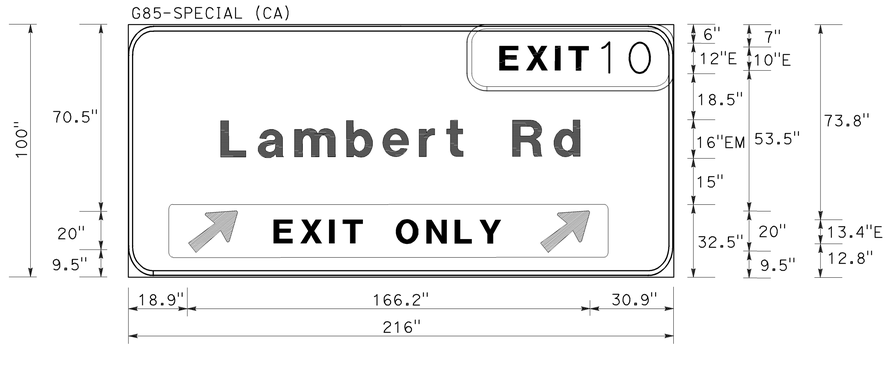
1. USE TYPE IV (HIGH INTENSITY) RETROREFLECTIVE SHEETING FOR BACKGROUND, BORDERS AND LEGENDS FOR ALL SIGNS.





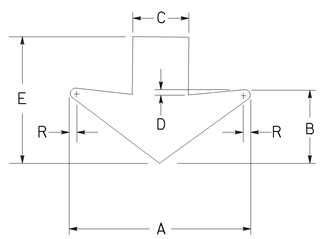
12" Radius, 2" Border, White on Green
[Lambert Rd] 16" U.C., 12" L.C.;
Rectangle Yellow with Black Standard Vertical Down Arrow 24" X 16 1/2 "

SIGN (M)
FNBT "B" LINE STA 678+02.18



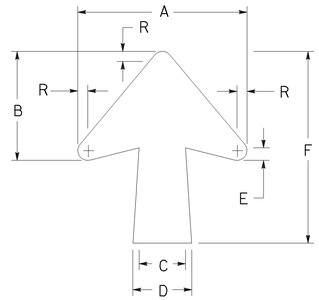
12" Radius, 2" Border, White on Green;
[Lambert Rd] 16" U.C., 12" L.C.;
Standard Arrow Custom 22 1/4 " X 25" 45°;
Standard Arrow Custom 22 1/4 " X 25" 45°;
Rectangle Yellow

SIGN (O)
FNBT "B" LINE STA 697+99.18



VERTICAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	R
32	16	6.5	3	22	1



DIAGONAL ARROW DETAIL
DIMENSION (INCHES)

A	B	C	D	E	F	R
22-1/4	17	5-3/8	6-3/16	1-3/4	25	1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	261	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

SIGN DETAILS

NO SCALE

SD-8

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:24

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032ob008.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	262	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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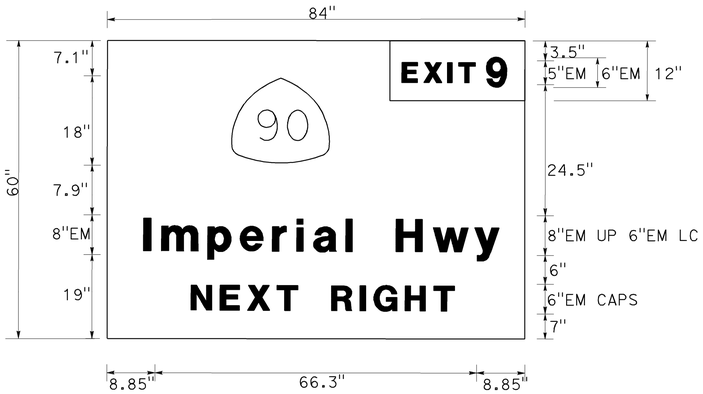
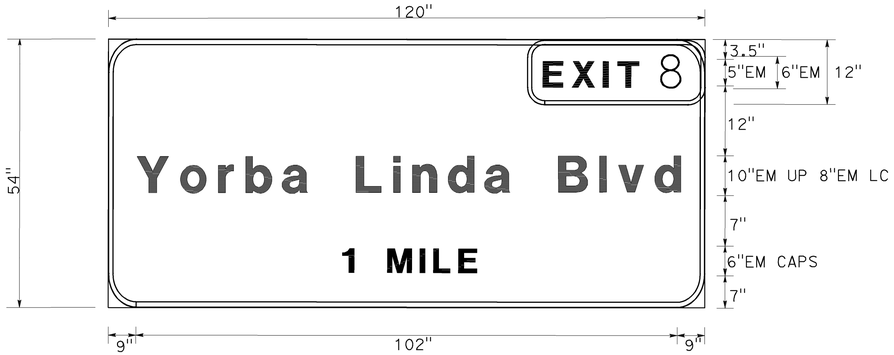
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

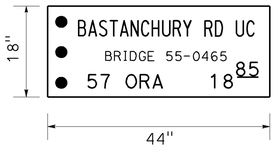
OCTA
550 S. MAIN STREET
ORANGE, CA 92863



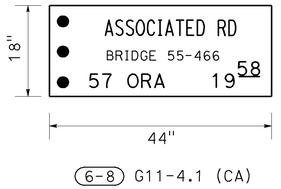
(3-3) G86-13 (CA)



(6-1) G83-5 (CA)

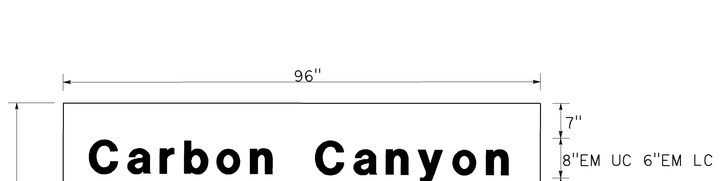


(3-9) G11-4.1 (CA)
(3-11) G11-4.1 (CA)



(6-8) G11-4.1 (CA)

(5-2) G11-4.1 (CA)
(5-13) G11-4.1 (CA)



(7-5) G86-11 (CA)

(5-10) G86-1 (CA)

(7-7) G11-4.1 (CA)

SIGN DETAILS

NO SCALE **SD-9**

CALCULATED-DESIGNED BY
JENNY SHIAO

CHECKED BY
HON YOW

CONSULTANT FUNCTIONAL SUPERVISOR
THOMAS IONTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:24

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0f032ob009.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	263	856

REGISTERED CIVIL ENGINEER — DATE 06-15-09

1-25-10
PLANS APPROVAL DATE

HON WAI YOW No. C 43276 Exp. 3/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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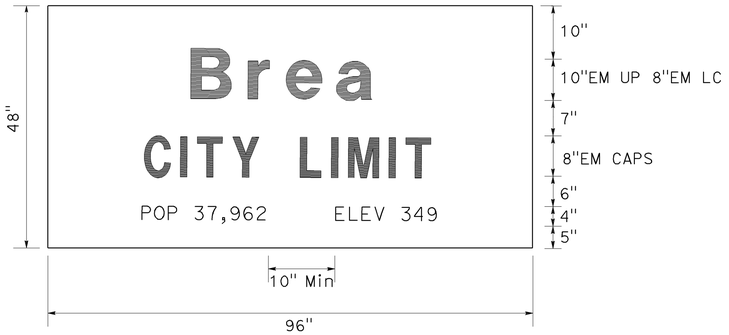
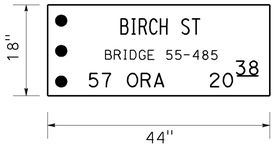
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

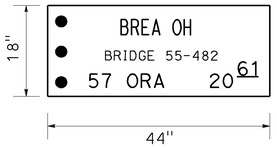
OCTA
550 S. MAIN STREET
ORANGE, CA 92863



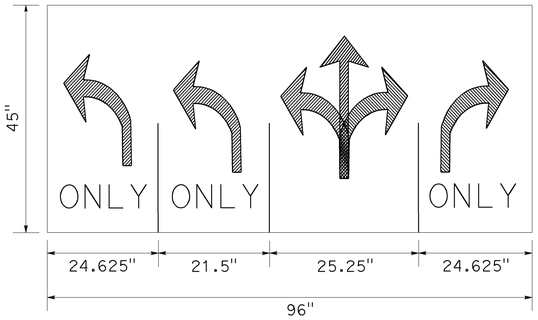
(7-8) G9-5 (CA)



(10-6) G11-4.1 (CA)

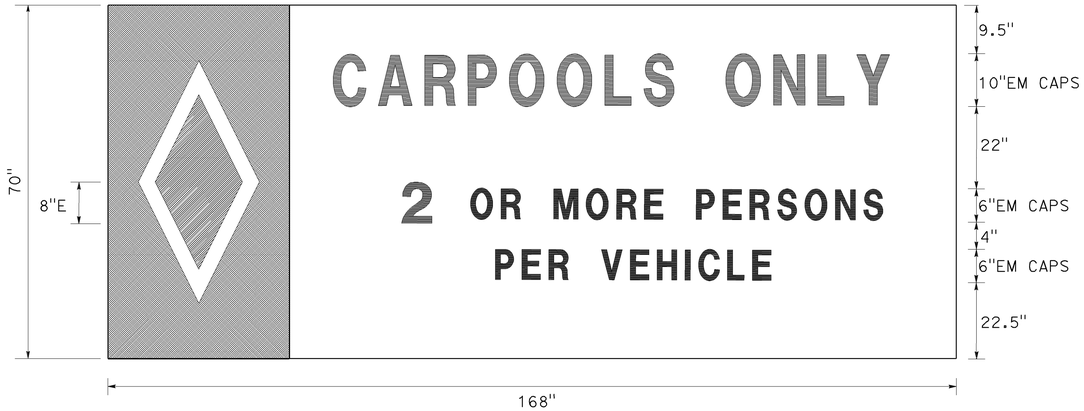


(11-4) G11-4.1 (CA)



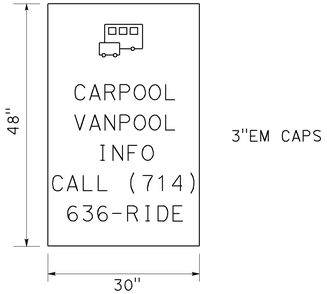
(7-25) R61-25 Mod, (7-27) R61-25 Mod

R87-1 (CA) Mod

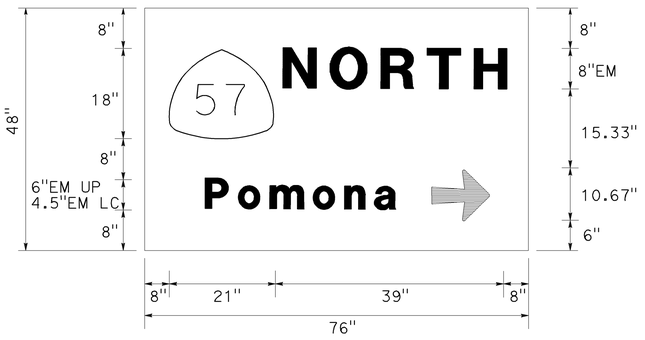


9" Radius, 1" Border;
Black Border, Legend & Diamond Background;
White Diamond & Background

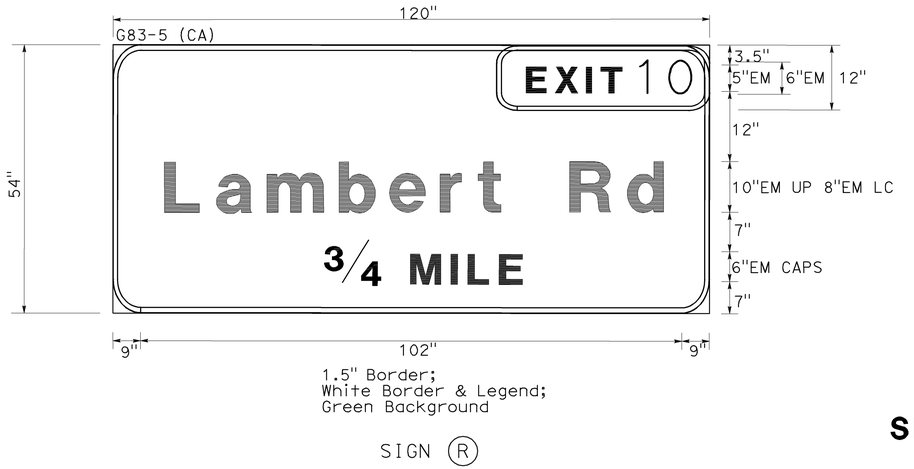
SIGN (Q)
FNBT "B" LINE STA 607+00



(7-30) SG19 (CA) Mod



(7-35) G78 (CA) Mod



1.5" Border;
White Border & Legend;
Green Background

SIGN (R)
FNBT "B" LINE STA 654+20

SIGN DETAILS

NO SCALE **SD-10**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:25

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0f032ob010.dgn

CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	264	856

REGISTERED CIVIL ENGINEER — DATE: 06-15-09

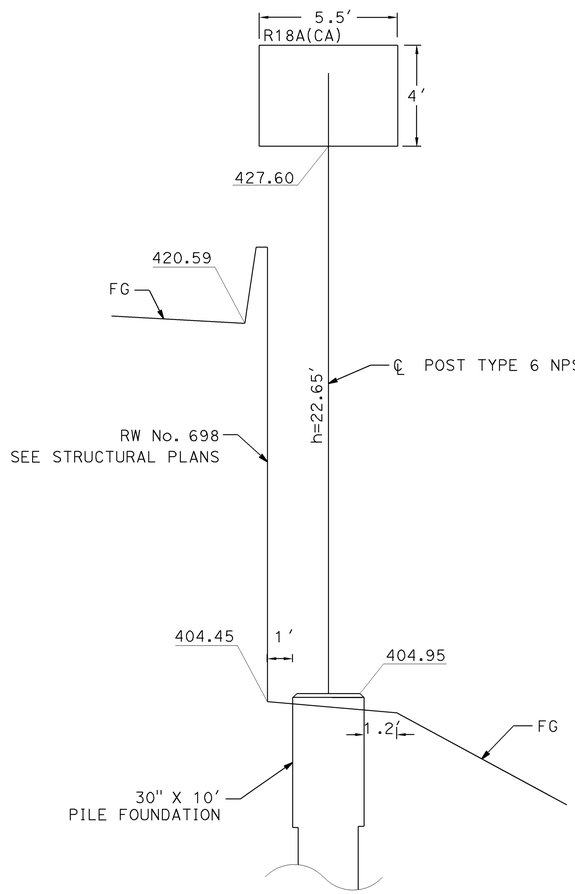
HON WAI YOW No. C 43276 Exp.3/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

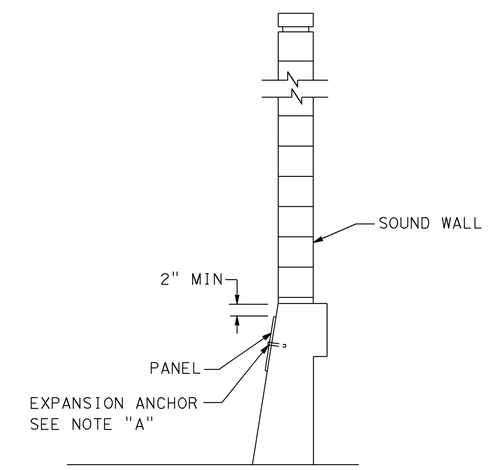
ACT CONSULTING ENGINEERS, INC.
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



SIGN (S)
FNBT "B" LINE STA 696+00

1. INSTALL SIGN STRUCTURE (LIGHTWEIGHT)
2. INSTALL TYPE A LAMINATED PANEL

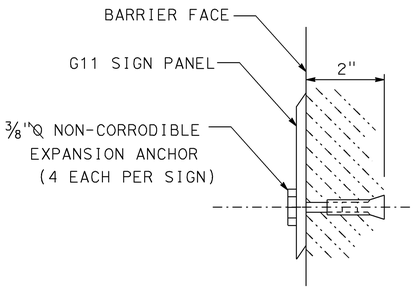


RAIL MOUNTED SIGN (FLUSH SIGN)

SIGN (3-9), (3-11), (5-2), (5-13), (6-8), (10-6), (11-4)

NOTE "A":

2 ¼"X1"EXPANSION ANCHORAGE DEVICES, ONE AT EACH END. HOLE DEPTH AND DIAMETER TO BE DETERMINED BY MANUFACTURER'S SPECIFICATIONS.



EXPANSION ANCHOR DETAIL

SIGN DETAILS

NO SCALE **SD-11**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY
CHECKED BY: HON YOW
REVISED BY | DATE REVISED
JENNY SHIAO

LAST REVISION | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:25 | 00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	265	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

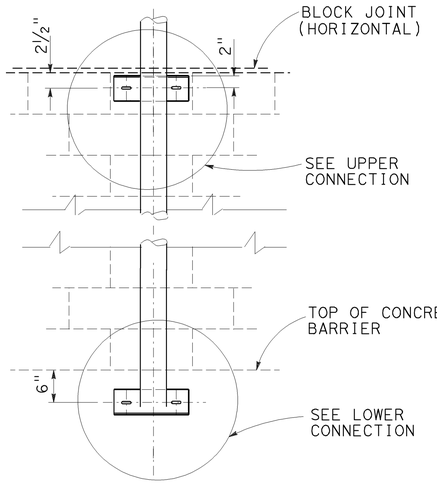
1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HON WAI YOW — No. C 43276 — Exp. 3/31/10 — CIVIL — STATE OF CALIFORNIA

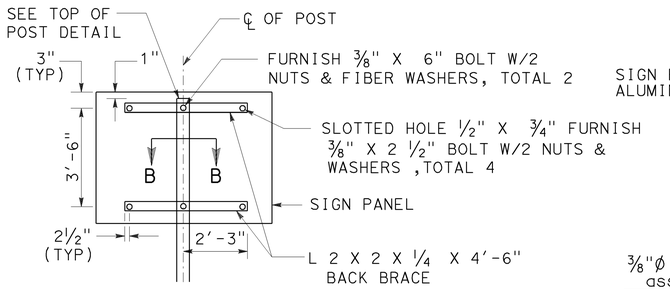
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

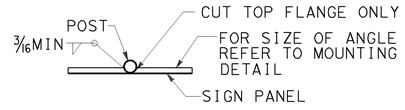


PART SIDE ELEVATION

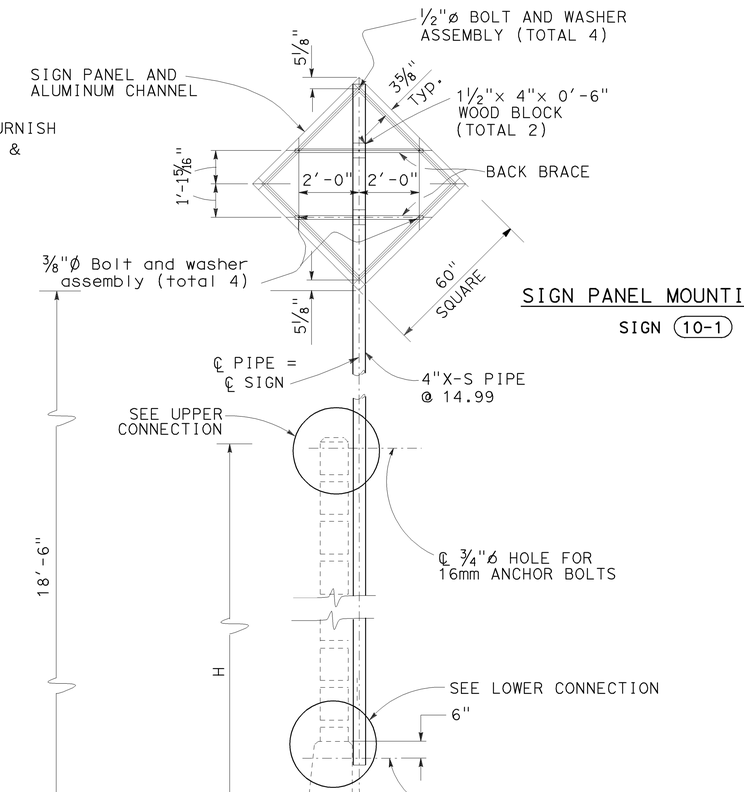


SIGN PANEL MOUNTING DETAIL

SIGNS (4-3), (5-7), (9-1)



SECTION B-B



SIGN PANEL MOUNTING DETAIL

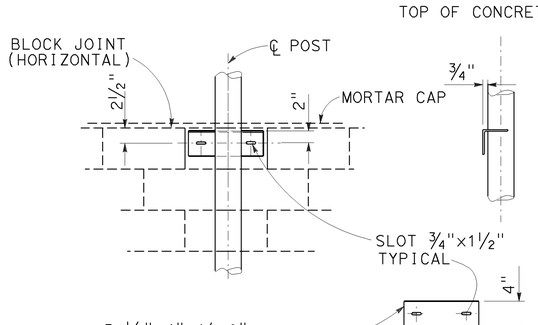
SIGN (10-1)

SIGN No.	H
4-3	14.3′
5-7	14.3′
9-1	14.5′
10-1	17′

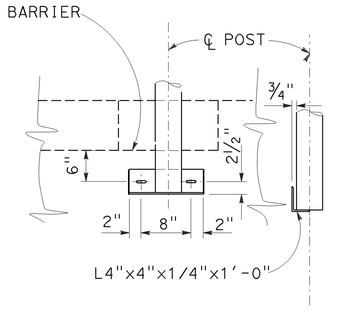
ELEVATION

WALL MOUNTED SIGN

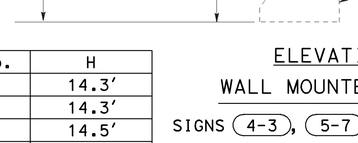
SIGNS (4-3), (5-7), (9-1), (10-1)



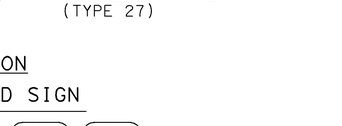
UPPER CONNECTION



LOWER CONNECTION

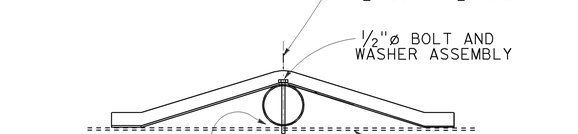


RESIN CAPSULE TYPE BOLT ANCHORAGE



TOP OF POST DETAIL

PLAN



ELEVATION

BACK BRACE DETAILS

STANDARD PLAN No.

DETAIL No.

NOTE:

THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTE:

RESIN CAPSULE ANCHORAGE IS SUBJECT TO APPROVAL OF ENGINEER. INSTALLATION PROCEDURES SHALL COMPLY WITH MANUFACTURER'S INSTRUCTIONS.

NOTES (THIS SHEET):

1. FOR DETAILS NOT SHOWN SEE STANDARD PLANS.
2. DAMAGED SOUNDWALL BLOCKS SHALL BE REPLACED IN KIND.
3. ---------- INDICATES EXISTING STRUCTURE.
4. ALL STEEL SHALL BE GALVANIZED AFTER FABRICATION.

SIGN DETAILS

NO SCALE

SD-12

CALCULATED-DESIGNED BY JENNY SHIAO
CHECKED BY HON YOW
CONSULTANT FUNCTIONAL SUPERVISOR THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:25

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032ob012.dgn
CU 12220
EA 0F0321

ROADSIDE SIGNS

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE Horiz in	PANEL SIZE Vert in	POST LENGTH Lt LF	POST LENGTH Rt LF	POST SIZE 4 in X 4 in EA	POST SIZE 4 in X 6 in EA	POST SIZE 6 in X 6 in EA	POST SIZE 6 in X 8 in EA	ROADSIDE SIGN ONE POST EA	ROADSIDE SIGN TWO POST EA	ROADSIDE SIGN RELOCATE EA	ROADSIDE SIGN REMOVE EA	REMOVE ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD) EA	REMOVE ROADSIDE SIGN (METAL POST) EA	INSTALL ROAD-SIDE SIGN (LAM-INATED WOOD BOX POST) EA	METAL (RAIL MOUNTED SIGN) LB	METAL (WALL MOUNTED SIGN) LB	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD) EA	INSTALL ROADSIDE SIGN PANEL ON EXISTING POST EA	REMARKS
S-1	1-1	SG19 (CA)	72	42	16.5	15.9		X				1										
	1-2	W13-2 (40)	36	48																1		
S-2	2-1	SG19 (CA)	EXIST											1								
	2-2	R2-1 (65)	48	60	17				X		1											
	2-3	G66-21 (CA)	EXIST											1								
		G66-21A (CA) Mod NEXT EXIT	EXIST																			
	2-4	G66-21(CA)	24	24	15.4			X			1											
		G66-21A (CA) Mod NEXT EXIT	24	16																		
	2-5	S32 (CA)	EXIST											1								SAVE AND REUSE SIGN PANEL FOR SIGN 2-6
		S32-1 (CA)	EXIST																			
	2-6	S32 (CA)	EXIST		11.9				X		1											REUSE SIGN PANEL FROM SIGN 2-5
		S32-1 (CA)	EXIST																			
	2-7	G86-9	EXIST													1						
	2-8	S32-1 (CA)	EXIST		15.9				X		1											REUSE SIGN PANEL FROM SIGN 3-6
		S32 (CA)	EXIST																			
	2-9	W12-2 (15'-4")	48	48	17.6	17.5		X				1										
		W34A (CA) (1/2 MILE)	48	36																		
S-3	3-1	G-SPECIAL	EXIST											1								
	3-2	G86-13 (CA)	EXIST											1								
	3-3	G86-13 (CA)	84	60	17.7	19.1			X			1										
	3-4	G85-7 (CA)	EXIST												1							
	3-5	W12-2 (CA) (15'-4")	EXIST											1								
		W34A (CA) (1/2 MILE)	EXIST																			
	3-6	S32 (CA)	EXIST											1								SAVE AND REUSE SIGN PANEL FOR SIGN 2-8
		S32-1 (CA)	EXIST																			
	3-7	R6-1(CA) (55)	EXIST											1								
	3-8	G11-4.1 (CA)	EXIST											1								
	3-9	G11-4.1 (CA)	44	18														52				
	3-10	G11-4.1 (CA)	EXIST											1								
	3-11	G11-4.1 (CA)	44	18														52				
	3-12	R6-3 (CA)	48	60	10.8			X			1											
	3-13	SR50-2 (CA)	30	66																	1	
	3-14	R86-2 (CA)	30	60																1		
	3-15	R28 (CA) (Rt)	EXIST										1									
S-4	4-1	G-SPECIAL	EXIST											1								
	4-2	R-SPECIAL	EXIST		21.6	21.4						1					1					REUSE SIGN PANEL FROM SIGN 5-3
	4-3	R6-4 (CA)	48	60															198			
	4-4	R6 (CA) (65)	EXIST											1								
	4-5	R6-4 (CA)	EXIST											1								
	4-6	R93-2 (CA)	30	72																	1	
	4-7	R86-2	30	60																	1	
SHEET TOTAL											5	4	1	13	1	1	1	104	198	2	3	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	266	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
2. POST LENGTHS GIVEN ARE APPROXIMATE. EXACT LENGTH TO BE DETERMINED BY THE ENGINEER.

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:25

SIGN QUANTITIES

SQ-1

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032oc001.dgn
CU 12220
EA 0F0321

ROADSIDE SIGNS

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE Horiz in	PANEL SIZE Vert in	POST LENGTH Lt LF	POST LENGTH Rt LF	POST SIZE 4 in X 4 in EA	POST SIZE 4 in X 6 in EA	POST SIZE 6 in X 6 in EA	POST SIZE 6 in X 8 in EA	ROADSIDE SIGN ONE POST EA	ROADSIDE SIGN TWO POST EA	ROADSIDE SIGN RELOCATE EA	ROADSIDE SIGN REMOVE EA	REMOVE ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD) EA	REMOVE ROADSIDE SIGN (METAL POST) EA	INSTALL ROAD-SIDE SIGN (LAM-INATED WOOD BOX POST) EA	METAL (RAIL MOUNTED SIGN) LB	METAL (WALL MOUNTED SIGN) LB	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD) EA	INSTALL ROADSIDE SIGN PANEL ON EXISTING POST EA	REMARKS
S-5	5-1	G11-4.1 (CA)	EXIST											1								
	5-2	G11-4.1 (CA)	44	X 18														52				
	5-3	R-SPECIAL	EXIST											1								SAVE AND REUSE SIGN PANEL FOR SIGN 4-2
	5-4	G86-1 (CA)	EXIST											1								
	5-5	G66-56 (CA)	24	X 24	9		X				1											
	5-6	G86-1 (CA)	EXIST											1								
	5-7	R18A (CA) (Rt)	66	X 48															219			
	5-8	W4-7	60	X 60	17.5	18.2			X			1										
	5-9	G86-13 (CA)	EXIST											1								
	5-10	G86-1 (CA)	72	X 36	9.5	9.4		X				1										
	5-11	G86-8 (CA)	EXIST													1						
	5-12	G11-4.1 (CA)	EXIST											1								
	5-13	G11-4.1 (CA)	44	X 18														52				
S-6	6-1	G83-5 (CA)	120	X 54	19.7	21.4						1					1					
	6-2	W13-2 (40)	EXIST												1							
	6-3	W13-2 (40)	36	X 48																1		
	6-4	G84-2 (CA)	EXIST											1								
	6-5	G84-2 (CA) (9)	54	X 48	16.7				X		1											
	6-6	R6-3 (CA) (55)	48	X 60	19.7	20.3		X				1										
	6-7	R2-1 (CA) (65)	48	X 60	19.7	19.9		X				1										
	6-8	G11-4.1 (CA)	44	X 18														52				
	6-9	W13-2 (40)	EXIST											1								
	6-10	W3-3	48	X 48	19				X		1											
S-7	7-1	G95B (CA)	108	X 72	18.6	19				X		1										
	7-2	G9-5 (CA)	EXIST											1								
	7-3	W4-1 (CA)	EXIST											1								
	7-4	W4-3 (CA)	48	X 48	18.3				X		1											
	7-5	G86-11 (CA)	96	X 48	14.2	12.9		X				1										
	7-6	G11-4.1 (CA)	EXIST											1								
	7-7	G11-4.1 (CA)	44	X 18	6.4			X			1											
	7-8	G9-5 (CA)	60	X 42	11.9	9.6		X				1										Brea
	7-9	R5-10a	EXIST											1								
	7-10	R5-10a	30	X 36	13.7			X			1											
	7-11	G92 (CA)	EXIST											1								
		G28-2 (CA) (57)	EXIST																			
		M3-1	EXIST																			
		M6-2	EXIST																			
	7-12	G92 (CA)	48	X 30																1		
		G28-2 (CA) (57)	24	X 25																		
		M3-1	21	X 9																		
		M6-2	21	X 15																		
SHEET TOTAL											6	8		13	1	1	1	156	219	2		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	267	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

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2. POST LENGTHS GIVEN ARE APPROXIMATE. EXACT LENGTH TO BE DETERMINED BY THE ENGINEER.

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: JENNY SHIAO
CHECKED BY: HON YOW
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SIGN QUANTITIES
SQ-2

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:25

ROADSIDE SIGNS

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE Horiz in	PANEL SIZE Vert in	POST LENGTH Lt LF	POST LENGTH Rt LF	POST SIZE 4 in X 4 in EA	POST SIZE 4 in X 6 in EA	POST SIZE 6 in X 6 in EA	POST SIZE 6 in X 8 in EA	ROADSIDE SIGN ONE POST EA	ROADSIDE SIGN TWO POST EA	ROADSIDE SIGN RELOCATE EA	ROADSIDE SIGN REMOVE EA	REMOVE ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD) EA	REMOVE ROADSIDE SIGN (METAL POST) EA	INSTALL ROAD-SIDE SIGN (LAM-INATED WOOD BOX POST) EA	METAL (RAIL MOUNTED SIGN) LB	METAL (WALL MOUNTED SIGN) LB	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD) EA	INSTALL ROADSIDE SIGN PANEL ON EXISTING POST EA	REMARKS
S-7	7-13	S32 (CA)	EXIST											1								SAVE AND REUSE SIGN PANEL FOR SIGN 7-14
		S32-1 (CA)	EXIST																			
	7-14	S32 (CA)	EXIST		17.4				X		1											REUSE SIGN PANEL FROM SIGN 7-13
		S32-1 (CA)	EXIST																			
	7-15	SG19 (CA)	EXIST											1								
	7-16	SG19 (CA)	48	X 30	16.3			X			1											
	7-17	G66-21 (CA)	EXIST											1								
		G33-1 (CA)	EXIST																			
	7-18	G66-21 (CA)	24	X 24	13.4		X				1											
		G33-1 (CA)	24	X 6																		
	7-19	R61-25 Mod	EXIST											1								
	7-20	R61-25 Mod	EXIST											1								
	7-21	R3-7 (Rt)	30	X 30																1		
		G92 (CA)	48	X 30																		
		G28-2 (CA) (57)	24	X 25																		
		M3-1	21	X 9																		
		M6-2	21	X 15																		
	7-22	W3-3	48	X 48																	1	
	7-23	G92 (CA)	48	X 30																	1	
		G28-2 (CA) (57)	24	X 25																		
		M3-1	21	X 9																		
		M6-2	21	X 15																		
	7-24	W3-3	48	X 48																	1	
	7-25	R61-25 Mod	96	X 45	16.16	16.99			X			1										
	7-26	G8-1 (CA)	EXIST											1								
	7-27	R61-25 Mod	96	X 45	20.47	18.18			X			1										
	7-28	R86-2 (CA)	30	X 60																	1	
	7-29	R91-1 (CA)	30	X 54	18.1			X			1											
	7-30	SG19 (CA) Mod	30	X 48	15			X			1											
	7-31	R91-1 (CA)	EXIST											1								
	7-32	R5-10a	EXIST											1								
	7-33	R5-10a	30	X 36	14.1			X			1											
	7-34	R91-1 (CA)	30	X 54																	1	
	7-35	G78 (CA) Mod	76	X 48																	1	
	7-36	R3-7	EXIST												1							
		G92 (CA)	EXIST																			
		G28-2 (CA) (57)	EXIST																			
		M3-1	EXIST																			
		M6-2	EXIST																			
SUBTOTAL											6	2		8	1					1	6	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	268	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
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5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

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2. POST LENGTHS GIVEN ARE APPROXIMATE. EXACT LENGTH TO BE DETERMINED BY THE ENGINEER.

SIGN QUANTITIES

SQ-3

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:25

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0f032oc003.dgn
CU 12220
EA 0F0321

ROADSIDE SIGNS

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE Horiz in	PANEL SIZE Vert in	POST LENGTH Lt LF	POST LENGTH Rt LF	POST SIZE 4 in X 4 in EA	POST SIZE 4 in X 6 in EA	POST SIZE 6 in X 6 in EA	POST SIZE 6 in X 8 in EA	ROADSIDE SIGN ONE POST EA	ROADSIDE SIGN TWO POST EA	ROADSIDE SIGN RELOCATE EA	ROADSIDE SIGN REMOVE EA	REMOVE ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD) EA	REMOVE ROADSIDE SIGN (METAL POST) EA	INSTALL ROADSIDE SIGN (LAMINATED WOOD BOX POST) EA	METAL (RAIL MOUNTED SIGN) LB	METAL (WALL MOUNTED SIGN) LB	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD) EA	INSTALL ROADSIDE SIGN PANEL ON EXISTING POST EA	REMARKS
S-7	7-37	G92 (CA)	48	30																	1	
		G28-2 (CA) (57)	24	25																		
		M3-1	21	9																		
		M6-2	21	15																		
	7-38	R91-1 (CA) Mod	EXIST											1								
	7-39	R1-5a	18	24	12		X				1											
S-8	8-1	W4-1	EXIST											1								
	8-2	W4-1	48	48	13.9		X				1											
	8-3	R-SPECIAL	EXIST		14.2	13.7			X			1										REUSE SIGN PANEL FROM SIGN 10-3
	8-4	M3-1	24	12																1		
		G28-2 (CA) (57)	24	25																		
	8-5	R88 (CA)	EXIST											1								
	8-6	S32 (CA)	EXIST											1								SAVE AND REUSE SIGN PANEL FOR SIGN 8-10
		S32-1 (CA)	EXIST																			
	8-7	R91-1 (CA)	EXIST											1								
	8-8	R88 (CA)	30	30	11.2		X				1											
	8-9	R91-1 (CA)	36	54	19				X		1											
	8-10	S32 (CA)	EXIST		11.5			X			1											REUSE SIGN PANEL FROM SIGN 8-6
		S32-1 (CA)	EXIST																			
	8-11	S32B	EXIST											1								
	8-12	S32-1 (CA)	EXIST		12.8			X			1											REUSE SIGN PANEL FROM SIGN 11-1
		S32A (CA)	EXIST																			
S-9	9-1	R2-1 (65)	48	60															197			
S-10	10-1	W4-7	60	60															230			
	10-2	G86-11 (CA)	EXIST											1								
	10-3	R-SPECIAL	EXIST											1								SAVE AND REUSE SIGN PANEL FOR SIGN 8-3
	10-4	G95B (CA)	EXIST											1								
	10-5	G11-4.1 (CA)	EXIST											1								
	10-6	G11-4.1 (CA)	44	18														52				
S-11	11-1	S32 (CA)	EXIST											1								SAVE AND REUSE SIGN PANEL FOR SIGN 8-12
		S32-1 (CA)	EXIST																			
	11-2	G86-13 (CA)	EXIST											1								
	11-3	G11-4.1 (CA)	EXIST											1								
	11-4	G11-4.1 (CA)	44	x 18														52				
	11-5	G86-8 (CA)	EXIST													1						
	11-6	W13-2(50)	EXIST												1							
	11-7	W13-2(50)	36	48																1		
SUBTOTAL											6	1		13	1	1		104	427	2	1	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	269	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp.3/31/10
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.

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
2. POST LENGTHS GIVEN ARE APPROXIMATE. EXACT LENGTH TO BE DETERMINED BY THE ENGINEER.

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SIGN QUANTITIES

SQ-4

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:25

ROADSIDE SIGNS

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE Horiz in	PANEL SIZE Vert in	POST LENGTH L† LF	POST LENGTH R† LF	POST SIZE 4 in X 4 in EA	POST SIZE 4 in X 6 in EA	POST SIZE 6 in X 6 in EA	POST SIZE 6 in X 8 in EA	ROADSIDE SIGN ONE POST EA	ROADSIDE SIGN TWO POST EA	ROADSIDE SIGN RELOCATE EA	ROADSIDE SIGN REMOVE EA	REMOVE ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD) EA	REMOVE ROADSIDE SIGN (METAL POST) EA	INSTALL ROADSIDE SIGN (LAMINATED WOOD BOX POST) EA	METAL (RAIL MOUNTED SIGN) LB	METAL (WALL MOUNTED SIGN) LB	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD) EA	INSTALL ROADSIDE SIGN PANEL ON EXISTING POST EA	REMARKS
S-12	12-1	G84-2 (CA) (10)	EXIST											1								
	12-2	G84-2 (CA) (10)	54	48	16.2				X		1											
	12-3	G85-7 (CA)	EXIST												1							
	12-4	R5-1	36	36																	1	
		R5-1a	36	24																		
	12-5	SG25 (CA)	30	36																	1	
	12-6	W34C (CA) (14' 9")	EXIST											1								
	12-7	W34C (CA) (14' 9")	36	54	15.9			X			1											
	12-8	W3-3	EXIST											1								
	12-9	W3-3	48	48	17.6				X		1											
	12-10	W3-3	EXIST											1								
	12-11	W3-3	48	48	18.3				X		1											
	12-12	R61-13 (CA)	EXIST											1								
	12-13	R61-13 (CA)	48	30	15.4			X			1											
	12-14	R61-13 (CA)	48	30																	1	
	12-15	R5-1	36	36																	1	
		R5-1a	36	24																		
	12-16	R61-13 (CA)	EXIST											1								
	12-17	R61-13 (CA)	48	30	13.9			X			1											
	12-18	R61-13 (CA)	48	30																	1	
	12-19	R1-5a	18	X 24	13.2		X				1											
SUBTOTAL											7			6	1						5	
TOTAL FROM SHEET SQ-1											5	4	1	13	1	1	1	104	198	2	3	
TOTAL FROM SHEET SQ-2											6	8		13	1	1	1	156	219	2		
TOTAL FROM SHEET SQ-3											6	2		8	1					1	6	
TOTAL FROM SHEET SQ-4											6	1		13	1	1		104	427	2	1	
GRAND TOTAL											30	15	1	53	5	3	2	364	844	7	15	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	270	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

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REVISED BY
DATE REVISED
JENNY SHIAO
HON YOW
CALCULATED-DESIGNED BY
CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SIGN QUANTITIES
SQ-5

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:25

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

OVERHEAD SIGNS

SHEET No.	LOCATION	SIGN No.	FURNISH SIGN STRUCTURE (TRUSS)	INSTALL SIGN STRUCTURE (TRUSS)	FURNISH SIGN STRUCTURE (LIGHTWEIGHT)	INSTALL SIGN STRUCTURE (LIGHTWEIGHT)	30" CIDH CONCRETE PILE (SIGN FOUNDATION)	60" CIDH CONCRETE PILE (SIGN FOUNDATION)	REMOVE SIGN STRUCTURE	INSTALL SIGN PANEL ON EXISTING FRAME	REMOVE OVERHEAD SIGN PANEL (N)	REMOVE BRIDGE MOUNTED SIGN PANEL (N)	POST TYPE (STD PLAN)	REMARKS
			LB	LB	LB	LB	LF	LF	EA	SQFT	EA	EA		
S-1	FSBT "B" 587+20	A							1					
S-1	FSBT "B" 587+25	B	23,025	23,025				23					VII	
S-3	FSBT "B" 600+70	C							1					
S-3	FSBT "B" 600+75	D	14,720	14,720				22					VI	
S-3	FNBT "B" 603+15	E							1					
S-3	FNBT "B" 603+20	F	18,300	18,300				23					VII	
S-3	FNBT "B" 607+00	Q								81.7	1			
S-5	FNBT "B" 626+00	G	16,380	16,380									VII	SEE STRUCTURE PLANS FOR FOUNDATION (RW No. 622)
S-5	FSBT "B" 626+35	H							1					
S-5	FSBT "B" 626+40	I	18,185	18,185				23					VII	
S-5	FNBT "B" 628+00	J							1					
S-6	FNBT "B" 638+94.57	K	20,045	20,045									VII	SEE STRUCTURE PLANS FOR FOUNDATION (RW No. 630)
S-6	FNBT "B" 641+85	L							1					
S-7	FNBT "B" 654+20	R								38.3		1		
S-9	FNBT "B" 678+02.18	M	20,095	20,095									VII	SEE STRUCTURE PLANS FOR FOUNDATION (RW No. 670)
S-10	FNBT "B" 683+85	N							1					
S-11	FNBT "B" 697+99.18	O	20,045	20,045									VII	SEE STRUCTURE PLANS FOR FOUNDATION (RW No. 698)
S-11	FNBT "B" 696+00	S	20,045	20,045	489	489	10						6 NPS	SEE SD-11 FOR DETAILS
S-12	FNBT "B" 699+10	P							1					
TOTAL			150,795	150,795	489	489	10	91	8	120	1	1		

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SIGN No.	SIGN CODE	SIGN PANEL DIMENSION (L X H)	SINGLE FACED	SIGN FACING MATERIAL				OVERHEAD	ROADSIDE				*DESCRIPTION* (REMARKS)
				BACKGROUND		LEGEND		FURNISH LAMINATED PANEL SIGN	FURNISH SINGLE SHEET ALUMINUM SIGN				
									0.063"		0.080"		
				SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	1" TYPE A	UNFRAMED	FRAMED	UNFRAMED	FRAMED	
								SQFT	SQFT	SQFT	SQFT	SQFT	
1-1	SG19 (CA)	72 X 42	X	BLUE	II	WHITE	II			21			
1-2	W13-2 (40)	36 X 48	X	YELLOW	IX	BLACK	NON		12				
2-2	R2-1 (65)	48 X 60	X	WHITE	III	BLACK	NON		20				
2-4	G66-21 (CA)	24 X 24	X	BLUE	III	WHITE	III		4				
	G66-21A (CA) (NEXT EXIT)	24 X 16	X	BLUE	III	WHITE	III		2.7				
2-9	W12-2 (15'-4")	48 X 48	X	YELLOW	III	BLACK	NON		16				
	W34A (CA) (1/2 MILE)	48 X 36	X	YELLOW	III	BLACK	NON		12				
3-3	G86-13 (CA)	84 X 60	X	GREEN	III	WHITE	IV					35	
3-9	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5				
3-11	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5				
3-12	R6-4 (CA)	48 X 60	X	WHITE	III	BLACK	NON				20		
3-13	SR50-2 (CA)	30 X 66	X	WHITE	III	BLACK	NON		13.8				◇
SHEET TOTAL									91.5	21	20	35	

ABBREVIATIONS:
NON NON-REFLECTIVE

LEGEND:
◇ WHITE DIAMOND SYMBOL ON BLACK BACKGROUND

SIGN QUANTITIES

SQ-6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	271	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp.3/31/10
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STATE OF CALIFORNIA

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:25

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SIGN No.	SIGN CODE	SIGN PANEL DIMENSION (L X H)	SINGLE FACED	SIGN FACING MATERIAL				OVERHEAD	ROADSIDE				REMARKS
				BACKGROUND		LEGEND		FURNISH LAMINATED PANEL SIGN	FURNISH SINGLE SHEET ALUMINUM SIGN				
									0.063"		0.080"		
				SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	1" TYPE A	UNFRAMED	FRAMED	UNFRAMED	FRAMED	
								SQFT	SQFT	SQFT	SQFT	SQFT	
3-14	R86-2 (CA)	30 X 60	X	WHITE	III	BLACK	NON		12.5				◇
4-3	R6-3 (CA)	48 X 60	X	WHITE	III	BLACK	NON				20		
4-6	R93-2 (CA)	30 X 72	X	WHITE	III	BLACK	NON		15				◇
4-7	R86-2	30 X 60	X	WHITE	III	BLACK	NON		12.5				◇
5-2	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5				
5-5	G66-56 (CA)	24 X 24	X	BLUE	III	WHITE	III		4				
5-7	R18A (CA) (R†)	66 X 48	X	WHITE	I	BLACK	NON			22			
5-8	W4-7	60 X 60	X	YELLOW	III	BLACK	NON					25	
5-10	G86-1 (CA)	72 X 36	X	BROWN	NON	WHITE	IV			18			
5-13	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5				
6-1	G83-5 (CA)	120 X 54	X	GREEN	III	WHITE	IV			45			
6-3	W13-2 (40)	36 X 48	X	YELLOW	IX	BLACK	NON		12				
6-5	G84-2 (CA) (9)	54 X 48	X	GREEN	III	WHITE	III				18		
6-6	R6-3 (CA) (55)	48 X 60	X	WHITE	III	BLACK	NON				20		
6-7	R2-1 (CA) (65)	48 X 60	X	WHITE	III	BLACK	NON				20		
6-8	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5				
6-10	W3-3	48 X 48	X	YELLOW	IX	RED/GREEN BLACK	IX NON		16				
7-1	G95B (CA)	108 X 72	X	BLUE	III	WHITE	III					54	
7-4	W4-3 (CA)	48 X 48	X	YELLOW	IX	BLACK	NON				16		
7-5	G86-11 (CA)	96 X 48	X	BROWN	NON	WHITE	IV					32	
7-7	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5				
7-8	G9-5 (CA)	60 X 42	X	GREEN	III	WHITE	IV			17.5			
7-10	R5-10a	30 X 36	X	WHITE	IX	BLACK	NON		7.5				
7-12	G92 (CA)	48 X 30	X	GREEN	IX	WHITE	IX				10		
	G28-2 (CA) (57)	24 X 25	X	GREEN	III	WHITE	III		4.2				
	M3-1	21 X 9	X	GREEN	III	WHITE	III		1.3				
	M6-2	21 X 15	X	GREEN	III	WHITE	III		2.2				
7-16	SG19 (CA)	48 X 30	X	BLUE	II	WHITE	II				10		
7-18	G66-21 (CA)	24 X 24	X	BLUE	III	WHITE	III		4				
	G33-1 (CA)	24 X 6	X	BLUE	III	WHITE	III		1				
7-21	R3-7 (R†)	30 X 30	X	WHITE	III	BLACK	NON		6.3				
	G92 (CA)	48 X 30	X	GREEN	IX	WHITE	IX				10		
	G28-2 (CA) (57)	24 X 25	X	GREEN	III	WHITE	III		4.2				
	M3-1	21 X 9	X	GREEN	III	WHITE	III		1.3				
	M6-2	21 X 15	X	GREEN	III	WHITE	III		2.2				
7-22	W3-3	48 X 48	X	YELLOW	IX	RED/GREEN BLACK	IX NON		16				
							SUBTOTAL		144.2	102.5	124	111	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	272	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
CIVIL
STATE OF CALIFORNIA

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

ABBREVIATIONS:
NON NON-REFLECTIVE

LEGEND:
◇ WHITE DIAMOND SYMBOL ON BLACK BACKGROUND

SIGN QUANTITIES

SQ-7

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:25

ABBREVIATIONS:
NON NON-REFLECTIVE

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SIGN No.	SIGN CODE	SIGN PANEL DIMENSION (L X H)	SINGLE FACED	SIGN FACING MATERIAL				OVERHEAD	ROADSIDE				REMARKS
				BACKGROUND		LEGEND		FURNISH LAMINATED PANEL SIGN	FURNISH SINGLE SHEET ALUMINUM SIGN				
									0.063"		0.080"		
				SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	1" TYPE A	UNFRAMED	FRAMED	UNFRAMED	FRAMED	
								SQFT	SQFT	SQFT	SQFT	SQFT	
7-23	G92 (CA)	48 X 30	X	GREEN	IX	WHITE	IX				10		
	G28-2 (CA) (57)	24 X 25	X	GREEN	III	WHITE	III		4.2				
	M3-1	21 X 9	X	GREEN	III	WHITE	III		1.3				
	M6-2	21 X 15	X	GREEN	III	WHITE	III		2.2				
7-24	W3-3	48 X 48	X	YELLOW	IX	RED/GREEN BLACK	IX NON		16				
7-25	R61-25 MOD	96 X 45	X	WHITE	III	BLACK	NON					30	
7-27	R61-25 MOD	96 X 45	X	WHITE	III	BLACK	NON					30	
7-28	R86-2 (CA)	30 X 60	X	WHITE	III	BLACK	NON		12.5				
7-29	R91-1 (CA)	30 X 54	X	WHITE	III	BLACK	NON		11.3				
7-30	SG19 (CA) MOD	30 X 48	X	BLUE	II	WHITE	II		10				
7-33	R5-10a	30 X 36	X	WHITE	IX	BLACK	NON		7.5				
7-34	R91-1 (CA)	30 X 54	X	WHITE	III	BLACK	NON		11.3				◇
7-35	G78 (CA) MOD	76 X 48	X	GREEN	III	WHITE	IV			25.3			
7-37	G92 (CA)	48 X 30	X	GREEN	IX	WHITE	IX				10		
	G28-2 (CA) (57)	24 X 25	X	GREEN	III	WHITE	III		4.2				
	M3-1	21 X 9	X	GREEN	III	WHITE	III		1.3				
	M6-2	21 X 15	X	GREEN	III	WHITE	III		2.2				
7-39	R1-5a	18 X 24	X	WHITE	III	RED BLACK	IX NON		3				
8-2	W4-1	48 X 48	X	YELLOW	IX	BLACK	NON				16		
8-4	M3-1	24 X 12	X	GREEN	III	WHITE	III		2				
	G28-2 (CA) (57)	24 X 25	X	GREEN	III	WHITE	III		4.2				
8-8	R88 (CA)	30 X 30	X	WHITE	III	BLACK	NON		6.3				
8-9	R91-1 (CA)	36 X 54	X	WHITE	III	BLACK	NON		13.5				
9-1	R2-1 (65)	48 X 60	X	WHITE	III	BLACK	NON				20		
10-1	W4-7	60 X 60	X	YELLOW	III	BLACK	NON					25	
10-6	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5			25	
11-4	G11-4.1 (CA)	44 X 18	X	WHITE	II	BLACK	NON		5.5				
11-7	W13-2 (50)	36 X 48	X	YELLOW	IX	BLACK	NON		12				
12-2	G84-2 (CA) (10)	54 X 48	X	GREEN	III	WHITE	IV				18		
12-4	R5-1	36 X 36	X	RED	IX	WHITE	IX		9				
	R5-1a	36 X 24	X	RED	IX	WHITE	IX		6				
12-5	SG25 (CA)	30 X 36	X	BLUE	II	WHITE	II		7.5				
12-7	W34C (CA) (14' 9")	36 X 54	X	YELLOW	III	BLACK	NON		13.5				
12-9	W3-3	48 X 48	X	YELLOW	IX	RED/GREEN BLACK	IX NON		16				
12-11	W3-3	48 X 48	X	YELLOW	IX	RED/GREEN BLACK	IX NON		16				
12-13	R61-13 (CA)	48 X 30	X	WHITE	III	BLACK	NON				10		
12-14	R61-13 (CA)	48 X 30	X	WHITE	III	BLACK	NON				10		
							SUBTOTAL		204	25.3	94	110	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	273	856

REGISTERED CIVIL ENGINEER — 06-15-09 DATE

HON WAI YOW No. C 43276 Exp.3/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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OCTA
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ORANGE, CA 92863

ABBREVIATIONS:
NON NON-REFLECTIVE

LEGEND:

◇ WHITE DIAMOND SYMBOL ON BLACK BACKGROUND

SIGN QUANTITIES

SQ-8

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 25-JAN-2010
00-00-00 TIME PLOTTED => 10:26

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SIGN No.	SIGN CODE	SIGN PANEL DIMENSION (L X H)	SINGLE FACED	SIGN FACING MATERIAL				OVERHEAD	ROADSIDE				REMARKS
				BACKGROUND		LEGEND		FURNISH LAMINATED PANEL SIGN	FURNISH SINGLE SHEET ALUMINUM SIGN				
									0.063"		0.080"		
				SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	1" TYPE A	UNFRAMED	FRAMED	UNFRAMED	FRAMED	
								SQFT	SQFT	SQFT	SQFT	SQFT	
12-15	R5-1	36 X 36	X	RED	IX	WHITE	IX		9				
	R5-1a	36 X 24	X	RED	IX	WHITE	IX		6				
12-17	R61-13 (CA)	48 X 30	X	WHITE	III	BLACK	NON				10		
12-18	R61-13 (CA)	48 X 30	X	WHITE	III	BLACK	NON				10		
12-19	R1-5a	18 X 24	X	WHITE	III	RED BLACK	IX NON		3				
B	G85-11 (CA)	264 X 100	X	GREEN	III	WHITE	IV	183.3					
D	G86-13 (CA)	264 X 100	X	GREEN	III	WHITE	IV	183.3					
F	G23-2 (CA)	336 X 120	X	GREEN	III	WHITE	IV	280					
G	G24-6 (CA)	252 X 100	X	GREEN	III	WHITE	IV	175					
I	G23-6 (CA)	336 X 110	X	GREEN	III	WHITE	IV	256.7					
K	G85-11 (CA)	288 X 100	X	GREEN	III	WHITE	IV	200					
M	G83 (CA)	216 X 100	X	GREEN	III	WHITE	IV	150					
O	G85-SPECIAL (CA)	216 X 100	X	GREEN	III	WHITE	IV	150					
Q	R87-1 (CA) MOD	168 X 70	X	WHITE	III	BLACK	NON	81.7					
R	G83-5 (CA)	102 X 54	X	GREEN	III	WHITE	IV	38.3					
S	R18A (CA)	66 X 48	X	WHITE	I	BLACK	NON	22					
							SUBTOTAL	1,720.3	18		20		
							TOTAL FROM SHEET SQ-6		91.5	21	20	35	
							TOTAL FROM SHEET SQ-7		144.2	102.5	124	111	
							TOTAL FROM SHEET SQ-8		204	25.3	94	110	
							GRAND TOTAL	1,720.3	457.7	148.8	238	256	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	274	856

Hon Wai Yow 06-15-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HON WAI YOW
No. C 43276
Exp. 3/31/10
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.

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

ABBREVIATIONS:

NON NON-REFLECTIVE

REVISED BY | DATE REVISED
JENNY SHIAO | HON YOW
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SIGN QUANTITIES

SQ-9

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:26

BORDER LAST REVISED 2/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0f032oc009.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	275	856

Mark Fricke 06/15/09
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

ROADWAY QUANTITIES

SHEET No.	LOCATION	STATION LIMITS	PAVEMENT Str SECTION TYPE	JOINTED PLAIN Conc Pvmt	MINOR Conc (PATTERNED)	MINOR Conc (Misc Const)	MINOR Conc (MINOR Str)	HOT MIX ASPHALT (TYPE A)	TACK COAT	LEAN Conc BASE	CLASS 2 AGGREGATE BASE	CLASS 2 AGGREGATE SUBBASE	LIME STABILIZATION	LIME	ASPHALTIC EMULSION (CURING SEAL)	SLURRY SEAL	ROCK BLANKET
				CY	CY	CY	CY	TON	TON	CY	CY	CY	SQYD	TON	TON	TON	SQYD
L-1	NB ROUTE 57	"B" 587+15 TO "B" 589+50	1	264						139		194	831	14.65	1.10		
L-1	NB ROUTE 57	"B" 587+15 TO "B" 589+50	2					87	0.028		39	60	211	3.71	0.28		
L-2	NB ROUTE 57	"B" 589+50 TO "B" 600+25	1	882						464		650	2783	49.06	3.66		
L-2	NB ROUTE 57	"B" 589+50 TO "B" 600+25	2					394	0.135		176	272	959	16.90	1.26		
L-2	NB ROUTE 57	"B" 597+82.01 TO "B" 600+25	14					74	0.033		72		239	4.22	0.32		
L-3	NB ROUTE 57	"B" 600+25 TO "B" 601+10.86	1	62						33		46	195	3.43	0.26		
L-3	NB ROUTE 57	"B" 603+26.87 TO "B" 612+50	1	714						376		526	2253	39.72	2.96		
L-3	NB ROUTE 57	"B" 600+25 TO "B" 601+12.95	2					32	0.011		15	22	78	1.37	0.11		
L-3	NB ROUTE 57	"B" 603+29.95 TO 612+50	2					336	0.118		150	232	817	14.41	1.08		
L-3	NB ROUTE 57	"B" 600+25 TO "B" 600+90	14					4	0.002		4		12	0.21	0.02		
L-3	NB ROUTE 57	"B" 610+65.36 TO "B" 611+55	14					27	0.011		26		87	1.53	0.12		
L-4	NB ROUTE 57	"B" 612+50 TO "B" 624+50	1	939						495		692	2965	52.27	3.90		
L-4	NB ROUTE 57	"B" 612+50 TO "B" 613+38.62	2					32	0.011		15	22	78	1.37	0.11		
L-4	NB ROUTE 57	"B" 615+94.67 TO "B" 616+40.76	2					17	0.006		8	12	41	0.71	0.06		
L-4	NB ROUTE 57	"B" 619+87.39 TO "B" 624+50	2					170	0.059		76	117	412	7.26	0.54		
L-4	NB ROUTE 57	"B" 622+15 TO "B" 624+30.47	14					64	0.027		62		206	3.63	0.27		
L-5	NB ROUTE 57	"B" 624+50 TO "B" 626+19.72	1	200						105		147	630	11.10	0.83		
L-5	NB ROUTE 57	"B" 628+15.04 TO "B" 636+50	1	1025						540		756	3236	57.06	4.25		
L-5	NB ROUTE 57	"B" 624+50 TO "B" 626+19.72	2					64	0.022		29	45	156	2.75	0.21		
L-5	NB ROUTE 57	"B" 628+16.39 TO "B" 636+21.75	2					305	0.106		136	210	740	13.05	0.98		
L-5 & C-36	NB ROUTE 57	"B" 625+59.90 TO "B" 625+72.25	13			0.18											
L-5 & C-36	NB ROUTE 57	"B" 628+72.68 TO "B" 629+01.91	13			0.42											
L-5 & C-36	NB ROUTE 57	"B" 633+50.91 TO "B" 633+72.04	13			0.31											
L-5 & C-36	NB ROUTE 57	"B" 635+10.95 TO "B" 635+52.84	13			0.60											
L-5	NB ROUTE 57	"B" 631+23.74 TO "B" 633+03.35	14					62	0.026		61		201	3.54	0.27		
L-6	NB ROUTE 57	"B" 636+50 TO "B" 639+80.61	1	367						193		270	1157	20.40	1.52		
L-6	NB ROUTE 57	"B" 641+82.26 TO "B" 648+10	1	440						232		325	1390	24.50	1.83		
L-6	NB ROUTE 57	"B" 638+87.33 TO "B" 638+98.56	1	4						2		3	11	0.19	0.02		
L-6	NB ROUTE 57	"B" 643+20 TO "B" 648+10	2					177	0.059		79	122	430	7.58	0.57		
L-6	NB ROUTE 57	"B" 638+98.56 TO "B" 639+90.08	7					84	0.024		47	67	175	3.08			
		SHEET TOTAL		4897		1.51		1929	0.679	2579	995	4790	20,293	357.70	26.53		

REVISED BY | DATE REVISED

RYAN MITRY | MARK FRICKE

CALCULATED-DESIGNED BY | CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SUMMARY OF QUANTITIES
Q-1

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:26

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0F032pa001.dgn

CU 12220

EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	276	856

Mark Fricke 06/15/09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

ROADWAY QUANTITIES

SHEET No.	LOCATION	STATION LIMITS	PAVEMENT Str SECTION TYPE	JOINTED PLAIN Conc Pvmt	MINOR Conc (PATTERNED)	MINOR Conc (Misc Const)	MINOR Conc (MINOR Str)	HOT MIX ASPHALT (TYPE A)	TACK COAT	LEAN Conc BASE	CLASS 2 AGGREGATE BASE	CLASS 2 AGGREGATE SUBBASE	LIME STABILIZATION	LIME	ASPHALTIC EMULSION (CURING SEAL)	SLURRY SEAL	ROCK BLANKET
				CY	CY	CY	CY	TON	TON	CY	CY	CY	SQYD	TON	TON	TON	SQYD
L-6	NB ROUTE 57	"B" 643+20 TO "B" 644+49.30	11		23						35						
L-6	NB ROUTE 57	"C" 647+60 TO "B" 648+10	14					16	0.007		16		51	0.90	0.07		
L-7	NB ROUTE 57	"C" 657+86.48 TO "B" 659+10	2					40	0.013		18	28	97	1.71	0.13		
L-7	NB ROUTE 57	"B" 648+10 TO "B" 659+10	1	740						390		545	2335	41.17	3.07		
L-7	NB ROUTE 57	"B" 648+10 TO "C" 652+76.40	2					156	0.053		70	107	378	6.66	0.50		
L-7	NB ROUTE 57	"B" 648+10 TO "C" 649+70	14					56	0.024		54		179	3.15	0.24		
L-8	NB ROUTE 57	"B" 659+10 TO "B" 670+50	1	1380						726		1017	4356	76.79	5.72		
L-8	NB ROUTE 57	"B" 659+10 TO "C" 663+73.04	2					157	0.055		70	108	381	6.71	0.50		
L-8	NB ROUTE 57	"B" 668+80 TO "B" 670+50	2					63	0.022		28	43	152	2.67	0.20		
L-8	NB ROUTE 57	"C" 659+51.58 TO "C" 663+73.04	11		59						89						
L-9	NB ROUTE 57	"B" 670+50 TO "B" 680+50	1	1265						666		932	3993	70.40	5.25		
L-9	NB ROUTE 57	"B" 670+50 TO "B" 673+76.51	2					120	0.039		54	83	291	5.12	0.39		
L-9	NB ROUTE 57	"B" 677+90 TO "B" 678+10	2					8	0.003		4	6	18	0.32	0.03		
L-9 & C-36	NB ROUTE 57	"B" 677+02.11 TO "B" 677+29.68	13			0.45											
L-10	NB ROUTE 57	"B" 680+50 TO "B" 681+72.55	1	120						63		88	376	6.63	0.50		
L-10	NB ROUTE 57	"B" 683+97.92 TO "B" 690+50	1	789						415		581	2490	43.90	3.27		
L-11	NB ROUTE 57	"B" 690+50 TO "B" 693+78.37	1	394						207		290	1242	21.89	1.63		
L-11	NB ROUTE 57	"B" 695+99.60 TO "B" 698+90	1	310						163		228	977	17.22	1.29		
L-11	NB ROUTE 57	"B" 697+84.18 TO "B" 698+09.12	2					10	0.003		5	7	23	0.40	0.03		
L-11	NB ROUTE 57	"B" 698+09.12 TO "B" 698+90	7					59	0.017		33	47	122	2.15			
L-12	NB ROUTE 57	"B" 698+90 TO "B" 702+20	1	256						135		189	807	14.23	1.06		
L-12	NB ROUTE 57	"B" 698+90 TO "B" 699+73.47	7					136	0.035		76	109	284	5.00			
L-12	NB ROUTE 57	"B" 702+20 TO "B" 702+43.80	11		6						9						
L-12	NB ROUTE 57	"B" 702+20 TO "B" 708+20	5					490	0.113		309	449					
L-12	NB ROUTE 57	"B" 706+40 TO "B" 707+25	10					27	0.011		26						
L-7	EDB No. 650R		15								81						
L-1	SB ROUTE 57	"B" 585+70.80 TO "B" 589+10.60	8					84	0.024							1.09	
L-1	SB ROUTE 57	"B" 585+69.27 TO "B" 589+10.60	9													4.55	
L-1	SB ROUTE 57	"B" 585+69.27 TO "B" 589+10.60	10					139	0.058		136						
L-2	SB ROUTE 57	"B" 598+83 TO "B" 600+25	8					28	0.009							0.36	
SHEET TOTAL				5254	88	0.45		1589	0.486	2765	1113	4857	18,552	327.02	23.88	6.00	

REVISED BY | DATE REVISED
RYAN MITRY | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SUMMARY OF QUANTITIES
Q-2

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:26

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0F032pa002.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	277	856

Mark Fricke 11-16-09
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

ROADWAY QUANTITIES

SHEET No.	LOCATION	STATION LIMITS	PAVEMENT Str SECTION TYPE	JOINTED PLAIN Conc Pvmt	MINOR Conc (PATTERNED)	MINOR Conc (Misc Const)	MINOR Conc (MINOR Str)	HOT MIX ASPHALT (TYPE A)	TACK COAT	LEAN Conc BASE	CLASS 2 AGGREGATE BASE	CLASS 2 AGGREGATE SUBBASE	LIME STABILIZATION	LIME	ASPHALTIC EMULSION (CURING SEAL)	SLURRY SEAL	ROCK BLANKET
				CY	CY	CY	CY	TON	TON	CY	CY	CY	SQYD	TON	TON	TON	SQYD
L-2	SB ROUTE 57	"B" 598+83 TO "B" 600+25	9													1.28	
L-2	SB ROUTE 57	"B" 596+05 TO "B" 596+90	10					27	0.011		26						
L-3	SB ROUTE 57	"B" 600+25 TO "B" 601+00.06	8					37	0.008							0.48	
L-3	SB ROUTE 57	"B" 602+56.82 TO "B" 612+50	8					200	0.063							2.61	
L-3	SB ROUTE 57	"B" 600+25 TO "B 601+02.16	9													0.70	
L-3	SB ROUTE 57	"B" 602+58.58 TO "B" 612+50	9													9.06	
L-4	SB ROUTE 57	"B" 612+50 TO "B" 624+50	8					213	0.072							2.77	
L-4	SB ROUTE 57	"B" 612+50 TO "B" 624+50	9													11.08	
L-5	SB ROUTE 57	"B" 624+50 TO "B" 626+49.97	8					58	0.016							0.76	
L-5	SB ROUTE 57	"B" 627+78.26 TO "B" 636+50	8					173	0.055							2.26	
L-5	SB ROUTE 57	"B" 624+50 TO "B" 626+49.91	9													1.79	
L-5	SB ROUTE 57	"B" 627+78.64 TO "B" 636+50	9													7.79	
L-6	SB ROUTE 57	"B" 636+50 TO "B" 637+21	8					13	0.004							0.16	
L-6	SB ROUTE 57	"B" 636+50 TO "B" 637+21	9													0.64	
L-1	SB OFF-RAMP AT YORBA LINDA	"I-7" 83+07 TO "I-7" 85+69.27	9													2.91	
L-1	SB OFF-RAMP AT YORBA LINDA	"I-7" 80+21.55 TO "I-7" 85+69.27	10					161	0.066		157						
L-1	SB OFF-RAMP AT YORBA LINDA	"I-7" 83+07 TO "I-7" 85+69.27	6					52	0.025		29	42				1.73	
L-6	NB OFF RAMP AT IMPERIAL	"J-5" 41+94.35 TO "J-5" 48+10	7					1198	0.320		666	957	2496	44.01			
L-6 & C-36	NB OFF RAMP AT IMPERIAL	"J-5" 43+50.87 TO "J-5 43+69.04	13			0.25											
L-6 & C-36	NB OFF RAMP AT IMPERIAL	"J-5" 47+83.46 TO "J-5" 48+05.14	13			0.28											
L-7	NB OFF RAMP AT IMPERIAL	"J-5" 48+10 TO "J-5" 50+15	7					532	0.141		296	425	1109	19.54			
L-7	NB OFF RAMP AT IMPERIAL	"J-5" 50+15 TO "J-5" 53+66.47	9													37.05	
L-7	NB LOOP ON RAMP AT IMPERIAL	"J-4" 49+37 TO "J-4" 50+35	10					27	0.011		26						
L-7	NB LOOP ON RAMP AT IMPERIAL	"J-4" 45+51.26 TO "J-4" 46+29.65	12			5.00					5						
L-7	NB LOOP ON RAMP AT IMPERIAL	"J-4" 45+51.26 TO "J-4" 57+95	7					1767	0.474		983	1412	3683	64.94			
L-7 & C-38	NB LOOP ON RAMP AT IMPERIAL	"J-4" 47+00 TO "J-4" 49+59.32	16														256
L-7	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 56+06.65 TO "J-6" 59+40	7					619	0.161		344	495	1289	22.73			
L-7	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 54+95 TO "J-6" 56+06.56	9													4.66	
L-7	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 56+95 TO "J-6" 57+85	10					27	0.011		26						
L-7 & C-38	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 56+06.65 TO "J-6" 56+95	16														112
SHEET TOTAL						5.53		5104	1.439		2558	3331	8577	151.22		87.73	368

SUMMARY OF QUANTITIES
Q-3

REVISED BY | DATE REVISED
RYAN MITRY | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
THOMAS IONTA
CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 1026

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0F032pa003.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	278	856

Mark Fricke 11-16-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MARK FRICKE — No. C45703 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
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OCTA
550 S. MAIN STREET
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ROADWAY QUANTITIES

SHEET No.	LOCATION	STATION LIMITS	PAVEMENT Str SECTION TYPE	JOINTED PLAIN Conc Pvmt CY	MINOR Conc (PATTERNED) CY	MINOR Conc (Misc Constr) CY	MINOR Conc (MINOR Str) CY	HOT MIX ASPHALT (TYPE A) TON	TACK COAT TON	LEAN Conc BASE CY	CLASS 2 AGGREGATE BASE CY	CLASS 2 AGGREGATE SUBBASE CY	LIME STABILIZATION SQYD	LIME TON	ASPHALTIC EMULSION (CURING SEAL) TON	SLURRY SEAL TON	ROCK BLANKET SQYD
L-8	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 59+40 TO "J-6" 68+80	7					1638	0.445		911	1309	3414	60.19			
L-8 & C-36	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 60+10.64 TO "J-6" 60+24.40	13			0.19											
L-8 & C-36	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 68+24.82 TO "J-6" 68+50.60	13			0.36											
L-7 & C-27	IMPERIAL Hwy	"IH" 656+40 TO "I-H" 657+99.89	7					98	0.029		55	78	204	3.58			
L-7 & C-27	IMPERIAL Hwy	"IH" 656+40 TO "IH" 657+99.89	12			24.00					24						
L-12	NB OFF RAMP AT LAMBERT	"K-2" 9+74.06 TO "K-2" 18+02	7					1845	0.493		1026	1475	3847	67.82			
L-12	NB OFF RAMP AT LAMBERT	"K-2" 17+05 TO "K-2" 19+21	9													13.40	
L-12	NB OFF RAMP AT LAMBERT	"K-2" 15+55 TO "K-2" 16+40	10					27	0.011		27						
L-3 & C-28	EB BASTANCHURY Rd	"BR" 21+52.73 TO "BR" 21+62.53	12			1.00					1						
L-3 & C-29	WB BASTANCHURY Rd	"BR" 21+53.38 TO "BR" 21+98.40	12			8.00					8						
L-5 & C-28	EB ROLLING HILLS Dr	"RH" 25+83.67 TO "RH" 25+93.01	12			1.00					1						
L-5 & C-43	EB ROLLING HILLS Dr	"RH" 27+56.50 TO "RH" 27+85.29	12			1.00					1						
L-5 & C-43	WB ROLLING HILLS Dr	"RH" 25+93.47 TO "RH" 26+02.05	12			1.00					1						
L-5,C-30,C-43	WB ROLLING HILLS Dr	"RH" 27+52.61 TO "RH" 28+13.00	12			5.00					5						
L-6 & 43	EB ASSOCIATED ROAD	"AR" 594+29.87 TO "AR" 594+71.63	12			2.00					2						
L-6 & 43	WB ASSOCIATED ROAD	"AR" 594+64.74 TO "AR" 595+23.42	12			4.00					4						
L-10 & C-31	BIRCH St	"BS" 27+22 TO "BS" 27+72	12			9.00					9						
L-6 & C-37	LOFTUS CHANNEL BASIN	"J-5" 44+19.71 TO "J-5" 44+72.27	17				18.60										
		SHEET TOTAL				56.55	18.60	3608	0.978		2075	2862	7465	131.59		13.40	
		TOTAL FROM SHEET Q-1		4897		1.51		1929	0.679	2579	995	4790	20,293	357.70	26.53		
		TOTAL FROM SHEET Q-2		5254	88	0.45		1589	0.486	2765	1113	4857	18,552	327.02	23.88	6.00	
		TOTAL FROM SHEET Q-3				5.53		5104	1.439		2558	3331	8577	151.22		87.73	368
		TOTAL FROM SHEET Q-5					6.00										
		TOTAL FROM SHEET Q-6				65.80											
		TOTAL FROM SHEET Q-7						90.10									
		(SOUNDWALL) TOTAL FROM SHEET Q-8				20.00											
		(RETAINING WALL) TOTAL FROM SHEET Q-8				81.00											
		TOTAL FROM SHEET DQ-10						1.20									
		GRAND TOTALS		10,151	88	**230.84	*24.60	12,321	3.582	5344	6741	15,840	54,887	967.53	50.41	107.13	368

*SEE DRAINAGE QUANTITY SHEET DQ-10 FOR GRAND TOTAL
**SEE STRUCTURAL PLANS FOR ADDITIONAL QUANTITIES

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MARK FRICKE
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:26

SUMMARY OF QUANTITIES
Q-4

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0F032pa004.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	279	856

Mark Fricke 06/15/09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
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.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

VEGETATION CONTROL (MINOR CONCRETE)

SHEET No.	LOCATION	SIDE	STATION LIMITS	VEGETATION CONTROL (MINOR CONCRETE)
				SQYD
L-1, L-2	SB ROUTE 57	L†	"B" 589+10.60 TO "B" 590+60.20	73.2
L-1, L-2	NB ROUTE 57	R†	"B" 587+15.00 TO "B" 591+74.70	281.0
L-2	NB ROUTE 57	R†	"B" 591+07.20 TO "B" 591+95.00	32.6
L-3	NB ROUTE 57	R†	"B" 611+59.50 TO "B" 612+39.49	42.3
L-6	SB ROUTE 57	L†	"B" 637+17.00 TO "B" 638+06.30	32.0
L-6	NB ROUTE 57	R†	"C" 646+67.90 TO "C" 647+60.00	40.9
L-7	NB LOOP ON-RAMP AT IMPERIAL	R†	"J-4" 51+50.00 TO "J-4" 52+28.00	25.0
L-7, L-8	NB ON-RAMP AT IMPERIAL	L†	"J-6" 55+70.00 TO "J-6" 59+91.00	161.6
L-7	NB ON-RAMP AT IMPERIAL	R†	"J-6" 57+94.60 TO "J-6" 59+05.67	52.7
L-12	NB ROUTE 57	R†	"B" 707+33.70 TO "B" 708+40.00	48.9
			TOTAL	790.2

CONCRETE BARRIER

SHEET No.	LOCATION	STATION LIMITS	CONCRETE BARRIER (TYPE 60 Mod)
			LF
L-2	NB ROUTE 57	"B" 591+95.00 TO "B" 593+07.63	113
L-8	NB IMPERIAL ON-RAMP	"J-6" 67+26.13 TO "J-6" 68+45.36	120
		TOTAL	233

METAL BEAM GUARD RAILING (WOOD POST)

SHEET No.	LOCATION	SIDE	STATION LIMITS	MBGR (WOOD POST)	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE IN-LINE TERMINAL SYSTEM	END ANCHOR ASSEMBLE (TYPE SFT)	Trans RAILING (TYPE WB)	* MINOR Conc (MINOR STRUCTURE)
				LF	EA	EA	EA	EA	CY
L-1, L-2	SB ROUTE 57	L†	"B" 587+17.50 TO "B" 590+42.50	287.5	1		1		
L-1, L-2	NB ROUTE 57	R†	"B" 587+15.00 TO "B" 591+64.70	462.5			1		
L-2	NB ROUTE 57	R†	"B" 591+20.50 TO "B" 591+95.00			1		1	
L-3	NB ROUTE 57	R†	"B" 611+77.00 TO "B" 612+39.49		1			1	
L-5	NB ROUTE 57	R†	"B" 632+09.78 TO "B" 633+05.95	25	1			1	2.0
L-6	SB ROUTE 57	L†	"B" 637+17.00 TO "B" 637+93.98			1		1	
L-6	NB ROUTE 57	R†	"C" 646+85.13 TO "C" 647+50.00	25	1		1		
L-7	NB LOOP ON-RAMP AT IMPERIAL	R†	"J-4" 51+61.22 TO "J-4" 52+57.87			1		1	2.0
L-7, L-8	NB ON-RAMP AT IMPERIAL	L†	"J-6" 55+70.00 TO "J-6" 59+91.00	375		1	1		
L-7	NB ON-RAMP AT IMPERIAL	R†	"J-6" 58+13.43 TO "J-6" 59+15.03	50	1			1	2.0
L-12	NB ROUTE 57	R†	"B" 707+52.50 TO "B" 708+40.00	25	1			1	
			TOTAL	1250	6	4	4	7	** 6.0

* TO ACCOUNT FOR ANCHOR BLOCK
** SEE Q-4 FOR SUBTOTAL AND DQ-10 FOR GRAND TOTAL

SUMMARY OF QUANTITIES

Q-5

REVISED BY | DATE REVISED
RYAN MITRY | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:26

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0F032pa005.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	280	856

Mark Fricke 06/15/09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

MINOR CONCRETE (Misc Const)

SHEET No.	LOCATION	STATION LIMITS	MINOR CONCRETE (Misc Const)			
			CURB RAMP	CURB (TYPE A2-8)	CURB (TYPE B-4)	GUTTER**
			CY	CY	CY	CY
L-2	NB ROUTE 57	"B" 591+95.00 TO "B" 593+07.63				3.4
L-3, C-29	BASTANCHURY Rd	"BR" 21+60.00 TO "BR" 22+00.00		2.6		
L-7	NB ROUTE 57	"C" 651+77.00 TO "J-4" 51+65.00			14.0	
L-8	NB ROUTE 57	"C" 662+72.50 TO "J-6" 62+35.00			14.7	
L-8	NB IMPERIAL ON-RAMP	"J-6" 67+26.13 TO "J-6" 68+45.36				3.6
L-7, C-27	NB LOOP ON-RAMP	"IH" 656+40.00 TO "J-4" 46+30.00		14.7		
L-7, C-27	NB LOOP ON-RAMP	"IH" 658+58.15 TO "J-4" 46+62.00		7.8		
L-7, C-27	NB LOOP ON-RAMP	"J-4" 46+21.34	0.7			
L-7, C-27	NB LOOP ON-RAMP	"J-4" 46+21.34	1.2			
L-10, C-31	BIRCH St	"BS" 27+22.00 TO "BS" 27+72.00		3.2		
		SUBTOTAL	1.9	28.3	28.7	7.0
		TOTAL	*65.8			

* SEE SHEET Q-4 FOR GRAND TOTAL
** Conc GUTTER BEHIND Conc BARRIER (TYPE 60 Mod)

GRIND Exist CONCRETE PAVEMENT

SHEET No.	STATION LIMITS	GRIND Exist CONCRETE PAVEMENT
		SQYD
L-1 - L-12	"B" 587+15.00 TO "B" 708+20.00	14,975
	TOTAL	14,975

PLACE HMA (Misc AREA)

SHEET No.	LOCATION	STATION LIMITS	PLACE HMA (Misc AREA)
			SQYD
L-7 & C-34	NB LOOP ON RAMP AT IMPERIAL	"J-4" 52+28 TO "J-4" 52+57.89	33.8
L-12 & C-31	NB OFF RAMP AT LAMBERT	"K-2" 16+85 TO "K-2" 17+05	16.7
		TOTAL FROM DRAINAGE QUANTITY SHEET DQ-10	6.1
		GRAND TOTAL	56.6

RELOCATE ART PANELS

SHEET No.	STATION LIMITS	RELOCATE ART PANELS
		EA
L-9, C-41	"B" 672+80.00 TO "B" 681+00.20	150
	TOTAL	150

REFINISH MASONRY BLOCK WALL

SHEET No.	STATION LIMITS	REFINISH MASONRY BLOCK WALL
		SQYD
L-9, C-39	"B" 672+99.00 TO "B" 680+14.00	167
	TOTAL	167

GEOMEMBRANE (BASIN LINER)

SHEET No.	STATION LIMITS	GEOMEMBRANE (BASIN LINER)
		SQYD
L-7, C-40	"C" 648+15.75 TO "C" 650+60.80	2088
	TOTAL	2088

SUMMARY OF QUANTITIES

Q-6

REVISED BY | DATE REVISED
RYAN MITRY | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:27

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0F032pa006.dgn | CU 12220 | EA 0F0321

HOT MIX ASPHALT DIKE

SHEET No.	STATION LIMITS	SIDE	PLACE HMA DIKE (TYPE C) LF	(TYPE C Mod) LF	(TYPE D) LF	(TYPE E) LF	(TYPE E Mod) LF	(TYPE F) LF	(TYPE F Mod) LF	HOT MIX ASPHALT (TYPE A) TON
L-1	"I-7" 79+60.00 TO "I-7" 80+21.50	Lt						7		0.1
L-1	"I-7" 84+51.51 TO "B" 587+17.50	Lt	264							2.0
L-1	"B" 587+17.50 TO "B" 589+10.60	Lt						193		2.5
L-1, L-2	"B" 589+10.60 TO "B" 590+05.00	Lt							94	2.0
L-1, L-2	"B"588+10.00 TO "B" 591+70.17	Rt	363							2.7
L-2	"B" 590+05.00 TO "B" 590+73.00	Lt		68						1.1
L-2	"B" 591+70.17 TO "B" 591+95.00	Rt						25		0.3
L-2	"B" 596+00.00 TO "B" 596+05.00	Lt					5			0.2
L-2	"B" 596+05.00 TO "B" 596+90.00	Lt				85				2.2
L-2	"B" 596+90.00 TO "B" 596+95.00	Lt					5			0.2
L-2	"B" 598+83.00 TO "B" 598+88.00	Lt						5		0.1
L-2, L-3	"B" 597+82.01 TO "B" 600+90.00	Rt	308							2.3
L-3	"B" 610+65.36 TO "B" 611+52.00	Rt				87				2.2
L-3	"B" 611+52.00 TO "B" 612+14.49	Rt	63							0.5
L-3	"B" 612+14.49 TO "B" 612+39.49	Rt						25		0.3
L-4	"B" 622+15.00 TO "B" 624+30.47	Rt	209							1.6
L-6	"B" 637+17.00 TO "B" 637+42.00	Lt							25	0.5
L-6	"B" 637+42.00 TO "B" 638+22.00	Lt		80						1.2
L-6	"B" 643+20.00 TO "B" 645+90.00	Rt				270				6.9
L-7	"J-5" 48+68.96 TO "J-5" 50+15.00	Rt				139				3.5
L-7	"C" 651+40.00 TO "C" 651+77.00	Rt				37				0.9
L-7	"J-6" 56+06.65 TO "J-6" 57+90.00	Rt				167				4.2
L-7	"J-6" 57+90.00 TO "J-6" 58+52.50	Rt	63							0.5
L-7	"J-6" 58+52.50 TO " J-6" 59+05.67	Rt						50		0.6
L-7, L-8	"J-4" 55+98.80 TO "B" 662+72.50	Rt				656				16.7
L-12	"K-2" 14+98.60 TO "K-2" 18+02.00	Rt				303				7.7
L-12	"B" 707+90.00 TO "B" 708+20.00	Rt						25		0.3
L-12	"K-2" 12+21.48 TO "K-2" 16+85.00	Lt			469					26.9
TOTAL			1270	148	469	1744	10	330	119	*90.1

* SEE SHEET Q-4 FOR GRAND TOTAL

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	281	856

Mark Fricke 11-16-09
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CALCULATED-DESIGNED BY: RYAN MITRY
CHECKED BY: MARK FRICKE
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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SUMMARY OF QUANTITIES

Q-7

LAST REVISION 00-00-00
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:27

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	282	856

Mark Fricke 11-16-09
REGISTERED CIVIL ENGINEER DATE

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SOUNDWALL QUANTITIES

SHEET No.	SW No.	STATION LIMITS	Str Exc - AERIALLY DEPOSITED LEAD (TYPE Y-1)	Str Exc (RW)	Str Bkf (RW)	Str Conc, RW	BAR Reinf STEEL (RW)	16" CIDH Conc PILE	16" CIDH Conc PILE (BARRIER)	SOUNDWALL (BARRIER) (MASONRY BLOCK)	SOUNDWALL (MASONRY BLOCK)	MINOR*** CONCRETE (Misc Const)	CONCRETE BARRIER (TYPE 736S)	CONCRETE BARRIER (TYPE 736SV)	CONCRETE BARRIER (TYPE 736 Mod)	MINOR CONCRETE (SOUNDWALL)	SOUNDWALL (GAP FILLER)	***** FRACTURED RIB TEXTURE
			CY	CY	CY	CY	LB	LF	LF	SQFT	SQFT	CY	LF	LF	LF	CY	SQFT	SQFT
SW-1 TO SW-7	589	"B" 588+21.00 TO "B" 600+48.11						2080			17,164					138	11,029	
SW-8 TO SW-14	599	"B" 598+88 TO "B" 600+94.51	2	35	26	9	798	121	285	2342			182	17	8			48
SW-15 TO SW-28	603	"B" 602+61.06 TO "B" 626+44.00	4	72	54	19	1597	208	6804	27090		20	659	1716	16			105
SW-29 TO SW-38	627	"B" 627+83.83 TO "B" 637+17	3	48	34	14	1186	100	1745	10320			597	302	12			92
SW-39 TO SW-42	668	"B" 668+45.81 TO "B" 672+77.72							1268	7055				432				
SUBTOTAL													1438	2467				
TOTAL			*9	*155	*114	*42	*3581	**2509	**10,102	**46,807	**17,164	****20	**3905		**36	**138	11,029	*245

* FOR GRAND TOTAL SEE RETAINING WALL QUANTITIES
** SEE STRUCTURAL PLANS FOR ADDITIONAL QUANTITIES
*** Conc GUTTER BEHIND SOUNDWALL
**** FOR GRAND TOTAL OF MINOR CONCRETE (Misc Const) SEE Q-4
***** FRACTURED RIB TEXTURE LOCATED BEHIND CONCRETE BARRIER (TYPE 736 Mod)

RETAINING WALL QUANTITIES

SHEET No.	RW No.	STATION LIMITS	Str Exc - AERIALLY DEPOSITED LEAD (TYPE Y-1)	Str Exc (RW)	Str Bkf (RW)	Str Conc, RW	RW STEM (TYPE 6)	BAR Reinf Steel (RW)	CABLE RAILING	CL RAILING	MINOR*** Conc (Misc Const)	Conc BARRIER (TYPE 736)	Conc BARRIER (TYPE 60D)	FRACTURED RIB TEXTURE	FORMED RELIEF TEXTURE (FLOWER PATTERN)
			CY	CY	CY	CY	SQFT	LB	LF	LF	CY	LF	LF	SQFT	SQFT
R-1 TO R-5	592	"B" 593+07.63 TO "B" 597+82.01	95	2478	1947	630		74,220	476		16		475	1640	1640
R-6 TO R-10	598	"B" 597+50.57 TO "B" 601+41.42	77	1922	1489	510		65,241	339		13	21	339	1800	1750
R-11 TO R-16	604	"B" 603+04.36 TO "B" 610+65.36	137	3327	2593	870		88,382	749		25	12	749	1880	1859
R-17 TO R-23	658	"J-6" 59+15.03 TO "J-6" 67+26.13	134	2741	2104	773		71,675	326	475	27		800	1034	1034
R-24 TO R-27	694	"B" 693+63.39 TO "B" 694+29.05	10	238	203	45		3044						151	151
R-28 TO R-31	696	"B" 695+12.49 TO "B" 695+96.69	14	364	308	69		6622						246	246
L-3 & C-28		"BR" 21+52.73 TO "BR" 21+62.53	2	8	3	2	75	479							
L-3 & C-29		"BR" 21+71.05 TO "BR" 21+95.55	2	10	3	2	65	174							
L-5 & C-28		"RH" 25+83.67 TO "RH" 25+93.01	2	10	4	3	100	364							
L-5 & C-30		"RH" 27+87.72 TO "RH" 28+13.72	5	24	6	5	177	463							
L-10 & C-31		"BS" 27+32.20 TO "BS" 27+58.20	5	27	7	5	203	174							
TOTAL			483	11,149	8667	2914	620	310,838	1890	475	81	33	2363	6751	6680
FROM SOUNDWALL QUANTITIES			9	155	114	42		3581						245	
GRAND TOTAL			*492	*11,304	*8781	*2956	620	*314,419	*1890	475	**81	*33	*2363	*6996	*6680

* SEE STRUCTURAL PLANS FOR ADDITIONAL QUANTITIES
** FOR GRAND TOTAL OF MINOR CONCRETE (Misc Const) SEE Q-4
*** Conc GUTTER BEHIND RETAINING WALL

SUMMARY OF QUANTITIES

Q-8

REVISED BY | DATE REVISED
ANDRE ISSA | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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00-00-00 | TIME PLOTTED => 10:27

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12	Ora	57	18.4/20.9	283	856

Mark Fricke 06/15/09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MARK FRICKE No. C45703 Exp. 12-31-10 CIVIL — STATE OF CALIFORNIA

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OCTA
550 S. MAIN STREET
ORANGE, CA 92863

SEAL PAVEMENT JOINT

SHEET No.	STATION LIMITS	SEAL ISOLATION JOINT	SEAL PAVEMENT JOINT	
			LONGITUDINAL	TRANSVERSE
		LF	LF	LF
L-1	"B" 587+15.00 TO "B" 589+50.00		709	572
L-2	"B" 589+50.00 TO "B" 600+25.00		2521	1885
L-3	"B" 600+25.00 TO "B" 612+50.00		2011	1618
L-4	"B' 612+50.00 TO "B" 624+50.00	592	2528	1975
L-5	"B" 624+50.00 TO "B" 636+50.00	30	3146	2566
L-6	"B" 636+50.00 TO "B" 648+10.00	245	2224	1654
L-7	"B" 648+10.00 TO "B" 659+10.00		2229	1581
L-8	"B" 659+10.00 TO "B" 670+50.00		3539	2881
L-9	"B" 670+50.00 TO "B" 680+50.00	657	3436	2687
L-10	"B" 680+50.00 TO "B" 690+50.00	783	2316	1903
L-11	"B" 690+50.00 TO "B" 698+90.00	513	1827	1430
L-12	"B" 698+90.00 TO "B" 708+20.00		660	528
	SUBTOTAL	2820	27,146	21,280
	TOTAL	2820	48,426	

RECONSTRUCT METAL PICKET FENCE

SHEET No.	LOCATION	STATION LIMITS	RECONSTRUCT METAL PICKET FENCE
			LF
L-8	NB ROUTE 57	"B" 669+80.98 TO "B" 669+98.33	28
		TOTAL	28

REMOVE CONCRETE BARRIER

SHEET No.	LOCATION	STATION LIMITS	REMOVE CONCRETE BARRIER (N)
			LF
L-1	SB ROUTE 57	"B" 586+00.00 TO "B" 588+38.00	238
L-5, L-6	NB ROUTE 57	"B" 635+48.00 TO "B" 639+94.00	446
L-9, L-10	NB ROUTE 57	"B" 672+52.00 TO "B" 681+77.00	925
L-11, L-12	NB LAMBERT OFF-RAMP	"B" 696+02.00 TO "K-2" 12+38.00	638
		TOTAL	2247

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

CHAIN LINK FENCE (TYPE CL-6)

SHEET No.	LOCATION	STATION LIMITS	CL FENCE (TYPE CL-6)
			LF
L-3	EB BASTANCHURY Rd	"BR" 21+45.09 TO "BR" 21+60.15	15
L-3	WB BASTANCHURY Rd	"BR" 21+72.31 TO "BR" 21+85.60	17
L-3	EB BASTANCHURY Rd	"BR" 19+19.20 TO "BR" 19+55.65	33
L-3	WB BASTANCHURY Rd	"BR" 19+71.40 TO "BR" 20+01.03	33
L-4	NB ROUTE 57	"B" 619+99.00 TO "B" 621+57.94	169
L-5	NB ROUTE 57	"B" 625+59.90 TO "RH" 27+81.00	118
L-5	NB ROUTE 57	"B" 628+72.68 TO "B" 630+28.00	164
L-5	NB ROUTE 57	"B" 632+96.62 TO "B" 633+72.04	87
L-5	NB ROUTE 57	"B" 635+10.93 TO "B" 636+15.57	110
L-5	EB ROLLING HILLS Dr	"RH" 25+38.50 TO "RH" 25+95.23	57
L-5	WB ROLLING HILLS Dr	"RH" 25+76.80 TO "RH" 26+00.00	23
L-6	EB ASSOCIATED Rd	"AR" 594+51.50 TO "AR" 594+80.70	30
L-6	WB ASSOCIATED Rd	"AR" 595+10.40 TO "AR" 595+38.75	32
L-6	NB IMPERIAL OFF-RAMP	"J-5" 43+10.25 TO "J-5" 43+69.04	57
L-6, L-7	NB IMPERIAL OFF-RAMP	"J-5" 47+83.46 TO "J-5" 48+51.40	65
L-8	NB IMPERIAL ON-RAMP	"J-6" 59+72.70 TO "J-6" 60+24.40	51
L-8	NB IMPERIAL ON-RAMP	"J-6" 64+96.95 TO "J-6" 64+97.60	8
L-8	NB IMPERIAL ON-RAMP	"J-6" 67+52.25 TO "J-6" 68+50.60	99
L-9	NB ROUTE 57	"B" 677+02.11 TO "B" 679+79.00	280
L-10	EB BIRCH St	"BS" 26+00.00 TO "BS" 27+37.70	138
L-10	WB BIRCH St	"BS" 26+00.00 TO "BS" 27+78.80	202
L-11	UNION PACIFIC RAIL ROAD	"UP" 1150+00.00 TO "UP" 1152+04	195
L-11	UNION PACIFIC RAIL ROAD	"UP" 1150+00.00 TO "UP" 1151+90	194
		TOTAL	2177

3' CHAIN LINK GATE (TYPE CL-6)

SHEET No.	LOCATION	3' CL GATE (TYPE CL-6)
		EA
L-3	BASTANCHURY ROAD	4
L-4	NB ROUTE 57	1
L-5	ROLLING HILLS DRIVE	3
L-6	ASSOCIATED ROAD	2
L-8	NB IMPERIAL DIAMOND ON-RAMP	1
L-10	BIRCH STREET	2
	TOTAL	13

REVISED BY | DATE REVISED
RYAN MITRY | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
Q-9

LAST REVISION | DATE PLOTTED => 25-JAN-2010
00-00-00 | TIME PLOTTED => 10:27

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	284	856

Mark Fricke 11-16-09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
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.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

EARTHWORK

SHEET No.	LOCATION	STATION LIMITS	ROADWAY Exc (CY)	ROADWAY EXCAVATION (AERIALLY DEPOSITED LEAD) (TYPE Y-1) (CY)	EMBANKMENT (N) (CY)
L-1 & C-1	ROUTE 57	"B" 585+69.27 TO "B" 589+50	930	220	180
L-2 & C-2	ROUTE 57	"B" 589+50 TO "B" 600+25	5540	760	50
L-3 & C-3	ROUTE 57	"B" 600+25 TO "B" 612+50	4720	690	80
L-4 & C-4	ROUTE 57	"B" 612+50 TO "B" 624+50	4750	440	
L-5 & C-5	ROUTE 57	"B" 624+50 TO "B" 636+50	10550	920	590
L-6 & C-6	ROUTE 57	"B" 636+50 TO "B" 648+10	4460	480	680
L-7 & C-7	ROUTE 57	"B" 648+10 TO "B" 659+10	4770	490	
L-8 & C-8	ROUTE 57	"B" 659+10 TO "B" 670+50	6830	180	10
L-9 & C-9	ROUTE 57	"B" 670+50 TO "B" 680+50	2750	530	
L-10 & C-10	ROUTE 57	"B" 680+50 TO "B" 690+50	1920	350	381
L-11 & C-11	ROUTE 57	"B" 690+50 TO "B" 698+90	1270	210	
L-12 & C-12	ROUTE 57	"B" 698+90 TO "B" 708+20	1980	570	190
L-6 & C-6	NB OFF RAMP AT IMPERIAL	"J-5" 42+00 TO "J-5" 48+10	240	270	
L-7 & C-7	NB OFF RAMP AT IMPERIAL	"J-5" 48+10 TO "J-5" 50+15	1000	50	10
L-7 & C-7	NB LOOP ON RAMP AT IMPERIAL	"J-4" 45+51.26 TO "J-4" 57+95.00	13,290	1060	100
L-7 & C-7	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 56+06.65 TO "J-6" 59+40.00	1930	110	
L-8 & C-8	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 59+40.00 TO "J-6" 68+80.00	5150	800	
L-11 & C-11	NB OFF RAMP AT LAMBERT	"K-2" 8+09.12 TO "K-2" 8+90.00	230	40	220
L-12 & C-12	NB OFF RAMP AT LAMBERT	"K-2" 8+90.00 TO "K-2" 17+05.00	2590	280	250
L-7 & C-7	EDB No. 650R		7940	300	1570
L-6 & C-6	LOFTUS CHANNEL BASIN			70	310
L-1 & C-1	SB OFF RAMP AT YORBA LINDA	"I-7" 80+15 TO "I-7" 85+69.27	200	170	480
L-7 & C-7	IMPERIAL Hwy	"IH" 656+40 TO "IH" 657+99.89	210	40	10
L-11 & C-44	SOUTH ABUTMENT, BREA OH	"B" 693+40 TO "UP" 1150+90		130	730
L-11 & C-44	NORTH ABUTMENT, BREA OH	"UP" 1149+90 "B" 696+30		250	3060
		GRAND TOTAL	83,250	9410	8901

REMOVE ROCK BLANKET

SHEET No.	LOCATION	STATION LIMITS	REMOVE ROCK BLANKET (CY)
L-7 & C-38	NB DIAMOND ON RAMP AT IMPERIAL	"J-6" 56+06.65 TO "J-6" 57+06.45	61
		TOTAL	61

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

SUMMARY OF QUANTITIES

Q-10

REVISED BY | DATE REVISED
RYAN MITRY | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:27

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0F032pa010.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	285	856

Mark Fricke 06/15/09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARK FRICKE
No. C45703
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

REMOVE METAL BEAM GUARD RAILING

SHEET No.	LOCATION	STATION LIMITS	REMOVE METAL BEAM GUARD RAILING
			LF
L-1, L-2	SB ROUTE 57	"B" 588+38.00 TO "B" 590+44.00	206
L-3	NB ROUTE 57	"B" 600+58.00 TO "B" 601+17.00	59
L-3	SB ROUTE 57	"B" 602+79.50 TO "B" 603+55.00	76
L-3, L-4	NB ROUTE 57	"B" 612+37.00 TO "B" 620+00.00	752
L-5	NB ROUTE 57	"B" 625+58.00 TO "B" 626+32.00	76
L-5	ROLLING HILLS Dr	"RH" 25+76.50 TO "RH" 26+04.20	28
L-5	SB ROUTE 57	"B" 628+02.75 TO "B" 629+03.50	99
L-5	NB ROUTE 57	"B" 634+74.50 TO "B" 635+48.00	76
L-6	NB IMPERIAL OFF-RAMP	"J-5" 41+85.00 TO "J-5" 46+15.00	430
L-7	NB ROUTE 57	"C" 649+05.00 TO "C" 649+88.00	80
L-7	NB IMPERIAL ON-RAMP	"J-6" 55+70.00 TO "J-6" 57+46.00	179
L-8	NB IMPERIAL ON-RAMP	"J-6" 61+12.00 TO "J-6" 61+72.00	64
L-9	NB ROUTE 57	"B" 671+74.00 TO "B" 672+52.00	79
L-11	NB ROUTE 57	"B" 693+00.00 TO "B" 693+88.00	89
L-12	NB ROUTE 57	"B" 707+26.00 TO "B" 708+40.00	114
		TOTAL	2407

REMOVE CHAIN LINK FENCE

SHEET No.	LOCATION	STATION LIMITS	REMOVE CL FENCE
			LF
L-3	EB BASTANCHURY Rd	"BR" 21+23.00 TO "BR" 21+60.15	35
L-3	WB BASTANCHURY Rd	"BR" 21+53.00 TO "BR" 21+85.60	35
L-3	EB BASTANCHURY Rd	"BR" 19+19.20 TO "BR" 19+61.00	39
L-3	WB BASTANCHURY Rd	"BR" 19+71.40 TO "BR" 20+05.00	37
L-5	EB ROLLING HILLS Dr	"B" 626+23.00 TO "RH" 27+50.00	100
L-5	NB ROUTE 57	"B" 627+85.00 TO "B" 628+14.50	41
L-5	EB ROLLING HILLS Dr	"RH" 25+38.50 TO "RH" 26+01.00	64
L-5	WB ROLLING HILLS Dr	"RH" 25+76.80 TO "RH" 26+04.30	25
L-5	NB ROUTE 57	"B" 628+61.00 TO "B" 630+28.00	180
L-6	EB ASSOCIATED Rd	"AR" 594+13.90 TO "AR" 594+80.70	63
L-6	WB ASSOCIATED Rd	"AR" 594+71.80 TO "AR" 595+38.75	70
L-6, L-7	NB IMPERIAL OFF-RAMP	"J-5" 43+10.25 TO "J-5" 48+51.40	530
L-8	NB IMPERIAL ON-RAMP	"J-6" 59+72.70 TO "J-6" 64+97.60	517
L-8, L-9	NB ROUTE 57	"J-6" 57+52.25 TO "B" 679+79.00	1230
L-10	EB BIRCH St	"BS" 26+00.00 TO "BS" 27+37.70	138
L-10	WB BIRCH St	"BS" 26+00.00 TO "BS" 27+78.80	179
L-11	UNION PACIFIC RAILROAD	"UP" 1150+00.00 TO "BS" 1152+04.00	204
L-11	UNION PACIFIC RAILROAD	"UP" 1150+00.00 TO "BS" 1151+90.00	190
		TOTAL	3677

REMOVE AC DIKE

SHEET No.	LOCATION	STATION LIMITS	REMOVE AC DIKE
			LF
L-1, L-2	SB ROUTE 57	"B" 589+10.60 TO "B" 590+73.00	162
L-2	SB ROUTE 57	"B" 596+00.00 TO "B" 596+05.00	5
L-2	SB ROUTE 57	"B" 596+90.00 TO "B" 596+95.00	5
L-6	SB ROUTE 57	"B" 637+21.00 TO "B" 638+22.00	96
		TOTAL	268

REMOVE CONCRETE

SHEET No.	LOCATION	STATION LIMITS	CURB	SIDEWALK	CURB RAMP	BLOCK WALL	SLOPE PROTECTION
			CY	CY	CY	CY	CY
L-3, C-29	BASTANCHURY Rd	"BR" 21+60.00 TO "BR" 22+00.00	2.6				
L-3, C-29	BASTANCHURY Rd	"BR" 21+60.00 TO "BR" 22+00.00		3.8			
L-6, C-37	LOFTUS CHANNEL BASIN	"J-5" 44+18.48 TO "J-5" 44+72.27					10.4
L-7, C-27	IMPERIAL Hwy	"IH" 658+66.32 TO "IH" 658+85.75		0.9			
L-7, C-27	NB LOOP ON-RAMP	"J-4" 45+25.74 TO "J-4" 46+08.72		1.1			
L-7, C-27	IMPERIAL Hwy	"IH" 658+58.15 TO "J-4" 46+29.50			1.2		
L-7, C-27	NB LOOP ON-RAMP	"J-4" 46+08.72 TO "J-4" 46+30.00			2.0		
L-7, C-27	IMPERIAL Hwy	"IH" 656+40.00 TO "J-4" 46+08.72	14.1				
L-7, C-27	IMPERIAL Hwy	"IH" 658+58.15 TO "J-4" 46+62.00	5.6				
L-10, C-31	BIRCH St	"BS" 27+31.50 TO "BS" 27+38.00				0.7	
L-10, C-31	BIRCH St	"BS" 27+22.00 TO "BS" 27+72.00	3.2				
L-10, C-31	BIRCH St	"BS" 27+22.00 TO "BS" 27+72.00		4.8			
		SUBTOTAL	25.5	10.6	3.1	0.7	10.4
		TOTAL	50.4				
		TOTAL FROM DQ-10	13.6				
		GRAND TOTAL	64.0				

REMOVE SOUNDWALL

SHEET No.	LOCATION	STATION LIMITS	REMOVE SOUNDWALL
			SQYD
L-1	SB ROUTE 57	"B" 586+00.00 TO "B" 588+38.00	337
L-4	NB ROUTE 57	"B" 612+86.00 TO "B" 619+97.00	1027
L-4	NB ROUTE 57	"B" 619+88.00 TO "B" 620+18.00	29
L-4, L-5	NB ROUTE 57	"B" 619+99.00 TO "B" 626+18.00	413
L-5	NB ROUTE 57	"B" 628+14.50 TO "B" 628+61.00	33
L-5, L-6	NB ROUTE 57	"B" 632+89.00 TO "B" 637+83.00	686
L-5, L-6	NB ROUTE 57	"B" 635+48.00 TO "B" 639+94.00	669
L-8, L-9	NB ROUTE 57	"B" 668+33.00 TO "B" 674+69.00	1113
L-9, L-10	NB ROUTE 57	"B" 672+52.00 TO "B" 681+77.00	1388
L-11, L-12	NB LAMBERT OFF-RAMP	"B" 696+02.00 TO "K-2" 12+38.00	780
		TOTAL	6474

SUMMARY OF QUANTITIES

Q-11

REVISED BY | DATE REVISED
VINCE GUARDIAN | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 25-JAN-2010
00-00-00 TIME PLOTTED => 10:28

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0F032pa011.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	286	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

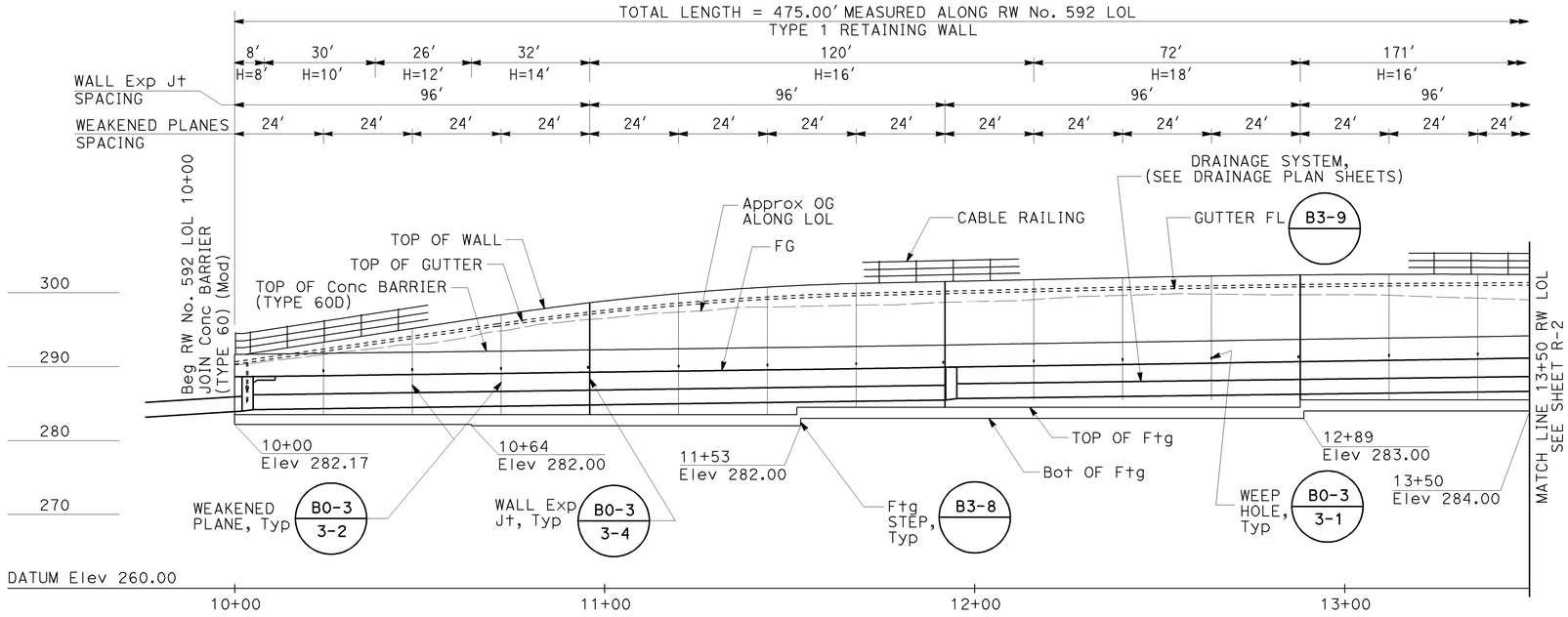
1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN W. POWELL — No. C71463 — Exp.12/31/09 — 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.

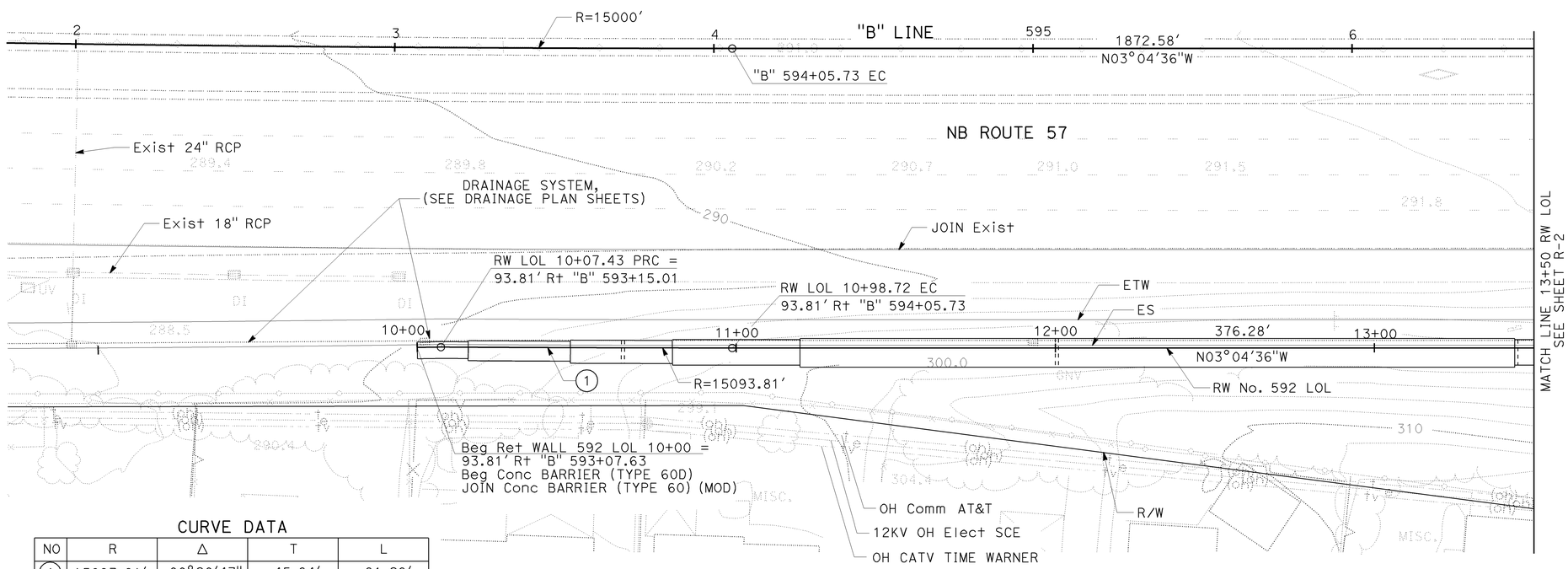
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



MIRRORED ELEVATION

Horiz 1"=20'
Vert 1"=10'



PLAN

1"=20'

CURVE DATA

NO	R	Δ	T	L
(1)	15093.81'	00°20'47"	45.64'	91.29'

LEGEND:

(X) CURVE NUMBER

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO RETAINING WALL CONSTRUCTION.
2. FOR TYPICAL SECTION AND RETAINING WALL ELEVATION TABLE, SEE SHEET R-2.

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

RETAINING WALL PLAN
RW No. 592

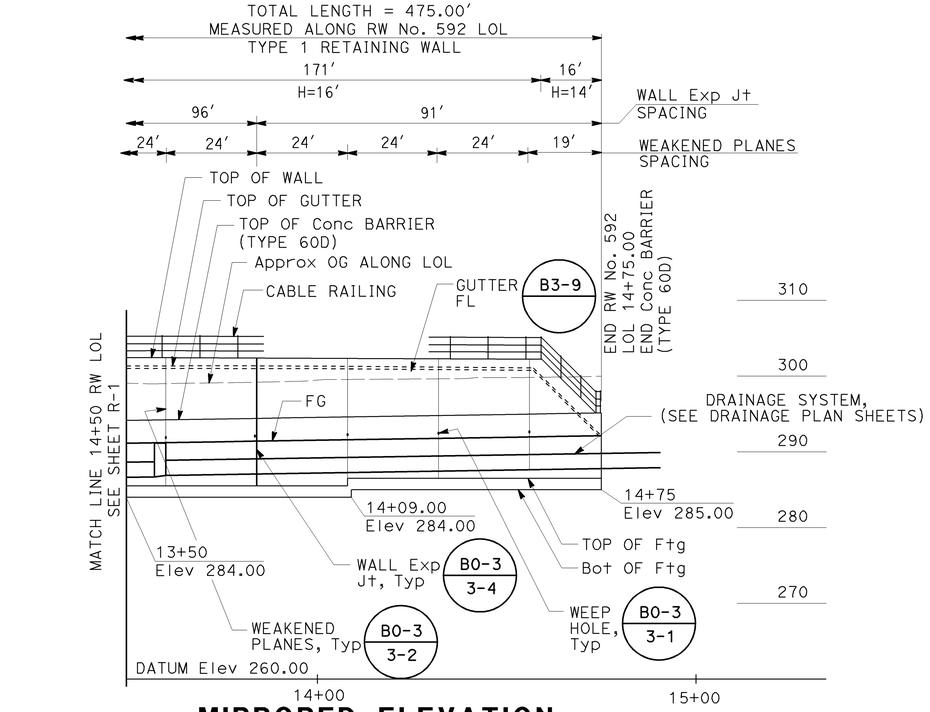
SCALE AS SHOWN

R-1

REVISED BY | DATE REVISED
JOHN POWELL | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gibbs

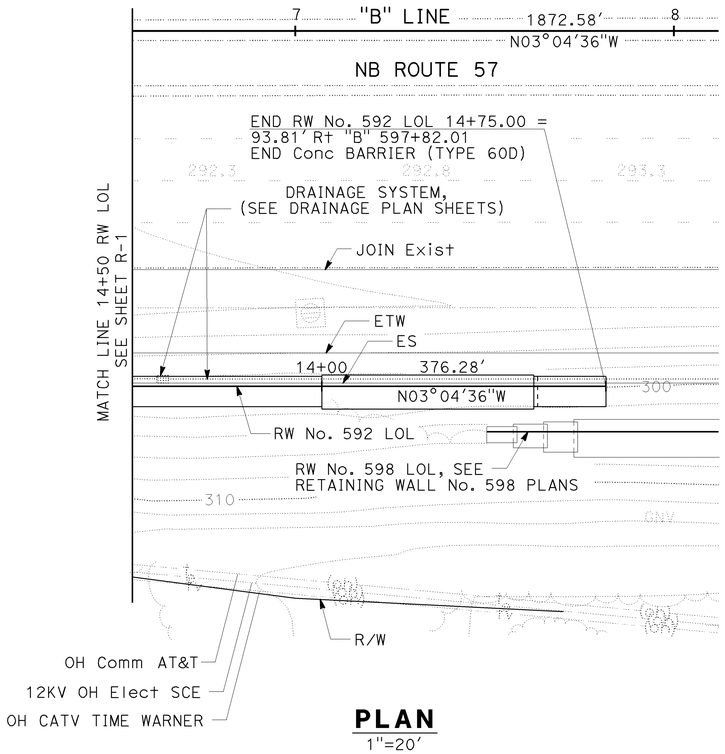
LAST REVISION DATE PLOTTED => 25-JAN-2010
06-15-09 TIME PLOTTED => 10:28

BORDER LAST REVISED 2/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0F032qa001.dgn | CU 12220 | EA 0F0321



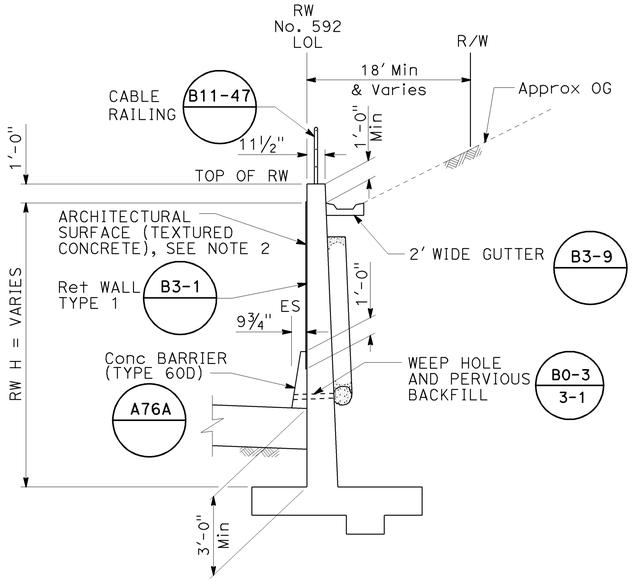
MIRRORED ELEVATION

Horiz 1"=20'
Vert 1"=10'



PLAN

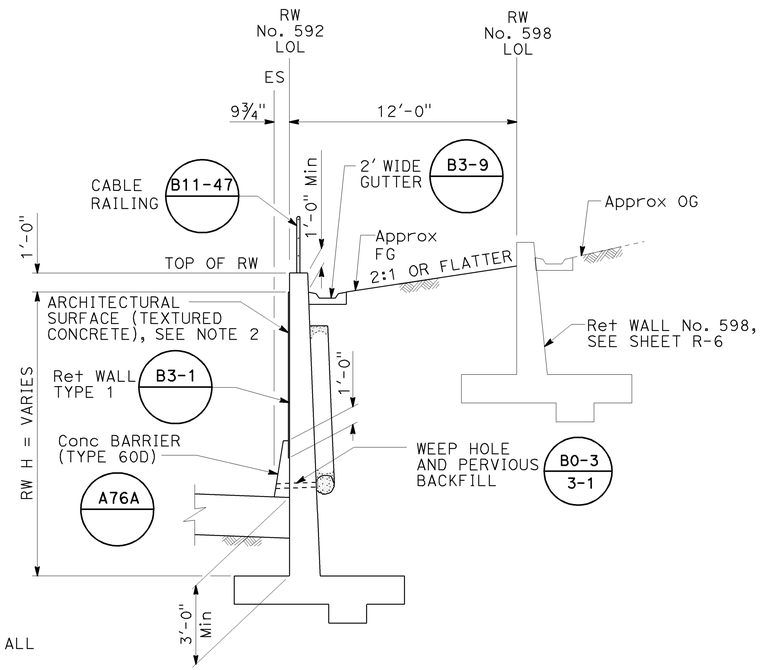
1"=20'



TYPICAL SECTION

¼"=1'-0"

Sta 10+00 to 14+43.56



TYPICAL SECTION

¼"=1'-0"

Sta 14+43.56 to 14+75

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO RETAINING WALL CONSTRUCTION.
2. SEE RETAINING WALL DETAILS SHEET.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	287	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN W. POWELL No. C71463 Exp.12/31/09 CIVIL — STATE OF CALIFORNIA

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

RETAINING WALL ELEVATIONS

RW LOL STA	TOP OF WALL
10+00	291.63
10+10	292.39
10+20	293.14
10+30	293.90
10+40	294.66
10+50	295.41
10+60	296.17
10+70	296.93
10+80	297.65
10+90	298.31
11+00	298.91
11+10	299.44
11+20	299.91
11+30	300.31
11+40	300.64
11+50	300.91
11+60	301.12
11+70	301.26
11+80	301.37
11+90	301.48
12+00	301.59
12+10	301.69
12+20	301.80
12+30	301.91
12+40	302.02
12+50	302.12
12+60	302.21
12+70	302.29
12+80	302.35
12+90	302.41
13+00	302.44
13+10	302.47
13+20	302.48
13+30	302.48
13+40	302.47
13+50	302.45
13+60	302.43
13+70	302.41
13+80	302.39
13+90	302.37
14+00	302.35
14+10	302.33
14+20	302.31
14+30	302.29
14+40	302.27
14+50	302.25
14+60	301.93
14+70	296.93
14+75	295.14

RETAINING WALL PLAN
RW No. 592

SCALE AS SHOWN

R-2

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

REVISED BY | DATE REVISED
JOHN POWELL | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gkans

LAST REVISION 06-15-09
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	288	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

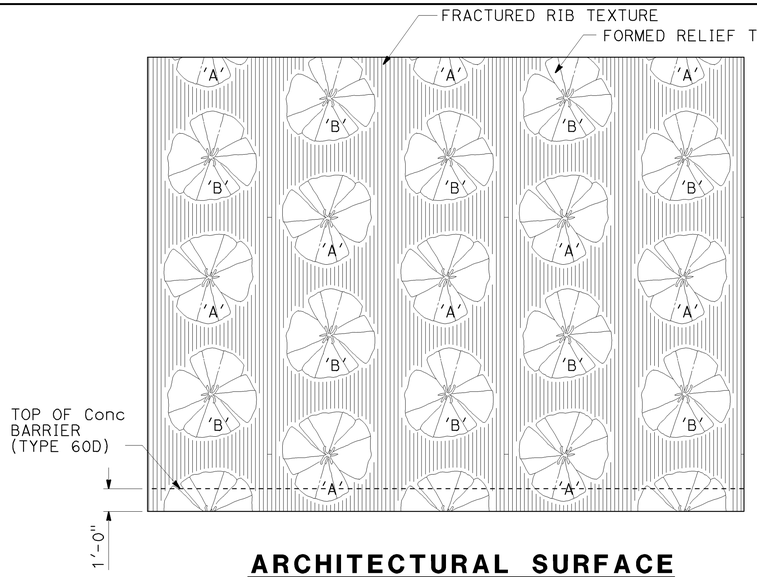
1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN W. POWELL — No. C71463 — Exp.12/31/09 — 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.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

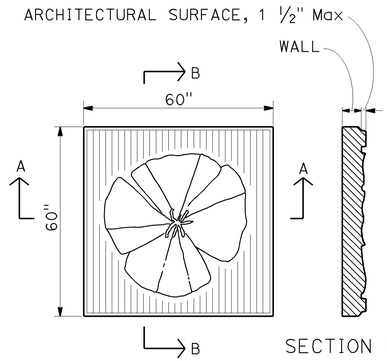
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

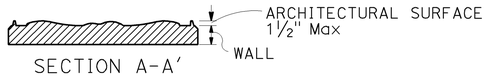


NOTES:

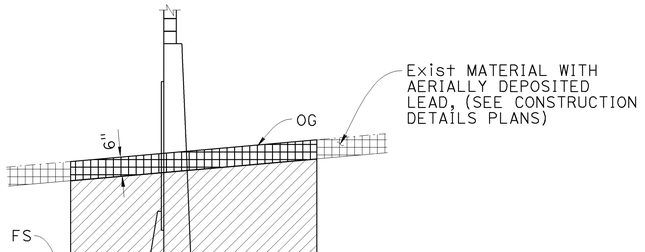
1. IDENTICAL FLOWER IMAGES, SCALE AND SPACING SHALL BE USED FOR FLOWER PATTERN.
2. WITHIN A VERTICAL COLUMN, FLOWER IMAGES SHALL ALTERNATE BETWEEN FLOWERS 'A' AND 'B'. VERTICAL COLUMNS SHALL BE OFFSET 30" FROM ADJACENT COLUMNS.
3. WHERE PLACED ON WALLS BOUNDED BY CONCRETE BARRIERS, FINISHED GRADE OR TOP OF WALL, FLOWER PATTERN SHALL BE CONTINUED WITHOUT CONCERN FOR PARTIAL FLOWER IMAGES, EXCEPT AS NOTED.

ARCHITECTURAL SURFACE (TEXTURED CONCRETE) ELEVATION





FLOWER PATTERN DETAILS



IN CUT

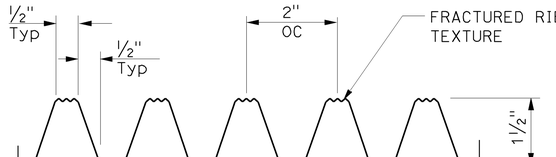
LIMITS OF PAYMENT OF EXCAVATION FOR RETAINING WALL

NOTE:
FOR BACKFILL SEE CALTRANS STANDARD PLANS

LEGEND

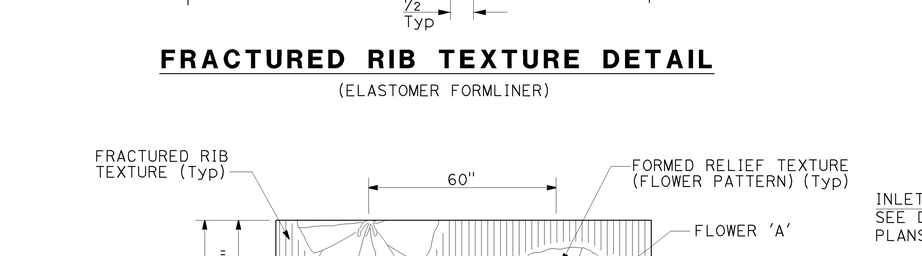
INDICATES STRUCTURE EXCAVATION (TYPE Y-1) (AERIALLY DEPOSITED LEAD)

STRUCTURE EXCAVATION (RETAINING WALL)

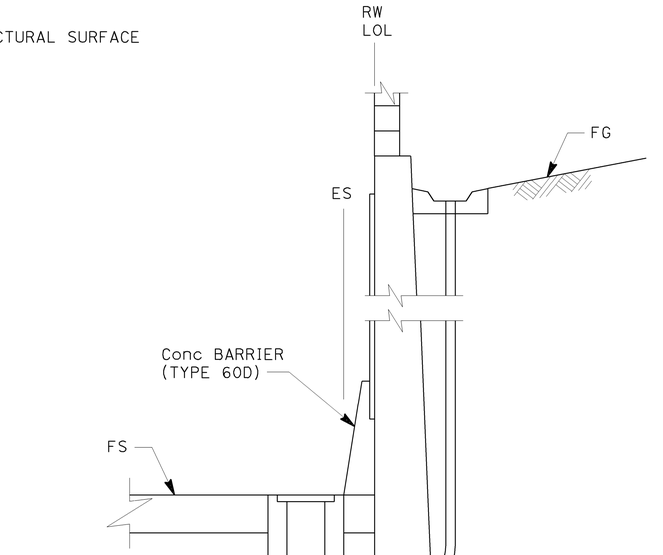


FRACTURED RIB TEXTURE DETAIL

(ELASTOMER FORMLINER)



ARCHITECTURAL SURFACE (TEXTURED CONCRETE) PATTERN



WALL GUTTER DRAIN DETAIL

RETAINING WALL DETAILS
RW No. 592

NO SCALE

R-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: JOHN POWELL
CHECKED BY: MARK FRICKE
REVISED BY
DATE REVISED

LAST REVISION — DATE PLOTTED => 25-JAN-2010
06-15-09 — TIME PLOTTED => 10:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
12	Ora	57	18.4/20.9	289	856

Hisham Nofal 06/15/09
GEOTECHNICAL PROFESSIONAL DATE

REGISTERED PROFESSIONAL ENGINEER — HISHAM M. NOFAL No. 2765 Exp. 09/30/09 GEOTECHNICAL — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CH2M HILL
6 HUTTON CENTRE DRIVE, SUITE 700
SANTA ANA, CA 92707

BENCHMARK:

HORIZONTAL COORDINATES ARE CCS NAD-83, ZONE 6.
VERTICAL CONTROL BASED ON NORTH AMERICAN VERTICAL DATUM 1988.
Pt 1057: N2273578.007, E6066831.271, Elev 294.844

SAMPLER TYPES:

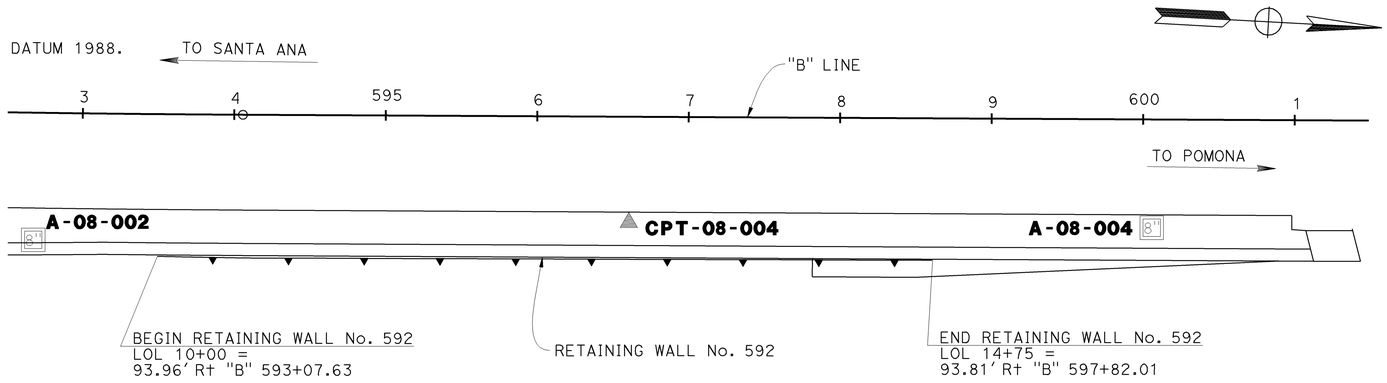
CALIFORNIA MODIFIED RING SAMPLER
STANDARD PENETRATION TEST SAMPLER

HAMMER TYPE:

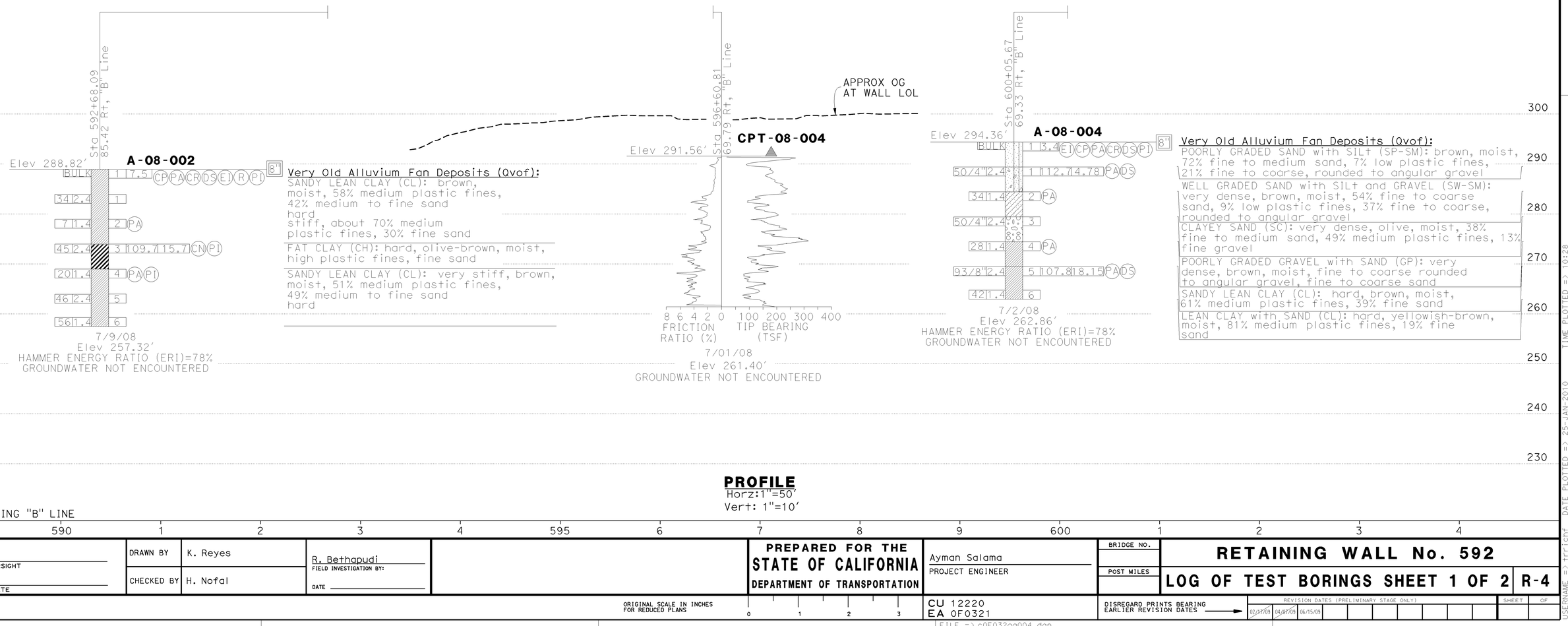
AUTOMATIC HAMMER

CORRECTION FACTOR:

TO CONVERT FROM CALIFORNIA MODIFIED RING SAMPLER BLOW COUNT TO EQUIVALENT STANDARD PENETRATION TEST SAMPLER BLOW COUNT, FOR GRANULAR AND COHESIVE SOIL, MULTIPLY BY 0.67.



PLAN
1"=50'



PROFILE
Horz:1"=50'
Vert: 1"=10'

STATIONING "B" LINE
9 590 1 2 3 4 595 6 7 8 9 600 1 2 3 4

DESIGN OVERSIGHT
SIGN OFF DATE

DRAWN BY K. Reyes
CHECKED BY H. Nofal

R. Bethapudi
FIELD INVESTIGATION BY:
DATE

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Ayman Salama
PROJECT ENGINEER

BRIDGE NO.
POST MILES

RETAINING WALL No. 592
LOG OF TEST BORINGS SHEET 1 OF 2 R-4

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 12220
EA 0F0321

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 02/17/09 04/07/09 06/15/09

SHEET OF

FILE => c0F032qa004.dgn

USERNAME => jtrright DATE PLOTTED => 25-JAN-2010 TIME PLOTTED => 10:28

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND
GP	Poorly graded GRAVEL Poorly graded GRAVEL with SAND
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)
GP-GM	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND
GP-GC	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)
GM	SILTY GRAVEL SILTY GRAVEL with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL
SP	Poorly graded SAND Poorly graded SAND with GRAVEL
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)
SP-SM	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL
SP-SC	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)
SM	SILTY SAND SILTY SAND with GRAVEL
SC	CLAYEY SAND CLAYEY SAND with GRAVEL
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL
PT	PEAT
	COBBLES COBBLES and BOULDERS BOULDERS

Graphic/Symbol	Group Names
CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

CEMENTATION

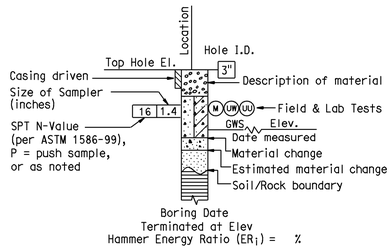
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

CONSISTENCY OF COHESIVE SOILS

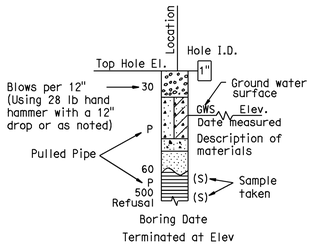
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

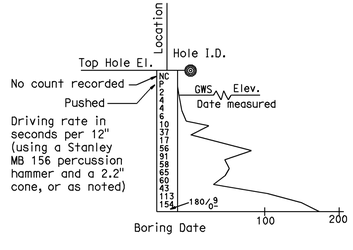
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



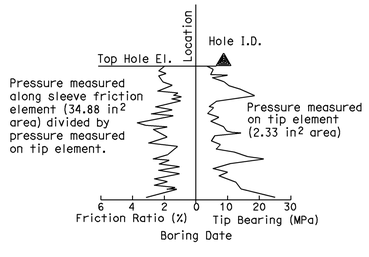
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
◕	B	Hollow Stem Auger Boring (HSA)
▲	CPT	Cone Penetration Test (ASTM D 5778-95)
□	O	Other

Note: Size in inches.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
12	Ora	57	18.4/20.9	290	856

Hisham Nofal 06/15/09
GEOTECHNICAL PROFESSIONAL DATE

REGISTERED PROFESSIONAL ENGINEER
HISHAM M. NOFAL
No. 2765
Exp. 09/30/09
GEOTECHNICAL
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CH2M HILL
6 HUTTON CENTRE DRIVE, SUITE 700
SANTA ANA, CA 92707

DESIGN OVERSIGHT

SIGN OFF DATE

DRAWN BY K. Reyes

CHECKED BY H. Nofal

R. Bethapudi
FIELD INVESTIGATION BY:

DATE

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Ayman Salama
PROJECT ENGINEER

BRIDGE NO.

POST MILES

SOIL LEGEND

RETAINING WALL No. 592

LOG OF TEST BORINGS SHEET 2 OF 2 | R-5

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 12220
EA 0F0321

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 02/27/09 04/27/09 06/15/09

SHEET OF

FILE => c0F032qa005.dgn

USERNAME => tfright DATE PLOTTED => 25-JAN-2010 TIME PLOTTED => 10:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	291	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN W. POWELL — No. C71463 — Exp.12/31/09 — CIVIL — STATE OF CALIFORNIA

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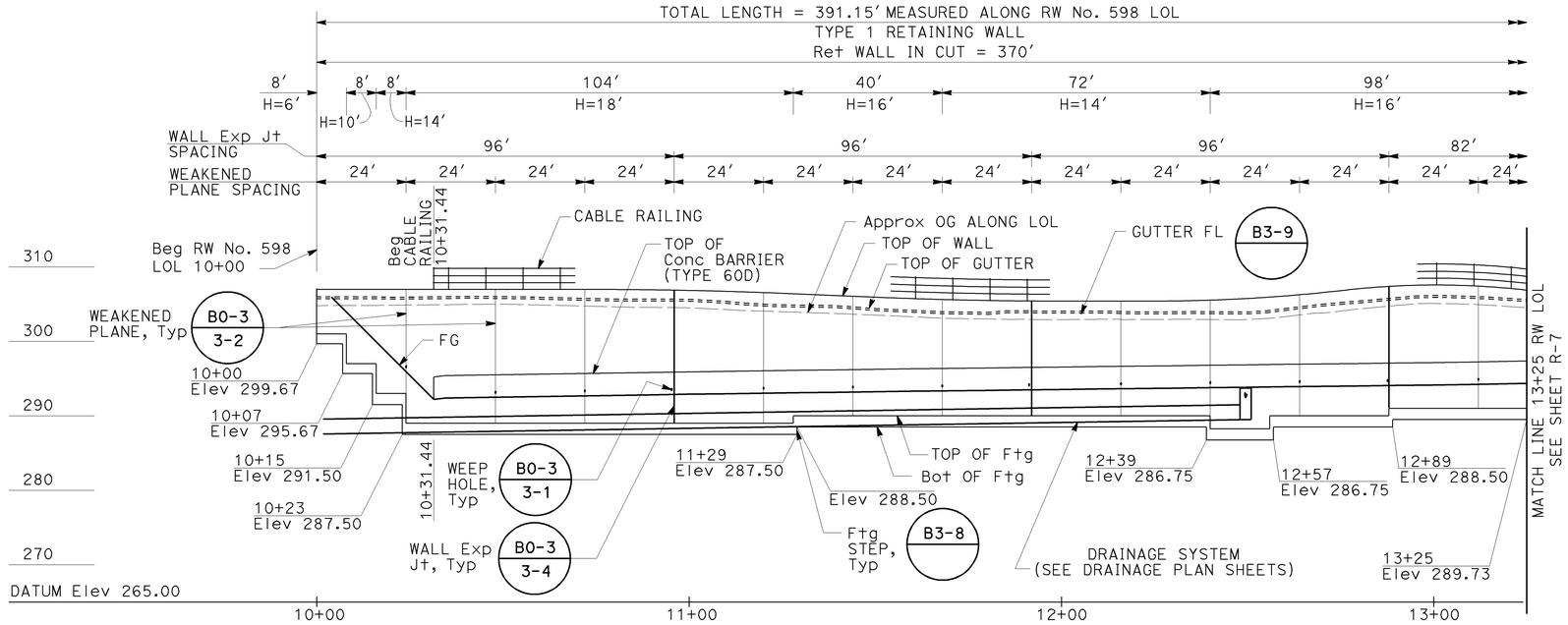
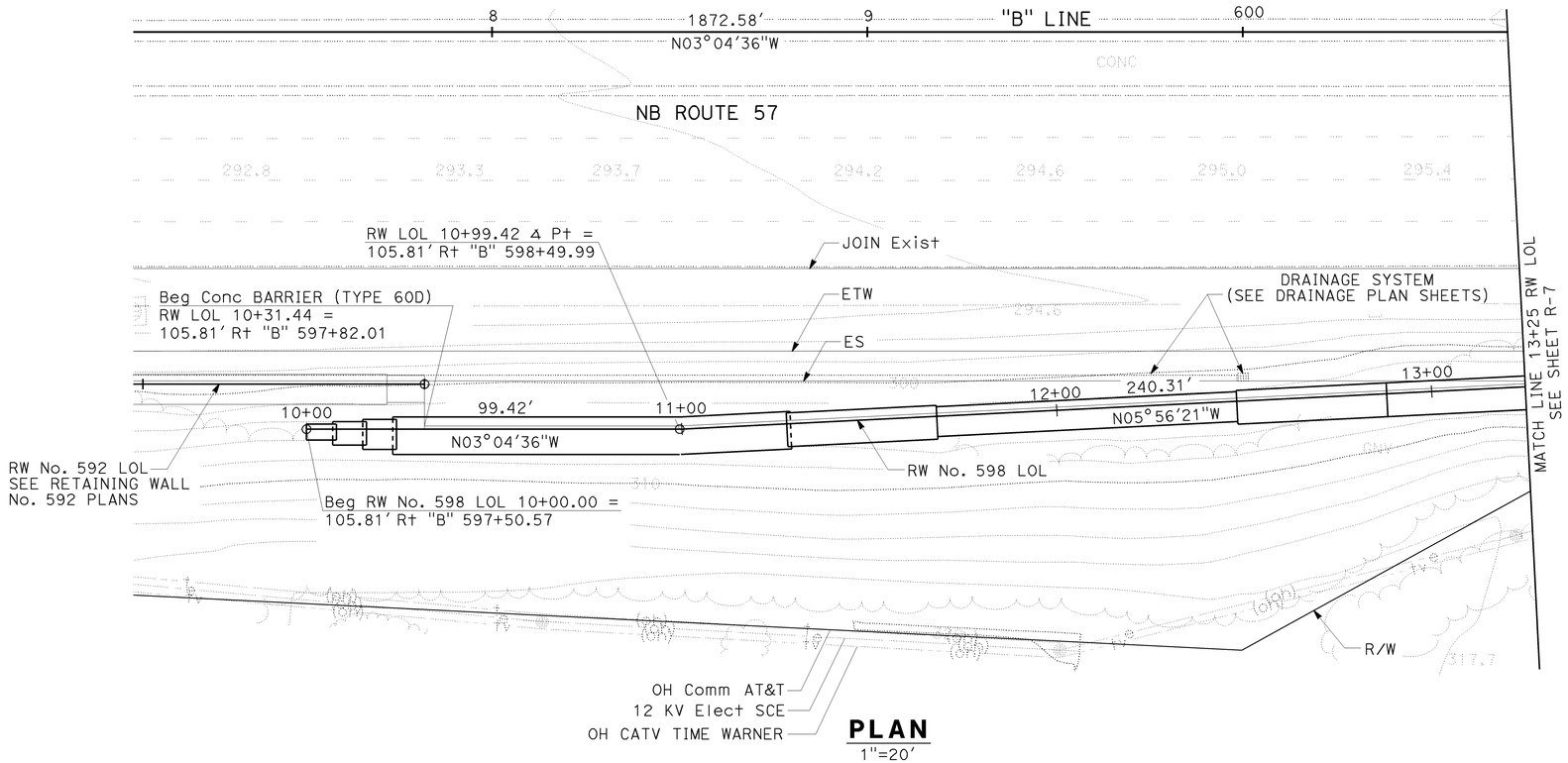
ORANGE, CA 92863



MIRRORED ELEVATION

Horiz 1"=20'
Vert 1"=10'



PLAN

1"=20'

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO RETAINING WALL CONSTRUCTION.
2. FOR TYPICAL SECTION AND RETAINING WALL ELEVATION TABLE, SEE SHEET R-7.

RETAINING WALL PLAN
RW No. 598

SCALE AS SHOWN

R-6

LAST REVISION 06-15-09 | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 10:28

REVISED BY | DATE REVISED
JOHN POWELL | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

BORDER LAST REVISED 2/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trrichf | DGN FILE => c0F032qb001.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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06/15/09
REGISTERED CIVIL ENGINEER DATE

JOHN W. POWELL No. C71463 Exp.12/31/09 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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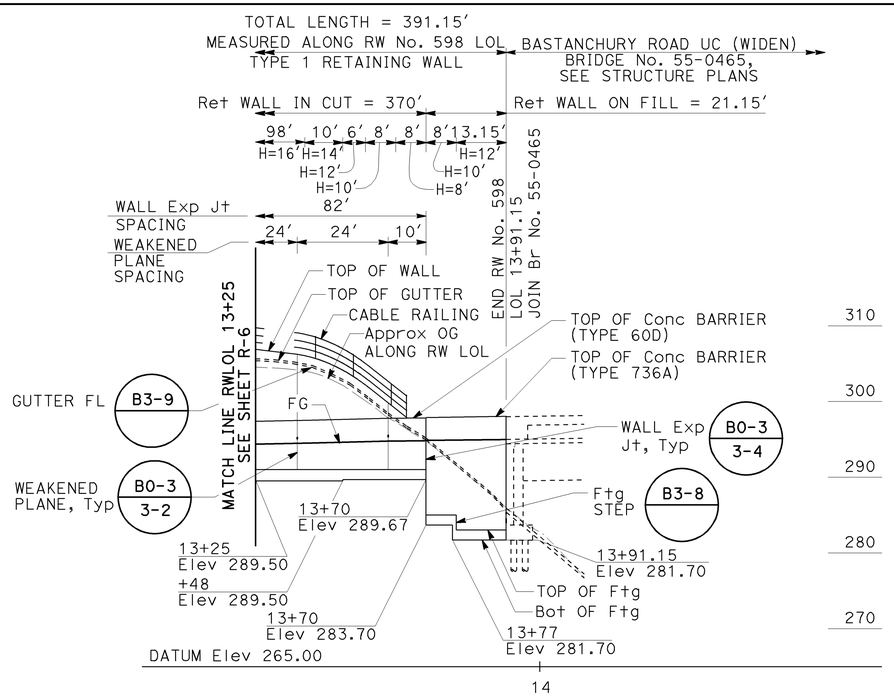


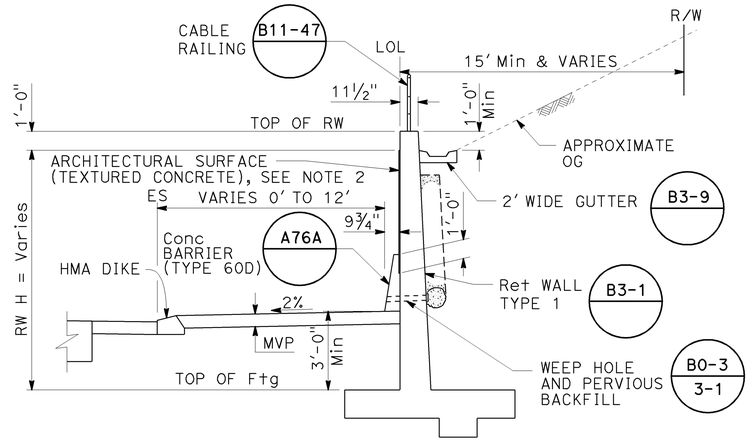
MIRRORED ELEVATION

Horiz 1"=20'
Vert 1"=10'

RETAINING WALL ELEVATIONS

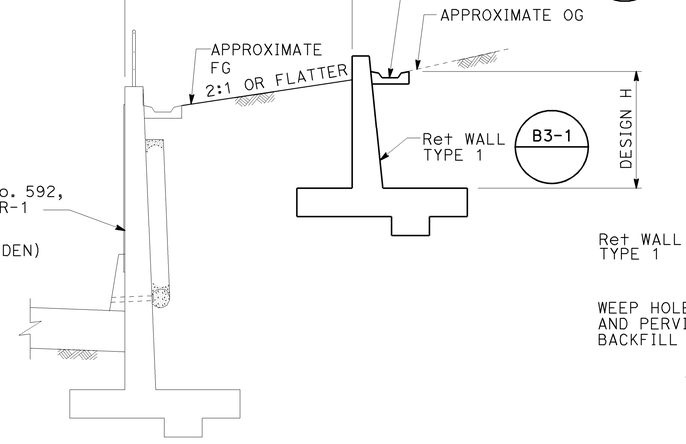
RW LOL STA	TOP OF WALL
10+00	306.97
10+10	306.97
10+20	306.97
10+30	306.97
10+40	306.97
10+50	306.97
10+60	306.97
10+70	306.97
10+80	306.97
10+90	306.93
11+00	306.85
11+10	306.72
11+20	306.56
11+30	306.36
11+40	306.15
11+50	305.94
11+60	305.75
11+70	305.60
11+80	305.50
11+90	305.43
12+00	305.41

RW LOL STA	TOP OF WALL
12+10	305.41
12+20	305.41
12+30	305.42
12+40	305.54
12+50	305.77
12+60	306.11
12+70	306.55
12+80	307.08
12+90	307.44
13+00	307.57
13+10	307.47
13+20	307.14
13+30	306.59
13+40	305.80
13+50	303.55
13+60	299.83
13+70	294.85
13+80	294.89
13+91.15	294.95



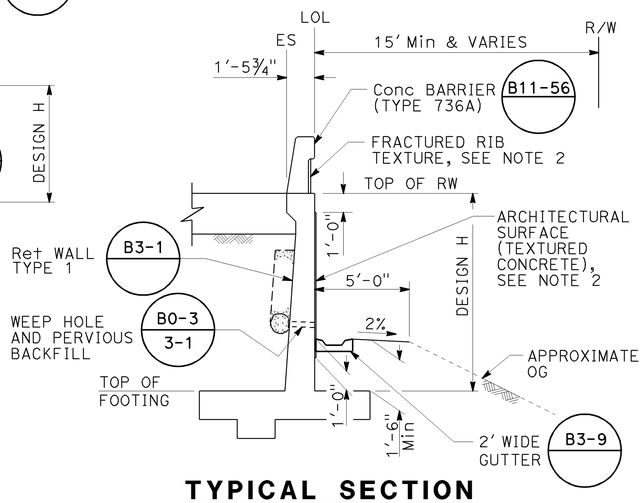
TYPICAL SECTION

¼"=1'-0"
Sta 10+31.44 to 13+70



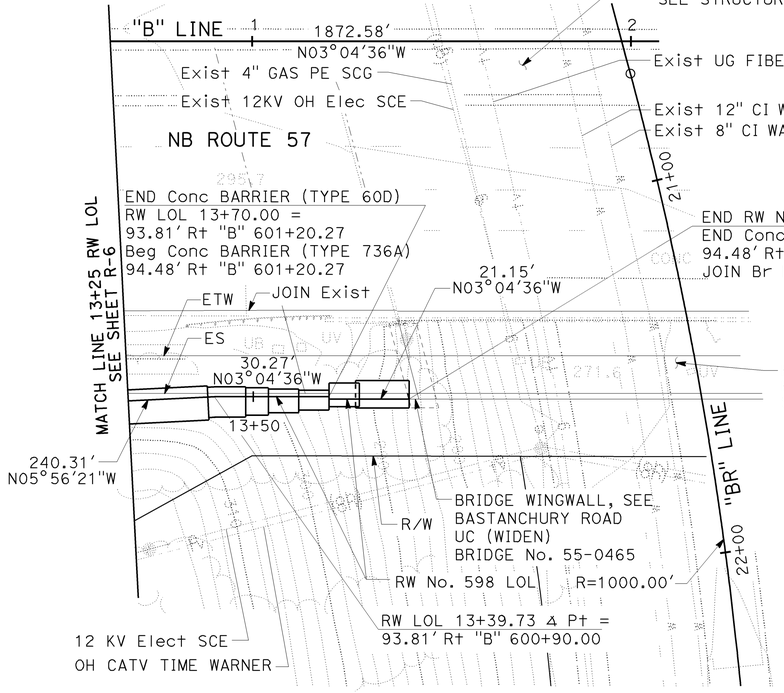
TYPICAL SECTION

¼"=1'-0"
Sta 10+00 to 10+31.44



TYPICAL SECTION

¼"=1'-0"
Sta 13+70 to 13+91.15



PLAN

1"=20'

NOTES:

1. FOR NOTES SEE SHEET R-6.
2. SEE RETAINING WALL DETAILS SHEET.

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

RETAINING WALL PLAN
RW No. 598

SCALE AS SHOWN

R-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
CALCULATED-DESIGNED BY
CHECKED BY: MARK FRICKE
REVISED BY
DATE REVISED
LAST REVISION
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 10:28
06-15-09

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trrichf
DGN FILE => c0F032qb002.dgn
CU 12220
EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	293	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

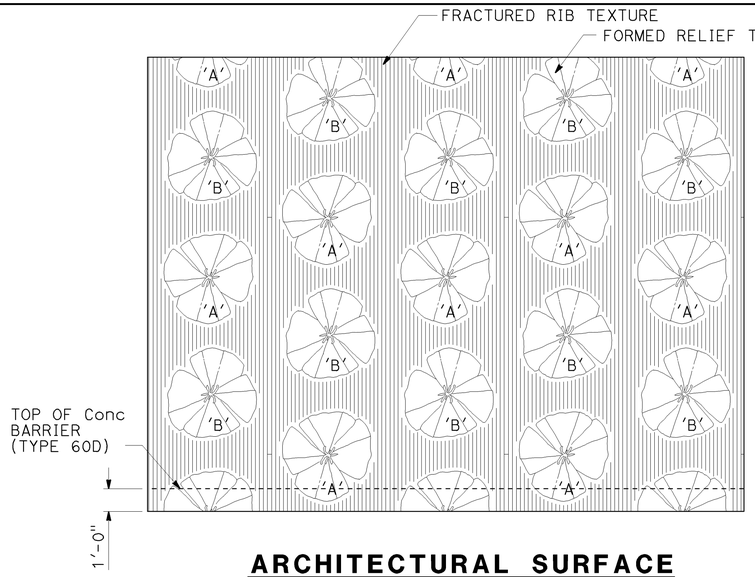
1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JOHN W. POWELL
No. C71463
Exp.12/31/09
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.

CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

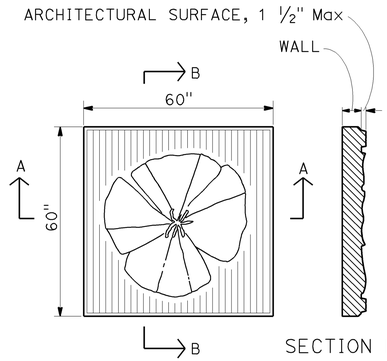
OCTA
550 S. MAIN STREET
ORANGE, CA 92863

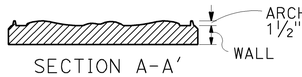


NOTES:

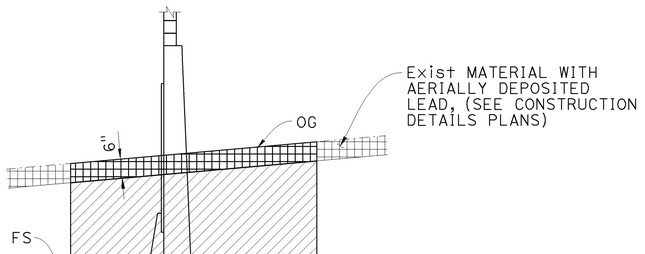
1. IDENTICAL FLOWER IMAGES, SCALE AND SPACING SHALL BE USED FOR FLOWER PATTERN.
2. WITHIN A VERTICAL COLUMN, FLOWER IMAGES SHALL ALTERNATE BETWEEN FLOWERS 'A' AND 'B'. VERTICAL COLUMNS SHALL BE OFFSET 30" FROM ADJACENT COLUMNS.
3. WHERE PLACED ON WALLS BOUNDED BY CONCRETE BARRIERS, FINISHED GRADE OR TOP OF WALL, FLOWER PATTERN SHALL BE CONTINUED WITHOUT CONCERN FOR PARTIAL FLOWER IMAGES, EXCEPT AS NOTED.

ARCHITECTURAL SURFACE (TEXTURED CONCRETE) ELEVATION





FLOWER PATTERN DETAILS



IN CUT

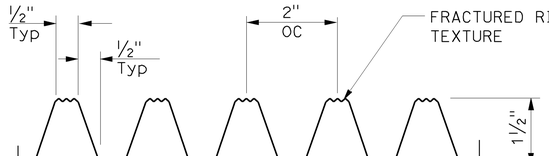
LIMITS OF PAYMENT OF EXCAVATION FOR RETAINING WALL

NOTE:
FOR BACKFILL SEE CALTRANS STANDARD PLANS

LEGEND

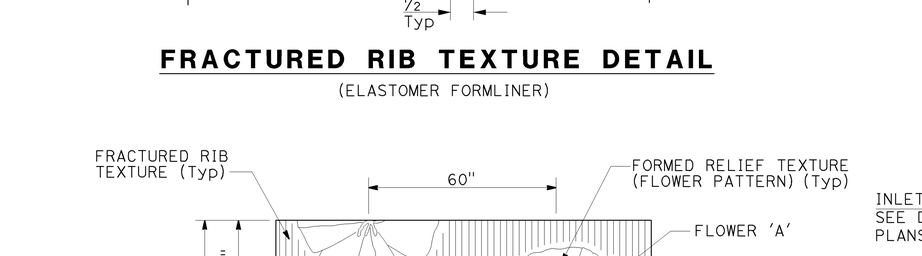
INDICATES STRUCTURE EXCAVATION (TYPE Y-1) (AERIALLY DEPOSITED LEAD)

STRUCTURE EXCAVATION (RETAINING WALL)

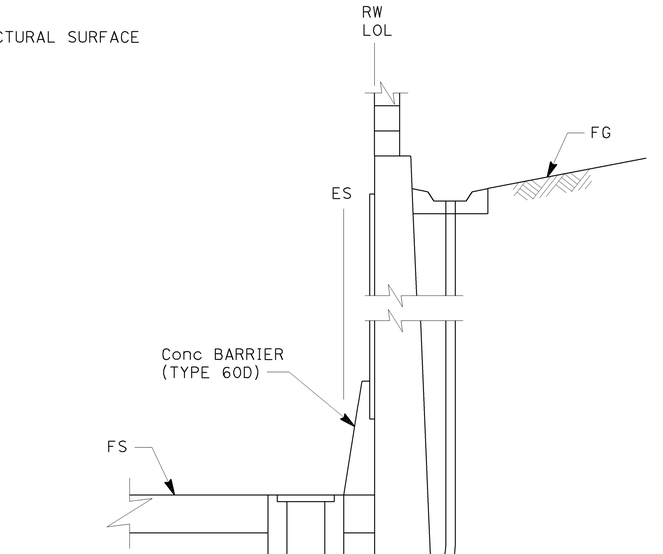


FRACTURED RIB TEXTURE DETAIL

(ELASTOMER FORMLINER)



ARCHITECTURAL SURFACE (TEXTURED CONCRETE) PATTERN



WALL GUTTER DRAIN DETAIL

RETAINING WALL DETAILS
RW No. 598

NO SCALE

R-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: JOHN POWELL
CHECKED BY: MARK FRICKE

REVISED BY	DATE REVISED

LAST REVISION — DATE PLOTTED => 25-JAN-2010
06-15-09 — TIME PLOTTED => 10:28

BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trrichf
DGN FILE => c0F032qb003.dgn

CU 12220

EA 0F0321

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
12	Ora	57	18.4/20.9	294	856

Hisham Nofal — 06/15/09
GEOTECHNICAL PROFESSIONAL — DATE

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HISHAM M. NOFAL — No. 2765 — Exp. 09/30/09 — GEOTECHNICAL — STATE OF CALIFORNIA

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

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CH2M HILL
6 HUTTON CENTRE DRIVE, SUITE 700
SANTA ANA, CA 92707

BENCHMARK:

HORIZONTAL COORDINATES ARE CCS NAD-83, ZONE 6.
VERTICAL CONTROL BASED ON NORTH AMERICAN VERTICAL DATUM 1988.
Pt 1048: N2273923.989, E6066816.158, Elev 297.698
Pt 1057: N2273578.007, E6066831.271, Elev 294.844

SAMPLER TYPES:

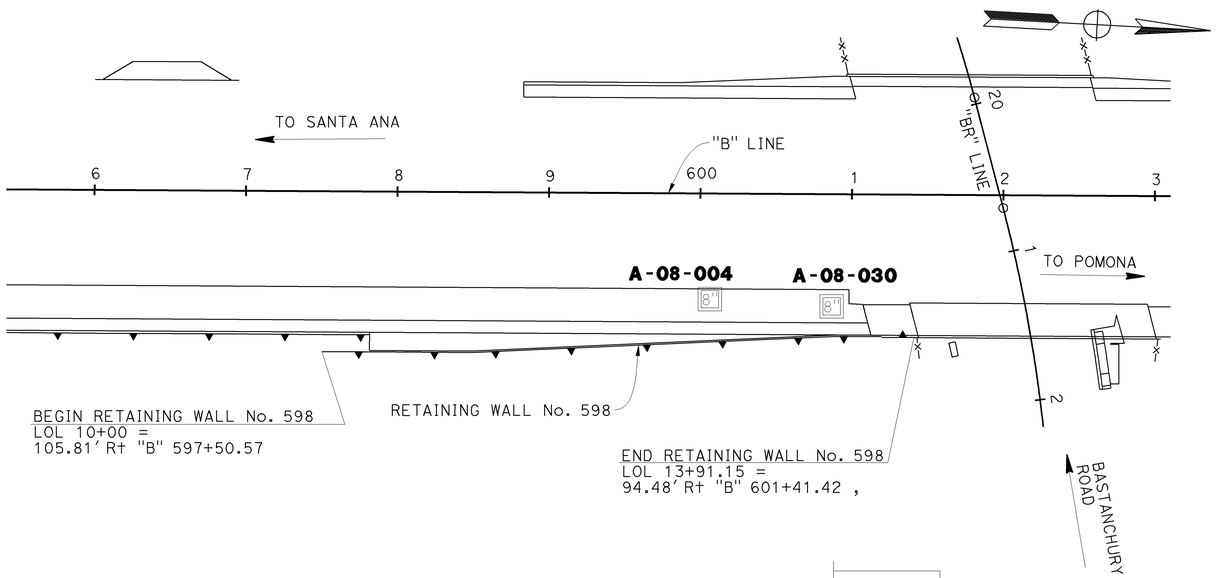
CALIFORNIA MODIFIED RING SAMPLER
STANDARD PENETRATION TEST SAMPLER

HAMMER TYPE:

AUTOMATIC HAMMER

CORRECTION FACTOR:

TO CONVERT FROM CALIFORNIA MODIFIED RING SAMPLER BLOW COUNT TO EQUIVALENT STANDARD PENETRATION TEST SAMPLER BLOW COUNT, FOR GRANULAR AND COHESIVE SOIL, MULTIPLY BY 0.67.



PLAN

1"=50'

PROFILE

Horz:1"=50'
Vert: 1"=10'

STATIONING "B" LINE

1 2 3 4 595 6 7 8 9 600 1 2 3 4 605 6

DESIGN OVERSIGHT	BRIDGE NO. DRAWN BY	K. Reyes	R. Bethapudi FIELD INVESTIGATION BY:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	Ayman Salama PROJECT ENGINEER	BRIDGE NO.
SIGN OFF DATE	CHECKED BY	H. Nofal	DATE			POST MILES

RETAINING WALL No. 598

LOG OF TEST BORINGS SHEET 1 OF 3 — R-9

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 12220
EA 0F0321

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 02/17/09, 04/07/09, 06/15/09 — SHEET — OF

FILE => c0F032qb004.dgn

USERNAME => rtright DATE PLOTTED => 25-JAN-2010 TIME PLOTTED => 10:28

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND
GP	Poorly graded GRAVEL Poorly graded GRAVEL with SAND
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)
GP-GM	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND
GP-GC	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)
GM	SILTY GRAVEL SILTY GRAVEL with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL
SP	Poorly graded SAND Poorly graded SAND with GRAVEL
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)
SP-SM	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL
SP-SC	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)
SM	SILTY SAND SILTY SAND with GRAVEL
SC	CLAYEY SAND CLAYEY SAND with GRAVEL
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL
PT	PEAT
	COBBLES COBBLES and BOULDERS BOULDERS

Graphic/Symbol	Group Names
CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166)
  Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

CEMENTATION

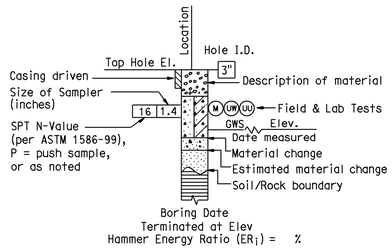
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

CONSISTENCY OF COHESIVE SOILS

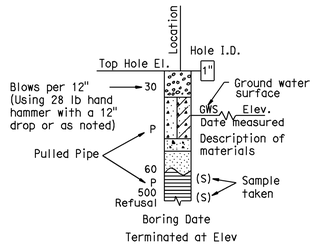
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

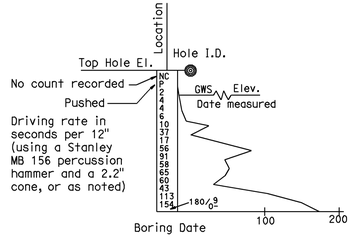
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



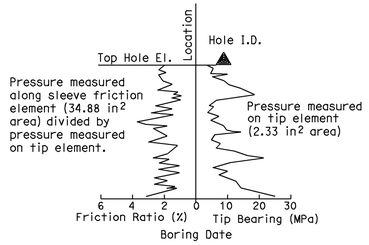
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
◕	B	Hollow Stem Auger Boring (HSA)
▲	CPT	Cone Penetration Test (ASTM D 5778-95)
□	O	Other

Note: Size in inches.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
12	Ora	57	18.4/20.9	295	856

Hisham Nofal 06/15/09
GEOTECHNICAL PROFESSIONAL DATE

REGISTERED PROFESSIONAL ENGINEER
HISHAM M. NOFAL
No. 2765
Exp. 09/30/09
GEOTECHNICAL
STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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OCTA
550 S. MAIN STREET
ORANGE, CA 92863

CH2M HILL
6 HUTTON CENTRE DRIVE, SUITE 700
SANTA ANA, CA 92707

DESIGN OVERSIGHT

SIGN OFF DATE

DRAWN BY K. Reyes

CHECKED BY H. Nofal

R. Bethapudi
FIELD INVESTIGATION BY:

DATE

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Ayman Salama
PROJECT ENGINEER

BRIDGE NO.

POST MILES

SOIL LEGEND

RETAINING WALL No. 598

LOG OF TEST BORINGS SHEET 2 OF 3 R-10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 12220
EA 0F0321

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 02/27/09 04/07/09 06/15/09

SHEET OF

FILE => c0F032qb005.dgn

USERNAME => tfright DATE PLOTTED => 25-JAN-2010 TIME PLOTTED => 10:28

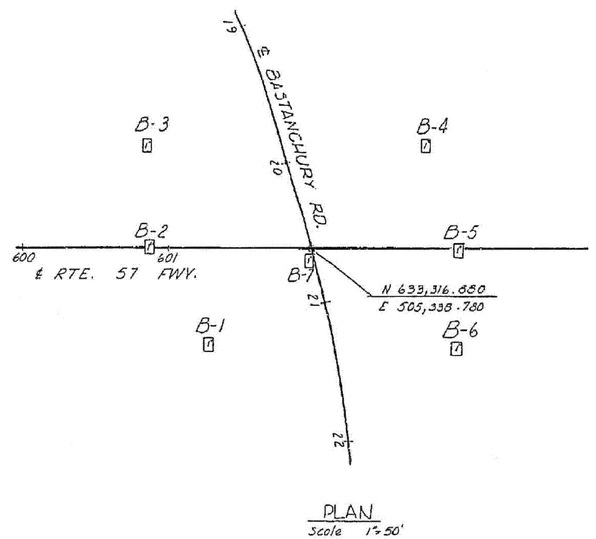
FED. ROAD DIV. NO.	STATE	F. A. PROJECT No.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
07	ORA	57	19/20.2	150	180

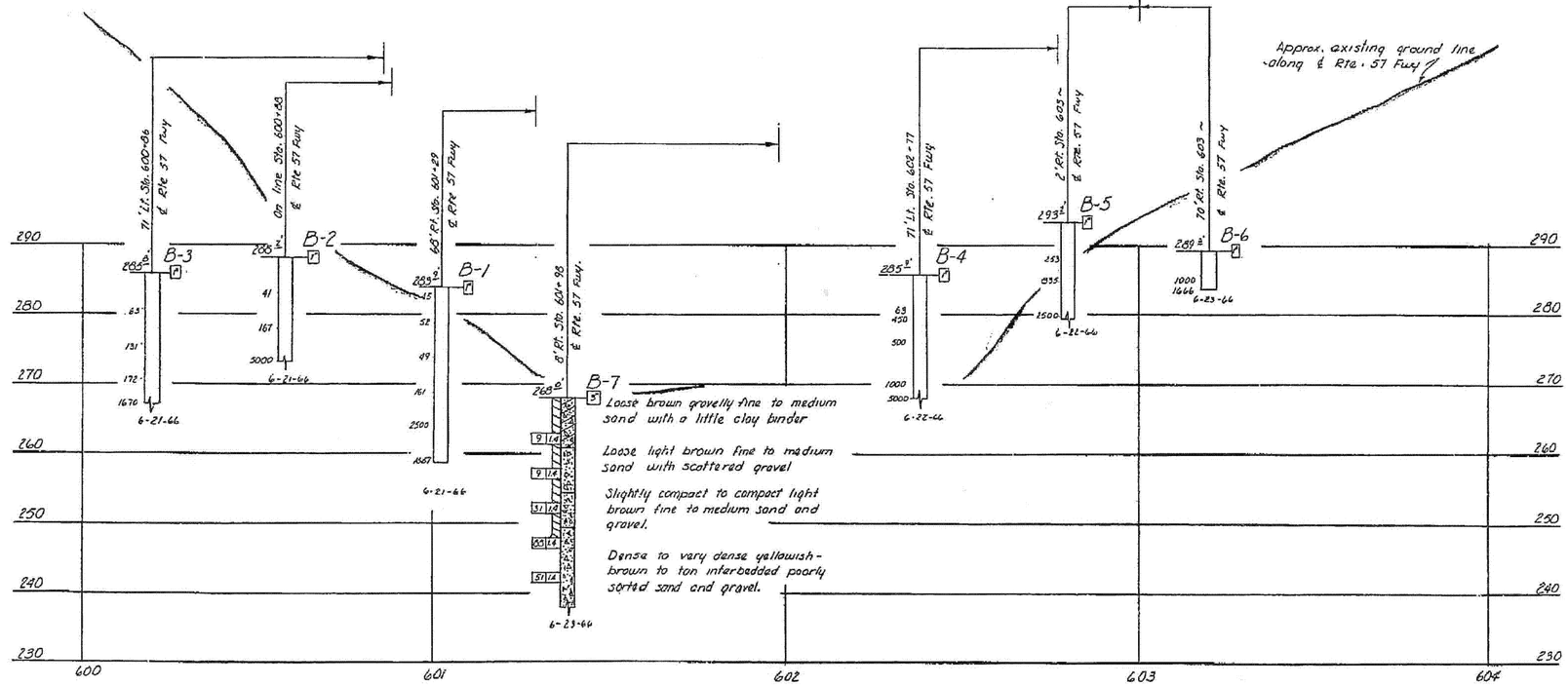
Date Approved September 30, 1968

BENCH MARK

BM 35-19A-56 Elev. 281.90
Set ch. knab on S.W. cor of drop inlet @ W. end of conc. flume 234' E. of Sta. 538-74 P Line & 1320'± No. of Pioneer Ave.



PLAN
Scale 1"=50'



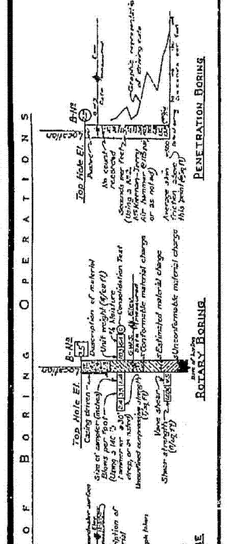
PROFILE
Scale Vert. 1"=10'
Horiz. 1"=20'

INFORMATION ON ACTUAL FOUNDATION CONDITIONS ENCOUNTERED IS ON FILE IN BRIDGE GEOLOGY SECTION

NO AS Built Corrections
AS BUILT
CORRECTIONS BY
CONTRACT NO.
DATE

NO GROUND WATER ENCOUNTERED DURING THIS INVESTIGATION BY BRIDGE DEPT. GEOLOGY SECTION
DATE June 1966

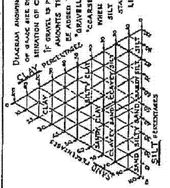
LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

GRAVEL · SAND · SILT · CLAY · SANDY CLAY OR CLAYEY SAND · SILTY CLAY OR CLAYEY SILT · CLAY AND ORGANIC MATTER · FILL MATERIAL · IGNEOUS ROCK · SEDIMENTARY ROCK · SANDY SILT OR SILTY SAND · METAMORPHIC ROCK

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS



NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

FIELD STUDY	Jr. D. CRAWFORD	6-23-66
DRAWN	Jr. M. ALLELEO	7-1-66
CHECKED	Sr. C. Beams	7-8-66

Approved Recommended Bradley E. Mead
Engineering Geologist

BRIDGE DEPARTMENT
ENGINEERING GEOLOGY SECTION

150

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	Sheet No.	Total Sheets
12	Ora	57	18.4/20.9	296	856

Hisham Nofal 06/08/09
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
HISHAM M. NOFAL
No. 2765
Exp. 09/30/11
GEOTECHNICAL
STATE OF CALIFORNIA

RETAINING WALL NO. 598

LOG OF TEST BORINGS SHEET 3 OF 3 R-11

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

CU: 12220
EA: 0F0231

BRIDGE No.
Sheet of

To accompany plans dated 1-25-10

AS BUILT PLANS
Contract No. 07-032134
Date Completed
Document No. 7000578

Champa 07208
W.A. 032131

Blueprint prints beach ... ners →

R-11

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

BASTANCHURY ROAD UNDERCROSSING

LOG OF TEST BORINGS

SHEET 1 OF 1 SHEETS | SCALE As Noted | BRIDGE 55-465 | FILE | DRAWING 55465-7

PREL. DRAWING No. PR- 139 167

c0F032qb006.tif

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	297	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

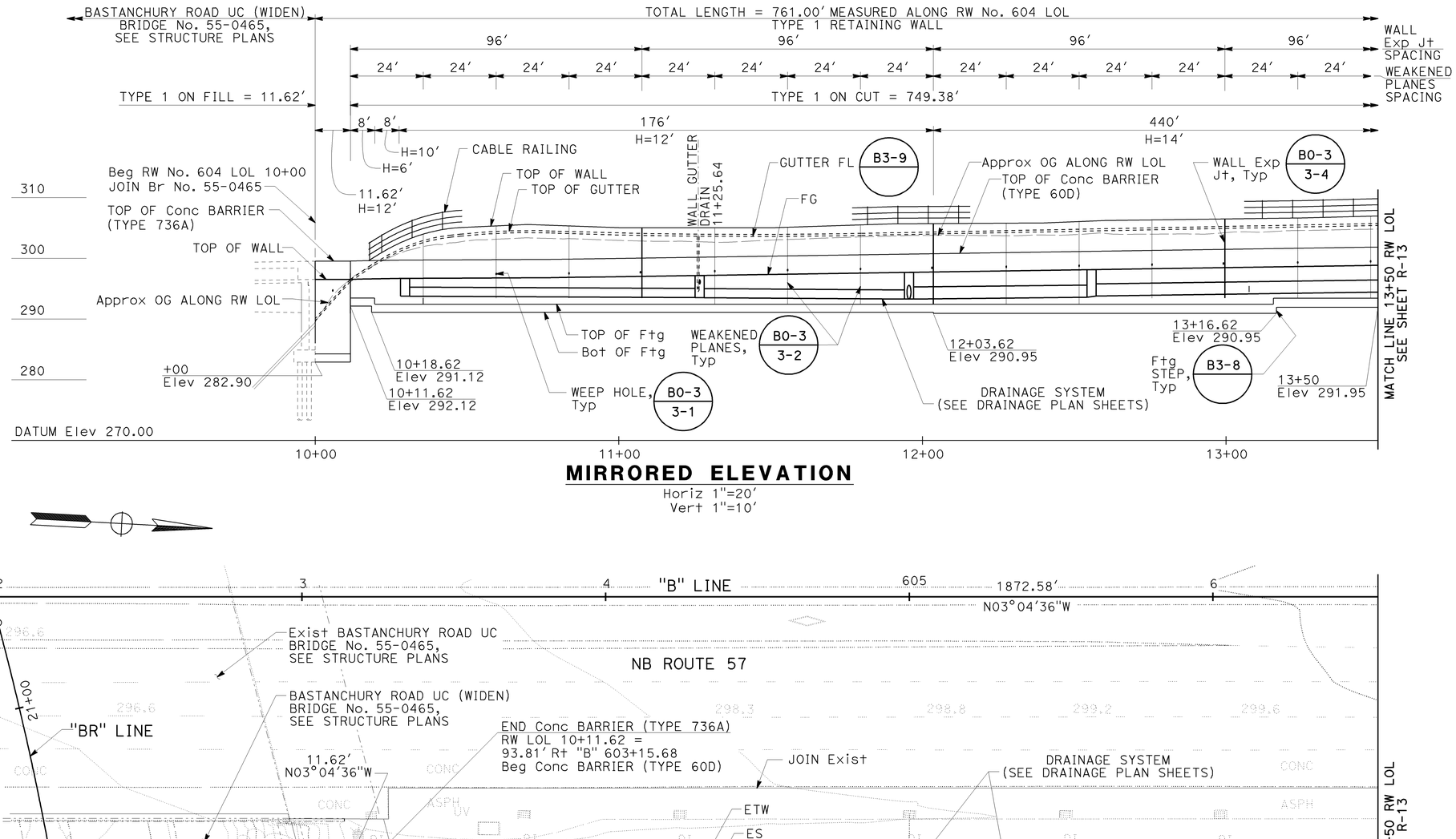
JOHN W. POWELL No. C71463 Exp.12/31/09 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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

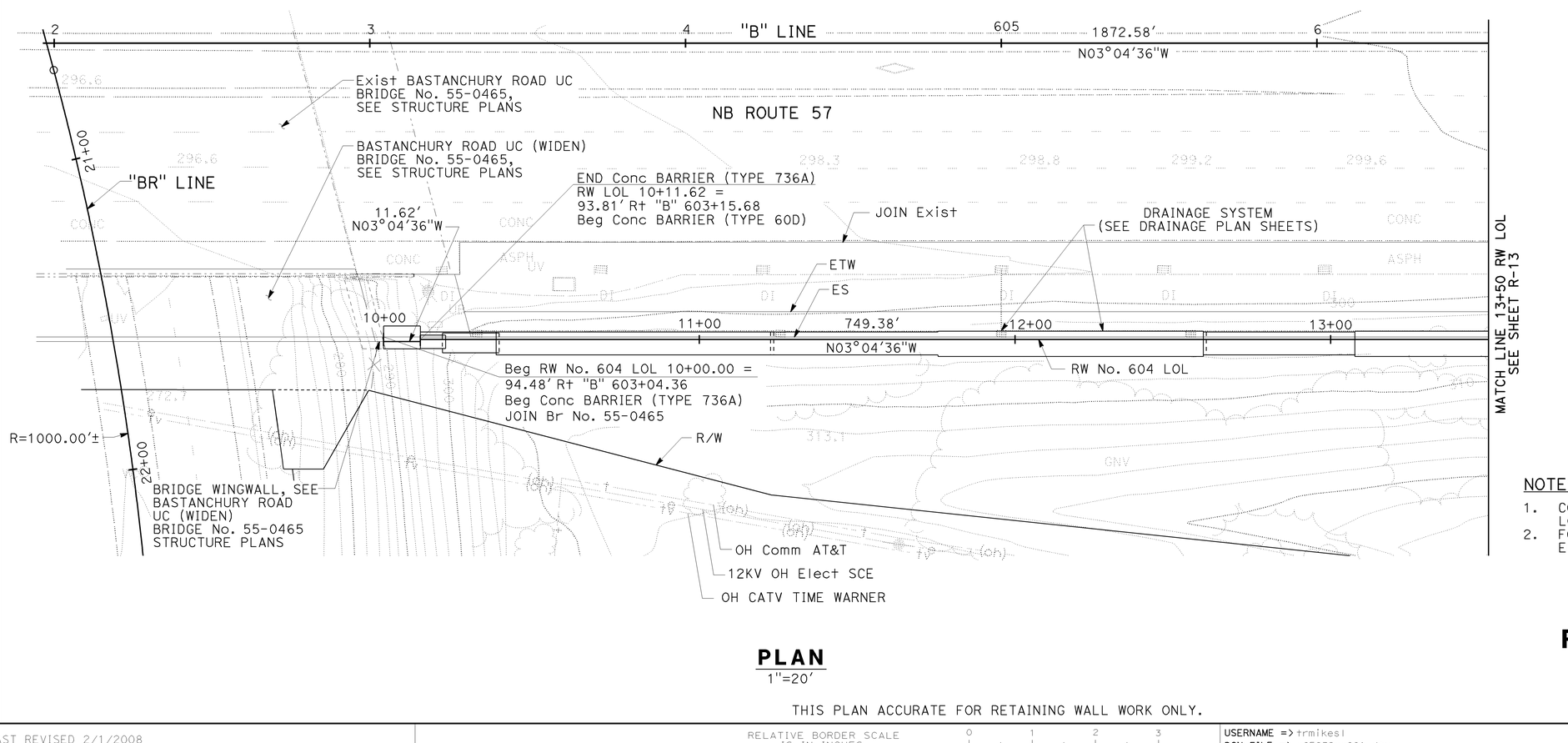
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



MIRRORED ELEVATION

Horiz 1"=20'
Vert 1"=10'



PLAN

1"=20'

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO RETAINING WALL CONSTRUCTION.
2. FOR TYPICAL SECTIONS AND RETAINING WALL ELEVATION TABLE, SEE SHEET R-14.

RETAINING WALL PLAN
RW No. 604

SCALE AS SHOWN

R-12

CALCULATED-DESIGNED BY: JOHN POWELL
CHECKED BY: MARK FRICKE
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 25-JAN-2010 | TIME PLOTTED => 09:54 | 06-15-09

BORDER LAST REVISED 2/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmikesl | DGN FILE => c0F032qc001.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	298	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN W. POWELL — No. C71463 — Exp.12/31/09 — CIVIL — STATE OF CALIFORNIA

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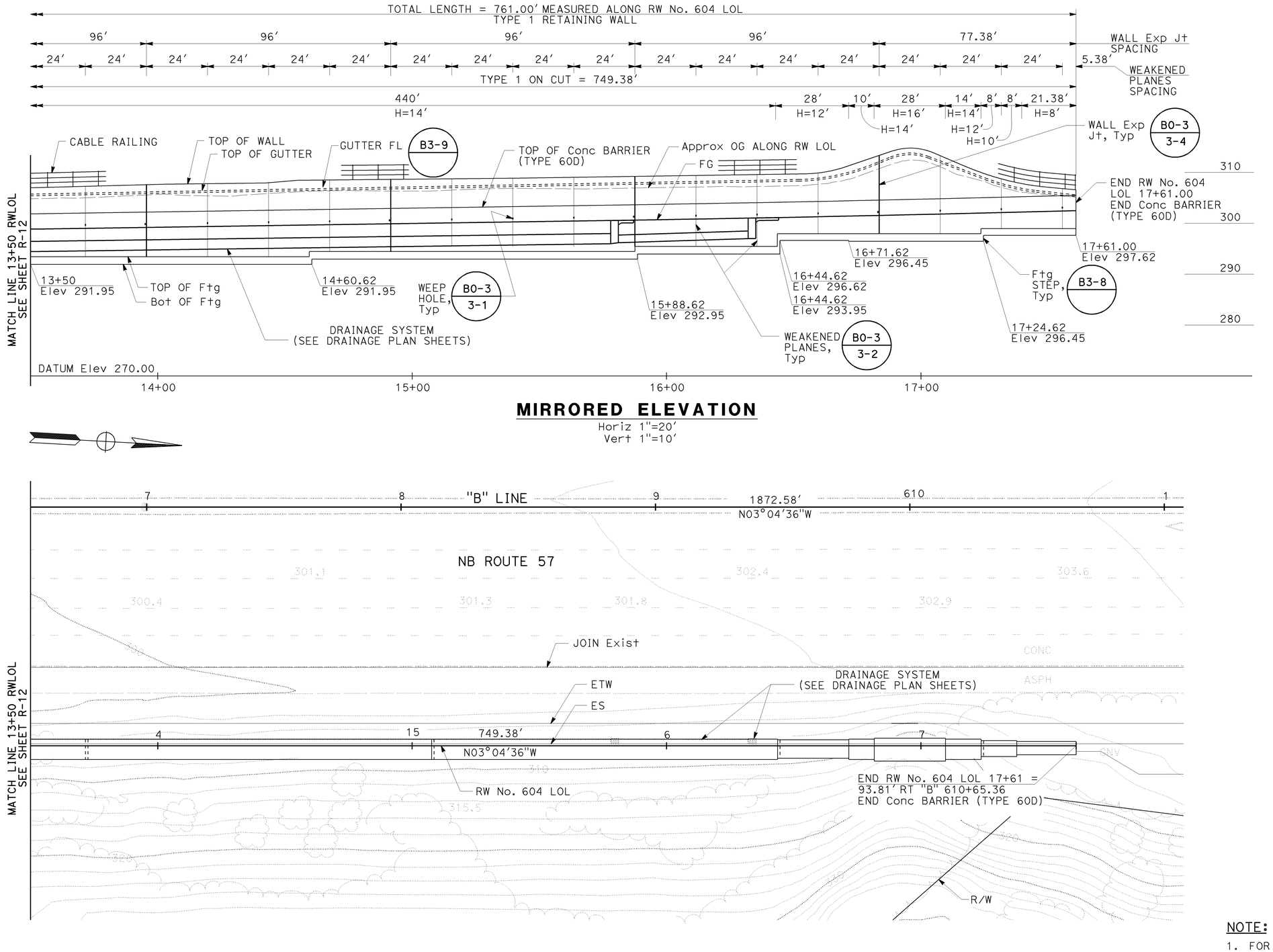
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863



MIRRORED ELEVATION

Horiz 1"=20'
Vert 1"=10'

PLAN

1"=20'

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

NOTE:

1. FOR NOTES SEE SHEET R-12.

RETAINING WALL PLAN
RW No. 604

SCALE AS SHOWN

R-13

REVISED BY | DATE REVISED
JOHN POWELL | MARK FRICKE
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION — DATE PLOTTED => 25-JAN-2010 — TIME PLOTTED => 09:54
06-15-09

BORDER LAST REVISED 2/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmikesl | DGN FILE => c0F032qc002.dgn | CU 12220 | EA 0F0321

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	299	856

REGISTERED CIVIL ENGINEER — DATE 06/15/09

1-25-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN W. POWELL — No. C71463 — Exp.12/31/09 — CIVIL — STATE OF CALIFORNIA

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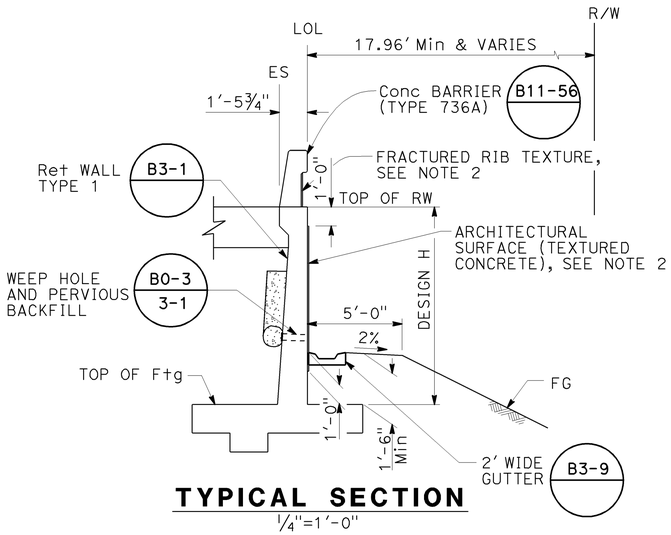
CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

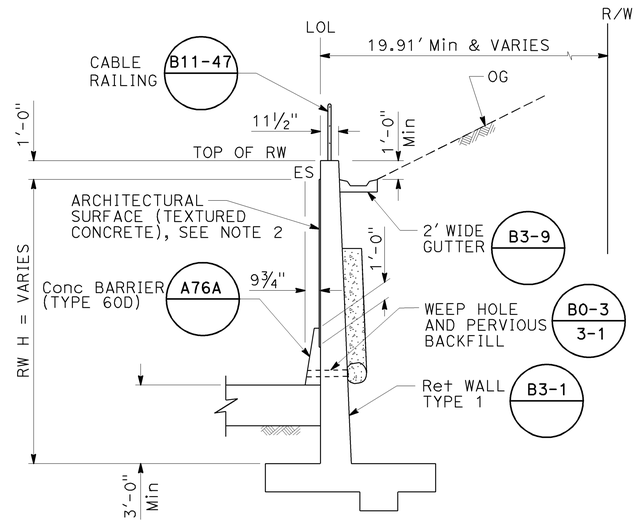
OCTA
550 S. MAIN STREET
ORANGE, CA 92863



TYPICAL SECTION

¼"=1'-0"

Sta 10+00 to 10+11.62



TYPICAL SECTION

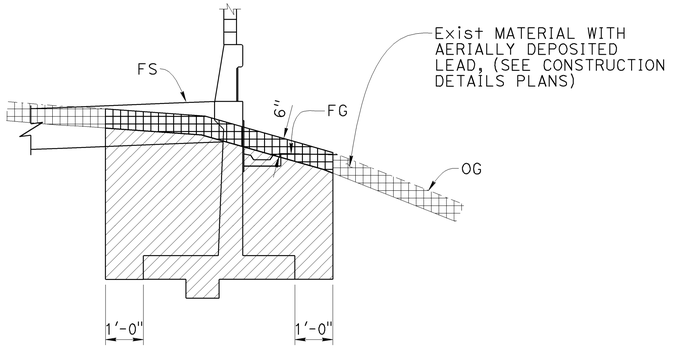
¼"=1'-0"

Sta 10+11.62 to 17+61

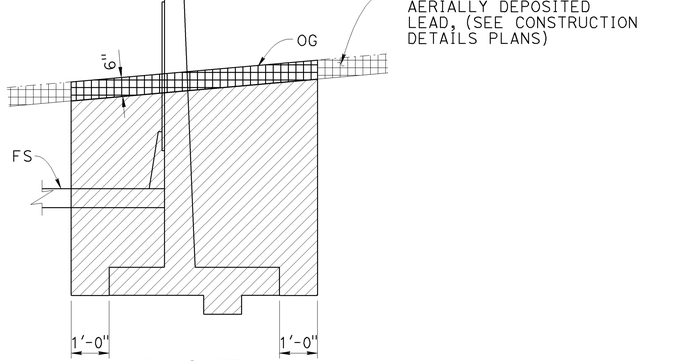
RETAINING WALL ELEVATIONS

RW LOL STA	TOP OF WALL
10+11.62	299.55
10+20	300.43
10+30	303.32
10+40	304.75
10+50	305.31
10+60	305.75
10+70	306.03
10+80	306.15
10+90	306.22
11+00	306.30
11+10	306.37
11+20	306.44
11+30	306.51
11+40	306.58
11+50	306.66
11+60	306.73
11+70	306.80
11+80	306.87
11+90	306.94
12+00	307.02
12+10	307.09
12+20	307.16
12+30	307.23
12+40	307.30
12+50	307.38
12+60	307.45
12+70	307.52
12+80	307.59
12+90	307.66
13+00	307.74
13+10	307.81
13+20	307.88
13+30	307.95
13+40	308.02
13+50	308.10
13+60	308.17
13+70	308.24
13+80	308.31
13+90	308.38

RW LOL STA	TOP OF WALL
14+00	308.46
14+10	308.53
14+20	308.60
14+30	308.67
14+40	308.74
14+50	308.82
14+60	308.89
14+70	308.96
14+80	309.03
14+90	309.10
15+00	309.18
15+10	309.25
15+20	309.32
15+30	309.39
15+40	309.46
15+50	309.53
15+60	309.61
15+70	309.68
15+80	309.75
15+90	309.82
16+00	309.89
16+10	309.97
16+20	310.04
16+30	310.11
16+40	310.18
16+50	310.25
16+60	310.53
16+70	311.42
16+80	312.96
16+90	314.88
17+00	315.03
17+10	313.16
17+20	311.17
17+30	309.32
17+40	308.01
17+50	307.24
17+60	306.64
17+61	306.59



IN FILL



IN CUT

LIMITS OF PAYMENT OF EXCAVATION FOR RETAINING WALL

NO SCALE

NOTE:
FOR BACKFILL SEE CALTRANS STANDARD PLANS

LEGEND

INDICATES STRUCTURE EXCAVATION (TYPE Y-1) (AERIALLY DEPOSITED LEAD)

STRUCTURE EXCAVATION (RETAINING WALL)

NOTES:

1. FOR NOTES SEE SHEET R-12.
2. SEE RETAINING WALL DETAILS SHEET.

TYPICAL SECTIONS & ELEVATIONS RW No. 604

SCALE AS SHOWN

R-14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®

CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA

CALCULATED-DESIGNED BY: JOHN POWELL

CHECKED BY: MARK FRICKE

REVISED BY | DATE REVISED

LAST REVISION: 06-15-09

DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 09:54

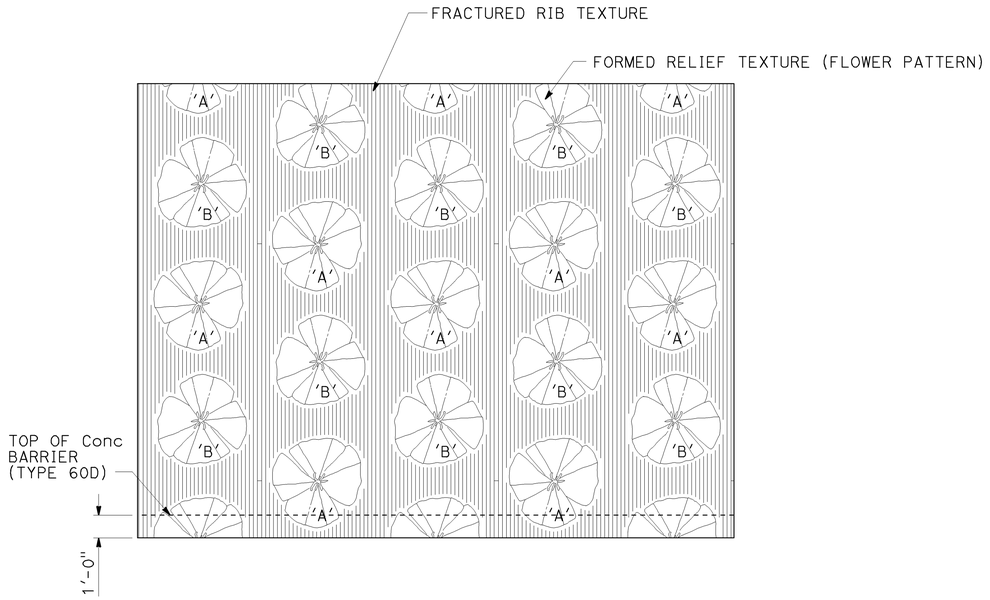
BORDER LAST REVISED 2/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

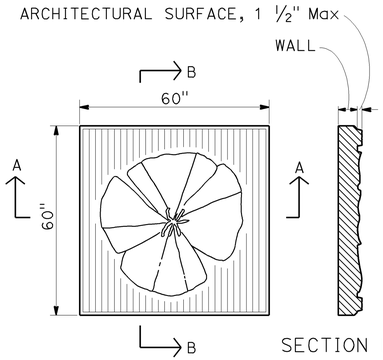
USERNAME => trmikesl
DGN FILE => c0F032qc003.dgn

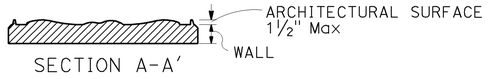
CU 12220

EA 0F0321

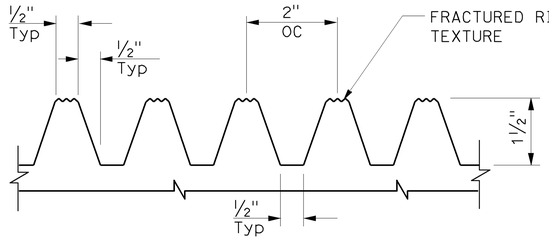


ARCHITECTURAL SURFACE (TEXTURED CONCRETE) ELEVATION



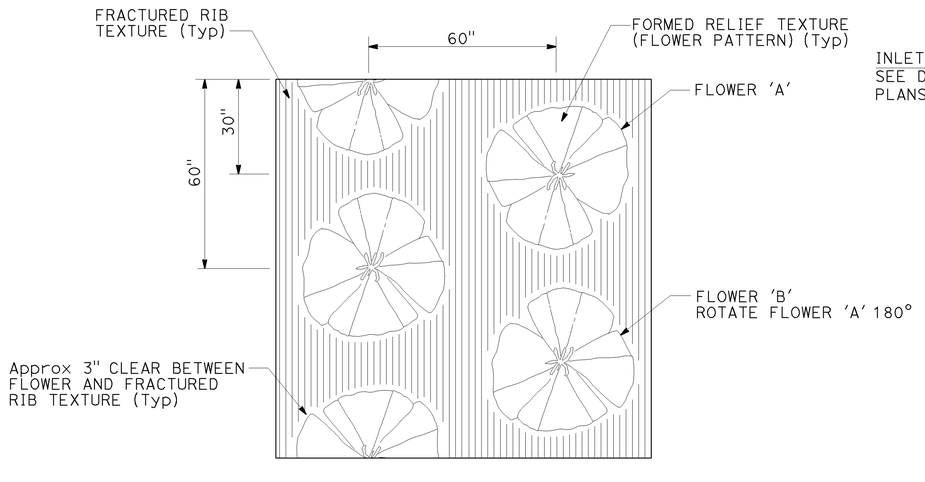


FLOWER PATTERN DETAILS

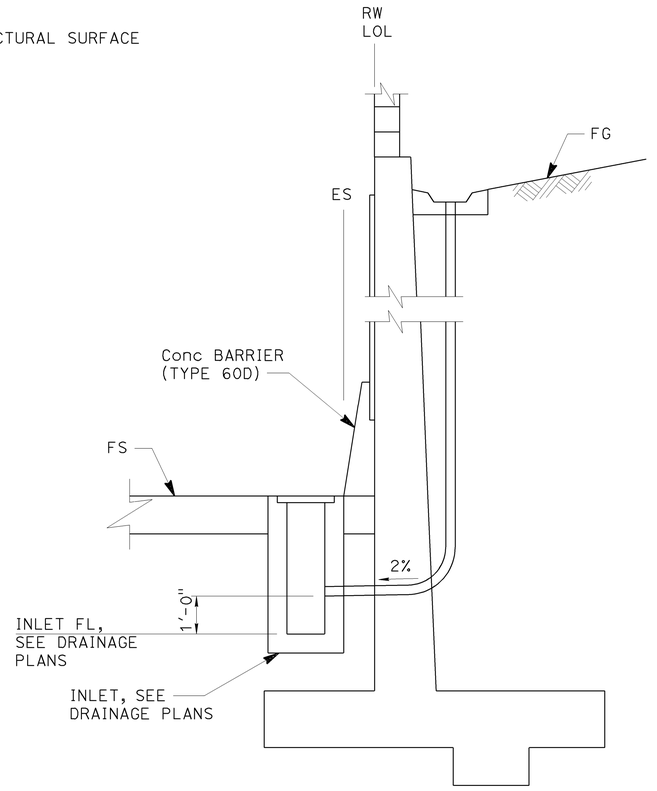


FRACTURED RIB TEXTURE DETAIL

(ELASTOMER FORMLINER)



ARCHITECTURAL SURFACE (TEXTURED CONCRETE) PATTERN



WALL GUTTER DRAIN DETAIL

NOTES:

1. IDENTICAL FLOWER IMAGES, SCALE AND SPACING SHALL BE USED FOR FLOWER PATTERN.
2. WITHIN A VERTICAL COLUMN, FLOWER IMAGES SHALL ALTERNATE BETWEEN FLOWERS 'A' AND 'B'. VERTICAL COLUMNS SHALL BE OFFSET 30" FROM ADJACENT COLUMNS.
3. WHERE PLACED ON WALLS BOUNDED BY CONCRETE BARRIERS, FINISHED GRADE OR TOP OF WALL, FLOWER PATTERN SHALL BE CONTINUED WITHOUT CONCERN FOR PARTIAL FLOWER IMAGES, EXCEPT AS NOTED.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	57	18.4/20.9	300	856

06/15/09
REGISTERED CIVIL ENGINEER DATE

JOHN W. POWELL No. C71463 Exp.12/31/09 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

1-25-10
PLANS APPROVAL DATE

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CH2M HILL
6 HUTTON CENTRE DRIVE,
SUITE 700
SANTA ANA, CA 92707

OCTA
550 S. MAIN STREET
ORANGE, CA 92863

RETAINING WALL DETAILS
RW No. 604

NO SCALE

R-15

CALCULATED-DESIGNED BY: JOHN POWELL
CHECKED BY: MARK FRICKE
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR: THOMAS IONTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 06-15-09
DATE PLOTTED => 25-JAN-2010
TIME PLOTTED => 09:55

BORDER LAST REVISED 2/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmikesl
DGN FILE => c0F032qc004.dgn
CU 12220
EA 0F0321