INDEX OF PLANS

SHEET No.	DESCRIPTION
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10	PAVEMENT DELINEATION QUANTITIES
11-14	REVISED STANDARD PLANS
	STRUCTURE PLANS
15-21	GENERAL PLAN
22	TEMPORARY SUPPORT DETAILS
23	DECK REPAIR DETAILS
24	JOINT SEAL DETAILS

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

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN CONTRA COSTA COUNTY

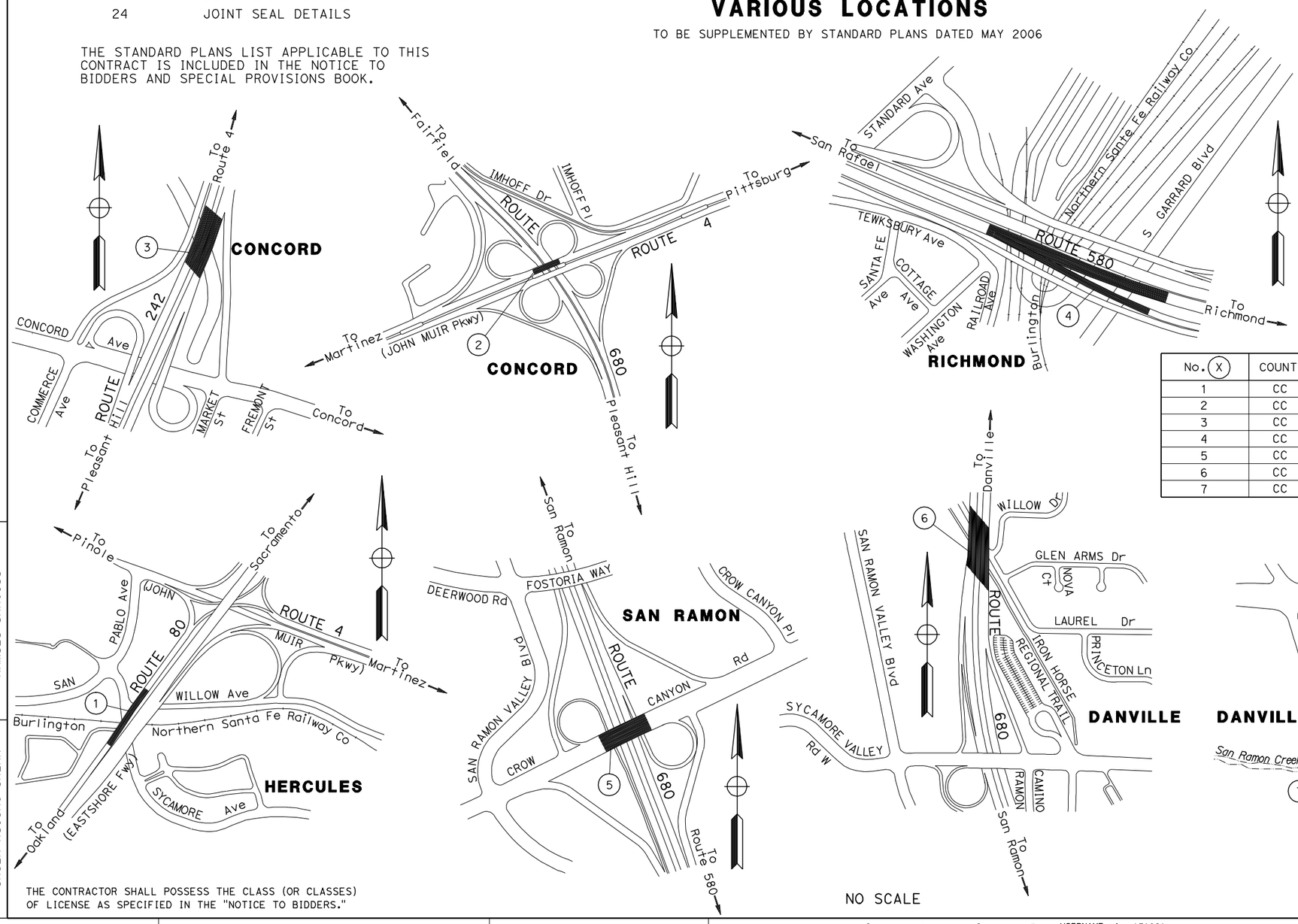
AT

VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	1	24

LOCATION MAP



NO SCALE

LOCATIONS OF CONSTRUCTION

No. (X)	COUNTY	ROUTE	PM	BRIDGE NAME	BRIDGE No.
1	CC	4	0.01	E&W4-W80 CONNECTOR OH	28-0143F
2	CC	4	12.64	ROUTE 4/680 SEPARATION	28-0179L
3	CC	242	R1.61	BUCHANAN FIELD VIADUCT	28-0186
4	CC	580	R4.82	RAILROAD AVENUE OH	28-0056L
5	CC	680	R4.18	CROW CANYON ROAD OC	28-0206
6	CC	680	R7.02	LAUREL DRIVE UC	28-0196
7	CC	680	R7.43	SAN RAMON CREEK	28-0197

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

C.H. Chern 11-16-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

January 10, 2011
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.

REGISTERED PROFESSIONAL ENGINEER
C.H. Chern
No. 48187
Exp. 06-30-12
CIVIL
STATE OF CALIFORNIA

CONTRACT No.	04-1E7804
PROJECT ID	0400000577

PROJECT MANAGER: RAMSES SARGISS
DESIGN ENGINEER: CHUEN-HSIUNG CHERN

LAST REVISION 11-15-10
DATE PLOTTED => 24-JAN-2011
TIME PLOTTED => 09:00

BORDER LAST REVISED 7/2/2010 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s131681 DGN FILE => 0400000577ab001.dgn | UNIT 0976 | PROJECT NUMBER & PHASE 04000005771

LEGEND

X — CONSTRUCTION AREA SIGN LETTER

← DIRECTION OF TRAFFIC

✕ RAMP OR CONNECTION TO BE CLOSED

NOTES

1. EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY THE ENGINEER.
2. THESE PLANS ARE TO BE USED IN ADDITION TO DETAILS FOR RAMP CLOSURE MISCELLANEOUS DETAILS T14 OF STANDARD PLANS DATED MAY 2006.

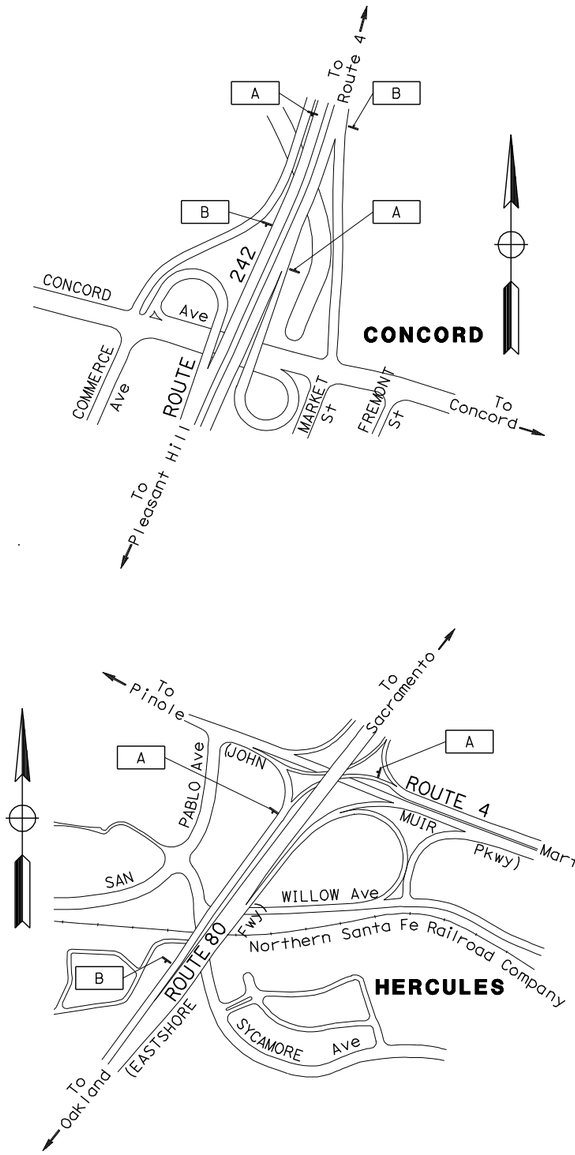
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	2	24

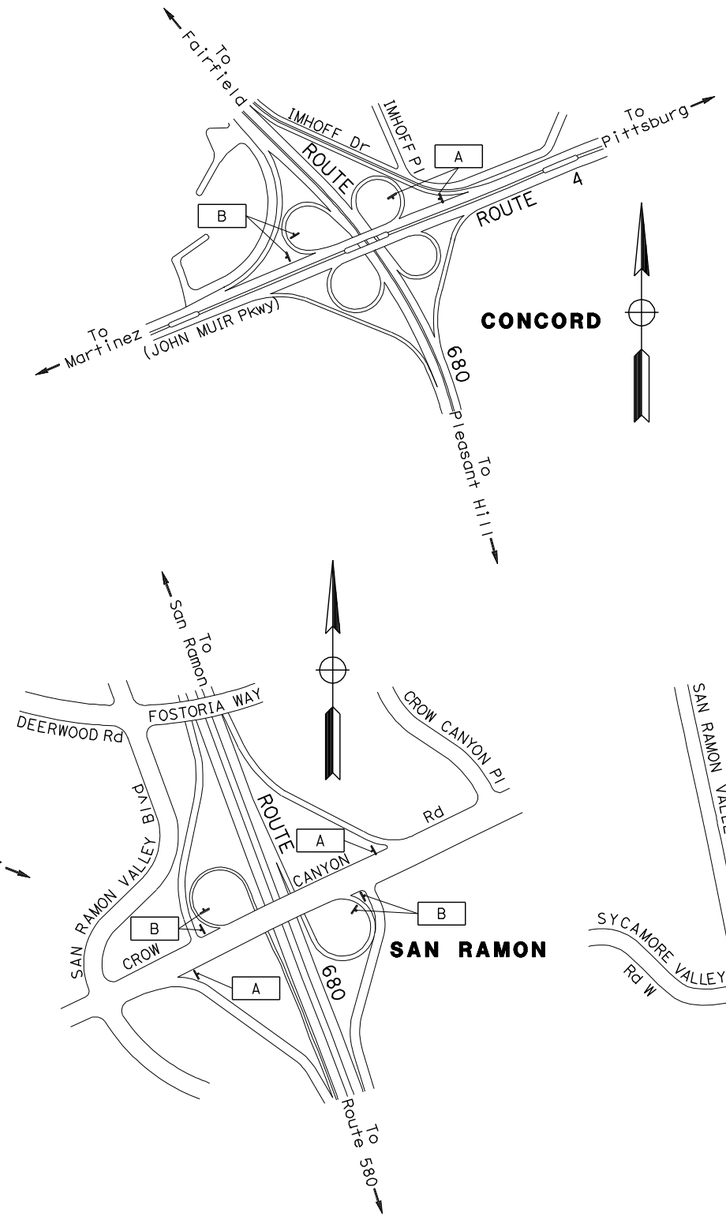
Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER — DATE

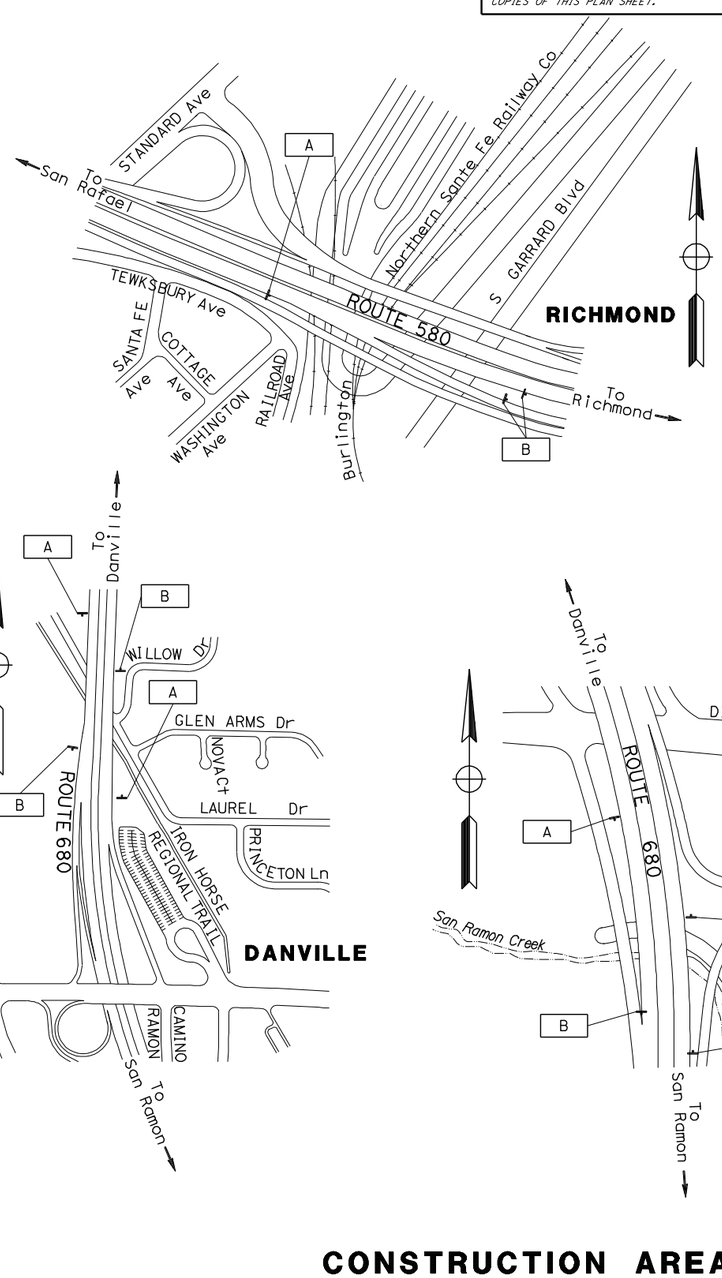
1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA

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







CONSTRUCTION AREA SIGNS

NO SCALE

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

	CALCULATED-DESIGNED BY	CLAUDIA FANG	REVISED BY	A
	CHECKED BY	FLORANTE PEREZ	DATE REVISED	A

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

FUNCTIONAL SUPERVISOR
LOURDES DAVID

LAST REVISION 11-15-10
DATE PLOTTED => 24-JAN-2011
TIME PLOTTED => 09:01

BORDER LAST REVISED 7/2/2010

USERNAME => s131681
DGN FILE => 04000005771a001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0976

PROJECT NUMBER & PHASE 04000005771

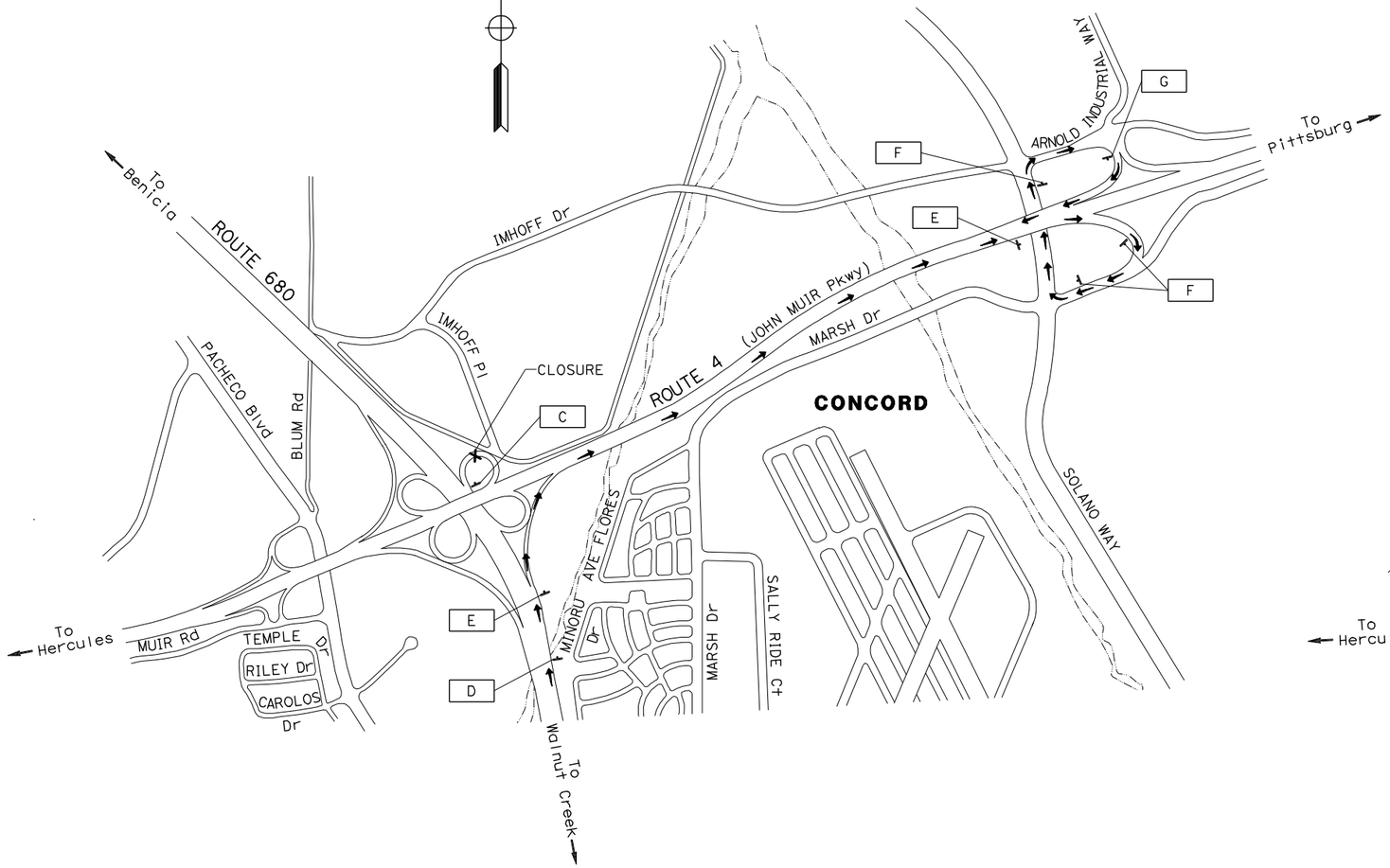
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	3	24

Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA

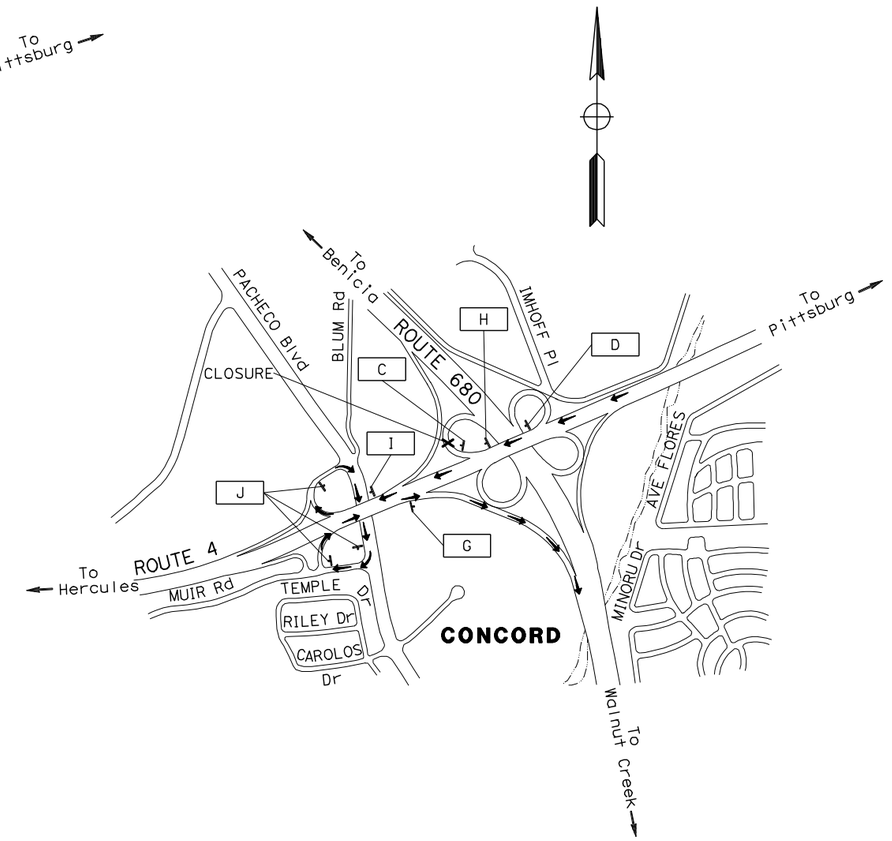
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



DETOUR PLAN No.1

WB ROUTE 4 ON CONNECTOR FROM NB ROUTE 680
CLOSED

VIA:
NB ROUTE 680;
OFF-RAMP TO EB ROUTE 4;
EB ROUTE 4;
OFF-RAMP TO SOLANO WAY;
WB MARSH Rd;
NB SOLANO WAY;
EB ARNOLD INDUSTRIAL WAY;
OFF-RAMP TO WB ROUTE 4.



DETOUR PLAN No.2

WB ROUTE 4 OFF CONNECTOR TO SB ROUTE 680
CLOSED

VIA:
WB ROUTE 4;
OFF-RAMP TO PACHECO Blvd;
SB PACHECO Blvd;
WB MUIR Rd;
ON-RAMP TO EB ROUTE 4;
EB ROUTE 4;
OFF-CONNECTOR TO SB ROUTE 680.

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-2

CALCULATED-DESIGNED BY	CLAUDIA FANG	REVISED BY / A
CHECKED BY	FLORANTE PEREZ	DATE REVISED / A
FUNCTIONAL SUPERVISOR	LOURDES DAVID	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC

LAST REVISION 11-15-10 | DATE PLOTTED => 24-JAN-2011 | TIME PLOTTED => 09:01

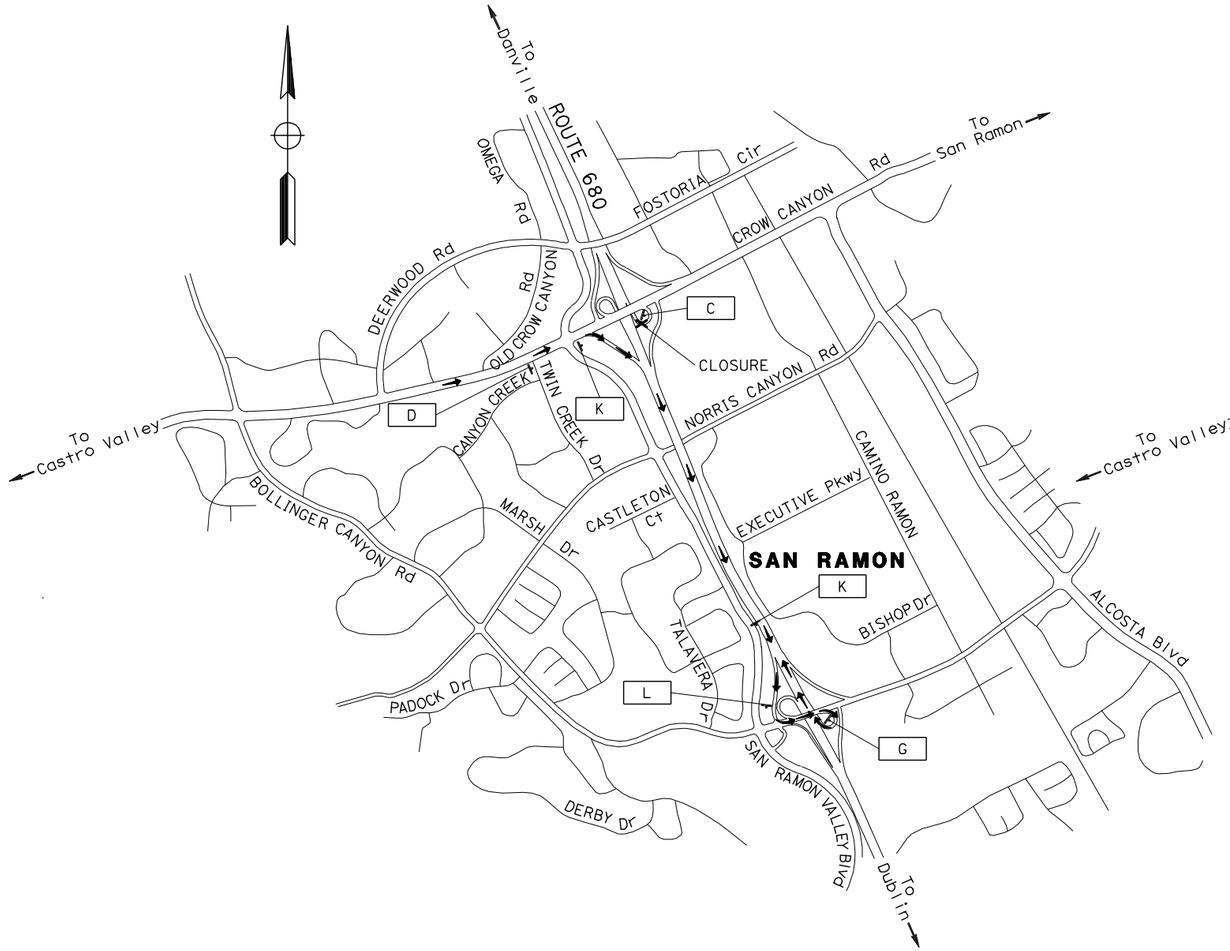
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	4	24

Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA

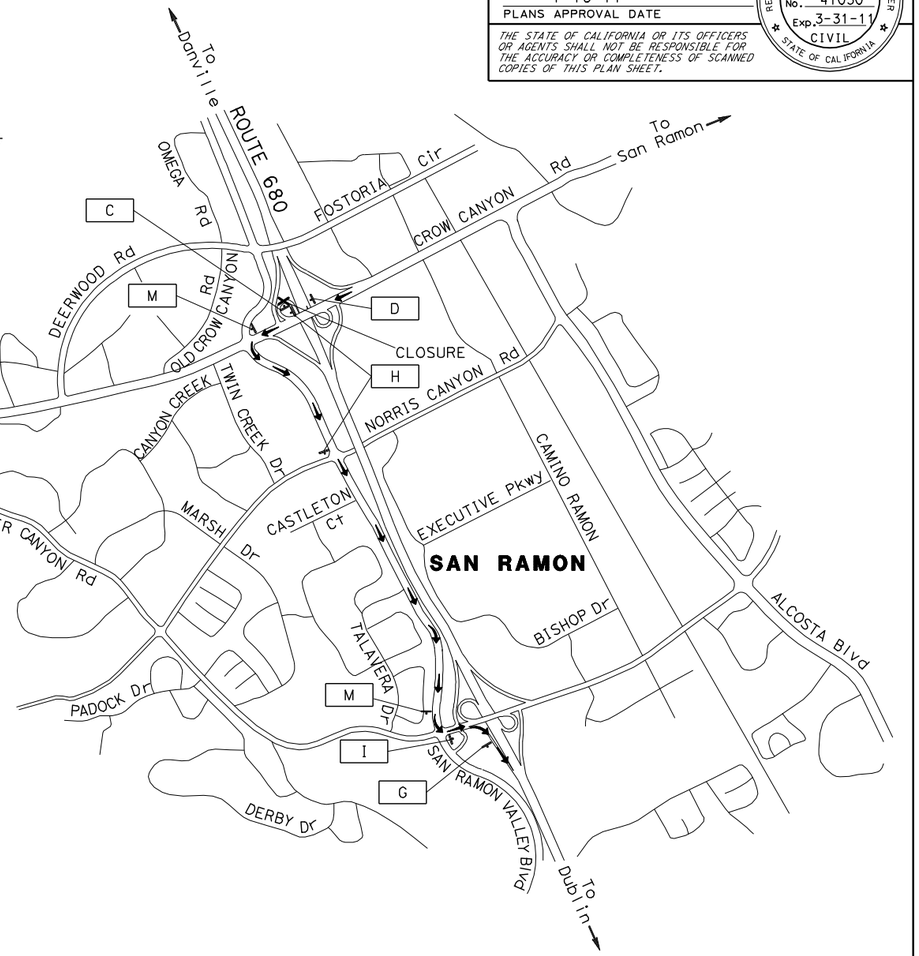
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



DETOUR PLAN No.3

NB ROUTE 680 LOOP ON-RAMP FROM EB CROW CANYON Rd
CLOSED

VIA:
EB CROW CANYON Rd;
ON-RAMP TO SB ROUTE 680;
OFF-RAMP TO EB BOLLINGER CANYON Rd;
EB BOLLINGER CANYON Rd;
LOOP ON-RAMP TO NB ROUTE 680.



DETOUR PLAN No.4

SB ROUTE 680 LOOP ON-RAMP FROM WB CROW CANYON Rd
CLOSED

VIA:
WB CROW CANYON Rd;
SB SAN RAMON VALLEY Rd;
EB BOLLINGER CANYON Rd;
TO SB ROUTE 680 ON-RAMP.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-3

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CALCULATED-DESIGNED BY	CLAUDIA FANG	
CHECKED BY	FLORANTE PEREZ	
FUNCTIONAL SUPERVISOR	LOURDES DAVID	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC	
REVISED BY	A	A
DATE REVISED		
LAST REVISION	DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:01	11-15-10

BORDER LAST REVISED 7/2/2010 | USERNAME => s131681 DGN FILE => 0400000577ia003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04000005771

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	5	24

Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

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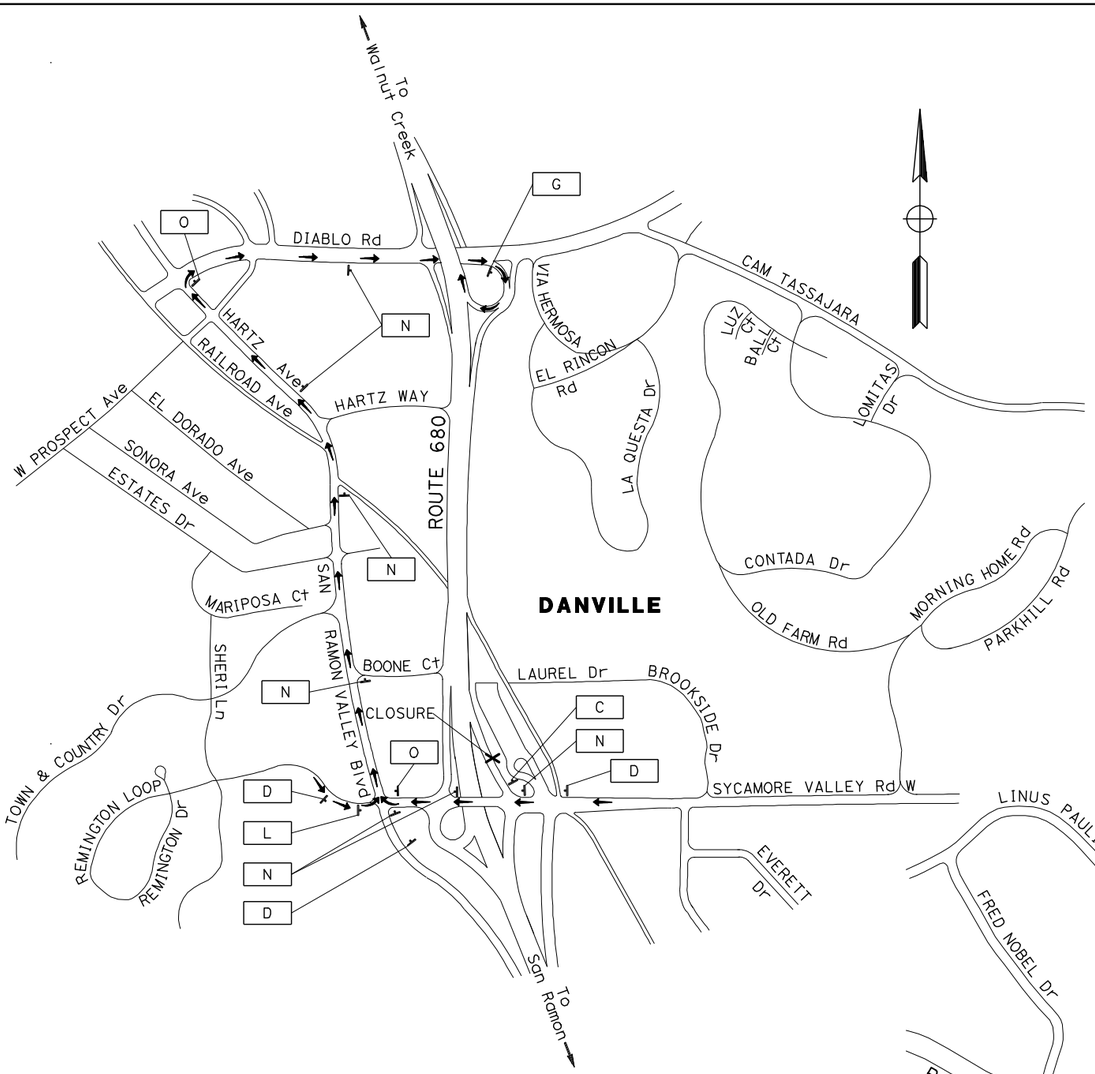
REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA



DETOUR PLAN No.5

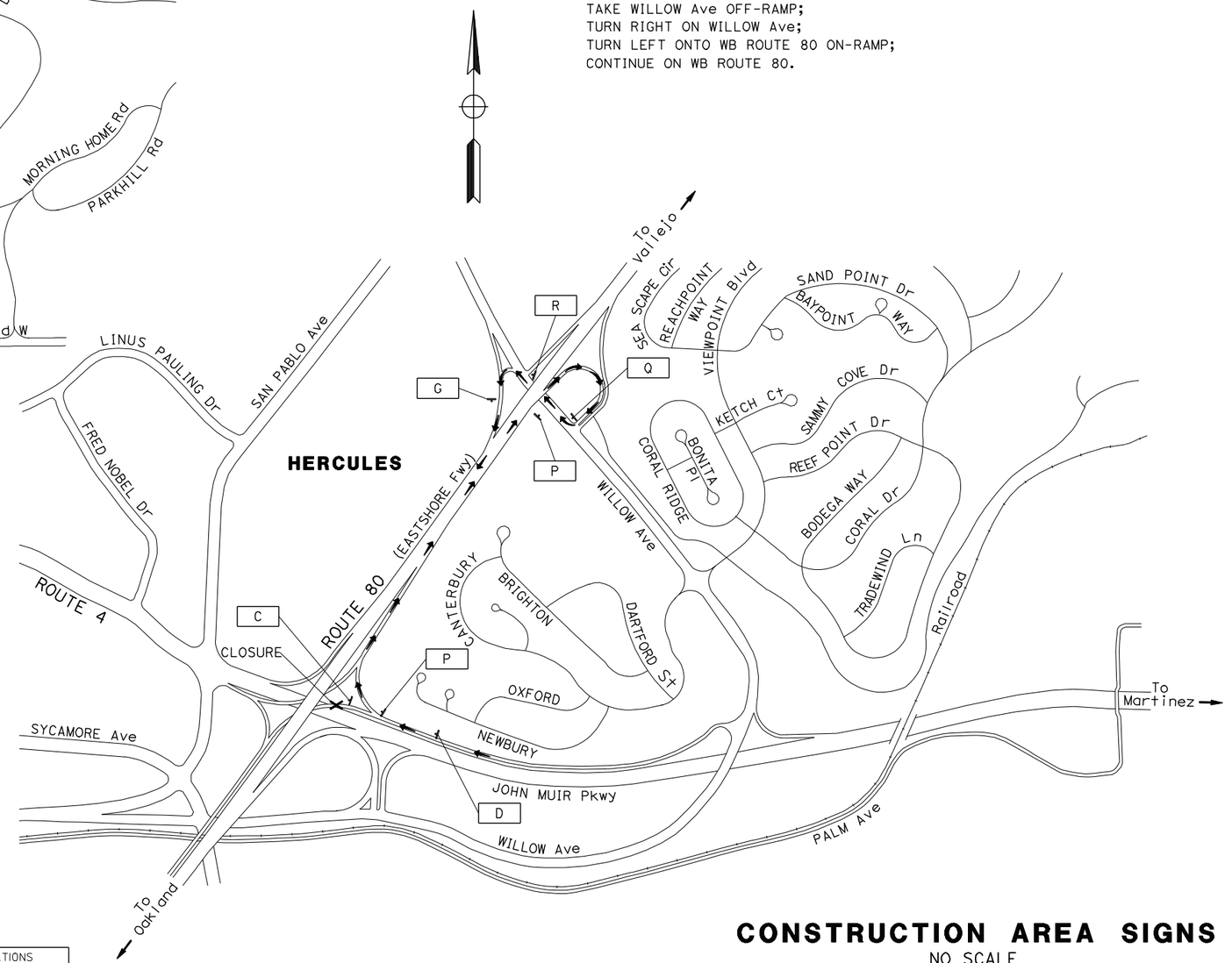
NB ROUTE 680 ON-RAMP FROM SYCAMORE VALLEY Rd
CLOSED

VIA:
WB/EB SYCAMORE VALLEY Rd;
NB SAN RAMON VALLEY Rd;
WB TO HARTZ Ave;
EB DIABLO Rd;
ON-RAMP TO NB ROUTE 680.

DETOUR PLAN No.6

WB ROUTE 4 TO WB ROUTE 80 CONNECTOR
CLOSED

VIA:
TAKE ROUTE 4 TO EB ROUTE 80 CONNECTOR;
CONTINUE ON EB ROUTE 80;
TAKE WILLOW Ave OFF-RAMP;
TURN RIGHT ON WILLOW Ave;
TURN LEFT ONTO WB ROUTE 80 ON-RAMP;
CONTINUE ON WB ROUTE 80.



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-4

REVISED BY	DATE REVISED
A	A

CALCULATED-DESIGNED BY: CLAUDIA FANG
CHECKED BY: FLORANTE PEREZ
FUNCTIONAL SUPERVISOR: LOURDES DAVID
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC

LAST REVISION: DATE PLOTTED => 24-JAN-2011; TIME PLOTTED => 09:01
11-15-10

BORDER LAST REVISED 7/2/2010 | USERNAME => s131681 | DGN FILE => 0400000577 1a004.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04000005771

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	6	24

Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA

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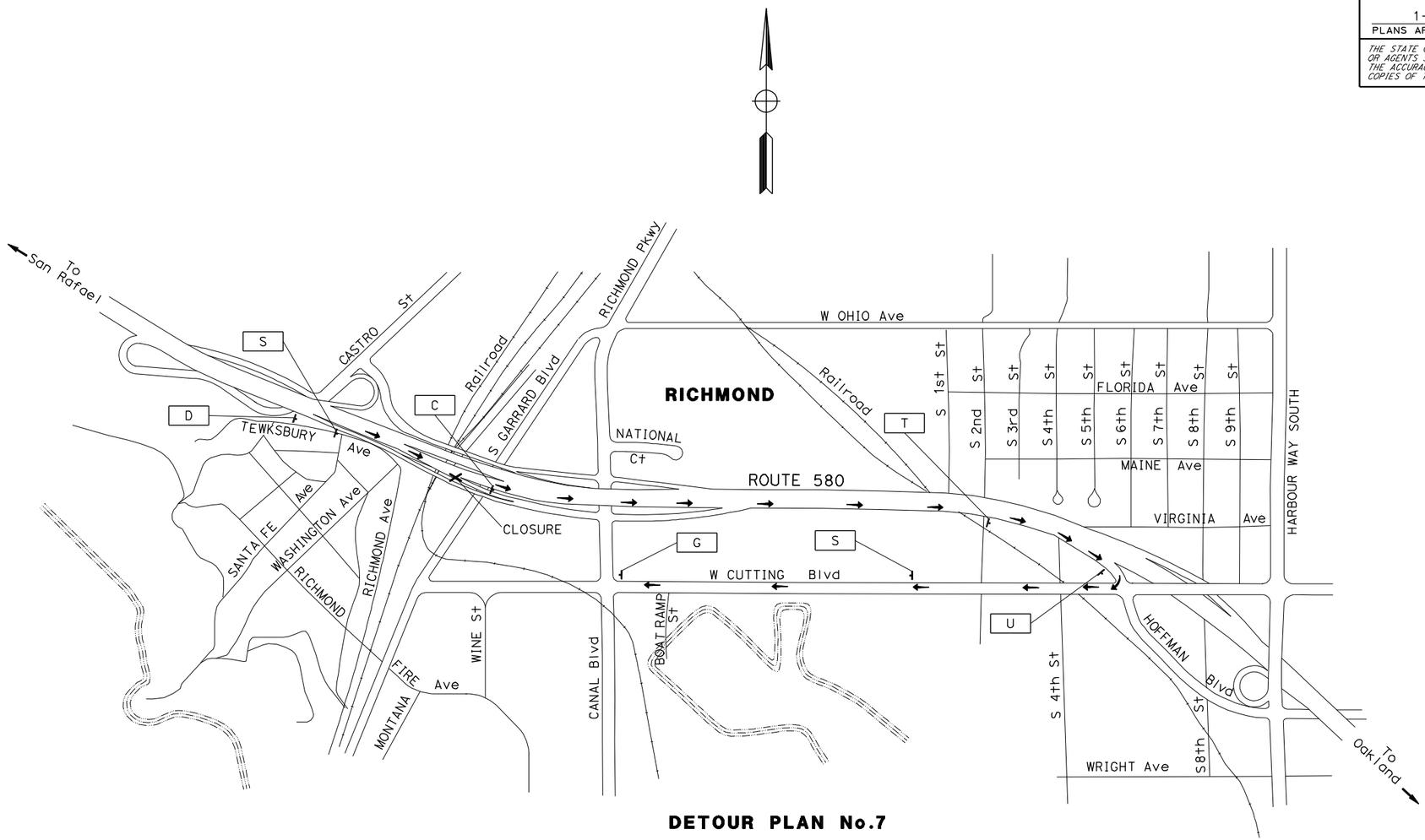

DETOUR PLAN No.7

EB ROUTE 580, CANAL Blvd OFF-RAMP CLOSED

VIA:
CONTINUE ON EB ROUTE 580;
TAKE CUTTING Blvd OFF-RAMP;
TURN RIGHT ON CUTTING Blvd;
REACH CANAL Blvd.

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-5

CALCULATED-DESIGNED BY	CLAUDIA FANG	REVISED BY	A
CHECKED BY	FLORANTE PEREZ	DATE REVISED	A
FUNCTIONAL SUPERVISOR	LOURDES DAVID		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 11-15-10 | DATE PLOTTED => 24-JAN-2011 | TIME PLOTTED => 09:01

BORDER LAST REVISED 7/2/2010 | USERNAME => s131681 | DGN FILE => 0400000577 1a005.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04000005771

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	7	24

Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA

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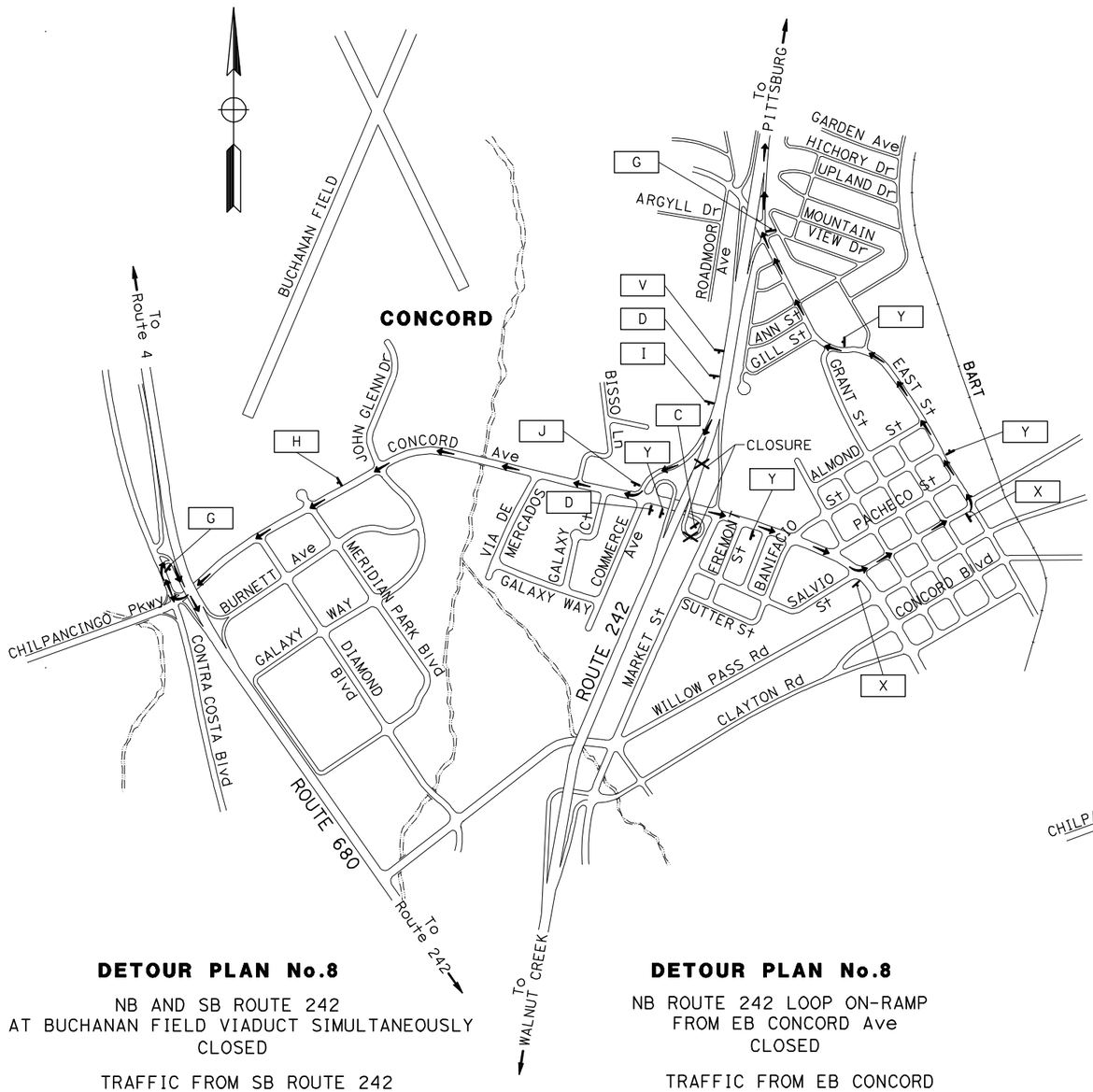


DETOUR PLAN No.8

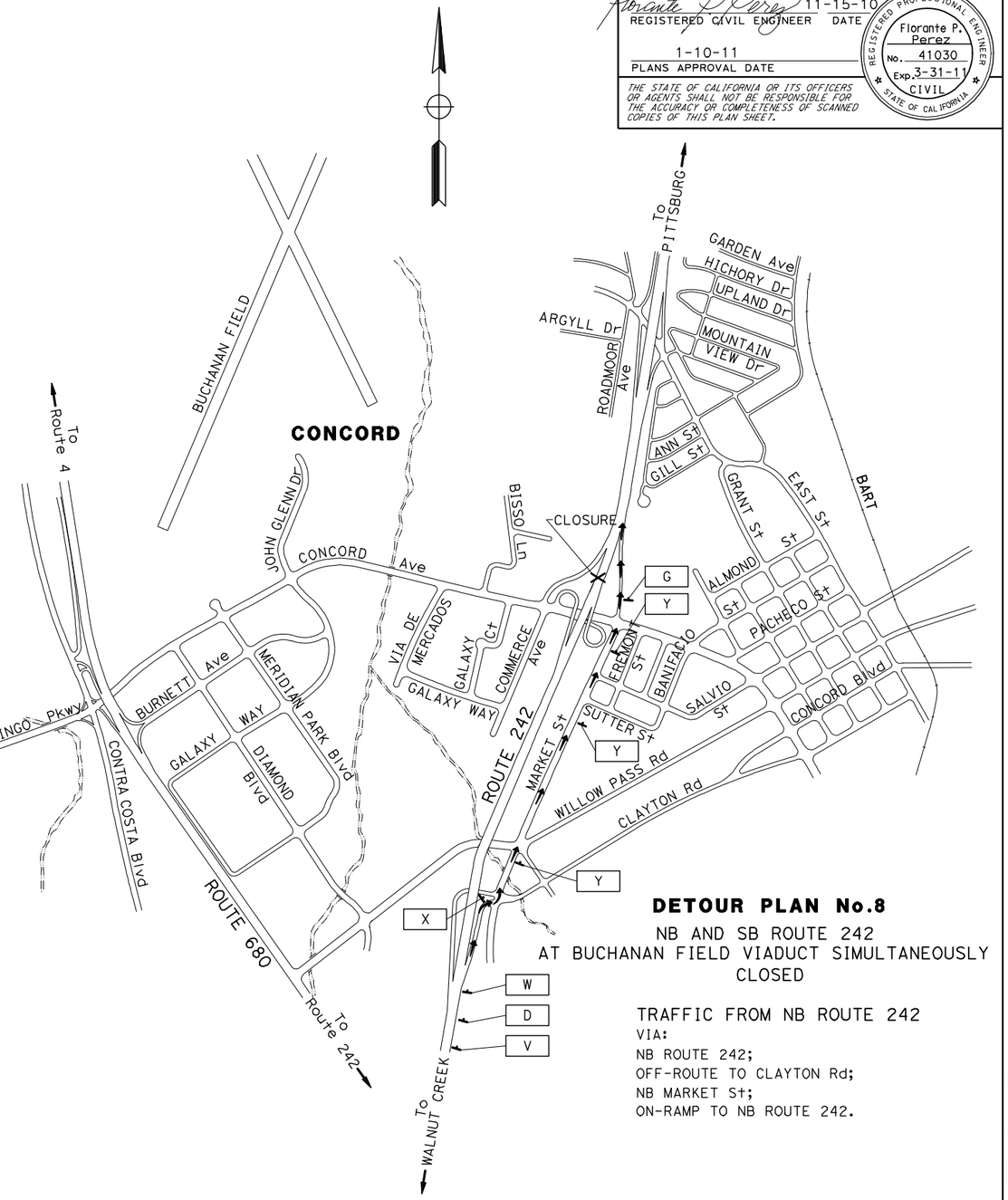
NB AND SB ROUTE 242
AT BUCHANAN FIELD VIADUCT SIMULTANEOUSLY
CLOSED

TRAFFIC FROM SB ROUTE 242
VIA:
SB ROUTE 242;
OFF-RAMP TO CONCORD Ave;
WB CONCORD Ave;
NB CONTRA COSTA Blvd;
ON-RAMP TO SB ROUTE 680.

DETOUR PLAN No.8

NB ROUTE 242 LOOP ON-RAMP
FROM EB CONCORD Ave
CLOSED

TRAFFIC FROM EB CONCORD
TO NB ROUTE 680
VIA:
EB CONCORD Ave;
EB SALVIO St;
NB EAST St/GRANT St;
ON-RAMP TO NB ROUTE 242.



DETOUR PLAN No.8

NB AND SB ROUTE 242
AT BUCHANAN FIELD VIADUCT SIMULTANEOUSLY
CLOSED

TRAFFIC FROM NB ROUTE 242
VIA:
NB ROUTE 242;
OFF-ROUTE TO CLAYTON Rd;
NB MARKET St;
ON-RAMP TO NB ROUTE 242.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-6

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION 11-15-10
DATE PLOTTED => 24-JAN-2011
TIME PLOTTED => 09:02

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
Caltrans

	CALCULATED-DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR
REVISED BY	CLAUDIA FANG	FLORANTE PEREZ	LOURDES DAVID
A			
DATE REVISED			
A			

BORDER LAST REVISED 7/2/2010 | USERNAME => s131681 DGN FILE => 04000005771a006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04000005771

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	8	24

Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA

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STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE	SIGN MESSAGE	PANEL SIZE (in x in)	No. OF POSTS & SIZE (EA-in x in)	No. OF SIGNS
A	W20-1	ROAD WORK AHEAD	48 x 48	1 - 4 x 6	13
B	G20-2	END ROAD WORK	36 x 18	1 - 4 x 4	15
C	SC6-4 (CA)	RAMP CLOSED	48 x 60	1 - 6 x 6	8
D	W20-2	DETOUR AHEAD	36 x 36	1 - 4 x 6	12
E	M4-8	DETOUR	30 x 15	1 - 4 x 6	2
	G28-2(4) (CA)	STATE ROUTE SHIELD	24 x 25		
	M3-4	WEST	30 x 15		
	M6-2 (↗)	UP RIGHT ARROW	21 x 15		
F	M4-8	DETOUR	30 x 15	1 - 4 x 6	3
	G28-2(4) (CA)	STATE ROUTE SHIELD	24 x 25		
	M3-4	WEST	30 x 15		
	M6-1 (→)	RIGHT ARROW	21 x 15		
G	M4-8A	END DETOUR	24 x 18	1 - 4 x 6	10
H	M4-8	DETOUR	30 x 15	1 - 4 x 6	4
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-3	SOUTH	30 x 15		
	M6-3 (↑)	STRAIGHT ARROW	21 x 15		
I	M4-8	DETOUR	30 x 15	1 - 4 x 6	3
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-3	SOUTH	30 x 15		
	M6-2 (↗)	UP RIGHT ARROW	21 x 15		
J	M4-8	DETOUR	30 x 15	1 - 4 x 6	4
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-3	SOUTH	30 x 15		
	M6-1 (→)	RIGHT ARROW	21 x 15		
K	M4-8	DETOUR	30 x 15	1 - 4 x 6	2
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-1	NORTH	30 x 15		
	M6-2 (↗)	UP RIGHT ARROW	21 x 15		
L	M4-8	DETOUR	30 x 15	1 - 4 x 6	2
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-1	NORTH	30 x 15		
	M6-1 (←)	LEFT ARROW	21 x 15		

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

CS-7

REVISED BY	DATE REVISED
A	A

CALCULATED-DESIGNED BY: CLAUDIA FANG
CHECKED BY: FLORANTE PEREZ
FUNCTIONAL SUPERVISOR: LOURDES DAVID

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

LAST REVISION 11-15-10
DATE PLOTTED => 24-JAN-2011
TIME PLOTTED => 09:02

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE	SIGN MESSAGE	PANEL SIZE (in x in)	No. OF POSTS & SIZE (EA-in x in)	No. OF SIGNS
M	M4-8	DETOUR	30 x 15	1 - 4 x 6	2
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-3	SOUTH	30 x 15		
	M6-1 (←)	LEFT ARROW	21 x 15		
N	M4-8	DETOUR	30 x 15	1 - 4 x 6	7
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-1	NORTH	30 x 15		
	M6-3 (↑)	STRAIGHT ARROW	21 x 15		
O	M4-8	DETOUR	30 x 15	1 - 4 x 6	2
	G27-2(680) (CA)	ROUTE SHIELD	30 x 25		
	M3-1	NORTH	30 x 15		
	M6-1 (→)	RIGHT ARROW	21 x 15		
P	M4-8	DETOUR	30 x 15	1 - 4 x 6	2
	G27-2(80) (CA)	ROUTE SHIELD	24 x 24		
	M3-4	WEST	30 x 15		
	M6-2 (↗)	UP RIGHT ARROW	21 x 15		
Q	M4-8	DETOUR	30 x 15	1 - 4 x 6	1
	G27-2(80) (CA)	ROUTE SHIELD	24 x 24		
	M3-4	WEST	30 x 15		
	M6-1 (→)	RIGHT ARROW	21 x 15		
R	M4-8	DETOUR	30 x 15	1 - 4 x 6	1
	G27-2(80) (CA)	ROUTE SHIELD	24 x 24		
	M3-4	WEST	30 x 15		
	M6-1 (←)	LEFT ARROW	21 x 15		
S	M4-8	DETOUR	30 x 15	1 - 4 x 6	2
	SPECIAL	CANAL Blvd	32 x 24		
	M6-3 (↑)	STRAIGHT ARROW	21 x 15		
T	M4-8	DETOUR	30 x 15	1 - 4 x 6	1
	SPECIAL	CANAL Blvd	32 x 24		
	M6-2 (↗)	UP RIGHT ARROW	21 x 15		
U	M4-8	DETOUR	30 x 15	1 - 4 x 6	1
	SPECIAL	CANAL Blvd	32 x 24		
	M6-1 (→)	RIGHT ARROW	21 x 15		
V	W20-3	ROAD CLOSED AHEAD	48 x 48	1 - 4 x 6	2
W	M4-8	DETOUR	30 x 15	1 - 4 x 6	1
	G28-2(242) (CA)	ROUTE SHIELD	28 x 25		
	M3-1	NORTH	30 x 15		
	M6-2 (↗)	UP RIGHT ARROW	21 x 15		
X	M4-8	DETOUR	30 x 15	1 - 4 x 6	3
	G28-2(242) (CA)	ROUTE SHIELD	28 x 25		
	M3-1	NORTH	30 x 15		
	M6-1 (←)	LEFT ARROW	21 x 15		
Y	M4-8	DETOUR	30 x 15	1 - 4 x 6	7
	G28-2(242) (CA)	ROUTE SHIELD	28 x 25		
	M3-1	NORTH	30 x 15		
	M6-3 (↑)	STRAIGHT ARROW	21 x 15		

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	9	24

Florante P. Perez 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Florante P. Perez — No. 41030 — Exp. 3-31-11 — CIVIL — STATE OF CALIFORNIA

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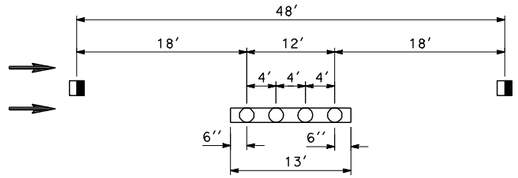
CALCULATED-DESIGNED BY: CLAUDIA FANG
CHECKED BY: FLORANTE PEREZ
FUNCTIONAL SUPERVISOR: LOURDES DAVID
REVISED BY: A
DATE REVISED: A

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC

LAST REVISION 11-15-10 | DATE PLOTTED => 24-JAN-2011 | TIME PLOTTED => 09:02

CONSTRUCTION AREA SIGNS

CS-8



DETAIL 13M
PAVEMENT DELINEATION DETAIL
NO SCALE

NOTES

1. INSTALL 4″ WHITE STRIPE AFTER INSTALLATION OF PAVEMENT MARKER.
2. ALL EXISTING PAVEMENT DELINEATION SHALL BE REMOVED AND REPLACED AT THE SAME LOCATION AS EXISTING.

LEGEND

- ○ TYPE A WHITE NON-REFLECTIVE MARKER
- ◨ TYPE G ONE-WAY CLEAR RETROREFLECTIVE MARKER
- ▭ 4″ WHITE
- → DIRECTION OF TRAFFIC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	4,242, 580,680	Var	10	24

C.H. Chern 11-15-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — C.H. Chern No. 48187 Exp. 06-30-12 CIVIL — STATE OF CALIFORNIA

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TRAFFIC STRIPES, PAVEMENT MARKING AND PAVEMENT MARKERS

LOC	BRIDGE NAME	BRIDGE No.	DETAIL No.	THERMOPLASTIC TRAFFIC STRIPE						PAVEMENT MARKER				THERMOPLASTIC PAVEMENT MARKING	REMOVE			
										NON-REFLECTIVE	RETROREFLECTIVE							
				4″ WHITE	4″ YELLOW	8″ WHITE	4″WHITE (BROKEN 35-13)	4″ WHITE (BROKEN 17-7)	8″ WHITE (BROKEN 12-3)	TYPE A	TYPE C	TYPE G	TYPE H	ARROW	THERMOPLASTIC TRAFFIC STRIPE (WHITE)	THERMOPLASTIC TRAFFIC STRIPE (YELLOW)	PAVEMENT MARKER	THERMOPLASTIC PAVEMENT MARKING
				LF						EA				SQFT	LF		EA	SQFT
1	W & W4-W80 CONNECTOR OH	28-0143F	25A		587								25			587	25	
			13							48		13					61	
			27B	587											587			
			TYPE VI ARROW(3 Ea)											126				126
3	BUCHANNAN FIELD OH	28-0186	25		774								17			774	17	
			13M				390			120		34			1548		154	
			27B	774											774			
			37B						81			28			804		28	
5	CROW CANYON ROAD OC	28-0296	25A		622								14			622	14	
			9					392				30			1299		30	
			37						72		28				355		28	
			38B			417						36			834		36	
			TYPE III (R) ARROW(5 Ea)											210				210
7	SAN RAMON CREEK	28-0197	25		418								10			418	10	
			13M				312			96		30			1254		126	
			27B	418											418			
SUB-TOTAL				1779	2401	417	702	392	153	264	28	171	66	336	7873	2401	529	336
TOTAL				4180		417	702	392	153	264		265		336	7873	2401	529	336

PAVEMENT DELINEATION QUANTITIES

PDQ-1

CALCULATED-DESIGNED BY: CHUEN-HSIUNG CHERN
CHECKED BY: NGOC TRAN
REVISED BY: A
DATE REVISED: A
FUNCTIONAL SUPERVISOR: NGOC TRAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION 11-15-10 | DATE PLOTTED => 24-JAN-2011 | TIME PLOTTED => 09:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	CC	4,242 580,680	Var	15	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

1-10-11
PLANS APPROVAL DATE

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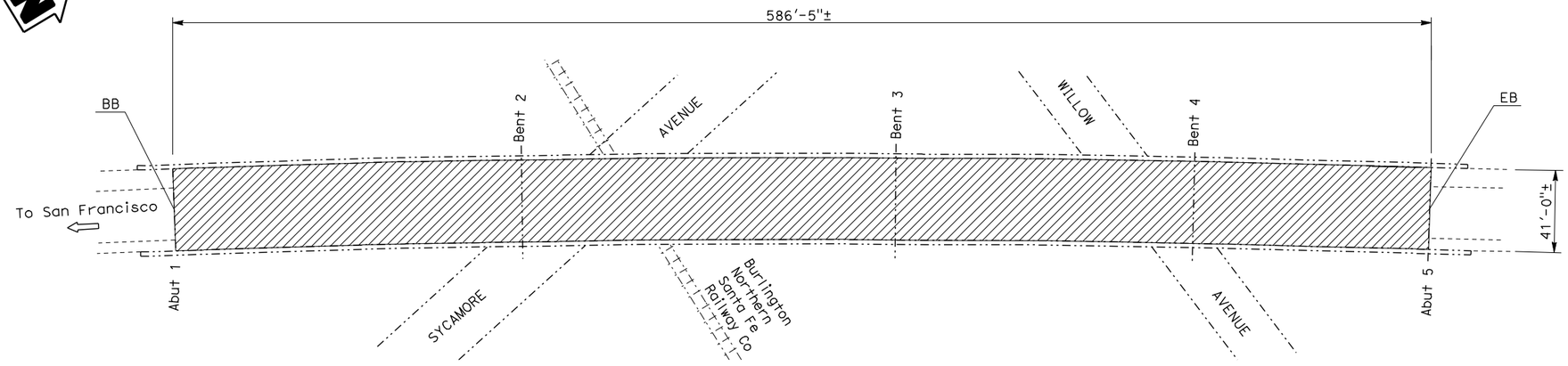

① E&W4-W80 CONNECTOR OH

Br No. 28-0143F, Route 4, PM 0.01
No Scale

LEGEND:

- Indicates existing structure
- Indicates direction of traffic
- Indicates limits of remove unsound concrete and patch with rapid setting concrete, clean and treat deck with high molecular weight methacrylate. See deck repair detail.
- (_) Indicates bridge location, see "Road Plan".

INDEX TO PLANS

① HERCULES ON-RAMP OVERHEAD BRIDGE NO. 28-0143F

QUANTITIES

REMOVE UNSOUND CONCRETE	75	CF
CLEAN BRIDGE DECK	22,434	SQFT
RAPID SETTING CONCRETE (PATCH)	75	CF
TREAT BRIDGE DECK	22,434	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	250	GAL
PUBLIC SAFETY PLAN	LUMP	SUM

STANDARD PLANS DATED MAY 2006

A10A	ACRONYMS AND ABBREVIATIONS (A-L)
A10B	ACRONYMS AND ABBREVIATIONS (M-Z)
RSP B6-21	JOINT SEALS (MAXIMUM MR = 2")

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

Kenneth R Brown
DESIGN ENGINEER 11-08-10

DESIGN	BY M. Bahrami	CHECKED A.Kushkaki	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD			
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami	LAYOUT	BY B. Ballesteros	CHECKED M. Bahrami		
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki	SPECIFICATIONS	BY	PLANS AND SPECS COMPARED		

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE AND INVESTIGATIONS

CU
EA 1E7801

BRIDGE NO. 28-0143F
POST MILE 0.01

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

E&W4-W80 CONNECTOR OH

GENERAL PLAN No. 1

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
06-10-10	08-16-10	08-23-10	09-22-10	10-04-10						1	10

FILE => 04-1e7801-a-gp01.dgn

USERNAME => s1316B1 DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
04	CC	4, 242 580, 680	Var	16	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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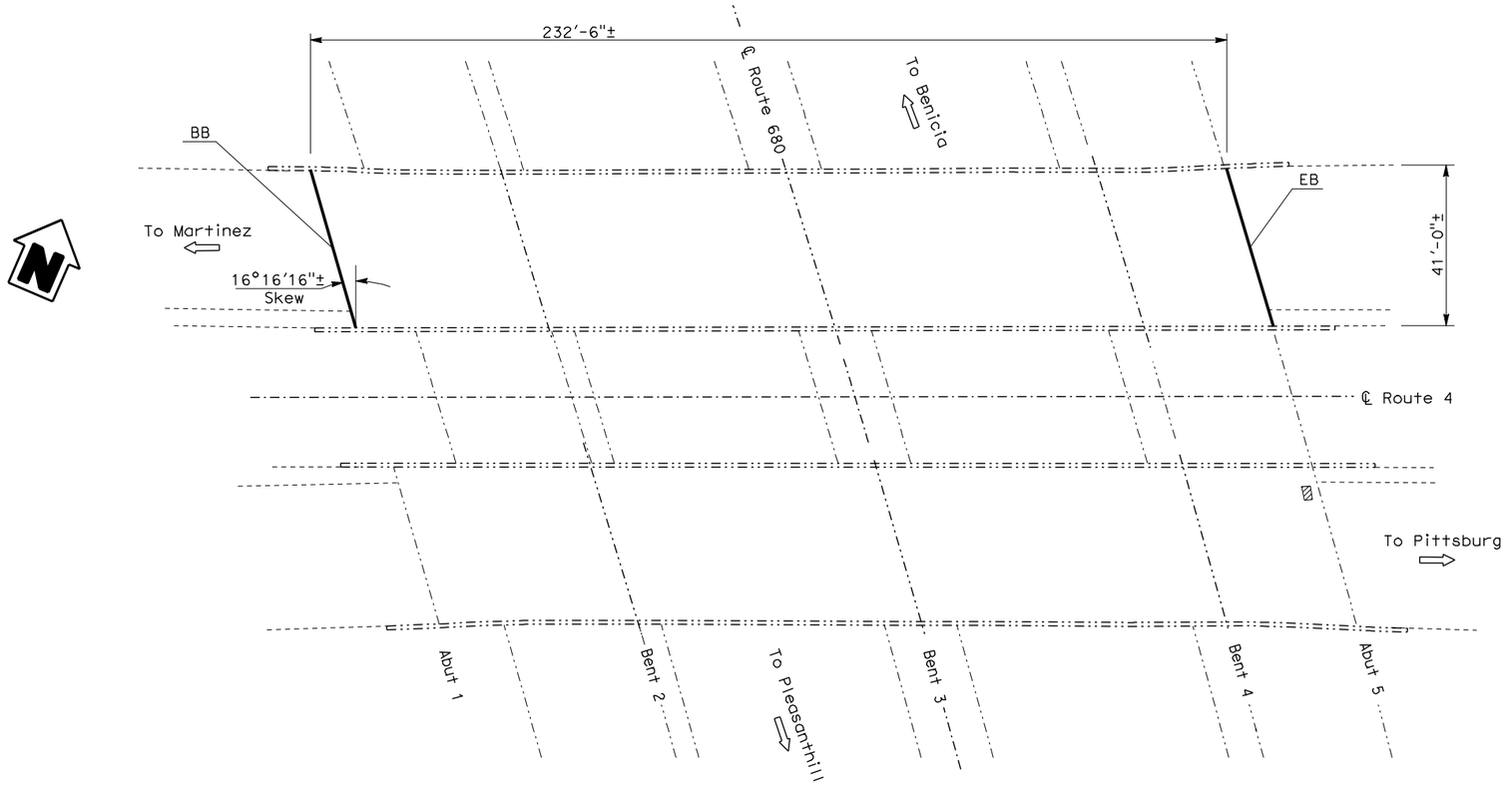

LEGEND:

- Indicates existing structure
- Indicates direction of traffic
- Indicates location of existing joint seal removal and placement of new joint seal. For details see "Joint Seal Details" sheet.
- (-) Indicates bridge location, see "Road Plan".
- Indicates limits of repair spall repair remove unsound concrete and patch with rapid setting concrete. See "Deck Repair Details" sheet.

(2) ROUTE 4/680 SEPARATION

Br No. 28-0179L, Route 4, PM 12.64
No Scale

(2) ROUTE 4/680 SEPARATION — BRIDGE NO. 28-0179L

QUANTITIES		
REMOVE UNSOUND CONCRETE	2	CF
CLEAN EXPANSION JOINT	86	LF
RAPID SETTING CONCRETE (PATCH)	2	CF
JOINT SEAL (MR 1 1/2")	86	LF

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

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

	BY	CHECKED
DESIGN	M. Bahrami	A.Kushkaki
DETAILS	B. Ballesteros	M. Bahrami
QUANTITIES	M. Bahrami	A. Kushkaki

LOAD FACTOR DESIGN — LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD

	BY	CHECKED
LAYOUT	B. Ballesteros	M. Bahrami
SPECIFICATIONS		PLANS AND SPECS COMPARED

Kenneth R Brown 11-08-10
DESIGN ENGINEER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE AND INVESTIGATIONS

BRIDGE NO. 28-0179L
POST MILE 12.64

ROUTE 4/680 SEPARATION
GENERAL PLAN No. 2

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU
EA 1E7801

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 06-10-10 | 06-29-10 | 08-16-10 | 08-23-10 | 10-04-10 | 11-09-10

SHEET 2 OF 10

FILE => 04-1e7801-a-gp02.dgn

USERNAME => s131681 DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
04	CC	4,242 580,680	Var	17	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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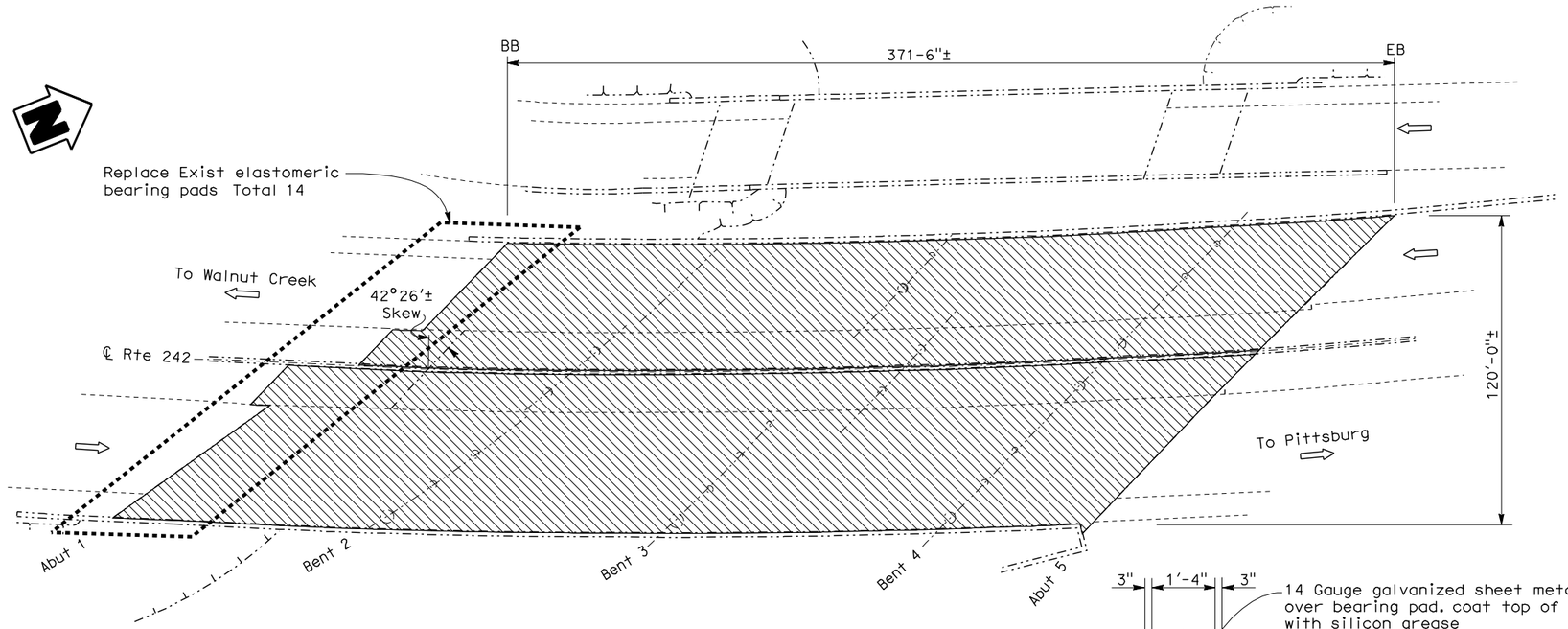
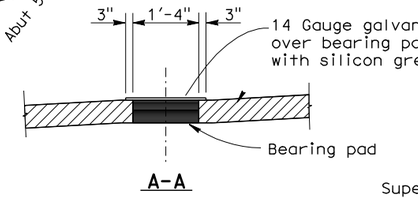


Note:
See longitudinal overlay conform detail.

③ BUCHANAN FIELD VIADUCT

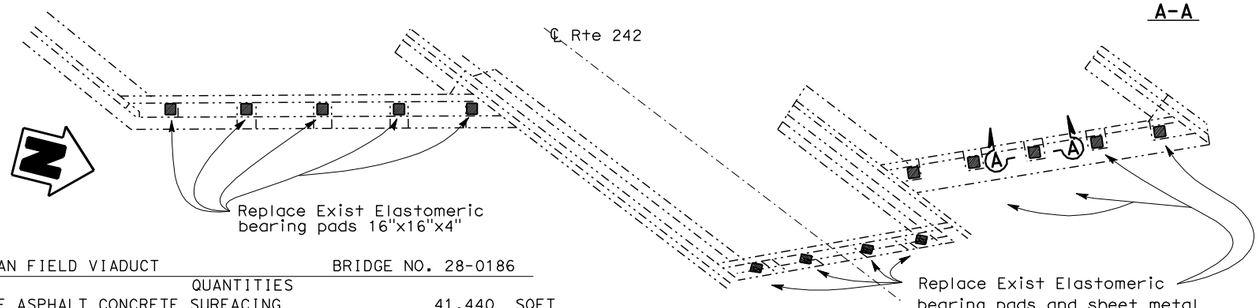
Br No. 28-0186, Route 242, PM R1.61
No Scale



A-A

LEGEND:

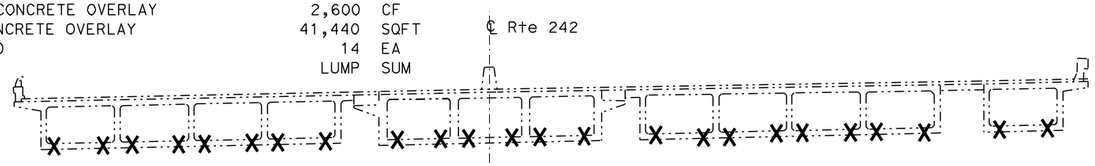
- Indicates existing structure
- Indicates direction of traffic
- Indicates limits of remove exist AC overlay, prepare concrete bridge deck surface, furnish and place new ¾" minimum depth polyester concrete overlay. Prior to placing new polyester concrete overlay. Remove unsound concrete and patch with rapid setting concrete as shown on "Deck Repair Detail". See Longitudinal Overlay Conform Detail on "DECK REPAIR DETAILS" sheet.
- Indicates bridge location, see "Road Plan".
- X Jacking location, See detail
- Remove and Replace elastomeric bearing pad



PLAN

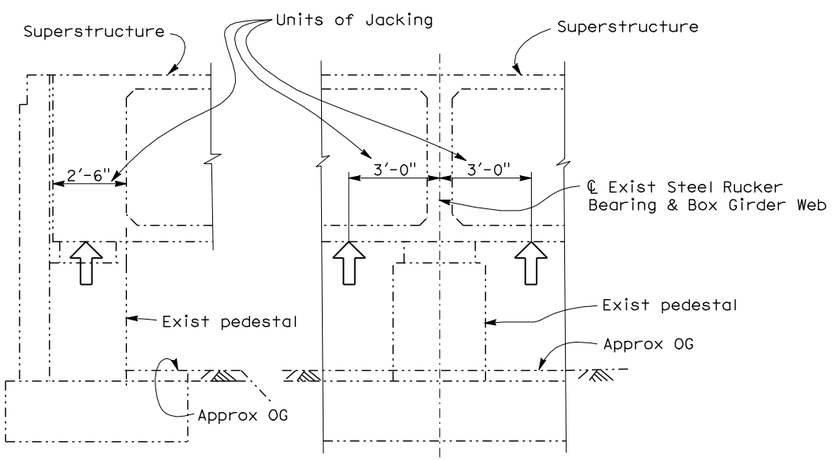
③ BUCHANAN FIELD VIADUCT BRIDGE NO. 28-0186

QUANTITIES		
REMOVE ASPHALT CONCRETE SURFACING	41,440	SQFT
REMOVE CONCRETE DECK SURFACE	10,720	SQFT
REMOVE UNSOUND CONCRETE	140	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	41,440	SQFT
RAPID SETTING CONCRETE (PATCH)	140	CF
FURNISH POLYESTER CONCRETE OVERLAY	2,600	CF
PLACE POLYESTER CONCRETE OVERLAY	41,440	SQFT
REPLACE BEARING PAD	14	EA
PUBLIC SAFETY PLAN	LUMP	SUM



SECTION SHOWING JACKING LOCATIONS

NO SCALE



SIDE VIEW FRONT VIEW

JACKING BRIDGE DETAIL

NO SCALE

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

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

DESIGN	BY M. Bahrami	CHECKED A.Kushkaki	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami	LAYOUT	BY B. Ballesteros	CHECKED M. Bahrami		
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki	SPECIFICATIONS	BY	PLANS AND SPECS COMPARED		

Kenneth R Brown
DESIGN ENGINEER 11-08-10

BRIDGE NO. 28-0186
POST MILE R1.61

BUCHANAN FIELD VIADUCT

GENERAL PLAN No. 3

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU EA 1E7801

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 06-10-10 | 06-22-10 | 08-16-10 | 08-23-10 | 09-22-10 | 09-23-10 | 10-04-10 | 11-18-10

SHEET 3 OF 10

FILE => 04-1e7801-a-gp03.dgn

USERNAME => s1316811 DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:03

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
04	CC	4,242 580,680	Var	18	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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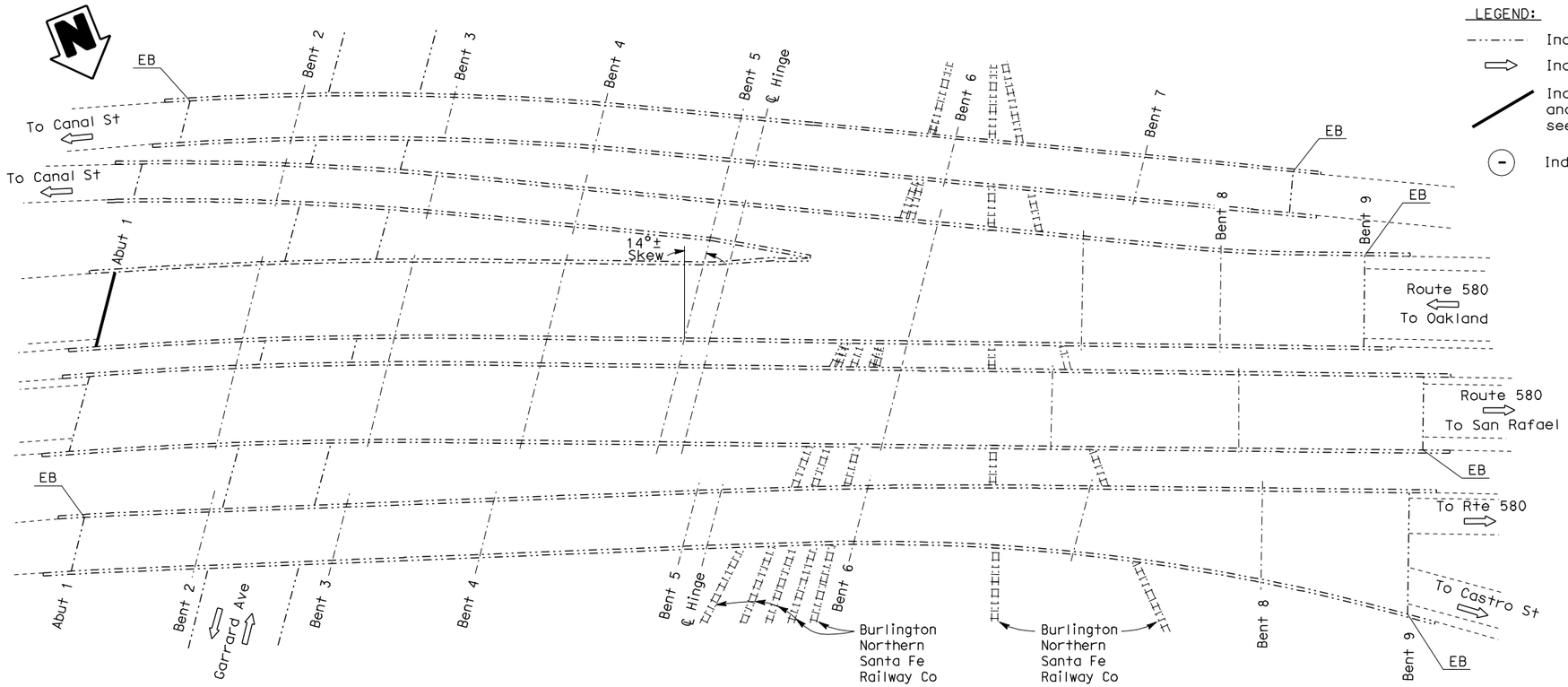

LEGEND:

Indicates existing structure

Indicates direction of traffic

Indicates location of existing joint seal removal and placement of new joint seal. For details see "Joint Seal Details" sheet.

(-) Indicates bridge location, see "Road Plan".

④ RAILROAD AVENUE OH

Br No. 28-0056L, Route 580, PM R4.82
No Scale

④ RAILROAD AVENUE OVERHEAD BRIDGE NO. 28-0056L

QUANTITIES

CLEAN EXPANSION JOINT	48	LF
JOINT SEAL (MR 1 1/2")	48	LF

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

DESIGN	BY M. Bahrami	CHECKED A.Kushkaki	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami	LAYOUT	BY B. Ballesteros	CHECKED M. Bahrami		
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki	SPECIFICATIONS	BY	PLANS AND SPECS COMPARED		

Kenneth R Brown 11-08-10
DESIGN ENGINEER

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU EA 1E7801

FILE => 04-1e7801-a-gp04.dgn

BRIDGE NO.	TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY
28-0056L	**RAILROAD AVENUE OH**
POST MILE R4.82	**GENERAL PLAN No. 4**

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
06-10-10	08-16-10	08-23-10	10-04-10							4	10

USERNAME => s1316811 DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:03

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
04	CC	4,242 580,680	Var	19	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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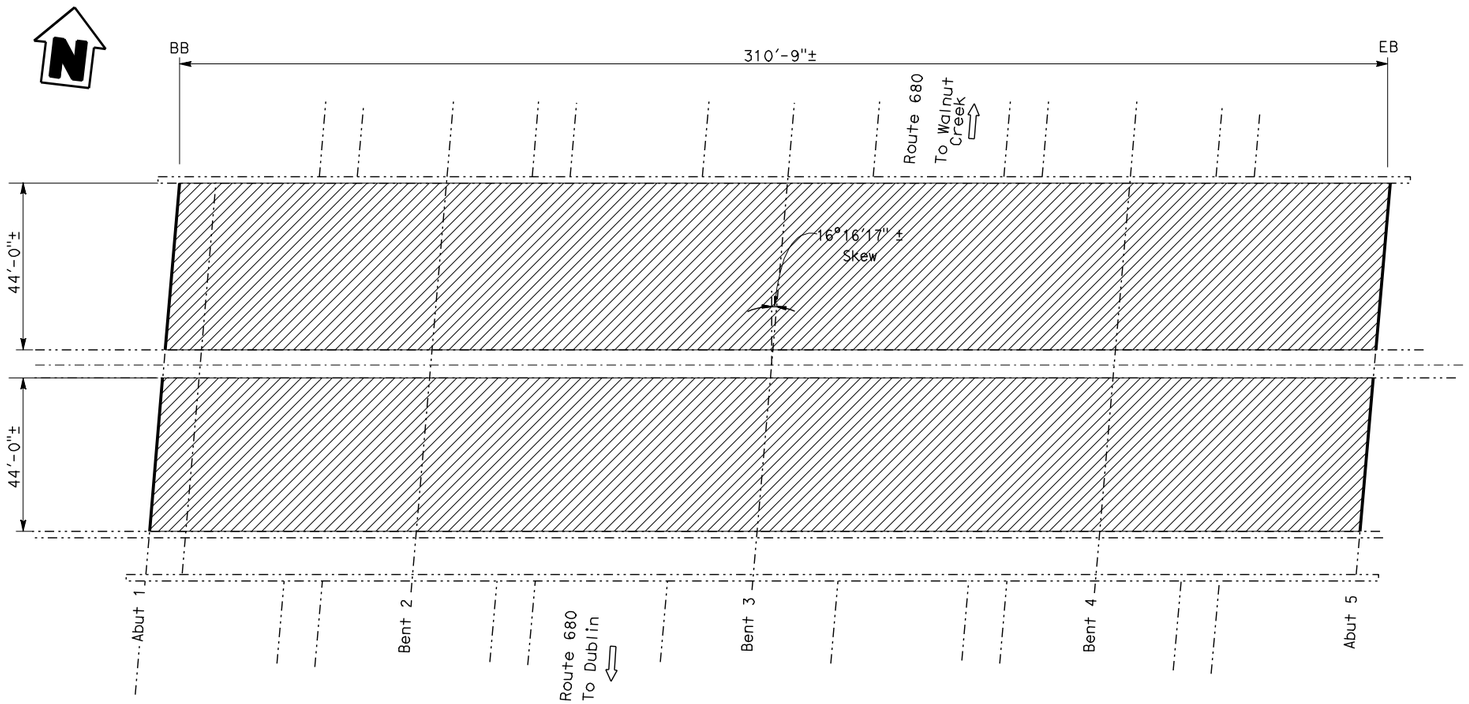

LEGEND:

- Indicates existing structure
- Indicates direction of traffic
- Indicates location of existing joint seal removal and placement of new joint seal. For details see "Joint Seal Details" sheet.
- Indicates limits of remove unsound concrete and replace with rapid setting concrete, clean and treat deck with high molecular weight methacrylate. See deck repair detail.
- (5) Indicates bridge location, see "Road Plan".

(5) CROW CANYON ROAD OC

Br No. 28-0206, Route 680, PM R4.20
No Scale

(5) CROW CANYON ROAD OVERCROSSING BRIDGE NO. 28-0206

QUANTITIES		
REMOVE UNSOUND CONCRETE	90	CF
CLEAN BRIDGE DECK	27,346	SQFT
CLEAN EXPANSION JOINT	180	LF
RAPID SETTING CONCRETE (PATCH)	90	CF
JOINT SEAL (MR 1 1/2")	180	LF
TREAT BRIDGE DECK	27,346	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	310	GAL
PUBLIC SAFETY PLAN	LUMP SUM	

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

DESIGN	BY M. Bahrami	CHECKED A.Kushkaki	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami	LAYOUT	BY B. Ballesteros	CHECKED M. Bahrami	
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki	SPECIFICATIONS	BY	PLANS AND SPECS COMPARED	

Kenneth R Brown
DESIGN ENGINEER 11-08-10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE AND INVESTIGATIONS

BRIDGE NO. 28-0206
POST MILE R4.18

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

CROW CANYON ROAD OC

GENERAL PLAN No. 5

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU
EA 1E7801

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 06-14-10 | 06-23-10 | 08-16-10 | 08-23-10 | 09-22-10 | 10-04-10 | 11-09-10

SHEET 5 OF 10

FILE => 04-1e7801-a-gp05.dgn

USERNAME => s131681 DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:03

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	CC	4,242 580,680	Var	20	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

1-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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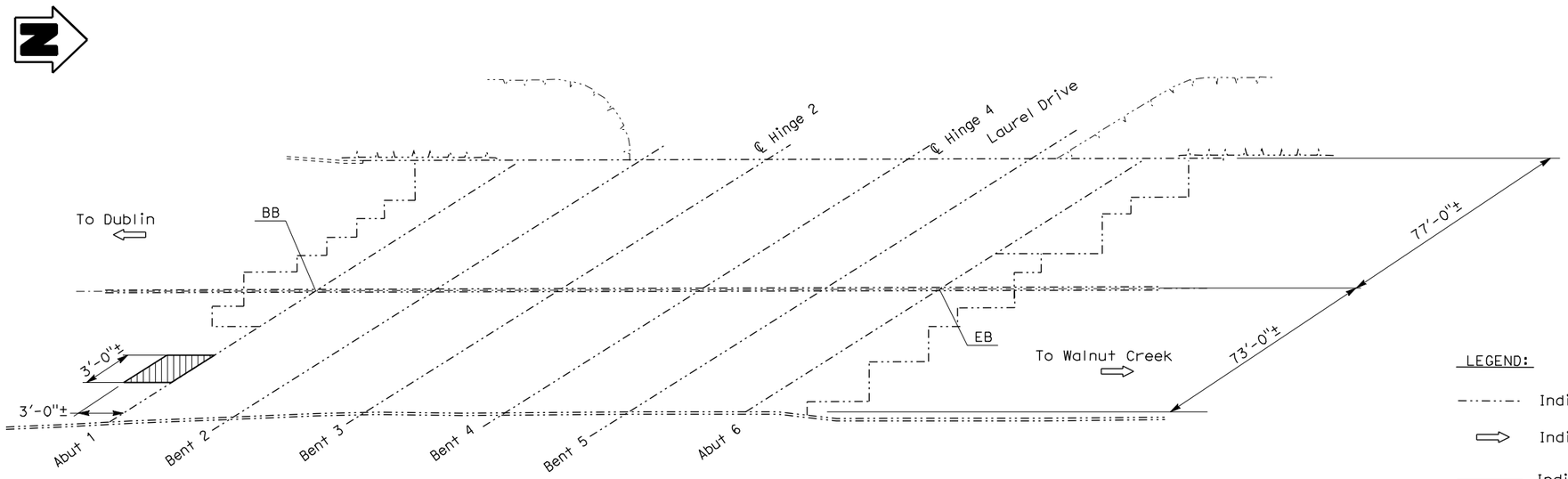

(6) LAUREL DRIVE UC

Br No. 28-0196, Route 680, PM R7.02
No Scale

LEGEND:

- Indicates existing structure
- Indicates direction of traffic
- Indicates limits of repair approach slab. For repair, remove unsound concrete and patch with rapid setting concrete. See deck repair detail.
- (-) Indicates bridge location, see "Road Plan".

(6) LAUREL DRIVE UNDERCROSSING BRIDGE NO. 28-0196

QUANTITIES

REMOVE UNSOUND CONCRETE	5 CF
RAPID SETTING CONCRETE (PATCH)	5 CF

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

Kenneth R Brown
DESIGN ENGINEER 11-08-10

DESIGN	BY M. Bahrami	CHECKED A.Kushkaki	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD			
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami	LAYOUT	BY B. Ballesteros	CHECKED M. Bahrami		
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki	SPECIFICATIONS	BY	PLANS AND SPECS COMPARED		

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE AND INVESTIGATIONS

CU
EA 1E7801

FILE => 04-1e7801-g-gp06.dgn

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

BRIDGE NO. 28-0196
POST MILE R7.02

LAUREL DRIVE UC

GENERAL PLAN No. 6

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
06-14-10	06-23-10	08-16-10	08-23-10	09-22-10	10-06-10	11-09-10	11-18-10			6	10

USERNAME => s1316681 DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:03

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	CC	4,242 580,680	Var	21	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

1-10-11
PLANS APPROVAL DATE

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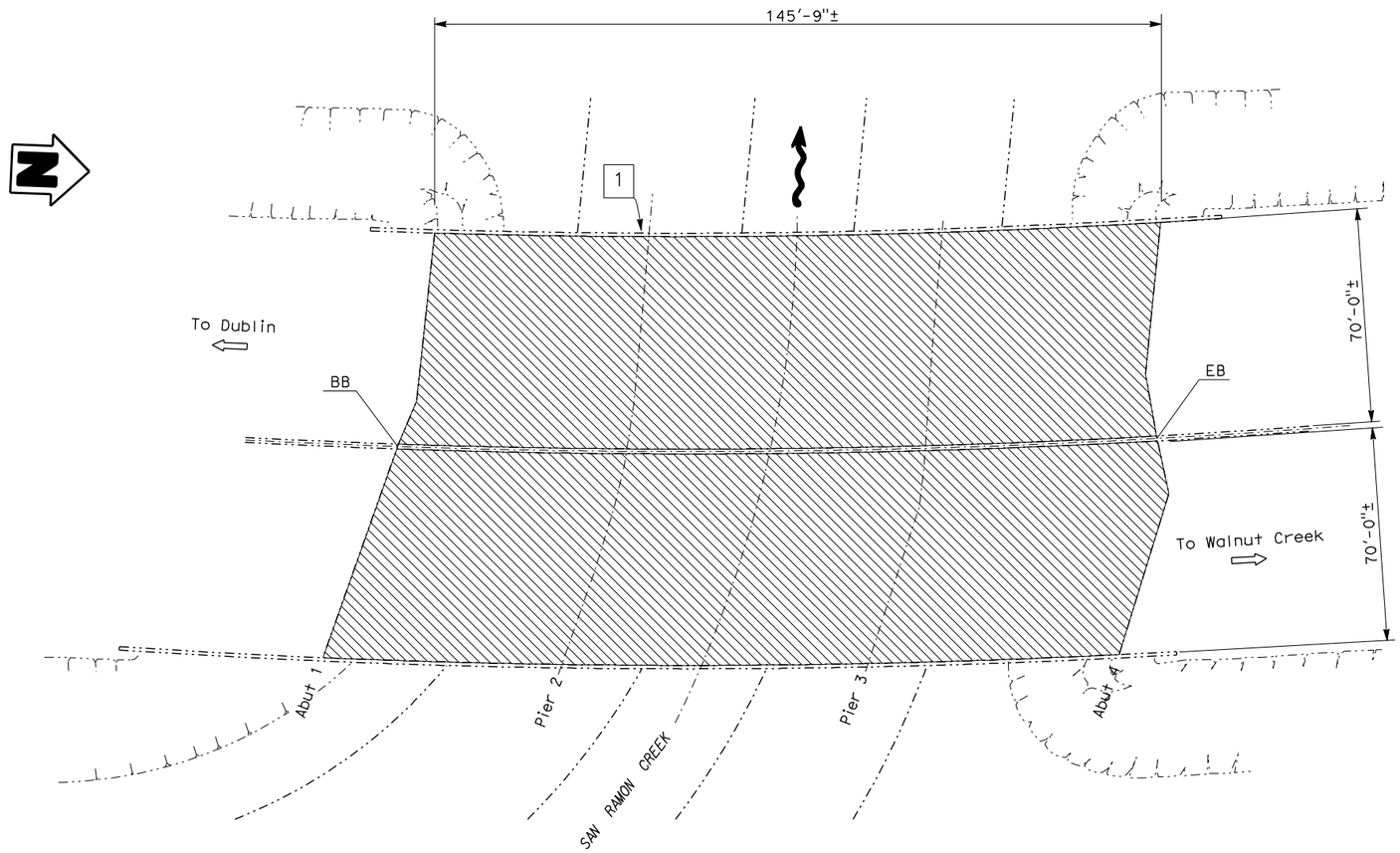

LEGEND:

- Indicates existing structure
- Indicates direction of traffic
- Indicates limits of prepare concrete bridge deck surface, furnish and place new ¾" minimum depth polyester concrete overlay. Prior to placing new polyester concrete overlay. Remove unsound concrete and patch with rapid setting concrete as shown on "Deck Repair Detail". See Longitudinal Overlay Conform Detail on "DECK REPAIR DETAILS" sheet.
- (-) Indicates bridge location, see "Road Plan".
- [1] Patch the spall in the left barrier rail in span 1 near bent 2.

(7) SAN RAMON CREEK

Br No. 28-0197, Route 680, PM R7.43
No Scale

(7) SAN RAMON CREEK, BRIDGE NO. 28-0197

QUANTITIES		
REMOVE CONCRETE DECK SURFACE	9,385	SQFT
REMOVE UNSOUND CONCRETE	68	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	20,405	SQFT
RAPID SETTING CONCRETE (PATCH)	68	CF
FURNISH POLYESTER CONCRETE OVERLAY	1,300	CF
PLACE POLYESTER CONCRETE OVERLAY	20,405	SQFT
PUBLIC SAFETY PLAN	LUMP SUM	

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

	BY	CHECKED	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DESIGN	M. Bahrami	A.Kushkaki			
DETAILS	B. Ballesteros	M. Bahrami	LAYOUT	B. Ballesteros	M. Bahrami
QUANTITIES	M. Bahrami	A. Kushkaki	SPECIFICATIONS		PLANS AND SPECS COMPARED

Kenneth R Brown
DESIGN ENGINEER 11-08-10

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE AND INVESTIGATIONS

CU
EA 1E7801

FILE => 04-1e7801-a-gp07.dgn

BRIDGE NO. 28-0197
POST MILE R7.43

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

SAN RAMON CREEK

GENERAL PLAN No. 7

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
06-14-10	08-16-10	08-23-10	09-22-10	10-04-10	11-18-10					7	10

USERNAME => s131681 DATE PLOTTED => 24-JAN-2011 TIME PLOTTED => 09:03

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	CC	4,242 580,680	Var	22	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
STATE OF CALIFORNIA

1-10-11
PLANS APPROVAL DATE

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INITIAL JACKING LOADS AND MINIMUM TEMPORARY SUPPORT DESIGN LOADS

BR. NO.	LOCATION	INITIAL JACKING LOAD	TEMPORARY SUPPORT DEAD LOAD + LIVE LOAD + IMPACT	HORIZONTAL LOAD
28-0186	Abutment 1	2070 kips	2630 kips	263 kips

General Temporary Support Notes

1. The initial jacking load and minimum temporary support load requirements shown are only applicable with the construction sequence shown.
2. The contractor shall monitor vertical and horizontal displacements of the installed temporary support and the existing structure during jacking and support operations.

General Construction Sequence

1. Install temporary support system at location as listed on "GENERAL PLAN No. 3" sheet.
2. Apply initial jacking load in the designated jacking location under the girder to achieve zero load condition at the bearings.
3. Remove existing bearing pad between the girder and abutment.
4. Install new bearing pad as shown in "GENERAL PLAN No. 3" sheet.
5. After the bearing pads are installed, remove the temporary support system.

Temporary Support Design Notes

Jacking locations as shown on plans are for reference only. Contractor is required to submit temporary support design and drawings based on the special provisions requirements.

The Minimum Temporary Support Design Load (MTSOL) is equal to 1.5 times (Dead Load plus Live Load, including impact). MTSDL shown in the table does not include the weight of temporary support jack or loads due to friction between concrete surfaces.

The Minimum Lateral Temporary Support Design Load shall not be less than 0.1g for any Individual Temporary Support. The factor "g" shall be equal to MTSDL divided by the 1.5 factor.

Initial Jacking Loads are estimated forces to be applied to the structure at jacking points before existing elastomeric pad removal to achieved zero load condition in the bearing. Initial jacking load shown in the table is due to structure Dead Load only.

The allowable concrete bearing pressure for temporary support at the abutment seat is 1.3 ksi.
Assumed for existing abutment: f'c = 3.5 ksi; fy = 36 ksi and n = 9
Assumed for existing steel girder: Fs = 33 ksi

Support members shall evenly distribute jacking forces to superstructure jacking location.

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

DESIGN	BY M. Bahrami	CHECKED A. Kushkaki	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS	BRIDGE NO. 28-0186
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami			POST MILE R1.61
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki			

TREAT BRIDGE DECKS & MODIFY DECK DRAINS

Br. Nos. 28-0186

TEMPORARY SUPPORT DETAILS

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 1/21/98)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU EA 1E7801

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 06-23-10 | 08-16-10 | 08-23-10

SHEET 8 OF 10

FILENAME => 04-1e7801-q-dd101.dgn

TIME PLOTTED => 09:03

DATE PLOTTED => 21-JAN-2011

USERNAME => BERT BALLESTEROS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	CC	4,242 580,680	Var	23	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
STATE OF CALIFORNIA

1-10-11
PLANS APPROVAL DATE

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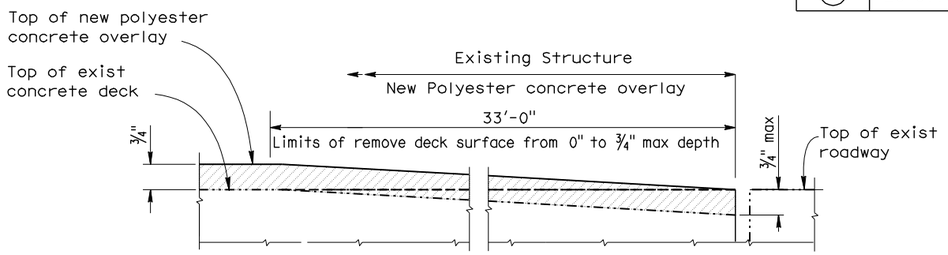
DECK REPAIR TABLE

INDEX	BRIDGE NUMBER	TOTAL DECK AREA (SQFT)	APPROX AREA DAMAGED (percent)	APPROX DEPTH DAMAGED (inches)	REMOVE UNSOUND CONCRETE (CF)
(3)	28-0186	11,556	2	2	140
(5)	28-0206	27,346	2	2	90
(7)	28-0197	20,405	2	2	68
(1)	28-0143F	22,434	2	2	75
(6)	28-0196	Spall repair approach slab See GP-6			
(2)	28-0179L	Spall repair approach slab See GP-2			

LEGEND:

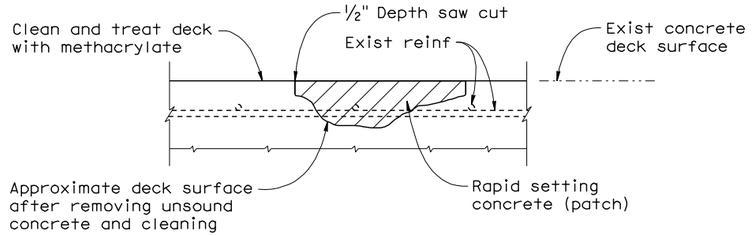
Indicates existing structure

(-) Indicates bridge location. see "Road Plan".



LONGITUDINAL OVERLAY CONFORM DETAIL

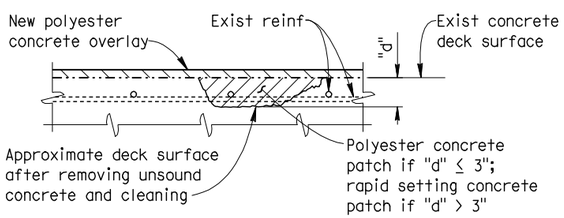
NO SCALE



DECK REPAIR DETAIL

No Scale

Locations to be determined by the Engineer. Reinforcement may be encountered during deck concrete removal. Also see "DECK REPAIR TABLE".



DECK DAMAGE REPAIR DETAIL

Note: Reinforcement may be encountered during deck concrete removal

DECK REPAIR NOTES:

1. When existing transverse reinforcement is exposed in the deck surface, saw cutting shall be waived with the approval of the Engineer.
2. Remove unsound Portland cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.

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

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

DESIGN	BY M. Bahrami	CHECKED A. Kushkaki	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS	BRIDGE NO. VARIOUS
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami			POST MILE VARIOUS
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki			DECK REPAIR DETAILS

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 1/21/98)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU EA 1E7801

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 03-10-10 | 05-13-10 | 08-16-10 | 08-23-10 | 09-16-10 | 10-06-10 | 11-09-10

SHEET 9 OF 10

FILENAME => 04-1e7801-q-ddt02.dgn

TIME PLOTTED => 09:04

DATE PLOTTED => 21-JAN-2011

USERNAME => BEE BALLESTEROS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	CC	4,242 580,680	Var	24	24

11-08-10
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
Michael Bahrami
No. 58795
Exp. 6-30-11
STATE OF CALIFORNIA

1-10-11
PLANS APPROVAL DATE

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JOINT SEAL TABLE

BRIDGE NAME	BRIDGE NUMBER	LOCATION	EXISTING WATERSTOP	DEPTH CLEAN EXP. JOINT (FT)	MR=1½" (LF)	REMARKS
Rte 4/680 SEPARATION	28-0179L	ABUT 1	YES	1	43	
		ABUT 5	YES	1	43	
RAILROAD AVENUE OH	28-0056L	BENT 5	YES	1	48	
CROW CANYON ROAD OC	28-0206	ABUT 1	YES	1	90	TYPE B
		ABUT 5	YES	1	90	TYPE B

The following notes apply to JOINT SEAL TYPE A:

1) Install Type A joint seal 3" up into curb or rail on the low side of the deck where joint matches curb or rail joint. For details not shown see "Joint Seals (Maximum Movement Rating = 2")" Standard drawing.

2) The replacement joint seal shall be the same type as the existing joint seal.

The following notes apply to JOINT SEAL TYPE B:

1) Joint seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.

2) Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be calculated by the Engineer.

3) W1 shall be the smaller of the values determined as follows:

   A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.

   B) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.

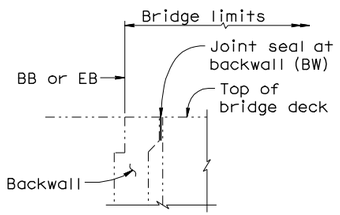
4) Bend Type B joint seal 6" up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.

5) For details not shown see "Joint Seals (Maximum Movement Rating = 2")" Standard drawing.

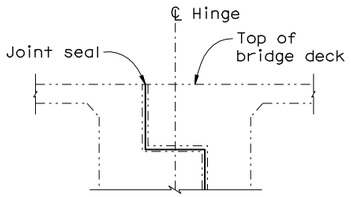
6) The replacement joint seal shall be the same type as the existing joint seal.

LEGEND:

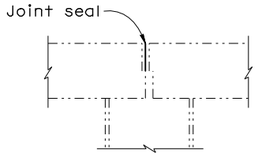
- Indicates existing structure
- Indicates bridge location. see "Road Plan".
- BW Backwall
- PN Paving Notch



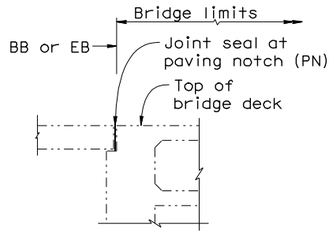
ABUTMENT WITH BACKWALL



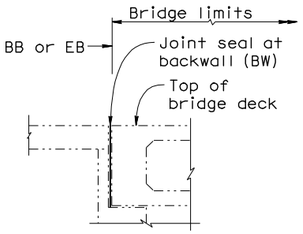
HINGE



HINGE A, B AND C



END DIAPHRAGM ABUTMENT



SEAT TYPE ABUTMENT

JOINT SEAL LOCATION

No Scale

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

DESIGN	BY M. Bahrami	CHECKED A. Kushkaki	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS	BRIDGE NO. VARIOUS
DETAILS	BY B. Ballesteros	CHECKED M. Bahrami			POST MILE VARIOUS
QUANTITIES	BY M. Bahrami	CHECKED A. Kushkaki			

TREAT BRIDGE DECKS & BRIDGE DECK OVERLAY

JOINT SEAL DETAILS

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 1/21/98)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU EA 1E7801

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

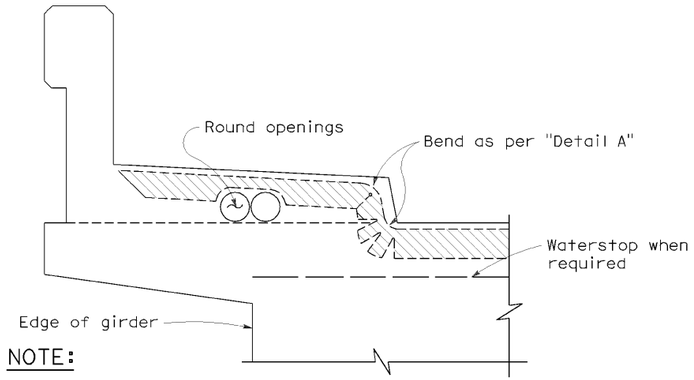
REVISION DATES (PRELIMINARY STAGE ONLY)										SHEET	OF
03-10-10	08-16-10	08-23-10	10-04-10	11-18-10						10	10

FILENAME => 04-1e7801-q-dd103.dgn

TIME PLOTTED => 09:04

DATE PLOTTED => 24-JAN-2011

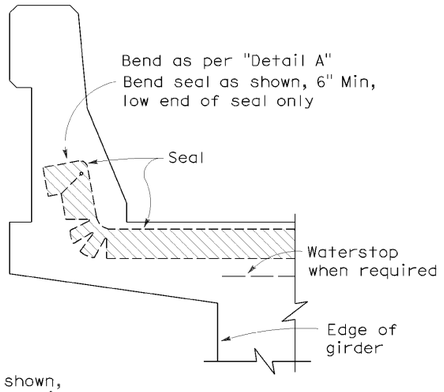
USERNAME => A. BERT BALLESTEROS



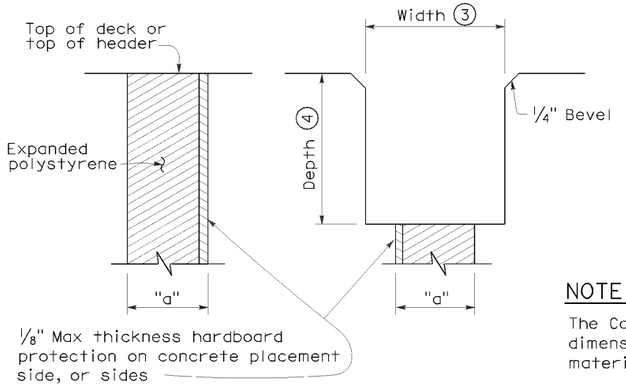
NOTE:

Type "B" seal shown. Type "A" seals to comform to the general path of seal shown, cuts for bending not required. Bend Type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK



CONCRETE BARRIER



FORMING DETAIL SAWCUT DETAIL

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	CC	4,242 580,680	Var	11	24

REGISTERED CIVIL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Efthymios Delis
No. C51434
Exp. 6-30-08
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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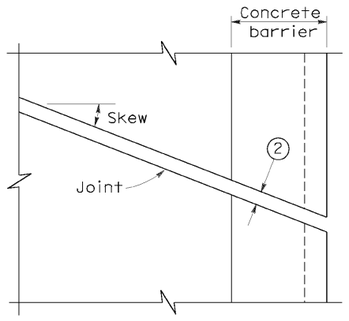
To accompany plans dated 1-10-11

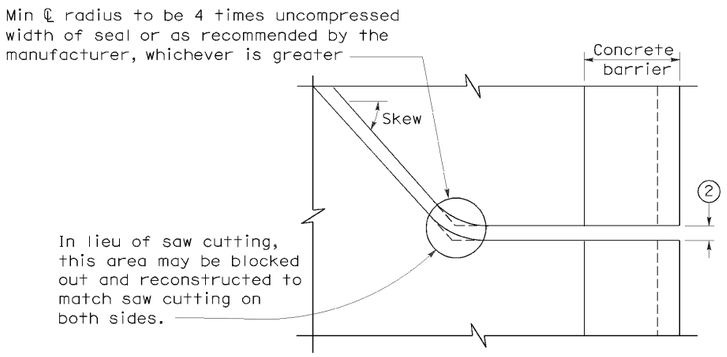
NOTE:

The Contractor shall verify all controlling field dimensions before ordering or fabricatiing any material.

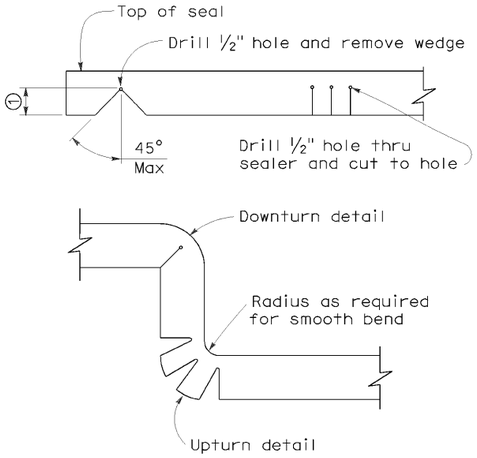
JOINT SEALS DETAILS



PLAN OF JOINT (SKEW ≤ 20°)



PLAN OF JOINT (SKEW > 20°)



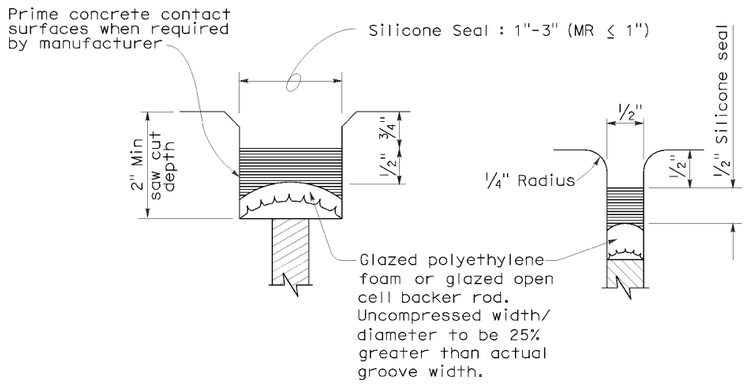
DETAIL A

NOTES:

1. Make smooth cuts from the bottom of seal to 1½" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
2. Opening in barrier to match width of sawn deck joint.
3. Sawcut groove widths shall be as ordered by the Engineer.
4. Depth of sawcut: Type A - Depth to be 2" minimum.
   Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W_2) plus dimensions shown.
5. MR (movement rating) as shown on other plan sheets.
6. Other depths must be approved by the Engineer.

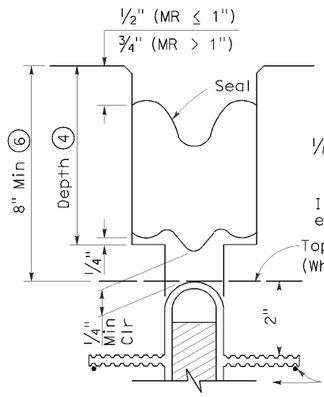
DIMENSIONS "a" OF JOINT REQUIRED

Movement Rating (MR) (5)	Bridge Type	"a" Dimension Deck Concrete Placed		
		Winter	Fall-Spring	Summer
2"	All except CIP/PS	1½"	1¼"	¾"
	CIP/PS	1¼"	1"	½"
1½"	All except CIP/PS	1¼"	1"	½"
	CIP/PS	1"	¾"	½"
1"	All except CIP/PS	1"	¾"	½"
	CIP/PS	¾"	½"	½"
½"	All except CIP/PS	¾"	¾"	½"
	CIP/PS	½"	½"	½"

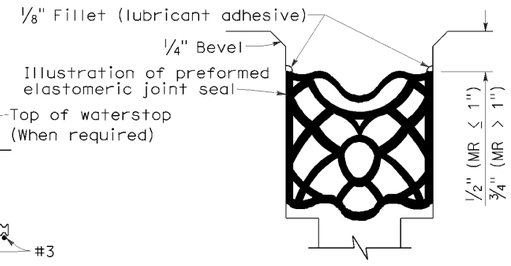


TYPE A SEAL
Movement rating : Silicone = 1" Max

TYPE AL SEAL
Longitudinal joints only



TYPE B JOINT SEAL
IN MINIMUM WIDTH POSITION (W_2)



TYPE B SEAL
Movement Rating ≤ 2"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

NO SCALE

RSP B6-21 DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN B6-21 DATED MAY 1, 2006 - PAGE 258 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP B6-21

2006 REVISED STANDARD PLAN RSP B6-21

5-8-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	CC	4,242 580,680	Var	12	24

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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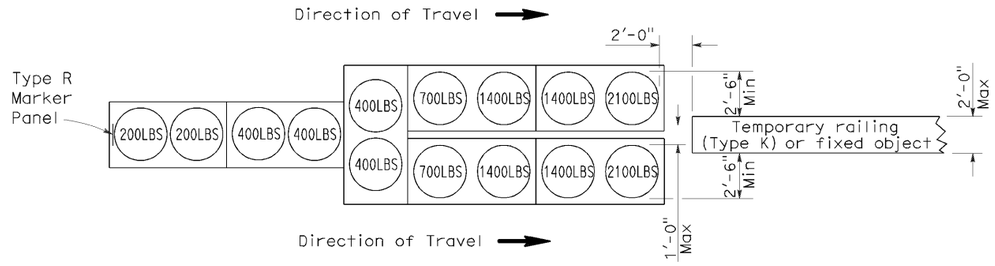
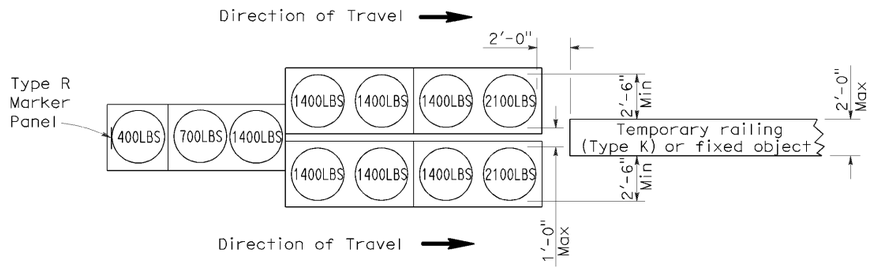
To accompany plans dated 1-10-11



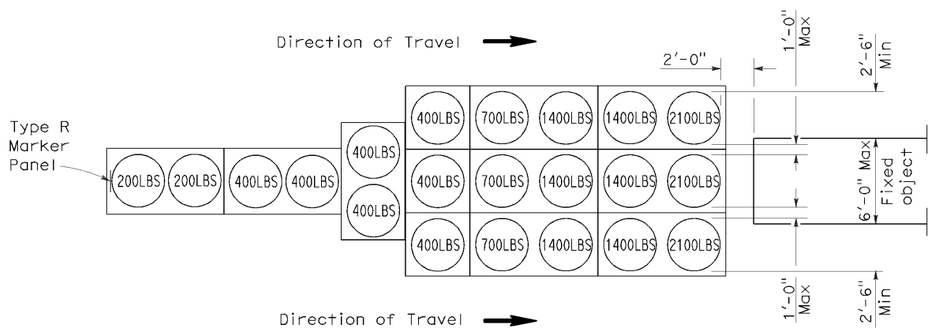
ARRAY 'TU14'

Approach speed 45 mph or more



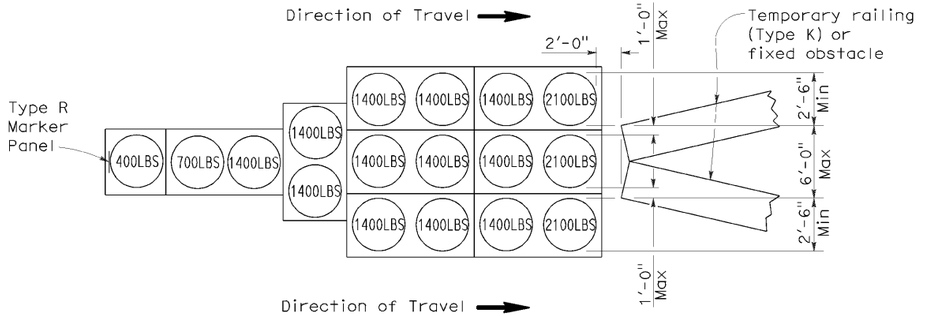
ARRAY 'TU11'

Approach speed less than 45 mph



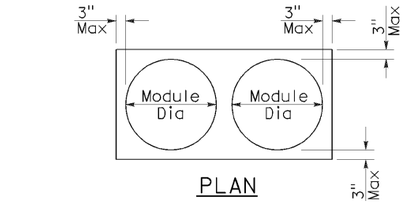
ARRAY 'TU21'

Approach speed 45 mph or more

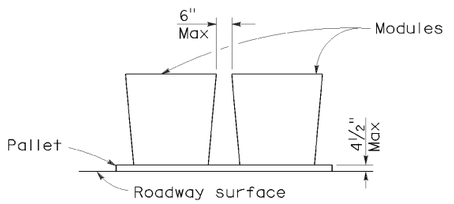


ARRAY 'TU17'

Approach speed less than 45 mph



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

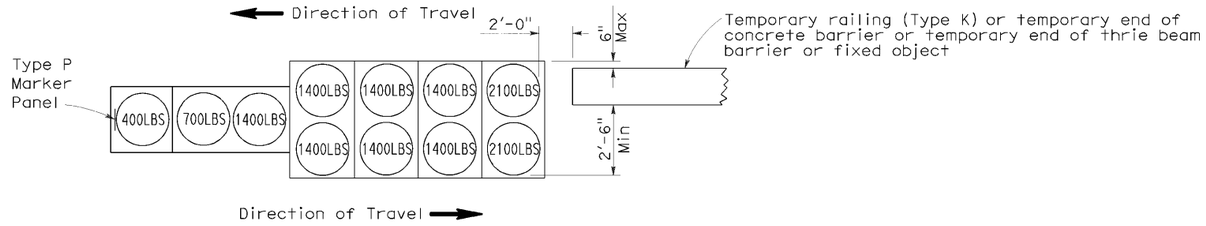
NO SCALE

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

REVISED STANDARD PLAN RSP T1A

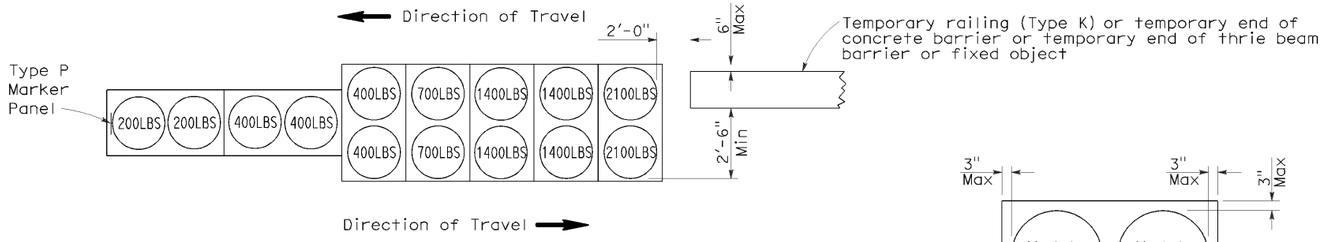
2006 REVISED STANDARD PLAN RSP T1A

5-15-08



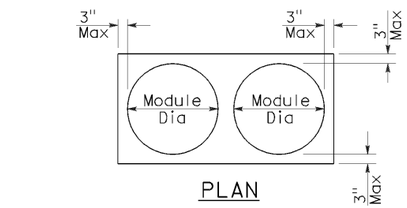
ARRAY 'TB11'

Approach speed less than 45 mph

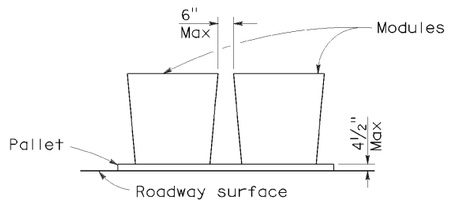


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	CC	4,242 580,680	Var	13	24

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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

To accompany plans dated 1-10-11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

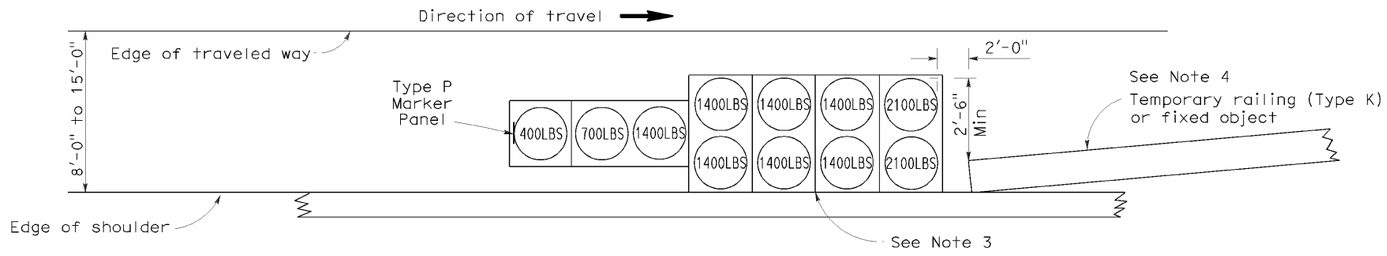
NO SCALE

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

REVISED STANDARD PLAN RSP T1B

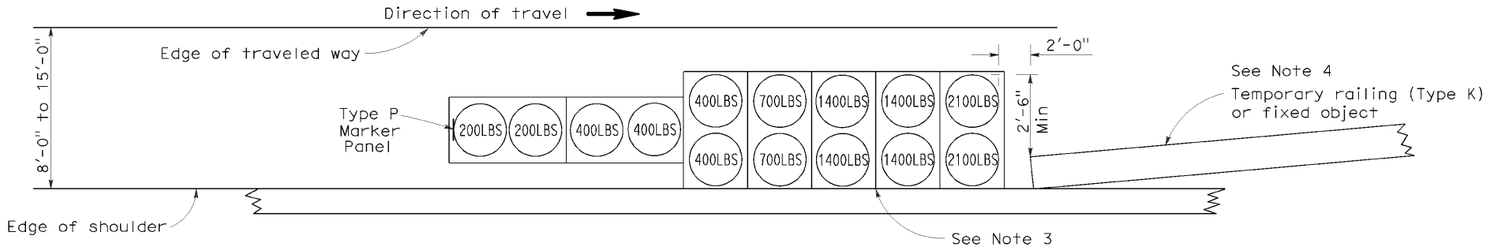
2006 REVISED STANDARD PLAN RSP T1B

5-15-08



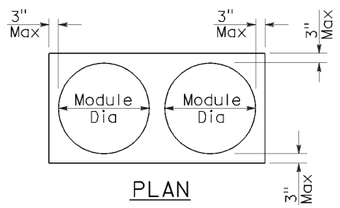
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

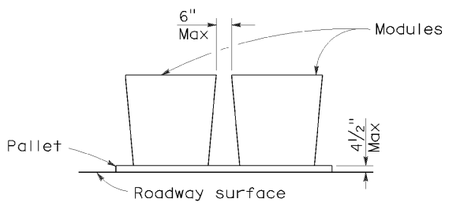


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	CC	4,242 580,680	Var	14	24

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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

To accompany plans dated 1-10-11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08