DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	1	19

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" " 13		Summary of Quantities
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STRUCTURE PLANS		
" " 15-16		Presidio Viaduct (Modification) Br. No. 34-18
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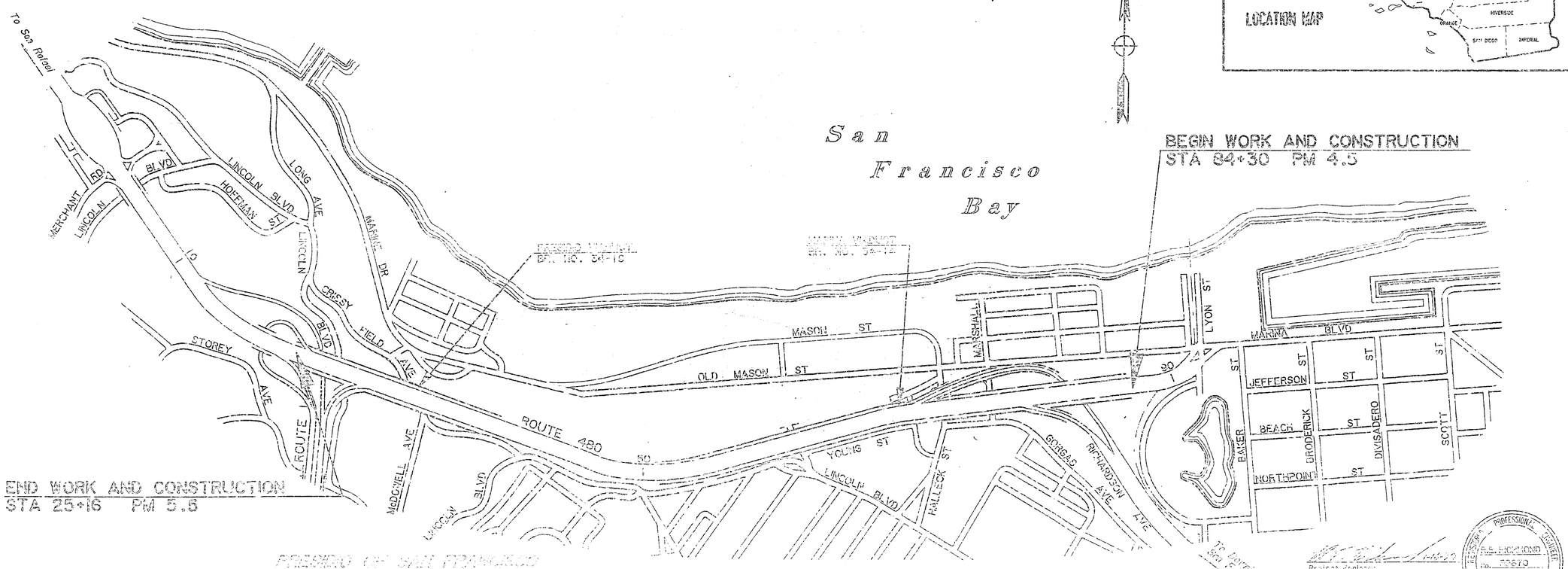
STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN THE CITY AND COUNTY OF SAN FRANCISCO FROM MARINA BOULEVARD TO ROUTE 1 (PORTIONS)

To be supplemented by Standard Plans dated January, 1988



BEGIN WORK AND CONSTRUCTION
STA 84+30 PM 4.5

END WORK AND CONSTRUCTION
STA 25+16 PM 5.5

R.E. RICHMOND
No. 70670
Exp. 12-31-89
CIVIL
PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

Project Engineer
Registered Civil Engineer

April 15, 1988
Plans Approval Date

NO SCALE

The Contractor shall possess the class (or classes) of license as specified in the "Notice to Contractors"

AS BUILT

LENGTH SURVEY DATE
R.E. RICHMOND

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	2	19

To accompany plans dated 4-15-91

GENERAL ROAD WORK

- ☒ A-10A Abbreviation
- ☒ A-10B Symbols
- ☒ A20-A Pavement Markers and Traffic Lines, Typical Details
- ☒ A20-B Pavement Markers and Traffic Lines, Typical Details
- ☒ A20-C Pavement Markers and Traffic Lines, Typical Details
- ☐ A-24A Pavement Markings-Arrows
- ☒ A-24B Pavement Markings-Arrows and Symbols
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- ☐ A-24D Pavement Markings-Words and Crosswalks
- ☐ A35-A P.C.C. Paving Details
- ☐ A62-A Excavation and Backfill Miscellaneous-Limits of Payment
- ☐ A62-B Excavation and Backfill Bridge Surcharge and Wall-Limits of Payment
- ☐ A62-C Excavation and Backfill Bridge-Limits of Payment
- ☐ A62-D Excavation and Backfill Details Concrete Pipe Culverts
- ☐ A62-E Excavation and Backfill Details Reinforced Concrete Box and Arch Culverts
- ☐ A62-F Excavation and Backfill Details Metal Culverts
- ☒ A73 Type III Barricade and Object Markers
- ☐ A74-A Markers and Delineators
- ☐ A74-B Survey Monuments
- ☐ A75-A Concrete Barrier Type 50
- ☐ A75-B Concrete Barrier Type 50
- ☐ A75-C Headlight Glare Screen
- ☐ A77C-1 Metal Beam Guard Railing-Standard Hardware
- ☐ A77C-2 Metal Beam Guard Railing
- ☐ A77-D Barrier and Guard Rail Anchors
- ☐ A77-E Cable Anchor Assembly (Breakaway)
- ☐ A77-F Thrie Beam Barrier
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- ☐ A79-C Guard Rail Connections to Bridge Rails, Retaining Walls and Abutments
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- ☐ C7-A2 Reinforced Concrete Crib Wall Battered Walls Type D,E, and F
- ☐ C7-A3 Reinforced Concrete Crib Wall Vertical Walls Type A,B, and C
- ☐ C7-A4 Reinforced Concrete Crib Wall Vertical Walls-Type D,E,& F
- ☐ C7-A5 Reinforced Concrete Crib Wall Type A,B,C,D,E,& F Header and Stretcher Details
- ☐ C7-B1 Reinforced Concrete Crib Wall Foundation Pressure-Battered Wall
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- ☐ C8-A Steel Crib Wall-Construction Details
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- ☐ D73 Drainage Inlets-G1,G2,G3,G4,G5,G6
- ☐ D74 Drainage Inlets-GT1,GT2,GT3,GT4,GO,GGO
- ☐ D75 Pipe Inlets
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- ☐ D80 Single Box Culvert
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- ☐ D89 Pipe Headwalls and Small Culverts
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- ☐ B11-53 Concrete Barrier Type 25
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- ☐ S6-8 Overhead Signs, Truss, Structural Frame Details
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- ☐ S40C-1 Overhead Signs, Box Beam, Closed Truss Alternative, Ribbed Sheet Metal Details
- ☐ S40D-1 Overhead Signs, Box Beam, Closed Truss Alternative, Two Post Type Frame Details
- ☐ S40E-1 Overhead Signs, Box Beam, Closed Truss Alternative, Two Post Type Frame Juncture Details
- ☐ S40F-1 Overhead Signs, Box Beam, Closed Truss Alternative, Two Post Type Post Details
- ☐ S40G-1 Overhead Signs, Box Beam, Closed Truss Alternative, Single Post Type Frame Members
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- ☐ S40K-1 Overhead Signs, Box Beam, Closed Truss Alternative, Single Post Butterfly Frame Details
- ☐ S40L-3 Overhead Signs, Box Beam, Closed Truss Alternative, Single Post Butterfly Frame Juncture Details
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- ☐ S40Q Overhead Signs, Tubular, Single Post Type Layout and Pipe Selection
- ☐ S40Q Overhead Signs, Tubular, Two Post Type Layout and
- ☐ S40R Overhead Signs, Tubular, Structural Frame Details No. 1
- ☐ S40S Overhead Signs, Tubular, Structural Frame Details No. 2
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- ☒ S42-15 Roadside Signs, Wood Posts, Typical Installation Details No. 2
- ☐ S43-A Roadside Signs, Laminated Wood Box Posts Typical Installation Details No. 3
- ☐ S43-B Roadside Signs, Steel Post, Typical Installation Details
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- ☐ ES-2D Signal and Lighting Details, Service Equipment
- ☐ ES-2E Signal and Lighting Details, Service Equipment and Typical Wiring Diagram
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- ☐ ES-3B Signal and Lighting Details, Signal Heads and Mountings
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- ☐ ES-6S Signal and Lighting Standards Details No. 1
- ☐ ES-6T Signal and Lighting Standards Details No. 2
- ☐ ES-6U Slip Base Insert for Type 10 and 15 Lighting Standards
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- ☐ ES-7A Signal and Lighting Details, Electrical Details Structure Installations
- ☐ ES-7B Signal and Lighting Details, Electrical Details Structure Installations
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- ☐ ES-11 Signal and Lighting Details, Foundation Installations
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- ☐ ES-13 Signal and Lighting Details, Splicing Details
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- ☐ ES-32B Signal and Lighting Details, Sign Lighting Control
- ☐ ES-33 Internally Illuminated Street Name Sign

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- ☐ *NSP D79 Precast Reinforced Concrete Pipe Direct Design Method*
- ☐ *NSP FS-1 Construction Project Funding Identification Signs*
- ☐ *NSP FS-2 Construction Project Funding Identification Signs*
- ☐ *NSP H-1 Highway Planting Abbreviations*
- ☐ *NSP H-2 Highway Planting Symbols*
- ☐ *NSP H-3 Highway Planting Details*
- ☐ *NSP H-4 Highway Planting Details*
- ☐ *NSP H-5 Highway Planting Irrigation Details*
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- ☐ *NSP H-7 Highway Planting Irrigation Details*
- ☐ *NSP H-8 Highway Planting Miscellaneous Details*

NO CONSTRUCTION CHANGES

CONTRACT No. 04-224156

DATE ACCEPTED 12-2-92

AS BUILT

RESIDENT ENGINEER P.C. Lemoine

STANDARD PLAN LIST

Revised 1/1/89

The Revised Standard Plans (RSP) and New Standard Plans (NSP) which apply to this contract are included as individual sheets of the project plans.

The Standard Plans which are applicable to this contract but are not included in these individual sheets are listed by a marked box.

APPROVED FOR PUBLICATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	3	19

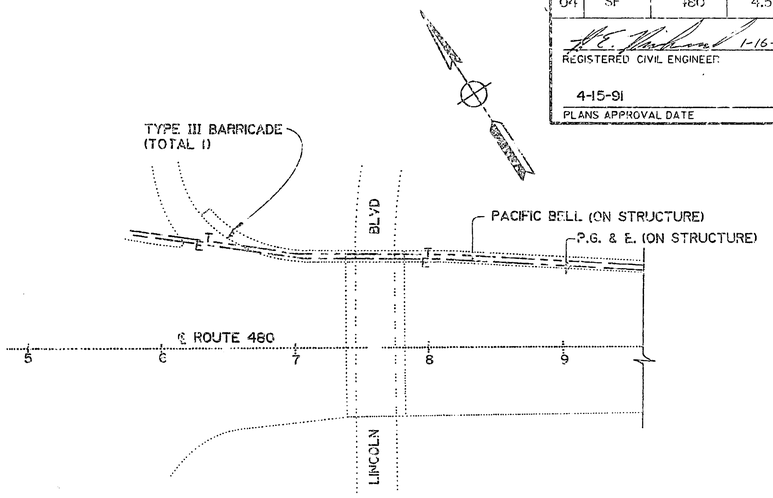
R.E. Richmond 1-16-90
REGISTERED CIVIL ENGINEER

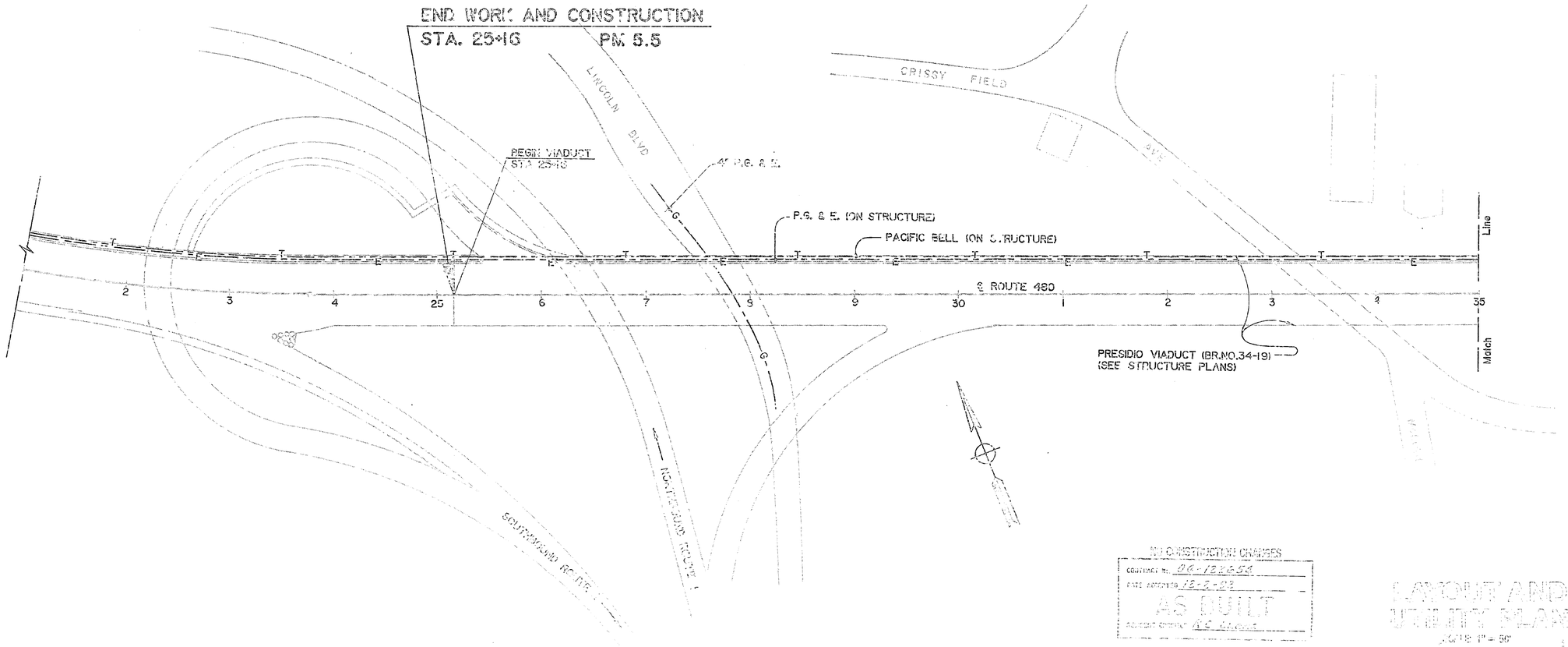
4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R. E. RICHMOND
No. 39870
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

NOTES:
1. TEMPORARY FENCES ARE LOCATED UNDER THE VIADUCT, AROUND WORK AREAS WHERE FALSEWORK WILL BE ERECTED. EXACT LOCATIONS OF THE TEMPORARY FENCES ARE TO BE DETERMINED BY THE ENGINEER.

LEGEND
= BARRICADE





NO CONSTRUCTION CHANGES
CONTRACT NO. 04-12458
DATE APPROVED 12-2-93
AS BUILT
AUTHORIZED REPRESENTATIVE R.E. Richmond

LAYOUT AND UTILITY PLAN
SCALE 1" = 50'

L-1

DATE | REVISED BY | DATE REVISED

CALCULATED/ DESIGNED BY
CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER
R.E. RICHMOND

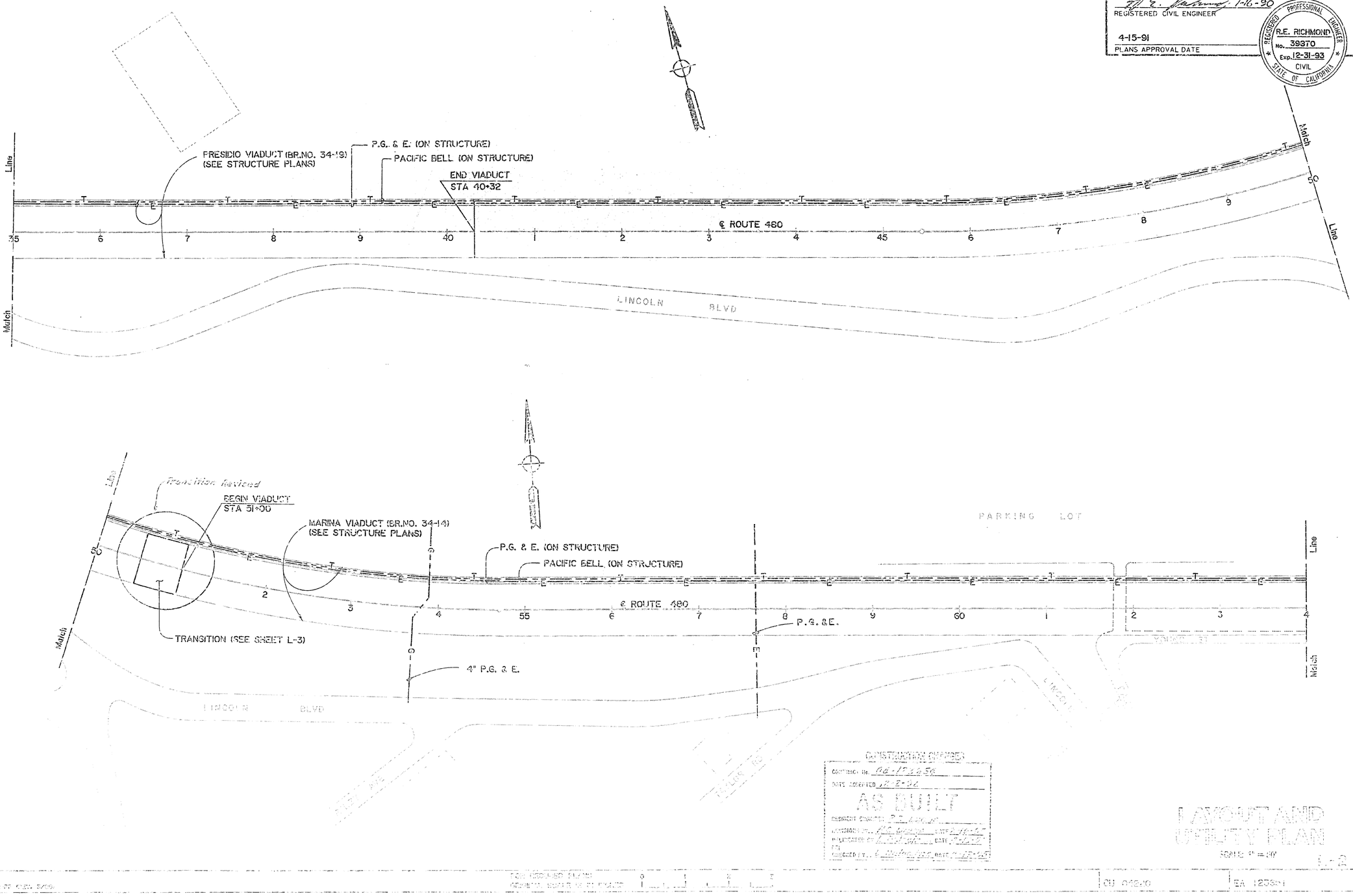
CITY/COUNTY CENTRAL DESIGN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	4	19

R.E. Richmond 1-16-90
REGISTERED CIVIL ENGINEER

4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. RICHMOND
No. 39370
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA



CONSTRUCTION CHANGES
CONTRACT No. 04-171250
DATE ACCEPTED 12-2-92
AS BUILT
RESIDENT ENGINEER
REVISIONS BY DATE
PREPARED BY DATE
CHECKED BY DATE

LAYOUT AND UTILITY PLAN
SCALE 1" = 50'

L-2

DEPARTMENT OF TRANSPORTATION
CENTRAL DESIGN
PROJECT ENGINEER R.E. RICHMOND
CALCULATED/DESIGNED BY
CHECKED BY
DATE REVISED
REVISED BY
DATE

EA 12380

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	5	19

R.E. Richmond 1-16-90
REGISTERED CIVIL ENGINEER

4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — R.E. RICHMOND — No. 39870 — Exp. 12-31-93 — CIVIL — STATE OF CALIFORNIA

DATE | REVISED BY | DATE REVISED

CALCULATED/ DESIGNED BY

CHECKED BY

PROJECT ENGINEER
R. E. RICHMOND

DEPARTMENT OF TRANSPORTATION
DIVISION OF CENTRAL DESIGN

Abutment @ 26 Ft ±
Abutment 9 = 18 Ft ±

50'

EXISTING AC SURFACE * Only at Abut 95 Approach

Polyester Concrete Overlay
~~0.15' AC (TYPE A)~~

END OF CONCRETE OVERLAY

0.08' ± CONCRETE OVERLAY (SEE STRUCTURE PLANS)

0.15' ±

PLANE AC PAVEMENT Overlay Over PCC Slab at Abut 95 Only

0.07' ±

TRANSITION DETAIL

NO SCALE

* Marina Blvd Approach (Abut A) is PCC Pavement

MASON ST

4" P.G. & E.

SERVICE STATION

HALLECK ST

TEMPORARY CL-6 FENCE

PARKING LOT

℄ RICHARDSON AVE ON RAMP

875

HIGH VOLTAGE OH POWER LINE

CAR WASH

TYPE III BARRICADE (TOTAL 3)

MARSHALL ST.

SEE RECONSTRUCT FENCE ON SHEET C-1

HIGH VOLTAGE OH POWER LINE

P.G. & E. (ON STRUCTURE)

PACIFIC BELL (ON STRUCTURE)

870

PARKING LOT

PARKING LOT

℄ ROUTE 480

YOUNG ST

TEMPORARY CL-6 FENCE

RESET CRASH CUSHION ARRAY

℄ RICHARDSON AVE OFF RAMP ℄

4" P.G. & E.

GORGAS AVE.

MARINA VIADUCT (BR.NO. 34-14) (SEE STRUCTURE PLANS)

TYPE III BARRICADE (TOTAL 3)

4" P.G. & E.

Match Line

Match Line

BEGIN WORK AND CONSTRUCTION
STA. 84+30 PM 4.5

MARINA VIADUCT (SEE STRUCTURE PLANS)

TRANSITION (SEE DETAIL THIS SHEET)

~~Deleted~~

880

CROOK ST

LUNDEEN ST

P.G. & E. (ON STRUCTURE)

PACIFIC BELL (ON STRUCTURE)

TYPE III BARRICADE (TOTAL 1)

Marina Blvd approach is PCC Pavement

℄ ROUTE 480

LYON ST.

MARINA VIADUCT (BR.NO. 34-14) (SEE STRUCTURE PLANS)

℄ RICHARDSON AVE ON RAMP

END VIADUCT STA 85+20

TRANSITION (SEE DETAIL THIS SHEET)

~~Deleted~~

PARKING LOT

TRANSITION (SEE DETAIL THIS SHEET)

℄ RICHARDSON AVE OFF RAMP

CONSTRUCTION RECORDS
CONTRACT No. 04-123034
DATE ACCEPTED 12-2-92
AS BUILT
RESIDENT ENGINEER R. E. Richmond
REVISIONS BY R. E. Richmond DATE 4-14-93
DELINEATED BY L. Wilkinson DATE 4-14-93
FILE
CHECKED BY R. E. Richmond DATE 4-14-93

LAYOUT AND UTILITY PLAN

SCALE: 1"=50'

L-5

FOR TRANSLATION INTO METRIC UNITS USE 25 MILLIMETERS TO 1 INCH

0 1 2 3

EA 123034

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	6	19

REGISTERED CIVIL ENGINEER 1-16-90

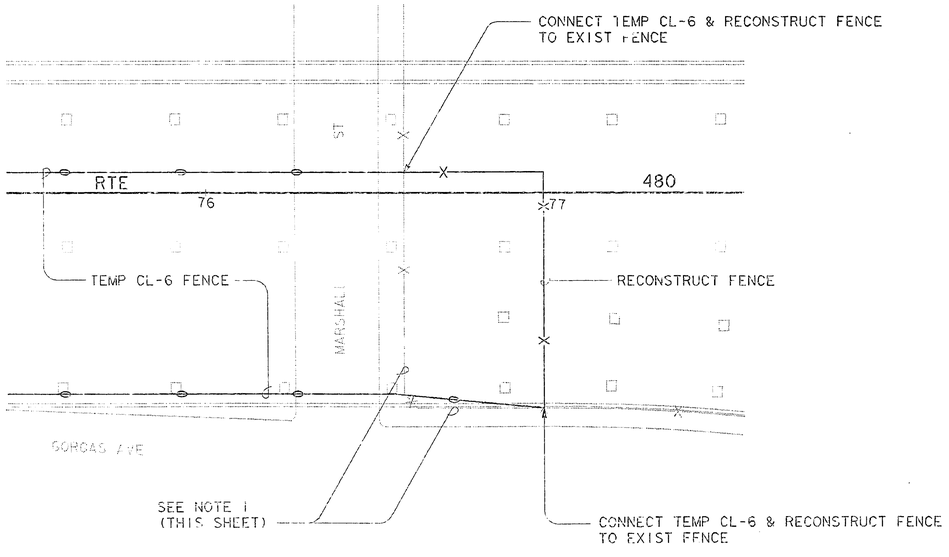
4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R. E. RICHMOND
No. 39870
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

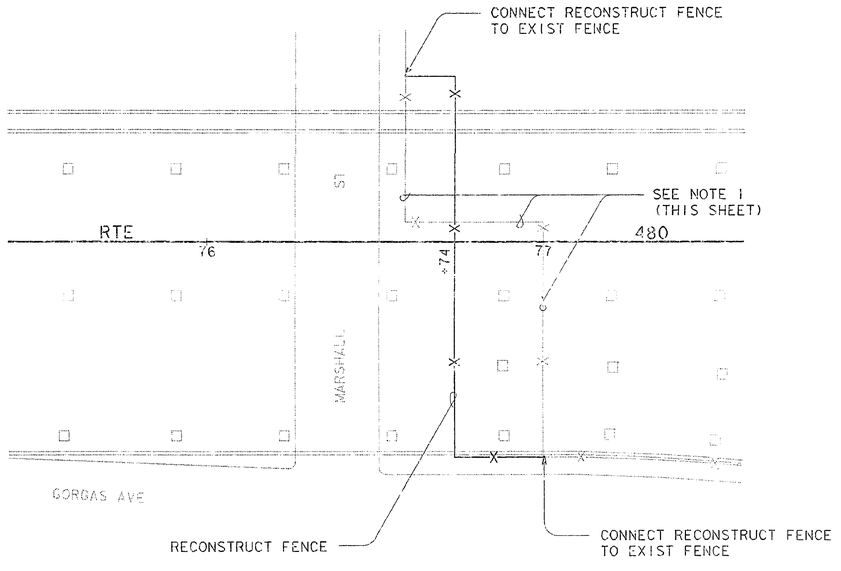
CALCULATED/ DESIGNED BY
CHECKED BY
DATE | REVISED BY
DATE REVISED

PROJECT ENGINEER
R.E. RICHMOND

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CENTRAL DESIGN
45 SHEET



STAGE 1



STAGE 2

NO CONSTRUCTION CHANGES
CONTRACTOR 04-123654
DATE COMPLETED 12-2-92
AS BUILT
DISTRICT DIRECTOR R.E. Lucero

RECONSTRUCT FENCE

NOTE:
1. EXIST LOCATION OF FENCE TO BE RECONSTRUCTED.

CONSTRUCTION DETAILS

SCALE 1"=20'

CT-1

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES 0 1 2 3

FORM CS-0 [illegible] (REV. 7/90)

04210 | EA 123651

CONSTRUCTION AREA SIGNS

	TYPE	PANEL SIZE	POSTS	REMARKS	EACH
1	C18	72" × 72"	2-4"×6"		3
2	C15	60" × 24"	2-4"×6"		3
3	C18	48" × 48"	1-4"×6"		10
4	C13	48" × 48"	1-4"×6"		11
5	C2	48" × 30"		MOUNTED ON BARRICADE	2
6	C19	48" × 48"	1-4"×6"		1
7	SPECIAL	66" × 36"	2-4"×6"		2
8	SPECIAL	36" × 24"		MOUNTED ON BARRICADE	2

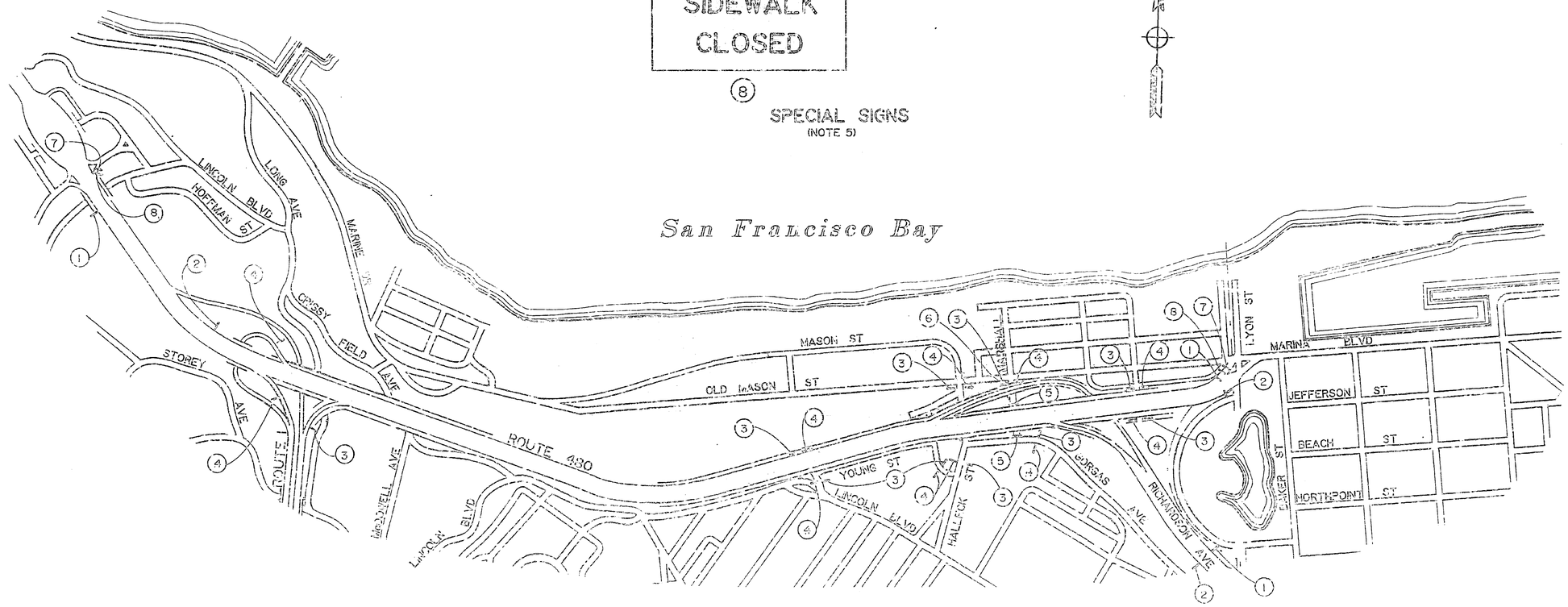
PEDESTRIAN SIDEWALK
WILL BE CLOSED
Date TO Date
FROM Time TO Time

(7) NOTE 4

PEDESTRIAN
SIDEWALK
CLOSED

(8)

SPECIAL SIGNS
(NOTE 5)



PRESIDIO OF SAN FRANCISCO
U.S. MILITARY RESERVATION

SAN FRANCISCO

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	7	19

H.L. Richmond 1-16-90
REGISTERED CIVIL ENGINEER

4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. RICHMOND
No. 39870
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

NOTES:
1. EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY THE ENGINEER
2. CONSTRUCTION AREA SIGNS SHALL BE STATIONARY MOUNTED.
3. SEE STANDARD PLANS S41-3 AND S42-15 FOR INSTALLATION DETAILS.
4. ADVANCE INFORMATION SIGN. INSTALL 72 HOURS IN ADVANCE OF CLOSURE.
5. REFLECTIVE ORANGE BACKGROUNDS WITH BLACK 4" C SERIES LETTERS.

DATE | REVISED BY | DATE REVISED

CALCULATED/DESIGNED BY | CHECKED BY

DESIGN - STRUCTURES - TRANSPORTATION | PROJECT ENGINEER | R.E. RICHMOND

CITY CENTRAL DESIGN

NO CONSTRUCTION CHANGES
CONTRACTOR
DATE ACCEPTED
AS BUILT
RESIDENT ENGINEER

CONSTRUCTION AREA SIGNS
NO SCALE
S9-1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	8	13

Rodney J. Noda
REGISTERED CIVIL ENGINEER

4-15-91
PLANS APPROVAL DATE

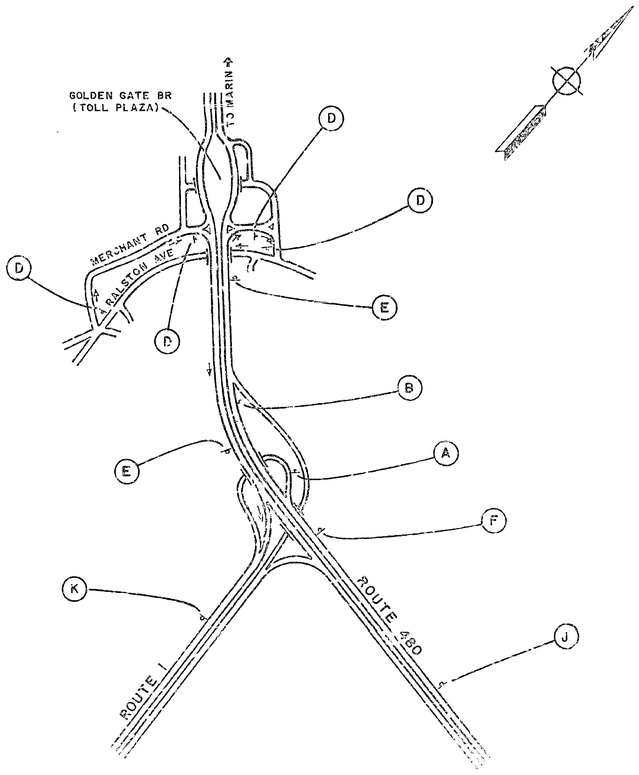
REGISTERED PROFESSIONAL ENGINEER
Rodney J. Noda
No. 39609
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE REVISED
CHECKED BY	R.J.N. 9/89		

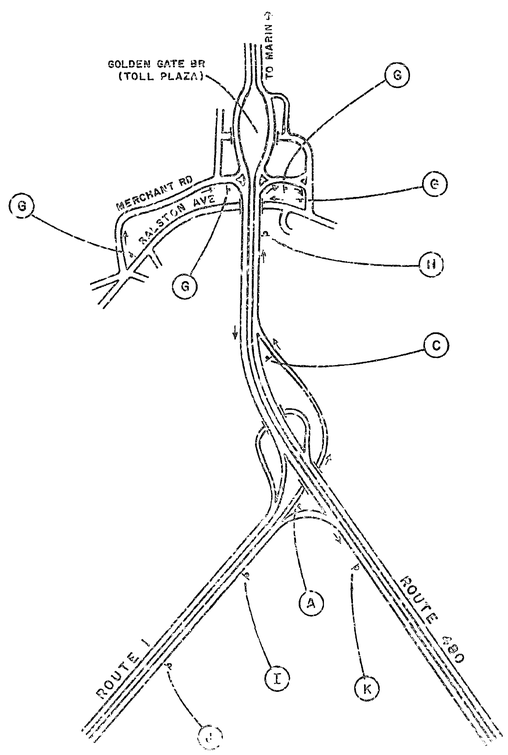
PROJECT ENGINEER
R. J. Noda

DEPARTMENT OF TRANSPORTATION

TRAFFIC



N/B RTE 480 TO S/B RTE 1
DETOUR



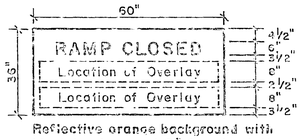
N/B RTE 1 TO S/B RTE 480
DETOUR

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

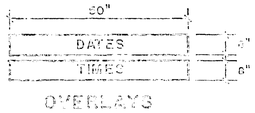
	TYPE	PANEL SIZE	SIGN MESSAGE	No. OF POSTS AND SIZE	EACH
(A)	SPECIAL	60"x36"	SEE DETAIL (A)	2-4"x4"x13'-6"	2
(B)	SPECIAL	96"x54"	SEE DETAIL (B)	2-4"x6"x16'-0"	1
(C)	SPECIAL	96"x54"	SEE DETAIL (C)	2-4"x6"x16'-0"	1
(D)	C5A	21"x9"	DETOUR	1-4"x4"x11'-8"	4
	G28(1)	21"x18"			4
	G48	21"x9"	SOUTH		4
	G34(↔)	21"x15"			4
(E)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	2
	G28(1)	21"x18"			2
	G48	21"x9"	SOUTH		2
	G44(↔)	21"x15"			2
(F)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	1
	G28(1)	21"x18"			1
	G48	21"x9"	SOUTH		1
	G36(↔)	21"x15"			1
(G)	C5A	21"x9"	DETOUR	1-4"x4"x11'-8"	4
	G26(101)	27"x18"			4
	G48	21"x9"	SOUTH		4
	G34(↔)	21"x15"			4
(H)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	1
	G2C(101)	27"x18"			1
	G48	21"x9"	SOUTH		1
	G44(↔)	21"x15"			1
(I)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	1
	G26(101)	27"x18"			1
	G48	21"x9"	SOUTH		1
	G36(↔)	21"x15"			1
(J)	C1	48"x48"	DETOUR AHEAD	Strap & saddle Bracket Method	2
(K)	C7	30"x18"	END DETOUR		2

Notes:
1. Exact sign location to be determined by the Engineer.
2. Offset signs as necessary to maintain lateral clearance.
3. These signs are in addition to the traffic control devices as called for on T-14 of the Standard Plans.

(A)
ADVANCE INFORMATION SIGN
Install 72 hours in advance of closure



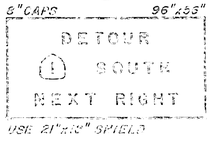
Reflective orange background with black borders and 6" C series letters



OVERLAYS

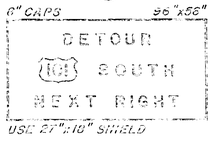
Reflective orange background with black 6" C series letters. Overlays shall be fastened with commercial quality nuts and bolts or other method acceptable to the Engineer.

(B)



USE 21"x15" SHIELD

(C)



USE 27"x18" SHIELD

Reflective orange backgrounds with black borders and 6" capital letters.

NO CONSTRUCTION CHANGES
CONTRACT NO. 04-133656
DATE ACCEPTED 12-2-92
AS BUILT
RESIDENT ENGINEER [illegible]

CONSTRUCTION AREA SIGNS

CS-2

FOR REFERENCE PLANS
HORIZONTAL SCALE IN INCHES 1 0 1 2 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	9	19

Rodney J. Noda
REGISTERED CIVIL ENGINEER

4-15-91
PLANS APPROVAL DATE

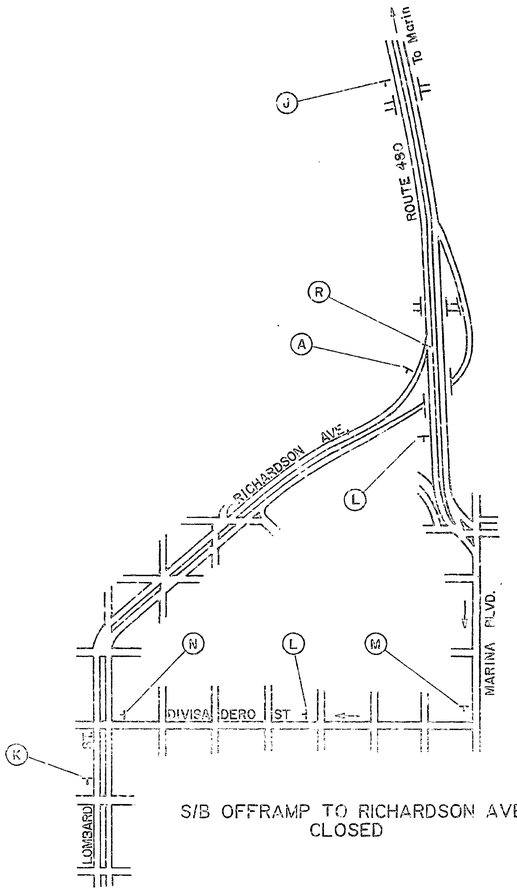
REGISTERED PROFESSIONAL ENGINEER
Rodney J. Noda
No. 39809
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

	DATE	REVISED BY
CALCULATED/ DESIGNED BY	U V	
CHECKED BY	R N	DATE REVISED
	11/89	

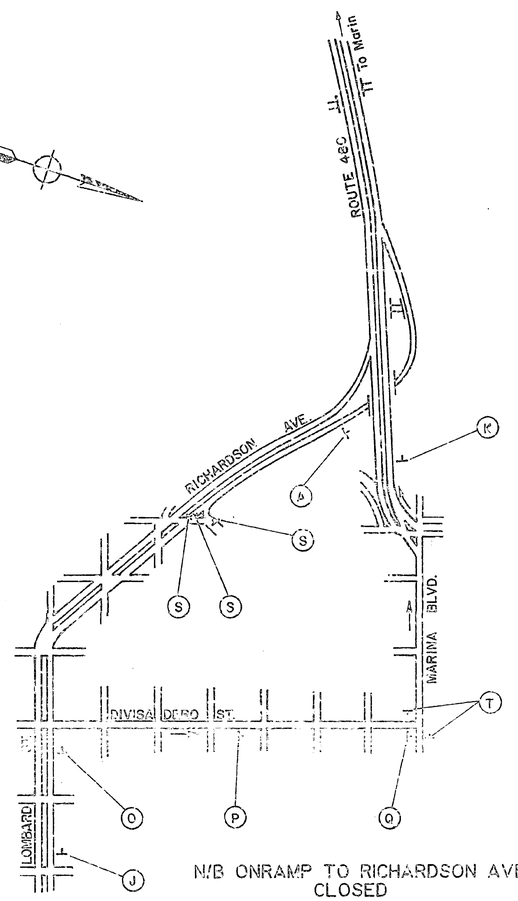
PROJECT ENGINEER
R. J. Noda

DEPARTMENT OF TRANSPORTATION
TRAFFIC

STATE OF CALIFORNIA



S/B OFFRAMP TO RICHARDSON AVE.
CLOSED



N/B ONRAMP TO RICHARDSON AVE.
CLOSED

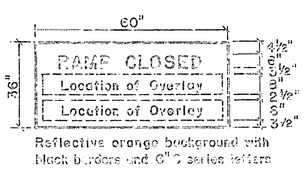
STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

	TYPE	PANEL SIZE	SIGN MESSAGE	No. OF POSTS AND SIZE	EACH
(A)	SPECIAL	60"x36"	SEE DETAIL (A)	2-4"x4"x13'-0"	2
(J)	C1	48"x48"	DETOUR AHEAD		2
(K)	C7	30"x18"	END DETOUR		2
(L)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	2
	G26(101)	27"x18"			
	G48	21"x9"	SOUTH		
	G36(↑)	21"x15"			
(M)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	1
	G26(101)	27"x18"			
	G48	21"x9"	SOUTH		
	G34(↑)	21"x15"			
(N)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	1
	G26(101)	27"x18"			
	G48	21"x9"	SOUTH		
	G34(←)	21"x15"			
(O)	SPECIAL	54"x54"	SEE DETAIL (O)	Strap & saddle Bracket Method	1
(P)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	1
	G26(101)	27"x18"			
	G47	21"x9"	NORTH		
	G36(↑)	21"x15"			
(Q)	C5A	21"x9"	DETOUR	Strap & saddle Bracket Method	1
	G26(101)	27"x18"			
	G47	21"x9"	NORTH		
	G34(↑)	21"x15"			
(R)	C2	48"x30"	RAMP CLOSED	TYPE III BARRICADE	1
	G38	48"x36"	USE NEXT EXIT		
(S)	C2	36"x24"	RAMP CLOSED	TYPE III BARRICADE	3
(T)	R1	30"x30"	STOP		2

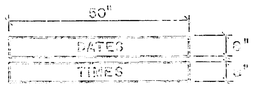
Notes:
1. Exact sign location to be determined by the Engineer.
2. Offset signs as necessary to maintain lateral clearance.
3. These signs are in addition to the traffic control devices as called for on T-14 of the Standard Plans.

(A)

ADVANCE INFORMATION SIGN
Install 72 hours in advance of closure



Reflective orange background with black borders and 6" D series letters



OVERLAYS

Reflective orange background with black 3" D series letters. Overlays shall be fastened with galvanized grade 5 nuts and bolts or other method acceptable to the Engineer.

(O)

USE 14½"x10½" SHIELD

NO CONSTRUCTION CHANGES
CONTRACT NO. 04-122613
DATE ACCEPTED 12-2-92
AS BUILT
RESIDENT ENGINEER P.C. Lucas

CONSTRUCTION AREA Signs

CS-8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	10	19

R.E. Richmond 1-15-90
REGISTERED CIVIL ENGINEER

4-15-91
PLANS APPROVAL DATE

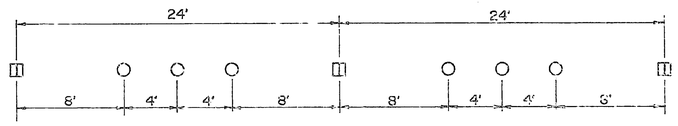
REGISTERED PROFESSIONAL ENGINEER
R.E. RICHMOND
No. 39870
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

NOTES:

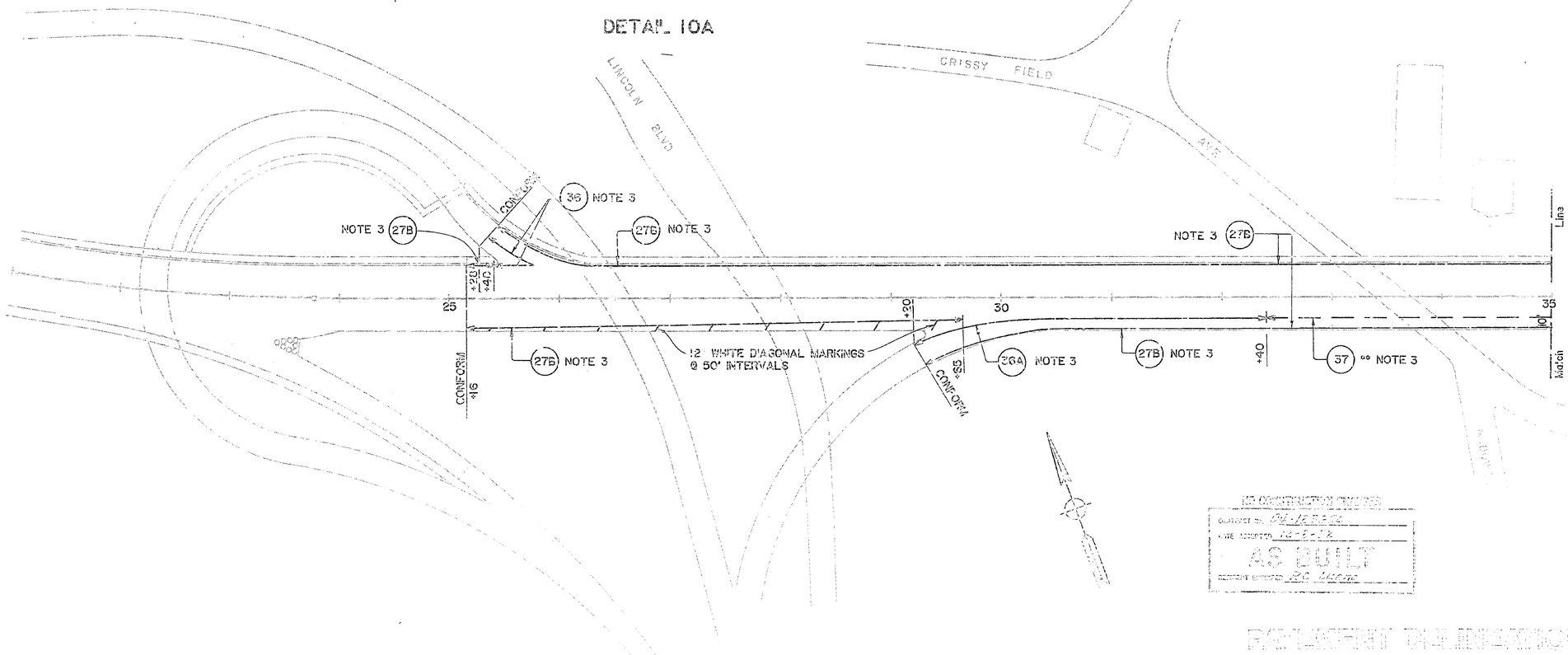
1. DETAILS 25A AND 27B SHALL BE PAINTED STRIPES.
2. ALL DETAILS 36, 36A, 37° AND 37°° 12" WHITE DIAGONALS AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
3. ONLY THE STRIPE PORTION OF DETAILS 27B, 36, 36A, 37°, AND 37°° TO BE PAINTED OR PLACED. EXISTING MARKERS TO REMAIN IN PLACE.

LEGEND

(No.) STRIPING DETAIL NUMBER. SEE STANDARD PLANS AND DETAIL 10A.
* SOLID STRIPE
** DASHED STRIPE
LIMITS OF DESIGNATED STRIPES AND DETAILS.
TYPE A NON-REFLECTIVE WHITE MARKER
TYPE B 2-WAY CLEAR REFLECTIVE MARKER



DETAIL 10A



AS BUILT

PAVEMENT DELINEATION PLAN

SCALE 1" = 50'

PD-1

NOTE: THIS PLAN APPLIES FOR PAVEMENT DELINEATION ONLY.

DIST 04 | COUNTY SF | ROUTE 480 | EA 183451

DEPARTMENT OF TRANSPORTATION
CENTRAL DESIGN
PROJECT ENGINEER R.E. RICHMOND
CALCULATED/DESIGNED BY
CHECKED BY
DATE REVISED BY
DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	11	19

REGISTERED CIVIL ENGINEER — 1-16-90

PLANS APPROVAL DATE — 4-15-91

REGISTERED PROFESSIONAL ENGINEER
R.E. RICHMOND
No. 39870
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

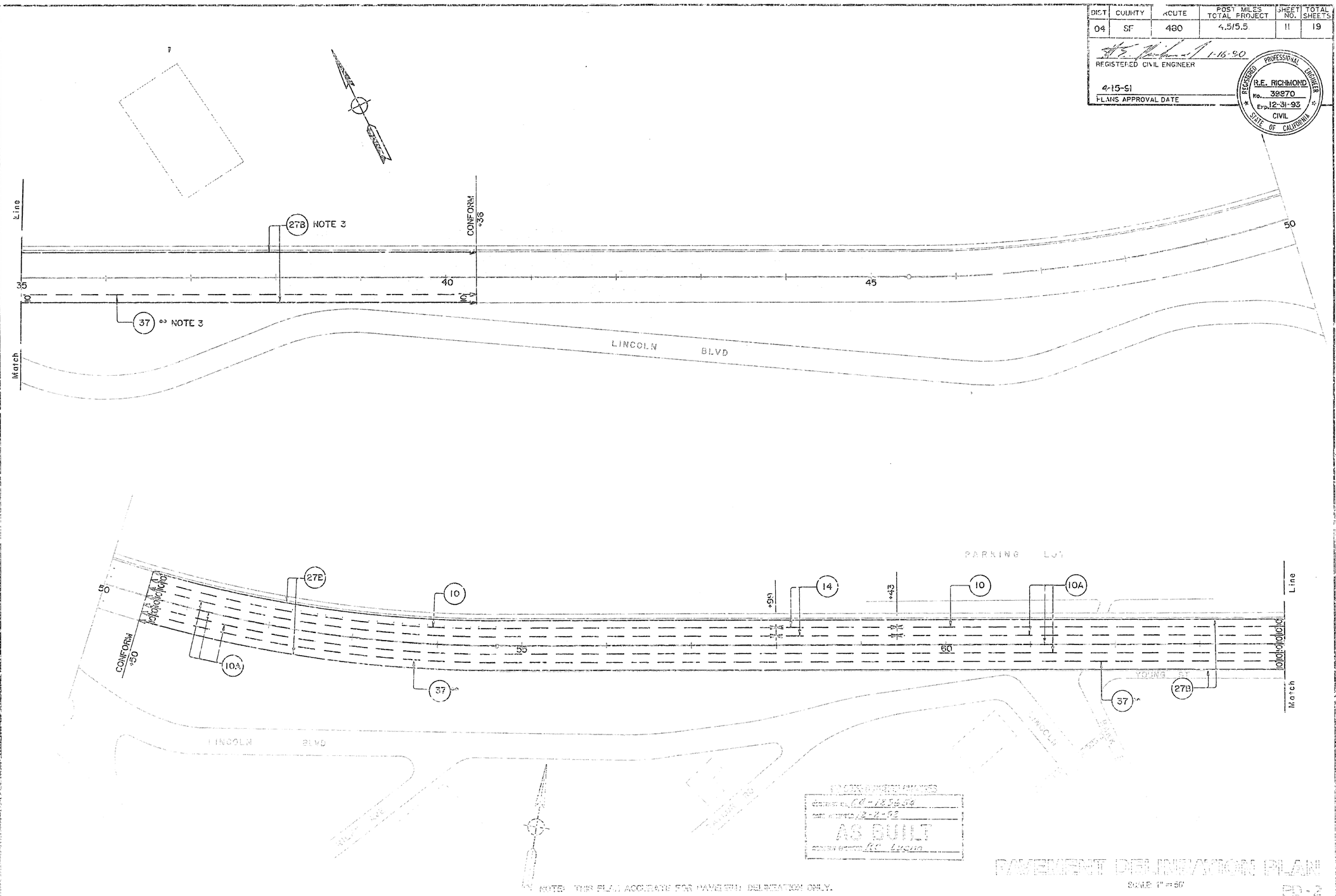
DATE | REVISED BY | DATE REVISED

CALCULATED/ DESIGNED BY

CHECKED BY

PROJECT ENGINEER
R. E. RICHMOND

DEPARTMENT OF TRANSPORTATION
CENTRAL DESIGN



PLANS APPROVED FOR CONSTRUCTION
CONTRACT NO. 04-123649
DATE APPROVED 3-2-92
AS BUILT
CONTRACTOR RC Lucas

NOTE: THIS PLAN ACCURATE FOR PAVEMENT DELINEATION ONLY.

PAVEMENT DELINEATION PLAN
SCALE 1" = 50'

PD - 2

PAVEMENT DELINEATION PLANS
ORIGINAL SCALE IS 1" = 50'
0 1 2 3

USE 12820

EA 123021

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	12	19

R.E. Richmond 1-16-90
REGISTERED CIVIL ENGINEER

4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. RICHMOND
No. 39370
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

DATE	REVISED BY
	DATE REVISED
CALCULATED/ DESIGNED BY	
CHECKED BY	

PROJECT ENGINEER
R.E. RICHMOND

DEPARTMENT OF TRANSPORTATION
CENTRAL DESIGN

MASON ST
HALLECK ST
SERVICE STATION
CAR WASH
PARKING LOT
YOUNG ST
CROOK ST.
LUNDEEN ST.
Match Line
12" WHITE DIAGONAL MARKINGS @ 50' INTERVALS
TYPE VI ARROW
CONFORM
875'
570'
+90
+40
+55
+41
+58
+80
+70
+92
+95
65
70
75
50
30
90
NO CONSTRUCTION CHANGES
CONTRACT NO. 04-123654
DATE ACCEPTED 12-3-92
AS BUILT
RESIDENT ENGINEER R.C. LANDA

PAVEMENT DELINEATION PLAN
SCALE 1" = 50'
PD-3

NOTE: THIS PLAN ACCURATE FOR PAVEMENT DELINEATION ONLY.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	13	19

REGISTERED CIVIL ENGINEER 1-16-90

4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R. E. RICHMOND
No. 39870
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

PAVEMENT DELINEATION SUMMARY

STATION TO STATION	DESCRIPTION	DETAIL NO	PAVEMENT MARKER					PAINTED TRAFFIC STRIPE (2-COAT)		THERMOPLASTIC TRAFFIC STRIPE		THERMO-PLASTIC PVMT MARKING
			NON-REFLECTIVE	REFLECTIVE				4" SOLID YELLOW	4" SOLID WHITE	8" SOLID WHITE	8" BROKEN WHITE	
			TYPE A	TYPE B	TYPE C	TYPE G	TYPE H					
			EA	EA	EA	EA	EA	LF	LF	LF	LF	SQFT
MARINA VIADUCT												
50+50 TO 57+99	NB LANELINE 2	10	94			16						
50+50 TO 84+30	℄ LANELINE	10A	422	141								
50+50 TO 57+99	NB LANELINE 1	10A	94	32								
50+50 TO 66+41	SE LANELINE 1	10A	199	67								
50+50 TO 67+00	NB RIGHT EDGELINE	27B							1650			
50+50 TO 67+85	SB LANELINE 2	37**			8	110					1735	
50+50 TO 70+63	SB RIGHT EDGELINE	27B							2013			
57+99 TO 59+43	NB LANELINE 1 & 2	14	24		8							
59+43 TO 67+00	NB LANELINE 2	10	95			16						
59+43 TO 84+30	NB LANELINE 1	10A	311	104								
66+41 TO 67+85	SB LANELINE 1	14	12		4							
67+85 TO 84+30	SB LANELINE 1	10A	206	69								
67+85 TO 70+63	SB LANELINE 2	37*				24				278		
68+55 TO 84+30	NB RIGHT EDGELINE	27B							1575			
69+75 TO 71+75	LT ℄ @ 50' INTERVALS	12'' LINE										42
72+80 TO 76+80	LT ℄ @ 200' INTERVALS	TYPE VI ARROW										126
72+80 TO 84+30	NB LANELINE 2	10	144			24						
74+70 TO 76+92	SB EXIT GORE	36				20				444		
76+92 TO 84+30	SB RIGHT EDGELINE	27B							738			
RICHARDSON AVE RAMPS												
70+63 TO 80+65	SB OFF RIGHT EDGELINE	27B							1002			
70+63 TO 74+70	SB OFF LANELINE 2	37*				34				407		
74+70 TO 80+65	SB OFF LANELINE 2	10	74			13						
76+92 TO 80+65	SB OFF LEFT EDGELINE	25A					16	373				
77+95 TO 80+65	SB OFF LANELINE 1	10	34			6						
867+00 TO 879+80	NB ON LANELINE	10	160			27						
867+23 TO 879+80	NB ON RIGHT EDGELINE	27B							1257			
868+40 TO 839+90	NB ENTRANCE GORE	36A				6				150		
869+90 TO 879+80	NB ON LEFT EDGELINE	25A					41	990				
869+92 TO 879+42	NB ON @ 50' INTERVALS	12'' LINE										200
PRESIDIO VIADUCT												
25+16 TO 25+40	NB RIGHT EDGELINE	27B							24			
25+16 TO 29+65	SB RIGHT EDGELINE	27B							449			
25+40 TO 25+78	NB EXIT GORE	36								88		
25+40 TO 29+40	RT ℄ @ 50' INTERVALS	12'' LINE										62
25+46 TO 40+36	NB RIGHT EDGELINE	27B							1490			
29+30 TO 40+36	SB RIGHT EDGELINE	27B							1106			
29+20 TO 32+40	SB ENTRANCE GORE	36A								320		
32+40 TO 40+36	SB LANELINE 2	37**									796	
SUBTOTALS				413	20	296	57	1363	11304			
TOTAL			1369	786				12667		1687	2531	430

TRANSITION LIST

LOCATION	PLANE ASPHALT CONCRETE PAVEMENT	ASPHALT CONCRETE (TYPE A)
	SQYD	TON
50+50 TO 51+00	333	34
RICHARDSON AVE ON RAMP 879+32 TO 879+82	167	17
RICHARDSON AVE OFF RAMP 80+15 TO 80+65	167	17
83+80 TO 84+30	333	34
TOTALS	1000	102

FENCE LIST

LOCATION	TEMPORARY CHAIN LINK FENCE	RECONSTRUCT FENCE
	LF	LF
73+12 TO 76+97	782	
870+96 TO 871+36	160	
872+66 TO 873+06	160	
MARSHALL ST (STAGE I)		111
MARSHALL ST (STAGE II)		154
TOTAL	1102	265

TYPE III BARRICADE

LOCATION	EA
PEDESTRIAN SIDEWALK, 6+50	1
MARSHALL STREET	6
PEDESTRIAN SIDEWALK, 89+75	1
TOTAL	8

NO CONSTRUCTION CHANGES
CONTRACT NO. 04-123004
BY CONTRACTOR 12-3-92
AS BUILT
CONTRACT COMPLETED ON 12-3-92

SUMMARY OF QUANTITIES

13 of 19

DATE	REVISED BY	DATE REVISED
	CALCULATED/ DESIGNED BY	CHECKED BY

PROJECT ENGINEER
R. E. RICHMOND

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CENTRAL DESIGN

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES 0 1 2 3

FORM DE-05-92-PF (REV. 9/88)

DU 04220 | EA 123651

DIST	COUNTY	ROUTE	POST MILE / TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	14	19

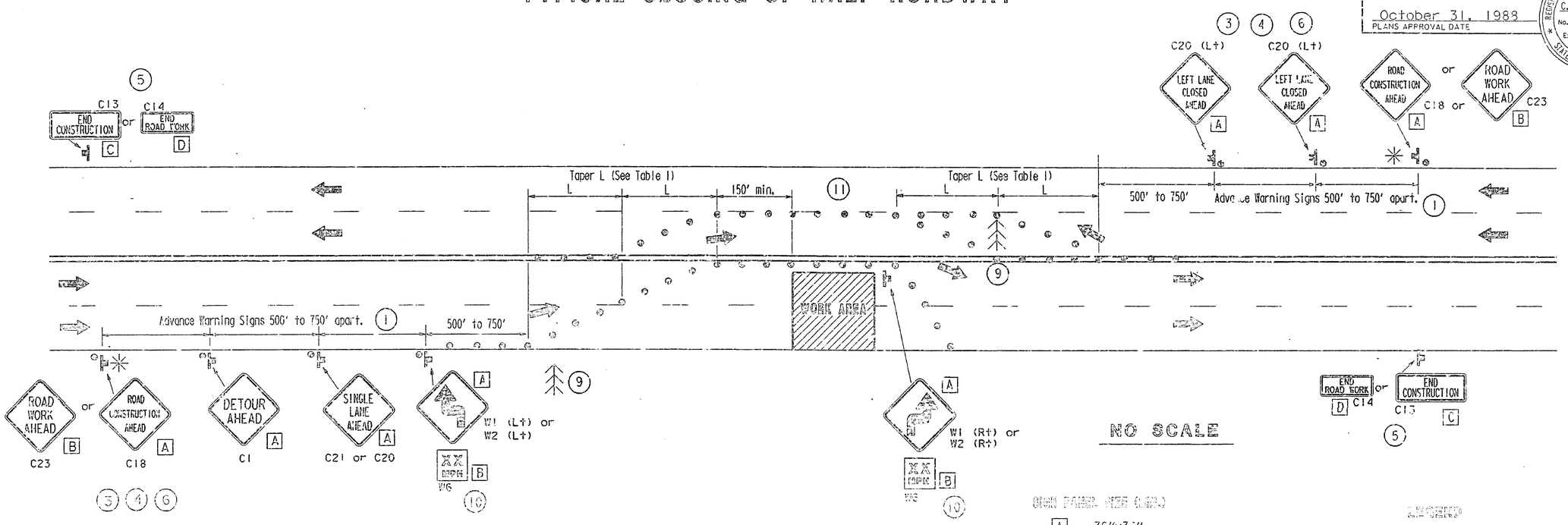
To Accompany Plans Dated 4-15-91

REGISTERED CIVIL ENGINEER

October 31, 1988
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — C.D. Bartell — No. 10995 — Exp. 12-31-88 — CIVIL — STATE OF CALIFORNIA

TYPICAL CLOSING OF HALF ROADWAY



SIGN PANEL SIZE (MIN.)

A	36"x36"
B	30"x30"
C	48"x18"
D	36"x18"

LEGEND

- Traffic Cone
- Portable Sign
- Flashing Arrow Sign
- Direction of Travel
- Portable Flashing Beacon

NOTES:

1. Where approach speeds are low, signs may be placed at 300 foot spacing and, in urban areas, closer.
2. Not less than one person shall be assigned to full time maintenance of traffic control devices on all night lane closures.
3. All warning signs for night lane closures shall be illuminated or reflectorized as specified in the specifications.
4. All advance warning sign installations shall be equipped with flags for daytime closures. Flashing beacons shall be placed at the locations indicated during night lane closures.
5. A C13 "END CONSTRUCTION" or C14 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project limits.
6. If the C18 (or C23) sign would follow within 2,000 feet of a stationary C18, C23, or C11 "STATE HIGHWAY CONSTRUCTION NEXT ____ MILES", use a C20 sign for the first advance warning sign.
7. All cones used for night lane closures shall be illuminated traffic cones or fitted with 13 inch reflective sleeves as specified in the specifications.
8. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used in lieu of cones for daytime closures only.
9. Flashing arrow signs shall be either Type I or Type II
10. Advisory speed will be determined by the Engineer. The W6 Sign will not be required when advisory speed is more than the posted or maximum speed limit.
11. The maximum spacing between cones within a taper shall be approximately as shown in Table I and the maximum spacing on tangent shall be 50 feet.
12. For approach speeds over 50 mph, use the "Traffic Control System For Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.

NO CONSTRUCTION CHANGES
AS BUILT

TABLE 1 (TAPER)

Approach Speed (mph)	Taper Length (L) *	Number of Cones for Taper *	Spacing of Cones Along Taper (Feet) ±
0-25	125	6	25
25-40	320	9	40
40-50	600	13	50
Over 50 see note 12			

(*) Based on 12-Foot Wide Lane. This column is also appropriate for lane widths less than 12 feet.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE
ON MULTILANE CONVENTIONAL HIGHWAYS
MISCELLANEOUS DETAILS — RSP T-12

REVISED 1-1-92

AS BUILT PLANS
Contract 04-123654
Date Completed 7-15-93
Document No.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	15	19

REGISTERED ENGINEER - CIVIL

4-15-91
PLANS APPROVAL DATE

Notes:
Repair joint seals MR= ½ at all bents and abutments
For details not shown see Repair Details sheet
Ⓐ Existing deck drain
Ⓑ New deck drain with new 6" galvanized steel & cu/iron pipe
Ⓒ Clear existing drain
Ⓓ Replace existing 6" downdrain pipe w/ 6" galvanized steel pipe

APPROXIMATE QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	245,500	SQFT
BRIDGE REMOVAL (PORTION)	LUMP	SUM
DRILL AND BOND DOWEL	162	LF
CONCRETE (RAPID SET)	35	CF
FURNISH POLYESTER CONCRETE OVERLAY	20,500	CY
CORE CONCRETE (7")	18	LF
JOINT SEAL (MR 1/2")	8,100	LF
JOINT SEAL (TYPE AL)	600	LF

FINAL PAY QUANTITIES

CLASS A CONCRETE (STRUCTURE)	7	CY
CLEAN EXPANSION JOINT	8,700	LF
PLACE POLYESTER CONCRETE OVERLAY	245,000	SQFT
MISCELLANEOUS METAL (BRIDGE)	17,000	LB

1638'-0"

Limit of polyester concrete overlay and joint seal

Repair longitudinal joint seal

Repair girder seats @ ½ end of span 55 & @ end of span 810

971'-1½"

B Line

Repair longitudinal joint seal

Existing drain to be removed

Intercepted storm drain

Limit of polyester concrete overlay and joint seal

From Richardson Ave

925'-10½"

925'-1½"

A Line

Abut 1

To Marina

Remove existing downspout

Marina

Field verified drain locations

EXISTING STRUCTURE PLAN

30'-0"
Limit of polyester concrete overlay and joint seal

Polyester concrete overlay

See Sheet No. 13 for Deck Expansion Details (Sheet 3rd)

SECTION A-A

Limit of polyester concrete overlay and joint seal

Polyester concrete overlay

SECTION C-C

60'-0" ± varies
Limit of polyester concrete overlay and joint seal

Polyester concrete overlay

Repair bent cap bearing seats Bents 13-23

SECTION B-B

Standard Plan Sheet No.
Detail No.

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	REPAIR DETAILS
3	DRAIN DETAILS
4	DESIGN DATA
5	BRIDGE QUANTITIES
6	DRAINAGE DIAGRAMS

STANDARD PLANS DATED JANUARY 1988

B2-17	JOINT SEALS (TYPE AL)

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE PROCEEDING WITH FABRICATION OR THE WORK.

PLANNED		DESIGNED		DRAWN		CHECKED	
QUANTITIES		CHECKED		QUANTITIES		CHECKED	
SPECIFICATIONS		ESTIMATE					

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF STRUCTURES
STRUCTURE DESIGN

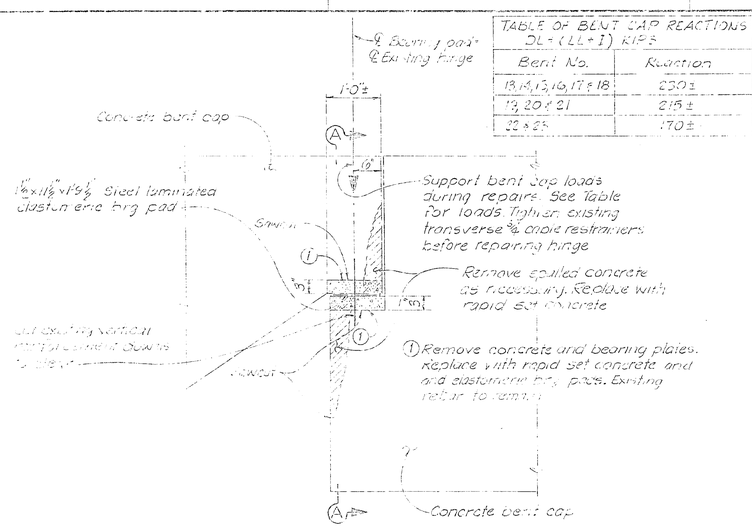
BRIDGE NO.	37 0
POST MILE	4.5

MARINA VIADUCT REPAIR

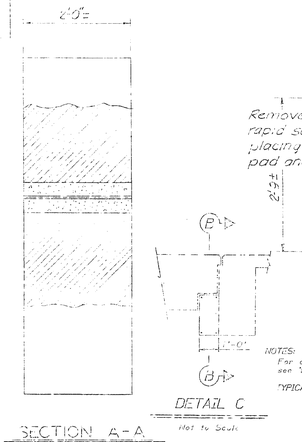
GENERAL PLAN

AS BUILT PLANS
Contract No. 04-123654
Date Completed 1-15-92
Document No.

TABLE OF BENT CAP REACTIONS DL+(LL+I) KIPS	
Bent No.	Reaction
13,14,15,16,17 & 18	230±
19, 20 & 21	215±
22 & 23	170±



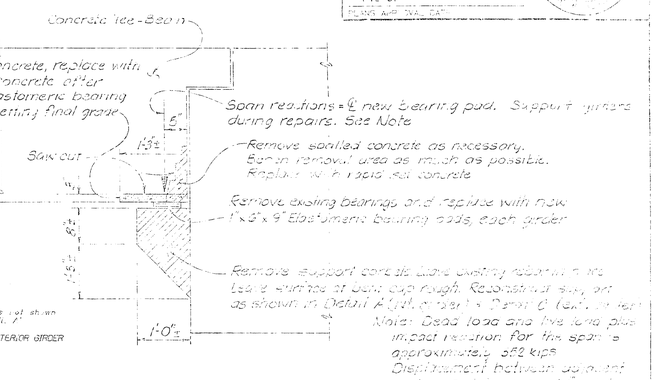
BENT CAP REPAIRS
Not to Scale
Bents 13-23 of Mainline Structure



SECTION A-A
Not to Scale

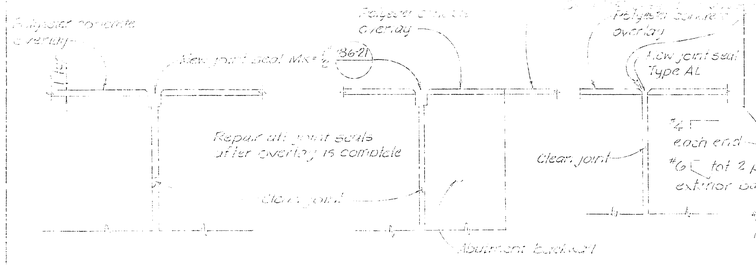
DETAIL C
Not to Scale

NOTES:
For details not shown see "DETAIL A"
TYPICAL EXTERIOR GIRDER

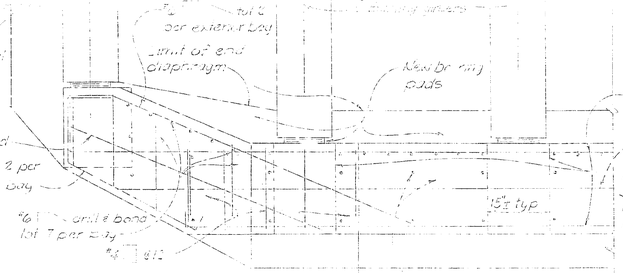


GIRDER SEAT REPAIRS (East end, spans 85 and 810)
Not to Scale

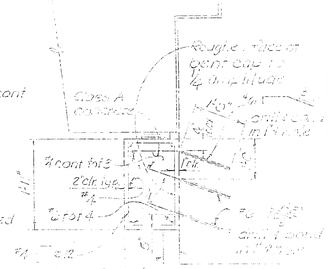
Note: Dead load and live load plus impact reaction for this span is approximately 382 kips
Displacement between adjacent girders not to exceed ½" while supporting loads during repairs.



JOINT SEAL REPAIRS (At abutments & expansion joints)
Not to Scale



LONGITUDINAL JOINT REPAIR
Not to Scale



SECTION B-B
Not to Scale

NOTE:
THE CONTRACTOR SHALL EXPOSE ALL CONCRETE SURFACES TO SOUND CONCRETE AS DIRECTED BY THE ENGINEER

DETAIL A
Not to Scale

STRUCTURAL DETAILS

REPAIR DETAILS

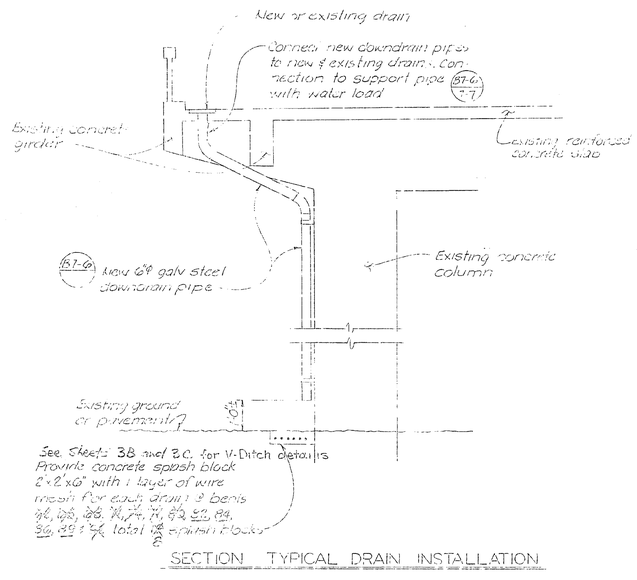
AS BUILT PLANS
Contract No. 04-123654
Date Completed 7-15-93
Document No.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SF	480	4.5/5.5	17	19

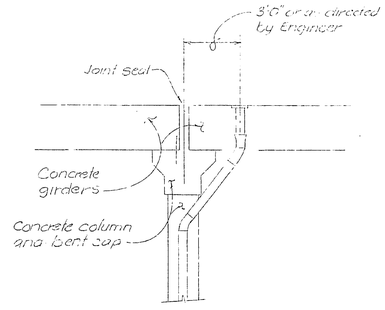
REGISTERED PROFESSIONAL ENGINEER
ERIC BROWN
No. C051832
Exp. 3/31/95
CIVIL
STATE OF CALIFORNIA

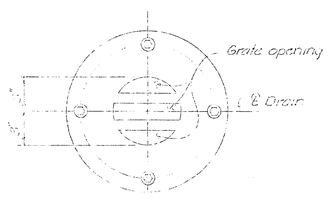
4-15-91
PLANS APPROVAL DATE

K. Tooth
04-123654
6-1-93 JD 7-22-93

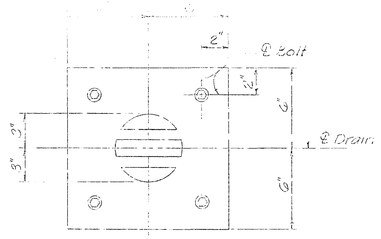


SECTION TYPICAL DRAIN INSTALLATION



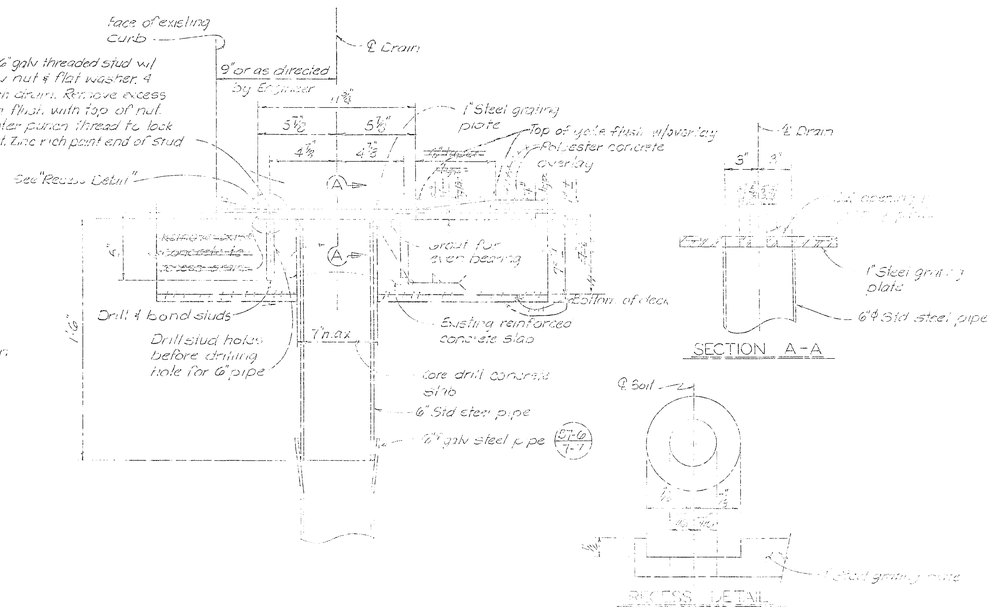


GRATING PLATE



ALTERNATIVE GRATING PLATE

Note:
Galvanize drain after fabrication

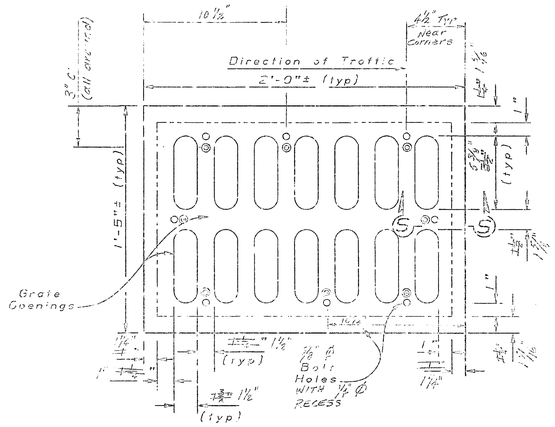


STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF STRUCTURES
STRUCTURAL DESIGN 2
VARIOUS HIGHWAY REPAIRS
DRAIN DETAILS

AS BUILT PLANS
Contract No. 04-123654
Date Completed 7-15-93
Document No.

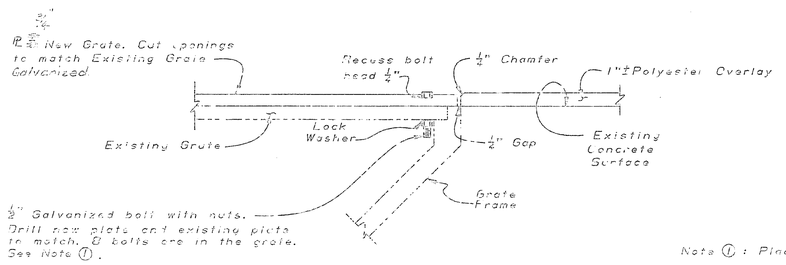
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	174	174

REGISTERED ENGINEER - CIVIL
Scott Straub
No. C39148
Exp 3-31-95
CIVIL
PLANS APPROVAL DATE



DRAINAGE DETAIL
Scale: 3" = 1'-0"

SHIM PLATE DETAIL
Not Scale



SECTION 5-5
1½ Scale

CONTRACT CHANGE ORDER NO. 13
SHEET 2 OF ___
(DRAIN EXTENSION DETAILS)

Note ①: Place bolts around perimeter of existing plate as close as possible to edge (to prevent interference with Grate Frame). Drill Existing Grate to receive bolt or use existing opening in Grate with ½ x 1½" x 2½" plate washer.

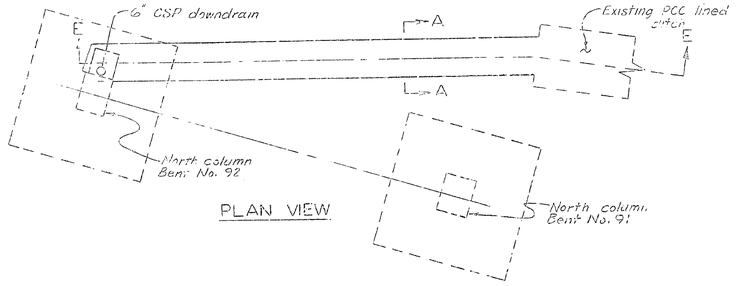
---------- Indicates existing

AS BUILT PLANS
Contract No. 04-123654
Date Completed 7-15-93
Document No.

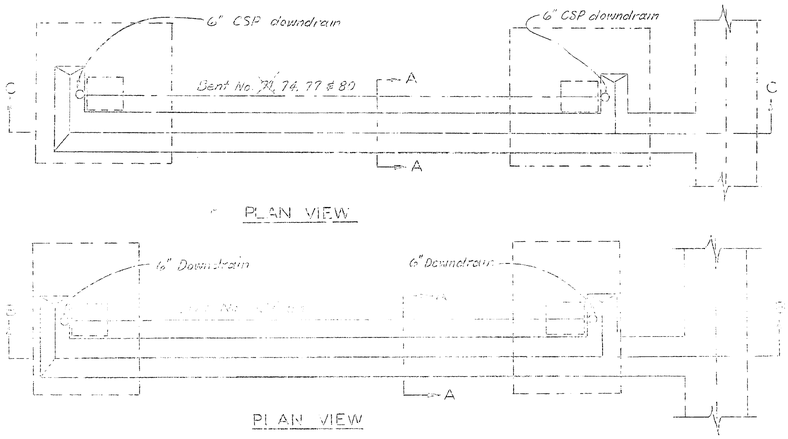
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	450	4.5/5.5	178	19

REGISTERED ENGINEER - CIVIL
Shi Pham
No. C041832
Exp. 3-31-92
CIVIL
4-19-91
PLANS APPROVAL DATE

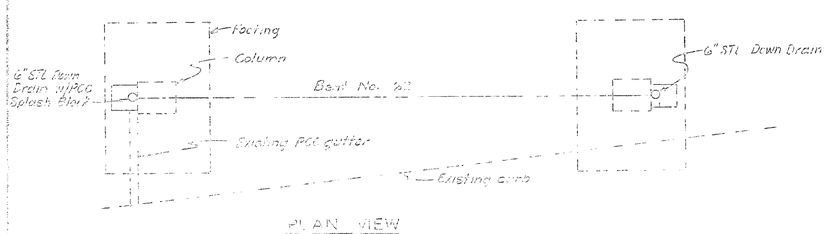
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA



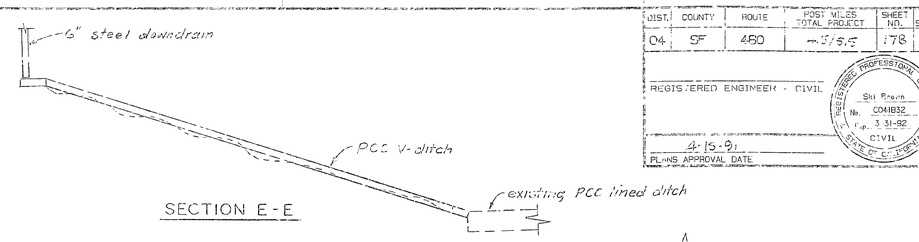
PLAN VIEW



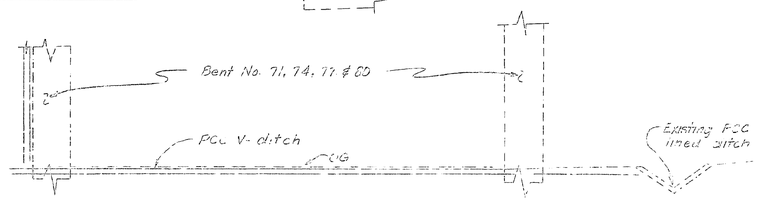
PLAN VIEW



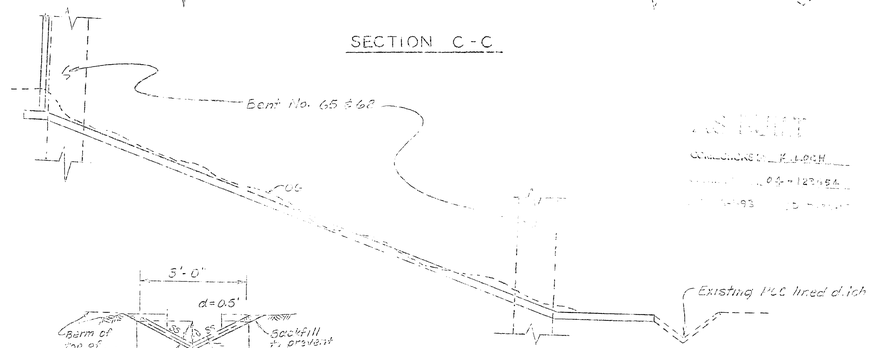
PLAN VIEW



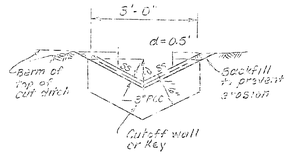
SECTION E-E

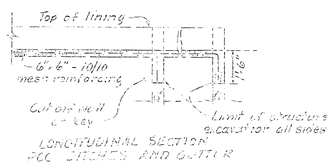


SECTION C-C



SECTION B-B





LONGITUDINAL SECTION
PCC DITCHES AND GUTTER

SECTION A-A

NOTES:
1. Cutoff wall required at the beginning of all paved ditches.
2. No cutoff wall required wherever paved ditch terminates at a drainage structure.
3. Keys to be placed at 30' intervals or longitudinal slopes greater than 10% or as directed by the Engineer.
4. All P.C.C. Class B.

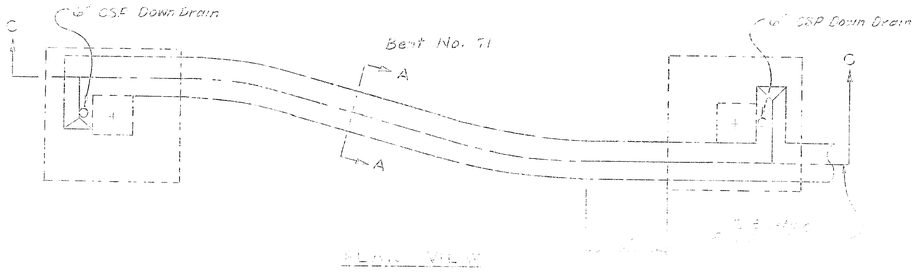
CONTRACT CHANGE ORDER NO. 14
SHEET 1 OF 1

AS BUILT
CONTRACT NO. 04-123654
DATE 7-15-93

AS BUILT PLANS
Contract No. 04-1B36,54
Date Completed 7-15-93
Document No. ____

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	460	4.5/5.5	172	172

REGISTERED ENGINEER - CIVIL
Jon Brown
No. C041852
Exp. 3-31-92
CIVIL
4-5-91
PLANS APPROVAL DATE



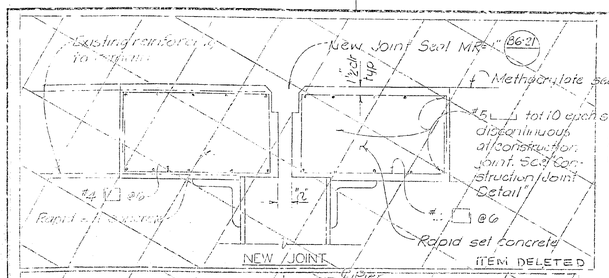
CONTRACT CHANGE ORDER NO. 1A
SHEET 2 OF 2

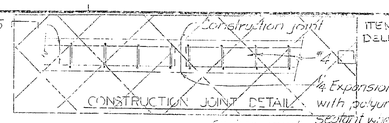
AS BUILT PLANS
Contract No. 04-123654
Date Completed 7-15-93
Document No.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.5/5.5	18	19

REGISTERED ENGINEER - CIVIL
4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CIVIL — No. 20749 — Exp. 3/31/93 — STATE OF CALIFORNIA





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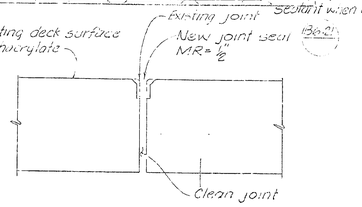
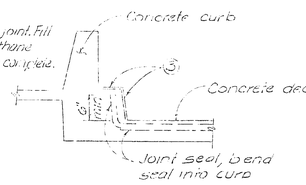
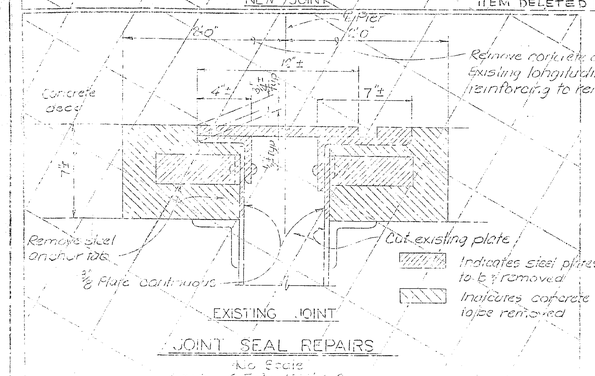


JOINT SEAL REPAIRS
No Scale
Abuts 1 & 18, Bents 2, 3, 4, 5, 13, 14, 15, 16, 17 & 18
Typical intermediate truss joints, at exit ramp



JOINT SEAL AT CURB
No Scale

~~(B) Bents 6, 7, 8, 9, 10, 11 & 12~~
~~Remove steel plates and patch with rapid set concrete. See note 4 for Expansion Joint cut each side~~



JOINT SEAL REPAIRS
No Scale
Bents 6, 7, 8, 9, 10, 11 & 12

APPROXIMATE QUANTITIES

	LUMP SUM	
BRIDGE REMOVAL (PORTION)	LUMP SUM	
CORE CONCRETE (7")	13	LF
EARTHSTON DAM	965	CF
JOINT SEAL (MR 1/2")	3,530	LF
JOINT SEAL ("TYPE R-MR 1")	420	LF
FURNISH BRIDGE DECK TREATMENT MATERIAL (LOW ODOR)	912	GAL

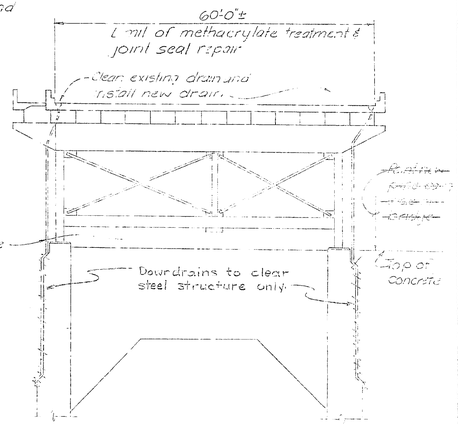
FINAL PAY QUANTITIES

CLEAN EXPANSION JOINT	3,630	LF
TREAT BRIDGE DECK	91,140	SQFT
MISCELLANEOUS METAL (RAILING)	11,300	LB

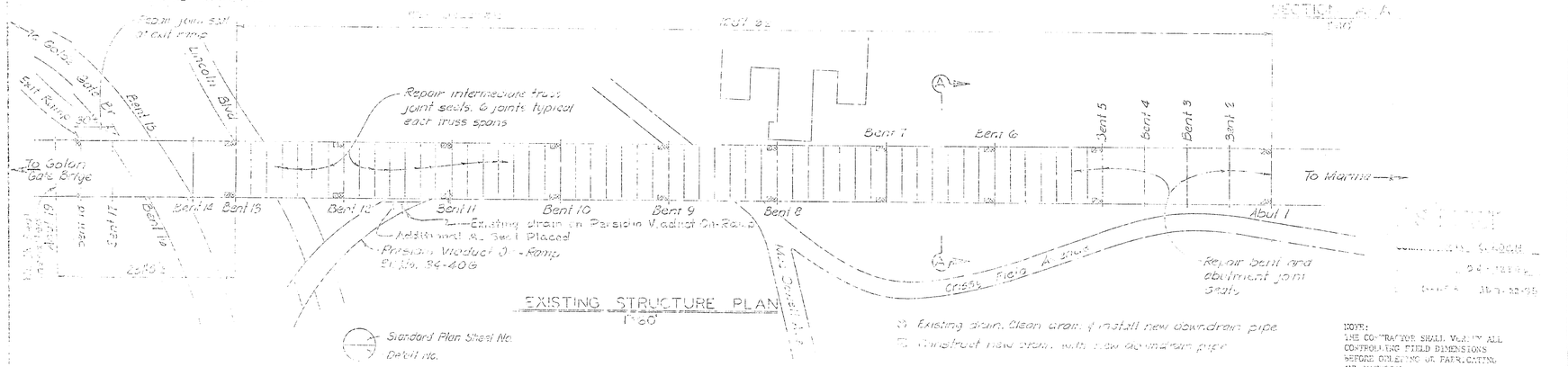
INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	DRAIN DETAILS

STANDARD PLANS DATED JANUARY 1990
B6-21 Joint Seals



~~Remove cast iron 6" ABS downdrain pipe. Backfill with non-shrink grout. Install 6" steel pipe, PVC~~



S Existing drain. Clean drain & install new downdrain pipe
C Construct new drain with new downdrain pipe

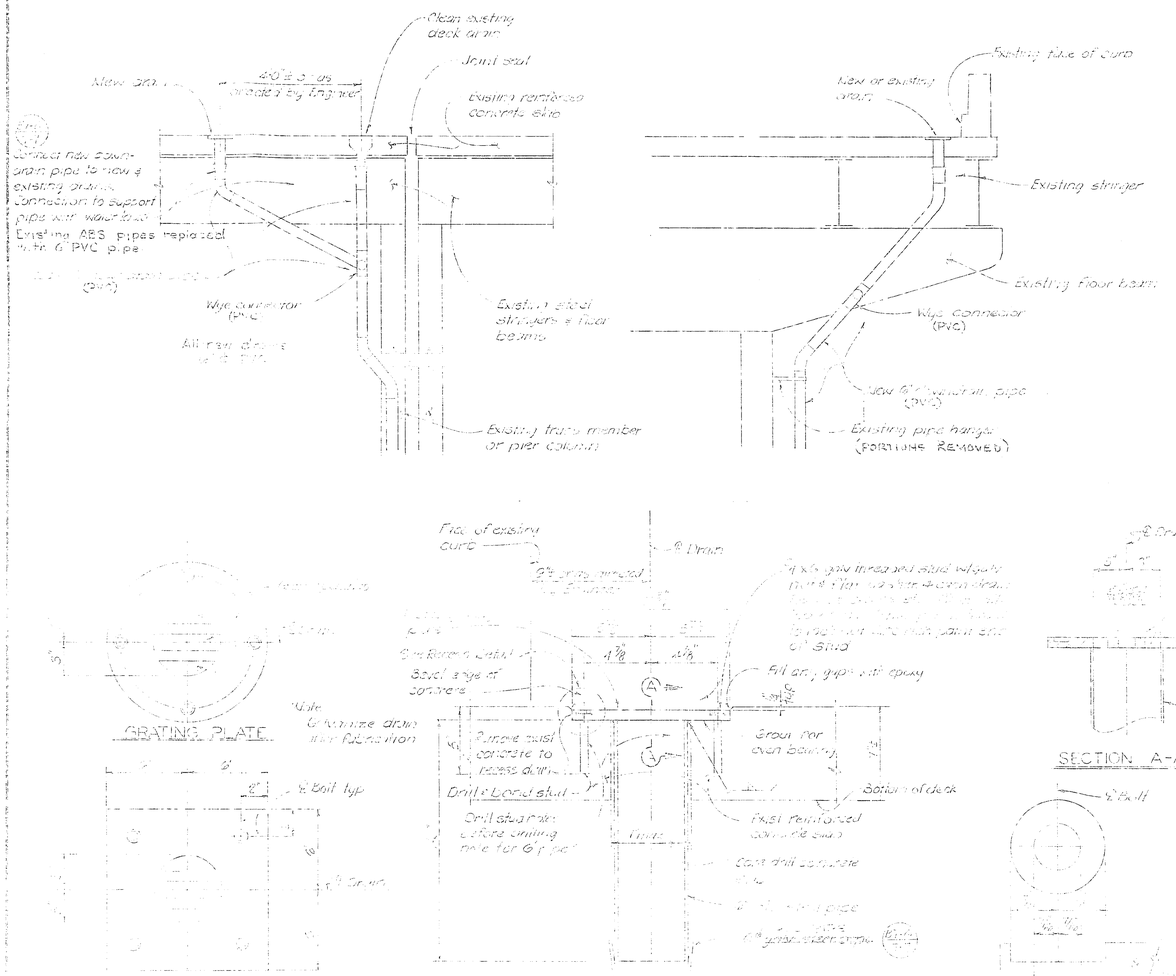
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION
DIVISION OF STRUCTURES — STRUCTURE DESIGN
84-19
PRESIDIO VIADUCT (MODIFICATION)
GENERAL PLAN

AS BUILT PLANS
Contract No. 04-123654
Date Completed 7-15-93
Document No.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	480	4.515.5	10	13

REGISTERED ENGINEER-CIVIL

4-15-91
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA