
Bridge Inspection Records Information System

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State of California
Department of Transportation

**Division of Maintenance
Structures Maintenance & Investigations**



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0606
Facility Carried: OSO PARKWAY
Location : 0.6 MI E FELIPE RD
City :
Inspection Date : 12-JUN-01

Bridge Inspection Report

Inspection Type
Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

Name : ARROYO TRABUCO

CONSTRUCTION INFORMATION

Year Built : 1991
Year Widened : N/A
Length (m) : 202.7

Skew (degrees): 99
No. of Joints : 0
No. of Hinges : 1

Description of Structure : Continuous 5 span CIP/PS concrete box girder (11 cells) with RC 2-column bents and RC open end seat abutments, all supported upon concrete piles (Abutment 1 has steel piles).

Span Configuration : (W) 45.7 m, 3 @ 36.6 m, 45.7 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 + MOD OR HS - 20 + MOD

Inventory Rating : 32.6 metric tons

Calculation Method : LOAD FACTOR

Operating Rating : 53.5 metric tons

Calculation Method : LOAD FACTOR

Permit Rating : PPPPP

Posting Load : Type 3 N/A english tons

Type 3S2 N/A english tons

Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (S) 0.3 m br, 1.5 m sw, 13.4 m, 1.2 m cu med, 13.4 m, 1.5 m sw, 0.3 m br (N)

Total Width : 31.7 m

Net Width : 13.40 m

No. of Lanes : 6

Rail Description : Type 26 (Concrete) Railing

Rail Code : 1110

Min. Vertical Clearance : Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth open wash with a cobbled streambed.

REVISIONS

The termini of the barrier approach guard railings are not to current standards. (New): 1110, (Old): 1111.

CONDITION OF STRUCTURE

Unsealed cracks exist in the concrete deck which are of moderate size or density. (O)

There are 20 mm vertical offset in the concrete railings at the east abutment. (O)

Otherwise, the structure is in excellent condition.

MISCELLANEOUS

Vehicular access ramps are located at the northwest and the southeast quadrants.

ELEMENT LEVEL INSPECTION RATINGS

F#	Elem No.	Element Description	Env	Total Units Quantity	Qty in each Condition State				
					St. 1	St. 2	St. 3	St. 4	St. 5
01 12		Concrete Deck - Bare	2	6380 sq.m.	6380	0	0	0	0
01 104		P/S Conc Closed Web/Box Girder	2	203 m.	203	0	0	0	0
01 201		Unpainted Steel Column or Pile Extension	2	1 ea.	1	0	0	0	0
01 205		Reinforced Conc Column or Pile Extension	2	8 ea.	8	0	0	0	0

Bridge No.: 55C0606

Location: 0.6 MI E FELIPE RD

Inspection Date: 12-JUN-01

F#	Element Description No.	Env	Total Units Quantity	Qty in each Condition State				
				St. 1	St. 2	St. 3	St. 4	St. 5
01 215	Reinforced Conc Abutment	2	80 m.	80	0	0	0	0
01 227	Reinforced Conc Submerged Pile	2	40 ea.	40	0	0	0	0
01 302	Compression Joint Seal	2	40 m.	40	0	0	0	0
01 312	Enclosed/Concealed Bearing	2	3 ea.	2	1	0	0	0
01 321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	12 ea.	12	0	0	0	0
01 331	Reinforced Conc Bridge Railing	2	430 m.	430	0	0	0	0
01 346	Joint - Aluminum	2	80 m.	80	0	0	0	0
01 358	Deck Cracking	2	1 ea.	0	1	0	0	0

WORK RECOMMENDATIONS - NONE

Inspected By : M. Ogata

M. Ogata
 Registered Civil Engineer



CC : TMRut
 Orange County

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0606
 (5) INVENTORY ROUTE (ON/UNDER) - ON 140 00000N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED - ARROYO TRABUCO
 (7) FACILITY CARRIED - OSO PARKWAY
 (9) LOCATION - 0.6 MI E FELIPE RD
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 35 MIN 06 SEC
 (17) LONGITUDE 117 DEG 38 MIN 09 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN: MATERIAL - PRSTR CONC CONT
 TYPE - BOX BEAM OR GDR - MULTIPLE CODE 6 05
 (44) STRUCTURE TYPE APPR: MATERIAL -
 TYPE - CODE
 (45) NUMBER OF SPANS IN MAIN UNIT 5
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE - CONCRETE CODE 1
 B) TYPE OF MEMBRANE - NONE CODE 0
 C) TYPE OF DECK PROTECTION - NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1991
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON - HIGHWAY-PEDESTRIAN 5
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 05 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 45000
 (30) YEAR OF ADT 1999 (109) TRUCK ADT 1%
 (110) BYPASS, DETOUR LENGTH 11 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 45.7 M
 (49) STRUCTURE LENGTH 302.7 M
 (50) CURB OR SIDEWALK: LEFT 1.5 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 13.4 M
 (52) DECK WIDTH OUT TO OUT 31.7 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 13.1 M
 (33) BRIDGE MEDIAN - CLOSED (NO BARRIER) 2
 (34) SKEW 99 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 13.4 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF - NOT H/RR 0 M
 (55) MIN LAT UNDERCLEAR RT REF - NOT H/RR 0 M
 (56) MIN LAT UNDERCLEAR LT 0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL - NOT APPLICABLE CODE N
 (111) PIER PROTECTION - NOT REQUIRED CODE 1
 (39) NAVIGATION VERTICAL CLEARANCE 0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR 0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0

***** SUFFICIENCY RATING = 66.0 *****

STATUS = FUNCTIONALLY OBSOLETE

HEALTH INDEX = 99.93

***** CLASSIFICATION ***** CODE

(112) NBIS BRIDGE LENGTH - YES Y
 (104) HIGHWAY SYSTEM - NOT ON NHS 0
 (26) FUNCTIONAL CLASS - LOCAL URBAN 19
 (100) DEFENSE HIGHWAY - NOT STRAHNET 0
 (101) PARALLEL STRUCTURE - NONE EXISTS N
 (102) DIRECTION OF TRAFFIC - 2 WAY 2
 (103) TEMPORARY STRUCTURE -
 (105) FEDERAL LANDS HIGHWAY - NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
 (20) TOLL - ON FREE ROAD 3
 (21) MAINTAIN - COUNTY HIGHWAY AGENCY 2
 (22) OWNER - COUNTY HIGHWAY AGENCY 2
 (37) HISTORICAL SIGNIFICANCE - NOT ELIGIBLE 5

***** CONDITION ***** CODE

(58) DECK 6
 (59) SUPERSTRUCTURE 8
 (60) SUBSTRUCTURE 7
 (61) CHANNEL & CHANNEL PROTECTION 9
 (62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE

(31) DESIGN LOAD - MS - 18 + MOD OR HS - 20 + MOD 6
 (63) OPERATING RATING METHOD - LOAD FACTOR 1
 (64) OPERATING RATING - 53.5
 (65) INVENTORY RATING METHOD - LOAD FACTOR 1
 (66) INVENTORY RATING - 32.6
 (70) BRIDGE POSTING - Equal to or above legal loads 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED - A
 DESCRIPTION - OPEN, NO RESTRICTION

***** APPRAISAL ***** CODE

(67) STRUCTURAL EVALUATION 7
 (68) DECK GEOMETRY 2
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1110
 (113) SCOUR CRITICAL BRIDGES 8

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK - CODE
 (76) LENGTH OF STRUCTURE IMPROVEMENT M
 (94) BRIDGE IMPROVEMENT COST
 (95) ROADWAY IMPROVEMENT COST
 (96) TOTAL PROJECT COST
 (97) YEAR OF IMPROVEMENT COST ESTIMATE
 (114) FUTURE ADT 92000
 (115) YEAR OF FUTURE ADT 2019

***** INSPECTIONS *****

(90) INSPECTION DATE 06/01 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CPI DATE
 A) FRACTURE CRIT DETAIL - NO -1 MO A)
 B) UNDERWATER INSP - NO -1 MO B)
 C) OTHER SPECIAL INSP - NO -1 MO C)

Bridge Number 55C-606

Location 12 - Ora - CR
Dist.-Co.-Rte.-City

Date of Investigation October 2, 1997

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Name ARROYO TRABUCO (Oso Parkway, 0.6 mile east of Felipe Road)

CONDITION RATINGS:

Element Level Inspection (ELI) form attached.

Channel & Channel Protection

9

SCOUR RATING:

The scour rating of A1 is appropriate.

MISCELLANEOUS DISCUSSION:

The inspection team consisted of Makoto Ogata and Faye Kirchhoff.

Vehicular access ramps are located at the northwest and the southeast quadrants.

CONDITION OF STRUCTURE:

Concrete deck has light longitudinal cracks. (O)

There is a 20 mm vertical offset in the concrete railings at the east abutment. (O)

Water is dripping from the vent in the second bay from the south in the westerly span.

Otherwise, the structure is in excellent condition.

WORK RECOMMENDED:

Locate the source of the water leaking in the second bay from the south. Repair the leak and/or have the responsible utility company repair the leak.

By County of Orange

M. Ogata
M. Ogata



MO:cd

c: TMRut
Orange County
PRAskelson

Bridge Number 55C-606

Location 12 - Ora - CR
Dist.-Co.-Rte.-City

Date of Investigation August 7, 1996

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Name ARROYO TRABUCO (Oso Parkway, 0.6 mile east of Felipe Road)

CONDITION RATINGS:

Element Level Inspection (ELI) form attached.

Channel & Channel Protection

9

CONDITION OF STRUCTURE:

- A. Concrete deck has light longitudinal cracks.
- B. Graffiti had been scrawled on east abutment.

WORK RECOMMENDED:

None.

M. Hadi Behrooj

By

G. P. Balinghasay



GPB:cd

cc: TMRut
Orange County

ELEMENT LEVEL INSPECTION - (ELI)

BRIDGE NUMBER	FRAME	INSPECTION DATE
55C0606	01	080796
1	9	11 16

INFORMATION ONLY - NOT FOR UPDATE

SCOUR CRITICAL.....	NO
GROUP A INVESTIGATION.....	NO
FRACTURE CRITICAL.....	NO
ELIGIBLE FOR RAIL UPGRADE..	NO
UNDERWATER INVESTIGATION...	NO

DISTRICT	12
COUNTY	ORA
ROUTE	
POSTMILE	
NAME	

[illegible]

08/23/96

55C SHAWN ZANGANEH

BY

SUPPLEMENTARY BRIDGE REPORT

DS-M19 (REV. 2/93)

Bridge Number 55C-606

Location 12 - Ora - CR
Dist.-Co.-Rte.-City

Date of Investigation July 8, 1994

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Name ARROYO TRABUCO (Oso Parkway, 0.6 mile east of Felipe Road)

CONDITION RATINGS:

Condition ratings of all bridge elements are shown on the PONTIS DATA FORM (Attachment A).

Channel & Channel Protection

9

SCOUR CRITICAL:

The scour rating of A-2 is appropriate.

CONDITION OF STRUCTURE:

The structure is in good condition.

WORK RECOMMENDED:

None.

M. H. Behrooj *MHB*

By

S. A. Zanganeh
S. A. Zanganeh

SAZ:cd

cc: CDHarris
Orange County
WLindsey

M. H. Behrooj

CH777

MAR 31 1995

INFORMATION ONLY - NOT FOR UPDATE

BRIDGE NUMBER	FRAME	INSPECTION DATE
55C0606	01	070894
1 8	9	11 16

SCOUR CRITICAL	NO
CATEGORY A	NO
FRACTURE CRITICAL	NO
ELIGIBLE FOR RAIL UPGRADE	NO
UNDERWATER INSPECTION	NO

DISTRICT	12
COUNTY	ORA
ROUTE	
POSTMILE	
NAME	

[illegible]

BRIDGE REPORT

14W24

Bridge No. 55C - 606

DS-MSB (REV. 1/91)

Location 12 - Ora - CR

Dist Co Rte City

Date of Investigation June 11, 1992

Name ARROYO TRABUCO (Oso Parkway, 0.6 mile east of Felipe Road)

Lat. 33° - 35.1'N Long. 117° - 38.1'W

Custodian County of Orange Owner County of Orange

STRUCTURAL DATA AND HISTORY

Year Built 1991 By County of Orange Contract No. Unknown

Designed by: McDaniel Engineering Co. Plans Avail. @ DOS

Description: Five span continuous cast-in-place prestressed concrete box girder (11 cells) supported by RC column (2 each) bents and open end RC seated abutments, all on concrete piles except abutment 1 which is on steel piles.

Spans (W) 150', 3 @ 120', 150' (E)

Length 665' NBIS Bridge Length Yes Skew 15°, 20°, and 29° Rt.

Number of Intermediate Joints: @Hinges 1 @Bents None

Maximum Column/Pier Height: (Less than 20') (20'-29') (30' & Over) X

Design Live Load HS 20-44 & Alt. & Permit Design Method Load Factor

DESCRIPTION - ON STRUCTURE

Bridge Width (S) 1'br, 5'sw, 44', 4'm, 44', 5'sw, 1'br (N)

Total Width 104' Net Width 88' Lanes 2 Tracks None

Median Raised island Rail Type 26 with tubular handrail

1111

Vert. Clearance over deck Unimpaired Appr. Rdwy. Width 43'

Deck Type 1 Wearing Surface/Prot. Sys. 100 Concrete/None

Alignment Tangent

DESCRIPTION - UNDER STRUCTURE

Roadway Section None

Clearances: Road: Vert. Horiz. Lt. ; Rt.

Lanes Tracks

Facilities Crossed Arroyo Trabuco (L 02)

June 11, 1992

DESCRIPTION - HYDRAULICS

Channel Natural open wash with gravel bottom.

Navigable: Yes ☐ No ☒ Clearances: Vert.

Horiz.

Pier/Abutment Protection (For Navigation) ☐

TRAFFIC INFORMATION	DECK	YEAR	UNDER	YEAR
Average Daily Traffic & Year :	Est. 1,000	1992	N	
Average Daily Traffic (Future) :	Est. 12,000	2010	N	
Average Daily Trucks (% OF ADT) :	1%		N	
Bypass Detour Length:	7 miles		N	
Shell Route:	No		N	
Functional Classification :	19		N	
LOAD RATINGS:	Inventory HS 20	Operating HS 33		
	Permit PPPPP	Computation Method Min. by design		

CONDITION RATINGS:

Deck	8	Superstructure	8	Substructure	8
Channel & Channel Protection	9	Culvert	N	Widenable	Yes

APPRAISAL RATINGS:

Waterway Adequacy	9	Approach Roadway Alignment	8
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Date of Revisions

DISCUSSION:

This structure was recently opened to public traffic to new land development on east side. Presently only south half of the bridge is used serving two way traffic.

CONDITION OF STRUCTURE:

The structure is new and is in good condition.

Henry Ma

HM:cd

cc: INagai (2)
County of Orange

INDEX TO BRIDGE PLANS

SHEET NO.	TITLE
40	BRIDGE TITLE SHEET
41	GENERAL PLAN
42	DECK CONTOURS
43	FOUNDATION PLAN
44	ABUTMENT DETAILS - 1
45	ABUTMENT DETAILS - 2
46	PIER DETAILS - 1
47	PIER DETAILS - 2
48	TYPICAL SECTION
49	GIRDER LAYOUT - 1
50	GIRDER LAYOUT - 2
51	HINGE DETAILS
52	RESTRAINER DETAILS
53	PCC APPROACH SLAB
54	JOINT SEAL ASSEMBLY
55	LOG OF TEST BORINGS
56	RETAINING WALL LAYOUT
57	RETAINING WALL DETAILS

PLANS FOR THE IMPROVEMENT OF

OSO PARKWAY BRIDGE OVER
ARROYO TRABUCO

IN

COUNTY OF ORANGE, CALIFORNIA

INDEX TO STANDARD PLANS

THE FOLLOWING STATE OF CALIFORNIA DEPARTMENT OF
TRANSPORTATION STANDARD PLANS DATED JANUARY 1988,
ARE A PART OF THESE CONTRACT DRAWINGS.

A62-C	EXCAVATION AND BACKFILL BRIDGE
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B2-5	PILE DETAILS
B6-21	JOINT SEALS
B7-1	BOX GIRDER DETAILS
B7-6	DECK DRAINS
B7-10	UTILITY OPENING - BOX GIRDER
B8-5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
B11-51	TUBULAR HAND RAILING
B11-54	CONCRETE BARRIER TYPE 26

SPECIFICATIONS

STANDARD SPECIFICATIONS DATED JANUARY 1988, STATE OF
CALIFORNIA, DEPARTMENT OF TRANSPORTATION.
SPECIAL PROVISIONS FOR THE CONSTRUCTION OF THIS PROJECT.

PLAN SYMBOLS

	SECTION IDENTIFICATION
	CALTRANS STANDARD PLAN (JANUARY, 1988) SHEET NUMBER DETAIL NUMBER

APPROXIMATE QUANTITIES

FURNISH STEEL PILING (HP 12 X 74)	2,241.	LF
DRIVE STEEL PILE (HP 12 X 74)	26.	EA
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	5,474.	LF
42" CAST-IN-DRILLED-HOLE CONCRETE PILING	382.	LF
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM	
JOINT SEAL (TYPE B - MR 1")	115.	LF
JOINT SEAL ASSEMBLY (MR 3")	99.	LF
JOINT SEAL ASSEMBLY (MR 3-1/2")	107.	LF
TUBULAR HAND RAILING	1,411.	LF
CONCRETE BARRIER (TYPE 26)	1,411.	LF
BRIDGE LIGHTING	LUMP SUM	

FINAL PAY QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	453.	CY
STRUCTURE EXCAVATION (TYPE D)	3,311.	CY
STRUCTURE BACKFILL (BRIDGE)	110.	CY
PERVIOUS BACKFILL MATERIAL	51.	CY
STRUCTURAL CONCRETE, BRIDGE	7,464.	CY
STRUCTURAL CONCRETE, BRIDGE FOOTING	797.	CY
STRUCTURAL CONCRETE, APPROACH SLAB	145.	CY
BAR REINFORCING STEEL (BRIDGE)	1,759,000.	LB
MISCELLANEOUS METAL (BRIDGE)	16,975.	LB
MISCELLANEOUS METAL (RESTRAINER)	5,600.	LB

ARROYO TRABUCO
55C-606

1 1/2 0 1 2
3 inches on original drawing

1991

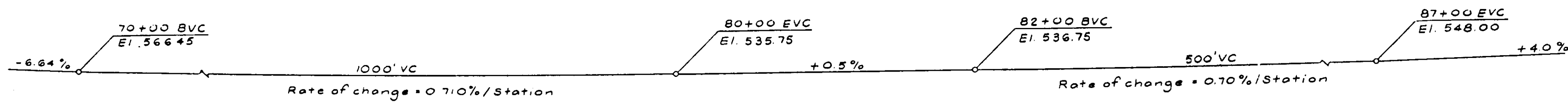
TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE
800-422-4133



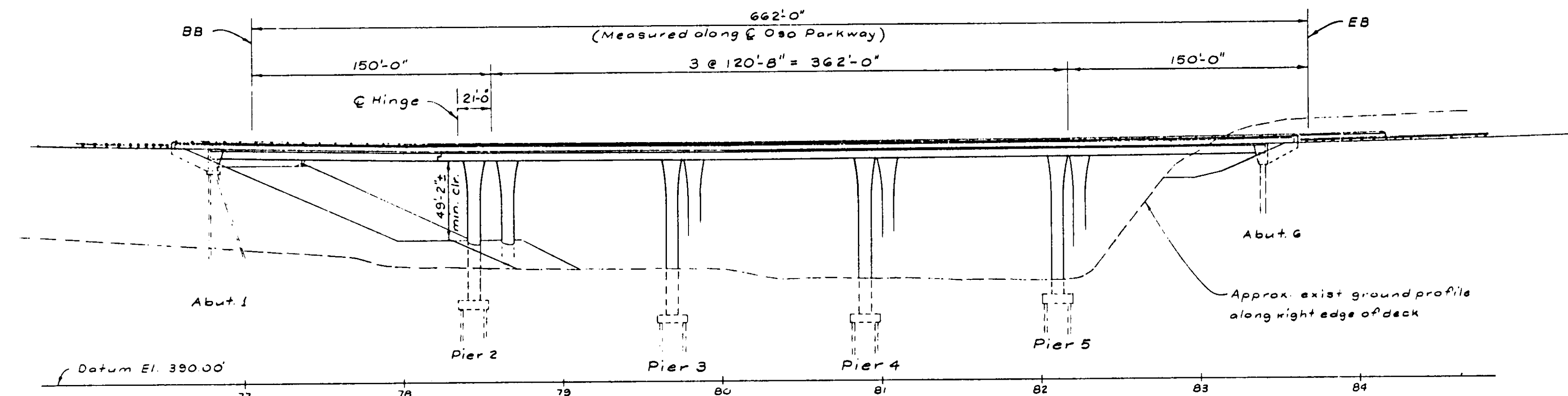
McDANIEL ENGINEERING COMPANY, INC.
3000 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • (619) 592-1880
JOB No. 417-002

ENGINEER OF WORK:
 C 34299 2-30-91 8-10-89
W. Mark Ashley RCE EXR DATE

		ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
		OSO PARKWAY BRIDGE OVER ARROYO TRABUCO	
		BRIDGE TITLE SHEET	
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS		DATE	SHEET
DESIGNED	SCALE	DATE	DWG. NO.
DRAWN	CHECKED	AS SHOWN	40/76

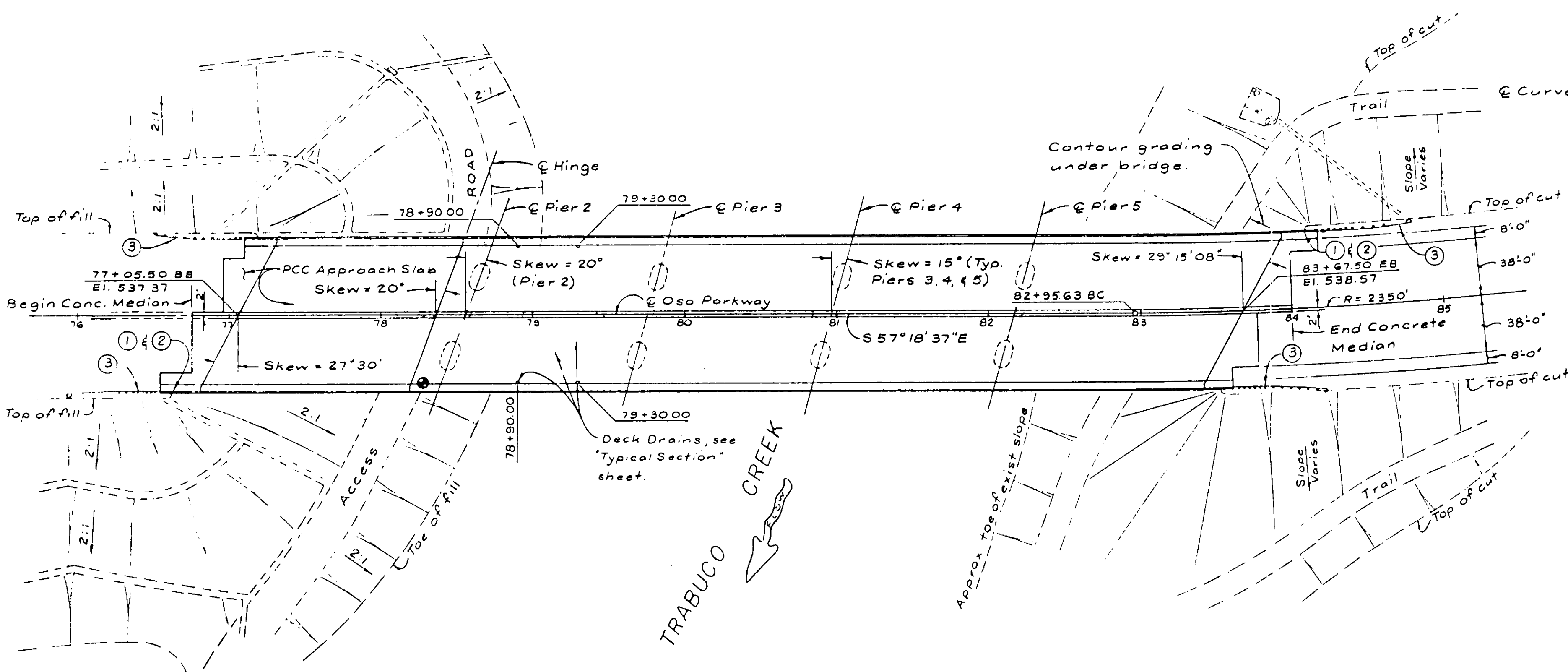


PROFILE GRADE
No. Scale



For "Pile Data", see "Foundation Plan" sheet

ELEVATION
1" = 50'



- ① Paint Bridge Number
- ② Paint "Oso Parkway Bridge Over Arroyo Trabuco"
- ③ Metal Beam Guard Railing, see "Road Plans"
- - Indicates point of minimum vertical clearance.

PLAN
1" = 50'



McDANIEL ENGINEERING COMPANY, INC.
2000 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • (619) 596-1820

ENGINEER OF WORK:
W. Mark Ashley C 34299 9-30-91 6-10-88
RCE EXP. DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO			
GENERAL PLAN			
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS			
DESIGNED	DATE	SCALE	DWG. NO.
DRAWN	CHECKED	AS SHOWN	

SHEET 41/76

@ Curve Data: R = 2350', Δ = 74°09'23"
L = 3041.54', T = 1775.89'

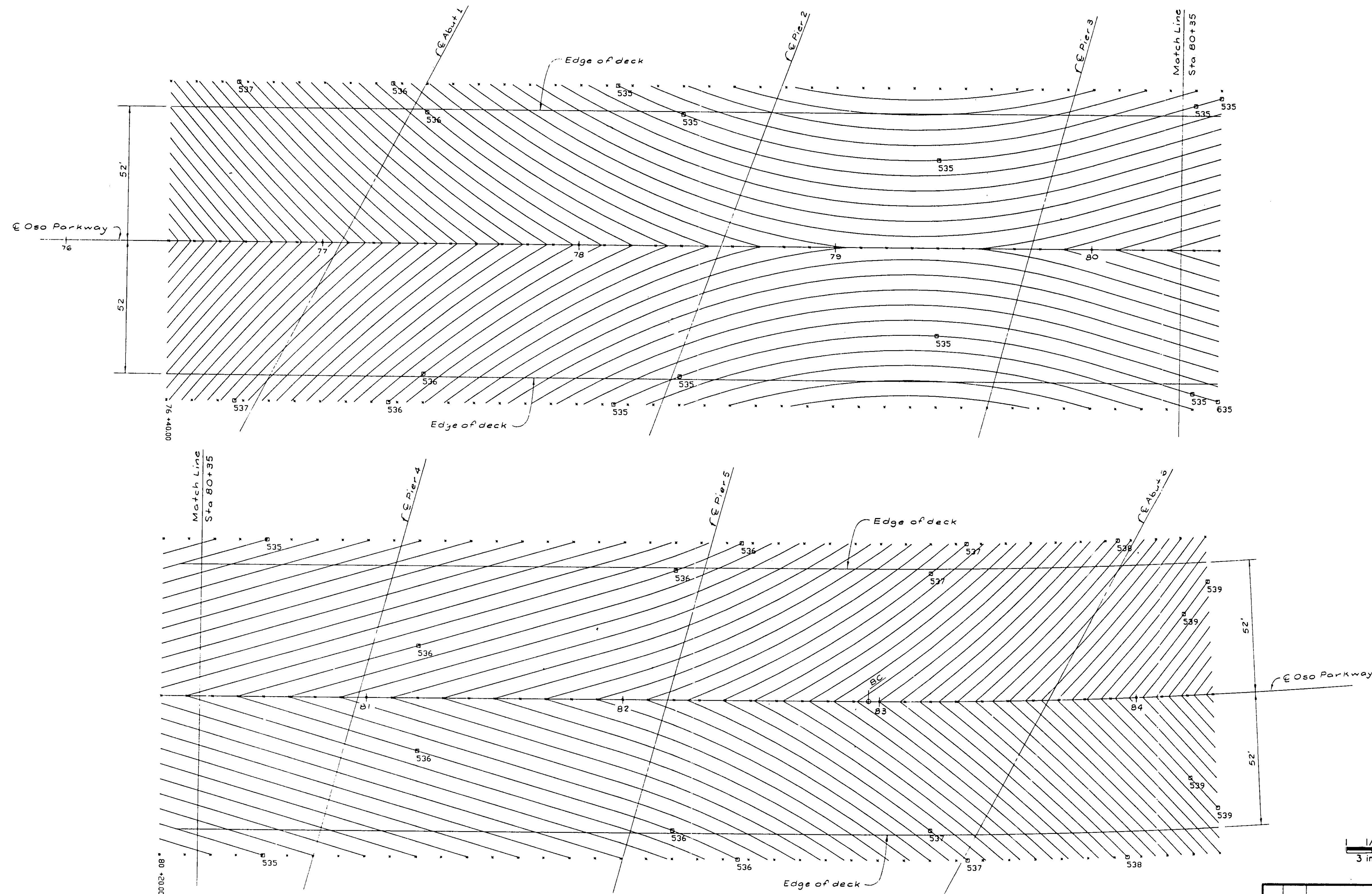
UTILITIES:

- ① - 6 - 4" dia Telephone Ducts, 24"H x 18"W Openings, Pac. Bell
- ② - 2'-0" x 2'-0" Openings for future utilities.
- ③ - 4 - 5" dia. Electric Conduits, 18"H x 20"W Openings, SDG&E
- ④ - 10" I.D. Gas Main w/ 18" dia. casing, 24"H x 24"W Openings, So California Gas Co.
- ⑤ - 4 - 2" Cable TV Conduits, Santa Margarita Cable TV
- ⑥ - 1 - 2" Signalization Conduit.

TYPICAL SECTION
1" = 10'

55C-606

1 1/2 0 1 2
3 inches on original drawing



55C-606

1 1/2 0 2
3 inches on original drawing



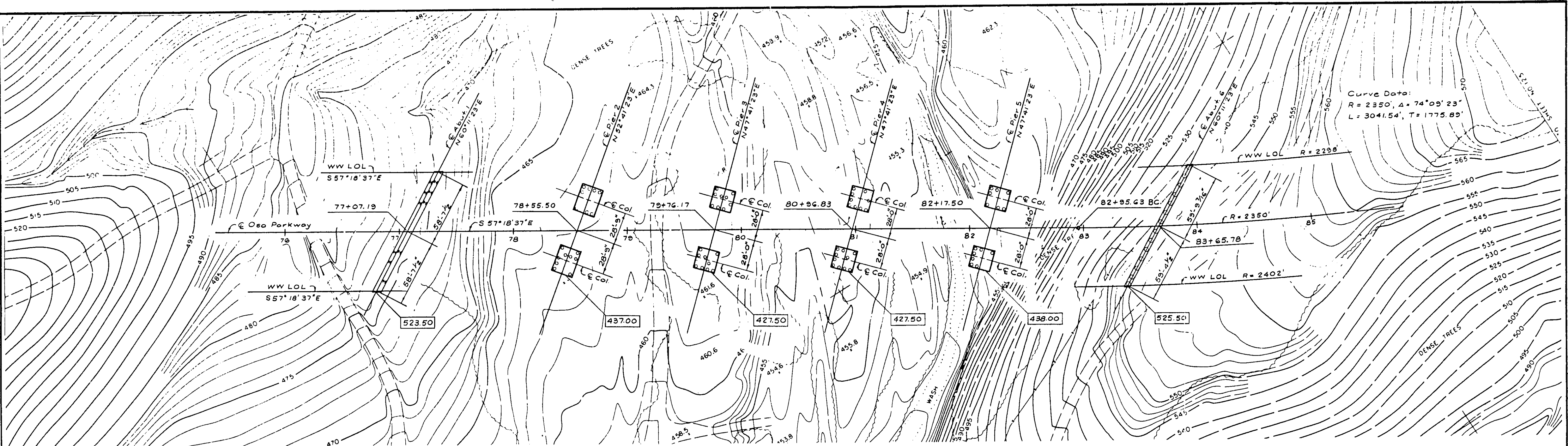
DECK CONTOURS
1" = 20'

- NOTES: 1. Contour Interval = 0.10 ft.
2. Contour do not include camber
3. □ - Indicates even foot contour.

McDANIEL ENGINEERING COMPANY, INC.
8660 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • (619) 592-1920

ENGINEER OF WORK:
W. Mark Ashley C34299 9-30-91 9-10-89
W. Mark Ashley RCE EXP DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO			
DECK CONTOURS			
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS			
DESIGNED	DATE	SCALE	DWG. NO.
DRAWN	CHECKED	AS SHOWN	
			SHEET 42/76

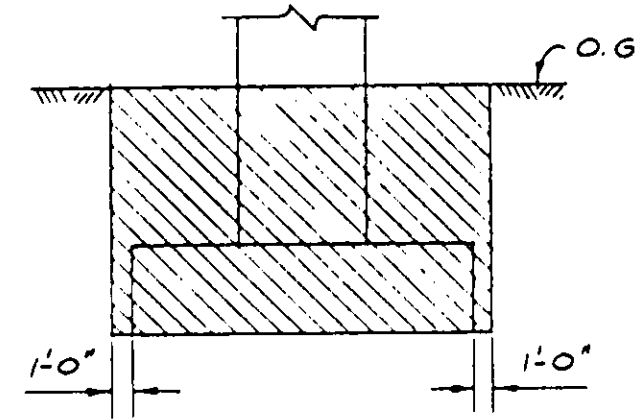


Curve Data:
R = 2350', Δ = 74°09'23"
L = 3041.54', T = 1775.85'

FOUNDATION PLAN

1" = 40'

523.50 — Denotes bottom of footing and bottom of abut. pedestal elevation



AT PIER FOOTINGS

— Structure Excavation (Type D)

EARTHWORK LIMITS

No Scale

NOTE: For limits not shown see A62-C

55C-606

1 1/2 0 1 2
3 inches on original drawing

GENERAL NOTES

LOAD FACTOR DESIGN
DESIGN: BRIDGE DESIGN SPECIFICATIONS (1983 ASSHTO with Interim and CALTRANS Supplements).
DEAD LOAD: Includes 35 psf for future wearing surface.
LIVE LOADS: HS20-44 and Alternative and Permit Design Load.
REINFORCED CONCRETE: f'c = 3,250 psi
fy = 60,000 psi
n = 9
TRANSVERSE DECK SLABS: fc = 1,200 psi
fs = 20,000 psi
n = 10
PRESTRESSED CONCRETE: See "Prestressing Notes"

AS BUILT PILE DRIVING DATA

PILE DRIVER, MAKE AND MODEL:
DRIVING ACTION:
RATED ENERGY:
RAM WEIGHT:
MAX. STROKE:
BEARING VALUE FORMULA:
P = OR P =

LOCATION	CUT-OFF ELEVATION	MAXIMUM TIP ELEVATION	MINIMUM TIP LENGTH	AVERAGE "AS BUILT" PILE TIP ELEVATION	AVERAGE STROKE HEIGHT	AVERAGE BLOW PER FOOT	AVERAGE BEARING VALUE (TONS)
ABUT. 1							

PILE DATA				
LOCATION	DESIGN LOADING	PILE TYPE	SPECIFIED TIP ELEVATION	PROBABLE TIP ELEVATION
ABUT. 1	90 TON	HP 12X74 STEEL PILE	440.00	435.00
PIER 2	170 TON	24" C.I.D.H. CONCRETE PILE	397.00	—
PIER 3	" "	" " " "	387.50	—
PIER 4	" "	" " " "	387.50	—
PIER 5	" "	" " " "	398.00	—
ABUT. 6	115 TON	42" C.I.D.H. CONCRETE PILE	498.50	—

CONCRETE STRENGTH AND TYPE LIMITS

- Structural Concrete, Bridge
- Structural Concrete, Bridge (4000 psi @ 28 days)
- Structural Concrete, Bridge Footing

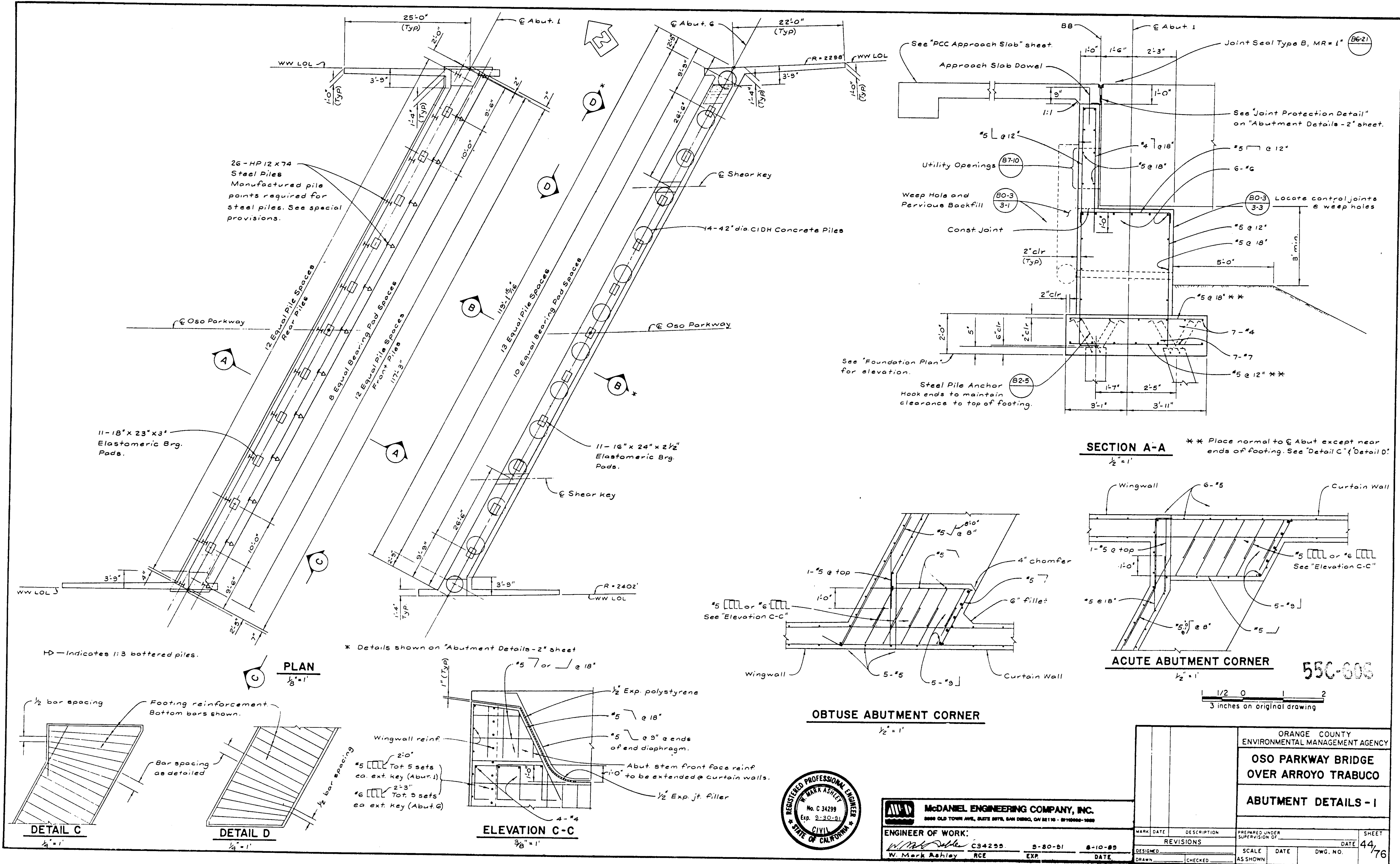


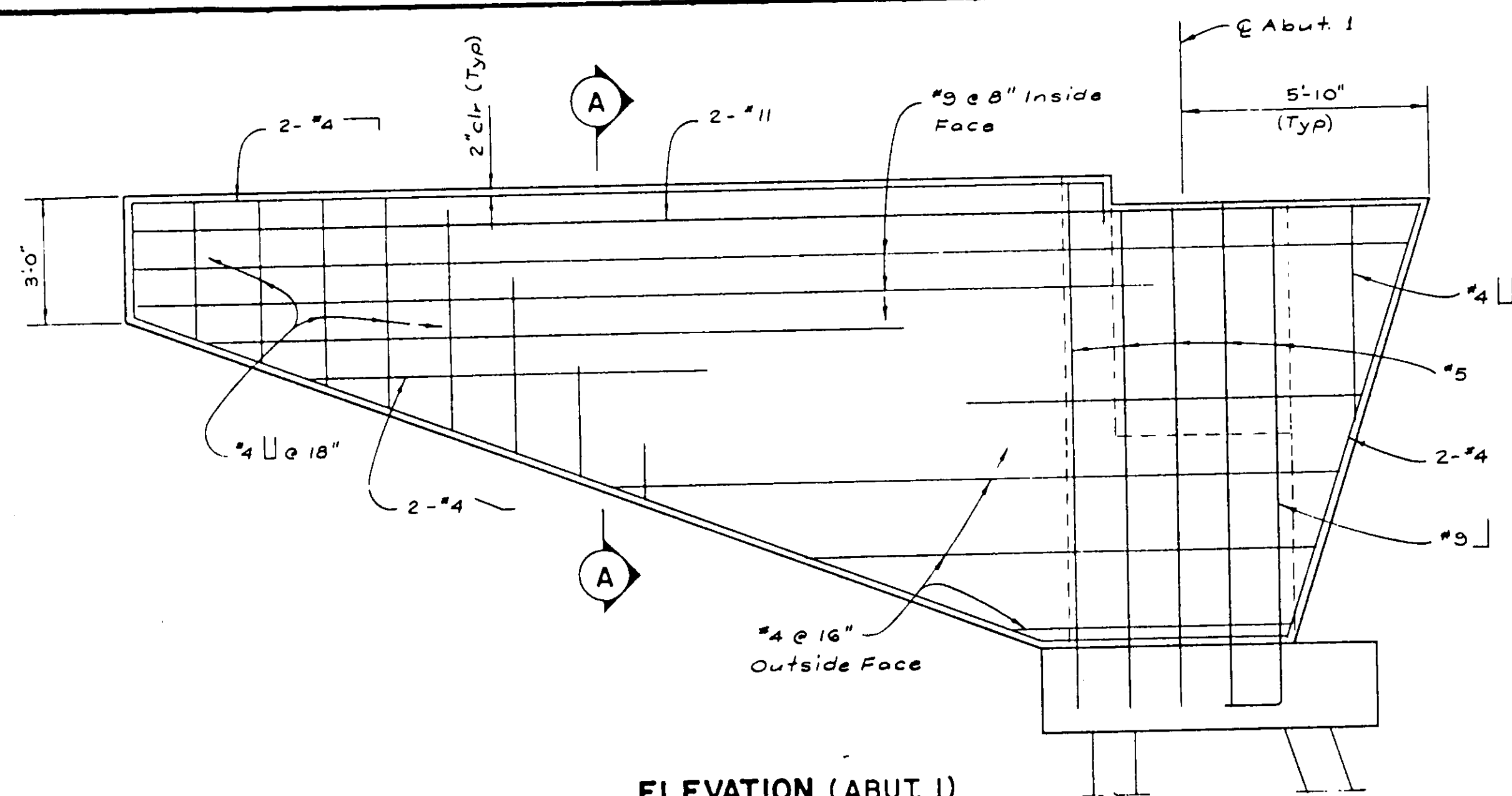
McDANIEL ENGINEERING COMPANY, INC.
2880 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • (619) 582-1800

ENGINEER OF WORK:
W. Mark Ashley C34299 9-30-91 8-10-89
RCE EXP. DATE

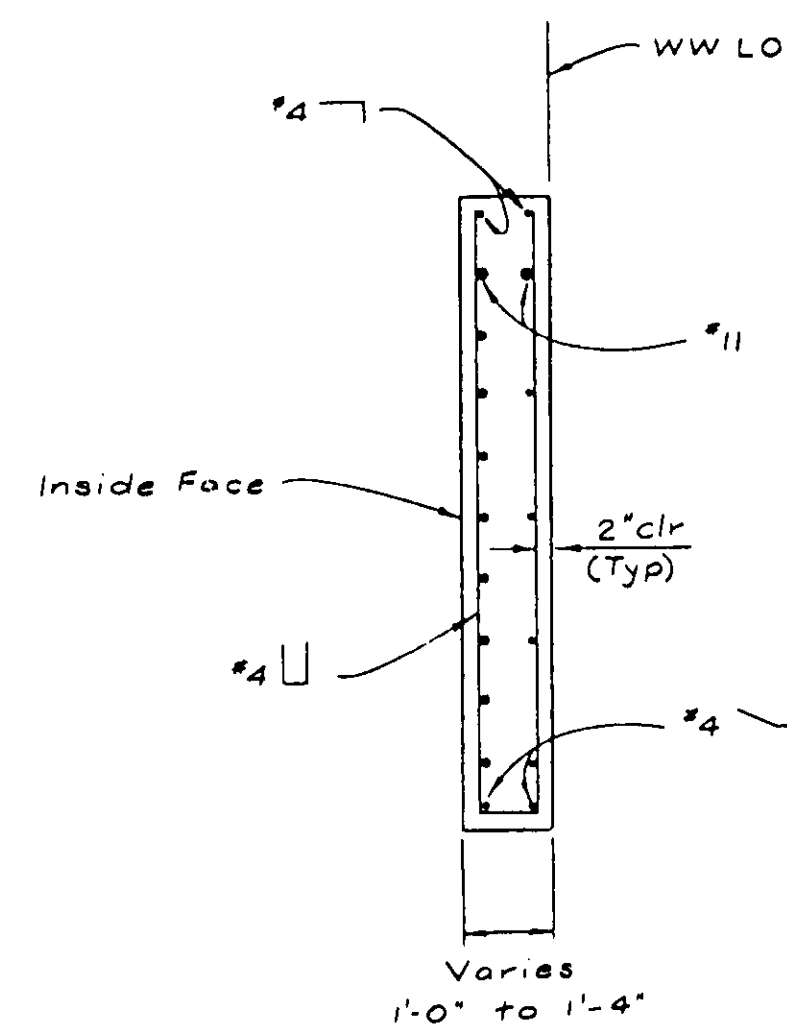
		ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
		OSO PARKWAY BRIDGE OVER ARROYO TRABUCO	
		FOUNDATION PLAN	
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
DESIGNED		SCALE AS SHOWN	
DRAWN		DATE	DWG. NO.

SHEET 43/76



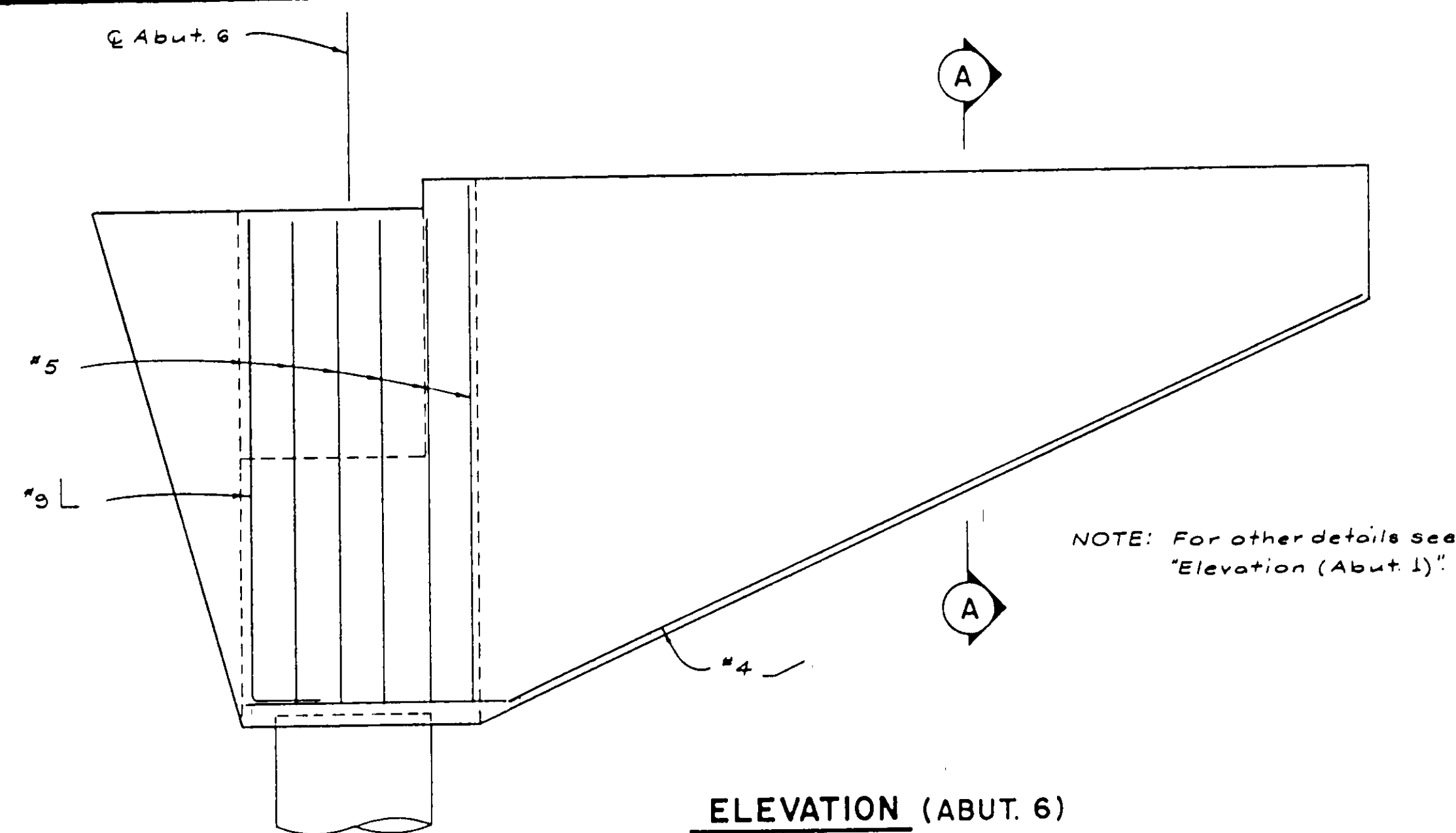


ELEVATION (ABUT. 1)

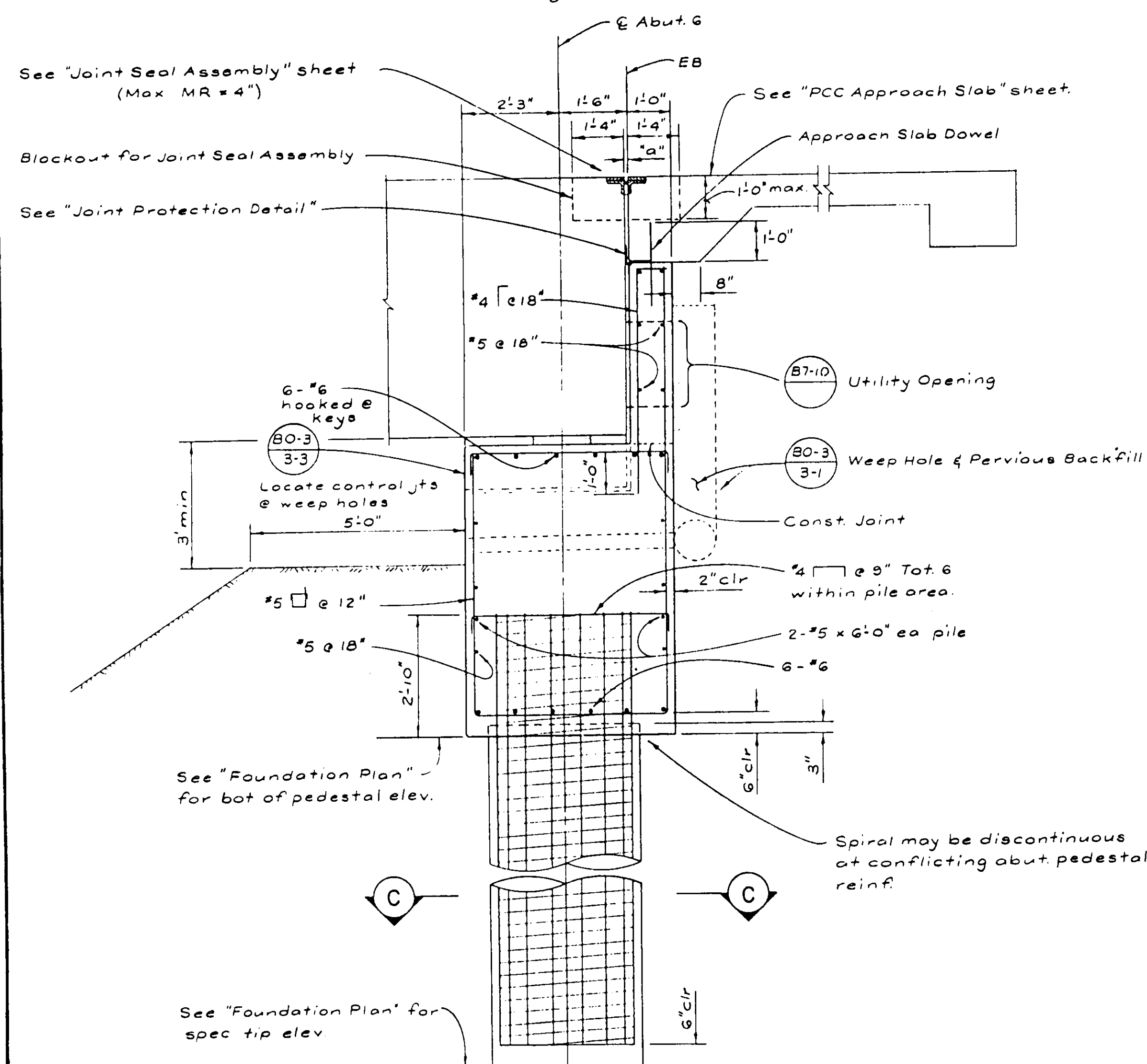


SECTION A-A

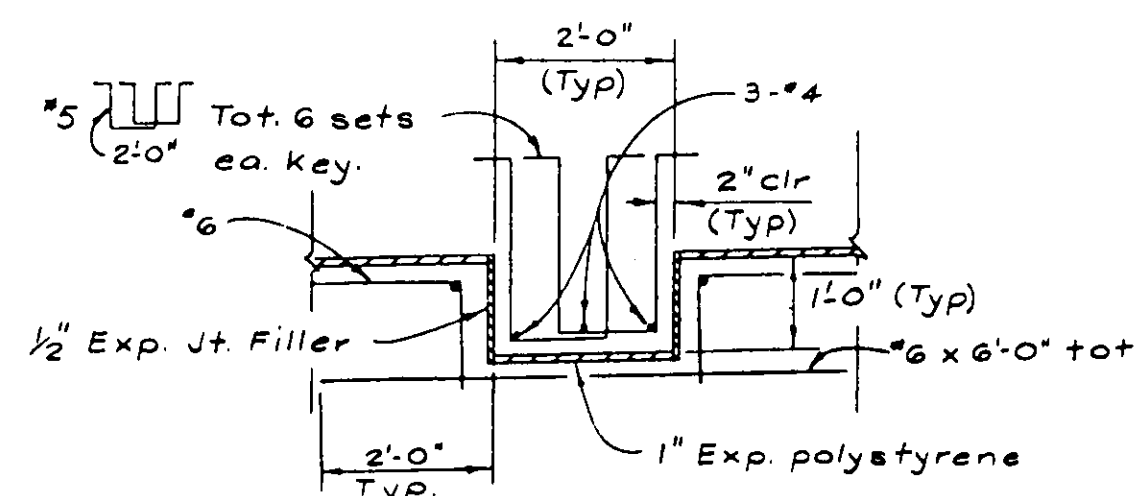
WINGWALL DETAILS



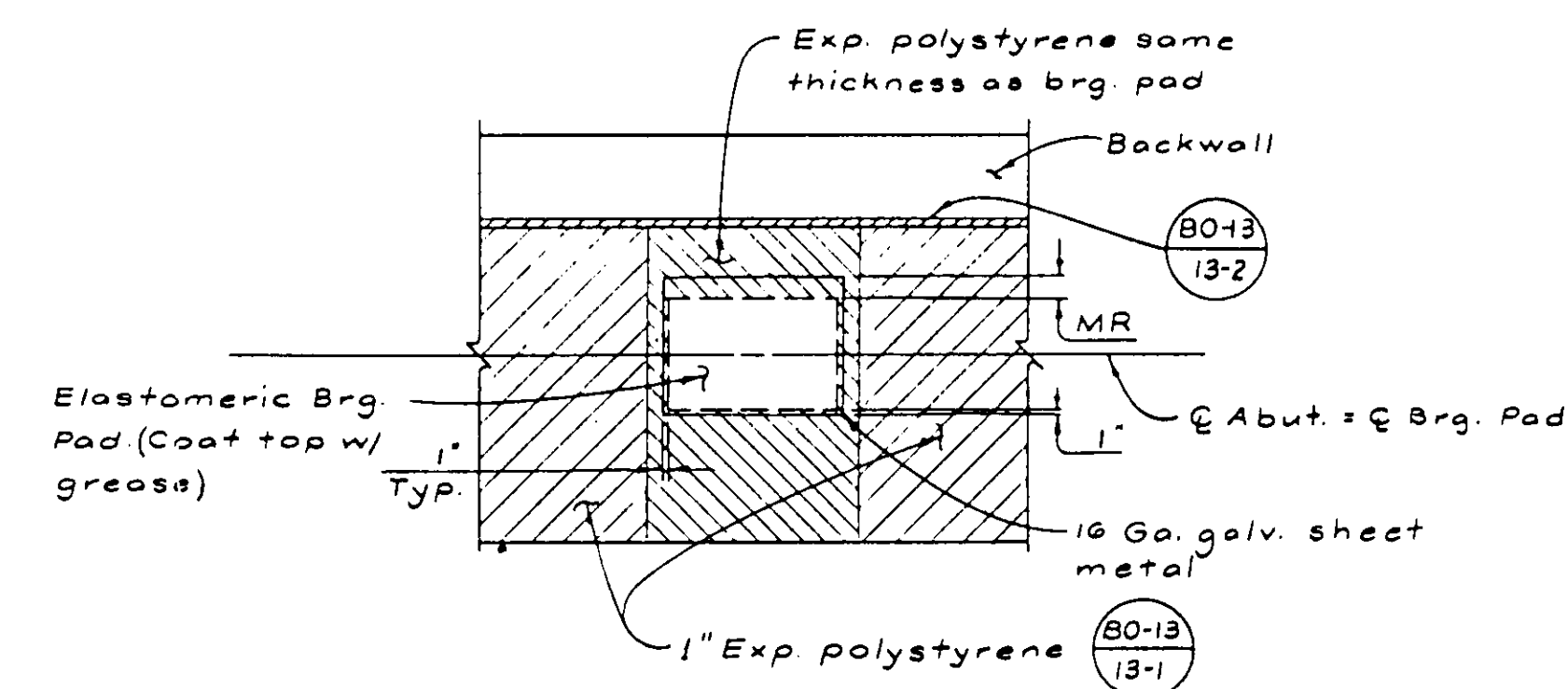
ELEVATION (ABUT. 6)



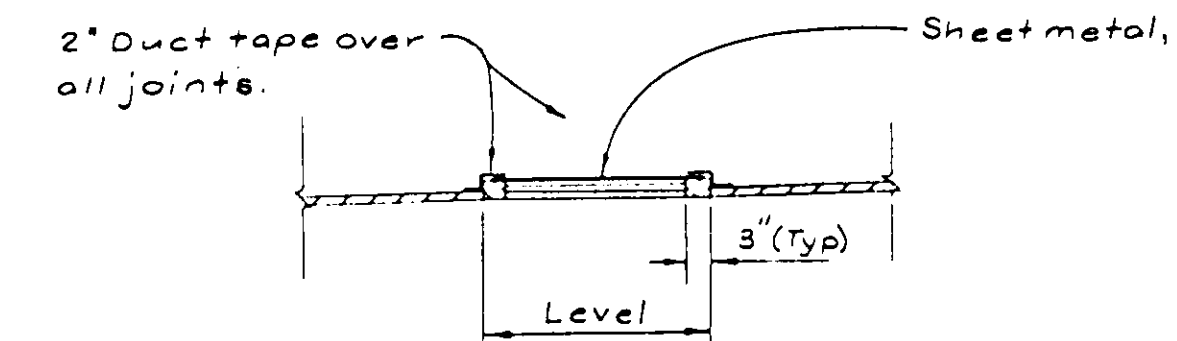
SECTION B-B (Section taken on "Abutment Details-1" Sheet.)



ELEVATION D-D (Section taken on "Abutment Details-1" Sheet)



PLAN

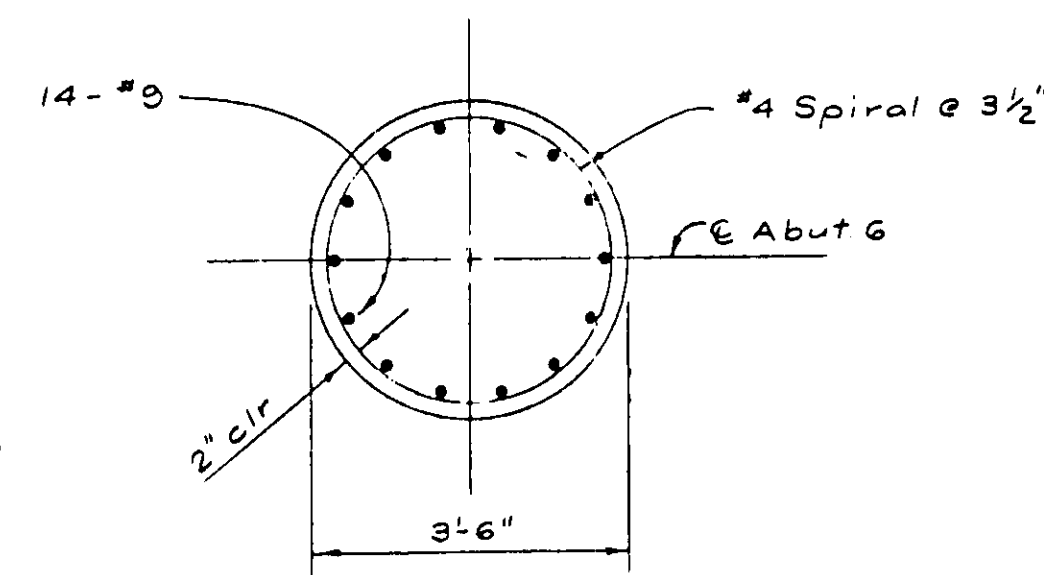


ELEVATION

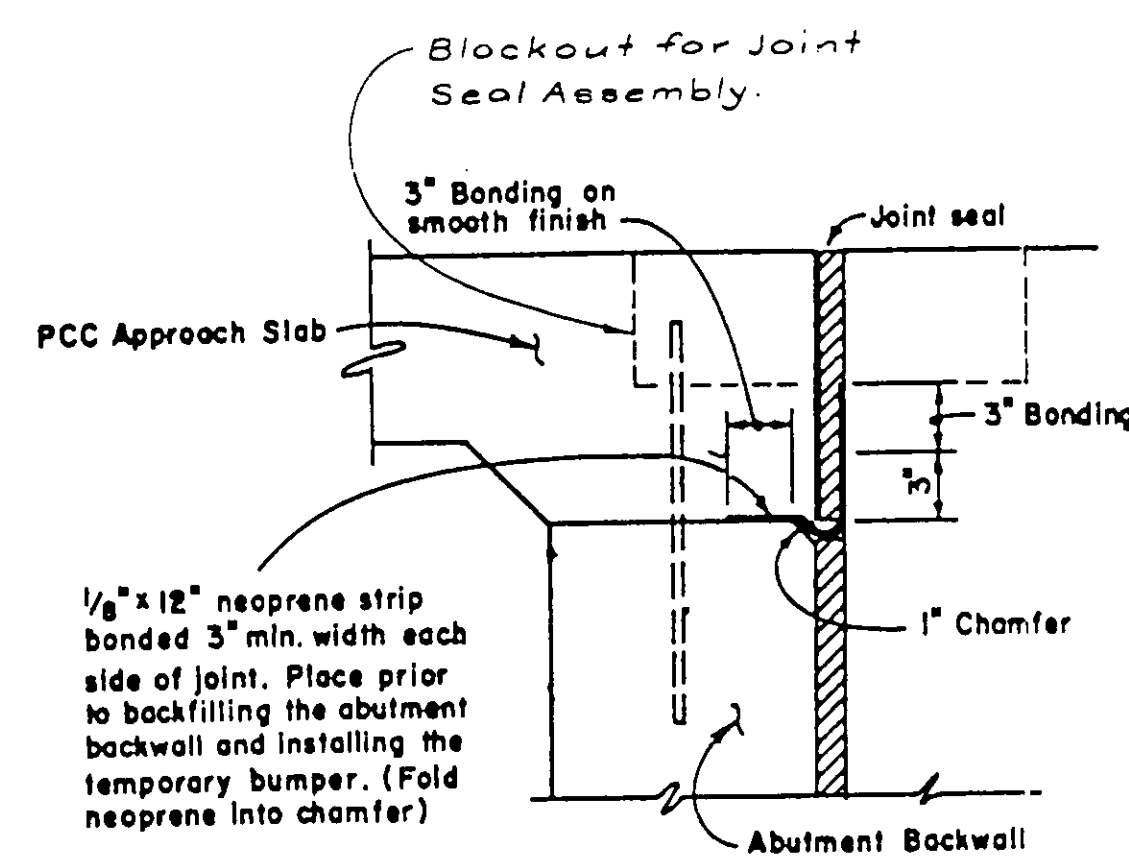
BEARING SEAT DETAILS

55C-606

1 1/2 0 2
3 inches on original drawing



SECTION C-C

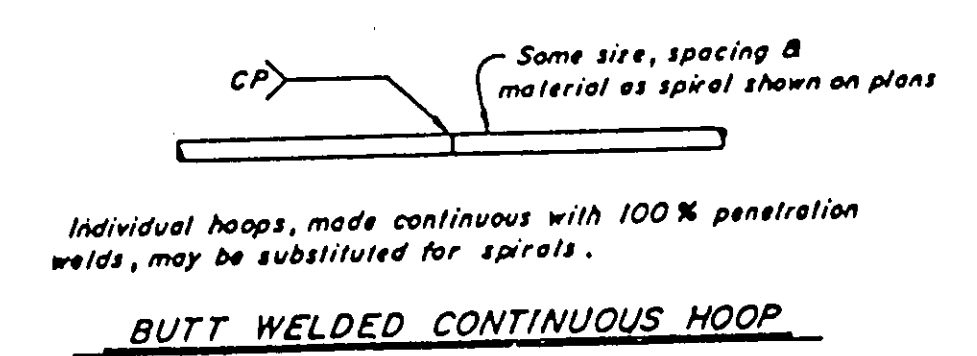
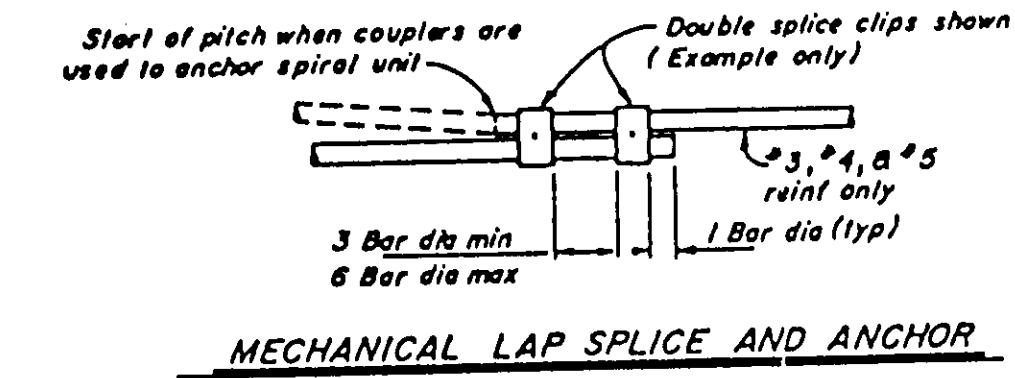
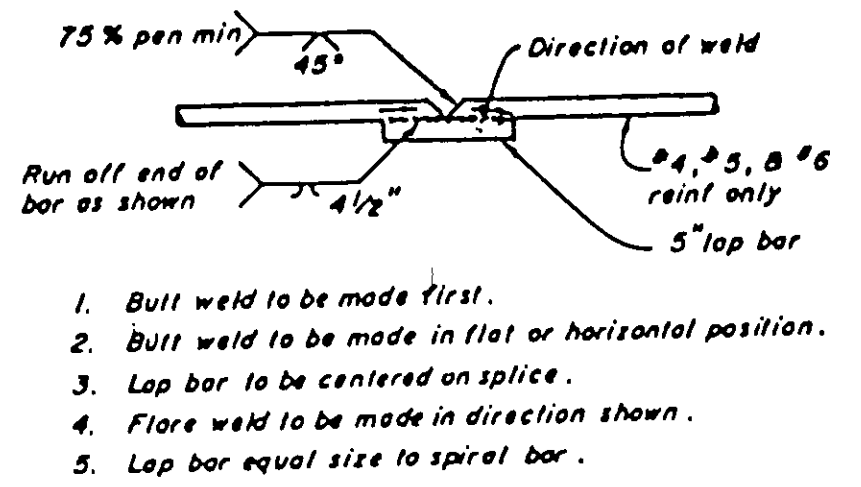
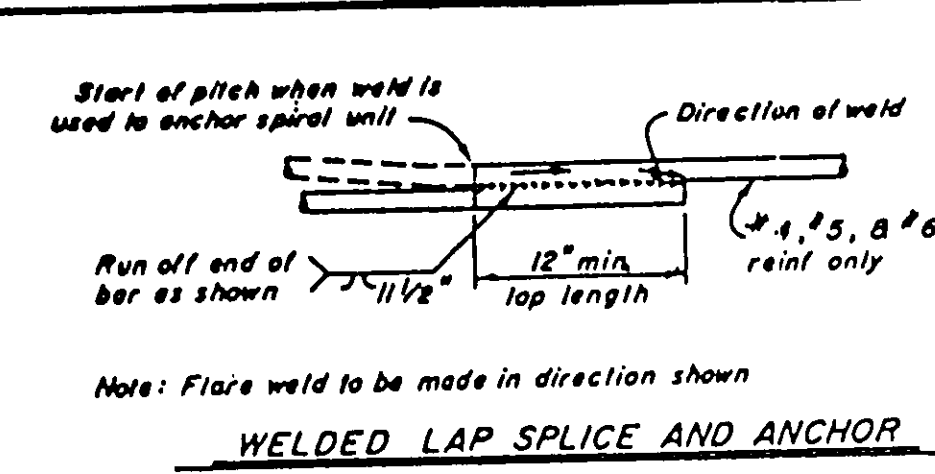
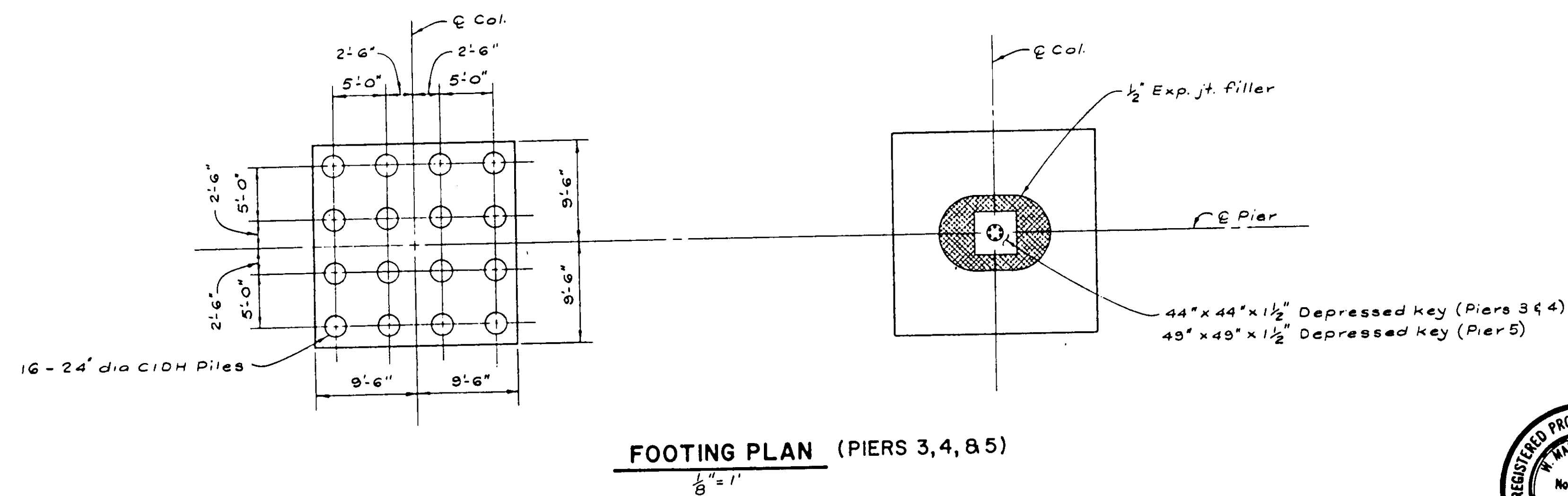
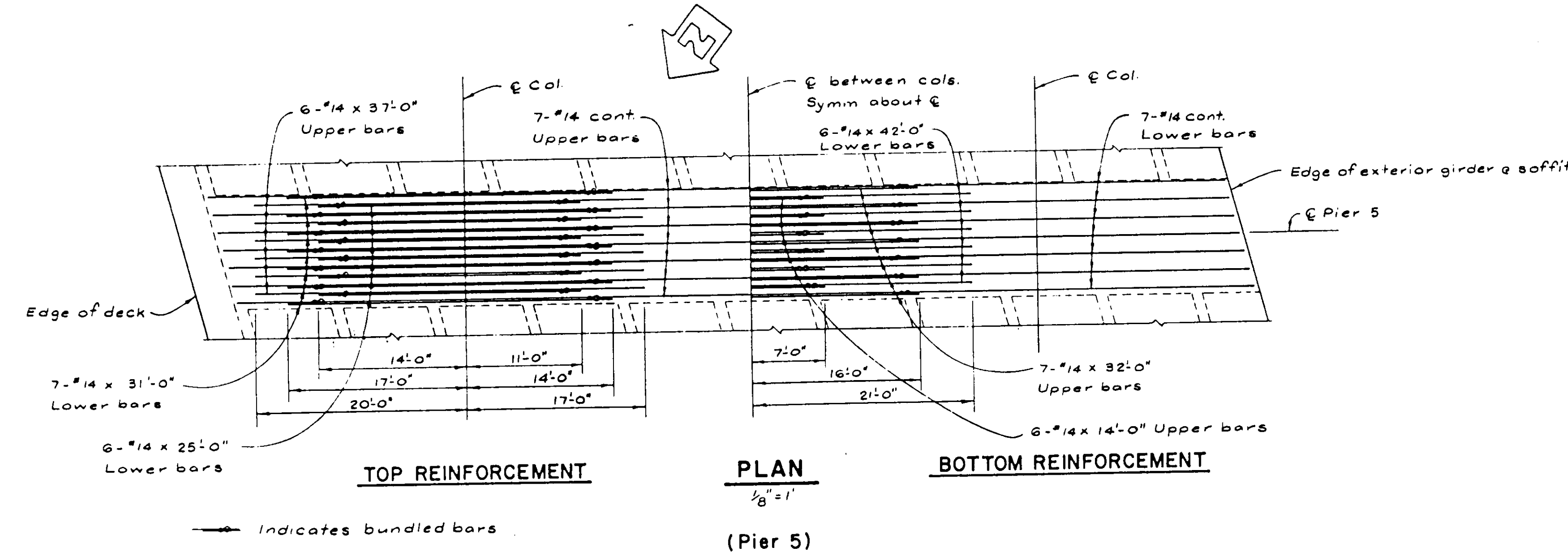
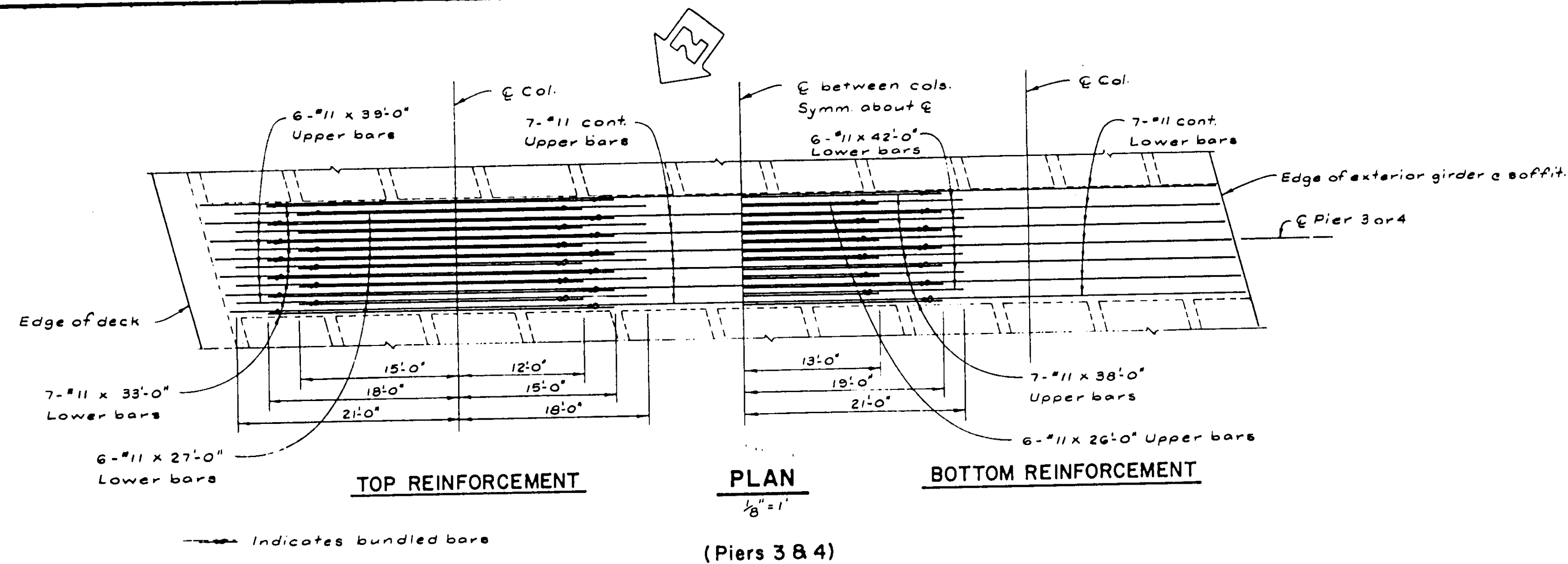


JOINT PROTECTION DETAIL

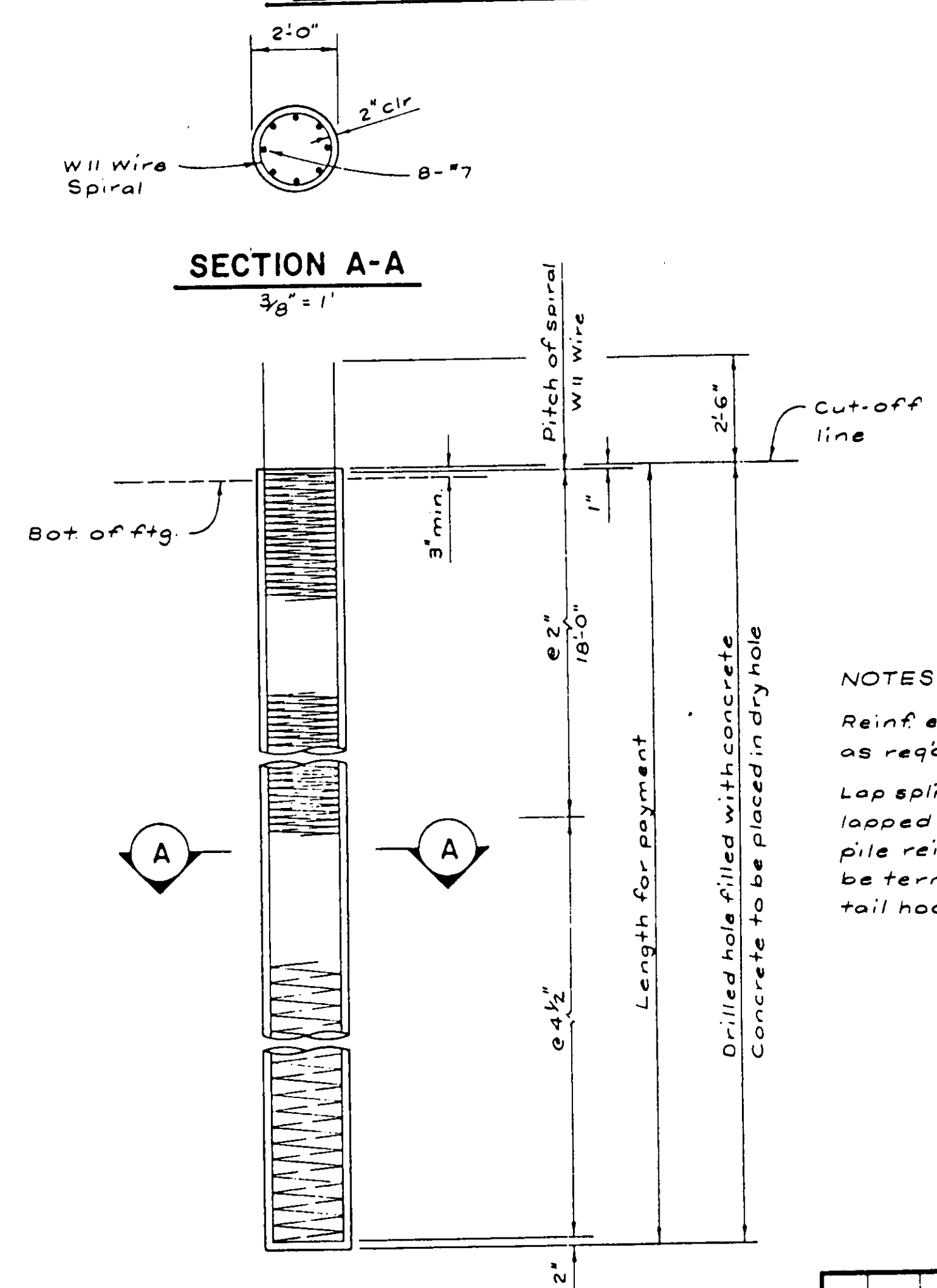
McDANIEL ENGINEERING COMPANY, INC.
2000 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • 619-592-1000

ENGINEER OF WORK:
W. Mark Ashley C34299 9-30-91 8-10-89
RCE EXP DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO			
ABUTMENT DETAILS - 2			
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS			DATE
DESIGNED	SCALE	DATE	DWG. NO.
DRAWN	CHECKED	AS SHOWN	
SHEET			45/76



BAR SPIRAL SPLICE & SPIRAL ANCHOR AND HOOP DETAIL



NOTES:

Reinf extending into ftg. shall be hooked as reqd to provide clearance to top of ftg.

Lap splices in spiral pile reinf shall be lapped at least 80 wire diameters. Spiral pile reinf at splices and at ends shall be terminated with a 135° hook with a 6" tail hooked around a longit. bar.

55C-606

1 1/2 0 1 2
3 inches on original drawing

ELEVATION
 $\frac{3}{8}'' = 1'$

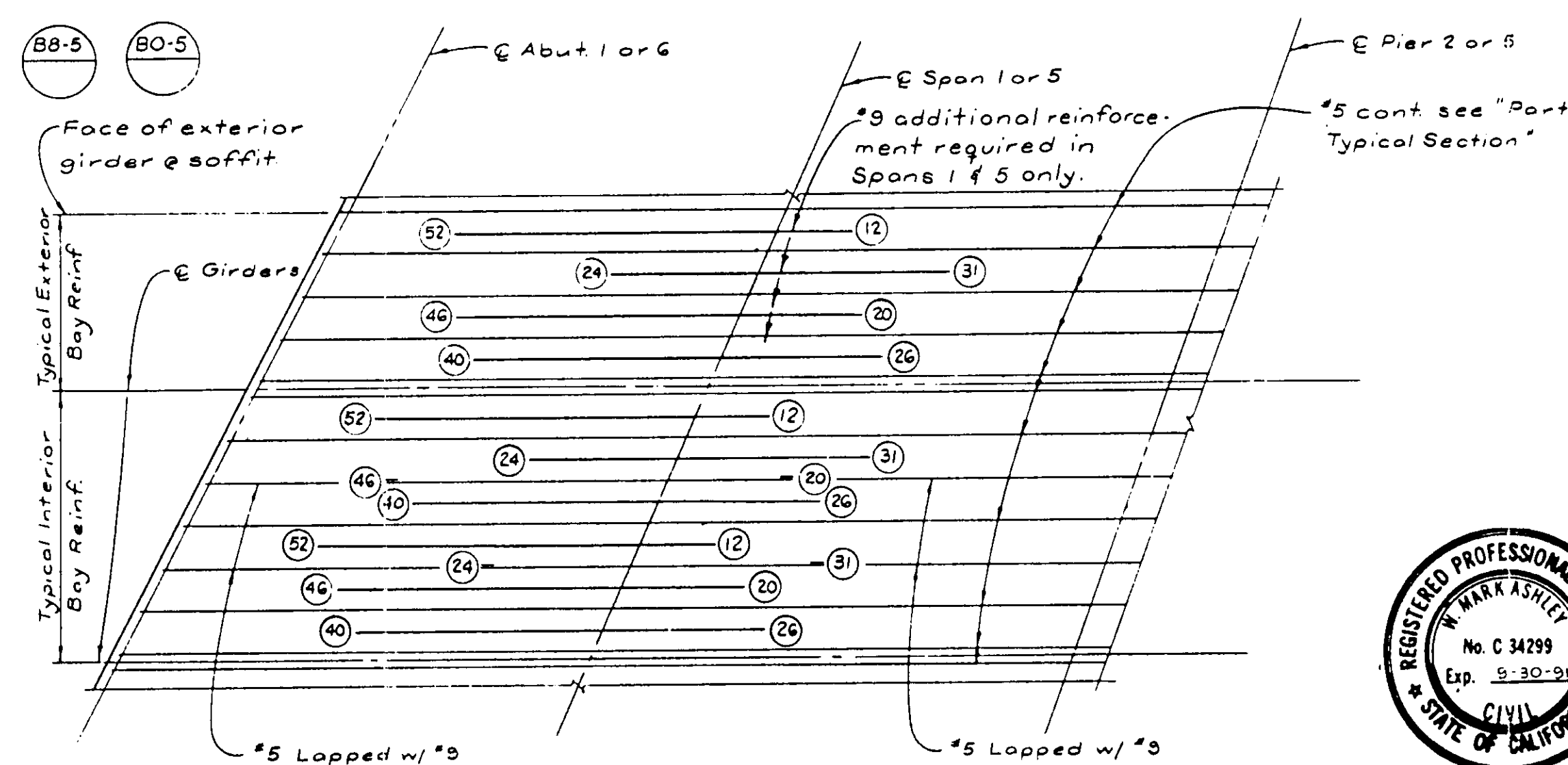
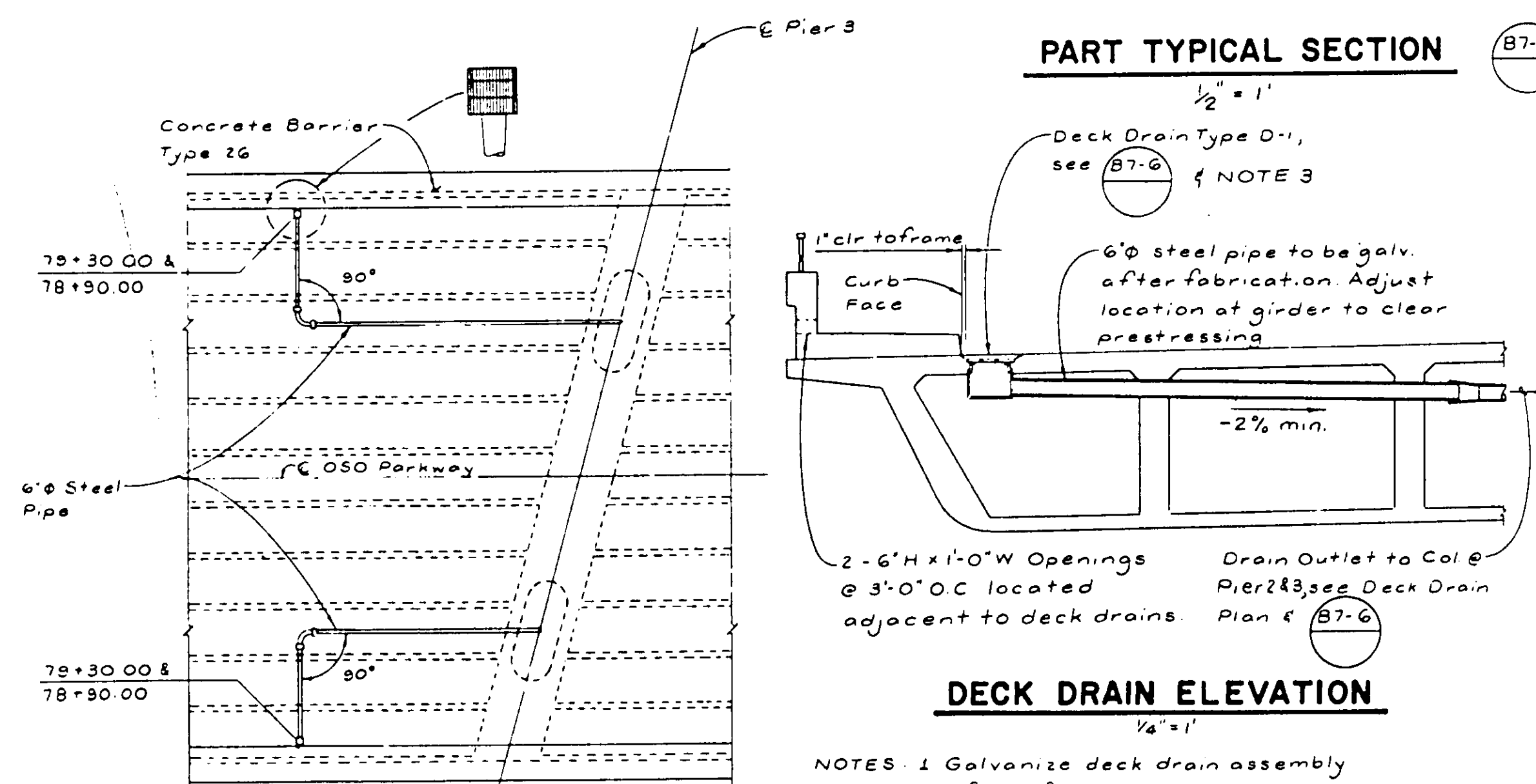
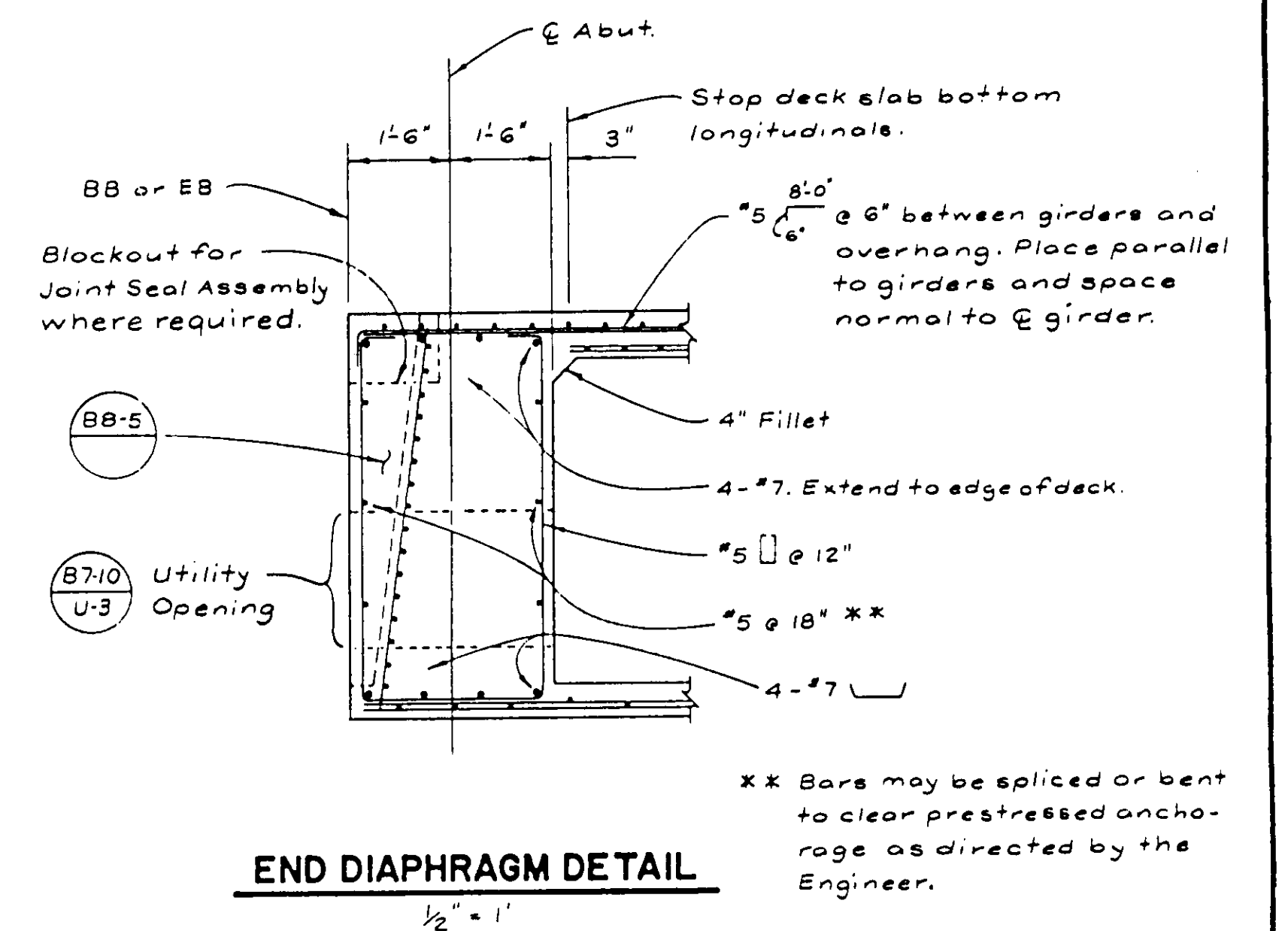
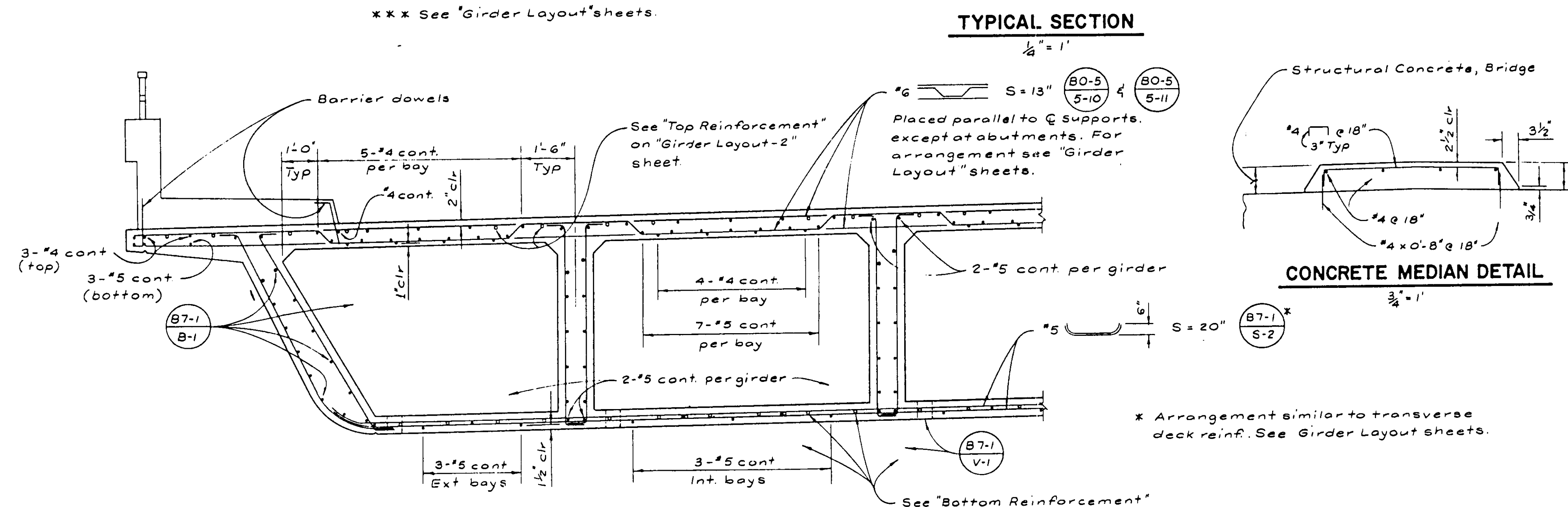
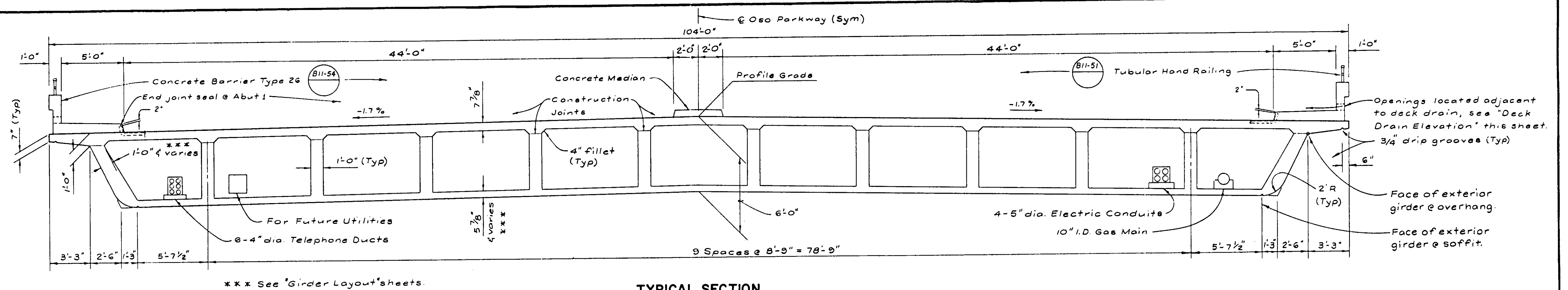
24" C.I.D.H. CONCRETE PILE

McDANIEL ENGINEERING COMPANY, INC.
3800 OLD TOWN AVE., SUITE 307B, SAN DIEGO, CA 92110 • (619) 592-1000

ENGINEER OF WORK:
W. Mark Ashley
C34299 RCE 9-30-91 8-10-89 DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		SHEET	
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO		47/76	
PIER DETAILS - 2		DATE	
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
DESIGNED	DATE	SCALE	DWG. NO.
DRAWN	CHECKED	AS SHOWN	





55C-606



3 inches on original drawing

Note: Installation @ Pier 3 shown, Pier 2 similar except opposite hand.

DECK DRAIN PLAN

No Scale

No Scale

NOTES: 1. Galvanize deck drain assembly after fabrication

similar 2. For details not shown see (B7-6)

3. Rotate box 30° so that the 2 1/4" x 1/2" bars are normal to the direction of bicycle traffic

NOTES: 1. All reinforcement #9 unless otherwise noted.
2. (12) - Indicates distance in feet from @ Span to bar cut-off.

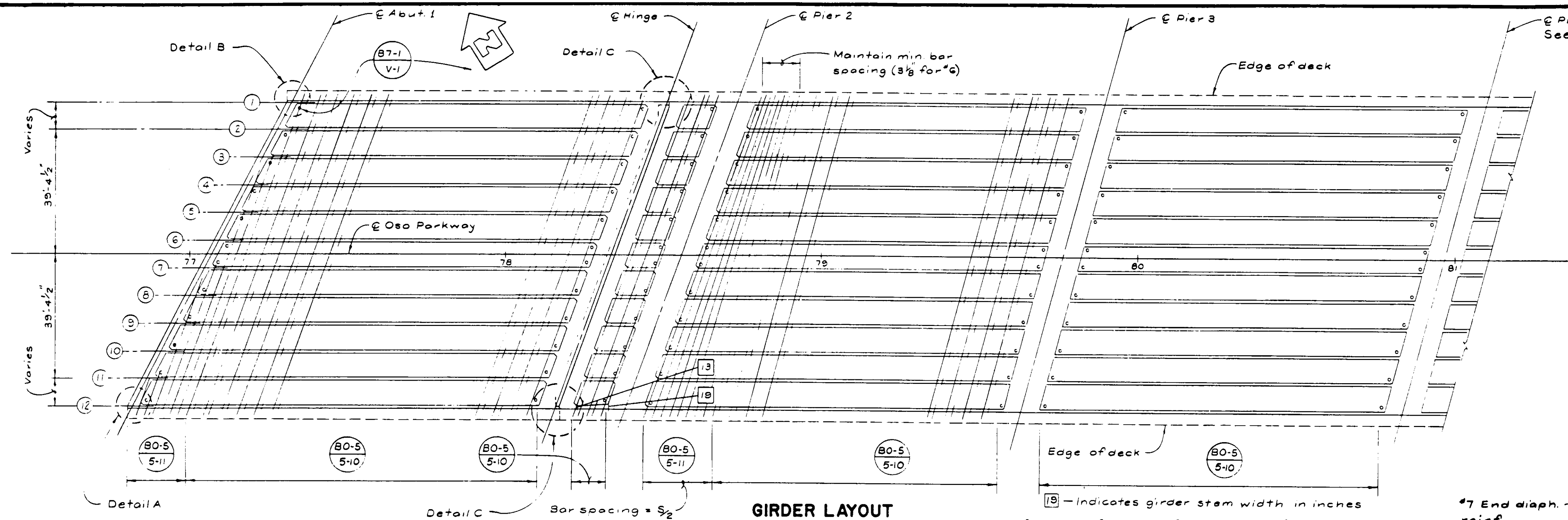


 **McDANIEL ENGINEERING COMPANY, INC.**
2000 OLD TOWN AVE., SUITE 307B, SAN DIEGO, CA 92110 • (619) 592-1030

ENGINEER OF WORK:

W. Mark Ashley C34299 9-30-91 8
W. Mark Ashley RCE EXP.

		ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
		OSO PARKWAY BRIDGE OVER ARROYO TRABUCO	
		TYPICAL SECTION	
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS			DATE
DESIGNED	SCALE	DATE	DWG. NO.
DRAWN	AS SHOWN		
	CHECKED		



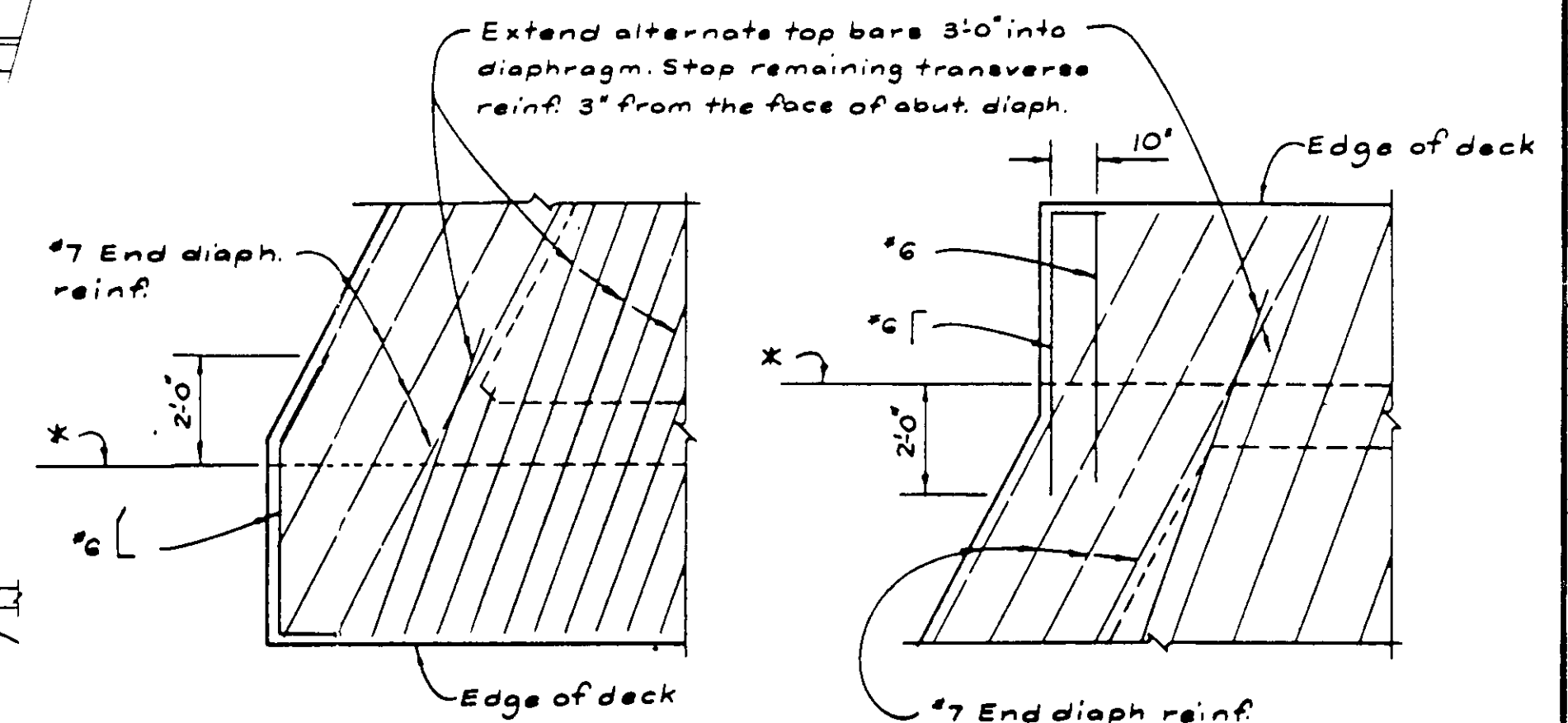
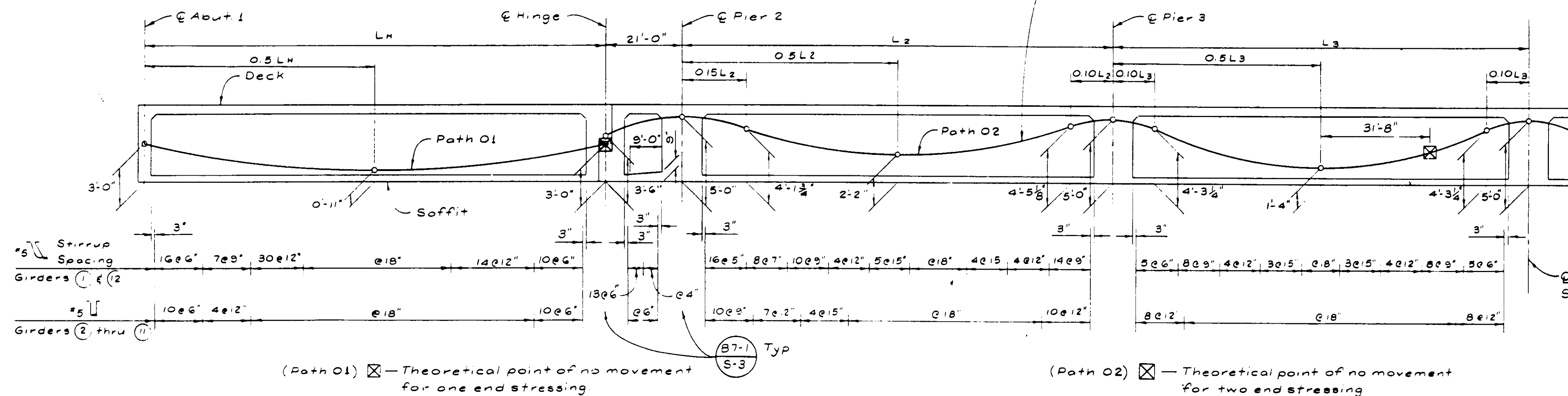
PRESTRESSING NOTES (Path 01)

270 KSI Low Relaxation Strand:
 $P_{max} = 20,336$ kips
 $A_s = 100$ in²
 Total Number of Girders = 12
 Anchor Set = 3/8 in

Distribution of prestress force (Pjack) between girders shall not exceed the ratio of 3:2. Maximum final force variation between girders shall not exceed 725.

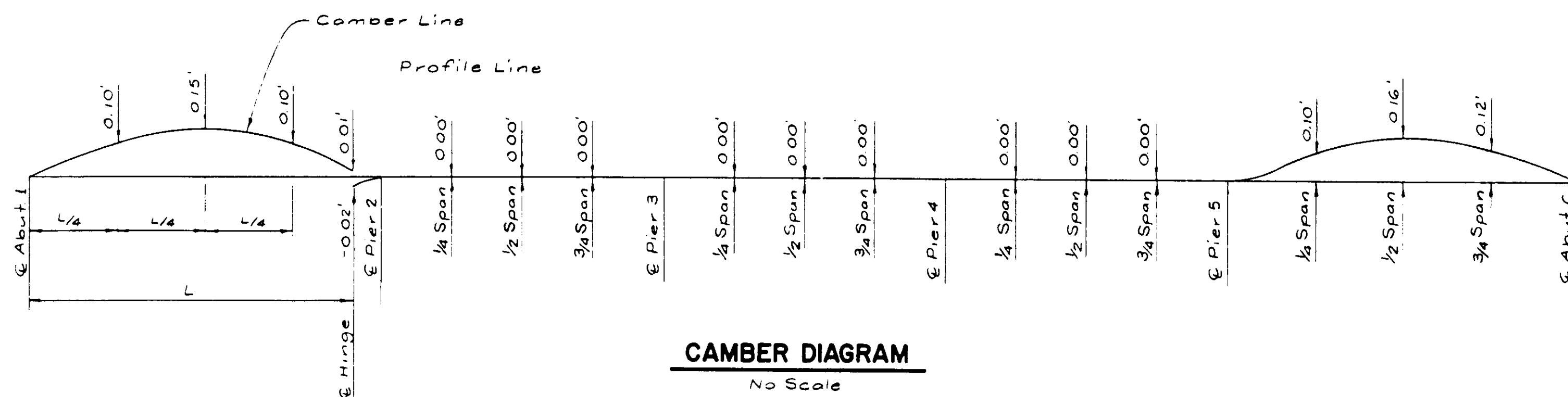
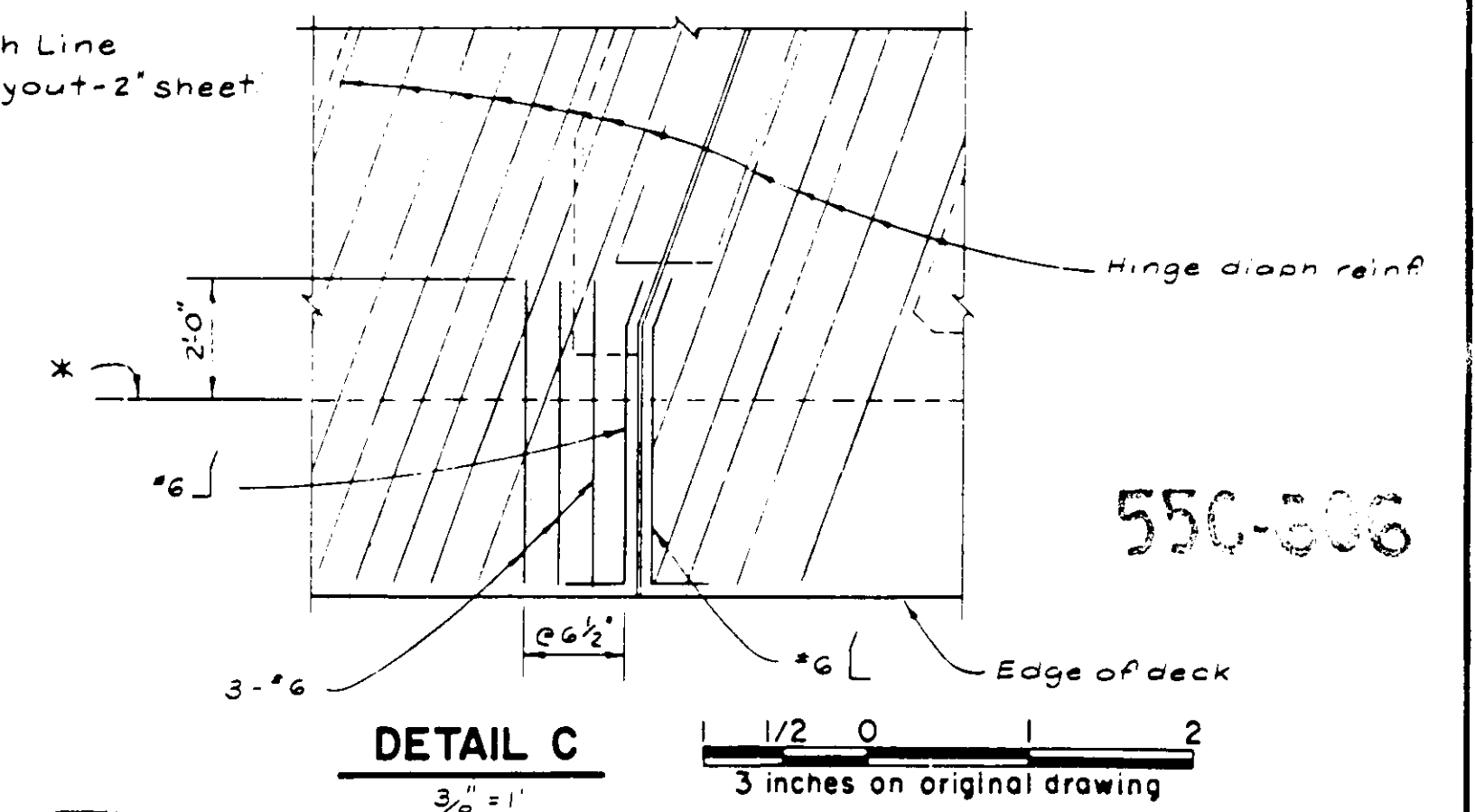
Concrete: $f'_c = 4000$ psi @ 28 days
 $f'_{ci} = 3500$ psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at $\sigma_i = .944$ times jacking stress.



DETAIL A 3/8" = 1'
 * Face of exterior girders overhang.

DETAIL B 3/8" = 1'



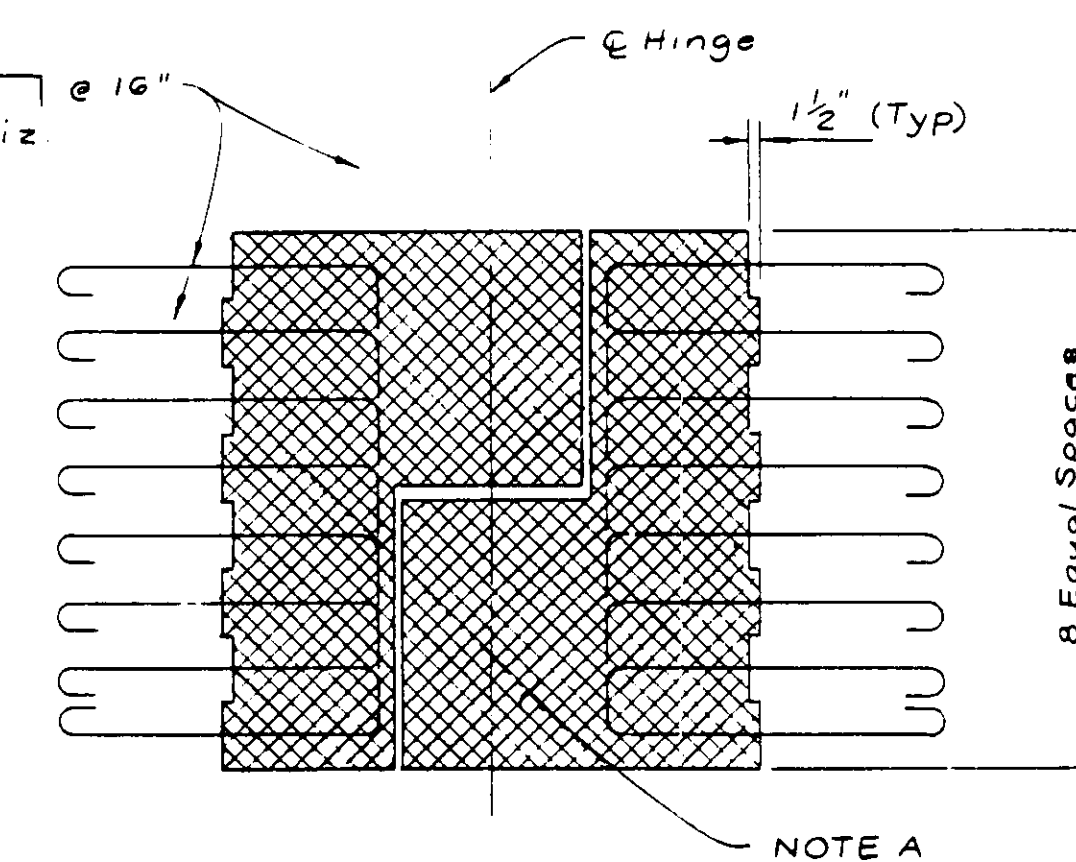
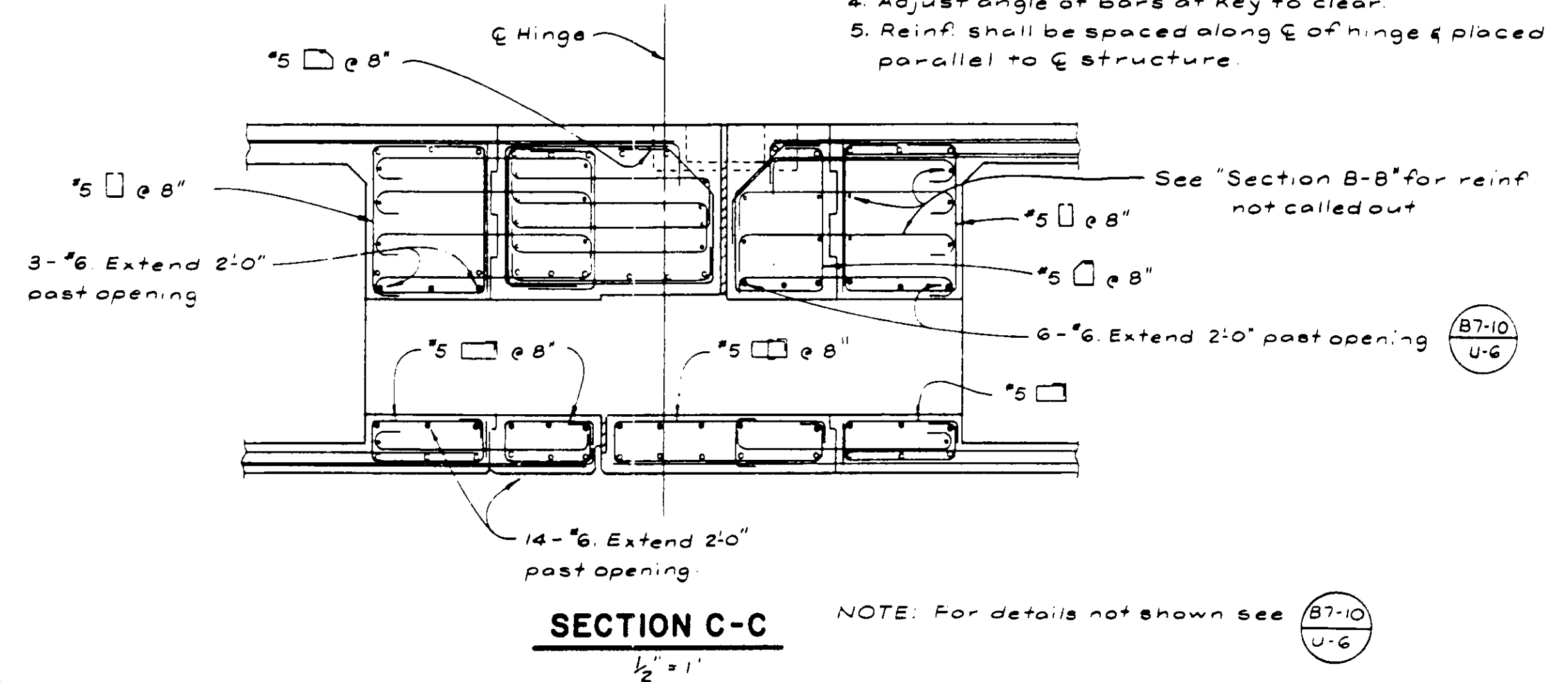
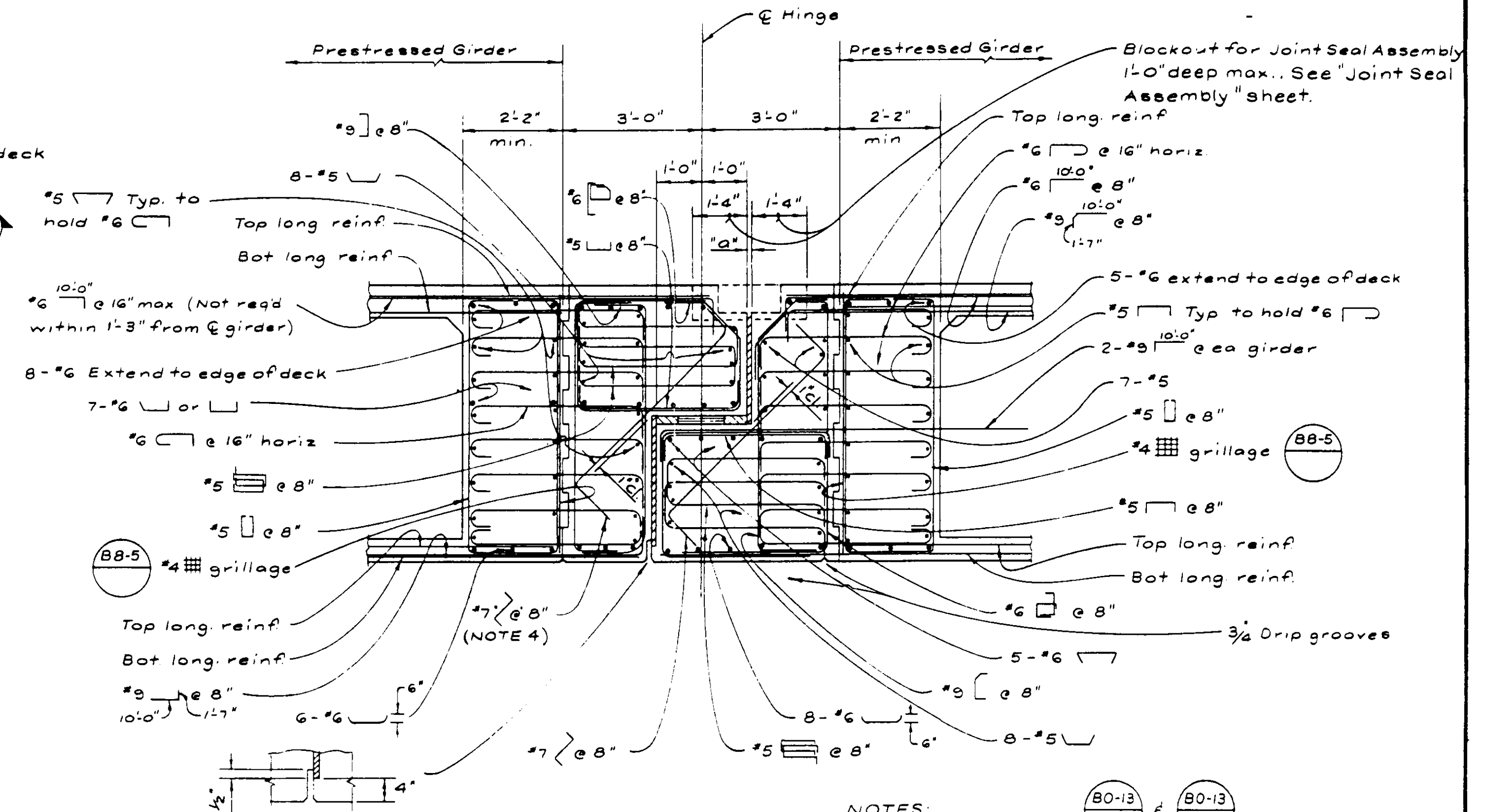
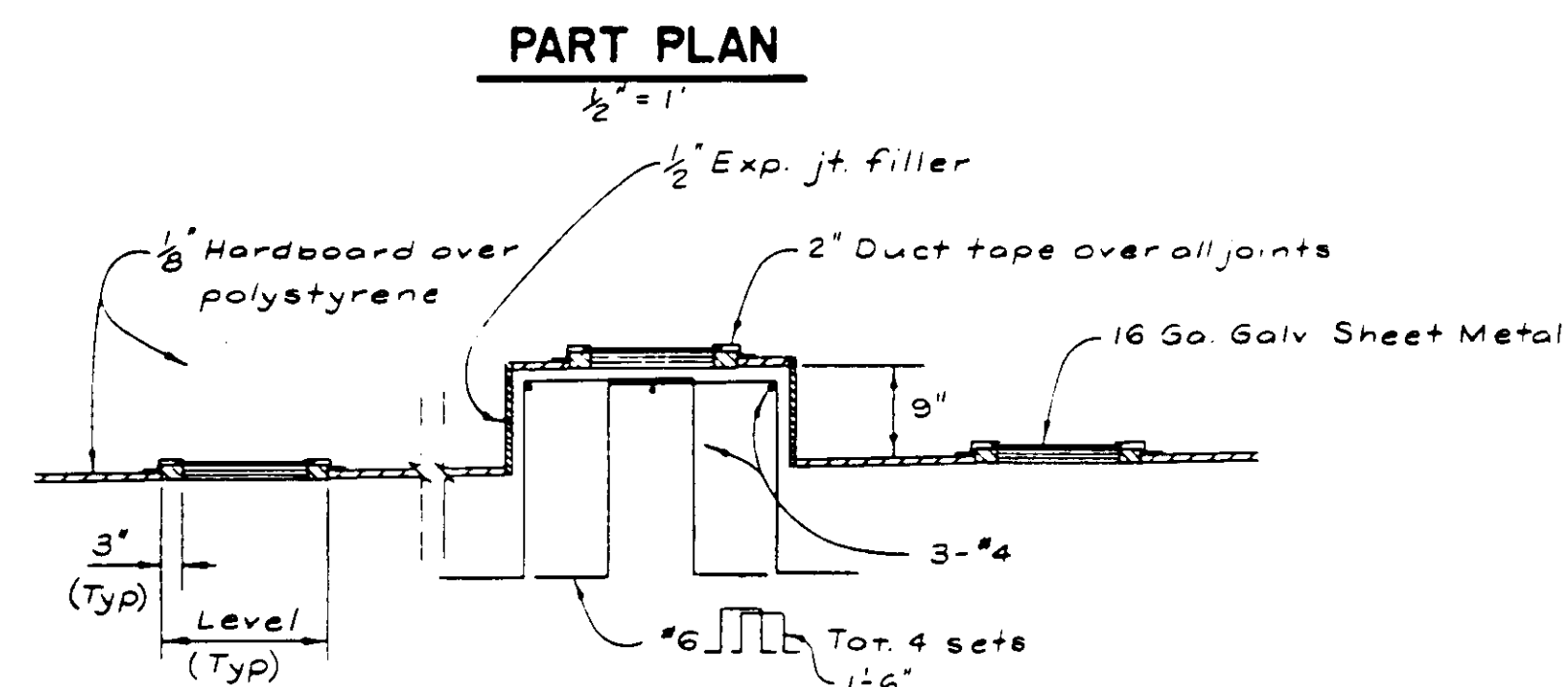
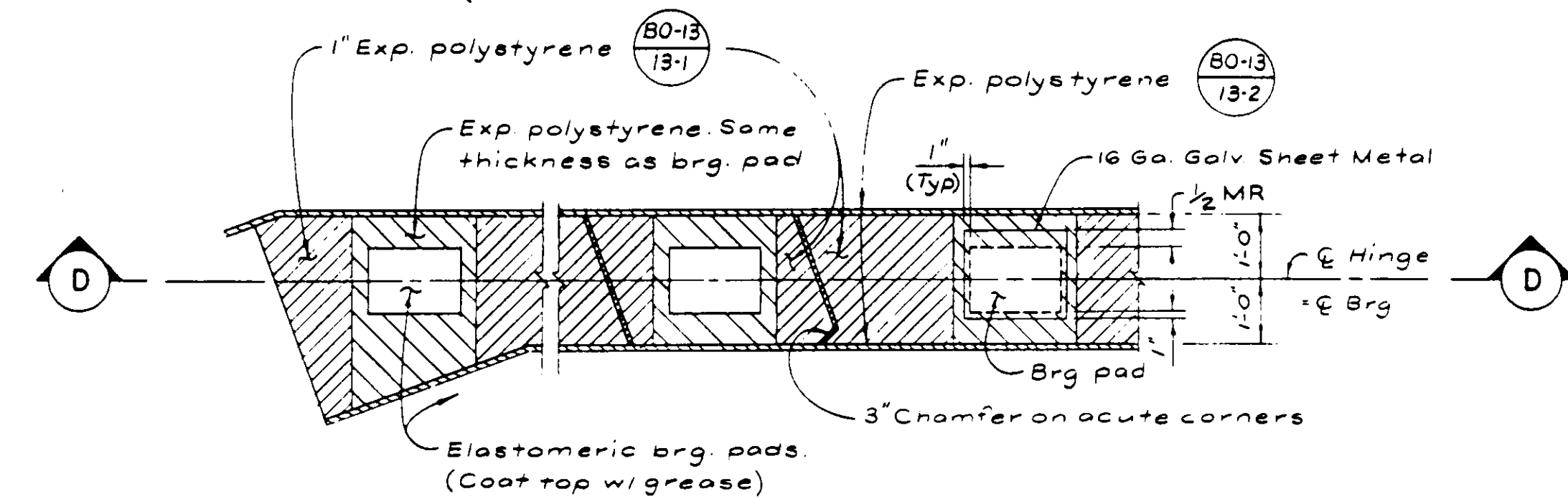
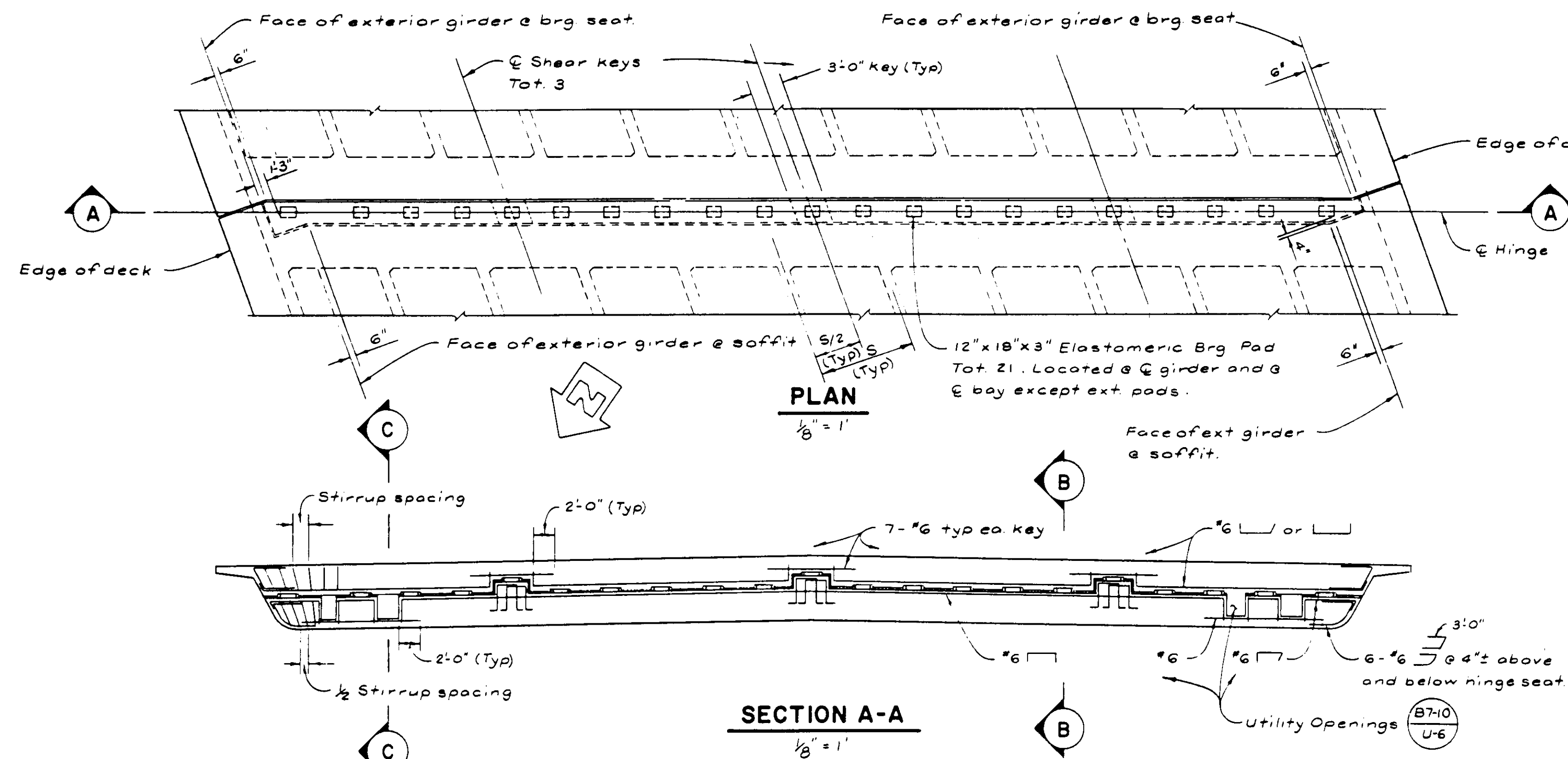
(Does not include allowance for falsework take-up or settlement, if any)



McDANIEL ENGINEERING COMPANY, INC.
 2800 OLD TOWN AVE., SUITE 307B, SAN DIEGO, CA 92110 • (619) 592-1080

ENGINEER OF WORK:
 W. Mark Ashley RCE EXP. 9-30-91 DATE 8-10-89

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO			
GIRDER LAYOUT - I			
MARK	DATE	DESCRIPTION	REVISIONS
DESIGNED			
DRAWN			
CHECKED			
AS SHOWN			
DATE			
DWG. NO.			
SHEET			
49			76



NOTE A

 — Indicates C.I.P Concrete to be placed in 2 stages not sooner than 60 days after adjacent prestressing is accomplished. Falsework shall remain in place until last placed concrete has attained a compressive strength of 3000 psi. Supporting side of hinge shall be constructed first.

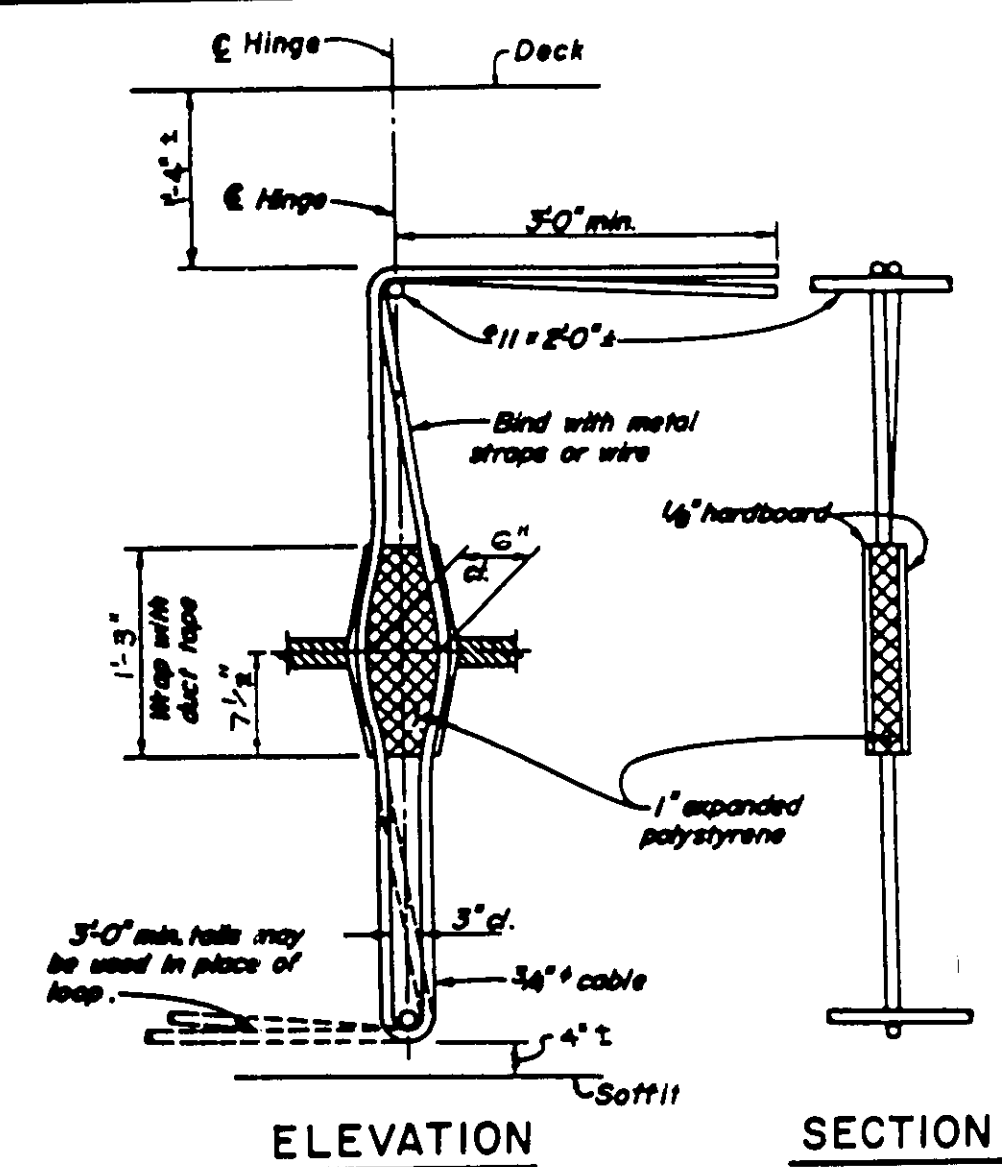
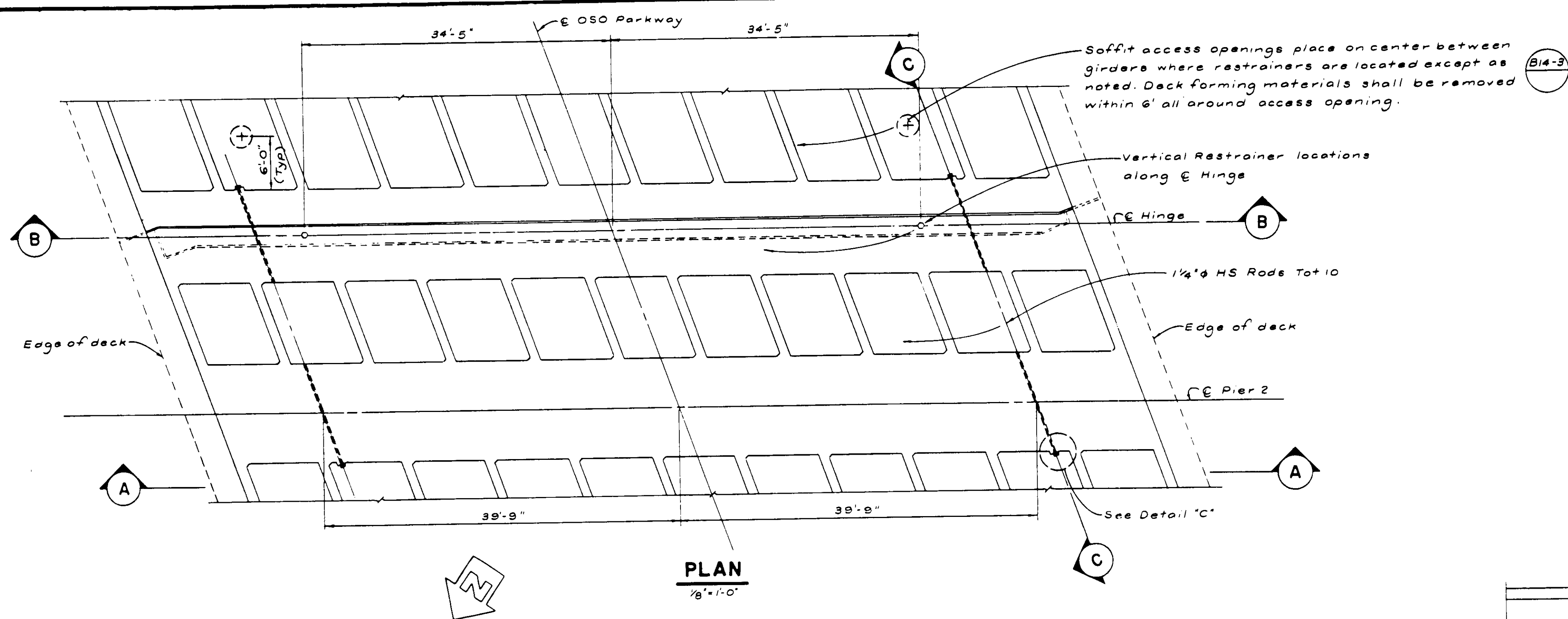
55C-606

3 inches on original drawing

REGISTERED PROFESSIONAL ENGINEER
W. MARK ASHLEY
No. C 34299
Exp. 9-30-91
CIVIL
STATE OF CALIFORNIA

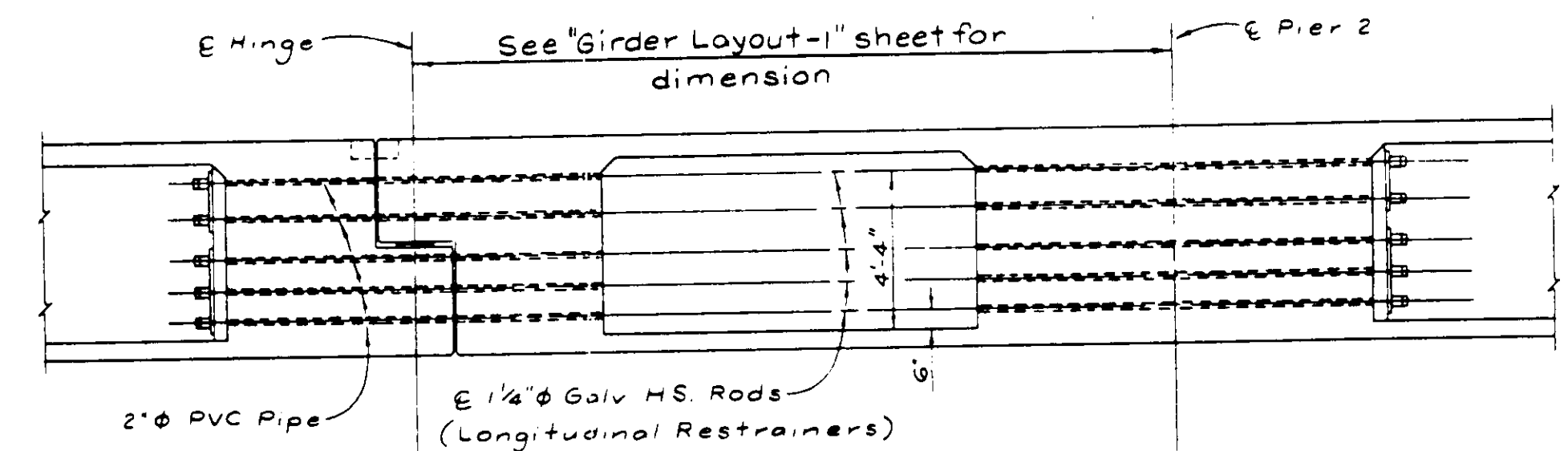
	McDANIEL ENGINEERING COMPANY, INC. 3660 OLD TOWN AVE., SUITE 207E, SAN DIEGO, CA 92110 • (619) 596-1620		
	ENGINEER OF WORK: <i>W. Mark Ashley</i>		
C34299 RCE	9-30-91 EXP	8	

		ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
		OSO PARKWAY BRIDGE OVER ARROYO TRABUCO	
		HINGE DETAILS	
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS			DATE
DESIGNED	SCALE		5/76
DRAWN	CHECKED	AS SHOWN	
		DATE	DWG. NO.

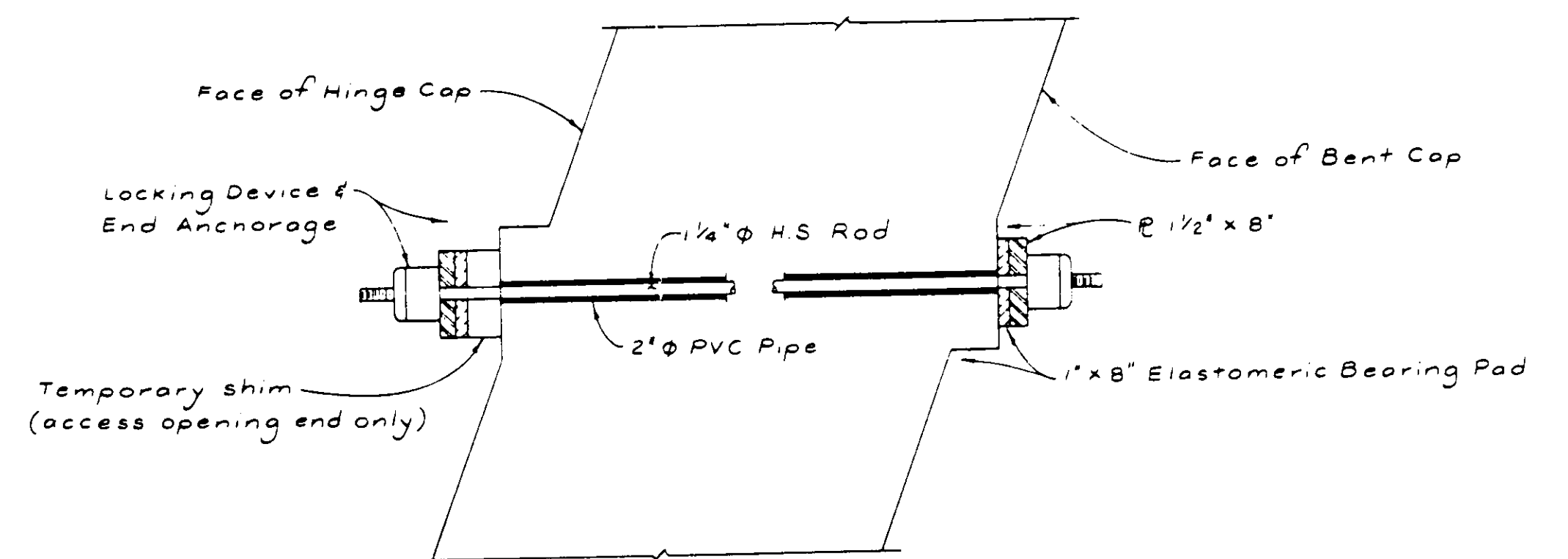


VERTICAL RESTRAINER

No Scale



SECTION C-C

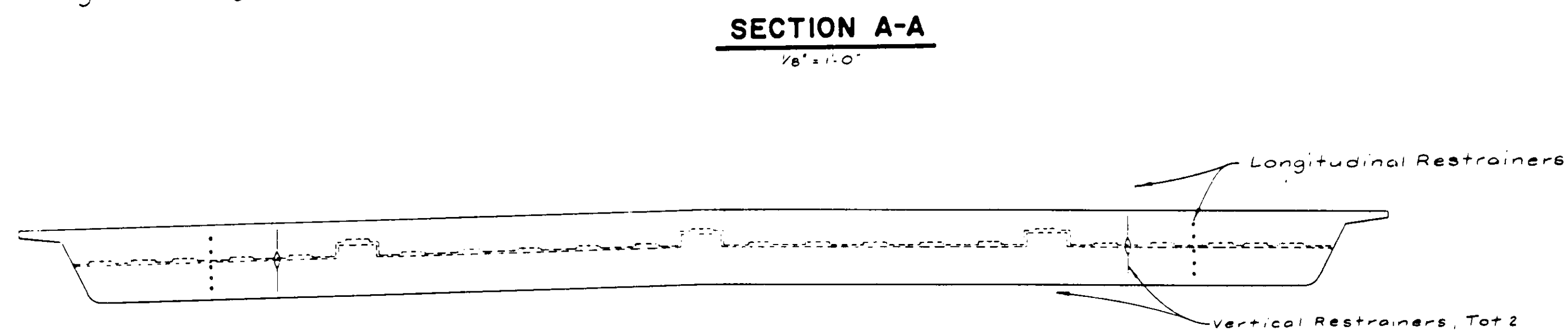


HINGE END

PIER 2 END

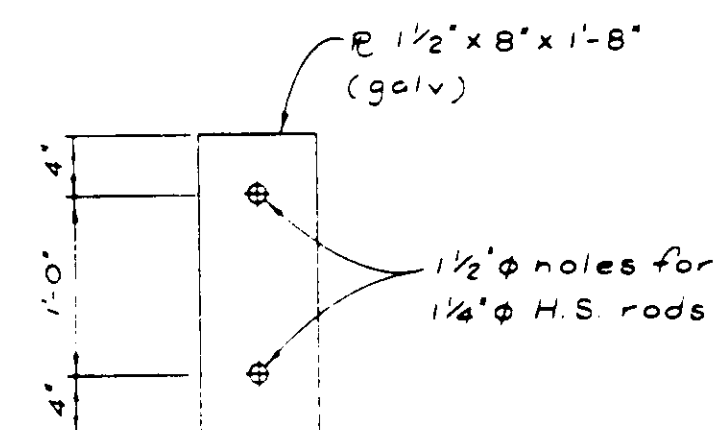
55C-606

1/2 0 1 2
3 inches on original drawing



SECTION B-B

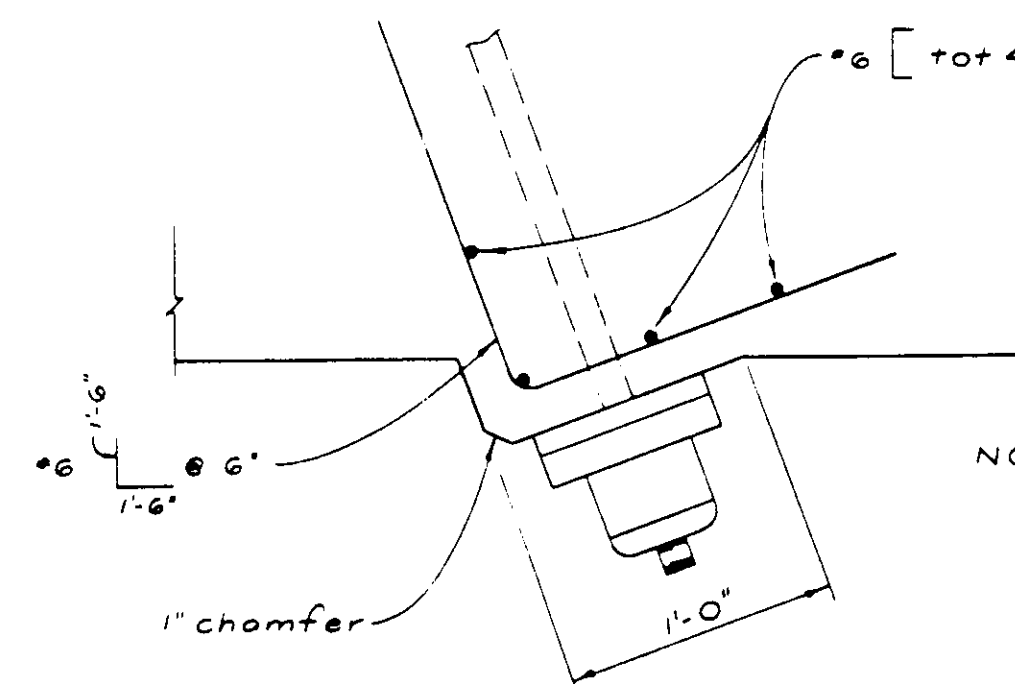
1/8" = 1'-0"



BEARING PLATE "B"

1" = 1'-0"

Note: Bearing plates may be adjusted as directed by the Engineer.



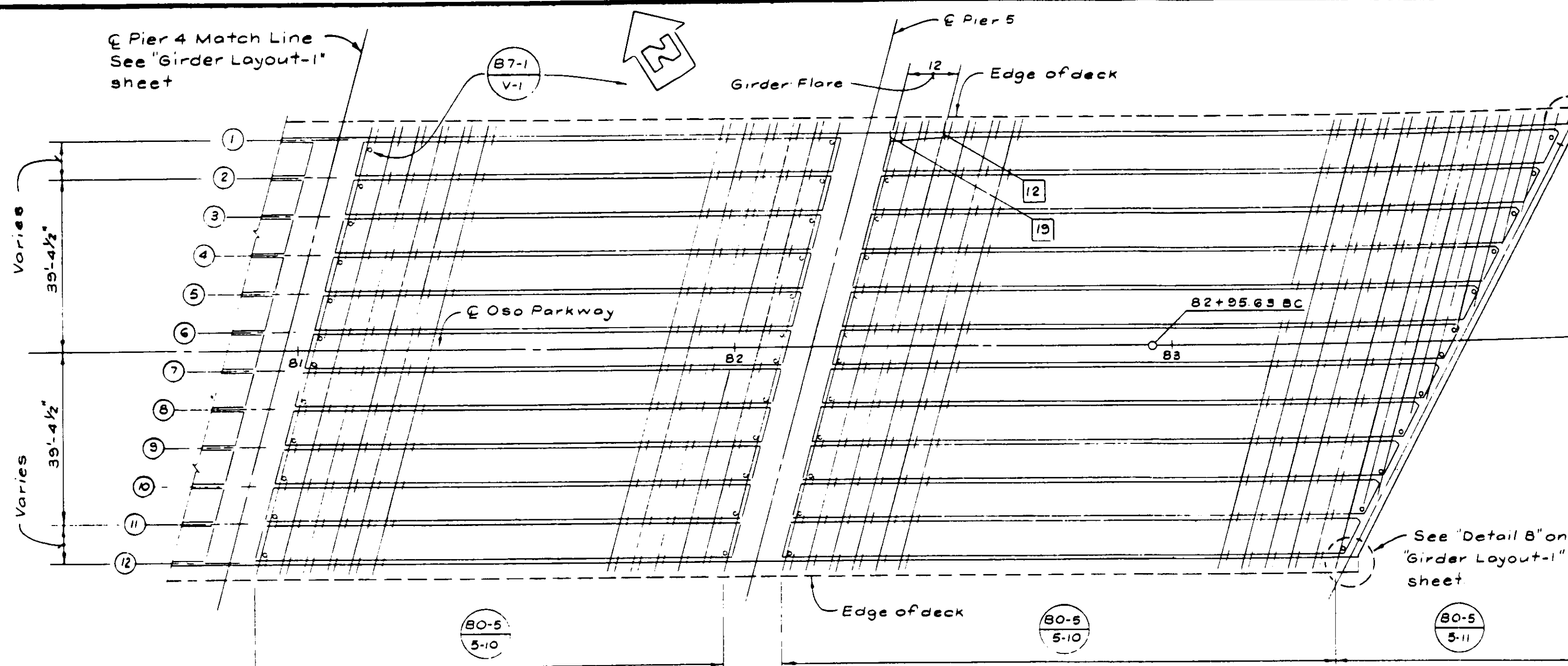
- NOTES
1. Rods hardware and bearing plates shall be galvanized
 2. Snug end anchorage, lock and remove shims after falsework is removed.
 3. Shim thickness to be determined by the engineer



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6000 OLD TOWN AVE., SUITE 307B, SAN DIEGO, CA 92110 • 619-590-1000

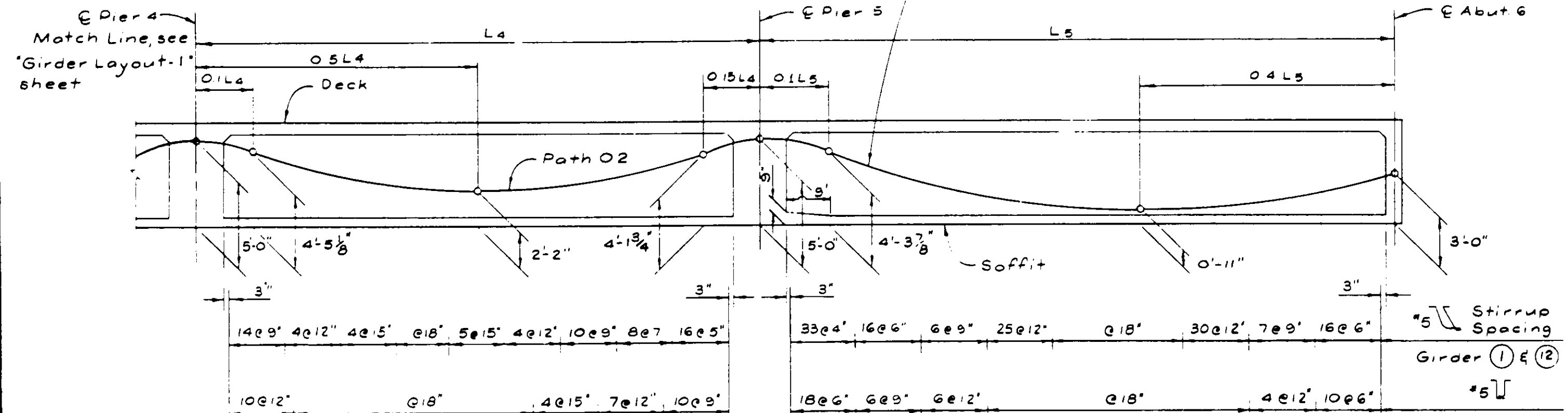
ENGINEER OF WORK:
W. Mark Ashley RCE EXP 9-30-91 6-10-89

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO			
RESTRAINER DETAILS			
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS		DATE	SHEET
DESIGNED	SCALE	DATE	DWG. NO.
DRAWN	CHECKED	AS SHOWN	52/76



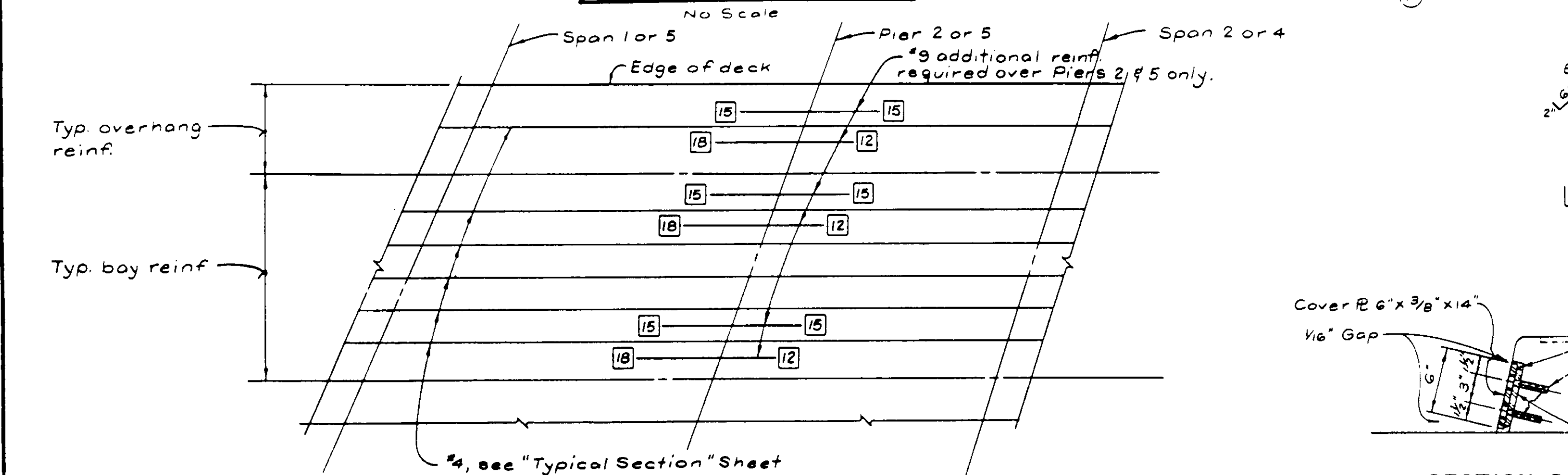
GIRDER LAYOUT

No Scale



LONGITUDINAL SECTION

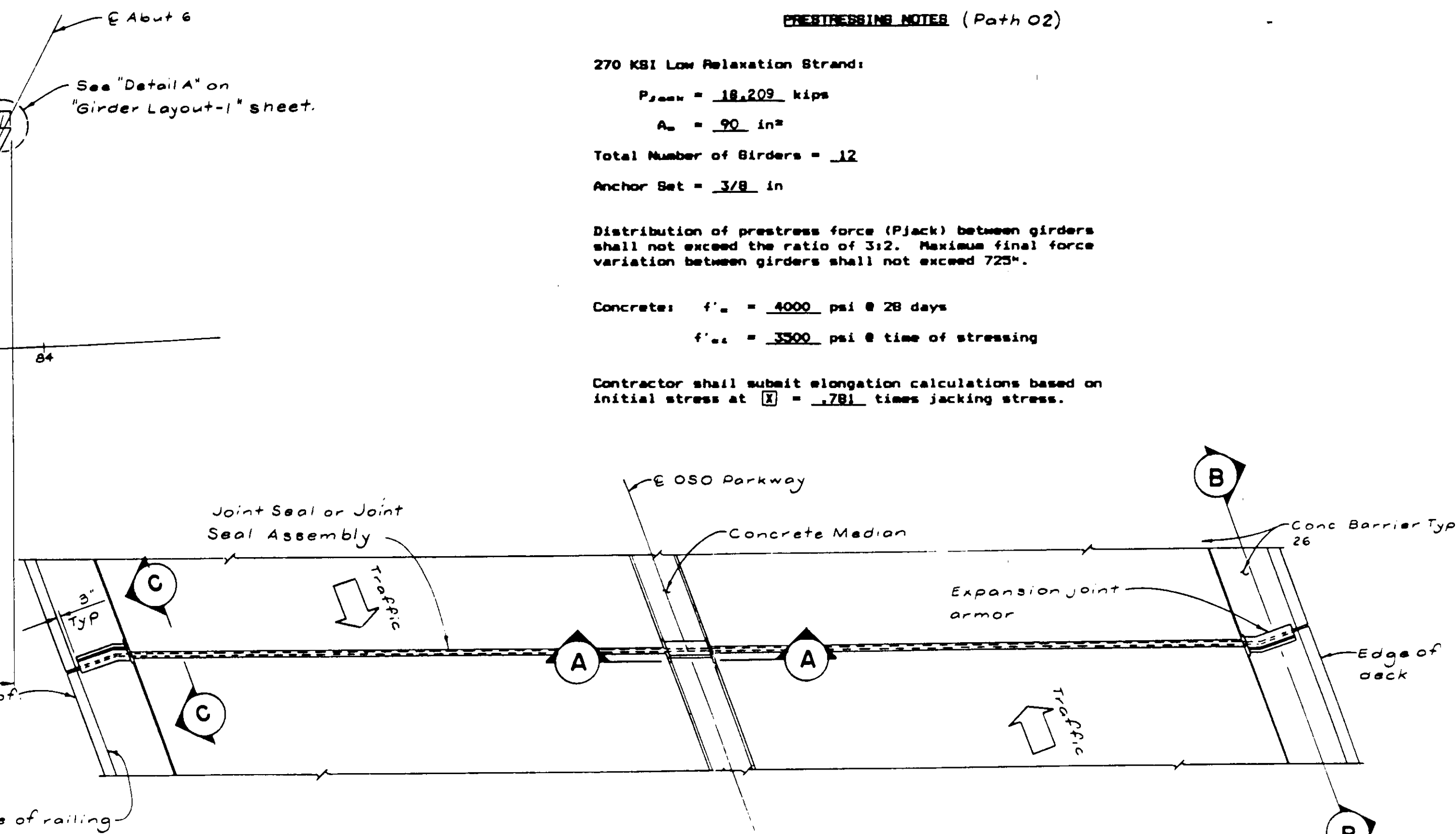
No Scale



TOP REINFORCEMENT

No Scale

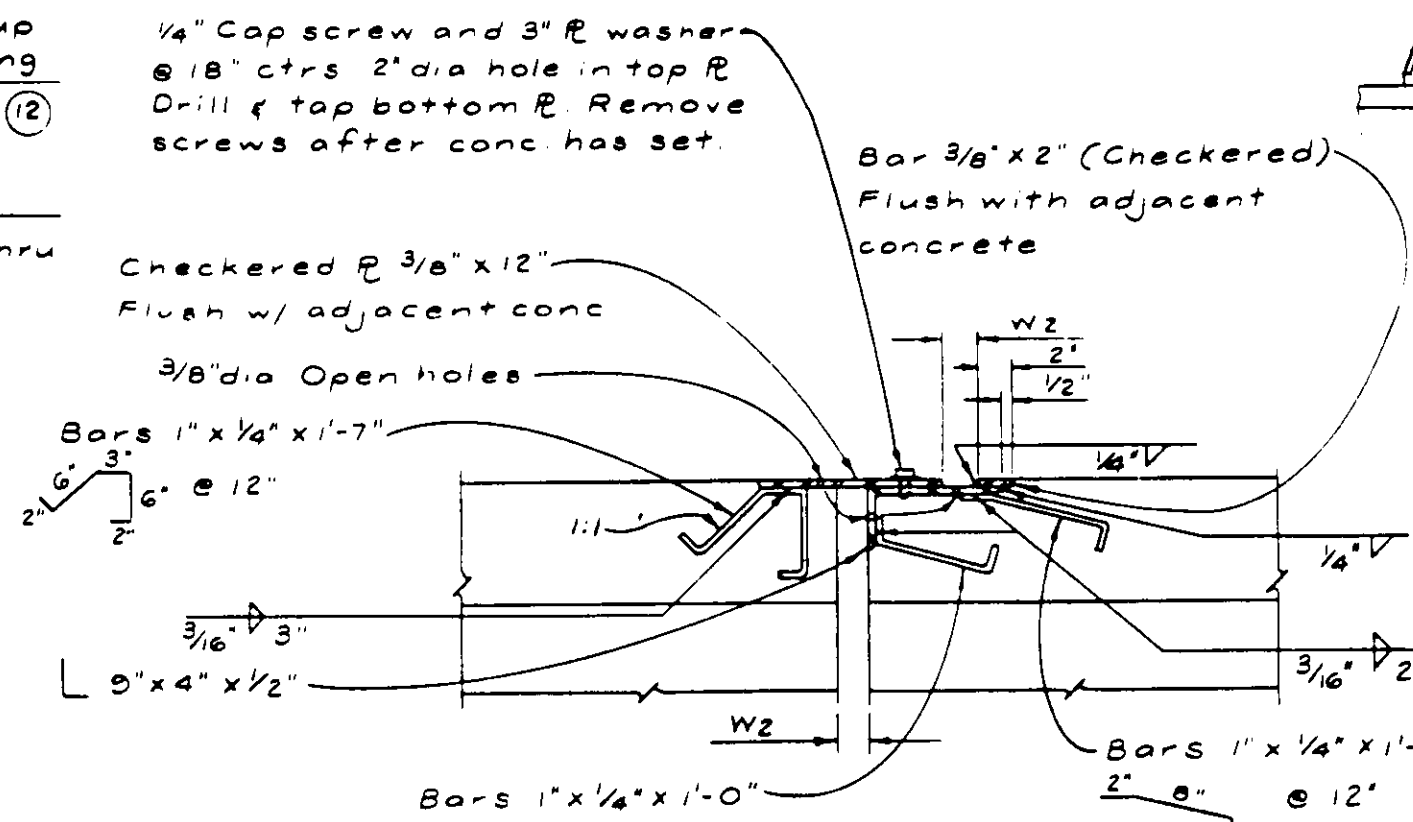
NOTE: [15] - Indicates distance in feet from Pier to bar cutoff



PLAN

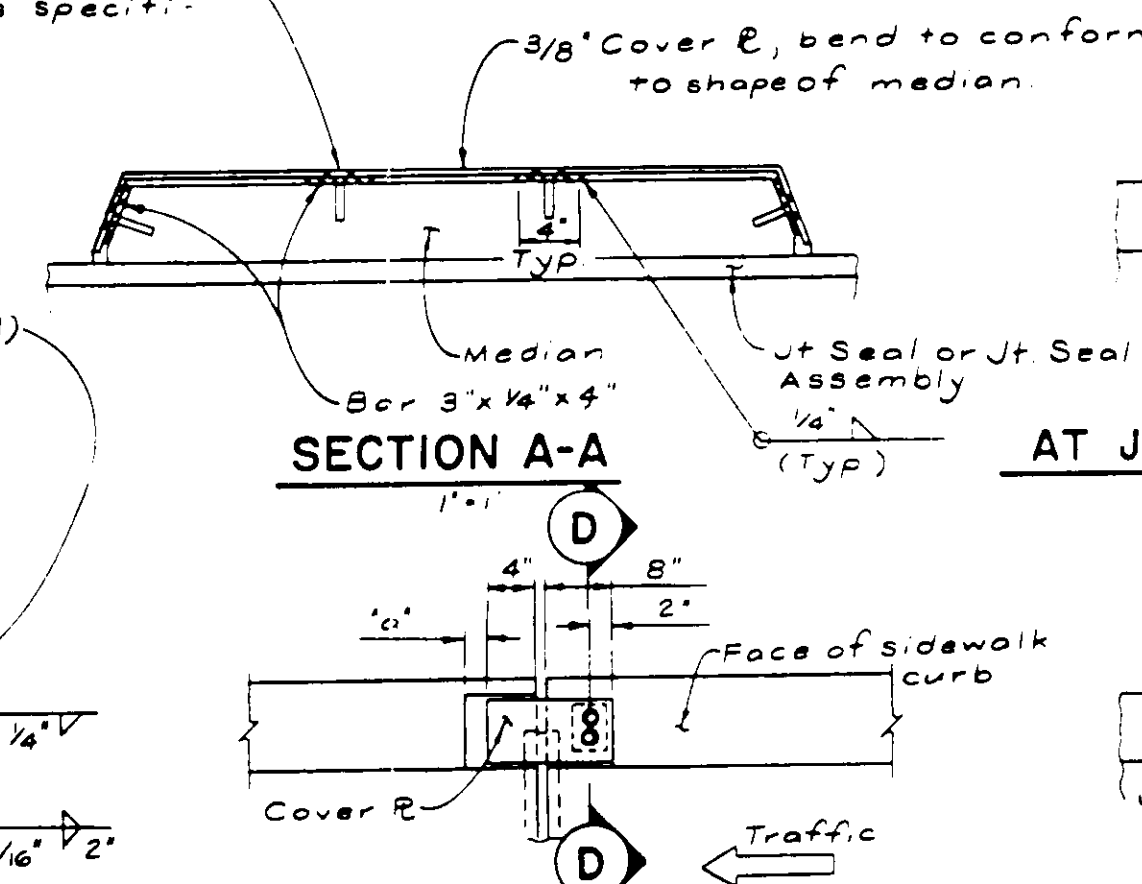
1/8" = 1'

5/8" dia expansion anchor, tot 4 ea. end (non-corrodible). Hole diam. and depth in accordance with manufacturers specifications.



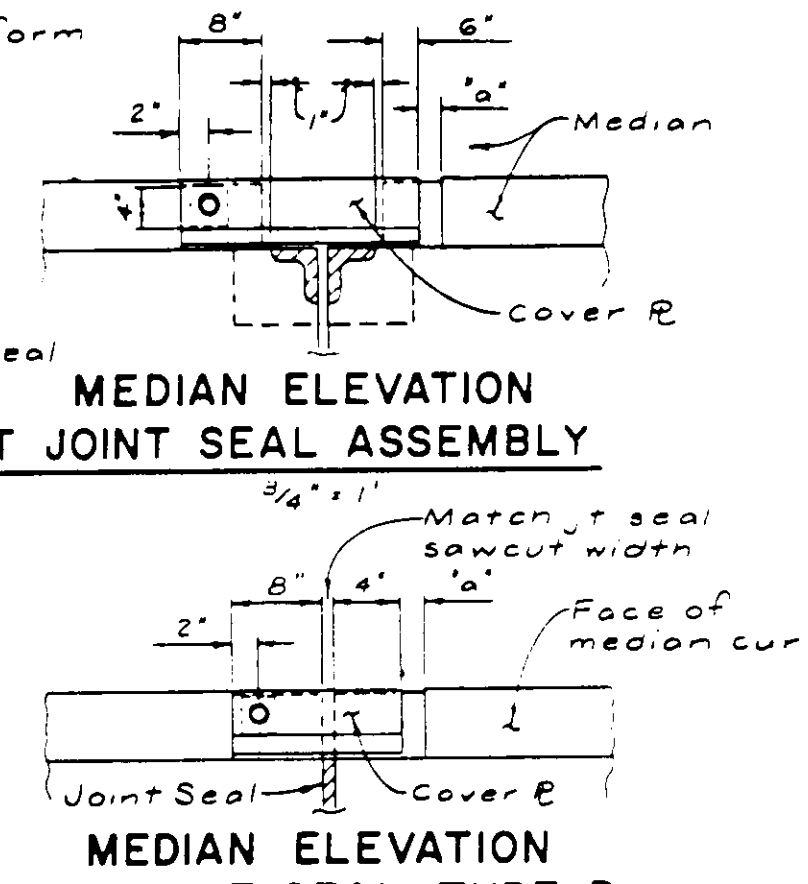
SECTION B-B

1" = 1'



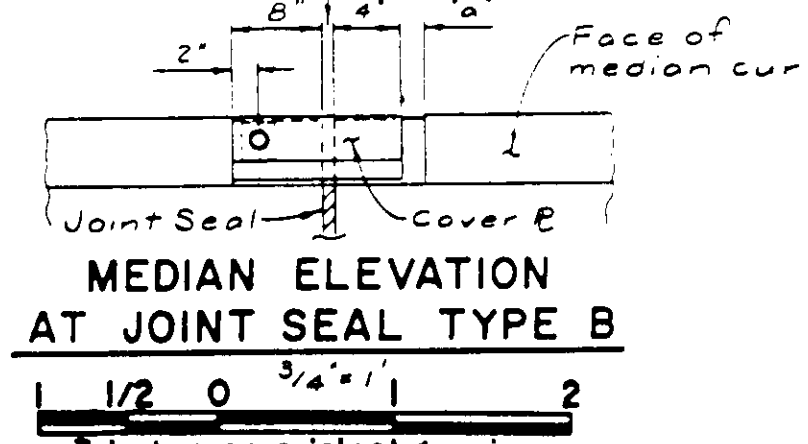
SECTION A-A

1" = 1'



MEDIAN ELEVATION AT JOINT SEAL ASSEMBLY

3/4" = 1'



MEDIAN ELEVATION AT JOINT SEAL TYPE B

1/2" = 1'

3 inches on original drawing

3 inches on original drawing

- NOTES
1. W2 - 3/4" at maximum temperature normal to joint. Exact width to be determined by the Engineer.
 2. Adjust Exp. Jt. Armor bars that conflict w/ Jt. Seal Assembly.
 3. Expansion armor assembly to be galv. after fabrication.
 4. For "a" see table on Joint Seal Assembly detail sheet.
 5. For other details not shown see "Joint Seal Assembly" detail sheet.

SECTION D-D

1/2" = 1'



55C-606

McDANIEL ENGINEERING COMPANY, INC.
 8800 OLD TOWN AVE., SUITE 207, SAN DIEGO, CA 92110 • (619) 586-1200

ENGINEER OF WORK:
 W. Mark Ashley C34299 9-30-91 9-10-99
 W. Mark Ashley RCE EXP DATE

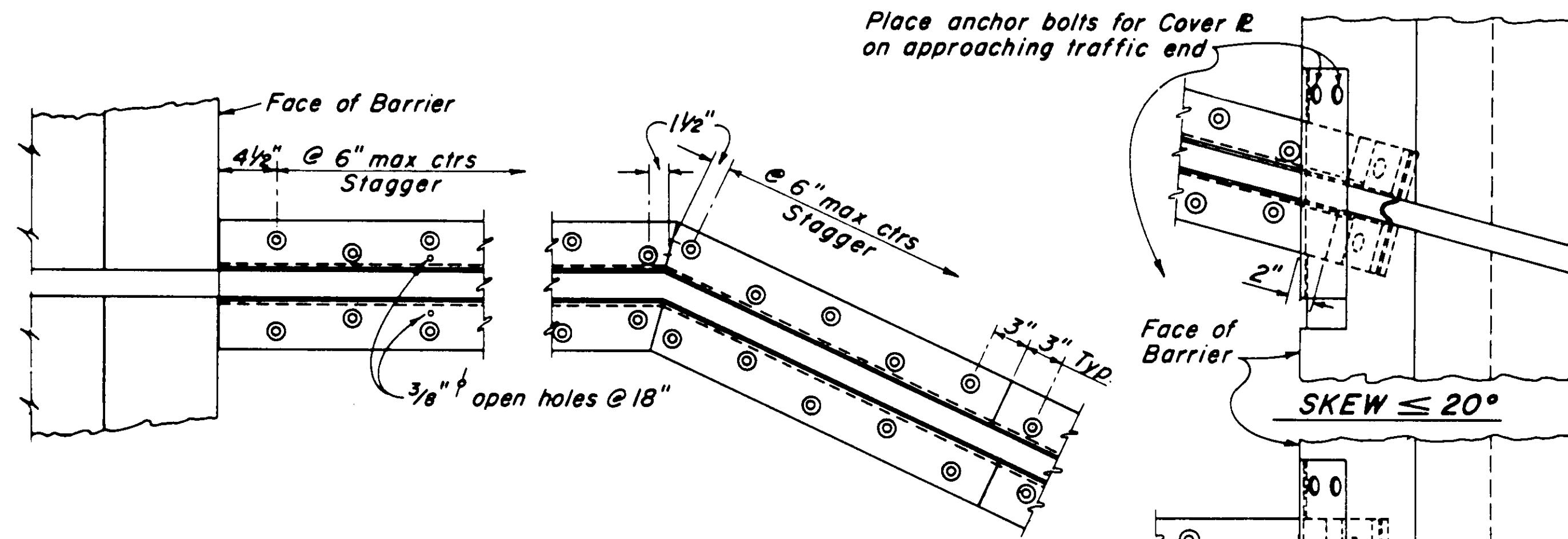
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

OSO PARKWAY BRIDGE OVER ARROYO TRABUCO

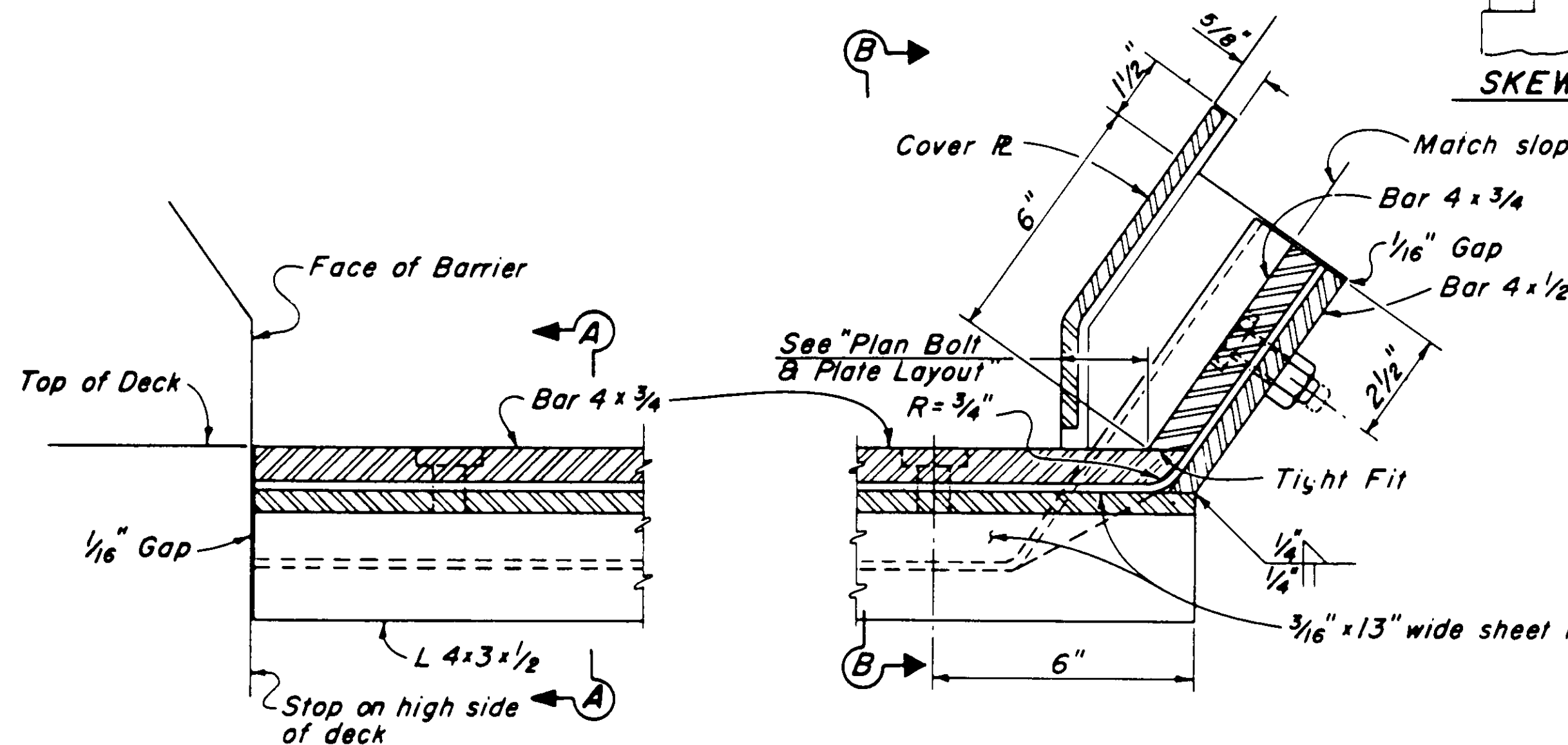
GIRDER LAYOUT - 2

MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF	DATE	SHEET
DESIGNED					50/76
DRAWN					
CHECKED					
AS SHOWN					

SCALE: 1/2" = 1' DATE: 9-10-99 DWG. NO. 50/76

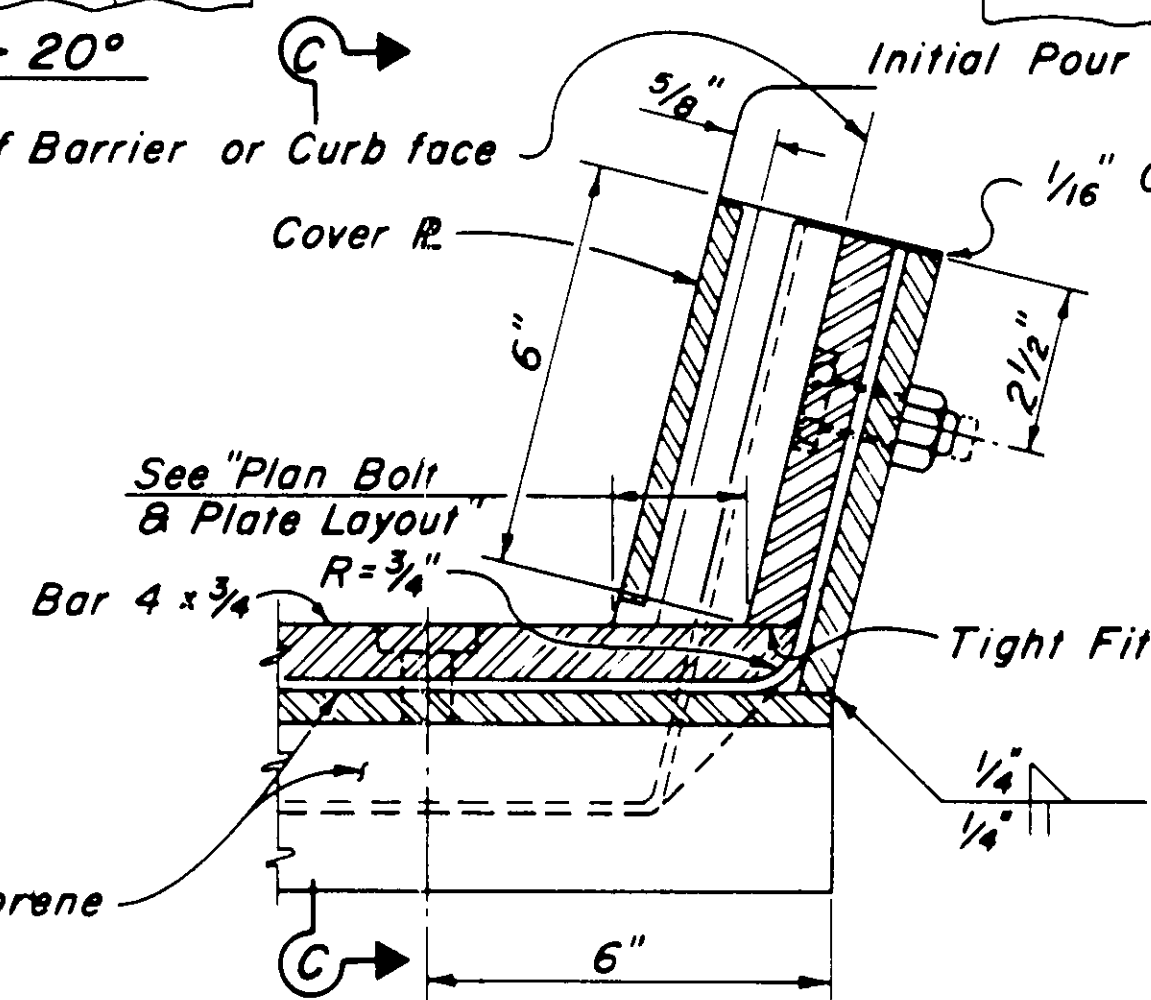


PLAN
BOLT & PLATE LAYOUT

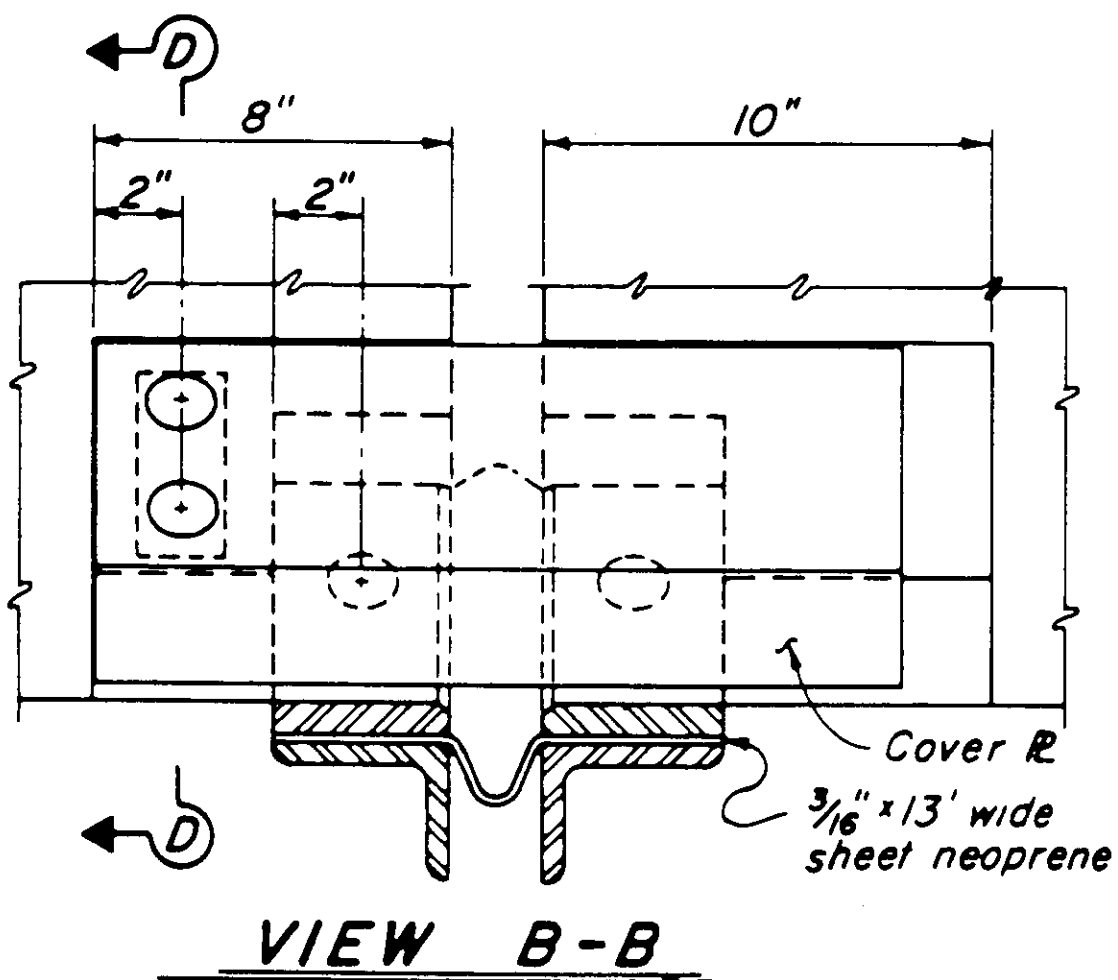


HIGH SIDE BARRIER DETAIL

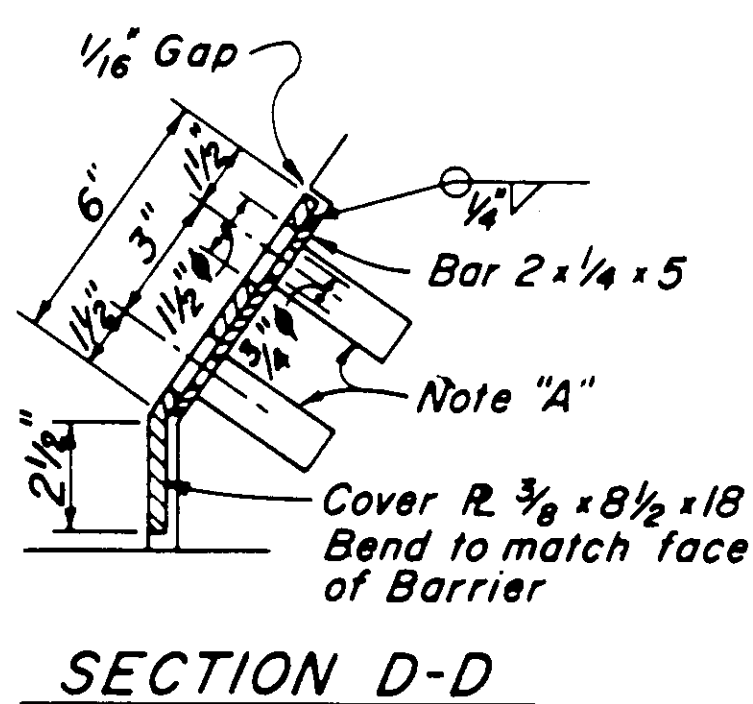
LOW SIDE BARRIER DETAIL
(See Note "B")



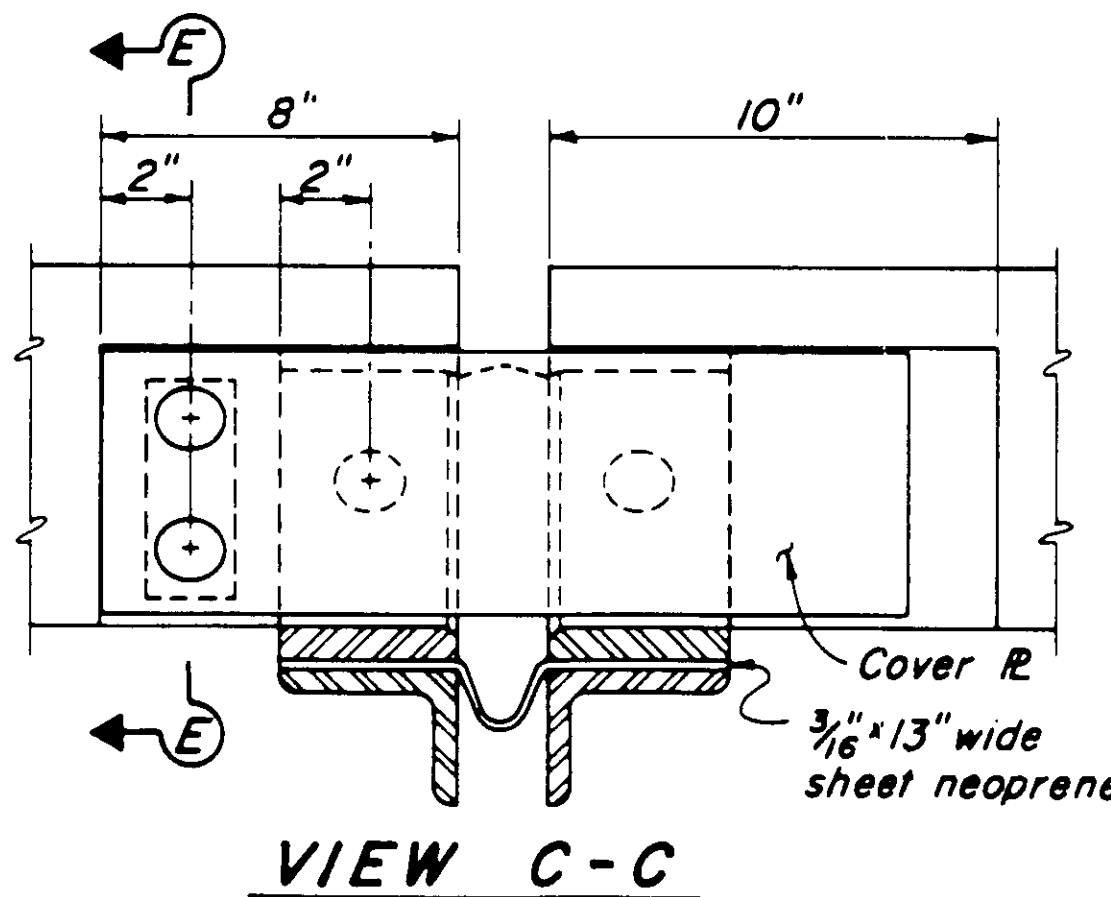
SIDEWALK DETAIL
(See Note "B")



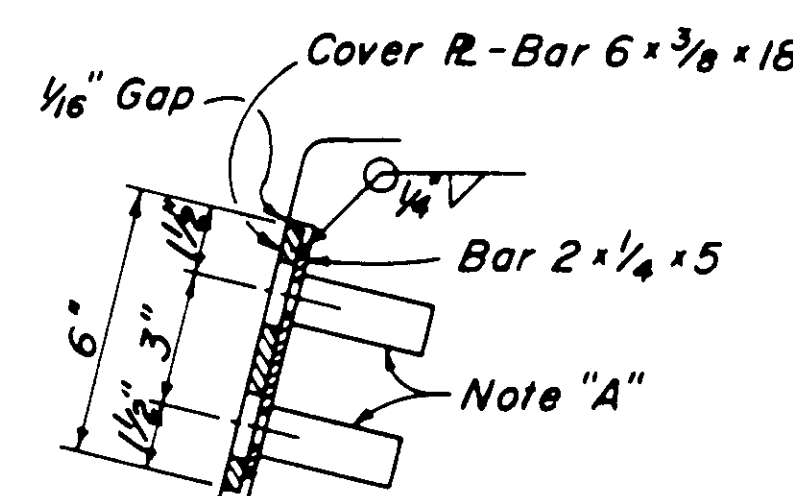
VIEW B-B



SECTION D-D



VIEW C-C



SECTION E-E

SECTION A-A

Notes:

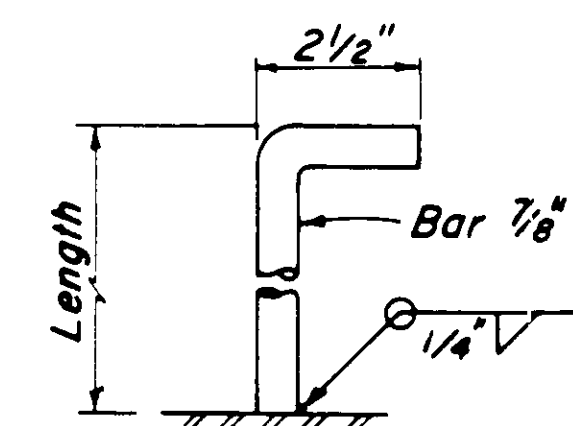
Full penetration butt welds may be substituted for the fillet welds on all anchor studs.
Alternate types of anchor studs may be permitted subject to the approval by the Engineer.
Joint seal assembly to be used in conjunction with closure pour. (See other sheets for limits). Closure pour shall not be placed until final deck surface is within the tolerance specified.
Joint seal assembly to be fabricated in 14' max lengths. Use joint at crown of roadway, at any change in transverse slope in deck, and at changes in horizontal direction. Place other joints at or near lane lines. All metal parts to be galvanized after fabrication.
Sheet neoprene shall be fabricated in one continuous piece or joints shall be vulcanized. Neoprene shall be fabricated to bend around corners. 1" holes in neoprene sheets shall be drilled or punched so that the neoprene is not distorted at the time of installation.

Note "A"

Insert assembly or expansion anchorage for 3/8x1 3/4 A-325 bolt.

Note "B"

Use the Sidewalk Detail at all sidewalk joints. Use the Barrier Detail at both sides if the roadway is crowned or if the difference in elevation between the ends of the seal is 0.5' or less.



ANCHOR STUD

Note:
Stagger anchor studs @ $4\frac{1}{2}" \pm$ on centers thus:

Accessed Hole-Type
 ϕ Hole in Bar
Angles-Type
 $3\frac{1}{8}"$
Top of Deck

Use installation bolts extended $\frac{1}{2}"$ min and coat with bond breaker. After concrete has cured, remove installation bolts, install A-325 bolts and sheet neoprene.

$7/8" \times 12"$ anchor studs @ $9" \pm$
Closure Pour Limits
Tack weld nut to angle at 2 locations.

$7/8" \times 8"$ anchor studs @ $9" \pm$ (5" long overhang)
wide sheet neoprene.
Match existing joint width for closure pour

Joint Information		"a" Dimensions Ambient Structure Temperature			
Location	Movement Rating (MR)	Skew	25-50	51-80	81-110
Hinge	3"	$20^{\circ}00'00"$	$1\frac{5}{8}"$	$1\frac{1}{4}"$	$3/4"$
Abut 6	$3\frac{1}{2}"$	$29^{\circ}15'08"$	2"	$1\frac{1}{2}"$	$3/4"$

McDANIEL ENGINEERING COMPANY, INC.
2880 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • (619) 592-1820

ENGINEER OF WORK:
W Mark Ashley RCE EXP 8-10-88
DESIGNED: C34298
DRAWN: RCE

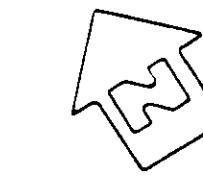
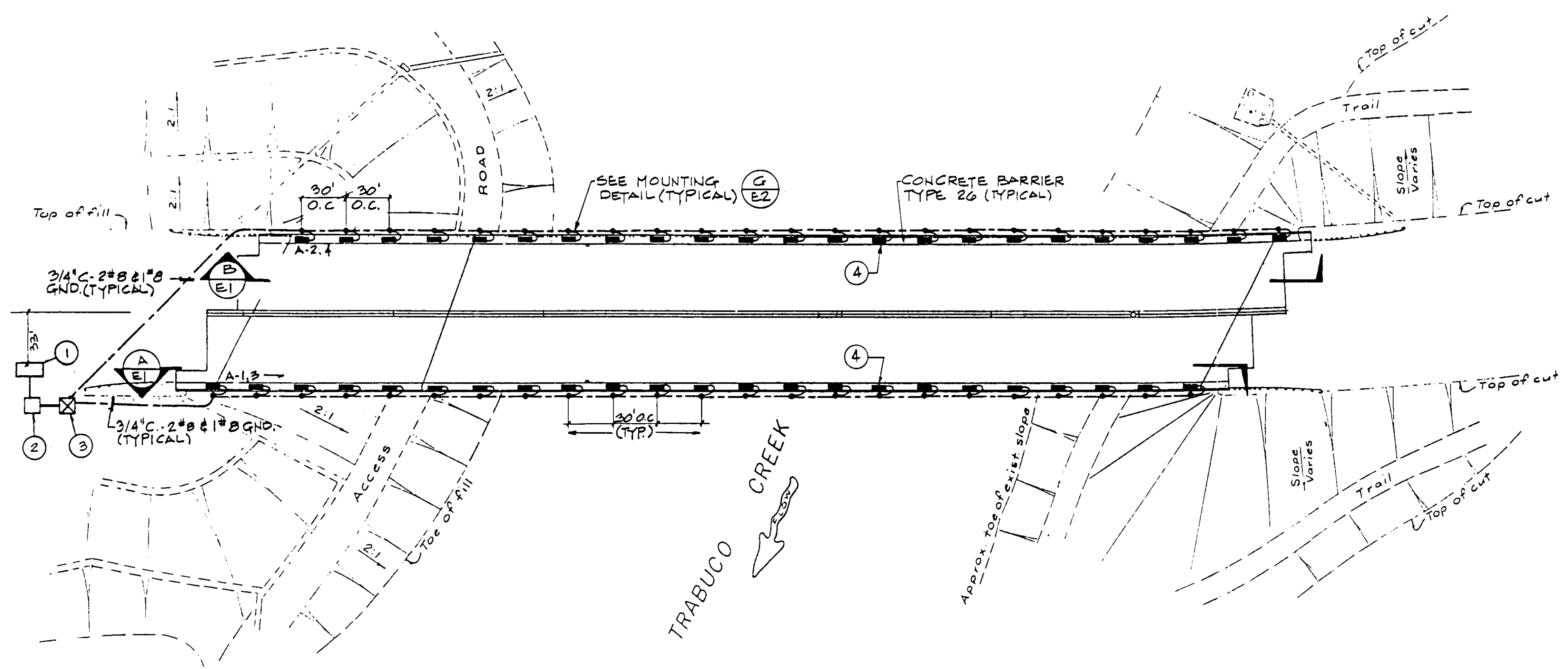
55C-606

1/2 0 2
3 inches on original drawing

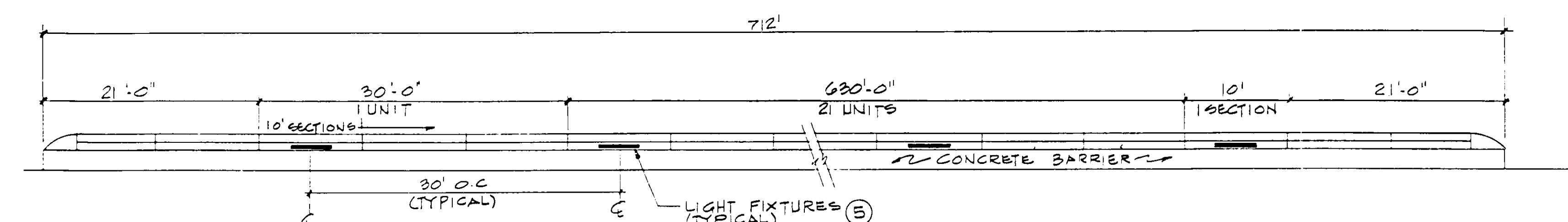


ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO			
JOINT SEAL ASSEMBLY (Max. MR = 4")			
MARK	DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF
REVISIONS			
DESIGNED	DATE	SCALE	DWG. NO.
DRAWN	CHECKED	AS SHOWN	

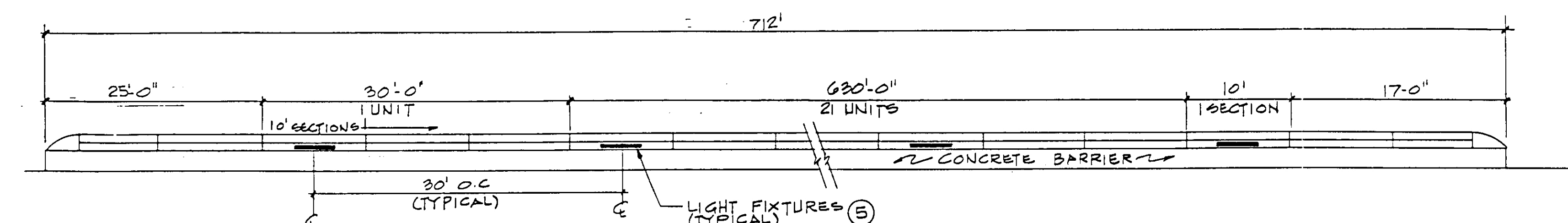
54/76



PLAN
1" = 50'



ELEVATION A
E1



ELEVATION B
E1

SYMBOL LIST:

- 4' FLUORESCENT ROADWAY LIGHT, STERNER CFL TYPE OR EQUAL FURNISHED WITH VANDAL PROOF SCREWS AND LENS.
- 240V. REMOTE BALLAST IN WEATHER-PROOF ENCLOSURE. ENCLOSURE SHALL BE LISTED FOR THROUGH WIRING.
- 1/2" LIQUID TIGHT FLEX- 2#12 @ 12" GND.
- CONDUIT RUN EXPOSED
- CONDUIT RUN UNDERGROUND OR CONCEALED IN CONCRETE
- NTS NOT TO SCALE.
- O.C. ON CENTER
- S.D.G. & E. SAN DIEGO GAS & ELECTRIC
- C CENTER LINE
- A-1,3 LETTER DENOTES PANEL IDENTIFICATION, NUMBERS DENOTE CIRCUIT NUMBER.

NOTES:

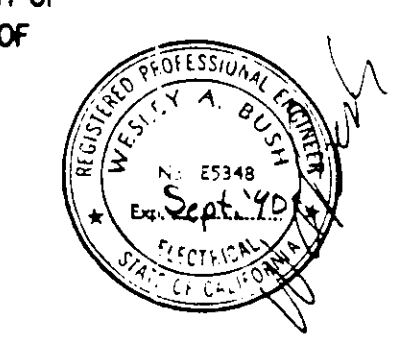
- 1 PROPOSED LOCATION OF S.D.G. & E. HANDHOLE.
- 2 FUTURE TRANSFORMER LOCATION SERVICE POINT. VERIFY EXACT LOCATION & REQUIREMENTS WITH S.D.G. & E.
- 3 100A SERVICE PEDESTAL PANEL "A". SEE DETAIL A ON SHEET E-2.
- 4 LIGHT FIXTURES SHALL BE LOCATED DIRECTLY OPPOSITE TO EACH OTHER.
- 5 LIGHT FIXTURES SHALL BE CENTERED BETWEEN HANDRAIL POSTS. LOCATION OF EACH LIGHT FIXTURE MUST BE COORDINATED WITH HANDRAIL POSTS.

55C-606

PANEL: A				VOLTAGE/PHASE: 120/240V 1Ø 3W				FED FROM: 500E TRANSFORMER										
LOCATION: WEST END OF BRIDGE				BUS AMPS: 100														
MOUNTING: PEDESTAL				MAIN BREAKER: 100														
REMARKS	OUTLETS			WATTS/WA			BRKR/			WATTS/WA			OUTLETS			REMARKS		
	LTØ	REC	MISC	A	B	CKT	POLE	A	B	BRKR/	POLE	CKT	A	B	MISC		REC	LTØ
SOUTH SIDE LIGHTS	23			1553	X	1-	20/2	-	-	20/2	2-	1553	X				23	NORTH SIDE LIGHTS
SOUTH SIDE LIGHTS	-			X	1553	3-	-	-	-	-	4-	X	1553				-	NORTH SIDE LIGHTS
CONTROL CIRCUIT			1	100	X	5-	20/1	-	-		6-	X						SPACE
SPACE				X		7-					8-	X						SPACE
SPACE					X	9-					10-	X						SPACE
SPACE				X		11-					12-	X						SPACE
TOTAL #A = 3206 WATTS																		
TOTAL #B = 3106 WATTS																		
LCL = 1553 WATTS																		
TOTAL 7865 W/WA @ 240V 1Ø = 32.8 AMPS																		

1 1/2 0 1 2
3 inches on original drawing

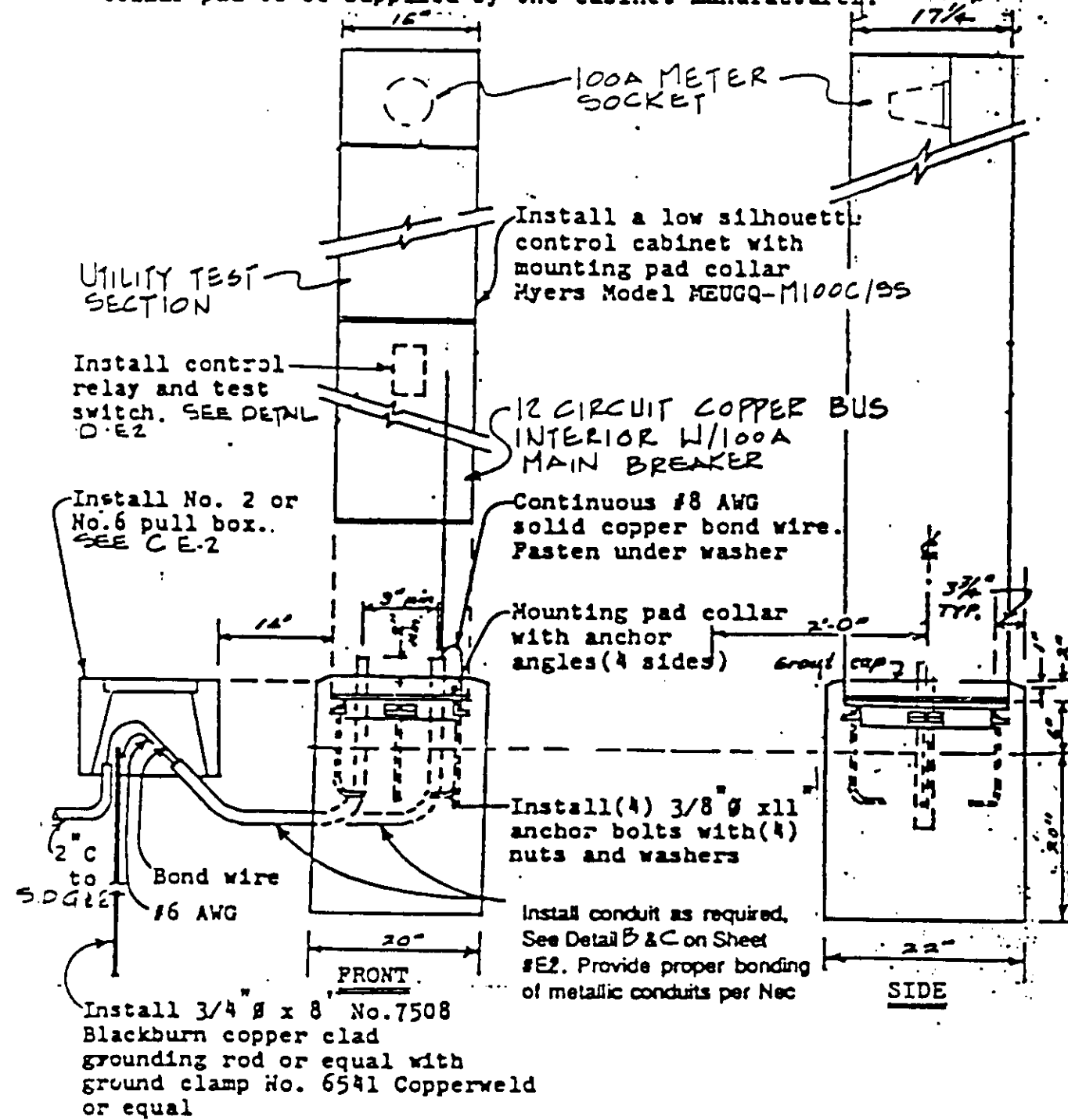
INDEX TO STANDARD PLANS
THE FOLLOWING STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS ARE A PART OF THESE CONTRACT DRAWINGS ES-7D AND ES-8



SPARVAN INCORPORATED
ELECTRICAL & CONTROL SYSTEM ENGINEERS
4140 NORSE WAY
LONG BEACH, CA 90808
PHONE (714) 425-1213

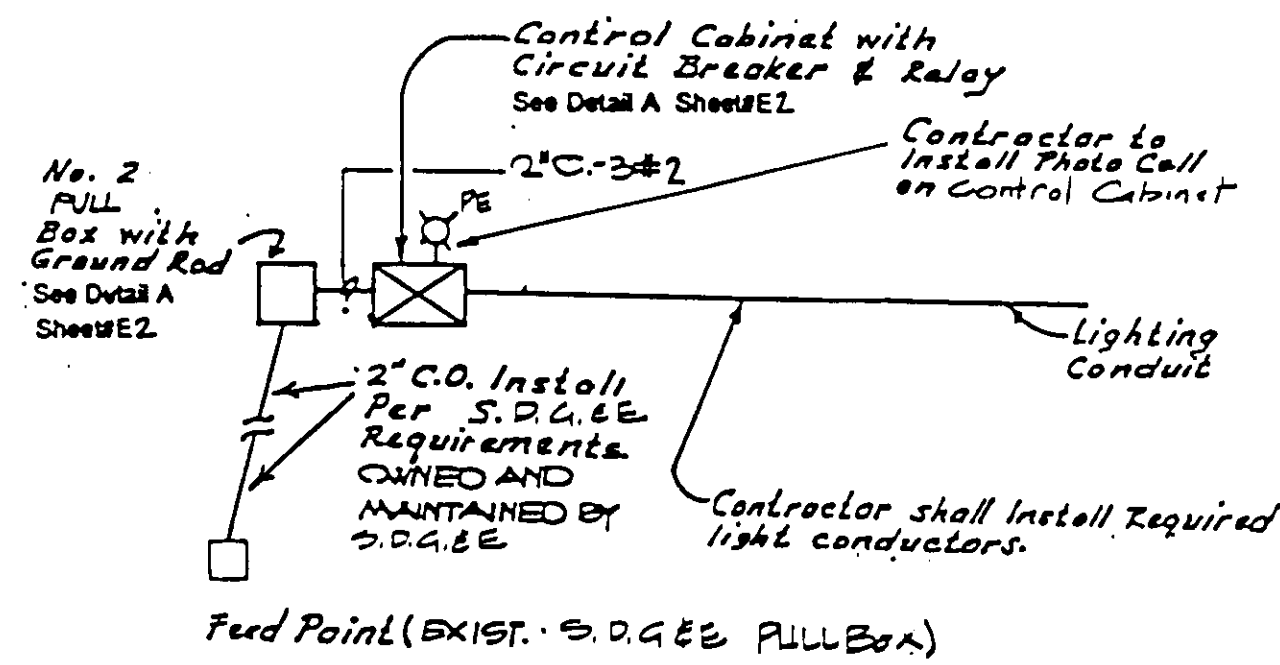
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
OSO PARKWAY BRIDGE OVER ARROYO TRABUCO	
BRIDGE LIGHTING PLAN	
MARK DATE DESCRIPTION	PREPARED UNDER SUPERVISION OF DATE
DESIGNED DATE	SCALE DATE
DRAWN CHECKED	AS SHOWN DATE
SHEET 56/76	

1. Contractor shall provide 2 ea. renewable padlocks as required. PSI-Best Co.
2. Hinged access door.
3. Contractor to furnish Photo Cell.
4. Contractor to furnish one 15A circuit breaker for control circuit and three #12 THW stranded conductors with tracer.
5. The control cabinet shall be mounted on a 12-1/2" x 14-1/4" mounting collar pad to be supplied by the cabinet manufacturer.



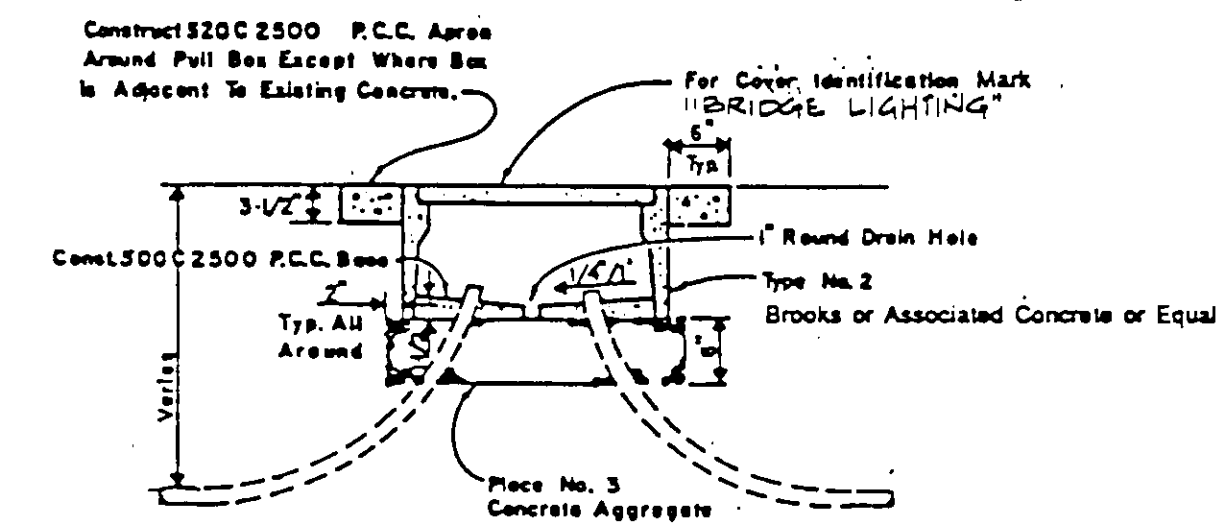
MULTIPLE CIRCUIT CONTROL CABINET & FOUNDATION

A
E2



DETAIL OF FEED POINT W/ P.E.

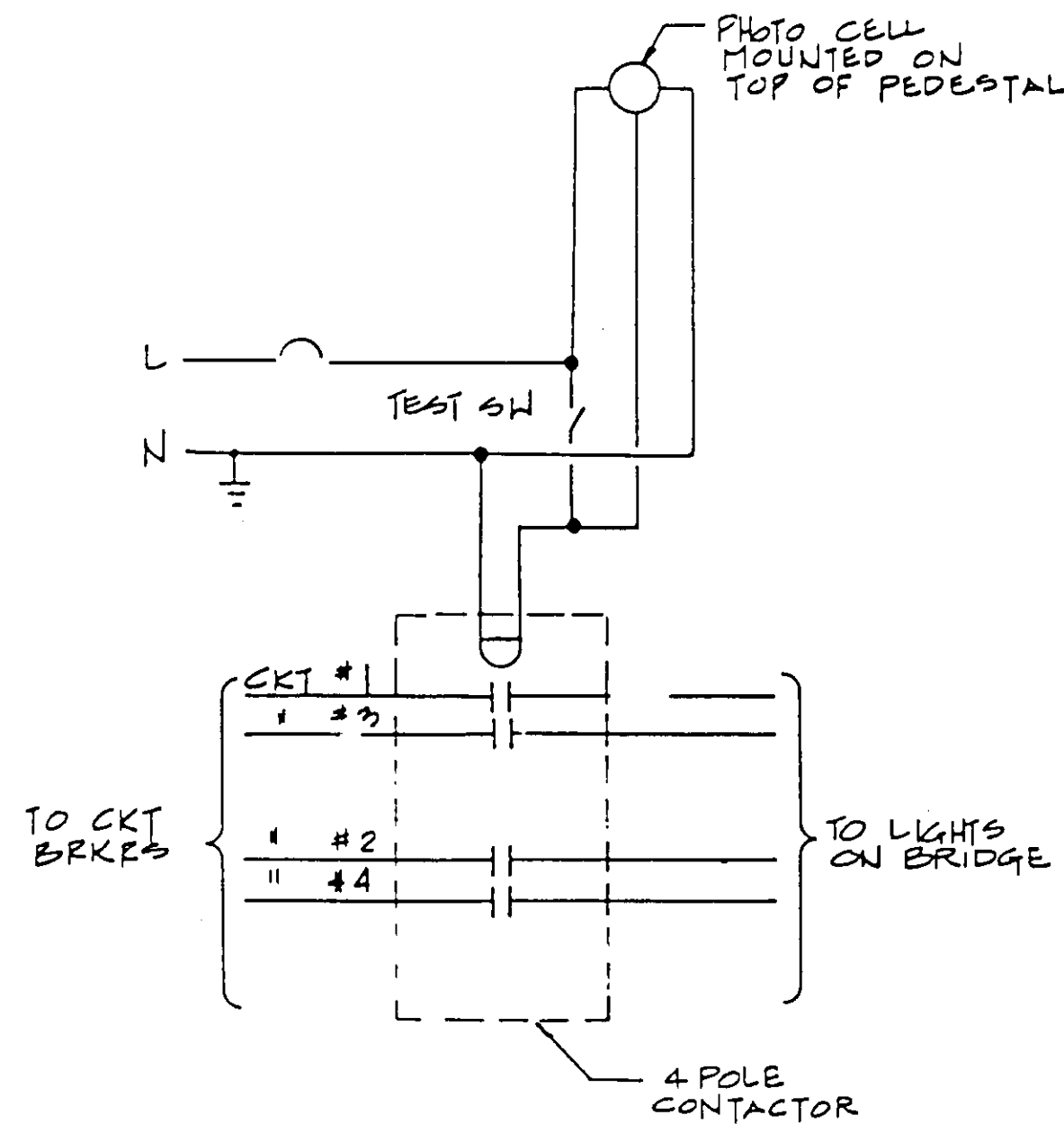
B
E2



TYPICAL PULL BOX INSTALLATION

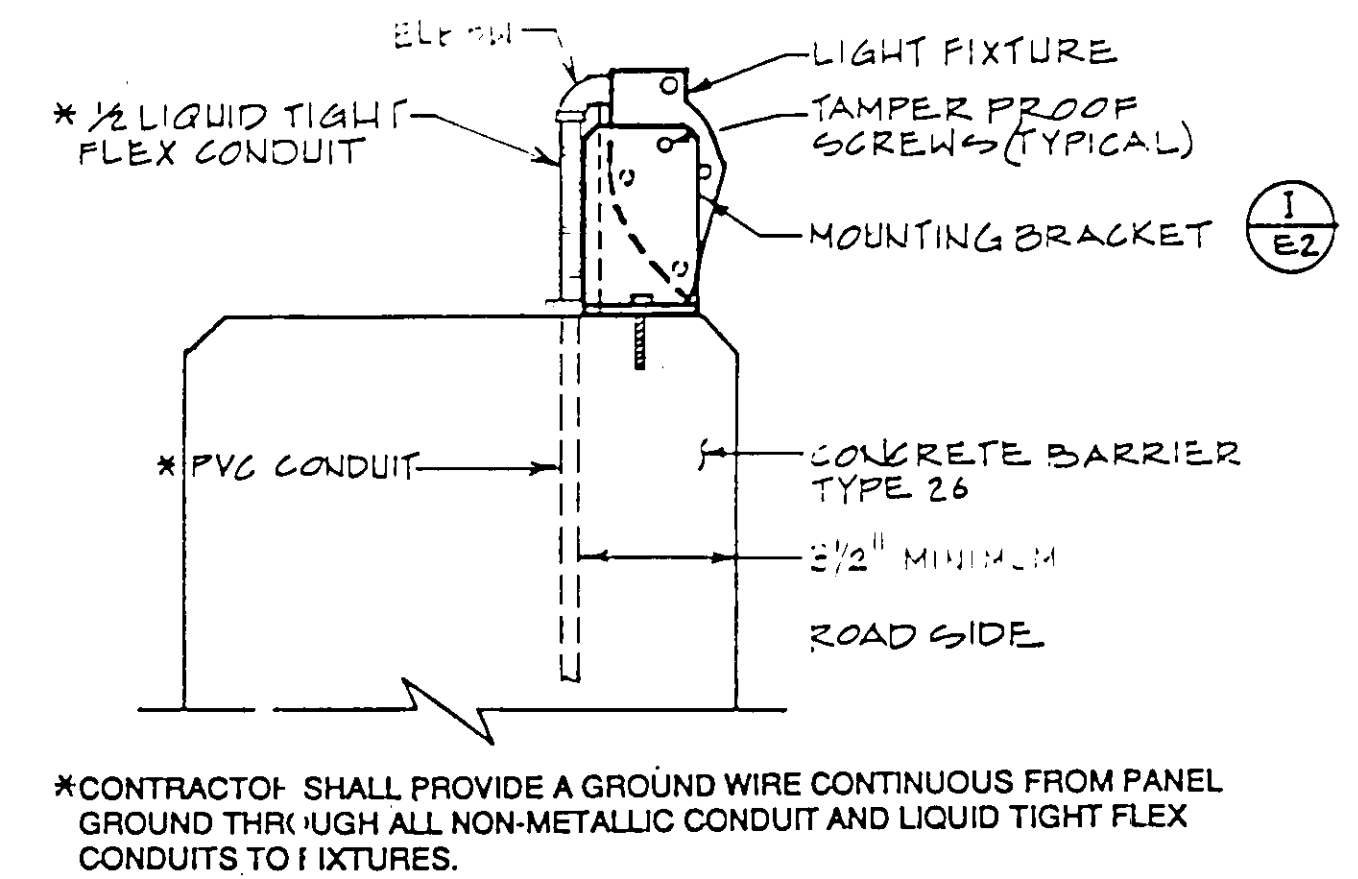
PULL BOX TYPE NO. 2

C
E2



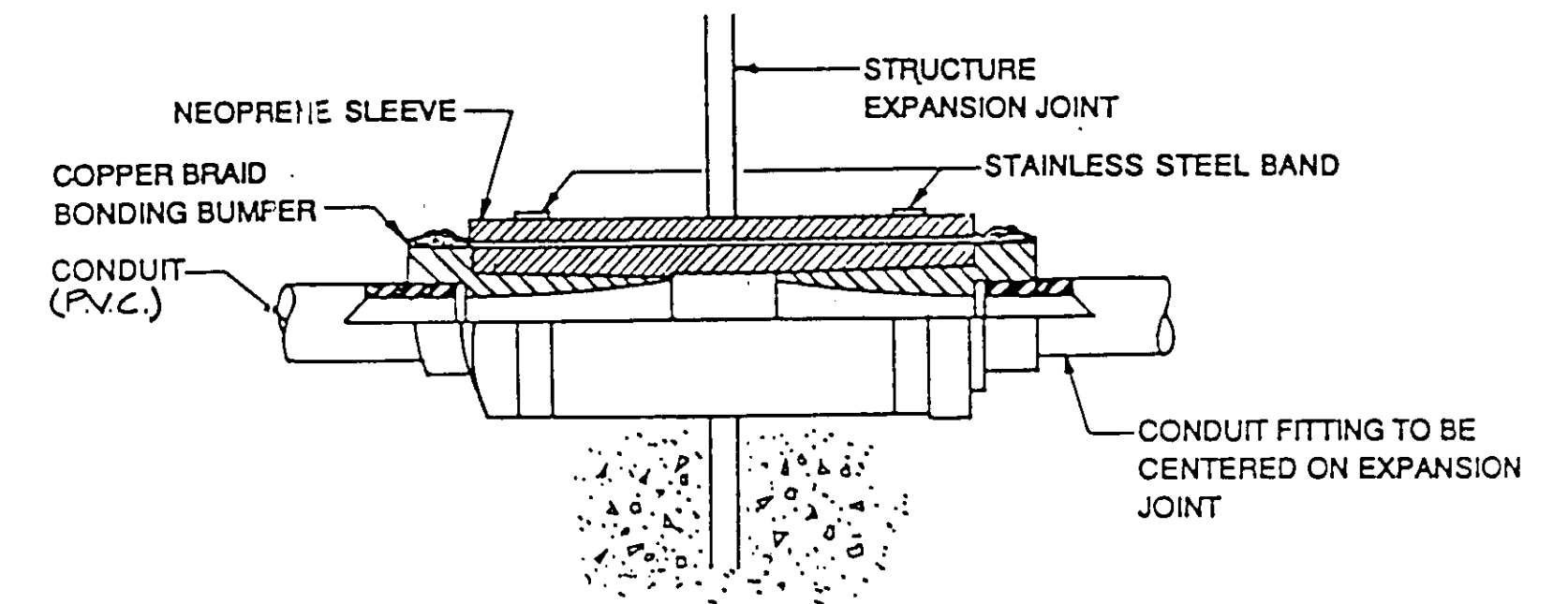
CONTROL DIAGRAM

D
E2



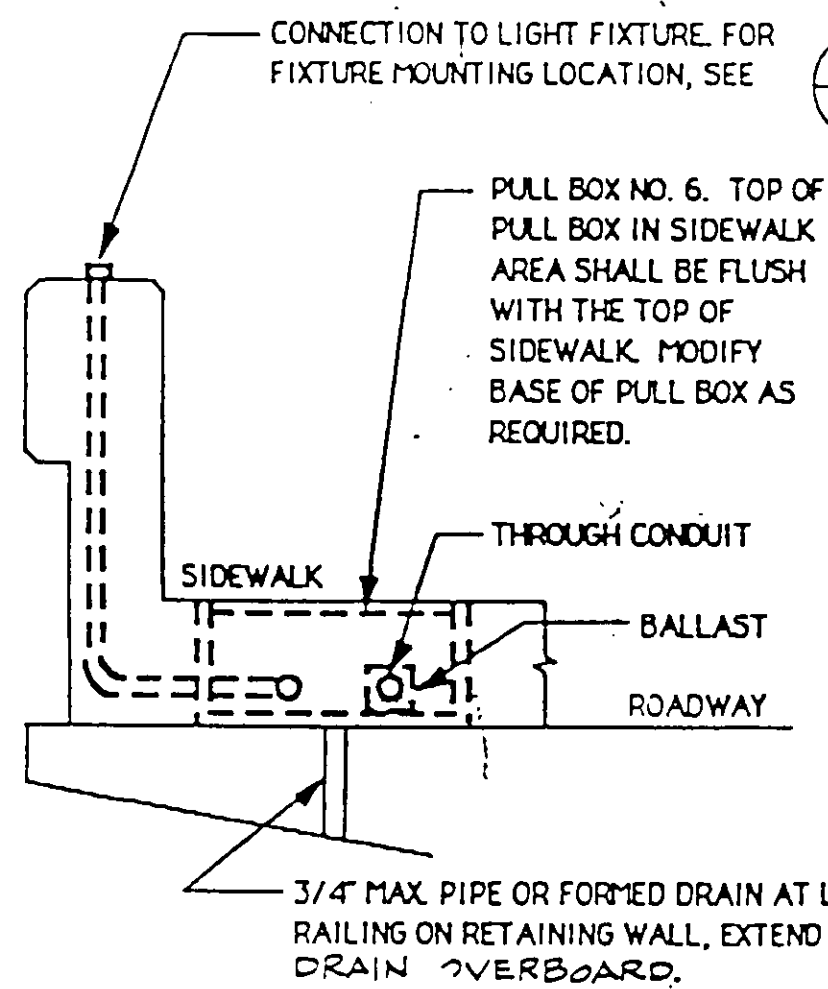
FIXTURE MOUNTING DETAIL

E
E2

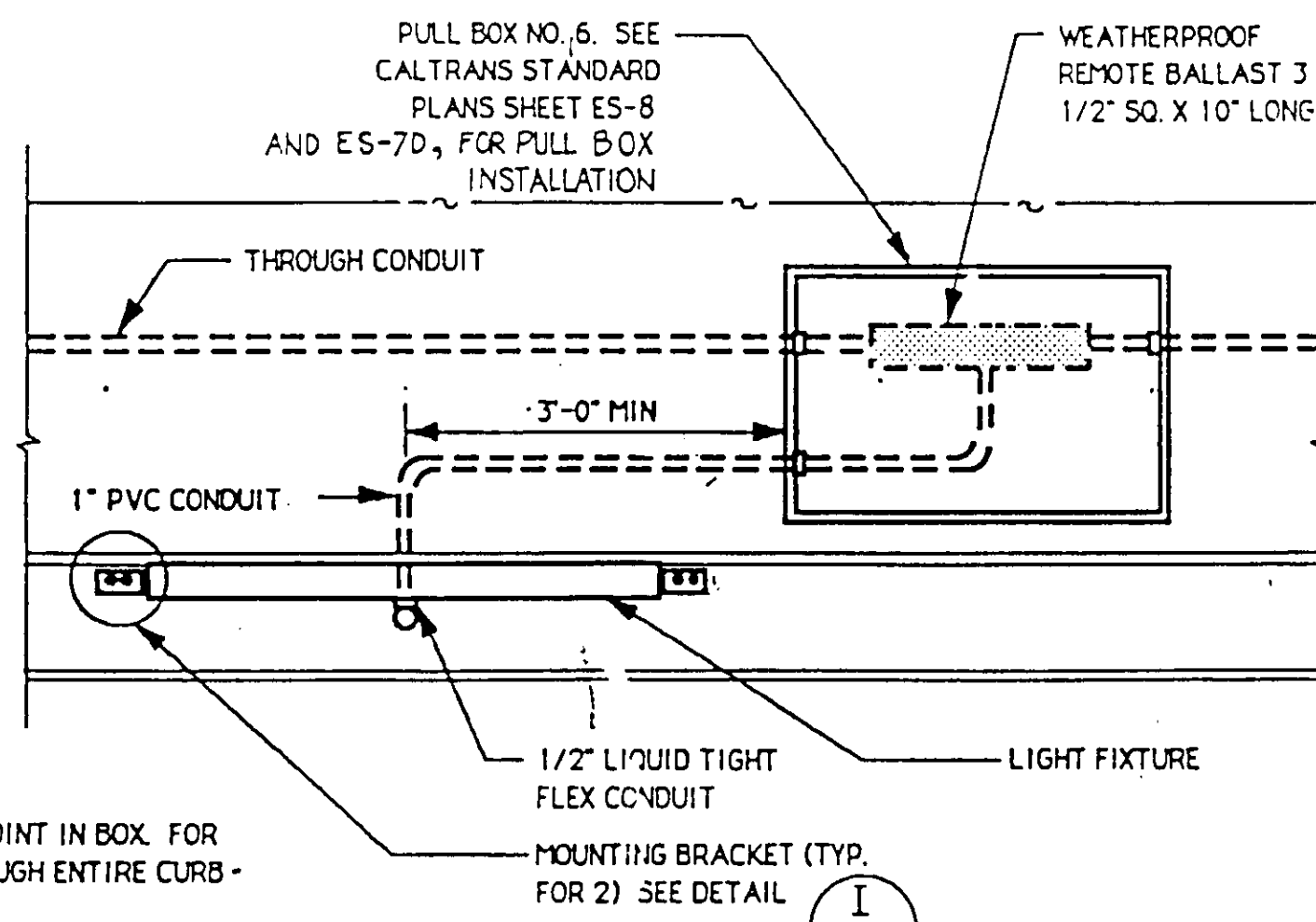


DETAIL Y CONDUIT EXPANSION DEFLECTION FITTING

F
E2



SECTION



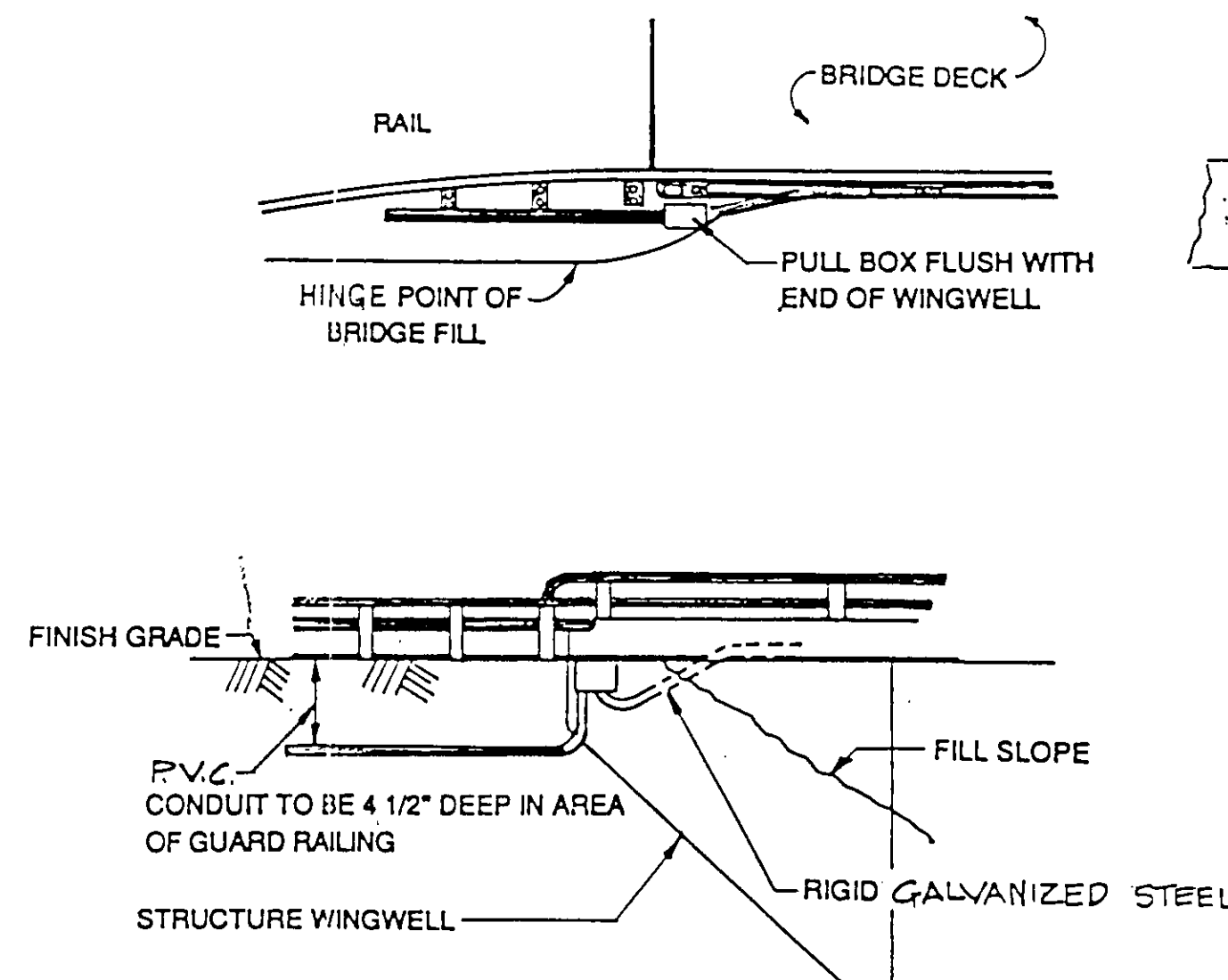
TOP VIEW

FIXTURE & PULL BOX NO. 6 MOUNTING DETAIL

3/4" = 1'-0"

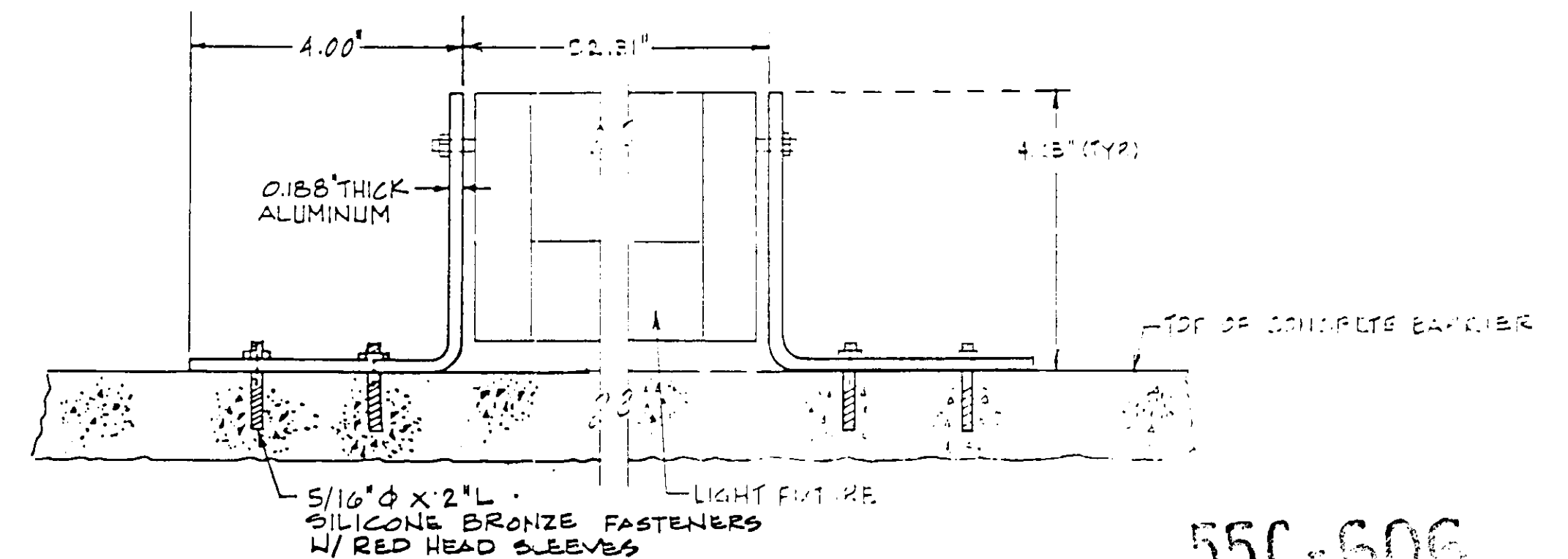
FOR CONCRETE BARRIER TYPE 26

G
E2



DETAIL I CONDUIT TERMINATION

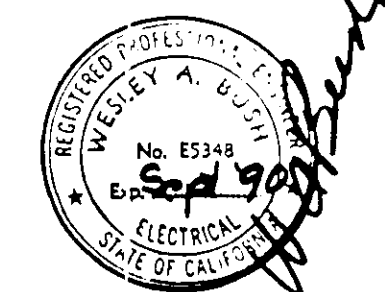
H
E2



MOUNTING BRACKET DETAIL

I
E2

1/2 0 1 2
3 inches on original drawing



SPARVAN INCORPORATED
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4140 HORSE WAY
LONG BEACH, CA 90808
PHONE (714) 425-1233

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
OSC PARKWAY BRIDGE OVER ARROYO TRABUCO			
BRIDGE LIGHTING DETAILS			
DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF	SHEET
REVISIONS		DATE	57
DESIGNED: 2 MANID	SCALE: AS SHOWN	DATE	DWG. NO.
DRAWN: AS SHOWN	CHECKED: WAB	DATE	76