

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

SANTA ANA, CALIFORNIA
JOHN W. SIBLEY, ACTING DIRECTOR

PLANS FOR CONSTRUCTION OF ANTONIO PARKWAY PHASE II ORTEGA HIGHWAY TO 8,340 FT NORTHERLY

FUNDED BY: ROAD FUNDS

EMA - PUBLIC WORKS

SUBMITTED: *[Signature]*
ROAD DESIGN CHIEF

RECOMMENDED: *[Signature]*
DESIGN DIVISION MANAGER

APPROVED: *[Signature]*
DIRECTOR OF PUBLIC WORKS

DATE: 11/1/96

DATE: 2-21-99

DATE: 11/1/96

REVISIONS				
NO.	DESCRIPTION	SHEETS	APPROVED	DATE
1	REVISED NOTE	38, 39, 40, 41, AND 42	<i>[Signature]</i>	12-24
2	REVISED SECTION	38, 39, 40, 41, 42, 43, AND 44	<i>[Signature]</i>	12-24
3	REVISED DETAIL	40, 41, AND 42	<i>[Signature]</i>	12-24
4	REVISED TERRACE DRAIN	ADDED 7D, 8D, 9E, 10E, 11E, 12E	<i>[Signature]</i>	12-24
5	ADDITION OF C/DH @ BENT 2	60 AND 63	<i>[Signature]</i>	12-24
6	AS BUILT SHOWN	51, 52, 54, 64	<i>[Signature]</i>	12-24
		7, 8, 9, 10, 11, 21, 22, 26		
		27, 31, 32, 33, 37, 44, 86, 88		

INDEX OF SHEETS	
SHEET	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS
3	CONSTRUCTION NOTES
4	TYPICAL PAYLINE SECTIONS
5	INDEX MAPS
6-11	PLAN SHEETS
12-17	PROFILE SHEETS
18-19	DETAIL SHEETS
20-25	STORM DRAIN - PLAN
26-31	STORM DRAIN - PROFILE
32	SMWD ACCESS ROAD CULVERT
33-42	DETAIL SHEETS
43-44	CROSS DRAINAGE
45-48	DETAIL SHEETS
49-75	SAN JUAN CREEK BRIDGE
76-78	SDG&E UTILITY DETAILS
79-82	CVWD WATER LINE RELOCATION
83-85	SMWD LAND OUTFALL RELOCATION
86-87	SMWD ACCESS ROAD RELOCATION
88-119	CROSS SECTIONS
120-126	GEOTECHNICAL PLATES

UTILITY OWNER	PHONE NO.	CONTACT
SANTA FE PACIFIC PIPELINE PARTNERS	(714) 560-4944	GEORGE REED
SAN DIEGO GAS & ELECTRIC	(714) 361-8047	PATTI GOOD
THE GAS COMPANY	(714) 634-3041	JIM BEVANS
PACIFIC BELL	(714) 348-0595	SANDY WALTER
PACIFIC BELL	(714) 666-5707	BILL LOWING
COX COMMUNICATIONS	(714) 220-8828	MARTY ZUPANCIC
CAPISTRANO VALLEY WATER DISTRICT	(714) 493-1515	CRAIG HARRIS
SANTA MARGARITA WATER DISTRICT	(714) 459-6582	JAIME AGUILAR
SAN JUAN BASIN AUTHORITY	(714) 489-7735	MATT SMITH
SANTA MARGARITA RANCH OPERATIONS	(714) 493-1571	GARY JACKSON

BENCH MARK:

THE ELEVATIONS SHOWN HEREON ARE IN TERMS OF THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, BASED LOCALLY UPON THE ORANGE COUNTY SURVEYOR'S 1995 ADJUSTMENT FOR BENCHMARKS OSO-C-91: ELEVATION 540.048' AND Y-312: ELEVATION 282.478'

OSO-C-91 IS AN OSC 3 3/4" ALUMINUM BENCHMARK DISK STAMPED "OSO-C-91" FLUSH IN A CONCRETE CATCH BASIN, ESTABLISHED BY OCS IN 1991

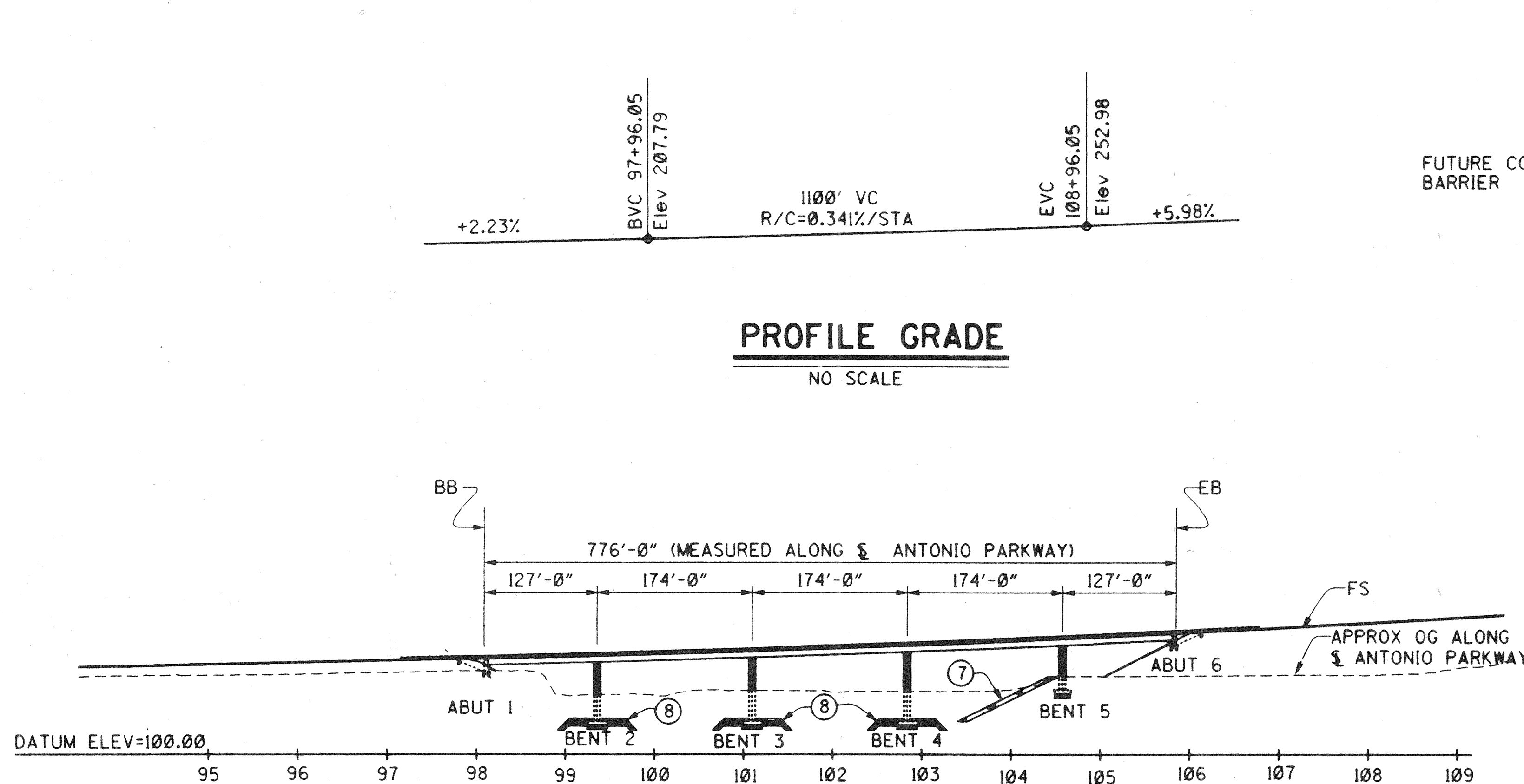
Y-312 IS STANDARD 3" BRONZE DISK ESTABLISHED BY USC & GS IN 1935

BASIS OF BEARINGS:

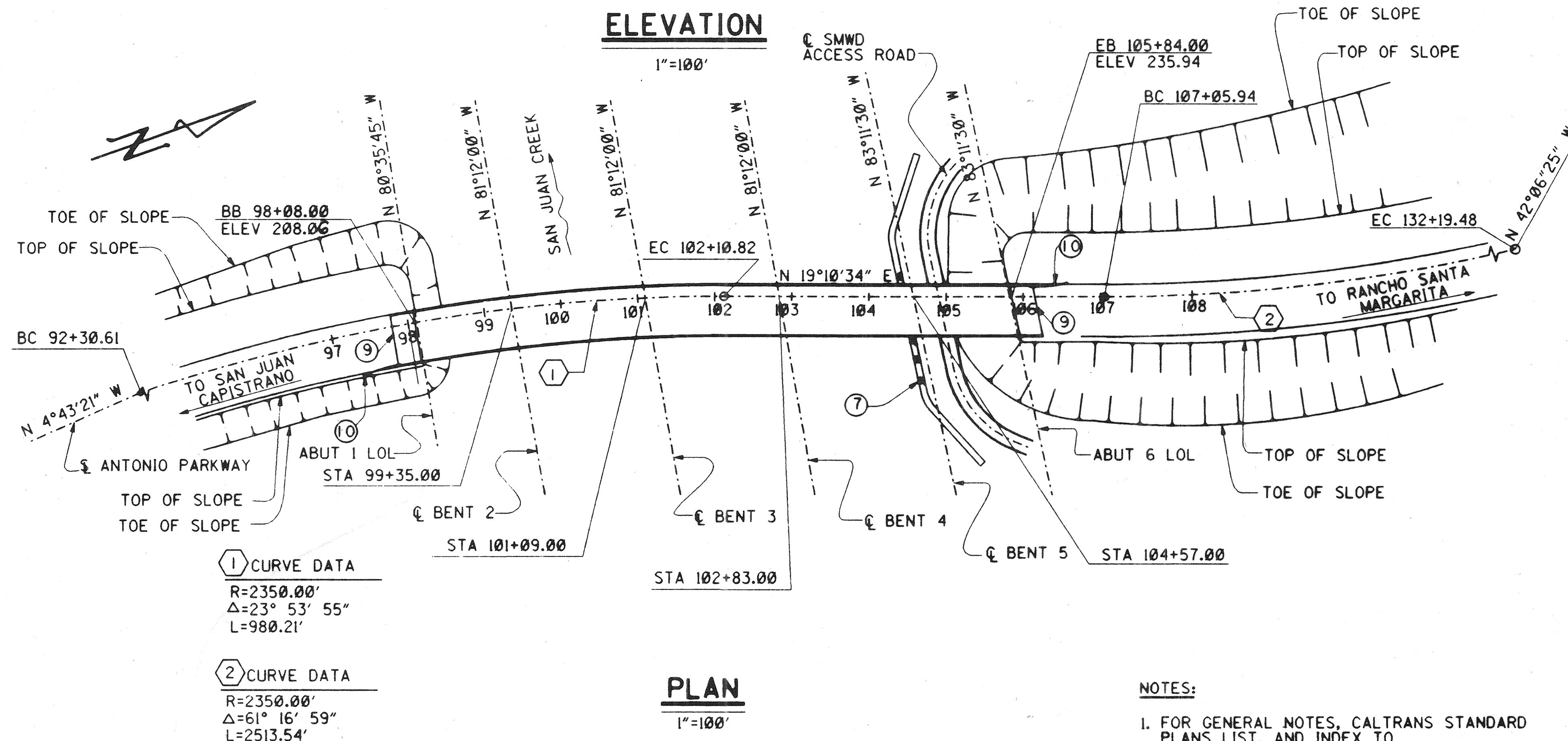
THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN OCS HORIZONTAL CONTROL STATION GPS #0198 AND STATION GPS #0742, BEING N 59°45'19" E, PER RECORDS ON FILE AT THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NAD (1991.35 EPOCH ADJUSTMENT).

DR. 3 (16158)



PROFILE GRADE
NO SCALE

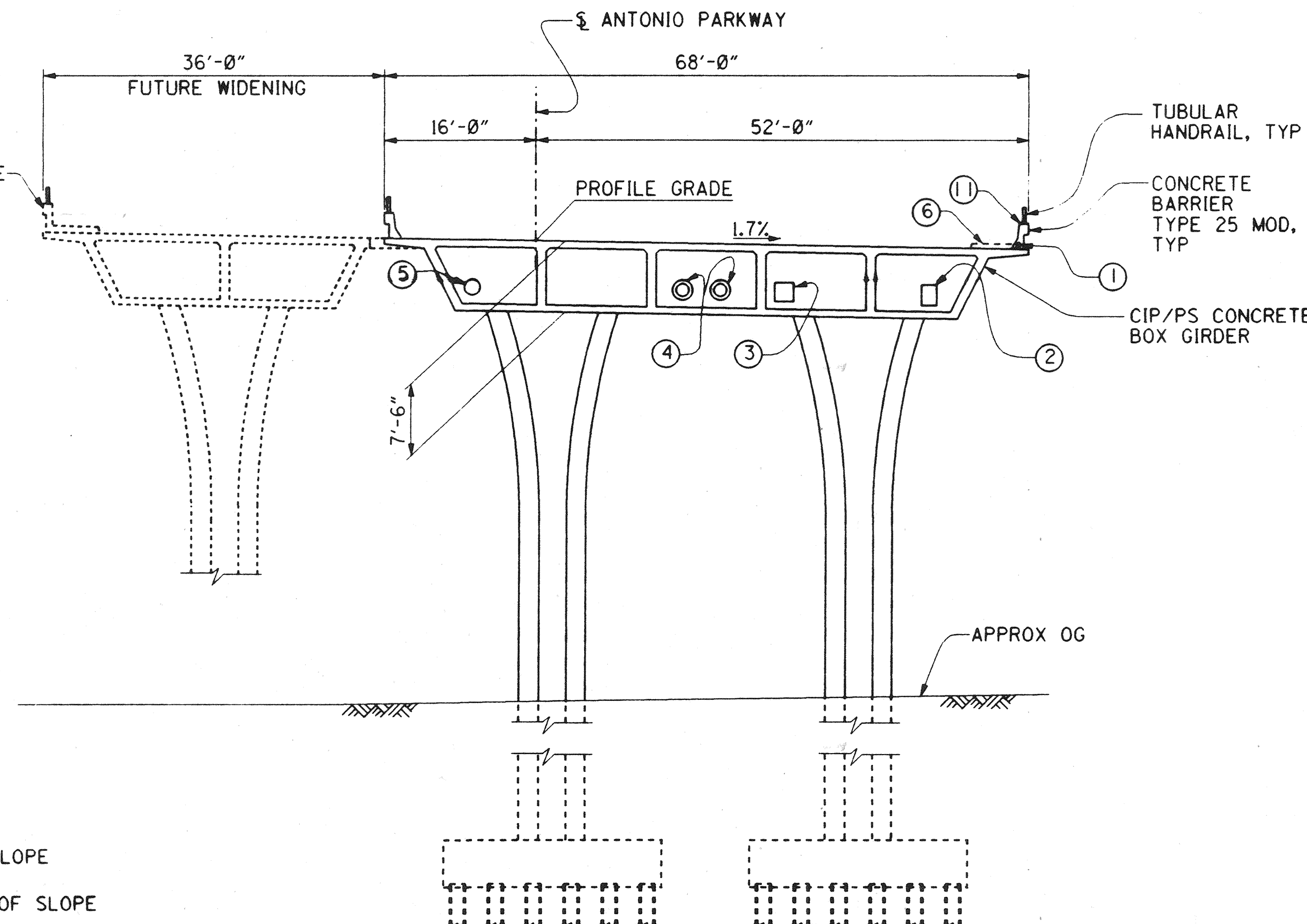


ELEVATION
1"=100'

PLAN
1"=100'

NOTES:

1. FOR GENERAL NOTES, CALTRANS STANDARD PLANS LIST, AND INDEX TO PLANS, SEE "INDEX TO PLANS" SHEET. FOR FILE DATA, SEE "FOUNDATION PLAN NO.1" SHEET.
2. FOR DECK DRAIN LOCATIONS, SEE "DECK DRAIN DETAILS" SHEET.

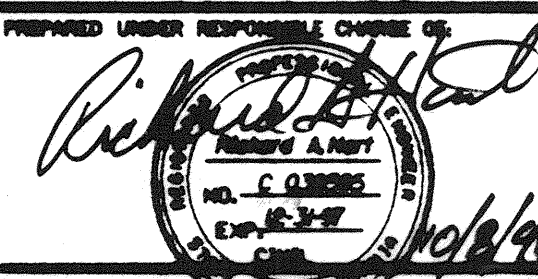
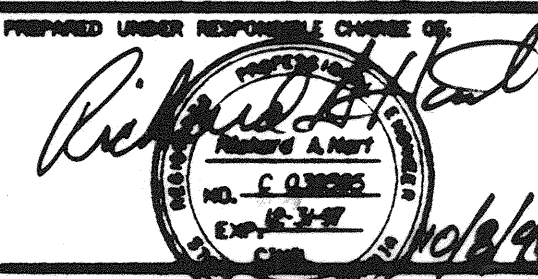


TYPICAL SECTION
1"=10'-0"

LEGEND

- INDICATES NEW STRUCTURE
- - - INDICATES FUTURE STRUCTURE
- ① = 2 - 4" CONDUITS (COX CABLE)
- ② = UTILITY OPENING (SDG&E) FOR DIMENSIONS, SEE "TYPICAL SECTION" SHEET
- ③ = 24"x24" UTILITY OPENING (PAC BELL)
- ④ = 26" Ø UTILITY OPENING (IN BENT CAPS) W/16" CML&C STEEL PIPE (SMWD), SEE "SMWD UTILITY DETAILS" SHEET
- ⑤ = 20" Ø UTILITY OPENING FOR FUTURE 8" HDPE PIPE (SMWD), SEE "SMWD UTILITY DETAILS" SHEET
- ⑥ = FUTURE SIDEWALK
- ⑦ = RIPRAP BANK PROTECTION
- ⑧ = RIPRAP PILE CAP PROTECTION
- ⑨ = STRUCTURE APPROACH TYPE N(30S)
- ⑩ = METAL BEAM GUARDRAIL, TYPE 1 FLARE
- ⑪ = TYPE 9A PULL BOX IN TOP OF BARRIER (TOT 3) SEE "MISCELLANEOUS DETAILS" SHEET

RECORD DRAWING

MARK	DATE	DESCRIPTION
REVISIONS		
PREPARED UNDER RESPONSIBLE CHARGE OF:		
		
		
RICHARD A. HART	DATE	10/6/96
RCE 38805 (EXP. 12-31-97)	SCALE	AS SHOWN

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
GENERAL PLAN	
DESIGNED: Steve A. Whitaker	CHECKED: R. Hart
SCALE: AS SHOWN	DRAWING NO. 49
OF 126	

DR. 3 (16158)
Sheet 49 of 126

1/2" = 0' 1" = 10' 1" = 100' 1" = 1000'

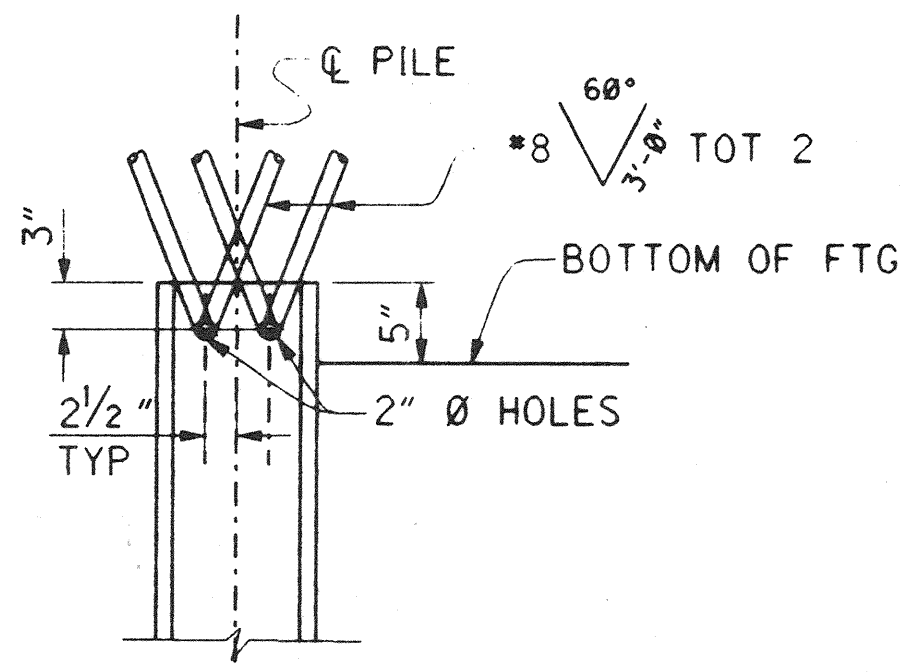
1/27

49

OF 126

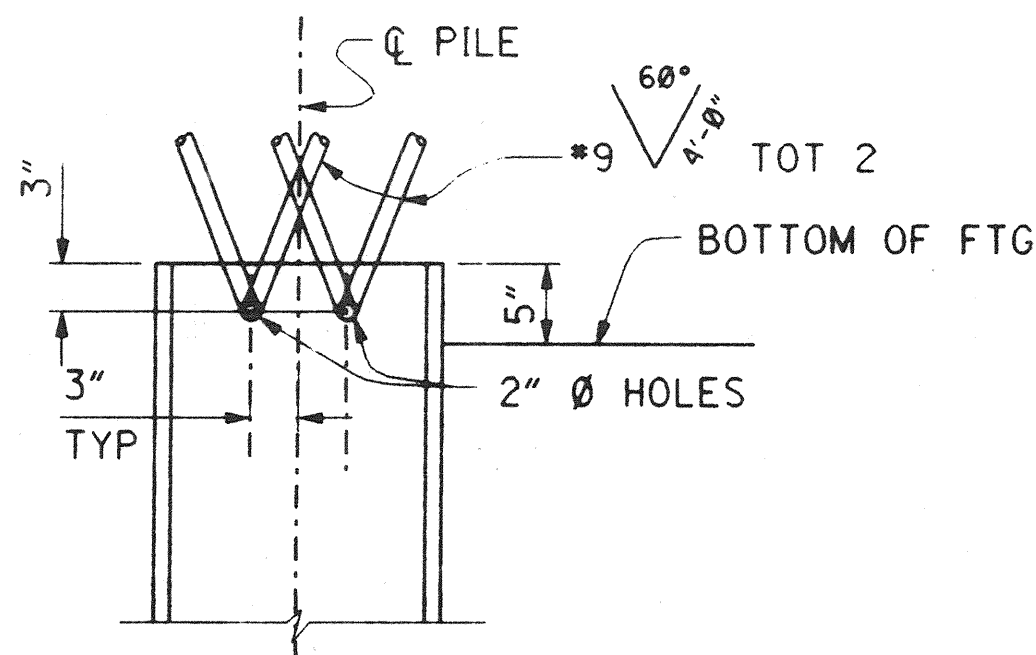
DR. 3 (16158)

CALTRANS STANDARD PLANS DATED JULY 1992



HP 10X57 STEEL PILE ANCHOR

NO SCALE



HP 14X89 STEEL PILE ANCHOR

NO SCALE

A10A	ABBREVIATIONS
A10B	SYMBOLS
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
A77A	METAL BEAM GUARD RAILING
A77B	METAL BEAM GUARD RAILING STANDARD HARDWARE
A77C	METAL BEAM GUARD RAILING POST AND BLOCKS
A77D	GUARD RAIL FLARES
B0-1	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B7-1	BOX GIRDER DETAILS
B7-6	DECK DRAINS TYPES D-1 AND D-2
B7-10	UTILITY OPENING - BOX GIRDER
B7-11	UTILITY DETAILS
B8-5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
B11-51	TUBULAR HAND RAILING
B11-53	CONCRETE BARRIER TYPE 25
ES-7A	SIGNAL, LIGHTING, AND ELECTRICAL SYSTEMS, ELECTRICAL DETAILS, STRUCTURE INSTALLATIONS
ES-7C	SIGNAL, LIGHTING, AND ELECTRICAL SYSTEMS, ELECTRICAL DETAILS, STRUCTURE INSTALLATIONS

GENERAL NOTES LOAD FACTOR DESIGN

DESIGN:	BRIDGE DESIGN SPECIFICATIONS (1992 AASHTO WITH INTERIMS AND REVISIONS BY CALTRANS)
DEAD LOAD:	INCLUDES 35 psf FOR FUTURE WEARING SURFACE
LIVE LOADING:	HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD.
SEISMIC LOADING:	PEAK ROCK ACCELERATION = 0.3g DEPTH OF ALLUVIUM = 10 TO 80 FEET DESIGN BASED ON CURRENT SPECIFICATION WITH DUCTILITY/RISK FACTOR Z= 6.0
REINFORCED CONCRETE:	$f_y = 60,000$ psi $f'_c = 3,500$ psi, UNLESS OTHERWISE NOTED $n = 9$ (SEE "CAMBER DIAGRAM AND CONCRETE STRENGTH & TYPE LIMITS" SHEET) TRANSVERSE DECK SLAB (WORKING STRESS DESIGN) $f_s = 20,000$ psi $f'_c = 1,200$ psi $n = 10$
PRESTRESSED CONCRETE:	SEE PRESTRESSING NOTES ON "GIRDER LAYOUT" SHEETS.

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	STRUCTURE PLAN NO. 1
4	STRUCTURE PLAN NO. 2
5	DECK CONTOURS
6	FOUNDATION PLAN NO. 1
7	FOUNDATION PLAN NO. 2
8	ABUTMENT DETAILS NO. 1
9	ABUTMENT DETAILS NO. 2
10	ABUTMENT DETAILS NO. 3
11	ABUTMENT DETAILS NO. 4
12	BENT DETAILS NO. 1
13	BENT DETAILS NO. 2
14	BENT DETAILS NO. 3
15	BENT DETAILS NO. 4
16	TYPICAL SECTION
17	GIRDER LAYOUT NO. 1
18	GIRDER LAYOUT NO. 2
19	CAMBER DIAGRAM AND CONC STRENGTH & TYPE LIMITS
20	DECK DRAIN DETAILS
21	JOINT SEAL ASSEMBLY (MOVEMENT RATING = 5 1/2")
22	STRUCTURE APPROACH TYPE N (30S)
23	STRUCTURE APPROACH DRAINAGE DETAILS
24	EROSION PROTECTION PLAN
25	SMWD UTILITY DETAILS
26	MISCELLANEOUS DETAILS
27	LOG OF TEST BORINGS

RECORD DRAWING

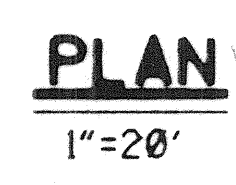
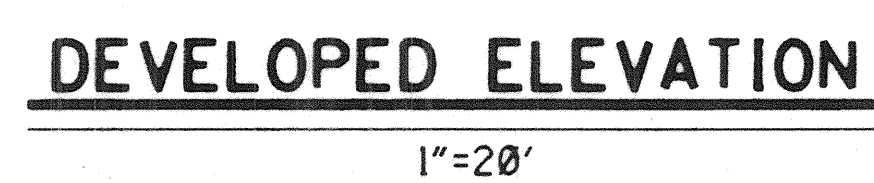
1/2" = 1'-0"
3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
INDEX TO PLANS	
2/27	
DESIGNED: Steve A. Whitaker	
CHECKED: R. Hart	
SCALE	DATE
AS SHOWN	DRAWING NO.
50	
OF 126	

PLANS PREPARED BY:
HNTB
34 EXECUTIVE PARK
SUITE 300
IRVINE, CALIFORNIA 92614



NO. 10-00000
EXP. 12-31-97
RICHARD A. HART
10/1/96

DR. 3 (16158)



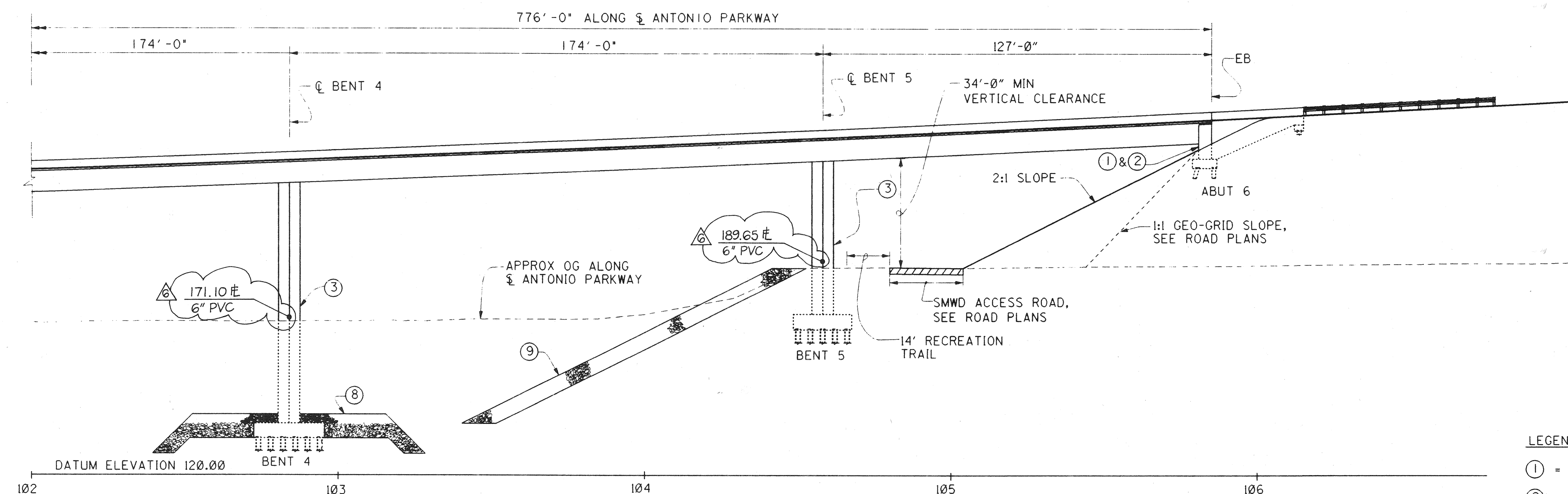
- NOTES:**
1. FOR TYPICAL SECTION, SEE "GENERAL PLAN" SHEET.
 2. FOR DECK DRAIN LOCATIONS, SEE "DECK DRAIN DETAILS" SHEET.
 3. FOR MANHOLE AND SOFFIT ACCESS OPENINGS, SEE GIRDER LAYOUTS.

DR. 3 (16158)
Sheet 51 Of 126

		ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
10/95		AS BUILT SHOWN	
MARK	DATE	DESCRIPTION	
REVISIONS			
PREPARED UNDER RESPONSIBLE CHARGE OF: <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p><i>Richard A. Hart</i></p> <p>Richard A. Hart</p> <p>No. C 030005</p> <p>Exp. 12-31-97</p> <p>State of California</p> </div> </div>			
RICHARD A. HART ICE 38095 (EXP. 12-31-97)		DATE 10/2/96	

DR. 3 (46158)

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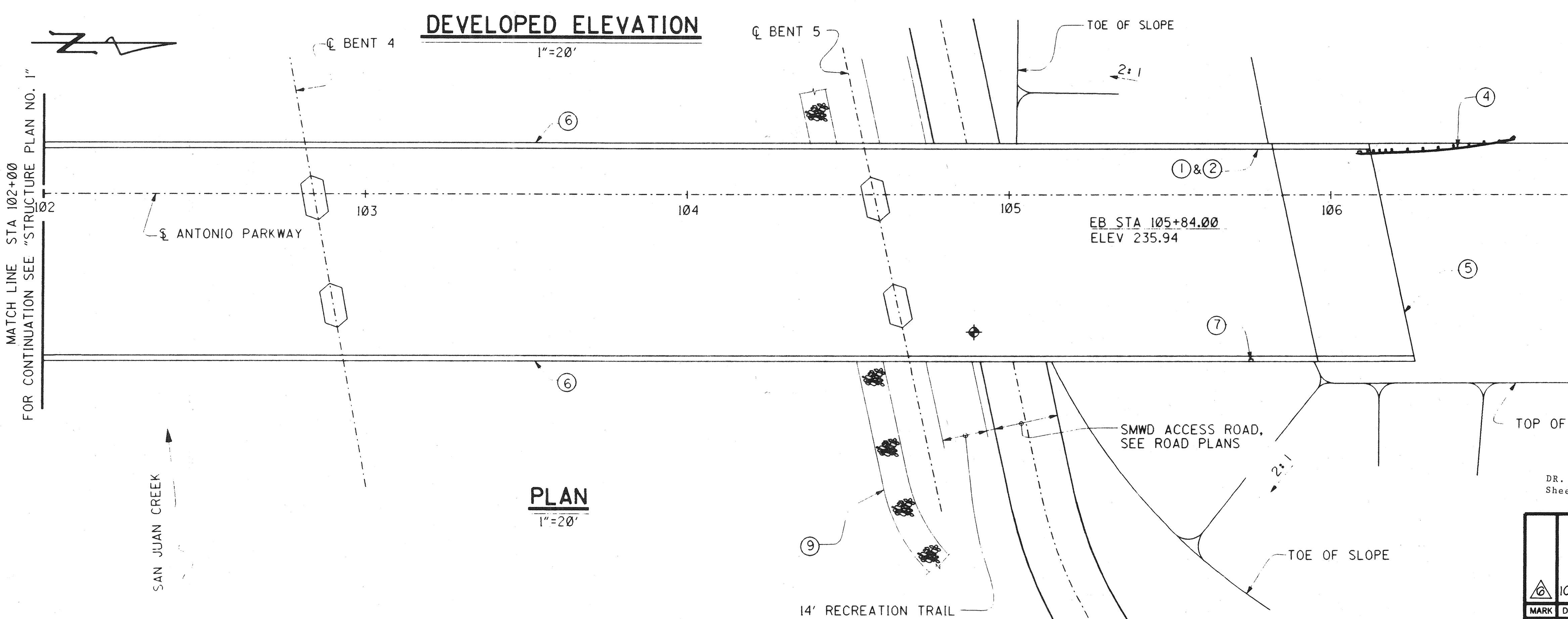


LEGEND

- ① = PAINT BRIDGE NO. 55C-628
- ② = PAINT "ANTONIO PARKWAY BRIDGE" AND YEAR COMPLETED
- ③ = PAINT BENT NO.
- ④ = METAL BEAM GUARD RAIL, (A77A)
- ⑤ = STRUCTURE APPROACH TYPE N(30S)
- ⑥ = CONCRETE BARRIER TYPE 25 MOD
- ⑦ = TYPE 9A PULL BOX IN TOP OF BARRIER (TOT 3) SEE "MISCELLANEOUS DETAILS" SHEET
- ⑧ = RIPRAP BANK CAP PROTECTION, SEE "EROSION PROTECTION PLAN" SHEET
- ⑨ = RIPRAP BANK PROTECTION, SEE "EROSION PROTECTION PLAN" SHEET
- ◆ = INDICATES POINT OF MINIMUM VERTICAL CLEARANCE

NOTE:

1. FOR TYPICAL SECTION, SEE "GENERAL PLAN" SHEET.
2. FOR DECK DRAIN LOCATIONS, SEE "DECK DRAIN DETAILS" SHEET.
3. FOR MANHOLE AND SOFFIT ACCESS OPENINGS, SEE GIRDER LAYOUTS.



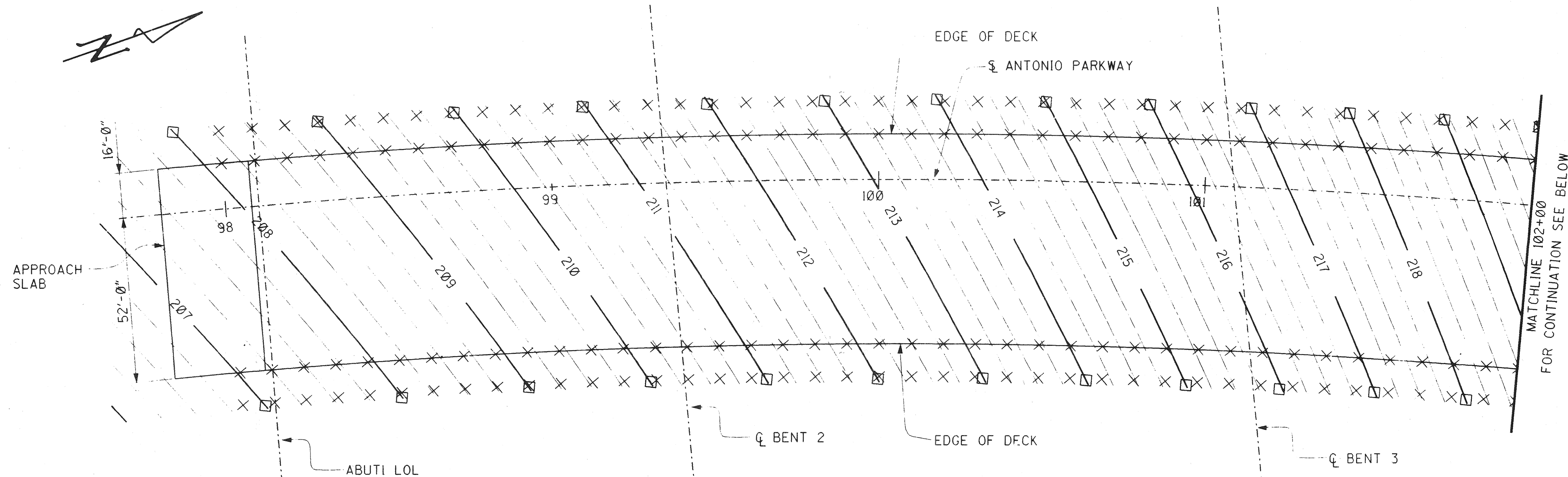
DR. 3 (16158)
Sheet 52 OF 126

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

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
STRUCTURE PLAN NO. 2	
4/27	
SHEET	
DESIGNED: Steve A. Whitaker	
DRAWN: L. West	
CHECKED: R. Hart	
SCALE: AS SHOWN	
DATE: 10/8/96	
DRAWING NO. 52	
OF 126	

PLANS PREPARED BY:
HNTB
34 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

RECORD DRAWING



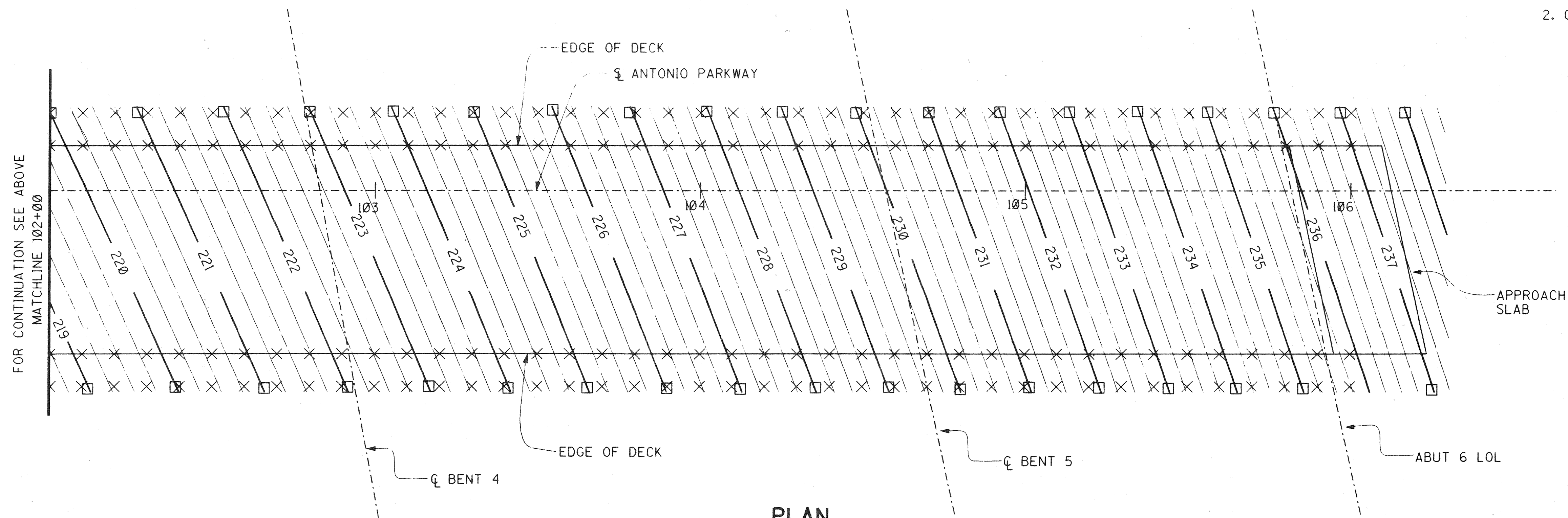
PLAN
1"=20'

LEGEND

- × = INDICATES 10' INTERVALS ALONG STATION LINE
- = INDICATES EVEN FOOT CONTOURS

NOTES:

- CONTOURS DO NOT INCLUDE CAMBER.
- CONTOUR INTERVAL IS 0.25 FEET.



PLAN
1"=20'

RECORD DRAWING

1/2 0 1 2
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

DECK CONTOURS

5/27

SHEET

53

OF 126

PLANS PREPARED BY:

HNTB

36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

DESIGNED *Steve A. Whitaker*
DRAWN *L. West* CHECKED *R. Hart*
SCALE AS SHOWN DATE 9/20/96
RICHARD A. HART
RCE 39595 (EXP. 12-31-97)

DR. 3 46158J

LEGEND

- [Symbol] = INDICATES BOTTOM OF FOOTING ELEVATION.
[Symbol] OR [Symbol] = DENOTES PILES, ALL PILES NOT SHOWN FOR CLARITY.

BENCH MARK

O.C.S. BENCHMARK Y-312
RECOVERY NOTE BY US GEOLOGICAL SURVEY 1968.
GO 3 MILES NORTHEAST ALONG ORTEGA HIGHWAY
(STATE HIGHWAY 74) FROM IT'S INTERSECTION
WITH THE SAN DIEGO FREEWAY (INTERSTATE 5),
TO THE BRIDGE OVER SAN JUAN CREEK, THENCE 0.6
OF A MILE EAST TO THE WEST END OF A DEEP CUT AT
THE CURVE IN THE HIGHWAY, 30 FT. WEST OF A 18 INCH
CORRUGATED METAL PIPE CULVERT, 29 FT. SOUTH OF
THE CENTERLINE OF THE HIGHWAY, 9 FT. EAST OF A
FENCE CORNER, 1 FT. NORTH OF THE FENCE, SET IN THE
TOP OF A CONCRETE POST.
NGVD 29/1995 O.C.S. ADJUSTMENT
(LOCAL MEAN SEA LEVEL) ELEVATION (FT.) =282.478

NOTES:

- ELEVATIONS SHOWN ARE BASED UPON NGVD29/1995 O.C.S. ADJUSTMENT (LOCAL MEAN SEA LEVEL) VERTICAL DATUM.
- BASIS OF BEARINGS IS CALIFORNIA STATE COORDINATE SYSTEM OF 1983.
- SEE ROAD PLANS FOR DETAILS NOT SHOWN.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES BEFORE EXCAVATION AND PILE DRIVING BEGINS.
- CONTOURS SHOWN ARE ORIGINAL GROUND. CONTOUR INTERVAL IS 1.0 FEET.

FOUNDATION PLAN

1"=20'

PILE DATA

LOCATION	TYPE	DESIGN LOADING (SERVICE LOAD)	SPECIFIED TIP ELEVATION
ABUT 1 & WW	HP 10 X 57	70 TONS	160.0
BENT 2	HP 14 X 89	100 TONS	81.0
BENT 3	HP 14 X 89	100 TONS	81.0
BENT 4	HP 14 X 89	100 TONS	94.0
BENT 5	HP 14 X 89	100 TONS	126.0
ABUT 6 & WW	HP 10 X 57	70 TONS	158.0

RECORD DRAWING

DR. 3 (16158)
Sheet 54 Of 126

1/2" = 1' 2"
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

FOUNDATION PLAN NO. 1

6/27

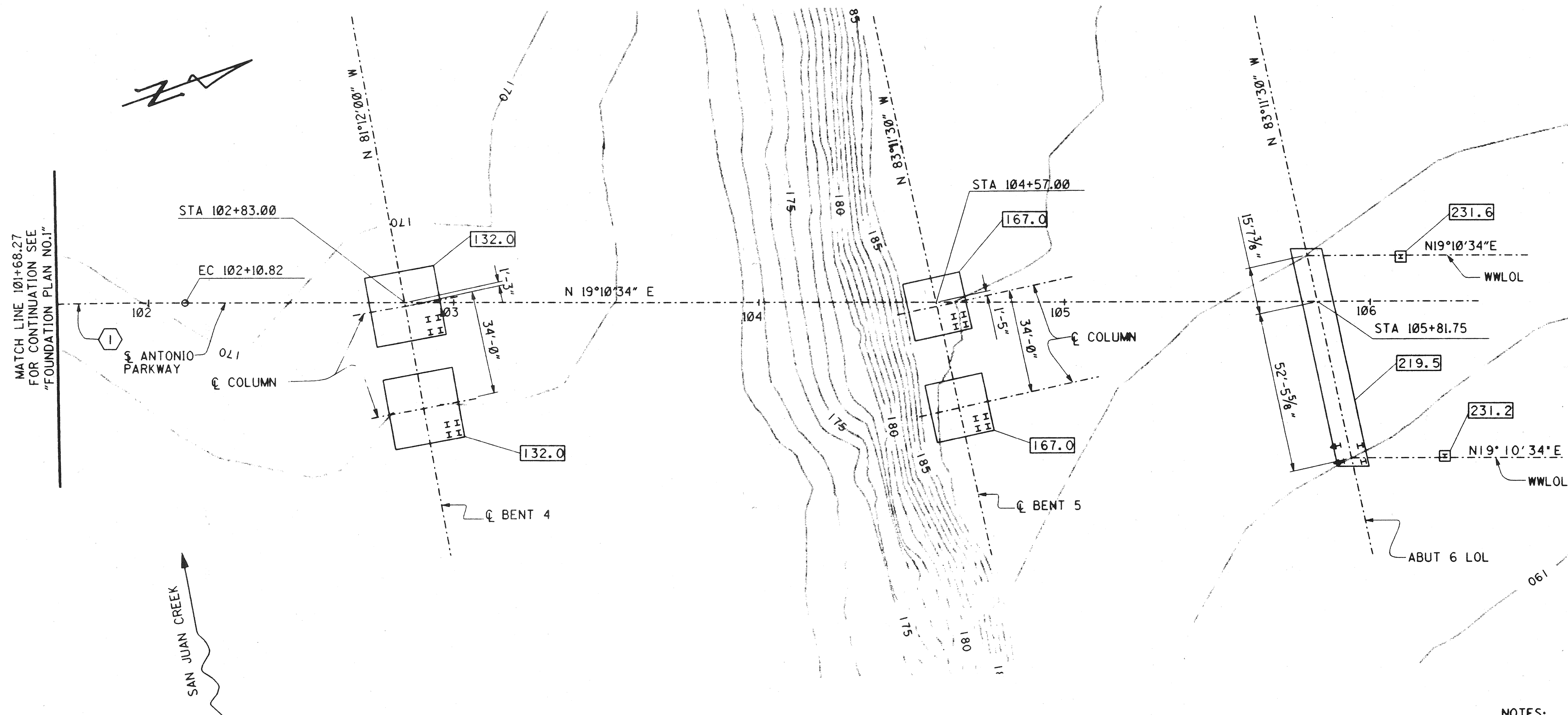
54

OF 126

GOFFMAN, MCCORMICK & URBAN, Inc. :
GEOTECHNICAL PROFESSIONAL: [Signature]
APPROVAL DATE: 9/23/96
PLANS PREPARED BY: [Signature]
HNTB
26 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

11/00 AS BUILT SHOWN
REVISIONS
PREPARED UNDER RESPONSIBLE CHARGE OF: [Signature]
DESIGNED: Steve A. Whitaker
DRAWN: L. West
CHECKED: R. Hart
SCALE: AS SHOWN
DATE: 9/20/96
RICHARD A. HART
RCE 39595 (EXP. 12-31-97)

DR. 3 46158J



1 CURVE DATA
R = 2350.00'
Δ = 23°53'55"
L = 980.21'

FOUNDATION PLAN

1"=20'

LEGEND

- = INDICATES BOTTOM OF FOOTING ELEVATION.
H OR H = DENOTES PILES, ALL PILES NOT SHOWN FOR CLARITY.

NOTES:

- ELEVATIONS SHOWN ARE BASED UPON NGVD29/1995 O.C.S. ADJUSTMENT (LOCAL MEAN SEA LEVEL) VERTICAL DATUM.
- BASIS OF BEARINGS IS CALIFORNIA STATE COORDINATE SYSTEM OF 1983.
- SEE ROAD PLANS FOR DETAILS NOT SHOWN.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES BEFORE EXCAVATION AND PILE DRIVING BEGINS.
- CONTOURS SHOWN ARE ORIGINAL GROUND. CONTOUR INTERVAL IS 1.0 FEET.

RECORD DRAWING
3 inches on original drawing

DR. 3 (16158)
Sheet 55 OF 126

GOFFMAN, MCCORMICK & URBAN, Inc.:

GEOTECHNICAL PROFESSIONAL:

APPROVAL DATE

PLANS PREPARED BY:

HNTB

26 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

MARK DATE DESCRIPTION
REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF:

Richard A. Hart
NO. 10/6/96
SCALE AS SHOWN
DATE 10/6/96
RICHARD A. HART
P.E. 39565 (EXP. 12-31-97)

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

FOUNDATION PLAN NO. 2

DESIGNED: Steve A. Whitaker

DRAWN: L. West

CHECKED: R. Hart

DATE AS SHOWN

7/27

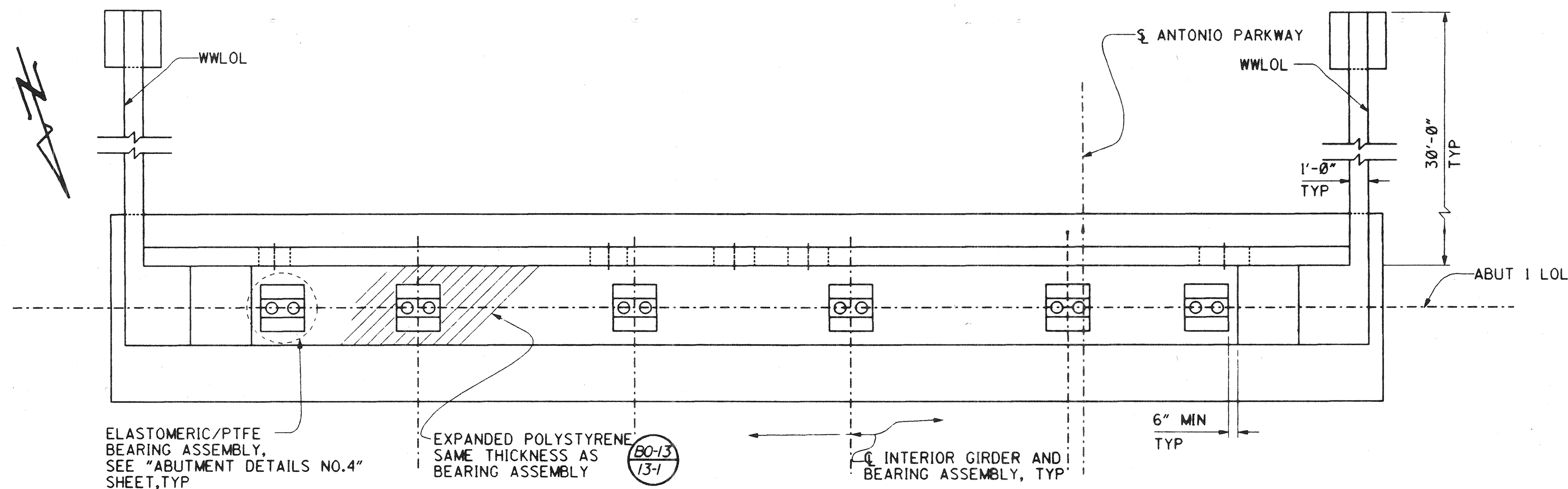
SHEET

55

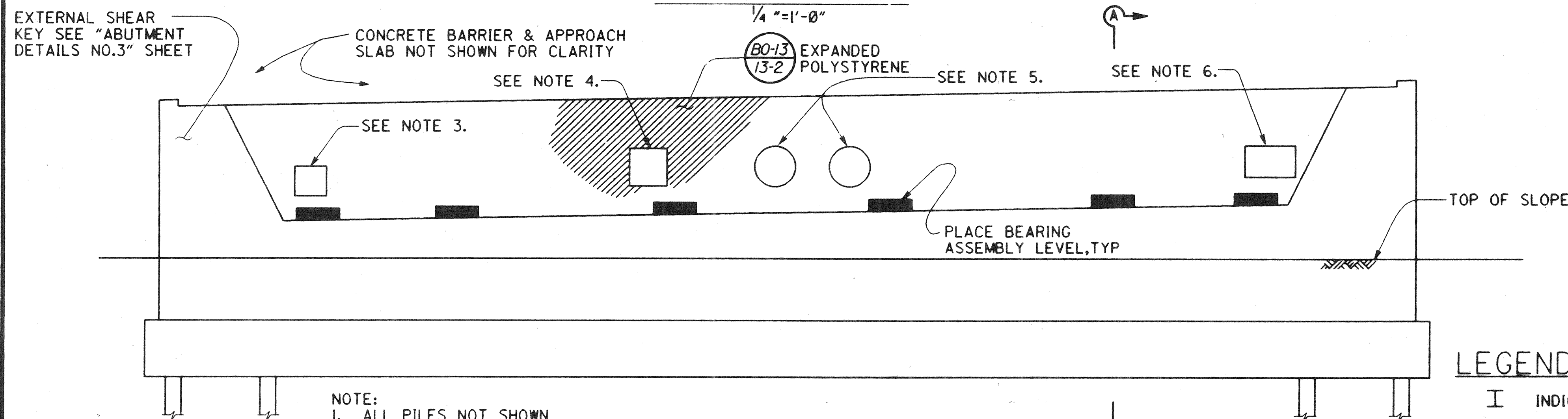
OF 126

DR. 3 (16158)

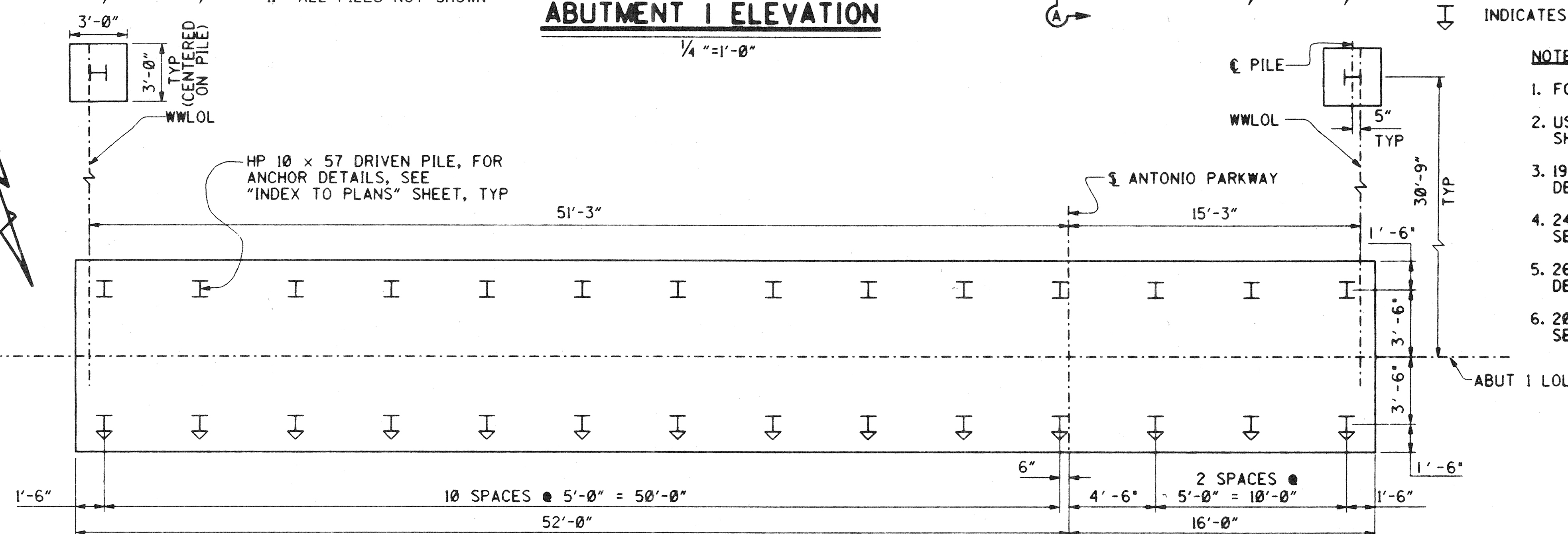
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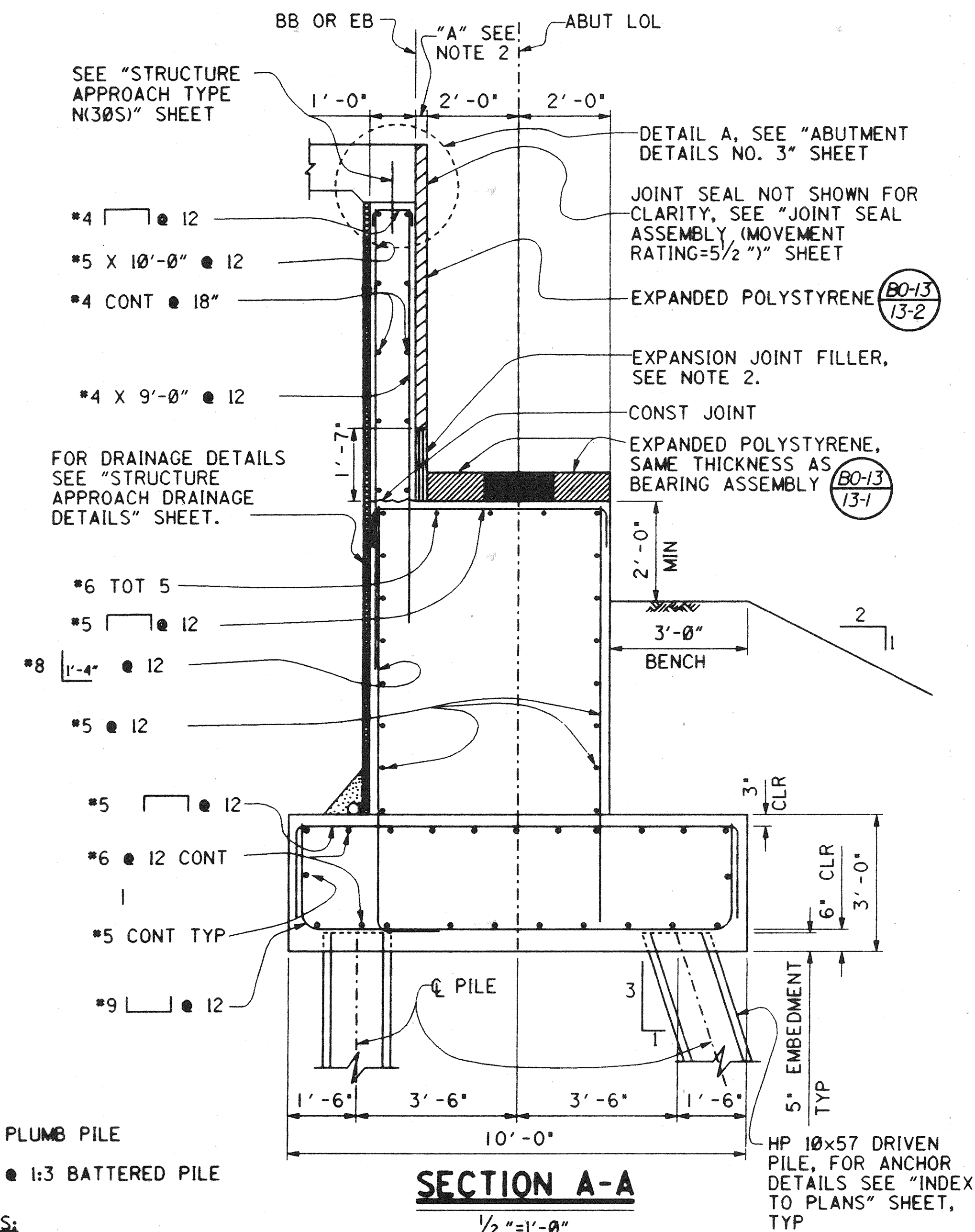
ABUTMENT I PLAN
 $\frac{1}{4}'' = 1'-0''$



ABUTMENT I ELEVATION
 $\frac{1}{4}'' = 1'-0''$



ABUTMENT I PILE LAYOUT
 $\frac{1}{4}'' = 1'-0''$



SECTION A-A
 $\frac{1}{2}'' = 1'-0''$

LEGEND

- I INDICATES PLUMB PILE
- ↓ INDICATES @ 1:3 BATTERED PILE

NOTES:

1. FOR DETAILS NOT SHOWN SEE "ABUTMENT DETAILS NO. 2, 3, 4" SHEETS.
2. USE DIMENSION "A" SHOWN ON "JOINT SEAL ASSEMBLY (MOVEMENT RATING = 5/2") SHEET FOR EXPANSION JOINT THICKNESS.
3. 19"Hx20"W UTILITY OPENING IN ABUTMENT BACKWALL (SDG&E). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" SHEET. STEEL CASING NOT REQUIRED UNDER APPROACH SLAB.
4. 24"Hx24"W UTILITY OPENING (PAC BELL). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" SHEET. STEEL CASING NOT REQUIRED UNDER APPROACH SLAB.
5. 26" DIA UTILITY OPENING IN ABUTMENT BACKWALL (SMWD). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" AND "SMWD UTILITY DETAILS" SHEETS.
6. 20"Hx32"W UTILITY OPENING (SMWD). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" AND "SMWD UTILITY DETAILS" SHEETS.

RECORD DRAWING

$\frac{1}{2}'' = 1'-0''$
 3 inches on original drawing

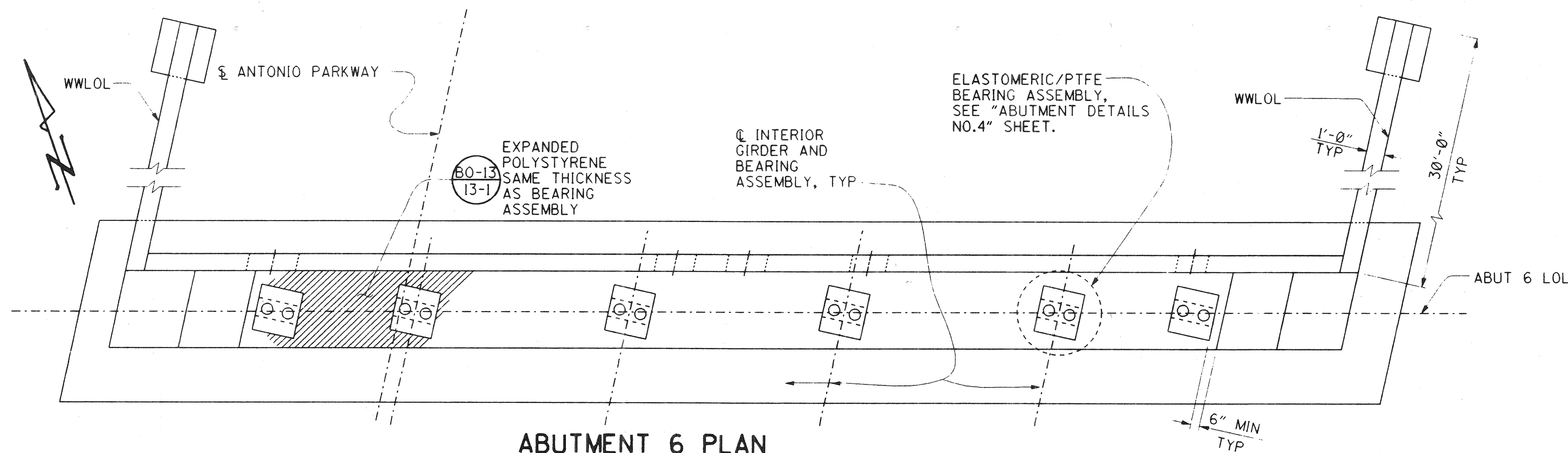
PLANS PREPARED BY:

HNTB

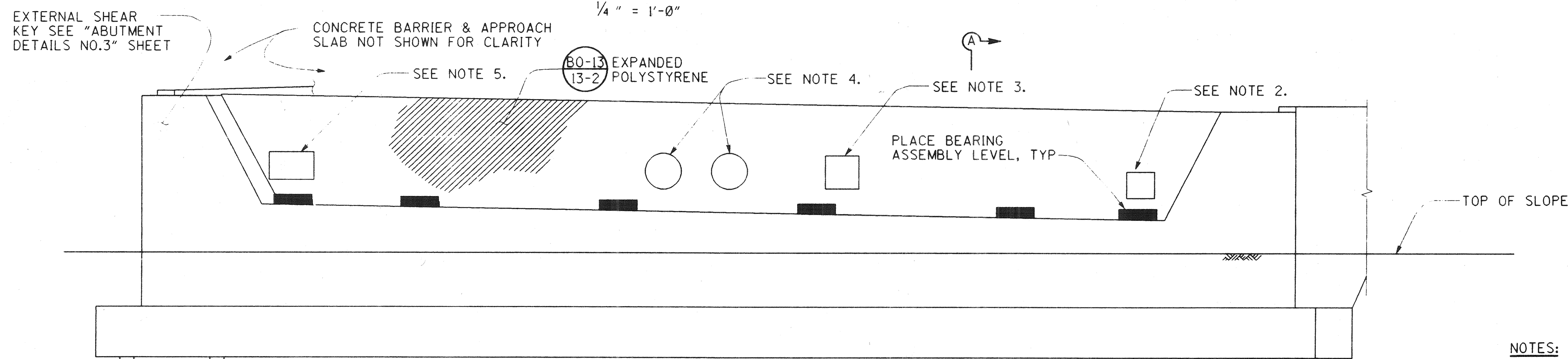
36 EXECUTIVE PARK
 SUITE 200
 IRVINE, CALIFORNIA 92614

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
ABUTMENT DETAILS NO. 1	
DESIGNED: Steve A. Whitaker	8/27
DRAWN: L. West	CHECKED: R. Hart
SCALE: AS SHOWN	DRAWING NO. 56
DATE: 8/27/96	OF 126

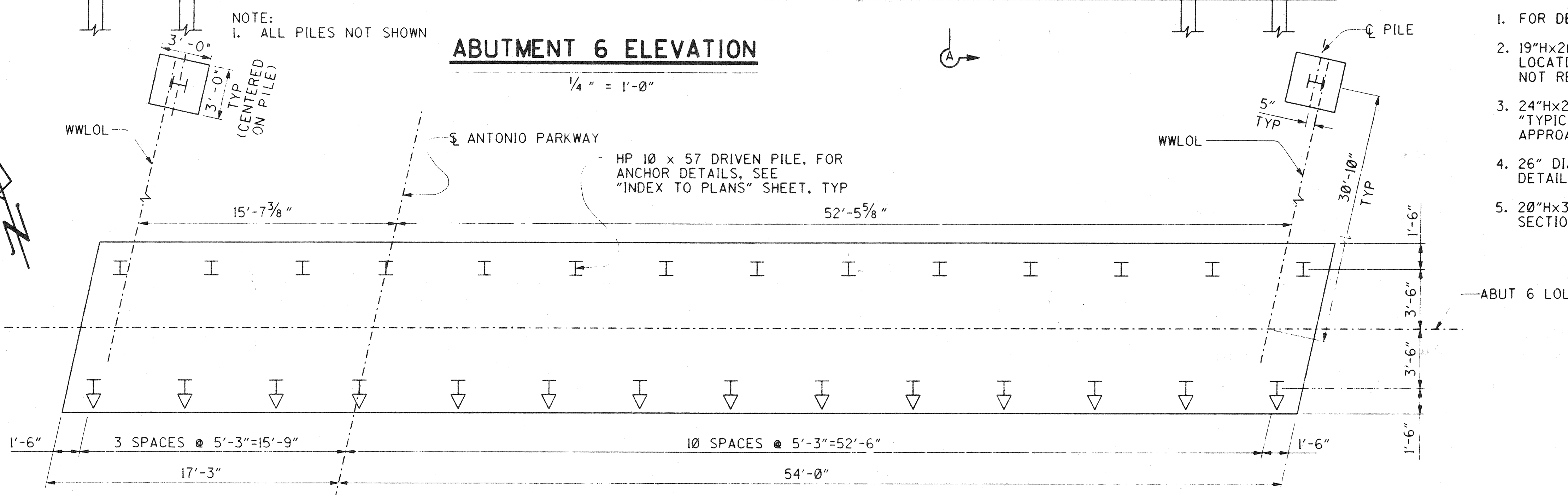
Dr. 3 (14158)



ABUTMENT 6 PLAN



ABUTMENT 6 ELEVATION



ABUTMENT 6 PILE LAYOUT

LEGEND

- I = INDICATES PLUMB PILE
- ⌋ = INDICATES BATTERED PILE

NOTES:

1. FOR DETAILS NOT SHOWN SEE "ABUTMENT DETAILS NO. 1, 3, 4" SHEETS.
2. 19"Hx20"W UTILITY OPENING IN ABUTMENT BACKWALL (SDG&E). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" SHEET. STEEL CASING NOT REQUIRED UNDER APPROACH SLAB.
3. 24"Hx24"W UTILITY OPENING (PAC BELL). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" SHEET. STEEL CASING NOT REQUIRED UNDER APPROACH SLAB.
4. 26" DIA UTILITY OPENING IN ABUTMENT BACKWALL (SMWD). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" AND "SMWD UTILITY DETAILS" SHEETS.
5. 20"Hx32"W UTILITY OPENING (SMWD). FOR LOCATION & DETAILS, SEE "TYPICAL SECTION" AND "SMWD UTILITY DETAILS" SHEETS.

DR. 3 (16158)
Sheet 57 OF 126

RECORD

1/2" = 1'-0"
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

ABUTMENT DETAILS NO. 2

9/27

SHEET

57

OF 126

PLANS PREPARED BY:

HNTB

26 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

MARK	DATE	DESCRIPTION
REVISIONS		
PREPARED UNDER RESPONSIBLE CHARGE OF:		
RICHARD A. HART	DATE	SCALE
RCE 39566 (EXP. 12-31-97)	10/6/96	AS SHOWN

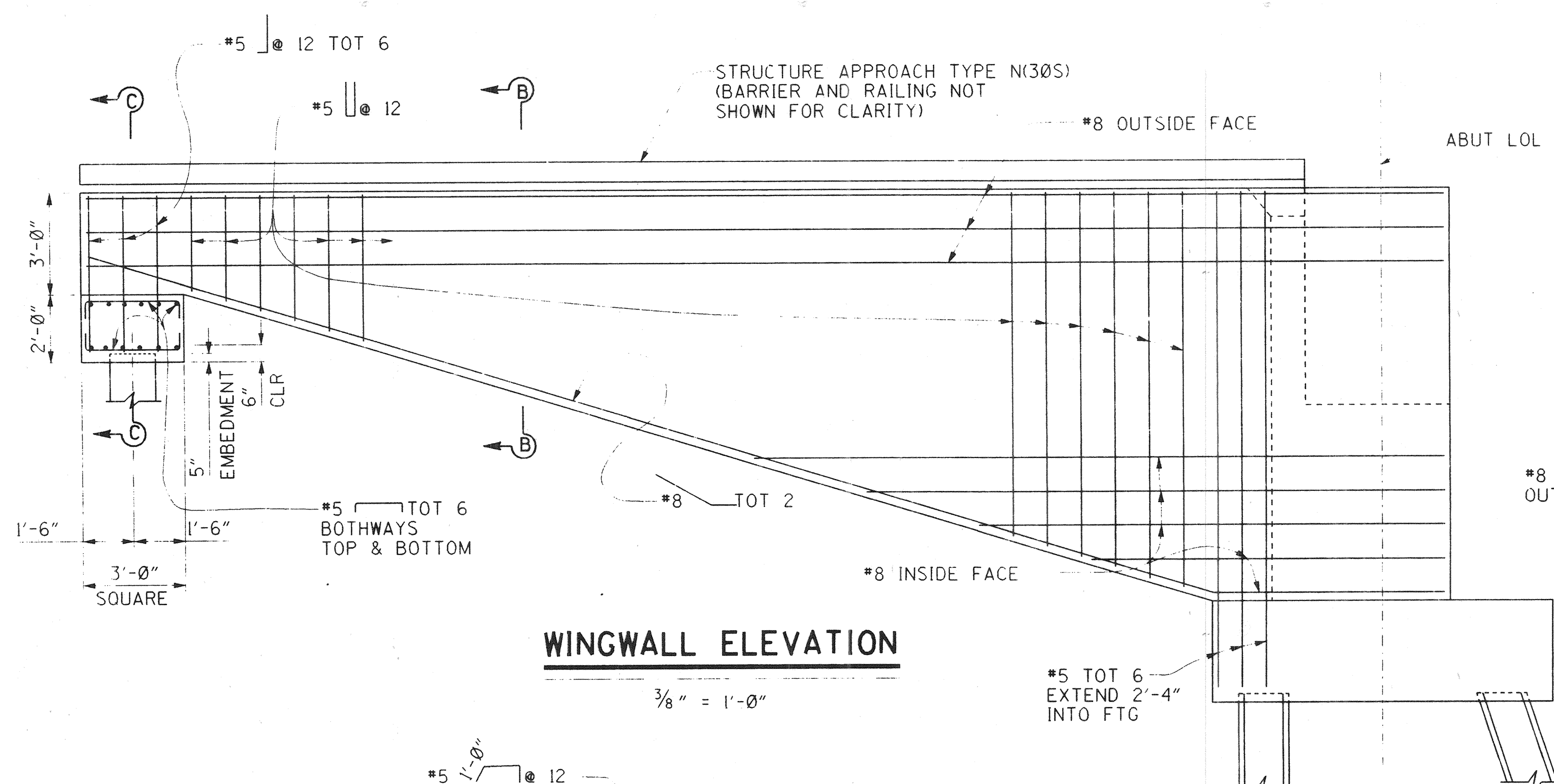
DESIGNED *Steve A. Whitaker*

DRAWN *L. West* CHECKED *R. Hart*

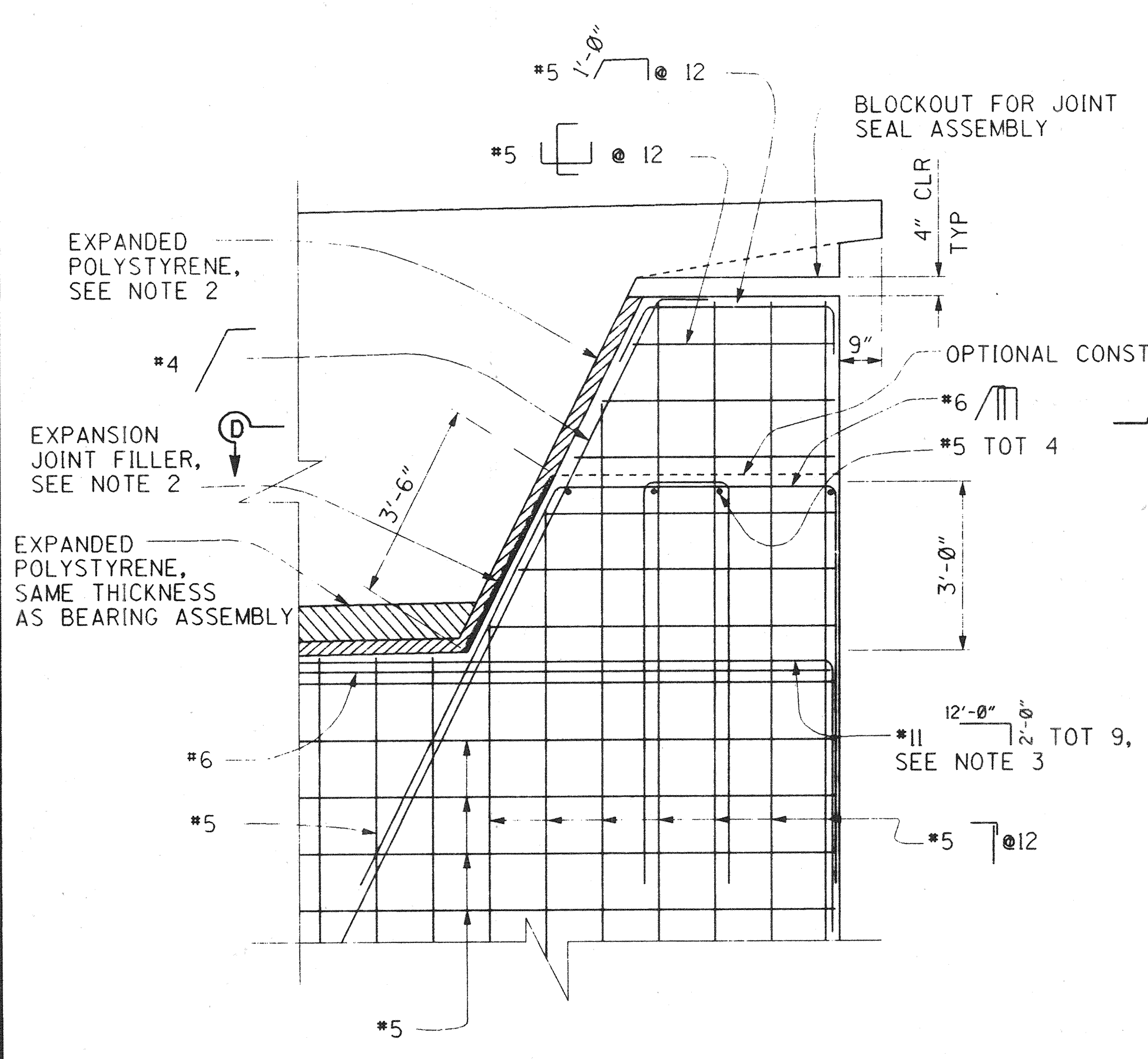
SCALE DATE DATE DRAWING NO.

AS SHOWN

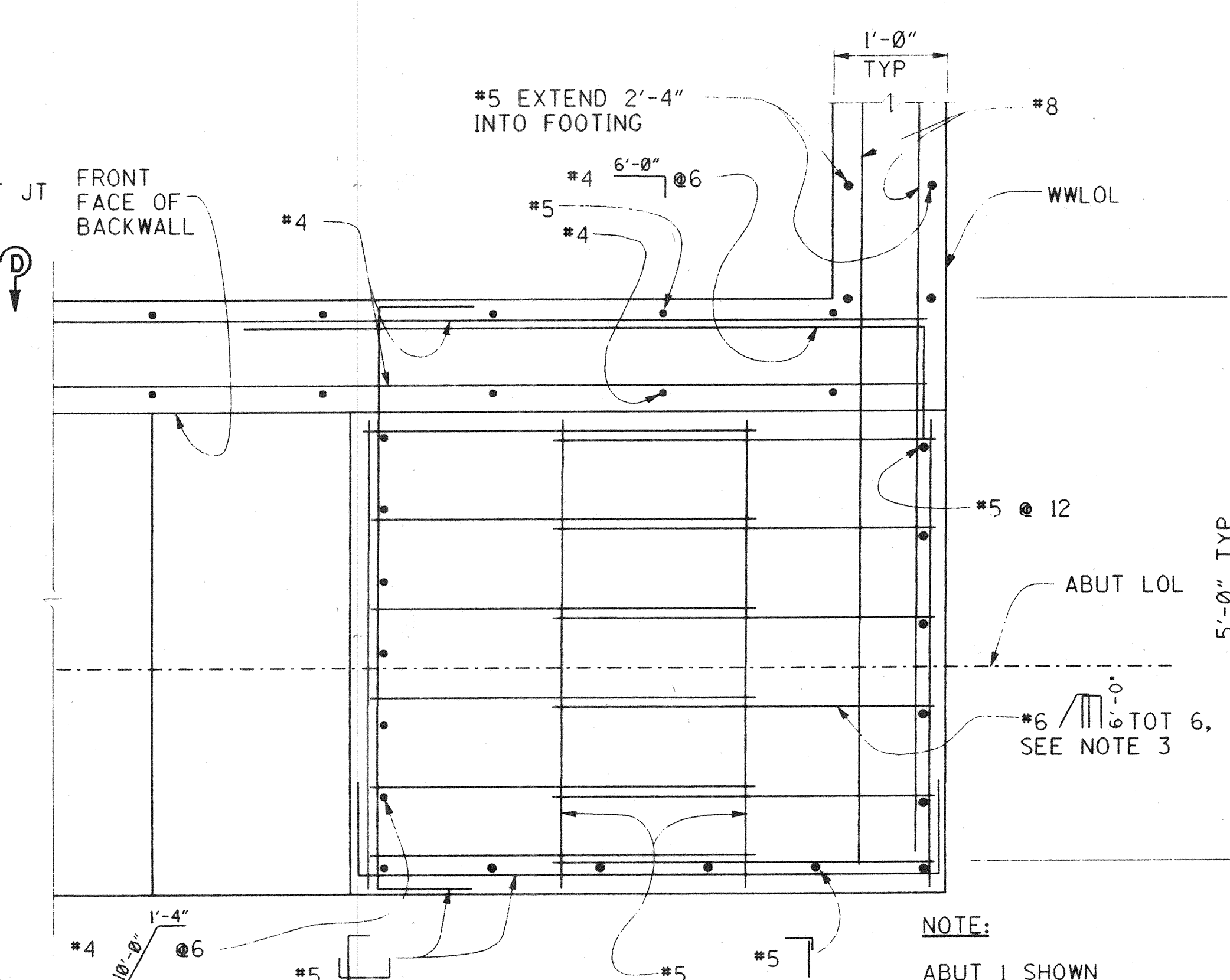
DR. 3 (16158)



WINGWALL ELEVATION

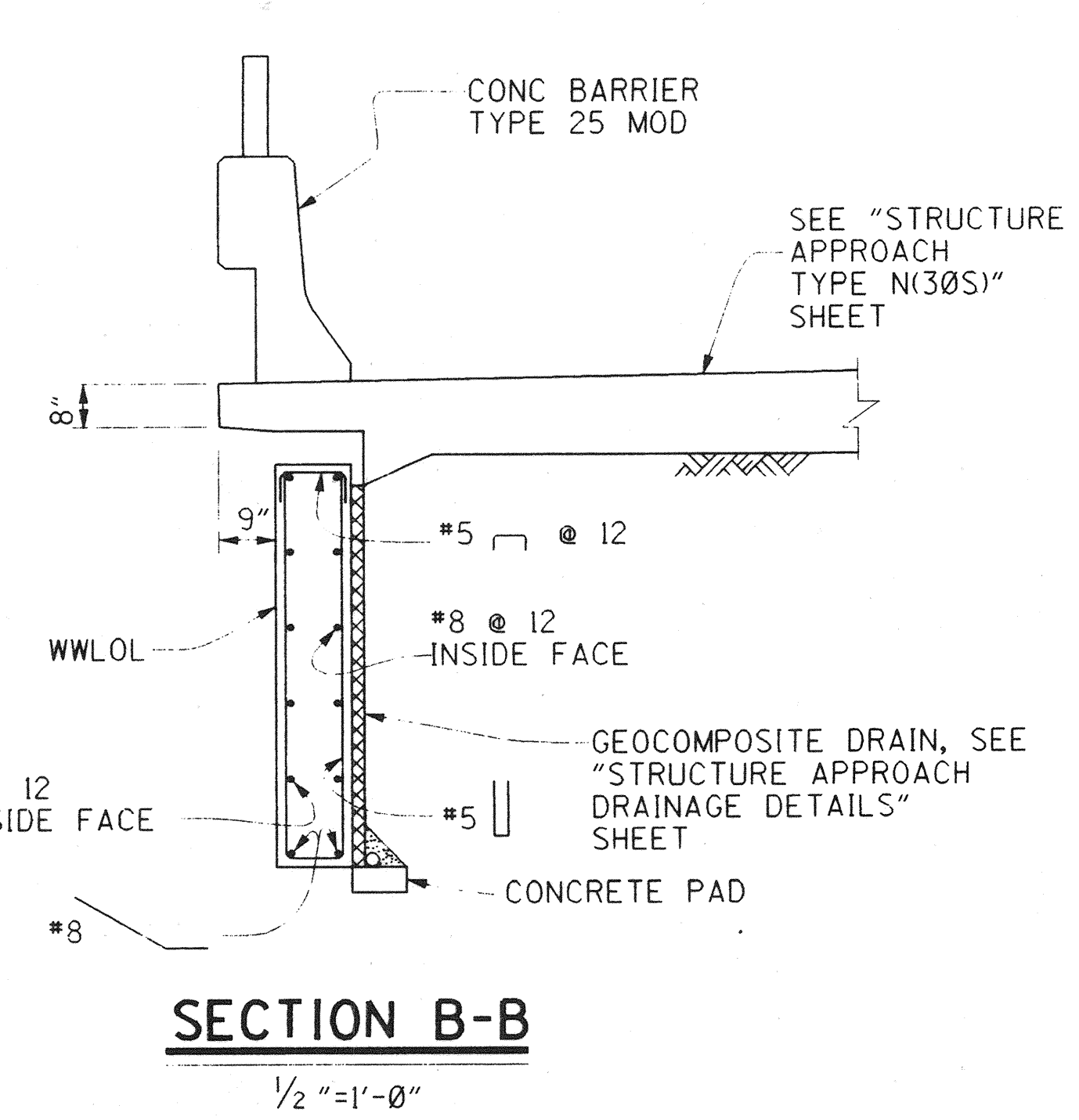


PART ELEVATION

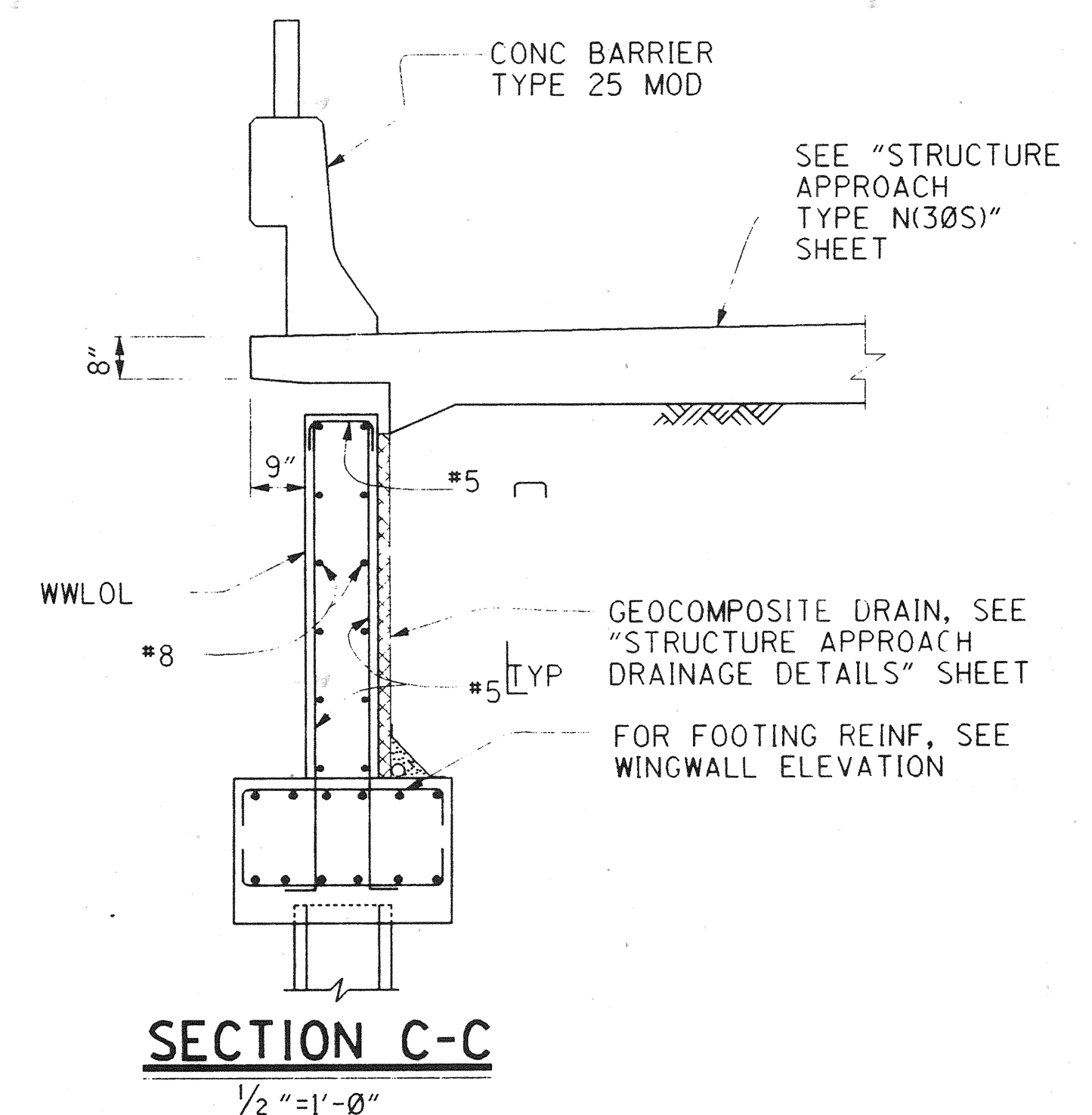


SECTION D-D

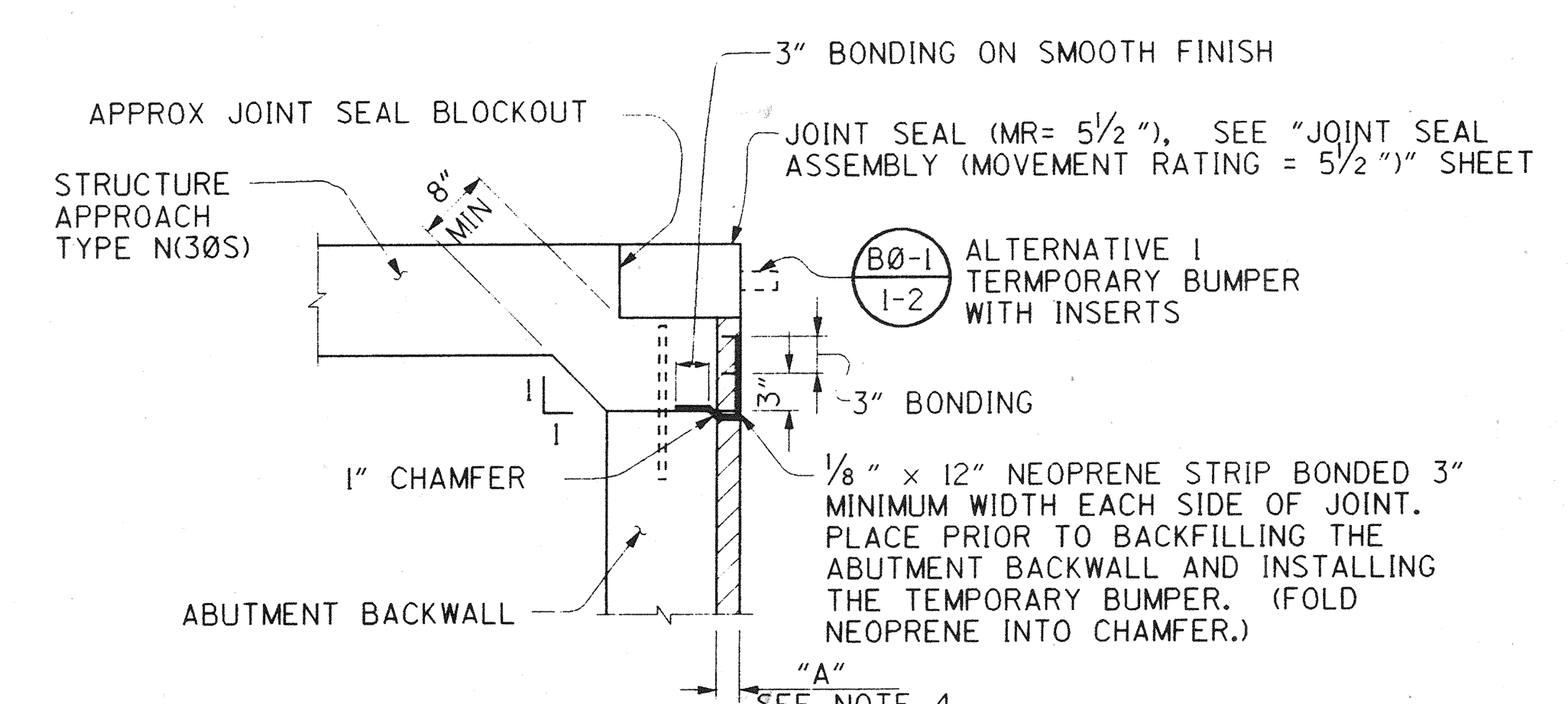
EXTERNAL SHEAR KEY



SECTION B-B



SECTION C-C



DETAIL A

NOTES:

1. FOR DETAILS NOT SHOWN SEE "ABUTMENT DETAILS NO. 1, 2, & 4" SHEETS.
2. 3" EXPANDED POLYSTYRENE INCLUDING 1/2" EXPANSION JOINT FILLER.
3. BEGIN SPACING REINFORCEMENT AT THE FRONT FACE OF THE BACKWALL.
4. USE DIMENSION "A" SHOWN ON "JOINT SEAL ASSEMBLY" SHEET FOR EXPANSION JOINT THICKNESS.

DR. 3 (16158)
Sheet 58 OF 126

1/2 0 1 2
3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
ABUTMENT DETAILS NO. 3	
DESIGNED: Steve A. Whitaker	10/27
DRAWN: L. West	CHECKED: R. Hart
SCALE: AS SHOWN	DATE: 12/29/96
SHEET 58 OF 126	

PLANS PREPARED BY:
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

Design File: 24897_cocacartoad3.dgn
Plotted: 10-SEP-96 08:58 Generated by: Whitaker

DR 3 (16158)

DRILL & TAP 1/4" X 20 X 3/4"
STAINLESS STEEL COUNTERSUNK
FLATHEAD CAP SCREWS TOT 28
FOR CONNECTION OF STAINLESS
STEEL SLIDING SURFACE TO
SOLE PLATE, TYP

Q PTFE DISK

Q BEARING
ASSEMBLY AND
ABUT 1 LOL

ABUT 6 LOL

1/4" X 7 1/2" Ø
PTFE DISK, TOT 2
TYP

INTERMEDIATE PLATE,
MASONRY PLATE
(PLACE LEVEL) &
STEEL REINF
ELASTOMERIC PAD

SOLE PLATE AND
STAINLESS STEEL
SLIDING SURFACE
(0.135" THICK)
(PLACE LEVEL)

PLAN

Q GIRDER

SOLE PLATE
(3" THICK)
(PLACE LEVEL)

STAINLESS STEEL
SLIDING SURFACE
(0.135" THICK)

STEEL REINF
ELASTOMERIC
BEARING PAD
(2" THICK)

ELEVATION

ELASTOMERIC/PTFE BEARING ASSEMBLY

3"=1'-0"

DESIGN VALUES

MAXIMUM VERTICAL LOAD (KIPS PER ASSEMBLY)	MINIMUM VERTICAL LOAD (KIPS PER ASSEMBLY)
260	207

SOLE PLATE PLACEMENT

LOCATION	"B" DIMENSION			"C" DIMENSION		
	WINT	SUMM	SPR/FALL	WINT	SUMM	SPR/FALL
ABUTMENT 1	1'-7 1/4"	1'-5"	1'-6"	10 3/4"	1'-1"	1'-0"
ABUTMENT 6	1'-7 1/4"	1'-5"	1'-6"	10 3/4"	1'-1"	1'-0"

SOLE PLATE
(PLACE LEVEL)

STAINLESS STEEL
SLIDING SURFACE
(0.135" THICK)

INTERMEDIATE PLATE

STEEL REINF
ELASTOMERIC
BEARING PAD

MASONRY PLATE
(PLACE LEVEL)

3/4" Ø X 8" STUD BOLT
TOT 9, WELDED TO SOLE
PLATE, TYP

1/4" TYP

BRIDGE SOFFIT

INTERMEDIATE PLATE
(1/4" THICK), WITH 1/8"
RECESS FOR PTFE DISK.

MASONRY PLATE (3/4" THICK)
(PLACE LEVEL)
ABUTMENT SEAT

1/4" X 7 1/2" Ø
PTFE DISK

3/4" Ø X 8" STUD BOLT TOT 6,
WELDED TO MASONRY PLATE, TYP

EXPANSION
JOINT

"B"

"C"

Q SOLE
PLATE

3/4" Ø X 8" STUD
BOLT, TYP

BRIDGE SOFFIT

PTFE DISK

ABUTMENT SEAT

2'-3"

Q BEARING ASSEMBLY

2'-0"

SECTION A-A

RECORD DRAWING

DR. 3 (16158)
Sheet 59 of 126

1 1/2" 0 1 3/4"
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

ABUTMENT DETAILS NO. 4

11/27

DESIGNED Steve A. Whitaker

DRAWN L. West CHECKED R. Hart

SCALE DATE DATE DRAWING NO.

AS SHOWN

59

OF 126

PLANS PREPARED BY:

HNTB

26 EXECUTIVE PARK
SUITE 300
IRVINE, CALIFORNIA 92614

MARK DATE DESCRIPTION

REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF:

NO. C 03555

EXP. 12-31-97

DATE

RICHARD A. HART

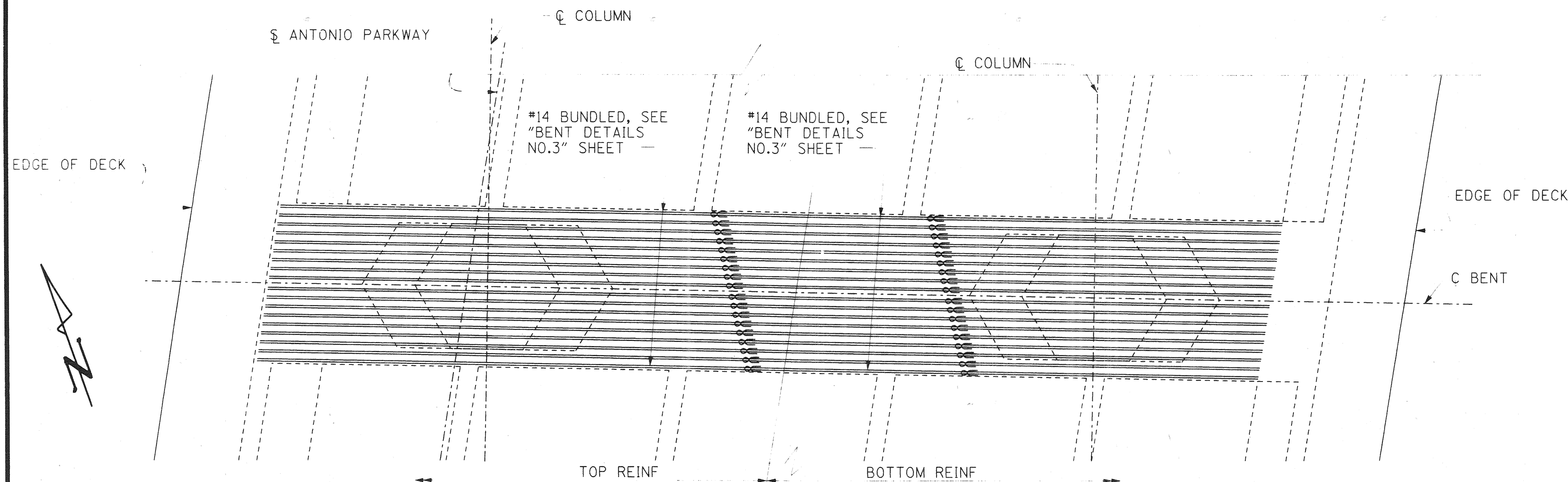
PCE 99595 (EXP. 12-31-97)

WLI

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20-SEP-1996 09:20 Generated by:

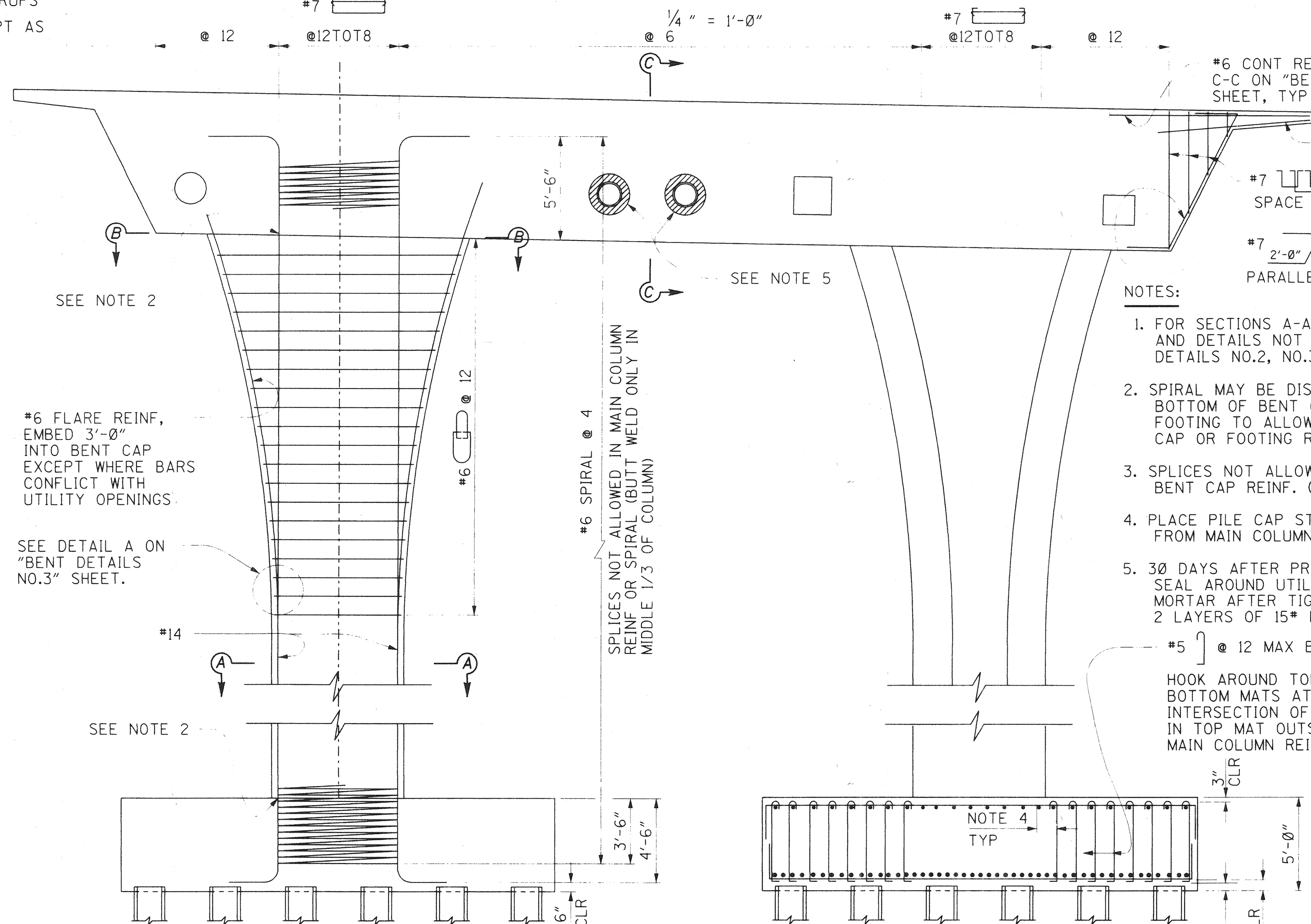
Design Filename:
Plotted on:

DR. 8 (16158)



BENTS 2, 3 & 4 PLAN

#7 STIRRUPS
SPACING EXCEPT AS
NOTED, PLACE
PARALLEL
TO GIRDERS



BENTS 2, 3 & 4 ELEVATION

— DENOTES BUNDLED BAR

#6 CONT REINF, SEE SECTION
C-C ON "BENT DETAILS NO.3"
SHEET, TYP

#6 X 8'-0" @ 12 TOT 10
WITHIN BENT CAP, TYP
#7 TOT 4
SPACE TO CLEAR P/S DUCTS, TYP

#7 2'-0" @ 12 TOT 10, PLACE
PARALLEL TO C BENT, TYP

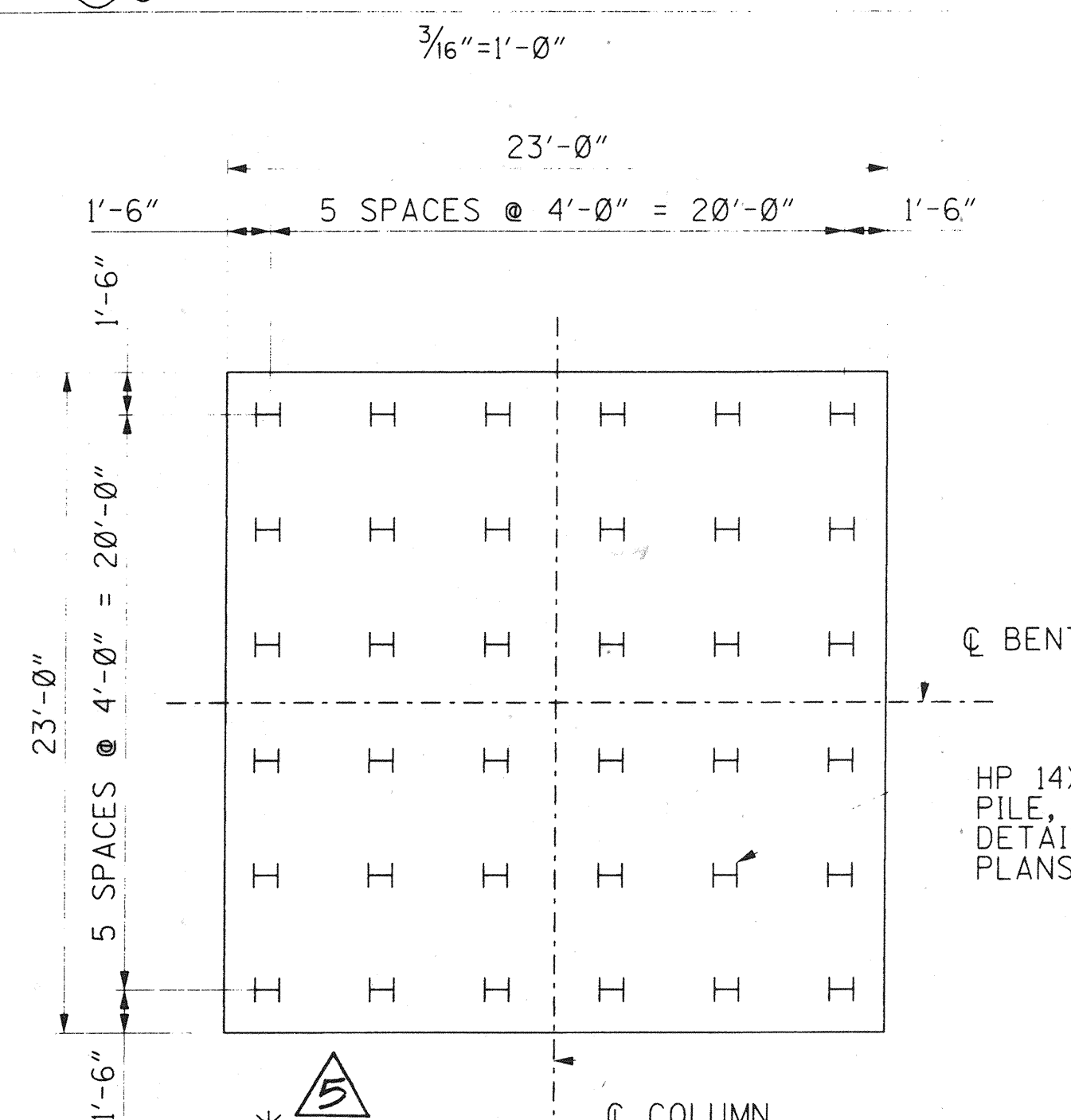
NOTES:

1. FOR SECTIONS A-A, B-B, C-C,
AND DETAILS NOT SHOWN SEE "BENT
DETAILS NO.2, NO.3 AND NO.4" SHEETS.
2. SPIRAL MAY BE DISCONTINUOUS AT
BOTTOM OF BENT CAP OR TOP OF
FOOTING TO ALLOW FOR PLACING
CAP OR FOOTING REINFORCEMENT.
3. SPLICES NOT ALLOWED IN MAIN
BENT CAP REINF. (BUTT WELD ONLY)
4. PLACE PILE CAP STIRRUPS 6" MAX
FROM MAIN COLUMN REINFORCEMENT.
5. 30 DAYS AFTER PRESTRESSING IS COMPLETE,
SEAL AROUND UTILITY WITH CONCRETE OR
MORTAR AFTER TIGHTLY WRAPPING WITH
2 LAYERS OF 15# BUILDING PAPER.

#5 @ 12 MAX BOTHWAYS,
HOOK AROUND TOP AND
BOTTOM MATS AT EACH
INTERSECTION OF BARS
IN TOP MAT OUTSIDE
MAIN COLUMN REINF.

5" EMBEDMENT
TYP

BENTS 2, 3 & 4 FOOTING REINFORCEMENT



BENTS 2, 3 & 4 PILE LAYOUT

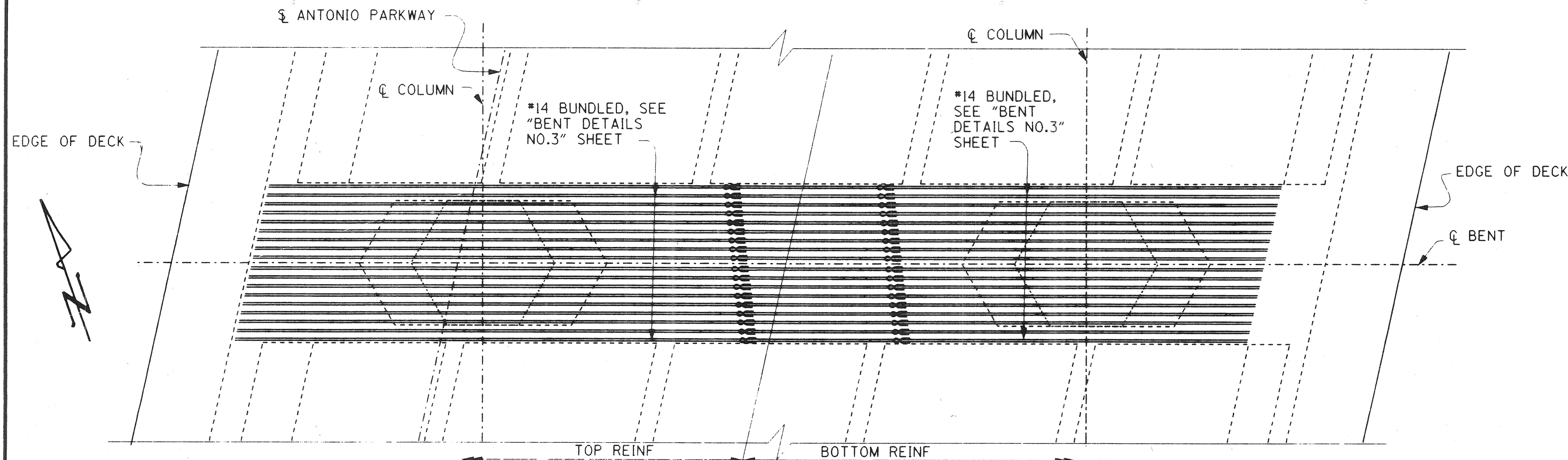
HP 14X89 DRIVEN
PILE, FOR ANCHOR
DETAILS SEE "INDEX TO
PLANS" SHEET, TYP

* SEE BENT 2 FOOTING REINFORCEMENT &
PILE LAYOUT ON "BENT DETAILS NO. 4"
SHEET.

PLANS PREPARED BY:
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
BENT DETAILS NO.1		J DR-3 (16158) Sheet 60 OF 126	
DESIGNED	Steve A. Whitaker	CHECKED	R. Hart
DRAWN	L. West	DATE	12/27
SCALE	AS SHOWN	DRAWING NO.	60
RICHARD A. HART P.E. 39595 (EXP. 12-31-97)		DATE 12/27/97	

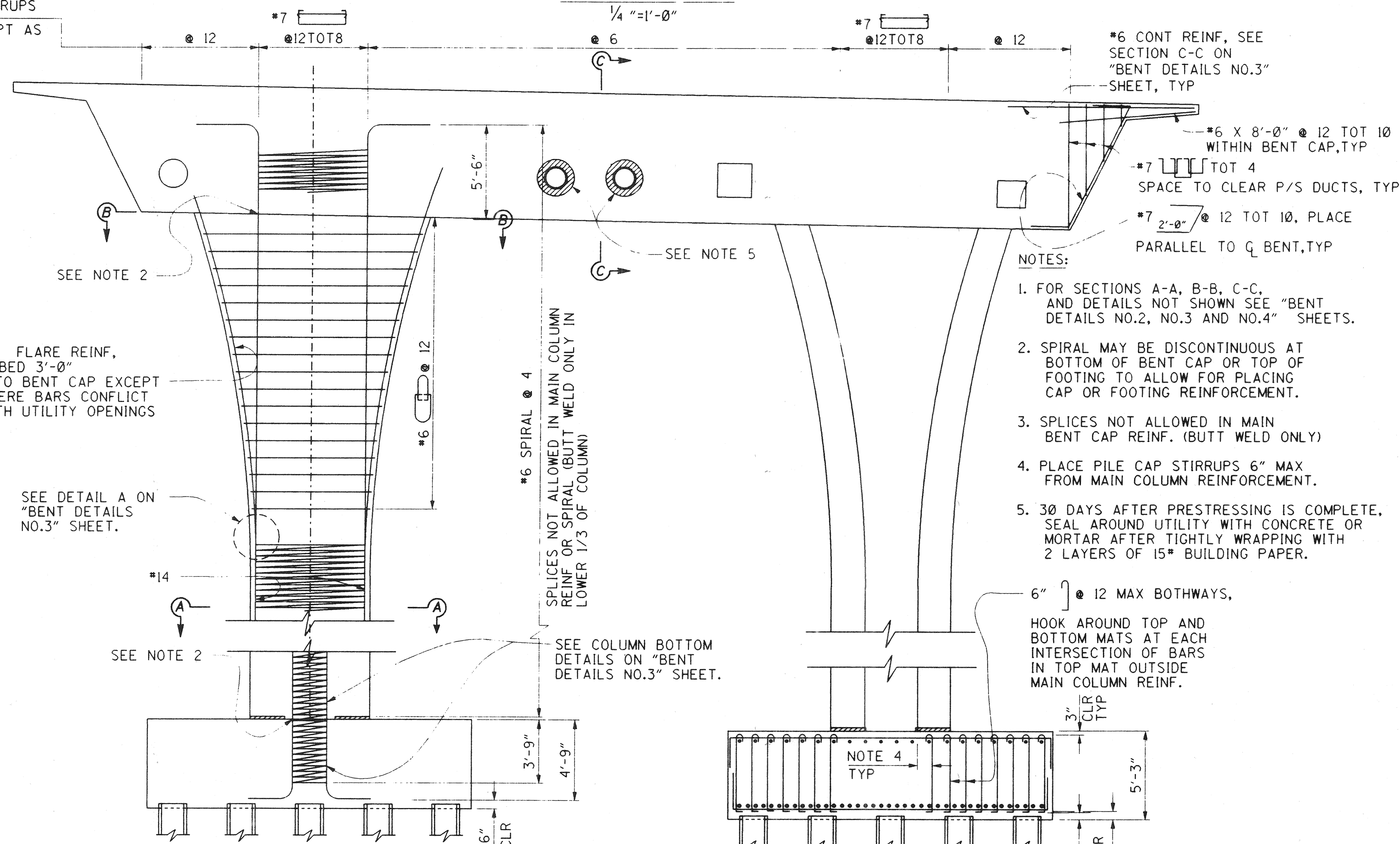
DR-3 16158



BENT 5 PLAN

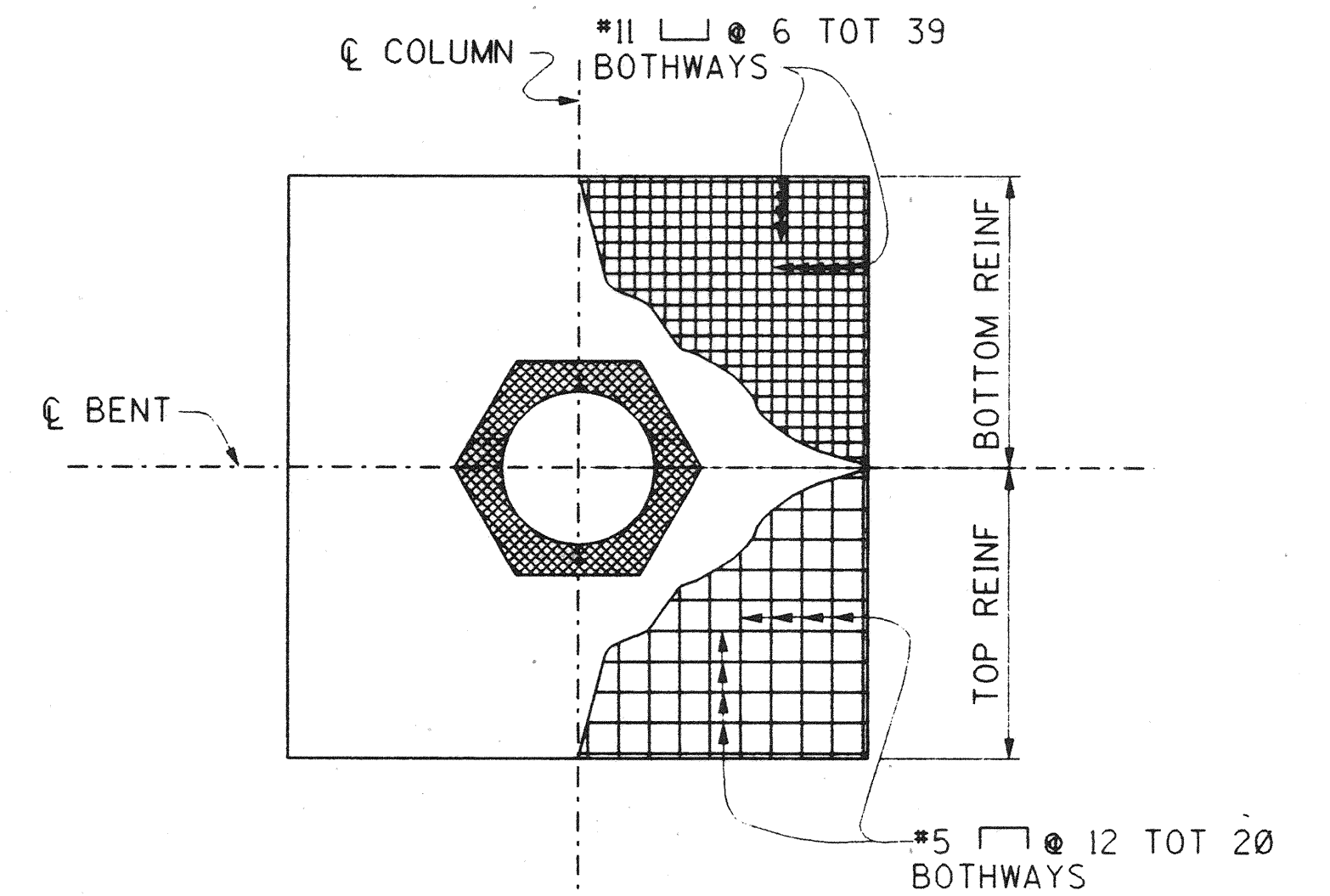
— DENOTES BUNDLED BAR

#7 STIRRUPS
SPACING EXCEPT AS
NOTED, PLACE
PARALLEL
TO Q GIRDERS



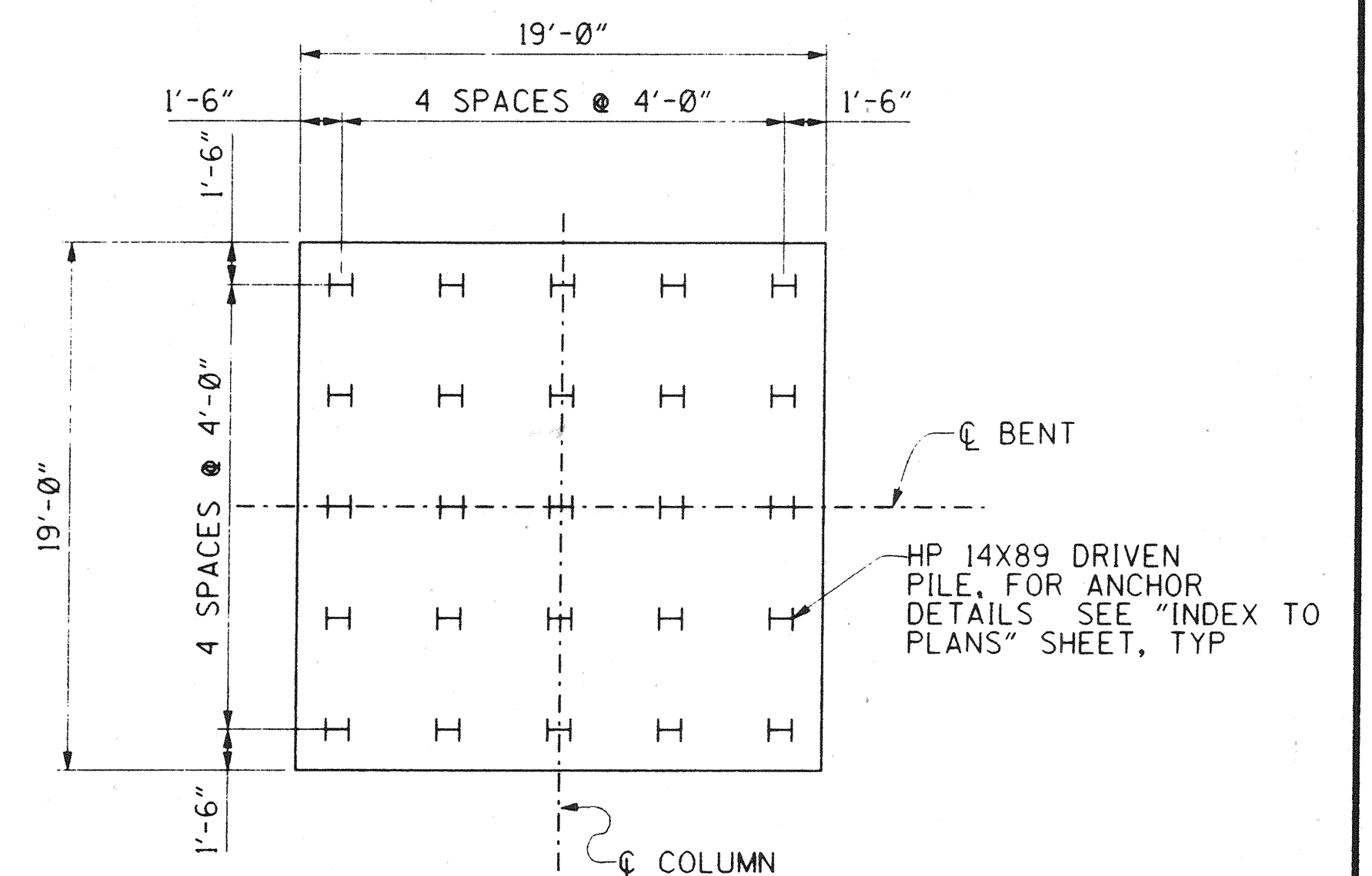
BENT 5 ELEVATION

1/4" = 1'-0"



BENT 5 FOOTING REINFORCEMENT

3/16" = 1'-0"



BENT 5 PILE LAYOUT

3/16" = 1'-0"

DR. 3 (16158)
Sheet 61 of 126

RECORD DRAWING

1/2" = 0' 1"
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

BENT DETAILS NO. 2

13/27

SHEET

61

OF 126

MARK	DATE	DESCRIPTION
REVISIONS		
PREPARED UNDER RESPONSIBLE CHARGE OF:		
RICHARD A. HART	DATE	
RCE 39595 (EXP. 12-31-97)		

PLANS PREPARED BY:

HNTB

36 EXECUTIVE PARK
SUITE 300
IRVINE, CALIFORNIA 92614

DESIGNED *Steve A. Whitaker*

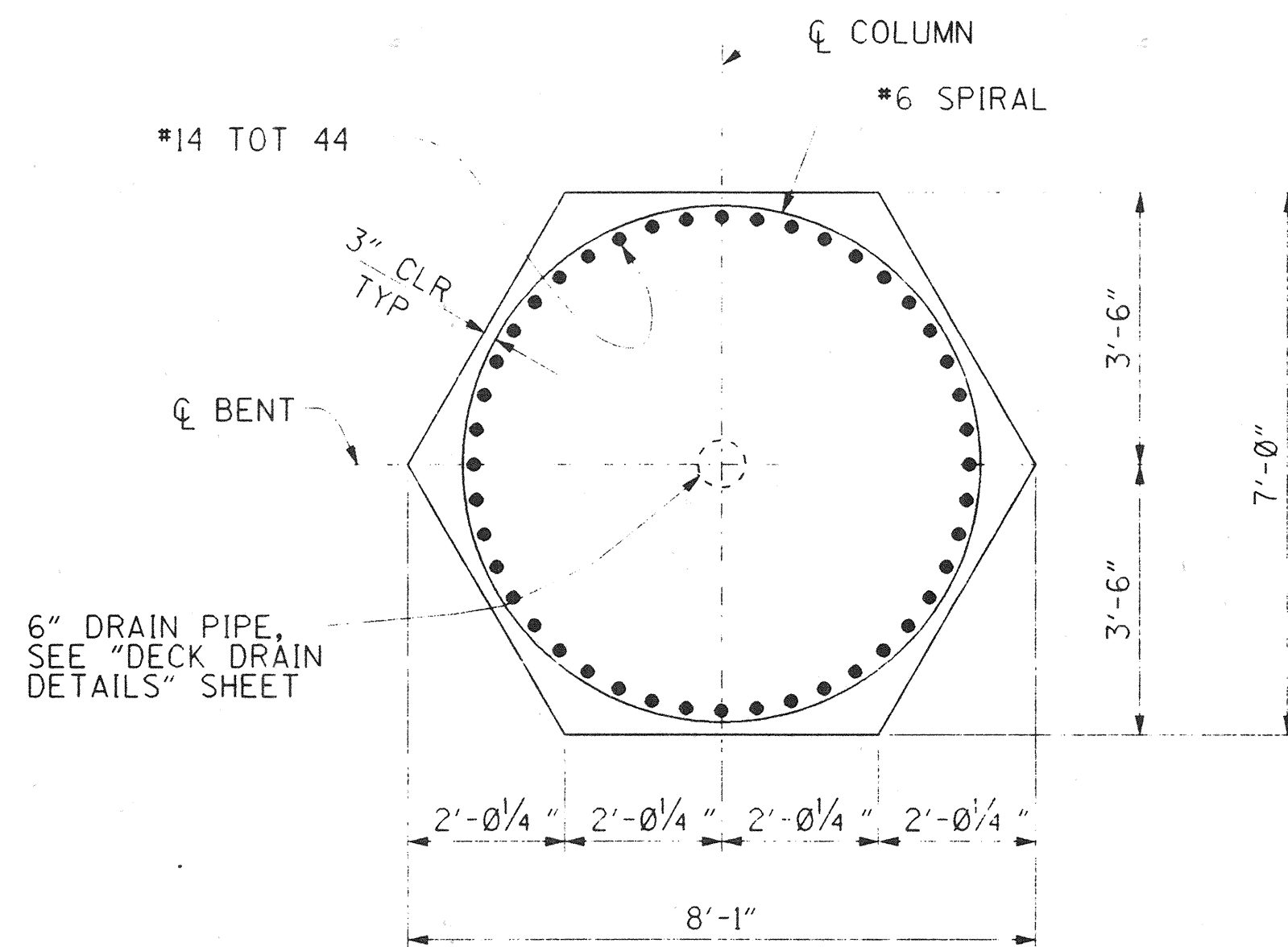
DRAWN *L. West* CHECKED *R. Hart*

SCALE DATE DRAWING NO.

AS SHOWN

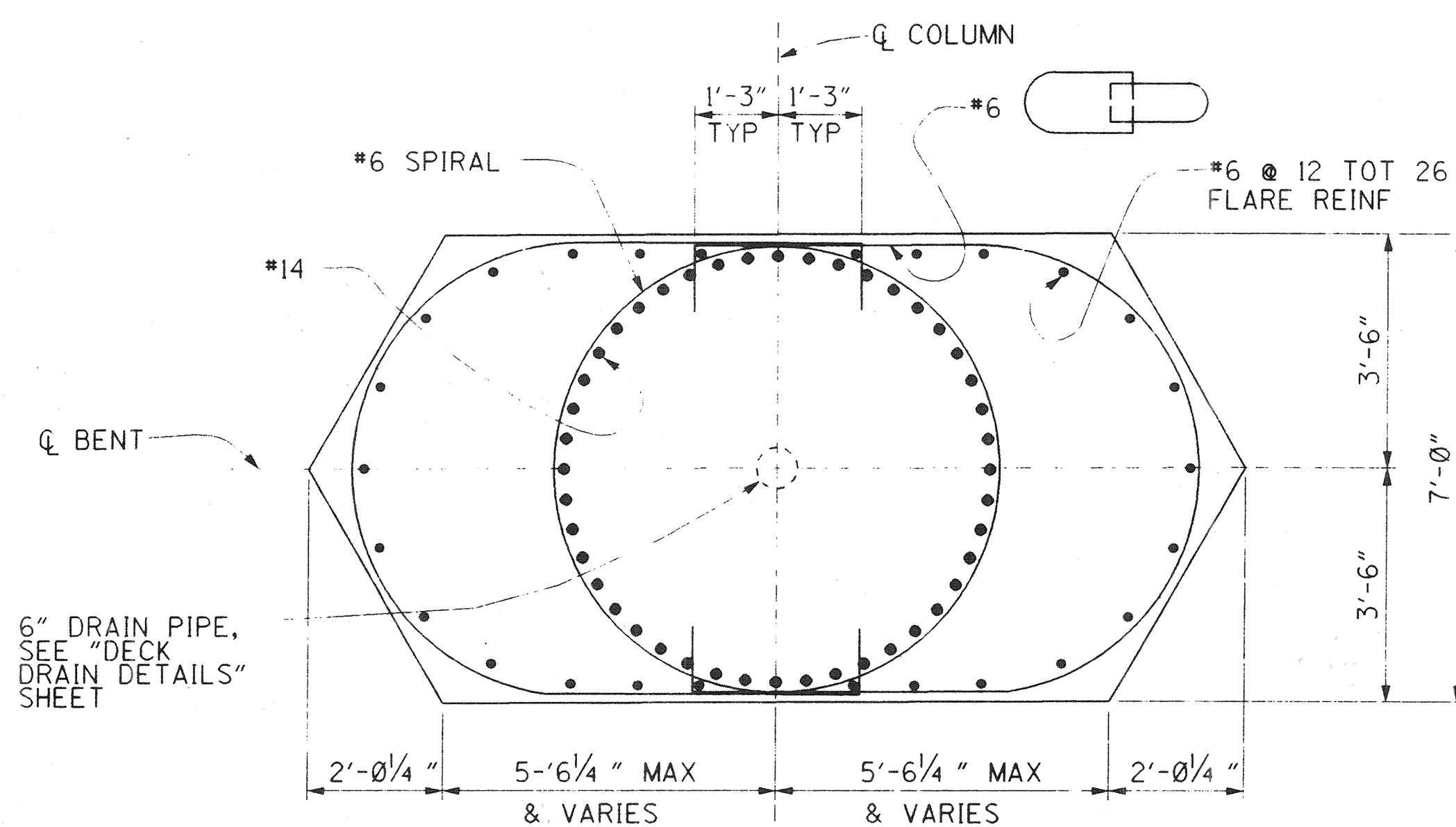
DATE

DR. 3 (16158)



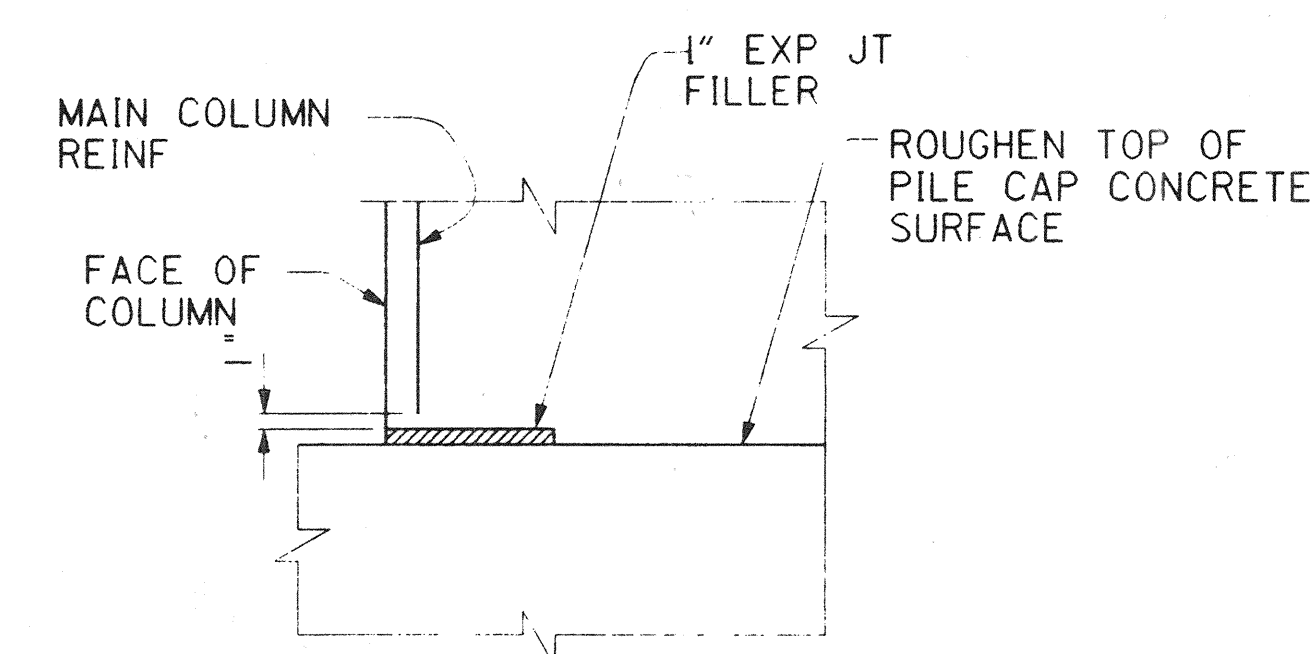
SECTION A-A

1/2" = 1'-0"



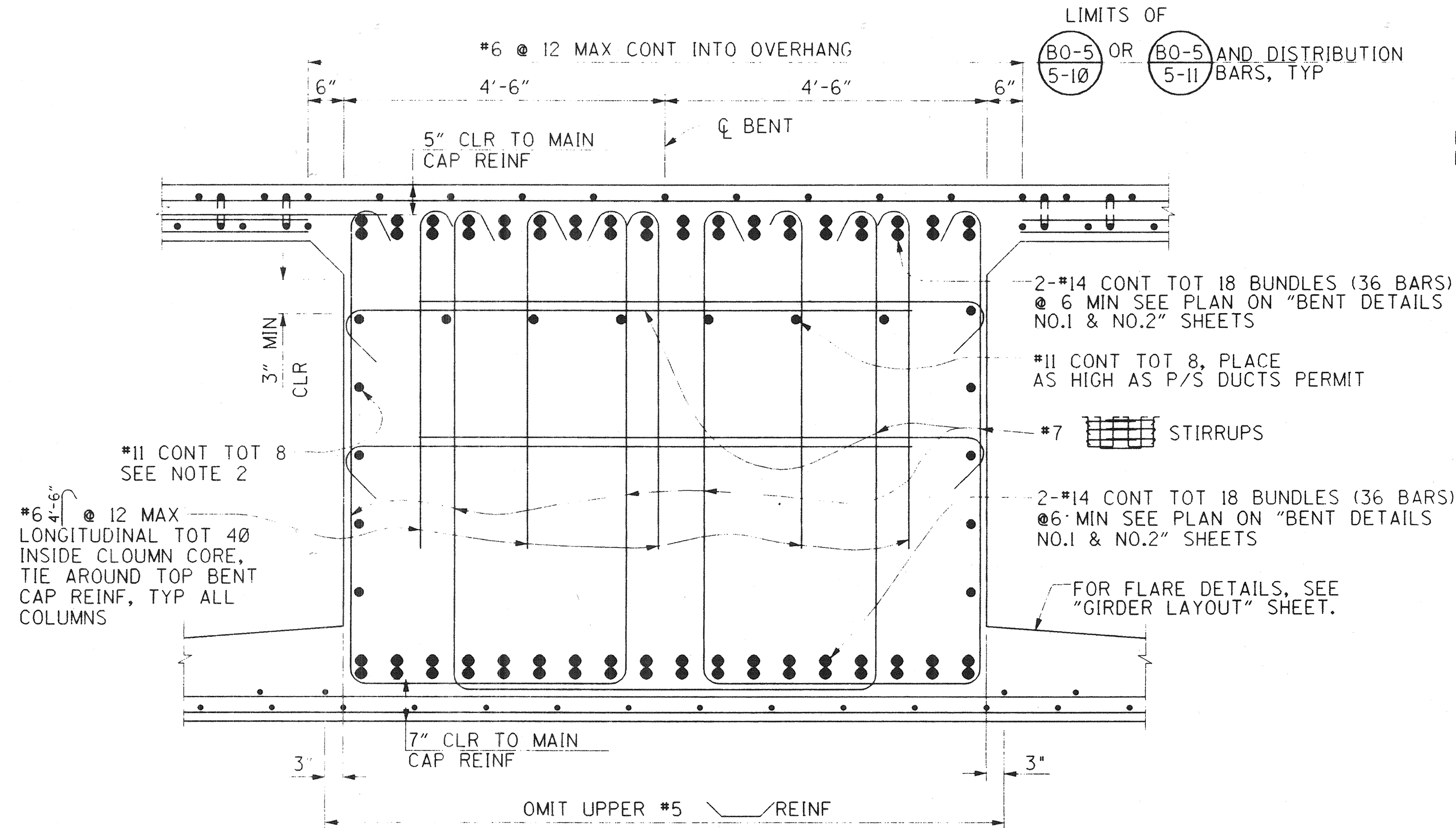
SECTION B-B

1/2" = 1'-0"



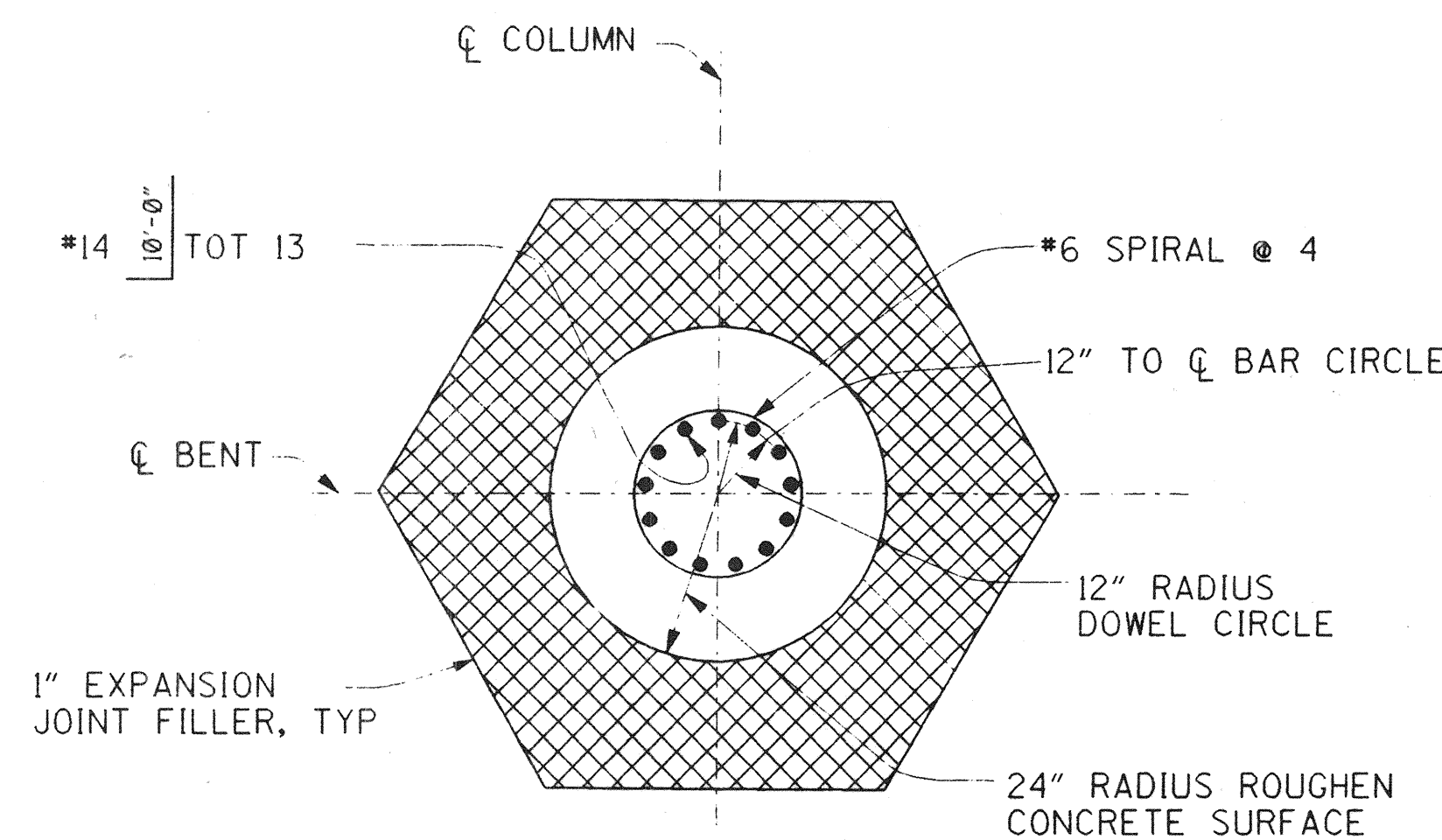
BENT 5 PARTIAL ELEVATION

NO SCALE



SECTION C-C

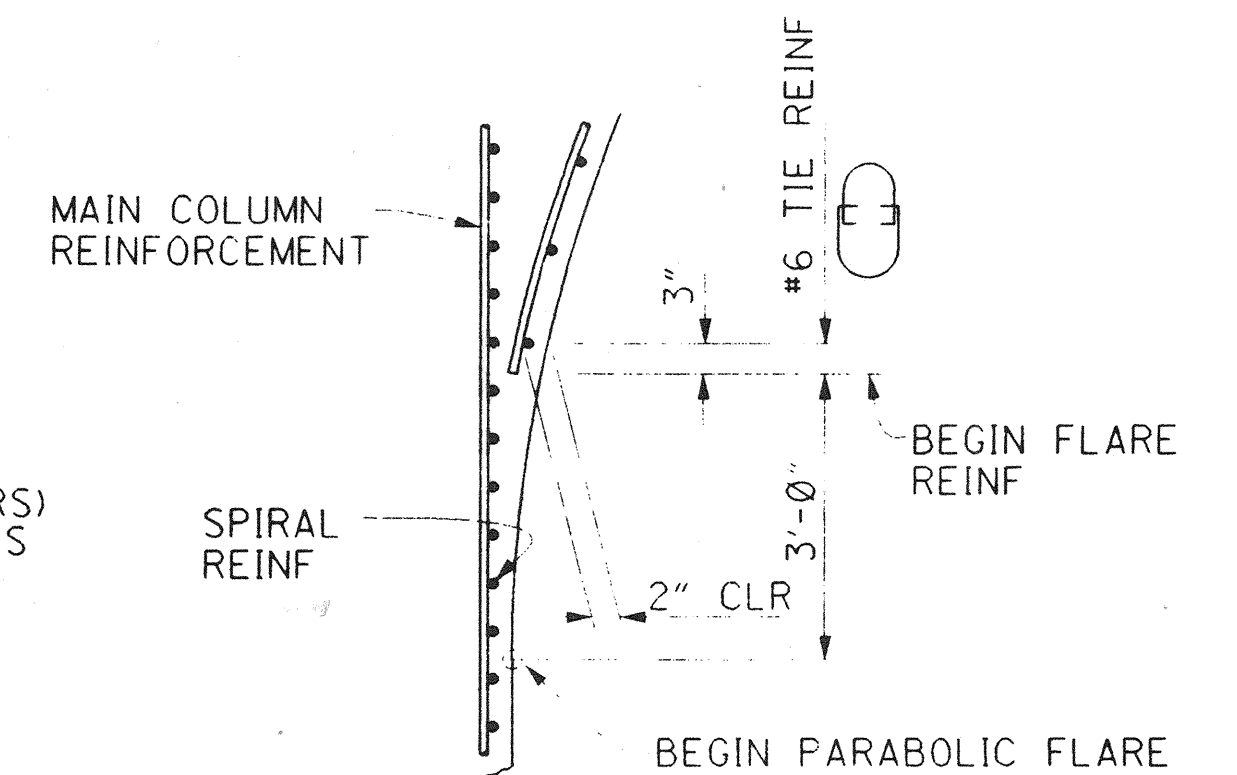
3/4" = 1'-0"



PLAN

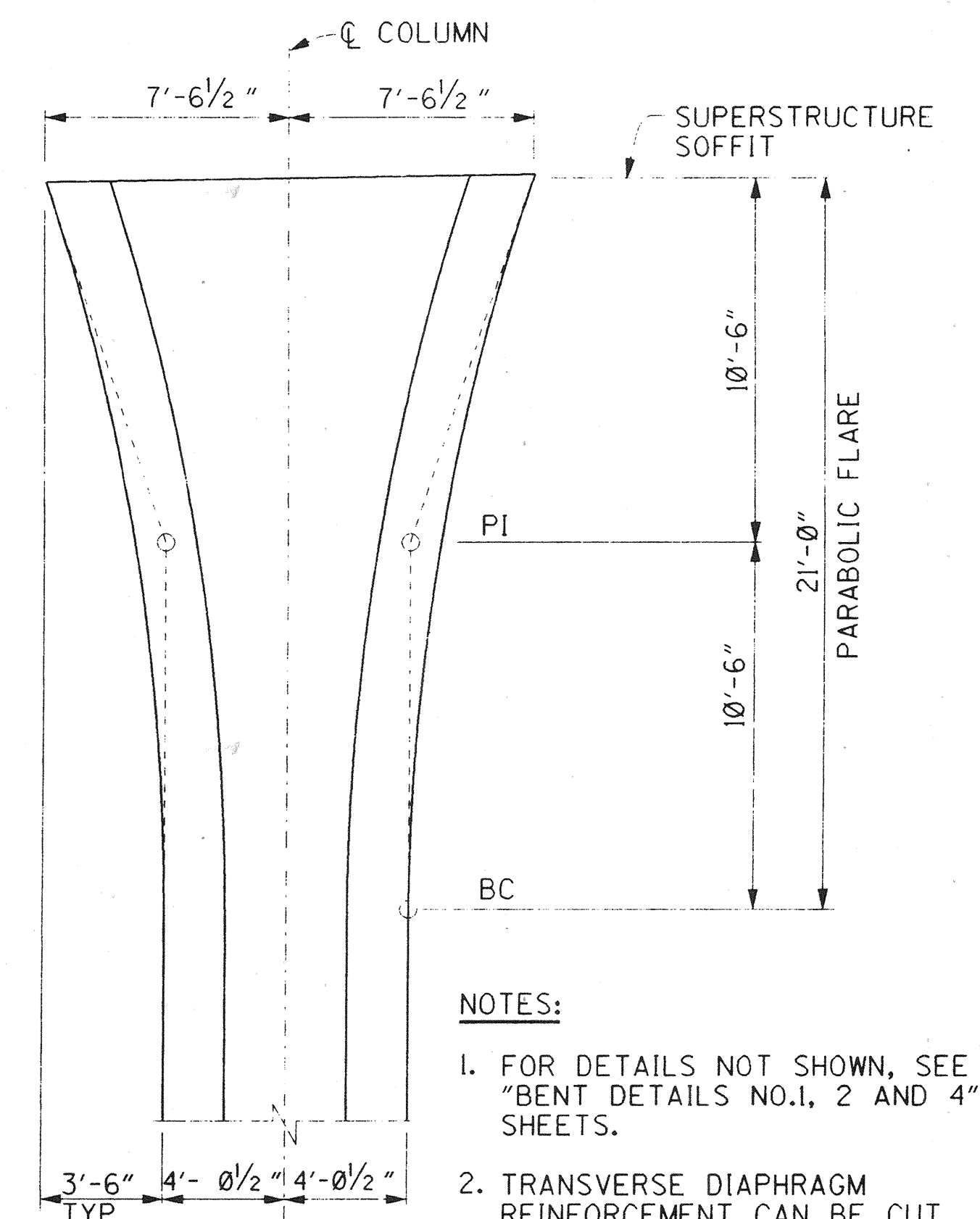
BENT 5 COLUMN BOTTOM DETAILS

NO SCALE



DETAIL A

NO SCALE

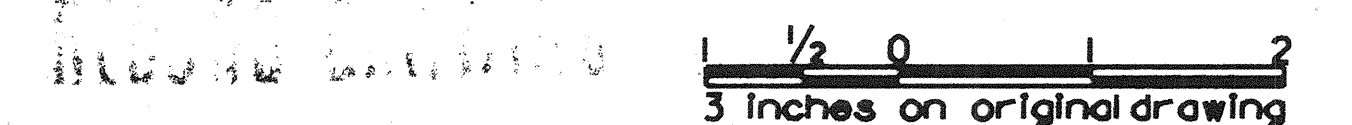


COLUMN GEOMETRICS

NO SCALE

NOTES:

1. FOR DETAILS NOT SHOWN, SEE "BENT DETAILS NO.1, 2 AND 4" SHEETS.
2. TRANSVERSE DIAPHRAGM REINFORCEMENT CAN BE CUT AT UTILITY OPENING LOCATIONS.



ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
BENT DETAILS NO.3		14/27	
DESIGNED <i>Steve A. Whitaker</i>		SHEET	
DRAWN <i>L. West</i>		62	
SCALE AS SHOWN		DRAWING NO.	
DATE		OF 126	

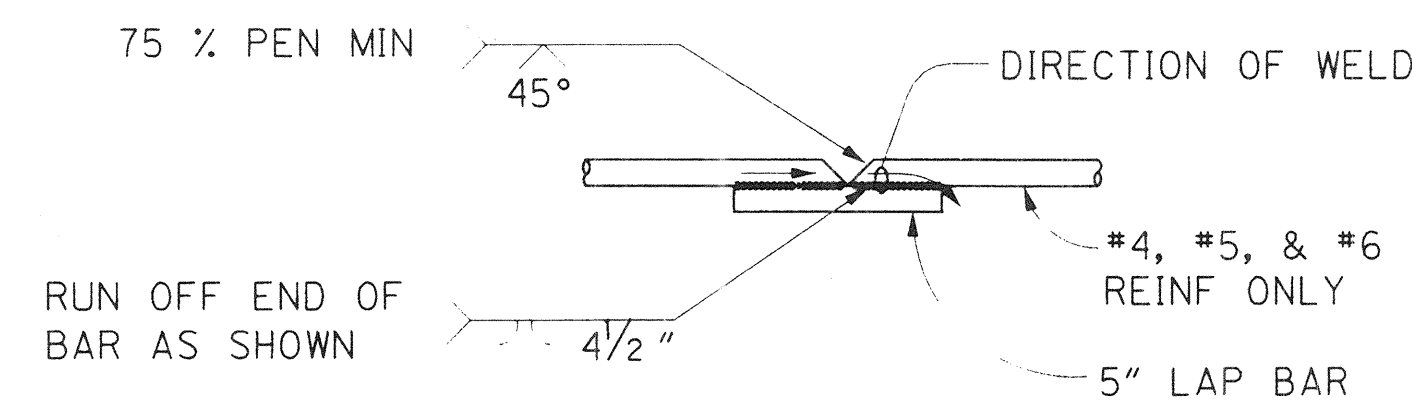
PLANS PREPARED BY:

HNTB

36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

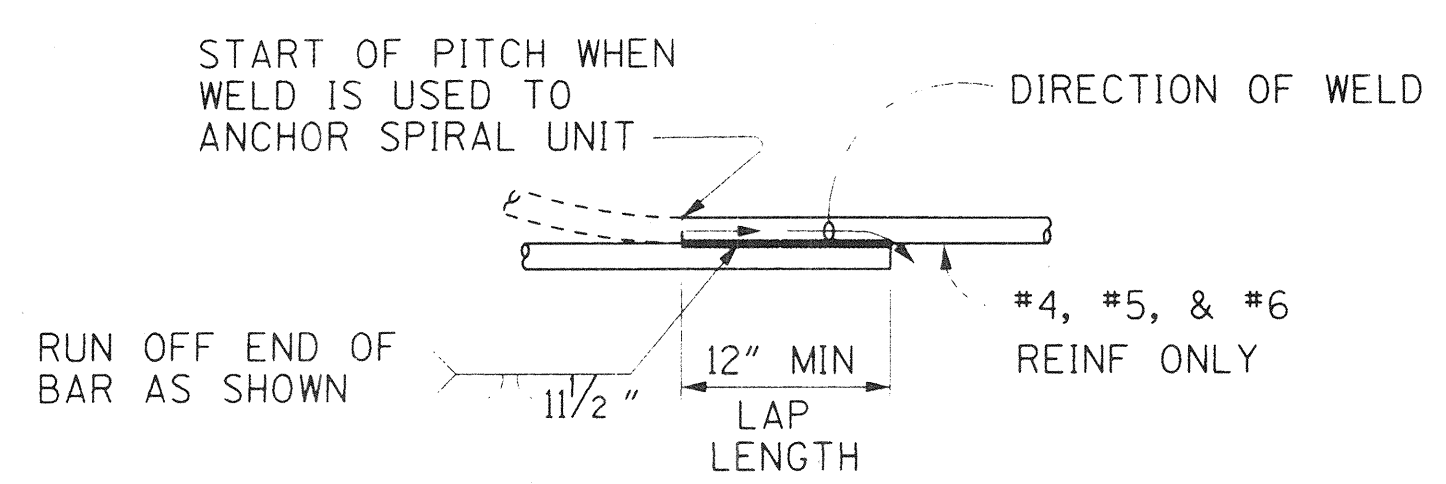
MARK	DATE	DESCRIPTION
REVISIONS		
PREPARED UNDER RESPONSIBLE CHARGE OF:		
NO. C-039595 EXP. 12-31-97 CIVIL RICHARD A. HART RCE 39595 (EXP. 12-31-97)		

DR 3 C16158D



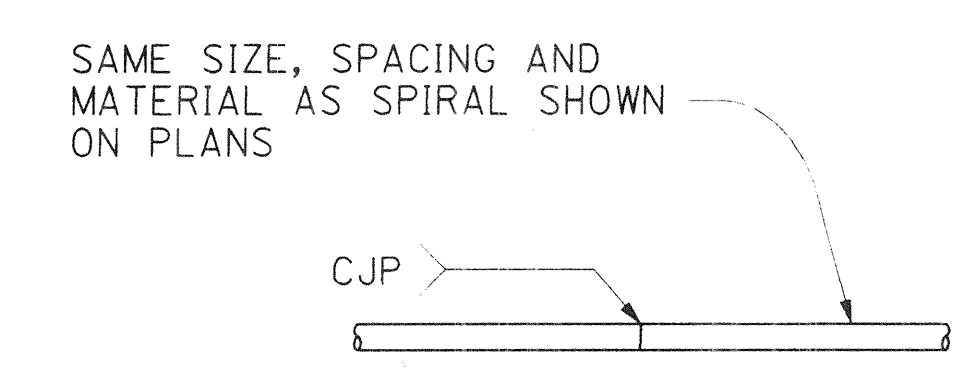
1. BUTT WELD TO BE MADE FIRST.
2. BUTT WELD TO BE MADE IN FLAT OR HORIZ POSITION.
3. LAP BAR TO BE CENTERED ON SPLICE.
4. FLARE WELD TO BE MADE IN DIRECTION SHOWN.
5. LAP BAR EQUAL SIZE TO SPIRAL BAR.

VEE GROOVE WELDED SPLICE



NOTE:
FLARE WELD TO BE MADE IN DIRECTION SHOWN

WELDED LAP SPLICE AND ANCHOR

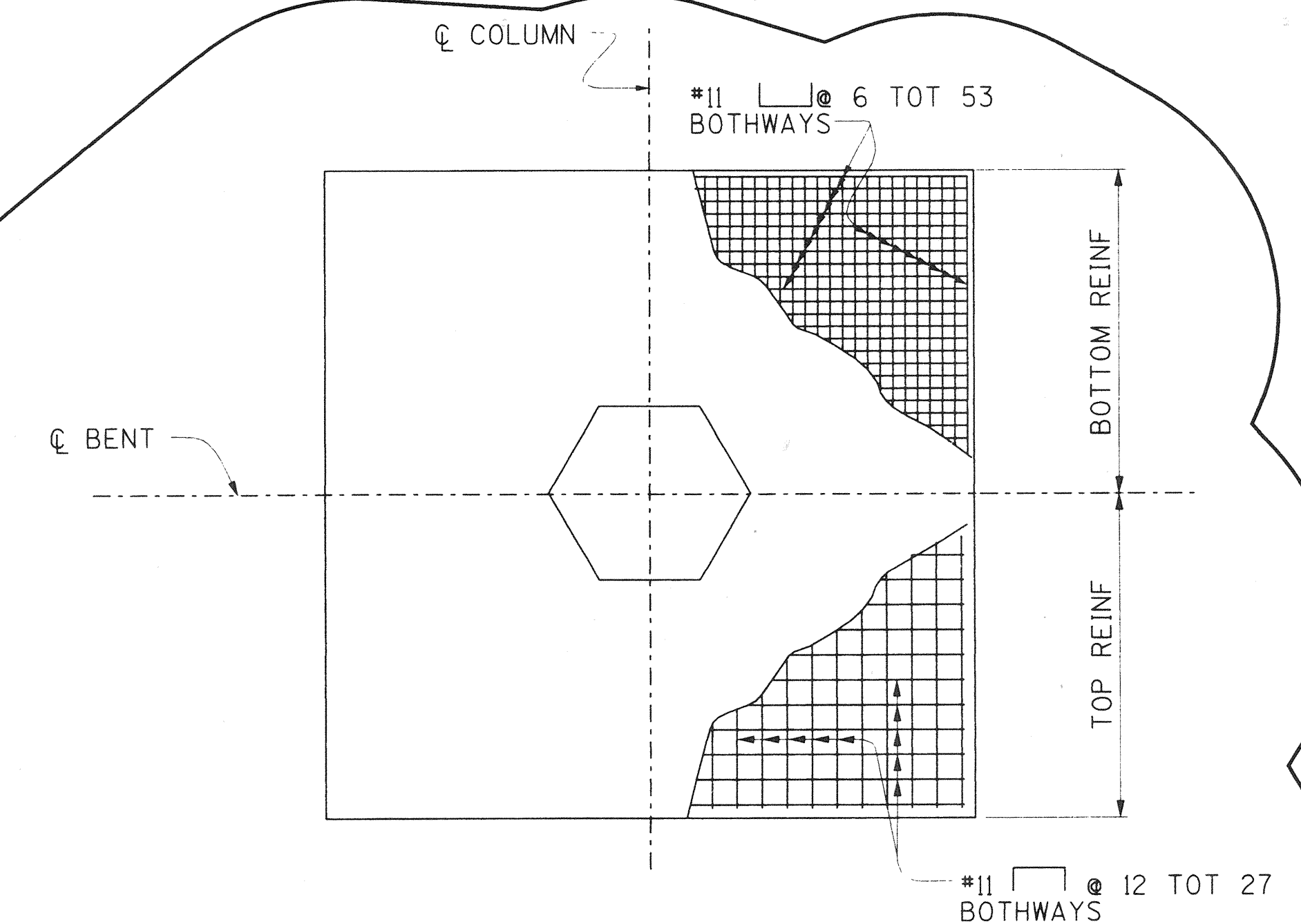


INDIVIDUAL HOOPS, MADE CONTINUOUS WITH 100% PENETRATION WELDS, MAY BE SUBSTITUTED FOR SPIRALS.

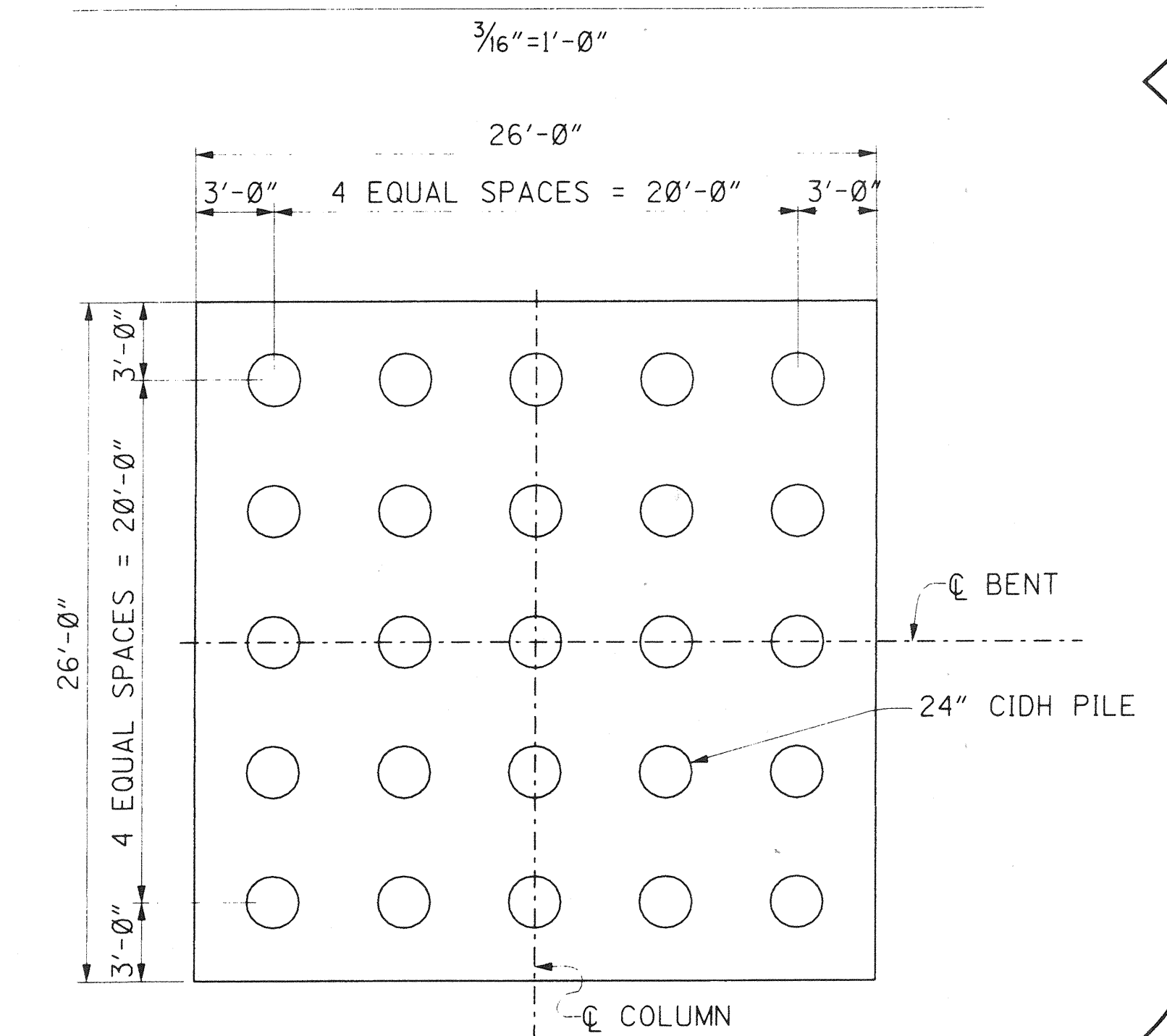
BUTT WELDED CONTINUOUS HOOP

BAR SPIRAL SPLICE & SPIRAL ANCHOR AND HOOP DETAIL

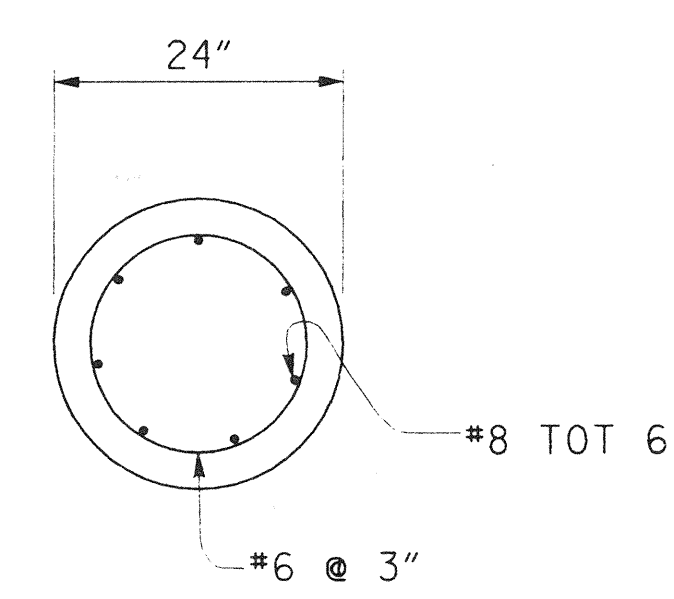
NO SCALE



BENTS 2 FOOTING REINFORCEMENT



BENTS 2 PILE LAYOUT



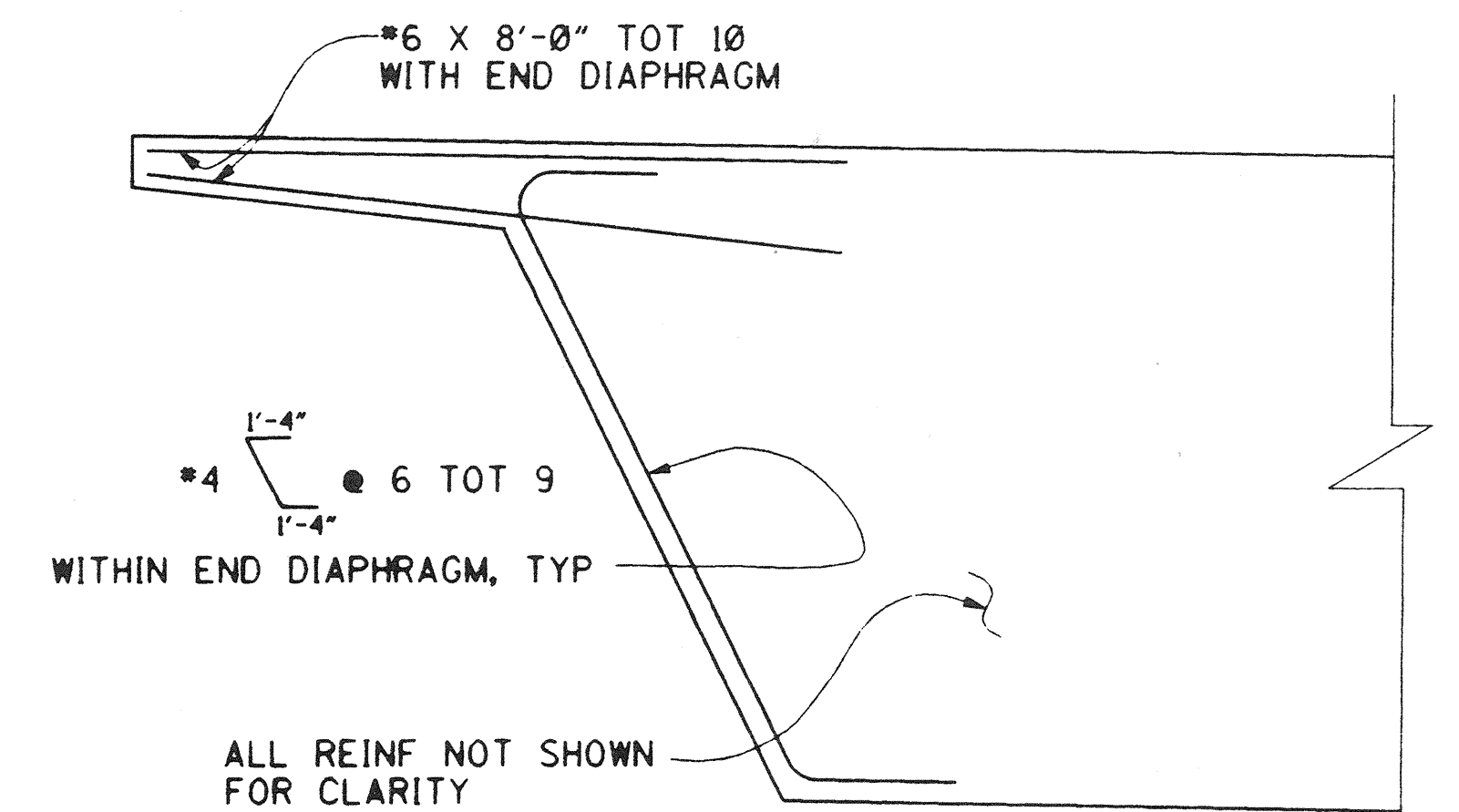
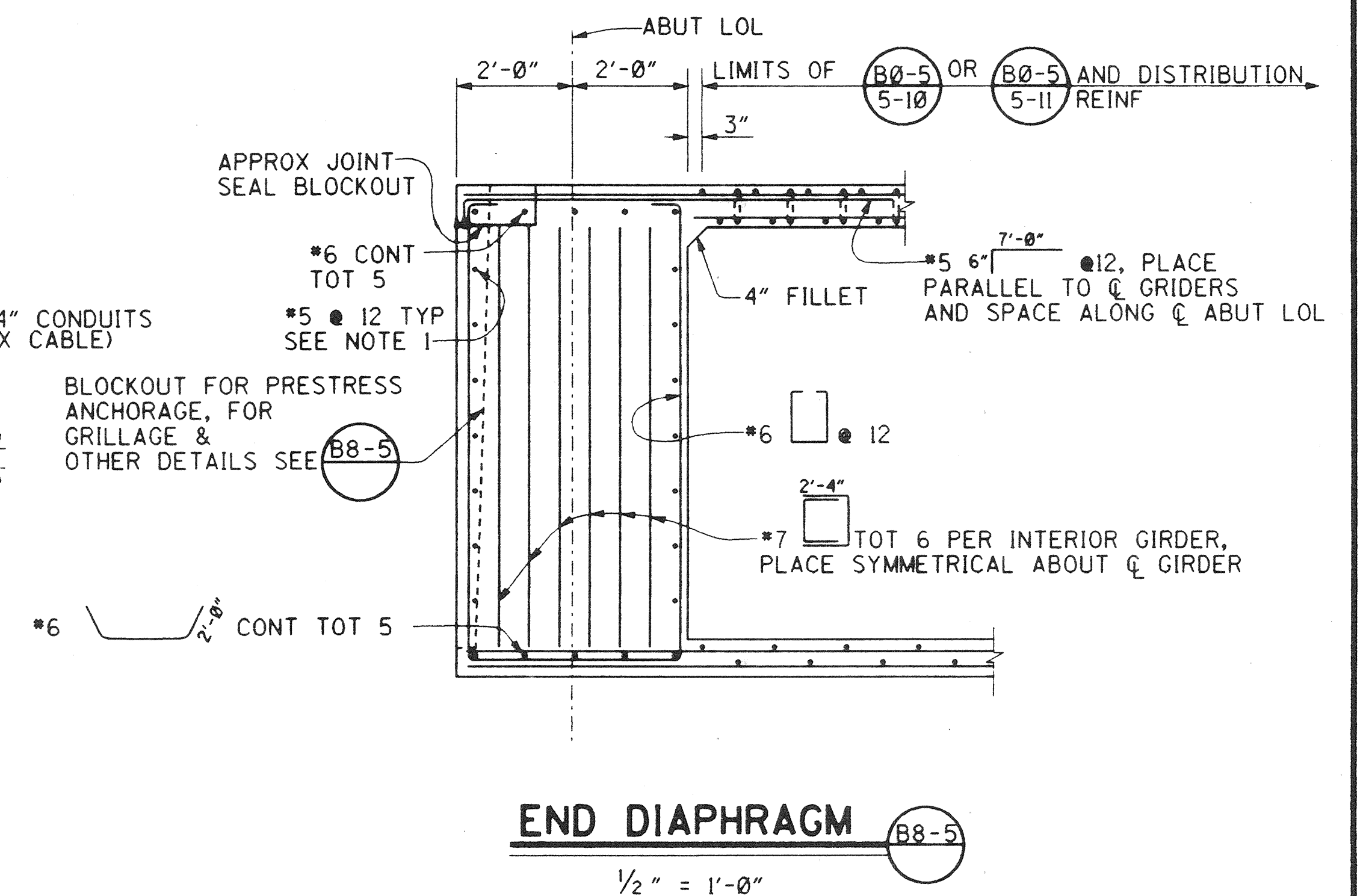
24" CIDH PILE SECTION

NTS
PILE LENGTH = 29.0'

PLANS PREPARED BY:
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
BENT DETAILS NO.4		DR. -3 (16158) Sheet 63 of 126	
DESIGNED	Steve A. Whitaker	CHECKED	R. Hart
DRAWN	L. West	DATE	10/24/97
SCALE	AS SHOWN	DRAWING NO.	63 OF 126

DR.-3 (16158)



1/2"=1'-0" RECORD DRAWING

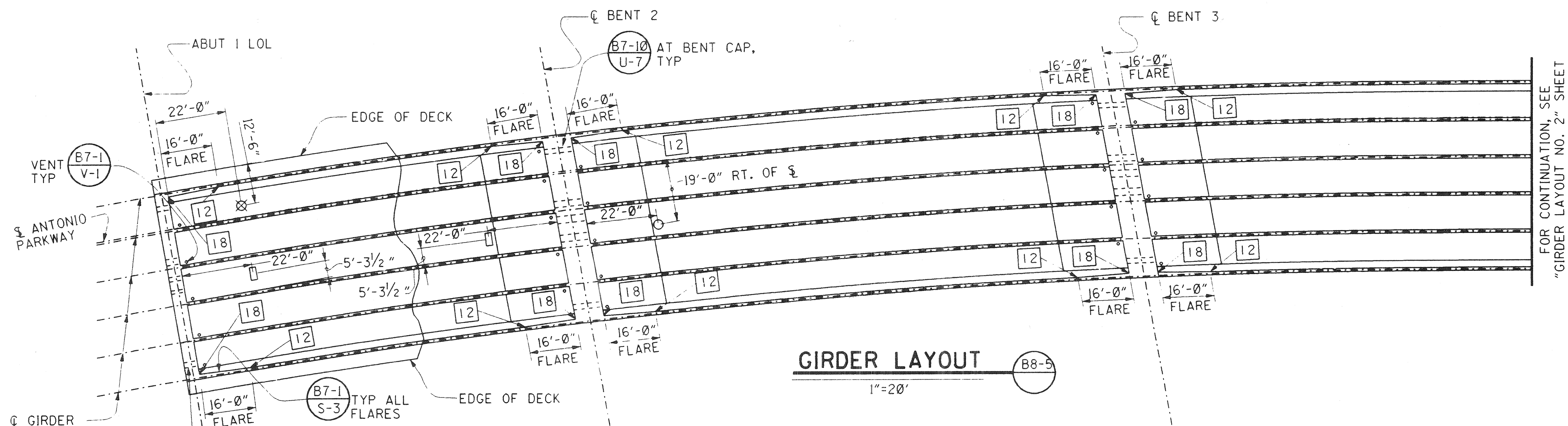
3 inches on original drawing

PLANS PREPARED BY:

HNTB

36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

Dr 3 L16154J



PRESTRESSING NOTES:

270 ksi LOW RELAXATION STRAND:
 $P_{jack} = 12,600$ kips
 ANCHOR SET = $\frac{3}{8}$ IN
 TOTAL NUMBER OF GIRDERS = 6

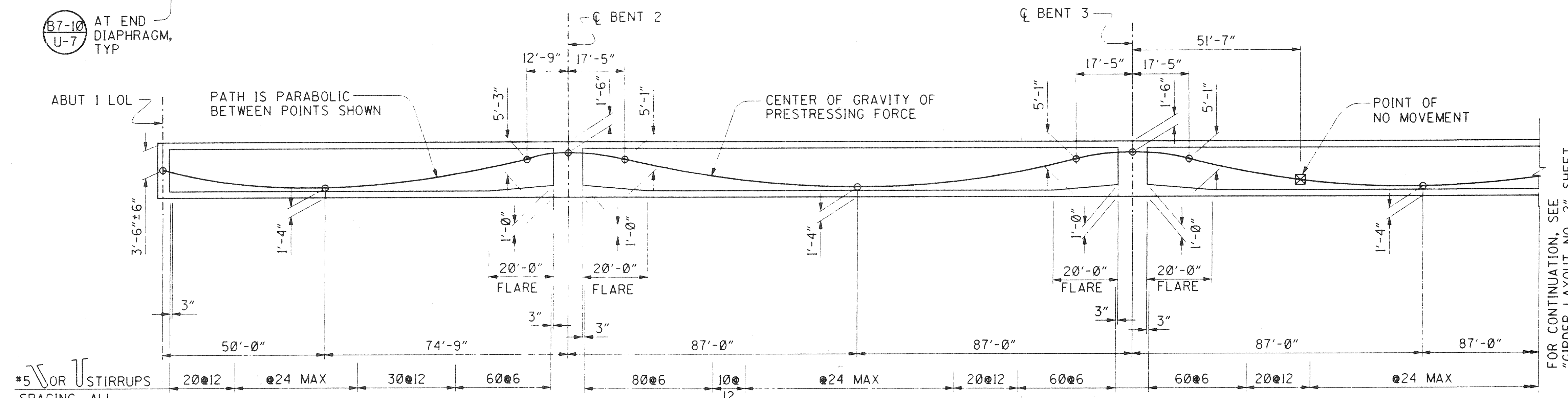
DISTRIBUTION OF FINAL PRESTRESS FORCE (P_{jack}) BETWEEN GIRDERS SHALL NOT EXCEED THE RATIO OF 3:2. MAXIMUM FINAL FORCE VARIATION BETWEEN GIRDERS SHALL NOT EXCEED 725 kips.

CONCRETE $f'c = 4,000$ psi AT 28 DAYS
 $f'ci = 3,500$ psi AT TIME OF STRESSING

CONTRACTOR SHALL SUBMIT ELONGATION CALCULATIONS BASED ON INITIAL STRESS AT $\square = 0.829$ TIMES JACKING STRESS.

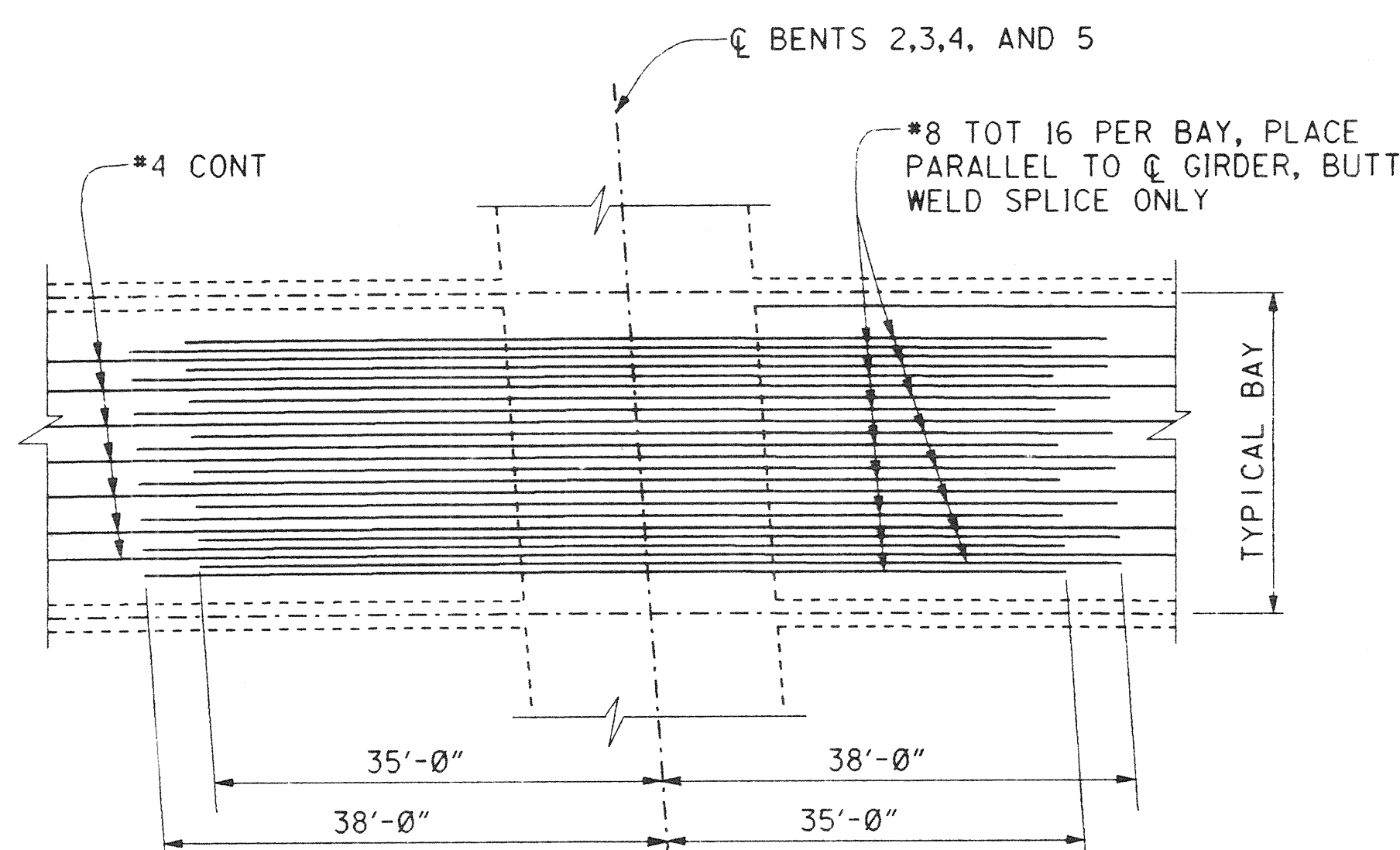
BOTH END STRESSING SHALL BE PERFORMED.

FOR PRESTRESSING DETAILS NOT SHOWN, SEE (B8-5)



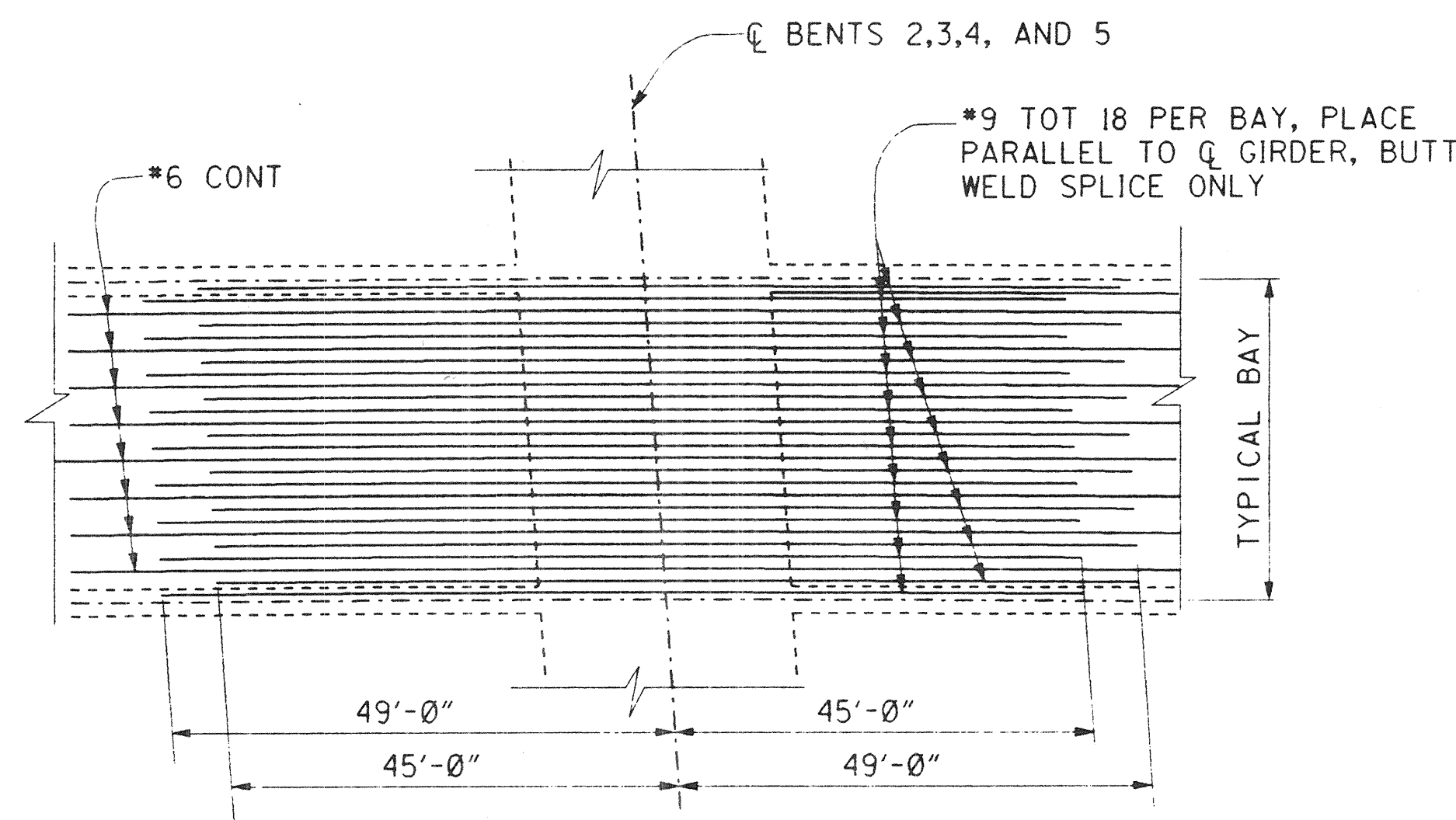
LONGITUDINAL SECTION

NO SCALE



TOP LONGITUDINAL MILD REINFORCEMENT

NO SCALE



BOTTOM LONGITUDINAL MILD REINFORCEMENT

NO SCALE

LEGEND

- \square = INDICATES GIRDER FLARE WIDTH IN INCHES, SEE (B7-1 S-3)
- \square = SOFFIT ACCESS OPENING SEE "MISCELLANEOUS DETAILS SHEET."
- \circ = MANHOLE DECK OPENING (B7-11)
COVER SHALL BE STAMPED "SMWD", "WATER" PER SMWD STANDARD DRAWING S-1.
- \otimes = SOFFIT ACCESS OPENING (CIRCULAR) (B14-5)

DR. 3 (16158)
 Sheet 65 Of 126

1/2 0 1 2
 3 Inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
GIRDER LAYOUT NO. 1	
DESIGNED <i>Steve A. Whitaker</i>	17/27
DRAWN <i>L. West</i>	CHECKED <i>R. Hart</i>
SCALE	DATE
AS SHOWN	DRAWING NO.
SHEET 65 OF 126	

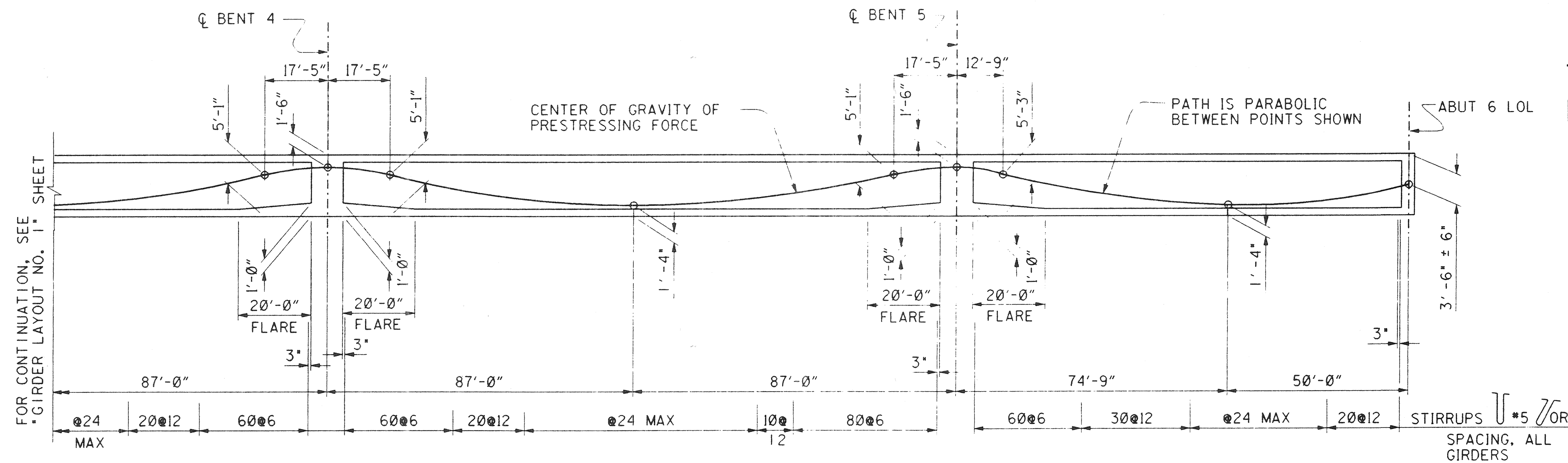
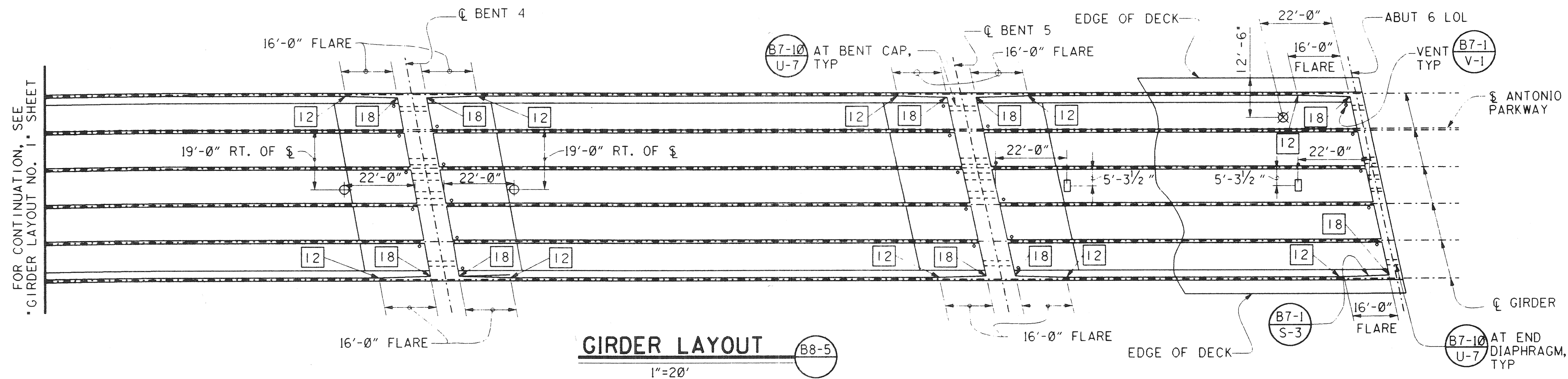
PLANS PREPARED BY:

HNTB

36 EXECUTIVE PARK
 SUITE 200
 IRVINE, CALIFORNIA 92614

PREPARED UNDER RESPONSIBLE CHARGE OF:
Richard A. Hart
 NO. C 039595
 EXP. 12-31-97
 CIVIL
 DATE 10/9/96
 RICHARD A. HART
 RCE 39595 (EXP. 12-31-97)

DR. 3 (16158)



LEGEND

- = INDICATES GIRDER FLARE WIDTH IN INCHES, SEE (B7-1 S-3)
- = SOFFIT ACCESS OPENING SEE "MISCELLANEOUS DETAILS SHEET."
- = MANHOLE DECK OPENING (B7-11)
COVER SHALL BE STAMPED "SMWD", "WATER" PER SMWD STANDARD DRAWING S-1.
- ⊗ = SOFFIT ACCESS OPENING (CIRCULAR) (B14-5)

RECORD DRAWING

DR. 8 (16158)
Sheet 66 Of 126

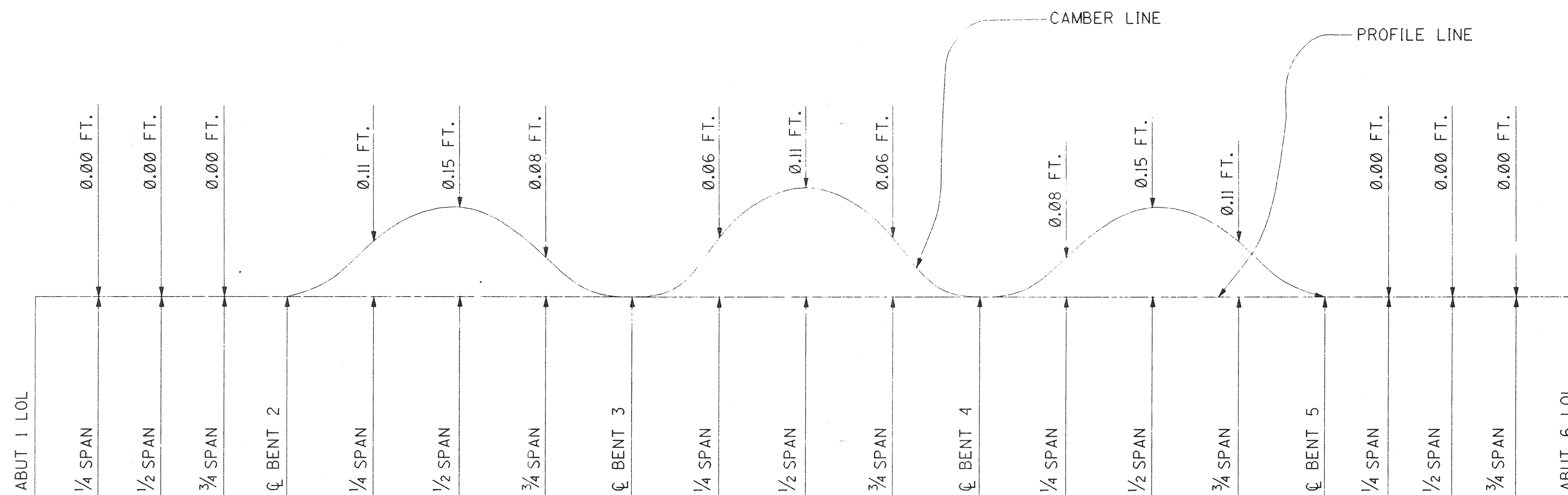
1/2" = 0' 1' 2'
3 Inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
GIRDER LAYOUT NO.2	
18/27	
DESIGNED <i>Steve A. Whitaker</i>	SHEET
DRAWN <i>L. West</i>	66
CHECKED <i>R. Hart</i>	OF 126
SCALE AS SHOWN	DRAWING NO.

PLANS PREPARED BY:
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

PROFESSIONAL
SEAL
RICHARD A. HART
NO. C 032555
EXP. 12-31-97
CIVIL
OF CALIF.

DR. 3 (16158)

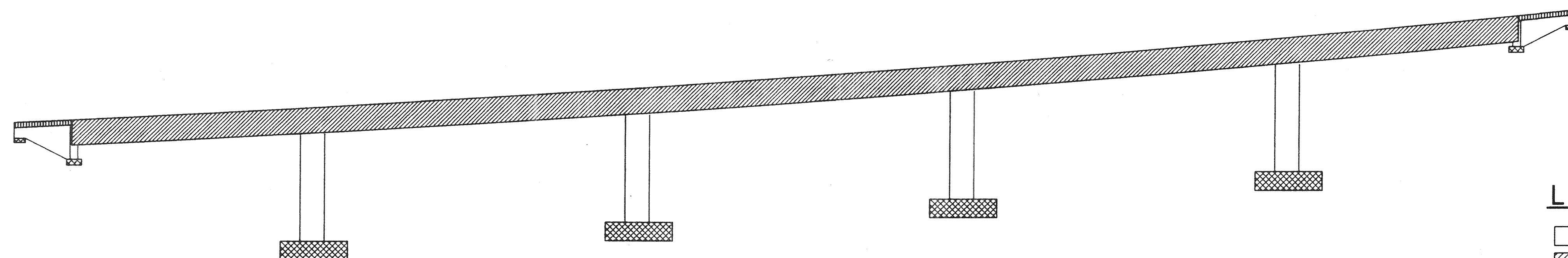


CAMBER DIAGRAM

NO SCALE

NOTE:

CAMBER LINE DOES NOT INCLUDE ALLOWANCE FOR FALSEWORK SETTLEMENT.



CONCRETE STRENGTH & TYPE LIMITS

NO SCALE

LEGEND

- = STRUCTURAL CONCRETE, BRIDGE (f'c=3,500 psi @ 28 DAYS)
- = STRUCTURAL CONCRETE, BRIDGE (f'c=4,000 psi @ 28 DAYS)
- = STRUCTURAL CONCRETE, BRIDGE FOOTING (f'c=3,500 psi @ 28 DAYS)
- = STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)

DR. 3 (16158)
Sheet 67 Of 126

RECORD DRAWING

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

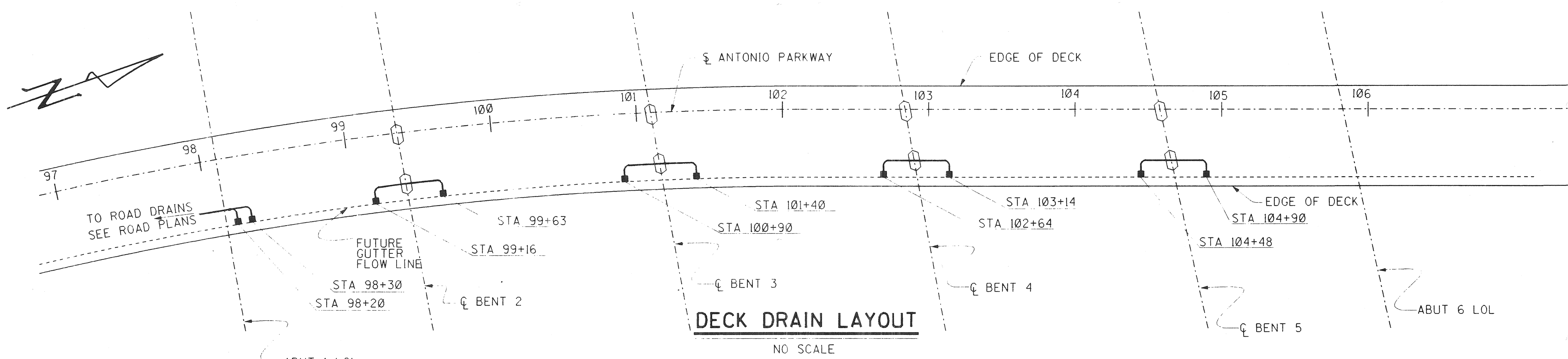
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY																			
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK																			
CAMBER DIAGRAM & CONC STRENGTH & TYPE LIMITS																			
19/27																			
DESIGNED <i>Steve A. Whitaker</i>	SHEET																		
DRAWN <i>L. West</i>	67																		
CHECKED <i>R. Hart</i>	OF 126																		
SCALE AS SHOWN	DATE																		
<table border="1"> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td colspan="3">REVISIONS</td> </tr> <tr> <td colspan="3">PREPARED UNDER RESPONSIBLE CHARGE OF:</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>RICHARD A. HART</td> <td>DATE</td> <td></td> </tr> <tr> <td>RCE 39595 (EXP. 12-31-97)</td> <td></td> <td></td> </tr> </table>		MARK	DATE	DESCRIPTION	REVISIONS			PREPARED UNDER RESPONSIBLE CHARGE OF:						RICHARD A. HART	DATE		RCE 39595 (EXP. 12-31-97)		
MARK	DATE	DESCRIPTION																	
REVISIONS																			
PREPARED UNDER RESPONSIBLE CHARGE OF:																			
RICHARD A. HART	DATE																		
RCE 39595 (EXP. 12-31-97)																			

PLANS PREPARED BY:

HNTB

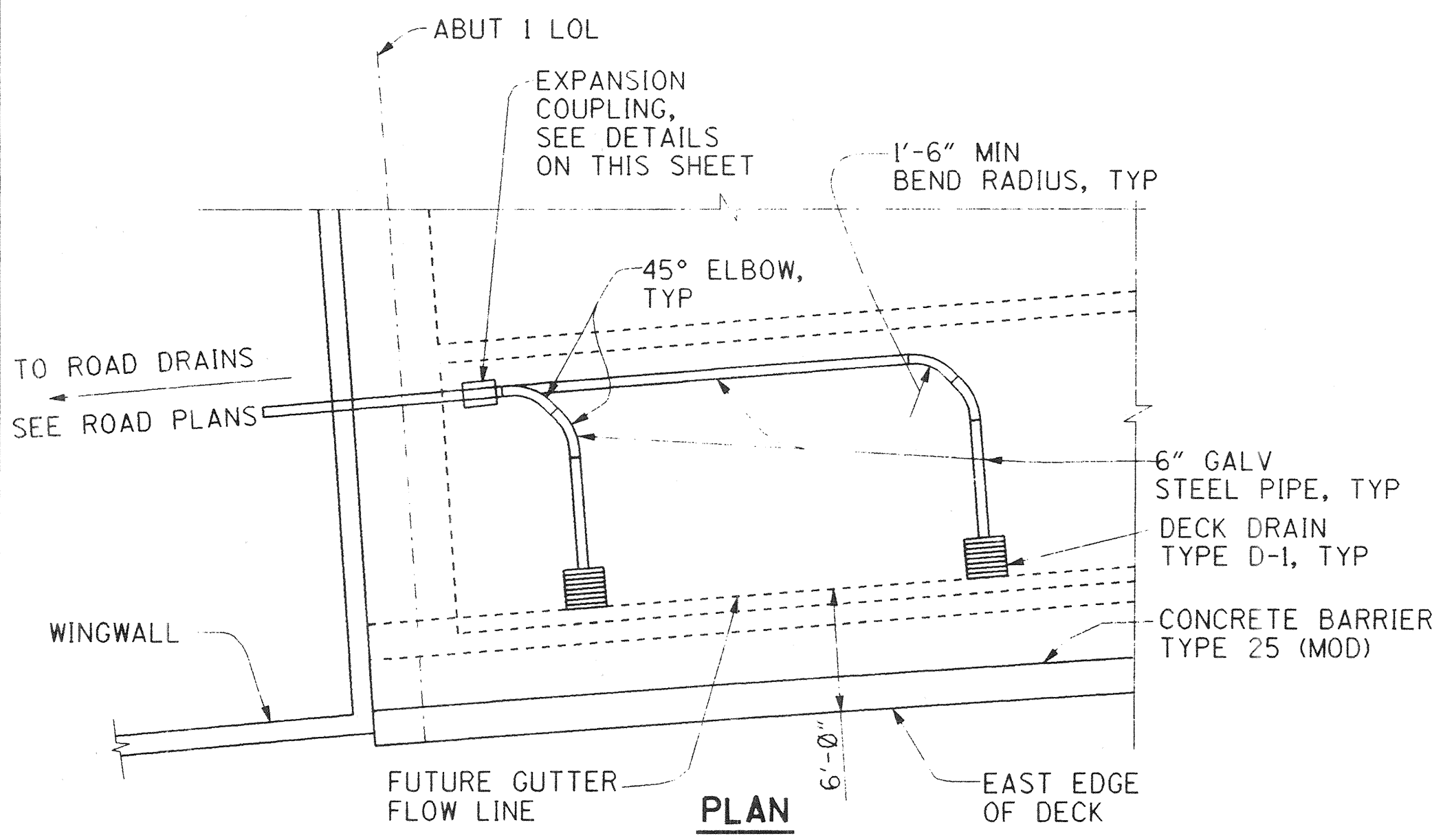
36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

DR. 3 (14158)

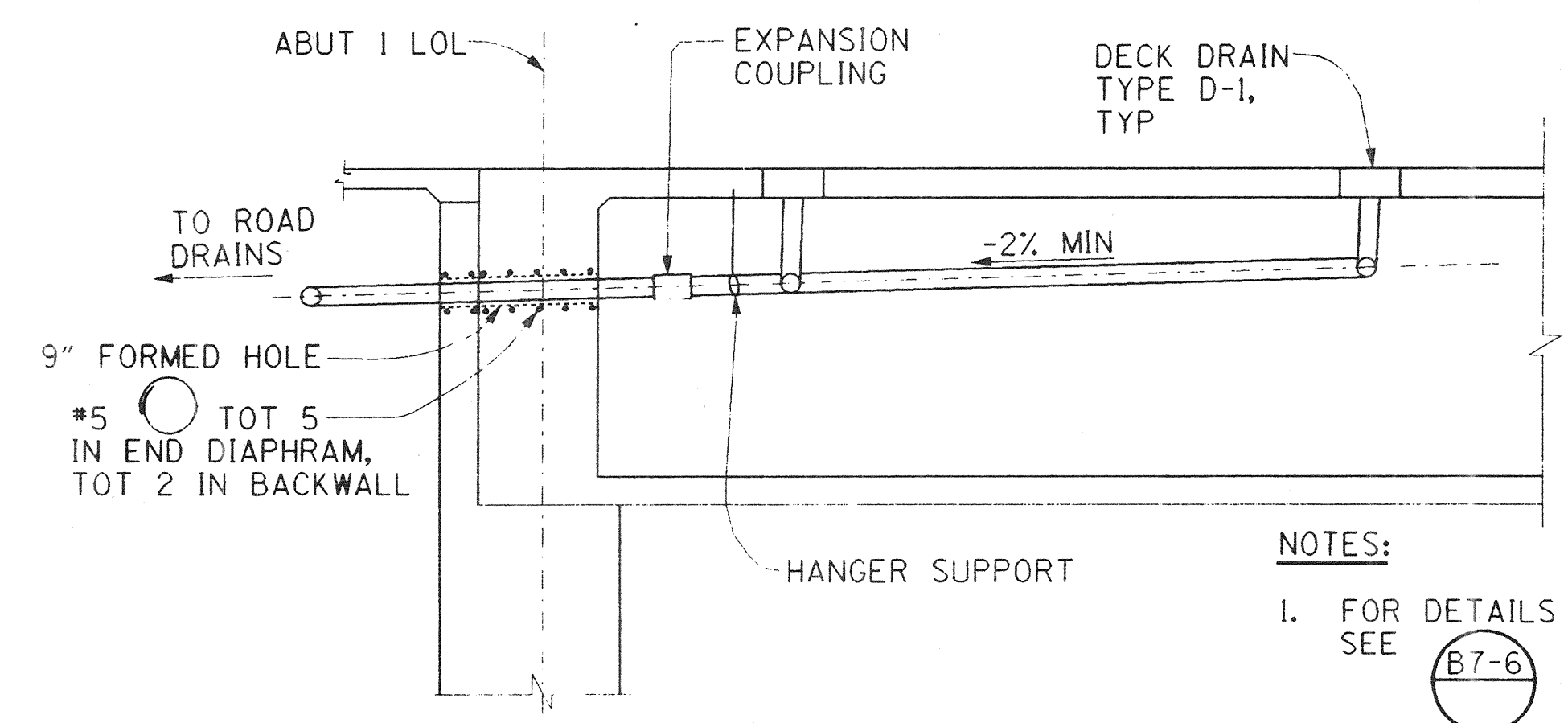


LEGEND

■ = DECK DRAIN TYPE D-1 (B7-6)



PLAN

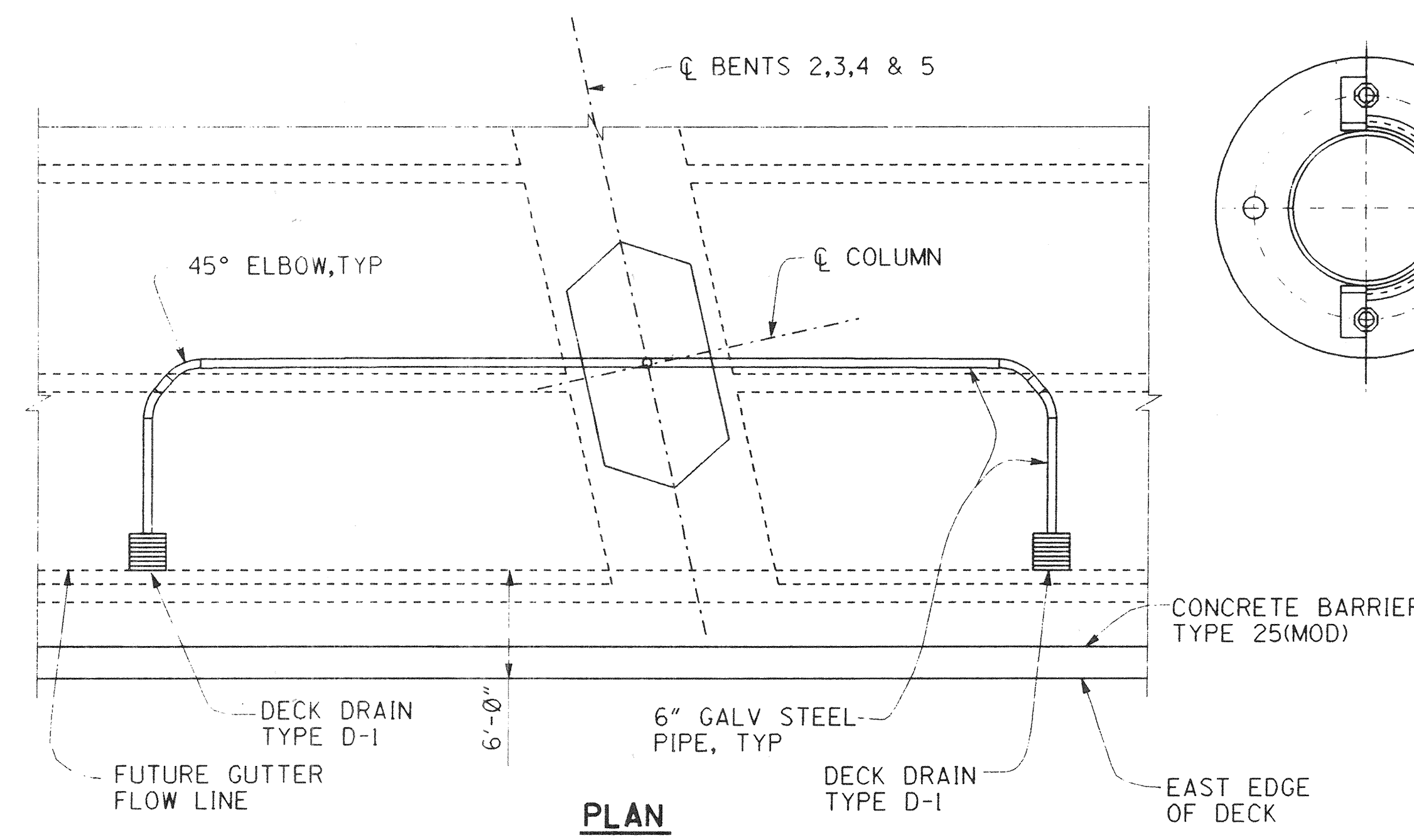


ELEVATION

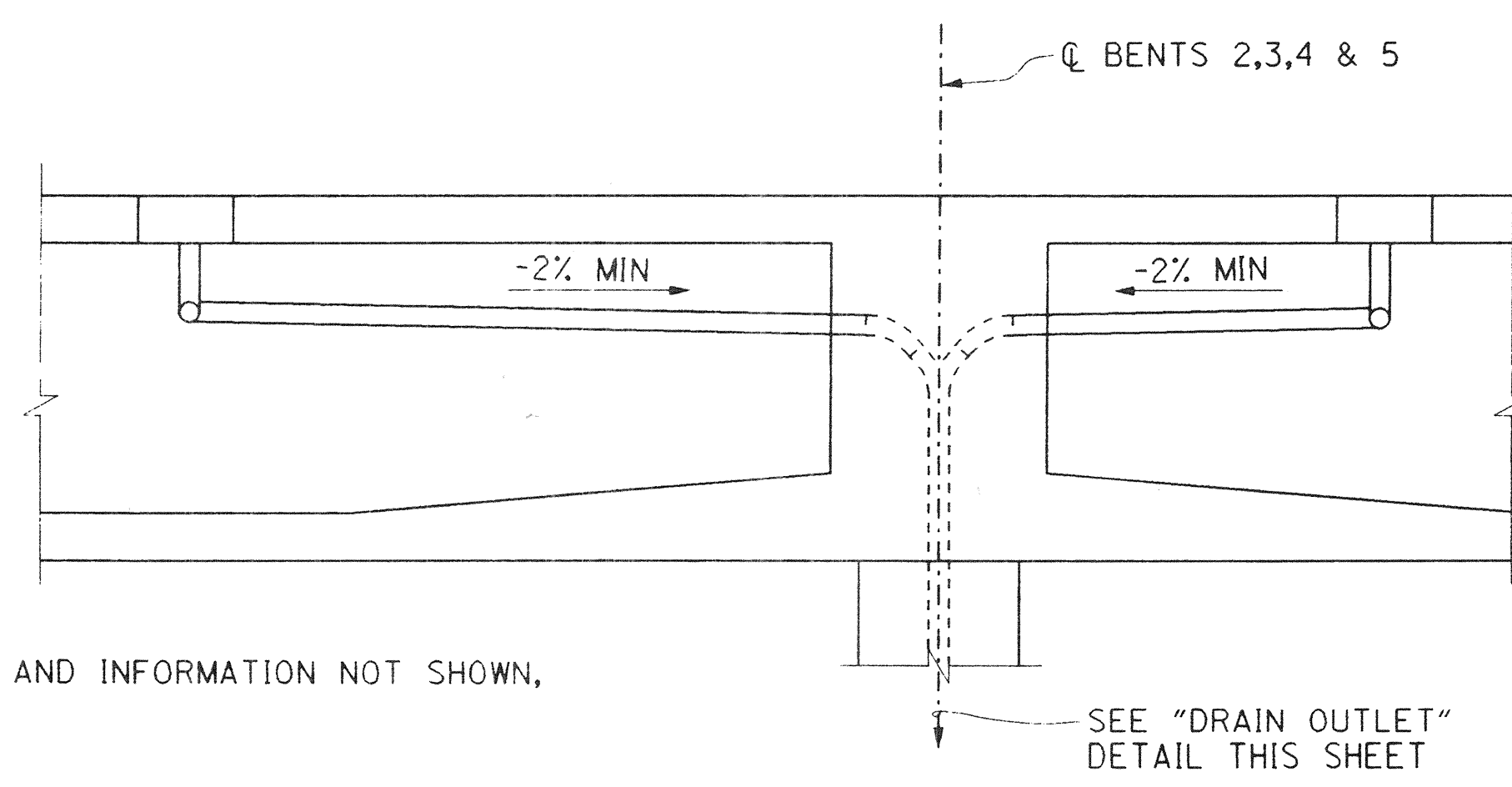
DRAINS NEAR ABUTMENT 1
NO SCALE

NOTES:

1. FOR DETAILS AND INFORMATION NOT SHOWN, SEE (B7-6)
2. ALL EXPANSION COUPLING HARDWARE TO BE GALVANIZED. FOR DIMENSION "A", SEE "JOINT SEAL ASSEMBLY (MOVEMENT RATING = 5 1/2") SHEET.

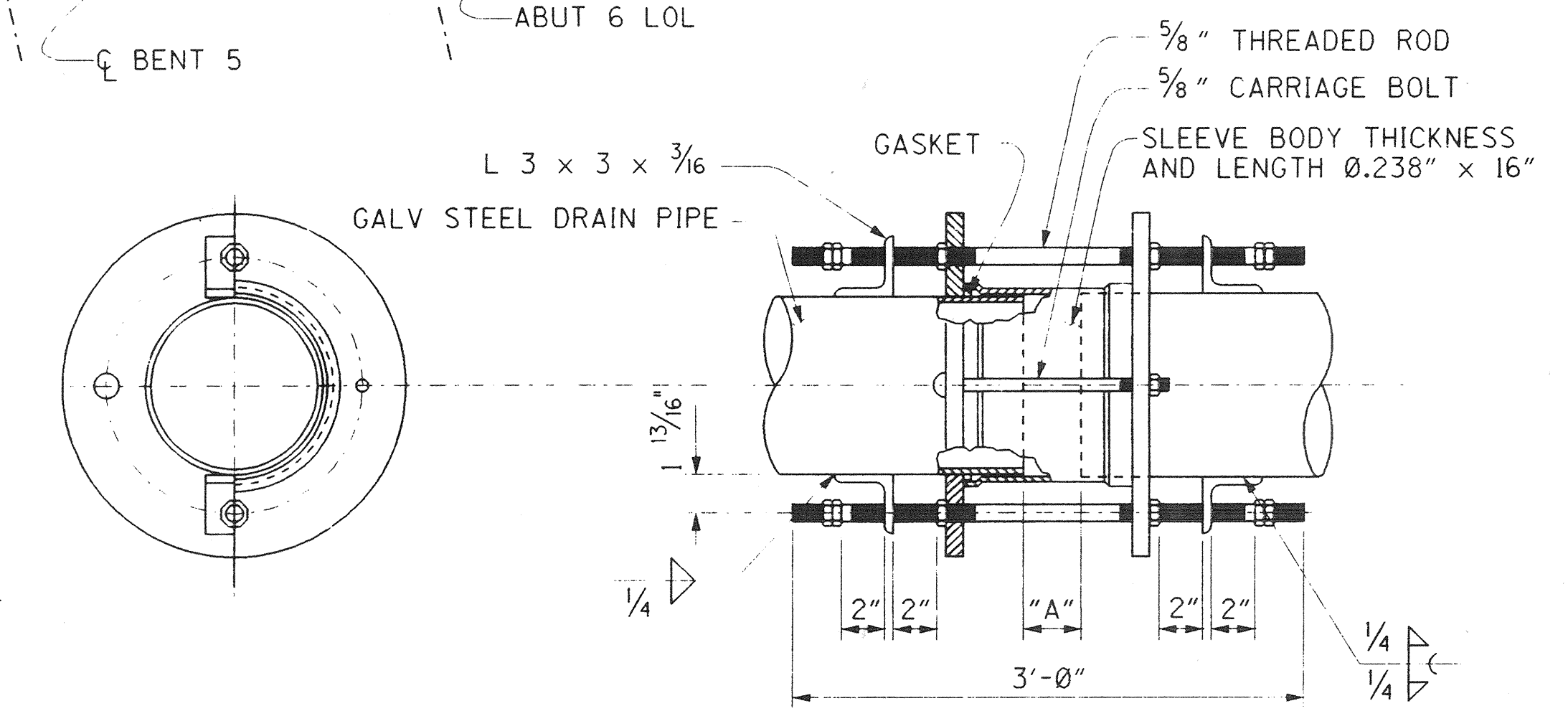


PLAN



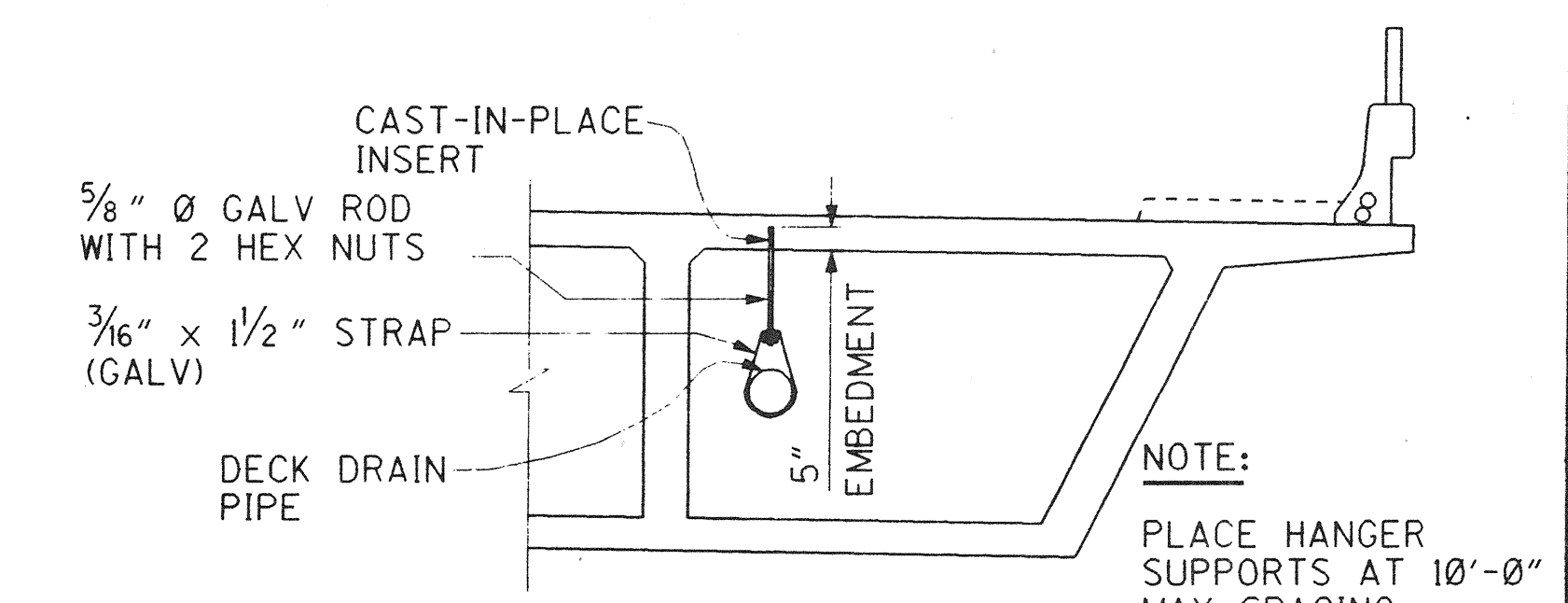
ELEVATION

DRAINS NEAR BENTS 2, 3, 4 & 5
NO SCALE



EXPANSION COUPLING

NO SCALE



HANGER SUPPORT DETAILS

NO SCALE

DR. 3 (16158)
Sheet 68 OF 126

RECORD DRAWING
1 1/2" 0 1 1/2"
3 inches on original drawing

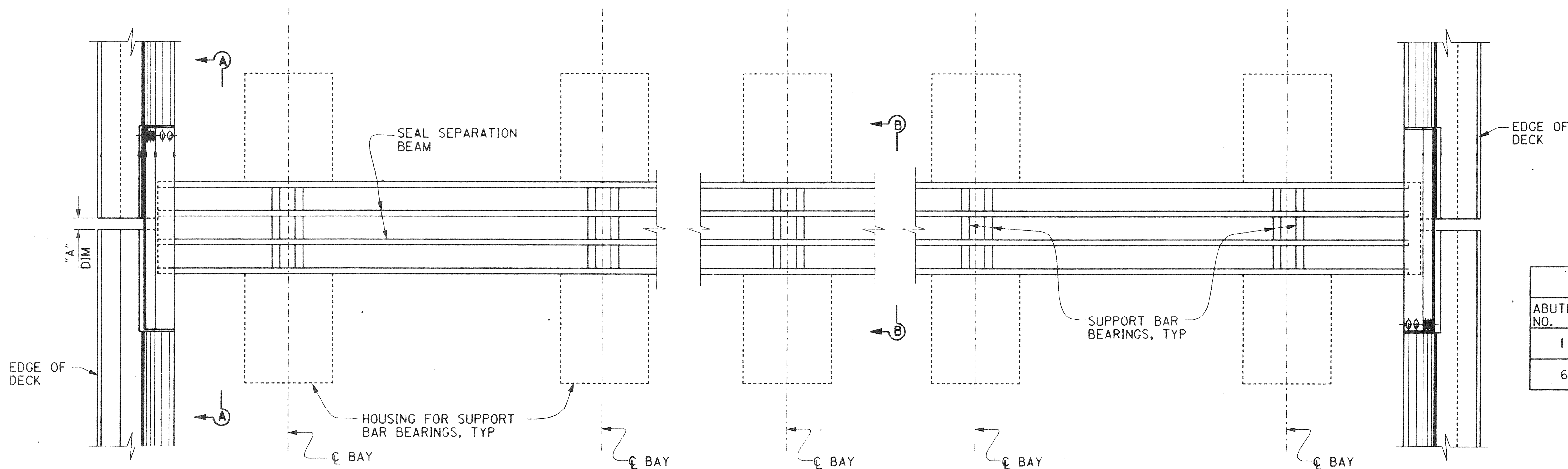
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
DECK DRAIN DETAILS			
DESIGNED <i>Steve A. Whitaker</i>		20/27 SHEET	
DRAWN <i>L. West</i>		CHECKED <i>R. Hart</i>	
SCALE AS SHOWN		DATE	
DATE		DRAWING NO.	
DATE		DRAWING NO.	

PLANS PREPARED BY:
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

PROFESSIONAL
REGISTERED
RICHARD A. HART
NO. C 03955
EXP. 12-31-97
CIVIL
STATE OF CALIFORNIA

DR. 3 16158

Design: Filename: p:\24897\ccdd\antoddi.dgn
Plotted on: 20-SEP-98 09:05 Generated by: SWH/aker

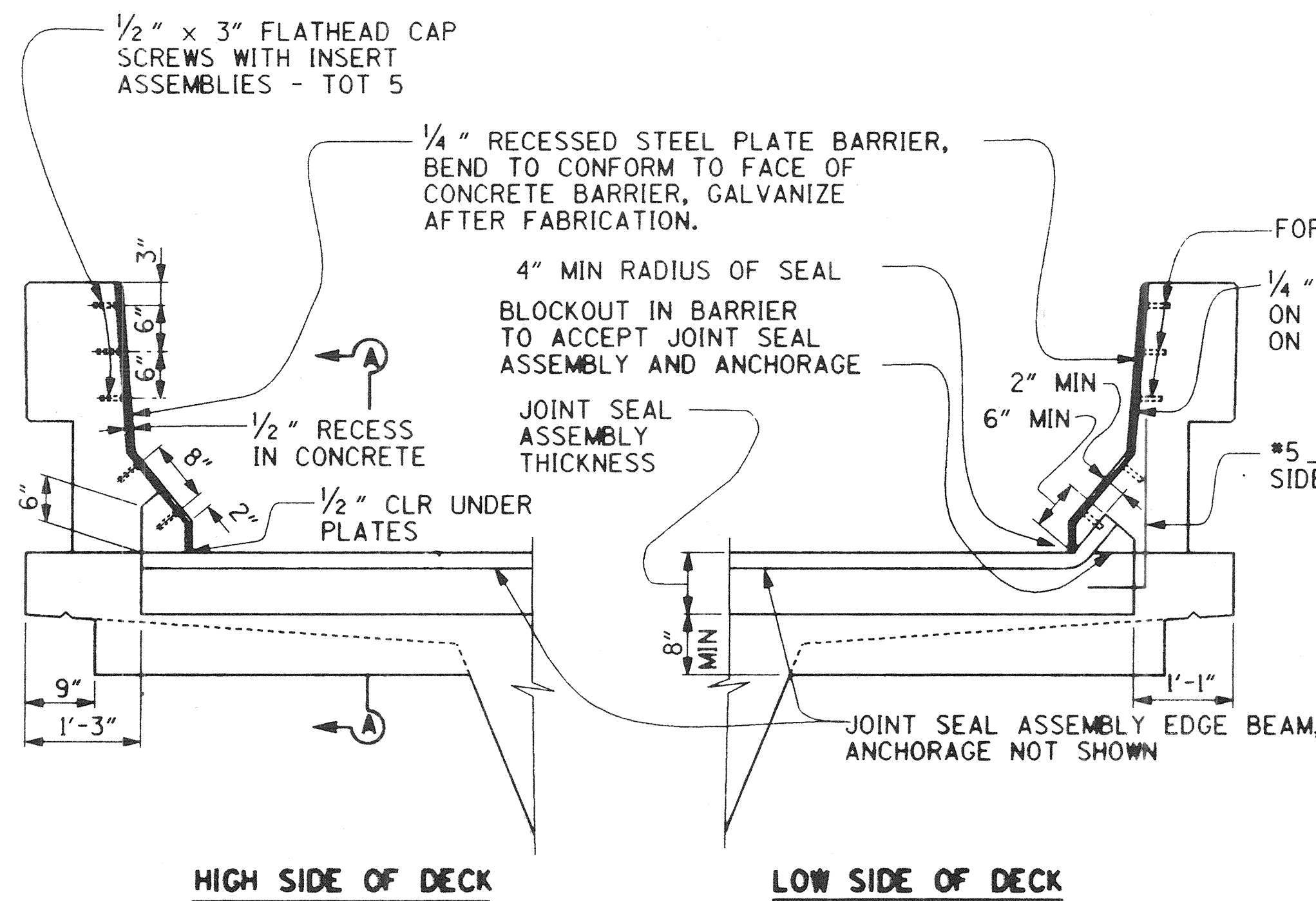


PARTIAL PLAN
NO SCALE

JOINT INFORMATION			"A" DIMENSIONS		
ABUTMENT NO.	MOVEMENT RATING (MR)	SKEW	WINTER	SUMMER	SPRING & FALL
1	5 1/2"	0°	3 1/2"	1 1/2"	2 1/2"
6	5 1/2"	12.4°	3 1/2"	1 1/2"	2 1/2"

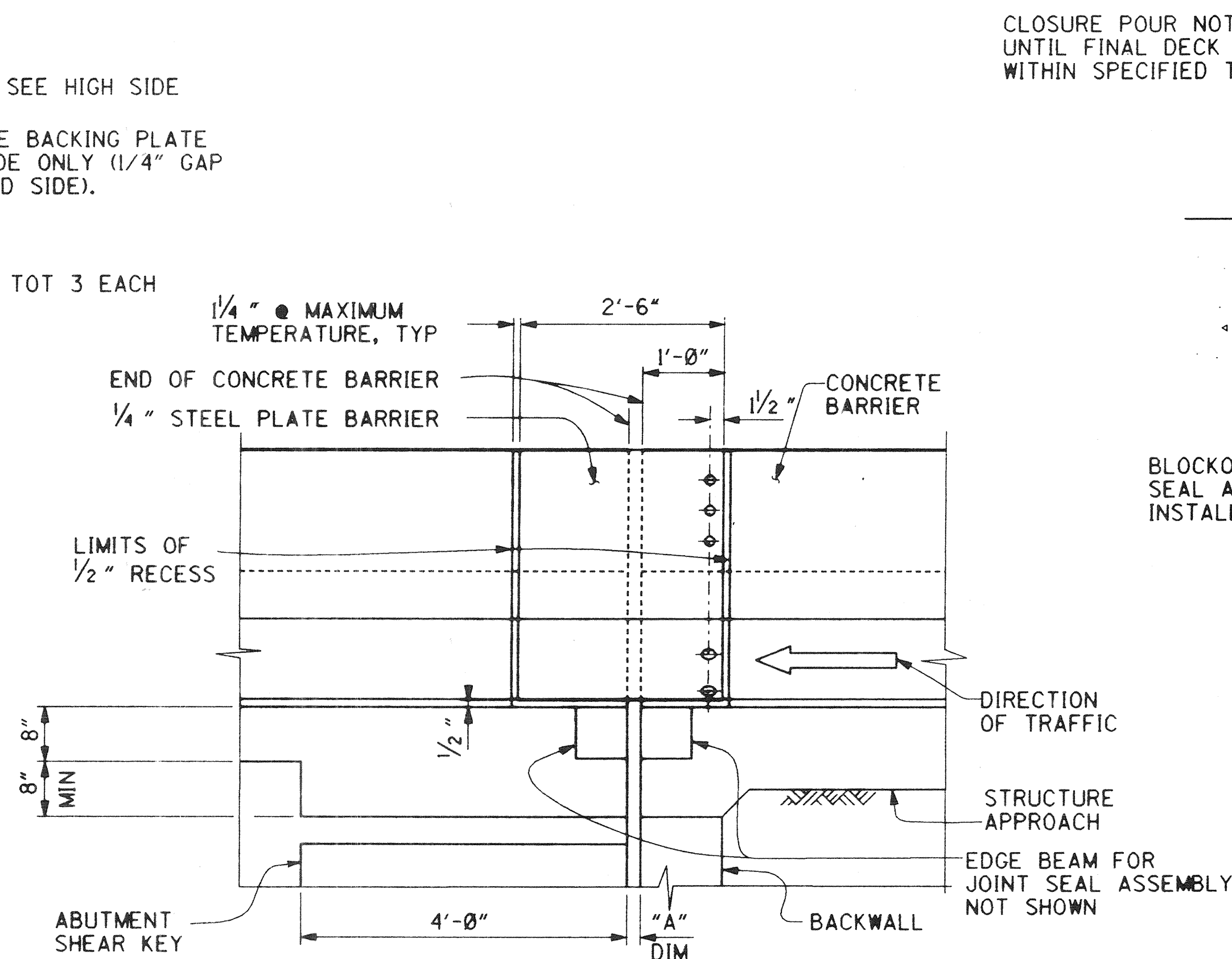
NOTE:

JOINT SEAL ASSEMBLY DETAILS INDICATED HERE ARE FOR ILLUSTRATIVE PURPOSE ONLY. DETAIL DESIGN OF THE ASSEMBLY IS THE RESPONSIBILITY OF THE CONTRACTOR.



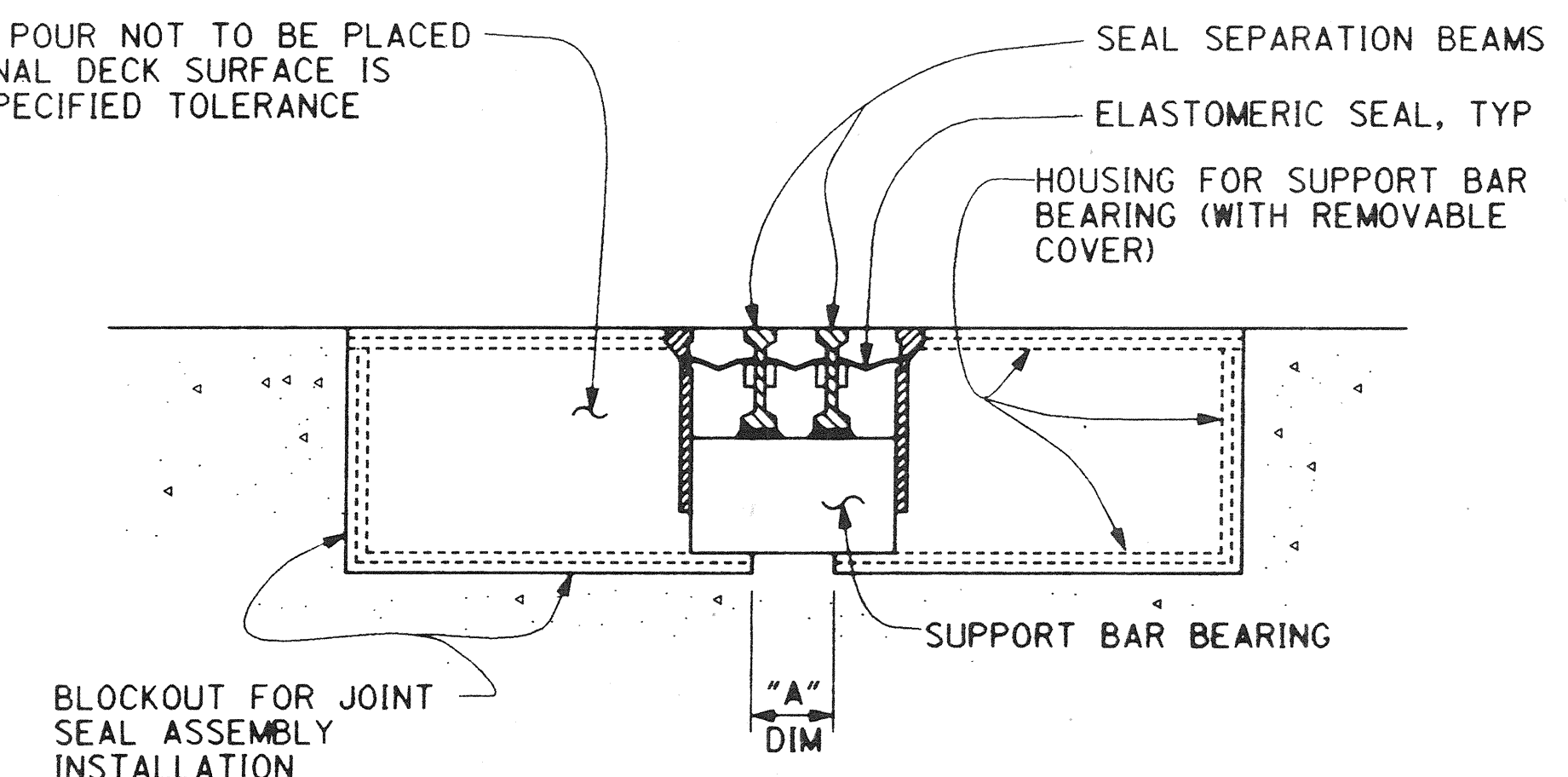
SEAL INSTALLATION
NO SCALE

NOTE:
HOUSING FOR SUPPORT BAR BEARING NOT SHOWN FOR CLARITY



ELEVATION A-A
NO SCALE

CLOSURE POUR NOT TO BE PLACED UNTIL FINAL DECK SURFACE IS WITHIN SPECIFIED TOLERANCE



SECTION B-B
NO SCALE

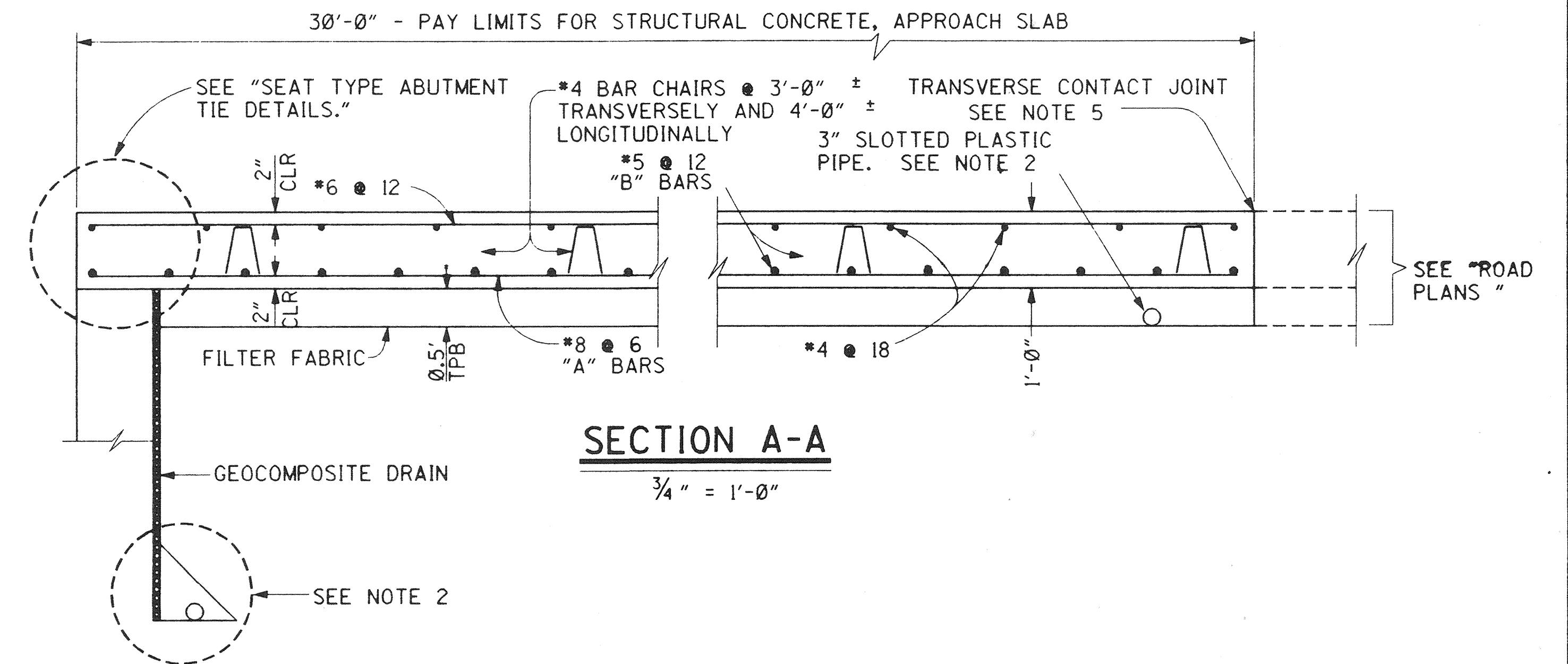
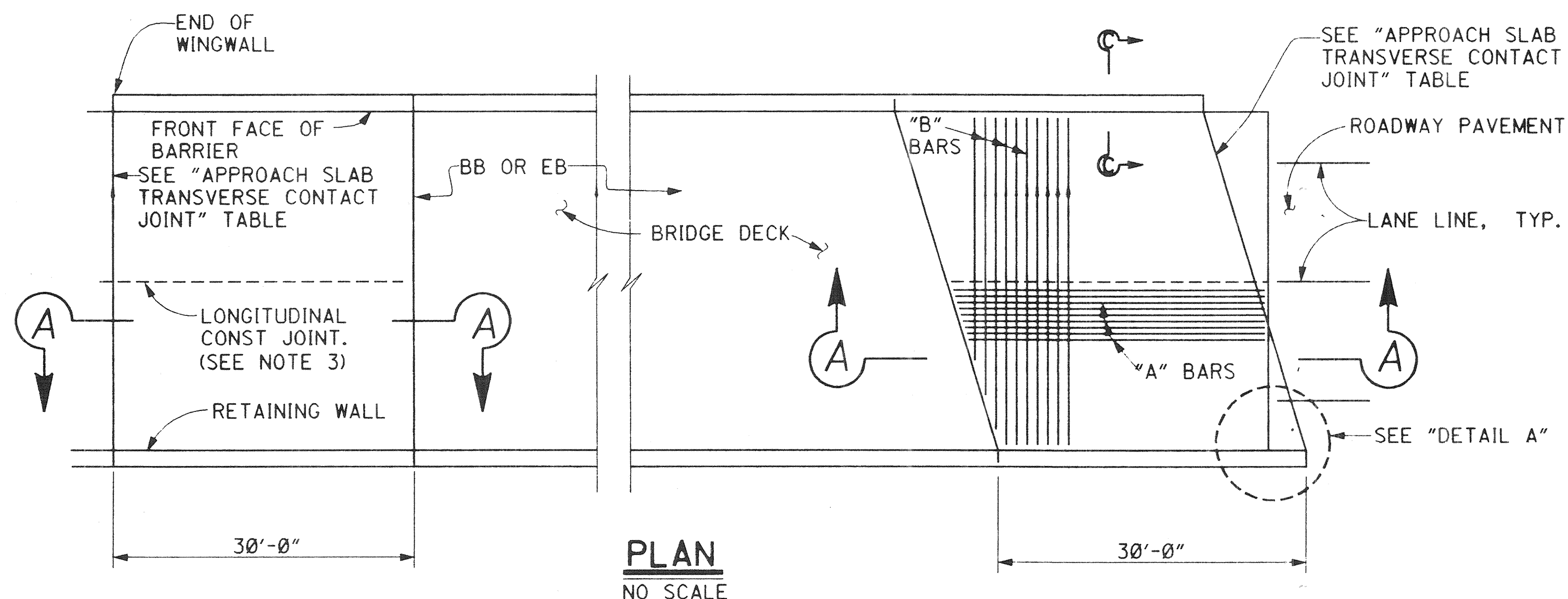
DR: 3 (16158)
Sheet 69 Of 126

RECORD DRAWING

1/2" = 1'-0"
3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
JOINT SEAL ASSEMBLY (MOVEMENT RATING=5 1/2")		21/27	
MARK	DATE	DESCRIPTION	REVISIONS
PREPARED UNDER RESPONSIBLE CHARGE OF:			
DESIGNED	Shirley A. Whitaker	CHECKED	R. Hart
DRAWN	L. West	SCALE	DATE
AS SHOWN		DRAWING NO.	
RICHARD A. HART RCE 39595 (EXP. 12-31-97)		69 OF 126	

DR: 3 (16158)



APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	PARALLEL TO FACE OF PAVING NOTCH	PARALLEL TO FACE OF PAVING NOTCH

NOTES:

- FOR DETAILS NOT SHOWN, SEE STRUCTURE PLANS
- FOR DRAINAGE DETAILS, SEE "STRUCTURE APPROACH DRAINAGE DETAILS" SHEET.
- LONGITUDINAL CONSTRUCTION JOINTS, WHEN PERMITTED BY THE ENGINEER, SHALL BE LOCATED ON LANE LINES AND/OR AT EDGES OR UTILITY VAULTS.
- END ANGLE AT BEGINNING OF BARRIER TRANSITION, END OF WINGWALL OR END OF STRUCTURE APPROACH, AS APPLICABLE
- FOR TRANSVERSE CONTACT JOINT WITH NEW PCC PAVING, REFER TO STANDARD PLAN A35-A.
- AT THE CONTRACTOR'S OPTION, APPROACH SLAB TRANSVERSE REINFORCEMENT MAY BE PLACED PARALLEL TO PAVING NOTCH. SPACING OF TRANSVERSE REINFORCEMENT IS MEASURED ALONG ϕ ROADWAY.

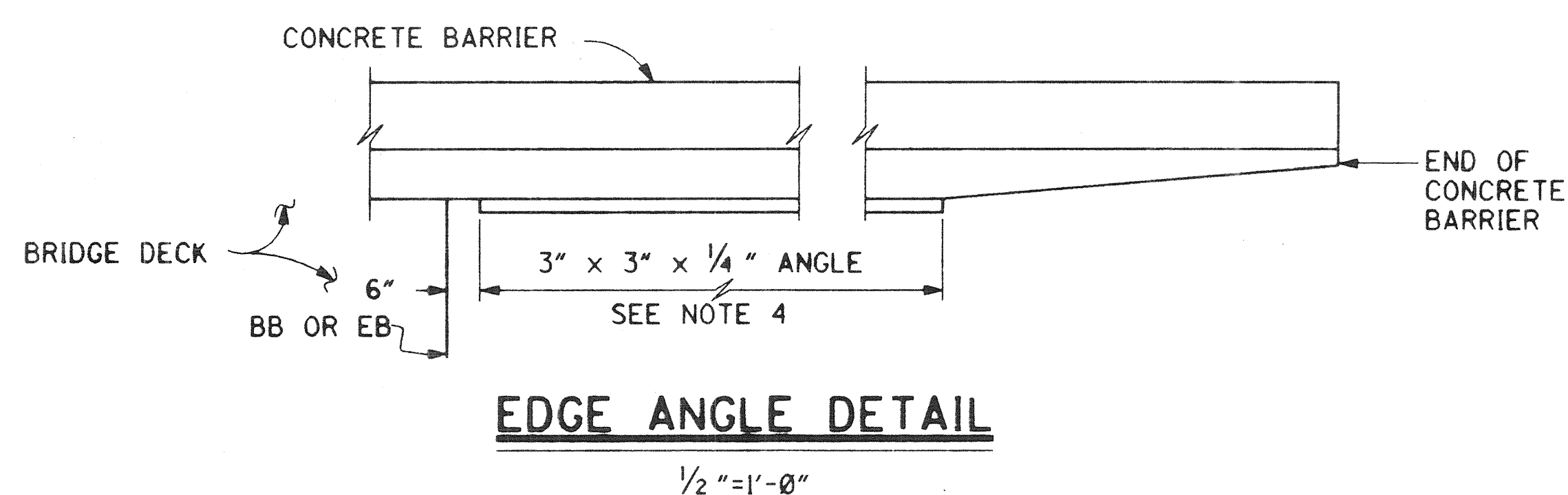
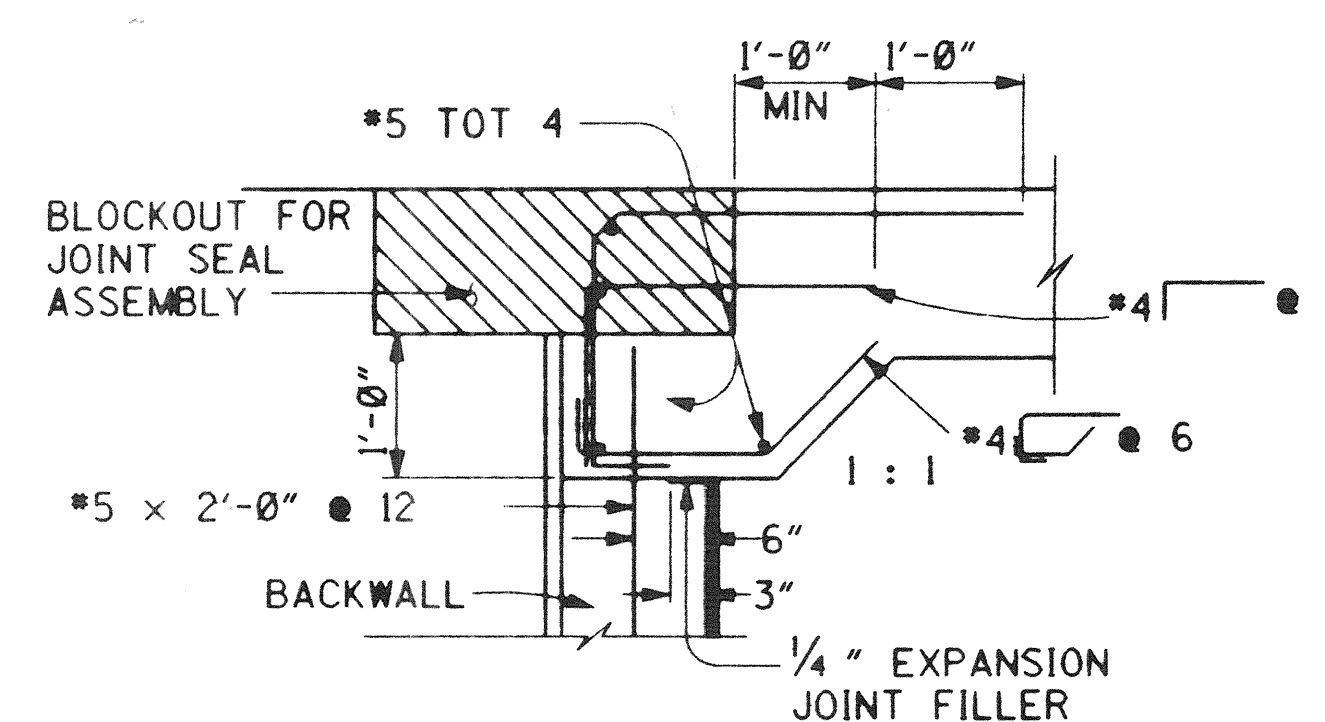
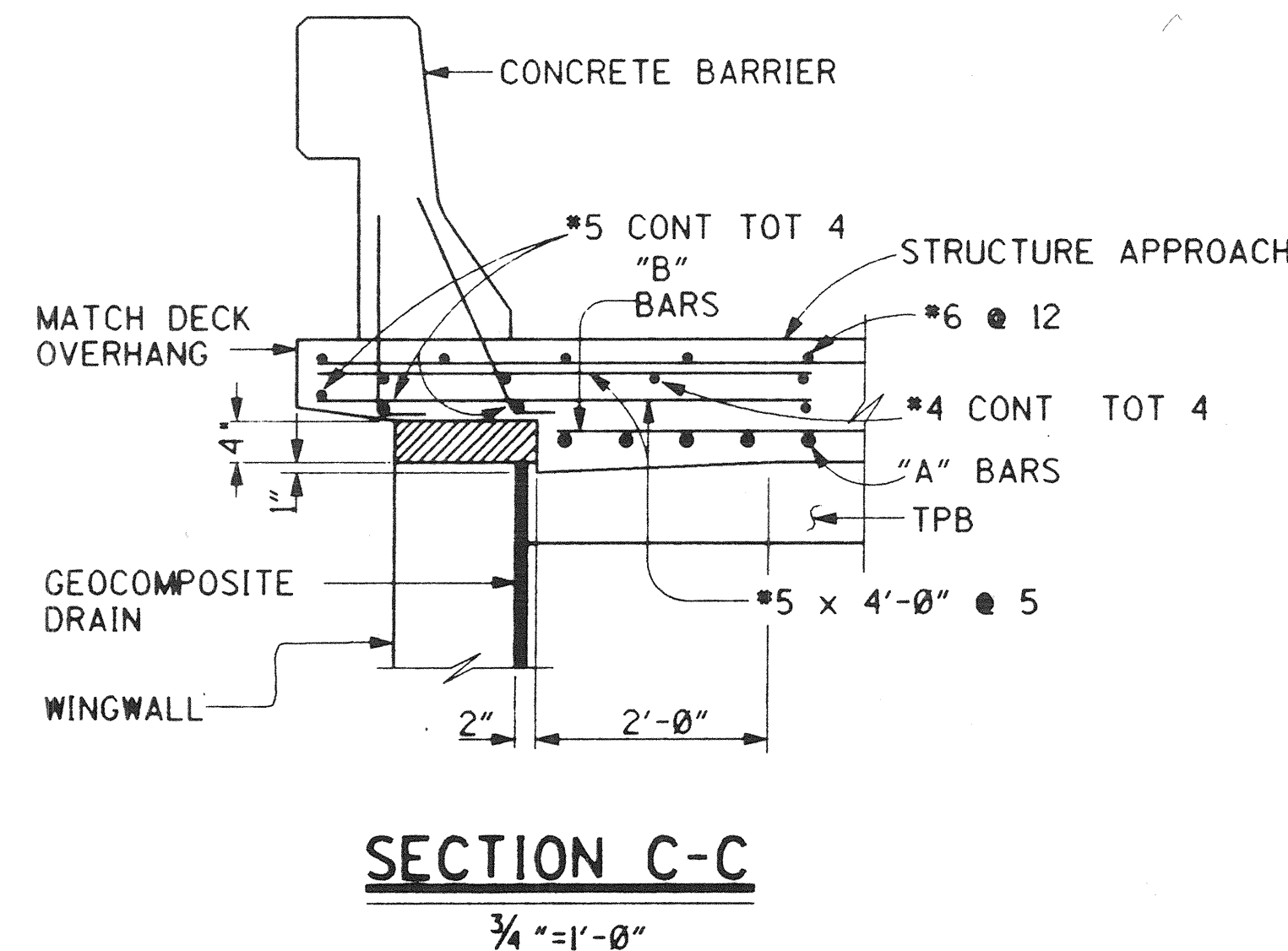
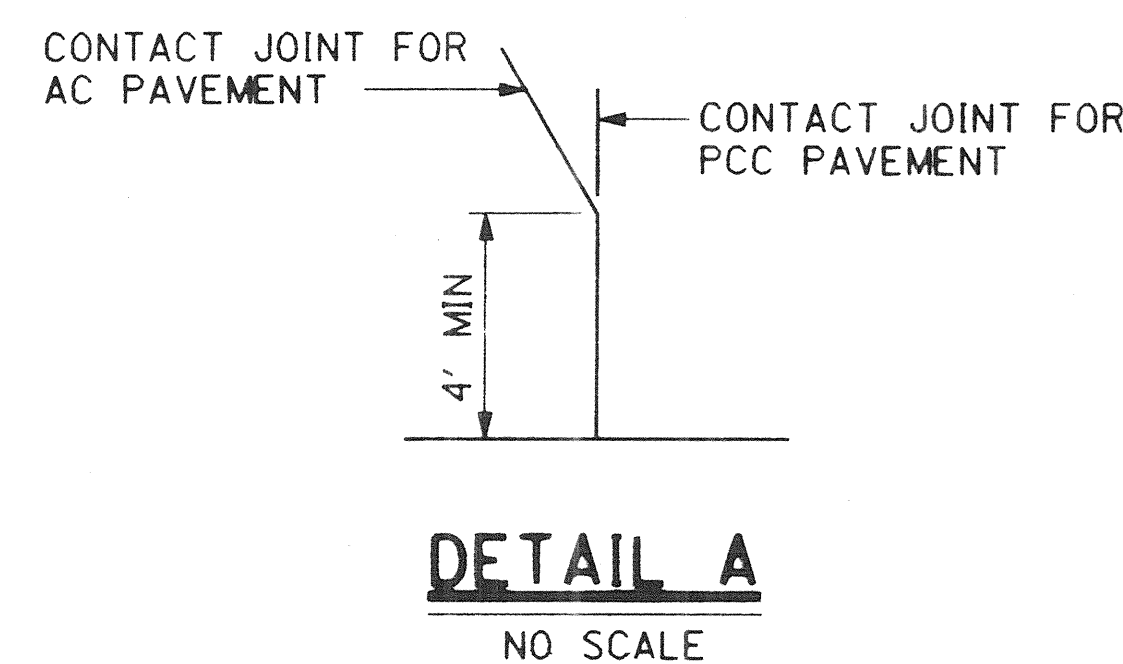
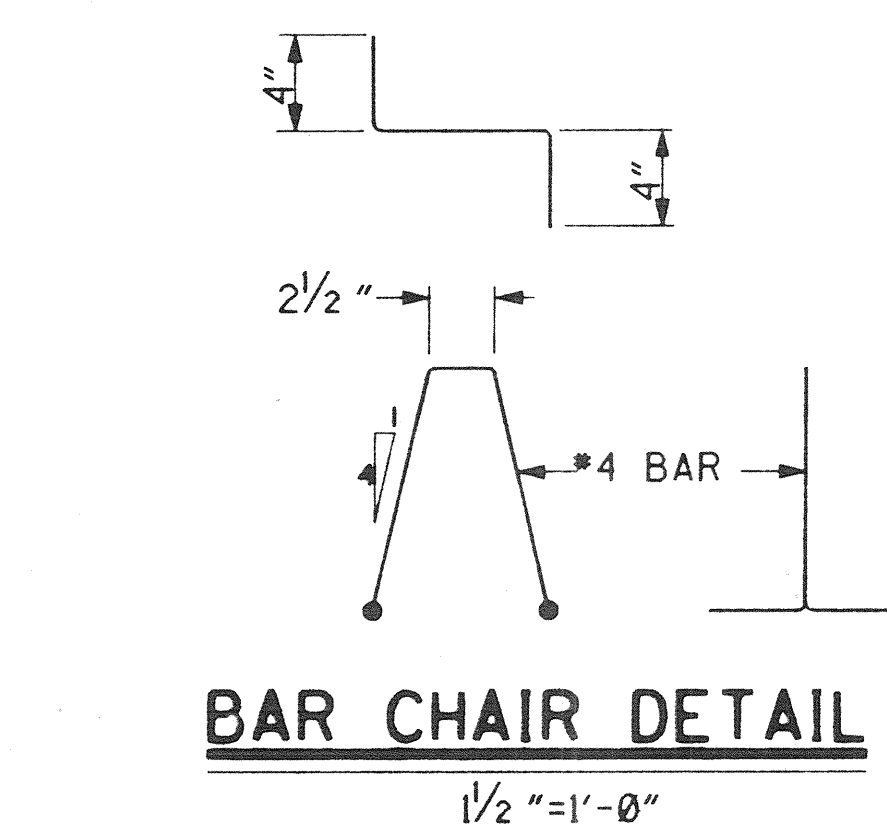
REMOVE ALL POLYSTYRENE.

DR. 3 (16158)
Sheet 70 OF 125

RECORD DRAWING

1/2" = 1'-0"
3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
STRUCTURE APPROACH TYPE N(30S)		22/27	
DESIGNED <i>Steve A. Whitaker</i>	CHECKED <i>R. Hart</i>	70	
DRAWN <i>L. West</i>	DATE	SCALE	AS SHOWN
PREPARED UNDER RESPONSIBLE CHARGE OF: <i>Richard A. Hart</i>		DATE	
NO. 12-31-97		DATE	
RICHARD A. HART PCE 39696 (EXP. 12-31-97)		DATE	

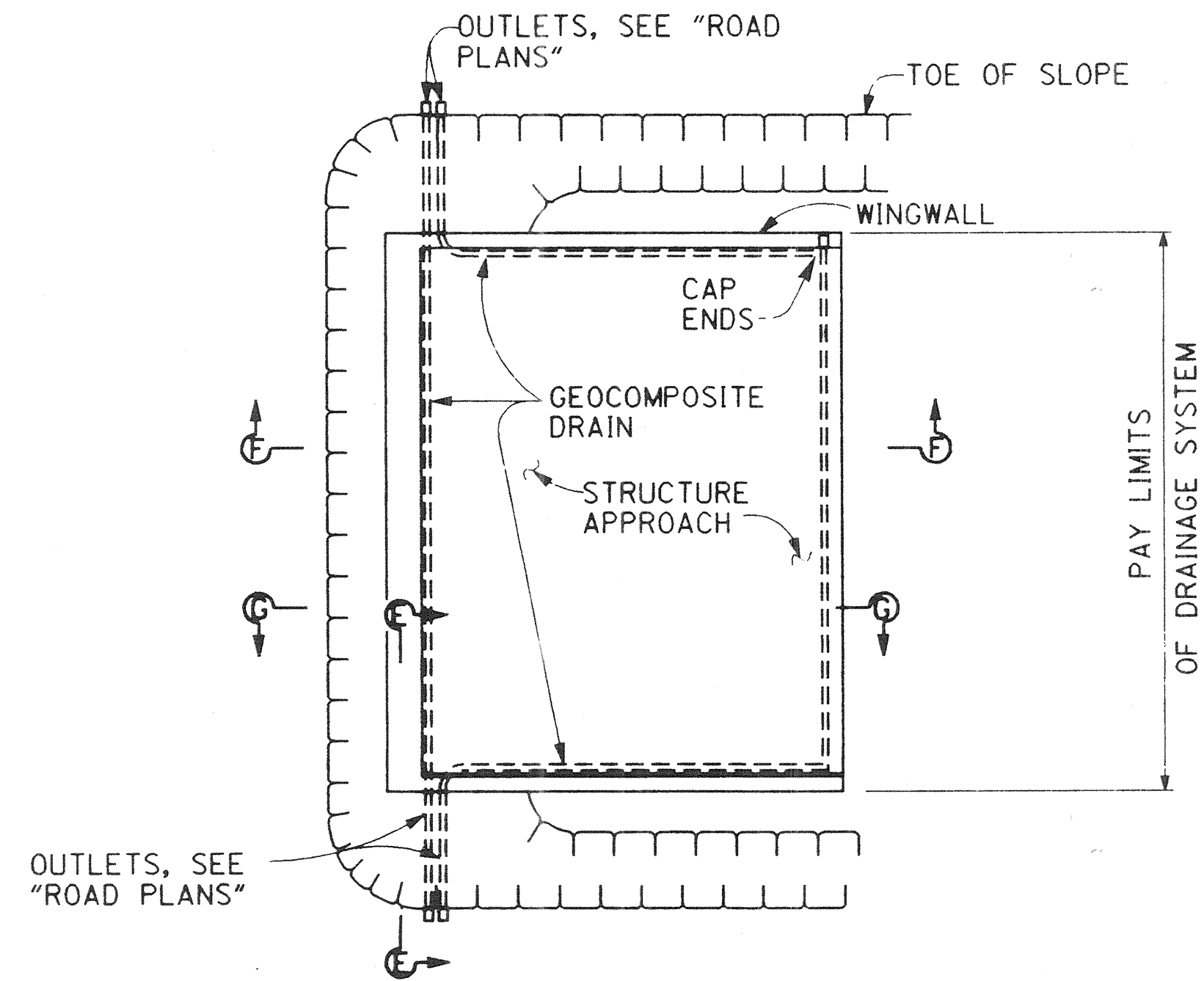


PLANS PREPARED BY:

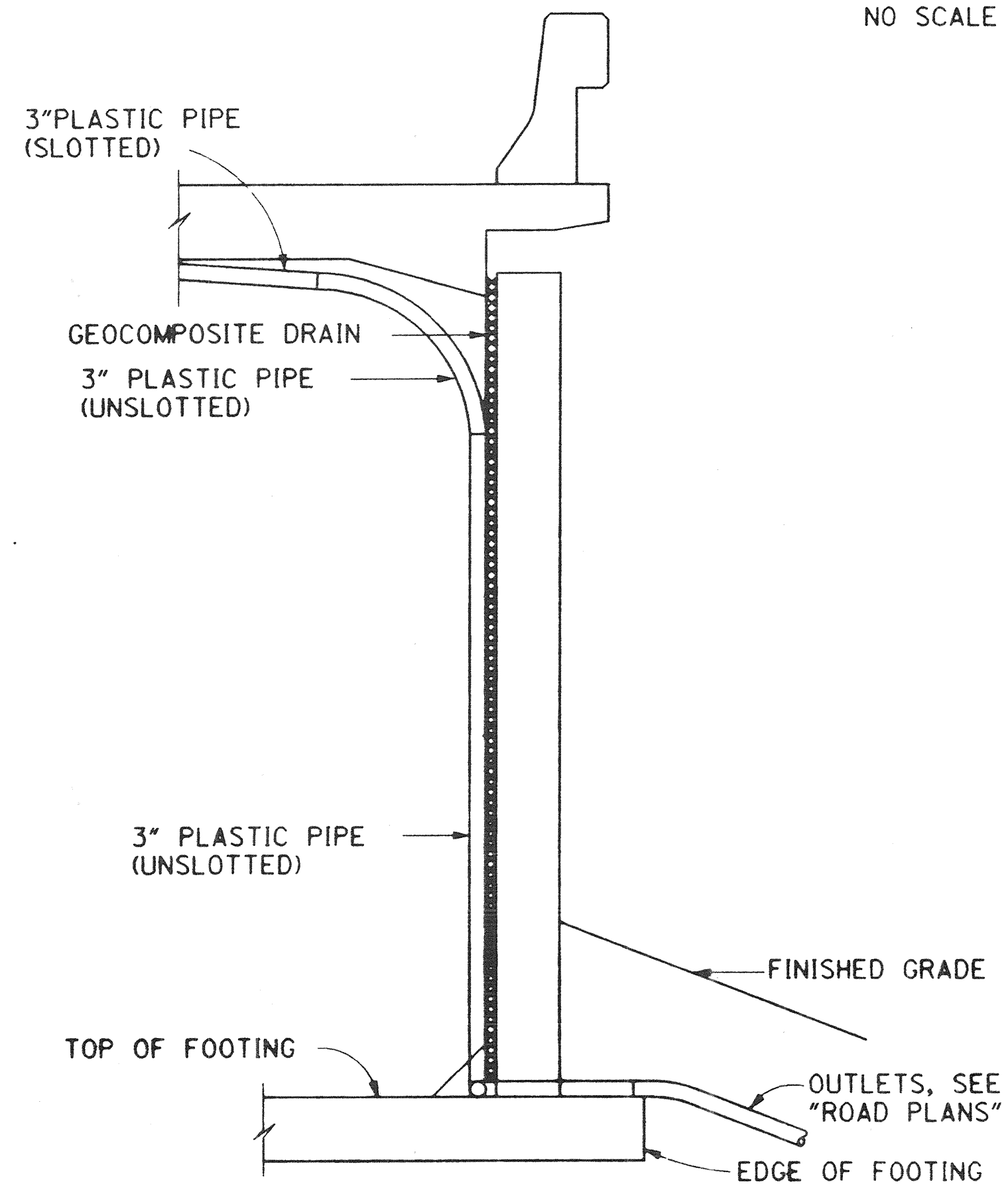
HNTB

26 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

DR. 3 (16158)

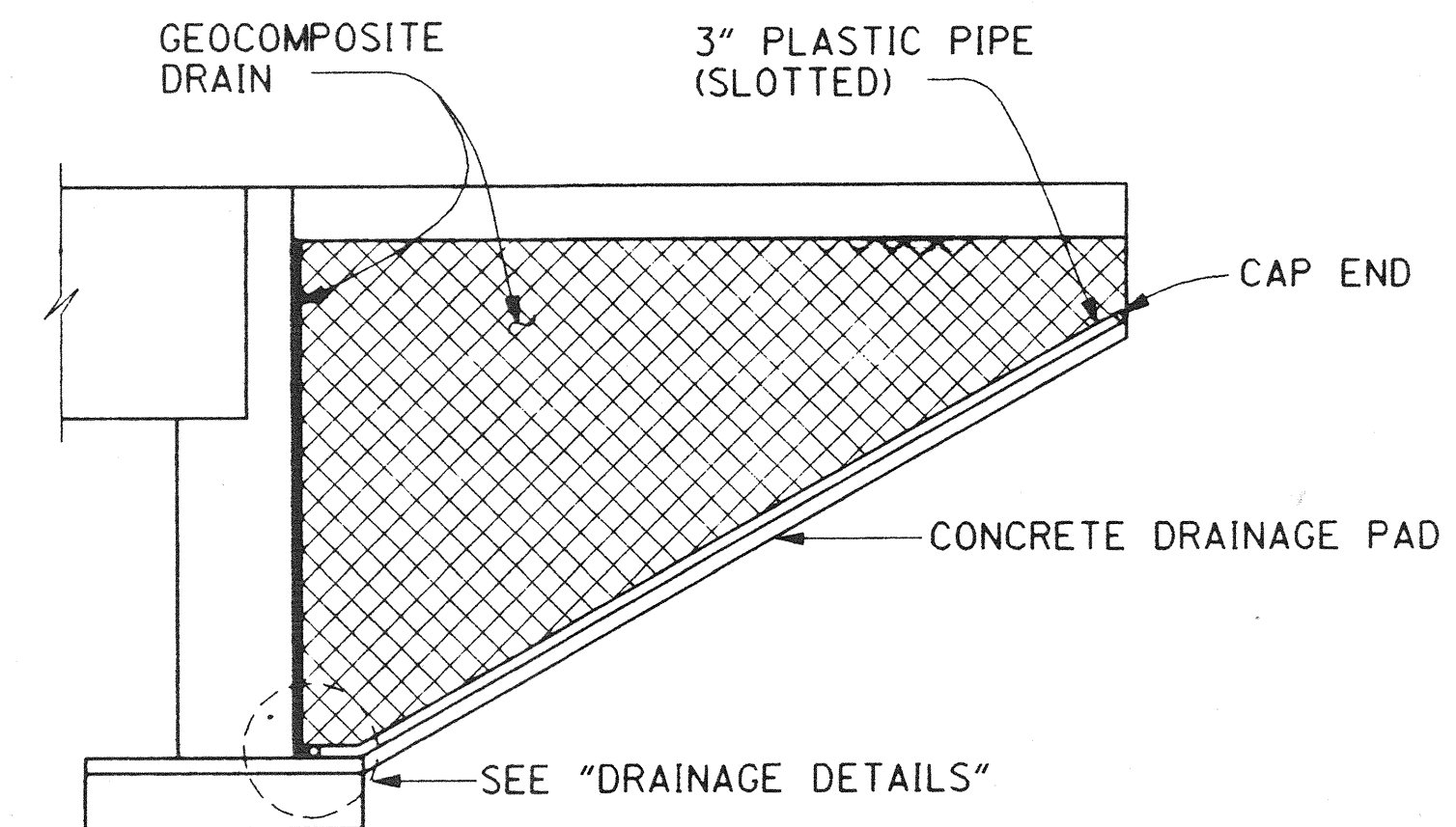


TYPICAL PLAN
NO SCALE

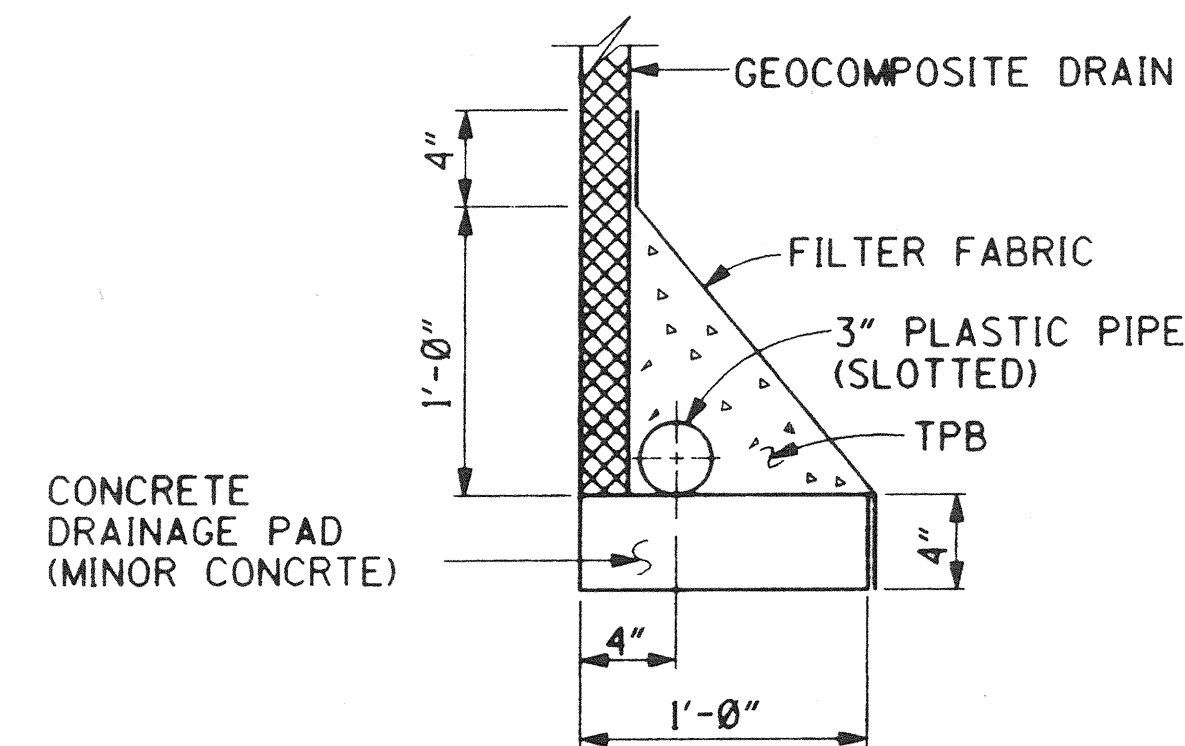


SECTION E-E
NO SCALE

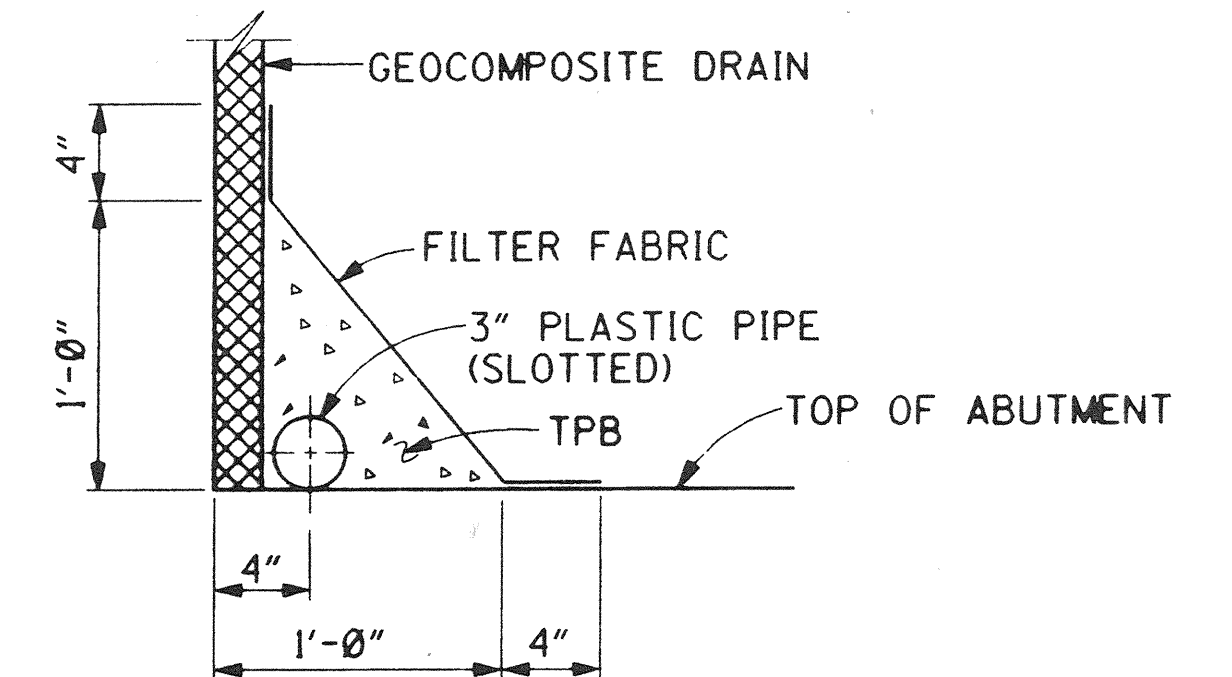
NOTE:
BENDS AND JUNCTIONS IN 3"
PLASTIC PIPE ARE 30" RADIUS MIN.



SECTION F-F
NO SCALE



WITHOUT FOOTING



WITH FOOTING

DRAINAGE DETAILS
NO SCALE

RECORD DRAWING

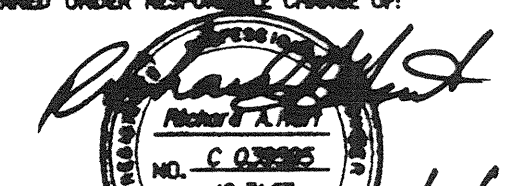
DR. 3 (16158)
Sheet 71 of 126

1/2" = 0' 1" = 2'
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

**STRUCTURE APPROACH
DRAINAGE DETAILS**

23/27

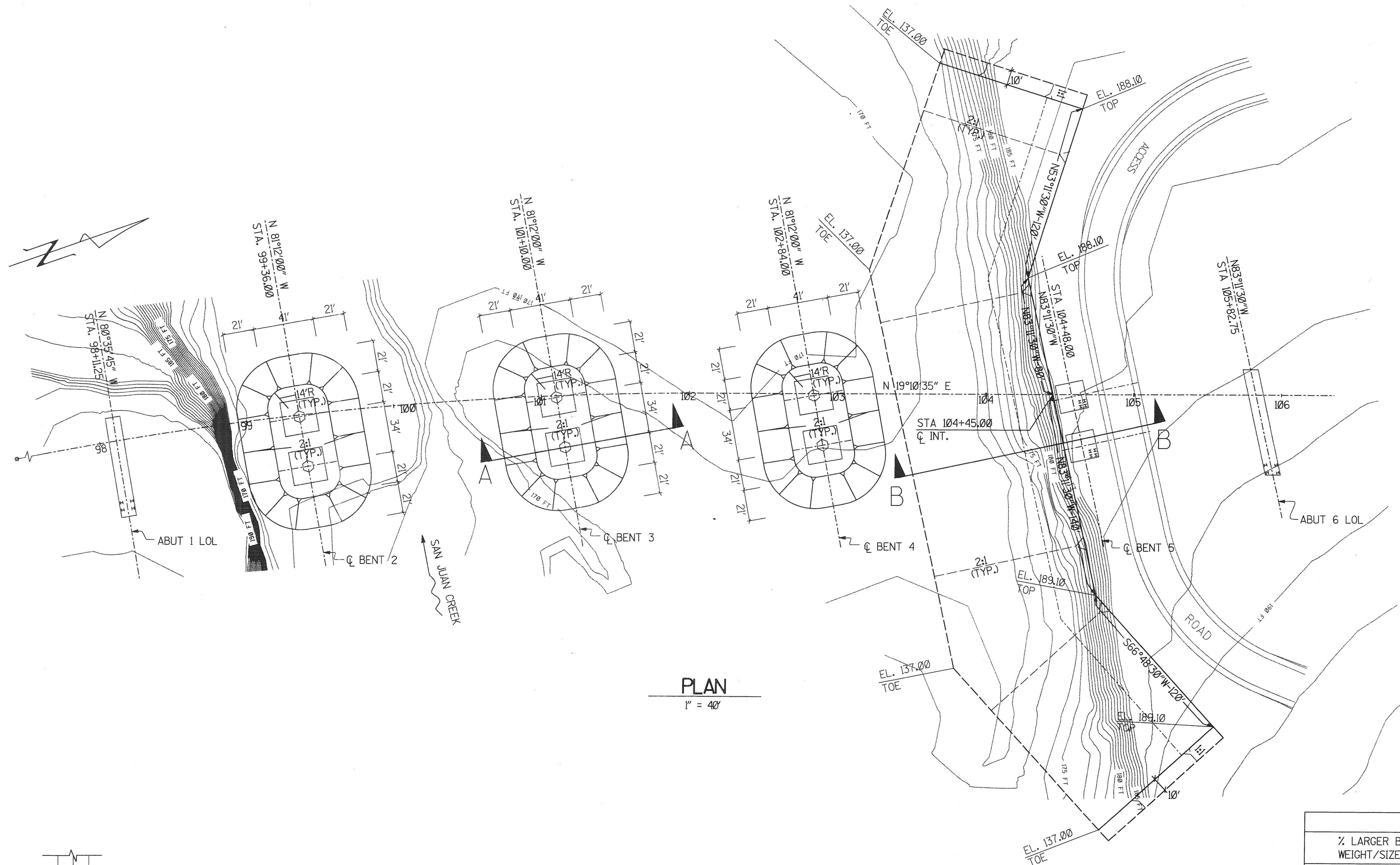
MARK	DATE	DESCRIPTION
REVISIONS		
PREPARED UNDER RESPONSIBLE CHARGE OF:		
 RICHARD A. HART DATE 9/20/06		
DESIGNED	Steve A. Whitaker	SCALE
DRAWN	L. West	DATE
CHECKED	R. Hart	DRAWING NO.
AS SHOWN		

PLANS PREPARED BY:

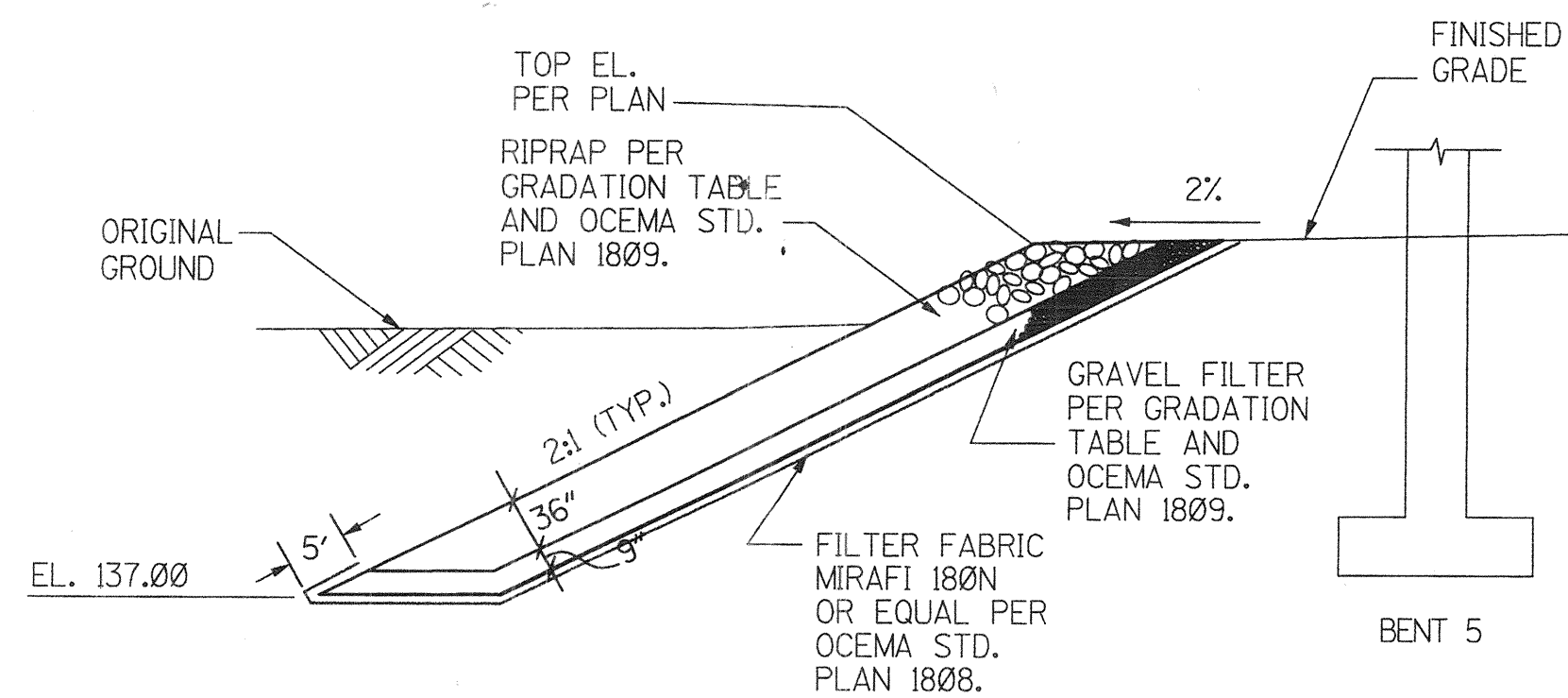
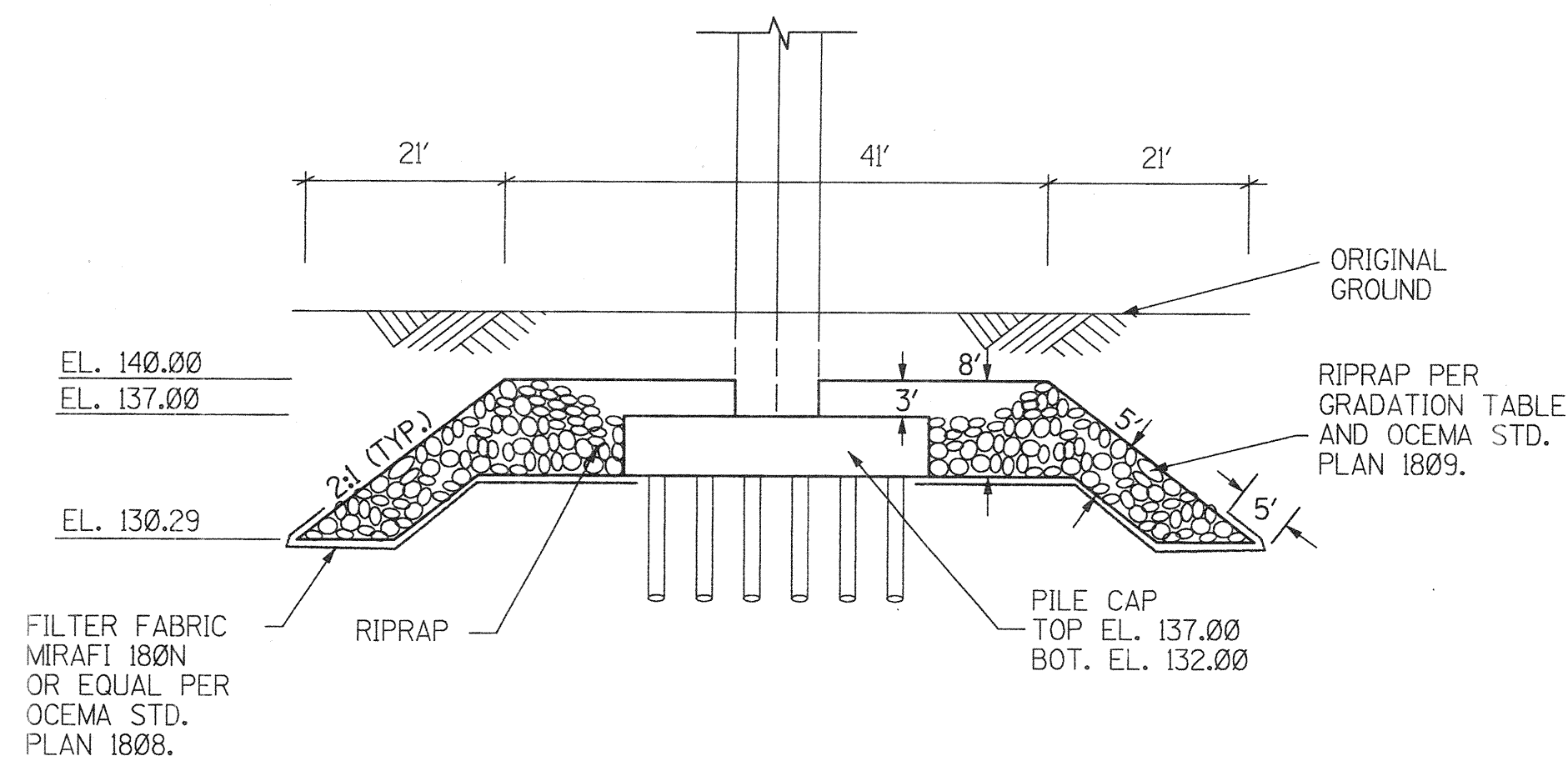
HNTB

36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

DR. 3 (16158)



GRADATION		
% LARGER BY WEIGHT / SIZE	RIPRAP (LB)	GRAVEL FILTER (INCHES)
2-5	1,200	5
30-50	500	4
50-65	330	3
90-98	140	1



NOTES:

1. CONTOURS SHOWN ARE ORIGINAL GROUND.
2. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.

RECORD DRAWING

DR. 3 (16158)
Sheet 72 of 126

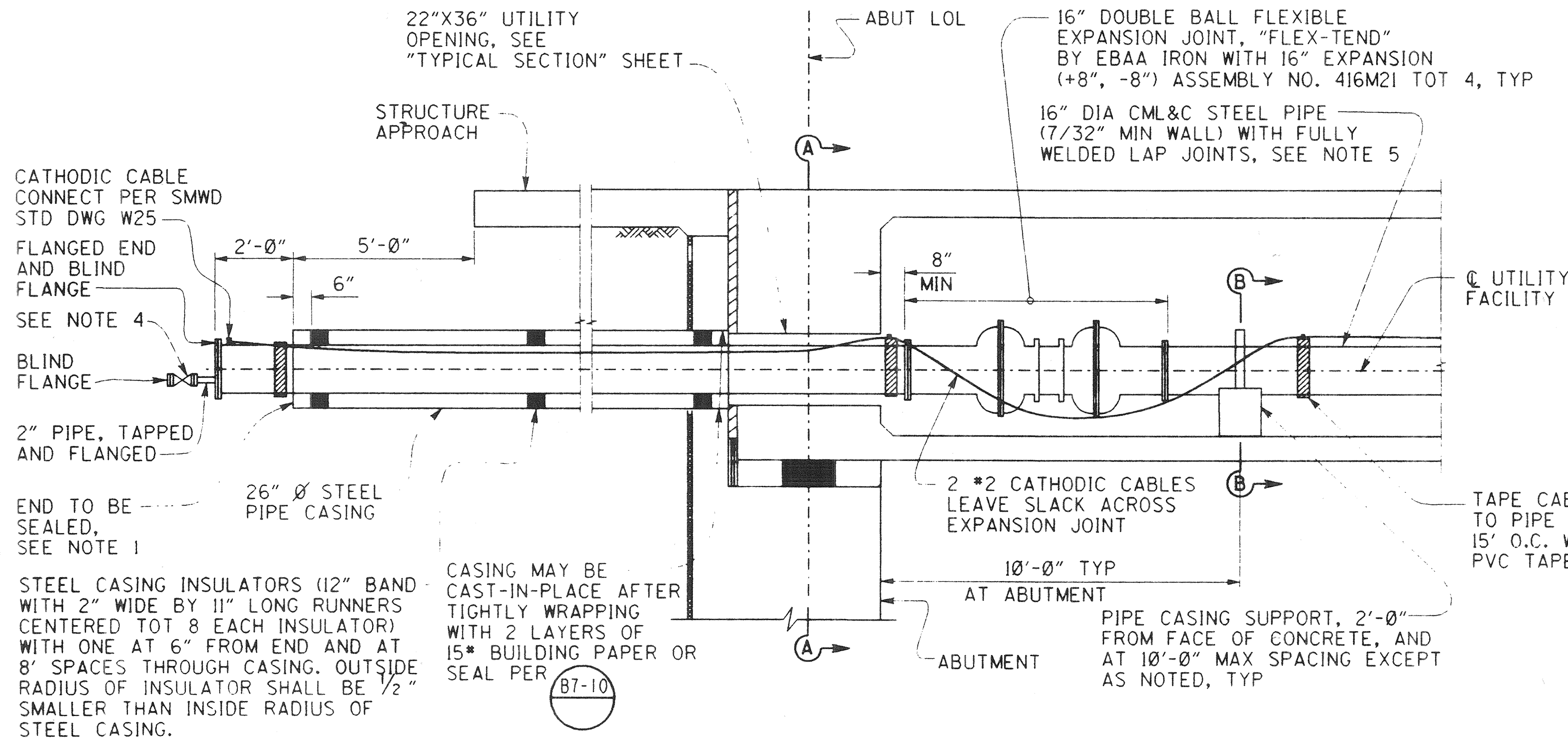
PLANS PREPARED BY:
sla
3150 BRISTOL STREET
SUITE 500
COSTA MESA, CA 92626

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK			
EROSION PROTECTION PLAN			
24/27 SHEET 72 OF 126			
MARK	DATE	DESCRIPTION	
REVISIONS			
DESIGNED JOHN LEE			
DRAWN	P.F.	CHECKED	Y.H.C.
SCALE	DATE	DRAWING NO.	
AS SHOWN	8-24-96		

PREPARED UNDER RESPONSIBLE CHARGE OF:
RUI-MING LI
NO. 36777
EXP. 6-30-00
CIVIL
STATE OF CALIFORNIA
RUI-MING LI
RCE 36777 (EXP. 6-30-00)

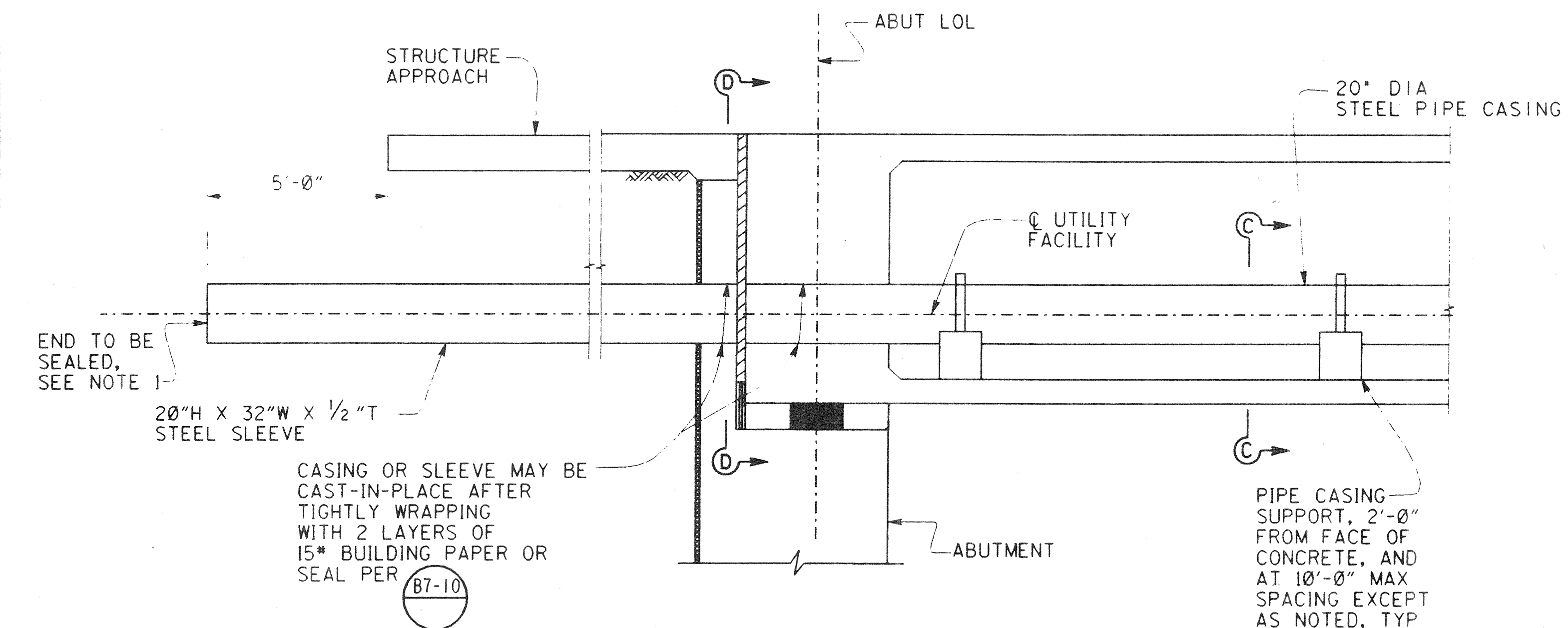
DATE 9/18/96

DR. 3 (16158)



TYPICAL SECTION - 16' FACILITY

3/8" = 1'-0"

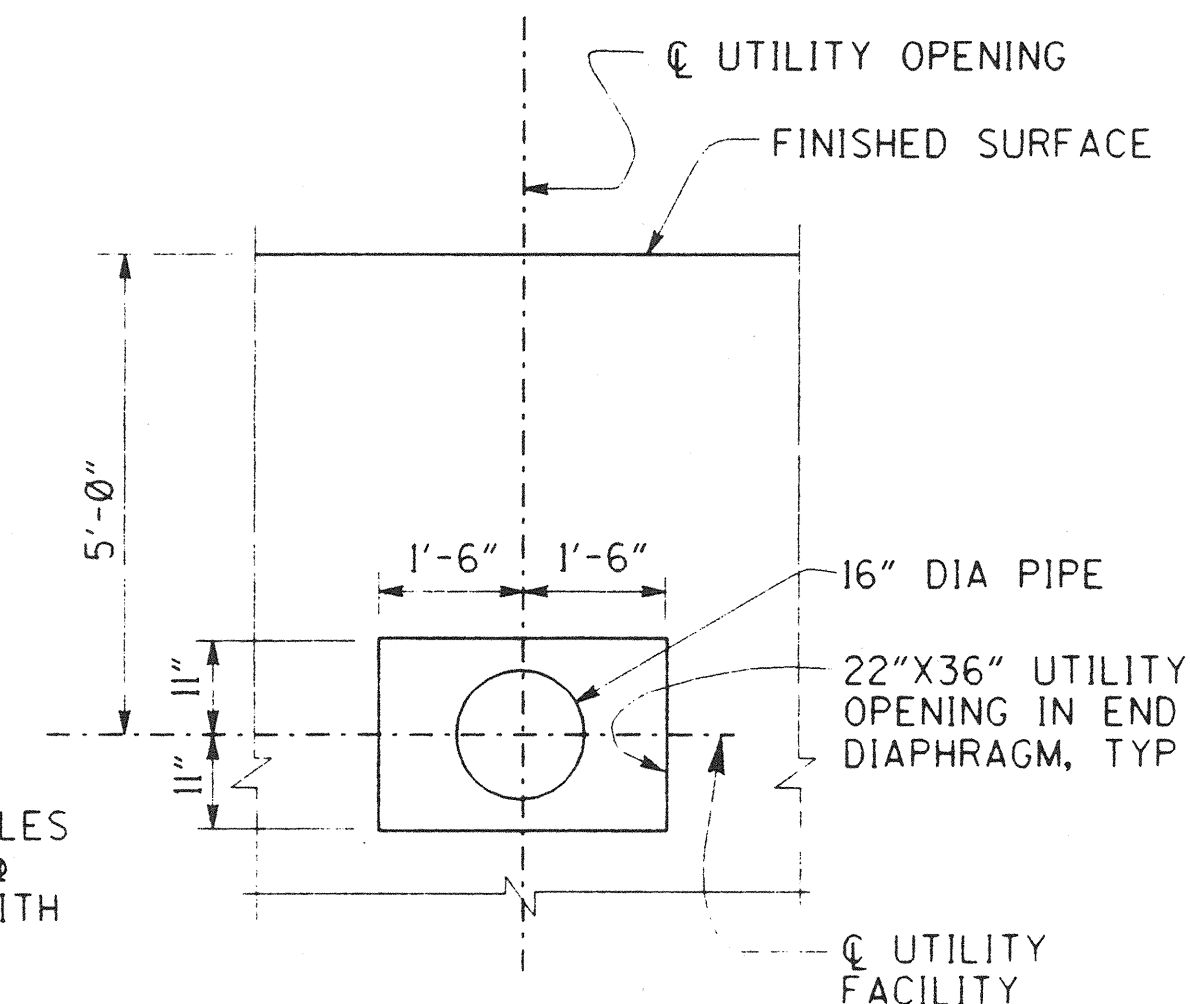


TYPICAL SECTION - FUTURE 8' FACILITY

3/8" = 1'-0"

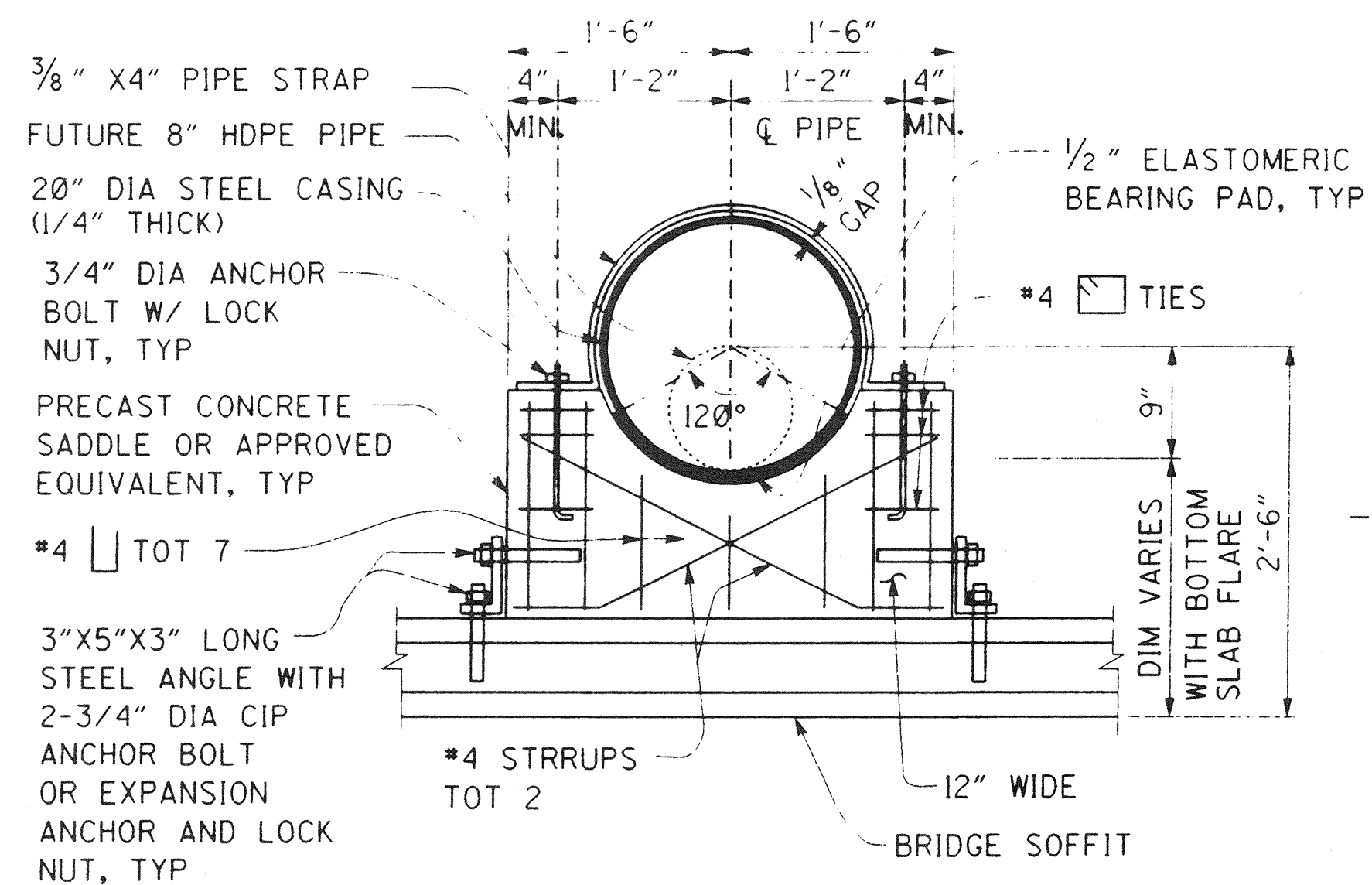
NOTES:

1. SEAL END OF CASING WITH A METHOD ACCEPTABLE TO THE ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
3. PIPE STRAPS SHALL NOT BE TIGHTENED UNTIL THE BRIDGE HAS BEEN POST-TENSIONED.
4. PROVIDE 2" FLANGED GATE VALVE (KEY OPER.) AT ABUTMENT 1, AND 2" AIR RELEASE AND VACUUM VALVE AT ABUTMENT 6.
5. SEE SMWD STANDARD DRAWING W24 FOR WELDED PIPE JOINT DETAILS. CLOSURE WELDS IN PIPE JOINTS WITHIN THE BRIDGE AT CENTER SPAN, BENT, AND ABUTMENT LOCATIONS ARE TO BE MADE AFTER THE BRIDGE DECK IS PLACED, POST-TENSIONING COMPLETED, AND FALSEWORK REMOVED. CLOSURE WELDS AT THE END OF EACH SPAN SHOULD BE AT THE FIRST JOINT WITHIN THE SPAN. THERE SHALL NOT BE ANY PIPE JOINTS WITHIN 2 PIPE DIAMETERS OF THE CENTERLINE OF ANY BENT OR ABUTMENT, EXCEPT AS NOTED.
6. CONTRACTOR SHALL REMOVE ALL FALSEWORK FROM CELLS HOUSING SMWD FACILITIES.



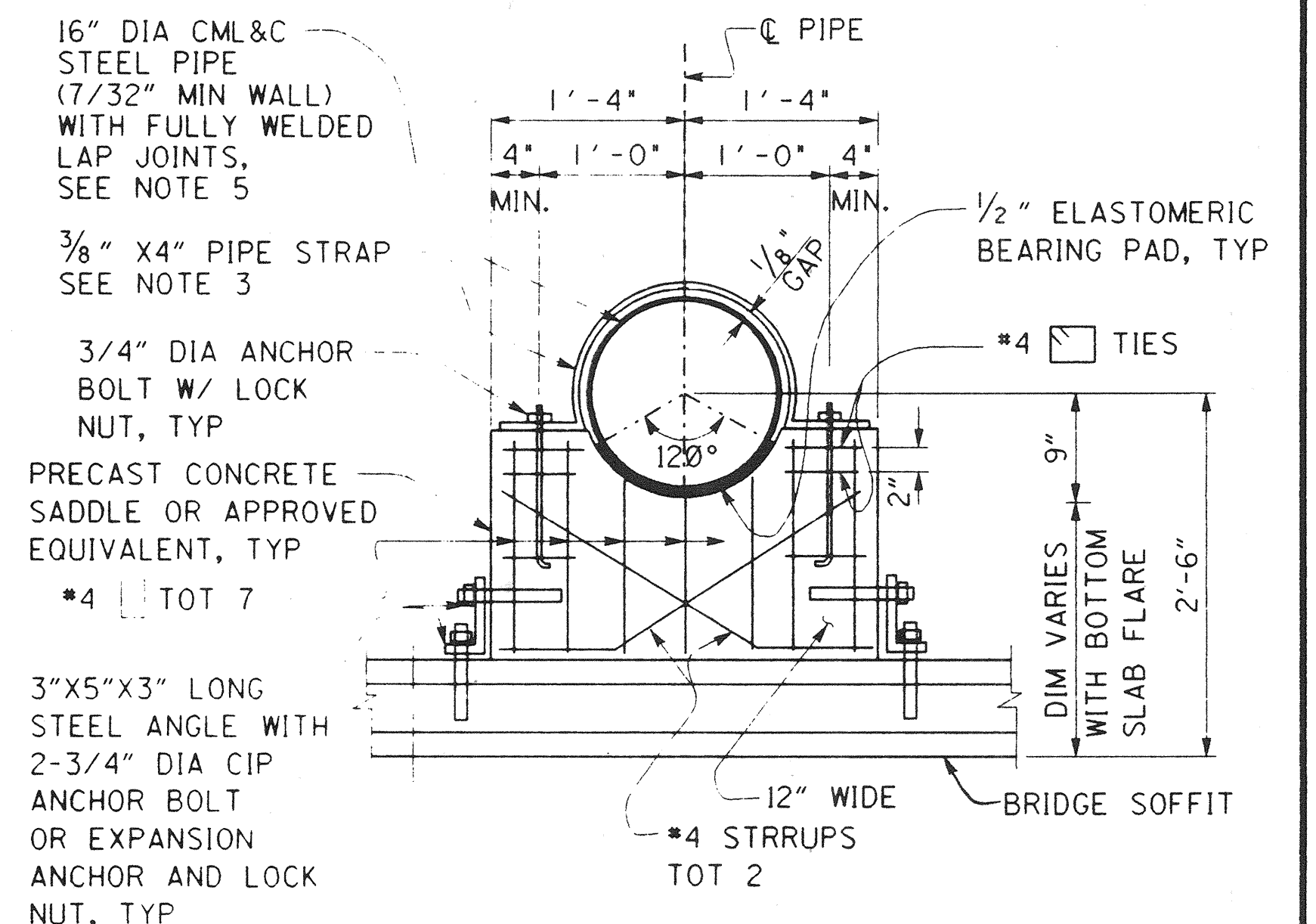
SECTION A-A

NO SCALE



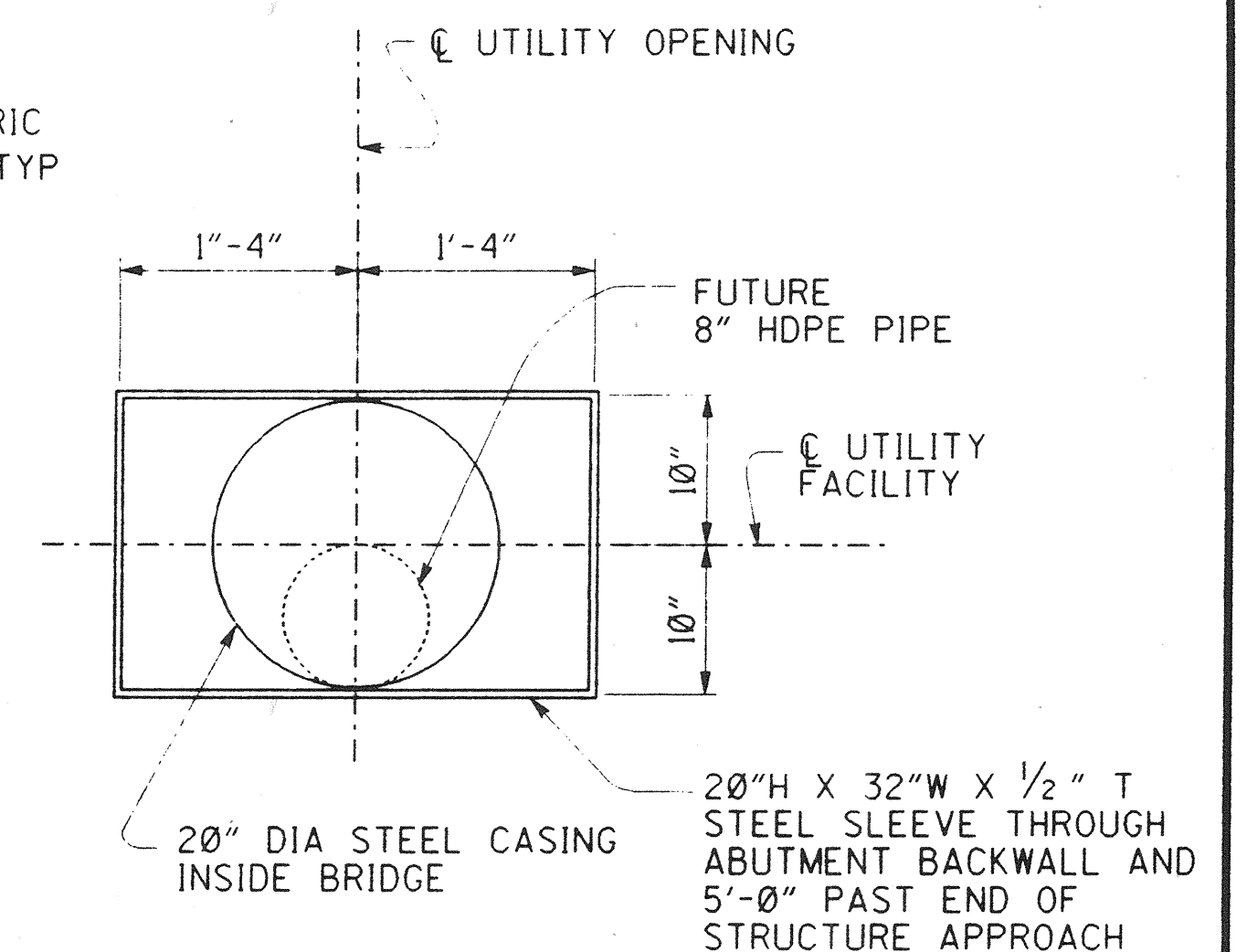
SECTION C-C

1" = 1'-0"



SECTION B-B

1" = 1'-0"



SECTION D-D

1" = 1'-0"

DR. 3 (16158)
Sheet 73 of 126

1/2 0 1 2
3 inches on original drawing

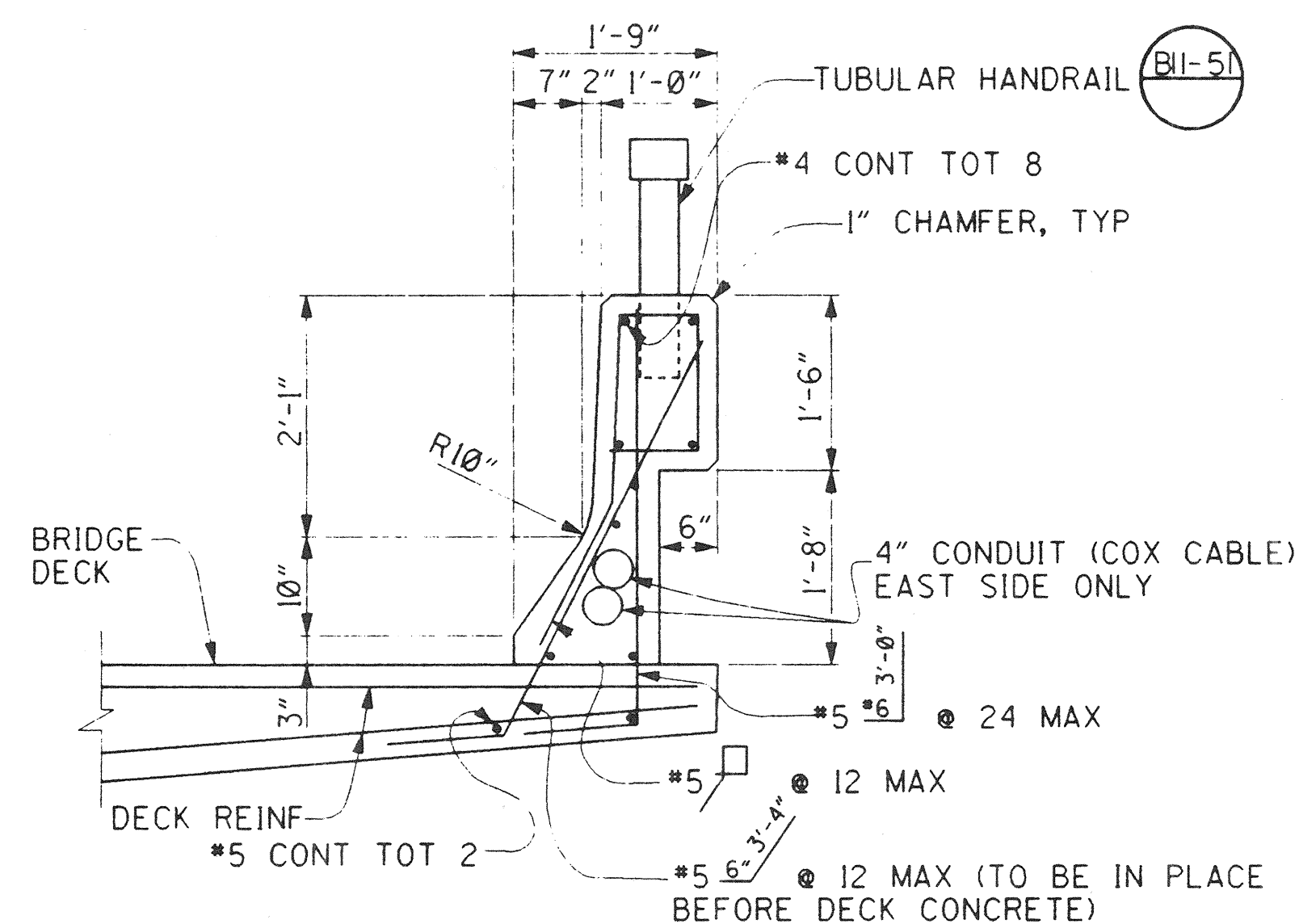
RECORD DRAWING

RECOMMENDED FOR APPROVAL - SMWD	
DISTRICT ENGINEER	<i>Richard A. Hart</i>
RCE 39595 (EXP. 12/31/97)	
PLANS PREPARED BY:	
HNTB	
36 EXECUTIVE PARK SUITE 200 IRVINE, CALIFORNIA 92614	

MARK	DATE	DESCRIPTION
REVISIONS		
PREPARED UNDER RESPONSIBLE CHARGE OF:		
<i>Richard A. Hart</i>		
NO. C 039595		
EXP. 12-31-97		
CIVIL		
RICHARD A. HART	DATE	
RCE 39595 (EXP. 12-31-97)		

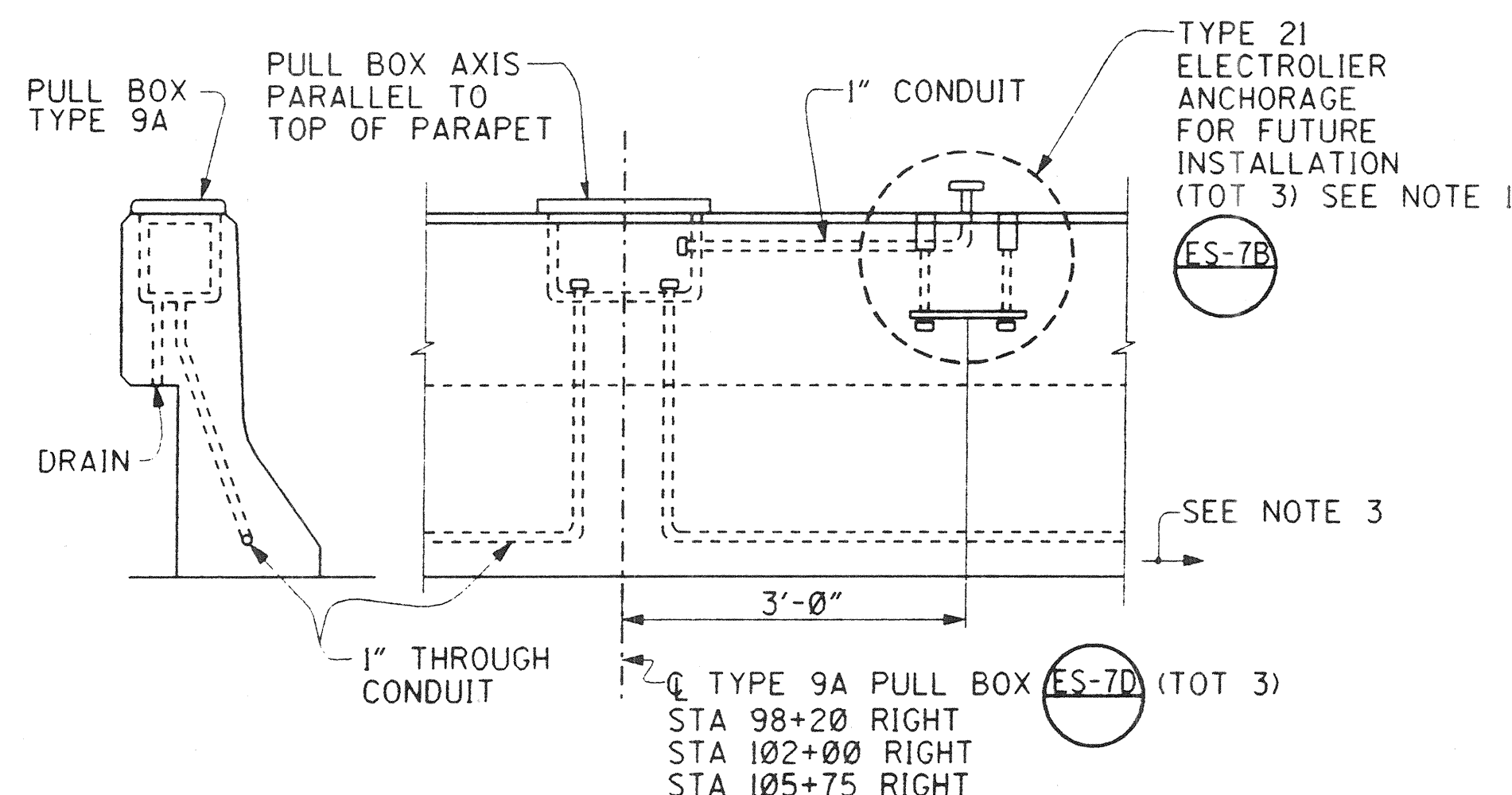
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK	
SMWD UTILITY DETAILS	
DESIGNED <i>Steve A. Whitaker</i>	SHEET 25/27
DRAWN <i>WWL/SAW</i>	CHECKED <i>R. Hart</i>
SCALE AS SHOWN	DRAWING NO. 73
DATE	OF 126

DR. 3 (16158)



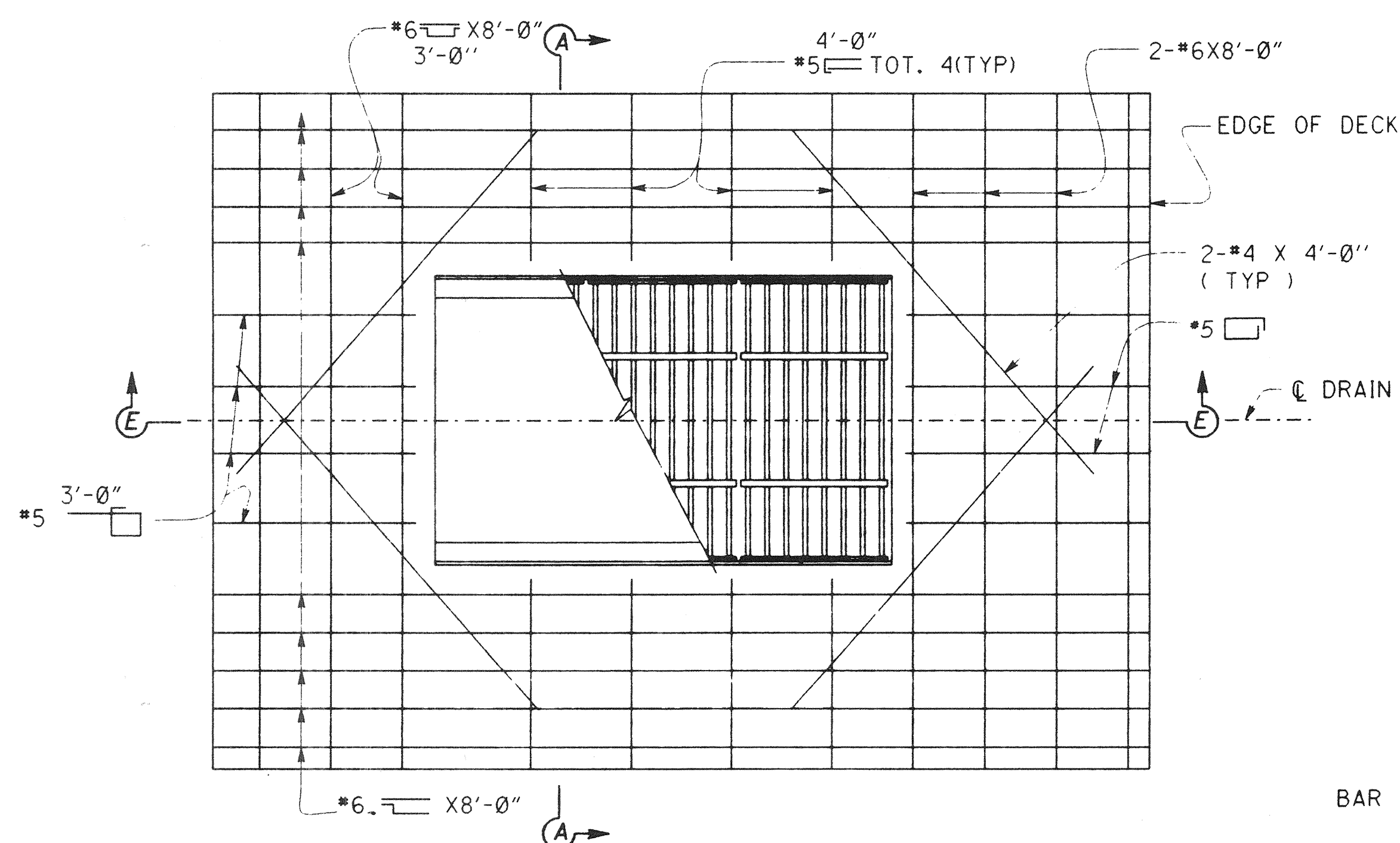
CONCRETE BARRIER TYPE 25 MODIFIED

1" = 1'-0"

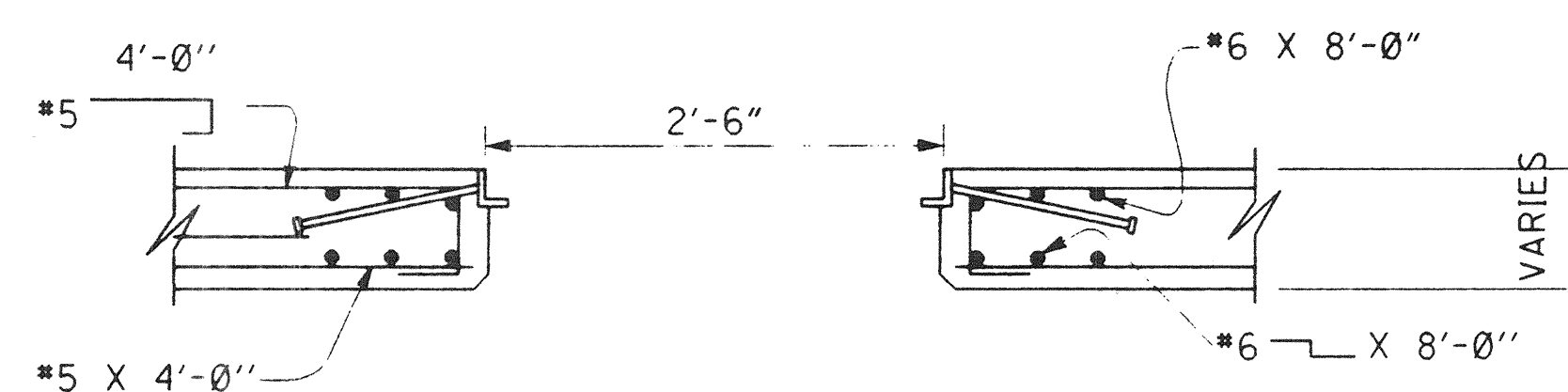


PULL BOX AND ELECTROLIER ANCHORAGE DETAIL

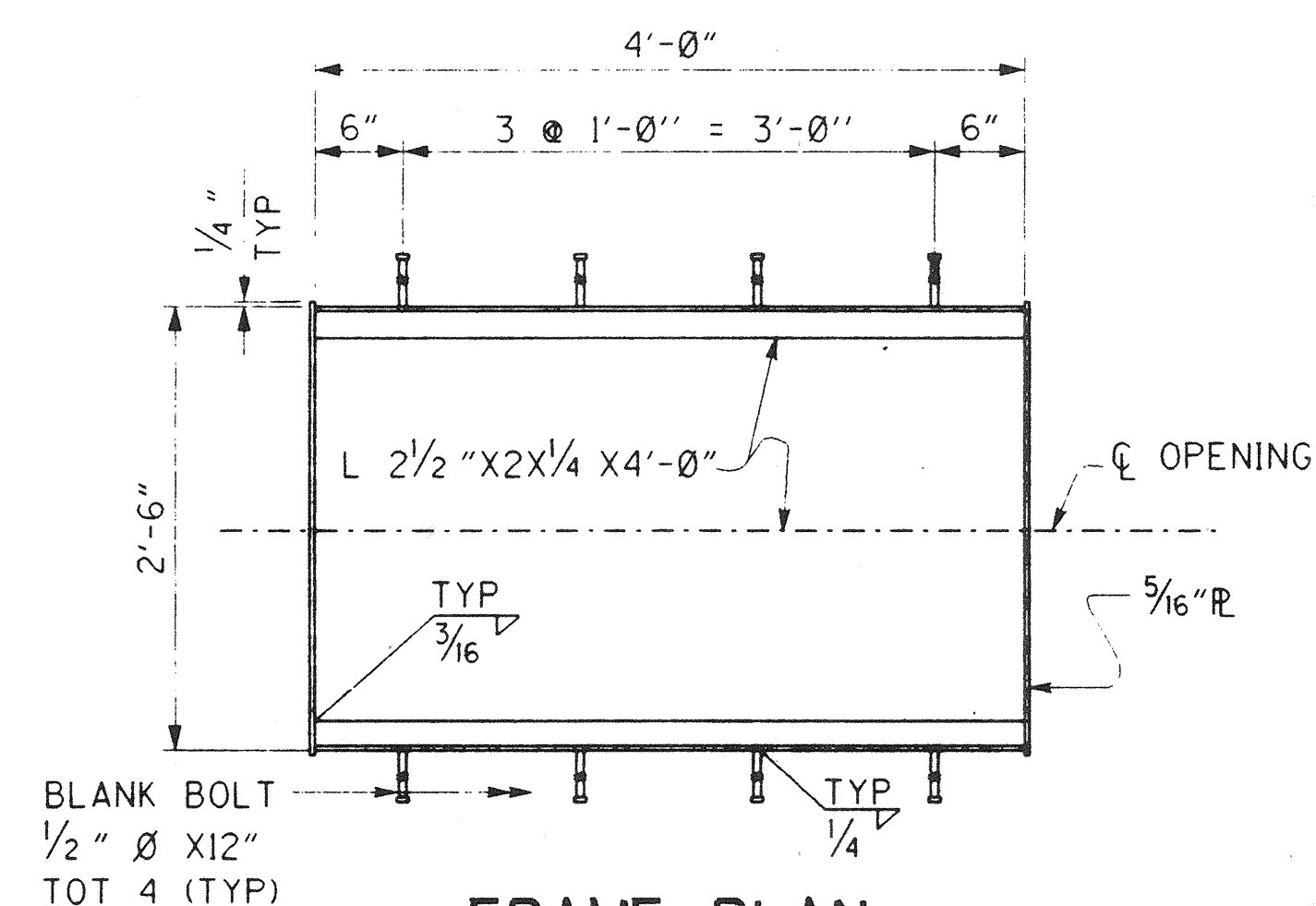
NO SCALE



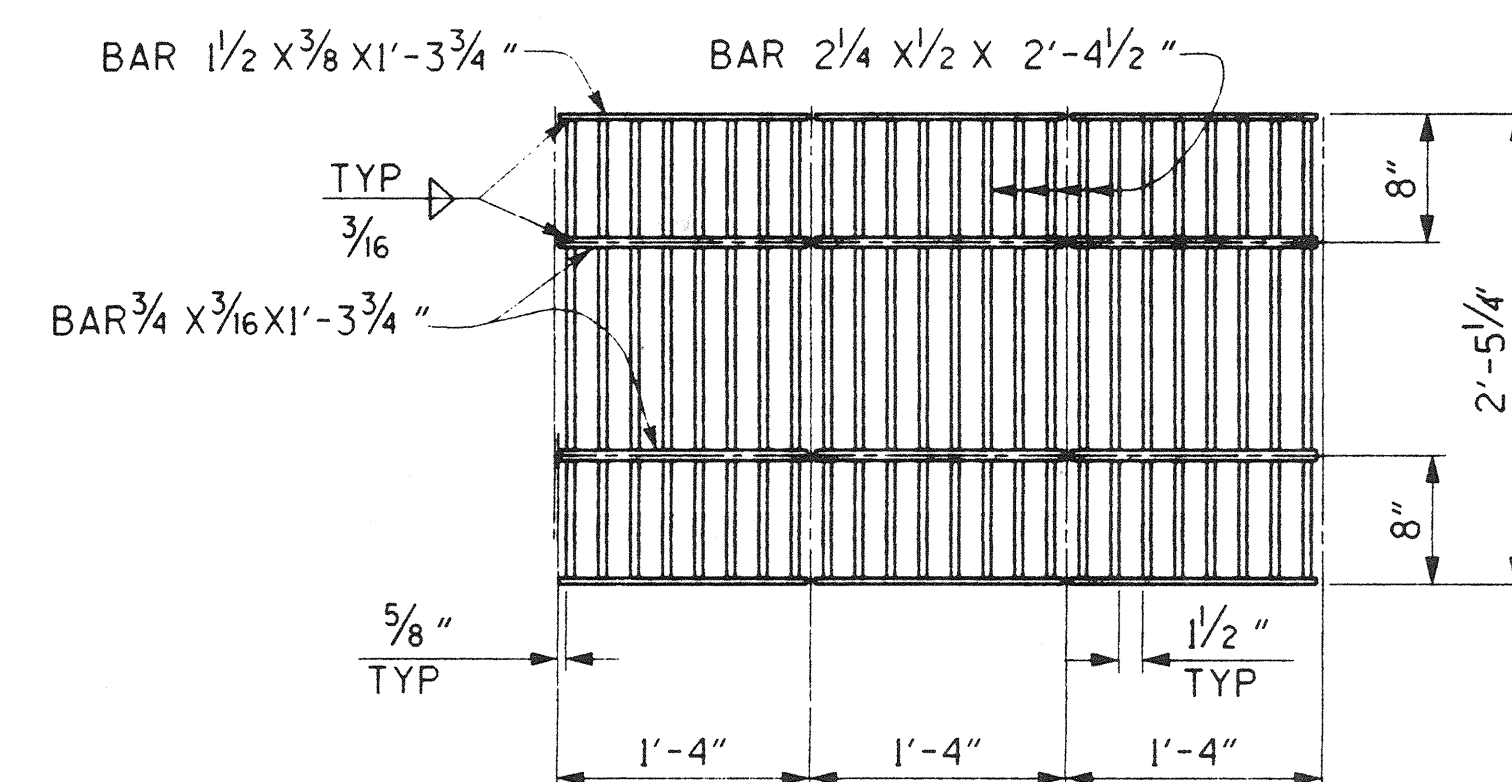
PLAN



SECTION A-A



FRAME PLAN

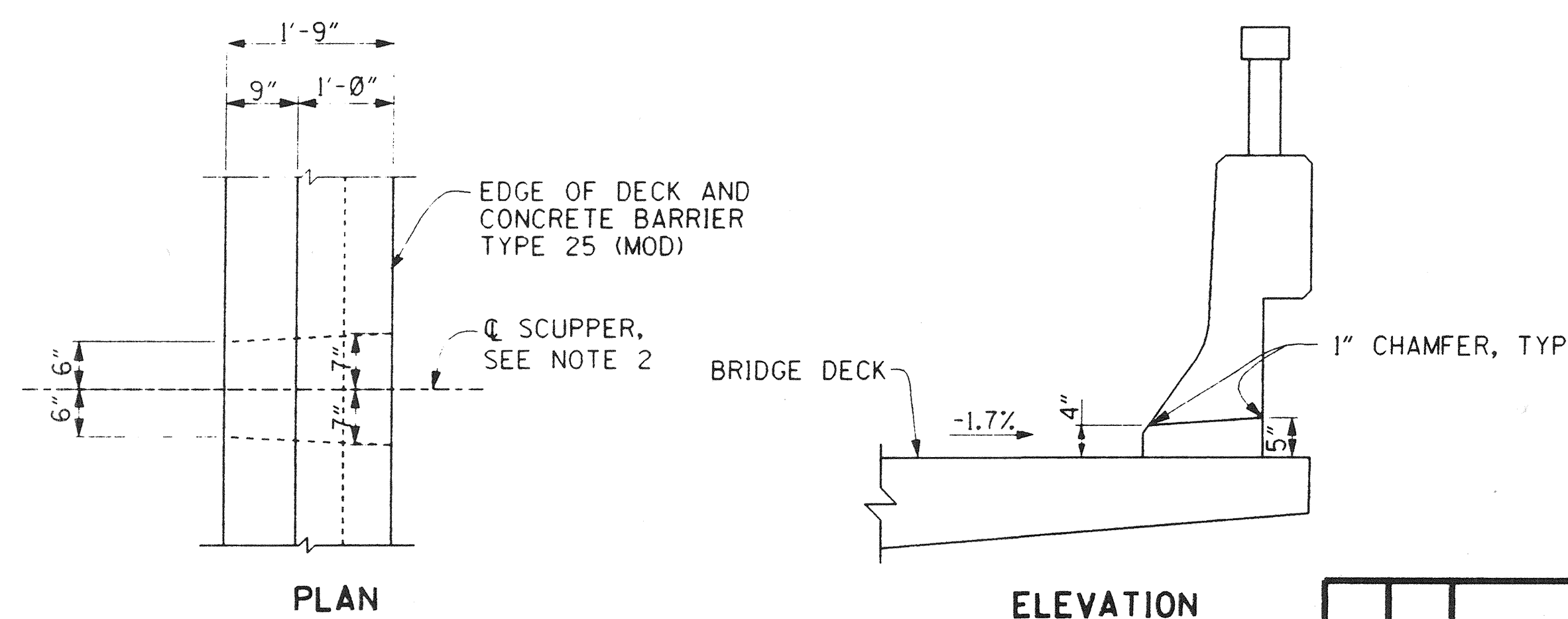


GRATE PLAN

NOTE: GRATING CONSISTS OF 3 IDENTICAL UNITS.

SOFFIT ACCESS OPENING DETAILS

NO SCALE



SCUPPER DRAIN DETAILS

1" = 1'-0"

NOTES:

- FOR POST ANCHORAGE DETAILS, END TRANSITION DETAILS, PULL BOX & ELECTROLIER ANCHORAGE REINF, AND OTHER BARRIER DETAILS NOT SHOWN SEE CALTRANS STANDARD PLAN BII-53.
- SCUPPER DRAIN TO BE PLACED IN EAST SIDE CONCRETE BARRIER TYPE 25 (MOD) AT 20'-0" SPACING FROM BB TO EB.
- FOR DETAILS THROUGH EXPANSION JOINTS SEE ES-7C

PLANS PREPARED BY:

HNTB

36 EXECUTIVE PARK
 SUITE 200
 IRVINE, CALIFORNIA 92614

MARK		DATE	DESCRIPTION
REVISIONS			
PREPARED UNDER RESPONSIBLE CHARGE OF:			
RICHARD A. HART RCE 39595 (EXP. 12-31-97)			
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK			
MISCELLANEOUS DETAILS			
DESIGNED <i>Steve A. Whitaker</i>			26/27
DRAWN <i>L. West</i> CHECKED <i>R. Hart</i>			74
SCALE AS SHOWN			OF 126

DR 3 (16158)

