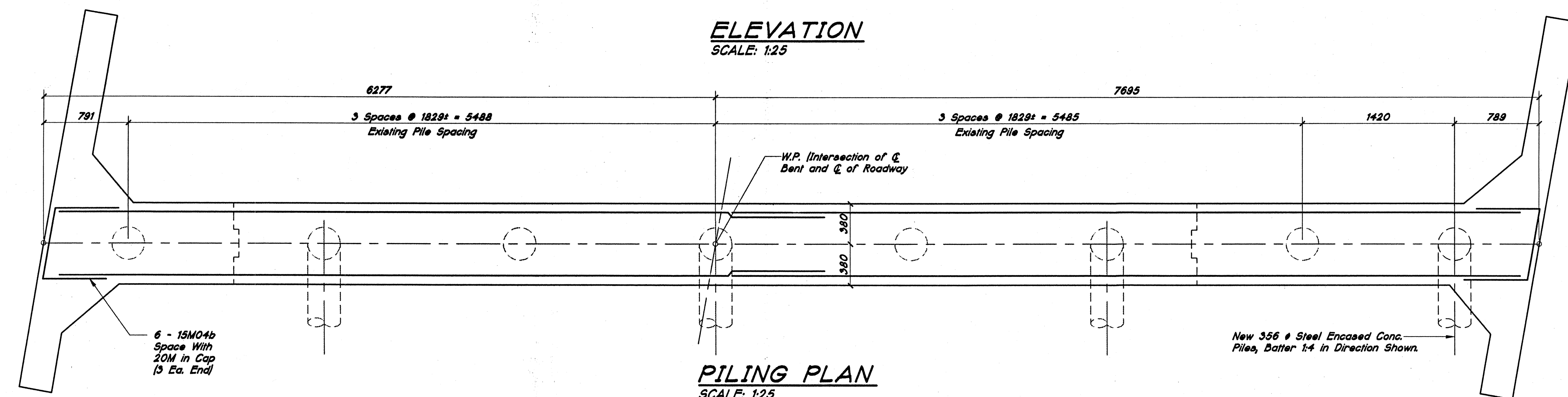
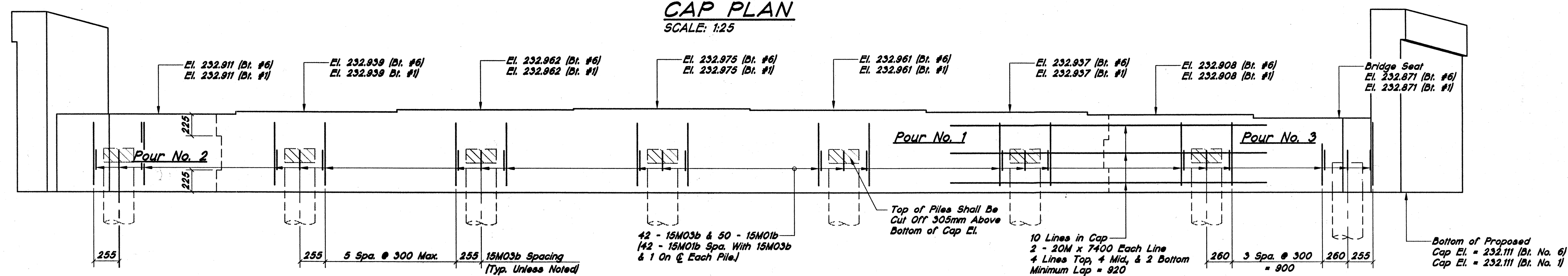
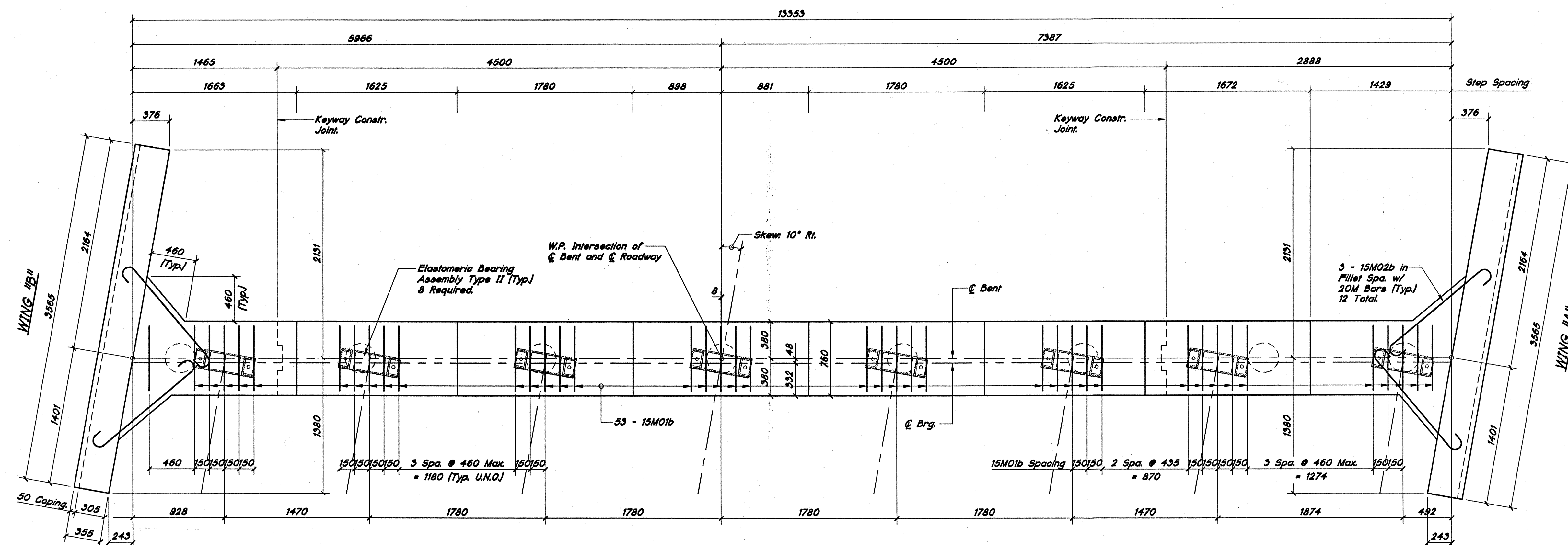
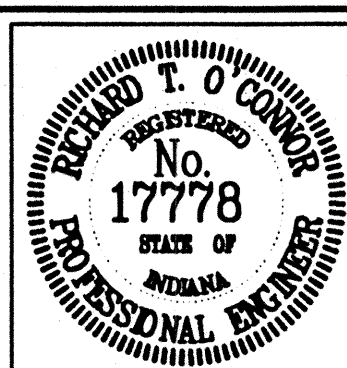




NOTE: DETAILS ARE FOR BENT NO. 6 (EBL)
DETAILS FOR BENT NO. 1 (WBL) - SAME
EXCEPT AS NOTED.

All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.

Time: 14:59:37
Date: 9/3/1997
Scale: 1=1
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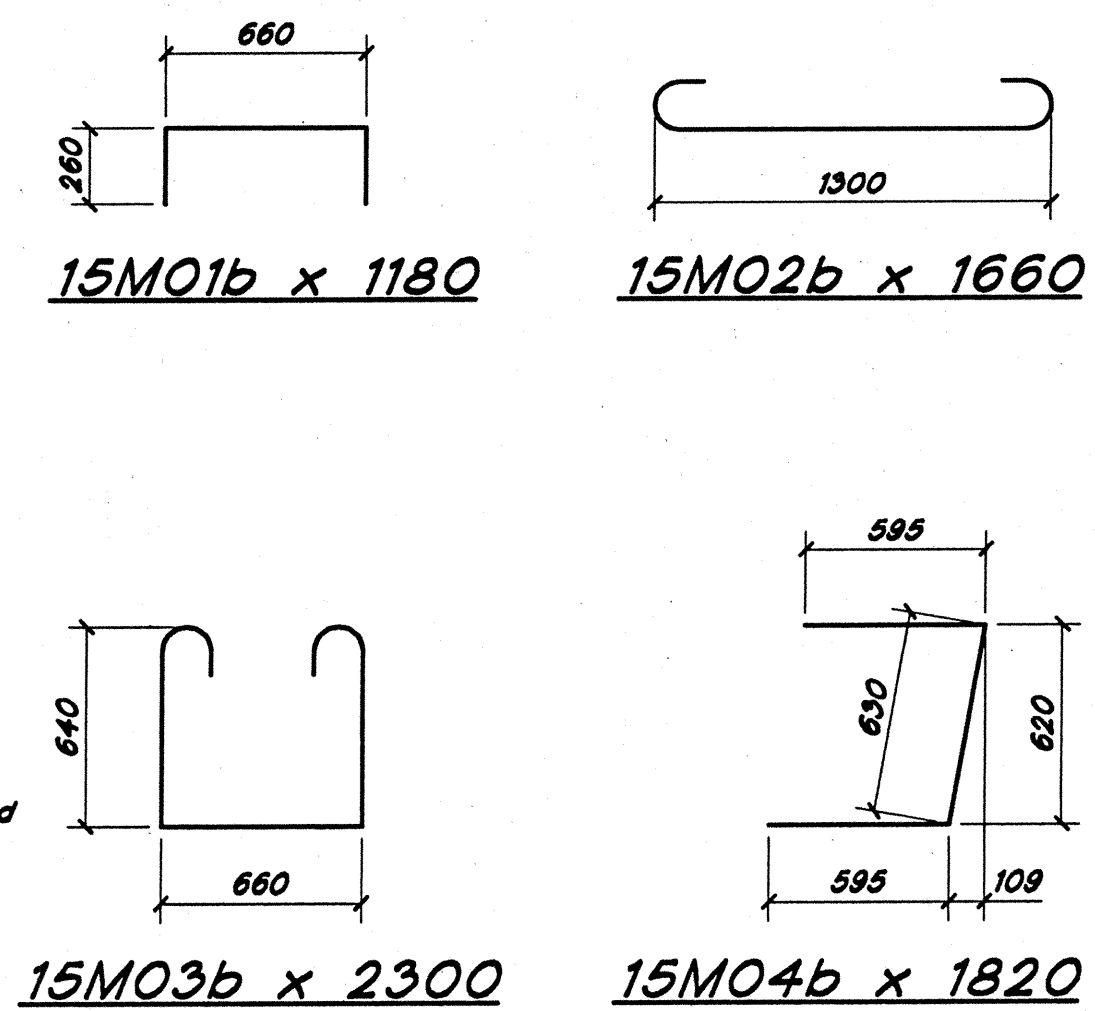
RECOMMENDED
FOR APPROVAL Richard J. O'Connor 9-5-97
DESIGN ENGINEER DATE

DESIGNED: <u>A. PURDUE</u>	DRAWN: <u>RE. MILLER</u>
CHECKED: <u>RZ</u>	CHECKED: <u>SCJ/ETH</u>

**INDIANA
DEPARTMENT OF TRANSPORTATION**

BENTS No. 1 WB & 6 EB DETAILS

HORIZONTAL SCALE	BRIDGE FILE		
1 : 25	I-74-70-4437C		
VERTICAL SCALE	DESIGNATION		
	9304990		
SURVEY BOOK		SHEETS	
	4	of	23
CONTRACT	PROJECT		
R-23371	IM/74-2(087)65		

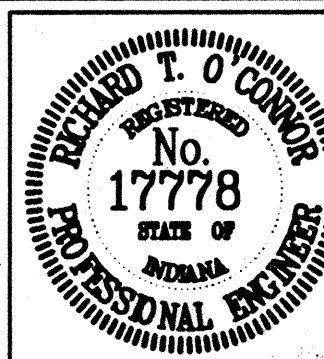


<u>BILL OF MATERIALS</u>			
<u>BENT NO. 1 (WBL)</u>			
REINFORCING STEEL			
SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (kg.)
20M	20	7400	
TOTAL 20M			348
15M01b	103	1180	
15M02b	12	1660	
15M03b	42	2300	
15M04b	6	1820	
15M	36	3400	
15M	48	1865	
TOTAL 15M			724
TOTAL REINFORCING			1072
CONCRETE			m³
CLASS "A" IN SUBSTRUCTURE			
POUR NO. 1			5.7
POUR NO. 2			3.0
POUR NO. 3			3.9
TOTAL CLASS "A"			12.6
MISCELLANEOUS			(QTY.)
ELASTOMERIC BRG. ASSEMBLY, II			8 EACH
BENT #1, PILE, CONCRETE, STEEL			
SHELL ENCASED, 5.16mm THK,			
356mm ø 1 @ 10.7m (Approx)			10.7 m
BENT #6, PILE, CONCRETE, STEEL			
SHELL ENCASED, 5.31mm THK,			
356 ø 1 @ 12.2m (Approx)			12.2 m
SURFACE SEAL (ESTIMATED)			16.6 m ²
FIELD DRILLED HOLES IN CONC.			16 EACH

NOTE:
For Reinforcing Bar Notes; See Standard Drawing 701-BRST-07.



All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.



RECOMMENDED
FOR APPROVAL Richard J. O'Connor 9-5-97
DESIGN ENGINEER DATE

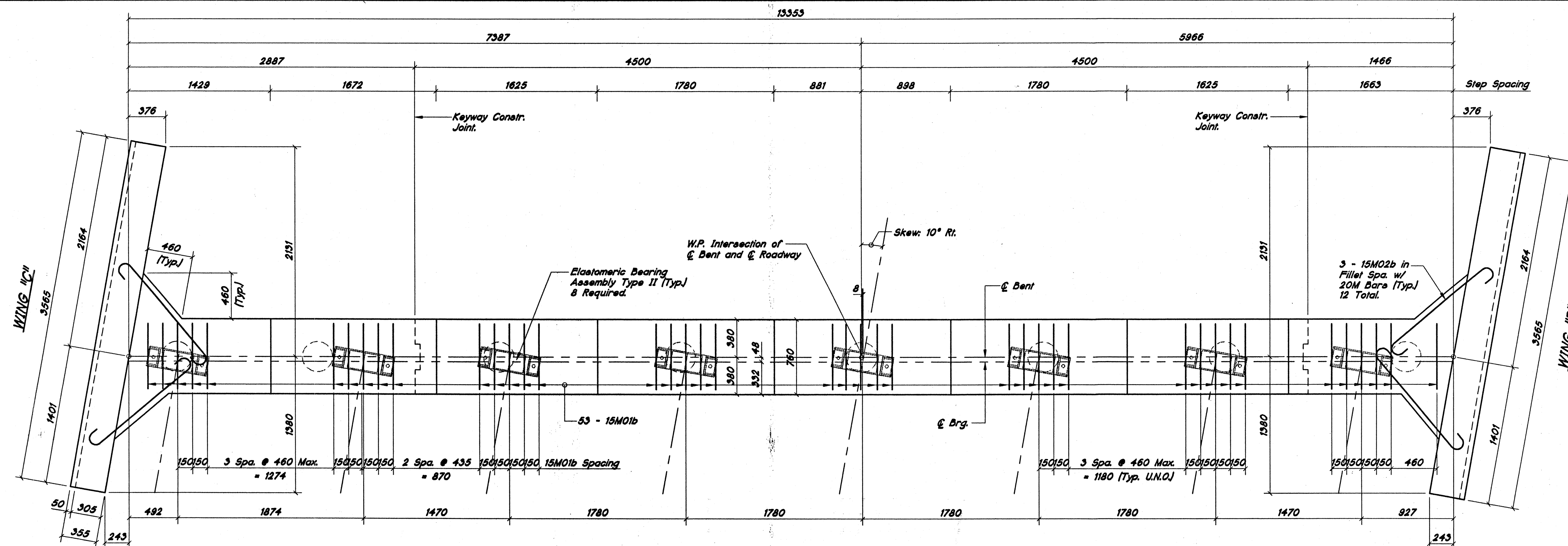
DESIGNED: <u>A. PURDUE</u>	DRAWN: <u>D. DUNCAN</u>
CHECKED: <u>RZ</u>	CHECKED: <u>SCJ/ETH</u>

INDIANA
DEPARTMENT OF TRANSPORTATION

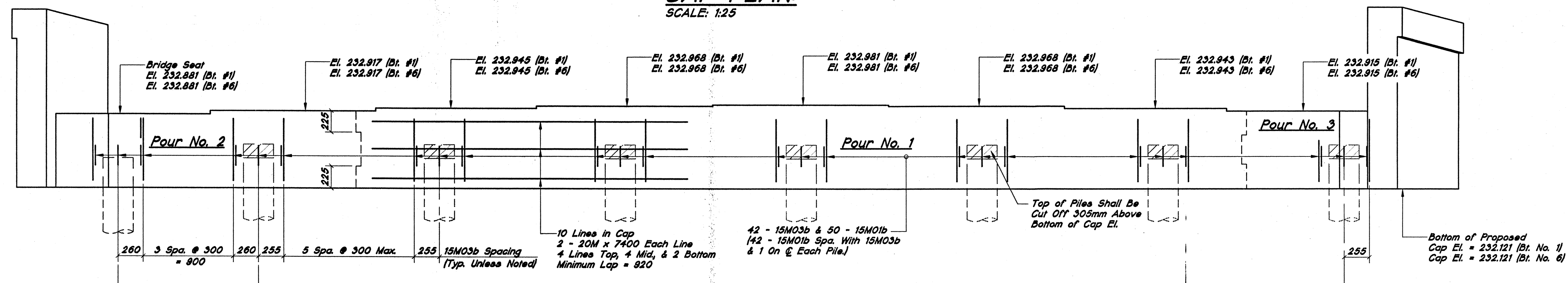
BENTS No. 1 WB & 6 EB DETAILS
AND BILL OF MATERIALS

HORIZONTAL SCALE	BRIDGE FILE		
AS NOTED	I-74-70-4437C		
VERTICAL SCALE	DESIGNATION		
	9304990		
SURVEY BOOK	SHEETS		
	5	of	23
CONTRACT	PROJECT		
R-23371	IM/74-2(087)65		

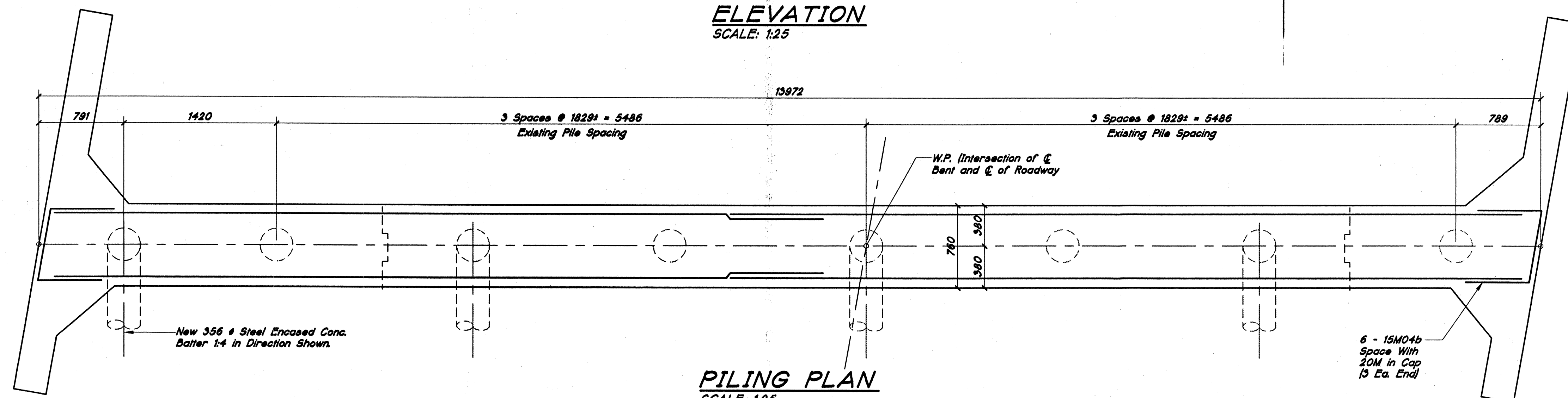
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Date: 9/4/1997
Scale: 1=1
Drawing File: I-74\4058\FINALS\4058-w14.DWG (S.BENGOOCH-EX)
References: BT01-BIL, MET-DATA, BT01-BPL, BT06-SEC, BT06-WEL, BT06-BAR



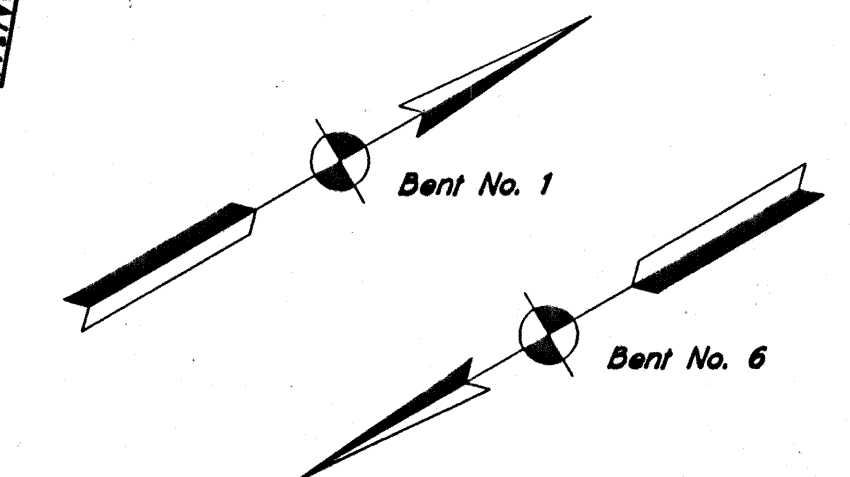
CAP PLAN
SCALE: 1:25



ELEVATION
SCALE: 1:25



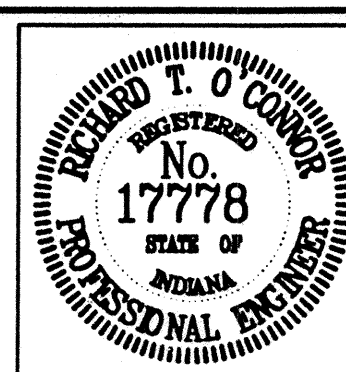
PILING PLAN
SCALE: 1:25



DETAILS ARE FOR BENT NO. 1 (EBL)
DETAILS FOR BENT NO. 6 (WBL) SAME
EXCEPT AS NOTED.

All Dimensions Are In Millimeters
(mm), And All Elevations Are
In Meters (m), Except As Noted.

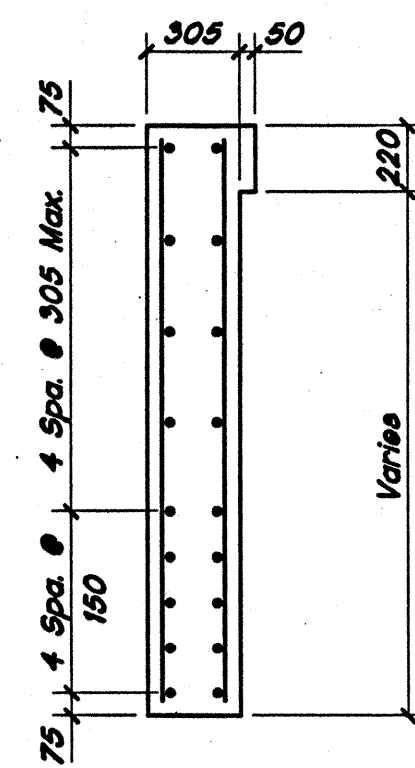
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Date: 11/11/97
Scale: 1:1
Drawing File: I-74-4058-FINALS-4058-64.DWG (S.BENGOCHEA)
Xrefs: RUSTAMP, MET-DATA, BENT-1, BENT-6, BENT-6-CAP



RECOMMENDED
FOR APPROVAL: *Richard T. O'Connor* 9-5-97
DESIGN ENGINEER DATE
DESIGNED: A. PURDUE DRAWN: D. DUNCAN
CHECKED: RZ CHECKED: SCJ/ETH

INDIANA
DEPARTMENT OF TRANSPORTATION
BENTS No. 1 EB & 6 WB DETAILS

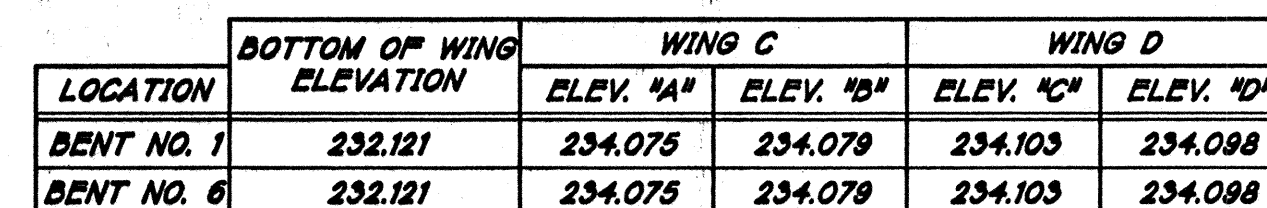
HORIZONTAL SCALE	BRIDGE FILE
1 : 25	I-74-70-4437C
VERTICAL SCALE	DESIGNATION
	9304990
SURVEY BOOK	SHEETS
	6 of 23
CONTRACT	PROJECT
R-23371	IM/74-2(087)65



Technical drawing of a pile cap cross-section. The drawing shows a rectangular pile cap with a central rectangular opening. The overall width is 760. The overall height is 760 Min. The width of the central opening is 380. The height of the central opening is 305. The distance from the top of the cap to the top of the opening is 116, 3 Eq. Spa. 116. The distance from the bottom of the cap to the bottom of the opening is 75 Cl. The distance from the side of the cap to the side of the opening is 20M (Typ). The reinforcement consists of 15M01b bars (top) and 15M03b bars (bottom). The drawing also shows existing piles to be cut to 305 above the proposed bottom of cap elevation (typical). A new 355 # Steel Encased Concrete Pile is shown at the bottom.

Technical drawings of four L-shaped profiles:

- 15M01b x 1180:** A simple L-shape with a vertical leg height of 260 and a horizontal leg width of 660.
- 15M02b x 1660:** An L-shape with a horizontal leg width of 1300. The vertical leg height is not explicitly labeled.
- 15M03b x 2300:** A U-shaped profile with a vertical leg height of 640 and a horizontal leg width of 660. It has two upward-facing semi-circular ends.
- 15M04b x 1820:** A complex profile with a total width of 595 and a total height of 109. It features a central vertical section with a width of 620 and a horizontal base of 595. The top horizontal section has a width of 595. The profile is symmetrical.

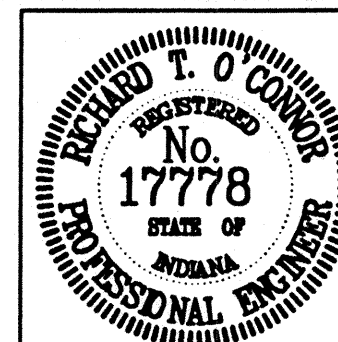


Technical drawing of a bent bearing assembly. The drawing shows a bent beam with a 10° skew, a bent bearing, and a bent beam. Dimensions include 244, 244, 760, 45, 43, 43, and 45. Labels include '10° Skew', 'Bent', 'Bearing', and 'Beam'.

BILL OF MATERIALS
BENT NO. 1 (EBL)

NOTE:
For Reinforcing Bar Notes; See Standard Drawing 701-BRST-07.

All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.

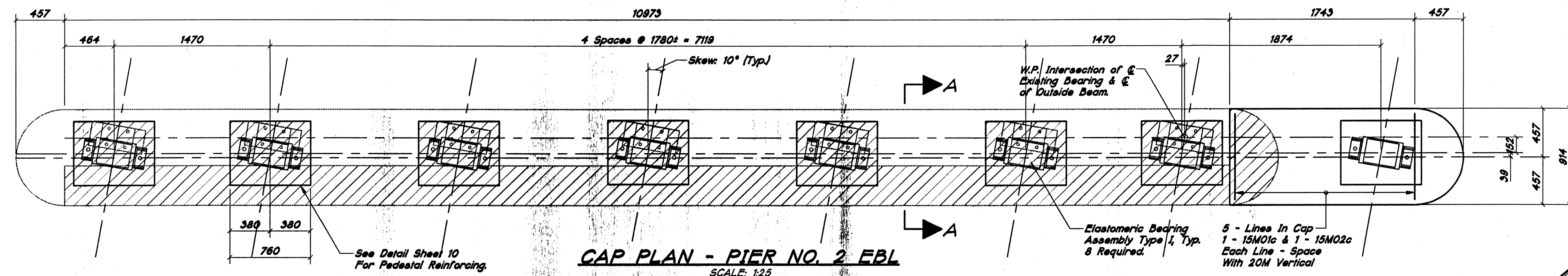


RECOMMENDED FOR APPROVAL <i>Richard D. O'Connor</i> 9-5-97 DESIGN ENGINEER DATE	
DESIGNED: A. PURDUE	DRAWN: D. DUNCAN
CHECKED: RZ	CHECKED: SCJ/ETH

INDIANA
DEPARTMENT OF TRANSPORTATION

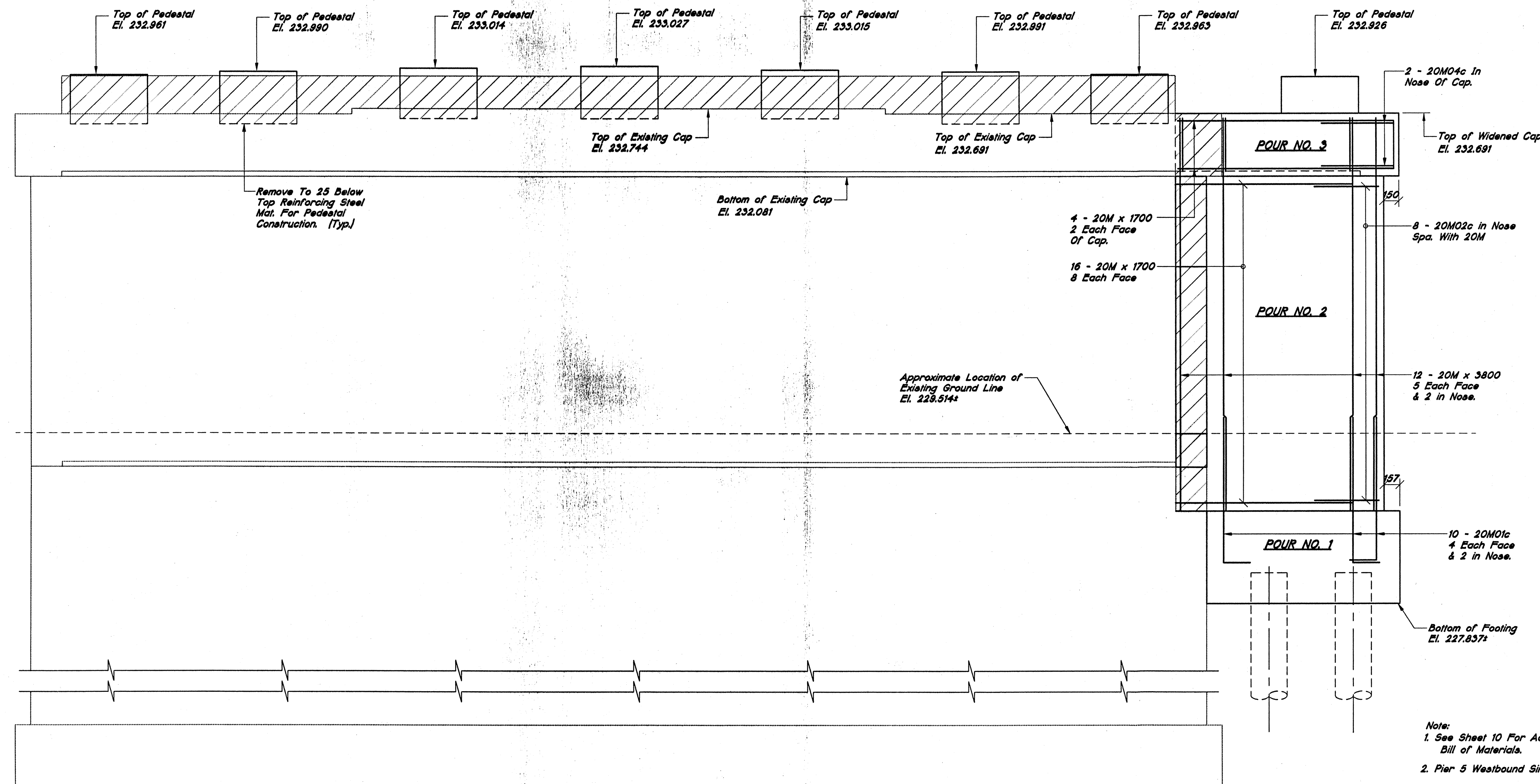
BENTS No. 1 EB & 6 WB DETAILS
 AND BILL OF MATERIALS

HORIZONTAL SCALE	BRIDGE FILE		
AS NOTED	I-74-70-4437C		
VERTICAL SCALE	DESIGNATION		
	9304990		
SURVEY BOOK		SHEETS	
		7	of 23
CONTRACT		PROJECT	
R-23371		IW/74-2(087)65	

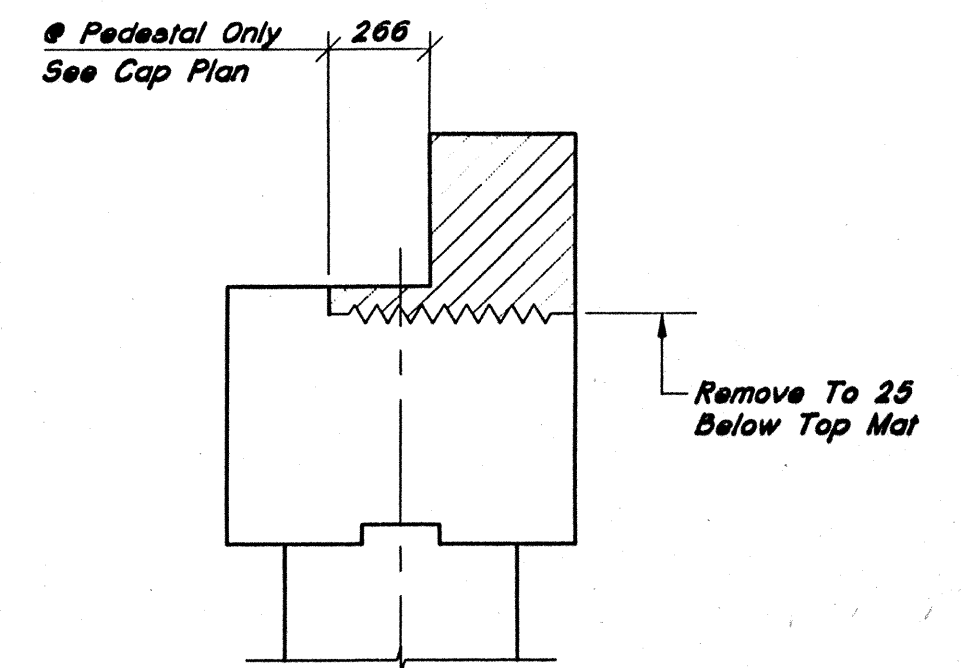


CAP PLAN - PIER NO. 2 EBL
SCALE: 1:25

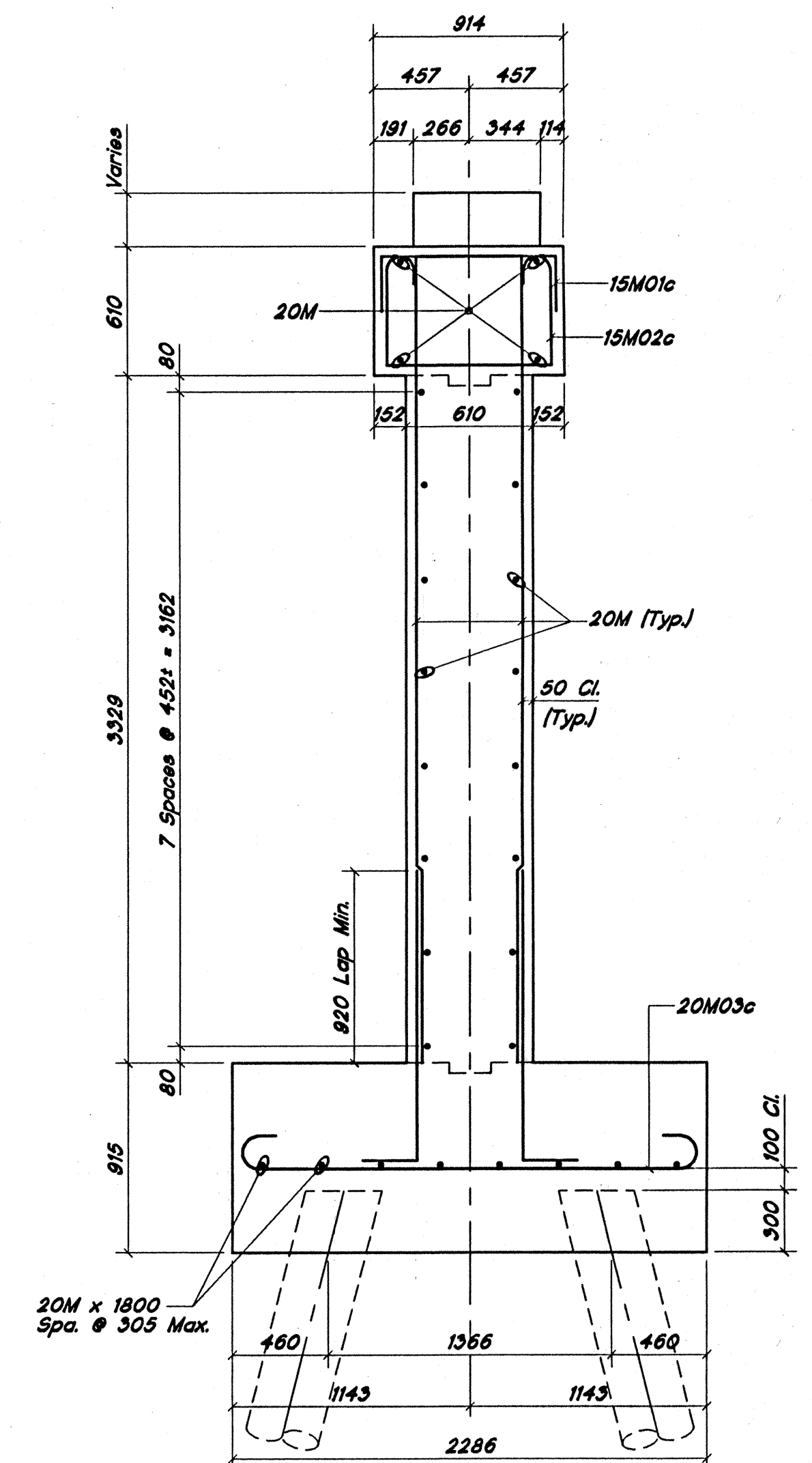
Note:
Hatching Indicates Removal of Present
Structure Portions.



ELEVATION - PIER NO. 2 EBL
SCALE: 1:25



**SECTION "A-A"
REMOVAL DETAIL**
SCALE: 1:20

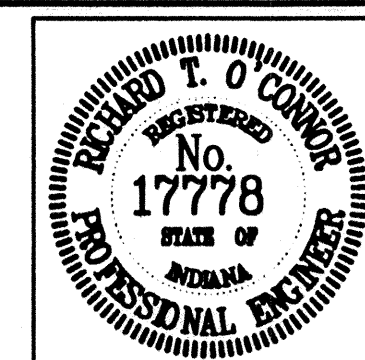


SECTION A-A
SCALE: 1:25

Note:
1. See Sheet 10 For Additional Details And
Bill of Materials.
2. Pier 5 Westbound Similar By 180° Rotation.

All Dimensions Are In Millimeters
(mm), And All Elevations Are
In Meters (m), Except As Noted.

Time: 17:15
Date: 9/2/1997
Scale: 1"=1'-0"
Project: I-74/70-4437C
Sheet: R-23371
Drawn: RE. MILLER
Checked: RZ
Design: A. PURDUE
Date: 9-5-97
Design Engineer: Richard J. O'Connor
Professional Engineer: No. 17778
State of Indiana



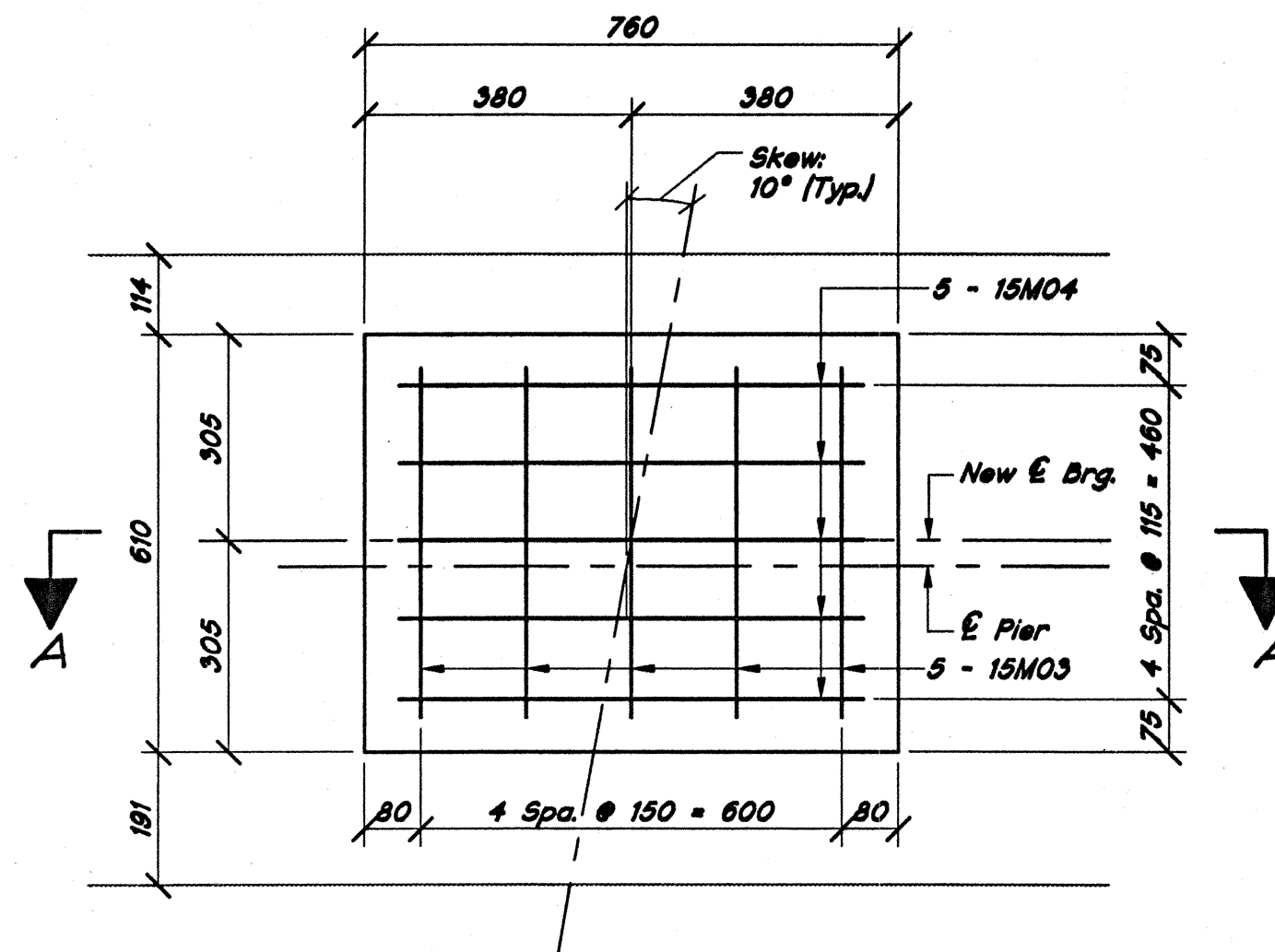
RECOMMENDED
FOR APPROVAL: *Richard J. O'Connor* 9-5-97
DESIGN ENGINEER DATE

DESIGNED: A. PURDUE DRAWN: RE. MILLER
CHECKED: RZ CHECKED: SCJ/ETH

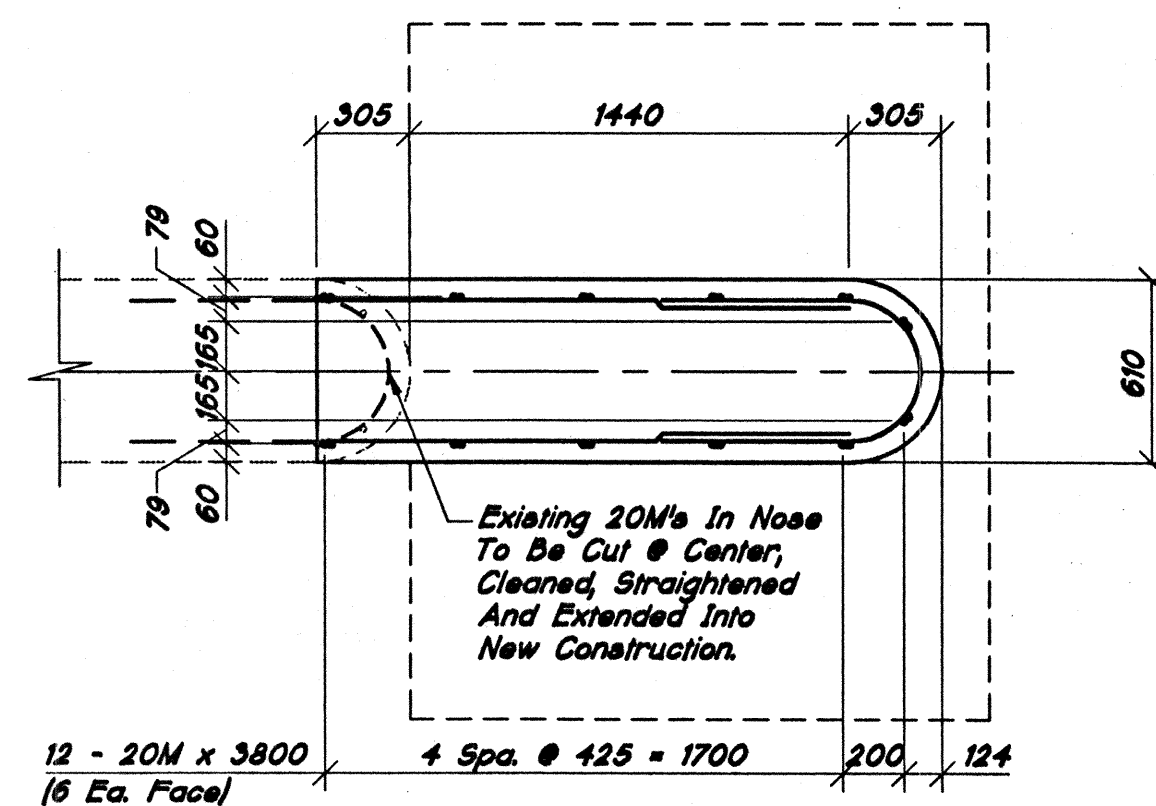
INDIANA
DEPARTMENT OF TRANSPORTATION

PIER No. 2 (EBL) AND
PIER No. 5 (WBL) DETAILS

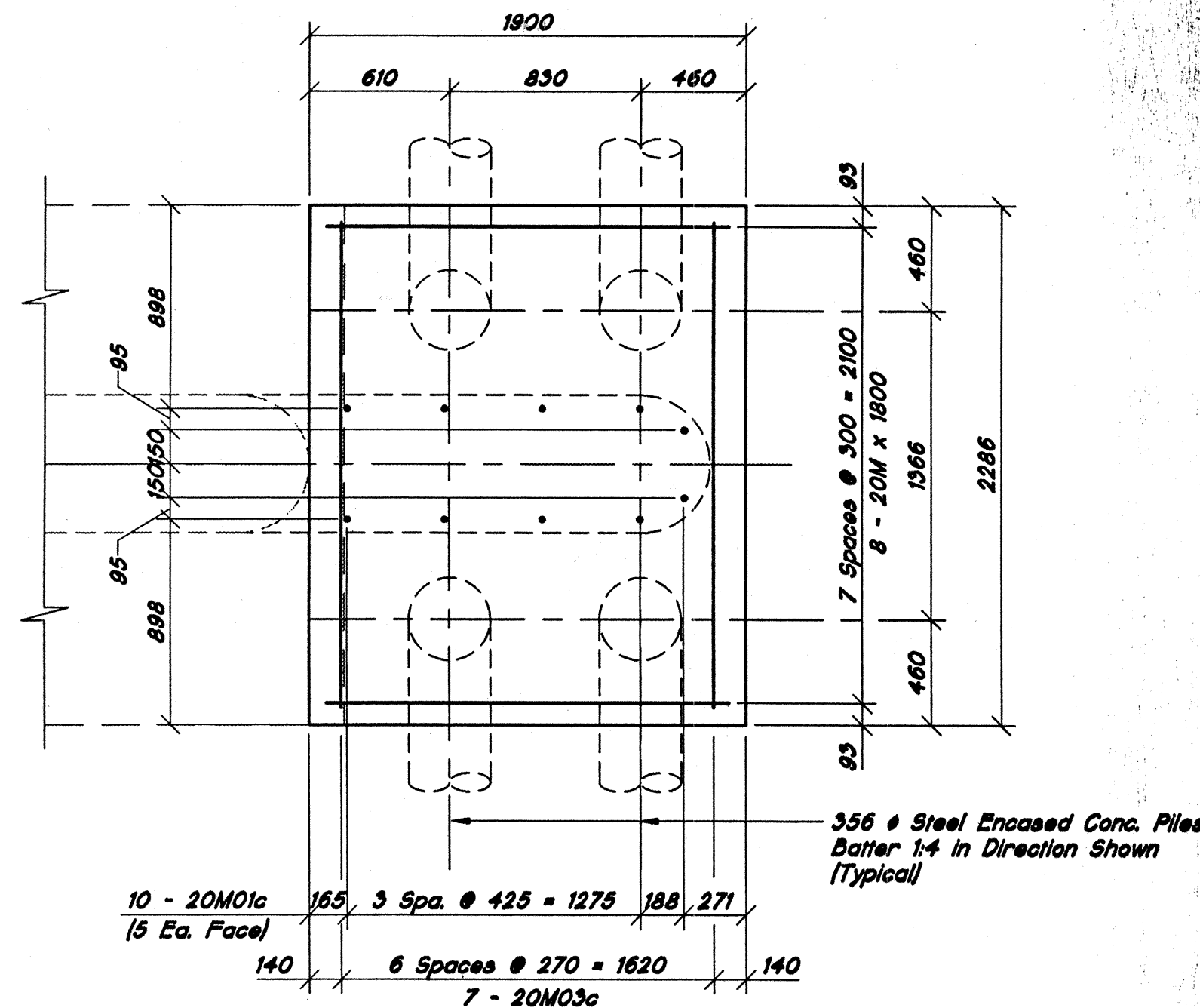
HORIZONTAL SCALE 1 : 25	BRIDGE FILE I-74-70-4437C
VERTICAL SCALE	DESIGNATION 9304990
SURVEY BOOK	SHEETS 8 of 23
CONTRACT R-23371	PROJECT IM/74-2(087)65



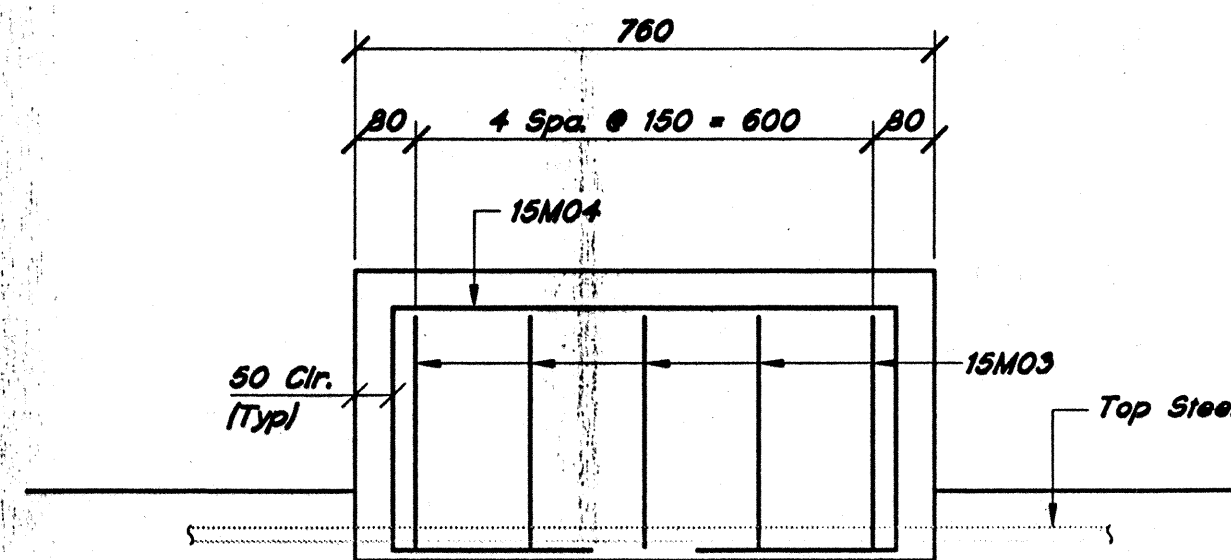
TYPICAL PEDESTAL SECTION
SCALE: 1:10



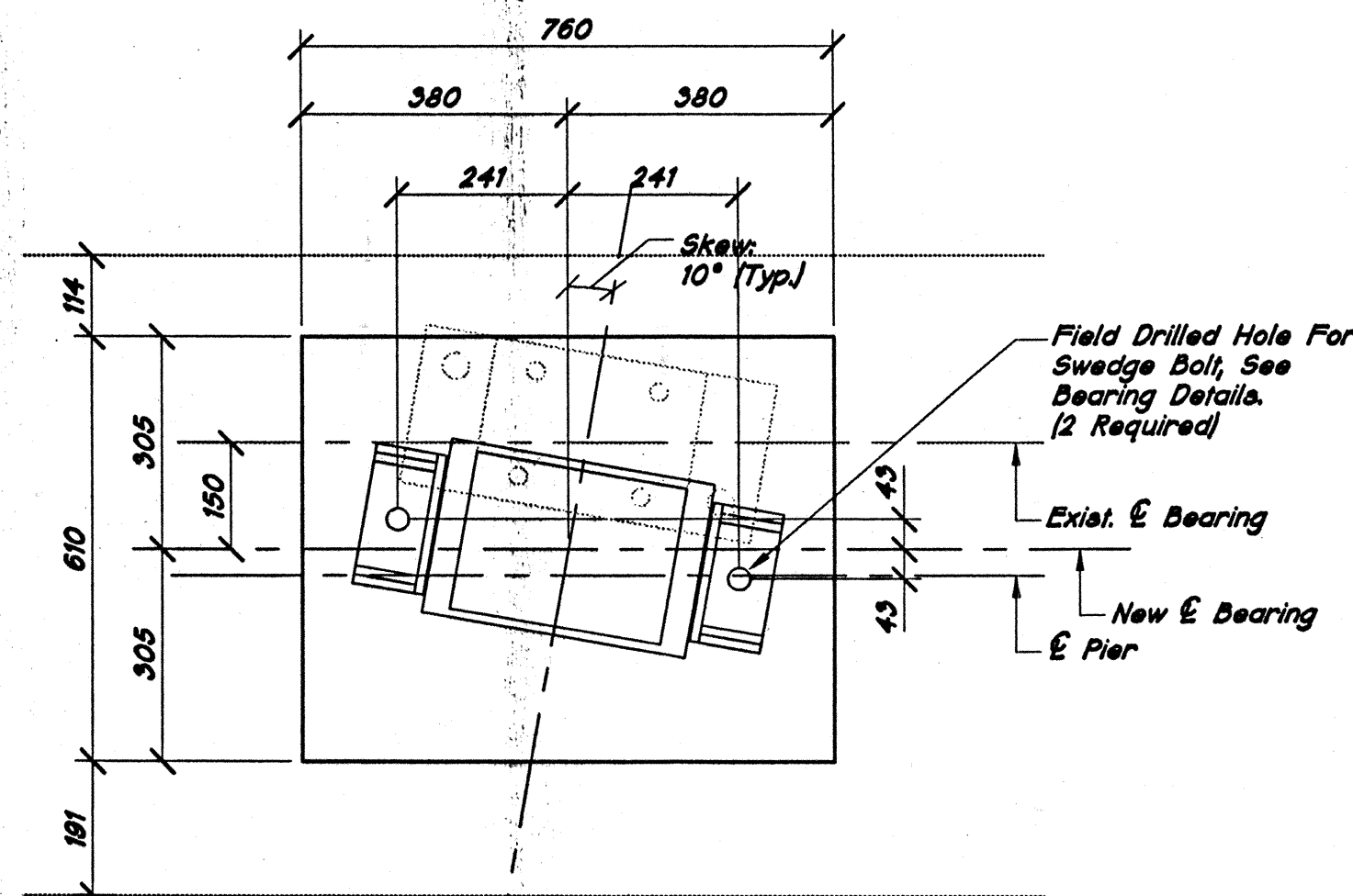
SECTION THRU WALL
SCALE: 1:25



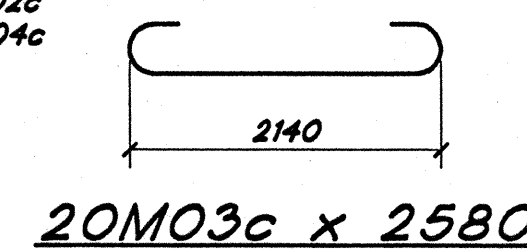
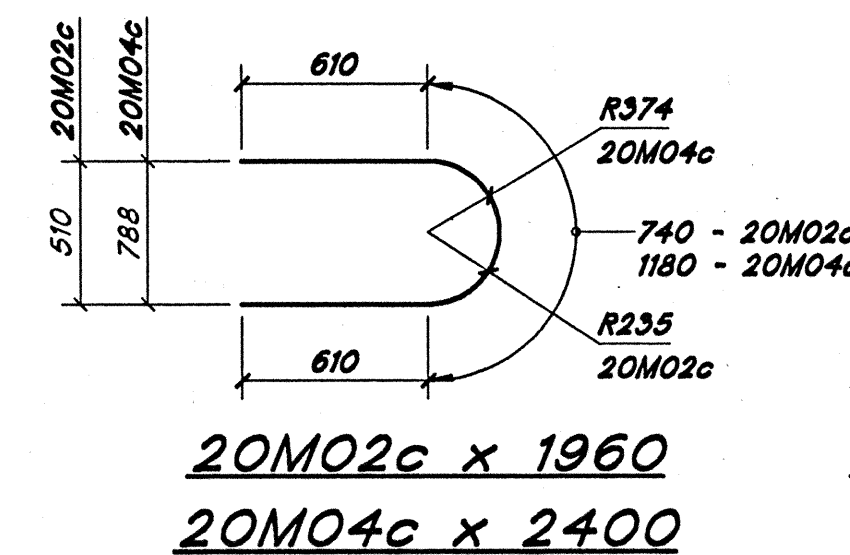
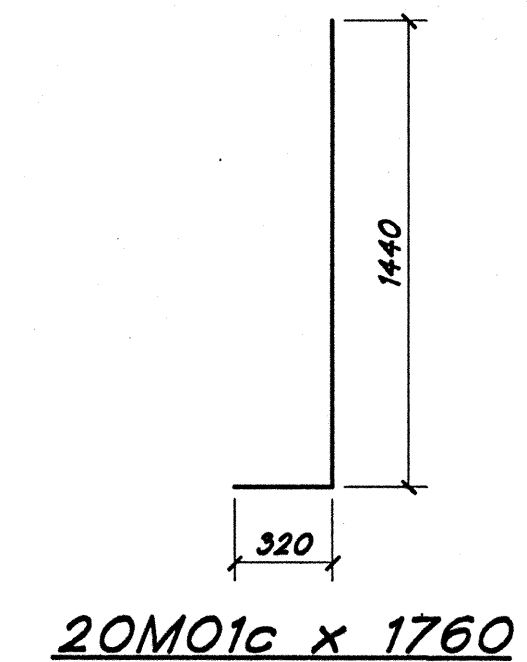
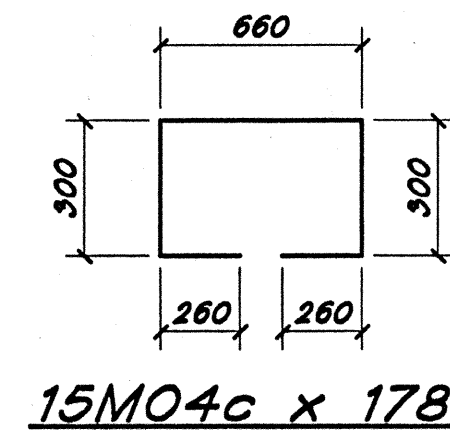
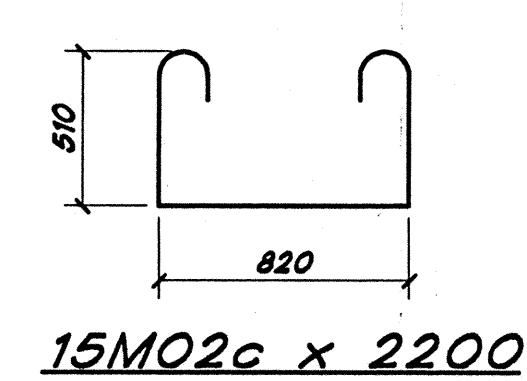
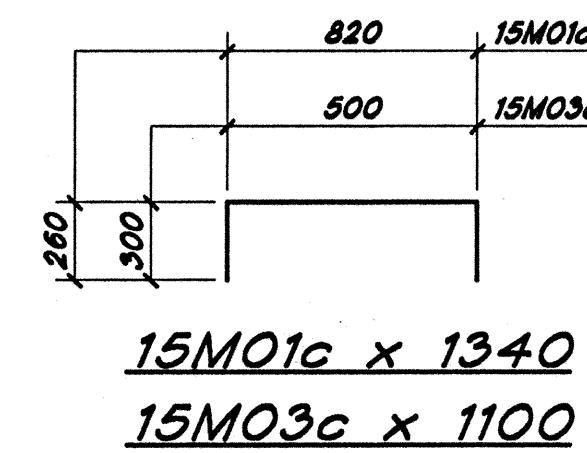
FOOTING PLAN
SCALE: 1:25



SECTION "A-A"
SCALE: 1:10



BEARING ASSEMBLY LOCATION DETAIL
SCALE: 1:10



**BILL OF MATERIALS
PIER NO. 2 (EBL) ***

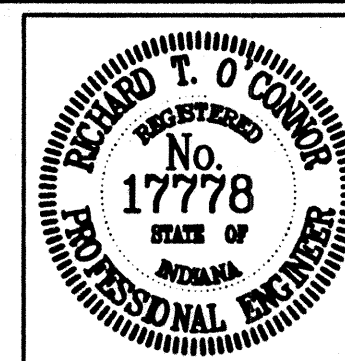
REINFORCING STEEL			
SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (kg.)
20M01c	10	1760	
20M02c	8	1960	
20M03c	7	2580	
20M04c	2	2400	
20M	12	3800	
20M	8	1800	
20M	20	1700	
TOTAL 20M			354
15M01c	5	1340	
15M02c	5	2200	
15M03c	40	1100	
15M04c	40	1780	
TOTAL 15M			209
TOTAL REINFORCING			563
CONCRETE			m ³
CLASS "B" IN FOOTING			
POUR NO. 1			4.0
CLASS "A" IN SUBSTRUCTURE			
POUR NO. 2			4.0
POUR NO. 3			1.2
7 - Pedestals @ 0.17m ³			1.2
TOTAL CLASS "A"			6.4
MISCELLANEOUS			(QTY.)
ELASTOMERIC BRG. ASSEMBLY, 1			8 EACH
PILE, CONCRETE, STEEL SHELL			
ENCASED, 356#, 5.16mm THK.,			
4 @ 3.1m (Approx)			12.4m
Field Drilled Hole, Conc.			16 Each

* Bill Of Materials For Piers 2 (WBL) & 5 (EBL & WBL) Same

NOTE:
For Reinforcing Bar Notes; See Standard Drawing 701-BRST-07.

All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.

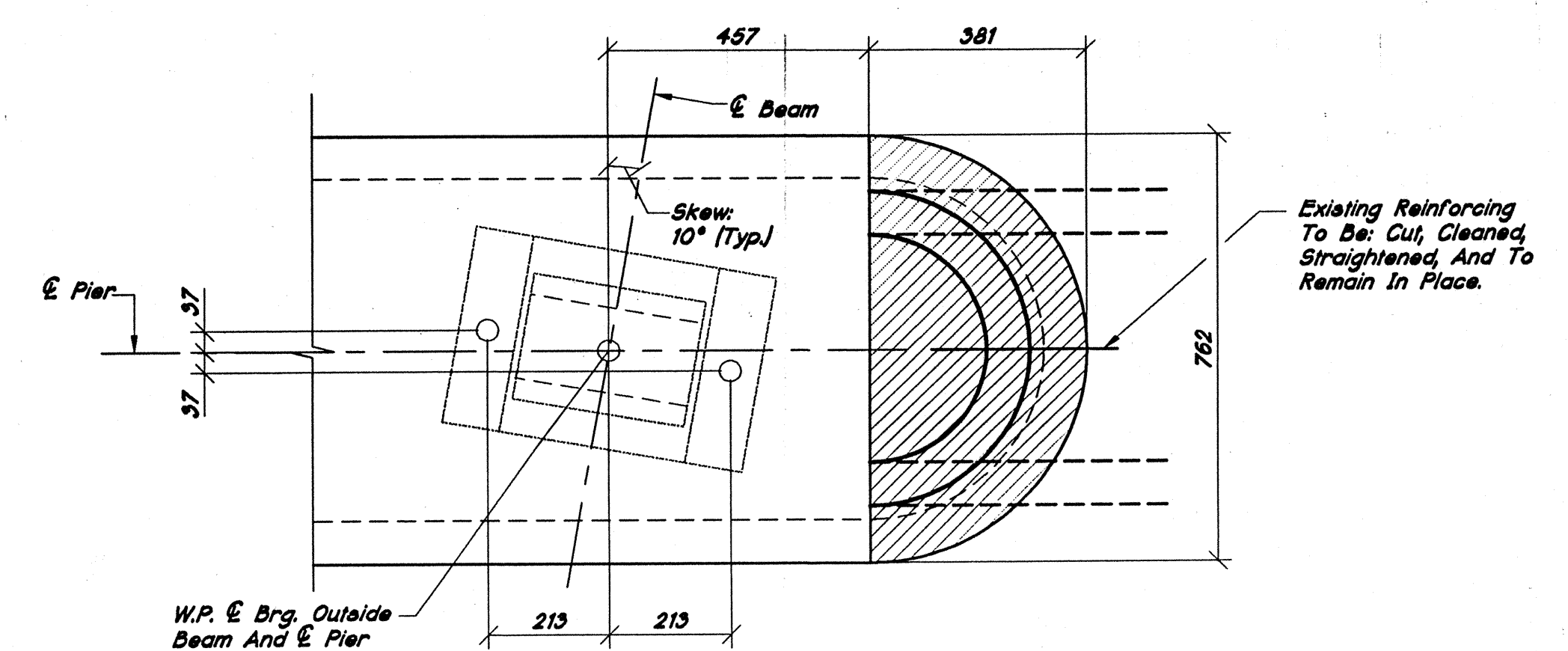
Drawn: 12/27/11
Date: 9/27/1997
Scale: 1"=1'-0"
Project: I-74/70-4437C
Sheet: 23 of 23
Title: PIER NO. 2 (EBL) *
Author: J. L. HARRIS
Checked: RZ
Design: RZ
Drawn: RE. MILLER
Date: 9-5-97
Title: PIER NO. 2 (EBL) *
Author: J. L. HARRIS
Checked: RZ
Design: RZ
Drawn: RE. MILLER
Date: 9-5-97



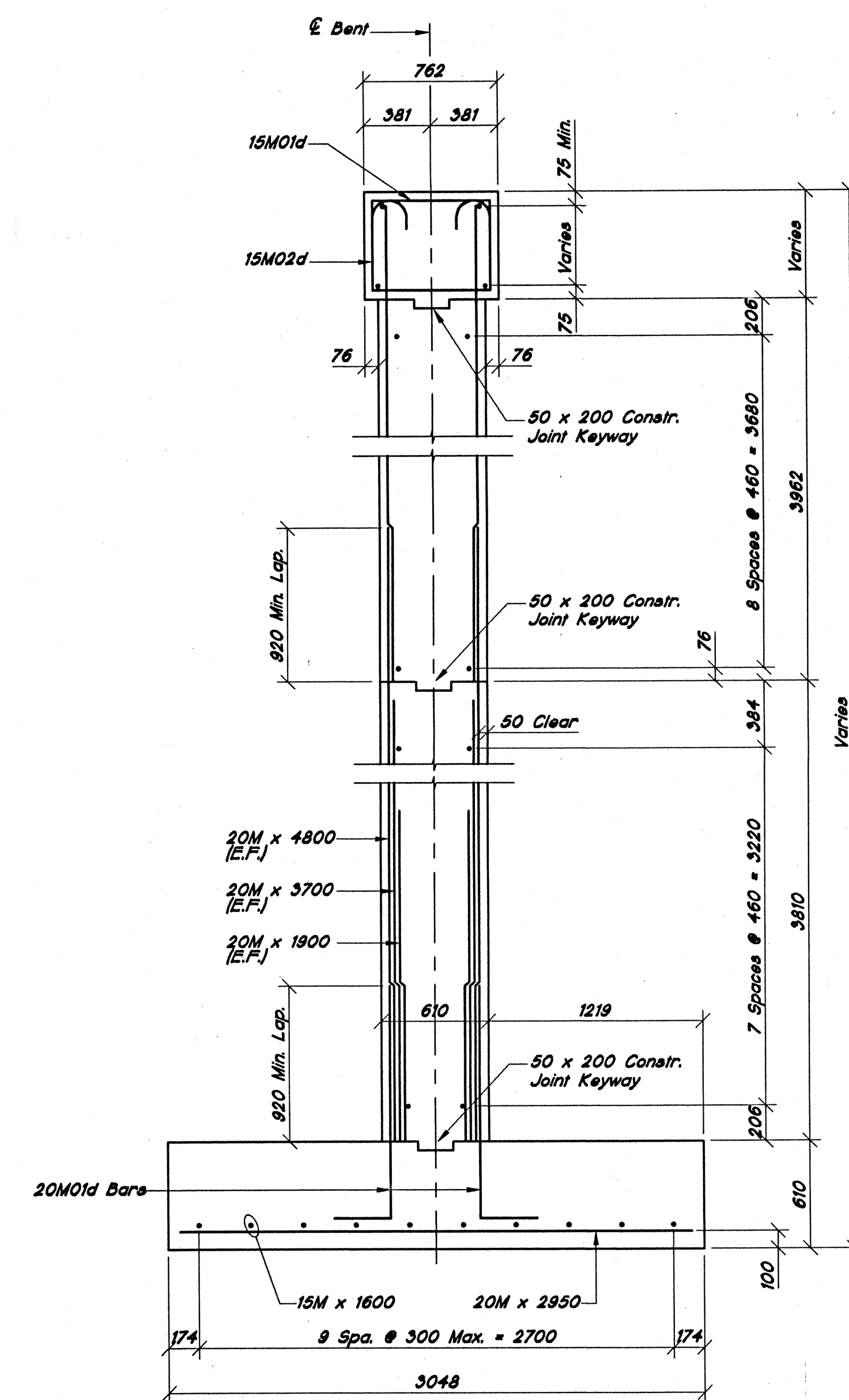
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: A. PURDUE	DRAWN: RE. MILLER	
CHECKED: RZ	CHECKED: SCJ/ETH	

INDIANA DEPARTMENT OF TRANSPORTATION
PIERS 2 & 5 DETAILS AND BILL OF MATERIALS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I-74-70-4437C
VERTICAL SCALE	DESIGNATION
	9304990
SURVEY BOOK	SHEETS
	10 of 23
CONTRACT	PROJECT
R-23371	IM/74-2(087)65



REMOVAL DETAIL
SCALE: 1 : 10



SECTION A-A
SCALE: 1 : 25

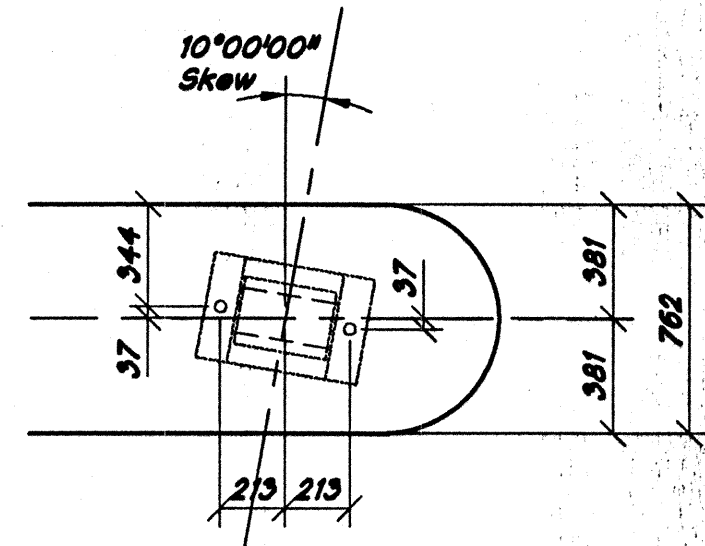
*All Dimensions Are In Millimeters
[mm], And All Elevations Are
In Meters [m], Except As Noted.*



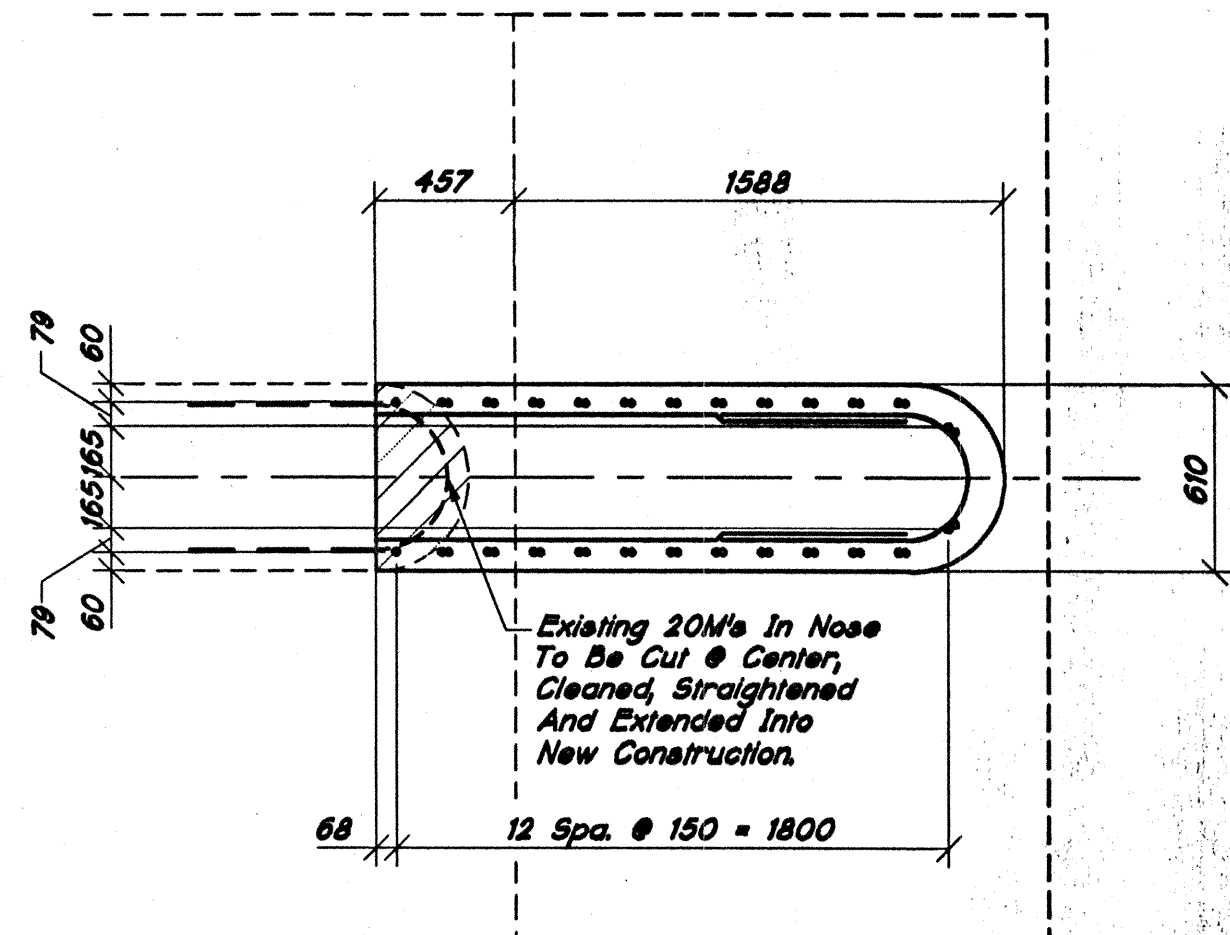
DESIGNED: <u>A. PURDUE</u>	DRAWN: <u>R. ELLIS</u>
CHECKED: <u>RZ</u>	CHECKED: <u>SCJ/ETH</u>

PIERS No. 3 & 4 DETAILS
(EBL & WBL)

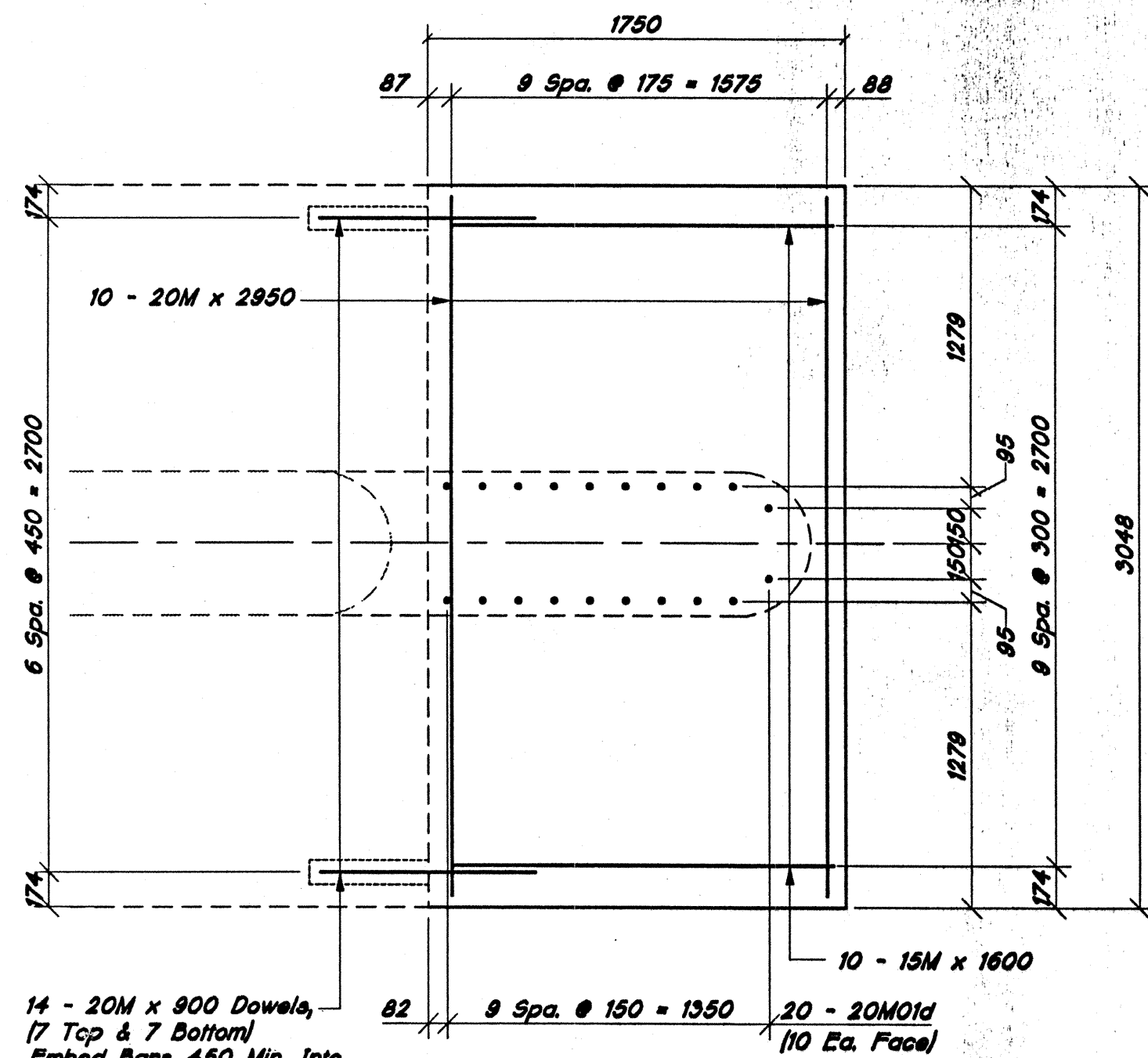
HORIZONTAL SCALE	BRIDGE FILE		
1 : 25	I-74-70-4437C		
VERTICAL SCALE	DESIGNATION		
	9304990		
SURVEY BOOK	SHEETS		
	11	of	23
CONTRACT	PROJECT		
R-23371	IM/74-2(087)65		



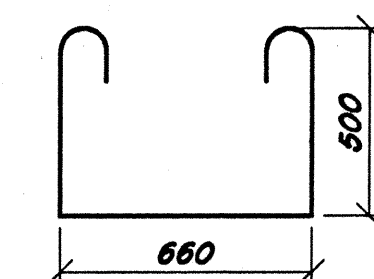
**BEARING ASSEMBLY
LOCATION DETAIL**
SCALE: 1 : 25



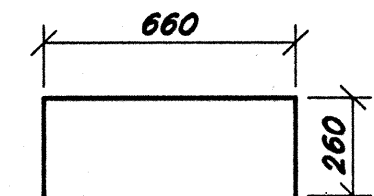
SECTION B-B
SCALE: 1:25



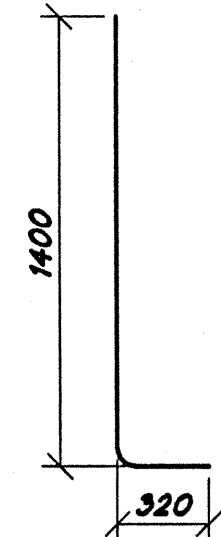
FOOTING PLAN
SCALE: 1:25



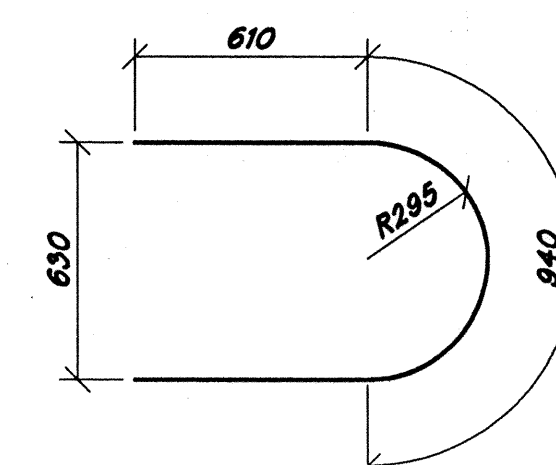
15M02d x 2020



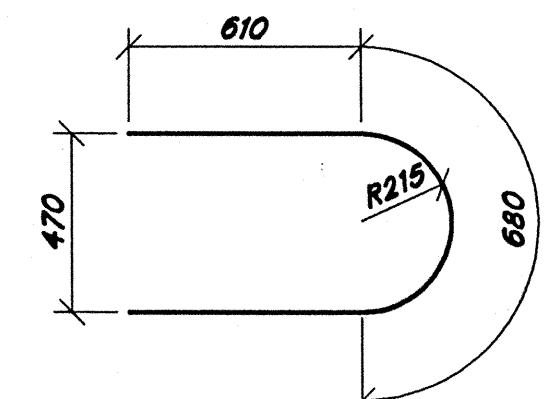
15M01d x 1180



20M01d x 1720



20M03d x 2160



20M02d x 1900

**BILL OF MATERIALS
PIER No. 3 (WBL)**

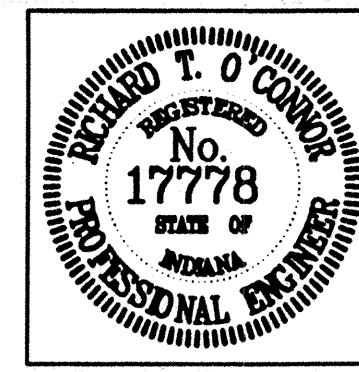
REINFORCING STEEL			
SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (kg.)
15M01d	9	1180	
15M02d	9	2020	
15M	10	1600	
TOTAL 15M			70
20M01d	20	1720	
20M02d	17	1900	
20M03d	2	2160	
20M	10	4800	
20M	10	4500	
20M	8	3700	
20M	10	2950	
20M	8	1900	
20M	38	1700	
20M	14	900	
TOTAL 20M			743
TOTAL REINF. STEEL GRADE 400			813
CONCRETE			M ³
CLASS "B" IN FOOTING			
POUR NO. 1			3.3
TOTAL CLASS "B" CONC.			3.3
CLASS "A" CONC. ABOVE FOOTING			
POUR NO. 2			4.6
POUR NO. 3			4.8
POUR NO. 4			1.0
TOTAL CLASS "A" CONC.			10.4
MISCELLANEOUS			(QTY.)
FIELD DRILLED HOLES IN CONC.			16

Note:
Bill Of Materials is For Pier No. 3 WBL Only,
Piers No. 4 WBL, 3 EBL And 4 EBL Same.

NOTE:
For Reinforcing Bar Notes; See Standard Drawing 701-BRST-07.

All Dimensions Are In Millimeters
(mm) And All Elevations Are
In Meters (m), Except As Noted.

Time: 17:36:33
Date: 9/3/1997
Drawing File: I-74-4050-FINALS\4050-04.DWG (DON DUNCAN)
Xref: TOSTAMP, BTI-BLD, P3-REBAR, MET-DATA, BT03-PL3, BT03-PLN



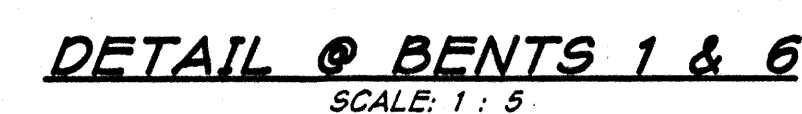
RECOMMENDED FOR APPROVAL	<i>Richard T. O'Connor</i> 9-5-97 DESIGN ENGINEER DATE
DESIGNED: A. PURDUE	DRAWN: RE. MILLER
CHECKED: RZ	CHECKED: SCJ/ETH

INDIANA DEPARTMENT OF TRANSPORTATION	
PIERS 3 & 4 (EBL & WBL) DETAILS AND BILL OF MATERIALS	

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I-74-70-4437C
VERTICAL SCALE	DESIGNATION
	9304990
SURVEY BOOK	SHEETS
	12 of 23
CONTRACT	PROJECT
R-23371	IM/74-2(087)65



NOTE:
The Elastomeric Bearing Pad & the Bearing Plate With Threaded Studs, Washers, & Nuts Shall Comprise the Elastomeric Bearing Assembly, Type I, Each.



NOTE:
The Elastomeric Bearing Pad &
the Bearing Plate With Teflon Pads,
Threaded Studs, Washers, & Nuts
Shall Comprise the Elastomeric
Bearing Assembly, Type II, Each.

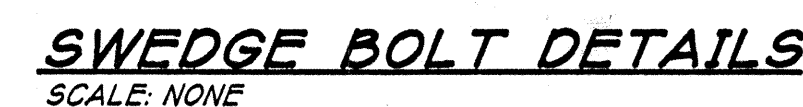
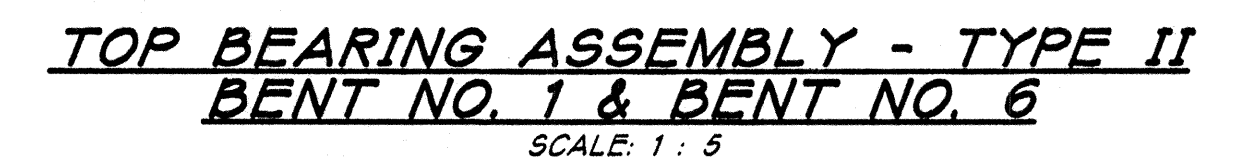
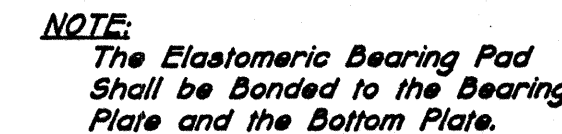
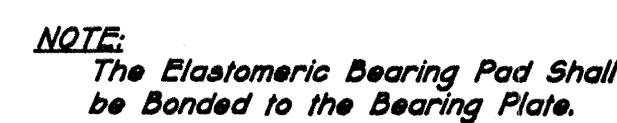


TABLE I							
TEMPERATURE	DIMENSION "A" OR "B" - $\frac{1}{2}$ " BEARING TO $\frac{1}{2}$ " TOP SHOES						
	DIMENSION "A"				DIMENSION "B"		
	0	20	40	60	80	100	120
Bents No. 1 & No. 6	15	10	5	0	5	10	15

With the Superstructure in the Adjusted Position, Field Drill Holes in Concrete and Set the Sledge Bolts at the Fixed Piers.

*Adjust Bottom Bearing Assembly at Bents No. 1 & 6 to Dimension "A" or "B" in Table I For the Prevailing Temperature set the Sledge Bolts.**

* - After the Above Operation is Completed, Holes for Swedge Bolts Shall be Field Drilled Using Bottom Plate as Template.

All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.

Time: 17:41:47
Date: 9/3/1997
Scale: 1=1
Drawing File: I:\74\4088\FINALS\4088-w07.DWG (DON DUNCAN)
RSTOAMP: MET-DATA, NT-GNPRO, ITF-DTL, SWEDGE, RET-DTL, EBT2BASM, EBT2SEC1, EBT2DT01, EBT1BPA0, EBT1ASMB, EBT1SE01, EBT10T01

A circular professional engineer seal for Richard T. O'Connor. The outer ring contains the text "RICHARD T. O'CONNOR" at the top and "PROFESSIONAL ENGINEER" at the bottom. Inside the ring, the word "REGISTERED" is at the top, "No. 17778" is in the center, "STATE OF" is below the number, and "INDIANA" is at the bottom.

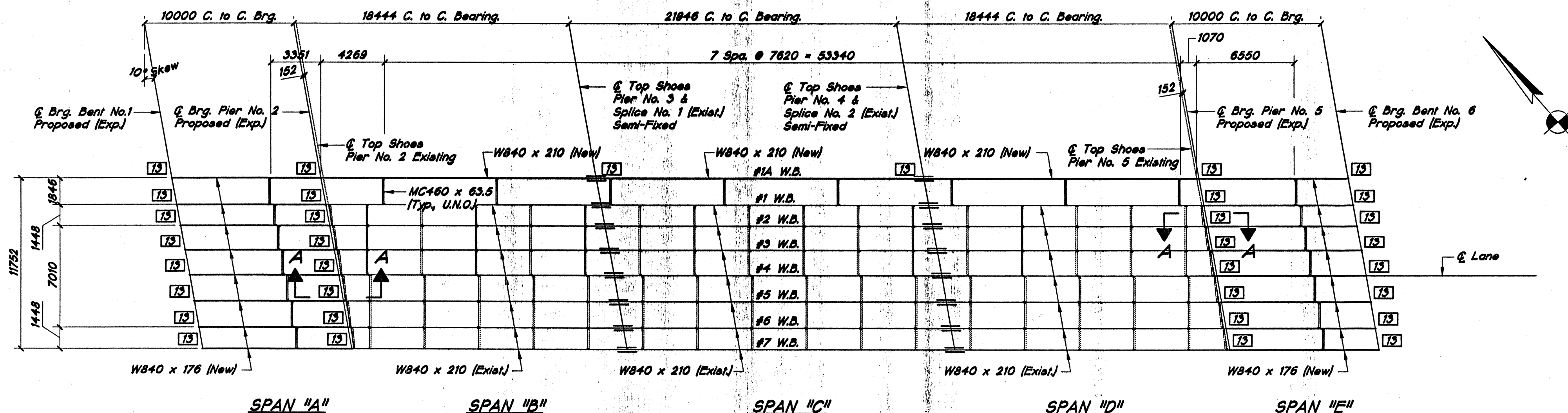
RECOMMENDED
FOR APPROVAL Richard J. O'Connor 9-5-97
DESIGN ENGINEER DATE

DESIGNED: <u>A. PURDUE</u>	DRAWN: <u>S. BENGOCHEA</u>
CHECKED: <u>RZ</u>	CHECKED: <u>SCJ/ETH</u>

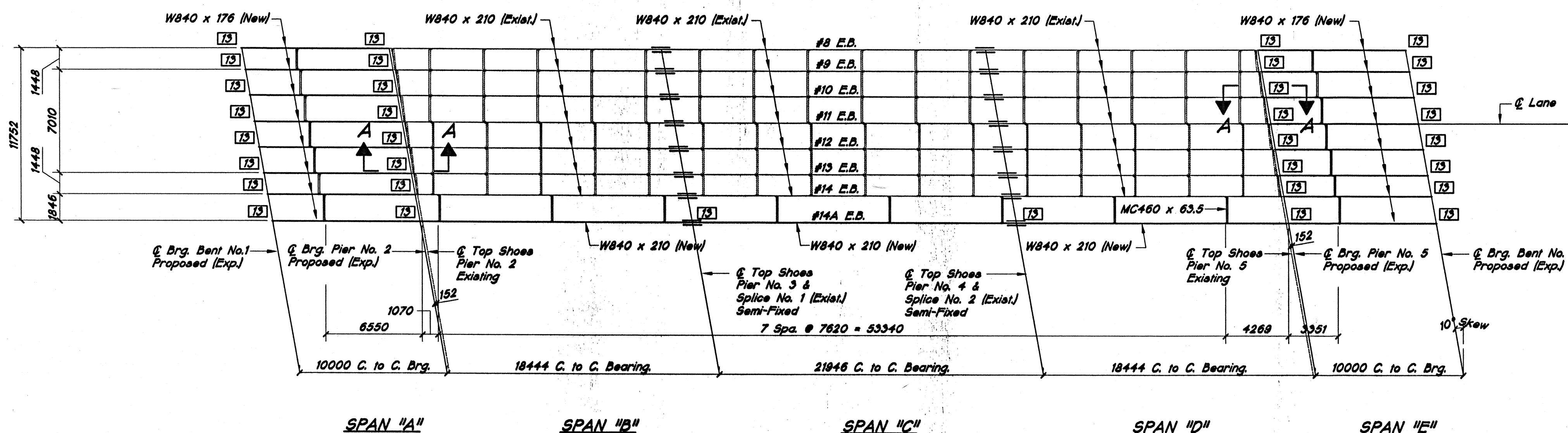
INDIANA DEPARTMENT OF TRANSPORTATION

ELASTOMERIC BEARING DETAILS

HORIZONTAL SCALE	BRIDGE FILE		
AS NOTED	I-74-70-4437C		
VERTICAL SCALE	DESIGNATION		
	9304990		
SURVEY BOOK	SHEETS		
	13	of	23
CONTRACT	PROJECT		
R-23371	IM/74-2/087/65		

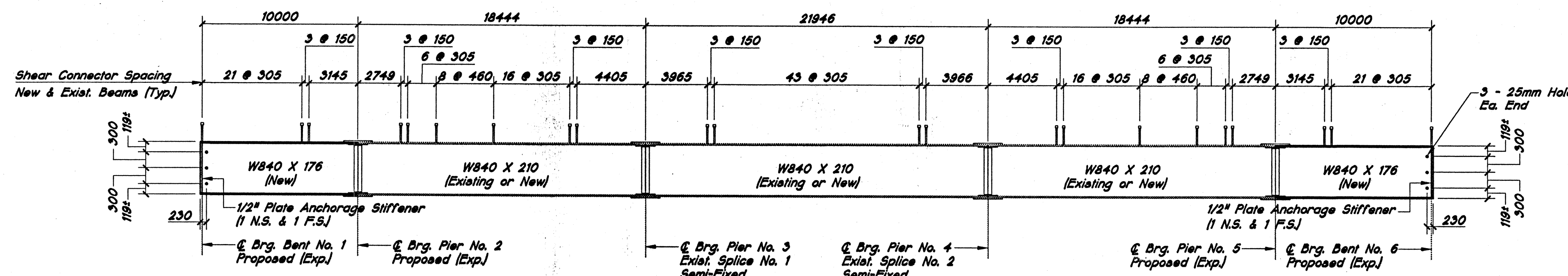


Note:
The Dimensions Used for These Detail Plans
Are Based on the Existing Plans of the Original
Structure. The Contractor Shall Field Verify &
Submit Controlling Dimensions With the Shop
Drawings.



FRAMING PLAN
SCALE: 1" = 200'

NOTE:
[75] - Indicates Required Shim Thickness



Note:
The Top Flange of Existing Beams Shall
Be Cleaned Before Shear Connector
Stud Installation. NO PAINT ON SHEAR
CONNECTOR STUDS OR TOP FLANGE.

BEAM ELEVATION
SCALE: NONE

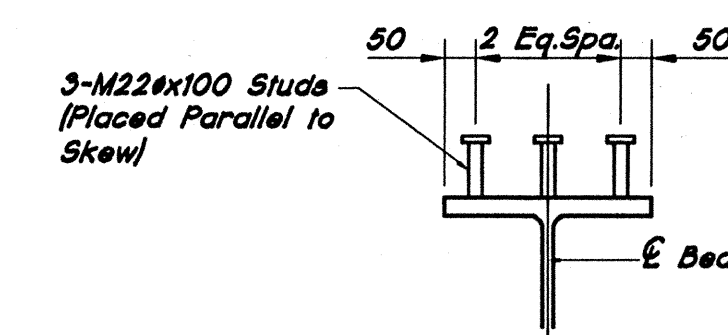
STRUCTURAL STEEL NOTES:

ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE.

ALL STRUCTURAL STEEL SHALL BE ERECTED AND BEAMS ADJUSTED TO THEIR TRUE
ELEVATION BEFORE BOLTING FIELD SPLICES. THE ELEVATION SHALL BE CHECKED WITH
SPICES CONNECTED BY FULL SIZE DRIFT PINS AND ERECTION BOLTS AND WITH BEAMS
UNSUPPORTED BY ANY FALSEWORK. SEE DRAWING W-38 FOR TRUE ELEVATION OF SPLICES.

ESTIMATED WEIGHT OF STRUCTURAL STEEL: (A-36) 104,916 kg, 52,458 kg. EA. STR. Includes:
(GRADE 250) 1,568 kg, 284 kg. EA. STR.
BRONZE PLATES 1,216 kg, 12 kg. EA. STR.
SHEAR CONNECTOR STUDS 1,208 kg, 2,604 kg. EA. STR.
FIELD DRILLED HOLES 1,282 kg, 114 kg. EA. STR.

THE WEIGHT OF HIGH STRENGTH BOLTS IS NOT INCLUDED IN THE ESTIMATED WEIGHT OF
STRUCTURAL STEEL. THE COST OF THESE BOLTS SHALL BE INCLUDED IN THE COST OF
THE STRUCTURAL STEEL.

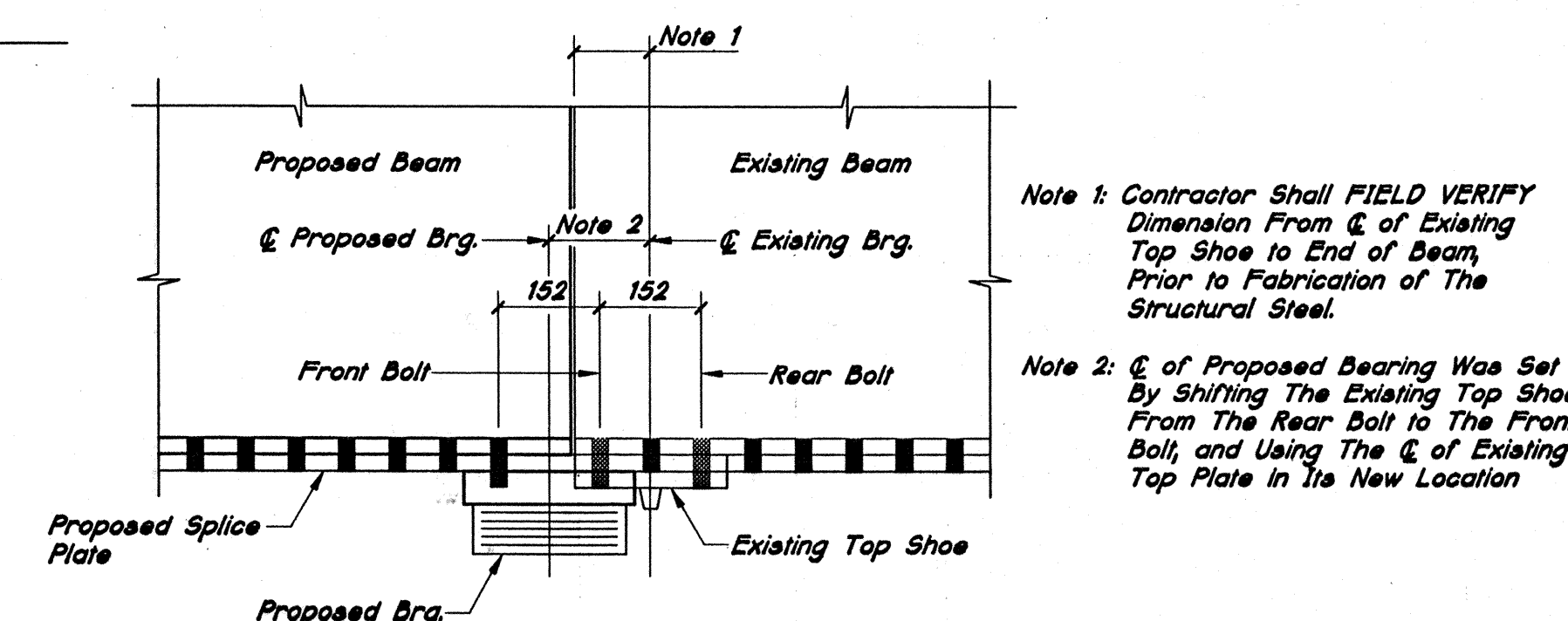


SHEAR CONNECTOR DETAIL
SCALE: NONE

NOTES:

STUDS SHALL BE AUTOMATICALLY WELDED TO THE GIRDER BY THE
USE OF STUD WELDING GUN. THE WELDS SHALL BE OF SUFFICIENT
STRENGTH TO PERMIT THE STUDS TO BE BENT 30°.

THE CONTRACTOR MAY USE WELDED CHANNELS OR 20 # WELDED STUDS
AS ALTERNATE SHEAR CONNECTORS. IF USED THEY SHALL HAVE
EQUIVALENT SHEAR VALUE AND THE PROPOSED SIZE AND SPACING SHALL
BE SUBMITTED FOR APPROVAL.



SECTION A-A
SCALE: NONE

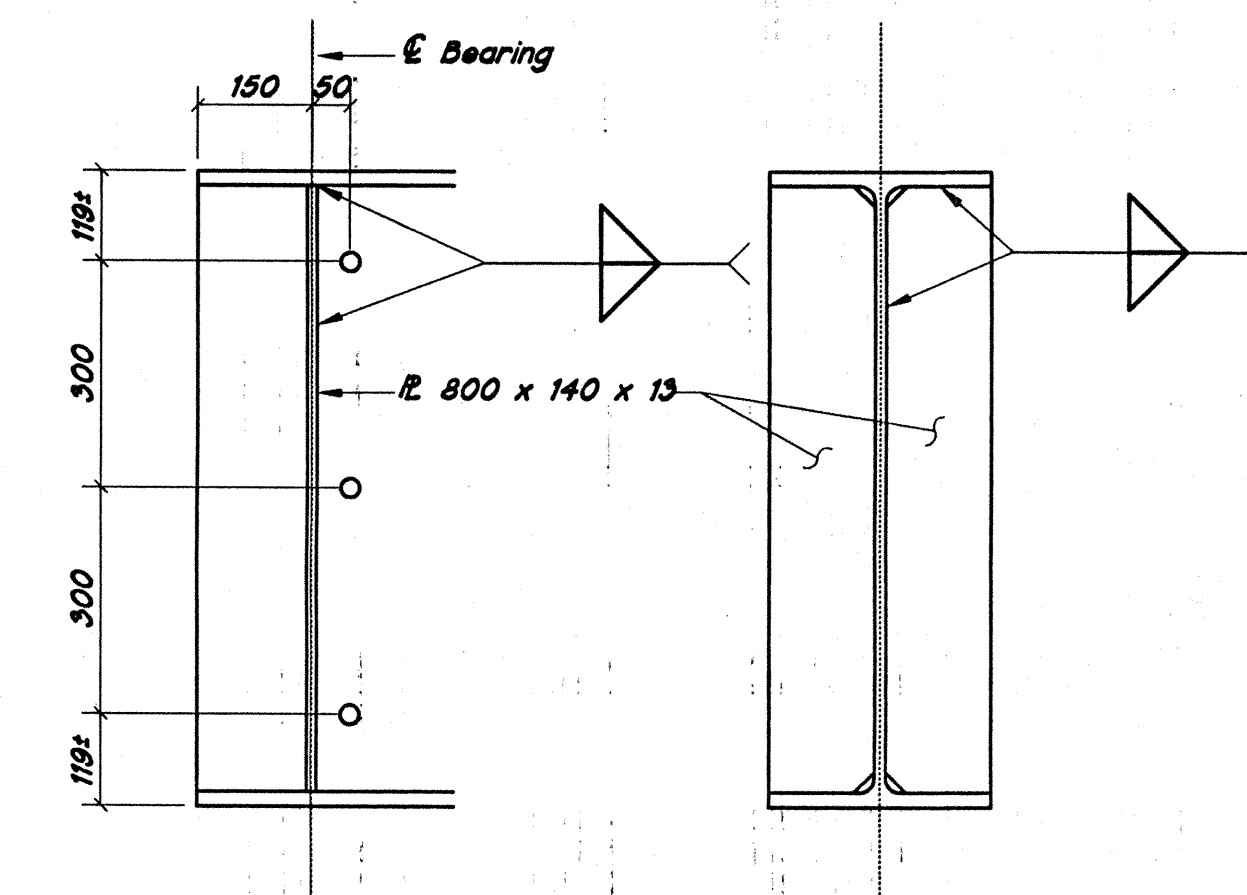
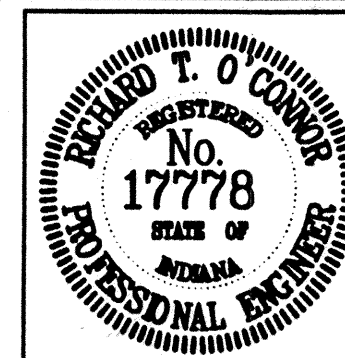


PLATE ANCHORAGE STIFFENER
SCALE: 1:10

All Dimensions Are In Millimeters
(mm), And All Elevations Are
In Meters (m), Except As Noted.

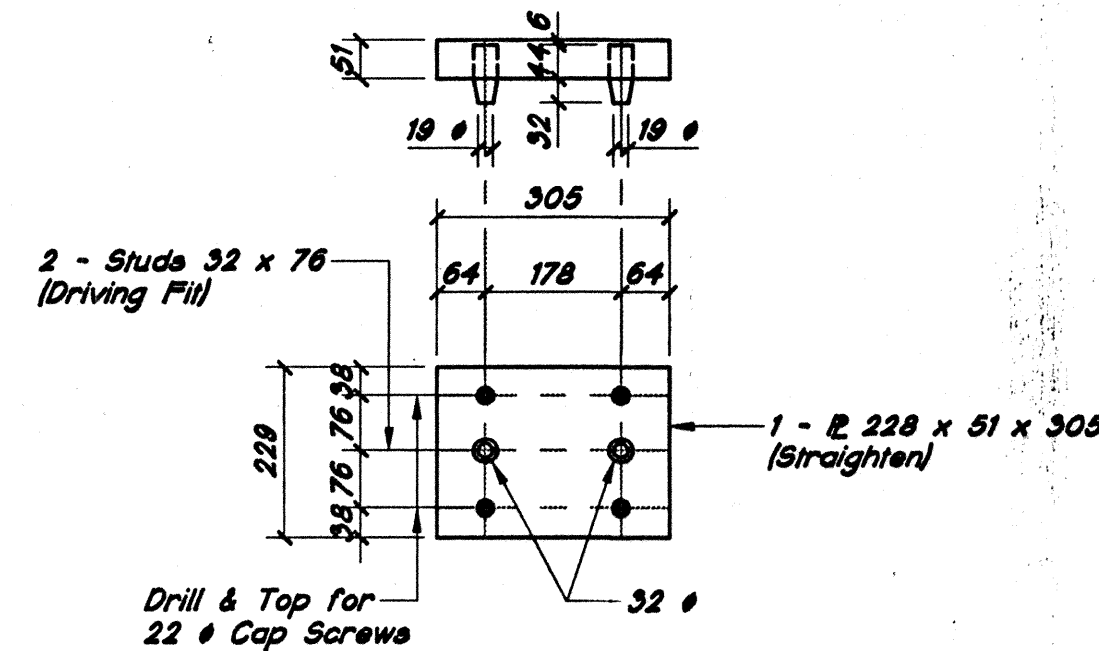
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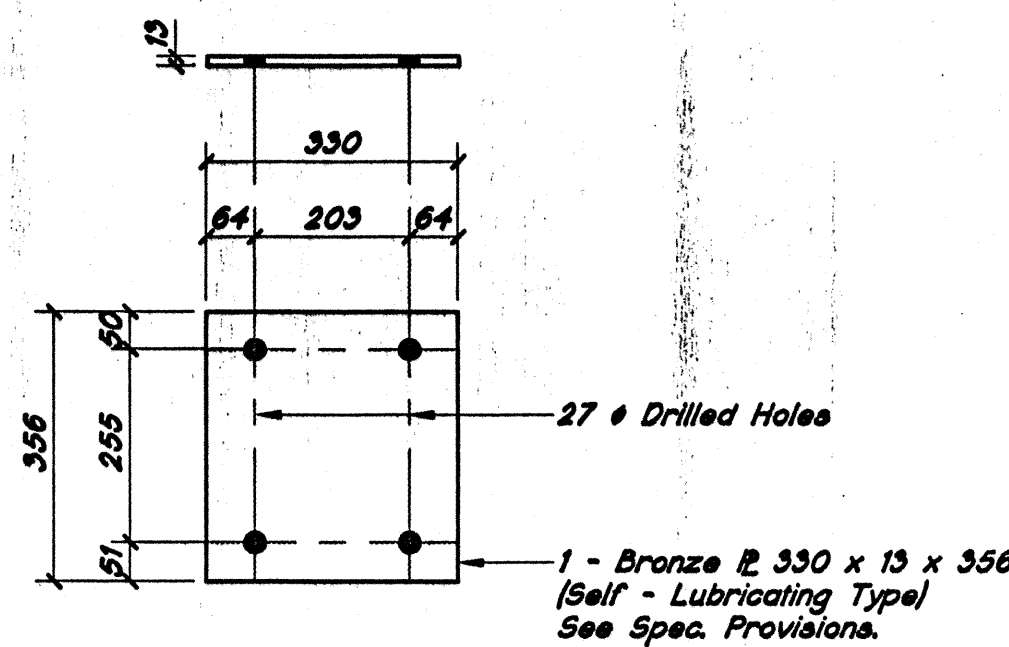
RECOMMENDED
FOR APPROVAL: *Richard T. O'Connor* 9-5-97
DESIGN ENGINEER DATE
DESIGNED: A. PURDUE DRAWN: S. BENGOCHEA
CHECKED: RZ CHECKED: SCJ/ETH

INDIANA
DEPARTMENT OF TRANSPORTATION
FRAMING PLAN AND
STRUCTURAL STEEL NOTES

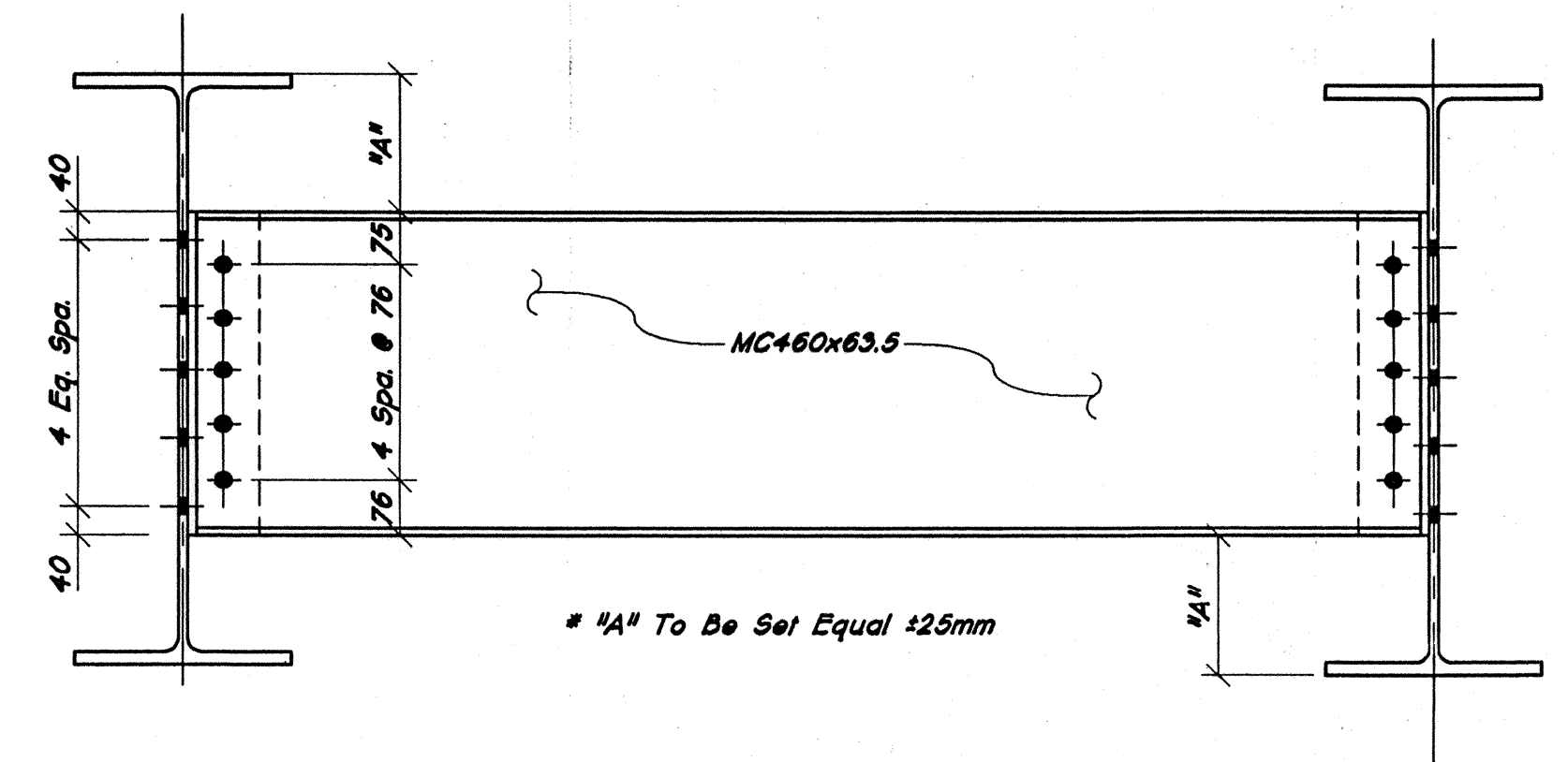
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I-74-70-4437C
VERTICAL SCALE	DESIGNATION
	9304990
SURVEY BOOK	SHEETS
	14 of 23
CONTRACT	PROJECT
R-23371	IM/74-2(087)65



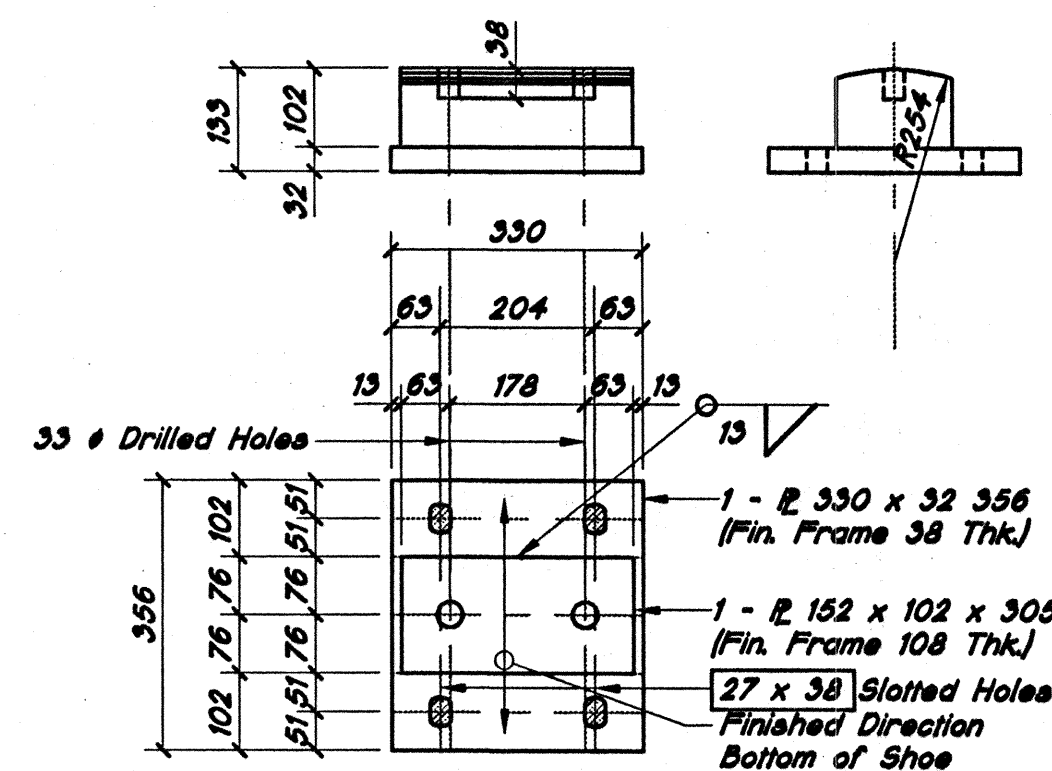
TOP SHOE @ PIERS 3 & 4
SCALE: 1 : 10



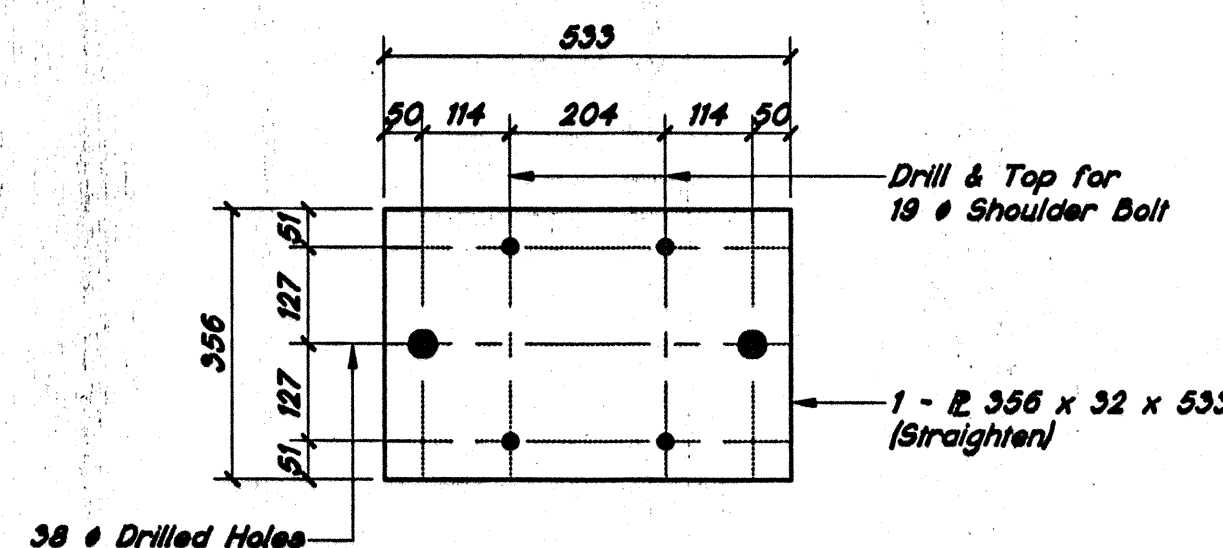
BRONZE PLATE @ PIERS 3 & 4
SCALE: 1 : 10



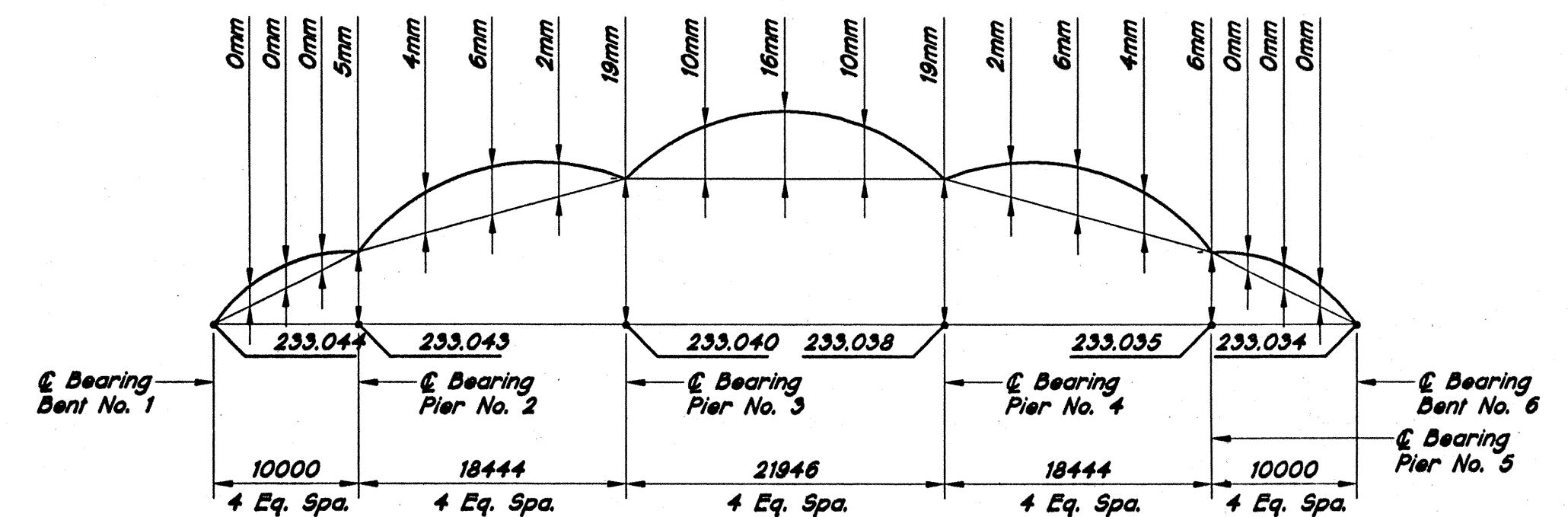
INTERIOR DIAPHRAGM DETAIL
SCALE: 1 : 10



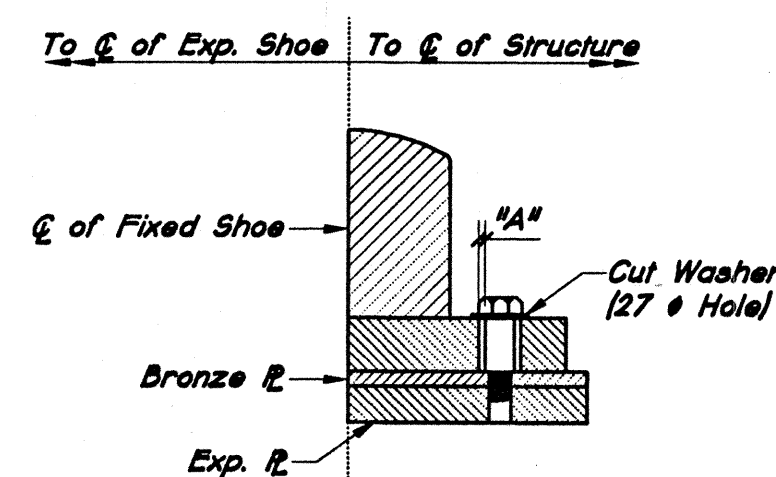
SEMI-FIXED SHOE @ PIERS 3 & 4
SCALE: 1 : 10



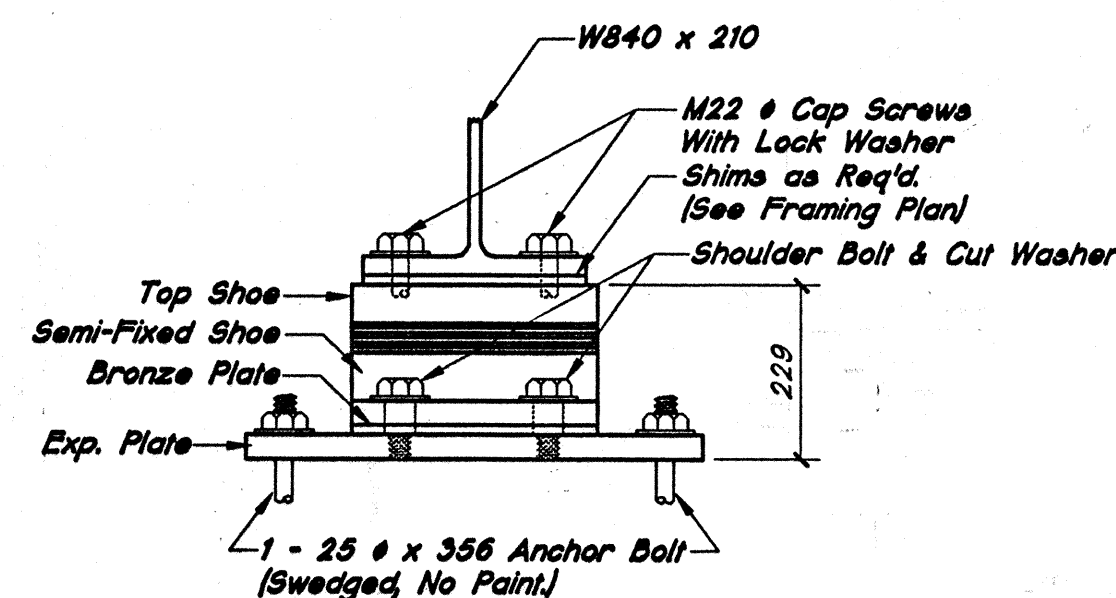
EXPANSION PLATE @ PIERS 3 & 4
SCALE: 1 : 10



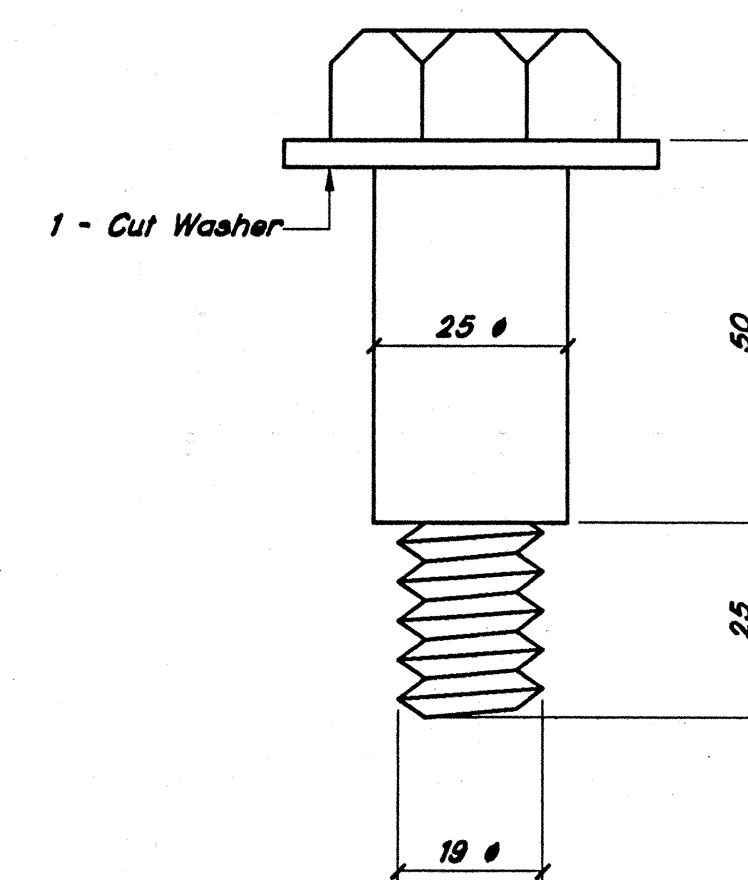
NO LOAD CAMBER & BLOCKING DIAGRAM
SCALE: NONE



HALF SECTION OF SHOE @ PIERS NO. 3 & 4
SCALE: NONE



SHOE ASSEMBLY @ PIERS 3 & 4
SCALE: 1 : 10



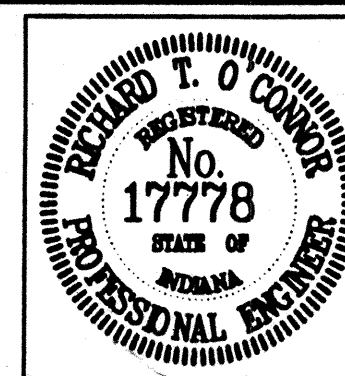
SHOULDER BOLT
SCALE: NONE

SEMI-FIXED SHOE NOTES:

Curved Surfaces of Shoes to be Machined After Weldments Have Been Completed.
For General Notes, See Sheet 2.

All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.

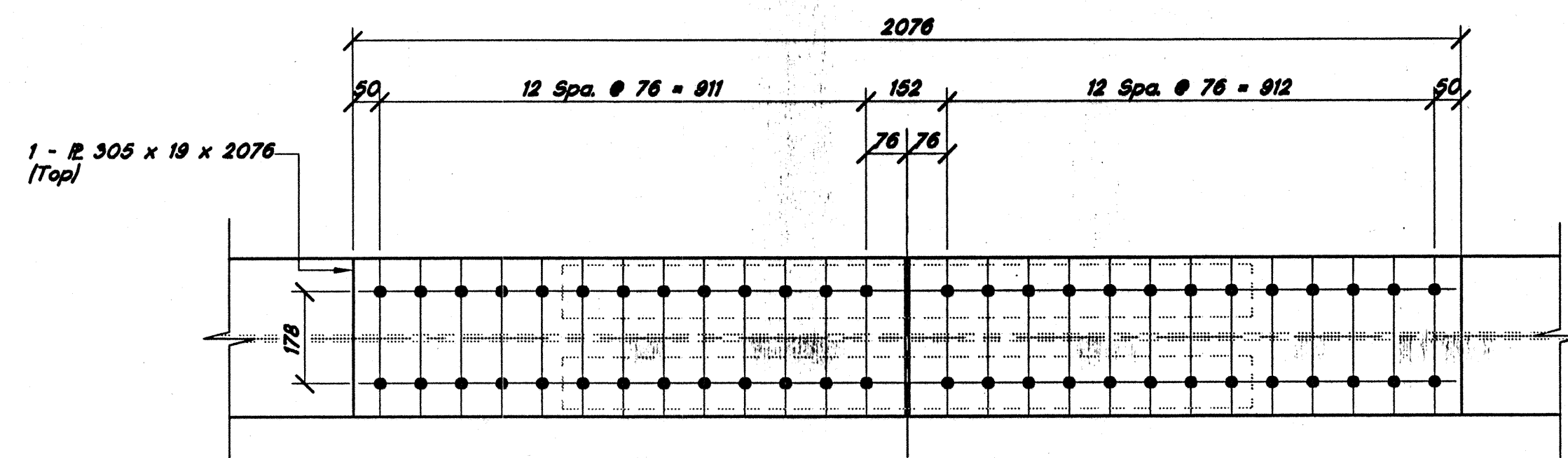
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Project: I-74/405B VMS/405B-405C (00A DUNCAN)
Drawn: 11/20/97
Scale: 1/4" = 1'-0"
Title: STRUCTURAL STEEL DETAILS
Project: I-74/405B VMS/405B-405C (00A DUNCAN)
Drawn: 11/20/97
Scale: 1/4" = 1'-0"
Title: STRUCTURAL STEEL DETAILS
Project: I-74/405B VMS/405B-405C (00A DUNCAN)



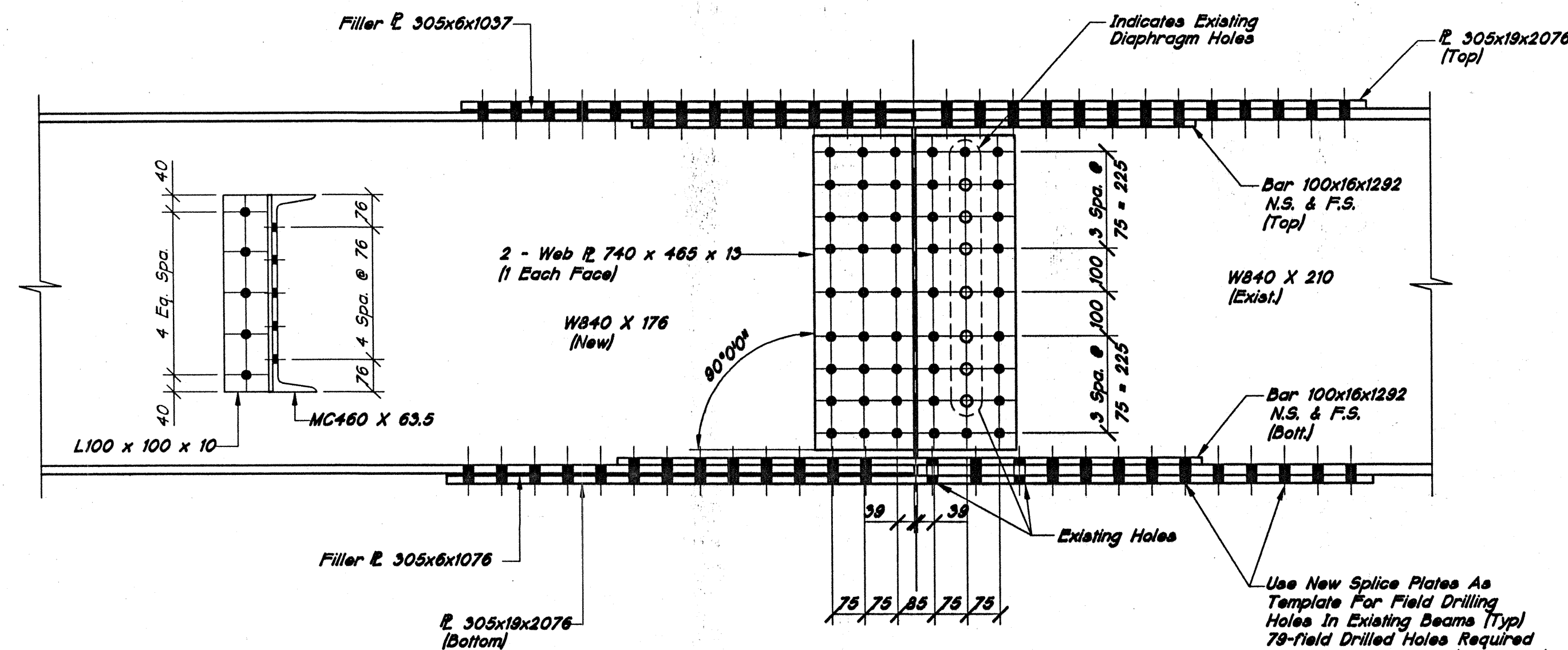
RECOMMENDED FOR APPROVAL	Richard T. O'Connor 9-5-97	DESIGN ENGINEER	DATE
DESIGNED: A. PURDUE	DRAWN: S. BENGOCHEA	CHECKED: RZ	CHECKED: SCJ/ETH

INDIANA DEPARTMENT OF TRANSPORTATION
STRUCTURAL STEEL DETAILS

HORIZONTAL SCALE AS NOTED	BRIDGE FILE I-74-70-4437C
VERTICAL SCALE	DESIGNATION 9304990
SURVEY BOOK	SHEETS 15 of 23
CONTRACT R-23371	PROJECT IM/74-2(087)65

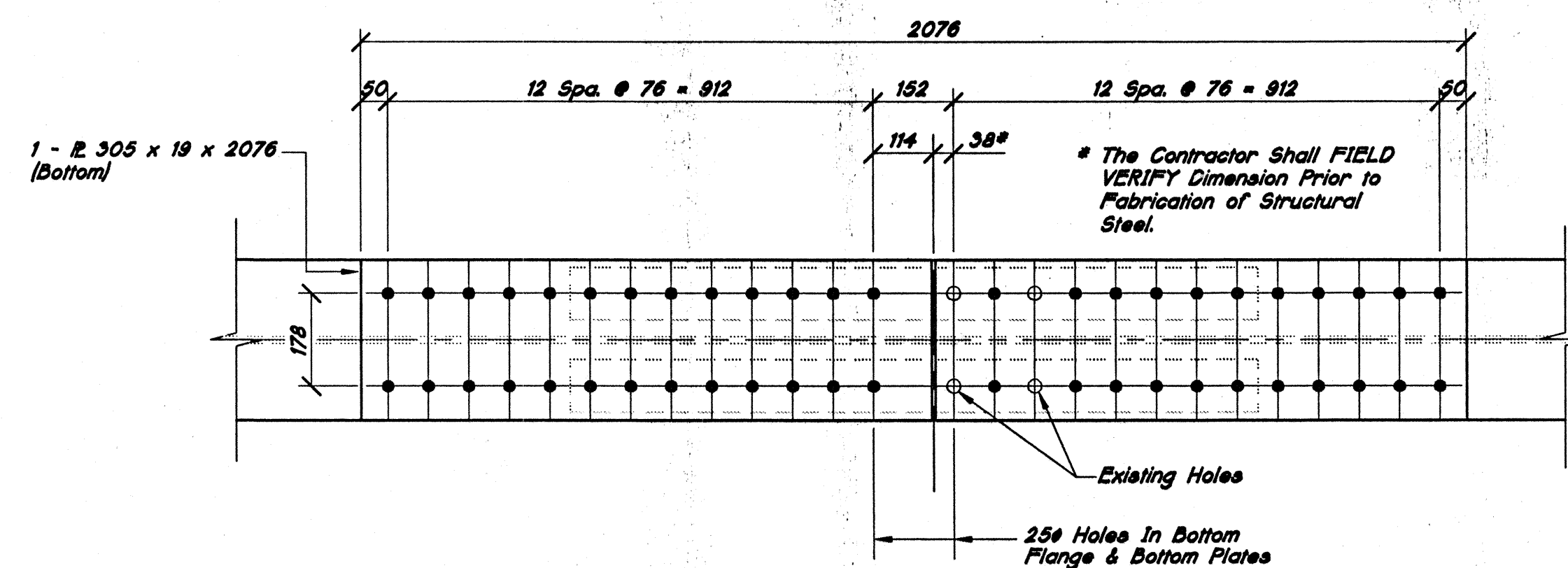


PLAN (TOP FLANGE)



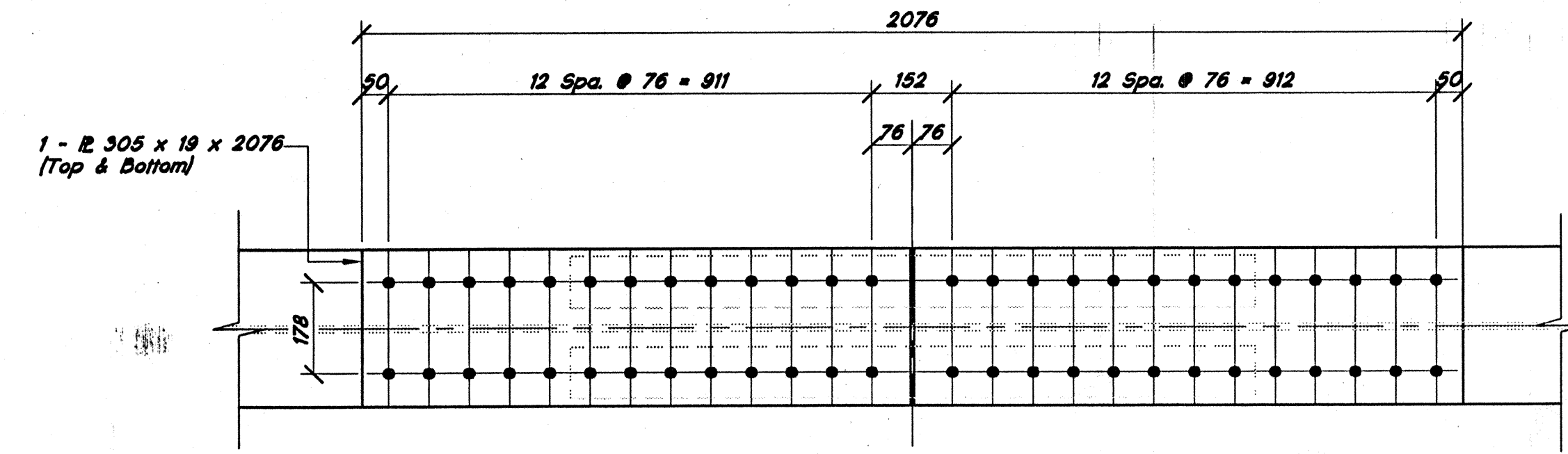
ELEVATION

Existing Diaphragm Hole Locations
To Be Field Verified, Before Splice
Plates Are Manufactured

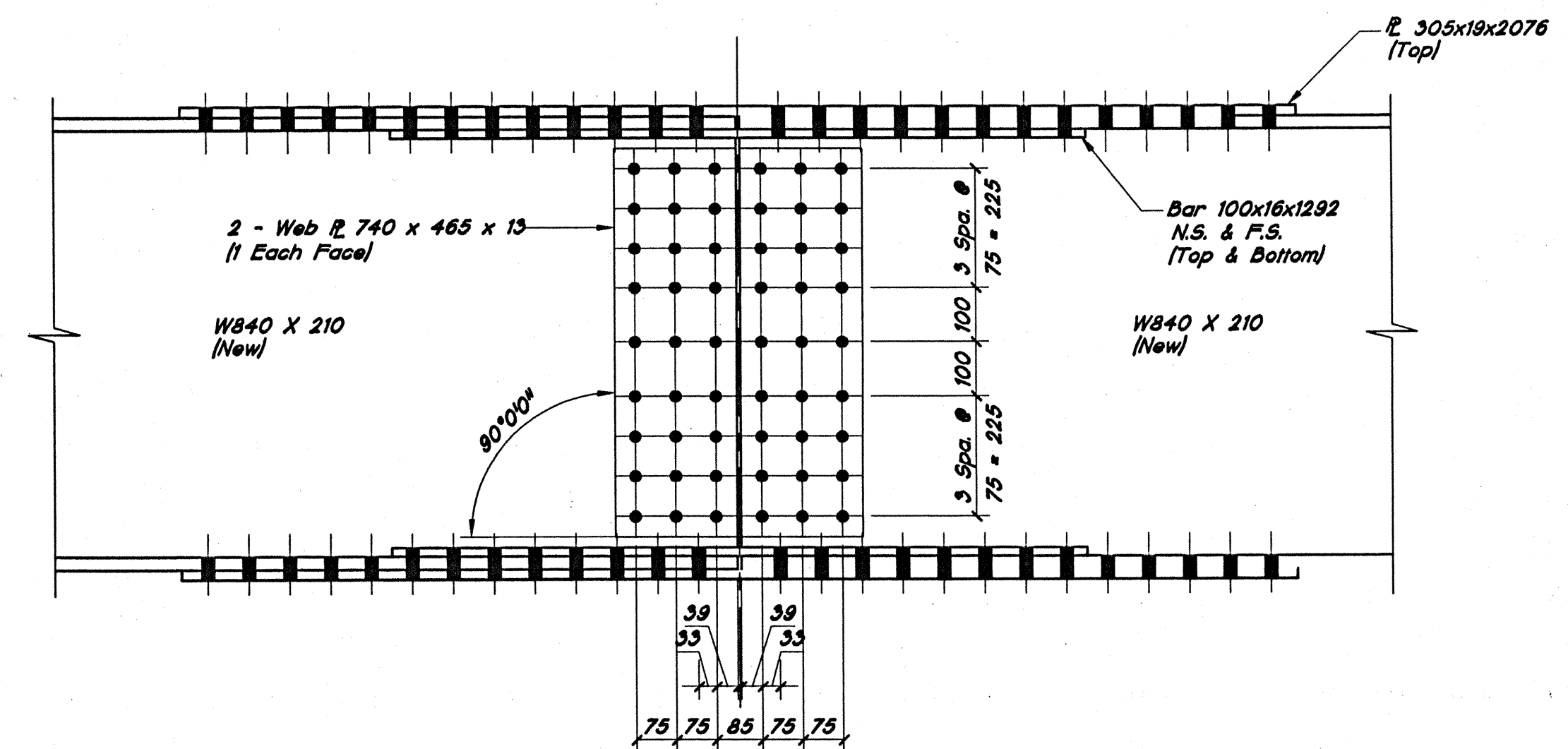


PLAN (BOTTOM FLANGE)

BEAM SPLICES @ PIERS 2 & 5 (OPP. HAND)
SCALE: 1 : 10

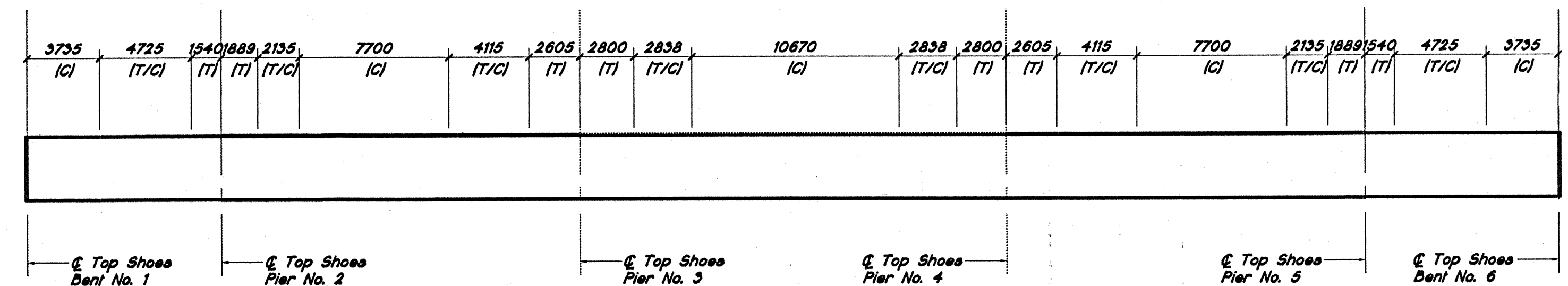


PLAN (TOP FLANGE)



ELEVATION

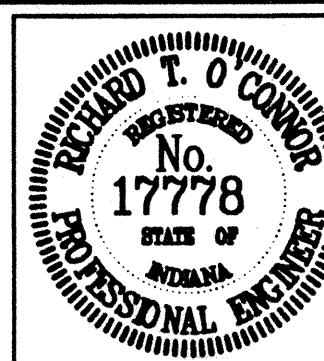
BEAM SPLICES @ PIERS 3 & 4
SCALE: 1 : 10



TENSION-COMPRESSION DIAGRAM
SCALE: NONE

All Dimensions Are In Millimeters
(mm), And All Elevations Are
In Meters (m), Except As Noted.

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Date: 9/4/1997
Scale: 1 = 10
L:\V\ASB\ENVS\ASB-07-DWG (CON. DIAGRAM)
V:\ASB\ENVS\ASB-07-DWG (CON. DIAGRAM)
V:\ASB\ENVS\ASB-07-DWG (CON. DIAGRAM)



RECOMMENDED
FOR APPROVAL: *Richard T. O'Connor* 9-5-97
DESIGN ENGINEER DATE

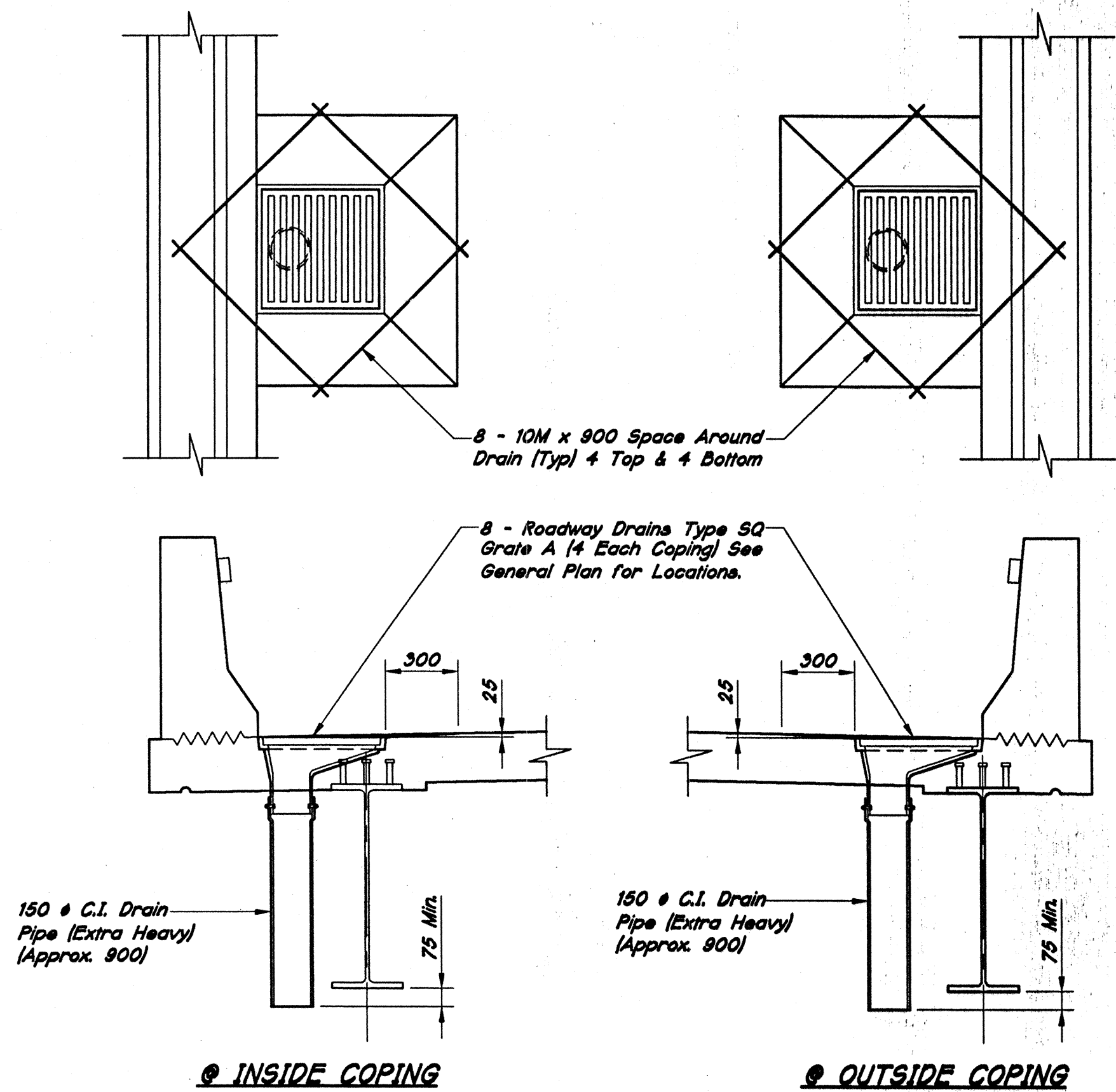
DESIGNED: A. PURDUE DRAWN: S. BENGOCHEA

CHECKED: RZ CHECKED: SCJ/ETH

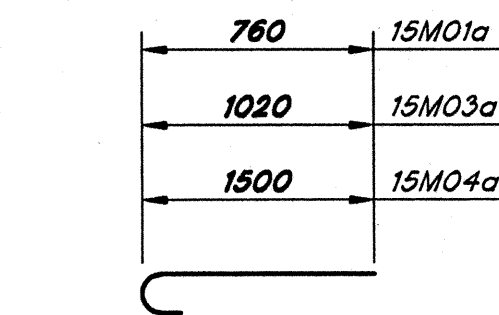
INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS

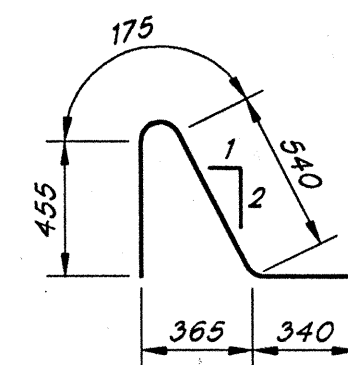
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I-74-70-4437C
VERTICAL SCALE	DESIGNATION
	9304990
SURVEY BOOK	SHEETS
	16 of 23
CONTRACT	PROJECT
R-23371	IM/74-2(087)65



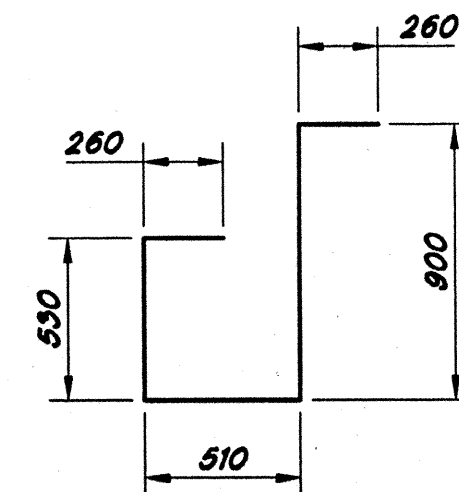
ROADWAY DRAIN DETAILS
SCALE: 1:20



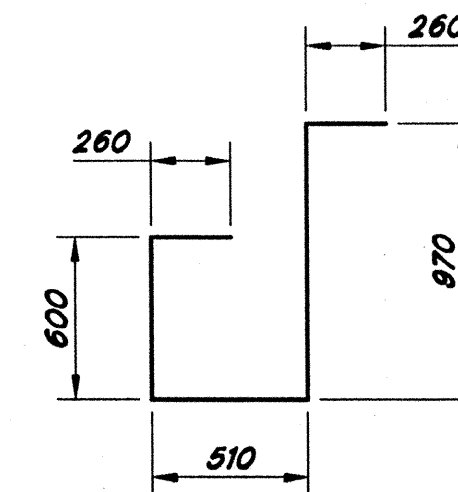
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15M03a x 1200
15M04a x 1680



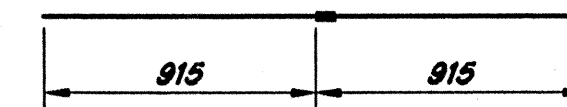
15M01a x 1500



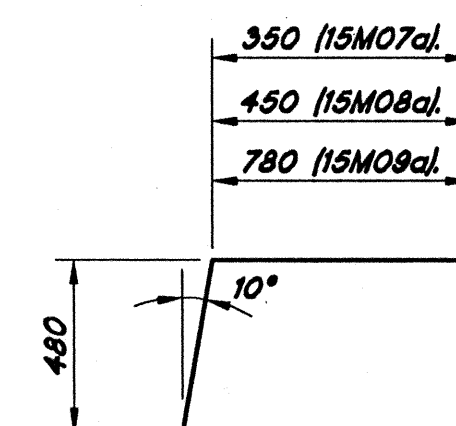
15M05a x 2460



15M06a x 2600



20M THREADED TIE BAR
ASSEMBLY (EPOXY COATED)



15M07a x 1185
15M08a x 1385
15M09a x 2045

NOTE:

For Reinforcing Bar Notes, See Standard Drawing 701-BRST-01

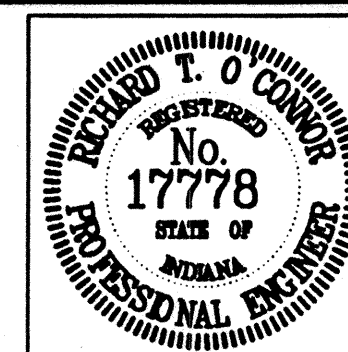
**BILL OF MATERIALS
EASTBOUND STRUCTURE**

REINFORCING STEEL EPOXY COATED			
SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (kg)
20M	112	10900	
20M	112	8600	
20M	48	1500	
TOTAL 20M			5313
15M01a	796	1500	
15M02a	1592	940	
15M03a	397	1200	
15M04a	397	1680	
15M05a	32	2460	
15M06a	46	2600	
15M07a	8	1185	
15M08a	2	1385	
15M09a	8	2045	
15M	228	12200	
15M	32	11300	
15M	38	10600	
15M	32	10000	
15M	64	9600	
15M	1588	6900	
15M	12	7000	
15M	8	1800	
15M	32	1700	
15M	16	1400	
15M	24	1000	
15M	4	700	
TOTAL 15M			30830
10M	342	12200	
10M	57	9600	
10M	64	900	
TOTAL 10M			3750
TOTAL REINFORCING			39993
CONCRETE			m ³
CLASS "C" IN SUPERSTRUCTURE			
POUR NO. 1			25.7
POUR NO. 2			43.7
POUR NO. 3			58.6
POUR NO. 4			61.7
POUR NO. 5			48.8
TOTAL "C" IN SUPERSTRUCTURE			238.5
MISCELLANEOUS			(QTY.)
CONCRETE C IN RAILING			38.2 m ³
20M THREADED TIE BAR ASSEMBLY (EPOXY COATED)			112 Each
BARRIER DELINEATORS			30 Each
CAST IRON GRATES, BASINS AND FITTINGS, 8 50-A # 87 kg, Each			696 kg
CAST IRON DRAIN PIPE, 150 #			212 kg
SURFACE SEAL (ESTIMATED)			1470 m ²

*Westbound Structure Same

All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.

Time: 16:32:31
Date: 9/2/1997
Drawing File: I-74-4058(FINAL) 4058-117.DWG (DON DUNCAN)
Xrefs: R10STAMP, MET-DATA, S-DRAIN, SL-BILL



RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE
DESIGNED: A. PURDUE
DRAWN: RE. MILLER
CHECKED: RZ
CHECKED: SCJ/ETH

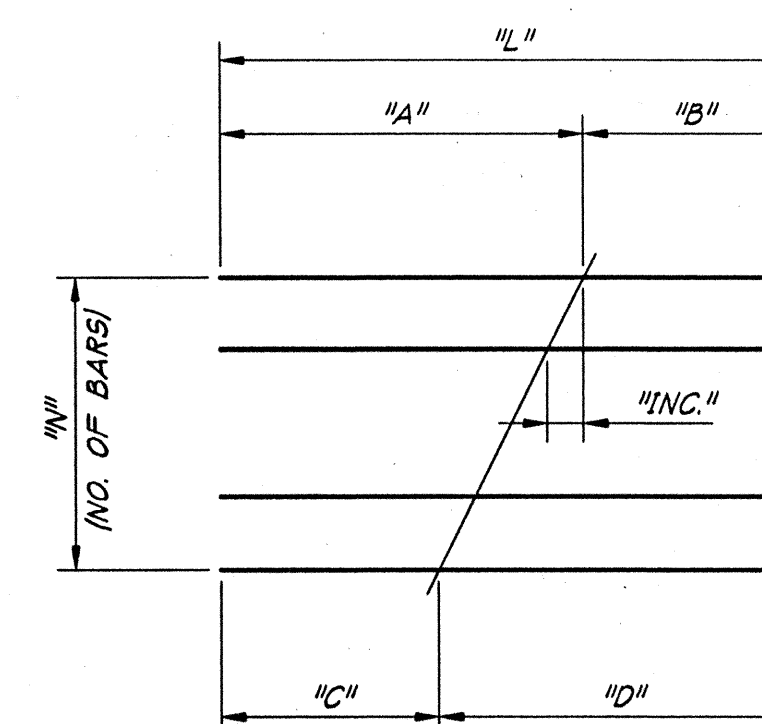
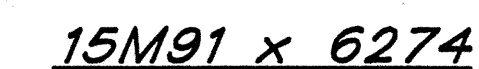
INDIANA
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
AND BILL OF MATERIALS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I-74-70-4437C
VERTICAL SCALE	DESIGNATION
	9304990
SURVEY BOOK	SHEETS
	19 of 23
CONTRACT	PROJECT
R-23371	1M/74-2(087)65



* Hatched Areas Indicate R.C. Bridge Approach Slab Extensions Under Concrete Barrier Rail Transition Type TGB. See Std. Sh. 706-brtt-01 Thru 08 for Details and Reinforcing.

Place 175 Min. Sub-base For Cement Concrete Pavement Under New R.C. Approach Slabs and Extensions.



MARK	"N"	"II"	"A"	"B"	"C"	"D"	"TNC"
15c01	79	3495	2800	695	695	2800	27
15c02	3	11160	9040	2120	2120	9040	346

REINFORCING STEEL - PLAIN			
SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (kg)
15MC01	79	3495	
15MC02	3	11160	
15M91	162	6274	
15M	22	12100	
15M	4	6410	

TOTAL 15M			2540
TOTAL REINFORCING			2540

4 APPROACH SLAB EXTENSIONS	
@ 247 Kg EACH	988
TOTAL EPOXY COATED REINFORCING	988

<i>CEMENT CONCRETE PAVEMENT</i>	
<i>REINFORCED, 300 mm</i>	<i>179.7 m²</i>
<i>APPROACH SLAB EXTENSIONS</i>	
<i>(4 @ 2.3 m². EACH)</i>	<i>9.2 m²</i>
<i>TOTAL CEMENT CONCRETE</i>	
<i>PAVEMENT REINFORCED, 300 mm</i>	<i>188.9 m²</i>
<i>SUB-BASE FOR CEMENT</i>	
<i>CONCRETE PAVEMENT</i>	<i>33.0 m²</i>
<i>CONCRETE BRIDGE RAILING</i>	
<i>TRANSITION TYPE TGB</i>	<i>4 EACH</i>
<i>SURFACE SEAL (ESTIMATED)</i>	<i>179.7 m²</i>
<i>PAVEMENT, REMOVE</i>	<i>125.8 m²</i>

* Westbound Structure Same

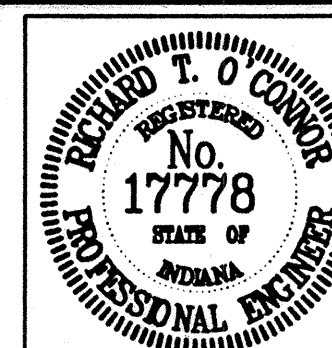
FOR GENERAL NOTES, SEE SHEET 2.
LAPS SHOWN ARE MINIMUM LAP LENGTHS.
FOR REINFORCING BAR NOTES, SEE STD. SHT. 703-BRST-01.
FOR TYPE I-A JOINT DETAILS, SEE STD. SHT. 724-BJTS-01.
FOR ADDITIONAL R.C. BRIDGE APPROACH DETAILS, SEE STD. SHT. 610-RCBA-05.

All Dimensions Are In Millimeters (mm), And All Elevations Are In Meters (m), Except As Noted.

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create: STCSTAMP MET\DATA ADDP-BII ADDP.TWO BP-ADDP

```



RECOMMENDED
FOR APPROVAL Richard J. O'Connor 9-5-9
DESIGN ENGINEER DATE

DESIGNED: <u>A. PURDUE</u>	DRAWN: <u>D. DUNCAN/REM</u>
CHECKED: <u>RZ</u>	CHECKED: <u>SCJ/ETH</u>

INDIANA DEPARTMENT OF TRANSPORTATION

APPROACH SLAB DETAILS AND BILL OF MATERIALS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I-74-70-4437C
VERTICAL SCALE	DESIGNATION
	0304000

SURVEY BOOK	SHEETS	
	20	of 23
CONTRACT	PROJECT	
R-23371	IM/74-2(087)65	

SCREED TABLE - WESTBOUND LANES

SCREED POINT NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
A	ELEVATION - TOP OF SCREED	234.068	234.071	234.075	234.079	234.081	234.084	234.080	234.084	234.087	234.086	234.086	234.087	234.089	234.107	234.115	234.116	234.113	234.108	234.102	234.098	234.099	234.100	234.101	234.099	234.096	234.091	234.089	234.087	234.084	234.080	234.078
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
B	ELEVATION - TOP OF SCREED	234.077	234.080	234.084	234.088	234.090	234.093	234.099	234.103	234.106	234.105	234.105	234.106	234.108	234.116	234.122	234.125	234.122	234.117	234.111	234.108	234.108	234.109	234.110	234.108	234.105	234.100	234.097	234.096	234.092	234.089	234.087
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
C	ELEVATION - TOP OF SCREED	234.114	234.117	234.121	234.125	234.128	234.130	234.137	234.140	234.143	234.142	234.142	234.143	234.146	234.153	234.159	234.162	234.159	234.154	234.148	234.145	234.145	234.145	234.147	234.145	234.142	234.136	234.134	234.132	234.129	234.125	234.123
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
D	ELEVATION - TOP OF SCREED	234.144	234.147	234.151	234.155	234.157	234.160	234.166	234.170	234.172	234.171	234.171	234.172	234.175	234.182	234.188	234.191	234.188	234.183	234.176	234.174	234.174	234.174	234.176	234.174	234.171	234.165	234.163	234.161	234.158	234.154	234.152
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
E	ELEVATION - TOP OF SCREED	234.179	234.182	234.186	234.190	234.192	234.195	234.201	234.205	234.207	234.206	234.206	234.207	234.210	234.217	234.223	234.226	234.223	234.218	234.211	234.209	234.208	234.209	234.211	234.209	234.206	234.200	234.198	234.196	234.192	234.189	234.186
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
F	ELEVATION - TOP OF SCREED	234.215	234.218	234.222	234.225	234.228	234.230	234.236	234.240	234.243	234.242	234.241	234.242	234.245	234.252	234.258	234.261	234.258	234.253	234.246	234.244	234.243	234.244	234.246	234.244	234.240	234.235	234.232	234.230	234.227	234.223	234.221
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
G	ELEVATION - TOP OF SCREED	234.180	234.183	234.187	234.191	234.193	234.196	234.202	234.205	234.208	234.207	234.207	234.207	234.210	234.217	234.223	234.226	234.223	234.218	234.211	234.209	234.208	234.209	234.210	234.208	234.205	234.199	234.197	234.195	234.192	234.188	234.186
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
H	ELEVATION - TOP OF SCREED	234.146	234.148	234.152	234.156	234.158	234.161	234.167	234.171	234.173	234.172	234.172	234.172	234.175	234.182	234.188	234.191	234.188	234.183	234.176	234.174	234.173	234.174	234.175	234.173	234.170	234.164	234.162	234.160	234.156	234.153	234.150
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
J	ELEVATION - TOP OF SCREED	234.117	234.120	234.124	234.127	234.130	234.132	234.138	234.142	234.144	234.143	234.143	234.144	234.146	234.153	234.159	234.162	234.159	234.154	234.147	234.145	234.144	234.145	234.146	234.144	234.141	234.135	234.132	234.130	234.127	234.123	234.121
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
K	ELEVATION - TOP OF SCREED	234.099	234.102	234.106	234.110	234.112	234.114	234.120	234.124	234.126	234.125	234.125	234.126	234.128	234.135	234.141	234.144	234.141	234.136	234.129	234.127	234.126	234.127	234.128	234.126	234.123	234.117	234.114	234.112	234.109	234.105	234.103
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															

SCREED TABLE - EASTBOUND LANES

SCREED POINT NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
A	ELEVATION - TOP OF SCREED	234.103	234.105	234.109	234.112	234.114	234.117	234.123	234.126	234.128	234.127	234.126	234.127	234.129	234.136	234.141	234.144	234.141	234.135	234.128	234.126	234.125	234.125	234.126	234.124	234.120	234.114	234.112	234.110	234.106	234.102	234.099
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
B	ELEVATION - TOP OF SCREED	234.121	234.123	234.127	234.130	234.132	234.135	234.141	234.144	234.146	234.145	234.144	234.145	234.147	234.154	234.159	234.162	234.159	234.153	234.146	234.144	234.143	234.143	234.144	234.142	234.138	234.132	234.130	234.127	234.124	234.120	234.117
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
C	ELEVATION - TOP OF SCREED	234.150	234.153	234.156	234.160	234.162	234.164	234.170	234.173	234.175	234.174	234.173	234.174	234.176	234.183	234.188	234.191	234.188	234.182	234.175	234.172	234.172	234.172	234.173	234.171	234.167	234.161	234.158	234.156	234.152	234.148	234.146
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
D	ELEVATION - TOP OF SCREED	234.186	234.188	234.192	234.195	234.197	234.199	234.205	234.208	234.210	234.209	234.208	234.209	234.211	234.218	234.223	234.226	234.223	234.217	234.210	234.207	234.207	234.207	234.208	234.205	234.202	234.196	234.193	234.191	234.187	234.183	234.180
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
E	ELEVATION - TOP OF SCREED	234.221	234.223	234.227	234.230	234.232	234.235	234.240	234.244	234.246	234.244	234.243	234.244	234.246	234.253	234.258	234.261	234.258	234.252	234.245	234.242	234.241	234.242	234.243	234.240	234.236	234.230	234.228	234.225	234.222	234.218	234.215
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
F	ELEVATION - TOP OF SCREED	234.186	234.189	234.192	234.196	234.198	234.200	234.206	234.209	234.211	234.209	234.208	234.209	234.211	234.218	234.223	234.226	234.223	234.217	234.210	234.207	234.206	234.206	234.207	234.205	234.201	234.195	234.192	234.190	234.186	234.182	234.179
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
G	ELEVATION - TOP OF SCREED	234.152	234.154	234.158	234.161	234.163	234.165	234.171	234.174	234.176	234.174	234.174	234.174	234.176	234.183	234.188	234.191	234.188	234.182	234.175	234.172	234.171	234.171	234.172	234.170	234.166	234.160	234.157	234.155	234.151	234.147	234.144
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
H	ELEVATION - TOP OF SCREED	234.123	234.125	234.129	234.132	234.134	234.136	234.142	234.145	234.147	234.145	234.145	234.145	234.148	234.154	234.159	234.162	234.159	234.153	234.146	234.143	234.142	234.142	234.143	234.140	234.137	234.130	234.128	234.125	234.121	234.117	234.114
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
J	ELEVATION - TOP OF SCREED	234.087	234.089	234.092	234.096	234.097	234.100	234.105	234.108	234.110	234.109	234.108	234.108	234.111	234.117	234.122	234.125	234.122	234.116	234.108	234.106	234.105	234.105	234.106	234.103	234.099	234.093	234.090	234.088	234.084	234.080	234.077
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															
K	ELEVATION - TOP OF SCREED	234.078	234.080	234.084	234.087	234.089	234.091	234.096	234.099	234.101	234.100	234.099	234.099	234.102	234.108	234.113	234.116	234.113	234.107	234.099	234.097	234.096	234.096	234.097	234.094	234.090	234.084	234.081	234.079	234.075	234.071	234.068
	ELEVATION - TOP OF BEAM																															
	ELEVATION - TOP OF SCREED TO TOP OF BEAM																															

