

CONTRACT NO. 8-13789

INDEX table with columns: SHEET NO., SHEET DESIGNATION, SUBJECT, and ENR.A. APPROVAL. Lists 52 sheets from 1 to 52, including titles like 'INDEX & TITLE SHEET', 'GENERAL PLAN', 'PIER DETAILS', and 'ROADWAY DETAILS'.

NOTE: WHEREVER "INDIANA STATE HIGHWAY COMMISSION" APPEARS IN THESE PLANS, IT SHALL BE INTERPRETED AS "INDIANA DEPARTMENT OF HIGHWAYS" EXCEPT THE 1976 INDIANA STATE HIGHWAY COMMISSION SPECIFICATIONS SHALL BE USED.

NOTE: WHEREVER "RS-4328(1)" APPEARS IN THESE PLANS OR CONTRACT DOCUMENTS, IT SHALL BE INTERPRETED AS BRS-RS-4328(1).

INDIANA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS DATED 1976 TO BE USED WITH THESE PLANS.

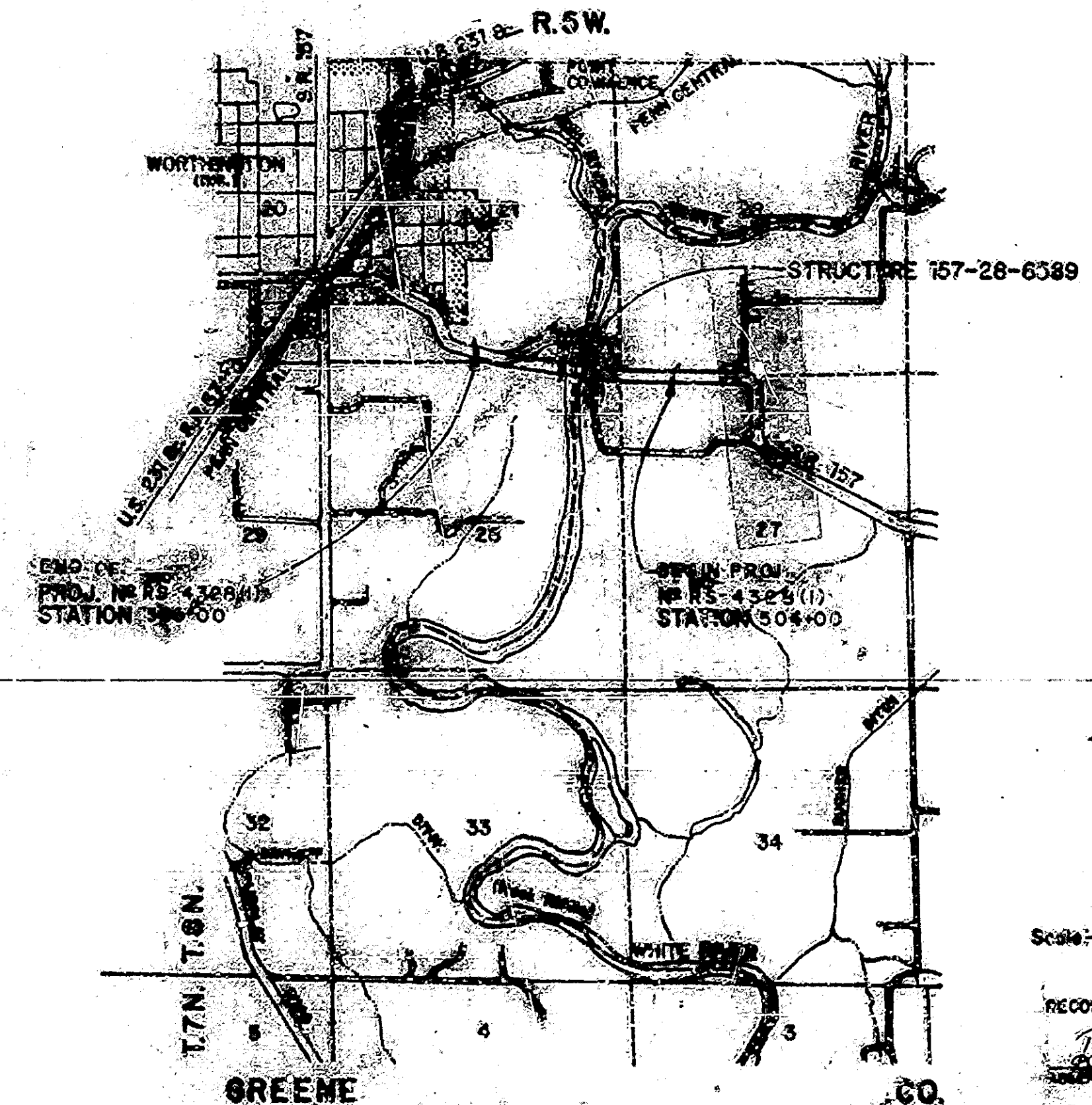
STATE OF INDIANA INDIANA STATE HIGHWAY COMMISSION

BRIDGE PLANS FOR SPANS OVER 20 FEET

ON STATE ROAD NO. 157 PROJECT NO. RS-4328 (1) PE. R/W CONST.

BEGINNING AT A POINT ON THE E. OF S.R. 157 APPROXIMATELY 740' SOUTH OF THE SW CORNER OF SECTION 22, T8N, R5W AND EXTENDING WEST APPROXIMATELY 5200' TO A POINT ON THE E. OF S.R. 157. ALL IN GREENE COUNTY, INDIANA.

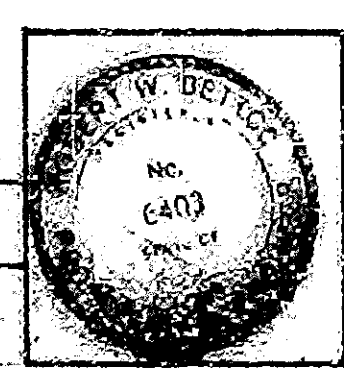
BRIDGE LENGTH: 1390 MI. ROADWAY LENGTH: 4671 MI. TOTAL LENGTH: 6061 MI. MAX. GRADE: 7.20 %



REVISIONS table with columns: NO., DATE, DESCRIPTION, and SHEET NO. Lists three revisions to the plan.

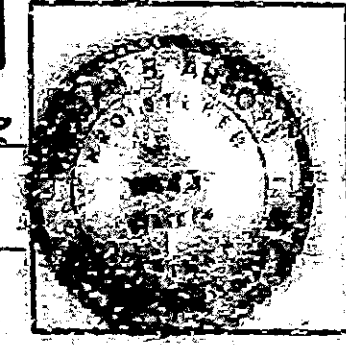
INDEX CONTINUED STANDARD DRAWINGS table with columns: SHEET NO., SHEET DESIGNATION, SUBJECT, PERMITS, and ADOPTED BY. Lists sheets 54 through 85 covering topics like 'BRIDGE LIGHTING DETAILS', 'ROADWAY DETAILS', and 'TRAFFIC SIGN DETAILS'.

TRAFFIC DATA table with rows for A.D.T. (1981), A.D.T. (2001 PROJECTED), D.N.V. (2001 PROJECTED), TRUCKS, DESIGN SPEED, and ACCESS CONTROL.



RECOMMENDED FOR APPROVAL 7-13-82 Robert W. Pettigrew

RECOMMENDED FOR APPROVAL 7-22-82 William E. Miller

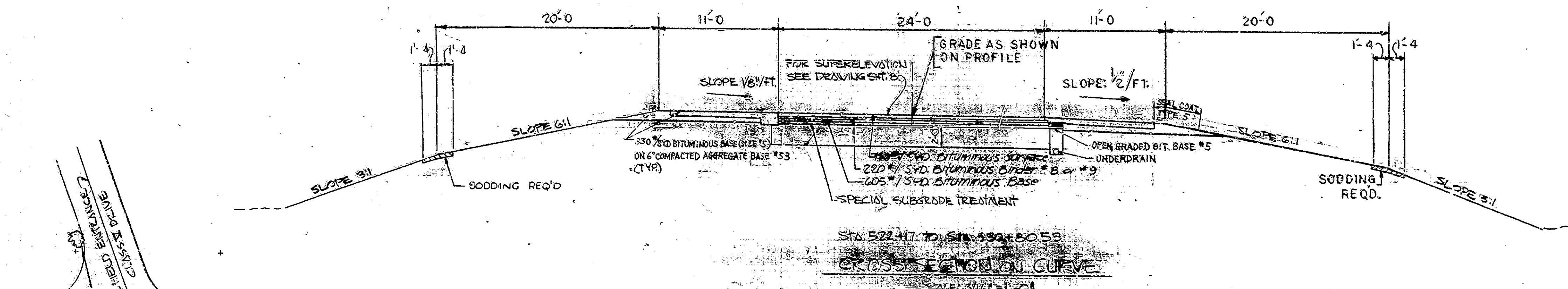
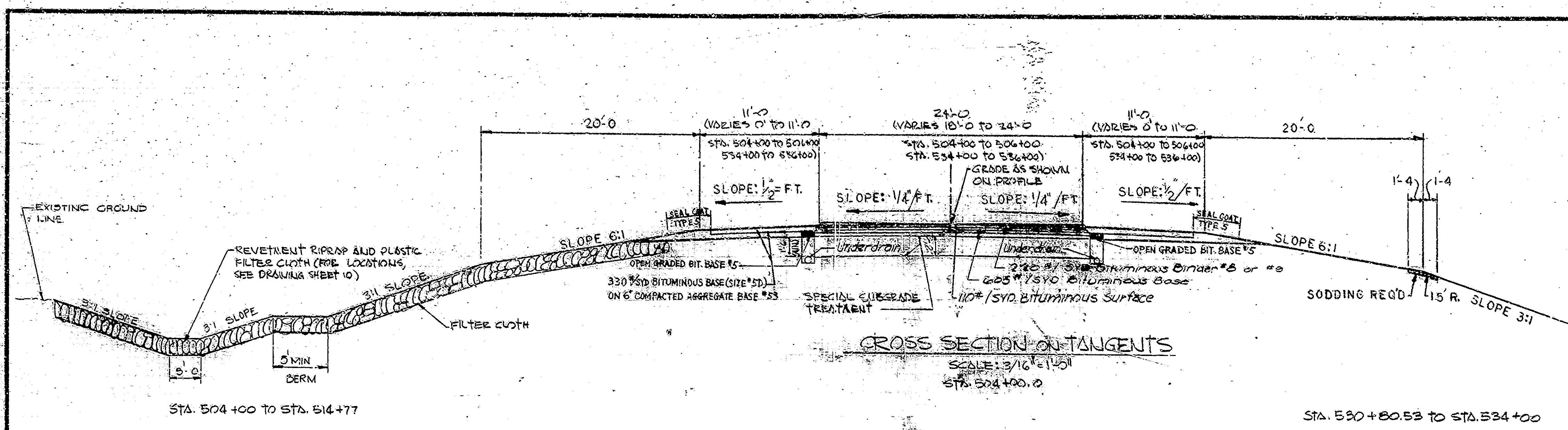


APPROVED 8-6-82 David K. Hellock Chief Highway Engineer

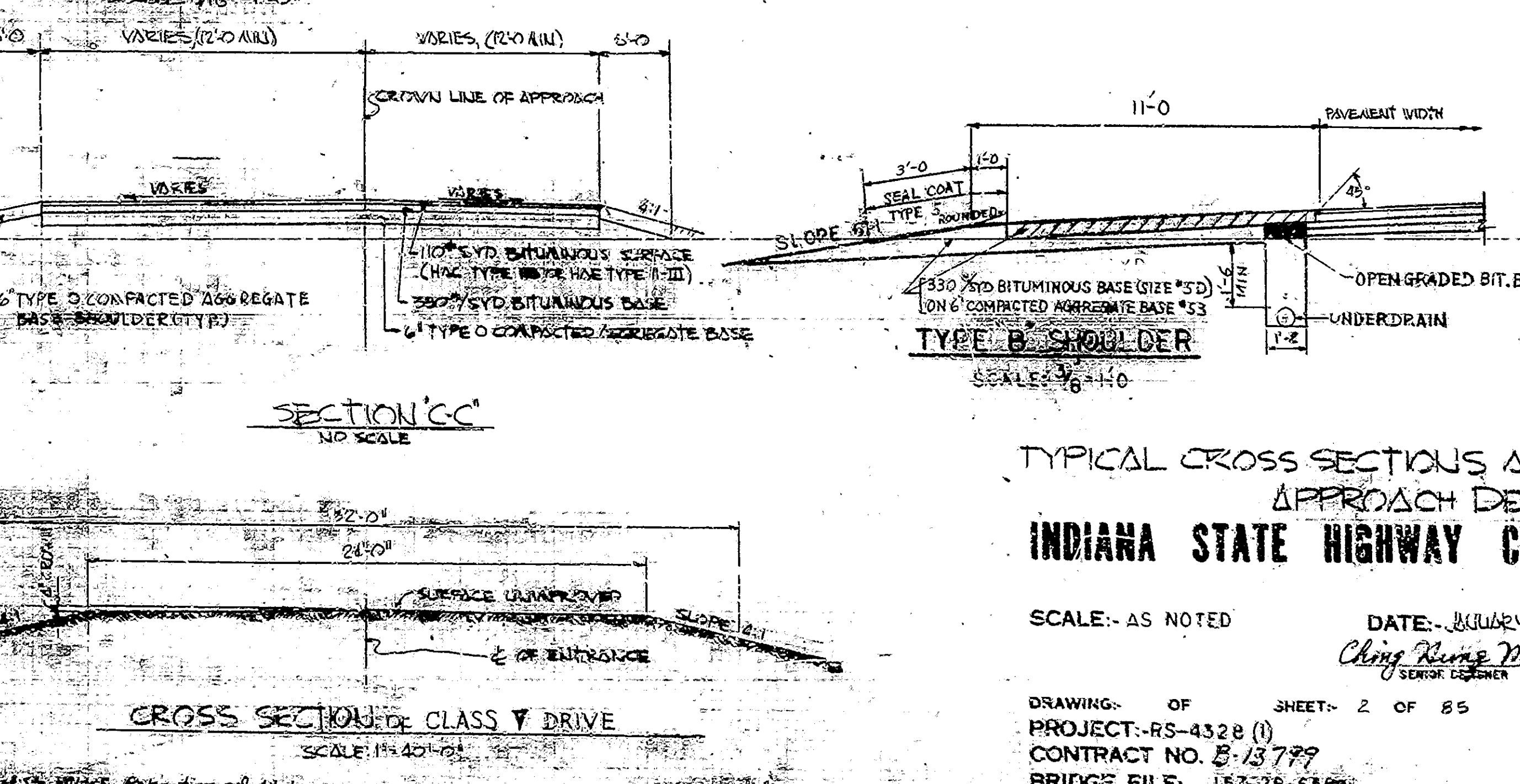
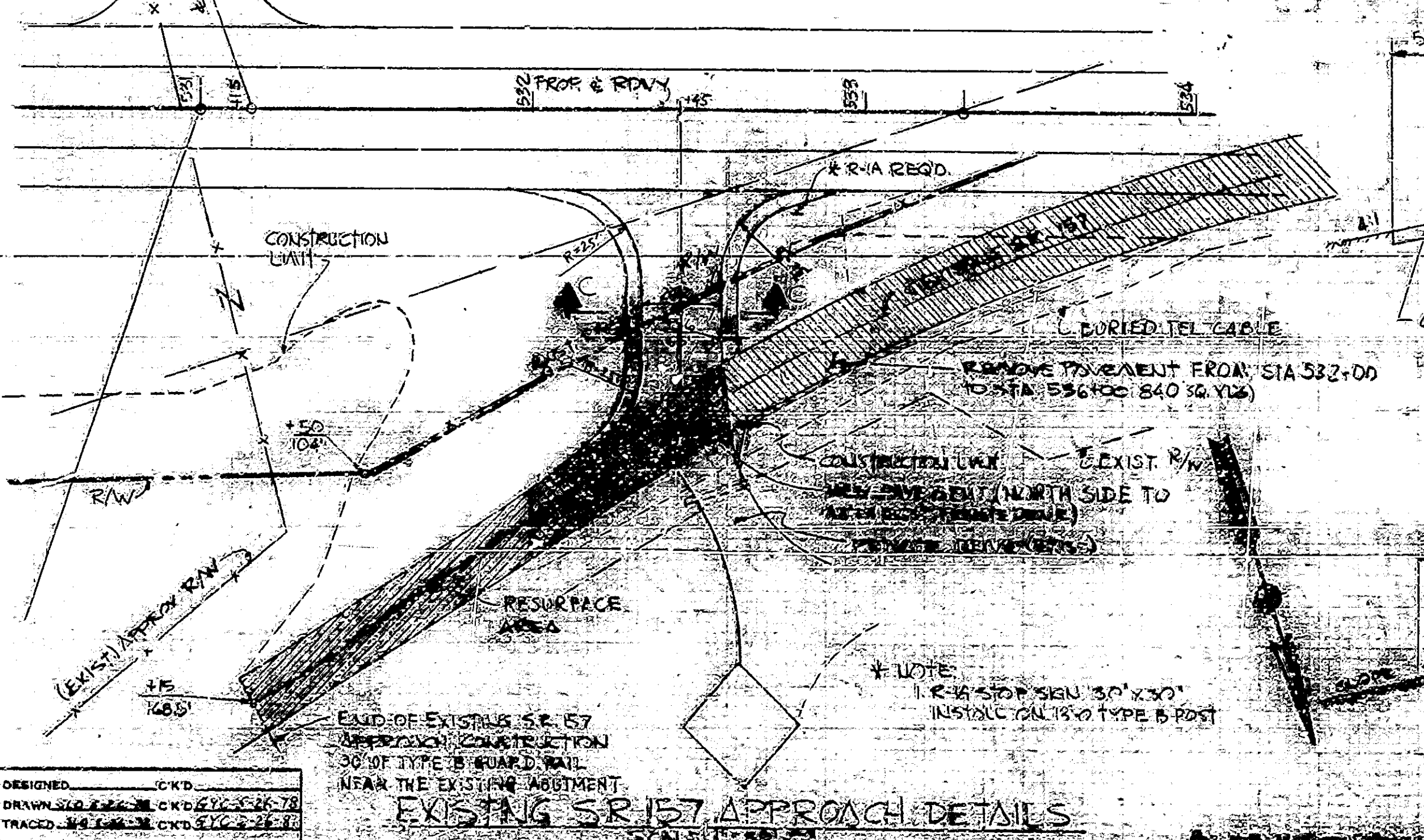
FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION APPROVED: DIVISION ADMINISTRATOR DATE

R.C. BRIDGE APPROACH
BILL OF MATERIALS
(2 SLOBS)

CONCRETE PAVEMENT			
REINFORCED (10 INCHES) 14 SS			
REINFORCING STEEL			
SIZE #	NO. OF BARS	LENGTH	WT (LBS)
#5	96	27'-6"	
#5	22	23'-10"	
TOTAL			2600



Note:
Bituminous surface shall be
HAC, TYPE II-B or
HAE, TYPE II-III



TYPICAL CROSS SECTIONS AND EXISTING
APPROACH DETAILS
INDIANA STATE HIGHWAY COMMISSION

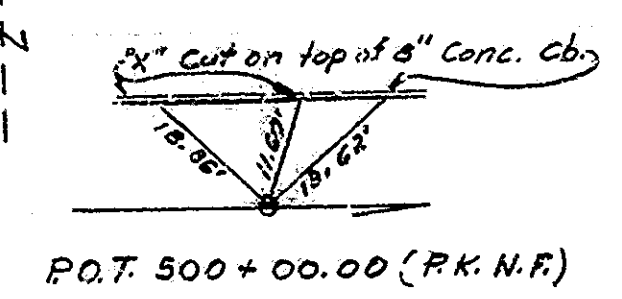
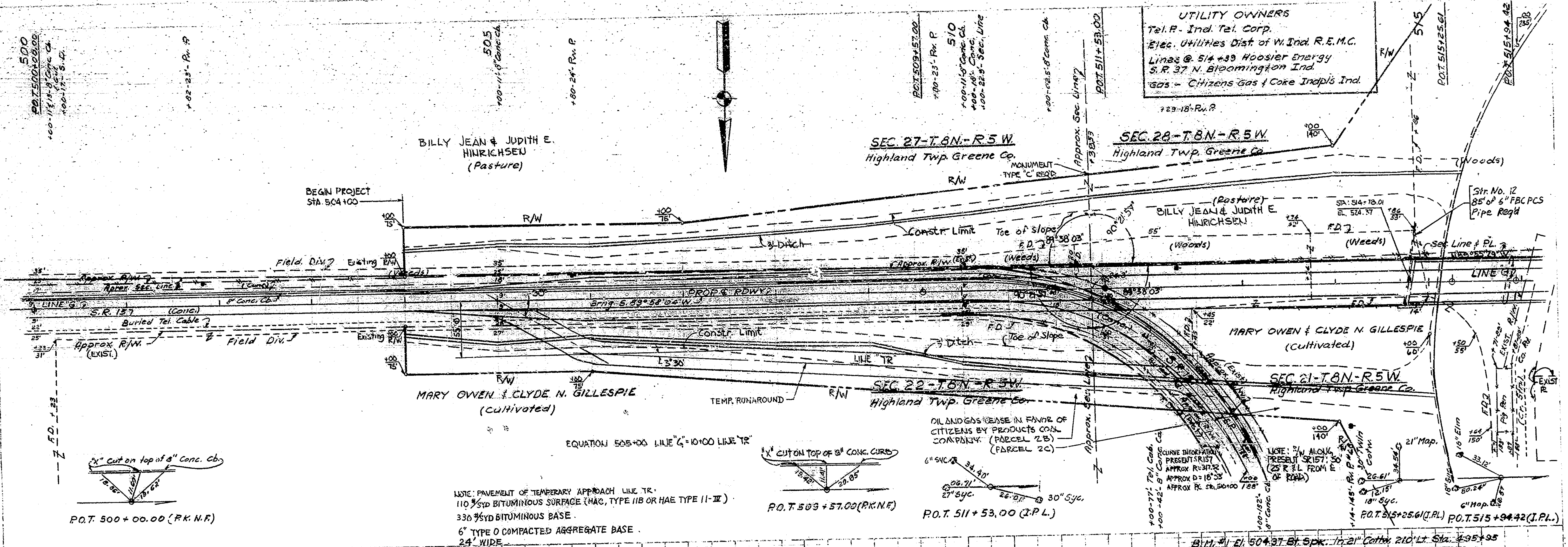
SCALE: AS NOTED
DATE: JANUARY 12, 1982
Ching Kung Wong
SENIOR DESIGNER

DESIGNED: C.K.D.
DRAWN: C.K.D.
CHECKED: C.K.D.
TRACED: C.K.D.
DATE: 12-2-81

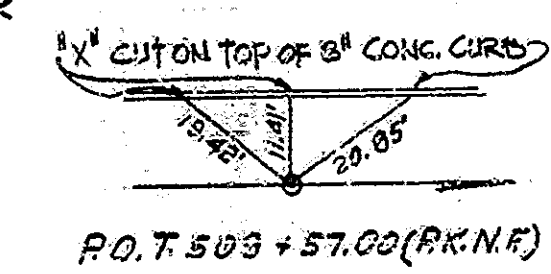
PROJECT: RS-4328 (I)
CONTRACT NO. B-13777
BRIDGE FILE: 157-26-6385

CHING KUNG WONG
SENIOR DESIGNER
12213
STATE
INDIANA

DESIGNED: C.K.D.
DRAWN: C.K.D.
CHECKED: C.K.D.
TRACED: C.K.D.
DATE: 12-2-81

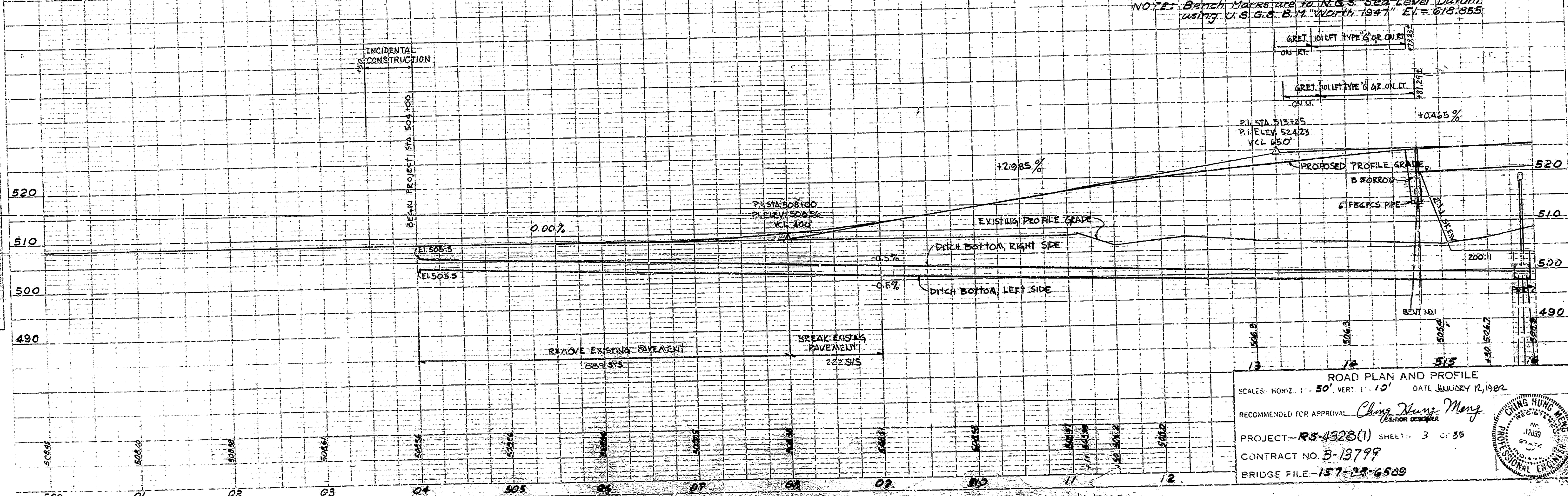


NOTE: PAVEMENT OF TEMPORARY APPROACH LINE TR.
 110% SYD BITUMINOUS SURFACE (HAC, TYPE IIB OR HAE TYPE II-III)
 330% SYD BITUMINOUS BASE
 6" TYPE O COMPACTED AGGREGATE BASE
 24' WIDE



OIL AND GAS LEASE IN FAVOR OF
 CITIZENS BY PRODUCTS COAL
 COMPANY (PARCEL 2B)
 (PARCEL 2C)

NOTE: Bench Marks are to N.G.S. Sea Level Datum
 using U.S.G.S. B.M. "North 1947" E.L. = 618.855

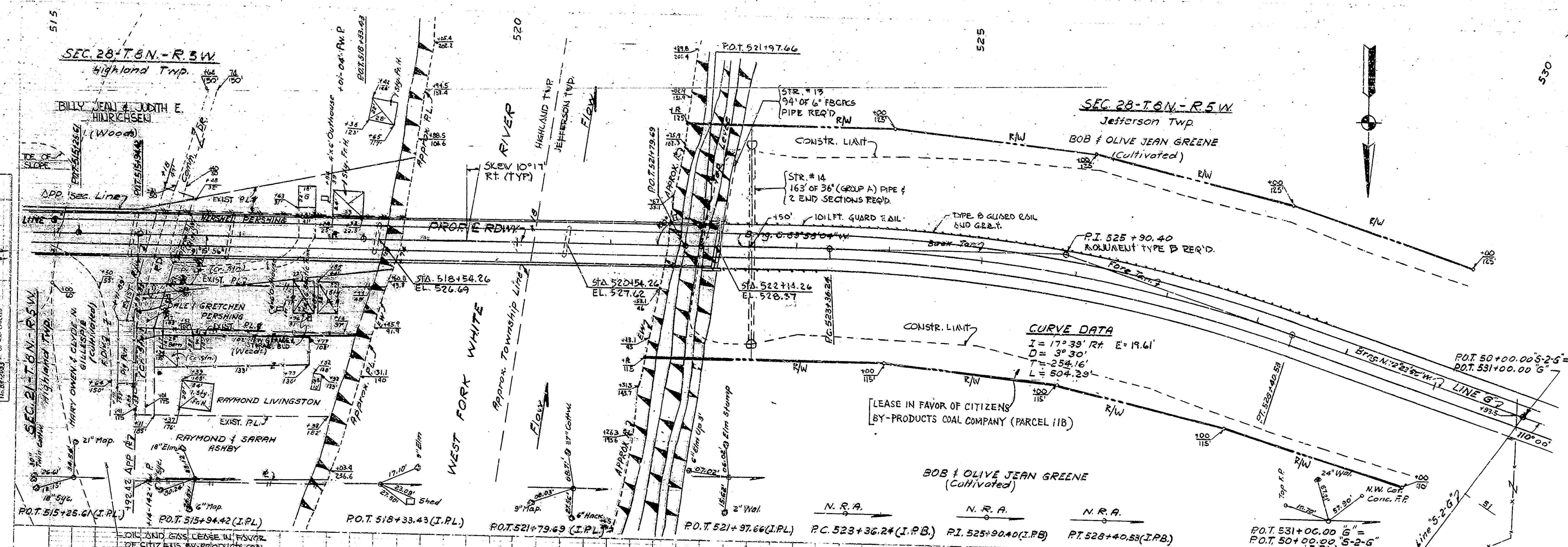


ROAD PLAN AND PROFILE
 SCALES: HORIZ. 1" = 50', VERT. 1" = 10' DATE: JANUARY 12, 1982
 RECOMMENDED FOR APPROVAL: *Ching Hung Meng*
 PROJECT: RS-4328(1) SHEET: 3 OF 85
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-23-6589

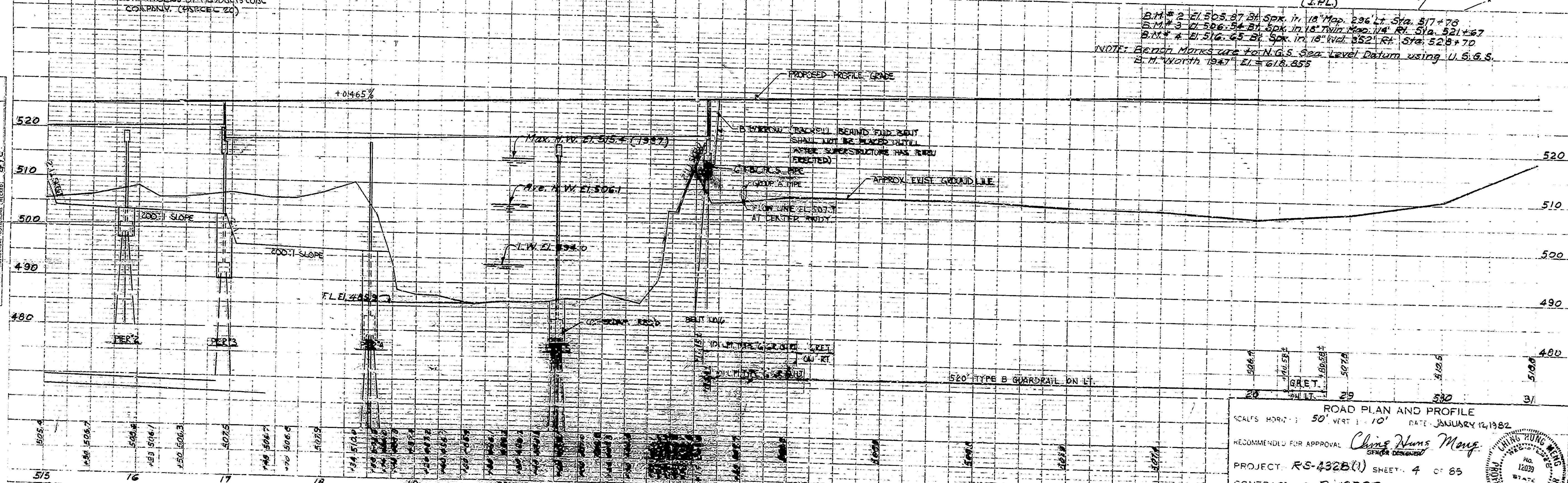
CHING HUNG MENG
 PROFESSIONAL ENGINEER
 No. 12039
 State of Indiana

PLAN
 E.C. HUNTER
 10-7-82

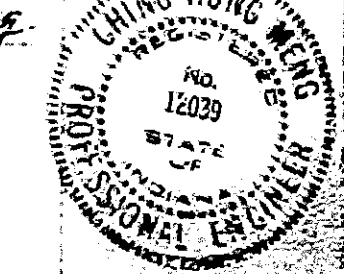
PROFILE
 E.C. HUNTER
 10-7-82



PLAN
 SCALE: HORIZ. 1" = 50' VERT. 1" = 10'
 DATE: JANUARY 12, 1982
 PROJECT: RS-432B(1) SHEET 4 OF 85
 CONTRACT NO. B-13799
 BRIDGE FILE 157-28 6533



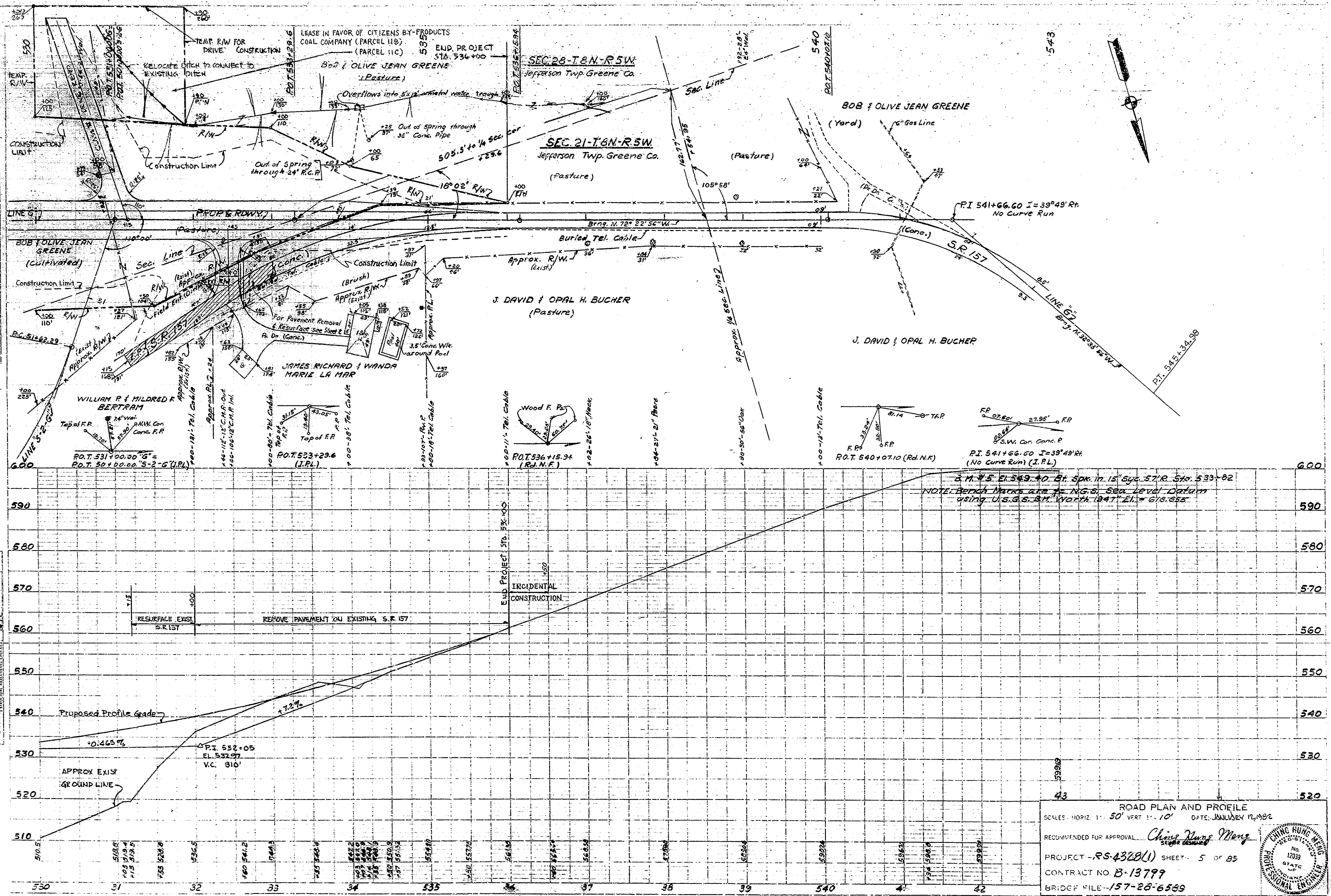
ROAD PLAN AND PROFILE
 SCALE: HORIZ. 1" = 50' VERT. 1" = 10' DATE: JANUARY 12, 1982
 RECOMMENDED FOR APPROVAL: *Clare Neuns Meng*
 PROJECT: RS-432B(1) SHEET 4 OF 85
 CONTRACT NO. B-13799
 BRIDGE FILE 157-28 6533



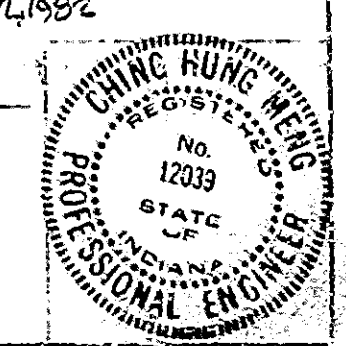
REV. 11-24-75 R/L LEASE WITH ADDED TO PARCEL 11 0 W WEST
 REV. 3-3-82 LEASE WORDS ADDED TO PARCEL 20 BODDIE
 REV. 11-2-82 SURF. ROAD

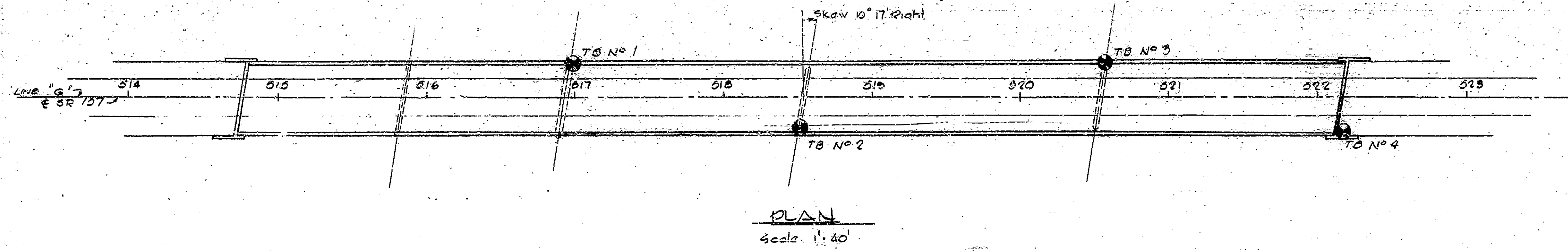
PLAN
 1/2" = 100'
 NOTE: BOOK 1, PAGE 100, GREENE COUNTY RECORDS, GREENE COUNTY, MISSOURI, 1974, P. 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600.

PROFILE
 1" = 10'
 1/4" = 10'
 NOTE: BOOK 1, PAGE 100, GREENE COUNTY RECORDS, GREENE COUNTY, MISSOURI, 1974, P. 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600.



ROAD PLAN AND PROFILE
 SCALES: HORIZ 1" = 50' VERT 1" = 10'
 DATE: JANUARY 14, 1982
 RECOMMENDED FOR APPROVAL: *Christina Mary*
 PROJECT: RS-4328(1) SHEET: 5 OF 85
 CONTRACT NO: B-13777
 BRIDGE FILE: 157-28-6559





TEST BORING No.	T.B. No. 1			T.B. No. 2			T.B. No. 3			T.B. No. 4					
	STATION (LINE 'G')	OFFSET	GROUND ELEV.	STATION (LINE 'G')	OFFSET	GROUND ELEV.	STATION (LINE 'G')	OFFSET	GROUND ELEV.	STATION (LINE 'G')	OFFSET	GROUND ELEV.			
	516+30	22' Lt.	506.7'	518+52	20' Rt.	504.0'	520+50	22' Lt.	499.9'	522+16	27' Rt.	507.8'			
SAMPLE No.	ELEV.	N	DESCRIPTION	SAMPLE No.	ELEV.	N	DESCRIPTION	SAMPLE No.	ELEV.	N	DESCRIPTION	SAMPLE No.	ELEV.	N	DESCRIPTION
	506.7		Ground level		504.0		Ground level		499.9		Ground level		507.8		Ground level
1	504.2	3/2	Brown moist, very soft sandy loam	1	501.5	5	Brown, slightly moist, very loose to loose sandy loam; A-2-4(6) 78-55107	1	499.9			1	505.3	0	Brown, slightly moist, very loose sandy loam w/ trace of gravel; A-2-4(6) 78-55105
2	501.7	6	SS-2 slightly moist, sand silty; A-2-4 78-55105	2	499.0	4		2	499.9			2	502.8	5	
3	499.2	4		3	496.5	5		3	499.9			3	500.3	25	497.8
4	496.7	4		4	494.2	4		4	499.9			4	498.2	8	Brown moist, medium stiff, silty clay loam (Visual)
5	492.0	5	Brown moist, loose, fine to coarse sand (Visual)	5	490.0	8	Brown wet loose gravel; SS-3 2 attempts (Visual)	5	489.9			5	495.9	2	Brown & grey mottled, moist very soft silty loam; A-2-4 78-55106
6	491.7	5		6	489.0	8		6	487.8	7	487.8	9	492.8	2	Grey wet, medium dense to dense sandy gravel; A-1-a(6) 78-55106
7	489.7	8	Brown wet, loose to medium dense sandy gravel; A-1-a 78-55106	7	485.0	8	Brown wet, loose to medium dense sandy gravel; A-1-a 78-55106	7	487.8	8	477.8	29	SS-6 loose		
8	487.7	25		8	484.0	8	Brown wet, loose to medium dense sandy gravel; A-1-a 78-55106	8	485.0	2	477.8	29			
9	487.7	54	Grey wet dense to very dense coarse sand with some gravel	9	479.0	29		9	478.9	29	477.8	29			
10	486.7	30	End of Boring Depth of Boring 40'-0"	10	475.5	32	Grey wet medium dense to very dense, coarse sand w/ some gravel (Visual)	10	474.0	32	472.8	43			
				11	470.0	34		11	469.0	61	472.8	43			
				12	464.0	210	End of Boring Depth of Boring 50'-0"	12	469.0	61	472.8	48			
				13	459.0	34		13	467.0	71	467.8	48			
				14	454.0	51	End of Boring Depth of Boring 61'-0"	14	467.8	48	467.8	48			
				15	451.0	14		15	467.8	48	467.8	48			
				16	448.0	27	Brown, wet, medium dense to dense, coarse sand with trace of gravel	16	467.8	48	467.8	48			
				17	444.0	40	SS-15, 2 attempts - 0% recovery H.S.A. to 60.0'	17	467.8	48	467.8	48			
				18	439.0	40	SS-14, brownish-grey roller bit wash at 52.5'-60.0'	18	467.8	48	467.8	48			
				19	434.0	38		19	467.8	48	467.8	48			
				20	431.0	51	End of Boring Depth of Boring 61'-0"	20	467.8	48	467.8	48			

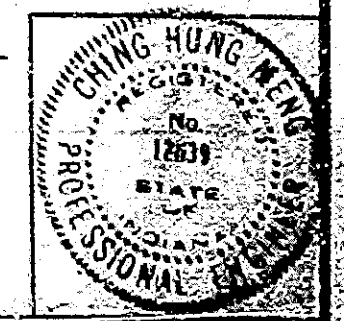
▼ Indicates Ground Water Table
 N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split-Spoon Sampler 12" by means of a 140 lb weight falling 30"

SOIL BORINGS

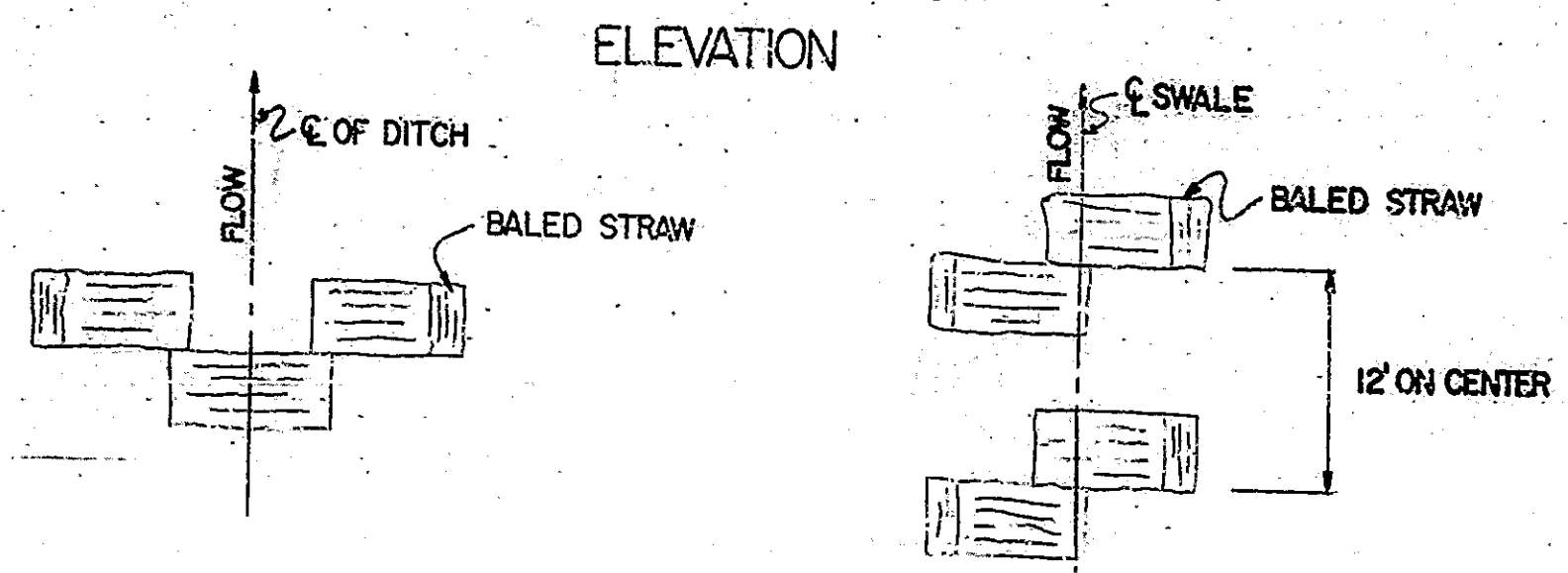
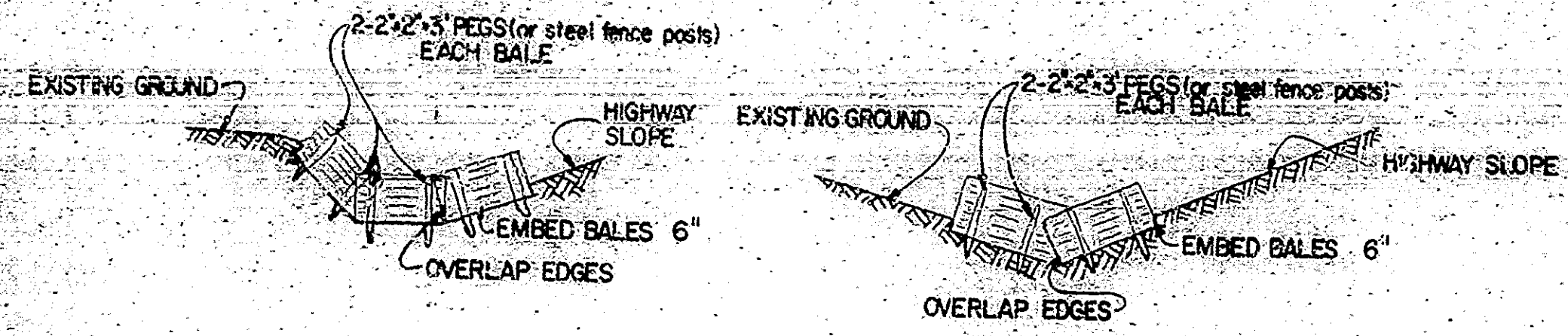
INDIANA STATE HIGHWAY COMMISSION

SCALE:- DATE:- JANUARY 12, 1982

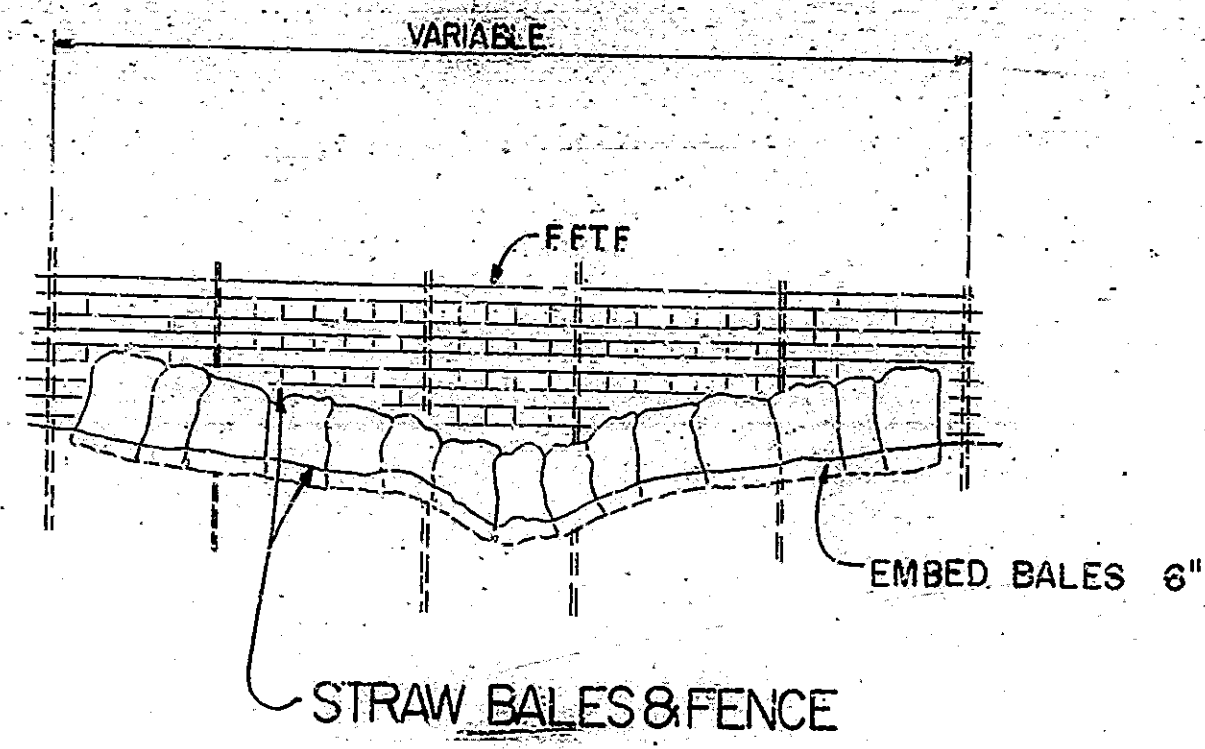
DRAWING:- OF SHEET:- 6 OF 85
 PROJECT:- R5-4328 (001)
 CONTRACT NO. B-13799
 BRIDGE FILE:- 157-28-6589



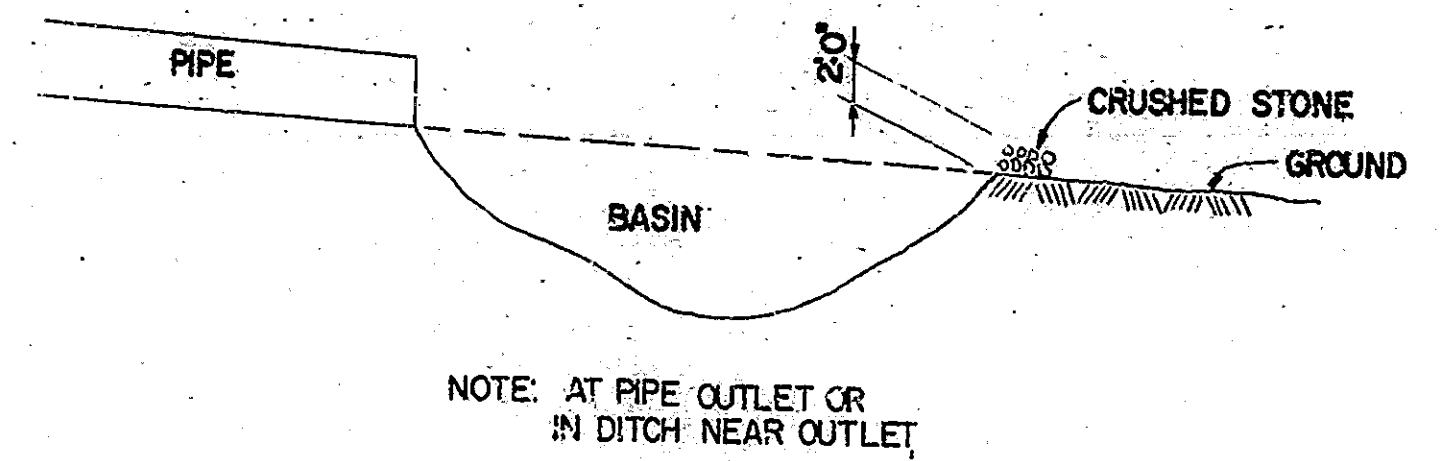
DESIGNED: CWD
 DRAWN: H. R. STICKNEY
 TRACED: C. W. H. STICKNEY
 CHM 2-22-81



METHOD A



METHOD B

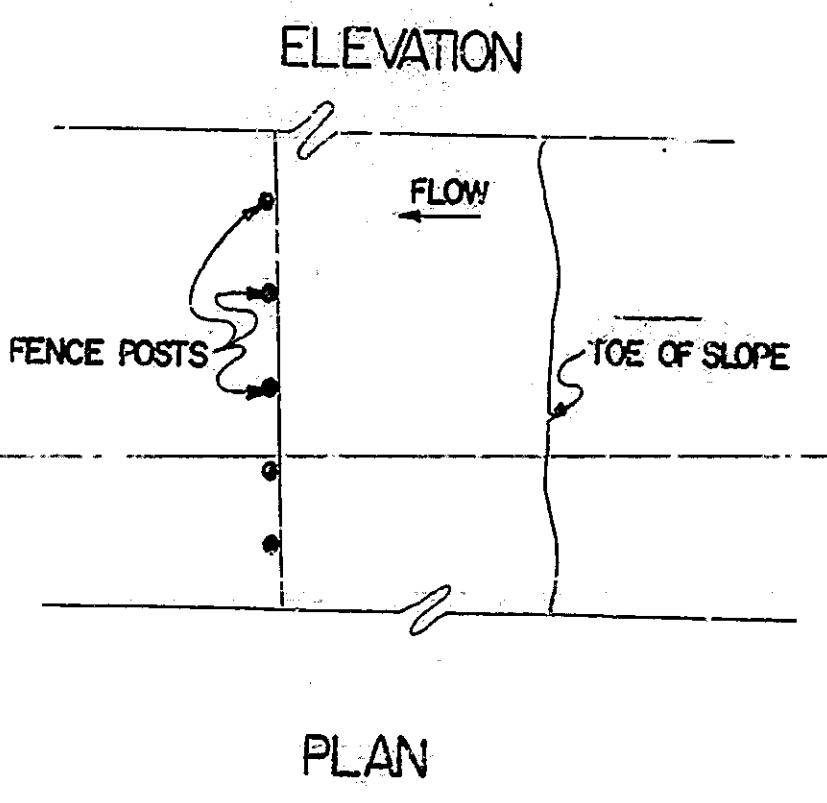
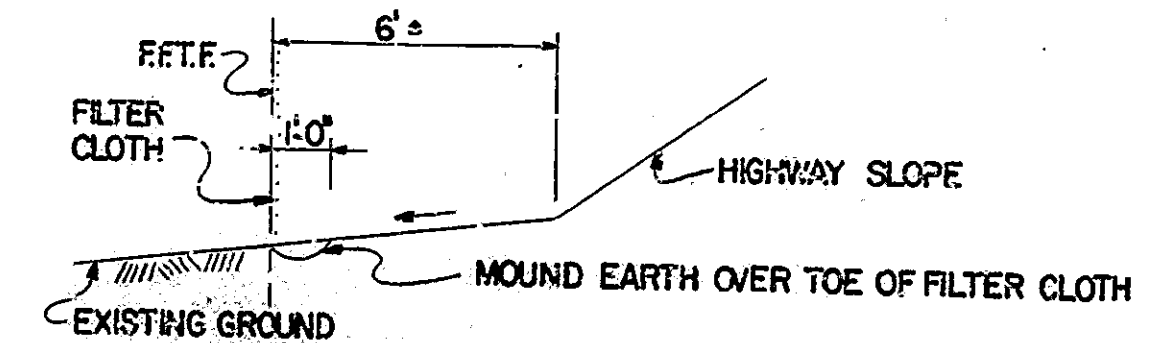


METHOD D

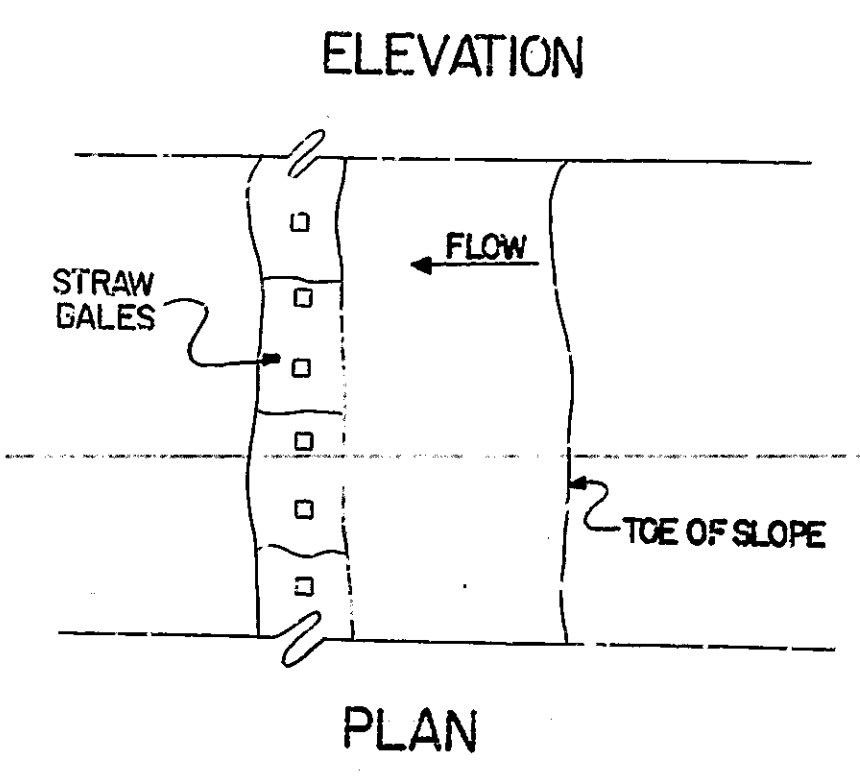
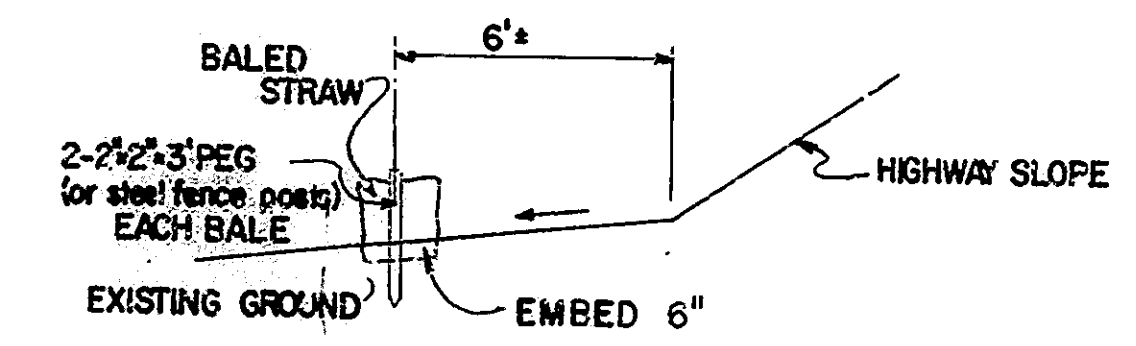
TABLE OF QUANTITIES						
LOCATIONS	SIZE	METHOD				
		A	B	C	D	E
STATION TO STATION	FEET	BALES	LFT.	LFT.	EACH	BALES
508+00 LT. # RT.		6				
512+00 LT. # RT.		6				
515+00 LT. # RT.		6				
516+50 RT.		3				
517+00 LT.		3				

PAY ITEMS

METHOD A	"STRAW BALES IN PLACE"	EA	EACH
METHOD B	"EROSION CONTROL METHOD B"	LIN.FT.	
METHOD C	"EROSION CONTROL METHOD C"	LIN.FT.	
METHOD D	"EROSION CONTROL METHOD D"	EACH	
METHOD E	"STRAW BALES IN PLACE"	EACH	



METHOD C



METHOD E

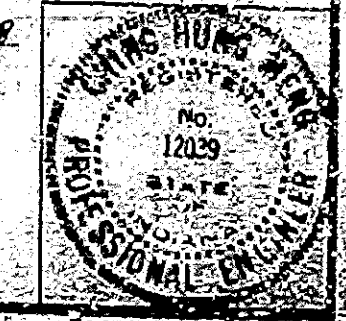
EROSION CONTROL
INDIANA STATE HIGHWAY COMMISSION

SCALE: NONE

DATE: JANUARY 17, 1984

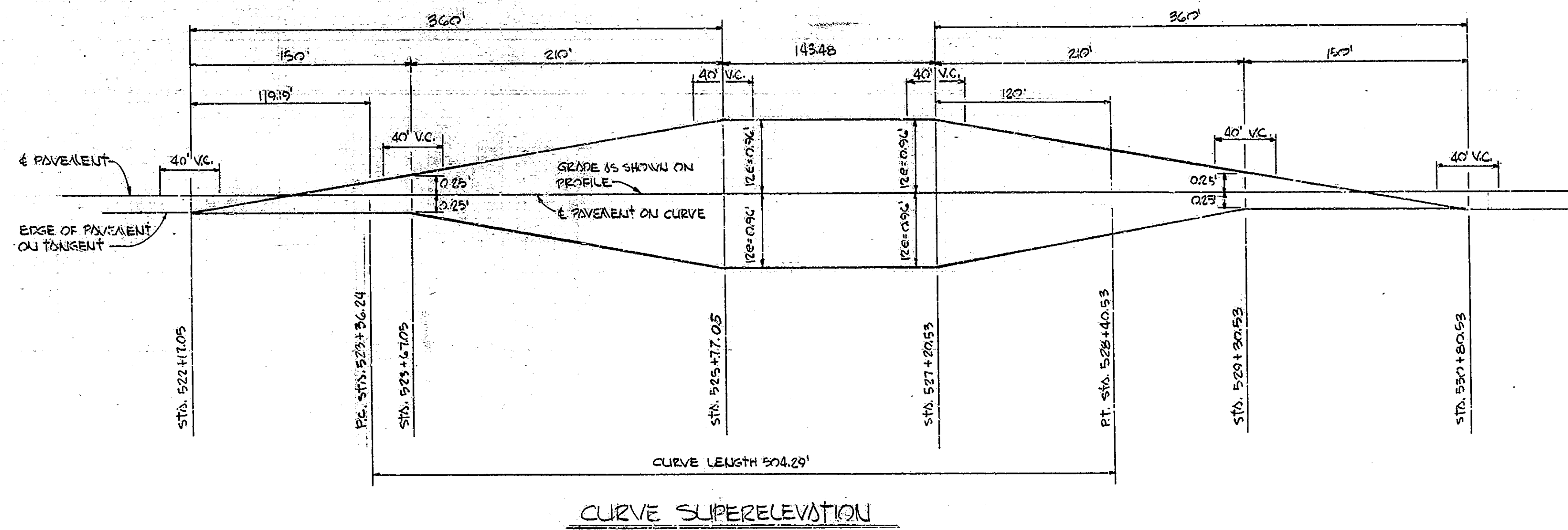
Checked by: *Chong Kung Meng*
SEAL OR DESIGNER

DRAWING: _____ OF SHEET: 7 OF 85
PROJECT: RS-4328 (1)
CONTRACT NO. B-43799
BRIDGE FILE: 151-23-6503



DESIGNED: _____ CKD
DRAWN: JTR 5-79 CKD
TRACED: _____ CKD
CUT 5-79

CURVE DATA
 1517532RT
 D=3930'
 T=258.12'
 L=504.29'
 E=15.61'
 PC STA 523+36.24
 PT STA 528+40.53
 PI STA 525+90.40



CURVE SUPERELEVATION

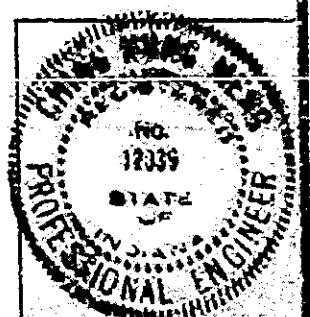
CURVE SUPERELEVATION
 INDIANA STATE HIGHWAY COMMISSION

SCALE: NONE

DATE: JANUARY 1982

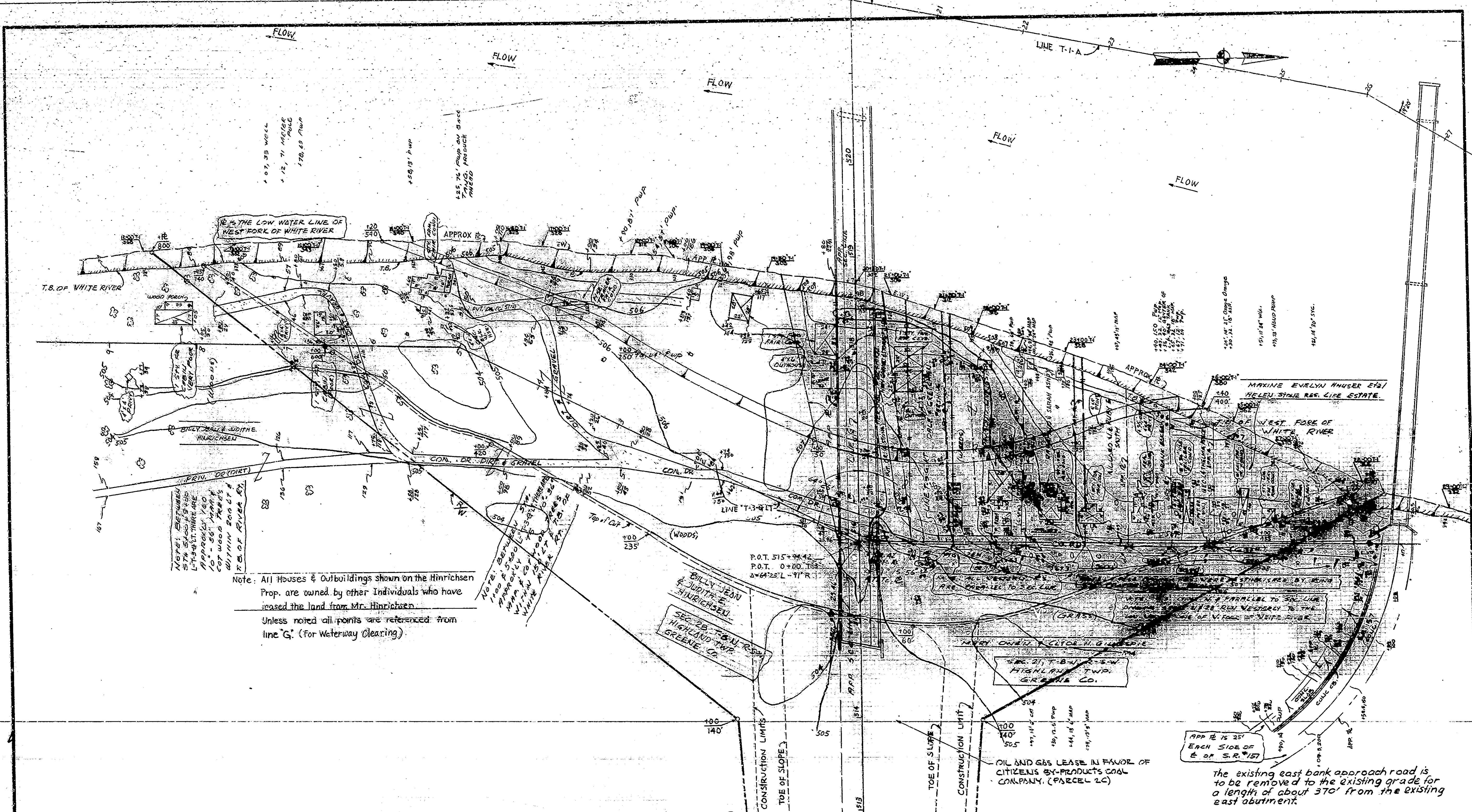
Ching Young Ming
 SENIOR ENGINEER

DRAWING OF SHEET 8 OF 85
 PROJECT: RS-4328(1)
 CONTRACT NO. B-13797
 BRIDGE FILE: 157-28-C589



DESIGNED BY GYC 2-8-81 CK'D JCB
 DRAWN BY TEA CK'D GYC
 TRACED CK'D

CHN 4-18-82



NOTE: BETWEEN S7M 5300' & 5410' L-1-F-3-1-T-THERE ARE APPROX. 160 10'-56" MAP COP WOOD TREES WITHIN 500 FT. OF R.B. OF RIVER E.L.

Note: All Houses & Outbuildings shown on the Hinrichsen Prop. are owned by other Individuals who have leased the land from Mr. Hinrichsen. Unless noted all points are referenced from line 'G'. (For Waterway Clearing)

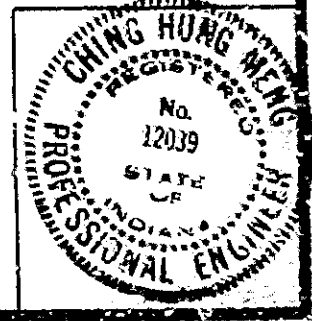
NOTE: BETWEEN S7M 5300' & 5410' L-1-F-3-1-T-THERE ARE APPROX. 160 10'-56" MAP COP WOOD TREES WITHIN 500 FT. OF R.B. OF RIVER E.L.

WATERWAY CLEARING DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: 1"=50'-0" DATE: JANUARY 12, 1928

Ching Hsiung Meng
 SENIOR DESIGNER

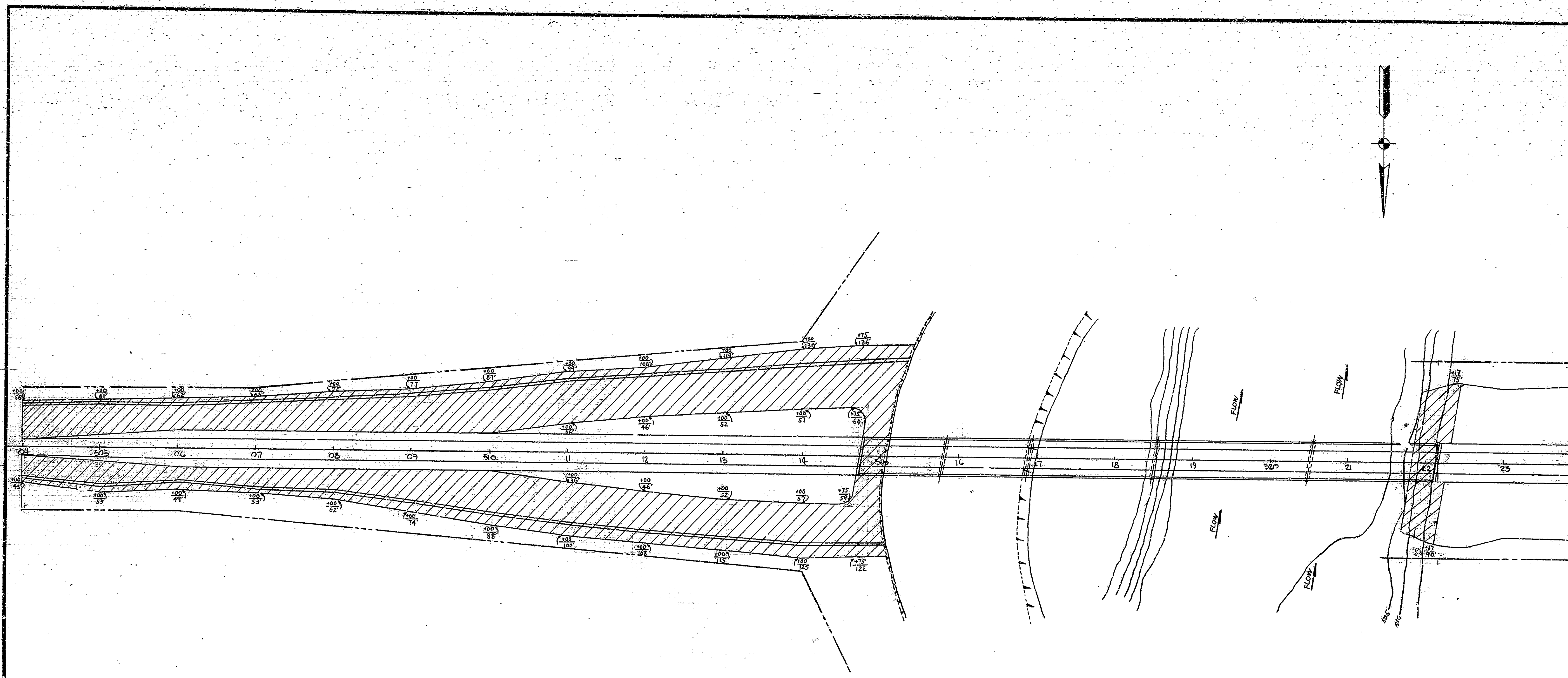
DRAWING OF SHEET 9 OF 35
 PROJECT: RS-432B(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589



DESIGNED: CYD	CYD
DRAWN: EYO	CYD
TRACED: TGD	CYD

CMM 2-15-01

REV. 5-5-1928 LEASE NOTE, PARCEL 2C ADDED.



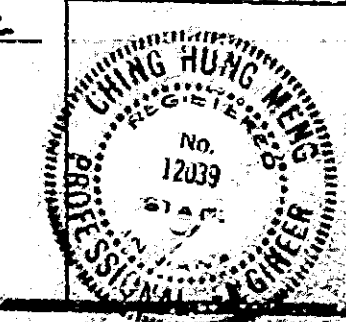
NOTES:
 ▨ REVELMENT RIPRAP 10160 TONS
 PLASTIC FILTER CLOTH 15840 SQ YDS
 PLACE TO ELEV. 1.0 ABOVE HIGH
 WATER (ELEV. 513.5 + 1.0 = 514.5)

RIPRAP AREA
 INDIANA STATE HIGHWAY COMMISSION

SCALE: 1" = 60' DATE: JANUARY 13, 1982

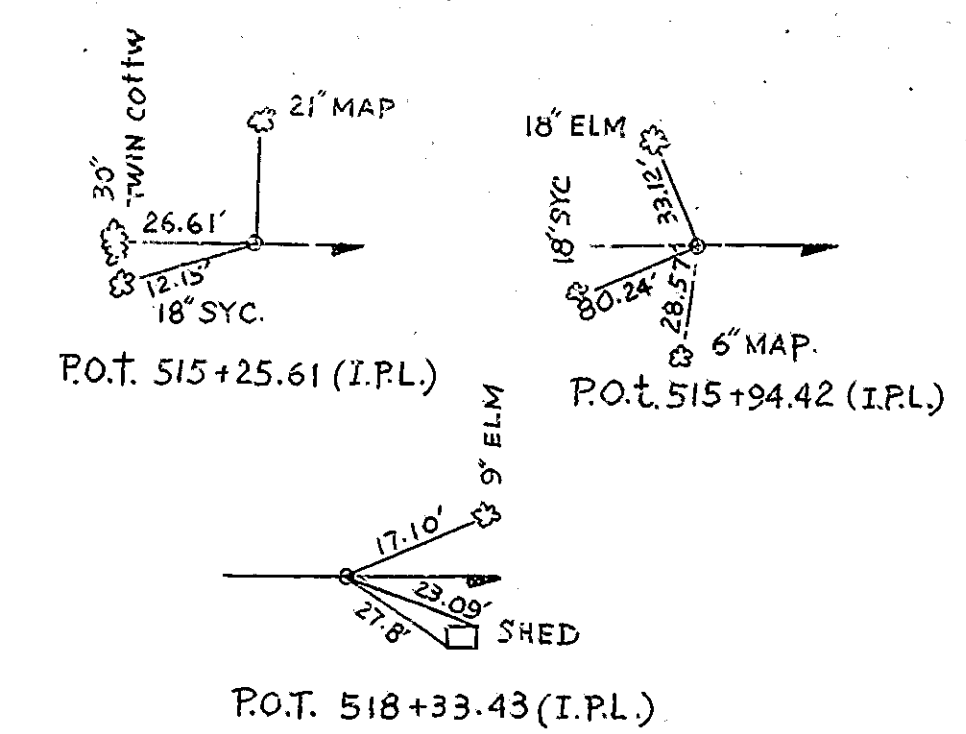
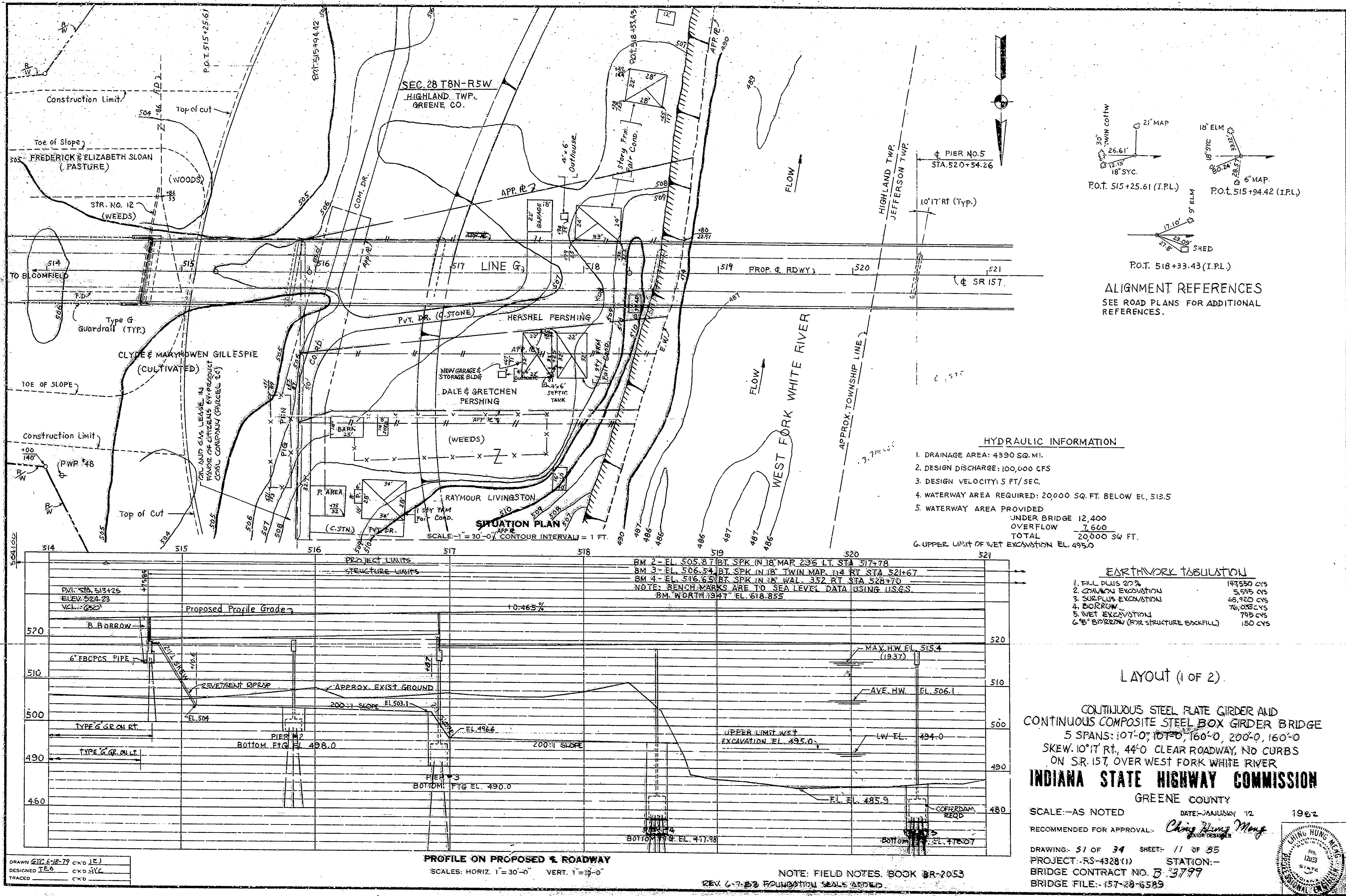
Ching Hong Meng
 SENIOR DESIGNER

DRAWING: OF SHEET: 10 OF 85
 PROJECT: RS-4328(1)
 CONTRACT NO 3-13799
 BRIDGE FILE: 157-28-6589



DESIGNED:	CHKD:
DRAWN: <i>BYC</i>	CHKD: <i>JK</i>
TRACED:	CHKD:

CHM 1/18/82



ALIGNMENT REFERENCES
SEE ROAD PLANS FOR ADDITIONAL REFERENCES.

- HYDRAULIC INFORMATION**
1. DRAINAGE AREA: 4390 SQ. MI.
 2. DESIGN DISCHARGE: 100,000 CFS
 3. DESIGN VELOCITY: 5 FT/SEC.
 4. WATERWAY AREA REQUIRED: 20,000 SQ. FT. BELOW EL. 513.5
 5. WATERWAY AREA PROVIDED

UNDER BRIDGE	12,400
OVERFLOW	7,600
TOTAL	20,000 SQ. FT.
 6. UPPER LIMIT OF WET EXCAVATION EL. 495.0

- EARTHWORK TABULATION**
- | | |
|---------------------------------------|-------------|
| 1. FILL PLUS 272 | 147,550 CYS |
| 2. COMMON EXCAVATION | 5,515 CYS |
| 3. SURPLUS EXCAVATION | 45,920 CYS |
| 4. BORROW | 76,050 CYS |
| 5. WET EXCAVATION | 795 CYS |
| 6. 6" BORROW (FOR STRUCTURE BACKFILL) | 150 CYS |

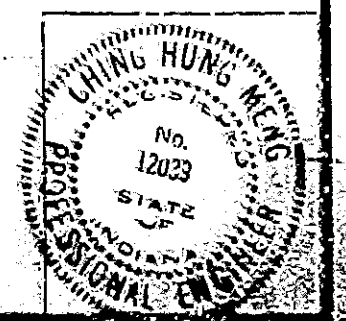
LAYOUT (1 OF 2)
CONTINUOUS STEEL PLATE GIRDER AND
CONTINUOUS COMPOSITE STEEL BOX GIRDER BRIDGE
5 SPANS: 107'-0", 107'-0", 160'-0", 200'-0", 160'-0"
SKEW: 10°17' RT., 44°0' CLEAR ROADWAY, NO CURBS
ON SR. 157, OVER WEST FORK WHITE RIVER

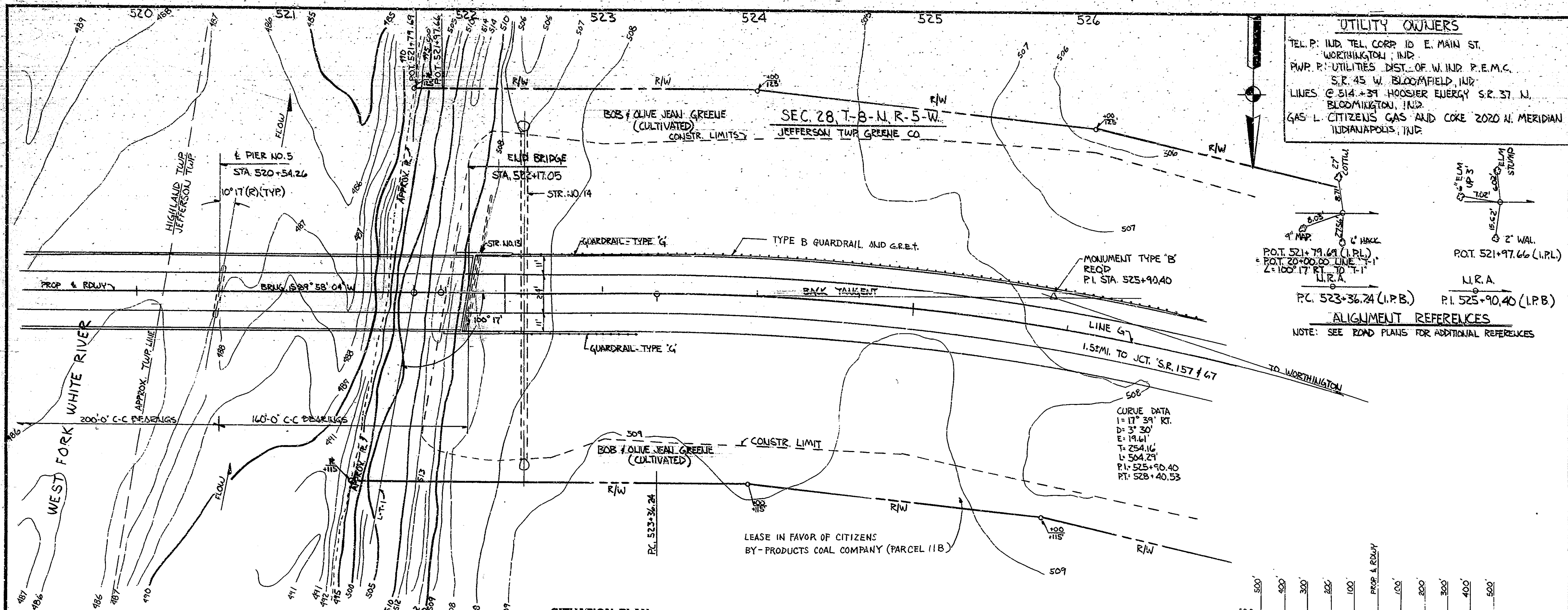
INDIANA STATE HIGHWAY COMMISSION
GREENE COUNTY
SCALE: AS NOTED
DATE: JANUARY 12 1962
RECOMMENDED FOR APPROVAL: *Cheng Hsing Meng*
DRAWING: 51 OF 34 SHEET: 11 OF 35
PROJECT: FS-4328 (1) STATION: -
BRIDGE CONTRACT NO. B-3799
BRIDGE FILE: 157-28-6589

DRAWN G.L.C. 6-18-79 C.K.D. J.E.J.
DESIGNED J.E.D. C.K.D. J.Y.C.
TRACED C.K.D.

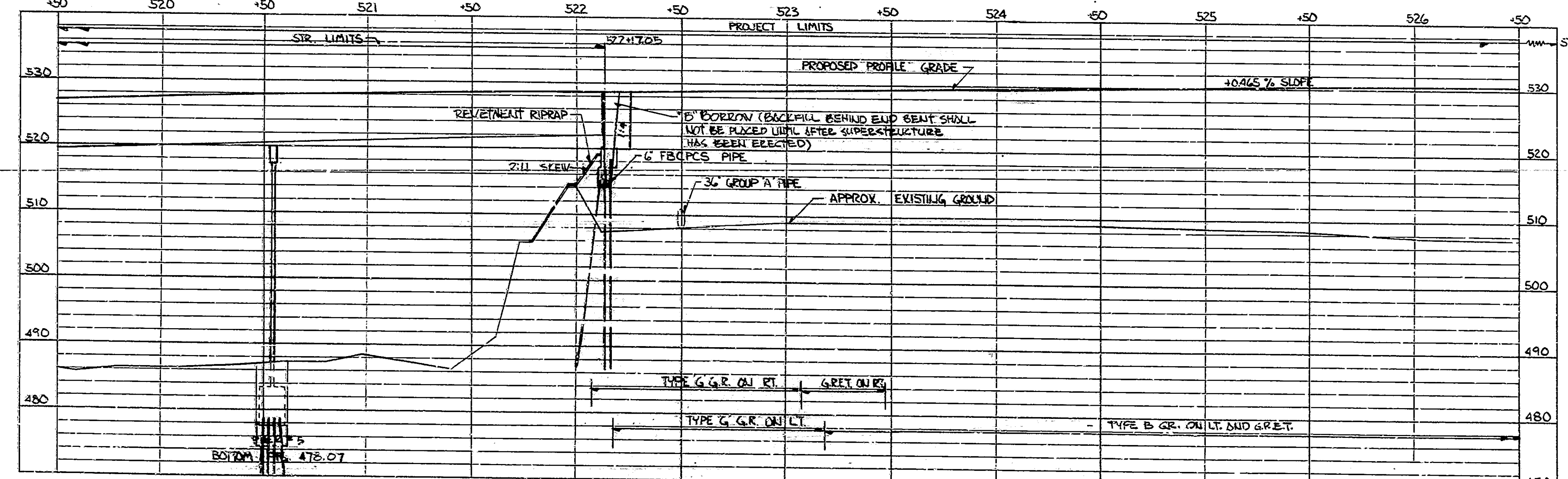
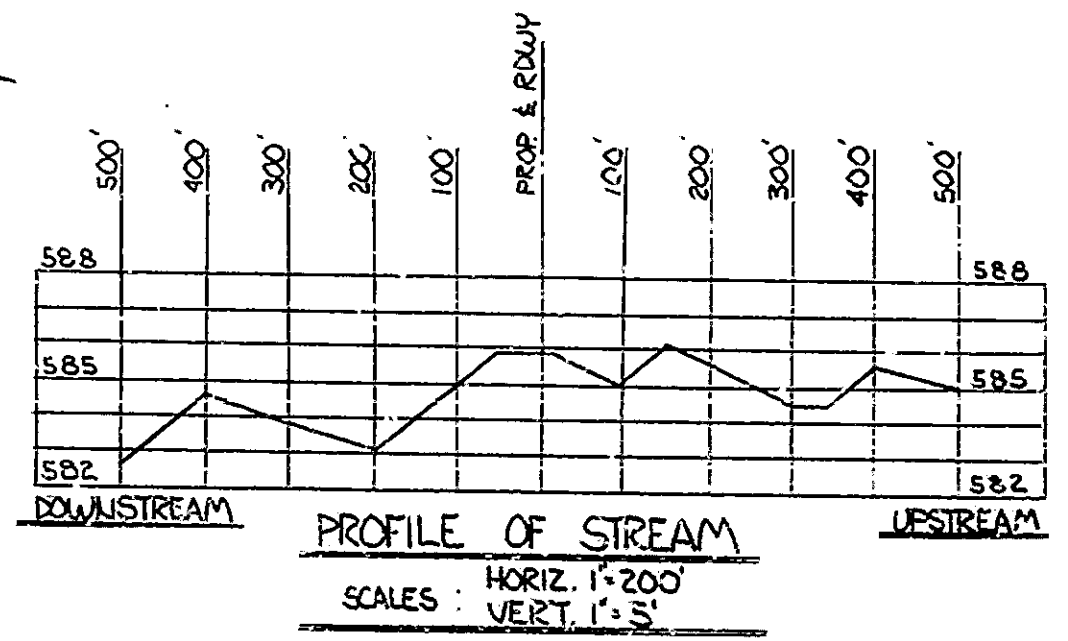
PROFILE ON PROPOSED ROADWAY
SCALE: HORIZ. 1" = 30'-0" VERT. 1" = 10'-0"

NOTE: FIELD NOTES, BOOK BR-2053
REV. 6-7-63 FOUNDATION SEALS ADDED





SITUATION PLAN
 SCALE: 1" = 30'-0", CONTOUR INTERVAL = 1 FT.

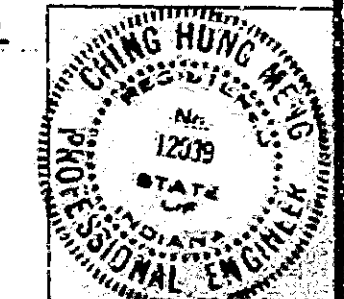


LAYOUT (2 OF 2)
 CONTINUOUS STEEL PLATE GIRDER & CONTINUOUS COMPOSITE STEEL BOX GIRDER BRIDGE, 5 SPANLS: 107'-0", 107'-0", 160'-0", 200'-0", 160'-0". SKEW 10° RT. 44'-0" CLEAR ROADWAY, NO CURBS, ON S.R. 157 OVER WEST FORK WHITE RIVER.

INDIANA STATE HIGHWAY COMMISSION
 GREENIE COUNTY
 SCALE: -AS NOTED DATE: JANUARY 12, 1982
 RECOMMENDED FOR APPROVAL: *Ching Hung Meng*
 DRAWING: 52 OF 34 SHEET: 12 OF 85
 PROJECT: RS-4328-(1)
 BRIDGE CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589

DRAWN: CKD
 DESIGNED: SYC CKD JBS
 TRACED: JBS B/PRO CKD GYE

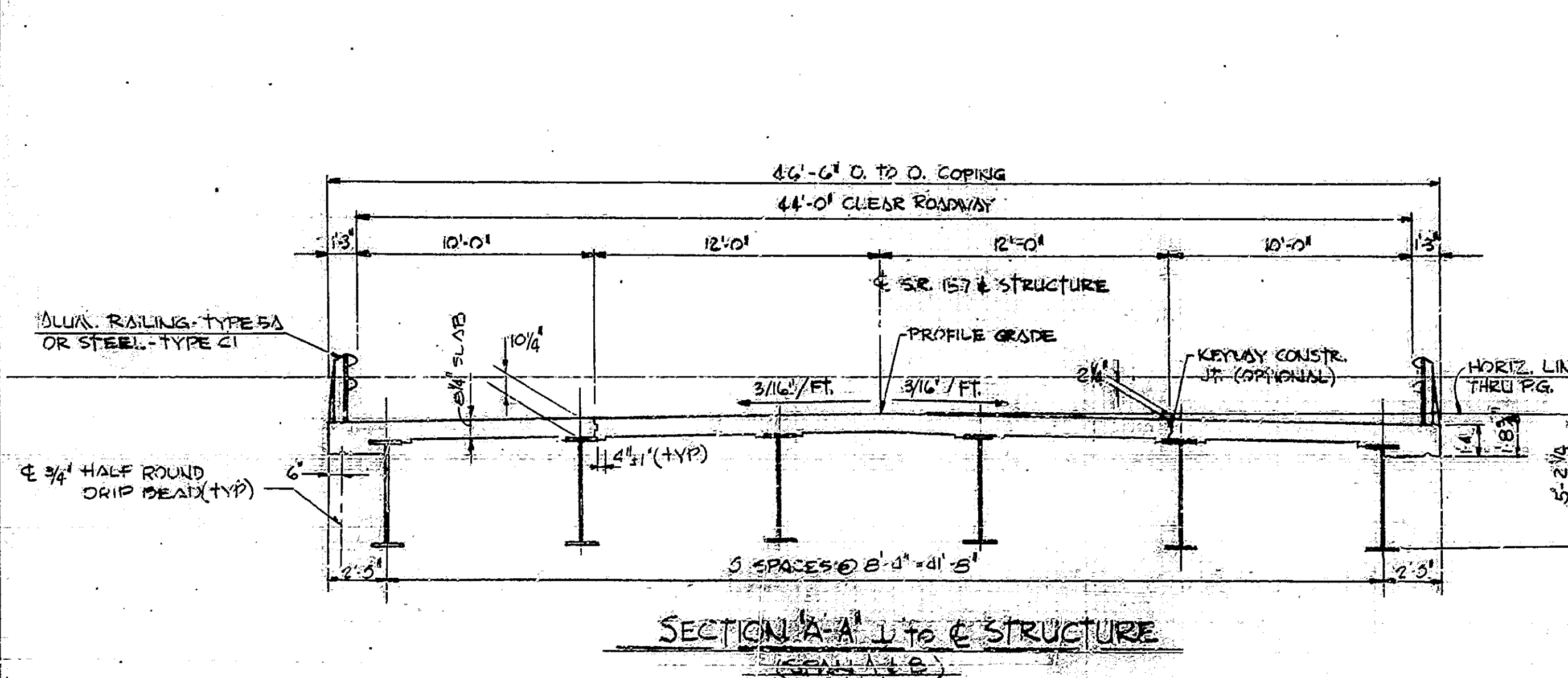
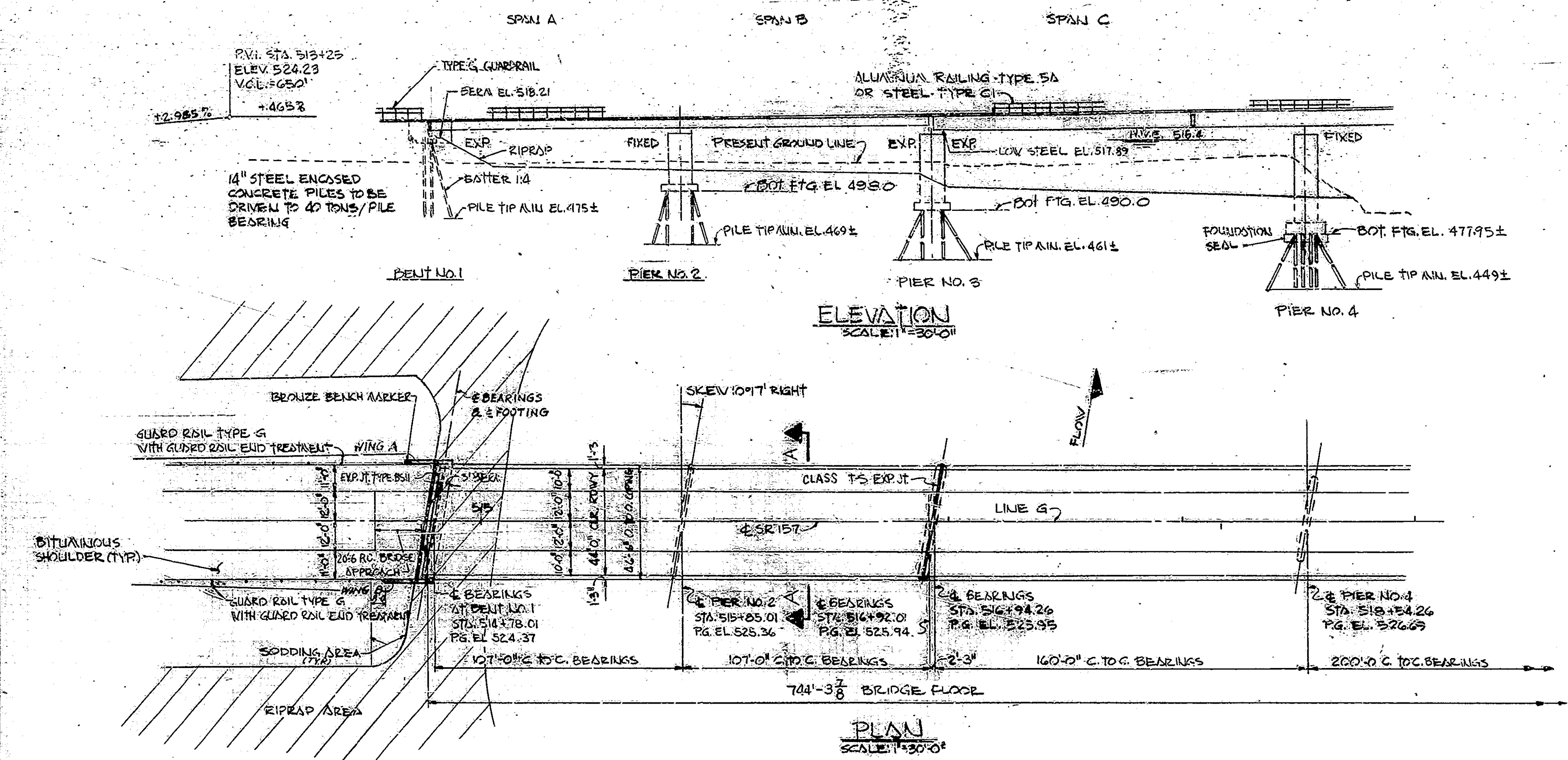
1977
 CHM 4-9-R



STRUCTURE TO BE BUILT TO 650 FT. VERTICAL CURVE AND A 0.465% GRADE

DESIGN DATA

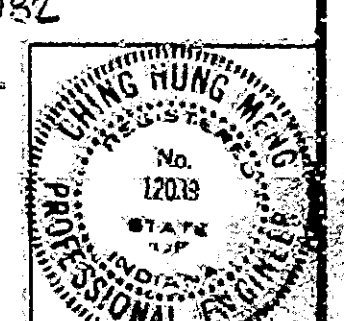
LIVE LOAD: HS20-44 LOADING WITH IMPACT AND DISTRIBUTION OF LOADS IN ACCORDANCE WITH 1977 AASHTO SPECIFICATIONS.
DEAD LOAD: ACTUAL WEIGHT PLUS 35#/SQ. FT. OF ROADWAY TO PROVIDE FOR FUTURE WEARING SURFACE.



STANDARD DRAWINGS		
BRIDGE ROAD		PURPOSE
BR1		ALUMINUM BRIDGE RAILINGS
BR2		ALUMINUM BRIDGE RAILING DETAILS
BR3		STEEL BRIDGE RAILING
BR4		STEEL BRIDGE RAILING DETAILS
C1		REINFORCING BAR NOTES
C3		TYPE A JOINT NOTCH IN SLAB, CONSTRUCTION JOINT TYPE A
C4		CONCRETE PILES
S1		PUSQUET BORROW AND DRAINAGE DETAILS
A0		FENCE
A0		RC APPROACH DETAILS, ABUTMENTS
A0		SIDE DITCH
AE2		END SECTION
AE1		FIELD ENTRANCE
AE1		ROUNDABOUT
AE1		UNDERDRAINS
INP		PIPE GULLIES
GR2		GUARD RAIL CLASS B0
GR3		GUARD RAIL CLASS BA + BBT
GR4		GUARD RAIL CLASS CA + GST
GR5		ALUMINUM GUARD RAIL DETAILS
GR6		STEEL TUBE GUARD RAIL DETAILS
GR7		GUARD RAIL END TREATMENT
GR8		TEMPORARY CONCRETE BARRIER
SA1		STRENGTH CONTROL
SA2		METHOD OF WORKING PLAN/GROUND
SA3		STANDARD GARAPAGES
SA3		TRAFFIC SIGNS
SA3		ROAD SIGNS
SA3		CONCRETE WALLS
SA3		WELDED WALLS
SA3		CONCRETE BARRIERS
SA3		TRIP PINS

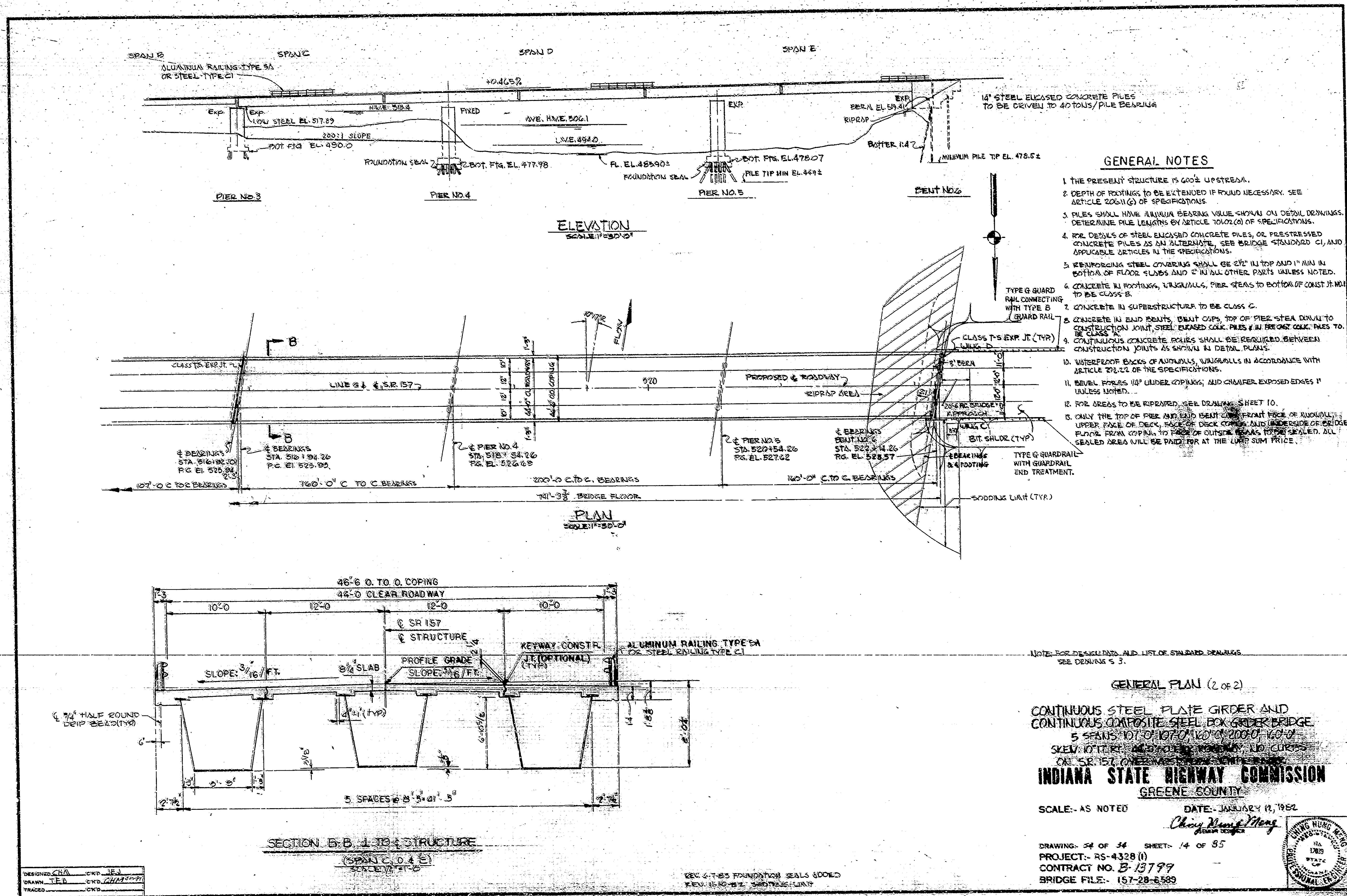
GENERAL PLAN (1 of 2)
CONTINUOUS STEEL PLATE GIRDER AND
CONTINUOUS COMPOSITE STEEL BOX GIRDER BRIDGE
5 SPANS: 107'-0", 107'-0", 160'-0", 200'-0", 160'-0"
SKEW: 10°17' RT, 34'-0" CLEAR ROADWAY, 1/2 CURBS
ON SR 157 OVER WEST FORK WHITE RIVER
INDIANA STATE HIGHWAY COMMISSION
GREENE COUNTY

SCALE: AS NOTED
DATE: JANUARY 12, 1982
Chang Hsing Meng
SENIOR DESIGNER
DRAWING: 53 OF 34 SHEET: 13 OF 85
PROJECT: RS-4326(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-28-0580



DESIGNED: W.L. CHAI
DRAWN: T.E.A. 10-28-80
TRACED: CKD
CHK: 4-10-81

REV. 6-7-83 FOUNDATION SEAL 600LD
REV. 11-10-82 STR. DRAWINGS



GENERAL NOTES

1. THE PRESENT STRUCTURE IS 600± UPSTREAM.
2. DEPTH OF FOOTINGS TO BE EXTENDED IF FOUND NECESSARY. SEE ARTICLE 206.11(C) OF SPECIFICATIONS.
3. PILES SHALL HAVE MINIMUM BEARING VALUE SHOWN ON DETAIL DRAWINGS. DETERMINE PILE LENGTHS BY ARTICLE 701.02(C) OF SPECIFICATIONS.
4. FOR DETAILS OF STEEL ENCASED CONCRETE PILES OR PRESTRESSED CONCRETE PILES AS AN ALTERNATE, SEE BRIDGE STANDARD C1 AND APPLICABLE ARTICLES IN THE SPECIFICATIONS.
5. REINFORCING STEEL COVERING SHALL BE 2 1/2" IN TOP AND 1" MIN IN BOTTOM OF FLOOR SLABS AND 2" IN ALL OTHER PARTS UNLESS NOTED.
6. CONCRETE IN FOOTINGS, VAUGHALLS, PIER STEPS TO BOTTOM OF CONST. J. M. TO BE CLASS B.
7. CONCRETE IN SUPERSTRUCTURE TO BE CLASS C.
8. CONCRETE IN END BENTS, BENT CAPS, TOP OF PIER STEPS DOWN TO CONSTRUCTION JOINT, STEEL ENCASED COIL PILES & IN BENT COIL PILES TO BE CLASS A.
9. CONTINUOUS CONCRETE ROUSERS SHALL BE REQUIRED BETWEEN CONSTRUCTION JOINTS AS SHOWN IN DETAIL PLANS.
10. WATERPROOF BACKS OF VAUGHALLS, VAUGHALLS IN ACCORDANCE WITH ARTICLE 208.22 OF THE SPECIFICATIONS.
11. BEVEL FORMS 1/4" UNDER COPINGS; AND CHAMFER EXPOSED EDGES 1" UNLESS NOTED.
12. FOR AREAS TO BE RIPRAVED, SEE DRAWING SHEET 10.
13. ONLY THE TOP OF PIER AND END BENT CAP FRONT FACE OF VAUGHALL UPPER FACE OF DECK, FACE OF DECK CORNER AND UNDERSIDE OF BRIDGE FLOOR FROM COPING TO FACE OF OUTSIDE BEAMS TO BE SEALED. ALL SEALED AREA WILL BE PAID FOR AT THE LUMP SUM PRICE.

NOTE: FOR DESCRIPTIONS AND LIST OF STANDARD DRAWINGS SEE DRAWING S 3.

GENERAL PLAN (2 of 2)

CONTINUOUS STEEL PLATE GIRDER AND CONTINUOUS COMPOSITE STEEL BOX GIRDER BRIDGE
 5 SPANS 107'-0" 107'-0" 160'-0" 200'-0" 160'-0"
 SKED 10 FT. RISE AND 10 FT. ROADWAY, 110' CURVES
 ON SR 157, ONE MILE SOUTH OF GREENE COUNTY

INDIANA STATE HIGHWAY COMMISSION
GREENE COUNTY

SCALE: AS NOTED DATE: JANUARY 13, 1962

Ching Hung Meng
 DESIGNER

DRAWING: 54 OF 54 SHEET: 14 OF 85
 PROJECT: RS-4328 (1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589

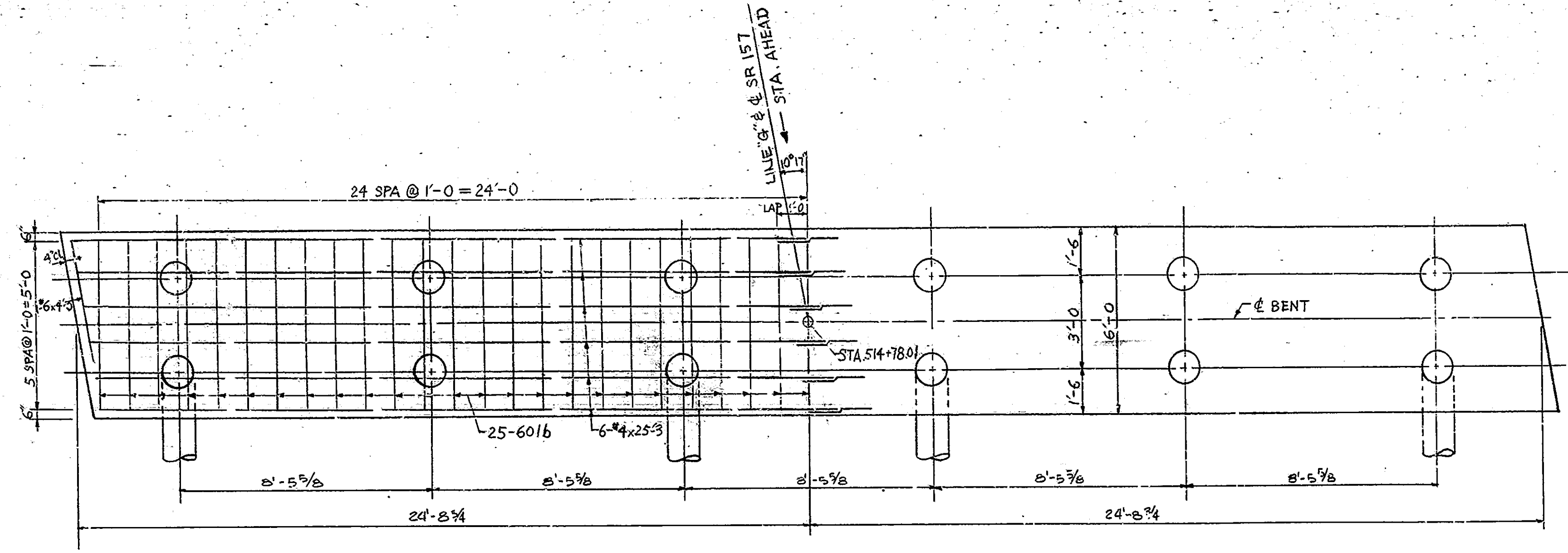


DESIGNED: CHA CKD: JES
 DRAWN: TED CKD: CHM
 TRACED: CKD

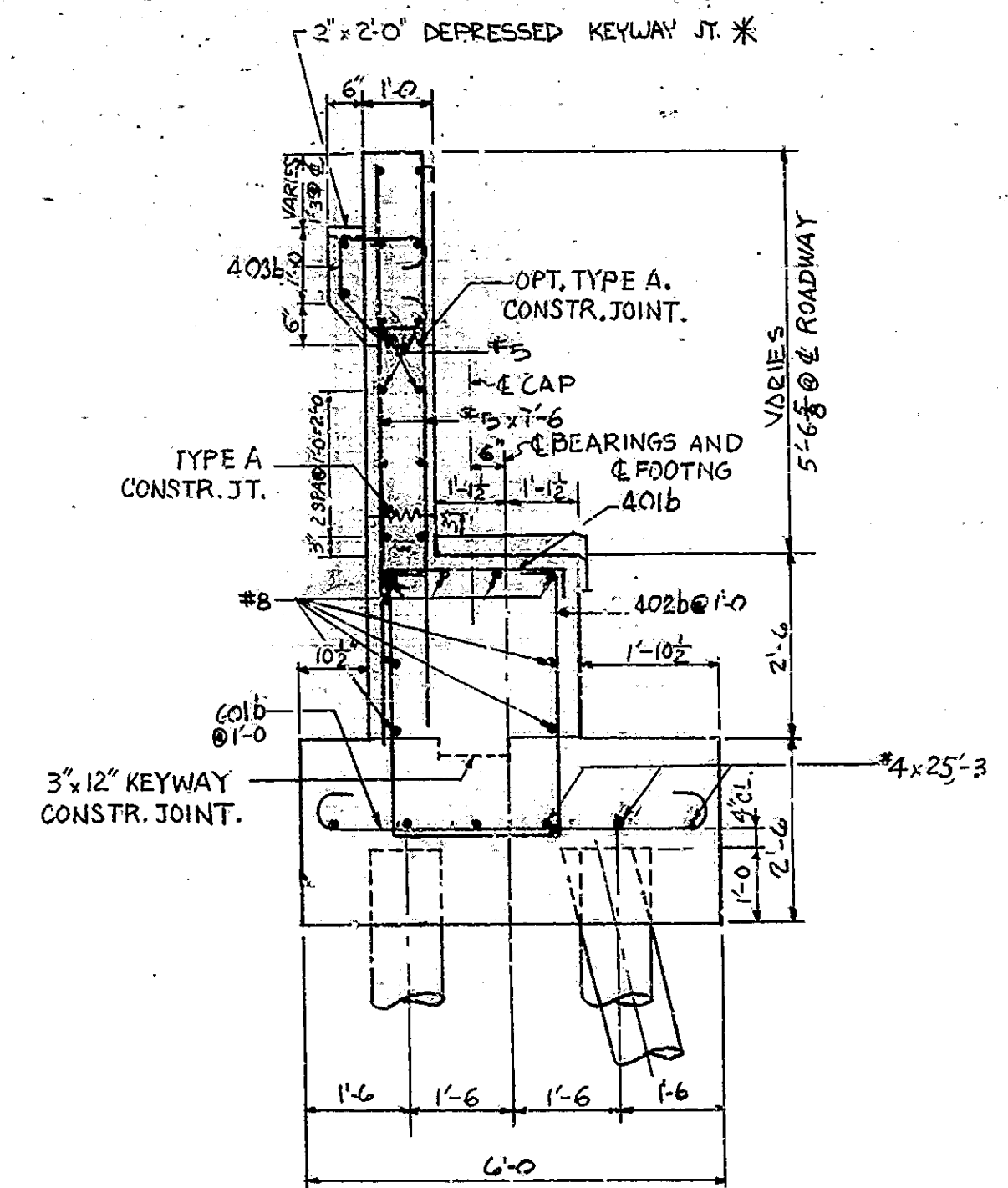
CHM 4-10-61

REV. 4-7-65 FOUNDATION SEALS BODED
 REV. 11-10-62 SAND FILL LIMIT

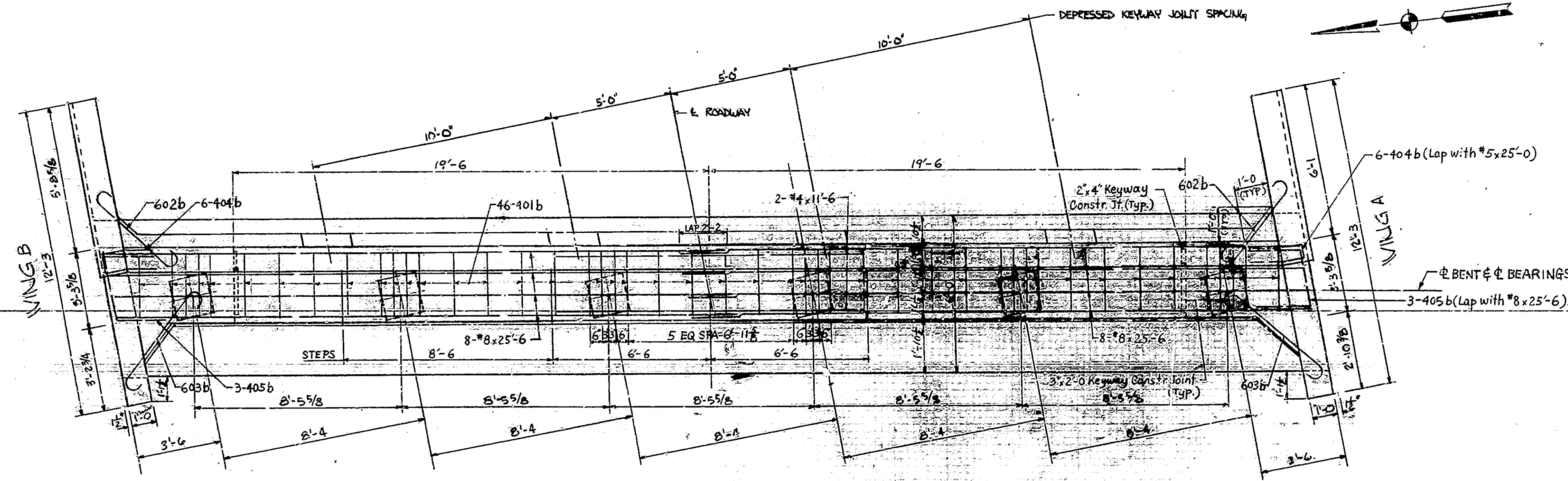
* TROWEL SMOOTH AND COVER HORIZONTAL BEARING SURFACE WITH ONE LAYER OF ROOFING FELT (MEDIUM WEIGHT) AND PROVIDE 1/4" EXP. JT. MATERIAL ALONG VERTICAL FACES OF KEYWAYS.



BOTTOM OF FOOTING PLAN
SCALE: 3/8" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"



PLAN
SCALE: 3/8" = 1'-0"

NOTES

1. FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
2. MASONRY PLATES SHALL BE PRESET IN THE CONCRETE.
3. SEE DRAWING S19 FOR DETAILS OF MASONRY PLATE.
4. SETTING TOLERANCE OF MASONRY PLATE-LEVEL WITH TO NOT MORE THAN 1/16" BELOW TOP OF CONCRETE.
5. FOR ELEVATION, WING DETAILS AND FULL OF MATERIALS SEE DRAWING S6.
6. Back fill behind end bent shall not be placed until after superstructure has been erected.

BENT NO. 1 DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS SHOWN DATE: JANUARY 12, 1932

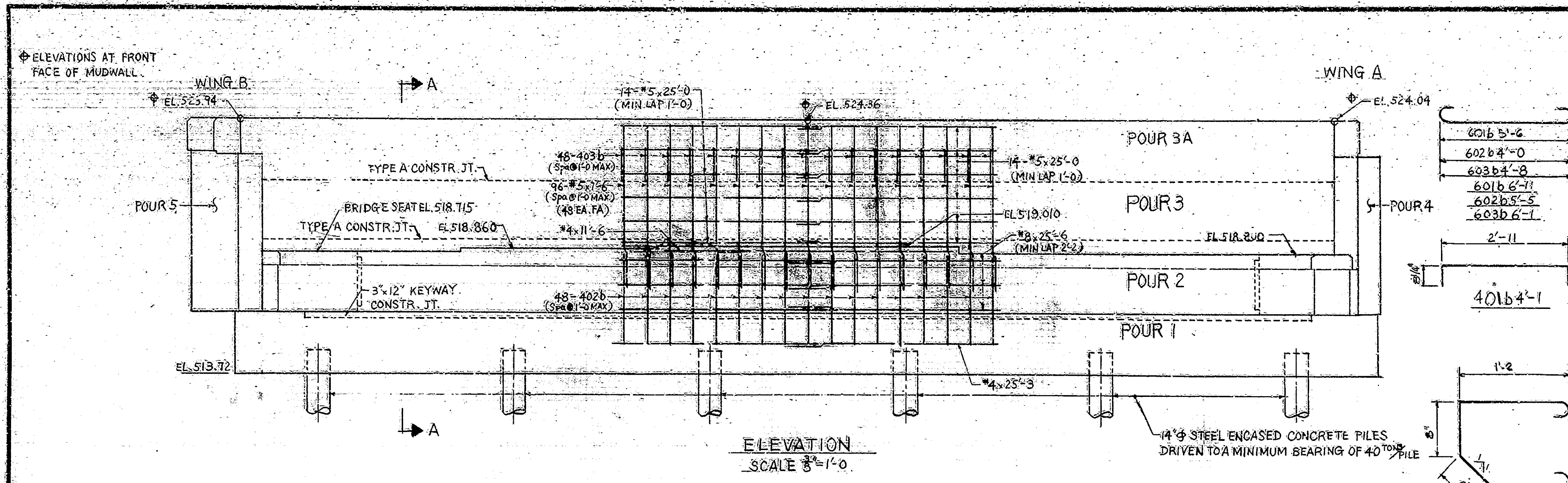
Ching Hsing Meng
SENIOR DESIGNER



DRAWING: 25 OF 34 SHEET: 15 OF 85
PROJECT: R.S. 432B (1)
CONTRACT NO. B-13777
BRIDGE FILE: 157-2-66588

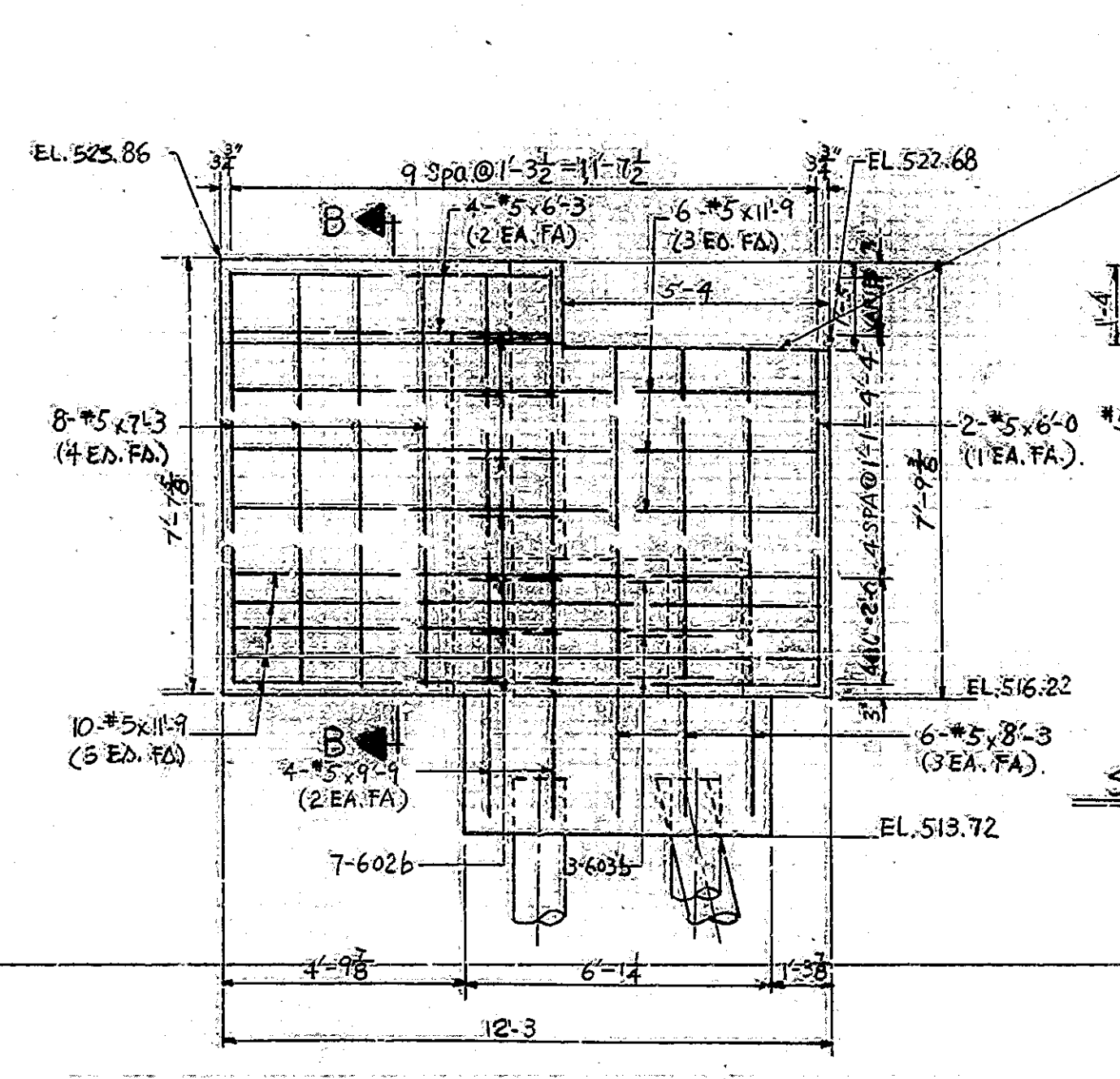
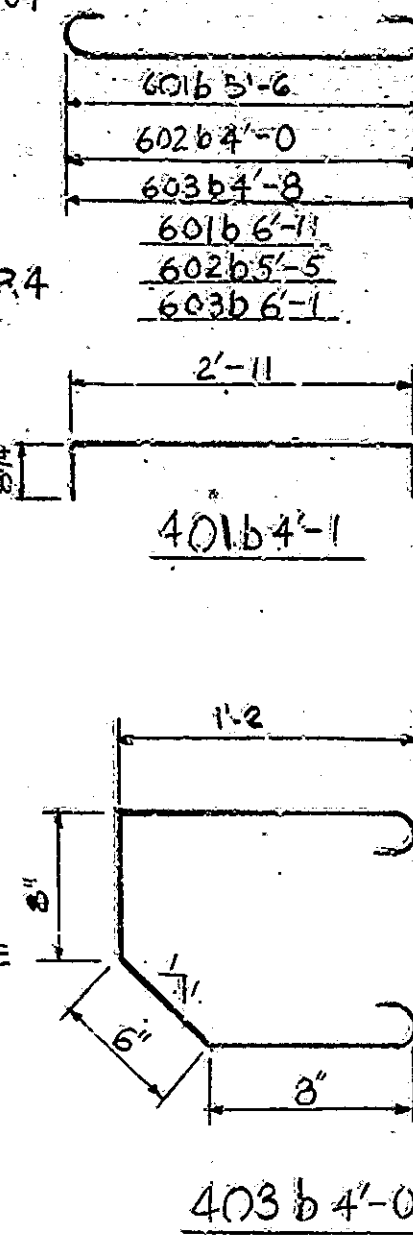
DESIGNED BY: GYC	CYD	CHKD BY: J.C.
DRAWN BY: GYC	CYD	CHKD BY: J.H.M.
TRACED BY: J.H.M.	CYD	CHKD BY: J.C.

CMM 4-2-31

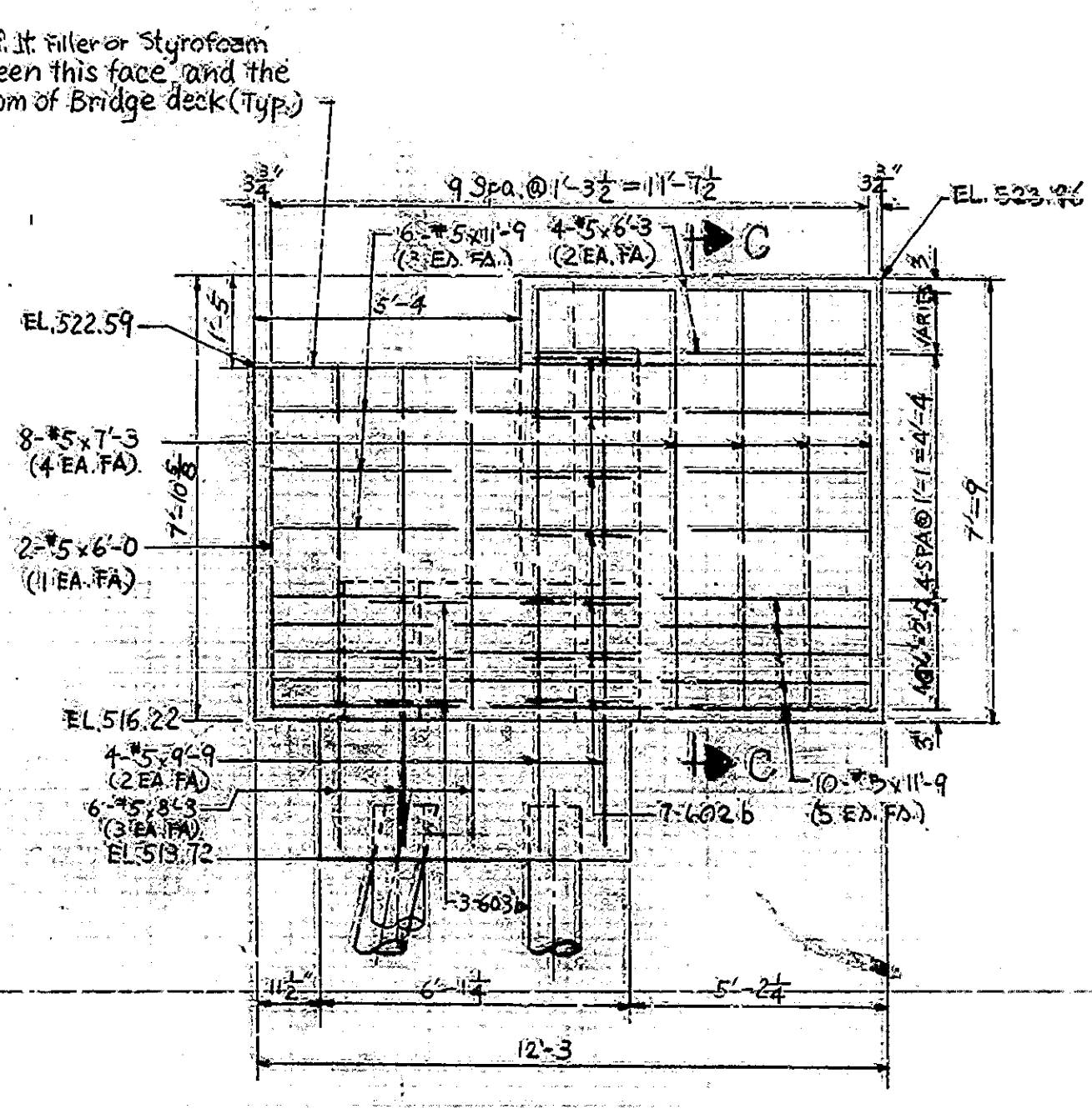


ELEVATION
SCALE 3/8"=1'-0"

14" STEEL ENCASED CONCRETE PILES
DRIVEN TO A MINIMUM BEARING OF 40 TONS/PILE



SECTION B-B
SCALE: 3/8"=1'-0"



SECTION C-C
SCALE: 3/8"=1'-0"

ELEVATION WING B
SCALE: 3/8"=1'-0"

ELEVATION WING A
SCALE: 3/8"=1'-0"

BILL OF MATERIALS

SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (LBS)
#8	16	28'-6"	
TOTAL NO. 8			1089
601b	49	6'-11"	
602b	14	5'-5"	
603b	6	6'-1"	
#6	2	4'-0"	
TOTAL NO. 6			690
#5	28	25'-0"	
#5	32	11'-9"	
#5	8	9'-9"	
#5	12	8'-3"	
#5	96	7'-6"	
#5	16	7'-3"	
#5	8	6'-3"	
#5	4	6'-0"	
TOTAL NO. 5			2255
401b	46	4'-1"	
402b	48	10'-9"	
403b	48	4'-0"	
404b	12	5'-2"	
405b	6	7'-5"	
#4	12	25'-3"	
#4	2	11'-6"	
TOTAL NO. 4			887
TOTAL REINFORCING STEEL			4922
CONCRETE			
CLASS B IN FOOTING	POUR 1		27.5 CY
CLASS A	POUR 2		12.9 CY
CLASS A	POUR 3		4.4 CY
CLASS A	POUR 3A		5.6 CY
CLASS A	POUR 4		5.0 CY
CLASS A	POUR 5		5.0 CY
TOTAL CLASS A			32.9 CY
MISCELLANEOUS			
12-100 x 70A STEEL ENCASED CONC.			
PILE 40" AVERAGE LENGTH			480 L.F.
125K EXPANSION			
BEARING ASSEMBLIES			6 EACH
SURFACE SEAL			434 SF

NOTE

FOR DETAILS OF SECTION A-A SEE DRAWING 55

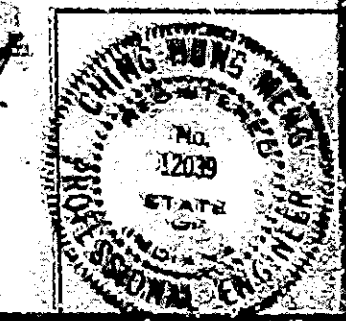
BENT NO. 1 DETAILS & BILL OF MATERIALS
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS SHOWN

DATE: JANUARY 12, 1982

Ching Dennis Meng
SENIOR DESIGNER

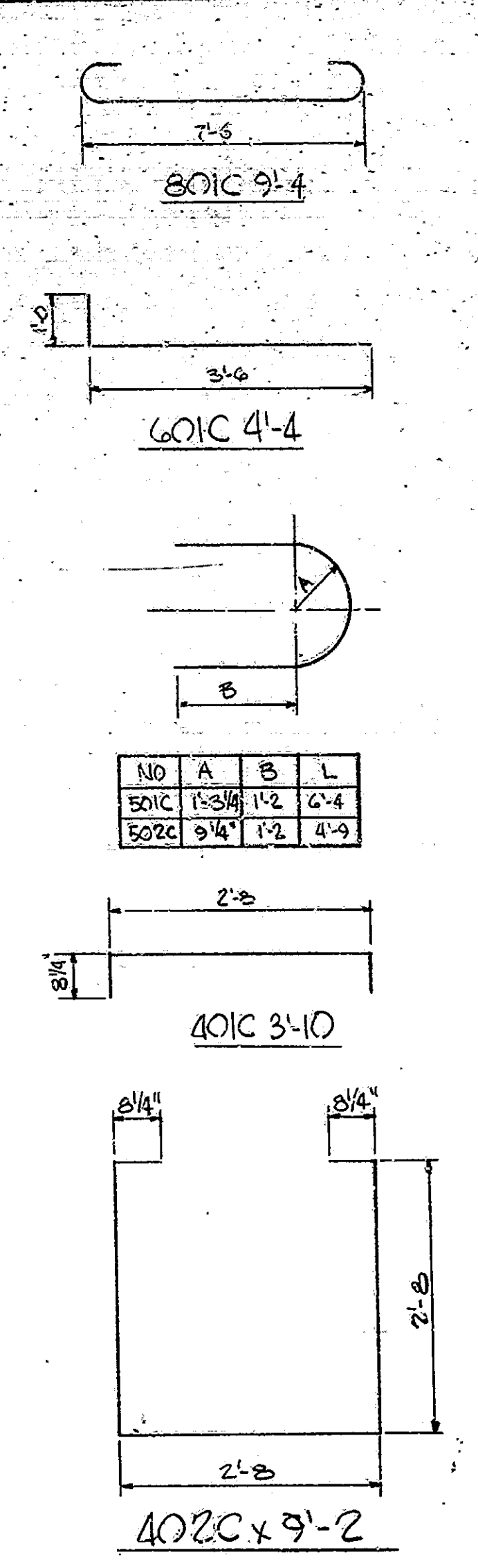
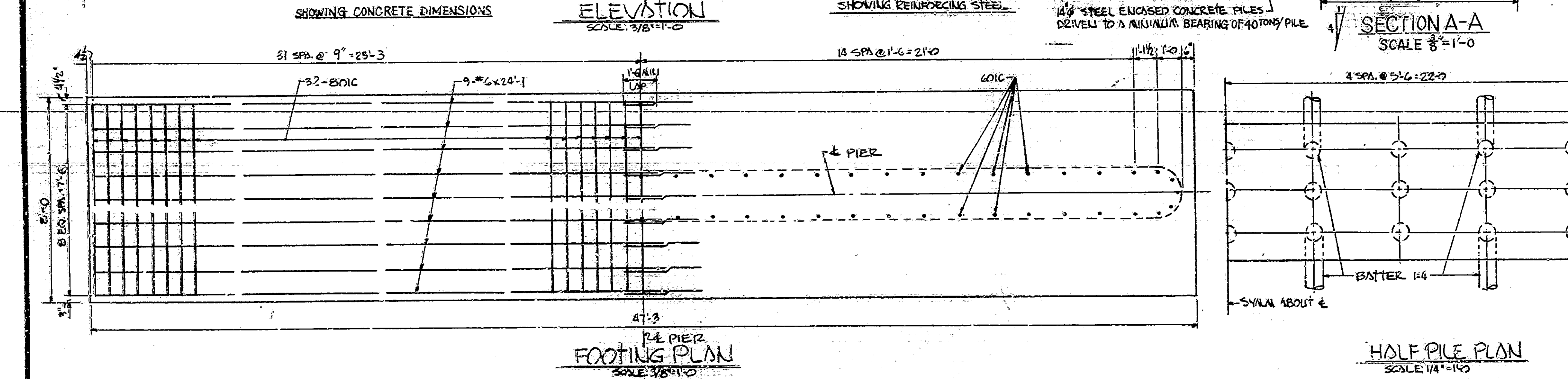
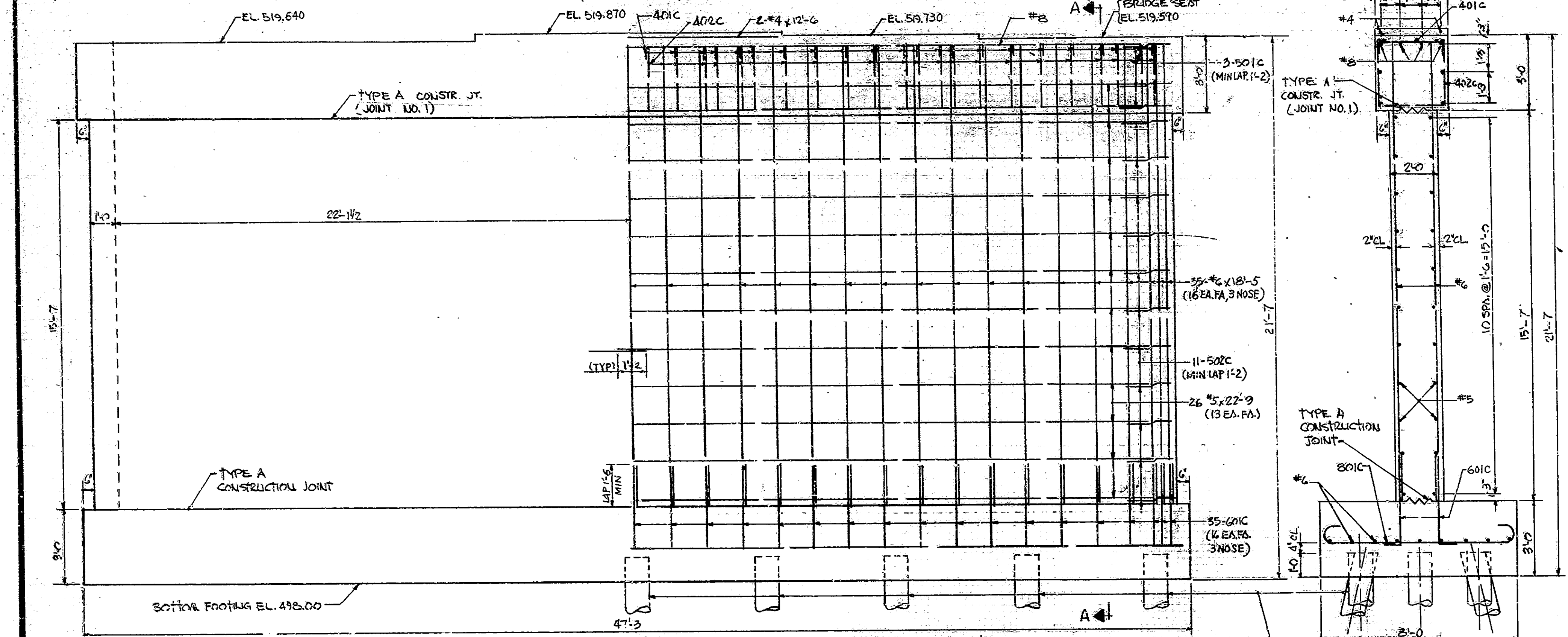
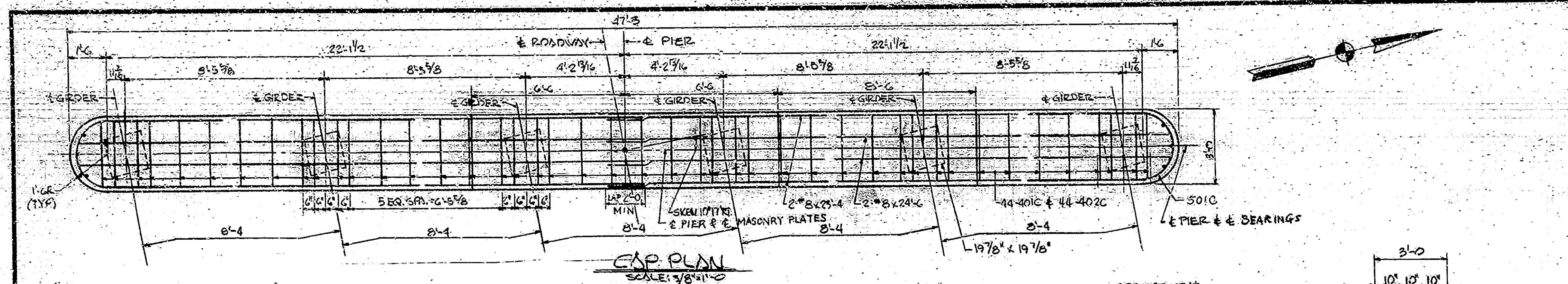
DRAWING: 56 OF 37 SHEETS: 16 OF 85
PROJECT: RS-4328(1)
CONTRACT NO. 3-13779
BRIDGE FILE: 157-28-1369



DESIGNED	G.Y.C.	C.W.D.	J.P.L.
DRAWN	G.Y.C.	C.W.D.	C.H.P.
TRACED	J.B.W.	C.W.D.	J.P.L.

CHM 9-2-81

REV. 11-10-81 NOTES
REV. 11-21-81 BEARING ASSEMBLIES



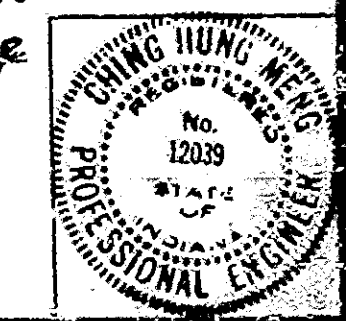
BILL OF MATERIALS

REINFORCING STEEL			
BAR # SIZE	NO OF BARS	LENGTH	WEIGHT (LBS)
#8	63	9'-4"	
#8	4	24'-6"	
#8	4	23'-4"	
TOTAL NO. 8			2081
601C	68	4'-4"	
#6	18	24'-4"	
#6	68	18'-5"	
TOTAL NO. 6			2975
501C	6	4'-3"	
502C	22	4'-9"	
#5	52	22'-9"	
TOTAL NO. 5			1381
401C	44	3'-10"	
402C	44	9'-2"	
#4	2	12'-6"	
TOTAL NO. 4			399
TOTAL REINFORCING STEEL			6236
CONCRETE			
CLASS 3 IN CAP	16.2 CY'S		
CLASS 3 ABOVE FOOTING	52.9 CY'S		
CLASS 3 IN FOOTING	42.0 CY'S		
MISCELLANEOUS			
27-14" x 8" #7 GAGE STEEL ENCASED			
CONCRETE PILES, 30" DIA. (EAL)	210 LFT.		
300K FIXED BEARING ASSEMBLIES	6 EACH		
SURFACE SEAL	140 SF		

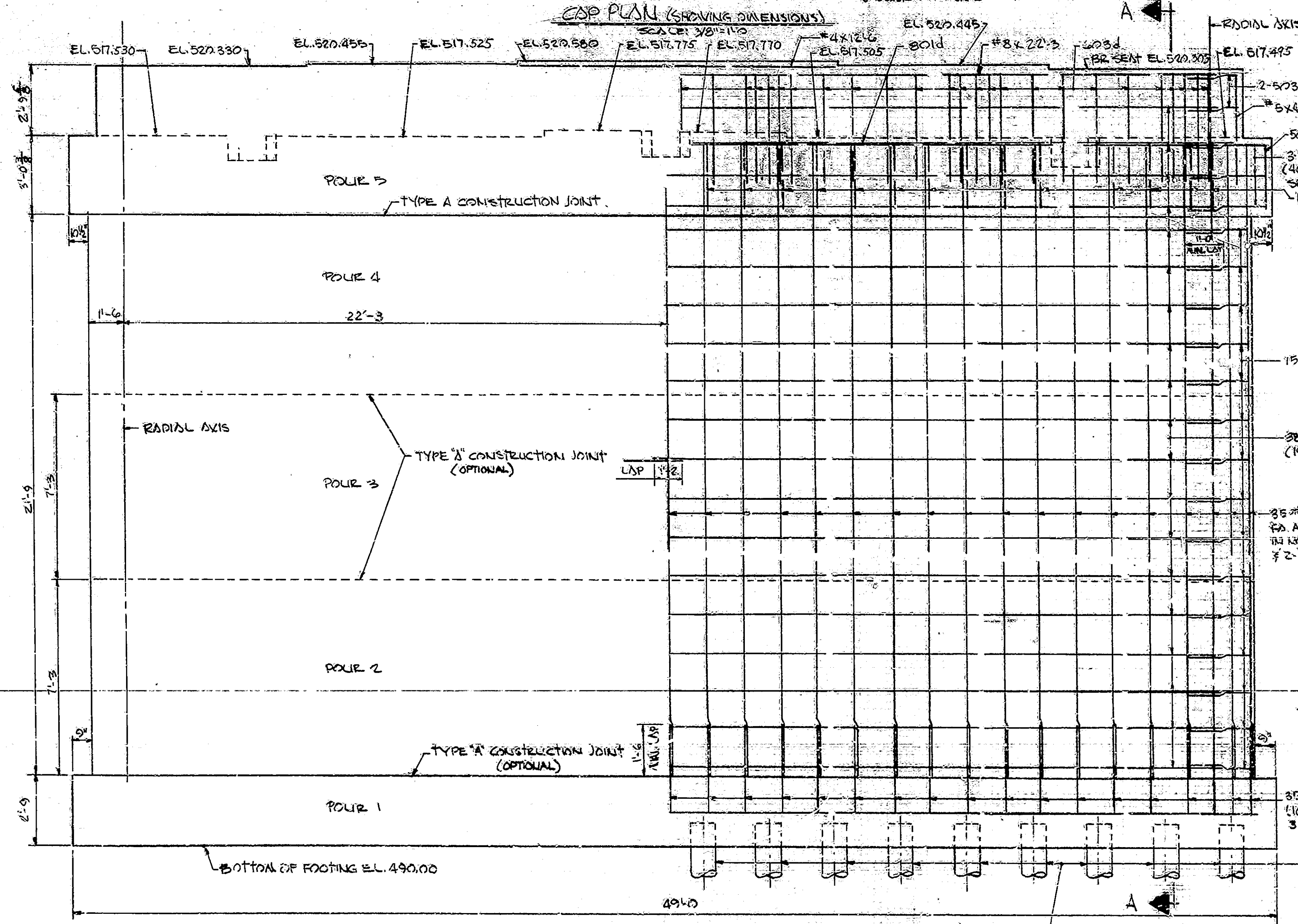
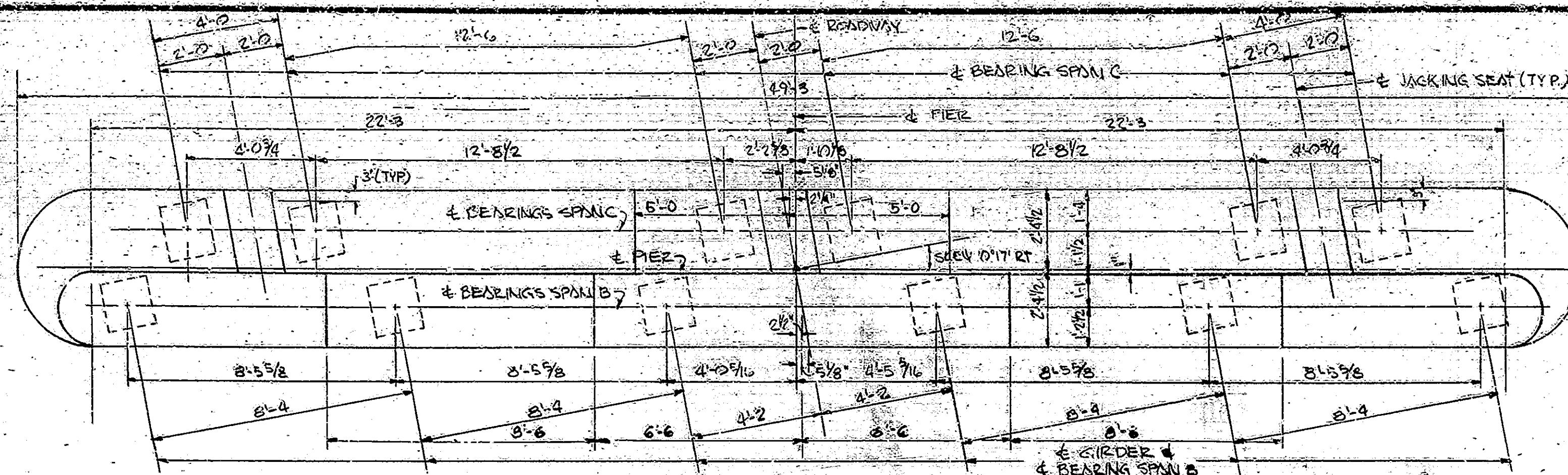
- NOTES:
- FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
 - MASONRY PLATES SHALL BE PRESET IN THE CONCRETE.
 - SEE DRAWING S19 FOR DETAILS OF MASONRY PLATE.
 - SETTLING TOLERANCE OF MASONRY PLATE LEVEL WITH TO NOT MORE THAN 1/8" BELOW TOP OF CONCRETE.

PIER NO. 2 DETAILS AND BILL OF MATERIAL
INDIANA STATE HIGHWAY COMMISSION

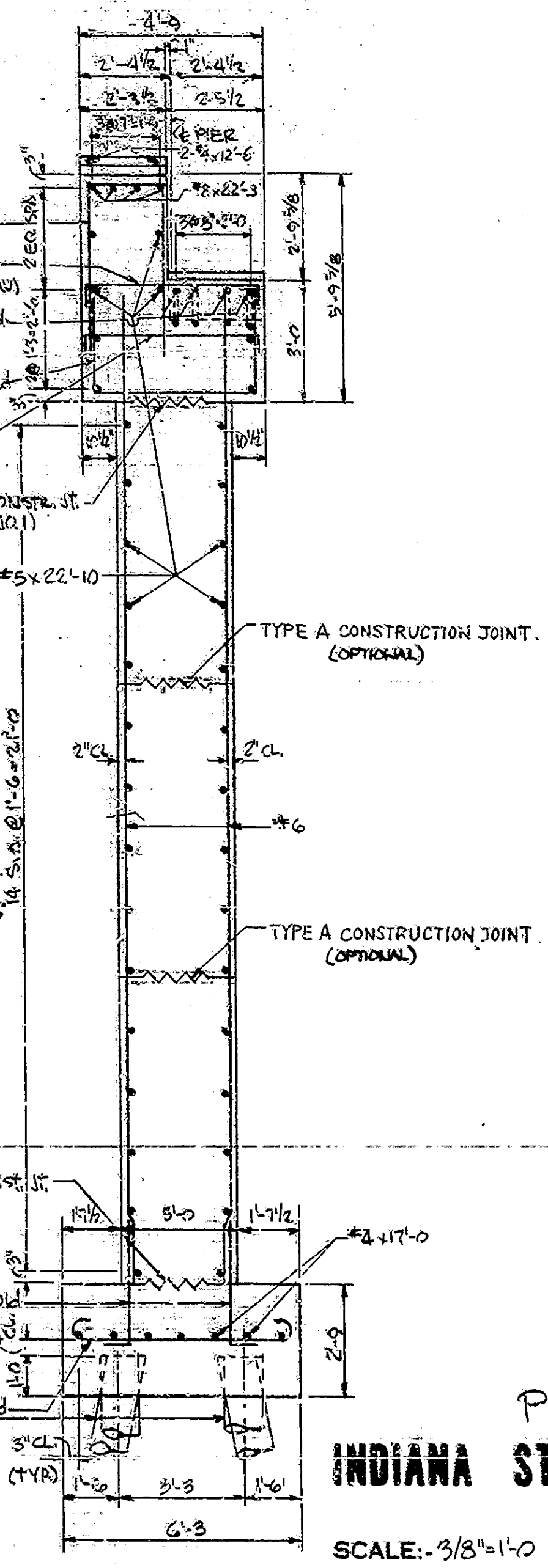
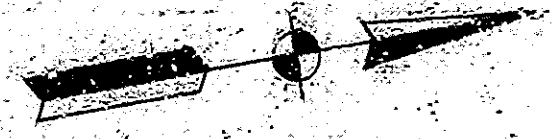
SCALE: AS SHOWN
 DATE: JANUARY 14, 1982
Ching Hsing Wang
 SENIOR DESIGNER
 DRAWING: 57 OF 34 SHEET: 17 OF 85
 PROJECT: RS-4328(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589



DESIGNED: V.J. CKD BYC
 DRAWN: BYC CKD V.J. 9-14-81
 TRACED: EA-11/64/80 CKD BYC



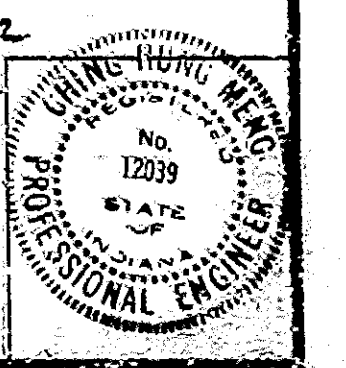
PIER ELEVATION



SECTION A-A

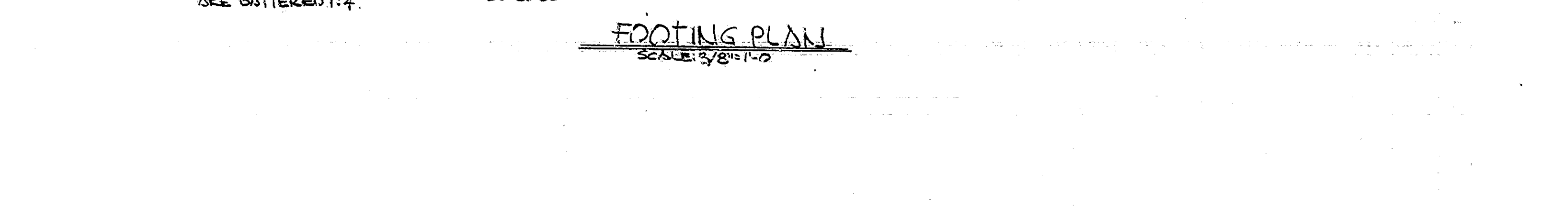
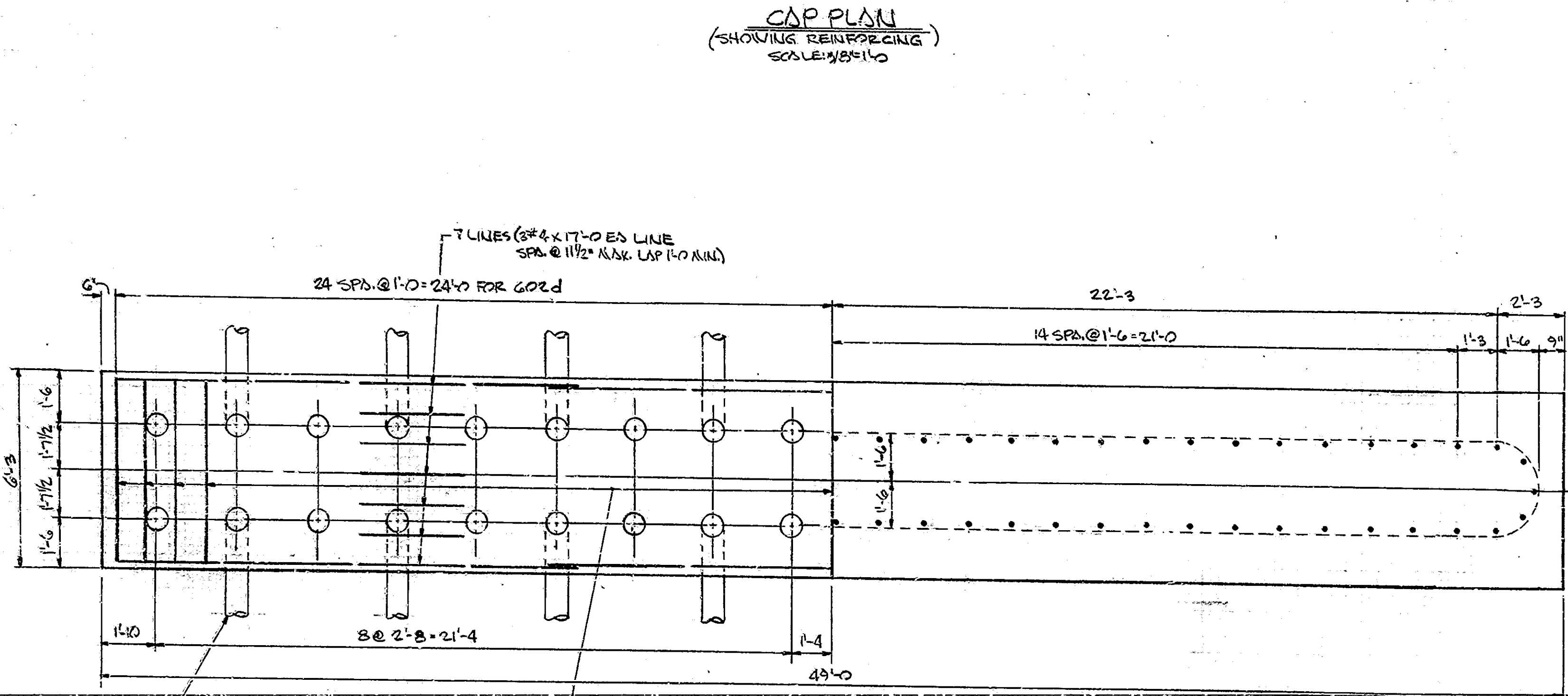
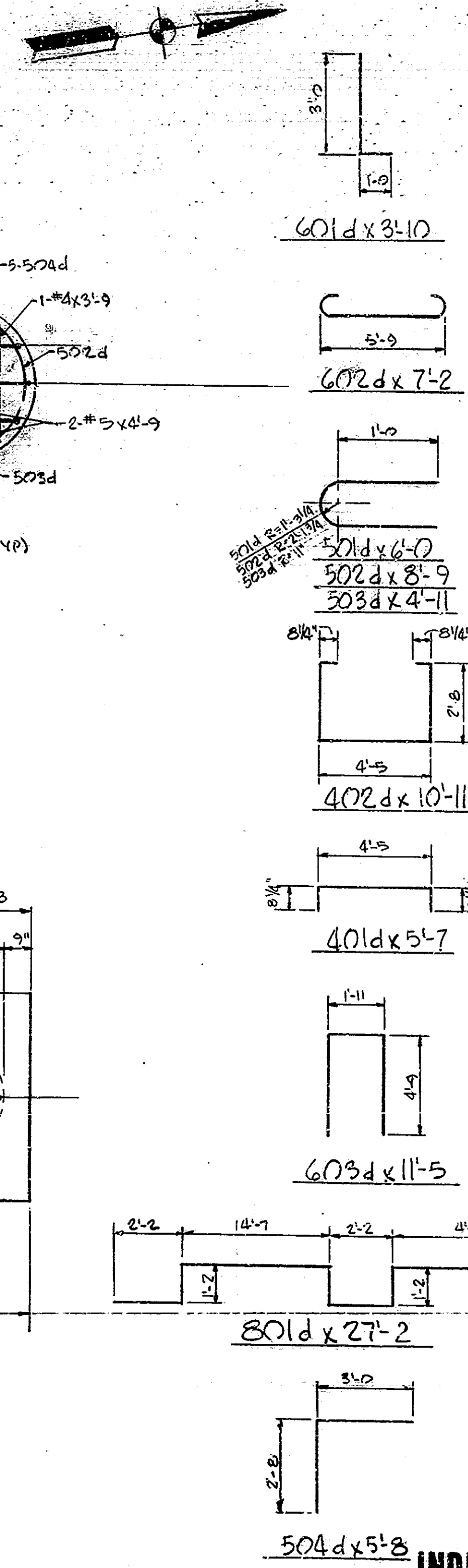
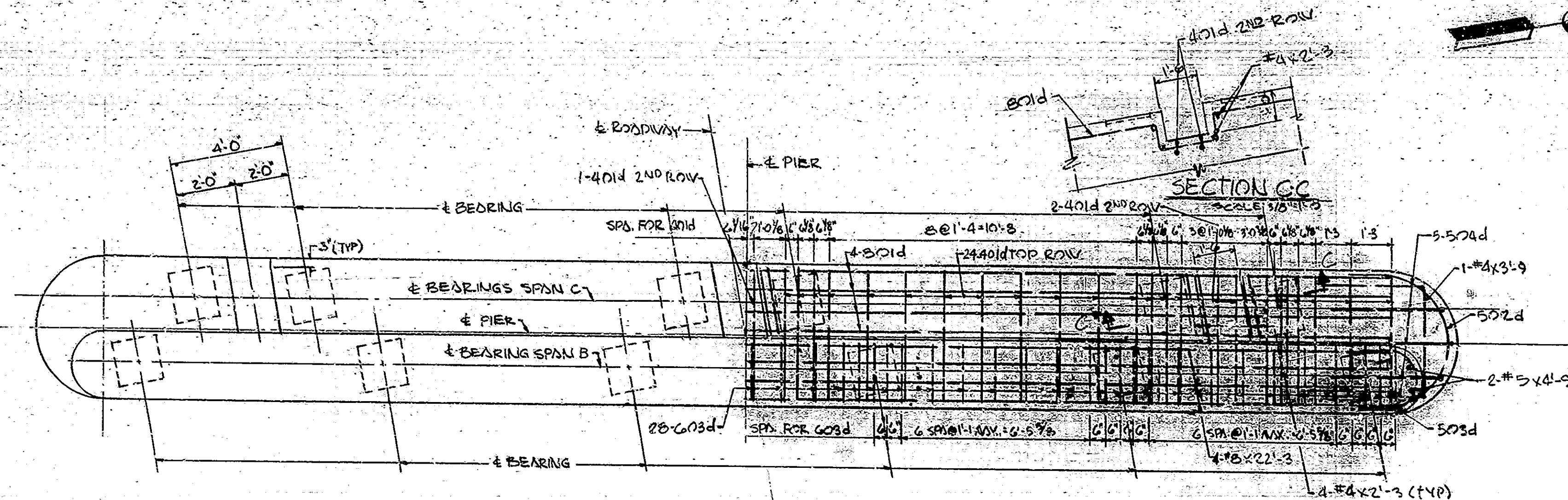
PIER NO. 3 DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: 3/8"=1'-0"
 DATE: JANUARY 12, 1982
Cheng Hsueh Meng
 SENIOR DESIGNER
 DRAWING: 58 OF 34 SHEET: 18 OF 85
 PROJECT: RS-4328(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-23-6589



DESIGNED BY: CKD
 DRAWN BY: CKD
 TRACED BY: J. A. B. 10-1-81
 CKD
 1-9-82

CHM 9-30-81

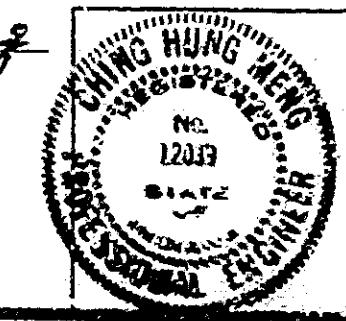


BILL OF MATERIALS			
REINFORCING STEEL			
SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (LBS.)
801d	8	27'-2	
#8	8	22'-3	
TOTAL NO. 8			1056
601d	68	3'-10	
602d	49	7'-2	
603d	55	11'-5	
#6	65	24'-6	
#6	3	23'-6	
TOTAL NO. 6			4360
501d	30	6'-0	
502d	6	8'-9	
503d	4	4'-11	
504d	10	5'-8	
#5	76	22'-10	
#5	4	4'-9	
TOTAL NO. 5			2152
401d	54	3'-7	
402d	28	10'-11	
#4	21	17'-0	
#4	2	12'-6	
#4	2	3'-9	
#4	12	2'-3	
TOTAL NO. 4			684
TOTAL REINFORCING STEEL			8252
CONCRETE			
CLASS B IN FOOTING POUR 1			31.2 CYS
CLASS B ABOVE FOOTING POUR 2			37.8 CYS
CLASS B ABOVE FOOTING POUR 3			37.8 CYS
CLASS B ABOVE FOOTING POUR 4			37.8 CYS
TOTAL CLASS B ABOVE FOOTING			113.4 CYS
CLASS A IN CAP POURS			36.7 CYS
MISCELLANEOUS			
36-14 3/8" #7 GAGE STEEL ENCASED			
CONCRETE PILES 30' AVE. LENGTH			1080 UN. FT.
200K EXPANSION BEARING ASSEMBLIES			6 EACH
125K EXPANSION BEARING ASSEMBLIES			6 EACH
SURFACE SEAL			369 FT ²

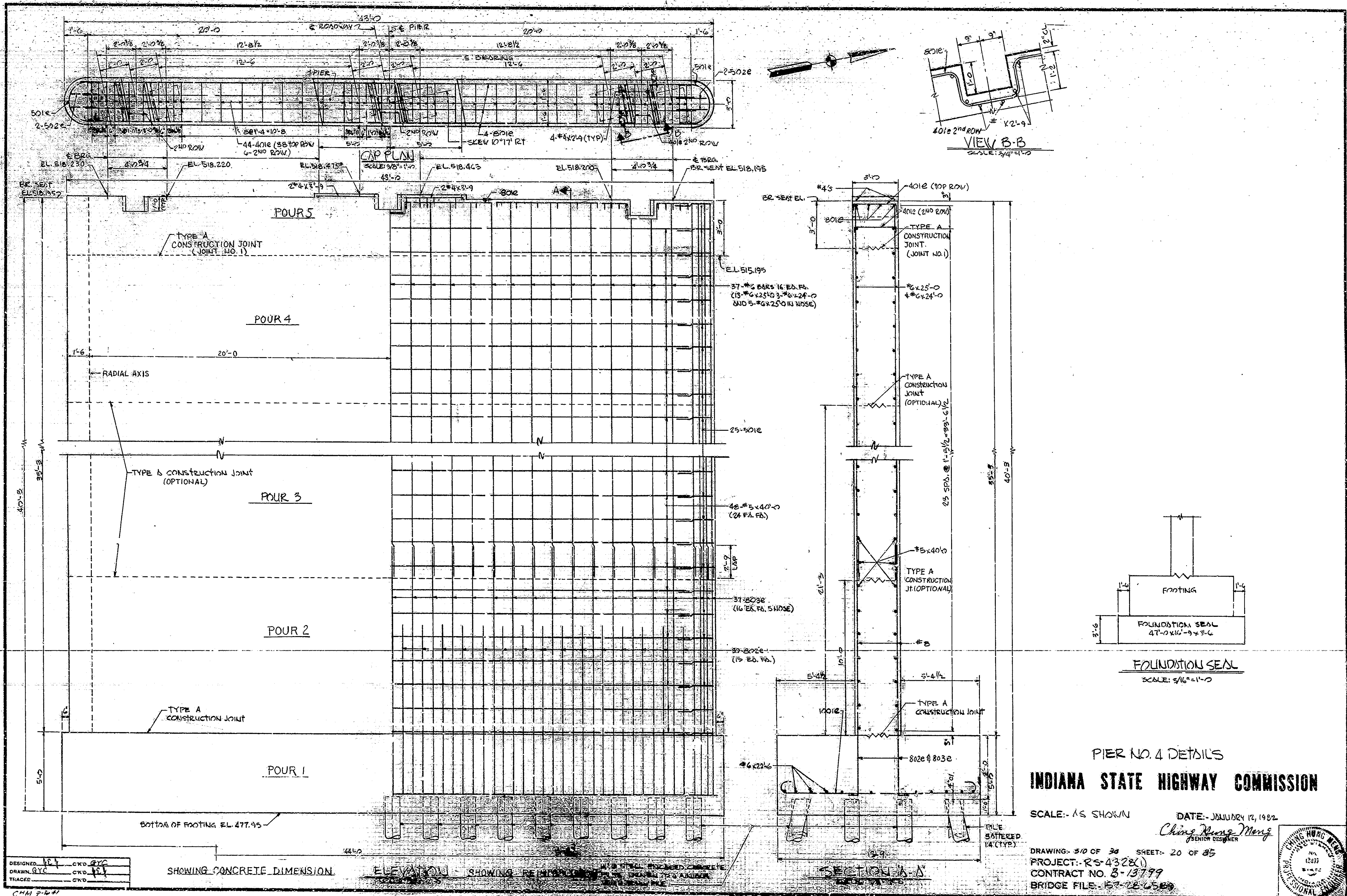
- NOTES
- FOR REINFORCING BAR NOTES SEE BRIDGE STANDARD C.
 - MASQUINE PLATES SHALL BE PRESET IN CONCRETE.
 - SEE DRAWING S13 AND S17 FOR DETAILS OF MASQUINE PLATES.
 - SETTING TOLERANCE OF MASQUINE PLATE LEVEL WITH TO NOT MORE THAN 1/4" BELOW TOP OF CONCRETE.

PIER NO. 3 DETAILS & BILL OF MATERIALS
INDIANA STATE HIGHWAY COMMISSION

SCALE: 3/8" = 1'-0"
 DATE: JANUARY 12, 1982
Ching Hung Meng
 SENIOR DESIGNER
 DRAWING: 59 OF 34 SHEET: 19 OF 85
 PROJECT: RS-4328(C)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589



DESIGNED BY GYC CKD VJ
 DRAWN BY JES CKD GYC
 TRACED BY JES CKD GYC
 CHM 9-30-81



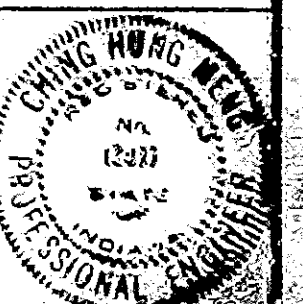
DESIGNED: JCY
 DRAWN: BJC
 TRACED: GND

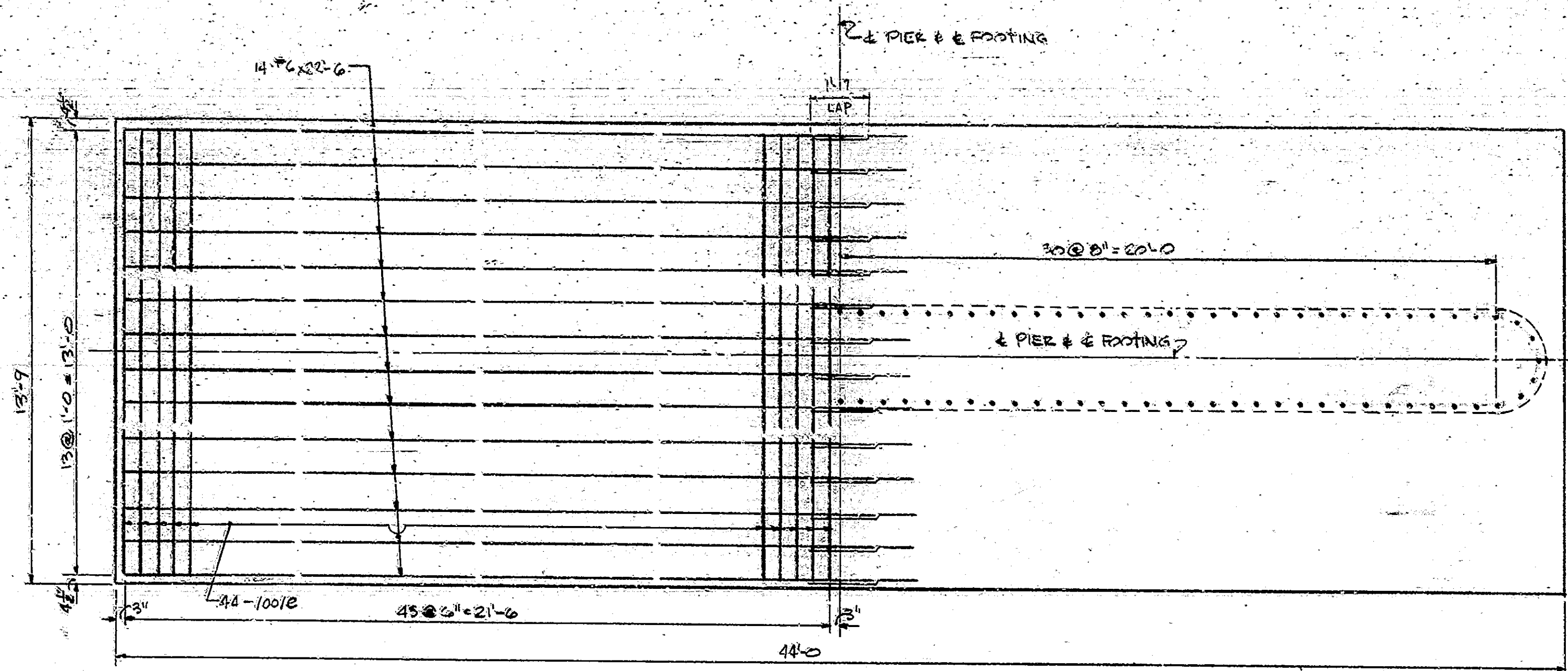
SHOWING CONCRETE DIMENSION

ELEVATION SHOWING REINFORCEMENT

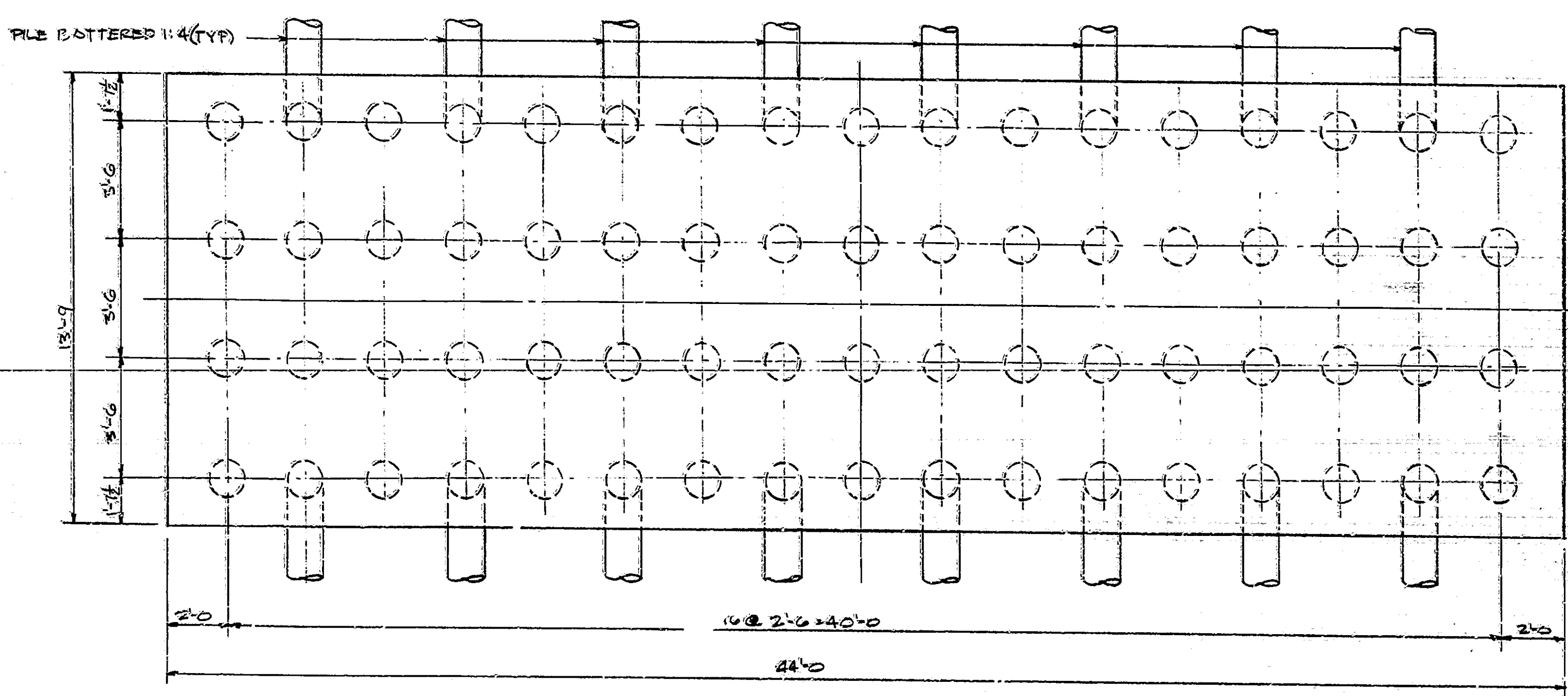
FILE BATTERED (A) (TYP)

DRAWING: 510 OF 30 SHEET: 20 OF 35
 PROJECT: RS-4328(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-12-6580

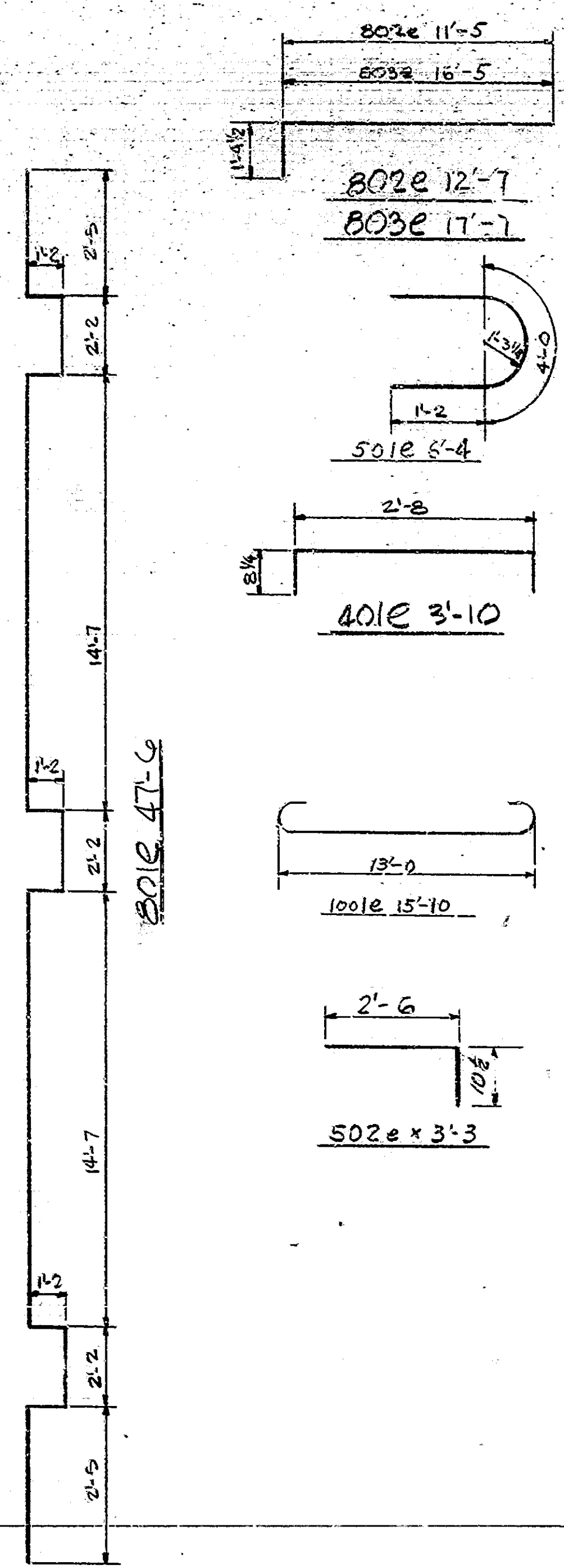




FOOTING PLAN
SCALE: 3/8"=1'-0"



FOOTING PILE PLAN
SCALE: 3/8"=1'-0"



BILL OF MATERIALS

SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT LBS.
1001e	88	15'-10"	5996
TOTAL NO.10			5996
801e	4	47'-6"	
802e	60	12'-7"	
803e	72	17'-7"	
TOTAL NO.8			3903
#6	62	25'-0"	
#6	10	24'-0"	
#6	28	32'-6"	
TOTAL NO.6			3635
501e	50	6'-4"	
502e	4	3'-3"	
#5	18	40'-0"	
TOTAL NO.5			2347
401e	44	3'-10"	
#4	4	3'-9"	
#4	12	2'-9"	
TOTAL NO.4			145
TOTAL REINFORCING STEEL			18026
CONCRETE			CYDS
CLASS B IN FOOTING (POUR 1)			112.0
POUR 2 CLASS B			4.74
POUR 3 CLASS B			5.29
POUR 4 CLASS B			51.8
TOTAL CLASS B ABOVE FOOTING			151.8
CLASS A IN CAP (POUR 5)			13.9
CONCRETE, FOUNDATIONAL			102.0
MISCELLANEOUS			
500 K FIXED BEARING ASSEMBLIES			6 EACH
68-14" STEEL ENCASED CONC			
PILE STAGE, 30' AVERAGE LENGTH			2040 LFT
SURFACE SEAL			14.5 FT ²

NOTES

- FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
- MASONRY PLATES SHALL BE PRESET IN THE CONCRETE.
- SEE DRAWING SET FOR DETAILS OF MASONRY PLATE.
- SETTLING TOLERANCE OF MASONRY PLATE LEVEL WITH TO NOT MORE THAN 1/4" BELOW TOP OF CONCRETE.

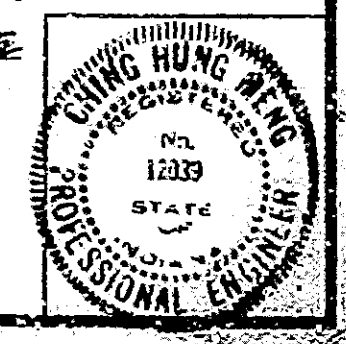
PIER NO.4 DETAILS AND BILL OF MATERIALS
INDIANA STATE HIGHWAY COMMISSION

SCALE: 3/8"=1'-0"

DATE: JANUARY 12, 1982

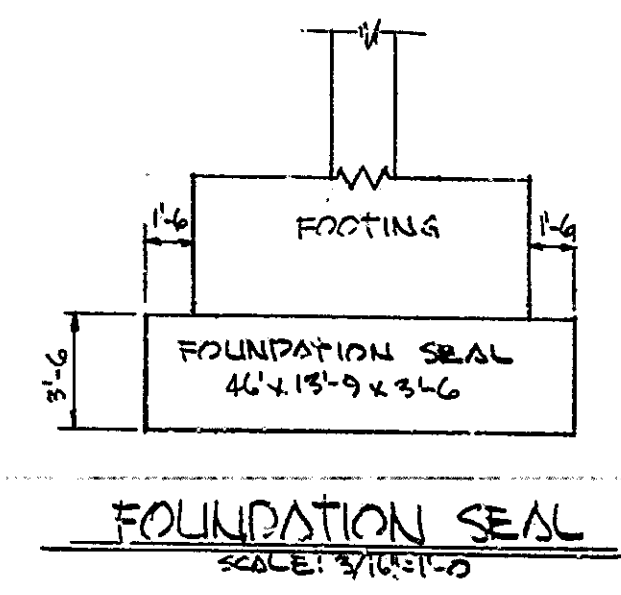
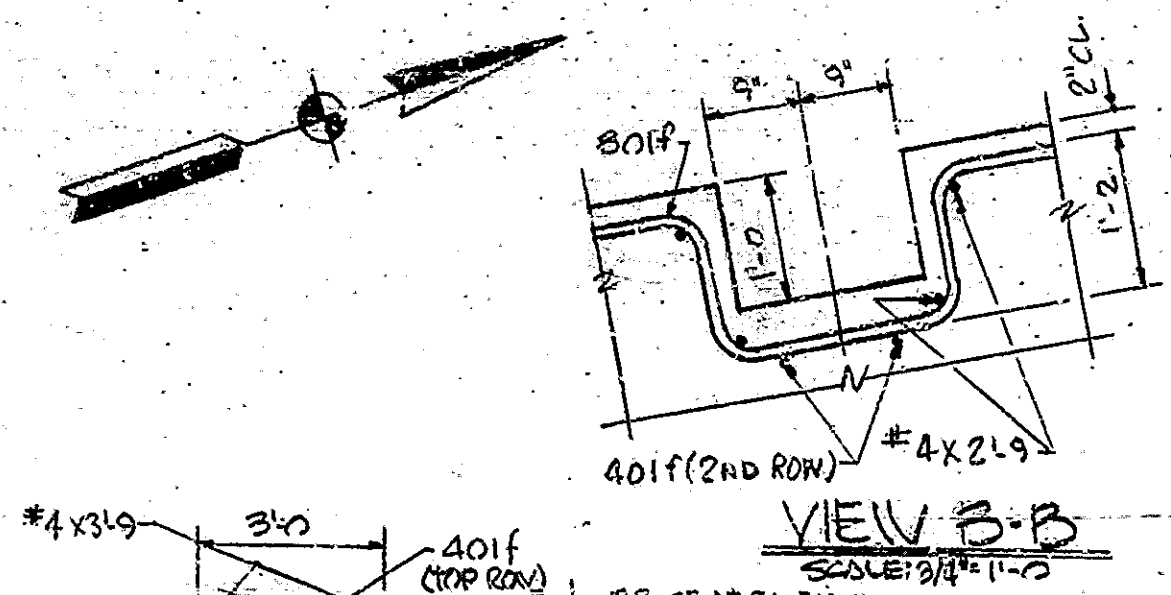
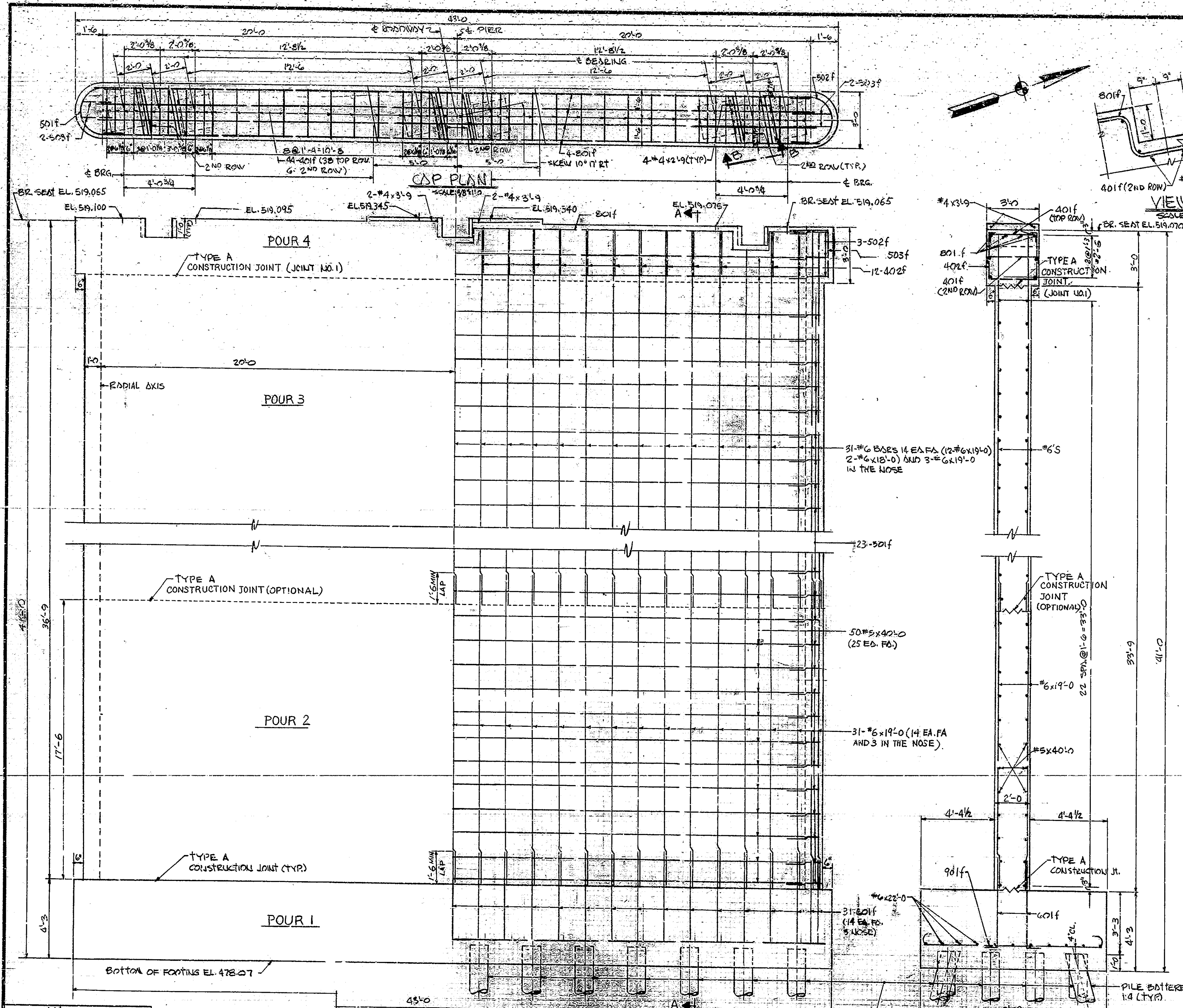
Ching Hung Meng
SENIOR DESIGNER

DRAWING: 54 OF 34 SHEET: 21 OF 85
PROJECT: RS-4323(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-23-6589



DESIGNED: JCV, CKD, GYC
DRAWN: GYC, JCV, CKD, GYC
TRACED: JCV, GYC, CKD, GYC, S-20
CHKD: JCV, S-20

REV. 6-7-85 BILL OF MATERIALS
1-28-83 REV. BEARING ASSEMBLIES



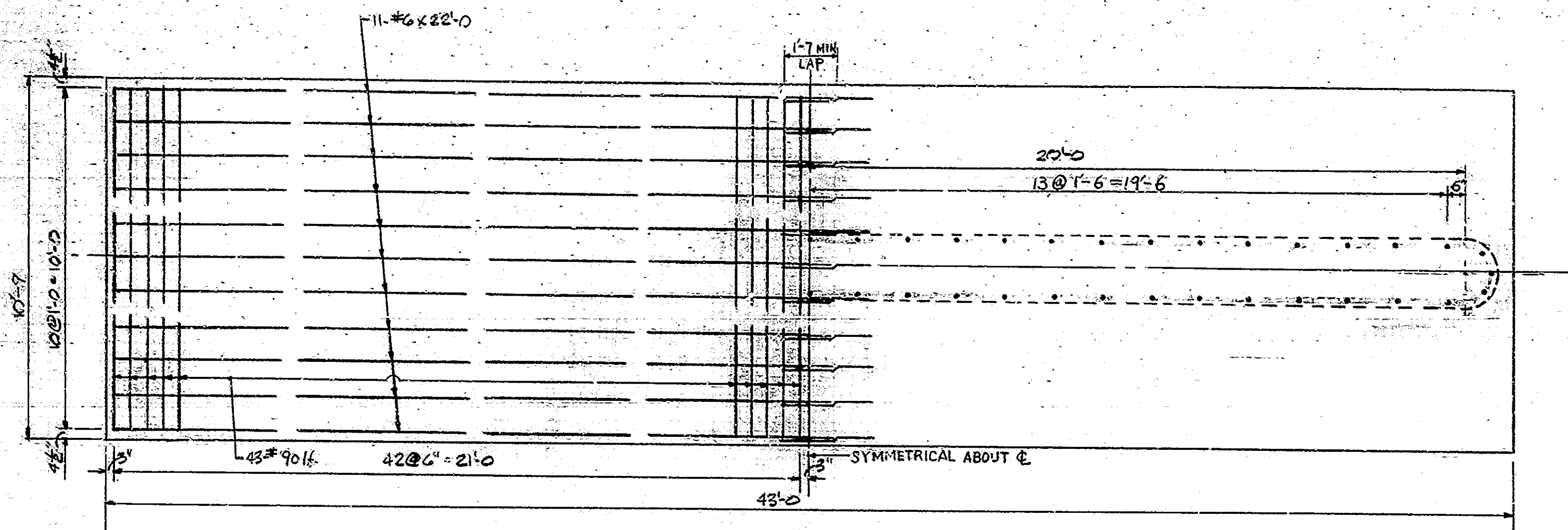
PIER NO. 5 DETAILS
INDIANA STATE HIGHWAY COMMISSION
 SCALE: 3/8"=1'-0"
 DATE: JANUARY 17, 1982
Ching Hwang Meng
 SENIOR DESIGNER
 DRAWING: 5/2 OF 34 SHEET: 22 OF 85
 PROJECT: 25-4328(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589

DESIGNED: *BYC* CKD: *BYC*
 DRAWN: *BYC* CKD: *BYC*
 TRACED: *BYC* CKD: *BYC*

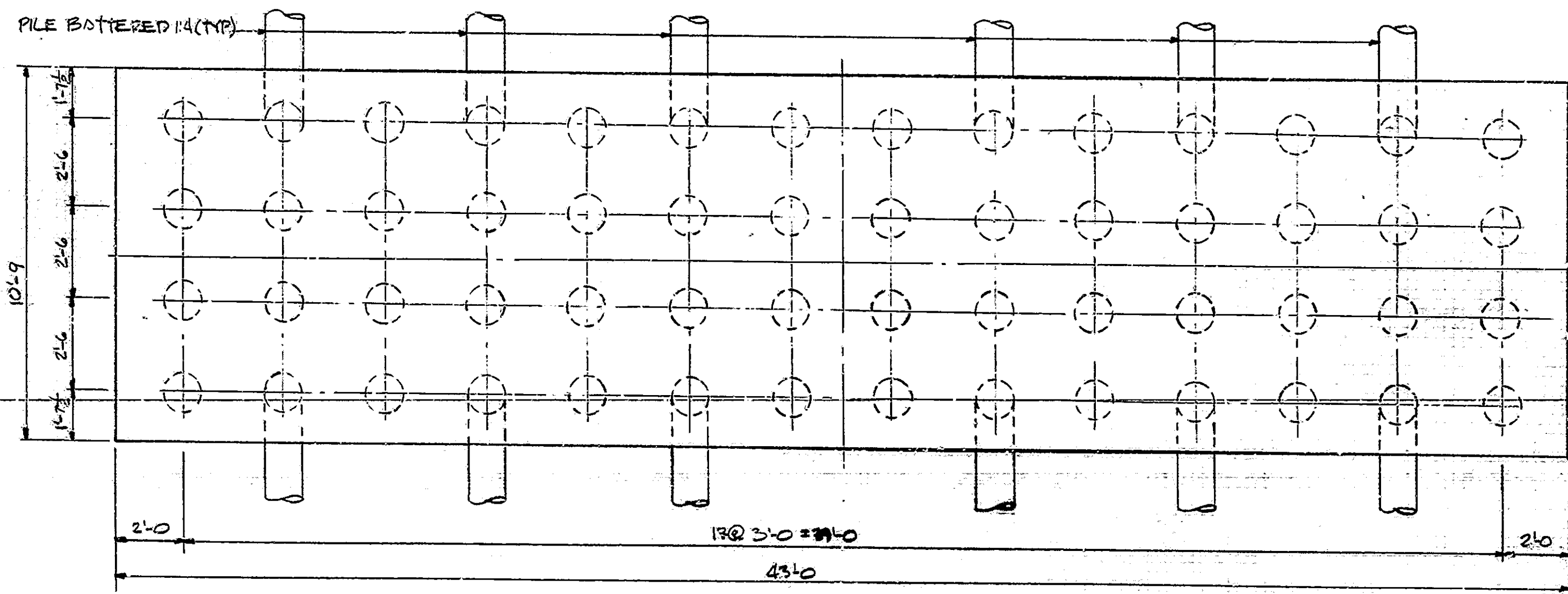
SHOWING CONCRETE DIMENSIONS ELEVATION SHOWING REINFORCEMENT

14" Steel Encased Concrete Piles
 Driven to a Minimum of 40' Depth

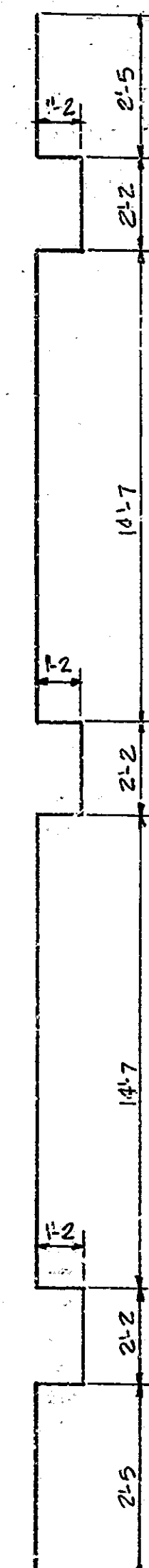




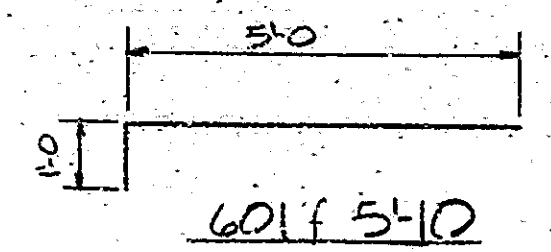
FOOTING PLAN
SCALE: 3/8"=1'-0"



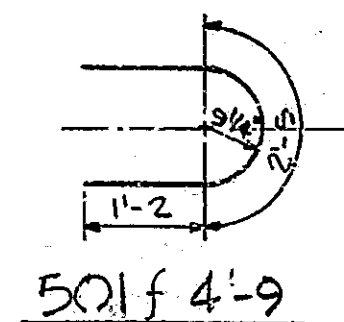
FOOTING PILE PLAN
SCALE: 3/8"=1'-0"



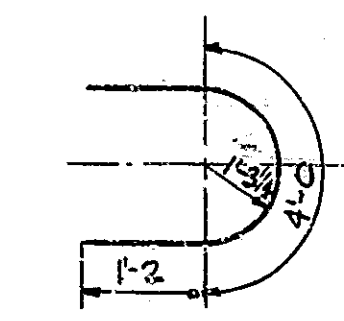
801f x 47'-6
2'-6
2'-8
503f x 5'-2



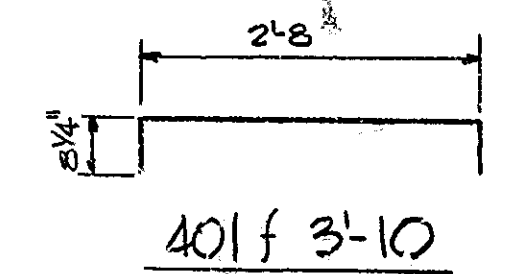
601f 5'-10



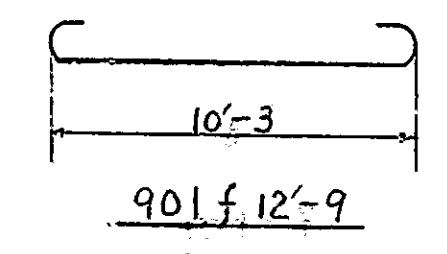
501f 4'-9



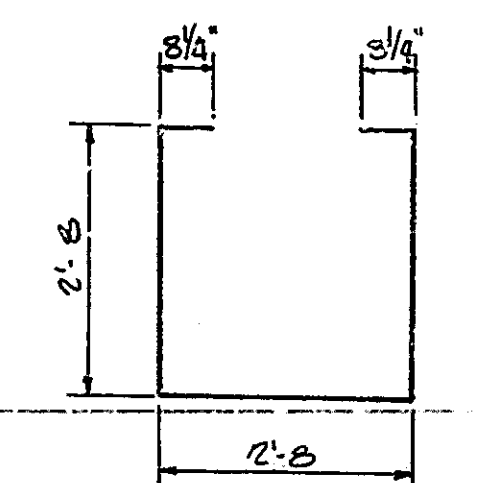
502f 6'-4



401f 3'-10



901f 12'-9



402f 9'-2

BILL OF MATERIALS

SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT LBS
901f	86	12'-9"	
TOTAL NO. 9			3728
801f	4	47'-6"	
TOTAL NO. 8			507
601f	60	5'-10"	
#6	22	22'-0"	
#6	114	19'-0"	
#6	6	18'-0"	
TOTAL NO. 6			4668
501f	46	4'-9"	
503f	6	6'-4"	
503f	4	5'-2"	
#5	50	40'-0"	
TOTAL NO. 5			2375
401f	47	3'-10"	
402f	24	9'-2"	
#4	4	3'-9"	
#4	12	2'-9"	
TOTAL NO. 4			292
TOTAL REINFORCING STEEL			11570
CONCRETE			CYS
CLASS B IN FOOTING (POUR 1)			72.8
POUR 2			53.9
POUR 3			50.0
TOTAL CLASS B ABOVE FOOTING			103.9
CLASS A IN SUPERSTRUCTURE (POUR 4)			14.0
CONCRETE FOUNDATION SEAL			82.0
MISCELLANEOUS			
500K EXPANSION BEARING ASSEMBLIES			6 EACH
COFFERDAM			1 L SUM
56-14" STEEL ENCASED CONCRETE			
PILE #7 GAGE 30 AVERAGE LENGTH			1680 LFT
SURFACE SEAL			12.7 FT

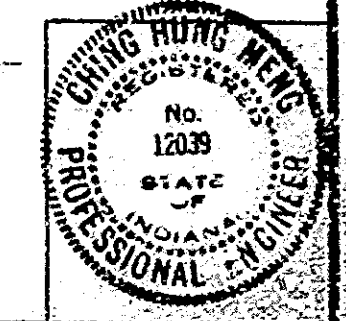
NOTES

1. FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
2. MASONRY PLATES SHALL BE PRESENT IN THE CONCRETE.
3. SEE DRAWING SET FOR DETAILS OF MASONRY PLATE.
4. SETTING TOLERANCE OF MASONRY PLATE LEVEL WITH TO NOT MORE THAN 1/16" BELOW TOP OF CONCRETE.

PIER NO. 5 DETAILS AND BILL OF MATERIALS
INDIANA STATE HIGHWAY COMMISSION

SCALE: 3/8"=1'-0" DATE: JANUARY 12, 1982

Cheng Kung Meng
SENIOR DESIGNER

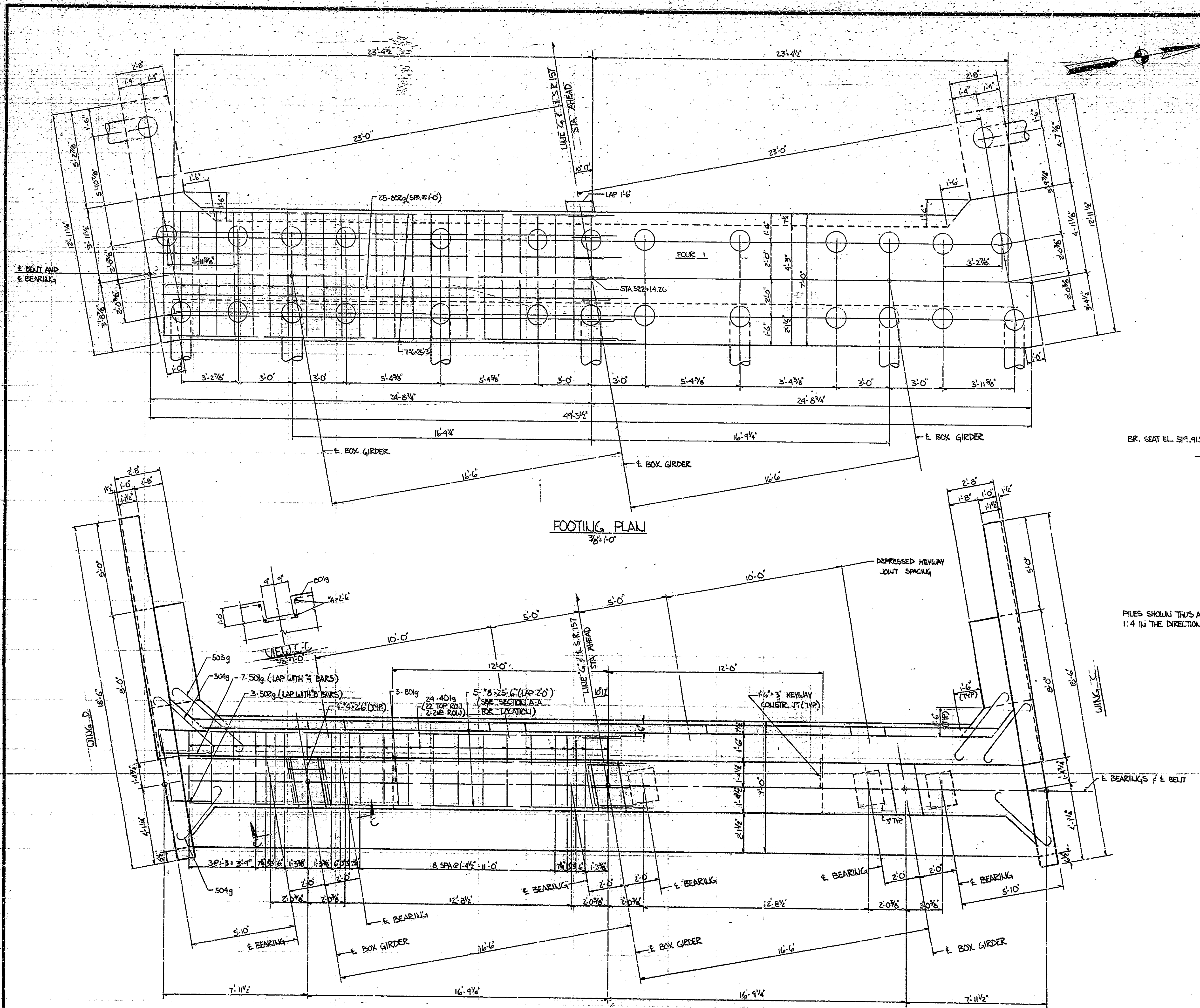


DRAWING: 5/3 OF 34 SHEET- 23 OF 85
PROJECT: RS-432B(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-23-6589

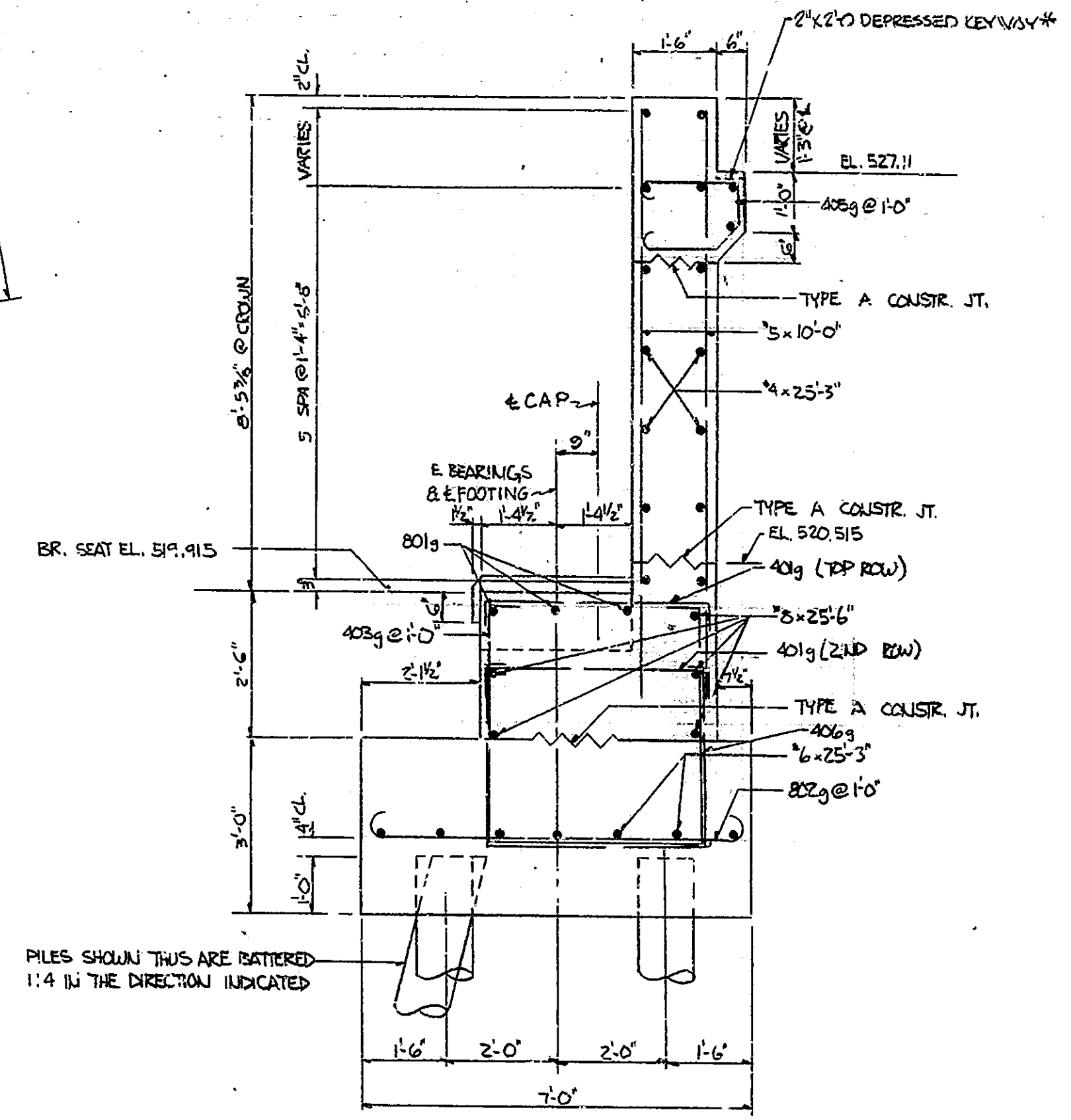
DESIGNED: LKJ CKD: SYC
DRAWN: AVY CKD: VTB
TRACED: JEA CKD: VTB

REV 4-78: BILL OF MATERIALS
1-28-83: REV. BEARING ASSEMBLIES

CMA 9-21-81



*TROWEL SMOOTH & COVER HORIZONTAL BEARING SURFACE WITH ONE LAYER OF ROOFING FELT (MED WEIGHT) & PROVIDE 1/4" EXP. JT. MATERIAL ALONG VERTICAL FACES OF KEYWAY.



NOTES

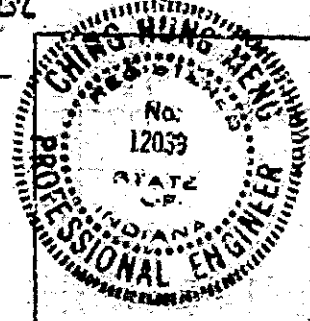
1. FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
2. FOR ELEVATION WING DETAILS & BILL OF MATERIALS SEE DRAWING S 15.
3. MASONRY PLATES SHALL BE PRE-SET IN THE CONCRETE.
4. SEE DRAWING S27 FOR DETAILS OF MASONRY PLATE.
5. SETTING TOLERANCE OF MASONRY PLATE - LEVEL WITH TO NOT MORE THAN 1/8" BELOW TOP OF CONCRETE.
6. Back fill behind end bent shall not be placed until after superstructure has been erected.

BENT NO. 6 DETAILS
INDIANA DEPARTMENT OF HIGHWAYS

SCALE: AS NOTED

DATE: JANUARY 27, 1982

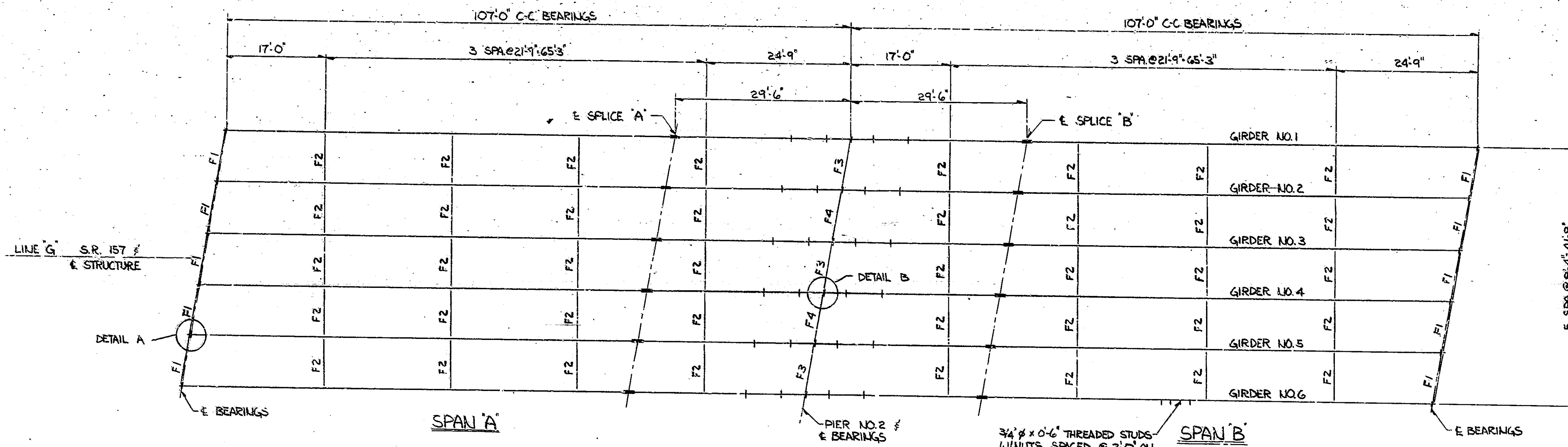
Ching Hsing Meng
SENIOR DESIGNER



DRAWING: 5/4 OF 3/4 SHEET: 24 OF 85
PROJECT: RS-4328-(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-28-6589

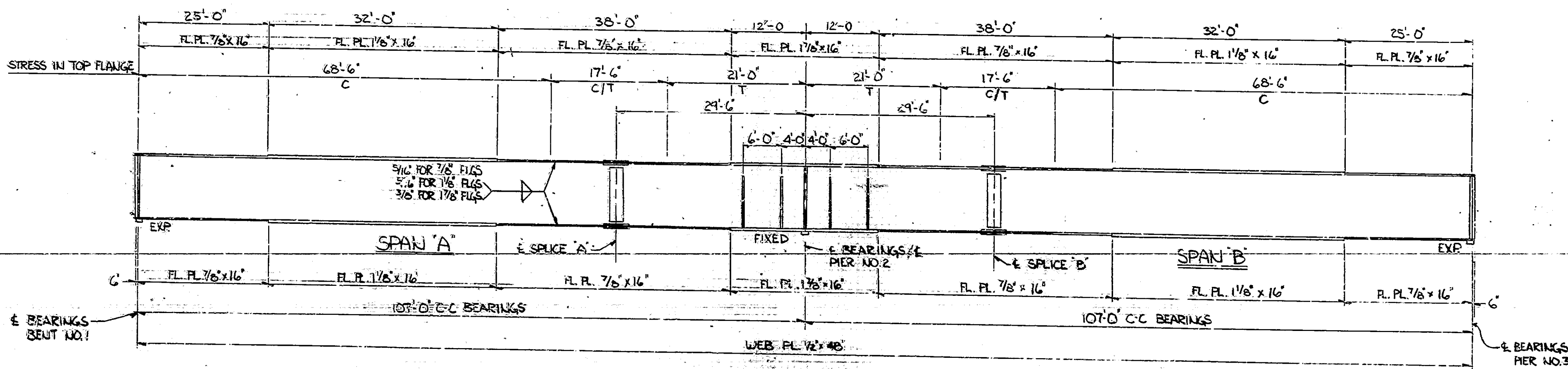
DESIGNED BY CJC	CHECKED BY CJC
DRAWN BY CJC	CHECKED BY CJC
TRACED BY CJC	CHECKED BY CJC

1-28-83 Rev. Added Note 6



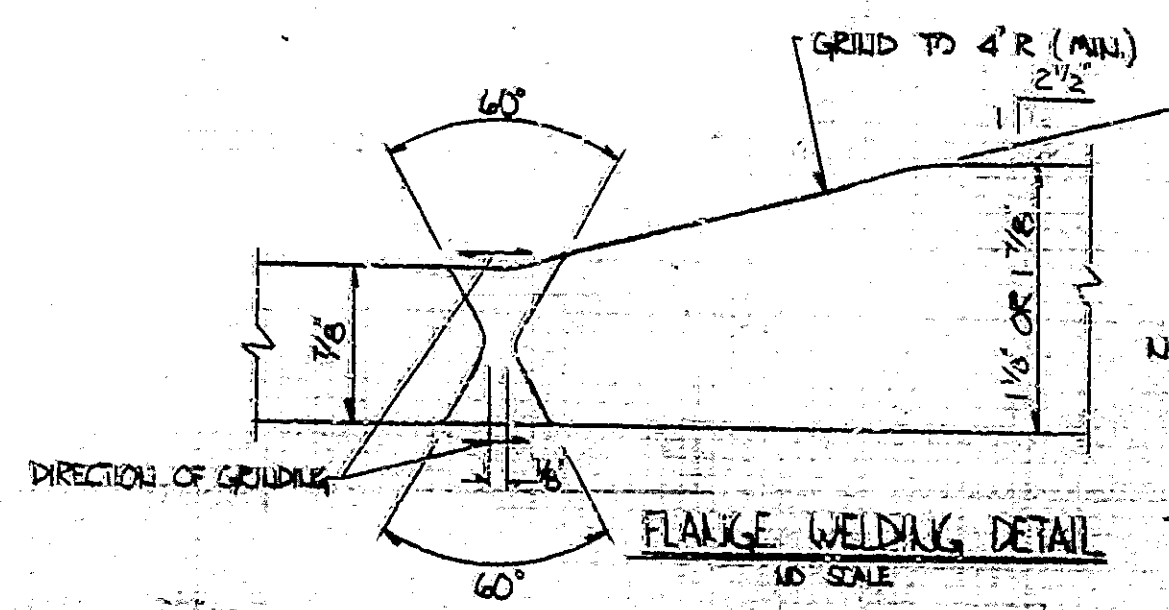
FRAMING PLAN
NO SCALE

3/4" x 0-6" THREADED STUDS
W/ NUTS SPACED @ 2'-0" ON
OUTSIDE FACE OF OUTSIDE GIRDERS
FOR LOCATIONS SEE DRAWINGS 20
AS AN ALTERNATE 3/4" x 0-6" HEADED
STUDS MAY BE USED



ELEVATION
NO SCALE

T - TENSION
R - REVERSAL
C - COMPRESSION



NOTES: 1. GULGE ROOT EDGE WELDING, SECOND SIDE
2. GRIND SMOOTH BEFORE ATTACHING TO WEB.

NOTE: FOR DETAILS 'A' AND 'B' SEE DRAWING SHEET 17

FRAMING PLAN (SPAN A AND B)
INDIANA STATE HIGHWAY COMMISSION

SCALE: NONE

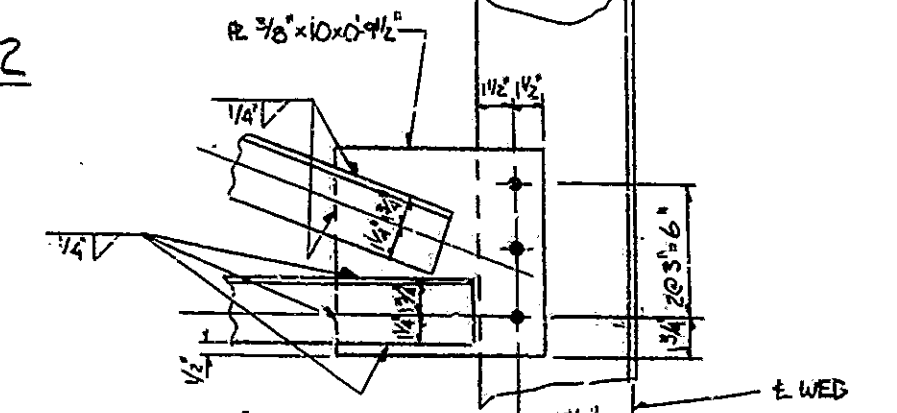
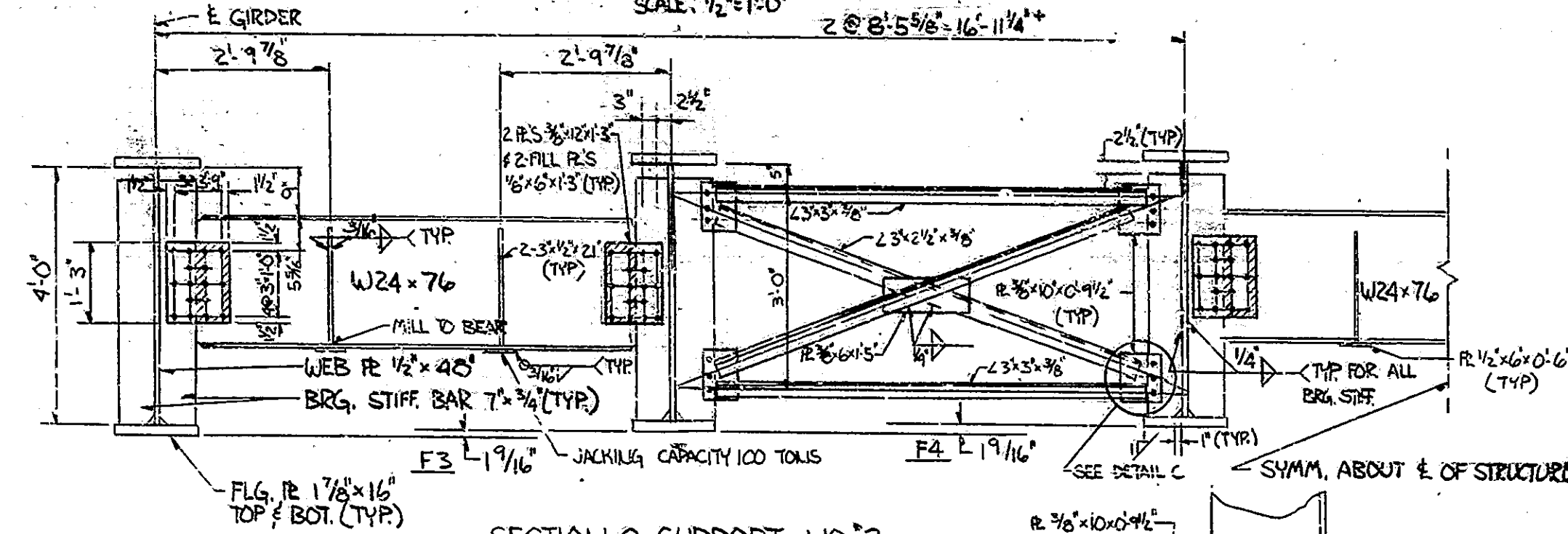
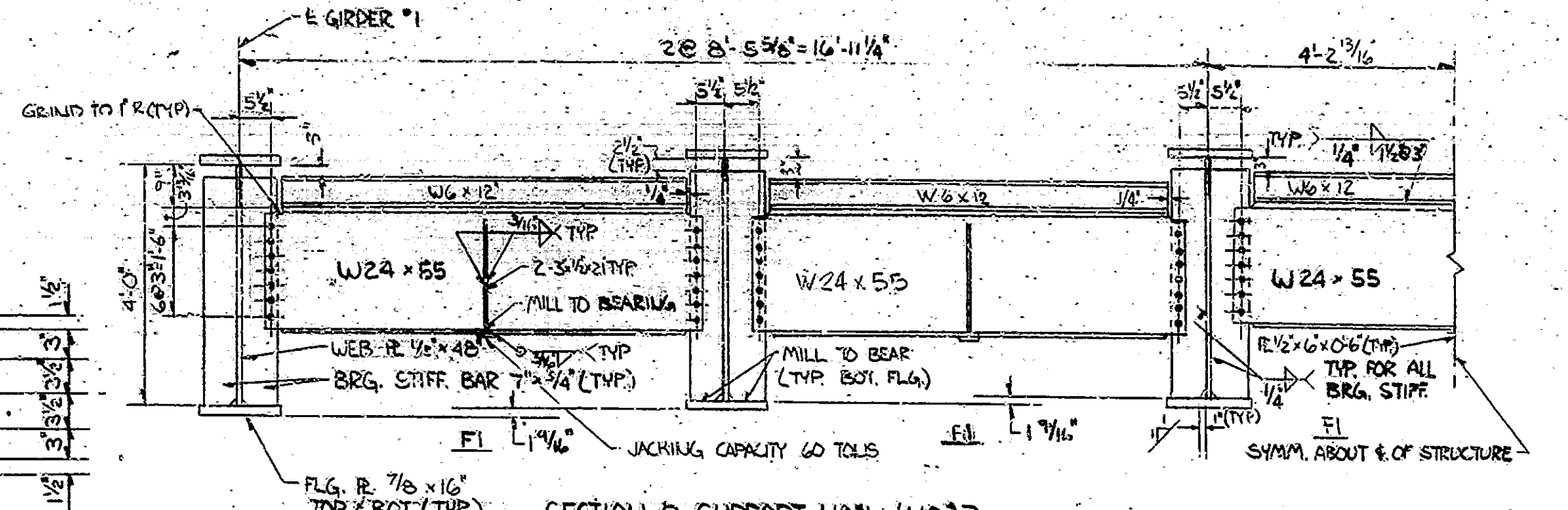
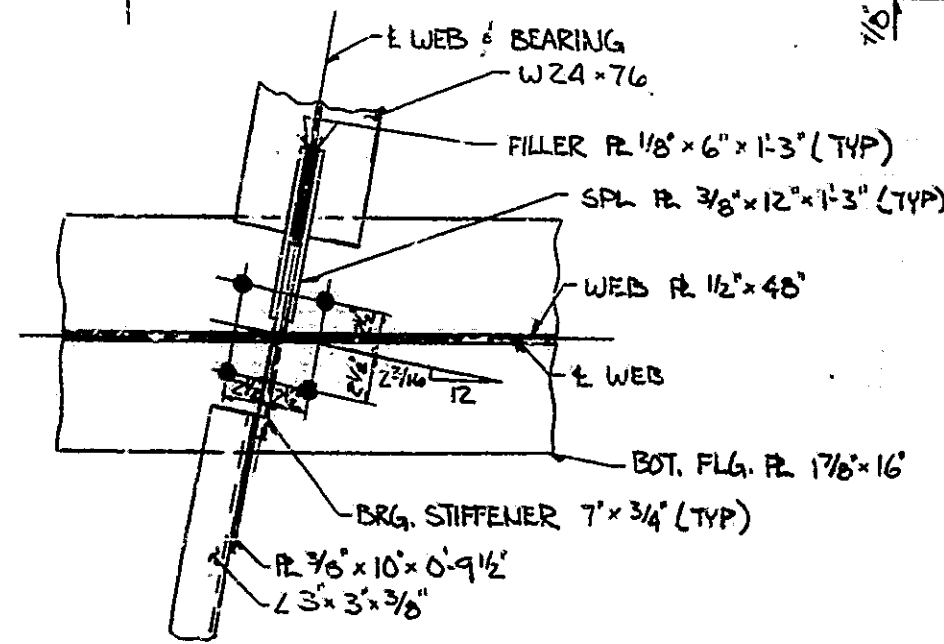
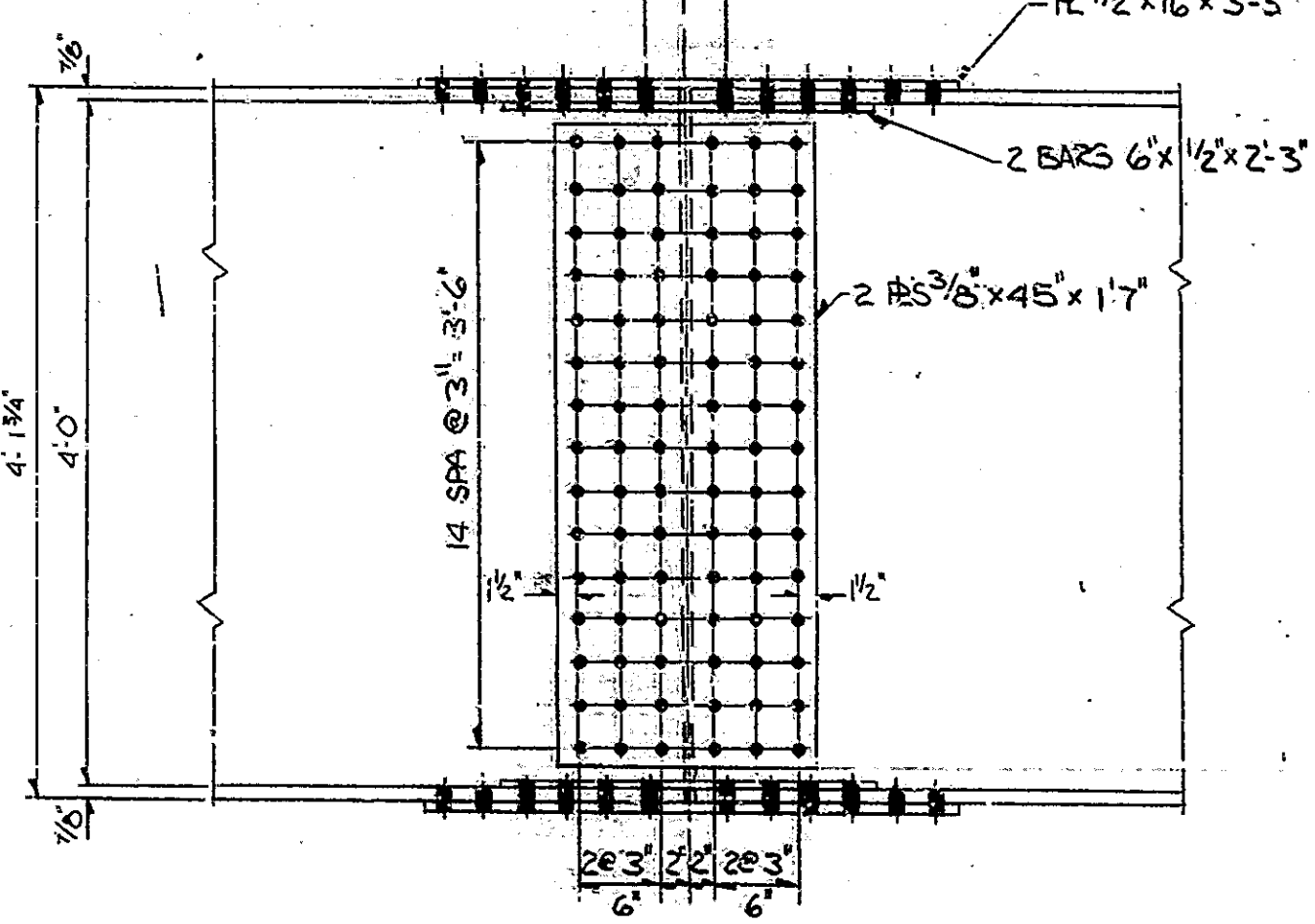
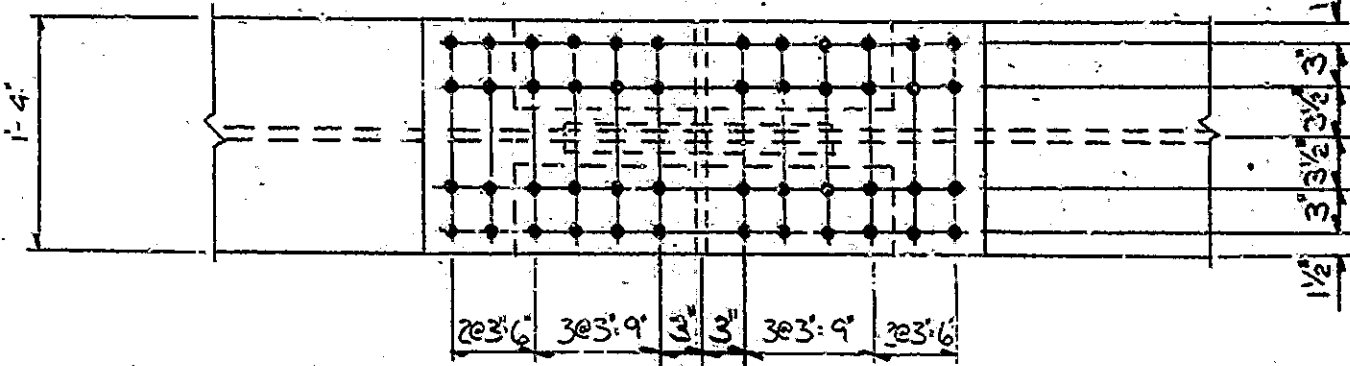
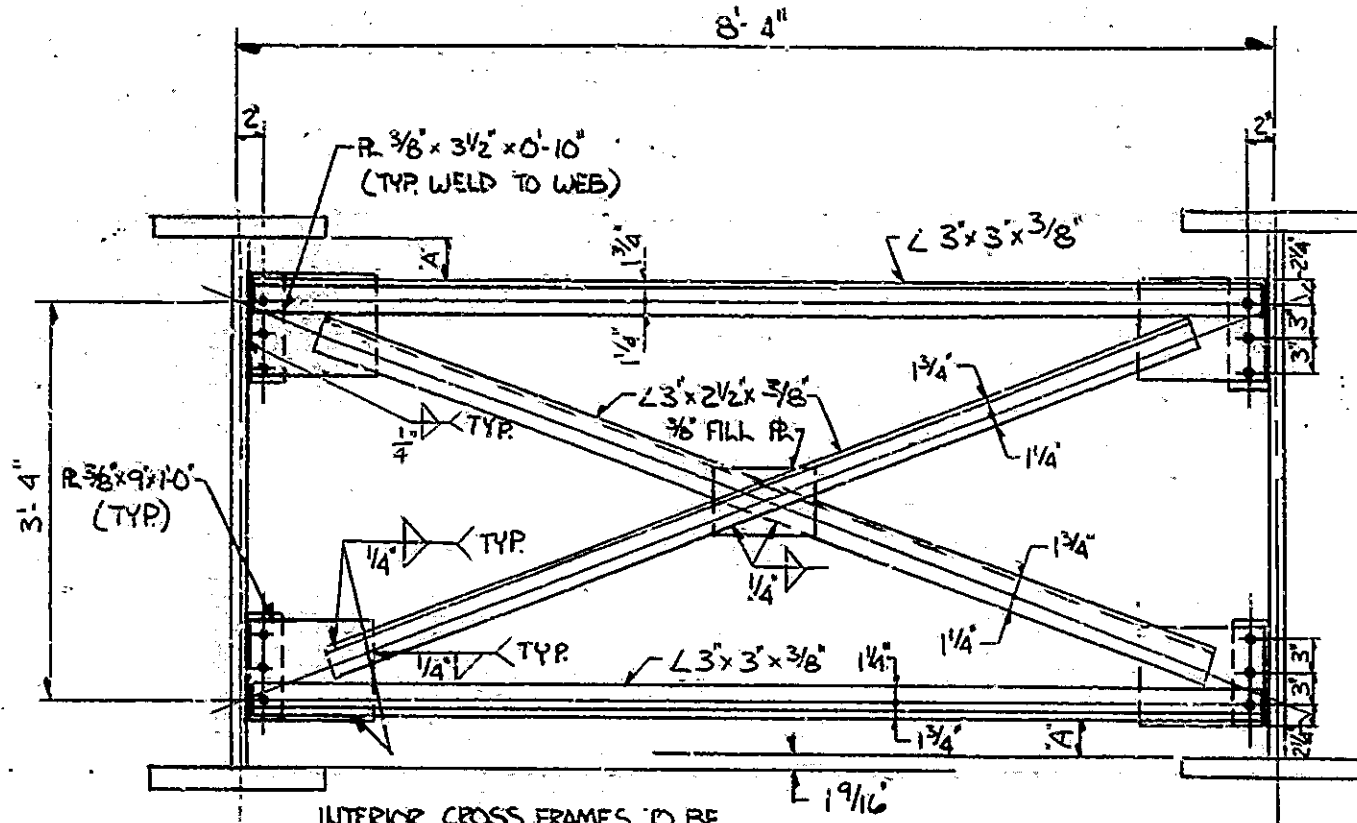
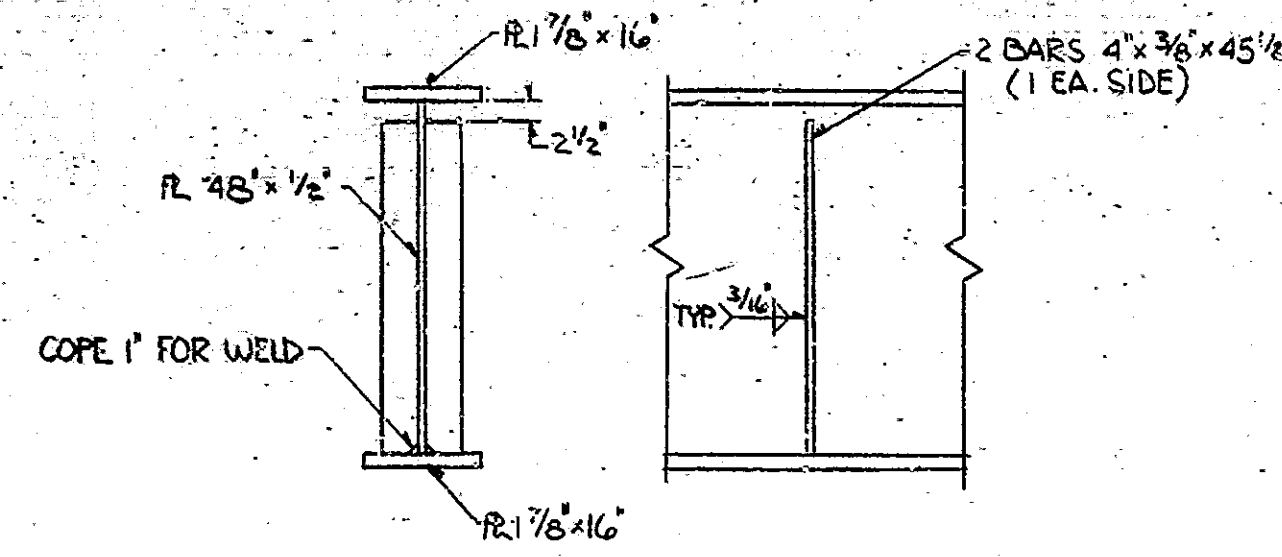
DATE: JANUARY 12, 1982

Ching Hung Meng
SENIOR DESIGNER

DRAWING: 516 OF 34 SHEET: 26 OF 85
PROJECT: RS 432B (1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-28-6589



DESIGNED: LPB, CWD, BYC
DRAWN: S.E.S. (M) KOLBY (M) 10-21-77
CHECKED: S.E.S. (M) 10-21-77
CHM 7-30-81



FIELD SPICE SCALE 1 1/2"=1'-0"

DETAIL A SCALE 1"=1'-0"

ELEVATIONS ARE APPLIED HERE (SEE TABLE BELOW)

GENERAL STRUCTURAL STEEL NOTES

HIGH STRENGTH BOLTS 7/8" DIA UNLESS NOTED. OPEN HOLES 1 1/16" DIA UNLESS NOTED.

THE CONTRACTOR SHALL PREPARE DETAILED WORKING OR SHOP DRAWINGS TO ENABLE HIM TO FABRICATE, ERECT AND CONSTRUCT ALL PARTS OF THE WORK IN CONFORMITY WITH THE ENGINEER'S DRAWINGS AND SPECIFICATIONS AND SHALL SUBMIT 4 COPIES TO THE ENGINEER. SEE ARTICLE 711.04 OF THE SPECIFICATIONS.

THE SHOP DETAILS SHALL SHOW A PLAN OF MARKING FOR ALL REAMED PIECES, ALL SPICE PLATES, TO BE REPAIRED, CLEANED AND DEBURRED AFTER REAMING. SPICE PLATES SHALL NOT EXTEND BEYOND THE END OF GIRDER AFTER BOLTING. FOR SHIPMENT, THE SHOP PLANS SHALL INDICATE WHETHER REAMING OR DRILLING IS TO BE DONE IN SHOP OR FIELD. IF SHOP REAMING OR DRILLING IS USED THE GIRDERS SHALL BE ASSEMBLED IN ACCORDANCE WITH NO LOAD CAMBER AND REAMING DIAGRAM. IF THE GIRDERS ARE SHOP REAMED OR DRILLED FULL SIZE DRIFT PINS SHALL BE USED IN ERECTION.

STRUCTURAL STEEL FOR WELDING MAY BE FLAME CUT IF THE FLAME CUTTING IS MECHANICALLY GUIDED. HAND-FLAME CUTTING SHALL BE USED ONLY WHEN APPROVED AND THE SURFACE IS FURTHER TREATED BY MILLING, GRINDING, OR CHIPPING AND GRINDING.

ALL SHOP-BUTTED WELDS IN FLANGE PLATES SHALL BE GROOVED SMOOTH AND FLUSH WITH THE BASE METAL ON ALL SURFACES. THIS SHALL APPLY TO BOTH SIDES OF EQUAL THICKNESS AND UNEQUAL THICKNESS CONNECTIONS. GRINDING IN THE DIRECTION OF STRESS AND IN SUCH A MANNER THAT THE METAL IS 1/4" BELOW THE BRITTLE RANGE. ANY DEFECTS EXPOSED BY THE GRINDING SHALL BE CLEANED, FILLED WITH WELD METAL AND REGROUND TO A UNIFORM FINISH.

IF CURVES IN PLATES AND ANGLES ARE FLAME CUT, THEY SHALL BE GROUND SMOOTH. GIRDERS MUST BE CAMBERED TO A SMOOTH CURVE. CAMBER MUST BE CHECKED AFTER SHOP WELDING IS COMPLETED AND WHILE GIRDERS ARE SUPPORTED IN SUCH A WAY AS TO PREVENT BENDING MOMENT IN THE DIRECTION OF CAMBER. SHEAR PLATES OR UNIVERSAL MILLER PLATES SHALL BE ORDERED WITH SUFFICIENT ADDITIONAL WIDTH TO ALLOW FOR TRIMMING OF EDGES TO PROVIDE BUILT-UP CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE TRIMMING SHALL BE BY FLAME CUTTING THE FACING SURFACES OF THE WEB AND FLANGE PLATES AND THE ADJACENT SURFACES THAT ARE TO BE FILLET

WELDED SHALL BE CLEANED BY GRINDING PRIOR TO ASSEMBLY AND GRINDING TO FLANGE.

WHEN THE GIRDER BEARING IS FIT-UP IN THE SHOP FOR REAMING OR DRILLING OF FIELD SPICES, THE CENTERLINES OF THE FLANGES SHALL NOT DEVIATE MORE THAN 1/8" WITH THE WEBS IN ALIGNMENT.

Holes for girder splices and splice plates shall be subpunched or subdrilled and reamed to size and finished. SEE ARTICLE 711.24 OF THE SPECIFICATIONS. SPICE BARS SHALL BE SUBPUNCHED OR DRILLED FULL SIZE WHILE ASSEMBLED.

Diameter of holes in all material connecting top plates of bearings to girder flanges to be 1".

BOLTS CONNECTING GIRDER FLANGE TO TOP PLATE SHALL EXPOSED AND TOP PLATE A MINIMUM OF 1" GAUGES BETWEEN GIRDERS AND TOP PLATE MAY BE BUILT UP AND SHALL NOT BE LESS THAN 1/3" THICKNESS.

ESTIMATED WEIGHT OF STRUCTURAL STEEL 281,000 LBS, INCLUDING 11,700 LBS OF ANGLE STEEL.

THE WEIGHT OF HIGH STRENGTH BOLTS IS LISTED INCLUDED IN THE ESTIMATED WEIGHT OF STRUCTURAL STEEL. THE COST OF THESE BOLTS SHALL BE INCLUDED IN THE COST OF STRUCTURAL STEEL.

ALL PAINT SHALL BE IN ACCORDANCE WITH CURRENT STATE HIGHWAY SPECIFICATIONS. SHOP PAINT: ZINC SILICATE PAINT. FIELD PAINT: VINYL FINISH COAT (SEE SPECIAL PROVISIONS)

AS SOON AS THE ENGINEER HAS APPROVED THE FIELD WELDS, ALL WELDS ON ANY SURFACE FROM WHICH THE SHOP COAT HAS BEEN OMITTED OR REWORKED, BURNED OFF OR OTHERWISE BECOME DEFECTIVE SHALL BE THOROUGHLY CLEANED OF ALL CARBURIZED PAINT OR ANY FOREIGN MATTER AND COMPLETELY COVERED WITH ONE COAT OF SHOP PAINT.

ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM-A572-50 STEEL EXCEPT BEARINGS (SEE BEARING NOTES) AND CROSS FR. IS F2 AND F8. SHIMS AND FILLER PLATES (FOR WHICH ASTM-A36 STEEL MAY BE USED) ASTM-A306 STEEL IS AN ALTERNATIVE AT THE CONTRACTOR'S OPTION WITH NO INCREASE IN PAYMENT.

LD0 PAINT ON STAINLESS STEEL.

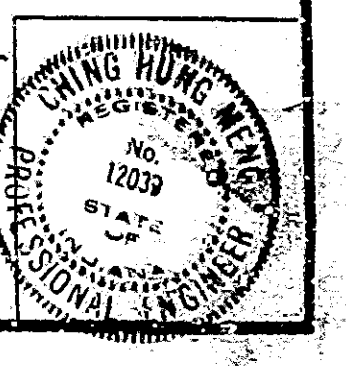
	TABLE OF ELEVATIONS FOR TOP OF GIRDER SPLICES	
	A	B
£ GIRDER NO.1	524.150	524.565
£ GIRDER NO.2	524.270	524.685
£ GIRDER NO.3	524.385	524.805
£ GIRDER NO.4	524.375	524.800
£ GIRDER NO.5	524.230	524.660
£ GIRDER NO.6	524.090	524.520

NOTE: THE ELEVATIONS ARE WITH FALSEWORK REMOVED AND CARRYING STEEL DEAD LOAD ONLY. TOP OF GIRDERS TO BE ADJUSTED TO THE ELEVATIONS BEFORE BOLTING FIELD SPICE CONNECTIONS.

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED DATE: JANUARY 13, 1982

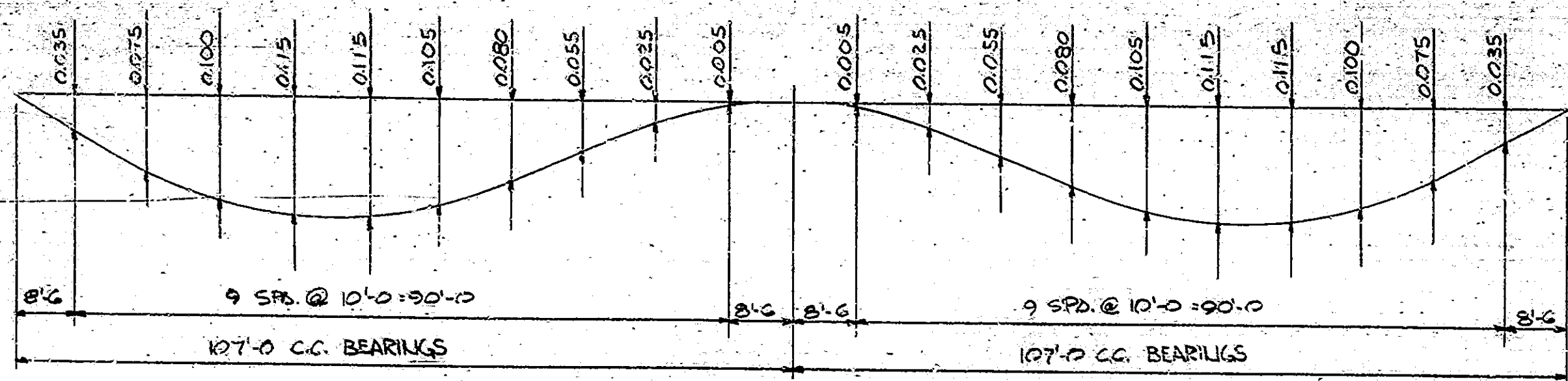
DRAWING: 517 OF 34 SHEET: 27 OF 85
PROJECT: RS 432.8 (1)
CONTRACT NO. B-13779
BRIDGE FILE: 157-23-6589



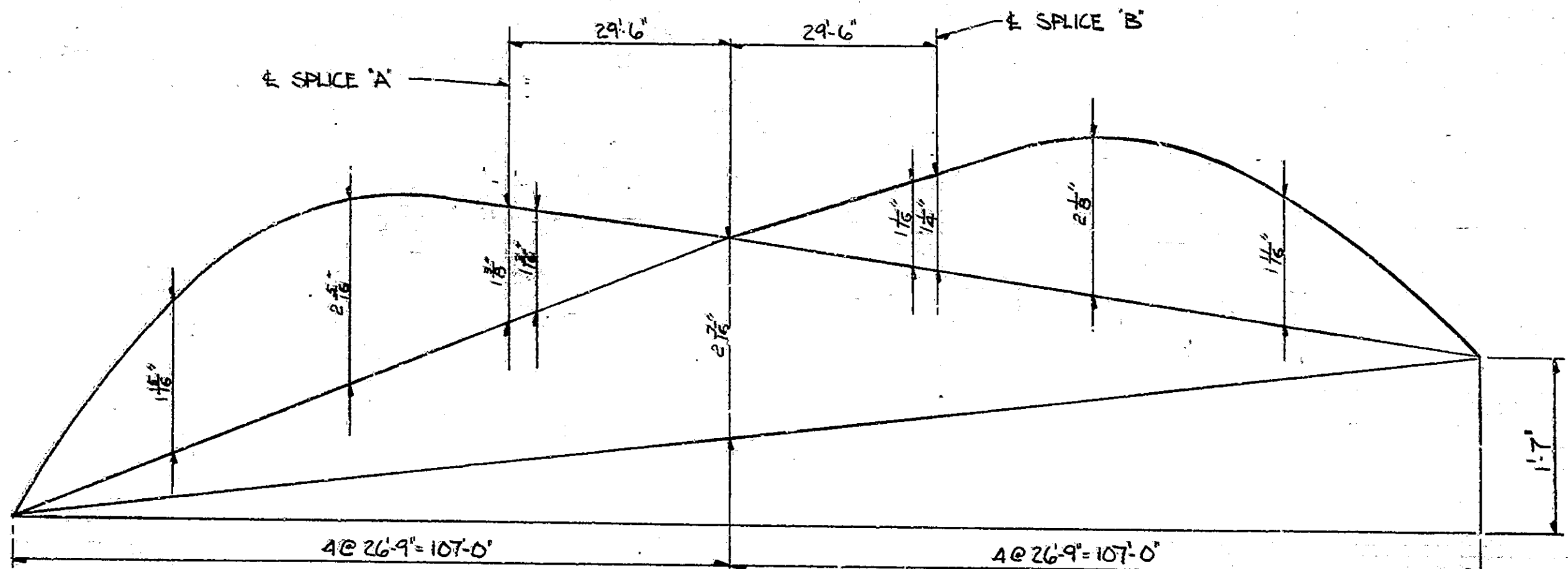
DESIGNED: JLV CKD: GYC
DRAWN: WBS CKD: LCL 1-7-80
TRACED: WBS CKD: JLF 1-24-80

CHM 11-18-81

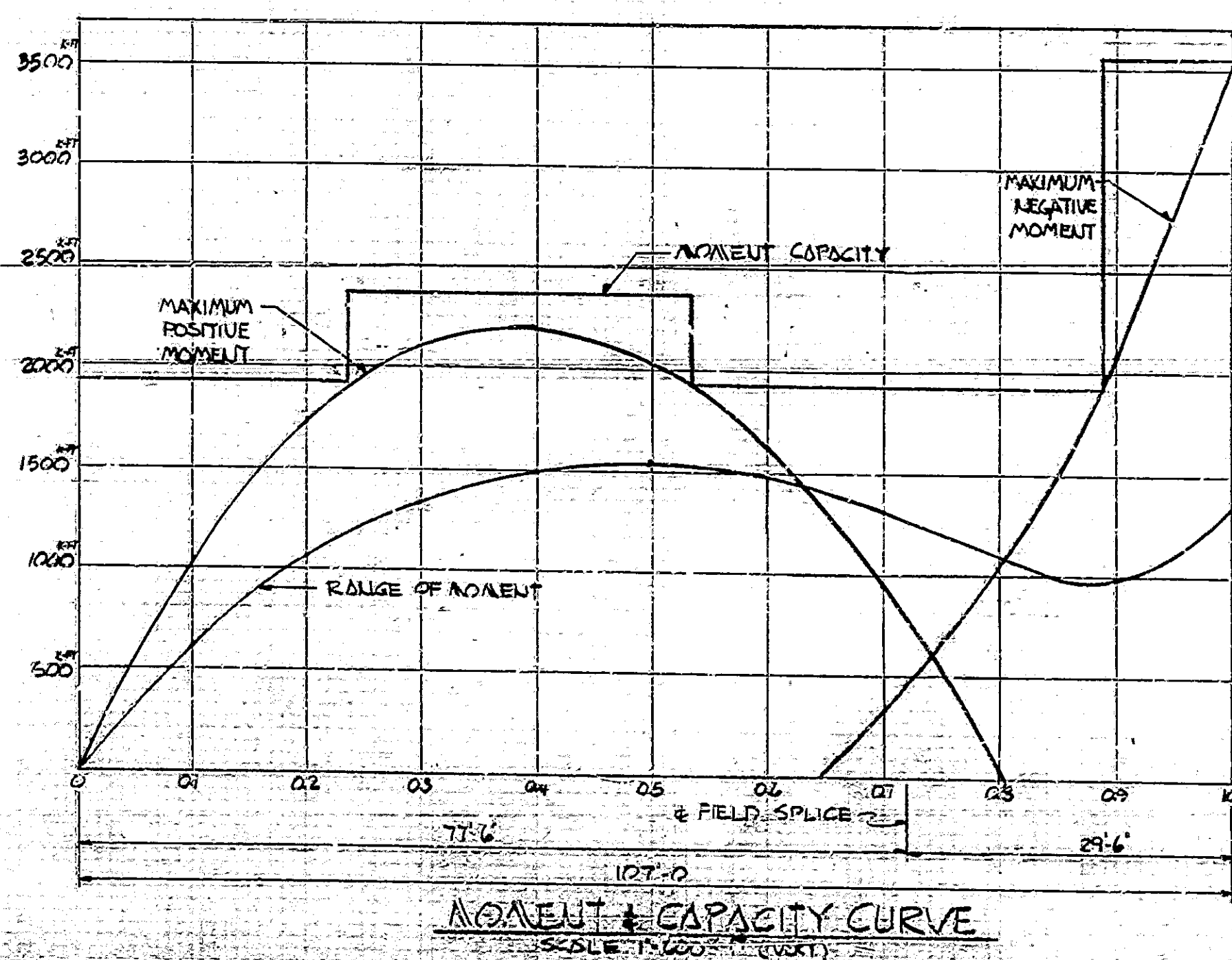
REV. 11-10-82 Steel Note



CONCRETE DEAD LOAD DEFLECTION (FT.)
NO SCALE



NO LOAD CAMBER AND REMAINING DIAGRAM
NO SCALE



MOMENT & CAPACITY CURVE
SCALE: 1" = 100' (VERT)

GENERAL ERECTION PROCEDURE

1. ALL STRUCTURAL STEEL SHALL BE ERECTED AND GIRDERS ADJUSTED TO THEIR PLAN ELEVATION BEFORE BOLTING FIELD SPLICES. THE ELEVATION SHALL BE CHECKED WITH SPLICES CONNECTED BY FULL SIZE DRIFT PINS AND ERECTION BOLTS AND WITH GIRDERS UNSUPPORTED BY ANY FALSEWORK. SEE DRAWING S17 FOR ELEVATIONS OF SPLICES.
2. AFTER ALL CONNECTIONS HAVE BEEN BOLTED ADJUST THE SUPERSTRUCTURE LONGITUDINALLY ACCORDING TO THE DIMENSIONS OF C1 AND C2 SHOWN ON DRAWING S3.
3. WITH THE SUPERSTRUCTURE IN THE ADJUSTED POSITION CALLED FOR IN NOTE 2, WELD THE FIXED BEARING, BASE PLATES TO MASONRY PLATES AT PIER NO.2.
4. ADJUST THE BEARING BASE PLATES AT EACH EXPANSION BEARING IN ACCORDANCE WITH DIMENSION "A" OR "B" IN TABLE 1 ON DRAWING S19 FOR THE PREVAILING TEMPERATURE. NOTE THAT DIMENSION "A" IS ALWAYS THE DISTANCE FROM A VERTICAL LINE THROUGH THE ϕ OF TOP PLATE IN Δ DIRECTION AWAY FROM THE FIXED BEARING, WELD THE EXPANSION BEARING, BASE PLATES TO THE MASONRY PLATES.

LIVE LOAD: HS20-44 LOADING WITH IMPACT AND DISTRIBUTION OF LOAD IN ACCORDANCE WITH 1977 A.A.S.H.T.O. AND CURRENT INTERIM SPECIFICATIONS.
DEAD LOAD: ACTUAL WEIGHT PLUS 35#/SQ. FT. OF ROADWAY TO PROVIDE FOR FUTURE WEARING SURFACE.
FLOOR SLAB: DESIGNED FOR 16,000 POUND (WHEEL) PLUS IMPACT.
ALLOWABLE STRESSES: (STRUCTURAL STEEL) ALLOWABLE STRESSES TO BE IN ACCORDANCE WITH 1977 A.A.S.H.T.O. SPECIFICATIONS.

MAXIMUM REACTIONS AT SUPPORTS

		BEAM #1	PIER #2	PIER #3
OS. BEAM	DLRC	58.0	203.9	58.0
	LRI	47.7	89.7	47.7
	TOTAL	105.7	293.6	105.7
INT. BEAM	DLRC	53.2	124.8	53.2
	LRI	64.5	108.9	64.5
	TOTAL	117.7	233.7	117.7

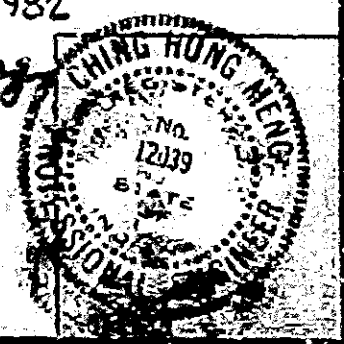
CAMBER DIAGRAM (SPAN A AND B)
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS SHOWN

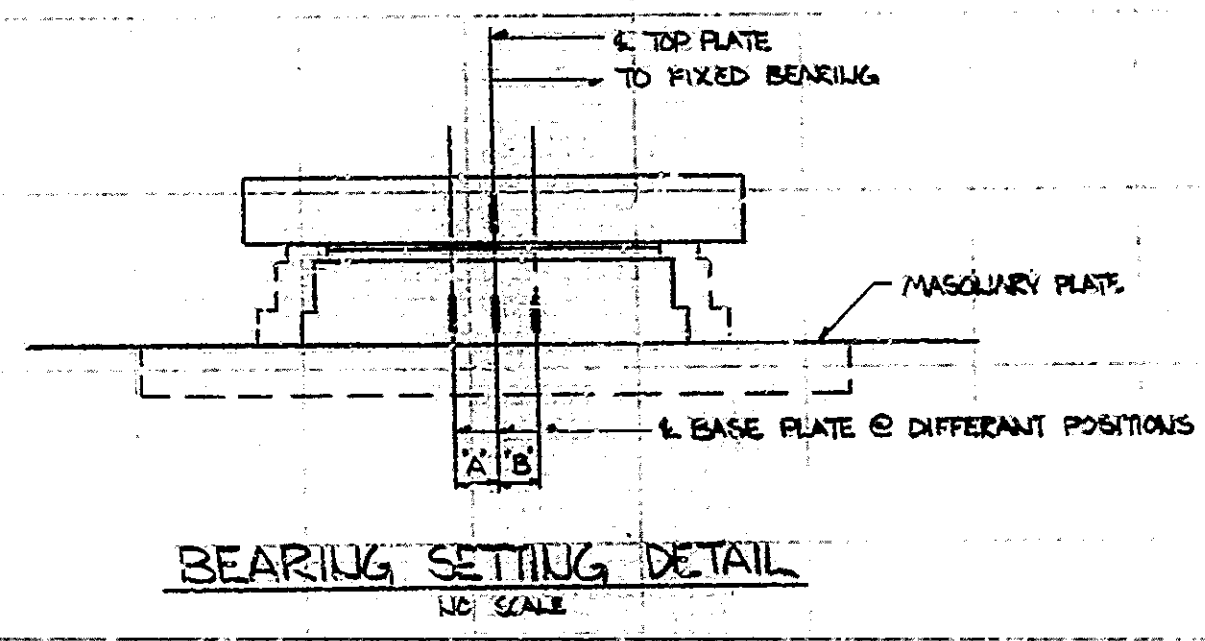
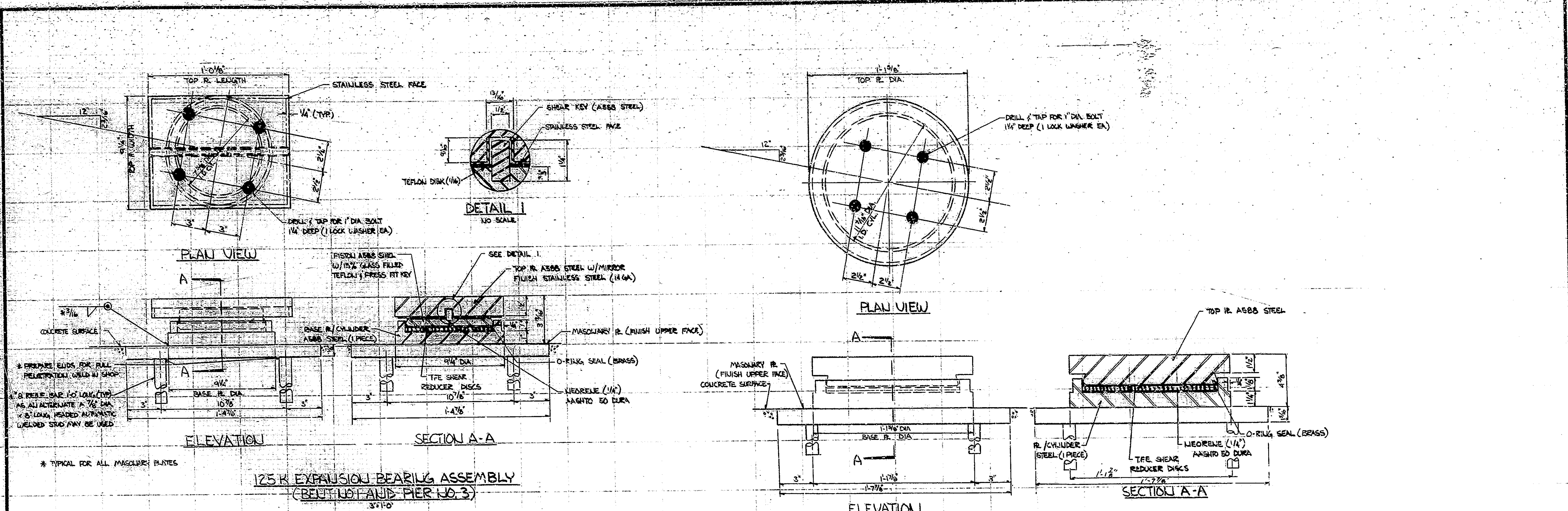
DATE: JANUARY 13, 1982

Chief Engineer

DRAWING: 518 OF 34 SHEET: 28 OF 35
PROJECT: 157-28-6589
CONTRACT NO. B-12799
BRIDGE FILE: RS-4323 (1)

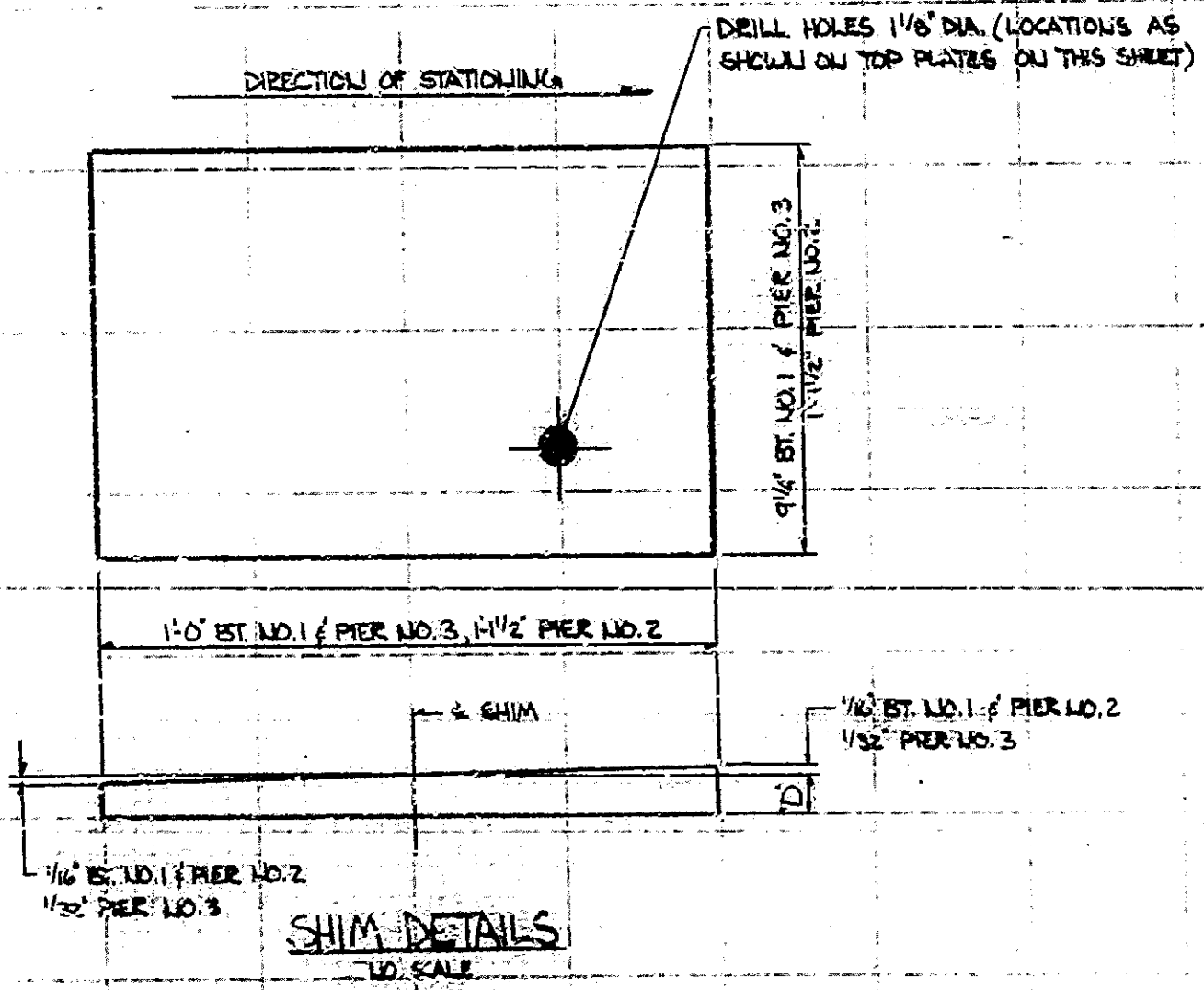


DESIGNED: LFL CKD: GYC
DRAWN: JED CKD: JLV
TRACED: CKD
CHA 2-2-81



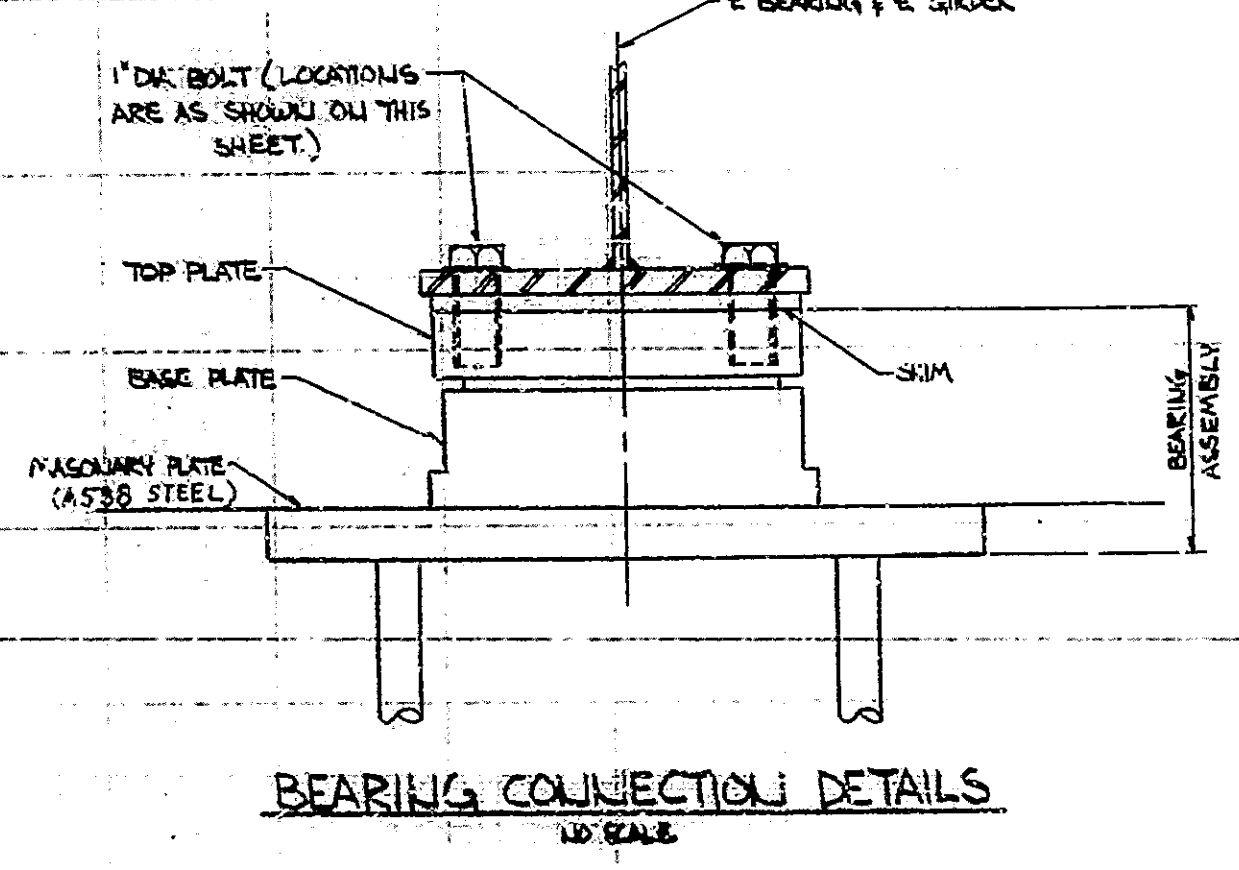
TEMP (F°)	A						B							
	0°	20°	40°	60°	80°	100°	120°	140°	160°	180°	120°	140°	160°	180°
PIER NO. 1	1"	3/16"	1/8"	1/2"	3/4"	5/8"	0	0	0	0	0	0	0	0
PIER NO. 3	1/2"	5/16"	3/8"	0	0	0	0	0	0	0	3/16"	1/4"	1/2"	0

BEARING SETTING TABLE I



PIER NO.	GR. NO. 1	GR. NO. 2	GR. NO. 3	GR. NO. 4	GR. NO. 5	GR. NO. 6
PIER NO. 1	1/2"	1 1/2"	1/4"	1/2"	1/2"	1/2"
PIER NO. 2	1/2"	1 1/2"	1/2"	1/2"	1/2"	1/2"
PIER NO. 3	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"

D DIMENSIONS



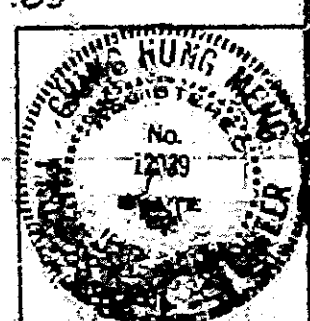
	BEAR. NO. 1	PIER NO. 2	PIER NO. 3
VERTICAL LOAD CAPACITY (K)	12.5	30.0	12.5
LATERAL LOAD CAPACITY (K)	12.5	30.0	12.5
LONGITUDINAL MOVEMENT (IN)	3	0	3
TRANSVERSE MOVEMENT (IN)	0	0	0

BEARING DESIGN DATA

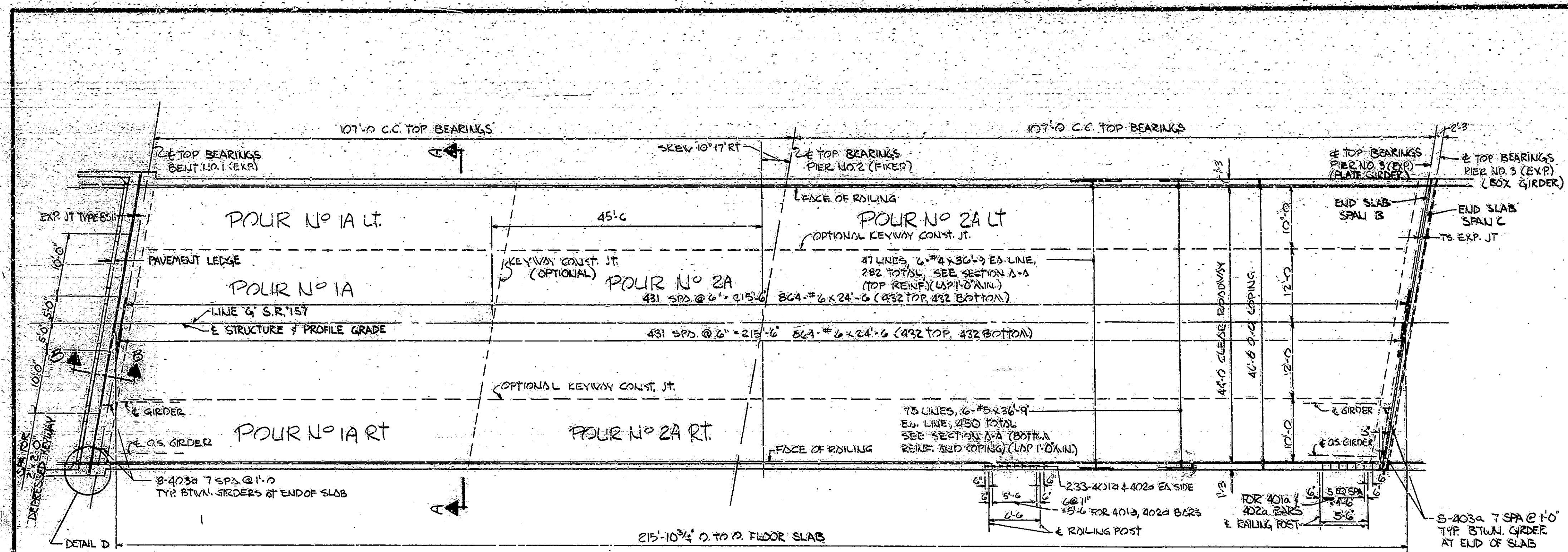
NOTES
1. MASONRY PLATES SHALL BE PRE-SET IN THE CONCRETE.
2. ALL BEARINGS ARE BUILT WITH SUBSTRUCTURES. EACH UNIT INCLUDES TOP PLATE, BASE PLATE & MASONRY PLATE.

BEARING DETAIL (SPAN A AND B)
INDIANA DEPARTMENT OF HIGHWAYS

SCALE: AS NOTED
DATE: JANUARY 28, 1983
DESIGNED BY: SRA OF 34
DRAWN BY: SRS 2/1/83
TRACED BY: CKD
PROJECT: RS-4328(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-22-6589

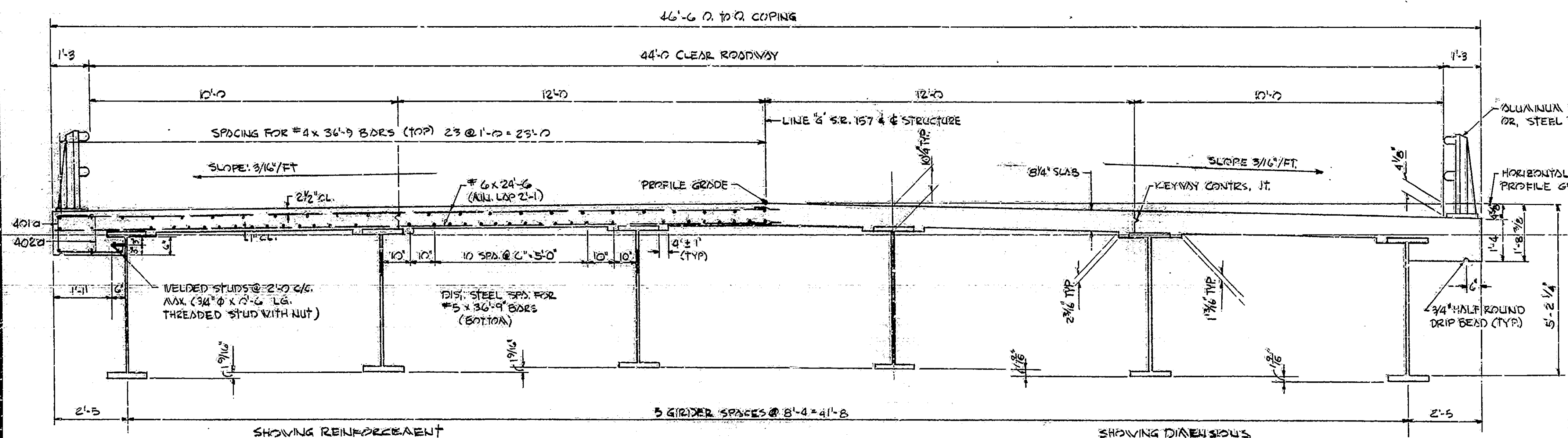


DESIGNED BY: SRA OF 34
DRAWN BY: SRS 2/1/83
TRACED BY: CKD
CHKD BY: CKD
CHKD BY: CKD
CHKD BY: CKD



PLAN
NO SCALE

- NOTES**
1. FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1
 2. FOR ALUMINUM RAILING TYPE 5A, SEE BRIDGE STANDARD BR1 AND BR2
 3. FOR STEEL RAILING TYPE C1, SEE BRIDGE STANDARD BR3 AND BR4
 4. FOR BILL OF MATERIALS, CORNER DETAILS, SEC. B-5, & DETAIL D SEE DWG 521
 5. AFTER STRUCTURAL STEEL HAS BEEN ERECTED FORMS SHALL NOT BE BLOCKED AGAINST THE EXPANSION END OF THE STEEL IN AVOIDING ANY POURS ADJACENT TO STEEL SPANS.
 6. SEQUENCE OF POURS TO BE MADE IN ORDER OF FOUR NUMBERS. ALL SUPERSTRUCTURE CONSTRUCTION JOINTS ARE OPTIONAL, EXCEPT AS NOTED, AND POURS MAY BE CONTINUOUS PROVIDED THE POUR TERMINATES AT A CONSTRUCTION JOINT INDICATED ON THE PLANS. THE CONTRACTOR MAY CHANGE THE WIDTH OF POURS, SEQUENCE OF POURS OR LOCATION OF CONSTRUCTION JOINTS, SUBJECT TO APPROVAL OF THE ENGINEER.
 7. EPOXY COATED REINFORCING STEEL WILL BE USED IN THE BRIDGE DECK.



SECTION A-A
SCALE 1/2" = 1'-0"

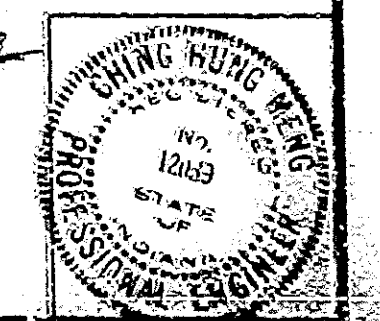
FLOOR DETAILS (SPAN A AND B)

INDIANA STATE HIGHWAY COMMISSION

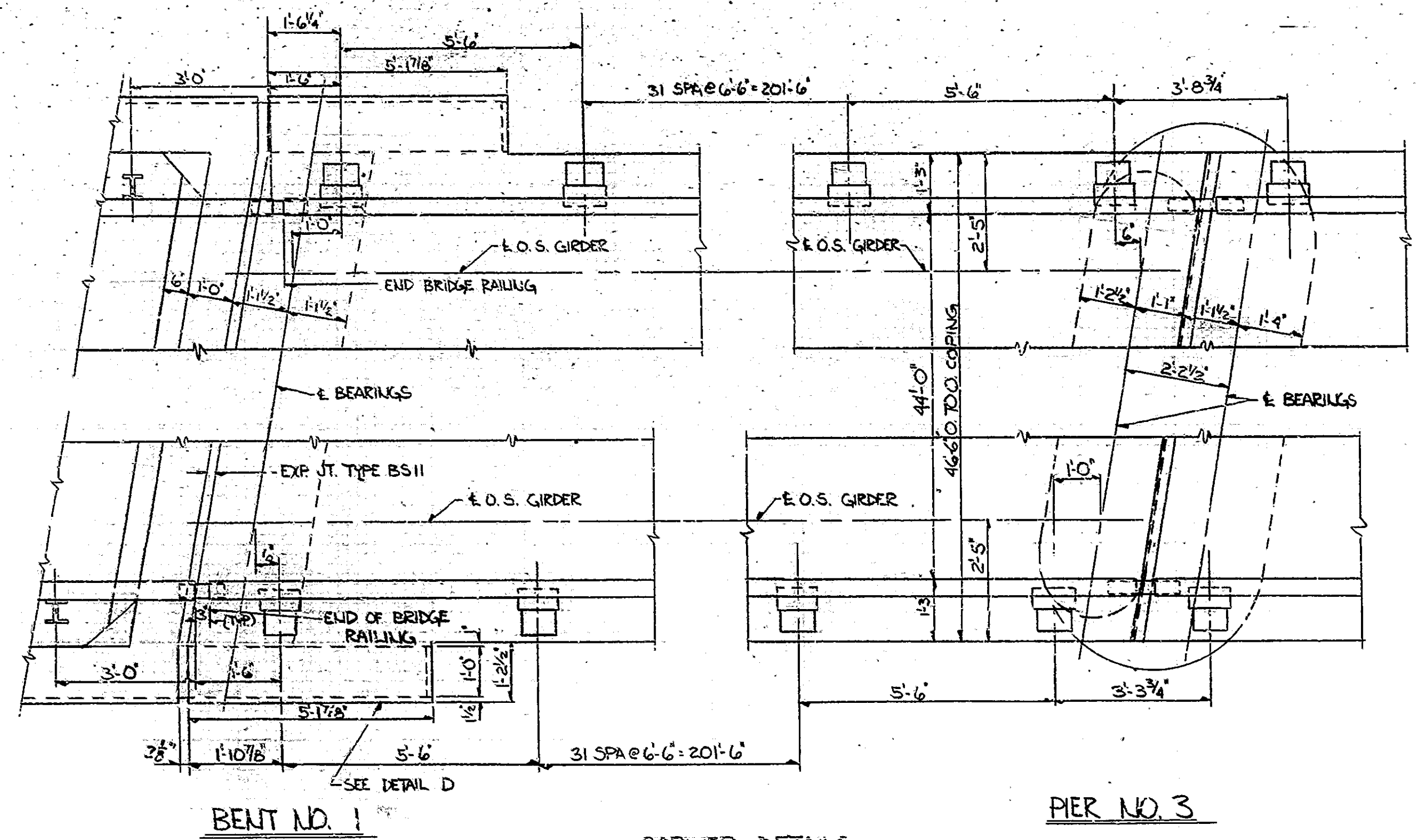
SCALE: AS SHOWN DATE: JANUARY 12, 1982

Ching Hsing Meng
SENIOR DESIGNER

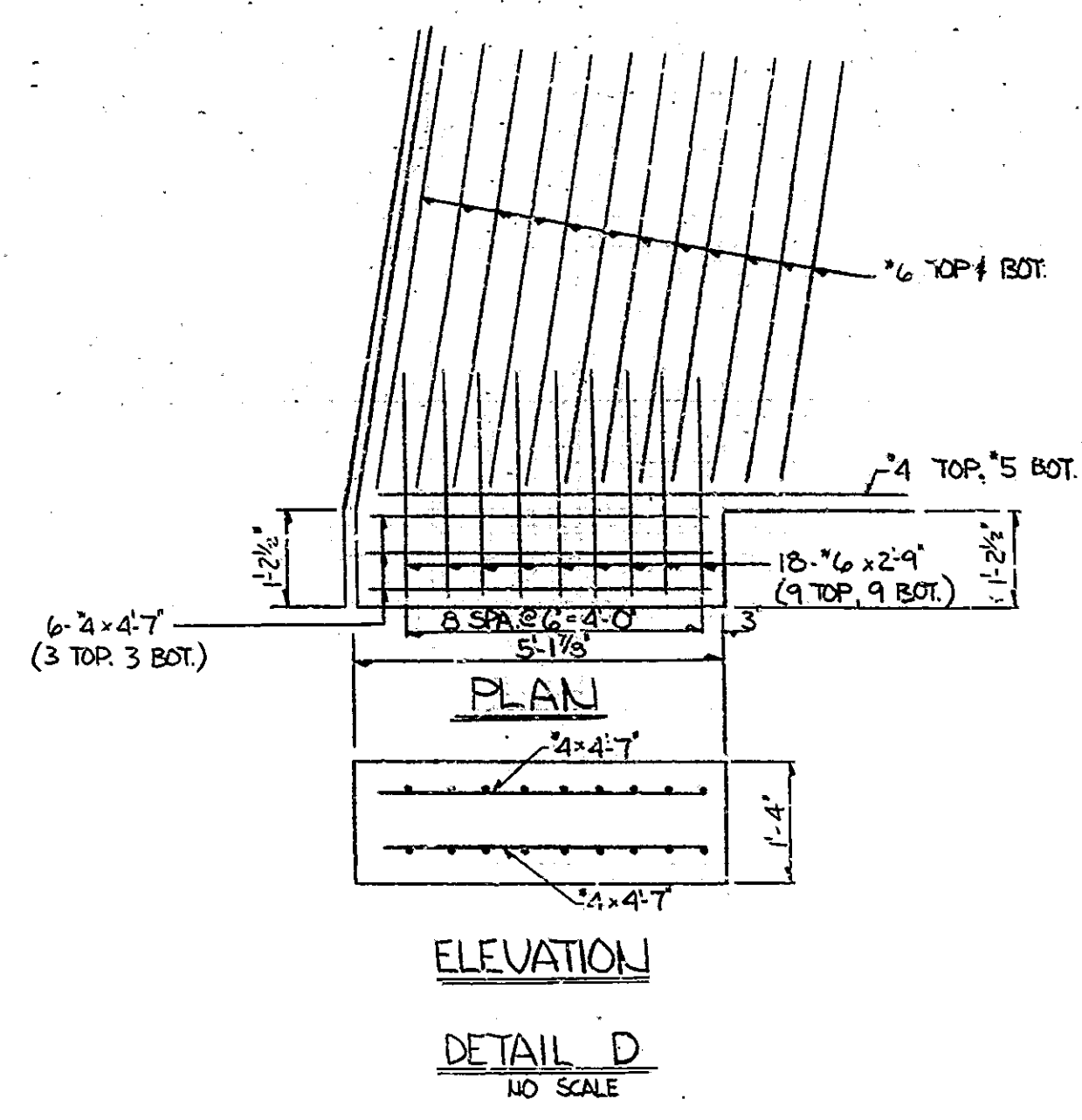
DRAWING: 520 OF 34 SHEET: 30 OF 85
PROJECT: RS-432B(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-28-0589



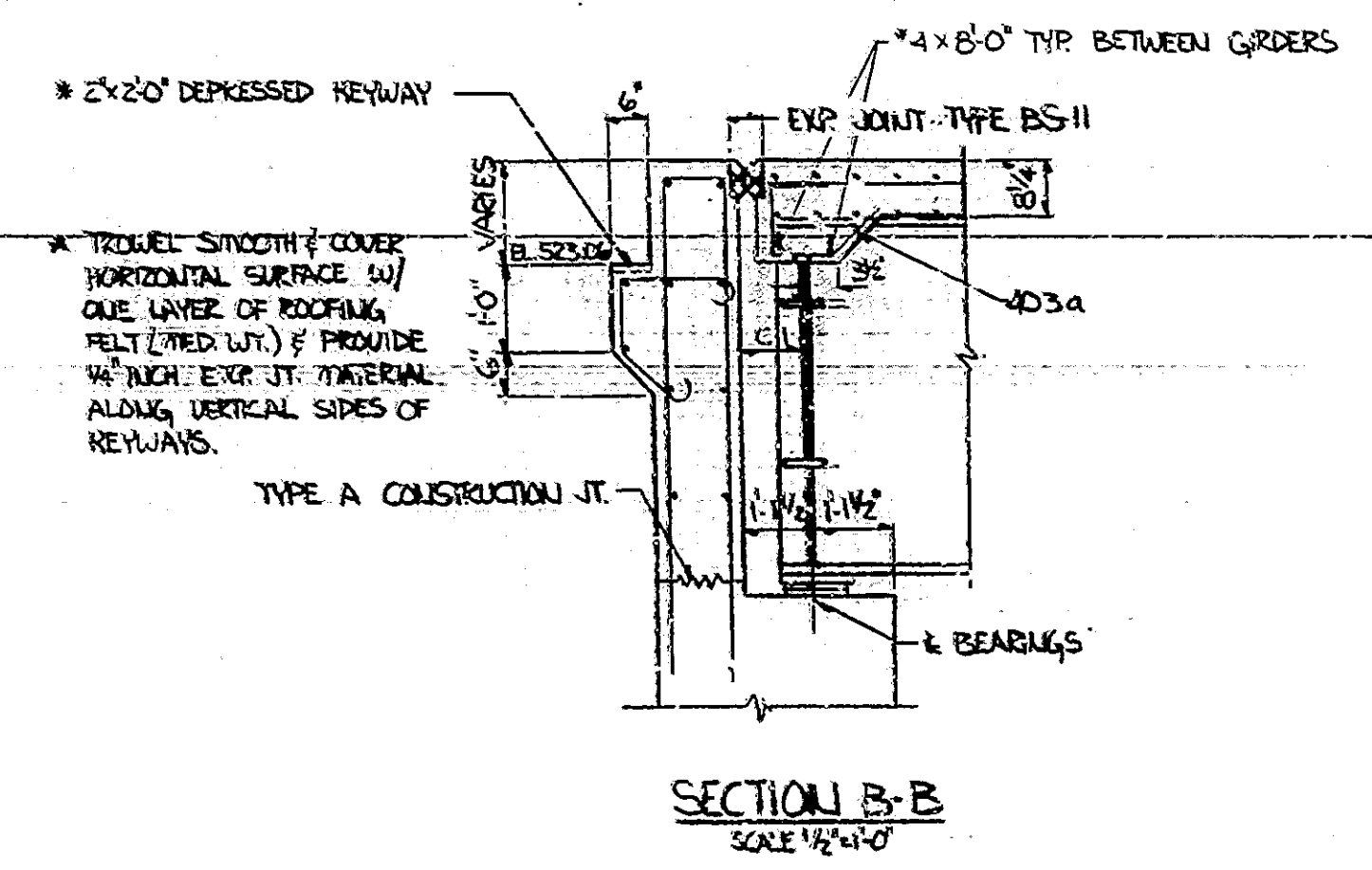
DESIGNED BY: GYC
DRAWN BY: GYC
TRACED BY: GYC



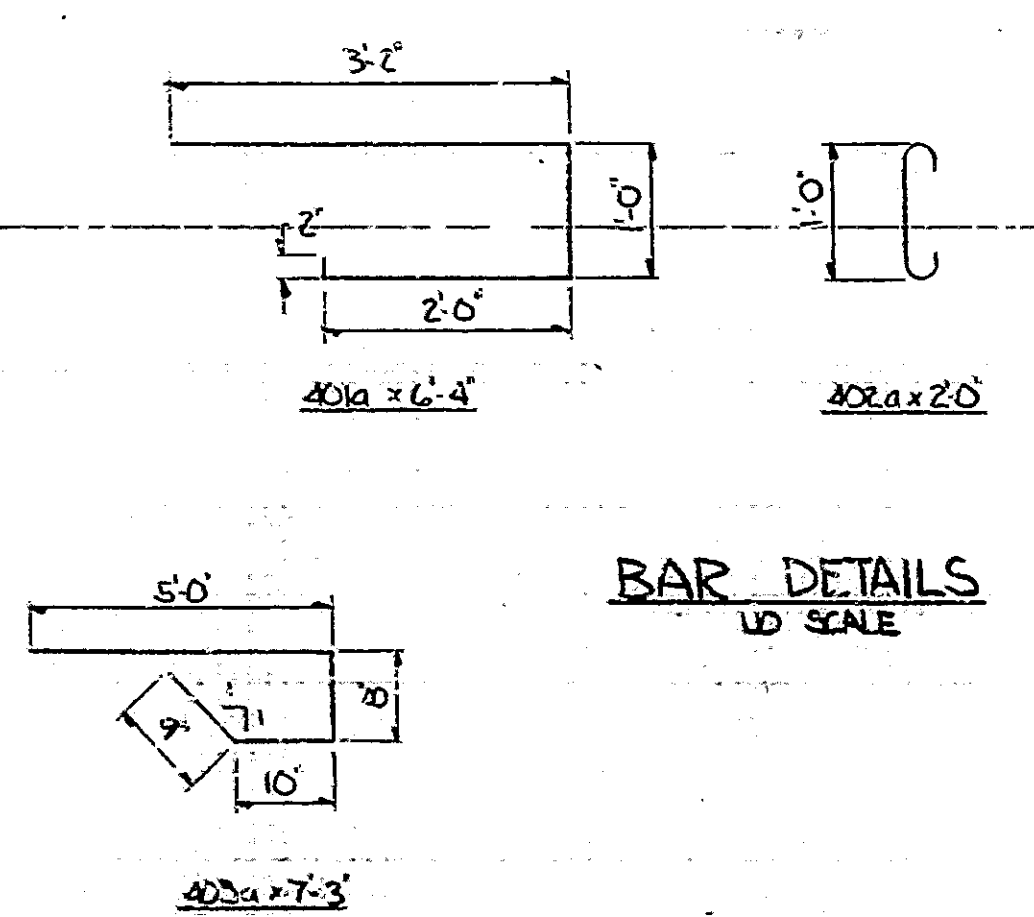
BENT NO. 1
 CORNER DETAILS
 SCALE: 1/2" = 1'-0"
 PIER NO. 3



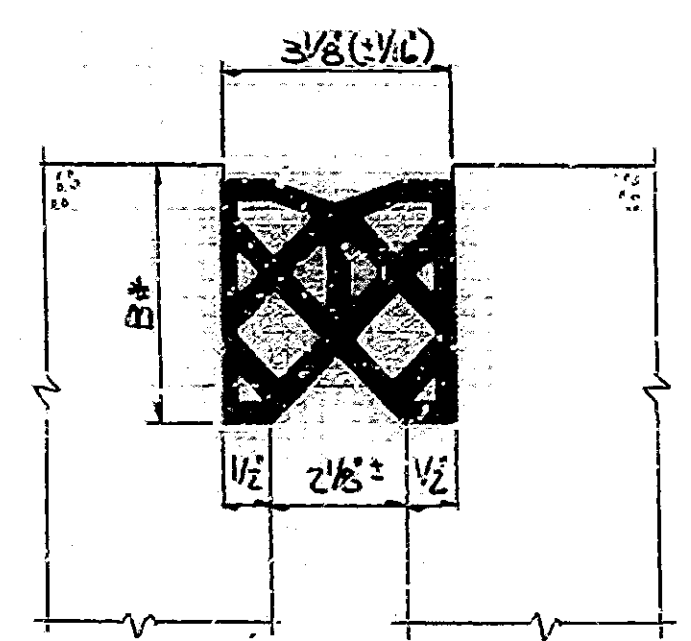
BILL OF MATERIALS			
REINFORCING STEEL			
SIZE #	NUMBER OF BARS	LENGTH	WEIGHT (LBS.)
#6	1728	24'-6"	
#6	36	2'-9"	
TOTAL NO. 6			63,737
#5	450	36'-9"	
TOTAL NO. 5			17,249
401a	466	6'-4"	
402a	466	2'-0"	
403a	80	7'-3"	
#4	282	36'-9"	
#4	20	8'-0"	
#4	12	4'-7"	
TOTAL NO. 4			10,048
TOTAL EPOXY COATED REINFORCING STEEL			91,034
CLASS 'C' CONCRETE			
POUR 1A			39.7
POUR 1A LT.			22.8
POUR 1A RT.			22.8
POUR 2A			96.6
POUR 2A LT.			54.8
POUR 2A RT.			54.8
TOTAL CLASS 'C' CONCRETE			291.5
MISCELLANEOUS			
RAILING (TYPE SA OR TYPE C)			43.1 LFT
EXPANSION JOINT CLASS BS-11			49.7 LFT
SURFACE SEAL			11,658 FT ²



SECTION B-B
 SCALE: 1/2" = 1'-0"



BAR DETAILS
 1/4" SCALE



EXP. JOINT - TYPE BS-11
 1/4" SCALE

NOTES

- FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARDS C1.
- FOR LOCATION OF SECTION B-B AND DETAIL D, SEE DRAWING S-20.
- THE CONTRACTOR WILL HAVE THE OPTION OF USING PERMANENT METAL FORMS FOR THE CONCRETE BRIDGE DECK IN LIEU OF REMOVABLE FORMS IN THIS CONTRACT. SEE SPECIAL PROVISIONS.
- THE TOP REINFORCING IN THE DECK SHALL BE SECURELY TIED DOWN TO THE DECK FORMS AND/OR THE GIRDERS TO PREVENT LIFTING DURING CONCRETE PLACEMENT.

CORNER DETAILS AND BILL OF MATERIALS (SPAN A & B)

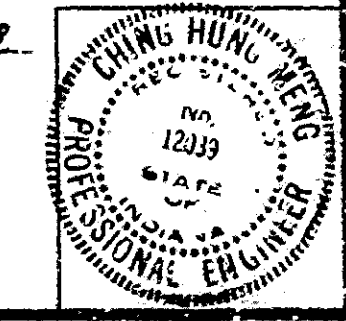
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED

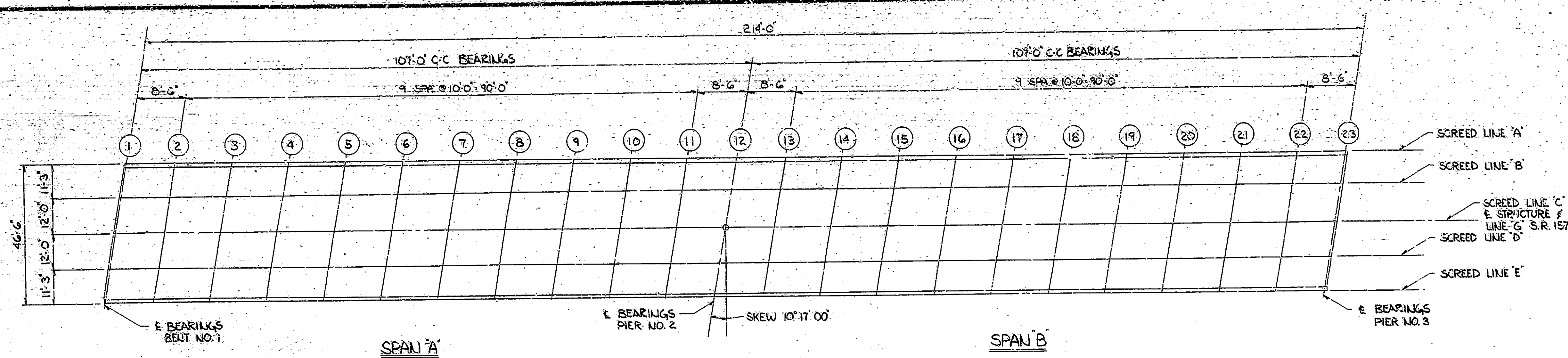
DATE: JANUARY 14, 1982

Ching Niang Meng
 SENIOR DESIGNER

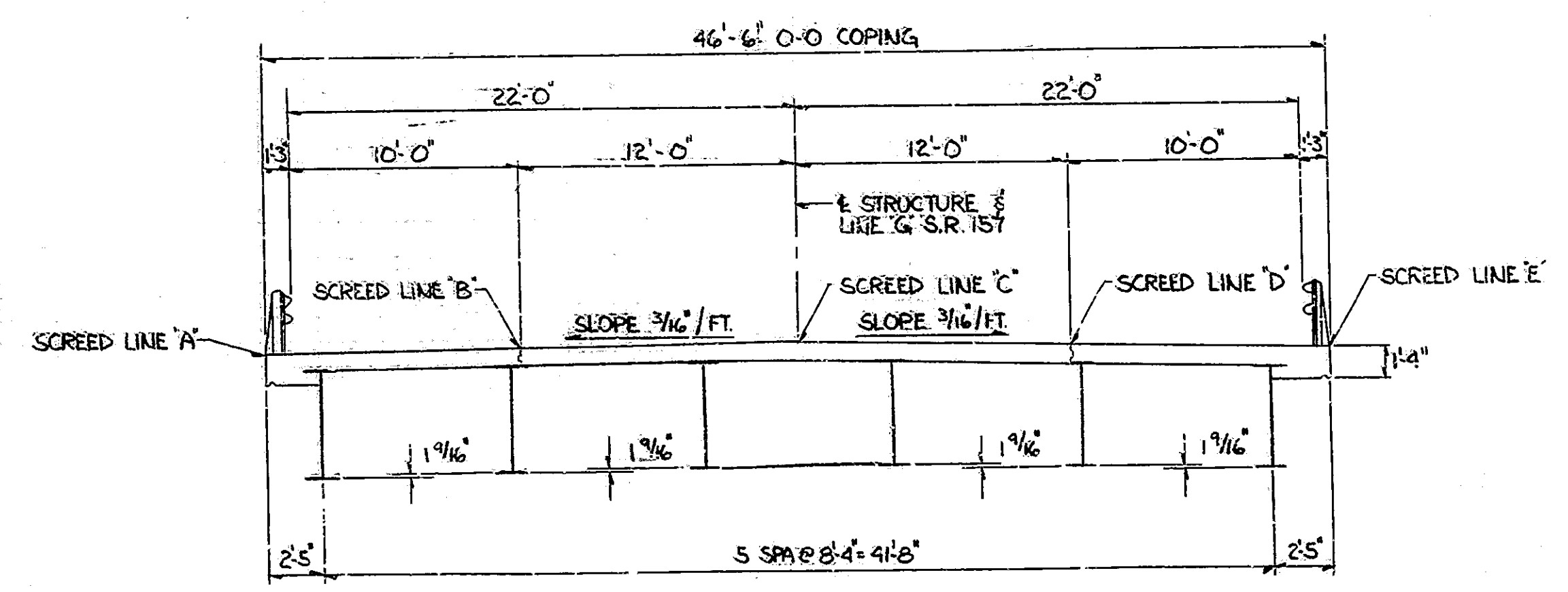
DRAWING: 521 OF 34 SHEET: 31 OF 85
 PROJECT: RS-4328-(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589



DESIGNED: CTD	CHECKED: CTD
DRAWN: CTD	CHECKED: CTD
TRACED: CTD	CHECKED: CTD



PLAN OF SCREEDS
SCALE: HORI. 1" = 10'
VERI. 1" = 20'



SECTION I TO E STRUCTURE
SCALE: 1" = 5'-0"

PURPOSE

"PLAN OF SCREEDS" SHOWS LOCATIONS OF SCREEDS. TABLE OF SCREED ELEVATIONS SHOWS DATA FOR SETTING SCREEDS AND COPING FORMS SO THAT THE SLAB AND COPING WILL BE AT THE FINAL GRADE ELEVATIONS AFTER ALL THE CONCRETE HAS BEEN POURED.

GENERAL PROCEDURE

AFTER THE BEARINGS HAVE BEEN SET ACCORDING TO THE GENERAL ERECTION PROCEDURE ON DRAWING S 21 TAKE ELEVATIONS AT ALL SCREED POINTS ON TOP OF THE ADJACENT GIRDERS. ENTER THESE ELEVATIONS IN THE TABLE OF SCREED ELEVATIONS. SUBTRACT THESE ELEVATIONS FROM THE FINAL GRADE ELEVATIONS AND USE THESE RESIDUAL DIMENSIONS AS THE HEIGHT OF SETTING THE SCREED OR COPING FORM ABOVE THAT POINT ON THE GIRDERS. THIS DIMENSION REMAINS CONSTANT REGARDLESS OF WHETHER OR IN WHAT ORDER THE CONCRETE IS POURED. DO NOT SET SCREEDS OR COPING FORMS BY LEVELING.
NO CONCRETE IN THE FLOOR SLAB IS TO BE POURED UNTIL THE ABOVE OPERATIONS ARE COMPLETE.

TABLE OF SCREED ELEVATIONS

POINT		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
A	ELEVATION - TOP OF COPING FORM	524.050	524.180	524.325	524.455	524.545	524.640	524.740	524.805	524.860	524.910	524.965	525.020	525.085	525.170	525.240	525.345	525.420	525.480	525.520	525.560	525.590	525.590	525.590	
	ELEVATION - TOP OF OUTSIDE GIRDER																								
	DISTANCE - TOP OF GIR. TO TOP OF COPING FORM																								
B	ELEVATION - TOP OF SCREED	524.205	524.335	524.490	524.610	524.725	524.820	524.900	524.965	525.020	525.070	525.130	525.185	525.250	525.335	525.425	525.510	525.585	525.650	525.695	525.730	525.745	525.755	525.760	
	ELEVATION - TOP OF ADJACENT GIRDER																								
	DISTANCE - TOP OF GIR. TO TOP OF SCREED																								
C	ELEVATION - TOP OF SCREED	524.370	524.500	524.645	524.775	524.890	524.985	525.065	525.135	525.190	525.245	525.300	525.355	525.420	525.510	525.600	525.685	525.765	525.825	525.875	525.905	525.925	525.935	525.935	
	ELEVATION - TOP OF ADJACENT GIRDER																								
	DISTANCE - TOP OF GIR. TO TOP OF SCREED																								
D	ELEVATION - TOP OF SCREED	524.185	524.290	524.435	524.565	524.640	524.730	524.810	524.875	524.930	524.985	525.040	525.095	525.160	525.240	525.305	525.400	525.485	525.565	525.630	525.675	525.705	525.725	525.740	
	ELEVATION - TOP OF ADJACENT GIRDER																								
	DISTANCE - TOP OF GIR. TO TOP OF SCREED																								
E	ELEVATION - TOP OF COPING FORM	523.955	524.090	524.235	524.370	524.485	524.585	524.645	524.730	524.795	524.845	524.900	524.960	525.030	525.115	525.210	525.295	525.375	525.440	525.490	525.520	525.540	525.550	525.550	
	ELEVATION - TOP OF OUTSIDE GIRDER																								
	DISTANCE - TOP OF GIR. TO TOP OF COPING FORM																								

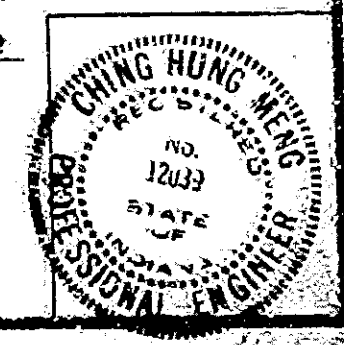
SCREEDS (SPAN A AND B)
INDIANA STATE HIGHWAY COMMISSION

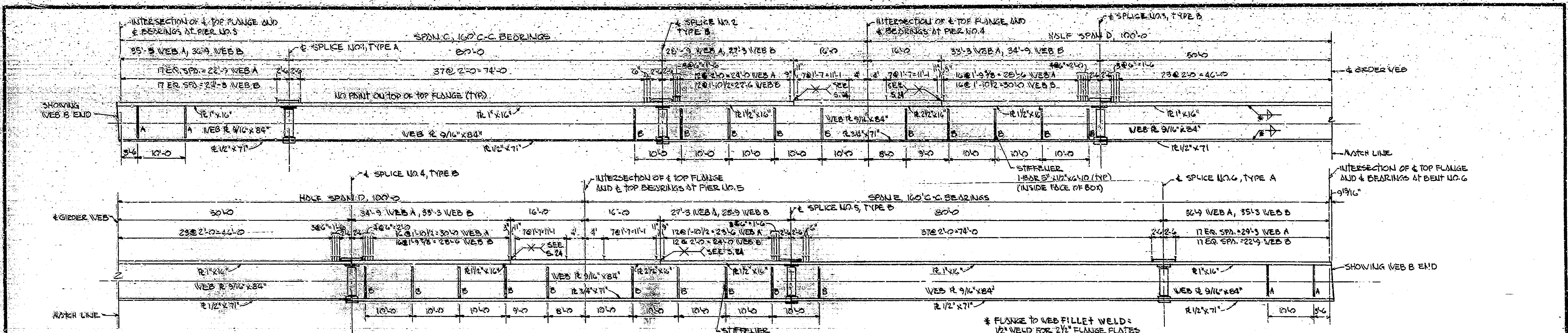
SCALE: AS NOTED DATE: JANUARY 12, 1984

DESIGNED: L.P. C.K.D. CHM 1-20-84
DRAWN: O.P.S. CHM 1-20-84
CHECKED: J.S. CHM 1-20-84
TRACED: J.S. CHM 1-20-84
CHM 1-20-84

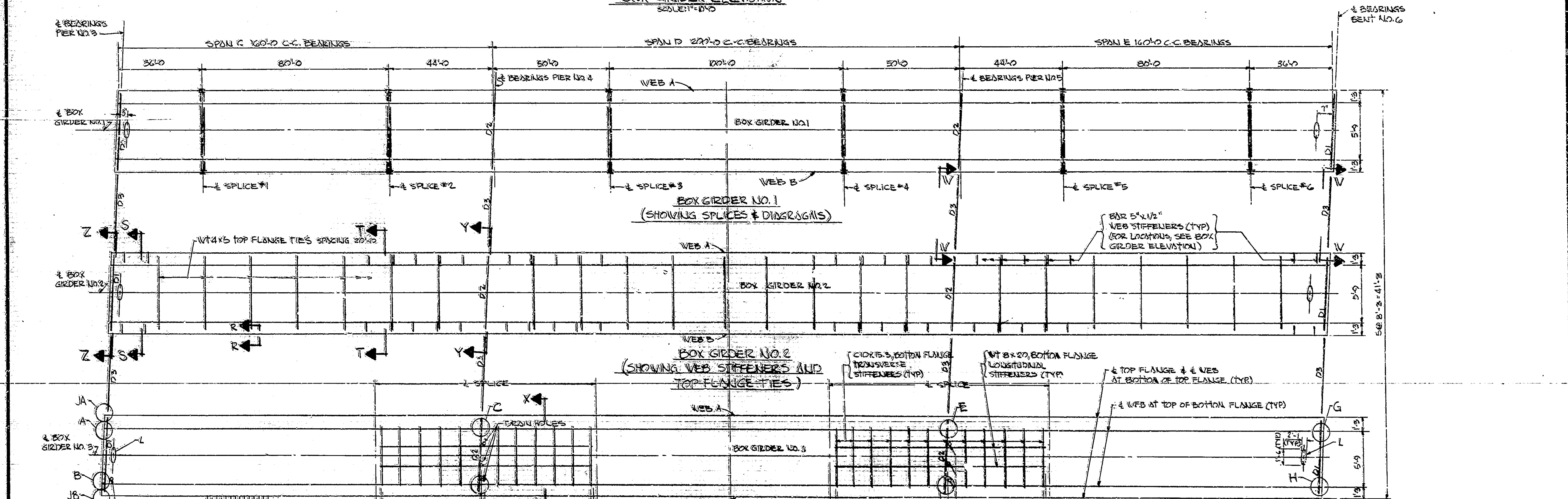
Ching Hung Meng
SENIOR DESIGNER

DRAWING NO. 34 SHEET NO. 32 OF 85
PROJECT: RS 4328 (1)
CONTRACT NO. B-13779
BRIDGE FILE: 157-28-6589





BOX GIRDER ELEVATION
SCALE: 1" = 10'-0"



FRAMING PLAN
SCALE: 1" = 10'-0"

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS SHOWN DATE: JANUARY 12, 1982

Ching Hong Meng
SENIOR DESIGNER

DESIGNED: CHM C.K.D. J.E.J.
DRAWN: W.B. LEACH C.K.D.
TRACED: C.K.D.

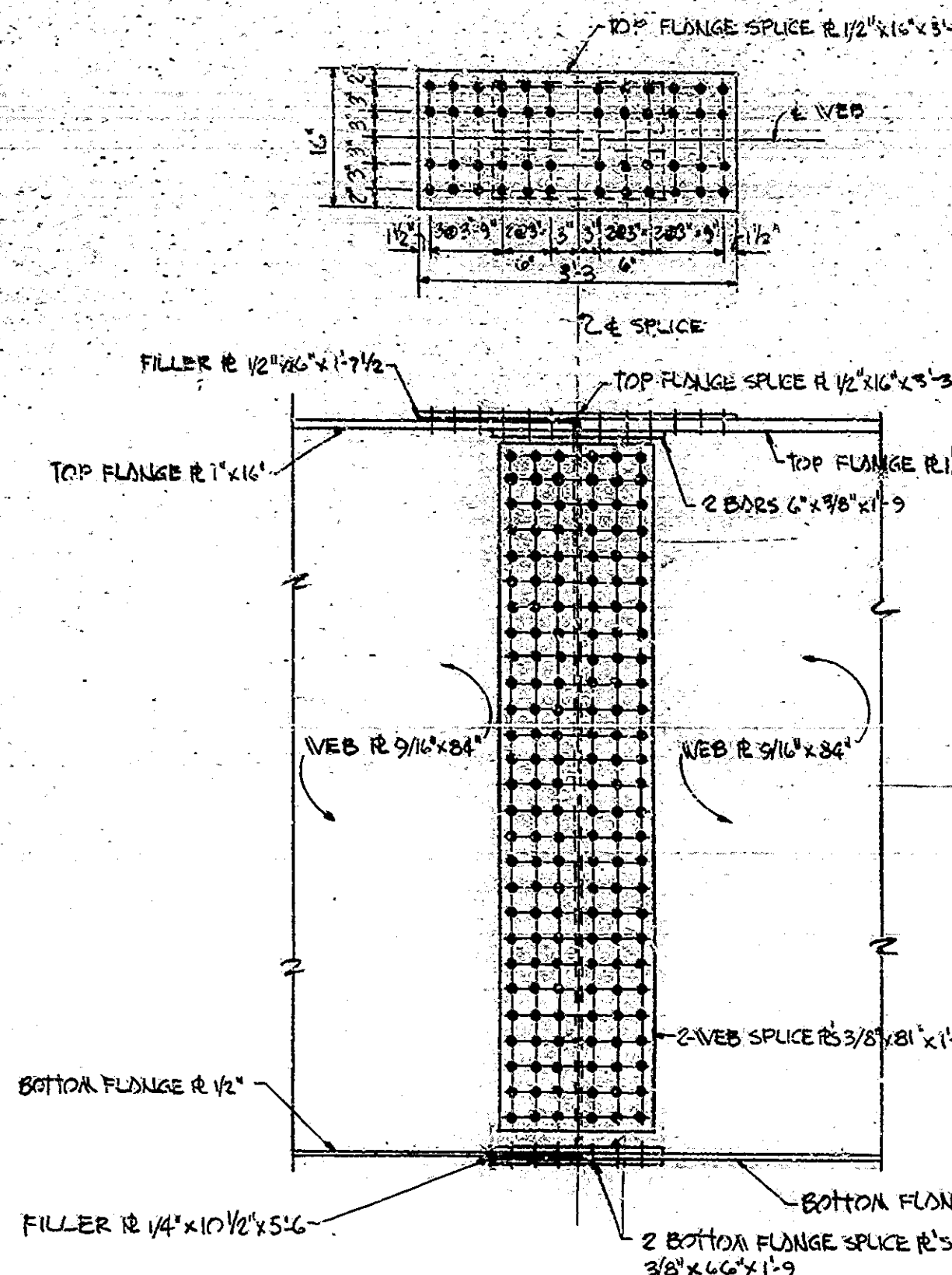
DRAWING: 523 OF 34 SHEET: 33 OF 85
PROJECT: RS-4328(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-28-6589

3/4" Ø X 0'-6" THREADED STUDS WITH UNIFORM SPACING @ 2'-0" ON OUTSIDE FACE OF OUTSIDE GIRDERS. FOR LOCATIONS, SEE DRAWING S-300. AS AN ALTERNATE, 3/4" Ø X 0'-6" HEADED STUDS MAY BE USED.

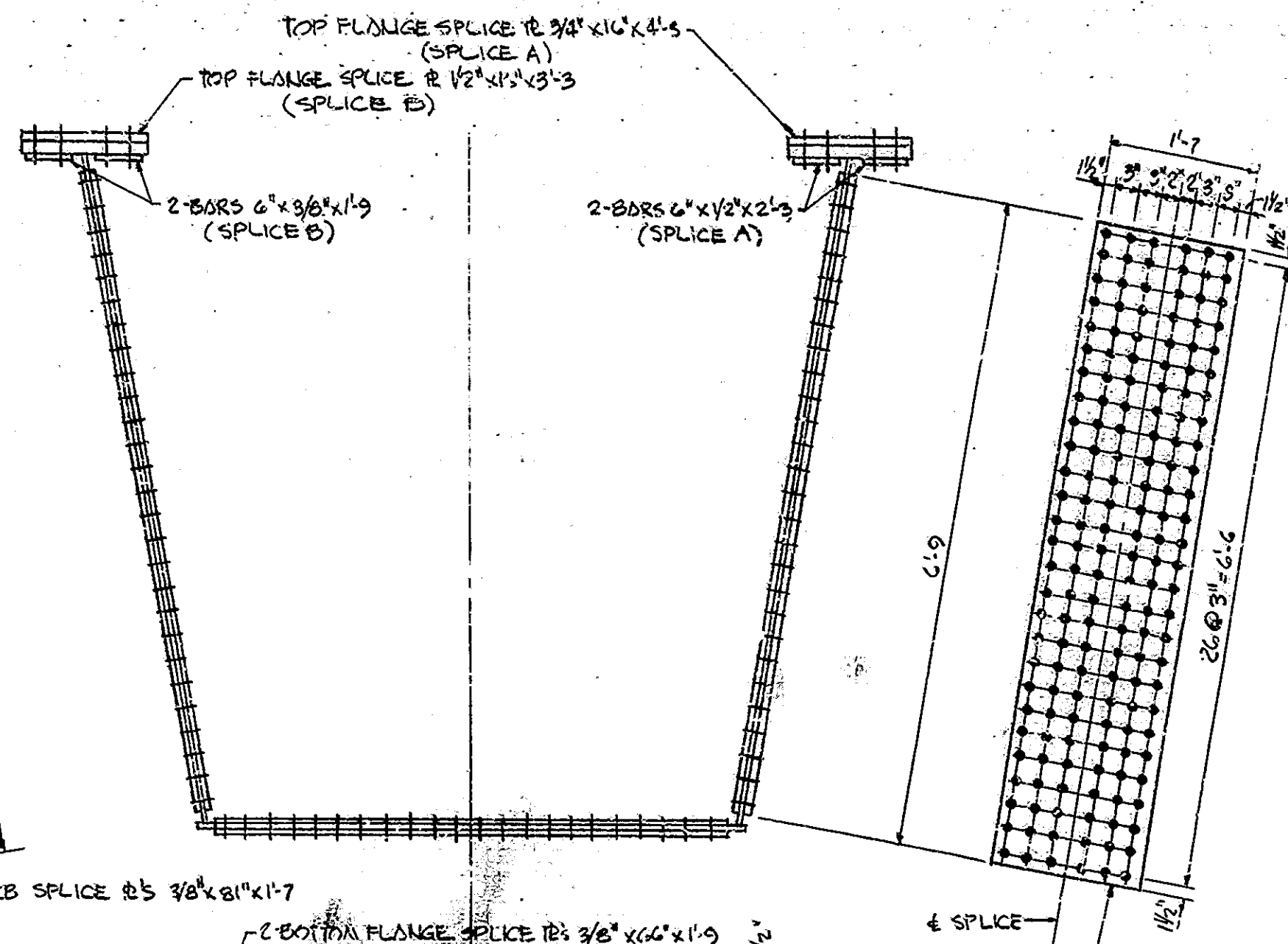
DRAIN HOLES, SEE DETAIL K ON DRAWING 526

PROF. CHING HONG MENG
STATE OF INDIANA
REGISTERED PROFESSIONAL ENGINEER

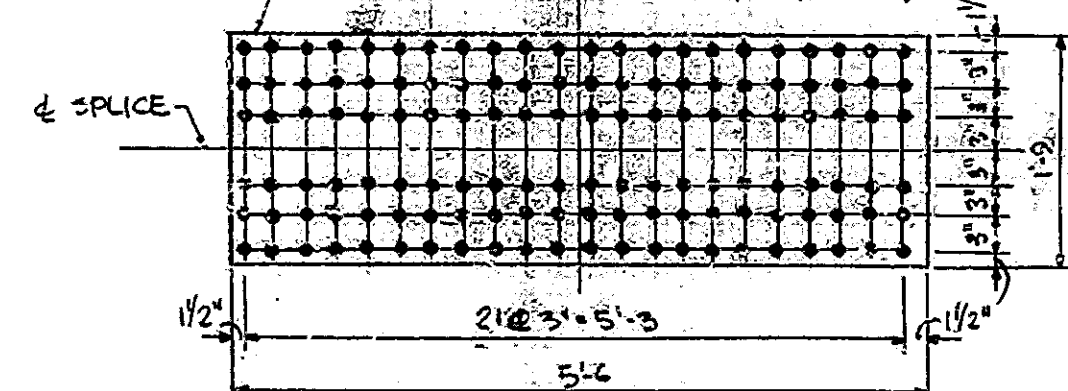
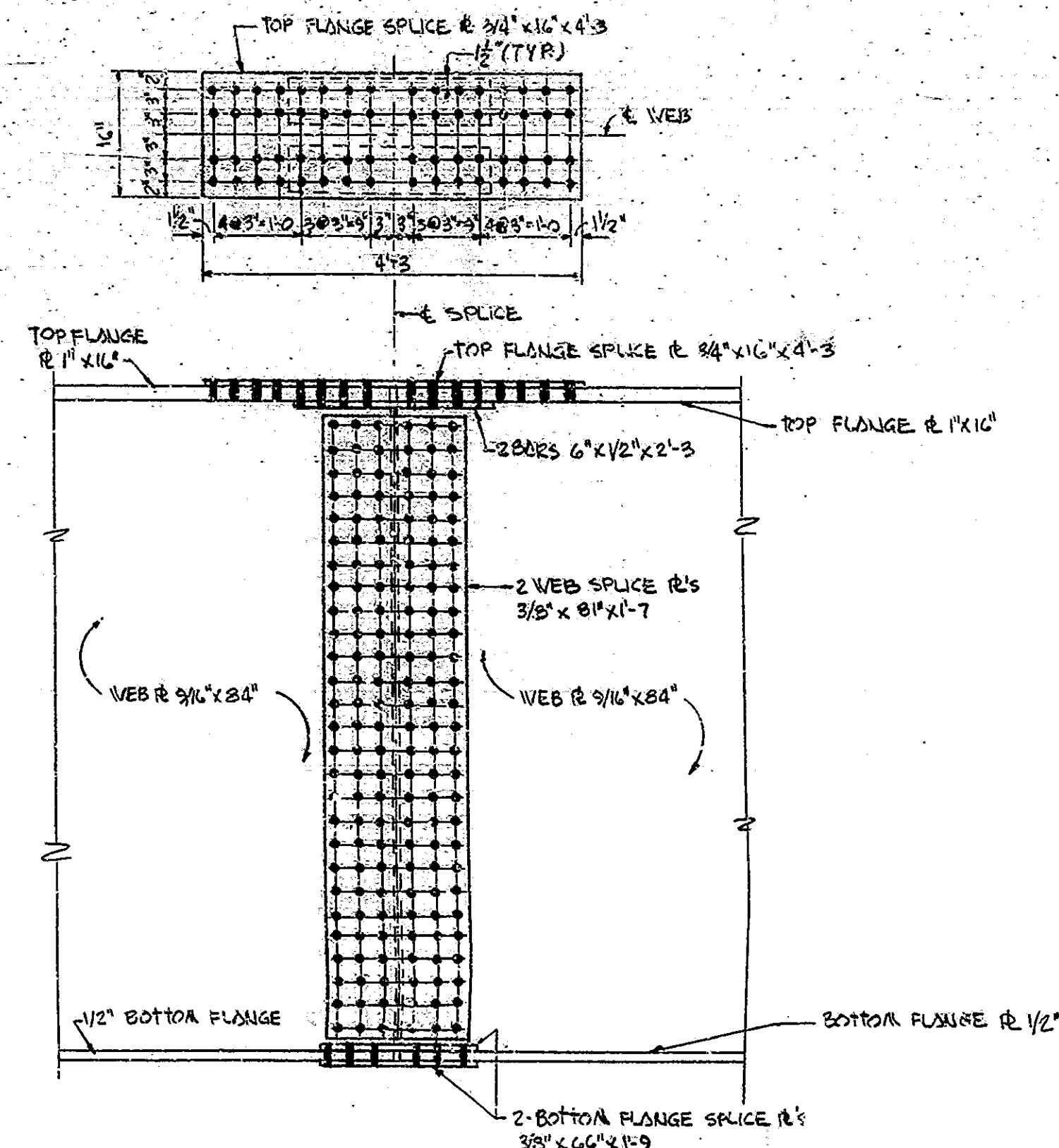
CHM 11-23-81



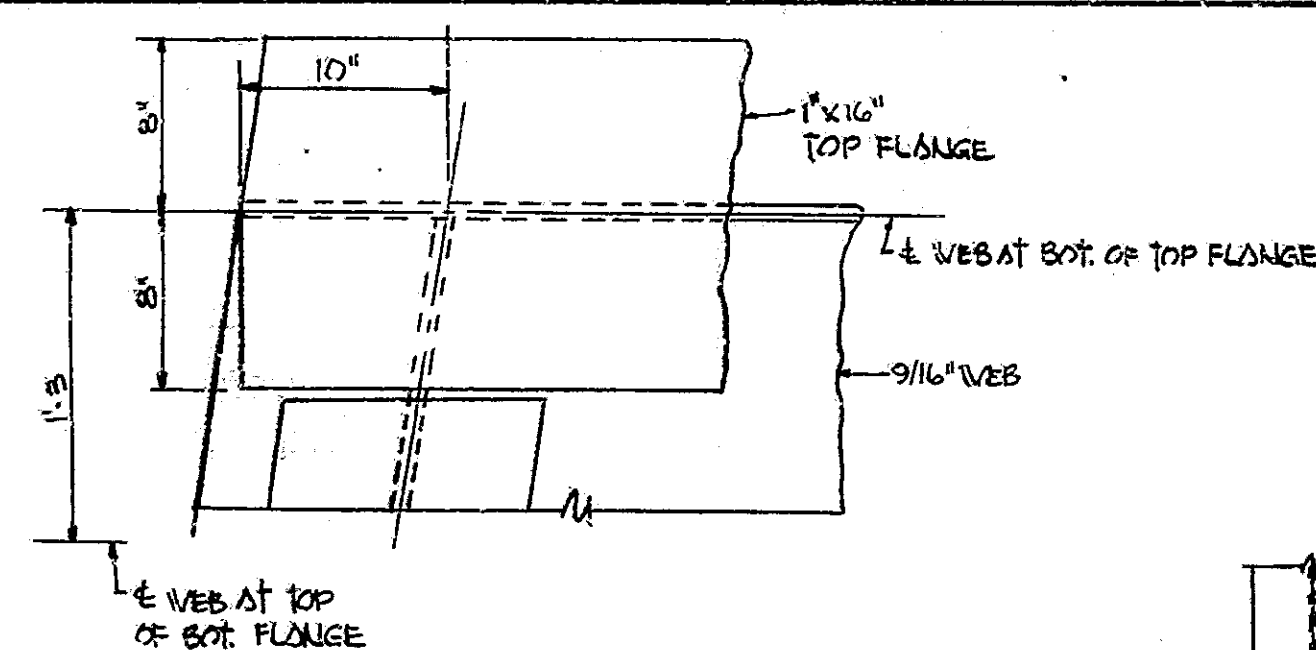
HALF SPLICE "B"



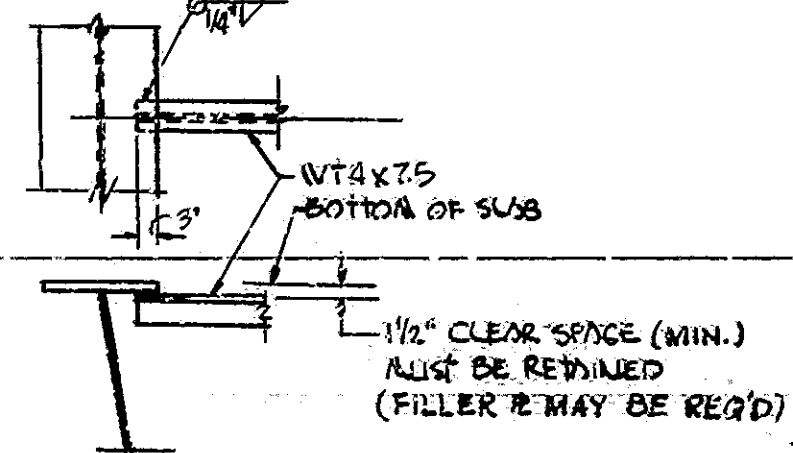
HALF SPLICE "A"



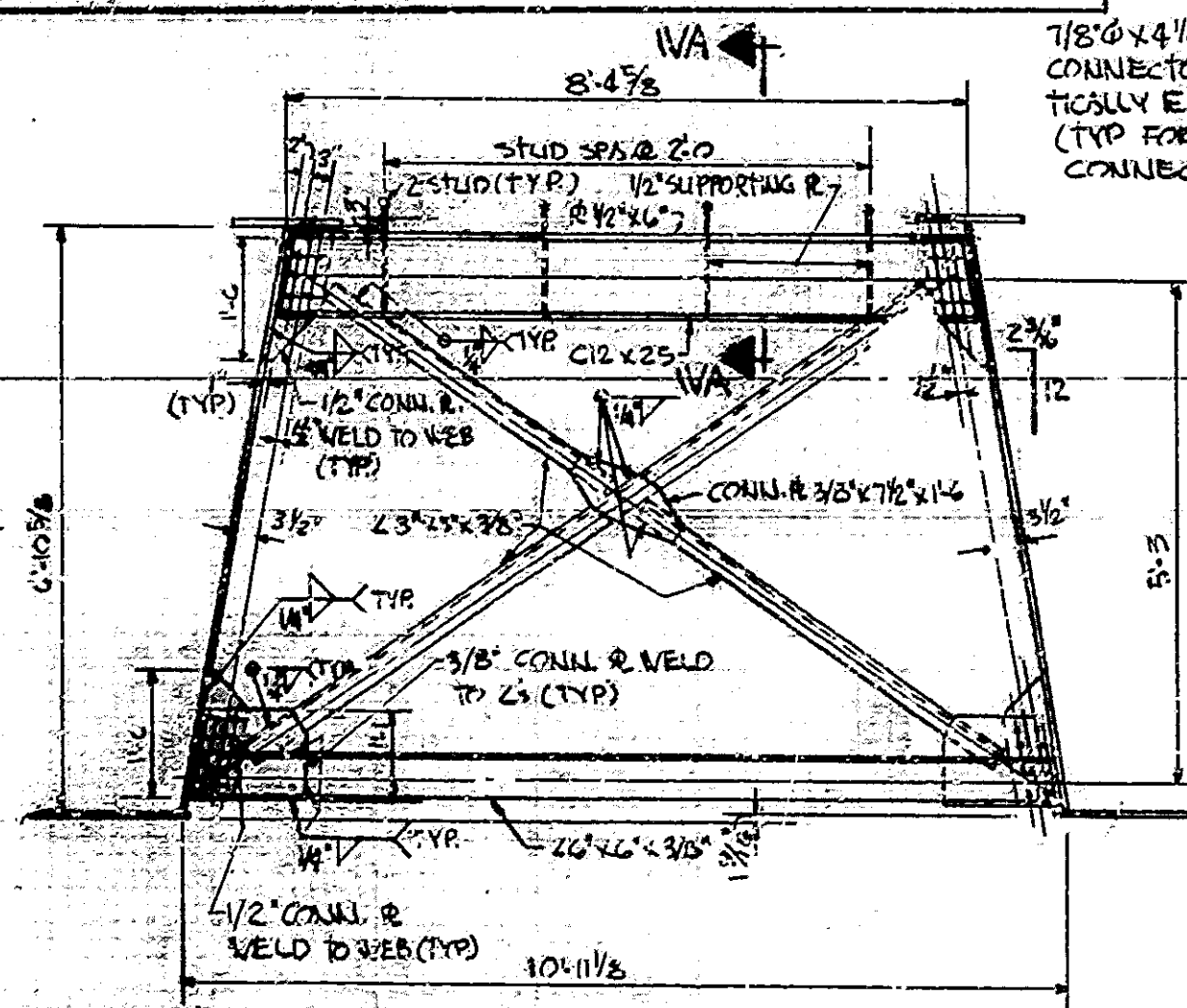
SPLICE DETAILS
SCALE: 1/2"=1'-0"



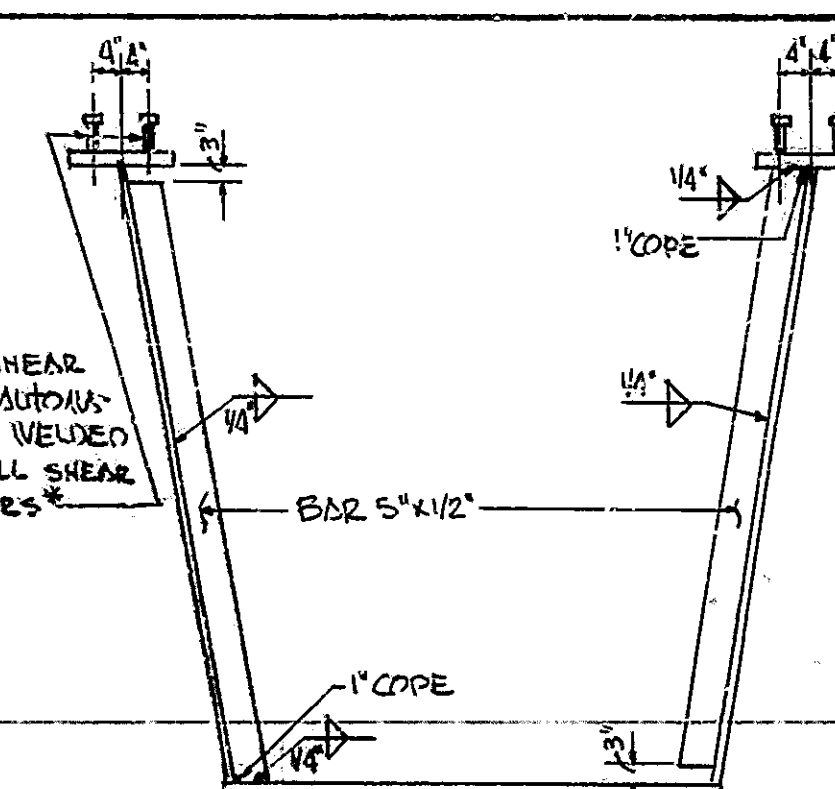
DETAIL "JA"
SCALE: 1/2"=1'-0"



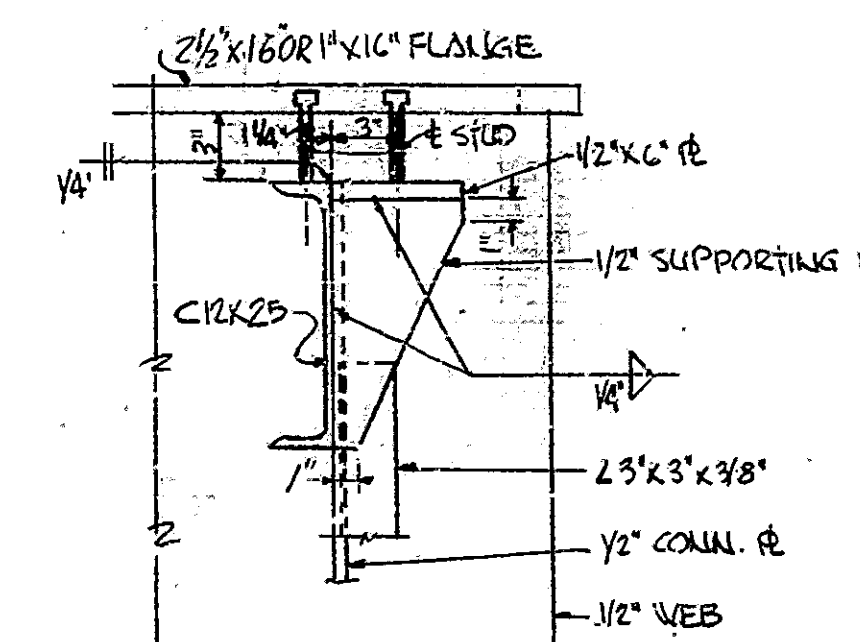
SECTION R-R
(TIE CONNECTION)
SCALE: 1/2"=1'-0"



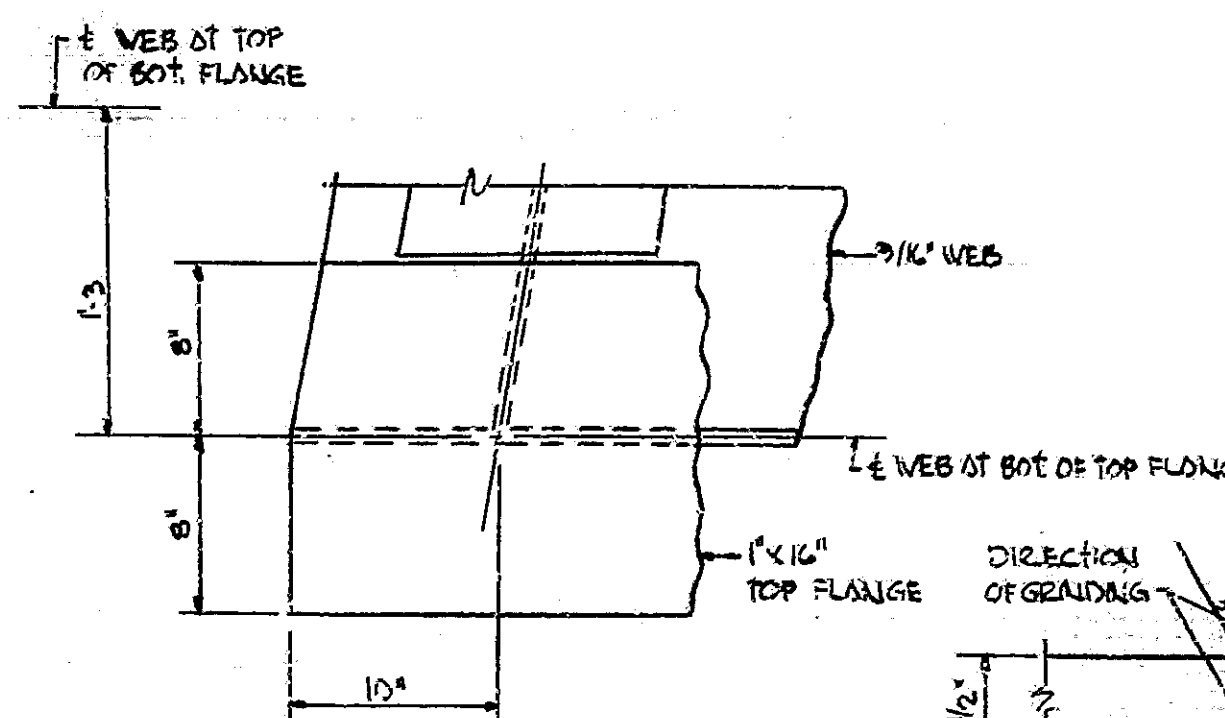
SECTION W/W (D3)
(CROSS FRAME BETWEEN GIROERS)
SCALE: 1/2"=1'-0"



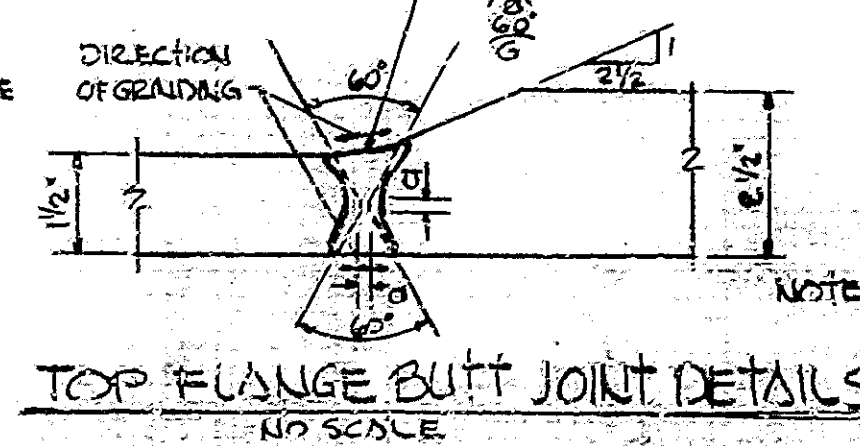
STIFFENER DETAILS
SCALE: 1/2"=1'-0"



SECTION "VA-VB"
SCALE: 1/2"=1'-0"



DETAIL "JB"
SCALE: 1/2"=1'-0"



TOP FLANGE BUTT JOINT DETAILS
NO SCALE

* THE CONTRACTOR MAY USE WELDED CHANNELS OR 84" DIA WELDED STUDS AS ALTERNATE SHEAR CONNECTORS. IF USED THEY SHALL HAVE EQUIVALENT SHEAR VALUE AND THE PROPOSED SIZE AND SPACING SUBMITTED FOR APPROVAL.

NOTE: FOR LOCATIONS OF SECTIONS AND DETAILS, SEE DRAWING'S 23

STEEL DETAILS (SPON.C.D. AND E)

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS SHOWN

DATE: JANUARY 12, 1982

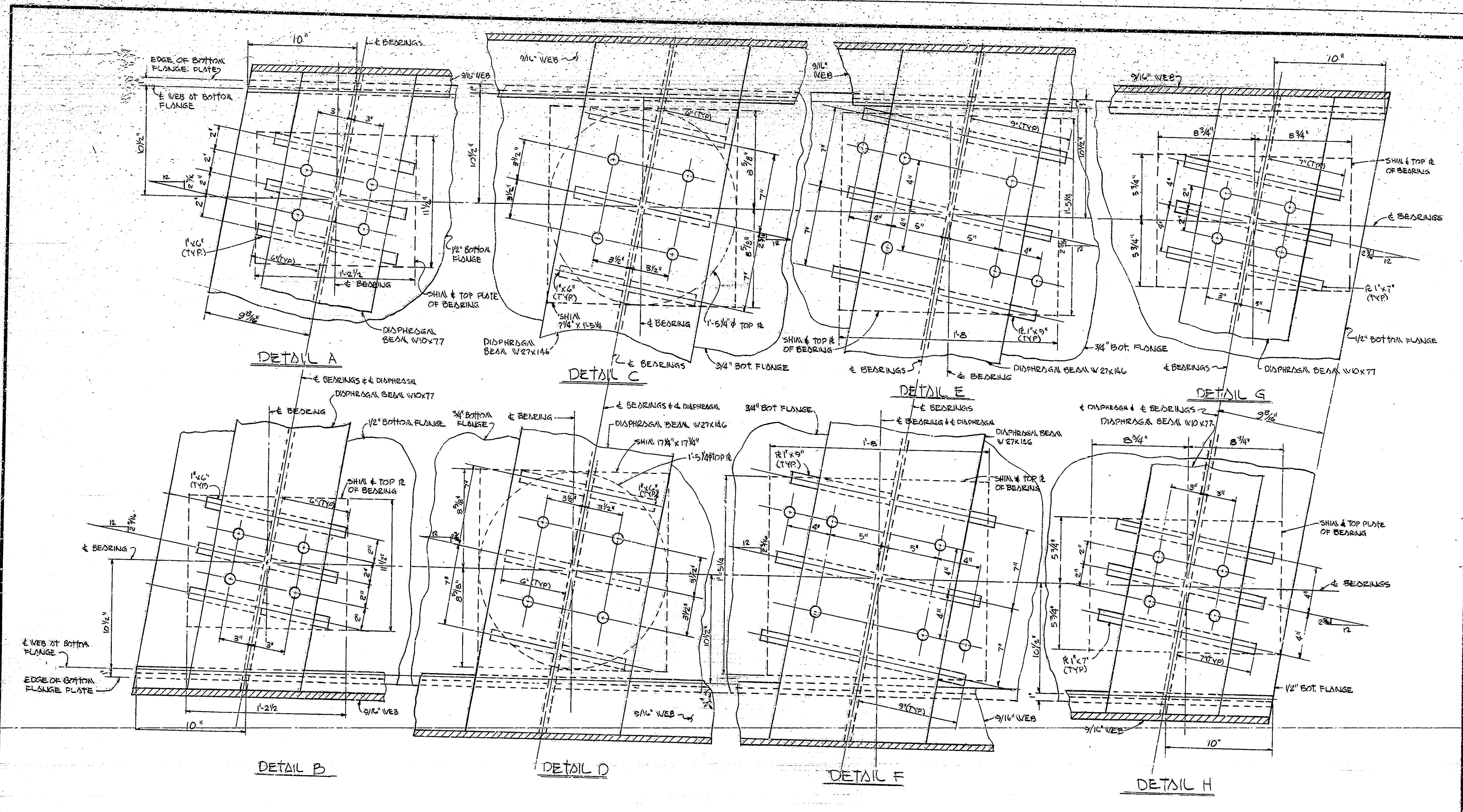
Clayton J. Meyer
SENIOR DESIGNER

DRAWING: 320 OF 34 SHEET: 34 OF 85
PROJECT: RS-4378(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-23-6589



DESIGNED: CHM CKD: JE
DRAWN: CHM CKD: CHM
TRACED BY: CHM CKD: CHM

REV. 11-10-82 NOTE

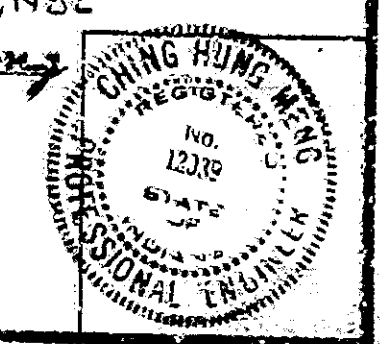


- NOTES:
1. FOR LOCATIONS OF SECTIONS SEE DRAWING S.23
 2. ALL SECTIONS ARE TAKEN AT THE TOP OF THE DIAPHRAGM BEAMS.
 3. DIAMETER OF HOLES IN BOTTOM FLANGES OF GIRDER AND DIAPHRAGM BEAM TO BE 1 1/8".

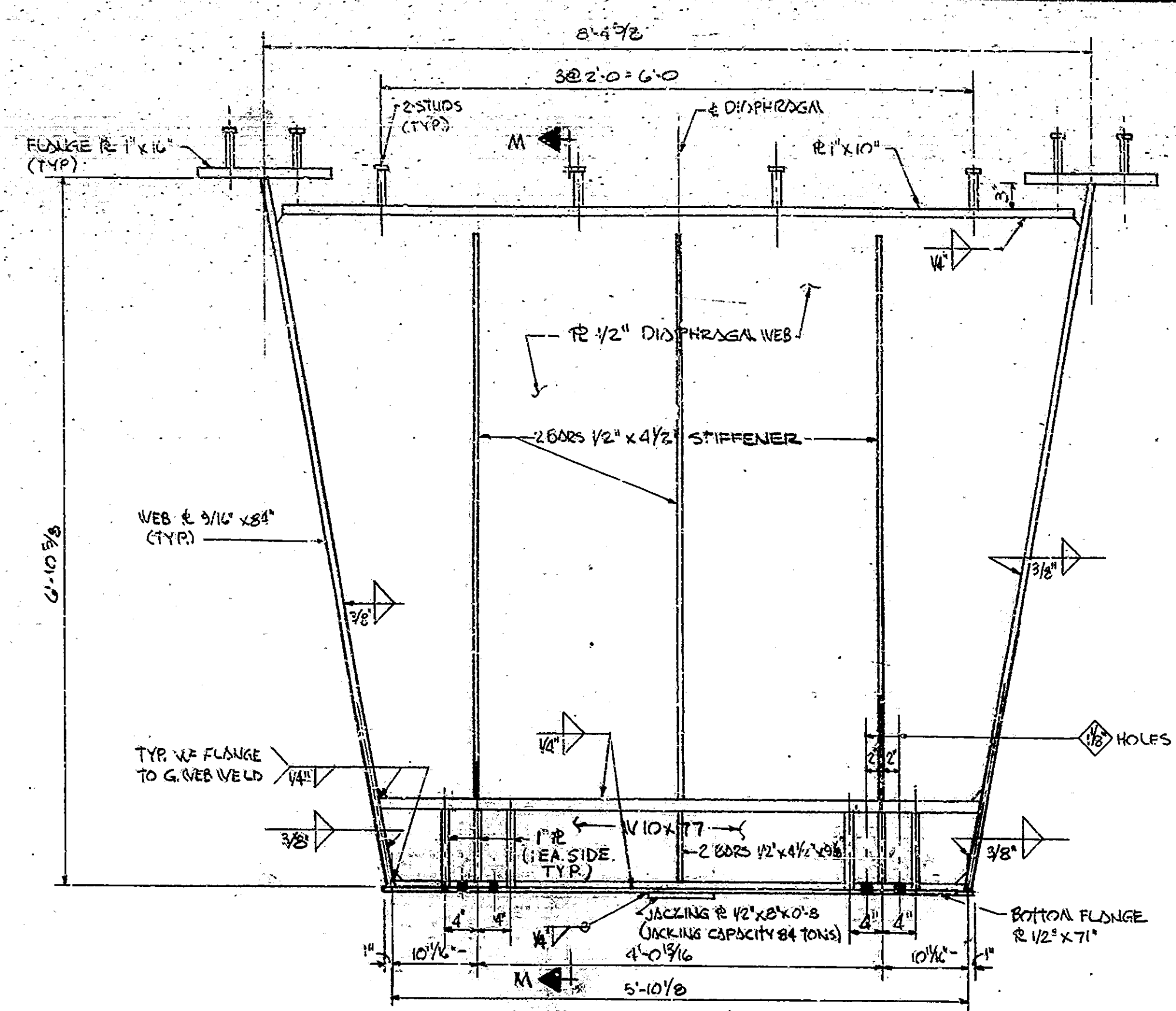
STEEL DETAILS AT SUPPORTS (SPAN GRADE)
INDIANA STATE HIGHWAY COMMISSION

SCALE: 3"-1'-0" DATE: JANUARY 12, 1982

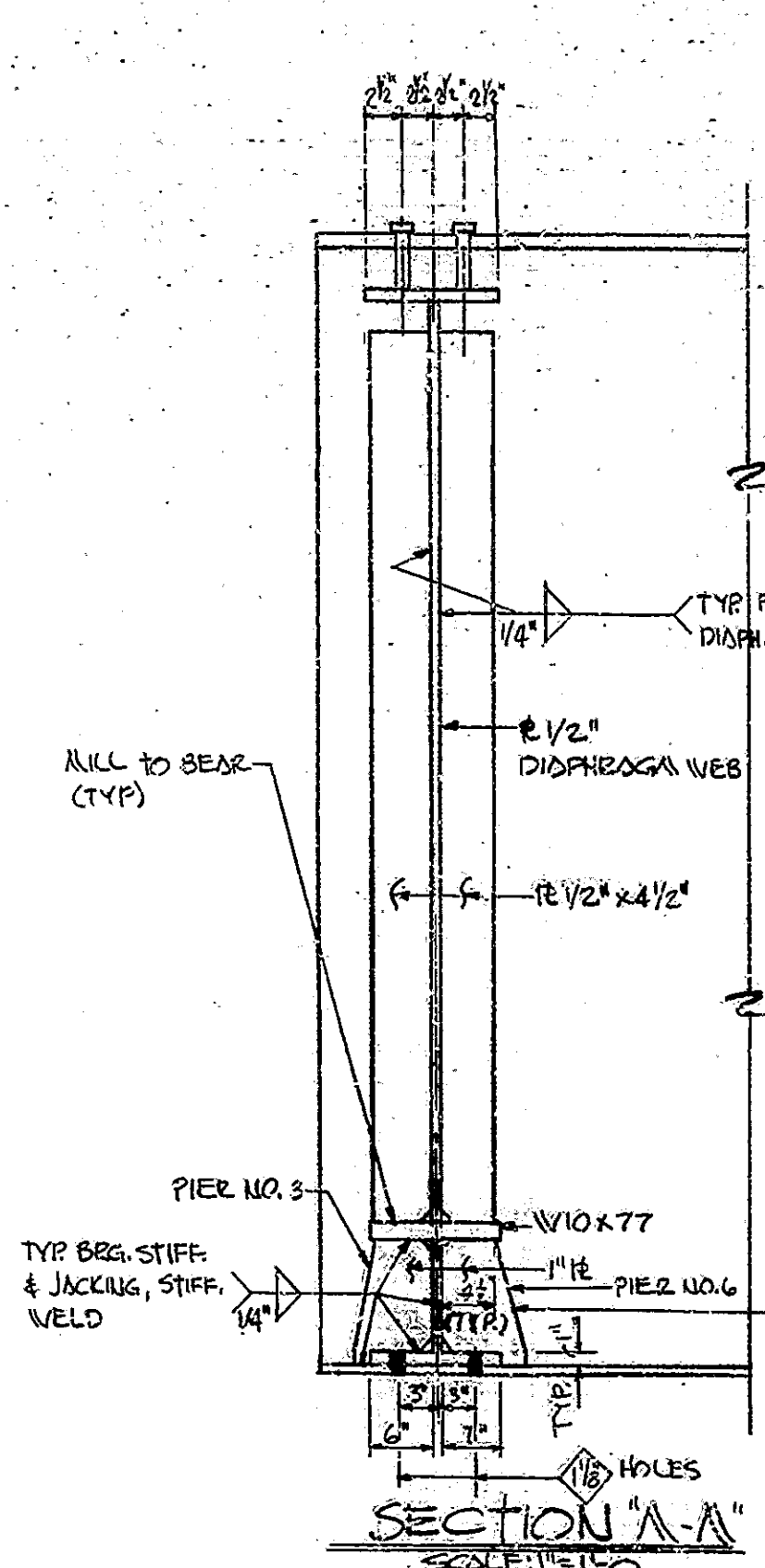
DRAWING: 525 OF 34 SHEET: 35 OF 85
 PROJECT: RS-4328(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589



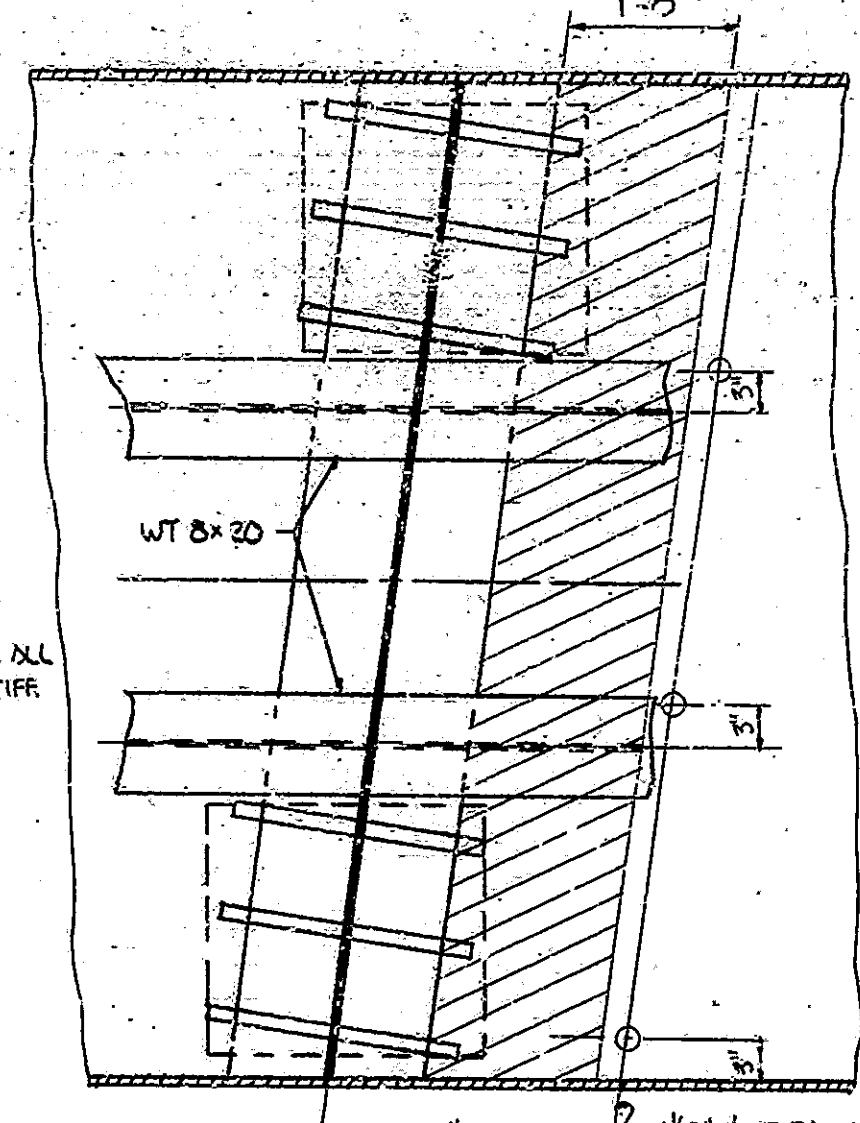
DESIGNED: CHM CWD: SEJ
 DRAWN: CHM CWD: SEJ
 TRACED: LEB MHL CWD: CHM 11-14-82



SECTION Z-Z (PI DETAILS)
(AT PIER NO. 3 & BELT NO. 6)
SCALE: 1/2"=1'-0"

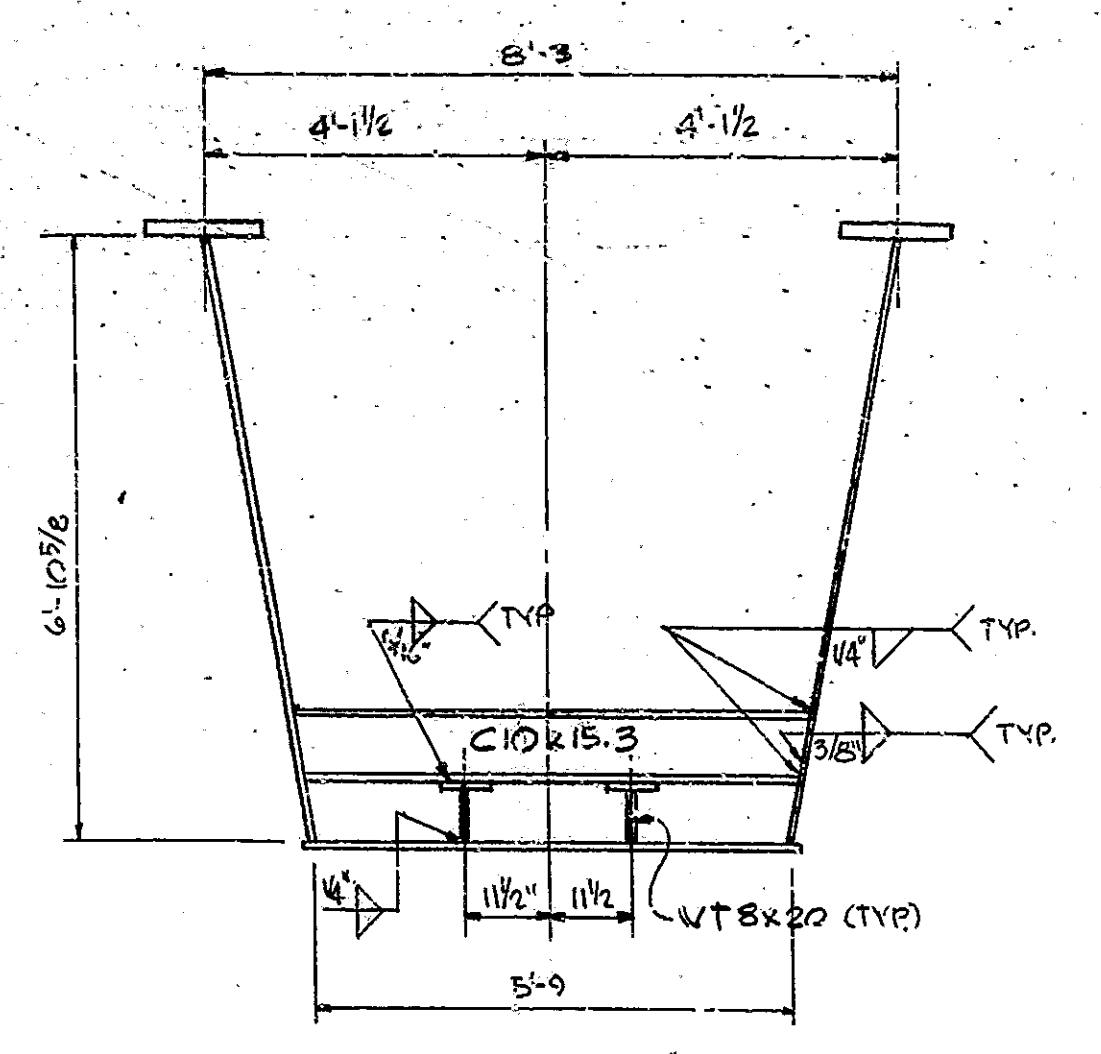


SECTION A-A
SCALE: 1/2"=1'-0"

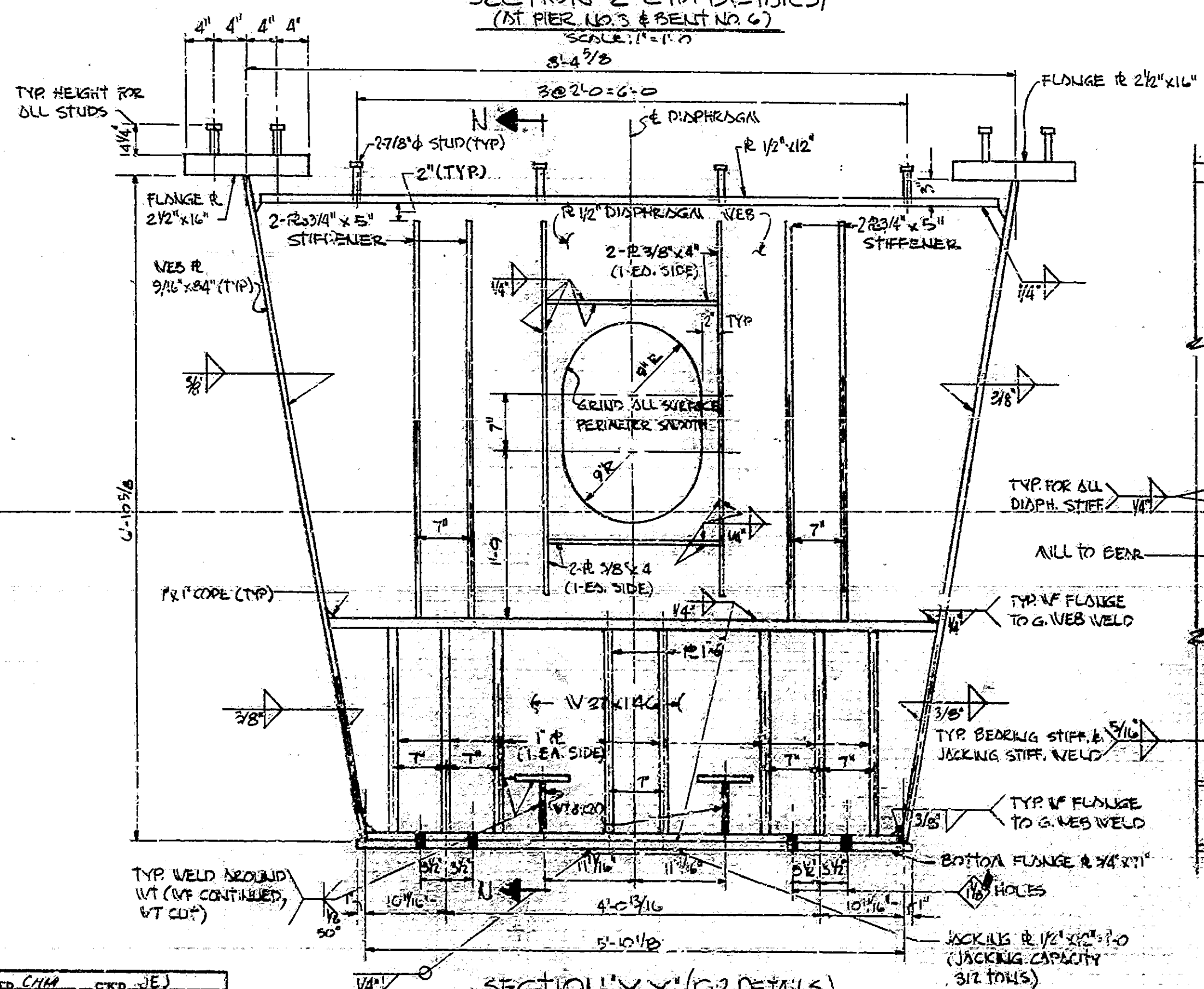


DETAIL K
(DRAIN HOLES)
SCALE: 1"=1'-0"

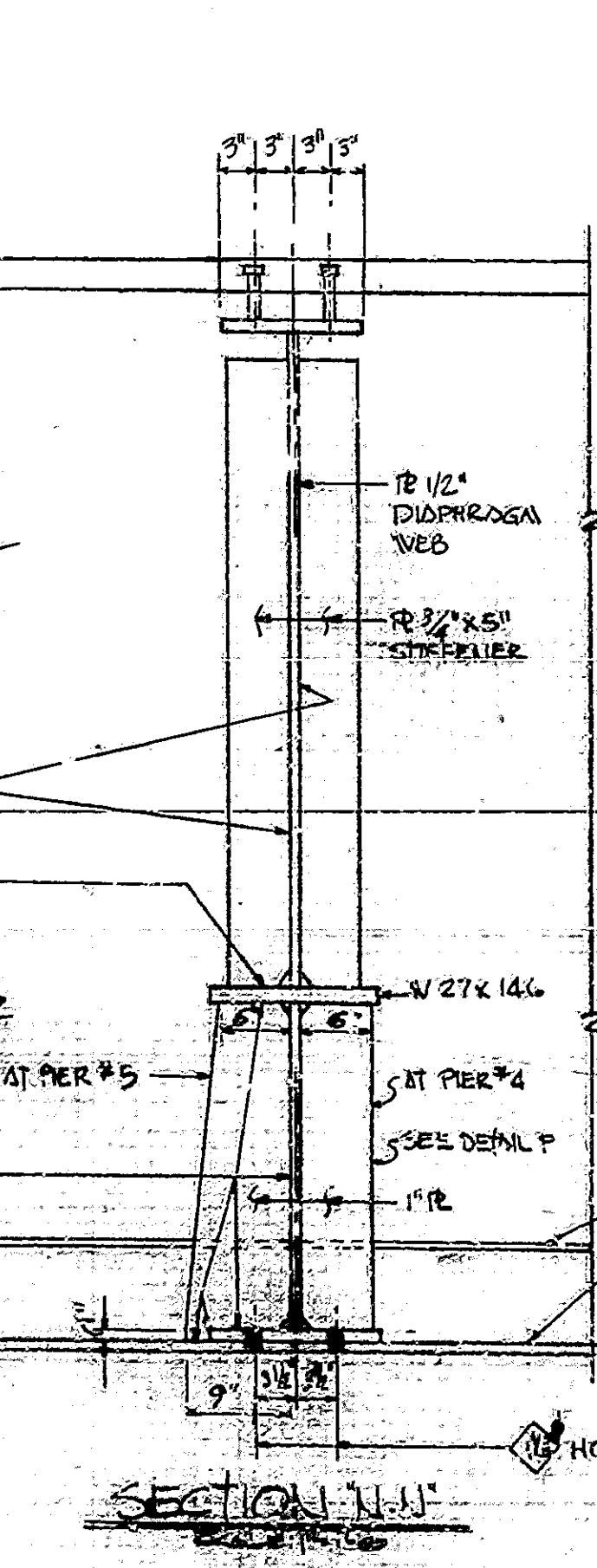
NOTE: HATCHED AREAS INDICATES WEDGED BITUMINOUS MASTIC, MINIMUM THICKNESS 1" TO FACILITATE DRAINAGE. SEE SPECIAL PROVISIONS (TYPICAL NEAR ALL DRAIN HOLES)



SECTION X-X
(BOTTOM FLANGE STIFFENERS)
SCALE: 1/2"=1'-0"

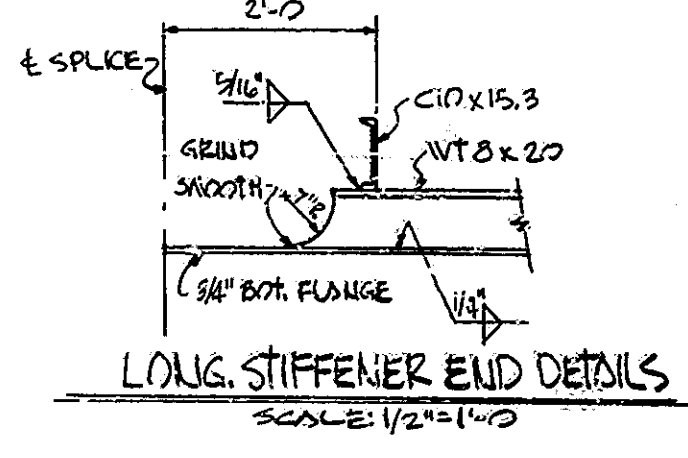


SECTION Y-Y (D2 DETAILS)
SCALE: 1/2"=1'-0"

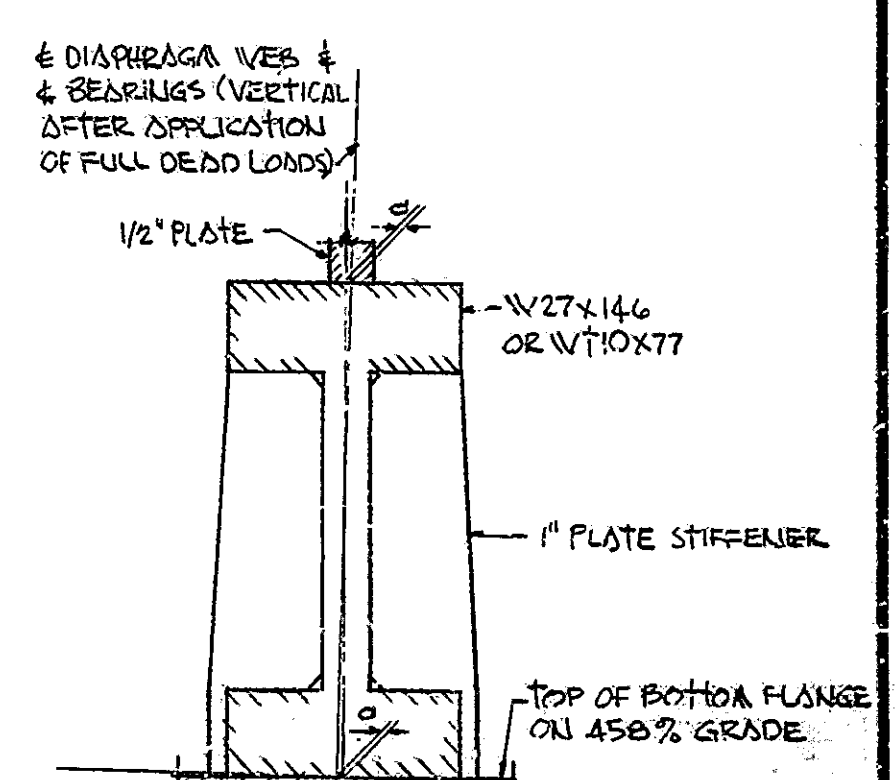


SECTION N-N
SCALE: 1/2"=1'-0"

DRILL AND TAP FOR 1/2" BOLTS IN SCREEN FRAME, 5/8" HOLES IN BOTTOM FLANGE AND REINFORCING FLAT BAR (TYP)

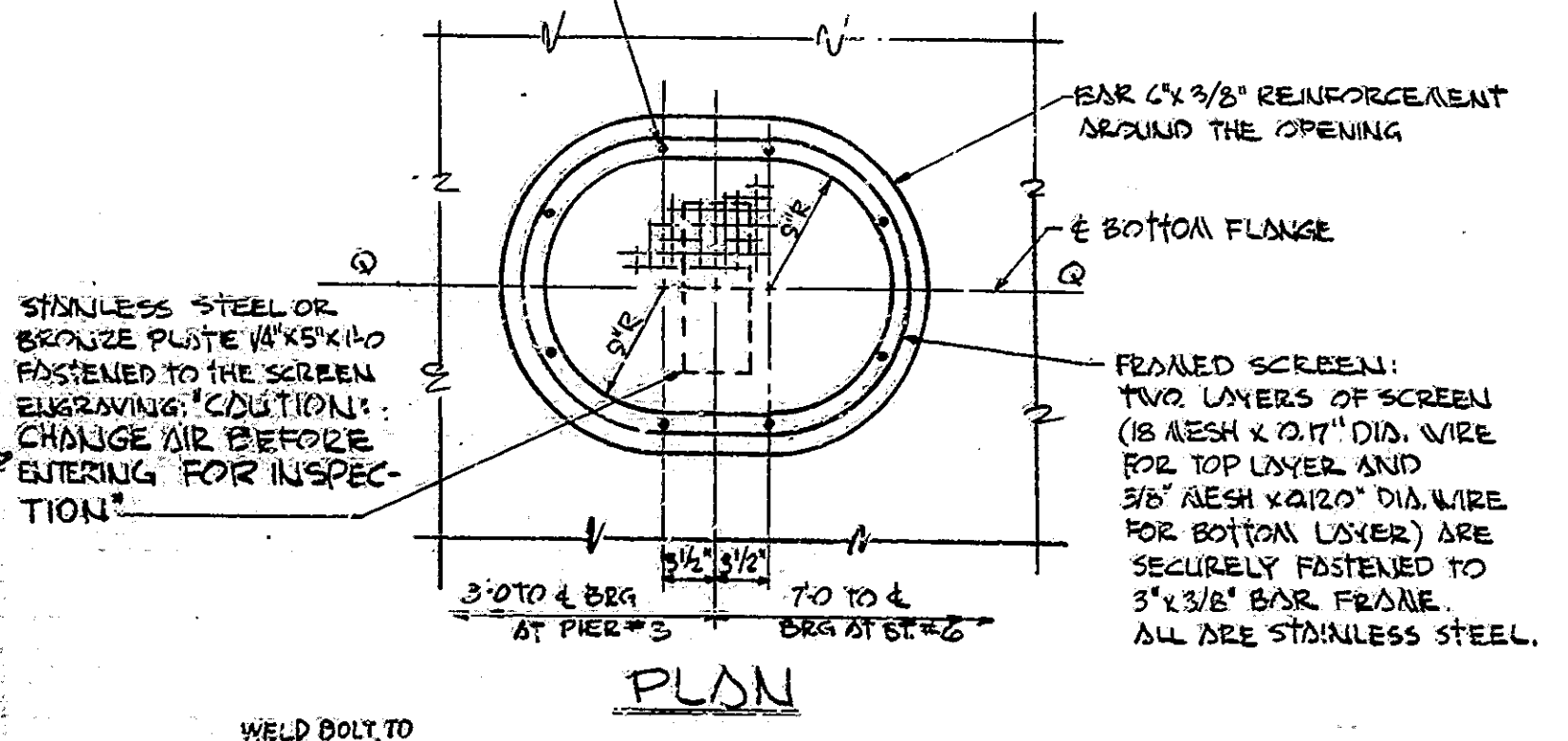


LONG STIFFENER END DETAILS
SCALE: 1/2"=1'-0"



DETAIL P (DIAPHRAGM CONNECTION)
NO SCALE

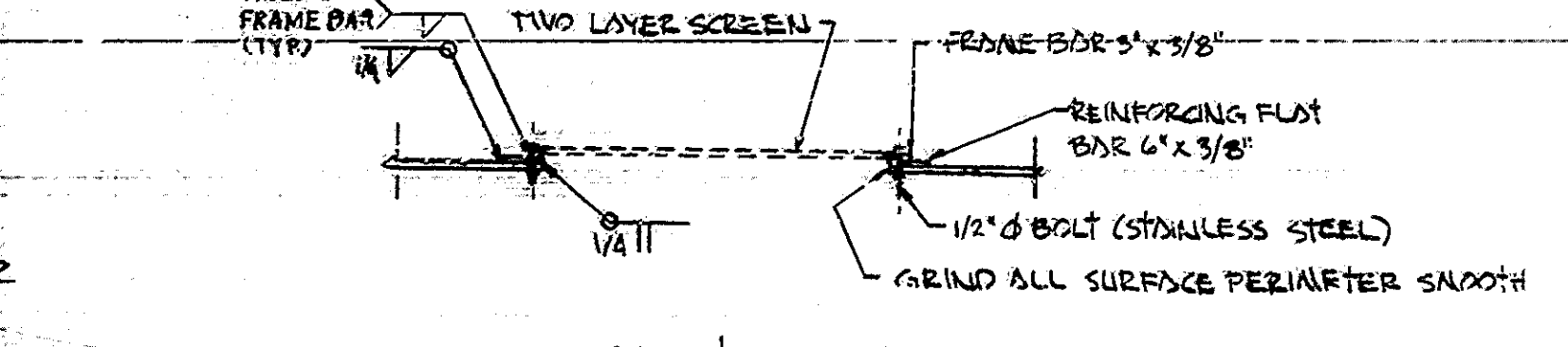
NOTE: S₁ AT TOP AND BOTTOM OF BEAM SHOULD BE EQUAL



PLAN

STAINLESS STEEL OR BRASS PLATE 1/4" X 5/16" FASTENED TO THE SCREEN ENGRAVING CONDITION: CHANGE AIR BEFORE ENTERING FOR INSPECTION

FRAMED SCREEN: TWO LAYERS OF SCREEN (8 AESH X 0.11" DIA. WIRE FOR TOP LAYER AND 3/8" AESH X 0.12" DIA. WIRE FOR BOTTOM LAYER) ARE SECURELY FASTENED TO 3" X 3/8" BAR FRAME. ALL ARE STAINLESS STEEL.



SECTION Q-Q
DETAIL L (ACCESS ASSEMBLY)
SCALE: 1/2"=1'-0"

NOTE: THE COST OF ACCESS ASSEMBLY IS TO BE INCLUDED IN STRUCTURAL STEEL - L. SUM.

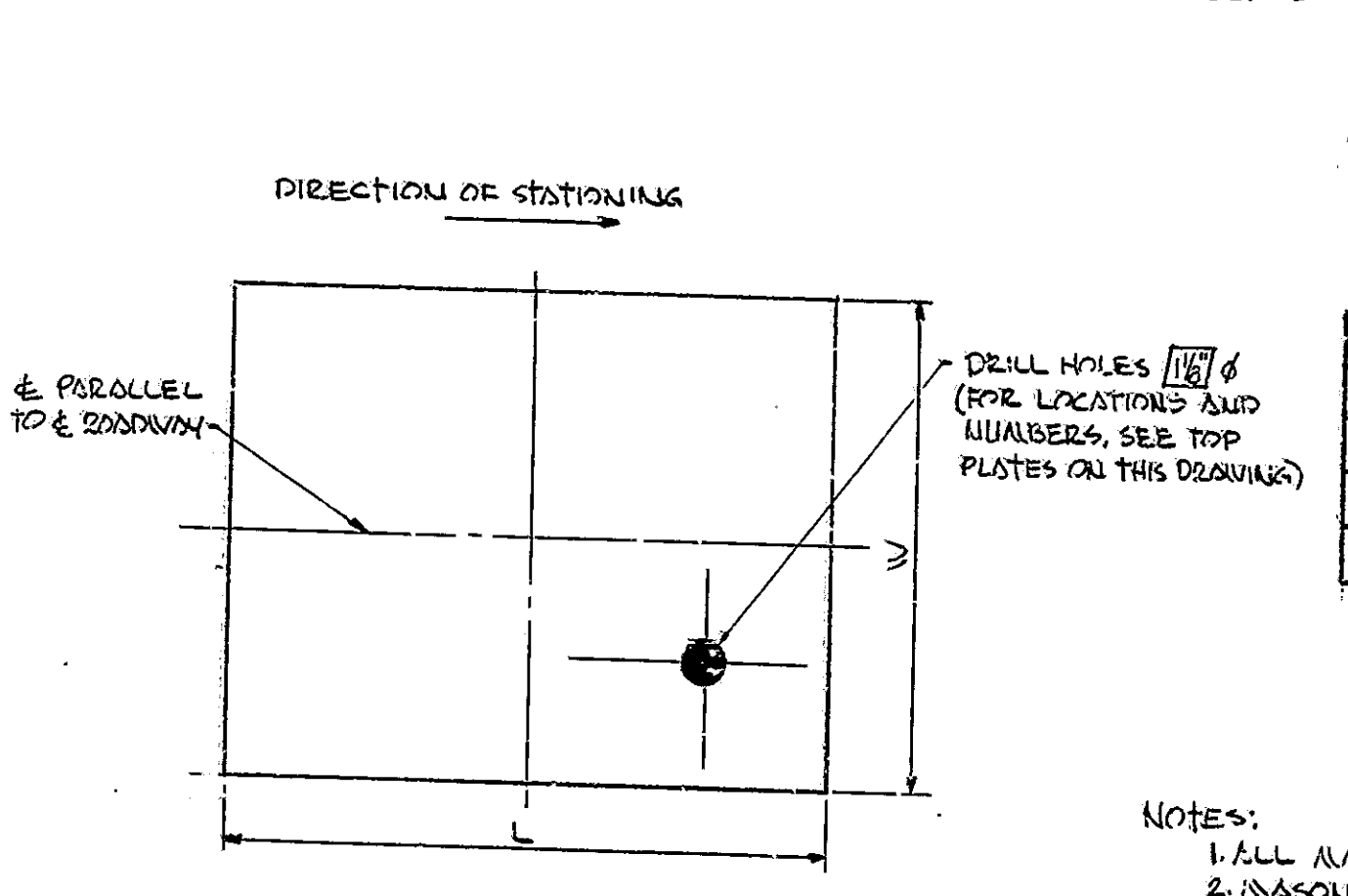
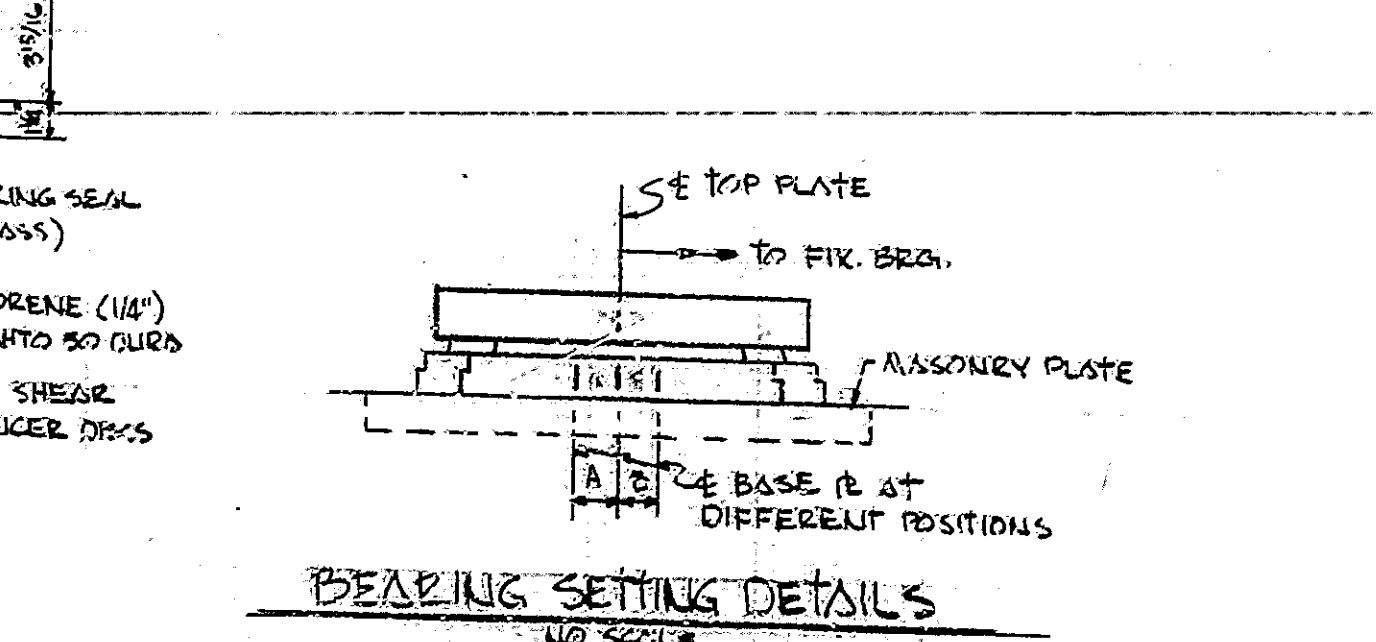
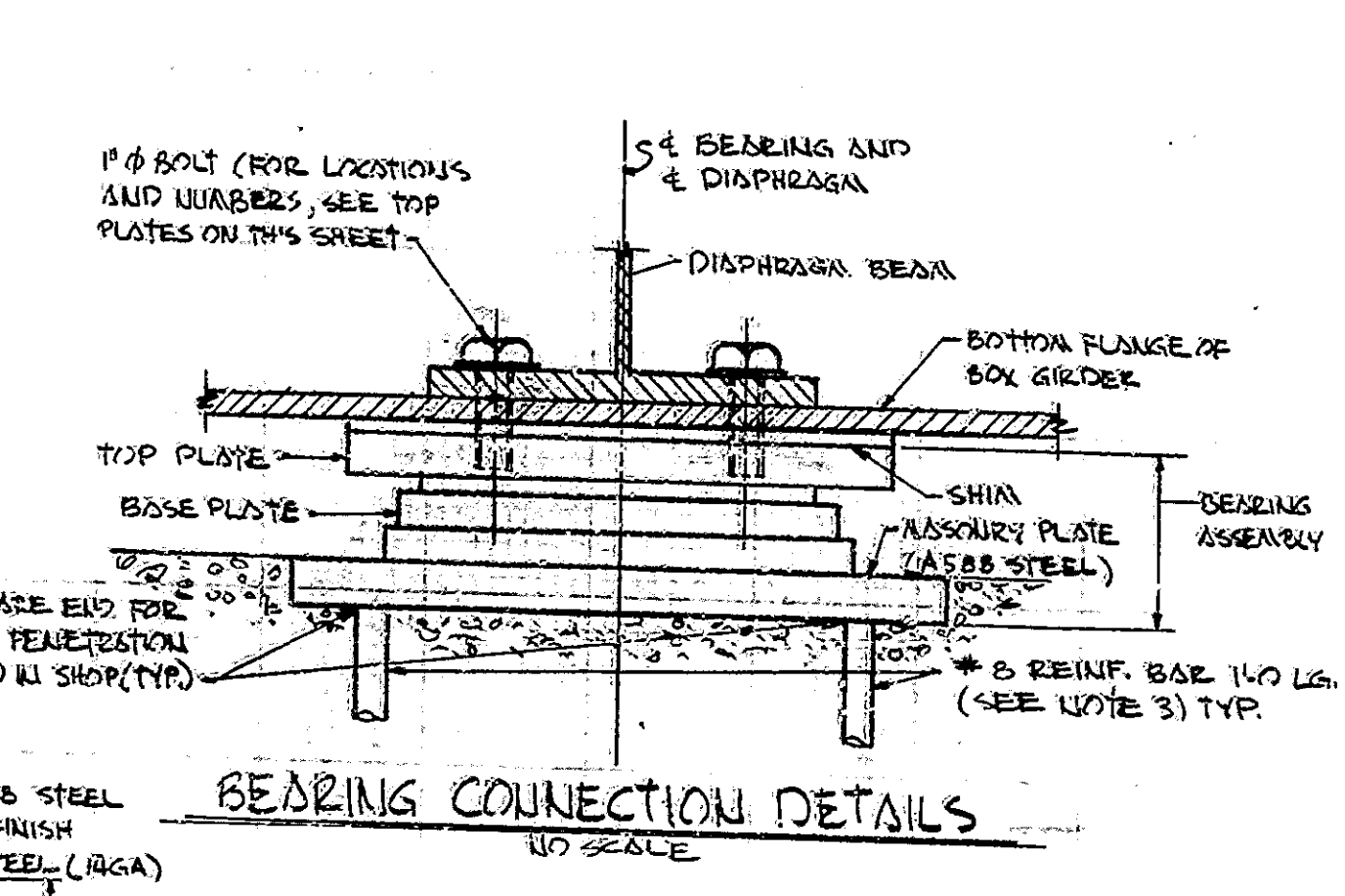
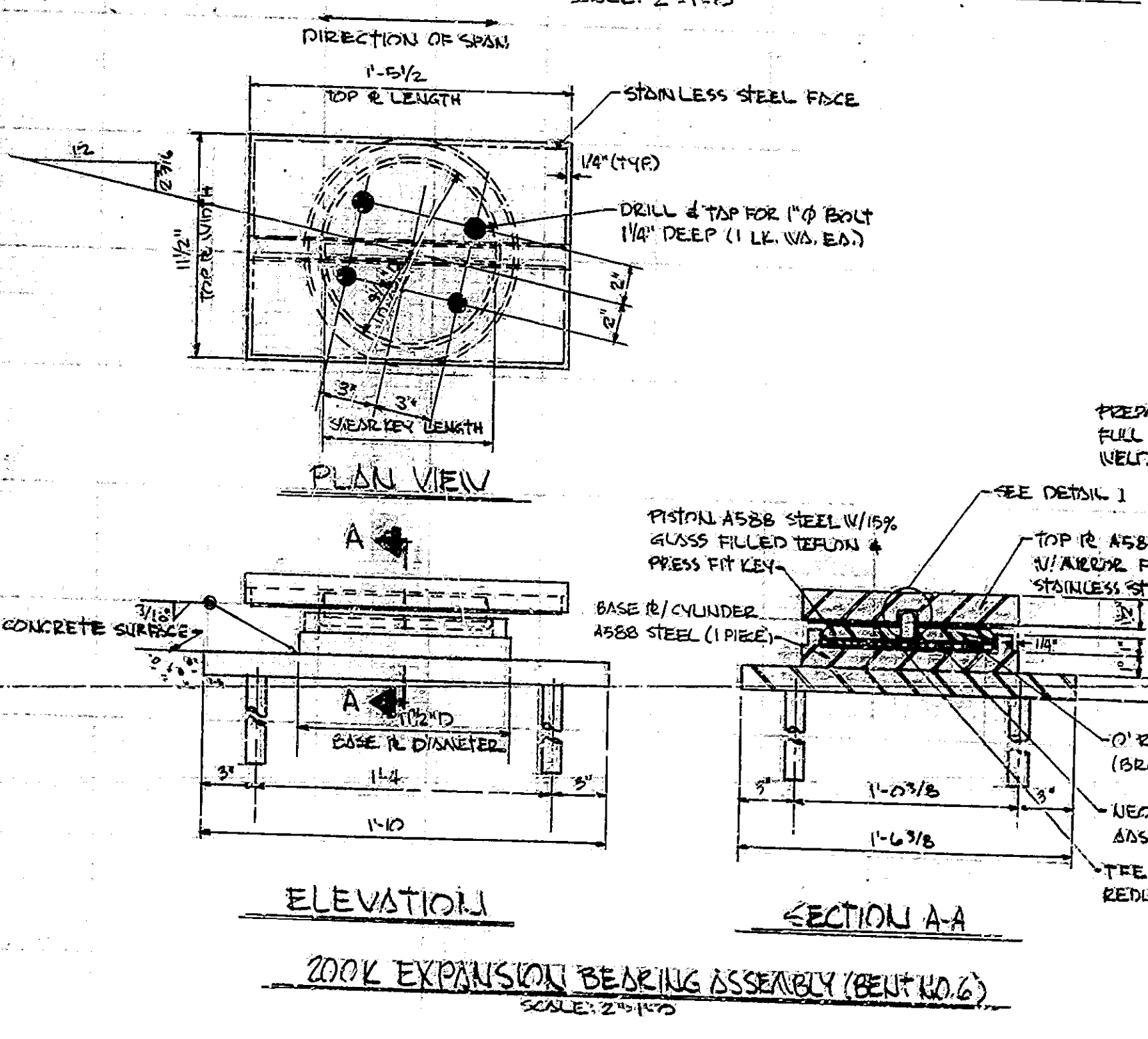
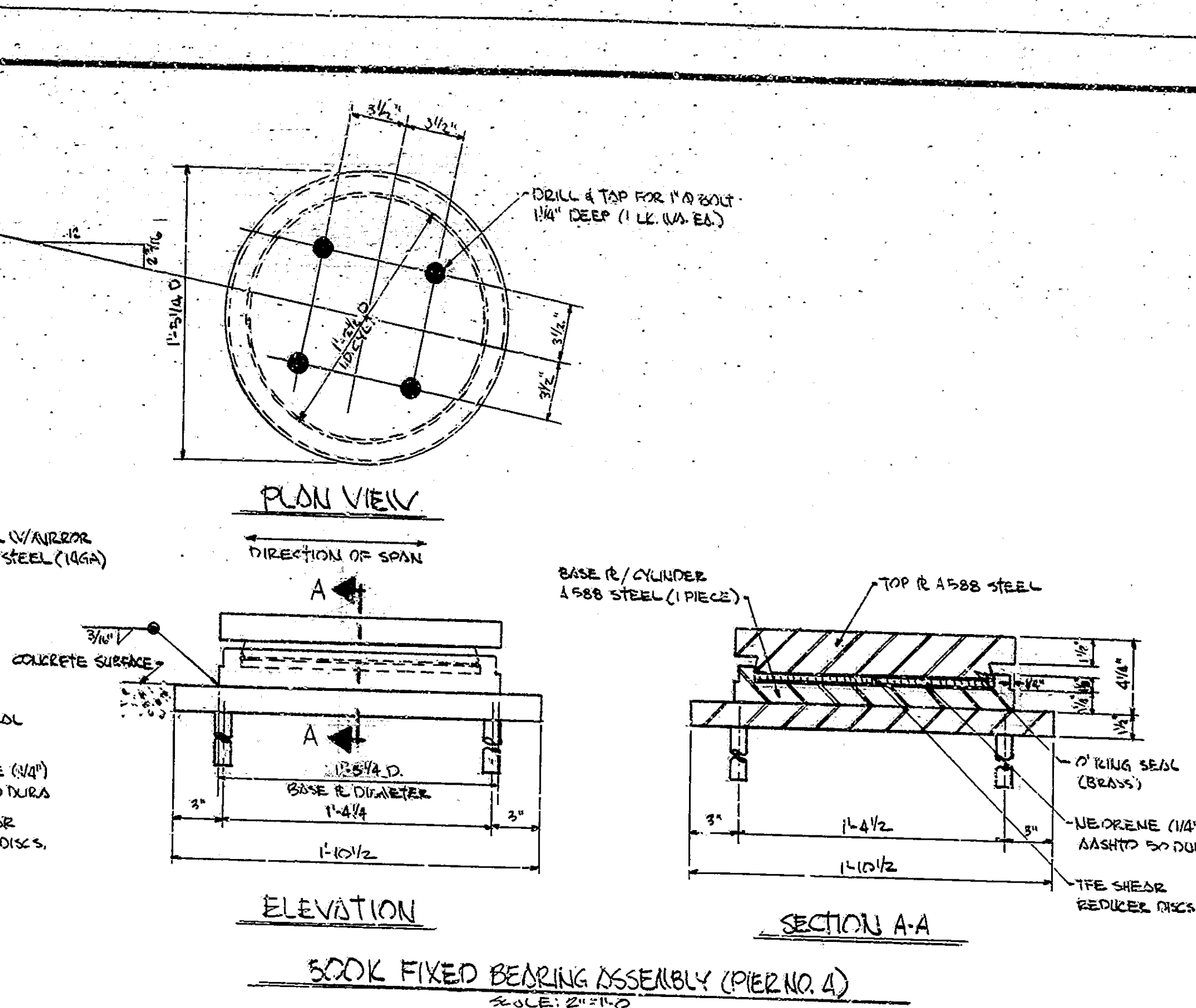
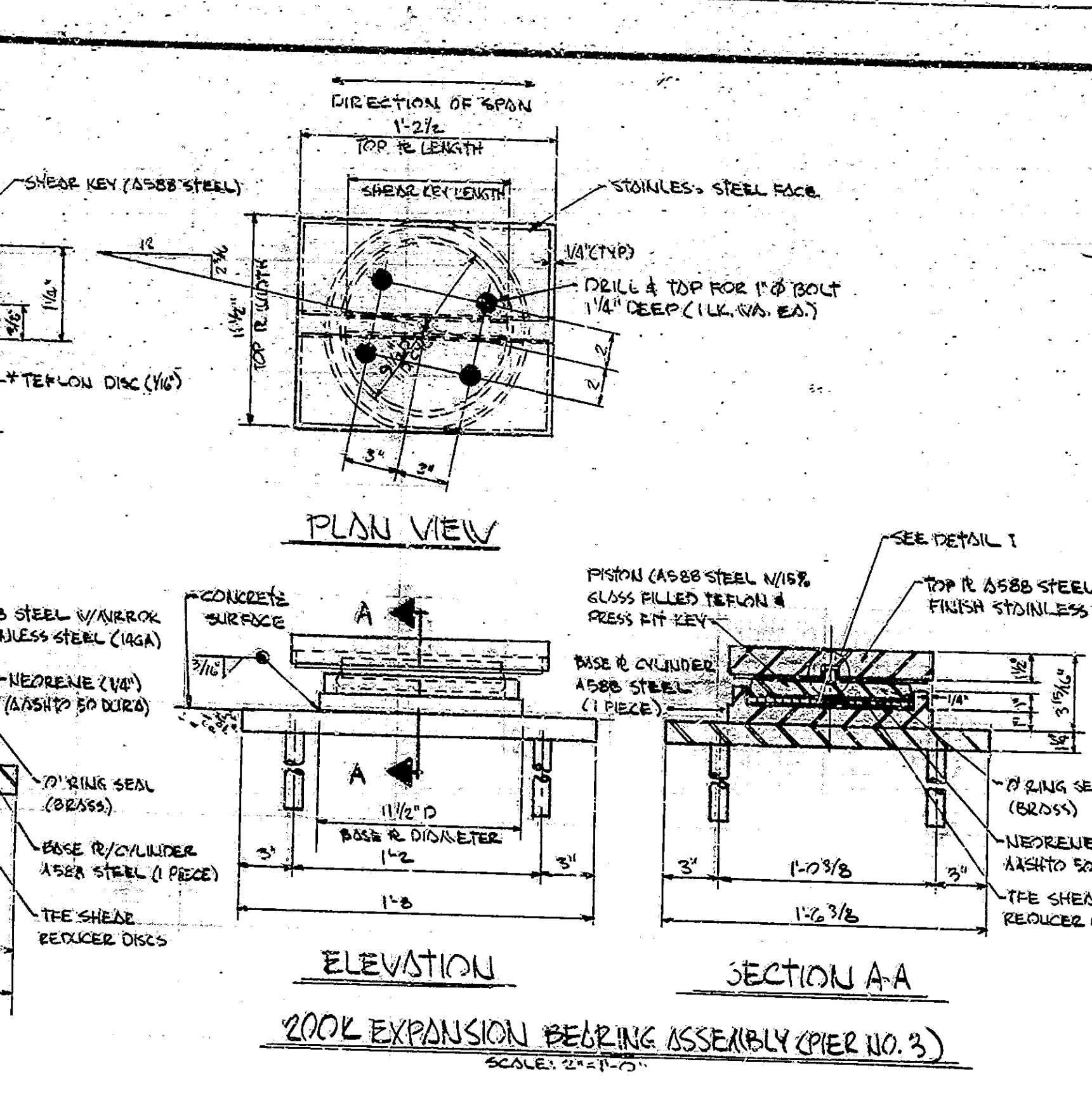
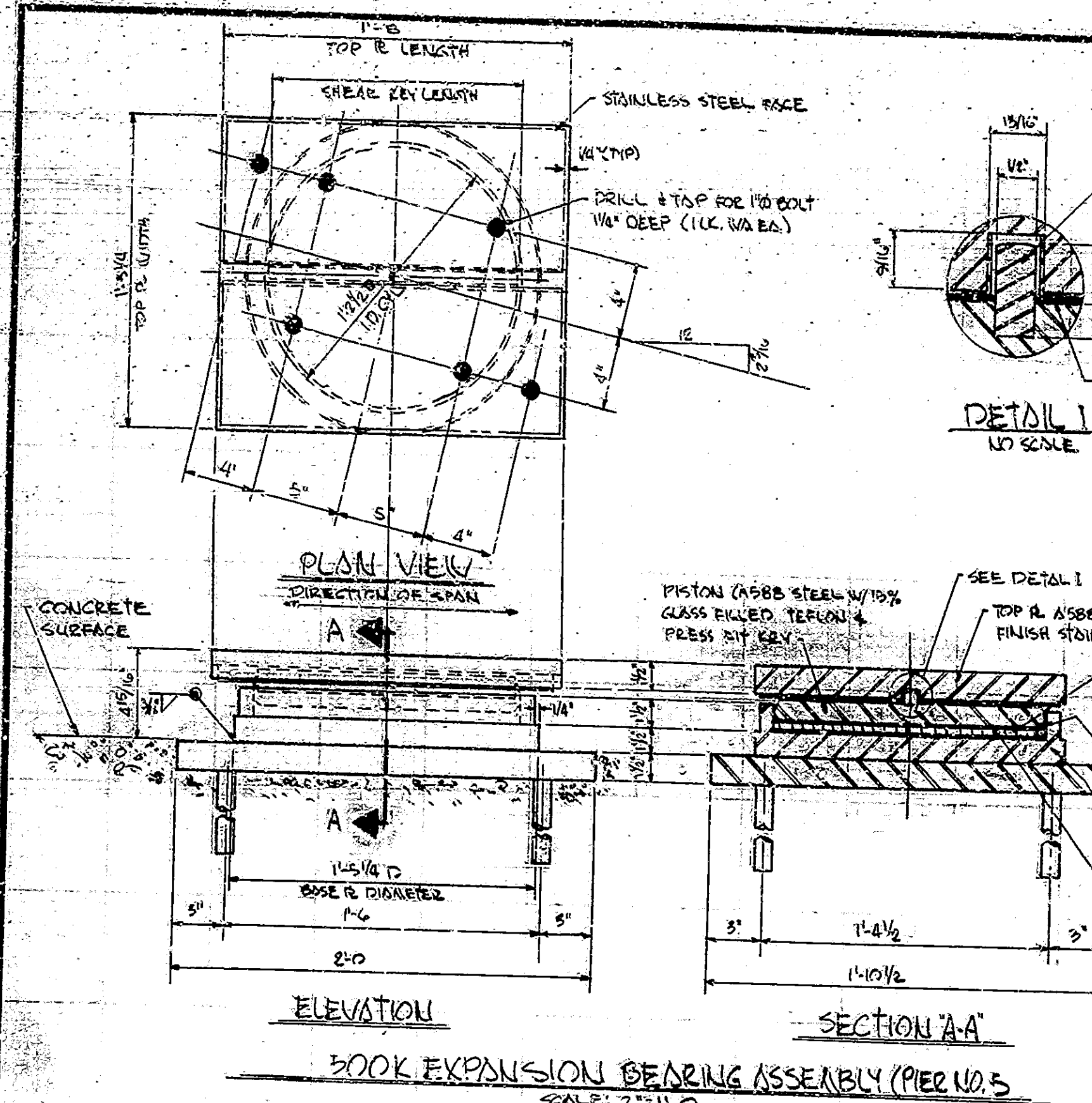
STEEL DETAILS (SPRN. C, D AND E)

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS SHOWN
DATE: JANUARY 12, 1982
DESIGNED: CHM CKD JE
DRAWN: RYC L-16-SL CKD
TRACED: WHP CKD ZYC L-15-20
CHM 11-28-80



REV. 11-17-82 NOTES, LONG STIFF. END DETAILS ADDED.



SHIM TABLE AND DETAILS
NO SCALE

SUPPORTS	L	W	G	H
PIER NO. 3	1'-2 1/2"	1 1/2"	13/32"	17/32"
PIER NO. 4	1'-5/4"	1 1/4"	15/32"	17/32"
PIER NO. 5	1'-8"	1 1/4"	7/16"	3/16"
BENT NO. 6	1'-5/2"	1 1/2"	15/32"	17/32"

BEARING SETTING TABLE II

ANGLE	A				B			
	10°	20°	40°	60°	80°	90°	100°	120°
1/2"	3/4"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2 1/8"	2 1/2"	3 1/4"
3/4"	1 1/8"	1 3/8"	1 5/8"	1 7/8"	2 1/8"	2 3/8"	2 7/8"	3 3/4"
1"	1 1/4"	1 5/8"	1 7/8"	2 1/8"	2 3/8"	2 7/8"	3 1/4"	4 1/4"
1 1/4"	1 3/4"	2 1/8"	2 1/4"	2 3/8"	2 7/8"	3 1/4"	3 3/4"	4 3/4"
1 1/2"	1 7/8"	2 1/4"	2 3/8"	2 7/8"	3 1/4"	3 3/4"	4 1/4"	4 3/4"
1 3/4"	2 1/8"	2 3/8"	2 7/8"	3 1/4"	3 3/4"	4 1/4"	4 3/4"	5 1/4"
2"	2 3/8"	2 7/8"	3 1/4"	3 3/4"	4 1/4"	4 3/4"	5 1/4"	5 3/4"

NOTES:
 1. ALL MASONRY PLATES TO HAVE UPPER FACE FINISHED.
 2. MASONRY PLATES SHALL BE PRE-SET IN THE CONCRETE.
 3. AS ALL ALTERNATE A 7/8" Ø X 8" LONG AUTOMATIC WELDED STUD (HEATED) MAY BE USED.
 4. ALL BEARINGS ARE RIGID WITH SUBSTRUCTURE. EACH UNIT INCLUDES TOP PLATE, BASE PLATE AND MASONRY PLATE.

BEARING DETAILS (SPAN C, D AND E)

INDIANA DEPARTMENT OF HIGHWAYS

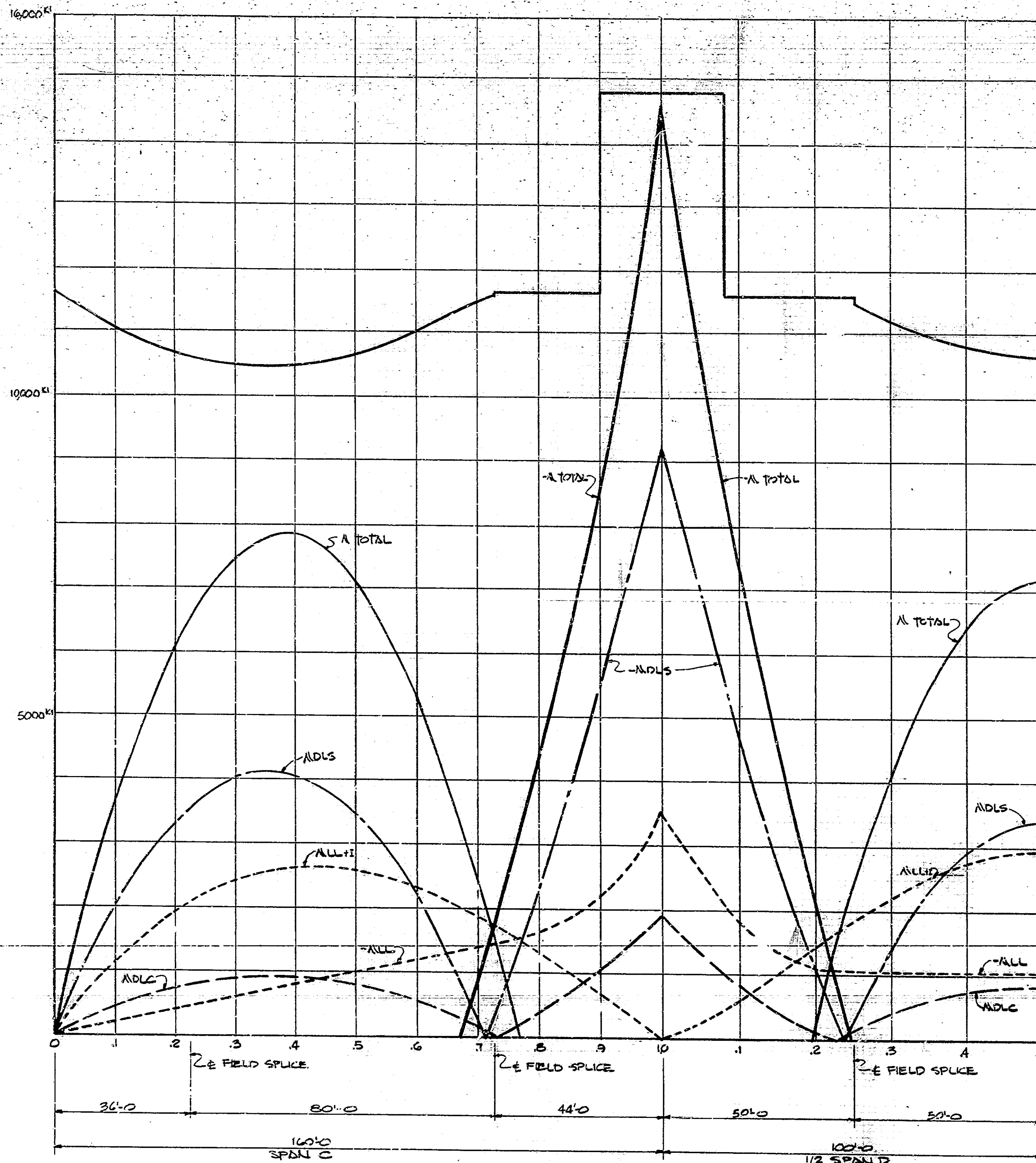
SCALE: AS SHOWN DATE: JANUARY 28, 1983

DESIGNED: CKD
 DRAWN: SUB/TEA
 TRACED: CKD
 CHM 1-28-83

PROJECT: 25-4328(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 167-28-6569

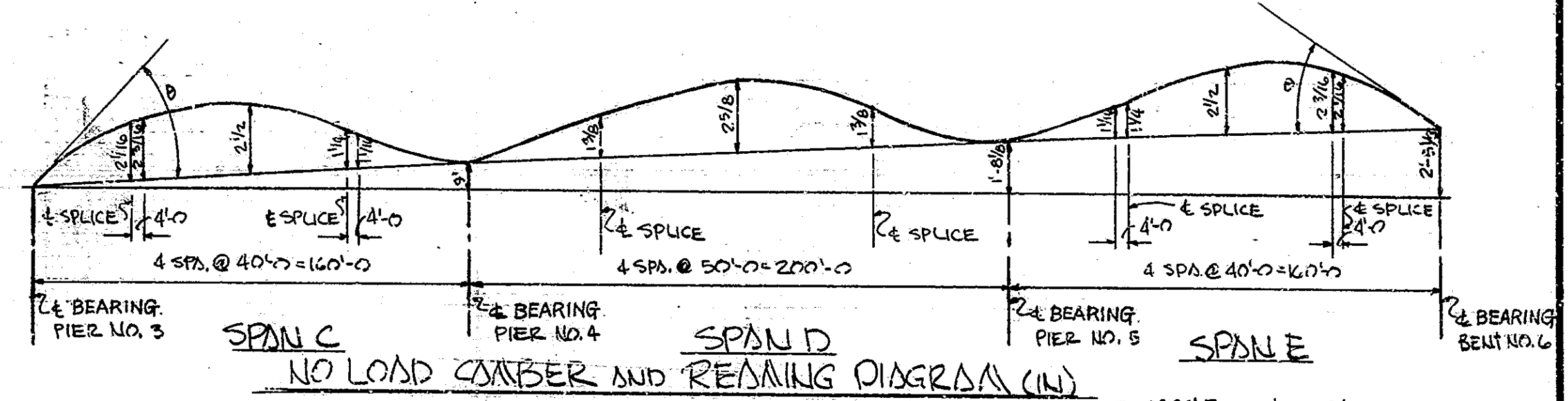
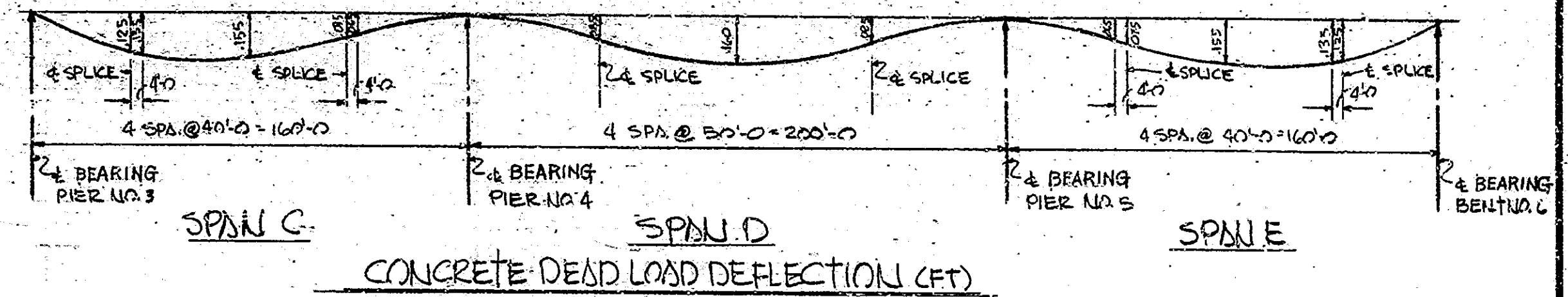
Cheng Hung Meng
 SENIOR DESIGNER

CHENG HUNG MENG
 No. 12009
 STATE OF INDIANA



MOMENT AND CAPACITY CURVE
 (FOR ONE BOX GIRDER)
 SCALE: HORIZ. 1"=16'-0", VERT. 1"=1000'

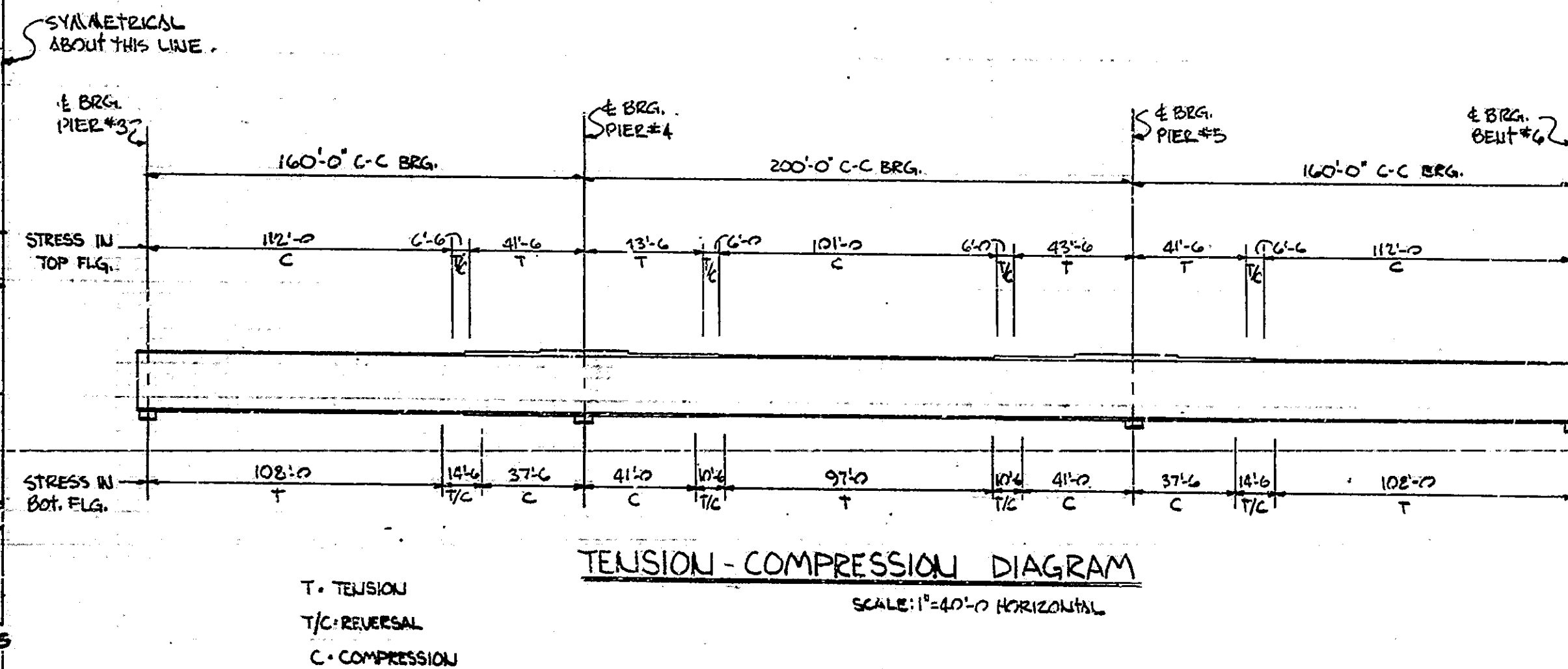
DESIGNED: CKD
 DRAWN: CKD/JM/JEJ
 TRACED: CKD



MAXIMUM MOMENTS AND REACTIONS

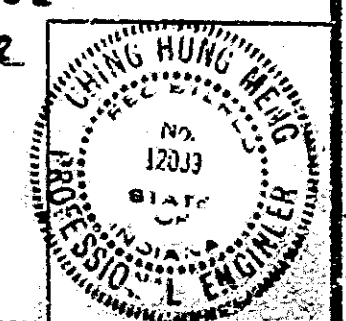
	PIER #3		PIER #4		PIER #5		BENT #6	
	R	M	R	M	R	M	R	M
D.S.	72.6	2045	257.8	1706.1	257.8	5511	2245	72.6
DLC	15.8	460.5	544	427.7	544	460.5	15.8	
LL	36.0	1402.5	1093	1476.4	1093	1402.5	36.0	
TOTAL	144.5	3908.1	421.5	3610.2	421.5	3908.1	144.5	

0'-0"00' FOR STEEL DL.
 0'-0"17' FOR CONCRETE DL.

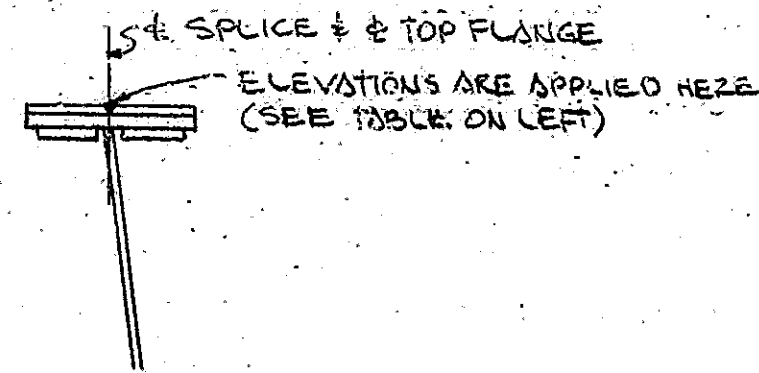


MOMENT CURVE & CAMBER DIAGRAM
 (SPAN C, D AND E)
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED
 DATE: JANUARY 12, 1982
Ching Hung Meng
 SENIOR DESIGNER
 DRAWING: 528 OF 34 SHEET: 38 OF 85
 PROJECT: RS-4328(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589



SPLICE #	GR#1 WEBS	GR#1 WEBS	GR#2 WEBS	GR#2 WEBS	GR#3 WEBS	GR#3 WEBS
SPLICE #1	525.270	525.260	525.515	525.510	525.240	525.235
SPLICE #2	525.615	525.605	525.860	525.850	525.585	525.580
SPLICE #3	526.065	526.050	526.300	526.295	526.030	526.020
SPLICE #4	526.520	526.515	526.765	526.760	526.495	526.485
SPLICE #5	526.970	526.965	527.210	527.205	526.945	526.935
SPLICE #6	527.420	527.415	527.660	527.655	527.395	527.385



GENERAL STRUCTURAL STEEL NOTES

- HIGH STRENGTH BOLTS 7/8" DIA UNLESS NOTED; OPEN HOLES 1/4" DIA UNLESS NOTED.
- ALL PAINT SHALL BE IN ACCORDANCE WITH CURRENT STATE HIGHWAY SPECIFICATIONS.
SHOP PAINT: ZINC SILICATE PAINT
FIELD PAINT: VINYL FINISH COAT
(SEE SPECIAL PROVISIONS)
- OUTSIDE SURFACES: 1 COAT SHOP PAINT
2 COAT FIELD PAINT
INSIDE SURFACES: 1 COAT SHOP PAINT
2 COAT FIELD PAINT (APPLIED IN SHOP BEFORE SHIPPED TO FIELD.)
(NO PAINT ON STAINLESS STEEL)
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A572-50 STEEL EXCEPT BEARINGS (SEE BEARING NOTES) AND CROSS FRAMES, D'S, SHIMS AND FILLER PLATES FOR WHICH ASTM A36 STEEL MAY BE USED. ASTM A588 STEEL IS AN ALTERNATIVE AT THE CONTRACTOR'S OPTION WITH NO INCREASE IN PAYMENT.
- THE CONTRACTOR SHALL PREPARE DETAILED WORKING OR SHOP DRAWINGS TO ENABLE HIM TO FABRICATE, ERECT AND CONSTRUCT ALL PARTS OF THE WORK IN CONFORMITY WITH THE ENGINEER'S DRAWINGS AND SPECIFICATIONS AND SHALL SUBMIT 4 COPIES TO THE ENGINEER. SEE ARTICLE 711.04 OF THE SPECIFICATIONS.
- THE SHOP DETAILS SHALL SHOW A PLAN OF MATCHMARKING FOR ALL BEAMED PIECES. ALL SPLICE PLATES TO BE REMOVED, CLEANED AND DEBURRED AFTER BEAMING. SPLICE PLATES SHALL NOT EXTEND BEYOND THE END OF GIRDERS AFTER BOLTING FOR SHIPMENT. THE SHOP PLANS SHALL INDICATE WHETHER REAMING OR DRILLING IS TO BE DONE IN SHOP OR FIELD. IF SHOP REAMING OR DRILLING IS USED, THE GIRDERS SHALL BE ASSEMBLED IN ACCORDANCE WITH NO LOAD CAMBER AND REAMING DIAGRAM. IF THE GIRDERS ARE SHOP REAMED OR DRILLED, FULL SIZE DRIPT PINS SHALL BE USED IN ERECTION.
- STRUCTURAL STEEL FOR WELDING MAY BE FLAME CUT IF THE FLAME CUTTING IS MECHANICALLY GUIDED HAND FLAME CUTTING SHALL BE USED ONLY WHEN APPROVED AND THE SURFACE IS FURTHER TREATED BY MILLING, GRINDING, OR CHIPPING AND GRINDING.
- ALL SHOP BUTT WELDS IN FLANGE PLATES SHALL BE GROUND SMOOTH AND FLUSH WITH THE BASE METAL ON ALL SURFACES. THIS SHALL APPLY TO BOTH PARTS OF EQUAL THICKNESS AND UNEQUAL THICKNESS. GRINDING SHALL BE DONE IN THE DIRECTION OF STRESS AND IN SUCH A MANNER THAT THE METAL IS KEPT BELOW THE BLUE BRITTLE RANGE. ANY DEFECTS EXPOSED BY THE GRINDING SHALL BE CLEANED, FILLED WITH WELD METAL, AND REGROUND TO A UNIFORM FINISH.
- GIRDERS MUST BE CAMBERED TO A SMOOTH CURVE. CAMBER MUST BE CHECKED AFTER SHOP WELDING IS COMPLETED AND WHILE GIRDERS ARE SUPPORTED IN SUCH A WAY AS TO HAVE NO BENDING MOMENT IN THE DIRECTION OF CAMBER. SHEAR PLATES OR UNIVERSAL ANGLE PLATES SHALL BE ORDERED WITH SUFFICIENT ADDITIONAL WIDTH TO ALLOW FOR TRIMMING OF EDGES TO PROVIDE BUILT-IN CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE. TRIMMING SHALL BE BY FLAME CUTTING. THE FINISH SURFACES OF THE WEB AND FLANGE PLATES AND THE ADJACENT SURFACES THAT ARE TO BE FULLY WELDED SHALL BE CLEANED BY GRINDING PRIOR TO ASSEMBLY AND WELDING OF WEBS TO FLANGE.
- WHEN THE GIRDER SECTIONS ARE FIT UP IN THE SHOP FOR REAMING OR DRILLING OF FIELD SPLICES, THE CENTERLINES OF OPPOSING FLANGES SHALL NOT DEVIATE MORE THAN 1/8" WITH THE WEBS IN ALIGNMENT.
- HOLES FOR GIRDER SPLICES AND SPLICE PLATES SHALL BE SUBDRILLED OR SUBMILLED AND REAMED TO SIZE WHILE ASSEMBLED. SEE ARTICLE 711.24 OF THE SPECIFICATIONS. FLANGE SPLICE BARS SHALL BE SUBDRILLED AND REAMED OR DRILLED FULL SIZE WHILE ASSEMBLED.
- SHIMS BETWEEN GIRDERS AND TOP BEARING PLATES MAY BE BUILT UP. NO SHIM SHALL BE LESS THAN 1/8" THICKNESS. THE TOP OF TOP PLATE SHOULD BE PERFECTLY LEVEL AFTER ERECTION.
- IF GIRDERS ARE SHOP REAMED OR DRILLED, PROGRESSIVE GIRDER ASSEMBLY WILL BE PERMITTED. SEE ARTICLE 711.44 OF THE SPECIFICATIONS.
- RIVETS SHALL NOT BE USED IN THE ASSEMBLY OF STRUCTURAL STEEL.

- AS SOON AS THE ENGINEER HAS APPROVED THE FIELD WELDS, ALL WELDS ON ANY SURFACE FROM WHICH THE SHOP COAT HAS BEEN OMITTED OR BECOMES WORN OFF OR HAS OTHERWISE BECOME DEFECTIVE SHALL BE THOROUGHLY CLEANED OF ALL CHARRED PAINT OR ANY FOREIGN MATTER AND COMPLETELY COVERED WITH ONE COAT OF SHOP PAINT.
- ESTIMATED WEIGHT OF STRUCTURAL STEEL 1058,900 LBS INCLUDING 7,300 LBS OF A-36 STEEL.
- 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 STRUCTURAL STEEL.
- SPLICE ELEVATIONS ARE WITH FALSEWORK REMOVED AND CARRYING STEEL DEAD LOAD ONLY. TOP OF GIRDER SPLICE PLATES SHALL BE ADJUSTED TO THE ELEVATIONS SHOWN ON THIS SHEET BEFORE BOLTING FIELD SPLICES.
- SHOP FLANGE SPLICES SHALL BE LOCATED A MINIMUM OF 6" FROM WEB SPLICES.
- STIFFENERS SHALL BE LOCATED A MINIMUM OF 6" FROM FLANGE OR WEB SPLICES.
- STIFFENERS, CROSS FRAMES AND DIAPHRAGM GIRDERS SHALL BE VERTICAL AFTER APPLICATION OF FULL DEAD LOADS.

GENERAL ERECTION NOTES

- THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOR APPROVAL COMPLETE PLANS, CALCULATIONS AND PROCEEDURES FOR ERECTING HIS PROPOSED ERECTION METHODS. DETAILED CONSIDERATION TO THE LOADING, GEOMETRIC CONDITIONS, THE STRENGTH AND STABILITY OF THE STRUCTURE AND EACH OF ITS COMPONENT PARTS AT EACH SUCCESSIVE PHASE OF ERECTION, WHERE NECESSARY, THE CONTRACTOR SHALL STRENGTHEN AND STABILIZE THE STRUCTURE OR ITS COMPONENT PARTS IN ORDER TO PROVIDE AN ADEQUATE DEGREE OF SAFETY AT EACH STEP OF ERECTION. COMPLETE DETAILS WITH RESPECT TO SUCH STRENGTHENING AND STABILIZING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. APPROVAL OF CONTRACTOR'S PLANS, CALCULATIONS, ERECTION PROCEDURE AND STRENGTHENING AND STABILIZING MEASURES SHALL NOT BE CONSIDERED AS RELIEVING THE CONTRACTOR OF ANY RESPONSIBILITY.
- MASONRY PLATES PRESET IN THE CONCRETE SHALL BE PERFECTLY LEVEL. AT LEAST THREE CORNERS SHALL BE CHECKED BY USING A LEVELING INSTRUMENT.
- THE SUPERSTRUCTURE WITHOUT BEARING ASSEMBLIES MAY BE ERECTED DIRECTLY ON MASONRY PLATES.
- JACK THE SUPERSTRUCTURE UP AND BOLT BEARING ASSEMBLIES.
- LOWER THE SUPERSTRUCTURE EQUALLY BEFORE THE BOTTOM OF BEARING ASSEMBLIES TOUCH THE TOP OF MASONRY PLATES. THE LEVELNESS OF ALL BEARINGS SHALL BE CHECKED. THE BEARING ASSEMBLIES AND MASONRY PLATES SHALL BE FITTED PERFECTLY.
- THE SUPERSTRUCTURE SHALL BE ERECTED AND ADJUSTED TO ITS PROPER POSITION AND ELEVATION BEFORE BOLTING FIELD SPLICES. THE ELEVATIONS SHALL BE CHECKED WITH SPLICES CONNECTED BY FULL SIZE DRIPT PINS AND ERECTION BOLTS AND WITH GIRDERS UNSUPPORTED BY ANY FALSEWORK.
- AFTER THE BEARING ASSEMBLIES REST ON THE MASONRY PLATES SECURELY, CHECK THE SPLICE ELEVATIONS. THEY SHALL BE THE ELEVATIONS AS SHOWN IN TABLE ON THIS SHEET.
- AFTER ALL SPLICES, CROSS FRAMES AND DIAPHRAGMS HAVE BEEN BOLTED ADJUST THE SUPERSTRUCTURE LONGITUDINALLY ACCORDING TO THE DIMENSIONS OF C3 AND C4 SHOWN ON DRAWING S31.
- WITH THE SUPERSTRUCTURE IN THE ADJUSTED POSITION CALLED FOR IN NOTE 8, WELD THE BOTTOM PLATES OF THE FIXED BEARINGS TO THE MASONRY PLATES AT PIER #4.
- ADJUST THE BASE PLATES UNDER THE EXPANSION BEARINGS IN ACCORDANCE WITH DIMENSIONS A OR B IN THE TABLE 3 FOR THE PREVALUING TEMPERATURE. NOTE THAT DIMENSION A IS ALWAYS THE DISTANCE FROM A VERTICAL LINE THRU THE CENTERLINE OF THE TOP PLATE IN A DIRECTION AWAY FROM THE FIXED BEARING. WELD THE BASE PLATES TO THE MASONRY PLATES. TABLE 3 IS ON DRAWING S37.
- SET THE TYPE TS EXPANSION JOINT AS SPECIFIED IN THE SPECIAL PROVISIONS.

- SCREED ELEVATIONS SHALL BE DETERMINED BY ADDING THE CONCRETE DEAD LOAD DEFLECTION TO THE REQUIRED FINAL CONCRETE ELEVATION AT ALL SCREED POINTS. FOLLOW THE PROCEDURE SHOWN ON THE SCREED DRAWINGS.
- NO CONCRETE IS TO BE POURED UNTIL THE ABOVE OPERATIONS ARE COMPLETED.

BEARING ASSEMBLY NOTES

- THE CONTRACTOR SHALL FURNISH AND INSTALL BRIDGE BEARINGS IN ACCORDANCE WITH PLANS, SPECIFICATIONS, RECOMMENDATIONS OF THE MANUFACTURER AND AS MAY BE DIRECTED BY THE ENGINEER.
- DESIGN DATA:
A. LOAD CAPACITIES AND LONGITUDINAL MOVEMENT ALLOWANCE AS SHOWN ON DRAWING S19 AND S27
B. TRANSVERSE MOVEMENT ALLOWANCE - NONE
C. VERTICAL ROTATION - 0.015 RADIAN IN ALL VERTICAL PLANES
D. COEFFICIENT OF FRICTION - 0.05
E. TEMPERATURE RANGE - 100°F TO 400°F
F. IN CONFORMANCE TO LATEST AASHTO SPECIFICATIONS.
- MATERIALS - ALL STRUCTURAL STEEL PARTS SHALL BE ASTM A588, ALL OTHER PARTS AND CONNECTIONS SHALL CONFORM TO THE SPECIFICATIONS, SPECIAL PROVISIONS AND AASHTO REQUIREMENTS.
- MAINTENANCE - THEY SHALL BE MAINTENANCE FREE. SEE SPECIAL PROVISIONS.
- EACH BEARING UNIT SHALL BE ASSEMBLED AT THE PLANT AND MARKED FOR PERMANENT IDENTIFICATION UTILIZING WEATHER-RESISTANT TAGS. THEY SHALL BE DELIVERED TO THE CONSTRUCTION SITE AS A COMPLETE UNIT. THE BEARINGS SHALL BE HELD TOGETHER WITH REMOVABLE RESTRAINTS SO THAT THE SLIDING SURFACES ARE NOT DAMAGED. THEY SHALL HAVE CENTERLINES MARKED ON BOTH TOP AND BASE PLATES FOR ALIGNMENT AND ADJUSTMENT TO THE FIELD. THE BEARINGS SHALL BE SHIPPED TO MOISTURE-PROOF AND DUST-PROOF COVERS.
- BRIDGE BEARING DETAILS ARE SHOWN ON THESE PLANS. ALTERNATE BEARINGS MAY BE USED WITH APPROVAL OF THE ENGINEER AND NO INCREASE IN COST. IF CONTRACTOR ELECTS TO USE ANOTHER DESIGN, HE SHALL ASSUME RESPONSIBILITY OF THEIR SAFETY, PERFORMANCE AND FIT.

STEEL NOTES

INDIANA STATE HIGHWAY COMMISSION

SCALE: NONE

DATE: JANUARY 12, 1982

Chung Hwang Meng
SENIOR DESIGNER

DRAWING: 529 OF 34 SHEET: 39 OF 85
PROJECT: RS-432B-(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-28-6589

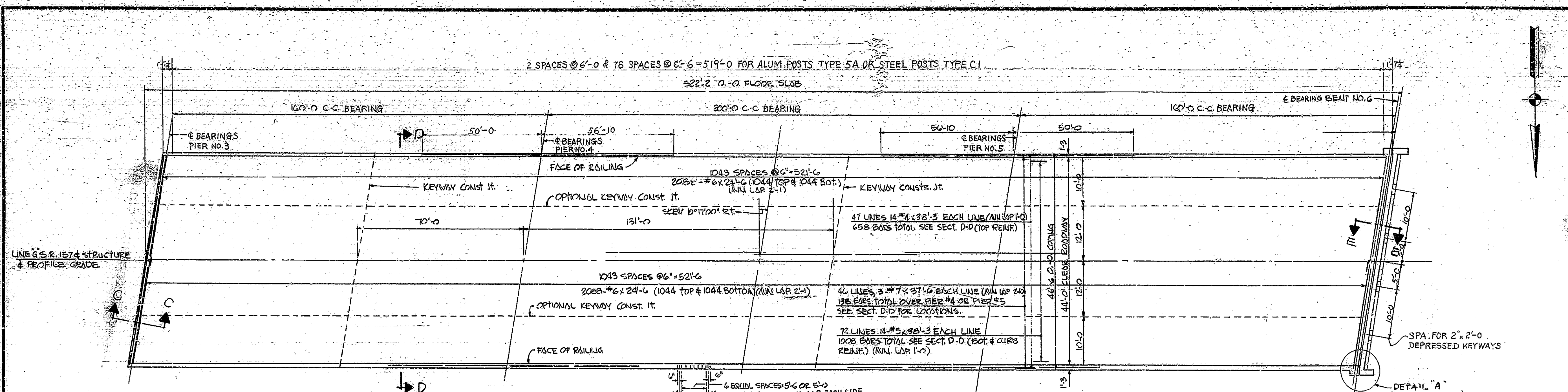


DESIGNED: CHM CWD 12-11-81
DRAWN: BSS JWB/CWD 12-11-81
CHECKED: CWD

CHM 12-11-81

Rev. 11-29-81 Bearing Notes

Rev. 11-10-82 Steel Note

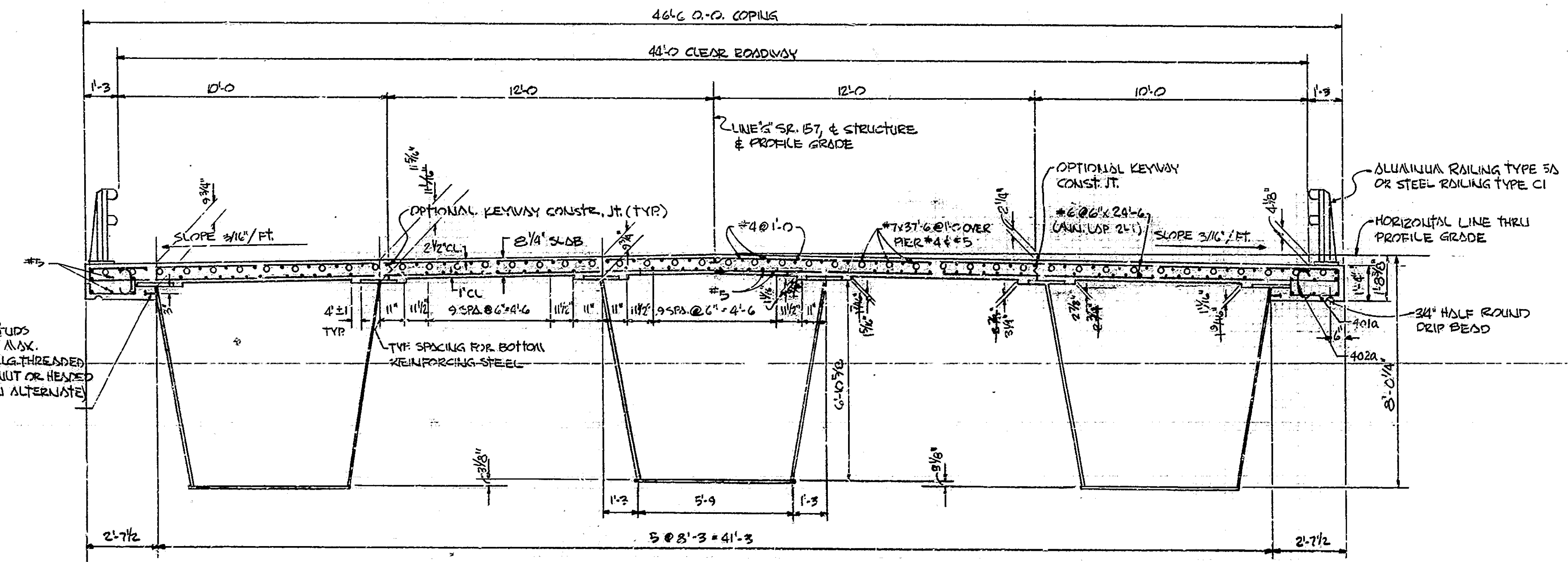


NOTE:
PERMANENT METAL FORMS MAY BE USED AND REMAIN IN PLACE INSIDE BOX GIRDER FOR THIS BRIDGE DECK CONSTRUCTION. SEE SPECIAL PROVISIONS UPON COMPLETION OF THE DECK SLAB FORMS (EXCEPT PERMANENT METAL FORMS), FALSEWORK MATERIALS AND ALL OTHER WASTES SHOULD BE REMOVED AND THE PERMANENT STRUCTURE THOROUGHLY CLEANED. IF ANYTHING IS LEFT INSIDE BOX GIRDER, IT MAY BLOCK DRAIN HOLES AND MAY CAUSE SEVERE DAMAGE TO THE BRIDGE. THE TOP REINFORCING IN THE DECK SHALL BE SECURELY TIED DOWN TO THE DECK FORMS AND/OR THE GIRDERS TO PREVENT LIFTING DURING CONCRETE PLACEMENT.

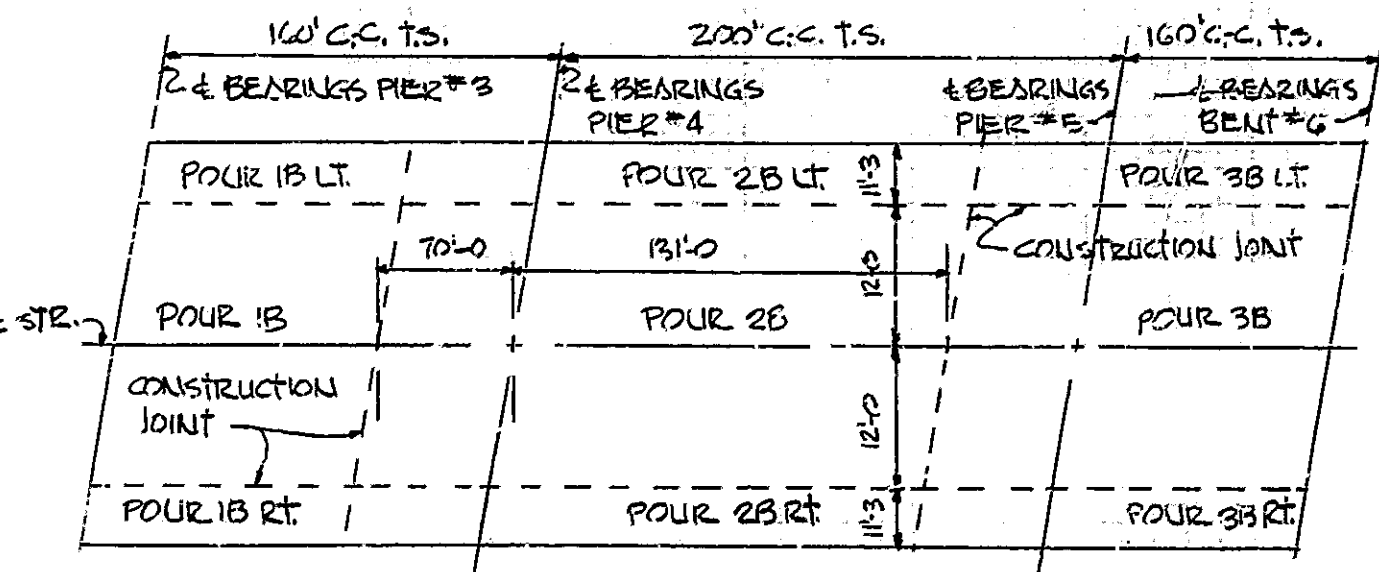
PLAN
NO SCALE

NOTES

- FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARDS C1.
- FOR ALUMINUM RAILING TYPE 5A SEE BRIDGE STANDARD BR1 AND BR2.
- FOR STEEL RAILING TYPE C1 SEE BRIDGE STANDARD BR3 AND BR4.
- FOR BILL OF MATERIALS, CORNER DETAILS, SECTION C-C, AND SECTION E-E SEE DRAWING S 31.
- AFTER STRUCTURAL STEEL HAS BEEN ERECTED FORMS SHALL NOT BE BLOCKED AGAINST THE EXPANSION END OF THE STEEL IN ASKING ANY POURS ADJACENT TO STEEL SPANS.
- SEQUENCE OF POURS TO BE MADE IN ORDER OF POUR NUMBERS. ALL SUPERSTRUCTURE CONSTRUCTION JOINTS ARE OPTIONAL, EXCEPT AS NOTED. POURS MAY BE MADE CONTINUOUS PROVIDED THE POUR TERMINATE AT A CONSTRUCTION JOINT INDICATED ON THE PLANS. THE CONTRACTOR MAY CHANGE THE WIDTH OF POURS, SEQUENCE OF POURS, OR LOCATION OF CONSTRUCTION JOINTS SUBJECT TO THE APPROVAL OF THE ENGINEER.
- EPOXY COATED REINFORCING STEEL SHALL BE USED IN BRIDGE FLOOR SLAB.



SECTION D-D
SCALE: 3/8" = 1'-0"



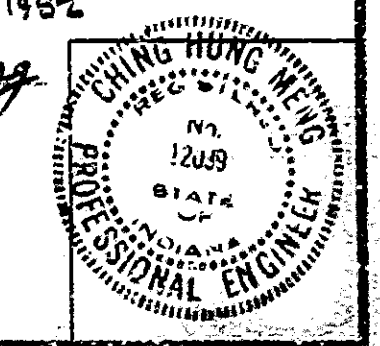
POUR DIAGRAM
NO SCALE

FLOOR DETAILS (SPAN C, D & E)
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS SHOWN DATE: JANUARY 12, 1962

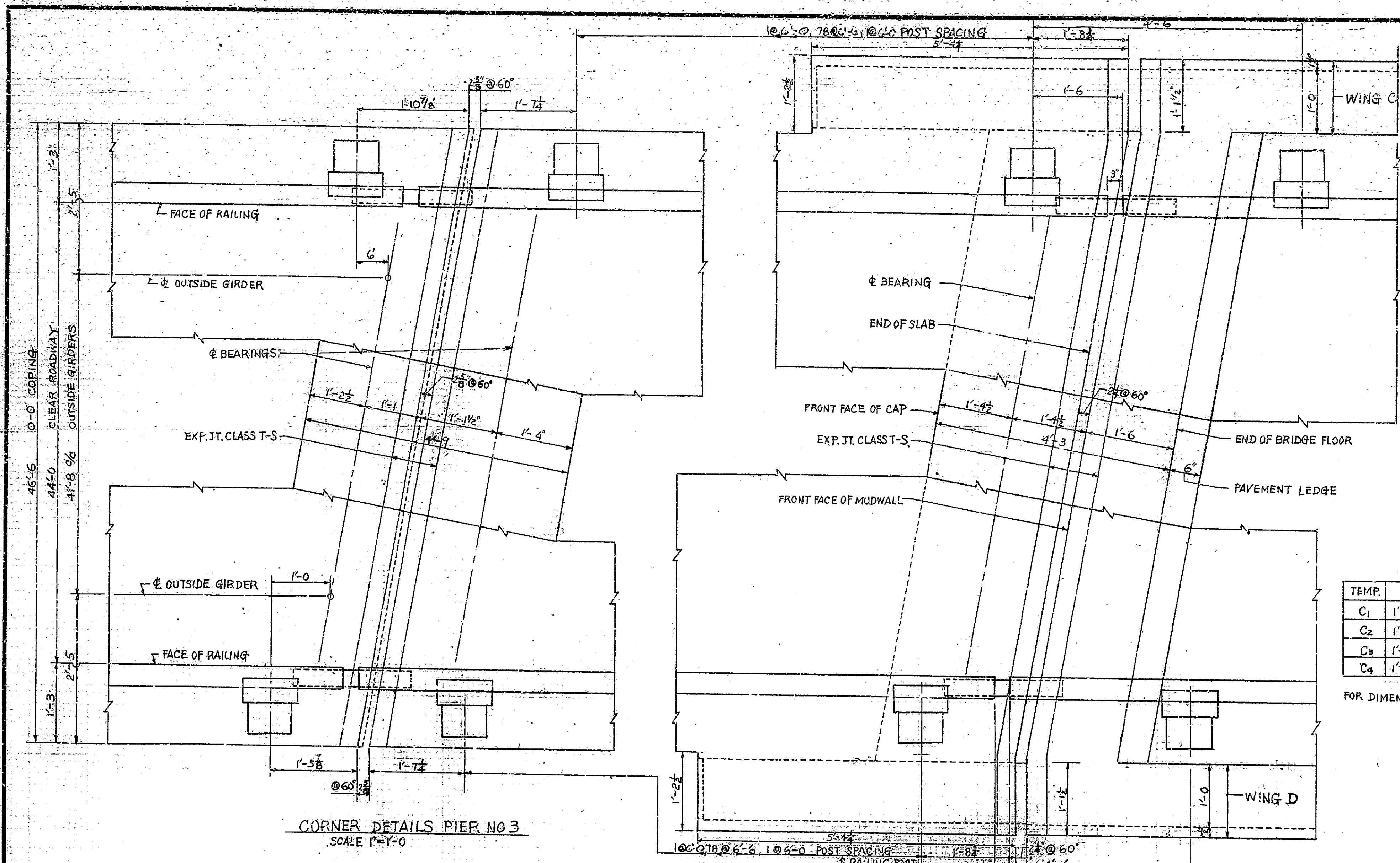
Ching Hong Meng
SENIOR DESIGNER

DRAWING: 590 OF 30 SHEET: 40 OF 35
PROJECT: RS-4328(1)
CONTRACT NO. B-13799
BRIDGE FILE: 157-22-6589



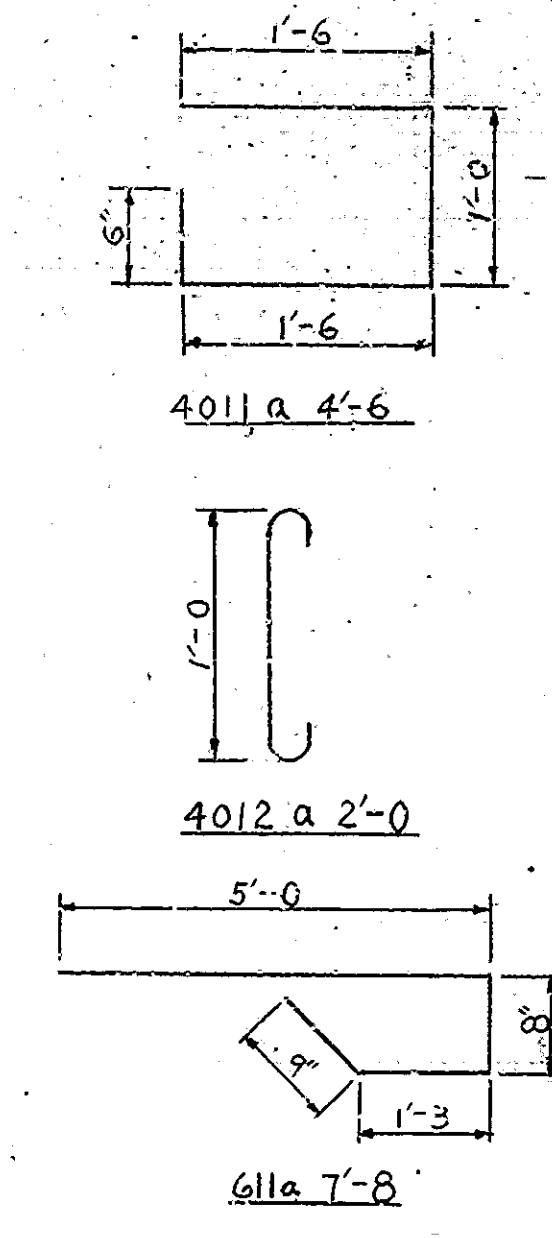
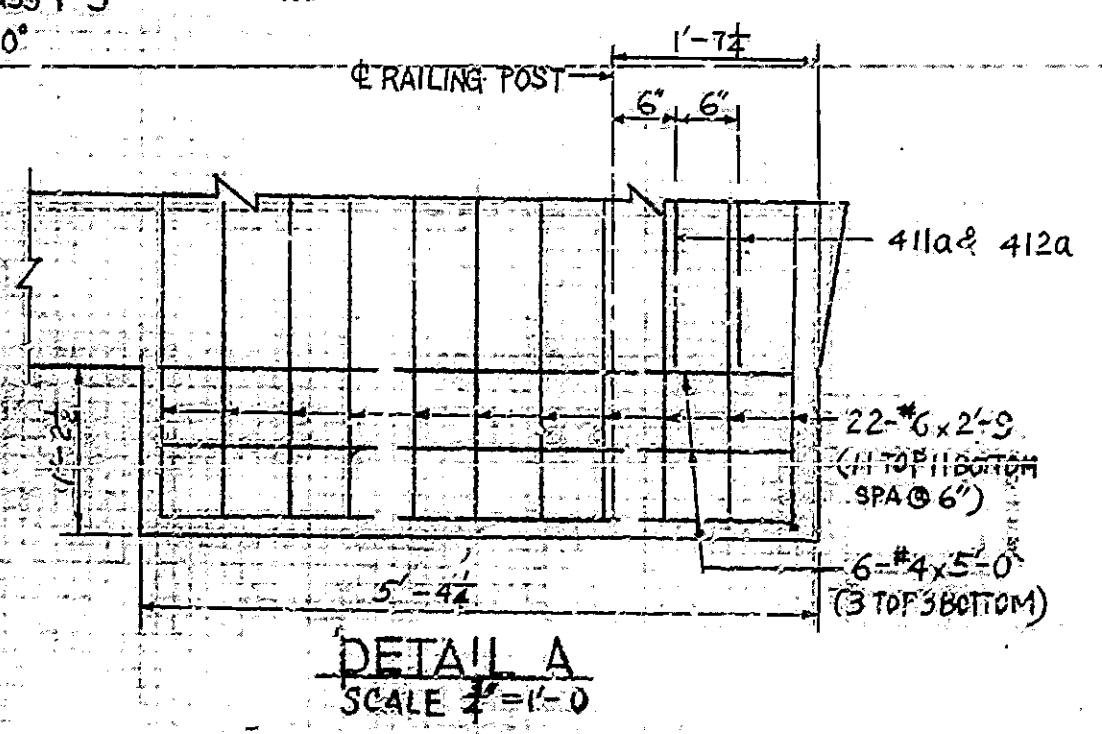
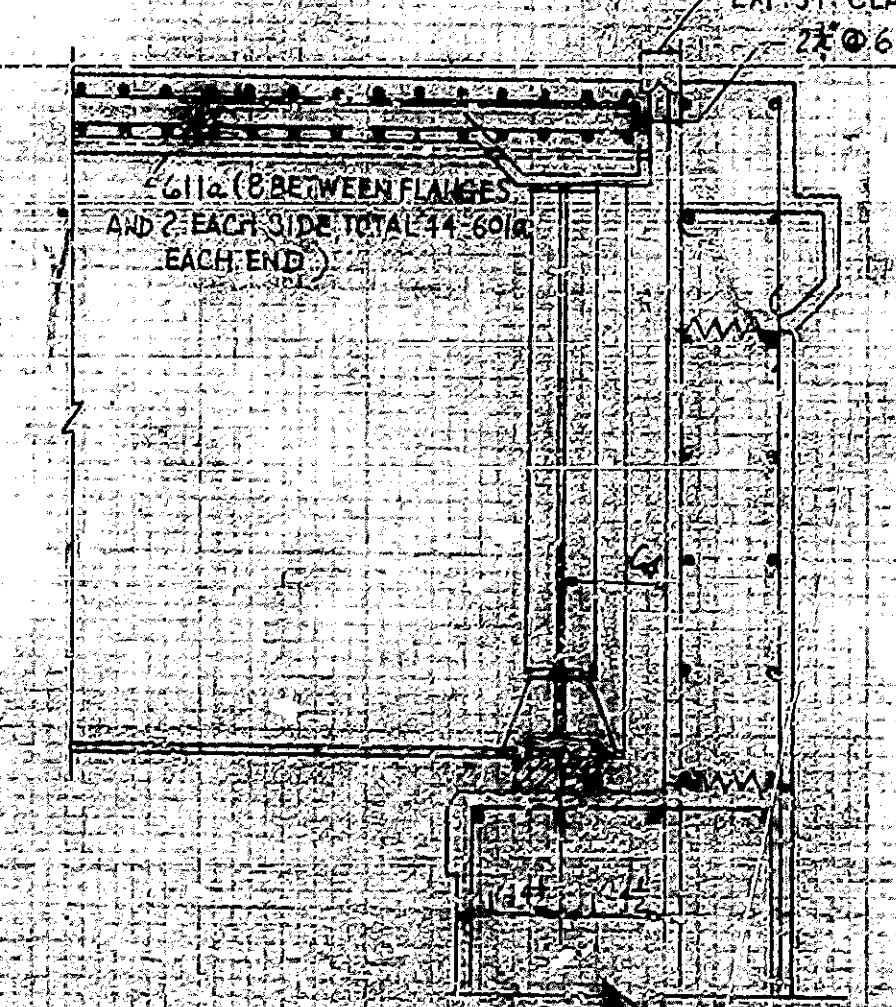
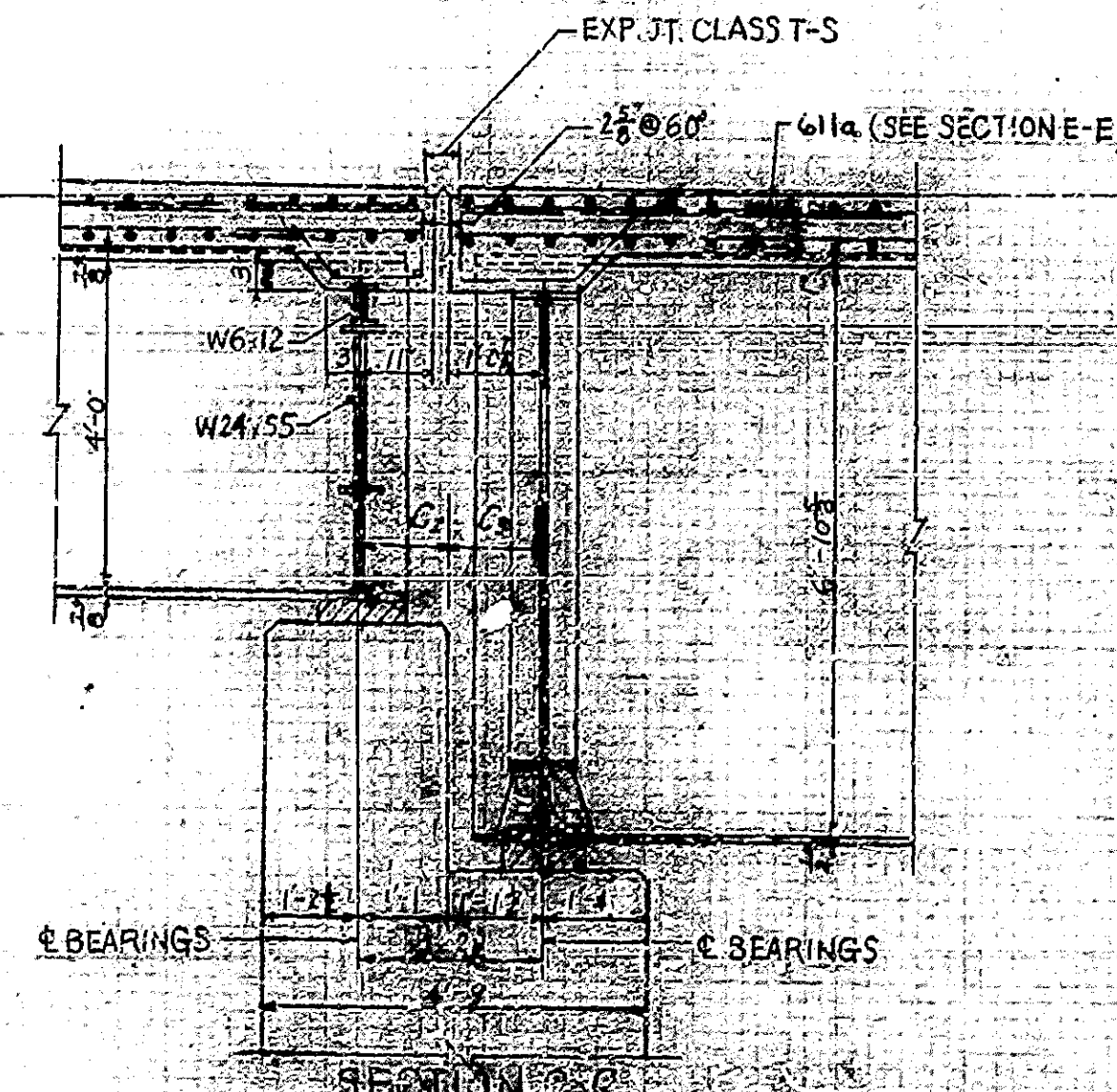
DESIGNED: CHM CKD JCV
DRAWN: EYC 6-2-30-67 JCV
TRACED: JCV 2-2-68 JCV 6-8-80

REV. 6-7-83 SLAB MATCH DIMENSIONS



CORNER DETAILS PIER NO. 3
SCALE 1"=1'-0"

CORNER DETAILS BENT NO. 6
SCALE 1"=1'-0"



TEMP.	0°	20°	40°	60°	80°	100°	120°
C1	1'-2"	1'-7/8"	1'-11/16"	1'-1 1/2"	1'-1 5/8"	1'-1 3/4"	1'-1"
C2	1'-1 1/2"	1'-1 3/4"	1'-1 7/8"	1'-1"	1'-0 11/16"	1'-0 1/2"	1'-0 1/4"
C3	1'-2 1/4"	1'-2"	1'-1 3/4"	1'-1 1/2"	1'-1 1/4"	1'-1"	1'-0 3/4"
C4	1'-6 1/8"	1'-5 3/8"	1'-5 1/8"	1'-4 1/2"	1'-3 7/8"	1'-3 3/8"	1'-2 7/8"

FOR DIMENSION C1 SEE DRAWING S21

BILL OF MATERIALS

REINFORCING STEEL			
MARK & SIZE	NO. OF BARS	LENGTH	WEIGHT (LBS)
#7	276	37'-6"	21,155
TOTAL NO. 7			21,155
611a	88	7'-8"	
#6	4176	24'-6"	
#6	44	2'-9"	
TOTAL NO. 6			15,988
#5	1008	38'-3"	
TOTAL NO. 5			4,024
411a	1290	4'-6"	
412a	1290	2'-0"	
#4	658	38'-3"	
#4	12	5'-0"	
TOTAL NO. 4			22,454
TOTAL EPOXY COATED REINFORCING STEEL			238,691
CLASS "C" CONCRETE			
POUR NO. 1B			57.2 CY
POUR NO. 1B LT.			32.6 CY
POUR NO. 1B RT.			32.6 CY
POUR NO. 2B			124.8 CY
POUR NO. 2B LT.			71.4 CY
POUR NO. 2B RT.			71.4 CY
POUR NO. 3B			143.4 CY
POUR NO. 3B LT.			82.1 CY
POUR NO. 3B RT.			82.1 CY
TOTAL CLASS "C" CONCRETE			697.2 CY
MISCELLANEOUS			
RAILING (TYPE SA OR TYPE C1)			1045.0 LF
EXPANSION JOINT CLASS T-S			97 LF
SURFACE SEAL			28,415 SF

NOTES.

- FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
- FOR LOCATION OF DETAIL A SECTION C-C AND E-E SEE DRAWING S30

**FLOOR DETAILS AND BILL OF MATERIALS (SPAN C, D & E)
INDIANA STATE HIGHWAY COMMISSION**

SCALE: AS NOTED. DATE: JANUARY 12, 1982

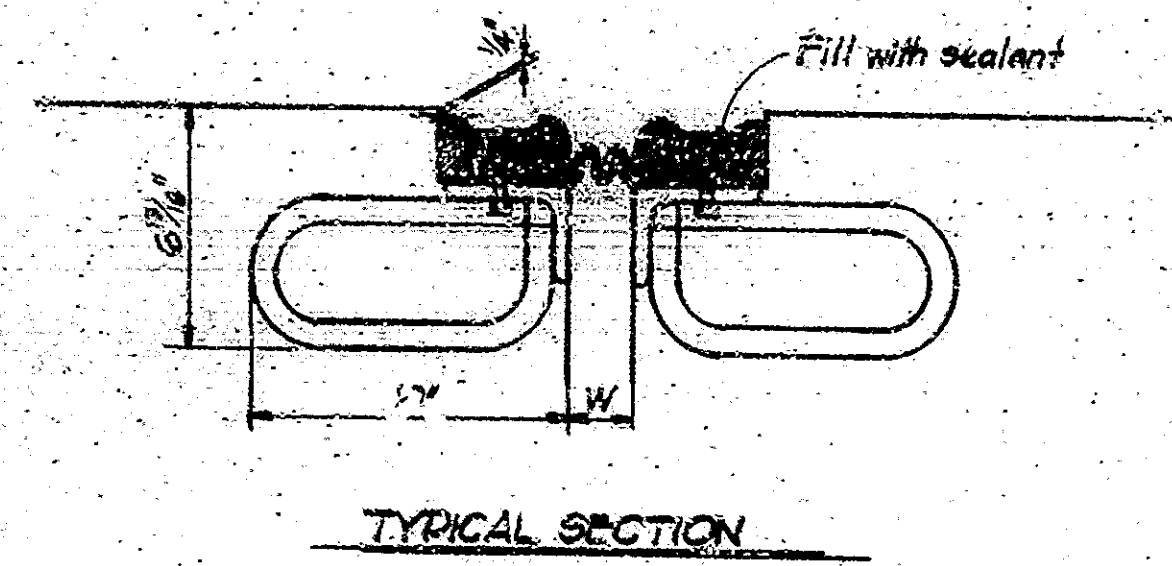
Ching Young Wang
SENIOR DESIGNER

DRAWING: 531 OF 24 SHEET: 41 OF 85
PROJECT: RS-4328(1)
CONTRACT NO. B-19779
BRIDGE FILE: 157-28-6589

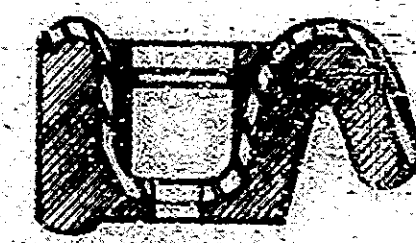


DESIGNED: CKD
DRAWN: GYC
TRACED: CKD

CHM 2-14-81



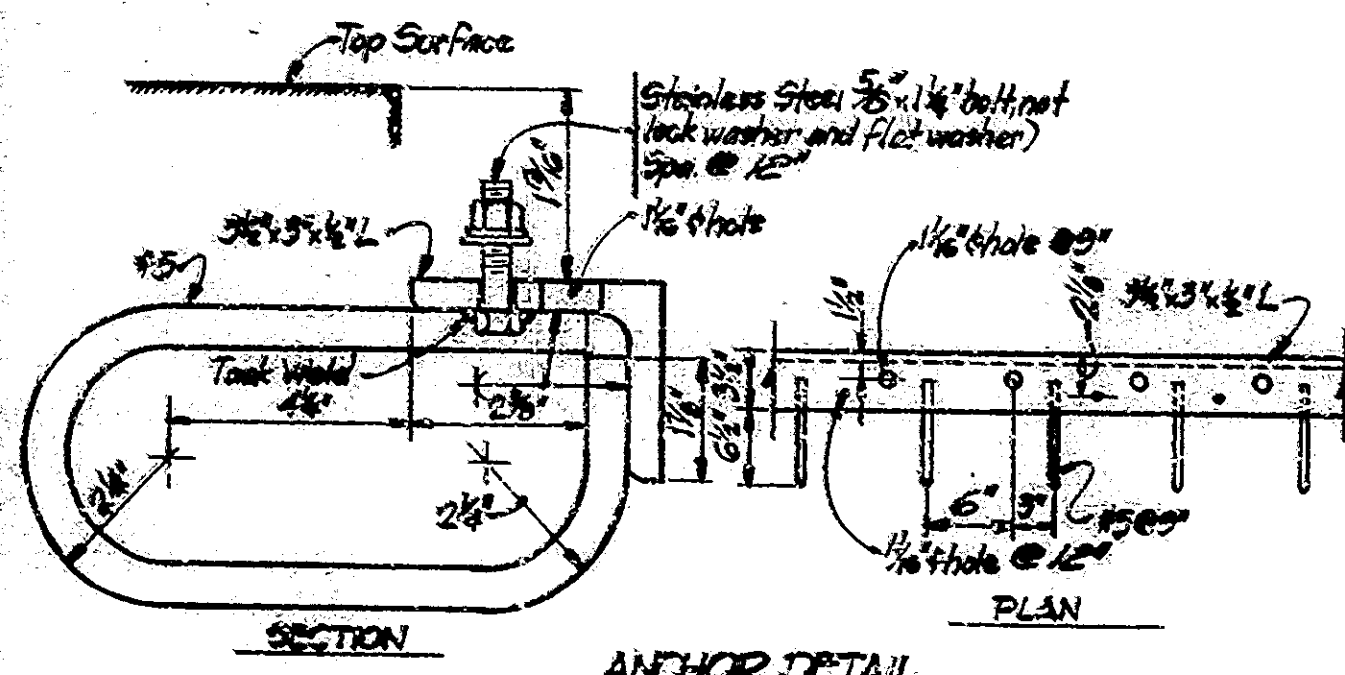
TYPICAL SECTION



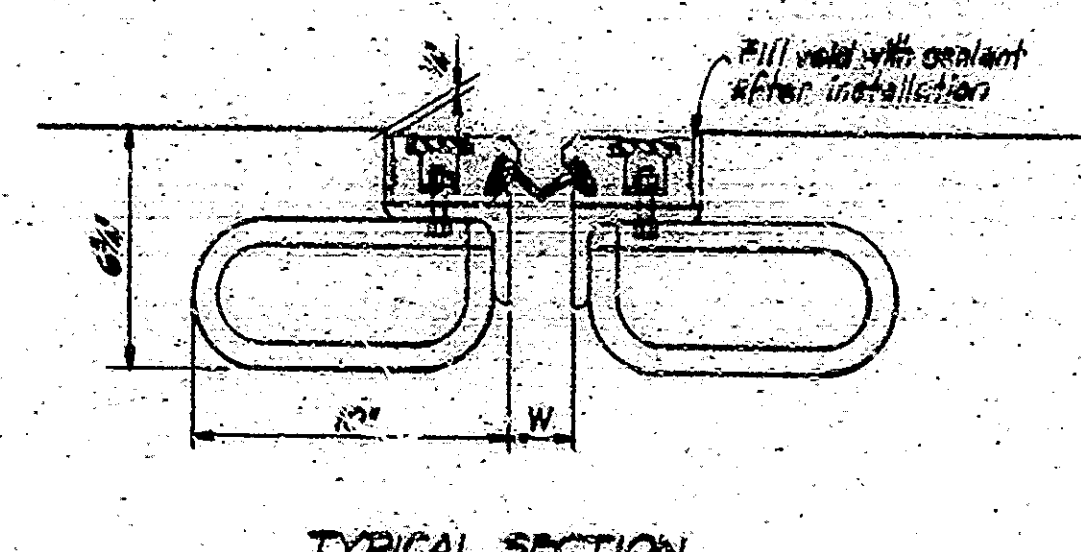
SIDE METALS



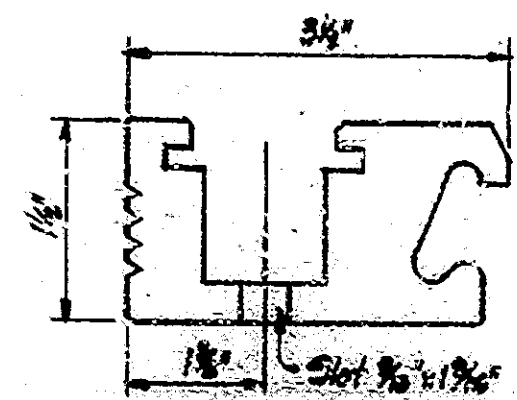
DIAPHRAGM



SECTION ANCHOR DETAIL



TYPICAL SECTION



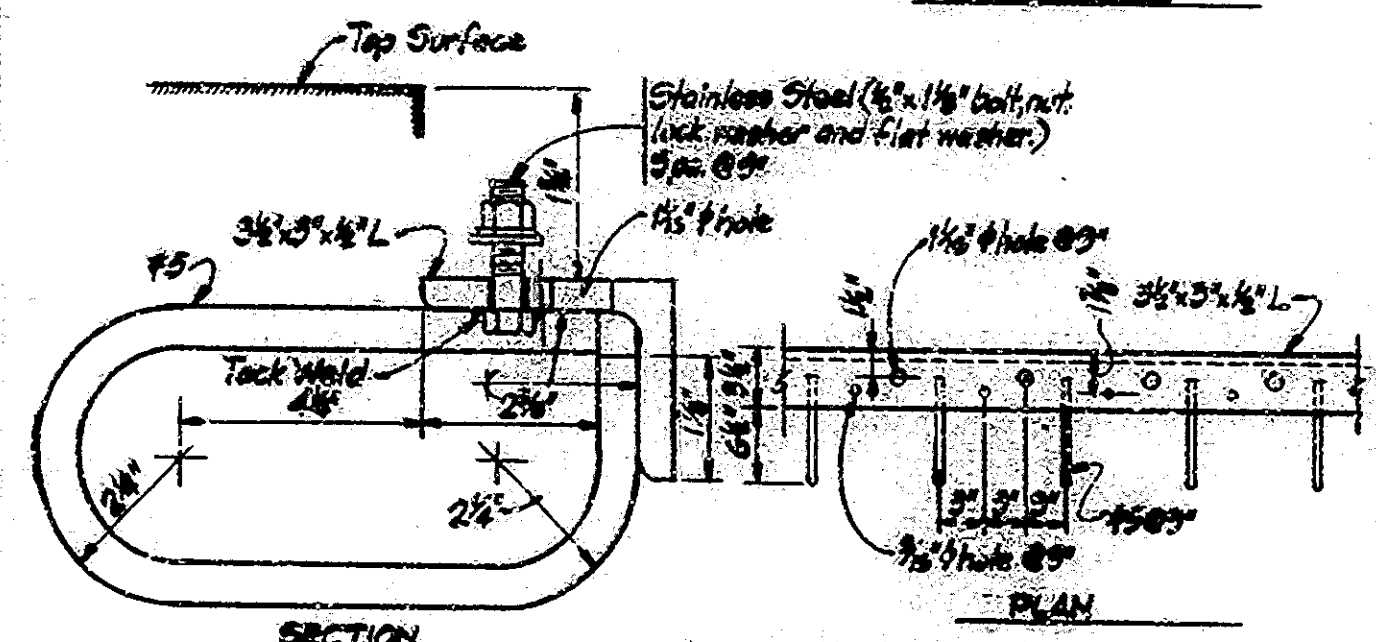
ALUMINUM EXTRUSION TYPE II



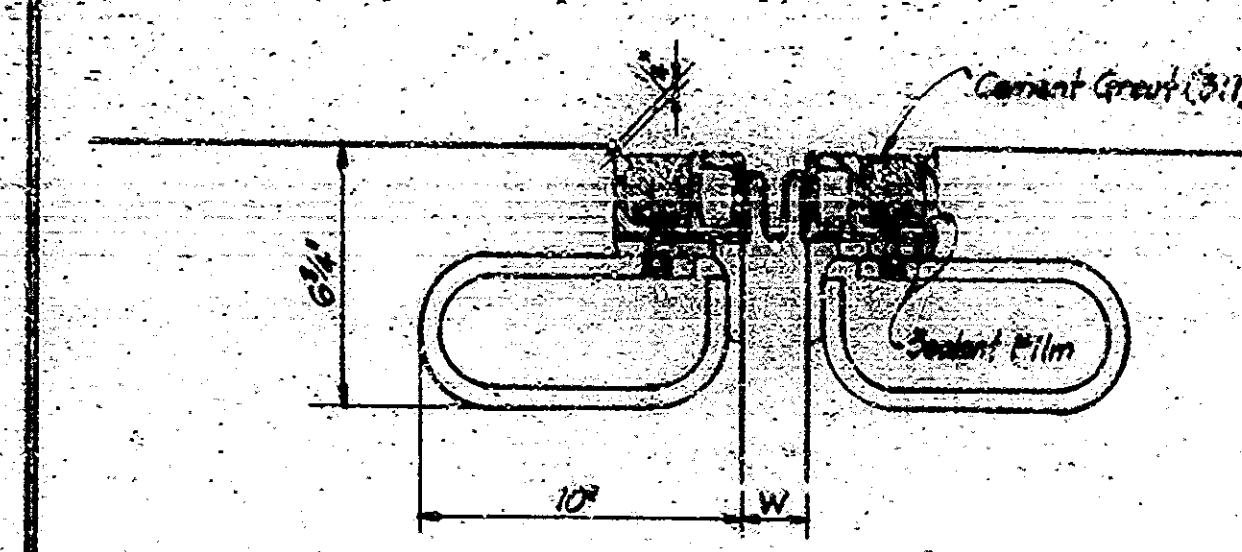
STRIP SEAL S-400



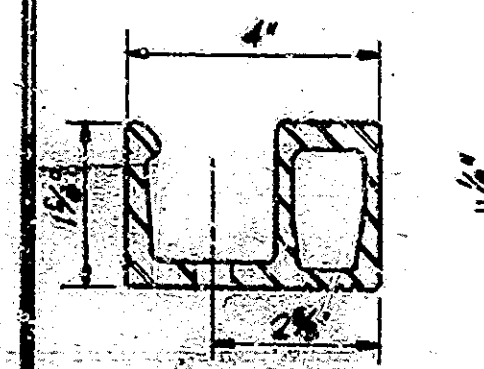
CAP STRIP



SECTION ANCHOR DETAIL



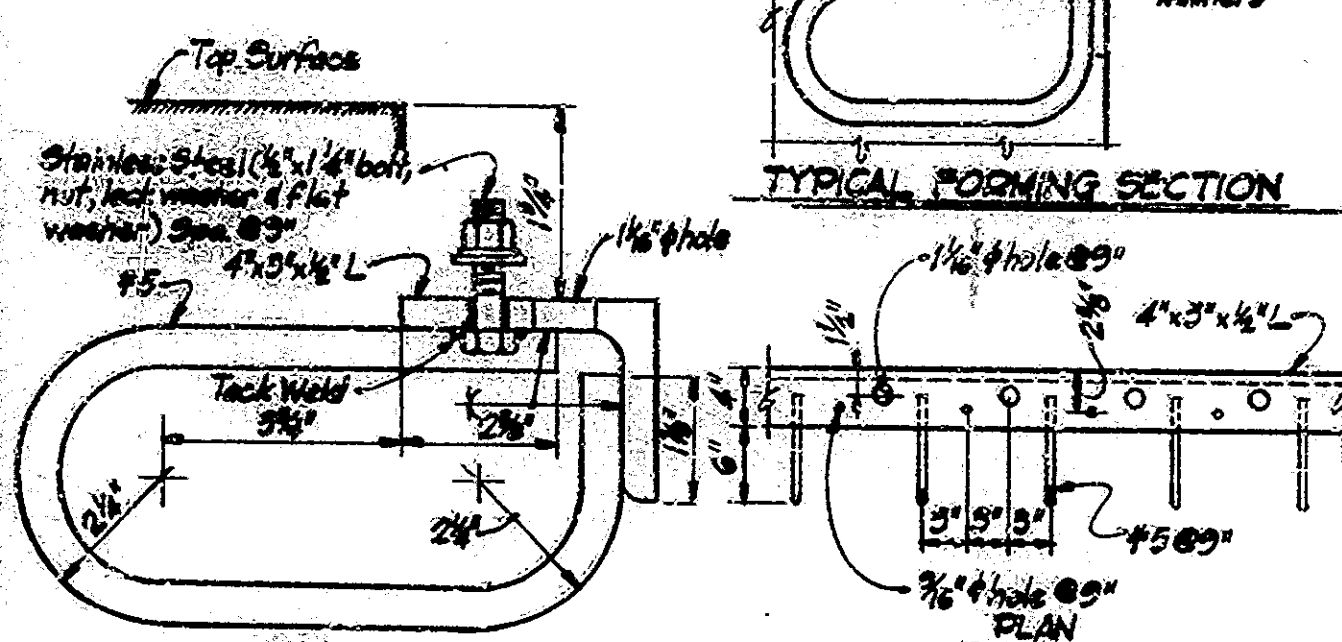
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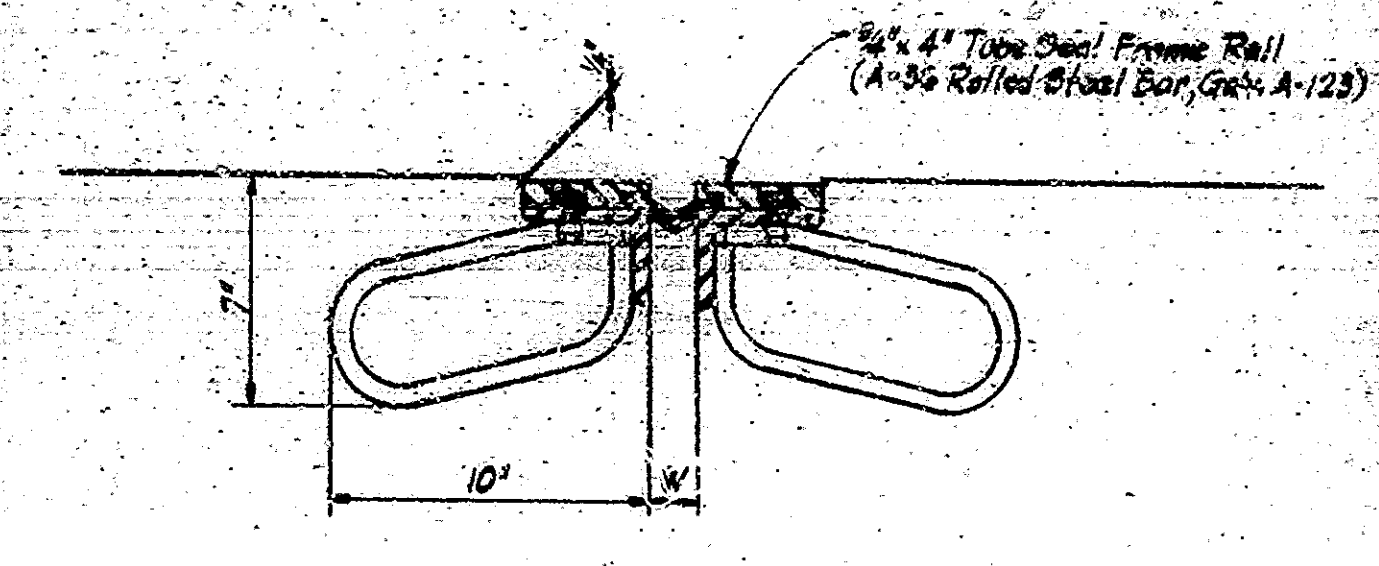
ALUMINUM EXTRUSION



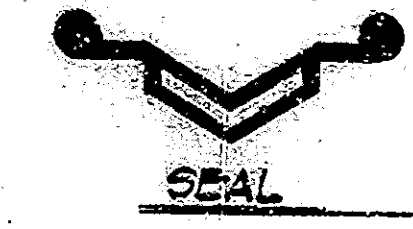
MEMBRANE



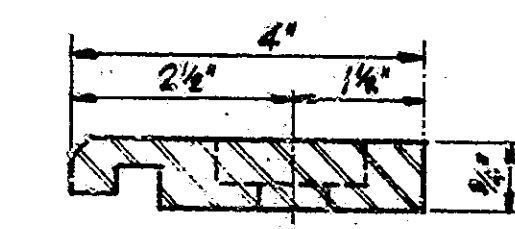
SECTION ANCHOR DETAIL



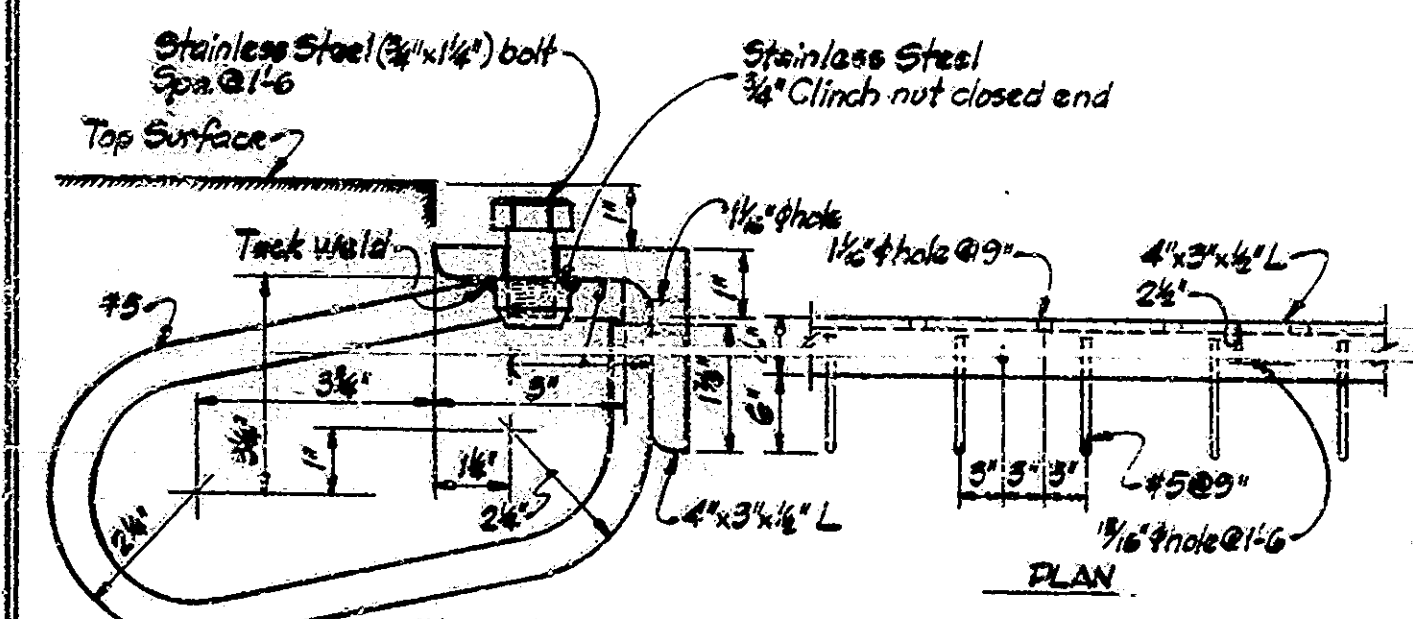
TYPICAL SECTION



SEAL



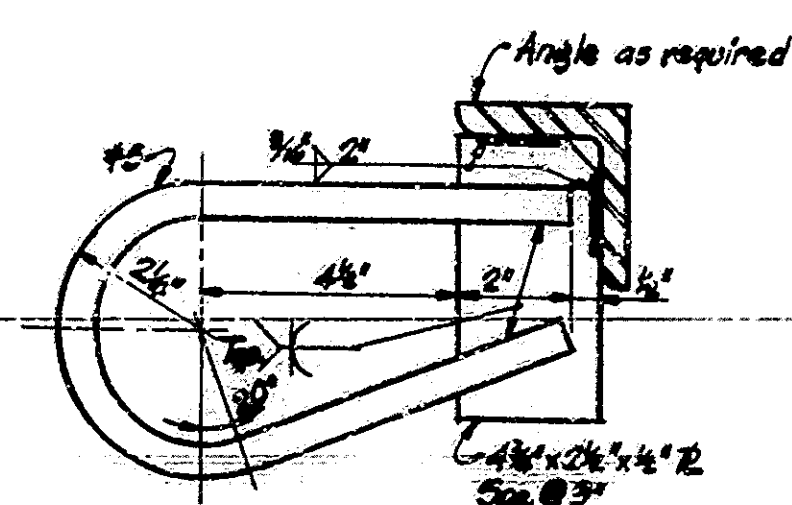
SEAL FRAME RAIL



SECTION ANCHOR DETAIL

Anchor Temperature	JOINT SETTING TABLE			
	DIMENSION W			
	Expansion Length			
	100'	200'	300'	400'
120°	2 1/2"	1 1/2"	1 1/2"	1 1/2"
100°	2 1/2"	1 1/2"	1 1/2"	1 1/2"
80°	2 1/2"	1 1/2"	1 1/2"	1 1/2"
60°	2 1/2"	1 1/2"	1 1/2"	1 1/2"
40°	2 1/2"	1 1/2"	1 1/2"	1 1/2"
20°	2 1/2"	1 1/2"	1 1/2"	1 1/2"
0°	2 1/2"	1 1/2"	1 1/2"	1 1/2"

PIER 3 PIER 6

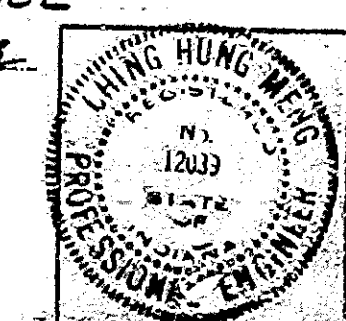


ALTERNATE ANCHOR DETAIL

NOTES
 SEE THE SPECIAL PROVISIONS FOR PROPERTIES OF MATERIALS.
 THE COST OF EXTRUSIONS, ELASTOMERIC SEAL ELEMENTS, SEALANTS, ADHESIVE, CEMENT GROUT, ANCHOR SYSTEM AND INSTALLATION OF JOINT SHALL BE INCLUDED IN THE COST OF EXPANSION JOINT.
 THE PROFILE OF THE JOINT IS TO CONFORM TO THE ROADWAY CROSS-SECTION.
 THE SEAL ELEMENT SHALL BE MOULDED AND FURNISHED IN A CONTINUOUS LENGTH EQUAL TO THAT REQUIRED FOR THE JOINT.
 AT CHANGES IN DIRECTION (AT CURBS, MEDIUM BARRIERS, ETC.) THE SECTIONS OF JOINT ARE TO BE CUT TO THE BEVEL REQUIRED TO PRODUCE THE SAME CROSS SECTION ON EACH PIECE BEING JOINED.
 THE ANCHOR ASSEMBLY IS TO BE SHOP FABRICATED AND DELIVERED TO THE JOB SITE AS A COMPLETE CONTINUOUS UNIT FOR JOINT LENGTHS UP TO 40 FEET. JOINTS ABOVE LENGTHS OF 40 FEET OR JOINTS USED WITH STAGE CONSTRUCTION SHALL BE FIELD WELDED WITH ENDS TO BE SHOP PREPARED.
 ALL WORK, BOTH SHOP AND FIELD, SHALL BE IN ACCORDANCE WITH J.I.T.O.S.
 ALL EXPOSED STRUCTURAL STEEL SURFACES WILL BE PAINTED IN ACCORDANCE WITH ISHC STANDARD SPECIFICATIONS.
 THE CONTRACTOR SHALL SUBMIT 3 COPIES OF SHOP DRAWINGS FOR ALL JOINTS INVOLVING CURBS OR OTHER SPECIAL FEATURES.

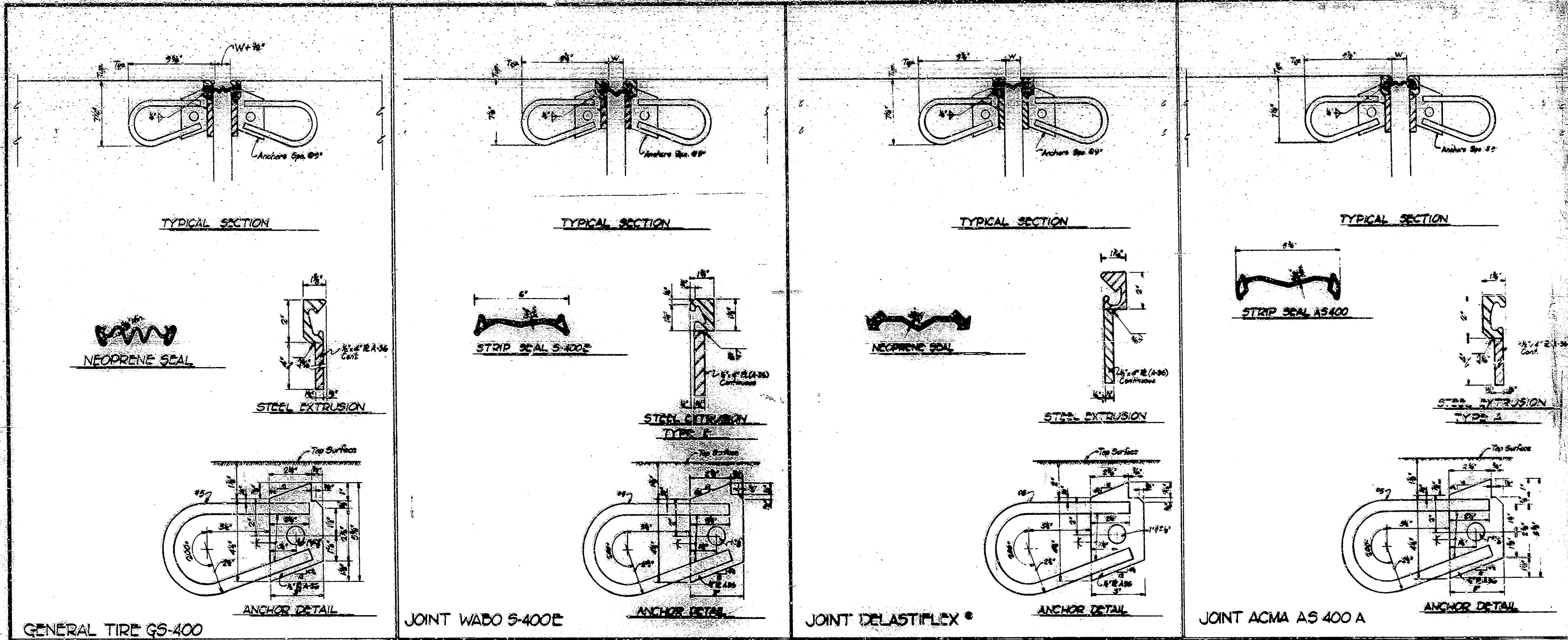
EXPANSION JOINTS CLASS T-S
 INDIANA STATE HIGHWAY COMMISSION

SCALE: NONE
 DATE: JANUARY 12, 1982
 Ching-Rose Meng
 SENIOR DESIGNER
 DRAWING: 533 OF 34 SHEET: 43 OF 85
 PROJECT: 25-4328-11
 CONTRACT NO. B-13799
 BRIDGE FILE: 157-28-6589



DESIGNED: CTD
 DRAWN: CTD
 CHECKED: CTD

Rev. 1-5-80 Notes



GENERAL TIRE GS-400

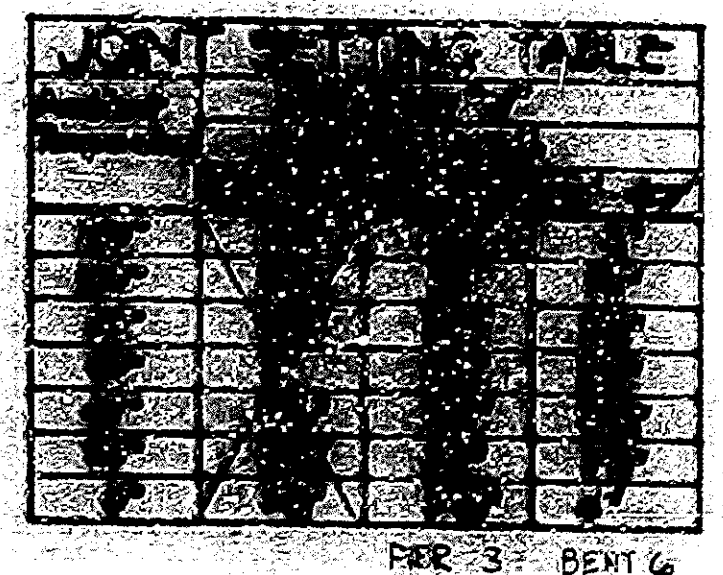
JOINT WADO S-400E

JOINT DELASTIFLEX

JOINT ACMA AS 400 A

NOTES

SEE THE SPECIAL PROVISIONS FOR PROPERTIES OF MATERIALS.
 THE COST OF EXTRUSIONS, ELASTOMERIC SEAL ELEMENTS/ANCHORS, ADHESIVE, CEMENT GROUT, ANCHOR SYSTEM AND INSTALLATION OF JOINT SHALL BE INCLUDED IN THE COST OF EXPANSION JOINT.
 THE PROFILE OF THE JOINT IS TO CONFORM TO THE BIDDING DRAWING SECTION.
 THE SEAL ELEMENT SHALL BE PROVIDED AND POSITIONED IN A CONTINUOUS LENGTH EQUAL TO THAT REQUIRED FOR THE JOINT.
 AT CURVES IN STRUCTURE (BY CURVE, RAMPING JOINTS, ETC.) THE SECTIONS OF JOINT ARE TO BE CUT TO THE NEVEL HEIGHT TO FINISHES AND SHALL BE CONSIDERED AS THROUGH JOINTS.
 THE JOINT ASSEMBLY IS TO BE INSTALLED IN ACCORDANCE WITH THE BIDDING DRAWING SECTION AS A COMPLETE CONTINUOUS UNIT FOR THE JOINT LENGTH OF 10 FEET.
 JOINTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE BIDDING DRAWING SECTION.
 ALL JOINTS USED WITH FRAME CONSTRUCTION SHALL BE FABRICATED WITH SEALS TO BE USED PREPARED.
 ALL WORK, BOTH SHOP AND FIELD, SHALL BE IN ACCORDANCE WITH THE BIDDING DRAWING SECTION.
 ALL EXPANSION JOINTS SHALL BE PROVIDED IN ACCORDANCE WITH THE BIDDING DRAWING SECTION.
 THE CONTRACTOR SHALL SUBMIT 3 COPIES OF SHOP DRAWINGS FOR ALL JOINTS INVOLVING CURVE OR OTHER SPECIAL FEATURES.



EXPANSION JOINTS CLASS S-S
 INDIANA STATE HIGHWAY COMMISSION

SCALE: NONE DATE: JANUARY 12, 1984

Cheryl Marie May

DRAWING: 534 OF 54 SHEET: 44 OF 85
 PROJECT: RS 4326-(1)
 CONTRACT NO. B-13799
 BRIDGE FILE: 151-26-687



DESIGNED BY	CIVIL
DRAWN BY	CIVIL
CHECKED BY	CIVIL
IN CHARGE	CIVIL

