

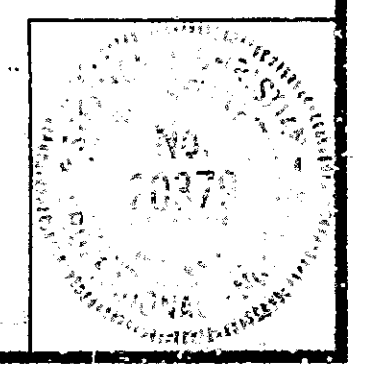
NOTE: For additional Traffic Maintenance Details, See Sheet 3.

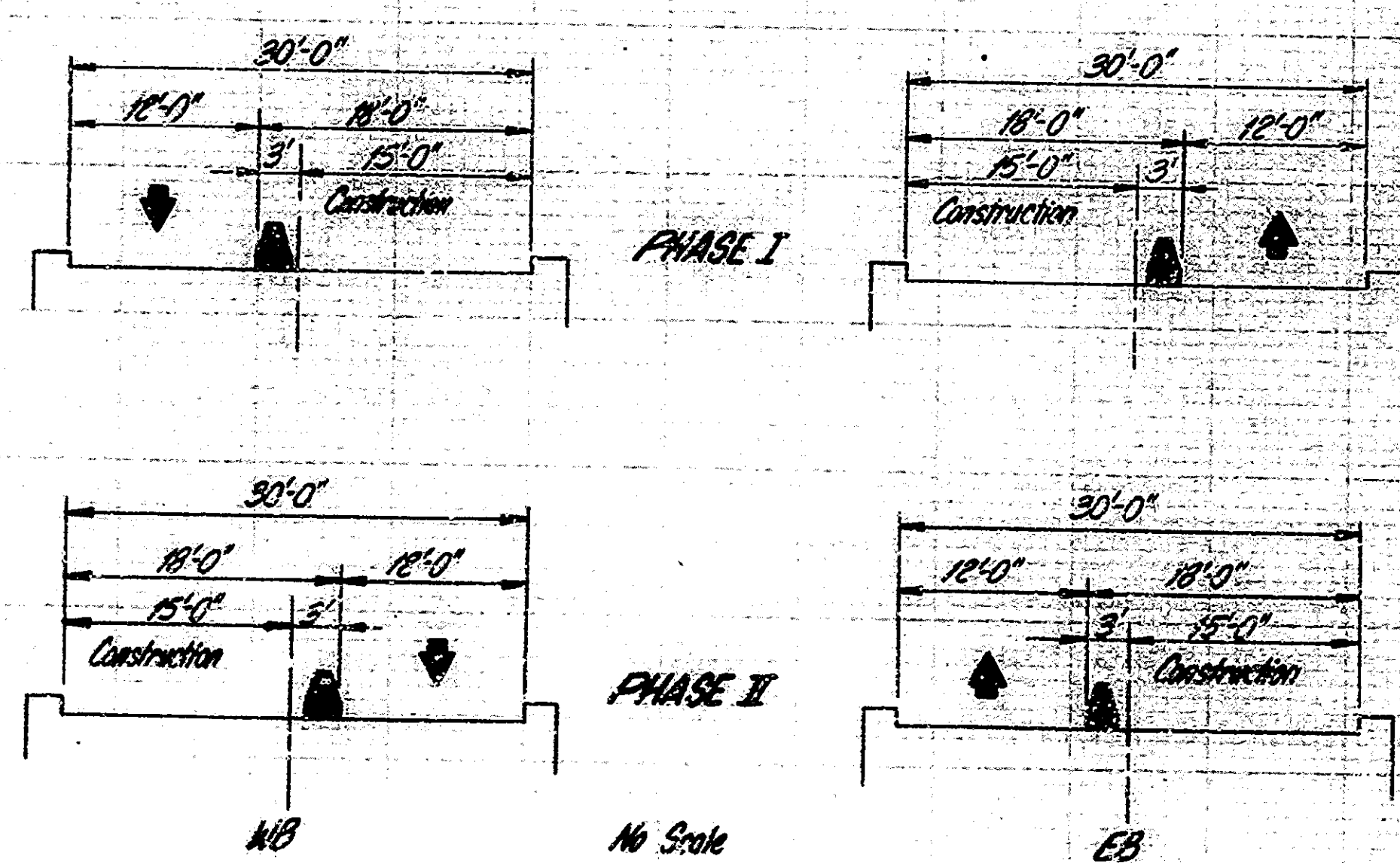
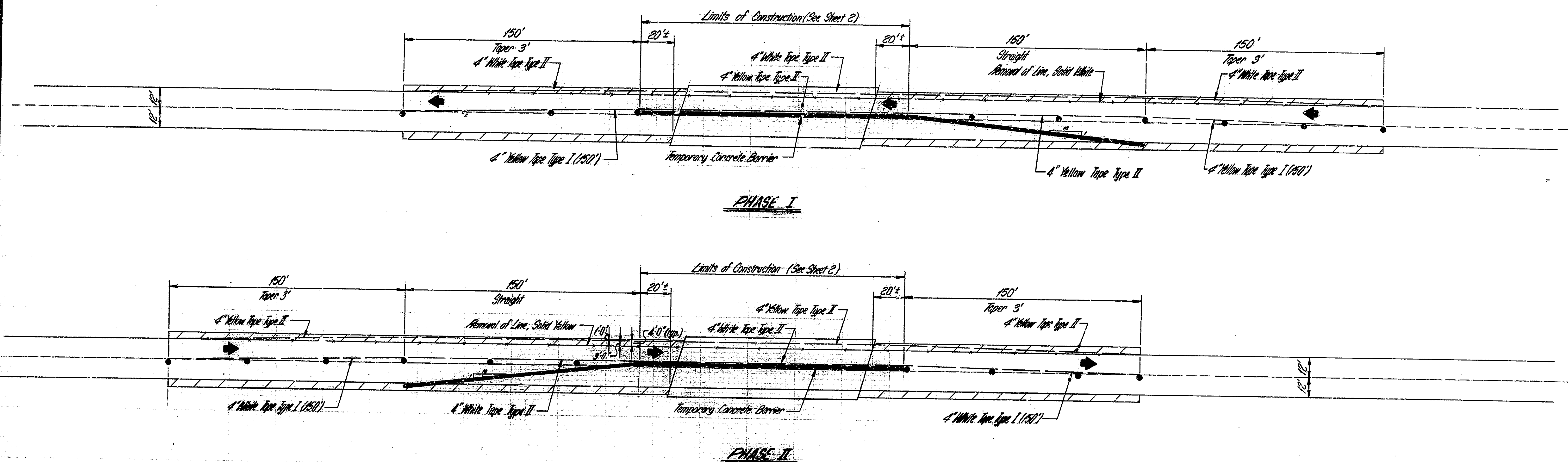
TRAFFIC MAINTENANCE  
**INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - 1" = 200'

DATE: June 20, 1986  
 Stephen J. Christian

DRAWING OF SHEET: 2 OF 38  
 PROJECT: I-74-N-1(F)11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: I-74-N-2050, I-74-N-2020, & I-74-N-2933 C





**ESTIMATED QUANTITIES**

Qty/Item	Unit	2258 B	4928 C	2933 C	TOTAL
Maintaining Traffic	LS	-	-	-	1
Temporary Concrete Barrier	LF	300	1000	1000	3000
Construction Signs (Type A)	EA	14	7	9	30
Construction Signs (Type B)	EA	2	1	1	4
Flashing Arrow Sign	DNYS	-	-	-	-
Temporary Warning Sign (Type I)	LF	800	2800	4400	10000
Temporary Warning Sign (Type II)	LF	500	500	500	1500
Removal of Line, Solid White 5'	LF	150	150	150	450
Removal of Line, Solid Yellow 4'	LF	1439	1395	1633	4467
Temporary Line, Solid White 5'	LF	72	570	300	942
Line, Solid White 4'	LF	300	820	800	1920
Line, Solid Yellow 4'	LF	160	160	160	480
Standard Barricade (Type II, B)	EA	16	8	8	32

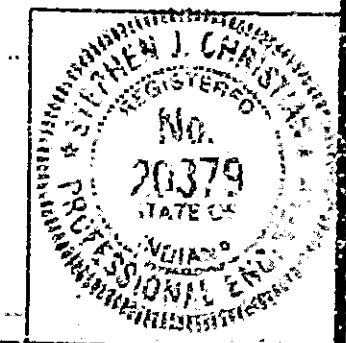
**NOTES:**  
 "AHEAD" and "AHEAD" Signs shall be placed in advance of the nearest suitable exit crossing the construction area. These signs shall be supplied, furnished, installed, and removed by the District Traffic Department.

to be included in the cost of Bituminous Mixtures for Approaches  
 Maintaining Traffic, 1 Lump Sum  
 Includes the following items:  
 Barricades Type I or Drums  
 Covering Shopable Pavement Markers

TRAFFIC MAINTENANCE  
**INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - 1" = 30'-0" Unless Noted DATE: - June 20, 1966  
 Stephen J. Christen

DRAWING: OF SHEET: 3 OF 38  
 PROJECT: - SF-74-11F11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: - 74-11-2258B, 1-74-12-4928C, 1-74-14-2933C



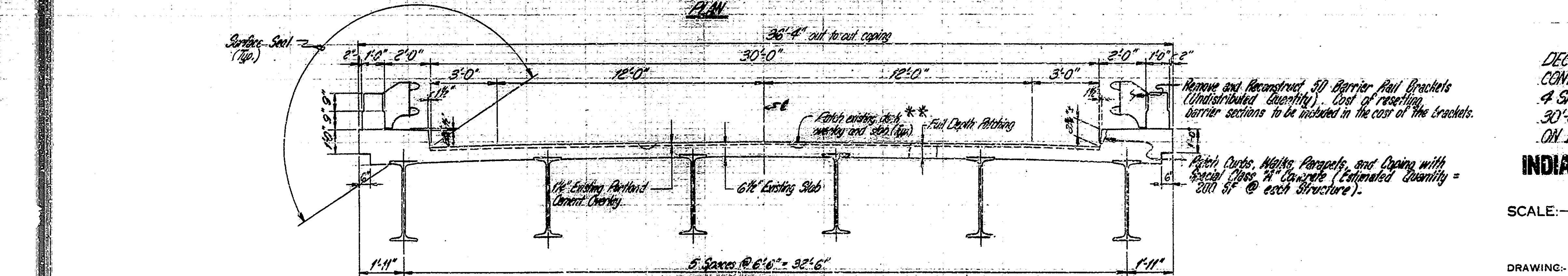
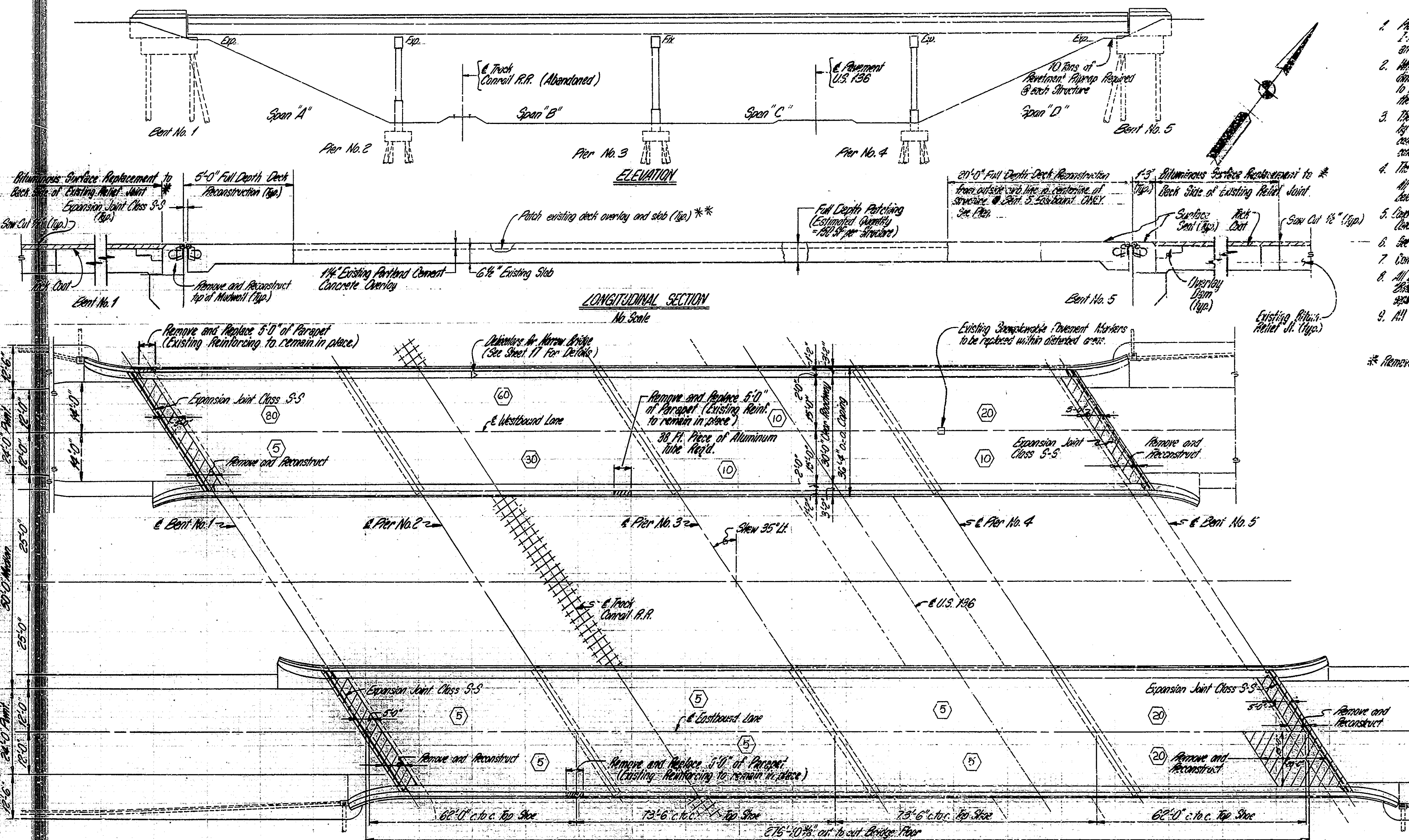
DESIGNED: CKD  
 DRAWN: GAK CKD  
 TRACED: CKD  
 SF-22317

STRUCTURE BUILT TO A 1500 FT. VERTICAL CURVE

GENERAL NOTES

- Plans for the existing structures are on file in the Control Office as Bridge Files 1-74-11-22558, 1-74-13-4926A & 4926 B, and 1-74-14-2393A & 2393 B and are available on request.
- Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer and assume responsibility for their correctness and the fit of the new part to the old.
- The patching and cleaning of deteriorated deck areas shall be as directed by the Engineer. It is the intent of these plans that all such deteriorated concrete be removed and should there be any doubt as to the quality of the concrete, removal shall continue until "FRESHLY EXPOSED CONCRETE" is exposed.
- The boundaries of full depth removal areas shall be saw cut. All saw cuts for full depth removals shall be made to minimum depth of 1 inch below the deck surface.
- Concrete in patches for deteriorated deck areas and full depth patching areas to be Mod. P.C. (see Special Provisions).
- See Special Provisions for composition of concrete in overlay dams.
- Concrete in full depth slab reconstruction at end bents & parapet walls to be Class A.
- All bituminous material required in this contract to be included in the pay item "Bituminous Material for Approaches" except that cut will be paid for separately.
- All concrete for concrete barrier rail shall be Class C.

\* Removal of Bituminous Surface to be included in the cost of Pavement Removal.



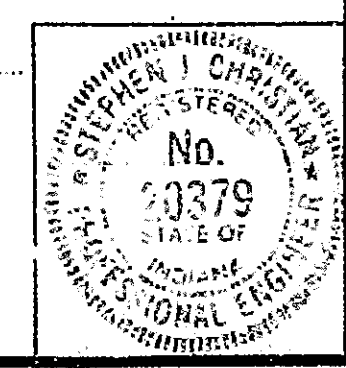
GENERAL PLAN

DECK RECONSTRUCTION AND JOINT REPLACEMENTS FOR CONTINUOUS-STEEL-BEAM BRIDGE  
 4 SPANS: 62'-0", 73'-6", 73'-6", & 62'-0" SKEW 35° LT.  
 30'-0" CLEAR ROADWAY  
 ON I-74 OVER U.S. 136 AND CONRAIL R.R.

INDIANA DEPARTMENT OF HIGHWAYS  
 FRANKLIN COUNTY

SCALE: - 1/8" = 1'-0" Unless Noted DATE: June 20, 1986  
 Stephen J. Christian

DRAWING: 11 OF 15 SHEET: 4 OF 38  
 PROJECT: 81-11-11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: 1-74-11-22558 B

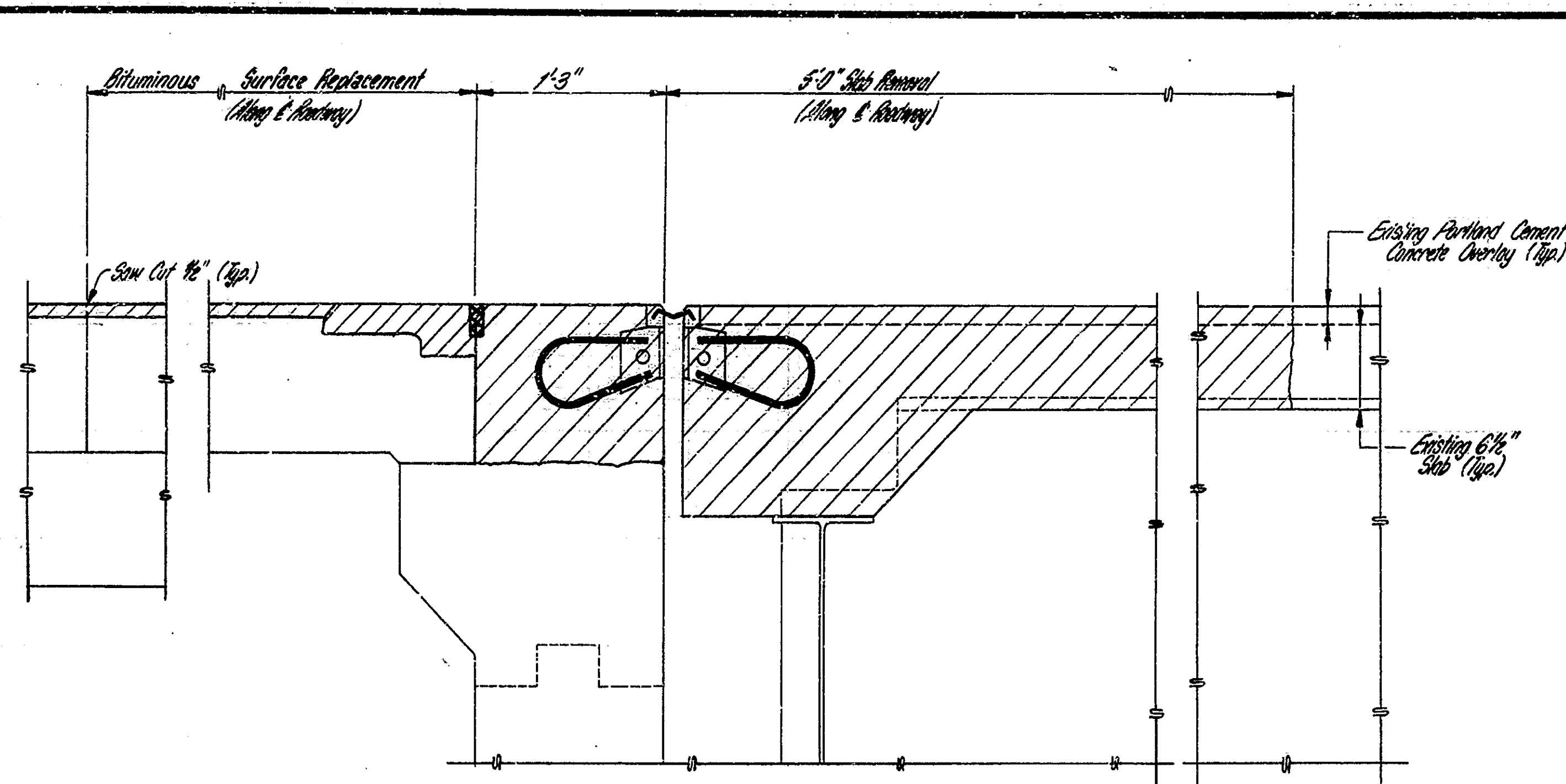


DESIGNED: CKD  
 DRAWN: SLL  
 TRACED: CKD

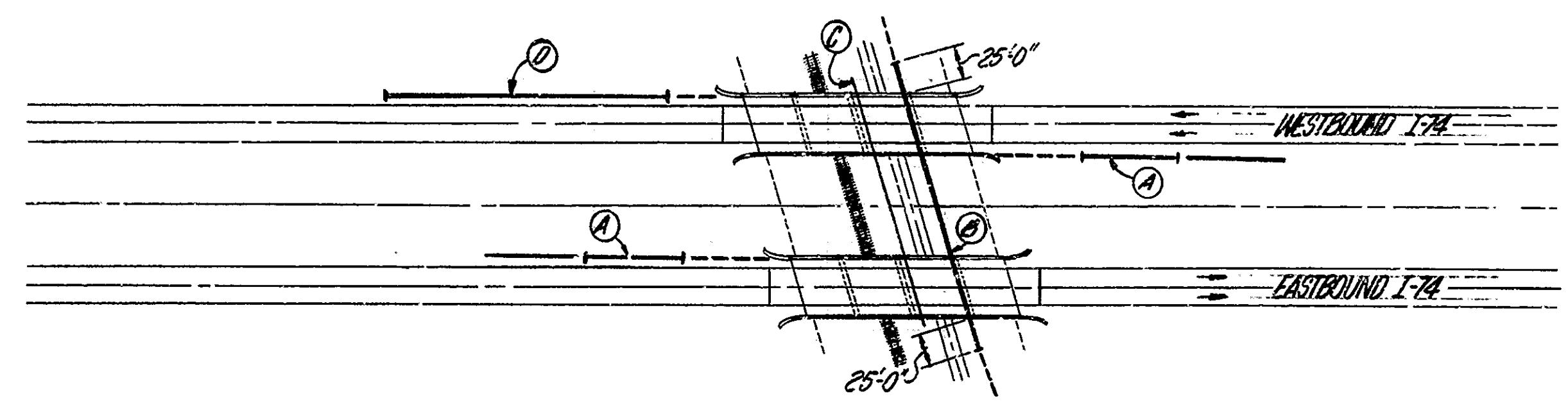
SF-22317

\*\* Includes all labor and materials see Special Provisions (To be paid for as Bridge Deck Overlay Patching)

Revised 9-4-86 Bridge Deck Overlay Patching



**BENT No. 1 & BENT No. 5 REMOVAL** (Section L to Skew)



**GUARD RAIL LAYOUT**  
No Scale

GUARD RAIL LEGEND		GUARD RAIL SUMMARY		
2x	Ⓐ 80 LF	Guard Rail Class C <sub>A</sub>	179 LF	Guard Rail Type E
	1 EA	Guard Rail End Treatment Type I	178 LF	Guard Rail Class C <sub>A</sub>
	60 LF	Removal of Guard Rail (Existing Buried End)	388 LF	Guard Rail Class B <sub>s</sub>
1x	Ⓑ 179 LF	Guard Rail Type E (Connect to existing guard rail at each end)	589 LF	Removal of Guard Rail
	98 LF	Removal of Guard Rail	2 EA	Guard Rail End Treatment Type I
1x	Ⓒ 411 LF	Removal of Guard Rail and 2 Buried Ends (Class B <sub>s</sub> )		
1x	Ⓓ 388 LF	Guard Rail Class B <sub>s</sub> (30 Panels @ 12'-6" and 8 Panels @ 8'-3")		

**CONSTRUCTION PROCEDURE**

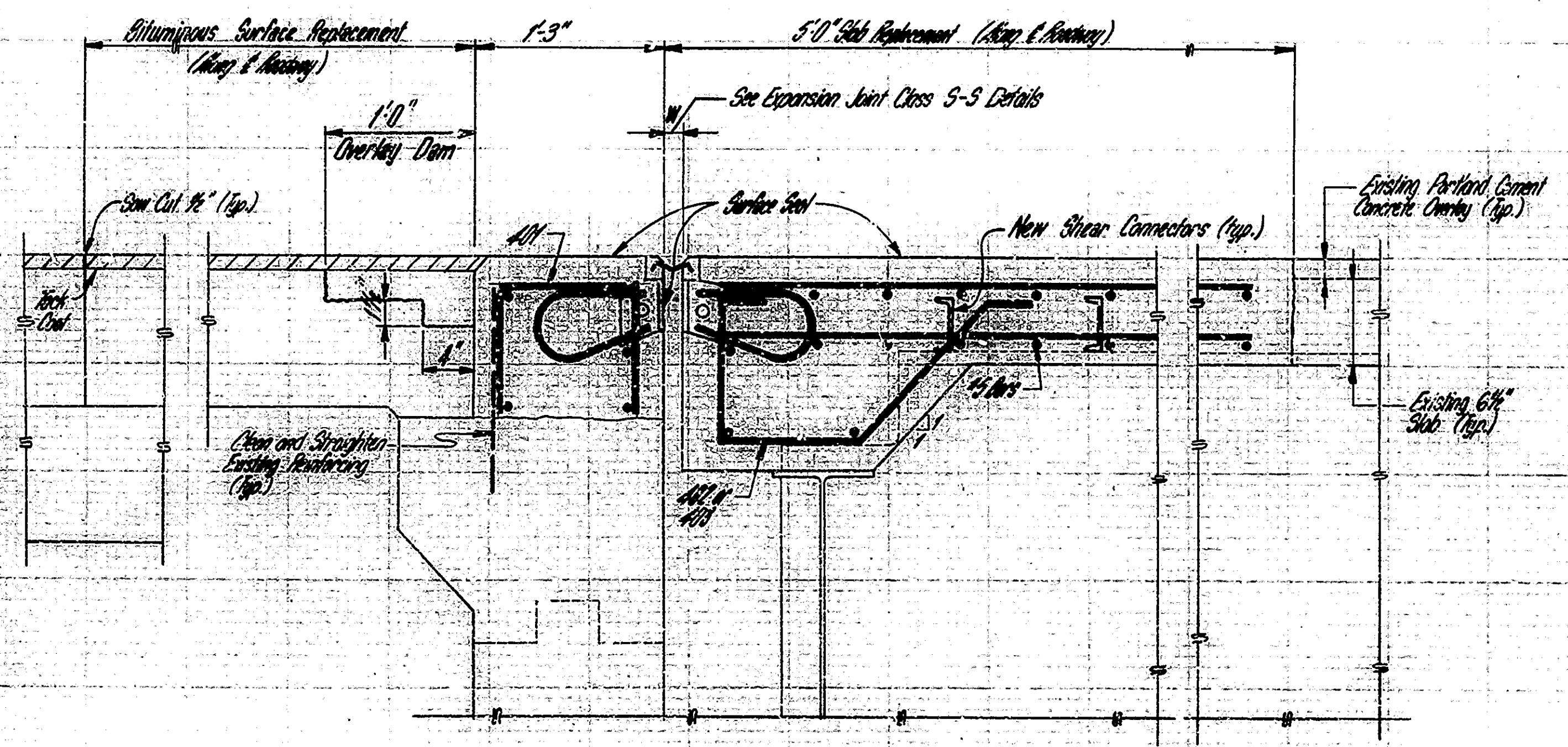
- Remove the slab full depth and concrete for overlay class as shown on details.
  - Remove all remaining concrete by handpick and cleanup in accordance with the Special Provisions.
  - Prep (smooth and uniform).
  - Remove the full depth slab removal areas, full depth deck patching areas, and bridge deck as shown on plans.
  - Install Expansion Joints.
  - All surface shall be used for as a Long Form.
  - Remove and saw off concrete area from gutter to bottom of slab/bottom of girder (includes curbs, walls, concrete railing, concrete parapets, concrete brackets, and curbs) as shown on the plans.
  - Remove and saw off all remaining top of exposed overlay slabs, steel face of manholes and all curbs/walls, bridge seats, curbs, all full depth removal areas, and exposed face of parapets.
  - Estimated quantity of surface soil: 42,720 cu. ft.
  - Unpaved all other work shown on the plans including the removal and installation of the guard rail.
- The numbers do not necessarily indicate the sequence of operations.
- Existing reinforcement to remain in place and extend into repaired concrete shall be checked and approved.
- Reinforcement of present structure to be removed in accordance with the plans and article 601.03 (b) of the specifications.

**TRAFFIC PROCEDURE**

- Construct bituminous widening and other work to provide for traffic on Right Lane.
- PHASE I**
- Close Left Lane (adjacent to Median) and channel traffic on Right Lane in accordance with details.
  - Complete construction on left part of bridge and approaches.
- PHASE II**
- Close Right Lane and channel traffic on Left lane in accordance with details.
  - Complete construction on left part of bridge and approaches.

**MATERIAL NOTES**

- BRIDGE DECK OVERLAY PATCHING**  
See Special Provisions
- BITUMINOUS APPROACHES**  
H.A.C. Surface Type II (Depth to match existing surface)
- BITUMINOUS MAINLINE**  
300 #/cu. Bituminous Base Type 5.0

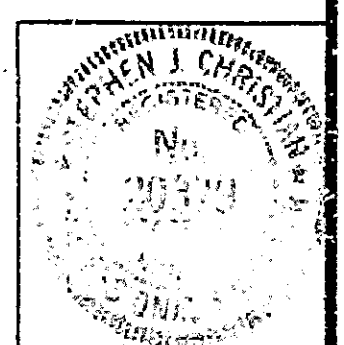


**BENT No. 1 & BENT No. 5 NEW CONSTRUCTION** (Section L to Skew)

**DETAILS**  
**INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - 1/4" = 1'-0" Unless Noted DATE: June 20, 1986  
Stephen J. Christian

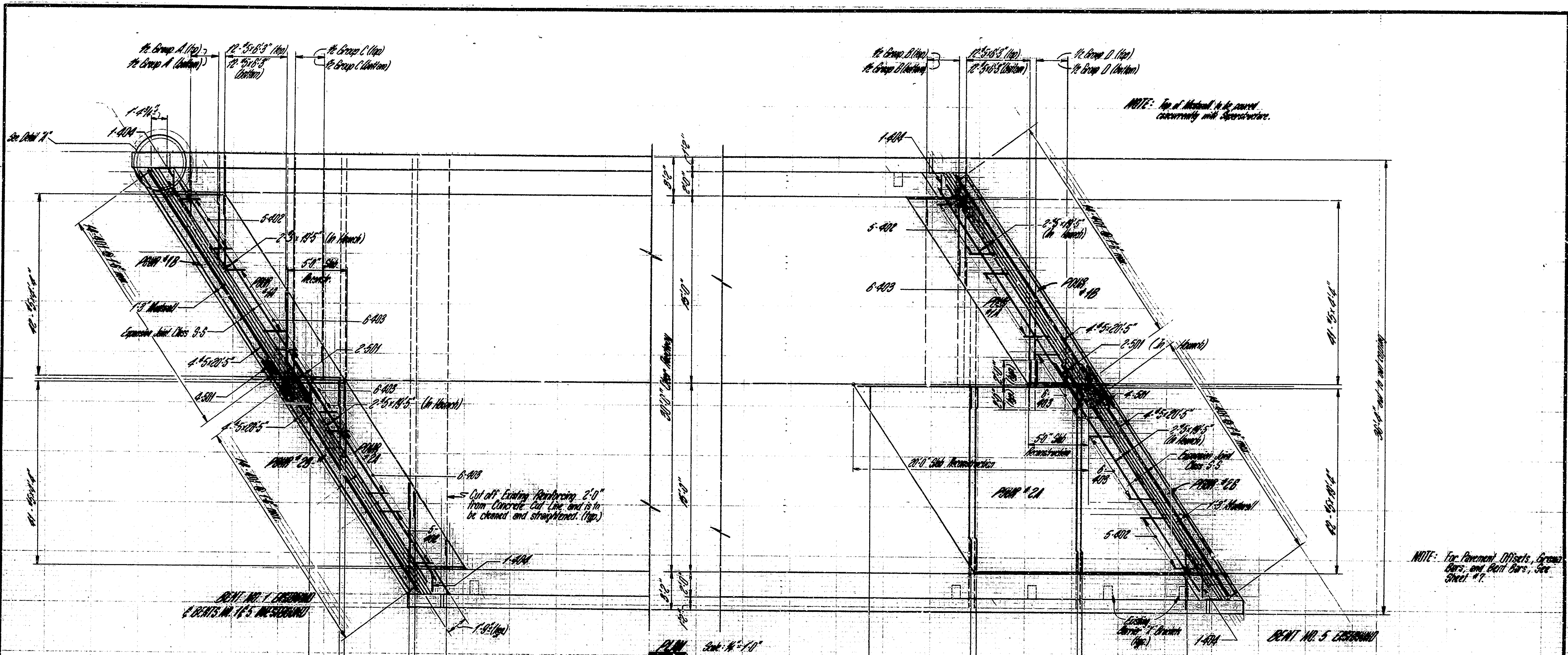
DRAWING: 12 OF 15 SHEET: 5 OF 38  
PROJECT: I-74-A-F-11  
BRIDGE CONTRACT NO. B-16460  
BRIDGE FILE: I-74-A-2258B



DESIGNED: CKD  
DRAWN: GAN CKD, BLD  
TRACED: EWD

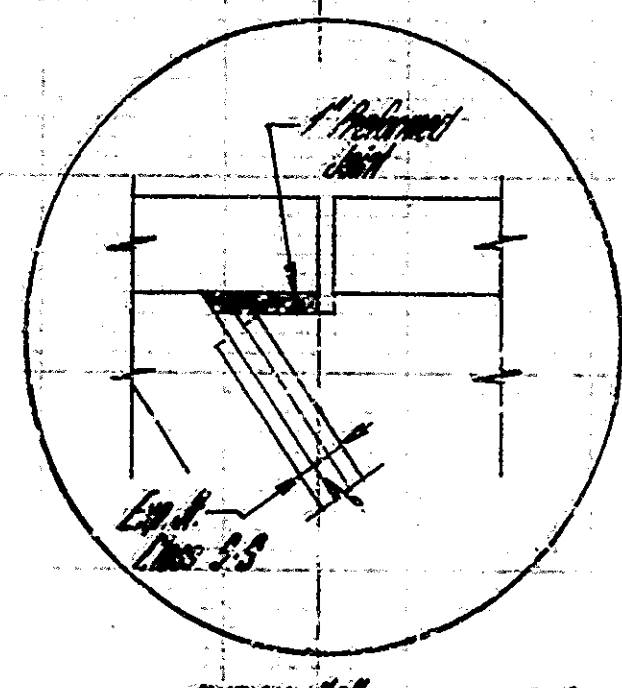
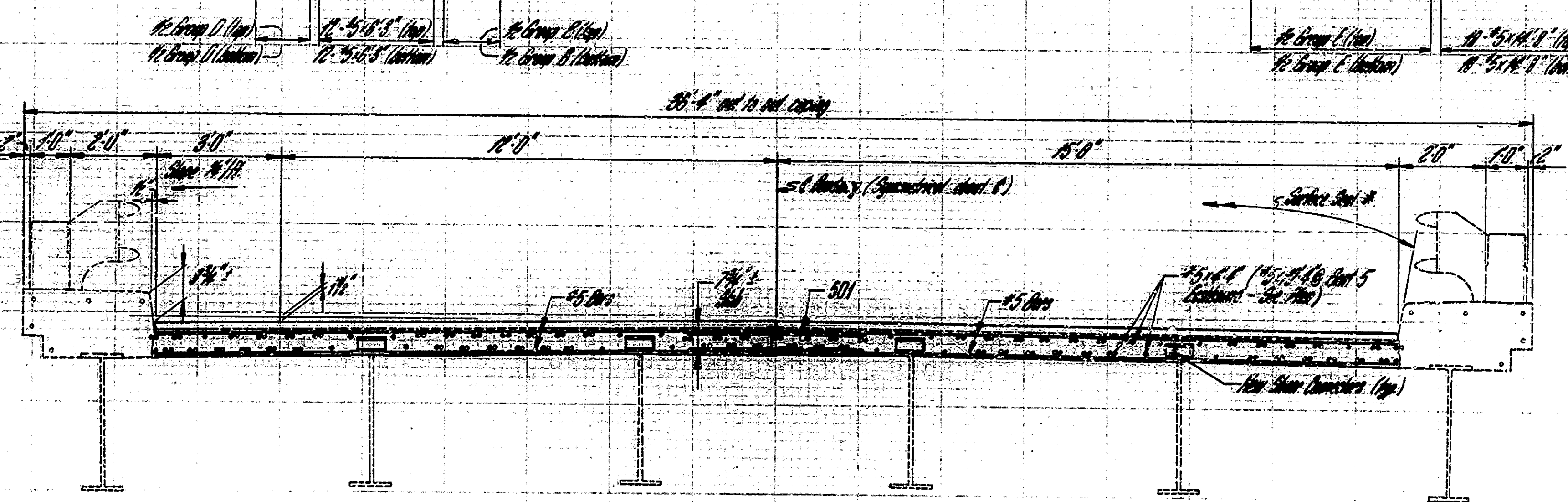
SF-22317

Revised 3-4-86 Bridge Deck Overlay Patching



NOTE: Top of Main Pier to be covered concurrently with Superstructure.

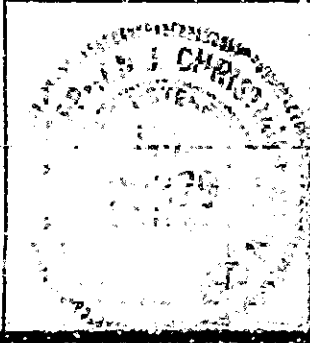
NOTE: For Pavement Offsets, Gravel Bars, and Bent Bars, See Sheet #1.



**SUPERSTRUCTURE DETAILS**  
**INDIANA DEPARTMENT OF HIGHWAYS**

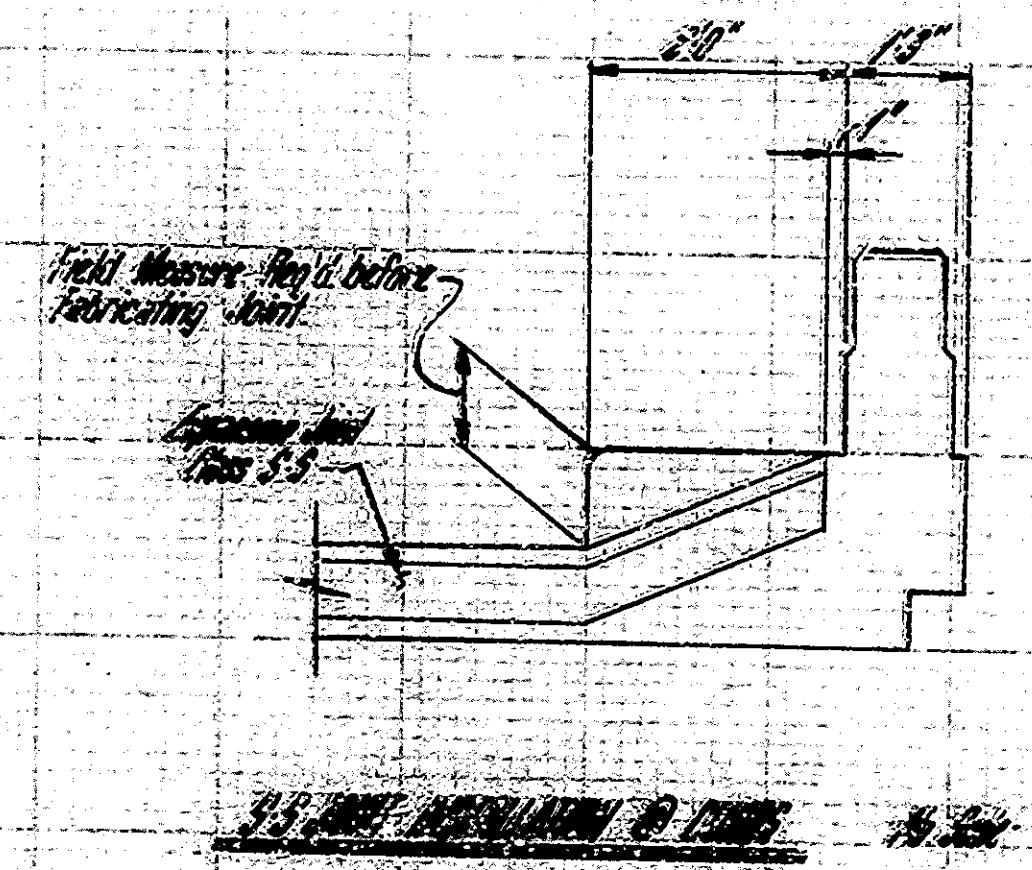
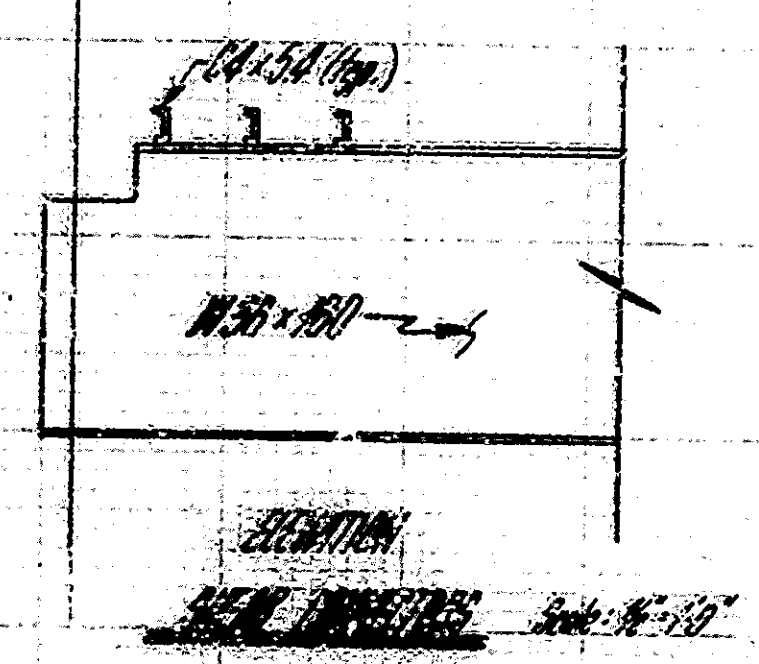
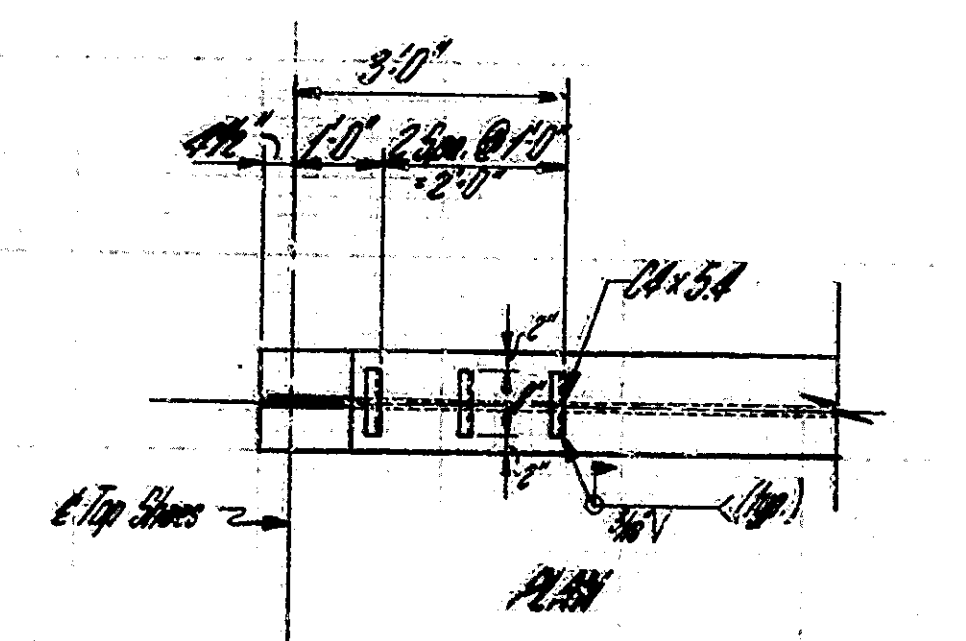
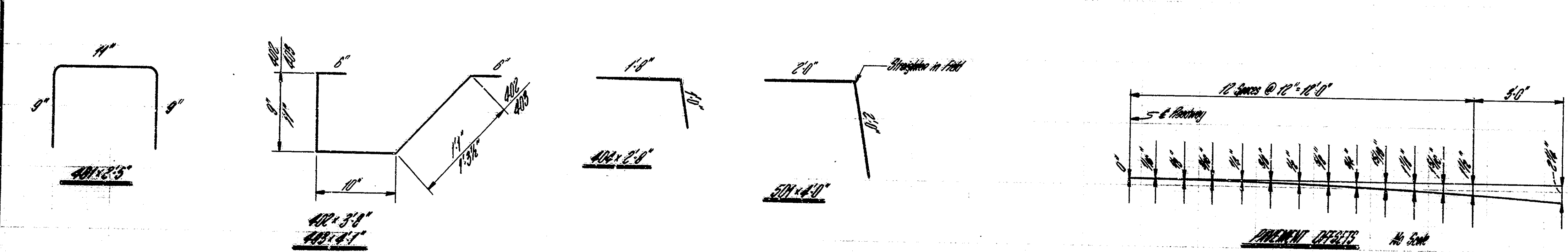
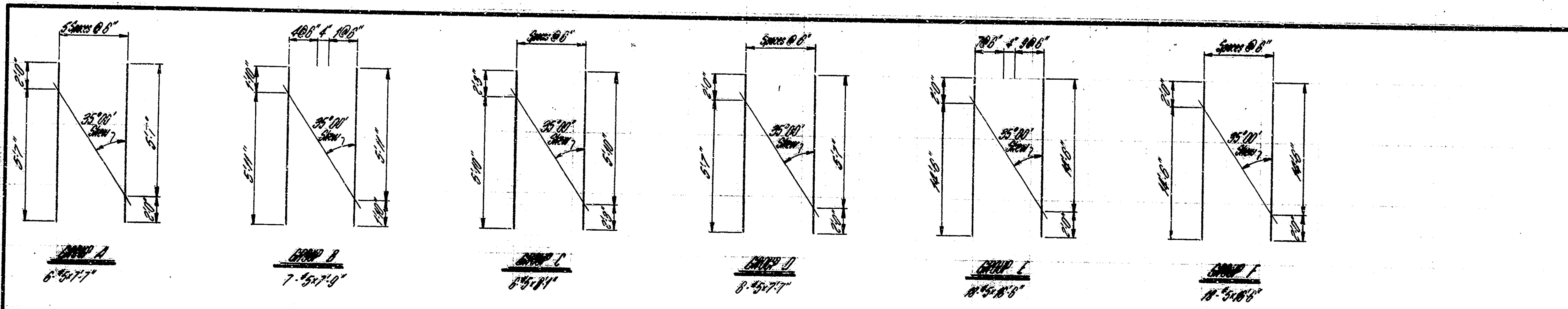
SCALE: - As Noted  
 DATE: June 20, 1908  
 Stephen J. Christian

DRAWING: 12 OF 14 SHEET: 8 OF 38  
 PROJECT: 20-N-H-F-11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: 574-N-2258B



DESIGNED	CWD
DRAWN	CWD
TRACED	CWD

SF-22317



3 EA per Beam x 4 Beams x 4 Ends = 48 EA

**BILL OF MATERIALS**  
FOR UNIT NO. 1 (CASTING) -  
UNITS NO. 1 & 5 (RESIGNING) THE SAME

REINFORCING STEEL				
Size of Bar	Number of Bars	Length (ft.)	Weight (lbs.)	
Group A	6	7.7		
Group B	7	7.7		
Group C	6	8.1		
Group D	6	7.7		
Group E	6	8.1		
Group F	6	8.1		
401	1	20.5		
402	1	20.5		
403	1	20.5		
404	1	20.5		
501	1	20.5		
Sub Totals			187	
401	20	1.5		
402	10	3.0		
403	10	2.7		
404	2	2.4		
Sub Totals			129	
CONCRETE				
For 10			25.00	
For 20			14.50	
For 30			14.50	
For 40			14.50	
Sub Totals			70.50	
Total Class 1 Concrete in Superstructure				258.00

**BILL OF MATERIALS**  
FOR UNIT NO. 5 (CASTING)

REINFORCING STEEL				
Size of Bar	Number of Bars	Length (ft.)	Weight (lbs.)	
Group A	6	7.7		
Group B	7	7.7		
Group C	6	8.1		
Group D	6	7.7		
Group E	6	8.1		
Group F	6	8.1		
401	1	20.5		
402	1	20.5		
403	1	20.5		
404	1	20.5		
501	1	20.5		
Sub Totals			187	
401	20	1.5		
402	10	3.0		
403	10	2.7		
404	2	2.4		
Sub Totals			129	
CONCRETE				
For 10			25.00	
For 20			14.50	
For 30			14.50	
For 40			14.50	
Sub Totals			70.50	
Total Class 1 Concrete in Superstructure				258.00

INDIANA DEPARTMENT OF HIGHWAYS

SCALE: - 1/4" = 1'-0"  
DATE: June 28, 1935  
Stephen J. Christian

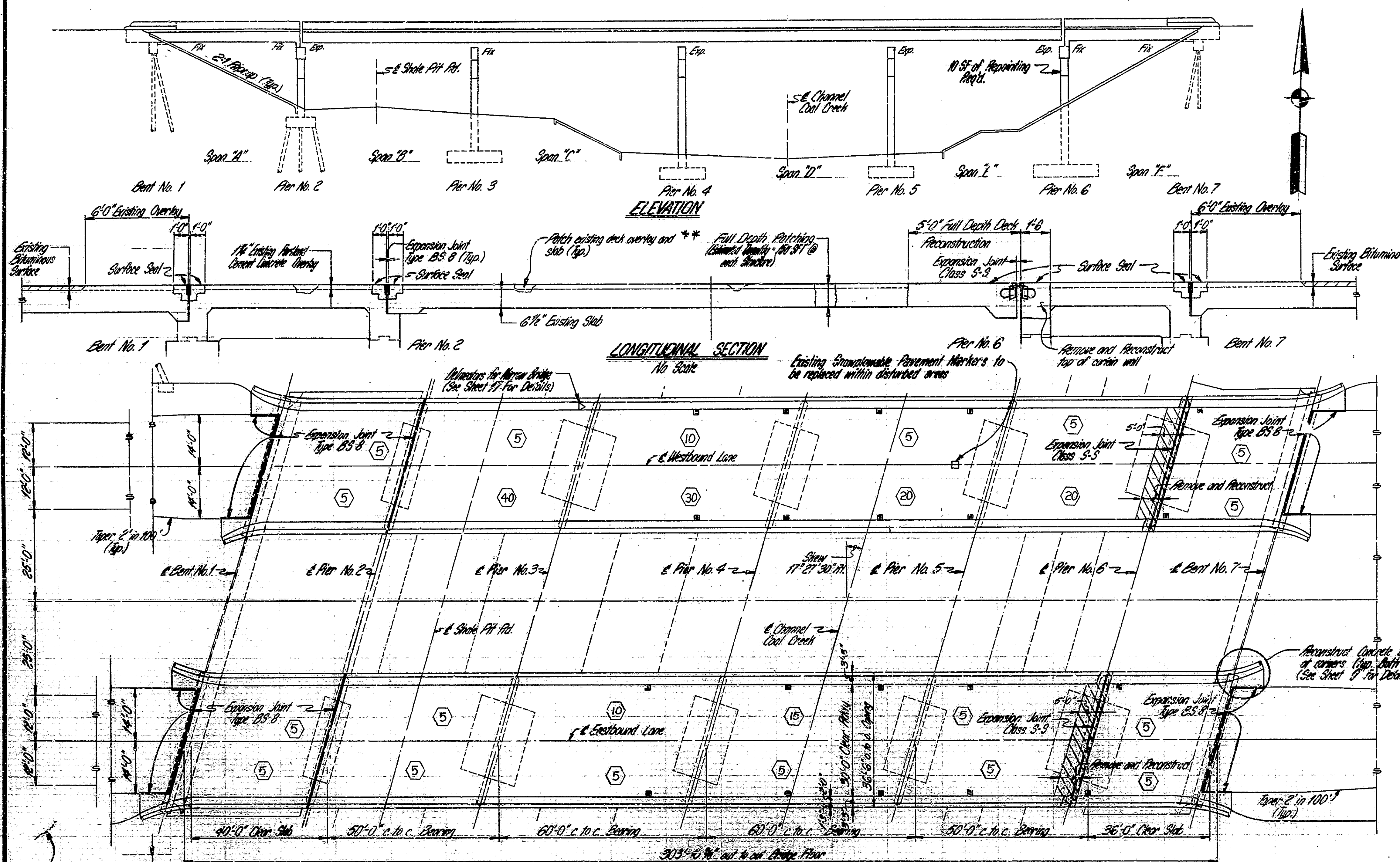
DRAWING: H OF B SHEET: 7 OF 20  
PROJECT: 37-2-A(F) II  
BRIDGE CONTRACT NO. B-16460  
BRIDGE FILE: 174-A-2750



DESIGNED: CKD  
DRAWN: CKD  
TRACED: CKD

SF-22517

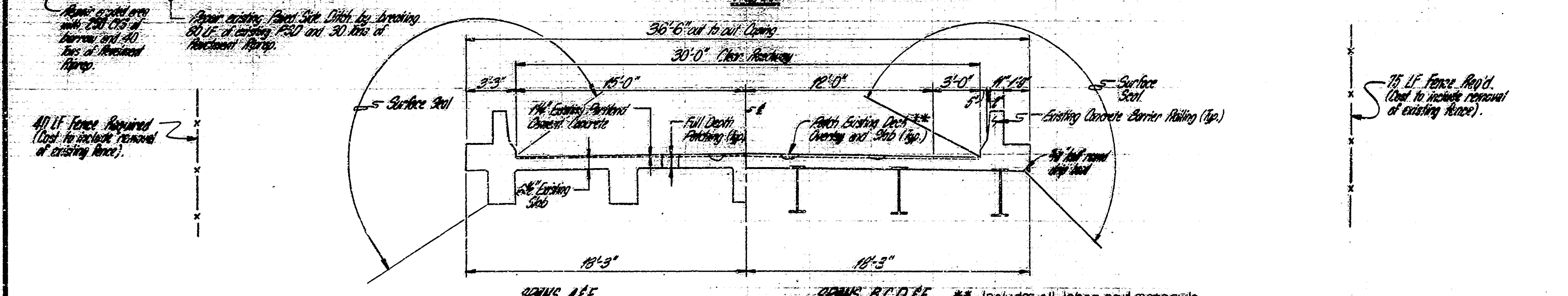
STRUCTURE BUILT TO A 600 FT. VERTICAL CURVE



Bridge No.	Sheet No.	Notes
BR 5		Paint Correction Details
01		Reinforcing Bar Notes
03		Joint Type I.A.
MA		R.C. Bridge Approach
MT3		Traffic Signs
GR 2		Guard Rail Class Hs
GR 4		Guard Rail Class H <sub>g</sub>
GR 4A		Guard Rail Class G <sub>g</sub>
GR 5		Aluminum Guard Rail Details
GR 7		Guard Rail Class E <sub>g</sub>
GR 8		Guard Rail Class D <sub>g</sub>
GR 10		Guard Rail End Treatment
CR		Temporary Concrete Barrier
Sheet 1		Standard Debris Signs
Sheet 2A		Standard Debris Signs
Sheet 3		Standard Debris Signs
Sheet 4		Standard Debris Signs
Sheet 5A		Standard Debris Signs

NOTE: For General Notes, See Sheet 4

○ Indicates percentage of Bridge Deck Overlay/Patching



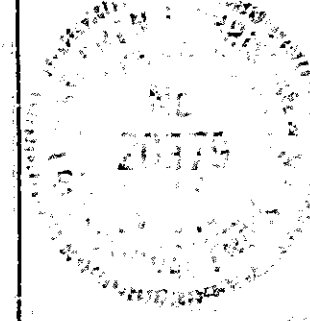
**GENERAL PLAN**  
 DECK RECONSTRUCTION AND JOINT REPLACEMENTS FOR  
 R.C. GIRDER AND CONTINUOUS STEEL BEAM BRIDGE  
 6 SPANS: 40'-0", 50'-0", 60'-0", 60'-0", 50'-0", 36'-0"  
 30'-0" CLEAR ROADWAY  
 ON I-74 OVER SHALE PIT ROAD & COAL CREEK  
 SHEW 17° 27' 30" FT.

**INDIANA DEPARTMENT OF HIGHWAYS**  
 FURNISH EVIDENCE  
 SCALE: 1/4" = 1'-0" Unless Noted DATE: June 20, 1985  
 Stephen J. Christian  
 DRAWING: 15 OF 15 SHEET: 9 OF 38  
 PROJECT: I-74 (A.F.) 11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: I-74-15-4928 C

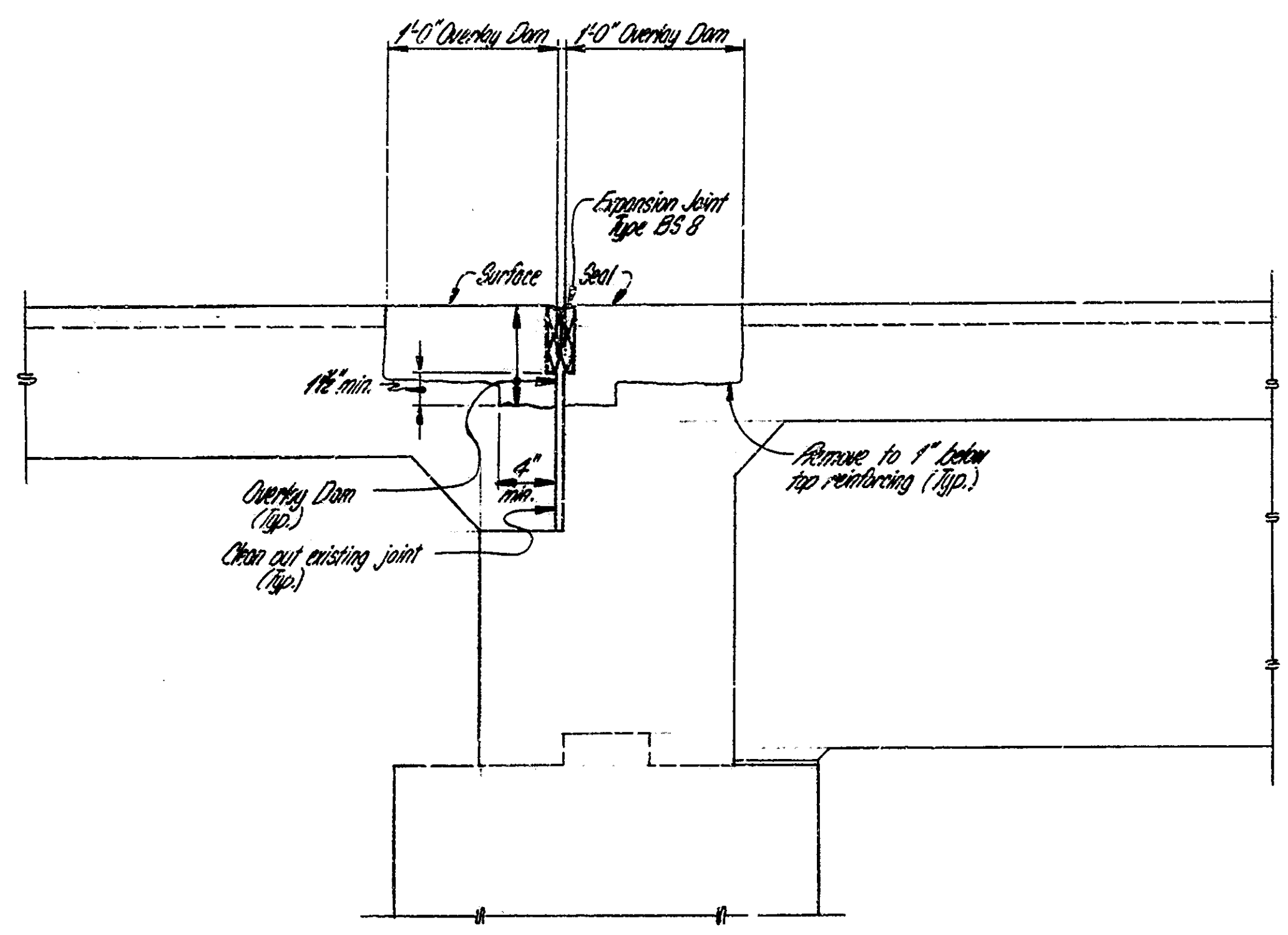
DESIGNED: CKD  
 DRAWN: G.H. CKD S.L.C.  
 TRACED: CKD

SF-22317

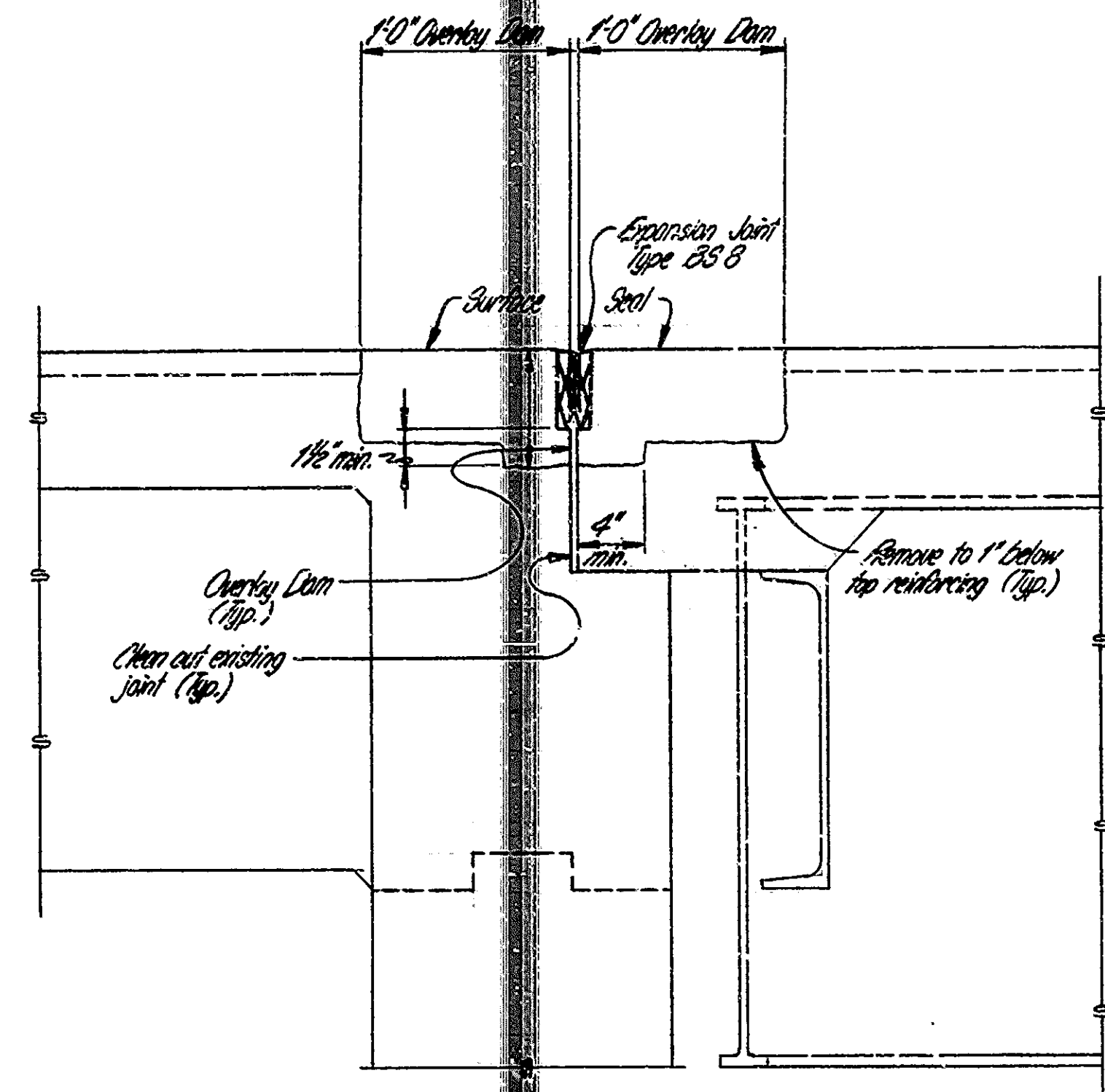
Revised 9-4-86 Bridge Deck Overlay Patching



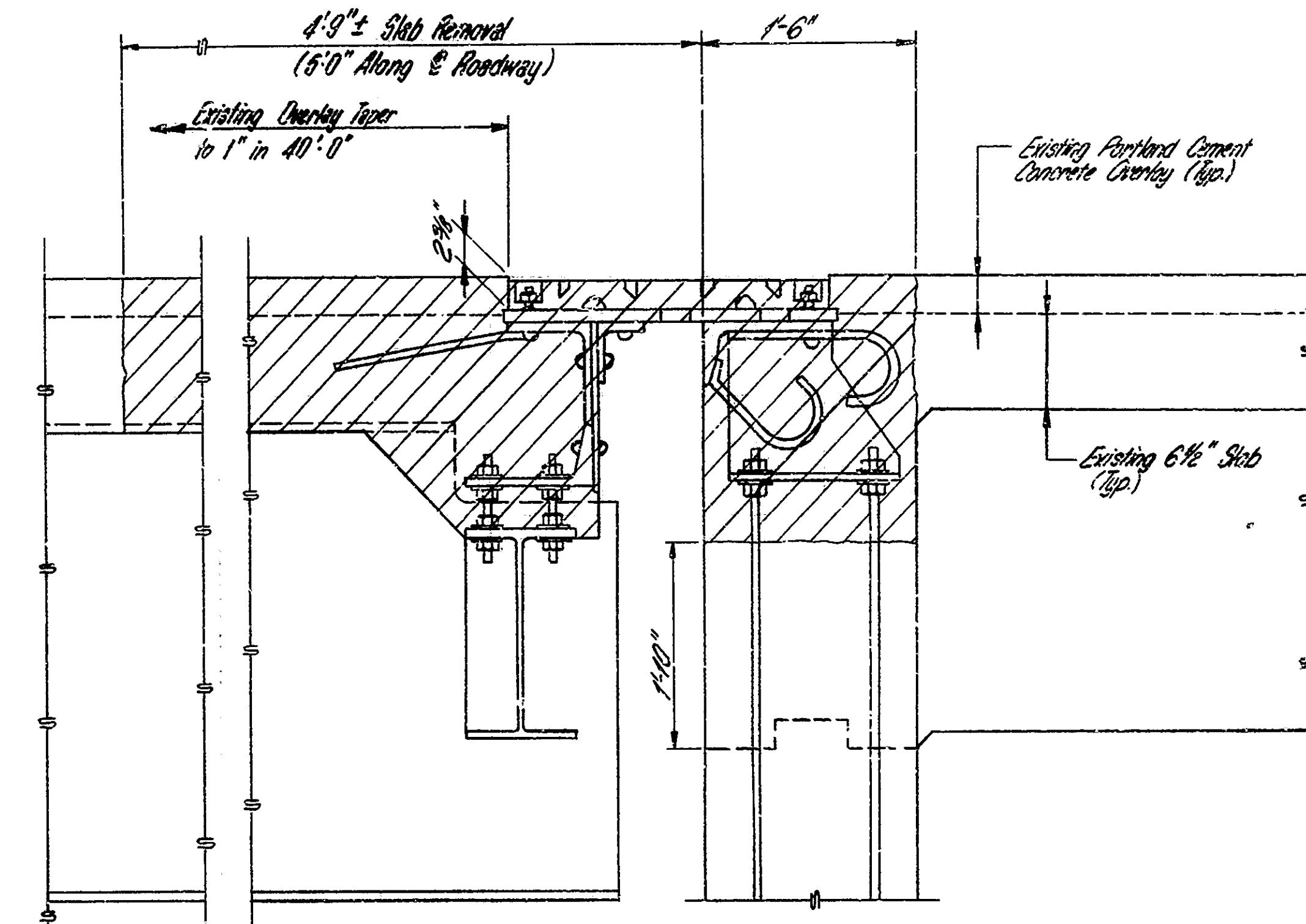




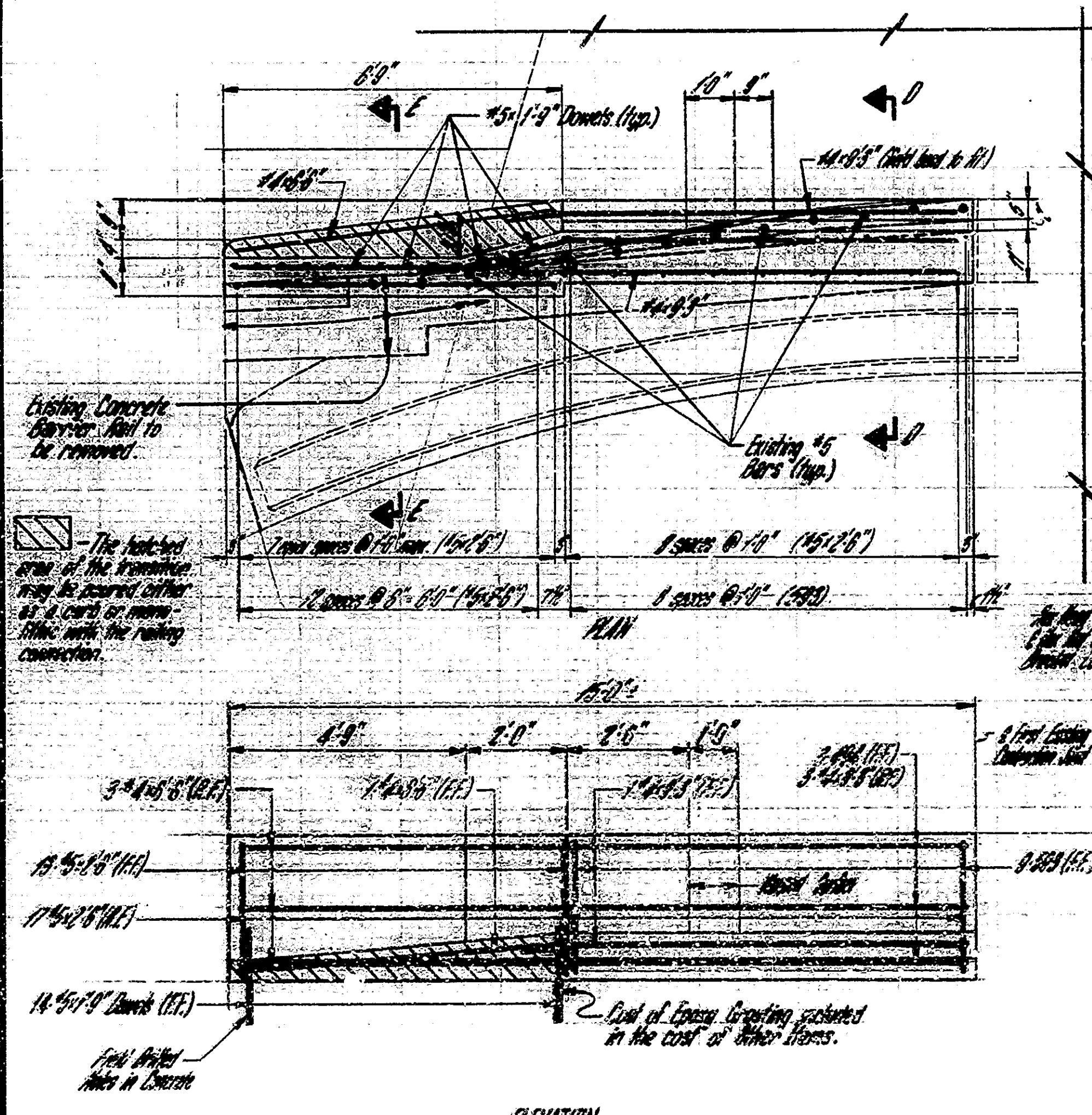
**BENT No. 1** (Section I to Stew)  
 (BENT No. 7 the same) No Scale



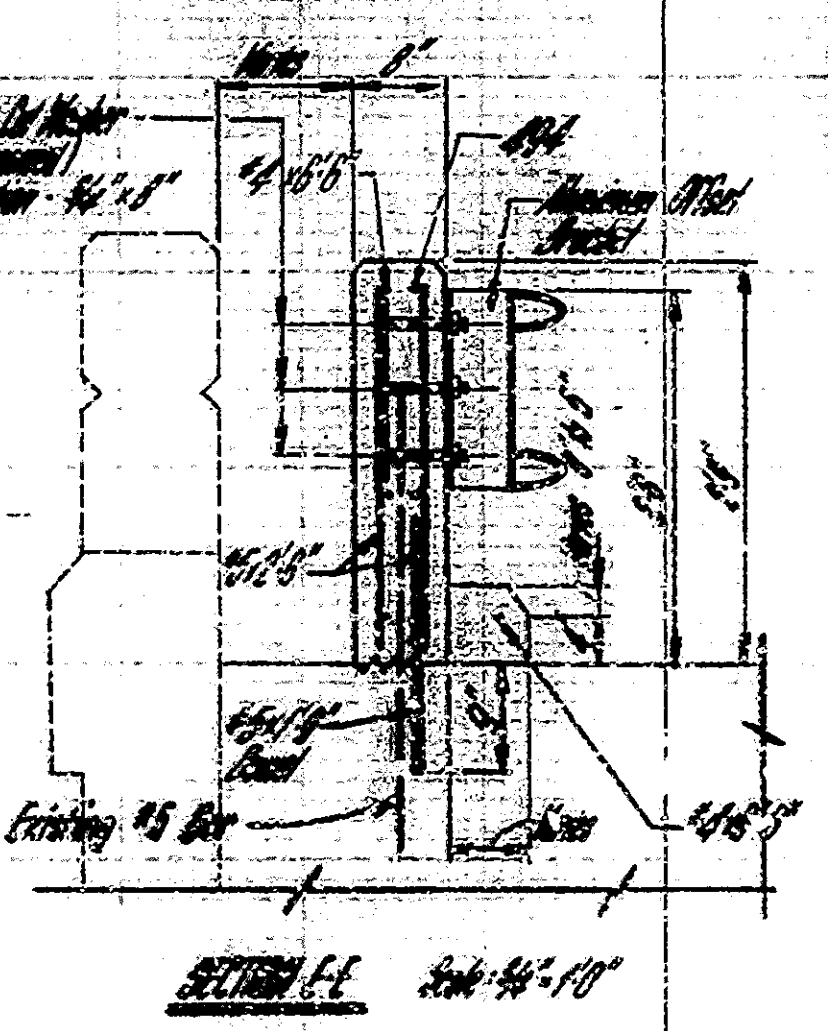
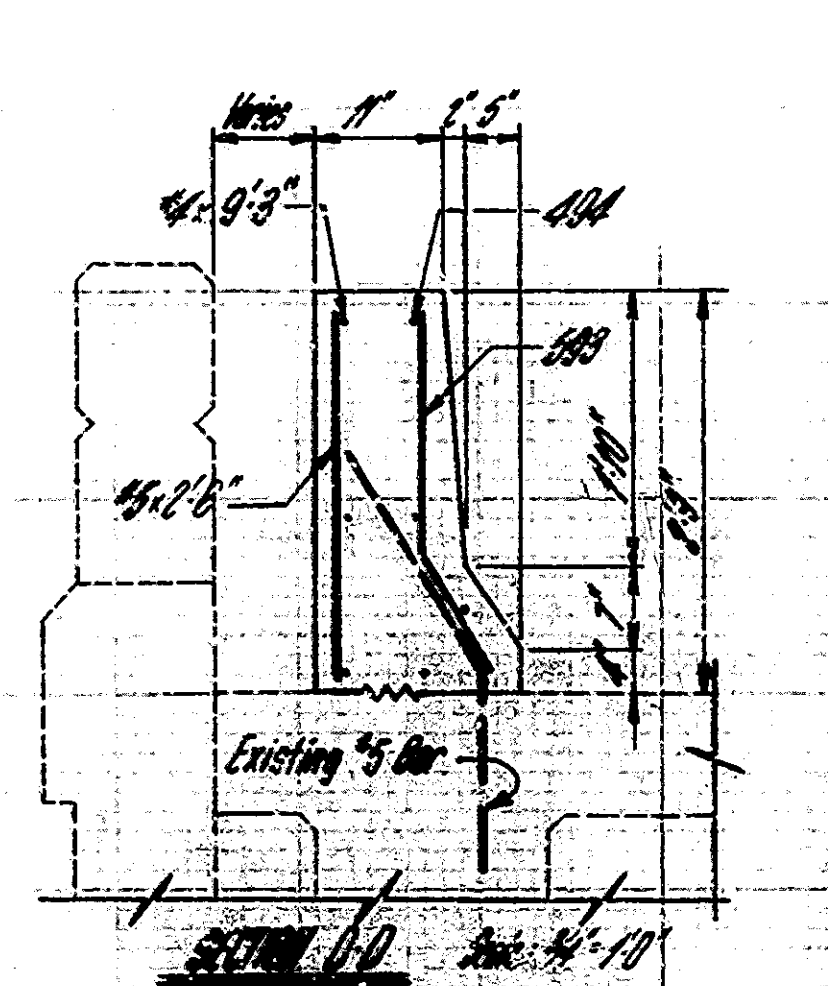
**PIER No. 2** (Section I to Stew)  
 Scale: 1/2" = 1'-0"



**PIER No. 6 REMOVAL** (Section I to Stew)  
 No Scale

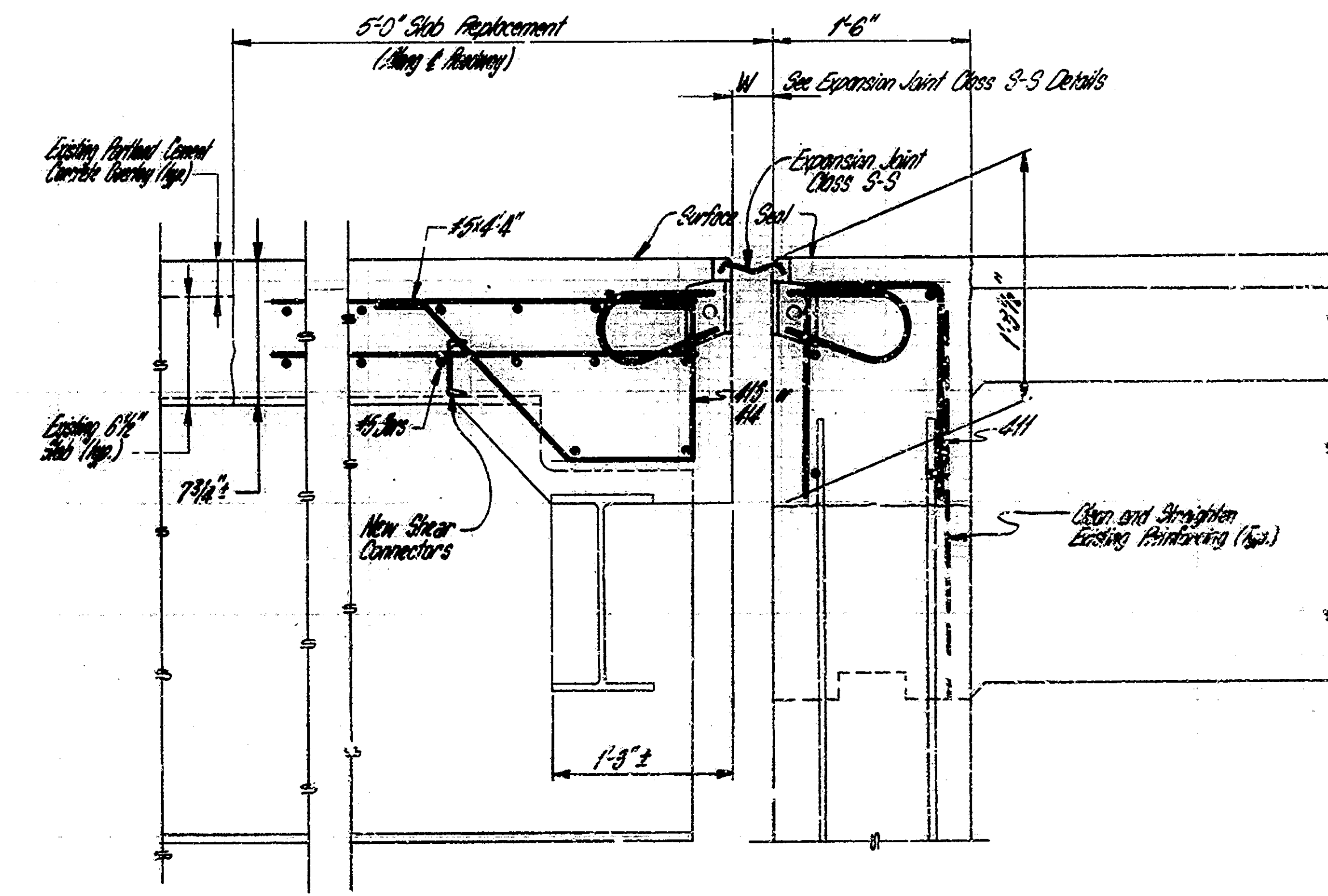


**ELEVATION**  
**CONCRETE RAILING CONNECTION - REINFORCING DETAIL** Scale: 1/2" = 1'-0"



**LIST OF MATERIALS FOR THE RAILING CONNECTION - 1 REQUIRED**

REINFORCING STEEL			
Size	Number	Length (ft.)	Weight (lbs.)
#5	9	27'	126
#4	24	26'	119
#3	3	40'	120
#4	4	41'	120
#5	2	25'	77
#4	1	7'	120
<b>REINFORCING</b>			
120# Portland Cement			14.28



**PIER No. 6 NEW CONSTRUCTION** (Section I to Stew) No Scale

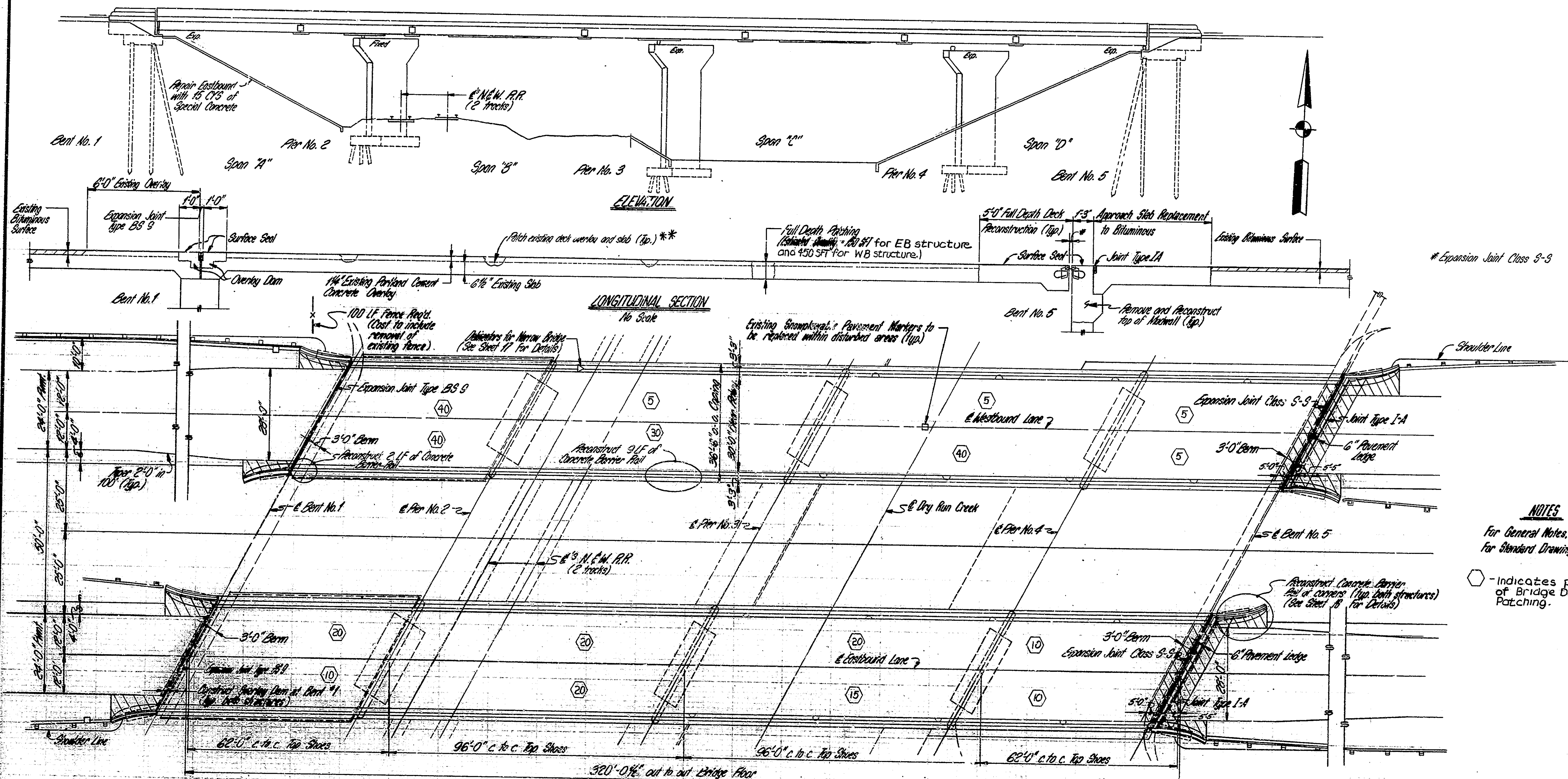
**DETAILS INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - As Noted  
 DATE: June 20, 1965  
 Stephen J. Christian

DRAWING NO. OF 15 SHEET: 2 OF 38  
 PROJECT: - SR-74(F)11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: - 1-74-13-4928 C



STRUCTURE BUILT TO A 1450 FT. VERTICAL CURVE



\* Expansion Joint Class S-3

**NOTES**

For General Notes, See Sheet 4  
For Standard Drawings, See Sht. 8

⬡ - Indicates percentage of Bridge Deck Overlay Patching.

**GENERAL PLAN**

DECK RECONSTRUCTION AND JOINT REPLACEMENT FOR  
CONTINUOUS COMPOSITE STEEL BEAM BRIDGE  
4 SPANS: 62'-0", 96'-0", 96'-0", & 62'-0" SKEW 30°00'00" RT.  
30'-0" CLEAR ROADWAY  
ON I-74 OVER NORFOLK & WESTERN R.R. & DRY RUN CREEK

**INDIANA DEPARTMENT OF HIGHWAYS**  
FOUNTAIN COUNTY

SCALE: - 1/8" = 1'-0" Unless Noted DATE: June 20, 1988

Stephen J. Christian

DRAWING: 11 OF 15 SHEET: 11 OF 29  
PROJECT: I-74 (A/F) 11  
BRIDGE CONTRACT NO. B-16460  
BRIDGE FILE: I-74-A-2333 C

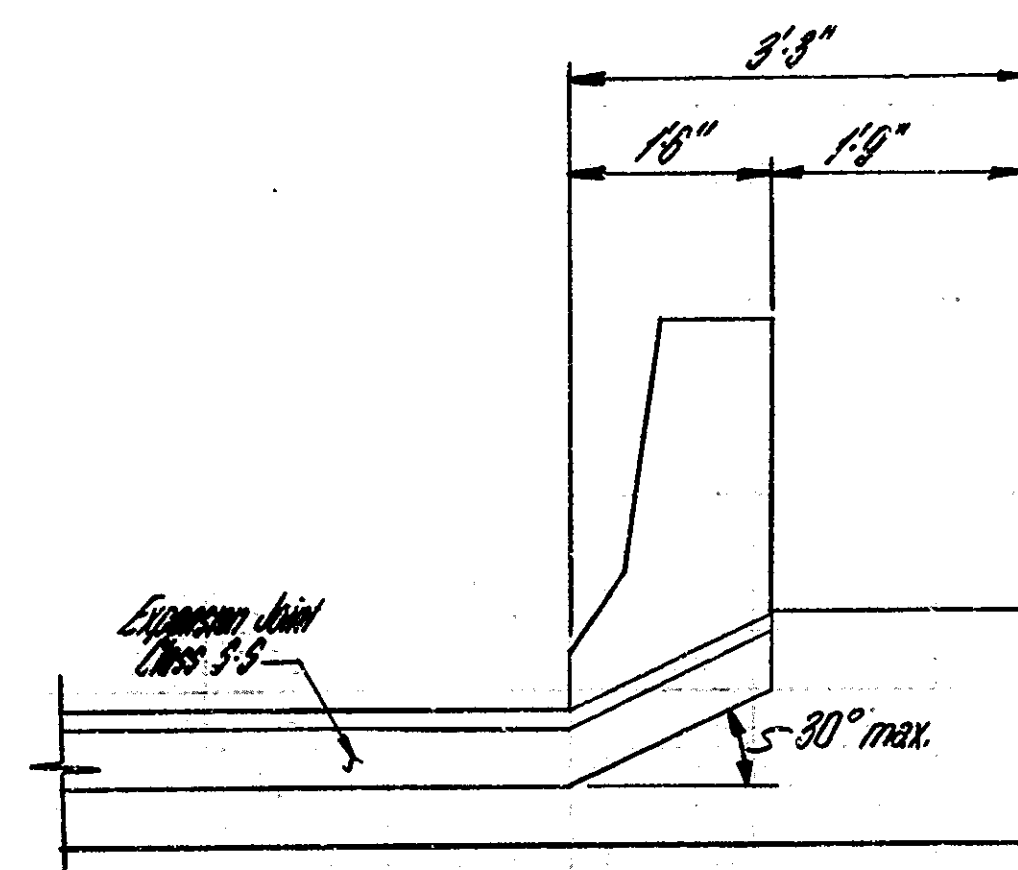
**TYPICAL SECTION**

\*\* includes all labor and materials see Special Provisions. (To be paid for as Bridge Deck Overlay Patching)

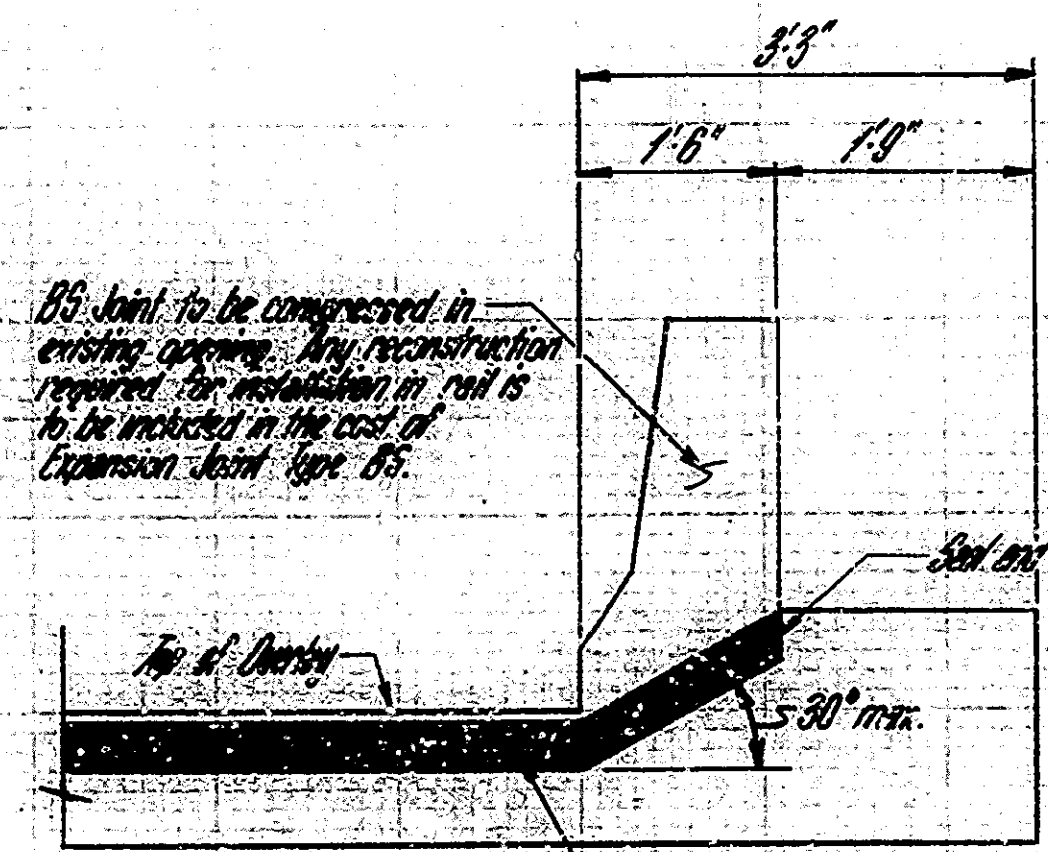
Revised 9-4-86 Bridge Deck Overlay Patching

DESIGNED: CKO  
DRAWN: GdB, CKO, BdB  
TRACED: CKO

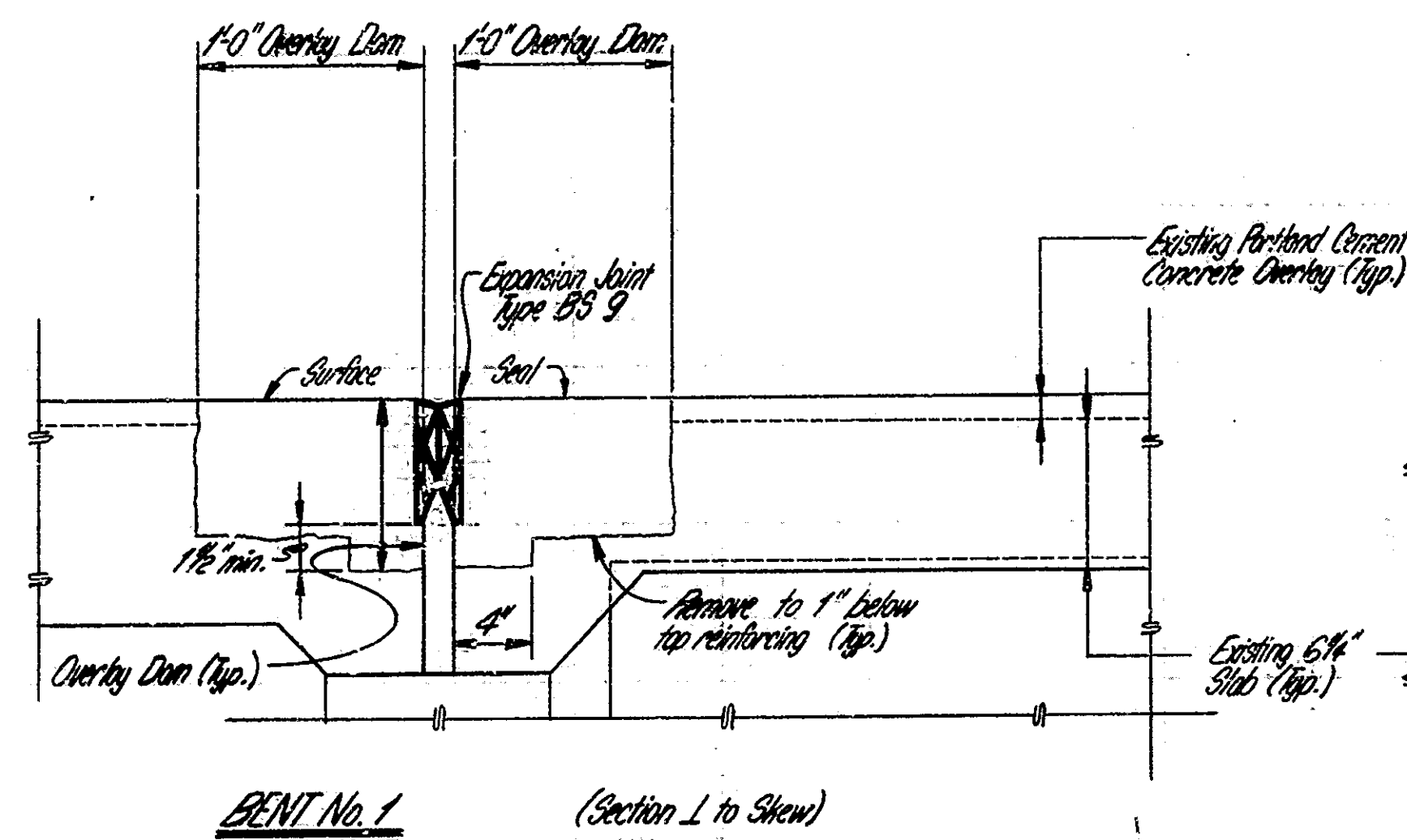
SF-22317



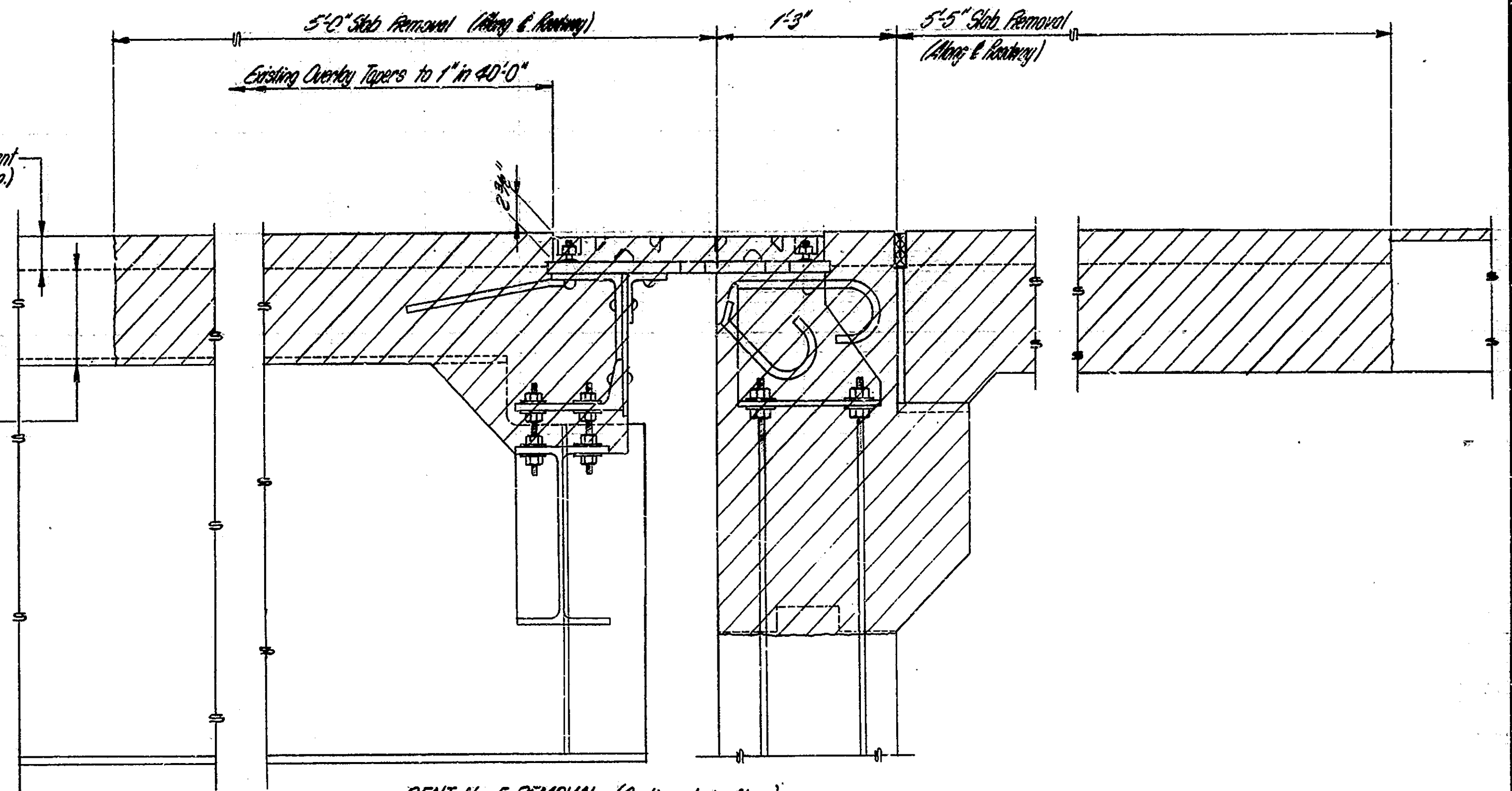
**S-3 JOINT INSTALLATION @ CURBS** No Scale



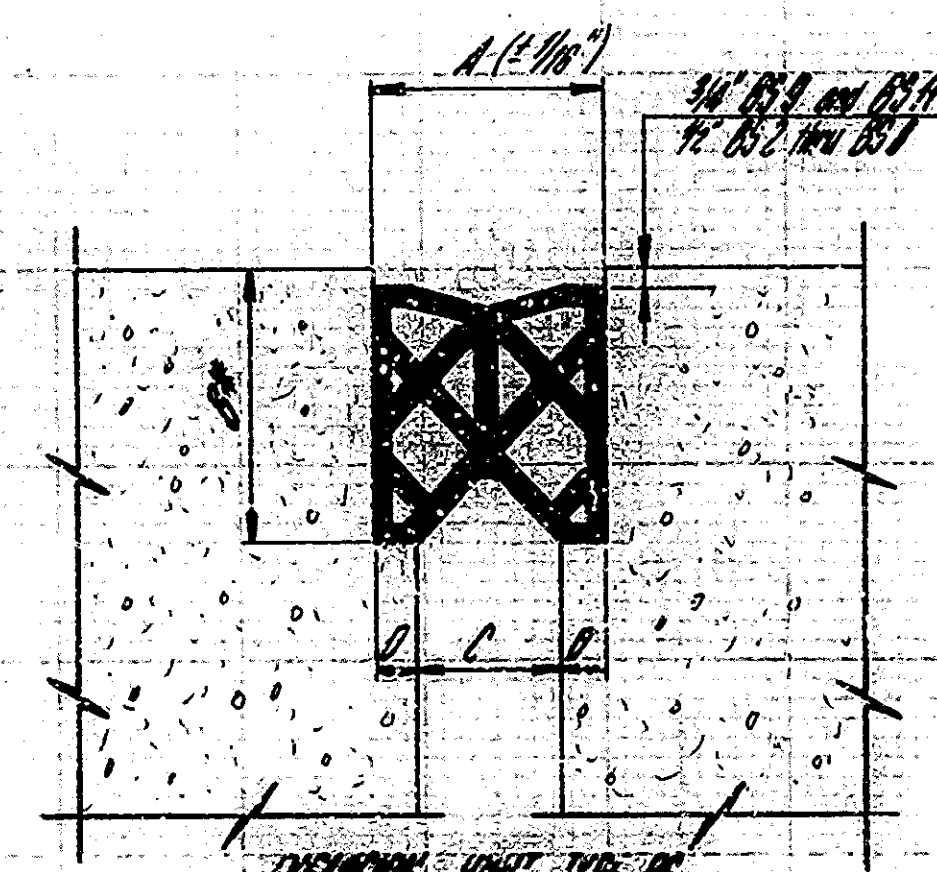
**TYPICAL BS JOINT INSTALLATION @ CURBS** No Scale



**BENT No. 1** (Section L to Skew)

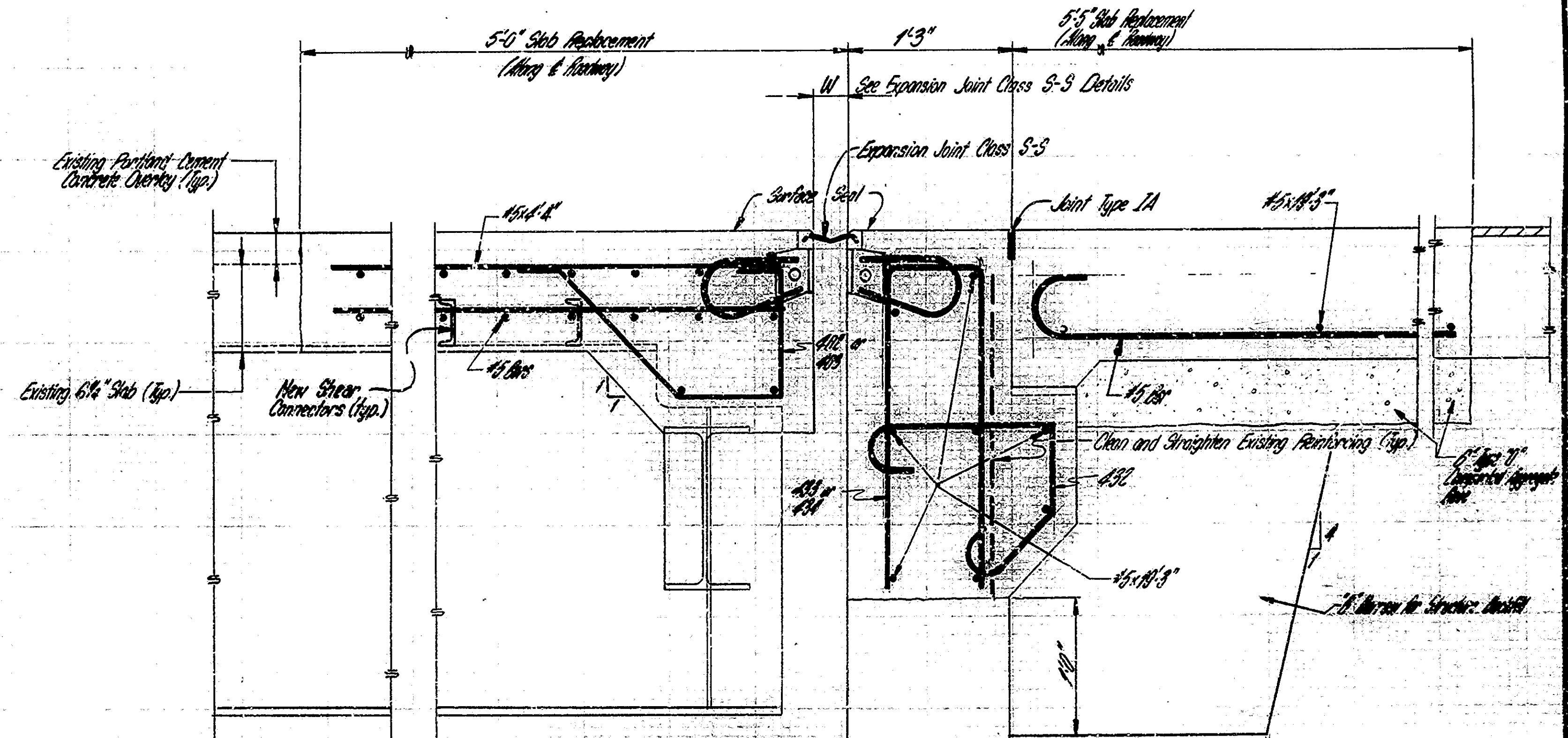


**BENT No. 5 REMOVAL** (Section L to Skew)



**EXPANSION JOINT TYPE BS**  
# to be determined in the field, see the Special Provisions.

Grade	A	B	C	D
BS 9	2"	3"	1 1/2"	3 1/2"
BS 11	2 1/2"	3"	1 1/2"	3 1/2"



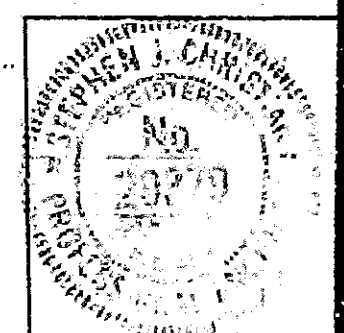
**BENT No. 5 NEW CONSTRUCTION** (Section L to Skew) No Scale

**DETAILS**  
**INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: 1/4" = 1'-0" DATE: June 20, 1965

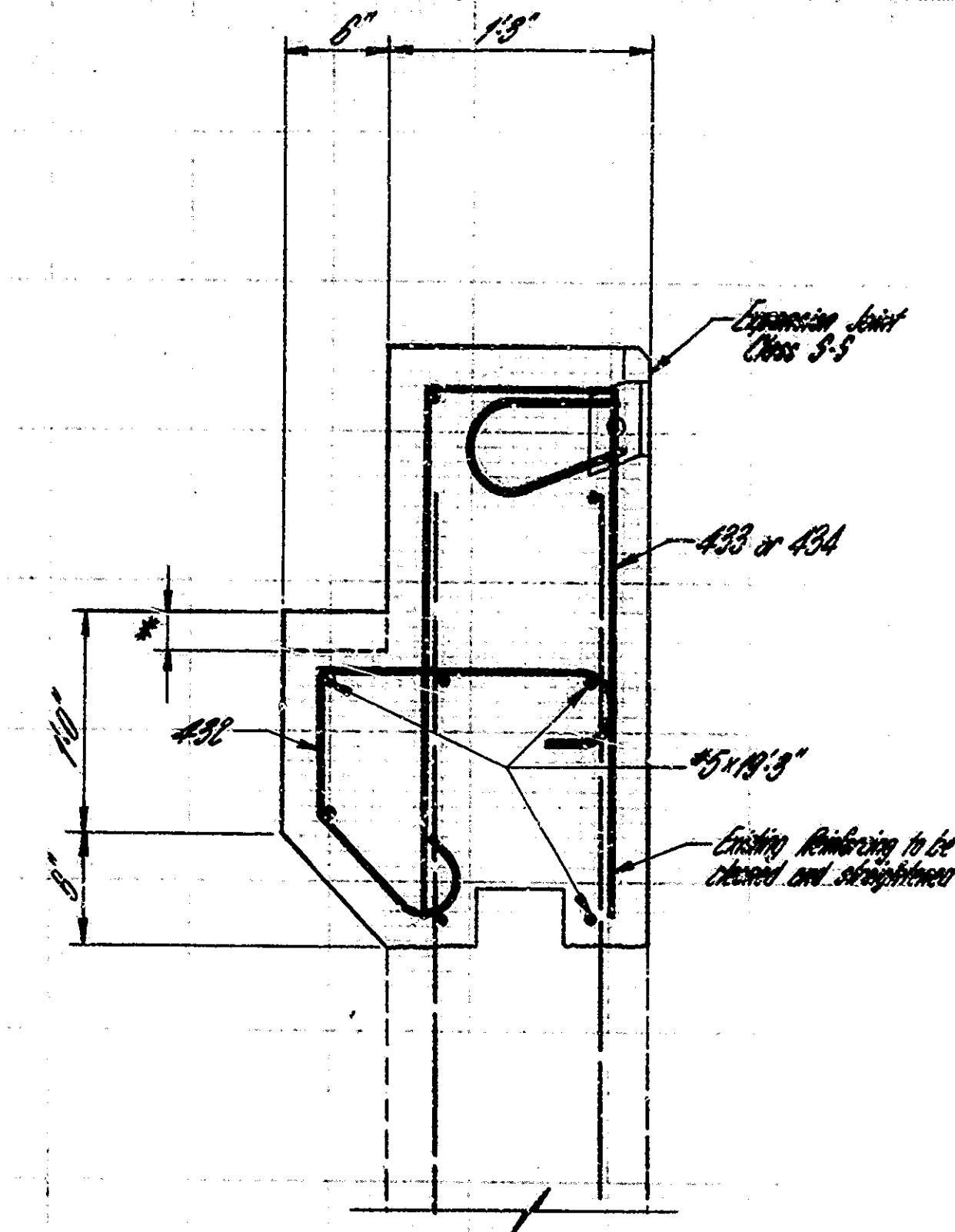
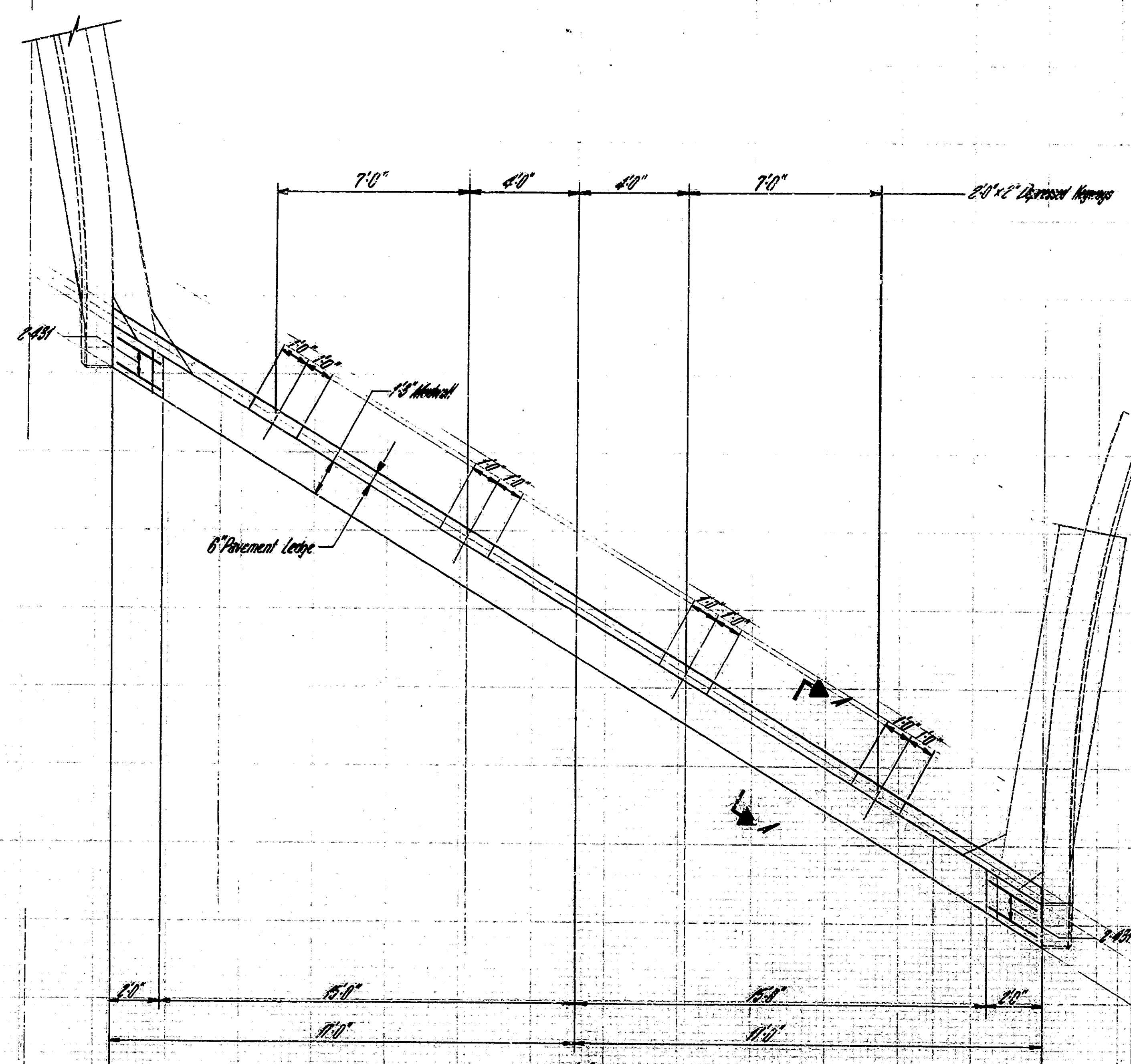
Stephen J. Christensen

DRAWING: 12 OF 15 SHEET: 12 OF 38  
PROJECT: 917.76 (F) 11  
BRIDGE CONTRACT NO. B-16460  
BRIDGE FILE: 157-16-2333 C



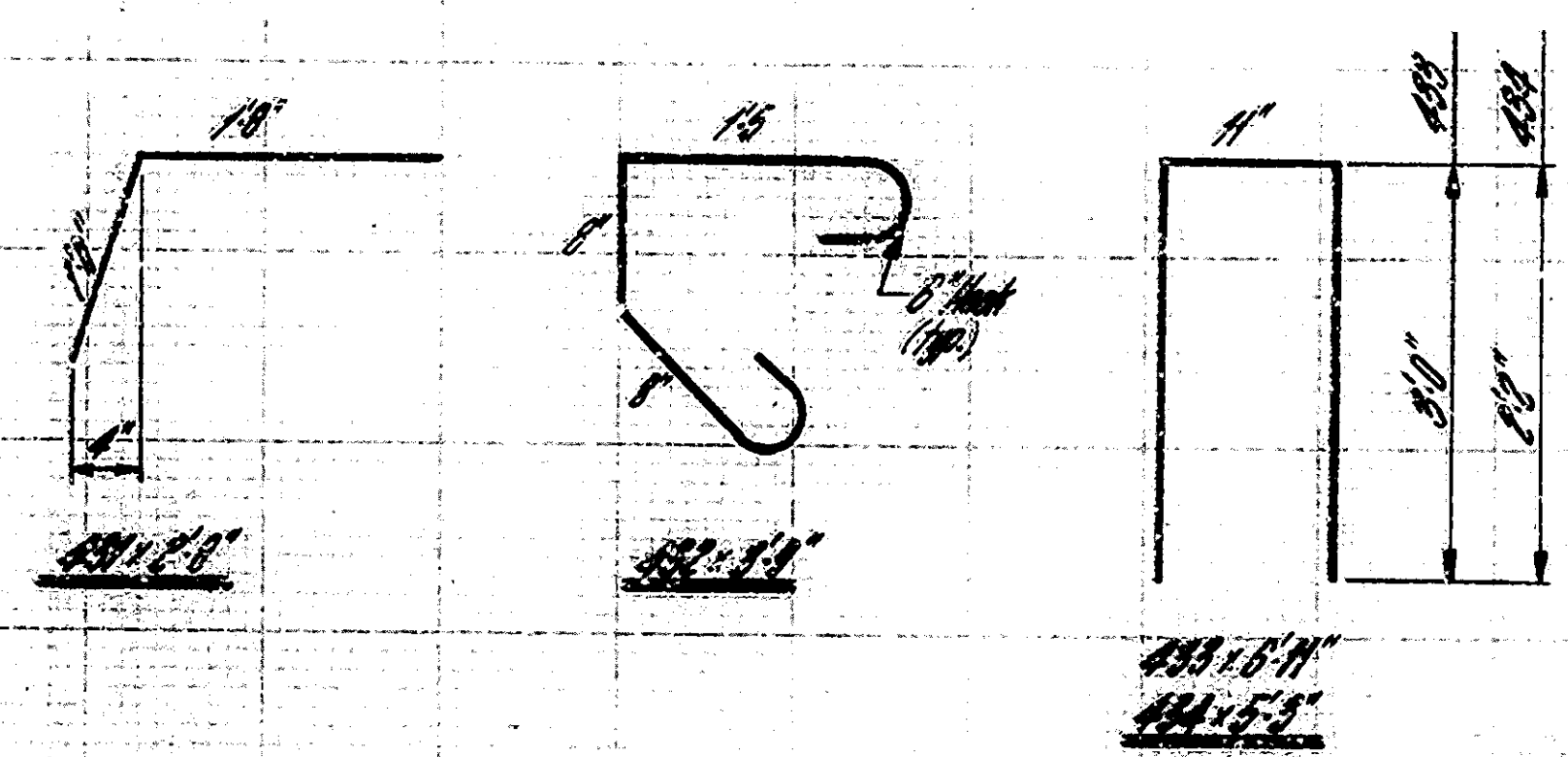
DESIGNED: CKD  
DRAWN: G.M. CKD S.L.C.  
CHECKED: CKD

SF-22317



SECTION A-A See Note 10

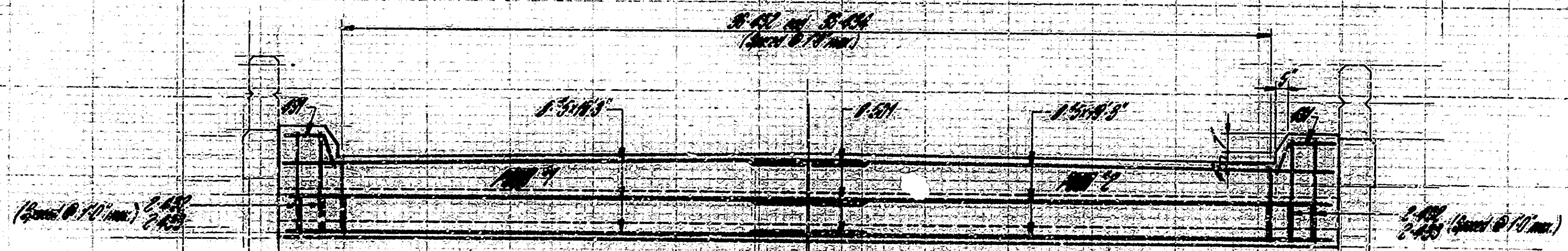
# 2' x 20' depressed roadway. Travel smooth and over depressed roadway surface with care. After it is packed fill (bottom weight) and provide the expansion joint material along vertical face of roadway.



See Sheet No. 20 for Detailing Details

**LIST OF MATERIALS**  
**SUBSTRUCTURE - 2 ABUTMENTS**

REINFORCING STEEL			
Size of Bar	Number of Bars	Length (ft.)	Weight (lb.)
#3	1	40'	
#4	8	19.5'	
<b>CONCRETE</b>			
Substructure			852
2nd Abutment			807
<b>CONCRETE</b>			
Sub 1			38.05
Sub 2			38.05
Total Concrete Class 11' in Substructure			6.0 178

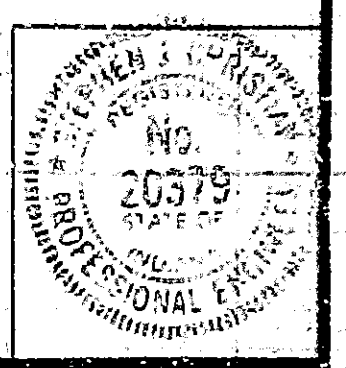


SECTION B-B See Note 10

**INDIANA DEPARTMENT OF HIGHWAYS**

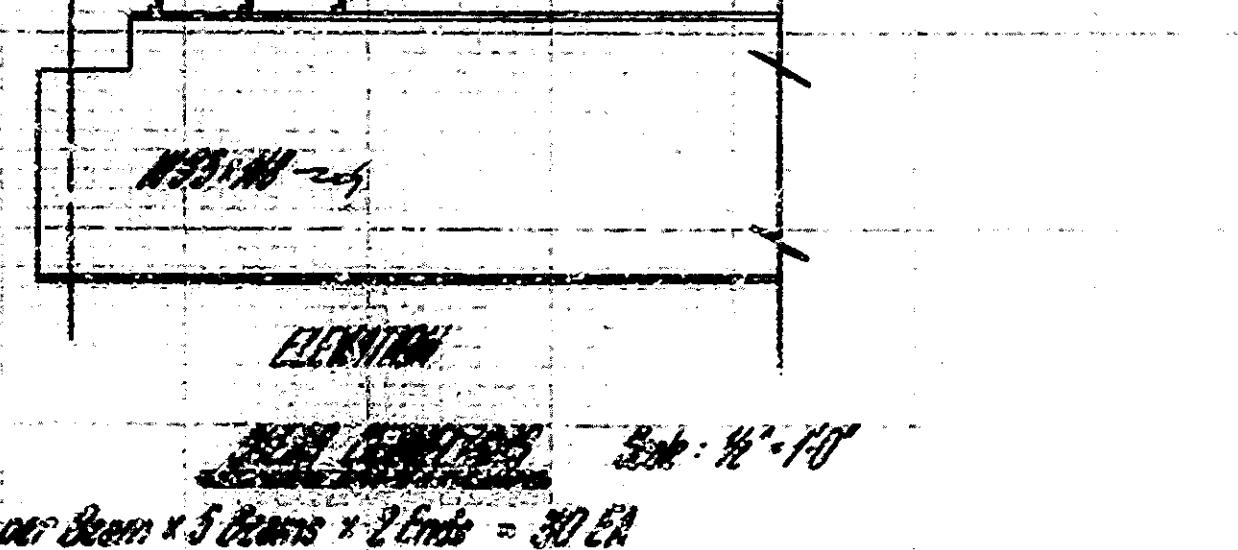
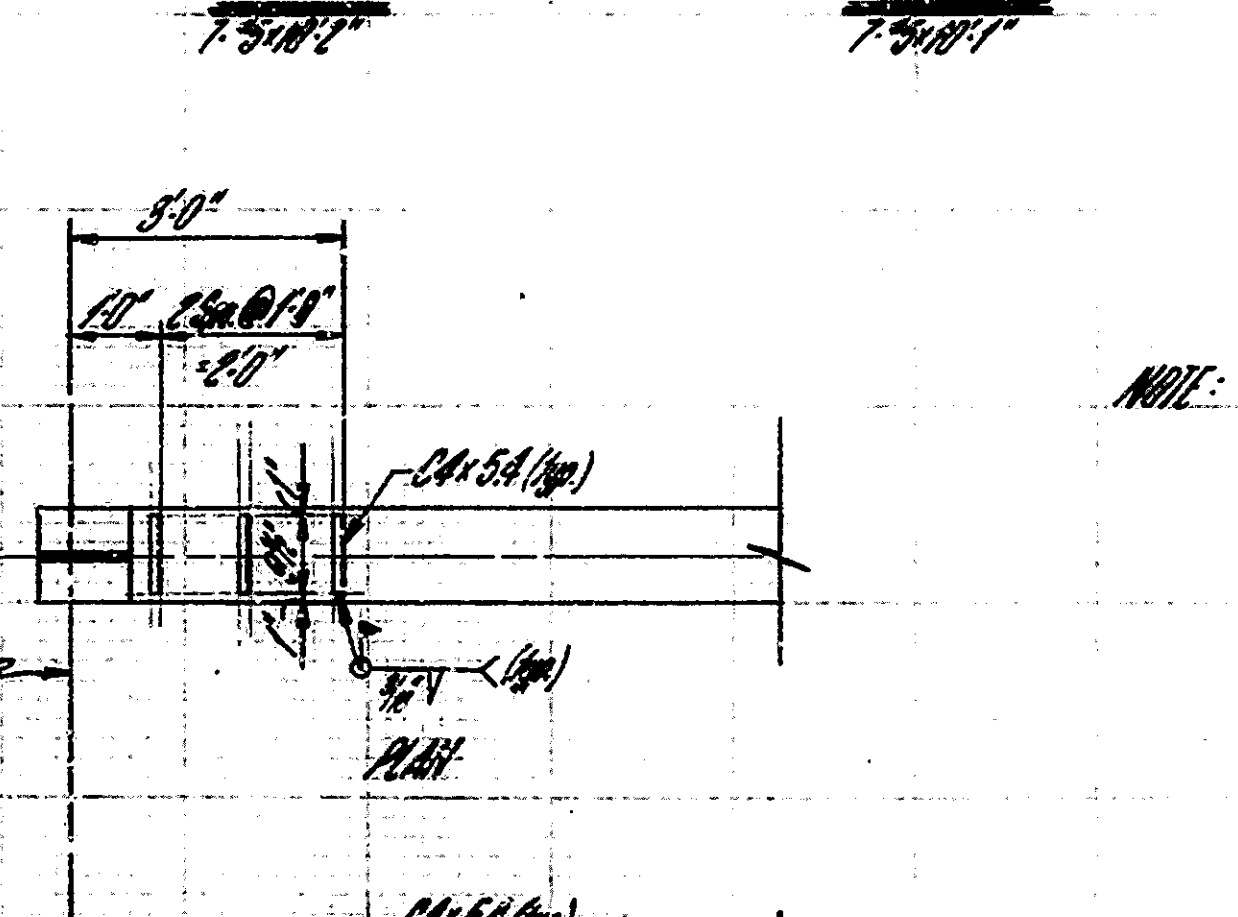
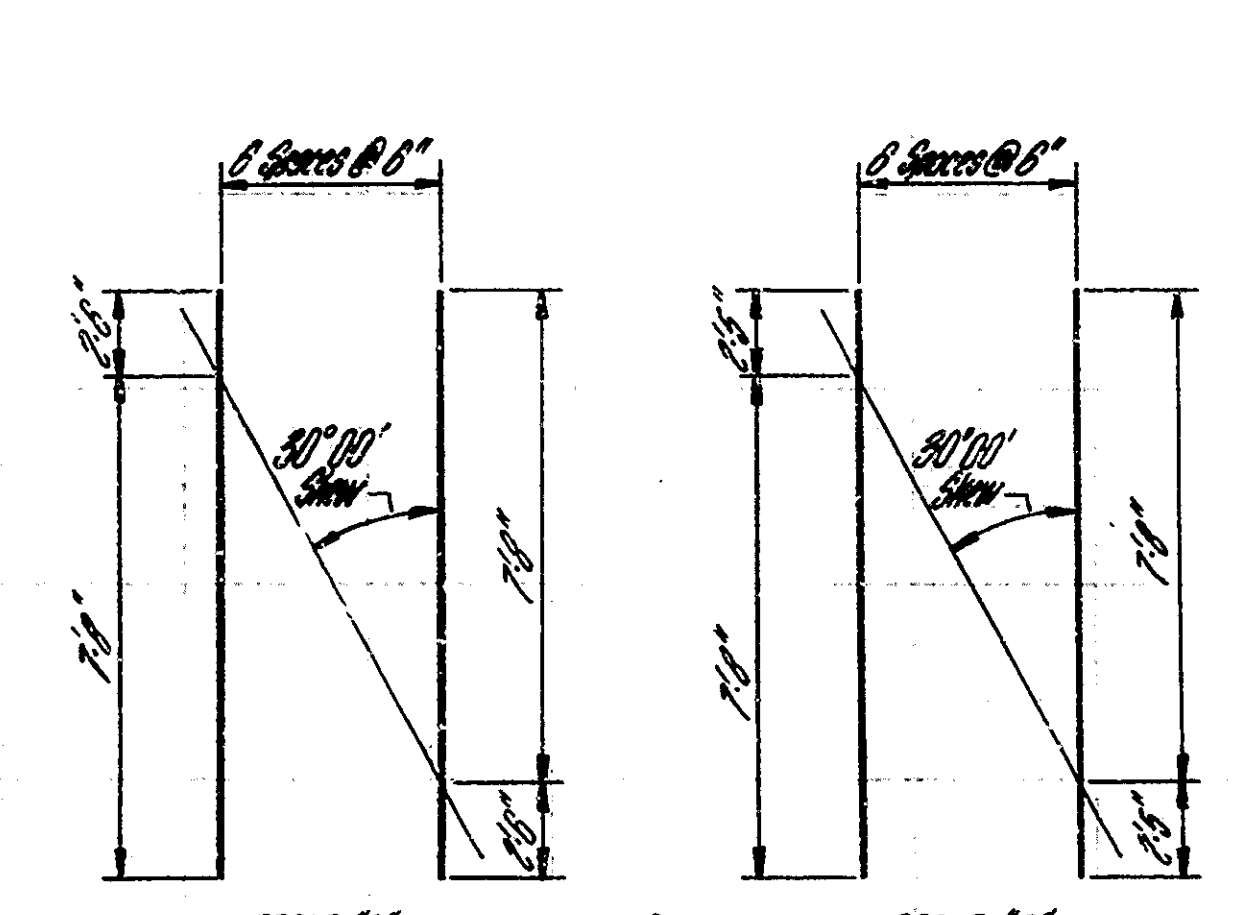
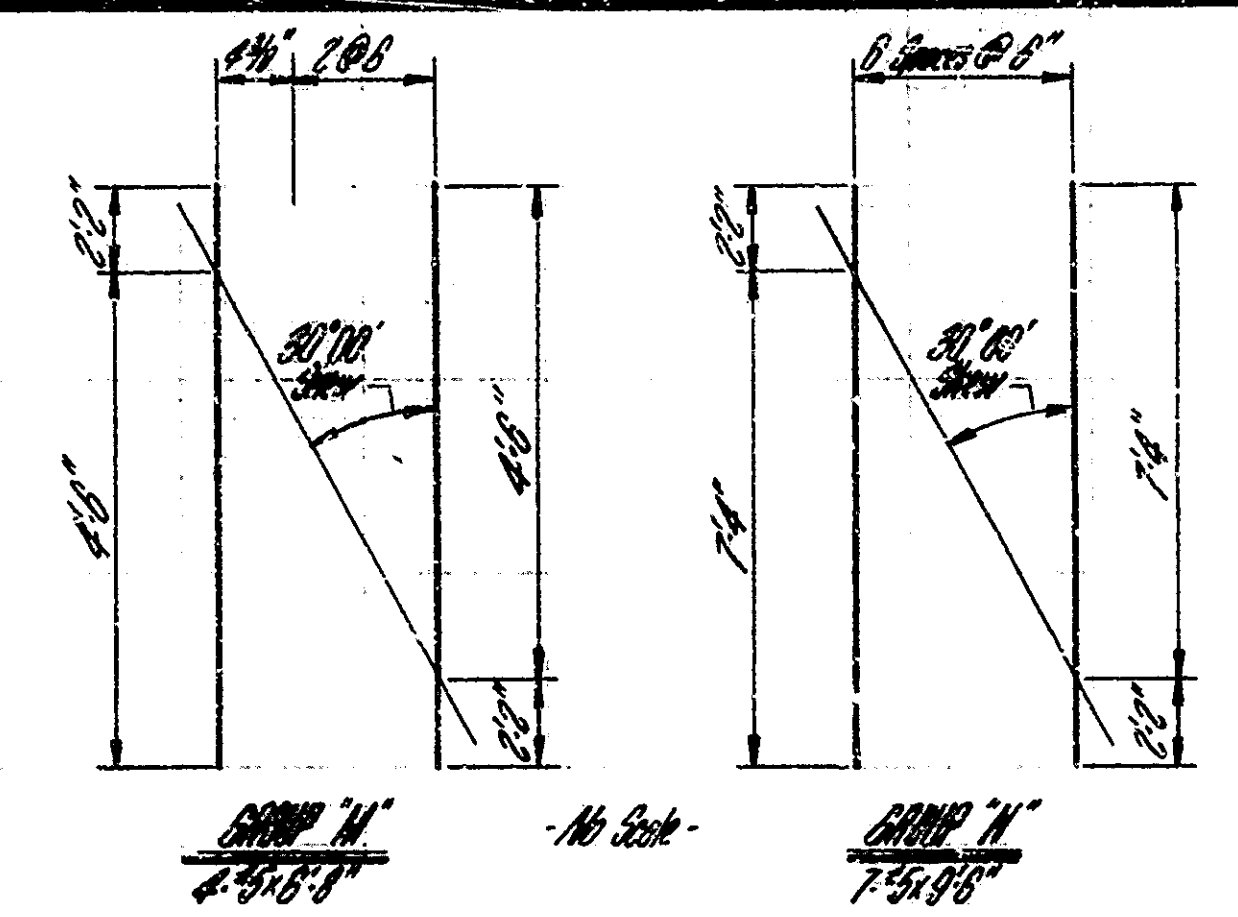
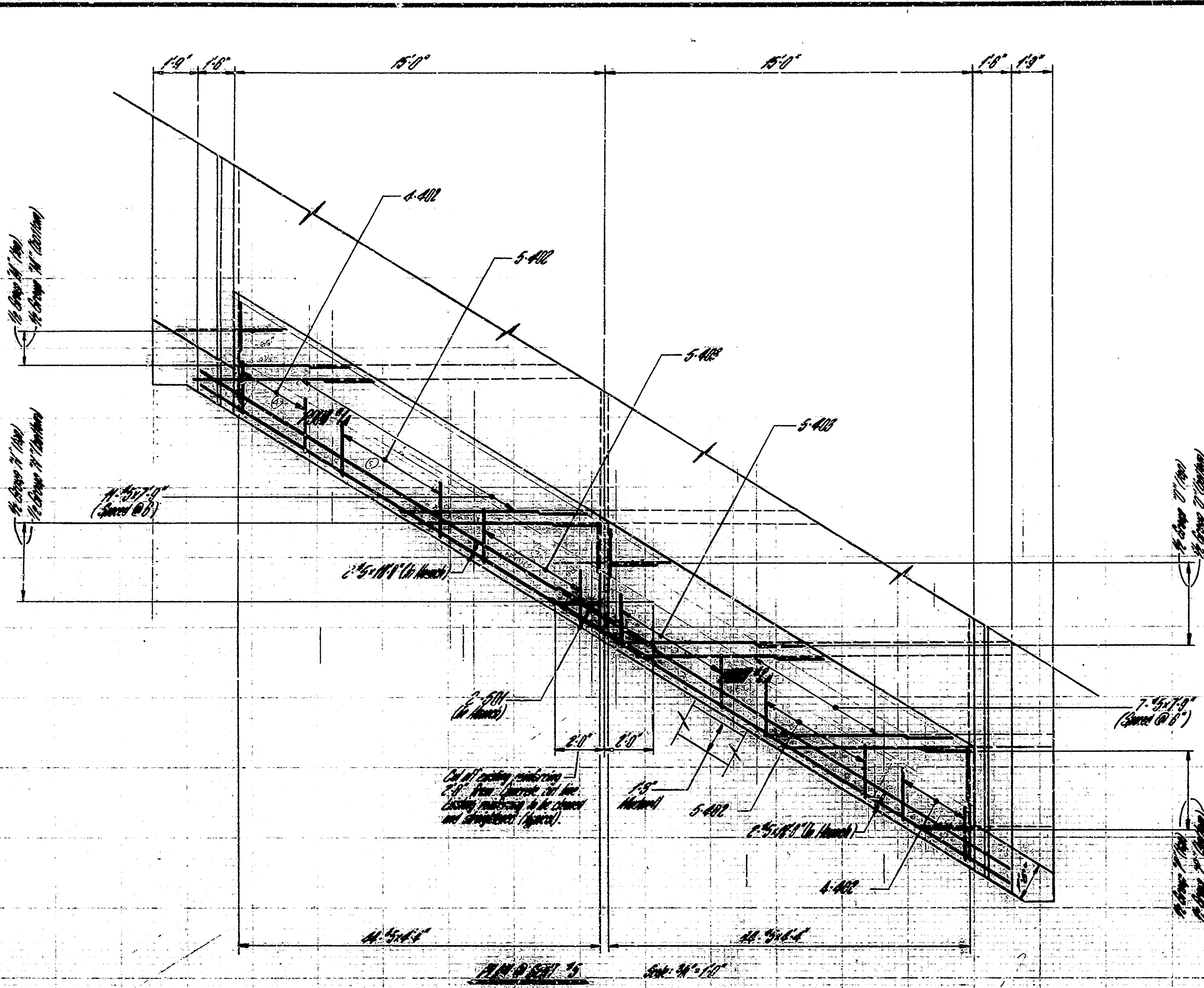
SCALE: - As Shown DATE: June 20, 1935  
Stephen J. Christian

DRAWING: 110 OF B SHEET: 13 OF 38  
PROJECT: S.W.A.F. 11  
BRIDGE CONTRACT NO. B-16460  
BRIDGE FILE: B-16460 C



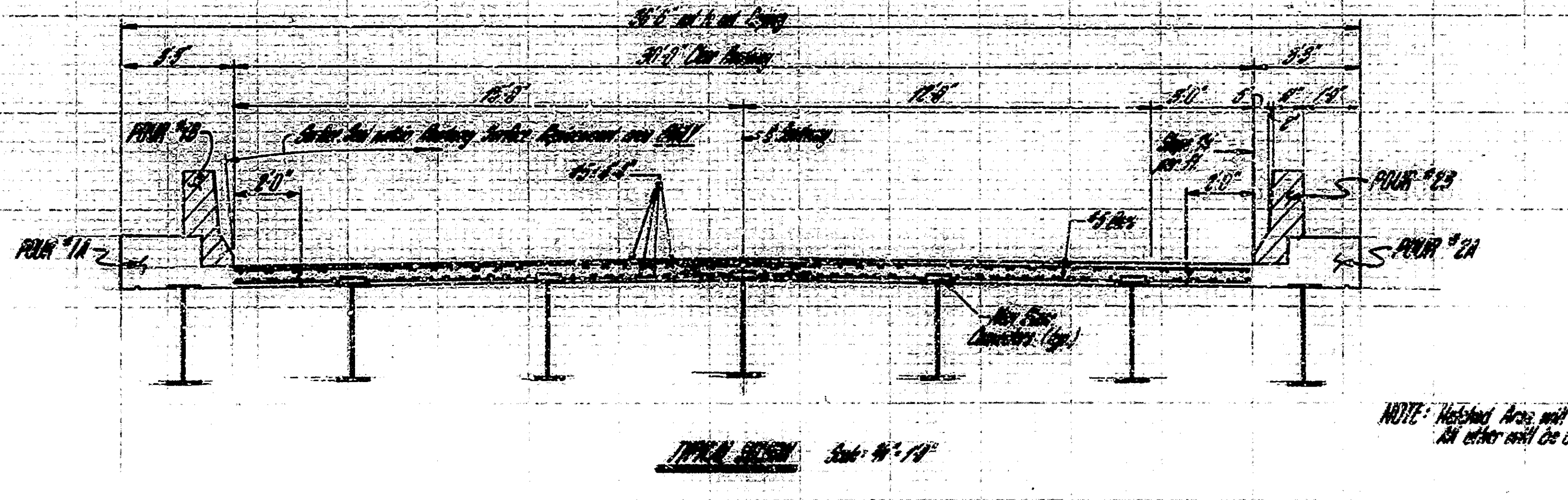
DESIGNED	CWD
DRAWN	CKP
TRACED	CWD

SF-22317



**ALL IR MATERIALS SUPERSTRUCTURE - 2 REQUIRED**

REINFORCING STEEL			
Size of Bar	Number of Bars	Length (ft)	Weight (Lbs)
#5	4	11.5'	
#5	7	11.5'	
#5	7	11.5'	
#5	2	4.0'	
Total #5			874
#4	10	3.9'	
#4	10	4.1'	
Total #4			71
CONCRETE			
Concrete Class "M" In Superstructure			
Pour #1A			2.0 CFS
Pour #2A			2.8 CFS
Total Class "M" Concrete In Superstructure			5.6 - 178
Concrete Class "C" For Filling			
Pour #1B			0.7 CFS
Pour #2B			0.4 CFS
Total Class "C" Concrete In Filling			0.8 CFS



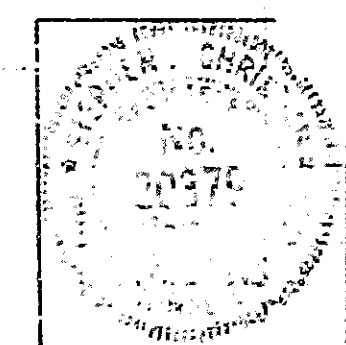
NOTE: For Pavement Details and Bar Bending Diagrams See Sheet 7.

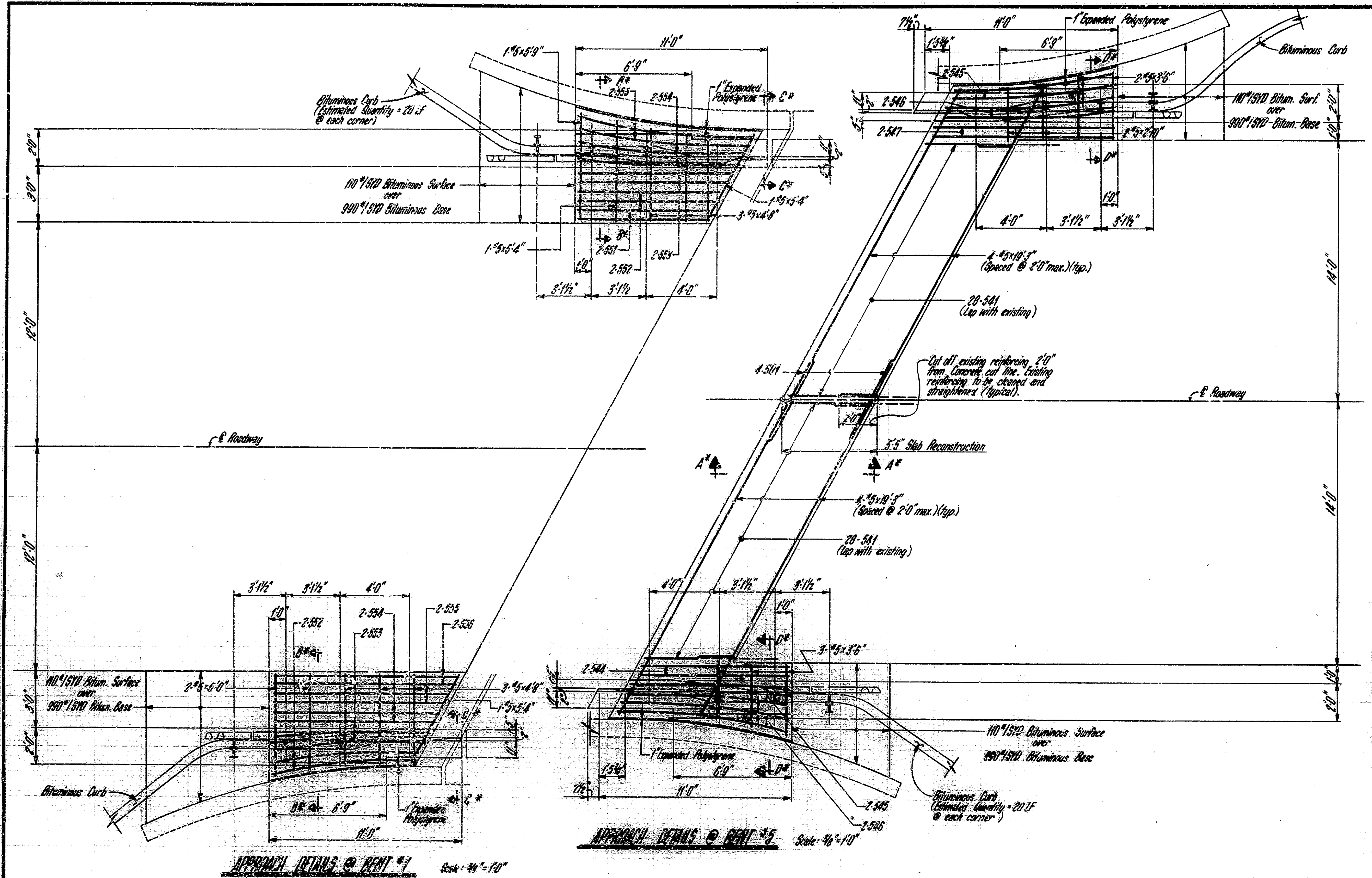
NOTE: Washed Area will be Class "C" Concrete. All other will be Class "M".

**INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: 1/4" = 1'-0"  
DATE: June 20, 1938  
Stephen J. Christian

DRAWING: *ALL OF B* SHEET: *A* OF *38*  
PROJECT: *ST. B. H. F. 11*  
BRIDGE CONTRACT NO. *B-16460*  
BRIDGE FILE: *174-1038-C*





**BILL OF MATERIALS FOR R.C. BRIDGE APPROACH BENT NO. 1**

REINFORCING STEEL				
Mark or Spec	Number of Bars	Length (ft.)	Weight (Lbs.)	
551	2	8'-3"		
552	4	8'-10"		
553	4	9'-5"		
554	4	10'-0"		
555	4	10'-7"		
556	2	11'-2"		
Total No. 3				283
Total Reinforcing Steel				253
MISCELLANEOUS				
Concrete Pavement Reinforced 10"				11,575
Removal of Pavement				21,575
Type "D" Concrete Aggregate for Base				4 TONS

**BILL OF MATERIALS FOR R.C. BRIDGE APPROACH BENT NO. 5**

REINFORCING STEEL				
Mark or Spec	Number of Bars	Length (ft.)	Weight (Lbs.)	
541	4	4'-6"		
542	2	5'-7"		
543	2	6'-2"		
544	4	6'-9"		
545	4	7'-4"		
546	2	8'-0"		
547	2	8'-7"		
548	2	9'-2"		
549	2	9'-7"		
550	2	10'-2"		
551	2	10'-7"		
Total No. 5				153
Total Reinforcing Steel				153
MISCELLANEOUS				
Concrete Pavement Reinforced 10"				25,575
Removal of Pavement				11,575
Type "D" Concrete Aggregate for Base				1,000

NOTE: Removal of existing barrier and transition are to be approved by the local authority and the removal of barrier structure (if any).

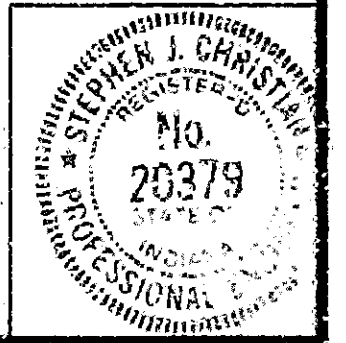
APPROACH DETAILS @ BENT #1 Scale: 3/8" = 1'-0"

APPROACH DETAILS @ BENT #5 Scale: 3/8" = 1'-0"

NOTES: \* For Sections A-A, B-B, C-C, E-D-D. See Sheet 17.  
 For information concerning Concrete Barrier Wall Transition, See Sheet 17.  
 See Bridge Standard 203 for additional dimensions and details of Concrete Walling Connection.  
 See Road Standard 204A for Guard Rail Post Spacing.  
 For #501 Bar Bending Detail, See Sheet 7.  
 For Bars #541 thru #549 and #551 thru #556, See Sheet 17.

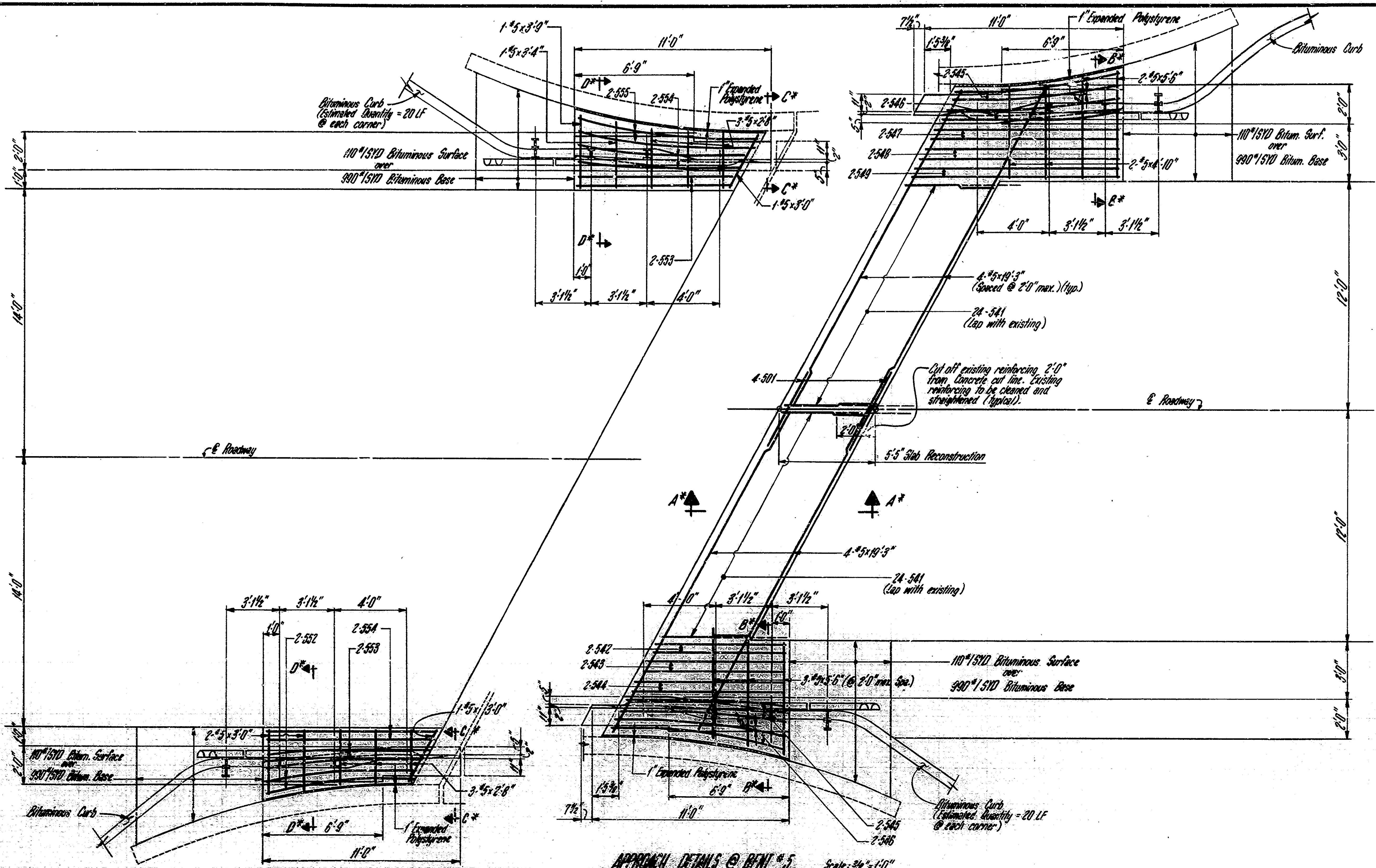
**EASTBOUND APPROACH DETAILS**  
**INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - 3/8" = 1'-0" Unless Noted DATE: - June 20, 1986  
 Stephen J. Christian  
 DRAWING: R12 OF 16 SHEET: 15 OF 35  
 PROJECT: - 517-74-1(F)11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: - 174-14-2353C



DESIGNED: CKD  
 DRAWN: CKD  
 TRACED: CKD

SF-22317



**BILL OF MATERIALS FOR R.C. BRIDGE APPROACH BENT NO. 1**

REINFORCING STEEL			
Mark or Size	Number of Bars	Length (Ft.)	Weight (Lbs.)
552	2	8'-10"	
553	4	9'-5"	
554	4	10'-0"	
555	2	10'-7"	
45	1	3'-9"	
45	1	3'-4"	
45	4	3'-0"	
45	6	2'-8"	
Total No. 5			
Total Reinforcing Steel			
MISCELLANEOUS			
Concrete Pavement Reinforcing 10"			8.975
Removal of Pavement			15.575
Type "D" Compacted Aggregate for Base			2.70MS

**BILL OF MATERIALS FOR R.C. BRIDGE APPROACH BENT NO. 5**

REINFORCING STEEL			
Mark or Size	Number of Bars	Length (Ft.)	Weight (Lbs.)
541	4	4	
541	48	4'-7"	
542	2	8'-0"	
543	2	8'-7"	
544	2	9'-2"	
545	4	9'-9"	
546	4	10'-4"	
547	2	10'-11"	
548	2	11'-6"	
549	2	12'-1"	
45	8	10'-3"	
45	5	5'-8"	
45	2	4'-11"	
Total No. 5			
Total Reinforcing Steel			
MISCELLANEOUS			
Concrete Pavement Reinforced 10"			26.575
Removal of Pavement			36.575
Type "D" Compacted Aggregate for Base			0.70MS

NOTE: Removal of existing barrier rail transition, and to be included in the Lump Sum Cost for Removal of Present Structure (Partners).

APPROACH DETAILS @ BENT #1 Scale: 3/8"=1'-0"

APPROACH DETAILS @ BENT #5 Scale: 3/8"=1'-0"

- NOTES: \* For Sections A-A, B-B, C-C, & D-D. See Sheet 17.  
 For information concerning Concrete Barrier Rail Transition, See Sheet 17.  
 See Bridge Standard B15 for additional dimensions and details of Concrete Retaining Connection.  
 See Road Standard B14A for Guard Rail Post Spacing.  
 For #501 Bar Bending Detail, See Sheet 7.  
 For Bars #541 thru #549 and #551 thru #556, See Sheet 17.

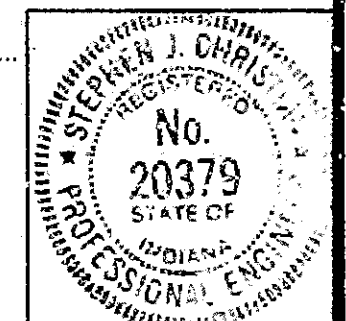
**WESTBOUND APPROACH DETAILS**  
**INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - 3/8"=1'-0" Unless Noted DATE: June 27, 1966

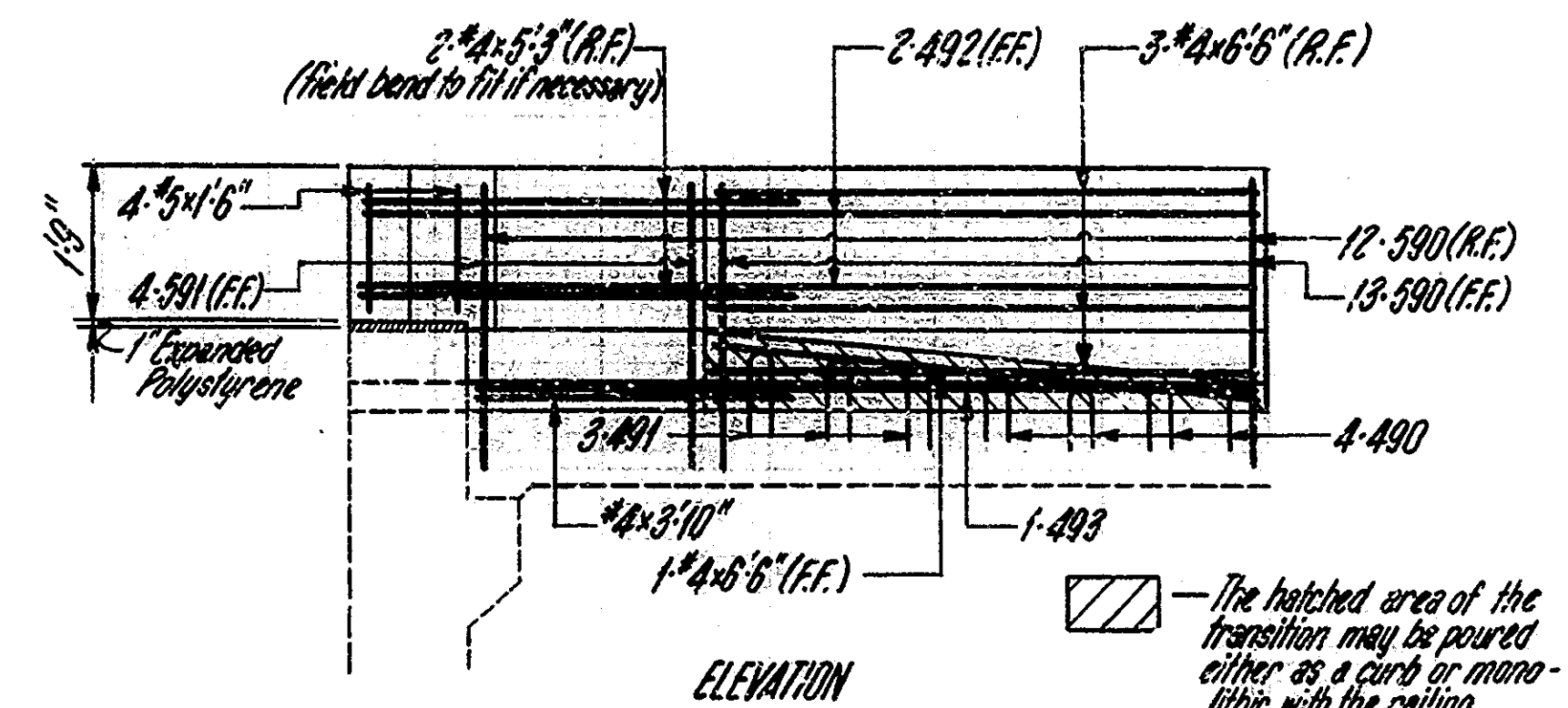
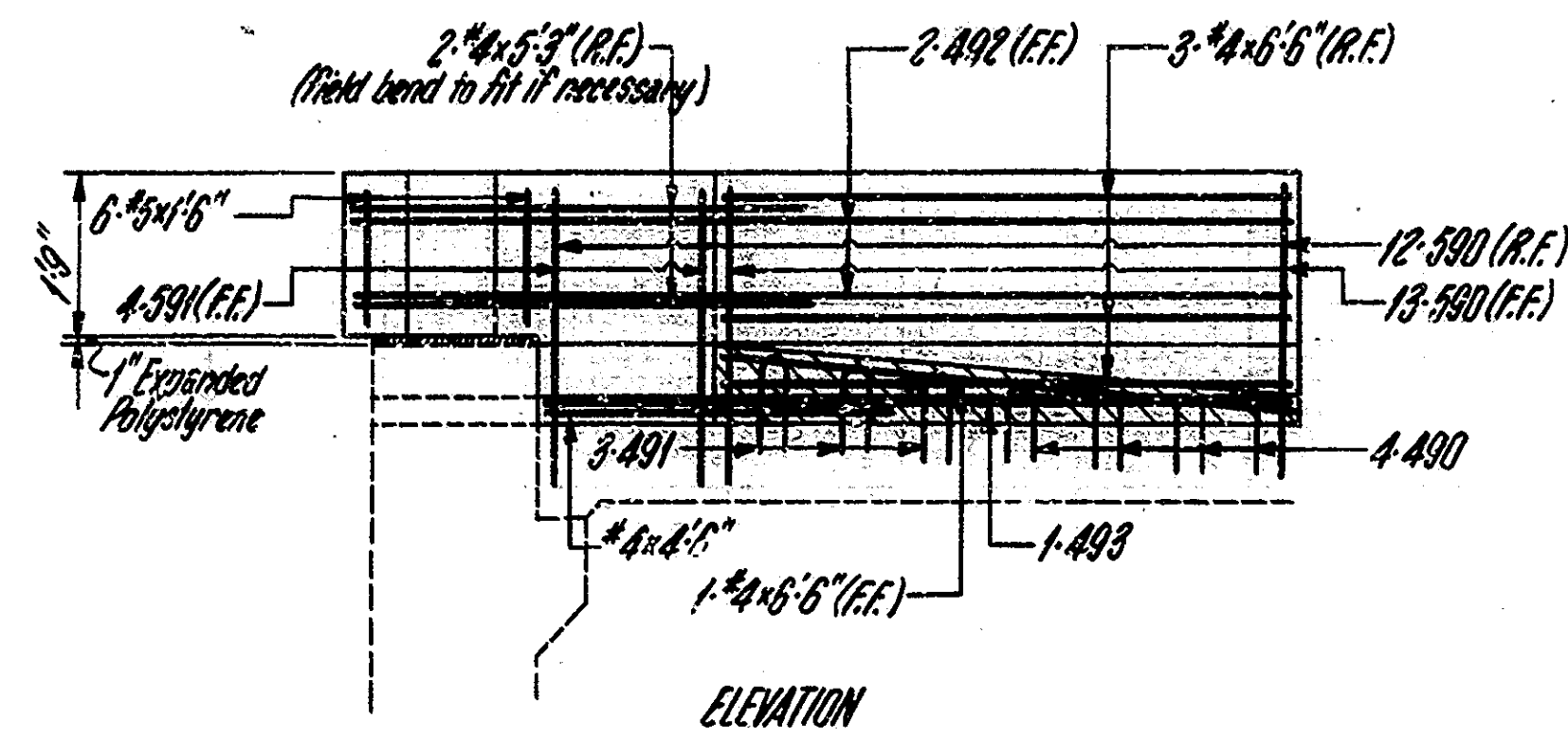
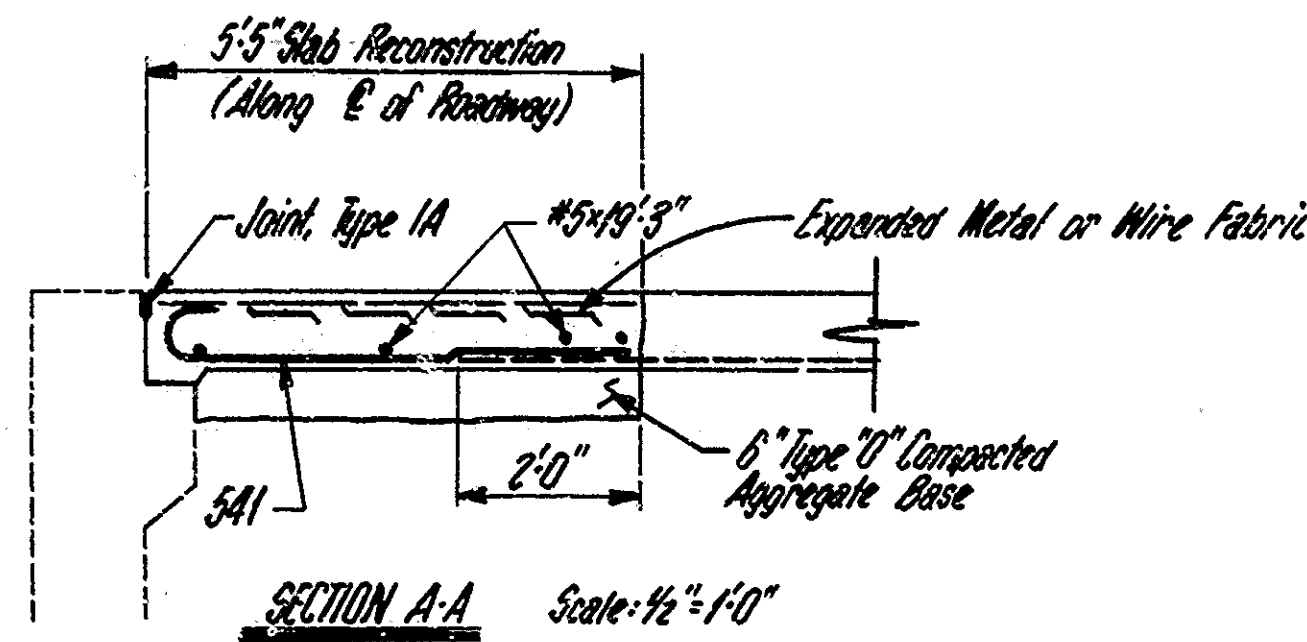
DESIGNED: CKD  
 DRAWN: CKP  
 TRACED: CKD  
 SF-22317

Stephen J. Christian

DRAWING: 113 OF 16 SHEET: 16 OF 38  
 PROJECT: 517-74-1(F) 11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: 1-74-14-2333 C

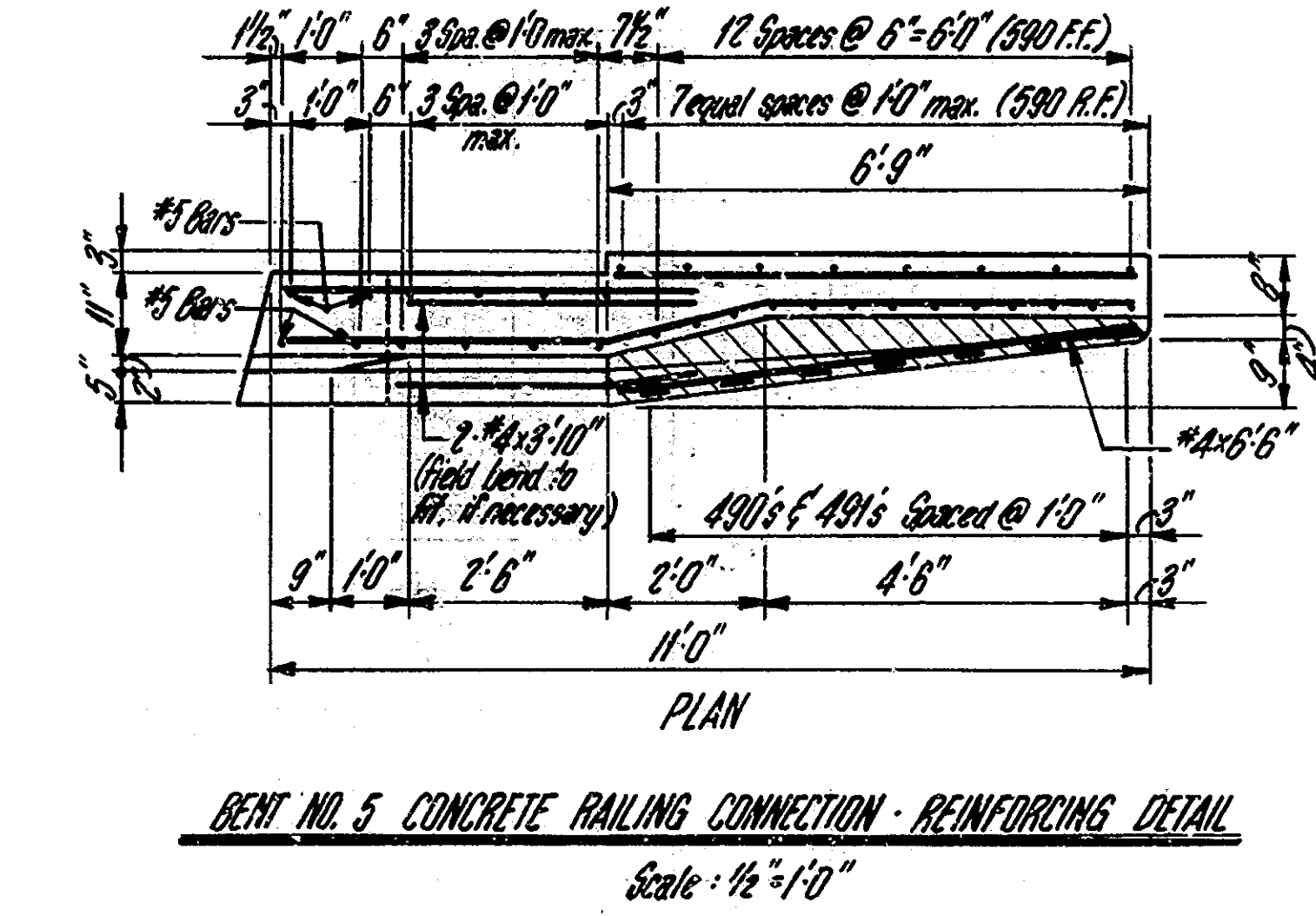
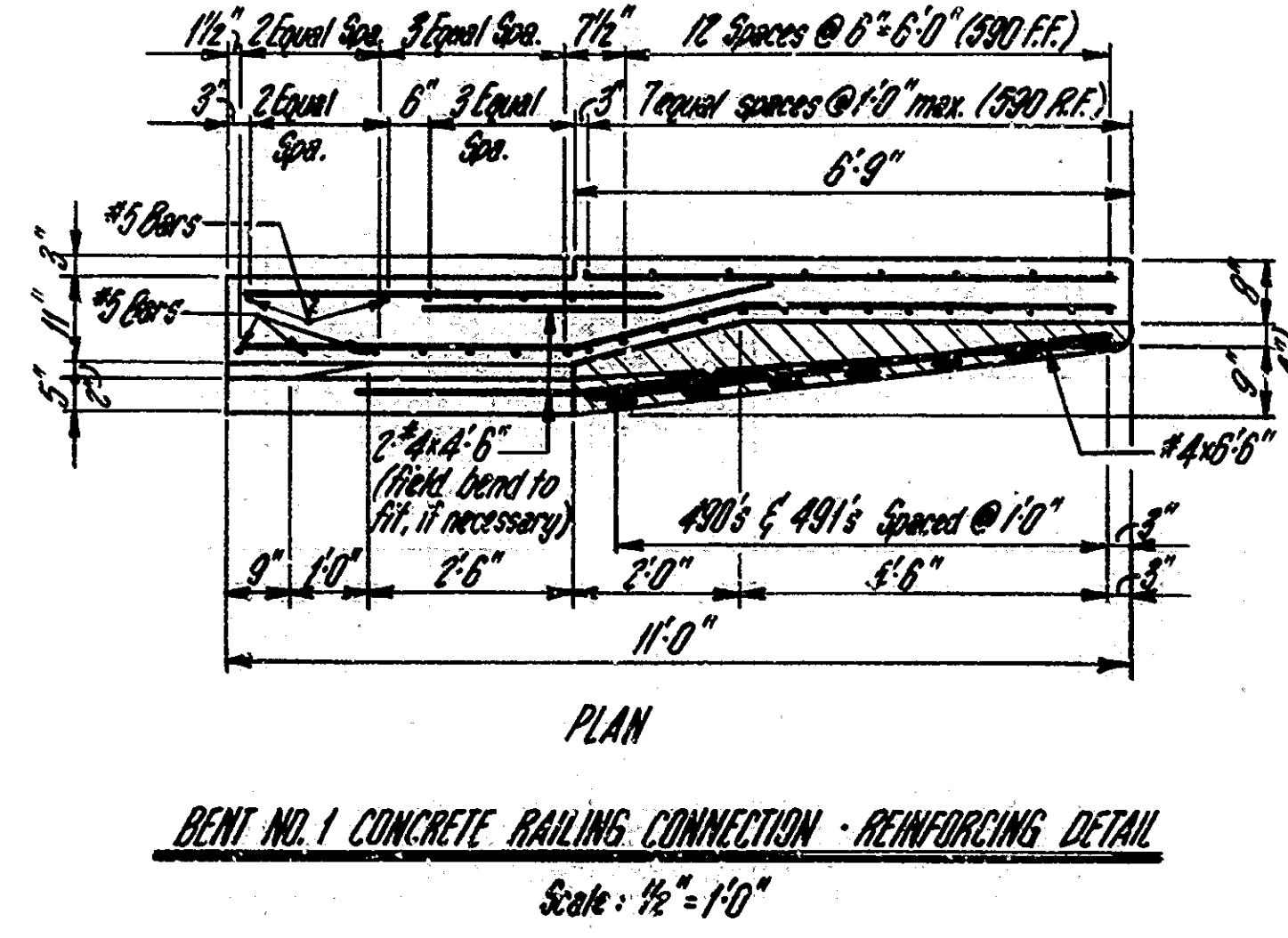
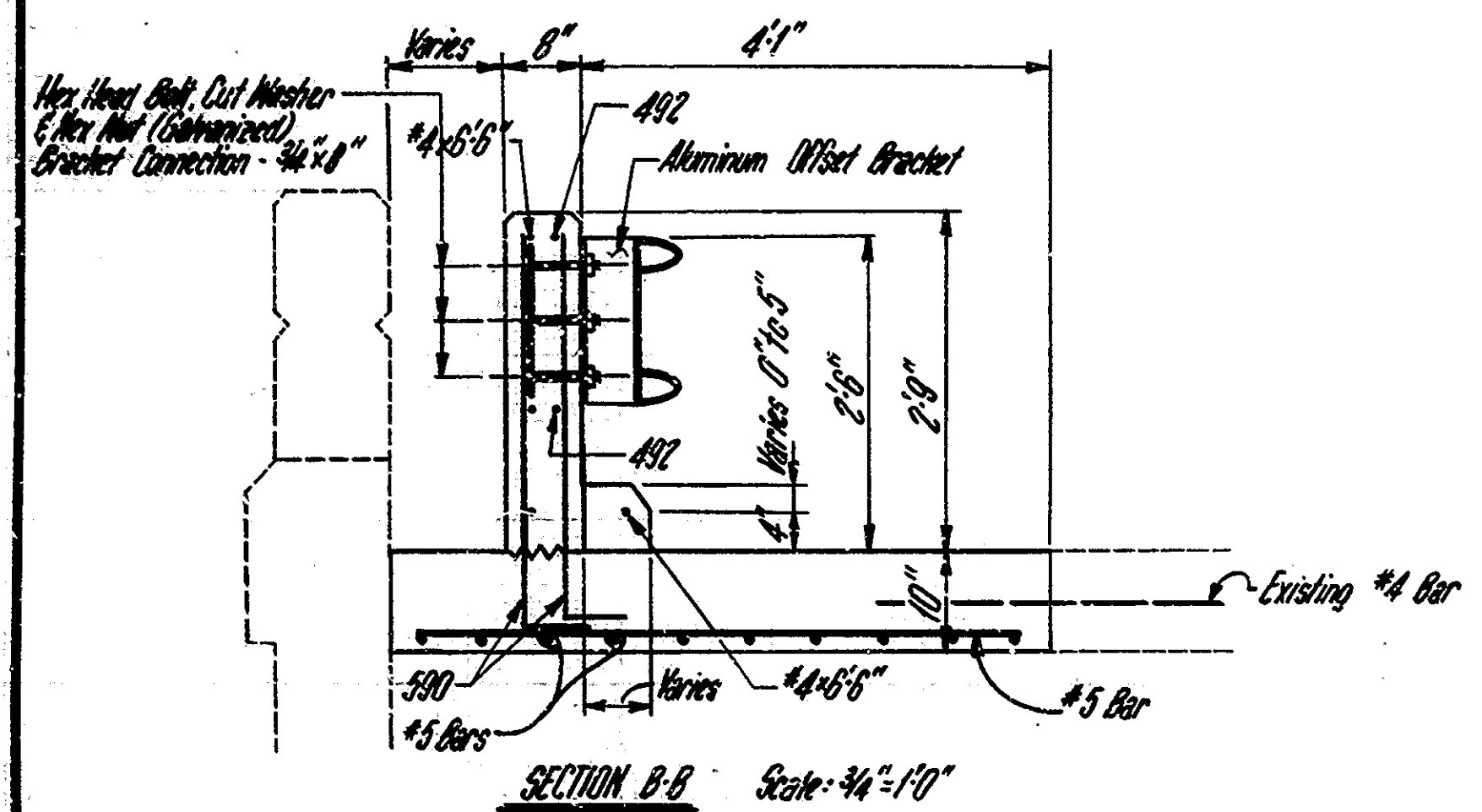






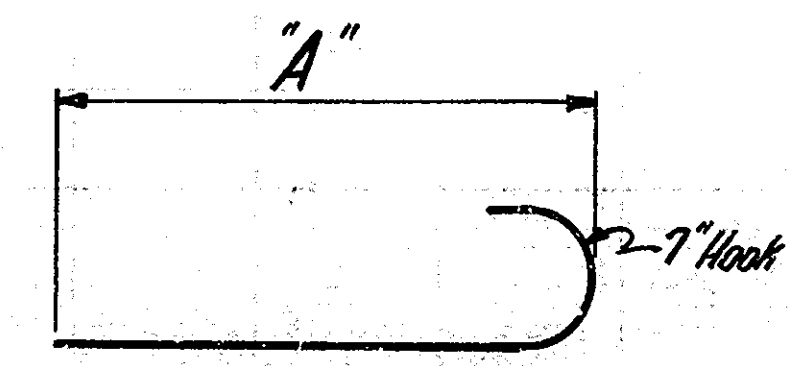
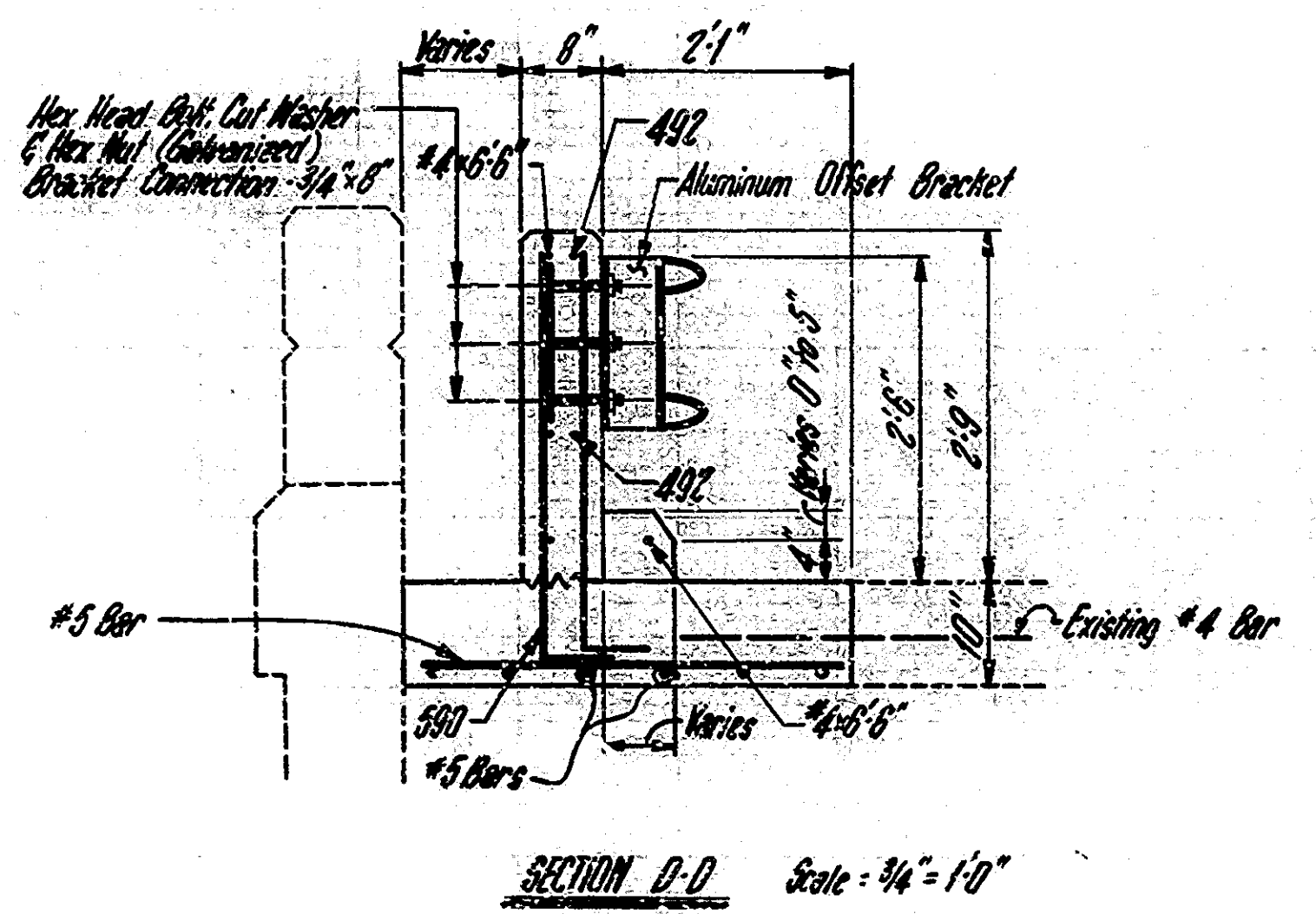
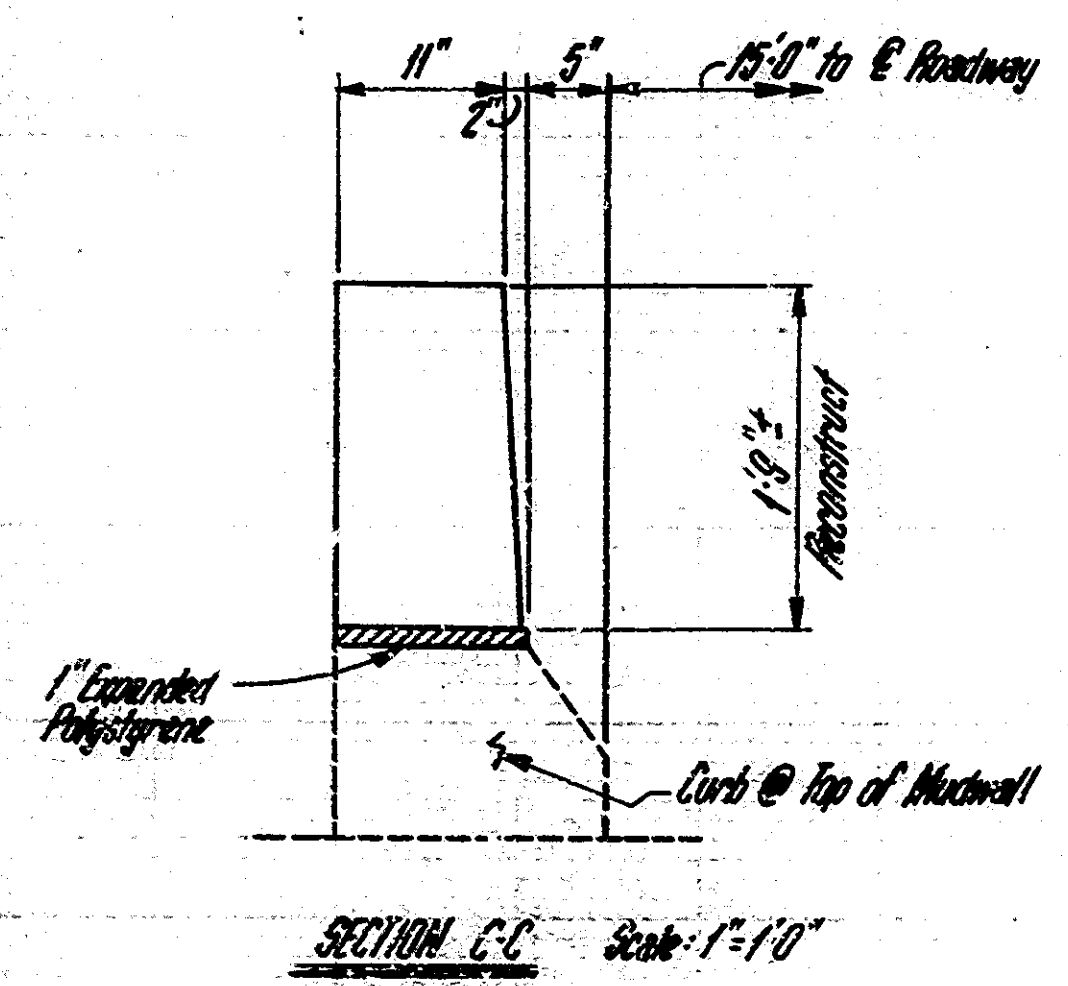
**BILL OF MATERIALS  
BARRIER RAIL TRANSITION  
AT BENT NO. 1  
- 4 REQUIRED -**

EPOXY COATED REINFORCING STEEL			
Size or Mark	Number of Bars	Length (E.F.)	Weight (Lbs.)
#90	25	3'-9"	
#91	4	3'-11"	
#5	6	1'-6"	
Total No. 5			124
#90	4	1'-9"	
#91	3	2'-5"	
#92	2	10'-7"	
#93	1	9'-1"	
#4	4	6'-6"	
#4	2	5'-3"	
#4	2	4'-6"	
Total No. 4			60
Total Epoxy Coated Reinf. Steel			184
CONCRETE			
Concrete Class "C" for Barrier Rail Transition			1.0 CY



**BILL OF MATERIALS  
BARRIER RAIL TRANSITION  
AT BENT NO. 5  
- 4 REQUIRED -**

EPOXY COATED REINFORCING STEEL			
Size or Mark	Number of Bars	Length (E.F.)	Weight (Lbs.)
#90	25	3'-9"	
#91	4	3'-11"	
#5	4	1'-6"	
Total No. 5			120
#90	4	1'-9"	
#91	3	2'-5"	
#92	2	10'-7"	
#93	1	9'-1"	
#4	4	6'-6"	
#4	2	5'-3"	
#4	2	3'-10"	
Total No. 4			59
Total Epoxy Coated Reinf. Steel			179
CONCRETE			
Concrete Class "C" for Barrier Rail Transition			1.0 CY



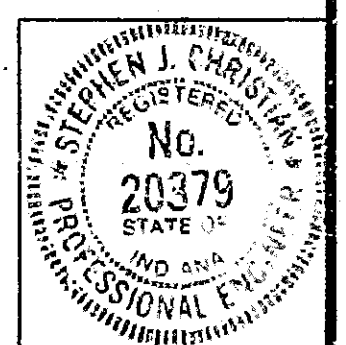
NOTE: See Bridge Standard BR5 for additional dimensions and details of Concrete Railing Connection.

MARK	"A"	TOTAL LENGTH
541	5'-0"	5'-7"
542	7'-5"	8'-0"
543	8'-0"	8'-7"
544	8'-7"	9'-2"
545	9'-2"	9'-9"
546	9'-9"	10'-4"
547	10'-4"	10'-11"
548	10'-11"	11'-5"
549	11'-5"	12'-1"
551	7'-8"	8'-3"
552	8'-3"	8'-10"
553	8'-10"	9'-5"
554	9'-5"	10'-0"
555	10'-0"	10'-7"
556	10'-7"	11'-2"

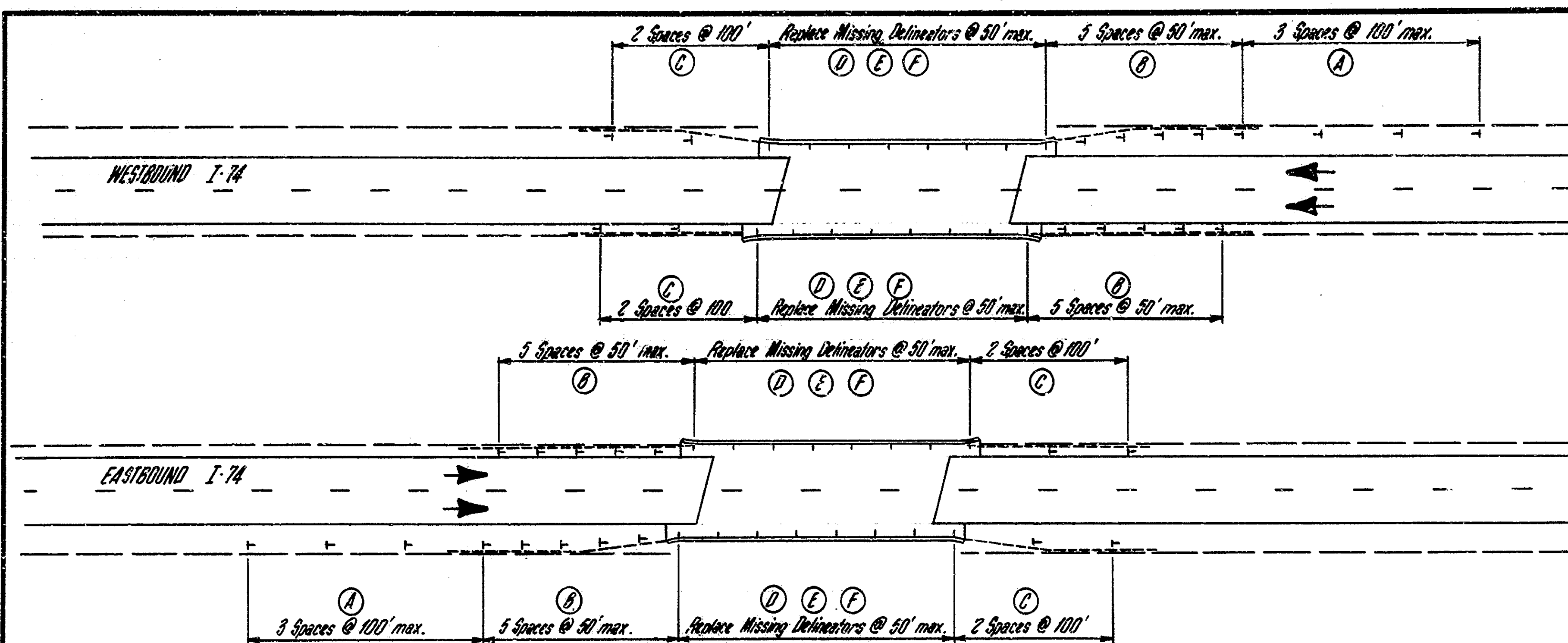
**DETAILS  
INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - As Noted DATE: June 20, 1988

DRAWING: R14 OF 18 SHEET: 17 OF 38  
PROJECT: 912-74-1(F)11  
BRIDGE CONTRACT NO. B-16460  
BRIDGE FILE: I-74-M-2353C



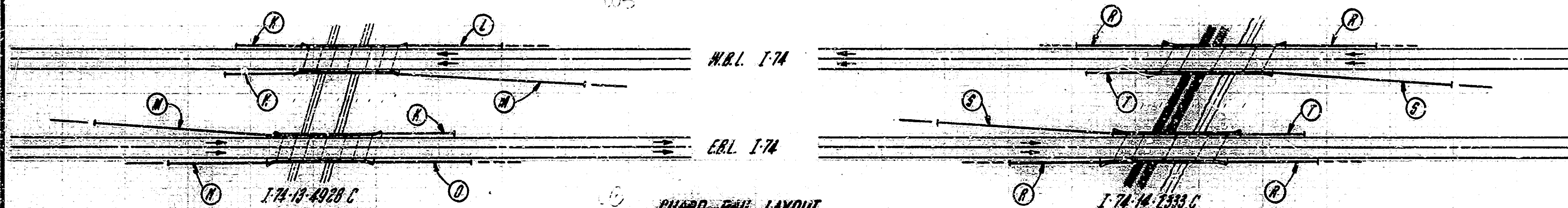
DESIGNED: CKD  
DRAWN: CKD  
TRACED: CKD  
SF-22317



**BRIDGE DELINEATORS**

\* Indicates Number of locations for all 3 Bridges.

- \* 6 x (A) 3 EA Delineator with Post, Type D-1 (White) 3" Diameter
- \* 12 x (B) 5 EA Delineator with Post, Type D-3 (White) 3" Diameter
- \* 12 x (C) 2 EA Delineator with Post, Type D-3 (White) 3" Diameter
- 4 x (D) 6 EA Delineator with Pressure Sensitive Adhesive, Type D-1 (White) Replaces Missing Delineators (I-74-11-2258 B ONLY)
- 4 x (E) 7 EA Delineator with Pressure Sensitive Adhesive, Type D-1 (White) Replaces Missing Delineators (I-74-13-4928 C ONLY)
- 4 x (F) 7 EA Delineator with Pressure Sensitive Adhesive, Type D-1 (White) Replaces Missing Delineators (I-74-14-2333 C ONLY)



**GUARD RAIL LEGEND (4928 C)**

- 3 x (M) 52 LF Guard Rail Class Hs (Includes 1 Terminal End)
- 48 LF Removal of Guard Rail
- 1 x (L) 106 LF Guard Rail Class Hs connect to Class Bs
- 102 LF Removal of Guard Rail
- 2 x (N) 375 LF Guard Rail Class Hs ##
- 1 EA Guard Rail End Treatment Type I
- 406 LF Removal of Guard Rail
- 1 x (O) 100 LF Guard Rail Class Hs
- 1 EA Guard Rail End Treatment Type I
- 134 LF Removal of Guard Rail
- 1 x (P) 116 LF Guard Rail Class Hs connect to Class Bs
- 110 LF Removal of Guard Rail

**GUARD RAIL LAYOUT**

4928 C	GUARD RAIL SUMMARY	2333 C
1226 LF	Guard Rail Class Hs	1278 LF
3 EA	Guard Rail End Treatment Type I	2 EA
1302 LF	Removal of Guard Rail	1332 LF

## Length and Spacing to be in accordance with Class D's Guard Rail Std. 518.

**GUARD RAIL LEGEND (2333 C)**

- 4 x (R) 106 LF Guard Rail Class Hs connect to Class Bs
- 102 LF Removal of Guard Rail
- 2 x (S) 375 LF Guard Rail Class Hs ##
- 1 EA Guard Rail End Treatment Type I
- 414 LF Removal of Guard Rail
- 2 x (T) 52 LF Guard Rail Class Hs (Includes 1 Terminal End)
- 48 LF Removal of Guard Rail

**DETAILS**

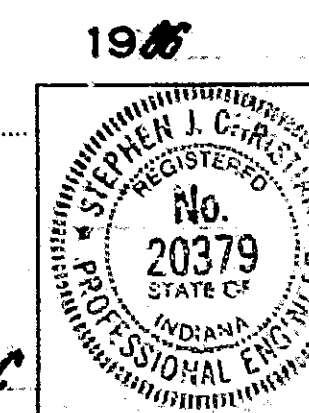
**INDIANA DEPARTMENT OF HIGHWAYS**

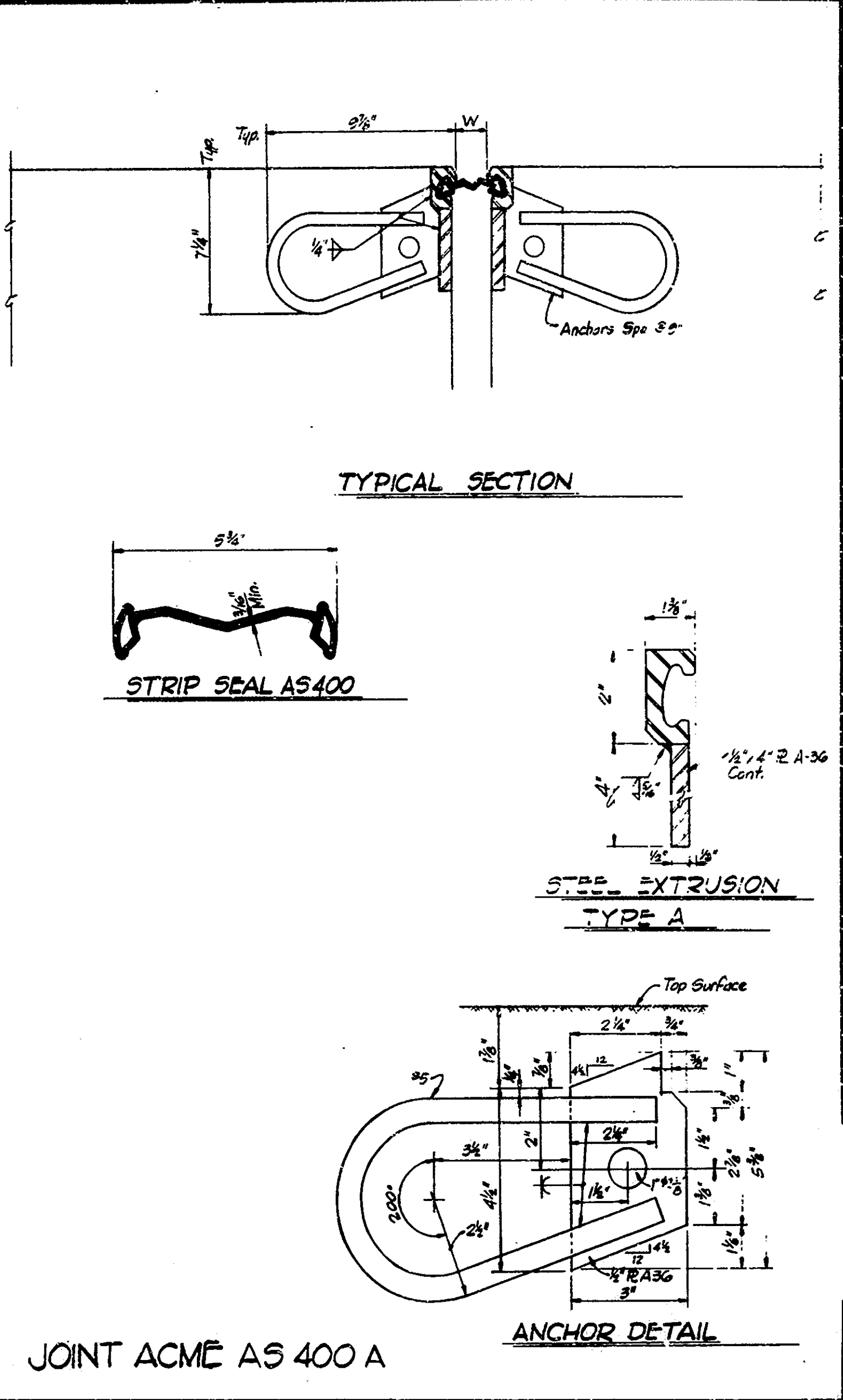
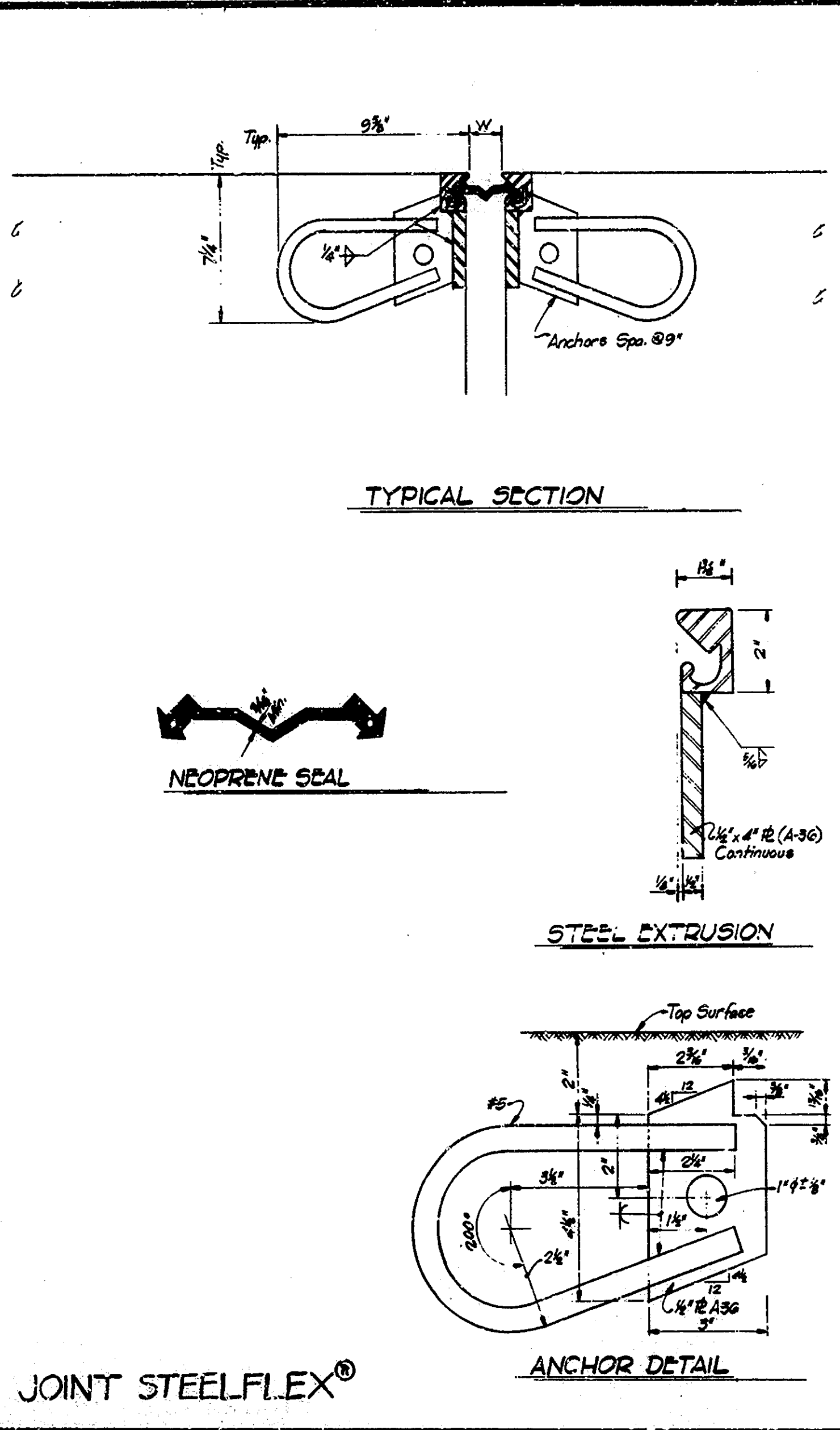
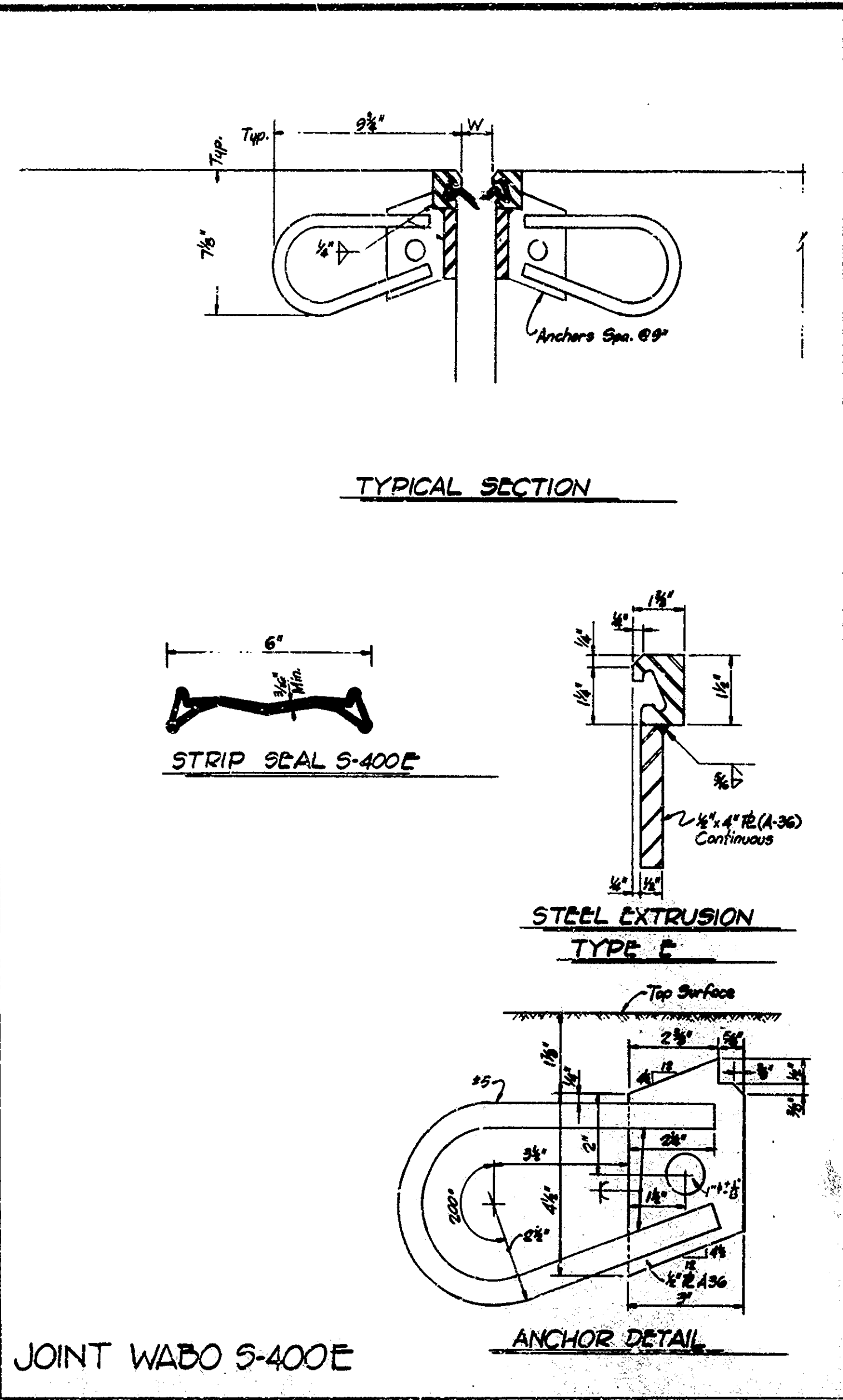
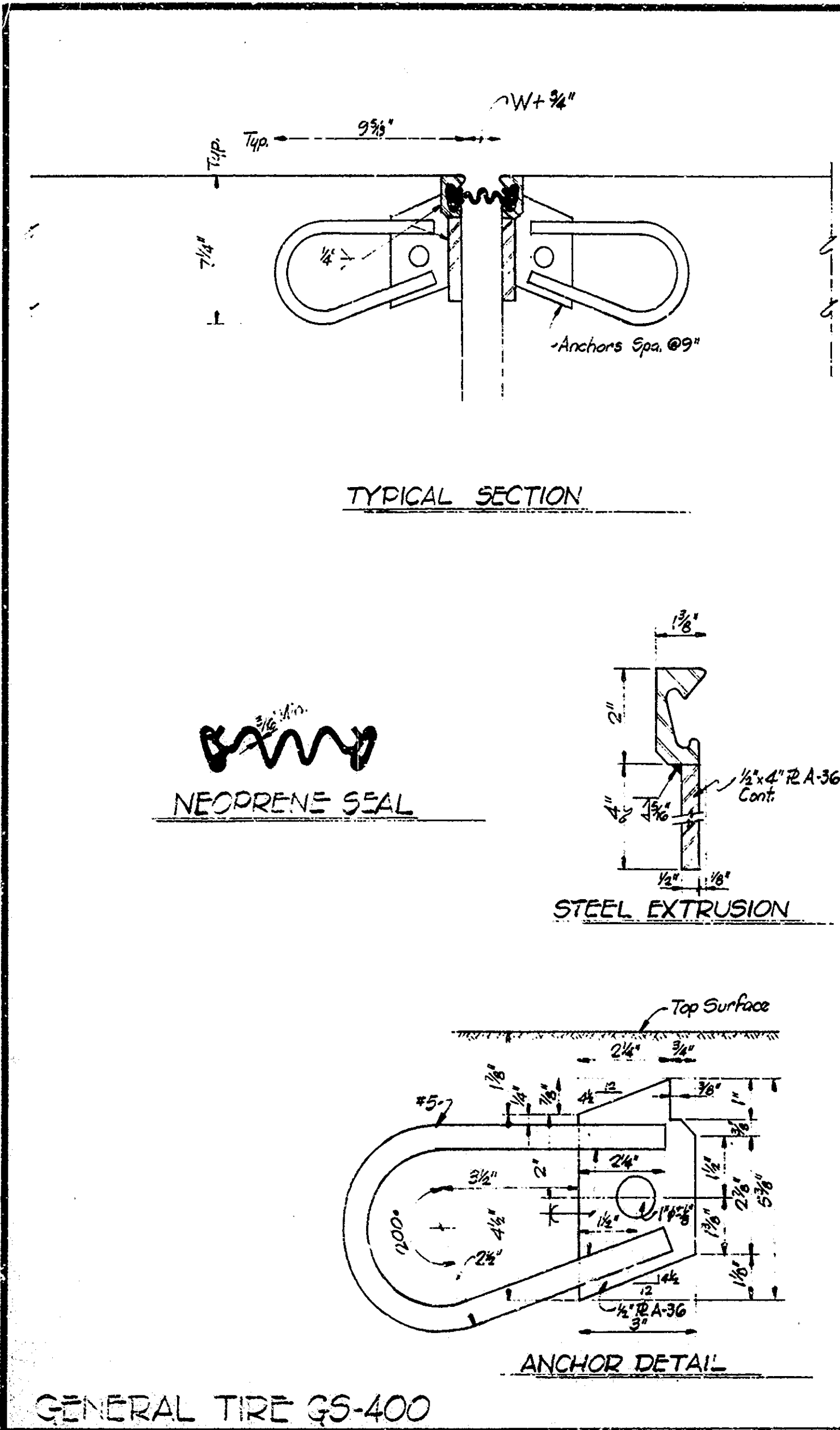
SCALE: NO SCALE

DATE: JUN 20, 1968

Stephen J. Christian

DRAWING: 115 OF 16 SHEET: 18 OF 38  
 PROJECT: 572-74-1(F)11  
 BRIDGE CONTRACT NO. B-16460  
 BRIDGE FILE: I-74-11-2258 B, I-74-13-4928 C, & I-74-14-2333 C





**NOTES**

SEE THE SPECIAL PROVISIONS FOR PROPERTIES OF MATERIALS.  
 THE STRIP SEAL GLAND SHALL BE SIZED TO ACCOMMODATE AT LEAST FOUR (4) INCHES OF MOVEMENT.  
 THE STRIP SEAL GLAND SHALL BE INSTALLED IN AN EXTRUDED MOUNTING UNIT.  
 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, MEDIAN BARRIERS, ETC.) THE SECTIONS OF JOINT ARE TO BE CUT TO THE POINTS REQUIRED TO PRODUCE THE SAME CROSS SECTION ON EACH PIECE BEING JOINED.  
 THE ANCHOR ASSEMBLY IS TO BE SHOP PREPARED AND DELIVERED TO THE JOB SITE AS A COMPLETE CONTINUOUS UNIT FOR JOINT LENGTHS UP TO 44 FEET; JOINTS ABOVE LENGTHS OF 44 FEET OR JOINTS USED WITH STEEL CONSTRUCTION SHALL BE FIELD WELDED WITH ENDS TO BE SHOP PREPARED.  
 ALL WORK, BOTH SHOP & FIELD, SHALL BE IN ACCORDANCE WITH 7103.  
 ALL EXPOSED STRUCTURAL STEEL SURFACES WILL BE PAINTED IN ACCORDANCE WITH IOH STANDARD SPECIFICATIONS.  
 THE CONTRACTOR SHALL SUBMIT 3 COPIES OF SHOP DRAWINGS FOR ALL JOINTS INVOLVING CURBS OR OTHER SPECIAL FEATURES.

NOTE: EXTRUSIONS WITH HEIGHTS BETWEEN 1 1/2" AND 2" MAY BE SUBSTITUTED FOR THOSE SHOWN. IF SUCH A SUBSTITUTION IS MADE, THE NOTCH IN THE ANCHOR PLATE AND THE STRIP SEAL GLAND SHALL BE MODIFIED ACCORDINGLY AND IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.  
 NOTE: JOINT ONFLEX 40 SF MAY BE USED IN LIEU OF JOINTS SHOWN ABOVE.

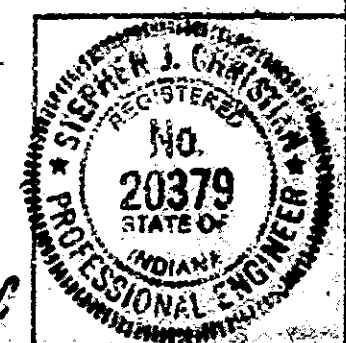
Ambient Temperature	JOINT SETTING TABLE		
	DIMENSION 'W'		
	Expansion Length		
	100'-200'	200'-300'	300'-400'
120°	2 1/4"	1 3/4"	1 1/2"
100°	2 1/8"	1 3/4"	1 1/2"
80°	2 1/8"	2 1/8"	2 1/8"
60°	3"	2 3/8"	2 1/8"
40°	3 1/4"	3 1/4"	2 3/8"
20°	3 3/4"	3 1/2"	3 1/8"
0°	3 3/4"	3 3/4"	4"

DESIGNED: CKD  
 DRAWN: DAS/CKD  
 TRACED: CKD

Revised 7/1/82 - Notes, 6/21/83, 2/28/84 - Notes, 4/10/85 Notes

**EXPANSION JOINTS CLASS S-S  
 INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: - NONE  
 DATE: - June 27, 1988  
 Stephen J. Christian  
 DRAWING: 118 OF 18 SHEET: 19 OF 38  
 PROJECT: - 517-14-1(F)11  
 CONTRACT NO. B-16460  
 BRIDGE FILE: - I-74-11-22500, I-74-13-49200, & I-74-14-23330



STRUCTURE PAY ITEMS						
CODE NO.	DESCRIPTION	UNIT	STRUCTURE			TOTAL QUANTITY
			1-74-11 2258B	1-74-13 4928C	1-74-14 2333C	
51001	CONCRETE, CLASS A IN SUPERSTRUCTURE	CYS.	33.4	15.2	11.2	59.8
51005	CONCRETE, CLASS A IN SUBSTRUCTURE	CYS.		12.0		12.0
51010	CONCRETE, CLASS B ABOVE FOOTINGS	CYS.				
51015	CONCRETE, CLASS B IN FOOTINGS	CYS.				
51873	SPECIAL CONCRETE	CYS.		15		15
51046	CONCRETE FOUNDATION SEAL	CYS.				
51045	CONCRETE STRUCTURAL MEMBERS	LSUM				
51813	PNEUMATICALLY PLACED MORTAR	SFT.				
51814	WELDED STEEL WIRE FABRIC	SFT.				
51870	REPOINTING MASONRY IN STRUCTURES	SFT.	10			10
51875	SPECIAL CLASS A CONCRETE	SFT.	400			400
51030	REINFORCING STEEL	LBS.	7728	3512	5885	17,125
51032	EPOXY COATED REINFORCING STEEL	LBS.		1592	1452	3,044
51035	STRUCTURAL STEEL	LBS.				
51038	STRUCTURAL STEEL	LSUM				
51070	ANCHOR PLATES (MK-AP 1)	EACH				
51075	ANCHOR PLATES (MK-AP 2)	EACH				
51080	ANCHOR PLATES (MK-AP 3)	EACH				
51085	ANCHOR PLATES (MK-AP 4)	EACH				
51112	ANCHOR BOLTS	EACH				
51114	ANCHOR BOLT AP-22	EACH				
51100	CAST IRON DRAIN PIPE, 6 INCH	LBS.				
51110	CAST IRON, GRATES, BASINS AND FITTINGS	LBS.				
51092	STEEL PIPE CONDUIT (2 INCH) CONCRETE BARRIER RAIL	LFT		11		11
51020	CLASS C CONCRETE RAILING	CYS.	14.4	9.2		23.6
51014	CLASS A CONCRETE RAILING	CYS.				
51115	RAILING (TYPE S OR C)	LFT.	15			15
51120	RAILING (TYPE SA OR CI)	LFT.				
51125	RAILING (TYPE 6 OR D)	LFT.				
51130	RAILING (TYPE 7 OR E)	LFT.				
51130	BARRIER RAILING TYPE X-BRACKETS	EACH	50			50
51127	BARRIER RAILING TYPE Y	LFT.				
51132	RAILING RESIST	LFT.				
51134	REMOVAL OF PRESENT RAILING	LFT.				
51128	ALUMINUM BARRIER RAIL	LFT.	38			38
51129	ALUMINUM PEDESTRIAN RAIL	LFT.				
	ALUMINUM POST (TYPE )	EACH				
	ALUMINUM POST AND ANCHORAGE (TYPE )	EACH				
51881	EXPANSION JOINT, TYPE BS2	LFT.				
51882	EXPANSION JOINT, TYPE BS4	LFT.				
51887	EXPANSION JOINT, TYPE BS8	LFT.	239			239
51888	EXPANSION JOINT, TYPE BS9	LFT.		77		77
51890	EXPANSION JOINT, TYPE BS11	LFT.				
51925	EXPANSION JOINT, CLASS S-S	LFT.	69	71	77	316
51926	EXPANSION JOINT, CLASS T-S	LFT.				
51927	EXPANSION JOINT, MODULAR	LFT.				
51859	PAINTING OLD STEEL BRIDGE	LSUM				
51861	PAINTING BEARING ASSEMBLIES	LSUM				
51215	CLASS X EXCAVATION	CYS.				
51220	WET EXCAVATION	CYS.				
51223	WATERWAY EXCAVATION	CYS.				
51225	DRY EXCAVATION	CYS.				
51230	FOUNDATION EXCAVATION (UNCLASSIFIED)	CYS.				
	SURFACE SEAL (2258B)	LSUM				
	SURFACE SEAL (4928C)	LSUM				
	SURFACE SEAL (2333C)	LSUM				

① INCLUDE 500 LBS. OF #5 REINFORCING FOR EACH BRIDGE AS AN UNDISTRIBUTED QUANTITY TO REPLACE BADLY CORRODED DECK REINFORCING.

② F

SUMMARIZED G.A.H. C.K'D S.J.C./D.J.H.

TRACED C.K'D

MARCH 1984

STRUCTURE PAY ITEMS						
CODE NO.	DESCRIPTION	UNIT	STRUCTURE			TOTAL QUANTITY
			1-74-11 2258B	1-74-13 4928C	1-74-14 2333C	
51135	TIMBER PILES FURNISHED, UNTRAPED	LFT.				
51140	TIMBER PILES DRIVEN, UNTRAPED	LFT.				
51145	TIMBER PILES FURNISHED, TREATED	LFT.				
51150	TIMBER PILES DRIVEN, TREATED	LFT.				
51155	PILE SHELLS FURNISHED AND DRIVEN (12 INCH)	LFT.				
51160	PILE SHELLS FURNISHED AND DRIVEN (14 INCH)	LFT.				
51185	STEEL H PILES FURNISHED AND DRIVEN (8 BP 36)	LFT.				
51190	STEEL H PILES FURNISHED AND DRIVEN (10 BP 42)	LFT.				
51195	STEEL H PILES FURNISHED AND DRIVEN (12 BP 52)	LFT.				
51156	EPOXY COATED PILE SHELLS FURNISHED AND INSTALLED (12 IN)	LFT.				
51157	EPOXY COATED PILE SHELLS FURNISHED AND INSTALLED (14 IN)	LFT.				
51210	PILE ENCASMENT (CONCRETE) REMOVAL OF PRESENT STRUCTURE (PORTIONS) (2258B)	LSUM				
	REMOVAL OF PRESENT STRUCTURE (PORTIONS) (4928C)	LSUM				
	REMOVAL OF PRESENT STRUCTURE (PORTIONS) (2333C)	LSUM				
51366	CONCRETE SLOPEBALL, 5 INCH	SYS.				
51367	CONCRETE SLOPEBALL, 4 INCH	SYS.				
51369	REMOVAL OF CONCRETE SLOPEBALL	SYS.				
51365	SLOPEBALL	SYS.				
51370	RIPRAP	TON	20	70		90
51375	REVEGETATION RIPRAP	TON				
51372	DUMPED RIPRAP	TON				
52603	NO. 2 AGGREGATE (CLASS A, B OR C)	TON				
51374	PLASTIC FILTER CLOTH	SYS.				
51500	RESHAPING SPILL SLOPES	LSUM				
	SHEAR CONNECTORS	EACH	48	24	30	102
51863	FIELD DRILLED HOLES IN CONCRETE	EACH		112		112
51864	FIELD DRILLED HOLES	EACH				
51866	RIVETS REMOVED	EACH				
51867	STRUCTURAL STEEL CUTTING	SIN.				
51833	CONCRETE SCARIFYING	SYS.				
51837	BLASTING AND CLEANING	SYS.				
51401	BRIDGE DECK OVERLAY PATCHING	SFT.	2470	1005	235	3710
51401	FULL DEPTH PATCHING	SFT.	300	300	400	1000
51842	BRIDGE DECK OVERLAY	SYS.				
51845	BRIDGE DECK SURFACE	SYS.				
51838	FINISHING AND CURING	SYS.				
51846	ADDITIONAL BRIDGE DECK OVERLAY	CYS.				
52412	REMOVAL OF BITUMINOUS OVERLAY	SYS.				
51874	OVERLAY DRN	SFT.	462	139		601

QUANTITIES: 2258B 13,960 SFT  
4928C 14,085 SFT  
2333C 14,183 SFT  
TOTAL = 42,228 SFT

③ INCLUDES THE FOLLOWING ITEMS:

WIDENING BITUM. AT CORNERS	454 T	440 T	449 T
BITUM. REPLACEMENT	0	0	0
TOTALS	492 T	440 T	468 T

APPROACH PAY ITEMS						
CODE NO.	DESCRIPTION	UNIT	STRUCTURE			TOTAL QUANTITY
			1-74-11 2258B	1-74-13 4928C	1-74-14 2333C	
52370	CLEARING RIGHT-OF-WAY	LSUM				
02020	UNCLASSIFIED EXCAVATION	CYS.				
52240	COMMON EXCAVATION	CYS.				
02045	EXCAVATION FOR SUBGRADE	CYS.				
	TREATMENT	CYS.				
52245	B BORROW	CYS.	250			250
52250	B BORROW	CYS.				
52255	B BORROW FOR STRUCTURE BACKFILL	CYS.		13		13
52280	CONCRETE PAVEMENT REINFORCED (7 INCH)	SYS.				
52285	CONCRETE PAVEMENT REINFORCED (8 INCH)	SYS.				
52290	CONCRETE PAVEMENT REINFORCED (9 INCH)	SYS.				
52300	CONCRETE PAVEMENT REINFORCED (10 INCH)	SYS.				
	PLAIN CONCRETE PAVEMENT (INCH)	SYS.				
52303	REMOVAL OF PAVEMENT	SYS.				
02335	BREAKING PAVEMENT	SYS.				
52450	TERMINAL JOINT	LFT.				
52495	CONTRACTION JOINT, TYPE D-1	LFT.				
52711	CONCRETE SIDEWALK	SYS.				
52710	REMOVAL OF CONCRETE SIDEWALK	SYS.				
52605	AGGREGATE FOR SHOULDER DRAINS	TON				
52410	AGGREGATE FOR UNDER DRAINS	CYS.				
52305	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON				
52308	TYPE O COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON				
52310	SUBBASE	CYS.				
52311	SPECIAL SUBBASE	TON				
52444	OPEN GRADED BITUMINOUS BASE NO. 5	TON				
52445	BITUMINOUS BASE	TON				
52452	BITUMINOUS BASE (SIZE NO. 5D)	TON				
52451	BITUMINOUS BINDER	TON				
52450	BITUMINOUS SURFACE	TON				
52476	BITUMINOUS MIXTURE FOR APPROACHES	TON	492	440	468	1400
52476	BITUMINOUS MATERIAL FOR TRUCK COAT	SYS.	342			342
52461	BITUMINOUS MATERIAL FOR PTYPE COAT	SYS.				
	BITUMINOUS CURB	LFT.				
04348	SEAL COAT TYPE 2	SYS.				
04351	SEAL COAT TYPE 5	SYS.				
52413	REMOVAL OF BITUMINOUS SURFACE	SYS.				
52500	GUARD RAIL, TYPE A	LFT.				
52503	GUARD RAIL, TYPE B	LFT.	388			388
52510	GUARD RAIL, TYPE C	LFT.				
52513	GUARD RAIL, TYPE D	LFT.				
52520	GUARD RAIL, TYPE E	LFT.	179			179
52525	GUARD RAIL, TYPE F	LFT.				
52530	GUARD RAIL, TYPE G	LFT.	176			176
52531	GUARD RAIL, TYPE H	LFT.	1228	1278		2506
52538	GUARD RAIL END TREATMENT	EACH	2	3	2	7
52539	GUARD RAIL END TREATMENT	EACH				
52496	RESET GUARD RAIL	LFT.				
52533	REMOVAL OF GUARD RAIL	LFT.	589	1302	1532	3223
52841	IMPACT ATTENUATOR, SAND BARREL ARRAY AND PAD	EACH				
52360	RIGHT-OF-WAY MARKERS	EACH				
06500	MONUMENT, TYPE A	EACH				
06503	MONUMENT, TYPE B	EACH				
06510	MONUMENT, TYPE C	EACH				
06513	MONUMENT, TYPE D	EACH				
52851	SECTION CORNER MONUMENT	EACH				

REVISIONS:

DATE	ITEM
8-20-86	52530
9-4-86	51401, Del 51845, Add Bridge Deck Overlay Patching

APPROACH PAY ITEMS						
CODE NO.	DESCRIPTION	UNIT	STRUCTURE			TOTAL QUANTITY
			1-74-11 2258B	1-74-13 4928C	1-74-14 2333C	
07025	PIPE: GR. A (0.064" FBOCS) 12"	LFT.				
07075	PIPE: GR. A (0.064" FBOCS) 15"	LFT.				
07125	PIPE: GR. A (0.064" FBOCS) 18"	LFT.				
07175	PIPE: GR. A (0.064" FBOCS) 24"	LFT.				
07225	PIPE: GR. A (0.064" FBOCS) 30"	LFT.				
07275	PIPE: GR. A (0.064" FBOCS) 36"	LFT.				
07325	PIPE: GR. A (0.064" FBOCS) 42"	LFT.				
10000	PIPE: GR. D (0.064" CS) 12"	LFT.				
10025	PIPE: GR. D (0.064" CS) 15"	LFT.				
10050	PIPE: GR. D (0.064" CS) 18"	LFT.				
10075	PIPE: GR. D (0.064" CS) 24"	LFT.				
10100	PIPE: GR. D (0.064" CS) 30"	LFT.				
10125	PIPE: GR. D (0.064" CS) 36"	LFT.				
10150	PIPE: GR. D (0.064" CS) 42"	LFT.				
44255	PIPE: GR. K FOR UNDERDRAINS 6"	LFT.				
52852	PIPE: 0.052" FBOCS 6"	LFT.				
34000	PIPE: 0.052" FBOCS PERC. CS 6"	LFT.				
29000	PIPE: 0.054" FBOCS 12"	LFT.				
44275	PIPE: FBOCS 0.052" FOR UNDERDRAINS 6"	LFT.				
46000	PIPE END SECTION 12"	EACH				
46005	PIPE END SECTION 15"	EACH				
46010	PIPE END SECTION 18"	EACH				
46015	PIPE END SECTION 24"	EACH				
46020	PIPE END SECTION 30"	EACH				
46025	PIPE END SECTION 36"	EACH				
46030	PIPE END SECTION 42"	EACH				
46035	PIPE END SECTION 33"	EACH		</		