

CONTRACT NO. E-11990

INDEX					
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
ST-4555 (A)	39-55-3108B	CONT. ST. R. GIRDER STEEL BEAM & R.C. GIRDER	40', 2 at 65', 100', 4 at 130', 100', 2 at 65', 40'	WEST FORK WHITE RIVER	11+50.00
SHEET NO.	SHEET DESIGNATION	SUBJECT			E.W.A. APPROVAL
1	ONE SHEET	TITLE SHEET AND INDEX			
2-3	TWO SHEETS	TRAFFIC MAINTENANCE - PHASE I AND II			
4-5	TWO SHEETS	TRAFFIC MAINTENANCE - PHASE III AND IV			
6	R1	GENERAL PLAN			
7-8	R2, R3	DETAILS			
9-11	R4-R6	SUPERSTRUCTURE			
12	R7	DETAILS			
13	R8	SUMMARY			

STATE OF INDIANA  
INDIANA STATE HIGHWAY COMMISSION

# BRIDGE PLANS

## FOR SPANS OVER 20 FEET

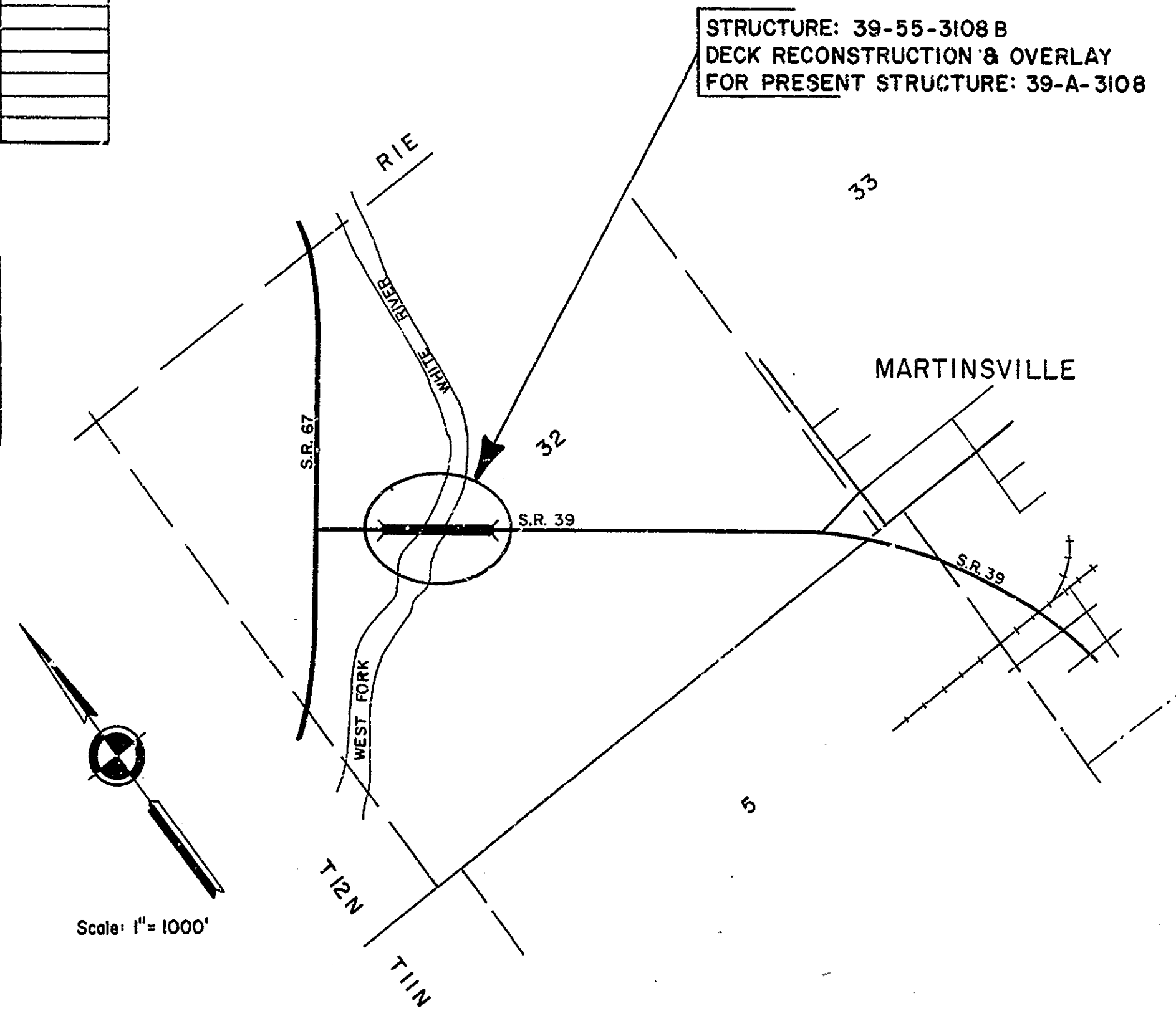
### ON

## STATE ROAD NO. 39

# PROJECT NO. ST-4555 (A)

RECONSTRUCTION FOR BRIDGE ON S.R. 39 OVER WESTFORK WHITE RIVER  
APPROXIMATELY 0.2 MILE EAST OF SR 67  
ALL IN SECTION 32, T12N, R1E, IN MORGAN COUNTY

TRAFFIC DATA			
A.D.T. (1975)		14,500	V.P.D.
A.D.T. (19 PROJECTED)			V.P.D.
D.H.V. (19 PROJECTED)			V.P.D.
TRUCKS		D.H.V. % A.D.T. %	
DESIGN SPEED			M.P.H.
ACCESS CONTROL			



THESE PLANS PREPARED BY  
**FLOYD E. BURROUGHS & ASSOCIATES INC.**  
CONSULTING ENGINEERS

INDIANAPOLIS, INDIANA  
CERTIFIED *Volter Wilson* DATE January 26, 1979

REVISIONS	
DATE	SHEET NO.
2-22-79	1, T, 18 & 20; Sheet 18A Added

REVISIONS	
DATE	SHEET NO.

INDIANA STATE HIGHWAY COMMISSION  
STANDARD SPECIFICATIONS DATED 1978  
TO BE USED WITH THESE PLANS.

BRIDGES OVER 20' SPAN					
FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	ST-4555 (A)	197	1	25

INDEX CONTINUED				
STANDARD DRAWINGS			SUBJECT	
SHEET NO.	SHEET DESIGNATION	SUBJECT	E.W.A. APPROVAL	ADOPTED DATE
BRIDGE STD. BR1	ALUMINUM BRIDGE RAILING			
BRIDGE STD. BR2	ALUMINUM BRIDGE RAILING DETAILS			
BRIDGE STD. BR3	STEEL BRIDGE RAILING			
BRIDGE STD. BR4	STEEL BRIDGE RAILING DETAILS			
BRIDGE STD. BR5	RAILING CONNECTION DETAILS			
BRIDGE STD. BR6	RAILING CONNECTION DETAILS			
14 BRIDGE STD. C1	MISCELLANEOUS DETAILS			R-6-1-77
BRIDGE STD. C2	MISCELLANEOUS DETAILS			
BRIDGE STD. C3	MISCELLANEOUS DETAILS			
BRIDGE STD. C4	MISCELLANEOUS DETAILS			
BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS			
BRIDGE STD. D1	ADJUSTING FRAME FOR ROADWAY DRAIN			R-7-1-77
BRIDGE STD. FB	PRESTRESSED CONCRETE TYPE I-BEAMS			
BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I-BEAMS			
BRIDGE STD. PB6	PRESTRESSED BOX BEAMS			
BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS WIDE			
BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS WIDE			
BRIDGE STD. FB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS			
BRIDGE STD. FB11	ELASTOMERIC BEARING PAD DETAILS			
BRIDGE STD.				
BRIDGE STD.				
BRIDGE STD. F2A	BRIDGE LIGHTING DETAILS			
BRIDGE STD. F2B				
BRIDGE STD. S1	MISCELLANEOUS DETAILS			
BRIDGE STD. SH1	STEEL SHOE DETAILS			
BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE			
BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE			
BRIDGE STD.				
BRIDGE STD.				
BRIDGE STD.				
BRIDGE STD.				
ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS			
ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS			
ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MB	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MB2	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MC1	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MF	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MF	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS			
ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS			
16 ROAD STD. SHEET 9	TRAFFIC SIGN DETAILS			R-5-78
ROAD STD.	STANDARD REINF. CONCRETE BOX CULVERTS			
ROAD STD.	STANDARD REINF. CONCRETE CULVERTS			
17 ROAD STD. SHEET GR 2	GUARD RAIL CLASS Bc			R-12-1-78
ROAD STD. SHEET GR	GUARD RAIL CLASS			
ROAD STD. SHEET GR B	GUARD RAIL CLASS Bc			R-2-1-79
ROAD STD. SHEET GRB	ALUMINUM GUARD RAIL DETAILS			R-8-1-78
18A ROAD STD. SHEET GRB	STEEL TUBE GUARD RAIL DETAILS			R-8-1-78
ROAD STD. SHEET GR 10A	GUARD RAIL BREAKAWAY CABLE TERMINAL			R-12-1-78
ROAD STD. SHEET GR10	GUARD RAIL BURLER ENDS			R-2-1-79
ROAD STD. SHEET CB-2	TEMPORARY CONCRETE BARRIER			
ROAD STD.				
ROAD STD. SHEET 1 DETOURS	STANDARDS FOR SUPERELEVATION			
ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS			
ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS			
21 ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS			R-5-1-78
ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS			
22 ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS			R-4-1-77
23 ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS			R-4-1-77
24 ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS			R-4-1-77
25 ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS			R-6-1-76
ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS			

APPROVED 2-19-79

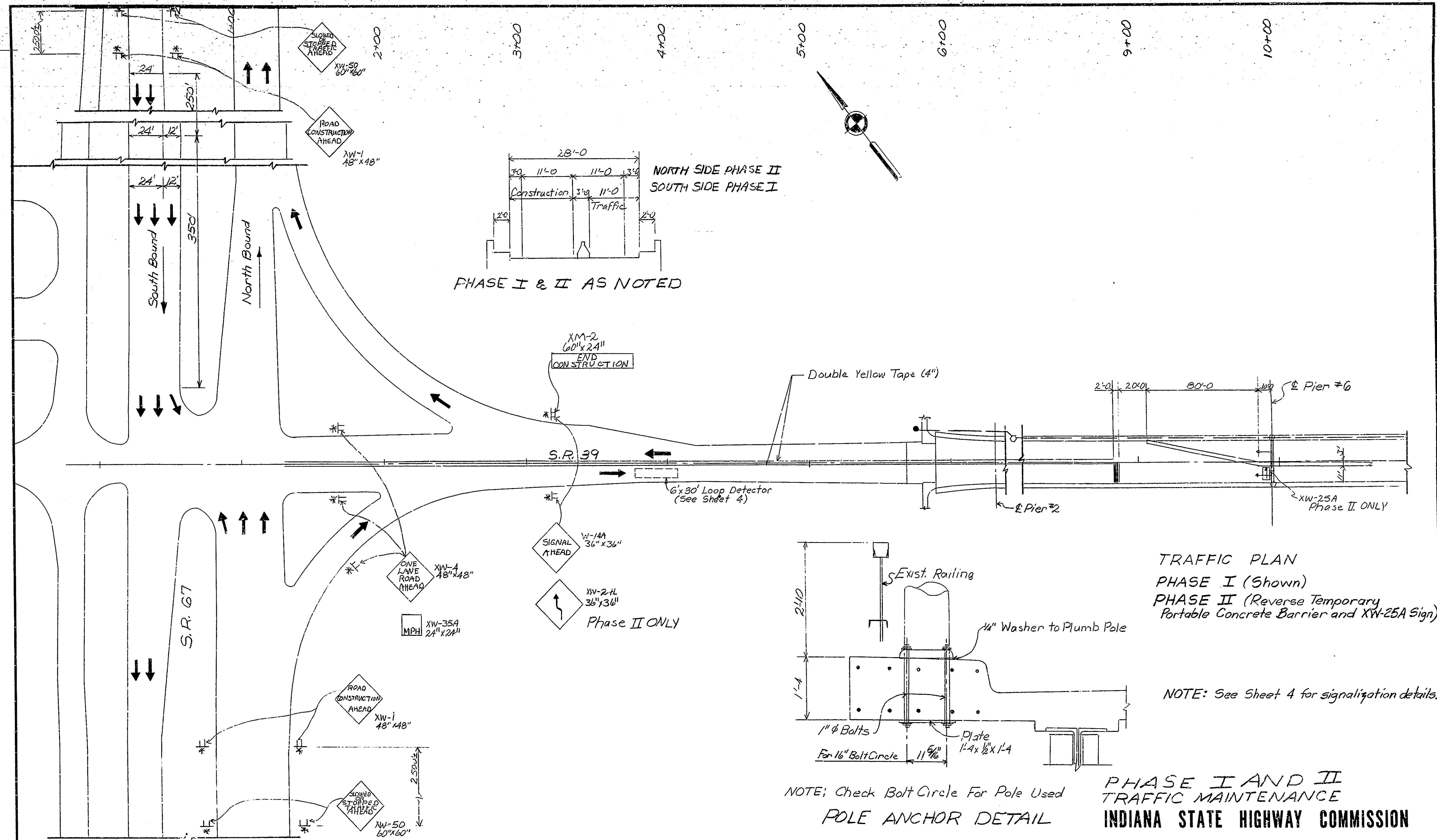
*H. K. Hall*  
CHIEF HIGHWAY ENGINEER—INDIANA STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL 2-15-79

*E. W. Wilson*  
ENGINEER OF BRIDGE DESIGN, INDIANA STATE HIGHWAY COMMISSION

FEDERAL HIGHWAY ADMINISTRATION  
DEPARTMENT OF TRANSPORTATION

APPROVED: \_\_\_\_\_  
DIVISION ENGINEER DATE

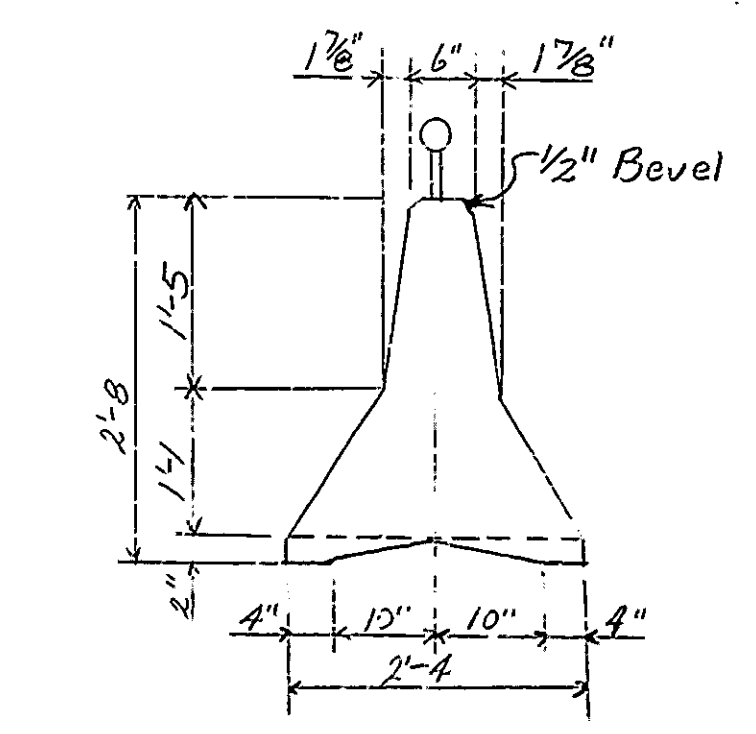
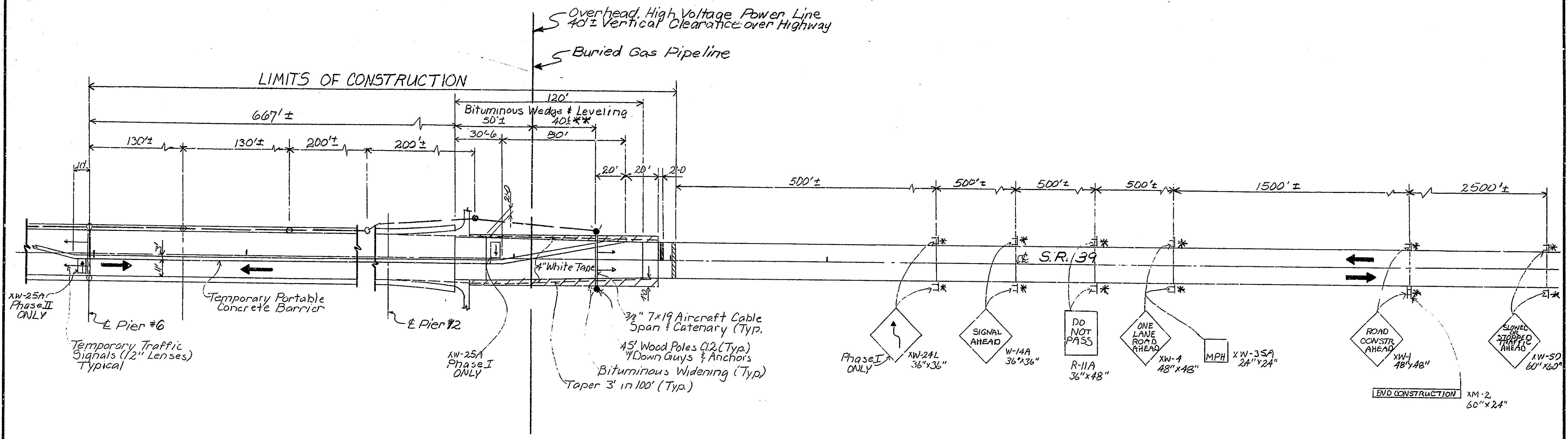


INWG 40-5263 24139-3

DESIGNED	C.K.D.
DRAWN	C.K.D.
CHECKED	

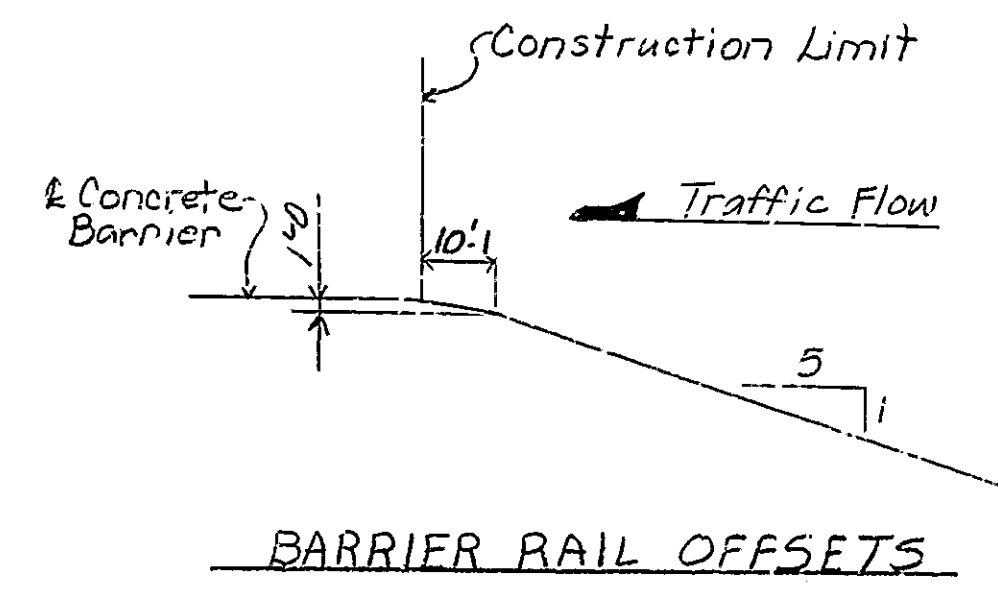
10+00  
11+00  
17+00  
18+00  
19+00

\*\* NOTE: Maintain 30' Horizontal Clearance between Signal and nearest high tension cable.



**TEMPORARY CONCRETE BARRIER**  
The configuration of the concrete barrier may be as shown in the above sketch or as detailed on Rd. Std. C.B. 2. See the Special Provisions.

**TRAFFIC PLAN**  
PHASE I (Shown)  
PHASE II (Reverse Temporary Portable Concrete Barrier and XW-25A Sign)



NOTE: See Sheet 4 for signalization details.

**PHASE I AND II  
TRAFFIC MAINTENANCE  
INDIANA STATE HIGHWAY COMMISSION**

SCALE: 1"=30'-0" DATE: January 26, 1979

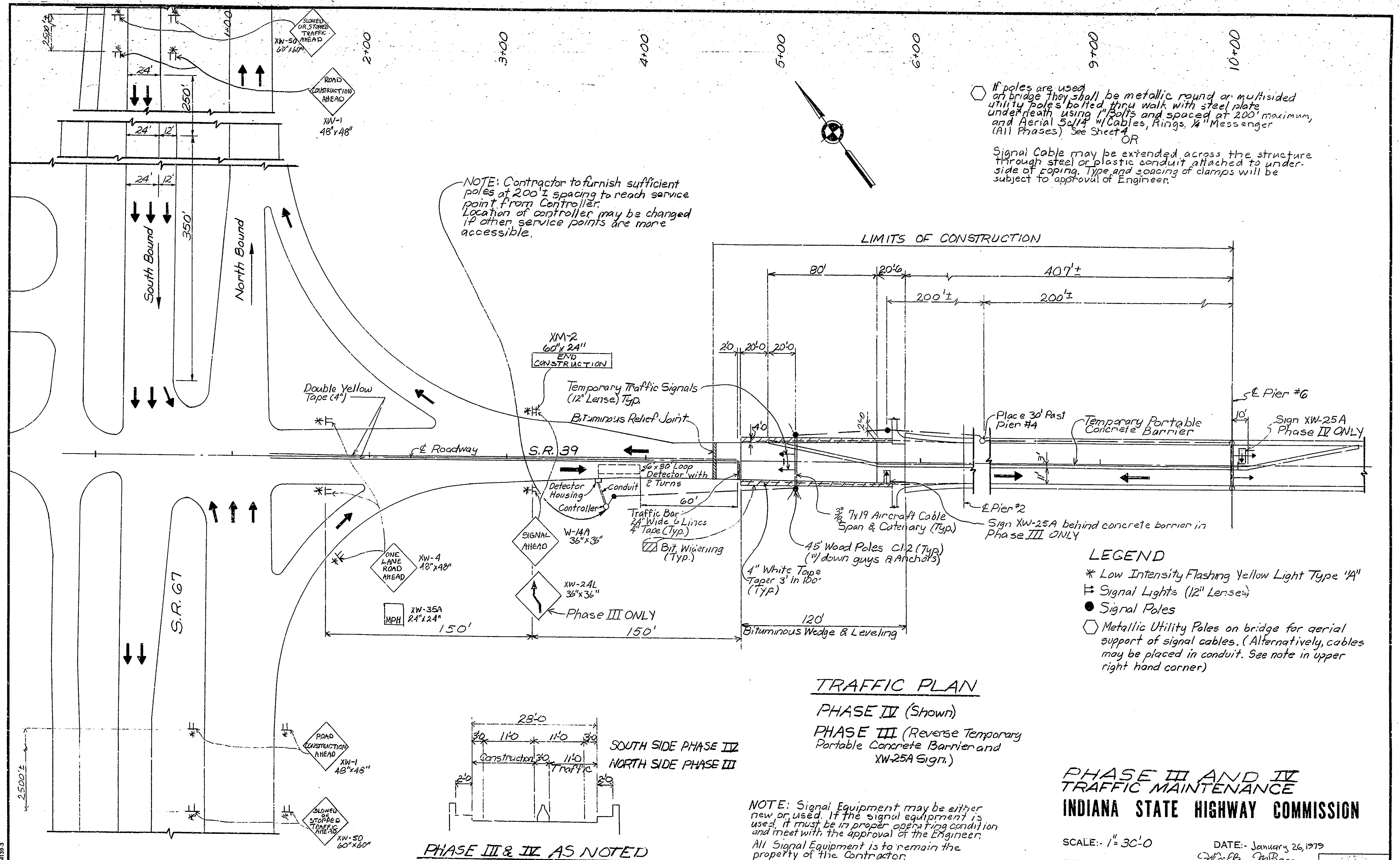
SUBMITTED FOR APPROVAL: *Walter M. ...*

DRAWING: OF SHEET: 3 OF 25

PROJECT: ST-4555(A)  
CONTRACT NO. B-11590

RUNING 40 5253 24139-3

DESIGNED	CKD
DRAWN	CKD
TRACED	CKD



If poles are used on bridge they shall be metallic round or multisided utility poles bolted thru walk with steel plate under head using 1" bolts and spaced at 200' maximum, and Aerial 5/16" W/Cables, Rings, 1/4" Messenger (All Phases) See Sheet 4 OR

Signal Cable may be extended across the structure through steel or plastic conduit attached to underside of coping. Type and soacing of clamps will be subject to approval of Engineer.

NOTE: Contractor to furnish sufficient poles at 200'± spacing to reach service point from Controller. Location of controller may be changed if other service points are more accessible.

- LEGEND**
- \* Low Intensity Flashing Yellow Light Type 'A'
  - ⊞ Signal Lights (12" Lenses)
  - Signal Poles
  - ⬡ Metallic Utility Poles on bridge for aerial support of signal cables. (Alternatively, cables may be placed in conduit. See note in upper right hand corner)

**TRAFFIC PLAN**  
 PHASE IV (Shown)  
 PHASE III (Reverse Temporary Portable Concrete Barrier and XW-25A Sign.)

**PHASE III AND IV TRAFFIC MAINTENANCE**  
**INDIANA STATE HIGHWAY COMMISSION**

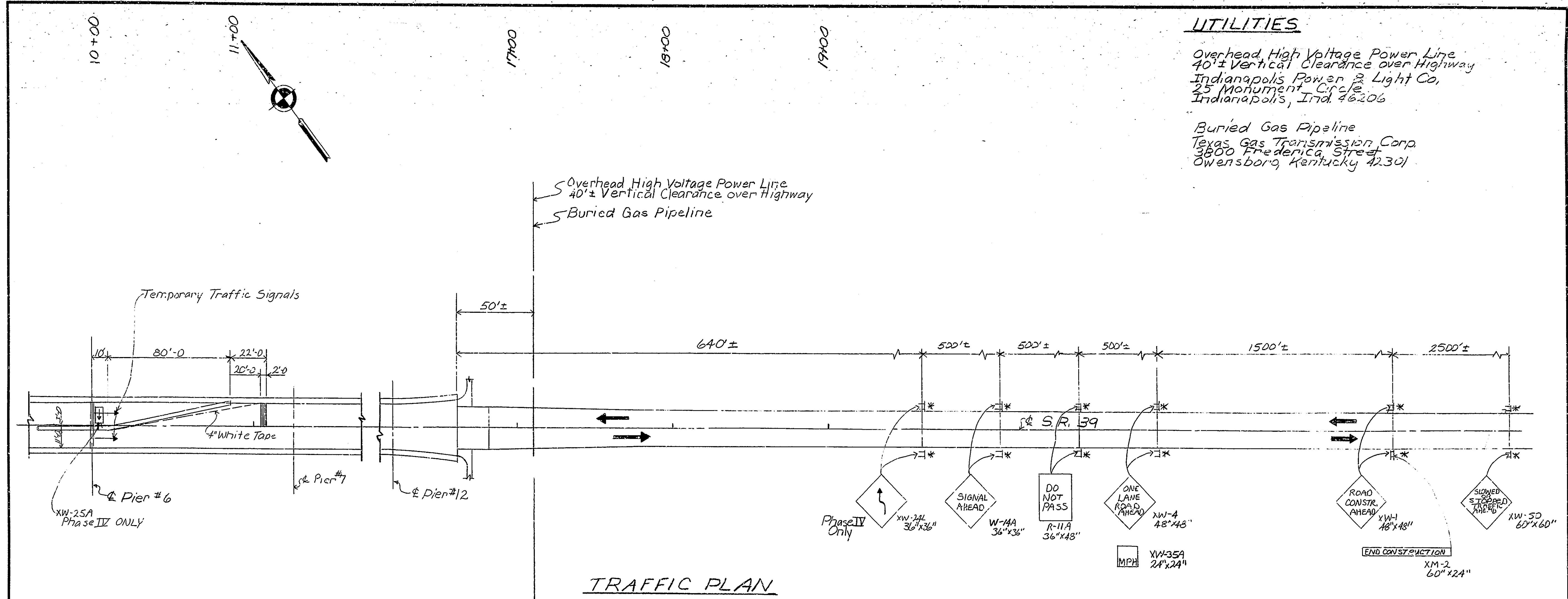
SCALE: 1" = 30'-0" DATE: January 26, 1979

SUBMITTED FOR APPROVAL: *Walter M. Beaman*

DRAWING: OF SHEET: 4 OF 25  
 PROJECT: 57-455(A)  
 CONTRACT NO. B-11990

TUNING 40 5253 24135-3

DESIGNED	C/K/D
DRAWN	C/K/C
TRACED	C/K/D



**UTILITIES**

Overhead High Voltage Power Line  
 40'± Vertical Clearance over Highway  
 Indianapolis Power & Light Co.  
 25 Monument Circle  
 Indianapolis, Ind. 46206

Buried Gas Pipeline  
 Texas Gas Transmission Corp.  
 3800 Frederica Street  
 Owensboro, Kentucky 42301

**TRAFFIC PLAN**

PHASE IV (Shown)  
 PHASE III (Reverse Temporary  
 Portable Concrete Barrier and XW-25A)

**MAINTAINING TRAFFIC** One Lump Sum  
 Includes the following:  
 Traffic Signals and Hardware

- SEPARATE PAY ITEMS**
- 4 Ea. Signal Ahead Sign Type W-11A
  - 26 Ea. Construction Signs (Type A)
  - 5 Ea. Construction Signs (Type B)
  - 2892 LF. Temporary Pavement Marking Tape
  - 1435 LF. Removal Painted Line Solid White 4"
  - 600 LF. Removal Painted Line Solid Yellow 4"
  - 2660 LF. Painted Line, Solid White 4"
  - 3370 LF. Painted Line, Solid Yellow 4"
  - 870 LF. Temporary Portable Concrete Barrier

**REMOVAL NOTES:**

The existing solid white pavement edge lines on the bridge deck and bridge approach adjacent to the bituminous widening shall be removed prior to setting the barrier rail for Phase I and III at the following locations:

- a) Phase I - Between Stop Bars on the South Side.
- b) Phase III - Between west Stop Bar and the E of Pier No. 6 on the North Side.

The existing double yellow centerline shall be removed between the Stop Bar and the Concrete Barrier at each signal location before one lane traffic is established on the structure.

NOTE: See Sheet No. 4 for signalization details.

**PHASE III AND IV  
 TRAFFIC MAINTENANCE  
 INDIANA STATE HIGHWAY COMMISSION**

SCALE: 1"=30'-0" DATE: January 26 1979

SUBMITTED FOR APPROVAL:

*Walter M. Berman*

DRAWING: OF SHEET: 5 of 25

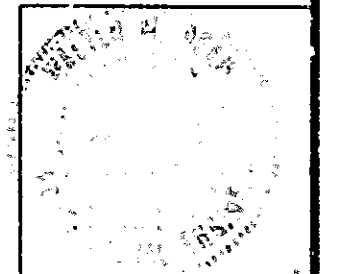
PROJECT: ST-4553(A)

CONTRACT NO. B-11890

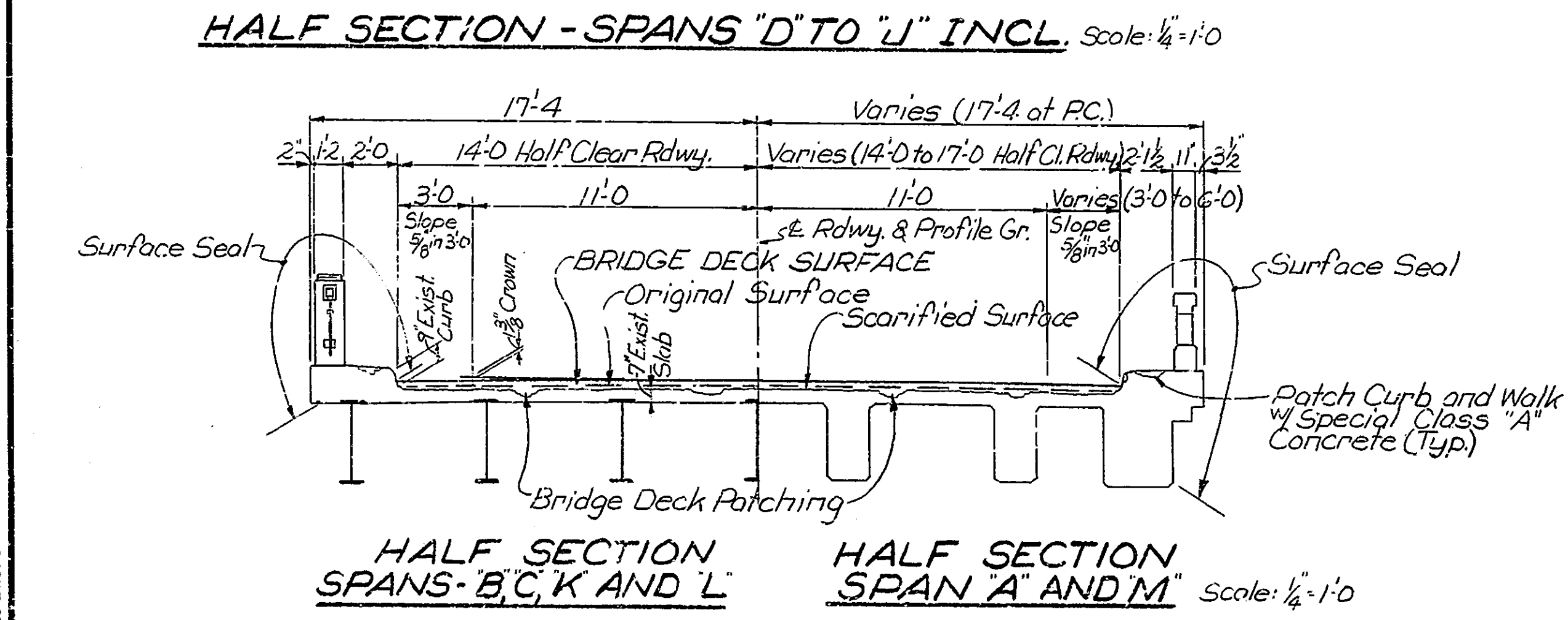
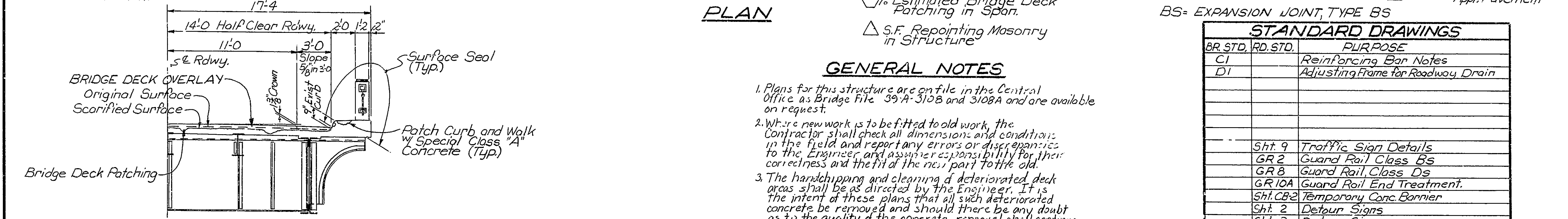
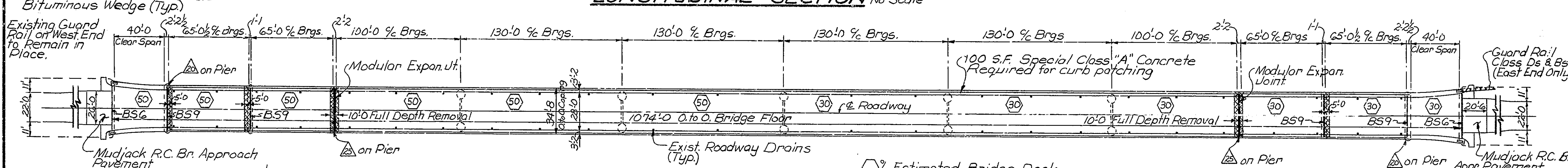
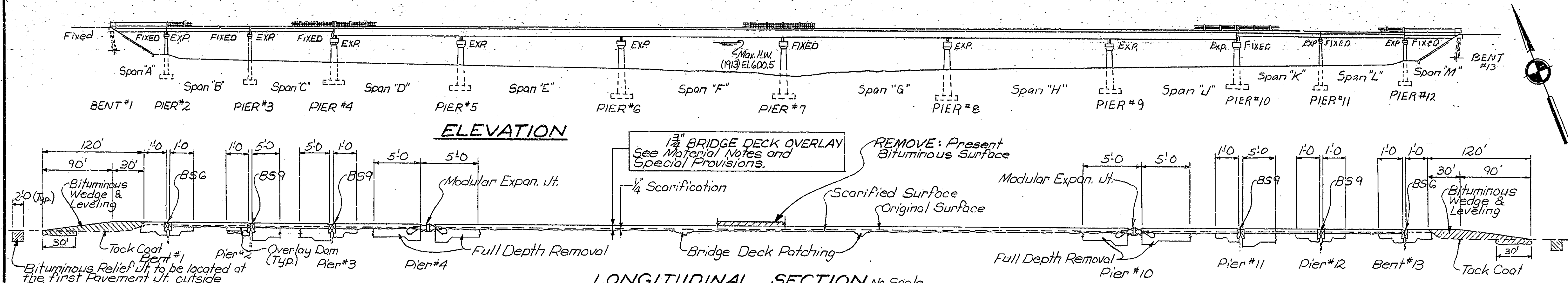
BRIDGE FILE: 39-55-3108 B

DRAWING NO. 525 2119.3

DESIGNED	CKD
DRAWN	CKD
TRACED	CKD



NOTE: STRUCTURE BUILT TO A 100' V.C.



**PLAN**

**GENERAL NOTES**

- Plans for this structure are on file in the Central Office as Bridge File 39A-310B and 310A 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 handchipping 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 PERFECTLY SOUND CONCRETE is exposed. All existing deck patches are to be removed.
- The boundaries of full depth removal areas shall be saw cut. All saw cuts for full depth removals and curb patching shall be made to a minimum depth of 1 inch below original surface or to the top of reinforcing if cover is less than 1 inch.
- Concrete in patches for deteriorated deck areas below scarified depth to be Mod. P.C. Concrete or Special Class A Concrete. See Special Provisions.
- See Special Provisions for composition of concrete in Overlay Dams.
- Concrete in full depth removal areas to be Class A.
- All bituminous material required in this contract to be included in the pay item Bituminous Mixture for Approaches, except Tack Coat to be paid for as separate item.
- Seal all joints and cracks in the approach pavement with a hot poured joint sealer before placing the bituminous wedge. The cost of sealing is to be included in the cost of other items in the contract.
- Modular Expansion Joint must have a minimum expansion capacity of 5.2 inches and a maximum support depth of 10 inches. See Special Provisions.
- The cost of removing, storing and replacing railing panels (as required to replace concrete posts) will, that be

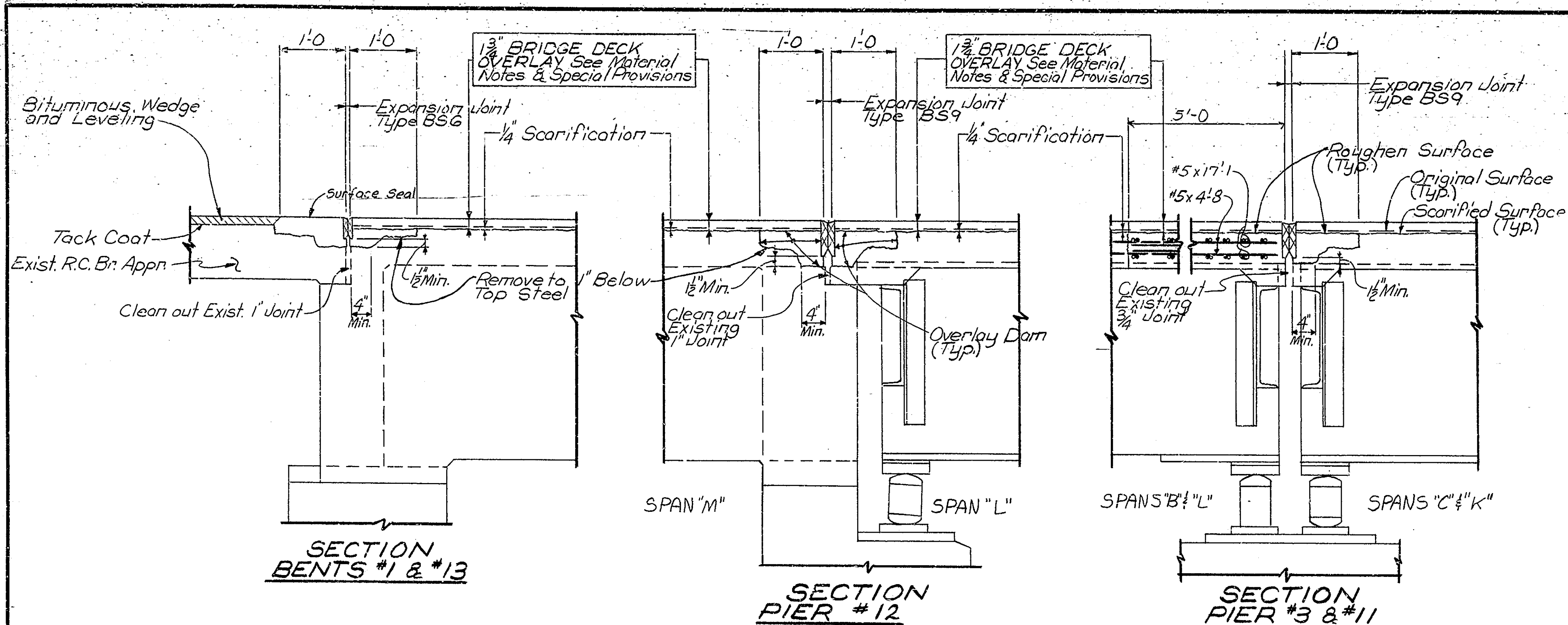
STANDARD DRAWINGS		
BR. STD.	RD. STD.	PURPOSE
CI		Reinforcing Bar Notes
DI		Adjusting Frame for Roadway Drain
	Sht. 9	Traffic Sign Details
	GR 2	Guard Rail Class Bs
	GR 8	Guard Rail, Class Ds
	GR 10A	Guard Rail End Treatment
	Sht. CB-2	Temporary Conc. Barrier
	Sht. 2	Detour Signs
	Sht. 3A	Detour Signs
	Sht. 4	Detour Signs
	Sht. 5	Sign Design Details

**GENERAL PLAN**  
**DECK RECONSTRUCTION & OVERLAY**  
 CONTINUOUS STEEL PLATE GIRDER  
 STEEL BEAM AND R.C. GIRDER BRIDGE  
 12 Spans: 40'-0", 2@65'-0", 100'-0", 4@130'-0", 100'-0", 2@65'-0", 40'-0"  
 28'-0" Roadway  
 OVER Wes. Fork of White River  
 2'-2" Walks ON S.R. 39

**INDIANA STATE HIGHWAY COMMISSION**  
 MORGAN COUNTY

SCALE: As Noted DATE: January 26, 1979  
 SUBMITTED FOR APPROVAL: *Walter P. ...*

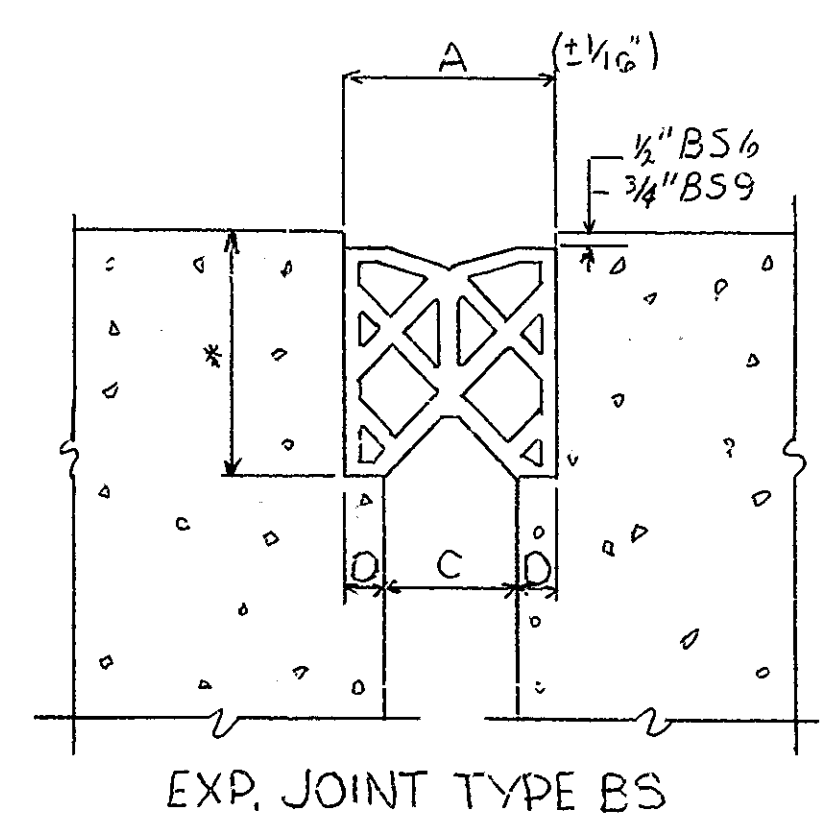
DRAWING: R1 OF 8 SHEET: 6 OF 25  
 PROJECT: ST-4555(A)  
 CONTRACT NO. B-11930



- ### TRAFFIC PROCEDURE
1. Construct Bituminous Widening and maintain alternate one way traffic with signals.
- PHASE I**
- A. MAINTAIN TRAFFIC on South Half of Bridge (East End)
  - B. CONSTRUCTION: Complete Construction on East end of North Half of Bridge and Approaches.
- PHASE II**
- A. MAINTAIN TRAFFIC on North Half of Bridge (East End)
  - B. CONSTRUCTION: Complete Construction on East end of South Half of Bridge and Approaches.
- PHASE III**
- A. MAINTAIN TRAFFIC on North Half of Bridge (West End)
  - B. CONSTRUCTION: Complete Construction on West end of South Half of Bridge and Approaches.
- PHASE IV**
- A. MAINTAIN TRAFFIC on South Half of Bridge (West end)
  - B. CONSTRUCTION: Complete Construction on West end of North Half of Bridge and Approaches.

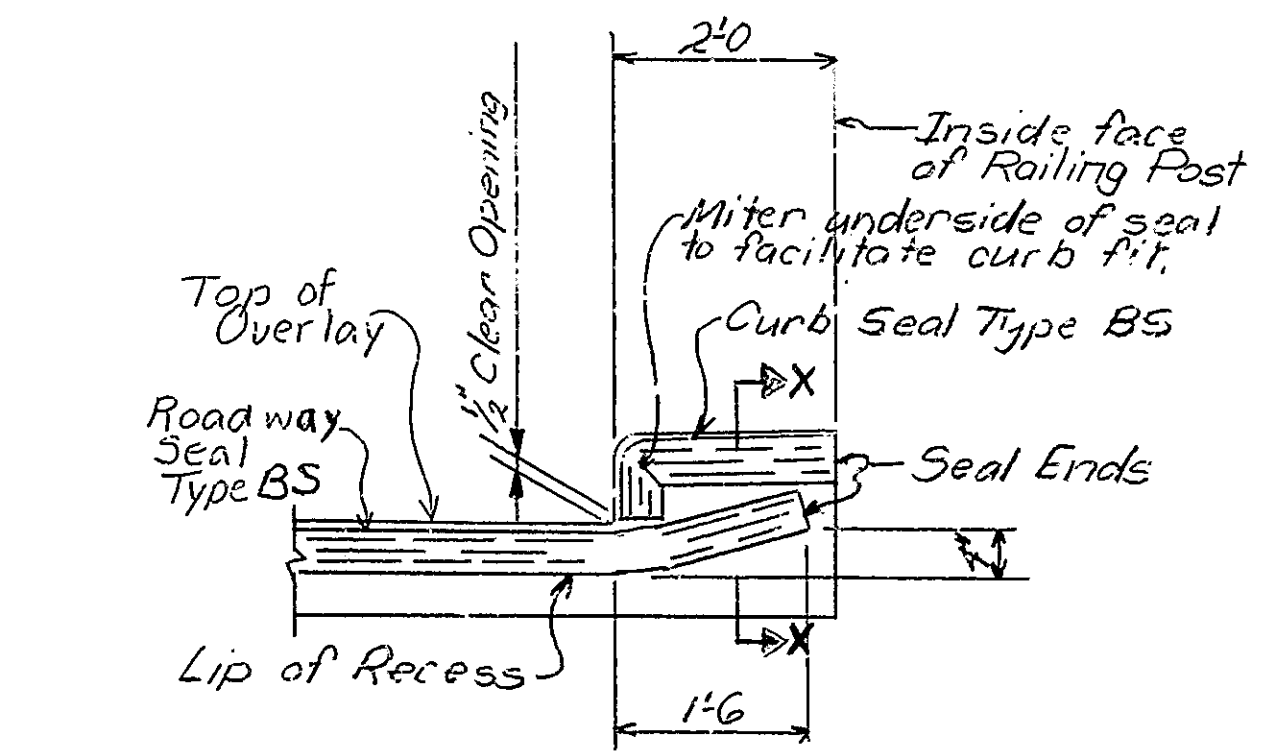
- ### CONSTRUCTION PROCEDURE
1. Remove the existing bituminous overlay. Remove the floor slab full depth and concrete for overlay dams as shown on details.
  2. Scarify the remaining bridge floor and portions of the R.C. Bridge Approach to a depth of 1/4 inch. Scarify additional areas of the bridge floor an additional 1/4 inch as directed by the Engineer. Remove scarified dust.
  3. Remove all existing deck patches and all deteriorated concrete below the level of scarification and remove concrete around reinforcing and along curbs inaccessible to scarifying equipment by hand chipping and cleaning in accordance with the Special Provisions.
  4. Repair the full depth slab removal areas and Overlay Dams to level of scarification as shown on plans.
  5. Blast and clean all repoured deck areas and all removal and scarified areas.
  6. Place the Bridge Deck Patching and Bridge Deck Overlay as shown on the Plans and in accordance with the Special Provisions. Install Expansion Joints.
  7. Clean and surface seal the tops of overlay dams on the approach, the curbs, walks, railings, posts, coping and faces of outside concrete girders as shown on plans.
  8. Construct pavement relief joints, bituminous wedges, and 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.  
Pneumatic hammers 30 pounds maximum weight to be used for removal.

- ### MATERIAL NOTES
- BRIDGE DECK OVERLAY**  
1 3/4" Modified Portland Cement Concrete Overlay (See Special Provisions)
- \* **BITUMINOUS WEDGE & BITUMINOUS LEVELING**  
Hot Asphaltic Concrete Surface Type 11B  
OR  
Hot Asphaltic Concrete Surface Type 11B OVER  
HAC or HAE Binder
- BITUMINOUS RELIEF JOINT**  
110#SY Hot Asphaltic Concrete Surface Type 11B OVER  
OR  
1870#SY Hot Asphaltic Concrete Base  
OR  
1870#SY Hot Asphaltic Emulsion Base
- BITUMINOUS WIDENING**  
990#SY Hot Asphaltic Concrete Base 5D  
OR  
990#SY Hot Asphaltic Emulsion Base 5D



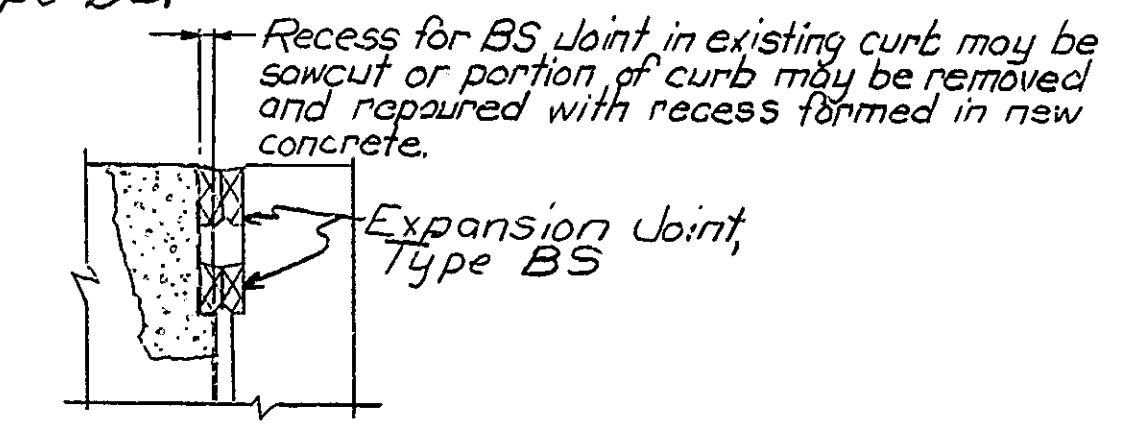
\*To be determined in the field, see the Special Provisions.

Bridge Seal	A	C	D
BS 6	1 5/8"	7/8"	3/8"
BS 9	2 5/8"	1 5/16"	1/2"

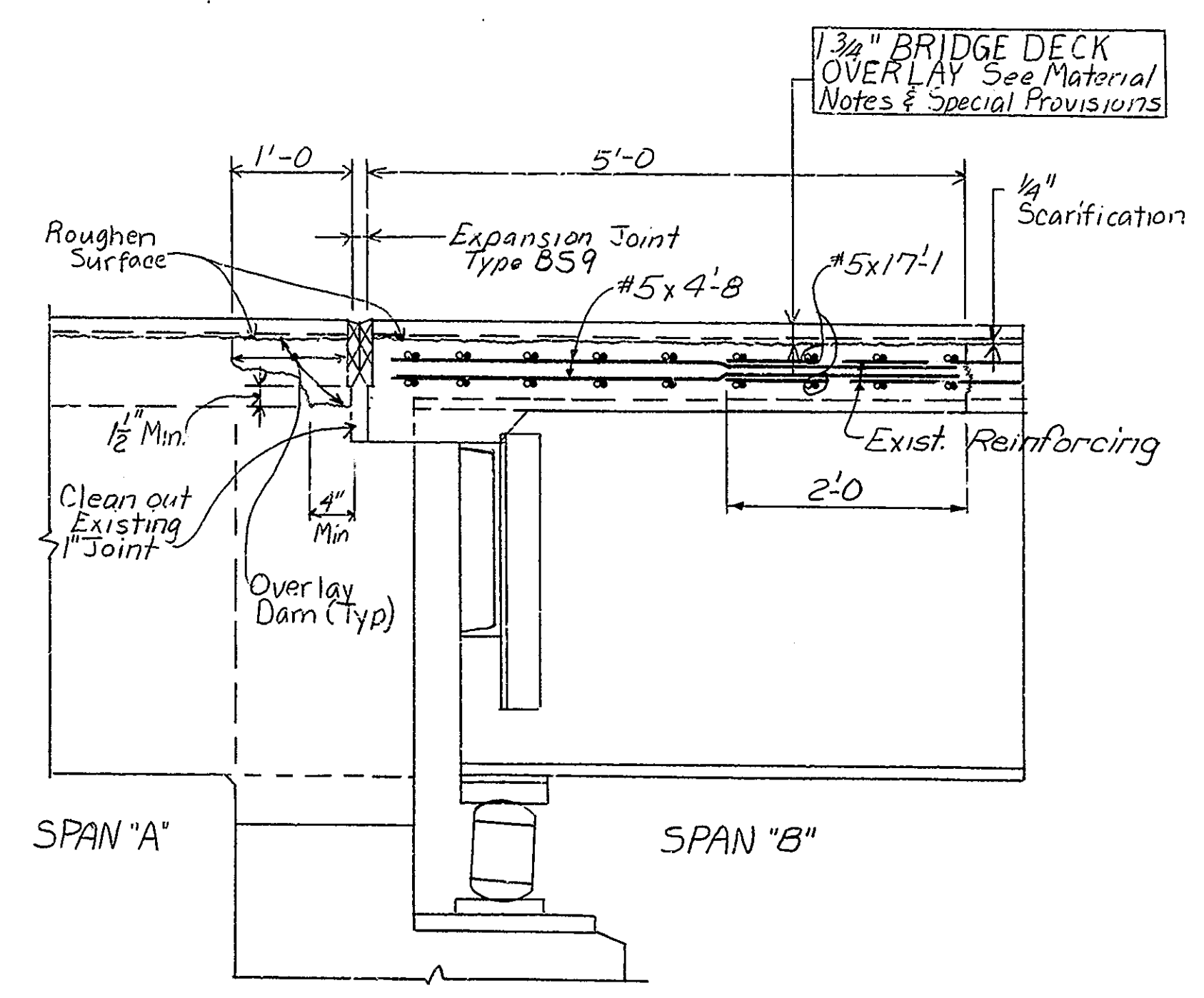


TYPICAL BS JOINT INSTALLATION AT CURBS No Scale

Clean out and rebuild existing curb and walk joints to accommodate joint seal. Such work to be included in cost of Expansion Joint Type BS.



SECTION X-X No Scale



SECTION PIER #2

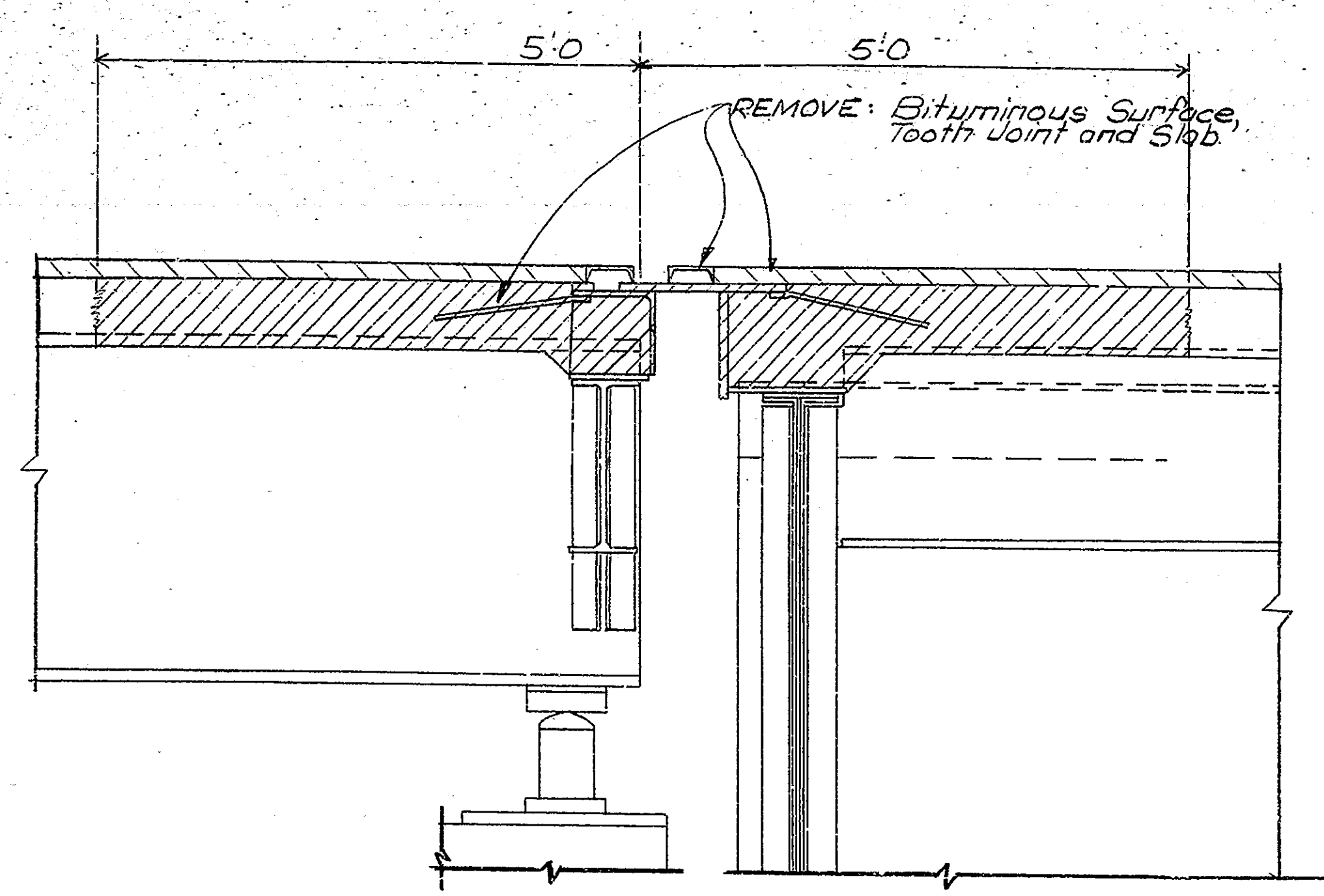
\* The maximum depth of Bituminous Surface Type 11B shall not exceed 1 1/2 inches. At all locations where the total wedge thickness will exceed 1 1/2 inches bituminous binder shall be placed as a first course 1/2 inch of finished grade.

## INDIANA STATE HIGHWAY COMMISSION

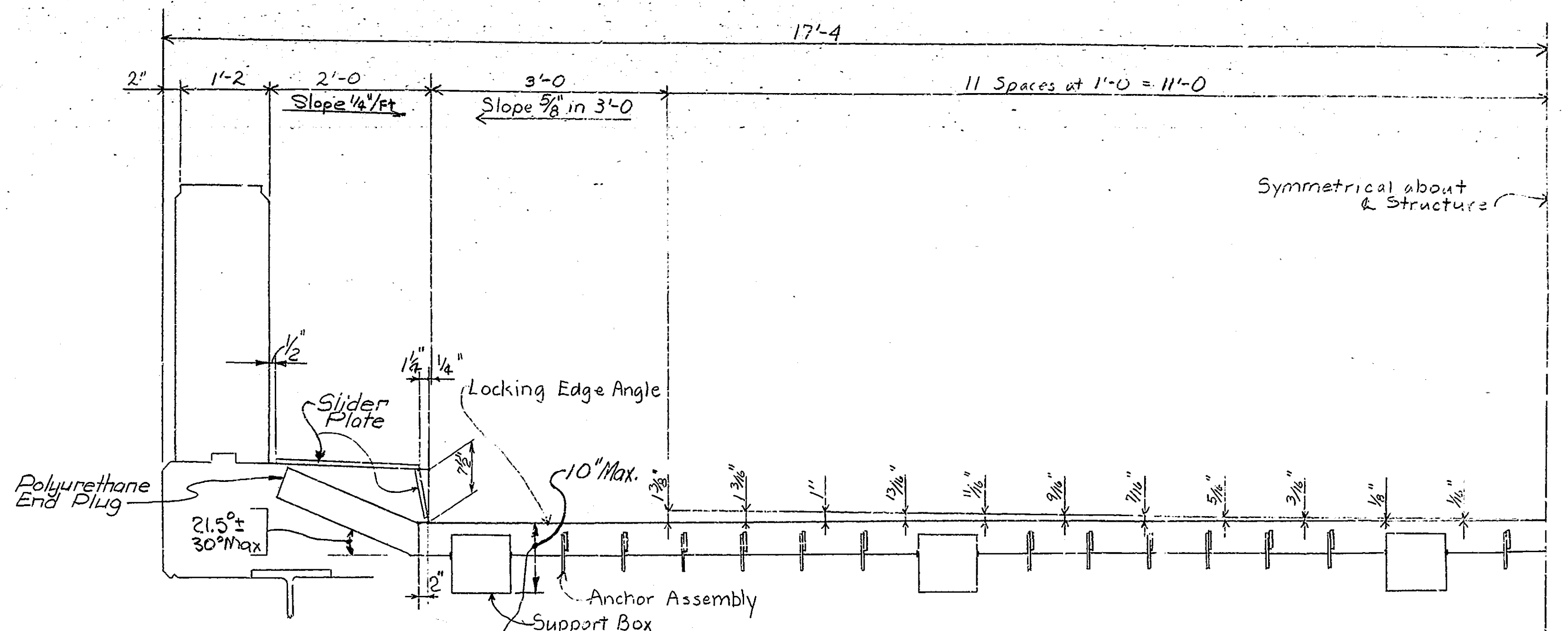
SCALE: 1" = 1'-0"  
DATE: January 26, 1979  
SUBMITTED FOR APPROVAL: *Walter M. ...*  
DRAWING: #2 OF 8 SHEET: 7 OF 25  
PROJECT: ST-4555 (A)  
CONTRACT NO. B-11990  
BRIDGE FILE: 39-55-31088

BRUNNIG 40 5253 241 18-3

DESIGNED: C.K.D.  
DRAWN: C.K.D.  
TRACED: C.K.D.

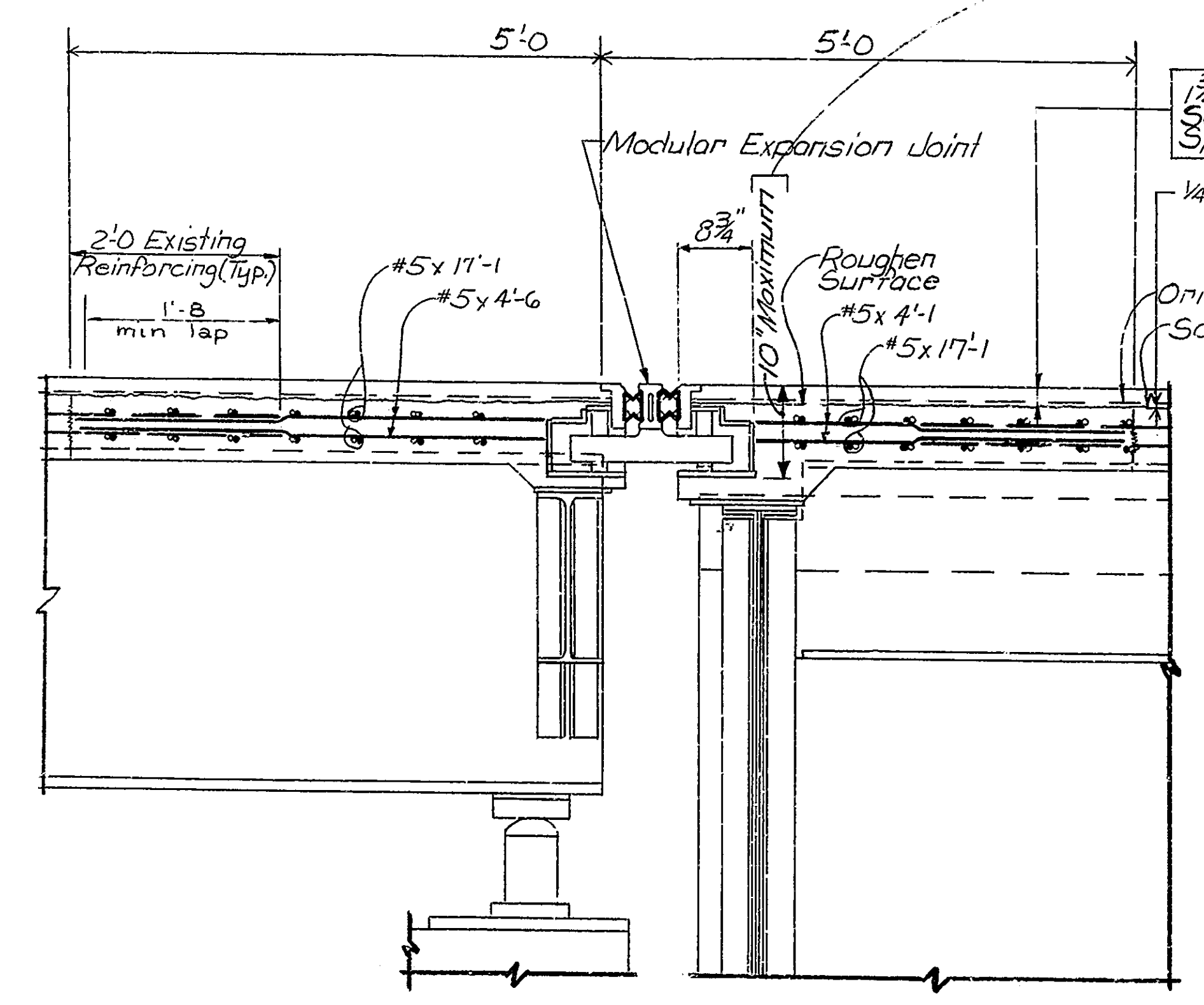


**PIER NO. 5 & 10 REMOVAL**

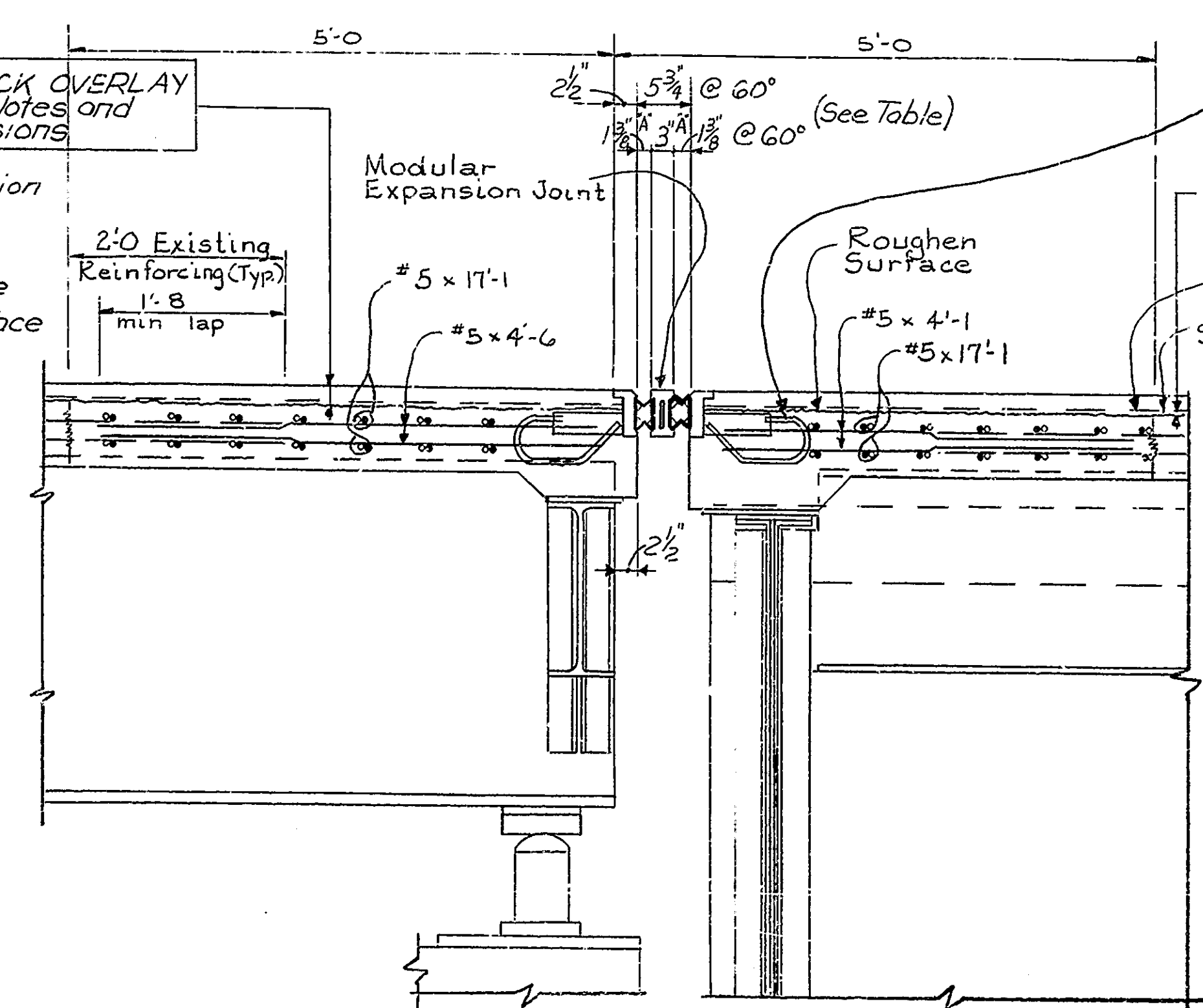


**MODULAR JOINT & PAVEMENT OFFSETS**

**10" MAXIMUM**



**PIER NO. 4 & 10 AT SUPPORT BOX**



**PIER No 4 & 10 SECTION BETWEEN SUPPORT BOXES**

**TABLE JOINT OPENING "A"**

0°	20°	40°	60°	80°	100°	120°
2 1/8"	1 1/8"	1 3/8"	1 3/8"	1 1/2"	1 1/2"	3/8"

**DETAILS INDIANA STATE HIGHWAY COMMISSION**

SCALE: 1/2" = 1'-0" DATE: January 26, 1979

SUBMITTED FOR APPROVAL:

*Walter M. Beaman*

DRAWING: R3 OF 8 SHEET: 3 OF 25

PROJECT: ST-4555 (A)

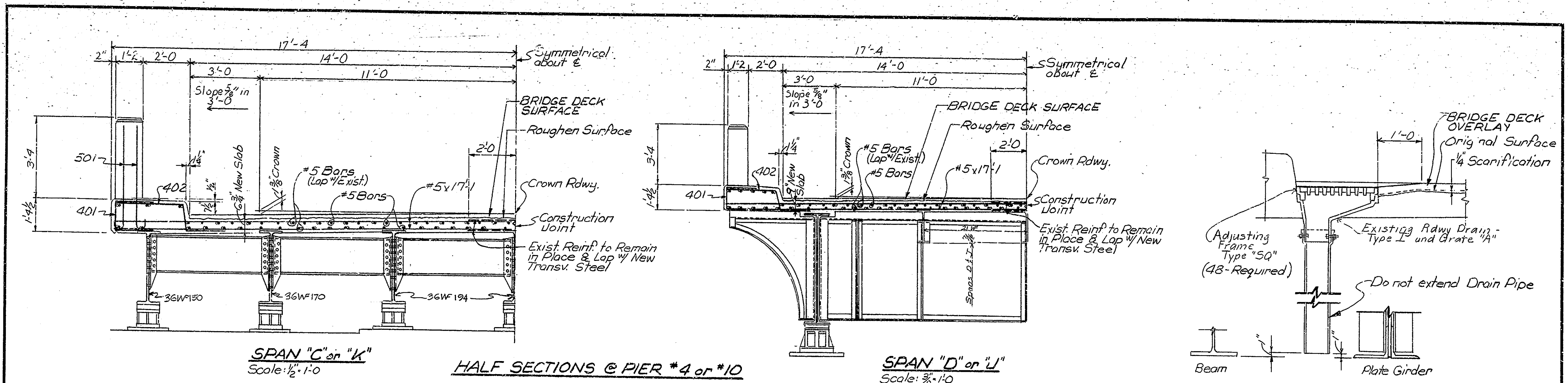
CONTRACT NO. E-11990

BRIDGE FILE: 22-55-2-222

BRUNING 405253 24199-3

DESIGNED	CKD
DRAWN	CWC
TRACED	CKD

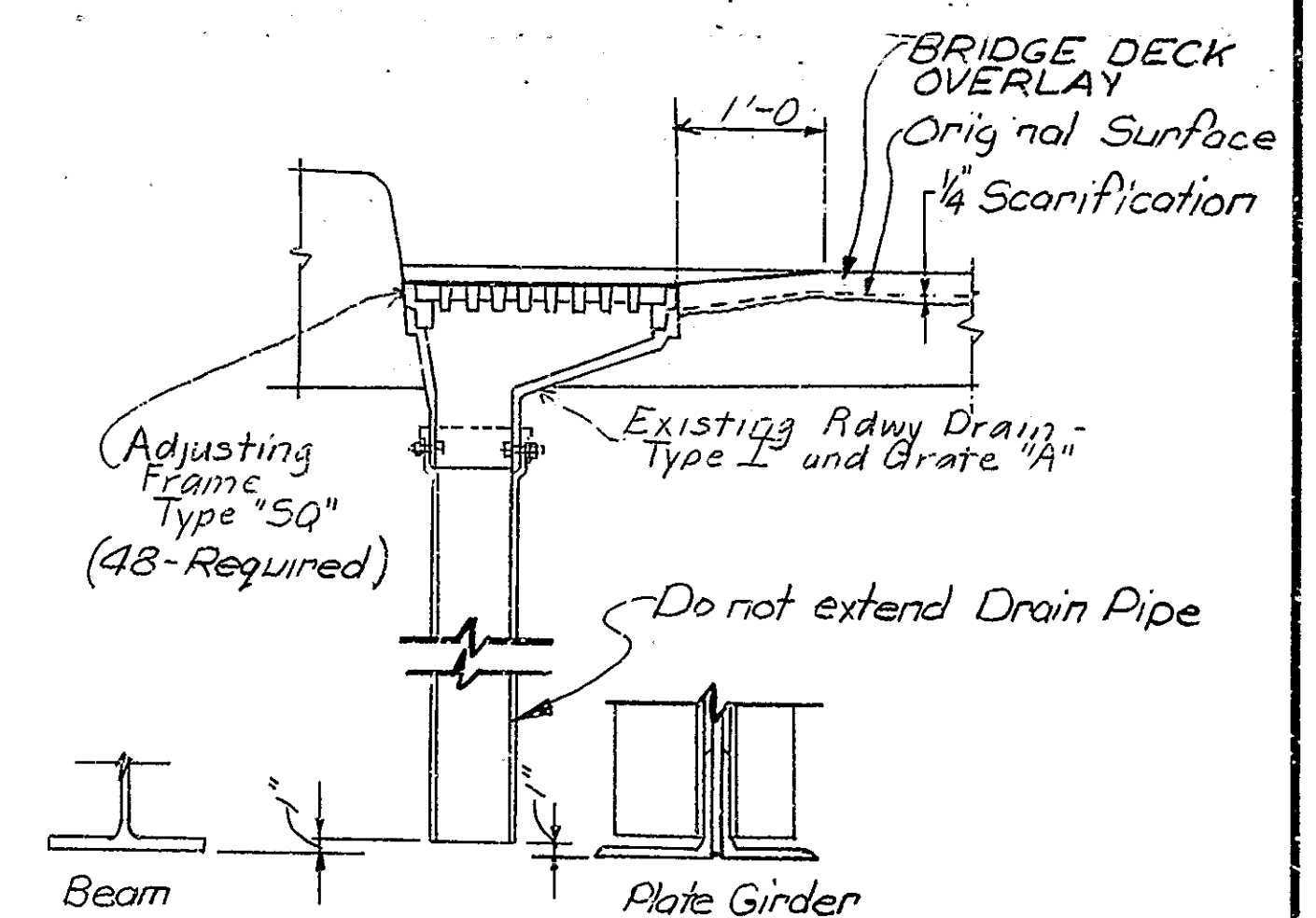




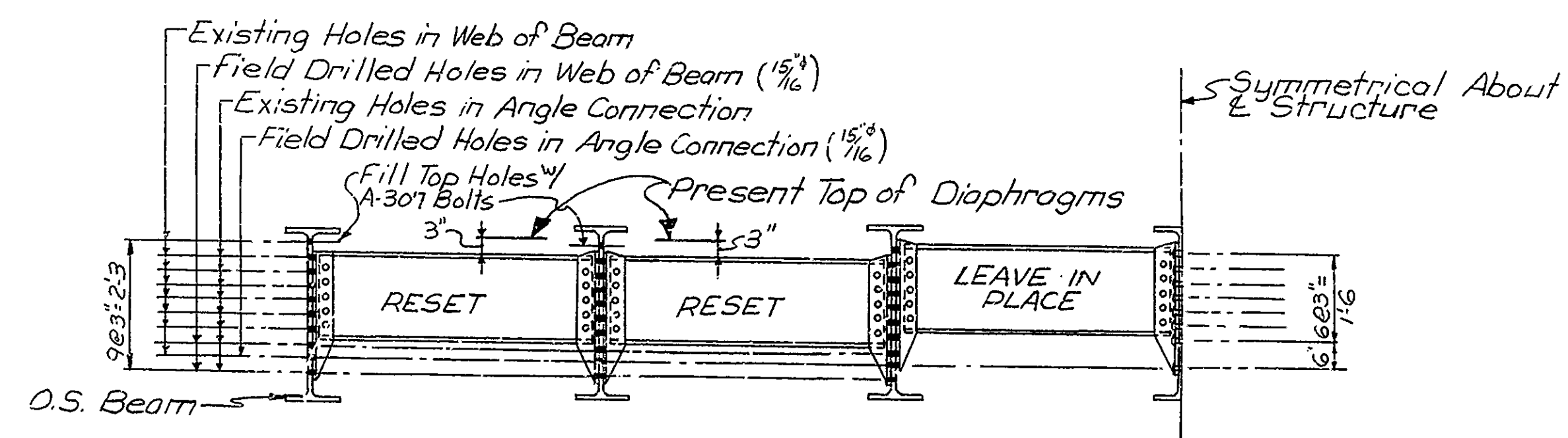
SPAN "C" or "K"  
Scale: 1/2" = 1'-0"

HALF SECTIONS @ PIER #4 or #10

SPAN "D" or "L"  
Scale: 3/8" = 1'-0"



ROADWAY DRAIN  
ADJUSTING CASTING



RESET DIAPHRAGMS  
SPANS "C" & "K" AT PIERS #4 & #10

**SUMMARY**  
 Reset Diaphragms = 8 EA.  
 Includes:  
 88 Field Drilled Holes  
 224 High Strength Bolts  
 16 A-307 Bolts  
 Rivets Removed = 192 EA.

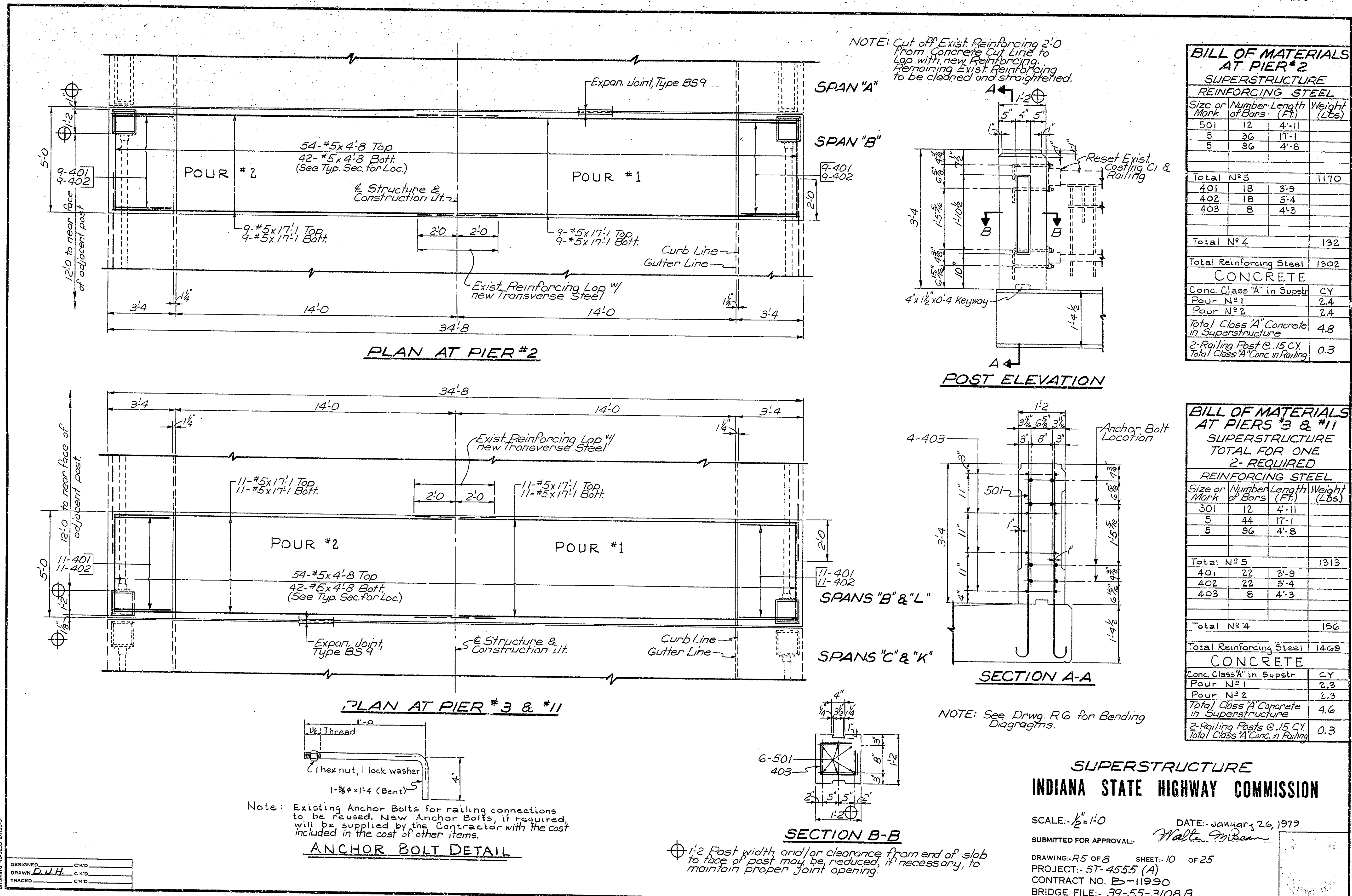
**SUPERSTRUCTURE  
 INDIANA STATE HIGHWAY COMMISSION**

SCALE: As NOTED DATE: January 26, 1979  
 SUBMITTED FOR APPROVAL: *Walter M. [Signature]*

DRAWING: R4 OF 8 SHEET: 9 OF 25  
 PROJECT: ST-4555 (A)  
 CONTRACT NO. B-11990  
 BRIDGE FILE: 39-55-3108 B

BRUNING 40-5285 2475-93

DESIGNED	CKD
DRAWN	D.W.H. CKD
TRACED	CKD



NOTE: Cut off Exist. Reinforcing 2'-0" From Concrete Cut Line to Lap with new Reinforcing. Remaining Exist. Reinforcing to be cleaned and straightened.

**BILL OF MATERIALS AT PIER #2**

SUPERSTRUCTURE REINFORCING STEEL			
Size or Mark	Number of Bars	Length (Ft.)	Weight (Lbs.)
501	12	4'-11"	
5	36	17'-1"	
5	96	4'-8"	
Total N° 5			1170
401	18	3'-9"	
402	18	5'-4"	
403	8	4'-3"	
Total N° 4			132
Total Reinforcing Steel 1302			
CONCRETE			
Conc. Class 'A' in Supstr			CY
Pour N° 1			2.4
Pour N° 2			2.4
Total Class 'A' Concrete in Superstructure			4.8
2-Railing Post @ .15 CY			0.3
Total Class 'A' Conc. in Railing			

**BILL OF MATERIALS AT PIERS #3 & #11**

TOTAL FOR ONE 2- REQUIRED

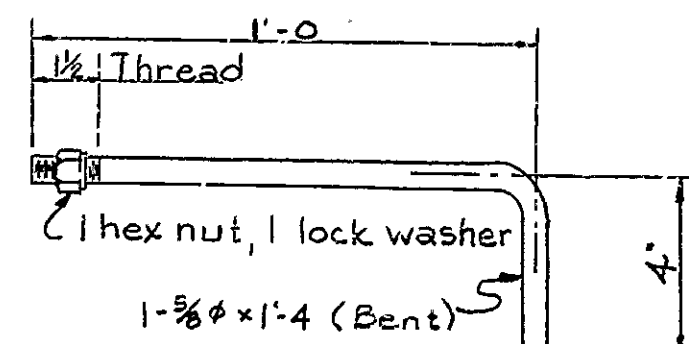
SUPERSTRUCTURE REINFORCING STEEL			
Size or Mark	Number of Bars	Length (Ft.)	Weight (Lbs.)
501	12	4'-11"	
5	44	17'-1"	
5	96	4'-8"	
Total N° 5			1313
401	22	3'-9"	
402	22	5'-4"	
403	8	4'-3"	
Total N° 4			156
Total Reinforcing Steel 1469			
CONCRETE			
Conc. Class 'A' in Supstr			CY
Pour N° 1			2.3
Pour N° 2			2.3
Total Class 'A' Concrete in Superstructure			4.6
2-Railing Posts @ .15 CY			0.3
Total Class 'A' Conc. in Railing			

**SUPERSTRUCTURE INDIANA STATE HIGHWAY COMMISSION**

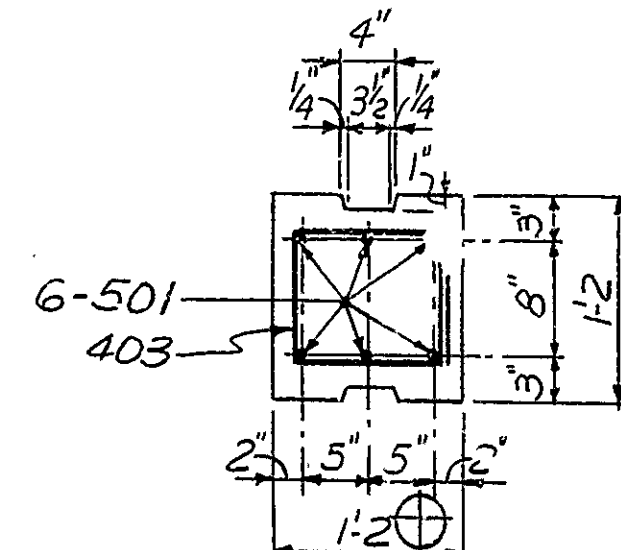
SCALE: 1/2" = 1'-0"  
 DATE: January 26, 1979  
 SUBMITTED FOR APPROVAL: *Walter M. ...*  
 DRAWING: R5 OF 8 SHEET: 10 OF 25  
 PROJECT: ST-4555 (A)  
 CONTRACT NO. B-11990  
 BRIDGE FILE: 39-55-3108 B

Note: Existing Anchor Bolts for railing connections to be reused. New Anchor Bolts, if required, will be supplied by the Contractor with the cost included in the cost of other items.

**ANCHOR BOLT DETAIL**



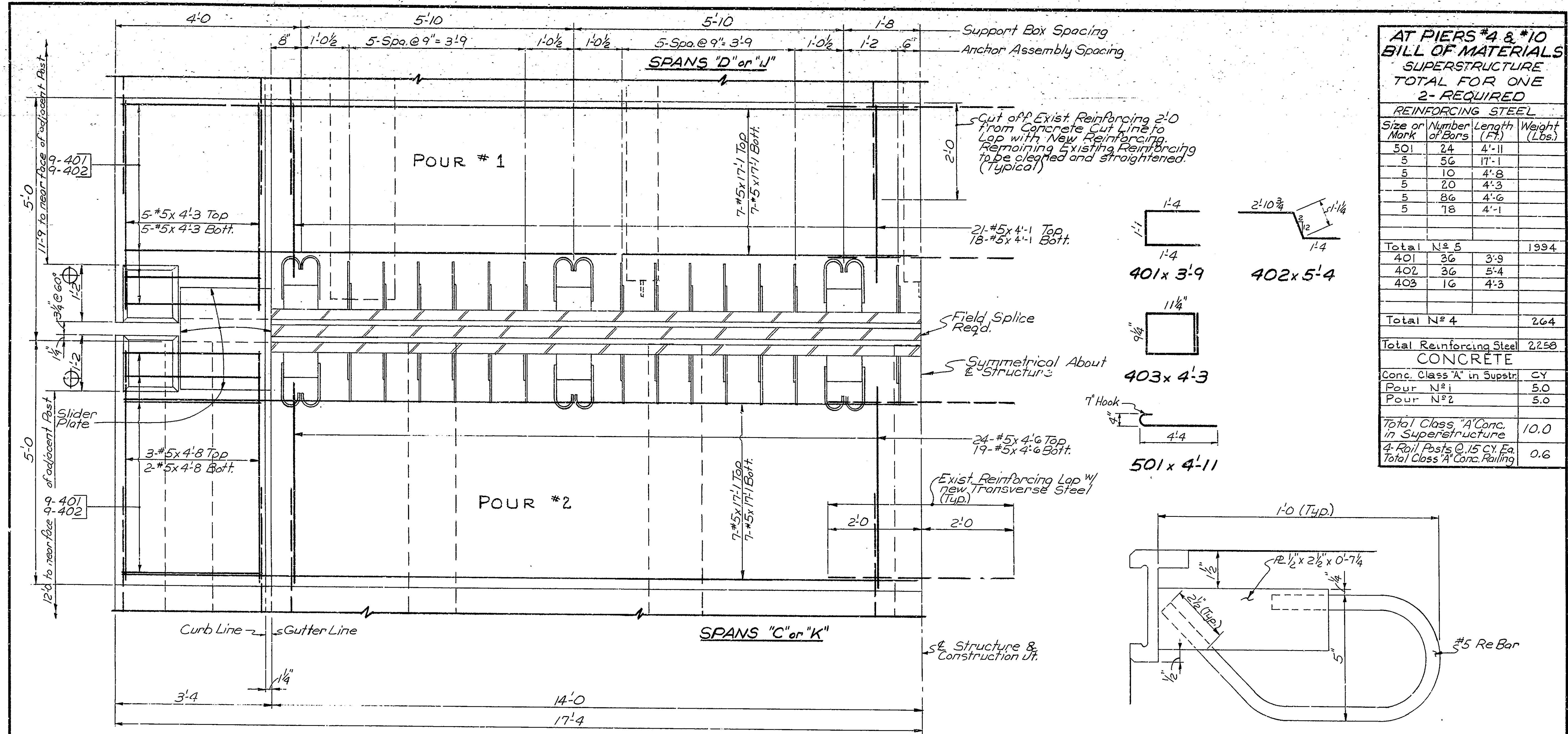
1/2" Post width and/or clearance from end of slab to face of post may be reduced, if necessary, to maintain proper joint opening.



NOTE: See Drwg. R6 for Bending Diagrams.

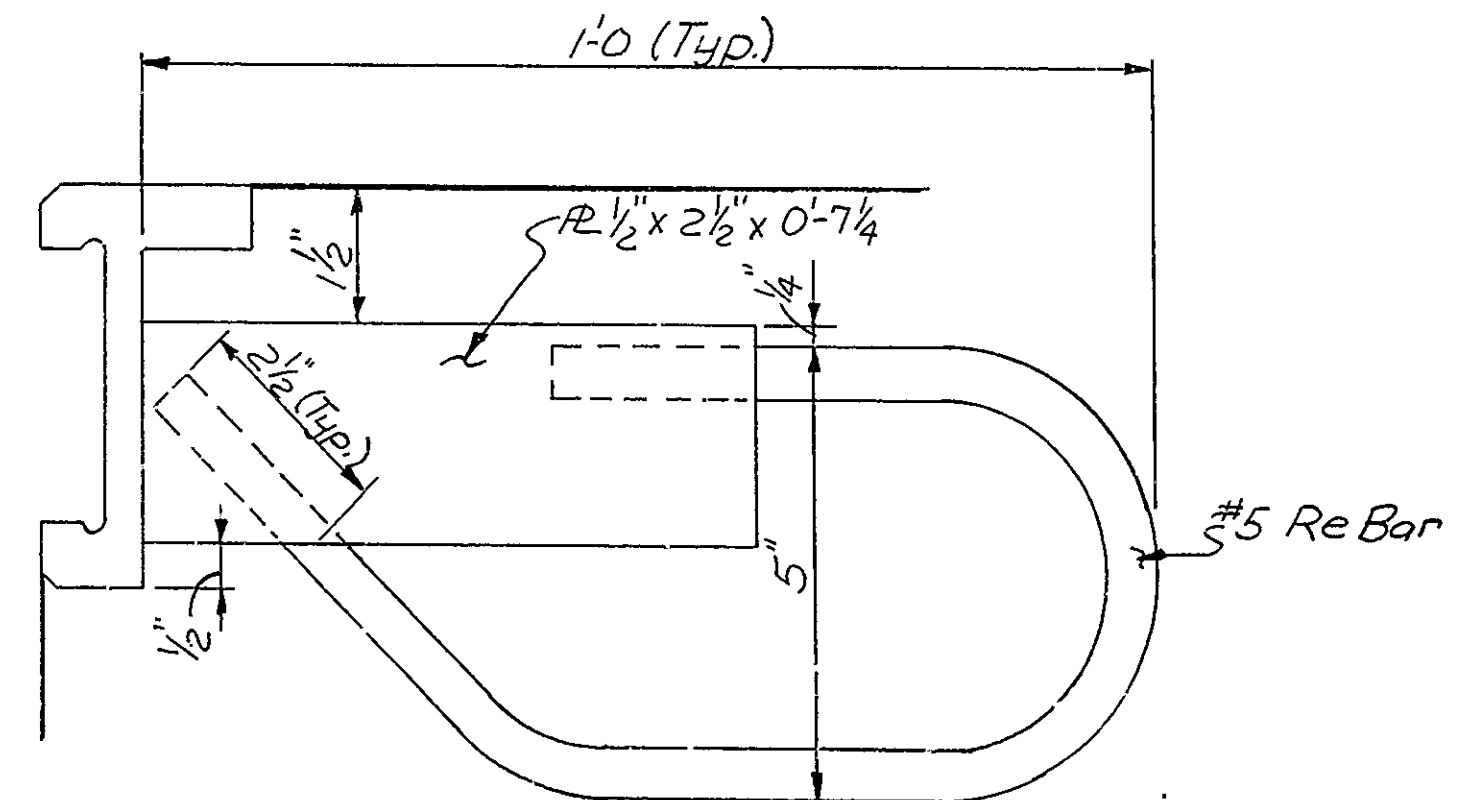
BRUNING 40-5533 24139-3

DESIGNED	CKD
DRAWN	D.W.H. CKD
TRACED	CKD



**AT PIERS #4 & #10  
BILL OF MATERIALS  
SUPERSTRUCTURE  
TOTAL FOR ONE  
2- REQUIRED**

REINFORCING STEEL			
Size or Mark	Number of Bars	Length (Ft.)	Weight (Lbs.)
501	24	4'-11"	
5	56	17'-1"	
5	10	4'-8"	
5	20	4'-3"	
5	86	4'-6"	
5	78	4'-1"	
Total No 5			1994
401	36	3'-9"	
402	36	5'-4"	
403	16	4'-3"	
Total No 4			264
Total Reinforcing Steel			2258
CONCRETE			
Conc. Class "A" in Superstr.			CY
Pour N°1			5.0
Pour N°2			5.0
Total Class "A" Conc. in Superstructure			10.0
4-Rail Posts @ .15 CY Ea.			
Total Class "A" Conc. Railing			0.6



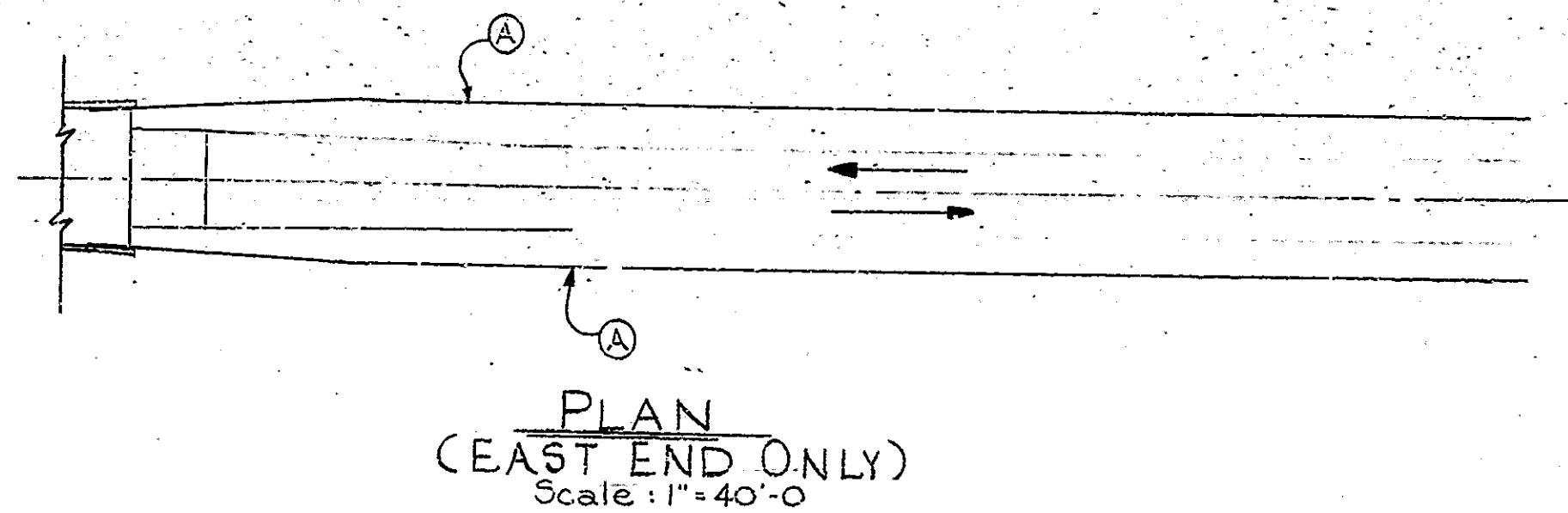
**HALF PLAN AT PIERS #4 & #10**  
 ⌀ 1'-2" Post width shown may be reduced, if necessary, to insure proper joint opening.

**SUPERSTRUCTURE  
INDIANA STATE HIGHWAY COMMISSION**

SCALE: 1/2" = 1'-0"  
 DATE: January 26, 1919  
 SUBMITTED FOR APPROVAL: *Walter M. Beaman*  
 DRAWING: RG OF 8 SHEET: 11 OF 25  
 PROJECT: 57-4555 (A)  
 CONTRACT NO. B-11990  
 BRIDGE FILE: 39-55-3108 B

BRUNING 40-5252 24139-3

DESIGNED	CK'D
DRAWN	CK'D
TRACED	CK'D

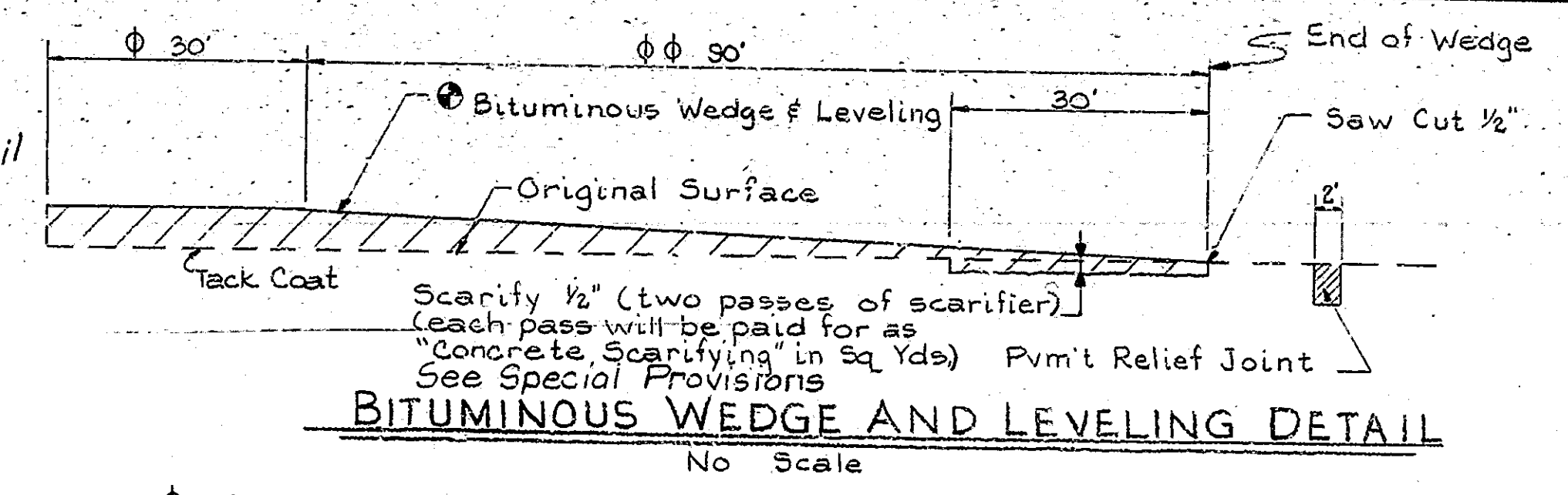


**GUARD RAIL**

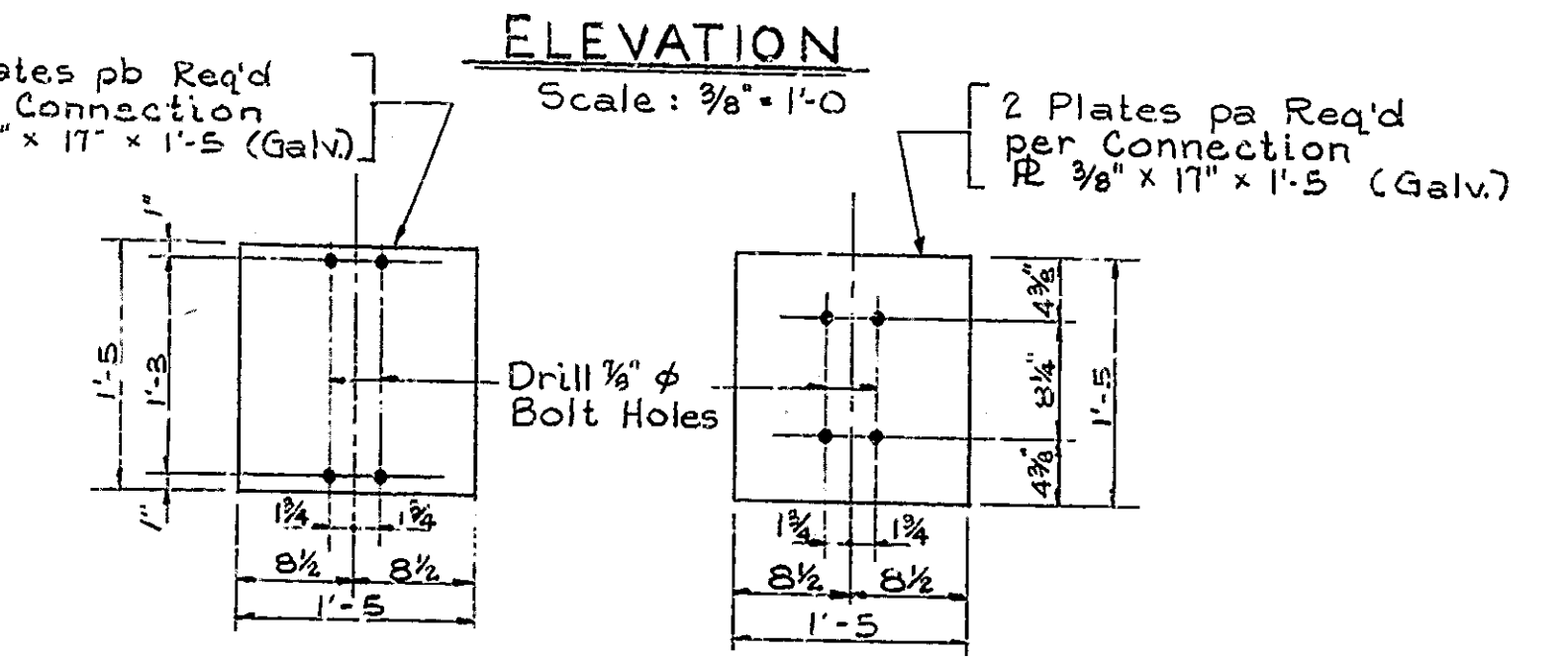
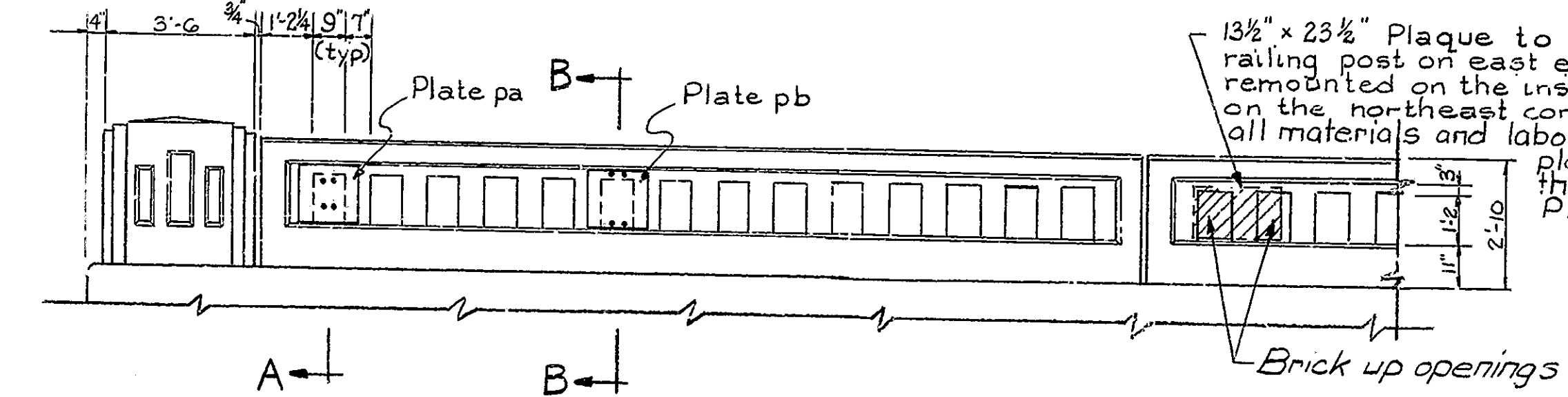
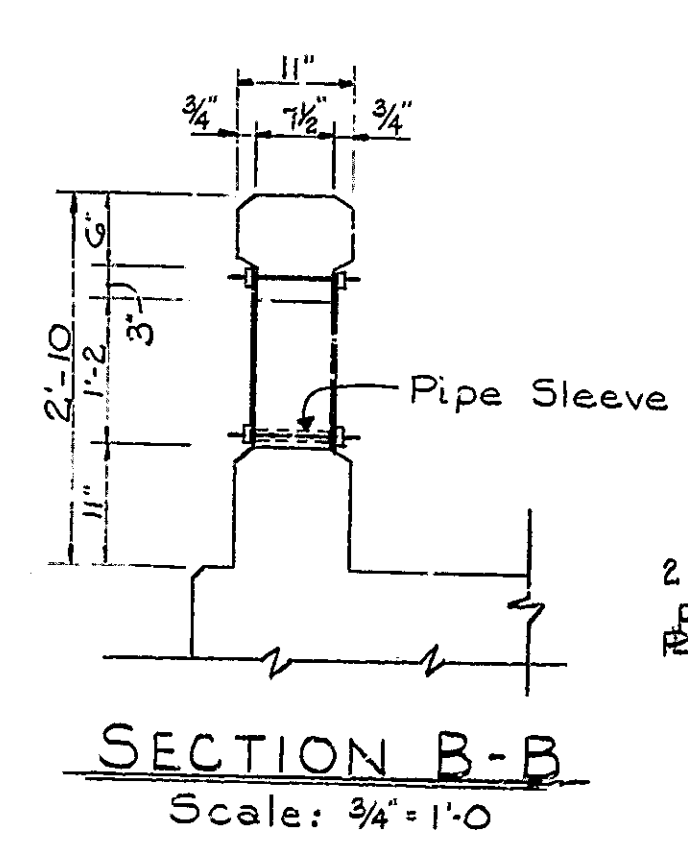
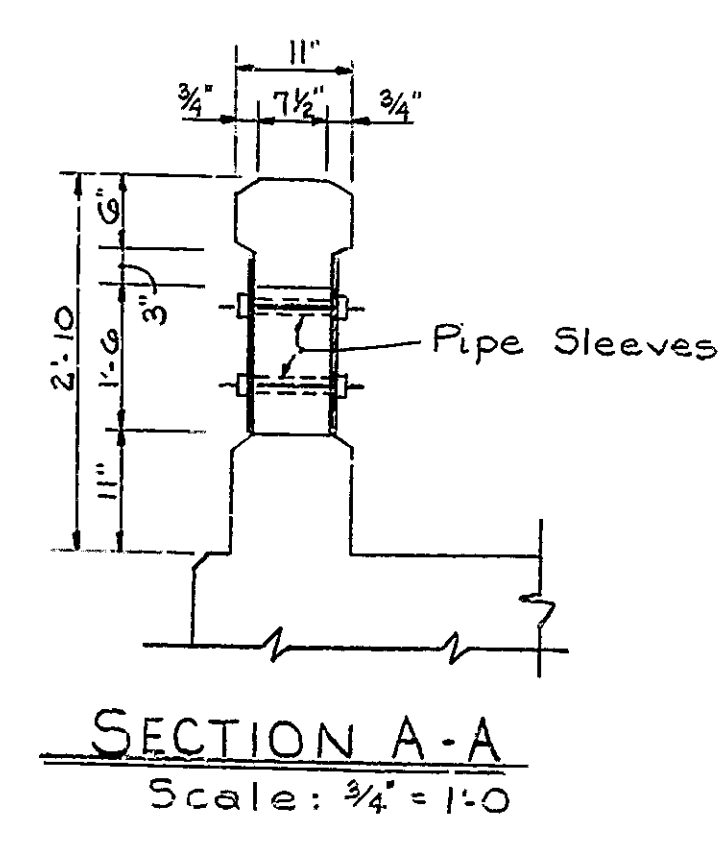
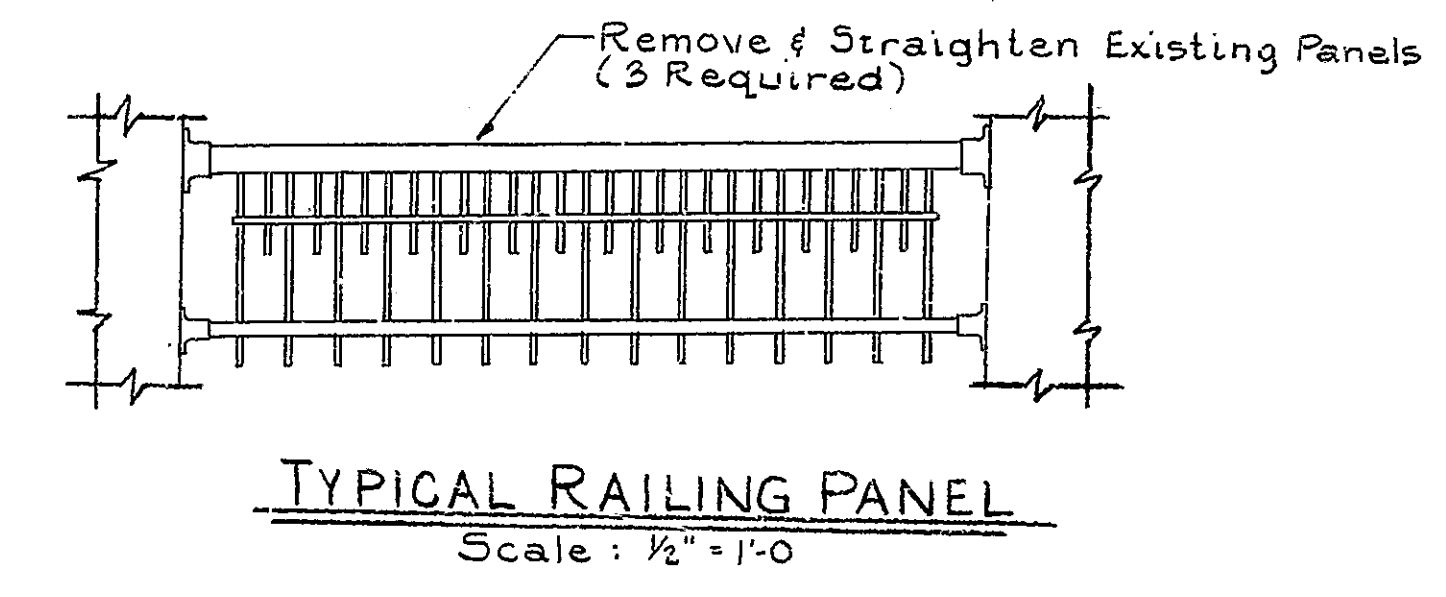
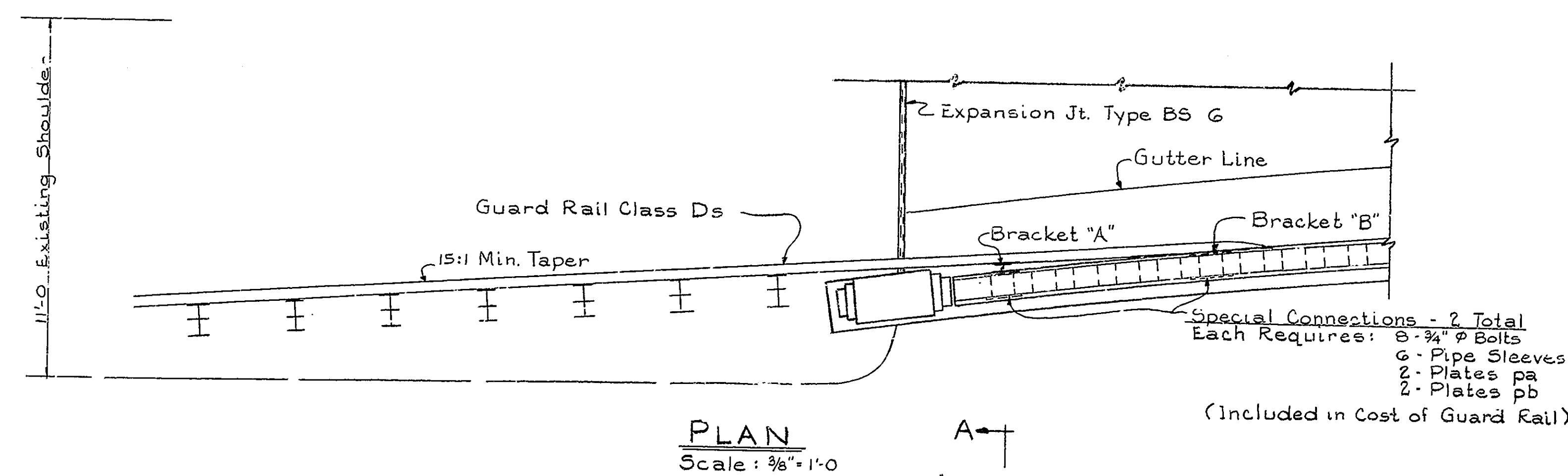
Ⓐ x 2 Remove 490' Present Guard Rail  
Install 102.5' Guard Rail Class Ds,  
350' Guard Rail Class Bs, Plus one Guard Rail  
End Treatment

**GUARD RAIL SUMMARY**

980' - Guard Rail Removal  
205' - Guard Rail Class Ds  
700' - Guard Rail Class Bs  
2 Ea - Guard Rail End Treatment



$\phi$  Wedge to be a continuation of bridge deck profile  
 $\phi$  Taper wedge uniformly to meet existing roadway surface  
Tack Coat to be paid for as "Bituminous Material for Tack Coat" in Sq. Yds.  
The maximum depth of Bituminous Surface Type II B shall not exceed 1 1/2 inches.  
At all locations where the total wedge thickness will exceed 1 1/2 inches, bituminous binder shall be placed as a first course to within one inch of finished grade



**DETAILS**  
**INDIANA STATE HIGHWAY COMMISSION**

SCALE:- As Noted DATE:- January 26, 1979  
SUBMITTED FOR APPROVAL:- *H. Allen J. Beaman*

DRAWING: R7 of 8 SHEET: 12 of 25  
PROJECT:- ST - 4555 (A)  
CONTRACT NO. B-11990

DESIGNED: CKD  
DRAWN: CKD  
TRACED: CKD

- A. Includes 327 SY for Concrete Approach Pavement
- B. Estimated quantity for patching concrete curbs and walks includes concrete removal, sawcuts, cleaning, reinforcing and epoxy bonding compound.
- C. 48 - Adjusting Frame Type "SQ" for Roadway Drains  
48 x 87 = 4176 lbs.
- D. Includes 500 lbs of #5 reinforcing as an undistributed quantity to replace badly corroded deck reinforcing
- E. Includes preparation of curbs and walks
- F. Includes removal of slab @ Piers #2, #3, #4, #10, #11
- G. All guard rail removal is to remain the property of the Indiana State Highway Commission
- H. Includes:
 

Bituminous Wedge & Leveling	119.0 Tons
Relief Joints	11.0 Tons
Bituminous Widening	77.0 Tons
	207.0 Tons

SUMMARY

CODENO	DESCRIPTION	UNIT	QUANTITY
A 51833	Concrete Scarifying	SY	3586
51840	Additional Concrete Scarifying	SY	652
51837	Blasting & Clearing	SY	3368
51843	Bridge Deck Patching	SF	12,124
51842	Bridge Deck Overlay	SY	3368
51838	Finishing & Curing	SY	3368
51874	Overlay Dam	SF	276
B 51875	Special Class A Concrete	SF	100
51870	Repointing Masonry in Structures	SF	90
51826	Surface Seal	SF	15,731
	Class "A" Concrete in Railing	CY	2.1
C 51110	Cast Iron, Grates, Basins and Fittings	LBS	4176
51001	Concrete Class A in Superstructure	CY	34.0
D 51030	Reinforcing Steel	LB	9256
E 51835	Expansion Joint Type B56	LF	84
E 51888	Expansion Joint Type B59	LF	144
	Modular Expansion Joint	LF	64
	Removal of Existing Bituminous Overlay	SY	3368
F 51328	Removal of Present Structure (Portions)	LS	1
	Reset Diaphragms	EA	8
	Rivets Removed	EA	192
52515	Guard Rail Type D	LF	205
52505	Guard Rail Type B	LF	700
G 52535	Removal of Guard Rail	LF	980
	Guard Rail End Treatment	EA	2
	Reset Memorial Plaque	EA	1
52831	Drilled Holes for Mudjacking	EA	12
52830	Material for Mudjacking	CY	6
H 52470	Bituminous Mixture for Approaches	TONS	207
	Bituminous Material for Tack Coat	SY	1031
	Straighten Railing Panels	EA	3
	Removal of Pavement	SY	11
52640	Maintaining Traffic	LS	1
52340	Construction Signs Type A	EA	26
52345	Construction Signs Type B	EA	5
	Signal Ahead Sign, Type W-14A	EA	4
	Temporary Concrete Barrier	LF	870
52366	Temporary Pavement Marking Tape	LF	2892
	Removal of Line, Solid White 4"	LF	1435
	Removal of Line, Solid Yellow 4"	LF	600
	Line, Solid White 4"	LF	2660
	Line, Solid Yellow 4"	LF	3370

SUMMARY  
INDIANA STATE HIGHWAY COMMISSION

SCALE: None DATE: January 26, 1979  
 SUBMITTED FOR APPROVAL: *H. A. M. [Signature]*  
 DRAWING: R8 of 8 SHEET: 13 of 25  
 PROJECT: ST-4555 (A)  
 CONTRACT NO. B-11990  
 BRIDGE FILE: 39-55-3108B

DESIGNED: CKD  
 DRAWN: CKD  
 TRACED: CKD

