CONTRACT No. B-14061

BRIDGES OVER 20' SPAN					
FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	IR-70-4(41)104	1981	1	29

STATE OF INDIANA

DEPARTMENT OF HIGHWAYS

BRIDGE PLANS

FOR SPANS OVER 20 FEET
ON
STATE ROAD NO. 9 & 209

PROJECT NO. IR-70-4(41)104

DECK RECONSTRUCTION AND OVERLAY FOR BRIDGE ON S.R. 9 OVER I-70
ALL IN SECTION 20, T.16N., R.7E. IN HANCOCK COUNTY

DECK RECONSTRUCTION AND OVERLAY FOR BRIDGE ON OLD S.R. 209
(Co. Rd. 600E.) OVER I-70
ALL IN SECTION 19, T.16N., R.8E. IN HANCOCK COUNTY

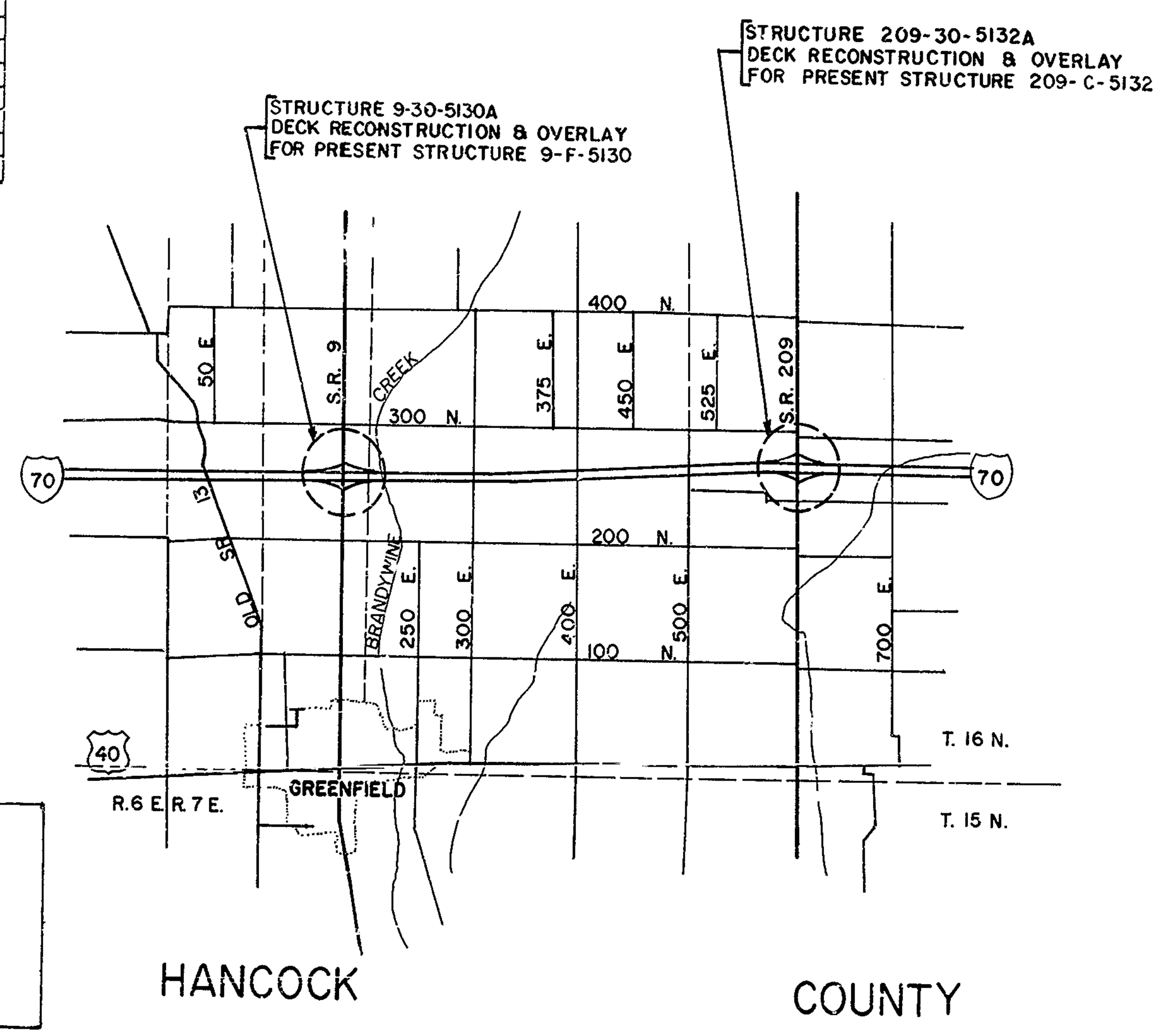
INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
IR-70-4(41)104	9-30-5130A 209-30-5132A	DECK RECONSTRUCTION AND OVERLAY	40'-0, 2@65'-0, 40'-0 40'-0, 2@65'-2, 40'-0	I-70 I-70	

SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL
1		TITLE SHEET & INDEX	
2		TRAFFIC MAINTENANCE (5130A)	
3		TRAFFIC MAINTENANCE	
4		LAYOUT (5132A)	
5	D1	GENERAL PLAN (5130A)	
6	D2	DETAILS	
7	D3	SUPERSTRUCTURE	
8	D4	GENERAL PLAN (5132A)	
9	D5	DETAILS (5130A & 5132A)	
~~10~~	~~D6~~	~~IMPACT ATTENUATOR~~	
11	D7	SUMMARY	

NOTE:
WHEREVER "INDIANA STATE HIGHWAY COMMISSION" APPEARS IN THESE PLANS, IT SHALL BE INTERPRETED AS "INDIANA DEPARTMENT OF HIGHWAYS" EXCEPT THE 1978 INDIANA STATE HIGHWAY COMMISSION SPECIFICATIONS SHALL BE USED.

TRAFFIC DATA	I-70	S.R. 9
A.D.T. (1978)	18,800	11,700 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		



PLANS PREPARED BY:

FLOYD E. BURROUGHS & ASSOC., INC.
CONSULTING ENGINEERS
INDIANAPOLIS, INDIANA

CERTIFIED *Walter McBean* DATE *OCTOBER 27, 1981*

INDEX CONTINUED
STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL	ADOPTED "A" REVISION "R"
12	BRIDGE STD. BR1	ALUMINUM BRIDGE RAILING		
13	BRIDGE STD. BR2	ALUMINUM BRIDGE RAILING DETAILS	12-16-80	R 11-3-80
	BRIDGE STD. BR3	STEEL BRIDGE RAILING	5-10-79	R 12-1-78
	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		
	BRIDGE STD. C2	MISCELLANEOUS DETAILS	12-21-81	R-12-7-81
15	BRIDGE STD. C3	MISCELLANEOUS DETAILS		
	BRIDGE STD. C4	MISCELLANEOUS DETAILS	12-21-81	R-12-7-81
	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD. PB	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. PB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS		
	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD. R2A	BRIDGE LIGHTING DETAILS		
	BRIDGE STD. R2B			
	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.			
	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	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MCI	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MD	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	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MO	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET			
	ROAD STD.	STANDARD REINF. CONCRETE BOX CULVERTS		
	ROAD STD.	STANDARD REINF. CONCRETE CULVERTS		
~~16~~	~~ROAD STD. SHEET GR10A~~	~~BREAKAWAY CABLE TERMINAL~~		
~~17~~	~~ROAD STD. SHEET GR2~~	~~GUARD RAIL CLASS ES~~		
~~18~~	~~ROAD STD. SHEET GR3~~	~~GUARD RAIL CLASS EA~~		
19	ROAD STD. SHEET GR5	ALUMINUM GUARD RAIL DETAILS		
20	ROAD STD. SHEET GR8	GUARD RAIL CLASS DS	5-21-82	R-4-1-82
21	ROAD STD. SHEET GR9	GUARD RAIL CLASS DA		R-4-1-82
~~22~~	~~ROAD STD. SHEET GR10~~	~~GUARD RAIL BURIED ENDS~~		R-4-1-82
23	ROAD STD. SHEET CB2	TEMPORARY CONCRETE BARRIER		
24	ROAD STD. SHEET 9	TRAFFIC SIGN DETAILS	6-3-81	R-4-1-81
25	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS		R-4-1-79
	ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS	10-18-82	R-9-1-82
	ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS		
26	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS		
27	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS	10-18-82	R-9-1-82
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS	8-30-82	R-7-1-82
28	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS	8-30-82	R-7-1-82
29	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS	12-27-82	R-10-1-82

APPROVED ____________
DIRECTOR --- INDIANA DEPARTMENT OF HIGHWAYS

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

REVISIONS	
DATE	SHEET NO.
3-28-83	1 thru 6, 11; delete sheets 10, 16, 17, 18, 22
4-20-83	1, 2, 3, 11

REVISIONS	
DATE	SHEET NO.

RECOMMENDED FOR APPROVAL ____________

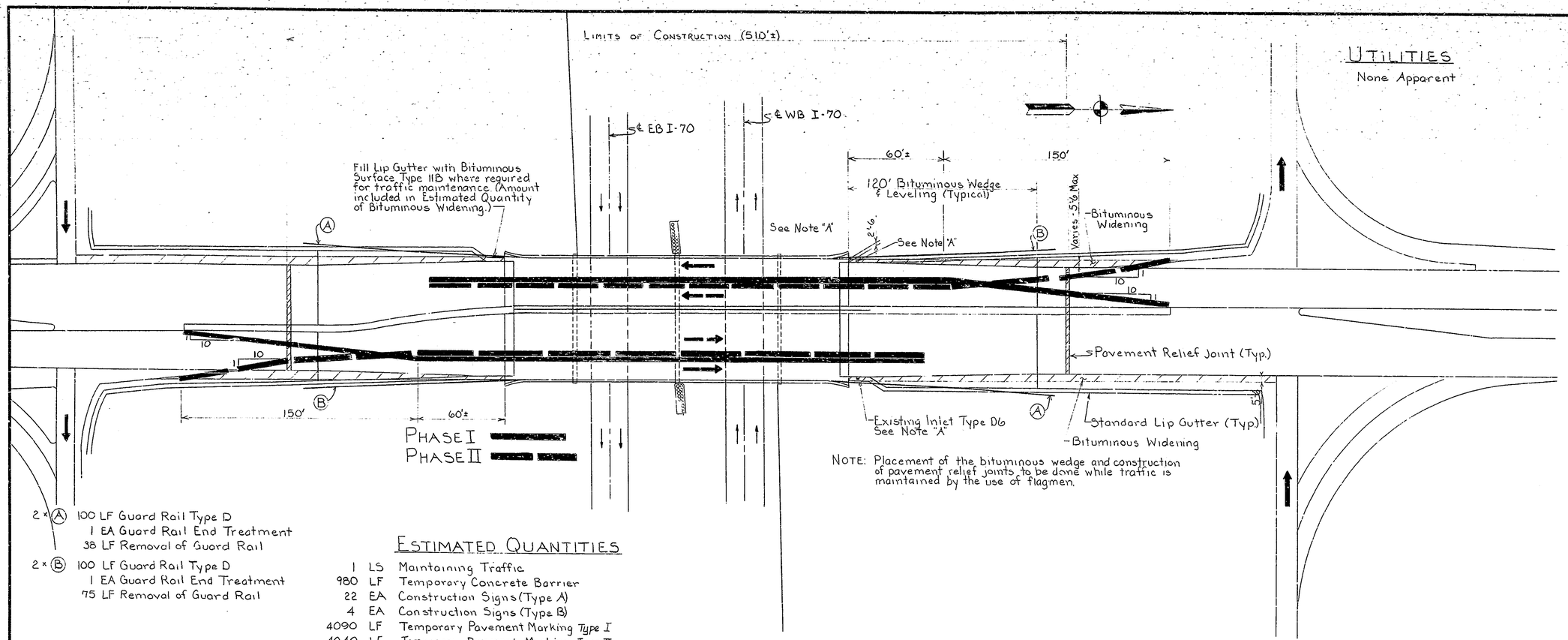
ENGINEER OF BRIDGE DESIGN, INDIANA DEPARTMENT OF HIGHWAYS

WILLIAM B. ABBOTT 6443

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
APPROVED:
DIVISION ADMINISTRATOR DATE

BRIDGE FILE: 9-30-5130A & 209-30-5132A

TP100



2 × (A) 100 LF Guard Rail Type D
1 EA Guard Rail End Treatment
38 LF Removal of Guard Rail

2 × (B) 100 LF Guard Rail Type D
1 EA Guard Rail End Treatment
75 LF Removal of Guard Rail

ESTIMATED QUANTITIES

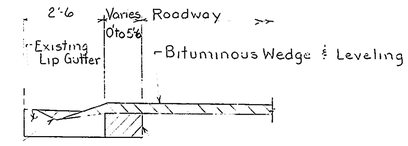
1	LS	Maintaining Traffic
980	LF	Temporary Concrete Barrier
22	EA	Construction Signs (Type A)
4	EA	Construction Signs (Type B)
4090	LF	Temporary Pavement Marking Type I
4040	LF	Temporary Pavement Marking Type II
1893	LF	Line, Solid White 4"
618	LF	Line, Skip White 4"
1488	LF	Removal of Line, Solid White 4"
495	LF	Removal of Line, Skip White 4"
247	T	Bituminous Widening ⊕

⊕ Included in the pay item 'Bituminous Mixture for Approaches'

GUARD RAIL SUMMARY

400 LF Guard Rail Type D

226 LF Removal of Guard Rail
4 EA Guard Rail End Treatment Type I



BITUMINOUS WIDENING
THRU LIP GUTTER
No Scale

NOTE "A": Remove casting and cover inlet with ½" steel plate and bituminous material during Phase I. Remove steel plate and reset casting during Phase II. Cost to be included in the cost of 'Maintaining Traffic'.

BRUNING 40-5253 24139-3

DESIGNED ____ C'K'D ____
DRAWN SS C'K'D ____
TRACED ____ C'K'D ____

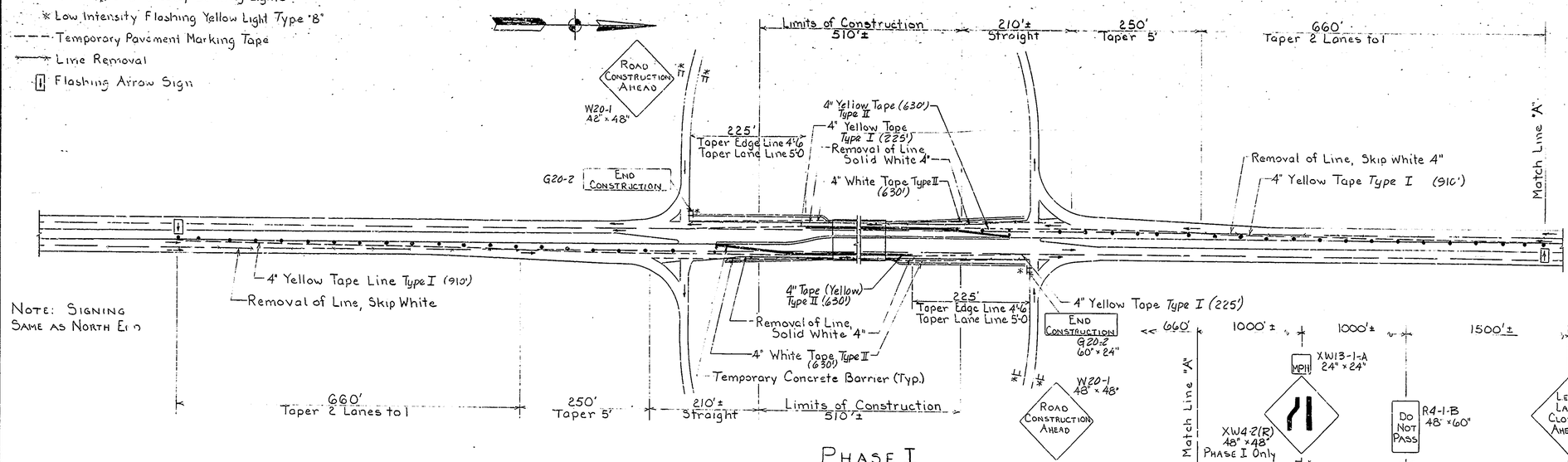
Rev. 3-28-83, Guard Rail, delete Impact Attenuator, Temp. Conc. Barrier Detail
Rev. 4-20-83 Tape

TRAFFIC MAINTENANCE
INDIANA STATE HIGHWAY COMMISSION

SCALE:- 1" = 30' Unless Noted DATE:- OCTOBER 27, 1981
SUBMITTED FOR APPROVAL:- Walter M. Braun
DRAWING:- OF SHEET:- 2 OF 29
PROJECT:- IR.-70-4(41)104
CONTRACT NO. B-14061
BRIDGE FILE:- 9-30-5130A

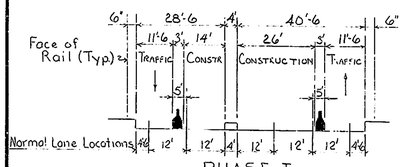
LEGEND

- Metal Drum or Type I or II Barricades with Type "C" Steady Burning Lights
- * Low Intensity Flashing Yellow Light Type "B"
- Temporary Pavement Marking Tape
- Line Removal
- Flashing Arrow Sign

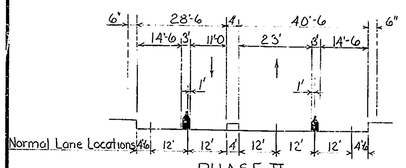


NOTE: SIGNING SAME AS NORTH END

PHASE I



PHASE I



PHASE II

NOTE: SIGNING SAME AS NORTH END

PHASE II

TEMPORARY PAVEMENT MARKING TYPE I
White - 1740 Lft.
Yellow - 2350 Lft.

TRAFFIC MAINTENANCE
INDIANA STATE HIGHWAY COMMISSION

SCALE:- 1" = 100'

DATE:- OCTOBER 27, 1981

SUBMITTED FOR APPROVAL:- Walter M Beam

DRAWING:- OF SHEET:- 3 OF 29

PROJECT:- IR-70-4(41)104

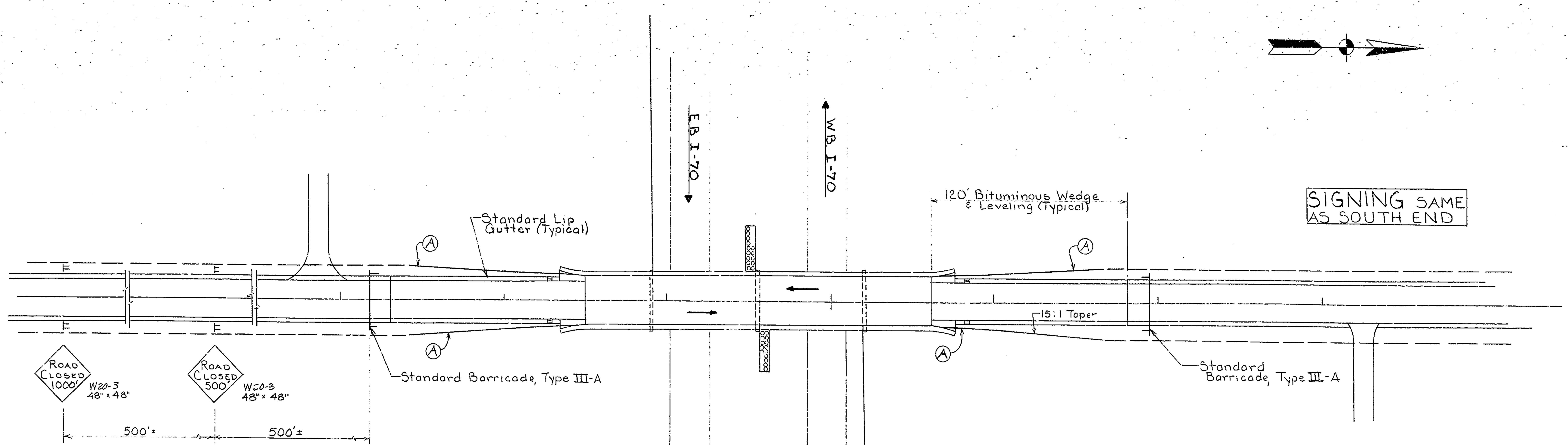
CONTRACT NO. B-14061

BRIDGE FILE:- 9-30-5130A

DESIGNED C'K'D
DRAWN SS C'K'D
TRACED C'K'D

BRUNING 42-5253 24139-3

Rev. 3 28-83, Sign Designations, Special Tape Added
Rev. 4-20-83 Tape



4 x Ⓐ 100 LF Guard Rail Type D
Connect to Existing Guard Rail
92 LF Removal of Guard Rail

UTILITIES

Telephone along north R/W, I-70
Indiana Bell Telephone Company
240 North Meridian
Indianapolis, Indiana

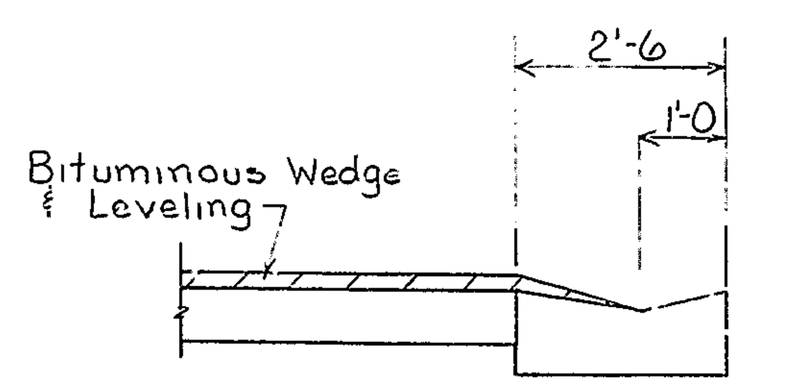
Power along west R/W, County Road
Hancock County REMC
Greenfield, Indiana

Traffic Sensors at NW & SE Corners of bridge
Loops in pavement under bridge and in bridge approach pavements.

GUARD RAIL SUMMARY

400 LF Guard Rail Type D

368 LF Removal of Guard Rail



BITUMINOUS WEDGE @ LIP GUTTER
No Scale

LAYOUT
INDIANA STATE HIGHWAY COMMISSION

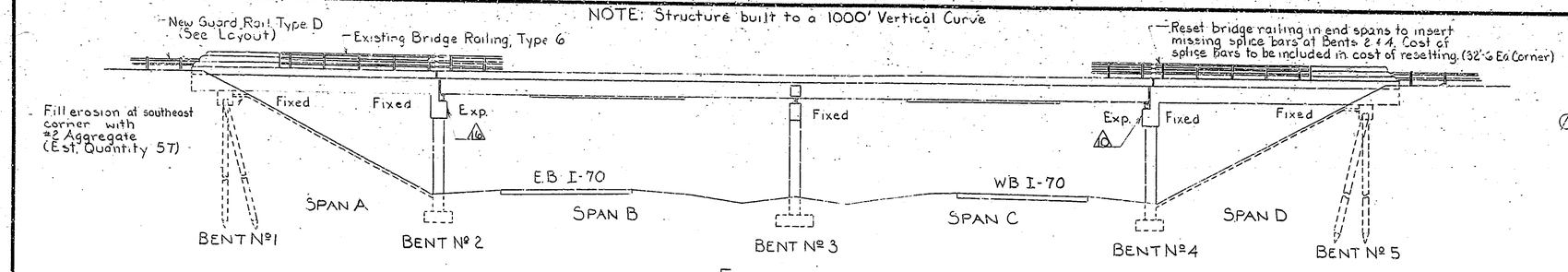
SCALE:- 1" = 30'-0 DATE:- OCTOBER 27, 1981
SUBMITTED FOR APPROVAL:- Walter McBean
DRAWING:- OF SHEET:- 4 OF 29
PROJECT:- IR - 70-4(41)104
CONTRACT NO. B-14061
BRIDGE FILE:- 209-30-5132A

DESIGNED ____ CK'D ____
DRAWN SS CK'D ____
TRACED ____ CK'D ____

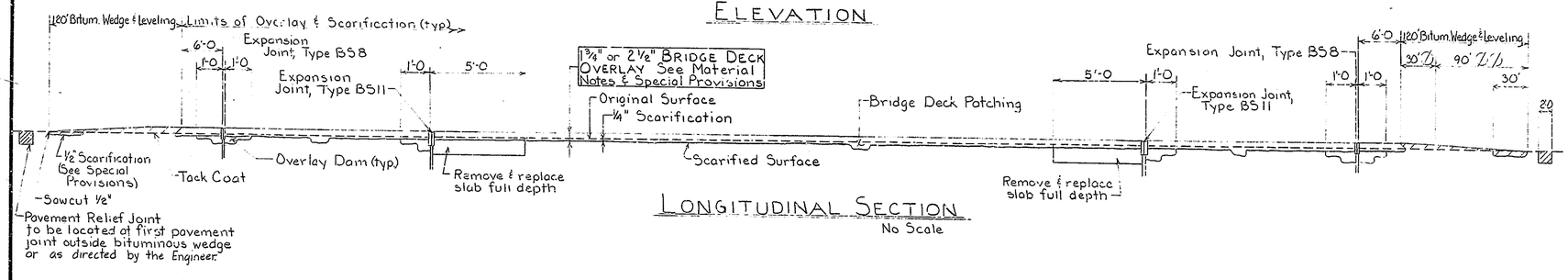
BRUNING 40-5253 24139-3

Rev. 3-28-83, Sign Designation, Guard Rail, Std Barricades

NOTE: Structure built to a 1000' Vertical Curve

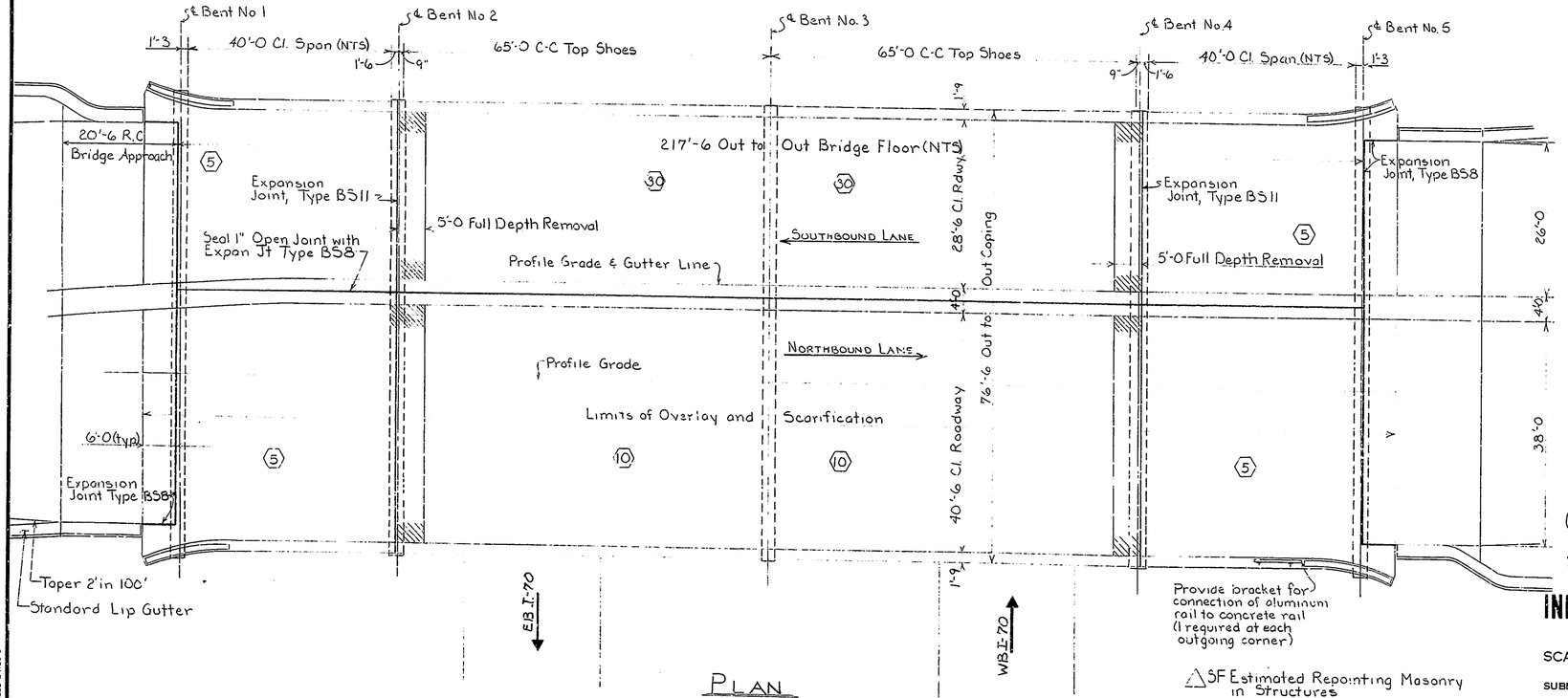


ELEVATION



LONGITUDINAL SECTION

No Scale



PLAN

△ SF Estimated Repointing Masonry in Structures

⬡ % Estimated Bridge Deck Patching in Span

Estimated Quantity, Full Depth Patching: 50 SF

Rev. 3-28-83, Relief Jt. Note

∅ Wedge to be a continuation of bridge deck profile.

∅∅ Taper wedge uniformly to meet existing grade

GENERAL NOTES

1. Plans for the existing structures are on file in the Central Office as Bridge Files 9-5-5130 and 209-C-5132 and are available on request.
2. 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.
3. 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 non-full depth patches are to be removed.
4. The boundaries of full depth removal areas shall be saw cut.

   All saw cuts for full depth removals shall be made to a minimum depth of 1 inch below the original surface or to the top of reinforcing if cover is less than 1 inch.
5. Concrete in patches for deteriorated deck areas below scarified depth to be Mod. P.C. Concrete or Special Class "A" Concrete. See Special Provisions.
6. See Special Provisions for composition of concrete in overlay dams.
7. Concrete in full depth removal areas to be Class "A".
8. All bituminous material required in this contract to be included in the pay item "Bituminous Mixture for Approaches" except Tack Coat will be paid for separately.
9. The length and quantity of bituminous wedging shown on the plans is based on the thickness of the Mod. P.C. Overlay. See Special Provisions.
10. Seal all joints and cracks in the approach pavement with 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.
11. Bearing assemblies at Bents 1 & 5 and Piers 2 & 4 (5132A) to be painted. Paint shall be in accordance with the "Painting Structural Steel Special Provisions"

    First Field Coat: Zinc Silicate Paint
    Second Field Coat: Vinyl Finish Coat

    Estimated weight of existing steel to be painted: 2 Tons.

NOTE. For Typical Section & Std. Drawings see Sht. 6.

GENERAL PLAN

DECK RECONSTRUCTION & OVERLAY
CONTINUOUS STEEL BEAM & R.C. GIRDER BRIDGE
4 SPANS: 40'-0, 2@65'-0, 40'-0
SQUARE 40'-6 & 28'-6 CL. RDWYS. 4'-0 MEDIAN 2 @ 6" CURBS
S.R. 9 over I-70

INDIANA STATE HIGHWAY COMMISSION
HANCOCK COUNTY

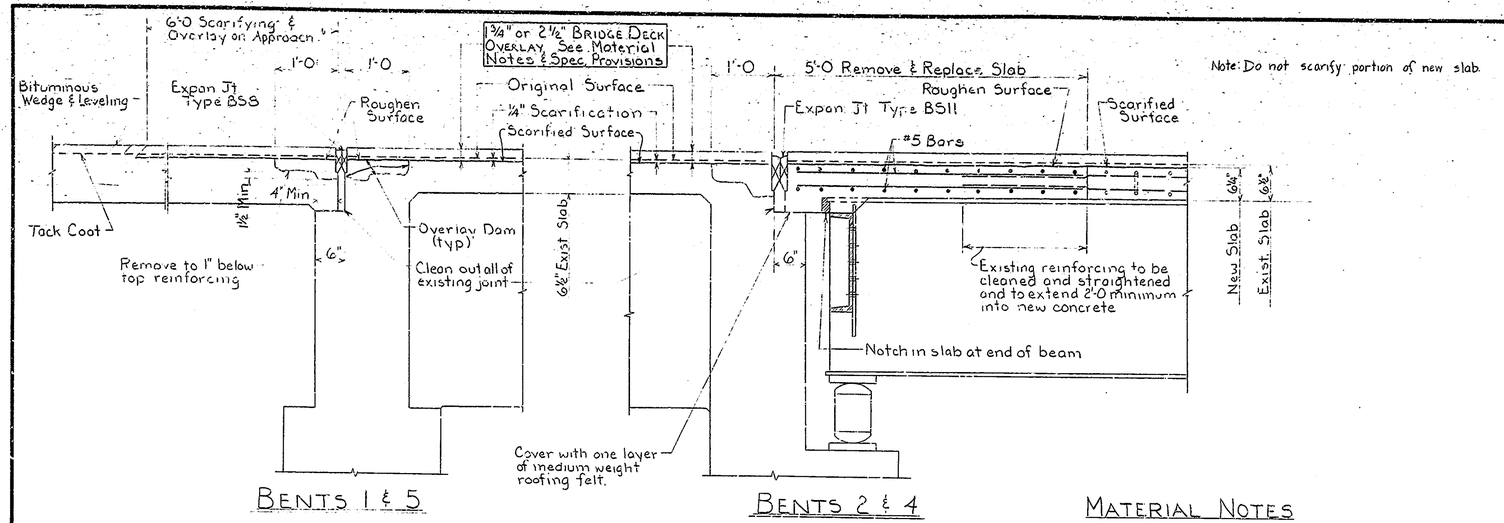
SCALE:- 3/32" = 1'-0 Unless Noted DATE:- OCTOBER 27, 1981

SUBMITTED FOR APPROVAL:- Walter M. Beam

DRAWING:- D1 OF 7 SHEET:- 5 OF 29
PROJECT:- IR -70-4(41)104
CONTRACT NO. B-14061
BRIDGE FILE:- 9-30-5130A

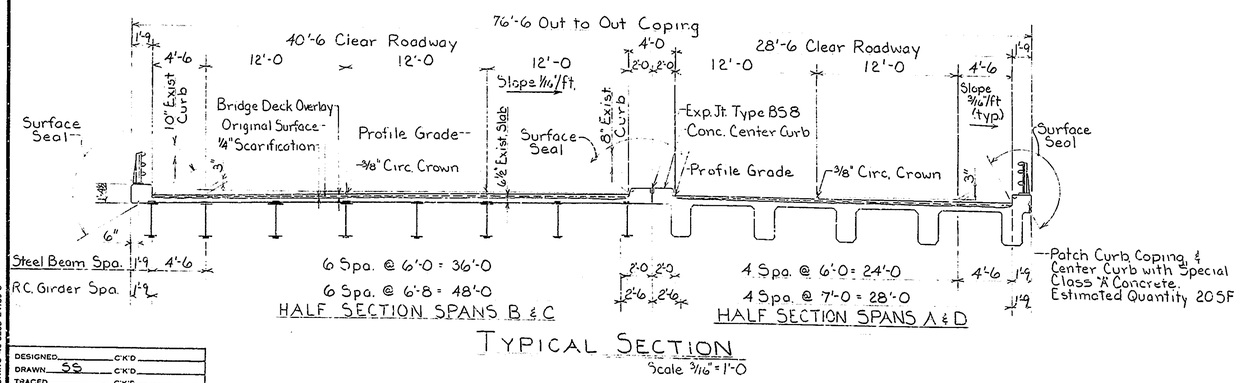
DESIGNED ____ C'K'D ____
DRAWN SS C'K'D ____
TRACED ____ C'K'D ____

BRUNING 40-5255 24139-3



STANDARD DRAWINGS

Br. Std	Road Std.	Purpose
BR1		Type G Railing
BR2		Clamp Bar
C1		Reinforcing Bar Notes
C3		Notch in Slab at End of Beam
	Sht. GR5	Aluminum Guard Rail Details
	Sht. GR8	Guard Rail Class D5
	Sht GR9	Guard Rail Class DA
	Sht. CB2	Temporary Concrete Barrier
	Sht. 9	Traffic Sign Details
	Sht. 1 Detours	Standard Detour Signs
	Sht. 2A Detours	Standard Detour Signs
	Sht. 3 Detours	Standard Detour Signs
	Sht. 4 Detours	Standard Detour Signs
	Sht. 5A Detours	Standard Detour Signs



TYPICAL SECTION
Scale 3/16" = 1'-0

MATERIAL NOTES

BRIDGE DECK OVERLAY

1¾" Modified Portland Cement Concrete Overlay
OR
2½" Dense Portland Cement Concrete Overlay
Includes ¼" Scarifying
(See the Special Provisions)

BITUMINOUS RELIEF JOINT

110#/SY Bituminous Surface Type IIB
OVER
1870#/SY Bituminous Base

BITUMINOUS WIDENING

990#/SY Bituminous Base Type 5D

BITUMINOUS WEDGE AND LEVELING

110#/SY Bituminous Surface Type IIB
OVER
Variable depth Bituminous Binder or Bituminous Base

The maximum depth of Bituminous Surface Type IIB shall not exceed 1½".

At all locations where total wedge thickness will exceed 1½", bituminous binder or bituminous base shall be placed as a first course to within one inch of finished grade.

TRAFFIC PROCEDURE

9-30-5130A

1. Construct bituminous widening and other work to provide for traffic on outside parts of bridge and approaches.

PHASE I

A. Close Center part of Bridge and channel traffic on outside parts of Bridge in accordance with details.

B. Complete all construction on center part of bridge including bridge deck overlay and bituminous wedging.

PHASE II

A. Close outside parts of bridge and channel traffic on inside part of bridge in accordance with details.

B. Complete all construction on outside parts of bridge including bridge deck overlay and bituminous wedging.

209-30-5132A

Erect Construction Signs, detour Traffic, and close Structure to Traffic.

CONSTRUCTION PROCEDURE

1. Remove the 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 ¼ inch.
Remove scarified dust.

3. Remove all existing deck patches and all deteriorated concrete around reinforcing and along curbs inaccessible to scarifying equipment by hand chipping and cleaning in accordance with the Special Provisions.

4. Repour the full depth slab removal areas and Overlay Dams to level of scarification as shown on the 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 seal all concrete area from gutter to drip bead (steel beam spans) or bottom of coping (R.C. girder spans) (includes curbs, walks, concrete railing, concrete parapets, and coping) as shown on the plans.
Clean and seal top of exposed overlay dams on approaches (5132A) and exposed face of wingwalls.

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.

Existing reinforcing to remain in place and extend into repoured concrete shall be cleaned and straightened.

All removal equipment used for partial concrete removals of bridge structures shall be handheld. Pneumatic hammers, 30lbs maximum weight shall be used for all removal areas to be patched and all areas within 24 inches of full depth removal lines. Pneumatic hammers up to 90lbs maximum weight may be used for all other removals outside these limits. Deck areas that are to be removed full depth shall be completely separated from adjacent concrete before hammers heavier than 30lbs may be used.

DESIGNED ____ C'K'D ____
DRAWN SS C'K'D ____
TRACED ____ C'K'D ____

BRUNING 40-5253 24139-3

Rev 5-28-83, delete GR 2, GR 3, GR 10, GR 10A

DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE:- 1" = 1'-0 Unless Noted DATE:- OCTOBER 27, 1981

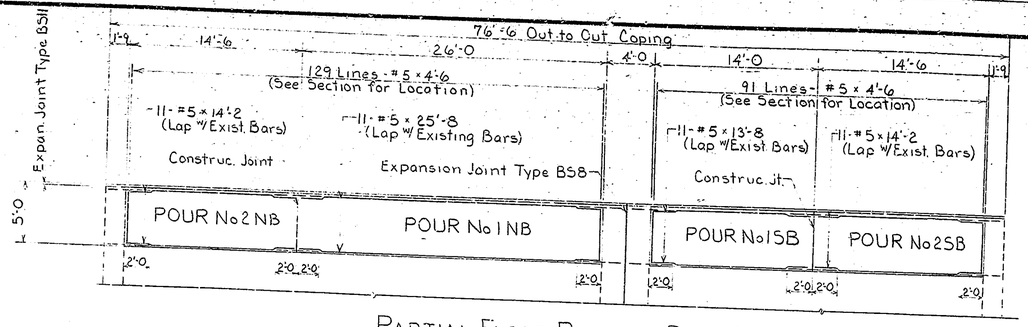
SUBMITTED FOR APPROVAL:- Walter G. Bean

DRAWING:- D2 OF 7 SHEET:- 6 OF 29

PROJECT:- IR-70-4(41)104

CONTRACT NO. B-14061

BRIDGE FILE:- 9-30-5130A



PARTIAL FLOOR PLAN AT BENT 2
AT BENT 4 SAME BY 180° ROTATION
Scale 3/16" = 1'-0

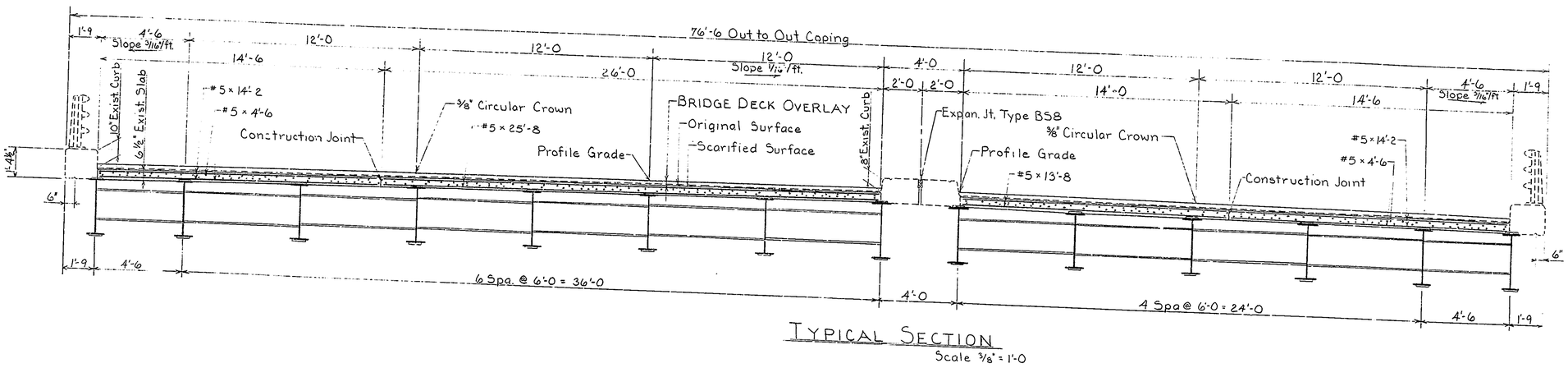
BILL OF MATERIALS SUPERSTRUCTURE
AT BENT 2 - AT BENT 4 SAME

REINFORCING STEEL

Size or Mark	Number of Bars	Length (Ft.)	Weight (Lb.)
#5	11	25'-8	
	22	14'-2	
	11	13'-8	
	220	4'-6	
Total No. 5			1809

CONCRETE

Pour No 1 NB	2.7 CY
Pour No 1 SB	1.4 CY
Pour No 2 NB	1.5 CY
Pour No 2 SB	1.5 CY
Total Concrete Class "A" in Superstructure	7.1 CY



TYPICAL SECTION
Scale 3/8" = 1'-0

Note: For Reinforcing Bar Notes see Bridge Std. C1.

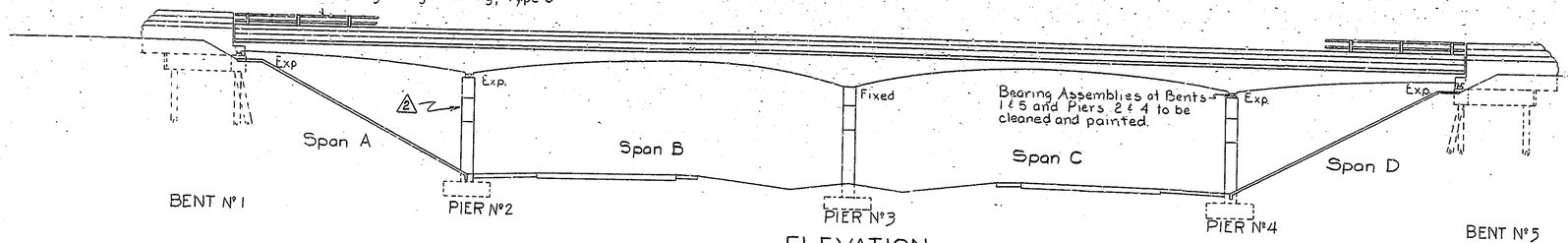
SUPERSTRUCTURE DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE:- As Noted
DATE:- OCTOBER 27, 1981
SUBMITTED FOR APPROVAL:- Walter M. Beam
DRAWING:- 03 OF 7 SHEET:- 7 OF 29
PROJECT:- IR -70-4(41)104
CONTRACT NO. B-14061
BRIDGE FILE:- 9-30-5130A

DESIGNED ____ C'K'D ____
DRAWN SS C'K'D ____
TRACED ____ C'K'D ____

BRUNING 40-2252 24139

NOTE: Structure built to a 1000' V.C.

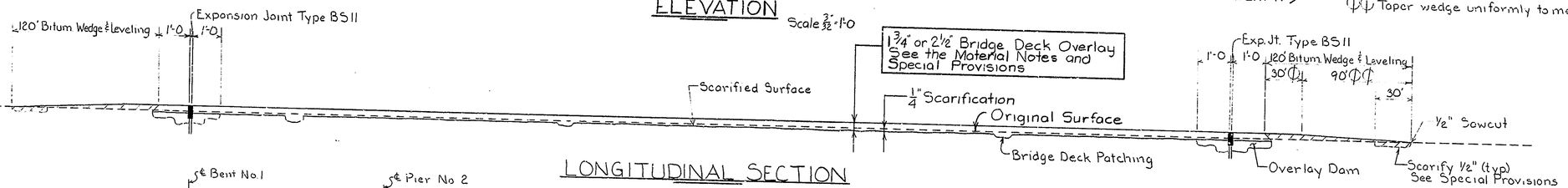


ELEVATION

Scale $\frac{3}{32}$"=1'-0

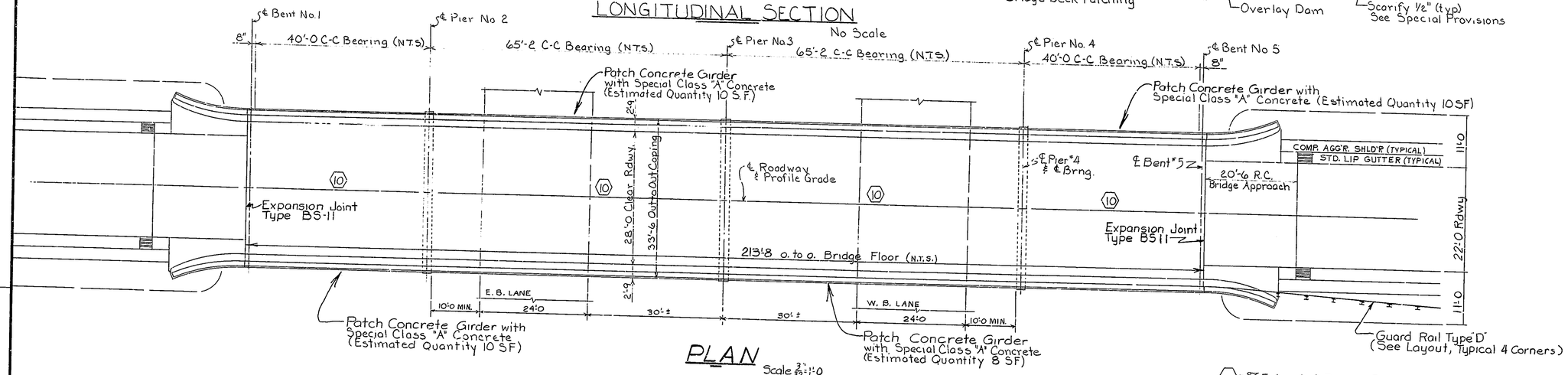
Wedge to be a continuation of bridge deck profile

Taper wedge uniformly to meet existing grade



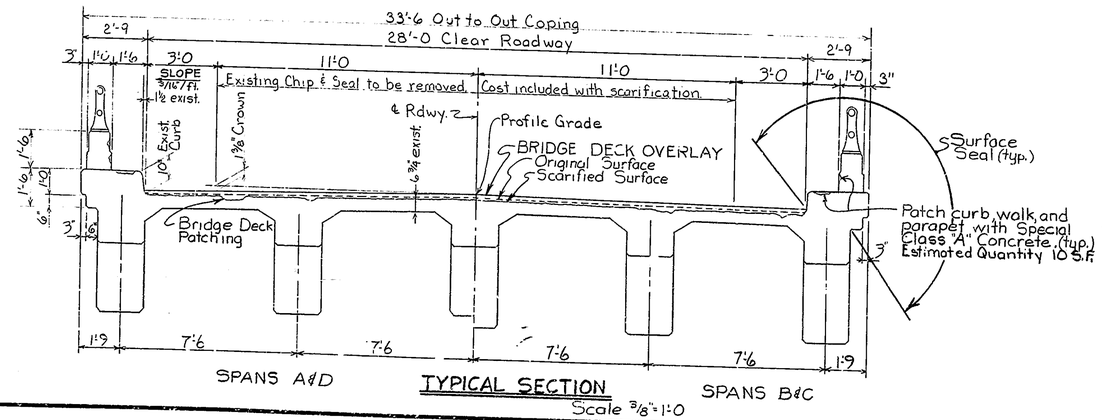
LONGITUDINAL SECTION

No Scale



PLAN

Scale $\frac{3}{32}$"=1'-0



TYPICAL SECTION

Scale $\frac{3}{8}$"=1'-0

⬡ = % Estimated Bridge Deck Patching in Span

△ = S.F. Estimated Repointing Masonry in Structures

GENERAL PLAN

CONT. REINF. CONC. GIRDER BRIDGE
4 SPANS, 1 at 40'-0, 2 at 65'-2, & 1 at 40'-0
28'-0 RDWY, 2 at 1'-6 CURBS, No Skew
S.R. 209 OVER I-70

INDIANA STATE HIGHWAY COMMISSION
HANCOCK COUNTY

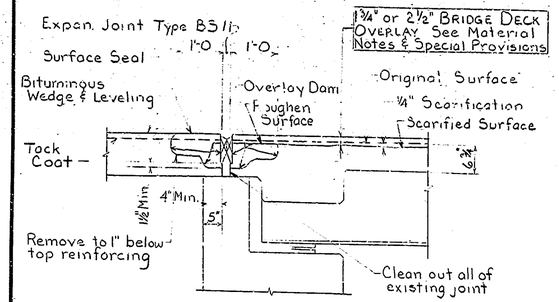
SCALE:- As Noted DATE:- OCTOBER 27, 1981

SUBMITTED FOR APPROVAL:- Walter M Beam

DRAWING:- D4 OF 7 SHEET:- 8 OF 29
PROJECT:- IR-70-4(41)104
CONTRACT NO. B-14061
BRIDGE FILE:- 209-30-5132 A

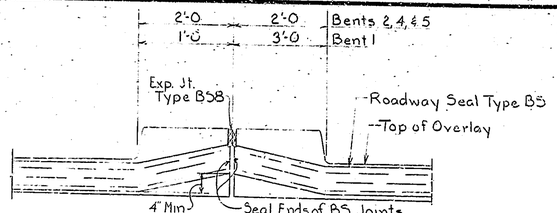
DESIGNED RWH C'K'D
DRAWN C'K'D
TRACED C'K'D

BRUNING 40-52531-24139-3

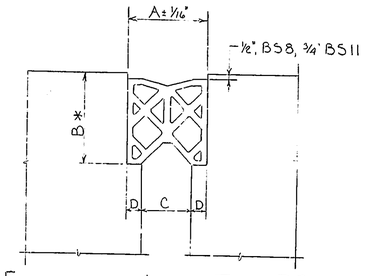


BENTS 1 & 5 (5132A)

Scale 3/4" = 1'-0



BS JOINTS AT MEDIAN, 5130A

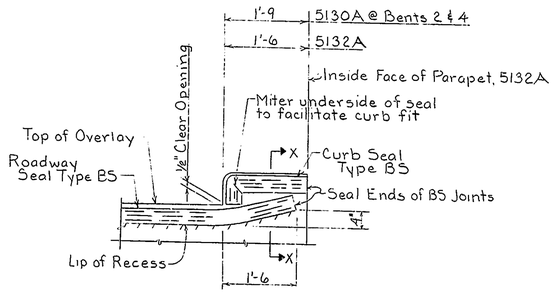


EXPANSION JOINT TYPE BS

* To be determined in the field. See the Special Provisions.

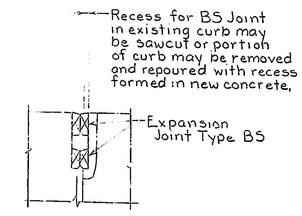
Bridge Seal	A	C	D
BS8	2"	1¼" ±	⅜"
BS11	3⅛"	2⅛" ±	½"
** BS8	2"	1" ±	½"

** Dimensions for sealing 1" open joint in center curb. Recess to be constructed using a multiple bladed saw or portion of curb may be removed and repoured to form recess. Cost to be included in cost of Expansion Joint Type BS 8.



BS JOINT AT CURBS

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



SECTION X-X

DETAILS

INDIANA STATE HIGHWAY COMMISSION

SCALE:- NONE, UNLESS NOTED DATE:- OCTOBER 27, 1981

SUBMITTED FOR APPROVAL:- Walter M. Beam

DRAWING:- D5 OF 7 SHEET:- 9 OF 27

PROJECT:- IR-70-4(41)104

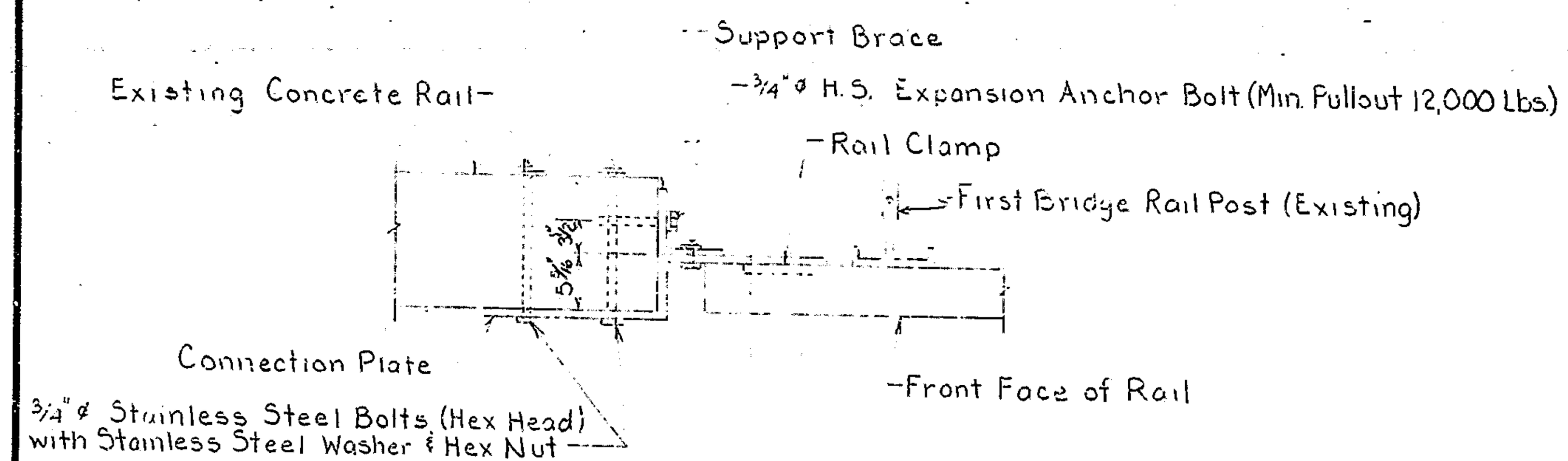
CONTRACT NO. B-14061

DESIGNED ____ C'K'D ____

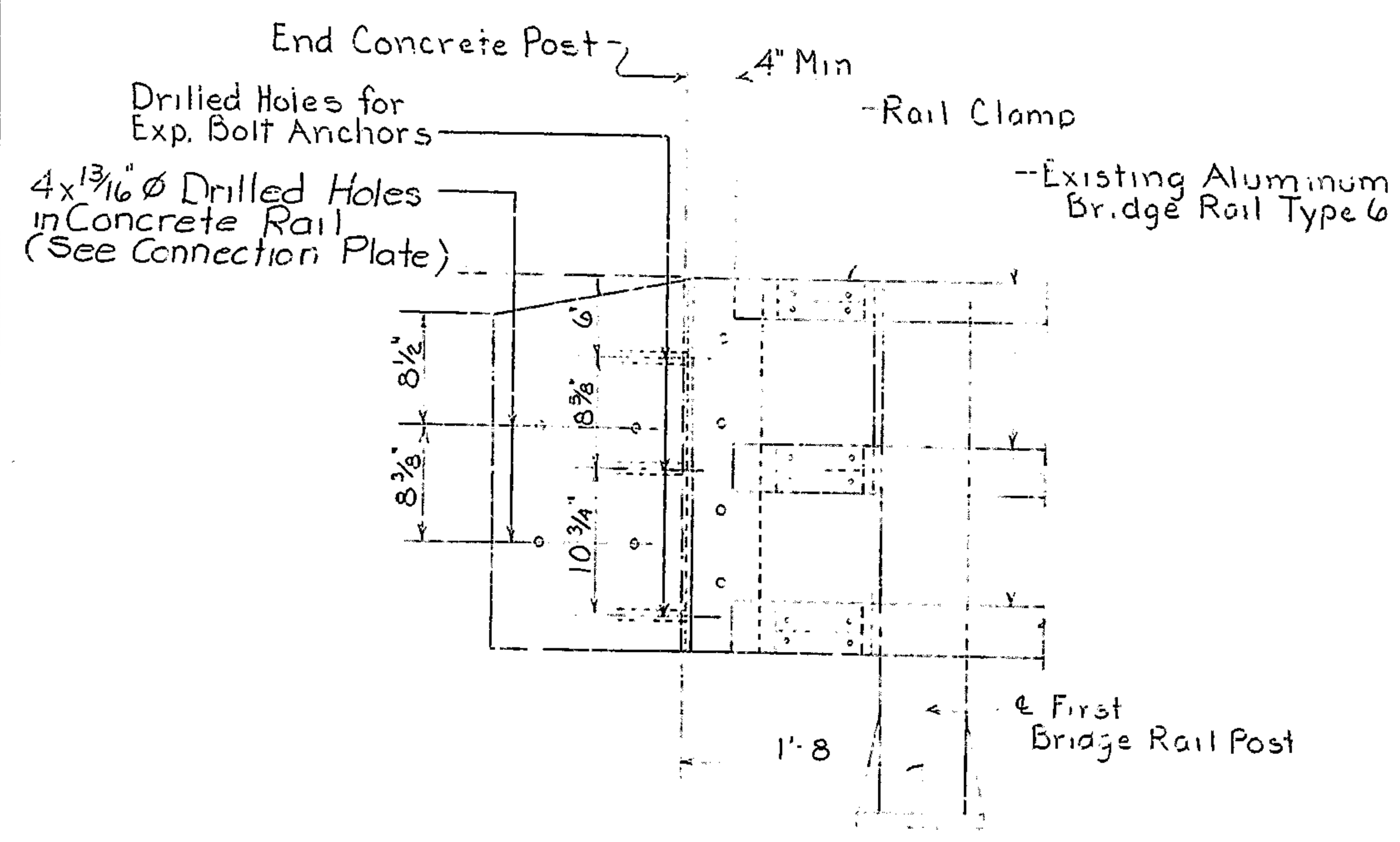
DRAWN SS C'K'D ____

TRACED ____ C'K'D ____

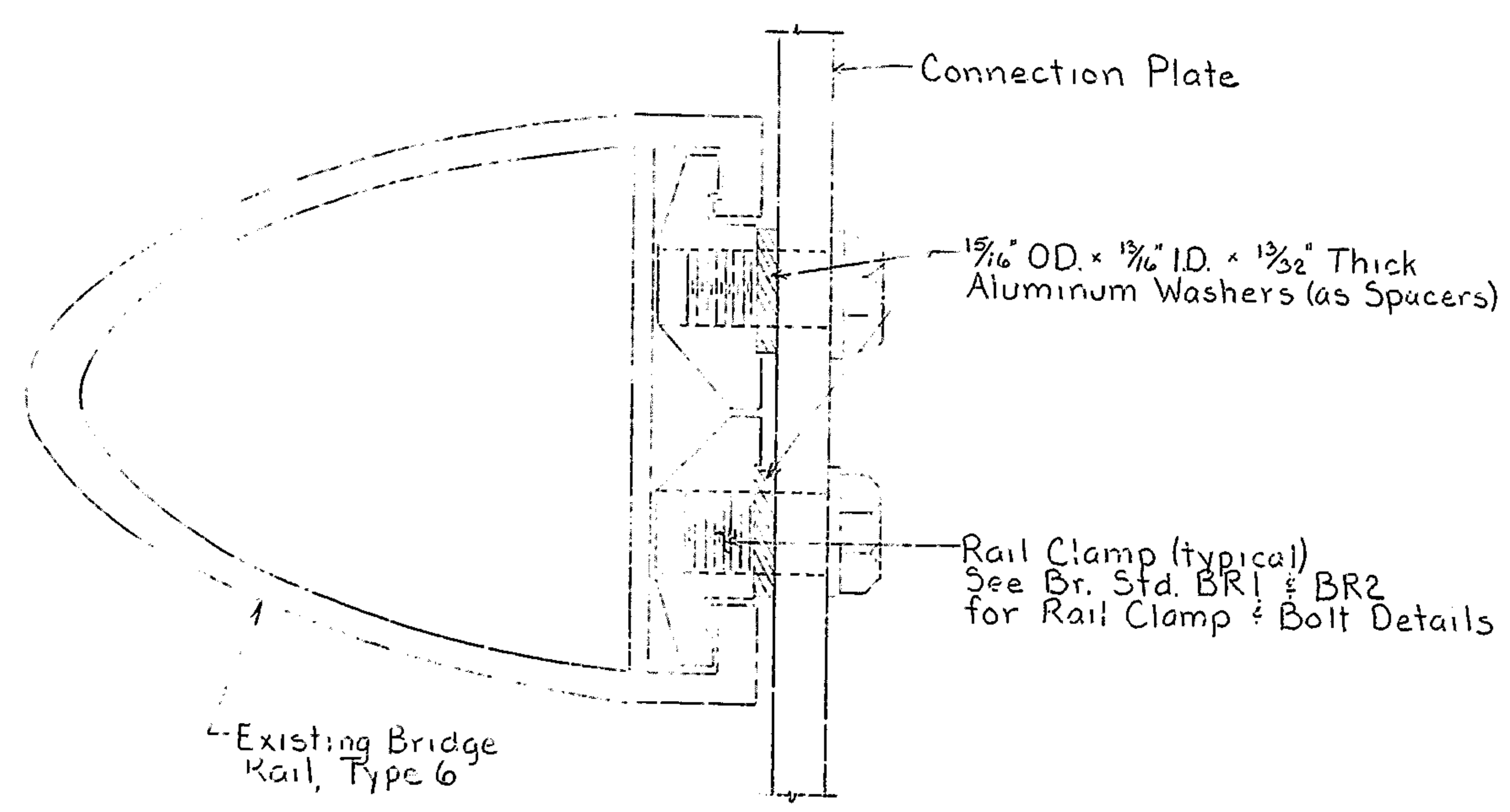
BRUNING 40-5263 24139-3



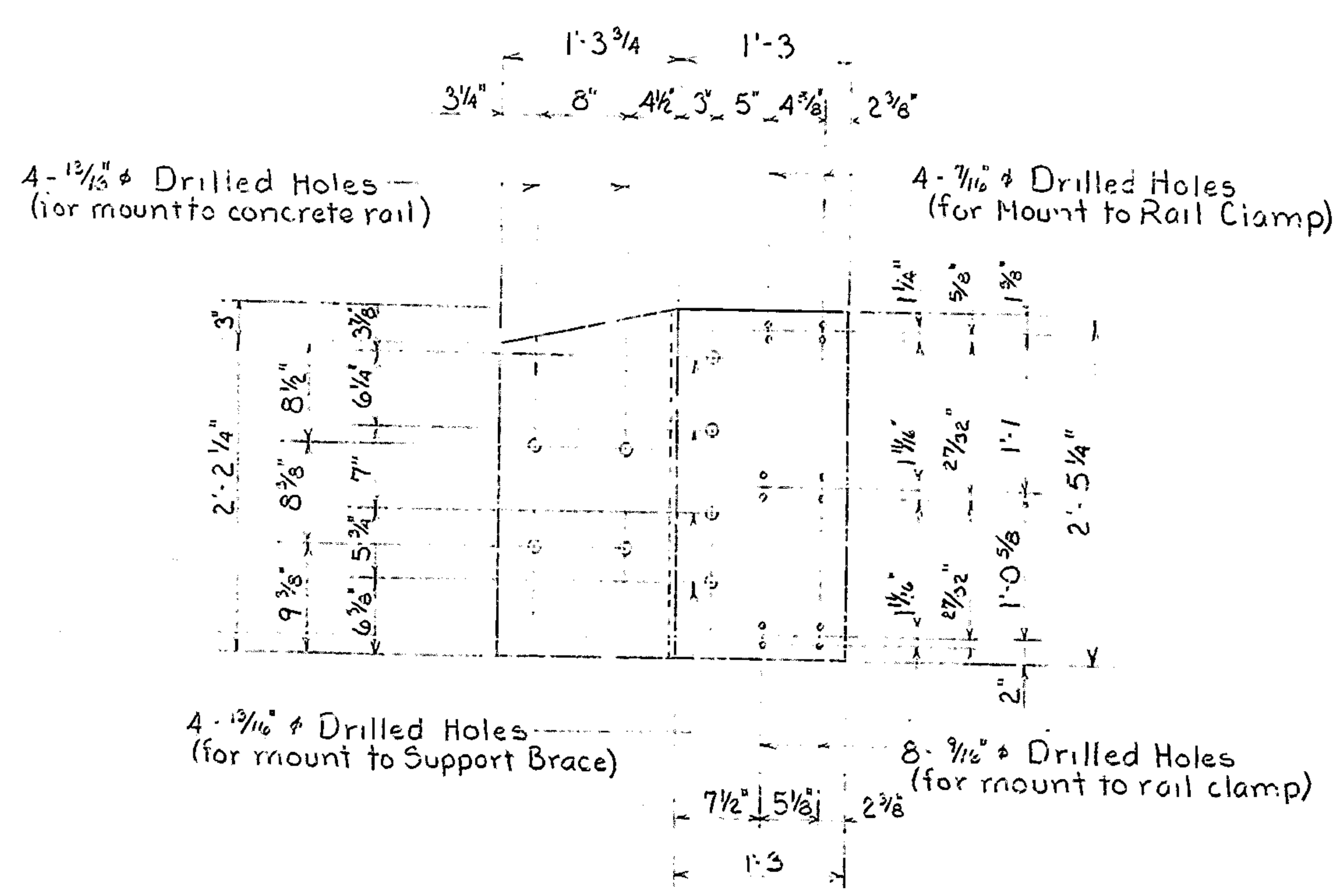
PLAN



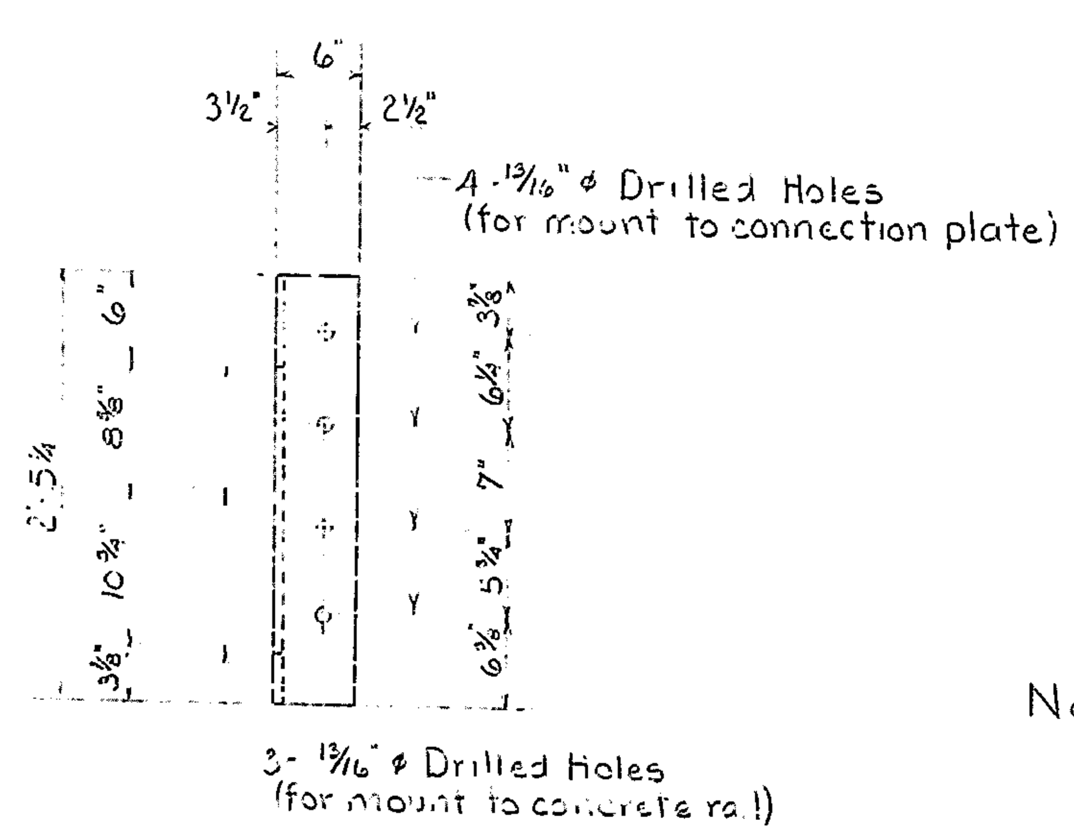
ELEVATION



TYPICAL SECTION



CONNECTION PLATE



SUPPORT BRACE
< 6" × 6" × 1/2"

A. Includes the following quantities for approach scarification: 5130A 400 SY, 5132A: 147 SY

B. Includes full depth removal of slab, cleaning reinforcing steel, forming bottom of slab, and pouring cavity with Class A Concrete up to level of scarification.

C. Estimated quantity for patching concrete curbs, walks, and girders, includes concrete removal, sawcuts, cleaning reinforcing, and epoxy bonding compound.

D. Includes 500 lbs. of #5 reinforcing for each structure as an undistributed quantity to replace badly corroded deck reinforcing.

E. Includes preparation of curbs and walks.

F. Includes removal of portions of slab.

G. Includes bearing assemblies at end bents and piers 2 & 4, 5132A. Estimated weight 2 Tons

H. Includes

	5130A	5132A
Bituminous Wedge	108 T	36 T
Bituminous Leveling	162	54
Relief Joint	28	
Bituminous Widening	247	
Total	545 T	90 T

SUMMARY

	CODE No.	DESCRIPTION	UNIT	QUANTITY 5130A	QUANTITY 5132A	QUANTITY TOTAL	FUNDING 90/10	FUNDING All State
A	51833	Concrete Scarifying	SY	2090	812	2902	✓	
	51837	Blasting and Cleaning	SY	1843	665	2505	✓	
	51843	Bridge Deck Patching	SF	1837	598	2435	✓	
	51842	Bridge Deck Overlay	SY	1843	665	2508	/	
	51838	Finishing and Curing	SY	1843	665	2508	/	
B		Full Depth Patching	SF	150		150	✓	
		Overlay Dam	SF	443	112	555	/	
C	51875	Special Class "A" Concrete	SF	20	48	68	✓	
	51870	Repointing Masonry in Structures	SF	26	2	28		✓
	51826	Surface Seal	SF					
	51001	Concrete Class "A" in Superstructure	CY	14.2		14.2	✓	
D	51030	Reinforcing Steel	LB	4118	500	4618	✓	
E	51887	Expansion Joint Type BS 8	LF	378		378	/	
E	51890	Expansion Joint Type BS 11	LF	162	70	232	/	
	51132	Railing Reset	LF	130		130	/	
F	51328	Removal of Present Structure (Portions) 5130A	LS	1		1	✓	
G		Clean and Paint Bearing Assemblies (5132A)	LS		1	1		✓
		Special Bridge Railing Connection	EA	2		2	✓	
⊕		Surface Seal (5130A)	LS	1		1	✓	
⊕		Surface Seal (5132A)	LS		1	1	✓	
	52515	Guard Rail Type D	LF	400	400	800	/	
	52520	Guard Rail Type E	LF					
	52535	Removal of Guard Rail	LF	226	368	594	✓	
		Guard Rail End Treatment Type I	EA	4		4	✓	
	52303	Removal of Pavement	SY	28		28	/	
	52456	Bituminous Material for Tack Coat	SY	1966	683	2649	✓	
H.	52470	Bituminous Mixture for Approaches	T	545	90	635	/	
		#2 Aggregate Class A, B, or C	T	5		5		✓
	52640	Maintaining Traffic	LS	1		1	✓	
	52356	Temporary Concrete Barrier	LF	980		980	/	
	52340	Construction Signs (Type A)	EA	30	8	38	/	
	52345	Construction Signs (Type 3)	EA	4		4	/	
	52346	Standard Barricades (Type III-A)	EA		2	2	/	
	52362	Temporary Pavement Marking Type II	LF	4040		4040	/	
	52361	Temporary Pavement Marking Type I	LF	4090		4090	✓	
		Line, Skip Yellow 4"	LF		114	114	/	
	06713	Line, Solid White 4"	LF	1893	908	2801	✓	
		Line, Skip White 4"	LF	815		815	✓	
	06716	Removal of Line, Solid White 4"	LF	1488		1488	✓	
	06718	Removal of Line, Skip White 4"	LF	495		495	✓	

⊕ See the Special Provisions, Estimated Quantity = 5251 Sft. (5130A)
3976 Sft. (5132A)

Note: All materials and labor necessary to connect the Bridge Railing to the Concrete Rail shall be included in the pay item "Special Bridge Railing Connection."

Holes in Concrete Post to be drilled after Connection Plate is bolted to Railing, leveled, and aligned.

Connection Plate and Support Brace to be A-36 steel. All materials not aluminum or stainless steel to be galvanized in accordance with Article 909.10 and 909.11 of the Specifications.

SUMMARY
INDIANA STATE HIGHWAY COMMISSION

SCALE:- 1" = 1'-0
DATE:- OCTOBER 27, 1981
SUBMITTED FOR APPROVAL:- Walter M. Beam
DRAWING:- D7 OF 7 SHEET:- 11 OF 29
PROJECT:- IR-70-4(41)104
CONTRACT NO. B-14061

DESIGNED ___ C'K'D ___
DRAWN SS C'K'D ___
TRACED ___ C'K'D ___

STR

Rev 3 28 83 Summary / Funding 52535 Std B...