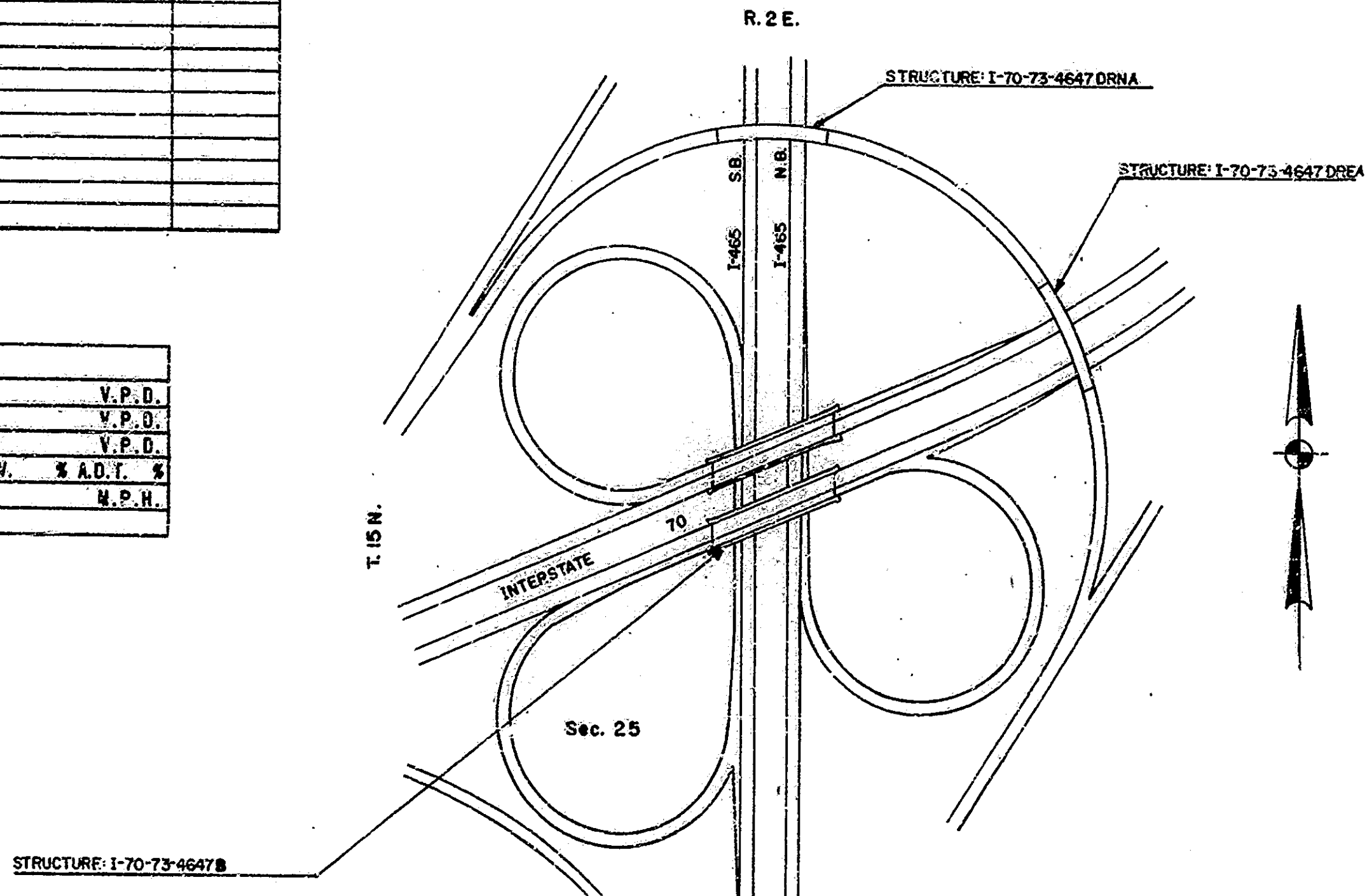


CONTRACT NO. B-15850

[illegible]

TRAFFIC DATA		4647B	4547DRE	4647DRN	
A.D.T. (1983)		28,960	2,963	1,387	
A.D.T. (19 PROJECTED)					V.P.D.
D.H.V. (19 PROJECTED)					V.P.D.
TRUCKS:					V.P.D.
DESIGN SPEED					D.H.V. % A.D.T. %
ACCESS CONTROL					M.P.H.



MARION COUNTY

BUTLER, FAIRMAN & SEUFERT, INC.
ENGINEERS
CARMEL, INDIANA

NOTE:--
 01-11-1970-70-30 APPEARS
 IN THESE PLANS OR CONTRACT
 DOCUMENTS IT SHALL BE
 INTERPRETED ASIR-465-4(240)116

INDIANA DEPARTMENT OF HIGHWAYS
STANDARD SPECIFICATIONS DATED 1985
TO BE USED WITH THESE PLANS.

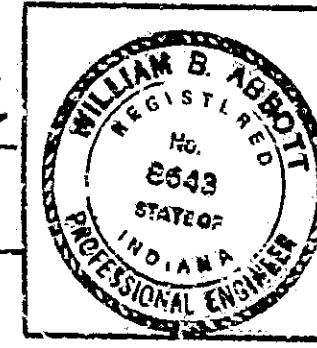
[illegible][illegible]

DATE: June 14, 1987

best L. Am.

RECOMMENDED FOR APPROVAL 7-6-84

ENGINEER OF BRIDGE DESIGN INDIANA DEPARTMENT OF HIGHWAY



APPROVED 7-10-84

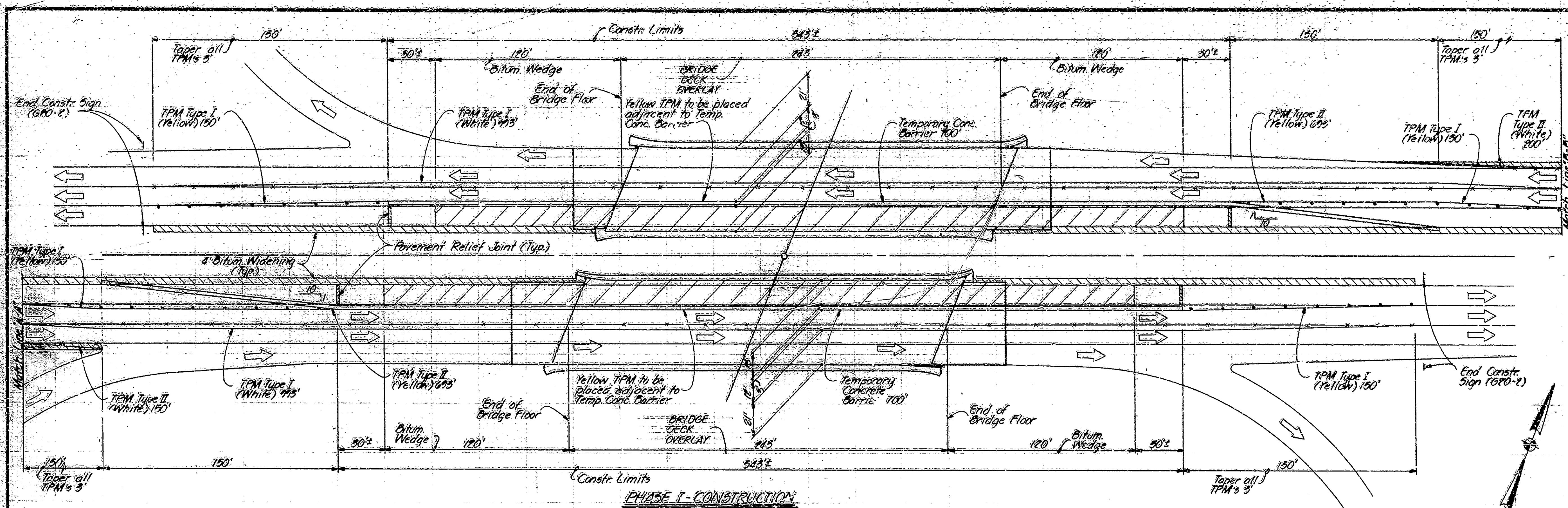
Donald H. Haddock
DIRECTOR INDIAN, DEPARTMENT OF HIGHWAYS

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

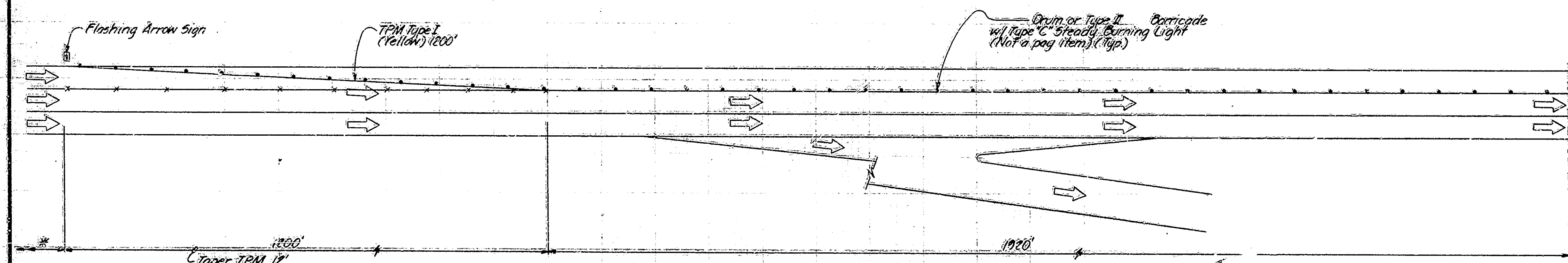
APPROVED:

DIVISION ADMINISTRATOR

BRIDGE FILE: 1-70-73-4647B, 1-70-73-46470RE, 1-70-73-46473ORNA



PHASE I - CONSTRUCTION



LANE CHANGE DETAILS @ WEST END (SHOWING)
LANE END (SHOULDER 1020')

* See Road Standard Sht. 18, Details for advance warning signs and merging of 3 lanes to 2 lanes.

Note: Bituminous Widening shall remain in place.
TPM - Temporary Pavement Marking (Type and Color as noted).
Indicates skip lane to pavement edge lines to be removed.

TRAFFIC MAINTENANCE DETAILS
INDIANA DEPARTMENT OF HIGHWAYS

SCALE: 1" = 30'

DATE: June 14, 1957

SUBMITTED FOR APPROVAL:

SHEET: 2 OF 22

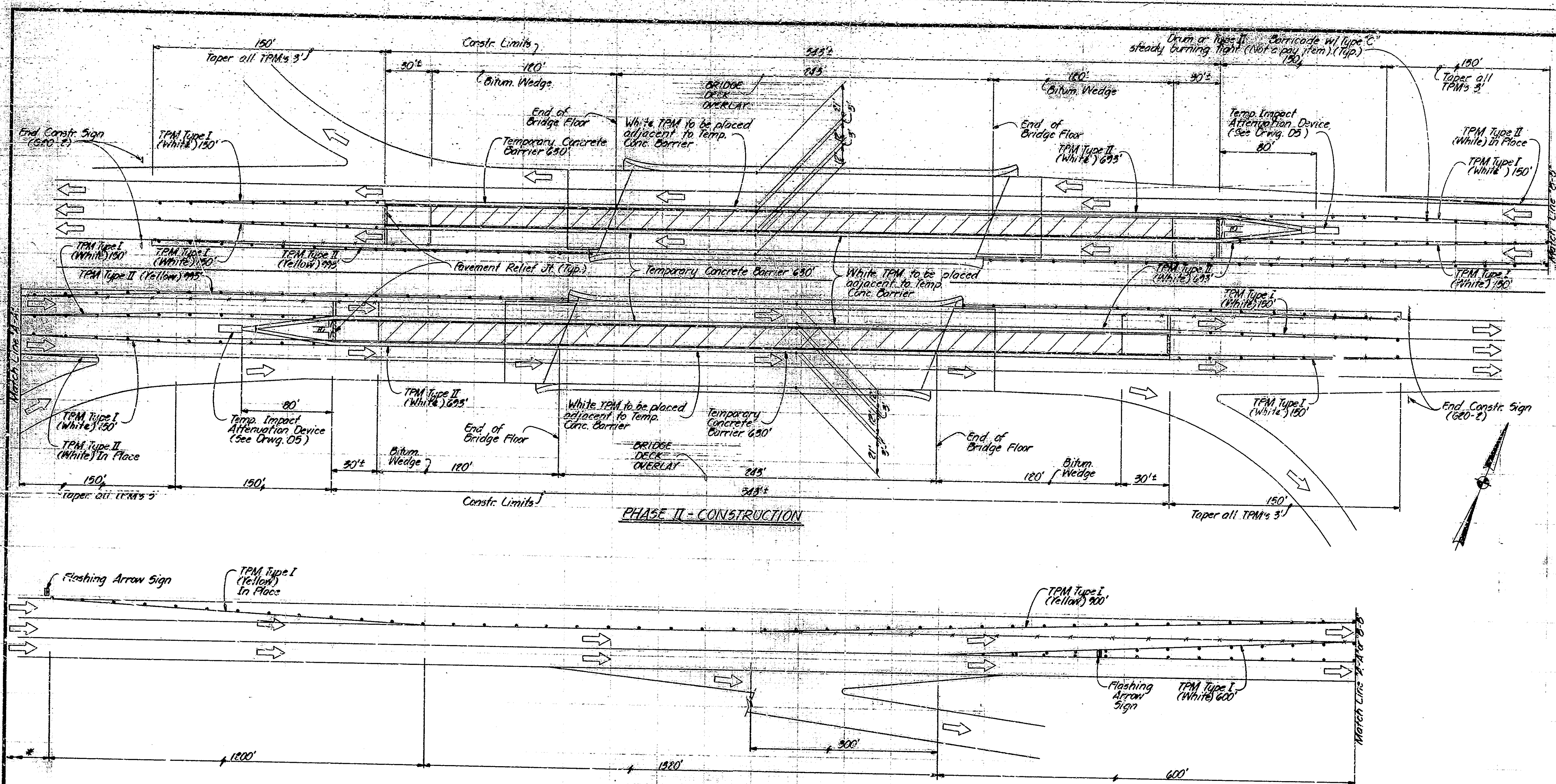
PROJECT: BR-70-3(1)

CONTRACT NO. 8-15650

BRIDGE FILE: 7-70-75-26372

DESIGNED: J. R. B. & C. R. Smith
DRAWN: D. J. H. & C. R. Smith
TRACED: C. R. Smith

Rev. 9-9-55 Drums & Barricades



PHASE II - CONSTRUCTION

LANE CHANGE DETAILS @ WEST END (SHOWN) EAST END (SHOWN)

* See Road Standard Sht. 18 Details for advance warning signs and merging of 3 lanes to 2 lanes.

NOTE
12 FT. LANE AHEAD and "WIDE LOADS EXIT" signs shall be placed along the eastbound and westbound roadways in advance of the nearest suitable interchange exit ramp preceding the construction area. These signs will be located, furnished, installed and removed by District Traffic Department, IDOT.

TPM - Temporary Pavement Marking
(Type and Color as noted)

--- Indicates skip lane or pavement edge lines to be removed.

TRAFFIC MAINTENANCE DETAILS INDIANA DEPARTMENT OF HIGHWAYS MARION COUNTY

SCALE: 1" = 30'

DATE: June 14, 1994

SUBMITTED FOR APPROVAL: *Robert L. Smith*

PROJECT: IR-10-3(1)

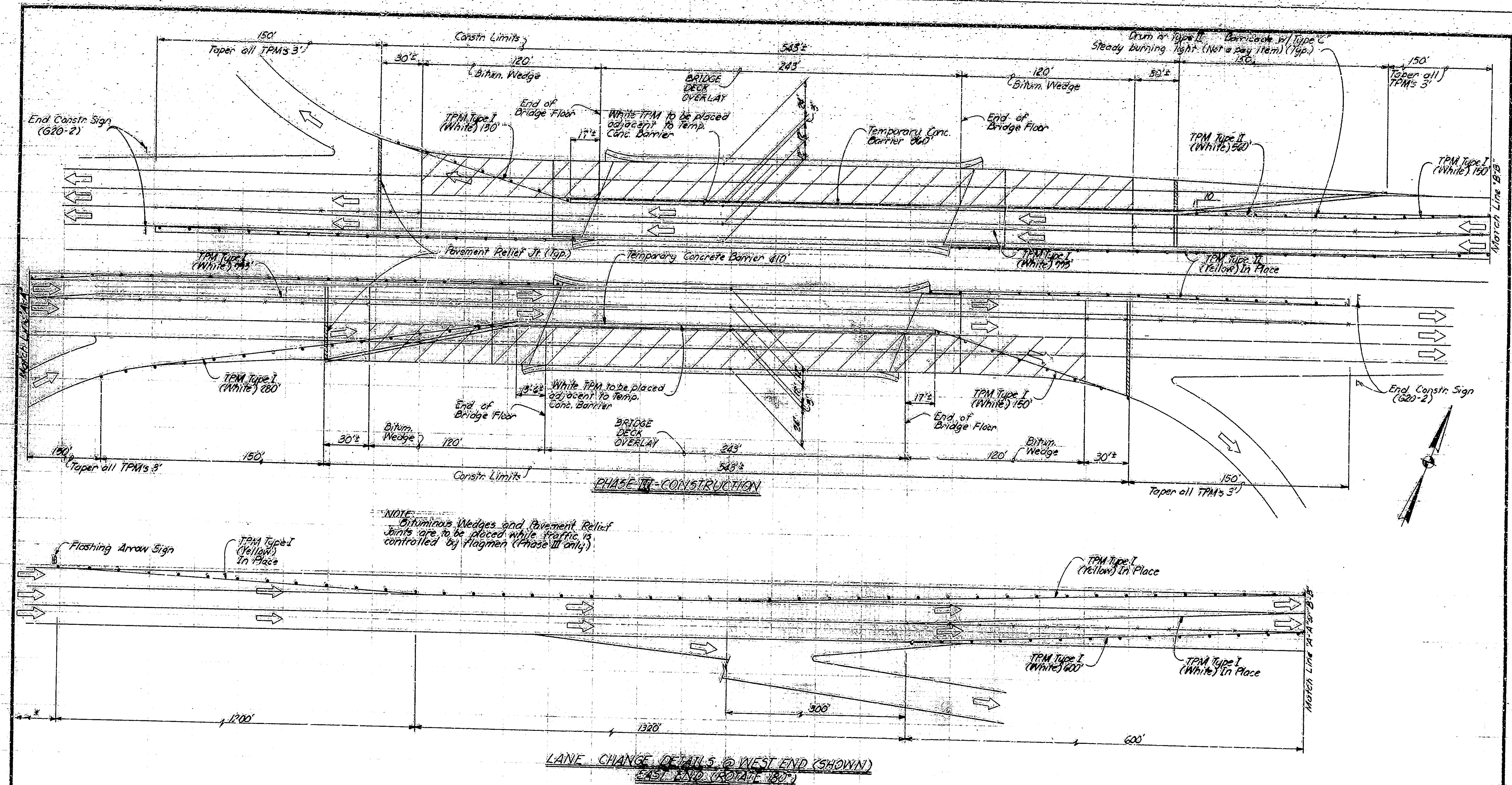
CONTRACT NO. 8-15650

BRIDGE FILE: 7-10-75-11175

SHEET: 3 OF 32

DESIGNED: J. Broad, CTO, R. Smith
DRAWN: D. Smith, CTO
CHECKED: CTO

Rev. 9-9-85 Drums, Barricades, TPM color.



* See Road Standard Sht. 1B Details for advance warning signs and merging of 3 lanes to 2 lanes.

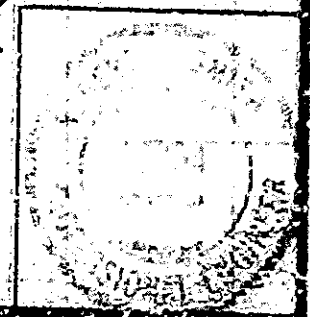
TPM = Temporary Pavement Marking
(Type and Color as noted)

--- Indicates skip lane or pavement edge lines to be removed.

TRAFFIC MAINTENANCE DETAILS
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

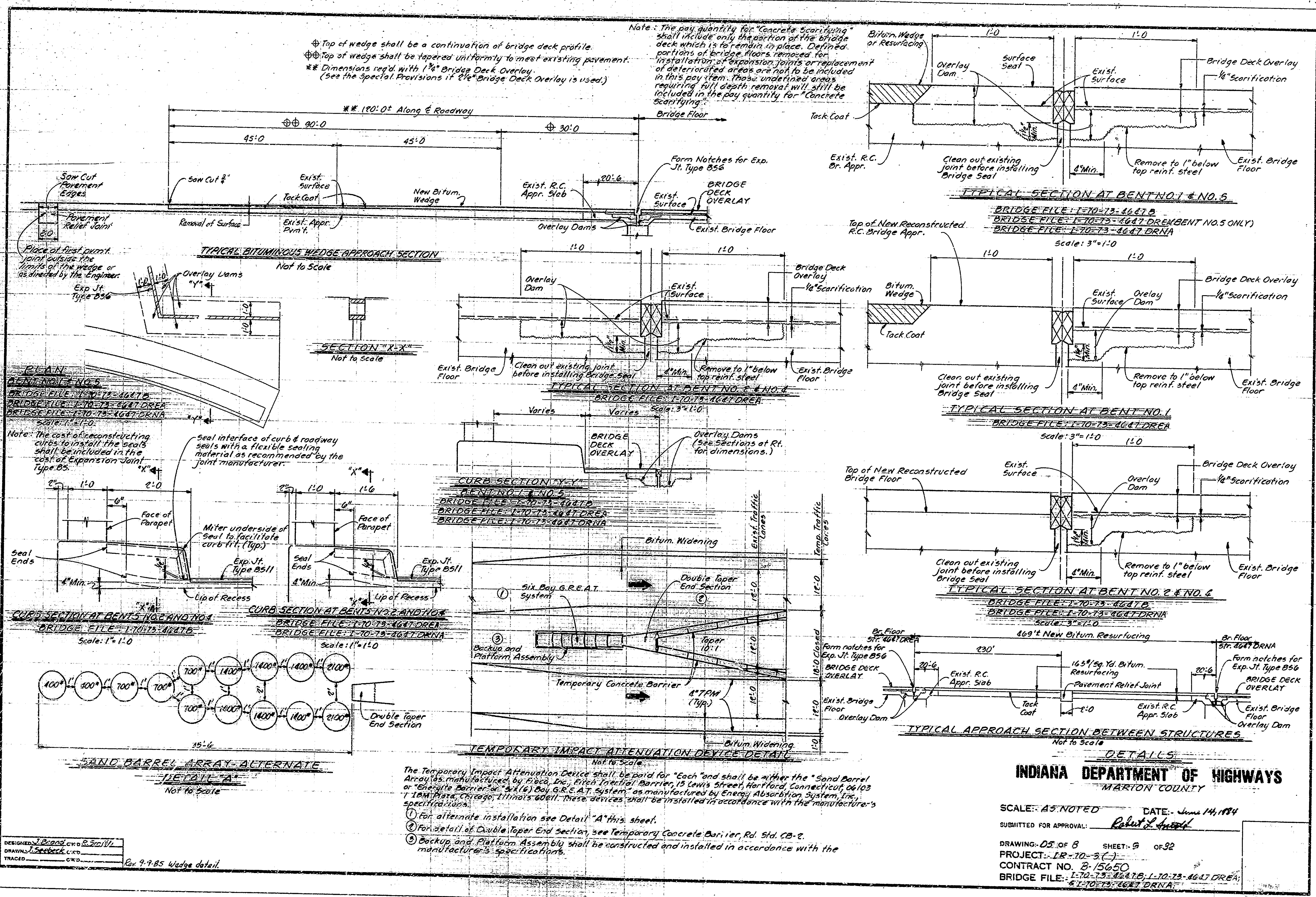
SCALE: 1"=30'
DATE: June 14, 1977
SUBMITTED FOR APPROVAL: Robert R. Lutz

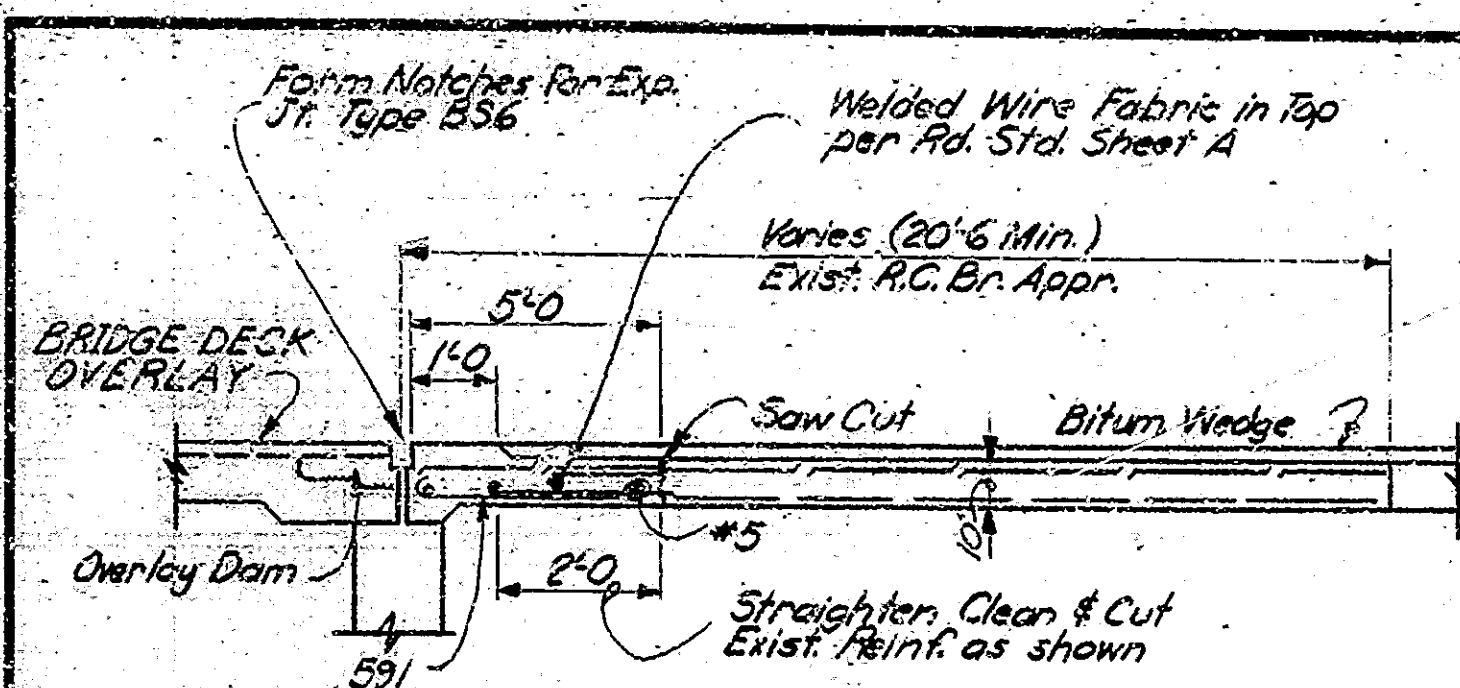
PROJECT: IR-70-57
CONTRACT NO. B-15650
BRIDGE FILE: I-70-75-46473



DESIGNED: J. Pundliko, R. Smith
DRAWN: D. Spartz, CKD
TRACED: CKD

Rev. 9-9-75 Drums & Barricades



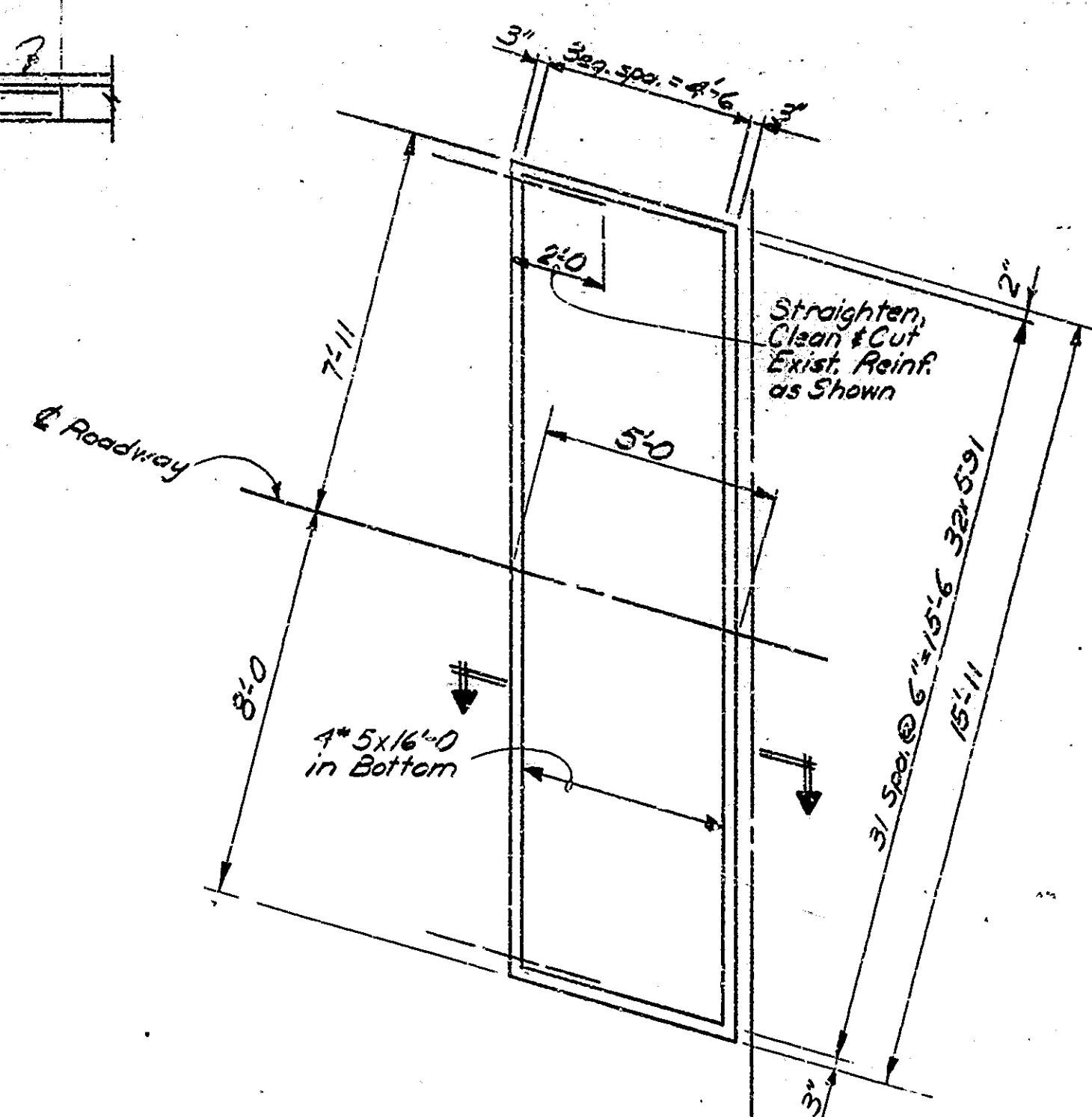


TYPICAL SECTION THRU R.C. BRIDGE APPROACH
Not to Scale

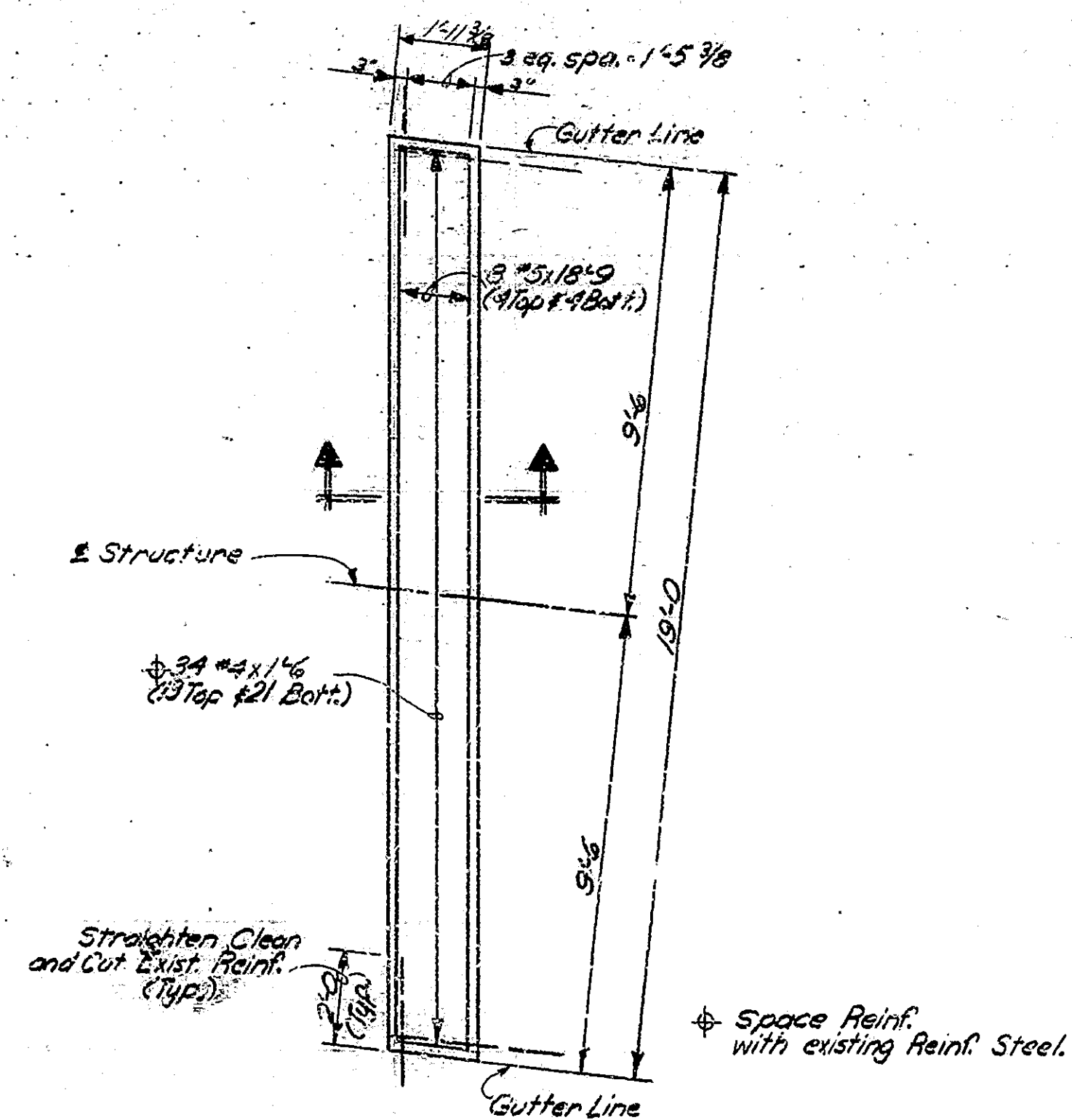
BILL OF MATERIALS			
R.C. BRIDGE APPROACH			
BRIDGE FILE: I-70-73-4647DREA			
REINFORCING STEEL			
Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
591	32	5'-1"	
#5	4	16'-0"	
Total Steel			236
CONCRETE			
Concrete Prim. Reinf. (Dredg.)			9.5 yds.

4'-6" 7"
591 x 5'-1"

Note:
See Bridge Standard C1 for
Reinforcing Bar Notes.

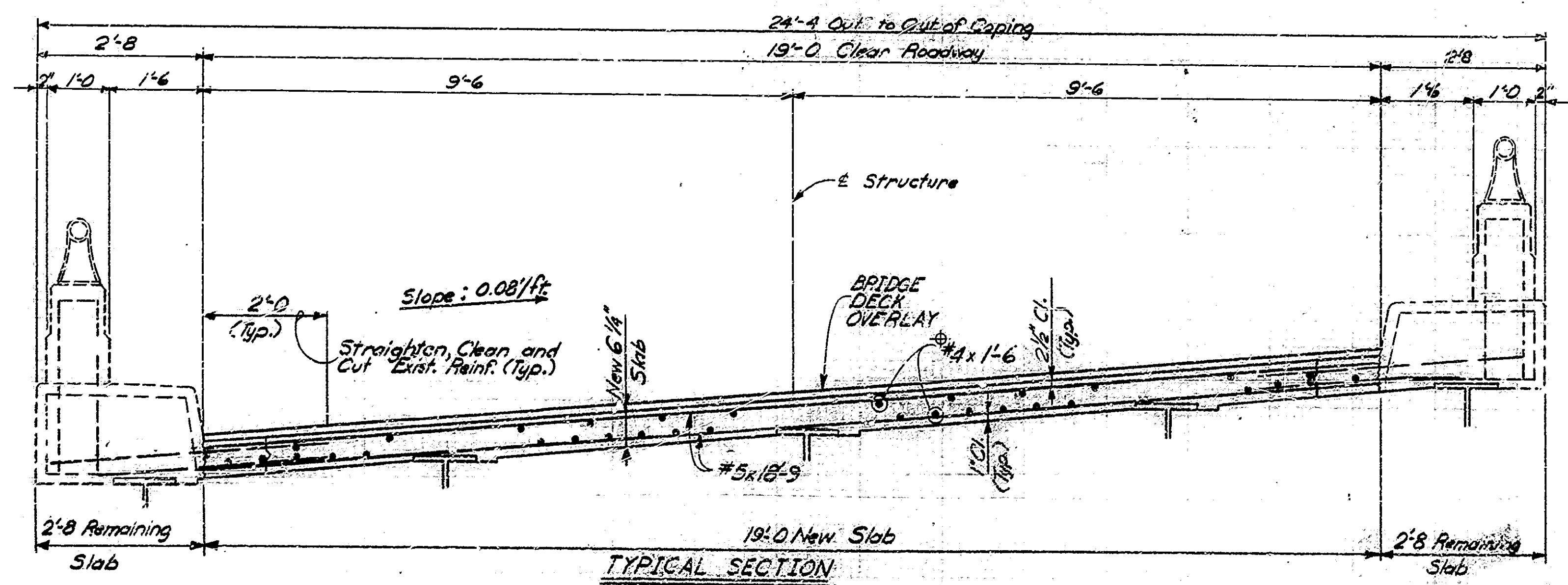


PLAN OF NEW R.C. APPROACH SLAB
BRIDGE FILE: I-70-73-4647DREA
Scale: 3/8" = 1'-0"

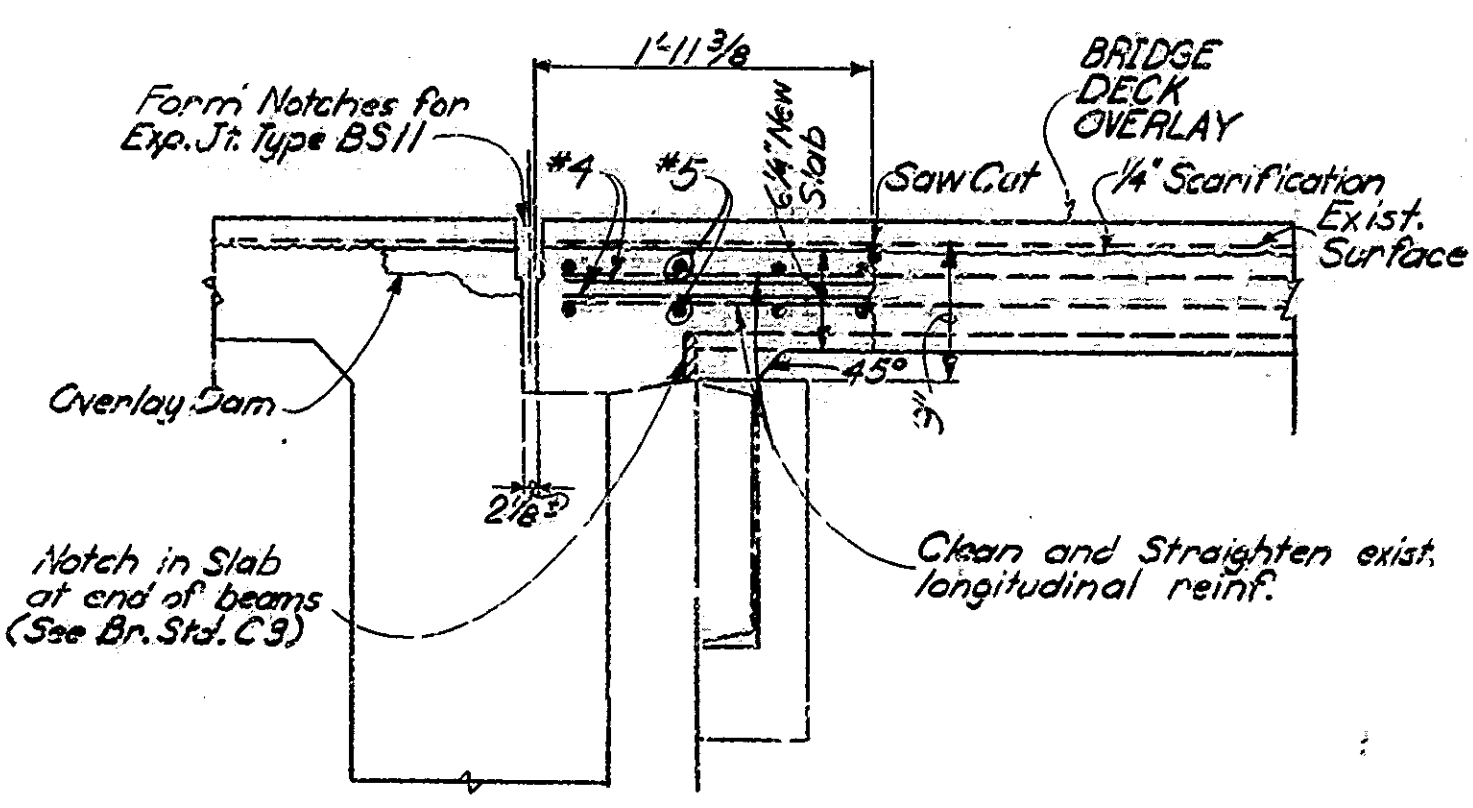


PLAN OF NEW SLAB
AT BENT NO. 2 (SHOWN)
BENT NO. 4 (OPP. HAND)
BRIDGE FILE: I-70-73-4647DRNA
Scale: 3/8" = 1'-0"

BILL OF MATERIALS			
FLOOR SLAB AT BENT NO. 2			
(BENT NO. 4 SAME)			
BRIDGE FILE: I-70-73-4647DRNA			
REINFORCING STEEL			
Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
#5	8	18'-9"	
Total #5			156
#4	39	1'-6"	
Total #4			34
Total Steel			190
CONCRETE			
Class 'A' in Superstructure			1.2 Cys.



TYPICAL SECTION
Scale: 3/4" = 1'-0"



SECTION AT BENT NO. 2 (SHOWN)
BENT NO. 4 (OPP. HAND)
BRIDGE FILE: I-70-73-4647DRNA
Scale: 1" = 1'-0"

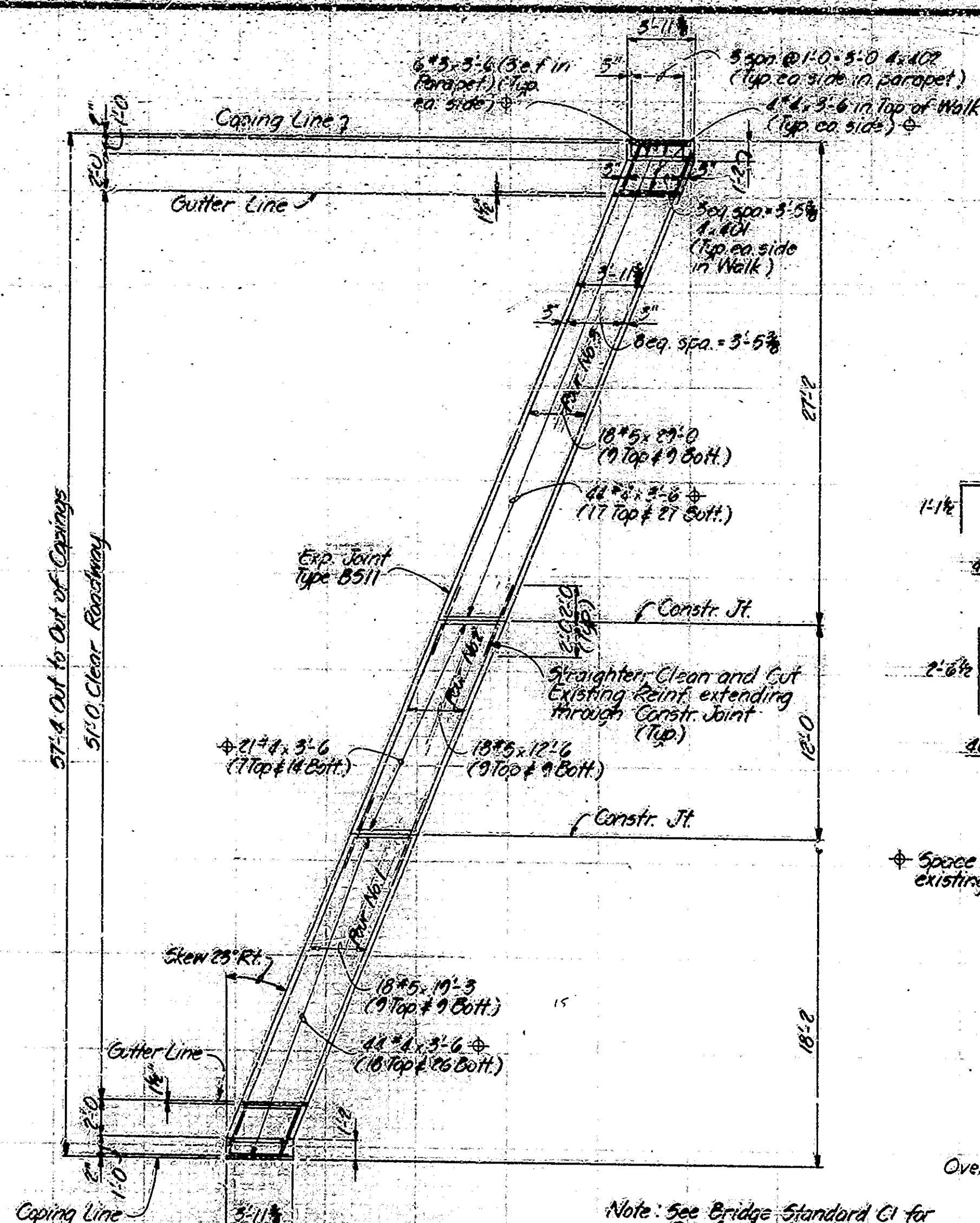
DETAILS
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: AS NOTED DATE: June 14, 1984

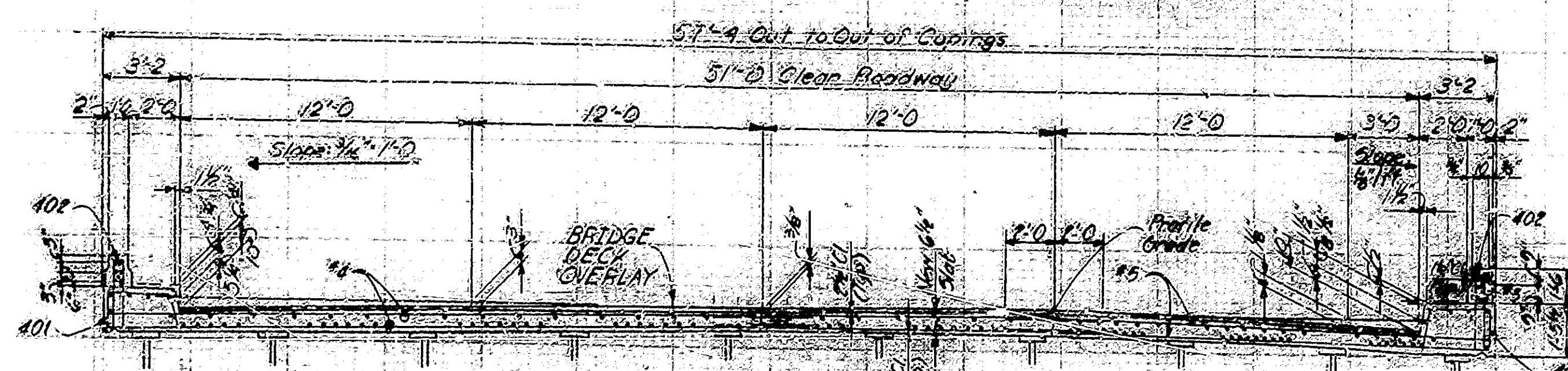
SUBMITTED FOR APPROVAL: Robert J. Smith

DRAWING: D6 OF 8 SHEET: 10 OF 32
PROJECT: I-70-3C
CONTRACT NO: B-15650
BRIDGE FILE: I-70-73-4647DREA I-70-73-4647DRNA

1672 & 1673



PLAN OF NEW SLAB AT
BENT NO. 2 (SEE BENT NO. 2 FOR DETAILS)
BRIDGE FILE: I-70-73-4647B
Scale: 1/4" = 1'-0"



TYPICAL SECTION
Scale: 1/4" = 1'-0"

BILL OF MATERIALS FLOOR SLAB (8 REOD)

BR. FILE: I-70-73-4647B

REINFORCING STEEL

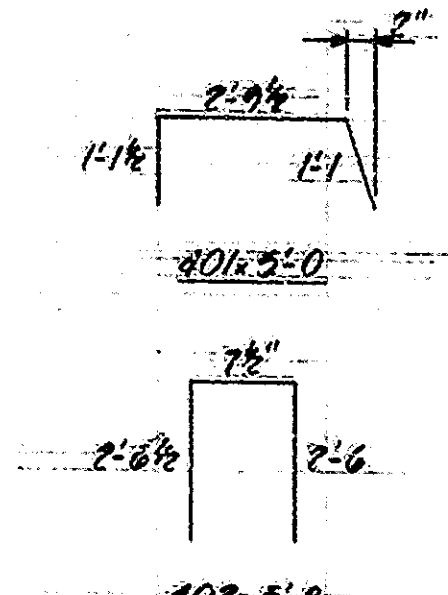
Mark or Size	No. of Bars	Length (ft)	Weight (lbs)
#5	18	29.0	
#5	18	19.3	
#5	18	12.6	
Total #5			112.1

#4	8	5.0	
#4	8	5.8	
#4	117	5.6	
Total #4			591

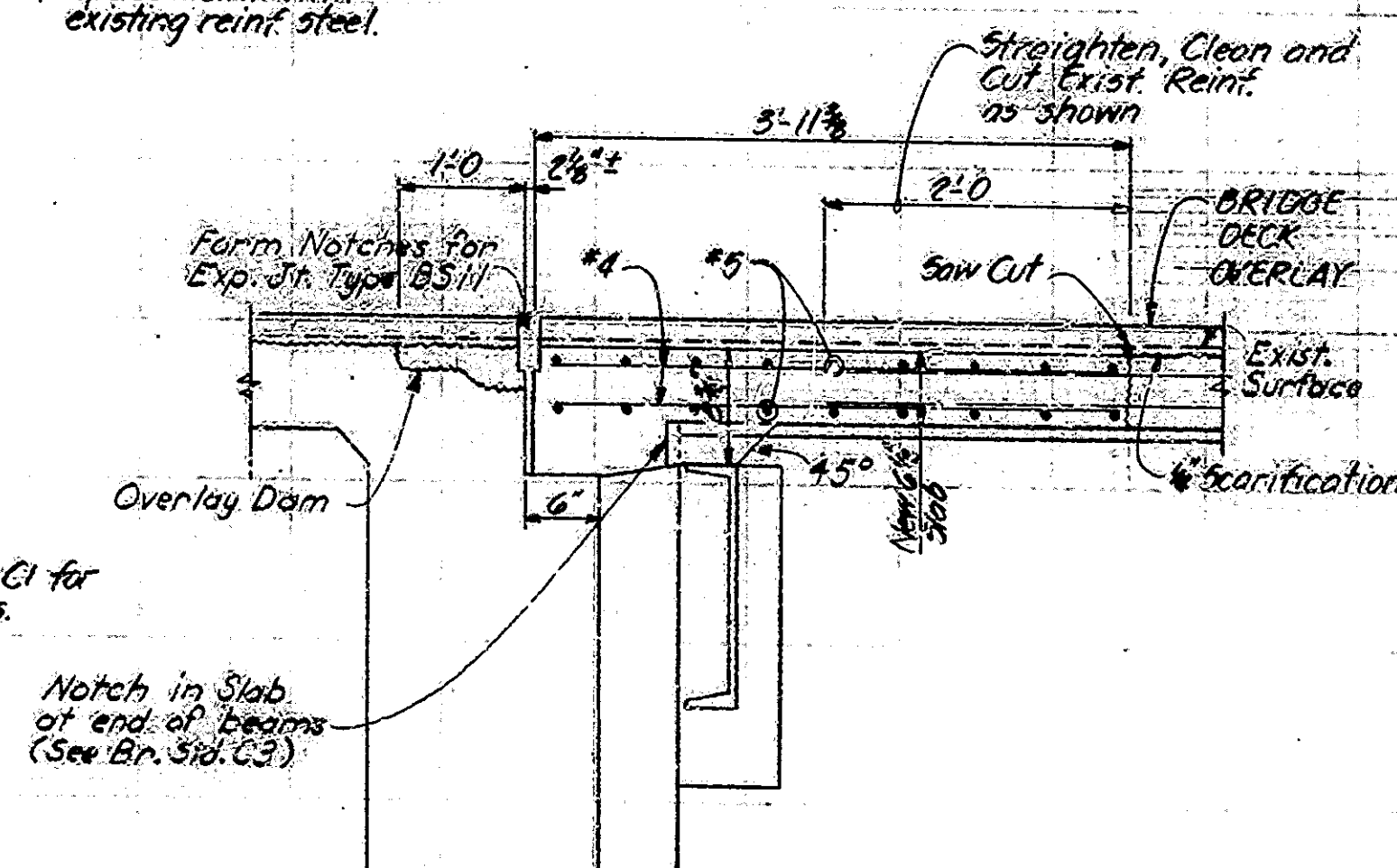
#3	12	5.6	
Total #3			16
Total Steel			1488

CONCRETE

Pour No. 1	8.5 Cys.
Pour No. 2	1.8 Cys.
Pour No. 3	3.4 Cys.
Total Class "A"	7.1 Cys.



Space reinf. with existing reinf. steel.

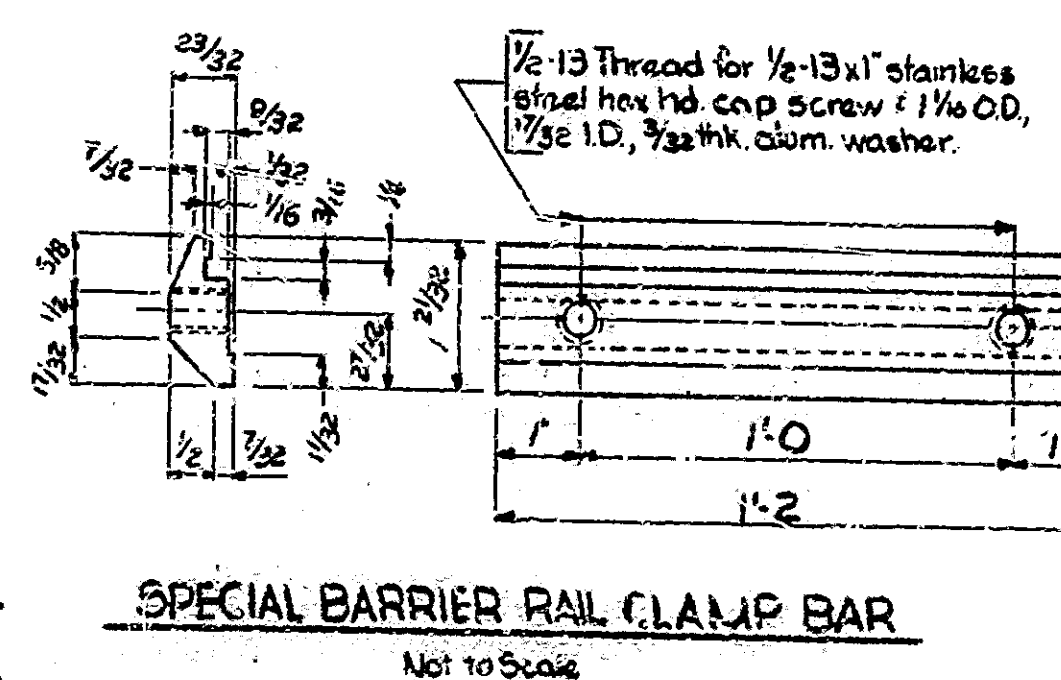
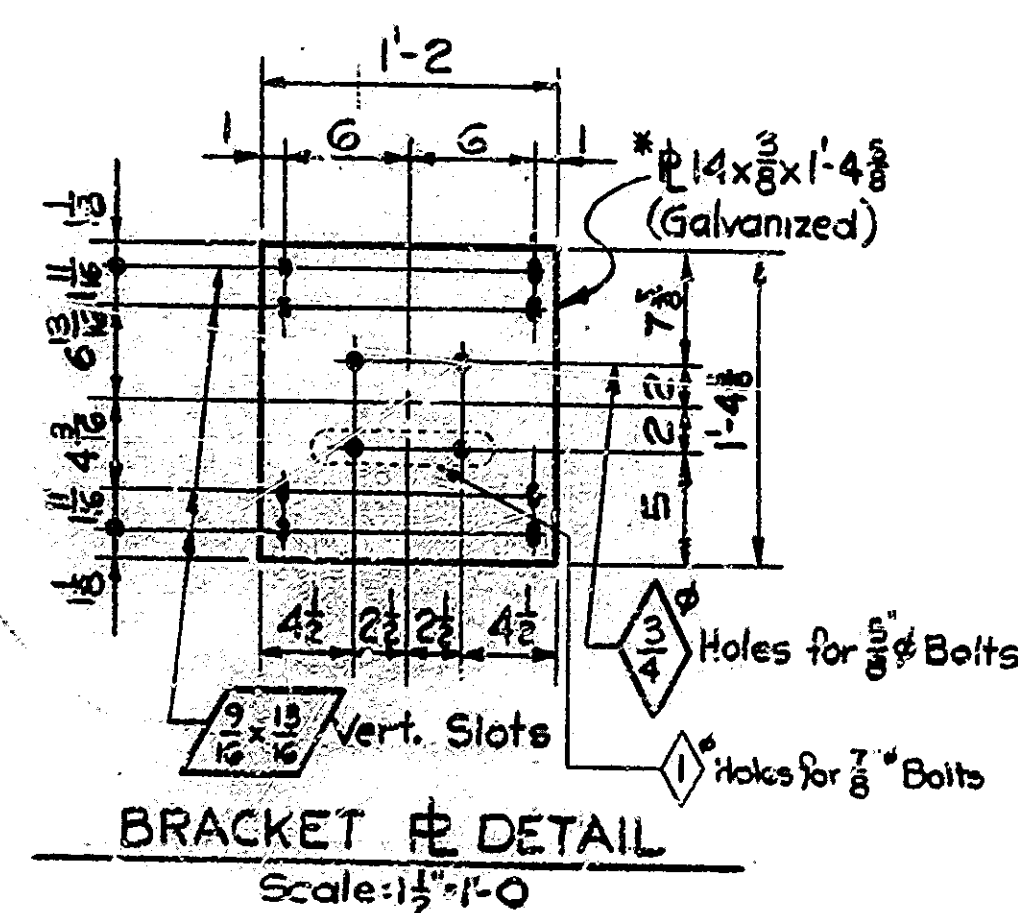
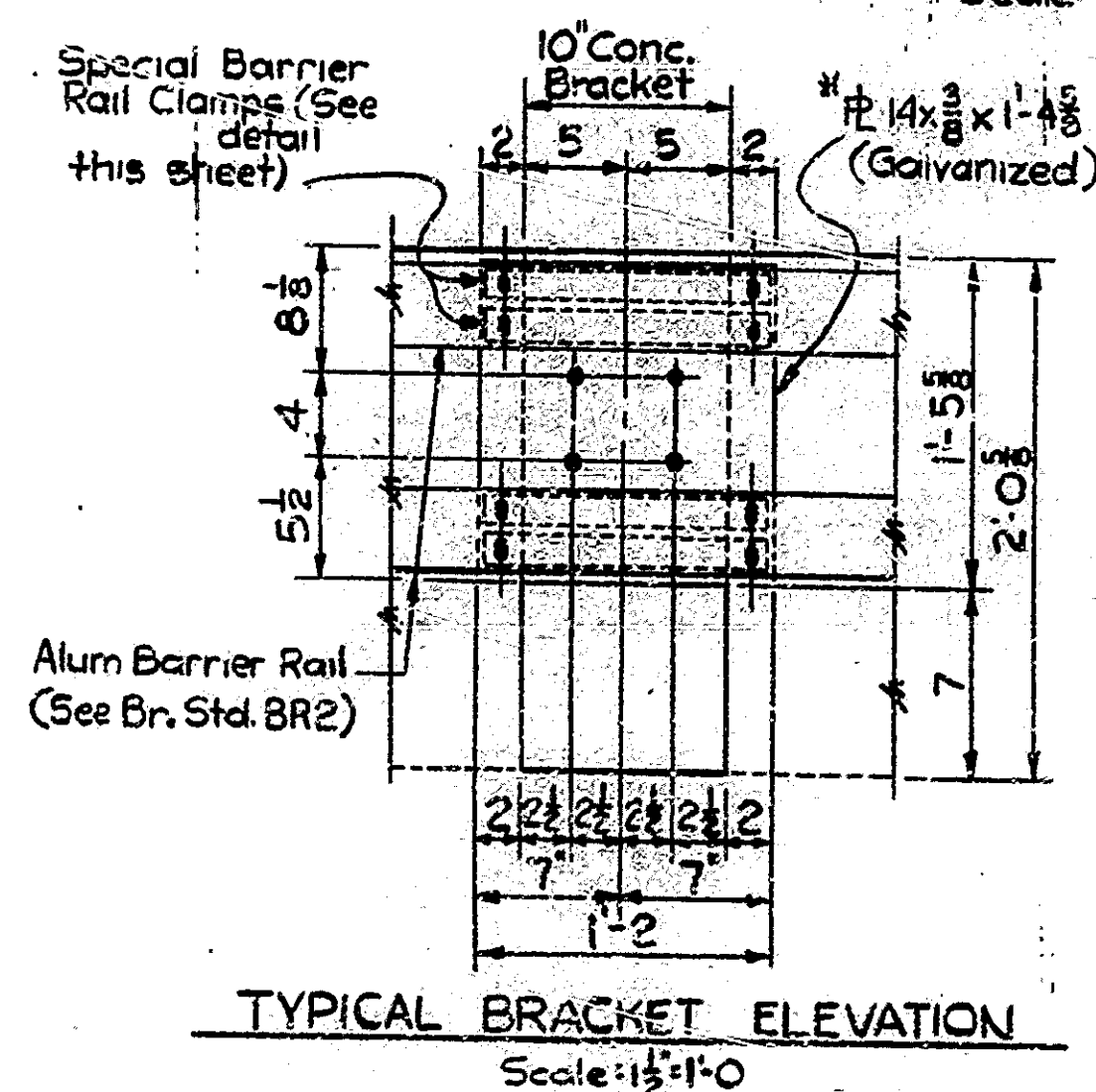
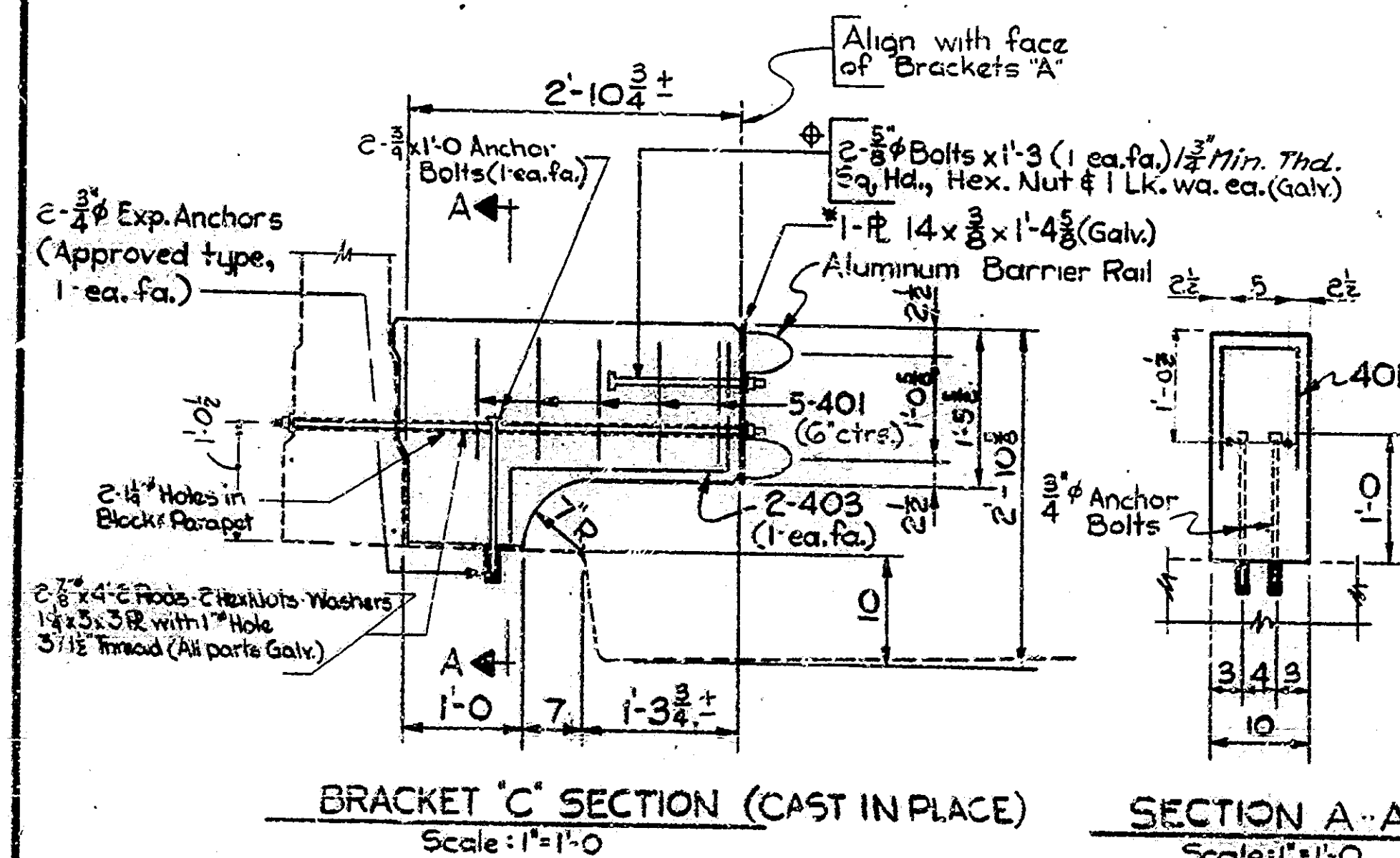
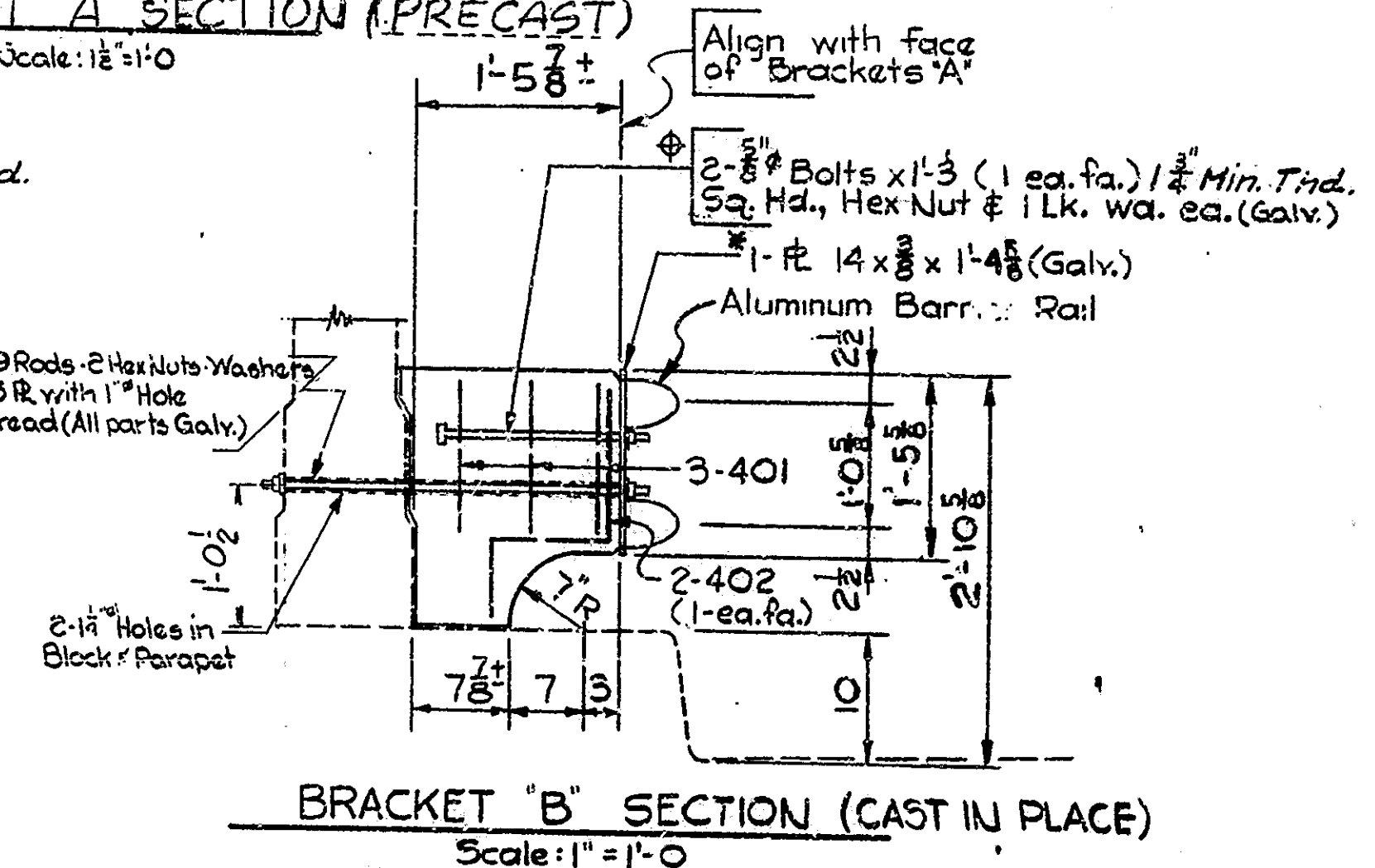
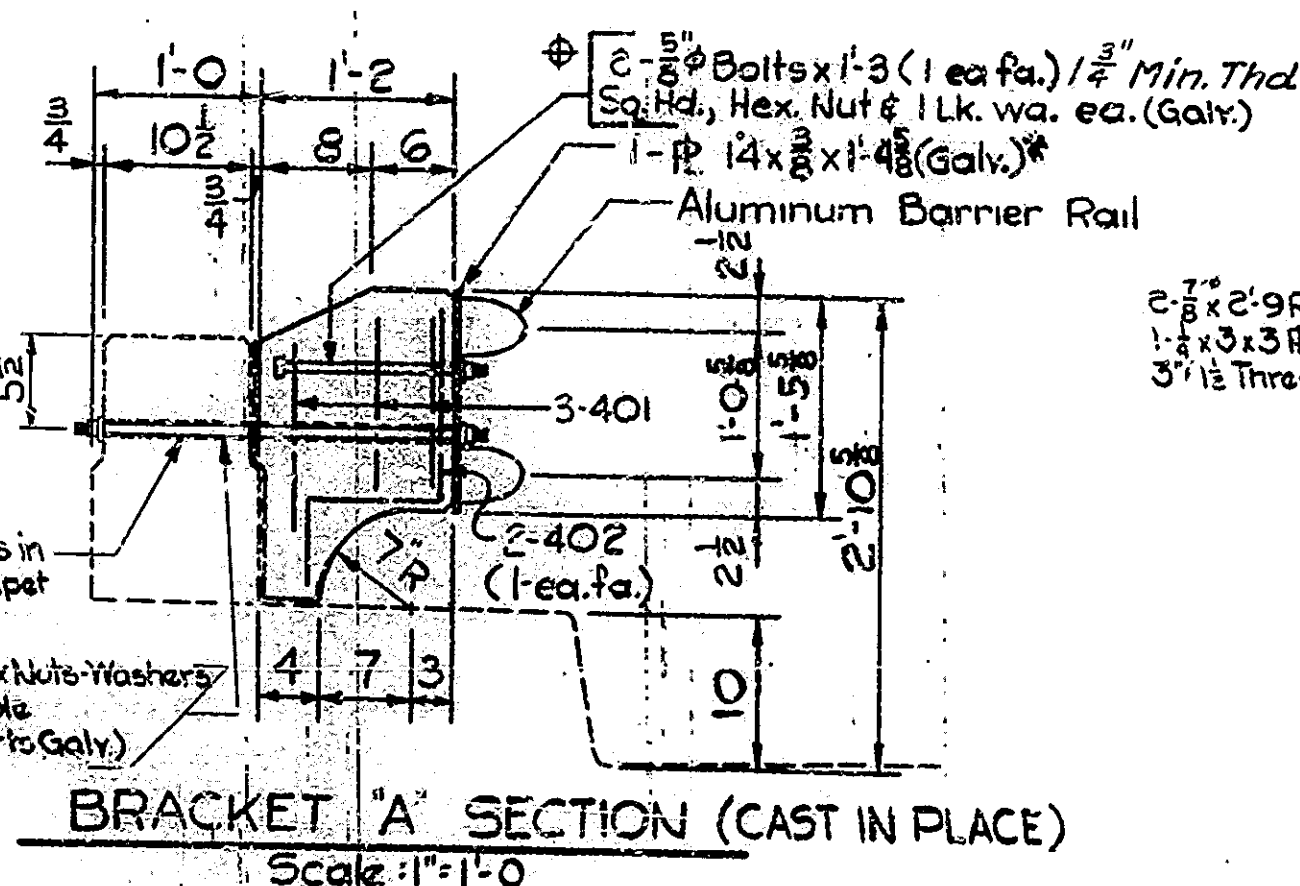


SECTION AT BENT NO. 2 (FB OR WB)
BENT NO. 4 (FB OR WB) (OPP. HAND)
BRIDGE FILE: I-70-73-4647B
Scale: 1/4" = 1'-0"

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: AS NOTED DATE: June 14, 1984
SUBMITTED FOR APPROVAL: Robert J. Smith
DRAWING: 07 OF 8 SHEET: 11 OF 32
PROJECT: I-70-73-4647B
CONTRACT NO: 3-15650
BRIDGE FILE: I-70-73-4647B

DESIGNED: J. Brand, C. B. Smith
DRAWN: M. B. Smith
CHECKED: M. B. Smith



NOTES:

Material in $\frac{3}{8}$ " Steel Rods and $\frac{1}{2}$ " R's to be A-36. $\frac{5}{8}$ " and $\frac{3}{4}$ " bolts shall conform to ASTM A-307.

$\frac{3}{4}$ " Expansion Anchors shall be of a type approved by the Engineer. They shall be a minimum of 3 inches in length and capable of a pull-out test of 12,000 pounds.

Concrete in Brackets to be Class "A".

Chamfer exposed concrete edges $\frac{3}{4}$ " inch.

See Br. Stds. BR1 & BR2 for Guard Rail notes and details.

Alternate Precast Brackets may be used, if the Precast Bracket is used, details of the proposed Bracket shall be submitted to the Engineer for approval.

* As an alternate, an aluminum plate may be used. If used, it shall be aluminum alloy 6061-T6 conforming to ASTM B-209. Plates shall be free of sharp edges and irregularities.

For details of allowable alternate aluminum bracket, see Drwg Standard drawings reqd. : BR1, BR2, C1.

WHERE EITHER THE 5/8" BOLT OR CAST-IN-PLACE THREADED INSERT IS SPECIFIED, THE OTHER MAY BE SUBSTITUTED AT THE CONTRACTORS OPTION

PAY ITEMS

REMOVAL OF PRESENT RAILING = 1690 UN. FT.
BARRIER RAILING, TYPE "X" = 1905 UN. FT.

BARRIER RAILING, TYPE "X" DETAILS
INDIANA STATE HIGHWAY COMMISSION
MARTON COUNTY

SCALE:- As Noted DATE:- June 14, 1984

SUBMITTED FOR APPROVAL: Robert L. Smith

DRAWING:- D8 OF 8 SHEET:- 12 OF 32

PROJECT: IR-70-3()
CONTRACT NO. B 15650

BRIDGE FILE: 1-70-73-46478, 1-70-73-4647 DREA,
1-70-73-4647 CRNA

Rev 1-31-74 RWB/rwh:eg
6-14-74 RWB/rwh:eg /WFG

STRUCTURE PAY ITEMS						
CODE NO.	DESCRIPTION	UNIT	STRUCTURE			TOTAL QUANTITY
			4647B	4647DRE	4647DRN	
51002	CONCRETE CLASS C IN SUPERSTRUCTURE	CYS.				
51001	CONCRETE, CLASS A IN SUPERSTRUCTURE	CYS.	28.4	—	24	30.8
51005	CONCRETE, CLASS A IN SUBSTRUCTURE	CYS.				
51010	CONCRETE, CLASS B ABOVE FOOTINGS	CYS.				
51015	CONCRETE, CLASS B IN FTGS	CYS.				
51075	SPECIAL CLASS A CONCRETE	SFT.				
51045	CONCRETE STRUCTURAL MEMBERS	LSUM				
51010	REINFORCING STEEL	LBS.	5052	236	380	6568
51032	EPOXY COATED REINF. STEEL	LBS.				
51035	STRUCTURAL STEEL	LBS.				
51038	STRUCTURAL STEEL	LSUM				
51090	BRONZE PLATES	LBS.				
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				
51068	TIE DOWN ASSEMBLY MK-UA	EACH				
51095	CAST IRON DRAIN PIPE, 4 IN.	LBS.				
51100	CAST IRON DRAIN PIPE, 6 IN.	LBS.				
51105	CAST IRON DRAIN PIPE, 8 IN.	LBS.				
51110	CAST IRON GRATES BASIN AND FITTINGS	LBS.				
51134	REMOVAL OF PRESENT RAILING	LFT.	359	350	401	1630
51132	RAILING RESET	LFT.				
51115	RAILING (TYPE 5 OR C)	LFT.				
51130	RAILING (TYPE 5A OR C1)	LFT.				
51125	RAILING (TYPE 6 OR D)	LFT.				
51130	RAILING (TYPE 7 OR E)	LFT.				
51020	CLASS C CONCRETE RAILING	CYS.				
51025	CLASS C CONCRETE RAILING	LFT.				
51131	BARRIER RAILING TYPE X	LFT.	1003	445	455	1903
51215	CLASS X EXCAVATION	CYS.				
51220	WET EXCAVATION	CYS.				
51223	WATERWAY EXCAVATION	CYS.				
51224	WATERWAY EXCAVATION	LSUM				
51225	DRY EXCAVATION	CYS.				
51230	FOUNDATION EXCAVATION (UNCLASSIFIED)	CYS.				
51813	PNEUMATICALLY PLACED MORTAR	SFT.				
51870	REPOINTING MASONRY IN STRS	SFT.				
51814	WELDED STEEL WIRE FABRIC	SFT.				
51859	PAINTING OLD STEEL BRIDGE	LSUM				
51881	EXPANSION JOINT TYPE B2	LFT.				
51885	EXPANSION JOINT TYPE B6	LFT.	261	61	66	388
51887	EXPANSION JOINT TYPE B8	LFT.				
51888	EXPANSION JOINT TYPE B9	LFT.				
51890	EXPANSION JOINT TYPE B11	LFT.	238	32	52	362
51925	EXPANSION JOINT CLASS S-S	LFT.				
51926	EXPANSION JOINT CLASS T-S	LFT.				
51874	OVERLAY DAM	SFT.	752	155	140	1047

*Estimated Quantity: 11966 SFT (4647B)
4640 SFT (4647DRE)
4795 SFT (4647DRN)
(See Special Provisions)

SUMMARIZED *D. Sheetz* C.K.O. J. BEARD
TRACED *M. Bird* C.K.O. D. SHEETZ

STRUCTURE PAY ITEMS						
CODE NO.	DESCRIPTION	UNIT	STRUCTURE			TOTAL QUANTITY
			4647B	4647DRE	4647DRN	
51135	TIMBER PILES FURNISHED UNREATED	LFT.				
51140	TIMBER PILES DRIVEN UNREATED	LFT.				
51145	TIMBER PILES FURN. TREATED	LFT.				
51150	TIMBER PILES DRIV. 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 53)	LFT.				
51210	PILE ENCASEMENT (CONCRETE)	LFT.				
	REMOVAL OF PRESENT STR. (PORTIONS) (4647B)	LSUM	1			1
51328	REMOVAL OF PRESENT STR. (PORTIONS) (4647DRN)	LSUM		1		1
51330	REMOVAL OF PRESENT STR.	LSUM				
51335	TEMPORARY BRIDGE AND APPR.	LSUM				
51366	CONCRETE SLOPEWALL 5 INCH	SYS.				
51365	SLOPEWALL 4"	SYS.			383	383
51370	RIPRAP	SYS.				
51375	REVENEMENT RIPRAP	TON				
51371	HANDLAD RIPRAP 12 INCH	SYS.				
51372	DUMPED RIPRAP	TON				
51374	PLASTIC FILTER CLOTH	SYS.				
51395	STEEL DRAIN PIPE (6 INCH)	LSUM				
51400	STEEL DRAIN PIPE (8 INCH)	LSUM				
51092	STEEL PIPE CONDUIT (2 INCH)	LFT.				
51866	RIVETS REMOVED	EACH				
51864	FIELD DRILLED HOLES	EACH				
51867	STRUCTURAL STEEL CUTTING	SIN				
51863	FIELD DRILLED HOLES IN CONCRETE	EACH				
51842	BRIDGE DECK OVERLAY	SYS.	2754	454	464	3672
51845	BRIDGE DECK SURFACE	SYS.				
51847	BRIDGE DECK PATCHING	SFT.	3700	612	1044	5356
51873	CONCRETE SCARIFYING	SYS.	1653	454	464	3573
51848	ADDITIONAL CONC. SCARIFYING	SYS.				
51877	BLASTING AND CLEANING	SYS.	2754	454	464	3672
51878	FINISHING AND CURING	SYS.	2754	454	464	3672
	FULL DEPTH PATCHING	SFT.	300	300		600
	ADDITIONAL BRIDGE DECK OVERLAY	CYS.	33	7	48	88

BITUM. MIXTURE FOR APPROACHES-TONS					
S.P. No.	4647B	4647DRE	4647DRN	TOTAL	
WEDGES	157	15	15	187	
RESURFACING	11	2	2	15	
REPAIR JOINTS	44	7	7	58	
WIDENING	388	32	32	452	
TOTAL	599	66	66	731	

APPROACH PAY ITEMS						
CODE NO.	DESCRIPTION	UNIT	STRUCTURE			TOTAL QUANTITY
			4647B	4647DRE	4647DRN	
02045	EXCAVATION FOR SUBGRADE TREATMENT	CYS.				
02020	UNCLASSIFIED EXCAVATION	CYS.				
52340	COMMON EXCAVATION	CYS.				
52345	BORROW	CYS.				
52350	B BORROW	CYS.				
52355	B BORROW FOR STRUCTURE BACKFILL	CYS.				
52303	REMOVAL OF PAVEMENT	SYS.	99	17	5	66
02235	BREAKING PAVEMENT	SYS.				
	REMOVAL OF SURFACE	SYS.	980	80	80	1140
52490	TERMINAL JOINT	LFT.				
52495	CONTRACTION JOINT, TYPE D-1	LFT.				
52280	CONC PAVEMENT REINFORCED (7 INCH)	SYS.				
52285	CONC PAVEMENT REINFORCED (8 INCH)	SYS.				
52290	CONC PAVEMENT REINFORCED (9 INCH)	SYS.				
52300	CONC PAVEMENT REINFORCED (10 INCH)	SYS.	—	9	—	9
06070	CONCRETE SIDEWALK	SYS.				
52305	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON				
52605	AGGREGATE FOR SHOULDER DRAINS	TON				
52610	AGGREGATE FOR UNDER DRAINS	CYS.				
52308	TYPE Q COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON				
52310	SUBBASE	CYS.				
52315	BITUM. STABILIZED SUBBASE TYPE I, II, OR III	TON				
52320	BITUM. STABILIZED SUBBASE TYPE I, II, OR III	TON				
52445	BITUMINOUS BASE	TON				
04260	BITUMINOUS BASE (TYPE 5D)	TON				
52450	BITUMINOUS BINDER	TON				
52455	BITUMINOUS SURFACE	TON				
52456	BITUMINOUS MATERIAL FOR TACK COAT	SYS.	2645	619	652	3896
52460	BITUMINOUS MATERIAL FOR PRIME COAT	SYS.				
04350	SEAL COAT TYPE 5	SYS.				
04348	SEAL COAT TYPE 2	SYS.				
52470	BITUMINOUS MIXTURE FOR APPROACHES (See Table Below)	TON	357	54	37	703
52475	BITUMINOUS MIXTURE FOR SHOULDER	TON				
52500	GUARD RAIL, TYPE A	LFT.				
52505	GUARD RAIL, TYPE B	LFT.				
52510	GUARD RAIL, TYPE C	LFT.				
52515	GUARD RAIL, TYPE D	LFT.				
52520	GUARD RAIL, TYPE E	LFT.	190	20	20	250
52525	GUARD RAIL, TYPE F	LFT.				
52530	GUARD RAIL, TYPE G	LFT.	872	110	110	1092
52531	GUARD RAIL, TYPE H	LFT.				
52537	GUARD RAIL END TREATMENT TYPE I	EACH	4	—	—	4
06035	RESET GUARD RAIL	LFT.	30	333	333	716
52535	REMOVAL OF GUARD RAIL	LFT.	750	110	110	970
52380	SODDING	SYS.				
52381	SODDING (NURSERY)	SYS.				
52385	MULCHED SEEDING "R"	SYS.				
06560	MULCHED SEEDING "U"	SYS.				
52392	MULCHED SEEDING (LEGUMES)	SYS.				
52388	SEED MIXTURE "R"	LBS.				
52389	SEED MIXTURE "U"	LBS.				
52398	SEED MIXTURE "CU"	LBS.				
52391	SEED MIXTURE (GRASS)	LBS.				
52400	MULCHING MATERIAL	TON				
52405	MULCHING MATERIAL (WOOD CEMULGUS FIBER)	TON				
52410	FERTILIZER	TON				
52415	WATER	M.G.				
52415	AGRICULTURAL LIMESTONE	TON				

REVISIONS	
DATE	ITEM
6-21-84	06713
9-9-85	51833, 52470, Full Depth Patching, Add. B. Deck Over-Lay, Removal of Surfaces added.

BRIDGE ESTIMATE OF QUANTITIES

INDIANA DEPARTMENT OF HIGHWAYS

MARION COUNTY

DATE June 14, 1984

SUBMITTED FOR APPROVAL:

Robert L. Smith

PROJECT: 18-70-31

CONTRACT NO: B-15650

BRIDGE FILE: 1-70-73-4647B, 1-70-73-4647DRE, 1-70-73-4647DRN.

SHEET 13 OF 32

END STR