

CONSTRUCTION PROCEDURE (EACH STRUCTURE)

1. Construct all bituminous widening, temporary ramp connections, install temporary barrier railing and other traffic control devices to divert traffic to one lane of travel.
2. Scarify bridge deck to a minimum of 1/4". Scarify additional areas of the bridge deck an additional 1/4" as directed by the Engineer. Remove scarifying dust.
3. Remove all deteriorated concrete from all areas of the bridge floor and around all exposed reinforcing as directed by the Engineer and in accordance with the Special Provisions.
4. Blast and clean all scarified and removal areas.
5. Construct overlay dams.
6. Place Bridge Deck Patching and Bridge Deck Overlay as shown in the plans and in accordance with the Special Provisions.
7. Install Expansion Joints Type BS and Class S-S as shown in the plans.
8. Madjack approach slab as shown in the plans. (-4437B)
9. Remove and replace portions of approach pavement. (-4440A)
10. Remove curb and lip gutter in gore area within the limits of bitum. wedge. (-4440A)
11. Construct relief joints and bituminous wedges at approaches.
12. Remove existing bridge rail and install Barrier "X" Railing.
13. Update guard rail of approaches to bridge, including outside guard rail beyond gore area on structure (-4440A) according to latest I.S.H.C. Standards.
14. Reshape spill slopes and construct bituminous diversion dams in the median at ends of bridges (-4437B)
15. Repair slopewall as required. (-4440A)
16. Repoint piers and patch curtainwalls as required. (-4437B)
17. Seal roadway face, top and coping face of walks and parapet walls, all exposed surfaces of concrete brackets for Barrier "X" Railing and the top of overlay dams on approaches with a penetrating epoxy sealer.
18. Perform all other work shown in the plans.
19. Reset traffic control devices to divert traffic to completed lane and repeat steps 2 thru 18, where applicable. When all work is completed, open structure to traffic.

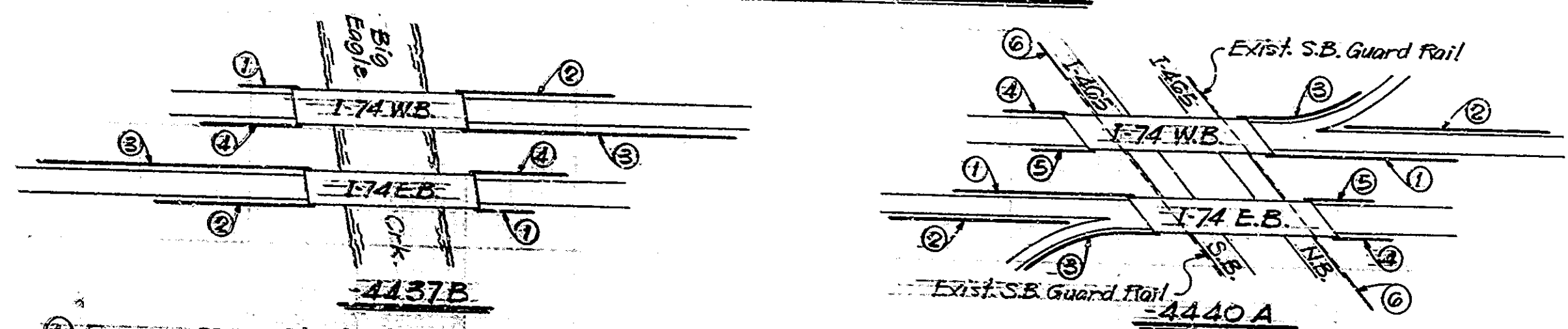
(The numbers do not necessarily indicate the sequence of operations.)

GENERAL NOTES

- Plans for existing structures are on file and are available upon request in the Bridge Department, Indiana State Highway Commission as follows:
I.A. Project No. Bridge File No.
I-74-2(23)70 I-74-70-4437A
I-74-2(14)072 I-74-72-4440
- 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 concrete, removal shall continue until perfectly sound concrete is exposed. All existing deck patches shall be removed to sound original concrete.
- Concrete in patches for deteriorated concrete areas of the original surface to be Special Class "A" concrete bonded with epoxy bonding compound or Modified Portland Cement Concrete. See the Special Provisions.
- All bituminous material required in this contract to be included in the pay item "Bituminous Mixture for Approaches", except Tack Coat, which shall be paid for separately in Sys.
- Existing removed bridge railing and guard rail to remain the property of I.S.H.C.
- The length and quantity of bituminous wedging shown on the plans is based on the use of the Modified P.C.C. Overlay. See Special Provisions.
- Grading for shoulders to be included in the cost of other items.
- All removal equipment used for partial concrete removals of bridge structures shall be hand held. Pneumatic hammers, 30 lbs. max. weight shall be used for all removal areas to be patched and all areas within 24" of full depth removal lines. Pneumatic hammers, up to 90 lbs. max. 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 30 lbs. may be used.

BRIDGE STD.	ROAD STD.	PURPOSE
C1		Reinforcing Bar Notes
C2		Type IA Joint, Notch in Slab at ends of Beam
BR1#2		Aluminum Bridge Railing Details
	MA	R.C. Bridge Approach Slab
	GR2	Guard Rail, Class Bs
	GR3	" " " BA, BST
	GR4	" " " GA, GST
	GR5	Aluminum Guard Rail Details
	GR6	Steel Tube Guard Rail Details
	GR10	Guard Rail End Treatment
	GR10A	Breakaway Cable Terminal
	CB2	Temporary Concrete Barrier
	Sht. 1 Detours	Method of Marking Detour
	Sht. 1B Detours	Method of Marking Detour
	Sht. 2A Detours	Standard Detour Signs
	Sht. 3 Detours	" " "
	Sht. 3A Detours	" " "
	Sht. 4 Detours	" " "
	Sht. 5A Detours	" " "
	Sheet D	Traffic Sign Details

GUARD RAIL REVISIONS



- 1) Remove 275 L.F. of Steel Beam Guard Rail. Require 275 L.F. of Guard Rail Type "G".
- 2) Remove 90.5 L.F. of Steel Beam Guard Rail. Require 90.5 L.F. of Guard Rail Type "G".
- 3) Remove 206 L.F. of Steel Beam Guard Rail. Require 206 L.F. of Guard Rail Type "G" w/ Guard Rail End Treatment.
- 4) Requires 53 L.F. of Guard Rail Type "G".
- 5) Remove 187.5 L.F. of Steel Beam Guard Rail. Require 187.5 L.F. of Guard Rail Type "G" w/ Guard Rail End Treatment.
- 6) Remove 406.2 L.F. of Steel Beam Guard Rail. Require 406.2 L.F. of Guard Rail Type "B" w/ Guard Rail End Treatment.
- 7) Remove 93.75 L.F. of Steel Beam Guard Rail. Require 93.75 L.F. of Guard Rail Type "G".
- 8) Remove 50 L.F. of Steel Beam Guard Rail. Require 50 L.F. of Guard Rail Type "G".
- 9) Requires 53 L.F. of Guard Rail Type "G".
- 10) Remove 21.2 L.F. of Steel Beam Guard Rail. Require Guard Rail End Treatment (B.C.T.).

	SR. 4437B	SR. 4440A	TOTAL
Removal of Guard Rail (L.F.)	866	1537.3	2403.3
Guard Rail Type "B" (L.F.)		755	755
Guard Rail Type "G" (L.F.)	866	901	1767
Guard Rail End Treatment (Each)	2	0	2

MATERIAL NOTES

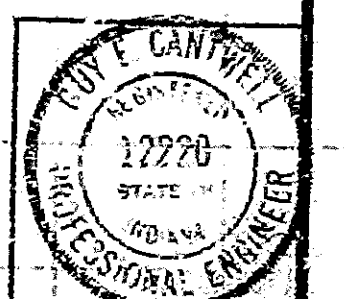
4437B	4440A	Total	Description
608	411	1019	Tons Bituminous Widening - 900 lbs./Syd. Bituminous Base, Type 5D.
-	270	270	Tons Temporary Ramp Connection - 900 lbs./Syd. Bitum. Base, Type 5D.
113	138	251	Tons Bituminous Wedge - Bituminous Surface, Type 11B.
211	34.0	245	Tons Pavement Relief Joint - 110 lbs./Syd. Bitum. Surface, Type 11B on 1870 lbs./Syd. Bituminous Base.
66	-	66	Tons Bituminous Diversion Dam - H.A.C. Base (see Sec. 403.04(6) of the Specifications.)
749 + 853 = 1602 TONS BITUMINOUS MIXTURE FOR APPROACHES			

DESIGNED	J.E.M.	CHK	F.E.S.
DRAWN	R.W.B.	CHK	F.E.S.
TRACED		CHK	

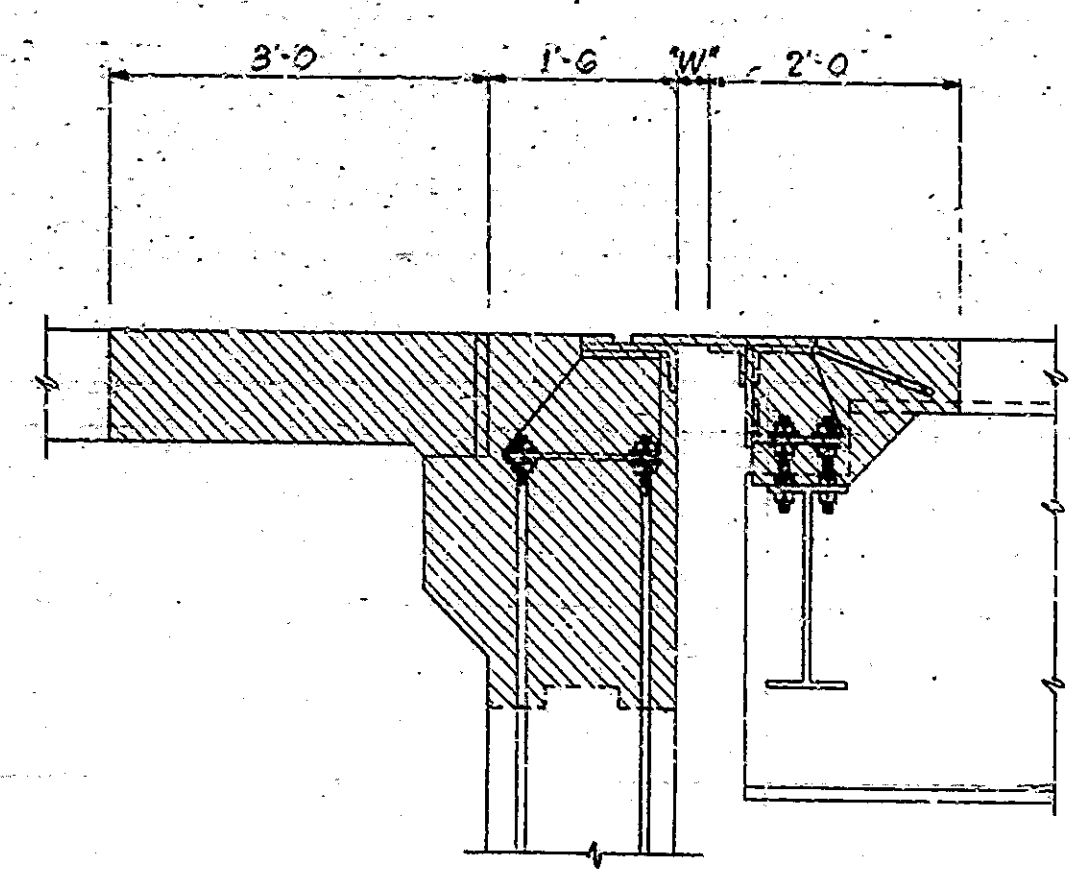
Rev. 9-13-80 Bituminous Quantities
Rev. 7-21-80 Material Notes Rev. 8-15-80 Material Notes

CONSTRUCTION PROCEDURE, GENERAL NOTES, MATERIAL NOTES, STANDARD DRAWING TABLE AND GUARD RAIL REVISIONS
INDIANA STATE HIGHWAY COMMISSION

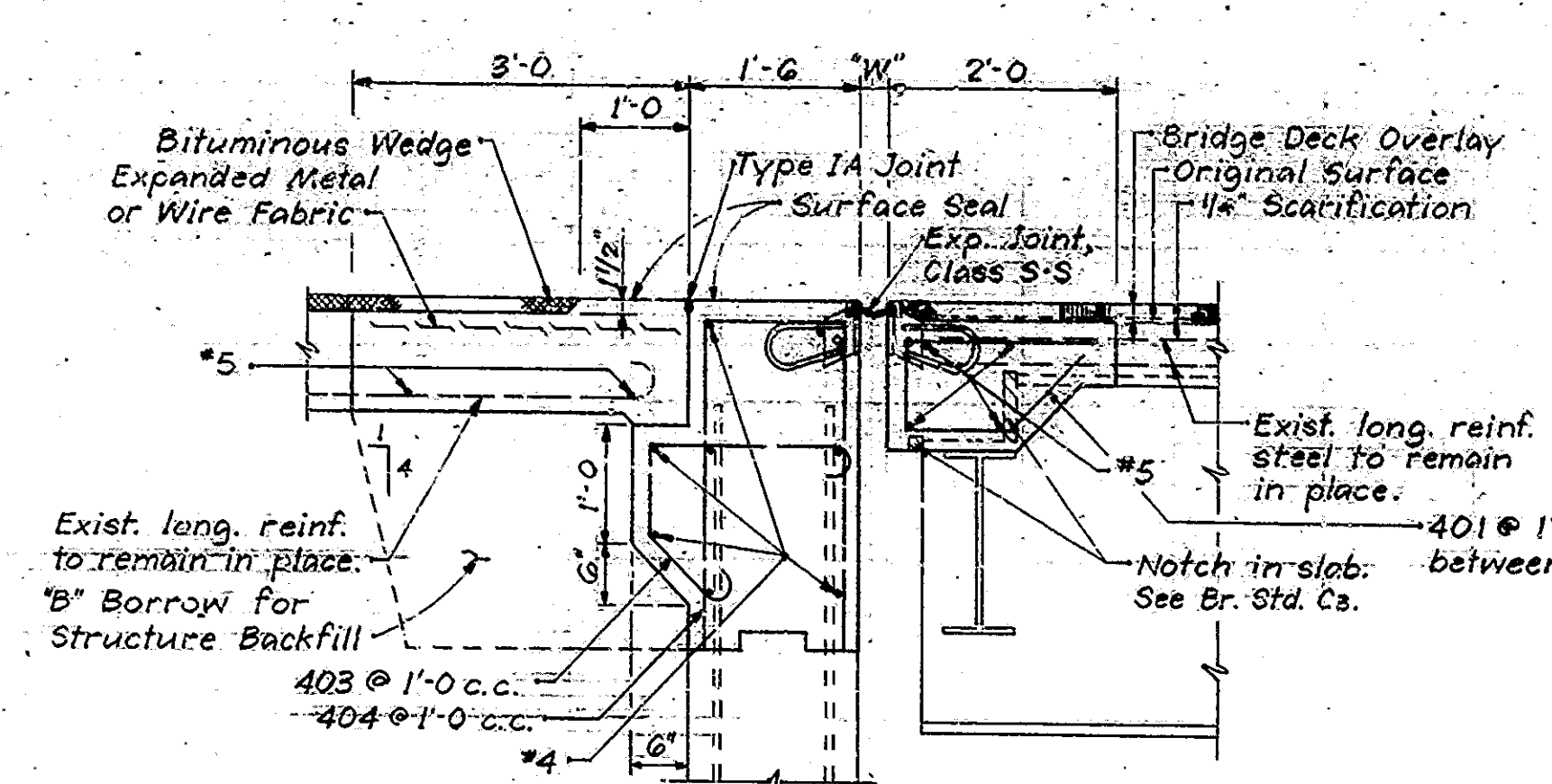
SCALE: None DATE: April 24, 1980
DRAWINGS: DS OF 8 SHEETS: 7 OF 34
PROJECT: I-FRI-74-2(23)70
CONTRACT NO. B-12750
BRIDGE FILE: I-74-70-4437B ; I-74-72-4440A



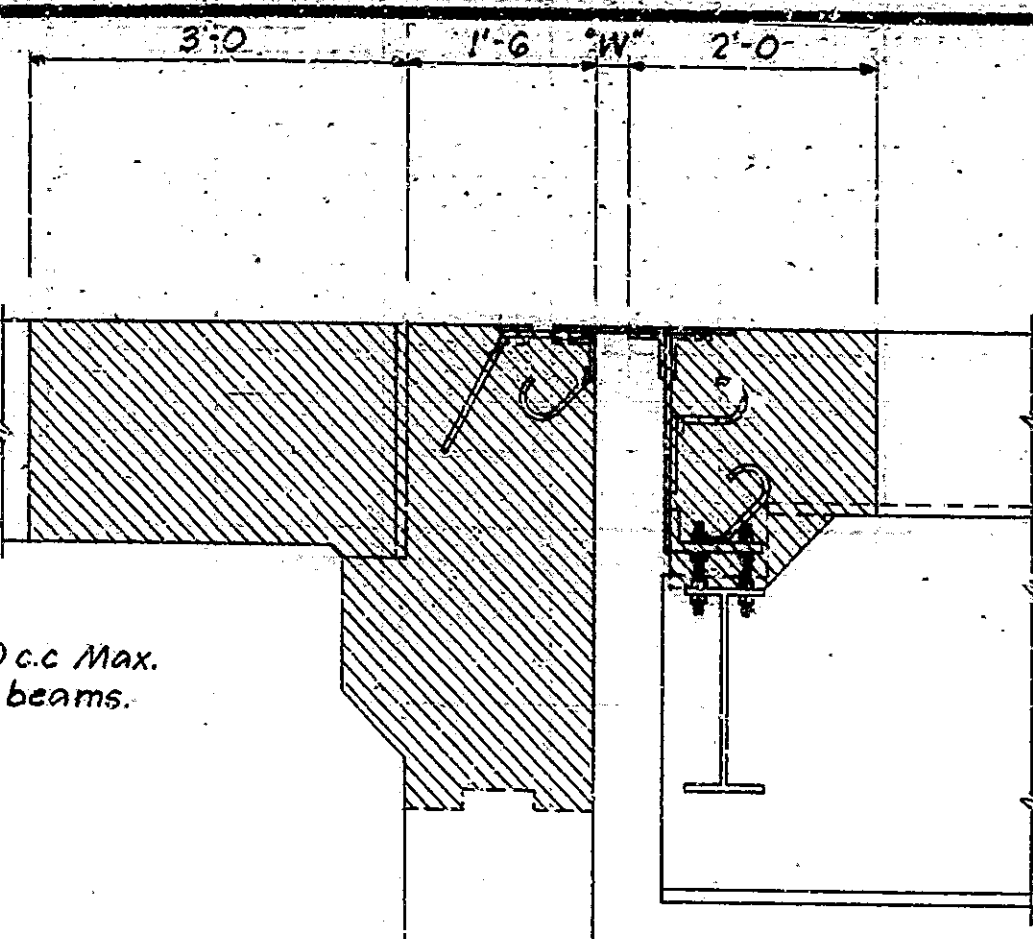
7-21-80 R.W.B./M.F.S. 8-15-80 F.M.S./M.F.S. 9-15-80 J.W.J./F.S./M.F.S.



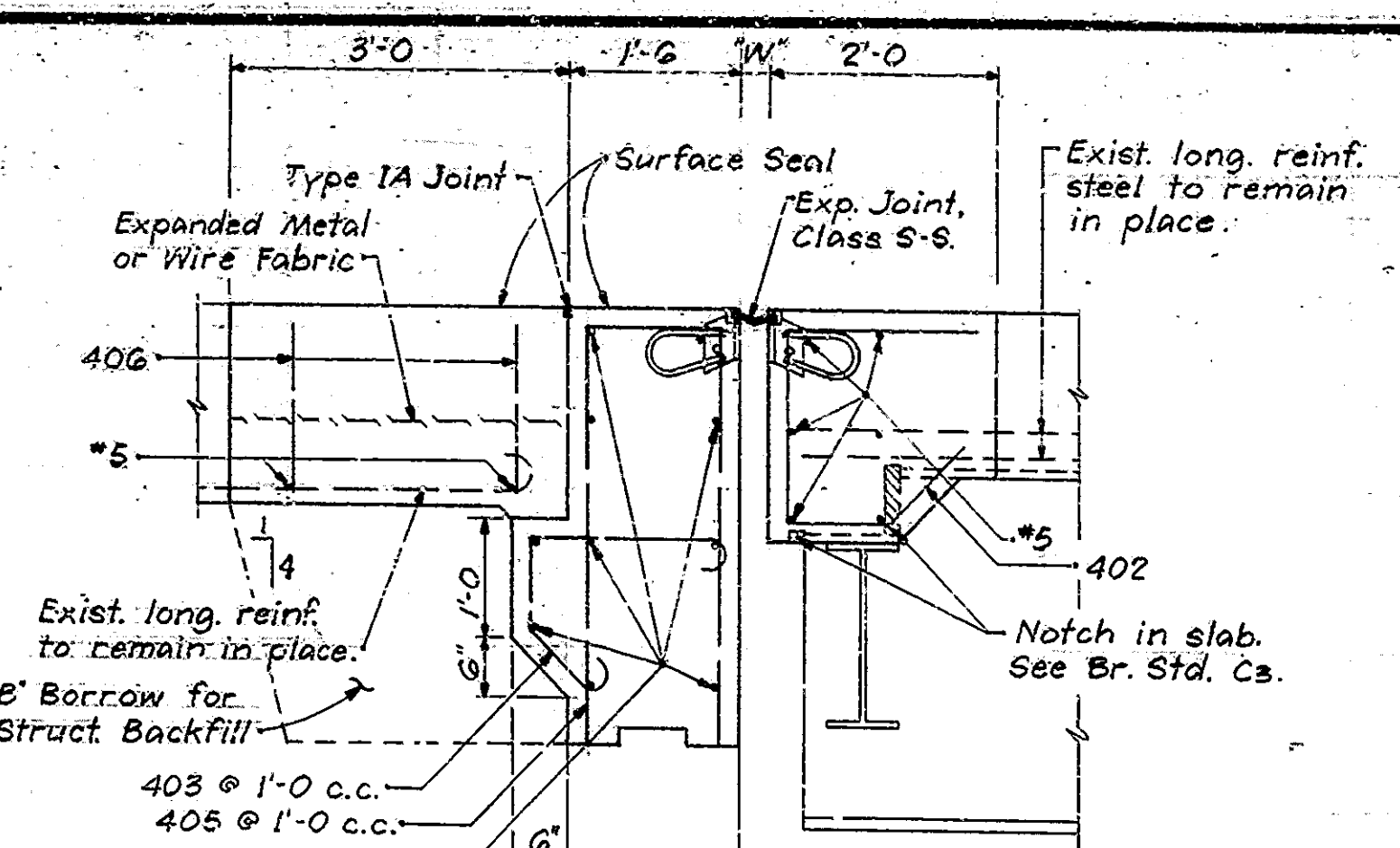
SECTION "A-A"
(SHOWING LIMITS OF REMOVAL)
Scale: 3/4" = 1'-0"



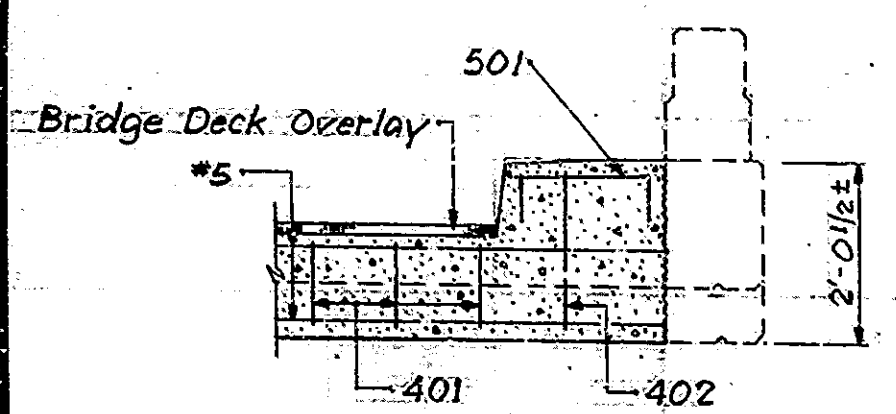
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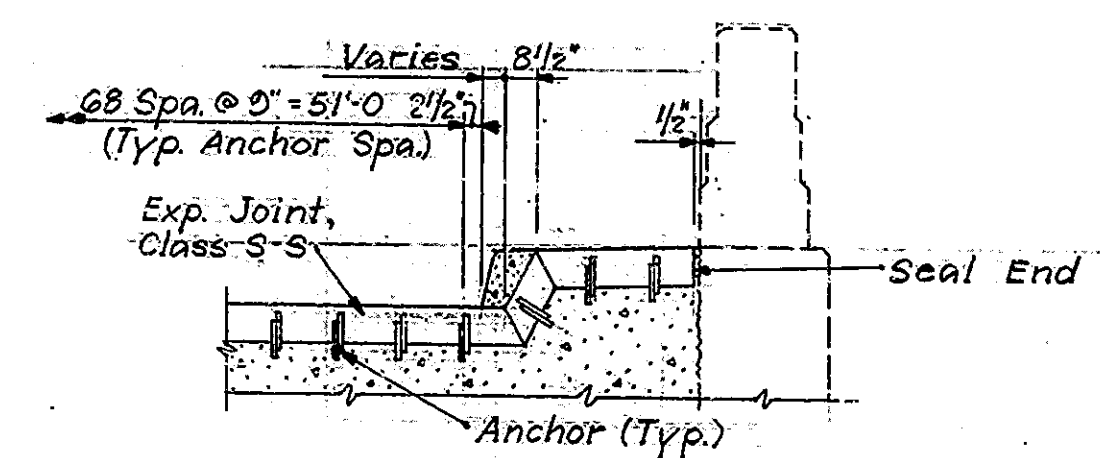
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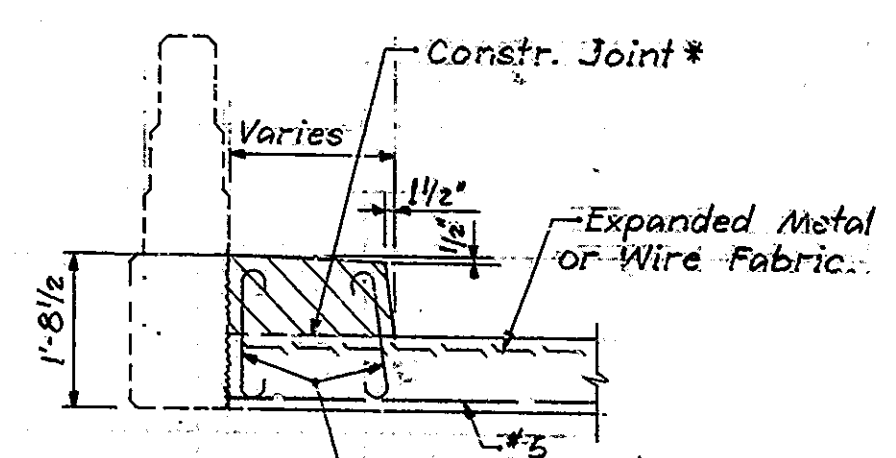
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(SHOWING NEW CONSTRUCTION)
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SECTION "C"
Scale: 1/2" = 1'-0"

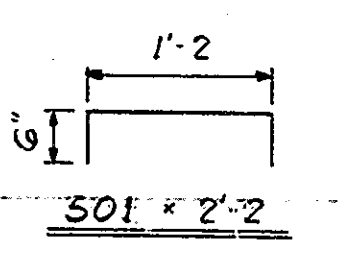
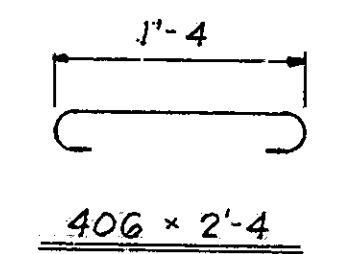
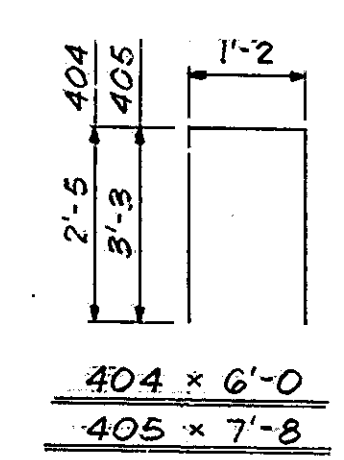
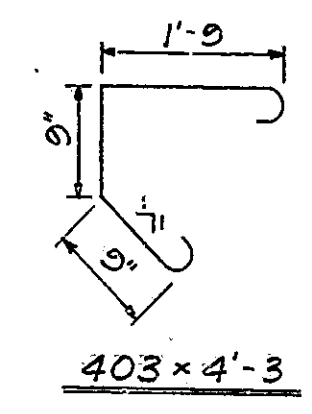
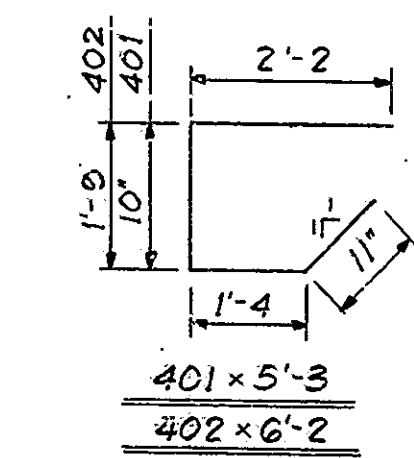


SECTION "D"
Scale: 1/2" = 1'-0"



SECTION "E"
Scale: 1/2" = 1'-0"

*Note: Hatched portion above constr. joint to be paid for as "Concrete, Class 'A' in Structures."



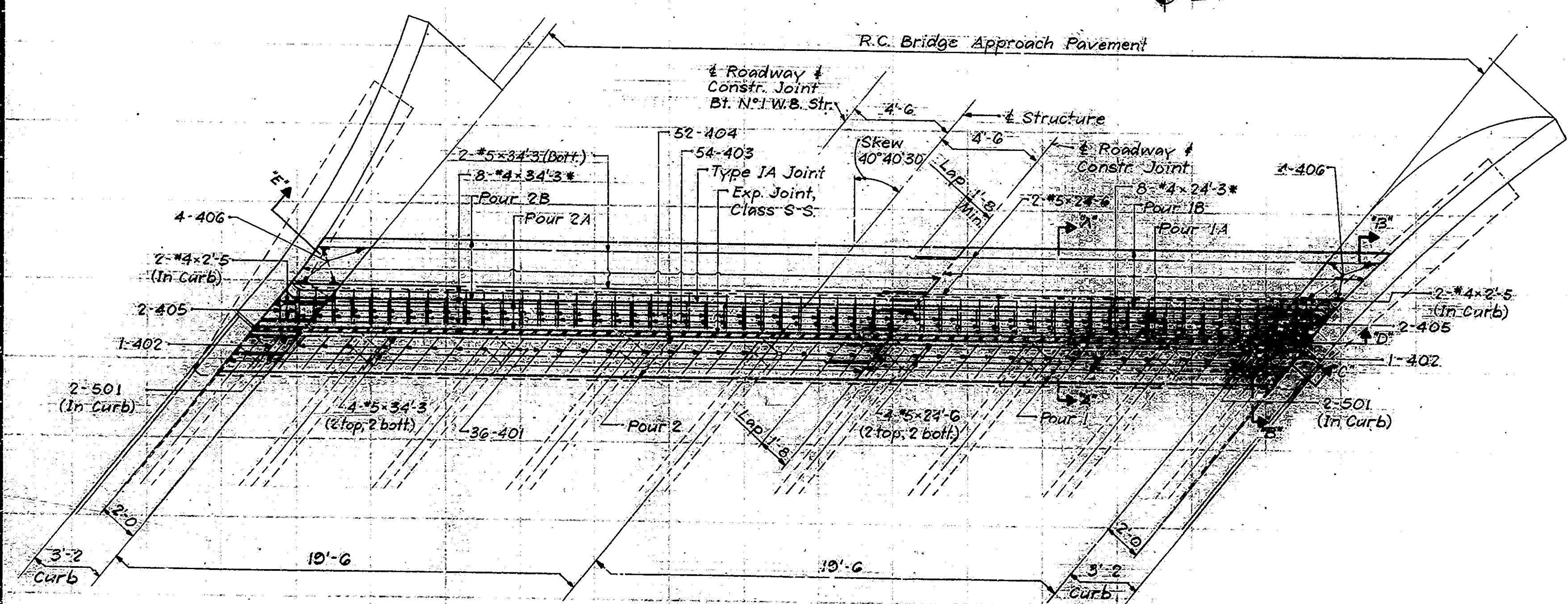
BILL OF MATERIALS
(Materials are for one bent only)

REINFORCING STEEL:			
Size #	N ^o of Bars	Length	Weight (Lbs.)
501	4	2'-2	
#5	6	34'-3	
#5	6	24'-6	
Total N ^o 5			377
401	36	5'-3	
402	2	6'-2	
403	54	4'-3	
403	52	6'-0	
405	4	7'-8	
406	8	2'-4	
#4	8	34'-3	
#4	8	24'-3	
#4	4	2'-5	
Total N ^o 4			849
Total Reinforcing Steel			1226

CONCRETE:

Class 'A' Concrete in Superstructure	
Pour 1	1.8 Cys
Pour 2	2.7 Cys
Total Cl. 'A' Conc. in Superstr. 4.5 Cys	
Class 'A' Concrete in Substructure	
Pour 1A	4.7 Cys
Pour 2A	6.4 Cys
Total Cl. 'A' Conc. in Substr. 11.1 Cys	
Concrete Pavement, Reinforced, 10"	
Pour 1B	7.5 Cys
Pour 2B	11.4 Cys
Total Conc. Perm't. Reinf. 18.9 Cys	
Conc. - Class 'A' in Structures 20.5 Cys	
MISCELLANEOUS:	
Expansion Joint Class 'S-S'	58 L.Ft.
"B" Borrow for Str. Backfill	10 Cys

- Notes:**
- Dimension "W" to be as shown in the Joint Setting Table, Dwg. D5.
 - For Details of Expansion Joint Class 'S-S', see Dwg. D5.
 - For Details of Type IA Joint, see Br. Std. C-3.
 - All concrete in substructure and in superstructure to be Class 'A'.
 - See Bridge Std. C1 for reinforcing bar notes.
 - Exist. reinforcing steel which is to remain in place shall be cleaned and realigned.
 - All contact surfaces of exist. steel and exist. concrete to be coated with epoxy bonding compound prior to pouring new concrete.



PLAN - BENT N° 1 E.B. STRUCTURE

Bent N° 5 W.B. Str. same by 180° rotation.
Bent N° 1 W.B. Str. same except as noted.
Bent N° 5 E.B. Str. same by 180° rotation.
Scale: 1/4" = 1'-0"

*Lap #4 rebars 1'-4 min.

DESIGNED T.L.H. CKD R.G.P.
DRAWN T.L.H. CKD R.G.P.
TRACED CKD

EXPANSION JOINT CLASS 'S-S' @ END BENTS (4440A)

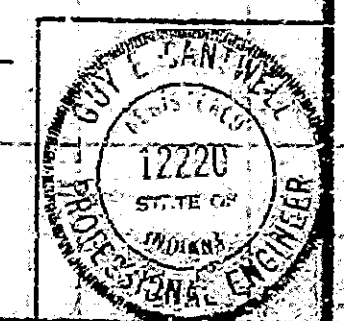
INDIANA STATE HIGHWAY COMMISSION

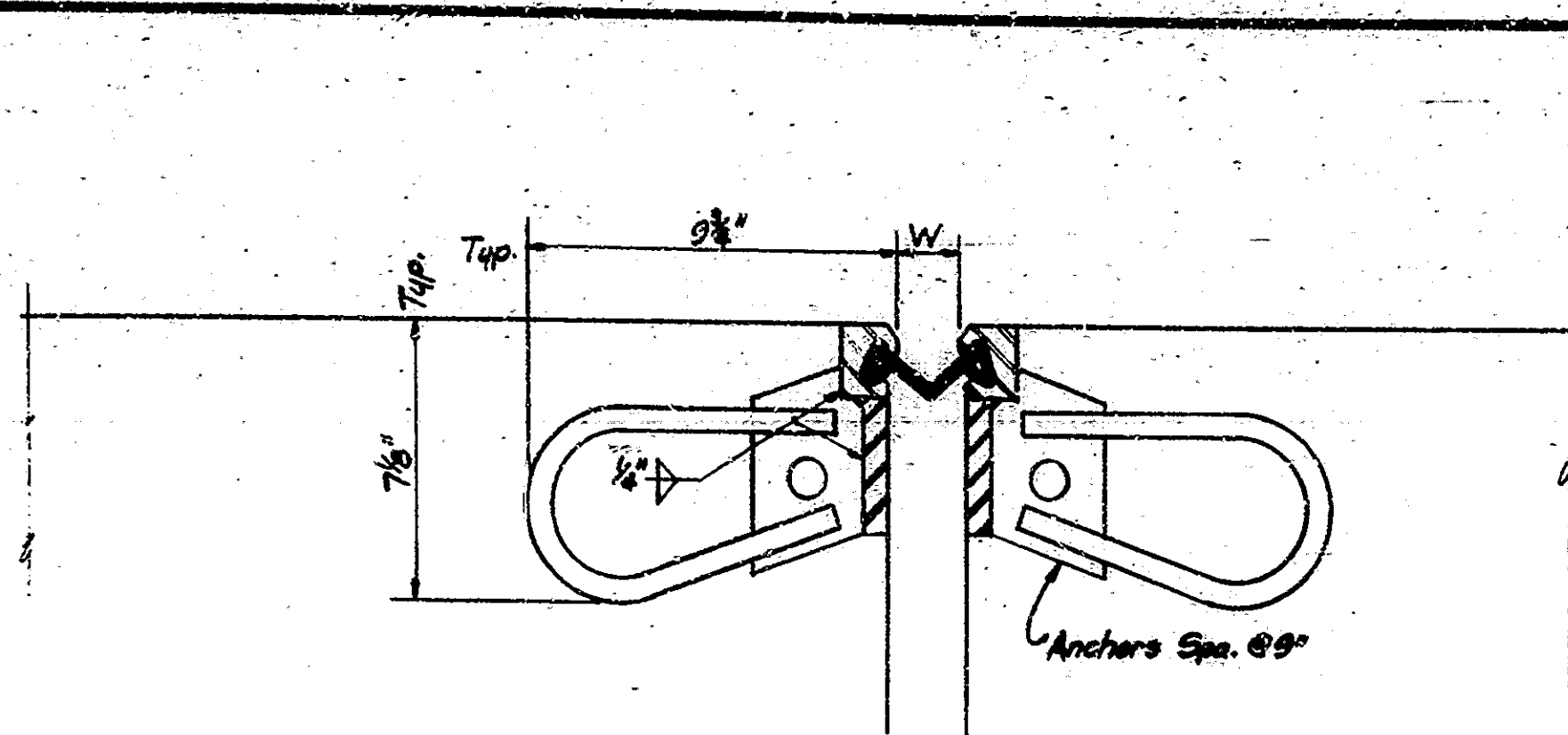
SCALE: As noted

DATE: April 24, 1980

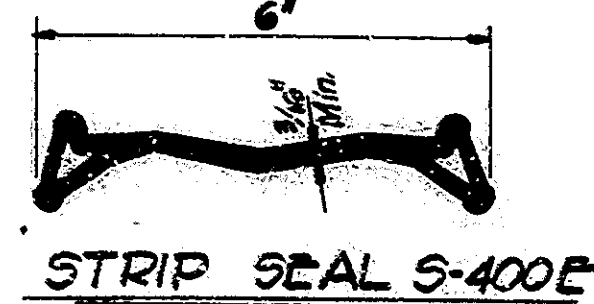
Ray C. Cantrell

DRAWING NO. OF 8 SHEET 8 OF 34
PROJECT: I-75-74-2(18)70
CONTRACT NO. B-12750
BRIDGE FILE: I-75-74-440A

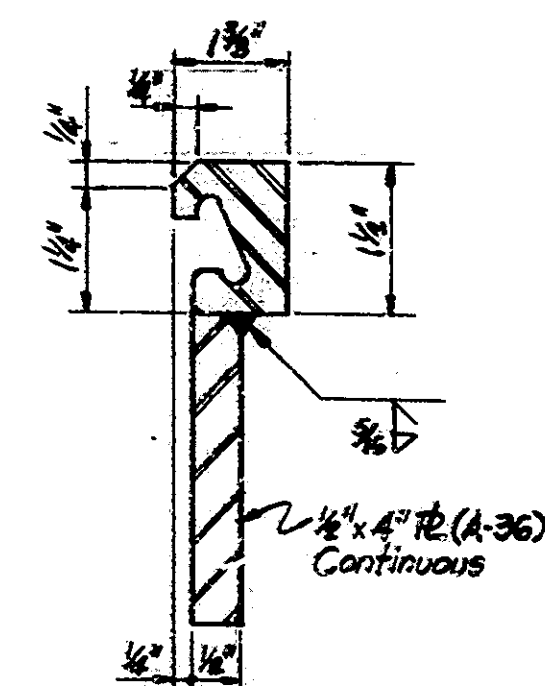




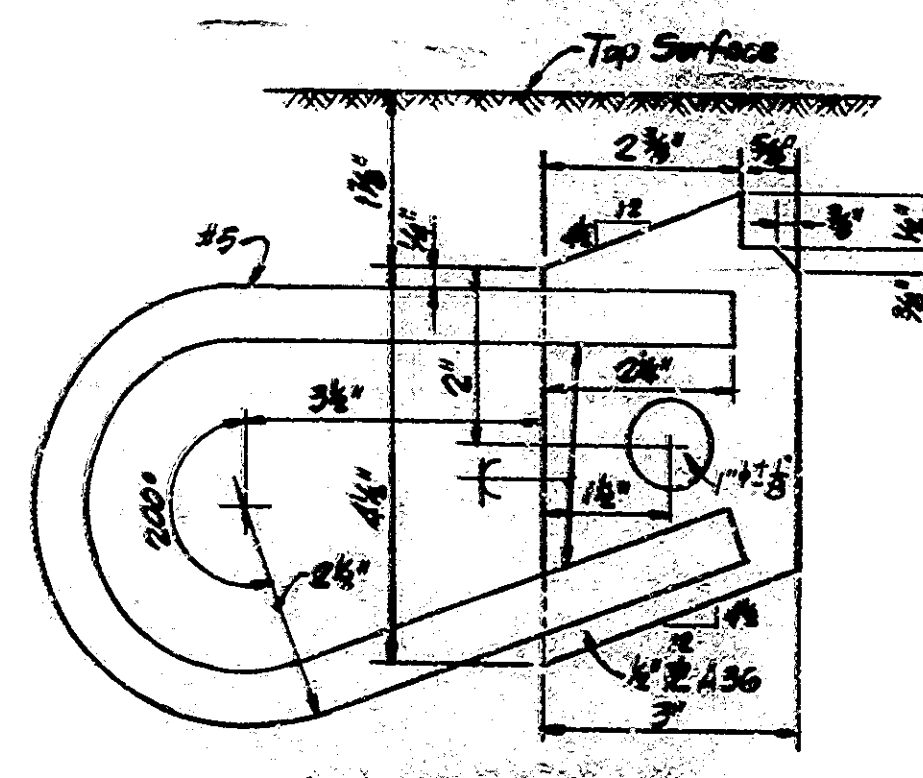
TYPICAL SECTION



STRIP SEAL S-400E

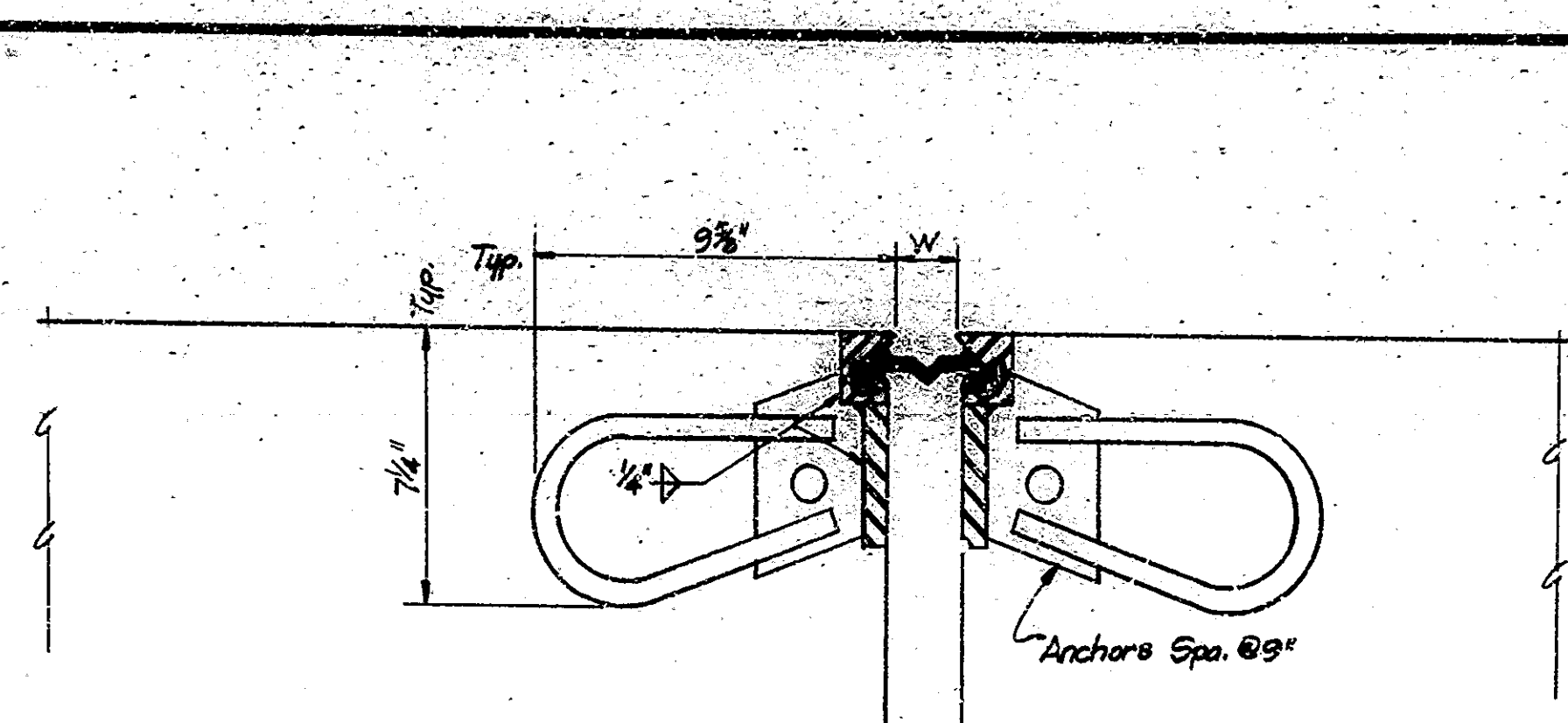


STEEL EXTRUSION TYPE E



ANCHOR DETAIL

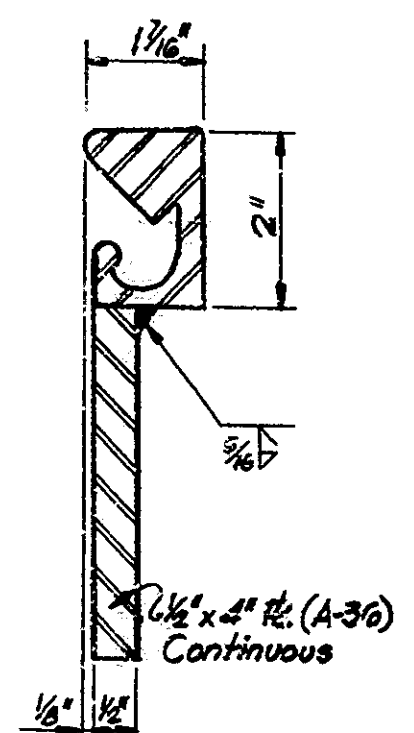
JOINT WABO S-400E



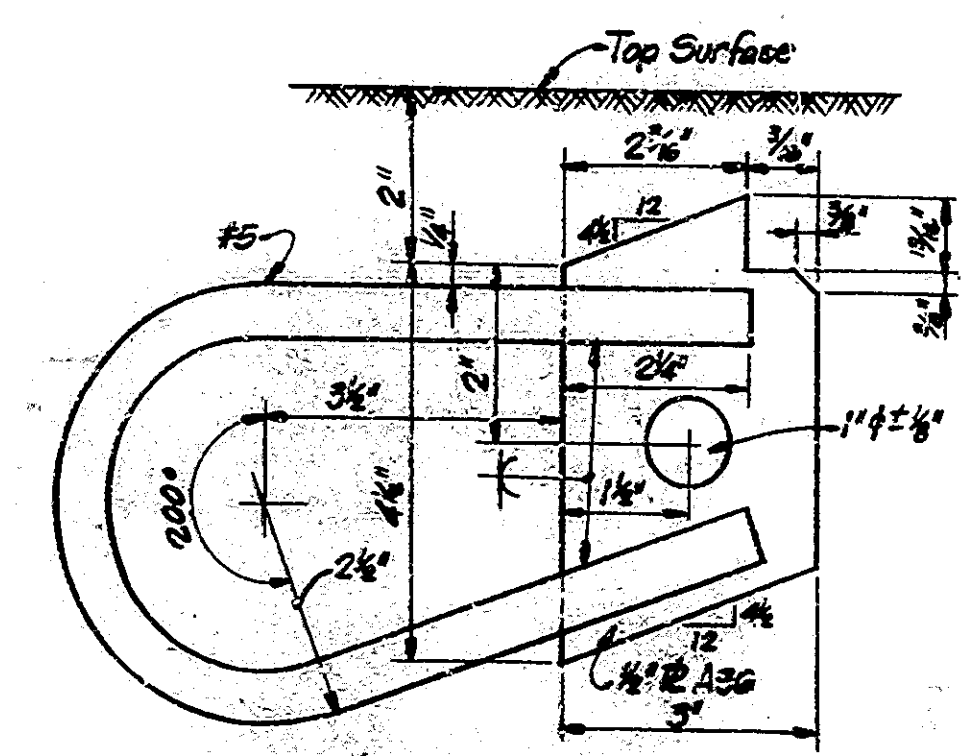
TYPICAL SECTION



NEOPRENE SEAL

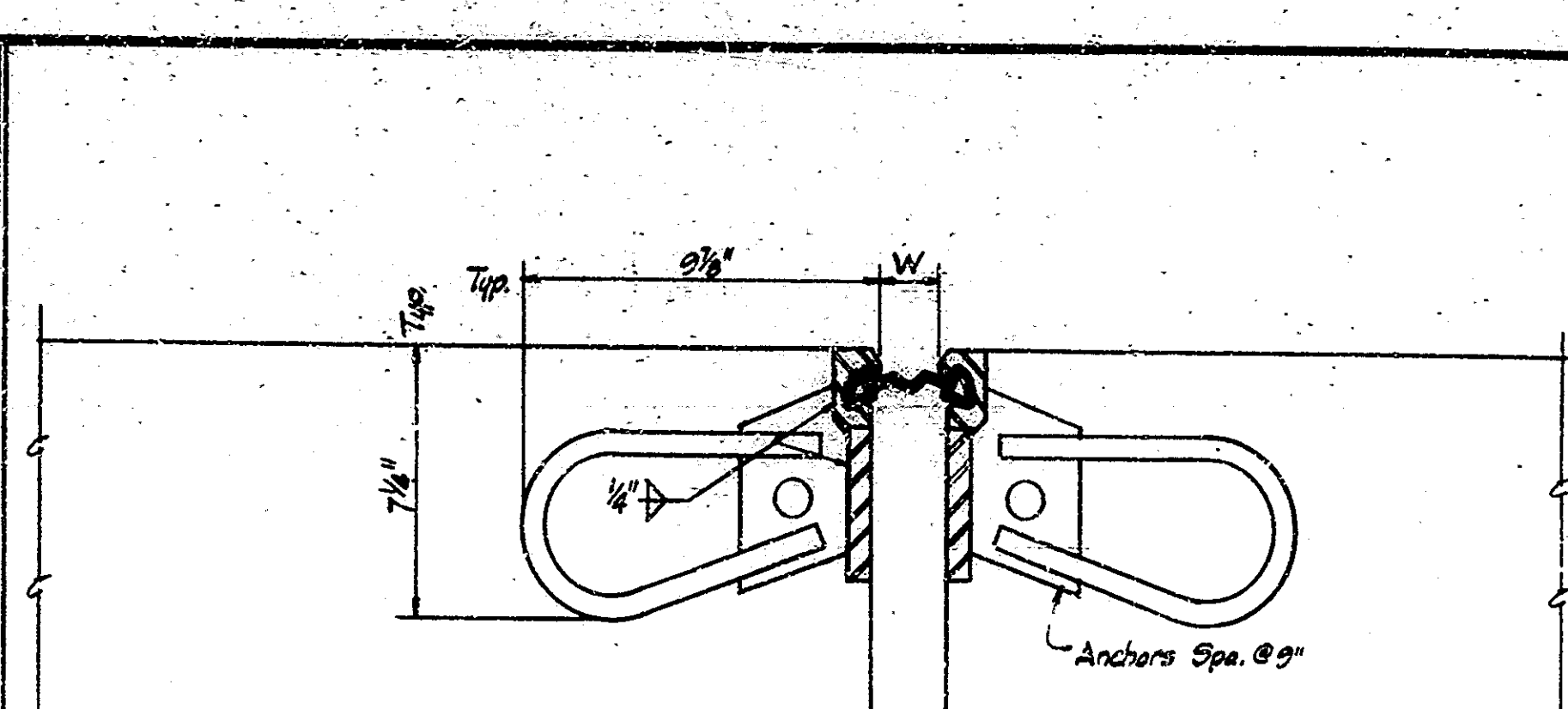


STEEL EXTRUSION TYPE E

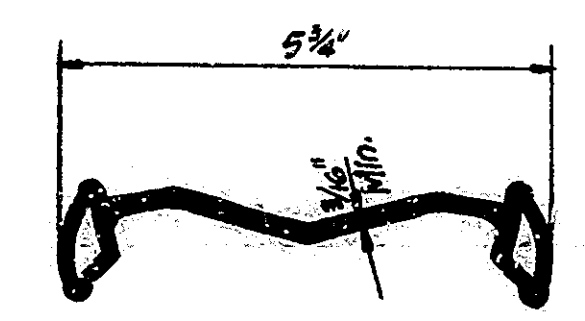


ANCHOR DETAIL

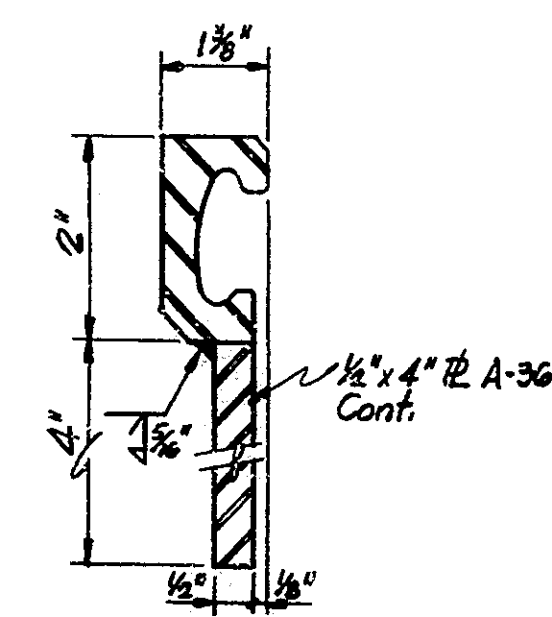
JOINT DELASTIFLEX®



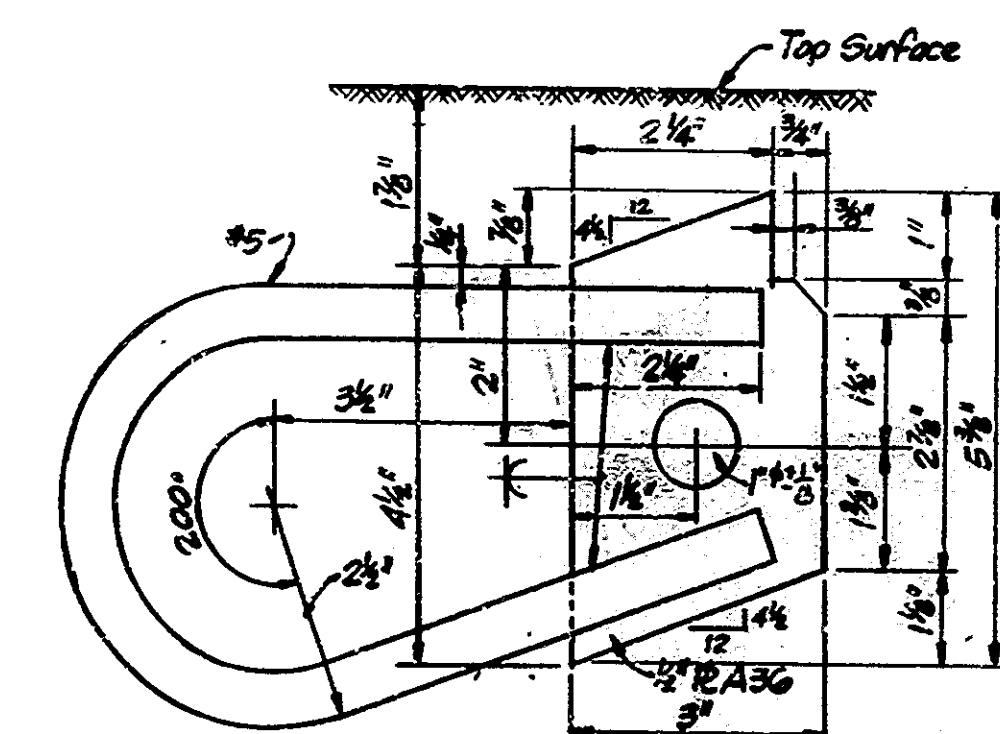
TYPICAL SECTION



STRIP SEAL AS400



STEEL EXTRUSION TYPE A



ANCHOR DETAIL

JOINT ACMA AS 400 C

NOTES

SEE THE SPECIAL PROVISIONS FOR PROPERTIES OF MATERIALS, THE COST OF EXTRUSIONS, ELASTOMERIC SEAL ELEMENTS, SEALANTS, ADHESIVE, CEMENT GROUT, ANCHOR SYSTEM AND INSTALLATION OF JOINTS 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 BEVEL REQUIRED TO PRODUCE THE SAME CROSS SECTION ON EACH PIECE BEING JOINED. THE ANCHOR ASSEMBLY IS TO BE SHOP FABRICATED AND DELIVERED TO THE JOB SITE AS A COMPLETE CONTINUOUS UNIT FOR JOINT LENGTHS UP TO 44 FEET. JOINTS ABOVE LENGTHS OF 44 FEET OR JOINTS USED WITH STAGE CONSTRUCTION SHALL BE FIELD WELDED WITH ENDS TO BE SHOP PREPARED. ALL WORK, BOTH SHOP AND FIELD, SHALL BE IN ACCORDANCE WITH 711.03. ALL EXPOSED STRUCTURAL STEEL SURFACES WILL BE PAINTED IN ACCORDANCE WITH ISHC STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT 3 COPIES OF SHOP DRAWINGS FOR ALL JOINTS INVOLVING CURBS OR OTHER SPECIAL FEATURES.

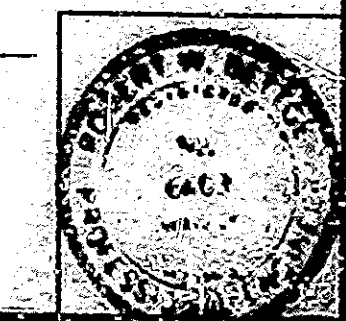
JOINT SEIZING TABLE

JOINT TYPE	SEIZING METHOD	SEIZING MATERIAL	SEIZING TIME
WABO S-400E	Hand	Grease	15 min
Delastiflex	Hand	Grease	15 min
ACMA AS 400 C	Hand	Grease	15 min

EXPANSION JOINTS CLASS S-S
INDIANA STATE HIGHWAY COMMISSION

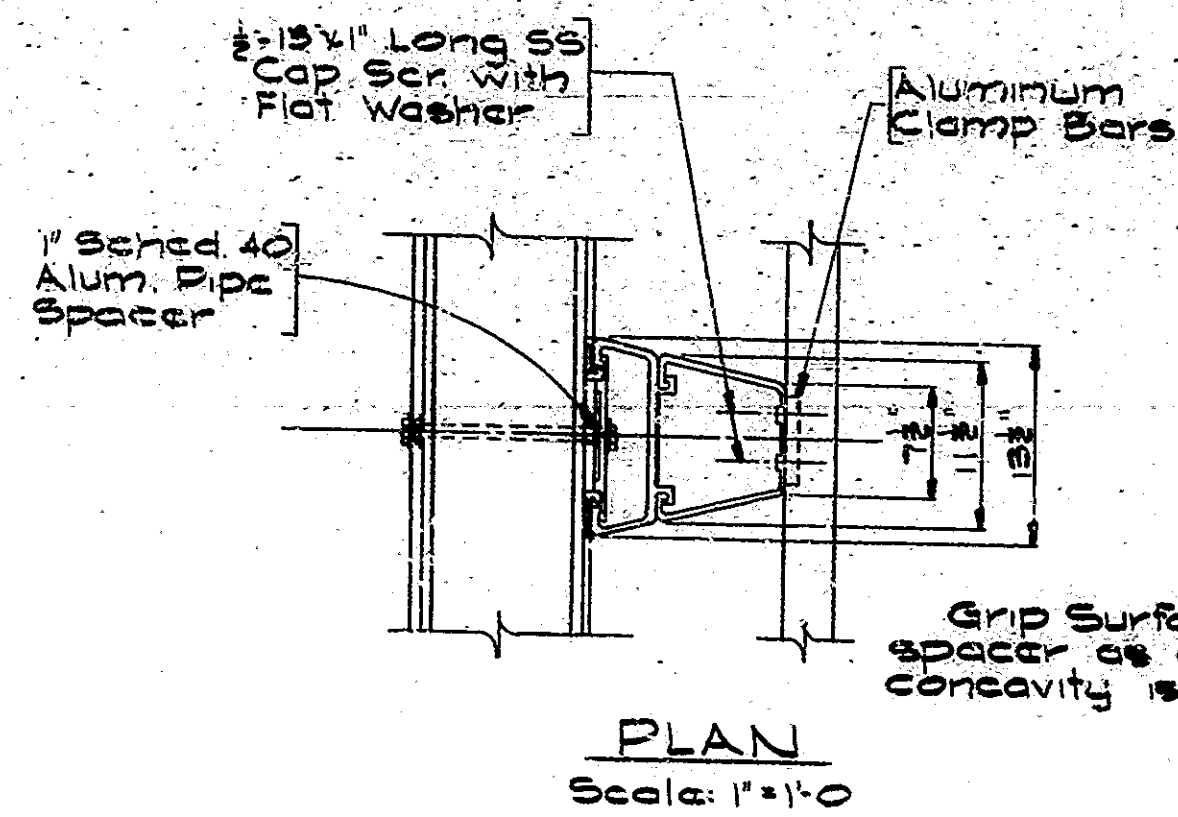
SCALE: NONE DATE: July 18, 1980
Richard W. Batts

DRAWING: 125 OF 12 SHEET: III OF III
PROJECT: I-74-72-2(48)70
CONTRACT NO. B-12750
BRIDGE FILE: I-74-72-4120A

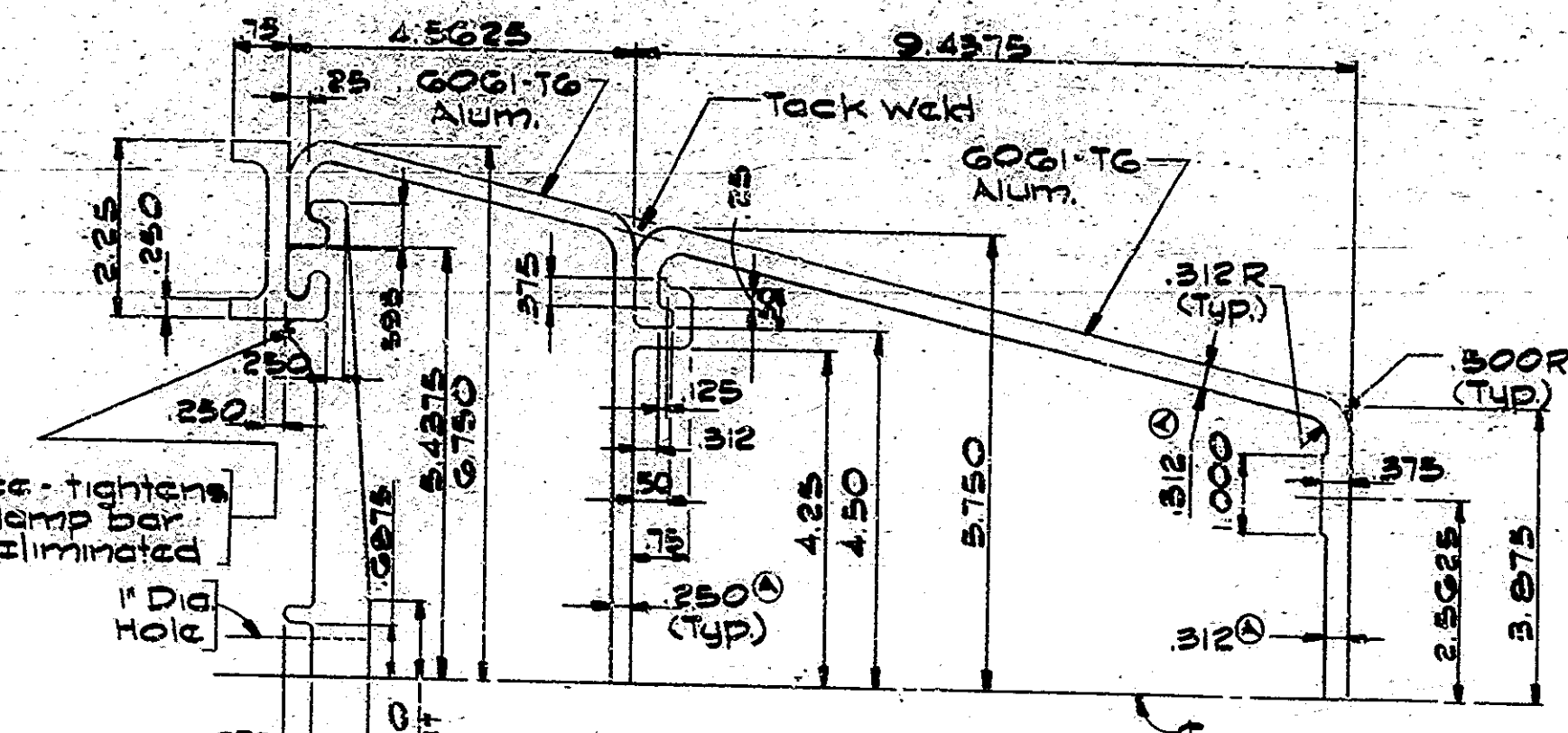


DESIGNED: CVD
DRAWN: CVD
TRACED: CVD

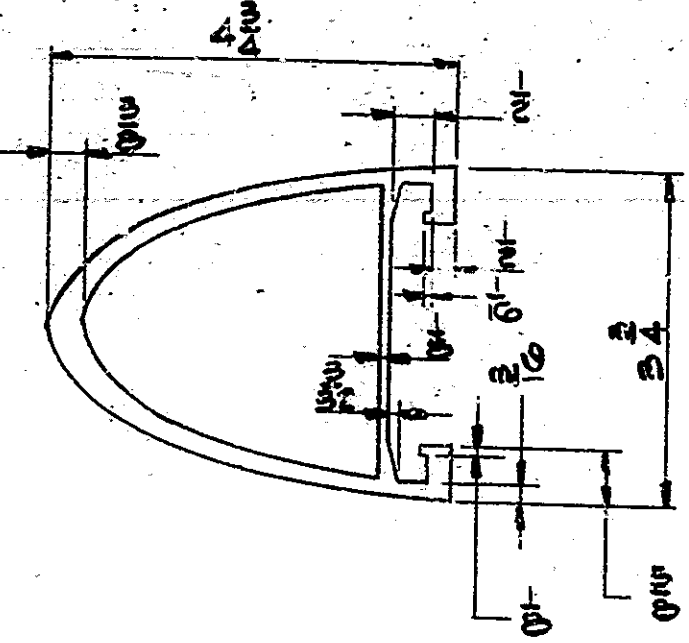
Rev. 4-86-75 Bar and Anchor Spacing
Rev. 2-88-76 Joint Area 1/2" x 4" #4
Rev. 2-88-76 Joint Area 1/2" x 4" #4
Rev. 11-88-76 Joint Area 1/2" x 4" #4



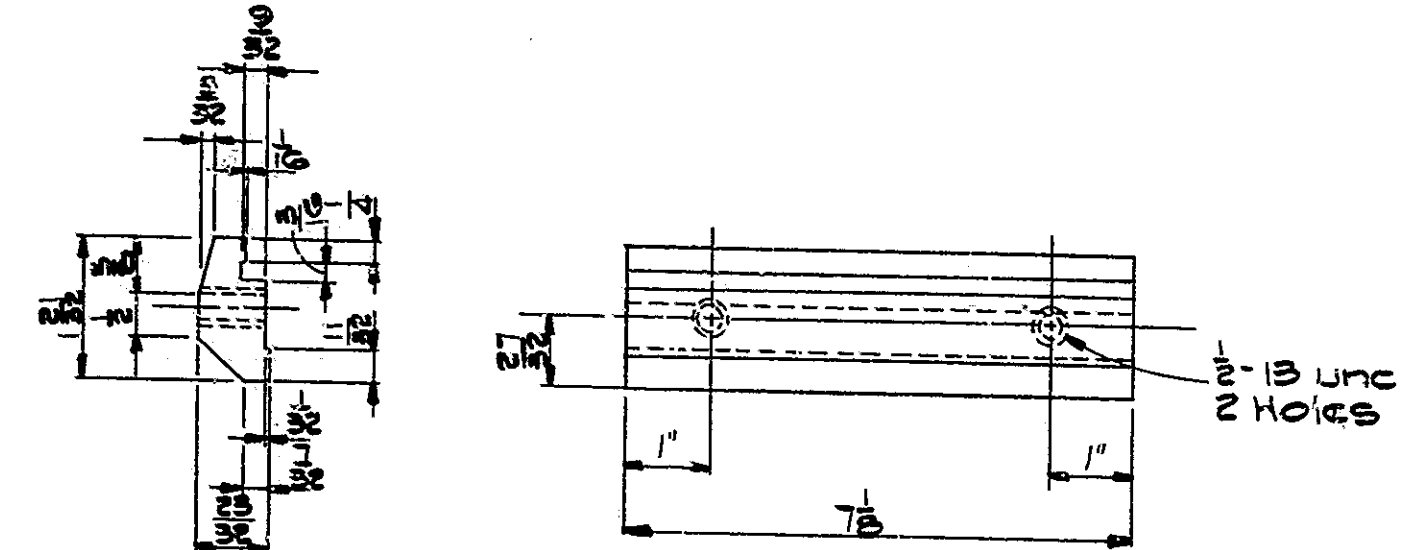
PLAN
Scale: 1"=1'-0"



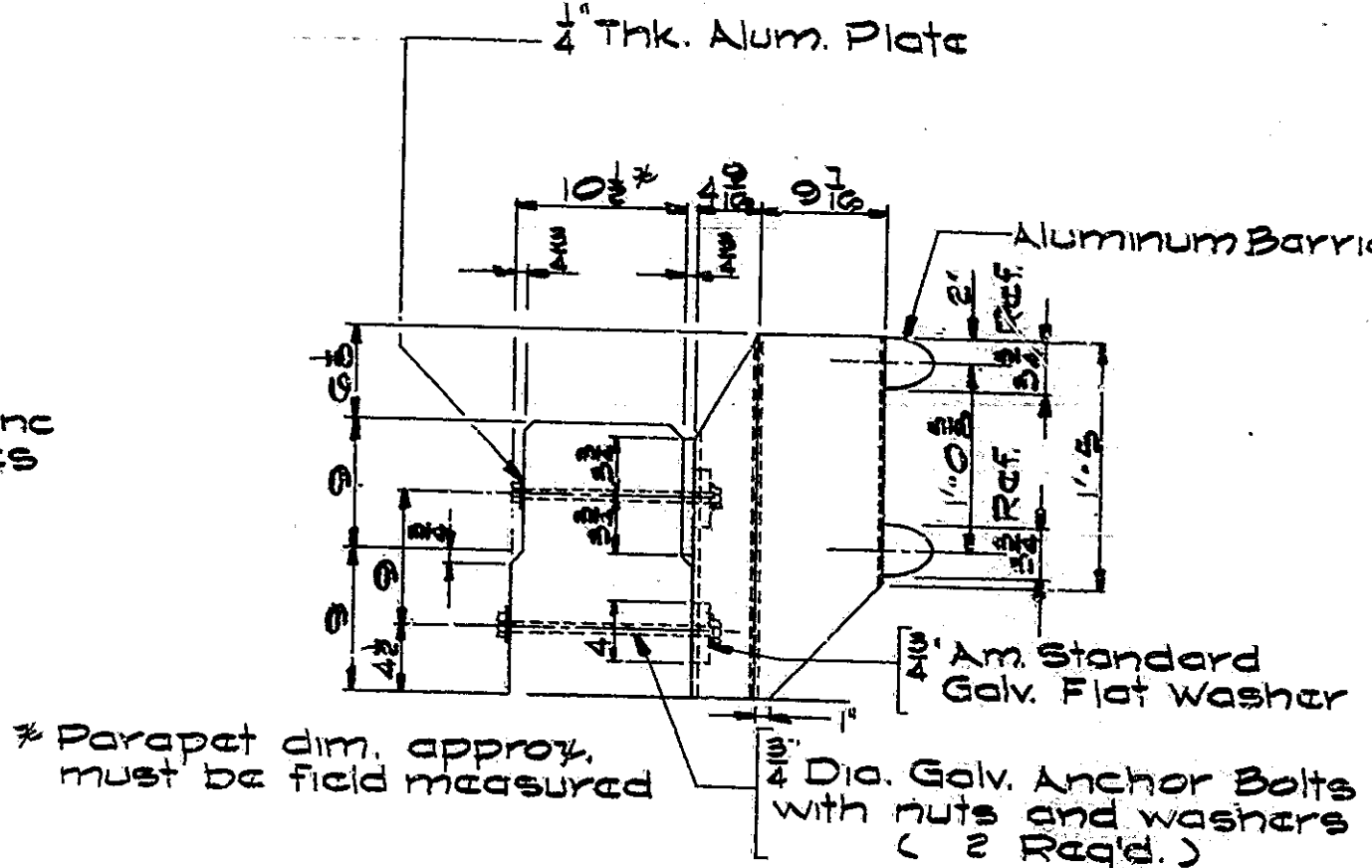
GUARD RAIL BRACKET
Scale: 3/8"=1'-0"



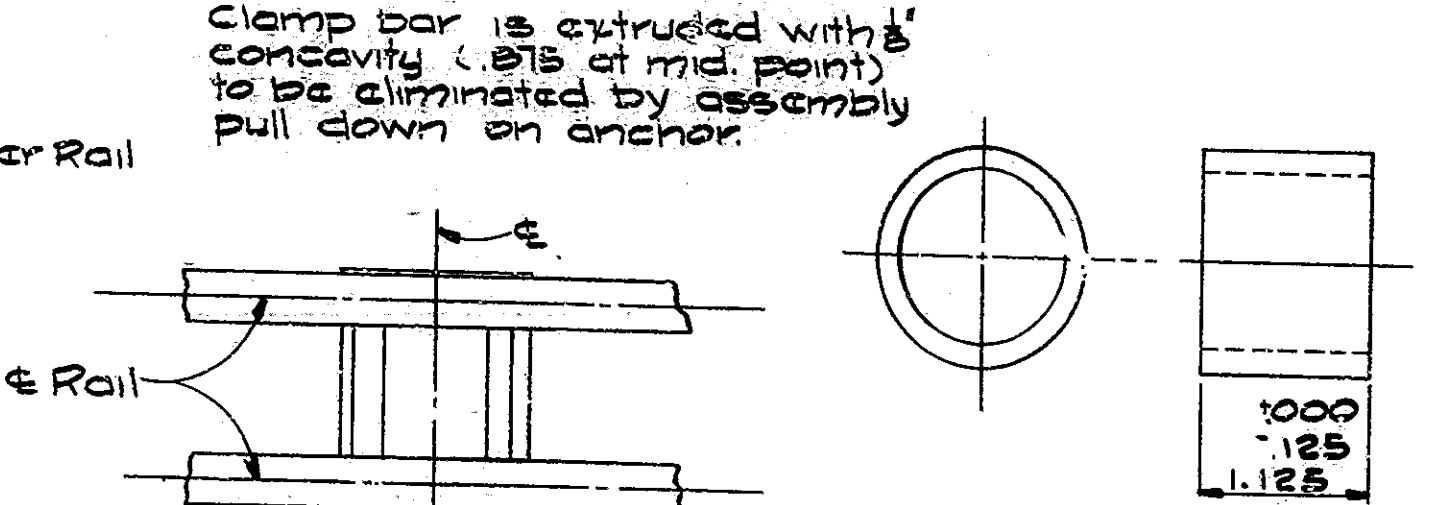
RAIL SECTION
No Scale



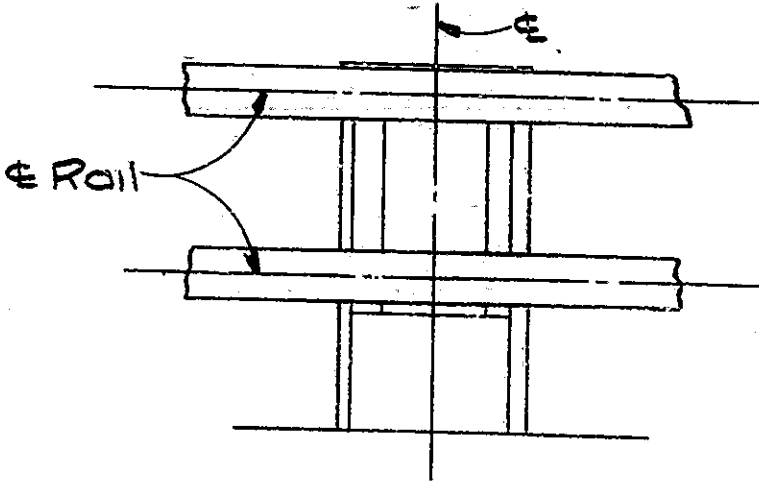
CLAMP BAR
Scale: 3/8"=1'-0"



SIDE
Scale: 1"=1'-0"



ANCHOR SPACER
TUBE
Scale: 1"=1'-0"



FRONT
Scale: 1"=1'-0"

ALUM. PLATE
6061-T6

NOTES

Mat'l. except as noted 6061-T6 Alum. Bracket may be used as an alternate to precast or cast in place concrete bracket. See Bridge Standards BR1 and BR2 for Guard Rail notes and details. Standard Drawings required BR1 and BR2.

Clamp bar is extruded with 1/8" concavity (.075 at mid. point) to be eliminated by assembly pull down on anchor.

* Parapet dim. approx. must be field measured

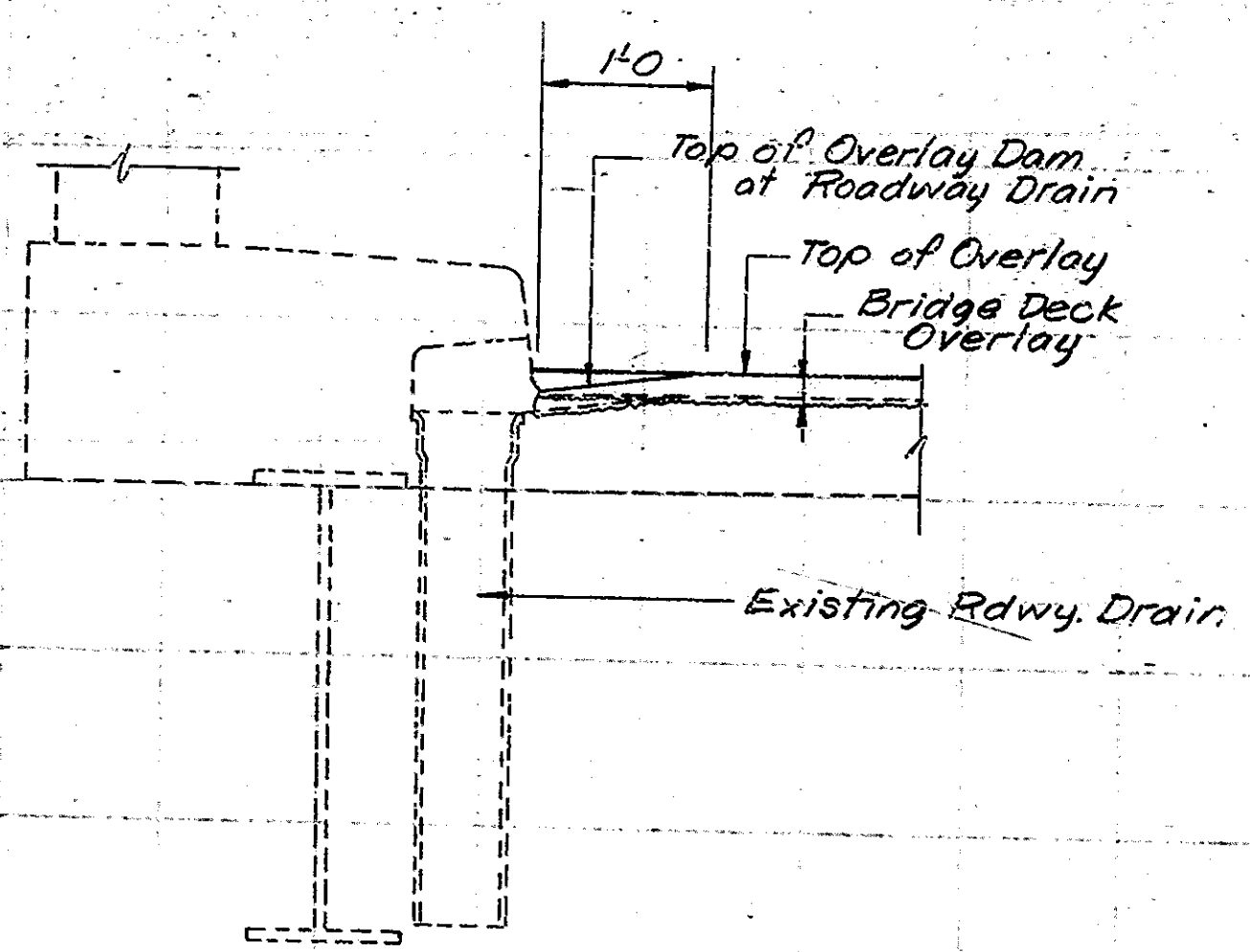
DESIGNED	CHKD
DRAWN	CHKD
TRACED	CHKD

GUARD RAIL BRACKET DETAILS
INDIANA STATE HIGHWAY COMMISSION

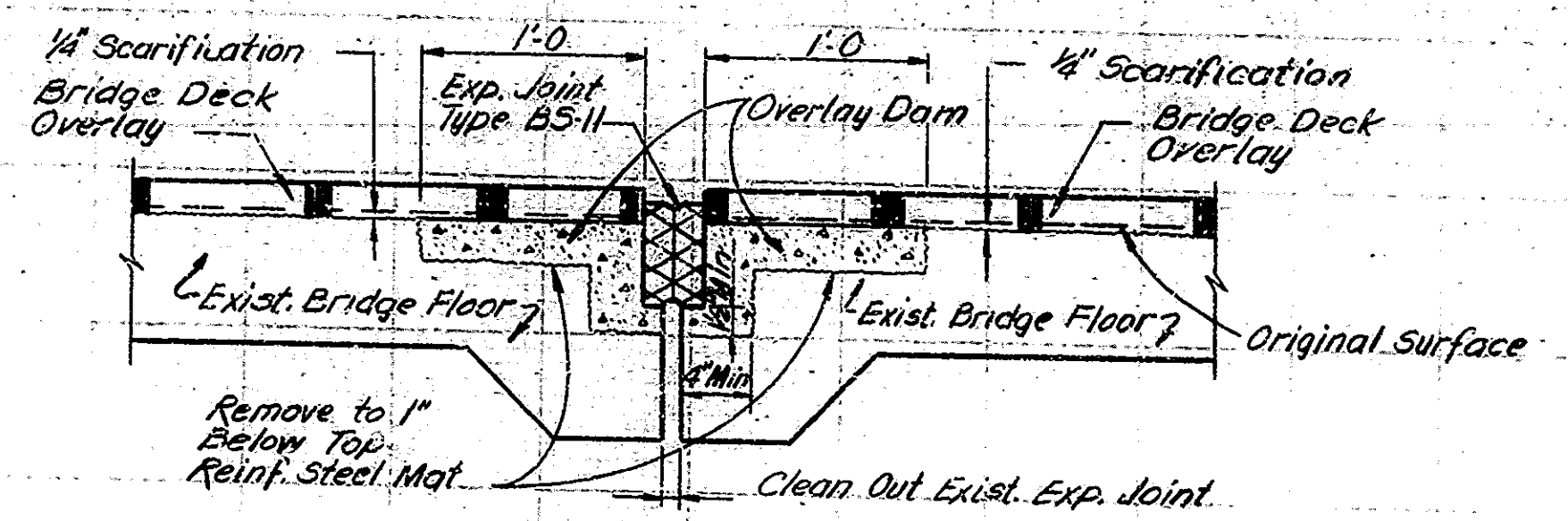
SCALE: AS NOTED DATE: April 24, 1980
Ray C. Cahill

DRAWING: DZ OF B SHEET: 11 OF 34
PROJECT: I-74-7A-2(68)70
CONTRACT NO: B-12750
BRIDGE FILE: I-74-70-451B; I-74-72-4440A

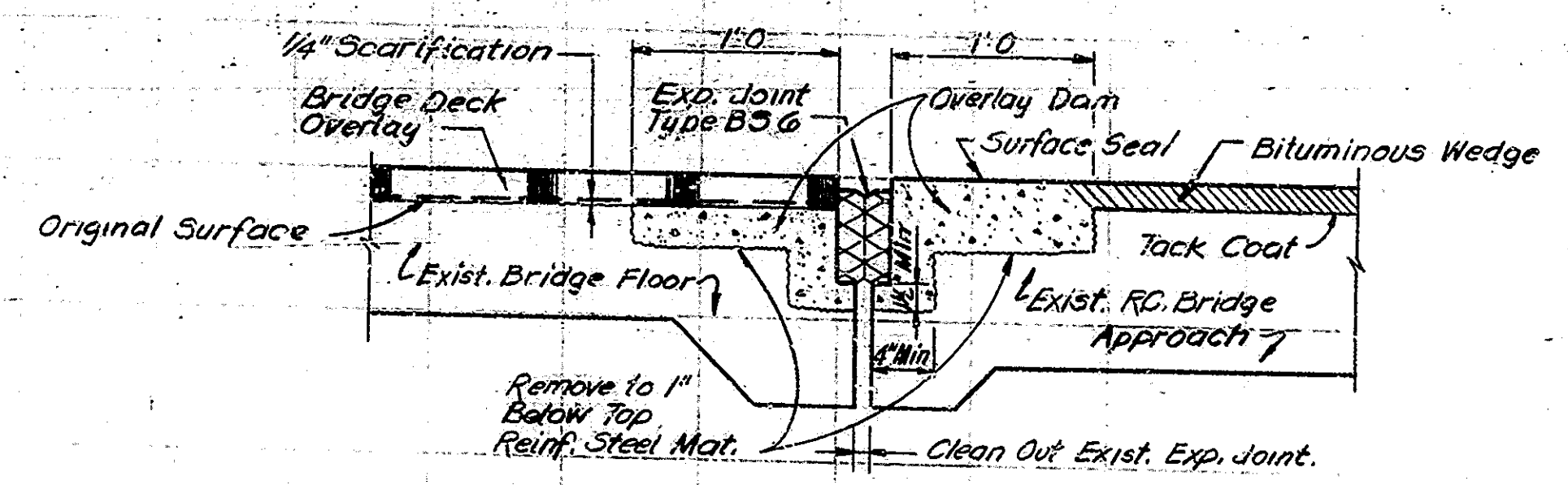




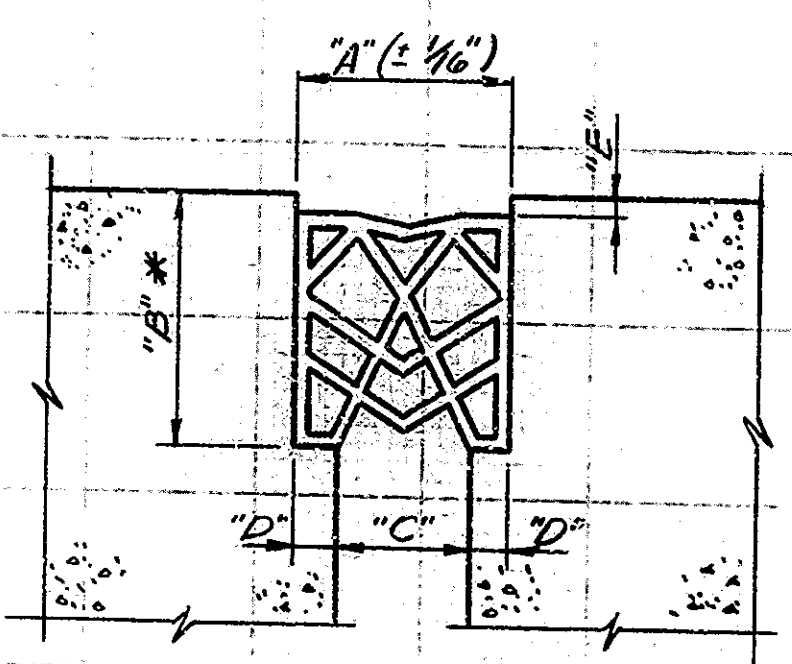
DETAIL OF OVERLAY @ ROADWAY DRAINS
Not to Scale



DETAIL "B"
Scale: 1/2" = 1'-0"



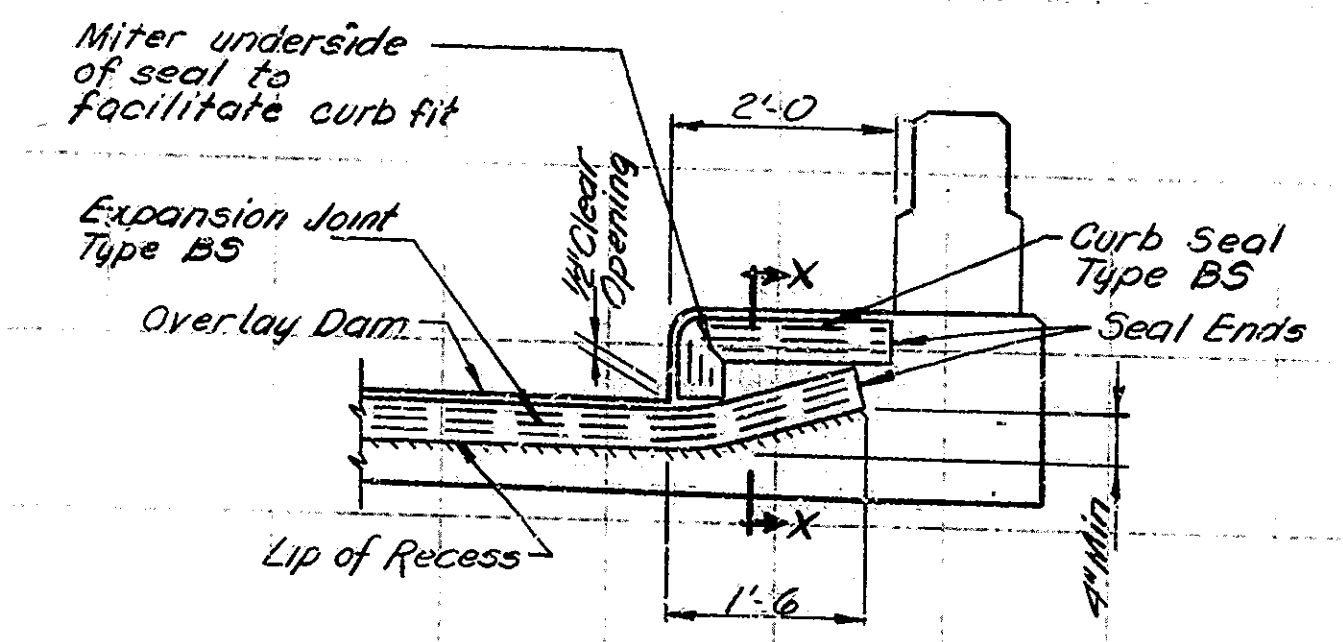
DETAIL "A"
Scale: 1/2" = 1'-0"



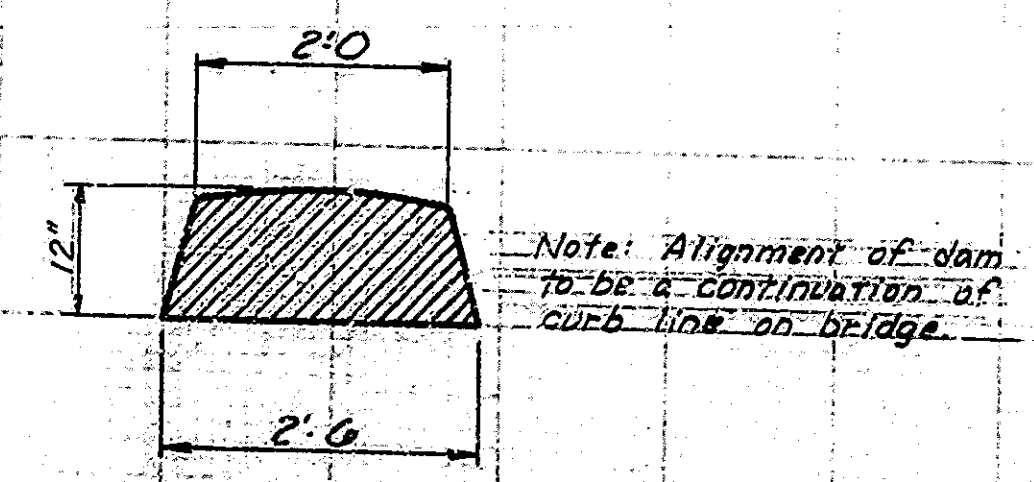
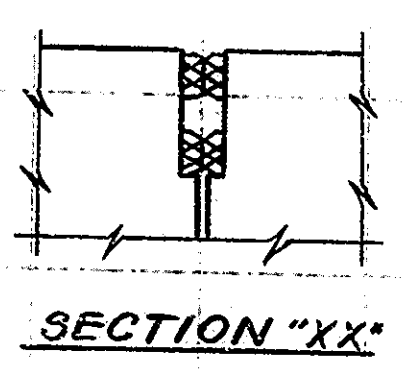
BRIDGE SEAL	"A"	"B"	"C"	"D"	"E"
BS-6	1 3/8"	*	7/8"	3/8"	1/2"
BS-11	3 1/8"	*	2 1/8"	1/2"	3/4"

* To be determined in the field See Special Provisions.
NOTE: Clean out and rebuild existing curb joints to accommodate joint seal. Such work to be included in cost of Expansion Joint, Type BS.

EXPANSION JOINT TYPE BS
Not to Scale



TYPICAL BS JOINT INSTALLATION AT CURBS (-4437B)
Not to Scale

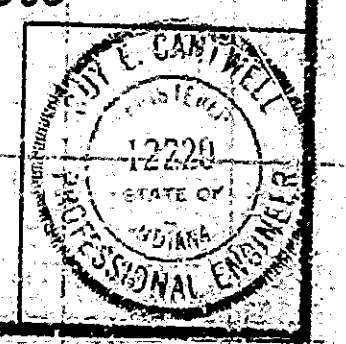


DIVERSION DAM DETAIL
Scale: 3/4" = 1'-0"

MISCELLANEOUS DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: As Noted DATE: April 24, 1980
Ray C. Cantrell

DRAWING: DB of B SHEET: 12 of 34
PROJECT: I-FRT-74-2 (68) 70
CONTRACT NO. B-12750
BRIDGE FILE: I-74-70-4437B
I-74-72-4432A



DESIGNED: R.E.B. CKD: J.P.S.
DRAWN: J.P.S. CKD: R.E.B.
TRACED: CKD

ESTIMATE OF QUANTITIES

STRUCTURE PAY ITEMS					
CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
			4437B	4440A	
51003	CONCRETE CLASS C IN SUPERSTRUCTURE	CYS.			
51001	CONCRETE CLASS A IN SUPERSTRUCTURE	CYS.			
51005	CONCRETE CLASS A IN SUBSTRUCTURE	CYS.	18.0		18.0
51010	CONCRETE CLASS B ABOVE FOOTINGS	CYS.	44.4		44.4
51015	CONCRETE CLASS B IN FOOTINGS	CYS.			
51875	SPECIAL CLASS A CONCRETE	SFT	5		5
51045	CONCRETE STRUCTURAL MEMBERS	LSUM			
51030	REINFORCING STEEL	LBS.	4904		4904
51032	EPOXY COATED REINFORCING 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-0A	EACH			
51095	CAST IRON DRAIN PIPE, 4 INCH	LBS.			
51100	CAST IRON DRAIN PIPE, 6 INCH	LBS.			
51105	CAST IRON DRAIN PIPE, 8 INCH	LBS.			
51110	CAST IRON GRATES, BASINS AND FITTINGS	LBS.			
51134	REMOVAL OF PRESENT RAILING	LFT.	963	1170	2133
51132	RAILING RISER	LFT.			
51116	RAILING (TYPE 3 OR C)	LFT.			
51120	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	BARBED RAILING TYPE X	LFT.	1083	1298	2381
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.			
51231	FOUNDATION EXCAVATION (UNCLASSIFIED)	LSUM			
51813	PNEUMATICALLY APPLIED MORTAR	SFT.			
51817	REPOINTING MORTAR IN STR'S	SFT.	2		2
51814	REPOINTE STEEL WIRE FABRIC	SFT.			
51850	PAINTING OLD STEEL BRIDGE	LSUM			
51881	EXPANSION JOINT, TYPE 332	LFT.			
51885	EXPANSION JOINT, TYPE 336	LFT.	102		102
51887	EXPANSION JOINT, TYPE 338	LFT.			
51888	EXPANSION JOINT, TYPE 339	LFT.			
51890	EXPANSION JOINT, TYPE 341	LFT.	156		156
51826	EXPANSION JOINT, CLASS 3-3	LFT.		232	232
51829	EXPANSION JOINT, CLASS 7-3	LFT.			
	REMOVAL OF SPECIAL GUARD RAIL	LFT.	108		108

STRUCTURE PAY ITEMS					
CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
			4437B	4440A	
51133	TIMBER PILES FURNISHED, UNTREATED	LFT.			
51140	TIMBER PILES DRIVEN, UNTREATED	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.			
51165	STEEL PILES FURNISHED AND DRIVEN (8 IP 36)	LFT.			
51170	STEEL PILES FURNISHED AND DRIVEN (10 IP 42)	LFT.			
51175	STEEL PILES FURNISHED AND DRIVEN (12 IP 55)	LFT.			
51210	PILE ENCASMENT (CONCRETE)	LFT.			
51228	REMOVAL OF PRESENT STRUCTURE (PORTIONS)	LSUM			
51230	REMOVAL OF PRESENT STRUCTURE	LSUM			
51335	TEMPORARY BRIDGE AND APPROACHES SPECIAL CONCRETE	LSUM			
	REINFORCE SPALLS/CRACKS	CYS.	16		16
51366	CONCRETE SLOPEWALL 5 INCH	LSUM			
51365	SLOPEWALL	SYS.			
51370	RIPRAP	SYS.			
51375	REVEINMENT RIPRAP	TON			
51371	HANDLAD RIPRAP 12 INCH	SYS.			
51372	DUMPED RIPRAP	TON			
51374	PLASTIC FILTER CLOTH	SYS.			
51376	WEA DRAINS	EA-2			
51385	STEEL DRAIN PIPE (6 INCH)	LSUM			
51400	STEEL DRAIN PIPE (8 INCH)	LSUM			
51092	STEEL PIPE CONDUIT (2 INCH)	LFT.			
51898	NUTS REMOVED	EACH			
51884	STEEL DRILLED BOLTS	EACH			
51067	SYNCRUSTAL STEEL CUTTING	SIN			
51863	FIELD DRILLED HOLES IN CONCRETE	EACH			
	OVERLAY QM	SFT.	683		683
51826	SURFACE SEAL	SFT.	10688	13622	24310
51827	BRIDGE DECK WEARWANE	LSUM			
51822	BRIDGE DECK OVERLAY	SYS.	1748	2537	4285
51825	BRIDGE DECK SURFACE	SYS.			
51828	BRIDGE DECK PATCHING	CYS.			
51833	CONCRETE SCABBERING	SYS.	1906	10091	12097
51820	ADDITIONAL CONCRETE SCABBERING	SYS.	338	9305	9643
	FULL DEPTH DECK PATCHING	SFT.	100	200	300
51837	BLASTING AND CLEANING	SYS.	1748	2537	4240
51830	FINISHING AND CURING	SYS.	1748	2537	4285

APPROACH PAY ITEMS					
CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
			4437B	4440A	
02020	UNCLASSIFIED EXCAVATION	CYS.			
02240	COMMON EXCAVATION	CYS.			
02245	B BORROW	CYS.			
02250	B BORROW	CYS.			
02255	B BORROW FOR STRUCTURE BACKFILL	CYS.			
02260	REMOVAL OF PAVEMENT	SYS.	40		40
02265	REMOVAL OF PAVEMENT	SYS.	78		78
02270	REMOVAL OF PAVEMENT	SYS.	22	103	125
02275	REMOVAL OF PAVEMENT	SYS.			
02280	REMOVAL OF PAVEMENT	SYS.			
	CONCRETE CLASS A IN STRUCTURES	CYS.	20		20
02490	TERMINAL JOINT	LFT.			
02495	CONTRACTION JOINT, TYPE D-1	LFT.			
02280	CONCRETE PAVEMENT REINFORCED (7 INCH)	SYS.			
02285	CONCRETE PAVEMENT REINFORCED (8 INCH)	SYS.			
02290	CONCRETE PAVEMENT REINFORCED (10 INCH)	SYS.	18		18
02300	CONCRETE PAVEMENT REINFORCED (10 INCH)	SYS.			
02370	CONCRETE SIDEWALK	SYS.	76		76
02305	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 55)	TON			
02310	COVER AGGREGATE	TON			
02315	COVER AGGREGATE (SIZE NO. 12)	TON			
02320	AGGREGATE FOR SHOULDER DRAINS	TON			
02325	AGGREGATE FOR UNDER DRAINS	CYS.			
02330	TYPE O COMPACTED AGGREGATE FOR BASE (SIZE NO. 30)	TON			
02335	SUBBASE	CYS.			
02340	BITUMINOUS STABILIZED SUBBASE TYPE I, II, OR III	TON			
02345	BITUMINOUS STABILIZED SUBBASE	TON			
02350	BITUMINOUS BASE	TON			
02355	BITUMINOUS BASE (SIZE NO. 10)	TON			
02360	BITUMINOUS BINDER	TON			
02365	BITUMINOUS SURFACE	TON			
02370	BITUMINOUS MATERIAL FOR TACK COAT	SYS.	2045	2427	4472
02375	BITUMINOUS MATERIAL FOR PRIME COAT	SYS.			
02380	SEAL COAT TYPE 2	SYS.			
02470	BITUMINOUS MIXTURE FOR APPROACHES	TON	749	853	1602
02475	BITUMINOUS MIXTURE FOR SHOULDER	TON			
02480	BITUMINOUS MATERIAL APPLIED	TON			
02485	GUARD RAIL, TYPE A	LFT.			
02490	GUARD RAIL, TYPE B	LFT.			
02495	GUARD RAIL, TYPE C	LFT.			
02500	GUARD RAIL, TYPE D	LFT.			
02505	GUARD RAIL, TYPE E	LFT.			
02510	GUARD RAIL, TYPE F	LFT.			
02515	GUARD RAIL, TYPE G	LFT.			
02520	GUARD RAIL, TYPE H	LFT.	866	901	1767
02525	RESET GUARD RAIL	LFT.			
02530	REMOVAL OF GUARD RAIL	LFT.	1566	1538	3104
02535	RODDING	SYS.			
02540	MULCHED SEEDING "R"	SYS.			
02545	SEED MIXTURE "R"	LBS.			
02550	SEED MIXTURE "TR"	LBS.			
02555	MULCHING MATERIAL	TON			
02560	FERTILIZER	TON			
02565	WATER	W.G.			
02570	AGRICULTURAL LIMESTONE	TON			
02575	SHOULDER END TREATMENT	EA	2	6	8
02580	MULCHING MATERIAL (WOOD CHIPS/LOGS)	TON			
02585	MAINTAINING TRAFFIC	LSUM			
02590	MAINTAINING TRAFFIC	LSUM			
02595	CLEARING RIGHT-OF-WAY	LSUM			
02600	BREAKAWAY CABLE	LSUM			
02605	TERMINAL TYPE "A"	EACH			

APPROACH PAY ITEMS					
CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
			4437B	4440A	
07025	PIPE, GR. A (0.064" FBCCS) 12"	LFT.			
07030	PIPE, GR. A (0.064" FBCCS) 15"	LFT.			
07035	PIPE, GR. A (0.064" FBCCS) 18"	LFT.			
07040	PIPE, GR. A (0.064" FBCCS) 24"	LFT.			
07045	PIPE, GR. A (0.064" FBCCS) 30"	LFT.			
07050	PIPE, GR. A (0.064" FBCCS) 36"	LFT.			
07055	PIPE, GR. A (0.064" FBCCS) 42"	LFT.			
10000	PIPE, GR. D (0.064" CS) 12"	LFT.			
10005	PIPE, GR. D (0.064" CS) 15"	LFT.			
10010	PIPE, GR. D (0.064" CS) 18"	LFT.			
10015	PIPE, GR. D (0.064" CS) 24"	LFT.			
10020	PIPE, GR. D (0.064" CS) 30"	LFT.			
10025	PIPE, GR. D (0.064" CS) 36"	LFT.			
10030	PIPE, GR. D (0.064" CS) 42"	LFT.			
34000	PIPE, 0.052" PBC PERF. CS 6"	LFT.			
38000	PIPE, 0.064" FBCCS 12"	LFT.			
32375	CONCRETE CLASS A IN STRUCTURE	CYS.			
32376	CONCRETE CLASS C IN STRUCTURE	CYS.			
48000	PIPE END SECTION 12"	EACH			
48005	PIPE END SECTION 15"	EACH			
48010	PIPE END SECTION 18"	EACH			
48015	PIPE END SECTION 24"	EACH			
48020	PIPE END SECTION 30"	EACH			
48025	PIPE END SECTION 36"	EACH			
48030	PIPE END SECTION 42"	EACH			
45000	INLET, TYPE A-1	EACH			
45025	INLET, TYPE D-6	EACH			
45030	INLET, TYPE E-7	EACH			
45070	INLET, TYPE P-12A	EACH			
06335	PAVED SIDE DITCH TYPE A	LFT.			
06340	PAVED SIDE DITCH TYPE B	LFT.			
06345	PAVED SIDE DITCH TYPE C	LFT.			
06350	PAVED SIDE DITCH TYPE D	LFT.			
06355	PAVED SIDE DITCH TYPE E	LFT.			
06360	PAVED SIDE DITCH TYPE F	LFT.			
06365	PAVED SIDE DITCH TYPE G	LFT.			
52811	DRILLED HOLES FOR MUDJACKING	EACH	4		4
52810	MATERIAL FOR MUDJACKING	CYS.	6		6
	ADJUST CASTING TO GRADE	EA	1		1
	REMOVAL OF CONCRETE CURB	LFT.	250		250
	REMOVAL OF LIP GUTTER	LFT.	400		400

APPROACH PAY ITEMS					
CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
			4437B	4440A	
08040	37" FENCE, F. FIELD	LFT.			
08045	48" FENCE, CHAIN LINK	LFT.			
52340	CONSTRUCTION SIGNS (TYPE A)	EACH	18	58	76
52345	CONSTRUCTION SIGNS (TYPE B)	EACH			
52350	STANDARD BARRICADES (TYPE III)	EACH			
	STANDARD BARRICADES (VIEW)	EACH	16		16
06050	STOP SIGN, TYPE R-1A	EACH			
06052	DO NOT PASS SIGN, TYPE R-11-A	EACH			
06055	YIELD SIGN, TYPE R-301	EACH			
06057	PASS WITH CARE SIGN, TYPE R-12A	EACH			
06060	CURVE SIGN, TYPE W-2AR	EACH			
06065	CURVE SIGN, TYPE W-2AL	EACH			
06070	REVERSE CURVE SIGN, TYPE W-4AR	EACH			
06075	REVERSE CURVE SIGN, TYPE W-4AL	EACH			
06080	LARGE ARROW SIGN, TYPE W-11A	EACH			
06085	STOP AHEAD SIGN, TYPE W-13A	EACH			
06225	DELINEATOR WITH POST, TYPE D-1	EACH			
06230	3 INCH	EACH			
06740	DELINEATOR WITH POST, TYPE D-2	EACH			
06745	3 INCH	EACH			
	SIGNAL AHEAD SIGN, TYPE W-14A	EACH	6		6
06770	DELINEATOR POST	EACH			
06771	FLEXIBLE DELINEATOR POST	EACH			
52366	TEMPORARY PAVEMENT MARKING TAPE	LFT.	1422	21420	35642
52367	TEMPORARY PAVEMENT MARKING PAINT	LFT.			
52360	RIGHT-OF-WAY MARKERS	EACH			
06500	MONUMENT, TYPE A	EACH			
06505	MONUMENT, TYPE B	EACH			
06510	MONUMENT, TYPE C	EACH			
06515	MONUMENT, TYPE D	EACH			
52821	FLASHING ARROW SIGN	EACH	2	4	6
06718	LINE, SOLID, WHITE, 3"	LFT.	1896	460	2356
06719	LINE, SOLID, YELLOW, 3"	LFT.	1896	1820	3716
06720	THERMOPLASTIC LINE, SKIP WHITE, 3"	LFT.	1304	3710	4414
06716	REMOVAL OF LINE, SOLID, WHITE, 3"	LFT.	1380	400	1780
06717	REMOVAL OF LINE, SOLID, YELLOW, 3"	LFT.	1380	600	1980
06718	REMOVAL OF LINE, SKIP, WHITE, 3"	LFT.	930	2255	2385
52586	TEMPORARY CONCRETE BARRIER	LFT.	1500	1350	2850
52819	TEMPORARY CROSSOVER TYPE "B"	EACH			
	STOP BAR, 12" (TYPED)	LFT.	50		50
	TEMPORARY TRAFFIC SIGNALS (LSUM)	LSUM			

* FOR BREAKDOWN, SEE DWA. D3.
 ① 90/10 FUNDING
 ② 75/25 FUNDING
 ③ 100% STATE