INDEX OF SHEETS

SEE SHEET 2

RECORD PLANS

CONTRACTOR: J.P. SICARD, INC. – BARTON, VT

RESIDENT ENGINEER: JAY STRONG

CONSTRUCTION BEGAN: JULY 11, 2011

CONSTRUCTION COMPLETE: OCTOBER 23, 2012

RECORD PLANS BY: JAY STRONG & CRAIG PIERCE

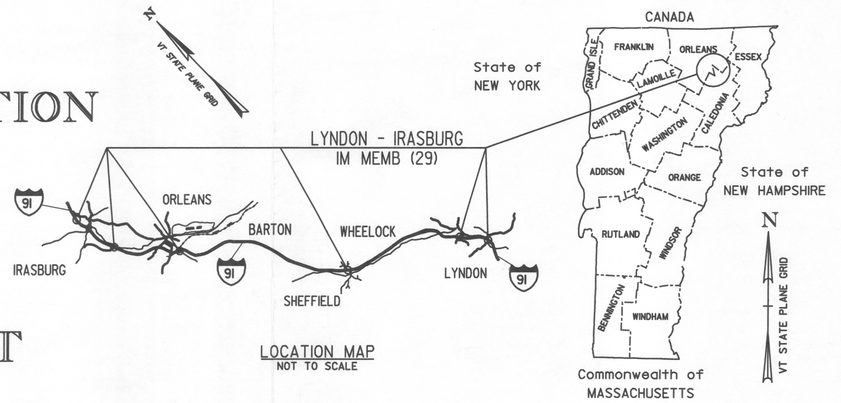
I HEREBY CERTIFY THAT ALL THE CONSTUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY _____ RESIDENT ENGINEER

DATE Apr. 8th 2013

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWNS OF LYNDON, SHEFFIELD, BARTON, AND IRASBURG
COUNTIES OF CALEDONIA AND ORLEANS
BRIDGE NOs. 95S, 96S, 99S, 100N, 102S, 105N&S, & 107S ON INTERSTATE 91

PROJECT LOCATIONS: BRIDGE 95S IS LOCATED ON I-91 (M.M 138.7) OVER T.H. NO. 9 (COLLEGE RD.) IN THE TOWN OF LYNDON.

BRIDGE 96S IS LOCATED ON I-91 (M.M. 139.9) OVER VT. ROUTE 122 & MILLER RUN IN THE TOWN OF LYNDON.

BRIDGE 99S IS LOCATED ON I-91 (M.M. 145.6) OVER T.H. NO. 1 (BERRY HILL RD.) IN THE TOWN OF SHEFFIELD.

BRIDGE 100N IS LOCATED ON I-91 (M.M. 145.6) OVER T.H. NO. 1 (BERRY HILL RD.) IN THE TOWN OF SHEFFIELD.

BRIDGE 102S IS LOCATED ON I-91 (M.M 156.0) OVER VT. ROUTE 16 IN THE TOWN OF BARTON.

BRIDGES 105N&S ARE LOCATED ON I-91 (M.M 160.0) OVER T.H. NO. 6 (LAKE REGION RD.) IN THE TOWN OF BARTON.

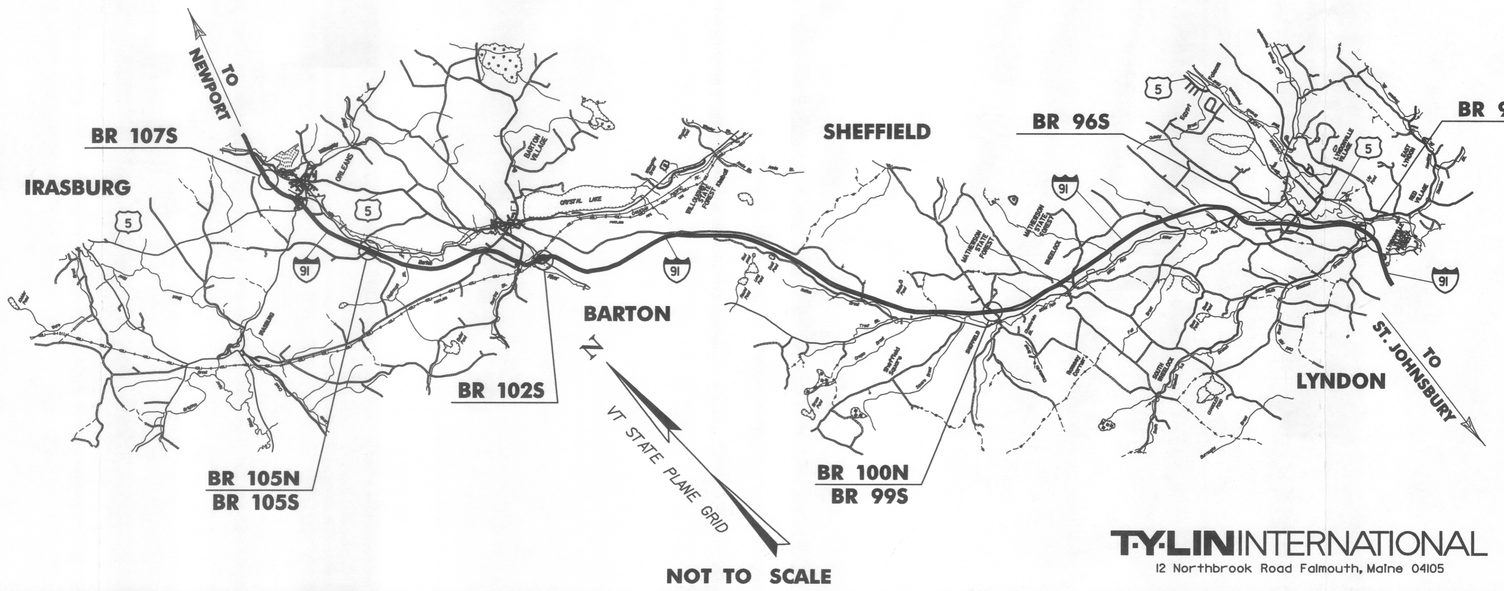
BRIDGE 107S IS LOCATED ON I-91 (M.M 163.1) OVER BARTON RIVER, CONN. RI. LINE R.R., AND T.H. NO. 3 (MAPLE ST.) IN THE TOWN OF IRASBURG.

LENGTH OF BRIDGES:

95S	150.18′
96S	246.17′
99S	136.98
100N	144.98′
102S	180.29
105N	89.00′
105S	89.00′
107S	447.43′
TOTAL LENGTH OF BRIDGES:	1484.03′

TOTAL LENGTH OF PROJECT: 1484 FEET

PROJECT DESCRIPTION: REMOVAL AND REPLACEMENT OF BITUMINOUS CONCRETE WEARING SURFACE AND MEMBRANE ON BRIDGES AND APPROACHES WITH ASSOCIATED MINOR WORK.



QUALITY ASSURANCE PROGRAM: LEVEL I

CONVENTIONAL SYMBOLS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
CONTROL OF ACCESS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS (SR SR SR)
TOP OF CUT
TOE OF SLOPE

2/28/2011 $TIME$ z0c0354111le.dgn

STATE OF VERMONT — RICHARD M. FARNSWORTH — Structural — LICENSED PROFESSIONAL ENGINEER

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROGRAM DEVELOPMENT

APPROVED _____ DATE 4/4/11

PROJECT MANAGER : SHERWARD G. FARNSWORTH

PROJECT NAME : LYNDON - IRASBURG

PROJECT NUMBER : IM MEMB (29)

SHEET 1 OF 55 SHEETS

T·Y·LIN INTERNATIONAL
12 Northbrook Road Falmouth, Maine 04105

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PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 3RD EDITION AND ITS LATEST REVISIONS.

2. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE PIERS AND THE UNDERSIDE OF THE DECK. WATER REPELLENT SHALL NOT BE APPLIED TO THE PAINTED SURFACES OF THE ABUTMENTS AND WING WALLS 2 AND 4 OF BRIDGES 105N AND 105S. WATER REPELLENT SHALL BE APPLIED TO WING WALLS 1 AND 3 AND THE CURBS ON THE BRIDGE AND ALL WINGWALLS AT BRIDGES 105N AND 105S. SEE SHEET 7 FOR NUMBERED WING WALL LOCATIONS. THIS WORK WILL BE PAID FOR UNDER ITEM 514.10, "WATER REPELLENT, SILANE".

3. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS.

4. FOLLOWING THE COMPLETION OF ALL OTHER CONSTRUCTION ACTIVITIES, ALL FABRIC DRAIN TROUGHS, DOWNSPOUTS AND SCUPPERS WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE BITUMINOUS CONCRETE REMOVAL PLAN, SHALL BE THOROUGHLY FLUSHED BY THE CONTRACTOR. COST FOR FLUSHING THE FABRIC DRAIN TROUGHS, DOWNSPOUTS AND SCUPPERS WILL BE INCIDENTAL TO ALL OTHER ITEMS IN THE CONTRACT.

5. ALL COSTS ASSOCIATED WITH PROTECTION OF TRAFFIC DURING REMOVAL OF THE BRIDGE PAVEMENT WILL BE INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".

6. THE CONTRACTOR MUST KEEP ALL EQUIPMENT OVER 25 FEET HORIZONTALLY AWAY FROM THE CENTERLINE OF THE RAILROAD TRACKS, EXCEPT FOR EQUIPMENT THAT IS TRAVELING ON THE BRIDGE DECK. THE CONTRACTOR MUST COORDINATE WITH THE RAILROAD WHEN WASHING AND/OR APPLYING WATER REPELLENT, SILANE, ON THE CURBS FOR ANY SPAN OVER THE RAILROAD TRACKS. ALL COST ASSOCIATED WITH COORDINATING WITH THE RAILROAD SHALL BE INCIDENTAL TO ITEM 514.10 "WATER REPELLENT, SILANE."

TRAFFIC CONTROL

7. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS OR NOTED OTHERWISE, ALL COSTS FOR WORK SHOWN ON THE TRAFFIC CONTROL SHEETS AND FOR TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING RETROREFLECTIVE DRUMS, SIGNS, AND SIGN POSTS WILL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL, ITEM 641.10.

8. TRAFFIC WILL BE ALLOWED TO DRIVE ON THE BARE CONCRETE BRIDGE DECK AFTER THE REMOVAL OF THE BARRIER MEMBRANE, BUT PRIOR TO THE DECK BEING CLEANED AND PREPARED FOR THE NEW SHEET MEMBRANE. ONCE THE CONCRETE BRIDGE DECK IS PREPARED FOR THE NEW SHEET MEMBRANE, NO TRAFFIC WILL BE ALLOWED ON THE DECK UNTIL BOTH LIFTS OF BITUMINOUS CONCRETE PAVEMENT ARE IN PLACE OVER THE ENTIRE LENGTH OF THE BRIDGE.

PAVEMENT REMOVAL NOTES

8. THE FINAL ONE HALF INCH OF PAVEMENT ON THE CONCRETE BRIDGE DECK AND APPROACH SLABS SHALL BE REMOVED BY LOADER, GRADER OR EQUIPMENT APPROVED BY THE ENGINEER. COLD PLANING TO REMOVE BRIDGE PAVEMENT WILL BE INCIDENTAL TO ITEM 529.10, "REMOVAL OF BRIDGE PAVEMENT".

9. DURING BRIDGE AND APPROACH SLAB PAVEMENT REMOVAL, THE CONTRACTOR SHALL EXERCISE CARE TO INSURE THAT NO DAMAGE OCCURS TO THE EXISTING CONCRETE BRIDGE DECK AND THE EXISTING APPROACH SLABS. ANY DAMAGE TO THE CONCRETE BRIDGE DECK OR APPROACH SLABS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. REPAIRS SHALL BE MADE IN ACCORDANCE WITH SECTION 580.

10. CARE SHALL BE TAKEN TO PROTECT ANY SCUPPERS OR DROP INLETS AT ALL STAGES OF CONSTRUCTION. ANY DAMAGE TO THESE STRUCTURES SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND AT THE CONTRACTOR'S EXPENSE.

11. AFTER THE REMOVAL OF THE BRIDGE PAVEMENT, THE BARRIER MEMBRANE SHALL BE REMOVED AND THE CONCRETE BRIDGE DECK SHALL BE CLEANED IN ACCORDANCE WITH SUBSECTION 580.04 AND TO THE SATISFACTION OF THE ENGINEER. REMOVAL OF THE BARRIER MEMBRANE AND THE CLEANING OF THE CONCRETE BRIDGE DECK WILL BE PAID FOR UNDER ITEM 580.16, "SURFACE PREPARATION FOR MEMBRANE".

12. ONCE THE BARRIER MEMBRANE IS REMOVED, ANY AREAS ON THE CONCRETE BRIDGE DECK THAT ARE FOUND TO BE UNSOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE ENGINEER SHALL MAKE A DETERMINATION AS TO HOW TO REPAIR THE DETERIORATED PORTION OF THE CONCRETE BRIDGE DECK AND THE LIMITS OF THE REPAIR. PAYMENT FOR REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE SHALL BE UNDER ITEMS 580.10, 580.11 AND 580.12. QUANTITIES FOR ITEMS 580.10, 580.11 AND 580.12 AS SHOWN ON THE QUANTITY SHEET ARE ESTIMATED.

13. UPON THE ENGINEER'S APPROVAL OF THE CONCRETE BRIDGE DECK'S CONDITION, ITEM 519.20, "SHEET MEMBRANE WATERPROOFING, TORCH APPLIED" SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 519. SHEET MEMBRANE WATERPROOFING SHALL NOT BE APPLIED WHEN THE DECK CONCRETE AND/OR DECK PATCH AREA'S MOISTURE CONTENT IS ABOVE THE SECTION 519 SPECIFICATIONS OR THE MANUFACTURER'S SPECIFICATIONS, WHICHEVER IS LESS.

14. DRAINAGE SCUPPERS ON BRIDGE NO. 96S (12 TOTAL) SHALL BE CUT OR GROUND FLUSH WITH CONCRETE DECK SURFACE, GROUND SMOOTH, AND PLUGGED WITH CONCRETE. DOWNSPOUTS SHALL BE REMOVED BY OTHERS (PAINTING PROJECT). PAYMENT FOR CUTTING, GRINDING, AND PLUGGING THE DRAINAGE SCUPPERS SHALL BE MADE UNDER ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III".

PAVEMENT NOTES

15. FOLLOWING THE INSTALLATION OF THE NEW SHEET MEMBRANE WATERPROOFING ON THE CONCRETE BRIDGE DECK, THE CONCRETE BRIDGE DECK AND THE AT-GRADE APPROACH SLABS SHALL BE PAVED WITH ITEM 406.27, "MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT" IN TWO 1 1/4" LIFTS (SEE TYPICAL APPROACH SECTION ON BITUMINOUS CONCRETE DETAILS). THE PAVEMENT SHALL BE TYPE IV FOR BOTH LIFTS, NO EXCEPTIONS. TOLERANCE FOR TOTAL PAVEMENT THICKNESS = (±) 1/4".

16. EMULSIFIED ASPHALT SHALL BE APPLIED TO THE COLD PLANED BITUMINOUS CONCRETE PAVEMENT SURFACE AT THE RATE OF 0.015 GAL/S.Y. OR AS DIRECTED BY THE ENGINEER. EMULSIFIED ASPHALT SHALL ALSO BE APPLIED BETWEEN ALL LIFTS OF PAVEMENT. THE COST SHALL BE PAID UNDER ITEM 404.65, "EMULSIFIED ASPHALT".

17. CARE SHALL BE EXERCISED TO SMOOTHLY TRANSITION THE NEW BRIDGE PAVEMENT INTO THE EXISTING PAVEMENT. ANY COLD PLANING NECESSARY FOR SHAPING BRIDGE APPROACHES SHALL BE PAID FOR UNDER ITEM 210.10, "COLD PLANING, BITUMINOUS PAVEMENT".

18. TESTING FOR PAVEMENT DENSITY WILL REQUIRE CORES OF THE PAVEMENT ON THE BRIDGE. THE COST FOR THIS WORK WILL BE INCIDENTAL TO ITEM 406.27, "MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT". ANY DAMAGE TO THE NEW SHEET MEMBRANE CAUSED BY CORING THE PAVEMENT SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND AT THE CONTRACTOR'S EXPENSE.

19. IF COLD PLANING OF THE RIGHT ROADWAY SHOULDERS ALONG BRIDGE APPROACHES EXPOSES GRAVEL SUBBASE, 2" BASE PAVEMENT SHALL BE PLACED ALONG THE SHOULDERS IN ADDITION TO THE 2 1/2" PAVEMENT TO BE PLACED IN ALL OTHER LOCATIONS.

20. THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS ON ALL PAVED SURFACES THAT WILL NOT HAVE THE PERMANENT MARKINGS APPLIED WITHIN 14 CALENDAR DAYS OF THE FINAL PAVING OPERATIONS AS DIRECTED BY THE RESIDENT ENGINEER.

21. FOR PG BINDER GRADE, SEE SECTION 406 OF THE GENERAL SPECIAL PROVISIONS AND SPECIAL PROVISIONS.

T.Y.LIN INTERNATIONAL

PROJECT NAME:	LYNDON - IRASBURG
PROJECT NUMBER:	IM MEMB(29)
FILE NAME: z10a354 notes.dgn	PLOT DATE: 5/6/2011
PROJECT LEADER: R. Hebert	DRAWN BY: S. A. Morgan
DESIGNED BY: J. OLUND	CHECKED BY: J. OLUND
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STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	BRIDGE NO. 95S	BRIDGE NO. 96S	BRIDGE NO. 99S	BRIDGE NO. 100N	BRIDGE NO. 102S	BRIDGE NO. 105N	BRIDGE NO. 105S	BRIDGE NO. 107S	FULL CE	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
	300									300		LF	SHOULDER BERM REMOVAL	203.40				
		100								100		CY	TRENCH EXCAVATION OF EARTH	204.20				
1										1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22				
	640	640	680	680	630	630	630	670		5200		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10				
	3.2	4.3	3.2	3.3	3.5	2.5	2.5	6.6		29.1		CWT	EMULSIFIED ASPHALT	404.65				
	235	310	230	235	255	185	185	475		2110		T	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT	406.27				
	1	1	1	1	1	1	1	1		8		LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	406.29				
1										1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50				
	17	17	15	15	15	12	12	30		133		GAL	WATER REPELLENT, SILANE	514.10				
	86	88	118	118	41	84	84	108		727		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10				
	657	1076	599	634	788	389	389	1956		6488		SY	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20				
	80	80	118	118	80	80	80	80		716		LF	JOINT SEALER, HOT POURED	524.11				
	660	1080	600	640	790	390	390	1960		6510		SY	REMOVAL OF BRIDGE PAVEMENT	529.10				
	35	55	30	35	40	20	20	100		335		SY	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I	580.10	EST			
	70	110	60	100	120	60	60	295		875		SY	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS II	580.11	EST			
	13	8	5	5	6	13	13	24		87		CY	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III	580.12	EST			
	5910	9690	5390	5710	7100	3510	3510	17600		58420		SF	SURFACE PREPARATION FOR MEMBRANE	580.16				
	20	30	20	20	20	10	10	50		180		CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	EST			
													BEGIN OPTION AA					
		55								55		LF	18" CAAP .060 (2-2/3 X 1/2)	601.0215				
		55								55		LF	18" PCCSP .064 (2-2/3 X 1/2)	601.0415				
		55								55		LF	18" CPEP(SL)	601.2615				
													END OPTION AA					
		1								1		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	604.20				
	10	10	10	10	10	10	10	10		80		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST			
	10	10	10	10	10	10	10	10		80		HR	TRUCK RENTAL	608.37	EST			
	240	240	240	240	240	240	240	240		1920		HR	TRUCK-MOUNTED ATTENUATOR	608.45	EST			
	30	63								93		LF	TREATED TIMBER CURB	616.35				
	2	1	1	1	1	1	1	1		9		EACH	ENERGY ABSORPTION ATTENUATOR	621.56				
	660	750	640	650	690	600	600	950		5540		LF	TEMPORARY TRAFFIC BARRIER	621.90				
	660	750	640	650	690	600	600	950		5540		LF	REMOVE AND RESET TEMPORARY TRAFFIC BARRIER	621.95				
	400	400	400	400	400	400	400	400		3200		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST			
									1	1		LS	FIELD OFFICE, ENGINEERS	631.10				
									1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16				
									1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17				
									3000	3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26				
1										1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
				1						1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 100N)	641.10				
					1					1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 102S)	641.10				
						1				1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 105N)	641.10				

PROJECT NAME: LYNDON-IRASBURG
PROJECT NUMBER: IM MEMB(29)

FILE NAME: z10a354_QTY.dgn
PROJECT MANAGER: R. HEBERT
DESIGNED BY: J. OLUND
QUANTITY SHEET #1

PLOT DATE: 03/28/2011
DRAWN BY: S. MORGAN
CHECKED BY: R. HEBERT
SHEET 3 OF 55

STATE OF VERMONT
AGENCY OF TRANSPORTATION

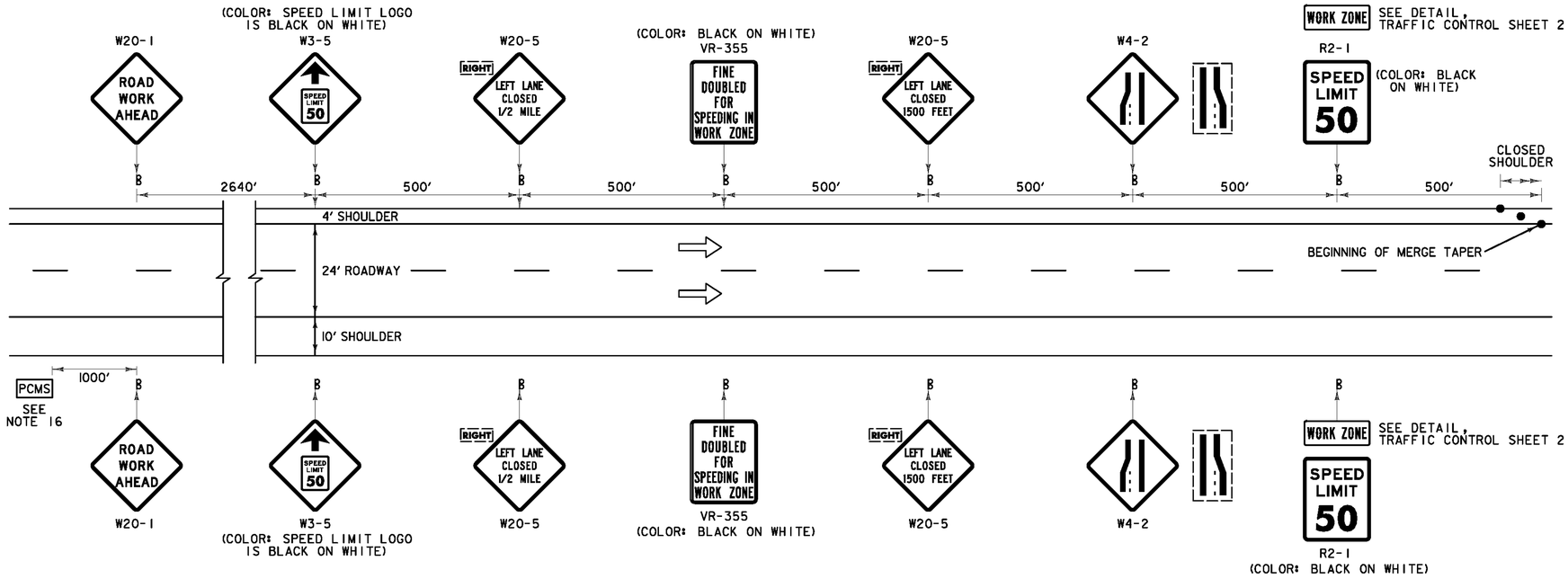
QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	BRIDGE NO. 95S	BRIDGE NO. 96S	BRIDGE NO. 99S	BRIDGE NO. 100N	BRIDGE NO. 102S	BRIDGE NO. 105N	BRIDGE NO. 105S	BRIDGE NO. 107S	FULL CE	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1			1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 105S)	641.10				
								1		1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 107S)	641.10				
	1									1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 95S)	641.10				
		1								1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 96S)	641.10				
			1							1		LS	TRAFFIC CONTROL (I-91 - BRIDGE NO. 99S)	641.10				
	1	1	1	1	1	1	1	1		8		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15				
	1	1	1	1	1	1	1	1		8		EACH	PORTABLE ARROW BOARD	641.16				
	1800	1925	1800	1800	1850	1725	1725	2175		14800		LF	6 INCH WHITE LINE	646.214				
	1375	1475	1375	1375	1425	1325	1325	1675		11350		LF	6 INCH YELLOW LINE	646.215				
	400	450	350	350	400	300	300	650		3200		LF	TEMPORARY 6 INCH WHITE LINE	646.620				
	3500	3700	3450	3500	3550	3350	3350	4100		28500		LF	TEMPORARY 6 INCH WHITE LINE, TYPE II TAPE	646.621				
	400	450	350	350	400	300	300	650		3200		LF	TEMPORARY 6 INCH YELLOW LINE	646.630				
	3500	3700	3450	3500	3550	3350	3350	4100		28500		LF	TEMPORARY 6 INCH YELLOW LINE, TYPE II TAPE	646.631				
	350	370	346	350	356	336	336	410		2854		EACH	RAISED PAVEMENT MARKERS, TYPE II	646.75				
	2060	2190	2040	2050	2100	1980	1980	2460		16860		SF	PAVEMENT MARKING MASK	646.86				
1										1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50				
	10	20	10	10	10	10	150	20		240		GAL	SPECIAL PROVISION (REPOINTING GRANITE CURB)	900.625	EST			

PROJECT NAME: LYNDON-IRASBURG
PROJECT NUMBER: IM MEMB(29)

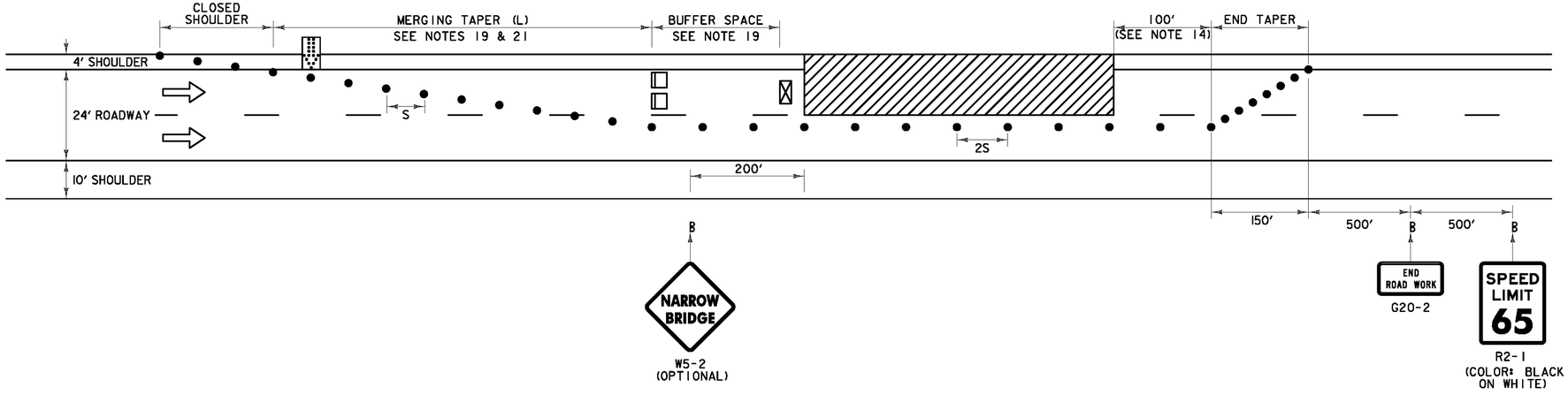
FILE NAME: z10a354_QTY.dgn
PROJECT MANAGER: R. HEBERT
DESIGNED BY: J. OLUND
QUANTITY SHEET #2

PLOT DATE: 03/28/2011
DRAWN BY: S. MORGAN
CHECKED BY: R. HEBERT



CONSTRUCTION APPROACH SIGNING ON INTERSTATE 91 LEFT LANE CLOSED

(RIGHT LANE CLOSURE SIMILAR - SEE NOTE 2)



LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- WORK AREA
- ENERGY ABSORPTION ATTENUATOR
- TRUCK-MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 16)

TRAFFIC CONTROL ON INTERSTATE 91 LEFT LANE CLOSED

POSTED SPEED (MPH)	TAPER LENGTHS (FT)		TANGENT W=12 FT (L/2)	BARRIER FLARE RATE (MINIMUM)	MINIMUM BUFFER SPACE LENGTH (FT)	MAXIMUM CHANNELIZING DEVICE SPACING (FT)	
	SHOULDER W=10 FT (L/3)	MERGING * 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	320	160	1:9	305	40	80
45	150	540	270	1:9	360	45	90
50	170	600	300	1:11	425	50	100
55	185	660	330	1:13	495	55	110
60	200	720	360	1:13	570	60	120
65	215	780	390	1:13	645	65	130

*SEE NOTE 21

TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATION:
L = WS FOR POSTED SPEEDS OF 45 MPH OR GREATER
L = WS²/60 FOR POSTED SPEEDS OF 40 MPH OR LESS

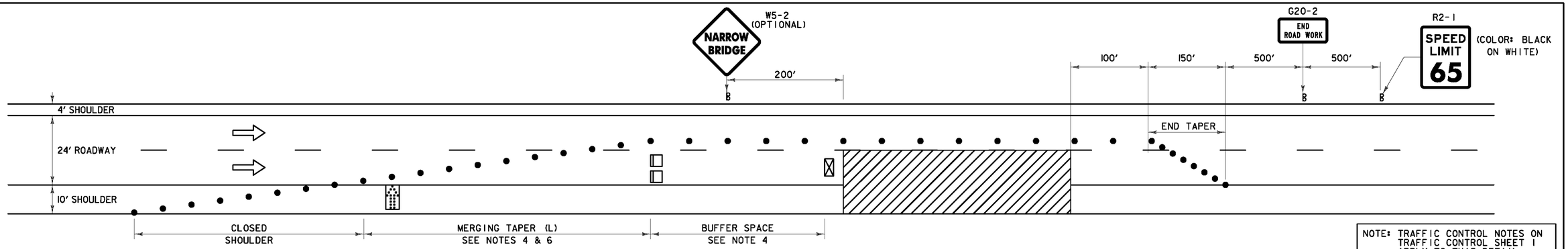
L = MINIMUM LENGTH OF TAPER
W = WIDTH OF OFFSET IN FEET. (TYPICAL)
S = POSTED SPEED IN MPH

T·Y·LIN INTERNATIONAL

TRAFFIC CONTROL NOTES:

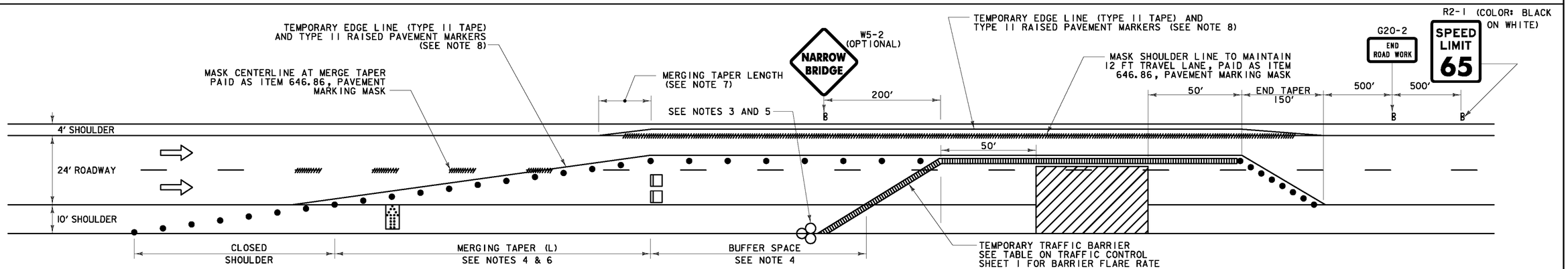
1. THE TRAFFIC CONTROL PLAN SHOWN IS A SCHEMATIC ONLY AND SHOULD BE USED AS A REFERENCE. REVISE PLAN TO ACCOMMODATE ON RAMPS AT BR 96S AND ON AND OFF RAMPS AT BR 102S. INCREASE MINIMUM SPACING BETWEEN WORK ZONE SIGNS AT BR 102S AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL BRIDGES TO VTRANS FOR APPROVAL. PAYMENT FOR PREPARING AND SUBMITTING THE TRAFFIC CONTROL PLAN, AND MAKING ANY NECESSARY REVISIONS TO THE PLAN, WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10. THE CONTRACTOR SHALL ALLOW TWO WEEKS FOR APPROVAL OF THE TRAFFIC CONTROL PLAN. NO WORK SHALL COMMENCE UNTIL THE CONTRACTOR HAS AN APPROVED TRAFFIC CONTROL PLAN.
2. THE LEFT LANE CLOSURE IS SHOWN. THE RIGHT LANE APPROACH SIGNING IS SIMILAR.
3. THE EXISTING SPEED LIMIT IS 65 MPH. THE SPEED LIMIT WILL BE REDUCED TO 50 MPH IN THE WORK ZONE FOR THIS PROJECT. ANY EXISTING SPEED LIMIT SIGNS WITHIN THE SPEED REDUCTION AREA SHALL BE COMPLETELY COVERED.
4. SIGNS SHALL BE INSTALLED SO AS NOT TO OBSTRUCT EXISTING SIGNS.
5. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" BOOK (SHS) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
6. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
7. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE VI.
8. SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
9. FIXED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE GUARDRAIL.
10. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
11. WHERE SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
12. THE CONTRACTOR SHALL HAVE SIGNS FOR CLOSURE OF RIGHT AND LEFT LANES ON PROJECT BEFORE WORK COMMENCES.
13. THE NUMBER OF CHANNELIZING DEVICES, TYPE THREE BARRICADE AND OTHER TRAFFIC CONTROL DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BASED ON INDIVIDUAL DETOUR CONDITIONS (TAPERS, SPEED LIMITS, LENGTH OF DETOUR, CURVE, ETC.). WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
14. PLACE LAST CHANNELIZING DEVICE 100 FEET BEYOND THE ANTICIPATED WORK ZONE TERMINAL POINT EACH DAY AND THEN START THE END TAPER. THE END TAPER SHALL BE CONSTRUCTED OF 8 ADDITIONAL RETROREFLECTIVE DRUMS SPACED AT 20 FEET MAX ON CENTER.
15. THE ARROW BOARD SHALL BE PLACED ON THE SHOULDER OF THE ROADWAY, OR IF PRACTICAL FURTHER FROM THE TRAVELED LANE AT THE END OF THE SHOULDER TAPER.
16. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED IN ACCORDANCE WITH SECTION 6F.55 OF THE MUTCD. THE PCMS SHALL READ 'LEFT (OR RIGHT) LANE CLOSED AHEAD, PLEASE MERGE EARLY'.
17. TRAVEL LANE SHALL BE A MINIMUM OF 12 FEET WIDE.
18. DURING NON-WORK PERIODS, ALL EQUIPMENT SHALL BE MOVED TO A LOCATION OFF PAVED SHOULDERS AND OUTSIDE THE CLEAR ZONE (30 FT MIN.) OR PROTECTED BY TRAFFIC BARRIER OR GUARDRAIL.
19. AT THE DISCRETION OF THE ENGINEER, MERGING TAPER AND BUFFER SPACE LENGTHS MAY BE EXTENDED BEYOND MINIMUM VALUES, ESPECIALLY IN CLOSE PROXIMITY TO INTERCHANGE RAMPS, CURVES OR OTHER INFLUENCING FACTORS.
20. LANE CLOSURE FOR BRIDGE 102S SHALL BEGIN NORTH OF EXIT 25 ON TANGENT SECTION OF INTERSTATE 91 TO PROVIDE ADEQUATE SIGHT DISTANCE OF MERGING CONDITION. LANE CLOSURE FOR BRIDGE 96S SHALL BEGIN NORTH OF THE EXIT 24 ENTRANCE RAMP ON A TANGENT SECTION OF I-91 TO PROVIDE ADEQUATE SIGHT DISTANCE. TRAFFIC CONTROL PACKAGE FOR EXIT 25 ENTRANCE AND EXIT RAMPS NEAR BRIDGE 102S AND EXIT 24 ENTRANCE RAMP NEAR BRIDGE 96S SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STD. E-106.
21. EXTEND MERGING TAPER LENGTH TO ACCOUNT FOR REQUIRED LANE SHIFT OFFSET.

PROJECT NAME:	LYNDON - IRASBURG		
PROJECT NUMBER:	IM MEMB(29)		
FILE NAME:	z10a354TraContrl.dgn	PLOT DATE:	3/28/2011
PROJECT LEADER:	R. Hebert	DRAWN BY:	S. A. Morgan
DESIGNED BY:	J. OLUND	CHECKED BY:	J. OLUND
TRAFFIC CONTROL SHEET 1		SHEET 5 OF 55	



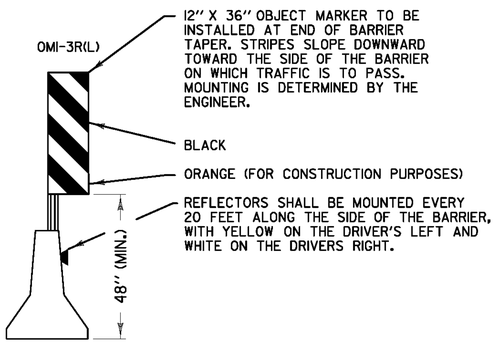
NOTE: TRAFFIC CONTROL NOTES ON TRAFFIC CONTROL SHEET 1 APPLY TO THIS DETAIL.

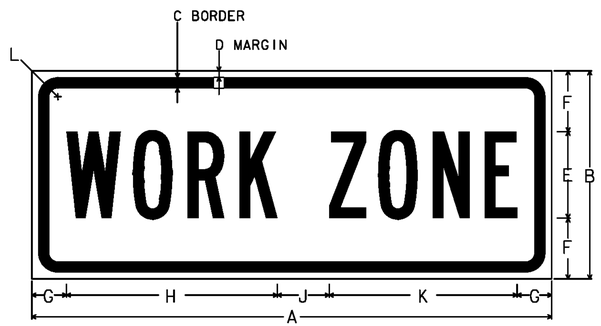
TRAFFIC CONTROL ON INTERSTATE 91 RIGHT LANE CLOSED



TRAFFIC CONTROL ON INTERSTATE 91 RIGHT LANE CLOSED WITH TEMPORARY BARRIER PROTECTION (SEE NOTE 2)

(LEFT LANE CLOSED SIMILAR)





DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L
MIN.	24	8	0.375	0.375	4B	2	2	9.5	2	8.5	1.5
SPEC.	30	12	0.375	0.625	5B	3.5	2	12.2	3	8.5	1.5
EXPWY.	36	12	0.50	0.75	6B	3	2.5	14.8	3	8.5	1.875
FWY.	48	18	0.625	0.875	8B	4	3.5	19.1	4	8.5	2.25

NOTE: THE SIGN IS TO HAVE A BLACK LEGEND ON AN ORANGE RETROREFLECTIVE BACKGROUND THAT IS ASTM TYPE VII MINIMUM.

WORK ZONE SIGN DETAIL

NOT TO SCALE

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- WORK AREA
- ENERGY ABSORPTION ATTENUATOR
- TRUCK-MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 16 ON TRAFFIC CONTROL SHEET 1)

TRAFFIC CONTROL NOTES:

1. SEE TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES AND APPROACH SIGNING NOT SHOWN.
2. IF THE LANE CLOSURE IS TO LAST LONGER THAN 3 DAYS, THE CONTRACTOR SHALL USE TEMPORARY TRAFFIC BARRIER AS SHOWN ON THIS SHEET AND PAID AS 621.90, "TEMPORARY TRAFFIC BARRIER". TEMPORARY TRAFFIC BARRIER SHALL BE A CONCRETE MEDIAN BARRIER (CMB) TYPE. STEEL BEAM GUARDRAIL WILL NOT BE ALLOWED FOR USE AS A TEMPORARY TRAFFIC BARRIER. WHEN ONE SIDE OF THE BRIDGE IS COMPLETE, MOVING THE BARRIER TO CLOSE THE OTHER SIDE TO TRAFFIC WILL BE PAID AS 621.95, "REMOVE AND RESET TEMPORARY TRAFFIC BARRIER".
3. AN ENERGY ABSORPTION ATTENUATOR PAID AS ITEM 621.56, "ENERGY ABSORPTION ATTENUATOR", SHALL BE LOCATED AT THE END OF THE BARRIER.
4. AT THE DISCRETION OF THE ENGINEER, MERGING TAPER AND BUFFER SPACE LENGTHS MAY BE EXTENDED BEYOND MINIMUM VALUES, ESPECIALLY IN CLOSE PROXIMITY TO INTERCHANGE RAMPS, CURVES OR OTHER INFLUENCING FACTORS.
5. QUANTITIES INCLUDE ONE ENERGY ABSORPTION ATTENUATOR PER BRIDGE AND ONE BACKUP ATTENUATOR FOR THE PROJECT (INCLUDED IN QUANTITY FOR BR (95S) TO BE USED IN THE EVENT AN IN-SERVICE ATTENUATOR IS DAMAGED AND NEEDS TO BE REPLACED. COST TO MOVE ATTENUATORS FOR SHIFTING LANE CLOSURES TO BE INCLUDED IN ITEM 621.56 ENERGY ABSORPTION ATTENUATOR.
6. EXTEND MERGING TAPER LENGTH TO ACCOUNT FOR REQUIRED LANE SHIFT OFFSET.
7. PROVIDE MERGING TAPER LENGTH AS REQUIRED FOR LANE SHIFT.
8. THE RAISED PAVEMENT MARKERS, TYPE II SHALL BE PLACED TO THE OUTSIDE OF THE TEMPORARY TAPE PAVEMENT MARKINGS. THE RAISED PAVEMENT MARKERS, TYPE II SHALL BE SPACED AT 20FT.

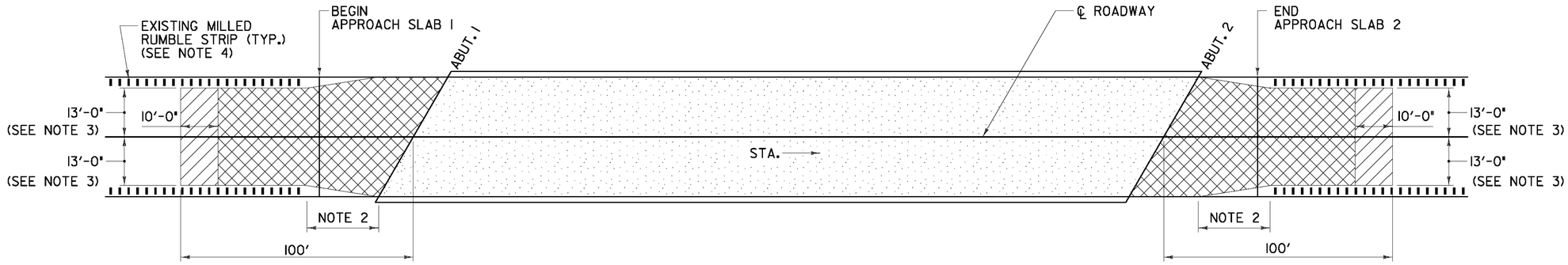
T-Y LIN INTERNATIONAL

PROJECT NAME: LYNDON - IRASBURG

PROJECT NUMBER: IM MEMB(29)

FILE NAME: z10a354TraContr2 .dgn
PROJECT LEADER: R. Hebert
DESIGNED BY: J. OLUND
TRAFFIC CONTROL SHEET 2

PLOT DATE: 3/28/2011
DRAWN BY: S. A. Morgan
CHECKED BY: J. OLUND



COLD PLANE - 1¼"

COLD PLANE - 2½" - REMOVE THE PAVEMENT TO THE TOP OF CONCRETE APPROACH SLAB OR 2½", - WHICHEVER IS LESS (PAID UNDER ITEM 210.10)
- REMOVE BARRIER MEMBRANE ON THE APPROACH SLAB IF THE MEMBRANE HAS BEEN EXPOSED.

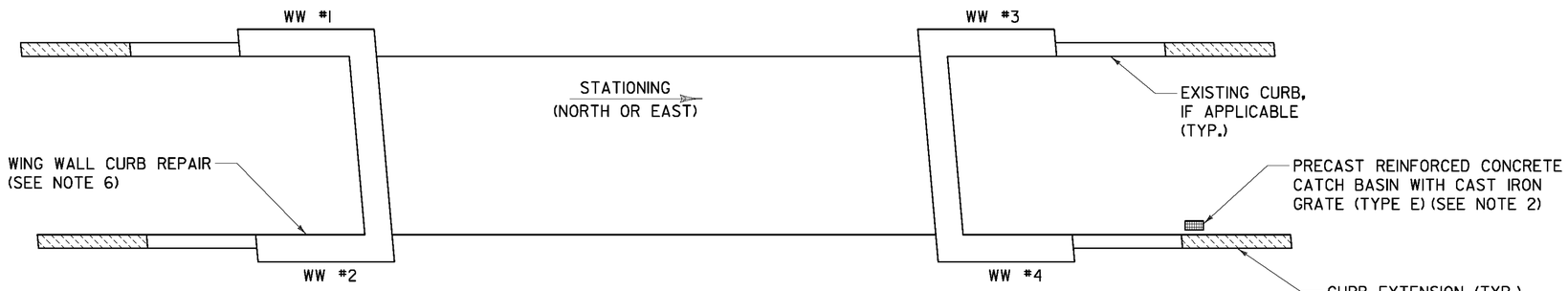
PAVEMENT REMOVAL - REMOVE THE PAVEMENT TO THE TOP OF CONCRETE BRIDGE DECK AND REMOVE THE BARRIER MEMBRANE
REMOVAL OF THE BIT. CONC. PAV'T. WILL BE PAID FOR UNDER ITEM 529.10.
REMOVAL OF THE BARRIER MEMBRANE WILL BE PAID UNDER ITEM 580.16.

BITUMINOUS CONCRETE REMOVAL PLAN

NOT TO SCALE

NOTES:

1. ON SOME BRIDGES THE APPROACH SLAB SLOPES DOWN FROM THE ABUTMENTS. IN THE EVENT THIS OCCURS, ONLY REMOVE THE TOP 2½" OF PAVEMENT.
2. ADJUST LENGTH OF TAPER AS NECESSARY TO AVOID REMOVING THE MILLED RUMBLE STRIPS.
3. REDUCE DIMENSION TO 12'-6" AS NECESSARY TO AVOID REMOVING THE MILLED RUMBLE STRIP.
4. WHERE EXISTING MILLED RUMBLE STRIPS EXTEND INTO THE TEMPORARY TRAVEL LANES, FILL GROOVES WITH TEMPORARY MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT FLUSH WITH EXISTING PAVEMENT. TEMPORARY PAVEMENT SHALL BE REMOVED AS DIRECTED BY THE RESIDENT ENGINEER IN COORDINATION WITH THE TRAFFIC CONTROL SHIFT. PAYMENT FOR PLACEMENT AND REMOVAL OF TEMPORARY PAVEMENT OVER EXISTING MILLED RUMBLE STRIPS SHALL BE INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".



CURB REPAIR, TREATED TIMBER CURB EXTENSION, AND DROP INLET PLAN

NOT TO SCALE

TREATED TIMBER CURB EXTENSIONS				
	WW #1	WW #2	WW #3	WW #4
BR 95S	30 FT.	-	-	-
BR 96S	-	30 FT.	-	33 FT.
BR 99S	-	-	-	-
BR 100N	-	-	-	-
BR 102S	-	-	-	-
BR 105N	-	-	-	-
BR 105S	-	-	-	-
BR 107S	-	-	-	-

NOTES:

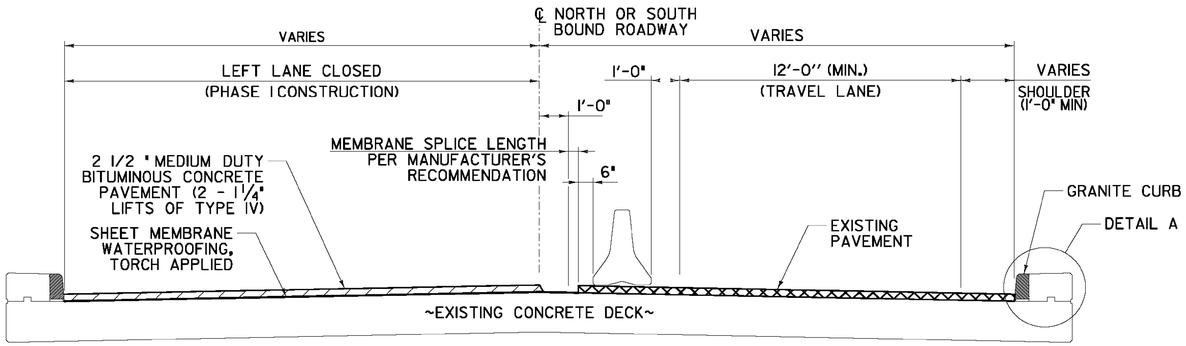
1. TREATED TIMBER CURB SHALL BE INSTALLED/EXTENDED AT LOCATIONS SHOWN IN THE TABLE AND IN ACCORDANCE WITH SECTION 616 OR AS DIRECTED BY THE RESIDENT ENGINEER.
2. A PRECAST REINFORCED CONCRETE CATCH BASIN WITH TYPE 'E' CAST IRON GRATE SHALL BE INSTALLED IN THE MEDIAN SHOULDER, APPROXIMATELY 30FT NORTH OF THE END OF THE NORTH ABUTMENT (BEYOND THE APPROACH SLAB) FOR BRIDGE 96S. THE EXACT LOCATION SHALL BE DETERMINED BY THE RESIDENT ENGINEER. INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 604.
3. AN 18 INCH DIAMETER PIPE SHALL BE INSTALLED EXTENDING FROM THE CATCH BASIN AND SHALL DAYLIGHT IN THE MEDIAN.
4. THE DISTURBED GROUND SURFACE SHALL BE SEEDED AND FERTILIZED AND RECEIVE AN APPLICATION OF LIME AND MULCH AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT FOR ANTICIPATED SMALL QUANTITY OF DISTURBED GROUND SURFACE AREA, INCLUDING SEED, FERTILIZER, LIME, AND MULCH, SHALL BE INCIDENTAL TO ITEM 204.20, "TRENCH EXCAVATION OF EARTH".
5. TEMPORARILY REMOVE GUARDRAIL AS NEEDED TO INSTALL PRECAST CATCH BASIN AND OUTLET DRAINAGE PIPE, AS DIRECTED BY THE RESIDENT ENGINEER. TEMPORARY REMOVAL AND RESETTING OF GUARDRAIL SHALL BE DONE IN ACCORDANCE WITH SECTION 621. PAYMENT FOR ANTICIPATED SMALL QUANTITY OF GUARDRAIL REMOVAL AND RESETTING SHALL BE INCIDENTAL TO ITEM 204.20, "TRENCH EXCAVATION OF EARTH". MATERIALS FOR TURF ESTABLISHMENT AND THEIR PLACEMENT SHALL MEET THE REQUIREMENTS OF SECTION 651.
6. UNDERMINED CURBS ALONG WINGWALLS # 1 & 2 OF BR 105S SHALL BE REPAIRED. PAYMENT WILL BE MADE UNDER ITEM 900.625, SPECIAL PROVISION (REPOINTING GRANITE CURB).

T-Y LIN INTERNATIONAL

PROJECT NAME: LYNDON - IRASBURG
PROJECT NUMBER: IM MEMB(29)

FILE NAME: z10a354ConcRem.dgn
PROJECT LEADER: R. Hebert
DESIGNED BY: J. OLUND
BITUMINOUS CONCRETE REMOVAL PLAN

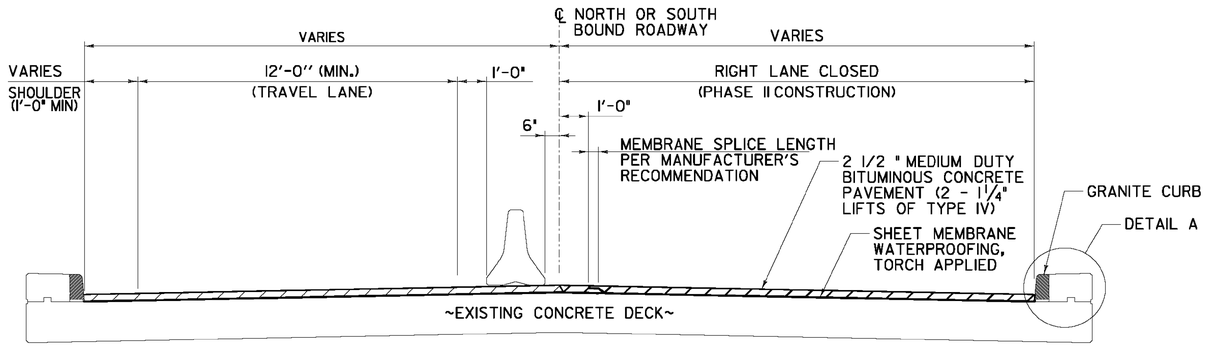
PLOT DATE: 3/28/2011
DRAWN BY: S. A. Morgan
CHECKED BY: J. OLUND
SHEET 7 OF 55



TYPICAL SECTION – PHASE I CONSTRUCTION

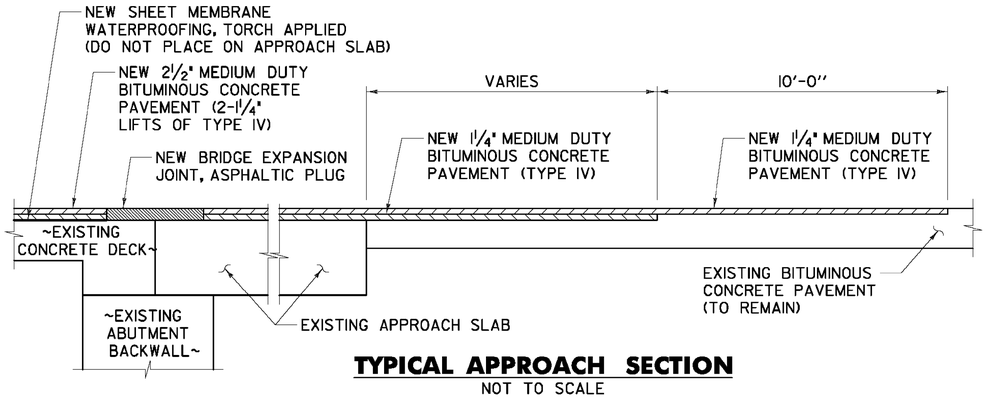
NOT TO SCALE

BUILT AS DESIGNED



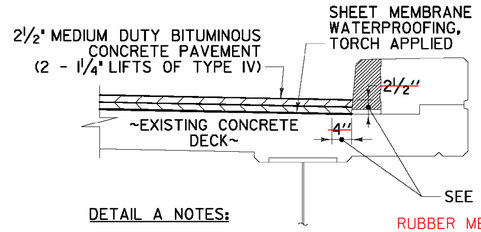
TYPICAL SECTION – PHASE II CONSTRUCTION

NOT TO SCALE



TYPICAL APPROACH SECTION

NOT TO SCALE



DETAIL A NOTES:

1. INDICATES AREA ALONG DECK AND UP FACE OF CURB FOR PLACEMENT OF TWO COATS OF ~~POLYURETHANE~~ MEMBRANE.
2. POLYURETHANE MEMBRANE AND BLAST CLEANING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SHEET MEMBRANE WATERPROOFING, TORCH APPLIED.
3. SHEET MEMBRANE WATERPROOFING SHALL EXTEND TO FACE OF CURB AS SHOWN.
4. IN ADDITION TO THE REQUIREMENTS OF SUBSECTION 519.04, BLAST CLEAN 2½" UP THE FACE OF CURB PRIOR TO PLACING THE MEMBRANE.

RUBBER MEMBRANE - INCIDENTAL TO ITEM *519.20

DETAIL A

NOT TO SCALE

BRIDGE LENGTH AND WIDTH (CURB TO CURB)

BRIDGE NO.	WIDTH (CURB TO CURB) (FEET)	LENGTH (FEET)
95S	39.33	150.18
96S	39.33	246.17
99S	39.33	136.98
100N	39.33	144.98
102S	39.33	180.29
105N	39.33	89.0
105S	39.33	89.0
107S	39.33	447.43

ASPHALTIC PLUG JOINT REPLACEMENT SCHEDULE

BRIDGE NO.	ABUT. 1	ABUT. 2
95S	43 LF	43 LF
96S	44 LF	44 LF
99S	59 LF	59 LF
100N	59 LF	59 LF
102S	-	41 LF
105N	42 LF	42 LF
105S	42 LF	42 LF
107S	54 LF	~~54 LF~~

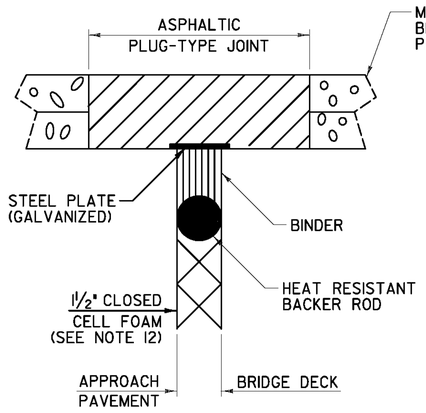
T·Y LIN INTERNATIONAL

PROJECT NAME: LYNDON - IRASBURG

PROJECT NUMBER: IM MEMB(29)

FILE NAME: z10a354B1tConcDets.dgn
PROJECT LEADER: R. Hebert
DESIGNED BY: J. OLUND
BITUMINOUS CONCRETE DETAILS

PLOT DATE: 3/28/2011
DRAWN BY: S. A. Morgan
CHECKED BY: J. OLUND
SHEET 8 OF 55



ASPHALTIC PLUG-TYPE JOINT DETAIL

NOTES:

1. THE JOINT SHALL BE LOCATED CENTRALLY OVER THE DECK EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
2. THE JOINT SHALL BE EXCAVATED AS SHOWN ON THE PLANS BY USE OF SAWS AND PNEUMATIC HAMMER OR A HAMMER AND CHISEL.
3. THE JOINT AREA SHALL BE BLAST CLEANED OF DEBRIS AND ASPHALT. THE JOINT AREA SHALL BE THOROUGHLY DRIED USING HOT COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. SPALLED AND DEFECTIVE CONCRETE SHALL BE REPAIRED WITH AN APPROVED MATERIAL AS AGREED UPON BY THE RESIDENT ENGINEER.
5. PROPERLY SIZED HEAT RESISTANT BACKER ROD SHALL BE PLACED IN THE MOVEMENT GAP ALLOWING FOR 1INCH +/- OF BINDER ABOVE THE ROD.
6. THE BINDER MATERIAL SHALL BE HEATED AND PLACED AS RECOMMENDED BY THE MANUFACTURER.
7. PLACE 1/4 INCH THICK BY 8 INCH WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER.
   A. THE STEEL PLATES MAY BE OMITTED WHERE THE APPROACH SLAB IS COVERED WITH A STONE BASE OR BITUMINOUS PAVEMENT AND VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
8. THE BINDER MATERIAL AND AGGREGATE SHALL BE HEATED AND MIXED AS RECOMMENDED BY THE MANUFACTURER.
9. THE INSTALLATION OF MATERIAL, COMPACTION, AND TOPCOATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
10. IMMEDIATELY AFTER TOPCOATING, AN ANTI-SKID MATERIAL SHALL BE CAST OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
11. JOINT SHALL BE PROTECTED FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 125°F±.
12. IF 1½" CLOSED CELL FOAM IS PRESENT, IT SHALL BE CUT DOWN TO INSTALL THE JOINT AS SHOWN. NEW CLOSED CELL FOAM SHALL NOT BE INSTALLED.

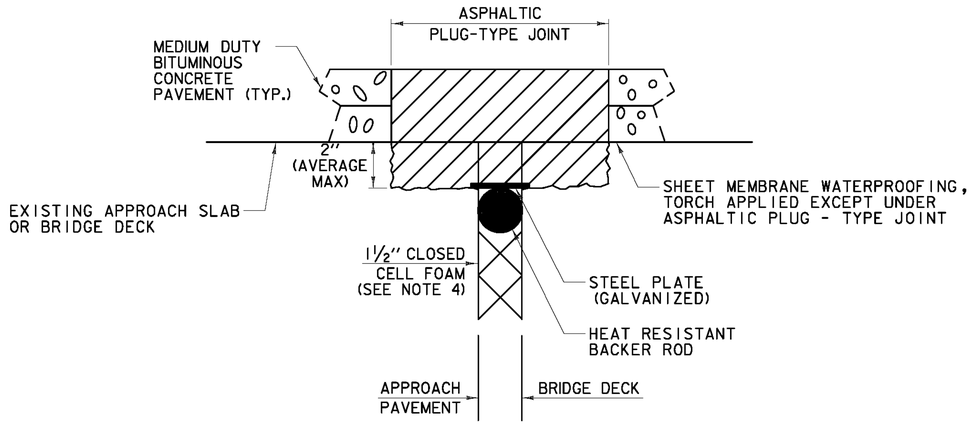
WEATHER LIMITATIONS

BINDER MATERIAL SHALL BE APPLIED ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL:

A. THE AMBIENT AIR TEMPERATURE IS AT LEAST 50° F AND RISING.

B. THE ROAD SURFACE IS SUFFICIENTLY DRY.

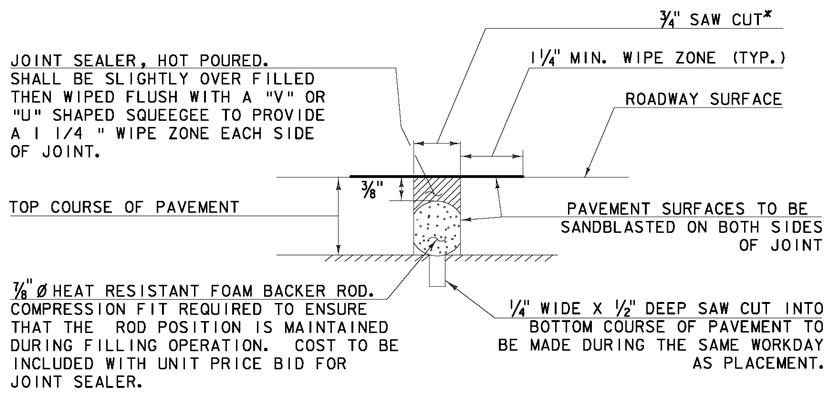
C. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.



ASPHALTIC PLUG-TYPE JOINT DETAIL REMOVAL OF UP TO 2" DETERIORATED CONCRETE

NOTES:

1. UPON ENCOUNTERING UP TO 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH THE ASPHALTIC PLUG JOINT MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG". THE ADDITIONAL PLUG JOINT MATERIAL BELOW THE DESIGN DEPTH REQUIRED TO REPLACE THE DETERIORATED CONCRETE WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG".
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND OMISSION IS APPROVED BY THE RESIDENT ENGINEER.
4. IF 1½" CLOSED CELL FOAM IS PRESENT, IT SHALL BE CUT DOWN TO INSTALL THE JOINT AS SHOWN. NEW CLOSED CELL FOAM SHALL NOT BE INSTALLED.

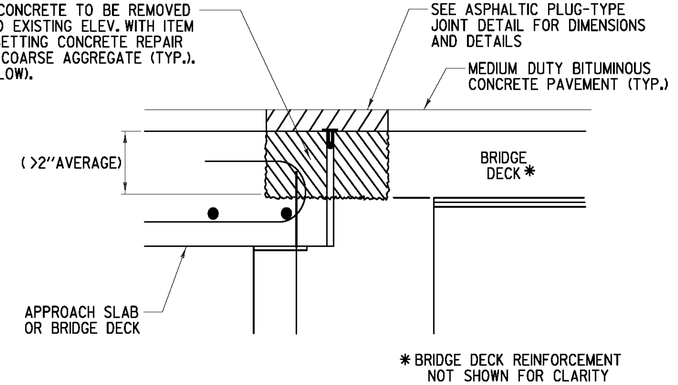


NOTE: PLACE JOINT SEALER, HOT POURED AT THE BEGINNING OF APPROACH SLABS FOR ALL BRIDGES.

SAWED PAVEMENT JOINT DETAIL

N. T. S.

*JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF ALL CONCRETE APPROACH SLAB. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.



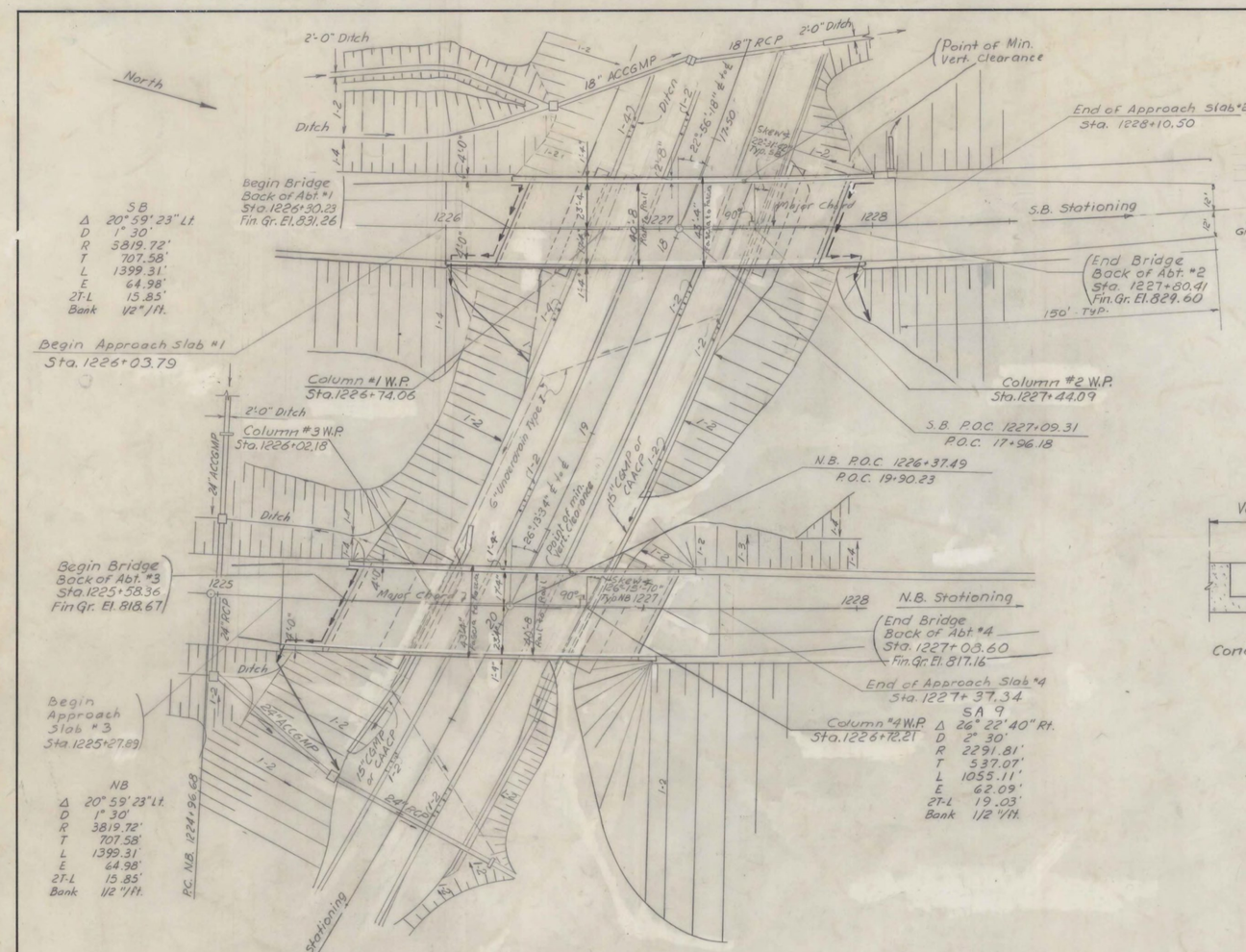
ASPHALTIC PLUG-TYPE JOINT DETAIL REMOVAL OF >2" DETERIORATED CONCRETE

NOTES:

1. UPON ENCOUNTERING GREATER THAN 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 580.20 "RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE".
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND OMISSION IS APPROVED BY THE RESIDENT ENGINEER.

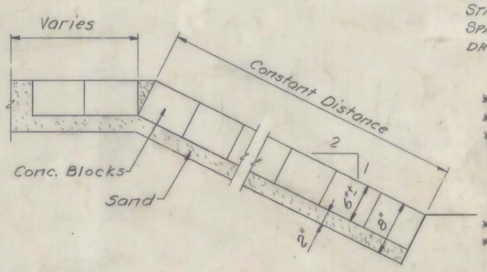
T·Y·LIN INTERNATIONAL

PROJECT NAME: LYNDON - IRASBURG	
PROJECT NUMBER: IM MEMB(29)	
FILE NAME: z10a354Pvmt1Jt.dgn	PLOT DATE: 3/28/2011
PROJECT LEADER: R. Hebert	DRAWN BY: S. A. Morgan
DESIGNED BY: J. OLUND	CHECKED BY: J. OLUND
PAVEMENT JOINT DETAILS	SHEET 9 OF 55



NOTES:
All Substructure units founded on Rock
For N.B. Elevation see Dwg. No. BR 102

NOTE:
ALL MATERIALS FOR STAGE II CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGE CONSTRUCTION, DATED JAN. 1972.



TYPICAL SECTION FOR ITEM 514
Scale: None

LIST OF BRIDGE SHEETS

**BR	100	GENERAL PLAN
**BR	101	BRIDGE QUANTITY SHEET
**BR	102	PRELIMINARY INFORMATION SHEET
BR	103	BORING LAYOUT SHEET & BORING LOGS
BR	104	BORING LOGS
BR	105	BORING LOGS
BR	106	STEEL DETAILS
**BR	107	TYPICAL SECTION & DETAILS
**BR	108	MISCELLANEOUS DETAILS
BR	109	COLUMN FOOTING - SOUTHBOUND
BR	110	COLUMN FOOTING - NORTHBOUND
BR	111	ABUTMENT #1
BR	112	ABUTMENT #2
BR	113	ABUTMENT #1 & #2 DETAILS
BR	114	ABUTMENT #3
BR	115	ABUTMENT #4
BR	116	ABUTMENT #3 & #4 DETAILS
**BR	117	APPROACH SLAB NO. 1
**BR	118	APPROACH SLAB NO. 2
**BR	119	APPROACH SLAB NO. 3
**BR	120	APPROACH SLAB NO. 4
BR	121	REINFORCING STEEL DETAILS
BR	122	REINFORCING STEEL DETAILS
BR	123	REINFORCING STEEL DETAILS

STANDARD SHEETS REQUIRED

SCB-D1-67 4/12/70R SCB-D6-67 Ⓑ & Ⓕ 4/12/70R
SCB-D2-67 Ⓐ 12/68 SCB-D8-67 Ⓑ 12/68 SB-R1-64 (1&2) 4 major changes
SCB-D4-67 12/1968 SCB-D9-67 Ⓑ 4/28/70R
SCB-D7-67 Ⓓ 12/68

REFERENCE SHEETS

Plan: N.B. Sta 1220+00 to 1230+00, S.B. Sta. 1220+00 to 1230+00.
Profile: N.B. & S.B. Sta. 1220+00 to 1230+00. Profile: State Aid 9
Cross-Section: NB - 1224+50 to 1228+00.
S.B. - 1224+64.26 to 1229+00.
SA 9 - 10+00 to 27+00.

** Sheets for Stage II construction.

For General Notes, see Standard Sheet SCB-D1-67.
For exception to General Note *8, see Sheet BR109 & BR110.
Major Chord will be the chord connecting the intersections of the ℄ Roadway and the back of the abutments
Item 440, Water Repellent shall consist of furnishing and applying water repellent on the exterior concrete surfaces including safety walks, fascia, and back to the fascia beams under the slab, and exposed areas of the abutments and column footings not otherwise treated.

Revised plans for Stage II, R. Gendron 8-30-72
Changed from Town Road 34 to State Aid 9 3-1-70
Updated 4/29/70 AGC, GR, JLA.

CONTRACT II
STAGE II CONSTRUCTION
Stage 2 Construction

PREPARED BY
CLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

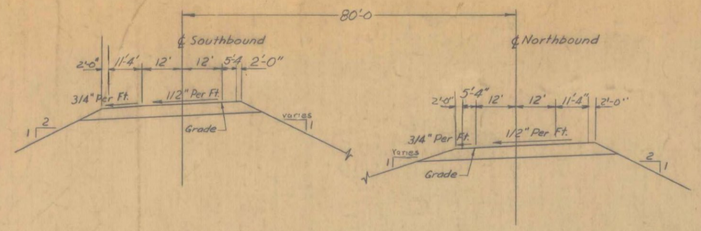
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON-BARTON
TOWN OF LYNDON BR 95
ROUTE NO. I-91 LOG STA. 1227
STATE AID 9
I-91 OVER ~~TOWN ROAD #34~~
PLAN AND ELEVATION
SCALE AS NOTED
IN CHARGE H.C. MARGOLIS
DRAWN BY J. HENRY CHECKED BY A. PENIONCHIK 8/4/66
PROJECT NO. I-91-3 (18)
SHEET 145 OF 455 BR 100

LYNDON-IRASBURG
IM MEMB(29)
SHEET 11 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY

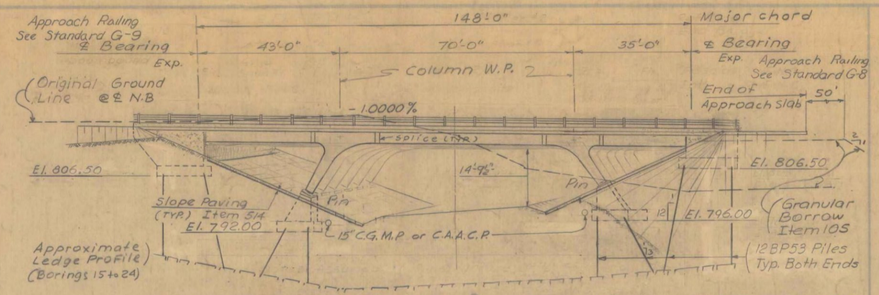
1-66

NATIONAL BLUE PRINT CO., INC. 7407



NEW HIGHWAY SECT. I-91 AT BRIDGE ENDS

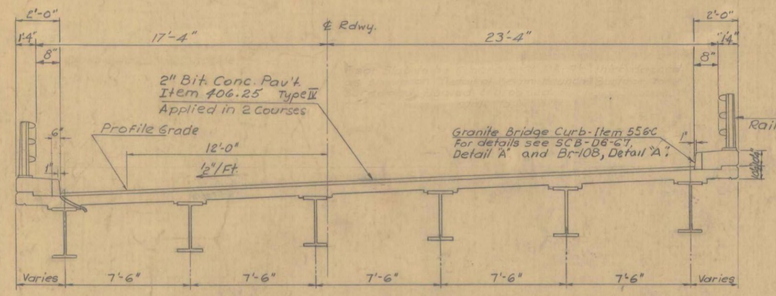
SCALE 1" = 20'



NEW HIGHWAY PROFILE ALONG ℄ - N B

NOTE: Northbound Elevation shown. For Southbound Elevation see Dwg. No. BR 100

SCALE : 1" = 20'



Typical Section

Northbound shown, Southbound similar

Scale: N.T.S.

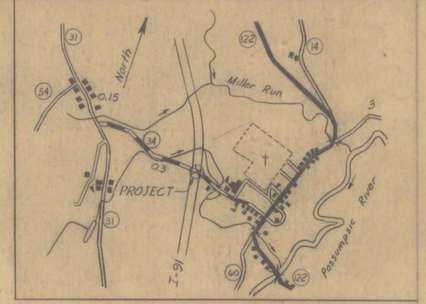


TABLE OF ESTIMATED PILE LENGTHS-NB

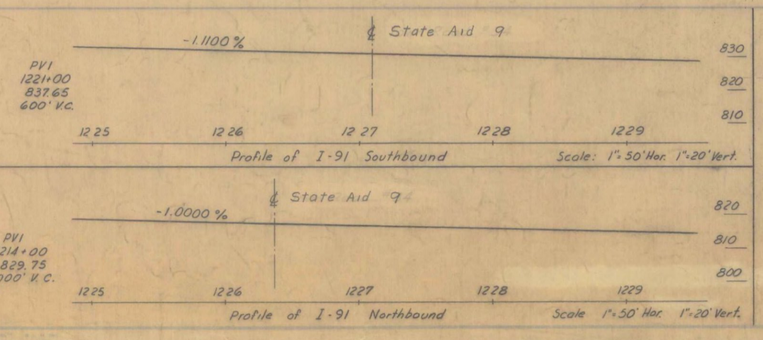
LOCATION	EST LENGTH
Abut #3	30'
Column #3	25'
Column #4	25'
Abut #4	35'

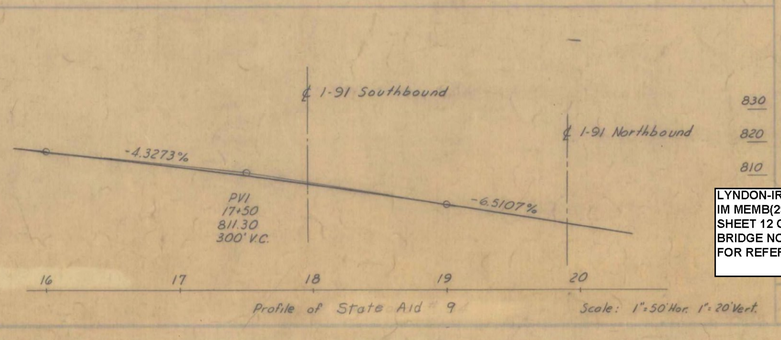
SPECIFICATIONS : All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications, for Highway and Bridge Construction dated April 1964 and the A.A.S.H.O. Standard Specifications for Highway Bridges dated 1969.

DESIGN LOADING : HS 20-44 as modified for National System of Interstate Highways.

DESIGN STRESSES : A 36 Structural Steel - f_s = 20,000 p.s.i.
Reinforcing Steel - f_s = 20,000 p.s.i., Concrete - $f'c$ = 3000 p.s.i.
n = 10, f_c = 1200 p.s.i.

SCALE





HIGHWAY NO. I-91 NAME OF HIGHWAY INTERSTATE

STRUCTURE NO. 1 COUNTY CALEDONIA TOWN LYNDON

PROJECT NO. I-91-3(10) (18) LOCATION ~~TOWN ROAD #34~~ STATE AID 9 LYNDON - BARTON

EXISTING STRUCTURE - None

1 POSTED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE
3 UNDERCLEARANCE - ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE?
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT?
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE?
12 IF NOT, WHAT ELEVATION IS RELIEF AFFORDED?
13 ADDITIONAL WATERWAY AREA PROVIDED

NEW STRUCTURE

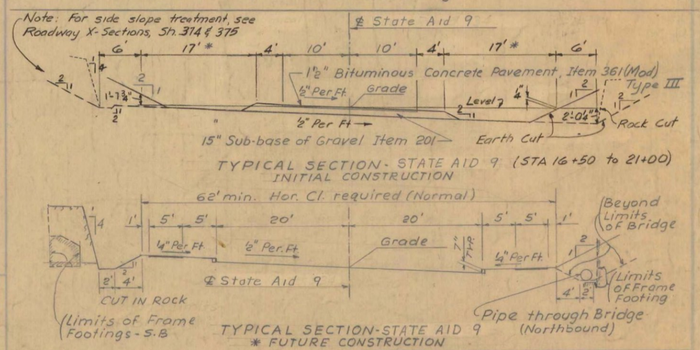
1 RECOMMENDED TYPE OF STRUCTURE 40'-8" Rail to Rail 3 Span Steel Rigid Frame (Non-Comp.)
2 RECOMMENDED CLEAR SPAN OR SPANS 43.0'- 70.0'- 35.0'
MEASURED PARALLEL TO ℄ NEW HIGHWAY 43.0'- 70.0'- 35.0'
MEASURED AT RIGHT ANGLES TO ℄
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE SOURCE OF INFORMATION
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE?
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? IS ORDINARY RISE RAPID?
8 LOW WATER ELEVATION AT NEW STRUCTURE
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE CHARACTER OF TERRAIN
10 IS STREAM EVER DRY
11 VELOCITY OF STREAM AT HIGH WATER STAGE ESTIMATED DISCHARGE
12 AREA FULL OPENING AREA BELOW ORDINARY H.W.
13 CHARACTER OF BOTTOM DRIFT ICE
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION
16 ARE SIDEWALKS REQUIRED? IF SO ON WHAT SIDE? No BOTH SIDES No
17 RECOMMENDED TYPE OF PAVEMENT 2" Bituminous Concrete, 8" Concrete Slab.
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. ONE OR TWO WAYS PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 6 T/sq.ft.* SHOULD PILES BE USED? Yes** See Table

* Southbound - on Ledge ** Northbound

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

N.B - All Substructure Units Founded on Point-Bearing Steel H-Piles (12BP53-58T/pile)
S.B - All Substructure Units Founded on Ledge



RECOMMENDED FOR APPROVAL

R J Funke — CONSTRUCTION ENGINEER — 12/30/66 DATE

Lyn Bjorn — 12/30/66

C H Stickney — 12/30/66

R H Arnold — CHIEF ENGINEER — 12/30/66

STATE OF VERMONT DEPARTMENT OF HIGHWAYS BR97

INTERSTATE IN THE TOWNS OF LYNDON

PROJECT: LYNDON - BARTON

ROUTE NO. I-91 LOG STA.

I-91 OVER STATE AID 9

Stage 2 Construction

SURVEYED BY J. HENRY DRAWN BY A. PENSON CHECKED BY H. MARGALIS SCALE AS NOTED DATE 2-4-66

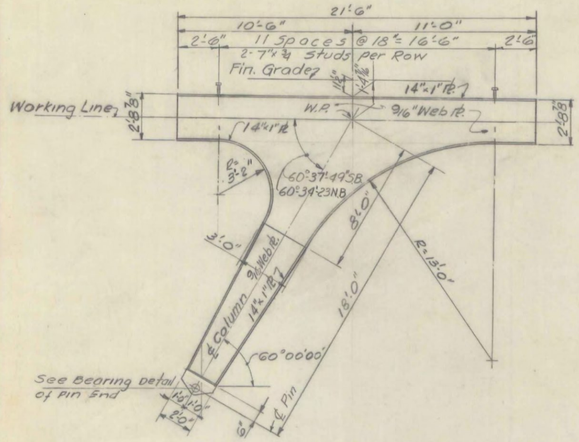
PROJECT NO. I-91-3(10) SHEET NO. 147

CONTRACT (18) 361 389

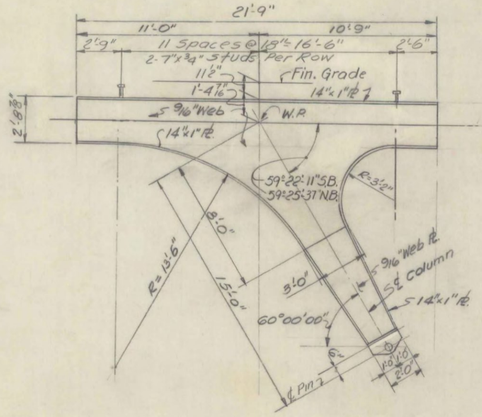
STAGE 2 CONSTRUCTION BR 102

Updated 4/29/70 AGC, GR, JLA

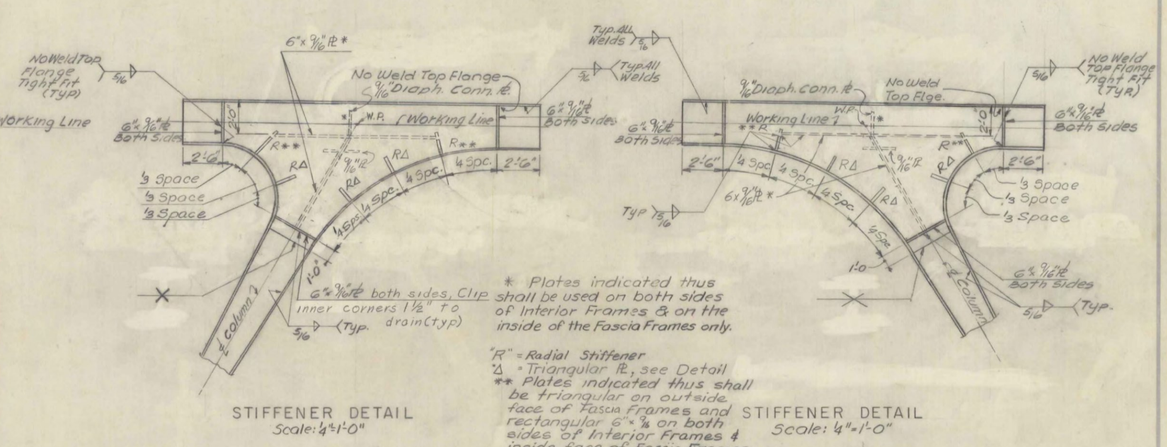
LYNDON-IRASBURG
IM MEMB(29)
SHEET 12 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY



LEFT BUILT-UP SECTION DETAIL
Scale: ¼"=1'-0"

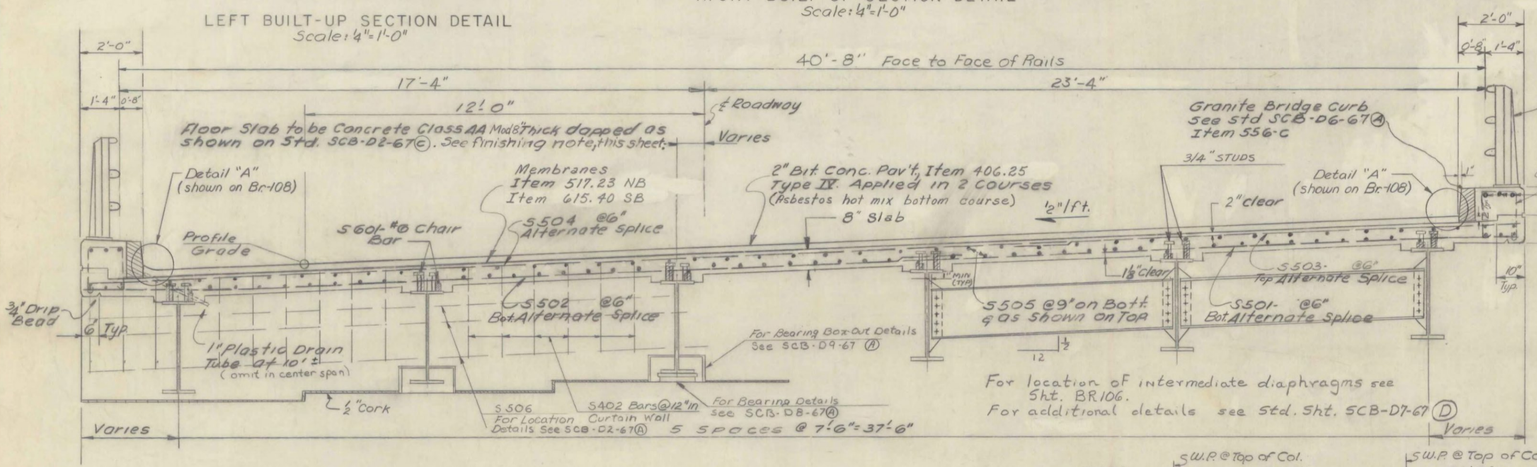


RIGHT BUILT-UP SECTION DETAIL
Scale: ¼"=1'-0"

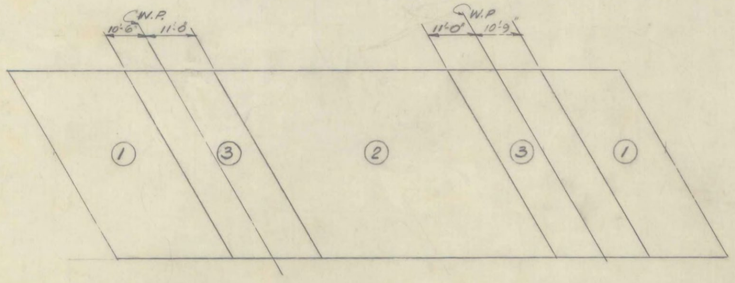


STIFFENER DETAIL
Scale: ¼"=1'-0"

STIFFENER DETAIL
Scale: 4"=1'-0"

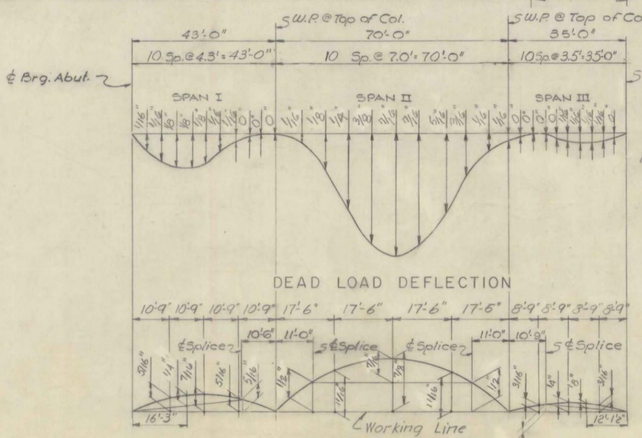


TYPICAL SECTION
NORTHBOUND SHOWN - SOUTHBOUND SIMILAR
Scale: ½"=1'-0"



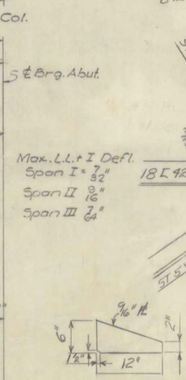
POURING SCHEDULE
Scale: None

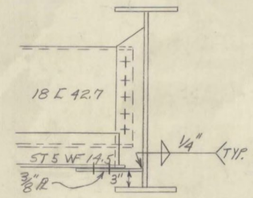
Retarding Admixture for Concrete, Item 408, may be used when called for by the Engineer. The pour sequence shall be followed.



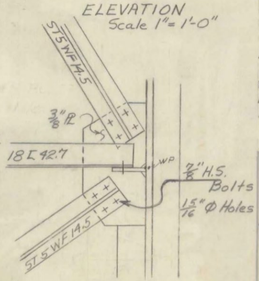
DEAD LOAD DEFLECTION

CAMBER DIAGRAM
Scale: None



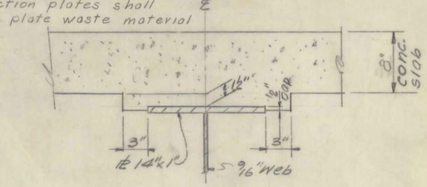


ELEVATION
Scale 1"=1'-0"



PLAN
Scale 1"=1'-0"

TRIANGULAR PLATE
Scale: 1"=1'-0"



SLAB HAUNCH DETAIL AT COLUMN
Scale: 1½"=1'-0"

Notes:
For General Notes, see Std Sheet SCB-D1-67.
Anchor bolts shall be grouted and tightened at the abutments immediately after the steel is erected or a temporary support shall be provided to resist transverse loads.
For Details of Stud Shear Connectors, see Std Sheet SCB-D2-67(B)
For Framing Plan, see Sheet BR106.

Stage 2 Construction

Finishing Note:
The floor slab surface shall be finished with a self-propelled concrete finishing machine in accordance with the modifications in Article 401.05, Sub-article I.

CONTRACT 1
STAGE 1 CONSTRUCTION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE No. I-91 LOG STA 1227
STATE AID 9
I-91 OVER ~~TOWN ROAD # 34~~
TYPICAL SECTION & DETAILS
SCALE AS SHOWN
IN CHARGE OF H.C. MARGOLIS
DRAWN BY D.P. CHECKED BY M.S. & J.C.
PROJECT No. I-91-3(10)(18)
SHEET 152 OF 155 BR-107

LYNDON-IRASBURG
IM MEMB(29)
SHEET 13 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY

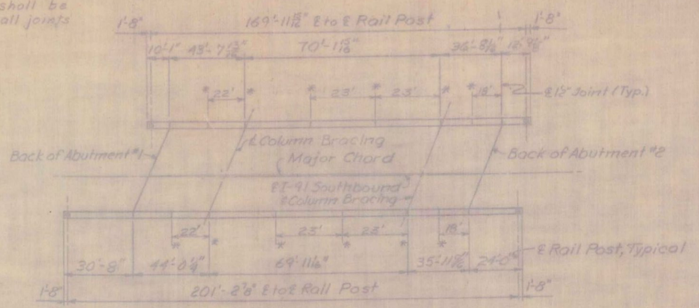
Updated 5/11/70 G.S.R. A.G.C. J.L.A.

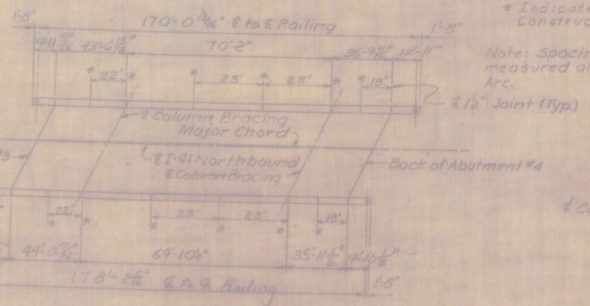
BENOIT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

362 389

BR-8

NOTE: Item 556 C shall be sawed square for all joints at the abutments

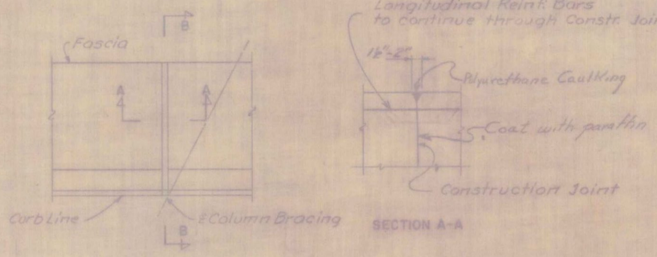


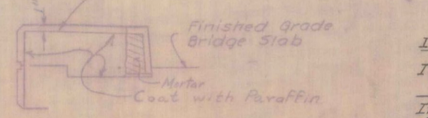


CURB & RAILING PLAN
Scale: None

* Indicates location of Curb Construction Joints.

Note: Spacing measured along Arc.





SECTION B-B

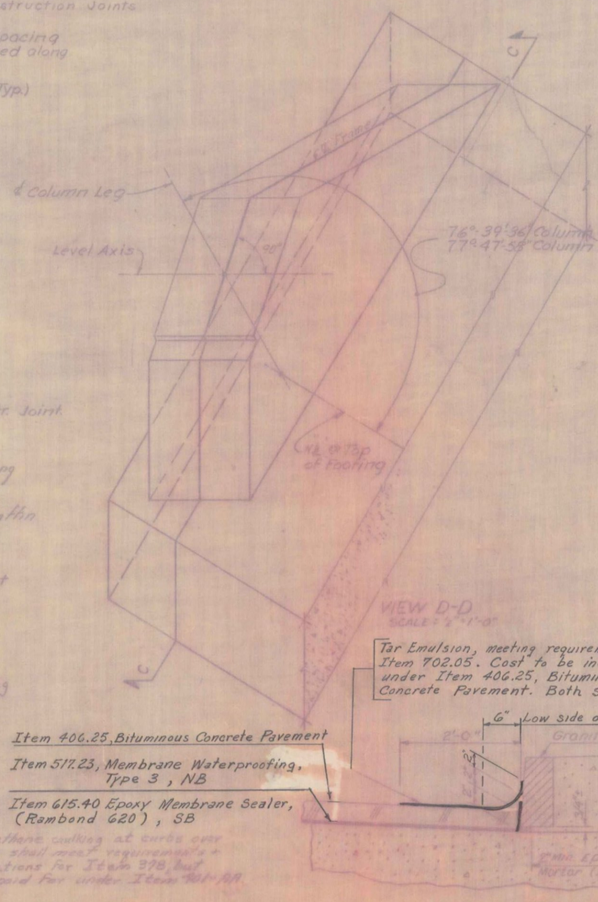
Note: Polyurethane caulking at curbs over columns shall meet requirements + specifications for Item 878, but shall be paid for under Item 556-A.

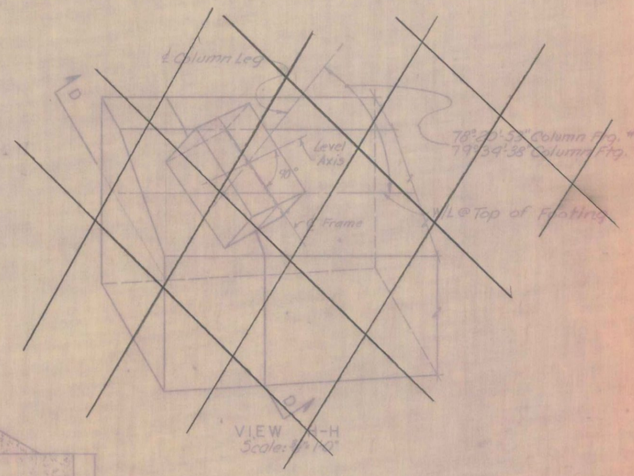
CURB CONSTRUCTION JOINT
Scale: None

SOUTHBOUND						NORTHBOUND					
Abutment #1 ℄ Brgs.			Abutment #2 ℄ Brgs.			Abutment #3 ℄ Brgs.			Abutment #4 ℄ Brgs.		
FRAME	COORDINATES		FRAME	COORDINATES		FRAME	COORDINATES		FRAME	COORDINATES	
	North	East		North	East		North	East		North	East
F1 S	743315.015	625172.295	F1 S	743455.480	625326.892	F1 N	743291.213	625368.908	F1 N	743438.037	625522.746
F2 S	743314.390	625180.891	F2 S	743456.055	625334.378	F2 N	743269.809	625377.146	F2 N	743431.578	625534.989
F3 S	743313.765	625188.486	F3 S	743457.430	625342.473	F3 N	743268.400	625385.390	F3 N	743430.268	625543.233
F4 S	743313.140	625196.382	F4 S	743458.805	625350.569	F4 N	743286.990	625393.634	F4 N	743428.899	625551.475
F5 S	743312.515	625204.677	F5 S	743459.180	625358.664	F5 N	743285.581	625401.876	F5 N	743427.589	625559.718
F6 S	743311.890	625212.773	F6 S	743458.553	625366.760	F6 N	743284.171	625410.119	F6 N	743426.098	625567.961

	Station	North	East
P.C.	1224+64.262	743152.474	625240.737
Ctr.		742196.236	621542.648
P.T.	1238+63.571 BK. 1239+82.405 AH	744413.672	624652.826

	Station	North	East
P.C.	1224+96.680	743227.670	625402.049
Ctr.		742271.493	621703.960
P.T.	1238+95.989	744488.868	624614.138





VIEW D-D
SCALE: 1"=1'-0"

Tar Emulsion, meeting requirements of Item 702.05. Cost to be included under Item 406.25, Bituminous Concrete Pavement. Both Sides

Item 406.25, Bituminous Concrete Pavement

Item 511.23, Membrane Waterproofing, Type 3, NB

Item 615.40 Epoxy Membrane Sealer, (Rambond 620), SB

6" Low side only

2'-0"

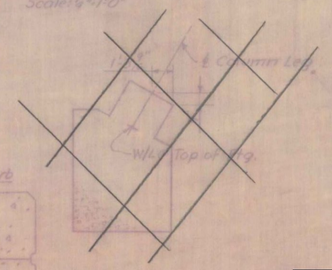
Granite Bridge Curb

Epoxy Mortar (Include in Item 556-G)

Concrete

DETAIL "A" (From Br. #107)
No Scale

SECTION C-C
Scale: 1"=10'



SECTION D-D
Omitted

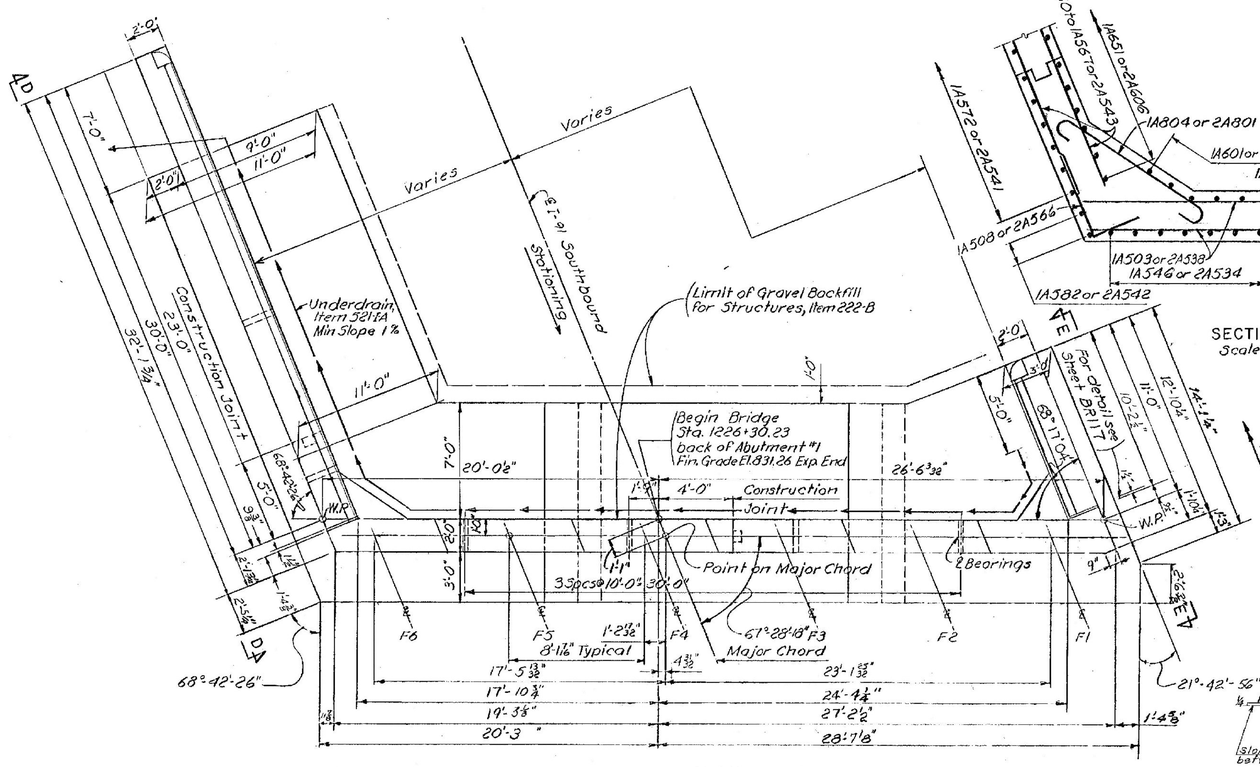
Updated 5/1/70
(Updated by JLA 11/5/71 removed view H-H & D-D)

Notes:
For location of View D-D, see BR 110.
For location of View H-H, see BR 109.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

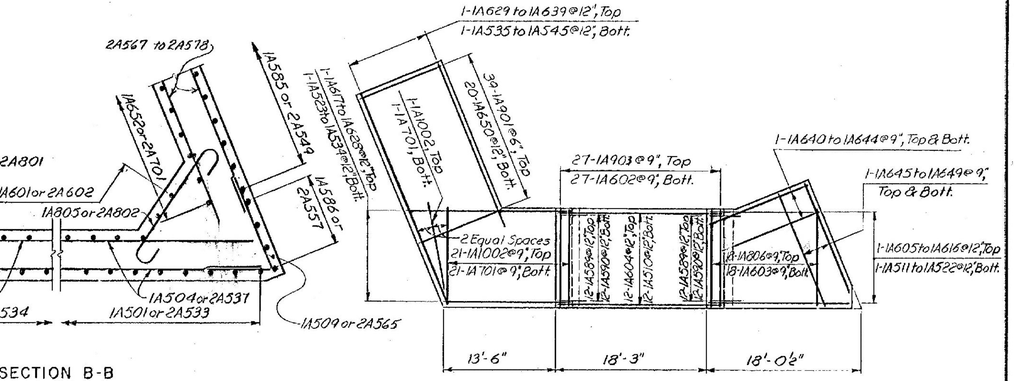
PROJECT LYNDON-BARTON
TOWN OF LYNDON
ROUTE NO. I-91 LOG STA. 1227
I-91 OVER TOWN ROAD STATE AID 3
MISCELLANEOUS DETAILS
SCALE AS SHOWN
IN CHARGE OF ENGINEERING
DRAWN BY FDD CHECKED BY JGB
PROJECT NO. I-91 (18)
SHEET 53 OF BR 110 REV.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 14 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY



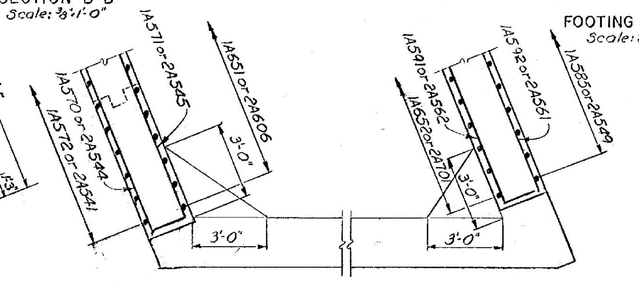
PLAN
Scale: 1/4"=1'-0"

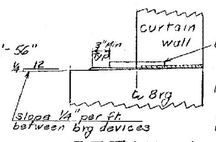
ELEVATION
Scale: 1/4"=1'-0"



SECTION B-B
Scale: 3/8"=1'-0"

FOOTING PLAN
Scale: 1/8"=1'-0"

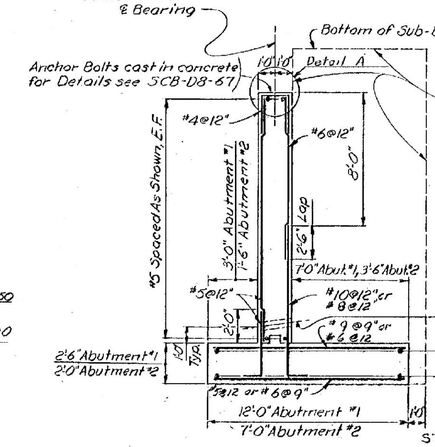




SECTION C-C
Scale: 3/8"=1'-0"

Note: For additional bridge seat details see SCB-D1-67 note number 14. Bridge seats shall be coated with Item 438-A, Epoxy Coating Compound.

DETAIL A
Scale: 1"=1'
℄ Bearing



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

NOTES:
For General Notes, Bridge Marker and Bench Mark locations see Standard Sheet SCB-D1-67.
For details of Curtain Walls and Approach Slab Brackets see Standard Sheet SCB-D2-67. Ⓑ
For Granite Curb and End Block details see Standard Sheet SCB-D4-67.
For Construction Joint details see Std. Sh. SCB-D6-67. Ⓑ-Ⓒ
For Anchor Bolt details see Standard Sh. SCB-D8-67.
Footings are designed for a maximum bearing pressure of 6 Tons per sq. ft. on ledge.
Bridge seat elevations given are at centerline of bearings.
Step bridge seats midway between beams.
Reinforcing steel is to have a minimum cover of 3 inches in the footings and 2 inches elsewhere.
All concrete in the Abutments shall be Class B, Mod.
For Elevations D-D and E-E see sheet BR 113
N.F. = Near Face, F.F. = Far Face & E.F. = Each Face.
Ledge Bearing Footings shall be founded on a sound clean ledge.
Wingwalls are straight, not parallel to Roadway centerline.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 15 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY

CONTRACT 1
STAGE 1 CONSTRUCTION

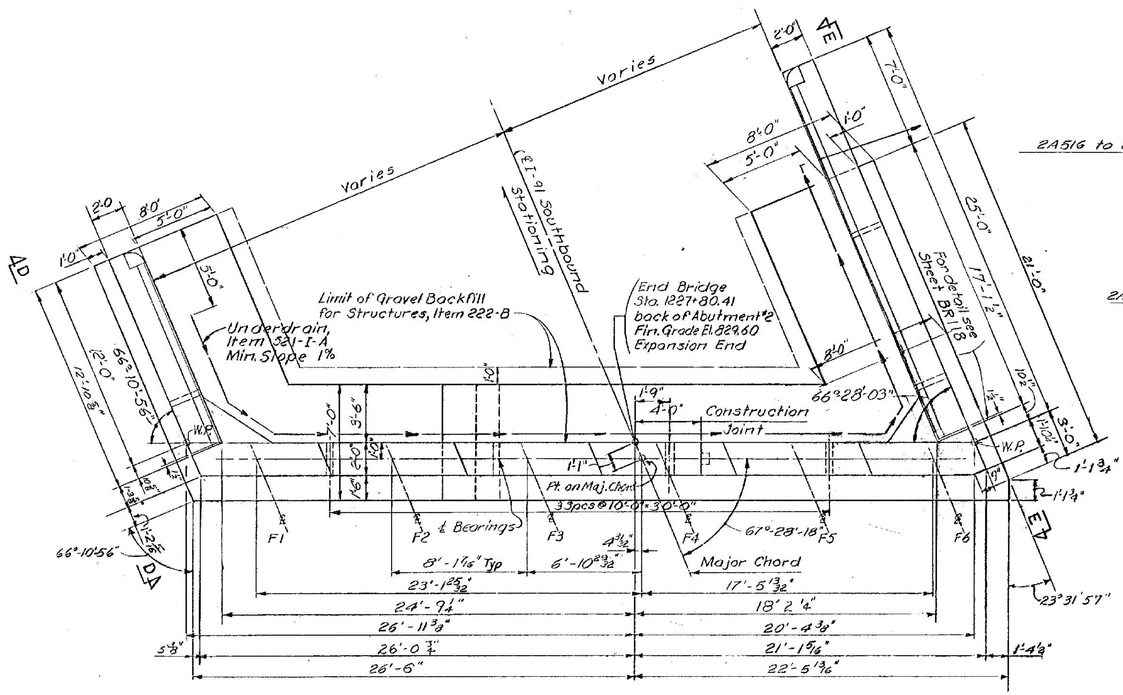
PREPARED BY:
BEAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

Updated 6/6/70 G.S.R., AGC., J.L.A.

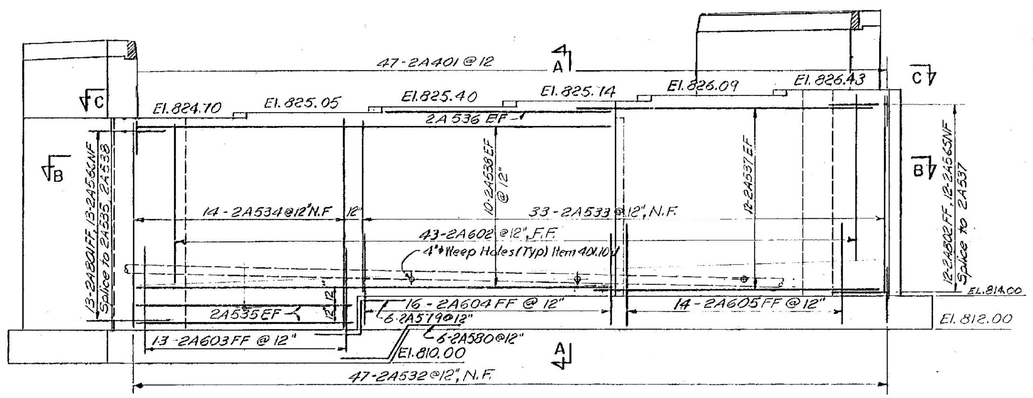
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 LOC STA.
STATE AID 9
I-91 OVER ~~TOWN ROAD~~ #34
ABUTMENT NO. 1
SCALE AS SHOWN
IN CHARGE OF J.C. MARGOLIS
DRAWN BY VDD CHECKED BY CEF
PROJECT NO. I-91-3(10)
SHEET 136 OF 455 BR111

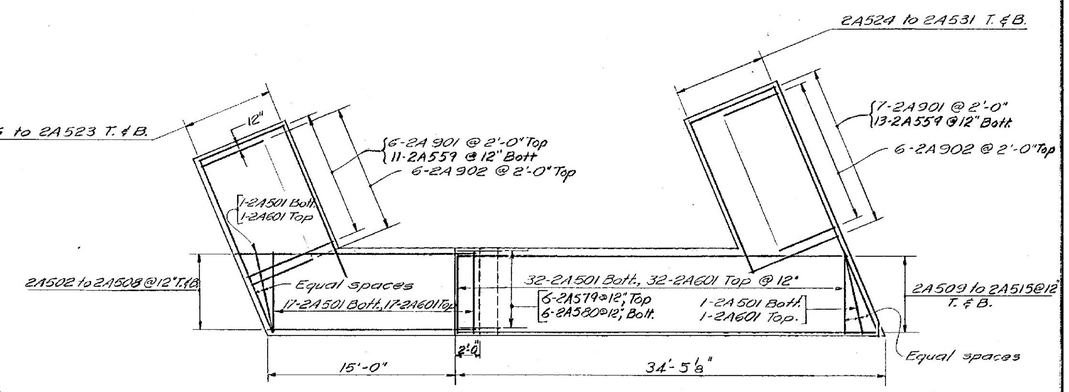
BR 8



PLAN
Scale: 4"-1'-0"



ELEVATION
Scale: 4"-1'-0"



FOOTING PLAN
Scale: 3/16"=1'-0"

NOTES:
For Sections A-A, B-B & C-C, see sheet BR111.
For Elevations D-D & E-E, see sheet BR 113.
For Notes, see BR111.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 16 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY

DESIGNED BY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

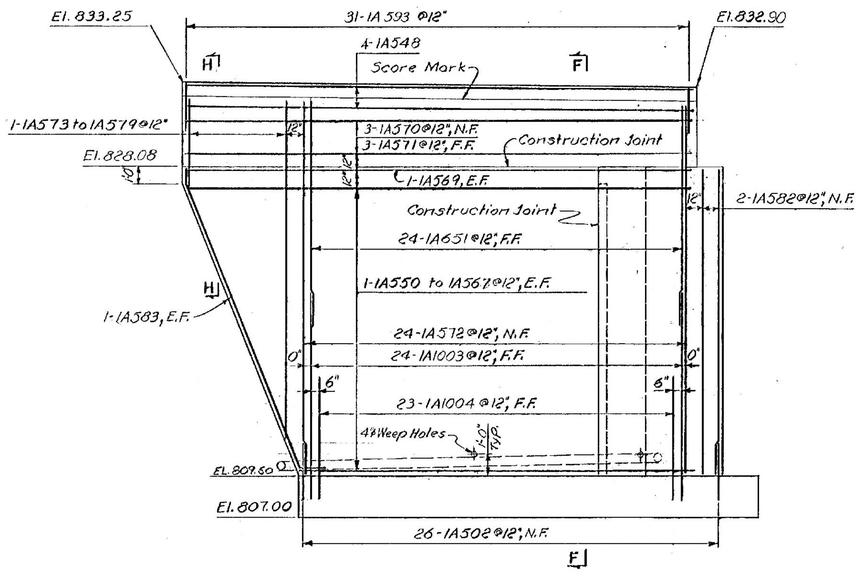
Updated 5/6/70 GSR, AGC, JLA

CONTRACT 1
STAGE I CONSTRUCTION

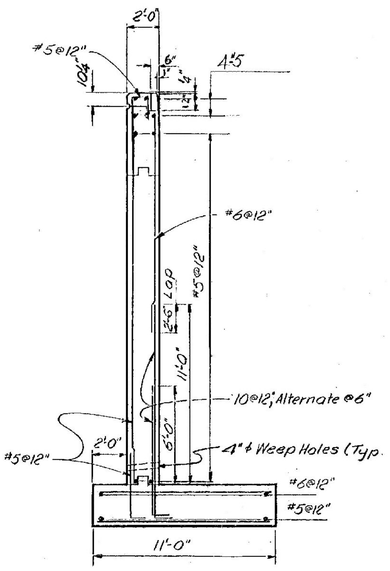
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON – BARTON
TOWN OF LYNDON
ROUTE No. I-91 LOG STA. 1227
I-91 OVER TOWN ROAD ~~STATE AID~~ # 34
ABUTMENT NO. 2
SCALE AS SHOWN
IN CHARGE OF H.C. MARGOLIS
DRAWN BY YDD CHECKED BY LBR & CFP
PROJECT No. I-91-3(10)
SHEET 157 OF 455 BR112

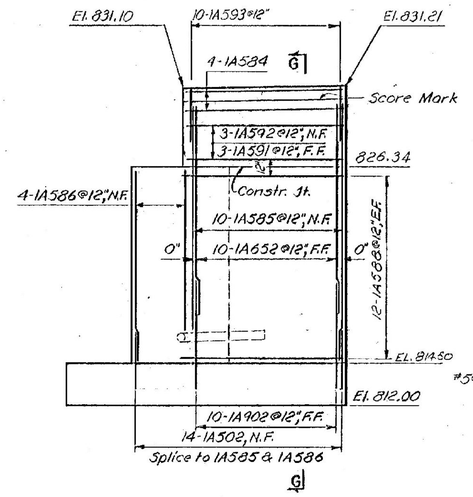
BR-9



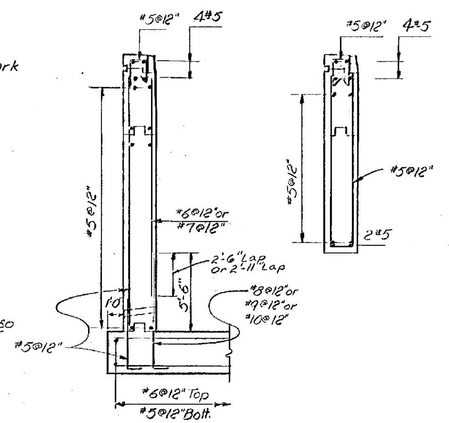
ELEVATION D-D



SECTION F-F



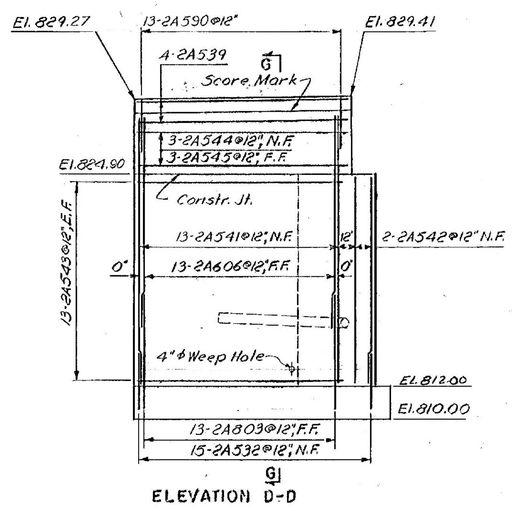
ELEVATION E-E



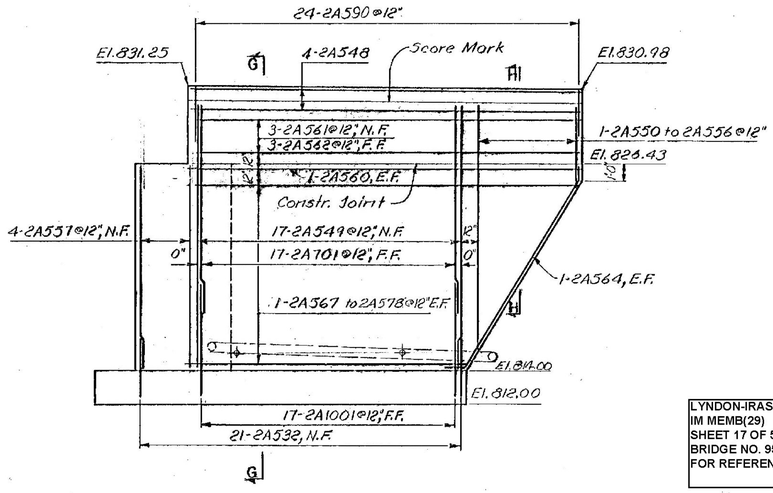
Note: Dimensions above construction joint same as shown on Section F-F.

SECTION G-G SECTION H-H

ABUTMENT NO.1



ELEVATION D-D



ELEVATION E-E

ABUTMENT NO. 2

Notes:
For Notes, see Sheet BR111.
For location of Elevations, see Sheets BR111 & BR112.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 17 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY

PREPARED BY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

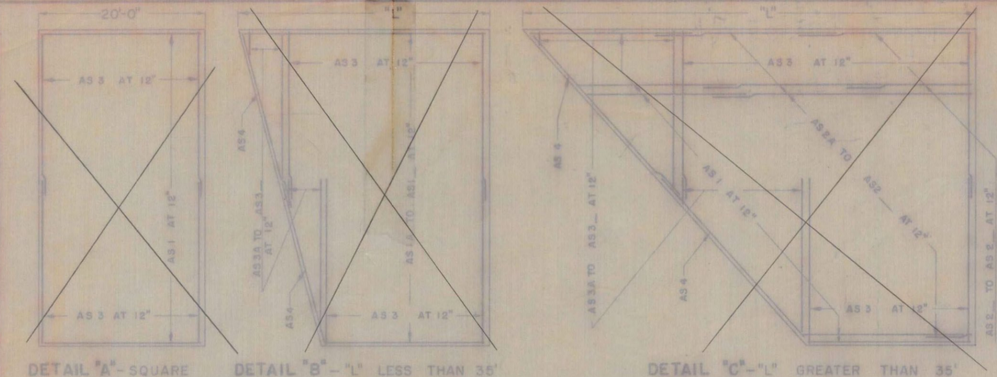
Updated 5/7/10 AGC, GSR, JLA

CONTRACT 1
STAGE 1 CONSTRUCTION

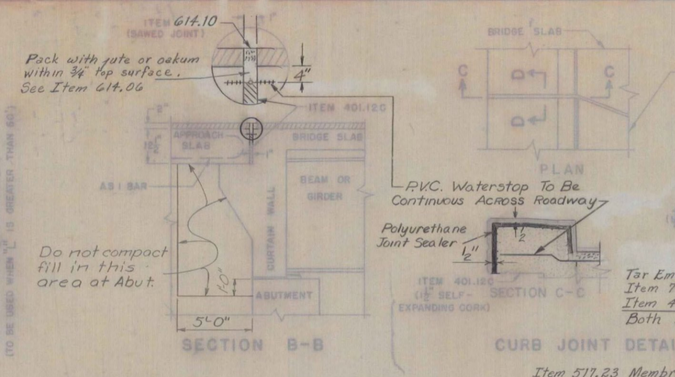
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 LOG STA. 1227
I-91 OVER ~~TOWN ROAD # 34~~ STATE AID # 9
ABUTMENT #1 & #2 DETAILS
SCALE 1/4" = 1'-0"
IN CHARGE OF H.C. MARGOLIS
DRAWN BY KDD CHECKED BY CFP
PROJECT NO. I-91-3(10)
SHEET 158 OF 463 BR113

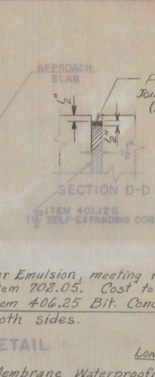
BR-8

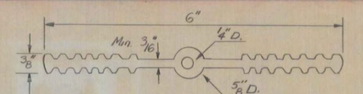


DETAIL "A" - SQUARE DETAIL "B" - "L" LESS THAN 35° DETAIL "C" - "L" GREATER THAN 35°



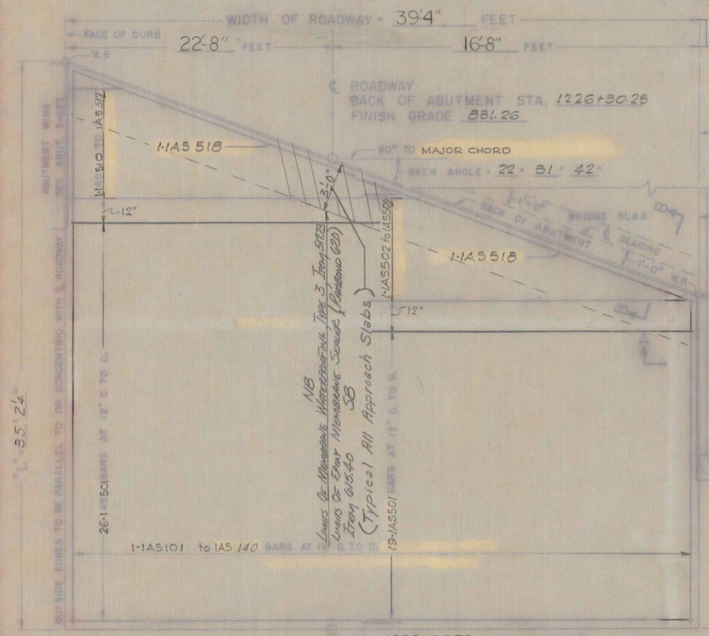
SECTION B-B SECTION C-C



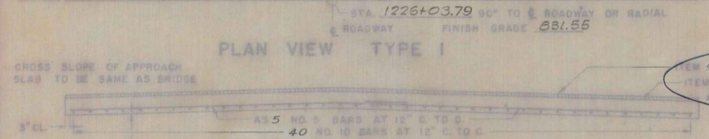


P.V.C. Waterstop Detail (N.T.S.)

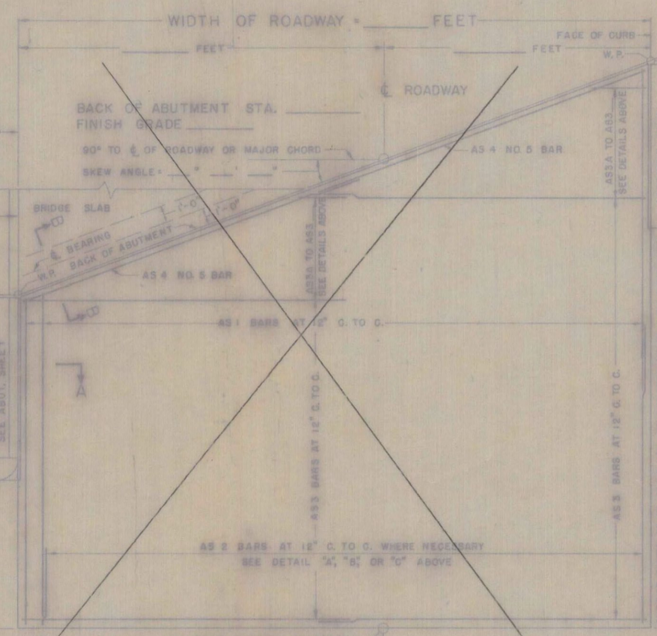
Material To Be Polyvinylchloride. Other Configurations With Minor Dimension Variations May Be Used With The Approval Of The Engineer. The Waterstop Shall Be Continuous Across It's Length. Waterstop Material Shall Be Cut At All Bends And A Sealed Splice Shall Be Made Using Materials Recommended By The Supplier Of The Waterstop And Approved By The Bridge Engineer. The Contractor Shall Provide Adequate Support To Maintain Proper Alignment Of The Waterstop During Construction. Cost Of The Waterstop Shall Be Included In The Unit Bid Price For Item 401-B, Concrete Class B, Mod



PLAN VIEW TYPE 1



END SECTION VIEW



PLAN VIEW TYPE 2

ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT (Modified) (See Note 4)
ITEM 615.40 Epoxy Membrane Sealer (Rambond 620)
(Asbestos Hot Mix Bottom Course)

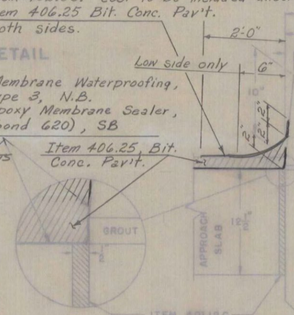
CURB JOINT DETAIL

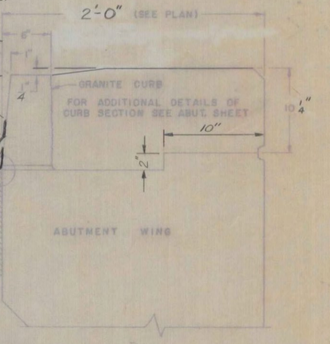
Tar Emulsion, meeting requirements of Item 702.05. Cost to be included under Item 406.25 Bit. Conc. Pav't. Both sides.

Item 511.23 Membrane Waterproofing, Type 3, N.B.
Item 615.40 Epoxy Membrane Sealer, (Rambond 620), SB
SEE PLAN VIEW FOR LIMITS

Low side only

Item 406.25 Bit. Conc. Pav't.





SECTION A-A

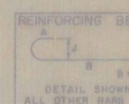
GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1969 DESIGNED FOR H S 20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
3. For Curtain Wall and Approach Slab Bracket details see STD SCB-D2-67 (A)
4. Bituminous concrete pavement depth shall be 2" at the Bridge end and vary to 3" at the roadway end.

KB

LYNDON-IRASBURG
IM MEMB(29)
SHEET 18 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY

REINFORCING BENDING DETAILS



DETAIL SHOWN IS FOR A51 BAR
ALL OTHER BARS ARE TO BE STRAIGHT

LIST OF QUANTITIES

ITEM NO.	ITEM	UNIT
518	R&B EMULSION FOR BRIDGE FLOORS	GAL.
501-B	BITUMINOUS CONCRETE PAVEMENT	TONS
572-A	JOINT SEALER - HOT POURED	L.F.
572-C	JOINT SEALER - PREFORMED, TYPE A	L.F.
401-B	CONCRETE CLASS B	CY.
402	REINFORCING STEEL	LB.

Stage 2 Construction

CONTRACT 2
STAGE 2 CONSTRUCTION

REVISIONS AND CORRECTIONS
1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED 4/15/69 WBT.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED 6/23/65 WBT.
3. JOINT BETWEEN CURB AND SLAB REVISED, BITUMINOUS CONCRETE REVISED TO S.Y. QUANTITY TOTALS REMOVED. 12/7/65. WBT.

DRAWN BY: WBT Jan 1965
TRACED BY: WBT Jan 1965
CHECKED BY: WMS Feb 1965
RECOMMENDED FOR APPROVAL: [signature] BRIDGE ENGINEER DATE 4/14/65
RECOMMENDED FOR APPROVAL: [signature] ASSISTANT CHIEF ENGINEER DATE 2/16/65
APPROVED BY: [signature] CHIEF ENGINEER DATE 4/19/65

DETAILS OF APPROACH SLAB FOR 39-4" (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION SB 1227+09.31

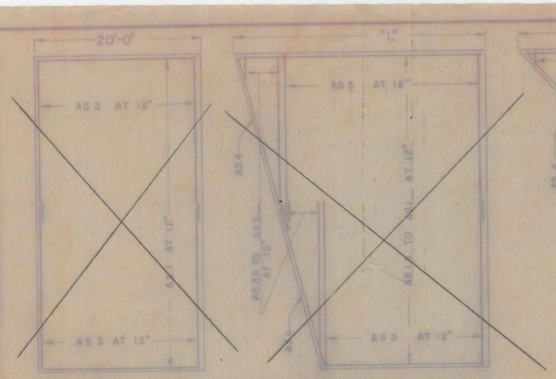
LOCATION I-91 SB OVER TOWN ROAD No. 34

Updated 5/8/70 AGC, GSR, JLA

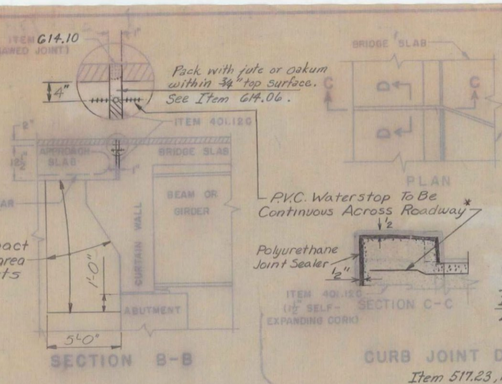
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-65

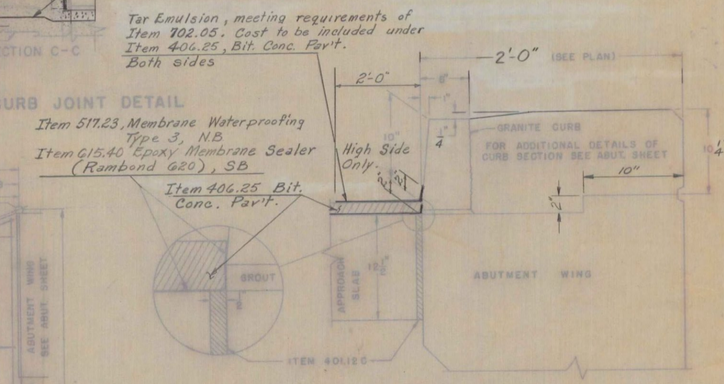
PROJECT LYNDON – BARTON
TOWN OF LYNDON
ROUTE NO. I-91 STA. 1227
I-91 OVER ~~TOWN ROAD #34~~ STATE AID 9
APPROACH SLAB NO. 1
NOT TO SCALE
IN CHARGE OF H.C. MARGOLIS
DESIGNED BY LBR CHECKED BY CFP
PROJECT NO. I-91-3(18)
SHEET 362 OF 564 ~~555~~ 389
BR 117



DETAIL "A" - SQUARE DETAIL "B" - "L" LESS THAN 35' DETAIL "C" - "L" GREATER THAN 35'



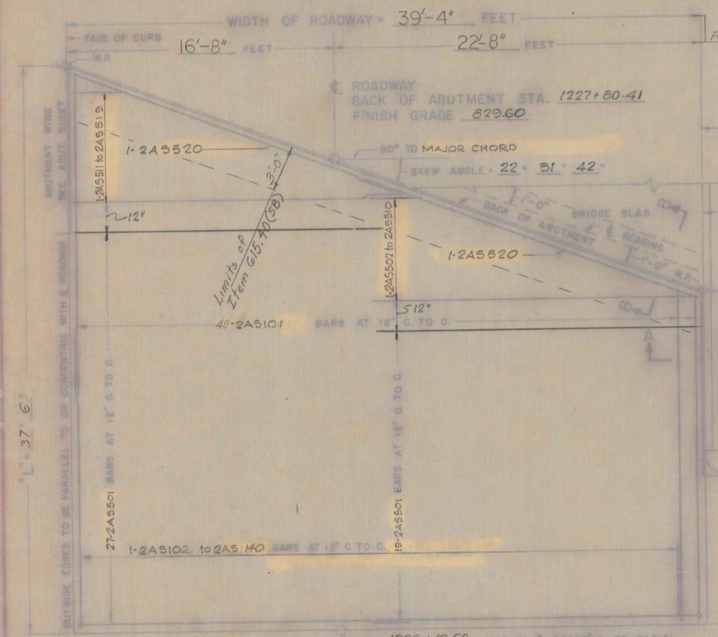
* For P.V.C. Waterstop Detail See Sheet Br 117



CURB JOINT DETAIL

Item 517.23, Membrane Waterproofing Type 3, N.B.
Item G15.40 Epoxy Membrane Sealer (Rambond 620), SB

SECTION A-A

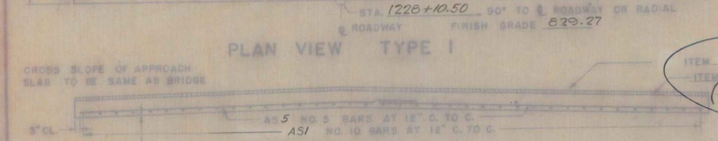


PLAN VIEW TYPE 1

VOID

PLAN VIEW TYPE 2

ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT (Modified) (See Note 4)
ITEM G15.40 Epoxy Membrane Sealer (Rambond 620)
(Assesses Hot Mix Bottom Course)



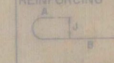
END SECTION VIEW

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1969. DESIGNED FOR HS 20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
3. For Curtain Wall and Approach Slab Bracket details see STD SCB-D2-67(A)
4. Bituminous concrete pvmt depth shall be 2" at the Bridge end and vary to 3" at the roadway end.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 19 OF 55
BRIDGE NO. 95S
FOR REFERENCE ONLY

REINFORCING BENDING DETAILS



DETAIL SHOWN IS FOR AS1 BAR ALL OTHER BARS ARE TO BE STRAIGHT

LIST OF QUANTITIES

ITEM NO.	ITEM	UNIT
518	TAR EMULSION FOR BRIDGE FLOORS	GAL.
561-B	BITUMINOUS CONCRETE PAVEMENT	TONS
572-A	JOINT SEALER - HOT POURED	L.F.
572-C	JOINT SEALER - PREFORMED, TYPE A	L.F.
401-B	CONCRETE CLASS B	CY.
602	REINFORCING STEEL	LB.

Stage 2 Construction

CONTRACT 1
STAGE 1 CONSTRUCTION

REVISIONS AND CORRECTIONS
1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 4/18/66 WBT.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED 6/28/65 WBT.
3. JOINT BETWEEN CURB AND SLAB REVISED, BITUMINOUS CONCRETE REVISED TO 2" QUANTITY TOTALS REVISED. 12/7/65. WBT

DRAWN BY: WBT Jan 1965
TRACED BY: WBT Jan 1965
CHECKED BY: WMS Feb 1965
RECOMMENDED FOR APPROVAL: Lou Bacon BRIDGE ENGINEER DATE 2/16/65
RECOMMENDED FOR APPROVAL: C.F. Edmunds ASSISTANT CHIEF ENGINEER DATE 2/19/65
APPROVED BY: C.O. Bullock CHIEF ENGINEER DATE 2/19/65

DETAILS OF APPROACH SLAB FOR 39'-4" (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION SB 1227+09.31

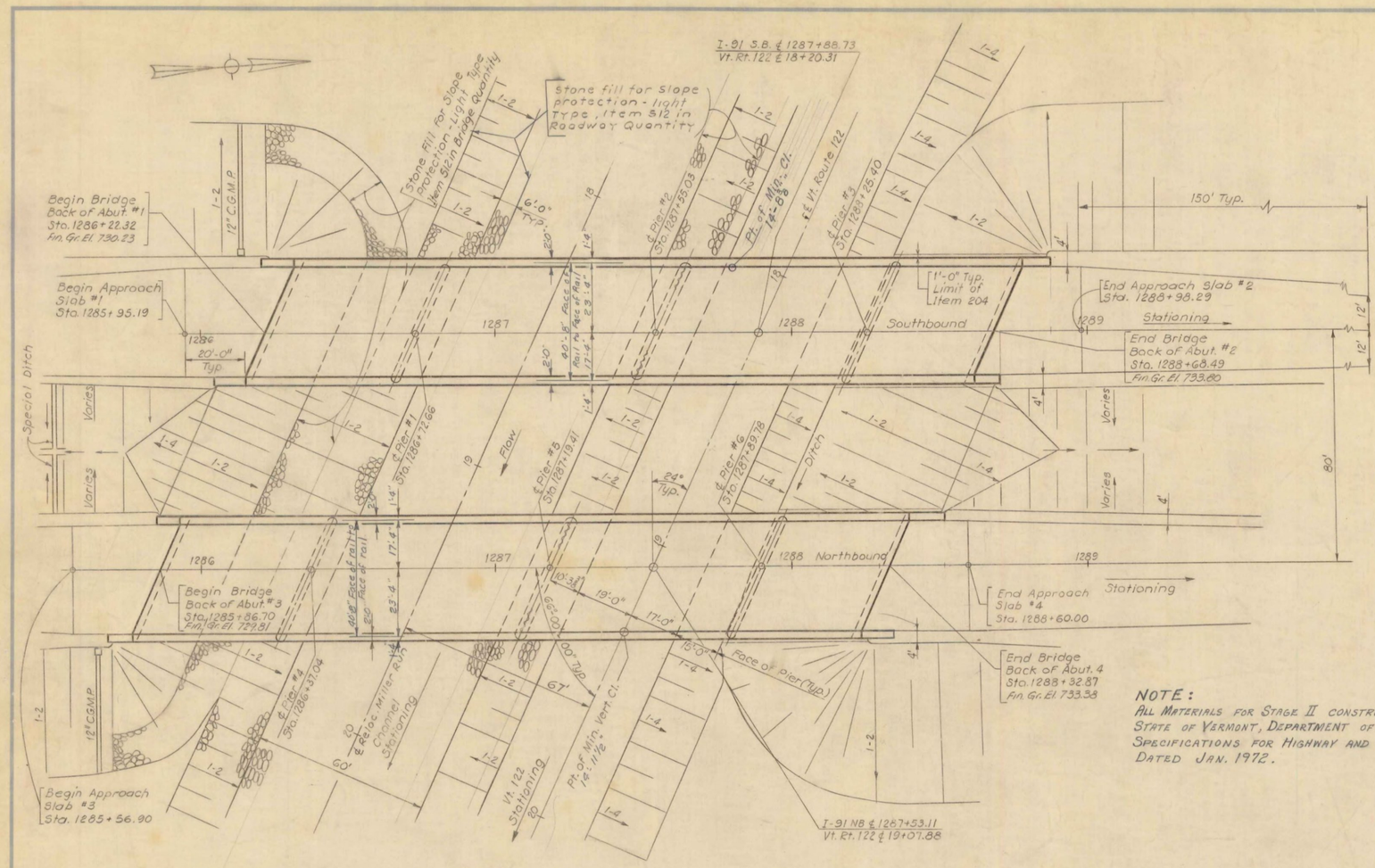
LOCATION I-91 SB OVER TOWN ROAD No. 34

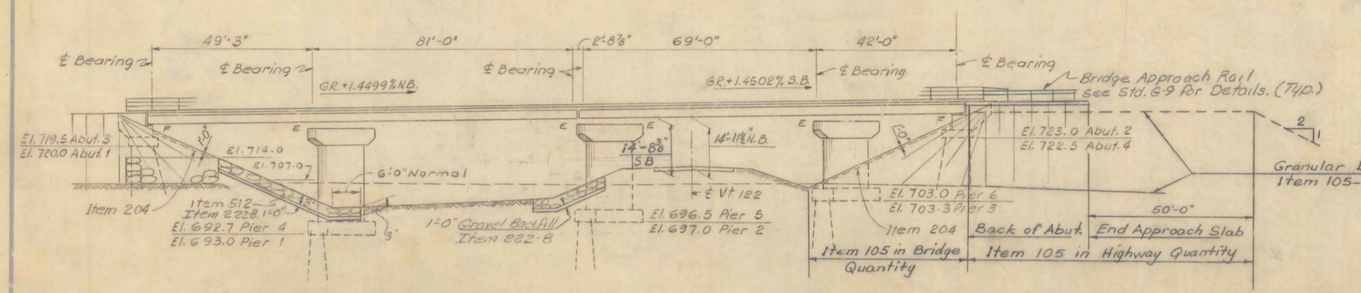
Updated 5/8/70 AGC, CSR, JLA.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-65

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 STA. 1227
I-91 OVER ~~TOWN ROAD~~ STATE AID 9 #34
APPROACH SLAB NO. 2
NOT TO SCALE
IN CHARGE OF H.C. MARGOLIS
DESIGNED BY LBR CHECKED BY CFP
PROJECT NO. I-91-3(18)
SHEET 163 OF 365 ~~365~~ 369
DR 118





ELEVATION

EAST FASCIA OF NORTHBOUND ROADWAY SHOWN

LIST OF BRIDGE SHEETS

**BR 200	GENERAL PLAN
**BR 201	BRIDGE QUANTITY SHEET
**BR 202	PRELIMINARY INFORMATION SHEET
BR 203	BORING LAYOUT SHEET & BORING LOGS
BR 204	BORING LOGS
BR 205	BORING LOGS
BR 206	BORING LOGS
**BR 207	FRAMING PLAN
**BR 208	STRUCTURAL STEEL DETAILS
BR 209	EXPANSION DAM DETAILS
BR 210	EXPANSION DAM DETAILS
BR 211	ROCKER BEARINGS
BR 212	ABUTMENT #1
BR 213	ABUTMENT #2
BR 214	ABUTMENT #3
BR 215	ABUTMENT #4
BR 216	PIERS #1 & #4
BR 217	PIERS #2 & #5
BR 218	PIERS #3 & #6
BR 219	PIER DETAILS
**BR 220	APPROACH SLABS #1 & #4
**BR 221	APPROACH SLABS #2 & #3
BR 222	REINFORCING STEEL DETAILS
BR 223	REINFORCING STEEL DETAILS
BR 224	REINFORCING STEEL DETAILS
BR 225	REINFORCING STEEL DETAILS

STANDARD SHEETS REQUIRED

SCB-D1-67	4-28-70 R.	SCB-D8-67 Ⓐ	1-24-68
SCB-D2-67 ⒶⒷⒸ	1-24-68	SCB-D9-67 Ⓐ & Ⓑ	4-28-70 R.
SCB-D4-67	12-17-68 R.	SB-R1-69 SHEET #1	4-28-70 R.
SCB-D6-67 ⒶⒷⒹ	4-28-70 R.	SHEET #2	4-28-70 R.
SCB-D7-67 ⒶⒸⒹ	1-24-68	SB-P1-66	11-8-66
** SCB-D9-71 Ⓑ	12-14-71 A	G-9	9-27-67

REFERENCE SHEETS

PLAN SB & NB STA. 1285+00 TO STA. 1293+00
PROFILE SB & NB STA. 1285+00 To STA. 1293+00
VT. 122 STA. 9+00 To STA 25+00
CROSS SECTIONS SB & NB STA 1284+50 To STA. 1292+00
VT. 122 STA 15+50 To STA. 22+50

NOTE:
ALL MATERIALS FOR STAGE II CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JAN. 1972.

** Sheets for Stage II Construction.

NOTES

1. For General Notes see Std. SCB-D1-67.
2. Item 440, Water Repellent, shall consist of furnishing and applying water repellent on exterior concrete surfaces including top of safety walks, fascia and back to the fascia beam under the slab and exposed areas of abutments and piers not otherwise treated.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 20 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

Stage 2 Construction

Revised Stage II Plans, R. Gendron 8-30-72

REVISED CURBS TO 240' HELD FASCIA. 8-70 CRO. 5" AG.C.

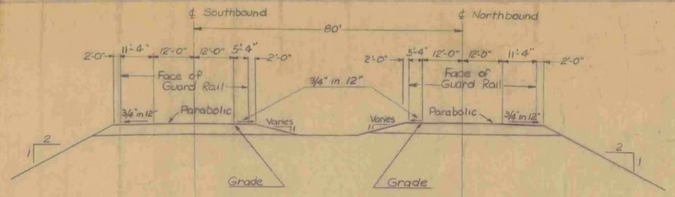
CONTRACT 1 STAGE 1 CONSTRUCTION

PREPARED BY BLAUVELT ENGINEERING CO. CONSULTING ENGINEERS ORLEANS, VERMONT

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

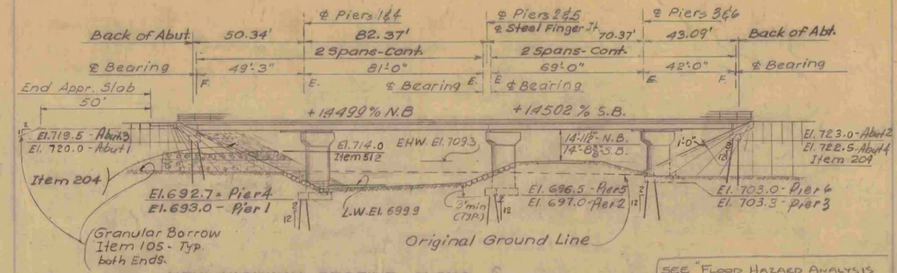
PROJECT LYNDON - BARTON
TOWN OF LYNDON BR 96
ROUTE NO I-91 LOG STA. 1287
I-91 OVER VT 122 & RELOC MILLER RUN
GENERAL PLAN
SCALE 1" = 20'
IN CHARGE H.C. MARGOLIS
DRAWN BY V. VERLAINE CHECKED BY F. McELROY
PROJECT NO. I-91-3( )(18)
SHEET 169 OF 365 BR 200

368 589



NEW HIGHWAY SECT. I-91 AT BRIDGE APPROACHES

SCALE 1"=20'



NEW HIGHWAY PROFILE ALONG ℄

SCALE 1"=30'

SEE "FLOOD HAZARD ANALYSIS PASSUMPSIC RIVER LYNDON" SCS 1973 FOR FLOOD HEIGHTS

Q_{50}=713 CFS 3-76

HIGHWAY NO. I-91 NAME OF HIGHWAY Interstate

STRUCTURE NO. 2 COUNTY Caledonia TOWN Lyndon

PROJECT NO. I-91-3(103)(18) LOCATION Vermont Route 122 & Reloc Miller Run Lyndon - Barton

EXISTING STRUCTURE - None

1 POSTED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE
3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE?
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT?
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER IN FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE?
12 IF NOT, AT WHAT ELEVATION IS RELIEF AFFORDED?
13 ADDITIONAL WATERWAY AREA PROVIDED

NEW STRUCTURE

Non-Composite Spans 1&4 Composite Spans 2&3

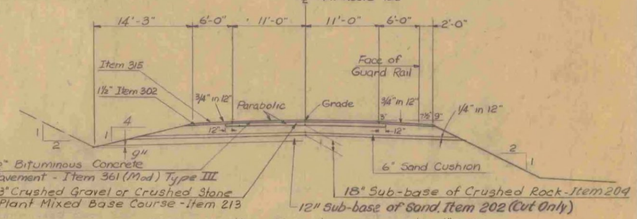
1 RECOMMENDED TYPE OF STRUCTURE 40'-6" Rail to Rail Cont. spans, WF+Cfs
2 RECOMMENDED CLEAR SPAN OR SPANS
MEASURED PARALLEL TO ℄ NEW HIGHWAY (49'-2") - (81'-0") & (69'-0") - (42'-0")
MEASURED AT RIGHT ANGLES TO ℄ STREAM ℄ S.R. 122 44'-11½" 74'-0", 63'-0⅜", 28'-4½"
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO No
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE 703.6
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE 709.3 SOURCE OF INFORMATION 50 Yr. Storm (Computed)
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? Yes
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? yes IS ORDINARY RISE RAPID? yes
8 LOW WATER ELEVATION AT NEW STRUCTURE 699.9
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE 28,800 CHARACTER OF TERRAIN Farm & Forest - Hilly
10 IS STREAM EVER DRY No
11 VELOCITY OF STREAM AT HIGH WATER STAGE 10 fps ESTIMATED DISCHARGE 6400 c.f.s.
12 AREA FULL OPENING 668 sq.ft. AREA BELOW ORDINARY H.W. 195 sq. ft.
13 CHARACTER OF SCOUR Moderate DRIFT Moderate ICE Moderate
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE None
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION 17.8' (N.B.) 18.2' (S.B.)
16 ARE SIDEWALKS REQUIRED? IF SO ON WHAT SIDE? No BOTH SIDES No
17 RECOMMENDED TYPE OF PAVEMENT 2" Bituminous Concrete; 8" Concrete Slab
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. ——— ONE OR TWO WAYS ——— PROBABLE COST ———
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE ———
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS ——— SHOULD PILES BE USED? Yes EST. LATH 55'†

† Except Abuts. 1, 3 & 4 Est. Length 65'

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

All Substructure Units founded on Cast-in-Place Concrete Friction Piles (40T/pile max)



Typical Section - Vt. Route 122 Scale: 1"=10'

SPECIFICATIONS: All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications, for Highway and Bridge Construction dated April 1964 and the A.A.S.H.O. Standard Specifications for Highway Bridges dated 1969

DESIGN LOADING: H S 20 -44 as modified for National System of Interstate Highways

DESIGN STRESSES: A 36 Structural Steel - f_s = 20,000 p.s.i., Reinforcing Steel - f_s = 20,000 p.s.i., Concrete - f'_c = 3000 p.s.i., n=10 f_c = 1200 p.s.i.

RECOMMENDED FOR APPROVAL — CONSTRUCTION ENGINEER — DATE 12/30/66

RECOMMENDED FOR APPROVAL — DATE 12/30/66

RECOMMENDED FOR APPROVAL — DATE 12/30/66

APPROVED BY — CHIEF ENGINEER — DATE 12/30/66

LYNDON-IRASBURG
IM MEMB(29)
SHEET 21 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

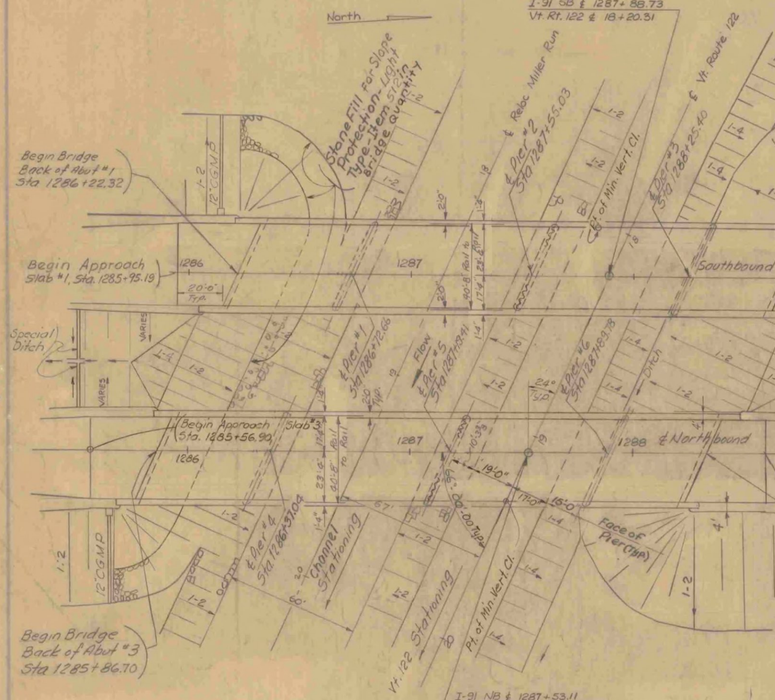
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE IN THE TOWNS OF LYNDON
PROJECT: LYNDON - BARTON
ROUTE NO. I-91 LOG STA. 1287
I-91 over Vt. Route 122 & Reloc. Miller Run

PRELIMINARY INFORMATION SHEET

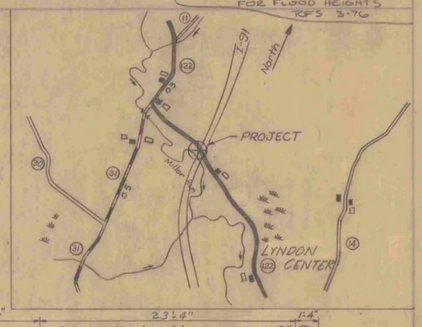
J. Henry — A. Pearson, H. McGrath — 8-5-66

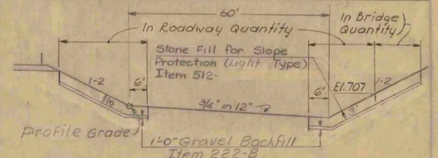
PROJECT NO. I-91-3(103)(18) SHEET NO. 171 TOTAL SHEETS 355
CONTRACT ID. STAGE I CONSTRUCTION
Stage 2 Construction
370 389
BR 202



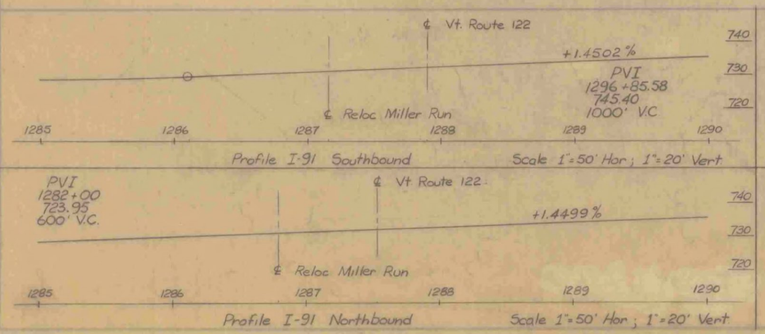
PLAN

SCALE 1"=30'

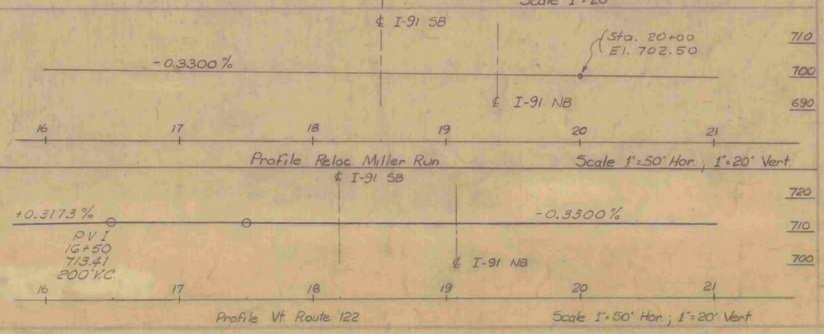




Typical Section Reloc. Miller Run Scale 1"=20'



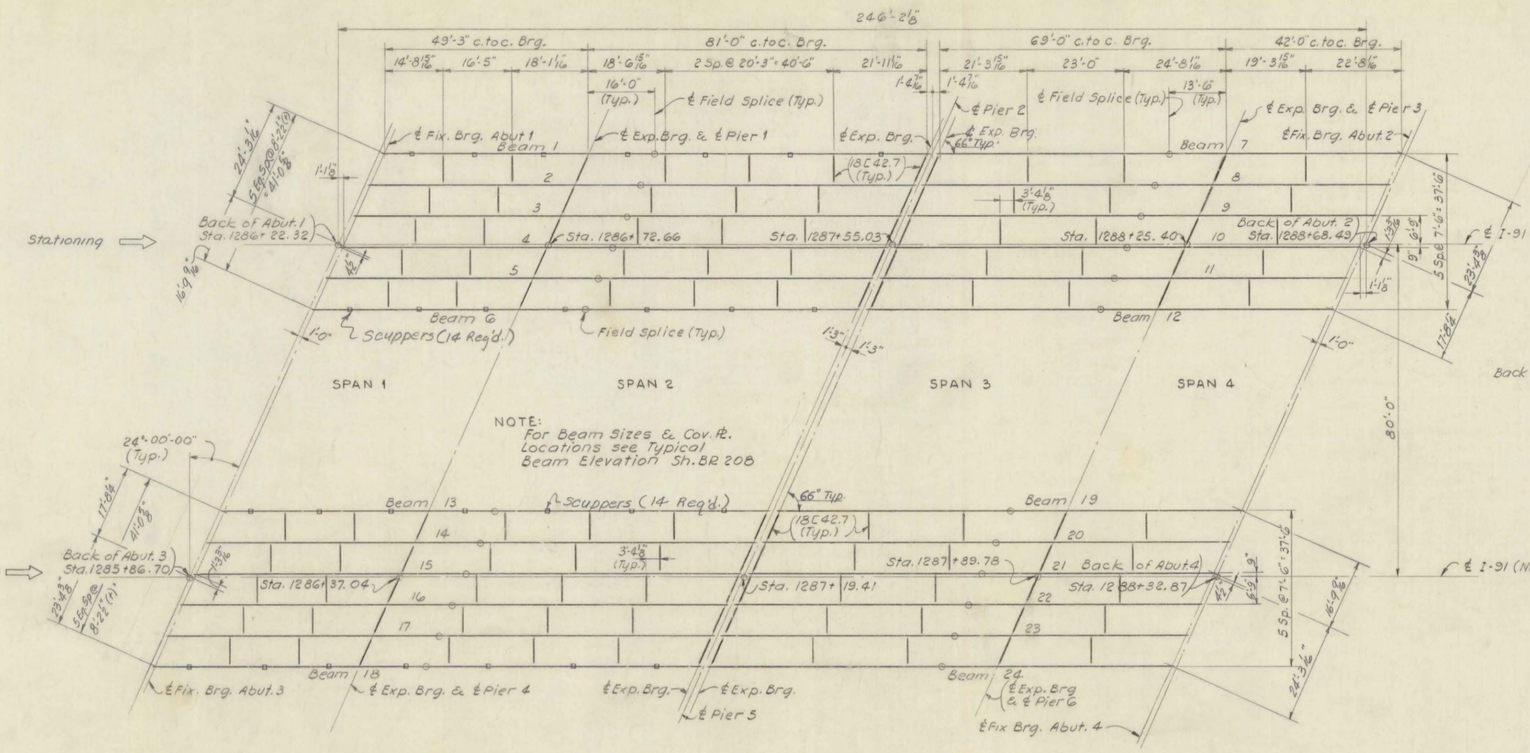
Profile I-91 Southbound Scale 1"=50' Hor.; 1"=20' Vert.



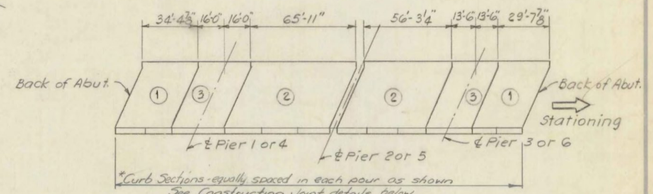
Profile Reloc. Miller Run Scale 1"=50' Hor.; 1"=20' Vert.

Profile I-91 Northbound Scale 1"=50' Hor.; 1"=20' Vert.

Profile Vt. Route 122 Scale 1"=50' Hor.; 1"=20' Vert.



FRAMING PLAN
Scale: 1/16" = 1'-0"



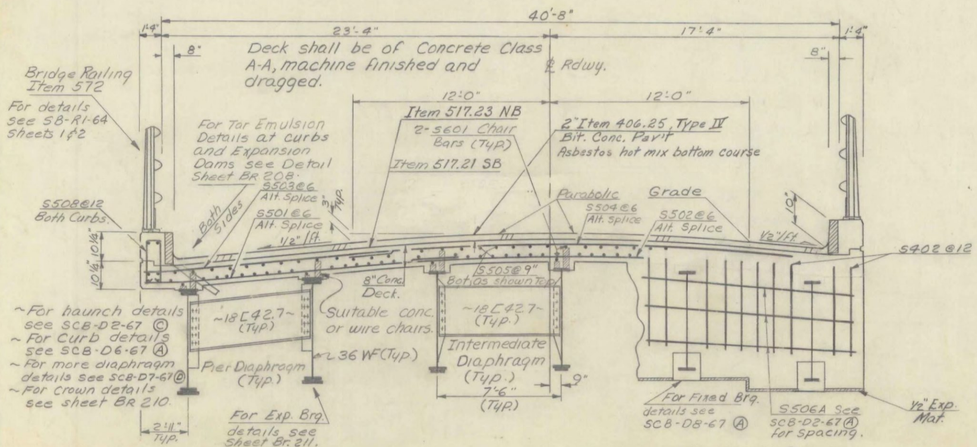
POURING SCHEDULE
For Southbound & Northbound
Not To Scale

If approved by the Engineer all sections may be placed in the same day providing that the indicated placing sequence is followed and retarder is used in all sections.

* Concrete Safety Walks shall be placed in alternate sections, allowing a minimum of 48 hours between placing adjacent sections.

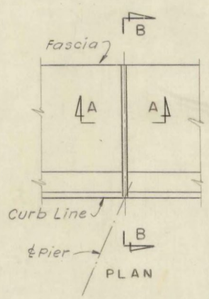
NOTES:

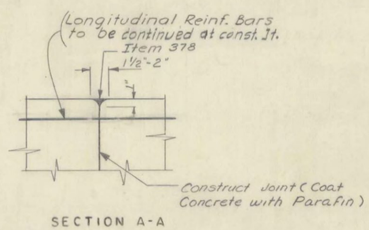
1. For General Notes see Std. SCB-D1-67.
2. For Curtain Wall Details see Std. SCB-D2-67 Ⓐ.
3. All Diaphragms to be 18 C 42.7, see Std. SCB-D7-67 Ⓓ and BR 209 for Details.
4. For End of Beam Details see Std. SCB-D8-67 Ⓑ & SCB-D9-67 Ⓐ.
5. For Fixed Bearing Detail see Std. SCB-D8-67 Ⓐ and Note sheet BR. 215.
6. For Expansion Bearing see Sh. BR 211.
7. All straight sections of Granite Curb shall be furnished in random lengths, from 4 to 10 feet.
8. Detailed drawings for the layout of the Granite Bridge Curb, Item 556-C, shall be submitted in triplicate to the State for approval prior to fabrication or shipment.
9. **For Stud Shear Connector Details, see** Sheet Br. 208.
10. For Railing Plan See Br. 208.
11. For Scupper details see SCB-D6-67 Ⓐ.



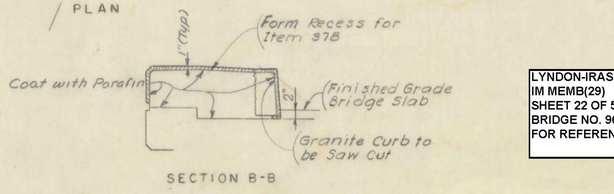
TYPICAL SECTION
Scale = Vert. 1/2" = 1'-0"
Horz. 1/4" = 1'-0"

Southbound shown - Northbound Similar





SECTION A-A



SECTION B-B

CONSTRUCTION JOINT
(In Curb and Safety Walk at ℄ of Piers 1, 3, 4 & 6 and as shown in Pouring Schedule above)

REVISION - TYPICAL SECT. ADDED CONST. UT. CHANGED 8-70 CRD & AGC

LYNDON-IRASBURG
IM MEMB(29)
SHEET 22 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

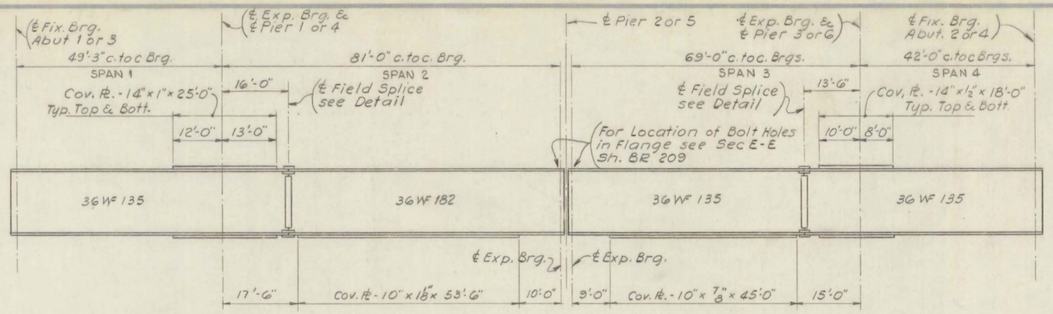
Stage 2 Construction
CONTRACT 1
STAGE 1 CONSTRUCTION

PREPARED BY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

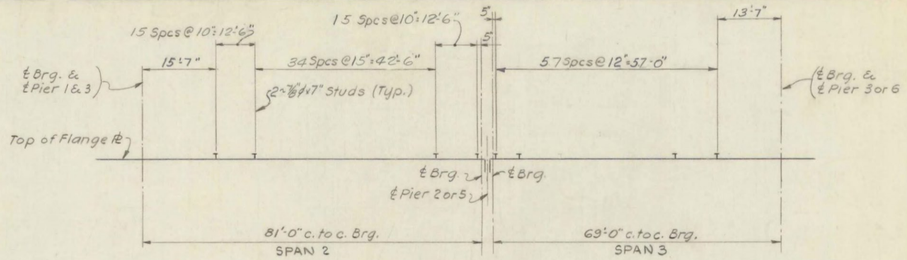
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON - BARTON
TOWN OF LYNDON BR 96
ROUTE NO. I-91 LOG STA. 1287
I-91 OVER VT. 122 & RELOC. MILLER RUN
FRAMING PLAN
SCALE AS SHOWN
IN CHARGE H. C. MARGOLIS
DRAWN BY F. Mc ELROY CHECKED BY J. MATZERATH
PROJECT NO. I-91-3(10) (15)
SHEET 176 OF [illegible]
BR 207

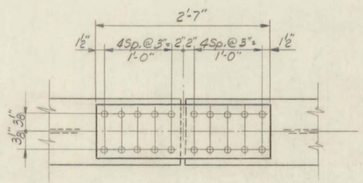
371 389

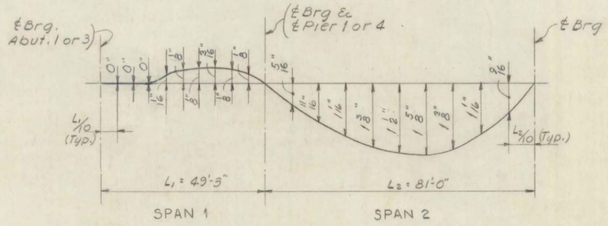


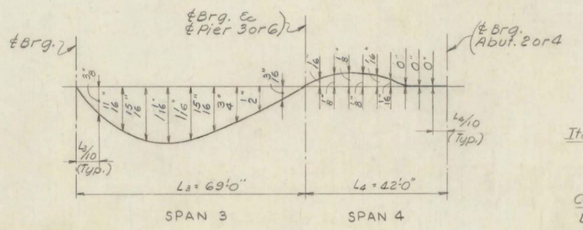
TYPICAL BEAM ELEVATION
Not To Scale



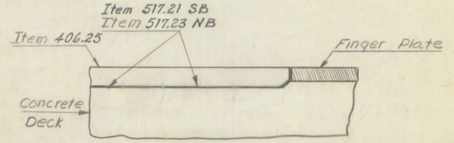
SHEAR CONNECTORS
Not Required for Spans 1 & 4
Not To Scale
Number of Studs Required = 2,856
Omit studs over splice.



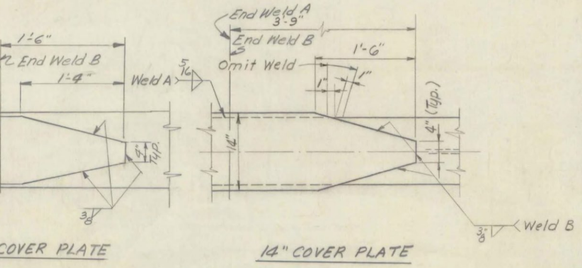




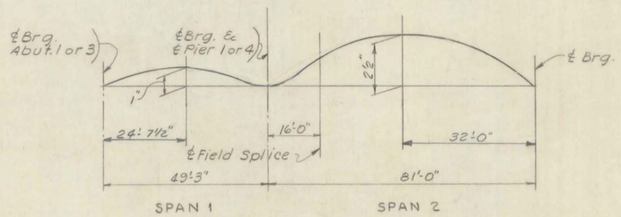
DEAD LOAD DEFLECTION
Not To Scale

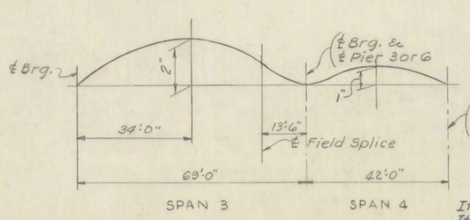


SECTION NORMAL TO EXPANSION DAM



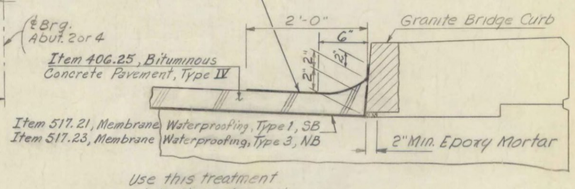
TYPICAL SPLICE DETAIL
Splice Detail for Span 2 as shown
Splice Detail at Span 3 Similar except that Fill Pls. are not required
Scale: 1" = 1'-0"





CAMBER DIAGRAM
Not To Scale

Note:
Maximum Live Load Deflection Northbound Roadway & Southbound Roadway:
Span 2 - 0.79"
Span 3 - 0.64"



Use this treatment at both curbs and each side of the expansion dam.

SECTION AT CURB

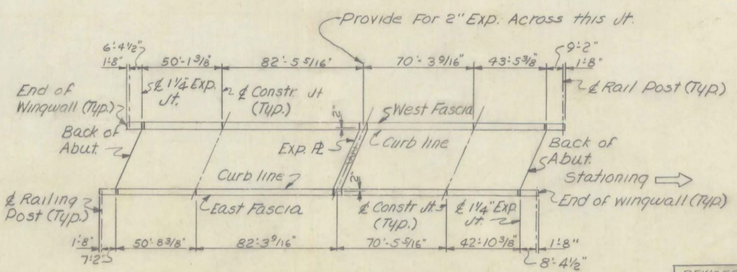
TAR EMULSION DETAILS
N.T.S.

Tar Emulsion, meeting requirements of Item 702.05. Cost to be included under Item 406.25.

10" COVER PLATE

14" COVER PLATE

COVER PLATE DETAILS
N.T.S.



RAILING PLAN
For Southbound & Northbound
Not to Scale

REVISED - 8-70 - CRD & AGC.
TAR EMULSION DETAILS ADDED
CHANGED TO 2' CURB, FASCIA HELD

LYNDON-IRASBURG
IM MEMB(29)
SHEET 23 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

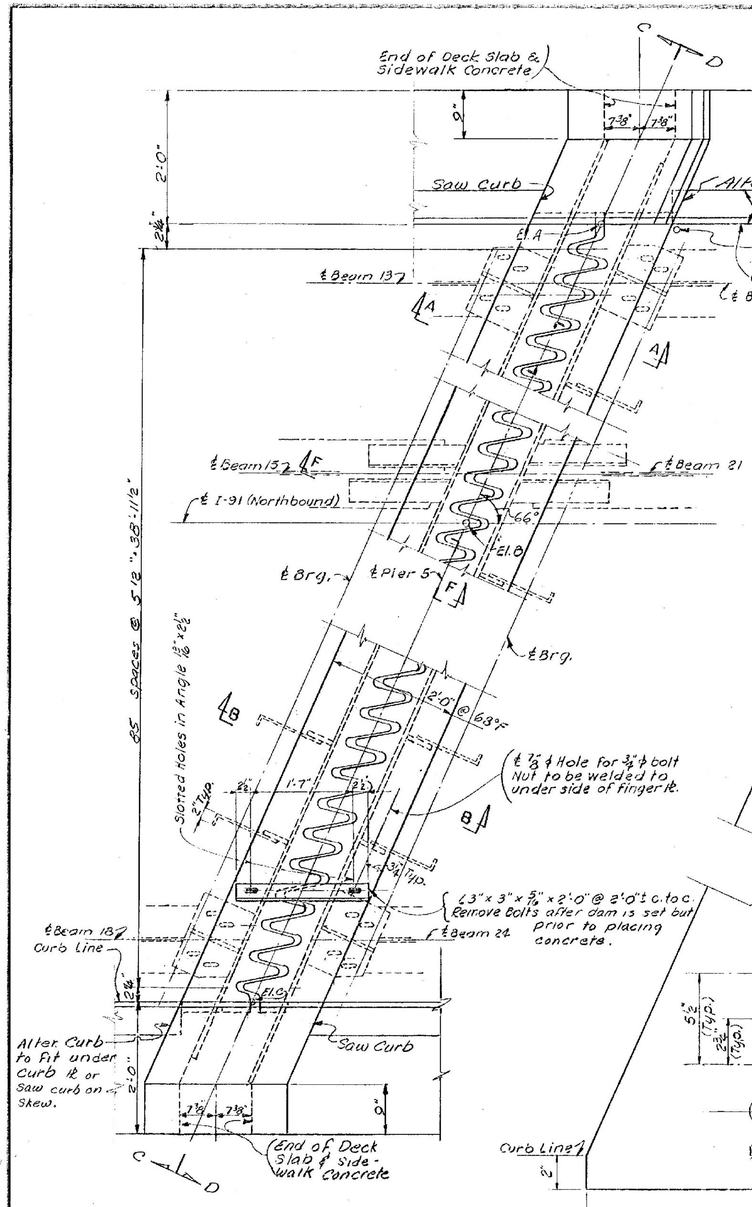
Stage 2 Construction

PREPARED BY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

CONTRACT 1
STAGE 1 CONSTRUCTION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 LOG STA. 1287
I-91 OVER VT. 122 & RELOC. MILLER RUN
STRUCTURAL STEEL DETAILS
SCALE AS SHOWN
IN CHARGE H.C. MARGOLIS
DRAWN BY F. McELROY CHECKED BY J. MATZGRATH
PROJECT NO. I-91-3(10)(15)
SHEET 177 OF 572 589 BR 208



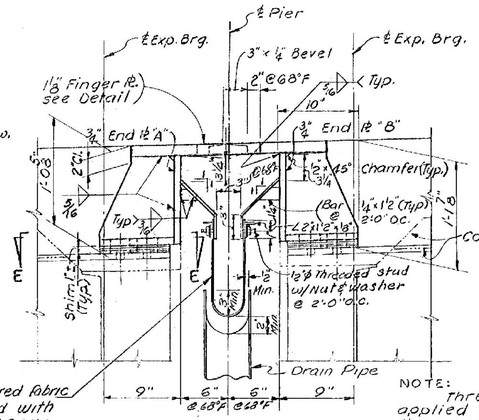
PLAN OF EXPANSION PLATE AT PIER 5

NORTHBOUND SHOWN, SOUTHBOUND SIMILAR

Scale: 1" = 1'-0"

Note: Drainage Trough Not Shown. See Sections.

	SB	NB
El. A	731.61	731.40
El. B	732.16	731.73
El. C	731.61	730.89



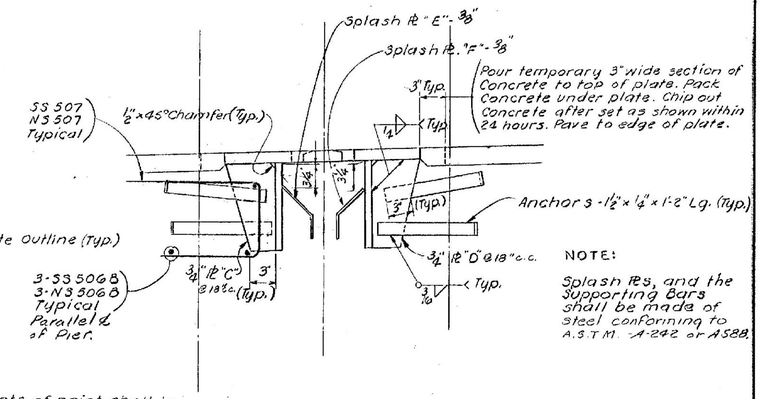
SECTION A-A

Scale: 1½" = 1'-0"

24" x ⅛" Multiple layered fabric material impregnated with neoprene. To meet A.S.S.H.O. 2.10.3.1. Coat surface of trough with neoprene.

NOTE:

Three coats of paint shall be applied to the interior surfaces of the expansion dam prior to erection in accordance with Item 404.030.

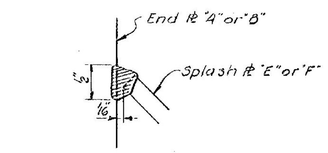


SECTION B-B

Scale: 1½" = 1'-0"

NOTE:

Splash Plts, and the Supporting Bars shall be made of Steel conforming to A.S.T.M. A-242 or A588.

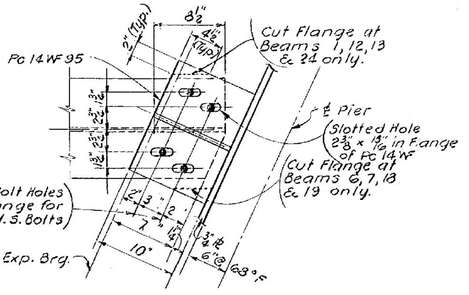


TYPICAL WELD FOR SPLASH PLATES

Not to Scale

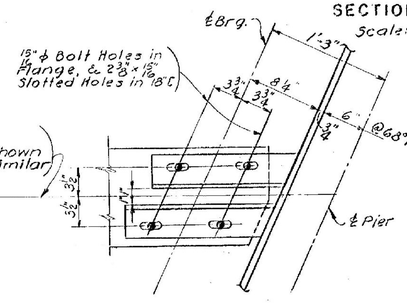
METHOD OF FINGER CUTTING

Scale: 3" = 1'-0"



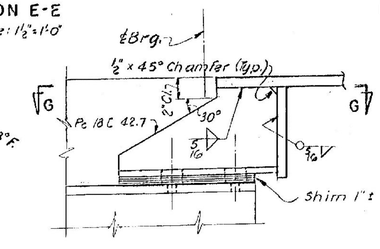
SECTION E-E

Scale: 1½" = 1'-0"



SECTION G-G

Scale: 1½" = 1'-0"



SECTION F-F

Scale: 1½" = 1'-0"

NOTES:

For Secs. C-C & D-D see Sh. BR 210.

Expansion Dam to be fabricated to follow cross slope of roadway.

CONTRACT 1
STAGE 1 CONSTRUCTION

LYNDON-IRASBURG
IM MEMB(29)
SHEET 24 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

REVISED - 8-70 - CRO & AGC.
MADE CURBS 2'-0" HELD FASCIA.

PREPARED BY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

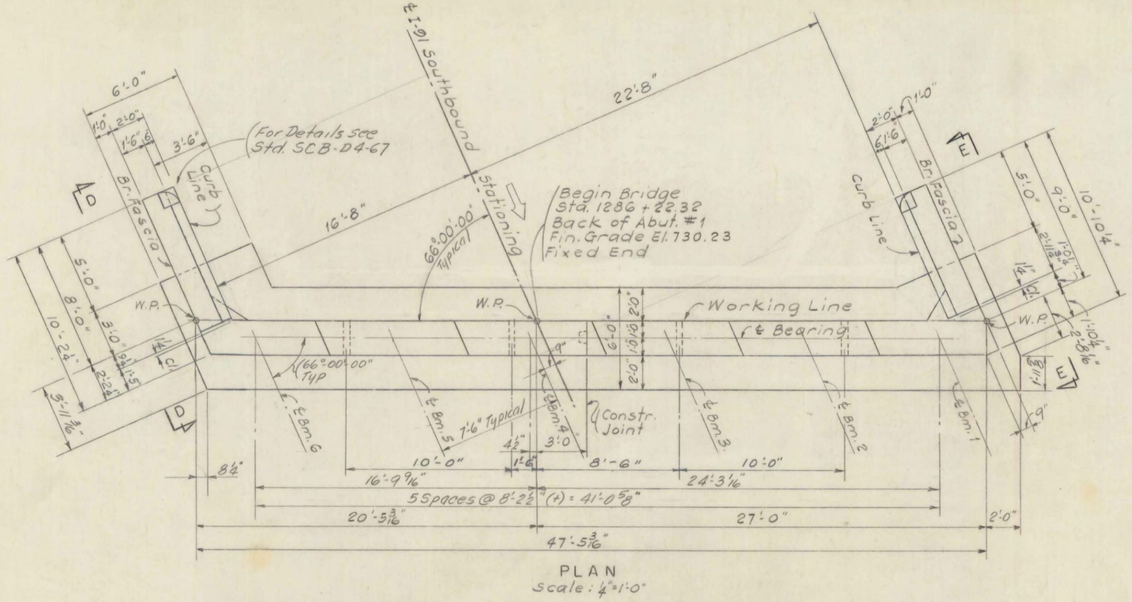
PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 LOG STA. 1287
I-91 OVER VT. 122 & RELOC. MILLER RUN

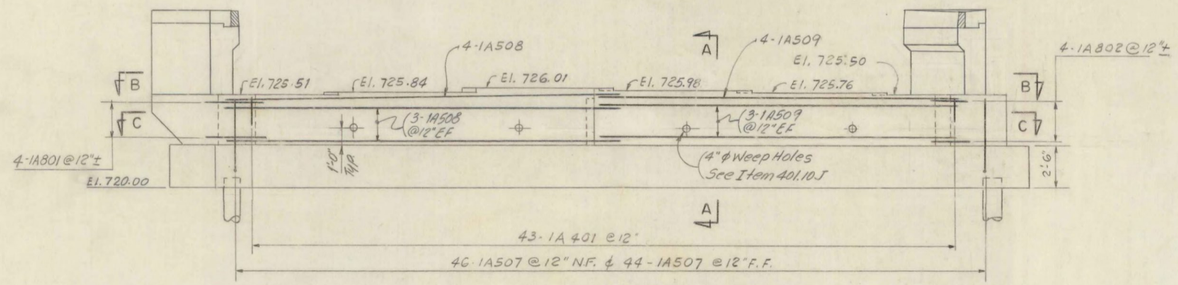
EXPANSION DAM DETAILS

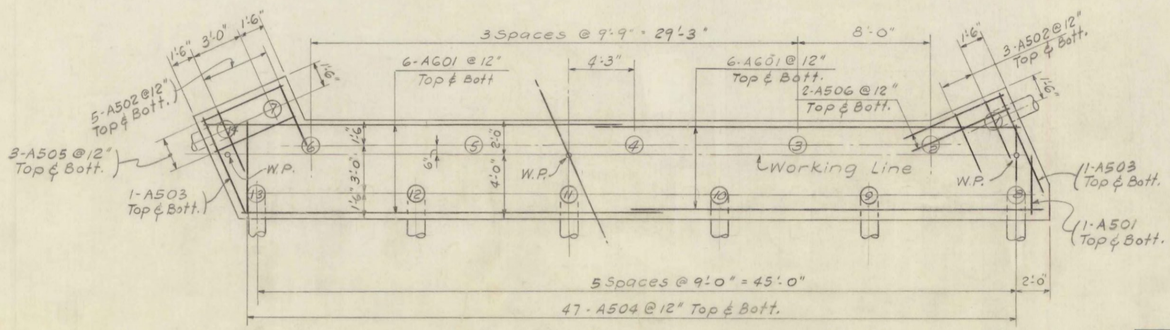
SCALE AS SHOWN
IN CHARGE H.C. MARGOLIS
DRAWN BY F. McELROY CHECKED BY J. MATTERATH
PROJECT NO. I-91-3(10)
SHEET 113 OF 455

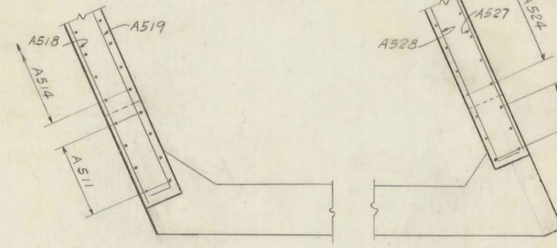
BR 209

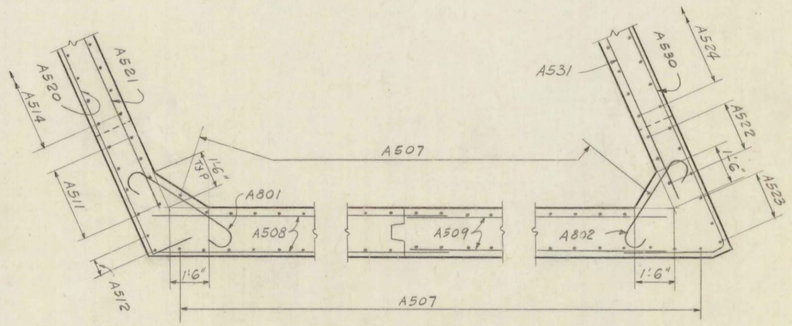
BR 8

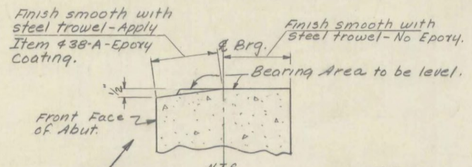


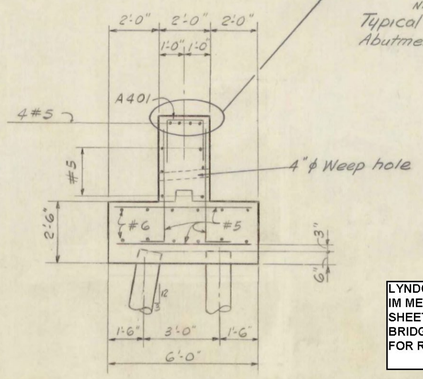












NOTE:
For Notes see Sheet BR 215
For Views D-D & E-E see Sheet BR 214

REVISED - 8-70 - CRO & AGC.
MADE CURBS 2'-0", HELD FASCIA

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CONSULTING ENGINEERS
ORLEANS, VERMONT

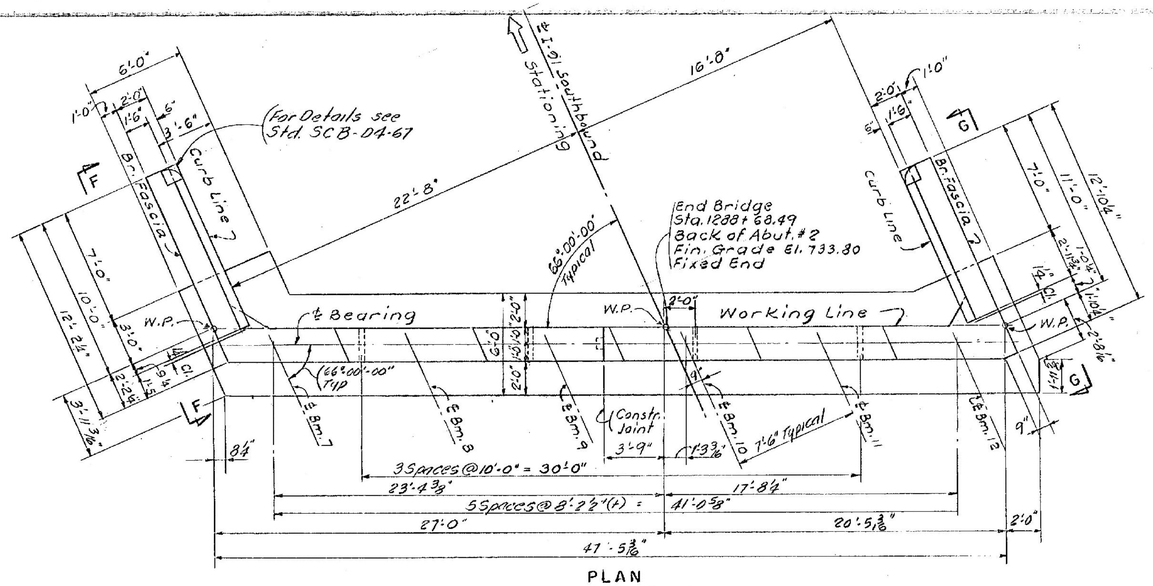
LYNDON-IRASBURG
IM MEMB(29)
SHEET 25 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

CONTRACT 1
STAGE 1 CONSTRUCTION

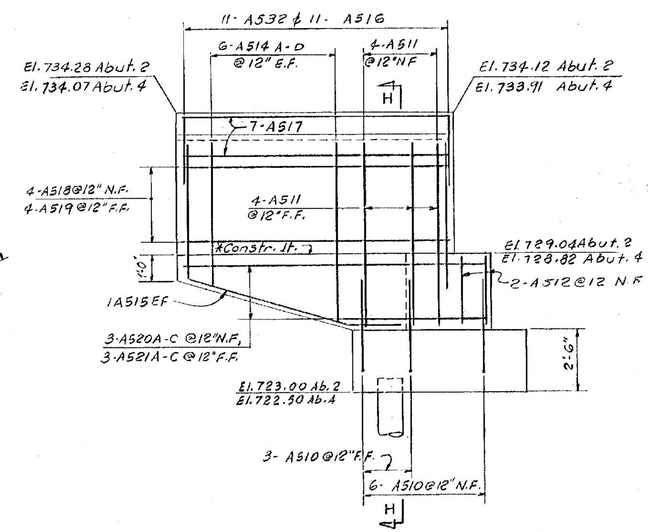
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON - BARTON
TOWN OF LYNDON BR 96
ROUTE NO. I-91 LOG STA. 1287
I-91 OVER VT 122 & RELOC MILLER RUN
ABUTMENT #1
SCALE AS SHOWN
IN CHARGE H.C. MARGOLIS
DRAWN BY A. PENIONGHIC CHECKED BY J. HENRY
PROJECT NO. I-91-3(10)
SHEET 181 OF 455

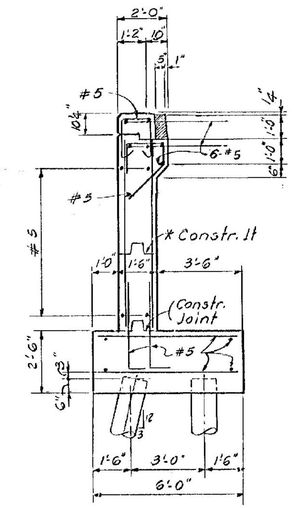
BR 212



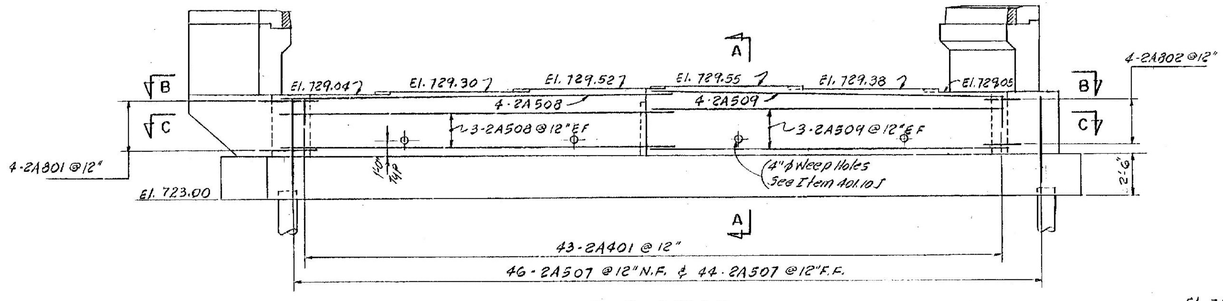
PLAN
Scale: 1/4"=1'-0"



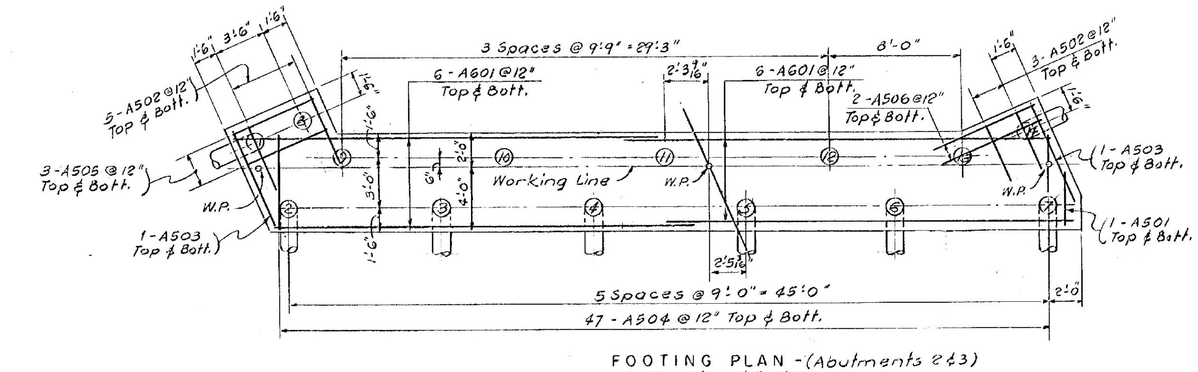
VIEW F-F (Abuts. 2 & 4)
Scale: 3/8"=1'-0"



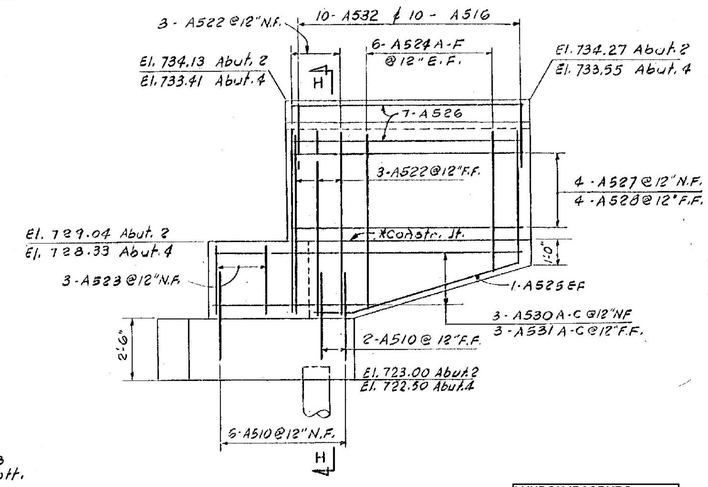
SECTION H-H
Scale: 3/8"=1'-0"



ELEVATION
Scale: 1/4"=1'-0"



FOOTING PLAN - (Abutments 2 & 3)
Scale: 1/4"=1'-0"



VIEW G-G (Abuts. 2 & 4)
Scale: 3/8"=1'-0"

Note:
* Do not construct above this joint until beams have been set and finish grade confirmed by the Engineer.

For Notes see Sheet BR 215

For Sections A-A, B-B & C-C see Sh. BR 212

CONTRACT 1
STAGE 1 CONSTRUCTION

LYNDON-IRASBURG
IM MEMB(29)
SHEET 26 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

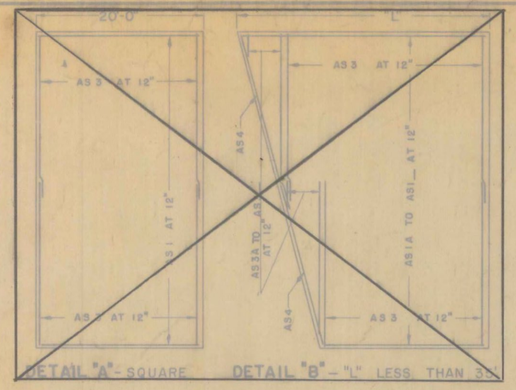
REVISED - 8-70 - CRO & AGC
MADE CURBS 2'-0", HELD FASCIA

PREPARED BY
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CONSULTING ENGINEERS
ORLEANS, VERMONT

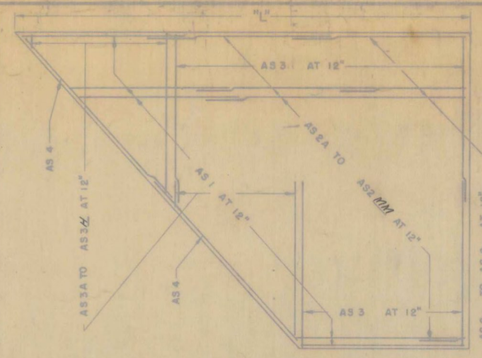
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 LOG STA. 1287
I-91 OVER VT. 122 & RELOC. MILLER RUN
ABUTMENT #2
SCALE AS SHOWN
IN CHARGE H.C. MARGOLIS
DRAWN BY A. PENIONCHIK CHECKED BY J. HENRY
PROJECT NO. I-91-3(10)
SHEET 192 OF 455 BR 213

BR-3

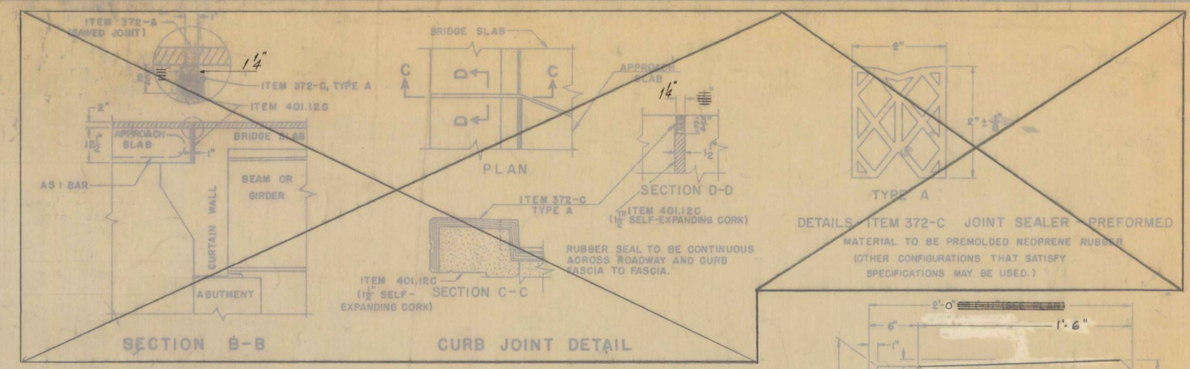


DETAIL "A" - SQUARE

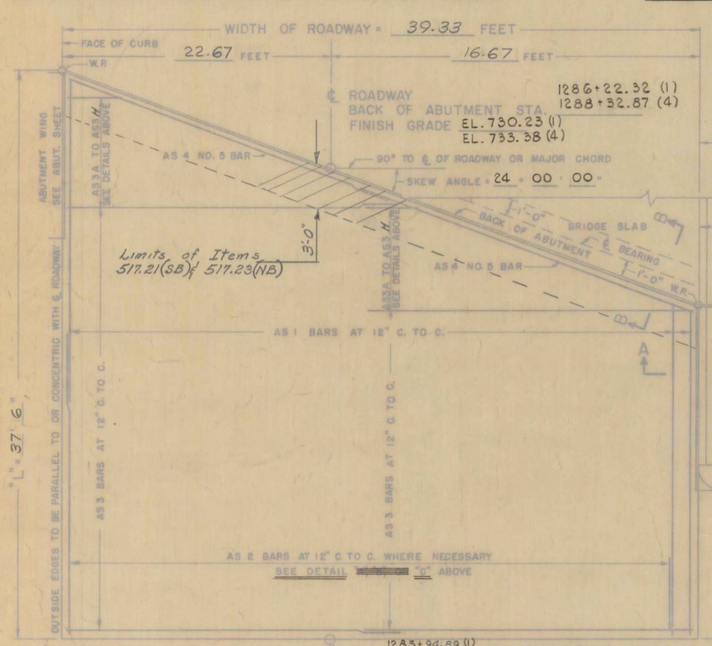


DETAIL "B" - "L" LESS THAN 35'

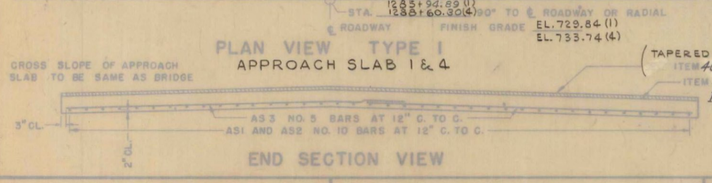
DETAIL "C" - "L" GREATER THAN 35'



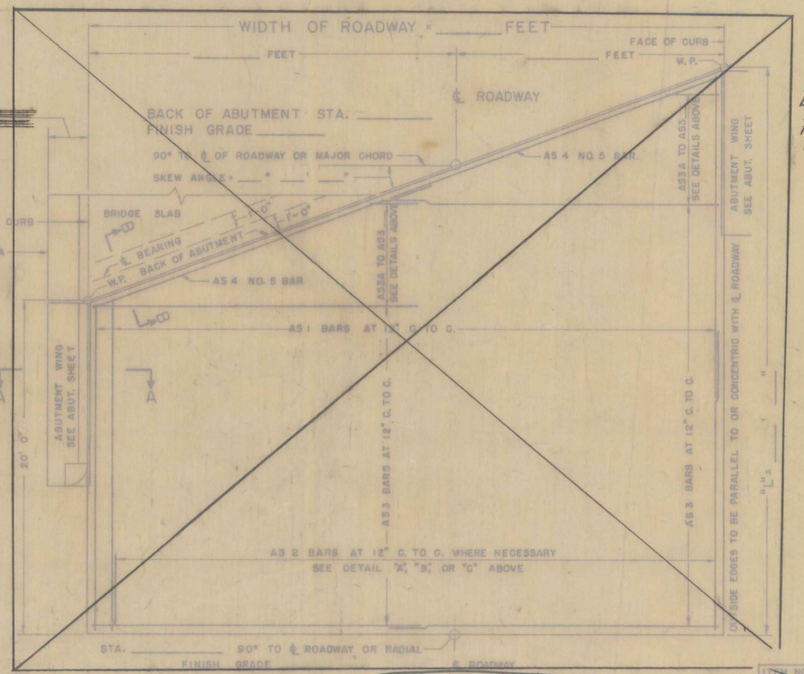
CURB JOINT DETAIL



PLAN VIEW TYPE I
APPROACH SLAB 1 & 4

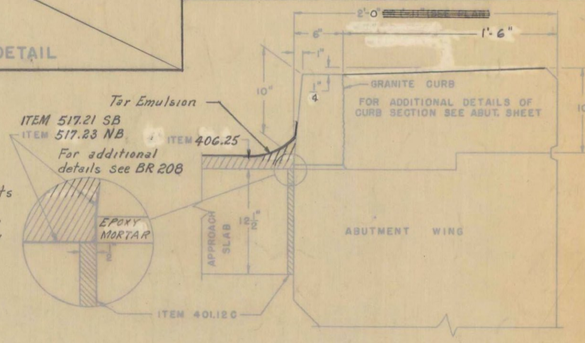


END SECTION VIEW



PLAN VIEW TYPE II

NOT USED



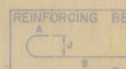
SECTION A-A

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED ~~1965~~ 1969 DESIGNED FOR H S 20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
3. FOR CURTAIN WALL AND APPROACH BRACKET DETAILS SEE SCB-D2-67
4. Bituminous Concrete Pavement depth shall be 2" at the bridge end and vary to 3" at the Roadway end.
5. See Standard SCB-D9-71 (B) For fixed end joint details.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 27 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

REINFORCING BENDING DETAILS



DETAIL SHOWN IS FOR ASI BAR
ALL OTHER BARS ARE TO BE STRAIGHT

(TAPERED - 3" THICK @ RDWY. END & 2" THICK @ ABUT. END
ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT (Asbestos Hot Mix Bottom Course)
ITEM 517.21 Membrane Waterproofing, Type 1, SB
Item 517.23 Membrane Waterproofing, Type 3, NB

LIST OF QUANTITIES

ITEM NO.	ITEM	UNIT
318	GAS EMULSION FOR BRIDGE FLOORS	GAL.
568 ~~B~~	BITUMINOUS CONCRETE PAVEMENT MODIFIED	TON
~~572-B~~	~~JOINT SEALER - PREFORMED~~	~~L.F.~~
572-C	JOINT SEALER - PREFORMED, TYPE A	L.F.
401-B	CONCRETE CLASS B	CY.
602	REINFORCING STEEL	LB.

Stage 2 Construction
CONTRACT 1
STAGE 1 CONSTRUCTION

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 STA. 1287
I-91 OVER VT. 122 & RELOC. MILLER RUN
APPROACH SLAB #1 & #4
NOT TO SCALE
IN CHARGE H.C. MARGOLIS
DESIGNED BY F. McELROY CHECKED BY J. HENRY
PROJECT NO. I-91-3(10)(16)
SHEET 189 OF 573 389
BR 220

REVISIONS AND CORRECTIONS
1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED 4/15/65 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED 6/23/65 W.B.T.
3. JOINT BETWEEN CURB AND SLAB REVISED, BITUMINOUS CONCRETE REVISED TO 2", QUANTITY TOTALS REMOVED. 12/7/65. W.B.T.

DRAWN BY: W.B.T. Jan 1965
TRACED BY: W.B.T. Jan 1965
CHECKED BY: W.M.S. Feb 1965
RECOMMENDED FOR APPROVAL: BRIDGE ENGINEER — DATE 2/4/65
RECOMMENDED FOR APPROVAL: ASSISTANT CHIEF ENGINEER — DATE 2/8/65
APPROVED BY: CHIEF ENGINEER — DATE 2/9/65

DETAILS OF APPROACH SLAB FOR 39.33' (WIDTH) FOOT BRIDGE

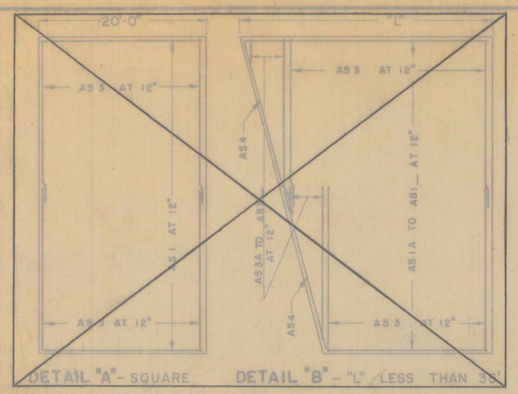
TO BE USED FOR BRIDGE AT STATION 1287+0

LOCATION I91 Over Vt. Rte. #122 And Miller Run Relocated

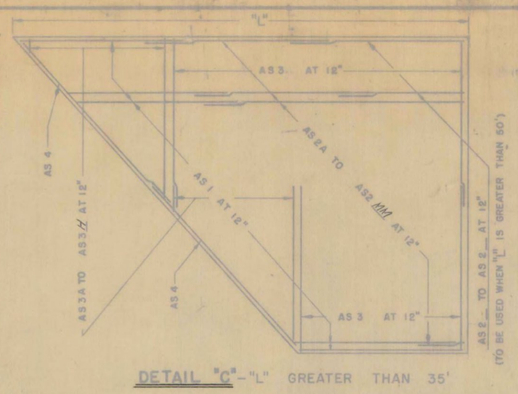
REVISED - 8-70 - CRA & A.G.C. MADE CURBS 2'-0", HELD FASCIA

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

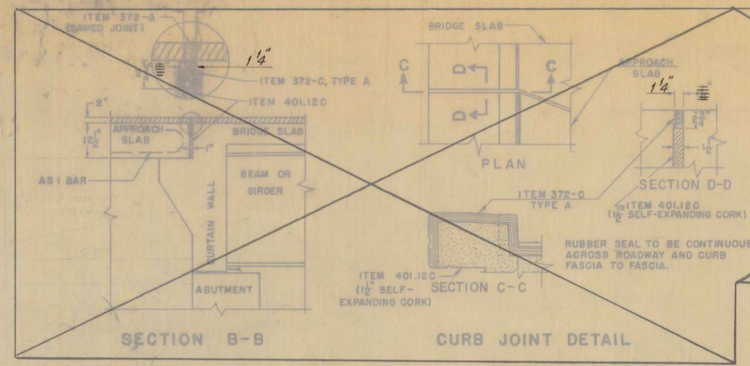
SB-AS-65



DETAIL "A" - SQUARE DETAIL "B" - "L" LESS THAN 35°

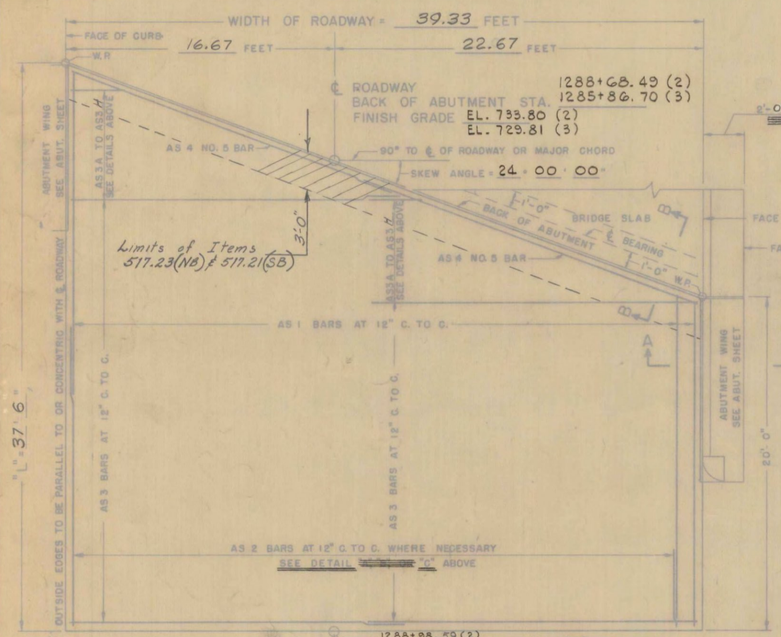


DETAIL "C" - "L" GREATER THAN 35°

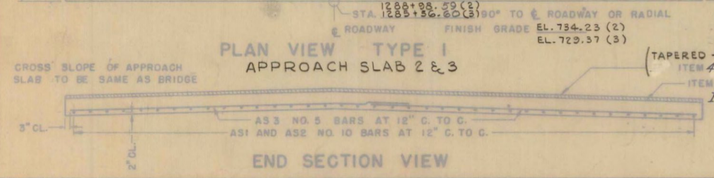


CURB JOINT DETAIL

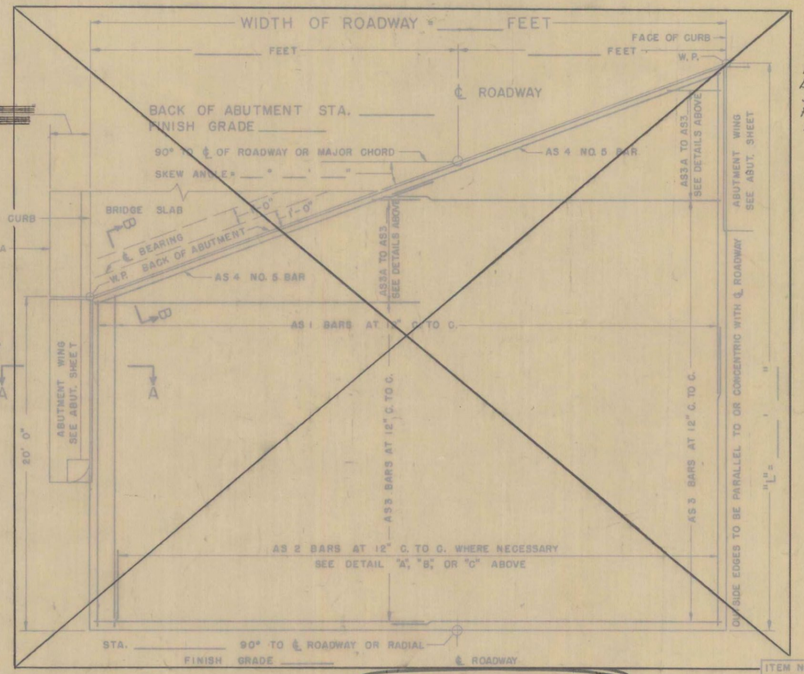
DETAILS - ITEM 372-C JOINT SEALER PREFORMED
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER
(OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



PLAN VIEW TYPE I
APPROACH SLAB 2 & 3

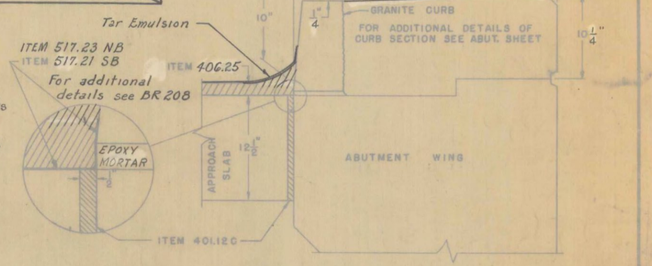


END SECTION VIEW



PLAN VIEW TYPE II
NOT USED

(TAPERED - 3" THICK @ RDWY. END & 2" THICK @ ABUT. END
ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT (Asbestos Hot Mix Bottom Course)
ITEM 517.21 Membrane Waterproofing, Type 1, SB
Item 517.23 Membrane Waterproofing, Type 3, NB



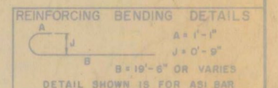
SECTION A-A

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1969 DESIGNED FOR H S 20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
3. FOR CURTAIN WALL AND APPROACH SLAB BRACKET DETAILS SEE SCB-D2-67
4. Bituminous Concrete Pavement depth shall be 2" at the bridge end and vary to 3" at the Roadway end.
5. See Standard SCB-D9-71 ② for fixed end joint details.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 28 OF 55
BRIDGE NO. 96S
FOR REFERENCE ONLY

REINFORCING BENDING DETAILS



DETAIL SHOWN IS FOR AS1 BAR
ALL OTHER BARS ARE TO BE STRAIGHT

LIST OF QUANTITIES

ITEM NO.	ITEM	UNIT
~~515~~	~~TAR EMULSION FOR BRIDGE FLOORS~~	~~GAL.~~
~~501~~	~~BITUMINOUS CONCRETE PAVEMENT MODIFIED~~	~~TONS~~
~~372-A~~	~~JOINT SEALER - HOT POURED~~	~~L.F.~~
372-C	JOINT SEALER - PREFORMED, TYPE A	L.F.
401-B	CONCRETE CLASS B	CY.
402	REINFORCING STEEL	LB.

Stage 2 Construction
CONTRACT 1
STAGE 1 CONSTRUCTION

REVISIONS AND CORRECTIONS
1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED 4/15/65 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED 6/23/65 W.B.T.
3. JOINT BETWEEN CURB AND SLAB REVISED, BITUMINOUS CONCRETE REVISED TO 2", QUANTITY TOTALS REMOVED. 12/7/65 W.B.T.

DRAWN BY: W.B.T. Jan 1965
TRACED BY: W.B.T. Jan 1965
CHECKED BY: W.M.S. Feb. 1965

RECOMMENDED FOR APPROVAL: BRIDGE ENGINEER DATE 2/4/65
RECOMMENDED FOR APPROVAL: ASSISTANT CHIEF ENGINEER DATE 2/4/65
APPROVED BY: CHIEF ENGINEER DATE 2/4/65

DETAILS OF APPROACH SLAB FOR 39.33' (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 1287+0

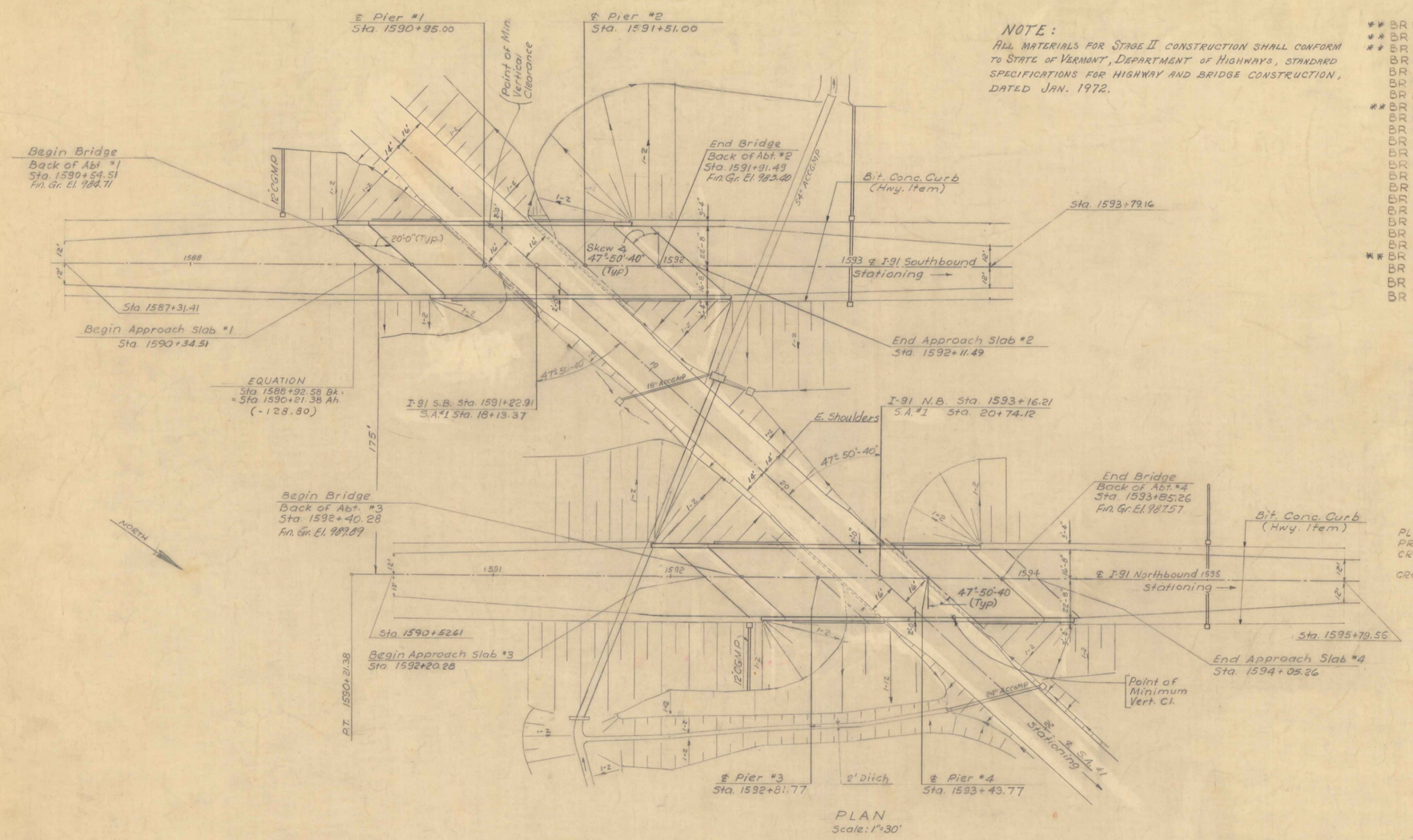
LOCATION I91 Over Vt. Rte. #122 And Miller Run Relocated

REVISED - 8-70 - C.R.O. & A.G.O. MADE CURBS 2'-0", HELD FASCIA

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-65

PROJECT LYNDON - BARTON
TOWN OF LYNDON
ROUTE NO. I-91 STA. 1287
I-91 OVER VT. 122 & RELOC. MILLER RUN
APPROACH SLAB #2 & #3
NOT TO SCALE
IN CHARGE H.C. MARGOLIS
DESIGNED BY F. McELROY CHECKED BY J. HENRY
PROJECT NO. I-91-3(10)(18)
SHEET 190 OF 233 SHEET BR 221
374 389



NOTE:
ALL MATERIALS FOR STAGE II CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, DATED JAN. 1972.

LIST OF BRIDGE SHEETS

**	BR 100	GENERAL PLAN
**	BR 101	BRIDGE QUANTITY SHEET
**	BR 102	PRELIMINARY INFORMATION SHEET
	BR 103	BORING LAYOUT SHEET & BORING LOGS
	BR 104	BORING LOGS
	BR 105	BORING LOGS
	BR 106	BORING LOGS
**	BR 107	FRAMING PLAN AND TYPICAL SECTION
	BR 108	SUPERSTRUCTURE DETAILS
	BR 109	ABUTMENT NO. 1
	BR 110	ABUTMENT NO. 2
	BR 111	ABUTMENT NO. 3
	BR 112	ABUTMENT NO. 4
	BR 113	ABUTMENT DETAILS
	BR 114	ABUTMENT DETAILS
	BR 115	PIER NO. 1 AND NO. 2
	BR 116	PIER NO. 1 AND NO. 2 REINFORCING
	BR 117	PIER NO. 2 REINFORCING AND DETAILS
	BR 118	PIER NO. 3 AND NO. 4
	BR 119	PIER NO. 3 AND NO. 4 REINFORCING
**	BR 120	APPROACH SLAB
	BR 121	REINFORCING STEEL DETAILS
	BR 122	REINFORCING STEEL DETAILS
	BR 123	REINFORCING STEEL DETAILS

STANDARD SHEETS

SCB-D1-67 4-28-70R
SCB-D2-67Ⓐ,Ⓑ,Ⓒ 1-24-68
SCB-D4-67 12-17-68R
SCB-D6-67Ⓐ,Ⓑ,Ⓓ,Ⓔ 4-28-70R
SCB-D8-67Ⓐ,Ⓔ 1-24-68
SCB-D9-67Ⓐ 12-11-70R
SB-R1-64 Shts. 1&2 4-28-70R

REFERENCE SHEETS

PLAN - I-91 STA. 1581 TO STA. 1596 NB & STA 1580 TO STA 1596 SB
PROFILE - I-91 NB & SB, PROFILE - S.A. #1
CROSS SECS - I-91 STA. 1586 TO STA. 1587+50 SB, STA 1587+50 TO STA 1590+21 Fwd. SB
NB & SB STA 1590+50 TO 1596+50
CROSS-SECS. SA 1 - STA 14+50 TO STA. 24+00.54

NOTES

1. For General Notes see Std SCB-D1-67.
2. For Typical Section of Superstructure see BR 107.
3. Steel Piling (12 BP 53) shall be driven to point bearing on Ledge.
4. Estimated allowable design load is 58T/PILE.
5. Item 440, Water Repellent, shall consist of furnishing and applying water repellent on exterior concrete surfaces including top of safety walks, fascia and back to the fascia beam under the slab and exposed areas of abutments and piers not otherwise treated.

** Sheets for Stage II Construction

BR 100 N.B
BR 99 S.B.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 29 OF 55
BRIDGE NO. 99S & 100N
FOR REFERENCE ONLY

Revised TH #13 to S.A. #1
Revised S.A. #1 Typical
JHD~JAE~10/20/70

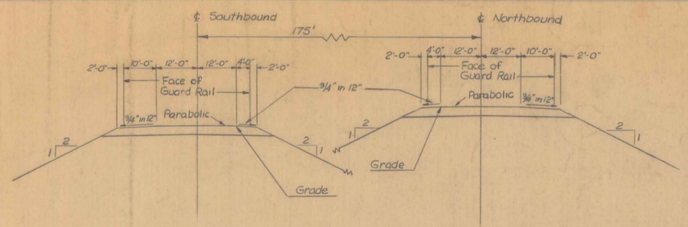
Revised Curb to 2'-0", retained fascias.
JHD~JAE & MEW~6/10/70

Stage 2 Construction
CONTRACT 3
STAGE 1 CONSTRUCTION

PREPARED BY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
BURLINGTON, VERMONT

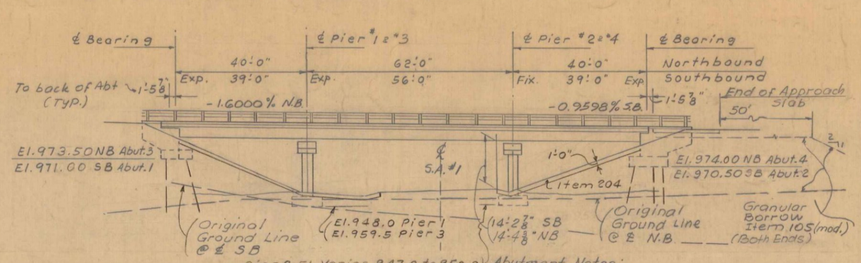
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON-BARTON
TOWN OF SHEFFIELD
ROUTE No I-91 LOG STA. 1592
I-91 OVER STATE AID #1
GENERAL PLAN
SCALE AS NOTED
IN CHARGE M.C. MARGOLIS
DRAWN BY J.HENRY CHECKED BY L.KOSHAR 7/29/66
PROJECT NO. I-91-3(15)
SHEET 98 OF 272 BR 100



NEW HIGHWAY SECT. I-91 @ NB 1594+50
@ SB 1594+50

SCALE 1"=20'



Abutment Notes:
(1) Curtain Walls to be used in lieu of backwalls
(2) Initial 5' of backfill adjacent to curtain wall shall not be compacted

NEW HIGHWAY PROFILE ALONG ℄

SCALE: 1"=20'

HIGHWAY NO. I-91 NAME OF HIGHWAY INTERSTATE
STRUCTURE NO. 5 COUNTY CALEDONIA TOWN SHEFFIELD
PROJECT NO. I91-3(16) (18) LOCATION S.A. #1 (Relocated - Redesignated)
LYNDON - BARTON

EXISTING STRUCTURE - None

1 RATED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE
3 UNDERCLEARANCE - ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE?
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT?
7 ORDINARY HIGH WATER SURFACE ELEV AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE?
12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED?
13 ADDITIONAL WATERWAY AREA PROVIDED

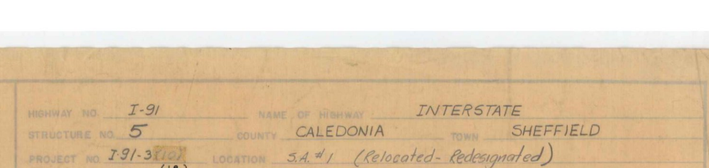
NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE 39'-4" Roadway; 3-Cont. Spans; Rolled Beams
2 RECOMMENDED CLEAR SPAN OR SPANS Composite in Span 2 Only
MEASURED PARALLEL TO ℄ NEW HIGHWAY 40'-62'-40' - N.B. 39'-56'-39' - S.B.
MEASURED AT RIGHT ANGLES TO ℄ S.A. #1 (26'-10⅛")-(46'-7¼")-(26'-10⅛") (26'-2⅝")-(37'-7")-(26'-2⅝")
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE SOURCE OF INFORMATION
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE?
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? IS ORDINARY RISE RAPID?
8 LOW WATER ELEVATION AT NEW STRUCTURE
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE CHARACTER OF TERRAIN
10 IS STREAM EVER DRY
11 VELOCITY OF STREAM AT HIGH WATER STAGE ESTIMATED DISCHARGE
12 AREA FULL OPENING AREA BELOW ORDINARY H.W.
13 CHARACTER OF BANKS DRIFT ICE
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION
16 ARE SIDEWALKS REQUIRED? IF SO ON WHAT SIDE? BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 2" Bituminous Concrete; 8" Concrete Slab
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. ——— ONE OR TWO WAYS ——— PROBABLE COST ———
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE ———
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No.
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 6 T/sf on Ledge SHOULD PILES BE USED? Yes 12BP53 EST. DEPTH + See Table

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

Abutments are founded on Steel H-Piles (12BP53-58T/pile, Point Bearing)
S.B.-Piers are founded on Ledge
N.B.-Piers are founded on Steel H-Piles (12BP53-58T/pile, Point Bearing)



Typical Section - S.A. #1
Scale 1"=5'

Revised Typical Section
VHD~JAR~10/20/70

SPECIFICATIONS: All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications, for Highway and Bridge construction dated April 1964 and the A.A.S.H.O. Standard Specifications for Highway Bridges dated 1969.

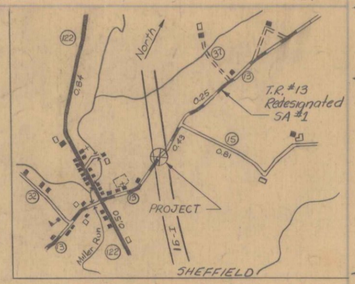
DESIGN LOADING: HS 20-44 as modified for National System of Interstate Highways

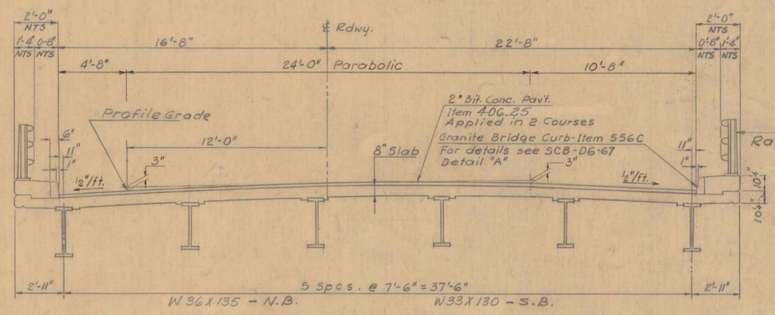
DESIGN STRESSES: Reinforcing Steel - f_s = 20,000 p.s.i., Concrete - f'_c = 3000 p.s.i., n=10, f_c = 1200 p.s.i.

RECOMMENDED FOR APPROVAL — CONSTRUCTION ENGINEER — DATE 12/30/66
RECOMMENDED FOR APPROVAL — DATE 12/30/66
RECOMMENDED FOR APPROVAL —
APPROVED BY: CHIEF

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE IN THE TOWNS OF
SHEFFIELD
PROJECT - LYNDON BARTON
ROUTE NO. I-91 LOG STA. BR 99-5
I-91 over S.A. 1
Stage 2 Construction
SURVEYED BY J. HENRY L. TOSMAR R. MARCOUX 7/29/66
DRAWN BY J. HENRY R. MARCOUX 7/29/66
PROJECT NO. I-91-3 (18) SHEET NO. 100 of 382 BR102
STAGE 1 STAGE 2 SHEET DATA

Revised typical to 2'-0" brush curb, changed curb reinforcing ~ VHD~JAR & NKW 6-19-70





TYPICAL SECTION

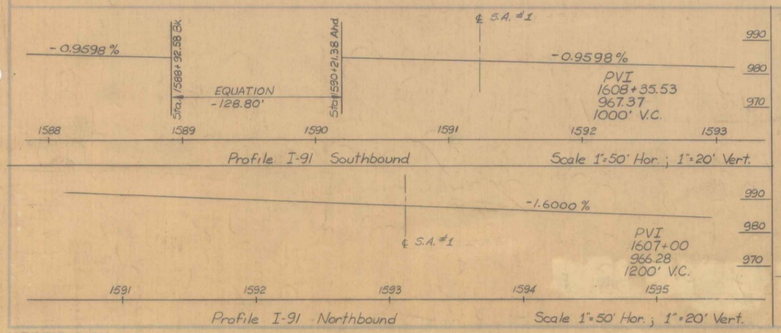
Northbound shown, Southbound similar

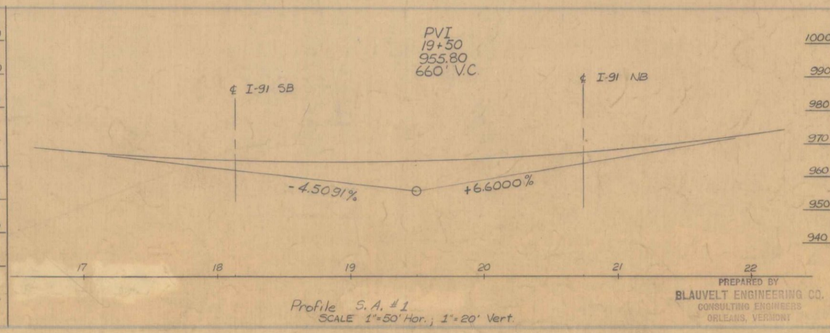
SCALE: ¼"=1'-0"

TABLE OF ESTIMATED PILE LENGTHS - 12BP53

Abut. #1 (SB)	25'
Abut. #2 (SB)	40'
Abut. #3 (NB)	30'
Pier #3 (NB)	20'
Pier #4 (NB)	30'
Abut. #4 (NB)	60'

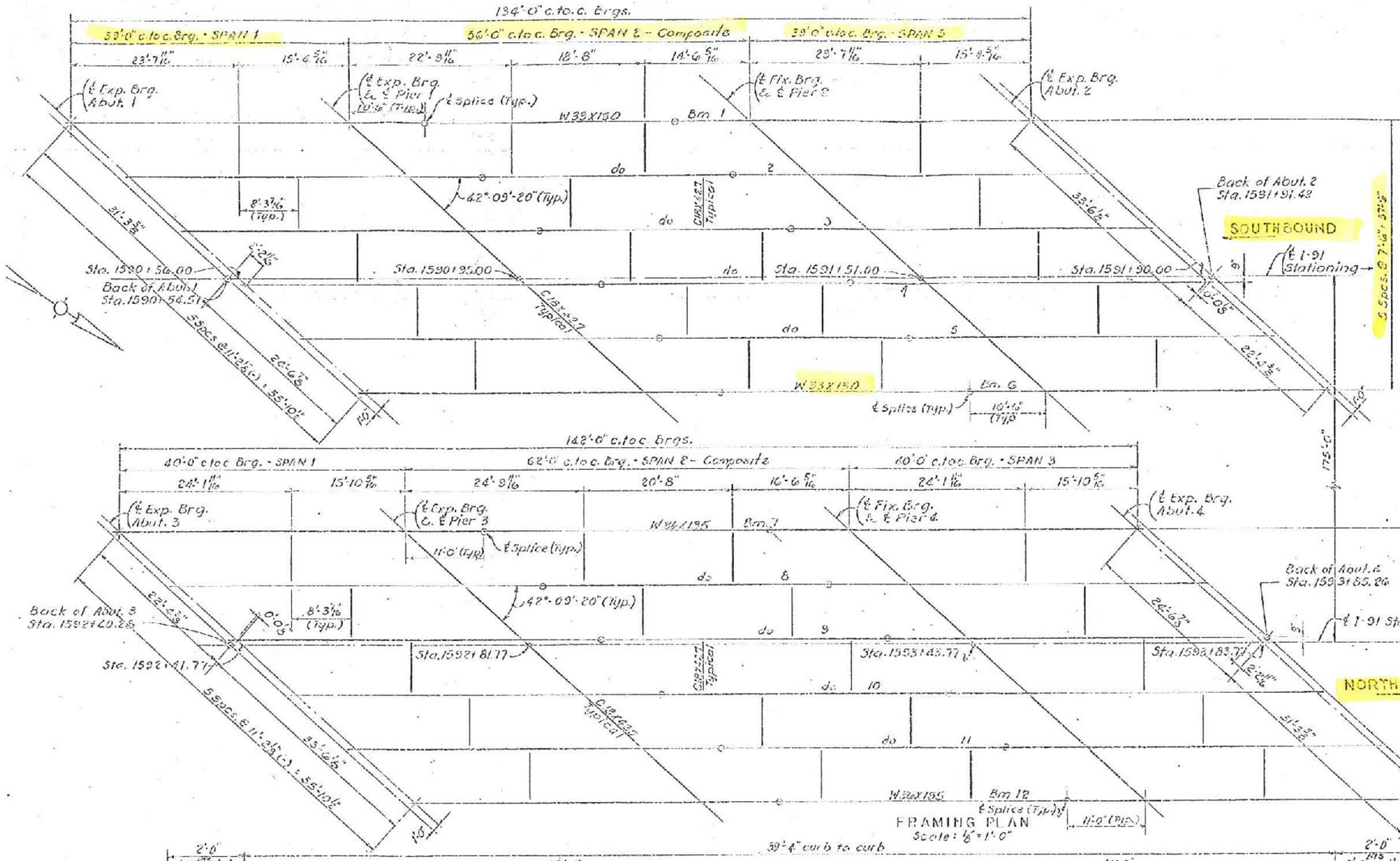
NOTE: For Plan see sheet BR100

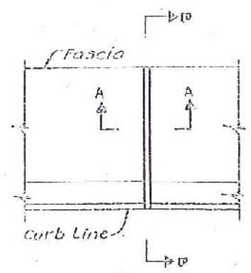


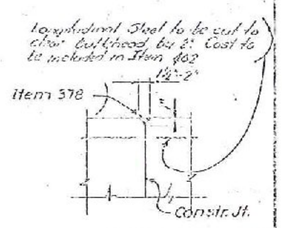


PREPARED BY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

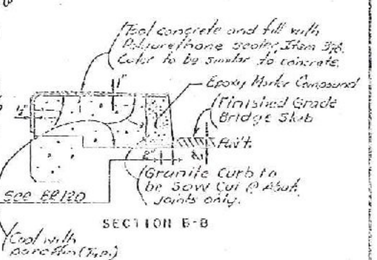
LYNDON-IRASBURG
IM MEMB(29)
SHEET 30 OF 55
BRIDGE NO. 99S & 100N
FOR REFERENCE ONLY





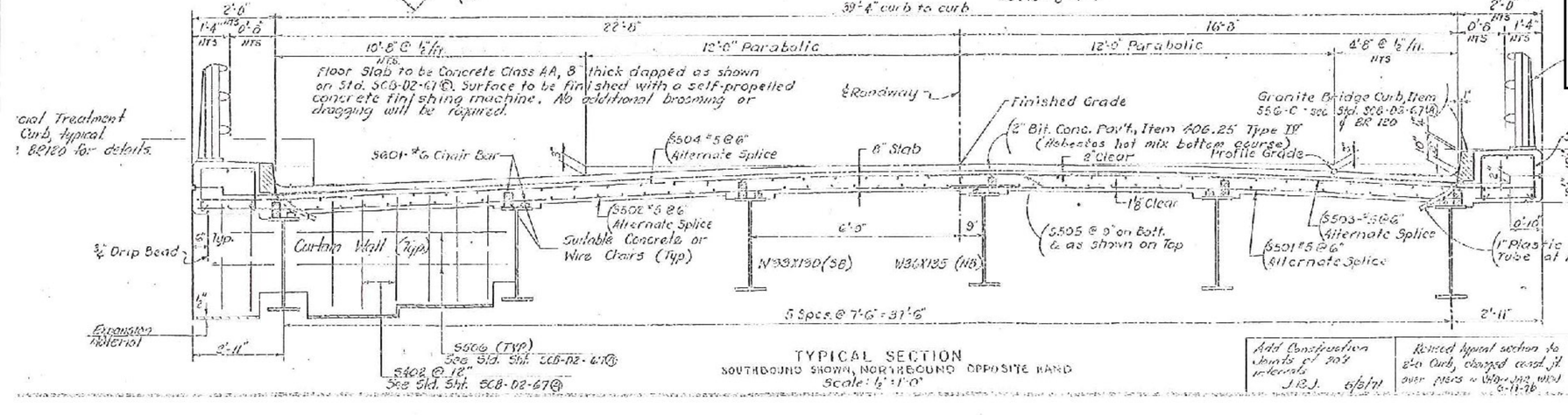


Construction joints to be at 20'-0" and shall occur at curb joints. Concrete safety walks to be placed in alternate sections with a minimum of 48 hours between pours. Paraffin and Polyurethane sealer to be paid for under the item of Concrete, Class AA, Item 601.AA.



CONSTRUCTION JOINT
(In Curb and Safety Walk at 20'-0" ±)
Not To Scale

NOTES:
1. For General Notes see Std SCB-01-67.
2. For Curtain Wall Details see Std. SCB-02-67 ⓒ.
3. All Diaphragms to be CBX 48.7 see Details Sh. BR 103.
4. For End of Beam Details see Std. St.B-08-67 ⓑ.
5. For Fixed Bearing Detail see Std. SCB-03-67 ⓑ, except ℄ B to be 8"x 1 1/2" x 1'-6".
6. For Expansion Bearing Detail at Abutments #1 & #3 see Std. SCB-08-67 ⓑ.
7. For Expansion Bearing Detail at Abutments #2 & #4 see Std SCB-08-67 ⓑ.
8. For Expansion Bearing Detail at Piers 1 & 3, see Std SCB-06-67 ⓑ except ℄ E to be 10" x 1 1/2" x 1'-3".
9. Anchor bolts for Fixed Bearings shall be 1 1/2" ϕ set 15" in concrete.
10. For Shear Connector Details (Span 2 only) see BR 108 and Std. Shl. SCB-02-67 ⓒ.



TYPICAL SECTION
SOUTHBOUND SHOWN, NORTHBOUND OPPOSITE HAND
Scale: 1/2"=1'-0"

Add Construction Joints at 20'-0" intervals J.R.J. 6/8/79

Revised typical section to 2'-6" Curb, changed cross fall over piers + where not noted J.R.J. 5-11-78

Finished for Stage 1 Construction

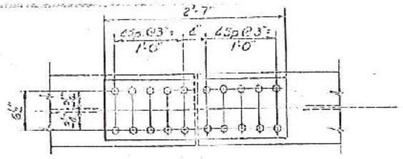
Stage 2 Construction

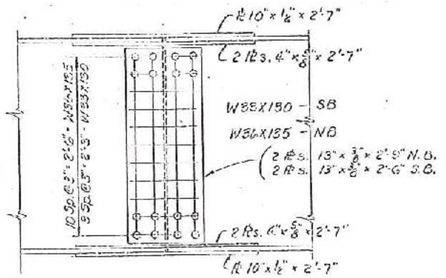
PREPARED BY BEAUVELET ENGINEERING CO. CONSULTING ENGINEERS ORLEANS, VERMONT

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT LYNDON BARTON
TOWN OF SHEFFIELD
ROUTE No I-91 LOG STA 1592
I-91 OVER S.A.d 1
FRAMING PLAN & TYPICAL SECTION
SCALE AS NOTED
IN CHARGE OF R.C. MARSOLIS
DRAWN BY EMS/EPL CHECKED BY J.V. TESSARO
PROJECT NO. I-91-3(6)2(16)
SHEET 105 OF 121 BR 107
885 889

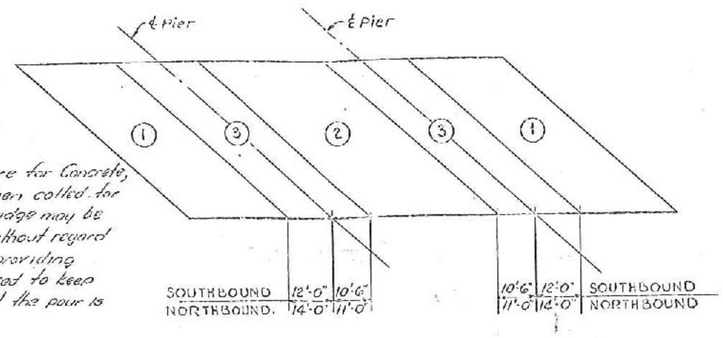
LYNDON-IRASBURG
IM MEMB(29)
SHEET 31 OF 55
BRIDGE NO. 99S & 100N
FOR REFERENCE ONLY

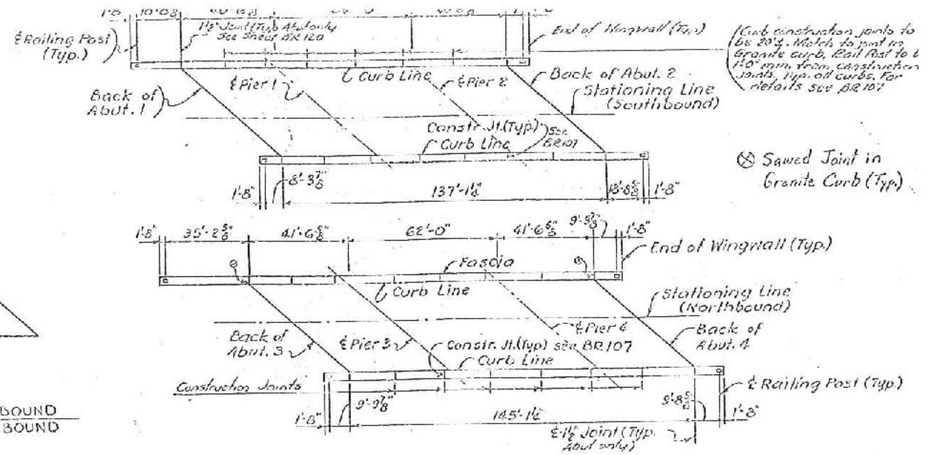




TYPICAL SPLICE DETAIL
Scale: 1"=1'-0"

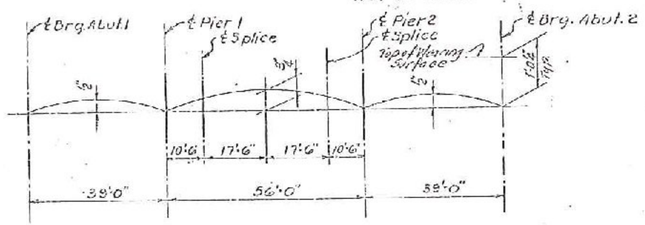
Retarding Admixture for Concrete, Item 903, may be used when called for by the Engineer. This bridge may be poured in its entirety, without regard for the pour schedule, providing sufficient admixture is used to keep all concrete plastic until the pour is complete.



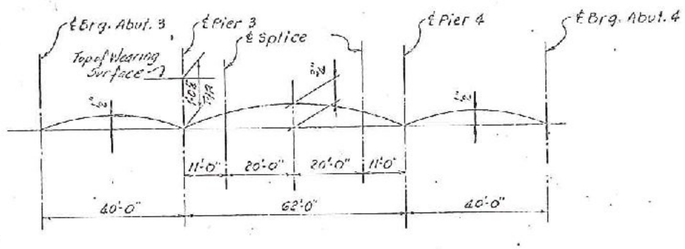


RAILING PLAN
Not to Scale

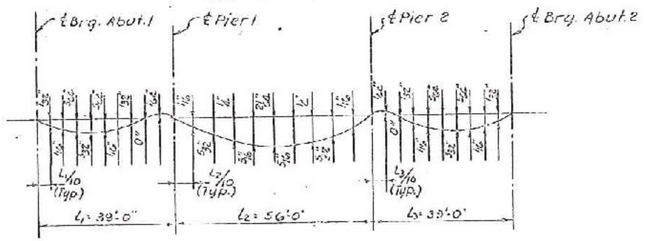
POURING SCHEDULE
Not to Scale



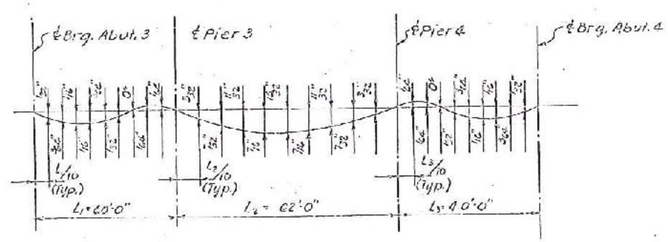
FINAL CAMBER AFTER D.L. DEFLECTION - S.B.
Not to Scale



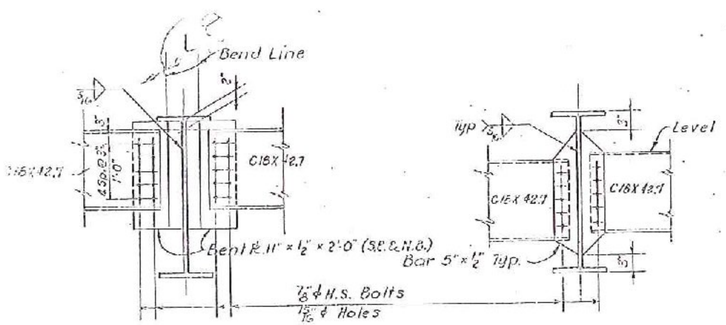
FINAL CAMBER AFTER D.L. DEFLECTION - N.B.
Not to Scale



DEAD LOAD DEFLECTION - SOUTHBOUND
Not to Scale

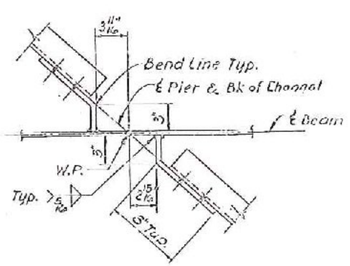


DEAD LOAD DEFLECTION - NORTHBOUND
Not to Scale

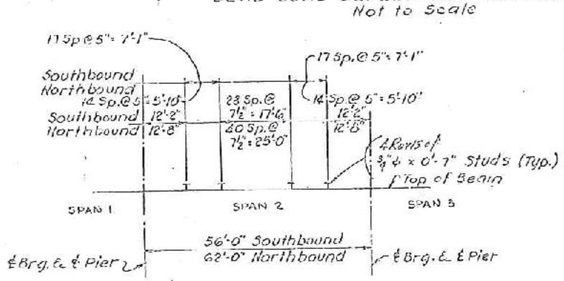


PIER DIAPHRAGM
Scale: ¾"=1'-0"

INTERMEDIATE DIAPHRAGM
Scale: ¾"=1'-0"



DETAILS AT PIER DIAPHRAGM CONNECTION
Scale: 1½"=1'-0"



SHEAR CONNECTORS
Spans 1 & 3 (S.B. & N.B.) are Non-Composite
Not To Scale

LIVE LOAD DEFLECTION		
RDWY.	SPAN	DEFLECTION
S.B.	1 & 3	0.38"
	2	0.45"
N.B.	1 & 3	0.38"
	2	0.52"

LYNDON-IRASBURG
IM MEMB(29)
SHEET 32 OF 55
BRIDGE NO. 99S & 100N
FOR REFERENCE ONLY

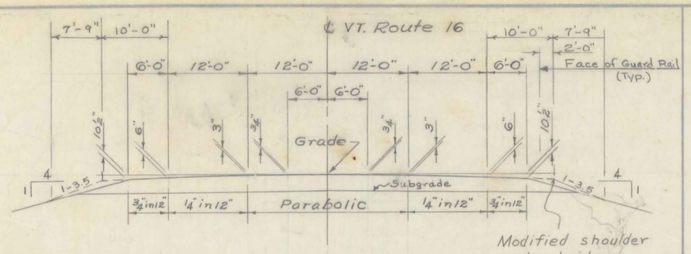
CONTRACT 3
STAGE 1 CONSTRUCTION

Note continuous pour of deck approach
J.P.M. 5/3/71

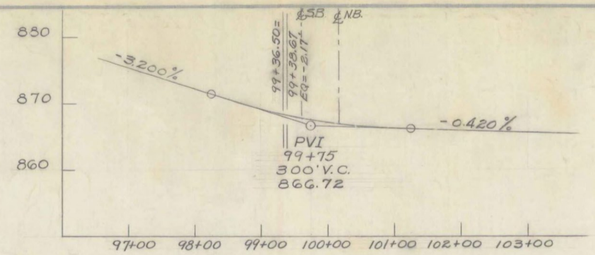
PREPARED BY
ELANDWELL ENGINEERING CO.
CONSULTING ENGINEERS
ORLEANS, VERMONT

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

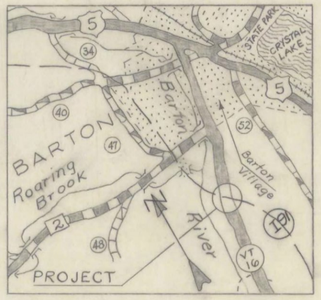
PROJECT LYNDON-BARTON
TOWN OF SHEFFIELD
ROUTE NO I-91 LOG STA. 159
I-91 OVER S.A. # 1
SUPERSTRUCTURE DETAILS
SCALE AS NOTED
IN CHARGE OF H. Margolis
DRAWN BY EMcElroy CHECKED BY [illegible]
PROJECT NO. I-91-3(10)
DWG. NO. 106 OF 379 SR 10



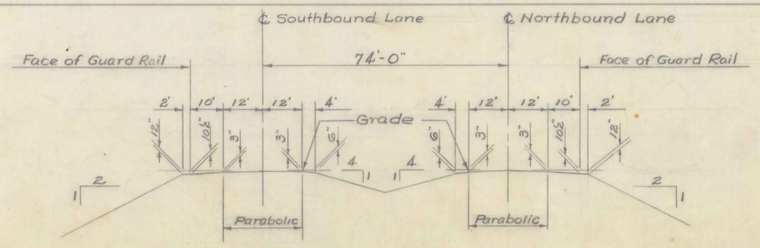
Normal Section Vt. Route 16
For Channelized Area
Scale: 1"=10'-0"



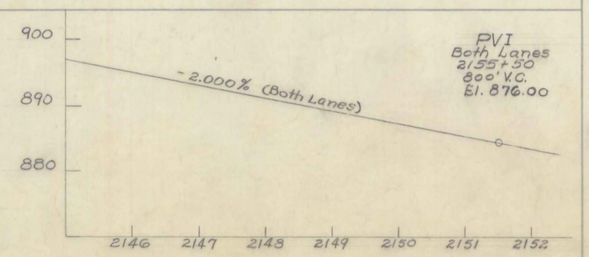
Profile of VT. Route 16
Scale: 1"=100' Horiz. - 1"=10' Vert.



LYNDON-IRASBURG
IM MEMB(29)
SHEET 33 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY



Typical Interstate Section
Scale: 1"=20'-0"



Interstate Profile
Scale: 1"=100' Horiz. - 1"=10' Vert.

HIGHWAY NO. I91 NAME OF HIGHWAY INTERSTATE
STRUCTURE NO. S4-B1 COUNTY ORLEANS TOWN BARTON
PROJECT NO. I91-3(11) (18) LOCATION BARTON
I 91 OVER VT. ROUTE #16

EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE NONE
3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE?
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT?
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE?
12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED?
13 ADDITIONAL WATERWAY AREA PROVIDED

NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE Three Span Continuous Composite WF Beam
2 RECOMMENDED Overall Bridge Lengths Southbound 180.29' Northbound 180.25'
Span Lengths Center to Center of Brgs. Southbound 51'-77-48" Northbound 51'-77-48'
Clear Span Lengths normal to Roadway N/A
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE SOURCE OF INFORMATION
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE?
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? IS ORDINARY RISE RAPID?
8 LOW WATER ELEVATION AT NEW STRUCTURE
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE CHARACTER OF TERRAIN
10 IS STREAM EVER DRY
11 VELOCITY OF STREAM AT HIGH WATER STAGE ESTIMATED DISCHARGE
12 AREA FULL OPENING AREA BELOW ORDINARY H.W.
13 CHARACTER OF SCOUR DRIFT ICE
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
15 VERTICAL CLEARANCE ABOVE STREAM ELEVATION
16 ARE SIDEWALKS REQUIRED? IF SO ON WHAT SIDE? NONE BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 2" Bituminous Concrete Pavement
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. ONE OR TWO WAYS PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 58 Tons SHOULD PILES BE USED? yes EST. LGTH. See Table per pile (Steel Piles 12BP53)

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

FOR BORING LOGS SEE SHEET BR-103 & 104

TABLE OF ESTIMATED PILE LENGTHS

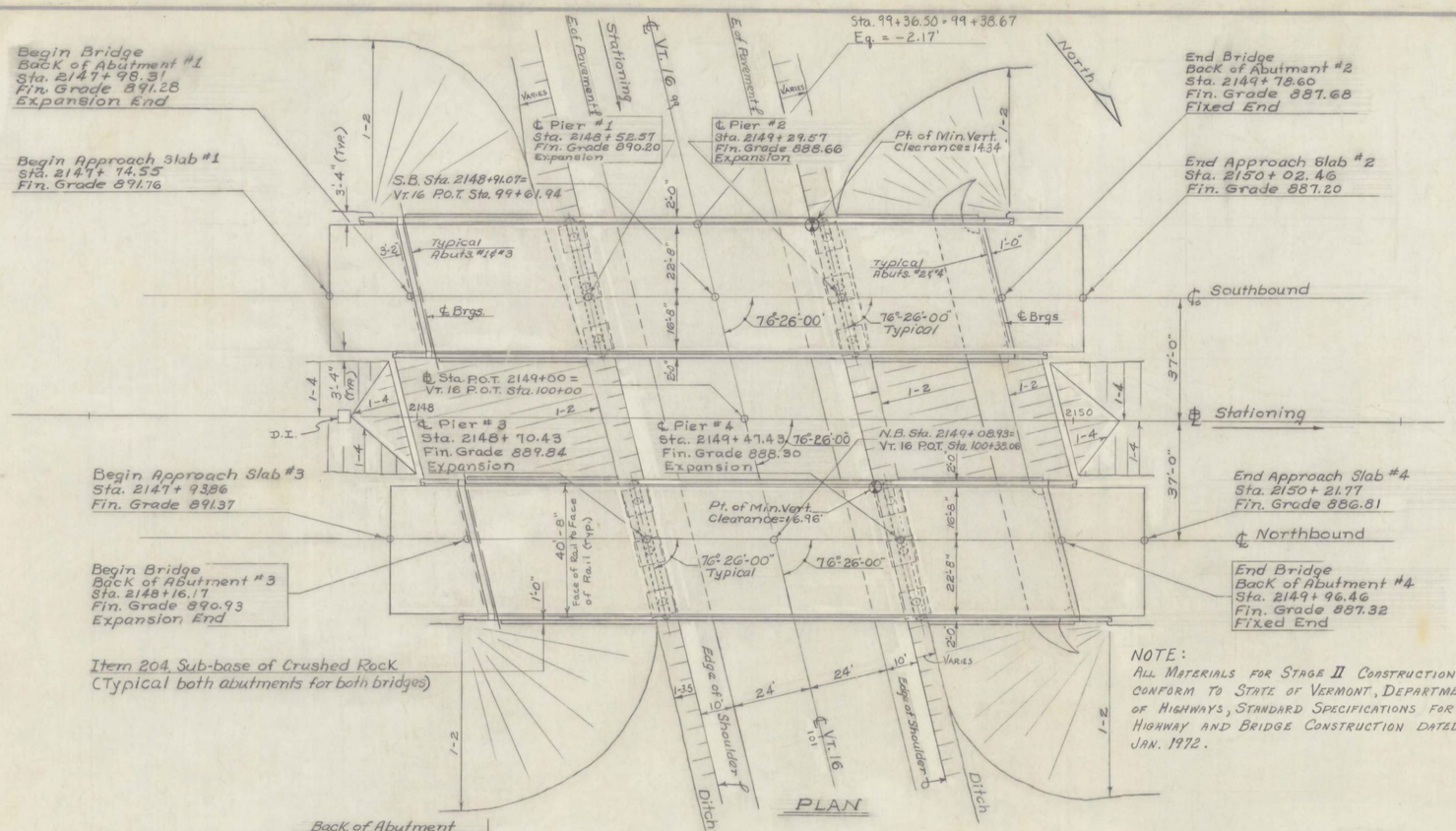
LOCATION	FOOTING ELEV.	PILE LENGTH
Abutment No. 1	878.00	45'
Abutment No. 2	871.00	50'
Abutment No. 3	879.00	60'
Abutment No. 4	876.00	60'
Pier No. 1	858.50	30'
Pier No. 2	861.00	35'
Pier No. 3	858.00	35'
Pier No. 4	858.00	35'

[redacted]

PROJECT: BARTON Stage 2 Construction

RECOMMENDED FOR APPROVAL	CONSTRUCTION ENGINEER	11/18/66	DATE
RECOMMENDED FOR APPROVAL	BRIDGE ENGINEER	11/14/66	DATE
RECOMMENDED FOR APPROVAL	ASST. CHIEF ENGINEER	11/21/66	DATE
APPROVED BY:	CHIEF ENGINEER	11/21/66	DATE

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE IN THE TOWN OF BARTON BR 102
ROUTE NO. I91 ℄ STA. 2148+97
I91 OVER VT. ROUTE 16
PRELIMINARY INFORMATION
SURVEYED BY SPAULDING CHECKED BY A.CUMMINGS SCALE AS NOTED
DRAWN BY J.CONKLIN IN CHARGE F.W. BALKUM DATE
PROJECT NO. I91-3(11)(18) SHEET 112 OF [redacted] SHEETS
385 389
BR-100



NOTE:
ALL MATERIALS FOR STAGE II CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JAN. 1972.

LIST OF BRIDGE SHEETS

**	BR 100	Preliminary Information
**	BR 101	Plan and Elevation
**	BR 102	Bridge Quantity Sheet
	BR 103	Boring Logs, Sh. #1
	BR 104	Boring Logs, Sh. #2
	BR 105	Framing Plan
**	BR 106	Superstructure Details
	BR 107	Fixed End Details
	BR 108	Expansion Dam Details
	BR 109	Curb and Rail Plan
	BR 110	Abutment Number 1 Details
	BR 111	Abutment Number 2 Details
	BR 112	Abutment Number 3 Details
	BR 113	Abutment Number 4 Details
	BR 114	Pier Details
	BR 115	Pier Reinforcing and Expansion Bearing Devices
**	BR 116	Approach Slab Details
	BR 117	Reinforcing Schedule, Sh. #1
	BR 118	Reinforcing Schedule, Sh. #2

BRIDGE STANDARDS

	SCB-D1-67	(Rev. 4/28/70)
	SCB-D8-67, Detail A	(Appr 1/24/68)
	SCB-D9-67 Detail A	(Rev. 4/28/70)
	SB-R1-64, Sht. 1 of 2	(Rev. 4/28/70)
	SB-R1-64, Sht. 2 of 2	(Rev. 4/28/70)
**	G8 (Project I91-3(19))	(Rev. 4/29/70)
	D4	(Rev. 12/4/68)
**	G9 (Project I91-3(19))	(Rev. 8/21/68)
**	SCB-D9-71	(Appr. 12-14-71)

NOTES

① For Specifications, Allowable Design Stresses and General Notes not otherwise shown or modified on these plans, see Standard Dwg. SCB-D1-67. General notes on this standard that apply to these two structures are #1, 3, 4 6, 7, 8, 14, 15, 16, 17, 18, 19, & 20.

② Item 440, Water Repellent, shall consist of furnishing and applying water repellent on the exterior concrete surfaces on top of the curbs, on the fasciae and back to the fascia beam under the slab, on the sides, ends, tops and bottoms of the pier caps, and on the pier columns above grade. Also on the ends of the curtain walls and all exposed areas of the wingwalls.

③ Minimum cover for reinforcing steel shall be 3 inches in the footings and pier columns and 2 inches elsewhere, except as noted on the superstructure details.

④ Structural steel in the superstructure is a 3-span continuous composite rolled beam designed for a 39'-4" roadway and HS20-44 Live Loading.

REFERENCE SHEETS

Interstate Plan (1"=50')	@ sta.	2138+00 - 2154+00
Interstate Profile	@ sta.	2138+00 - 2154+00
Interstate Sections	@ sta.	2147+00 - 2152+50
Vt. Rte. 16 Profile	@ sta.	85+00 - 117+00
Vt. Rte. 16 Sections	@ sta.	99+00 - 102+00

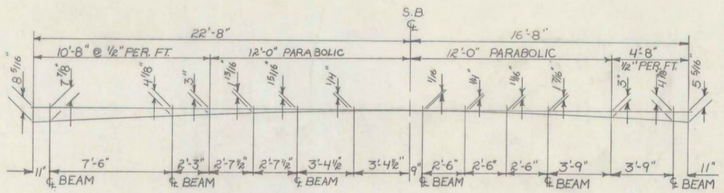
** Indicates Stage II Work.
** Sheets for Stage II construction.

Stage 2 Construction
[redacted]

LYNDON-IRASBURG
IM MEMB(29)
SHEET 34 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY

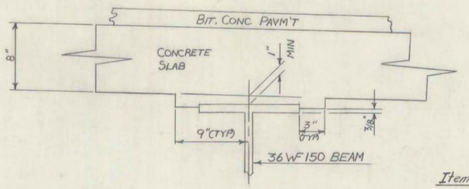
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT: BARTON
TOWN OF BARTON BR102
ROUTE NO. I91 ℄ STA. 2148+97
INTERSTATE over VT. 16
GENERAL PLAN & ELEVATION
SCALE 1" = 20'-0"
SECTION SUPERVISOR: F.W. Bolkum - 4/70
DRAWN BY J. Connelly CHECKED BY A. Cunningham & Ouellette 4/70
PROJECT NO. I91-3[redacted](19)
S9-81 SHEET 113 OF [redacted] BR-101



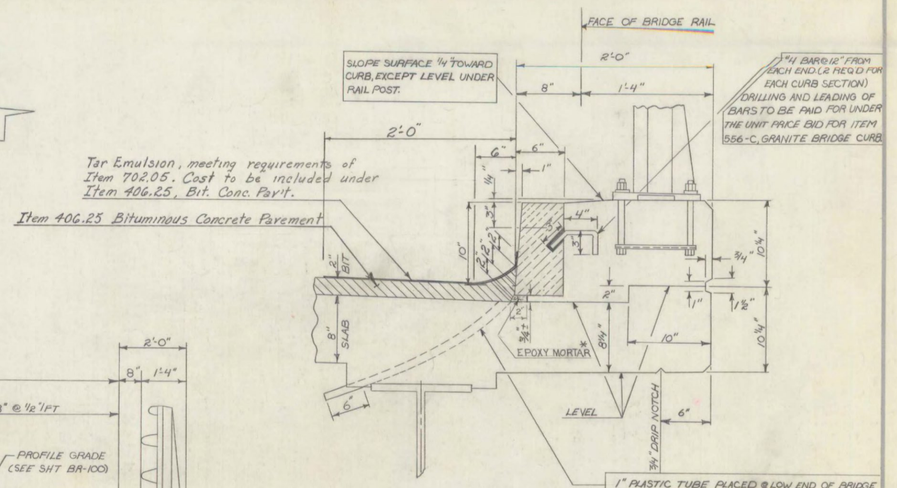
DETAIL OF PARTIAL PARABOLIC CROWN OF SLAB

SCALE: 1/4"=1'-0"



BEAM HAUNCH DETAIL

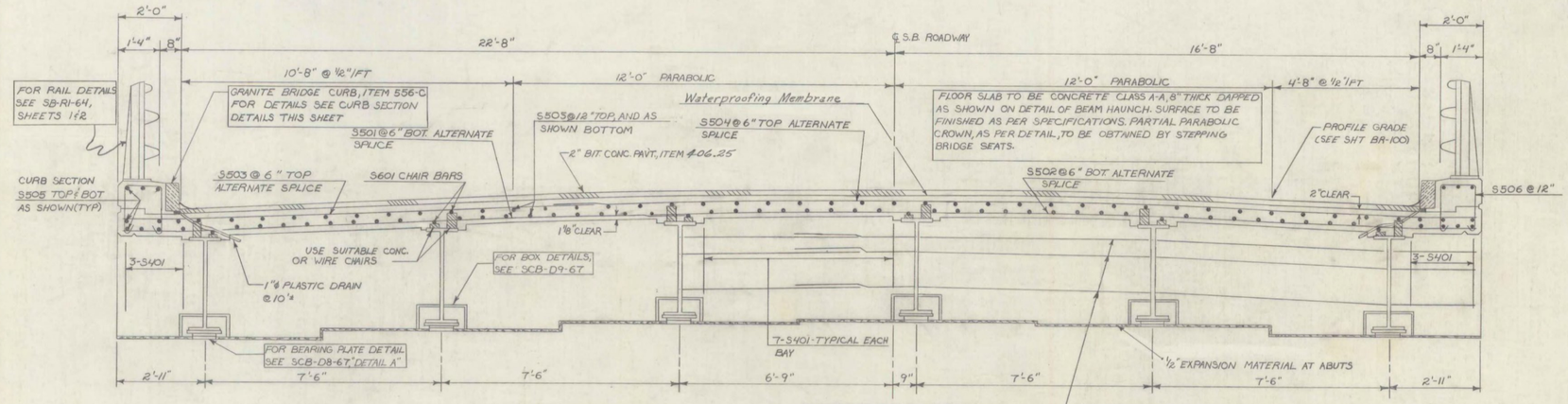
SCALE: 1½"=1'-0"



CURB SECTION DETAILS

SCALE: 1½"=1'-0"

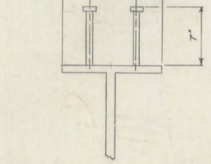
* REFER TO SPECIAL PROVISIONS UNDER ITEM 556-C.02 "MATERIALS SUBARTICLE B - MORTAR".



TYPICAL SECTION

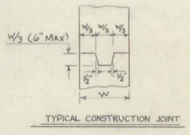
SCALE: ½"=1'-0"

NORTHBOUND TYPICAL BRIDGE SECTION IS SIMILAR TO THE SOUTHBOUND.

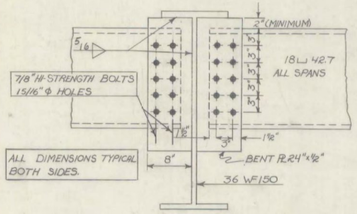


SHEAR CONNECTOR DETAILS

SCALE: 1½"=1'-0"

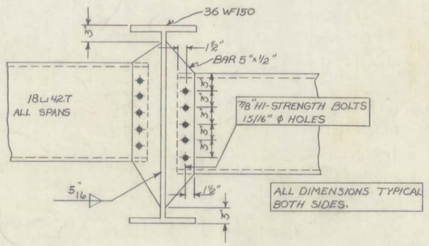


TYPICAL CONSTRUCTION JOINT



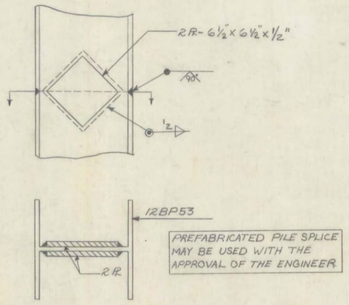
PIER DIAPHRAGMS

SCALE: 1"=10'



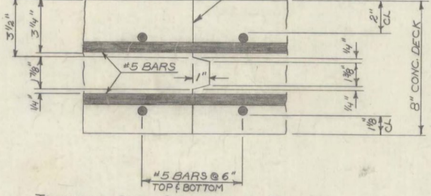
INTERMEDIATE DIAPHRAGMS

SCALE: 1"=1'-0



DETAIL OF PILE SPLICE

SCALE: 1½"=1'-0



TRANSVERSE DECK CONSTRUCTION JOINT

SCALE: 3"=1'-0"

(SEE BR 105 FOR CONCRETE SLAB POUR SEQUENCE)

LYNDON-IRASBURG
IM MEMB(29)
SHEET 35 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY

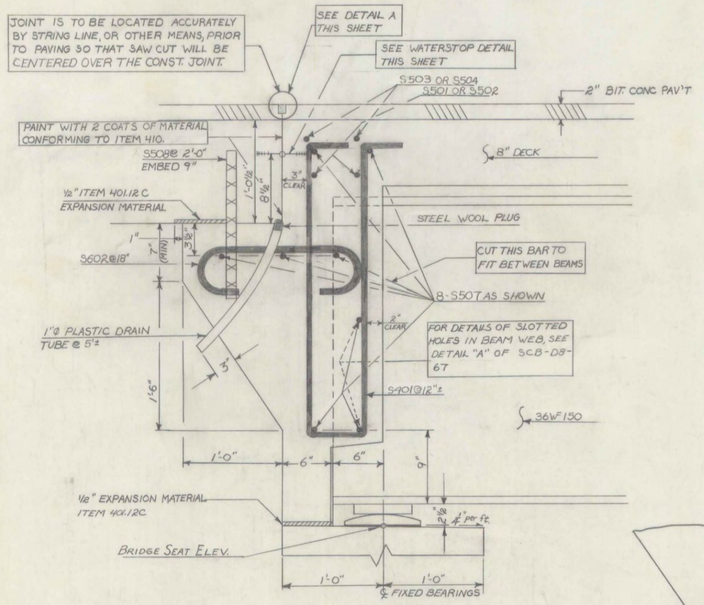
Stage 1 Construction

Stage 2 Construction

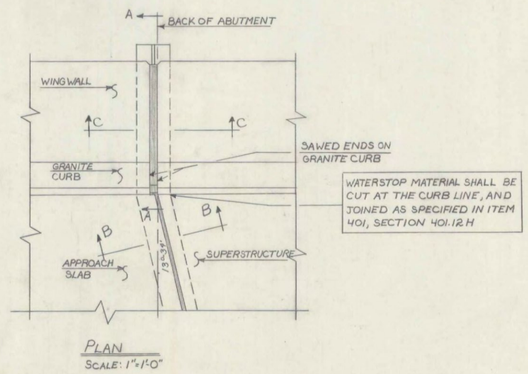
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT : BARTON
TOWN OF BARTON BR107
ROUTE No. I 91 ℄ STATION 2148+97
INTERSTATE 91 OVER VT "16
SUPERSTRUCTURE DETAILS
SCALE AS SHOWN
SECTION SUPERVISOR: F.W. Balkum - 9/70
DRAWN BY HOSKING CHECKED BY OUELLETTE 3/70
PROJECT NO. I 91-3(70)(18)
SHEET 118 OF 670 BR106

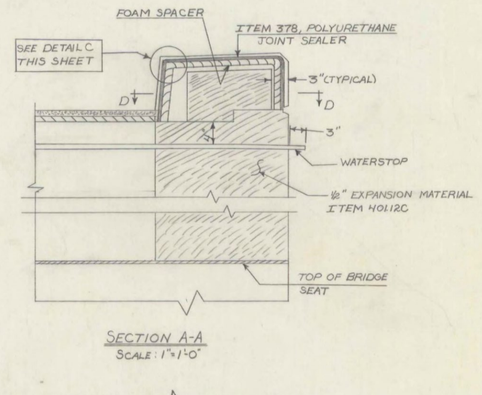
388 389



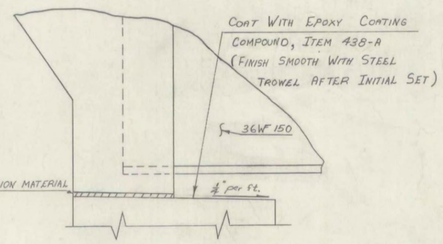
CURTAIN WALL DETAILS (SECTION B-B)
SCALE: 1½"=1'-0"



PLAN
SCALE: 1"=1'-0"



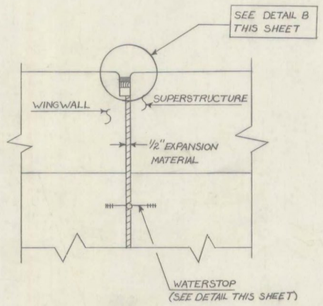
SECTION A-A
SCALE: 1"=1'-0"



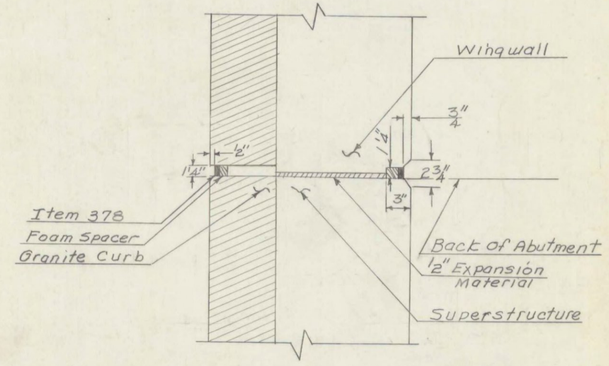
-DETAIL OF BRIDGE SEAT TREATMENT-
FIXED ABUTMENTS

(REFER TO NOTE 14 ON STD. SH. SCB-D1-67 FOR SPECIFICATIONS REGARDING SLOPING OF BRIDGE SEATS)

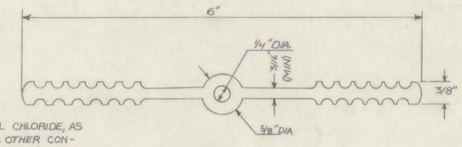
SCALE: 1½"=1'-0



SECTION C-C
SCALE: 1½"=1'-0"



SECTION D-D
SCALE: 1½"=1'-0"



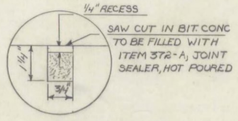
WATERSTOP DETAIL
SCALE: 1"=1"

NOTES

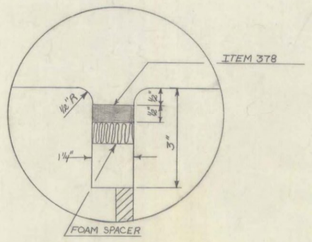
1) MATERIAL TO BE POLYVINYL CHLORIDE, AS SPECIFIED IN ITEM 401.12.H. OTHER CONFIGURATIONS, WITH MINOR DIMENSION VARIATIONS, MAY BE USED WITH THE APPROVAL OF THE BRIDGE ENGINEER.

2) COST OF THE WATERSTOP AND PAINT WATERPROOFING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 601, CONCRETE CLASS A-A, 4000. THE PAINT WATERPROOFING SHALL CONFORM TO THE SPECIFICATIONS FOR ITEM 410.

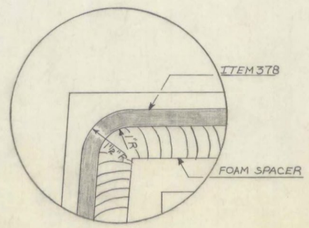
3) THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT TO MAINTAIN ALIGNMENT OF WATERSTOP DURING CONSTRUCTION.



DETAIL A
SCALE: NTS



DETAIL B
SCALE: 1"=2"



DETAIL C
SCALE: 1"=2"

LYNDON-IRASBURG
IM MEMB(29)
SHEET 36 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY

Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT: BARTON
TOWN OF BARTON
BR 102

ROUTE No. I91 @ STATION 2148+97

INTERSTATE 91 OVER VT 16

FIXED END DETAILS

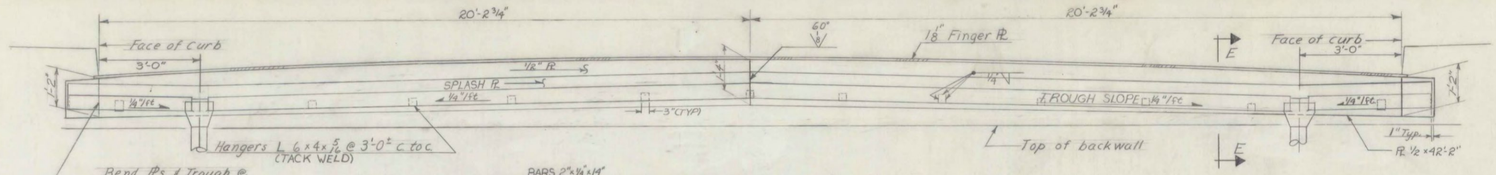
SCALE AS SHOWN

SECTION SUPERVISOR: F. W. Balkum - 4/70

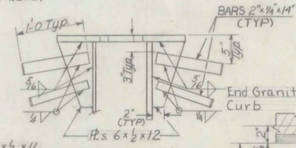
DRAWN BY HOSKING CHECKED BY OUELLETTE 4/70

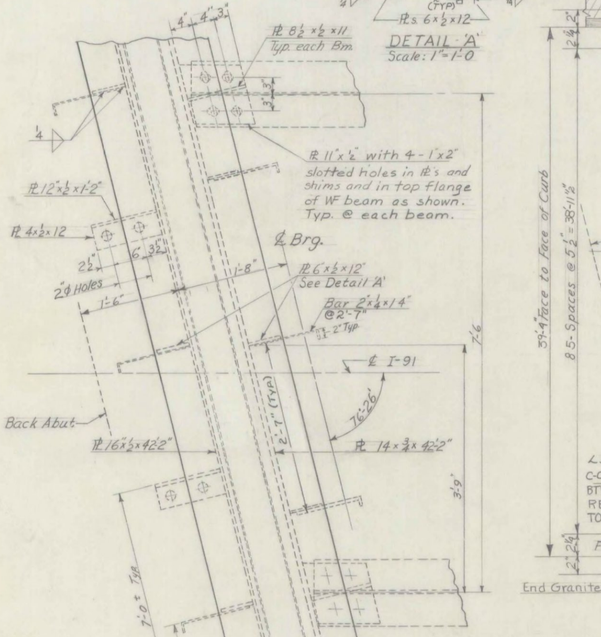
PROJECT NO. I91-3(11)

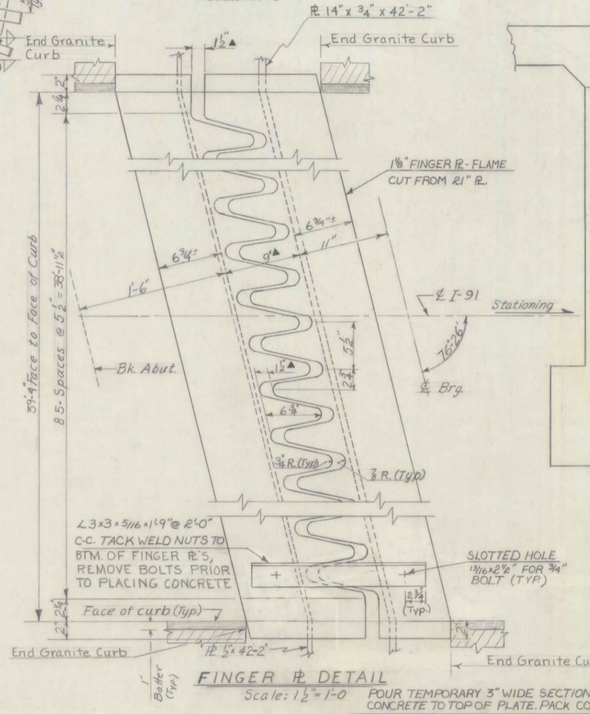
SHEET 119 OF 670 BR107

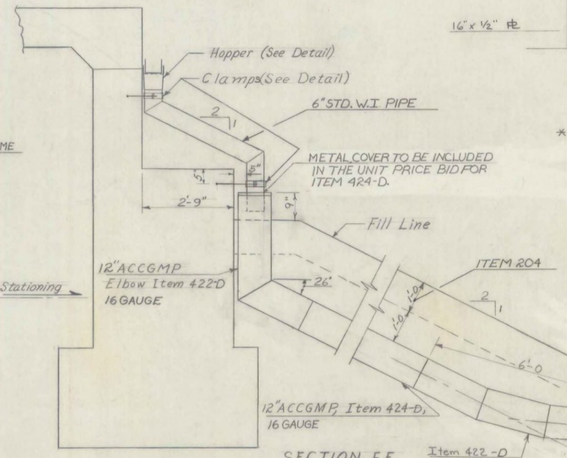


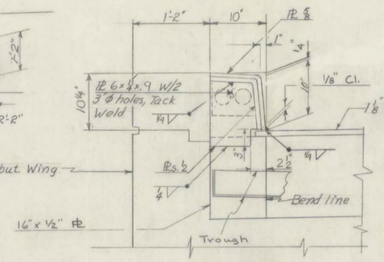
ELEVATION OF DRAIN TROUGH
Scale: NTS

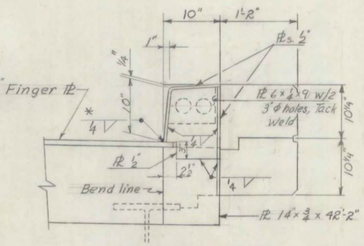




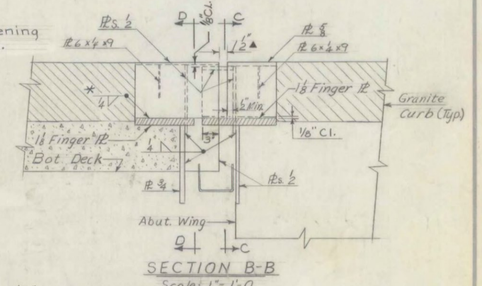


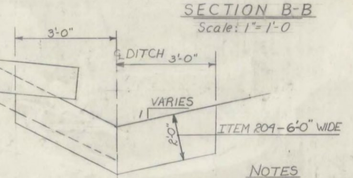


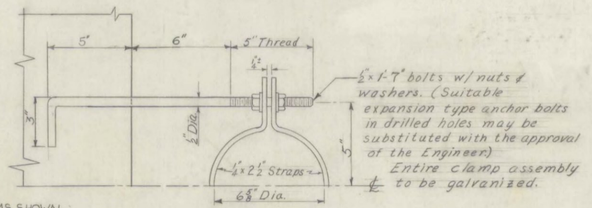


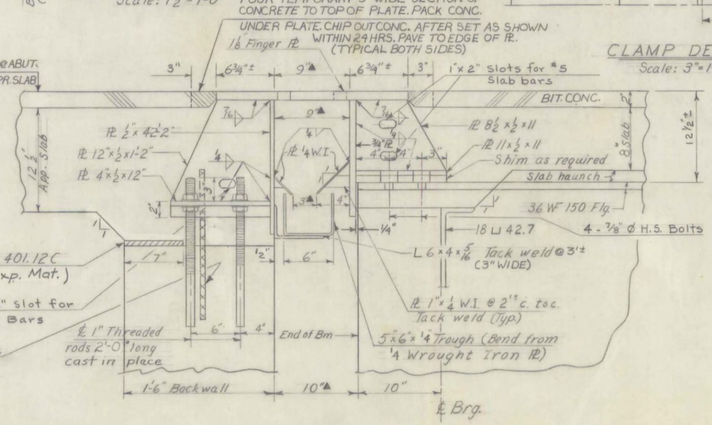


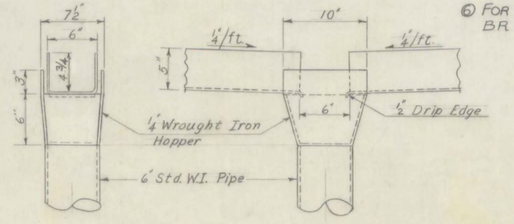
* Do not weld across opening of expansion device.

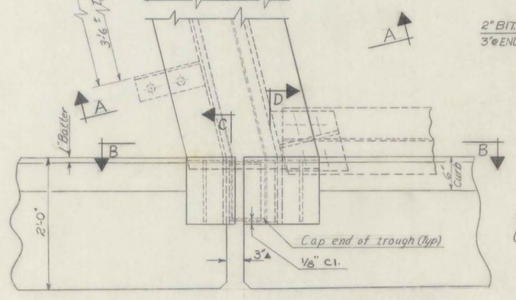












NOTES

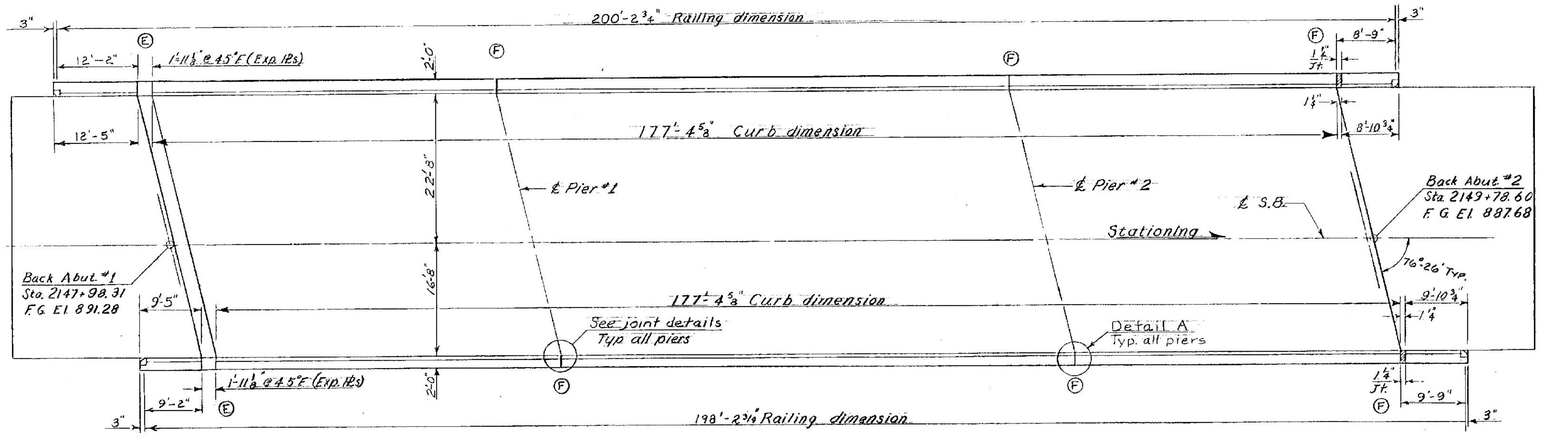
1. For General Notes, See Sheet BR101, Plan & Elevation. & Std. Dwg. SCB-D1-67
2. Clear Dimensions Indicated ▲ Are For 45° F.
3. All Steel Completely Embedded In Concrete May Be Astm A-36, Except As Otherwise Noted. All Other Steel Shall Be Astm A-242 With A Composition Suitable For Use As A Corrosion-Resistant Metal.
4. For Details Of The Standard 12" ACCGMP Elbows, 16 Gauge, See Std Dwg-D-4
5. Excavation For The 12" ACCGMP Drainage System Is To Be Included In The Unit Price Bid For Item 106-A, Trench Excavation Of Earth.
6. For Curb Details Not Shown See Sheets BR 106, BR 107 And BR 109.

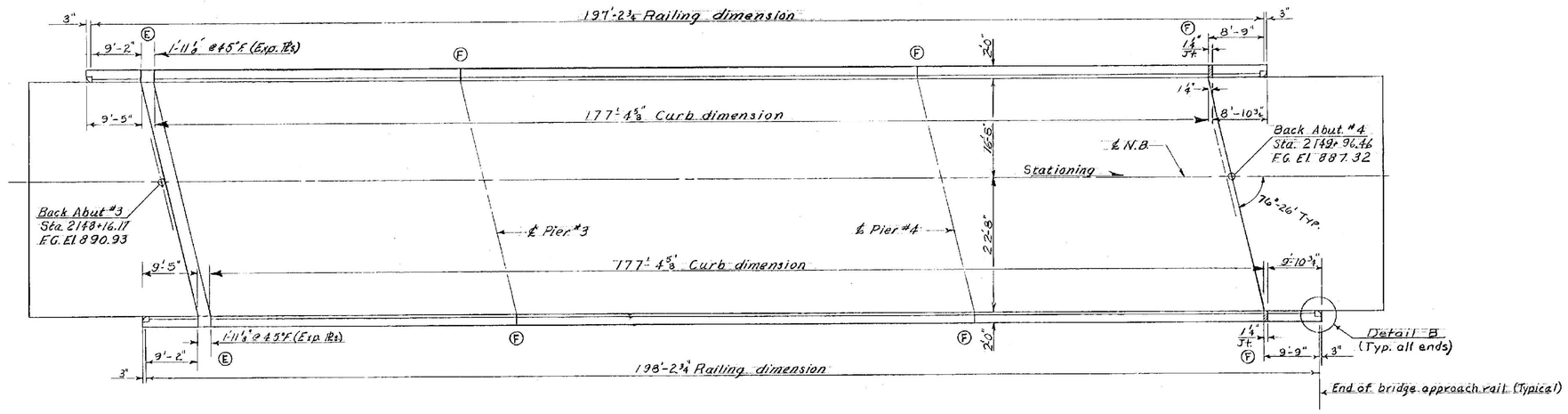
Stage 1 Construction

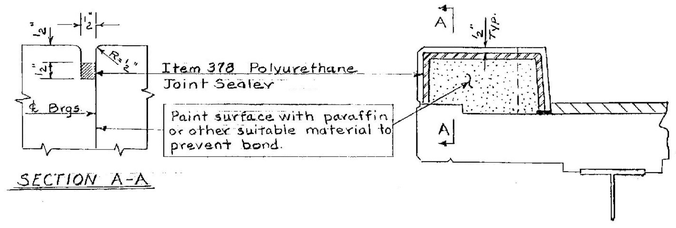
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT: BARTON
TOWN OF BARTON BR 102
ROUTE NO. I-91 ℄ STA. 2148+97
INTERSTATE 91 OVER VT #16
EXPANSION DAM DETAILS
SCALE As Noted
SECTION SUPERVISOR: F.W. Bolkom - 4/70
DRAWN BY Hollencourt & Hosking CHECKED BY Ouellette 3/70
PROJECT NO. I-91-3 (11)
SHEET 120 OF 670 BR 108

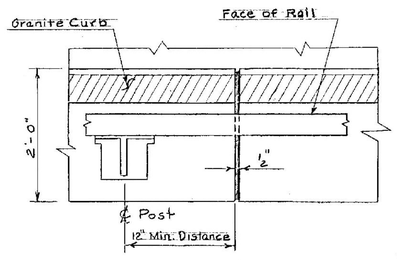
LYNDON-IRASBURG
IM MEMB(29)
SHEET 37 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY



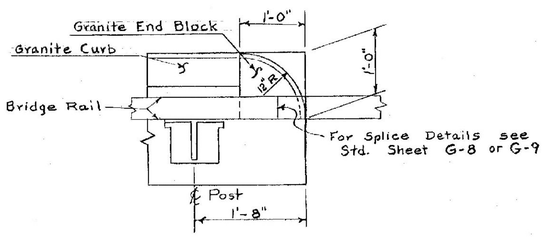




TYPICAL PIER JOINT DETAILS
N.T.S.



DETAIL A
N.T.S.



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

NOTES

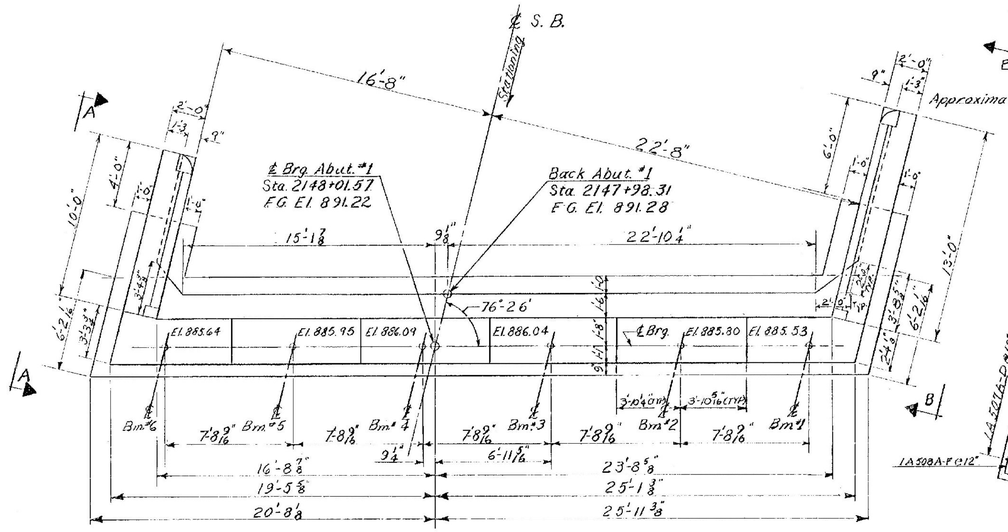
1. See Sheet BR-101 and SCB-01-67, where applicable, for general notes.
2. For fixed end joint details at Abutment #2 & #4 see Sheet BR-107.
3. For additional details of Granite Bridge Curb see Sheet BR-106, BR-107 and BR-108.
4. For additional details of Bridge Railing see Standard Sheet SB-RI-64 sheets 1 & 2.
5. (E) Provide for 3" expansion in Bridge Railing across this joint.
6. (F) Provide for 3/4" expansion in Bridge Railing across this joint.
7. Layout and detail drawings for Granite Bridge Curb, Item 556-C, shall be submitted in triplicate to the State of Vermont for approval prior to fabrication and shipment. Granite Curb ends shall be sawed square on each side of all joints where Item 378, Polyurethane Joint Sealer, is used or where the curb butts against the metal expansion plates. Granite Curb shall be furnished in random lengths ranging from 4' minimum to 10' maximum.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 38 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY

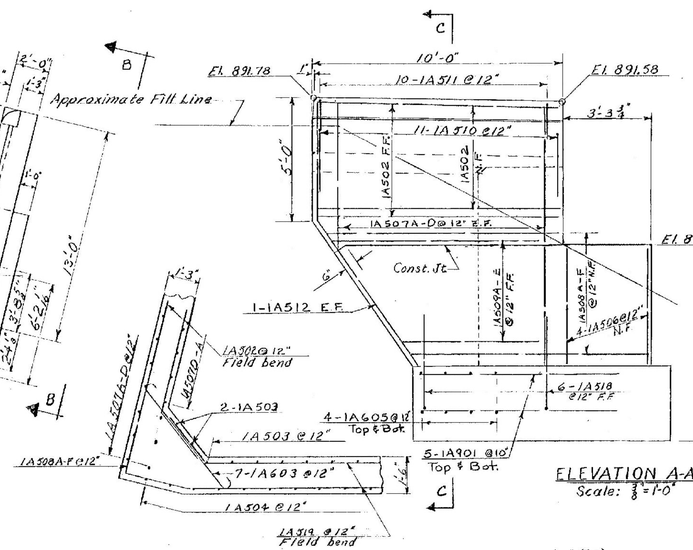
Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

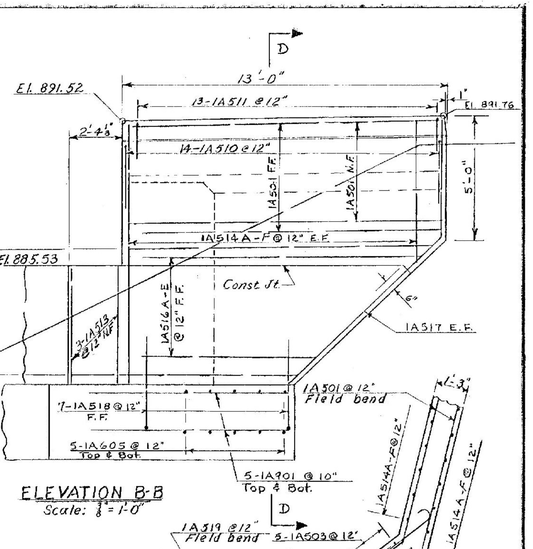
PROJECT: BARTON
TOWN OF BARTON BR102
ROUTE NO. I-91 @ STA. 2148+97
INTERSTATE 91 OVER VT #16
CURB & RAIL PLAN
SCALE 1"=10'
SECTION SUPERVISOR: E.W. Balkum - 4/70
DRAWN BY Wallace & Quillette CHECKED BY HOSKING 3/70
PROJECT NO. I-91-3(11)
SHEET 121 OF 670 BR 109



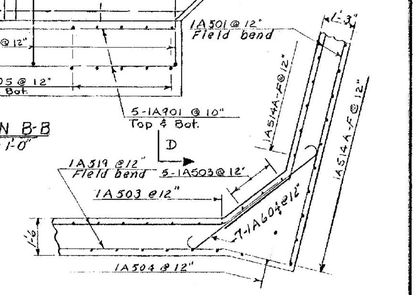
PLAN
Scale: 1/4" = 1'-0



ELEVATION A-A
Scale: 3/8" = 1'-0"

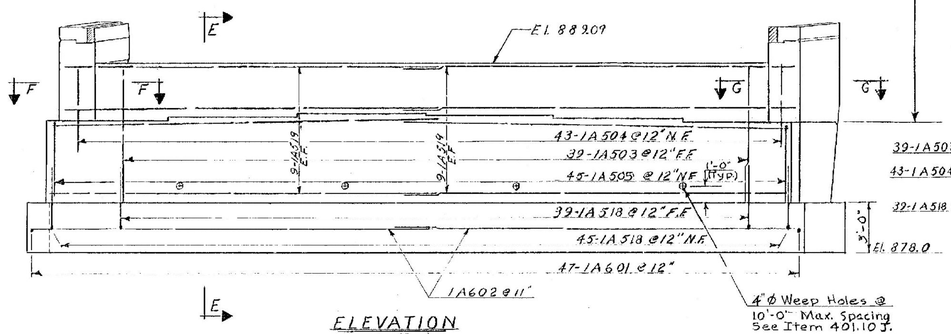


ELEVATION B-B
Scale: 3/8" = 1'-0"

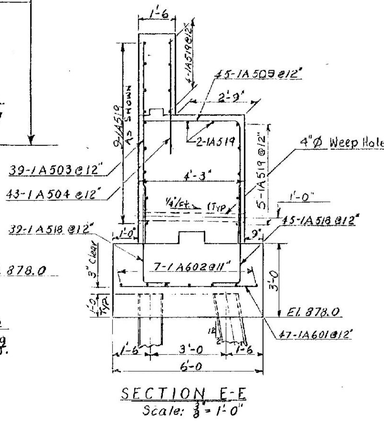


SECTION G-G
Scale: 3/8" = 1'-0"

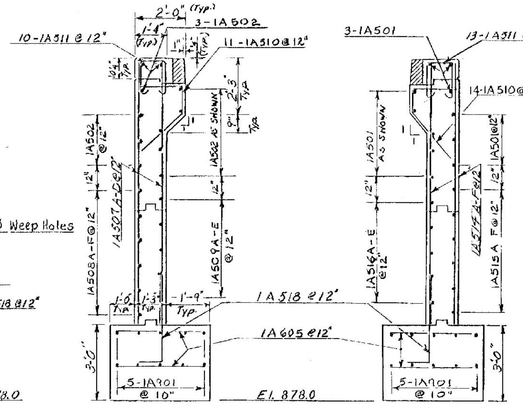
Do not construct above this joint until structural steel is in place and final grade is determined. (Typ. both wings)



ELEVATION
Scale: 1/4" = 1'-0

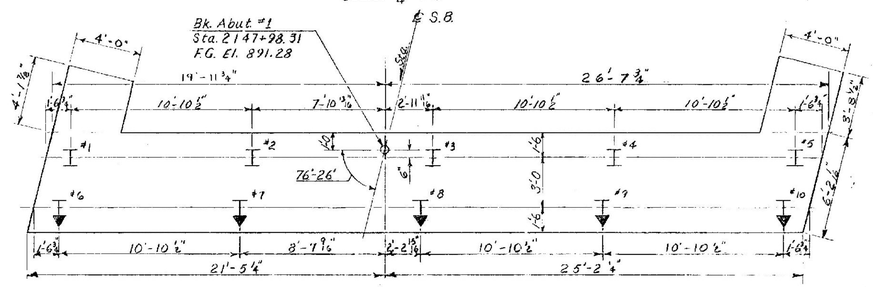


SECTION E-E
Scale: 3/8" = 1'-0"



SECTION C-G
Scale: 3/8" = 1'-0"

SECTION D-D
Scale: 3/8" = 1'-0"



FOOTING PLAN
Scale: 1/4" = 1'-0

Estimated length of 12BP53 H-Pile is 45'
▼ Denotes 2 in 12 Pile batter direction.

Location	Number of Piles	Size	Est. Length of Piles	Splices allowed for piles not exceeding plan length. (To be paid for only if used)	Splices estimated for piles exceeding plan length. (To be paid for only if used)
Abut. #1	10	12BP53	45'	0	2
Abut. #2	10	12BP53	50	0	2
Abut. #3	10	12BP53	60	0	2
Abut. #4	10	12BP53	60	0	2
Pier #1	4	12BP53	30	0	1
Pier #2	4	12BP53	35	0	1
Pier #3	4	12BP53	35	0	1
Pier #4	4	12BP53	35	0	1

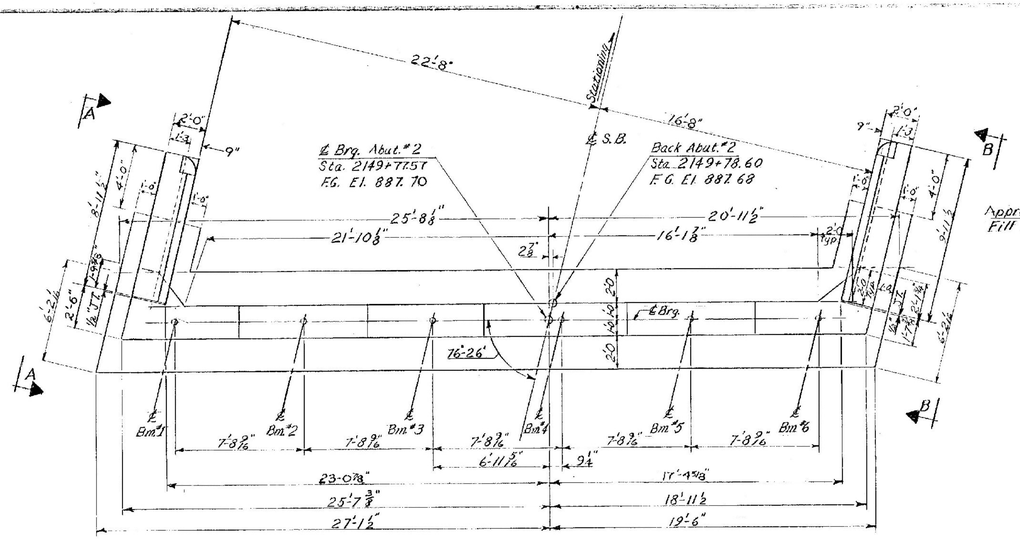
NOTES

1. For general notes see Sheet BR 101, Plan and Elevation.
2. For details of surface treatment on Expans. Abut. bridge seats and backwalls see sheet BR 112.
3. For details of Expansion Dam at Abutment #1 and #3 see Sheet BR 108, Expansion Dam Details.
4. All concrete in the abutments shall be Concrete Class B, Mod.
5. For curb details and horizontal score mark details see Sheet BR 106, Superstructure Details.
6. N.F. denotes Near Face.
   F.F. denotes Far Face.
   E.F. denotes Each Face
   N.T.S. denotes Not to Scale
7. The maximum steel pile (12BP53) design load under the abutment footings is computed to be 58 tons per pile.
8. Details of the cast-in-place, 1" Ø threaded rods in the expansion joint assembly and the AS508 dowels cast-in-place in the backwall are shown on Sheet BR-108, Expansion Dam Details.

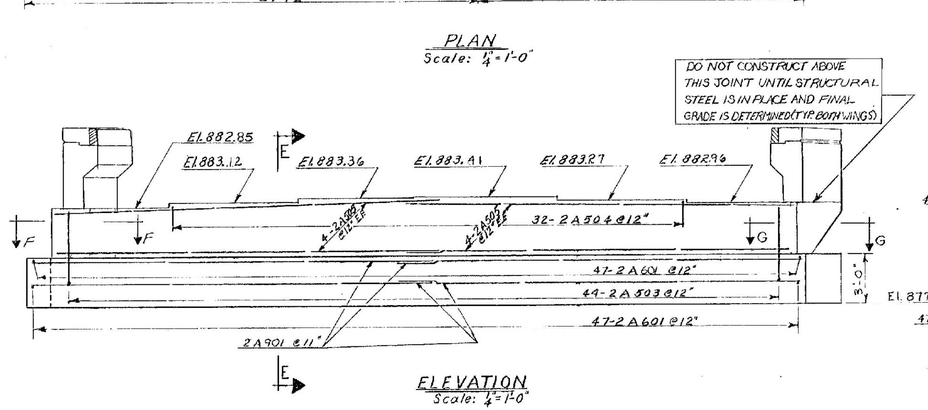
LYNDON-IRASBURG
IM MEMB(29)
SHEET 39 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

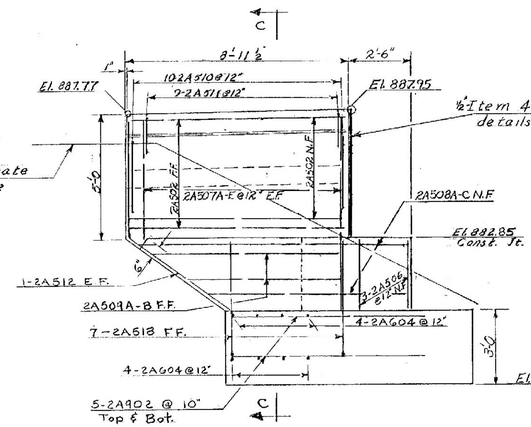
PROJECT: BARTON BR 102
TOWN OF BARTON
ROUTE NO. I-91 ℄ STA. 2148+97
INTERSTATE 91 OVER VT. # 16
ABUTMENT No. 1 DETAILS (EXP)
SCALE As Noted
SECTION SUPERVISOR: F.W. Balkum - 4/70
DRAWN BY Wilkerson CHECKED BY Hoskins 3/70
& Ouellette
PROJECT NO. I-91-3(11)
SHEET 122 OF 670 BR 110



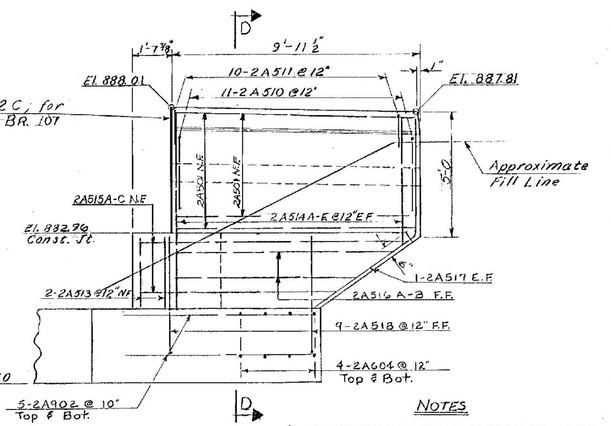
PLAN
Scale: 1/4"=1'-0"



ELEVATION
Scale: 1/4"=1'-0"



ELEVATION A-A
Scale: 3/8"=1'-0"



ELEVATION B-B
Scale: 3/8"=1'-0"

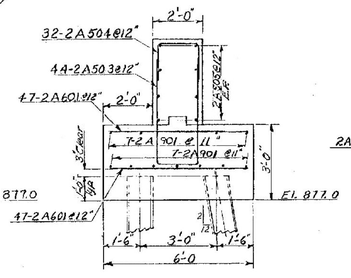
NOTES

1) FOR GENERAL NOTES SEE SHEET BR101, PLAN & ELEVATION AND SCB-D1-67

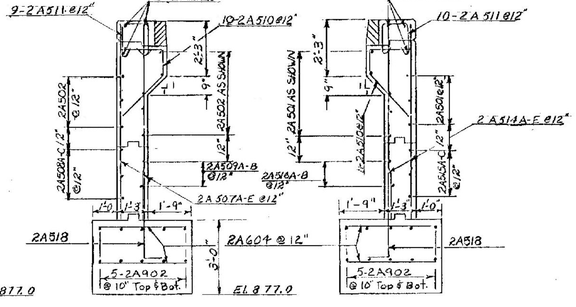
2) FOR ADDITIONAL ABUTMENT NOTES SEE BR110, ABUTMENT NO.1 DETAILS.

3) FOR PILING TABLE SEE SHEET BR-110.

4) FOR DETAILS OF SURFACE TREATMENT ON FIXED ABUT. BRIDGE SEATS SEE SH. BR 107.

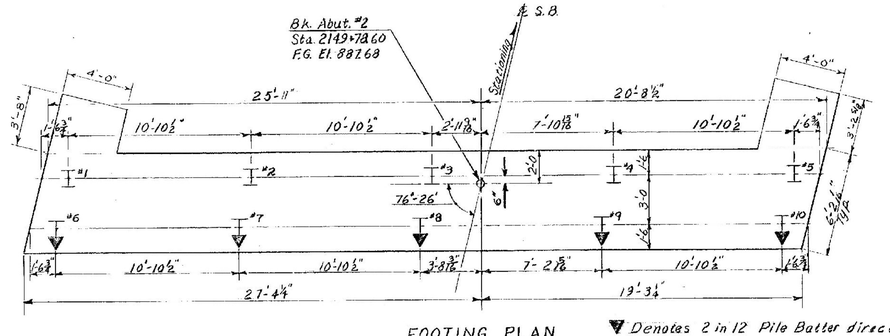


SECTION E-E
Scale: 3/8"=1'-0"



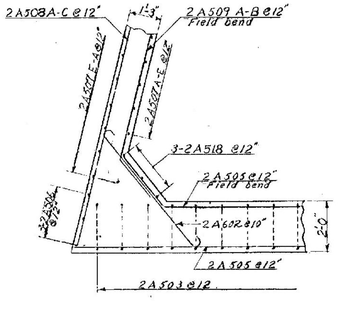
SECTION C-C
Scale: 3/8"=1'-0"

SECTION D-D
Scale: 3/8"=1'-0"

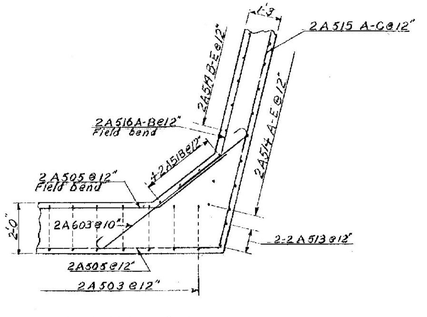


FOOTING PLAN
Scale: 1/4"=1'-0"

▼ Denotes 2 in 12 Pile Batter direction.
Estimated length of 12BP53 Steel H Pile is 50 ft.



SECTION F-F
Scale: 3/8"=1'-0"



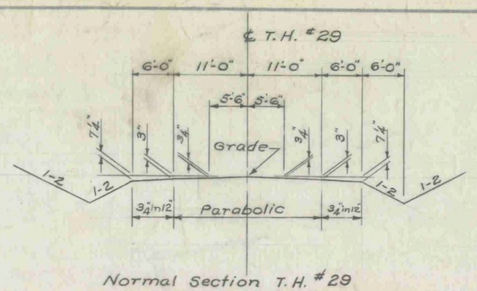
SECTION G-G
Scale: 3/8"=1'-0"

LYNDON-IRASBURG
IM MEMB(29)
SHEET 40 OF 55
BRIDGE NO. 102S
FOR REFERENCE ONLY

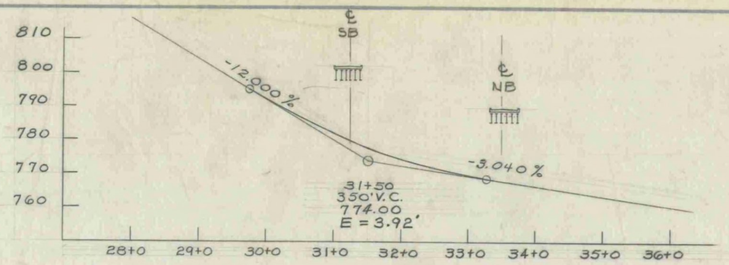
Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT: BARTON BR 102
TOWN OF BARTON
ROUTE NO. I-91 ℄ STA. 2148+97
INTERSTATE 91 OVER VT #16
ABUTMENT NO. 2 DETAILS (FIXED)
SCALE As Noted
SECTION SUPERVISOR: E.W. Balkum 4/70
DRAWN BY Williamson/Hoskins CHECKED BY OUELLETTE 3/10
PROJECT NO. I-91-3(11)
SHEET 123 OF 670 BR. 111



Normal Section T.H. # 29
Scale: 1" = 10'-0"



Profile of T.H. # 29
Scale: 1" = 100' Horiz. - 1" = 20' Vert.

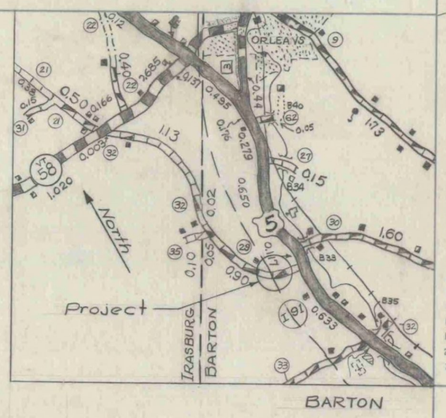
HIGHWAY NO. I91 NAME OF HIGHWAY INTERSTATE
STRUCTURE NO. S4-B6 COUNTY ORLEANS TOWN BARTON
PROJECT NO. I91-3(11) LOCATION BARTON
I 91 OVER T.H. # 29

EXISTING STRUCTURE

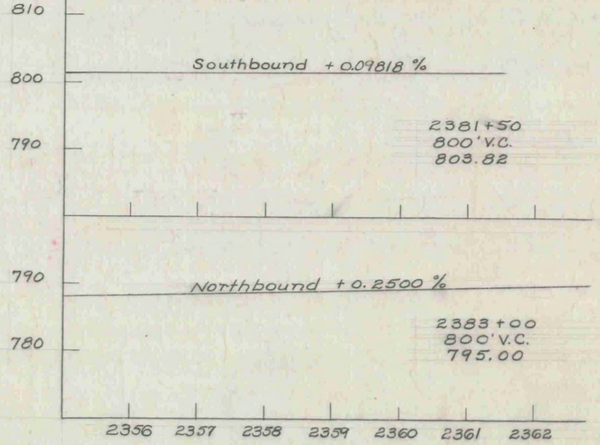
1 RATED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE NONE
3 UNDERCLEARANCE - ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE?
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT?
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE?
12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED?
13 ADDITIONAL WATERWAY AREA PROVIDED

NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE Single Span - composite - W. Beam
2 RECOMMENDED Overall Bridge Lengths Southbound 89'-0" Northbound 89'-0"
Span Lengths Center to Center of Brgs. Southbound 86-10½ Northbound 86-10½
Clear Span Lengths normal to Roadway Southbound 78.37 Northbound 79.06
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE SOURCE OF INFORMATION
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE ?
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? IS ORDINARY RISE RAPID?
8 LOW WATER ELEVATION AT NEW STRUCTURE
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE CHARACTER OF TERRAIN
10 IS STREAM EVER DRY
11 VELOCITY OF STREAM AT HIGH WATER STAGE ESTIMATED DISCHARGE
12 AREA FULL OPENING AREA BELOW ORDINARY H.W.
13 CHARACTER OF SCOUR DRIFT ICE
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
15 VERTICAL CLEARANCE ABOVE STREAM ELEVATION
16 ARE SIDEWALKS REQUIRED? IF SO ON WHAT SIDE? NONE BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 2" Bituminous Concrete Pavement
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. ONE OR TWO WAYS PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 58 Tons per pile SHOULD PILES BE USED? Yes EST. LGTH See Table

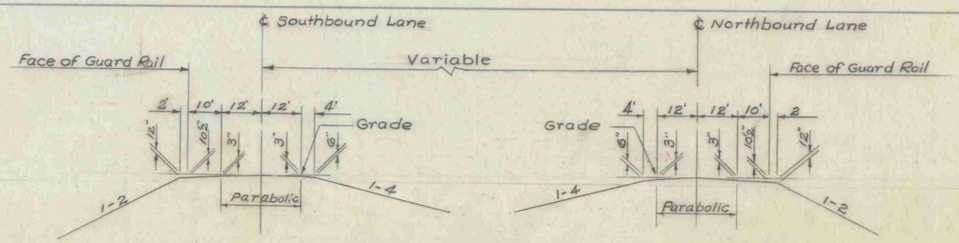


BARTON



Interstate Profile
Scale: 1" = 100' Horiz. - 1" = 10' Vert.

Allowable Design Stresses:
Concrete: f'_c = 3000 psi f_c = 1200 psi n = 10
Structural Steel: A36 f_s = 20,000 psi
Reinforcing Steel: f_s = 20,000 psi tension
Design Loading: HS 20-44



Typical Interstate Section
Scale: 1" = 20'-0"

LYNDON-IRASBURG
IM MEMB(29)
SHEET 41 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

For Boring Logs See Sheets BR-603 and BR-604.

TABLE OF ESTIMATED PILE LENGTHS

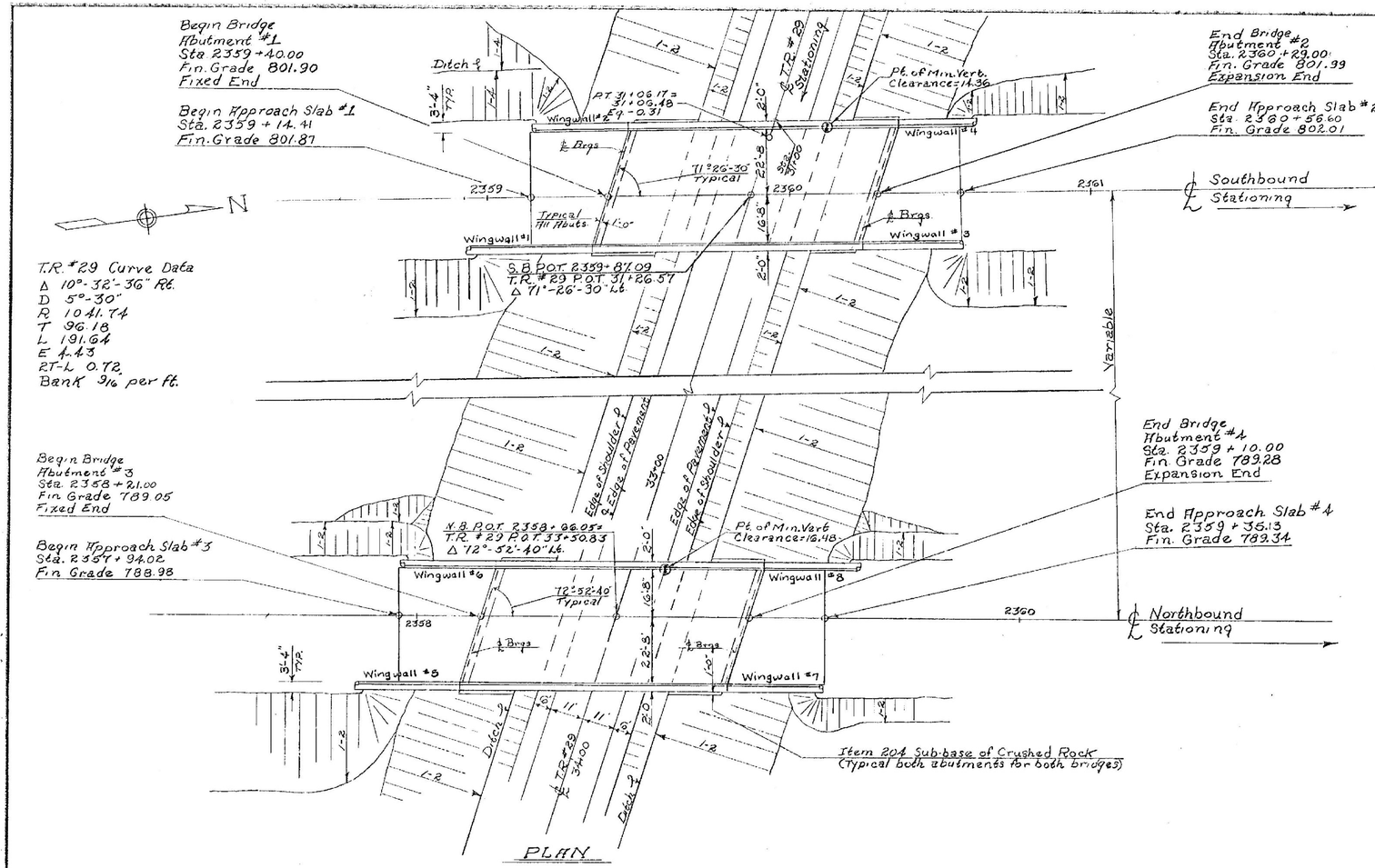
LOCATION	FOOTING ELEV. Rear	FOOTING ELEV. Main	PILE LENGTH Rear	PILE LENGTH Main
Abutment No. 1	786.00	777.50	40'	30'
Abutment No. 2	787.00	778.50	25'	20'
Abutment No. 3	774.50	766.50	45'	35'
Abutment No. 4	775.00	767.00	40'	40'

[redacted]

PROJECT: BARTON Stage 2 Construction

RECOMMENDED FOR APPROVAL	R.J. Funk CONSTRUCTION ENGINEER	11/18/66	DATE
RECOMMENDED FOR APPROVAL	Lud Gom BRIDGE ENGINEER	11/18/66	DATE
RECOMMENDED FOR APPROVAL	E.H. Stickney ASST. CHIEF ENGINEER	11/21/66	DATE
APPROVED BY:	R.H. Cross CHIEF ENGINEER	11/21/66	DATE

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE IN THE TOWN OF BARTON BR105
ROUTE NO. I91 I91 STA. 2359+25
I91 OVER T.H. # 29 CLASS 2 R 6
PRELIMINARY INFORMATION
SURVEYED BY SEVALDSON CHECKED BY CUNNINGHAM SCALE AS NOTED
DRAWN BY E. SEVALDSON IN CHARGE E.N. Balkus DATE 11/17/66
PROJECT NO. I91-3(11) SHEET NO. 184 OF [redacted]
EMP I91-3(19) BR-600 75 114



LIST OF BRIDGE SHEETS

BR-600 PRELIMINARY INFORMATION
BR-601 GENERAL PLAN AND ELEVATION
BR-602 BRIDGE QUANTITY SHEET
BR-603 BORING LOGS, SHEET 1
BR-604 BORING LOGS, SHEET 2
BR-605 FRAMING PLAN N.B. & S.B.
BR-606 SUPERSTRUCTURE DETAILS
BR-607 CURB AND RAIL PLAN
BR-608 ABUTMENT #1 S.B.
BR-609 ABUTMENT #2 S.B.
BR-610 ABUTMENT #3 N.B.
BR-611 ABUTMENT #4 N.B.
BR-612 ABUTMENT DETAILS
BR-613 APPROACH SLAB DETAILS
BR-614 REINFORCING SCHEDULE, SHEET 1
BR-615 REINFORCING SCHEDULE, SHEET 2
BR-616 REINFORCING SCHEDULE, SHEET 3

BRIDGE STANDARDS

SCB-D1-67 (REV. 4/28/70)
SCB-D8-67 DETAILS A & B (APPR. 1/24/68)
SCB-D9-67 DETAIL A (REV. 4/28/70)

SB-R1-64 (SH. #1 OF 2) (REV. 4/28/70)
SB-R1-64 (SH. #2 OF 2) (REV. 4/28/70)
G8 (REV. 4/29/70)
G9 (REV. 8/21/68)

REFERENCE SHEETS

INTERSTATE PLAN (1"=50') - 2 SHEETS @ STA 2343-2375
INTERSTATE PROFILE - 2 SHEETS @ STA 2343-2375
INTERSTATE SECTIONS
TR #29 PLAN AND PROFILE @ STA 22-37
TR #29 SECTIONS

GENERAL NOTES

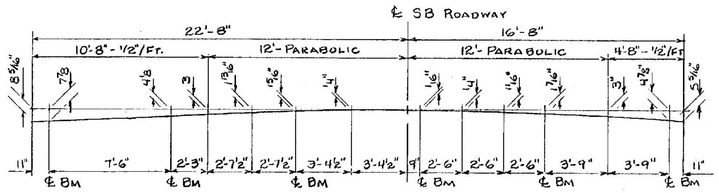
1. THE GENERAL NOTE PERTAINING TO SPECIFICATIONS, MATERIALS, AND CONSTRUCTION IS SHOWN ON STANDARD DWG. SCB-D1-67.
2. THE SUPERSTRUCTURE IS A SINGLE SPAN, COMPOSITE, ROLLED BEAM WITH COVER PLATE, DESIGNED FOR H S20-44 LIVE LOADING.
3. THE MAXIMUM STEEL PILE (12BP53) DESIGN LOAD UNDER THE ABUTMENT FOOTINGS IS COMPUTED TO BE 56 TONS PER PILE.
4. GENERAL NOTES SHOWN ON STD. DWG. SCB-D1-67 THAT APPLY TO THESE TWO STRUCTURES ARE: #1, 2, 4, 6, 7, 8, 14, 15, 16, 17, 18, 19, & 20.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 42 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

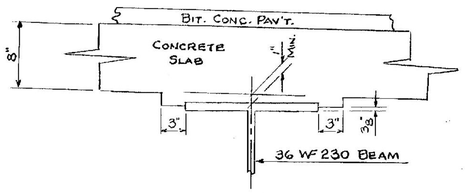
Stage 2 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

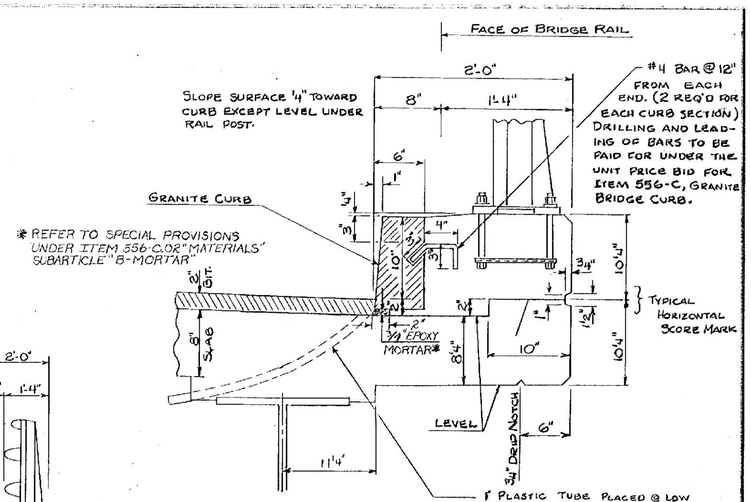
PROJECT: BARTON BRIDGE 105
TOWN OF BARTON CLASS 2 #6
ROUTE NO. I91 I91 STA. 2359+25
INTERSTATE OVER T.H. #29
GENERAL PLAN & ELEVATION
SCALE 1" = 20'-0"
SECTION SUPERVISOR F.W. Belkum 4/70 DATE 1/10
DRAWN BY E. Simonsen CHECKED BY A. Cunningham 1/67
PROJECT NO. EMP I'91-3 (19) 1/67
54-B6 SHEET 135 OF 176 BR-601



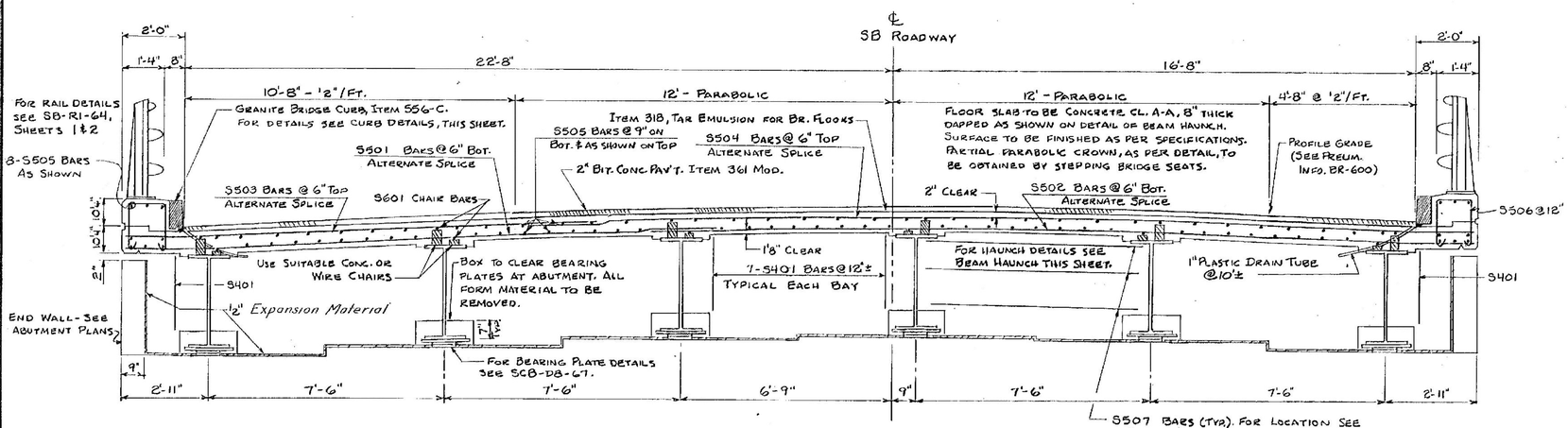
DETAIL OF PARTIAL PARABOLIC CROWN OF SLAB
SCALE: 1"=1'-0"



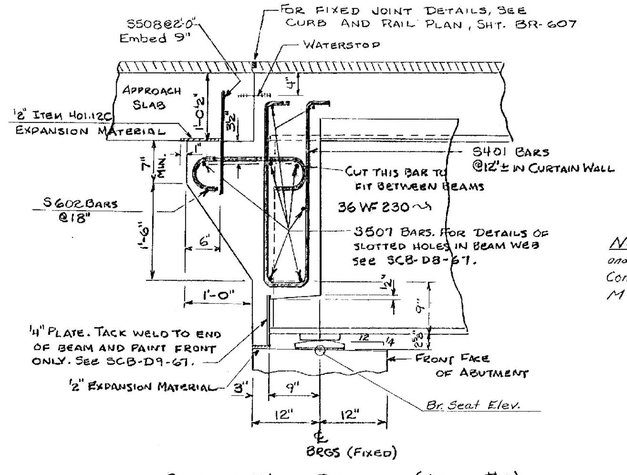
BEAM HAUNCH
SCALE 1'2"=1'0"



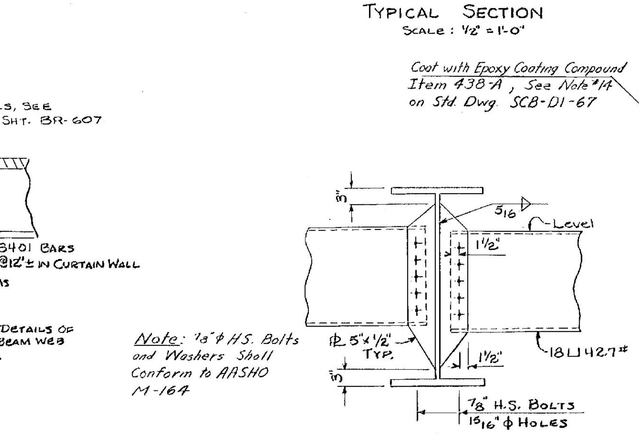
CURB DETAILS
SCALE: 1'2"=1'0"



TYPICAL SECTION
SCALE: ½"=1'-0"



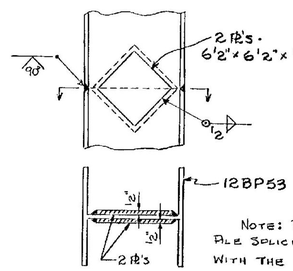
CURTAIN WALL DETAILS (ABUT. #1)
(ABUT. #3 SIMILAR) SCALE: 1"=1'-0"



DETAIL OF ALL ABUTMENTS
(Bridge Seat Treatment)
Scale: N.T.S.

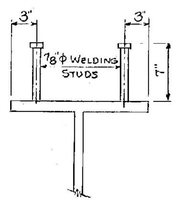
Note: ⅞" ϕ H.S. Bolts and Washers Shall Conform to AASHO M-164

INTERMEDIATE DIAPHRAGM
SCALE: 1"=1'-0"



Note: Prefabricated pile splices may be used with the approval of the engineer.

DETAIL OF PILE SPLICE
SCALE: 1'2"=1'0"



SHEAR CONNECTOR DETAILS
SCALE: 1'2"=1'0"

NOTES:

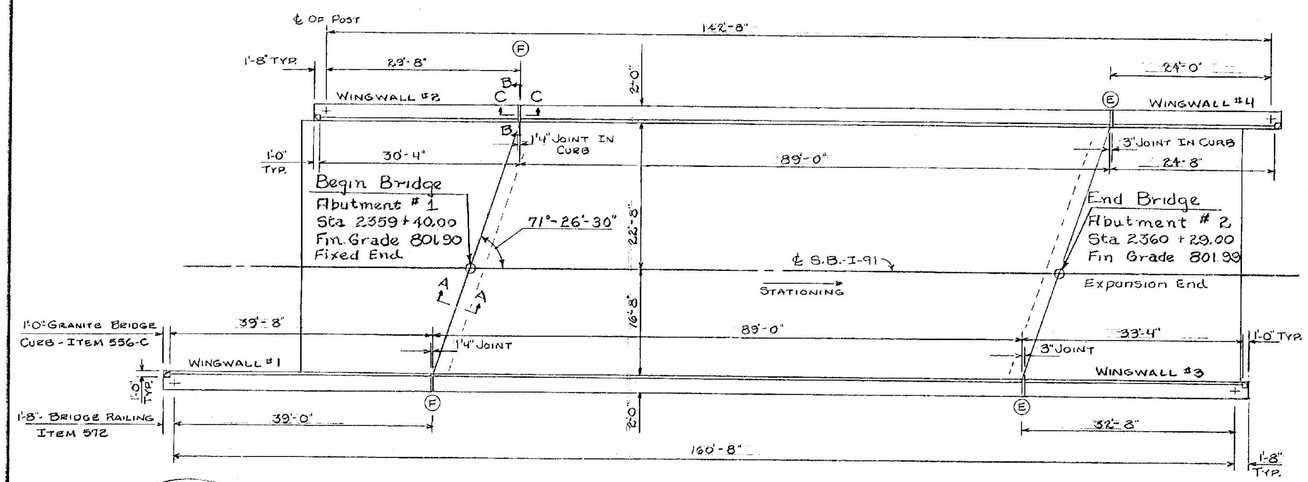
1. Granite Bridge Curbs shall be aligned horizontally and vertically.
2. Layout and detail drawings for Granite Bridge Curb, Item 556-C, shall be submitted in triplicate to the State of Vermont for approval prior to fabrication and shipment. Granite curb ends shall be sawed square at the abutment curb joints. Granite curb shall be furnished in random lengths ranging from 4' minimum to 10' maximum.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 43 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

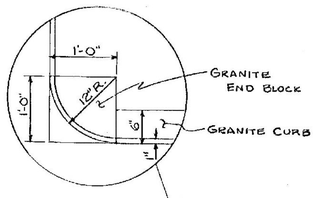
Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

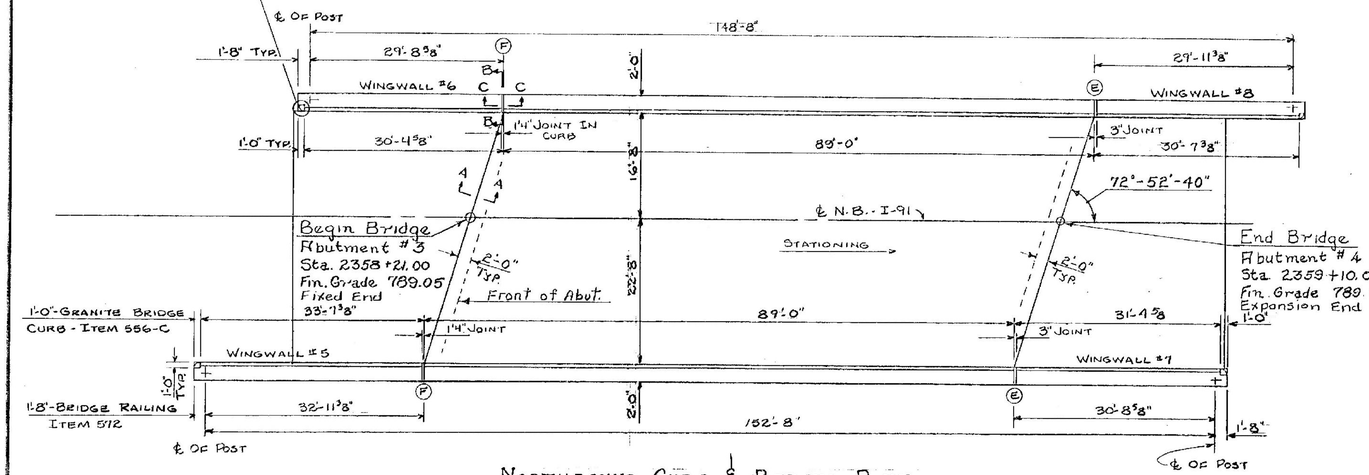
PROJECT: BARTON
TOWN OF BARTON BRIDGE 105
ROUTE NO. I91 I91 STA 2357+25
INTERSTATE OVER T.H. #29
SUPERSTRUCTURE DETAILS
SCALE AS NOTED
SECTION SUPERVISOR: E.W. Bolkum - 4/70
DRAWN BY BETE CHECKED BY LABO 4/70
PROJECT NO. I91-3(11)
SHEET 120 OF 670 BR-606



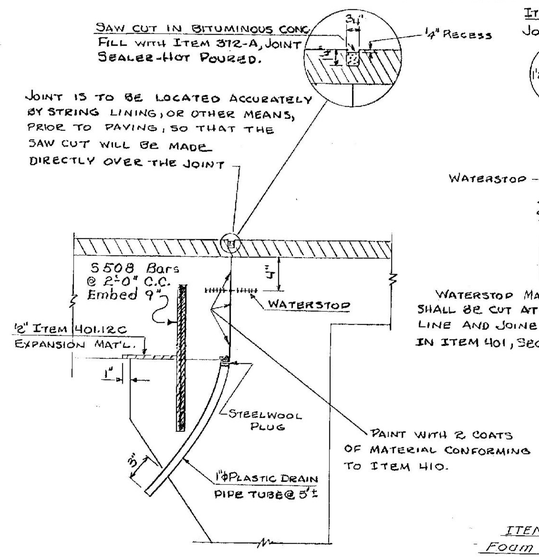
SOUTHBOUND CURB & RAILING PLAN
NOT TO SCALE



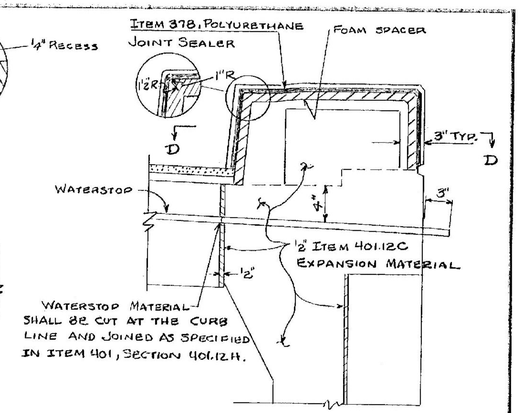
BRIDGE RAILING JOINTS
(E) PROVIDE 1'2" EXPANSION IN RAILING ACROSS THIS JOINT.
(F) PROVIDE 3/4" EXPANSION IN RAILING ACROSS THIS JOINT.



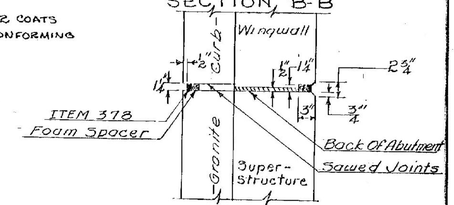
NORTHBOUND CURB & RAILING PLAN
NOT TO SCALE



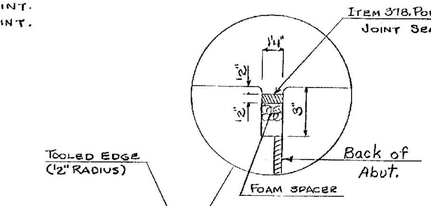
SECTION A-A
JOINT DETAIL AT FIXED BEARING
SCALE 1'2"=1'-0"



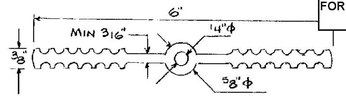
SECTION B-B



SECTION D-D
SCALE 1"=1'-0"



SECTION C-C
CURB JOINT DETAIL AT FIXED BEARING



WATERSTOP DETAIL
NTS

NOTES

1. FOR BRIDGE RAILING DETAILS SEE STANDARD SHEET 38-R1-64, SHEETS 1 & 2.
2. SEE STANDARD SHEETS GB AND G9 FOR APPROACH RAILING DETAILS.
3. EXPANSION JOINT DETAILS IN THE CURB SECTIONS ARE SHOWN ON SHEETS BR-613.
4. THE GRANITE CURB SHALL BE SAWED AT THE FIXED AND EXPANSION JOINTS.
5. THE WATERSTOP SHALL BE POLYVINYL CHLORIDE AS SPECIFIED IN ITEM 401.12.H. OTHER CONFIGURATIONS, WITH MINOR VARIATIONS, MAY BE USED WITH THE APPROVAL OF THE BRIDGE ENGINEER. (Refer to Special Provisions @ 401.12.H)
6. COST OF THE WATERSTOP AND PAINT WATERPROOFING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 401-AA, CONCRETE CL. A-A. THE PAINT WATERPROOFING SHALL CONFORM TO THE SPECIFICATIONS FOR ITEM 410.
7. THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT TO MAINTAIN PROPER ALIGNMENT OF THE WATERSTOP DURING CONSTRUCTION.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 44 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT: BARTON BR 105
TOWN OF BARTON
ROUTE NO. I-91 STA. 2359+25
INTERSTATE OVER T.H. #29
CURB & RAIL PLAN
SCALE NOT TO SCALE
SECTION SUPERVISOR: E.W. Bolkum - 4/70
DRAWN BY: S. Hyland CHECKED BY: L.A.D. 4/70
PROJECT NO. I-91-3(11)
SHEET 191 OF 670 BR-607

SPECIAL NOTE

CARE SHALL BE TAKEN AT THIS JOINT SEGMENT TO MINIMIZE THE DEVELOPMENT OF AIR VOIDS AND STONE POCKETS AND TO MAKE IT AS UNNOTICEABLE AS POSSIBLE. IMMEDIATELY PRIOR TO THE PLACEMENT OF NEW CONCRETE, THE CLEANED SURFACE OF THE PREVIOUS LIFT SHOULD HAVE SCRUBBED INTO IT A LAYER OF MORTAR ABOUT ONE-HALF (½) INCH THICK. USE THE SAME TYPE CEMENT AND THE SAME CEMENT-SAND RATIO AS USED IN THE REGULAR CONCRETE MIX.

℄ I91 S.B.

℄ Tie Beam
Sta 2359 + 16.00
Elev. Of Bottom Of Tie Beam 792.00

Begin Bridge
Abutment #1
Sta 2359 + 40.00
Elev 801.90
Fixed End

Note
Step Bridge Seats Midway Between Beams.

Stationing

Wingwall #1

Wingwall #2

End Bridge

℄ Bearing

℄ Wall

3'-0" x 3'-0" Fillet Typical

71°-26'-30"

24'-5¼"

18'-1¼"

16'-8"

22'-8"

40'-0"

24'-0"

32'-0"

Joint

WP

WD

℄ Bm #1

℄ Bm #2

℄ Bm #3

℄ Bm #4

℄ Bm #5

See BR 607

7'-6" Typ.

4" ℄ Cutter

19'-8¼"

26'-0¼"

19'-8⅞"

27'-8⅞"

Do Not Construct Above This Joint Until Final Finish Grade Is Determined (Typical)

PLAN
Scale 4"=1'-0"

ELEVATION
Scale ¼"=1'-0"

4"℄ Weep Holes See Item 401.10J Concrete Class B.

Row	Number Of Piles	Size	Est. Length Of Piles	Splices Allowed For Piles Not Exceeding Plan Length. (To Be Paid For Only If Used)	Splices Estimated For Piles Exceeding Plan Length. (To Be Paid For Only If Used)
1&2	14	12BP53	30'	None	3
3	4	12BP53	40'	None	1

802.26 · 802.30 · 800.42 · 797.10 · 797.14 · 797.43 · 797.55 · 797.47 · 797.21 · 796.90 · 802.04 · 802.07 · 800.19 · Const. Joint · EL. 786.00 · EL. 777.50

40'-7½" · 3'-6⅝" · EL. 802.30 · EL. 795.64 · 3'-0" Typ. (Min.) · See Special Note on this Sheet · 792.00 · 4'-0" · 12 · 2 · 2'-0" Typ. · Slope Line

WINGWALL #1 ELEVATION
Scale ¼"=1'-0"

4'-10⅜" · EL. 802.07 · 31'-3½" · EL. 802.04 · EL. 800.19 · EL. 796.90 · See Special Note This Sheet - Typ. For All Abutments. · Construction Joint · EL. 796.87 · EL. 795.40 · 3'-0" Typ. · 4'-0" Typ. · 792.00 · EL. 786.00 · * Typical @ All Abutments

WINGWALL #2 ELEVATION
Scale ¼"=1'-0"

LYNDON-IRASBURG
IM MEMB(29)
SHEET 45 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

Row 3 · Row 2 · Row 1 · 5 Spaces @ 8'-11" = 44'-7" · 7 Spaces @ 6'-4" = 44'-4" · 19'-8" · 21'-11" · 25'-10" · 18'-6" · 0'-6" · 1'-10" · Begin Bridge Sta. 2359+40.0 · 71°-26'-30" · 24'-0" · 18'-8" · 8'-8"

PILING LAYOUT
Scale ⅛"=1'-0"

2'-0" · 1'-1½" · 8" · 1" · ½" · 10½" · 1'-0" · 2" · 16" · 6" · 1'-6" · 6" · 6" · 6" · 10" · Granite Curb Item 556-C · Typical Score Mark · Const. Joint

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

9" · 9" · 6" · 4'-0"

SECTION B-B
Scale ½"=1'-0"

℄ Bearing · Begin Bridge · 2'Br. Conc. · 36 WF 230 · 2" Exp. Mat'l. · 1'-0½" · 1'-7½" · 1'-6" · 12 · 2

Notes:
Slope Bridge Seat To Drain. Leave Bearing Area Level.

Gravel Backfill For Structures - Item 232.6

2'-0" · 2'-0" · 2'-3" · 2'-5" · 3'-5" · 8" Typ. · 1'-0" · 1'-3" · 3'-0" · 1'-9" · 6'-3" · 30" · 12 · 2

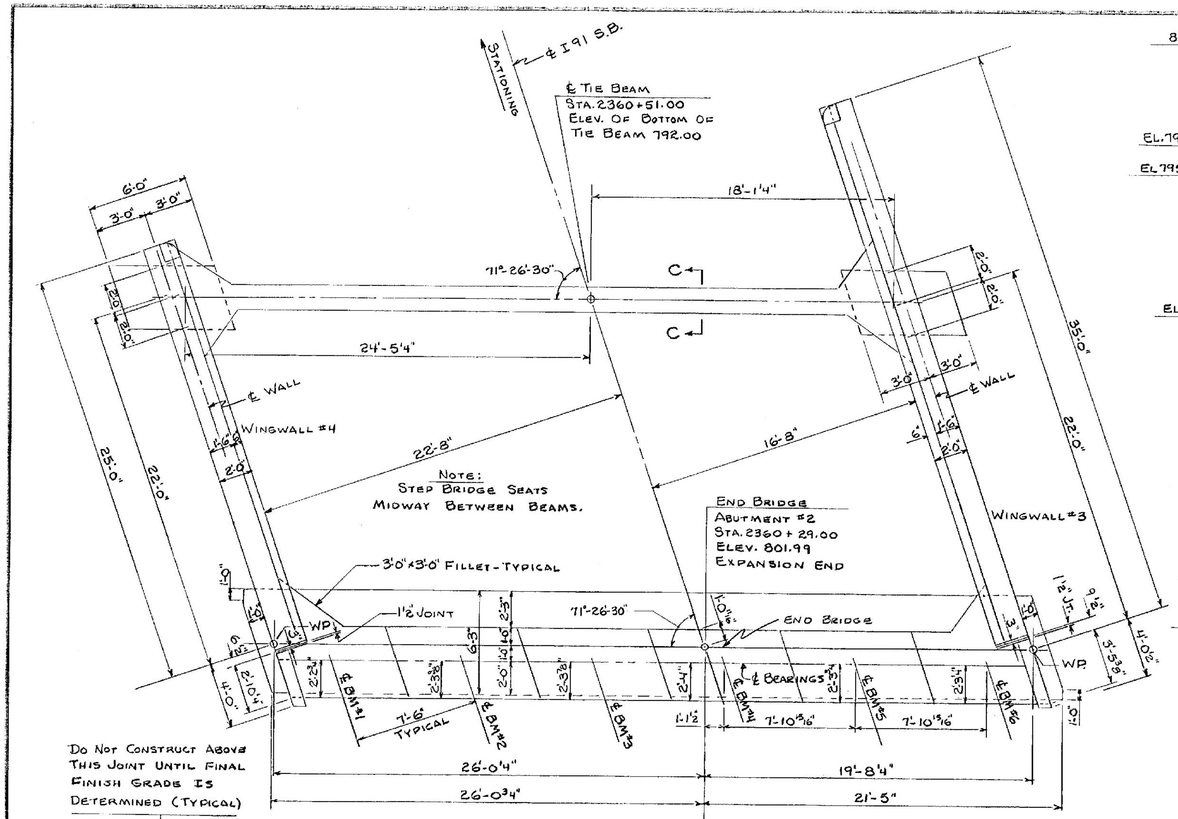
SECTION A-A
Scale ¼"=1'-0"

1. For Bridge Seat Treatment, See Detail On Sheet BR 606
2. See Sheet BR-612 For Reinforcing Details.
3. For Details Of Score Marks In Outside Faces Of Wingwalls See Sheet BR-606. Horizontal Score Marks Are Parallel To Grade And To Each Other.
4. The Concrete For The Tie Beam Shall Be Placed Monolithically With The Wingwalls.
5. See Sheet BR-607 For Joint Details.

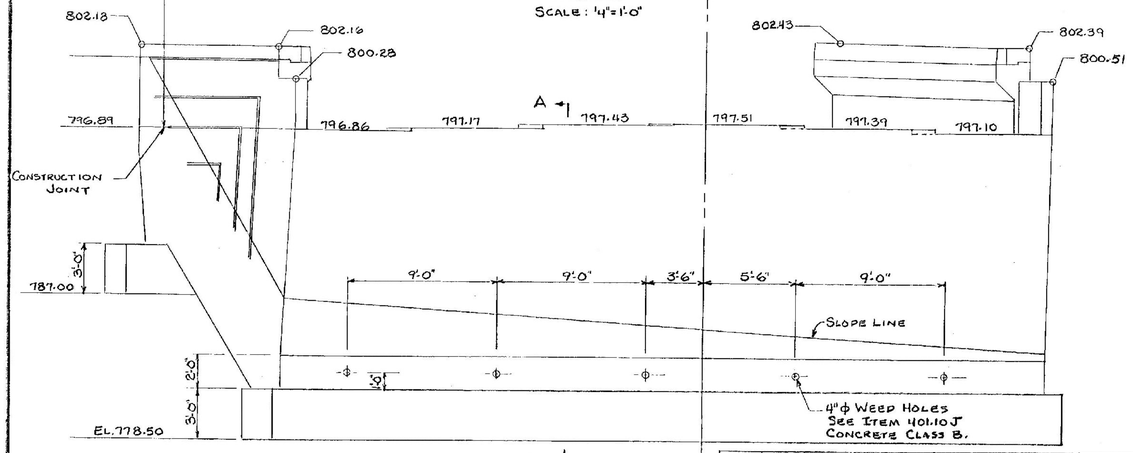
Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Project Barton Bridge 105
Town of Barton
Route No. I-91 Sta. 2359+25
I-91 Over T.H. #29
Abutment #1 S.B.
Scale As Noted
Section Supervisor: E.W. Bolkum - 4/70
Drawn By Bete Checked By Eage 4/70
Project No. I-91-3(11)
Sheet 192 Of 670 BR-608

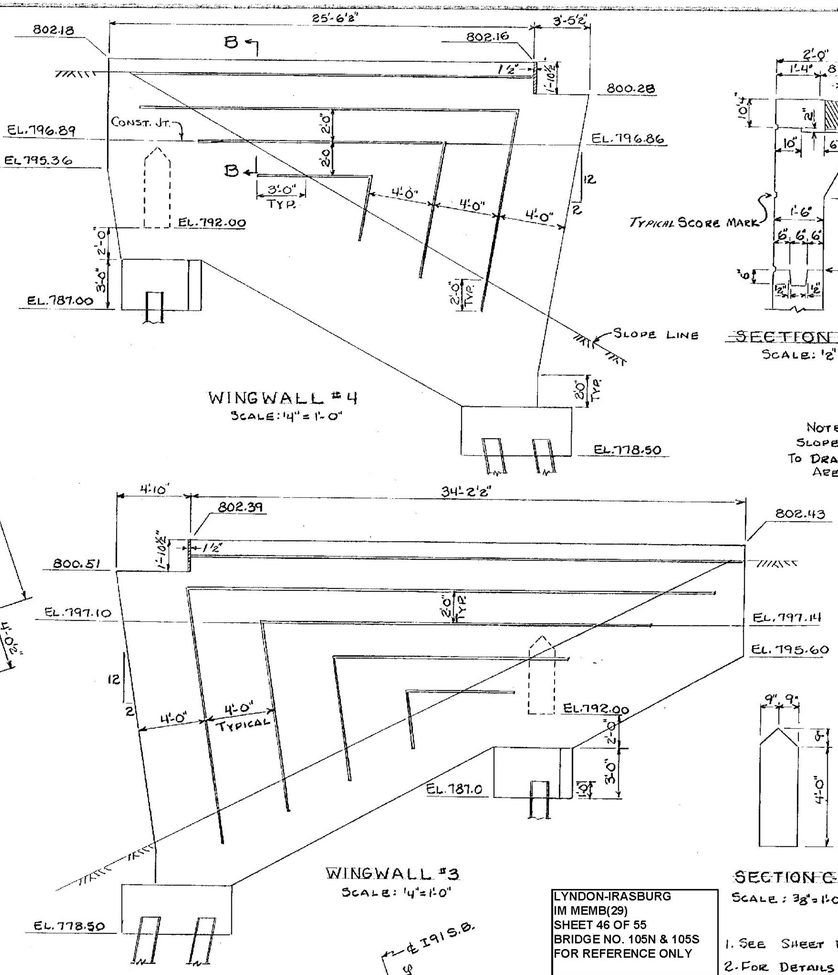


PLAN
SCALE: 1/4"=1'-0"



Note: Expansion Joint Details are shown on Sheet BR-613.

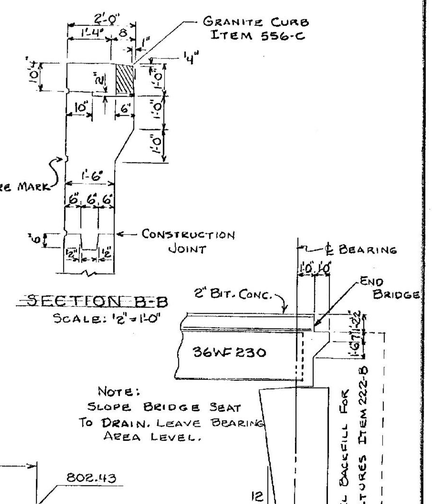
ELEVATION
SCALE: 1/4"=1'-0"



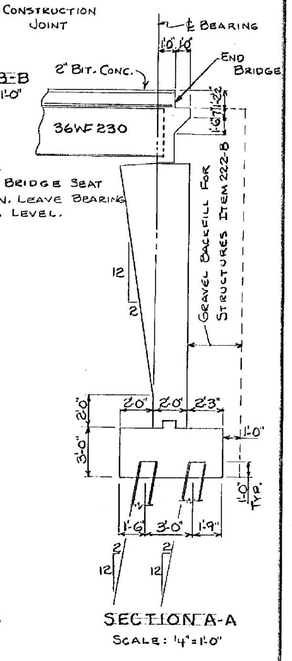
WINGWALL #4
SCALE: 1/4"=1'-0"

WINGWALL #3
SCALE: 1/4"=1'-0"

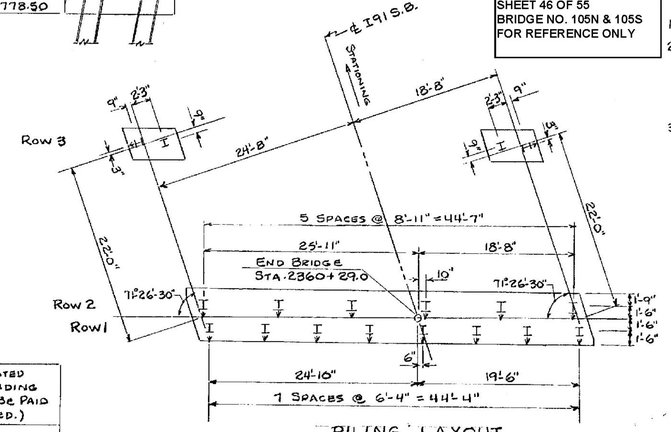
SECTION C-C
SCALE: 3/8"=1'-0"



SECTION B-B
SCALE: 1/2"=1'-0"



SECTION A-A
SCALE: 1/4"=1'-0"



PILING LAYOUT
SCALE: 1/8"=1'-0"

ROW	NO. OF PILES	SIZE	EST. LENGTH OF PILES	SPLICES ALLOWED FOR PILES NOT EXCEEDING PLAN LENGTH. (TO BE PAID FOR ONLY IF USED.)	SPLICES ESTIMATED FOR PILES EXCEEDING PLAN LENGTH. (TO BE PAID FOR ONLY IF USED.)
1 & 2	14	12BP53	20'	NONE	3
3	4	12BP53	25'	NONE	1

LYNDON-IRASBURG
IM MEMB(29)
SHEET 46 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

1. SEE SHEET BR-612 FOR REINFORCING DETAILS.
2. FOR DETAILS OF SCORE MARKS IN OUTSIDE FACES OF WINGWALLS SEE SHEET BR-606. HORIZONTAL SCORE MARKS ARE PARALLEL TO GRADE AND TO EACH OTHER.
3. THE CONCRETE FOR THE TIE BEAM SHALL BE PLACED MONOLITHICALLY WITH THE WINGWALLS.

Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT BARTON
TOWN OF BARTON BRIDGE 105
ROUTE NO. I-91 STA. 2359+25
I-91 OVER TH #29
ABUTMENT #2 SB
SCALE AS NOTED
SECTION SUPERVISOR: E.W. Balkum - 4/70
DRAWN BY BETZ CHECKED BY LADA 4/70
PROJECT NO. I-91-3(61)
SHEET 193 OF 220 BR-609

NOTE
Step Bridge Seats midway between Beams

℄ of Tie Beam
Sta. 2357+99
Elev. of bot. of Tie Beam 779.50

Station ahead
℄ I91 NB
72°-52'-40"

℄ of Wall

17'-11⅝"

3"x3" Fillets Typical

Tie Beam

24'-2⅝"

18'-8"

22'-8"

WINGWALL #5

WINGWALL #6

Begin Bridge
Abutment #3
Sta. 2358+21
Fin. Gr. 789.05
Fixed End

Limits of Gravel Backfill, Item 222-8

℄ Bearing

Do not construct above this joint until final finish grade is determined (Typical).

25'-9¾"

19'-6⅜"

25'-11¼"

21'-2⅜"

PLAN
Scale 4" = 1'-0"

789.11 · 789.19 · 787.32 · 783.94 · 784.03 · 784.35 · 784.62 · 784.70 · 784.59 · 784.31 · 789.40 · 789.48 · 787.61

9'-0" · 9'-0" · 3'-6" · 5'-6" · 9'-0"

Slope Line ℄

774.50 · 766.50

4" ϕ Weep Holes
See Item 401.10J
Concrete Class B

ELEVATION
Scale 4" = 1'-0"

Row	No. of Piles	Size	Est. length of Piles	Splices allowed for piles not exceeding plan length. (To be paid for only if used.)	Splices estimated for piles exceeding plan length (To be paid for only if used.)
1&2	14	12BP53	35	None	3
3	4	12BP53	45	None	1

34'-6⅞" · 3'-3⅜" · 789.11 · 789.19 · 787.32 · EL. 783.94 · EL. 782.53 · 779.50 · EL. 774.50 · 4'-0" Typ. · Slope Line

WINGWALL #5 ELEVATION

EL. 766.50

4'-6" · 31'-4⅛" · 789.48 · 789.40 · 787.61 · EL. 784.31 · EL. 784.24 · EL. 782.81 · Const. Joint · Tie Beam · 779.50 · 774.50 · 4'-0" Typ. · Slope Line ℄ · EL. 766.50

WINGWALL #6 ELEVATION
Scale 4" = 1'-0"

Granite Curb Item 556-C

Typical Score Mark

Const. Joint

SECTION B-B
SCALE 1½"=1'-0"

℄ Brgs · 2" Bit. Conc. Pav't. · Begin Bridge · Level · 36 WF 230 · 1½" Exp. Mat'l. · Slope Br Seat to drain. Leave Brg. area level · Gravel Backfill for Structures, Item 232-8

SECTION A-A
Scale 4" = 1'-0"

SECTION C-C
Scale ⅜" = 1'-0"

Row 3 · Row 2 · Row 1 · Begin Bridge Sta. 2358+21 · Station ahead · ℄ I91 NB · 72°-52'-40" · 5 Spaces @ 8'-10½" = 44'-4½" · 25'-9½" · 18'-7" · 0'-10" · 24'-8" · 18'-8" · 24'-10¾" · 0'-5¼" · 19'-5¼" · 7 Spaces @ 6'-4" = 44'-4"

PILING LAYOUT
Scale ⅛" = 1'-0"

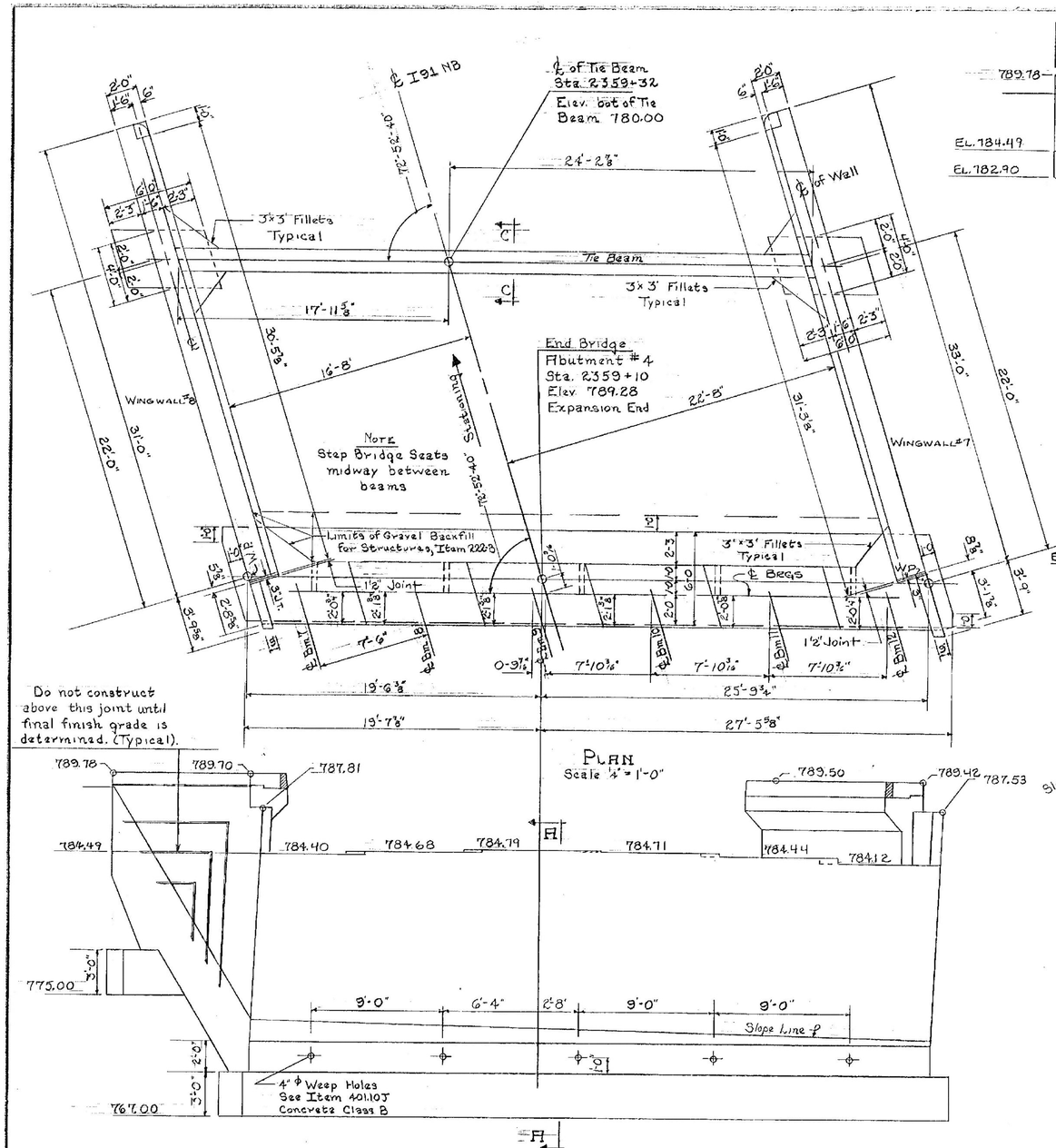
LYNDON-IRASBURG
IM MEMB(29)
SHEET 47 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

1. See Sheet BR-612 for Reinforcing Details.
2. For Details of Score Marks in Outside Faces of Wingwalls see Sheet BR-606. Horizontal Score Marks are Parallel to Grade and to Each Other.
3. The Concrete for the Tie Beam shall be Placed Monolithically with the Wingwalls.
4. See Sheet BR-607 for Joint Details.

Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

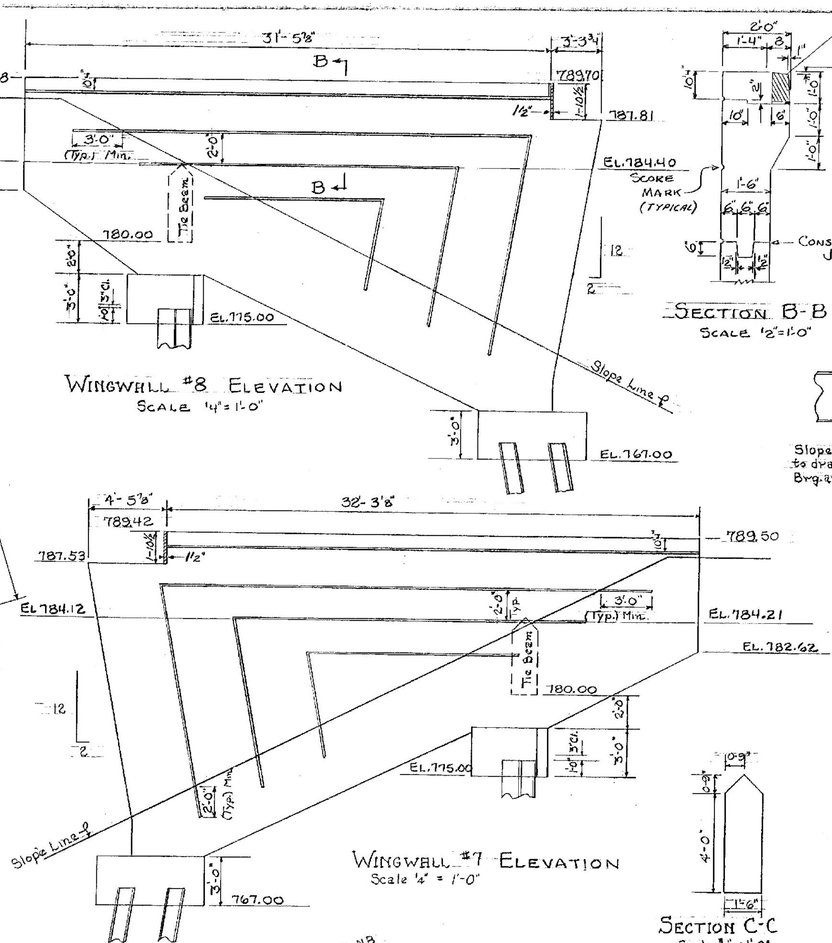
PROJECT: BARTON
TOWN OF BARTON BRIDGE 105
ROUTE NO. I91 STA. 2359+25
I91 OVER T.H. # 29
ABUTMENT # 3 NB
SCALE AS NOTED
SECTION SUPERVISOR: F.W. Balkum - 4/10
DRAWN BY: S.M.D. CHECKED BY: B.E.B. 2/10
PROJECT NO. I91-3(11)
SHEET 129 OF 622 BR-610



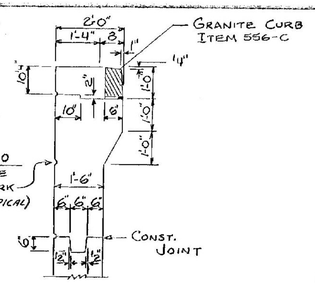
Plan
Scale ¼" = 1'-0"

Elevation
Scale ¼" = 1'-0"

Note: Expansion Joint Details are shown on Sheet BR-613.



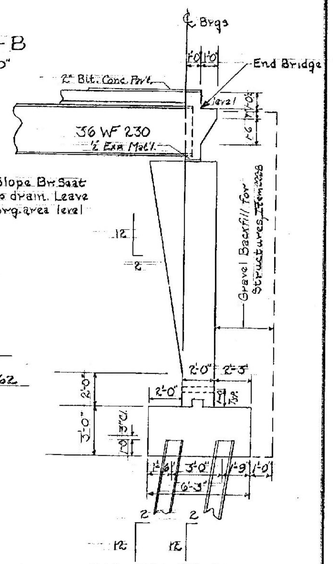
Wingwall #8 Elevation
Scale ¼" = 1'-0"



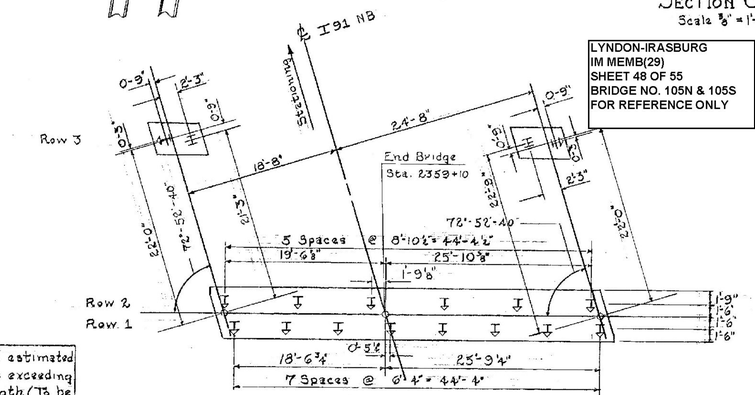
Section B-B
Scale ½"=1'-0"

Wingwall #7 Elevation
Scale ¼" = 1'-0"

Section C-C
Scale ⅜" = 1'-0"



Section A-A
Scale ¼" = 1'-0"



Pile Layout
Scale ⅛" = 1'-0"

Row	No. of Piles	Size	Est. length of Piles	Splices allowed for piles not exceeding plan length. (To be paid for only if used.)	Splices estimated for piles exceeding plan length (To be paid for only if used.)
1 & 2	14	12BP53	40	None	3
3	4	12BP53	45	None	1

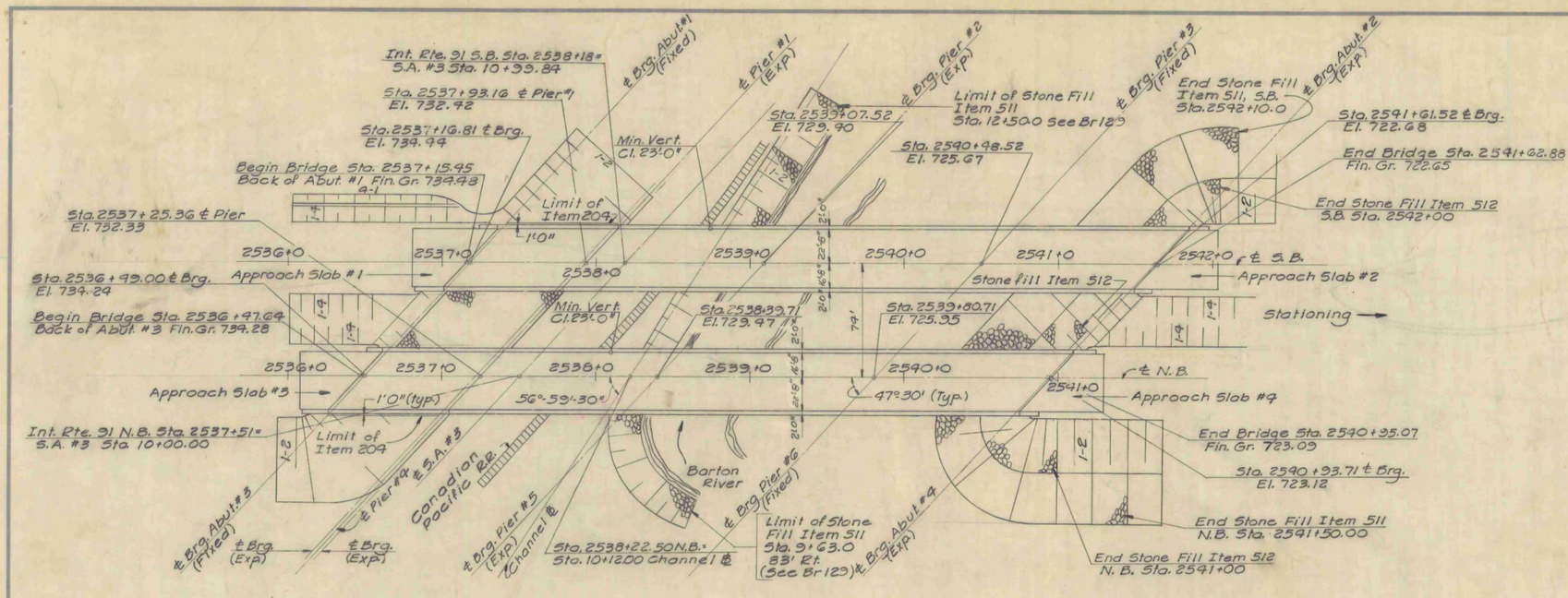
LYNDON-IRASBURG
IM MEMB(29)
SHEET 48 OF 55
BRIDGE NO. 105N & 105S
FOR REFERENCE ONLY

Notes
1. See Sheet BR-612 for Reinforcing Details.
2. For Details of Score Marks in Outside Faces of Wingwalls see Sheet BR-606. Horizontal Score Marks are Parallel to Grade and to Each Other.
3. The Concrete for the Tie Beam shall be Placed Monolithically with the Wingwalls.

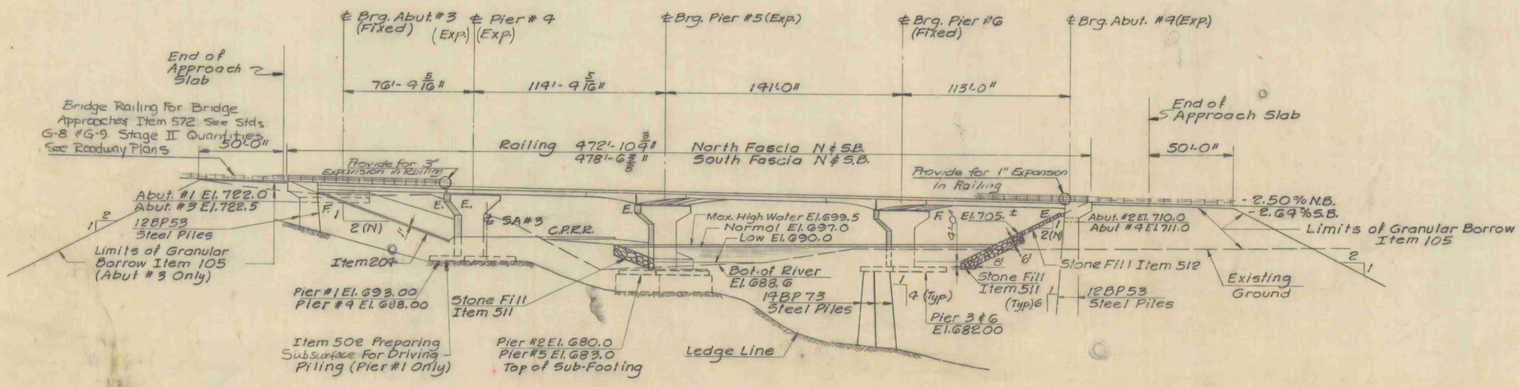
Stage 1 Construction

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT: BARTON
TOWN OF BARTON BRIDGE 105
ROUTE NO. I91 STA. 2359+25
I91 OVER T.H. # 29
ABUTMENT # 4 N.B.
SCALE: AS NOTED
SECTION SUPERVISOR: E.W. Balkum – 4/10
DRAWN BY: S.H.Y.L.O.S.W. CHECKED BY: B.E.T.A. 8/10
PROJECT NO. I91-3(11)
SHEET 195 OF 620 BR-611



PLAN



ELEVATION

LIST OF SHEETS

Br. 100 Plan & Elevation
Br. 101-102 Bridge Quantity Sheets
Br. 103 Preliminary Information Sheet
Br. 104-106 Boring Logs
Br. 107 Framing Plan & Girder Details
Br. 108 Girder Elevation & Conn. Details.
Br. 109 Deck Section & Splice
Br. 110 Expansion Dam & Scupper Details
Br. 111 Rocker Bearings
Br. 112 Abutment #1
Br. 113 Abutment #2
Br. 114 Abutment #3
Br. 115 Abutment #4
Br. 116 Abutment #2 & #4 Details
Br. 117 Abutment #1 & #3 Approach Slab
Br. 118 Abutment #2 & 4 Approach Slab
Br. 119 Pier #1
Br. 120 Pier #2
Br. 121 Pier #3
Br. 122 Pier #4
Br. 123 Pier #5
Br. 124 Pier #6
Br. 125-128 Reinforcing Schedules
Br. 129 Channel Sections

STANDARD SHEETS REQUIRED

SCB	D1 67	General Notes & Information	Jan 24, '68
SCB	D2 67	Detail A & B & C	Jan 24, '68
SCB	D3 67	Drain Trough Details	Jan 24, '68
SCB	D4 67	Reinforcing at Abutments	Dec 17, '68 R
SCB	D6 67	Detail A & B	May 23, 1969 R
SCB	D7 67	Intermediate Diaphragm	Jan 24, '68
SCB	D8 67	Bearing Devices	Jan 24, '68
SCB	D9 67	Detail "A"	Jan 24, '68
SB	R1 64	Aluminum Railing (2 Sheets:) Sheet 1 of 2 Dec 16, 1968 R - 2 of 2 Nov 8, 66 R	
SB	R2 65	Steel Bridge Railing	Nov 8, '66 R

NOTE:

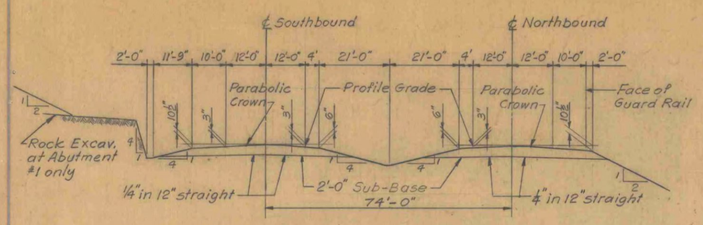
The channel excavation and stone fill shall be done between July 1 and October 1 so as not to interfere with the Rainbow Trout runs. Precautions shall be taken during construction to prevent siltation or pollution of the river.

LYNDON-IRASBURG
IM MEMB(29)
SHEET 49 OF 55
BRIDGE NO. 107S
FOR REFERENCE ONLY

1. Changed roadway width from 38'-0" to 39'-4", curb width from 2'-8" to 2'-0". Updated Std. Sheets B. Tests 3/69

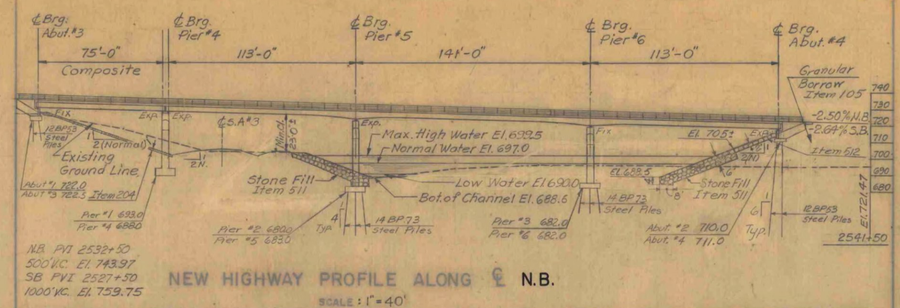
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT IRASBURG-DEREY
TOWN OF IRASBURG BR # 107
ROUTE NO. I-91 STA. 2539±
I-91 OVER BARTON RIVER AND SA # 3
PLAN AND ELEVATION
SCALE 1" = 40'
IN CHARGE C. TERENZIO
DRAWN BY JMB CHECKED BY A. CENTORE
PROJECT NO. I 91-3(8) 9-67
SHEET 102 OF 605 BR 100



NEW HIGHWAY SECT. STA. 2520+00 TO STA. 2547+50

SCALE: 1" = 20'

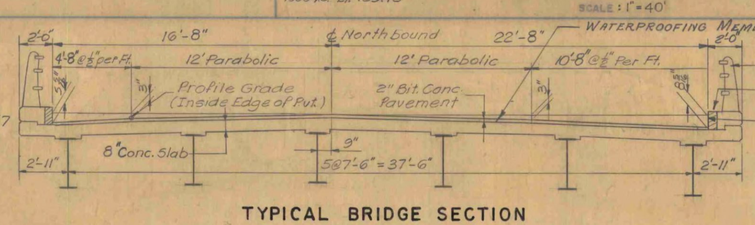


N.B. PVI 2532+50
500' V.C. El. 743.97
S.B. PVI 2527+50
1000' V.C. El. 759.75

NEW HIGHWAY PROFILE ALONG ℄ N.B.

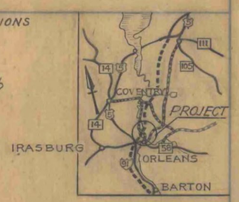
SCALE: 1" = 40'

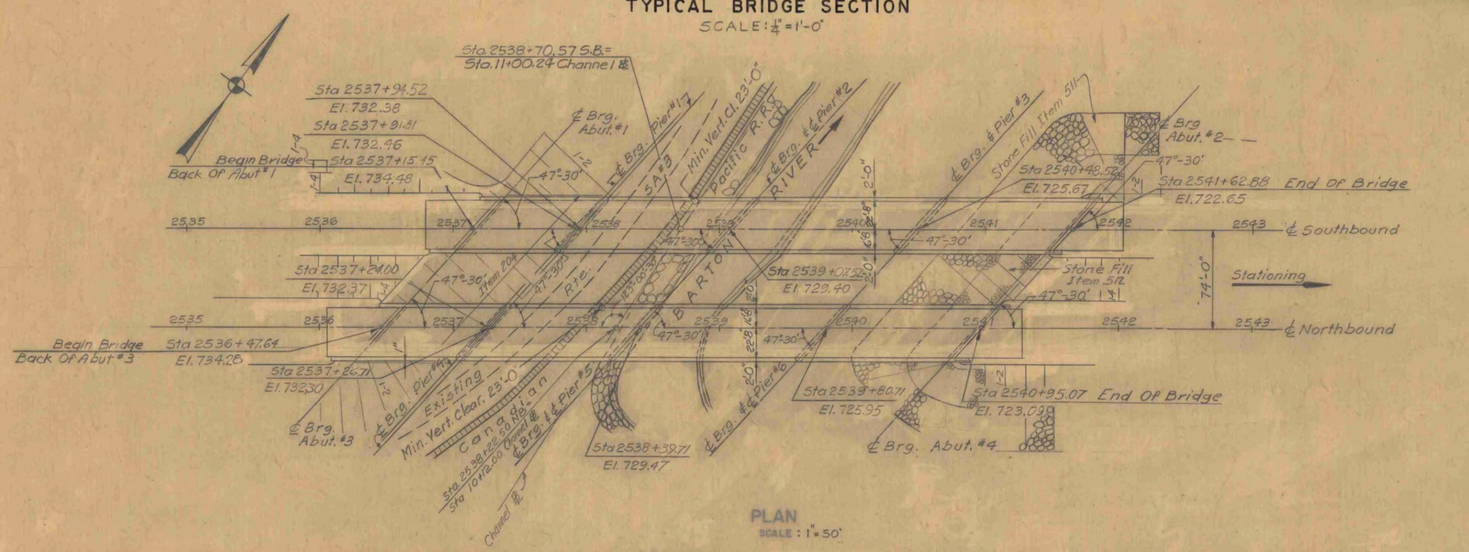
Note: For Details of Deck Construction see BR 109
For Railing Details see SB-R1-64 and SB-R2-65
For Curb Details see SCB-D6-67



TYPICAL BRIDGE SECTION

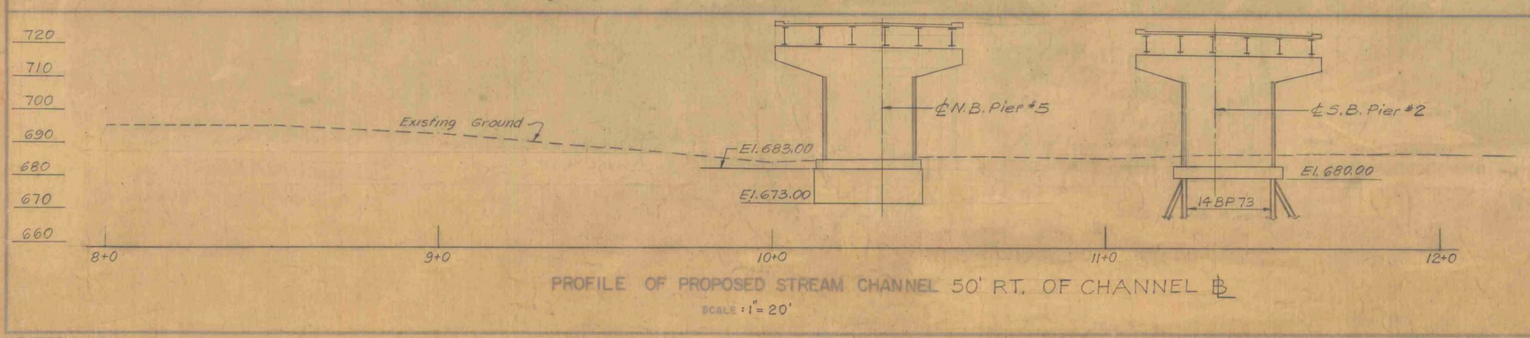
SCALE: 1/4" = 1'-0"





PLAN

SCALE: 1" = 50'



PROFILE OF PROPOSED STREAM CHANNEL 50' RT. OF CHANNEL ℄

SCALE: 1" = 20'

HIGHWAY NO. I-91 NAME OF HIGHWAY INTERSTATE
STRUCTURE NO. COUNTY ORLEANS TOWN IRASBURG
PROJECT NO. I-91-3(8) LOCATION I91 over BARTON RIVER, C.P.R.R and Irasburg SA #3

EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE N.A.
2 TYPE OF EXISTING STRUCTURE N.A.
3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE N.A.
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? N.A. COST OF REMOVAL N.A.
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE? N.A.
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT? N.A.
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE N.A. WATERWAY TO ORDINARY H.W. N.A.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE N.A.
9 SPAN OF EXISTING BRIDGE UPSTREAM N.A. WATERWAY TO EXTREME H.W. N.A.
SPAN OF EXISTING BRIDGE DOWNSTREAM 2 Struct.: Total 20' WATERWAY TO EXTREME H.W. 2 Structures: Total 1000 S.F.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS N.A.
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE? N.A.
12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED? N.A.
13 ADDITIONAL WATERWAY AREA PROVIDED N.A.

NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE ONE SIMPLE SPAN (COMP) & 3 SPAN WELDED ℄ GIRDER (CONTINUOUS-COMP)
2 RECOMMENDED CLEAR SPAN OR SPANS 75.0 - 113.0 - 141.0 - 113.0
MEASURED PARALLEL TO ℄ NEW HIGHWAY 75.0 - 113.0 - 141.0 - 113
MEASURED AT RIGHT ANGLES TO ℄ STREAM 55.0 - 84.0 - 104.0 - 84.0
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO No
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE 697.0
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE 692.5 SOURCE OF INFORMATION COMPUTED
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? Yes
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? No IS ORDINARY RISE RAPID? No
8 LOW WATER ELEVATION AT NEW STRUCTURE 690.0
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE 93,312 CHARACTER OF TERRAIN ROLLING
10 IS STREAM EVER DRY No
11 VELOCITY OF STREAM AT HIGH WATER STAGE 6.9± F.P.S. ESTIMATED DISCHARGE 7000 C.F.S.
12 AREA FULL OPENING 1280 S.F. AREA BELOW ORDINARY H.W. 1000 S.F.
13 CHARACTER OF SCOUR NONE DRIFT NONE ICE MEDIUM
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE 135.8 Sq Mi.
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION 18 Ft.
16 ARE SIDEWALKS REQUIRED? IF SO ON WHAT SIDE? No BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 2" BITUMINOUS CONCRETE, 8" CONCRETE
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. N.A ONE OR TWO WAYS PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE $ 1000.
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS * SHOULD PILES BE USED? * EST LGTH *
* See Below

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

Pier No. 4 & 5 - 5 Tons / S.F
Abutment No. 2 - 12 BP 53 110' Long
Abutment No. 1 & 3 - 12 BP 53 20' Long } 58 Tons / Pile Max.
Abutment No. 4 - 12 BP 53 100' Long
Pier No. 1 - 14 BP 73 20' Long
Pier No. 2 - 14 BP 73 30' Long
Pier No. 3 - 14 BP 73 55' Long } 80 Tons / Pile Max.
Pier No. 6 - 14 BP 73 45' Long

Design Stresses:
Concrete f'_c = 3000 p.s.i. f_c = 1200 p.s.i.
Structural Steel f_s = 20,000 p.s.i. (A-36) others per AASHO Specs
Reinforcing Steel f_s = 20,000 p.s.i. Tension
f_s = 16,000 p.s.i. Compression
Welding per A.W.S. Spec's.

Design Loading: HS 20-44

LYNDON-IRASBURG
IM MEMB(29)
SHEET 50 OF 55
BRIDGE NO. 107S
FOR REFERENCE ONLY

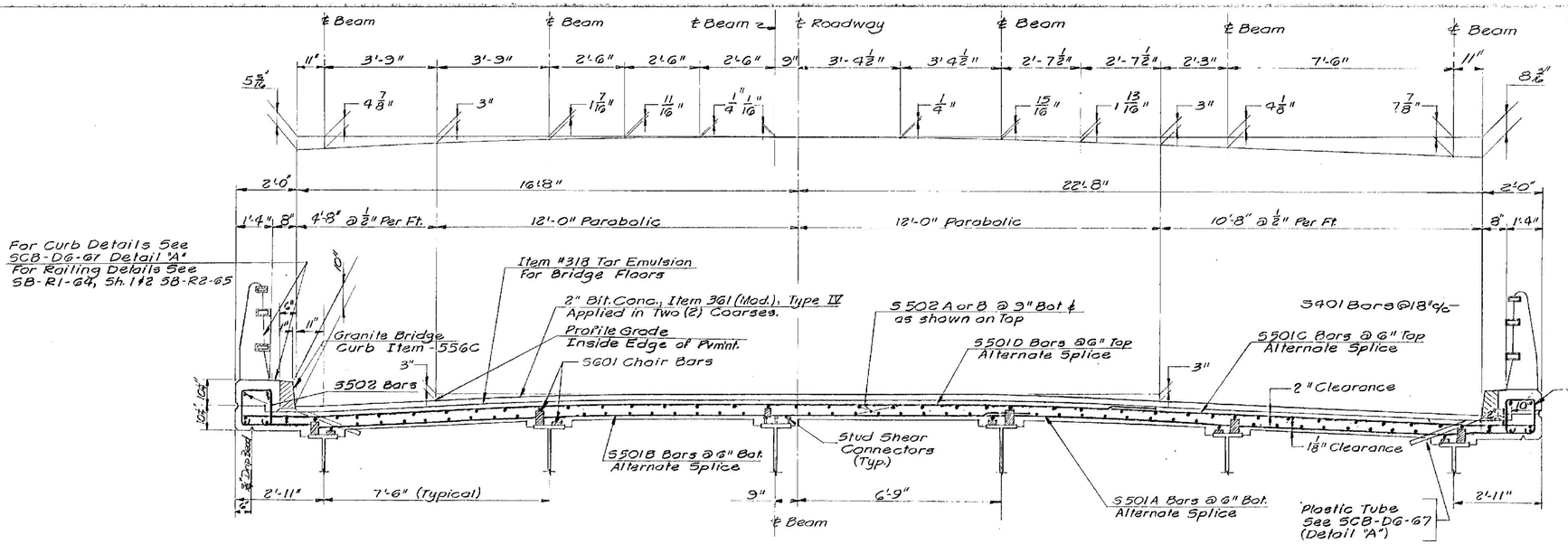
Stage 2 Construction

Br. 103 OF 129

RECOMMENDED FOR APPROVAL	CONSTRUCTION ENGINEER	DATE 9-15-69
RECOMMENDED FOR APPROVAL	BRIDGE ENGINEER	DATE 9-15-69
RECOMMENDED FOR APPROVAL	ASST. CHIEF ENGINEER	DATE 9-15-69
APPROVED BY	CHIEF ENGINEER	DATE 9/15/69

Changed Roadway width from 38'-0" to 39'-4", Changed Curb width from 2'-8" to 2'-0" R. Testa 9/23/69

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
I-91 BR #107
PROJECT BARTON - DERBY
ROUTE NO. I-91 STA. 2539±
I91 OVER BARTON RIVER, C.P.R.R & IRASBURG S.A #3
PRELIMINARY INFORMATION SHEET
SURVEYED BY AKN. DRAWN BY CHECKED BY IN CHARGE ACC. CNT. SCALE AS SHOWN DATE 12/3/68
PROJECT EMPI 91-3(20) SHEET 118 OF 175



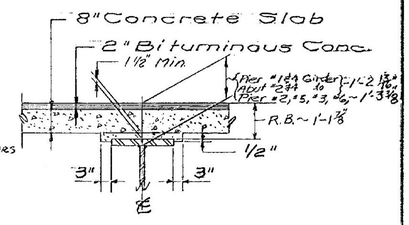
TYPICAL DECK SECTION

(NORTHBOUND SHOWN)

SCALE : 1/2"=1'-0"

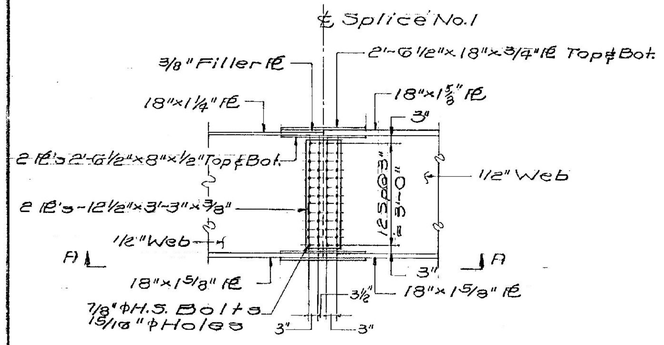
Floor Slab to be concrete, class AA 8" thick, dapped as shown at Beam Haunch, Surface to be finished with a self-propelled concrete finishing machine. Partial parabolic crown, as per detail, to be obtained by stepping bridge seats. Cut S501 Transverse Bars at skew end and use cut off on opposite end.

Note: Water Repellent, Item 490 Shall Be Used on Top of Safety-Walk And on The Fascia And Back To The Fascia Beam Under The Slab.



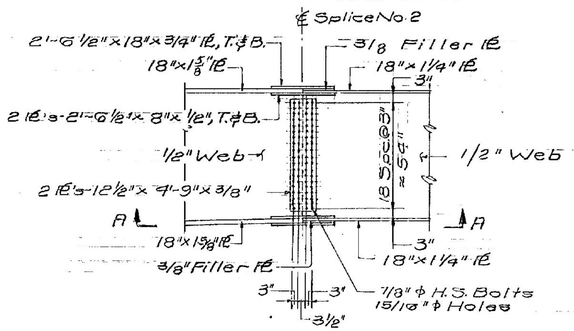
BEAM HAUNCH DETAIL

N. T. S.



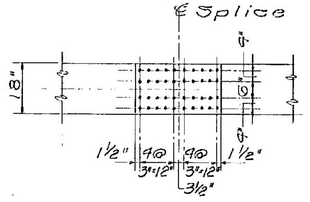
SPLICE NO. 1

SCALE: 1/2"=1'-0"



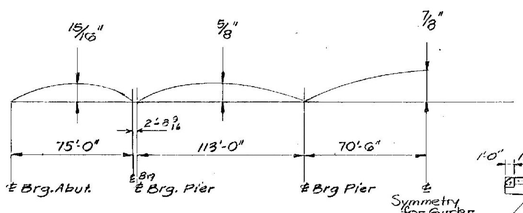
SPLICE NO. 2

SCALE : 3/8"=1'-0"



VIEW A-A

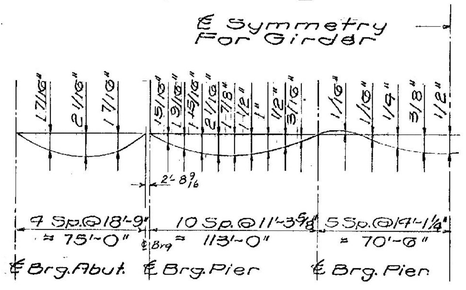
SCALE: 1/2"=1'-0"



PERMANENT CAMBER AFTER DEAD LOAD IS APPLIED

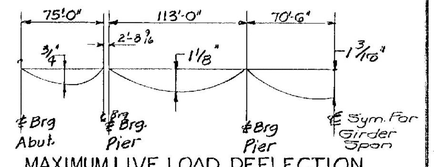
CAMBER DIAGRAM

NOT TO SCALE



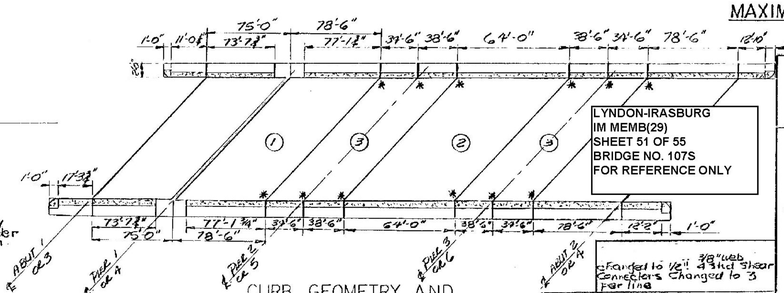
TOTAL DEAD LOAD DEFLECTIONS

N.T.S.



MAXIMUM LIVE LOAD DEFLECTION

NOT TO SCALE



* - For Curb Joint Detail See BR 118
For Detail at Pier 1 & 4 See BR 110
For Detail at Abut 1 & 3 See BR 117
For Detail at Abut 2 & 4 See BR 116

CURB GEOMETRY AND CONCRETE PLACING DIAGRAM

NOT TO SCALE

Founded to 12" 3/8" Web Shear Connectors Changed to 3 per line

SUPERSTRUCTURE NOTES:

1. For general notes and design stresses see std. sh. SCB-D1-67
2. For details of shear connectors see std. sh. SCB-D2-67
3. For bearing details at abutments see std sh. SCB-D8-67 & Br. 111 & Br. 108.
4. All cover plate welds to be ⅜" fillet continuous shop welds.
5. All field connections to be made with ⅞" ϕ High Strength Bolts with 15/16" ϕ Holes.
6. Structural Steel shall be ASTM A-36-62T unless otherwise noted.
7. Scuppers to be placed @ 50' (±) except as noted. Do not place above SA-3 or Railroad.
8. For curtain wall details, Approach Slab bracket details, See SCB-D2-67, Detail A.

BR 109 of 129

STATE OF VERMONT

DEPARTMENT OF HIGHWAYS

PROJECT IRASBURG-DERBY

TOWN OF IRASBURG

ROUTE NO. I-91 STA. 2539+

I-91 OVER BARTON RIVER AND SA# 3

DECK SECTION AND SPLICE

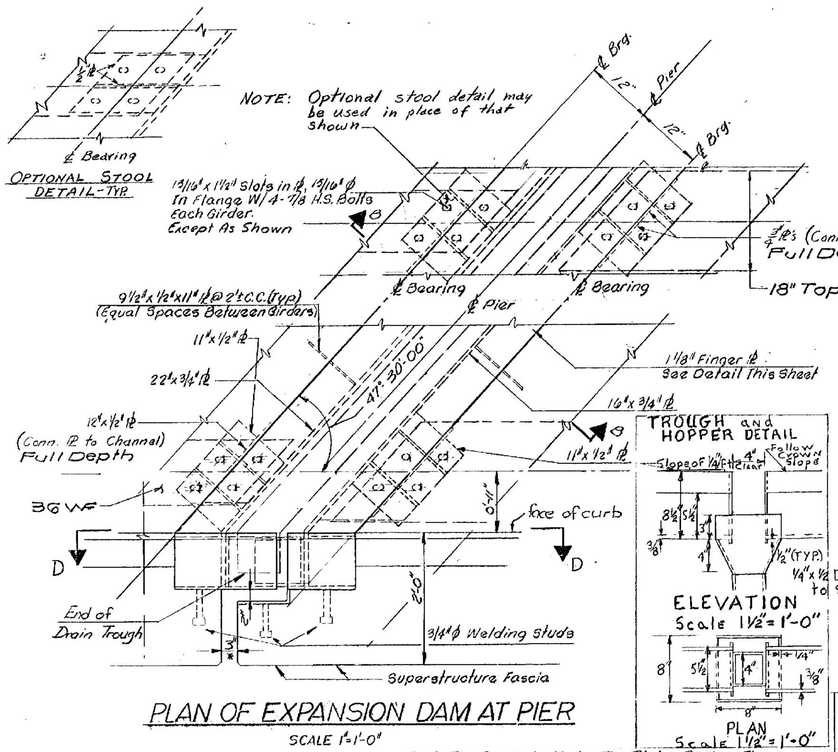
SCALE AS NOTED

IN CHARGE C. TERENZIO

DRAWN BY J.M.B. CHECKED BY A. CENTORE

PROJECT NO. 191-3(8) 9-67

SHEET 178 OF 605 BR 109



NOTES

1. All Clear Dimensions Indicated ℄ Are For 45° ℄.
2. All Steel For The Expansion Dams Shall Be ASTM A-36, Unless Otherwise Noted.
3. For Drainage Details For The Expansion Dam At Piers 1 & 4 See Std. Sh SCB-03-67 ℄ Br 119 ℄122
4. Finger Plates Shall Be Bolted Together For Shipping And Installation.
5. Drain trough to follow roadway crown, except that section from downspout to curb line shall slope to downspout at 1/4"/ft min.
6. In Accordance With Item 401.03D, 3 Coats of Paint Shall Be Applied To The Interior Surfaces of Expansion Dams Prior To Erection.
7. Apply epoxy bonding agent as approved by the Engineer prior to placing deck concrete.

ITEM NO.	ITEM	UNIT	NET		TOTAL	FINAL
	CHAN. EXCAV. OF EARTH	C.Y.				
	CHAN. EXCAV. OF ROCK	C.Y.				
	UNCLASS. CHAN. EXCAV.	C.Y.				
	STRUCT. EXCAV.	C.Y.				
	CONC. CLASS AA (MOD.)	C.Y.				
	CONC. CLASS B (MOD.)	C.Y.				
	REINF. STEEL	LBS.				
	ASPHALTIC-ASB. COATING	S.Y.				
	TREATED TIMBER PILING	L.F.				
	SPLICES FOR STEEL PILING	EA.				
	STEEL PILING	L.F.				
	UNTREATED TIMBER PILING	L.F.				

Added Flange Cutoff details Changed Brg. Stiff. sizes at Section K-K 5-11-69

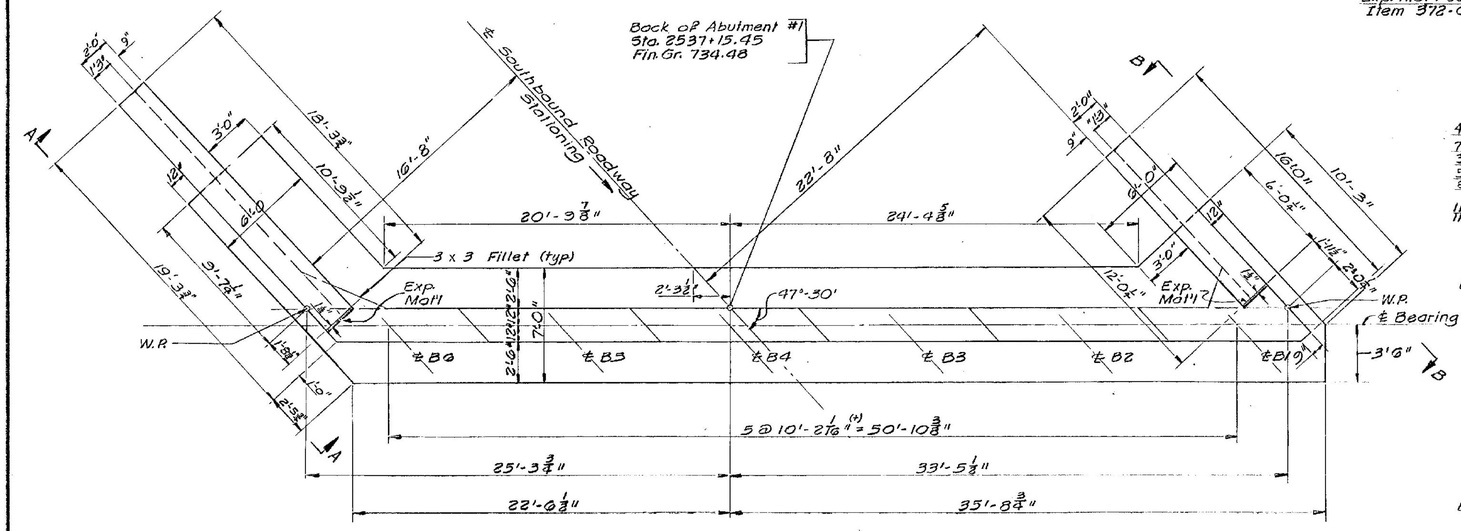
Changed roby width from 38'-0" to 39'-0" curb width from 2'-8" to 2'-0" Details changed accordingly. F. Rich 11-6-69

Rev. scupper details G. Rogers 3-6-70

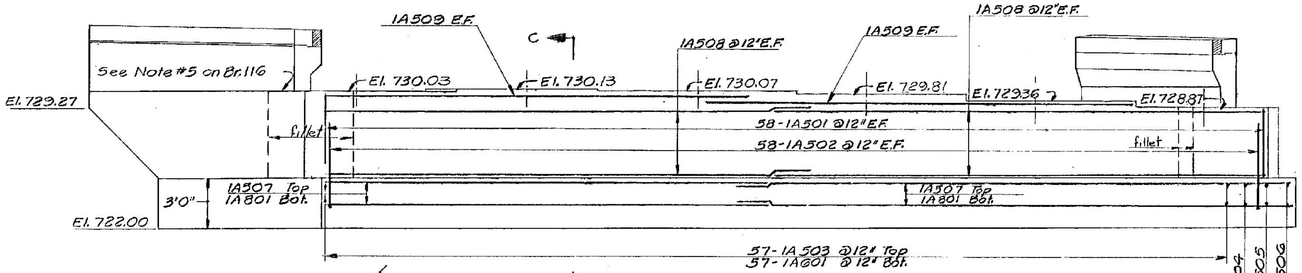
LYNDON-IRASBURG
IM MEMB(29)
SHEET 52 OF 55
BRIDGE NO. 107S
FOR REFERENCE ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

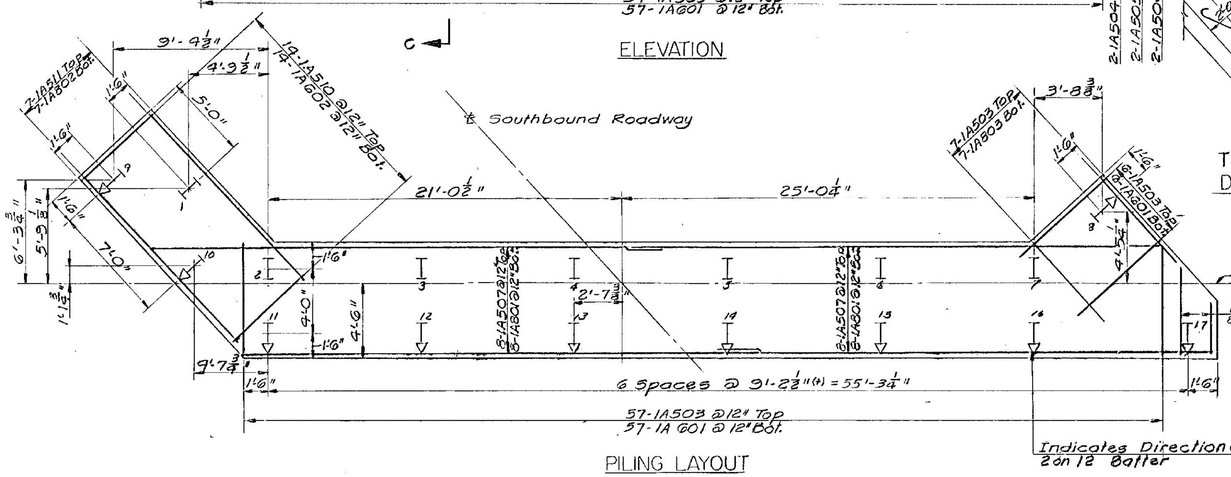
PROJECT IRASBURG - DERBY
TOWN OF IRASBURG
ROUTE NO. I-91 STA. 2539±
I-91 OVER BARTON RIVER AND S.A.#3 EXPANSION DAM
SCALE AS SHOWN
IN CHARGE EDWARDS & KELCEY
DRAWN BY DiPERRI CHECKED BY A.CENTORE 9-67
Br 110 of 129 PROJECT NO. I 91 -3(8)
SHEET 179 OF 605 BR 110



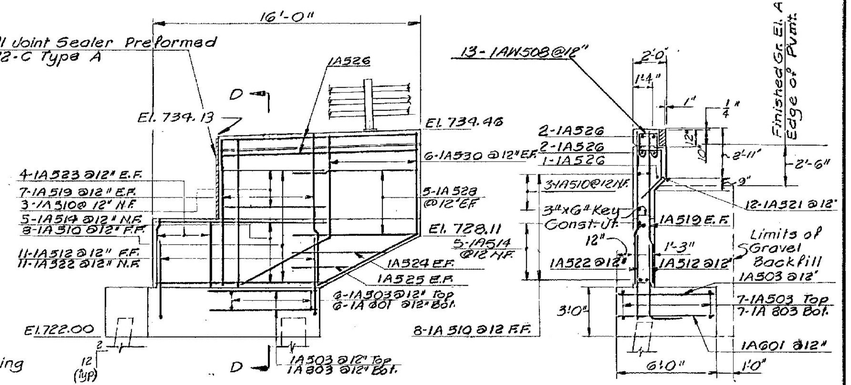
PLAN



ELEVATION

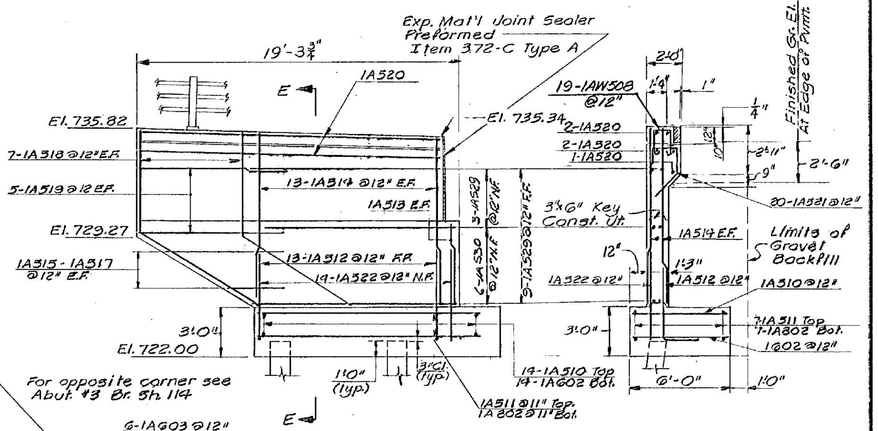


PILING LAYOUT



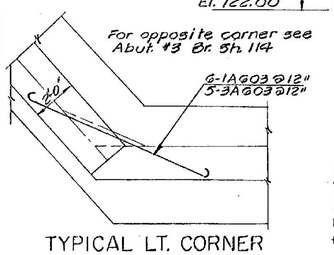
SECTION B-B

SECTION D-D

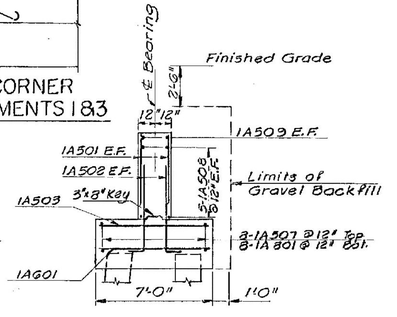


SECTION A-A

SECTION E-E



TYPICAL LT. CORNER DETAIL ABUTMENTS 1&3



SECTION C-C

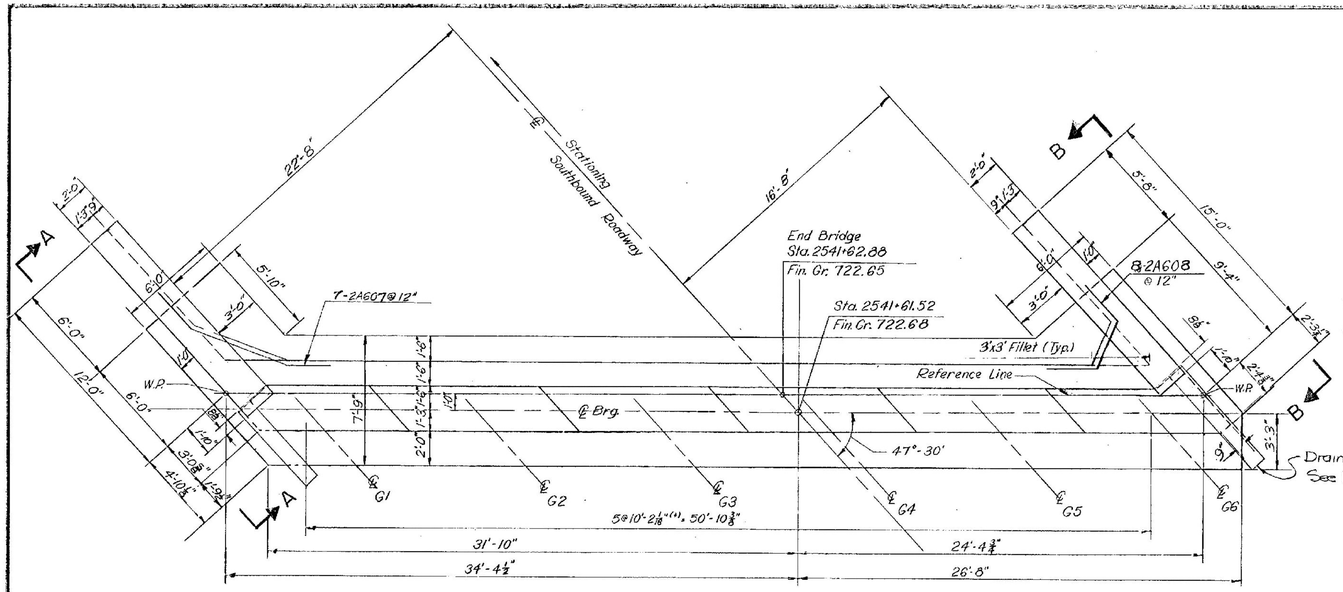
LYNDON-IRASBURG
IM MEMB(29)
SHEET 53 OF 55
BRIDGE NO. 107S
FOR REFERENCE ONLY

1. Changed curb from 2'-8" to 2'-0", Curb to curb from 38'-0" to 39'-4". Removed cheekwalls. Changed reinforcing shed accordingly. - R. Resta 3/69 - CKD by

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

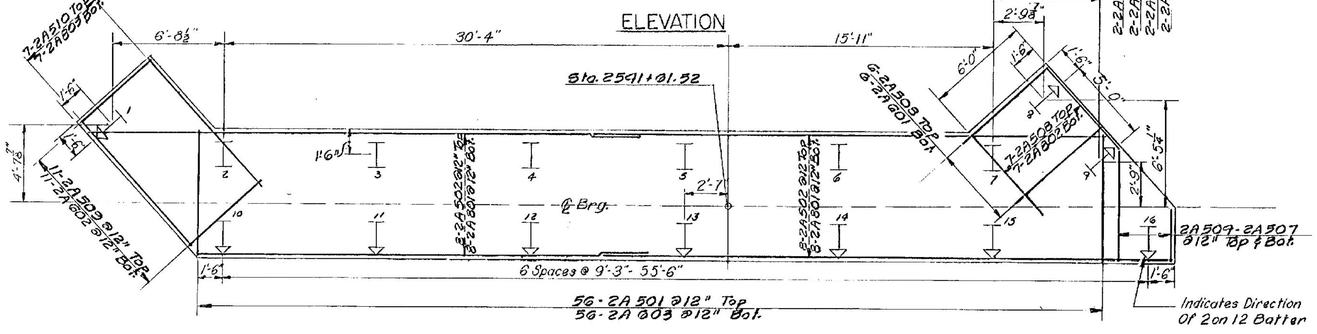
PROJECT IRASBURG - DERBY
TOWN OF IRASBURG
ROUTE NO. I-91 STA. 2539±
I-91 OVER BARTON RIVER AND SA# 3
ABUTMENT # 1
SCALE 1/4" = 1'-0"
IN CHARGE C. TERENZIO
DRAWN BY J.M.B. CHECKED BY A.CENTORE
PROJECT NO. 191-3(8) 9-67
SHEET 181 OF 605 BR. 112

BR 8

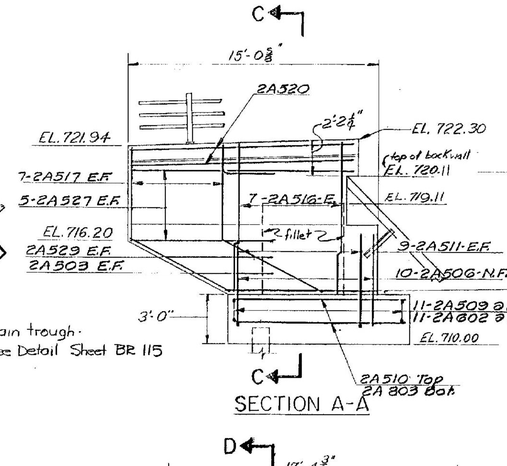


PLAN

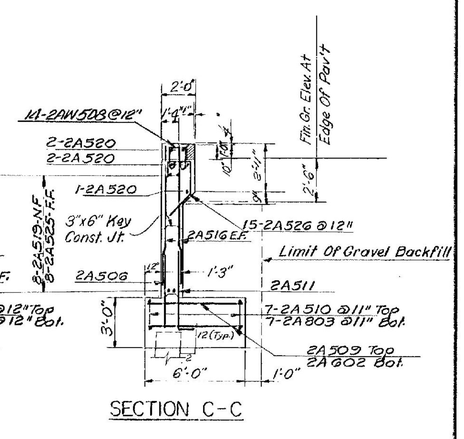
ELEVATION



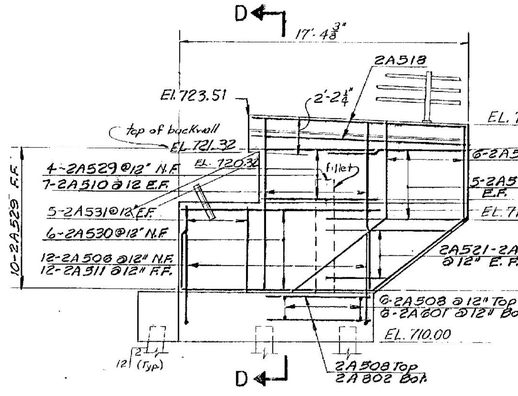
FOOTING REINFORCEMENT AND PILING LAYOUT



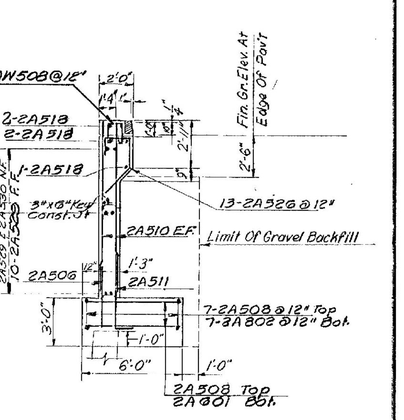
SECTION A-A



SECTION C-C



SECTION B-B



SECTION D-D

Note:
For Drain Trough Detail See BR. 115

LYNDON-IRASBURG
IM MEMB(29)
SHEET 54 OF 55
BRIDGE NO. 107S
FOR REFERENCE ONLY

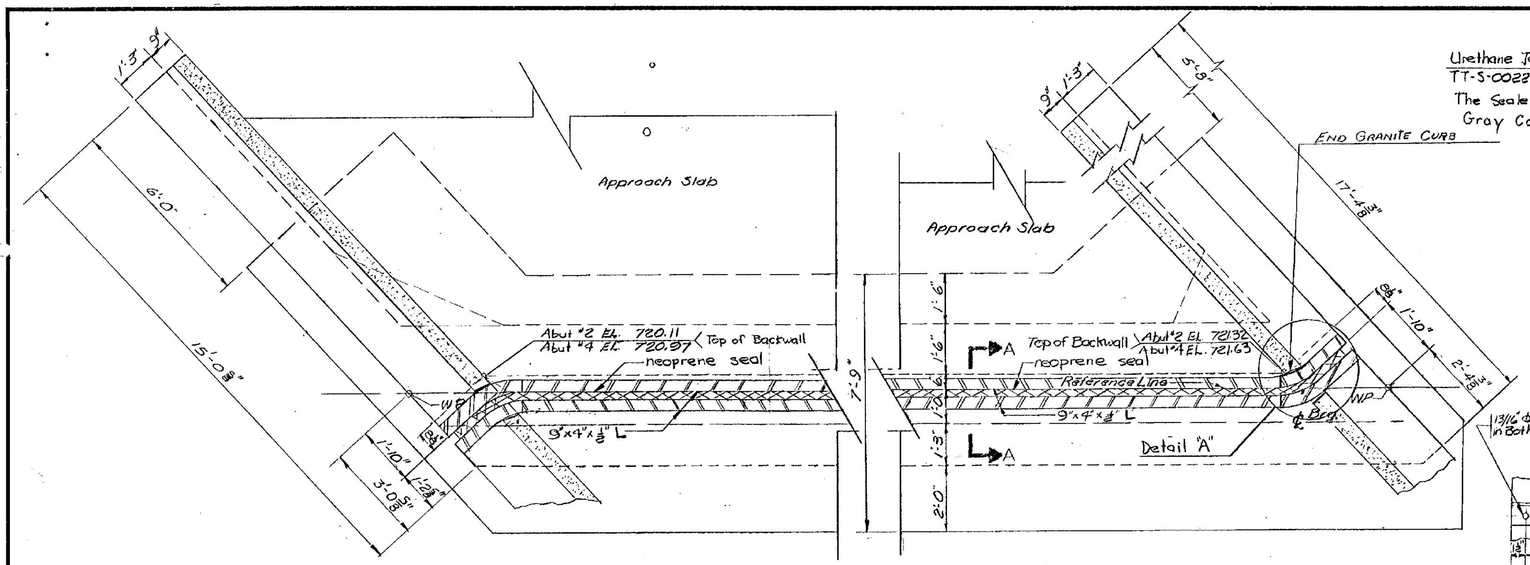
Abut. No.	No. Of Piles	Size	Estimated Length Of Piles	Splices Allowed For Piles Not Exceeding Plan Length (To Be Paid For Only If Used)	Splices Estimated For Piles Exceeding Plan Length (To Be Paid For Only If Used)
1 & 3	17	12BP53	20'	0	4
2	16	12BP53	110'	18	4
4	16	12BP53	100'	16	4

1. Changed curb from 2'-8" to 2'-10". Curb to curb distance from 38'-0" to 39'-4". Removed cheekwalls. Extended undercut full width of wing. Changed reinforcing steel accordingly. R. Testo 3/69 Chkd by.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

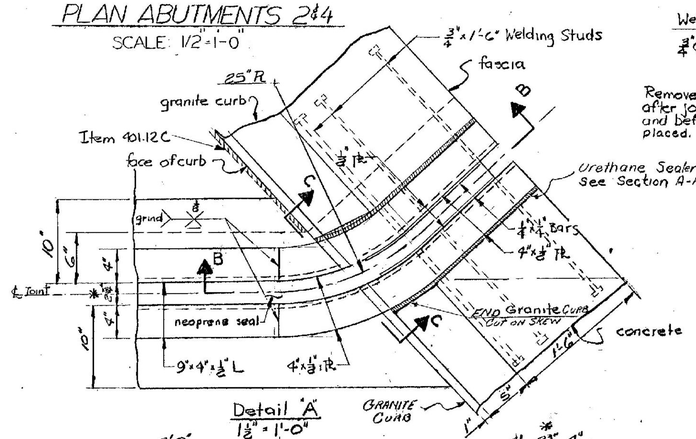
PROJECT IRASBURG-DERBY
TOWN OF IRASBURG
ROUTE NO. I-91 STA. 2539±
I-91 OVER BARTON RIVER AND SA"3
ABUTMENT "2
SCALE 3/8" = 1'-0"
IN CHARGE C. TERENZIO
DRAWN BY D.L. CHECKED BY A.CENTORE
PROJECT NO. 191-3(8) 9-67
SHEET 182 OF 605 BR. 113

ER 8



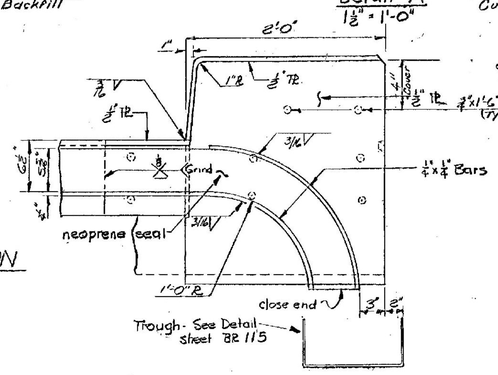
PLAN ABUTMENTS 2 & 4

SCALE: 1/2"=1'-0"



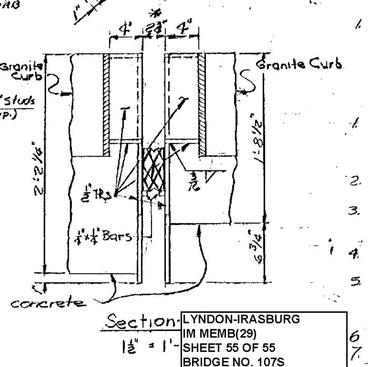
Detail "A"

1½"=1'-0"



Section - BB

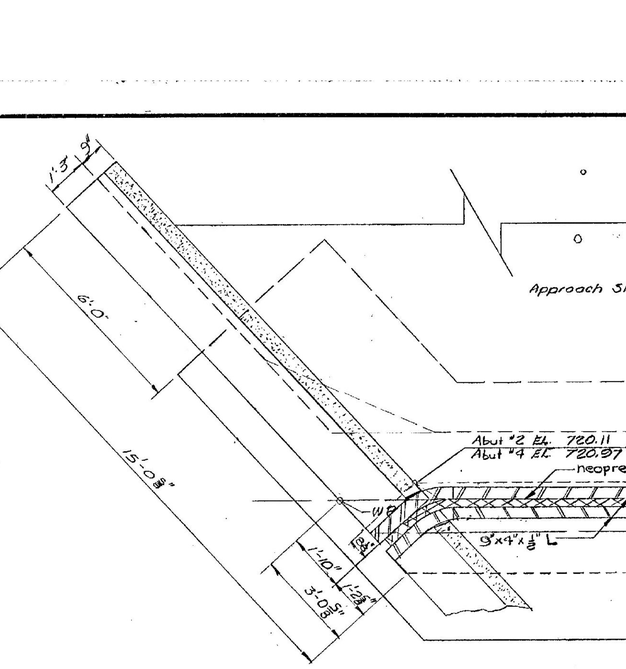
1½"=1'-0"



Section

1½"=1'-0"

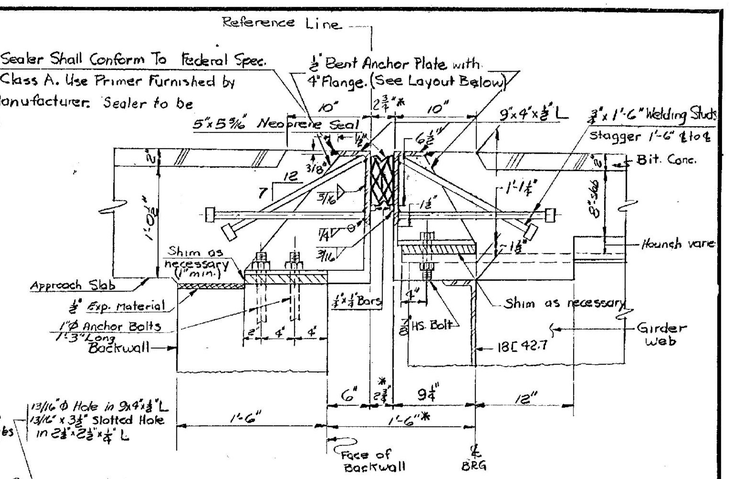
LYNDON-IRASBURG
IM MEMB(29)
SHEET 55 OF 55
BRIDGE NO. 107S
FOR REFERENCE ONLY



SECTION J-J

ABUTMENTS 2 & 4 TYPICAL SECTION

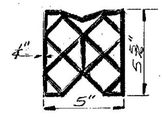
SCALE: 3/8"=1'-0"



SECTION - A A

1½"=1'-0"

NOTE: All dimensions indicated * are for 45° F.



PREFORMED JOINT MATERIAL

N.T.S.

SHOP ASSEMBLY

General Abutment Notes

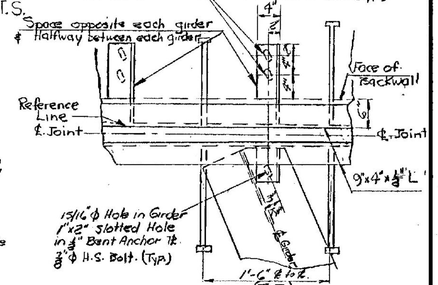
1. For Estimated Length Of Piles And No. Of Splices See Br. 113.
2. Abutments Are Designed For A Maximum Pile Bearing Pressure Of 58 Tons.
3. All Reinforcing To Have Minimum Cover Of 2" Except 3" In Footing.
4. For Details Of Const. Jts. See Std. Sh. SCB-D6-67 Detail B.
5. No Concrete Shall Be Placed Above Adjacent Bridge Seat Elevation Until Girders Have Been Profiled And Final Finish Grade Established By The Engineer.
6. Four (4) Inch Diameter Weep Holes Shall Be Provided In All Abutments, Wings And Walls. Weep Holes Shall Be Spaced Not Over Ten (10) Feet Center To Center And So Placed To Provide Adequate Drainage For Backfill.

Notes For Abutments 2 & 4

1. The Front Face of The Backwall From the Edge Of The Steel Angle For The Joint To The Bridge Seat Shall Be Coated With Paint Waterproofing, Item 410. All Exposed Surfaces Not Otherwise Coated Shall Be Covered With Water Repellant, Item 440.

Expansion Joint Notes

1. The Entire Expansion Joint And All Necessary Material And Labor to Install And Adequately Anchor the Expansion Joint Shall Be Included in Item 439A, Elastomeric Bridge Deck Expansion Joint.
2. The Expansion Joint Shall Be Entirely Shop Fabricated and Assembled As Indicated On The Prans.
3. Prior To Fabrication, Shop Drawings Shall Be Submitted In Quadruplicate To The State of Vermont, Department of Highways Bridge Engineer for Approval.
4. The Drain Trough And The Necessary Hanger Shall Be Paid For As Structural Steel Item 404-A See Sheet BR. 115
5. The Neoprene Seals Shall Be Bonded To The Steel Members With An Approved Adhesive. Prior to Bonding, All Steel Surfaces Must be Sandblasted.
6. Design Movement: Compress 3/8" Extend 3/8" From 45°F
7. A Qualified Representative Of The Joint Manufacturer Shall Be On The Project At The Time Of Installation To Ensure Proper Procedures Are Followed.
8. All Steel To Be ASTM A-36.



Anchor Plate Layout

N.T.S.

Changed Curb from 2'-8" to 2'-0". Installed Preformed Expansion Joint. Per Tests 6-10-68

STATE OF VERMONT

DEPARTMENT OF HIGHWAYS

PROJECT IRASBURG-DERBY
TOWN OF IRASBURG
ROUTE NO. I-91 STA. 2 539+
I-91 OVER BARTON RIVER AND STA. 3
ABUTS 2 & 4 DETAILS
SCALE AS SHOWN
IN CHARGE C. TERENZIO
DRAWN BY S.CURRAN CHECKED BY A.CENTORE 9-67
PROJECT NO. 191-3(8)
SHEET 185 OF 306 BR. 116