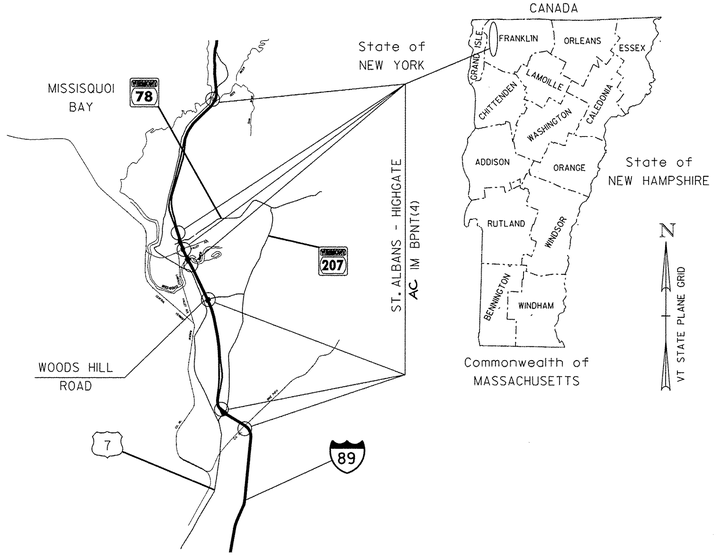
STATE OF VERMONT
AGENCY OF TRANSPORTATION

INDEX OF SHEETS

VAOT STANDARD SHEETS

E-100	01/02/04
E-101	05/30/03
E-102	06/30/03
E-102A	05/01/04
E-103	03/01/04
E-106	03/01/04
E-107	06/30/03
E-107A	06/08/09
E-110	08/08/95
E-120	08/08/95
E-121	08/08/95

PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWNS OF ST. ALBANS, SWANTON, AND HIGHGATE
COUNTY OF FRANKLIN
PROJECT AC IM BPNT(4)



LOCATION MAP
NOT TO SCALE

ROUTE NO.: INTERSTATE 89

BRIDGE NO.: 92N&S, 93N&S, 94N&S, 96N&S, 97N&S, 98N&S, AND 100N&S

PROJECT LOCATION:
ST. ALBANS - BR 92N&S OVER BIKE PATH (C.V. RY.) (MM 116.772)
ST. ALBANS - BR 93N&S OVER VT 207 (SA4) (MM 117.633)
SWANTON - BR 94N&S OVER TH NO. 3 (WOODS HILL ROAD) (SA3) (MM 121.338)
SWANTON - BR 96N&S OVER MISSISQUOI RIVER (MM 122.794)
SWANTON - BR 97N&S OVER LV RR (ST. J. & L.C. RR) (MM 123.121)
SWANTON - BR 98N&S OVER VT 78 (MM123.368)
HIGHGATE - BR 100N&S OVER ROCK RIVER (MM 128.372)

PROJECT DESCRIPTION: THIS PROJECT INVOLVES CLEANING AND REPAINTING THE EXISTING STEEL SUPERSTRUCTURE MEMBERS AND MINOR RELATED WORK.

RECORD PLANS

CONTRACTOR: HERCULES PAINTING COMPANY, INC.- NEW CASTLE, PA

RESIDENT ENGINEER: SCOTT WHEATLEY

CONSTRUCTION BEGAN: APRIL 12, 2010

CONSTRUCTION COMPLETE: NOVEMBER 21, 2010

RECORD PLANS BY: SCOTT WHEATLEY & AMOS KEMPTON

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

BY _____ RESIDENT ENGINEER

DATE JULY 28, 2011

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.

I-89 BRIDGE NO.	2009 AADTs	
	NORTHBOUND	SOUTHBOUND
92	6200	6200
93	4200	4200
94	4800	4800
96	4800	4800
97	4800	4800
98	1300	1000
100	1600	1600

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

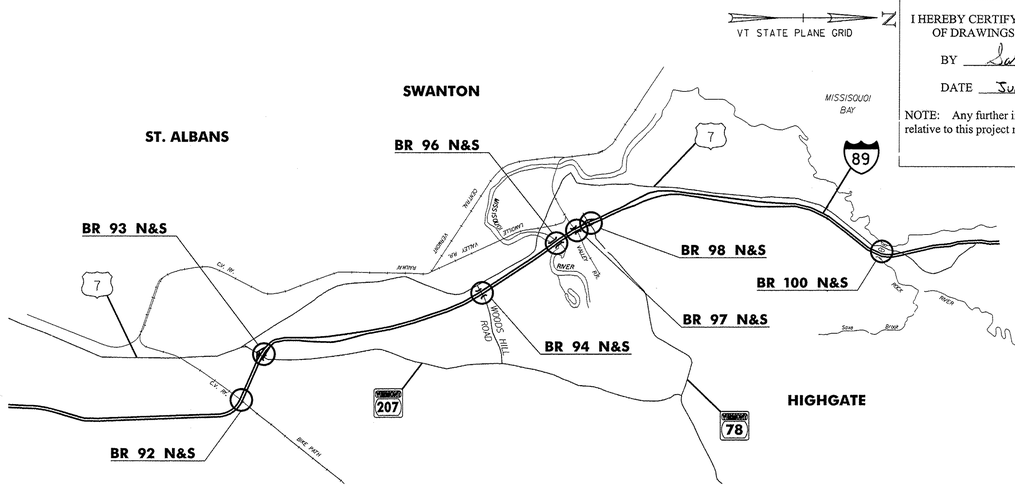
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS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

SURVEYED BY : N/A
SURVEYED DATE : N/A

DATUM
VERTICAL N/A
HORIZONTAL N/A

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
TOP OF CUT
TOE OF SLOPE



PLANS PREPARED BY:

CONSULTING ENGINEERS
CLD Inc.
540 Commercial Street Manchester, NH 03101
(603) 668-8223 • Fax (603) 668-8803
email: cld@cldengineers.com • www.cldengineers.com
Maine • New Hampshire • Vermont

STATE OF VERMONT DANIEL HUDSON No. 9125 Civil LICENSED PROFESSIONAL ENGINEER 8-17-09

STATE OF VERMONT JOHN P. BYATT NO. 8475 Structural LICENSED PROFESSIONAL ENGINEER 8/17/09

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATOR
APPROVED Ted Kimball DATE 8-9-09

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED _____ DATE 8-20-09

PROJECT MANAGER : JOHN WEAVER

PROJECT NAME : ST. ALBANS - HIGHGATE
PROJECT NUMBER : AC IM BPNT(4)

SHEET 1 OF 32 SHEETS

Received
08 2009
Program Development

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
						ROADWAY	EROSION CONTROL	NORTHBOUND BRIDGES	FULL C.E. ITEMS	SOUTHBOUND BRIDGES	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1					1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-			
								170			170		HR	TRUCK-MOUNTED ATTENUATOR	608.45	EST.			
								400		400	800		LF	REMOVING AND RESETTING FENCE	620.50	EST.			
								1910		2000	3910		LF	TEMPORARY TRAFFIC BARRIER	621.90	EST.			
								1033		1057	2090		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.			
								260		310	570		HR	FLAGGERS	630.15	EST.			
									1		1		LS	FIELD OFFICE, ENGINEERS	631.10	-			
									1		1		LS	TESTING EQUIPMENT, PROTECTIVE COATINGS	631.18	-			
									1		1		LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25	-			
						1					1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
								1			1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 100N)	641.10	-			
										1	1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 100S)	641.10	-			
								1			1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 92N)	641.10	-			
										1	1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 92S)	641.10	-			
								1			1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 93N)	641.10	-			
										1	1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 93S)	641.10	-			
								1			1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 94N)	641.10	-			
										1	1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 94S)	641.10	-			
								1			1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 96N)	641.10	-			
										1	1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 96S)	641.10	-			
								1			1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 97N)	641.10	-			
										1	1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 97S)	641.10	-			
								1			1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 98N)	641.10	-			
										1	1		LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 98S)	641.10	-			
								6		5	11		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
								2		2	4		EACH	PORTABLE ARROW BOARD	641.16	-			
								3825		3825	7650		LF	TEMPORARY 6 INCH WHITE LINE, TYPE II TAPE	646.621	EST.			
								3610		3610	7220		LF	TEMPORARY 6 INCH YELLOW LINE, TYPE II TAPE	646.631	EST.			
								25		25	50		LF	TEMPORARY 12 INCH WHITE LINE, TYPE II TAPE	646.661	EST.			
								1375		1375	2750		SF	PAVEMENT MARKING MASK	646.86	EST.			
							140				140		SY	GEOTEXTILE FOR SILT FENCE	649.51	EST.			
							140				140		SY	TEMPORARY EROSION MATTING	653.20	EST.			
								1			1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 100N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 100S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 92N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 92S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 93N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING	900.645	-			

PROJECT NAME: St. Albans - Highgate
PROJECT NUMBER: IM BPNT(4)

FILE NAME: 02-QSS.dgn
PROJECT LEADER: JOHN WEAVER
DESIGNED BY: SRB
QUANTITY SHEET #1

PLOT DATE: 08/16/2009
DRAWN BY: SRB
CHECKED BY: JPB
SHEET 2 OF 32

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
						ROADWAY	EROSION CONTROL	NORTHBOUND BRIDGES	FULL C.E. ITEMS	SOUTHBOUND BRIDGES	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
														RESIDUES) (I-89-BR. NO. 93S)					
								1			1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 94N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 94S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 96N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 96S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 97N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 97S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 98N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 98S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 100N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 100S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 92N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 92S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 93N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 93S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 94N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 94S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 96N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 96S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 97N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 97S)	900.645	-			
								1			1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 98N)	900.645	-			
										1	1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 98S)	900.645	-			

PROJECT NAME: St. Albans - Highgate
PROJECT NUMBER: IM BPNT(4)

FILE NAME: 02-QSS.dgn
PROJECT LEADER: JOHN WEAVER
DESIGNED BY: SRB
QUANTITY SHEET #2

PLOT DATE: 08/16/2009
DRAWN BY: SRB
CHECKED BY: JPB
SHEET 3 OF 32

STATE OF VERMONT
AGENCY OF TRANSPORTATION

BRIDGE QUANTITY SHEET 1

SUMMARY OF BRIDGE QUANTITIES

BRIDGE NO. 92N	BRIDGE NO. 93N	BRIDGE NO. 94N	BRIDGE NO. 96N	BRIDGE NO. 97N	BRIDGE NO. 98N	BRIDGE NO. 100N	BRIDGE TOTAL	UNIT	ITEMS	ITEM NUMBER
	170						170	HR	TRUCK-MOUNTED ATTENUATOR	608.45
200		200					400	LF	REMOVING AND RESETTING FENCE	620.50
	285	115	685		215	610	1910	LF	TEMPORARY TRAFFIC BARRIER	621.90
	125	133	418		132	225	1033	HR	UNIFORMED TRAFFIC OFFICERS	630.10
		260					260	HR	FLAGGERS	630.15
						1	1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 100N)	641.10
1							1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 92N)	641.10
	1						1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 93N)	641.10
		1					1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 94N)	641.10
			1				1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 96N)	641.10
				1			1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 97N)	641.10
					1		1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 98N)	641.10
	2	1	1		1	1	6	EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15
			1			1	2	EACH	PORTABLE ARROW BOARD	641.16
	975		1425			1425	3825	LF	TEMPORARY 6 INCH WHITE LINE, TYPE II TAPE	646.621
	760		1425			1425	3610	LF	TEMPORARY 6 INCH YELLOW LINE, TYPE II TAPE	646.631
	25						25	LF	TEMPORARY 12 INCH WHITE LINE, TYPE II TAPE	646.661
	1065		155			155	1375	SF	PAVEMENT MARKING MASK	646.86
						1	1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 100N)	900.645
1							1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 92N)	900.645
	1						1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 93N)	900.645
		1					1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 94N)	900.645
			1				1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 96N)	900.645
				1			1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 97N)	900.645
					1		1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 98N)	900.645
						1	1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 100N)	900.645
1							1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 92N)	900.645
	1						1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 93N)	900.645
		1					1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 94N)	900.645
			1				1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 96N)	900.645
				1			1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 97N)	900.645
					1		1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 98N)	900.645

TOTALS

DESCRIPTIONS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

PROJECT NAME: St. Albans - Highgate
PROJECT NUMBER: IM BPNT(4)

FILE NAME: 02-QSS.dgn
PROJECT LEADER: JOHN WEAVER
DESIGNED BY: SRB
BRIDGE QUANTITY SHEET #1

PLOT DATE: 08/16/2009
DRAWN BY: SRB
CHECKED BY: JPB
SHEET 4 OF 32

STATE OF VERMONT
AGENCY OF TRANSPORTATION

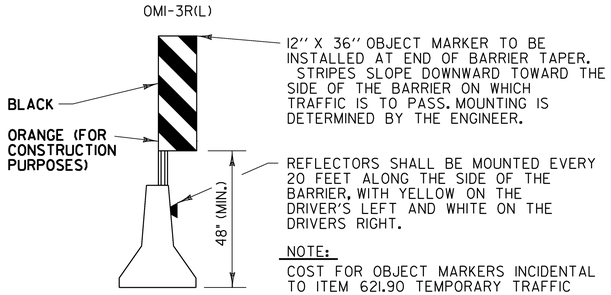
BRIDGE QUANTITY SHEET 2

SUMMARY OF BRIDGE QUANTITIES										TOTALS	DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
BRIDGE NO. 92S	BRIDGE NO. 93S	BRIDGE NO. 94S	BRIDGE NO. 96S	BRIDGE NO. 97S	BRIDGE NO. 98S	BRIDGE NO. 100S	BRIDGE TOTAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
200		200					400	LF	REMOVING AND RESETTING FENCE	620.50			
	285	115	615		215	770	2000	LF	TEMPORARY TRAFFIC BARRIER	621.90			
	125	157	417		133	225	1057	HR	UNIFORMED TRAFFIC OFFICERS	630.10			
		310					310	HR	FLAGGERS	630.15			
						1	1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 100S)	641.10			
1							1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 92S)	641.10			
	1						1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 93S)	641.10			
		1					1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 94S)	641.10			
			1				1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 96S)	641.10			
				1			1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 97S)	641.10			
					1		1	LS	TRAFFIC CONTROL (I-89-BRIDGE NO. 98S)	641.10			
	1	1	1		1	1	5	EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15			
			1			1	2	EACH	PORTABLE ARROW BOARD	641.16			
	975		1425			1425	3825	LF	TEMPORARY 6 INCH WHITE LINE, TYPE II TAPE	646.621			
	760		1425			1425	3610	LF	TEMPORARY 6 INCH YELLOW LINE, TYPE II TAPE	646.631			
	25						25	LF	TEMPORARY 12 INCH WHITE LINE, TYPE II TAPE	646.661			
	1065		155			155	1375	SF	PAVEMENT MARKING MASK	646.86			
						1	1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 100S)	900.645			
1							1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 92S)	900.645			
	1						1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 93S)	900.645			
		1					1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 94S)	900.645			
			1				1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 96S)	900.645			
				1			1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 97S)	900.645			
					1		1	LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89-BR. NO. 98S)	900.645			
						1	1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 100S)	900.645			
1							1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 92S)	900.645			
	1						1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 93S)	900.645			
		1					1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 94S)	900.645			
			1				1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 96S)	900.645			
				1			1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 97S)	900.645			
					1		1	LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89-BR. NO. 98S)	900.645			

PROJECT NAME: St. Albans - Highgate
PROJECT NUMBER: IM BPNT(4)

FILE NAME: 02-QSS.dgn
PROJECT LEADER: JOHN WEAVER
DESIGNED BY: SRB
BRIDGE QUANTITY SHEET #2

PLOT DATE: 08/16/2009
DRAWN BY: SRB
CHECKED BY: JPB
SHEET 5 OF 32



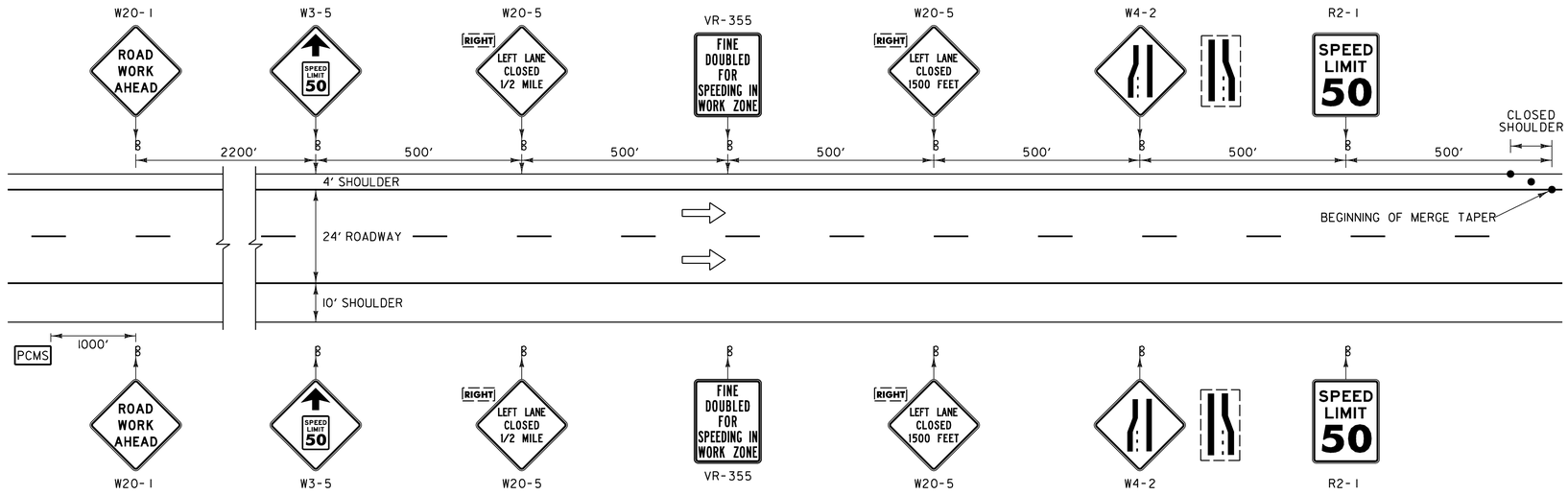
12" X 36" OBJECT MARKER TO BE INSTALLED AT END OF BARRIER TAPER. STRIPES SLOPE DOWNWARD TOWARD THE SIDE OF THE BARRIER ON WHICH TRAFFIC IS TO PASS. MOUNTING IS DETERMINED BY THE ENGINEER.

REFLECTORS SHALL BE MOUNTED EVERY 20 FEET ALONG THE SIDE OF THE BARRIER, WITH YELLOW ON THE DRIVER'S LEFT AND WHITE ON THE DRIVERS RIGHT.

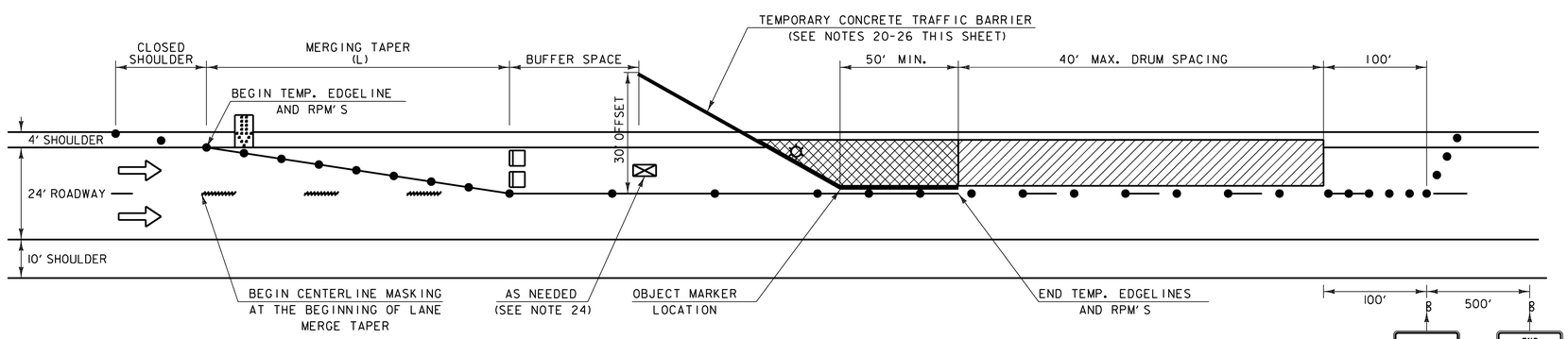
NOTE:
COST FOR OBJECT MARKERS INCIDENTAL TO ITEM 621.90 TEMPORARY TRAFFIC BARRIER.

TRAFFIC CONTROL NOTES:

1. THE LEFT LANE CLOSURE IS SHOWN. THE RIGHT LANE APPROACH SIGNING IS SIMILAR. THE RIGHT LANE CLOSURE SHOULD BE MIRRORED.
2. THE EXISTING SPEED LIMIT IS 65 MPH ON I-89. THE SPEED LIMIT WILL BE REDUCED TO 50 MPH ON I-89 IN THE WORK ZONE FOR THIS PROJECT. ANY EXISTING SPEED LIMIT SIGNS WITHIN THE SPEED REDUCTION AREA SHALL BE COMPLETELY COVERED. THE SPEEDS SHALL REMAIN AS POSTED ON VT 207, VT 78, AND WOODS HILL ROAD.
3. SIGNS SHALL BE INSTALLED SO AS NOT TO OBSTRUCT EXISTING SIGNS.
4. 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).
5. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING AASHTO M 268 REQUIREMENTS, UNLESS OTHERWISE NOTED.
6. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING AASHTO M 268.
7. 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.
8. 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.
9. 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.
10. 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.
11. THE CONTRACTOR SHALL HAVE SIGNS FOR CLOSURE OF RIGHT AND LEFT LANES ON PROJECT BEFORE WORK COMMENCES.
12. 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.
13. 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 5 ADDITIONAL RETROREFLECTIVE DRUMS SPACED AT 10 FEET ON CENTER.
14. 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.
15. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER, THE 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".
16. TRAVEL LANE SHALL BE 12 FEET WIDE.
17. THE CONTRACTOR SHALL REDUCE TRAFFIC TO ONE LANE DURING WORKING HOURS IN ACCORDANCE WITH THIS SHEET. ALL EQUIPMENT SHALL BE MOVED TO A LOCATION OFF PAVED SHOULDERS DURING NON-WORK PERIODS, AND PROTECTED BY BARRELS OR CONES, UNLESS BARRIER IS USED.
18. TRAFFIC CONTROL PLANS HAVE NOT BEEN PROVIDED FOR BRIDGES 92 (NORTH & SOUTH) AND 97 (NORTH & SOUTH). BOTH BRIDGES CROSS RECREATIONAL TRAILS AND ALL WORK SHALL TAKE PLACE FROM UNDERNEATH. DURING CONSTRUCTION, TRAIL TRAFFIC MUST BE MAINTAINED IN ACCORDANCE WITH MUTCD, AASHTO, VOSHA, AND ADA REQUIREMENTS. IF WORK IS TO BE PREFORMED FROM THE TOP OF THE BRIDGE, LANE CLOSURES AND SIGNING SHALL CONFORM WITH THIS SHEET.
19. ALL TRAFFIC CONTROL EQUIPMENT SHOULD BE USED AND SET UP IN A MANNER TO ACCOMMODATE TRUCK TURNING TRAFFIC.



CONSTRUCTION APPROACH SIGNING FOR BRIDGES 96 AND 100 ON INTERSTATE 89 LEFT LANE CLOSED



TRAFFIC CONTROL FOR BRIDGES 96 AND 100 ON INTERSTATE 89 LEFT LANE CLOSED WITH TEMPORARY CONCRETE TRAFFIC BARRIER

(LEFT LANE CLOSURE SHOWN, RIGHT LANE CLOSURE MIRRORED)

CONCRETE MEDIAN BARRIER NOTES:

20. THE EXISTING TRAVEL LANE WIDTH SHOULD BE MAINTAINED IF POSSIBLE.
21. TEMPORARY TAPE EDGELINES SHALL BE APPLIED AND SHALL MAINTAIN A ONE FOOT MINIMUM DISTANCE FROM THE BARRIER WITH TWO FEET BEING DESIRABLE.
22. LINE STRIPING TARGETS (LST'S) SHALL BE PLACED TO THE OUTSIDE OF THE TEMPORARY TAPE AT 20 FOOT SPACING.
23. PROVIDE A MINIMUM TAPER RATE AS SHOWN IN THE TABLE THIS SHEET, WITH A MINIMUM OF 50 FEET OF TANGENT SECTION PRIOR TO THE BEGINNING OF THE WORK ZONE.
24. THE END OF THE BARRIER FACING APPROACHING TRAFFIC SHALL MEET THE FOLLOWING REQUIREMENTS.
    A. WHEN NO GUARDRAIL IS PRESENT, A 30 FOOT OFFSET SHALL BE USED FROM THE EDGE OF TRAVELLED WAY. IF A 30' OFFSET IS NOT ATTAINABLE, THEN AN ENERGY ABSORPTION ATTENUATOR SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 621 (COST INCIDENTAL TO ITEM 621.90 TEMPORARY TRAFFIC BARRIER).
    B. IF GUARDRAIL IS PRESENT, THEN TEMPORARY CONCRETE TRAFFIC BARRIER SHALL BE CONNECTED TO EXISTING GUARDRAIL (COST INCIDENTAL TO ITEM 621.90 TEMPORARY TRAFFIC BARRIER) (COSTS FOR DISMANTLING BARRIER CONNECTION AND RESTORING EXISTING BARRIER TO ORIGINAL CONFIGURATION SHALL BE INCIDENTAL TO ITEM 621.90 TEMPORARY TRAFFIC BARRIER.)
25. ALL EQUIPMENT SHALL BE PARKED BEHIND TEMPORARY CONCRETE TRAFFIC BARRIERS AT NIGHT AND ON WEEKENDS WHEN NOT IN USE.
26. RETROREFLECTIVE PLASTIC DRUM SPACING SHALL BE 40 FOOT MAX. BETWEEN TEMPORARY CONCRETE TRAFFIC BARRIER AND END OF WORK ZONE.

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- LIGHTING
- TYPE III BARRICADE
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15)
- CONSTRUCTION STAGING/ STORAGE AREA (SEE NOTE 25)

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

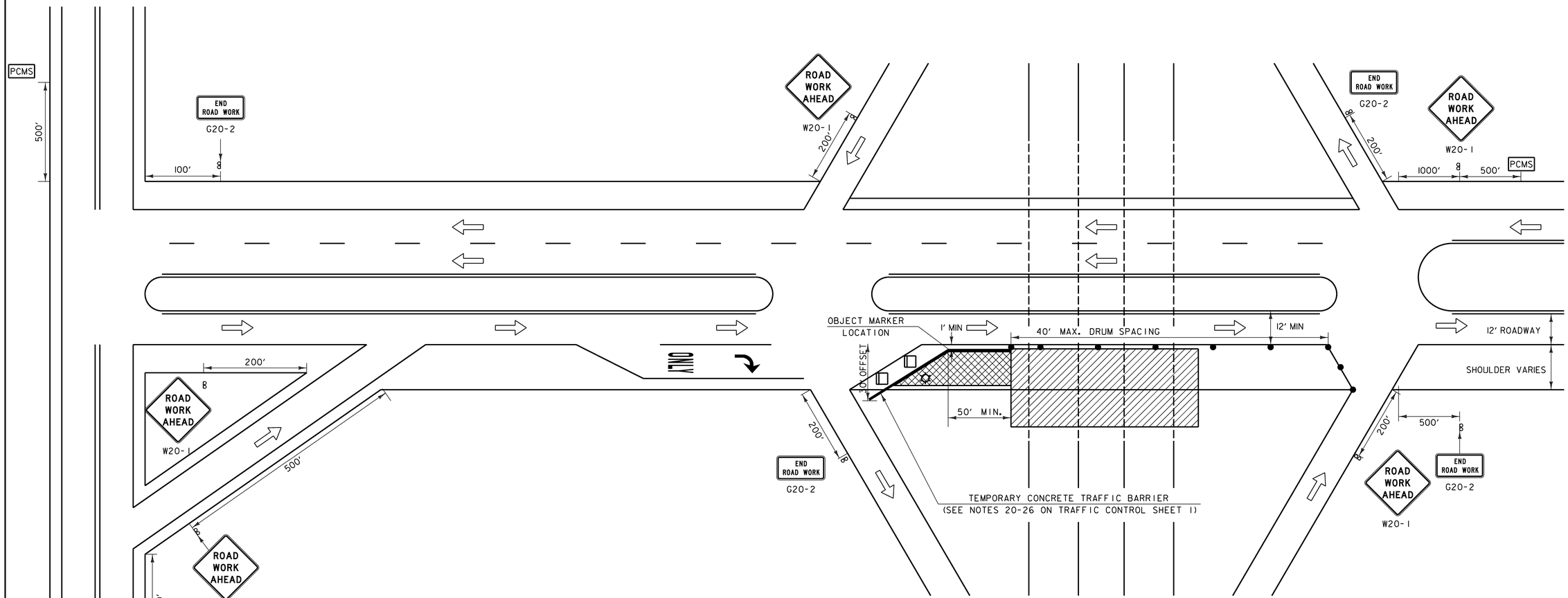
TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATION:
L = WS, FOR POSTED SPEEDS OF 45 MPH OR GREATER
L = WS²/60 FOR POSTED SPEEDS OF 40 MPH OR LESS

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

PROJECT NAME: ST. ALBANS - HIGHGATE
PROJECT NUMBER: IM BPNT(4)

FILE NAME: TCP BR 96 & 100.dgn
PROJECT LEADER: JPB
DESIGNED BY: JJB
PLOT DATE: 8/17/2009
DRAWN BY: NCF/JJB
CHECKED BY: DH

TRAFFIC CONTROL SHEET 1



TRAFFIC CONTROL FOR VT 207 UNDER BRIDGE 93 NORTHBOUND LANE CLOSURE WITH TEMPORARY CONCRETE TRAFFIC BARRIER

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- LIGHTING
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15 ON TRAFFIC CONTROL SHEET 1)
- CONSTRUCTION STAGING/ STORAGE AREA (SEE NOTE 25 ON TRAFFIC CONTROL SHEET 1)

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)	SHIFTING W=12 FT (L/2)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	160	320	160	1:9	305	40	80
45	150	270	540	270	1:9	360	45	90
50	170	300	600	300	1:11	425	50	100
55	185	330	660	330	1:13	495	55	110
60	200	360	720	360	1:13	570	60	120
65	215	390	780	390	1:13	645	65	130

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

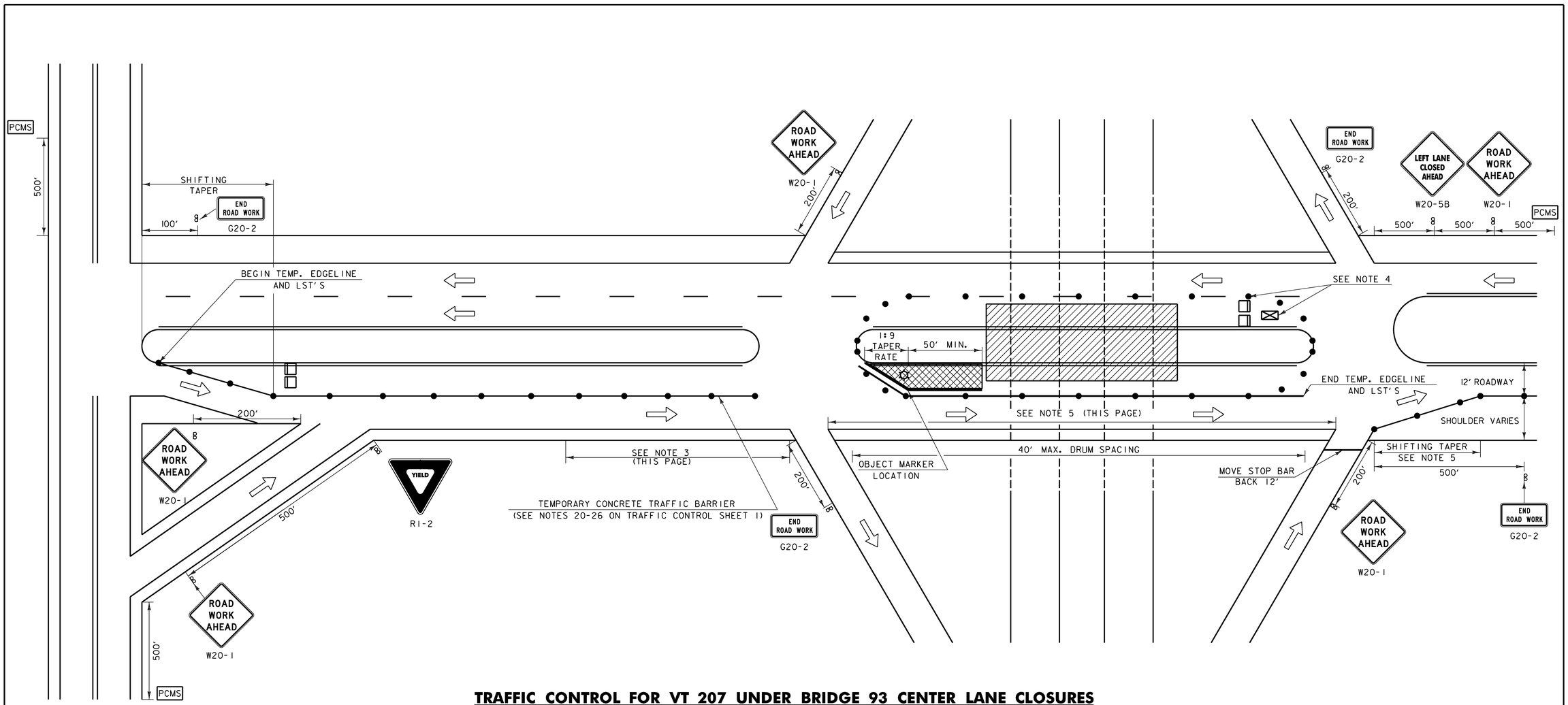
TRAFFIC CONTROL NOTES:

1. SEE THE TRAFFIC CONTROL NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES FOR LANE CLOSURES.
2. SEE THE CONCRETE MEDIAN BARRIER NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES FOR LANE CLOSURES.

PROJECT NAME: ST. ALBANS - HIGHGATE
PROJECT NUMBER: IM BPNT(4)

FILE NAME: TCP BR 93.dgn
PROJECT LEADER: JPB
DESIGNED BY: JJB
TRAFFIC CONTROL SHEET 2

PLOT DATE: 8/17/2009
DRAWN BY: NCF/JJB
CHECKED BY: DH
SHEET 7 OF 32



TRAFFIC CONTROL FOR VT 207 UNDER BRIDGE 93 CENTER LANE CLOSURES WITH TEMPORARY CONCRETE TRAFFIC BARRIER

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- LIGHTING
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15 ON TRAFFIC CONTROL SHEET 1)
- CONSTRUCTION STAGING/ STORAGE AREA (SEE NOTE 25 ON TRAFFIC CONTROL SHEET 1)

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)	SHIFTING W=12 FT (L/2)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	160	320	160	1:9	305	40	80
45	150	270	540	270	1:9	360	45	90
50	170	300	600	300	1:11	425	50	100
55	185	330	660	330	1:13	495	55	110
60	200	360	720	360	1:13	570	60	120
65	215	390	780	390	1:13	645	65	130

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

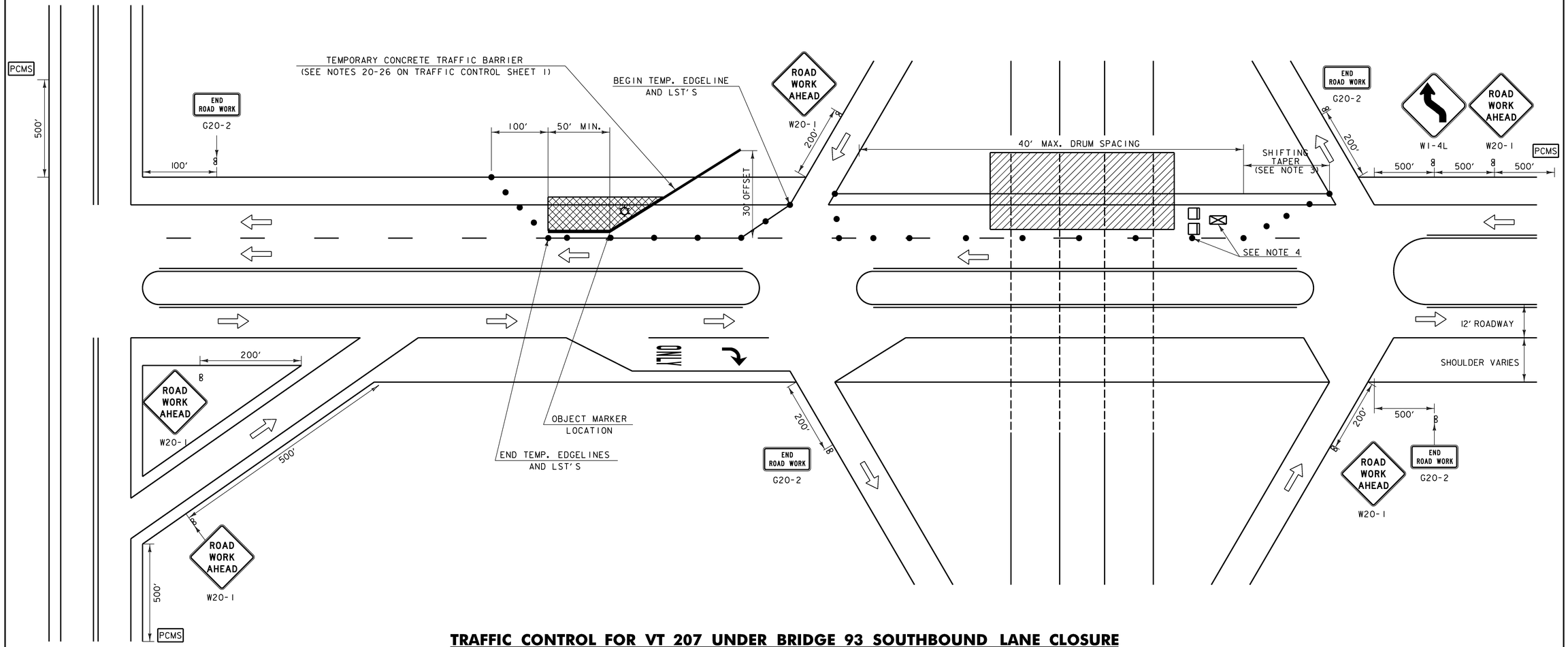
TRAFFIC CONTROL NOTES:

1. SEE THE TRAFFIC CONTROL NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES FOR LANE CLOSURES.
2. SEE THE CONCRETE MEDIAN BARRIER NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES FOR LANE CLOSURES.
3. PAVEMENT MARKINGS FOR TURN LANE NEED TO BE MASKED. ALL LANE USEAGE SIGNS NEED TO BE COMPLETELY COVERED.
4. ATTENUATOR AND CHANNELIZATION DEVICES ON SOUTHBOUND ARE NEEDED ONLY WHILE WORK IS TAKING PLACE.
5. PAVEMENT MARKINGS FOR HATCHED SHOULDER NEED TO BE MASKED.

PROJECT NAME: ST. ALBANS - HIGHGATE
PROJECT NUMBER: IM BPNT(4)

FILE NAME: TCP BR 93.dgn
PROJECT LEADER: JPB
DESIGNED BY: JJB
TRAFFIC CONTROL SHEET 3

PLOT DATE: 8/17/2009
DRAWN BY: NCF/JJB
CHECKED BY: DH
SHEET 8 OF 32



TRAFFIC CONTROL FOR VT 207 UNDER BRIDGE 93 SOUTHBOUND LANE CLOSURE WITH TEMPORARY CONCRETE TRAFFIC BARRIER

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- LIGHTING
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15 ON TRAFFIC CONTROL SHEET 1)
- CONSTRUCTION STAGING/ STORAGE AREA (SEE NOTE 25 ON TRAFFIC CONTROL SHEET 1)

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)	SHIFTING W=12 FT (L/2)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	160	320	160	1:9	305	40	80
45	150	270	540	270	1:9	360	45	90
50	170	300	600	300	1:11	425	50	100
55	185	330	660	330	1:13	495	55	110
60	200	360	720	360	1:13	570	60	120
65	215	390	780	390	1:13	645	65	130

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

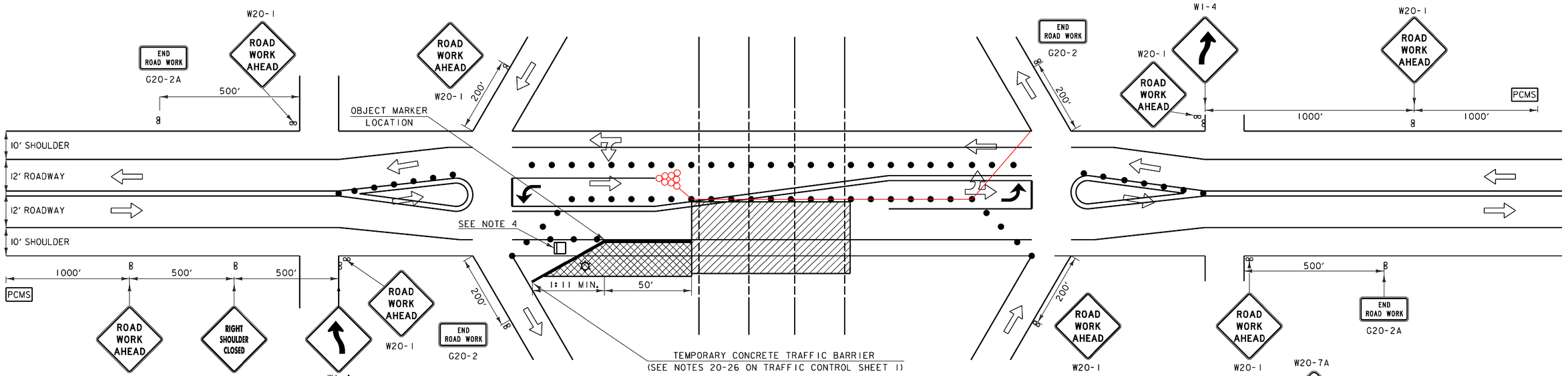
TRAFFIC CONTROL NOTES:

1. SEE THE TRAFFIC CONTROL NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES FOR LANE CLOSURES.
2. SEE THE CONCRETE MEDIAN BARRIER NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES FOR LANE CLOSURES.
3. IF FULL SHIFTING TAPER CANNOT BE PROVIDED, THE LENGTH OF THE TAPER SHOULD BE MAXIMIZED AS MUCH AS POSSIBLE.
4. ATTENUATOR ONLY NEEDED WHILE WORK IS TAKING PLACE. CHANNELIZATION DEVICES AND BARRICADES TO REMAIN FOR PROJECT DURATION.

PROJECT NAME: ST. ALBANS - HIGHGATE
PROJECT NUMBER: IM BPNT(4)

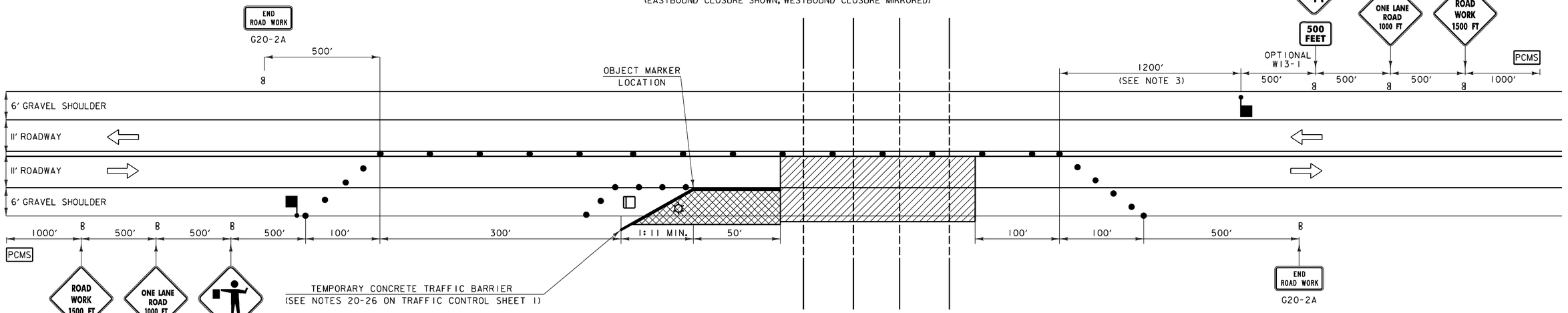
FILE NAME: TCP BR 93.dgn
PROJECT LEADER: JPB
DESIGNED BY: JJB
TRAFFIC CONTROL SHEET 4

PLOT DATE: 8/17/2009
DRAWN BY: NCF/JJB
CHECKED BY: DH
SHEET 9 OF 32



TRAFFIC CONTROL FOR VT 78 UNDER BRIDGE 98
WITH DAYTIME TWO WAY TRAFFIC AND TEMPORARY CONCRETE TRAFFIC BARRIER

(EASTBOUND CLOSURE SHOWN, WESTBOUND CLOSURE MIRRORED)



TRAFFIC CONTROL FOR WOOD HILL ROAD UNDER BRIDGE 94
WITH DAYTIME ONE WAY ALTERNATING TRAFFIC AND TEMPORARY CONCRETE TRAFFIC BARRIER

(EASTBOUND CLOSURE SHOWN, WESTBOUND CLOSURE MIRRORED)

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- LIGHTING
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15 ON TRAFFIC CONTROL SHEET 1)
- FLAGPERSON
- CONSTRUCTION STAGING/ STORAGE AREA (SEE NOTE 25 ON TRAFFIC CONTROL SHEET 1)

TRAFFIC CONTROL NOTES:

1. SEE THE TRAFFIC CONTROL NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES AND APPROACH SIGNING FOR THE LEFT LANE CLOSURE.
2. SEE THE CONCRETE MEDIAN BARRIER NOTES ON TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES FOR LANE CLOSURES.
3. DUE TO THE LARGE AMOUNT OF TRUCK TRAFFIC AND THE STEEP DOWNGRADE AT BRIDGE 94, THE WESTBOUND FLAGGER NEEDS TO BE POSITIONED AT THE CREST OF THE HILL, APPROXIMATELY 1200' WEST OF BRIDGE 94 NB.

PROJECT NAME: ST. ALBANS - HIGHGATE
PROJECT NUMBER: IM BPNT(4)

FILE NAME: TCP BR 98.dgn
PROJECT LEADER: JPB
DESIGNED BY: JJB
TRAFFIC CONTROL SHEET 5

PLOT DATE: 8/17/2009
DRAWN BY: NCF/JJB
CHECKED BY: DH
SHEET 10 OF 32

PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TOSTATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.

2. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS. UNLESS SHOWN OTHERWISE ON REFERENCE PLANS, THE RIGHT-OF-WAY LIMITS FOR UNDERPASS ROADWAYS AND PATHS SHALL BE ASSUMED TO BE 3 RODS.

3. PAYMENT FOR THE REMOVAL AND RESETTING OF RIGHT-OF-WAY FENCE FOR STAGING OR CONSTRUCTION ACCESS SHALL BE UNDER ITEM 620.50 REMOVING AND RESETTING FENCE.

4. STAGING AREAS OFF THE PAVEMENT SHALL UNDERGO VTRANS CONSTRUCTION STAGING REVIEW. ALL DISTURBED STAGING AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. EXCEPT FOR EXPENSES COVERED UNDER ITEM 649.51 GEOTEXTILE FOR SILT FENCE AND ITEM 653.20 TEMPORARY EROSION MATTING, ALL COSTS SHALL BE COVERED UNDER SUBSECTION 105.29 (a).

5. ALL COSTS ASSOCIATED WITH EXTENDING OR FILLING THE DRAIN TUBES AND REPAIRING SCUPPERS SHALL BE INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL).

6. ALL WELDING SHALL CONFORM WITH THE PROVISIONS OF SUBSECTION 506.10.

7. HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A-500 GRADE C.

8. ALL BARS SHALL CONFORM TO AASHTO 270 GRADE 50.

9. IT IS ANTICIPATED THAT LESS THAN 1 ACRE OF EARTH DISTURBANCE WILL OCCUR DURING PROJECT CONSTRUCTION. SHOULD THE CONTRACTOR'S OPERATIONS RESULT IN MORE THAN 1 ACRE OF EARTH DISTURBANCE, FOR TEMPORARY STAGING AREAS OR OTHERWISE, THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH THE AGENCY OF NATURAL RESOURCES (ANR) VIA FILING A JOINT NOTICE OF INTENT WITH THE TOWN FOR COVERAGE UNDER THE APPROPRIATE CONSTRUCTION GENERAL PERMIT (I.E. CGP-3-9020 (2006) OR INDIVIDUAL PERMIT) PRIOR TO SUCH DISTURBANCE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY NECESSARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NEEDED TO SATISFY ANY SUCH PERMIT REQUIREMENTS, SPECIFICALLY ITEM 649.51 GEOTEXTILE FOR SILT FENCE AND ITEM 653.20 TEMPORARY EROSION MATTING. HOWEVER, IT SHOULD BE NOTED THAT THE CONTRACTOR IS ALWAYS RESPONSIBLE FOR ENSURING THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL TECHNIQUES ARE USED DURING CONSTRUCTION. EXCEPT FOR EXPENSES COVERED UNDER ITEM 649.51 GEOTEXTILE FOR SILT FENCE AND ITEM 653.20 TEMPORARY EROSION MATTING, ALL COSTS SHALL BE COVERED UNSER SUBSECTION 105.29 (a). GUIDANCE ON EROSION PREVENTION AND SEDIMENT CONTROL CAN BE FOUND IN ANR'S PUBLICATIONS ENTITLED "THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" AND THE "VERMONT EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE."

PROTECTIVE COATINGS

10. SURFACE PREPARATION SHALL INCLUDE TOTAL REMOVAL OF THE EXISTING COATING FROM ALL BRIDGE STEEL BY ABRASIVE BLAST CLEANING IN ACCORDANCE WITH SSPC-SP 10, "NEAR WHITE METAL". PREPARED SURFACES SHALL THEN BE COATED WITH AN APPROVED THREE COAT PAINT SYSTEM CONSISTING OF AN ORGANIC ZINC PRIMER COAT, AN EPOXY INTERMEDIATE COAT, AND A URETHANE FINISH COAT.

11. THE COLOR OF THE FINAL COAT OF PAINT SHALL BE BROWN CONFORMING TO SUBSECTION 708.03.

12. GREASE COATING SHALL BE APPLIED TO THE FULL DEPTH OF ALL STEEL FROM THE BEAMS ENDS TO A LENGTH EQUAL TO THE END DEPTH OF THE MEMBER.

TRAFFIC CONTROL

13. THE CONTRACTOR SHALL SUBMIT SITE SPECIFIC TRAFFIC CONTROL PLANS DEPICTING EACH PHASE OF THE PLANNED WORK FOR ANY WORK ON I-89 OR FROM THE ROADS BELOW THE BRIDGES. PLANS SHALL BE SUBMITTED IN ACCORDANCE WITH SUBSECTION 105.03 AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN AN APPROPRIATE DISCIPLINE IN THE STATE OF VERMONT.

14. THE CONTRACTOR SHALL REQUEST TRAFFIC VOLUMES FROM VTRANS FOR USE IN THE PROJECT SPECIFIC TRAFFIC CONTROL PLANS.

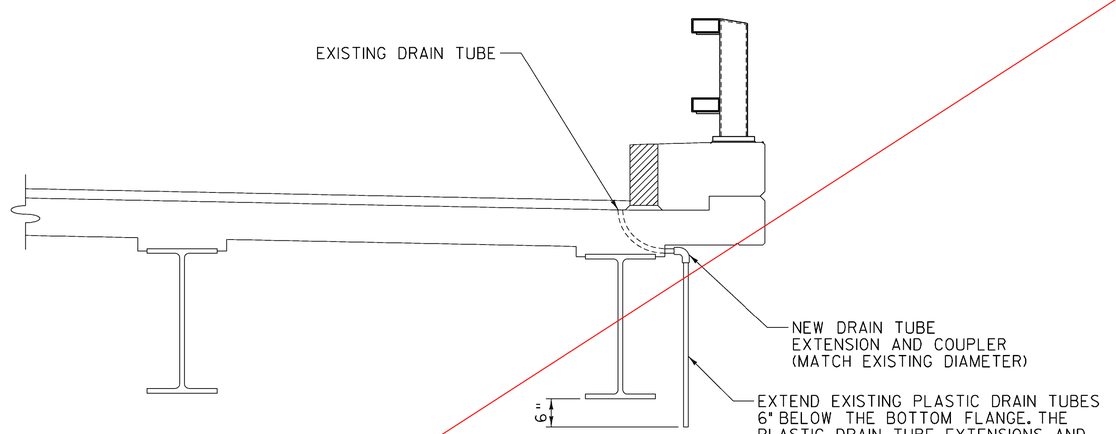
15. IN ORDER TO COORDINATE WITH OTHER I-89 PROJECTS, WORK ON THE BRIDGES SHALL BE COMPLETED IN THE FOLLOWING CONSTRUCTION YEARS: 2010 - 2011

16. UNIFORMED TRAFFIC OFFICERS ARE REQUIRED FOR THE TRAFFIC CONTROL DESIGN ON I-89.

17. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS, ALL COSTS FOR TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING TRAFFIC BARRIERS, SIGNS, AND SIGN POSTS, AS WELL AS ALL PROTECTION FOR TRAIL TRAFFIC WILL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL, ITEM 641.10.

UTILITIES

18. THERE ARE NO KNOWN UTILITIES ON THE BRIDGES.

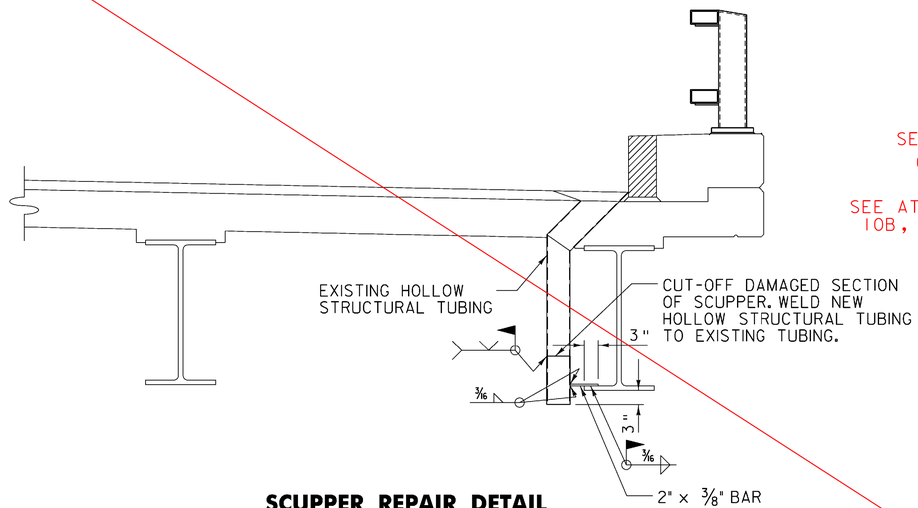


DRAIN TUBE EXTENSION DETAIL

NOT TO SCALE

1. DRAIN TUBE EXTENSION DETAIL TO BE USED WHERE THE END OF EXISTING TUBES ARE LESS THEN 6" BELOW ADJACENT BEAM.

2. IF EXISTING DRAIN TUBE IS TOO SHORT TO PROVIDE AN ADEQUATE CONNECTION, THE CONTRACTOR SHALL COMPLETELY FILL THE TUBE WITH POLYURETHANE SEALANT CONFORMING TO SUBSECTION 707.05. TUBES TO BE FILLED WITH POLYURETHANE SEALANT SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEING FILLED.



SEE WO #7
CO #2

SEE ATTACHED PAGE 10B, THIS SHEET

SCUPPER REPAIR DETAIL

NOT TO SCALE

1. ALL DETERIORATED SCUPPERS WITH SIGNIFICANT LOSS OF SECTION THAT CAN NOT BE SUFFICIENTLY REPAIRED BY CLEANING AND PAINTING SHALL BE CUT-OFF ABOVE DETERIORATION AND REPAIRED. THE ENGINEER SHALL APPROVE EACH DETERIORATED SCUPPER IDENTIFIED BY THE CONTRACTOR PRIOR TO BEING REPAIRED.

PROJECT NAME: ST. ALBANS - HIGHGATE
PROJECT NUMBER: IM BPNT(4)

FILE NAME: 10-Br Notes.dgn	PLOT DATE: 8/17/2009
PROJECT LEADER: JPB	DRAWN BY: MWS
DESIGNED BY: SRB	CHECKED BY: JPB
PROJECT NOTES AND DETAILS	SHEET 10A OF 32

PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TOSTATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.

2. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS. UNLESS SHOWN OTHERWISE ON REFERENCE PLANS, THE RIGHT-OF-WAY LIMITS FOR UNDERPASS ROADWAYS AND PATHS SHALL BE ASSUMED TO BE 3 RODS.

3. PAYMENT FOR THE REMOVAL AND RESETTING OF RIGHT-OF-WAY FENCE FOR STAGING OR CONSTRUCTION ACCESS SHALL BE UNDER ITEM 620.50 REMOVING AND RESETTING FENCE.

4. STAGING AREAS OFF THE PAVEMENT SHALL UNDERGO VTRANS CONSTRUCTION STAGING REVIEW. ALL DISTURBED STAGING AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. EXCEPT FOR EXPENSES COVERED UNDER ITEM 649.5I GEOTEXTILE FOR SILT FENCE AND ITEM 653.20 TEMPORARY EROSION MATTING, ALL COSTS SHALL BE COVERED UNDER SUBSECTION 105.29 (a).

5. ALL COSTS ASSOCIATED WITH EXTENDING OR FILLING THE DRAIN TUBES AND REPAIRING SCUPPERS SHALL BE INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL).

6. ALL WELDING SHALL CONFORM WITH THE PROVISIONS OF SUBSECTION 506.10.

7. HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A-500 GRADE C.

8. ALL BARS SHALL CONFORM TO AASHTO 270 GRADE 50.

9. IT IS ANTICIPATED THAT LESS THAN 1 ACRE OF EARTH DISTURBANCE WILL OCCUR DURING PROJECT CONSTRUCTION. SHOULD THE CONTRACTOR'S OPERATIONS RESULT IN MORE THAN 1 ACRE OF EARTH DISTURBANCE, FOR TEMPORARY STAGING AREAS OR OTHERWISE, THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH THE AGENCY OF NATURAL RESOURCES (ANR) VIA FILING A JOINT NOTICE OF INTENT WITH THE TOWN FOR COVERAGE UNDER THE APPROPRIATE CONSTRUCTION GENERAL PERMIT (I.E. CGP-3-9020 (2006) OR INDIVIDUAL PERMIT) PRIOR TO SUCH DISTURBANCE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY NECESSARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NEEDED TO SATISFY ANY SUCH PERMIT REQUIREMENTS, SPECIFICALLY ITEM 649.5I GEOTEXTILE FOR SILT FENCE AND ITEM 653.20 TEMPORARY EROSION MATTING. HOWEVER, IT SHOULD BE NOTED THAT THE CONTRACTOR IS ALWAYS RESPONSIBLE FOR ENSURING THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL TECHNIQUES ARE USED DURING CONSTRUCTION. EXCEPT FOR EXPENSES COVERED UNDER ITEM 649.5I GEOTEXTILE FOR SILT FENCE AND ITEM 653.20 TEMPORARY EROSION MATTING, ALL COSTS SHALL BE COVERED UNSER SUBSECTION 105.29 (a). GUIDANCE ON EROSION PREVENTION AND SEDIMENT CONTROL CAN BE FOUND IN ANR'S PUBLICATIONS ENTITLED " THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" AND THE "VERMONT EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE."

PROTECTIVE COATINGS

10. SURFACE PREPARATION SHALL INCLUDE TOTAL REMOVAL OF THE EXISTING COATING FROM ALL BRIDGE STEEL BY ABRASIVE BLAST CLEANING IN ACCORDANCE WITH SSPC-SP 10, " NEAR WHITE METAL". PREPARED SURFACES SHALL THEN BE COATED WITH AN APPROVED THREE COAT PAINT SYSTEM CONSISTING OF AN ORGANIC ZINC PRIMER COAT, AN EPOXY INTERMEDIATE COAT, AND A URETHANE FINISH COAT.

11. THE COLOR OF THE FINAL COAT OF PAINT SHALL BE BROWN CONFORMING TO SUBSECTION 708.03.

12. GREASE COATING SHALL BE APPLIED TO THE FULL DEPTH OF ALL STEEL FROM THE BEAMS ENDS TO A LENGTH EQUAL TO THE END DEPTH OF THE MEMBER.

TRAFFIC CONTROL

13. THE CONTRACTOR SHALL SUBMIT SITE SPECIFIC TRAFFIC CONTROL PLANS DEPICTING EACH PHASE OF THE PLANNED WORK FOR ANY WORK ON I-89 OR FROM THE ROADS BELOW THE BRIDGES. PLANS SHALL BE SUBMITTED IN ACCORDANCE WITH SUBSECTION 105.03 AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN AN APPROPRIATE DISCIPLINE IN THE STATE OF VERMONT.

14. THE CONTRACTOR SHALL REQUEST TRAFFIC VOLUMES FROM VTRANS FOR USE IN THE PROJECT SPECIFIC TRAFFIC CONTROL PLANS.

15. IN ORDER TO COORDINATE WITH OTHER I-89 PROJECTS, WORK ON THE BRIDGES SHALL BE COMPLETED IN THE FOLLOWING CONSTRUCTION YEARS: 2010 - 2011

16. UNIFORMED TRAFFIC OFFICERS ARE REQUIRED FOR THE TRAFFIC CONTROL DESIGN ON I-89.

17. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS, ALL COSTS FOR TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING TRAFFIC BARRIERS, SIGNS, AND SIGN POSTS, AS WELL AS ALL PROTECTION FOR TRAIL TRAFFIC WILL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL, ITEM 641.10.

UTILITIES

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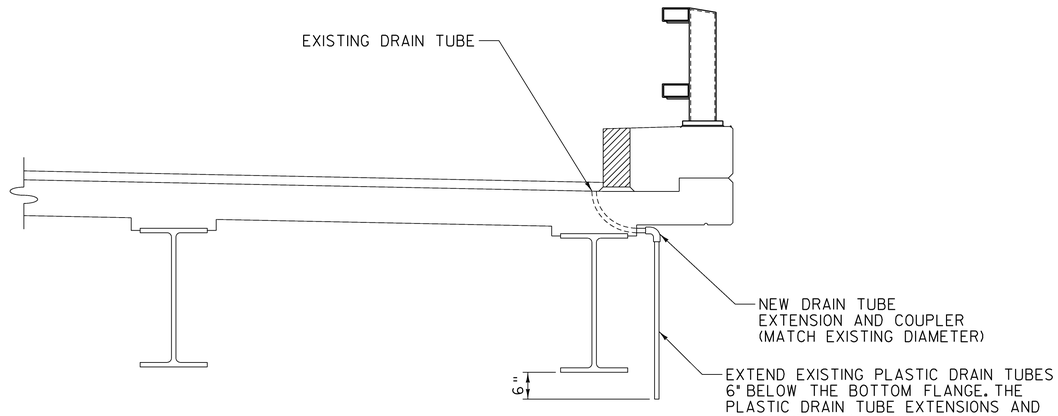

DRAIN TUBE EXTENSION DETAIL

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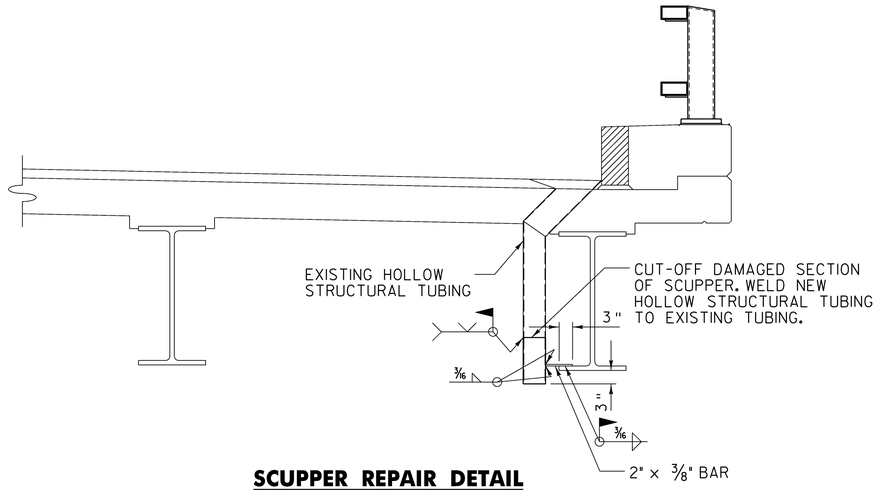

SCUPPER REPAIR DETAIL

NOT TO SCALE

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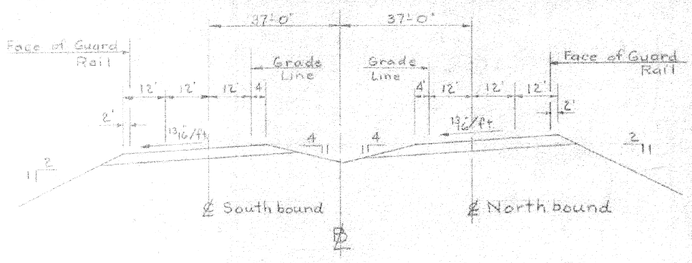
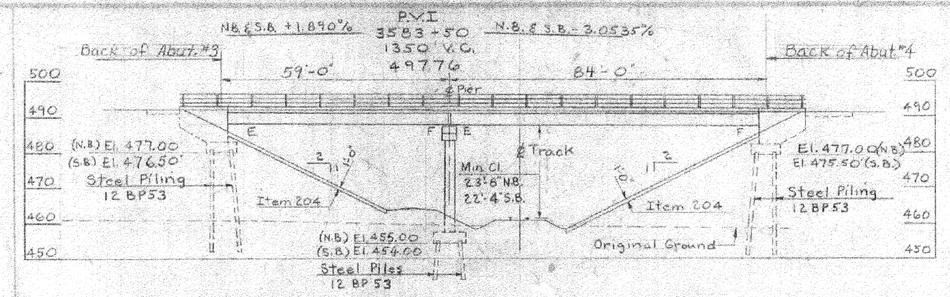
PROJECT NAME: ST. ALBANS - HIGHGATE	
PROJECT NUMBER: IM BPNT(4)	
FILE NAME: 10-Br Notes.dgn	PLOT DATE: 8/17/2009
PROJECT LEADER: JPB	DRAWN BY: MWS
DESIGNED BY: SRB	CHECKED BY: JPB
PROJECT NOTES AND DETAILS	SHEET 10A OF 32



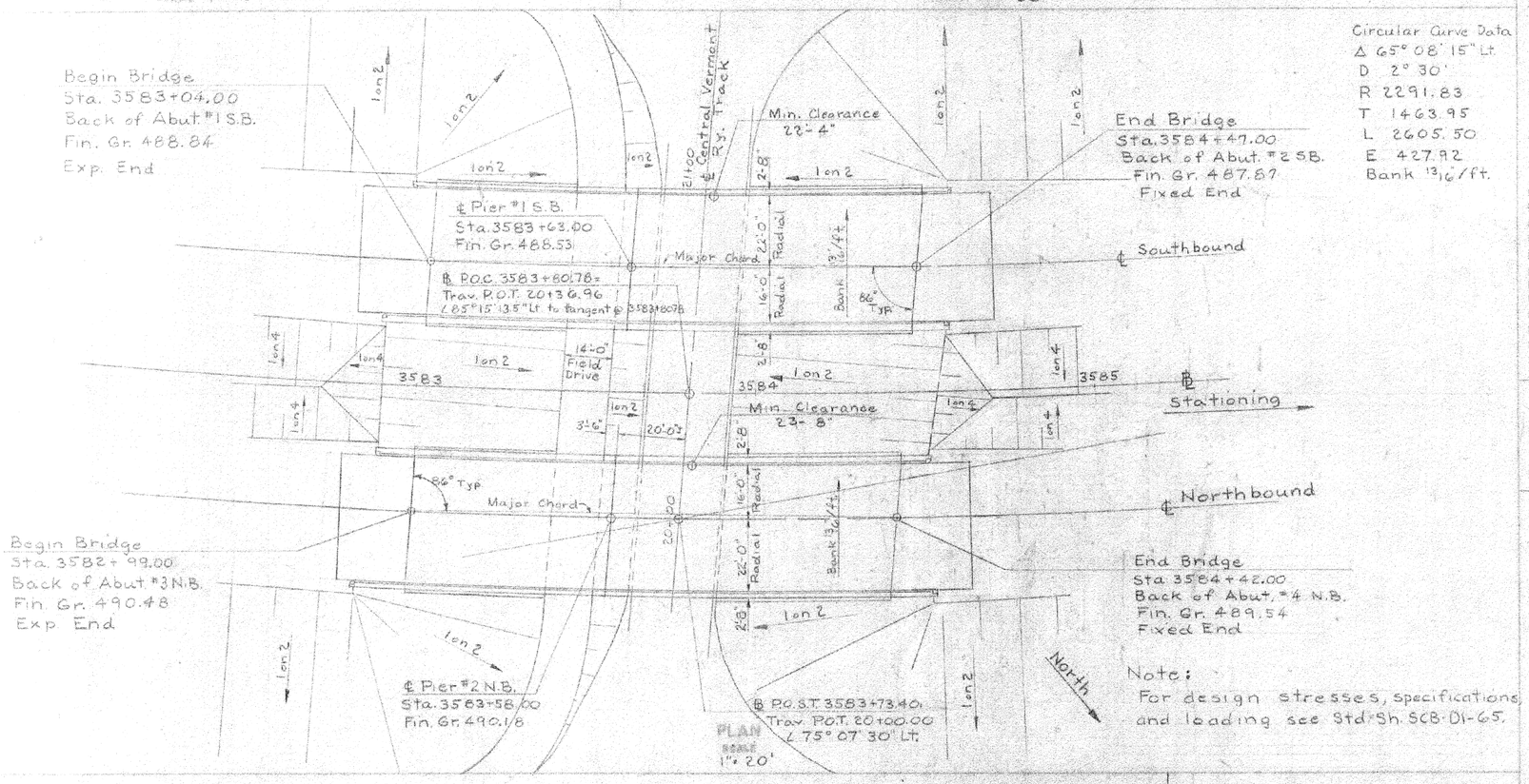
TYPICAL HIGHWAY SECT. I 89

SCALE 1" = 20'



NEW HIGHWAY PROFILE ALONG NORTHBOUND FASCIA

SCALE 1" = 20'

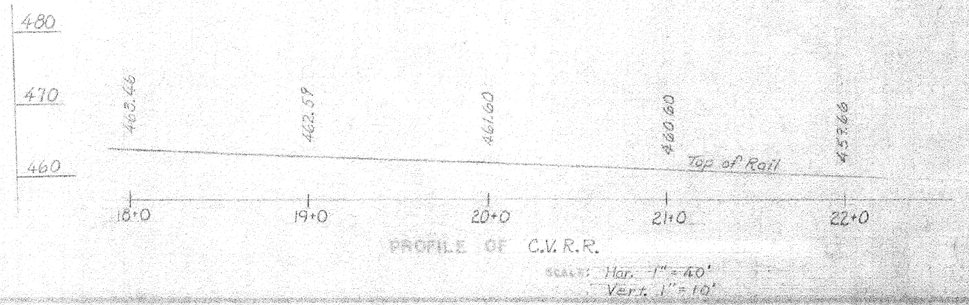


PLAN

SCALE 1" = 20'

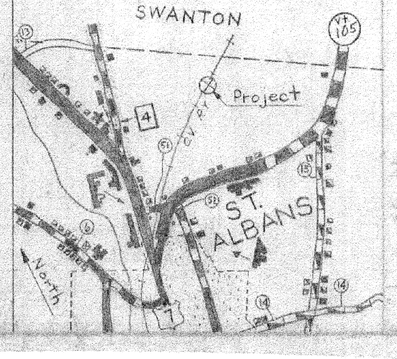
Circular Curve Data
Δ 65° 08' 15" Lt.
D 2° 30'
R 2291.83
T 1463.95
L 2605.50
E 427.92
Bank 13/16"/ft.

Note:
For design stresses, specifications, and loading see Std. Sh. SCB-D1-65.



PROFILE OF C.V.R.R.

SCALE: Hor. 1" = 40'
Vert. 1" = 10'



HIGHWAY NO. I 89 NAME OF HIGHWAY Interstate
STRUCTURE NO. S3 - B4 COUNTY Franklin TOWN St. Albans
PROJECT NO. I 89-3(36) Cont. # 1 LOCATION St. Albans - Swanton
I 89 over C.V.Ry. Sta. 3584 ±

EXISTING STRUCTURE

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

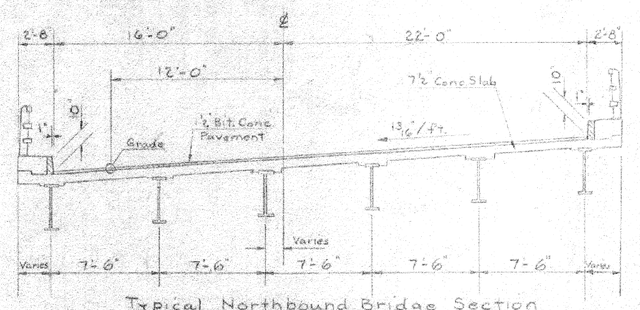
NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE 2 Span Simple WF Beam Bridges SCB-38-65
2 RECOMMENDED CLEAR SPAN OR SPANS 59' - 84' (Composite)
MEASURED PARALLEL TO ℄ NEW HIGHWAY
MEASURED AT RIGHT ANGLES TO ℄ STREAM
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 ... GRIST ... 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 N.O ... WIDTH SIDEWALK
17 RECOMMENDED TYPE OF PAVEMENT 1½" Bit. Concrete
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. ... ONE OR TWO WAY ... PROBABLE COST
19 PROBABLE COST OF CLEARING AND SNAGGING STREAM CHANNEL AT STRUCTURE SITE
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES?
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 45 Ton/Pile SHOULD PILES BE USED? Yes

FOUNDATION INFORMATION

	S.B.	N.B.
Abut. #1	35'	Abut. #3 35'
Pier #1	15'	Pier #2 15'
Abut. #2	35'	Abut. #4 35'

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.



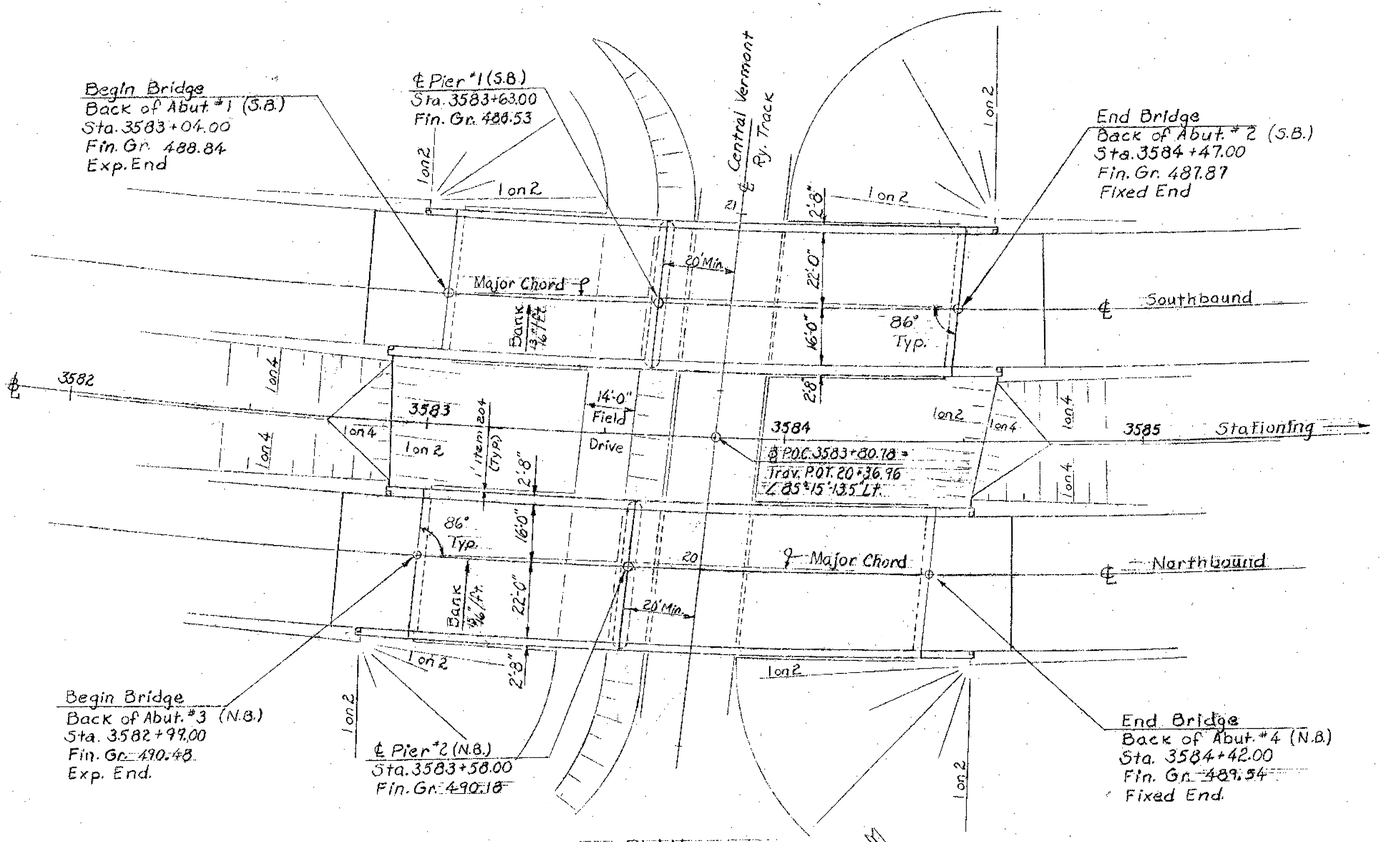
Typical Northbound Bridge Section
Scale 1" = 5'
(Southbound Section Similar)

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 11 OF 32
BRIDGE 92N&S
FOR REFERENCE ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
Interstate IN THE TOWNS OF St. Albans - Swanton
ROUTE NO. I89 LOG STA.
I 89 over C.V. Ry. Sta. 3584 ±

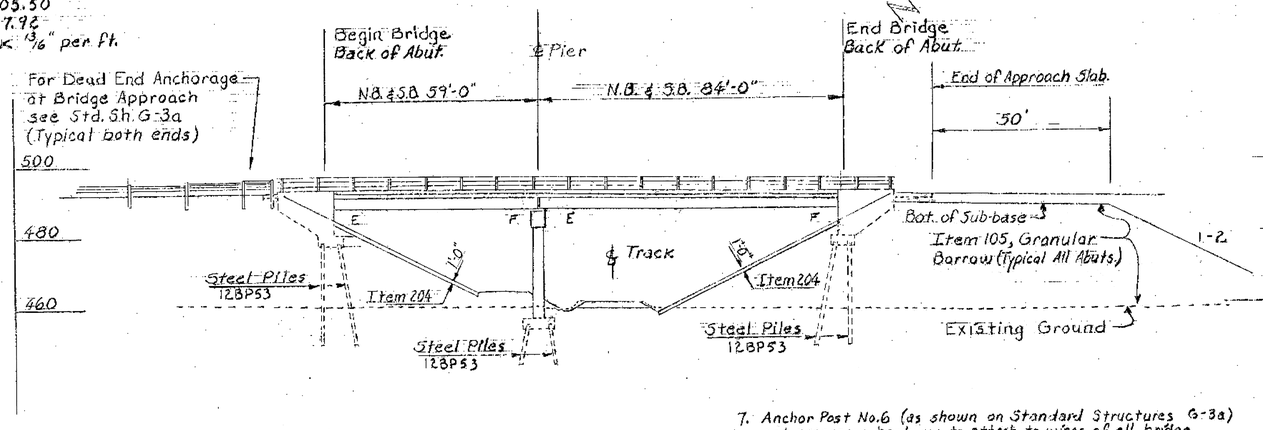
A.T.C. CHECKED F.W.B. DATE 3/1/65
PROJECT I 89-3(36) SHEET 105 OF

(92) BR-402
SHEET 98 of 153



PLAN
Scale: 1" = 20'

Curve Data
Δ 65°-08'-15" Lt.
D 2°-30'
R 2291.83
T 1463.95
L 2605.50
E 427.92
Bank 3/4" per ft.



ELEVATION
Scale: 1" = 20'

7. Anchor Post No. 6 (as shown on Standard Structures G-3a) and necessary hardware to attach to wings of all bridge abutments is to be furnished, installed and paid for at the unit price bid for Item 404-A Structural Steel

LIST OF BRIDGE SHEETS

BR-400	General Plan and Elevation
BR-401	Bridge Quantity Sheet
BR-402	Preliminary Information Sheet
BR-403	Boring Layout
BR-404	Boring Logs
BR-405	Boring Logs
BR-406	Boring Logs
BR-407	Framing Plan
BR-408	Curb and Railing Plan and Typical Bridge Section
BR-409	Details of Abutment No. 1 (Southbound)
BR-410	Details of Abutment No. 2 (Southbound)
BR-411	Details of Abutment No 3 (Northbound)
BR-412	Details of Abutment No. 4 (Northbound)
BR-413	Details of Pier No 1 & No 2
BR-414	Pier No 1 & No 2 Reinforcing Steel Details
BR-415	Details of Approach Slab No. 1
BR-416	Details of Approach Slab No. 2
BR-417	Details of Approach Slab No. 3
BR-418	Details of Approach Slab No. 4
BR-419	Reinforcing Steel Schedule
BR-420	Reinforcing Steel Schedule

STANDARD SHEETS

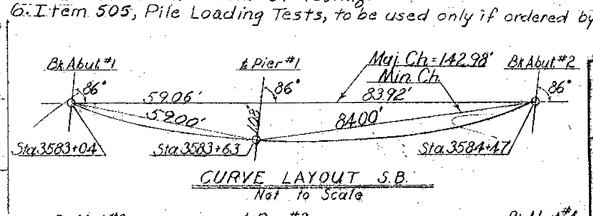
SCB-38-65, SCB-D1-65, SCB-D2-65, SCB-D3-65, SCB-D4-65, SCB-D5-65, SCB-D6-65 (Det. A, B & F), SCB-D7-65, SCB-D8-65, SCB-D9-65 (Det. A), SB-R1-64, Sheets 1 & 2, SB-R2-65, G-3a

REFERENCE SHEETS

Plan I-89 (Scale 1" = 50') Sta. 3572+00 to Sta. 3588+00
Profile I-89 N.B. & S.B. Sta. 3572+00 to Sta. 3588+00
Cross Sections I-89 Sta. 3582+50 to Sta. 3585+10
Cross Sections C.V. Ry. Sta. 18+00 to Sta. 21+50

NOTES

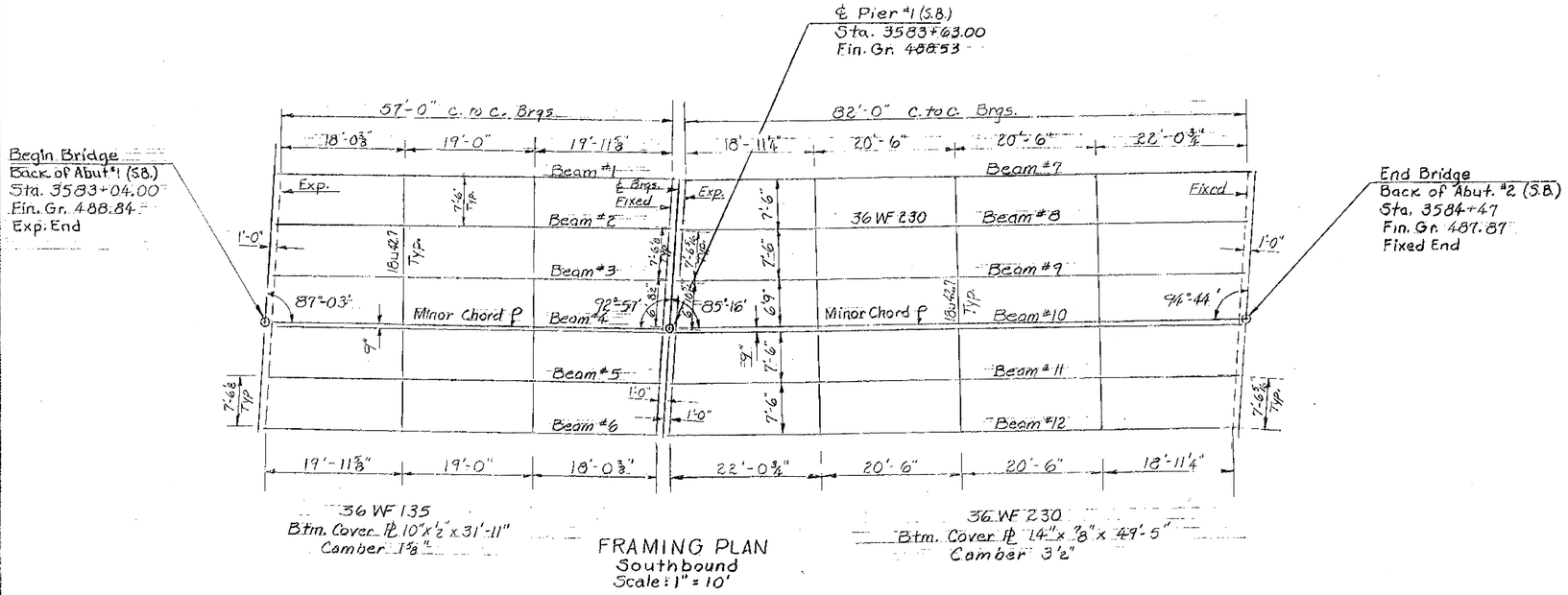
1. For General Notes see Std. Sh. SCB-D1-65.
2. For Superstructure details see Std. Sh. SCB-38-65 and Typical Bridge Section on Sheet BR-408
3. For Details of Dead End Anchorage see Std. Sh. G-3a.
4. Item 440, Water Repellent, shall consist of furnishing and applying water repellent on exterior concrete surfaces on top of the safety walk, sidewalk, on the fascia and back to the drip bead under the slab, on the sides, ends, and bottoms of all pier caps, and on exposed faces of abutments not otherwise treated.
5. All 12BP53 Steel Piles shall be driven to the designed bearing capacity of 45 Tons per pile. In any case, these piles are to be driven to penetrate into the original ground at least 10 feet. Minimum length of Pile is to be 10' below bottom of footing.
6. Item 505, Pile Loading Tests, to be used only if ordered by the



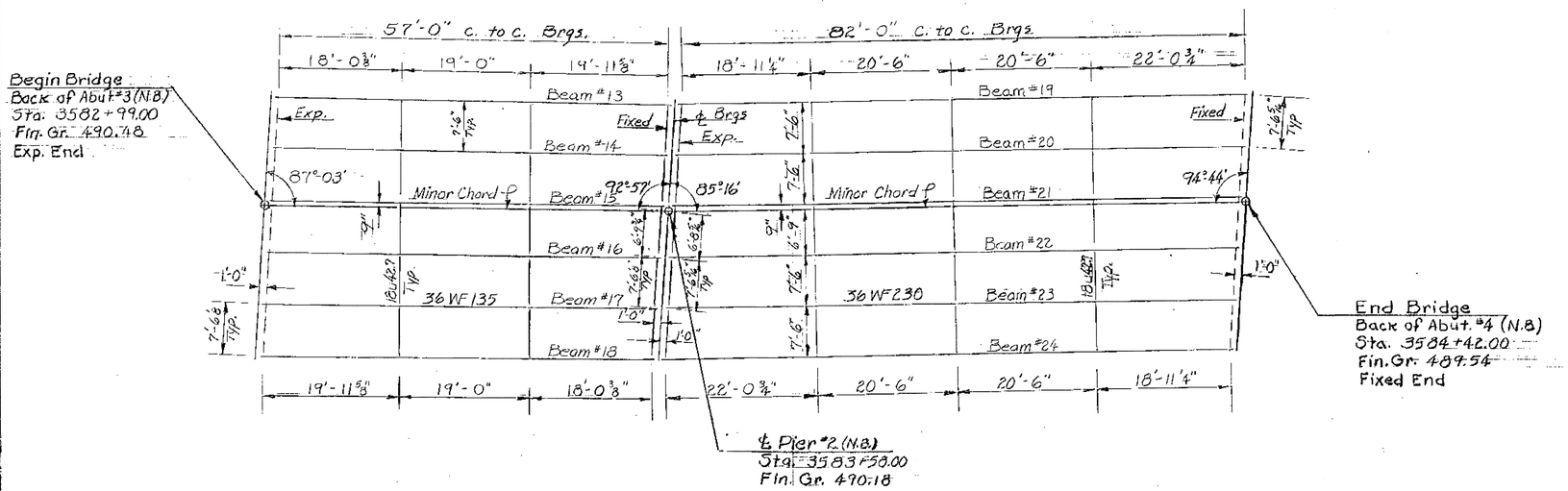
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 12 OF 32
BRIDGE 92N&S
FOR REFERENCE ONLY

TOWN OF St Albans - Swanton
ROUTE No. I-89 LOG. STA.
I-89 over C.V.Ry. @ Sta. 3584+01
General Plan and Elevation
SCALE As Noted
SURVEYED BY
DRAWN BY J.W. CHECKED BY D.V.B.
PROJECT No. I-89-3(42)
SHEET 20396 OF 20453

BR-400



FRAMING PLAN
Southbound
Scale: 1" = 10'



36 WF 135
Btm. Cover Pl 10"x½"x 31'-11"
Camber 1⅝"

36 WF 230
Btm. Cover Pl 14"x⅞"x 49'-5"
Camber 3½"

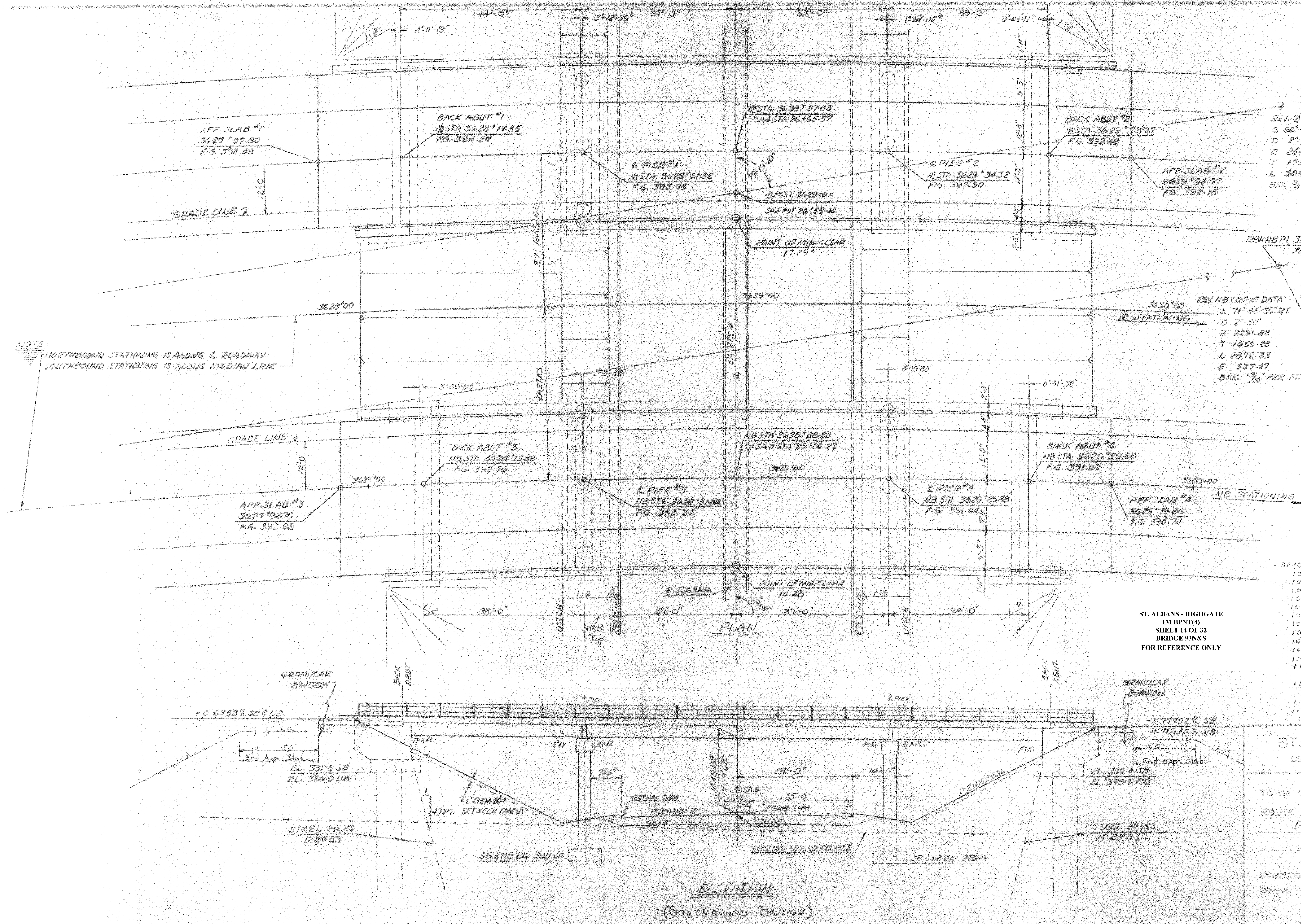
FRAMING PLAN
North bound
Scale: 1" = 10'

Note:
Both bridges are identically framed
All beams are parallel to Minor Chord.

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 13 OF 32
BRIDGE 92N&S
FOR REFERENCE ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St Albans - Swanton
ROUTE No. I 89 LOG. STA.
I 89 over C.V. Ry @ Sta. 3584 ℄
Framing Plan
SCALE As Noted
SURVEYED BY
DRAWN BY J.W. CHECKED BY D.H.B.
PROJECT No. I 89-3(36)Cont #1
SHEET 110 OF 298
BR-407



44'-0"
5°-12'-39"
37'-0"
37'-0"
1°-34'-06"
39'-0"
0°-42'-11"
4°-11'-19"
NB SURVEY PI
3642+63.84 =
3639+46.07
Δ 68°-31'-15" RT.
D 2°-15'
REV. NB CURVE DATA
Δ 68°-31'-15" RT.
D 2°-15'
R 2546.48
T 1734.52
L 3045.37
BNK. 3/4" PER FT.
APP. SLAB #1
3627+97.80
F.G. 394.49
BACK ABUT. #1
NB STA. 3628+17.85
F.G. 394.27
NB STA. 3628+97.83
= SA4 STA 26+65.57
BACK ABUT. #2
NB STA. 3629+72.77
F.G. 392.42
℄ PIER #1
NB STA. 3628+61.32
F.G. 393.78
℄ PIER #2
NB STA. 3629+34.32
F.G. 392.90
APP. SLAB #2
3629+92.77
F.G. 392.15
NB POST 3629+0 =
SA4 POT 26+55.40
GRADE LINE
POINT OF MIN. CLEAR
17.29'
37' RADIAL
REV. NB PI 3641+70.92 =
3637+24.69
Δ 71°-48'-30" RT.
D 2°-30'
3628+00
3629+00
3630+00
NB STATIONING
REV. NB CURVE DATA
Δ 71°-48'-30" RT.
D 2°-30'
R 2291.83
T 1659.28
L 2872.33
E 537.47
BNK. 13/16" PER FT.
NOTE:
NORTHBOUND STATIONING IS ALONG ℄ ROADWAY
SOUTHBOUND STATIONING IS ALONG MEDIAN LINE
℄ SA RTE 4
VARIES
2°-18'-32"
3°-09'-05"
0°-19'-30"
0°-31'-30"
GRADE LINE
BACK ABUT. #3
NB STA. 3628+12.82
F.G. 392.76
NB STA 3628+88.88
= SA4 STA 25+86.23
BACK ABUT. #4
NB STA. 3629+59.88
F.G. 391.00
APP. SLAB #3
3627+92.78
F.G. 392.98
℄ PIER #3
NB STA. 3628+51.86
F.G. 392.32
℄ PIER #4
NB STA. 3629+25.88
F.G. 391.44
APP. SLAB #4
3629+79.88
F.G. 390.74
NB STATIONING
6' ISLAND
POINT OF MIN. CLEAR
14.48'
39'-0"
37'-0"
37'-0"
34'-0"
DITCH
90° Typ.
PLAN
GRANULAR BORROW
BACK ABUT.
-0.6353% SB & NB
50'
End Appr. Slab
EL. 381.5 SB
EL. 380.0 NB
EXP.
FIX.
EXP.
7'-6"
28'-0"
14'-0"
25'-0"
℄ SA4
14.48 NB
17.29 SB
1:2 NORMAL
ITEM 204 BETWEEN FASCIA
VERTICAL CURB
PARABOLIC
SLOPING CURB
GRADE
EXISTING GROUND PROFILE
STEEL PILES
12 BP 53
SB & NB EL. 360.0
SB & NB EL. 359.0
-1.77702% SB
-1.78330% NB
End appr. slab
EL. 380.0 SB
EL. 378.5 NB
ELEVATION
(SOUTHBOUND BRIDGE)

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 14 OF 32
BRIDGE 93N&S
FOR REFERENCE ONLY

STANDARD SHEETS

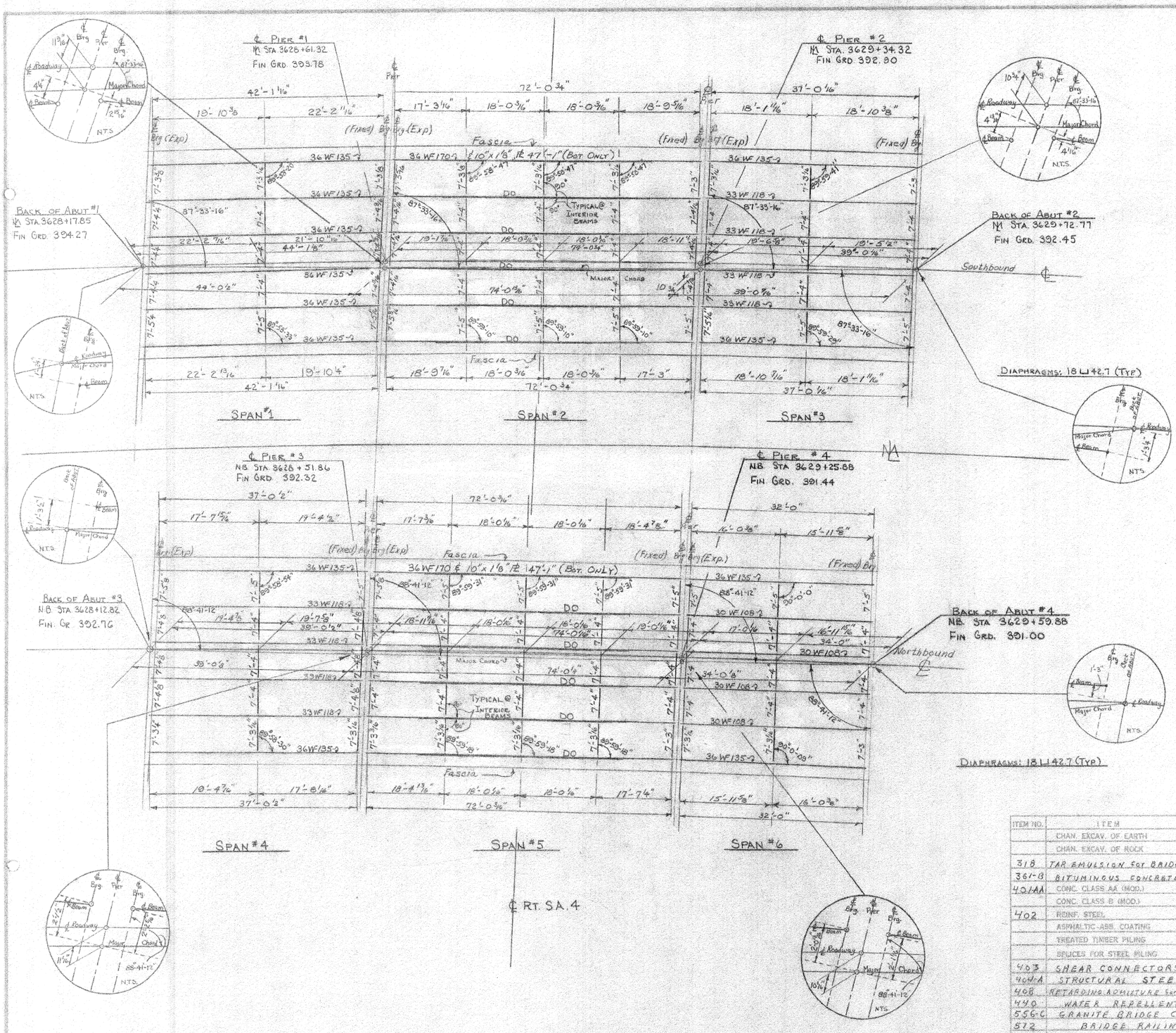
SCB-D1-65
SCB-D2-65
SCB-D3-65
SCB-D4-65
SCB-D5-65
SCB-D6-65
SCB-D7-65
SCB-D8-65
SCB-D9-65
SCB-37.25-65
SB-R1-64 SHEETS 1 & 2
SB-R2-65

INDEX of SHEETS

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS - SWANTON
ROUTE NO. I-89 LOG STA.
PLAN & ELEVATION
INTERSTATE OVER ST. ALBANS SA4
SCALE 3/32" = 1'-0"
SURVEYED BY
DRAWN BY RHW CHECKED BY RTB 10/65
PROJECT NO. I89-3 [illegible] (42)
SHEET 104 OF 412, 153 BR 100


HIGHWAY NO. I-89 NAME OF HIGHWAY INTERSTATE
COUNTY FRANKLIN TOWN ST. ALBANS
PROJECT NO. I-89-3(36) CONT. #3 LOCATION ST. ALBANS - SWANTON ~ I 89 OVER SA 4
EXISTING STRUCTURE
NEW STRUCTURE
TWO-3 SPAN SIMPLE COMPOSITE W BEAM BRIDGES
44'-74'-39' SB 39'-74'-34' NB
FOUNDATION INFORMATION
FOR DETAILS AND NOTES SEE THE STANDARD SHEETS INDICATED
DESIGN LOAD, STRESSES, SPECIFICATIONS SCB-D1-65
SUPERSTRUCTURE SCB-37.25-65
BRIDGE RAILING SB-R1-64 SHEETS 1 & 2 AND SB-R2-65
NEW HIGHWAY SECT. STA. 3627+0 TO STA. 3631+0
SCALE 1"=20'
NEW HIGHWAY PROFILE ALONG ℄
SCALE 1"=20'
BRIDGE RAILING
EXISTING GROUND
Steel Piling 12 BP 53
Northbound Stationing along ℄ Rdway. Southbound Stationing Is Along Median Line
REV. B.L. CURVE DATA
Δ 68°-31'-15" RT.
D 2°-15'
R 2546.48
T 1734.52
L 3045.37
NB CURVE DATA
Δ 71°-48'-30" RT.
D 2°-30'
R 2291.83
T 1659.28
L 2872.33
E 537.47
SOUTHBOUND
NORTHBOUND
STATIONING
POINT OF MIN. CLEAR 17.89'
POINT OF MIN. CLEAR 14.98'
PLAN
SCALE: 1"=20'
TYPICAL SA#4
SCALE: 1"=20'-0"
LOCATION MAP
PROJECT
PROFILE OF PROPOSED S.A.#4
SCALE 1"=20'
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 15 OF 32
BRIDGE 93N&S
FOR REFERENCE ONLY
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE 89 IN THE TOWNS OF ST. ALBANS - SWANTON
ROUTE NO. I 89
INTERSTATE OVER ST. ALBANS SA#4
Recommended for Approval
Bridge Engineer 5/25/65
Const. Engineer 5/26/65
6/2/65
SPAN LENGTHS & SA4 TYPICAL CHANGED 9-17-65
Rev. By RHW Chk. By RLM 9-17-65



GENERAL NOTES

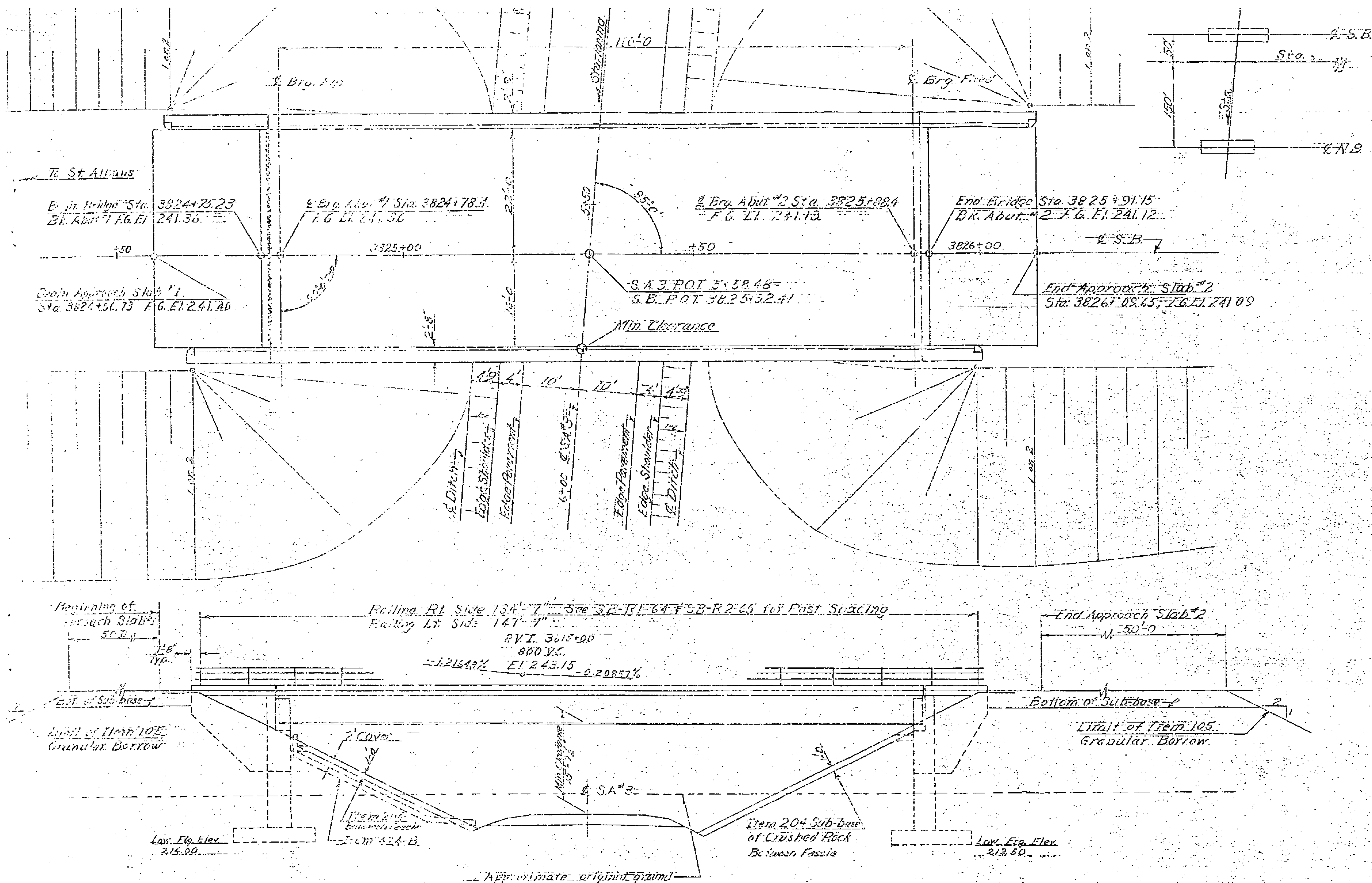
1. FOR TYPICAL SECTION SEE SCB-37.25-65. THESE STANDARDS WILL BE MODIFIED TO HAVE 36WF135 FASCIA BEAMS IN SPANS 3,4 & 6.
2. FOR ELEVATION VIEWS & SHEAR CONNECTOR DETAILS SEE SCB-D2-65.
3. FOR DRAIN TROUGH DETAILS, SEE SCB-D3-65.
4. FOR PLAN & REINFORCEMENT LAYOUT AT ABUTMENTS & PIERS, SEE SCB-D4-65 & SCB-D5-65.
5. FOR SCUPPER & CURB DETAILS, SEE SCB-D6-65.
6. FOR WF BEAM CUTOFFS & COVER PLATE DETAILS, SEE SCB-D7-65.
7. FOR BEARING DEVICE DETAILS, SEE SCB-D8-65.
8. FOR CURTAIN WALL DETAILS AT BEARING DEVICES, SEE SCB-D9-65.
9. FOR BRIDGE RAILING DETAILS, SEE SB-R1-64, SH. 1 & 2. or. SB.-R2-65
10. FOR GENERAL NOTES; SEE SCB-D1-65.
11. CONSTRUCT EMBANKMENT WITHIN AREA OF ABUTMENTS TO 6" ABOVE FOOTING ELEVATION, PRIOR TO DRIVING PILING. EXCAVATION OF THIS MATERIAL TO BE PAID AS STRUCTURE EXCAVATION, ITEM 109.
12. THE ABUTMENTS AND PIERS ARE PARALLEL TO EACH OTHER.
13. THE FOUR INTERIOR BEAMS IN EACH SPAN ARE PARALLEL TO THE MINOR CHORD.
14. DIMENSIONS GIVEN FOR DIAPHRAGMS ARE HORIZONTAL DIMENSIONS FROM ℄ BEAM TO ℄ BEAM.
15. MINIMUM CLEARANCE FROM REINFORCING STEEL TO FACE OF CONCRETE SHALL BE 3" IN FOOTINGS AND 2" ELSEWHERE, EXCEPT WHERE DETAILED OTHERWISE.
16. WATER REPELLENT-ITEM 440 SHALL BE APPLIED TO TOP OF SAFETY WALKS, FASCIA, AND BACK TO DRIP BEAD UNDER THE SLAB.

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 16 OF 32
BRIDGE 93N&S
FOR REFERENCE ONLY

ITEM NO.	ITEM	UNIT	NET		TOTAL	FINAL
	CHAN. EXCAV. OF EARTH	C.Y.				LB
	CHAN. EXCAV. OF ROCK	C.Y.				
318	TAR EMULSION for BRIDGE FLOORS	GAL			506	
361-B	BITUMINOUS CONCRETE PAVEMENT	TON			116	
401-AA	CONC. CLASS AA (MOD.)	C.Y.			~~384~~	388
	CONC. CLASS B (MOD.)	C.Y.				
402	REINF. STEEL	LBS			~~94862~~	94,498
	ASPHALTIC-ABS. COATING	S.Y.				
	TREATED TIMBER PILING	L.F.				
	SPLICES FOR STEEL PILING	EA.				
403	SHEAR CONNECTORS	L.S			4000 STUDS	1
404-A	STRUCTURAL STEEL	Lb.			~~336,810~~	341,460
408	RETARDING ADMIXTURE for CONCRETE	#/C.Y.			~~384~~	0
440	WATER REPELLENT	GAL			~~31.7~~	31.2
556-C	GRANITE BRIDGE CURB	L.F.			~~FFG~~	721
572	BRIDGE RAILING	L.F.			714 W	714

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS-SWANTON
ROUTE No. I-89 BRIDGE NO.
FRAMING PLAN
I-89 OVER S.A.-4
SCALE NOT TO SCALE
SURVEYED BY
DRAWN BY JGC/REL CHECKED BY SNA LPFM
PROJECT NO. I89-3(36)Cont 2
SHEET 68 OF 412 BA.10Y



GENERAL NOTES

1. Elevation datum sea level based on nearest U.S. Government Vertical Control.
2. Footings are designed for 4 k.s.f. bearing on earth.
3. For additional General Notes see Standard SCB-D1-65

LIST OF BRIDGE SHEETS

Br. 200 S.B. Plan and Elevation
Br. 201 N.B. Plan and Elevation, Approach Slab and Joint Details
Br. 202 Bridge Quantity Sheet
Br. 203 Preliminary Information Sheet
Br. 204-205 Borings
Br. 206 Superstructure and Girder Details
Br. 207 Typical Cross Section and Details of Bearing Devices
Br. 208 Expansion Dam Details
Br. 209-212 Abutments No. 1-4 Details
Br. 213-214 Reinforcing Steel Schedule

BRIDGE STANDARDS

SCB-3B-65
SCB-D1-65
SCB-D2-65, Det. "A" & B
SCB-D4-65
SCB-D6-65
SB-R1-64 Sheets 1 & 2
SB-R2-65
Std. Sheet G 3a.

REFERENCE SHEETS

I-89 Roadway Plan Sheet Sta. 3812 to 3828
I-89 Roadway Profile Sheet Sta. 3812 to 3828
I-89 Roadway Sections S.B. & N.B. Sta. 3824+00 to 3827+00
S.A. 3 Roadway Plan & Profile Sheet Sta. 5+00 to 15+00
S.A. 3 Roadway Sections Sta. 4+00 to 10+00

BR 200 OF 214

Revised Footing and Notes. W.B.T. 5-13-66

REF. 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 A [illegible]	C.Y.				
	CONC. CLASS B [illegible]	C.Y.				
	REINF. STEEL	[illegible]				
	[illegible]	S.Y.				
	[illegible]	[illegible]				
	SPLICES [illegible]	[illegible]				
	[illegible]					
	[illegible]					

STATE OF VERMONT
DEPARTMENT OF [illegible]
PROJECT NAME: ST. ALBANS-SWANTON
TOWN OF SWANTON
I-89
I-89 over S.A. 3 @ SB Sta. 3825+32
SOUTHBOUND PLAN & ELEVATION
1" = 10'-0
Spaulding
I-89-3 [illegible]
153

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 17 OF 32
BRIDGE 94N&S
FOR REFERENCE ONLY

Begin Bridge Sta. 3824+63.25
E.L. Abut. #3 F.G. El. 258.47

℄ Brg. Abut. #3 Sta. 3824+66.0
F.G. El. 258.49

℄ Brg. Abut. #4 Sta. 3825+66.0
F.G. El. 258.94

End Bridge Sta. 3825+69.17
℄ Brg. Abut. #4 F.G. El. 258.95

3824+0 ℄ North Bound Lane 3825+0 3826+0 To Swanton

Begin Approach Slab #3
Sta. 3824+44.75 F.G. El. 258.39

SAB POT 7+59.24 =
NB. POT. 3825+15.01=

Begin Approach Slab #4
Sta. 3825+87.67 F.G. El. 259.05

Min. Clearance

℄ Brg. Fixed ℄ Brg. Exp.

100'-0"

85°-0"

60° Typ.

16'-0"

22'-0"

Elev. 1 on 2

Elev. 1 on 2

℄ Ditch
Edge Shoulder
Edge Pavement
℄ SAB Stationing
Edge Pavement
Edge Shoulder
℄ Ditch

10' 10'
4' 4'
4'-9" 4'-9"
2'-8" 2'-8"
1'-2" 1'-2"
T-0

℄ SB
℄ NB

Begin Approach Slab #3
50'-0"
1'-8" Typ.
Railing Rt. Side 124'-7" For Post Spacing see SB-R1-64 & SB-R2-65
Railing Lt. Side 142'-1"
Back of Abut.
Back of Abut.
Bottom of Sub-base
Limit of Item 105 Granular Borrow
Existing Ground (Approximate)
Min. Clearance 14'-6"
2' Cover
1:0
℄ SAB
Item 204 Sub-base of Crushed Rock
Item 204
Item 612-B
Low Elg. Elev. 232.00
Low Elg. Elev. 232.00
PVI
N.B. 3816+00
600' V.C.
-0.95011%
+0.41098%
El. 264.32

End Approach Slab #4
50'-0"
Bottom of Sub-base
Limit of Item 105 Granular Borrow
2
2

Scale: 1"= 10'-0"

AS1 @ 12"
Varies
Item F
AS.3 C 12"
30 Lg.
SECTION A-A

For additional details of Section see Abut. Sheets 4 SCB-DE-65 Detail A

Granite Curb
Abutment Wing
1½" Item 961-R
Approach Slab
Item 518
GROUT
Item 401.72C
SECTION B-B

From face of Bk.
A
½" Joint Typ.
2'-6"
21-AS.3 @ 12"
39-AS1 @ 12"
21-AS.3 @ 12"
2'-0"
2'-9"
38'-0"
2'-9"
PLAN VIEW
Typical for all Approach Slabs

Bridge Slab
Approach Slab
E
D
D
PLAN
1½"
1½"
½"
SECTION D-D
Item 372-C Type A
Item 401.72 C
½" Self-expanding cork. Filler Sect. to be continuous across roadway and curb fascia to fascia.
SECTION E-E

Item 372-A (Sawed Joint)
1"
2¾"
Item 372-C Type A
Item 401.72 C
Approach Slab
2"
4"
5'-0"
Approach Slab
1'-6"
Back of Abut.
10"
5"
℄ Brg (Fixed)
Front face of Backwall
SECTION C-C

CURB JOINT DETAIL

Dowel-#8 bars 2'-0" long @ 24" c/c
2"
2"+1⅛"
TYPE A

DETAILS - ITEM 372-C JOINT SEALER - PREFORMED
Material to be premolded neoprene rubber (Other configurations that satisfy specifications may be used)

ITEM NO.	ITEM	UNIT	EST.		TOTAL	FINAL
	CLASS EXCAV. (0'-4' DEPTH)	C.Y.				
	CLASS EXCAV. (0'-12' DEPTH)	C.Y.				
	UNCLASS. CHANNEL EXCAV.	C.Y.				
	STRUCT. EXCAV.	C.Y.				
	CONC. CLASS AA (HIGH)	C.Y.				
	CONC. CLASS B (HIGH)	C.Y.				
	REINF. STEEL	LBS.				
	EPOXY ASB (0.5")	S.Y.				
	WATERPROOFING	L.F.				
	STRUCT. TIMBER	FBM				
	SURF. TR. (1")	S.Y.				
	EXPLOR.	L.S.				

BR 201 OF 214

Revised Footings W.B.T. 5-13-66

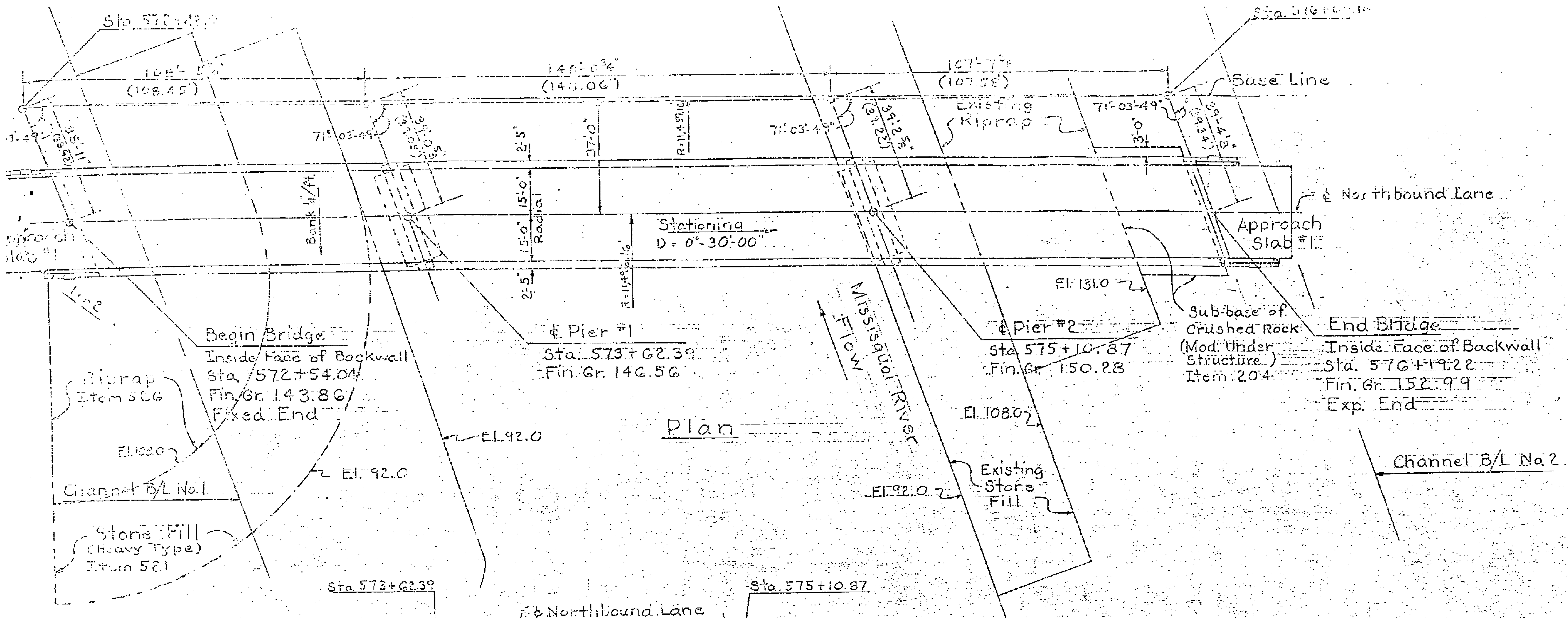
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

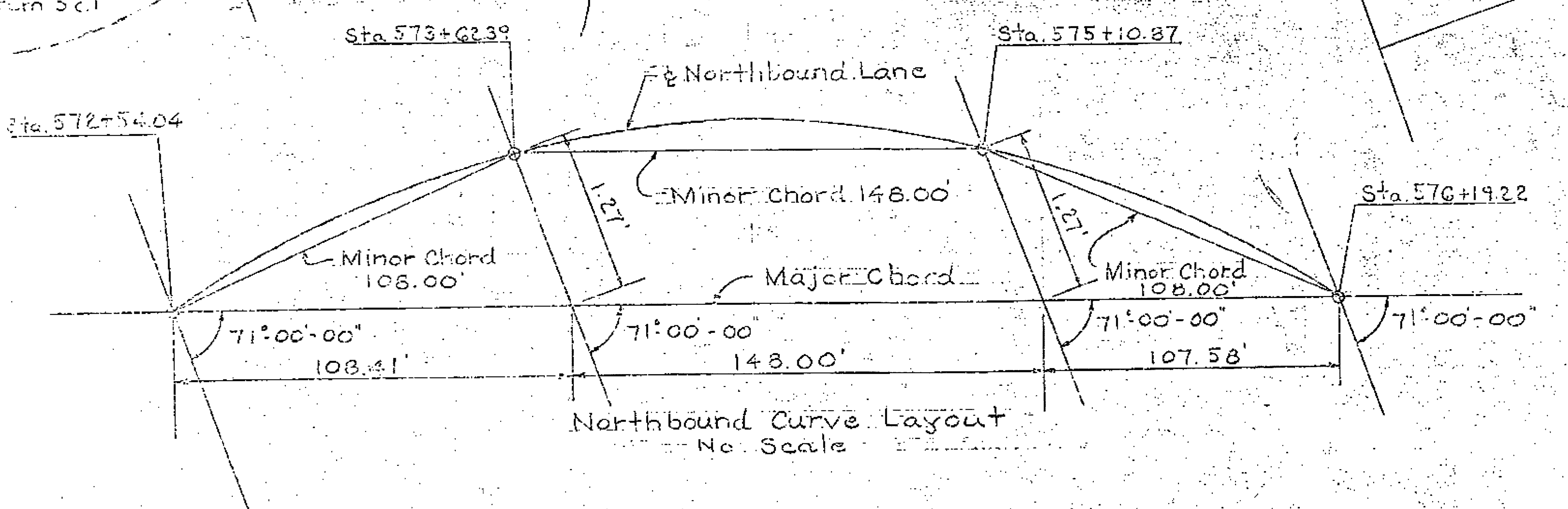
PROJECT NAME: ST. ALBANS - SWANTON
TOWN OF SWANTON
ROUTE NO. I-89
I-89 over SAB & N.B. Sta. 3825+15
NEAR (NEW) ALBANY & SWANTON LIMITS
AS SHOWN
SCALE: 1" = 10'-0"
DATE: 1968

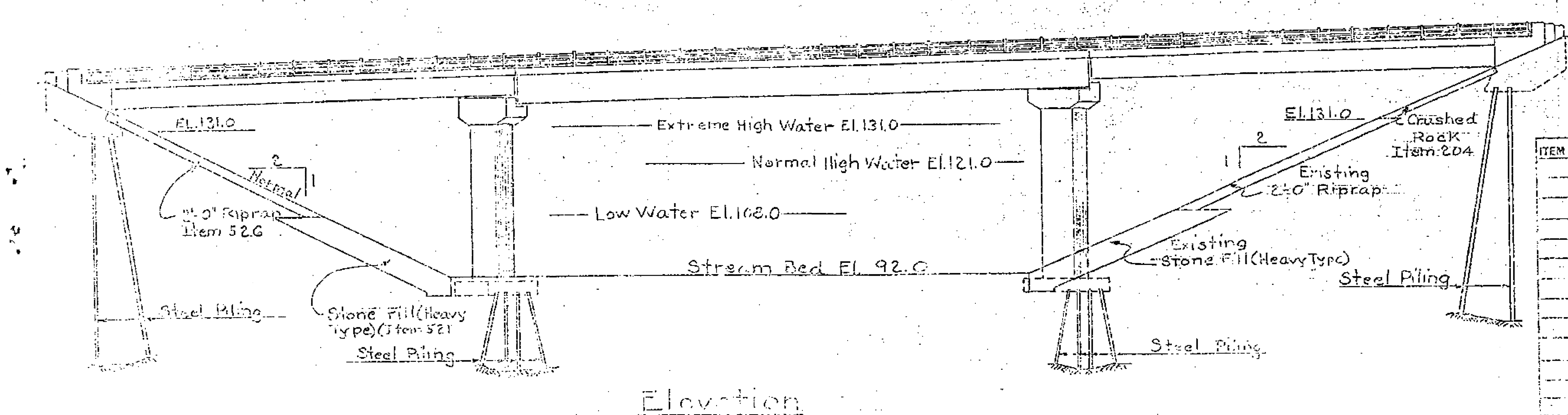
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 18 OF 32
BRIDGE 94N&S
FOR REFERENCE ONLY


North Bound Details
Framing Plan
¢ Bearing to ¢ Bearing 100'-0"
Cross Framing 5 Spaces @ 20'-0"
Intermediate Stiffeners 23 spaces @ 4'-0"
Abutment Cross Frame (typ.)
Intermediate Cross Frame (typ.)
Intermediate Stiffener (typ.)
Abutment Stiffener (typ.)
¢ Bearing NB Sta. 3824+66.0
F.G. Elev. 252.44
¢ Bearing - NB Sta. 3825+66.0
F.G. Elev. 258.94
50" x 3/8" Web Plate 101'-8"
Top Flange P's.
Bottom Flange P's.
Out to Out 101'-8"
¢ Bearing
End of Girder
Beam Elevation
¢ G1
¢ G2
¢ G3
¢ G4
¢ G5
¢ G6
¢ NB
¢ SB
7" x 3/4" Studs
Scale: 1/8" = 1'
South Bound Details
Framing Plan
Cross Framing - 4 Spaces @ 20'-0"
Intermediate Stiffeners - 20 Spaces @ 5'-0"
¢ Bearing - SB Sta. 3824+78.4
F.G. Elev. 241.36
¢ Bearing - SB Sta. 3825+88.4
F.G. Elev. 241.13
62" x 3/8" Web Plate 111'-8"
Out to Out 111'-8"
Beam Elevation
Typical Flange Splice
NB & SB
nts
Bevel before Welding
DEAD LOAD DEFLECTION DIAGRAM
Typ. N.B. & S.B.
CAMBER DIAGRAM - Typ. NB & SB.
Mid-span
Abutment
Intermediate
Stiffener Details
STATE OF VERMONT
Project Name: St. Albans - Swanton
I89 over SR#3 @ M/L 3825+
Superstructure - Girder Details
As Shown
Spaulding
T-89 BR # 94 N&S

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 19 OF 32
BRIDGE 94N&S
FOR REFERENCE ONLY







List of Bridge Sheets

BR 200	Superstructure Plan & Elevation
BR 201	Bridge Quantity Sheet
BR 202	Preliminary Information
BR 203	Borings
BR 204	Framing and Railing Plan
BR 205	Details of Abutment #1
BR 206	Details of Abutment #2
BR 207	Details of Pier #1
BR 208	Details of Pier #2
BR 209	Approach Slab #1
BR 210	Approach Slab #2
BR 211	Reinforcing Steel Schedule
BR 212-216	Channel Sections

Bridge Standards

SCWPG-30-62 Sheets 1-4
SB-56-62 Sheets 1 & 2
SCB-D2-62, SCB-D6-62

Reference Sheets

Interstate Plan (Scale 1"=50')
Interstate Profile

Notes

1. For General Notes see Pier #1 sheet.
2. Superstructure to be as per Std. SCWPG-30-62
3. Bridge railing to be as per Std. SB-56-62 Sh
4. Bridge curb to be as per Std. SCB-D6-62.
5. Railing posts to be set normal to grade.
6. For summary of quantities see Bridge Quanti Sheet.
7. All girders parallel to minor chords.
8. Stations are true length only along sur line.

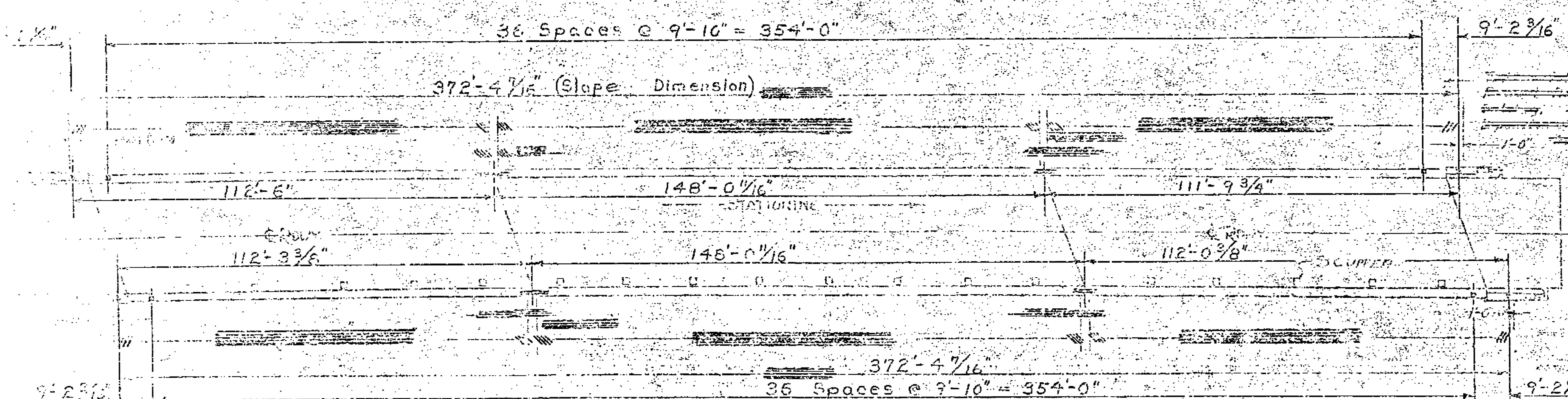
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 20 OF 32
BRIDGE 96N&S
FOR REFERENCE ONLY

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.				
	[illegible] STEEL	[illegible]				
	ASPHALTIC [illegible] COATING	[illegible]				
	[illegible] TIMBER PILING	[illegible]				
	[illegible] STEEL PILING	EA.				
	[illegible]	[illegible]				
	[illegible] PILING	[illegible]				

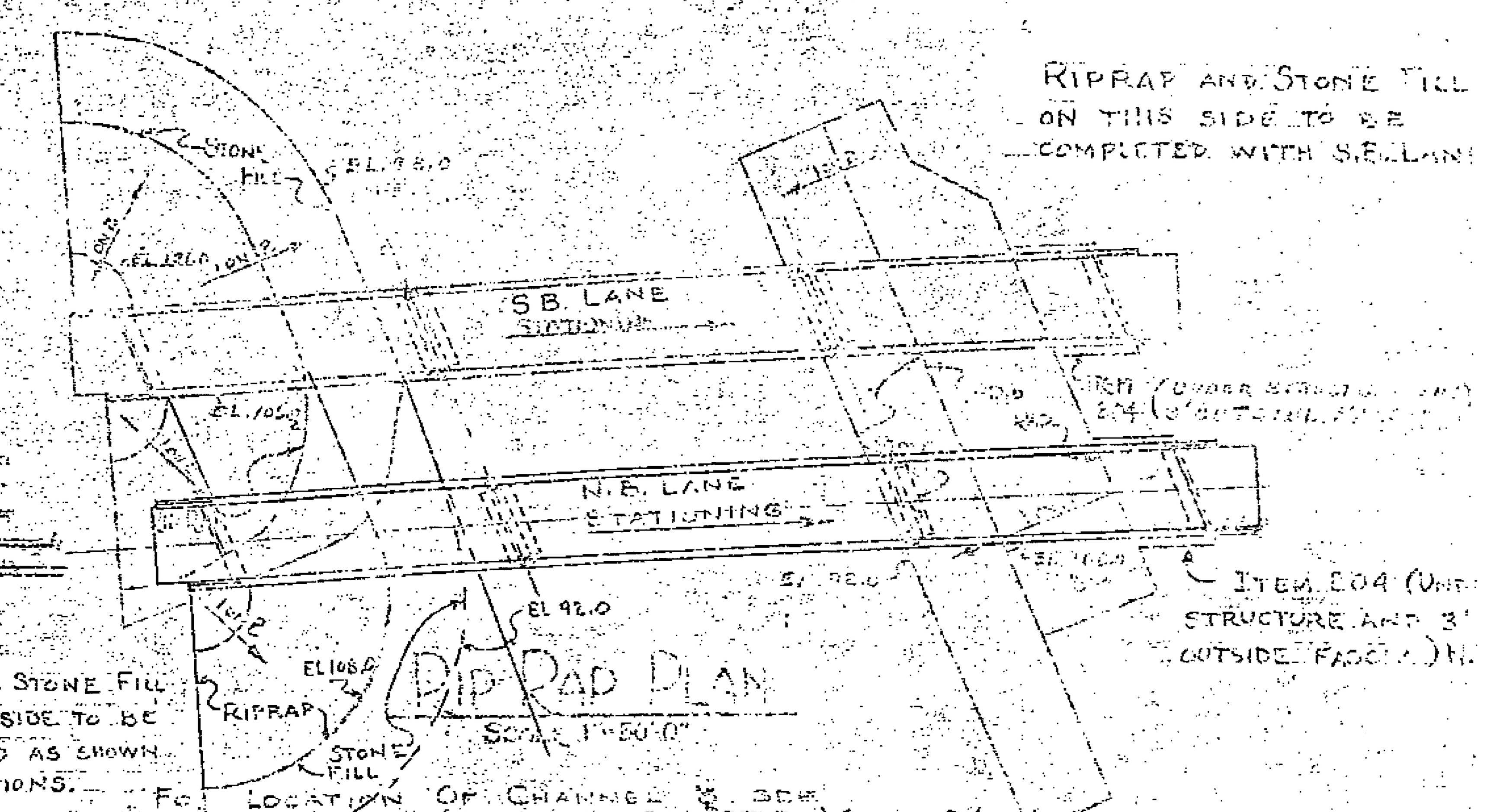
STATE OF [illegible]
DEPARTMENT OF [illegible]

TOWN OF Swanton-Highgat
ROUTE NO. I 89
Missisquoi River Bridge N
Superstructure Plan & Elevatio
SCALE 1" = 20'
[illegible] BY Webster, Martin
[illegible] BY A.J.C.
I 89-
BR-200 of 216

FRAMING PLAN



DETAILS OF RAILING SPACING



RIP RAP PLAN

FOR LOCATION OF CHANNEL SEE PLAN SHEET (STATION 576 + 27.86) CHAN. B/L No. 2
STATION 572 + 62 CHAN. B/L No. 1

※ Galvanized Metal

RAILING OF ... FOR ...

Railing lengths given are slope dimensions

※ Items to be included in Roadway Quantities

NO.	ITEM	UNIT	NET	FINAL
※ 372-A	Joint Sealer [illegible]	L.F.	[illegible]	
373	Rubber Joint [illegible]	L.F.	[illegible]	705

Superstructure Quantities (NB)

ITEM NO.	ITEM	UNIT	NET			TOTAL
106-A	CHAN. EXCAV. OF EARTH	C.Y.				
106-B	CHAN. EXCAV. OF ROCK	C.Y.				
106-C	UNCLASS. CHAN. EXCAV.	C.Y.				
107	STRUCT. EXCAV.	C.Y.				
401-AA	CONC. CLASS AA	C.Y.				586
[illegible]	[illegible] STEEL		see steel schedule			
[illegible]	[illegible]					
[illegible]	TREATED TIMBER [illegible]					
[illegible]	[illegible]					
[illegible]	[illegible]					
※ 301-A	Bit. Conc. Pavt.	Ton	103			
[illegible]	Special [illegible]	L.S.	1			
401-A	Struct. [illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]			
372	Bridge Railing [illegible]	[illegible]	[illegible]			
※ 318	[illegible]	[illegible]	[illegible]			

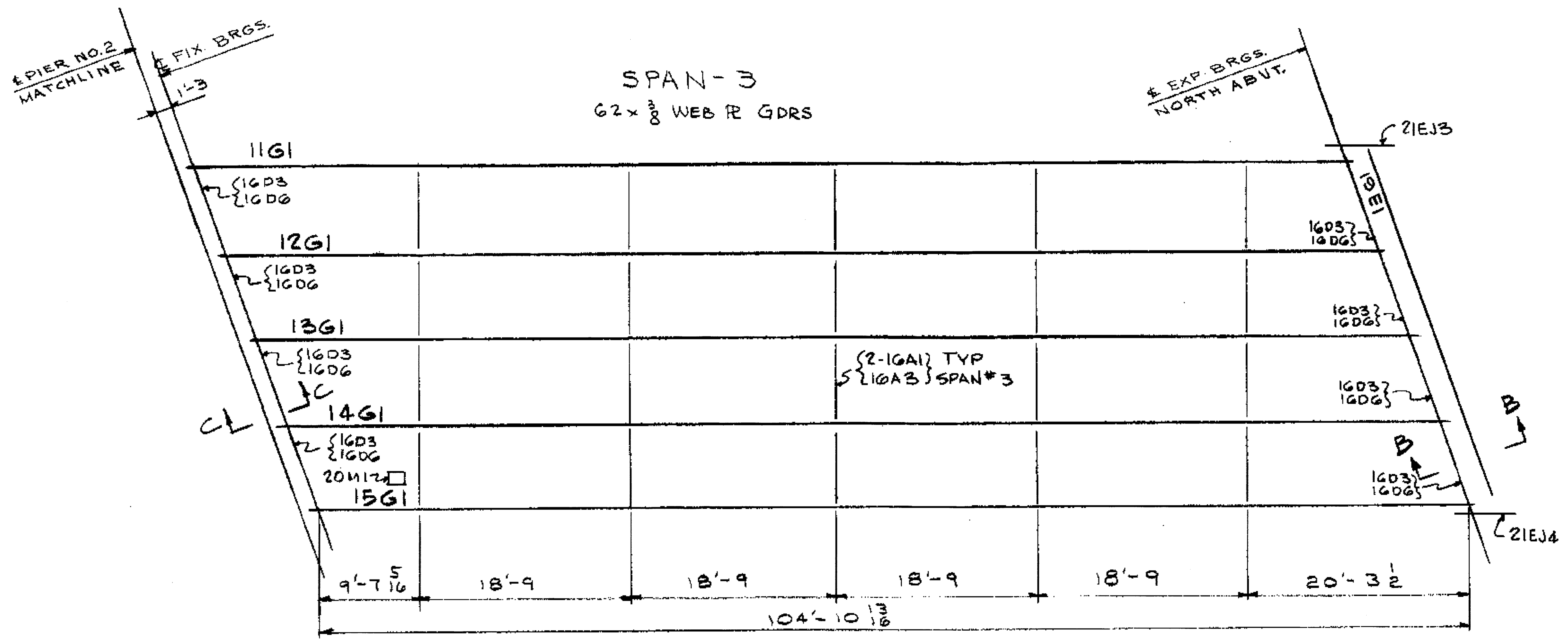
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 21 OF 32
BRIDGE 96N&S
FOR REFERENCE ONLY

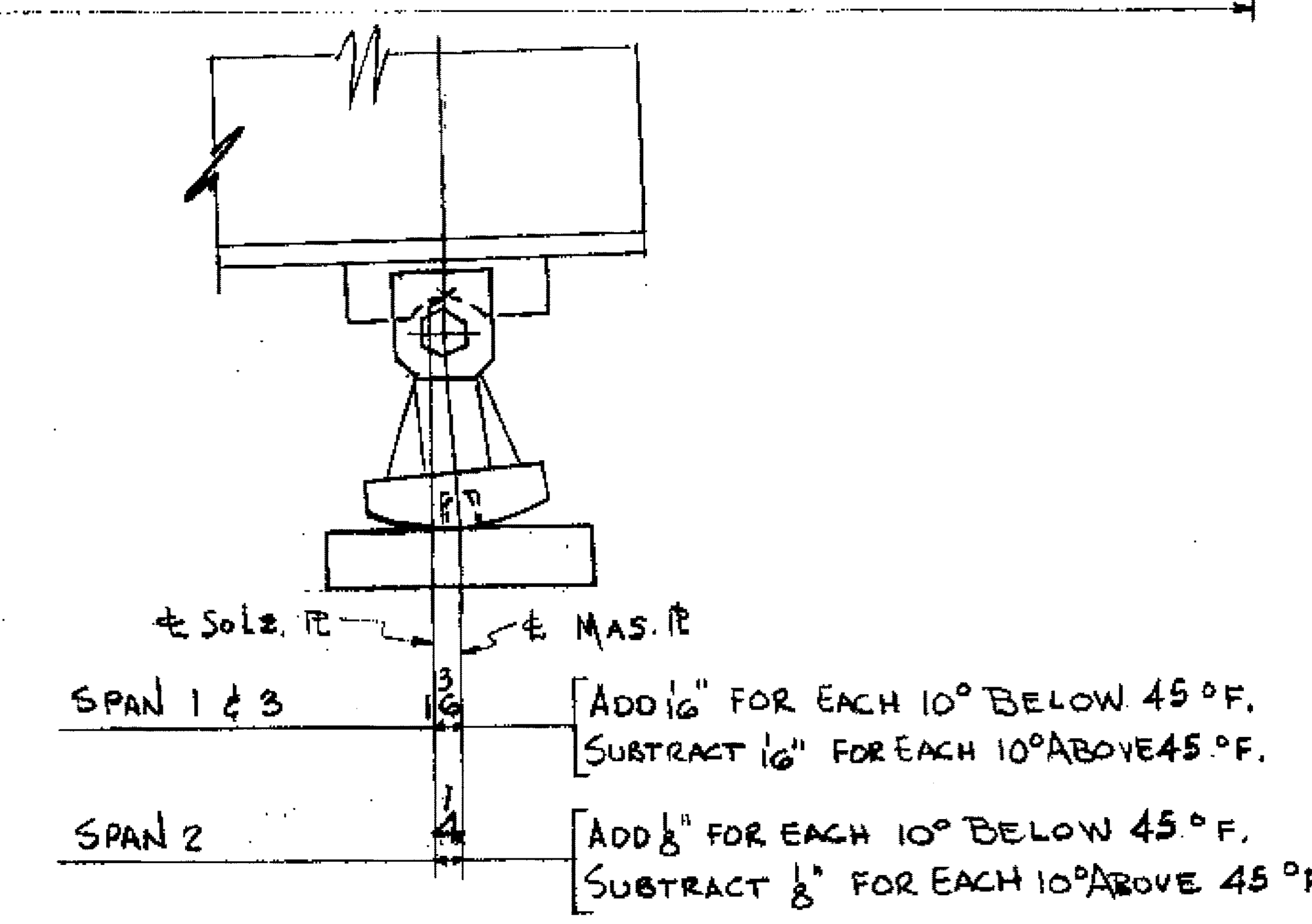
TOWN OF SWANTON
ROUTE No. I-89
FRAMING & RAILING PLAN (N
MISSISQUOI RIVER BRIDGE

BR 96
N&S

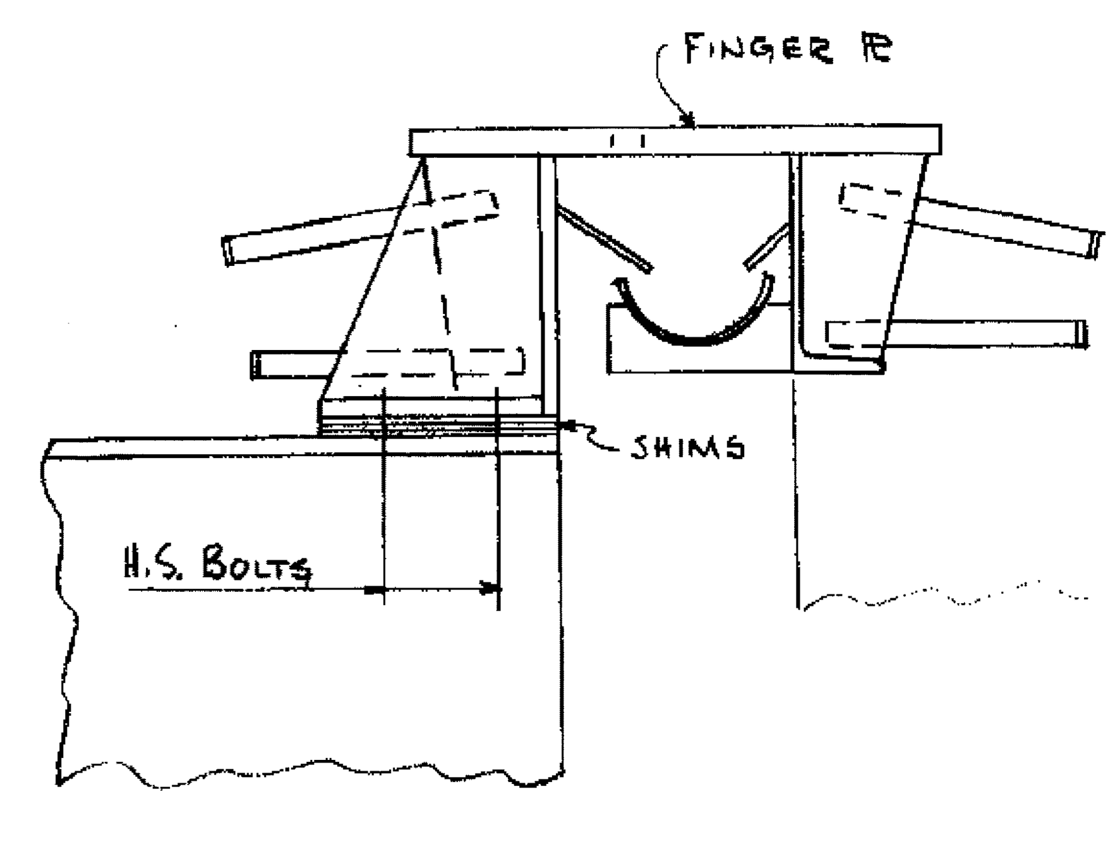
STEEL FRAMING PLAN

ALL DIMENSIONS ARE HORIZONTAL





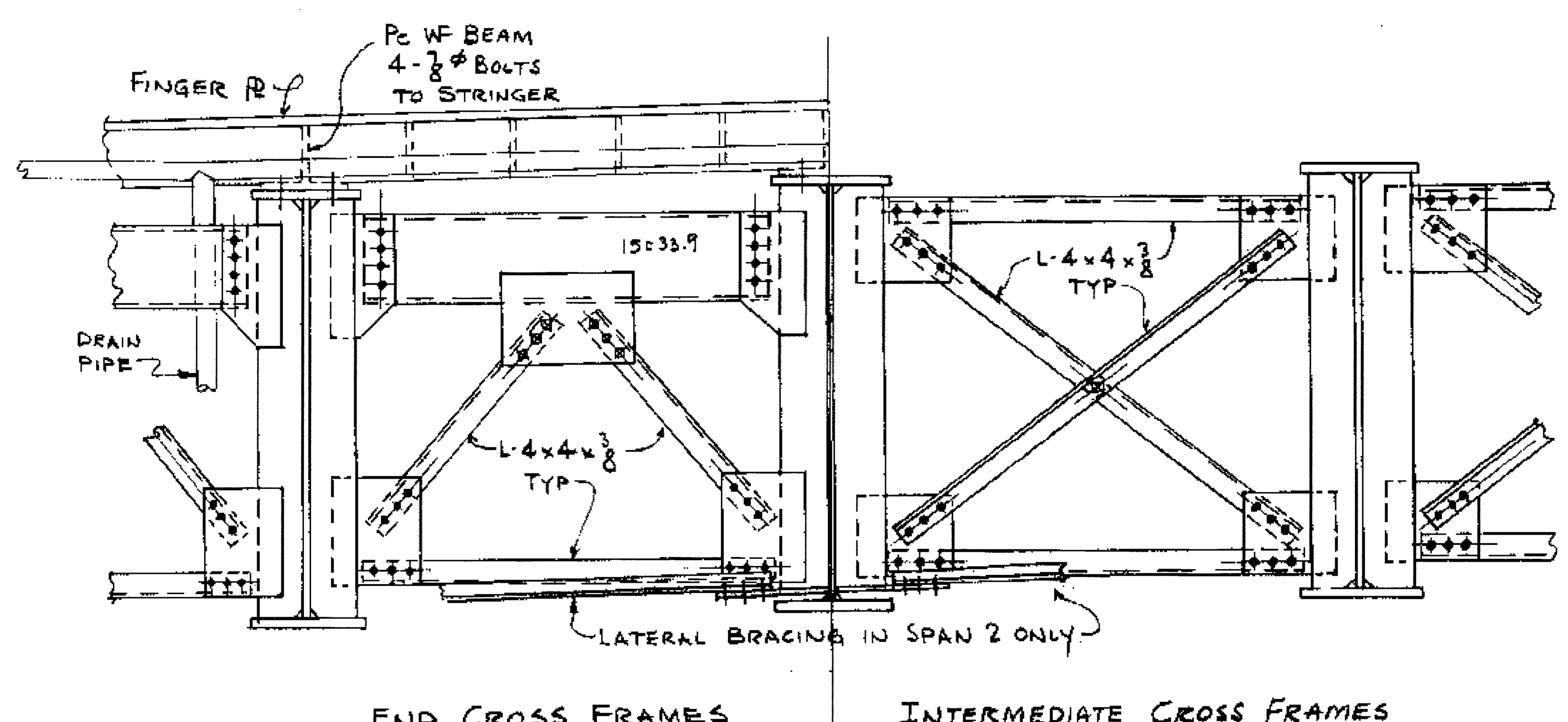
ROCKER SETTINGS
(PLUMB @ 45°)



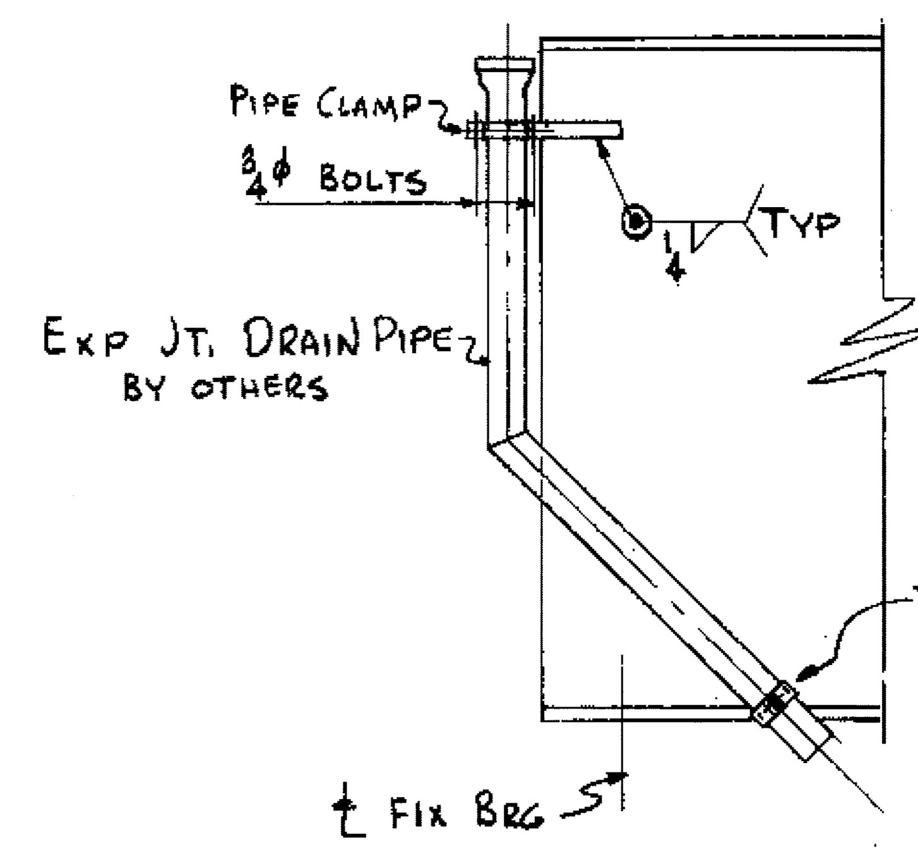
SECTION B-B
SECTION C-C SIM.

NOTES

1. FOR METHODS OF TIGHTENING H.S. BOLTS & FOR TORQUE AND TENSION REQUIREMENTS FOR H.S. BOLTS SEE ASTM A325 SPECS.
2. SIDEWALK EXPANSIONS TO BE INSTALLED BY GENERAL CONTRACTOR.
3. FOR FIELD SPLICE DETAILS, SEE SHT. M1 & M2
4. FIELD CONNECTION BOLTS TO BE 7/8" H.S., U.N.
5. SCUPPER & DRAIN PIPE CONNECTIONS TO BE MADE BY GENERAL CONTRACTOR.
6. RADIOGRAPHIC INSPECTION REQ'D, TO BE MADE BY: ARNOLD GREENE TESTING LABORATORIES, 6 HURON DRIVE, NATICK, MASS.



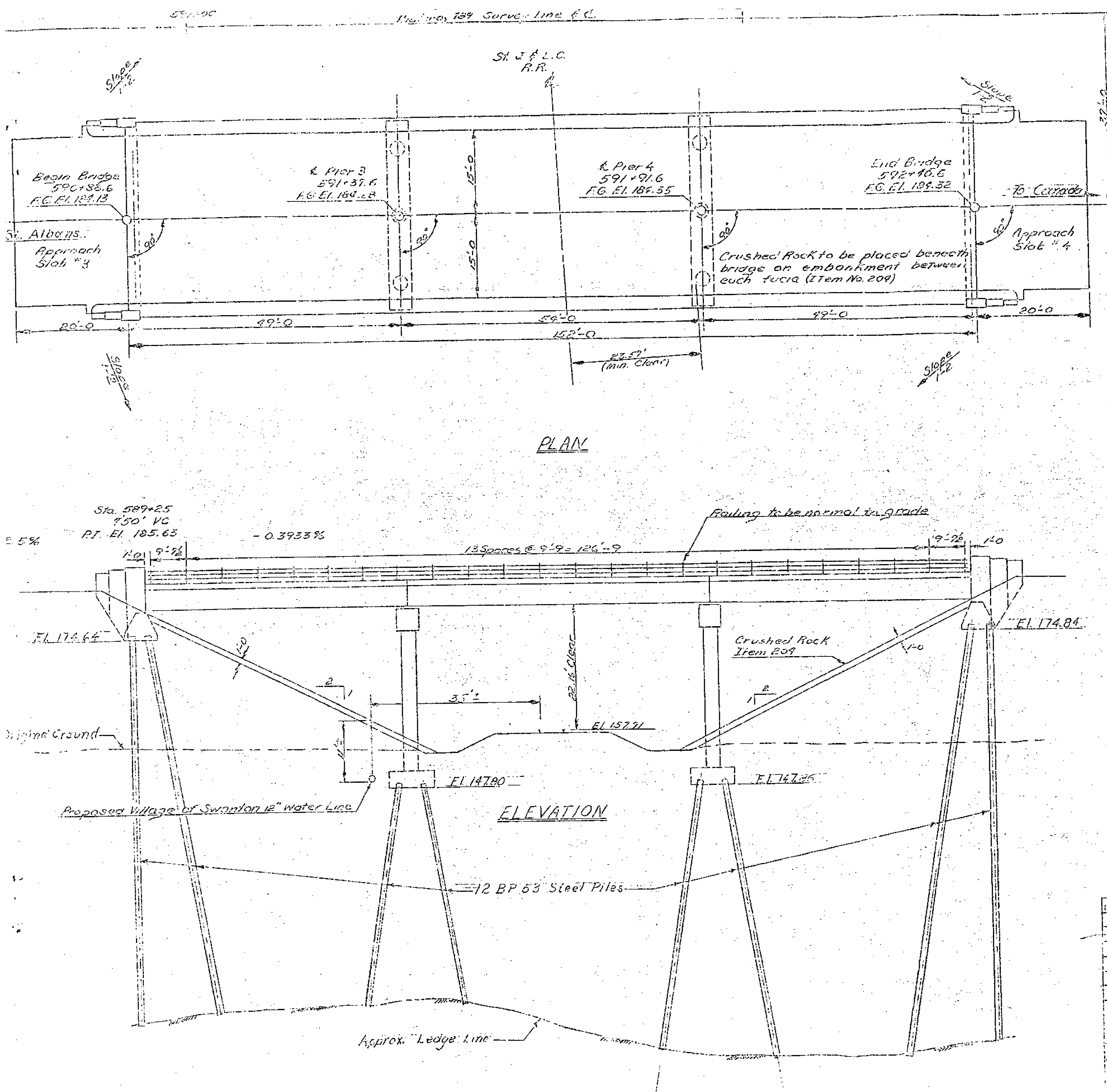
TYPICAL SECTION A-A



ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 22 OF 32
BRIDGE 96N&S
FOR REFERENCE ONLY

PROJECT NO. I-89-3(7) CONT. No. 1

BOLTS 7/8" H.S.	CITY IRON WORKS A DIVISION OF TRANS-UNITED INDUSTRIES, INC. P. O. BOX 147 WETHERSFIELD, CONN.
OPEN HOLES 15/16"	
PAINT ONE SHOP COAT	ROUTE NO. 89. MISSISQUOI RIVER BRIDGE. SOUTHBOUND RDWY
REVISIONS	SWANTON VERMONT
7/10/63 ENGR COMMENTS	
7/25/63 ENGRS COMMENT	MADE BY Ruh CHECKED BY J. DATE 12/1/62
S.O. 1529 A	SHEET NO. E 2



Abut. #3		Pier #3		Pier #4		Abut. #4	Beam No.
179.69	179.80	179.79	179.86	179.87		179.89	1
179.92	180.07	180.07	180.14	180.15		180.11	2
180.02	180.17	180.17	180.22	180.24		180.21	3
179.92	180.07	180.07	180.14	180.15		180.11	4
179.69	179.80	179.79	179.86	179.87		179.89	5
Bearing Device Fix.	Exp.	Fix.	Exp.	Fix.		Exp.	

Bridge Seat Elevations

LIST OF SHEETS

- Br. 301 Plan and Elevation
- Br. 302 Bridge Quantity Sheet
- Br. 303 Preliminary Information Sheet
- Br. 304 Boring Logs
- Br. 305 Approach Slabs #3 and #4
- Br. 306 Abutments #3 and #4
- Br. 307 Piers #3 and #4
- Br. 308 Reinforcing Steel Schedule

BRIDGE STANDARDS

[redacted]
SCB-D1 thru D9-62
SB-5G-62 Sheets #1 & #2

GENERAL NOTES

1. Elevation datum sea level based on nearest U.S. Government Vertical Control.
2. For additional notes see SCB-D1-62.
3. For Bearing Devices see SCB-D8-62, Detail "A".
4. Bridge Railing Item 572 shall be the Galvanized Metal as indicated in detail Ⓐ on sheet 2 of 2 of standard SB-5G-62.

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 23 OF 32
BRIDGE 97N&S
FOR REFERENCE ONLY

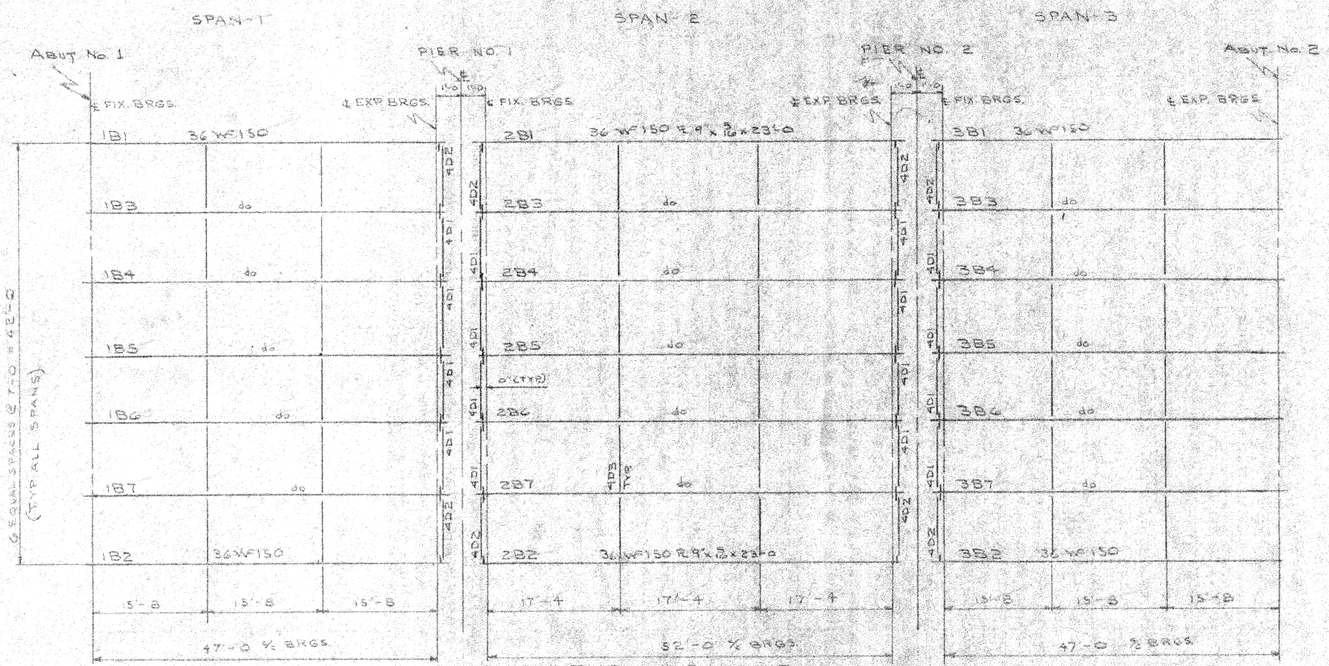
BR. 301 OF 308

ITEM NO.	ITEM	UNIT	EST.		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 A (MOD.)	C.Y.				
	CONC. CLASS B (MOD.)	C.Y.				
	REINF. STEEL	LBS.				
	[illegible]	S.Y.				
	[illegible]	L.F.				
	[illegible]	[illegible]				
	[illegible]					
	[illegible]					

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF SWANTON-HIGHGATE
ROAD [illegible]
I-89 OVER ST. J. & L.C. R.R.
PLAN AND ELEVATION
SCALE: 1" = 10'
[illegible]
136 216
Sheet [illegible] of [illegible]

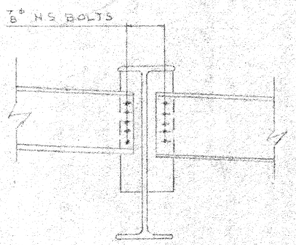
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 24 OF 32
BRIDGE 97N&S
FOR REFERENCE ONLY



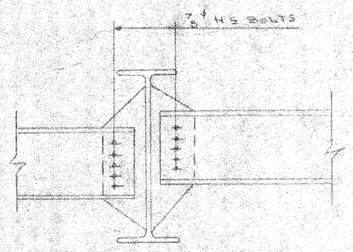
STEEL FRAMING PLAN

ALL DIMENSIONS ARE HORIZONTAL
INT. DIAPRAGMS TO BE 18C42.7 (MARKED 4D3)
END DIAPRAGMS AT PIERS TO
BE 18C42.7

OFFICE COPY



END DIAPHRAGMS



INTERMEDIATE DIAPHRAGMS

NOTE:
FOR METHOD OF TIGHTENING HIGH STRENGTH BOLTS & FOR TORQUE & TENSION REQUIRED SEE A325 SPECS.

O.K. E.F.P. 4/1/63

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 25 OF 32
BRIDGE 97N&S
FOR REFERENCE ONLY

FIELD CONNECTIONS

PROJECT NO. I 89-3 (7) Cont.°1

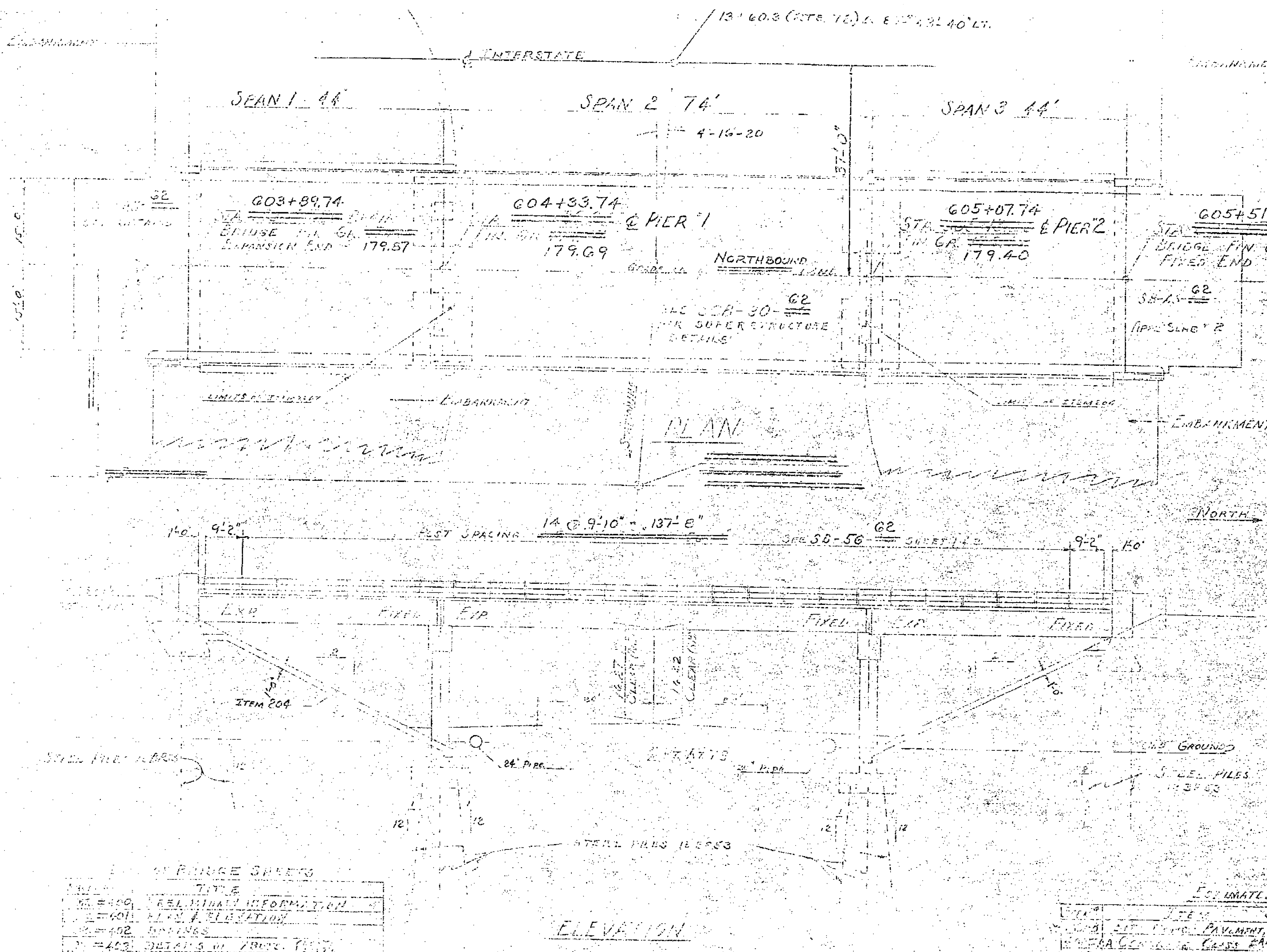
BOLTS
OPEN HOLES
PAINT
REVISIONS

CITY IRON WORKS
A DIVISION OF
TRANS-UNITED INDUSTRIES, INC.
P. O. BOX 147 WETHERSFIELD, CONN.

INTERSTATE ROUTE 89 OVER
ST. J. & L. C. RAILROAD, SOUTHBOUND LANE
SWANTON - HIGHGATE, VERMONT

MADE BY [illegible] CHECKED BY [illegible] DATE [illegible]

S.O. 1529 B SHEET NO. E 2



	[illegible]			TOTAL STAGE I	TOTAL STAGE II / INCL.
204	[illegible]			[illegible]	130
	[illegible]			731	108
222	Gravel Backfill			[illegible]	0
* 312	[illegible]			270	
373	RUBBER JOINT MATERIAL	L.F.		428	122
* [illegible]	BIT. CONC. PAVE.	Ton		66	
401	CONCRETE CLASS B, MOD.			245	245
402	Reinforcing Steel			66,500	66,409
403	Spiral Reinforcement F2040 Sta 604+ 70.74			L.V.	
404-A	STRUCTURAL STEEL			156,230	156,172
407	ASPHALTIC-ASBESTOS COATING			35	36
501	FURNISHING EQUIPMENT FOR DRIVING PILES	L.S.		L.V.	
401-AA	CONCRETE CLASS AA, MOD.	C.Y.		[illegible]	183
503	SPLICES FOR STEEL PILING	EA.		[illegible]	20
504	STEEL PILING (12BP53)	L.F.		3690	[illegible]
556C	GRANITE BRIDGE CURB MOD.	L.F.		[illegible]	322
572	BRIDGE RAILING (GALVANIZED METAL)	L.F.		315	315
* 372A	JOINT SEALER HOT POURED	L.F.		60	
594	UNIFORMED TRAFFIC OFFICERS	MAN HR.		[illegible]	
* 102-A	GRANULAR BORROW	C.Y.		2160	
*	Note: These items to be included in roadway quantities				
	Cut-offs @ 50% Unit Price	L.F.		0	[illegible]

GENERAL NOTES

1. All material and construction shall conform to the State of [illegible] Department of Highways Standard Specifications for Road and Bridge [illegible] dated Jan. 1956 and the AASHO Standard Specs. dated [illegible]. Design [illegible] loading modified for National System of Interstate Highways applied in accordance with the provisions of the AASHO Standard Specifications, Article [illegible].
2. Where rock is encountered no footing shall be poured until all blasting in an area 250 feet from the structure has been completed.
3. Final coat of field paint shall be [illegible] unless otherwise directed by the [illegible].
4. All dimensions given are measured horizontally or vertically unless otherwise [illegible].
5. All dimensions given at 68°F.
6. All reinforcing steel to have a clearance of 2" unless otherwise noted.
7. All exposed edges of concrete shall be chamfered 1" unless otherwise [illegible].
8. Borings indicated on the drawings have been made for design purposes only and are not warranted to show actual subsurface conditions.
9. El. datum: sea level based on mean [illegible] U.S. Government [illegible].
10. Steel bearing piles shall be driven to ledge rock unless otherwise approved by the Engineer. When piles are driven [illegible] the [illegible] be such as to have no [illegible] interfere with the [illegible].
11. Cross slope of approach slab to conform with the cross slope of [illegible].
12. The top surfaces of all piers and abutments shall be [illegible] from the front edge of abutment [illegible] wall or centerline of piers except for bearing pads projecting 1" or more above the general [illegible] which surfaces shall be level. The [illegible] surface of [illegible] and piers shall be coated with asphaltic [illegible] according to [illegible] Item 407 of the specs. The application of [illegible] shall be [illegible] all painting and incidental items are completed.
13. Unless otherwise called for all beams shall be cambered [illegible] on standard structures [illegible] SCB-D1-62.
14. All expansion material shall be premoulded cork conforming to [illegible].

ESTIMATED SUPERSTRUCTURE QUANTITIES

ITEM	ITEMS	UNIT	NET			FINAL
* [illegible]	BIT. CONC. PAVEMENT	TON		54		
[illegible]-A	CONCRETE CLASS AA, MOD.	C.Y.		~~164~~		183
[illegible]	REINFORCING STEEL	LB.	SEE	REINF.	SCHEDULE	
[illegible]	SPIRAL REINF. [illegible] 1074 F2040 [illegible]	L.S.	L.V.			
* [illegible]	[illegible] FOR BRIDGE FLOORS	GAL.	216			
404-A	STRUCTURAL STEEL	LB.		~~[illegible]~~		156,172
[illegible]-C	GRANITE BRIDGE CURB MOD.	L.F.	324			322
[illegible]	BRIDGE RAILING (GALVANIZED METAL)	L.F.	315			315
[illegible]-A	JOINT SEALER HOT POURED	L.F.		60		
373	RUBBER JOINT MATERIAL	L.F.	428			122

* [illegible]	BIT. CONC. PAVE.	TON		12
401	CONCRETE CLASS B, MOD.	C.Y.	50	
[illegible]	REINFORCING STEEL	LB.	SEE	REINF. SCHEDULE
[illegible]	GRANITE BRIDGE CURB MOD.	L.F.		[illegible]
* [illegible]	[illegible] FOR BRIDGE FLOORS	GAL.	54	

* Note: These items to be included in roadway quantities

STAGE I & II CONSTRUCTION

	[illegible] OF BRIDGE SHEETS
SHEET	TITLE
[illegible]-400	PRELIMINARY INFORMATION
[illegible]-401	PLAN & ELEVATION
[illegible]-402	BORINGS
[illegible]-403	DETAILS OF ABUTMENTS
[illegible]-404	DETAILS OF PIER [illegible]
[illegible]-405	REINFORCING STEEL SCHEDULE
[illegible]	[illegible] 62
	SCB-30-[illegible] 62
	SCB-D1-62 THRU SCB-D9-62
	SB-[illegible] 62 SHEET 1 & 2

STA[illegible]

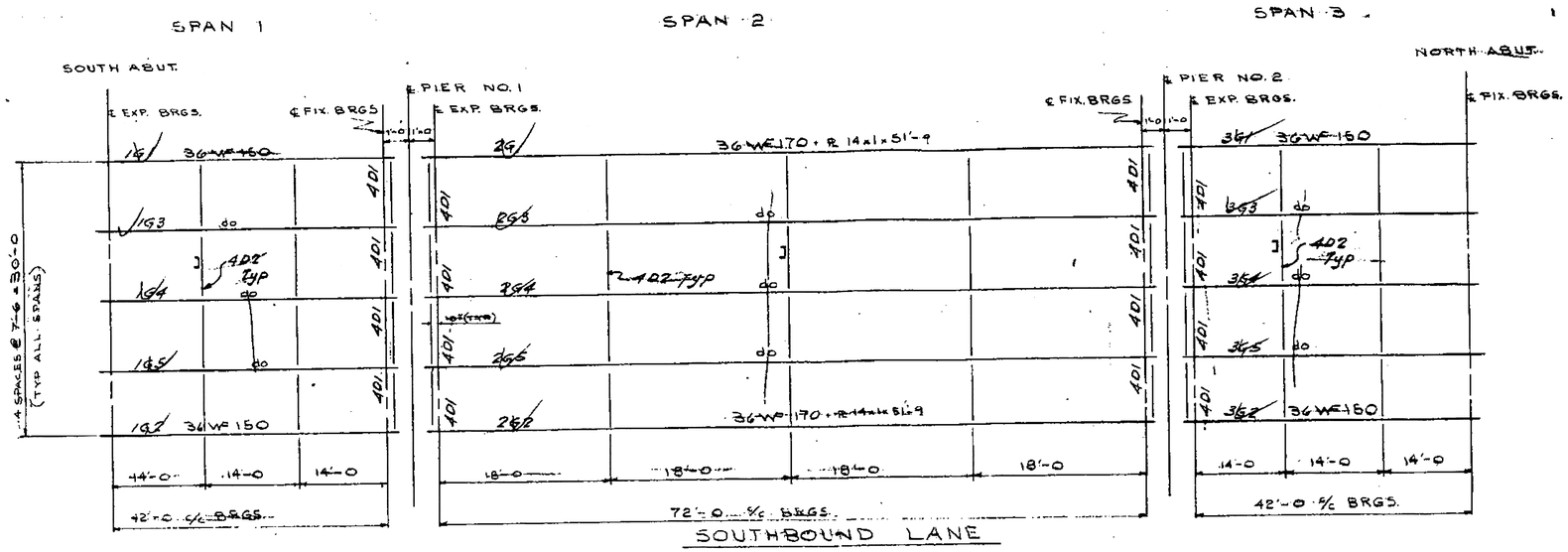
DEP[illegible]

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 26 OF 32
BRIDGE 98N&S
FOR REFERENCE ONLY

TAR EMULSION
NO EPOXY COATED REBAR

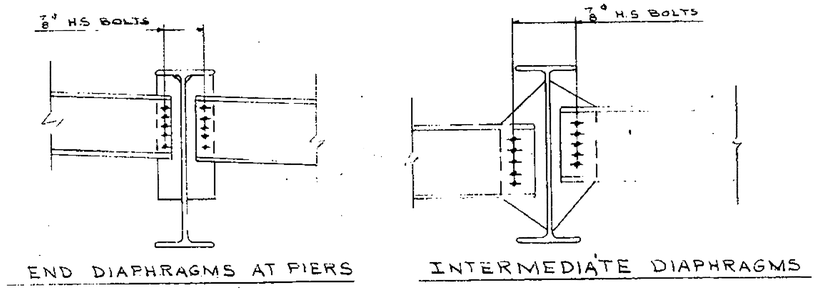
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 27 OF 32
BRIDGE 98N&S
FOR REFERENCE ONLY

BR # 98N&S



STEEL FRAMING PLAN

ALL DIMENSIONS ARE HORIZONTAL
INT DIAPHRAGMS TO BE L8L-42T
END DIAPHRAGMS AT PIERS TO BE L8L 48-T



END DIAPHRAGMS AT PIERS

INTERMEDIATE DIAPHRAGMS

FIELD CONNECTIONS

NOTE
FOR METHOD OF TIGHTENING HIGH STRENGTH BOLTS AND FOR TORQUE & TENSION REQUIRED PER ASTM A325 SPECS.

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 28 OF 32
BRIDGE 98N&S
FOR REFERENCE ONLY

State Copy
Checked
3-12-63
JJC

Approved 3/12/63

PROJECT NO. I-89-3(T) CONT. #1

BOLTS
OPEN HOLES
PAINT
REVISIONS

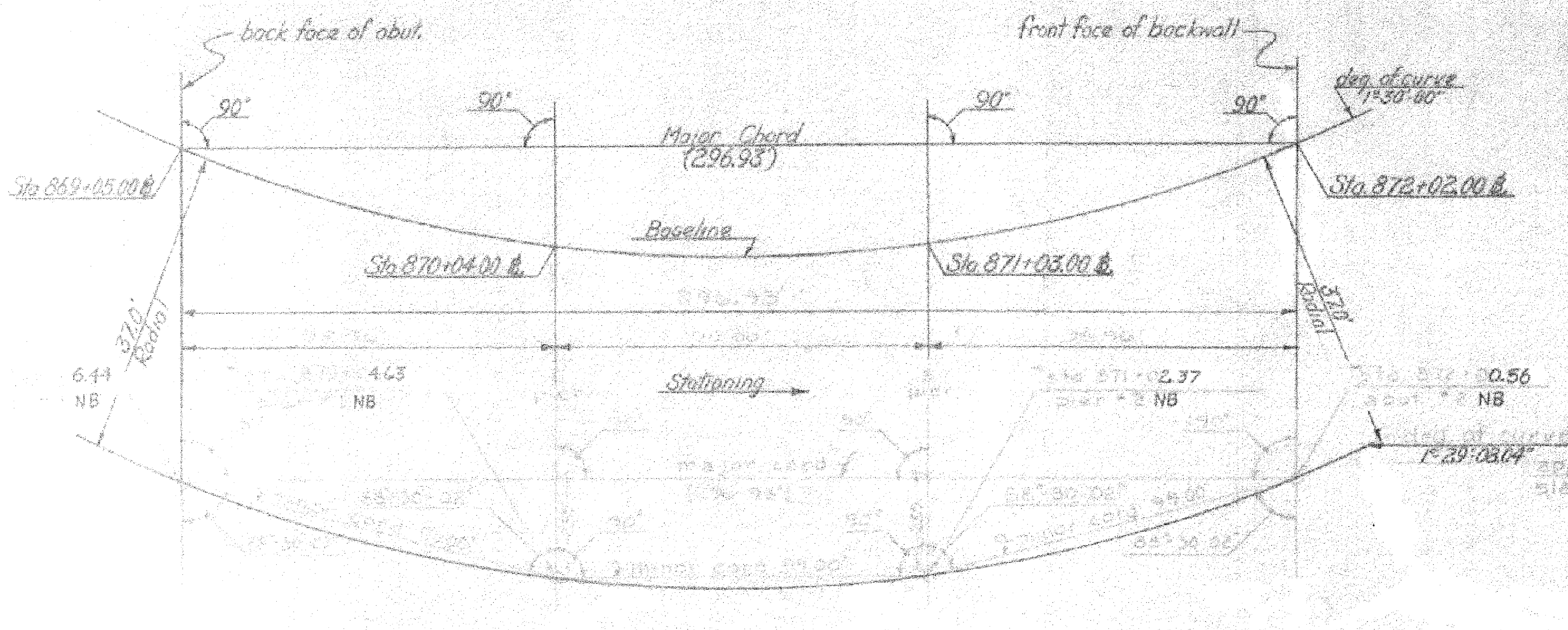
CITY IRON WORKS
A DIVISION OF
TRANS-UNITED INDUSTRIES, INC.
P. O. BOX 147 WETHERSFIELD, CONN.

INTERSTATE 89 OVER ROUTE 78. SOUTH BOUND LANE. SWANTON-HIGHGATE VERMONT

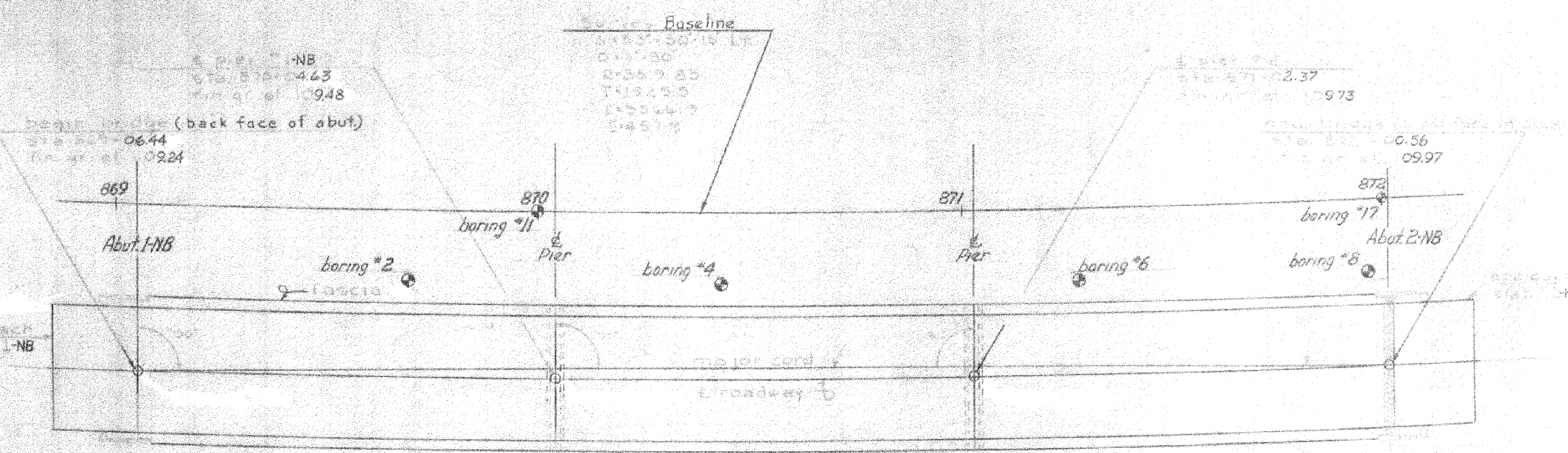
MADE BY Rad CHECKED BY MDB DATE 6/14/62

S.O. 1529C

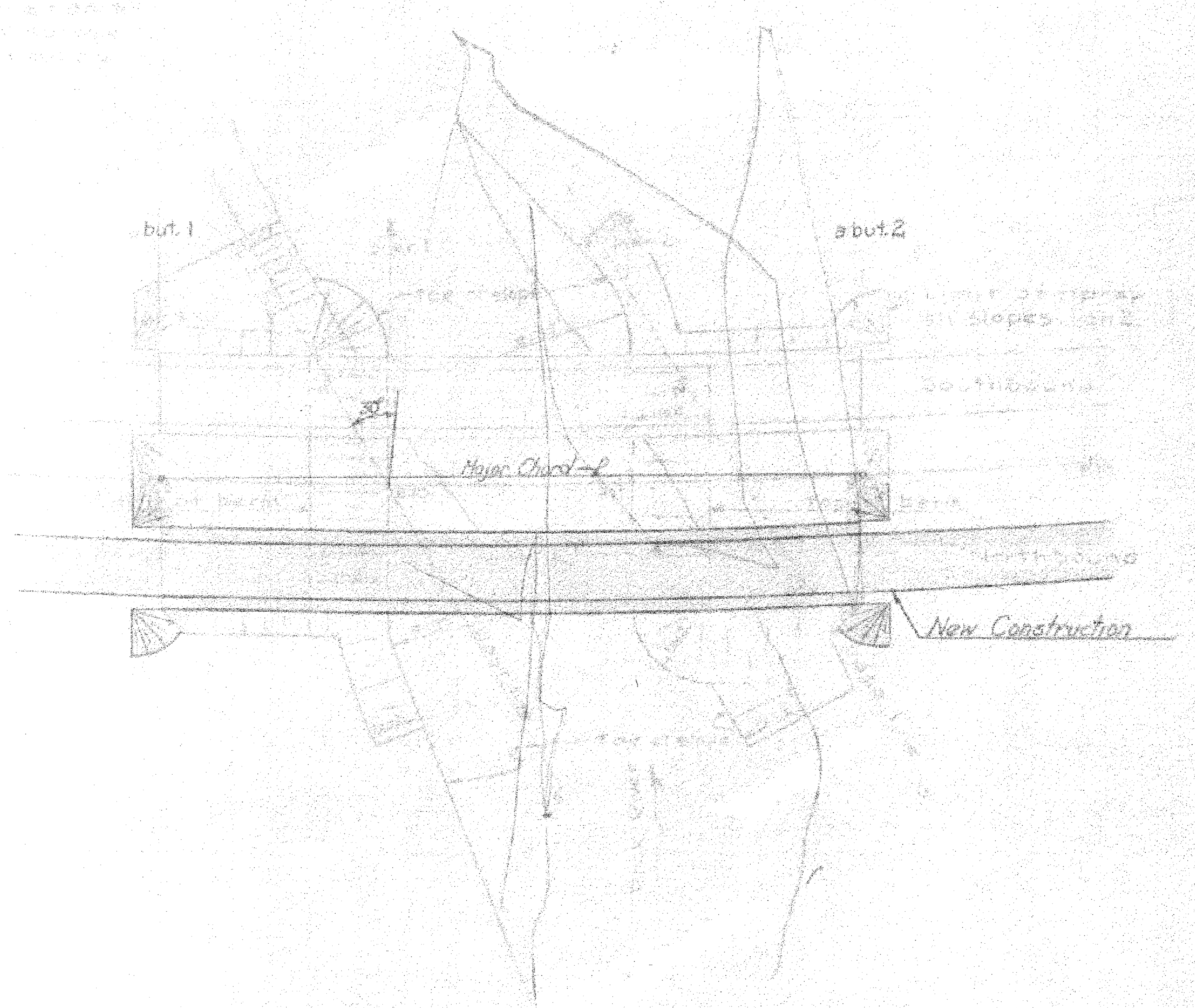
SHEET NO. E 2



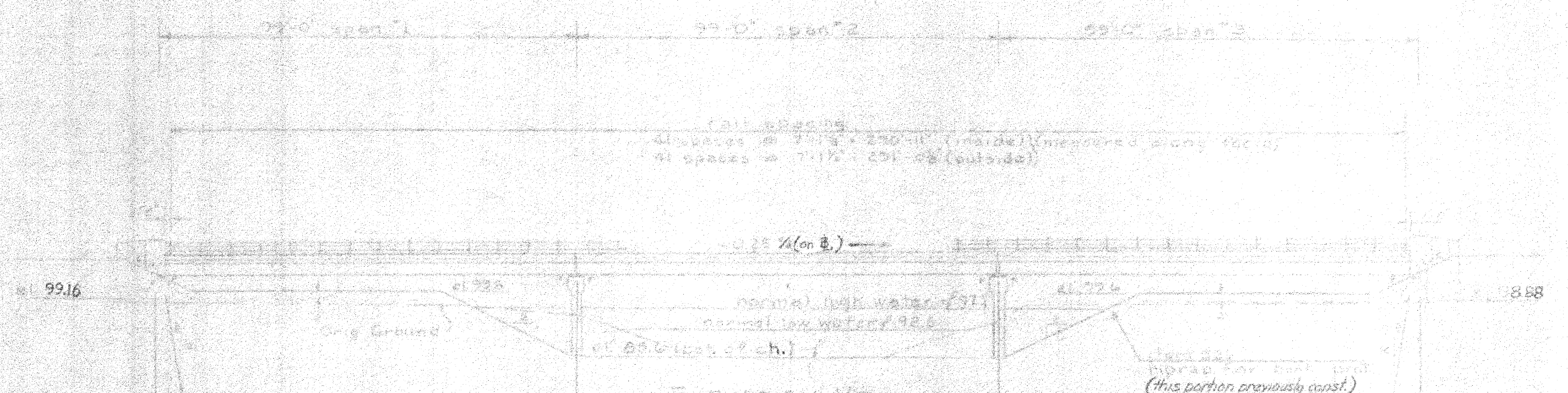
LAYOUT PLAN
not to scale



PLAN VIEW



PLAN VIEW



ELEVATION VIEW

GENERAL NOTES

1. All materials and construction shall conform to the State of Vermont Dept. of Highways Standard Specifications for Road and Bridge Construction ... (Stage I) ②
2. Contractor to submit plans for a permanent pile driving frame to be placed on river bottom at piers.
3. Superstructure to be as per Std. Sh. SCB-30-62 and SCB-D Series except as noted on plans. See framing plan.
4. All structural steel in substructure to be erected and permanently anchored before any portion of the conc. deck is poured.
5. Bridge railing and curb as per Std. Sh. SB-5G-62 sheets 1 & 2.
6. Scuppers as per Std. Sh. SCB-D6-62. For location see framing plan.
7. Fixed bearing devices at abut. ... and at piers No. 1 & 2 as per Std. Sh. SCB-D8-62, detail A.
8. For sequence of bridge construction due to surcharge loading conditions of approach fill, see Special Provisions.

⑤ 12A. Vermont Specs. dated April 1964 shall apply to Stage II Const.

13. All expansion material shall be premoulded cork ...

~SUMMARY OF QUANTITIES~

Item No.	Item	Unit	Net		Final
	Granular Borrow	C.Y.	100		
107	Struct. Excav.	C.Y.	~~200~~		125
	Gravel Backfill	C.Y.	~~30~~		0
310	Tar Emulsion for Bridge Paving	Gal.	456	STAGE II	
	Bituminous Concrete Pavement (Dense Graded Top Course)	Tons	96	STAGE II	
AA	Conc. Class "AA" (Mod.)	C.Y.	~~321~~		336
B	Conc. Class "B" (Mod.)	C.Y.	~~308~~		286
	Reinf. Steel	Lbs.	~~98,312~~		97,529
	Spiral Reinforcement @ STA 870+50 (2740 #)	L.S.	1 ✓		1
	Structural Steel (@ STA 870+50)	Lbs.	~~525,630~~		530,774
	Asphaltic ... Coating		~~42~~		40
	Furn. Equip. for Driving Piles	L.S.	~~1~~		1/2
	Splices for Steel Piles	Ea.	~~30~~		76
	Steel Piling (14 BP 73)	L.F.	~~4050~~		5,362
	Cutoffs @ 50% Unit Price				278
	Rip-Rap for Slope Protection	C.Y.	~~19~~		49
					633
	Bridge Railing (Galvanized)	L.F.	✓		585
373	Rubber Joint Material	L.F.	~~167~~		167
A	-Hot Poured ④		150	STAGE II	

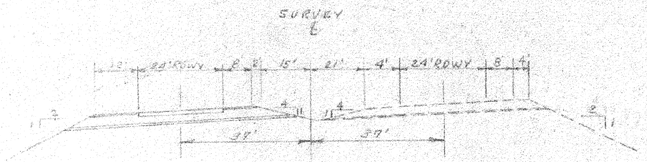
STAGE II ①	STAGE I ①	LIST OF BRIDGE SHEETS
Sh. No.		Title
BR 200	200	Plan & Elevation Views
	201	Preliminary Information Sheet
	202, 203	Boring Logs
BR 204	204	Framing Plan & Expansion Bearings
BR 205	205	Expansion End Details
	206	Abutments 1 & 2
	207	Piers 1 & 2
BR 835	208	Approach Slabs
	210	Reinforcing Steel Schedule
		SCB-30-62
		SCB-D1-62
SB-12-62		SCB-D2-62
		SCB-D4-62
		SCB-D6-62
		SCB-D7-62
		SCB-D8-62
		SCB-D9-62
		SB-5G-62 (sht. 1 & 2)

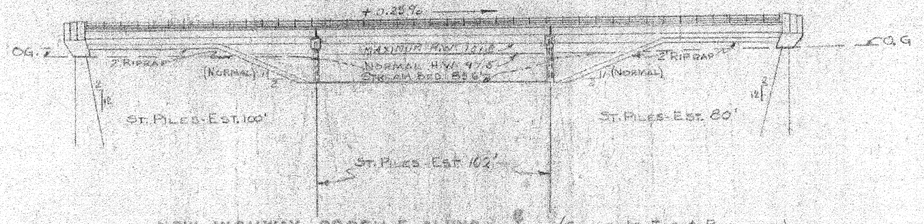
~REVISIONS~

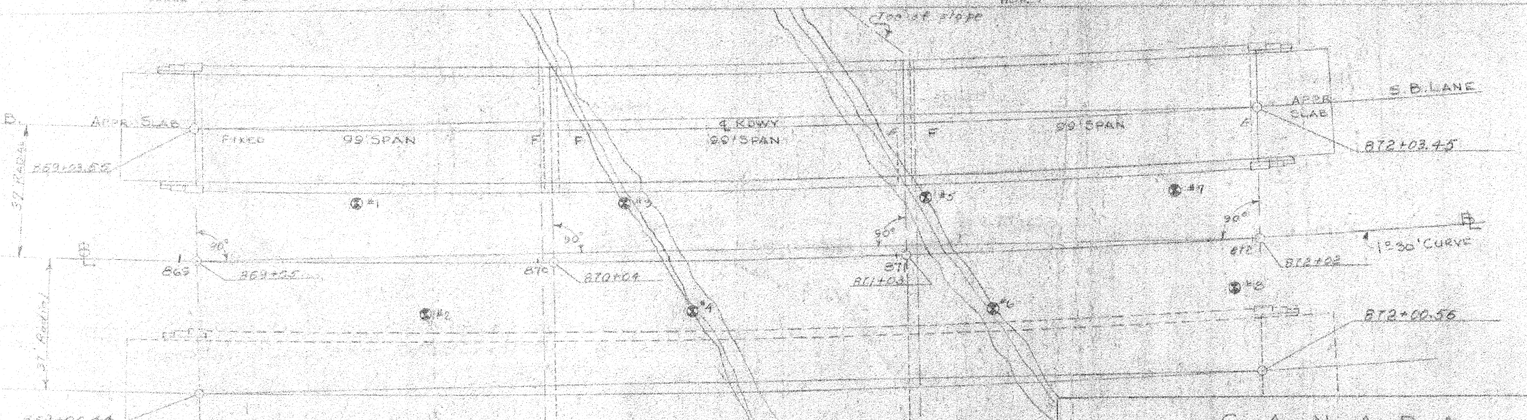
① ADDED STAGE II AND STAGE I COLUMNS TO LIST OF BRIDGE SHEETS 5-28-65 RTB
② ADDED "(STAGE I)" TO GENERAL NOTE 1. 5-28-65 RTB
③ ADDED GEN. NOTE 12A 5-28-65 RTB
④ WAS 90 L.F. 6-2-65 RTB

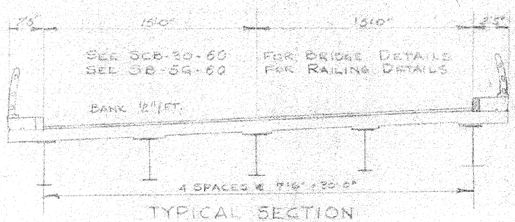
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 29 OF 32
BRIDGE 100N&S
FOR REFERENCE ONLY

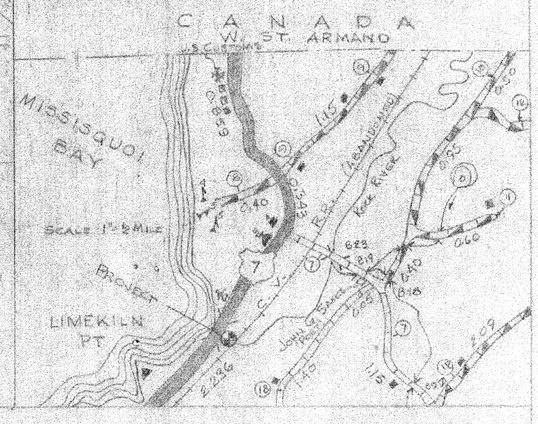
TOWN OF HIGHGATE
ROUTE NO. ...
NORTHBOUND LANE
PLANS & ELEVATION VIEWS
ROCK RIVER
SURVEYED BY
DRAWN BY RND CHECKED BY JAE
PROJECT NO. I 89-3(33)
BR 200 SHEET 99 OF 204
STAGE II PROJECT NO. I-89-3(34)











PROFILE OF PROPOSED STREAM CHANNEL

SCALE

HIGHWAY NO 89 NAME OF HIGHWAY INTERSTATE

STRUCTURE NO. COUNTY FRANKLIN TOWN HIGHGATE

PROJECT NO I-89-3(1) LOCATION 4.3 MILES NORTH OF SWANTON - HIGHGATE TOWN LINE

EXISTING STRUCTURE

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 NO

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 90' WATERWAY TO EXTREME H.W. 800'

10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS

11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE YES

12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED

13 ADDITIONAL WATERWAY AREA PROVIDED

NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE W.F. BM. BRIDGE - SCB-30-60 SQUARE

2 RECOMMENDED CLEAR SPAN OR SPANS 3 SPANS

MEASURED PARALLEL TO ℄ NEW HIGHWAY 99', 99', 99'

MEASURED AT RIGHT ANGLES TO ℄ STREAM 99' 99' 99

3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO NO

4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE 97.5

5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE 101.8 SOURCE OF INFORMATION LAKE LEVEL

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 92.5

9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE 35,092 CHARACTER OF TERRAINE ROLLING

10 IS STREAM EVER DRY? NO

11 VELOCITY OF STREAM AT HIGH WATER STAGE 2.5 FPS ESTIMATED DISCHARGE 5035 CFS

12 AREA FULL OPENING 2081 ft² AREA BELOW ORDINARY H.W. 1432 ft²

13 CHARACTER OF SCOUR NONE DRIFT ICE SLIGHT

14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE NONE

15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION 5'6" above ORD. H.W.

16 ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE NO BOTH SIDES

17 RECOMMENDED TYPE OF PAVEMENT BIT. CONC.

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 $1500.00

20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? NO

21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 120 K/Per Pile SHOULD PILES BE USED? YES EST. LGTH. 80', 102', 102', 100'

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.

SEE BORING SHEET

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 30 OF 32
BRIDGE 100N&S
FOR REFERENCE ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

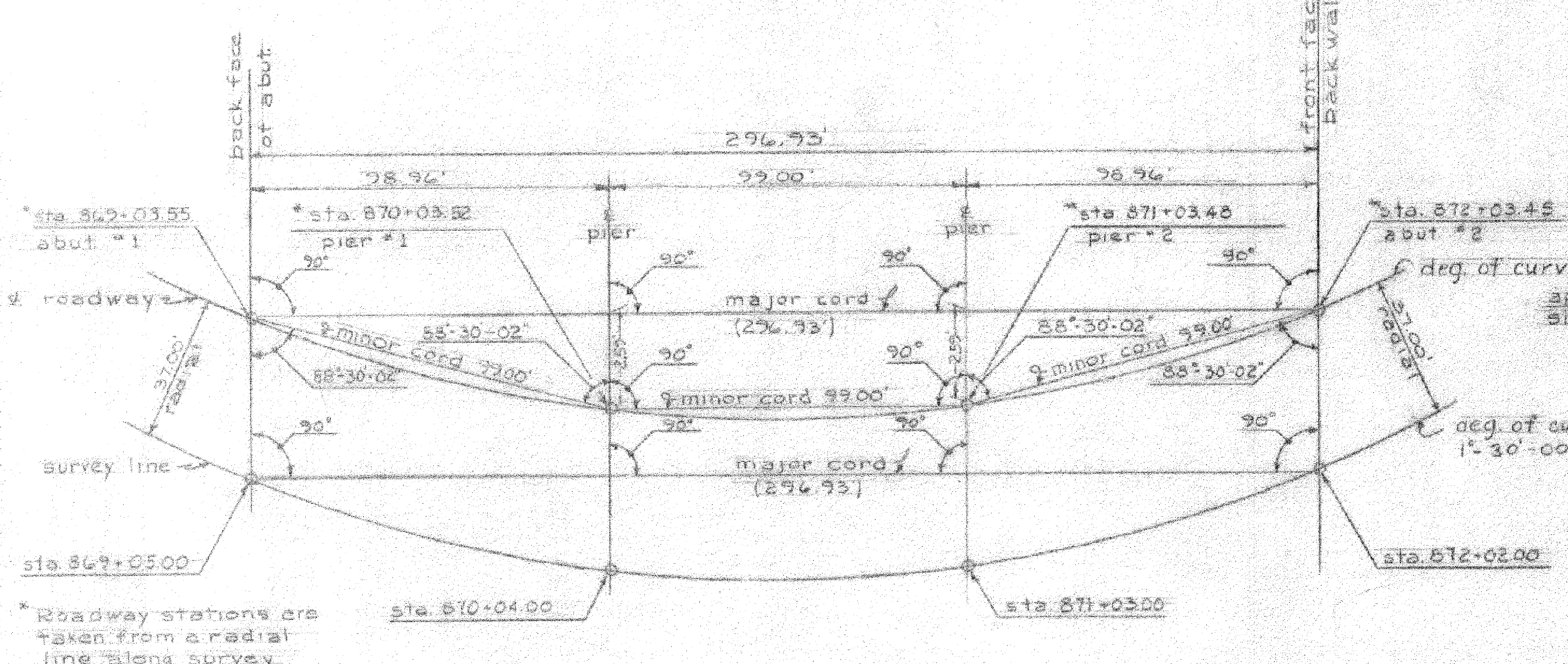
BRIDGE IN THE TOWNS OF
SWANTON - HIGHGATE
ROUTE NO I-89 ~~100~~ STA 870+50
ROCK RIVER

PRELIMINARY INFORMATION SHEET

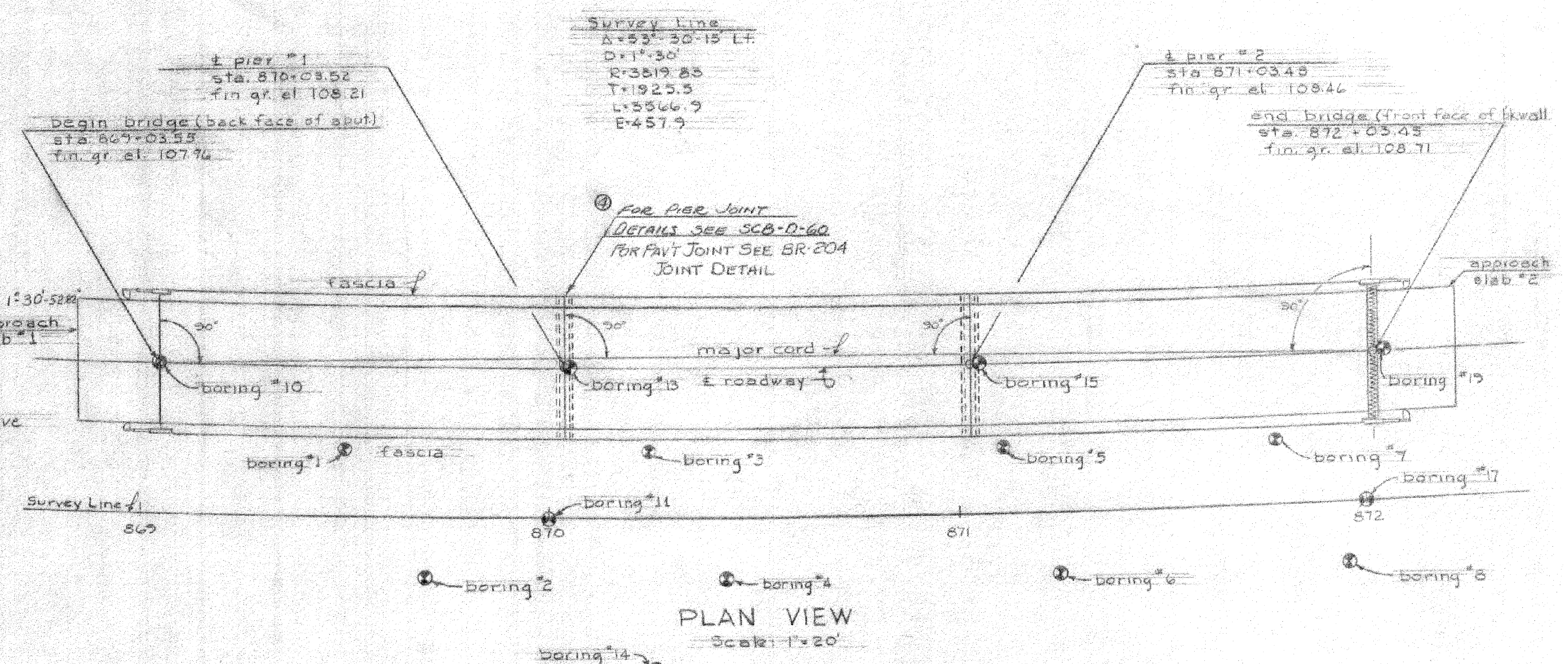
DRAWN BY CAB DATE 2-6-58
SCALE AS NOTED
PROJECT NO I-89-3(7) SHEET 69 OF 145
Cont 3
BR 3

CHECKED BY 12/15/60
BRIDGE ENGINEER
CHIEF ENGINEER

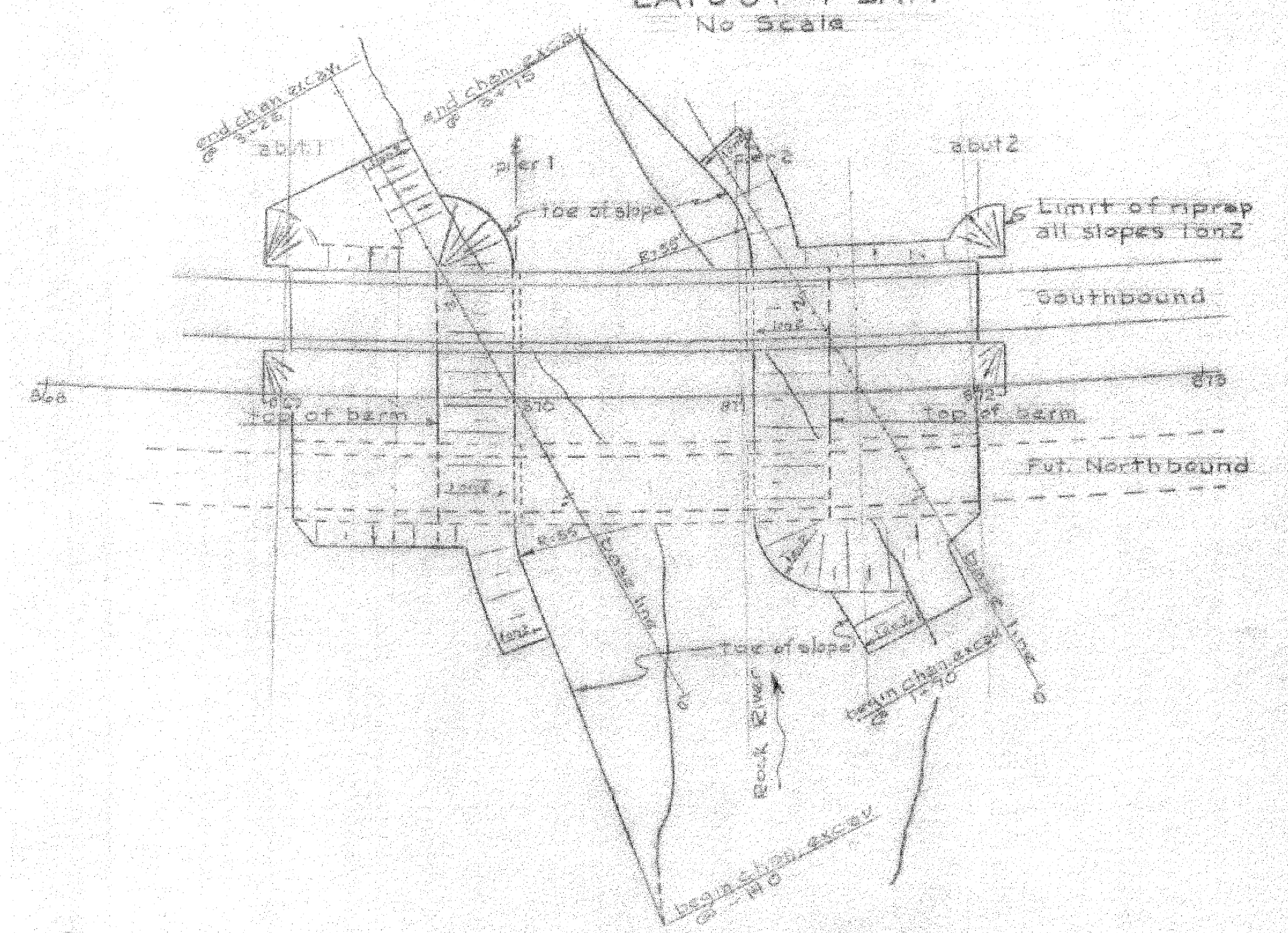
Revised 20 Oct 60 R.D.H. (Grade) Revised 4/25/60 Table M.H. Revised 25 Nov 60 L.H. Denato



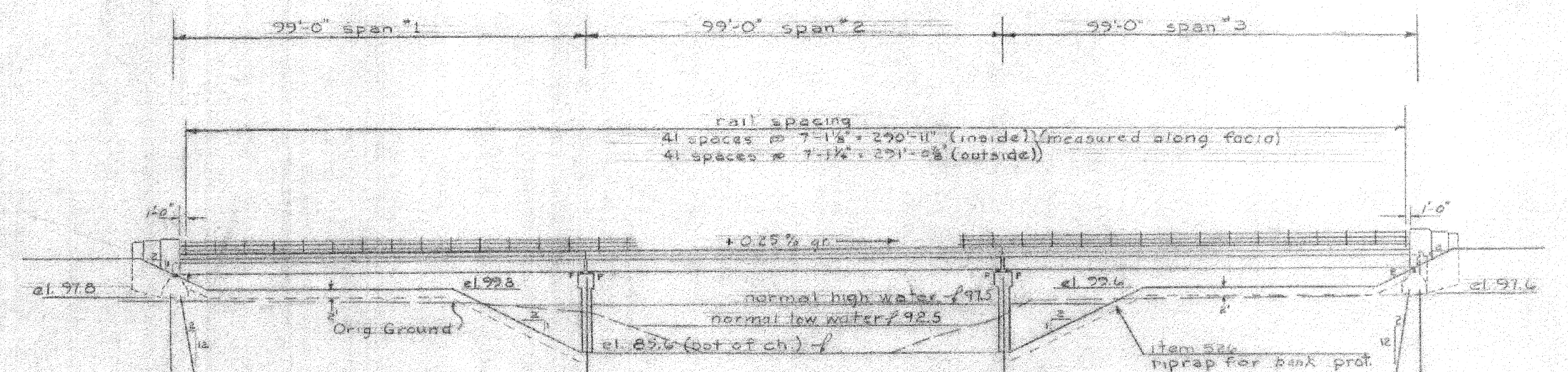
LAYOUT PLAN
No Scale



PLAN VIEW
Scale: 1"=20'



PLAN VIEW
Scale: 1"=50'



ELEVATION VIEW
Scale 1"=20'-0"

GENERAL NOTES

1. All materials and construction shall conform to the State of Vermont, Dept. of Highways, Standard Specifications for Road and Bridge Construction, dated Jan. 1956 and the A.A.S.H.O. Standard Specs. dated 1957 Designed for H20-S16-44 loading modified for National System of Interstate Highways applied in accordance with the provision of the AASHO Standard Specifications, Article 1.8.8. (STAGE I) ②
2. Contractor to submit plans for a permanent pile driving frame to be placed on river bottom at piers.
3. Superstructure to be as per Std. Sh. SCB-30-60 and SCB-D-60 except as noted on plans. See framing plan.
4. All structural steel in superstructure to be errected and permanently anchored before any portion of the conc. deck is poured.
5. Bridge railing and curb as per Std. Sh. SB-56-60 sheets 1 & 2
6. Scuppers as per Std. Sh. SCB-D-60. For location see framing plan.
7. Fixed bearing devices at abut Nº 1 and at piers Nº 1 & 2 as per Std. Sh. SB-20-60.
8. For sequence of bridge construction due to surcharge loading conditions of approach fill, see Special Provisions.
9. Concrete in the piers may be placed under water up to elev. 90 in accordance with Item 401.07.
10. Final Coat of Field paint Shall be Green unless otherwise directed by the engineer.
11. All dimensions given are measured horizontally or Vertically unless otherwise noted.
12. For additional notes see other sheets.

⑤ 12A. Vermont Specs. dated April 1964 shall apply to Stage II Const.

⑥ 12B. Use Item 372-A wherever Std. Dwgs. call for Item 372.

13. All expansion material shall be premoulded cork containing no bituminous or asphalt.

~ SUMMARY OF QUANTITIES ~

ITEM No.	ITEM	UNIT	NET			FINAL
*116	MUCK EXCAVATION	C.Y.	1888			
*123	DRAGLINE RENTAL (MOD.)	HR.	100			
*102-A	GRANULAR BORROW	C.Y.	4390			
106-A	CHANNEL EXCAVATION OF EARTH	C.Y.	11,300			
107	STRUCT. EXCAV.	C.Y.	232			
222	GRAVEL BACKFILL	C.Y.	30			
*318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	436	STAGE II		
*361-B	BITUMINOUS CONCRETE PAVEMENT (DENSE GRADED TOP COURSE)	TONS	127	STAGE II		
401-B	CONC. CLASS B (MOD.)	C.Y.	373			
401-D	CONC. CLASS D (MOD.)	C.Y.	247			
402	REINF. STEEL	LBS.	86,332			
403	SPIRAL REINFORCEMENT (7650#)	L.S.	1			
404-A	STRUCTURAL STEEL	LBS.	597,230			
407	ASPHALTIC-ASB. COATING	S.Y.	41			
501	FURN. EQUIP. FOR DRIVING PILES	L.S.	1/2			
503	SPLICES FOR STEEL PILING	EA.	42			
504	STEEL PILING (14 BP 73)	L.F.	4340			
509	PILE LOADING TEST	EA.	2			
526	RIP-RAP FOR BANK PROTECTION	C.Y.	2521			
556-C	GRANITE BRIDGE CURB (MOD)	L.F.	635			
572	BRIDGE RAILING	L.F.	585			
106-B	CHANNEL EXCAVATION OF ROCK (est.)	C.Y.	93			
① *372-A	JOINT SEALER - HOT POURED	L.F.	180	STAGE II		

* These items to be included in Roadway Quantities.

LIST OF BRIDGE SHEETS

⑤ STAGE II Sh. Nº	③ STAGE I Sh. Nº	TITLE
	BR3	Preliminary Information Sheet
	BR4-5	Boring Log
BR6	BR6	Plan and Elevation Views
BR7	BR7	Framing Plan & Expansion Bearings
BR8	BR8	Expansion End Details
BR9-10	BR9-10	Approach Slabs
	BR11	Abutments 1 & 2, End Post
	BR12	Piers 1 & 2
	BR13	Reinforcing Steel Schedule
	BR14-18	Channel Sections
	BR19	Earthwork Sheet
BR20	BR20	SCB-D-60
	BR21	SCB-30-60
	BR22	SB-20-60
	BR23-24	SB-56-60 Sheet 1 & 2
	BR25	SB-22-60

~ REVISIONS ~

① CHANGED 372-C TO 372-A 5-27-65 RTB
② ADDED "(STAGE I)" TO GENERAL NOTES 1. 5-27-65 RTB
③ ADDED STAGE II & STAGE I TO LIST OF BRIDGE SHEETS - 5-27-65 RTB
④ ADDED NOTE FOR PIER JOINT DETAILS - 5-27-65 RTB
⑤ ADDED GEN. NOTE 12A - 5-27-65 RTB
⑥ ADDED GEN. NOTE 12B - 5-27-65 RTB

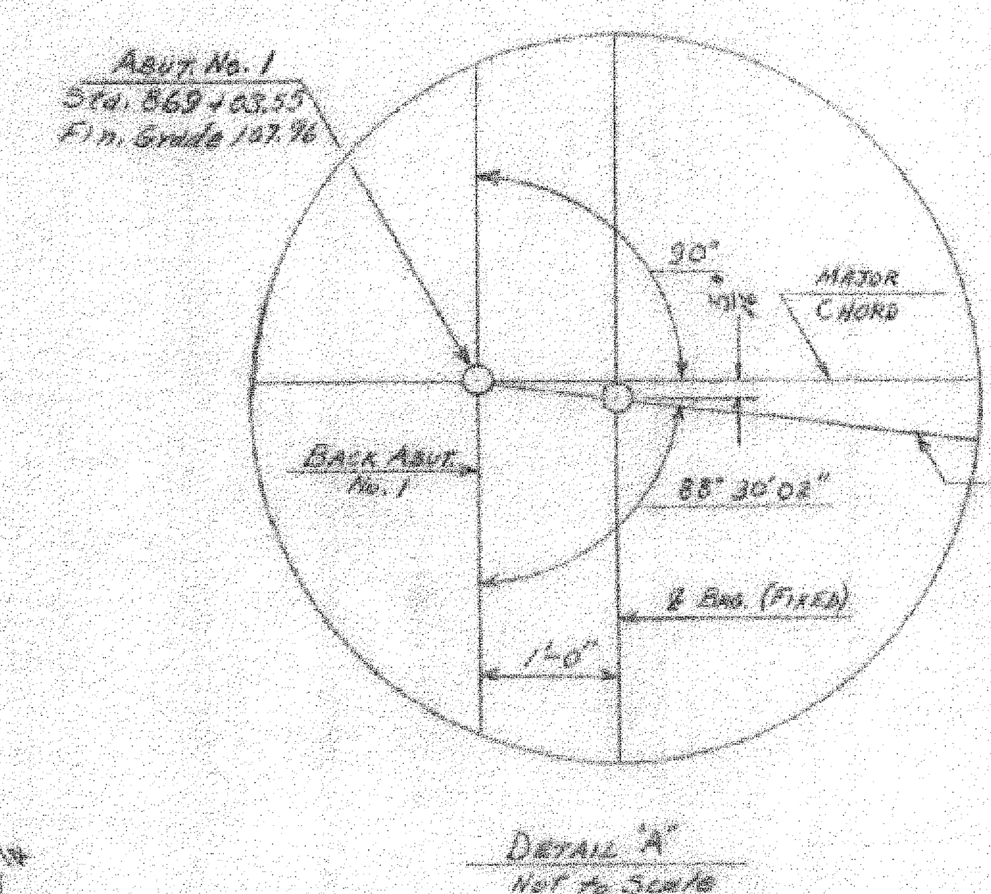
ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 31 OF 32
BRIDGE 100N&S
FOR REFERENCE ONLY

TOWN OF SWANTON HIGHGATE
ROUTE No. I 89 LOG STA. 870+50
SOUTHBOUND LANE
PLAN & ELEVATION VIEWS
ROCK RIVER
SCALE As Noted
SURVEYED BY
DRAWN BY NBT CHECKED BY LJH
PROJECT No. I 89-3(7) Cont. 3
SHEET 73 OF 113

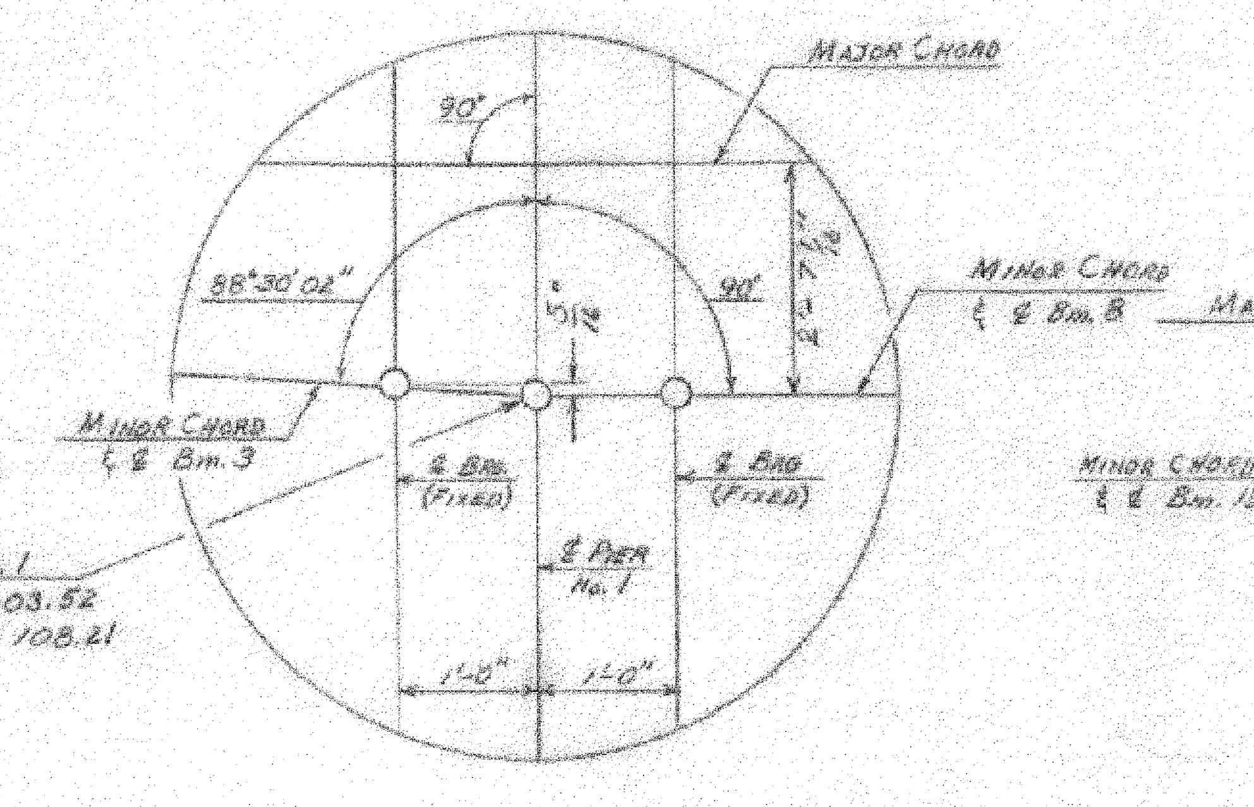
BR6

HIGHGATE STAGE II PROJECT No. I-89-3(24) SHEET 50 OF 127

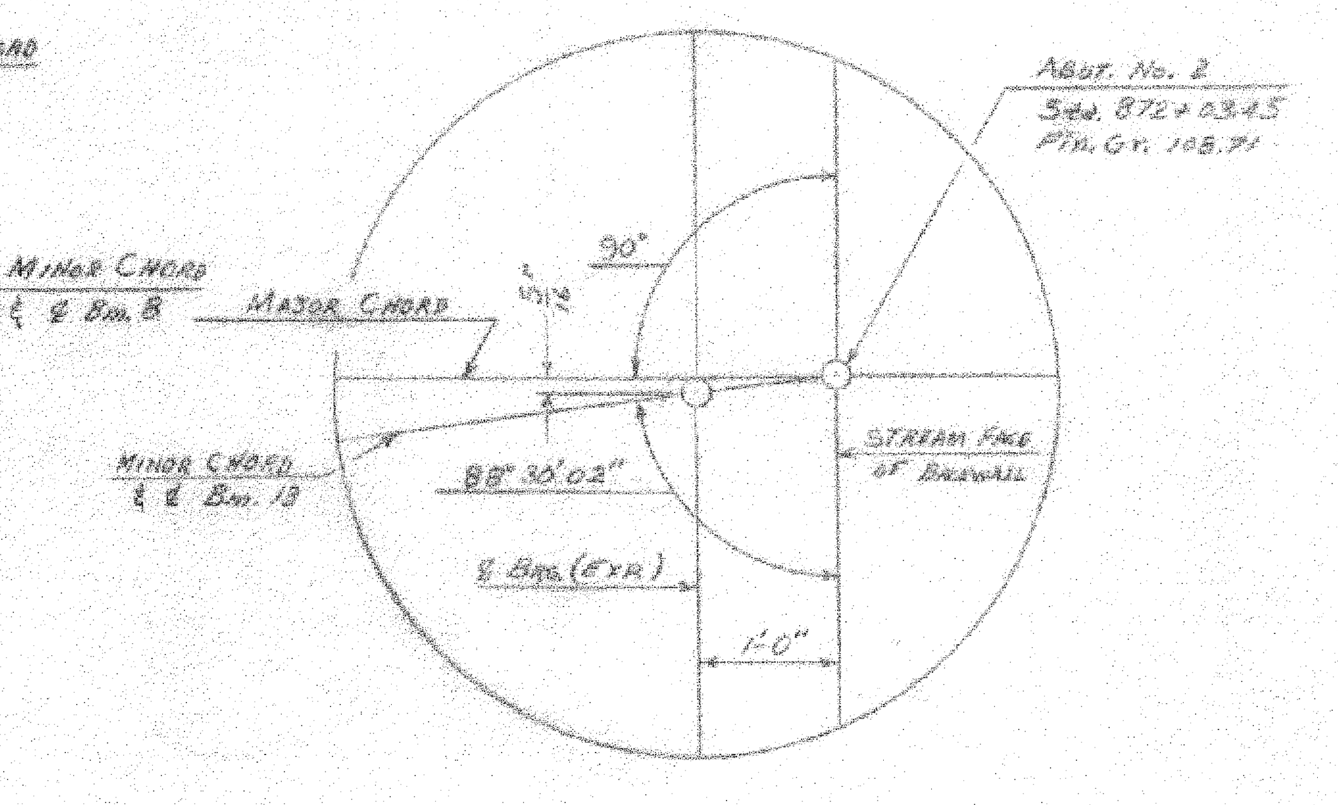
FRAMING PLAN
SCALE 3/32" = 1'-0"



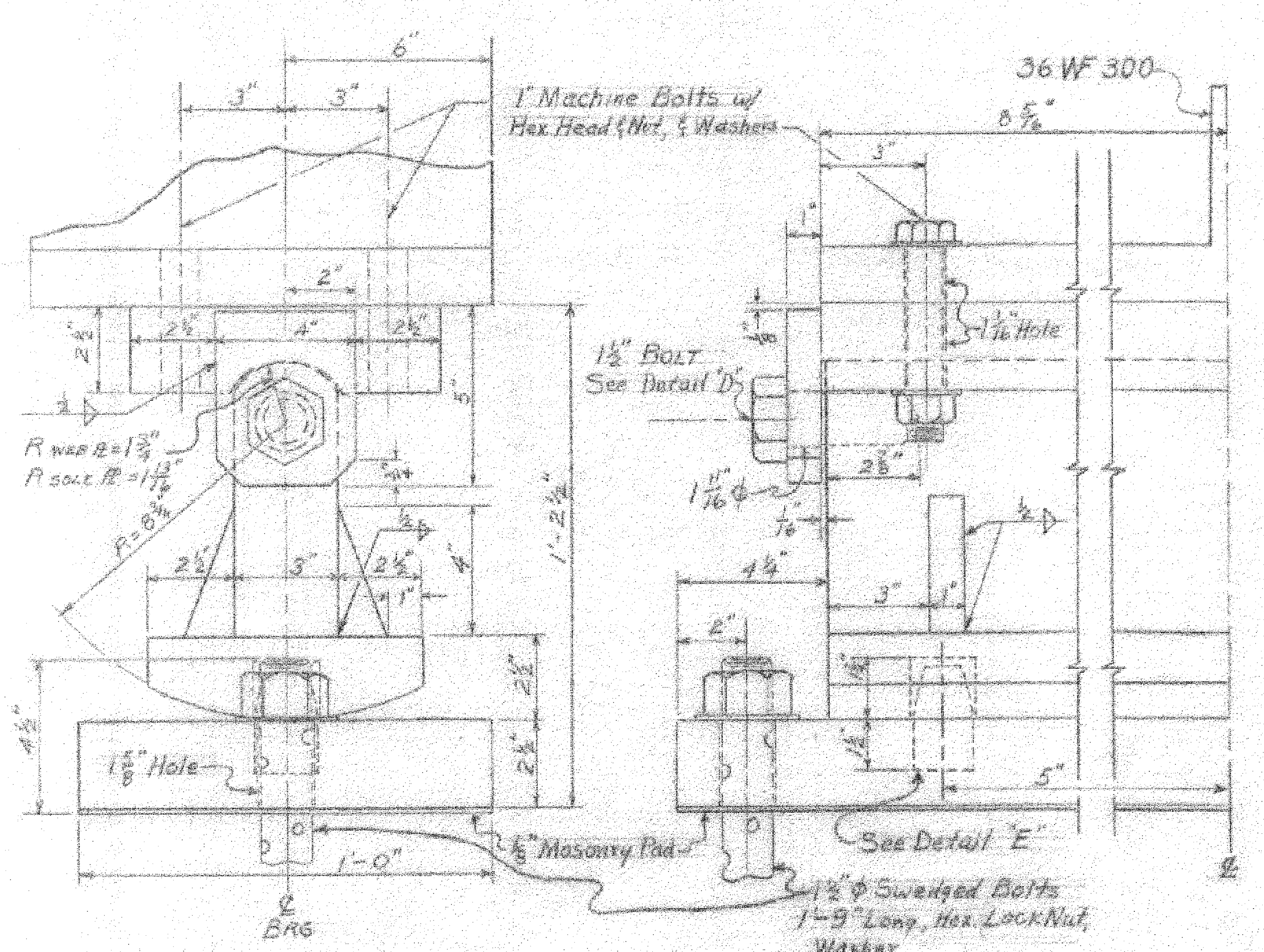
DETAIL "A"
Not to Scale



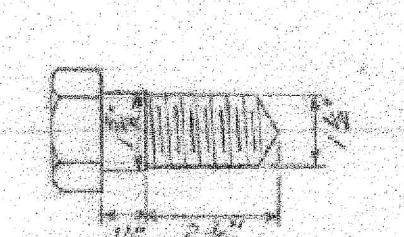
DETAIL "B"
Not to Scale
Pier No. 2 is Similar



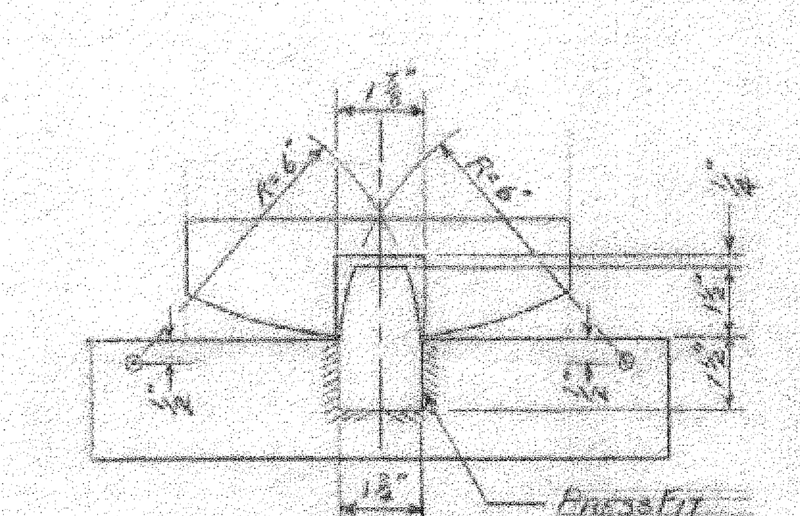
DETAIL "C"
Not to Scale



EXPANSION BEARING
SCALE 3" = 1'-0"



DETAIL "D"
BOLT DETAIL
SCALE 3" = 1'-0"



DETAIL "E"
PINTLE DETAIL
SCALE 3" = 1'-0"

~REVISIONS~

① CHANGED 372-C TO 372-A 5-27-65 RTB

NOTES

1. For detail shear connectors see SCB-30-60 & SCB-D-60
2. All diaphragms to be 18x4 ⊔ 42.7 with interior diaphragms perpendicular to the beams of each span. Diaphragms at the piers as per std. sht. SCB-D-60, and at abutment No. 2 as per sheet "Expansion End Details". Interior diaphragms as per std. sht. SB-20-60.
3. The center beam in each span is at the minor chord of that span. All beams in each span are parallel.
4. Expansion bearing to be installed in such a position that web will be in a vertical position at a steel temperature of 68°F. See note #2 of "Expansion End Details" sheet.
5. El. datum sea level based on nearest U.S. Government Vertical Control.
6. Cross slope of approach slab to conform with the cross slope of Bridge.
7. All dimensions given at 68°F.

SUPERSTRUCTURE QUANTITIES

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
106-A	CHAN. EXCAV. OF EARTH	C.Y.				
106-B	CHAN. EXCAV. OF ROCK	C.Y.				
106-C	UNCLASS. CHAN. EXCAV.	C.Y.				
107	STRUCT. EXCAV.	C.Y.				
401-B	CONC. CLASS B (MOD.)	C.Y.	321			
402	REINF. STEEL	LBS.	See Reinforcing Schedule			
407	ASPHALTIC-ASB. COATING	S.Y.				
502-B	TREATED TIMBER PILING	L.F.				
503	SPLICES FOR STEEL PILING	EA.				
504	STEEL PILING	L.F.				
372A	JOINT SEALER - HOT POURED ①	L.F.	150	STAGE II		
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	400	STAGE II		
361-B	BIT. CONCRETE PAVEMENT	TONS	111	STAGE II		
403	SPIRAL REINFORCEMENT (7650#)	L.S.	1			
404-A	STRUCTURAL STEEL	LBS.	597,230			
556-C	GRANITE BRIDGE CURB (MOD)	L.F.	591			
572	BRIDGE RAILING	L.F.	585			

ST. ALBANS - HIGHGATE
IM BPNT(4)
SHEET 32 OF 32
BRIDGE 100N&S
FOR REFERENCE ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF SWANTON-HIGHGATE
ROUTE NO. I 89 LOG STA. 870+50
SOUTHBOUND LANE
FRAMING PLAN & EXP. BRGS.
ROCK RIVER
SCALE As Noted
SURVEYED BY
DRAWN BY RLM CHECKED BY WBT
PROJECT NO. I 89-3(7) CONTRACT 3
SHEET 73 OF 143
BR7

HIGHGATE
STAGE II PROJECT NO. I-89-3(24)
SHEET 81 OF 127