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NOTE. SEE SHEET 2 FOR RECORD PLANS AND MATERIAL SUPPLIERS

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES, AMOUNTS OR OTHER DETAILS RELATIVE TO THIS PROJECT MAY BE FOUND IN EITHER THE FIELD BOOKS OR THIS ESTIMATE FILE.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

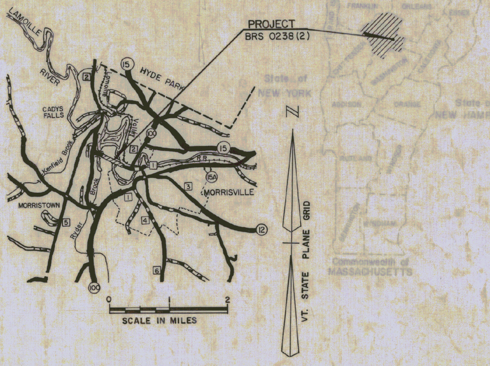
M

PROPOSED IMPROVEMENT
TOWN OF MORRISTOWN
COUNTY OF LAMOILLE
ROUTE NO.-TH 3, Cl. II BRIDGE NO.-9

BEGINNING AT A POINT APPROXIMATELY 0.436 MILES NORTHWESTERLY OF THE INTERSECTION OF VT. ROUTE 100 AND TH 3 AND PROCEEDING NORTHWESTERLY ALONG TH 3 FOR 0.322 MILES.

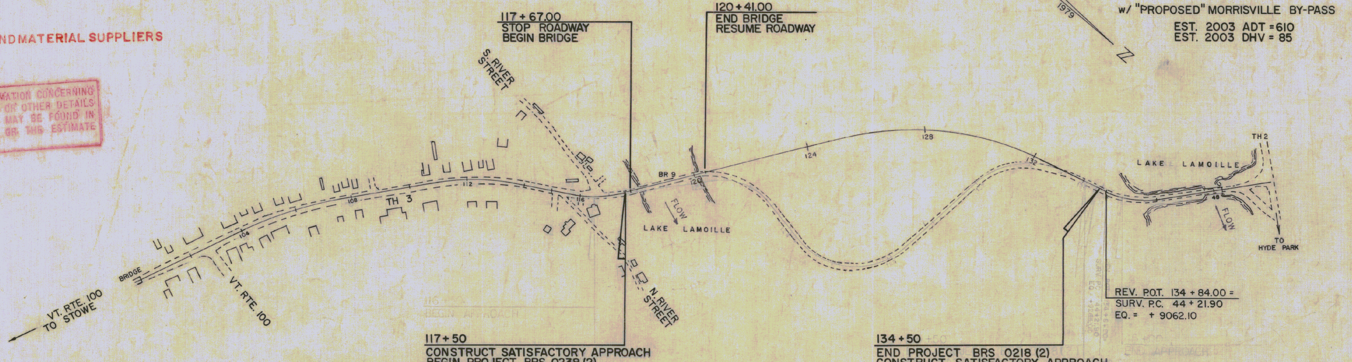
LENGTH OF ROADWAY 1426.00 FEET = 0.270 MILES
LENGTH OF BRIDGE 274.00 FEET = 0.052 MILES
LENGTH OF PROJECT 1700.00 FEET = 0.322 MILES

WORK TO BE PERFORMED UNDER THIS CONTRACT CONSISTS OF REPLACEMENT OF BRIDGE NO. 9 OVER THE LAMOILLE RIVER AND ROADWAY WORK WHICH INCLUDES GRADING, DRAINAGE, SUBBASE AND PAVEMENT FOR A TOWN HIGHWAY.



TRAFFIC DATA
EXISTING CONDITIONS (BRIDGE OPEN)
EST. 1983 ADT = 530
EST. 2003 ADT = 730
EST. 2003 DHV = 100
D = 56%
T = 1%
V = 30 MPH

W/ "PROPOSED" MORRISVILLE BY-PASS
EST. 2003 ADT = 610
EST. 2003 DHV = 85



CONVENTIONAL SIGNS

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

DATUM	
VERTICAL	NGVD 1929
HORIZONTAL	N/A

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Director of Engineering and Construction.
Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated March, 1976, as approved by the Federal Highway Administration on October 27, 1976 for use on this project, including all subsequent revisions and such revised specifications and special provisions as are incorporated in these plans.

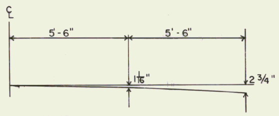
SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED S. J. Gage P.E. DATE 12-29-82
Director of Engineering and Construction

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED DATE
DIVISION ADMINISTRATOR

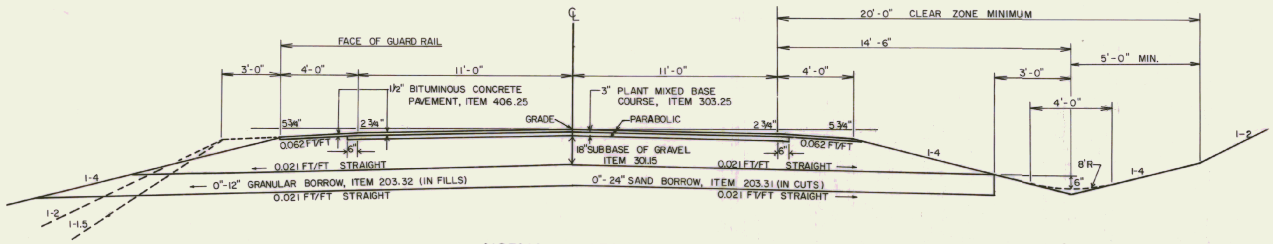
PROJECT BRS 0238 (2)
SHEET 1 OF 85 SHEETS

TYPICAL SECTIONS

18"	SUB BASE OF GRAVEL, ITEM 301.15
3"	PLANT MIXED BASE COURSE, ITEM 303.25 — PLACE IN ONE COURSE
1½"	BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 — PLACE IN ONE COURSE
SHOULDERS 1½"	BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25
0"–24"	SAND BORROW (IN CUT), ITEM 203.31 — TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
0"–12"	GRANULAR BORROW (IN FILL), ITEM 203.32 — TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.



PARABOLIC DETAIL



NORMAL SECTION

BUILT AS DESIGNED

GENERAL NOTES

SEED, ITEM 651.10 - TO BE APPLIED AS DIRECTED BY THE ENGINEER

% WT	LBS/A	NAME	PUR %	GERM %
3.33	2	CROWN VETCH	97	75
50.00	30	CREEPING RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
16.67	10	PERENNIAL RYE GRASS (VAR. PENNFINE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDSFOOT TREFOIL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	60	LBS/ACRE		

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED) TO BE PLACED AS DIRECTED BY THE ENGINEER.

FERTILIZER, ITEM 651.15 FORMULA 10-20-10 TO BE USED WITH SEED AT THE RATE OF 500 LBS/ACRE

AGRICULTURAL LIMESTONE, ITEM 651.20 TO BE APPLIED AT THE RATE OF 2 TONS/ACRE.

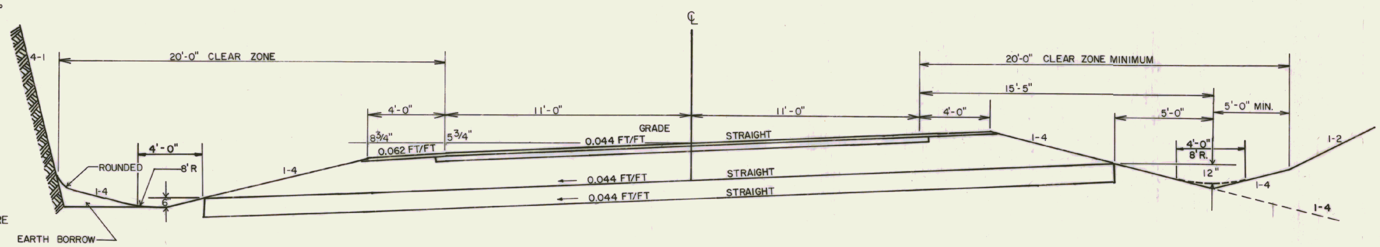
HAY MULCH, ITEM 651.25 TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF 2 TONS/ACRE.

TOPSOIL, ITEM 653.10 TO BE USED WITH SEED IN RESIDENTIAL AREAS AS DIRECTED BY THE ENGINEER

SEE STANDARD SHEET B-5 FOR TYPICAL SLOPE ROUNDING

SEE STANDARD SHEET D-2 FOR PAY LIMITS OF SAND BORROW WHEN USED IN CONJUNCTION WITH UNDERDRAIN.

ALLOWABLE THICKNESS TOLERANCES
SUB BASE OF GRAVEL ±1"
BITUMINOUS CONCRETE PAVEMENT ± 1/4"
PLANT MIXED BASE COURSE ± 1/2"
OR AS DIRECTED BY THE ENGINEER



FOR FURTHER INFORMATION ON LEDGE TREATMENT SEE STANDARD A-61

MAXIMUM BANKED SECTION 0.044 FT/FT

RECORD PLANS & MATERIAL SUPPLIERS

CONTRACTOR - BECK & BELLUCCI, INC. NORTH BROWNELL RD. WILLISTON, VT CONTRACT DATED - 9-29-83 CONSTRUCTION BEGAN - 11-14-83 CONSTRUCTION SUSPENDED - 2-10-84 CONSTRUCTION RESUMED - 4-10-84
CONSTRUCTION COMPLETED - 10-31-84 ACCEPTED - 11-16-84 RESIDENT ENGINEER - RONALD L. STANCLIFF RECORD PLANS - GEORGE J. ABAIR GRANULAR BACKFILL, SAND BORROW & SUBBASE OF GRAVEL - FROM PROJECT EXCAVATION
PLANT MIX BASE COURSE & BITUMINOUS CONC PAV'T. - PIKE INDUSTRIES, INC JOHNSON, VT. CONC. CLASS "B" & LIGHT WEIGHT - S.T. GRISWOLD CO., INC. REINF STEEL & STEEL PILING (HP 14 X 53) - BETHLEHEM STEEL CORP. BETHLEHEM PA.
BEARING DEVICES (ALT. "A"), SHEAR CONNECTORS & STRUCTURAL STEEL - BANCROFT & MARTIN INC. SOUTH PORTLAND, ME. WATER REPELLENT - SONNEBORN BUILDING PRODUCTS MASPETH, N.Y. JOINT SEALER (HOT POURED) TRIRAM CORP. FRAMINGHAM, MA.
GRANITE BRIDGE CURB - BARRETTO GRANITE CO. MILFORD, N.H. BRIDGE RAILING - AMERICAN BRIDGE RAILING CORP. LYNN, MA. METAL PIPES - ARMCO INC. MIDDLETOWN, OH. BOUNDARY MARKERS & GUARD RAIL - LAFAYETTE & SHELDON INC KELLOGG RD. ESSEX JCT, VT

TOWN OF MORRISTOWN
STATE OF VERMONT
AGENCY OF TRANSPORTATION

SHEET 2 OF 85

Type 'b' corrected 08 Jan 83

DRAINAGE AND ITEM QUANTITY SHEET

STATE OF VERMONT — DEPARTMENT OF HIGHWAYS

PROJECT MORRISTOWN — NO. BRS 0238(2)

APPROXIMATE SUMMARY OF QUANTITIES

EROSION CONTROL	BRIDGE	ROADWAY	GRAND TOTAL	UNIT	ITEM	RNDG.	ITEM NO.
		1	1	LS	CLEARING AND GRUBBING		201.10
		260	260	CY	EXCAVATION & REMOVAL OF ROAD SURFACE & PAVEMENTS		202.15
	1		1	EA	REMOVAL OF EXISTING SUPERSTRUCTURE		202.20
		220	220	LF	REMOVAL & DISPOSAL OF EXISTING GUARDRAIL	4	202.40
		60,100	60,100	CY	COMMON EXCAVATION	35	203.15
		450	450	CY	SOLID ROCK EXCAVATION	24	203.16
		1250	1250	CY	MUCK EXCAVATION	47	203.20
	60		60	CY	UNCLASSIFIED CHANNEL EXCAVATION		203.27
		300	300	CY	SAND BORROW (EST)		203.31
	46	4754	4800	CY	GRANULAR BORROW		203.32
		1050	1050	CY	ROCK BORROW	43	203.33
		8700	8700	SY	FINE GRADING - SUBGRADE		203.40
36		874	910	CY	TRENCH EXCAVATION OF EARTH		204.20
		80	80	CY	TRENCH EXCAVATION OF ROCK (EST)		204.21
	310		310	CY	STRUCTURE EXCAVATION		204.25
	190	200	390	CY	GRANULAR BACKFILL FOR STRUCTURES (EST)		204.30
		200	200	SY	SCARIFYING EXISTING PAVEMENT	1.4	212.20
181		3819	4000	CY	SUBBASE OF GRAVEL		301.15
		730	730	TON	PLANT MIXED BASE COURSE	3.8	303.25
36		844	880	CY	STRIPPING OF PITS	2	307.10
		3	3	CWT	EMULSIFIED ASPHALT		404.65
		590	590	TON	BITUMINOUS CONCRETE PAVEMENT		406.25
	371	3	374	CY	CONCRETE CLASS B	0.9	501.25
	330		330	CY	CONCRETE CLASS LW		501.40
	1		1	LS	FURNISHING EQUIPMENT FOR DRIVING PILING		504.10
	1000		1000	LF	STEEL PILING (HP 14 X 73)		506.17
	320,500		320,500	LB	STRUCTURAL STEEL (PLATE GIRDER)		506.90
					Alternate Bid Item, See Alternate Bid Item Summary, on this sheet (Rt.)		506.99
	126,200	200	126,400	LB	REINFORCING STEEL	7	507.15
	1		1	LS	SHEAR CONNECTORS (2136 @ 7/8 X 7 STDS)		508.15
	46		46	GAL	WATER REPELLENT		514.10
		875	875	SY	SHEET MEMBRANE WATERPROOFING		519.20
	1		1	LS	COFFERDAM		530.10
		164	164	LF	18" ACCGMP .064		601.1552
		40	40	LF	15" CGMP .064		601.1792
		1	1	EA	METAL END SECTION FOR 18" ACCGMP .064		601.6222
		1	1	EA	CHANGING ELEVATION OF SEWER MANHOLE		604.401
		650	650	LF	6" UNDERDRAIN (EST)		605.101
		60	60	LF	6" UNDERDRAIN CARRIER PIPE (EST)		605.151
		3	3	EA	UNDERDRAIN FLUSHING BASINS (EST)		605.95
		30	30	HRS	ROADWAY PATROL MAINTENANCE		607.10
4		6	10	HRS	BULLDOZER RENTAL, TYPE I		608.10
		5	5	HRS	BULLDOZER RENTAL, TYPE II		608.11
		5	5	HRS	POWER GRADER RENTAL		608.15
		1	1	HRS	DRAGLINE RENTAL, TYPE I (EST) NOT A BID ITEM		608.20
		1	1	HRS	DRAGLINE RENTAL, TYPE II (EST) NOT A BID ITEM		608.21
		1	1	HRS	ALL PURPOSE EXCAVATOR TYPE I (EST) NOT A BID ITEM		608.25
		1	1	HRS	ALL PURPOSE EXCAVATOR TYPE II (EST) NOT A BID ITEM		608.26
		1	1	HRS	TRUCK RENTAL (EST) NOT A BID ITEM		608.37
		1	1	M/GAL	DUST CONTROL W/WATER (EST) NOT A BID ITEM		609.10
		1	1	TON	DUST & ICE CONTROL W/CALCIUM CHLORIDE (EST)		609.15
70			70	CY	STONE FILL, TYPE I	7	613.10
600	130		730	CY	STONE FILL, TYPE II	10	613.11
		3	3	GAL	JOINT SEALER HOT POURED		614.10
	551		551	LF	GRANITE BRIDGE CURB		616.17
	552		552	LF	BRIDGE RAILING, GALV. BOX BEAM		617.30
		4	4	EA	GUARD RAIL APPROACH SECTION TYPE I		621.90
		6	6	EA	BOUNDARY MARKERS		619.10
		8	8	EA	WOOD MARKER POSTS		619.15
		2	2	EA	REMOVING & RESETTING BOUNDARY MARKERS		619.20
		321	321	LF	GUARDRAIL STD. STEEL BEAM W/WOOD POSTS, TYPE II		621.28
		4	4	EA	ANCHOR FOR STEEL BEAM GUARDRAIL		621.70
		110	110	HRS	UNIFORMED TRAFFIC OFFICER		630.10
		1400	1400	HRS	FLAG PERSONS		630.15
		1	1	LS	FIELD OFFICE - ENGINEERS		631.10
		2080	2080	HRS	EMPLOYEE TRAINEESHIP		634.10
		1	1	LS	MOBILIZATION		635.10
		4025	4025	LF	4" REFLECTORIZED WHITE LINES		646.10
		3900	3900	LF	4" REFLECTORIZED YELLOW LINES		646.11
250			250	LBS	SEED		651.10
38			38	LBS	SEED, WINTER RYE		651.12
2100			2100	LBS	FERTILIZER		651.15
8			8	TONS	AGRICULTURAL LIMESTONE		651.20
9			9	TONS	HAY MULCH		651.25
600			600	SY	EROSION MATTING	4	654.20
		20	20	SF	TRAFFIC SIGNS, TYPE A		675.20
		56	56	LBS	TRAFFIC SIGN POSTS, TYPE A		675.35
		70	70	LBS	TRAFFIC SIGN POSTS, TYPE C		675.37
		14	14	SF	REMOVING SIGNS		675.5[illegible]
		16	16	LF	GUARD RAIL, PLANK w/ WOOD POSTS		621.10

DETAILED SUMMARY OF QUANTITIES

QUANTITY	UNIT	ITEM
		FINE GRADING - SUBGRADE
7130	SY	MAINLINE
328	SY	BEGIN APPROACH
442	SY	END APPROACH
756	SY	DRIVES ← {278 SY. DRIVE @ 126+00 Lt. / 478 SY. SIDELINE APPROACH @ 131+00 Rt.}
44	SY	ROUND
8700	SY	TOTAL
		COMMON EXCAVATION
58381	CY	MAINLINE
211	CY	BEGIN APPROACH
537	CY	END APPROACH
26	CY	DRIVES
583	CY	CUT TO FILL TRANSITIONS
300	CY	EXCAV. FOR ESTIMATED SAND BORROW
62	CY	ROUNDING
60,100	CY	TOTAL
		TRENCH EARTH
336	CY	DRAIN SHEET
488	CY	UNDERDRAIN (EST)
45	CY	UNDERDRAIN CARRIER PIPE (EST)
5	CY	ROUND
874	CY	TOTAL
		SUBBASE OF GRAVEL
3100	CY	MAINLINE
182	CY	BEGIN APPROACH
265	CY	END APPROACH
224	CY	DRIVES ← {79 CY. DRIVE @ 126+00 Lt. / 145 CY. SIDELINE APPROACH @ 131+00 Rt.}
48	CY	ROUND
3819	CY	TOTAL
		BITUMINOUS CONCRETE PAVEMENT
123	TONS	FROM BRIDGE QUANTITY SHEET
412	TONS	MAIN LINE
23	TONS	BEGIN APPROACH
28	TONS	END APPROACH
4	TONS	ROUND
590	TONS	TOTAL
		STONE FILL TYPE II
130	CY	FROM BRIDGE QUANTITY SHEET
590	CY	SLOPE 120+41 LT - 122+35 LT
10	CY	ROUNDING
730	CY	TOTAL
		GRANULAR BACKFILL FOR STRUCTURES
120	CY	ROADWAY DESIGNED
80	CY	ESTIMATED
200	CY	TOTAL
		TEMPORARY EROSION CONTROL
36	CY	TRENCH EXCAVATION OF EARTH
181	CY	SUBBASE OF GRAVEL
36	CY	STRIPPING OF PITS
4	HRS	BULLDOZER RENTAL
2	HRS	ALL PURPOSE EXCAVATOR RENTAL TYPE I
2	HRS	ALL PURPOSE EXCAVATOR RENTAL TYPE II
16	CY	STONE FILL TYPE I
38	LBS	SEED WINTER RYE
1	TONS	HAY MULCH
64	SY	EROSION MATTING
		GRANULAR BORROW (includes 1.15 factor)
2479	CY.	ROADWAY DESIGNED (SEE EARTHWORKS)
1563	CY.	ROADWAY EST. FOR CAPPING FILLS
672	CY.	CUT TO FILL TRANSITIONS
46	CY.	FROM BRIDGE QUANTITY SHEET
40	CY.	ROUND
4800	CY.	TOTAL

DRAINAGE STRUCTURES

STA.	POS.	OLD CULVERT	TYPE IN	TYPE OUT	A.C.C.G.M.P. D	A.C.C.G.M.P. L	A.C.C.G.M.P. TH.	C.G.M.P. D	C.G.M.P. L	C.G.M.P. TH.	C.A.A.C.P. D	C.A.A.C.P. L	C.A.A.C.P. TH.	R.C.P. D	R.C.P. L	R.C.P. CL.	STONE FILL I	STONE FILL II	CHANGE ELEV. 604401	EROS'N MATTING	TRENCH EXCAV. EARTH	TRENCH EXCAV. ROCK	MARKER POSTS LT.	MARKER POSTS RT.	GRANULAR BACKFILL	CONC. B	REINF. STEEL	DI GRATE	DEPTH DI	DITCHES IN	DITCHES OUT	REMARKS
117+30	LT.		SMH					15"	40	.064											8											
117+32~																			1				1									
117+90	LT.	15" CGMP																			16											15" CULVERT - REMOVE & PLUG MH w/ CONCRETE
120+41	LT.	122+35 LT.																590														SLOPE PROTECTION
120+41	LT.	122+35 LT.																							120							FILTER BLANKET
121+65	RT	122+50 RT															31				78											SPECIAL DITCH W/SFI
121+85	RT	122+05RT															7				7											SPECIAL DITCH W/SFI
122+20	RT	122+50LT	RCDI		18	68	.064														24		1	1		2.1	193	B	4'-0"			
122+50	LT	125+25 LT																		122												EROSION MATTING
122+50	RT	125+25 RT																		122												EROSION MATTING
127+65	LT	130+00 LT																			58											SPECIAL DITCH
128+50	LT	130+00 LT																		67												EROSION MATTING
128+00	RT	130+39 RT																			107											SPECIAL DITCH
128+50	RT	130+39 RT																		84												EROSION MATTING
131+75	RT	134+84 RT																		137												EROSION MATTING
130+50	RT	131+00 LT	MES		18	96	.064										9				38		1	1								SFI @ INLET & OUTLET
TOTALS			MES 1-18"		18"	164	.064	15	40	.064							47	590	1	532	336		3 / 5	2	120	2.1	193	B				

ALTERNATE BID ITEM SUMMARY

BRIDGE	GRAND TOTAL	UNIT	ITEM	ITEM NO.
			ALTERNATE A	
8	8	EA.	BEARING DEVICE ASSEMBLY PREFORMED FABRIC PADS AT ABUTMENTS	506.99
4	4	EA.	BEARING DEVICE ASSEMBLY STEEL AT PIER	506.98
			ALTERNATE B	
8	8	EA.	BEARING DEVICE ASSEMBLY FLOATING POT TYPE BEARING AT ABUTMENTS	506.99
4	4	EA.	BEARING DEVICE ASSEMBLY FLOATING POT TYPE BEARING AT PIER	506.99
			ALTERNATE C	
8	8	EA.	BEARING DEVICE ASSEMBLY PREFORMED FABRIC PADS AT ABUTMENTS	506.99
4	4	EA.	BEARING DEVICE ASSEMBLY FLOATING POT TYPE BEARING AT PIER	506.99

GUARDRAIL, PLANK w/ WOOD POSTS

STA.	LENGTH
121+90 Rt.	16'

REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL

STA.	STA.	POS.	LENGTH
117+49	117+64	LT	15'
120+25	120+75	LT	50'
117+58	117+69	RT	11'
120+25	120+90	RT	65'
120+75	121+50	RT	75'
TOTAL			216'

GUARD RAIL STANDARD STEEL BEAM w/ WOOD POSTS, TYPE II — ITEM 621.28

STA. - STA.	POS.	LENGTH	ANCHOR	G-Id END TREATMENT +2 FT.
117+04-117+16	LT	12.5'	1	2'
117+04-117+16	RT	12.5'	1	2'
120+92-123+36	LT	250'	1	2'
120+92-121+24	RT	37.5'	1	2'
SUB TOTAL		312.5'	4	8'
TOTAL		321		

GUARD RAIL APPROACH SECTION, TYPE I — ITEM 621.90

STA - STA	POS	EA
117+16-117+66	LT	1
117+16-117+66	RT	1
120+42-120+92	LT	1
120+42-120+92	RT	1
TOTAL		4

TYPE OF CONSTRUCTION:

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS SHLDR.	TRAV. WAY	SHLDR.	EQUATIONS +	EQUATIONS −	REMARKS
117+50	117+67.00	4'	11' & 11'	4'	—	—	ROADWAY
117+67.00	120+41.00	4'	11' & 11'	4'	—	—	BRIDGE
120+41.00	134+50	4'	11' & 11'	4'	—	—	ROADWAY

LENGTH OF PROJECT

STA.	STA.	FEET	MILES	REMARKS
117+50	117+67	17	.003	ROADWAY
117+67	120+41	274	.052	BRIDGE
120+41	134+50	1409	.267	ROADWAY
	TOTAL	1700	.322	

MORRISTOWN — PROJECT BRS NO. 0238(2)

Type 1/b # corrected 15 Dec. '82

EARTHWORK

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	Rock AREA	Rock CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	AREA	CU. YDS.
	-3.8000 %	116+00												
		+50	600.40	600.40	0		BUTT 38							
		+74	599.49	599.64	+0.15									
		+84	599.11	599.42	+0.31	50		100					C	457
													R	246
		+87	598.99	599.36	+0.37								F	204
													R.FAC	0.495
		117+00	598.50	599.17	+0.67		70		0		0		F Fac	1.15
						20		72		24		3	ExC	344
		+20	598.81	599.05	+0.24		125		65		7			
K=19						10		64		40		18		
		+30	598.97	599.08	+0.11		222		152		88			
L=100						10		101		78		69		
		+40	599.13	599.16	+0.03		321		270		285			
						10		120		104		114		
						CONSTRUCT SATISFACTORY APPROACH	BEGIN PROJECT BRS 0238(2)							
		+50	599.28	599.28	0		328		290		330			
						8		102		87		106		
		+58	599.41				360		300		385			
						9		103		93		73		
		+64	599.50											
		+67	599.55	Stop Roadway			260		260		54			
		+75	599.67	Begin Bridge									C	205
													R	180
		118+00	600.06										F	179
		+50	600.84										RFAC	0.495
													FFAC	1.15
		119+00	601.63										EXC	88
		+50	602.41											
		120+00	603.19											
		+21	603.52											
		+25	603.58											
	+1.5632%	+35	603.74	603.74	0.0									
		+41	603.83	603.83	0.0	End Bridge ~ Resume Roadway								
		+50	603.97	603.99	+0.02									
		+75	604.36	604.51	+0.15									
		+91	604.61	604.90	+0.29						0			
		121+00	604.75	605.13	+0.38	9					302	50		
K=55						35								
		+35	605.30	606.21	+0.91							1706		
						15								
L=200		+50	606.08	606.74	+0.66						1540			
						50						3063		
		122+00	608.68	608.79	+0.11		0				1768			
						35						1146		
		+35	610.50	610.50	0						0			
						15		361						
		+50	611.28	611.27	-0.01		390							
						50		3810						
		123+00	613.88	613.65	-0.23		3725							
						35		6789						
		+35	615.70	615.15	-0.55		6750						C	50185
						15		3957					F	5965
		+50	616.48	615.76	-0.72		7494						F FAC	1.15
						50		13,587					EX.C	43325
		124+00	619.08	617.59	-1.49		7180							
SSD 348	+5.2000 %							12,269						
		+50	621.68	619.15	-2.53		6070							
								9412						
		125+00	624.28	620.44	-3.84		4095				0			
								4,500				19		
		+50	626.88	621.45	-5.43		765				20			
K=91								708				554		
		126+00	629.48	622.19	-7.29		0				578			
1000' VC												1236		
		+50	632.08	622.65	-9.43						757			
												1374		
		127+00	634.68	622.84	-11.84						727			
		+35	636.50	622.81	-13.69							1334		
	-5.7483%	+50	635.64	622.76	-12.88						714			
												1289		
		128+00	632.76	622.40	-10.36						678			
												1128		
		+50	629.89	621.78	-8.11	50					540			
				CARRIED FORWARD				5208				6934		
				COLUMN FOOTINGS				55598		180		13078		

EARTHWORK

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	AREA	CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		128+50	629.89	621.78	-8.11						540		C	5208
						50						911	F	9569
		129+00	627.02	620.88	-6.14						444		FILLF	1.15
												926	EXF	5796
		+50	624.14	619.69	-4.45						556			
												798		
		130+00	621.27	618.25	-3.02						306			
												450		
		+50	618.39	616.52	-1.87						180			
												319		
		131+00	615.52	614.52	-1.00						164			
												724	C	2963
		+50	612.64	612.24	-0.40		0				618		F	3147
								6				980	FILLF	1.15
		132+00	609.77	609.70	-0.07		6				440		EXF	656
		+35	607.76	607.76	0			75				512		
		+50	606.90				75				113			
								284				123		
		133+00	604.02				232				20			
								641				20		
	-5.7483%	+50	601.15				460				2			
								1011				5		
		134+00	598.27				632				3			
						50		946				14		
		+50	595.40	595.40	0		390				12			
						END PROJECT BRS 0238(2)	CONSTRUCT SATISFACTORY APPROACH							
K=49						34		315				14		
Rev Surv POT 134+84.00= Surv. P.C.							110				11			
		44+21.90	593.45	593.57	+0.12									
Eq = +9062.1'														
90'L		+32.9	592.82	593.03	+0.21	28.1		97				6		
		44+50	592.15	592.23	+0.08		77				0		C	537
	-3.9046	+77.9	591.06		0	50		125					F	20
		45+0	590.20				58 BUTT						FILLF	1.15
													EXC	514

STATION	DIST.	MUCK EXCAV. AREA	MUCK EXCAV. CU. YDS.	ROCK FILL AREA	ROCK FILL CU. YDS.	GRANULAR BORROW AREA	GRANULAR BORROW CU. YDS.
120+41						564	BUTT
	9						188
+50						564	
	25		BUTT		BUTT		
+75		322		360			1273
	16						
+91							
	9		298		333	1112	
121+00		322		360		810	320
	25						375
+25							
	25		493		586	0	
+50		210		273			
	50		285		415		
122+00		98		175			
	35		127		227		
+35		98		175			
			BUTT		BUTT		
TOTALS			1203		1561		2156

	TOTAL EXCAVATION CU. YDS.	EMBANKMENT CU. YDS.
CARRIED FORWARD		
COLUMN FOOTINGS	2963	5782

EARTHWORK SUMMARY

STATE OF VERMONT
DEPARTMENT OF
HIGHWAYS

SUMMARY OF BALANCES

STATION TO STATION		TOTAL EXCAV. EARTH & ROCK CUBIC YARDS	ROCK EXCAV. CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL	ROCK FILL	MUCK EXCAV. CUBIC YARDS
117+50	120+00	205	180	179	88		88			
120+00	125+00	50185	0	5965	43325		43413		1561	1203
125+00	130+00	5208	0	9569		5796	37617			
130+00	134+50	2963	0	3147		656	36961			
ROADWAY TOTALS		58561	180	18860					1561	1203
BEGIN APPROACH		457	246	204	344		37305			
END APPROACH		537	0	20	514		37819			
APPR. AT 131+00 RT		22	0	186		192	37627			
DRIVES		4	0	625		715	36912			
CUT TO FILL		583	0	0	583		37495			
PROJECT TOTALS		60164	426	19895					1561	1203

SUMMARY BY COLUMNS

SHEET NO.	COL. NO.	EXCAVATION TOTAL CU. YDS.	EXCAVATION ROCK CU. YDS.	EMBANKMENT CUBIC YARDS	ROCK FILL	MUCK EXCAV.
4	1	55598	180	13078		
	2	2963		5782	1561	1203
TOTAL		58561	180	18860		
BEG. APP.		457	246	204		
END APP.		537		20		
APP@131 Rt.		22		186		
DRIVES		4		625		
CUT ~ FILL TRANS.		583				
TOTAL		60164	426	19895	1561	1203

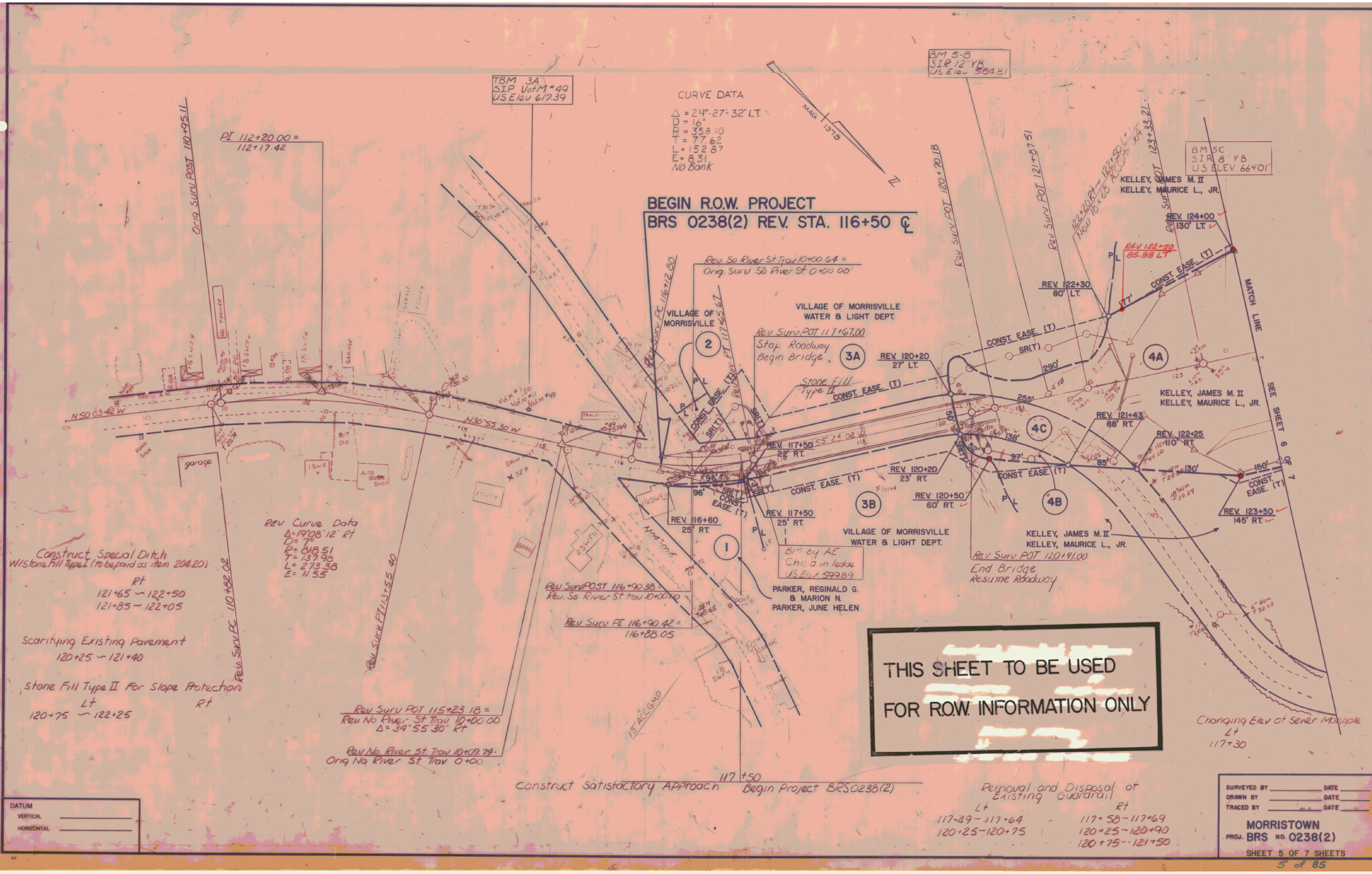
REMARKS

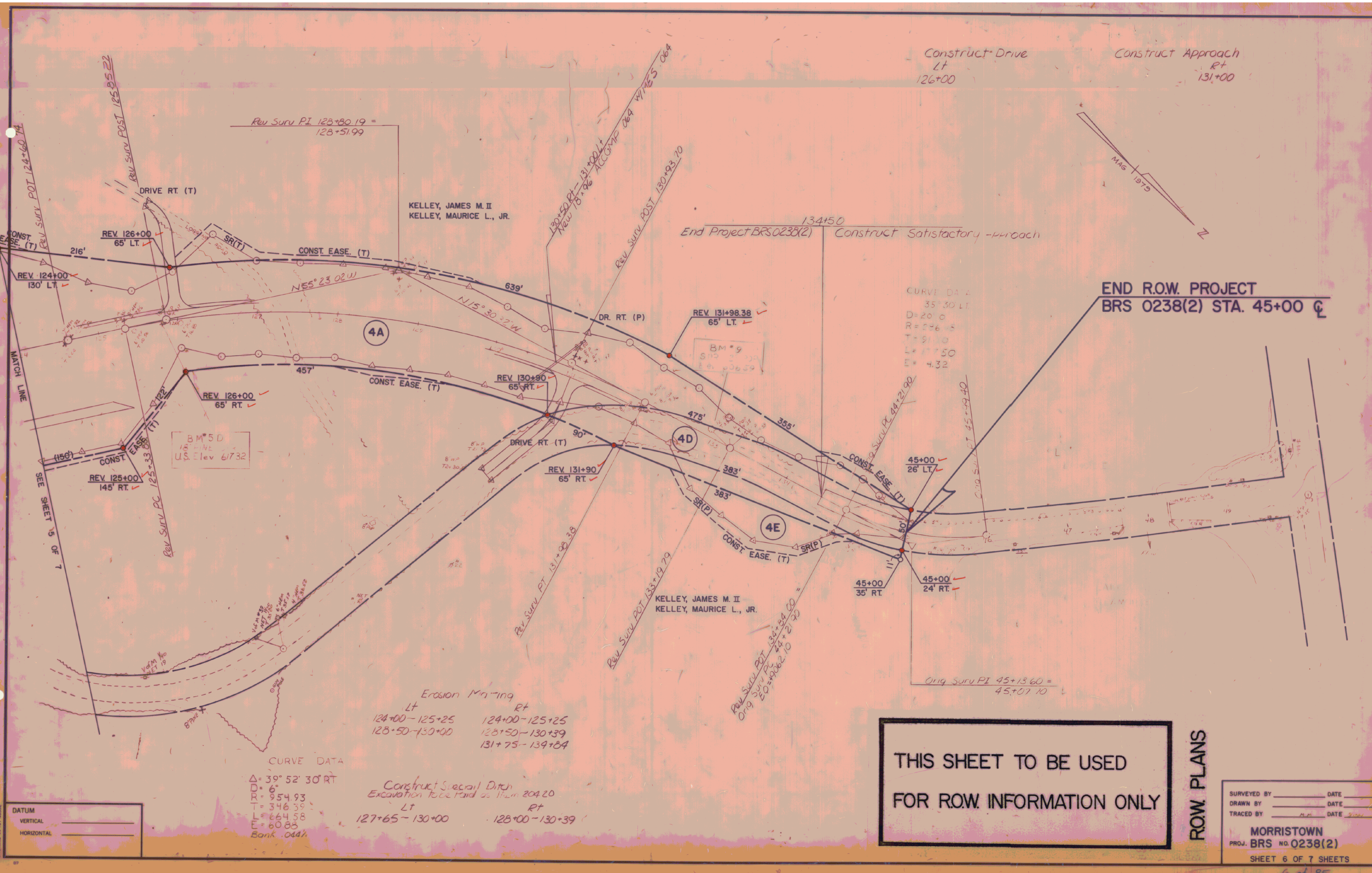
EARTH AND ROCK EXCAVATION	60164
SOLID ROCK EXCAVATION	426
EARTH EXCAVATION	59738
PLANIMETERED FILL	19895
LESS FACTORED SOLID ROCK (1.3)	554
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	
NET PLANIMETERED FILL	19341
FACTOR (0.15)	2901
PLANIMETERED FILL INCLUDING FACTOR	22242
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	59738
CHANNEL EXCAVATION 40 % of 60	24
UNDERDRAIN EXCAVATION	
STRUCTURE EXCAVATION 60% of 310	186
UNSUITABLE MATERIAL (MUCK)	1203
TOTAL MATERIAL AVAILABLE FOR FILL	61151
TOTAL FILL INCLUDING FACTOR	22242
TOTAL MATERIAL FOR FILL	
BORROW	
WASTE	38909
ROCK FILL	1561
FACTORED ROCK (1.3)	554
ROCK BORROW	1007

PROJECT MORRISTOWN

PROJECT MORRISTOWN NO BRS 0238(2)

SHEET 4 OF 85 SHEETS


BEGIN R.O.W. PROJECT
BRS 0238(2) REV. STA. 116+50 CL
THIS SHEET TO BE USED
FOR R.O.W. INFORMATION ONLY
CURVE DATA
Δ = 24°-27'-32" LT.
D = 16°
R = 358.10
T = 77.62
L = 152.87
E = 8.31
No Bank
TBM 3A
SIP Vof M #49
US Elev 617.39
BM 5-B
SIR 12" YB
US Elev 584.81
BM 5C
SIR 8" YB
US ELEV. 664.01
MAG 1975
PI 112+20.00 =
112+17.42
Orig Surv POST 110+95.11
N 50°03'42" W
N 30°55'30" W
Rev. So River St Trav 10+00.64 =
Orig. Surv So River St 0+00.00
Rev Surv PC 116+12.80
Rev Surv PT 117+45.67
VILLAGE OF MORRISVILLE
VILLAGE OF MORRISVILLE WATER & LIGHT DEPT.
Rev Surv POT 117+67.00
Stop Roadway
Begin Bridge
Stone Fill Type II
CONST. EASE. (T)
SR(T)
REV. 117+50
28' RT.
REV. 117+50
25' RT.
REV. 116+60
25' RT.
REV. 120+20
27' LT.
REV. 120+20
23' RT.
REV. 120+50
60' RT.
Flow
Rev Surv POT 120+70.18
Rev Surv POT 121+87.51
122+20 Rt = 122+50 Lt
New 16 x 65 ACCM
Rev Surv POT 123+33.21
REV 122+50
85.88 LT
REV. 122+30
80' LT.
REV. 124+00
130' LT.
KELLEY, JAMES M. II
KELLEY, MAURICE L., JR.
REV. 121+43
88' RT.
REV. 122+25
110' RT.
REV. 123+50
145' RT.
MATCH LINE
SEE SHEET 6 OF 7
1
2
3A
3B
4A
4B
4C
VILLAGE OF MORRISVILLE WATER & LIGHT DEPT.
BM by AE
Chis a in ledge
US Elev 599.89
PARKER, REGINALD G.
& MARION N.
PARKER, JUNE HELEN
Rev Surv POT 120+41.00
End Bridge
Resume Roadway
Rev Curve Data
Δ = 19°08'12" Rt
D = 7°
R = 818.51
T = 137.96
L = 273.38
E = 11.55
Construct Special Ditch
W/Stone Fill Type I (to be paid as item 204.20)
Rt
121+65 ~ 122+50
121+85 ~ 122+05
Scarifying Existing Pavement
120+25 ~ 121+40
Stone Fill Type II For Slope Protection
Lt Rt
120+75 ~ 122+25
Orig Surv PC 110+82.02
Rev Surv PT 113+55.40
Rev Surv POST 116+90.38 =
Rev. So. River St Trav 10+00.00
Rev Surv PI 116+90.42 =
116+88.05
Rev Surv POT 115+23.18 =
Rev No River St Trav 10+00.00
Δ = 34°55'30" Rt
Rev No River St Trav 10+09.74 =
Orig No River St Trav 0+00
15" ACCMP
117+50
Construct Satisfactory Approach
Begin Project BRS 0238(2)
Removal and Disposal of Existing Guardrail
Lt Rt
117+49 ~ 117+64 117+58 ~ 117+69
120+25 ~ 120+75 120+25 ~ 120+90
120+75 ~ 121+50
Changing Elev of Sewer Manhole
Lt
117+30
DATUM
VERTICAL
HORIZONTAL
SURVEYED BY DATE
DRAWN BY DATE
TRACED BY DATE
MORRISTOWN
PROJ. BRS NO. 0238(2)
SHEET 5 OF 7 SHEETS
5 of 85


Construct Drive
Lt
126+00
Construct Approach
Rt
131+00
MAG 1975
Rev Surv PI 128+80.19 =
128+51.99
KELLEY, JAMES M. II
KELLEY, MAURICE L., JR.
DRIVE RT. (T)
CONST. EASE. (T)
REV. 126+00
65' LT.
REV. 124+00
130' LT.
216'
SR(T)
CONST. EASE. (T)
639'
N 55° 23' 02" W
N 15° 30' 22" W
4A
DR. RT. (P)
134+50
End Project BRS 0238(2)
Construct Satisfactory Approach
END R.O.W. PROJECT
BRS 0238(2) STA. 45+00 CL
REV. 131+98.38
65' LT.
457'
CONST. EASE. (T)
REV. 126+00
65' RT.
REV. 130+90
65' RT.
MATCH LINE
SEE SHEET 5 OF 7
BM 5D
U.S. Elev 617.32
(150')
CONST. EASE. (T)
REV. 125+00
145' RT.
DRIVE RT. (T)
90'
REV. 131+90
65' RT.
475'
355'
4D
383'
383'
SR(P)
4E
CONST. EASE. (T)
SR(P)
45+00
26' LT.
45+00
35' RT.
45+00
24' RT.
50'
11'
KELLEY, JAMES M. II
KELLEY, MAURICE L., JR.
Orig Surv PI 45+13.60 =
45+07.10
Erosion Matting
Lt
124+00 - 125+25
128+50 - 130+00
Rt
124+00 - 125+25
128+50 - 130+39
131+75 - 134+84
CURVE DATA
Δ = 39° 52' 30" RT
D = 6°
R = 954.93
T = 346.39
L = 664.58
E = 60.85
Bank .044
Construct Special Ditch
Excavation to be Paid as Item 204.20
Lt
127+65 - 130+00
Rt
128+00 - 130+39
DATUM
VERTICAL
HORIZONTAL
THIS SHEET TO BE USED
FOR R.O.W. INFORMATION ONLY
R.O.W. PLANS
SURVEYED BY
DATE
DRAWN BY
DATE
TRACED BY
DATE
MORRISTOWN
PROJ. BRS NO. 0238(2)
SHEET 6 OF 7 SHEETS
6 of 85

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS		TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1	PARKER, REGINALD G. & MARION N.	5	REV. 116+60 RT.	REV. 117+50 RT.	0.01 A±				W.D.	1-26-83	MORRISTOWN	78	439-40	240 S.F.±
	PARKER, JUNE HELEN		REV. 117+00 RT.	REV. 117+55 RT.			CONST. EASE. (T)	(0.01 A±)						500 S.F.±
			REV. 117+15 RT.	REV. 117+52 RT.			SLOPE (T)	(240 S.F.±)						
2	VILLAGE OF MORRISVILLE	5	REV. 116+90 LT.	REV. 117+33 LT.			CONST. EASE. (T)	(0.02 A±)	AGREE.					840 S.F.±
			REV. 117+10 LT.	REV. 117+47 LT.			SLOPE (T)	(0.01 A±)						440 S.F.±
3A	VILLAGE OF MORRISVILLE,	5	REV. 117+22 LT.	REV. 122+30 LT.			CONST. EASE. (T)	(0.17 A±)	AGREE.					
	WATER & LIGHT DEPT.		REV. 117+33 LT.	REV. 117+82 LT.			SLOPE (T)	(0.03 A±)						1160 S.F.±
			REV 120+50 LT.	REV. 122+20 LT.			SLOPE (T)	(0.10 A±)						
3B			REV. 117+50 RT.	REV. 117+82 RT.			SLOPE (T)	(390 S.F.±)						
			REV. 117+52 RT.	REV. 120+56 RT.			CONST. EASE. (T)	(0.12 A±)						
			REV. 120+50 RT.	REV. 120+38 RT.			SLOPE (T)	(200 S.F.±)						
4A	KELLEY, JAMES M. II	5,6	REV. 120+20 LT.	45+00 LT.	4.60 A±	11.00 A±			W.D.		MORRISTOWN			
	KELLEY, MAURICE L. JR.		REV. 122+60 LT.	REV. 124+45 LT.			CONST. EASE. (T)	(0.02 A±)						760 S.F.±
			REV. 123+20 RT.	REV. 126+00 RT.			CONST. EASE. (T)	(0.03 A±)						1500 S.F.±
			REV. 126+00 LT.				DRIVE (T)							
			REV. 126+05 LT.	REV. 129+68 LT.			CONST. EASE. (T)	(0.07 A±)						2920 S.F.±
			REV. 126+07 LT.	REV. 127+00 LT.			SLOPE (T)	(0.04 A±)						1680 S.F.±
			REV. 128+00 RT.	REV. 129+60 RT.			CONST. EASE. (T)	(0.01 A±)						450 S.F.±
			REV. 131+00 RT.				DRIVE (T)							
			REV 131+00 LT.				DRAINAGE (P)							
			REV. 134+15 LT.	44+85 LT.			CONST. EASE. (T)	(0.02 A±)						800 S.F.±
4B		5	REV. 120+20 RT.	REV. 121+43 RT.	0.05 A±	26.05 A±								2100 S.F.±
			REV. 120+50 RT.	REV. 121+43 RT.			CONST. EASE. (T)	(0.02 A±)						680 S.F.±
4C		5	REV. 120+20 LT.	REV. 122+25 RT.	0.22 A±		ALL R. T. & I.							TOWN HIGHWAY 3

PARCEL 4 CONTINUED ON NEXT SHEET

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	3,5,6	Parcel #4 Kelley, Added "II" after James M. Kelley's name per C.O. # 5525	8-31-82	DEM	[signature]
2	4	Parcel #4 KELLEY, Changed Total Remainder To 37.05A± Per C.O.# 5572	10-1-82	DEM	R.L.S.
		PLan's submitted to design 2-22-83			

MADE BY: N.W.J. DATE 5-5-82

CHECKED BY: R.L.S. DATE 5-5-82

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND

CONST. EASE — CONS'T. EASEMENT
SR — SLOPE RIGHTS
P/L — PROPERTY LINE
△ — TOP OF CUT
○ — TOE OF SLOPE

APPROVED [signature] DATE 5-5-82
for CHIEF OF PLANS & TITLES

PROJECT MORRISTOWN
NO. BRS 0238(2)
SHEET 3 OF 7

M

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
	PARCEL 4 CONTINUED FROM PREVIOUS SHEET												
4D		6	REV 130+90 RT.	45+00 RT.	0.49 A±		ALL R. T. & I.						TOWN HIGHWAY 3
4E		6	REV. 131+90 RT. REV. 132+65 RT. REV. 132+84 RT.	45+00 RT. 44+45 RT. 44+20 RT. TOTAL	0.11 A± 5.47 A±	37.05 A±	CONST. EASE. (T) (0.06 A±) SLOPE (P) (0.14 A±)						2500 S.F.±
5	VILLAGE OF MORRISVILLE, WATER & LIGHT DEPT.												UTILITY
6	EMCO CATV, INC.												UTILITY
7	NEW ENGLAND TELEPHONE & TELEGRAPH												UTILITY
8	VILLAGE OF MORRISVILLE, SEWER DEPT.												UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

MADE BY: N.W.J. DATE 5-5-82

CHECKED BY: R.L.S. DATE 5-5-82

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND

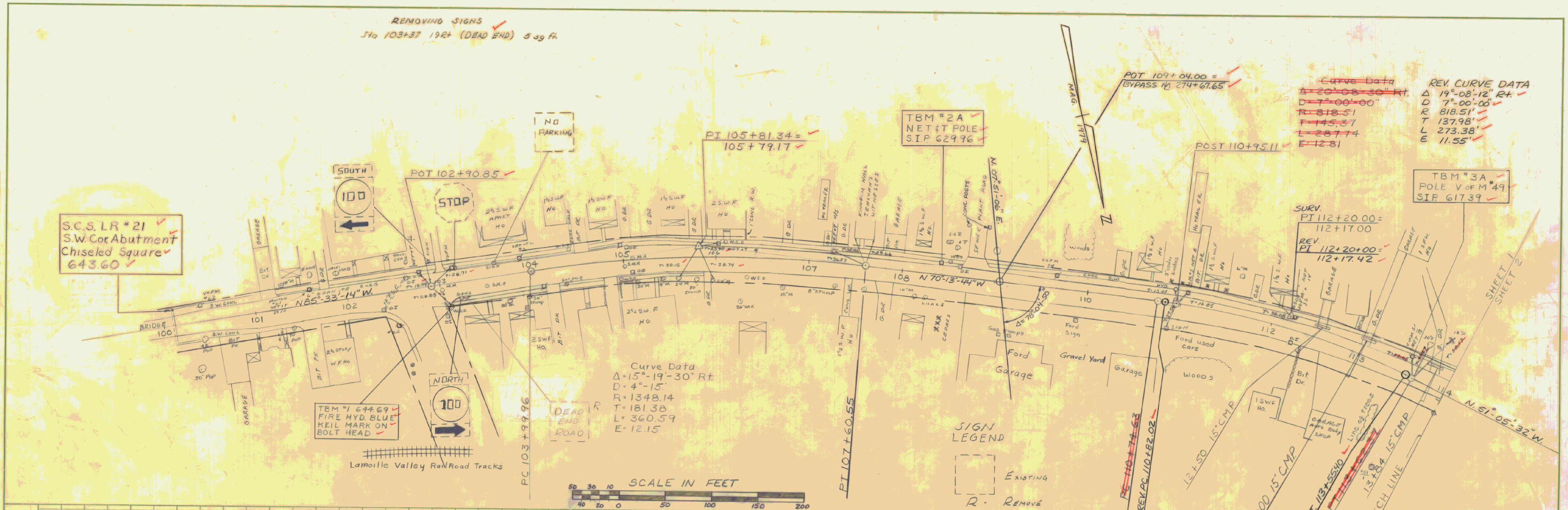
CONST. EASE. — CONS'T. EASEMENT
SR — SLOPE RIGHTS
P L — PROPERTY LINE
△ — TOP OF CUT
○ — TOE OF SLOPE

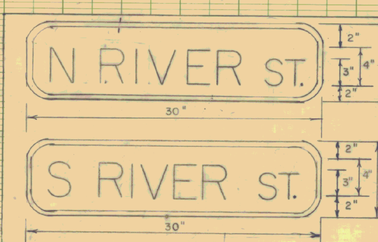
APPROVED James D. Patterson for CHIEF OF PLANS & TITLES DATE 5-5-82

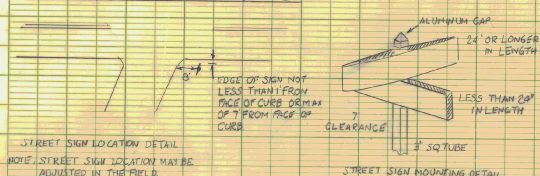
PROJECT MORRISTOWN

NO. BRS 0238(2)

SHEET 4 OF 7







MATERIALS

The sign base materials use for the signs detailed on this sheet shall be of flat sheet Aluminum 0.125" thickness. These signs shall have a green reflective background with white reflective cut out letters and bordee.

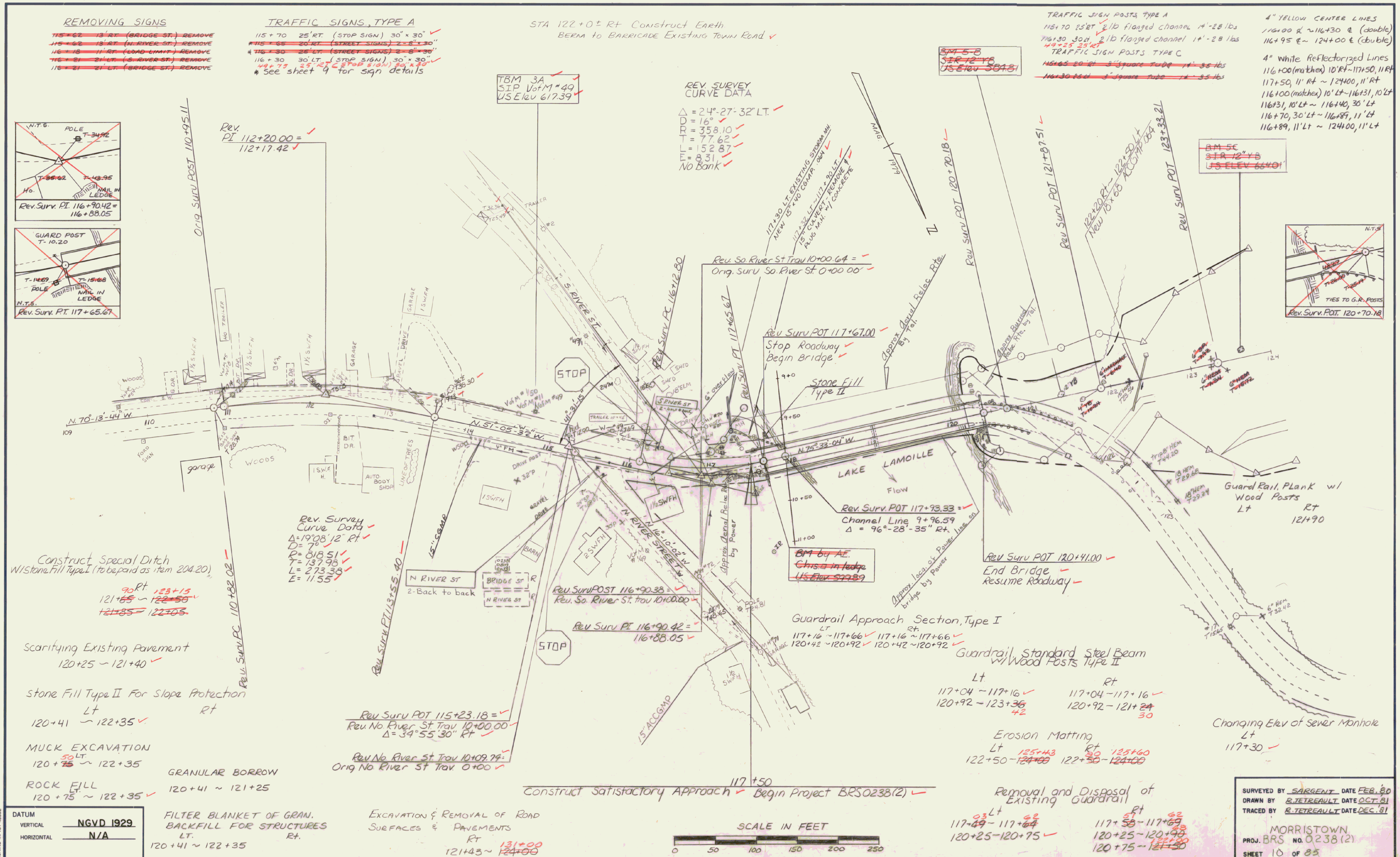
COLORS

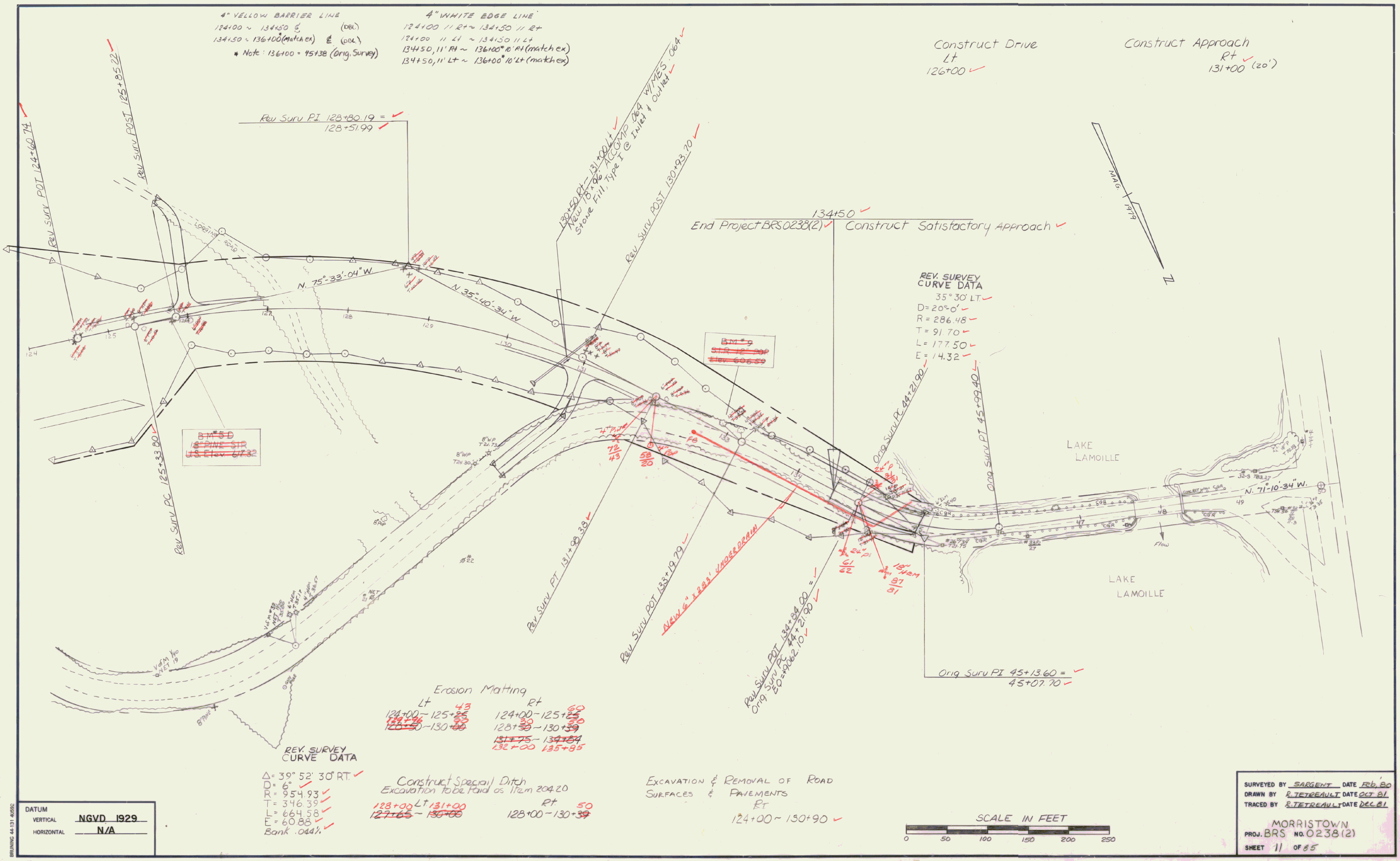
The green shall conform with the standard color adopted by the American Association of State Highway Officials and approved by the United States Department of Transportation Federal Highway Administration.

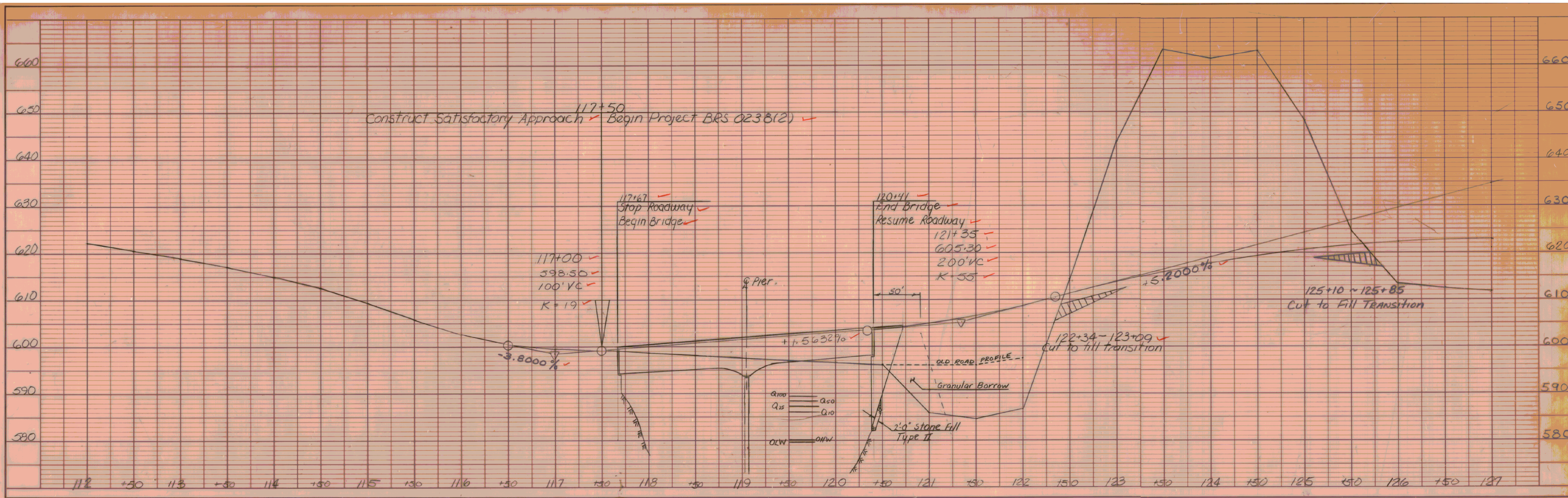
DESIGN

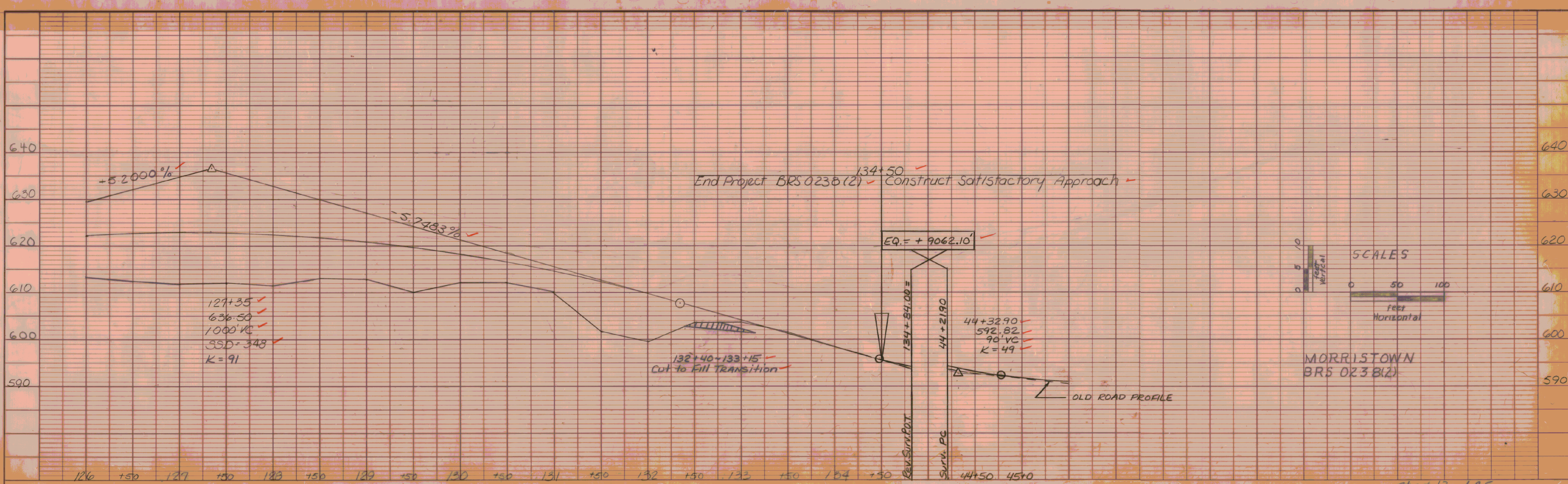
Letters, digits, arrows, spacing and text dimentions shall conform with the standard alphabet and designs prescribed in the Manual of Uniform Traffic Control Devices prepared by the National Joint Committee on uniform traffic control devices.

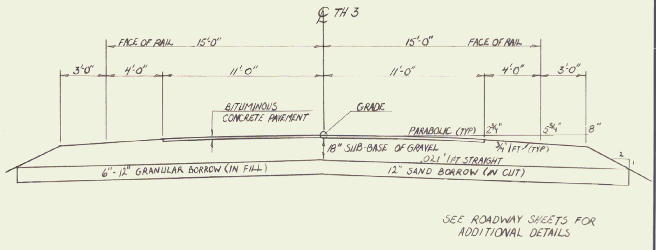
MORRISTOWN
BRS 0238 (2)
Sheet 9 of 85


REMOVING SIGNS
~~115+62 13' RT. (BRIDGE ST.) REMOVE~~
~~115+62 13' RT. (N RIVER ST.) REMOVE~~
~~116+18 11' RT. (LOAD LIMIT) REMOVE~~
~~116+21 21' LT. (S RIVER ST.) REMOVE~~
~~116+21 21' LT. (BRIDGE ST.) REMOVE~~
TRAFFIC SIGNS, TYPE A
115+70 25' RT. (STOP SIGN) 30" × 30"
~~*115+65 20' RT. (STREET SIGNS) 2'-8" × 30"~~
~~*116+30 25' LT. (STREET SIGNS) 2'-8" × 30"~~
116+30 30' LT. (STOP SIGN) 30" × 30"
49+75 25' RT. (STOP SIGN) 30" × 30"
* See sheet 9 for sign details
STA 122+0± Rt Construct Earth Berm to Barricade Existing Town Road
TRAFFIC SIGN POSTS TYPE A
116+70 25' RT 2 lb flanged channel 14'-28 lbs
116+30 30' Lt 2 lb flanged channel 14'-28 lbs
49+25 25' Rt
TRAFFIC SIGN POSTS TYPE C
~~115+65 20' Rt 3" square tube 14' 35 lbs~~
~~116+30 25' Lt 3" square tube 14' 35 lbs~~
4" YELLOW CENTER LINES
116+00 ℄ ~ 116+30 ℄ (double)
116+95 ℄ ~ 124+00 ℄ (double)
4" White Reflectorized Lines
116+00 (matches) 10' Rt ~ 117+50, 11' Rt
117+50, 11' Rt ~ 124+00, 11' Rt
116+00 (matches) 10' Lt ~ 116+31, 10' Lt
116+31, 10' Lt ~ 116+40, 30' Lt
116+70, 30' Lt ~ 116+89, 11' Lt
116+89, 11' Lt ~ 124+00, 11' Lt
~~BM 5-B~~
~~SIR 12" YB~~
~~US Elev 584.81~~
TBM 3A
SIP VofM #49
US Elev 617.39
REV. SURVEY CURVE DATA
Δ = 24°-27'-32" LT.
D = 16°
R = 358.10
T = 77.62
L = 152.87
E = 8.31
No Bank
~~BM 5C~~
~~SIR 12" YB~~
~~US ELEV 664.01~~
N.T.S.
POLE
T-34.92
T-36.62
T-43.95
NAIL IN LEDGE
Rev. Surv. P.I. 116+90.42 = 116+88.05
GUARD POST T-10.20
T-14.67
T-15.68
POLE
NAIL IN LEDGE
N.T.S.
Rev. Surv. P.T. 117+65.67
Rev. PI 112+20.00 = 112+17.42
Orig Surv POST 110+95.11
MAG.
117+30 LT. EXISTING STORM MH
NEW 15"×40 COMP. 064
117+32 LT.-117+90 LT.
15" CULVERT - REMOVE
PLUG M.H. W/ CONCRETE
Rev Surv POT 120+70.18
Rev Surv POT 121+87.51
122+20 Rt ~ 122+50 Lt
New 18"×65 ACCGMP 064
Rev Surv POT 123+33.21
N.T.S.
TIES TO G.R. POSTS
Rev. Surv. POT. 120+70.18
Rev Surv PC 116+12.80
Rev. So. River St Trav 10+00.64 =
Orig. Surv So. River St 0+00.00
Rev Surv PT 117+65.67
Rev Surv POT 117+67.00
Stop Roadway
Begin Bridge
Approx Aerial Reloc Rte. by Tel.
Stone Fill Type II
S. RIVER ST.
STOP
N. 70°-13'-44" W.
N. 51°-05'-32" W.
N. 75°-33'-04" W.
41°-31'-15"
LAKE LAMOILLE
Flow
garage
WOODS
GARAGE
AUTO BODY SHOP
LINE OF TREES
N. RIVER STREET
N 16°-10'-05" W
Rev. Surv. POT 117+93.33 =
Channel Line 9+96.59
Δ = 96°-28'-35" Rt.
Rev Surv POT 120+41.00
End Bridge
Resume Roadway
Guard Rail, Plank w/ Wood Posts
Lt Rt
121+90
Rev. Survey Curve Data
Δ = 19°08'12" Rt.
D = 7°
R = 818.51
T = 137.98
L = 273.38
E = 11.55
Construct Special Ditch W/ Stone Fill Type I (to be paid as item 204.20)
Rt.
121+~~65~~ 90 ~ ~~122+50~~ 123+15
~~121+85 ~ 122+05~~
N RIVER ST
2-Back to back
BRIDGE ST
N RIVER ST
Rev. Surv POST 116+90.38 =
Rev. So. River St. trav 10+00.00
Rev Surv PI 116+90.42 =
116+88.05
~~BM by AE~~
~~Chis □ in ledge~~
~~US Elev 599.89~~
Approx Aerial Reloc Rte. by Power
Approx Loca. of Power line on bridge by Power
Guardrail Approach Section, Type I
LT Rt.
117+16 ~ 117+66 117+16 ~ 117+66
120+42 ~ 120+92 120+42 ~ 120+92
Scarifying Existing Pavement
120+25 ~ 121+40
Rev Surv PC 110+82.02
Rev Surv PT 113+55.40
15" CGMP
STOP
15" ACCGMP
Guardrail Standard Steel Beam W/ Wood Posts Type II
Lt Rt
117+04 ~ 117+16 117+04 ~ 117+16
120+92 ~ 123+~~36~~ 42 120+92 ~ 121+~~24~~ 30
Stone Fill Type II For Slope Protection
Lt Rt
120+41 ~ 122+35
MUCK EXCAVATION
LT.
120+~~75~~ 50 ~ 122+35
ROCK FILL
LT.
120+75 ~ 122+35
GRANULAR BORROW
120+41 ~ 121+25
Rev Surv POT 115+23.18 =
Rev. No. River St. Trav. 10+00.00
Δ = 34°55'30" Rt
Rev No River St Trav 10+09.74 =
Orig No River St Trav. 0+00
117+50
Construct Satisfactory Approach
Begin Project BRS 0238(2)
Erosion Matting
Lt Rt
122+50 ~ ~~124+00~~ 125+43 122+~~50~~ 80 ~ ~~124+00~~ 125+60
Changing Elev of Sewer Manhole
Lt
117+30
Removal and Disposal of Existing Guardrail
Lt Rt
117+~~49~~ 03 ~ 117+~~64~~ 62 117+~~58~~ 57 ~ 117+~~69~~ 62
120+25 ~ 120+75 120+25 ~ 120+~~90~~ 98
120+75 ~ ~~121+30~~ 121+33
DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A
FILTER BLANKET OF GRAN. BACKFILL FOR STRUCTURES
LT. Rt.
120+41 ~ 122+35
EXCAVATION & REMOVAL OF ROAD SURFACES & PAVEMENTS
Rt
121+43 ~ ~~124+00~~ 131+00
SCALE IN FEET
0 50 100 150 200 250
SURVEYED BY SARGENT DATE FEB. 80
DRAWN BY R. TETREAULT DATE OCT. 81
TRACED BY R. TETREAULT DATE DEC. 81
MORRISTOWN
PROJ. BRS NO. 0238(2)
SHEET 10 OF 85
BRUNING 44 131 40592

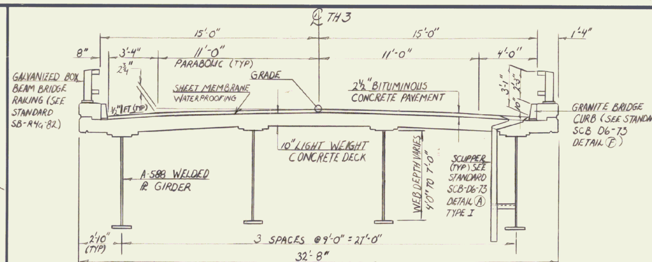

4" YELLOW BARRIER LINE
124+00 ~ 134+50 ℄ (DBL)
134+50 ~ 136+00 (match ex) ℄ (DBL)
* Note: 136+00 = 45+38 (Orig. Survey)
4" WHITE EDGE LINE
124+00 11' Rt ~ 134+50 11' Rt
124+00 11' Lt ~ 134+50 11' Lt
134+50, 11' Rt ~ 136+00 10' Rt (match ex)
134+50, 11' Lt ~ 136+00 10' Lt (match ex)
Construct Drive
Lt
126+00
Construct Approach
Rt
131+00 (20')
Rev Surv POT 124+60.74
Rev Surv POST 125+85.22
Rev Surv PI 128+80.19 =
128+51.99
130+50 Rt ~ 131+00 Lt
New 18"x96' ACCMP 064 w/MES 064
Stone Fill, Type I @ Inlet & Outlet
Rev Surv POST 130+93.70
134+50
End Project BRS 0238(2)
Construct Satisfactory Approach
MAG 1979
N. 75°-33'-04" W.
N. 35°-40'-34" W.
REV. SURVEY
CURVE DATA
35° 30' LT.
D = 20°0'
R = 286.48
T = 91.70
L = 177.50
E = 14.32
BM #9
STR 18" SMP
Elev. 606.69
BM #5D
18" PINE STR
U.S. Elev 617.32
Rev Surv PC 125+33.80
Orig Surv PC 44+21.90
Orig Surv PT 45+99.40
LAKE LAMOILLE
N. 71°-10'-34" W.
Rev Surv PT 131+98.38
Rev Surv POT 133+19.79
NEW 6" ±283' UNDERDRAIN
Rev Surv POT 134+84.00 =
Orig Surv PC 44+21.90
EO = 9062.10
Orig Surv PI 45+13.60 =
45+07.70
Flow
Erosion Matting
Lt
124+00 ~ 125+43
128+50 ~ 130+00
Rt
124+00 ~ 125+60
128+30 ~ 130+39
132+00 ~ 135+85
REV. SURVEY
CURVE DATA
Δ = 39° 52' 30" RT.
D = 6°
R = 954.93
T = 346.39
L = 664.58
E = 60.88
Bank .044%
Construct Special Ditch
Excavation to be Paid as Item 204.20
Lt
128+00 ~ 131+00
Rt
128+00 ~ 130+50
EXCAVATION & REMOVAL OF ROAD
SURFACES & PAVEMENTS
Rt
124+00 ~ 130+90
SCALE IN FEET
0 50 100 150 200 250
DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A
SURVEYED BY SARGENT DATE Feb. 80
DRAWN BY R. TETREAULT DATE OCT 81
TRACED BY R. TETREAULT DATE DEC 81
MORRISTOWN
PROJ. BRS NO. 0238(2)
SHEET 11 OF 85


PROFILE
117+50
Construct Satisfactory Approach
Begin Project BRS 0238(2)
117+67
Stop Roadway
Begin Bridge
120+41
End Bridge
Resume Roadway
121+35
605.30
200' VC
K-55
117+00
598.50
100' VC
K=19
℄ Pier
50'
+1.5632%
-3.8000%
+5.2000%
OLD ROAD PROFILE
Granular Borrow
2'0" Stone Fill
Type II
122+34 ~ 123+09
Cut to Fill Transition
125+10 ~ 125+85
Cut to Fill Transition
Q100
Q25
Q50
Q10
OLW
OHW
660
650
640
630
620
610
600
590
580
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127

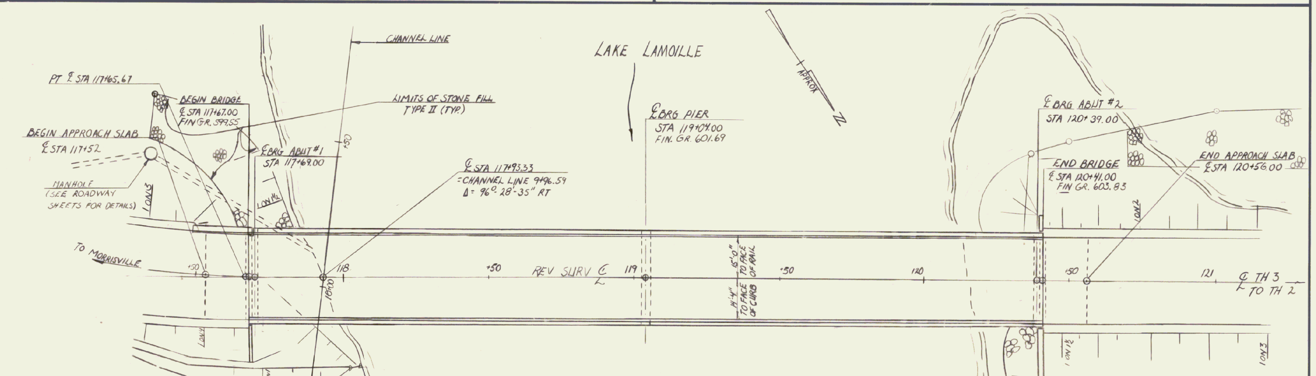

PROFILE
+5.2000%
-5.7483%
134+50
End Project BRS 0238(2)
Construct Satisfactory Approach
EQ. = + 9062.10'
134+84.00 =
44+21.90
127+35
636.50
1000' VC
SSD=348
K=91
132+40 ~ 133+15
Cut to Fill Transition
44+32.90
592.82
90' VC
K=49
OLD ROAD PROFILE
Rev. Surv. POT
Surv. PC
SCALES
Feet Vertical
Feet Horizontal
0
50
100
MORRISTOWN
BRS 0238(2)
640
630
620
610
600
590
126
127
128
129
130
131
132
133
134
44+50
45+0



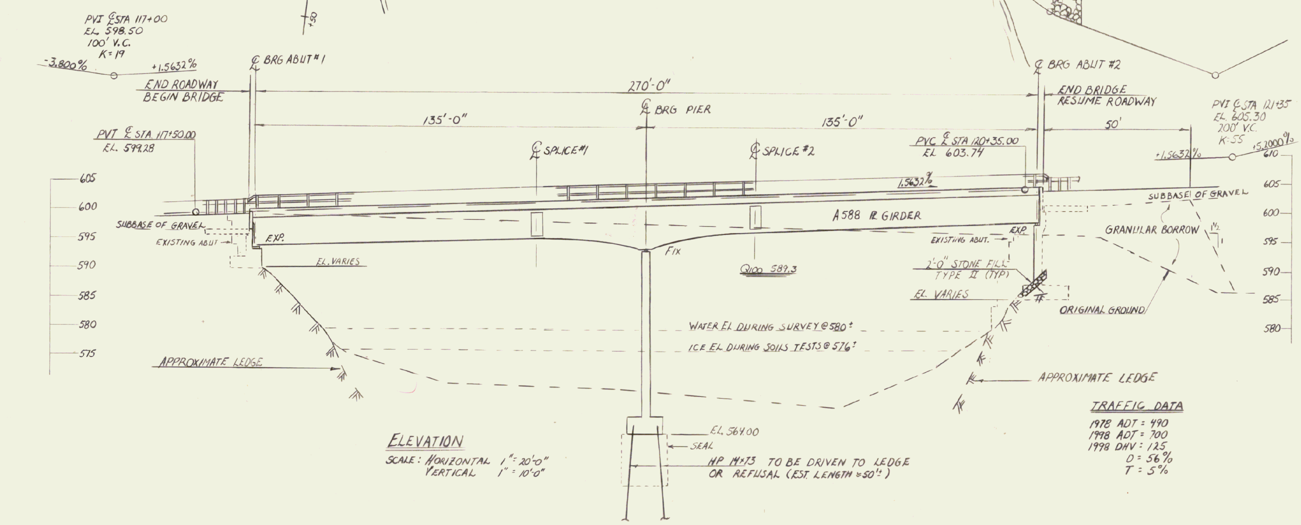
NEW HIGHWAY SECTION — BRIDGE APPROACHES
SCALE: 1/4" = 1'-0"



BRIDGE TYPICAL SECTION
SCALE: 1/4" = 1'-0"



PLAN
SCALE 1" = 20'-0"



ELEVATION
SCALE: HORIZONTAL 1" = 20'-0"
VERTICAL 1" = 10'-0"

EXISTING STRUCTURE

1. STRUCTURE TYPE TRUSS OVERALL LENGTH 269'-0" INVENTORY RATING —
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 261'-0"
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 251'-3¼"
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 6000 $\square'$ ± VERTICAL CLEARANCE ABOVE STREAMBED 24' ± (AVG)
5. WATER SURFACE ELEVATION @ Q 2.33 584.3 WATER SURFACE ELEVATION @ Q ____
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD 595 ± YEAR N.A. ESTIMATED DISCHARGE N.A.
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? YES IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? NA
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF NA
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL LEDGE
9. DISPOSITION OF STRUCTURE REMOVE

NEW STRUCTURE

STRUCTURE GEOMETRY:
1. STRUCTURE TYPE 2 SPAN CONTINUOUS COMPOSITE ℞ GIRDER OVERALL LENGTH 274'-0"
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 135'-0" – 135'-0"
3. VERTICAL CLEARANCE ABOVE STREAMBED ~~OR ROAD UNDER~~ 23' ± (AVG)
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 132'-6" – 132'-6"
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 6000 $\square'$ ±
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:
1. Q 2.33 7,000 CFS WATER ELEVATION 584.3 VELOCITY 3.5 FPS
   Q 10 11,000 CFS WATER ELEVATION 586.0 VELOCITY 4.4 FPS
   Q 25 14,000 CFS WATER ELEVATION 587.2 VELOCITY 5.0 FPS
   Q 50 17,000 CFS WATER ELEVATION 588.3 VELOCITY 5.5 FPS
   Q 100 20,000 CFS WATER ELEVATION 589.3 VELOCITY 6.0 FPS
2. DRAINAGE AREA 247 SQ MI CHARACTER OF TERRAIN MOUNTAINOUS to ROLLING
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? NO
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO IS ORDINARY RISE RAPID? NO
5. NATURE OF NATURAL STREAMBED SAND, GRAVEL, LEDGE ON BANKS
6. ESTIMATED SCOUR DEPTH 2' COMMENT ON: DRIFT SLIGHT ICE MOD. to HEAVY
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? NA
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF NA
8. VERTICAL CLEARANCE ABOVE Q 100 4' ± @ PIER
9. ALLOWABLE WATER SURFACE ELEVATION 589.3 LIMITED BY Q100 WATER SURFACE ELEVATION
10. IS DESIGN STAGE AFFECTED BY ~~UPSTREAM OR~~ DOWNSTREAM CONDITIONS? YES IF YES, DESCRIBE CVPS POWER DAM 4700' ± DWN STR
11. AVERAGE DAILY LOW FLOW 180 CFS DEPTH 9.7' @ PIER AVERAGE DAILY HIGH FLOW 450 CFS DEPTH 10.0' @ PIER
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED TYPE II STONE FILL
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE 3000' SPAN 85' WATERWAY AREA OF FULL OPENING 2380 SF ± Q ____
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 6400' SPAN 119' WATERWAY AREA OF FULL OPENING 3332 SF ± Q ____

ALLOWABLE STRESSES:
1. DESIGN LIVE LOAD AASHTO HS 25
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL NA ON LEDGE 10 KSF
3. ALLOWABLE LOAD FOR PILING 96 TONS TYPE HP 14×73 ESTIMATED LENGTH 50 FT
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27.0 KSI.
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24.0 KSI COMPRESSION 20.0 KSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS LW f'_c 4.0 KSI f_c 1.6 KSI
   CLASS B f'_c 3.5 KSI f_c 1.4 KSI

TRAFFIC MAINTENANCE:
1. IS TRAFFIC TO BE MAINTAINED? NO IF YES, ON EXISTING STRUCTURE — OR ON TEMPORARY BRIDGE —
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY — TRAFFIC CONTROL SIGNALS REQUIRED —
   MINIMUM CLEAR SPAN — MINIMUM CLEAR HEIGHT — MINIMUM WATERWAY AREA —
   ARE SIDEWALKS REQUIRED? — IF SO, ON WHAT SIDE? —

ADDITIONAL DESIGN CONSIDERATIONS

INDEX OF SHEETS

BR 100	PRELIMINARY INFORMATION
BR 101	BRIDGE QUANTITY SHEET
BR 102	BORING LAYOUT & LOG
BR 103	SUPERSTRUCTURE DETAILS
BR 104	FRAMING PLAN, SPLICE & SCUPPER DETAILS
BR 105	GIRDER DETAILS, CAMBER DIAGRAM
BR 106	ABUTMENT #1 DETAILS
BR 107	ABUTMENT #2 DETAILS
BR 108	PIER DETAILS
BR 109	BEARING DEVICE DETAILS ALT. "A"
BR 109A	BEARING DEVICE DETAILS ALT. "B"
BR 110	REINFORCING STEEL SCHEDULE

STANDARDS

SB-R4A-82	6-18-82 R
SB-R4B-82	12-28-81
SCB-D1-75	9-14-81 R
SCB-D4-76	1-8-76 R
SCB-D6-73	1-3-79 R
SCB-D7-71	12-13-76 R
SCB-D9-71	1-27-75 R

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy =	40.9	45.2					
POSTED 0.67 Fy =	61.6	68.0	74.6		64.1	65.9	71.3
OPERATING 0.75 Fy =			90.0	97.9			

RECOMMENDED FOR APPROVAL W. M. Smith 12/28/81
STRUCTURES ENGINEER DATE

RECOMMENDED FOR APPROVAL Arthur J. Goss 12-28-81
CHIEF OF DESIGN DATE

APPROVED BY S. J. Gaar DEC 28 1981
DIRECTOR OF ENGINEERING & CONSTRUCTION DATE

REVISIONS

NO.	DESCRIPTION	BY & DATE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MORRISTOWN — Bridge No. B-9 — Log Sta.
HIGHWAY NO. TH 3 — Surv. Sta. 117+67

PRELIMINARY INFORMATION
T.H. 3 OVER LAKE LAMOILLE

Designed by D. BURLEY — Drawn by D. BURLEY
Checked by A.W. ELWOOD date 11/81 — Bridge Design Supervisor R.S. HAUPT date 11/81
PROJECT MORRISTOWN — PROJECT NO. BRS-0238(2)
Bridge Sheet No. BR 100 — Sheet 13 of 85

BRUNING 44-131 40151
BR-2

EARTHWORK

V.C.	% GRD	STATION	GRADES: ELEVATION ON TAN.	ON V.C.	CORR. V.C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.

* INDICATES ROADWAY QUANTITY

BRIDGE QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION
STRUCTURES DIVISION

	NO.	ITEM	UNIT	QUANTITY BREAKDOWN: ROADWAY	SUPER-STRUCTURE	SUB-STRUCTURE	APPROACH SLABS	CHANNEL	TOTAL	FINAL
	202.20	REMOVAL OF EXISTING SUPERSTRUCTURE	EA.	1					1	1
	203.27	UNCLASSIFIED CHANNEL EXCAVATION	CY					60	60	136.2
*	203.32	GRANULAR BORROW	CY			40			40	0
	204.25	STRUCTURE EXCAVATION	CY			310			310	380
	204.30	GRANULAR BACKFILL FOR STRUCTURES	CY			190			190	164
*	404.65	EMULSIFIED ASPHALT	CWT		3				3	3
*	406.25	BITUMINOUS CONCRETE PAVEMENT	TON	123					123	123
	501.25	CONCRETE CLASS B	CY			341	30		371	406.74
	501.40	CONCRETE CLASS LW	CY		330				330	337.67
	504.10	FURNISHING EQUIPMENT FOR DRIVING PILING	LS			1			1	1
	505.17	STEEL PILING HP 14 x 73	LF			1000			1000	889
	506.91	STRUCTURAL STEEL (PL GIRDER)	LB		320,500				320,500	325,243
	507.15	REINFORCING STEEL	LB		75230	45540	5430		126,200	126,395
	508.15	SHEAR CONNECTORS (2136 @ 7/8"Φ x 7")	LS		1				1	1
	514.10	WATER REPELLENT	GAL		27	19			46	46
*	519.20	SHEET MEMBRANE WATERPROOFING	S.Y.		875				875	874
	530.10	COFFERDAM @ STA. 119+04	LS.			1			1	1
	613.11	STONE FILL TYPE II	CY					130	130	283
*	614.10	JOINT SEALER-HOT POURED	GAL	3					3	
	616.17	GRANITE BRIDGE CURB	LF		551				551	552
	617.30	BRIDGE RAILING - GALVANIZED BOX BEAM	LF		552				552	567.5
		ALTERNATE "A"								
	506.99	BEARING DEVICE ASSEMBLY PREFORMED FABRIC PADS @ ABUTMENTS	EA.			8			8	8
	506.99	BEARING DEVICE ASSEMBLY STEEL @ PIER	EA.			4			4	4
		ALTERNATE "B"								
	506.99	BEARING DEVICE ASSEMBLY FLOATING POT TYPE BEARINGS @ ABUTMENTS	EA.			8			8	0
	506.99	BEARING DEVICE ASSEMBLY FLOATING POT TYPE BEARING @ PIER	EA.			4			4	0
		ALTERNATE "C"								
	506.99	BEARING DEVICE ASSEMBLY PREFORMED FABRIC PADS @ ABUTMENTS	EA			8			8	0
	506.99	BEARING DEVICE ASSEMBLY FLOATING POT TYPE BEARING @ PIER	EA.			4			4	0

BRIDGE (S) AT STATION (S) 117+67
LOCATION (S) TOWN HIGHWAY #3 OVER LAKE LAMOILLE

Prepared by: D. BURLEY
Checked by: M. GARCIA
SUPERVISOR: R.S. HAUPT

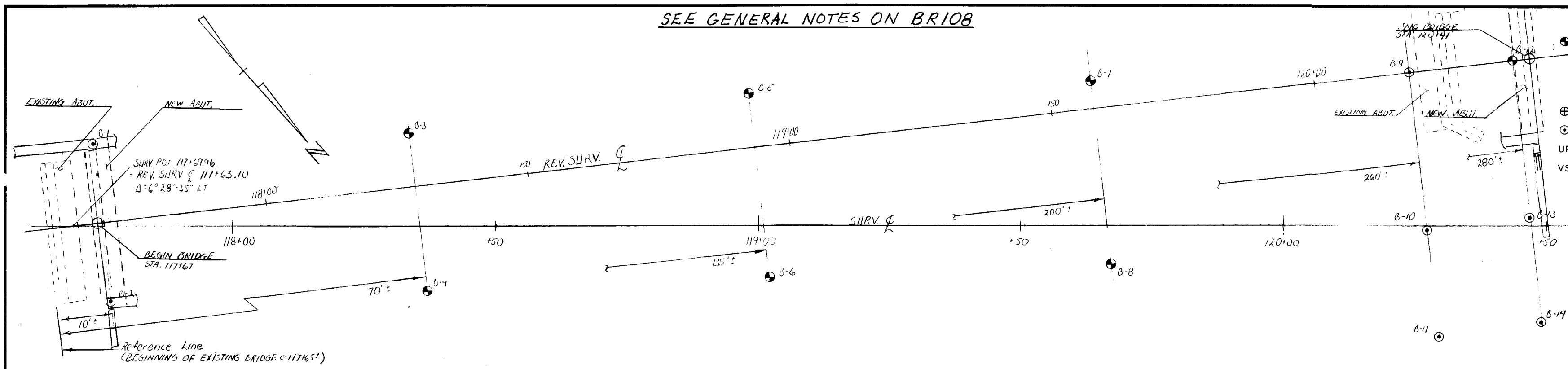
MORRISTOWN
BR 101 OF BR 118

PROJECT NO. BRS-0238(2)
SHEET NO. 14 OF 85

BRUNING 44-131 4015

BR-1

SEE GENERAL NOTES ON BR108



BORING NOMENCLATURE

- STANDARD PENETRATION BORINGS: SAMPLER OUTSIDE DIAMETER 2", SAMPLER INSIDE DIAMETER 1 3/8", WEIGHT OF HAMMER 140 LBS, HAMMER FALL 30"
- ⊕ AUGER BORINGS
- ⊙ ROD SOUNDINGS
- UP UNDISTURBED PISTON SAMPLE
- VS FIELD VANE SHEAR SAMPLE

Rod Soundings

Number	Ground Elev.	Depth to Rock	Rock Elev
B1	591.3	9.3	582.0
B2	590.8	3.0	587.8
B9	579.8	Showing	579.8
B10	580.5	1.5	579.0
B11	576.0	0.5	575.5
B13	585.1	3.0	582.1
B14	582.8	1.5	581.3

Column headings of each boring log: DEPTH | BLOWS ON CASING | STANDARD PENETRATION | SAMPLE NUMBER | MOISTURE | COLOR | LABORATORY CLASSIFICATION OF SOIL

BORING NO. B-3

Elev 576.7'
Top of Ice
- Water 0'-6'
- W Gry No Sample
- A-1-a Gravel
- M Bl. A-4 Silt
- M Brn A-1-a Sandy Gravel
- M Gry A-2-4 Silty Sand
- A-4 Sandy Silt
- A-1-b Silty Gravel
- A-4 Sandy Silt
- A-1-a Sandy Gravel
- A-1-b Sandy Gravel
- A-1-b Silty Gravel
- Top of Bed Rock @ 53.0'
- AXMDC 53.0'-58'-0' REC. 4.6'
- AXMDC 58.0'-61.0' REC. 2.9'
- Hole Stopped @61.3' In Bed Rock

BORING NO. B-4

Elev 576.7
Top of Ice
- Water 0'-6'
- W Blk No Sample
- Muck 9.4% Organic
- Sat Brn A-3 Sand
- W Gry A-1-a Sandy Gravel Trace of wood
- A-4 Sandy Silt Trace of Wood
- M Gry A-2-4 Silty Sand
- A-1-b Silty Gravel
- A-2-4 Silty Sand
- A-2-4 Silty Sand
- Top of Bed Rock @44.5'
- AXMDC 44.5'-49.5' REC 4.85'
- AXMDC 49.5'-54.5' REC. 5.0'
- Hole Stopped @54.5' In Bed Rock

BORING NO. B-5

Elev 575.5
Top of Water
- River Bed @3.0'
- No Sample
- No Sample
- W Gry BOT. OF PIER FTG
- No Sample
- A-3 Sand
- A-1-b Sandy Gravel
- BOT. OF SEAL
- No Sample
- A-3 Sand
- A-2-4 Silty Sand
- A-2-4 Sand
- A-2-4 Sand
- A-2-4 Sand
- A-2-4 Silty Sand
- A-4 Silt
- A-4 Silt
- Top of Bed Rock @57.0'
- AXMDC 57.0'-62.0' REC. 4.2'
- AXMDC 62.0'-67.0' REC. 5.0'
- Hole Stopped @67.0' In Bed Rock

BORING NO. B-6

Elev 576.7
Top of Ice
- Water 0.0'-8.0'
- No Sample
- A-3 Sand
- W Gry A-2-4 Silty Sand
- No Sample
- Flowing Sand
- Flowing Sand
- No Sample
- A-2-4 Sand
- A-2-4 Silty Sand
- A-4 Sandy Silt
- A-4 Silt
- Top of Bed Rock @53.0'
- AXMDC 53.0'-58.0' REC 4.7'
- AXMDC 58.0'-65.0' REC 4.5'
- Hole Stopped @ 63.0' In Bed Rock

BORING NO. B-7

Elev 575.5
Top of Water
- Sat Clr Water
- River Bed @ 13.0'
- W Gry A-3 Sand
- No Sample
- A-1-b Sandy Gravel
- No Sample
- A-3 Sand
- A-2-4 Sand
- Flowing Sand
- A-3 Sand
- Flowing Sand
- A-2-4 Silty Sand
- A-2-4 Sand
- A-1-b Sandy Gravel
- A-1-b Silty Gravel
- A-1-a Sandy Gravel
- Hole Stopped @77.5'

BORING NO. B-8

Elev 575.5
Top of Water
- River Bed @8.0'
- No Sample
- A-1-b Sand
- W Gry A-4 Sandy Silt
- A-2-4 Silty Sand
- No Sample
- No Sample
- A-3 Sand
- A-3 Sand
- Flowing Sand
- A-3 Sand
- A-3 Sand
- Flowing Sand
- Flowing Sand
- A-3 Sand
- A-1-a Sandy Gravel
- Flowing Sand
- Hole Stopped @78.3' In Boulders

BORING NO. B-12

Elev 592.5'
- Pavement
- A-2-4 Sand
- Top of Bed Rock @7.0'
- AXMDC 8.0'-12.0' REC. 3.6'
- AXMDC 12.0'-17.0' REC 3.9'
- Hole Stopped @17.0' In Bed Rock

BOT. OF FTG.

LOCATION*

Number	Offset	Distance to Reference Line
B1	15' Lt	10'±
B2	15' Rt	10'±
B3	10' Lt	70'±
B4	20' Rt	70'±
B5	10' Lt	135'±
B6	25' Rt	135'±
B7	5' Lt	200'±
B8	30' Rt	200'±
B9	℄	260'±
B10	30' Rt	260'±
B11	50' Rt	260'±
B12	℄	280'±
B13	30' Rt	280'±
B14	50' Rt	280'±

NOTE: OFFSETS ARE FROM REV. SURV. ℄, DISTANCES ARE FROM REFERENCE LINE.

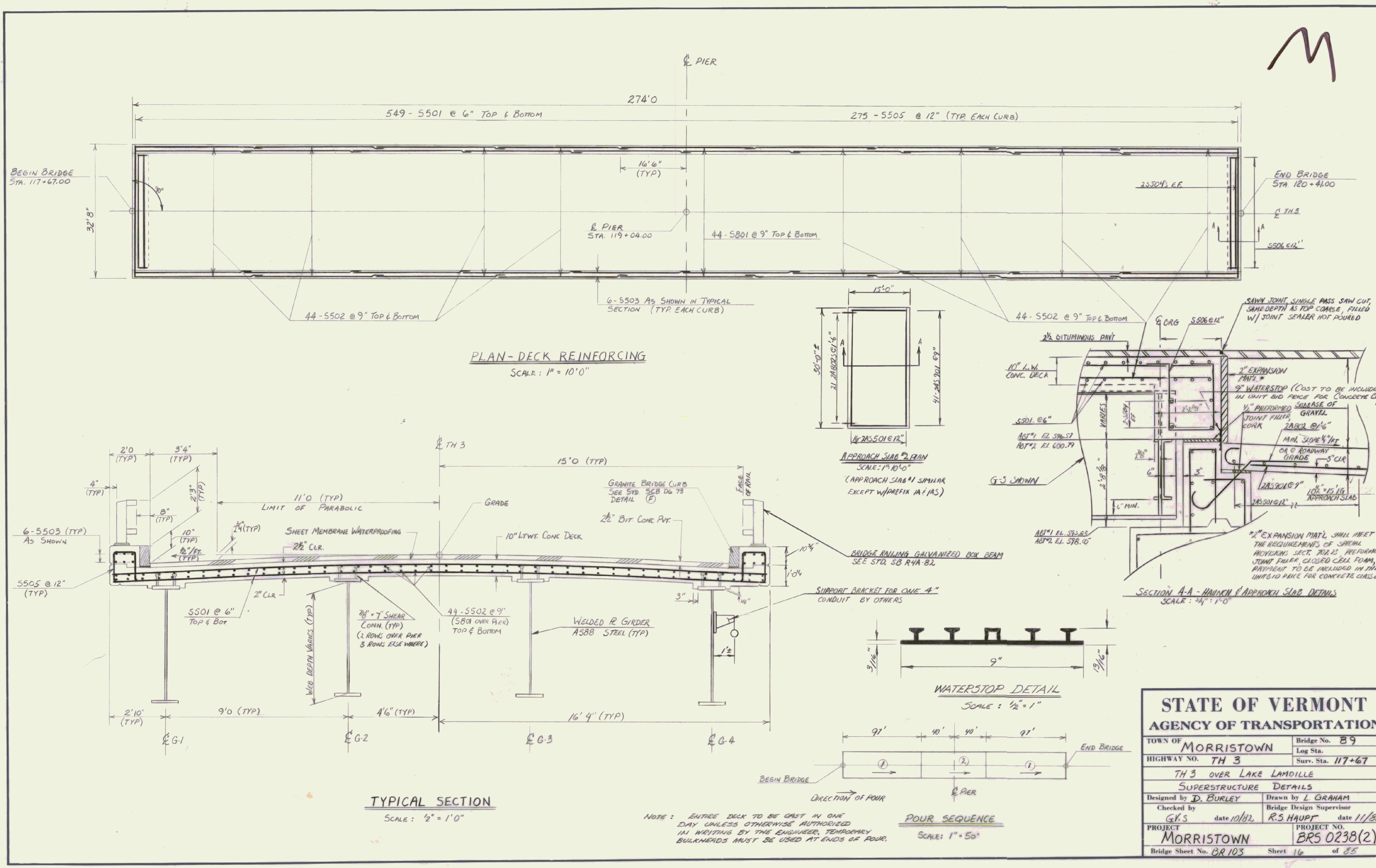
Scale: 1" = 10'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MORRISTOWN	Bridge No. B-9
	Log Sta.
HIGHWAY NO. TH 3	Surv. Sta. 119+00
BORING LAYOUT & LOG	
Designed by	Drawn by D. Burley
Checked by AW ELWOOD date 11/81	Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS-0138 (2)
Bridge Sheet No. BR 102	Sheet 15 of 85

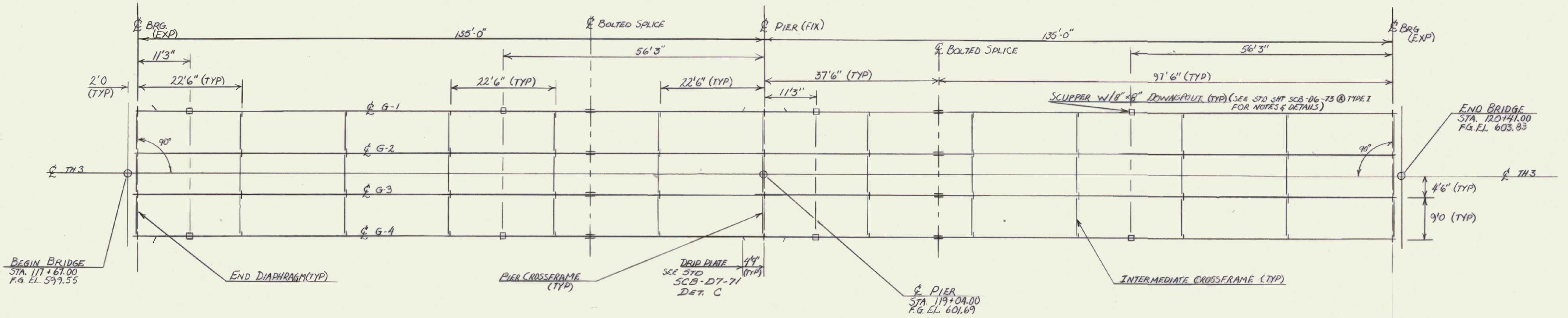
BRUNING 44-131 40151

BR-6

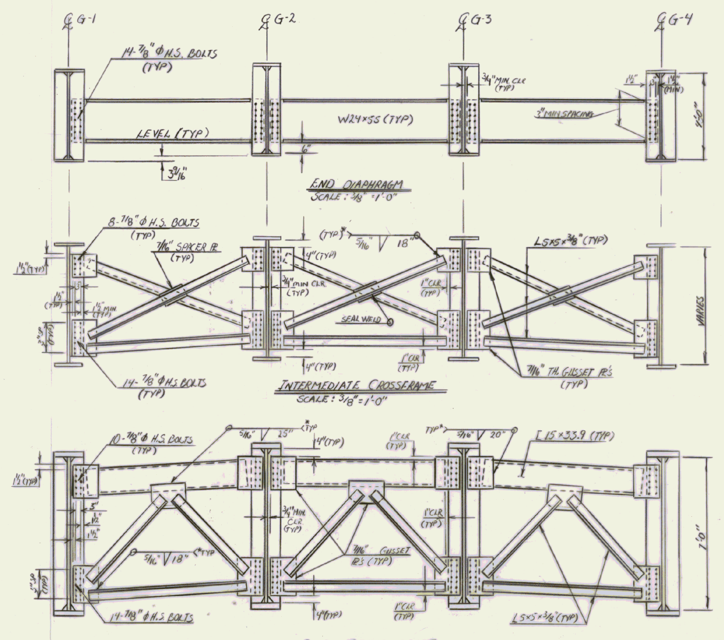


STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MORRISTOWN	Bridge No. B9
	Log Sta.
HIGHWAY NO. TH 3	Surv. Sta. 117+67
TH 3 OVER LAKE LAMOILLE	
SUPERSTRUCTURE DETAILS	
Designed by D. BURLEY	Drawn by L. GRAHAM
Checked by GV.S date 10/82	Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS 0238(2)
Bridge Sheet No. BR 103	Sheet 16 of 85



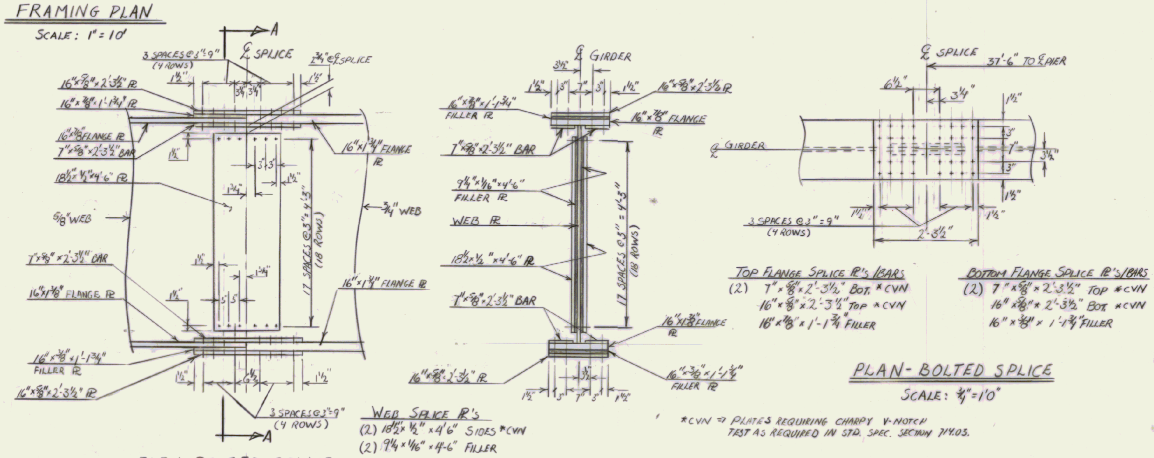
FRAMING PLAN
SCALE: 1" = 10'



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

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

*PIER CROSSFRAME
SCALE: 3/8" = 1'-0"



ELEV. BOLTED SPLICE
SCALE: 3/4" = 1'0"

SECTION A-A
SCALE: 3/4" = 1'0"

PLAN - BOLTED SPLICE
SCALE: 3/4" = 1'0"

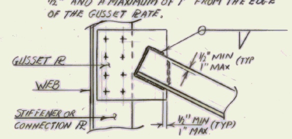
WEB SPLICE Ⓟ'S
(2) 18 1/2"×1/2"×4'6" SIDES *CVN
(2) 9 1/4×1/16"×4'-6" FILLER

TOP FLANGE SPLICE Ⓟ'S/BARS
(2) 7"×3/8"×2'-3 1/2" BOT. *CVN
16"×3/8"×2'-3 1/2" TOP *CVN
16"×3/8"×1'-1 3/4" FILLER

BOTTOM FLANGE SPLICE Ⓟ'S/BARS
(2) 7"×3/8"×2'-3 1/2" TOP *CVN
16"×3/8"×2'-3 1/2" BOT. *CVN
16"×3/8"×1'-1 3/4" FILLER

*CVN = PLATES REQUIRING CHARPY V-NOTCH TEST AS REQUIRED IN STD. SPEC. SECTION 714.05.

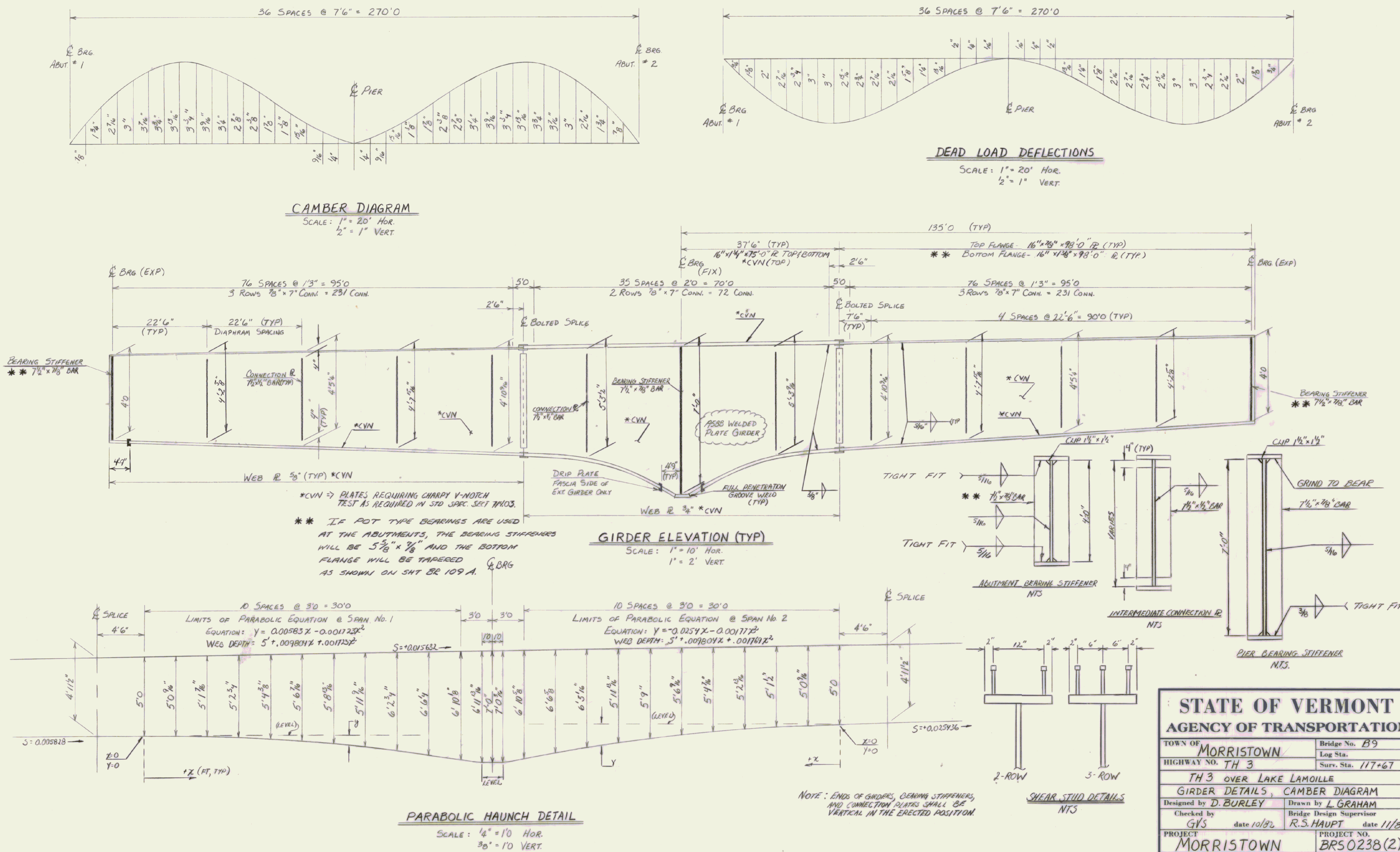
* ALL AROUND WELDS ON GUSSET Ⓟ CONNECTIONS ARE TO BE TERMINATED A MINIMUM OF 1/2" AND A MAXIMUM OF 1" FROM THE EDGE OF THE GUSSET PLATE.



STATE OF VERMONT	
AGENCY OF TRANSPORTATION	
TOWN OF MORRISTOWN	Bridge No. B-9
	Log Sta.
HIGHWAY NO. TH 3	Surv. Sta. 117+67
TH 3 OVER LAKE LAMOILLE	
FRAMING PLAN & SPLICE DETAILS	
Designed by D. BURLEY	Drawn by L. GRAHAM
Checked by G.V.S. date 10/82	Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS0238(2)
Bridge Sheet No. BR 104	Sheet 17 of 85

BRUNING 44-131 40151

BR-6

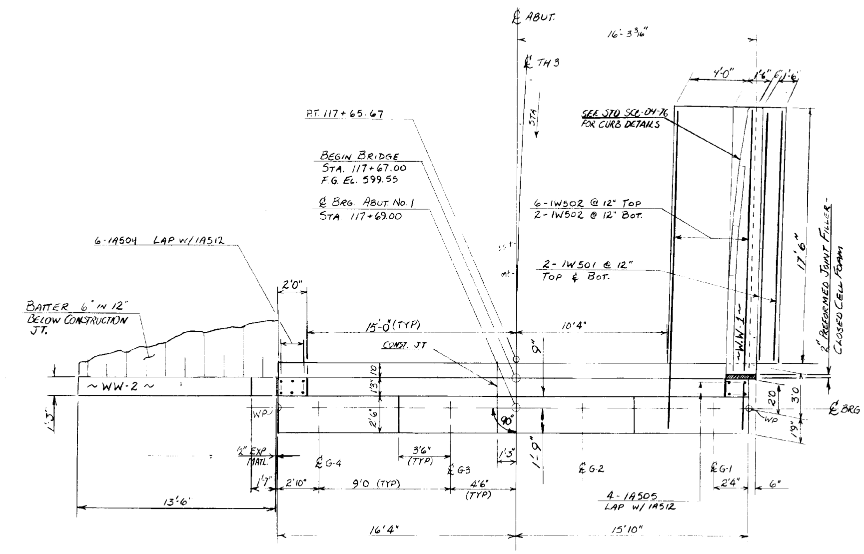


STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MORRISTOWN	Bridge No. B9
	Log Sta.
HIGHWAY NO. TH 3	Surv. Sta. 117+67

TH 3 OVER LAKE LAMOILLE
GIRDER DETAILS, CAMBER DIAGRAM

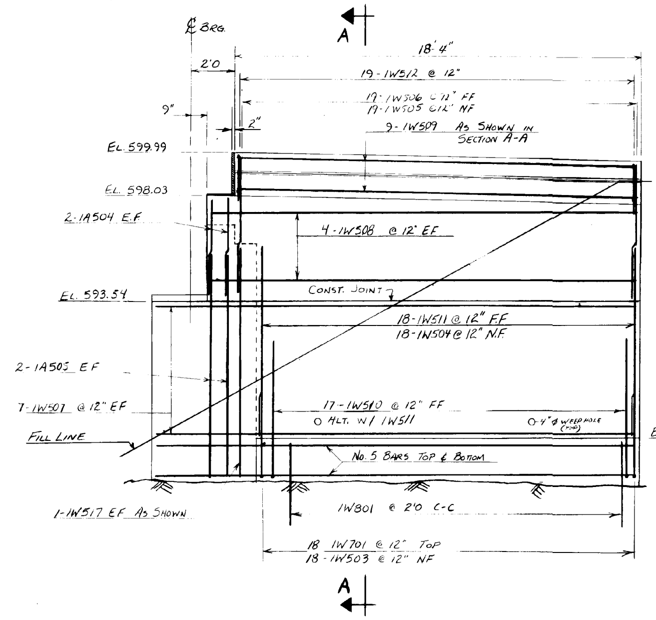
Designed by D. BURLEY	Drawn by L. GRAHAM
Checked by GVS date 10/82	Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS 0238 (2)
Bridge Sheet No. BR 105	Sheet 18 of 85



ABUT. No. 1 - PLAN

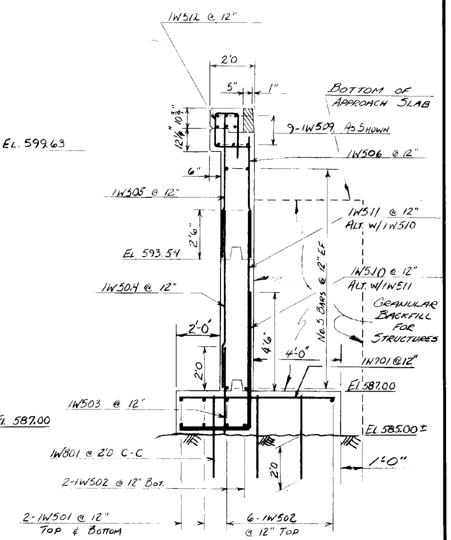
SCALE: ¼" = 1'0

NOTE: ELEVATIONS SHOWN ARE FOR THE BEARING DEVICE SHOWN ON SHT BR 109



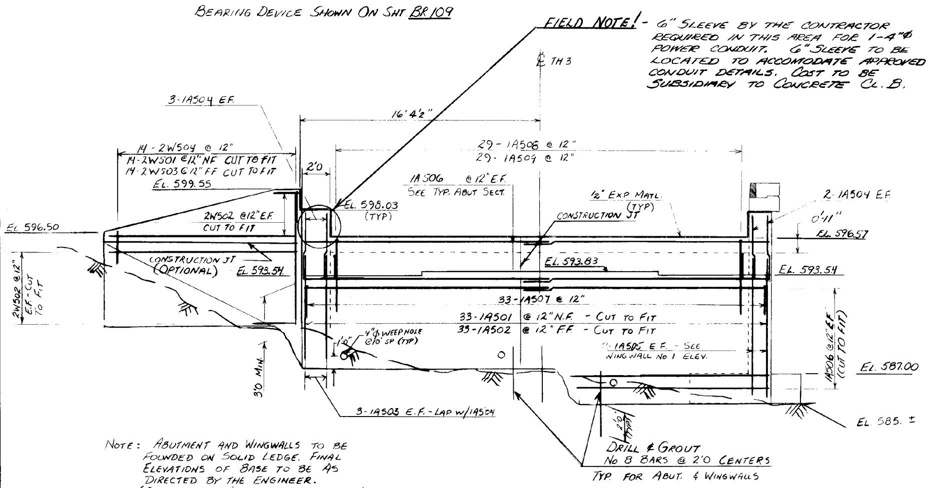
WINGWALL No. 1 - ELEV.

SCALE: ⅜" = 1'0



SECTION A-A

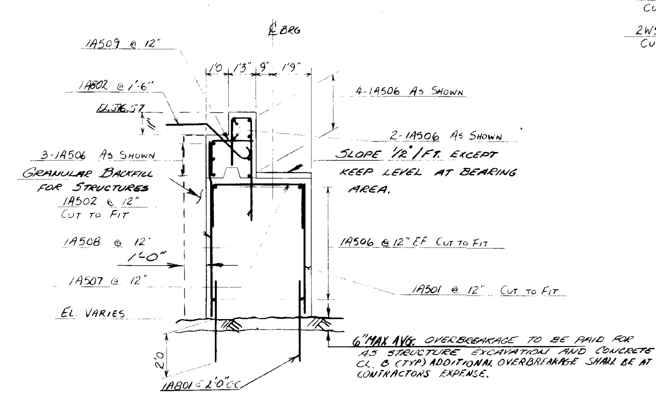
SCALE: ⅜" = 1'0



NOTE: ABUTMENT AND WINGWALLS TO BE FOUNDED ON SOLID LEDGE. FINAL ELEVATIONS OF BASE TO BE AS DIRECTED BY THE ENGINEER. (SEE NOTE ON OVERBREAKAGE ON BR107)

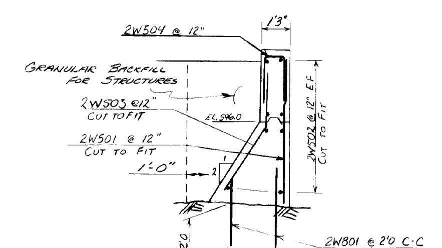
ABUT. No. 1 - ELEVATION

SCALE: ¼" = 1'0



ABUT. No. 1 - TYP. SECTION

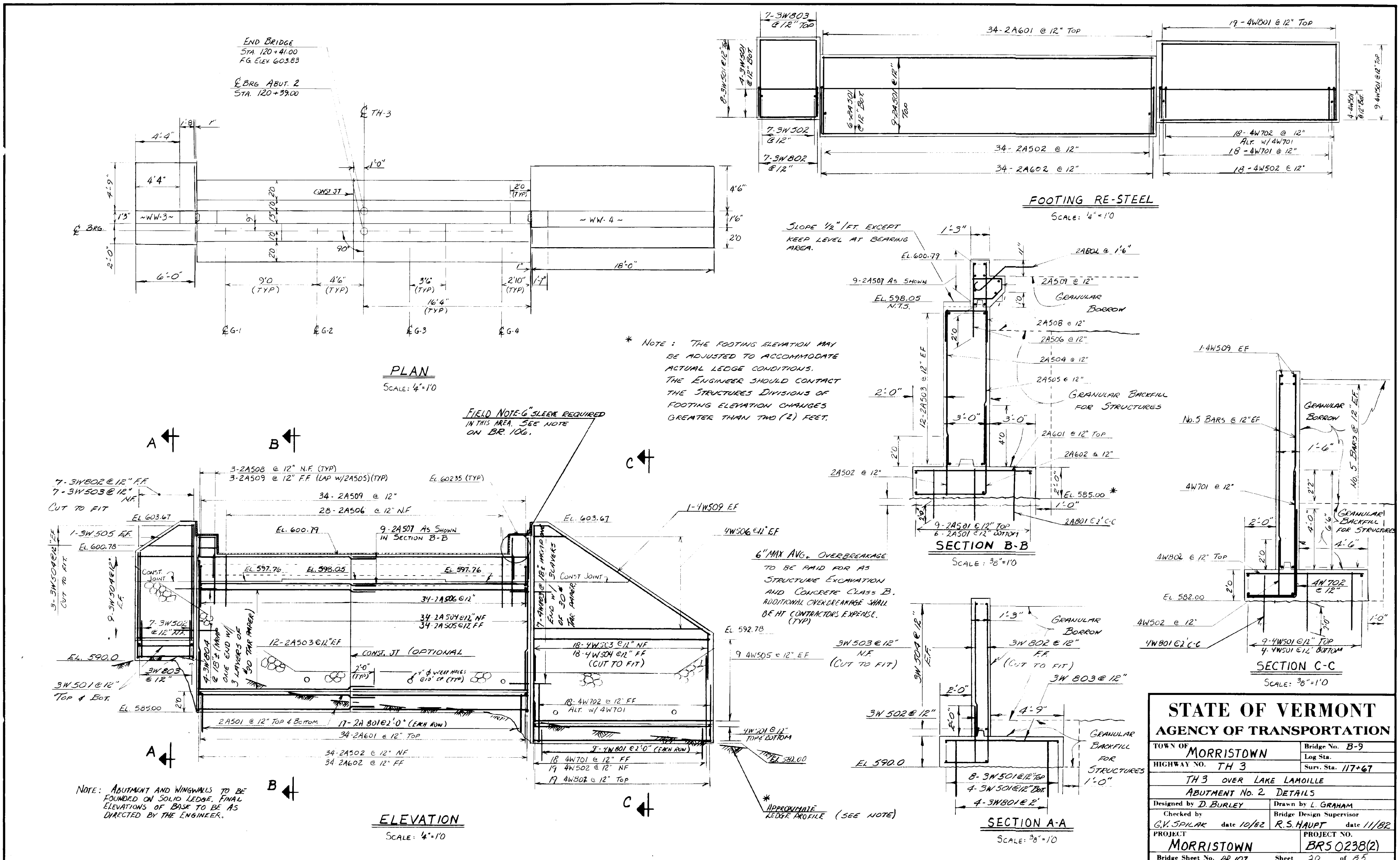
SCALE: ⅜" = 1'0

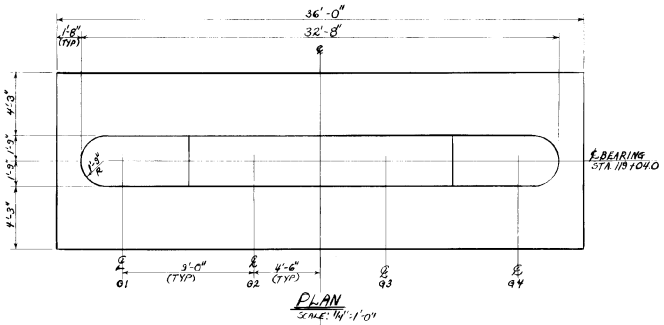


W.W No. 2 - TYP. SECTION

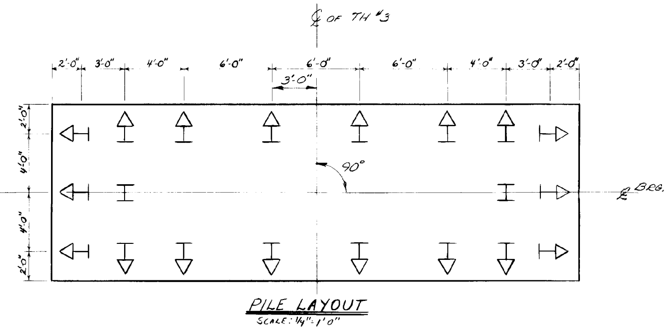
SCALE: ⅜" = 1'0

STATE OF VERMONT	
AGENCY OF TRANSPORTATION	
TOWN OF MORRISTOWN	Bridge No. B-9
	Log Sta.
HIGHWAY NO. TH-3	Surv. Sta. 117+67
TH 3 OVER LAKE LAMOILLE	
ABUTMENT No. 1 DETAILS	
Designed by D. BURLEY	Drawn by L. GRAHAM
Checked by G.V.S date 10/82	Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS 0238(2)
Bridge Sheet No. BR106	Sheet 19 of 85

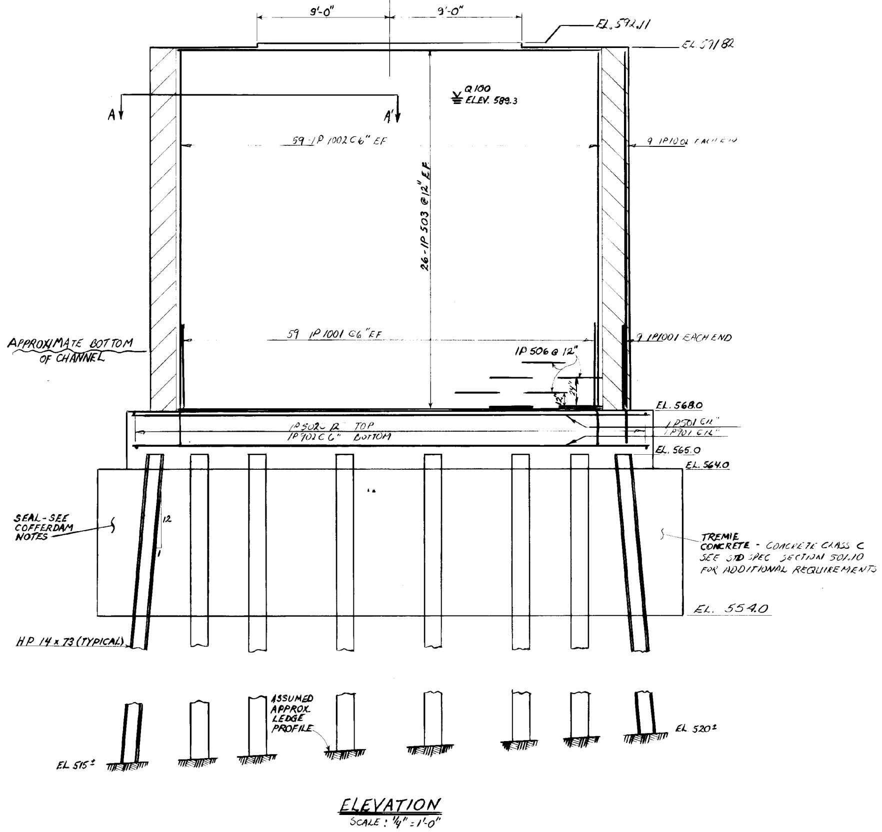

FOOTING RE-STEEL
SCALE: 1/4"=1'0
7-3W803 @12" TOP
34-2A601 @ 12" TOP
19-4W801 @ 12" TOP
8-3W501 @12" TOP
4-3W501 @12" BOT.
6-2A501 @12" BOT.
9-2A501 @12" TOP
4-4W501 @12" BOT.
9-4W501 @12" TOP
7-3W502 @12"
7-3W802 @12"
34-2A502 @ 12"
34-2A602 @ 12"
18-4W702 @ 12" ALT. W/4W701
18-4W701 @ 12"
18-4W502 @ 12"
END BRIDGE
STA. 120+41.00
F.G. ELEV. 603.83
℄ BRG. ABUT. 2
STA. 120+59.00
℄ TH-3
CONST JT
~WW-3~
~WW-4~
℄ BRG.
℄ G-1
℄ G-2
℄ G-3
℄ G-4
PLAN
SCALE: 1/4"=1'0
* NOTE: THE FOOTING ELEVATION MAY BE ADJUSTED TO ACCOMMODATE ACTUAL LEDGE CONDITIONS. THE ENGINEER SHOULD CONTACT THE STRUCTURES DIVISIONS OF FOOTING ELEVATION CHANGES GREATER THAN TWO (2) FEET.
FIELD NOTE-6" SLEEVE REQUIRED IN THIS AREA. SEE NOTE ON BR. 106.
SLOPE 1/2"/FT. EXCEPT KEEP LEVEL AT BEARING AREA.
EL. 600.79
2A802 @ 1'6"
9-2A507 AS SHOWN
2A509 @ 12"
EL. 598.05 N.T.S.
GRANULAR BORROW
2A508 @ 12"
2A506 @ 12"
2A504 @ 12"
2A505 @ 12"
GRANULAR BACKFILL FOR STRUCTURES
12-2A503 @ 12" EF
2A601 @ 12" TOP
2A602 @ 12"
2A502 @ 12"
EL. 585.00 *
9-2A501 @12" TOP
6-2A501 @12" BOTTOM
2A801 @2' C-C
SECTION B-B
SCALE: 3/8"=1'0
1-4W509 EF
No.5 BARS @ 12" EF
4W701 @ 12"
GRANULAR BACKFILL FOR STRUCTURES
4W802 @ 12" TOP
EL. 582.00
4W702 @ 12"
4W502 @ 12"
4W801 @2' C-C
9-4W501 @12" TOP
4-4W501 @12" BOTTOM
SECTION C-C
SCALE: 3/8"=1'0
7-3W802 @12" F.F.
7-3W503 @12" N.F.
CUT TO FIT
3-2A508 @ 12" N.F. (TYP)
3-2A509 @ 12" F.F. (LAP W/2A505) (TYP)
EL. 602.35 (TYP)
34-2A509 @ 12"
28-2A506 @ 12" N.F.
EL. 603.67
1-3W505 EF
EL. 600.78
9-3W504 @12" CUT TO FIT
9-3W504 @12" E.F.
EL. 600.79
9-2A507 AS SHOWN IN SECTION B-B
EL. 597.76
EL. 598.05
CONST JOINT
34-2A506 @ 12"
34 2A504 @12" NF
34 2A505 @12" FF
7-3W502 @12" N.F.
12-2A503 @12" EF
CONST. JT (OPTIONAL)
4" ∅ WEEP HOLES @10' C-C (TYP)
EL. 590.0
3W803 @12"
3W501 @ 12" TOP & BOT.
EL. 585.00
2A501 @ 12" TOP & BOTTOM
17-2A801 @ 2'-0" (EACH ROW)
34-2A601 @ 12" TOP
34-2A502 @ 12" NF
34 2A602 @ 12" FF
4-3W804 @ 18" ± (WRAP ONE END W/ 3 LAYERS OF #30 TAR PAPER)
7-4W803 @ 18" ± WRAP END W/ 3 LAYERS OF 30# TAR PAPER
1-4W509 EF
4W506 @12" EF
EL. 592.78
18-4W503 @12" NF
18-4W504 @12" FF (CUT TO FIT)
9 4W505 @ 12" EF
18-4W702 @ 12" FF ALT. W/4W701
9-4W801 @2'-0" (EACH ROW)
18 4W701 @ 12" FF
19 4W502 @ 12" NF
19 4W802 @ 12" TOP
4W501 @12" TOP & BOTTOM
EL. 582.00
* APPROXIMATE LEDGE PROFILE (SEE NOTE)
6" MAX AVG. OVERBREAKAGE TO BE PAID FOR AS STRUCTURE EXCAVATION AND CONCRETE CLASS B. ADDITIONAL OVERBREAKAGE SHALL BE AT CONTRACTORS EXPENSE. (TYP)
NOTE: ABUTMENT AND WINGWALLS TO BE FOUNDED ON SOLID LEDGE. FINAL ELEVATIONS OF BASE TO BE AS DIRECTED BY THE ENGINEER.
ELEVATION
SCALE: 1/4"=1'0
3W504 @ 12" E.F.
GRANULAR BORROW
3W503 @ 12" N.F. (CUT TO FIT)
3W802 @ 12" F.F. (CUT TO FIT)
3W803 @ 12"
3W502 @ 12"
EL. 590.0
GRANULAR BACKFILL FOR STRUCTURES
8-3W501 @12" TOP
4-3W501 @12" BOT.
4-3W801 @ 2'
SECTION A-A
SCALE: 3/8"=1'0
STATE OF VERMONT
AGENCY OF TRANSPORTATION
TOWN OF MORRISTOWN
Bridge No. B-9
Log Sta.
HIGHWAY NO. TH 3
Surv. Sta. 117+67
TH 3 OVER LAKE LAMOILLE
ABUTMENT No. 2 DETAILS
Designed by D. BURLEY
Drawn by L. GRAHAM
Checked by G.V. SPILAK date 10/82
Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN
PROJECT NO. BRS 0238(2)
Bridge Sheet No. BR 107
Sheet 20 of 85



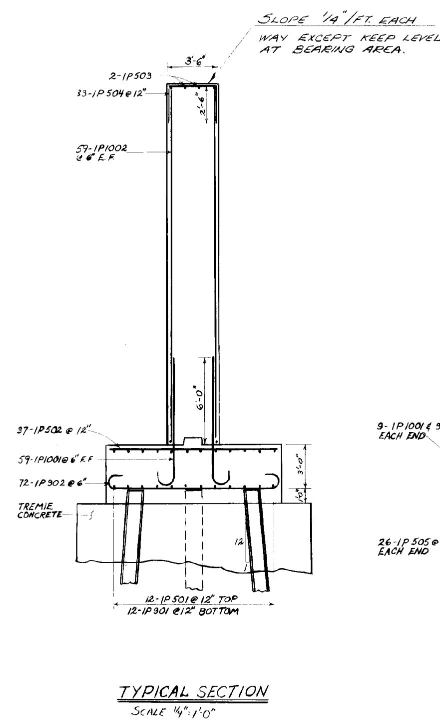
PLAN
SCALE: 1/4" = 1'-0"



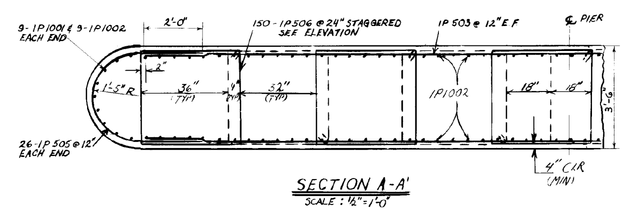
PILE LAYOUT
SCALE: 1/4" = 1'-0"



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



TYPICAL SECTION
SCALE 1/4" = 1'-0"



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

1. ALL CONCRETE ABOVE ELEVATION 564.0 SHALL BE PLACED IN THE DRY CONDITION.

2. FURNISHING AND DRIVING OF HP 14X73 PILES SHALL BE IN ACCORDANCE WITH SECTION 505. OF THE SPECIFICATIONS.

3. DENOTES DIRECTIONS OF 1 ON 12 PILE BATTER.

4. PILES ARE DESIGNED FOR A MAXIMUM POINT BEARING LOAD OF 9000 psi OR 96 TONS. ESTIMATED PILE LENGTH IS 50 FEET. ALL PILES SHALL HAVE REINFORCED TIPS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE COST OF THE REINFORCED PILE TIPS SHALL BE INCLUDED IN THE UNIT BID PRICE OF THE STEEL PILING ITEM.

5. IT IS BROUGHT TO THE CONTRACTORS ATTENTION THAT SOIL BELOW THE PIER FOOTING IS A LOOSE GRANULAR MATERIAL (SEE BORING LOGS). TO FACILITATE THE SAFE DEWATERING OF THE COFFERDAM, A CONCRETE SEAL SHALL BE PLACED BELOW THE PIER FOOTING. FOR AN ASSUMED WATER ELEVATION OF 580.0 DURING CONSTRUCTION, A SEAL DEPTH OF 10 FEET WILL BE NEEDED. ANY CHANGES TO THIS ASSUMED WATER ELEVATION MUST BE ACCOUNTED FOR IN THE CONTRACTORS DESIGN OF THE COFFERDAM. THE COFFERDAM SHALL BE A MINIMUM OF TWO FEET LARGER THAN THE FOOTING DIMENSIONS. DETAILS OF THE COFFERDAM WILL BE SUBMITTED TO THE STRUCTURES ENGINEER IN ACCORDANCE WITH THE PROVISIONS OF SECTION 506.04 OF THE STANDARD SPECIFICATIONS. THE SUBMITTAL SHALL INCLUDE COPIES OF ANY ENGINEERING DESIGN COMPUTATIONS.

6. PAY ITEM 530.10, COFFERDAM AT STATION 119+04, SHALL BE FULL COMPENSATION FOR PLACEMENT AND REMOVAL OF CONSTRUCTION MATERIALS, EXCAVATION OF MATERIALS WITHIN THE COFFERDAM, PLACEMENT OF A CONCRETE SEAL, LABOR AND EQUIPMENT TO DO THE NECESSARY WORK.

7. ALL REINFORCING SHALL HAVE A MINIMUM COVER OF 3 INCHES, UNLESS OTHERWISE NOTED.

GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN ~~HEREON~~ ON BR102 WERE MADE BETWEEN 6-28-79 AND 5-1-81 BY THE VERMONT AGENCY OF TRANSPORTATION.

1. SOIL AND ROCK (WHERE ENCOUNTERED) CLASSIFICATION, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION OF AVAILABLE SUBSURFACE INFORMATION BY THE VERMONT AGENCY OF TRANSPORTATION AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.

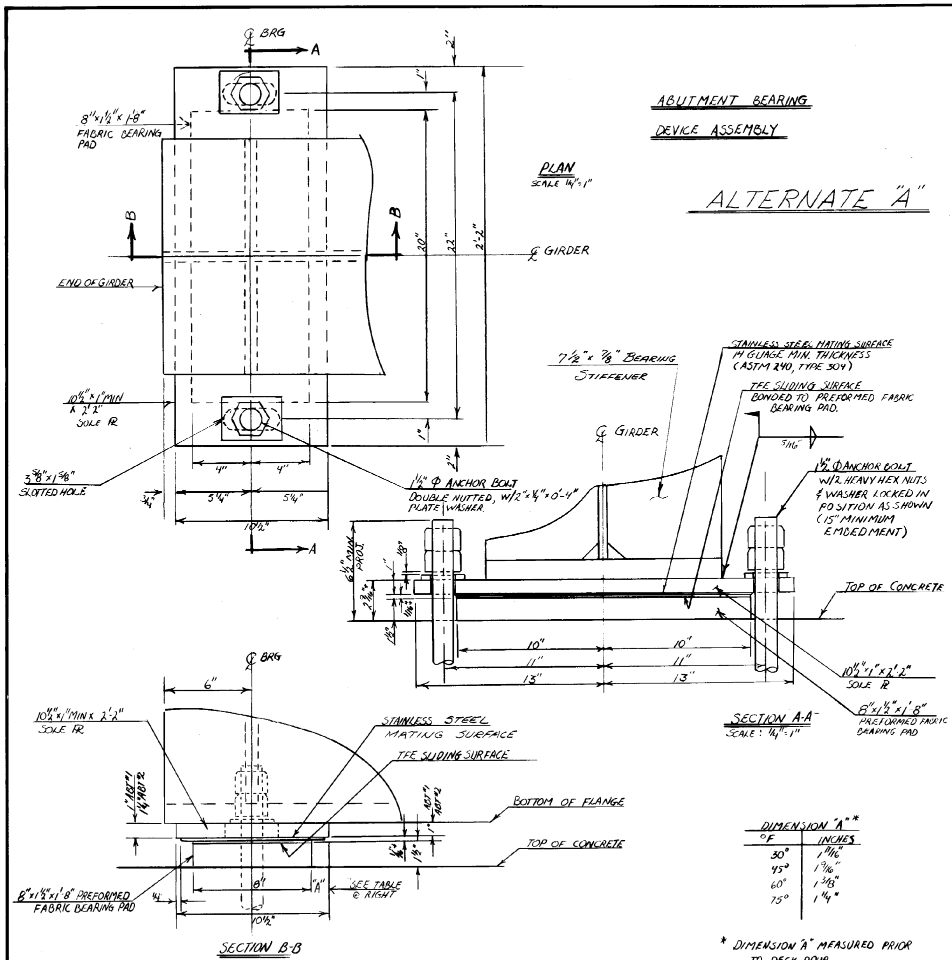
2. OBSERVED WATER LEVELS AND/OR WATER CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.

3. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREON. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTENDED FOR AGENCY DESIGN AND ESTIMATE PURPOSES ONLY. PRESENTATION OF THE INFORMATION ON THE PLANS OR ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS, INDEPENDENT ANALYSIS OR JUDGEMENT OF THE CONTRACTOR.

4. PICTORIAL STRUCTURE DETAILS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN IN THE CONTRACT PLANS.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MORRISTOWN	Bridge No. B-9
	Log Sta.
HIGHWAY NO. TH3	Surv. Sta. 117+67
TH3 OVER LAKE LAMOILLE	
PIER DETAILS	
Designed by GVS	Drawn by DZG
Checked by D. BURLEY date 10/81	Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS 02 38 (2)
Bridge Sheet No. BR 108	Sheet 21 of 85



DIMENSION "A"* °F	INCHES
30°	1 11/16"
45°	1 9/16"
60°	1 3/8"
75°	1 1/4"

* DIMENSION "A" MEASURED PRIOR TO DECK POUR.

ABUTMENT BEARING DEVICE ASSEMBLY NOTES - EXPANSION

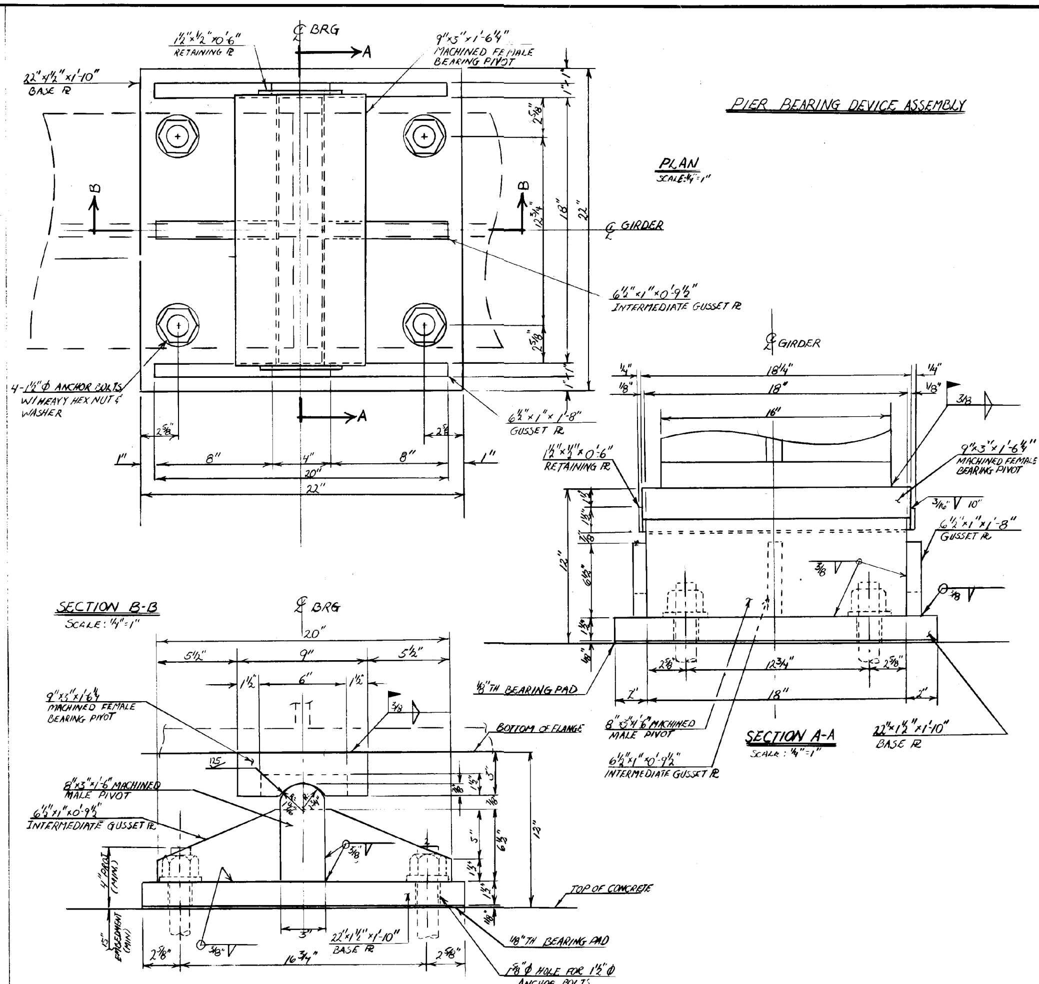
1) FABRIC PAD BEARINGS (ALTERNATE "A")
   A). EXPANSION BEARINGS SHALL HAVE A TFE SLIDING SURFACE BONDED TO THE PREFORMED FABRIC BEARING PAD AS ONE COMPONENT AND MATED TO A STAINLESS STEEL FACED STEEL PLATE AS THE OTHER COMPONENT.
   B). COMPONENTS SHALL CONFORM TO THE DESIGN, FABRICATION AND MATERIAL REQUIREMENTS OF SECTION 731.

2) FLOATING (POT TYPE) BEARINGS (ALTERNATE "B")
   A.) FOR DETAILS OF POT TYPE BEARINGS SEE SHEET BR109 A

3) DESIGN REQUIREMENTS
   A) LOADS
      1). VERTICAL 153K MAX, 63K MIN.
      2). TRANSVERSE 7K
   B). MOVEMENT
      1). LONGITUDINAL - ± 1" FROM 45°F POSITION.
      2). ROTATION - .015 RADIANS
   C) MAX. CONCRETE BEARING PRESSURE = 1.0 KSI

4) ALL ABUTMENT BEARING DEVICES SHALL BE OF ONE KIND.

5.) FOR ADDITIONAL NOTES AND DETAILS FOR BEARING DEVICES SEE SHT BR109A



PIER BEARING DEVICE ASSEMBLY NOTES - FIXED

1) FIXED BEARING DEVICE - PIVOT TYPE (ALTERNATE "A")
   A). ANCHOR BOLT ASSEMBLIES SHALL CONFORM TO STD. SPEC. SUBSECTION 714.16, ANCHOR BOLTS.
   B). ALL BEARING DEVICE COMPONENTS SHALL BE FABRICATED FROM CORROSION RESISTANT UNPAINTED STEEL CONFORMING WITH AASHTO M222 (ASTM A 588) WITH SURFACE PREPARATION CONFORMING TO SECTION 506.47 b OF THE STD SPEC. UNLESS OTHERWISE SPECIFIED.
   C) ⅛" BEARING PAD SHALL CONFORM TO SPECIAL PROVISIONS SECTION 731.01 OR 731.02.
   D). SHOP DRAWINGS SHALL BE FURNISHED AND APPROVED IN ACCORDANCE WITH SUBSECTION 506.05, SHOP DRAWINGS.

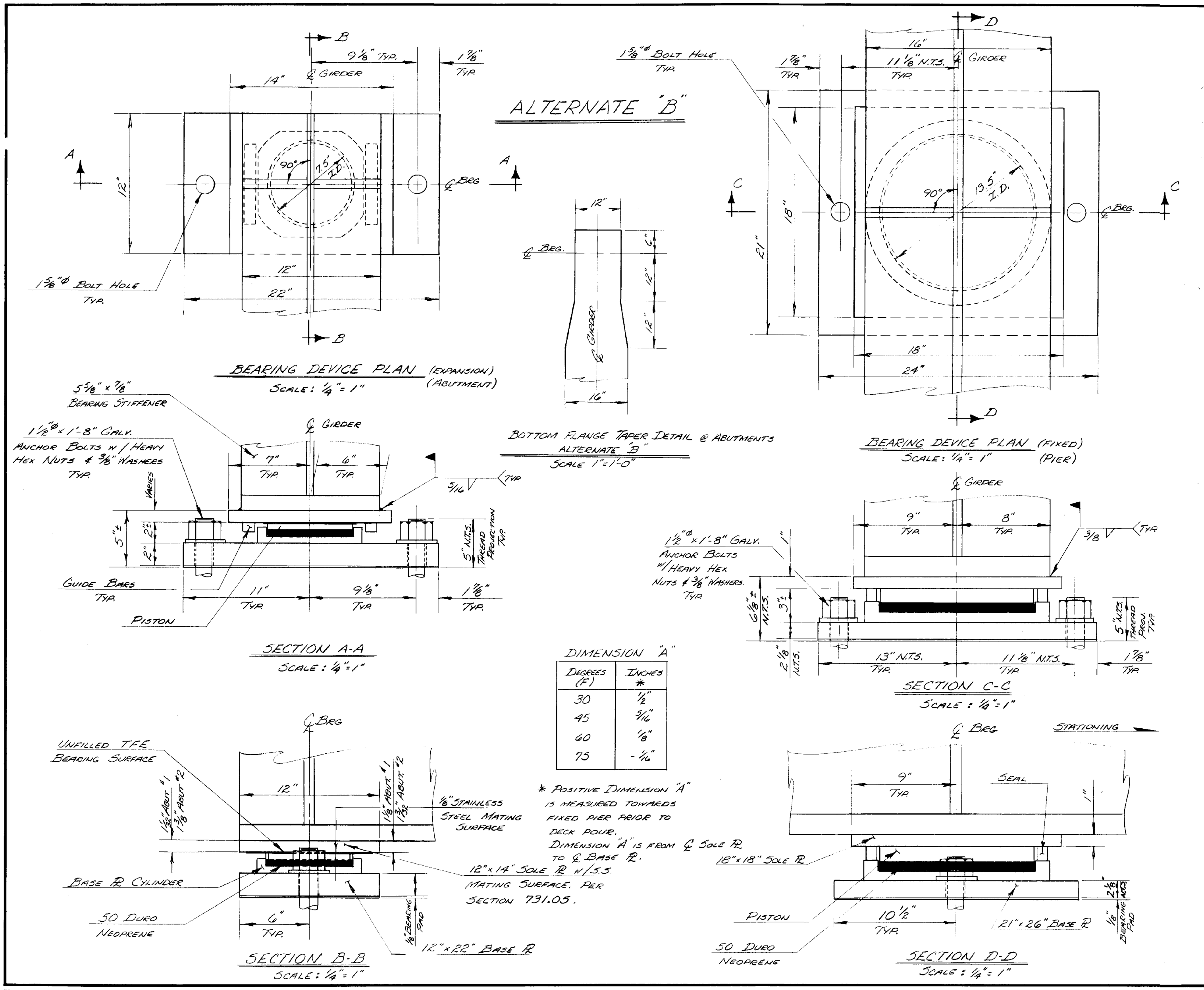
2.) FLOATING (POT TYPE) BEARINGS (ALTERNATE "B") FOR DETAILS SEE SHT. BR. 109A

3). DESIGN REQUIREMENTS
   A) LOADS
      1) VERTICAL 466K
      2) TRANSVERSE 12K
      3) LONGITUDINAL 14K
   B) MOVEMENT - ROTATION - .015 RADIANS MIN.
   C) MAXIMUM CONCRETE BEARING PRESSURE = 1.0KSI.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MORRISTOWN	Bridge No. B9
	Log Sta.
HIGHWAY NO. TH 3	Surv. Sta. 117+67
TH 3 OVER LAKE LAMOILLE	
BEARING DEVICE DETAILS ALT. "A"	
Designed by D. BURLEY	Drawn by L. GRAHAM
Checked by G.V.S. date 10/82	Bridge Design Supervisor R.S. HAUPT date 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS 0238(2)
Bridge Sheet No. BR 109	Sheet 22 of 85

BRUNING 44-131 40151
BR-6



DIMENSION "A"

DEGREES (F)	INCHES *
30	1/2"
45	5/16"
60	1/8"
75	- 1/16"

* POSITIVE DIMENSION "A" IS MEASURED TOWARDS FIXED PIER PRIOR TO DECK POUR. DIMENSION "A" IS FROM ℄ SOLE PL TO ℄ BASE PL.

NOTES

1. UNLESS OTHERWISE NOTED, ALL STEEL IN THE BEARING DEVICE ASSEMBLIES SHALL BE A-36 GALVANIZED OR THERMAL SPRAYED WITH PURE ZINC COATING AS PER SECTION 731.06.
2. THE WELD BETWEEN THE SOLE PLATE AND BOTTOM FLANGE SHALL BE SMAW 8018(C3). AREAS OF GALVANIZING ON THE SOLE PLATE DESTROYED IN THE WELDING PROCESS SHALL BE PAINTED WITH A ZINC RICH PAINT.
3. ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM WITH THE REQUIREMENTS OF SECTION 714.16. BOLTS SHALL BE 1 1/2"⌀ X 1'-8" LONG WITH HEAVY HEX NUTS AND 3/8" WASHERS (GALVANIZED ASTM A-153). ANCHOR BOLTS PAID FOR UNDER ITEM 506.99, "BEARING DEVICE ASSEMBLY.
4. BEARING DEVICE DESIGN, MANUFACTURE, AND MATERIAL SPECIFICATIONS SHALL CONFORM TO THE GENERAL SPECIAL PROVISIONS, SECTION 731.11.
5. BEARING DEVICES SHALL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 506.99, "BEARING DEVICE ASSEMBLY".
6. CONCRETE SURFACES UNDER BEARINGS SHALL BE LEVEL.
7. ALTERNATE CONFIGURATIONS MAY BE SUBMITTED FOR APPROVAL PROVIDED THE DESIGN LOADS ARE SATISFIED AND THE ANCHOR BOLT SYSTEM AND PLACEMENT IS MAINTAINED.
8. THE MANUFACTURER OF THE BEARING DEVICE ASSEMBLY, ITEM 506.99, SHALL, IN ADDITION TO THE TYPE D CERTIFICATION REQUIRED IN SECTION 731.05, CERTIFY THAT THE UNITS SUPPLIED ARE DESIGNED TO MEET THE LOADING REQUIREMENTS INDICATED BELOW.

	BEARING	TRANSVERSE	LONGITUDINAL
ABUT. # 1	153 K	7 K	8 K
ABUT. # 2	153 K	7 K	8 K
PIER	466 K	12 K	14 K

9. BEARING BASE PLATES SHALL BE PLACED ON A 1/8" FABRIC PAD AS SPECIFIED IN SECTION 731.01.
10. ALTERNATE "C" SHALL BE A COMBINATION OF PRE-FORMED FABRIC PAD BEARINGS AT THE ABUTMENTS PER SECTION 731.10 AND SHEET BR 109, AND FLOATING (POT TYPE) BEARINGS AT THE PIER PER SECTION 731.11 AND SHEET BR 109A.
11. IF A BEARING DEVICE SCHEME OTHER THAN ALTERNATE "A" IS USED, THE BRIDGE SEAT ELEVATIONS WILL HAVE TO BE ADJUSTED ACCORDINGLY.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MORRISTOWN	Bridge No. B-9
	Log Sta.
HIGHWAY NO. TOWN HIGHWAY #3	Surv. Sta. 117+67
TOWN HIGHWAY #3 OVER LAKE LAMOILLE	
BEARING DEVICE DETAILS (ALTERNATE B)	
Designed by D. BURLEY	Drawn by M. GARCIA
Checked by R. GENDRON date 4/83	Bridge Design Supervisor R.S. HAUPT date 3/83
PROJECT MORRISTOWN	PROJECT NO. BRS 0238(2)
Bridge Sheet No. BR 109A	Sheet 22-A of 85

BRUNING 44-131 60151
BR-6

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
			SUPERSTRUCTURE														
1			GRADE 60														
2	1098	5	32-0	S501	STR												
3	704	5	32-1	S502	STR												
4	120	5	29-3	S503	STR												
5	8	5	28-3	S504	STR												
6																	
7	88	8	33-0	S801	STR												
8																	
9			GRADE 40														
10	550	5	5-1	S505	S5	0-10	1-2	1-1	1-2			0-10					
11	*59	5	7-4	S506	S5	0-10	2-1	1-6	2-1			0-10					
12																	
13				ABUTMENT #1													
14				GRADE 60													
15	*34	5	9-0	1A501	STR												
16	33	5	11-0	1A502	STR												
17	6	5	6-0	1A503	STR												
18	10	5	4-6	1A504	STR												
19	4	5	10-0	1A505	STR												
20	46	5	16-10	1A506	STR												
21																	
22																	
23	*52	8	4-0	1A801	STR												
24																	
25	33	5	8-3	1A507	17		2-0	4-3	2-0								
26	29	5	7-10	1A508	17		5-0	0-10	2-0								
27	29	5	3-3	1A509	17		1-9	1-6									
28																	
29	21	8	5-9	1A802	7	0-11		2-10	2-0				2-0	0-8	2-0		
30																	
31																	
32																	
33				WINGWALL #1													
34				GRADE 60													
35	4	5	17-0	1W501	STR												
36	8	5	21-9	1W502	STR												
37	18	5	3-9	1W503	STR												
38	18	5	9-2	1W504	STR												
39	19	5	5-10	1W505	STR												
40	19	5	5-0	1W506	STR												
41	7	5	21-9	1W507	STR												
42	8	5	19-6	1W508	STR												
43	9	5	18-0	1W509	STR												
44																	
45	*19	7	7-0	1W701	STR												
46																	
47	27	8	4-0	1W801	STR												
48																	
49	17	5	14-0	1W510	17		11-6	3-0									
50	18	5	9-3	1W511	17		6-3	3-0									
51																	
52		GRADE 40															
53	19	5	6-2	1W512	T2		2-0	1-1	1-6	1-7							
54																	
55																	
56				WINGWALL #2													
57				GRADE 60													
58	14	5	9-0	2W501	STR												
59	14	5	13-0	2W502	STR	(USE CUT OFFS TO OBTAIN 20 2W502'S)											
60																	
61	12	8	4-0	2W801	STR												
62																	
63	14	5	9-0	2W503	19		6-6	2-6					3-0		6-0		
64																	
65			GRADE 40														
66	14	5	4-10	2W504	17		2-0	0-10	2-0								
67																	
68																	
69																	
70																	
71																	
72																	
73																	
74																	
75																	
76																	
77																	
78																	
79																	
80																	

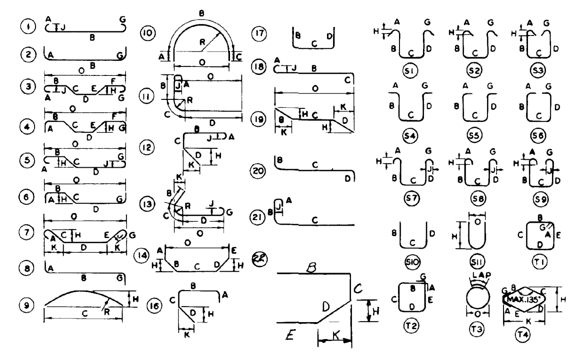
ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
				ABUTMENT #2													
81			GRADE 60														
82	30	5	17-2	2A501	STR												
83	34	5	3-9	2A502	STR												
84	48	5	17-2	2A503	STR												
85	34	5	10-9	2A504	STR												
86	34	5	13-4	2A505	STR												
87	*29	5	5-0	2A506	STR												
88	18	5	17-2	2A507	STR												
89																	
90	*35	6	7-6	2A601	STR												
91																	
92	51	8	4-0	2A801	STR												
93																	
94	34	5	6-7	2A508	17		2-0	2-7	2-0								
95	34	5	4-6	2A509	22		1-9	0-9	0-10	1-2			0-7		0-7		
96																	
97	*35	6	10-3	2A602	17		5-9	4-6									
98																	
99	21	8	5-9	2A802	7	0-11		2-10	2-0				2-0		2-0		
100																	
101																	
102				WING WALL #3													
103				GRADE 60													
104	42	5	7-0	3W501	STR												
105	7	5	4-0	3W502	STR												
106	14	5	11-5	3W503	STR												
107	7	8	7-6	3N801	STR												
108																	
109	*9	7	8-6	3W701	17		5-9	2-9									
110																	
111				WING WALL #4													
112				GRADE 60													
113	13	5	17-6	4W501	STR												
114	19	5	3-9	4W502	STR												
115	10	5	27-0	4W503	STR	(USE CUTOFFS TO OBTAIN 18 4W503'S)											
116	10	5	21-0	4W504	STR	(USE CUTOFFS TO OBTAIN 18 4W504'S)											
117	18	5	17-6	4W505	STR												
118	10	5	20-0	4W506	STR	(USE CUTOFFS TO OBTAIN 20 4W506'S)											
119																	
120	37	8	4-0	4W801	STR												
121	*20	8	7-6	4W802	STR												
122																	
123	2	5	20-8	4W509	19		19-3	1-5					10-8		16-0		
124																	
125	19	7	11-9	4W701	17		8-3	3-0									
126	19	7	8-9	4W702	17		5-9	3-0									
127																	
128																	
129																	
130																	
131																	
132																	
133						PIER											
134					GRADE 60												
135	12	5	35-6	1P501	STR												
136	37	5	11-6	1P502	STR												
137	54	5	29-2	1P503	STR												
138																	
139	12	9	35-6	1P901	STR												
140																	
141	*137	10	23-9	1P1002	STR												
142																	
143																	
144																	
145																	
146																	
147	*73	9	14-0	1P902	1	1-3	11-6					1-3		0-11¼			
148																	
149	*137	10	10-5	1P1001	1	1-5	9-0							1-0¾			
150																	
151																	
152					GRADE 40												
153	*34	5	7-10	1P504	17		2-6	2-10	2-6								
154	52	5	8-5	1P505	10	2-0	4-5	2-0								1-5	2-10
155	150	5	13-3	1P506	T1	0-5½	2-10	3-4	2-10	3-4		0-5½					
156																	
157																	
158																	
159																	
160																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
					APPROACH SLAB #1												
161						GRADE 60											
162	16	5	29-6	1AS501	STR												
163																	
164	*42	9	15-9	1AS901	1	1-3	14-6							11¼			
165																	
166																	
167						APPROACH SLAB #2											
168						GRADE 60											
169	16	5	29-6	2AS501	STR												
170																	
171	41	9	15-9	2AS901	1	1-3	14-6							11¼			
172																	
173																	
174																	
175																	
176																	
177																	
178																	
179																	
180																	

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION: DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A615 S1), GRADE 60.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

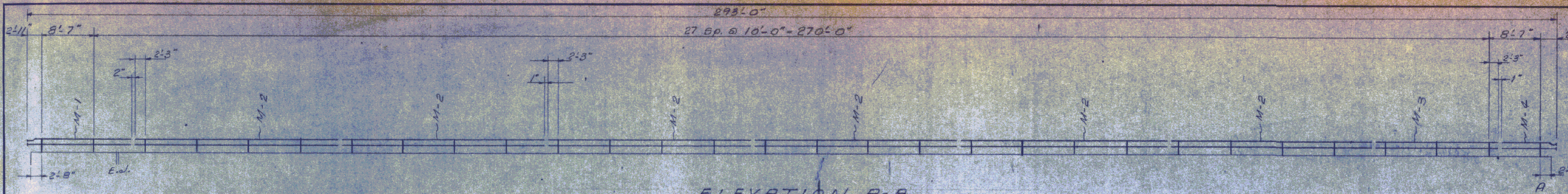
REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

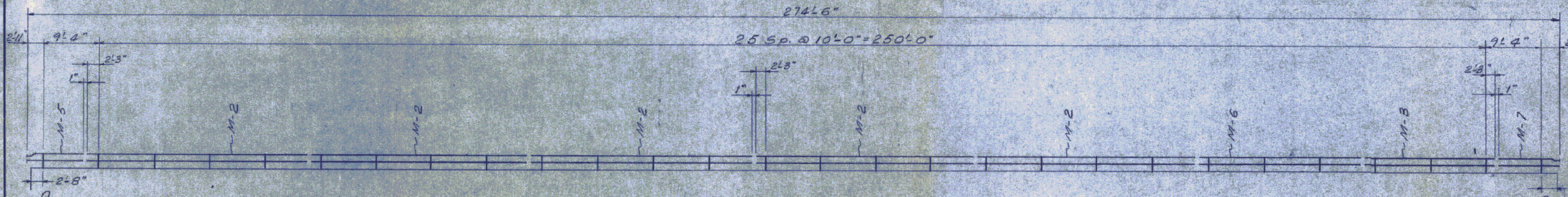
TOWN OF MORRISTOWN	BRIDGE NO. B9
	LOG STA.
HIGHWAY NO. TH 3	SURV. STA. 117+67
TH 3 OVER LAKE LAMOILLE	
REINFORCING STEEL SCHEDULE	
DESIGNED BY D. BURLEY	DRAWN BY L. GRAHAM
CHECKED BY G.V.S DATE 10/82	BRIDGE DESIGN SUPERVISOR R.S. HAUPT DATE 11/82
PROJECT MORRISTOWN	PROJECT NO. BRS 0238(2)
BRIDGE SHEET NO. BR110	SHEET 23 OF 85

BRUNING 44-131 40151

BR-5



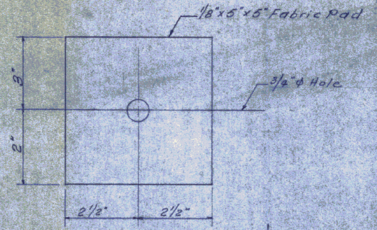
ELEVATION A-A



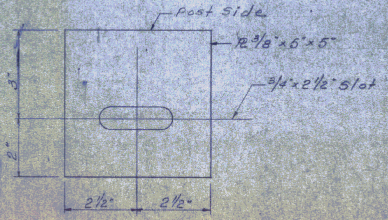
ELEVATION B-B

BILL OF MATERIAL	
ABR-586	BR-586
58	6"x6"x5/16" Tube x 2'-2" lg.
58	℞ 1"x9"x1'-1"
58	℞ 5/16"x5 5/8"x5 3/8"
116	℞ 3/8"x5"x5"
116	5/8"φ x 4 1/2" Hex. Hd. Bolt, 1-nut & 2-ea. wash.
32	Splice Assemblies w/3/4"φ x 4" Bolts
58	Anchor Bolt Assemblies
2	6"x3"x1/4" Tube x 19'-7" lg. (M-1)
22	" x 40'-0" lg. (M-2)
2	" x 25'-0" lg. (M-3)
2	" x 10'-0" lg. (M-4)
2	" x 10'-6" lg. (M-5)
2	" x 30'-0" lg. (M-6)
2	" x 11'-0" lg. (M-7)
6	1/8"x5"x5" Fabric Pad

KEY PLAN



PAD DETAIL
At Shelf Bracket under Rail, Post A only, see Elev. A-A & B-B
6-Req'd



SHELF BRACKET
Post "A" only
6-Req'd

RECEIVED OCT 9 1984
CK'D BY
RESUBMIT
APPROVED
BY
DATE 10/10/84

Project BRS 0238(2)

ISSUE	DATE	DESCRIPTION	BY
3	5/14/84	Rev. per Engineer	D.
2	3/29/84	Rev. per Engineer	D.
1	1/30/84	For approval	D.

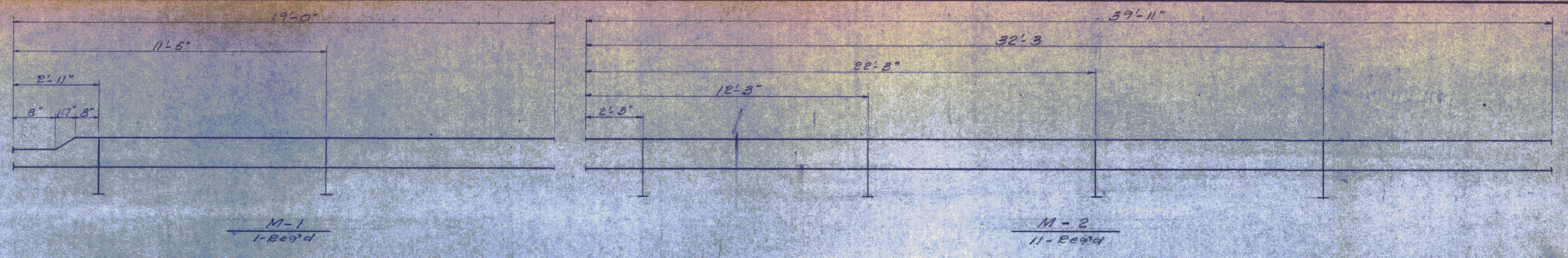
AMERICAN BRIDGE RAILING CORP.
93-95 BROOKLINE ST.
LYNN, MASS. 01902

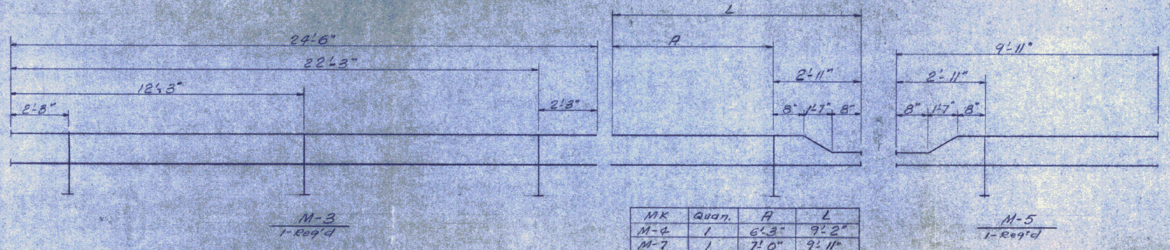
State of Vermont
Agency of Transportation
Morristown
TH 3 over Lake Lamoille
Bridge No. 89
Bridge Railing Details
Customer - Beck & Bellucci, Inc.

DR: H. R. SCALE: ~
CH: B. M. ABR # 586
BR-586

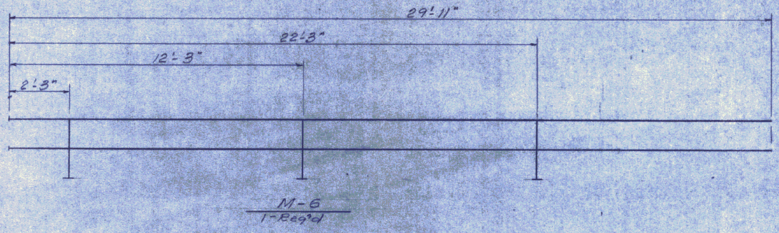
Sh. 1

24





MK	Quan.	A	L
M-4	1	6'-3"	9'-2"
M-7	1	7'-0"	9'-11"



RECEIVED OCT 9 1984
CK'D BY
RESUBMIT
BY Allan G. Couch
CK'D BY
APPROVED
DATE 10/10/84

1. All Tubing shall be 6"x3"x1/4" Wall.
2. Posts shown for ℄ location of 3/4" ϕ Hole in Tubing.
3. Tubes shall be drilled in field.

Project BRS 0288(2)

ISSUE	DATE	DESCRIPTION	BY
2	3/29/84	Rev. per Engineer	D.
1	1/30/84	For approval	D.

AMERICAN BRIDGE RAILING CORP.
93-95 BROOKLINE ST.
LYNN, MASS. 01902

State of Vermont
Agency of Transportation
Morristown
TH3 over Lake Lamoille
Bridge No. 89
Bridge Railing Details

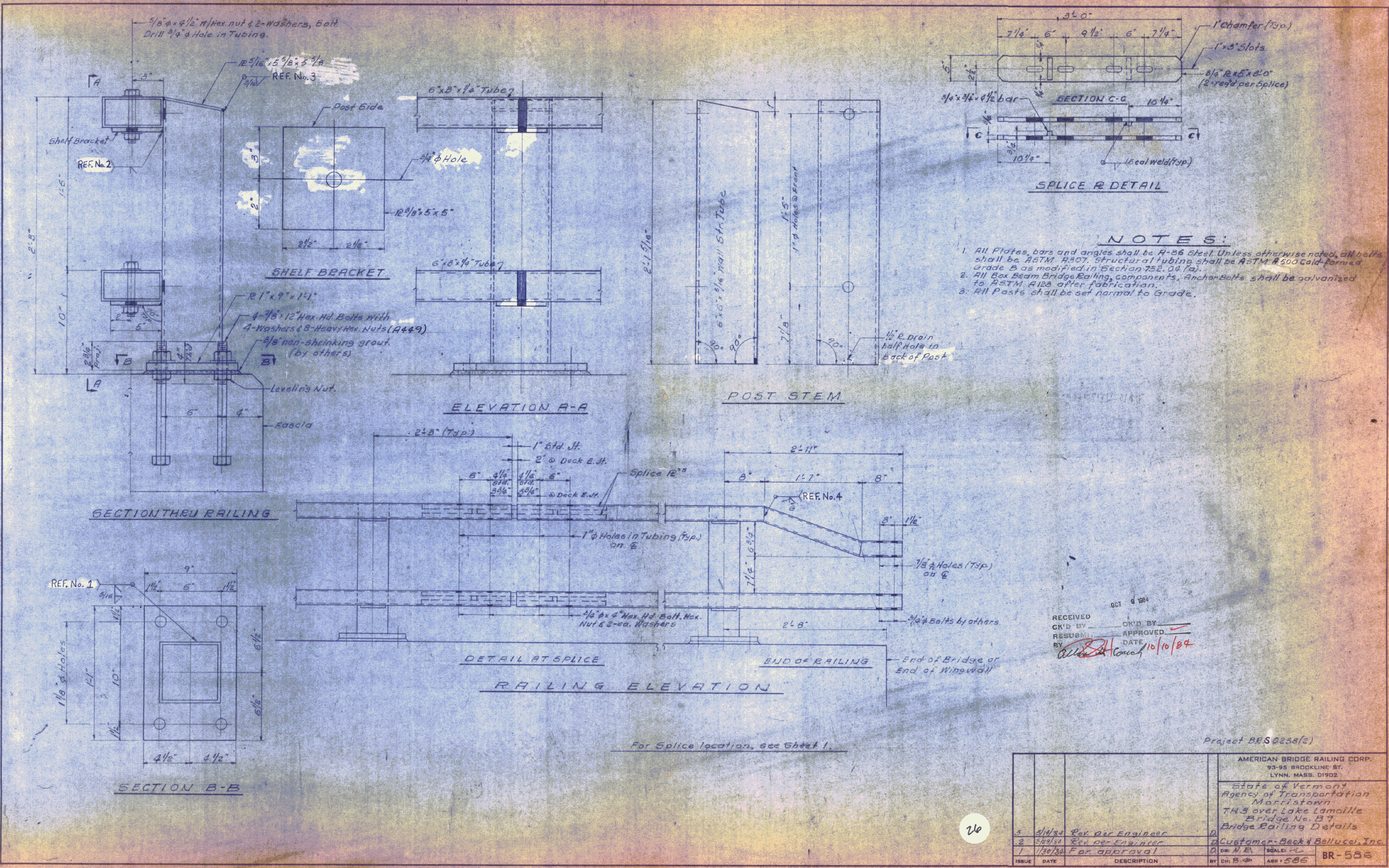
Customer: Beck & Bellucci, Inc.

DR: H.R. SCALE: ~
CH: B.M. ABR # -586

BR-586

sh. 2

25



NOTES:

1. All Plates, bars and angles shall be A-36 Steel. Unless otherwise noted, all bolts shall be ASTM A307. Structural tubing shall be ASTM A500 Cold-formed Grade B as modified in Section 732.04 (a).
2. All Box Beam Bridge Railing, components, Anchor Bolts shall be galvanized to ASTM A123 after fabrication.
3. All Posts shall be set normal to Grade.

Project BRS 0238(2)

ISSUE	DATE	DESCRIPTION	BY
3	5/14/84	Rev. per Engineer	D.
2	3/29/84	Rev. per Engineer	D.
1	1/30/84	For approval	D.

AMERICAN BRIDGE RAILING CORP.
93-95 BROOKLINE ST.
LYNN, MASS. 01902

State of Vermont
Agency of Transportation
Morristown
TH 3 over Lake Lamoille
Bridge No. B9
Bridge Railing Details
Customer - Beck & Bellucci, Inc.

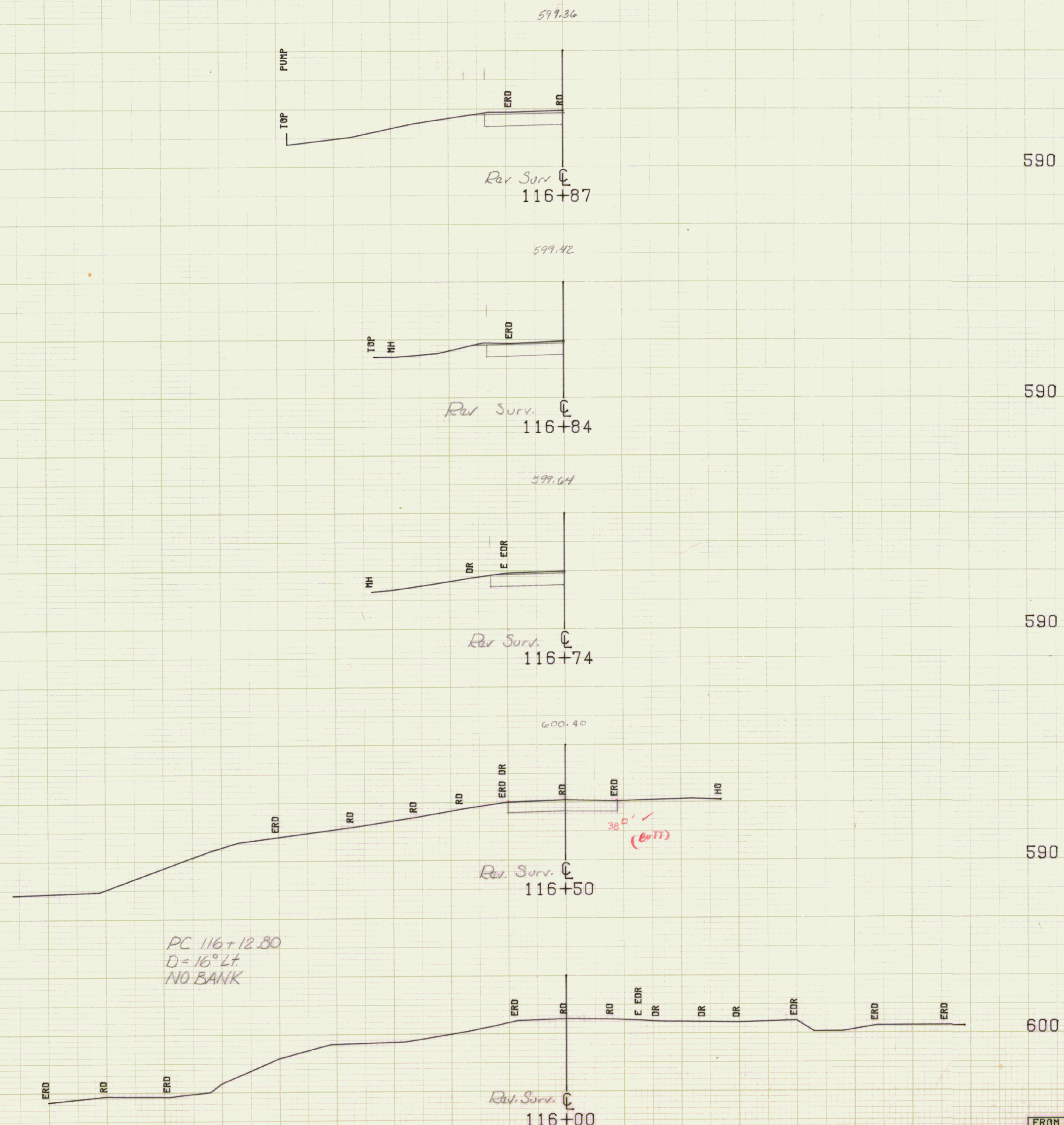
DR: H.E. SCALE: — CH: B. ABR: 586

BR-586

Sh. 3

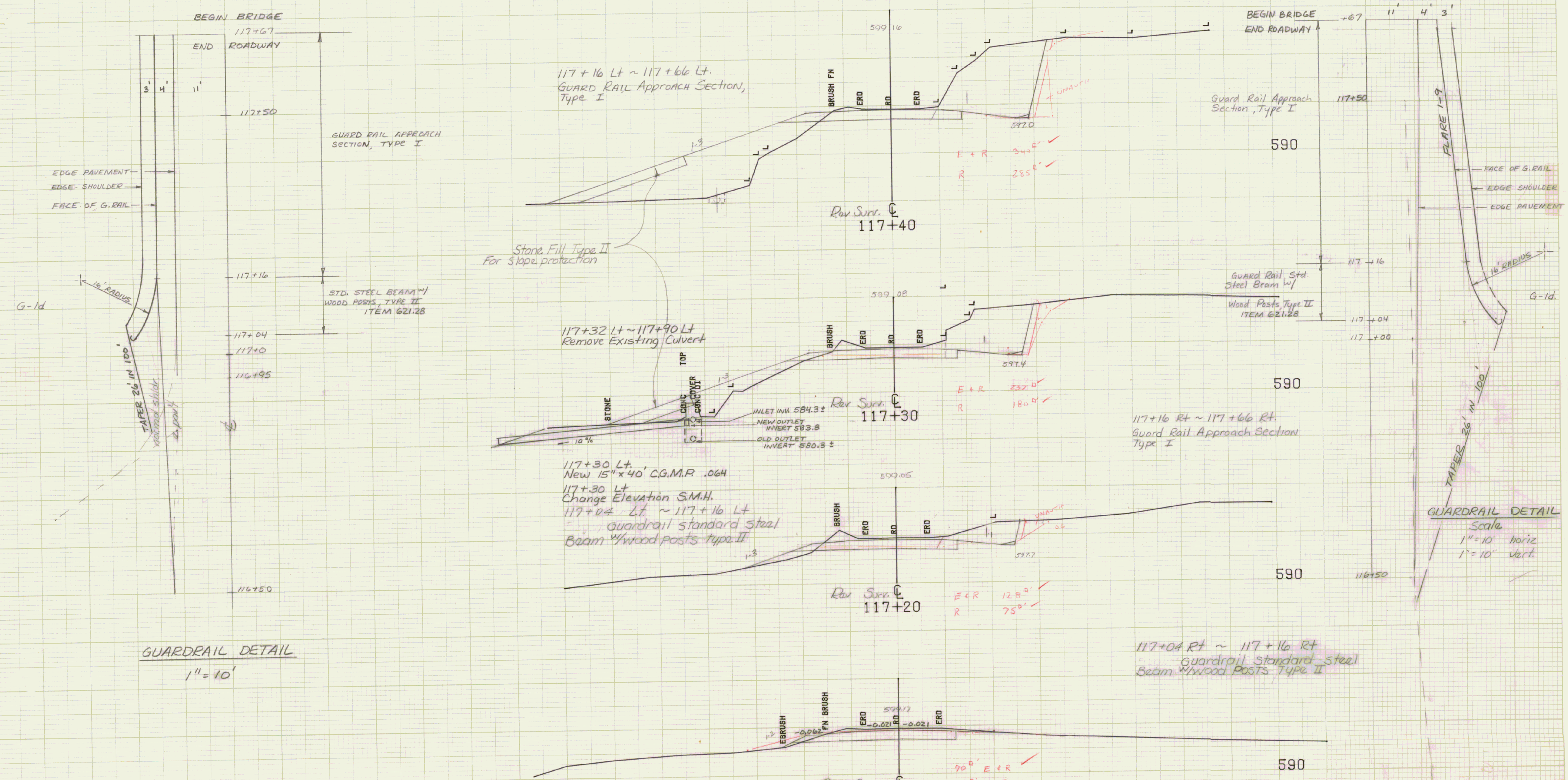
26

M



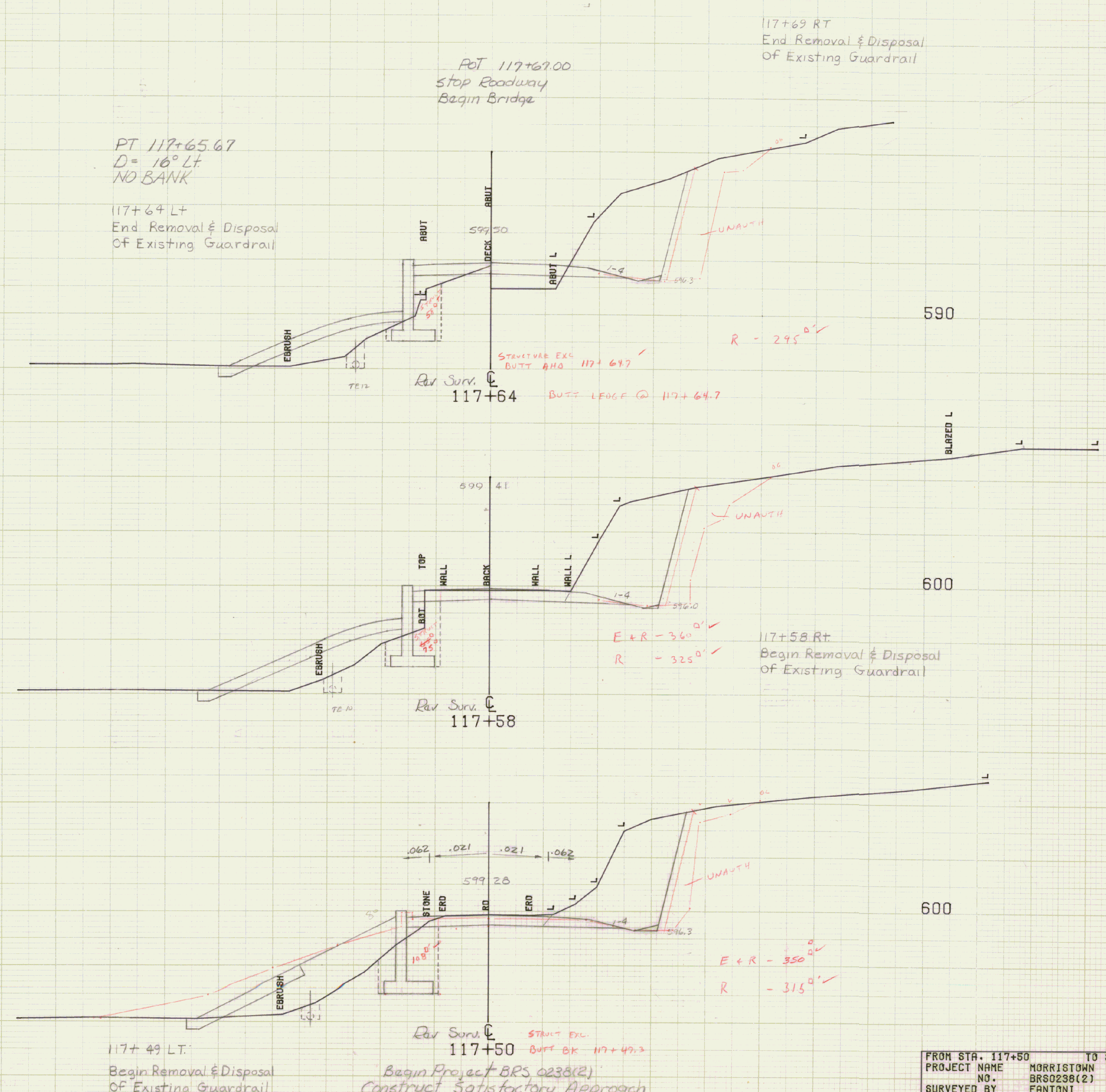
SCALE 10 FEET

FROM STA. 116+00	TO STA. 116+87
PROJECT NAME MORRISTOWN MAIN	
NO. BRS0238(2)	PLOTTED 08/20/81
SURVEYED BY FANTONI	AUGUST 1981
SHEET 64 OF 85 SHEETS	



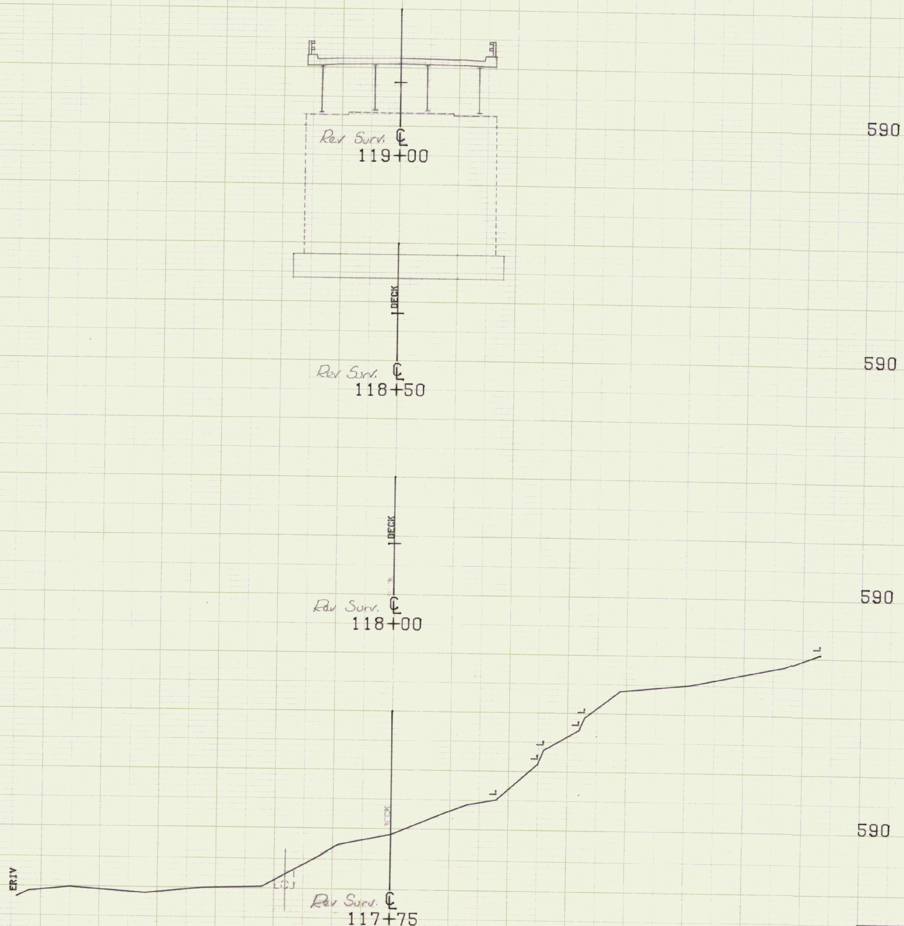
SCALE 10 FEET

FROM STA. 117+00 TO STA. 117+40
PROJECT NAME MORRISTOWN MAIN
NO. BRS0238(2) PLOTTED 08/20/81
SURVEYED BY FANTONI AUGUST 1981
SHEET 65 OF 85 SHEETS



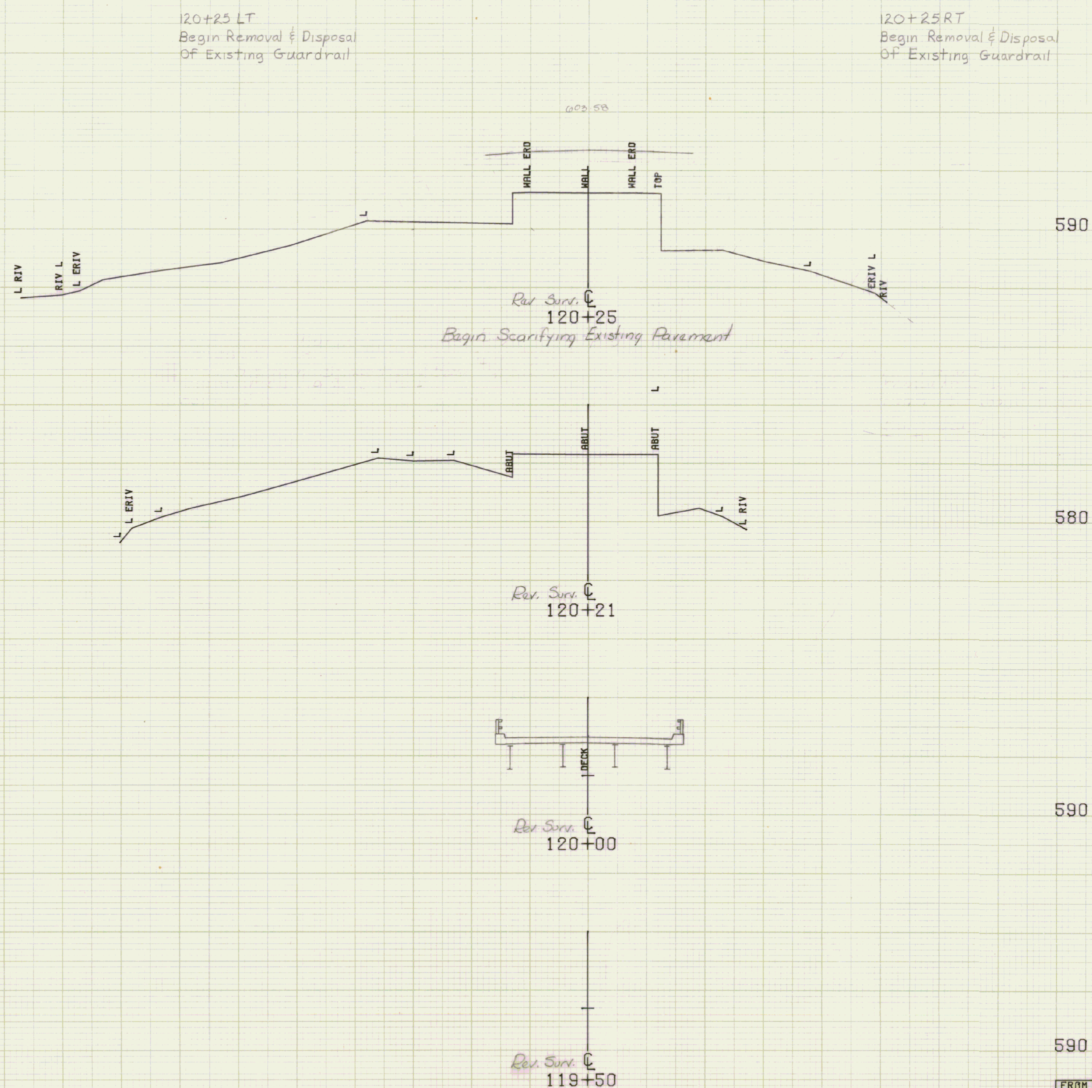
SCALE 10 FEET

FROM STA. 117+50	TO STA. 117+64
PROJECT NAME MORRISTOWN MAIN	
NO. BRS0238(2)	PLOTTED 08/20/81
SURVEYED BY FANTONI	AUGUST 1981
SHEET 66 OF 85 SHEETS	



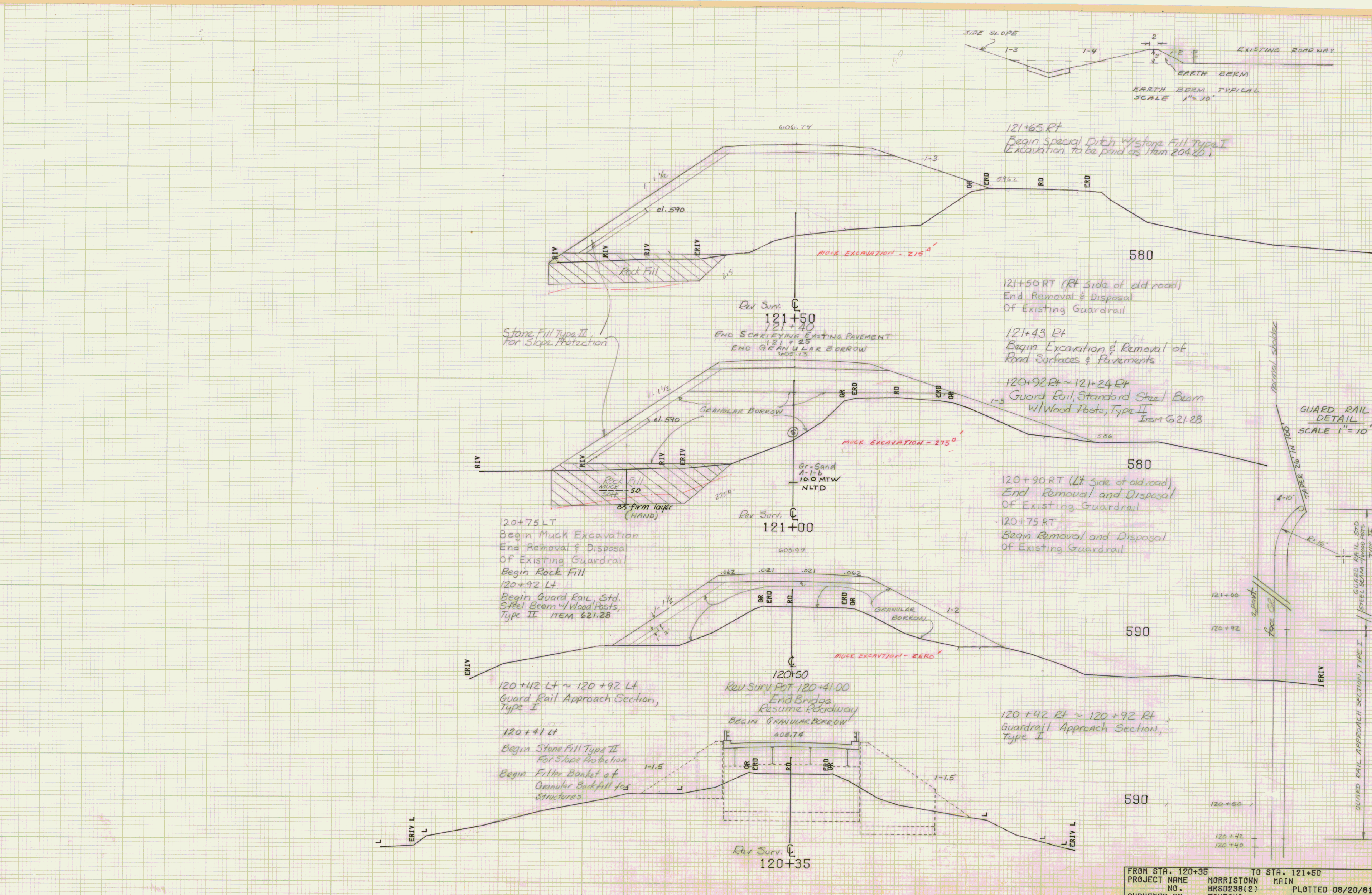
SCALE 10 FEET

FROM STA. 117+75		TO STA. 119+00
PROJECT NAME	MORRISTOWN	MAIN
NO.	BRS0238(2)	PLOTTED 08/20/81
SURVEYED BY	FANTONI	AUGUST 1981
SHEET 67 OF 85 SHEETS		



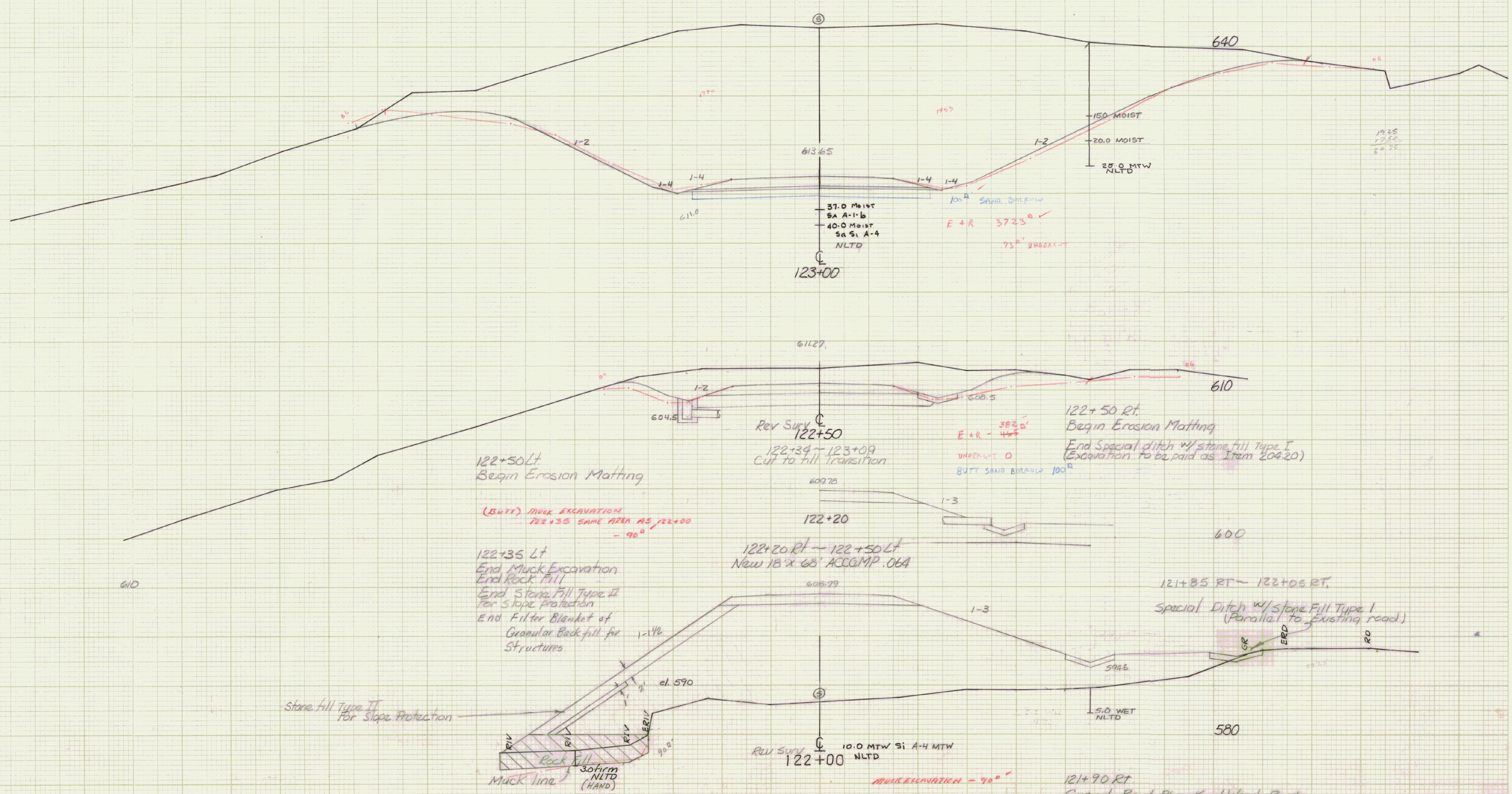
SCALE 10 FEET

FROM STA. 119+50 TO STA. 120+25
PROJECT NAME MORRISTOWN MAIN
NO. BRS0238(2) PLOTTED 08/20/81
SURVEYED BY FANTONI AUGUST 1981
SHEET 68 OF 85 SHEETS

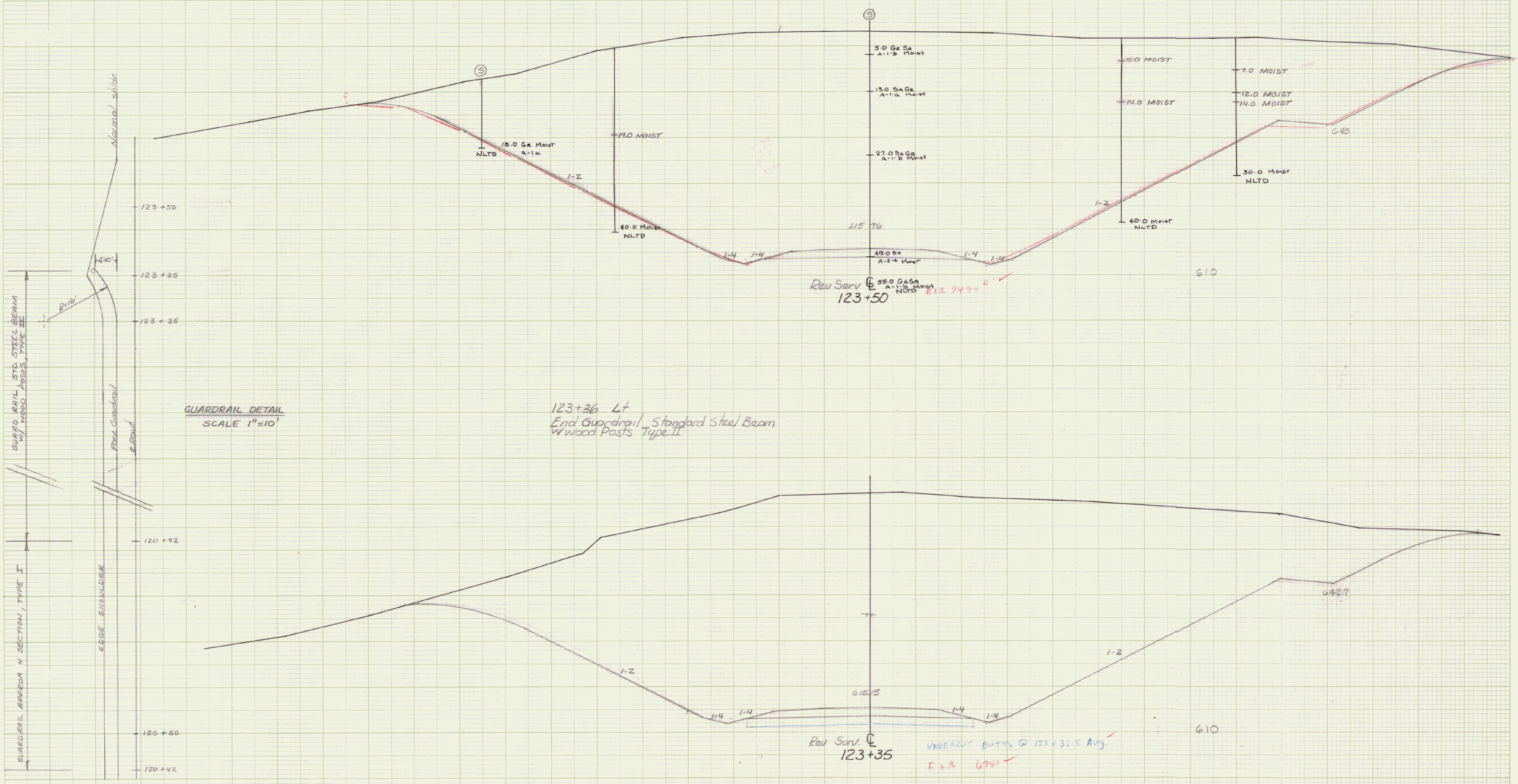


FROM STA. 120+35 TO STA. 121+50
PROJECT NAME MORRISTOWN MAIN
NO. BRS0238(2) PLOTTED 08/20/81
SURVEYED BY FANTONI AUGUST 1981
SHEET 69 OF 85 SHEETS

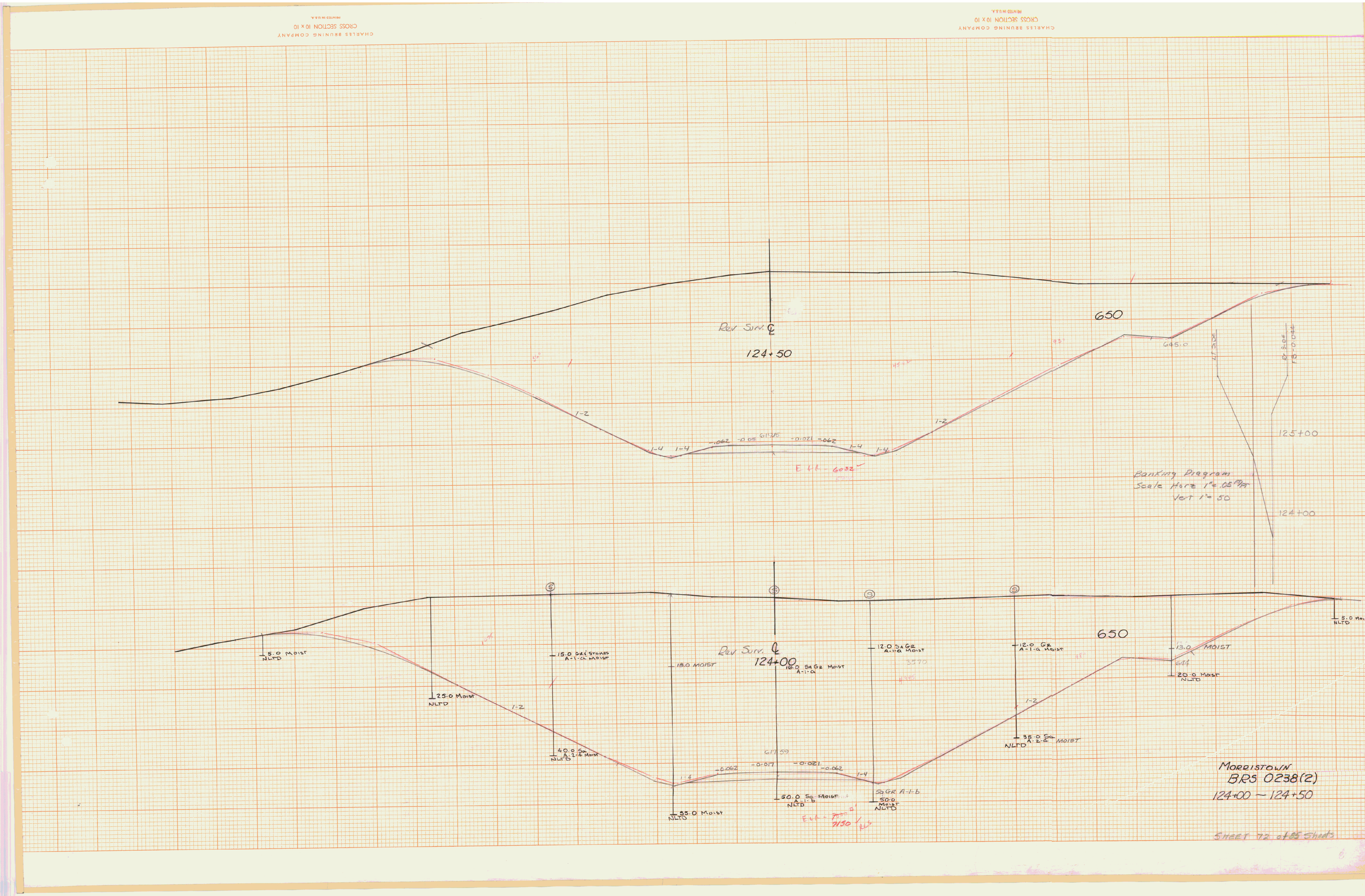
SCALE 10 FEET

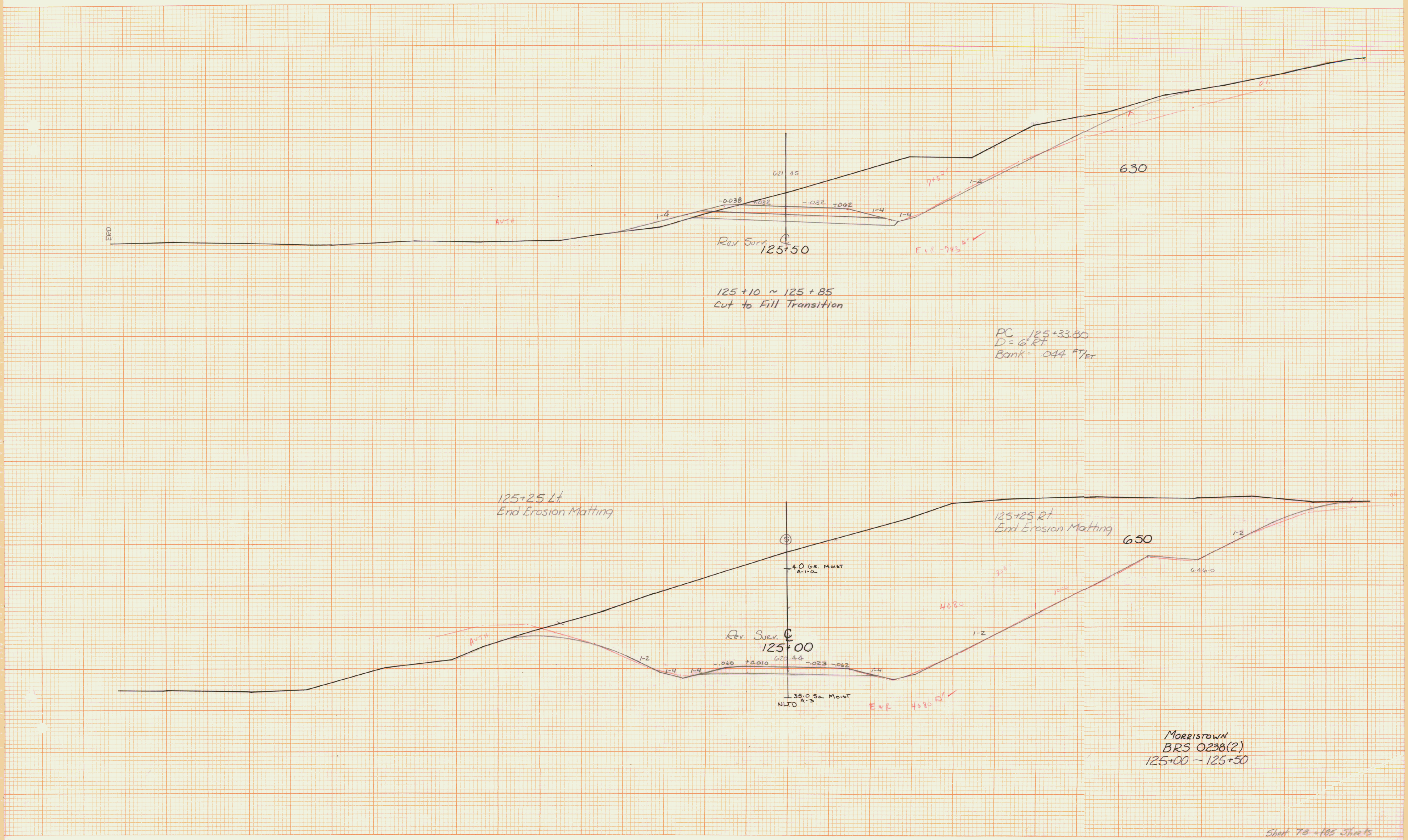


From Sta 122+00	to	123+00
	Morristown	
	BRS 0238(2)	
Surveyed by	Fantoni	
Sheet 70 OF 85	Sheets	

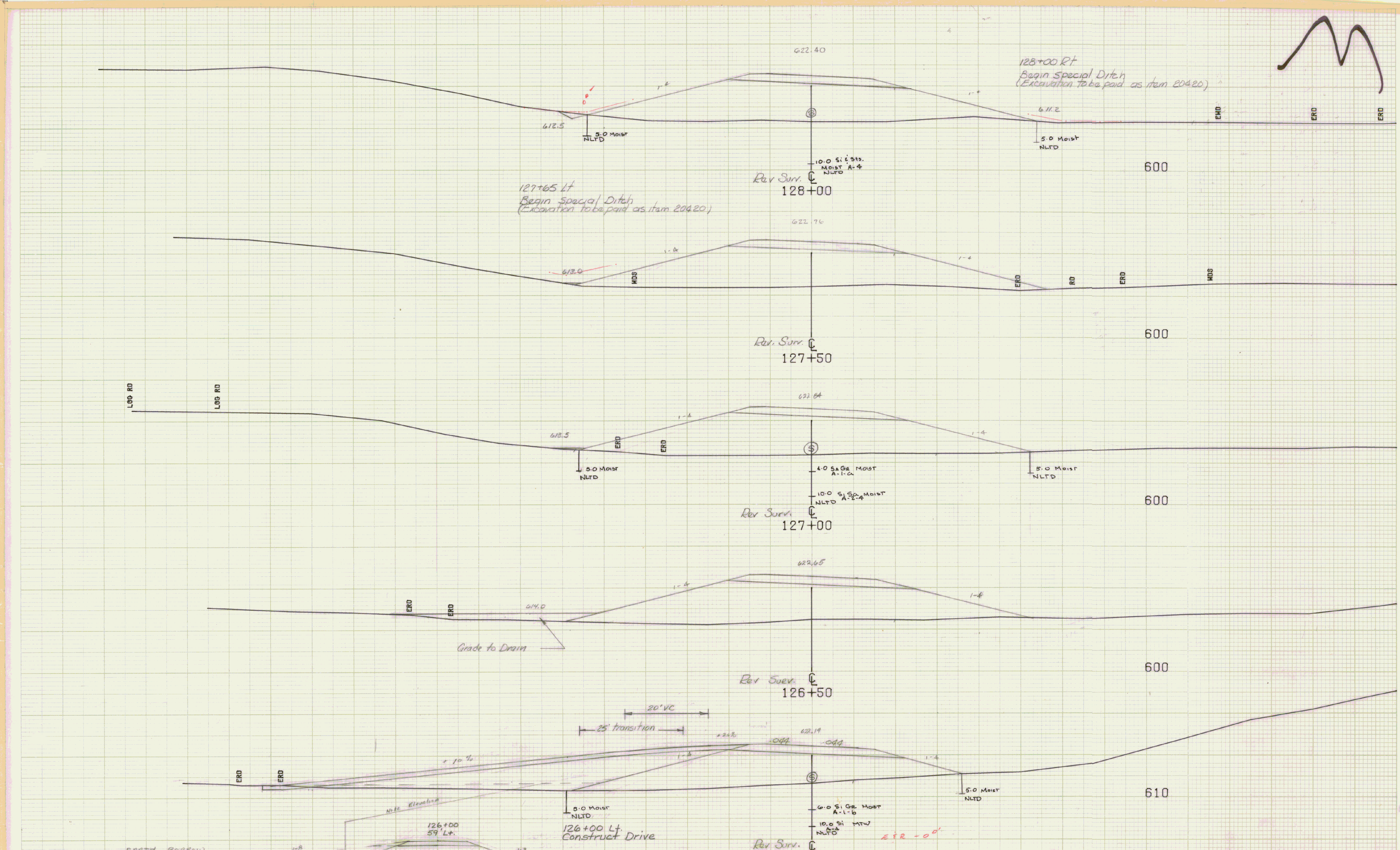


From Sta. 123+35 to 123+50
Morristown
BRS 0238(2)
Surveyed By Fantoni
Sheet 71 OF 85 Sheets


CHARLES BRUNING COMPANY
CROSS SECTION 10 x 10
Rev Surv. ℄
124+50
650
645.0
1-2
1-4
-.062
-0.021
125+00
124+00
Banking Diagram
Scale Horz 1" = .05 Ft/Ft
Vert 1" = 50
Rev Surv. ℄
124+00
650
5.0 Moist NLTD
25.0 Moist NLTD
15.0 Gr & Stones A-1-a Moist
40.0 Sa A-2-4 Moist NLTD
18.0 Moist
55.0 Moist NLTD
16.0 Sa Gr Moist A-1-a
50.0 Sa Moist A-1-b NLTD
12.0 Sa Gr A-1-a Moist
Sa Gr A-1-b 50.0 Moist NLTD
12.0 Gr A-1-a Moist
38.0 Sa A-2-4 Moist NLTD
13.0 Moist
20.0 Moist NLTD
5.0 Moist NLTD
MORRISTOWN
BRS 0238(2)
124+00 ~ 124+50
SHEET 72 of 85 Sheets

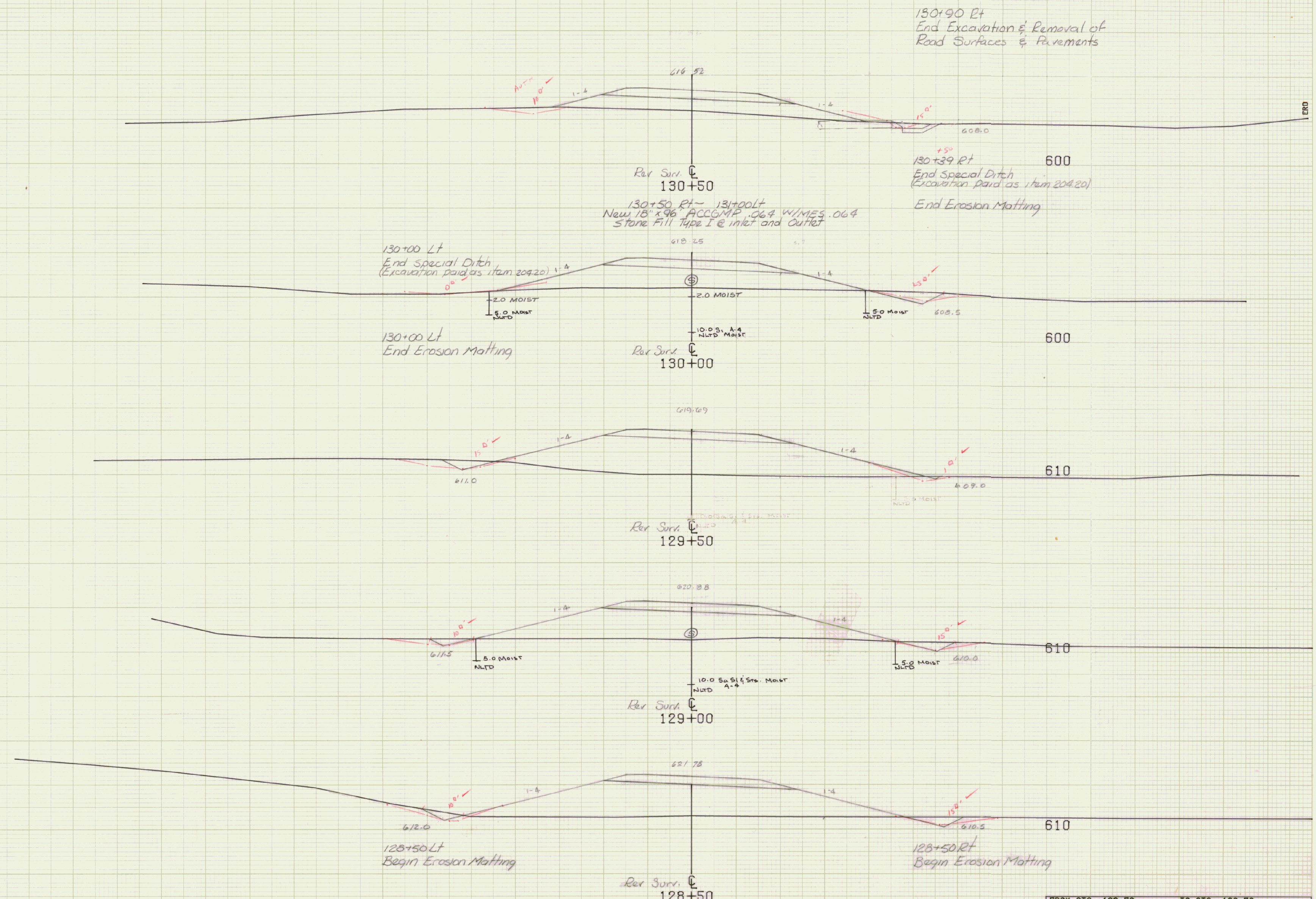


END
621.45
-0.038
-.032
-.032
-.062
1-4
1-4
1-4
1-2
AUTH
Rev Surv. ℄
125+50
630
125+10 ~ 125+85
Cut to Fill Transition
PC 125+33.80
D = 6° Rt
Bank = .044 Ft/Ft
125+25 Lt.
End Erosion Matting
125+25 Rt.
End Erosion Matting
650
4.0 Gr. Moist
A-1-a
1-2
1-2
1-2
1-4
1-4
-.060
+0.010
620.44
-.023
-.062
Rev. Surv. ℄
125+00
35.0 Sa. Moist
A-3
NLTO
Morristown
BRS 0238(2)
125+00 ~ 125+50
Sheet 73 of 185 Sheets



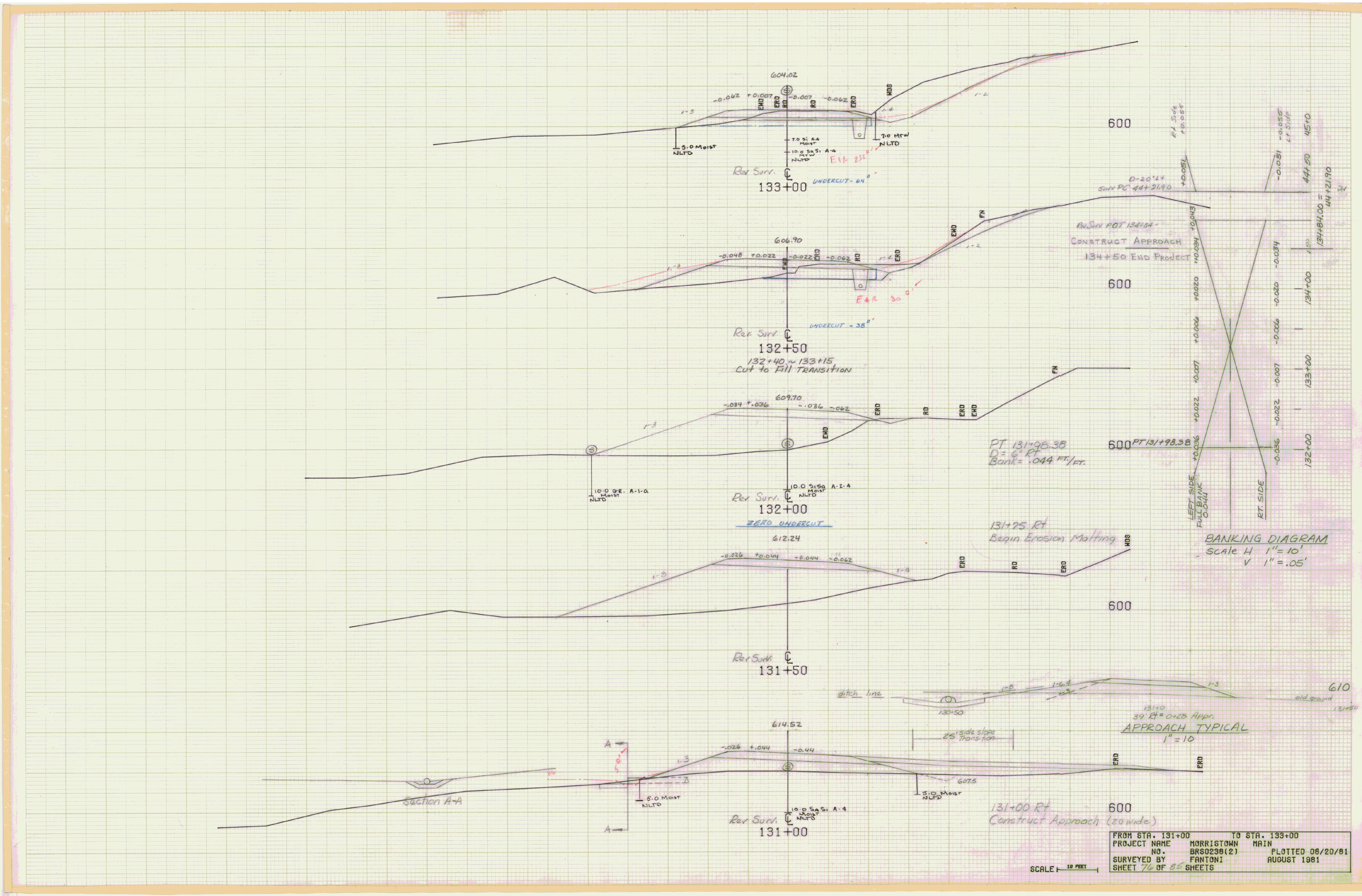
SCALE 10 FEET

FROM STA. 126+00 TO STA. 128+00
PROJECT NAME MORRISTOWN MAIN
NO. BRS0238(2) PLOTTED 08/20/81
SURVEYED BY FANTONI AUGUST 1981
SHEET 74 OF 85 SHEETS

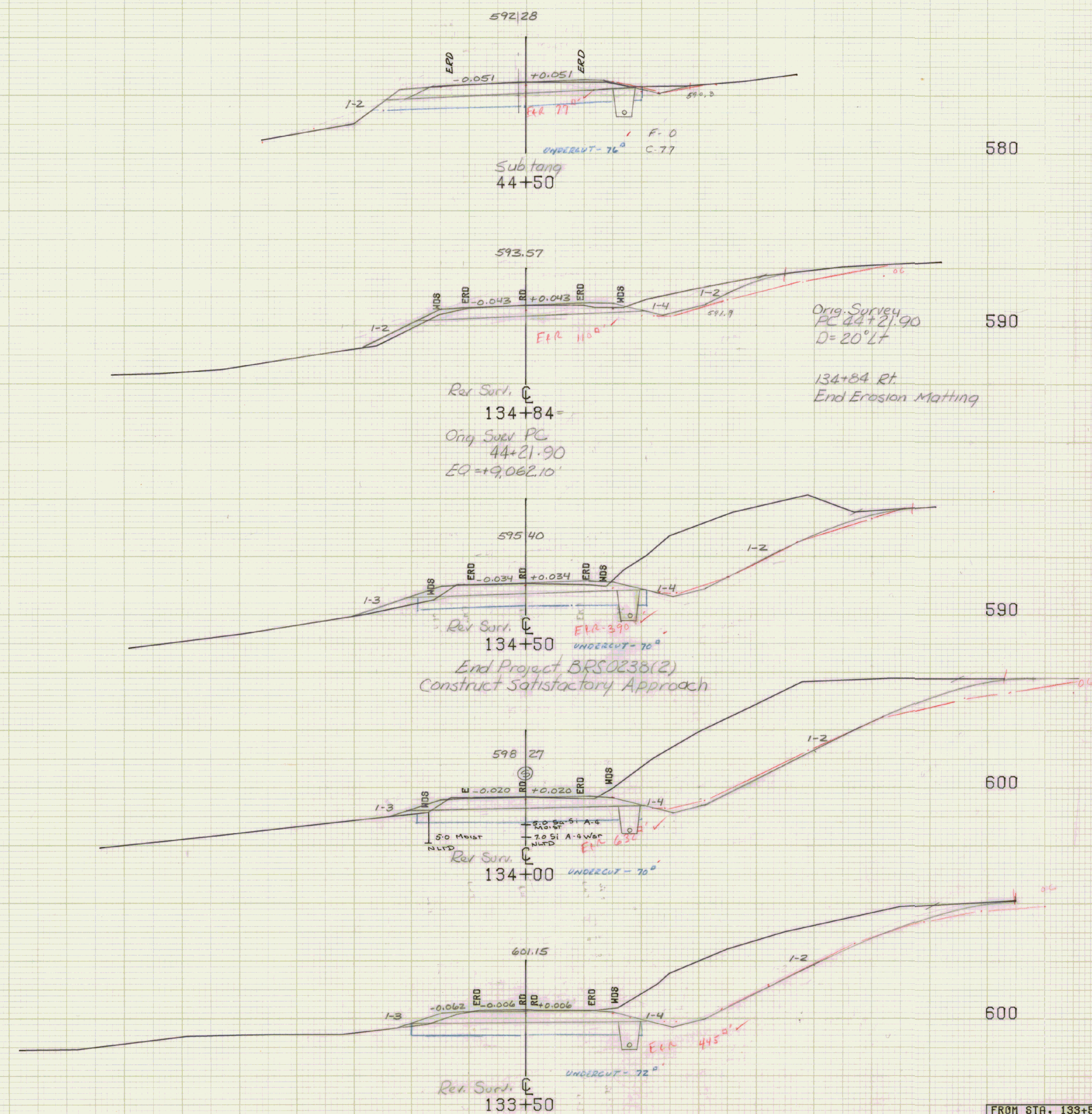


SCALE 10 FEET

FROM STA. 128+50 TO STA. 130+50
PROJECT NAME MORRISTOWN MAIN
NO. BRS0238(2) PLOTTED 08/20/81
SURVEYED BY FANTONI AUGUST 1981
SHEET 75 OF 85 SHEETS

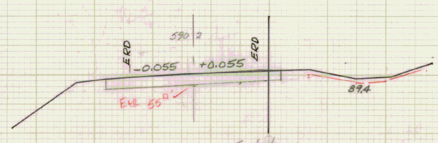


FROM STA. 131+00 TO STA. 133+00
PROJECT NAME MORRISTOWN MAIN
NO. BRS0238(2) PLOTTED 08/20/81
SURVEYED BY FANTONI AUGUST 1981
SHEET 76 OF 85 SHEETS



SCALE 10 FEET

FROM STA. 133+50 TO STA. 44+50
PROJECT NAME MORRISTOWN MAIN
NO. BRS0238(2) PLOTTED 08/20/81
SURVEYED BY FANTONI AUGUST 1981
SHEET 77 OF 85 SHEETS



Sub tang.
45+J0

ZERO UNDERCUT

Orig Survey
PT 45+99.40
D= 20° Lt.

590

SCALE 10 FEET

FROM STA. 45+00		TO STA. 45+00	
PROJECT NAME	MORRISTOWN	MAIN	
NO.	BRS0238(2)		PLOTTED 08/20/81
SURVEYED BY	FANTONI		AUGUST 1981
SHEET 78 OF 85 SHEETS			

FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

BEGIN APP

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	TRENCH EARTH AREA	TRENCH EARTH CU. YDS.	TRENCH RT AREA	TRENCH RT CU. YDS.	SAND BORROW AREA	SAND BORROW CU. YDS.	CUT TO FILL AREA	CUT TO FILL CU. YDS.	AREA	CU. YDS.
116+50		38													
	50		100.0												
117+00		70		0											
	20		73.3		27.8										
+20		128		25											
	10		67.6		47.2										
+30		237		180											
	10		106.9		86.1										
+40		340		285											
	10		127.8		111.1										
+50		350		315											
	8		105.2		94.8										
+58		360		325											
	6.7		81.3		76.9										
Butt +64.7		295		295											
				TOTAL	443.9 9-6-84 DWH										
122+00		0	353.7												
+34	50	382 ~~465~~	~~430.6~~												
+50			3800.9												
	50		~~3877.7~~												
123+00		3723													
	35		6788.1	C	50027.3 ~~[illegible]~~										
+35		6750	3956.7												
	15		~~3943.8~~												
+50		7494	13559.3												
		7150 ~~7010~~	~~13420.4~~												
124+00			12205.6 ~~12066.7~~												
+50		6032													
			9363.0												
125+00		4080													
			4466.7												
+50		743													
			688.0		C 5154										
126+00		0													
55043															
128+00						0		0							
	50						9.3		13.9						
+50						10		15							
	50						18.5		27.8						
129+00						10		15							
	50						23.1		14.8						
+50						15		1							
	50						13.9		24.1						
130+00						0		25							
	50						9.3		37.0						
+50						10		15 BUTT							
							13.9								
131+00						5 BUTT									
						TOTAL	88.4		117.6						
							7-10-84 DWH		7-10-84 DWH						
132+00		0								0					
	50		27.8								35.2				
+50		30								38					
	50		242.6								94.4				
133+00		232								64					
	50		626.9								125.9				
+50		445			C 2841					72					
	50		997.2								131.5				
134+00		632								70					
	50		946.3								129.6				
+50		390								70					
	34		314.8												
+84 = 44+21.9		110									167.9				
	28.1		97.3		C 534										
44+50		77								76					
	50		122.2								70.4				
45+00 BUTT		55								0					
58418									TOTAL SAND BORROW	=	754.9	9-4-84 DWH			
CARRIED FORWARD															
COLUMN TOTAL															

END APP

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	CU. YDS.	ROCK AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
CARRIED FORWARD															
COLUMN TOTAL															

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	CU. YDS.	ROCK AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.

79

FINAL EARTHWORK SUMMARY

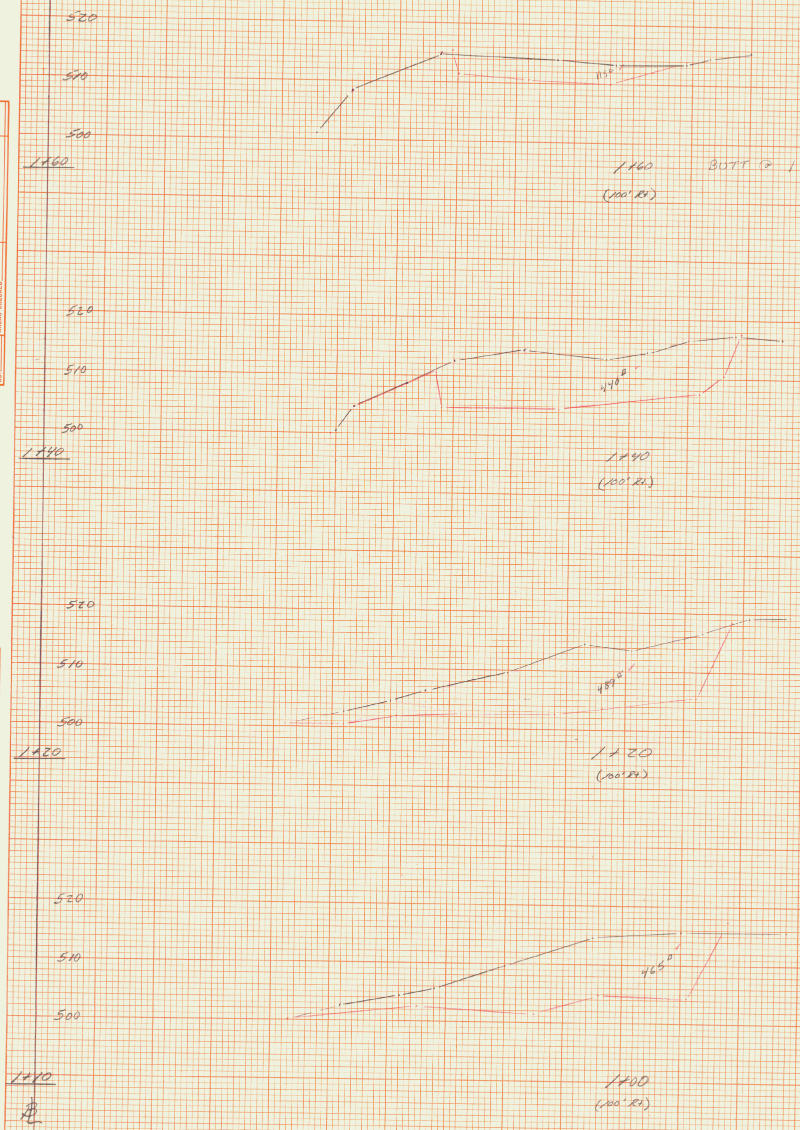
		BEGIN APP / END APP	TOTAL EXCAVATION			ROCK			EARTH					
STATIONS			DESIGN	FINAL	DIFF.	DESIGN	FINAL	DIFF.	DESIGN	FINAL	DIFF.	DESIGN	FINAL	DIFF.
116+50	117+50	BEGIN APP	457	476	+ 19	246	272	+ 26	Beg. App	204	Fwd to B1 P32			
117+50	117+64.7		205	187	− 18	180	172	− 8						
120+00	125+00		50185	50027 ~~49889~~	~~−296~~ 158									
125+00	130+00		5208	5154	− 54	Total	444	FWD to B1 P33						
130+00	134+50		2963	2841	− 122									
134+50	45+00	END APP	537	534	− 3				END App	534	FWD to B1 P32			
				59,219										

COMMON EXCAVATION ITEM 203.15		
EARTH & ROCK	59219 ~~59081~~	
ROCK INCLUD. DEDUCT. BOULDERS	444	
EARTH	58775 ~~58637~~	
− App	738 ~~1010~~	
Roadway TOTAL	~~57627~~ 58037	FWD to Book 1 pg 37
PROJECT TOTAL		
TO SUMMARY BOOK ___ PAGE ___		

SOLID ROCK EXCAVATION ITEM 203.16		
SOLID ROCK		
DEDUCTIBLE BOULDERS		
NON DEDUCTIBLE BOULDERS		
OVERBREAKAGE		
PROJECT TOTAL		
TO SUMMARY BOOK ___ PAGE ___		

PROJ___________ NO___________

MORRISTOWN BRS 0238(2)
GODFREY ROCK BORROW PIT
(SECTIONS)



QUANTITIES COMPUTED BOOK #1 PAGE #48

RLS 6-25-84

PLOTTED 6-20-84 DWH

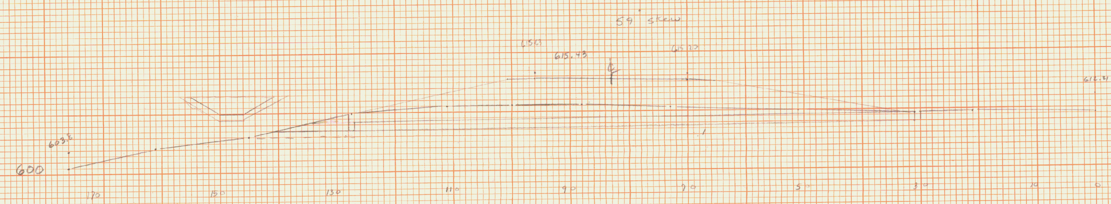
80

FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE

0+80

ROCK BORROW PIT SH. #1/1

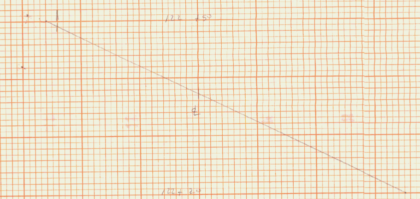


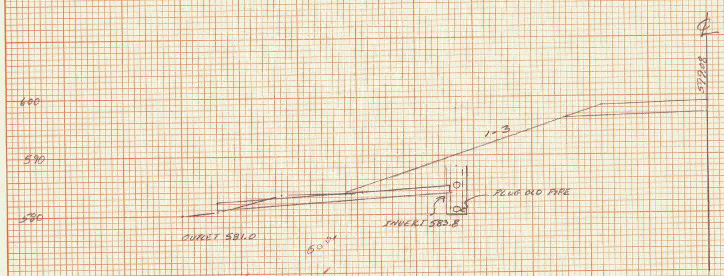
130 + 78
59° ASKEW LT
NEW 18" X 96' ACCGMP (.064)

T.E. PIPE 3.6 × 290 × 1/27 = 38.7
OUT DITCH (4 + 0)/2 × 13 × 1/27 = 10.6
49.3 CY

BOOK #1 P. 109

✓ 7-10-84 DWH



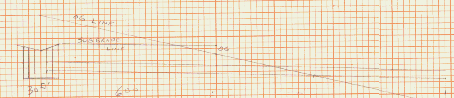


T.E. 3.3 × 50 × 1/27 = 6.1 CY

✓ 7-10-84 DWH

BK. #1 P. 111

117+30 (Lt.)
NEW 15" X 40' CGMP (.064)



122+50 122+30 RT
NEW 18" X 68' ACCGMP (.064)

T.E. PIPE CUT	150 × 3.6	× 1/27 =	20.0 CY
FILL	23 × .004	=	0.1
DI	30 × 6	× 1/27 =	6.7
		TOTAL	26.8 CY

BK. #1 P. 109

✓ 7-10-84 DWH

81

MORRISTOWN BRS 0238(2)
DRAINAGE SHEET #1

ORIGINAL SURVEY		
NO.		BY	DATE
SURVEYED		
NOTE BOOK		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

FINAL SURVEY		
NO.		BY	DATE
SURVEYED		
NOTE BOOK		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

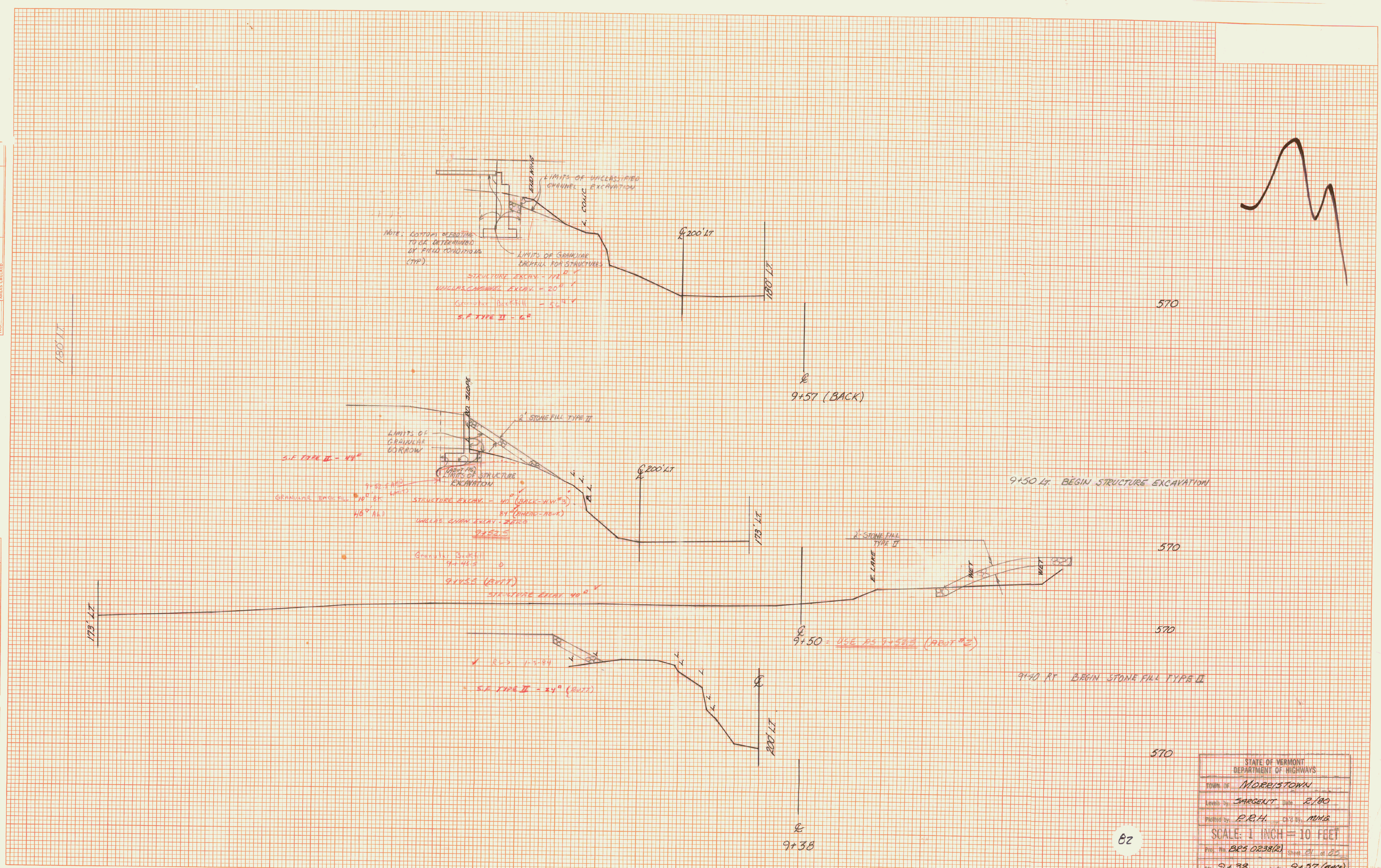
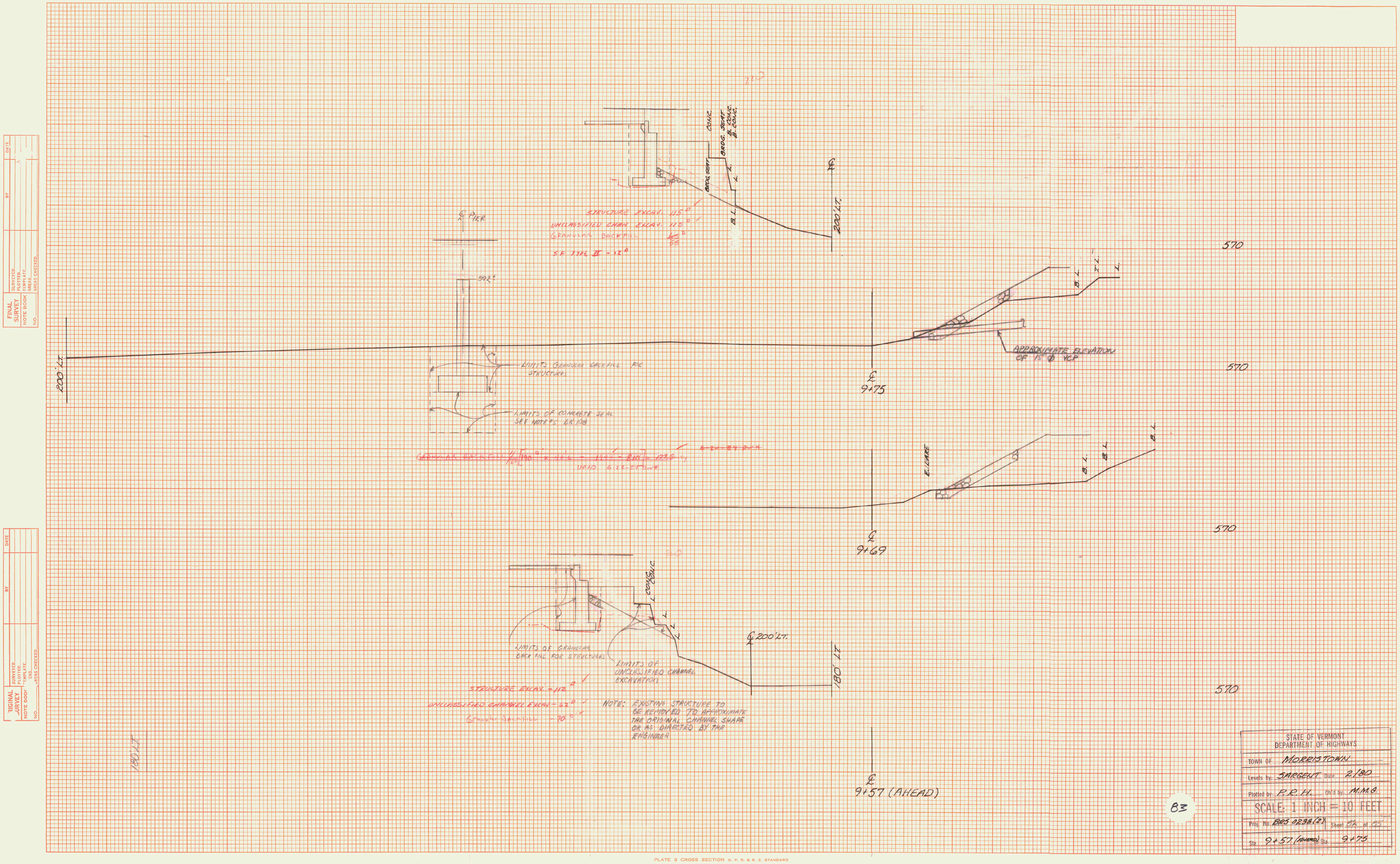
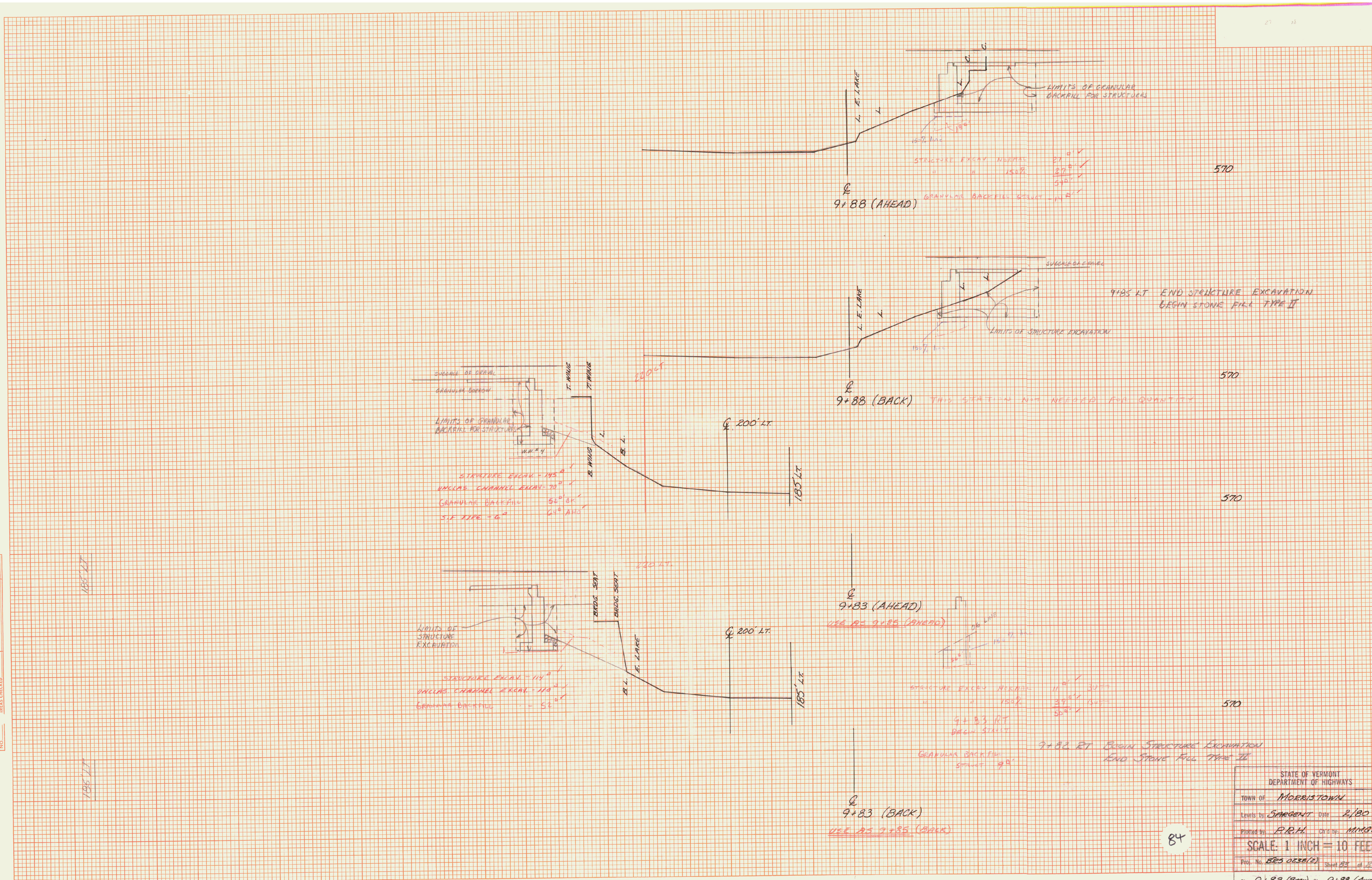


PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION



BRDG. SEAT
B. CONC.
CONC.
L
B.L.
200' LT.
STRUCTURE EXCAV. 115
UNCLASSIFIED CHAN. EXCAV. 115
GRANULAR BACKFILL 55
SF TYPE II - 12
℄ PIER
592±
200' LT.
LIMITS GRANULAR BACKFILL FOR STRUCTURES
LIMITS OF CONCRETE SEAL SEE NOTE #5 BR 108
℄ 9+75
APPROXIMATE ELEVATION OF 15" Ø VCP
570
VOID 6-28-83
E. LARE
℄ 9+69
LIMITS OF GRANULAR BACK FILL FOR STRUCTURES
LIMITS OF UNCLASSIFIED CHANNEL EXCAVATION
℄ 200' LT.
180' LT.
STRUCTURE EXCAV. - 112
UNCLASSIFIED CHANNEL EXCAV. - 62
GRANULAR BACKFILL - 70
NOTE: EXISTING STRUCTURE TO BE REMOVED TO APPROXIMATE THE ORIGINAL CHANNEL SHAPE OR AS DIRECTED BY THE ENGINEER
℄ 9+57 (AHEAD)
180' LT.
B3
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
TOWN OF MORRISTOWN
Levels by: SARGENT Date 2/80
Plotted by: P.R.H. Ch'd by: M.M.G.
SCALE: 1 INCH = 10 FEET
Proj. No. BRS 0238(2) Sheet 82 of 85
Sta. 9+57 (AHEAD) to Sta. 9+75
FINAL SURVEY
ORIGINAL SURVEY
PLATE 3 CROSS SECTION D. P. R. & R. E. STANDARD
DIETZGEN CORPORATION



STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF MORRISTOWN

Levels by: SARGENT Date 2/80

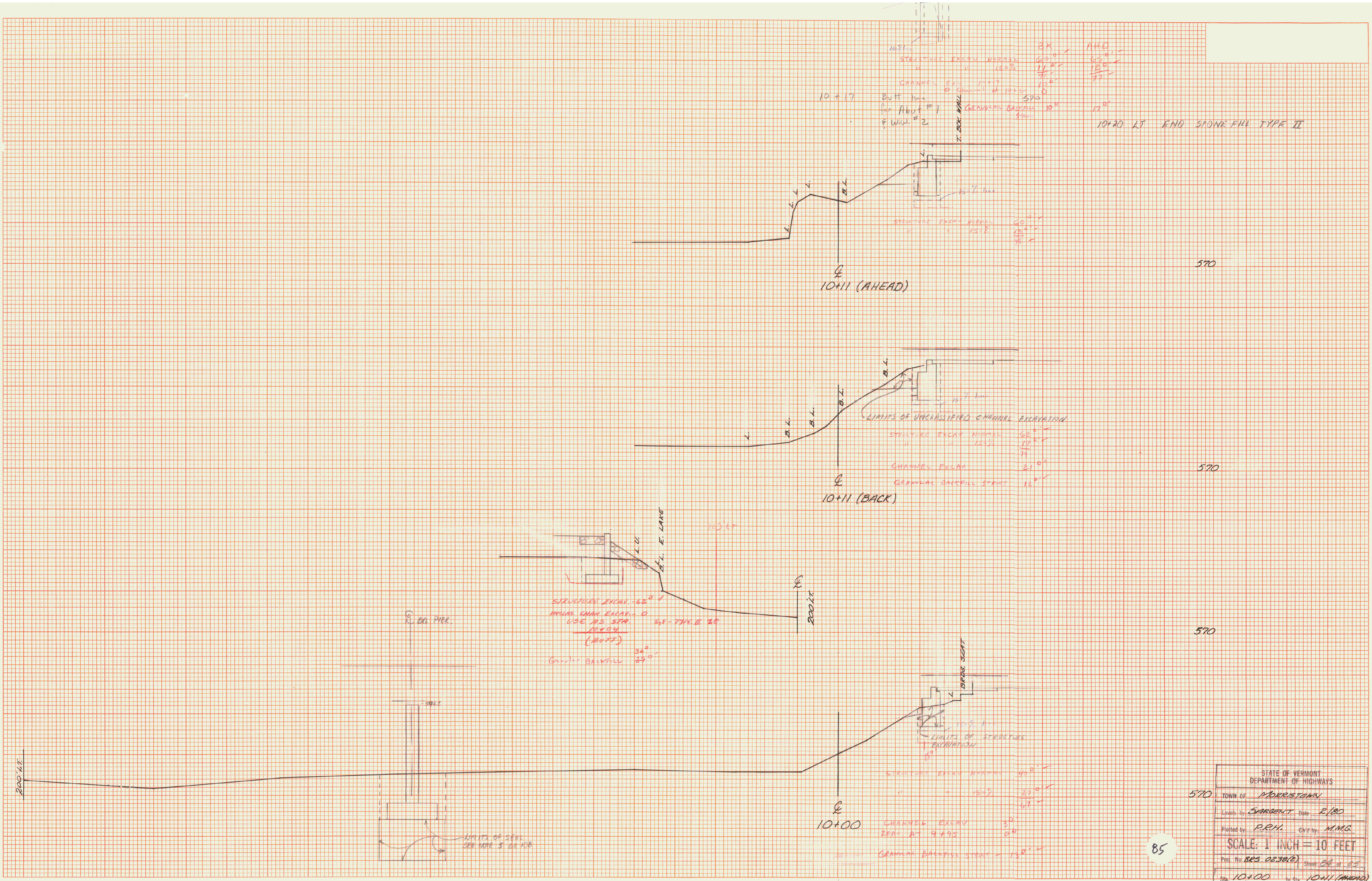
Plotted by: P.R.H. Ch'd by: M.M.G.

SCALE: 1 INCH = 10 FEET

Proj. No. BRS 0238(2) Sheet 83 of 85

Sta. 9+83 (BACK) to Sta. 9+88 (AHEAD)

PLATE 3 CROSS SECTION
DIETZGEN CORPORATION



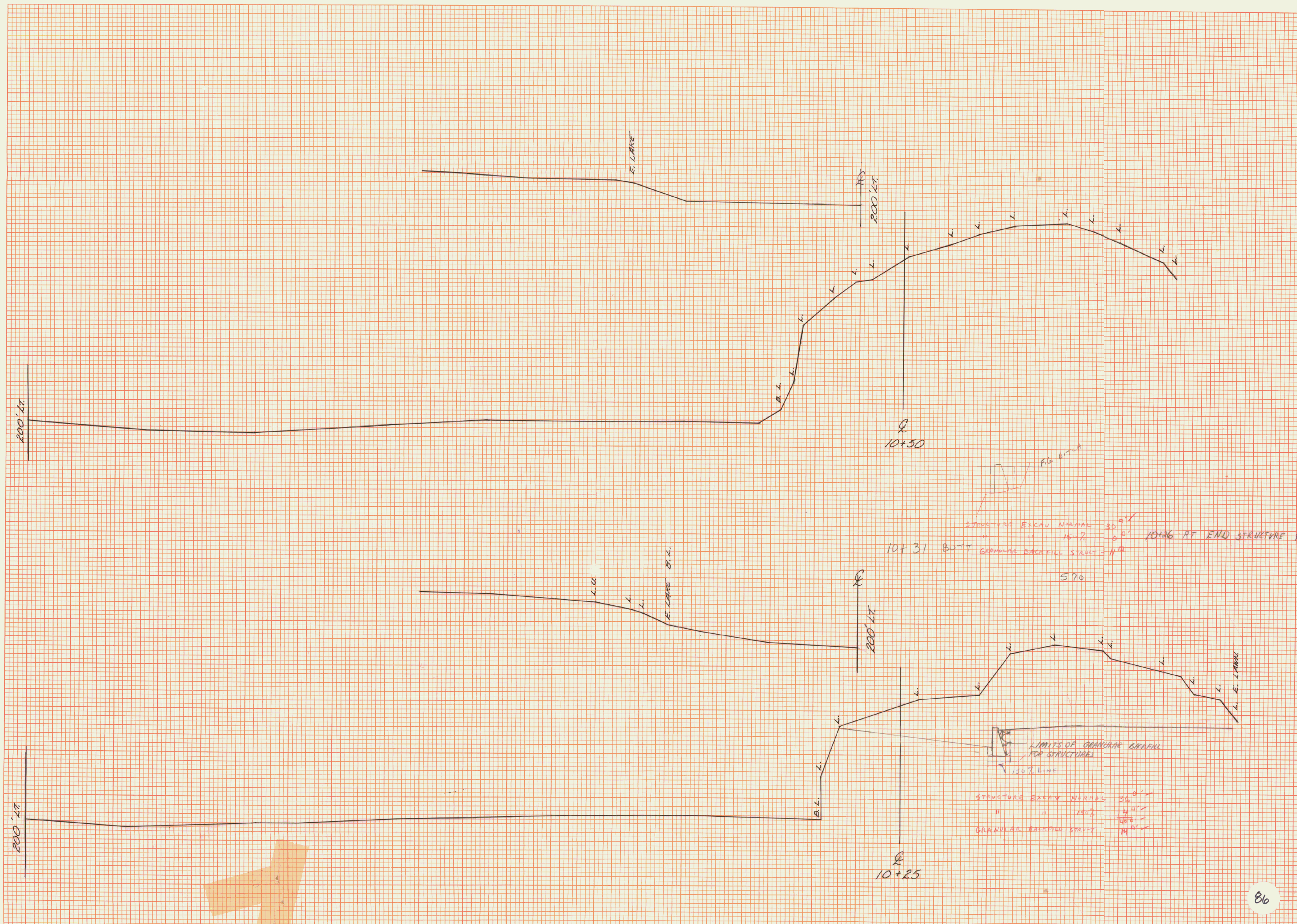
FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | MEAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | MEAS | AREAS CHECKED | BY | DATE

1125

PLATE 3 CROSS SECTION U. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

5



FINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF MORRISTOWN

Levels by: SARGENT Date 2/80

Plotted by: P.R.H. Ch'd by: MMG

SCALE: 1 INCH = 10 FEET

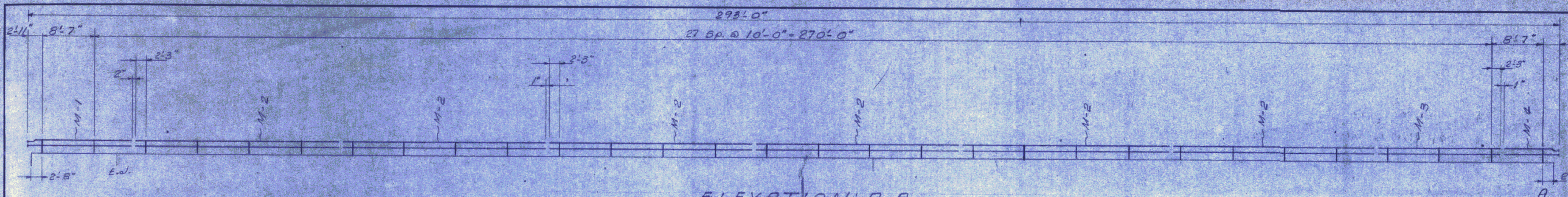
Proj. No. BRS 0238(2) Sheet 85 of 85

Sta. 10+25 to Sta. 10+50

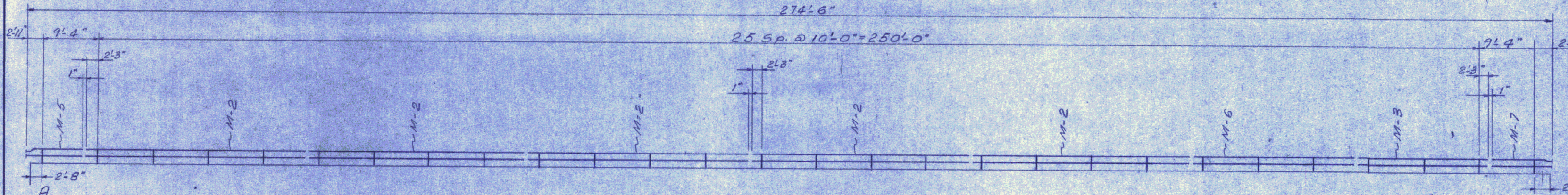
86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

6

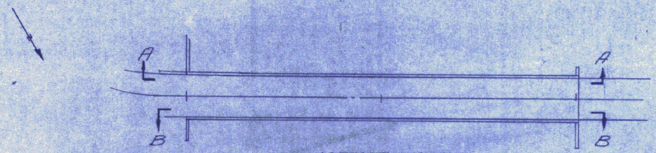


ELEVATION A-A

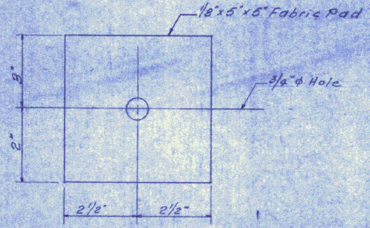


ELEVATION B-B

BILL OF MATERIAL	
ABR-586	BR-586
58	6"x6"x5/16" Tube x 2'-2" lg.
58	PL 1"x9"x1'-1"
58	PL 5/16"x5 3/8"x5 3/8"
116	PL 3/8"x5"x5"
116	5/8"ϕ x 4 1/2" Hex. Hd. Bolt, 1-nut & 2-ea. wash.
32	Splice Assemblies w/3/4"ϕ x 4" Bolts
58	Anchor Bolt Assemblies
2	6"x3"x1/4" Tube x 19'-7" lg. (M-1)
22	" x 40'-0" lg. (M-2)
2	" x 25'-0" lg. (M-3)
2	" x 10'-0" lg. (M-4)
2	" x 10'-6" lg. (M-5)
2	" x 30'-0" lg. (M-6)
2	" x 11'-0" lg. (M-7)
6	1/8"x5"x5" Fabric Pad

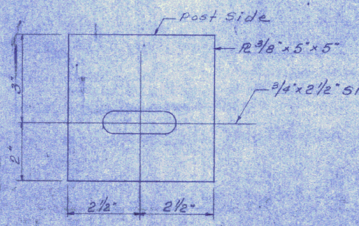


KEY PLAN



PAD DETAIL

At Shelf Bracket under Rail, Post A only, See Elev. A-A & B-B
6-Req'd



SHELF BRACKET

Post "A" only
6-Req'd

OCT 9 1984

RECEIVED
CK'D BY ______ OK'D BY ______
RESUBMIT ______ APPROVED ✓
BY ______ DATE 10/10/84

87

Project BRS 0238(2)

ISSUE	DATE	DESCRIPTION	BY
3	5/14/84	Rev. per Engineer	D.
2	3/29/84	Rev per Engineer	D.
1	1/30/84	For approval	D.

AMERICAN BRIDGE RAILING CORP.
93-95 BROOKLINE ST.
LYNN, MASS. 01902

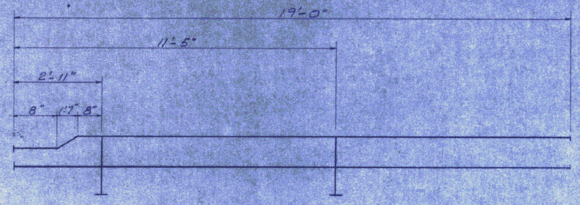
State of Vermont
Agency of Transportation
Morristown
TH 3 over Lake Lamoille
Bridge No. 89
Bridge Railing Details

Customer - Beck & Bellucci, Inc.

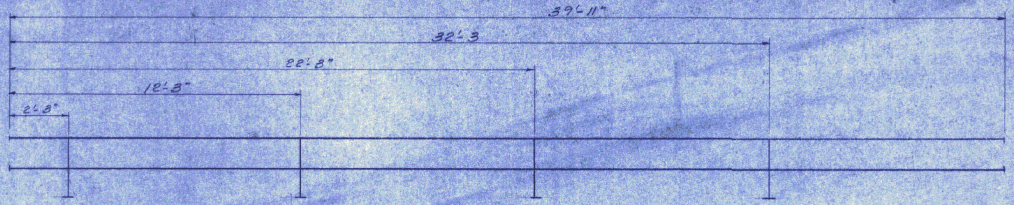
DR: H.R. SCALE: ~
CH: B.M. ABR # 586

BR-586

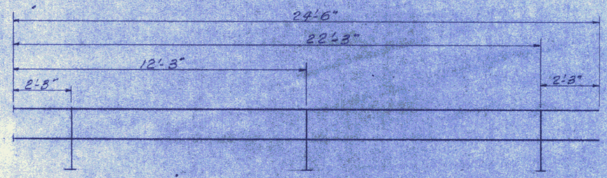
Sh. 1



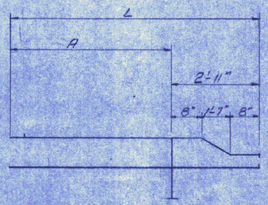
M-1
1-Req'd



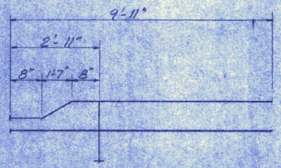
M-2
11-Req'd



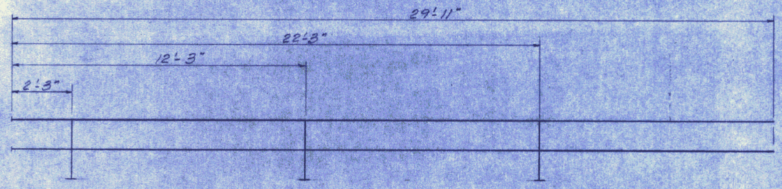
M-3
1-Req'd



MK	Quan.	A	L
M-4	1	6'-3"	9'-2"
M-7	1	7'-0"	9'-11"



M-5
1-Req'd



M-6
1-Req'd

RECEIVED OCT 9 1984
CK'D BY ________ OK'D BY ________
RESUBMIT ________ APPROVED ________
BY DATE
Alton H. Couch 10/10/84

1. All Tubing shall be 6" x 3" x 1/4" Wall.
2. Posts shown for ℄ location of 3/4" ϕ Hole in Tubing.
3. Tubes shall be drilled in field.

Project BRS 0238 (2)

ISSUE	DATE	DESCRIPTION	BY
2	3/29/84	Rev. per Engineer	D.
1	1/30/84	For approval	D.

AMERICAN BRIDGE RAILING CORP.
93-95 BROOKLINE ST.
LYNN, MASS. 01902

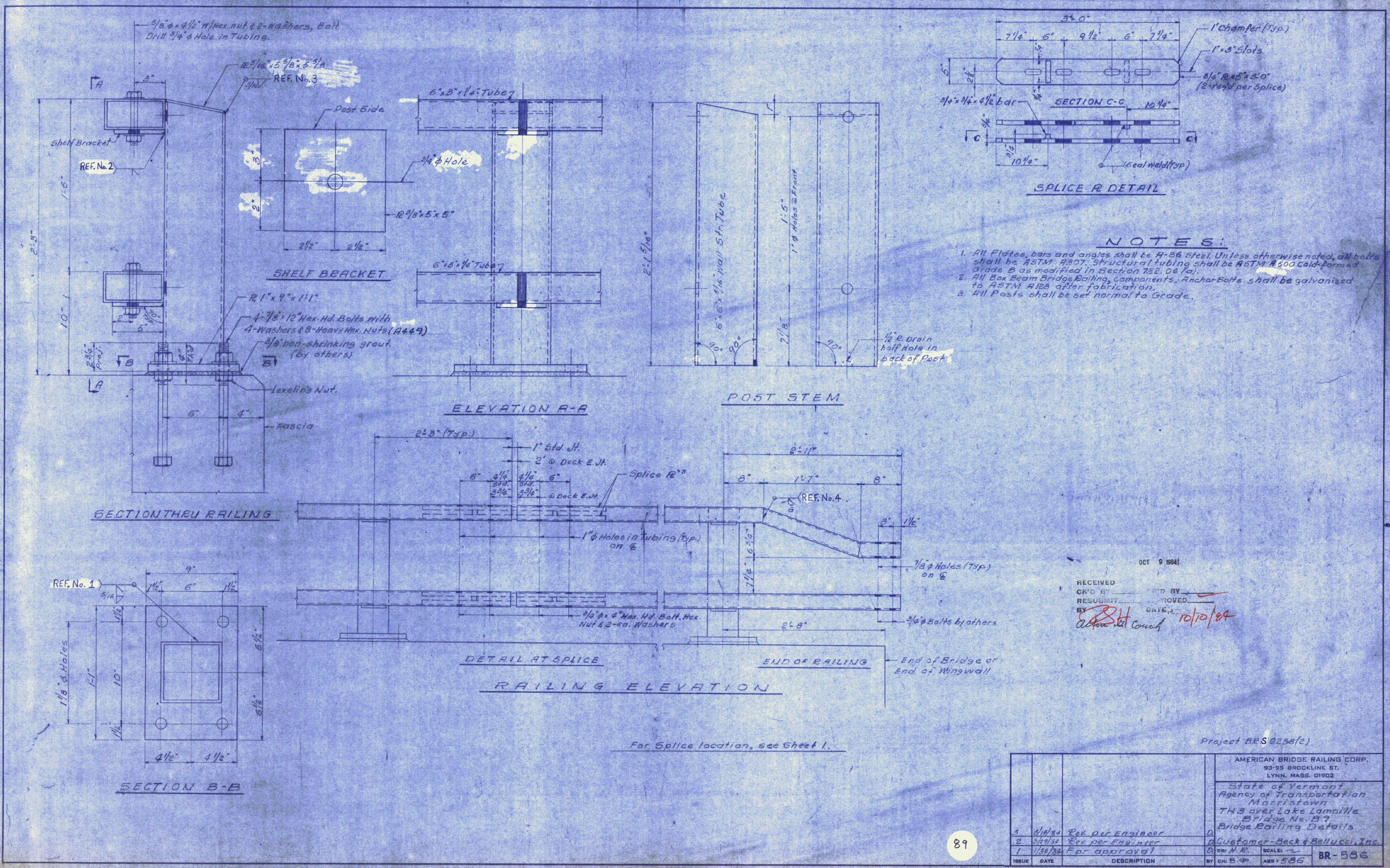
State of Vermont
Agency of Transportation
Morristown
TH 3. over Lake Lamoille
Bridge No. 89
Bridge Railing Details

Customer: Beck & Bellucci, Inc.

DR: H.R. SCALE: ~
CH: B.M. ABR: -586

BR-586

Sh. 2



For Splice location, see Sheet 1.

NOTES:

1. All Plates, bars and angles shall be A-36 Steel. Unless otherwise noted, all bolts shall be ASTM A307. Structural tubing shall be ASTM A500 Cold-formed Grade B as modified in Section 732.04 (a).
2. All Box Beam Bridge Railing, components, Anchor Bolts shall be galvanized to ASTM A123 after fabrication.
3. All Posts shall be set normal to Grade.

Project BRS 0238(2)

AMERICAN BRIDGE RAILING CORP.
93-95 BROOKLINE ST.
LYNN, MASS. 01902

State of Vermont
Agency of Transportation
Morristown
TH 3 over Lake Lamoille
Bridge No. B9
Bridge Railing Details

Customer - Beck & Bellucci, Inc.

ISSUE	DATE	DESCRIPTION	BY
3	5/14/84	Rev. per Engineer	D.
2	3/29/84	Rev. per Engineer	D.
1	1/30/84	For approval	D.

DR: N.R. SCALE: ~ CH: B.M. ABR # 586

BR-586

Sh. 3

FIELD BOLTS	JOB NO. 3-16	DRAWING NO. 62-1	REV.

SPECIFICATION: $\frac{7}{8}\phi$ H.S. BOLTS - A325 TYPE 3

CONNECTING	2"	2½	2¾	3½	4½
WEB ℞ FIELD SPLICE				864	
FLG ℞ FIELD SPLICE					512
END DIAPHRAGM			168		
PIER CROSSFRAME			144		
INT. CROSSFRAME		1320			
FLEM. BRKT HOLES	280				

STK +
MODULUS
P.O. 31396

LENGTHS	2"	2½	2¾	3½	4½
SUB TOTAL	280	1320	312	864	512
+ 2%	5	30	8	16	13
TOTAL =	285	1350	320	880	525

WASHERS	PLAIN	CLIPPED	BEVELED
	3360		

TOTAL WEIGHT

PROJ. NO BRS 0238(2)

APPROVED: 10-27-83

PRINT DIST.

6	10/11/83	APP.
8	10-28-83	FAB.
		F&P

89a

FIELD BOLTS

Bancroft & Martin Inc.
South Portland, Maine 04106

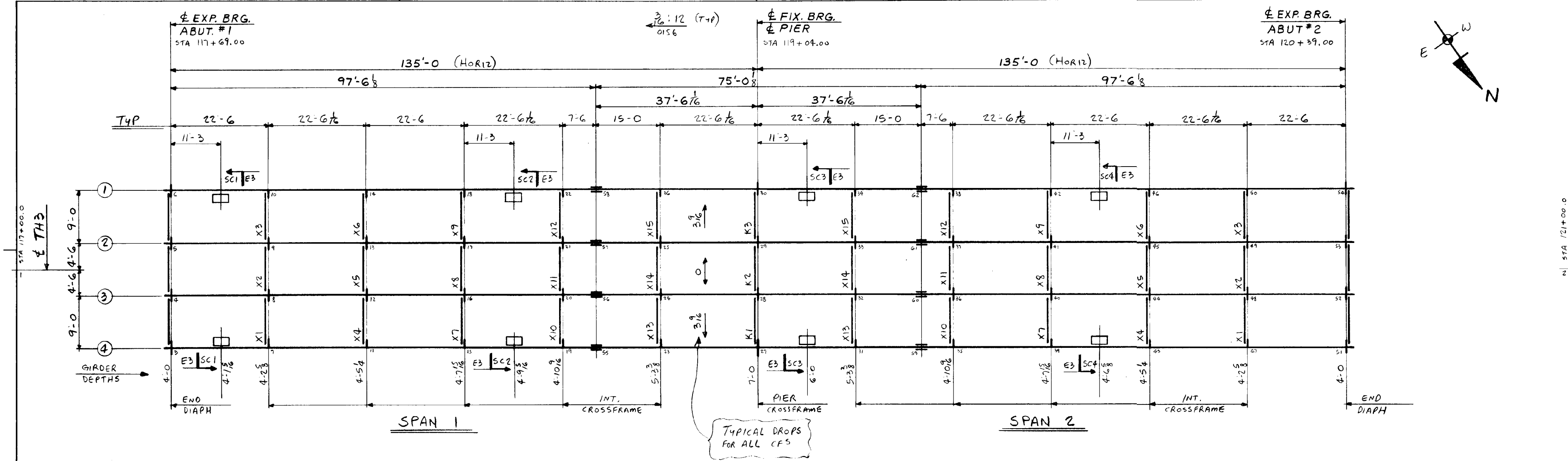
JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

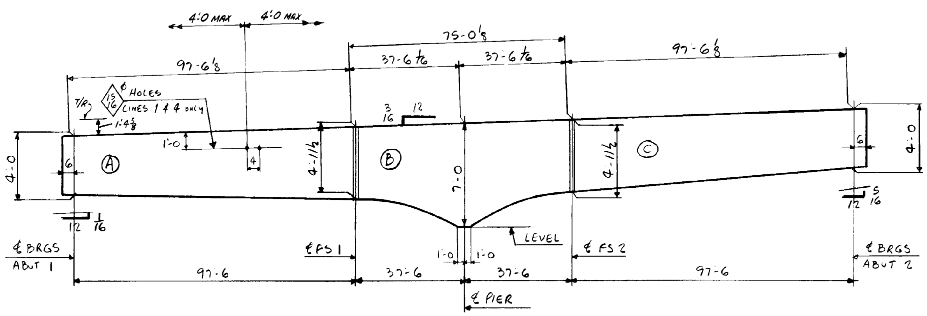
CUSTOMER: BECK / BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

REV.			ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED	10-3-83	GK		3-16	62-1	
DRAWN	9-28-83	ELC				

900-24





TYP. GIRDER ELEVATION

NOTES:

1) ALL LONG. DIMS. ARE SLOPING ALONG TOP OF WEB ℄.
2) ALL TRANSV. DIMS ARE HORIZ.
3) ENDS ℄ END BRGS ARE VERTICAL.
4) INT. CF ℄ PIER BRG ℄ FS. ARE VERTICAL.
5) → DENOTES DROP. ARROW POINTS TO LOW END.
6) FOR LAYOUTS SEE SHT. E-3.
7) SAMPLE JOB 874.

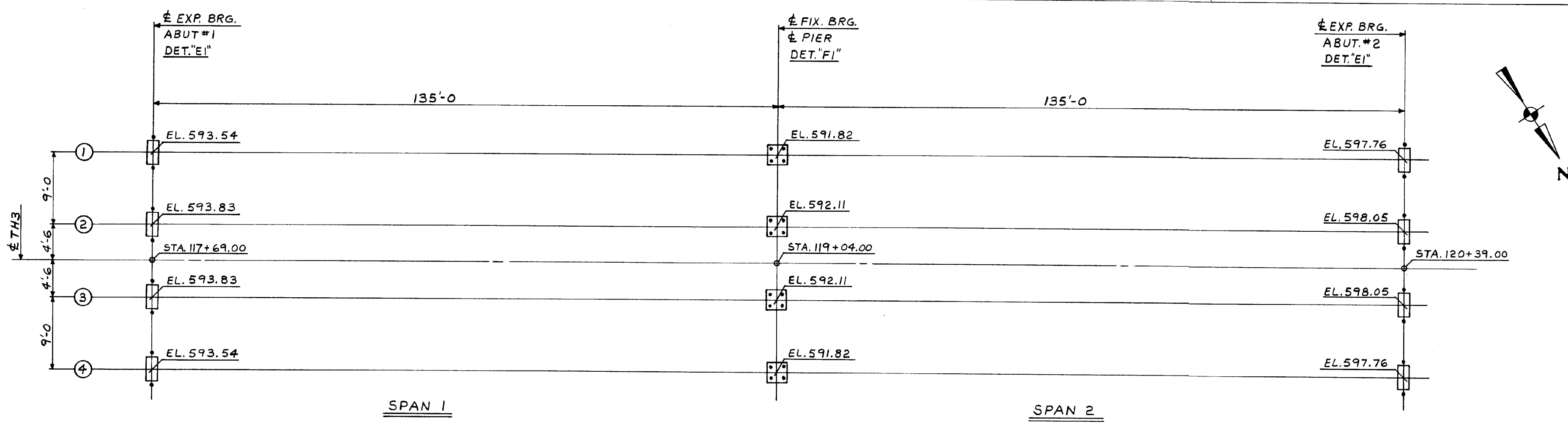
90

IT. NO. 506.91	BR. NO. B-9	PROJ. NO. BRS 0238(2)
FOR APPROVAL	FOR FILES & FIELD	
FRAMING PLAN		
APPROVED: 10-27-83	Bancroft & Martin Inc. South Portland, Maine 04106	
PRINT DIST. 6 — 9-19-83 — APP.		
8 — 10-28-83 — FAB.	JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT	
F&F		
6 — 10-11-83 — APP		
	CUSTOMER: BECK / BELLUCI	
	DESIGNER: STATE of VERMONT - AGENCY of TRANS.	
REV. △	ORDER NO.	JOB NO. 3-16
CHECKED 9-15-83 FK	DRAWING NO. W1	REV. △
DRAWN 9-9-83 LT		

PTS 1-62

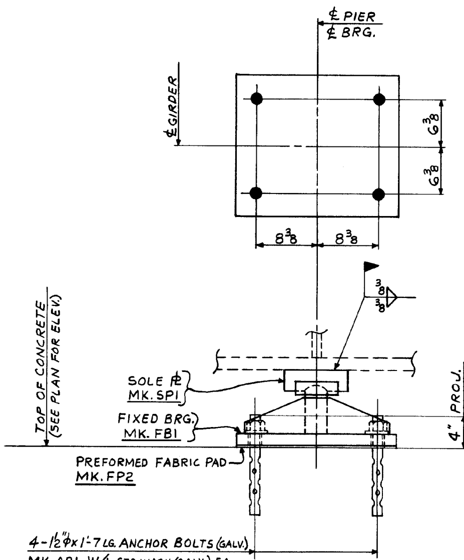
900-01

HARLAN T. SPILLER CO. INC.

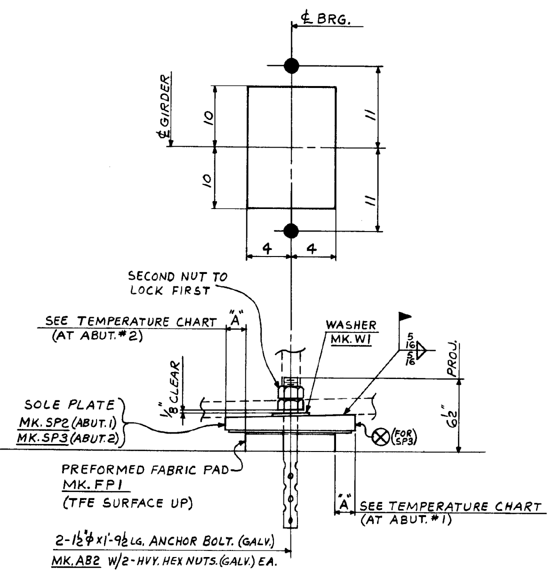


SPAN 1

SPAN 2



DETAIL "F1"
(FIXED BRG.) @ PIER



DETAIL "E1"
(EXPANSION BRG.) @ ABUTMENTS
LOOKING SOUTH

NOTES:

1. ALL DIMENSIONS ARE TAKEN IN A HORIZONTAL PLANE.
2. ALL DIMENSIONS MUST BE STRICTLY ADHERED TO; OTHERWISE STEEL WILL NOT FIT. IN CASE OF ERROR, NOTIFY BANCROFT & MARTIN INC. AT ONCE.
3. ANCHOR BOLTS ARE FURNISHED BY BANCROFT & MARTIN INC. AND SET BY OTHERS.
4. SOLE PLATES TO BE POSITIONED AND WELDED IN FIELD. SEE TEMP. CHART FOR POSITIONING OF EXP. BRG. FAB. PAD.
5. THICKER EDGE OF SOLE PLATE IS MARKED ⊗.

TEMPERATURE CHART

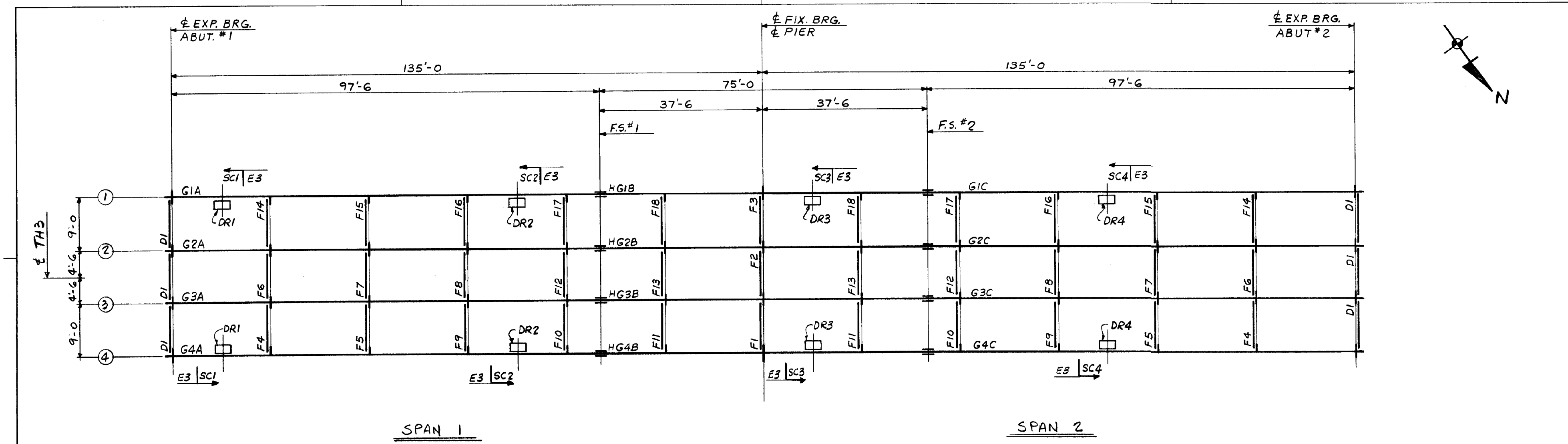
TEMPERATURE °F	DIM. "A" (SEE DET. "E1")
30°	1 1/16
45°	1 9/16
60°	1 3/8
75°	1 1/4

IT. NO. 506.99	BR. NO. B-9	PROJ. NO. BRS 0238 (2)
FOR APPROVAL	**FOR FILES & FIELD**	
ANCHOR BOLT PLAN		
APPROVED: 10-27-83	Bancroft & Martin Inc. South Portland, Maine 04106	
PRINT DIST. 6 10/11/83 APP.		
8 10-28-83 FAB.		
F&F.	JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT	
	CUSTOMER: BECK/BELLUCI	
	DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.	
REV. △	ORDER NO. / JOB NO. 3-16	DRAWING NO. E-1 / REV. △
CHECKED 10-3-83 GK		
DRAWN 9-8-83 RLA		

91

900-03

HARLAN F. SPILLER CO. INC.

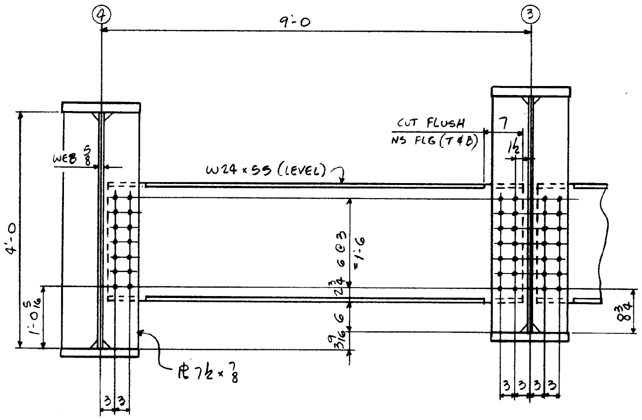


IT. NO. 506.91	BR. NO. B-9	PROJ. NO. BRS 0238 (2)	
FOR APPROVAL	FOR FILES & FIELD		
FRAMING PLAN			
APPROVED: 10-27-83	Bancroft & Martin Inc. South Portland, Maine 04106		
PRINT DIST. 6 10/11/83 APP.			
8 10-28-83 FAB.			
F&F.	JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT		
	CUSTOMER: BECK/BELLUCI		
	DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.		
REV. △	ORDER NO.	JOB NO. 3-16	DRAWING NO. E-2 REV. △
CHECKED 10-3-83 GK			
DRAWN 9-7-83 RLA			

92

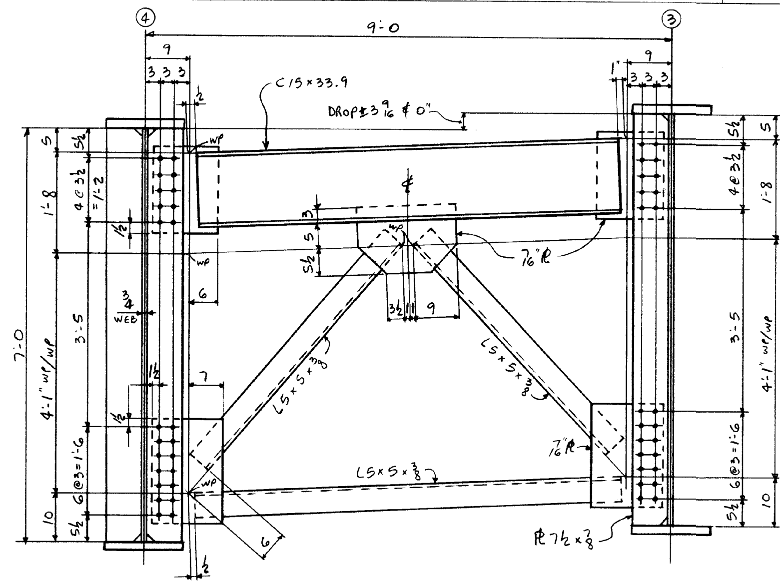
900-02

HARLAN F. SPILLER CO. INC.



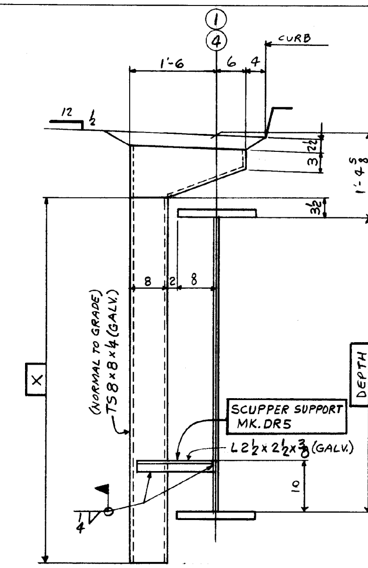
END DIAPH @ ABUTS ~ MK. D1

LOOKING EAST @ ABUT 1



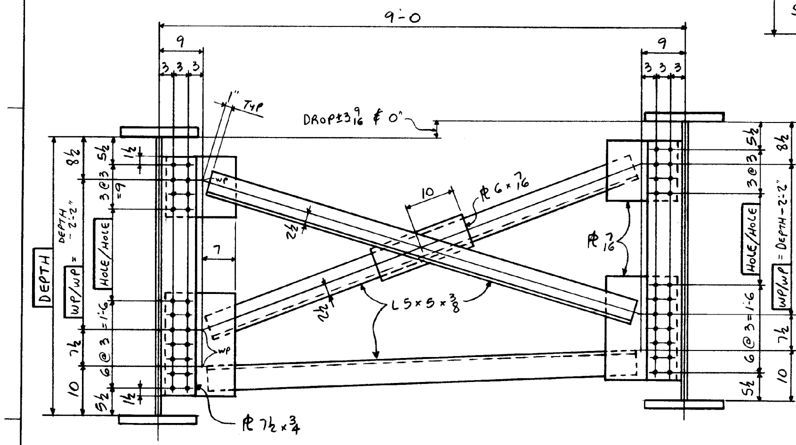
PIER CROSSFRAME (LOOKING EAST) ~ MKS. F1, F2 & F3

K1, K2, K3 (TYPE 3)



SCUPPER SECTION

SECT	DEPTH	X	MARK
SC1	4'-1 7/16	5'-5	DR1
SC2	4'-9 5/16	6'-1	DR2
SC3	6'-0"	7'-4	DR3
SC4	4'-6 5/8	5'-11	DR4



INTERMEDIATE CROSSFRAME ~ MKS. F4 THRU F18

LOOKING EAST

CALC. NO	DEPTH	WP/WP	HOLE/HOLE
X1, X2, X3	4'-2 5/8	2'-0 5/8	1'-0 5/8
X4, X5, X6	4'-5¼	2'-3¼	1'-3¼
X7, X8, X9	4'-7 15/16	2'-5 15/16	1'-5 15/16
X10, X11, X12	4'-10 9/16	2'-8 9/16	1'-8 9/16
X13, X14, X15	5'-3 3/8	3'-1 3/8	2'-1 3/8

ERECTOR NOTE

FOLLOW PL MK LOCATION AND DROP DIRECTION AND NOT DIRECTION OF OSL OF MEMBERS.

93

IT. NO. 506.91 | BR. NO. B-9 | PROJ. NO. BRS 0238 (2)

FOR APPROVAL | **FOR FILES & FIELD**

LAYOUTS

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
6	12-15-83	APP
8	12-15-83	FAB

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE, MORRISTOWN, VERMONT

CUSTOMER: BECK / BELLUCI

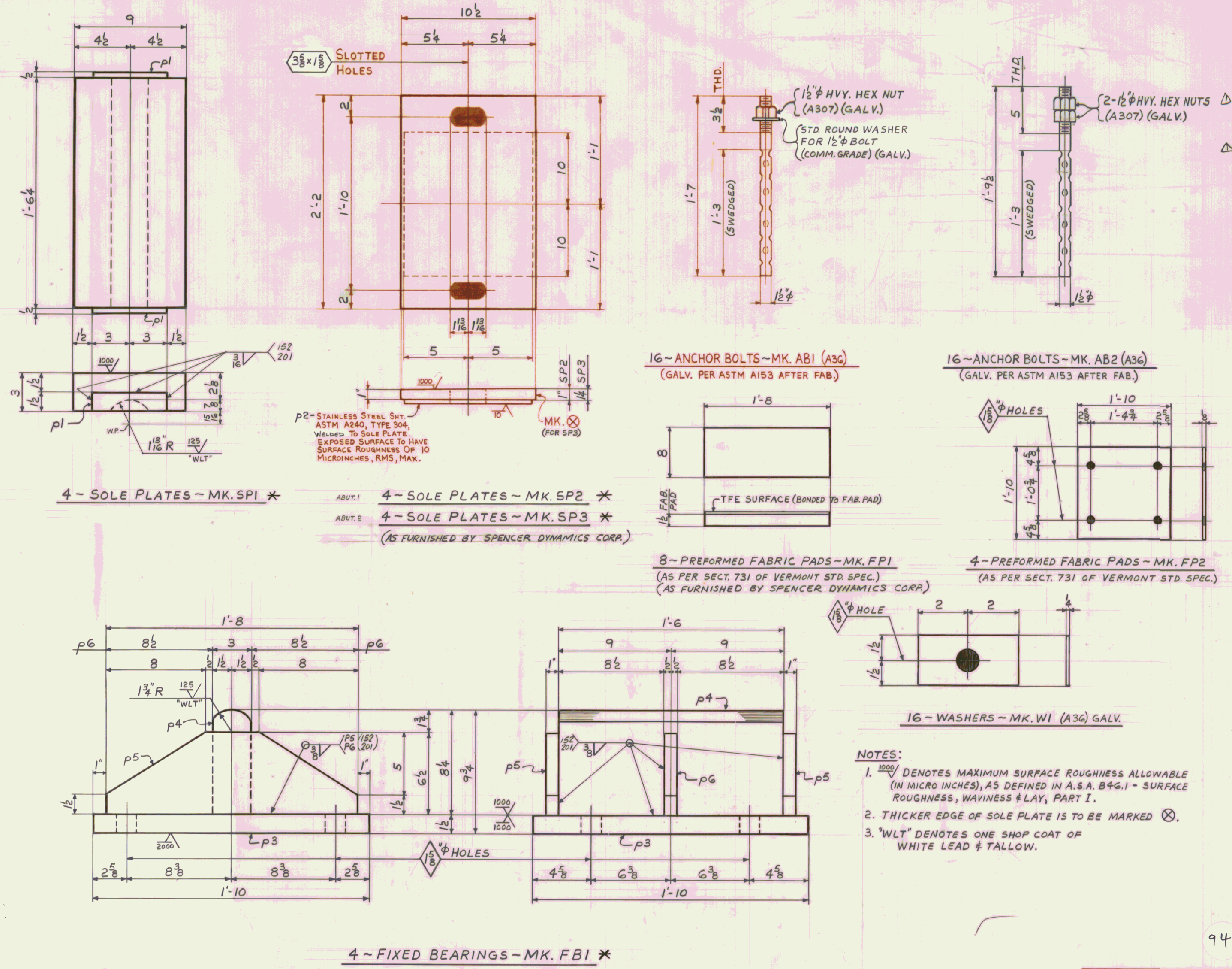
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

2	12-15-83	JCM
REV. 1	10-7-83	RLA
CHECKED	9-15-83	FK
DRAWN	9-9-83	LT

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	E-3	2

900-04

HARLAN F. SPILLER CO. INC



NOTES:

1. 1000 DENOTES MAXIMUM SURFACE ROUGHNESS ALLOWABLE (IN MICRO INCHES), AS DEFINED IN A.S.A. B46.1 - SURFACE ROUGHNESS, WAVINESS & LAY, PART I.
2. THICKER EDGE OF SOLE PLATE IS TO BE MARKED ⊗.
3. "WLT" DENOTES ONE SHOP COAT OF WHITE LEAD & TALLOW.

⚠ SPEC FOR SP2 & SP3

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING, FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

BILL OF MATERIAL

JOB NO. | DRAWING NO. 51-1 | REV. ⚠

	SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
				SOLE PLATES						
*	SP1	4		PL 3×9	1	6 1/4	559	1/J		4 @ P.L. P.O. 31391
		8	p1	PL 1/2×1 1/2	0	6	10	1/K		Res. 1 @ 22" x 5'-0
⚠ *	SP2	4		PL 1"×10 1/2	2	2	310	1/B	A36	SPENCER P.O. 31383
		4	p2	SHT. 14GA×10	1	8	17	1/D		FIS STAINLESS STEEL (A240) TYPE 304
⚠ *	SP3	4		PL 1 1/4×10 1/2	2	2	387	1/C	A36 SPENCER	FIS (BEV.)
		4	p2	SHT. 14GA.×10	1	8	17	1/D		FIS STAINLESS STEEL (A240) TYPE 304
*	FB1	4		FIXED BEARINGS						
		4	p3	PL 1 1/2×22	1	10	823	1/L		4 @ P.L. P.O. 31391
		4	p4	PL 3×8 1/4	1	6	505	1/M		F2E 4 @ 8 1/2 x 1'-6
		8	p5	PL 1"×6 1/2	1	8	295	1/N		FIE 1 @ 6-1/2 x
		8	p6	PL 1"×6 1/2	0	8 1/2	125	1/N		FIE 14'-2 CUT PER S.R.L. DTD. 9-10
				ANCHOR BOLTS						
	AB1	16		ROD 1 1/2"φ	1	7	152	1/T	3 @	SWEDGE A36 GALV.
	AB2	16		ROD 1 1/2"φ	1	9 1/2	172	1/U	20'	A36
		16		STD. WASH. FOR 1 1/2"φ BOLT			7	1/W	NP	COMM. GRADE
		48		HVY. HEX NUT FOR 1 1/2"φ BOLT			63	1/V	1999C	A307
	W1	16		PL 1/4×3	0	4	14	1/F	STK. Res.	A36 GALV.
				PREFORMED FABRIC PADS						
	FP1	8		PAD 1 1/2×8	1	8	49	1/P	Spencer	TFE SURFACE BONDED ONE SIDE / AS PER SPEC. 731
	FP2	4		PAD 1/8×22	1	10	7	1/Q	ME. IND. 31392	
				TOTAL WGT. = 3512						

IT. NO. 506.99 | BR. NO. B-9 | PROJ. NO. BRS 0238(2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR. [X] A588 GR. [X] Unless Noted

WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None

SHOP CONN: [ ] Bolted [X] Welded [ ] None

FIELD CONN: [X] Bolted [X] Welded [ ] None

HOLES: [ ] 13/16 [ ] 15/16 [ ] As Noted [ ] None

PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [X] As Noted

* SPECIAL PAINT: METALIZED COATING PER VERMONT SPEC. 731.06 - 2 (UNLESS NOTED)

SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC - SP6

BRIDGE SHOES

APPROVED: 10-31-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
3	10-28-83	PURCH
6	10-28-83	APP
6	10-31-83	APP
3	10-31-83	PURCH
8	10-31-83	FAB
REV. ⚠	10-31-83	JCM
CHECKED	10-3-83	GK
DRAWN	9-9-83	RLA

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT

CUSTOMER: BECK, BELLUCI

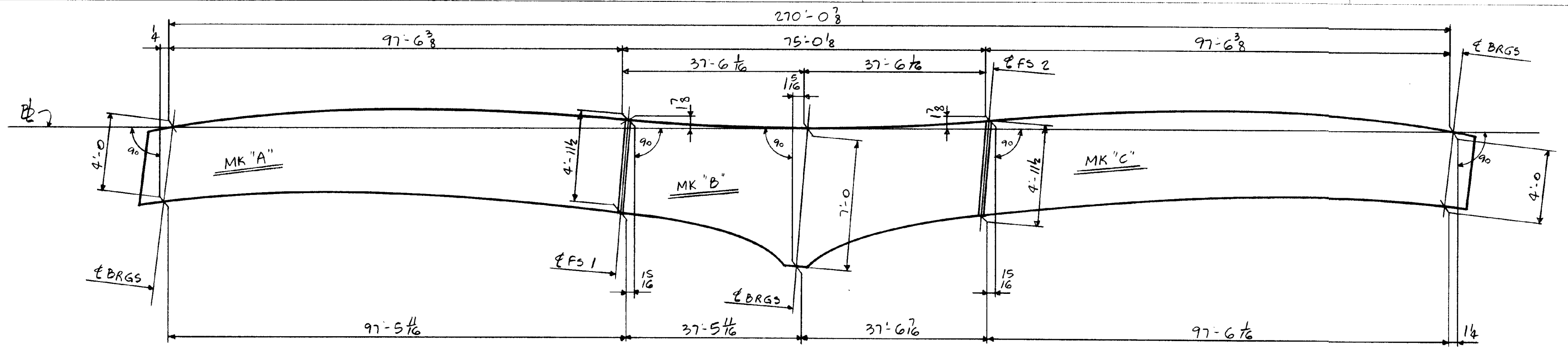
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	51-1	⚠

900-07

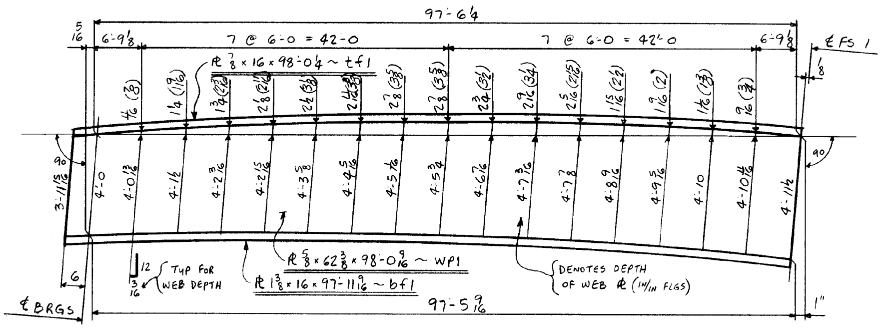
94

HARLAN F. SPILLER CO. INC.

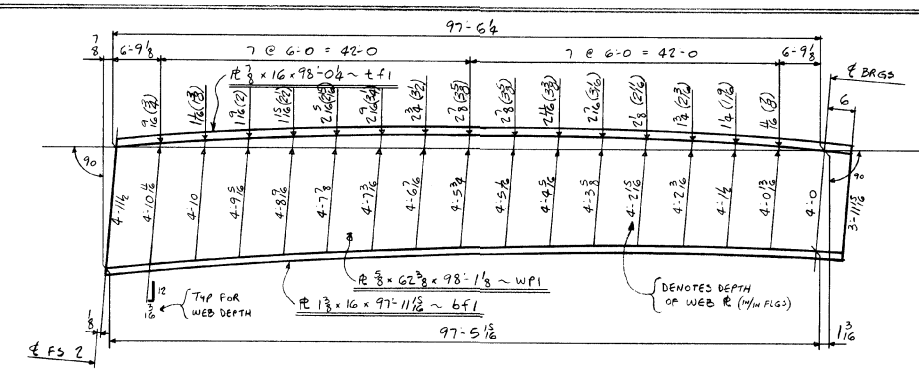


SHOP ASSEMBLY DIAGRAM - LINES 1 - 4

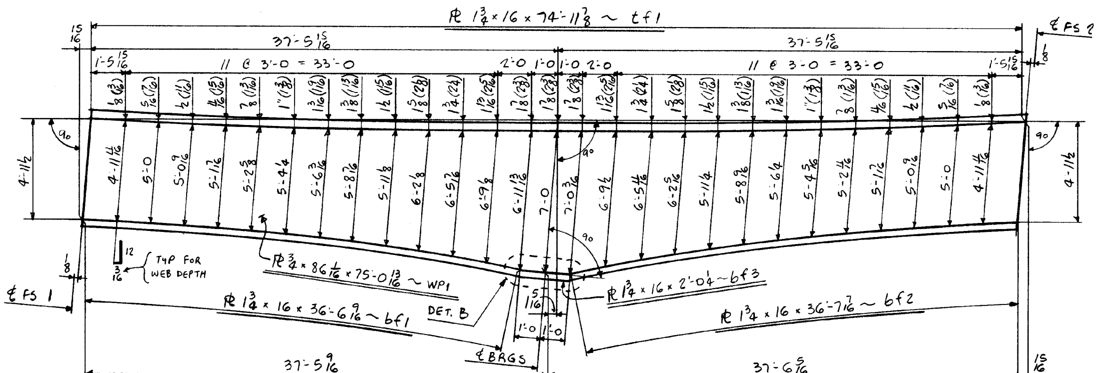
LINE	MK A	MK B	MK C
1	G1A	HG1B	G1C
2	G2A	HG2B	G2C
3	G3A	HG3B	G3C
4	G4A	HG4B	G4C



CAMBER DIAGRAM FOR G1A, G2A, G3A, G4A

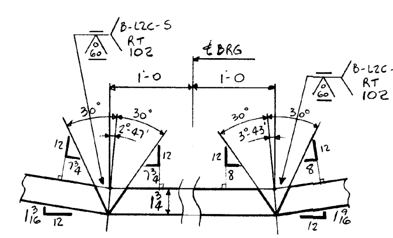


CAMBER DIAGRAM FOR G1C, G2C, G3C, G4C



CAMBER DIAGRAM FOR HG1B, HG2B, HG3B, HG4B

( ) INDICATES SHOP CAMBER



DETAIL B

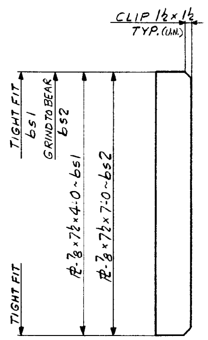
95

IT NO. 506.91	BR. NO. B-9	PROJ. NO. BRS 0238 (2)
FOR APPROVAL	**FOR FILES & FIELD**	
SHOP ASSEMBLY & CAMBER DIAGRAMS		
APPROVED: 10-27-83	Bancroft & Martin Inc. South Portland, Maine 04106	
PRINT DIST. 6 9-19-83 APP. / 8 10-28-83 FAB. / F&F / 6 10-11-83 APP	JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT	
	CUSTOMER: BECK/BELLUCI	
	DESIGNER: STATE OF VERMONT-AGENCY of TRANS	
REV. △	ORDER NO.	JOB NO. 3-16 / DRAWING NO. 52-1 / REV. △
CHECKED 9-15-83 FK		
DRAWN 9/13/83 CT		

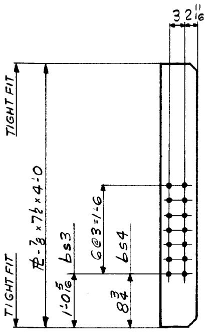
900-05

HARLAN F. SPILLER CO. INC.

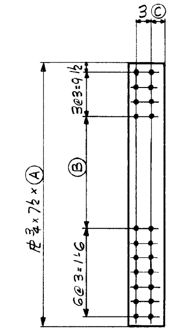
ABUT. BRG.



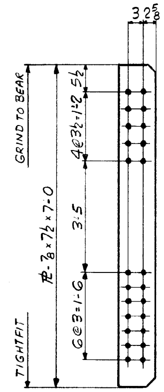
4-bs1
2-bs2



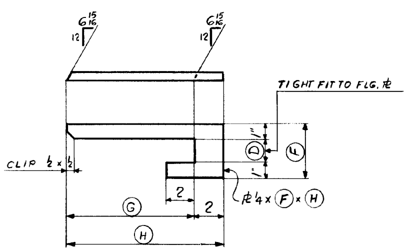
4-bs3
8-bs4



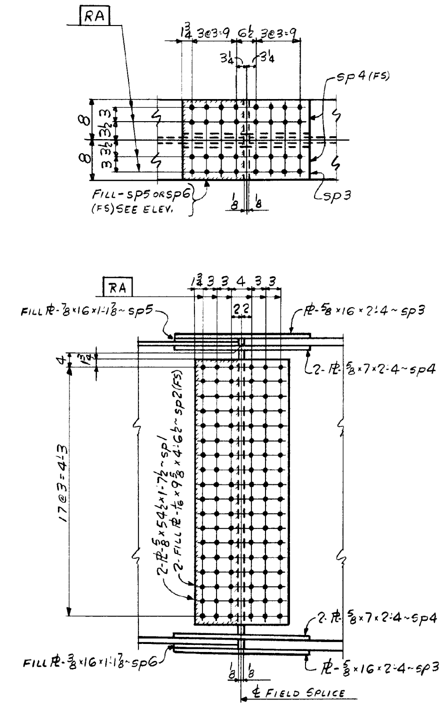
MARK	Q'TY	(A)	(B)	(C)
sf1	12	3-6 5/8	1-0 5/8	2 11/16
sf2	12	3-9 1/4	1-3 1/4	2 11/16
sf3	12	4-0	1-5 15/16	2 11/16
sf4	12	4-2 5/8	1-8 9/16	2 11/16
sf5	12	4-7 3/8	2-1 3/8	2 5/8



6-bs5



MARK	Q'TY	(D)	(F)	(G)	(H)
fb1 R/L	2/2	1 3/4	3 3/4	8 13/16	10 13/16
fb2 R/L	1/1	1 3/8	3 3/8	8 7/8	10 7/8



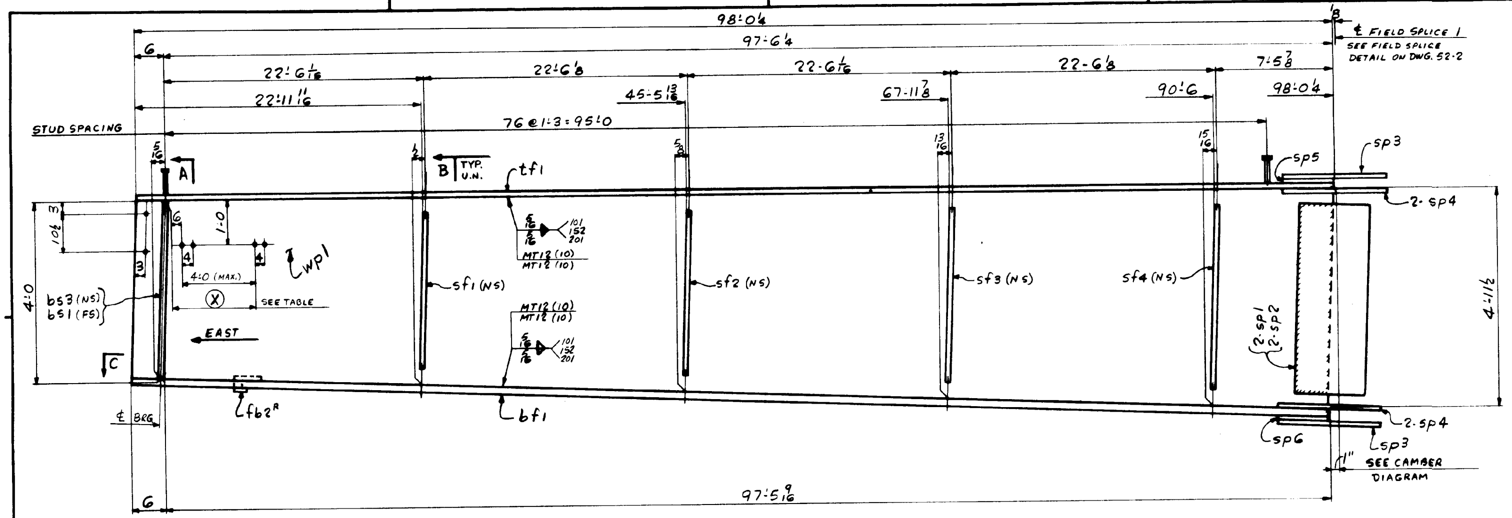
FIELD SPLICE DETAIL

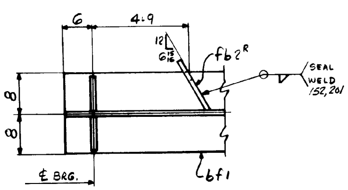
SHOP NOTE:
HOLES NOTED [RA] TO BE SUB-PUNCHED OR SUB-DRILLED 11/16 Ø AND REAMED TO 15/16 Ø WITH ALL PARTS ASSEMBLED OR DRILLED FULL SIZE (15/16 Ø) FROM THE SOLID WITH ALL PARTS ASSEMBLED. ALL GIRDERS MUST BE ASSEMBLED PER SHOP ASSEMBLY DIAGRAM (DWG. 52-1) PRIOR TO REAMING OR DRILLING.

96

IT. NO. 506.91	BR. NO. B-9	PROJ. NO. BRS 0238 (2)
FOR APPROVAL	FOR FILES & FIELD	
GIRDER COMPONENTS		
APPROVED: 10-27-83	Bancroft & Martin Inc. South Portland, Maine 04106	
PRINT DIST. 6 10/11/83 APP. ; 8 10-28-83 FAB. ; F&F.	JOB: VERMONT RTE 113 OVER LAKE LAMOILLE MORRISTOWN, VERMONT	
	CUSTOMER: BECK/BELLUCI	
	DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.	
REV. △ ; CHECKED 10-3-83 GK ; DRAWN 9-24-83 ELC	ORDER NO. ; JOB NO. 3-16	DRAWING NO. 52-2 ; REV. △

900-08



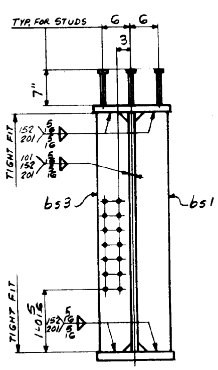


SECT. - C

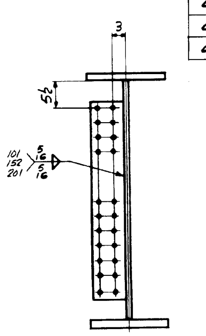
ONE - GIRDER - G1A

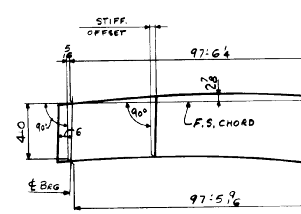
FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB PL CUTTING SK. & FLG. PL ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1

DIM. (X)	DIM. (X)
4'-4	52'-4
8'-4	56'-4
12'-4	60'-4
16'-4	64'-4
20'-4	68'-4
24'-4	72'-4
28'-4	76'-4
32'-4	80'-4
36'-4	84'-4
40'-4	88'-4
44'-4	92'-4
48'-4	96'-0



SECT - A


SECT. - B
(SEE ELEV. FOR MARKS)



CAMBER DIAGRAM

97

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

BILL OF MATERIAL

SHIP — JOB NO. 3-16 — DRAWING NO. 52-3 — REV. △

MARK	NO.	MARK	SHAPE	LENGTH		WT.			REMARKS
G1A	1		GIRDER						
	1	wp1	PL 5/8 x 62 3/8	98	0 9/16	11202	2/A		CVN 1 @ 63 x 98'3
	1	tf1	PL 7/8 x 16	98	0 1/4	4670	2/E		1 @ 98'3
	1	bf1	PL 1 3/8 x 16	97	11 9/16	7334	2/D		CVN 1 @ 98'3
	1	bs1	PL 7/8 x 7 1/2	4	0	89	3/J	3/F	F2E 1 @ 96 x 13'0
	1	bs3	PL 7/8 x 7 1/2	4	0	89	3/J	3/F	F2E CUT 3F, 3J, 3K
	1	sf1	PL 3/4 x 7 1/2	3	6 5/8	*	3/L		CUT FROM WASTE
	1	sf2	PL 3/4 x 7 1/2	3	9 1/4	*	3/M		28 3/4 x 86 1/2 x
	1	sf3	PL 3/4 x 7 1/2	4	0	*	3/N		75'3
	1	sf4	PL 3/4 x 7 1/2	4	2 5/8	*	3/O		
									402W7311
	2	sp1	PL 5/8 x 54 1/2	1	7 1/2	*	3/B		CVN RES. @ RIGBY
	2	sp2	PL 1/16 x 9 5/8	4	6 1/2	*	3/C		A606(4) 2 @ 9 x 10'
	2	sp3	PL 5/8 x 16	2	4	*	3/D		CVN RES. 402W7311
	4	sp4	PL 5/8 x 7	2	4	*	3/E	3/D	CVN ↓
	1	sp5	PL 7/8 x 16	1	1 7/8	*	3/F		1 @ 96 x 13'0
	1	sp6	PL 3/8 x 16	1	1 7/8	*	3/G		RES. 1 @ 92 x 7'6
	1	fb2R	PL 1/4 x 3 3/8	0	10 7/8	3	3/R		RES. 1/4 x 22 x 10'0
	231		7/8 Ø SHEAR STUD	0	7	~~305~~	3/T		A108 AUTO END WELD ERICO 31382
			TOTAL WGT. = 24256 #						
			* PAY WEIGHT						
	1	sf1	PL 1/2 x 7 1/2	3	6 5/8	45			
	1	sf2	Do.	3	9 1/4	48			
	1	sf3	Do.	4	0	51			
	1	sf4	Do.	4	2 5/8	54			
	2	sp1	PL 1/2 x 54	1	6 1/2	283			
	2	sp2	PL 1/16 x 9 1/4	4	6	18			
	2	sp3	PL 5/8 x 16	2	3 1/2	156			
	4	sp4	PL 5/8 x 7	2	3 1/2	136			
	1	sp5	PL 3/8 x 16	1	1 3/4	55			
	1	sp6	PL 3/8 x 16	1	1 3/4	23			

IT. NO. 506.91 — BR. NO. B-9 — PROJ. NO. BRS 0238 (2)

FOR APPROVAL **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR [X] A588 GR [X] Unless Noted [ ]
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None [ ]
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [X] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC - SP6

GIRDER - G1A

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

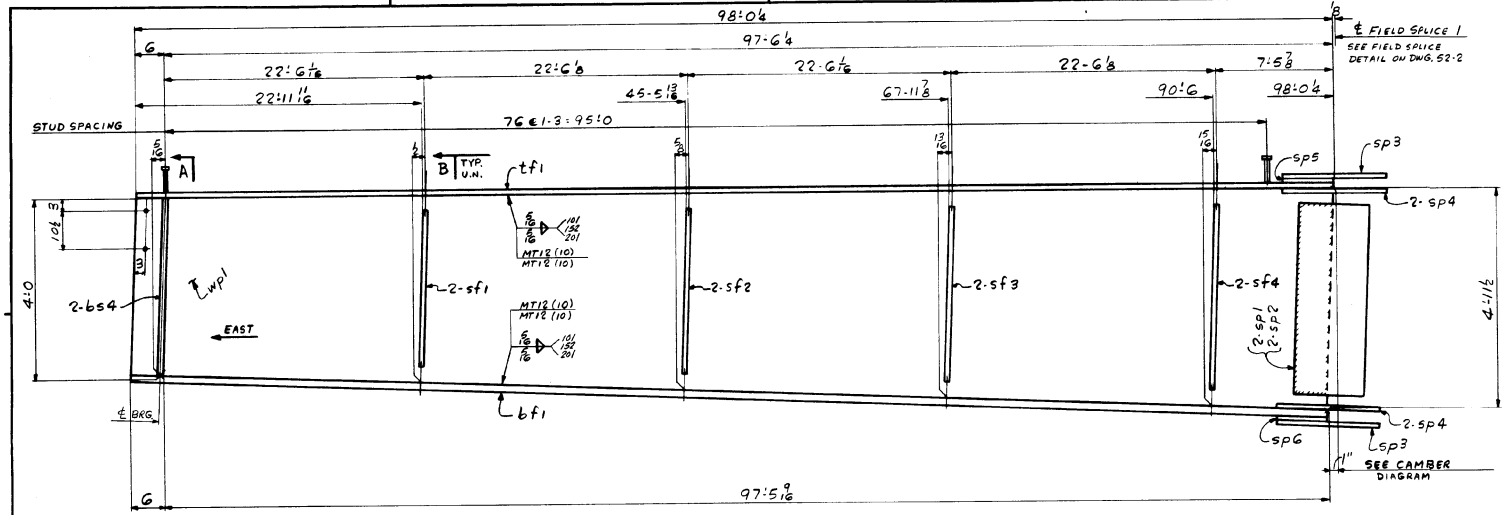
CUSTOMER: BECK / BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

REV. △		
CHECKED	10-3-83	G.K
DRAWN	9-26-83	ELC

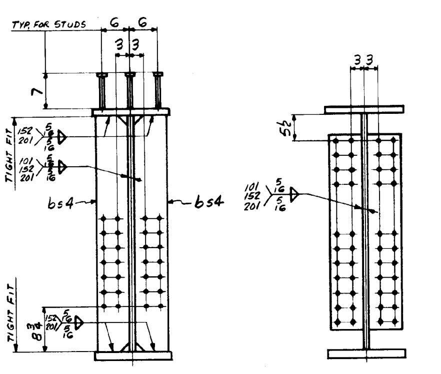
ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-3	△

900-08



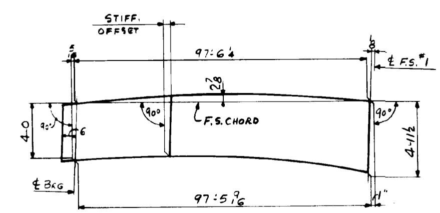
ONE - GIRDER - G2A
ONE - GIRDER - G3A
} ALIKE UNTIL REAMED

FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB PL CUTTING SK. & FLG. PL ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1



SECT.-A

SECT.-B
(SEE ELEV. FOR MARKS)



CAMBER DIAGRAM

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SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G2A	1		GIRDER						
G3A	1		GIRDER						
	2	wp1	PL 5/8 × 62 3/8	98	0 9/16	22404	2/A		CVN 2@63 × 98'-4
	2	tf1	PL 7/8 × 16	98	0 1/4	9340	2/E		2@98'3
	2	bf1	PL 1 3/8 × 16	97	11 9/16	14668	2/D		CVN 2@98'3
	4	bs4	PL 7/8 × 7 1/2	4	0	356	3/J	3/F	F2E 1@96 × 13'
	4	sf1	PL 3/4 × 7 1/2	3	6 5/8	*	3/L		From 2B waste
	4	sf2	PL 3/4 × 7 1/2	3	9 1/4	*	3/M		3/4 × 86 1/2 × 25'-3
	4	sf3	PL 3/4 × 7 1/2	4	0	*	3/N		
	4	sf4	PL 3/4 × 7 1/2	4	2 5/8	*	3/O		
	4	sp1	PL 5/8 × 54 1/2	1	7 1/2	*	3/B		CVN Res. @ Rigby
	4	sp2	PL 1/16 × 9 5/8	4	6 1/2	*	3/C		A606(4) 2@4'×10'
	4	sp3	PL 5/8 × 16	2	4	*	3/D		CVN Res. @ Rigby
	8	sp4	PL 5/8 × 7	2	4	*	3/E	3/D	CVN ↓
	2	sp5	PL 7/8 × 16	1	1 7/8	*	3/F		1@96 × 13'0
	2	sp6	PL 3/8 × 16	1	1 7/8	*	3/G		Res. 1@92 × 7'6
	462		7/8 φ SHEAR STUD	0	7	~~.610~~	3/T		A108 AUTO Erico END WELD 31382
			TOTAL WGT. =	4	8902 #				

		* PAY WEIGHT			
4	sf1	PL 1/2 × 7 1/2	3	6 5/8	180
4	sf2	Do	3	9 1/4	192
4	sf3	Do	4	0	204
4	sf4	Do	4	2 5/8	216
4	sp1	PL 1/2 × 54	1	6 1/2	566
4	sp2	PL 1/16 × 9 1/4	4	6	36
4	sp3	PL 5/8 × 16	2	3 1/2	312
8	sp4	PL 5/8 × 7	2	3 1/2	272
2	sp5	PL 7/8 × 16	1	1 3/4	110
2	sp6	PL 3/8 × 16	1	1 3/4	46

IT. NO. 506.91 BR. NO. B-9 PROJ. NO. BRS 0238 (2)

FOR APPROVAL **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR. [X] A588 GR. [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [X] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC-SP6

GIRDER - G2A & G3A

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

CUSTOMER: BECK / BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

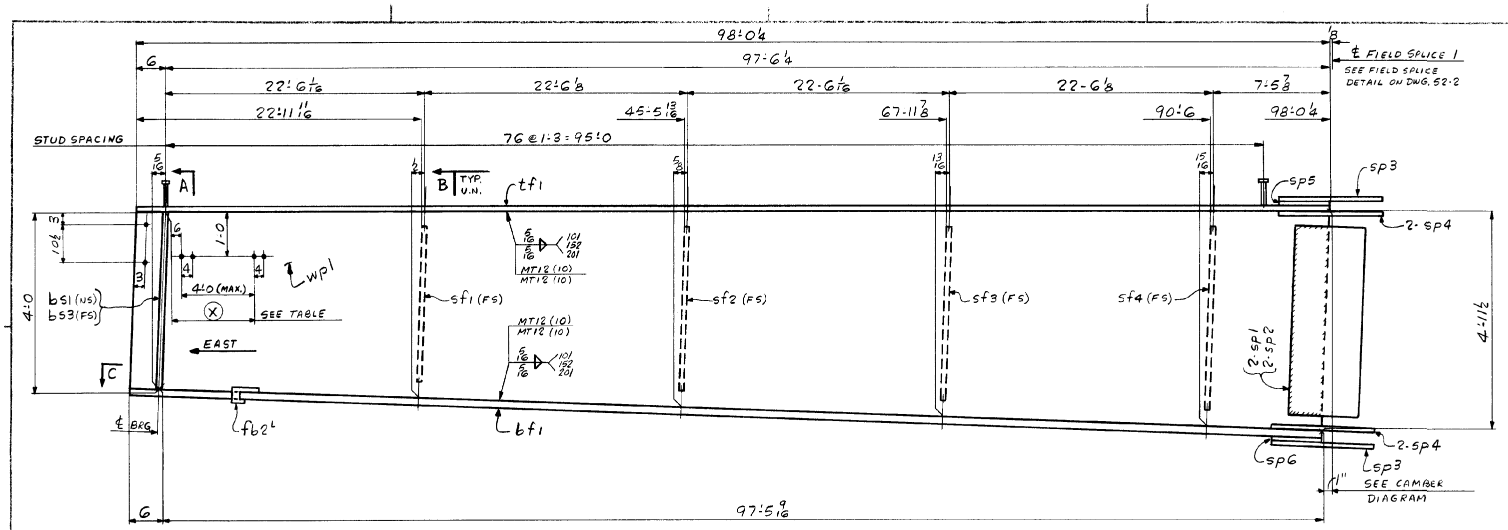
~~ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.~~

REV. △		
CHECKED	10-3-83	G.K.
DRAWN	9-26-83	ELC

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-4	△

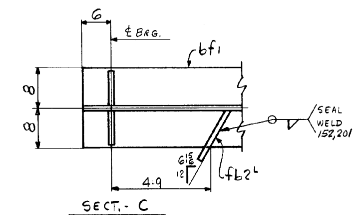
900-08

HARLAN F. SPELLER CO. INC. 34595



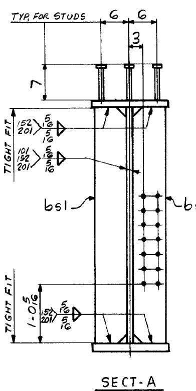
ONE - GIRDER - G4A

FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB PL CUTTING SK. & FLG. PL ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1

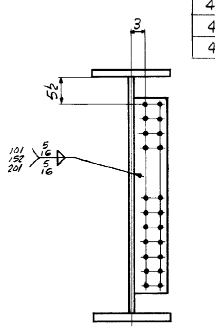


SECT. - C

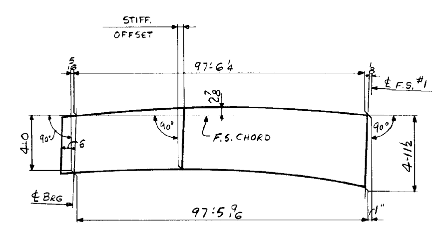
DIM. X	DIM. X
4-4	52-4
8-4	56-4
12-4	60-4
16-4	64-4
20-4	68-4
24-4	72-4
28-4	76-4
32-4	80-4
36-4	84-4
40-4	88-4
44-4	92-4
48-4	96-0



SECT - A



SECT. - B
(SEE ELEV. FOR MARKS)



CAMBER DIAGRAM

99

SHIP	BILL OF MATERIAL					JOB NO. 3-16		DRAWING NO. 52-5	
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G4A	1		GIRDER						
	1	wp1	PL ⅝ x 62⅜	98	0 9/16	11202	2/A		CVN
	1	tf1	PL ⅞ x 16	98	0¼	4670	2/E		
	1	bf1	PL 1⅜ x 16	97	11 9/16	7334	2/D		CVN
	1	bs1	PL ⅞ x 7½	4	0	89	3/J		F2E
	1	bs3	PL ⅞ x 7½	4	0	89	3/J		F2E
	1	sf1	PL ¾ x 7½	3	6⅝	*	3/L		
	1	sf2	PL ¾ x 7½	3	9¼	*	3/M		
	1	sf3	PL ¾ x 7½	4	0	*	3/N		
	1	sf4	PL ¾ x 7½	4	2⅝	*	3/O		
	2	sp1	PL ⅝ x 54½	1	7½	*	3/B		CVN
	2	sp2	PL 1/16 x 9⅝	4	6½	*	3/C		A606(4) 2@ 4'x10'
	2	sp3	PL ⅝ x 16	2	4	*	3/D		CVN Res. @ Right
	4	sp4	PL ⅝ x 7	2	4	*	3/E	3/D	CVN
	1	sp5	PL ⅞ x 16	1	1⅞	*	3/F		1 @ 96 x 13'-0
	1	sp6	PL ⅜ x 16	1	1⅞	*	3/G		Res. 1 @ 92 x 7'6
	1	fb2L	PL ¼ x 3⅜	0	10⅞	3	3/R		Res. ¼ x 22 x 10'0
	231		⅞ Ø SHEAR STUD	0	7	~~305~~	3/T		A108 AUTO END WELD ERICO 31382
			TOTAL WGT. = 24256						
			*PAY WEIGHT						
	1	sf1	PL ½ x 7½	3	6⅝	45			
	1	sf2	Do	3	9¼	48			
	1	sf3	Do	4	0	51			
	1	sf4	Do	4	2⅝	54			
	2	sp1	PL ½ x 54	1	6½	283			
	2	sp2	PL 1/16 x 9¼	4	6	18			
	2	sp3	PL ⅝ x 16	2	3½	156			
	4	sp4	PL ⅝ x 7	2	3½	136			
	1	sp5	PL ⅞ x 16	1	1¾	55			
	1	sp6	PL ⅜ x 16	1	1¾	23			

IT. NO. 506.91 BR. NO. B-9 PROJ. NO. BRS 0238(2)

FOR APPROVAL **FOR FILES & FIELD**

STEEL: ASTM: [ ] 36 [ ] A572 GR [X] A588 GR [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [X] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC-SP6

GIRDER - G4A

APPROVED: 10-27-83
PRINT DIST.
6 10/11/83 APP.
8 10-28-83 FAB.
F&F

Bancroft & Martin Inc.
South Portland, Maine 04106

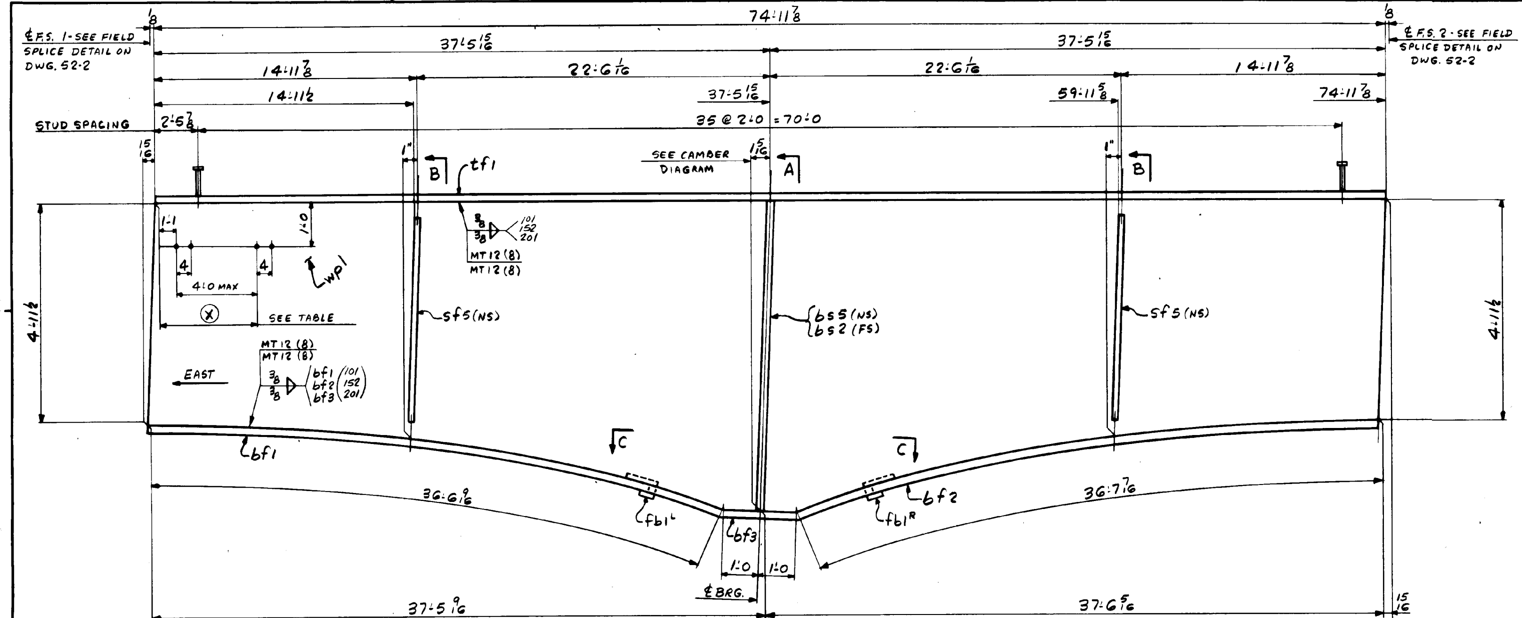
JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT

CUSTOMER: BECK / BELLUCI
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION THE SHIPPER'S ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

REV.	CHECKED	10-3-83	G.K.	ORDER NO.	JOB NO. 3-16	DRAWING NO. 52-5	REV.
	DRAWN	9-26-83	ELC				

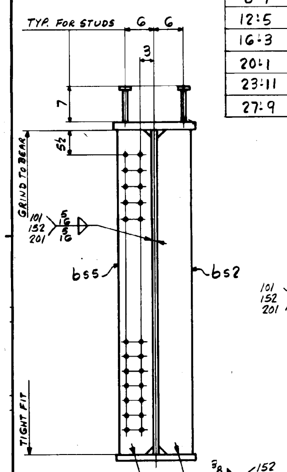
900-08



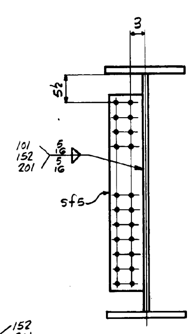
DIM. (X)	DIM. (X)	DIM. (X)
4'-10	31'-7	54'-7
8'-7	35'-5	58'-5
12'-5	39'-3	62'-3
16'-3	43'-1	66'-1
20'-1	46'-11	69'-10
23'-11	50'-9	73'-7
27'-9		

ONE - GIRDER - HG1B

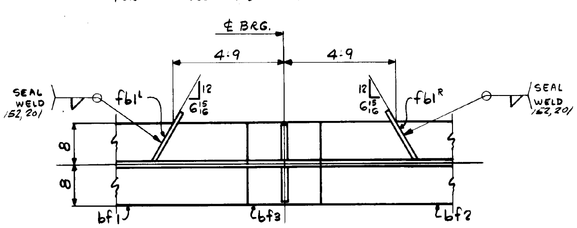
FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB ℄ CUTTING SK. & FLG. ℄ ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1



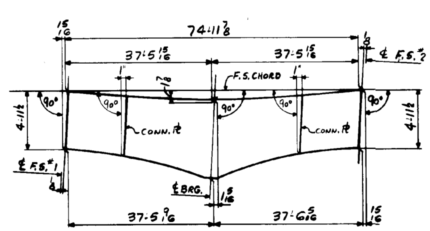
SECT. - A



SECT. - B



SECT. C-C



CAMBER DIAGRAM

100

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN

SHIP	BILL OF MATERIAL							JOB NO. 3-16	DRAWING NO. 52-6	REV. △
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS	
HG1B	1		GIRDER							
	1	wp1	℄ 3/4 x 86 1/16	75	0 13/16	12905	2/B		CVN 1 @ 86 1/2 x 75'3 SAVE CROP	
	1	tf1	℄ 1 3/4 x 16	74	11 7/8	7145	2/G		CVN 1 @ 75'3	
	1	bf1	℄ 1 3/4 x 16	36	6 9/16	3482	2/H		1 @ 36'11	
	1	bf2	℄ 1 3/4 x 16	36	7 7/16	3489	2/H		1 @ 39'2	
	1	bf3	℄ 1 3/4 x 16	2	0 1/4	193	2/I		FROM 1 @ 39'2 ABOVE	
	1	bs2	℄ 7/8 x 7 1/2	7	0	156	3/K	3/F	F1E, M1E 1 @ 9 1/2	
	1	bs5	℄ 7/8 x 7 1/2	7	0	156	3/K	3/F	F1E, M1E x 13'-0	
	2	sf5	℄ 3/4 x 7 1/2	4	7 3/8	*	3/P	3/L	FROM 2/B CROP ABOVE	
	1/1	fb1 R/L	℄ 1/4 x 3 3/4	0	10 13/16	6	3/R		Res. 1/4 x 22 x 10'0	
	72		7/8 φ SHEAR STUD	0	7	~~95~~	3/T		A108 AUTO END WELD ERICO 31382	
			TOTAL WGT. =	27650						
			*PAY WEIGHT							
	2	sf5	℄ 1/2 x 7 1/2	4	7 3/8	118				

IT. NO. 506.91 BR. NO. B-9 PROJ. NO. BRS 0238(2)

FOR APPROVAL **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR. [X] A588 GR. [X] Unless Noted [ ]
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None [ ]
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC - SP6

GIRDER - HG1B

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
REV. △		
CHECKED	10-3-83	GK
DRAWN	9-27-83	ELC

Bancroft & Martin Inc.
South Portland, Maine 04106

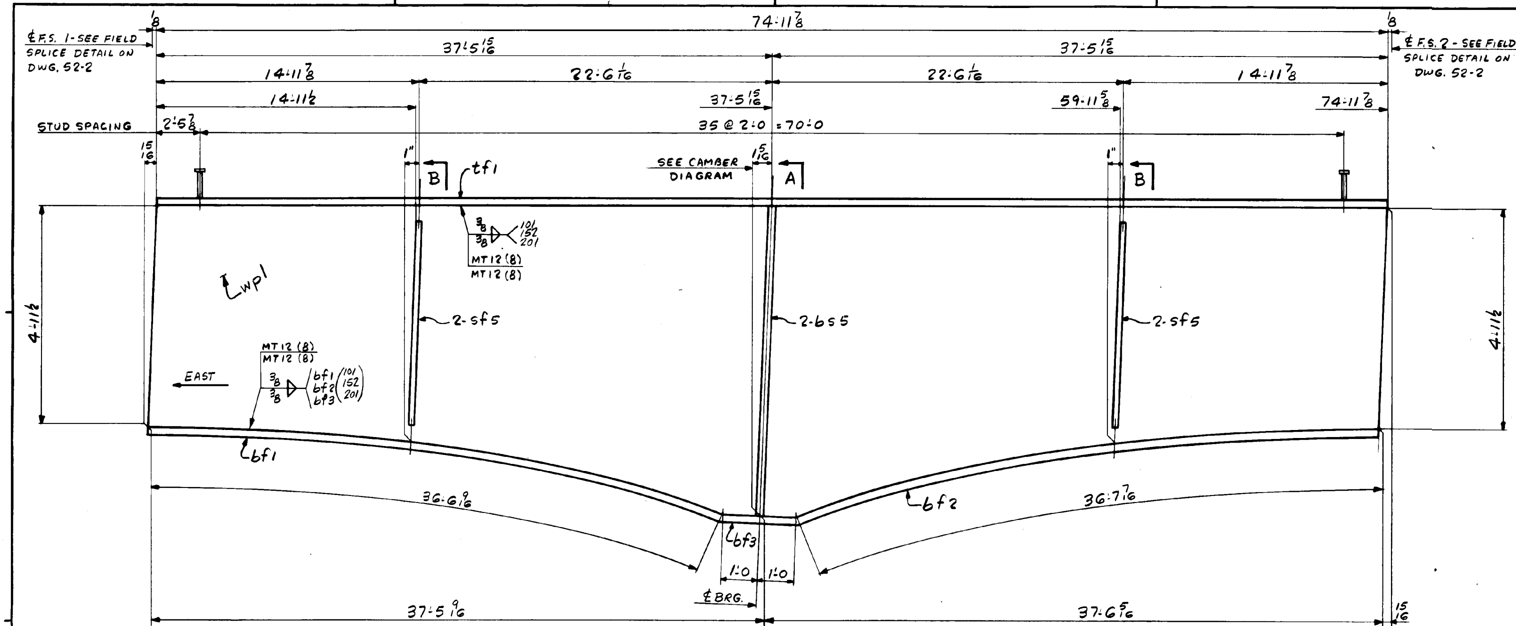
JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT

CUSTOMER: BECK / BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

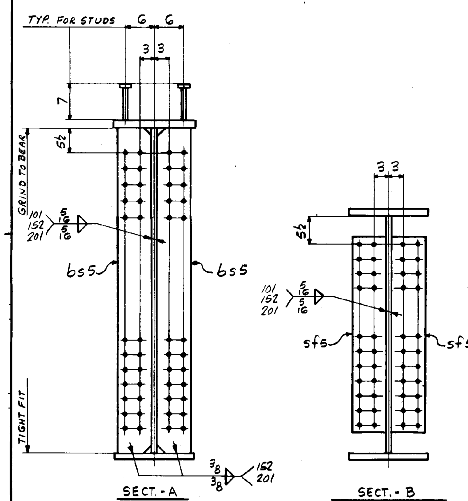
ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-6	△

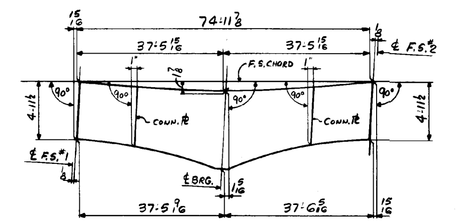
900-08



ONE - GIRDER - HG2B
ONE - GIRDER - HG3B
ALIKE UNTIL REAMED

FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB PL CUTTING SK. & FLG. PL ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1





CAMBER DIAGRAM

101

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
HG2B	1		GIRDER						
HG3B	1		GIRDER						
	2	wp1	PL 3/4 x 86 1/16	75	0 13/16	25810	2/B		CVN 2 @ 86-1/2 x 75'3 - SAVE CROP
	2	tf1	PL 1 3/4 x 16	74	11 7/8	14290	2/G		CVN 2 @ 75'3
	2	bf1	PL 1 3/4 x 16	36	6 9/16	6964	2/H		2 @ 36'11
	2	bf2	PL 1 3/4 x 16	36	7 7/16	6978	2/H		2 @ 39'2 SAVE CROP FOR 2/I
	2	bf3	PL 1 3/4 x 16	2	0 1/4	385	2/I		CUT FROM 39'2 ABOVE
	4	bs5	PL 7/8 x 7 1/2	7	0	625	3/K	3/F	FIE, MIE 1 @ 96 x 13'0
	8	sf5	PL 3/4 x 7 1/2	4	7 3/8	*	3/P	3/L	FROM 2/B WASTE ABOVE
	144		7/8 ϕ SHEAR STUD	0	7	196	3/T		A10B AUTO END WELD ERICO 31382
			TOTAL WGT. =	555	23				
		* PAY WEIGHT							
	8	sf5	PL 1/2 x 7 1/2	4	7 3/8	471			

JOB NO. 3-16 DRAWING NO. 52-7 REV. △

IT. NO. 506.91 BR. NO. B-9 PROJ. NO. BRS 0238(2)

FOR APPROVAL **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR [X] A588 GR [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC - SP6

GIRDER - HG2B & HG3B

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.

~~ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN~~

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

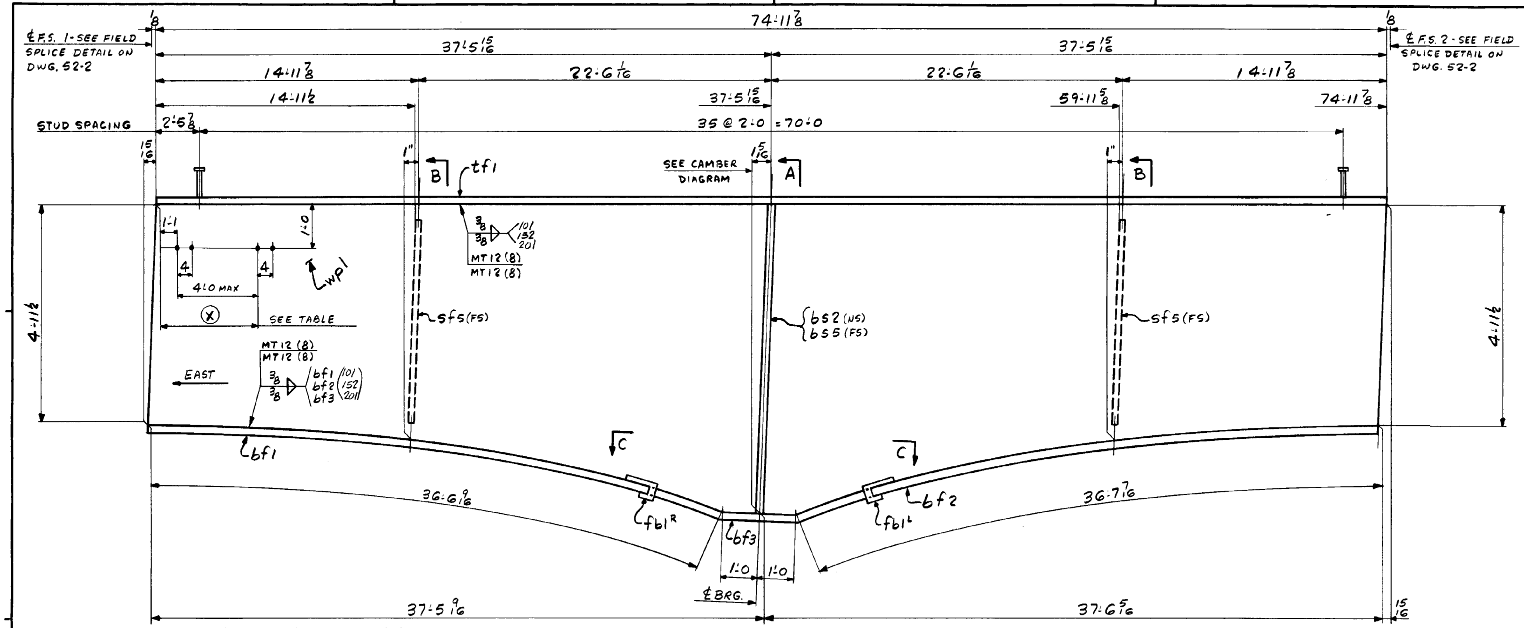
CUSTOMER: BECK / BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

REV. △		
CHECKED	10-3-83	GK
DRAWN	9-27-83	ELC

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-7	△

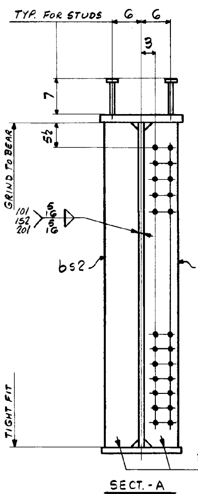
900-08



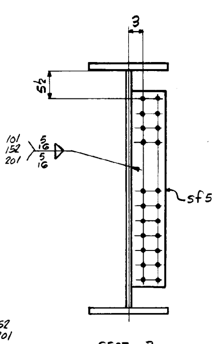
DIM. (X)	DIM. (X)	DIM. (X)
4'-10	31'-7	54'-7
8'-7	35'-5	58'-5
12'-5	39'-3	62'-3
16'-3	43'-1	66'-1
20'-1	46'-11	69'-10
23'-11	50'-9	73'-7
27'-9		

ONE - GIRDER - HG4B

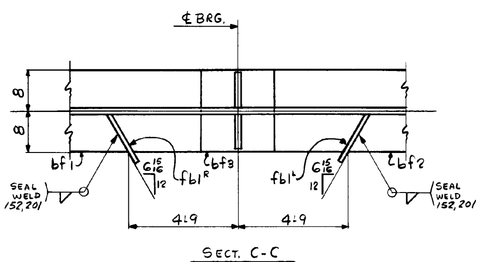
FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB PL CUTTING SK. & FLG. PL ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1



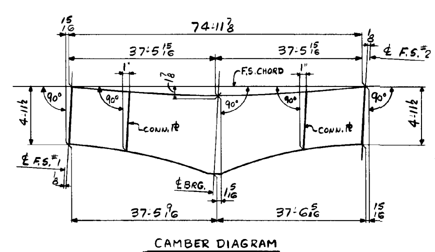
SECT. - A



SECT. - B



SECT. C-C



CAMBER DIAGRAM

102

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN

BILL OF MATERIAL

JOB NO. 3-16 | DRAWING NO. 52-8 | REV. △

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
HG4B	1		GIRDER						
	1	wp1	PL 3/4 x 86 1/16	75	0 13/16	12905	2/B		CVN 1 @ 86-1/2 x 75'3 SAVE CROP FOR 3/L
	1	tf1	PL 1 3/4 x 16	74	11 7/8	7145	2/G		CVN 1 @ 75'3
	1	bf1	PL 1 3/4 x 16	36	6 9/16	3482	2/H		1 @ 36'11
	1	bf2	PL 1 3/4 x 16	36	7 1/16	3489	2/H		1 @ 39'2 - SAVE FOR 2I
	1	bf3	PL 1 3/4 x 16	2	0 1/4	193	2/I		CUT FROM 39'2
	1	bs2	PL 7/8 x 7 1/2	7	0	156	3/K	3/F	F1E, M1E 1 @ 96 x 13'-0
	1	bs5	PL 7/8 x 7 1/2	7	0	156	3/K	3/F	F1E, M1E
	2	sf5	PL 3/4 x 7 1/2	4	7 3/8	*	3/P	3/L	FROM 2/B CROP
	1/1	fb1R/L	PL 1/4 x 3 3/4	0	10 13/16	6	3/R		RES. 1/4 x 22 x 10'0
	72		7/8 φ SHEAR STUD	0	7	~~95~~	3/T		A108 AUTO END WELD ERICO 31382
			TOTAL WGT. = 27650						
			*PAY WEIGHT						
	2	sf5	PL 1/2 x 7 1/2	4	7 3/8	118			

IT. NO. 506.91 | BR. NO. B-9 | PROJ. NO. BRS 0238(2)

FOR APPROVAL | FOR FILES & FIELD

STEEL: ASTM. [ ] A36 [ ] A572 GR. [X] A588 GR. [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC - SP6

GIRDER - HG4B

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
REV. △		
CHECKED	10-3-83	GK
DRAWN	9-27-83	ELC

Bancroft & Martin Inc.
South Portland, Maine 04106

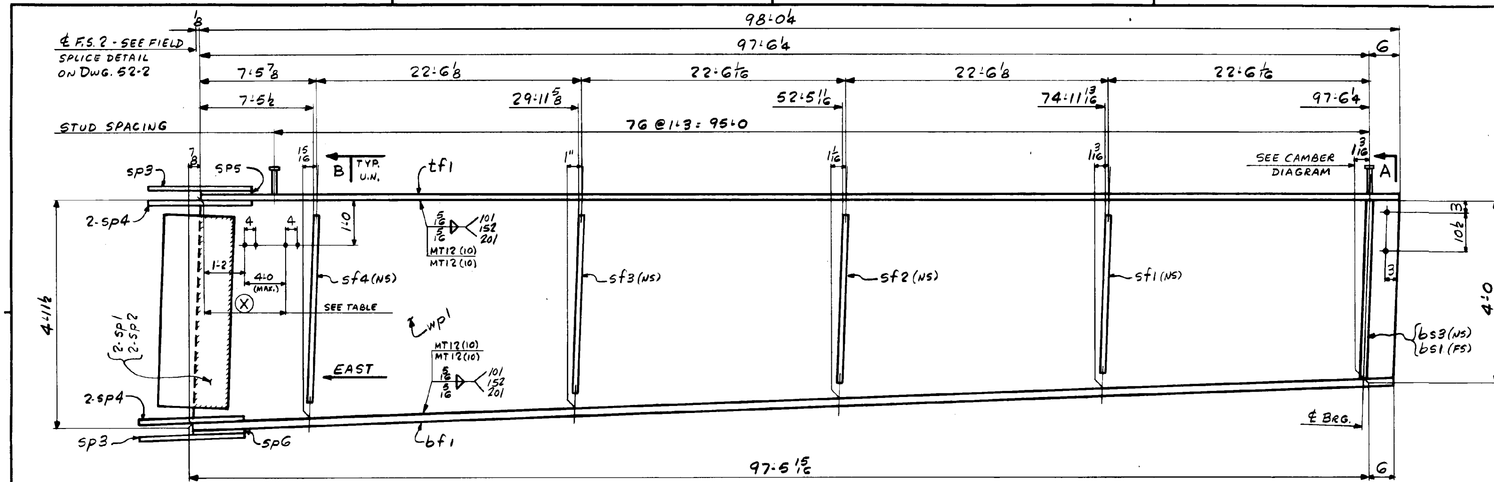
JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

CUSTOMER: BECK / BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-8	△

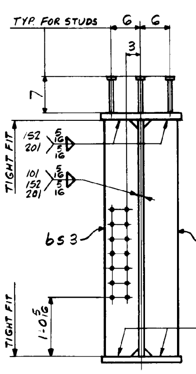
900-08



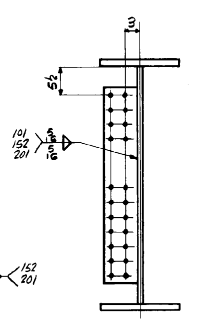
DIM. (X)	DIM. (X)
5'-2	53'-0
9'-0	57'-0
13'-0	61'-0
17'-0	65'-0
21'-0	69'-0
25'-0	73'-0
29'-0	77'-0
33'-0	81'-0
37'-0	85'-0
41'-0	89'-0
45'-0	93'-0
49'-0	96'-8

ONE - GIRDER - G1C

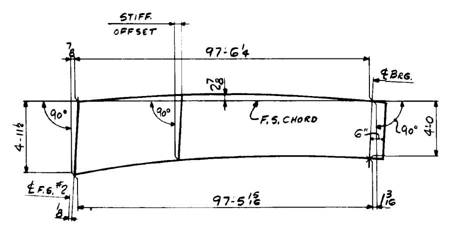
FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB ℘ CUTTING SK. & FLG. ℘ ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1



SECT.-A



SECT.-B
(SEE ELEV. FOR MARKS)



CAMBER DIAGRAM

103

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN

BILL OF MATERIAL

SHIP — JOB NO. 3-16 — DRAWING NO. 52-9 — REV. △

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G1C.	1		GIRDER						
	1	wp1	℘ ⅝ × 62⅜	98	1⅛	11202	2/A		CVN 1 @ 63 × 98'4
	1	tf1	℘ ⅞ × 16	98	0¼	4670	2/E		1 @ 98'3
	1	bf1	℘ 1⅜ × 16	97	11 15/16	7336	2/D		CVN 1 @ 98'3
	1	bs1	℘ ⅞ × 7½	4	0	89	3/J	3/F	F2E 1 @ 96 ×
	1	bs3	℘ ⅞ × 7½	4	0	89	3/J	3/F	F2E 13'-0
	1	sf1	℘ ¾ × 7½	3	6⅝	*	3/L		From 2/B waste
	1	sf2	℘ ¾ × 7½	3	9¼	*	3/M		¾ × 86-½ × 75'-3
	1	sf3	℘ ¾ × 7½	4	0	*	3/N		
	1	sf4	℘ ¾ × 7½	4	2⅝	*	3/O		
	2	sp1	℘ ⅝ × 54½	1	7½	*	3/B		CVN Res. @ Rigby
	2	sp2	℘ 1/16 × 9⅝	4	6½	*	3/C		A606(4) 2 @ 4' × 10'
	2	sp3	℘ ⅝ × 16	2	4	*	3/D		CVN Res. @
	4	sp4	℘ ⅝ × 7	2	4	*	~~3/G~~	3/D	CVN Rigby
	1	sp5	℘ ⅞ × 16	1	1⅞	*	3/F		1 @ 96 × 13'-0
	1	sp6	℘ ⅜ × 16	1	1⅞	*	3/G		Res. 1 @ 92 × 7'6
	231		⅞φ SHEAR STUD	0	7	~~30~~5	3/T		A108 AUTO END WELD ERICO 31382
			TOTAL WGT =			24255			
			*PAY WEIGHT						
	1	sf1	℘ ½ × 7½	3	6⅝	45			
	1	sf2	Do	3	9¼	48			
	1	sf3	Do	4	0	51			
	1	sf4	Do	4	2⅝	54			
	2	sp1	℘ ½ × 54	1	6½	283			
	2	sp2	℘ 1/16 × 9¼	4	6	18			
	2	sp3	℘ ⅝ × 16	2	3½	156			
	4	sp4	℘ ⅝ × 7	2	3½	136			
	1	sp5	℘ ⅞ × 16	1	1¾	55			
	1	sp6	℘ ⅜ × 16	1	1¾	23			

IT. NO. 506.91 — BR. NO. B-9 — PROJ. NO. BRS 0238(2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR. [X] A588 GR. [X] Unless Noted [ ]
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None [ ]
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC - SP6

GIRDER - G1C

APPROVED: 10-27-83

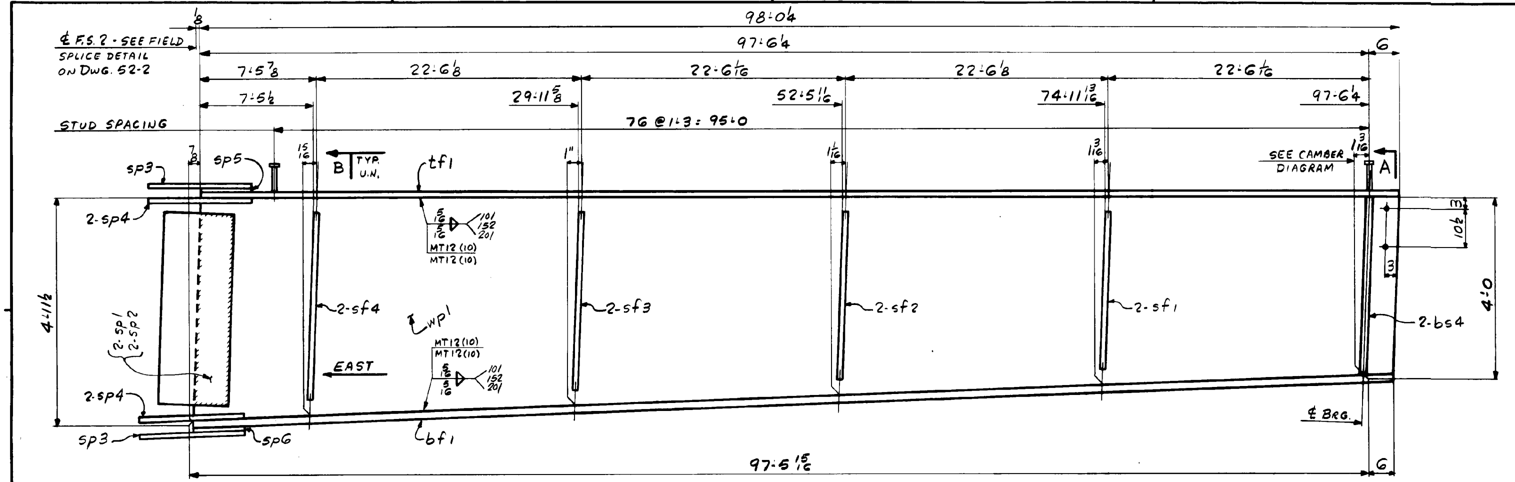
PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
REV. △		
CHECKED	10-3-83	GK
DRAWN	9-28-83	ELC

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT
CUSTOMER: BECK / BELLUCI
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

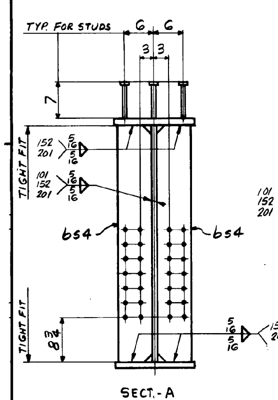
ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-9	△

900-08

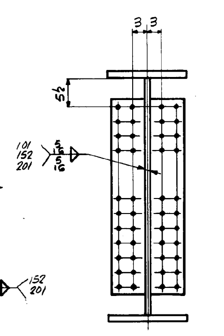


ONE - GIRDER - G2C } ALIKE UNTIL REAMED
ONE - GIRDER - G3C

FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB ℞ CUTTING SK. & FLG. ℞ ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1

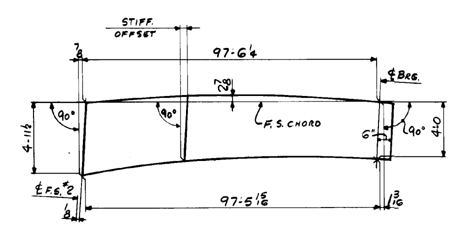


SECT.-A



SECT.-B

(SEE ELEV. FOR MARKS)



CAMBER DIAGRAM

104

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G2C	1		GIRDER						
G3C	1		GIRDER						
	2	wp1	℞ 5/8 × 62 3/8	98	1 1/8	22404	2/A		CVN 2 @ 63 × 98'-4
	2	tf1	℞ 7/8 × 16	98	0 1/4	9339	2/E		2 @ 98'3
	2	bf1	℞ 1 3/8 × 16	97	11 15/16	14672	2/D		CVN 2 @ 98'3
	4	bs4	℞ 7/8 × 7½	4	0	357	3/J	3/F	F2E 1 @ 96 × 13'0
	4	sf1	℞ 3/4 × 7½	3	6 5/8	*	3/L		From 2/8 crop
	4	sf2	℞ 3/4 × 7½	3	9¼	*	3/M		3/4 × 86-1/2 × 75'3
	4	sf3	℞ 3/4 × 7½	4	0	*	3/N		
	4	sf4	℞ 3/4 × 7½	4	2 5/8	*	3/O		
	4	sp1	℞ 5/8 × 54½	1	7½	*	3/B		CVN Res @ Rigby
	4	sp2	℞ 1/16 × 9 5/8	4	6½	*	3/C		A606 (4) 2 @ 4' × 16'
	4	sp3	℞ 5/8 × 16	2	4	*	3/D		CVN Res. @
	8	sp4	℞ 5/8 × 7	2	4	*	3/E	3/0	CVN RIGBY
	2	sp5	℞ 7/8 × 16	1	1 7/8	*	3/F		1 @ 96 × 13'0
	2	sp6	℞ 3/8 × 16	1	1 7/8	*	3/G		Res. 1 @ 92 × 7'6
	462		7/8 ⌀ SHEAR STUD	0	7	~~6/1~~	3/T		A108 AUTO END WELD Frico 3138
			TOTAL WGT. = 48907						
			* PAY WEIGHT						
	4	sf1	℞ ½ × 7½	3	6 5/8	181			
	4	sf2	Do	3	9¼	192			
	4	sf3	Do	4	0	204			
	4	sf4	Do	4	2 5/8	215			
	4	sp1	℞ ½ × 54	1	6½	567			
	4	sp2	℞ 1/16 × 9¼	4	6	35			
	4	sp3	℞ 5/8 × 16	2	3½	312			
	8	sp4	℞ 5/8 × 7	2	3½	273			
	2	sp5	℞ 7/8 × 16	1	1¾	109			
	2	sp6	℞ 3/8 × 16	1	1¾	47			

JOB NO. 3-16 — DRAWING NO. 52-10 — REV. △

IT. NO. 506.91 — BR. NO. B-9 — PROJ. NO. BRS 0238(2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. ☐ A36 ☐ A572 GR ☒ A588 GR ☒ Unless Noted ☐
WELDING ELECTRODE: ☐ E70 ☒ See Welding Proc. ☐ None ☐
SHOP CONN: ☐ Bolted ☒ Welded ☐ None
FIELD CONN: ☒ Bolted ☐ Welded ☐ None
HOLES: ☐ 13/16 ☒ 15/16 ☐ ☐ Unless Noted ☐ None
PAINT: ☒ None ☐ Shopcoat ☐ Galv. After Fab. ☐ As Noted
SPECIAL PAINT:
SPECIAL CLEANING: ☒ Blast Clean ☐ None SSPC - SP6

GIRDER - G2C & G3C

APPROVED: 10-27-83

PRINT DIST.

6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT

CUSTOMER: BECK / BELLUCI

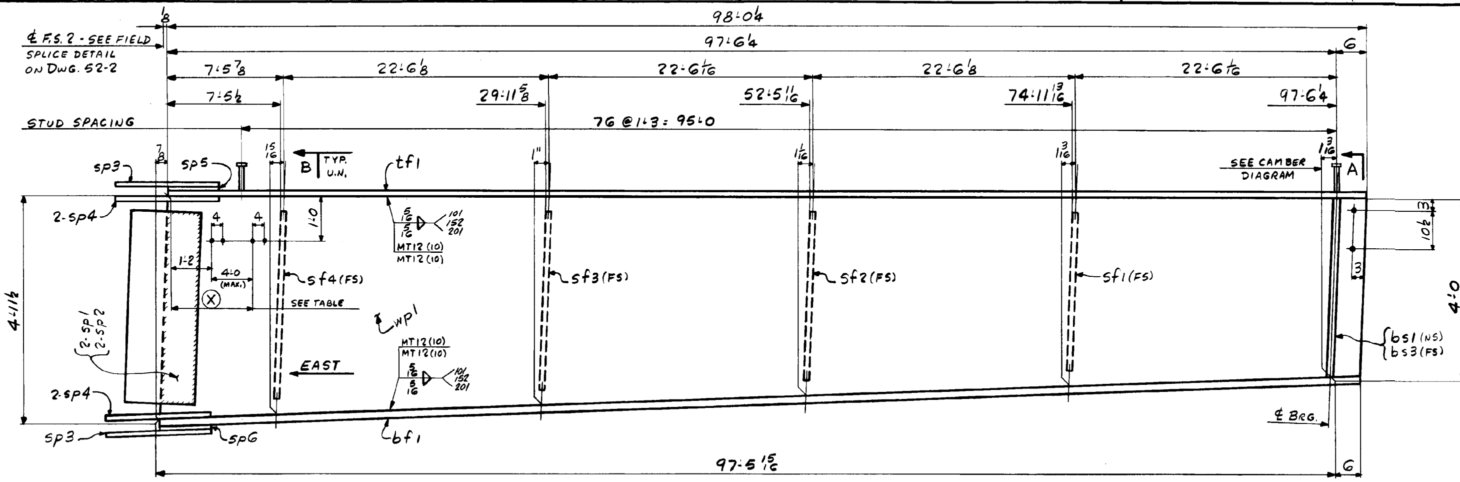
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

~~ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING, FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.~~

REV. △
CHECKED 10-3-83 GK
DRAWN 9-28-83 ELC

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-10	△

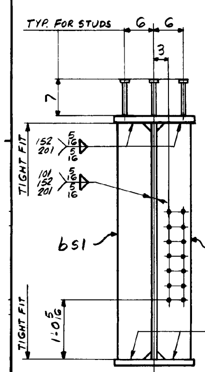
900-08



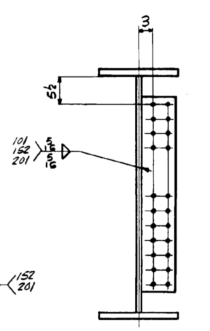
DIM. (X)	DIM. (X)
5'-2	53'-0
9'-0	57'-0
13'-0	61'-0
17'-0	65'-0
21'-0	69'-0
25'-0	73'-0
29'-0	77'-0
33'-0	81'-0
37'-0	85'-0
41'-0	89'-0
45'-0	93'-0
49'-0	96'-8

ONE - GIRDER - G4C

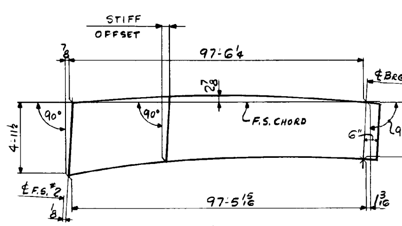
FOR GIRDER STANDARD DETAILS SEE DWG. 52-2
FOR WEB PL CUTTING SK. & FLG. PL ASSY SEE DWG. 52-1
FOR SHOP ASSEMBLY DIAGRAM SEE DWG. 52-1



SECT. - A



SECT. - B
(SEE ELEV. FOR MARKS)



CAMBER DIAGRAM

105

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

BILL OF MATERIAL

JOB NO. 3-16 | DRAWING NO. 52-11 | REV. △

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G4C	1		GIRDER						
	1	wp1	PL 5/8 x 62 3/8	98	1 1/8	11202	2/A		CVN 1 @ 63 x 98'4
	1	tf1	PL 7/8 x 16	98	0 1/4	4670	2/E		1 @ 98'3
	1	bf1	PL 1 3/8 x 16	97	11 15/16	7336	2/D		CVN 1 @ 98'3
	1	bs1	PL 7/8 x 7 1/2	4	0	89	~~3/J~~	3/F	F2E 1 @ 96 x
	1	bs3	PL 7/8 x 7 1/2	4	0	89	~~3/J~~	3/F	F2E 13'0
	1	sf1	PL 3/4 x 7 1/2	3	6 5/8	*	3/L		From 2/8 Crop
	1	sf2	PL 3/4 x 7 1/2	3	9 1/4	*	3/M		3/4 x 86 1/2 x
	1	sf3	PL 3/4 x 7 1/2	4	0	*	3/N		75'3
	1	sf4	PL 3/4 x 7 1/2	4	2 5/8	*	3/O		
	2	sp1	PL 5/8 x 54 1/2	1	7 1/2	*	3/B		CVN Res. @ Rigby
	2	sp2	PL 1/16 x 9 5/8	4	6 1/2	*	3/C		A606(4) 2 @ 4'x10'
	2	sp3	PL 5/8 x 16	2	4	*	3/D		CVN Res @
	4	sp4	PL 5/8 x 7	2	4	*	~~3/E~~	3/D	CVN Rigby
	1	sp5	PL 7/8 x 16	1	1 7/8	*	3/F		1 @ 96 x 13'0
	1	sp6	PL 3/8 x 16	1	1 7/8	*	3/G		Res. 1 @ 92 x 7'6
	231		7/8 ϕ SHEAR STUD	0	7	3~~0~~5	3/T		A108 AUTO END WELD Erico 31382
			TOTAL WGT. = 24255						
			* PAY WEIGHT						
	1	sf1	PL 1/2 x 7 1/2	3	6 5/8	45			
	1	sf2	Do	3	9 1/4	48			
	1	sf3	D.	4	0	51			
	1	sf4	D.	4	2 5/8	54			
	2	sp1	PL 1/2 x 54	1	6 1/2	283			
	2	sp2	PL 1/16 x 9 1/4	4	6	18			
	2	sp3	PL 5/8 x 16	2	3 1/2	156			
	4	sp4	PL 5/8 x 7	2	3 1/2	136			
	1	sp5	PL 7/8 x 16	1	1 3/4	55			
	1	sp6	PL 3/8 x 16	1	1 3/4	23			

IT. NO. 506.91 | BR. NO. B-9 | PROJ. NO. BRS 0238(2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR. [X] A588 GR. [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC - SP6

GIRDER - G4C

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

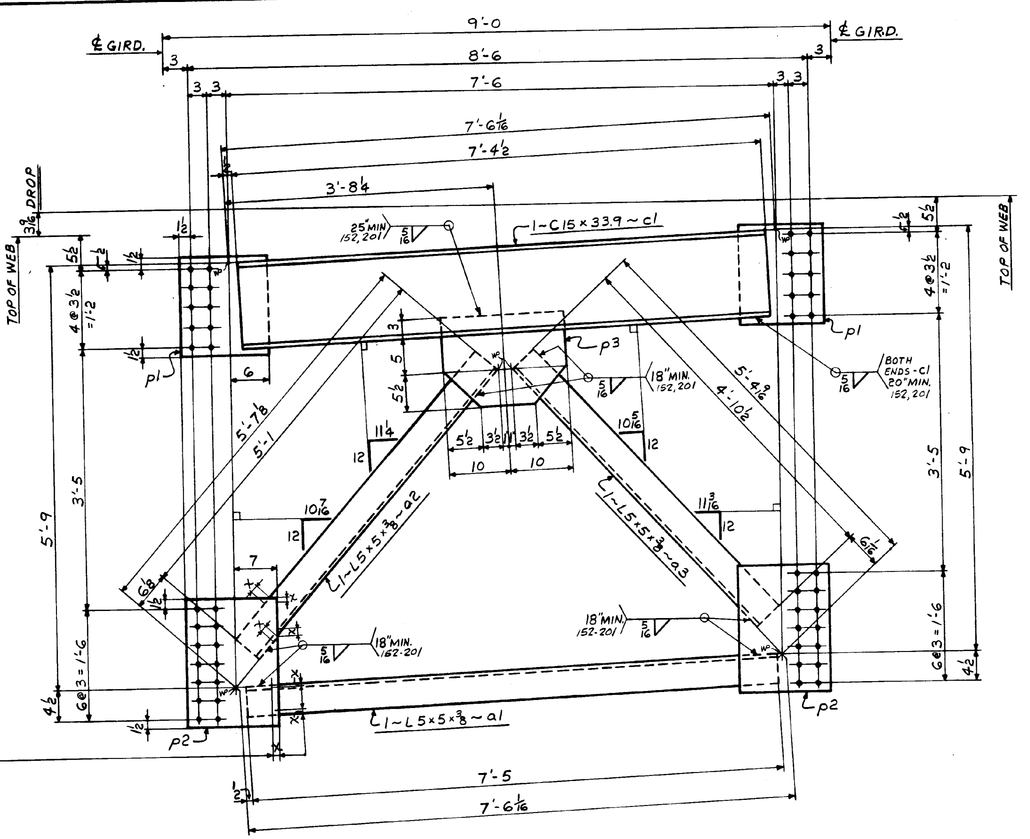
JOB: VERMONT RTE TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

CUSTOMER: BECK / BELLUCI
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

REV. △		
CHECKED	10-3-83	GK
DRAWN	9-28-83	ELC

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	52-11	△

900-08



SHOP NOTE "X": TERMINATE WELDS 1/4"MIN., 1/2"MAX FROM EDGES. TYP. @ ALL AROUND WELDS @ ALL GUSS. PLATES

K1 ONE ~ PIER CROSSFRAME ~ MK. F1

106

SHIP	BILL OF MATERIAL						JOB NO. 3-16	DRAWING NO. 53-1	REV. △
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
F1	ONE		CROSSFRAME						
	1	c1	C15×33.9	7	4½	250	4/D		1 @ 30'
	1	a1	L5×5×3/8	7	5	91	4/E		
	1	a2	L5×5×3/8	5	1	63	4/F		20 @ 40'
	1	a3	L5×5×3/8	4	10½	60	4/F		See Cut List
	2	p1	PL 7/16×13½	1	5	57	4/G		Res. 1 @ 41×49
	2	p2	PL 7/16×14½	1	9	76	4/H		1 @ 96×20' (Cut 4R)
	1	p3	PL 7/16×13½	1	8	33	4/I		Res. 1 @ 41×49

TOTAL WGT. = 630

IT. NO. 506.91 BR. NO. B-9 PROJ. NO. BRS 0238(2)

FOR APPROVAL **FOR FILES & FIELD**

STEEL: ASTM. ☐ A36 ☐ A572 GR ☒ A588 GR ☐ Unless Noted ☐
WELDING ELECTRODE: ☐ E70 ☒ See Welding Proc. ☐ None ☐
SHOP CONN: ☐ Bolted ☒ Welded ☐ None
FIELD CONN: ☒ Bolted ☐ Welded ☐ None
HOLES: ☐ 13/16 ☒ 15/16 ☐ ☐ Unless Noted ☐ None
PAINT: ☒ None ☐ Shopcoat ☐ Galv. After Fab. ☐ As Noted
SPECIAL PAINT:
SPECIAL CLEANING: ☒ Blast Clean ☐ None SSPC-SP6

PIER CROSSFRAMES

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT

CUSTOMER: BECK/BELLUCI

DESIGNER: STATE OF VERMONT-AGENCY OF TRANS.

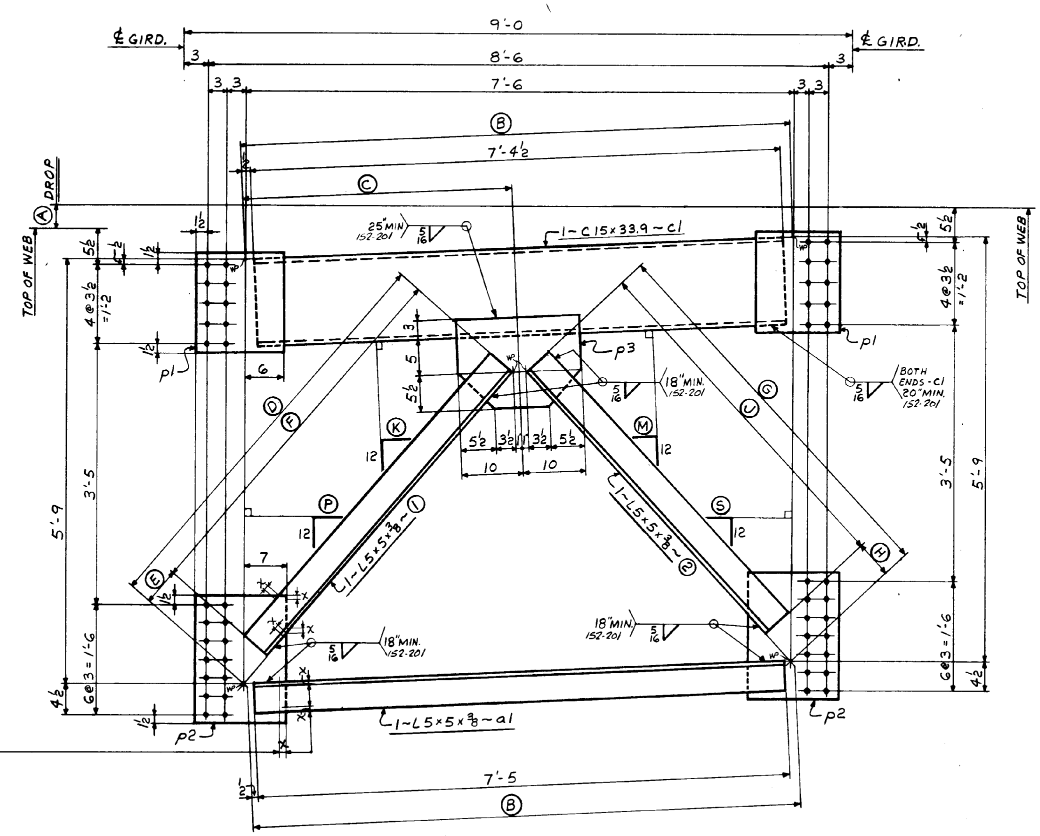
ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

REV. △		
CHECKED	10-3-83	G.K
DRAWN	9-22-83	RLA

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	53-1	△

900-13

HARLAN F. SPILLER CO. INC. 34595



SHOP NOTE "X": TERMINATE WELDS ¼" MIN., ½" MAX FROM EDGES. TYP. @ ALL AROUND WELDS @ ALL GUSS. PLATES

	MARK	Nº REQ'D	A	B	C	D	E	F	G	H	J	K	M	P	S	1	2
K2	F2	ONE	0"	7'-6	3'-9	5'-5⅞	5⅞	5'-0	5'-5⅞	5⅞	5'-0	10¾	10¾	10¾	10¾	a2	a2
K3	F3	ONE	3 9/16	7'-6 1/16	3'-8¼	5'-7⅛	6⅛	5'-1	5'-4 9/16	6 1/16	4'-10½	11¼	10 5/16	10 7/16	11 3/16	a3	a4

BILL OF MATERIAL

JOB NO. 3-16 | DRAWING NO. 53-2 | REV. △

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
F2	ONE		CROSSFRAME					
	1	c1	C15×33.9	7	4½	250	4/D	1 @ 30'0
	1	a1	L5×5×⅜	7	5	91	4/E	20 @ 40'0
	2	a2	L5×5×⅜	5	0	123	4/F	See Cut. List
	2	p1	PL 7/16 × 13½	1	5	57	4/G	Res. 1 @ 41 × 49
	2	p2	PL 7/16 × 14½	1	9	76	4/H	1 @ 96 × 20'
	1	p3	PL 7/16 × 13½	1	8	33	4/I	Res. 1 @ 41 × 49
F3	ONE		CROSSFRAME					
	1	c1	C15×33.9	7	4½	250	4/D	1 @ 30'0
	1	a1	L5×5×⅜	7	5	91	4/E	
	1	a3	L5×5×⅜	5	1	63	4/F	20 @ 40'
	1	a4	L5×5×⅜	4	10½	60	4/F	
	2	p1	PL 7/16 × 13½	1	5	57	4/G	Res. 1 @ 41 × 49
	2	p2	PL 7/16 × 14½	1	9	76	4/H	1 @ 96 × 20'
	1	p3	PL 7/16 × 13½	1	8	33	4/I	Res. 1 @ 41 × 49
			TOTAL WGT. = 1260					

IT. NO. 506.91 | BR. NO. B-9 | PROJ. NO. BRS 0238(2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. A36 / A572 GR. / [X] A588 GR. / Unless Noted
WELDING ELECTRODE: E70 / [X] See Welding Proc. / None
SHOP CONN: Bolted / [X] Welded / None
FIELD CONN: [X] Bolted / Welded / None
HOLES: 13/16 / [X] 15/16 / Unless Noted / None
PAINT: [X] None / Shopcoat / Galv. After Fab. / As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean / None — SSPC-SP6

PIER CROSSFRAMES

APPROVED: 10-27-83
PRINT DIST.: 6 — 10/11/83 — APP.; 8 — 10-28-83 — FAB.; F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

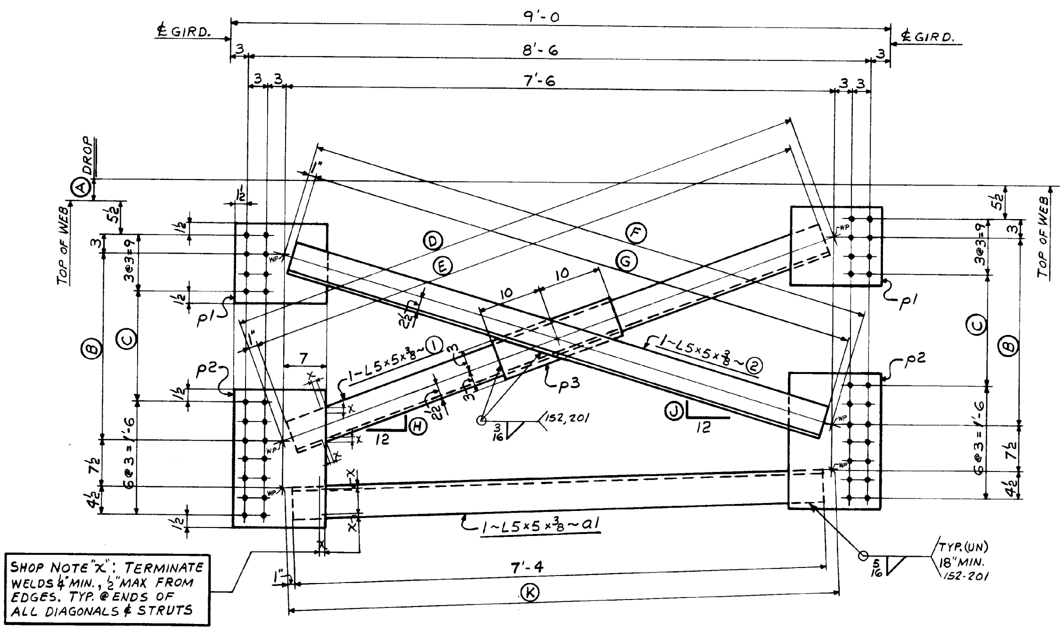
JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE, MORRISTOWN, VERMONT
CUSTOMER: BECK / BELLUCI
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.
ORDER NO. | JOB NO. 3-16 | DRAWING NO. 53-2 | REV. △
REV. △
CHECKED 10-3-83 G.K.
DRAWN 9-22-83 RLA

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

107

900-13

HARLAN F. SPILLER CO. INC. 34595



EAST

	MARK	No REQ'D	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)	(1)	(2)
x1	F4	2	3 9/16	2'-0 5/8	1'-0 5/8	7'-10 5/16	7'-8 1/4	7'-8 7/16	7'-6 1/4	3 3/4	2 13/16	7'-6 1/16	a2	a3
x4	F5	2	3 9/16	2'-3 1/4	1'-3 1/4	7'-11 1/8	7'-9	7'-9 1/16	7'-7	4 1/8	3 3/16	7'-6 1/16	a4	a5
x2	F6	2	0"	2'-0 5/8	1'-0 5/8	7'-9 5/16	7'-7 1/4	7'-9 5/16	7'-7 1/4	3 5/16	3 5/16	7'-6	a6	a6
x5	F7	2	0"	2'-3 1/4	1'-3 1/4	7'-10 1/16	7'-8	7'-10 1/16	7'-8	3 5/8	3 5/8	7'-6	a7	a7
x8	F8	2	0"	2'-5 15/16	1'-5 15/16	7'-10 7/8	7'-8 3/4	7'-10 7/8	7'-8 3/4	4	4	7'-6	a8	a8

SHIP | **BILL OF MATERIAL** | JOB NO. 3-16 | DRAWING NO. 53-3 | REV. △

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
F4	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		96 × 15' (cut 45)
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	1 @ 96 × 20'
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	96 × 15'
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	
	2	a2	L5×5×3/8	7	8 1/4	189	4/L	4/E	20 @ 40'
	2	a3	L5×5×3/8	7	6 1/4	185	4/L	4/E	See Cut. List
F5	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		96 × 15'
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	Above
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	Above
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	
	2	a4	L5×5×3/8	7	9	191	4/M	4/E	Above
	2	a5	L5×5×3/8	7	7	187	4/M	4/E	
F6	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		96 × 15'
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	Above
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	Above
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	Above
	4	a6	L5×5×3/8	7	7 1/4	374	4/L	4/E	
F7	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		96 × 15'
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	Above
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	Above
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	Above
	4	a7	L5×5×3/8	7	8	377	4/M	4/E	
F8	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		96 × 15'
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	Above
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	Above
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	Above
	4	a8	L5×5×3/8	7	8 3/4	380	4/N	4/E	
			TOTAL WGT.	= 4118					

IT. NO. 506.91 | BR. NO. B-9 | PROJ. NO. BRS 0238 (2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. ☐ A36 ☐ A572 GR. ☒ A588 GR. ☐ Unless Noted ☐

WELDING ELECTRODE: ☐ E70 ☒ See Welding Proc. ☐ None ☐

SHOP CONN: ☐ Bolted ☒ Welded ☐ None

FIELD CONN: ☒ Bolted ☐ Welded ☐ None

HOLES: ☐ 13/16 ☒ 15/16 ☐ ☐ Unless Noted ☐ None

PAINT: ☒ None ☐ Shopcoat ☐ Galv. After Fab. ☐ As Noted

SPECIAL PAINT:

SPECIAL CLEANING: ☒ Blast Clean ☐ None SSPC-SP6

INTERMEDIATE CROSSFRAMES

APPROVED: 10-27-83

PRINT DIST.

6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

CUSTOMER: BECK/BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

~~ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.~~

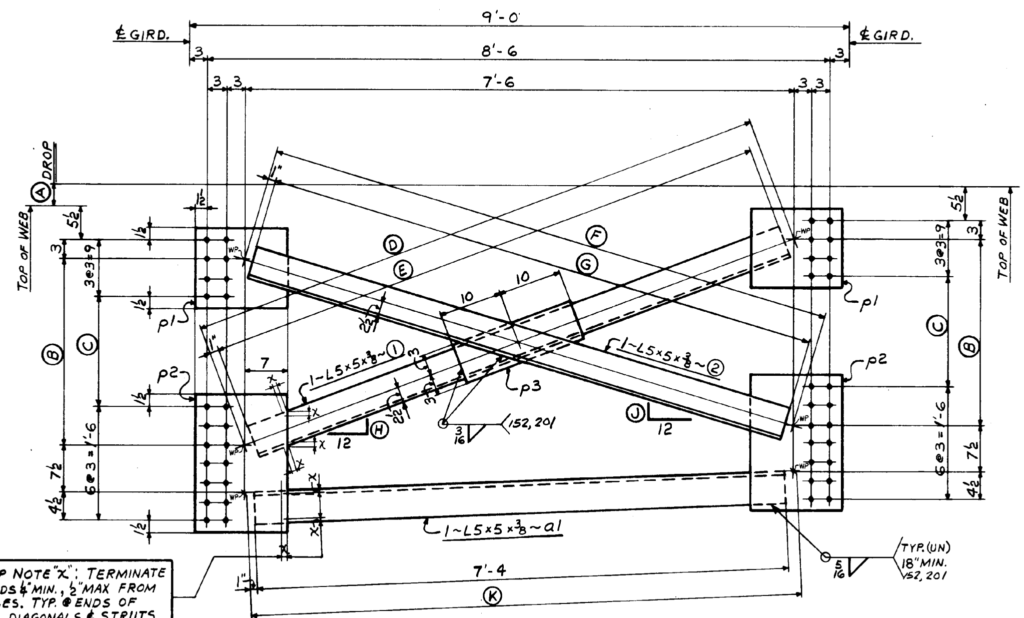
REV. △		
CHECKED	10-3-83	GK
DRAWN	9-24-83	RLA

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	53-3	△

108

900-13

HARLAN F. SPILLER CO. INC. 14985



SHOP NOTE "X": TERMINATE WELDS 1/4" MIN., 1/2" MAX FROM EDGES. TYP. @ ENDS OF ALL DIAGONALS & STRUTS

EAST	MARK	Nº REQ'D	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓙ	Ⓚ	①	②
X7	F9	2	3 9/16	2'-5 15/16	1'-5 15/16	8'-0	7'-10	7'-9 13/16	7'-7 3/4	4 7/16	3 1/2	7'-6 1/16	a2	a3
X10	F10	2	3 9/16	2'-8 9/16	1'-8 9/16	8'-1	7'-11	7'-10 9/16	7'-8 1/2	4 13/16	3 7/8	7'-6 1/16	a4	a5
X13	F11	2	3 9/16	3'-1 3/8	2'-1 3/8	8'-2 7/8	8'-0 3/4	8'-0 1/8	7'-10	5 7/16	4 1/2	7'-6 1/16	a6	a2
X11	F12	2	0"	2'-8 9/16	1'-8 9/16	7'-11 11/16	7'-9 1/2	7'-11 11/16	7'-9 1/2	4 5/16	4 5/16	7'-6	a7	a7
X14	F13	2	0"	3'-1 3/8	2'-1 3/8	8'-1 7/16	7'-11 1/4	8'-1 7/16	7'-11 1/4	5	5	7'-6	a8	a8

SHIP	BILL OF MATERIAL					JOB NO.		DRAWING NO.	REV.
						3-16		53-4	△
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
F9	2		CROSSFRAMES						
	4	p1	PL 7/16 x 12	1	2 1/2	86	4/Q		96 x 15' A250 CUTS 4/S
	4	p2	PL 7/16 x 14 1/2	1	9	151	4/R	4/H	1 @ 96 x 20'
	2	p3	PL 7/16 x 6	1	8	30	4/S	4/Q	Above
	2	a1	L5x5x3/8	7	4	180	4/K	4/E	20 @ 40'
	2	a2	L5x5x3/8	7	10	193	4/N	4/E	See Cut List
	2	a3	L5x5x3/8	7	7 3/4	188	4/N	4/E	
F10	2		CROSSFRAMES						
	4	p1	PL 7/16 x 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 x 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 x 6	1	8	30	4/S	4/Q	
	2	a1	L5x5x3/8	7	4	180	4/K	4/E	
	2	a4	L5x5x3/8	7	11	195	4/O	4/E	
	2	a5	L5x5x3/8	7	8 1/2	190	4/O	4/E	
F11	2		CROSSFRAMES						
	4	p1	PL 7/16 x 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 x 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 x 6	1	8	30	4/S	4/Q	
	2	a1	L5x5x3/8	7	4	180	4/K	4/E	
	2	a2	L5x5x3/8	7	10	193	4/P	4/E	
	2	a6	L5x5x3/8	8	0 3/4	198	4/P	4/E	
F12	2		CROSSFRAMES						
	4	p1	PL 7/16 x 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 x 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 x 6	1	8	30	4/S	4/Q	
	2	a1	L5x5x3/8	7	4	180	4/K	4/E	
	4	a7	L5x5x3/8	7	9 1/2	383	4/O	4/E	
F13	2		CROSSFRAMES						
	4	p1	PL 7/16 x 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 x 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 x 6	1	8	30	4/S	4/Q	
	2	a1	L5x5x3/8	7	4	180	4/K	4/E	
	4	a8	L5x5x3/8	7	11 1/4	391	4/P	4/E	
			TOTAL WGT. = 4166						

IT. NO. 506.91 BR. NO. B-9 PROJ. NO. BRS 0238 (2)

FOR APPROVAL **FOR FILES & FIELD**

STEEL: ASTM. ☐ A36 ☐ A572 GR. ☒ A588 GR. ☐ Unless Noted ☐

WELDING ELECTRODE: ☐ E70 ☒ See Welding Proc. ☐ None ☐

SHOP CONN: ☐ Bolted ☒ Welded ☐ None

FIELD CONN: ☒ Bolted ☐ Welded ☐ None

HOLES: ☐ 13/16 ☒ 15/16 ☐ ☐ Unless Noted ☐ None

PAINT: ☒ None ☐ Shopcoat ☐ Galv. After Fab. ☐ As Noted

SPECIAL PAINT:

SPECIAL CLEANING: ☒ Blast Clean ☐ None SSPC-SP6

INTERMEDIATE CROSSFRAMES

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10/28/83	FAB.
		F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT

CUSTOMER: BECK/BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

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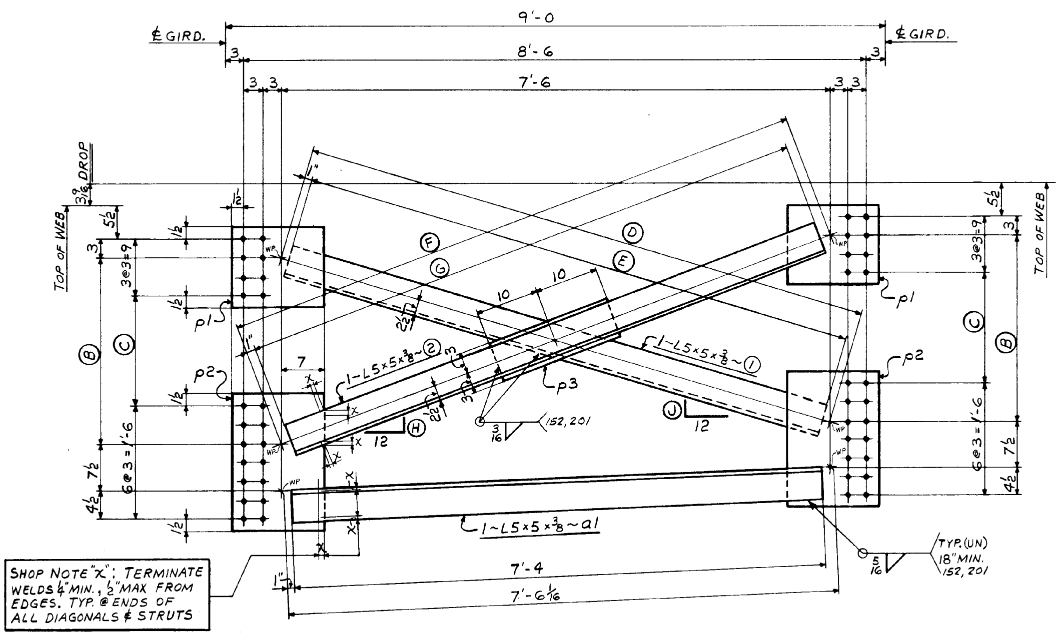
~~ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.~~

REV. △		ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED	10-3-83 GK		3-16	53-4	△
DRAWN	9-24-83 RLA				

900-13



WEST	MARK	Nº REQ'D	B	C	D	E	F	G	H	J	1	2	
X3	F14	2	2'-0 5/8	1'-0 5/8	7'-8 7/16	7'-6 1/4	7'-10 5/16	7'-8 1/4	3 3/4	2 13/16	a2	a3	OPP HAND
X6	F15	2	2'-3 1/4	1'-3 1/4	7'-9 1/16	7'-7	7'-11 1/8	7'-9	4 1/8	3 3/16	a4	a5	As SHOWN
X9	F16	2	2'-5 15/16	1'-5 15/16	7'-9 13/16	7'-7 3/4	8'-0	7'-10	4 7/16	3 1/2	a6	a7	
X12	F17	2	2'-8 9/16	1'-8 9/16	7'-10 9/16	7'-8 1/2	8'-1	7'-11	4 13/16	3 7/8	a8	a9	
X15	F18	2	3'-1 3/8	2'-1 3/8	8'-0 1/8	7'-10	8'-2 7/8	8'-0 3/4	5 7/16	4 1/2	a7	a10	

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ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

BILL OF MATERIAL

JOB NO. 3-16 — DRAWING NO. 53-5 — REV. △1

SHIP MARK	NO.	MARK	SHAPE	LENGTH (ft)	LENGTH (in)	WT.	ITEM NO.		REMARKS
F14	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		96×15' ALSO CUTS 4/S BELOW
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	1@96×20'
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	Above
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	
	2	a2	L5×5×3/8	7	6 1/4	185	4/L	4/E	20 @ 40'
	2	a3	L5×5×3/8	7	8 1/4	189	4/L	4/E	See Cut List
F15	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	
	2	a4	L5×5×3/8	7	7	187	4/M	4/E	
	2	a5	L5×5×3/8	7	9	191	4/M	4/E	
F16	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	
	2	a6	L5×5×3/8	7	7 3/4	188	4/N	4/E	
	2	a7	L5×5×3/8	7	10	193	4/N	4/E	
F17	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	
	2	a8	L5×5×3/8	7	8 1/2	190	4/O	4/E	
	2	a9	L5×5×3/8	7	11	195	4/O	4/E	
F18	2		CROSSFRAMES						
	4	p1	PL 7/16 × 12	1	2 1/2	86	4/Q		Above
	4	p2	PL 7/16 × 14 1/2	1	9	151	4/R	4/H	
	2	p3	PL 7/16 × 6	1	8	30	4/S	4/Q	
	2	a1	L5×5×3/8	7	4	180	4/K	4/E	
	2	a7	L5×5×3/8	7	10	193	4/P	4/E	
	2	a10	L5×5×3/8	8	0 3/4	198	4/P	4/E	
			TOTAL WGT. = 4144						

IT. NO. 506.91 — BR. NO. B-9 — PROJ. NO. BRS 0238(2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [ ] A36 [ ] A572 GR. [X] A588 GR. [ ] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] Unless Noted [ ] None
PAINT: [X] None [ ] Shopcoat [ ] Galv. After Fab. [ ] As Noted
SPECIAL PAINT:
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC-SP6

INTERMEDIATE CROSSFRAMES

APPROVED: 10-27-83

PRINT DIST.		
6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
6	12-15-83	APP
8	12-15-83	FAB

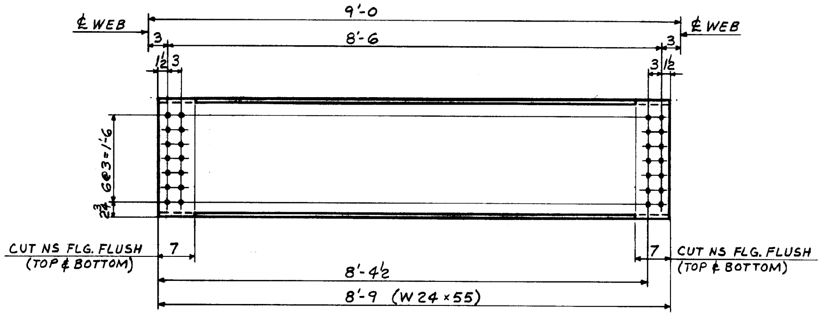
REV. △1	12-15-83	JCM
CHECKED	10-3-83	G.K
DRAWN	9-23-83	RLA

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE MORRISTOWN, VERMONT
CUSTOMER: BECK/BELLUCI
DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	53-5	△1

900-13



6 ~ END DIAPHRAGMS ~ MK. D1

SHIP	BILL OF MATERIAL							JOB NO.	DRAWING NO.	REV.
								3-16	56-1	△
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS	
			END DIAPHRAGMS							
D1	6		W24×55	8	9	2888	4/B		1 @ 28'0 1 @ 26'4	

IT. NO. 506.91 | BR. NO. B-9 | PROJ. NO. BRS 0238(2)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. ☐ A36 ☐ A572 GR. ☒ A588 GR. ☐ Unless Noted ☐

WELDING ELECTRODE: ☐ E70 ☐ See Welding Proc. ☒ None ☐

SHOP CONN: ☐ Bolted ☐ Welded ☒ None

FIELD CONN: ☒ Bolted ☐ Welded ☐ None

HOLES: ☐ 13/16 ☒ 15/16 ☐ ☐ Unless Noted ☐ None

PAINT: ☒ None ☐ Shopcoat ☐ Galv. After Fab. ☐ As Noted

SPECIAL PAINT:

SPECIAL CLEANING: ☒ Blast Clean ☐ None SSPC-SP6

DIAPHRAGMS

APPROVED: 10-27-83

PRINT DIST.

6	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
REV. △		
CHECKED	10-3-83	GK
DRAWN	9-21-83	RLA

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

CUSTOMER: BECK/BELLUCI

DESIGNER: STATE OF VERMONT-AGENCY OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	56-1	△

~~ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.~~

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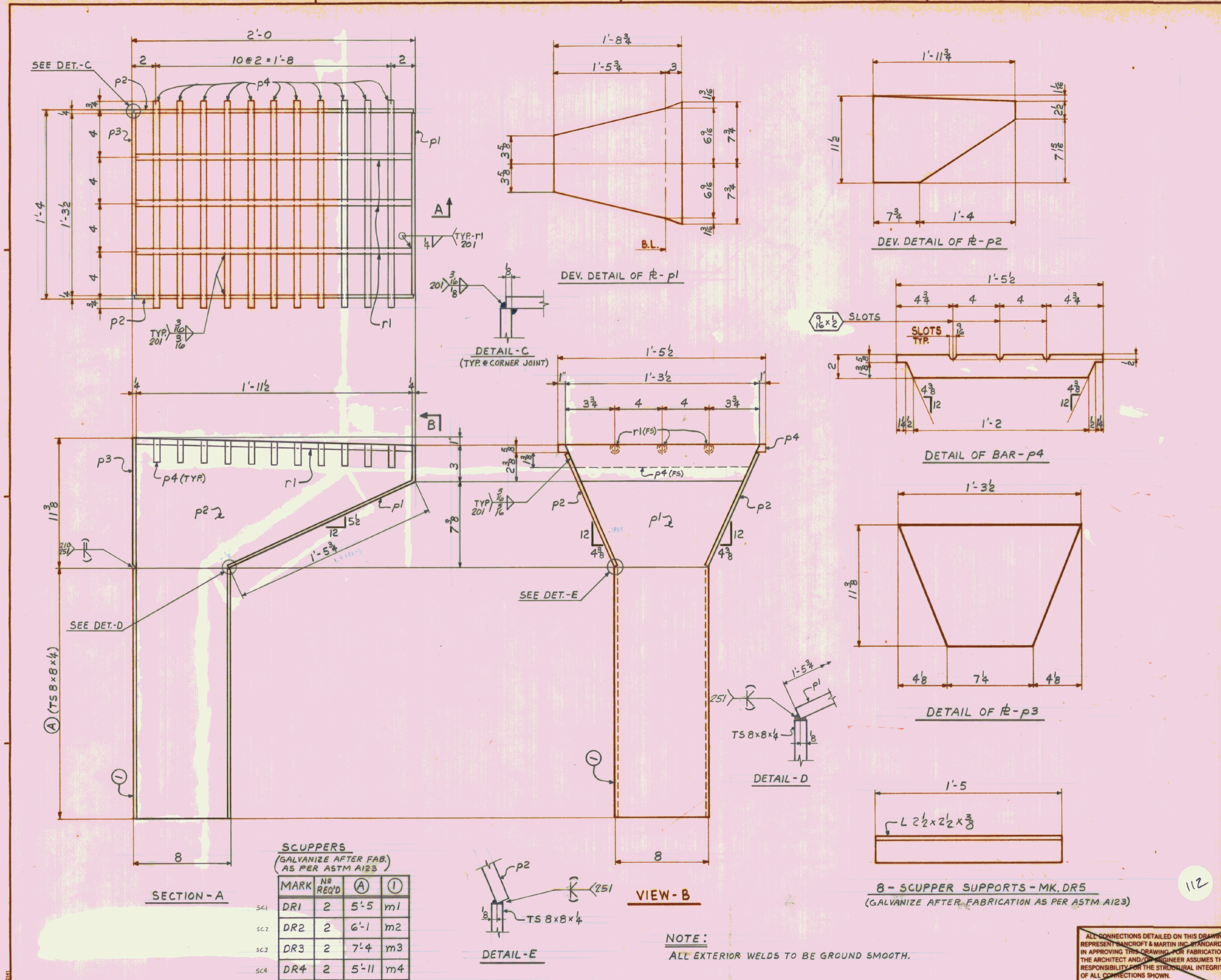
900-12

HARLAN F. SPILLER CO. INC. 34595



SCUPPERS
(GALVANIZE AFTER FAB. AS PER ASTM A123)

MARK	№ REQ'D	(A)	(1)
DR1	2	5'-5	m1
DR2	2	6'-1	m2
DR3	2	7'-4	m3
DR4	2	5'-11	m4

NOTE:
ALL EXTERIOR WELDS TO BE GROUND SMOOTH.

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

SHIP	BILL OF MATERIAL					JOB NO. 3-16		DRAWING NO. 59-1	REV. △
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
DR1	2		SCUPPERS						
DR2	2								
DR3	2								
DR4	2								
	2	m1	TS 8×8×¼	5	5	280	5/B	1@ 10'11	DR1 ASTM A500 OR A501
	2	m2		6	1	314	5/C	1@ 40'	DR2
	2	m3		7	4	379	5/D	5/C	DR3
	2	m4		5	11	306	5/E	5/C	DR4
	8	p1	℞ ¼ × 15½	1	8¾	182	6/B	1@ 96×96	BENT
	16	p2	℞ ¼ × 11½	1	11¾	310	6/C	6/B	
	8	p3	℞ ¼ × 11⅜	1	3½	100	6/D	6/B	
	88	p4	BAR 2×½	1	5½	437	5/F	7@ 20'	
	24	r1	ROD ½"ϕ	1	11½	31	5/G	STK. m/SHOP	
DR5	8		L 2½×2½×⅜	1	5	*	5/J	Res.@ RIGBY	
			* PAY WEIGHT						
DR5	8		L 2×2×5/16	1	5	44			
			TOTAL WGT. = 2383						

IT. NO. 506.91 BR. NO. B-9 PROJ. NO. BRS 0238(2)

FOR APPROVAL | FOR FILES & FIELD

STEEL: ASTM. [X] A36 [ ] A572 GR. [ ] A588 GR. [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [ ] Bolted [X] Welded [ ] None
HOLES: [ ] 13/16 [ ] 15/16 [ ] Unless Noted [X] None
PAINT: [X] None [ ] Shopcoat [X] Galv. After Fab. [ ] As Noted
SPECIAL PAINT: NONE
SPECIAL CLEANING: [ ] Blast Clean [X] None

SCUPPERS

APPROVED: 10-27-83

PRINT DIST.		
6p	10/11/83	APP.
8	10-28-83	FAB.
		F&F.
6p	10/19/83	APP.
REV. △		
CHECKED	10-7-83	GK
DRAWN	10-7-83	RLA

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: VERMONT RTE. TH3 OVER LAKE LAMOILLE
MORRISTOWN, VERMONT

CUSTOMER: BECK/BELLUCI

DESIGNER: STATE OF VERMONT - AGENCY OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	3-16	59-1	△

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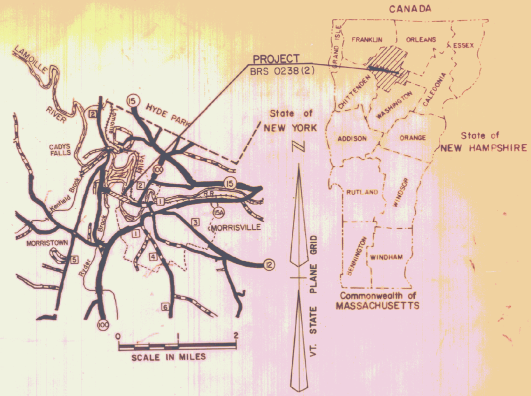
900-18

INDEX OF SHEETS

	TITLE SHEET
2	TYPICAL SHEET
3	ITEM DETAIL AND DRAINAGE SHEET
4	EARTHWORKS AND GRADE SHEET
5-8	LAYOUT AND PROFILE SHEETS
9-10	BR 100 SHEETS
11-24	CROSS SECTIONS
25-32	CHANNEL SECTIONS

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
TOWN OF MORRISTOWN
COUNTY OF LAMOILLE
ROUTE NO.-TH3, Cl.II BRIDGE NO.-9

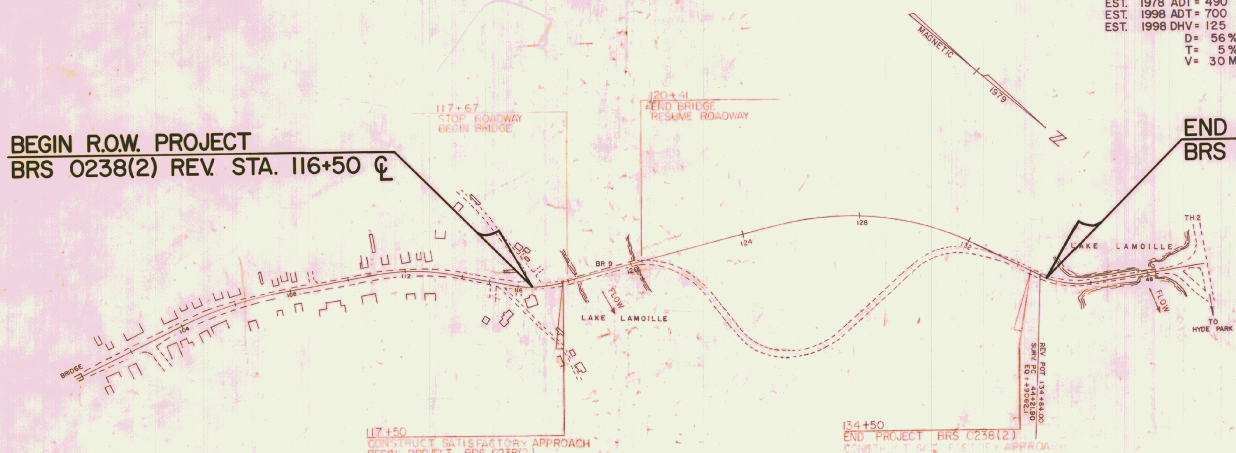
BEGINNING AT A POINT APPROXIMATELY 0.436 MILES SOUTHEASTERLY OF THE INTERSECTION OF TH2 WITH TH3 AND PROCEEDING NORTHWESTERLY ALONG TH3 FOR 0.322 MILES.

LENGTH OF ROADWAY 1426 FEET= 0.270 MILES
LENGTH OF BRIDGE 274 FEET= 0.052 MILES
LENGTH OF PROJECT 1700.00 FEET= 0.322 MILES
LENGTH OF R.O.W. PROJ. 1862.1 FEET= 0.353 MILES

R.O.W. PLANS

TRAFFIC DATA

EST. 1978 ADT= 490
EST. 1998 ADT= 700
EST. 1998 DHV= 125
D= 56%
T= 5%
V= 30 MPH



CONVENTIONAL SIGNS

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

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Director of Engineering and Construction.

Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction, dated March, 1976, as approved by the Federal Highway Administration on October 27, 1976 for use on this project, including all subsequent revisions and such revised specifications and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED S. J. Gage P.E. DATE MAY 5 1982
Director of Engineering and Construction

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED ________ DATE ________
DIVISION ADMINISTRATOR

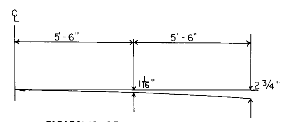
113

APPROVED W. R. Lewis
CHIEF, PROPERTY ADMINISTRATION
DATE 5-5-82

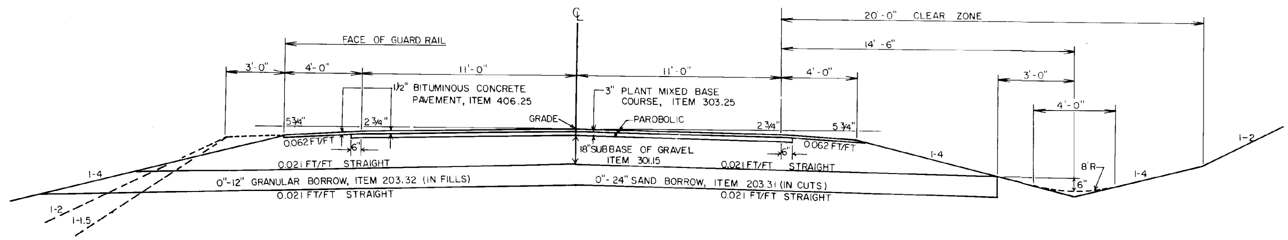
PROJECT BRS No 0238(2)
SHEET 1 OF 7 SHEETS

TYPICAL SECTIONS

18" SUB BASE OF GRAVEL, ITEM 301.15
3" PLANT MIXED BASE COURSE, ITEM 303.25
1½" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25
SHOULDERS 1½" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25



PARABOLIC DETAIL



PLACEMENT OF 0"-12" OF GRANULAR BORROW, ITEM 203.32 IN FILLS AND OF 0"-24" OF SAND BORROW, ITEM 203.31 IN CUTS TO BE AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

NORMAL SECTION

GENERAL NOTES

SEED, ITEM 651.10 - TO BE APPLIED AS DIRECTED BY THE ENGINEER

% WT	LBS/A	NAME	PUR %	GERM %
3.33	2	CROWN VETCH	97	75
50.00	30	CREEPING RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
16.67	10	PERENNIAL RYE GRASS (VAR. PENNFINE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDSFOOT TREFOIL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	60	LBS/ACRE		

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED) TO BE PLACED AS DIRECTED BY THE ENGINEER.

FERTILIZER, ITEM 651.15 FORMULA 10-20-10 TO BE USED WITH SEED AT THE RATE OF 500 LBS/ACRE

AGRICULTURAL LIMESTONE, ITEM 651.20 TO BE APPLIED AT THE RATE OF 2 TONS/ACRE.

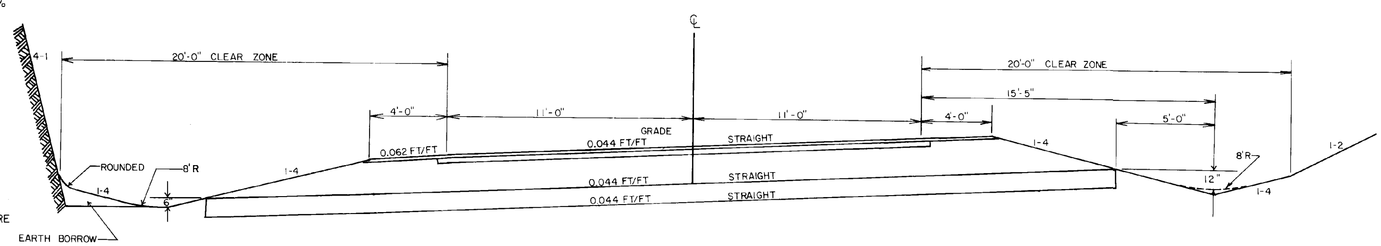
HAY MULCH, ITEM 651.25 TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF 2 TONS/ACRE.

TOPSOIL, ITEM 653.10 TO BE USED WITH SEED IN RESIDENTIAL AREAS AS DIRECTED BY THE ENGINEER

SEE STANDARD SHEET B-5 FOR TYPICAL SLOPE ROUNDING

SEE STANDARD SHEET D-2 FOR PAY LIMITS OF SAND BORROW WHEN USED IN CONJUNCTION WITH UNDERDRAIN.

ALLOWABLE THICKNESS TOLERANCES
SUB BASE OF GRAVEL ±1"
BITUMINOUS CONCRETE PAVEMENT ±1/4"
PLANT MIXED BASE COURSE ±1/2"
OR AS DIRECTED BY THE ENGINEER



FOR FURTHER INFORMATION ON LEDGE TREATMENT SEE STANDARD A-60

SEE STANDARD A-35

MAXIMUM BANKED SECTION 0.044 FT/FT

1114

MORRISTOWN
BRS 0238(2)

SHEET 2 OF 7 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1	PARKER, REGINALD G. & MARION N.	5	REV. 116+60 RT.	REV. 117+50 RT.	0.01 A±			W.D.	1-26-83	MORRISTOWN	78	439-40	240 S.F.±
	PARKER, JUNE HELEN		REV. 117+00 RT.	REV. 117+55 RT.			CONST. EASE. (T) (0.01 A±)						500 S.F.±
			REV. 117+15 RT.	REV. 117+52 RT.			SLOPE (T) (240 S.F.±)						
2	VILLAGE OF MORRISVILLE	5	REV. 116+90 LT.	REV. 117+33 LT.			CONST. EASE. (T) (0.02 A±)	AGREE.					840 S.F.±
			REV. 117+10 LT.	REV. 117+47 LT.			SLOPE (T) (0.01 A±)						440 S.F.±
3A	VILLAGE OF MORRISVILLE,	5	REV. 117+22 LT.	REV. 122+30 LT.			CONST. EASE. (T) (0.17 A±)	AGREE.					
	WATER & LIGHT DEPT.		REV. 117+33 LT.	REV. 117+82 LT.			SLOPE (T) (0.03 A±)						1160 S.F.±
			REV 120+50 LT.	REV. 122+20 LT.			SLOPE (T) (0.10 A±)						
3B			REV. 117+50 RT.	REV. 117+82 RT.			SLOPE (T) (390 S.F.±)						
			REV. 117+52 RT.	REV. 120+56 RT.			CONST. EASE. (T) (0.12 A±)						
			REV. 120+50 RT.	REV. 120+38 RT.			SLOPE (T) (200 S.F.±)						
4A	KELLEY, JAMES M. II	5,6	REV. 120+20 LT.	45+00 LT.	4.60 A±	11.00 A±		W.D.	7-12-83	MORRISTOWN	78	540-41	
	KELLEY, MAURICE L. JR.		REV. 122+60 LT.	REV. 124+45 LT.			CONST. EASE. (T) (0.02 A±)						760 S.F.±
			REV. 123+20 RT.	REV. 126+00 RT.			CONST. EASE. (T) (0.03 A±)						1500 S.F.±
			REV. 126+00 LT.				DRIVE (T)						
			REV. 126+05 LT.	REV. 129+68 LT.			CONST. EASE. (T) (0.07 A±)						2920 S.F.±
			REV. 126+07 LT.	REV. 127+00 LT.			SLOPE (T) (0.04 A±)						1680 S.F.±
			REV. 128+00 RT.	REV. 129+60 RT.			CONST. EASE. (T) (0.01 A±)						450 S.F.±
			REV. 131+00 RT.				DRIVE (T)						
			REV 131+00 LT.				DRAINAGE (P)						
			REV. 134+15 LT.	44+85 LT.			CONST. EASE. (T) (0.02 A±)						800 S.F.±
4B		5	REV. 120+20 RT.	REV. 121+43 RT.	0.05 A±	26.05 A±							2100 S.F.±
			REV. 120+50 RT.	REV. 121+43 RT.			CONST. EASE. (T) (0.02 A±)						680 S.F.±
4C		5	REV. 120+20 LT.	REV. 122+25 RT.	0.22 A±		ALL R. T. & I.						TOWN HIGHWAY 3

PARCEL 4 CONTINUED ON NEXT SHEET

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	3,5,6	Parcel #4 Kelley, Added "II" after James M. Kelley's name per C.O. # 5525	8-31-82	DEM	
2	4	Parcel #4 KELLEY, Changed Total Remainder To 37.05A± Per C.O. # 5572	10-1-82	DEM	
		PLan's submitted to design 2-22-83			

MADE BY: N.W.J. DATE 5-5-82

CHECKED BY: R.L.S. DATE 5-5-82

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND

CONST. EASE. — CONS'T. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
△ △ △ — TOP OF CUT
○ ○ ○ — TOE OF SLOPE

APPROVED James D. Patterson for CHIEF OF PLANS & TITLES DATE 5-5-82

115

PROJECT MORRISTOWN

NO. BRS 0238(2)

SHEET 3 OF 7

ROW

BRUNING 44-131 40992

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK	PG.	REMARKS
	PARCEL 4 CONTINUED FROM PREVIOUS SHEET												
4D		6	REV 130+90 RT.	45+00 RT.	0.49 A±		ALL R. T. & I.						TOWN HIGHWAY 3
4E		6	REV. 131+90 RT. REV. 132+65 RT. REV. 132+84 RT.	45+00 RT. 44+45 RT. 44+20 RT. TOTAL	0.11 A± 5.47 A±	 37.05 A±	CONST. EASE. (T) (0.06 A±) SLOPE (P) (0.14 A±)						2500 S.F.±
5	VILLAGE OF MORRISVILLE, WATER & LIGHT DEPT.												UTILITY
6	EMCO CATV, INC.												UTILITY
7	NEW ENGLAND TELEPHONE & TELEGRAPH												UTILITY
8	VILLAGE OF MORRISVILLE, SEWER DEPT.												UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

LEGEND

MADE BY: N.W.J. DATE 5-5-82

CHECKED BY: R.L.S. DATE 5-5-82

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

CONST. EASE. — CONS'T. EASEMENT
SR — SLOPE RIGHTS
P L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED James D. Paterson for CHIEF OF PLANS & TITLES DATE 5-5-82

116

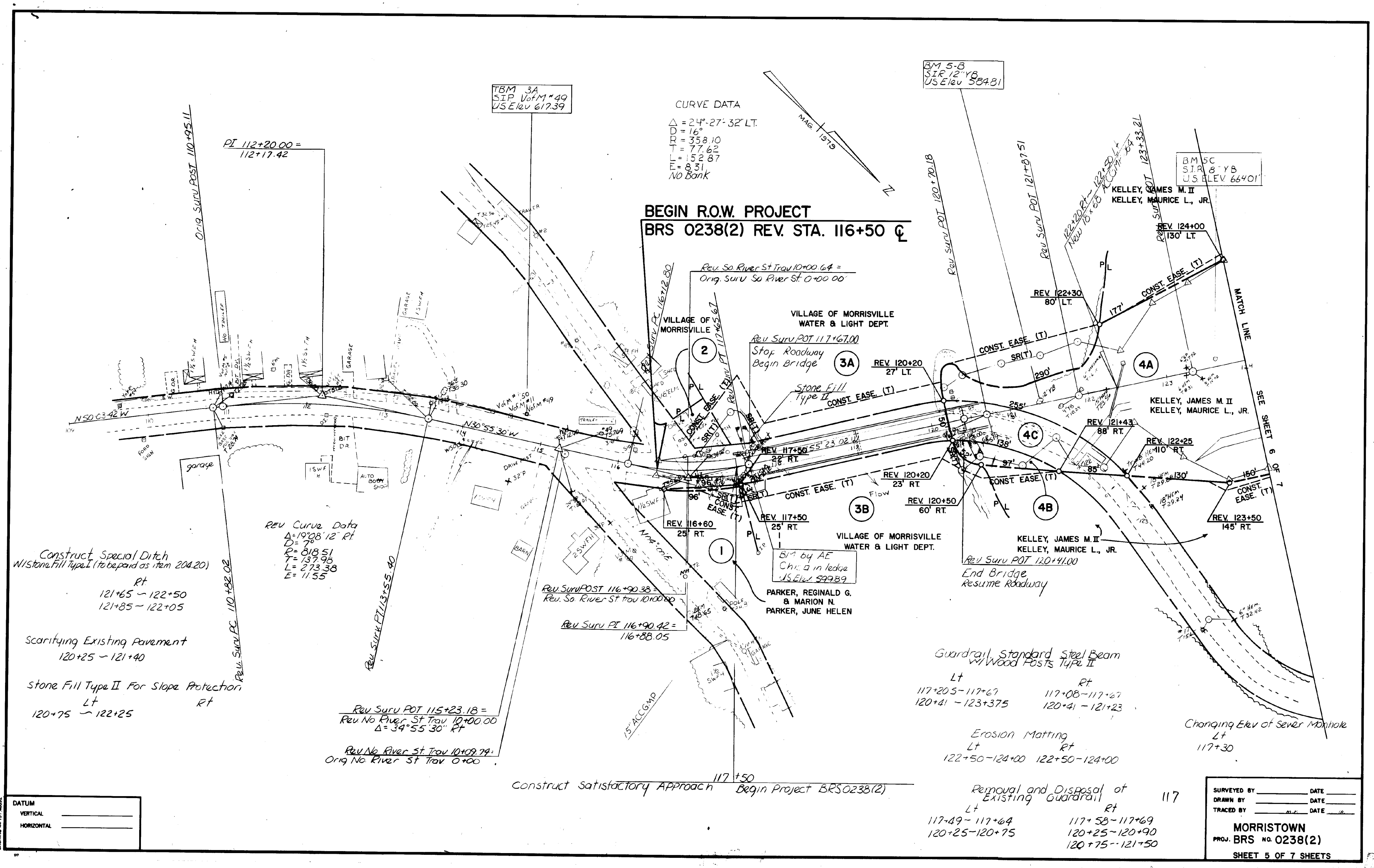
PROJECT MORRISTOWN

NO. BRS 0238(2)

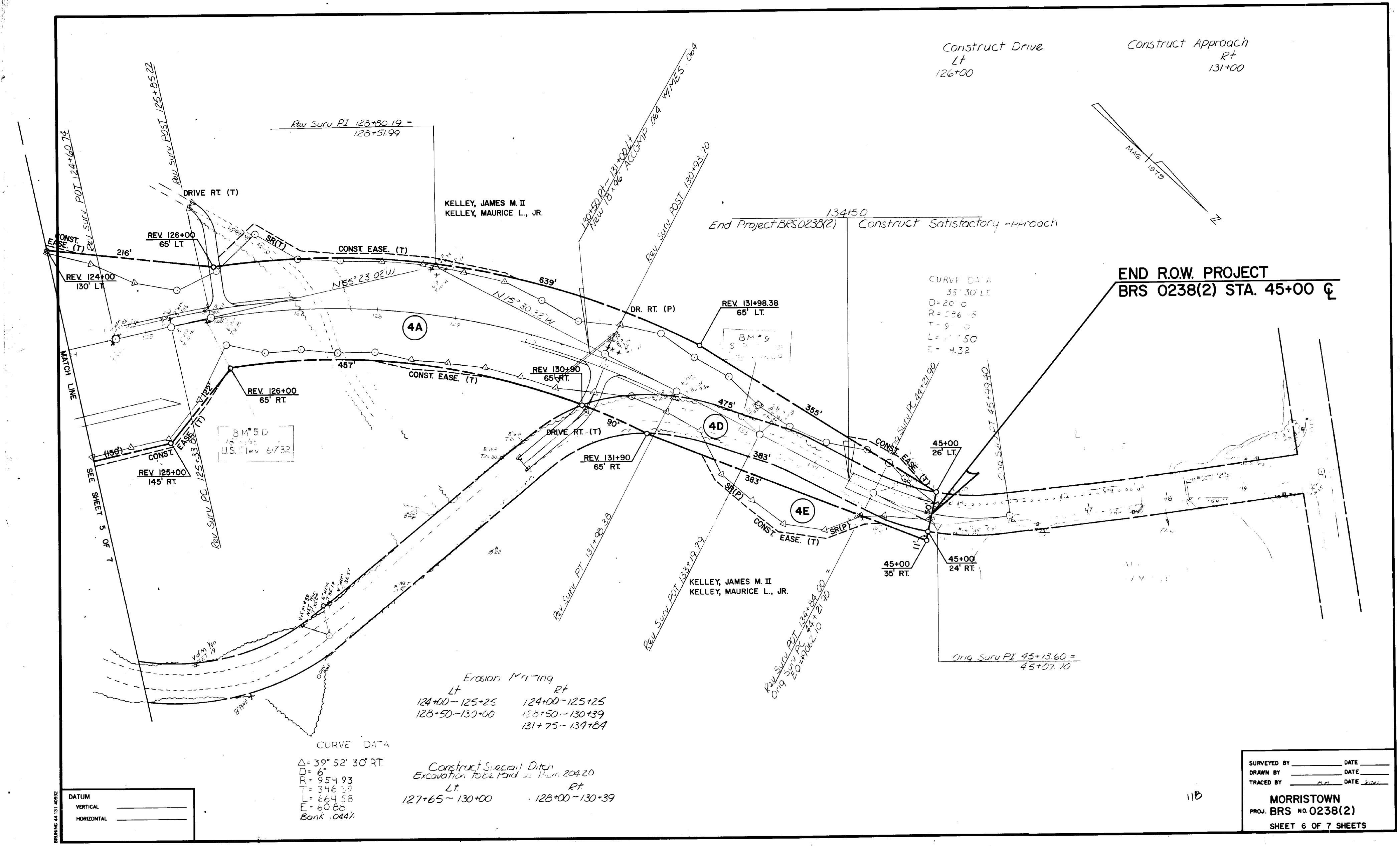
SHEET 4 OF 7

ROW

BRUNING 44-131 40992



BEGIN R.O.W. PROJECT
BRS 0238(2) REV. STA. 116+50 ℄
CURVE DATA
Δ = 24°-27'-32" LT.
D = 16°
R = 358.10
T = 77.62
L = 152.87
E = 8.31
No Bank
TBM 3A
S.I.P. V of M #49
U.S. Elev 617.39
BM 5-B
S.I.R. 12" YB
U.S. Elev 584.81
BM 5C
S.I.R. 8" YB
U.S. ELEV. 664.01
MAG 1979
PI 112+20.00 = 112+17.42
Orig Surv POST 110+95.11
Rev Surv PC 110+82.02
Rev Surv PT 113+55.40
N50°03'42"W
N30°55'30"W
Rev. So. River St Trav 10+00.64 = Orig. Surv So River St 0+00.00
Rev Surv PC 116+12.80
Rev Surv PT 117+63.67
VILLAGE OF MORRISVILLE
VILLAGE OF MORRISVILLE WATER & LIGHT DEPT.
Rev Surv POT 117+67.00
Stop Roadway
Begin Bridge
Stone Fill Type II
CONST. EASE. (T)
SR(T)
REV. 117+50 22' RT.
REV. 116+60 25' RT.
REV. 117+50 25' RT.
REV. 120+20 27' LT.
REV. 120+20 23' RT.
REV. 120+50 60' RT.
Rev Surv POT 120+70.18
Rev Surv POT 121+87.51
Rev Surv POT 123+33.21
122+20 Rt - 122+50 Lt
New 18" x 88' ACCMP @ 124+33
REV. 122+30 80' LT.
REV. 124+00 130' LT.
REV. 121+43 88' RT.
REV. 122+25 110' RT.
REV. 123+50 145' RT.
KELLEY, JAMES M. II
KELLEY, MAURICE L., JR.
MATCH LINE
SEE SHEET 6 OF 7
VILLAGE OF MORRISVILLE WATER & LIGHT DEPT.
Rev Surv POT 120+41.00
End Bridge
Resume Roadway
BM by AE
Chis. in ledge
U.S. Elev 599.89
PARKER, REGINALD G. & MARION N.
PARKER, JUNE HELEN
Rev Curve Data
Δ = 19°08'12" Rt
D = 7°
R = 818.51
T = 137.98
L = 273.38
E = 11.55
Rev Surv POST 116+90.38 = Rev. So. River St Trav 10+00.00
Rev Surv PI 116+90.42 = 116+88.05
Rev Surv POT 115+23.18 = Rev. No River St Trav 10+00.00
Δ = 34°55'30" Rt
Rev No River St Trav 10+09.79 = Orig No River St Trav 0+00
15" ACCGMP
Construct Special Ditch W/Stone Fill Type I (to be paid as item 204.20)
Rt
121+65 - 122+50
121+85 - 122+05
Scarifying Existing Pavement
120+25 - 121+40
Stone Fill Type II For Slope Protection
Lt Rt
120+75 - 122+25
Guardrail Standard Steel Beam W/Wood Posts Type II
Lt Rt
117+20.5 - 117+67 117+08 - 117+67
120+41 - 123+37.5 120+41 - 121+23
Erosion Matting
Lt Rt
122+50 - 124+00 122+50 - 124+00
Changing Elev of Sewer Manhole
Lt
117+30
117+50
Construct Satisfactory Approach
Begin Project BRS 0238(2)
Removal and Disposal of Existing Guardrail
Lt Rt
117+49 - 117+64 117+58 - 117+69
120+25 - 120+75 120+25 - 120+90
120+75 - 121+50
117
DATUM
VERTICAL
HORIZONTAL
SURVEYED BY DATE
DRAWN BY DATE
TRACED BY DATE
MORRISTOWN
PROJ. BRS NO. 0238(2)
SHEET 5 OF 7 SHEETS



SURVEYED BY ________ DATE ________
DRAWN BY ________ DATE ________
TRACED BY ________ DATE ________

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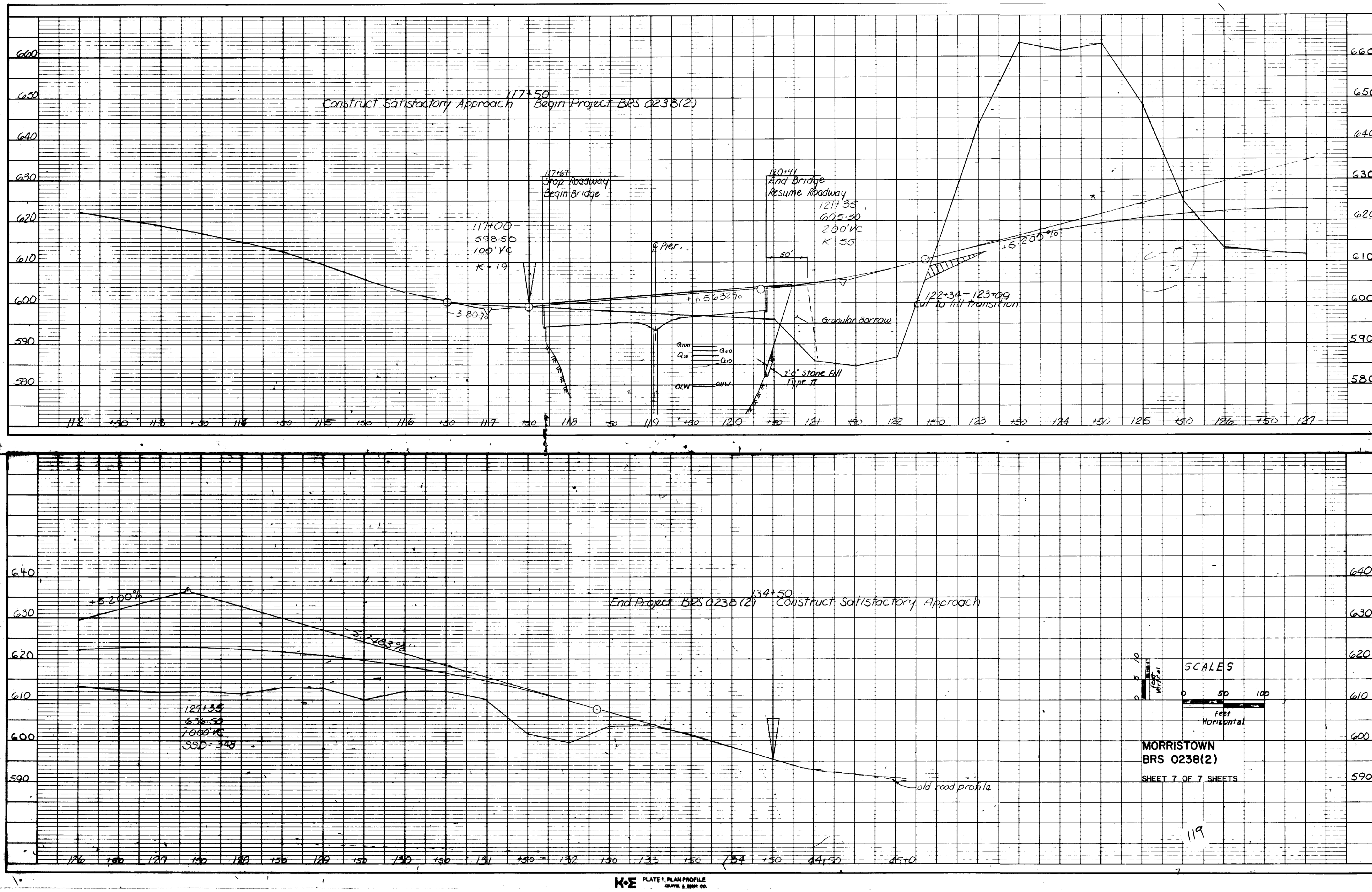
MORRISTOWN
PROJ. BRS NO. 0238(2)
SHEET 6 OF 7 SHEETS



K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.