

INDEX OF SHEETS

1. Title Page
2. Quantity Page

NORWICH-THETFORD-FAIRLEE I 91-2(24) 8(41)
RECORD PLANS PAVEMENT AREA
MATERIALS 476,439 S.Y.

SUBBASE OF GRAVEL—WILMOT PIT—THETFORD, VT.
 SUBBASE OF SAND—DREW PIT—NORWICH, VT.
 SUBBASE OF DENSE GRADED CRUSHED ROCK—STICKNEY QUARRY—NORWICH, VT.
 CRUSHED GRAVEL OR CRUSHED STONE PLANT MIXED BASE COURSE & BITUMINOUS CONCRETE—INKATRON PAVING PLANT—NORWICH, VT.
 ASPHALT—HUMBLE OIL—EVERETT, MA.
 GRITS—DEMERS QUARRY—SHELBURNE, VT.
 TAR EMULSION—COPELAND SEALER—COPELAND, CT.
 JOINT SEALER HOT POURED—CONSTRUCTION PRODUCTS DIV., SERVICISED PRODUCTS CORP—CHICAGO, ILL.
 POLYURETHANE JOINT SEALER—DURASEAL 3105—DURAL INTERNATIONAL CORP—DEER PARK, N.Y.

—ISOFLX 880—H.S. PETERSON—HIGHLAND PARK, MICH.
 DROP INLET TYPE II—HUME PIPE CO.—WINDSOR, VT.
 METAL CULVERT PIPE—NORTHEASTERN CULVERT CORP—WESTMINSTER, VT.
 WATER PIPE SLEEVES—BLODGETTS SUPPLY—WHITE RIVER JUNCTION, VT.
 EPOXY COATING COMPOUND—RAMCHEM CO.—MONTPELIER, VT.
 CAST IRON GRATE—EL LEBARON FOUNDRY CO.—BROCKTON, MA.
 PROPERTY LINE FENCE, TRAFFIC SIGNS, GUARD RAIL, BRIDGE RAILING & EROSION CONTROL ITEMS—S.T. GRISWOLD & CO., INC.—WILLISTON, VT.

CONTRACTOR—PERINI CORP—FRAMINGHAM, MA.
 RESIDENT ENGINEER—ROBERT L. WORKMAN.
 INSPECTORS—M. W. REDMOND, J. G. PHILBRICK, P. K. NYE, R. W. SCOTT, A. G. DEVAUX, D. D. CLOUGH, R. R. WHITCOMB, R. WITTINGTON, L. GRAHAM, S. T. MORRIS, E. L. PEABODY, F. J. HALL, R. A. MASON & G. J. ABRAIR.

CONTRACT
 DATED—OCTOBER 6, 1970.
 STARTED—NOVEMBER 3, 1970.
 COMPLETED—NOVEMBER 3, 1971.
 ACCEPTED—NOVEMBER 3, 1971.

4015+00
BEGIN PROJECT I 91-2 (41)

STATE OF VERMONT DEPARTMENT OF HIGHWAYS **PROPOSED IMPROVEMENT**

TOWNS OF NORWICH, THETFORD & FAIRLEE COUNTIES OF WINDSOR & ORANGE **INTERSTATE ROUTE 91** **WHITE RIVER JCT.—BRADFORD ROAD**

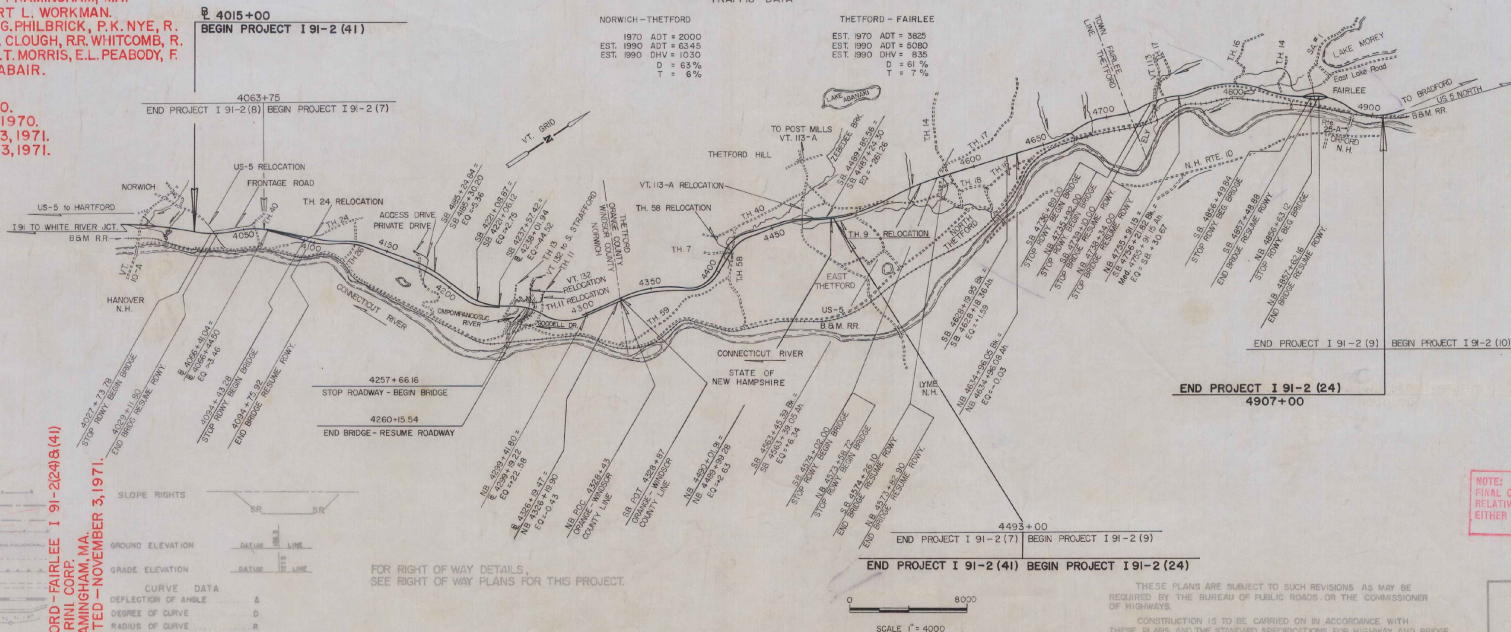
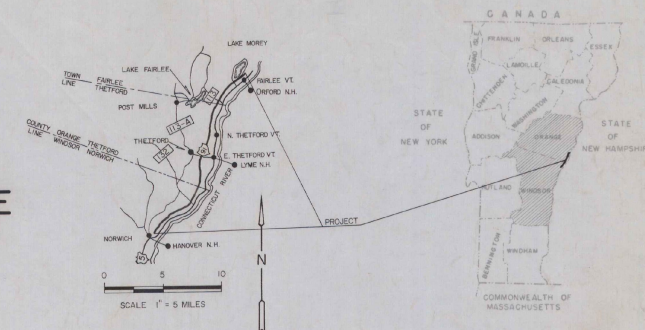
BEGINNING AT A POINT APPROXIMATELY 5.937 MILES
 SOUTHERLY OF THE WINDSOR-ORANGE COUNTY LINE
 AND PROCEEDING NORTHERLY 16.919 MILES.

LENGTH OF ROADWAY 88,550.06 FEET = 16.771 MILES.
 LENGTH OF BRIDGES 785.22 FEET = 0.148 MILES.
 LENGTH OF PROJECT 89,335.28 FEET = 16.919 MILES.

TRAFFIC DATA

NORWICH-THETFORD
 1970 ADT = 2000
 EST. 1990 ADT = 6345
 EST. 1990 DHV = 1030
 D = 65%
 T = 6%

THETFORD-FAIRLEE
 EST. 1970 ADT = 3825
 EST. 1990 ADT = 5080
 EST. 1990 DHV = 835
 D = 61%
 T = 7%



CONVENTIONAL SIGNS

- POINT OF ACCESS
- LIMITS OF ACCESS
- COUNTY LINE
- TOWN LINE
- FENCE LINE
- STONE WALL
- UNFENCED PROPERTY
- GUARD RAIL
- TRAVELED WAY
- RAILROAD
- RETAINING WALL
- CENTER LINE
- SURVEY LINE
- CULVERT
- DROP INLET
- TROLLEY POLE
- POWER POLE
- TELEPHONE POLE
- TREES
- ROCK
- PAVEMENT IDENTIFICATION MARK

NORWICH-THETFORD-FAIRLEE I 91-2(24) 8(41)
 CONTRACTOR—PERINI CORP
 FRAMINGHAM, MA.
 COMPLETED—NOVEMBER 3, 1971

SLOPE RIGHTS
 GROUND ELEVATION
 GRADE ELEVATION
 CURVE DATA
 DEFLECTION OF ANGLE
 DEGREE OF CURVE
 RADIUS OF CURVE
 TANGENT DISTANCE
 LENGTH OF CURVE
 EXTERNAL DISTANCE
 POINT OF INTERSECTION
 POINT OF TANGENT
 POINT ON TANGENT
 POINT ON SUB-TANGENT
 P.O.T. UNITS

FOR RIGHT OF WAY DETAILS,
 SEE RIGHT OF WAY PLANS FOR THIS PROJECT.

SCALE 1" = 4000

THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY BE
 REQUIRED BY THE BUREAU OF PUBLIC ROADS OR THE COMMISSIONER
 OF HIGHWAYS.
 CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH
 THESE PLANS AND THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE
 CONSTRUCTION DATED APRIL, 1964, AS APPROVED BY THE BUREAU OF
 PUBLIC ROADS ON OCTOBER 12, 1964, INCLUDING ALL SUBSEQUENT
 APPROVED REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL
 PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

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

DEPARTMENT OF TRANSPORTATION BUREAU OF PUBLIC ROADS	
APPROVED	DATE
DIVISION ENGINEER	DATE
PROJECT I 91 NO. 2 (24) 8(41)	
SHEET 1 OF 2 SHEETS	

APPROVED <i>J. S. Chase</i> DATE 2/27/70	APPROVED <i>J. S. Chase</i> DATE 4/10/70	APPROVED <i>Paul Brown</i> DATE 5/4/70	APPROVED <i>G. W. Lane</i> DATE April 29, 1970	APPROVED <i>E. S. Hickney</i> DATE 5/4/70	APPROVED <i>R. B. Arnold</i> DATE 5/4/70
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INDEX OF SHEETS

1	Title Page
25	Alignment Sheets
69	Typical Sheets
10	Blank
11	Quantity Sheet
12-28	Bridge Sheets
29	Blank
30-32	Earthwork & Grade Sheets
33-38	Plan & Profile Sheets
39	Blank
40-44	Twenty Scale Sheets
45	Blank
46	Blank
47	Blank
48	Blank
49	Blank
50	Blank
51	Blank
52	Blank
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STATE OF VERMONT DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT INTERSTATE PROJECT TOWNS OF NORWICH & THETFORD COUNTIES OF WINDSOR & ORANGE INTERSTATE ROUTE 91 WHITE RIVER JCT - BRADFORD ROAD

BEGINNING AT A POINT APPROXIMATELY 5.937 MILES
SOUTHERLY OF THE WINDSOR-ORANGE COUNTY LINE
AND PROCEEDING NORTHERLY 9.074 MILES.

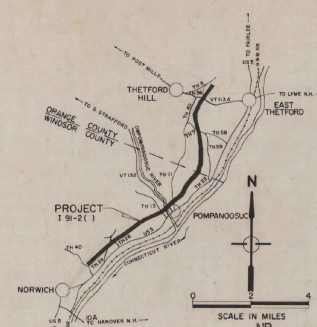
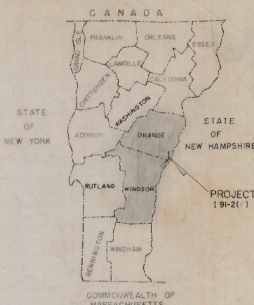
LENGTH OF ROADWAY 47,495.96 FEET = 8.995 MILES.
LENGTH OF BRIDGES 420.04 FEET = 0.080 MILES.
LENGTH OF PROJECT 47,916.00 FEET = 9.075 MILES.

INTERSTATE CONSTRUCTION AREA

TRAFFIC DATA

1970	ADT	2000
Est. 1990	ADT	6345
Est. 1990	DHV	1030
	D	63%
	T	6%
	V	60 MPH

FILED ROAD	STATE	PROJECT NO.	SECTION	SHEET	TOTAL
1	VT		23-24	1	1



4015+00
BEGIN PROJECT
I 91-2 (4)

4063+75
END PROJECT
I 91-2 (23)

4493+00
END PROJECT
I 91-2 (41)
BEGIN PROJECT
I 91-2 (24)

CONVENTIONAL SIGNS

ROW FENCE	—
SLOPE RIGHTS	—
CONTROL OF ACCESS	—
ROW	—
COUNTY LINE	—
TOWN LINE	—
FENCE LINE	—
STONE WALL	—
UNFENCED PROPERTY	—
GUARD RAIL	—
TRAVELED WAY	—
RAILROAD	—
RETAINING WALL	—
CENTER LINE	—
SURVEY LINE	—
CULVERT	—
DROP INLET	—
TROLLEY POLE	—
POWER POLE	—
TELEPHONE POLE	—
TREES	—
HEDGE	—
ACCESS POINT	—

GROUND ELEVATION
GRADE ELEVATION

CURVE DATA	—
DEFLECTION OF ANGLE	—
DEGREE OF CURVE	—
RADIUS OF CURVE	—
TANGENT DISTANCE	—
LENGTH OF CURVE	—
EXTERNAL DISTANCE	—
POINT OF INTERSECTION	—
POINT OF CURVE	—
POINT OF TANGENT	—
POINT ON TANGENT	—
POINT ON SUB-TANGENT	—

DATUM - MEAN SEA LEVEL
ALL ELEVATIONS ARE
US ELEVATIONS

DATUM	—
DATUM	—
DATUM	—
DATUM	—
DATUM	—
DATUM	—
DATUM	—
DATUM	—
DATUM	—
DATUM	—

SCALE IN FEET
4000 2000 1000 0

FOR RIGHT-OF-WAY DETAILS, SEE RIGHT-OF-WAY
PLANS FOR THIS PROJECT.

THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY BE
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OF HIGHWAYS.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH
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STAGE 2 CONSTRUCTION

DEPARTMENT OF TRANSPORTATION
BUREAU OF PUBLIC ROADS

APPROVED	DATE
DIVISION ENGINEER	DATE
PROJECT 1	NO. 91-2(41)
SHEET 1	OF 193 SHEETS

APPROVED	DATE	APPROVED	DATE	APPROVED	DATE	APPROVED	DATE	APPROVED	DATE
2/19/70	2/25/70	2/25/70	2/27/70	2/10/70	2/25/70	2/25/70	2/25/70	2/25/70	2/25/70

1. Title Page
2. Quantity Page

Dated OCTOBER 6 1970

PERINI CORPORATION

Louis L. Capone

Louis L. Capone, Vice Pres.

Contractor

W. T. Gray
Commissioner

Commissioner

THESE PLANS HAVE BEEN REDUCED PHOTOGRAPHICALLY
TO APPROXIMATELY 1/2 SCALE

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT

TOWNS OF NORWICH, THETFORD & FAIRLEE
COUNTIES OF WINDSOR & ORANGE
INTERSTATE ROUTE 91
WHITE RIVER JCT.-BRADFORD ROAD

BEGINNING AT A POINT APPROXIMATELY 5.937 MILES
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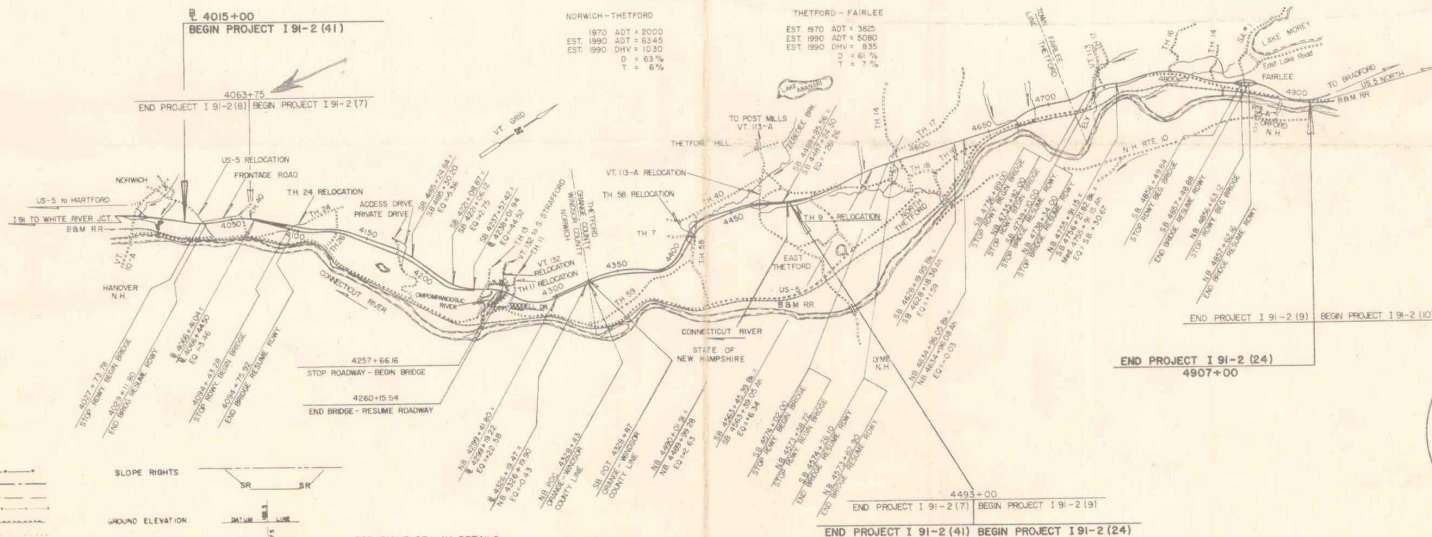
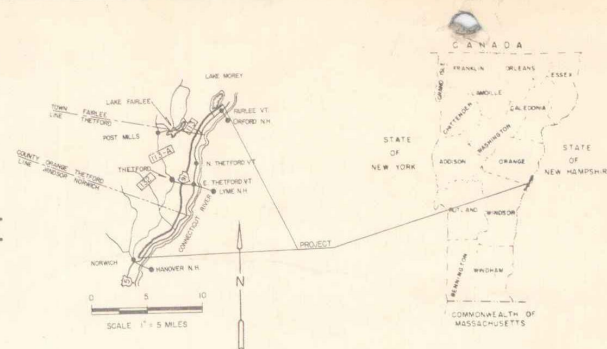
TRAFFIC DATA

NORWICH - THETFORD

EST. 1970	ADT = 2000
EST. 1990	ADT = 6345
EST. 1990	DHV = 1030
	D = 63%
	T = 6%

THETFORD - FAIRLEE

EST. 1970	ADT = 3825
EST. 1990	ADT = 5080
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	T = 7 %



CONVENTIONAL SIGNS

SLOPE RIGHTS

GROUND ELEVATION (ft)

CURVE DATA

DEFLECTION OF ANGLE

DEGREE OF CURVE
RADIUS OF CURVE

TANGENT DISTANCE

LENGTH OF CURVE

EXTERNAL DISTANCE

POINT OF INTERSECTION

POINT OF TANGENT

POINT ON TANGENT

POINT ON SUB-TANGENT

FOR RIGHT OF WAY DETAILS,
SEE RIGHT OF WAY PLANS FOR THIS PROJECT

END PROJECT I 91-2 (41) BEGIN PROJECT I 91-2 (24)

THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY BE
REQUIRED BY THE BUREAU OF PUBLIC ROADS OR THE COMMISSIONER
OF HIGHWAYS.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL, 1964, AS APPROVED BY THE BUREAU OF PUBLIC ROADS ON OCTOBER 12, 1964, INCLUDING ALL SUBSEQUENT APPROVED REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

A circular ink stamp from the Vermont Department of Highways. The outer ring contains the text "VERMONT" at the top and "DEPARTMENT OF HIGHWAYS" at the bottom. The inner circle contains the text "CONTRACT PLANS" at the top and the date "OCT 7 1970" in the center.

DEPARTMENT OF TRANSPORTATION
BUREAU OF PUBLIC ROADS

APPROVED

PROJECT I 91 NO - 2 (24) & (41)

SHEET 1 OF 2 SHEETS

APPROVED FS Cho
DISTRICT ENGINEER
DATE 2/27/70

APPROVED *[Signature]*
CONSTRUCTION ENGINEER
DATE *4 May 70*

APPROVED *Paul B. Jones*
BRIDGE ENGINEER
DATE *5/4/70*

APPROVED *G. M. Lane*
HIGHWAY ENGINEER
DATE *April 29, 1970*

APPROVED E. H. Stickney
ASST. CHIEF ENGINEER
DATE 5/4/20

APPROVED R. H. [Signature] CHIEF ENGINEER
DATE 5/4/70
SUBMITTED BY ORDER OF THE STATE

STATE OF VERMONT DEPARTMENT OF HIGHWAYS
NORWICH-THETFORD STAGE II PROJECT NO. 91-2 (41)
THETFORD-FAIRLEE STAGE II PROJECT NO. 91-2 (24)

APPROXIMATE SUMMARY OF QUANTITIES

QUANTITY SHEET

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

NORWICH-THETFORD
THETFORD-FAIRLEE STAGE 11

PROJECT NO. 1 91-2 (41)
1 91-2 (25)

SUMMARY SHEET NO. OF 19 70

R. O. W.	1 91-2 (41)	1 91-2 (24)	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUND- ING
	3000	6000	9000	CY	COMMON EXCAVATION, CLASS 1, DES. & EST.	109-A-1	
	200	400	600	CY	SOLID ROCK EXCAVATION, MOD., EST.	109-B	
	2000	4000	6000	CY	BORROW, DES. & EST.	109	
	2000	1000	3000	CY	GRANULAR BORROW, EST.	109	
	100	1000	1100	CY	TRENCH EXCAVATION OF EARTH (0'-5') EST.	109-A	
	200	100	300	CY	TRENCH EXCAVATION OF EARTH (OVER 5') EST.	109-A	
	100	10	110	CY	TRENCH EXCAVATION OF ROCK (0'-5') EST.	109-B	
	575000	532000	1107000	SY	FINE GRADING SURGRADE, MOD.	107	29
	80		80	HR	ROADWAY PATROL, MAINTENANCE, EST.	110	
	200	200	400	M/AL	DUST CONTROL WATER, EST.	112	
	5	5	10	TON	SALT & ICE CONTROL, M/CALCIUM CHLORIDE, EST.	113	
	250		250	CY	EXCAVATION AND REMOVAL OF ROAD SURFACES AND/OR PAVTS.	119	8
	25	100	125	HR	BULLDOZER RENTAL, EST.	120	
	25		25	HR	PONER GRADER RENTAL, EST.	121	
	130	100	230	HR	ALL PURPOSE EXCAVATOR RENTAL, EST.	126	
	57600	509000	108500	CY	SUB BASE OF GRAVEL, MOD.	201	101
	2000	2500	500	CY	SUB BASE OF SAND, EST.	202	
	284300	288300	555600	CY	SUB BASE OF DENSE GRADED CRUSHED ROCK, MOD.	207	92
	6900	5900	12800	TON	CR.GRAVEL OR CR.STONE PLANT MIXED BASE COURSE	219	83
	120200	259500	379700	CY(M)	OVERLAY (SEE INDIVIDUAL PROJECTS)	221	
	500	500	1000	CY	GRAVEL BACKFILL FOR SLOPE STABILIZATION, EST.	222-A	
	11900	10000	22220	CY	STRIPPING OF GRAVEL PITS, EST.	223	
	53800	45000	98800	GAL	TACK COAT, TYPE III, MOD.	315	116
	1185	1796	2981	GAL	TAR EMULSION FOR BRIDGE FLOORS	318	
	11090	33390	79480	TON	BITUMINOUS CONCRETE PAVEMENT, MOD.	361	7
	210	400	610	HR	PROOF ROLLING, EST.	365	
	255	259	514	LF	JOINT SEALER NOT POURED	372-A	
	4	4	8	CY	CONCRETE, CLASS B, EST.	401-B	
	1000	1000	2000	LBS	REINFORCING STEEL, EST.	402	
	1	1	2	CY	CEMENT MORTAR MASONRY, EST.	411	
		12	12	LF	18" ASPHL.CTD.CORR.GALV.NET.PIPE ELBOW - 90° EST.	422-H	
	263	185	538	LF	8" ASPHL.CTD.CORR.GALV.NET.PIPE - 90° DES. & EST.	424-B	
	100	40	140	LF	18" ASPHL.CTD.CORR.GALV.NET.PIPE - 90° EST.	424-H	
	100	20	120	LF	24" ASPHL.CTD.CORR.GALV.NET.PIPE - 90° EST.	424-K	
	100	200	300	LF	RELAYING PIPE CULVERTS, EST.	428	
	114	67	181	LF	SLEEVEES FOR WATER PIPES	431	
	38	95	133	EA	EPoxy COATING COMPOUND	438-A	
	400	250	650	LF	6" PERF.CORR.GALV.NET.UNDERDRAIN, MOD., EST.	521-I-A	
	100	100	200	LF	6" PERF.CORR.GALV.NET.PIPE, MOD., EST.	521-I-M	
	85	95	180	EA	CAST IRON CONES FOR ASPHL.CTD.CORR.GALV.NET.PIPE FL. BASIN, DES. & EST.	525	
	2	3	5	EA	DROP INLET, TYPE II, EST.	531	
	51	22	73	EA	CHUNKING BLOCK, OF CR OR MI.	533	
	100	100	200	CY	STONE FILL, LIGHT TYPE, EST.	512	
	2	4	6	EA	CAST IRON GRATE, TYPE A, EST.	539-A	
		2	2	EA	CAST IRON GRATE, TYPE B, EST.	539-A	
	39836	40490	80326	LF	THREE CABLE OR W/LT. STEEL POSTS	539	
	142	195	247	EA	ANCHORS FOR THREE CABLE OR W/LT. STEEL POSTS	539-A	
	4	1	5	EA	ANCHORS FOR THREE CABLE OR W/LT. STEEL POSTS	539-B	
	4	80	84	LF	PLANK LUMBO RAIL, EST.	540	
	4	15	19	EA	ANCHORS FOR STD.ST.BEAM OR W/ST.LT.ST. OR MOD. POSTS (A)	540-A	
	24	47	71	EA	ANCHORS FOR STD.ST.BEAM OR W/ST.LT.ST. OR MOD. POSTS	540-C	
	2090	5627	7717	LF	STD.ST.BEAM OR W/ST. POSTS (6" SPACING)	540-A	
	10	30	40	EA	STEEL GUIDE POSTS, EST.	540-B	</

1 3/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 361 MOD. (±1/4") WEARING COURSE TYPE III
5" CRUSHED GRAVEL OR CRUSHED STONE PLANT MIXED BASE COURSE, ITEM 213 (±1/2" FOR TOTAL THICKNESS) 2- 2 1/2" COURSES
24" SUB-BASE OF DENSE GRADED CRUSHED ROCK, ITEM 207 MOD. (±1")
SUB-BASE OF GRAVEL, ITEM 201 MOD.

CONSTRUCTED AS DESIGNED LB

1 1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 361 MOD (HAW) WEARING COURSE TYPE III
SHOULDERS 1 1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 361 MOD (HAW) WEARING COURSE, TYPE III WITH ITEM 315 MOD
(NOT PART OF THIS PROJECT)

SLOPE HEIGHTS MEASURED
FROM SHOULDER POINT.

SEEDING, ITEM #/11	LBS/ACRE	NAME	% PURITY, GERM %	LBS. LVS *
33.33	20	CREEPING RED FESCUE	97	85 (1700)
10.00	6	TALL FESCUE	96	85 (500)
16.67	10	KENTUCKY BLUE GRASS	85	75 (750)
8.33	5	RED TOP	92	85 (425)
16.67	10	ANNUAL RYE GRASS	95	90 (900)
8.33	5	BROODFOOT TREFOIL (EMPIRE)	99	80 (400)
0.42	3/4	WEEED SEED		
6.25	3 3/4	INERT MATERIAL		
100.00	60 LBS PER ACRE	*POUNDS PUR LIVE SEED		46.75 Lbs

NOTE:
Sta. 4015+0 - 4032+0
Work in this area shall consist of removal of Temporary off ramp Common Excavation, Item 193-A-1, Excavation and Removal of Road Surfaces and/or Pavement, Item 119, and Removing and Resetting Steel Beam Guard Rail, Item 548-C.

NOTE:
Sta. 4015±0 - 4063±75
Work in this area shall consist of placing 1 1/4" of Bituminous Concrete Pavement, Item 361 with Tack Coat, Type III (Sbl.Tack Ct.Bit.Mat.w/P.St.and St. Brits Seal, Prime Ct.) Mod., Item 315 and Preparing Existing Surface for New Wearing Surface, Item 591.

ITEMS BELOW SUBGRADE ARE NOT
PART OF STAGE II CONSTRUCTION

FOR ROUNDING OF SLOPES, SEE STANDARD SHEET B-5
STEEL MARKER POSTS, ITEM 547-D, TO BE PLACED AS DIRECTED BY THE ENGINEER.
MULCH, ITEM 622, TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE

FERTILIZER, ITEM 615, SHALL BE MIXED AS FOLLOWS:

NITROGEN	10 %
PHOSPHORUS	20 %
POTASH	10 %

FERTILIZER SHALL BE DELIVERED IN BAGS OF NOT TO EXCEED 100 LBS EA. AND IS TO BE
APPLIED AT THE RATE OF 500 LBS PER ACRE.

GRADED LIMESTONE, ITEM 616, TO BE APPLIED TO ALL EARTH SLOPES AT THE RATE OF TWO TONS
PER ACRE OR AS DIRECTED BY THE ENGINEER.

DETAILS OF DITCH AND BACKSLOPE FOR
LOW SIDE OF BANK LESS THAN 1/2"

DETAILS OF DITCH AND BACKSLOPE FOR
LOW SIDE OF 1/2" BANK OR MORE.

DESIGNED BY LCJ DATE 7/58
DRAWN BY MMG DATE 7/58
TRACED BY MMG DATE 7/58

NORWICH-THETFORD

PROJ. I NO. 91-2(41)

SHEET 7 OF 193

Diagram illustrating the cross-section of a road construction, showing various layers and dimensions:

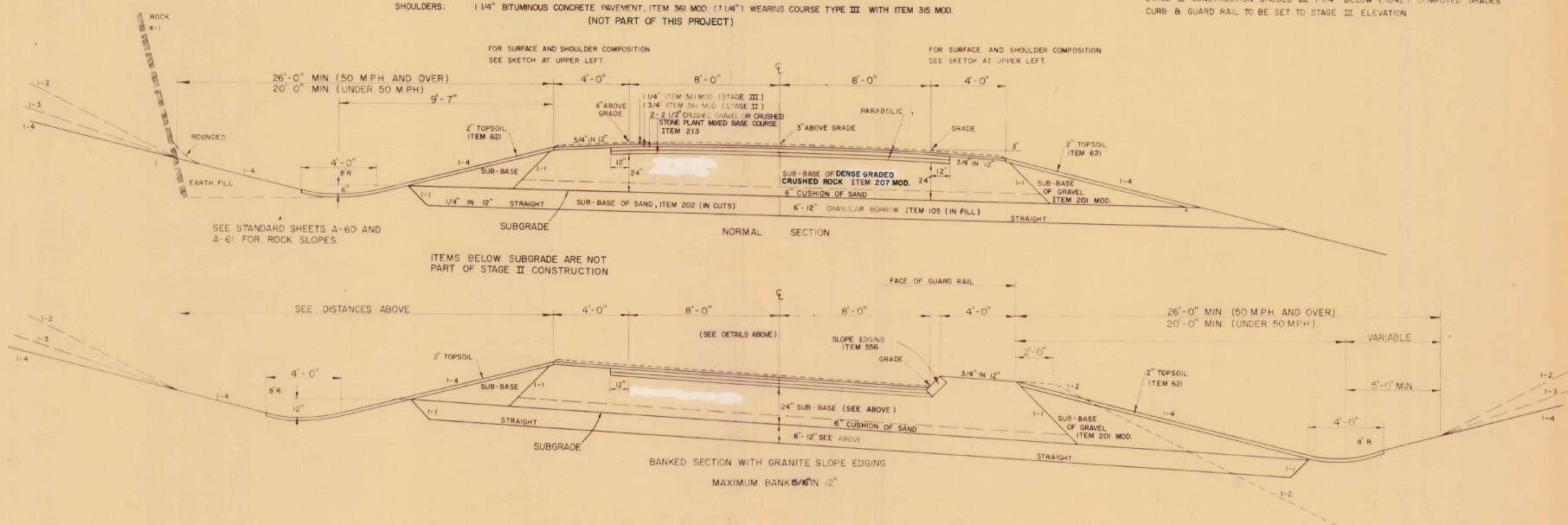
- Top layer: 1 1/4" ITEM 361 MOD (WEARING COURSE TYPE III) PLUS ITEM 310 MOD STAGE III CONSTRUCTION
- Second layer: 1 3/4" ITEM 361 MOD (WEARING COURSE TYPE III PLUS ITEM 310 MOD (STAGE I) CONSTRUCTION
- Third layer: 2" TOPSOIL ITEM 621
- Fourth layer: 1-4" SUB-BASE OF GRAVEL
- Bottom layer: 2 - 2 1/2" COURSES
- Dimensions: 4'-0" (total width), 12" (width of top layer), 3/4"-12" (width of second layer).

SHOULDERS: 1 3/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 361 MOD. (1 1/4") (WEARING COURSE TYPE III WITH ITEM 315 MOD.) SEE SHOULDER DETAIL.

PERMISSIBLE TOLERANCES IN PARENTHESIS
APPLY TO THICKNESS ONLY

SHOULDERS: 1 1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 361 MOD. (± 1/4") WEARING COURSE TYPE III WITH ITEM 315 MOD. (NOT PART OF THIS PROJECT)

GRADES SHOWN ARE FOR STAGE III CONSTRUCTION FINISHED ELEVATION FOR
STAGE II CONSTRUCTION SHOULD BE 1/4" BELOW (1042') COMPUTED GRADES.
CURB & GUARD RAIL TO BE SET TO STAGE III ELEVATION



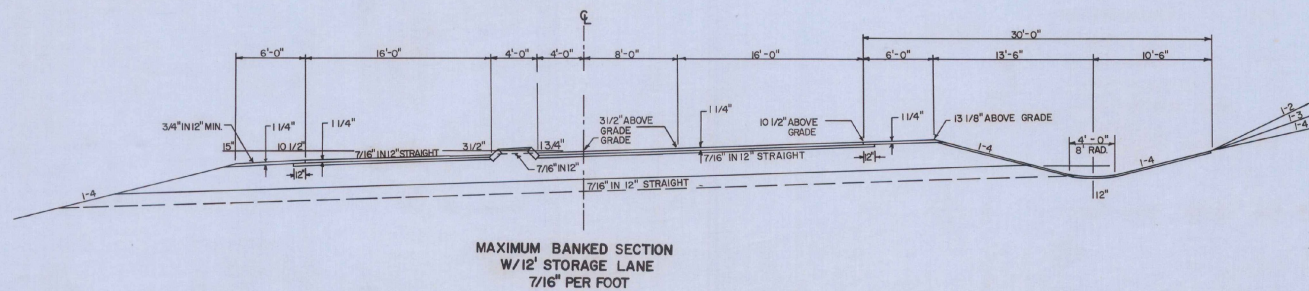
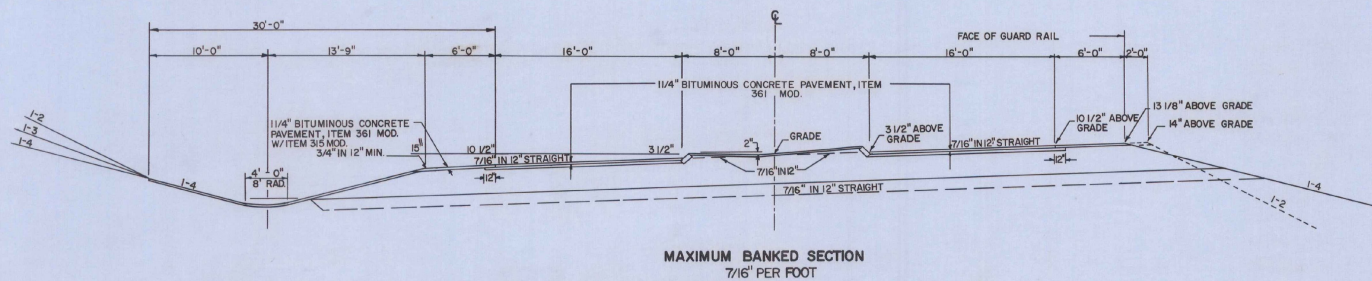
DESIGNED BY LCJ DATE 7/68
DRAWN BY MMG DATE 7/68
TRACED BY MMG DATE 7/68
NORWICH-THETFORD
PROJ. I NO. 91-2(41)
SHEET 8 OF 193

TYPICAL SECTIONS VT 113 A RELOCATION

(SHOULDERS) —

1 1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 361 MOD. (±1/4") 1 1/4" WEARING COURSE, TYPE III
1 1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 361 MOD. (±1/4") 1 1/4" WEARING COURSE, TYPE III
W/ TACK COAT TYPE III, ITEM 315 MOD.
NOTE - ONLY THE SHOULDERS AND TOP COURSE OF BITUMINOUS CONCRETE WILL BE
CONSTRUCTED UNDER THIS PROJECT

CONSTRUCTED AS DESIGNED *RB*



STATE OF VERMONT DEPARTMENT OF HIGHWAYS

NORWICH - THETFORD PROJECT NO. I 91-2(41)

SUMMARY SHEET NO. 1 OF 1 19 70

APPROXIMATE SUMMARY OF QUANTITIES

LANDSCAPING	BRIDGE	EROSION CONTROL	ROADWAY	QUANTITIES (ROUND TOTAL)	UNIT	ITEMS	ITEM NO.		
				3,000	CY	COMMON EXCAVATION CLASS I (incl. 0.68cy Est.)	103-A-1		
				200	CY	SOLID ROCK EXCAVATION, MOD. ESTIMATED	103-B		
				2,000	CY	BORROW, ESTIMATED	104		
				2,000	CY	GRANULAR BORROW, ESTIMATED	105		
				500	CY	TRENCH EXCAVATION OF EARTH EST. (0'-0")	106-A		
				200	CY	TRENCH EXCAVATION OF EARTH EST. (OVER 5')	106-B		
				100	CY	TRENCH EXCAVATION OF ROCK EST. (0'-5')	106-C		
				570,500	SY	FINE GRADING-SUBGRADE, MOD.	107		
				80	HR	ROADWAY PATROL, MAINTENANCE, EST.	110		
				260	80	EXCAV. & REMOV. OF ROAD SURF. & OR PAVEM.	119		
				25	HR	BULLDOZER RENTAL, EST.	121		
				25	HR	POWER GRADER RENTAL, EST.	121		
				150	100	ALL PURPOSE EXCAVATOR RENTAL, EST.	124		
				200	M/GAL	DUST CONTROL WITH WATER, EST.	112		
				57,600	CY	SUB-BASE OF GRAVEL, MOD.	201		
				2,000	CY	SUB-BASE OF SAND, EST.	202		
				5	TON	DUST CONTROL WITH CALCIUM CHLORIDE, EST.	113		
				63,400	TON	CRUSHED GRAVEL OR CRUSHED STONE PLANT			
						MIXED BASE COURSE			
				1000	119,200	120,200	CY/M	OVERHAUL (2.0 MILES)	221
					11,920	CY	STRIPPING OF GRAVEL PITS, EST.	223	
				4	CY	CONCRETE CLASS B, EST.	401-B		
				53,400	GAL	TACK COAT TYPE III, MOD.	315		
				1,000	LB	REINFORCING STEEL, EST.	402		
				2	EA	CAST IRON GRATE TYPE A, EST.	534-A		
				1,145	GAL	TAR EMULSION FOR BRIDGE FLOORS	381		
				41,090	TON	BITUMINOUS CONCRETE PAVEMENT, MOD.	361		
				210	HR	PROOF ROLLING, EST.	365		
				285	L.F.	JOINT SEALER-HOT POURED	372-A		
				1	CY	CEMENT RUBBLE MASONRY, EST.	411		
				348	348	L.F. 8" ASPH. CTD. CORR. GALV. MET. PIPE .064 EST.	424-B		
				100	100	L.F. 18" ASPH. CTD. CORR. GALV. MET. PIPE .064 EST.	424-H		
				100	100	L.F. 24" ASPH. CTD. CORR. GALV. MET. PIPE .064 EST.	424-K		
				100	100	L.F. RELAYING PIPE CULVERTS, EST.	428		
				36	3.8	GAL	EPOXY COATING COMPOUND	438-A	
				400	100	L.F. 6" PERF. CORR. GALV. MET. UNDERDRAIN, MOD. EST.	521-A		
				100	100	L.F. 6" PERF. CORR. GALV. MET. PIPE, MOD. EST.	521-EW		
				85	85	EA	CAST IRON COVER FOR ASPH. CTD. CORR. GALV. MET. PIPE FLUSHING BASIN (INCL. 3 EST.)	525	
				2	EA	DROPLET INLET (PRECAST REINFORCED CONCRETE CURB			
						D.I. W/C.I. GRATE & FRAME, EST.	531		
				31	31	EA	CHANGING ELEV. OF C.B. OR MANHOLES	533	
				39,836	142	L.F. THREE CBL. GR. W/LT. STEEL POSTS	539-A		
				4	4	EA	ANCHORS FOR THREE CBL. GR. W/LT. ST. POSTS	539-B	
				4	4	EA	ANCHORS FOR THREE CBL. GR. W/LT. ST. POSTS	539-B	
				24	24	EA	ANCHORS FOR ST. BEAM GR. W/LT. ST. OR WOOD POSTS	544-A	
						WOOD POSTS	544-C		
				22,050	10	L.F. STD. ST. BEAM GR. W/STEEL POSTS (4'-3" spacing)	546-A		
				10	10	EA	STEEL GUIDE POSTS, EST.	547-B	
				535	120	EA	STEEL MARKER POSTS (INCL. 8 EST.)	547-D	
				120	120	TON	BIT. CONC. SURF. FOR GUTTERS AND TRAFFIC ISLANDS, MOD.	554	
				10.0	100	CY	STONE FILL, LIGHT TYPE, EST.	512	
				10,125	2	L.F.	TREATED TIMBER CURB	558	
				2	2	EA	ERECTION OF PROJECT MARKERS	566	
				120	120	EA	BOUNDARY MARKERS, EST.	567	
				1,387	1,387	L.F.	BRIDGE RAILING FOR BRIDGE APPROACH	572	
				200	200	L.F.	PROPERTY LINE FENCE W/STEEL POSTS, EST. MOD. 563-II		
				4	4	EA	STEEL BRACE FOR PROPERTY LINE FENCE, EST.	563-IX	
				14,300	14,300	SY	PREPARING EXISTING PAVEMENT FOR NEW WEARING SURFACE	591	
						L.F. SLEEVES FOR WATER PIPES	431		
				114	100	MANHOLE UNIFORMED TRAFFIC OFFICER, EST.	598		
				1/2	1/2	L.S. FIELD OFFICE-ENGINEERS	599-A		
				1/2	1/2	L.S. FIELD OFFICE-SOILS & MATERIALS	599-B		
				1/2	1/2	L.S. FIELD OFFICE-ASPHALT PLANTS	599-C		
				8	8	ACRE SELECTIVE THINNING AND TRIMMING, EST.	601		
				5,100	LB	SEEDING	611		
				1,000	SY	SODDING, EST.	612		
				130,800	TON	FERTILIZER	615		
				168	TON	GROUND LIMESTONE	616		
				18,080	CY	TOPSOIL	621		
				170	TON	MULCH	622		
				16,270	SY	JUTE MATTING	623		
				2278	SF	TRAFFIC SIGNS	701		
				549	EA	DELINEATORS	702		
				500	CY	GRAVEL BACKFILL FOR SLOPE STABILIZATION, EST.	222-A		
				200	L.F.	REM. & RES. THREE CBL. GR. W/ST. PST. EST.	548-B		
				550	L.F.	REM. & RES. STEEL BEAM GR.	548-C		
						OPTIONAL ITEMS			
				100	L.F.	12" PIPE, EST.	420-D		
						CAACP .060	423-D		
						CAACP .064	423-D		
				12	12	L.F. 12" ELBOWS, EST.	422-D		
						CAACP .064	423-D		
						CAACP .060	423-D		
				284,300	284,300	CY	SUB-BASE OF DENSE GRADED CRUSHED ROCK MOD.	207	

QUANTITY SHEET

NORWICH - THETFORD

PROJECT NO. I 91-2(41)

SUMMARY SHEET NO. 1 OF 1 19 70

1 3/4" BITUMINOUS CONCRETE PAVEMENT ITEM 361 TYPE III MOD.

STATIONS	PAVEMENT WIDTHS	BRIDGE	EQUATIONS
FROM	TO	24' ROADWAY	38' ROADWAY
NORTHBOUND			
4015+00.00	4028+00.53	1,300.53	
4028+00.53	4029+37.21		136.68
4029+37.21	4066+41.04	3,703.83	
4066+41.04	4093+35.29	2,690.79	
4093+35.29	4093+67.11		31.82
4093+67.11	4257+50.41	16,383.30	
4257+50.41	4257+74.05		23.64
4257+74.05	4260+25.84		251.79
4260+25.84	4260+52.63		26.79
4260+52.63	4299+41.80	3,869.17	
4299+41.80	4326+19.47	2,700.25	
4326+19.47	4490+01.91	16,382.01	
4490+01.91	4493+00.00	300.72	
NORTHBOUND TOTALS			
ROADWAY	47,350.60	50.43	31.82 368.47
SOUTHBOUND			
4015+00.00	4027+47.03	1,247.03	
4027+47.03	4029+66.38		139.35
4029+66.38	4066+41.04	3,754.66	
4066+41.04	4095+51.27	2,906.77	
4095+51.27	4095+84.73		33.46
4095+84.73	4185+24.84	8,940.11	
4185+24.84	4221+08.87	3,578.67	
4221+08.87	4237+57.42	1,651.30	
4237+57.42	4257+33.91	1,931.97	
4257+33.91	4257+58.26		24.35
4257+58.26	4260+05.23		246.97
4260+05.23	4260+29.64		24.41
4260+29.64	4489+85.56	22,955.92	
4489+85.56	4493+00.00	575.70	
SOUTHBOUND TOTALS			
ROADWAY	47,542.13	48.76	33.46 366.32
PROJECT TOTALS			
4015+00.00 TO 4493+00.00	94,892.73	99.19	65.28 774.79 289.22 57.23
TOTALS			

LENGTH OF PROJECT

STATIONS	FEET	MILES	REMARKS
4015+00.00 TO 4493+00.00	47,495.96	8.995	ROADWAY (AVE BOTH LANES)
	480.04	0.090	BRIDGE (" " ")
	47,916.00	9.075	PROJECT (" " ")
TOTALS			

NORWICH - THETFORD I 91-2(41)

STAGE 2 CONSTRUCTION

ROUNDING

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
FINE GRADING-SUBGRADE ITEM 107		
545,258	SY	MAINLINE
25,215	SY	RAMPS
27	SY	ROUNDING
570,500	SY	TOTAL
SUB-BASE OF GRAVEL MOD. ITEM 201		
53,620	CY	MAINLINE
3,261	CY	RAMPS
472	CY	U-TURNS
210	CY	TREATED TIMBER CURB
37	CY	ROUNDING
57,600	CY	TOTAL
SUB-BASE OF DENSE GRADED CRUSHED ROCK ITEM 207, MOD.		
272,770	CY	MAINLINE
11,527	CY	RAMPS
284,300	CY	TOTAL
CRUSHED GRAVEL OR CRUSHED STONE PLANT MIXED BASE COURSE ITEM 213		
60,505	TON	MAINLINE (INCL. SPEED CHANGE LANES AND TAPERS)
2,846	TON	RAMPS
49	TON	ROUNDING
63,400	TON	TOTAL
TACK COAT TYPE III MOD. ITEM 315		
46,169	GAL	MAINLINE
3,558	GAL	MAINLINE (OVERLAY 4015+00-4063.75)
1,233	GAL	RAMPS
33	GAL	U-TURNS
753	GAL	VT. 113-A
3.4	GAL	ROUNDING
53,400	GAL	TOTAL
BITUMINOUS CONCRETE PAVEMENT MOD. ITEM 361		
22,366	TON	MAINLINE (INCL. SPEED CHANGE LANES)
12,812	TON	MAINLINE (SHOULDERS)
2,983	TON	MAINLINE (OVERLAY 4015+00-4063.75, INCL. SHLDRS)
1,529	TON	RAMPS (INCL. SHOULDERS)
207	TON	U.S. 5 BRIDGES
322	TON	BRIDGES
614	TON	VT. 113-A
150	TON	VT. 113-A (SHOULDERS)
92	TON	U-TURNS
3	TON	ROUNDING
41,090	TON	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
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150	TON	VT. 113-A (SHOULDERS)
92	TON	U-TURNS
3	TON	ROUNDING
41,090	TON	TOTAL

No. 11 of 193 Sheets

EARTHWORK

EARTHWORK

EARTHWORK SUMMARY

STATE OF VERMONT
DEPARTMENT OF
HIGHWAYS

V.C.	% GRADE	GRADES				TOTAL EXCAVATION EARTH AND ROCK				EMBANKMENT				BASE			
		STATION	ELEVATION ON TANGENT ON V. CURVES	CORR. V.C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
		8028+00	869.44	0													
		+50	865.95	865.93	- 0.02	50											
		8025	867.86	867.39	- 0.07												
		+50	868.96	868.80	- 0.16												
		8026	870.47	870.79	- 0.28												
		+50	871.98	871.55	- 0.43												
		8027	873.48	872.86	- 0.62												
		+50	874.99	874.14	- 0.85	50											
		8028	876.50	875.39	- 1.11												
		+50	877.51	876.00	- 1.25												
		8029	878.00	877.28	- 1.10												
		+50	879.00	878.05	- 1.04												
		8030	879.50	878.63	- 0.91												
		+50	879.77	878.92	- 0.85												
		8031	880.46	880.08	- 0.62	50											
		+50	881.54	881.11	- 0.83												
		8032	882.43	882.15	- 0.28												
		+50	883.31	883.15	- 0.16												
		8033	884.20	884.15	- 0.07												
		+50	885.08	885.06	- 0.02												
		8034	885.97	885.97	- 0.00												
		+50	886.85														
		8035	887.74														
		+50	888.62														
		8036	889.51														
		+50	890.39														
		8037	891.28														
		+50	892.16														
		8038	893.05														
		+50	893.93														
		8039	894.82														
		+50	895.70														
		8040	896.59														
		+50	897.47														
		8041	898.36														
		+50	899.24														
		8042	900.13														
		+50	901.01														
		8043	901.90														
		+50	902.78														
		8044	903.67														
		+50	904.55														
		8045	905.44														
		+50	906.32														
		8046	907.21														
		+50	908.09														
		8047	908.98														

V.C.	% GRADE	GRADES				TOTAL EXCAVATION EARTH AND ROCK				EMBANKMENT				BASE			
		STATION	ELEVATION ON TANGENT ON V. CURVES	CORR. V.C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
		8048	909.88														
		+50	909.86														
		8049	910.75														
		+50	911.63														
		8050	912.52														
		+50	913.40														
		8051	914.29														
		+50	915.17														
		8052	916.06	916.06	0.00												
		+50	916.94	916.90	- 0.04												
		8053	917.83	917.69	- 0.14												
		+50	918.71	918.39	- 0.32												
		8054	919.60	919.03	- 0.57												
		+50	920.48	919.59	- 0.89												
		8055	921.37	920.09	- 1.28												
		+50	922.25	920.51	- 1.74												
		8056	923.14	920.86	- 2.28												
		+50	924.02	921.18	- 2.84												
		8057	924.91	921.35	- 3.56												
		+50	925.79	921.98	- 4.31												
		8058	926.68	921.56	- 5.12												
		+50	927.56	921.55	- 6.01												
		8059	928.45	921.48	- 6.97												
		+50	929.33	921.32	- 8.01												
		8060	929.08	921.11	- 6.97												
		+50	929.83	920.82	- 6.01												
		8061	929.63	920.65	- 5.56												
		+50	930.48	920.46	- 5.12												
		8062	931.33	920.22	- 4.31												
		+50	932.17	919.79	- 3.92												
		8063	933.08	919.52	- 3.56												
		+50	933.96	919.25	- 3.21												
		8064	934.83	918.95	- 2.88												
		+50	935.71	918.68	- 2.57												
		8065	936.58	918.30	- 2.28												
		+50	937.46	917.96	- 2.00												
		8066	938.33	917.59	- 1.74												
		+50	939.21	917.21	- 1.50												
		8067	939.08	916.80	- 1.28												
		+50	939.96	916.38	- 1.08												
		8068	940.83	915.94	- 0.89												
		+50	941.71	915.49	- 0.72												
		8069	942.58	915.01	- 0.57												
		+50	943.46	914.52	- 0.44												

SUMMARY OF BALANCES										SUMMARY BY COLUMNS				REMARKS	
STATION	TANGENT	V. CURVE	CORR. V.C.	DIST.	FILL	CUT	FILL	CUT	FILL	EXCAVATION	EMBANKMENT	BASE			
										TOTAL CU. YDS. ROCK CU. YDS.	CUBIC YARDS	CUBIC YARDS			
8069+25	514.96	514.52	- 0.44											EARTH AND ROCK EXCAVATION SOLID ROCK EXCAVATION EARTH EXCAVATION	
+50	514.33	514.01	- 0.32	25											
+75	513.71	513.50	- 0.21											PLANIMETERED FILL LESS FACTORED SOLID ROCK LESS DISPLACEMENT OF ANY LARGE STRUCTURES NET PLANIMETERED FILL FACTOR PLANIMETERED FILL INCLUDING FACTOR	
8068	513.08	512.94	- 0.14												
+25	512.46	512.38	- 0.08											MATERIALS AVAILABLE FOR FILL EARTH EXCAVATION CHANNEL EXCAVATION UNDERDRAIN EXCAVATION STRUCTURE EXCAVATION	
+50	511.83	511.79	- 0.04												
+75	511.21	511.20	- 0.01	25										TOTAL MATERIAL AVAILABLE FOR FILL TOTAL FILL INCLUDING FACTOR TOTAL MATERIAL FOR FILL BORROW	
8065	510.58		0												
EQ - 3.46	8066+11.08														
8066+11.08															
8070+53.46	496.63														

STATE OF VERMONT
DEPARTMENT OF
HIGHWAYS

TYPE CHK
& CORRECTED
2/11/67

CARRIED FORWARD

COLUMN FOOTINGS

PROJECT 1 NO 91-2 (4)

31 19

EARTHWORK

STATE OF VERMONT
DEPARTMENT OF
HIGHWAYS

GRADES										TOTAL EXCAVATION EARTH AND ROCK										EMBANKMENT										BASE									
V.C.	% GRADE	STATION	ELEVATION ON TANGENT	CORR. V.C. CURVES	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.																				
COMPLETED TO US 5																				HIGHWAYS																			
GRADES																				SUMMARY OF BALANCES																			
EXCESSES																				ACCUMULATIVE EXCESSES																			
CUT FILL CUT FILL																				CUBIC YARDS CUBIC YARDS CUBIC YARDS CUBIC YARDS																			
REMARKS																				PROJECT NO. 81-2(18)(d)																			
STAGE CONSTRUCTION REV. TEMPORARY APPROACH																				NOB WICH CHANGE ORDER #																			
SHEET 100 OF 100 SHEETS																				PROJECT NO. 81-2(18)(d)																			

COMPLETED TO US 5																				HIGHWAYS																			
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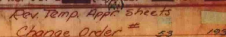
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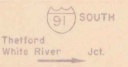
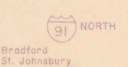
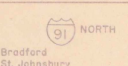
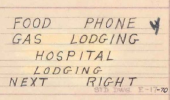
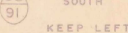
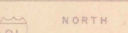
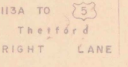
COMPLETED TO US 5																				HIGHWAYS																			
GRADES																				SUMMARY OF BALANCES																			
EXCESSES																				ACCUMULATIVE EXCESSES																			
CUT FILL CUT FILL																				CUBIC YARDS CUBIC YARDS CUBIC YARDS CUBIC YARDS																			
REMARKS																				PROJECT NO. 81-2(18)(d)																			
STAGE CONSTRUCTION REV. TEMPORARY APPROACH																				NOB WICH CHANGE ORDER #																			
SHEET 100 OF 100 SHEETS																				PROJECT NO. 81-2(18)(d)																			

COMPLETED																			
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NO.	NO. 1
NOTE BOOK	NOTE BOOK
PROFILE	PROFILE
SURVEYED	SURVEYED
PLOTTED	PLOTTED
GRACES CHECKED	GRACES CHECKED
B. M. NOTED	B. M. NOTED
STRUCTURE NOTATIONS CHKD	STRUCTURE NOTATIONS CHKD
BY	BY
DATE	DATE

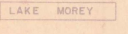
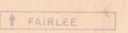
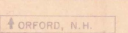
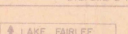


TRAFFIC SIGNS, ITEM 701

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN			TOTAL SIGN AREA S.F.
		WIDTH	HEIGHT		SIZE AND TYPE NO.	NO. PER SIGN	FOOT-ING	
GA-31	1	17'-0"	10'-0"	 SOUTH Thetford White River Jct.	8 WF 17	2	A	170.0
GA-32	1	17'-0"	10'-0"	 SOUTH Thetford White River Jct.	MOUNT ON OF GA-31		BACK SIDE	170.0
GA-33	1	14'-0"	10'-0"	 NORTH Bradford St. Johnsbury	8 WF 17	2	A	140.0
GA-34	1	14'-0"	10'-0"	 NORTH Bradford St. Johnsbury	MOUNT ON OF GA-33		BACK SIDE	140.0
* GA-35	3	12'-0"	8'-0"	 FOOD PHONE GAS LODGING HOSPITAL LODGING NEXT RIGHT	6-8L-8-5	2	A	288.0 ¹¹²
GA-36	1	11'-0"	4'-0"	 SOUTH KEEP LEFT	MOUNT ON N.B. BRIDGE (EAST FACIA)			44.0
GA-37	1	11'-0"	4'-0"	 NORTH KEEP LEFT	MOUNT ON S.B. BRIDGE (WEST FACIA)			44.0
GA-38	1	13'-0"	9'-0"	 113A TO Thetford RIGHT LANE	10 WF 21	2	A	117.0
W-3	2	30"	30"	 STOP AHEAD	FLANGED CHANNEL	1	B	126
R-23	2	36"	12"	 ONE WAY	FLANGED CHANNEL	2	B	6.0
USE INTERSTATE COLOR SCHEME WITH THE PRECEDING SIGNS.								

COLUMN TOTAL = 1058.8 S.F.

TRAFFIC SIGNS, ITEM 701

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN			TOTAL SIGN AREA S.F.
		WIDTH	HEIGHT		SIZE AND TYPE NO.	NO. PER SIGN	FOOT-ING	
R-22	2	24"	30"	 NO RIGHT TURN	FLANGED CHANNEL	1	B	10.0
R-1	4	30"	30"	 STOP	4" ALUMINUM TUBE W/ 3/16" WALL	1	C	25.2
* R-10	4	30"	30"	 DO NOT ENTER	MOUNT ON BACK OF R-1			25.2 ⁴⁹
R-5	4	36"	48"	 NO U TURN	FLANGED CHANNEL	2	B	48.0
R-3	3	48"	60"	 SPEED LIMIT 65	4" ALUMINUM TUBE W/ 3/16" WALL	2	C	60.0
R-4	3	48"	48"	 MINIMUM 40	MOUNT BELOW R-3			48.0
R-11	4	30"	24"	 WRONG WAY	FLANGED CHANNEL	1	B	20.0
G-23	3	24"	24"	 5	MOUNT ONE ABOVE G-24 MOUNT ONE ABOVE G-25 MOUNT ONE ON ASSEMBLY "E"			12.0
G-24	1	21"	15"	 →	ASSEMBLY H			2.2
G-25	1	21"	15"	 ←	ASSEMBLY I			2.2
* G-26	3	24"	12"	 TO	MOUNT ABOVE SEE ASSEMBLIES	G-23		6.0 ¹¹⁵
W-8	2	48"	48"	 WARNING	FLANGED CHANNEL	2	B	32.0
G-27	1	72"	10"	 LAKE MOREY	SEE ASSEMBLY F			5.0
G-28	1	72"	10"	 FAIRLEE	SEE ASSEMBLY E			5.0
G-29	1	72"	10"	 ORFORD, N.H.	SEE ASSEMBLY E			5.0
G-30	1	72"	10"	 LAKE FAIRLEE	SEE ASSEMBLY E			5.0

COLUMN TOTAL = 301
+ COLUMN 1 1058.8
SHEET TOTAL 1360.7

S.B. DELINEATORS, ITEM 702

PART	NUMBER OF PLATES	SIZE		TEXT	PART	NUMBER OF PLATES	SIZE		TEXT
		WIDTH	HEIGHT				WIDTH	HEIGHT	
B	8	3.5"	6"	05	A	6	3.5"	4.5"	84
	8			10		19			85
	8			15		19			86
	8			20		19			87
	8			25		19			88
	8			30		19			89
	8			35		19			90
	8			40		19			91
	8			45	A	9	3.5"	4.5"	92
	7			50	S.B. TOTAL	148			
	7			55					
	7			60					
	7			65					
	8			70					
	8			75					
	6			80					
	8			85	SUMMARY OF DELINEATORS, ITEM 702 TYPE 1 DELINEATORS, WITH PLATES 148 - S.B. TYPE 2 DELINEATORS, DOUBLE AMBER 31 - "A" & "C" TYPE 3 DELINEATORS, WHITE PLATES 74 253				
	8			90					
B	8	3.5"	6"	95					

IDENTIFICATION OF TRAFFIC SIGNS

Traffic signs are identified on these plans by a number prefixed by a letter which indicates the following general classifications:

- GA - Large size guide signs
- G - Other guide signs
- R - Regulatory signs
- W - Warning signs

Traffic sign assemblies which consist of groups of signs mounted together, are identified by a letter - such as ASSEMBLY "A" - and the individual signs comprising the assembly are identified by their individual sign numbers.

Steel posts for traffic signs shall be galvanized and of a breakaway or yielding design.

Aluminum tubes for traffic signs shall be of a 6061T6 alloy and of a yielding design.

* REVISED SIGNS 2/23/71 CHANGE ORDER

STA. 4493+00-4907+00

THETFORD-FAIRLEE

TRAFFIC SIGN
AND DELINEATOR
SUMMARY SHEET

DESIGNED BY: S.L. DATE: MAY 1963
DRAWN BY: D.B. DATE: 8-10-65
TRACED BY: M.E. DATE: 7-2-66
STAGE 2 SH. 4 OF 8
PROJ. I NO. 91-0(24)
SHEET 97 OF 180

SOIL REMOVAL ITEM 103	
STATION	POS
4012+75	4013+75
4013+00	4013+33

GRANULAR BORROW ITEM 105	
STATION	POS
4012+75	4013+75
4013+00	4013+33

12" SUB-BASE OF SAND ITEM 202	
STATION	POS
4012+75	4013+75
4013+00	4013+33

STONE FILL FOR SLOPE PROTECTION (LIGHT TYPE) ITEM 512	
STATION	POS
4012+75	4013+75
4013+00	4013+33

RIP RAP (LIGHT TYPE) ITEM 513-B	
STATION	POS
4012+75	4013+75
4013+00	4013+33

BITUMINOUS CONCRETE CURB ITEM 555	
STATION	POS
4012+75	4013+75
4013+00	4013+33

JUTE MATTING ITEM 623	
STATION	POS
4012+75	4013+75
4013+00	4013+33

RIP RAP (HEAVY TYPE) ITEM 513-A	
STATION	POS
4012+75	4013+75
4013+00	4013+33

NOTE:
Sta. 4015+00 - 4022+00
Work in this area shall consist of removal of Temporary off ramp Common Excavation, Item 103-B-1, Excavation and Removal of Road Surfaces and/or Pavement, Item 110 and Removing and Resetting Steel Beam Guard Rail, Item 548-C.

NOTE:
Sta. 4015+00 - 4022+75
Work in this area shall consist of placing 1" 1/4" of Bituminous Concrete Pavement Item 561 with Tack Coat, Type III (Bit. Tack Ct. Bit. Mat. w/ P. St. and St. Grts Seal. Prime Ct.) Mod. Item 515 and Preparing Existing Surface for New Wearing Surface, Item 561.



STA 4015+00.00
BEGIN PROJ I 91-2(41)

PROJ I 91-2(41)	
STATION	POS
4017+36	4020+34

SELECTIVE THINNING AND TRIMMING ITEM 601	
STATION	POS
4017+36	4020+34

PROPERTY LINE FENCE WITH STEEL POSTS ITEM 563-II 400	
STATION	POS
4017+36	4020+34

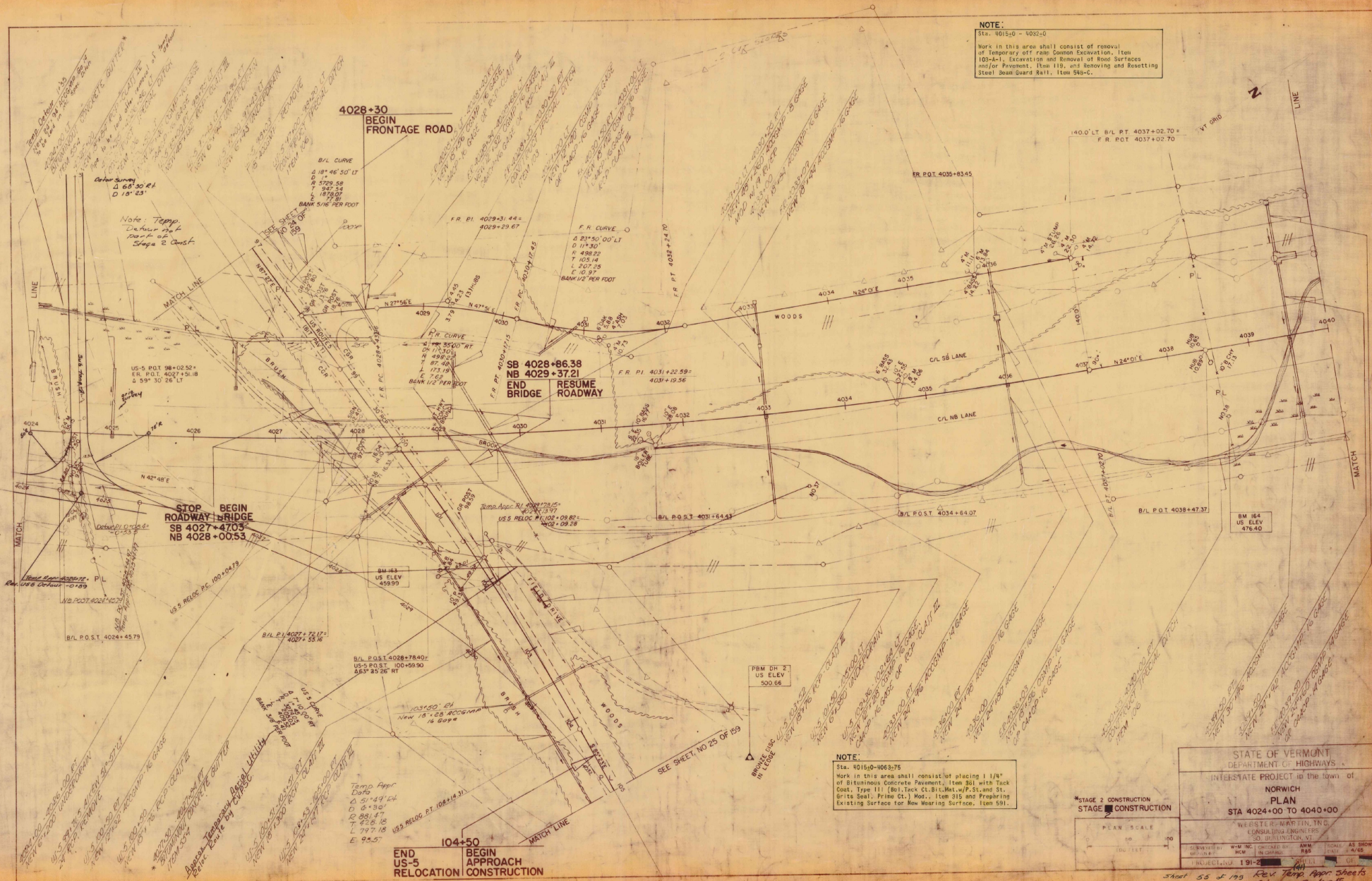
STAGE 2 CONSTRUCTION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT in the town of
NORWICH
PLAN
STA 4008+00 TO 4024+00
WESTLEY, MARTIN, INC.
CONSULTING ENGINEERS
50 BURLINGTON, VT
SURVEYED BY: W. H. H. CHECKED BY: A. W. H. SCALE: AS SHOWN
DRAWN BY: H. H. IN CHARGE: H. H. DATE: 5/78
PROJECT NO. 1 91-2 SHEET 1 OF 1

* STAGE 2 CONSTRUCTION

Change Order #
Rev. Temp. Appr. Sheets

NOTE:

Sta. 4015+00 - 4032+00
Work in this area shall consist of removal of temporary off-ramp Common Excavation, Item 103-A-1, Excavation and Removal of Road Surfaces and/or Pavement, Item 119, and Removing and Resetting Steel Beam Guard Rail, Item 541-L.



NOTE:

Sta. 4015+00 - 4032+00
Work in this area shall consist of placing 1 1/2" of Bituminous Concrete Pavement, Item 81 with Tack Coat, Type II (Bit. Tack Cl. Bit. Mat. w/ P. St. and St. Gr. Seal), Prime Cl. Mat., Item 215 and Preparing Existing Surface for New Wearing Surface, Item 591.

STAGE 2 CONSTRUCTION
STAGE 1 CONSTRUCTION

PLAN SCALE
1" = 100'

STATE OF VERMONT DEPARTMENT OF HIGHWAYS			
INTERSTATE PROJECT in the town of NORWICH			
PLAN STA 4024+00 TO 4040+00			
WEESTER-MARTIN, INC. CONSULTING ENGINEERS 301 BRIMINGTON ST. BRIMINGTON, VT			
DESIGNED BY	W.M.	CHECKED BY	W.M.
DATE	NOV 1991	SCALE	AS SHOWN
PROJECT NO.	191-2	SHEET	45

Sheet 55 of 193 Rev Temp Appr Sheets
Change Order E

12" SUB-BASE OF SAND ITEM 202		
STATION	STATION	POS
4024+00	4025+00	LT
4025+00	4026+00	LT

STANDARD STEEL BEAM GUARD RAIL WITH STEEL POSTS ITEM 545-A		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

STONE FILL FOR SLOPE PROTECTION (LIGHT TYPE) ITEM 542		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

NOTE:
Sta. 4015+00 - 4022+00
Work in this area shall consist of removal of Temporary off ramp Common Excavation, Item 103-A-1, Excavation and Removal of Road Surfaces and/or Pavement, Item 119, and Removing and Reinstalling Steel Beam Guard Rail, Item 548-C.

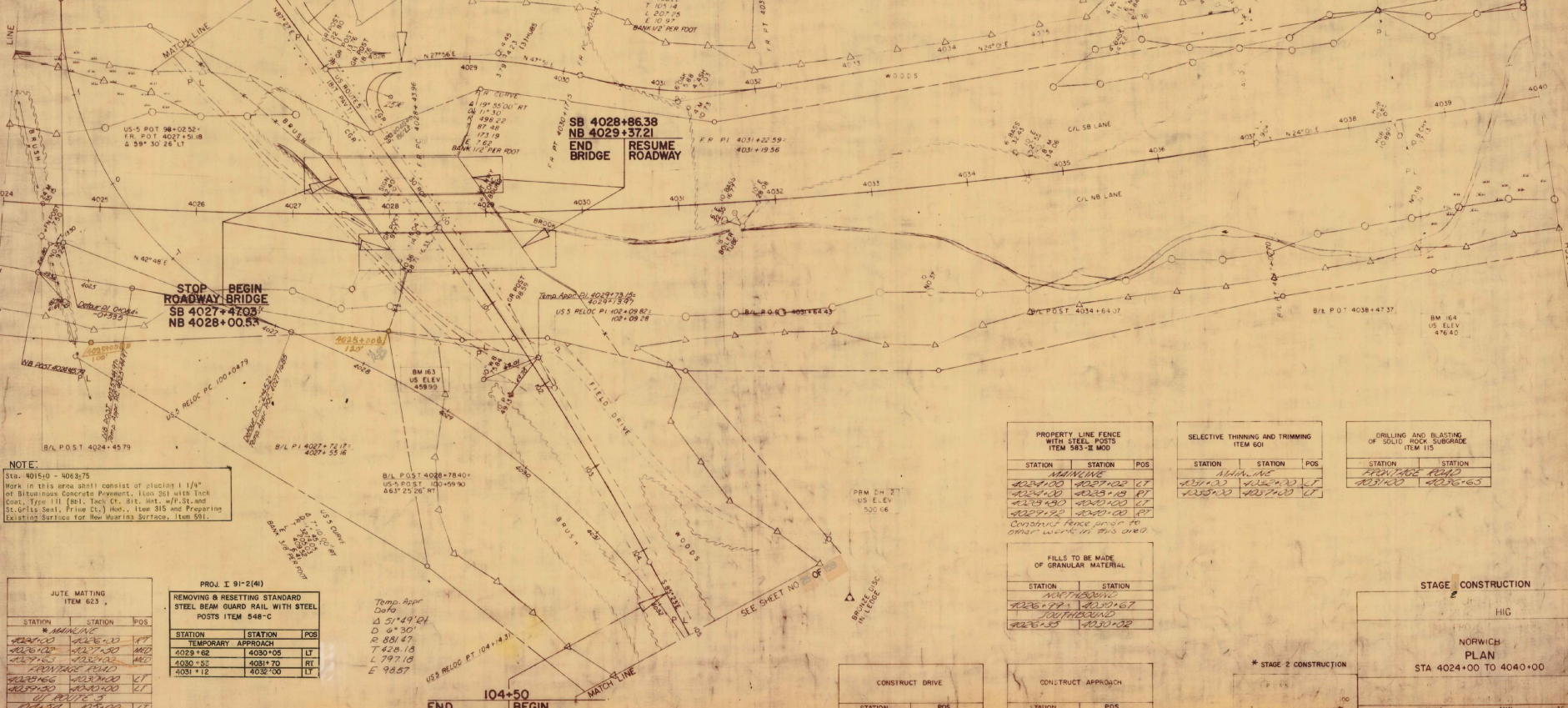
RIP RAP (LIGHT TYPE) ITEM 513-B		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

THREE CABLE GUARD RAIL WITH STEEL POSTS ITEM 542		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

REMOVAL AND DISPOSAL OF PRESENT GUARD RAIL ITEM 543		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

BITUMINOUS CONCRETE CURB ITEM 555		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

Detour Data
4027+00
4028+00
4029+00
4030+00
4031+00
4032+00
4033+00
4034+00
4035+00
4036+00
4037+00
4038+00
4039+00
4040+00



NOTE:
Sta. 4015+00 - 4022+00
Work in this area shall consist of placing 1 1/4" of Bituminous Concrete Pavement, Item 361 with Tack Coat, Type III (Hot, Tack Co. Bit. Mat. W/10% and St. or 15% Seal, Prime Co.) and, Item 315 and Preparing Existing Surface for New Bituminous Surface, Item 591.

JUTE MATTING ITEM 623		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

REMOVING & RESETTING STANDARD STEEL BEAM GUARD RAIL WITH STEEL POSTS ITEM 548-C		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

TEMP. APPR. DATA Δ 51'49"01 D 6'30" T 420.18 L 797.10 E 98.87		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-B MOD		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

SELECTIVE THINNING AND TRIMMING ITEM 601		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

DRILLING AND BLASTING OF SOLID ROCK SUBGRADE ITEM 115		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

FILLS TO BE MADE OF GRANULAR MATERIAL		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

CONSTRUCT DRIVE		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

CONSTRUCT APPROACH		
STATION	STATION	POS
4027+00	4028+00	LT
4028+00	4029+00	LT

STAGE 2 CONSTRUCTION
STA 4024+00 TO 4040+00

Rev. Temp. Appr. Sheets
Change Order #

NO.	NOTE BOOK	PROFILE	SURVEYED P. LOTTED GRADED CHECKED B. M. NOTED STRUCTURE DATINGS CHECKED	BY	DATE

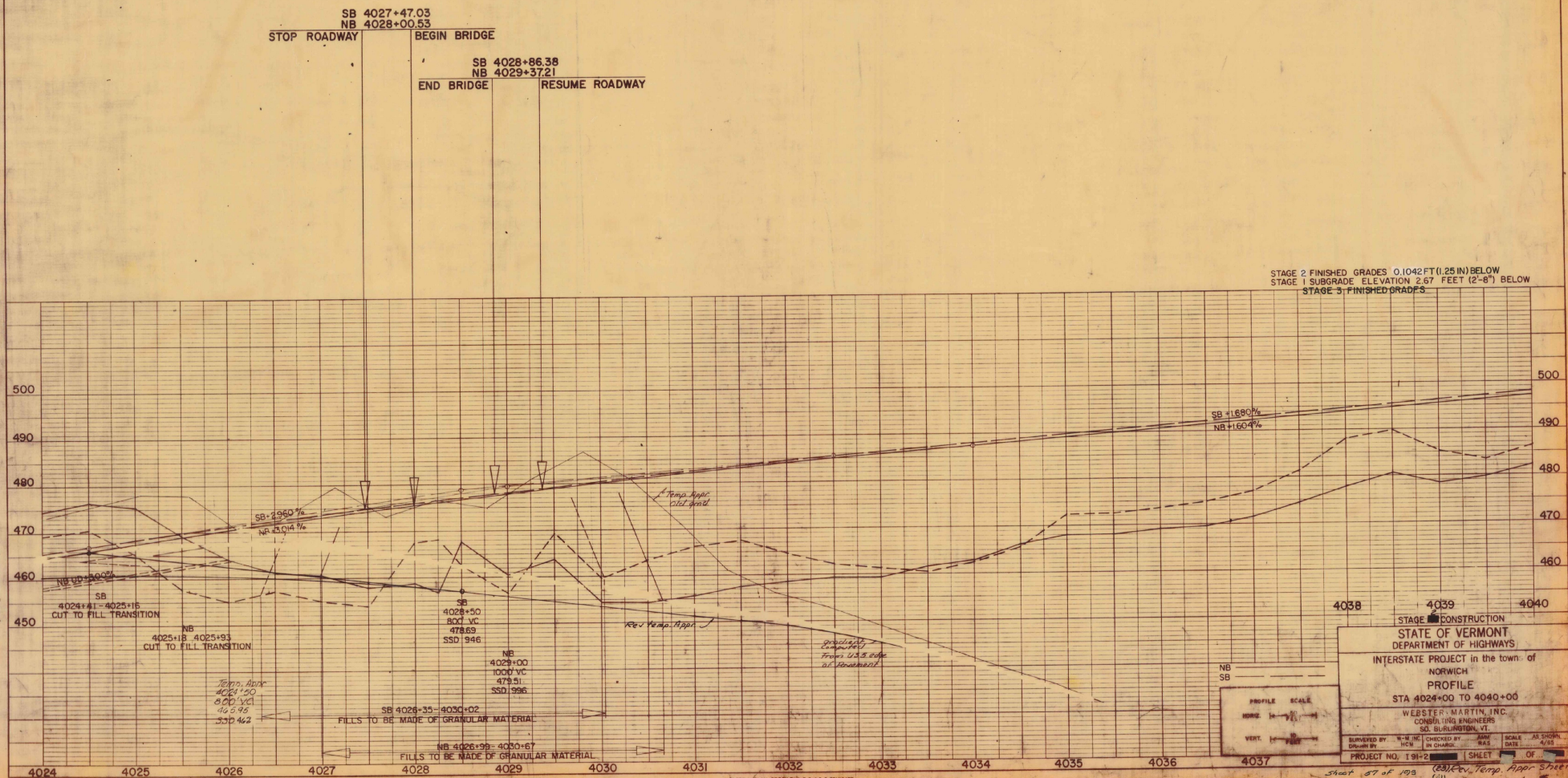


PLATE 1 PLAN PROFILE D. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

Sheet 87 of 103 (23) Rev. Temp. Appr. Sheets
(41) Change Order #

SOD REMOVAL ITEM 303	
STATION	STATION
NORTHBOUND	
4040+70	4041+40
SOUTHBOUND	
4041+40	4042+70
FRONTAGE ROAD	
4040+70	4041+40
4041+40	4042+70

12" SUB-BASE OF SAND ITEM 202	
STATION	STATION
NORTHBOUND	
4040+70	4041+40
SOUTHBOUND	
4041+40	4042+70
FRONTAGE ROAD	
4040+70	4041+40
4041+40	4042+70

STONE FILL FOR SLOPE PROTECTION (LIGHT TYPE) ITEM 305		
STATION	STATION	POS
FRONTAGE ROAD		
4040+70	4041+40	LT
4041+40	4042+70	RT

TWO CABLE GUARD RAIL ITEM 541		
STATION	STATION	POS
FRONTAGE ROAD		
4040+70	4041+40	LT
4041+40	4042+70	RT

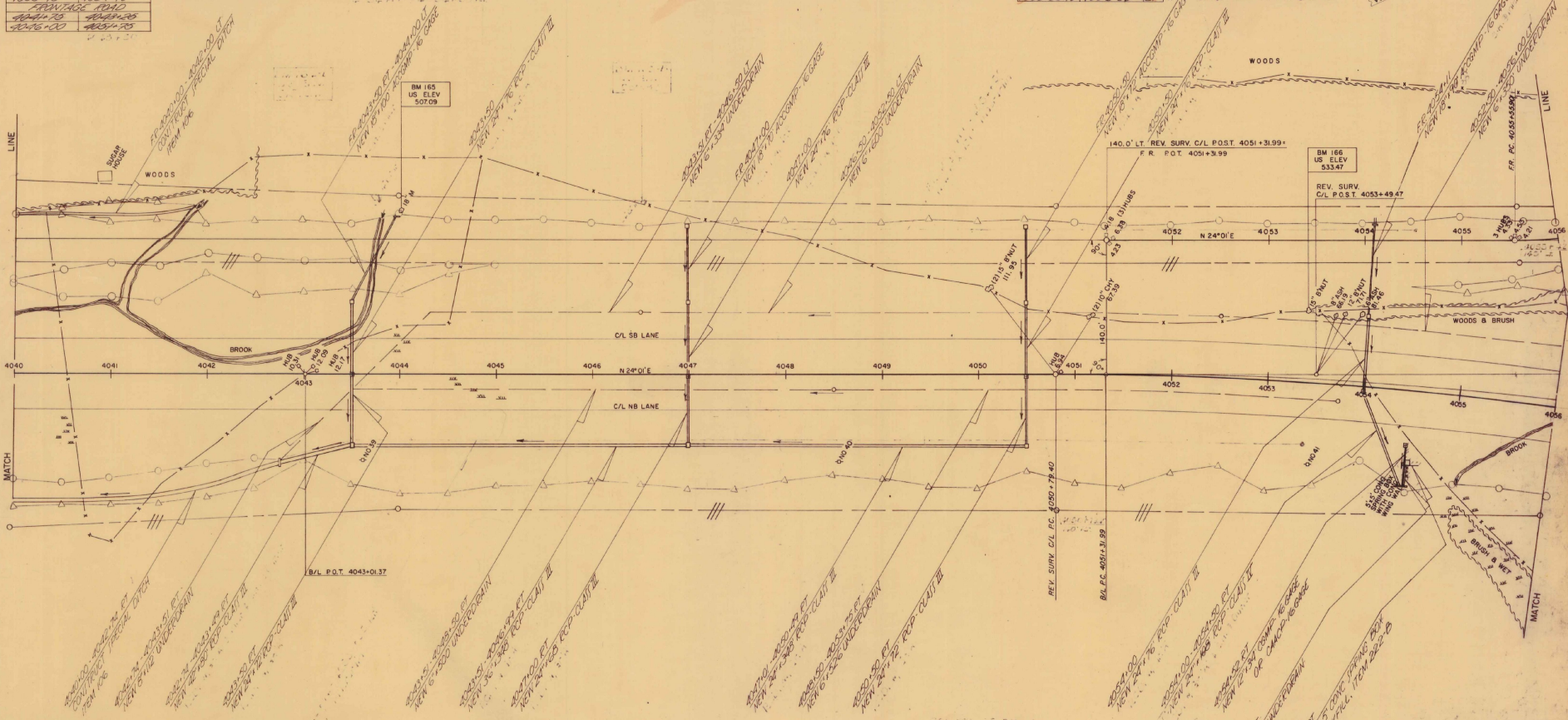
THREE CABLE GUARD RAIL WITH LIGHT STEEL POSTS ITEM 539		
STATION	STATION	POS
NORTHBOUND		
4040+70	4041+40	LT
4041+40	4042+70	RT

BITUMINOUS CONCRETE CURB ITEM 555		
STATION	STATION	POS
NORTHBOUND		
4040+70	4041+40	LT
4041+40	4042+70	RT

JUTE MATTING ITEM 623		
STATION	STATION	POS
FRONTAGE ROAD		
4040+70	4041+40	LT
4041+40	4042+70	RT

PROPERTY LINE FENCE WITH STEEL POSTS ITEM 553-2 MOD		
STATION	STATION	POS
MAINLINE		
4040+70	4041+40	LT
4041+40	4042+70	RT

Construct fence prior to other work in this area.



NOTE:
Sta. 40150 - 406275
Work in this area shall consist of placing 1 1/2" of Bituminous Concrete Pavement Item 361 with Tack Coat, Type III (90) Tack Ct. Bit. Mat. w/P. St. and St. Drills Seal, Prime Ct. Mod., Item 315 and Preparing Existing Surface for New Wearing Surface, Item 591.

STAGE 2 CONSTRUCTION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT in the town of
NORWICH
PLAN
STA 4040+00 TO 4056+00
WEBSTER, MARTIN, INC.
CONSULTING ENGINEERS
50, BURLINGTON, VT.
SURVEYED BY: N. J. INC. CHECKED BY: J. M. INC. SCALE: AS SHOWN
DRAWN BY: J. M. INC. IN CHARGE: J. M. INC. DATE: 4-75
PROJECT NO. 191-2 SHEET 25 OF 25

PROJECT	DATE
NO.	DATE
NOTE BOOK	DATE
SURVEYED	DATE
PLOTTED	DATE
COPIES CHECKED	DATE
B. M. NOTED	DATE
STRUCTURE NOTATING CHD.	DATE

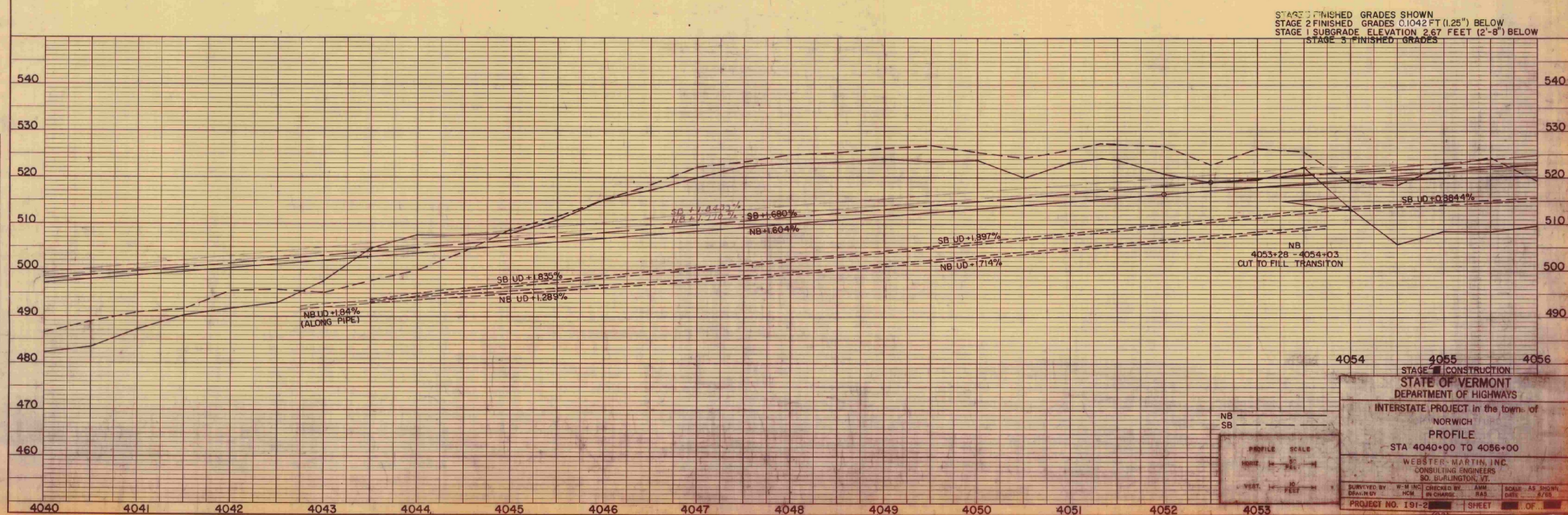


PLATE 1-PLAN-PROFILE O.P.R. & R.E. STANDARD
KEUVEL & ESSER CO. NEW YORK

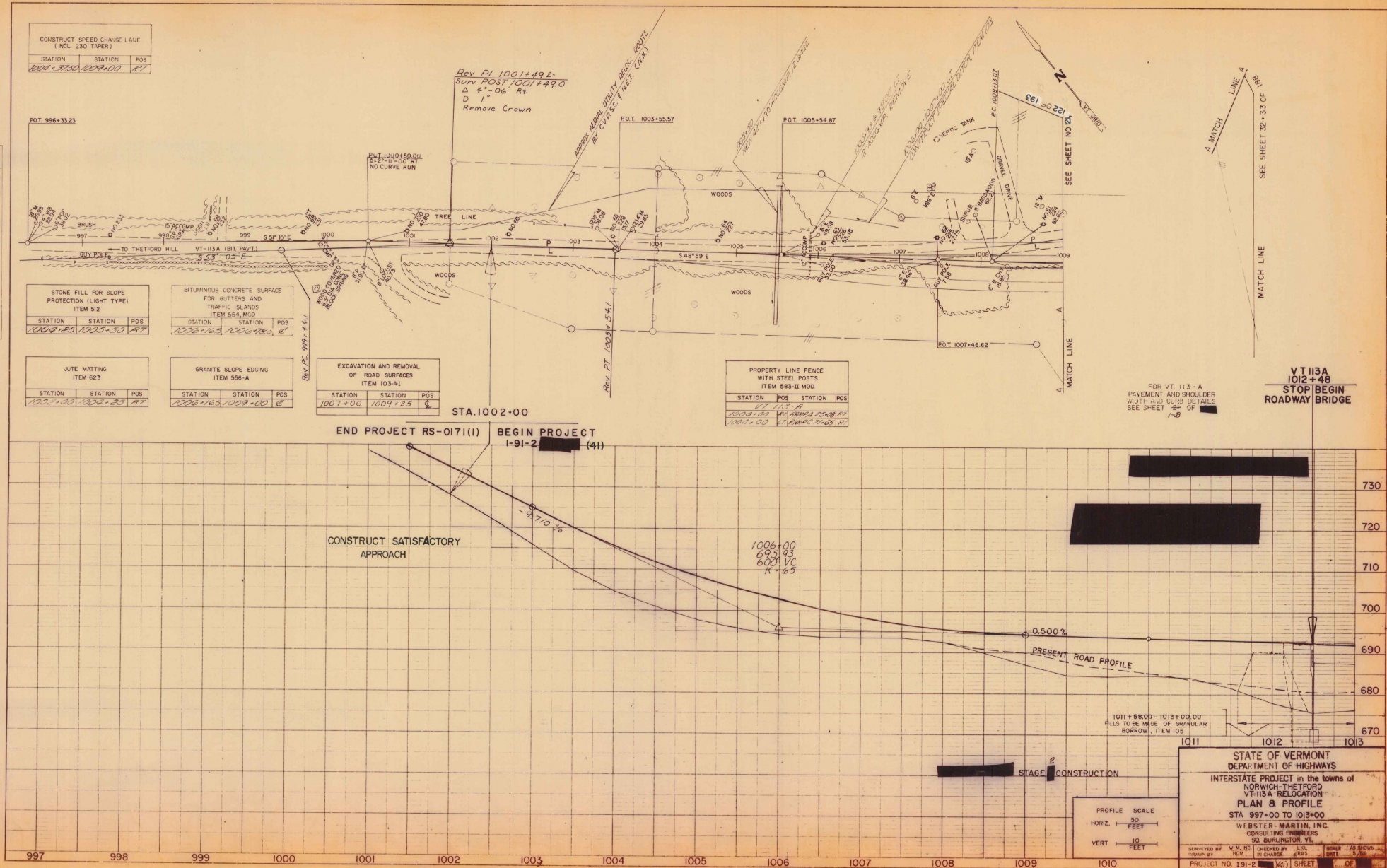
PLAN	DATE	BY	CHECKED
NOTE BOOK			
NO.			

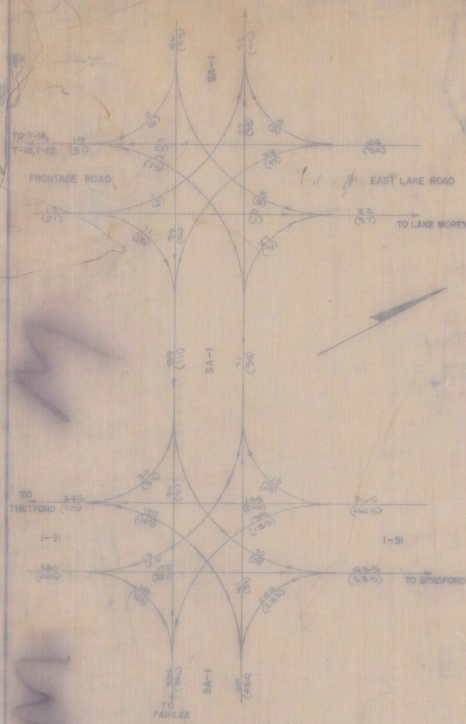
JUTE MATTING ITEM 623		
STATION	STATION	POS
1002-00	1004-25	RT

GRANITE SLOPE EDGING ITEM 556-A		
STATION	STATION	POS
1006+16.5	1009+00	E

EXCAVATION AND REMOVAL OF ROAD SURFACES ITEM 103-A1		
STATION	STATION	POS
1007+00	1009+25	6

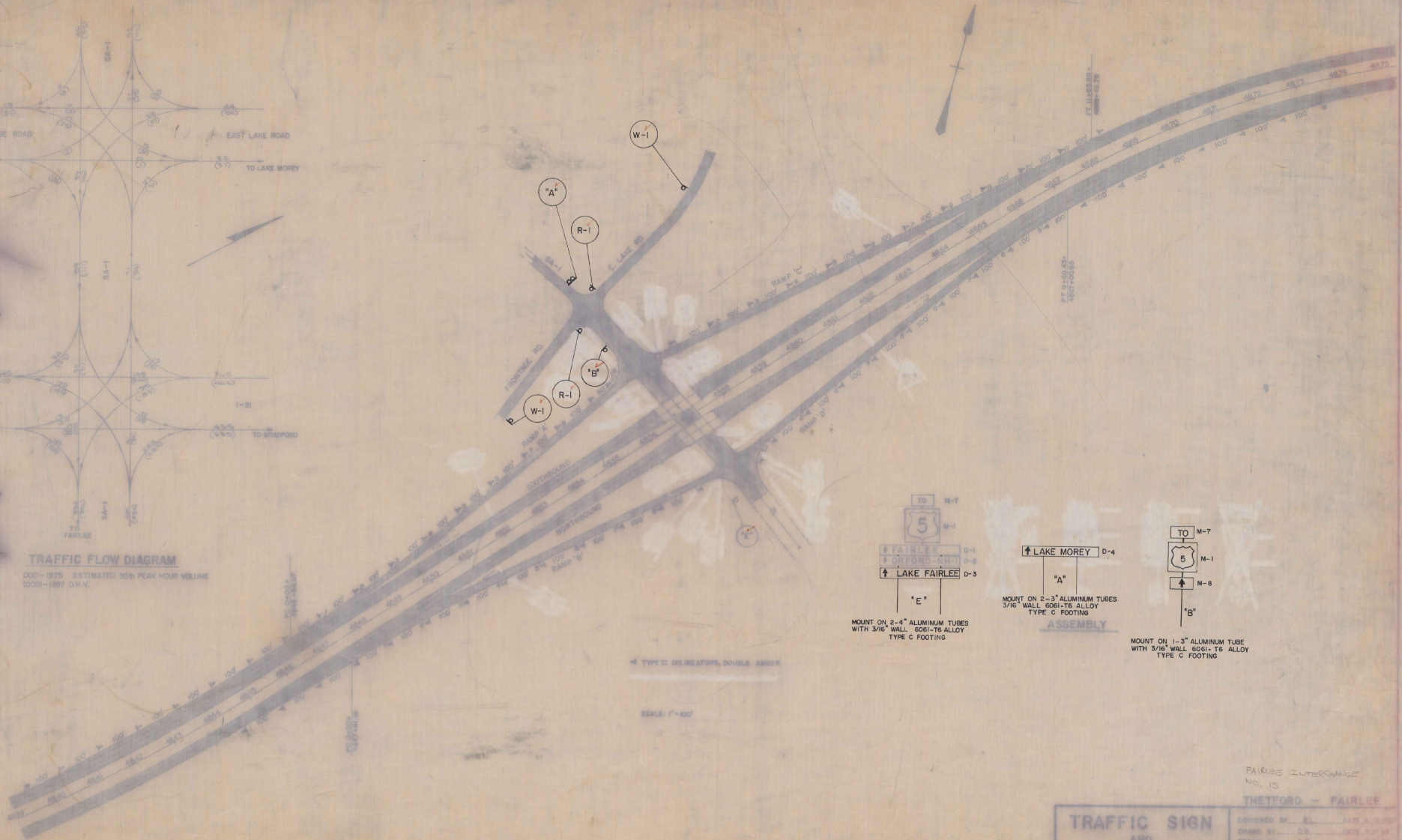
PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-II MOD.			
STATION	POS	STATION	POS
VT 113-A			
1004+00	RT	1004+25.08	A
1004+00	LT	1004+27.65	A





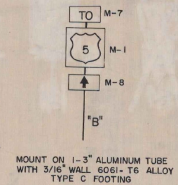
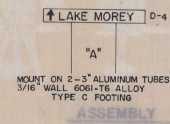
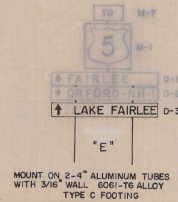
TRAFFIC FLOW DIAGRAM

000-1975 ESTIMATED 30th PEAK HOUR VOLUME
1000-1987 D.N.V.



TYPE II DELINEATORS, DOUBLE ARROW

SCALE: 1"=100'

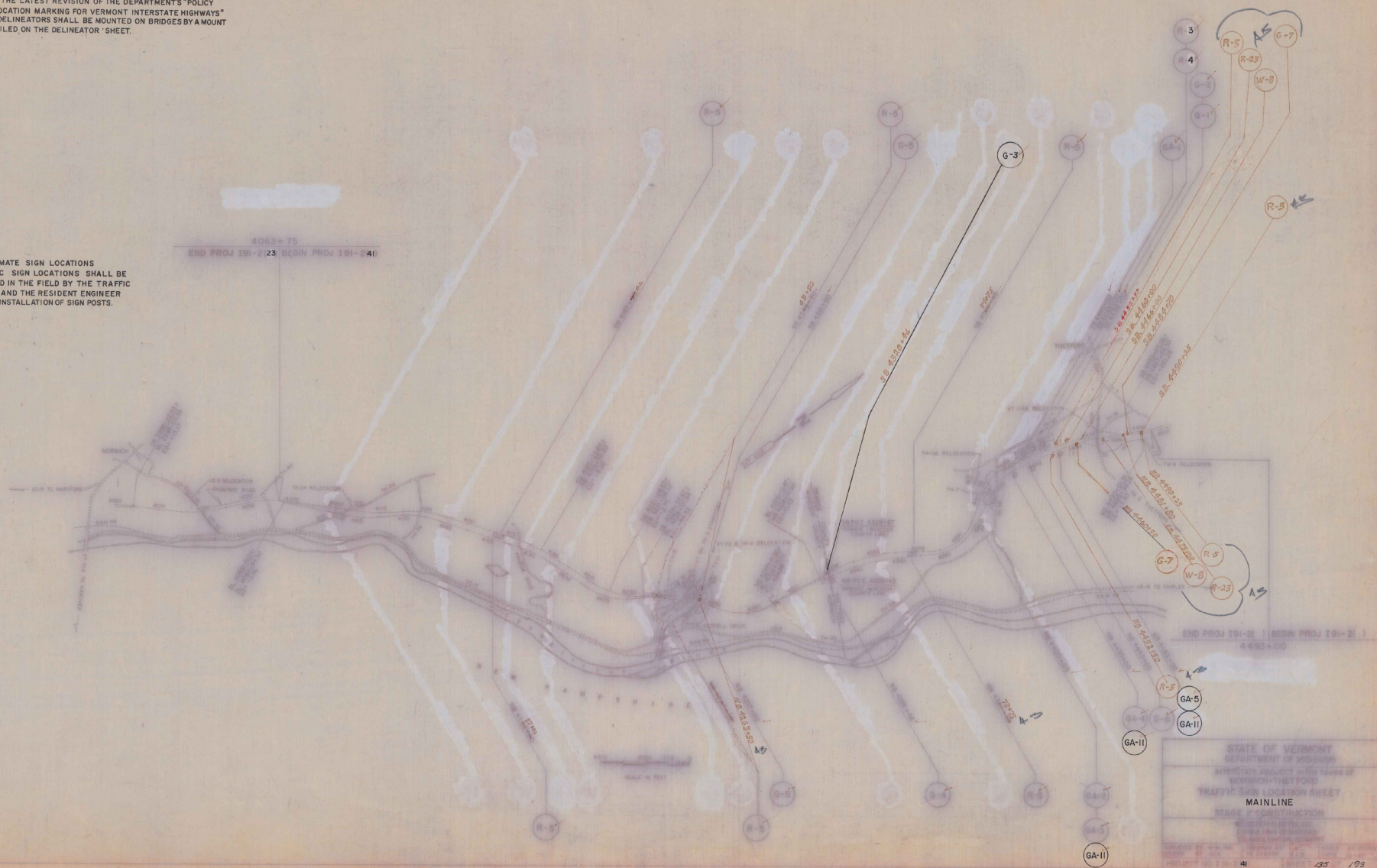


TRAFFIC SIGN
AND
DELINEATOR
LOCATION SHEET

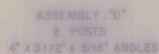
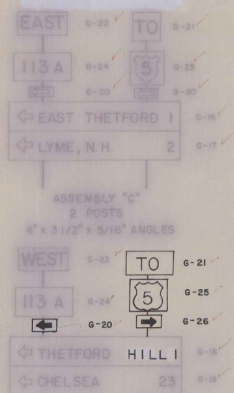
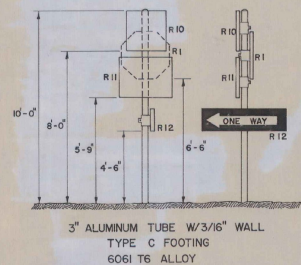
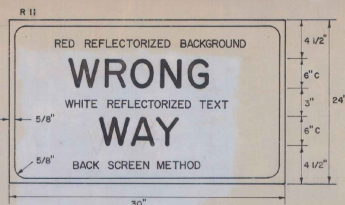
FAIRLEE INTERCHANGE
NO. 15
THETFORD - FAIRLEE
DESIGNED BY: J.L. DATE: 11/1/80
DRAWN BY: J.L. DATE: 11/1/80
CHECKED BY: J.L. DATE: 11/1/80
STAGE I
PKL I NO 91-2(9)
131-A 689

MILE POST AND TYPE I DELINEATORS ARE TO BE COMPUTED AND LOCATED IN THE FIELD BY THE ENGINEER IN ACCORDANCE WITH THE LATEST REVISION OF THE DEPARTMENT'S "POLICY ON LOCATION MARKING FOR VERMONT INTERSTATE HIGHWAYS". THE DELINEATORS SHALL BE MOUNTED ON BRIDGES BY AMOUNT DETAILED ON THE DELINEATOR SHEET.

APPROXIMATE SIGN LOCATIONS
TRAFFIC SIGN LOCATIONS SHALL BE REVIEWED IN THE FIELD BY THE TRAFFIC DIVISION AND THE RESIDENT ENGINEER BEFORE INSTALLATION OF SIGN POSTS.



STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWNS OF
NORWICH-THETFORD
TRAFFIC SIGN LOCATION SHEET
MAINLINE
SCALE 1" = 400'
DESIGNED BY: [illegible]
CHECKED BY: [illegible]
DATE: [illegible]
PROJECT NO. 191-2(41) 35 199



STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TRAFFIC SIGN LOCATION SHEET
INTERCHANGE
STAGE 2 CONSTRUCTION

DESIGNED BY: [blank] DRAWN BY: [blank] CHECKED BY: [blank] SCALE: [blank]

PROJECT 113-A 41 SHEET 136 OF 193



STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT in the town of
NORWICH-THETFORD
DELINEATOR LOCATION SHEET
RAMPS
STAGE 2 CONSTRUCTION

TRAFFIC SIGNS, ITEM 701

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN POSTS	TOTAL SIGN AREA
		WIDTH	HEIGHT			
GA-1	1	21'-0"	6'-0"	NORWICH WHITE RIVER JCT	9 13	128.0
GA-2	1	8'-0"	4'-0"	NEXT EXIT 8 MILES	TO BE MOUNTED UNDER GA-3	32.0
GA-3	1	14'-6"	10'-0"	13-A to 8 Thetford Exit 1 Mile	10 WF 25	145.0
GA-4	1	12'-0"	7'-0"	Chelsea Lyme NH NEXT RIGHT	8 WF 17	84.0
GA-5	1	12'-6"	10'-0"	13-A to 5 Thetford	10 WF 21	125.0
GA-6	1	15'-0"	10'-0"	5 NORTH Fairlee St. Johnsbury	10 WF 25	150.0
GA-7	1	15'-0"	10'-0"	5 NORTH Fairlee St. Johnsbury	MOUNT BACK OF GA 6	150.0
GA-8	1	18'-0"	10'-0"	9 SOUTH Norwich White River Jct	12 WF 27	180.0
GA-9	1	18'-0"	10'-0"	9 SOUTH Norwich White River Jct	MOUNT BACK OF GA 8	180.0
GA-10	1	11'-0"	6'-0"	91 SOUTH LEFT LANE	6 BL 8.5	66.0
GA-11	3	10'-0"	2'-6"	EXIT 14	MOUNT ABOVE GA-3, GA-4 AND GA-5 WITH 1 1/2" X 1 1/2" X 1/4" T-BAR 56" LONG OF 60616 ALLOY	75.0

COLUMN TOTAL = 1313.0

TRAFFIC SIGNS, ITEM 701

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN POSTS	TOTAL SIGN AREA
		WIDTH	HEIGHT			
R-3	1	45"	60"	SPEED LIMIT 65	4" ALUMINUM TUBES WITH 3/16" WALL	20.0
R-4	1	48"	48"	MINIMUM 40	MOUNTED BELOW R-1	16.0
R						
R-5	6	36"	48"	NO U TURN	FLANGED CHANNEL	72.0
R-11	8	30"	24"	WRONG WAY	4 SEE LAYOUT 4 ON FLANGED CHANNEL	40.0
R-1	4	30"	30"	STOP	SEE LAYOUT FOR POSTS	25.2
R-10	4	24"	24"	DO NOT ENTER	SEE LAYOUT FOR POSTS	16.0
R-22	2	24"	30"	NO RIGHT TURN	FLANGED CHANNEL	10.0
R-12	2	36"	12"	ONE WAY	SEE LAYOUT FOR POSTS	6.0
R-23	2	36"	12"	ONE WAY	FLANGED CHANNEL	6.0
W-3	2	30"	30"	STOP AHEAD	FLANGED CHANNEL	12.6
W-8	2	48"	58"	ROAD AHEAD	FLANGED CHANNEL	32.0

COLUMN TOTAL = 255.8
+ COLUMN 1 = 1313.0
SHEET TOTAL = 1568.8

DELINEATORS, ITEM 702

PART	NUMBER OF PLATES	SIZE		TEXT	PART	NUMBER OF PLATES	SIZE		TEXT
		WIDTH	HEIGHT				WIDTH	HEIGHT	
A	18	3.5"	4.5"	75	B	15	3.5"	4.5"	85
A	38	3.5"	4.5"	77	B	16	3.5"	4.5"	90
A	38	3.5"	4.5"	78	B	18	3.5"	4.5"	95
A	38	3.5"	4.5"	79	B	19	3.5"	4.5"	100
A	38	3.5"	4.5"	80	B	20	3.5"	4.5"	105
A	38	3.5"	4.5"	81	B	19	3.5"	4.5"	110
A	38	3.5"	4.5"	82	B	16	3.5"	4.5"	115
A	38	3.5"	4.5"	83	B	16	3.5"	4.5"	120
A	28	3.5"	4.5"	84	B	16	3.5"	4.5"	125
312					B	16	3.5"	4.5"	130
B	16	3.5"	4.5"	85	B	16	3.5"	4.5"	135
B	15	3.5"	4.5"	10	B	16	3.5"	4.5"	140
B	16	3.5"	4.5"	15	B	16	3.5"	4.5"	145
B	16	3.5"	4.5"	20	B	16	3.5"	4.5"	150
B	16	3.5"	4.5"	25	B	16	3.5"	4.5"	155
B	16	3.5"	4.5"	30	B	16	3.5"	4.5"	160
B	16	3.5"	4.5"	35	B	16	3.5"	4.5"	165
B	16	3.5"	4.5"	40					

SUMMARY OF DELINEATORS, ITEM 702
TYPE 1 DELINEATORS, WITH PLATES 312
TYPE 2 DELINEATORS, WITH PLATES 97
TYPE 3 DELINEATORS, WITHOUT PLATES 150
TOTAL 549

IDENTIFICATION OF TRAFFIC SIGNS

Traffic signs are identified on these plans by a number prefixed by a letter which indicates the following general classifications:

- GA - Large size guide signs
- G - Other guide signs
- R - Regulatory signs
- W - Warning signs

Traffic sign assemblies which consist of groups of signs mounted together, are identified by a letter - such as ASSEMBLY "A" - and the individual signs comprising the assembly are identified by their individual sign numbers.

Signs to be mounted on the back of an angle must be supported parallel to the front sign by means of welded or bolted bracers.

Aluminum tubes for traffic signs shall be 6061T6 alloy and be of a yielding design. Steel posts for traffic signs shall be galvanized and be of a breakaway or yielding design.

TRAFFIC SIGN
AND DELINEATOR
SUMMARY SHEET

DESIGNED BY: JLS
CHECKED BY: JLS
DATE: 1/23/73
STAGE 2
PROJ. NO. 91 2/41
SHEET 193 OF 193

TRAFFIC SIGNS, ITEM 701

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN POSTS			TOTAL SIGN AREA
		WIDTH	HEIGHT		SIZE AND TYPE	NO. PER SIGN	FOOT-ING	
GA-1	1	21'-0"	6'-0"	NORWICH WHITE RIVER JCT	10 WF 21	2	A	126.0
GA-2	1	8'-0"	4'-0"	NEXT EXIT 8 MILES	TO BE MOUNTED UNDER GA-3			32.0
GA-3	1	14'-6"	10'-0"	113-A to 5 Thetford Exit 1 Mile	10 WF 25	2	A	145.0
GA-4	1	12'-0"	7'-0"	Chelsea Lyme NH NEXT RIGHT	8 WF 17	2	A	88.0
GA-5	1	12'-6"	10'-0"	113-A to 5 Thetford	10 WF 21	2	A	125.0
GA-6	1	15'-0"	10'-0"	9 NORTH Fairlee St. Johnsbury	10 WF 25	2	A	150.0
GA-7	1	15'-0"	10'-0"	91 NORTH Fairlee St. Johnsbury	MOUNT BACK OF GA 6			150.0
GA-8	1	18'-0"	10'-0"	91 SOUTH Norwich White River Jct	12 WF 27	2	A	180.0
GA-9	1	18'-0"	10'-0"	91 SOUTH Norwich White River Jct	MOUNT BACK OF GA 8			180.0
GA-10	1	11'-0"	6'-0"	91 SOUTH LEFT LANE	6 BL 8.5	2	A	66.0
GA-11	3	10'-0"	2'-6"	EXIT 14	MOUNT ABOVE GA-3, GA-4 AND GA-5 WITH 1 1/2" X 1 1/2" X 1/4" L-BARS OF LONG OF 6061-T6 ALLOY			75.0

COLUMN TOTAL 1313.0

TRAFFIC SIGNS, ITEM 701

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN POSTS			TOTAL SIGN AREA
		WIDTH	HEIGHT		SIZE AND TYPE	NO. PER SIGN	FOOT-ING	
R-3	1	4'-6"	6'-0"	SPEED LIMIT 65	4" ALUMINUM TUBES WITH 3/16" WALL	2	C	20.0
R-4	1	4'-6"	4'-0"	MINIMUM 40	MOUNTED BELOW R-3			16.0
R								
R								
R-5	6	36"	48"	NO U TURN	FLANGED CHANNEL	2	B	72.0
R-11	8	30"	24"	WRONG WAY	4 SEE LAYOUT 4 ON FLANGED CHANNEL	1	B	40.0
R-1	4	30"	30"	STOP	SEE LAYOUT FOR POSTS			25.2
R-10	4	30"	30"	DO NOT ENTER	SEE LAYOUT FOR POSTS			25.2
R-22	2	24"	30"	NO RIGHT TURN	FLANGED CHANNEL	1	B	10.0
R-12	2	36"	12"	ONE WAY	SEE LAYOUT FOR POSTS			6.0
R-23	2	36"	12"	ONE WAY	FLANGED CHANNEL	2	B	6.0
W-3	2	30"	30"	STOP AHEAD	FLANGED CHANNEL	1	B	12.6
W-8	2	48"	48"	ROAD AHEAD	FLANGED CHANNEL	2	B	32.0

DELINEATORS, ITEM 702

PART	NUMBER OF PLATES	SIZE		TEXT	PART	NUMBER OF PLATES	SIZE		TEXT
		WIDTH	HEIGHT				WIDTH	HEIGHT	
A	18	3'-5"	4'-5"	76	B	15	3'-5"	6"	45
A	38	3'-5"	4'-5"	77	B	18	3'-5"	6"	50
A	38	3'-5"	4'-5"	78	B	18	3'-5"	6"	55
A	38	3'-5"	4'-5"	79	B	18	3'-5"	6"	60
A	38	3'-5"	4'-5"	80	B	20	3'-5"	6"	65
A	38	3'-5"	4'-5"	81	B	19	3'-5"	6"	70
A	38	3'-5"	4'-5"	82	B	16	3'-5"	6"	75
A	38	3'-5"	4'-5"	83	B	16	3'-5"	6"	80
A	28	3'-5"	4'-5"	84	B	16	3'-5"	6"	85
312					B	16	3'-5"	6"	90
B	14	3'-5"	6"	05	B	18	3'-5"	6"	95
B	15	3'-5"	6"	10	TOTAL	312			
B	16	3'-5"	6"	15					
B	16	3'-5"	6"	20					
B	16	3'-5"	6"	25					
B	16	3'-5"	6"	30					
B	16	3'-5"	6"	35					
B	16	3'-5"	6"	40					

SUMMARY OF DELINEATORS, ITEM 702
TYPE 1 DELINEATORS, WITH PLATES 312
TYPE 2 DELINEATORS, DOUBLE RANGER 87
TYPE 2 DELINEATORS, WITHOUT PLATES 180
TOTAL 579

IDENTIFICATION OF TRAFFIC SIGNS

Traffic signs are identified on these plans by a number prefixed by a letter which indicates the following general classifications:

- GA - Large size guide signs
- G - Other guide signs
- R - Regulatory signs
- W - Warning signs

Traffic sign assemblies which consist of groups of signs mounted together, are identified by a letter - such as ASSEMBLY 'A' - and the individual signs comprising the assembly are identified by their individual sign numbers.

Signs to be mounted on the back of an angle must be supported parallel to the front sign by means of welded or bolted brackets.

Aluminum tubes for traffic signs shall be 6061T6 alloy and be of a yielding design. Steel posts for traffic signs shall be galvanized and be of a breakaway or yielding design.

REVISED SIGNS 2/23/71 CHANGE ORDER

TRAFFIC SIGN
AND DELINEATOR
SUMMARY SHEET

DESIGNED BY: JES DATE: 9-77
DRAWN BY: JD DATE: 12-77
CHECKED BY: JD DATE: 12-77
STAGE 2
PAGE 1 NO. 91-2(4)
SHEET 105 OF 173

NORWICH - THETFORD

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN POSTS			TOTAL SIGN AREA
		WIDTH	HEIGHT		SIZE AND TYPE	NO PER SIGN	FOOTING	
GA-12	1	11'-0"	6'-0"	(91) NORTH LEFT LANE	6 BL 8.5	2	A	66
GA-13	1	12'-0"	6'-0"	(91) SOUTH RIGHT LANE	6 BL 8.5	2	A	72
0-16	1	72"	10"	← EAST THETFORD				5.0
0-17	1	72"	10"	← LYME NH		2		5.0
0-18	1	72"	10"	← THETFORD HILL		1		5.0
0-19	1	72"	10"	← CHELSEA		23		5.0
0-20	3	21"	15"	←				6.6
0-21	2	18"	12"	TO				3.0
0-22	1	21"	9"	EAST				1.3
0-23	1	21"	9"	WEST				1.3
0-24	2	20"	24"	113-A BROAD ST				10.0
0-25	2	24"	24"	5				8.0
G-26	1	21"	15"	→				2.2

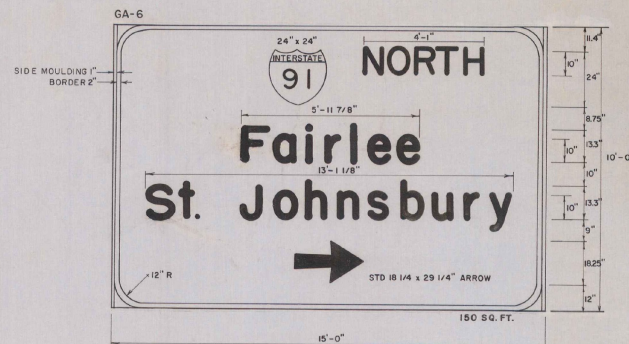
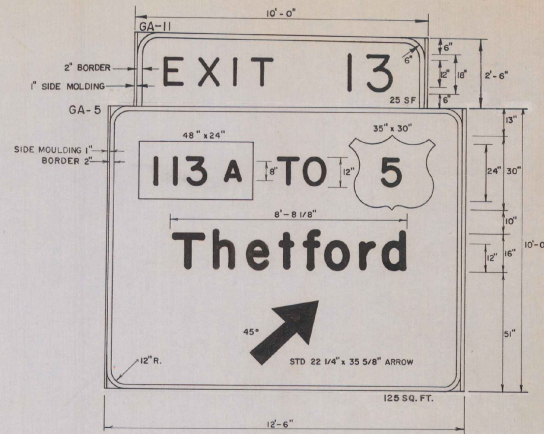
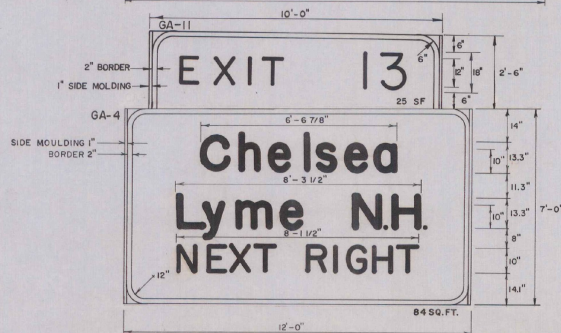
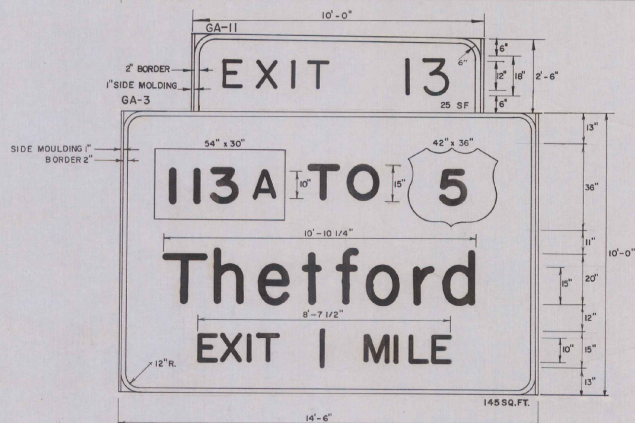
MOUNT ON ASSEMBLIES

PROJ. I NO. 91-241

199 1923

NORWICH - THETFORD

* REVISED SIGNS 2/23/71 CHANGE ORDER



GA-7 IS THE SAME EXCEPT ARROW IS REVERSED

MATERIALS-
The sign base material used for these signs except for route markers shall be extruded aluminum panels with a baked enamel finish. The reflective text material, except for the route markers shall be acrylic plastic reflectors in embossed frames. With a baked enamel finish.

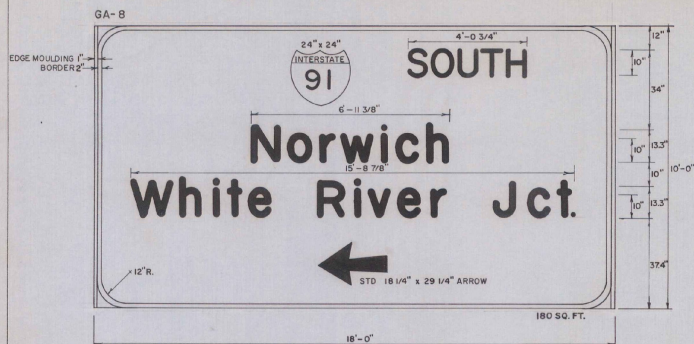
ROUTE MARKERS-
The route markers shall be the same material as specified on Standard Sheets E-11, E-12, and E-13, except for silver reflectorized sheeting for interstate route marker E-11. The reflective sheeting for interstate route markers shall have a minimum brightness value of 100 at 2-degrees and 50 at 5-degrees, divergence expressed as average candle power per foot-candle per square foot of material at 15-degree angle of incidence before reverse screening of blue and red.

COLORS-
The signs, except for route markers, shall have reflectorized white text on non-reflectorized green backgrounds. The green shall conform with the standard color adopted by the American Association of State Highway Officials and approved by the U.S. Department of Commerce, Bureau of Public Roads.

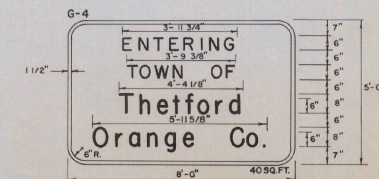
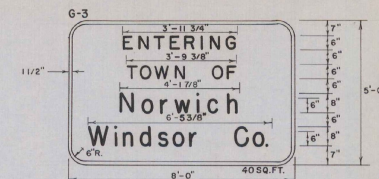
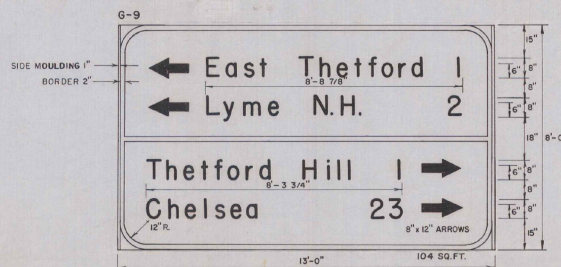
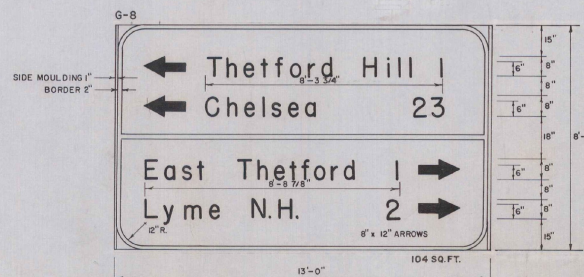
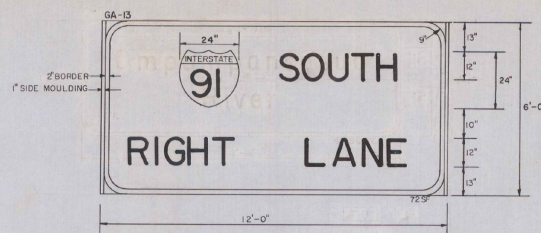
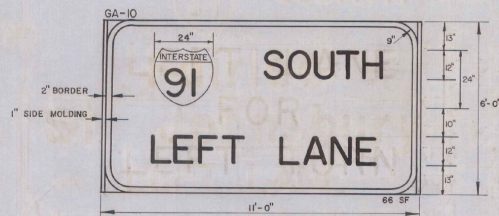
LETTERING-
Letters and digits, except for route markers, shall conform with Series E of the standard alphabet for highway signs, approved by the National Joint Committee on Unified Traffic Control Devices with the stroke widths modified to one-fifth the height.

SIGN POST HARDWARE-
All signs and assemblies are to be mounted on sign posts by 3/8" diameter stainless steel bolts, washers, and elastic stop nuts. All flat sheet signs have 1" OD x 7/16" ID. Flat washers under the bolt head and plywood signs also have a spring lock washer under the stop nut.

STAGE 2 CONSTRUCTION			
STATE OF VERMONT			
DEPARTMENT OF HIGHWAYS			
INTERSTATE PROJECT in the towns of NORWICH-THETFORD			
TRAFFIC SIGNS DESIGN & CONSTRUCTION DETAILS			
WEBSTER-MARTIN, INC. CONSULTING ENGINEERS 50 BURLINGTON, VERMONT			
SURVEYED BY W-M, INC. DRAWN BY HCN	CHECKED BY LKL IN CHARGE RAS	SCALE AS SHOWN DATE 10-67	17 OF 22
PROJECT NO. 191-2(4)		SHEET	



GA-9 IS THE SAME EXCEPT ARROW IS REVERSED



NOTES -

Materials

The base material for signs GA-10, GA-12, and GA-13, except for route markers, shall be either aluminum extrusions, formed galvanized steel panels, or 3/4" high density plywood with baked enamel finish.
The base material for signs GA-8, GA-9, G-8, and G-9 shall be extruded aluminum panels with a baked enamel finish.
The reflective text material for all of these signs, except for route markers, shall be acrylic plastic reflectors in recessed letter frames. With a baked enamel finish.

See standard sheet E 17 for materials for G 3 & 4.

Route Markers

The route markers shall be the same material as specified on Standard Sheets E-11, E-12, and E-13, except for silver reflectorized sheeting for interstate route marker E-11. The reflective sheeting for interstate route markers shall have a minimum brightness value of 100 at 2-degrees and 50 at 5-degrees divergence expressed as average candle power per foot-candle per square foot of material at 15-degree angle of incidence before reverse screening of blue and red.

Colors

The signs, except for route markers, shall have reflectorized white text on non-reflectorized green backgrounds. The green shall conform with the standard color adopted by the American Association of State Highway Officials and approved by the U.S. Department of Commerce, Bureau of Public Roads.

Lettering

Letters and digits, except for route markers, shall conform with Series E of the standard alphabet for highway signs, approved by the National Joint Committee on Unified Traffic Control Devices with the stroke widths modified to one fifth the height.

Sign Post Hardware

All signs and assemblies are to be mounted on sign posts by 3/8" diameter stainless steel bolts, washers, and elastic stop nuts. All flat sheet signs have 1" OD x 7/16" ID. Flat washers under the bolt head and plywood signs also have a spring lock washer under the stop nut.

STAGE 2 CONSTRUCTION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT in the towns of
NORWICH-THETFORD
TRAFFIC SIGNS
DESIGN & CONSTRUCTION
DETAILS

WEBSTER-MARTIN, INC.
CONSULTING ENGINEERS
50 BURLINGTON, VERMONT

DRAWN BY: MCM	CHECKED BY: LAL	SCALE: AS SHOWN
PROJECT NO. 191-2(41)	IN CHARGE: RAS	DATE: 10-67
SHEET 12 OF 19		

GENERAL NOTES:

DESIGN CRITERIA

S-AH

A-SIGN AREA IN SQUARE FEET

H-GROUND ELEVATION OF LONGEST LEG TO CENTER OF SIGN.

WIND LOAD-25 POUNDS PER SQUARE FOOT AS RECOMMENDED

BY THE A.S.H.O. SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS ADOPTED JUNE 12, 1961.

BASIC POST DESIGN STRESS-17,000 POUNDS PER SQUARE INCH FOR ALUMINUM
20,000 POUNDS PER SQUARE INCH FOR STEEL

MAXIMUM EARTH PRESSURE-ONE TON PER SQUARE FOOT.

TABLE BASED ON RUTLEDGE "CHART FOR IMBEDMENT OF POSTS WITH OVERTURNING LOADS"

SPECIFICATIONS:

ALL MATERIALS AND WORKMANSHIP SHALL BE AS SPECIFIED UNDER

"TRAFFIC SIGNS" ITEM 701.

THE BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF

"GRANULAR BORROW" ITEM 105 OR APPROVED BY THE ENGINEER.

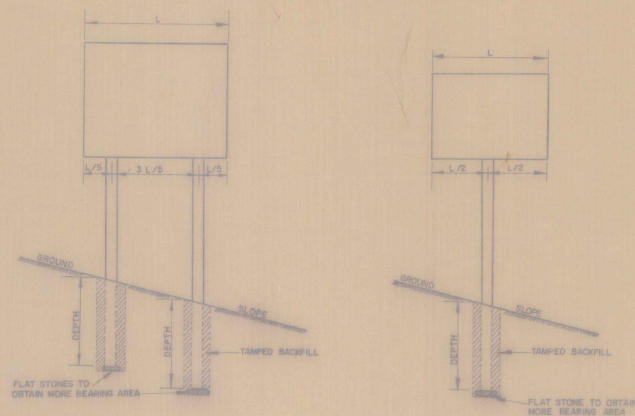
ALL STRUCTURAL STEEL TO BE A.S.T.M. A-36 UNLESS OTHERWISE NOTED.

WHEN RAIL STEEL IS SPECIFIED, THE MINIMUM YIELD SHALL BE 50,000 R.S.I.

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964.

SIGN SUPPORTS DESIGNED ACCORDING TO A.S.H.O. PUBLICATION "SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS."

ALL ROLLED OR EXTRUDED ALUMINUM SHAPES SHALL BE ALUMINUM ALLOY 6061-T6 THE BASIC POST DESIGN STRESS SHALL BE INCREASED BY 45% FOR COMBINATION DEAD LOAD AND WIND LOAD.



POSTS AND TYPE B FOOTINGS FOR ONE AND TWO-POST MOUNTING

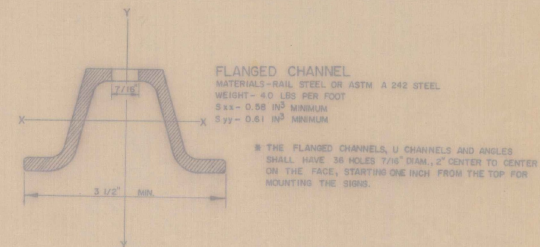
IF "S" IS EQUAL TO
OR LESS THAN

ONE POST	TWO POST	STEEL POST SIZE	ALUMINUM POST SIZE	MIN. DEPTH IN GROUND
180	330	4" x 7"	4" x 5.5 LBS	6'-0"
135	280	4" x 7"	4" x 5.5 LBS	5'-5"
110	230	4" x 7"	4" x 5.5 LBS	5'-0"
90	210	8" x 3 1/2" x 5/8" L	8" x 3 1/2" x 5/8"	4'-0"
55	140	8" FLANGED CHANNEL	8" 4" U 3.52 LBS	5'-5"
45	110	8" FLANGED CHANNEL	8" 4" U 3.52 LBS	5'-0"

FOR THREE-POST MOUNTING INCREASE ALLOWABLE "S" BY 50% OF THE TWO-POST "S" FIGURE AND USE THE SAME SIZE POSTS AND FOOTINGS WITH POST SPACING OF L/6, 2L/6, 2L/6, L/6

CONSTRUCTION METHODS

THE HOLE SHALL BE CAREFULLY DUG TO A DEPTH SHOWN ON THE TABLE AND POST INSERTED THEREIN. POSTS SHALL IN NO CASE BE DRIVEN. AFTER A POST IS PLUMBED AND SET SO THAT THE SIGN WILL FACE IN THE PROPER DIRECTION THE HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIAL APPROVED BY THE ENGINEER. WHEN TWO OR MORE POSTS ARE USED TO SUPPORT A SINGLE SIGN, THE FLANGES TO WHICH THE SIGN WILL BE FASTENED SHALL LAY IN THE SAME PLANE.



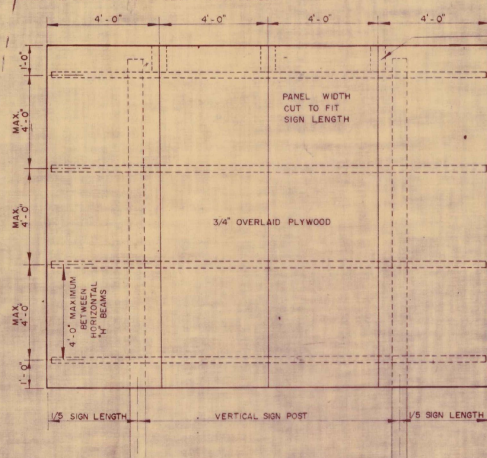
NORWICH-THETFORD

TRAFFIC SIGNS
YIELDING TYPE
GROUND MOUNTED
STEEL SUPPORTS

DESIGNED BY: W.H.S. DATE: 7/58
DRAWN BY: W.H.S. DATE: 7/58
TRACED BY: DATE:
PRG. I NO. 91-2 (41)
SHEET 143 OF 199

MAXIMUM SPACINGS FOR HORIZONTAL "H" BEAMS	
HEIGHT OF SIGN	MIN. NO. HORIZONTALS
8'-0"	2
9'-0" - 9'-0"	3
10'-0" - 12'-0"	4
13'-0" - 16'-0"	5
17'-0" - 19'-0"	6

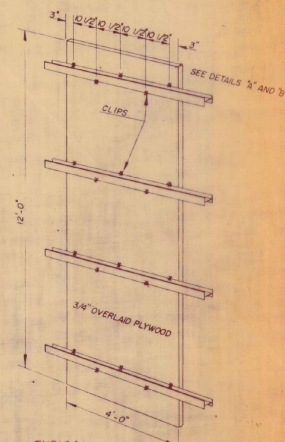
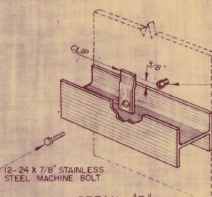
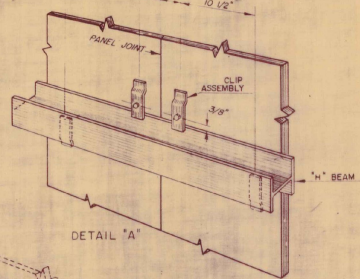
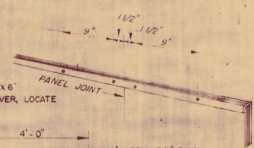
FOR SIGNS OVER 10'-0" IN HEIGHT, THE FULL HEIGHT MAY BE OBTAINED WITH PANELS HAVING A SCARFED JOINT (FACTORY JOINED WITH NO BACKING NECESSARY) OR BY COMBINING STANDARD PANELS WITH OTHER SIZES SUCH AS 4'x4', 4'x6' TO OBTAIN THE REQUIRED HEIGHT. WHEN USING ANY OF THESE COMBINATIONS, HOWEVER, LOCATE HORIZONTAL BUTT JOINT AT "H" BEAM FRAMING MEMBER.



BEFORE ERECTING PLYWOOD SIGNS LARGER THAN 72" WIDE, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, A DRAWING OF HIS PROPOSED METHOD OF ATTACHING HORIZONTAL BEAMS TO VERTICAL POSTS.

PLYWOOD SIGNS OVER 6' WIDE SHALL BE COMPLETELY REINFORCED BY USE OF STEEL OR ALUMINUM I BEAMS, ANGLE OR TEE GIRTS WITH STAINLESS STEEL OR ALUMINUM CLIPS, DESIGNED TO WITHSTAND A WINDLOAD OF 30 LBS PER SQ. FT.

NOTES:
STAINLESS STEEL OR ALUMINUM CLIPS STARTING 3" FROM SIGN EDGE AND SPACED A MINIMUM OF 5 CLIPS PER 4'-0". CLIPS AND BEAMS TO BE FASTENED BY STAINLESS STEEL OR ALUMINUM ANCHOR NUTS AND STAINLESS STEEL MACHINE SCREWS, BOLTS, NUTS, FLAT AND LOCK WASHERS, LARGE ENOUGH TO CARRY A SIGN LOAD OF 30 LBS PER SQ. FT.
FOR GALVANIZATION, REFER TO SPECIFICATIONS ITEM 545 SECTION 545.02 F

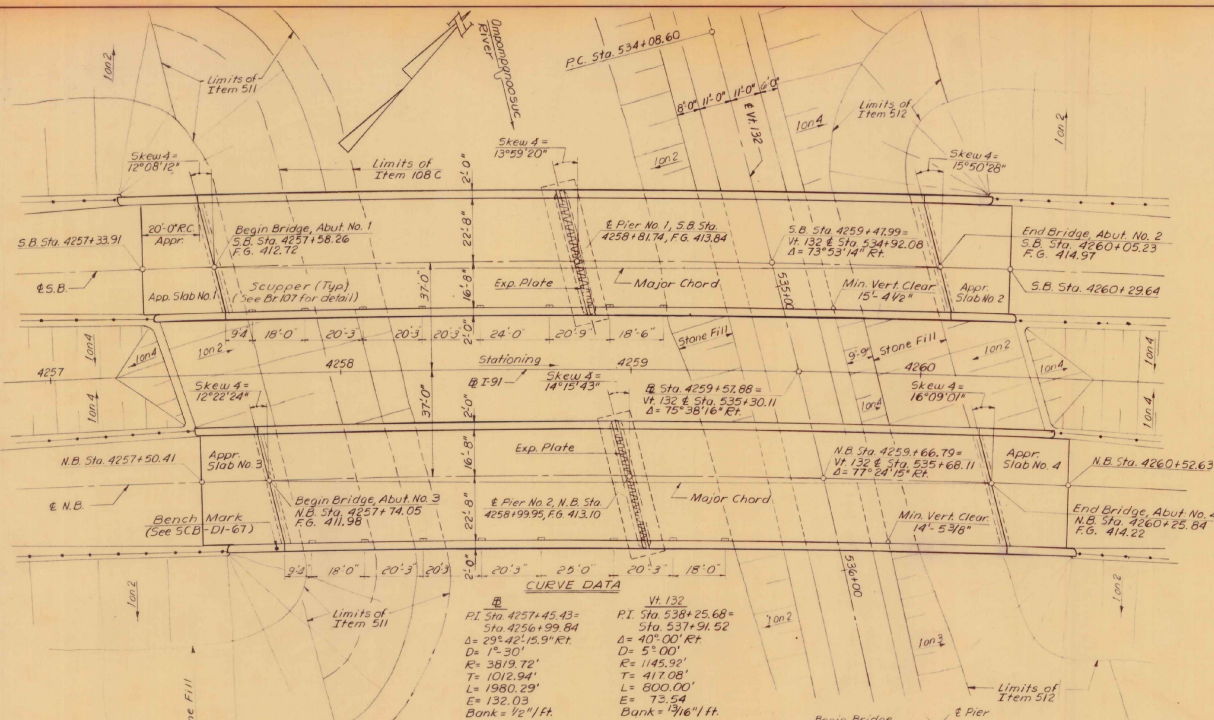


OVERLAID PLYWOOD THICKNESS	
MAXIMUM SIGN WIDTH	MINIMUM PLYWOOD THICKNESS
24"	1/2"
72"	5/8"
OVER 72"	3/4"

FORMULA FOR DETERMINING SIZE OF ALUMINUM OR STEEL I BEAMS, ANGLE OR TEE GIRTS.
HORIZONTAL SIGN SUPPORTS WITH 2 POSTS, VERTICAL SPACING OF HORIZONTAL SIGN SUPPORT, STRINGERS USED WITH ALL FLAT SHEET SIGNS OF ALUMINUM, STEEL OR PLYWOOD, LONGER THAN SIX FEET, IS AS FOLLOWS:
 $V = \frac{66.667 S}{WL^2}$
V = VERTICAL SPACING IN FT. (NOT TO EXCEED 4 FT.)
S = SECTION MODULUS OF HORIZONTAL STRINGER
W = WINDLOAD PER SQUARE FOOT OF SIGN
L = SIGN LENGTH IN FEET
20,000 p.s.i. = ALLOWABLE BENDING STRESS FOR HORIZONTAL STRINGER.

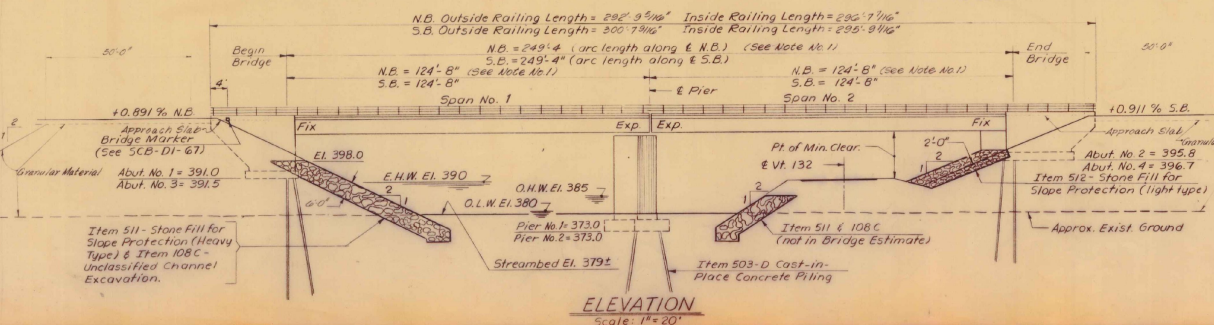
OVERLAID PLYWOOD SIGN ASSEMBLY AND CONSTRUCTION DETAILS

DRAWN BY: AJA DATE
TRACED BY: AJA DATE
PROJ. x NO. 51-2(41)
SHEET 144 OF 199



PLAN
Scale: 1"=20'

- NOTE:**
1. Stations shown are radial from T91 base line.
 2. See BR 108 for Curb & Railing Plan.
 3. For Channel Sections see Sheet 161 of



ELEVATION
Scale: 1"=20'

GENERAL NOTES:

SPECIFICATIONS:

All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Highway and Bridge Construction, dated April 1964 and the AASHTO Standard Specifications dated 1964, as modified by Current Interim Specifications.

LIVE LOAD:

Structure designed for HS20-44 Loading modified for National System of Interstate Highways applied in accordance with the provisions of the AASHTO Standard Specifications Article 12.8.

CONCRETE:

All exposed edges of concrete shall be chamfered 1" unless otherwise noted. All construction joints to be made as shown on SCB-D6-67, Details B and C unless otherwise noted.

REINFORCEMENT:

Reinforcement to have a clear cover of 2", unless otherwise noted.

DIMENSIONS:

All dimensions given are measured horizontally or vertically unless otherwise noted. Dimensions given are for 68°F, unless otherwise noted. Elevation datum sea level based on nearest U.S. Government vertical control.

STRUCTURAL STEEL:

Item 404-A shall include all structural steel, copper, wrought iron, and any other materials indicated or required in the completed structure which are not otherwise classified.

All structural steel shall be structural carbon steel conforming to the requirements of the specifications for steel bridges and buildings A.S.T.M. Designation A-36-62T, except as otherwise noted.

The contractor shall submit complete details of the structural steel to the State of Vermont Department of Highways, and receive their written approval prior to the start of fabrication. The steel details shall include provisions for cambering of beams for dead load deflection as well as erection diagrams and falsework details.

PAINTING:

The final coat of field paint shall be green.

PILE LOADING TESTS:

Pile Loading Tests, Item 505, shall be used and paid for only when directed by the Engineer.

WATER REPELLENT:

The top surface of safety walks, fascia, and back to the fascia beam under the slab, on the sides and ends of all pier caps, and on exposed areas of abutments not otherwise treated shall be covered with Water Repellent (Item 440).

FIELD BOLTING:

Field bolt connections shall be made with 7/8" A 325 High Strength Bolts. A 490 bolts are not allowed.

ABUTMENTS & PIERS:

The top surfaces of all abutments and piers shall be sloped 1/4" per foot from the front edge of abutment curbs or center lines of piers, except for bearing pads, which shall be level. Elevation of bridge seats given are for center line of bearings. The entire exposed top surface of abutments and piers shall be coated with Asphaltic-Asbestos Coating 1/2" thick as per Item 407 of the specifications. The application of this item shall be after all painting and incidental items are completed.

PILES:

Cast-in-Place Concrete Piling at abutments shall be driven through holes drilled through the granular fill. Design load = 45 tons.

GENERAL:

Cross slopes of approach slabs to conform to the cross slope of the bridge. All expansion material shall be premolded cork containing no bitumen or asphalt.

BITUMINOUS CONCRETE PAVEMENT:

Bituminous Concrete Pavement Item 361 Modified, Type II shall be applied in two courses.

INDEX OF DRAWINGS

- BR 101 PLAN & ELEVATION
- BR 102 QUANTITY SHEET
- BR 103 PRELIMINARY INFORMATION SHEET
- BR 104 BORING LOG
- BR 105 BORING LOG
- BR 106 SUPERSTRUCTURE DETAILS
- BR 107 SUPERSTRUCTURE DETAILS
- BR 108 SUPERSTRUCTURE DETAILS
- BR 109 JOINT DETAILS
- BR 110 ABUTMENT NO 1 DETAILS
- BR 111 ABUTMENT NO 2 DETAILS
- BR 112 ABUTMENT NO 3 DETAILS
- BR 113 ABUTMENT NO 4 DETAILS
- BR 114 FOOTING DETAILS, ABUTMENTS
- BR 115 FOOTING DETAILS, ABUTMENTS
- BR 116 PIER DETAILS
- BR 117 APPROACH SLAB NO 1
- BR 118 APPROACH SLAB NO 2
- BR 119 APPROACH SLAB NO 3
- BR 120 APPROACH SLAB NO 4
- BR 121 REINFORCING STEEL DETAILS
- BR 122 REINFORCING STEEL DETAILS

STANDARD DRAWINGS

- SCB-38-67T DECK & CURB REINFORCING 11/24/67
- SCB-DI-67 BENCH MARK DETAILS & GENERAL NOTES 1/24/68
- SCB-D6-67 BEAM HAUNCH DETAILS 1/24/68
- SCB-D5-67 DECK REINFORCEMENT LAYOUT AT PIERS 11/24/68
- SCB-D6-67 CONSTRUCTION JOINT DETAILS 11/24/68
- SB-R2-65 STEEL RAILING DETAILS 11/8/66
- SB-R1-64 SHEET #1 12/16/68
- SHEET #2 11/8/66
- SB-PI-66 CAST-IN-PLACE CONCRETE PILING 11/8/66

Revised Bridge Width & Depth - DEP. 4/62 12/67

VERMONT STATE HIGHWAY DEPARTMENT TOWNS OF NORWICH - THE FORD INTERSTATE ROUTE 91	
INTERSTATE 91 OVER OMCOMPANOSUC RIVER & VT 132	
PLAN & ELEVATION BR 51	
MPHARLAND-JOHNSON CONSULTING ENGINEERS BINGHAMTON, NEW YORK	
DESIGNED: N.A.	CHECKED: A.M.D. DATE: 5-24-67
DRAWN: R.G.	IN CHARGE: H.C.C. SCALE: As Shown
PROJECT NO. 191-2(41) SH 22 OF 23	

EARTHWORK

V.C.	% GRD	STATION	GRADES		CORR. V.C.	DIST.	ITEM 108C UNCLASSIFIED		AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
			ON TAN.	ON V.C.			AREA	CU. YDS.								
		533+39				11	—	28								
		533+50				50	135	225								
		534+00				50	108	206								
		534+50				50	114	205								
		535+00				50	107	210								
		535+50				50	120	249								
		536+00				50	149	52								
		536+19				19	—	52								
								TOTAL	1175							

BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

NO.	ITEM	UNIT	QUANTITY BREAKDOWN												TOTAL	FINAL
			ABUT 1	ABUT 2	ABUT 3	ABUT 4	PIER 1	PIER 2	S.B. SUPERSTR.	N.B. SUPERSTR.	APPROACH SLAB 1	APPROACH SLAB 2	APPROACH SLAB 3	APPROACH SLAB 4		
	GRANULAR MATERIAL REQUIRED (WITHIN BRIDGE LIMITS)	CY	3029	115	7550	2229									16553	
	108C UNCLASSIFIED CHANNEL EXCAVATION	CY	588		587										1175	
	109 STRUCTURE EXCAVATION	CY	18	16	15	17	206	248							520	
	117 MUCK EXCAVATION	CY	935		355										1290	
	221 OVERHAUL (10 MILE)	DAY	222	173	172	153									720	
	222B GRAVEL BACKFILL FOR STRUCTURES MODIFIED	CY	222	173	172	153									720	
	318 TAR EMULSION FOR BRIDGE FLOORS GAL								426	426	41	45	42	45	1135	
	361 BITUMINOUS CONCRETE PAVEMENT MODIFIED (TYPE IV)	TON							134	124	13	14	13	14	322	
	372A JOINT SEALER - HOT POURED	LF									40	41	40	41	162	
	372C JOINT SEALER - PREFORMED - TYPE A	LF	9 1/2	9 1/2	9 1/2	9 1/2									38	
	401A CONCRETE - CLASS AA, MOD.	CY	4	3	3	4			3 1/2	3 1/2					638	
	401B CONCRETE - CLASS B, MOD.	CY	204	203	171	177	317	301			36	38	36	38	1821	
	402 REINFORCING STEEL	LB	1813298	15178	14722	14024	14136	13967	79316	78316	3232	3493	3287	3543	265514	
	403 SHEAR CONNECTORS (2632-44 * 7 STUDS)	LS													1	
	404A STRUCTURAL STEEL (R GIRDER) (C. STA. 4259)	LB							451997	451703					903700	
	407 ASPHALTIC ASBESTOS COATING	SY	12	12	12	12	23	23							94	
	408 RETARDING ADMIXTURE FOR CONCRETE	CY							312	312					624	
	410 PAINT WATER PROOFING	SY	32	32	32	33									129	
	440 WATER REPELLENT	GAL	4	4	4	4	2	2	18	18					56	
	501 FURNISHING EQUIPMENT FOR DRIVING PILING	LS	Requ	Requ	Requ	Requ	Requ	Requ							1	
	503C CAST IN PLACE CONCRETE PILING	LF	1240	1200	1400	1800	840	1400							7880	
	505 PILE LOADING TESTS	EA	1	1	1	1	1	1							6	
	511 STONE FILL FOR SLOPE PROTECTION (HEAVY TYPE)	CY	1611		1611										3222	
	512 STONE FILL FOR SLOPE PROTECTION (LIGHT TYPE)	CY		258		414									672	
	536C GRANITE BRIDGE CURB	LF							593	586					1179	
	572 BRIDGE RAILING (STD. 3 RAIL)	LF							537	520					1057	
	538A EPOXY COATING COMPOUND	GAL							19	19					38	

* Indicates Items to be included in Stage I Roadway Quantities.

** Indicates Items to be included in Stage II Roadway Quantities.

BRIDGE(S) AT STATION(S)

S.B. BEGIN BRIDGE STA. 4257+58.26 END BRIDGE STA. 4260+05.23
N.B. BEGIN BRIDGE STA. 4257+74.05 END BRIDGE STA. 4260+05.23

LOCATION(S) INTERSTATE 91 OVER OMPUMPANDUSUC RIVER & VT. 132 N.B. 3.B.

NORWICH - THETFORD

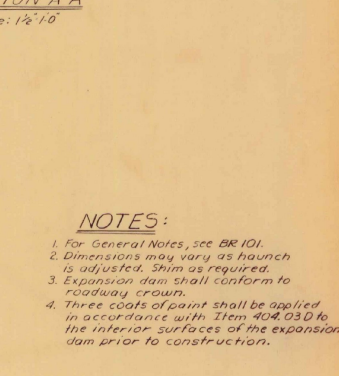
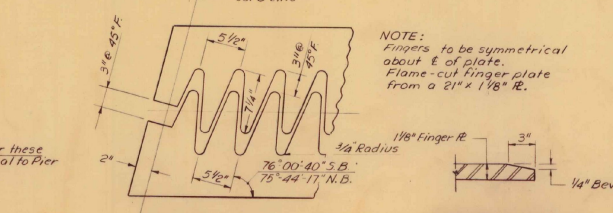
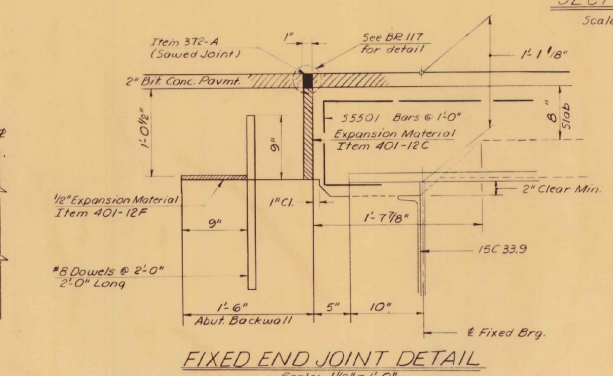
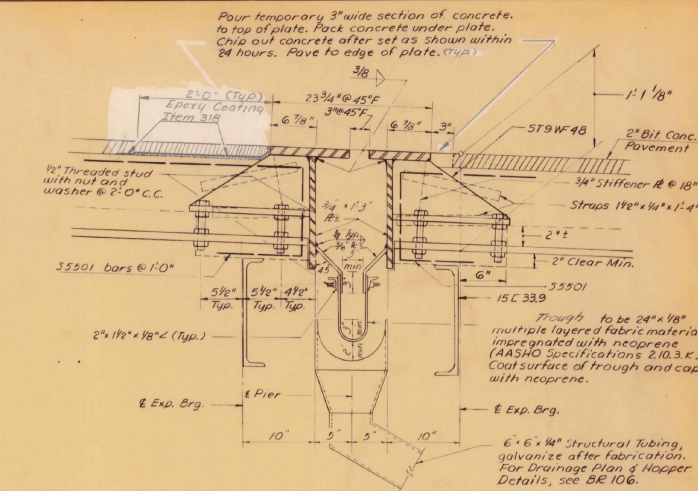
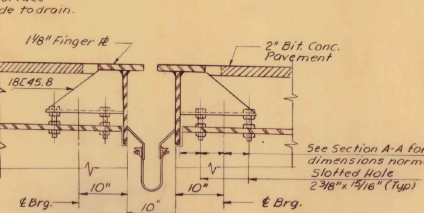
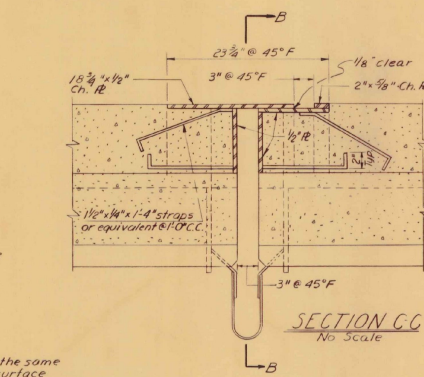
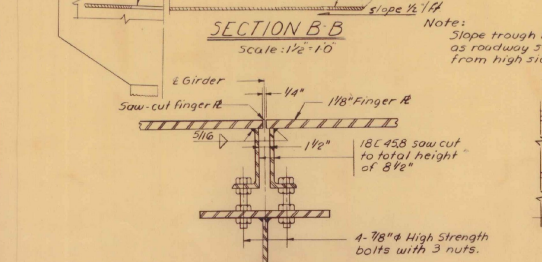
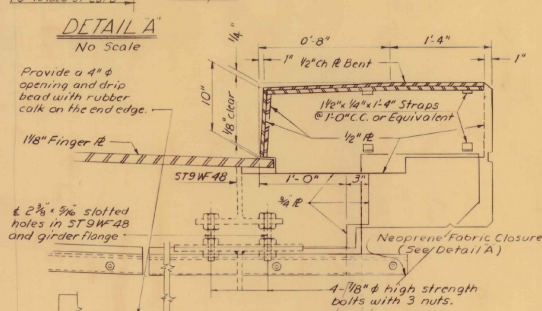
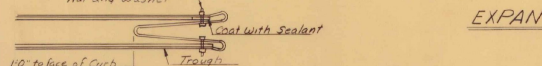
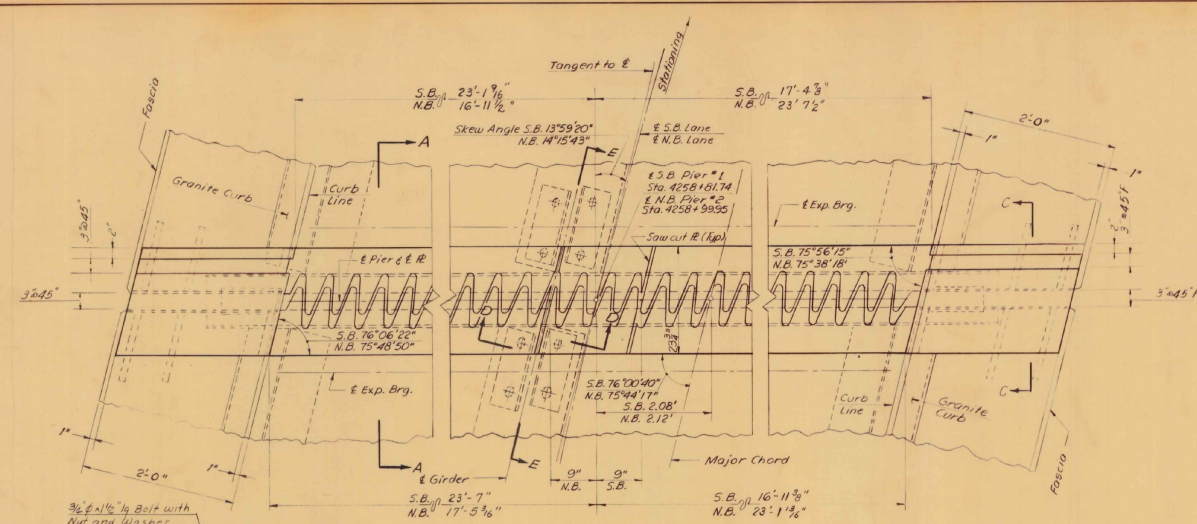
PROJECT NO. 191-2(41)

BR OF

SHEET NO. 183 OF 193

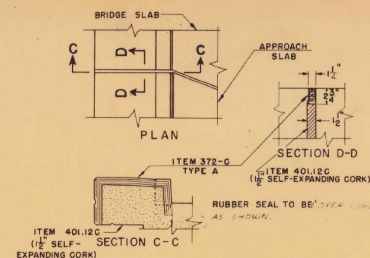
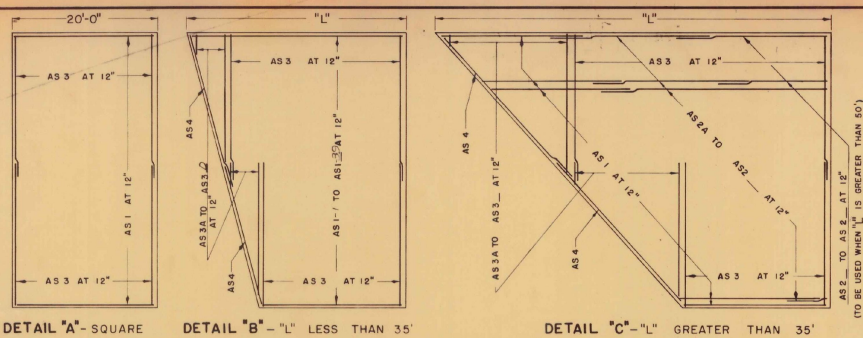
Stage 2 Construction

BR 102

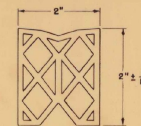


- NOTES:**
- For General Notes, see BR 101.
 - Dimensions may vary as launch is adjusted. Shim as required.
 - Expansion dam shall conform to roadway crown.
 - Three coats of paint shall be applied in accordance with Item 404.03.0 to the interior surfaces of the expansion dam prior to construction.

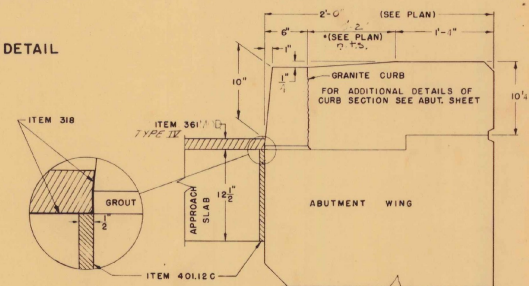
VERMONT STATE HIGHWAY DEPARTMENT TOWNS OF NORWICH-THETFORD INTERSTATE ROUTE 91 INTERSTATE 91 OVER OMPOMPANOSUC RIVER & VT.132	
JOINT DETAILS	
M ⁴ FARLAND-JOHNSON CONSULTING ENGINEERS BINGHAMTON, NEW YORK	
DESIGNED: N.A. CHECKED: A.M.C. DATE: 4-24-67	PROJECT NO. 191-2 (41) SH. 65 OF 63
DRAWN: R.G. IN CHARGE H.G.C. SCALE: As Noted	REV. D.P. & A.G.C.



CURB JOINT DETAIL

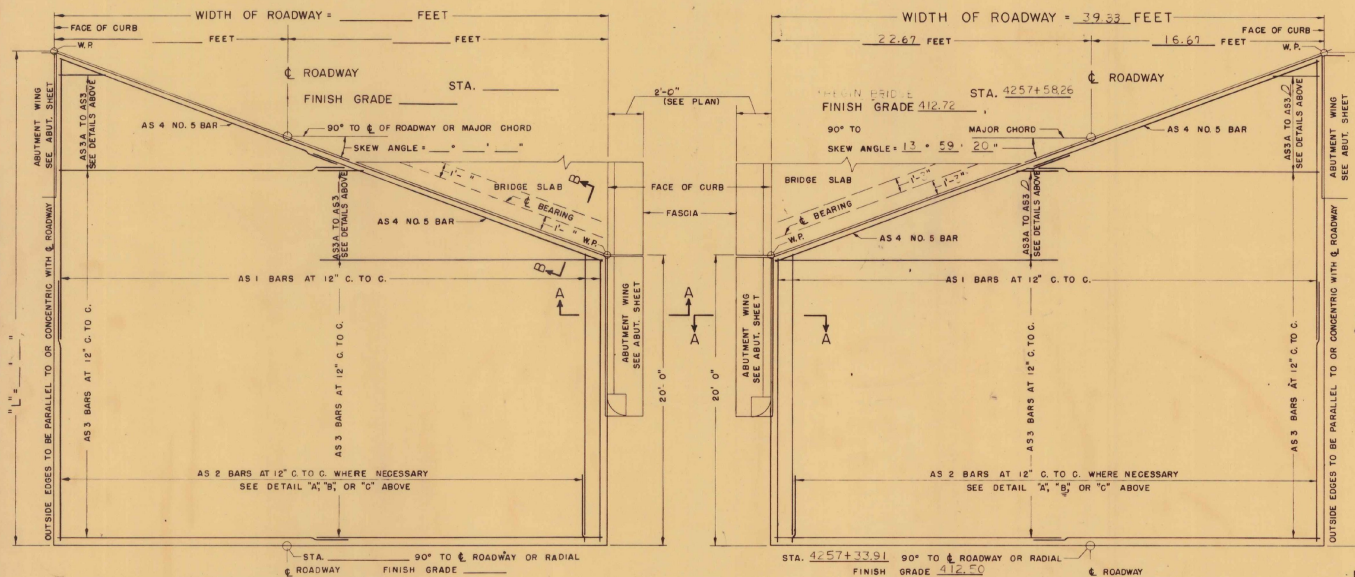
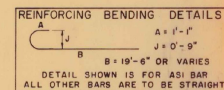


DETAILS - ITEM 372-C JOINT SEALER - PREFORMED MATERIAL TO BE PREFORMED NEOPRENE (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED)



GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1967, DESIGNED FOR HS20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
3. SEE BRIDGE FOR FIXED END JOINT DETAILS.
4. BITUMINOUS CONCRETE PAVEMENT DEPTH SHALL BE 2" AT THE BRIDGE END AND VARY TO 3" AT THE ROADWAY END.



LIST OF QUANTITIES

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

PROJECT NORWICH - THETFORD

TOWN OF NORWICH

ROUTE NO. I-91

INTERSTATE 91 OVER OMPOMPANOSUC RIVER & VT 132

APPROACH SLAB NO. 1

NOT TO SCALE

IN CHARGE HCC

DESIGNED BY A.M.C. CHECKED BY R.C.

PROJECT NO. I-91 - 2 (41)

SHEET 26 OF 23

BR

DETAILS OF APPROACH SLAB FOR 38.0 FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 4258+81.74 SB

LOCATION INTERSTATE 91 OVER OMPOMPANOSUC RIVER & VT 132

APPROACH SLAB NO. 1

STATE OF VERMONT

DEPARTMENT OF HIGHWAYS

STANDARD STRUCTURE

SB-AS-65

REVISIONS AND CORRECTIONS

1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 4/15/65 W.B.T.

2. DIMENSIONS OF JOINT SEALER TYPE B REVISED 6/23/65 W.B.T.

3. JOINT BETWEEN CURB AND SLAB REVISED, BITUMINOUS CONCRETE REVISED TO 2" QUANTITY TOTALS REMOVED. 12/7/65 W.B.T.

DRAWN BY: W.B.T. Jan. 1965

TRACED BY: W.B.T. Jan. 1965

CHECKED BY: W.M.S. Feb. 1965

RECOMMENDED FOR APPROVAL: [Signature] 2/4/65

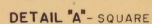
RECOMMENDED FOR APPROVAL: [Signature] 2/4/65

APPROVED BY: [Signature] 2/4/65

BRIDGE ENGINEER

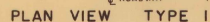
ASSISTANT CHIEF ENGINEER

CHIEF ENGINEER

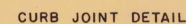


DETAIL "B" - "L" LESS THAN 35'

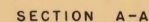
DETAIL "C"-"L" GREATER THAN 35'



PLAN VIEW TYPE 2

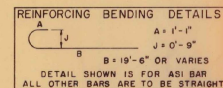


TYPE A
DETAILS - ITEM 372-C JOINT SEALER - PREFORMED
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER
(OTHER CONFIGURATIONS THAT SATISFY
SPECIFICATIONS MAY BE USED)



GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1965, DESIGNED FOR HS20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
3. SEE BRIGS FOR PAVED END ABUTMENT DETAILS.
4. BITUMINOUS CONCRETE PAVEMENT THICKNESS SHALL BE 2" AT THE BRIDGE AND ANVARY TO 3" AT THE ROADWAY END.



LIST OF QUANTITIES

ITEM NO.	ITEM	UNIT
318	TAR EMULSION FOR BRIDGE FLOORS	GAL
361	BITUMINOUS CONCRETE PAVEMENT <i>Mod Type IV</i>	TON
372-A	JOINT SEALER - HOT POURED	L.
372-C	JOINT SEALER - PREFORMED, TYPE A	L.
401-B	CONCRETE CLASS B	CY
402	REINFORCING STEEL	LB

PROJECT NORWICH - THE TFORD
TOWN OF NORWICH
ROUTE NO. 1-91 STA. SB 4256+81.74
INTERSTATE 91 OVER
OMPOMPANCOSSUC RIVER & VT. 132
APPROACH SLAB N02

NOT TO SCALE

IN CHARGE H.G.C. BR 51

DESIGNED BY AMCD CHECKED BY RC REV. D.E.P. & A.G.C. 12

PROJECT NO. 1-91 - 2 (41)

SHEET 187 OF 193 BR _____

REVISIONS AND CORRECTIONS

1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED.
4/15/65 W.B.T.

2. DIMENSIONS OF JOINT SEALER TYPE B REVISED
6/23/65 W.B.T.

3. JOINT BETWEEN CURB AND SLAB REVISED, BITUMINOUS
CONCRETE REVISED TO 2" QUANTITY TOTALS
REMOVED. 12/77/65. W.B.T.

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

RECOMMENDED FOR APPROVAL: *L. M. Brown* BRIDGE ENGINEER DATE 2/4/65

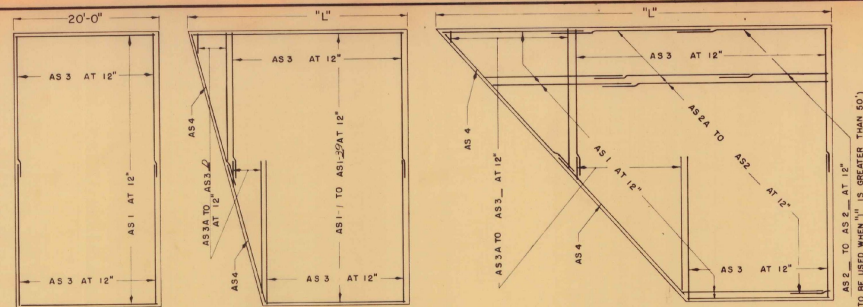
RECOMMENDED FOR APPROVAL: *R. H. Arnold* ASSISTANT CHIEF ENGINEER DATE 2/4/65

APPROVED BY: *C. D. Bishop* CHIEF ENGINEER DATE 2/4/65

DETAILS OF APPROACH SLAB
FOR 38.0 FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 4258+61.74 SB
LOCATION INTERSTATE 91 OVER OMPOMPOC RIVER #VI32
APPROACH ISLAB NO 2

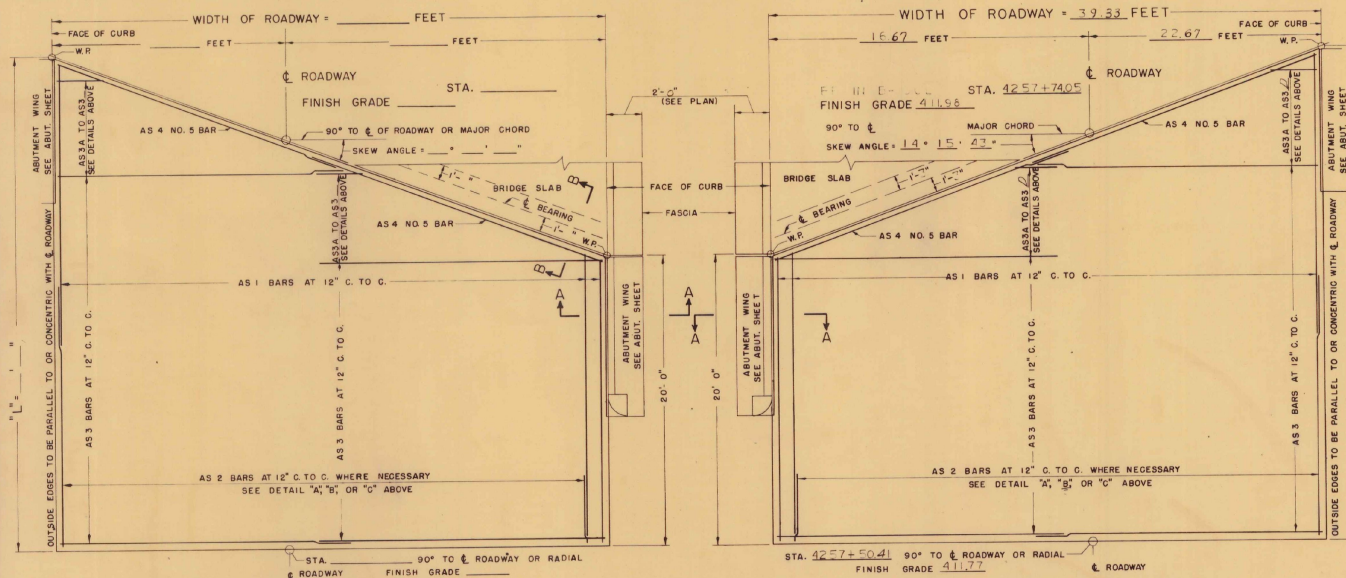
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE
SB-AS-65



DETAIL "A" - SQUARE

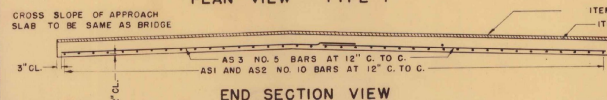
DETAIL "B" - "L" LESS THAN 35'

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

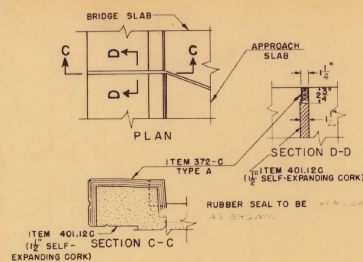


PLAN VIEW TYPE 1

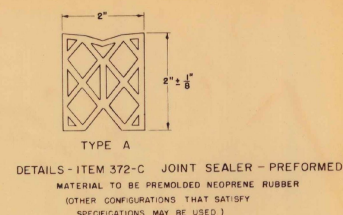
PLAN VIEW TYPE 2



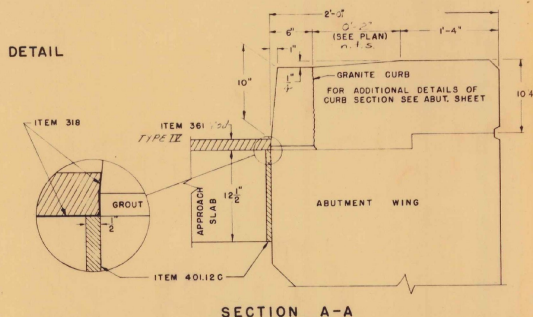
END SECTION VIEW



CURB JOINT DETAIL



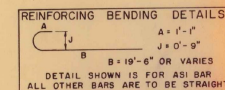
DETAILS - ITEM 372-C JOINT SEALER - PREFORMED MATERIAL TO BE REMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED)



SECTION A-A

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1965. DESIGNED FOR HS20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
3. SEE BR109 FOR FIXED END JOINT DETAILS.
4. BITUMINOUS CONCRETE PAVEMENT DEPTH SHALL BE 2" AT THE BRIDGE END AND VARY TO 3" AT THE ROADWAY END.



LIST OF QUANTITIES

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

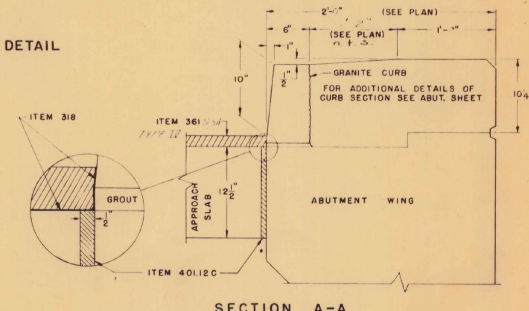
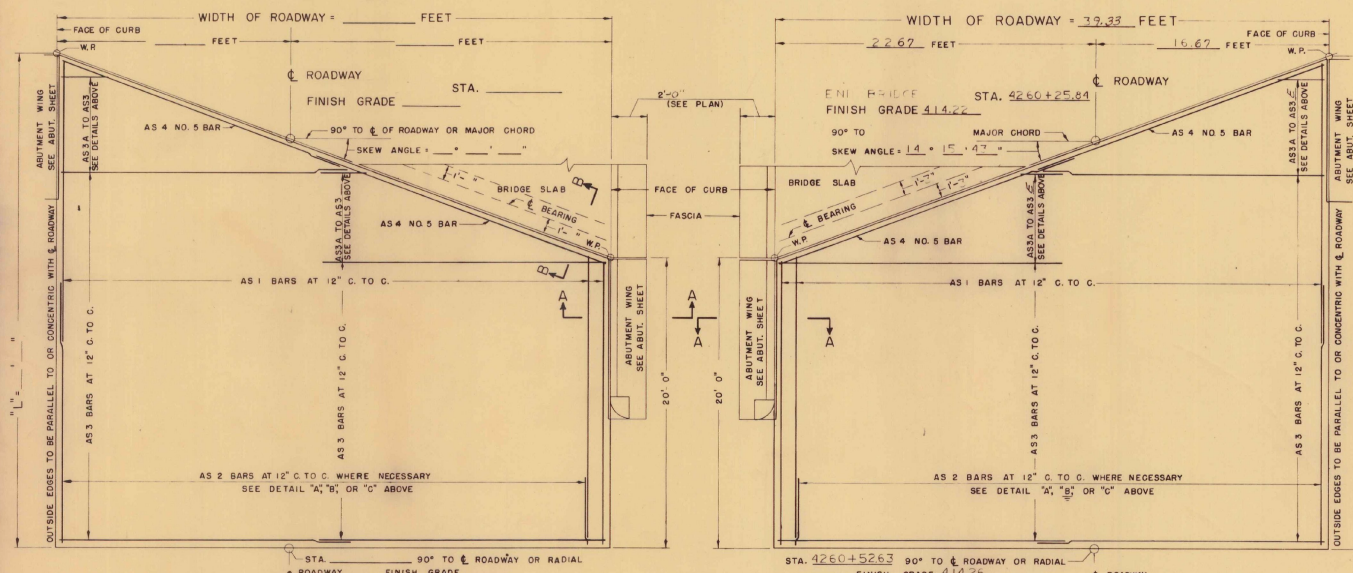
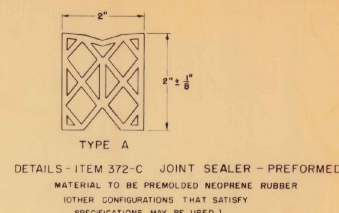
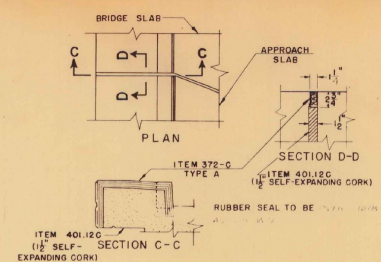
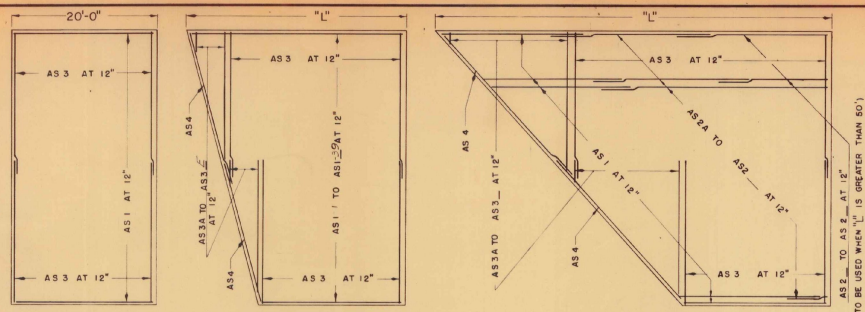
DETAILS OF APPROACH SLAB
FOR 38.0 FOOT BRIDGE
(WIDTH)
TO BE USED FOR BRIDGE AT STATION 4258+00.95 NB
LOCATION INTERSTATE 91 OVER OMPOMPANOOSUC RIVER & VT. 132
APPROACH SLAB NO. 3

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE
SB-AS-65

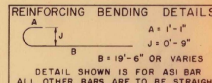
PROJECT NORWICH - THE FORD
TOWN OF NORWICH
ROUTE NO. 1-91
INTERSTATE 91 OVER
OMPOMPANOOSUC RIVER & VT. 132
APPROACH SLAB NO. 3
NOT TO SCALE
IN CHARGE HCC
DESIGNED BY AMO CHECKED BY RC
PROJECT NO. I-91 2(41)
SHEET 23 OF 23
BR

REVISIONS AND CORRECTIONS
1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED.
4/15/65 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED.
5/23/65 W.B.T.
3. JOINT BETWEEN CURB AND SLAB REVISED. BITUMINOUS
CONCRETE REVISED TO 2". QUANTITY TOTALS
REMOVED. 12/7/65 W.B.T.

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

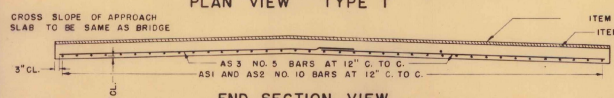


- GENERAL NOTES
1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1965. DESIGNED FOR HS20-44 LOADING.
 2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.
 3. SEE BRIDGE FOR FIXED END JOINT DETAILS.
 4. BITUMINOUS CONCRETE PAVEMENT DEPTH SHALL BE 2" AT THE BRIDGE END AND VARY TO 3" AT THE ROADWAY END.



LIST OF QUANTITIES

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



REVISIONS AND CORRECTIONS

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

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

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

DETAILS OF APPROACH SLAB FOR 36.0 FOOT BRIDGE (WIDTH)

TO BE USED FOR BRIDGE AT STATION 4258+99.95 NB

LOCATION INTERSTATE 91 OVER CMPOMFANGOC RIVER

APPROACH SLAB NO. 4

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE
SB-AS-65

PROJECT NORWICH - THETFORD
TOWN OF NORWICH
ROUTE NO. 1-91 STA. 4258+99.95
INTERSTATE 91 OVER
CMPOMFANGOC RIVER & VT 132
APPROACH SLAB NO. 4

NOT TO SCALE BR 51

IN CHARGE H.C.S. REV. C.E.P. & C.O.
DESIGNED BY AM.D. CHECKED BY B.C.
PROJECT NO. 1-91 2(41)
SHEET 22 OF 103 BR

Stage 2 Construction BR120

4015+00

440

If 16m 2.01 = 70°

4017+50

440

If 16m 2.01 = 12°

4017+00

440

If 16m 2.01 = 70°

4016+50

440

If 16m 2.01 = 5°

4016+00

440

4015+00

440

4015+00

440

Station	Area	Distance	Volume
4016+0	0		4.6
+50	5	50	1.39
4017+0	10		20.4
+50	12		7.59
4018+0	70		119.4
+50	59		32.6
4019+0	41		68.5
+50	33		86.1
4020+0	60		123.1
+50	73		169.4
4021+0	110		250.0
+50	120		192.6
4022+0	89		144.4
+50	68		101.4
4023+0	48		76.9
+50	35	50	32.4
4024+0	0		

1540.6

* 1541 CY

TEMPORARY APPROACH

STA: 4015+0 -

4022+0

A. Corson

C. 640.3m

9'-11'-68"

* Note: Quantity of 1541 cy includes 2" of flow 203 that was substituted to facilitate fine grading during flow.

1541 cy - 46.7 cu = 1074.3 cu

See book 1st type 27 for this grade of material

Furrows

Norwich - Bedford
Page 2 Construction

STA. 4015+00	STA. 4024+00
TOWN Norwich - Bedford	NO.
PROJECT 29	OF 198
SHEET 29	OF 198
HORIZ. AND VERT. SCALE	
0 10 20	20'
SURVEYED BY: DATE:	

4021+00

150

Ibm 201 = 110°

4020+50

150

Ibm 201 = 115°

4020+00

150

Ibm 201 = 60°

4019+50

150

Ibm 201 = 33°

4019+00

150

Ibm 201 = 4°

4018+50

150

Ibm 201 = 39°

TEMPORARY APPROACH
STA: 4018+50 -
4021+0

A. Carlson
C. Garret

9-11-68

ORIGINALS ———
FINALS ———

Norwich - Merford
Stage 2 Construction

STA 4018+50	STA 4021+0
TOWN Norwich - Merford	
PROJECT 192	NO. 193
SHEET 192	OF 193 SHEETS
HORIZ. AND VERT. SCALE	
0	10 20
SURVEYED BY: DATE:	

1023+50

160

Item 201 - 35'

1023+00

160

Item 201 - 48'

1022+50

160

Item 201 - 58'

1022+00

160

Item 201 - 80'

1021+50

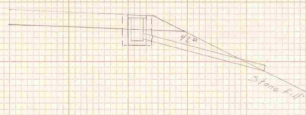
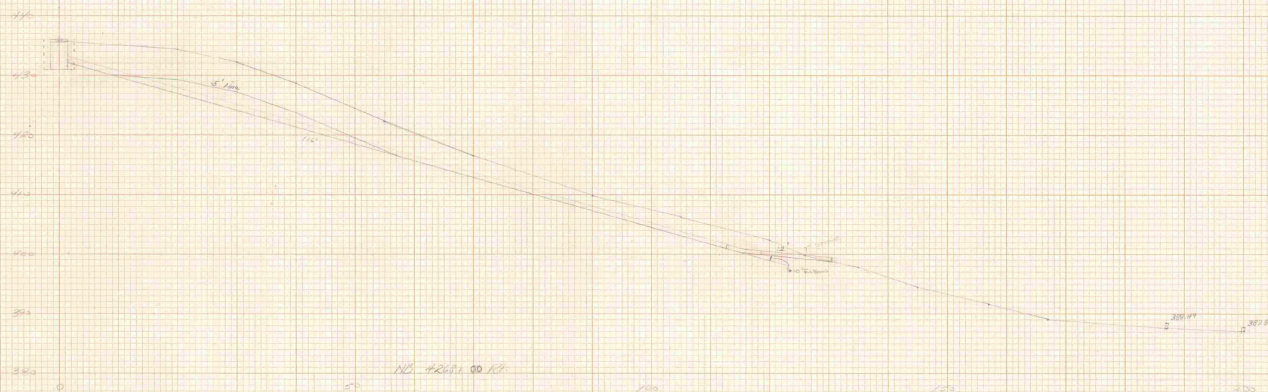
150

Item 201 - 100'

Norwich-Thetford
Stage 2 Construction

STA. 1021+50	STA. 1023+50
TOWN Norwich-Thetford	
PROJECT 1	NO. 9-2160
SHEET 193	OF 193 SHEETS
HORIZ. AND VERT. SCALE	
1" = 100'	
DATE	

TRENCH EARTH
Pipe { 0-5' $\frac{176.5 \times 2.1}{27} = 56.19$ $\frac{1}{2}$ $\frac{1}{2}$
5-1' $\frac{98.5 \times 2.1}{27} = 11.2$ $\frac{1}{2}$ $\frac{1}{2}$
DI 0-5' $\frac{5 \times 5 \times 2.1}{27} = 3.9$ $\frac{1}{2}$ $\frac{1}{2}$
11-28-21



NB 12-5' x 17.5'
12\"/>

Trench Earth 10-5'
12\"/>

Note: Pipe installed at the present time, but in future drainage from low spot.

NB L

NB E

STA	DIST	(0-5') AREA	(5-10') AREA	(10-15') AREA	(15-20') AREA
4110+49	1	175	2.2	17.6	2.5
+50	1	177	2.8	17.6	2.5
4111+0	50	180	34	892.5	1550
+50	50	187	52	917.5	2150
4112+0	50	198	81	962.5	3325
+01	1	198	81	19.8	8.1

Total ft. 28079.1
 $\times \frac{1}{2} = 14039.5$
 $\times 1.875 = 26411.1$
 $\times 1.50 = 39616.6$
 $\times 2 = 79233.2$



6" UND. NB LT
 4110+29 ~ 4112+01
 Drawn: [unclear]

Scale: 1" = 10'

Drawn & Computed by: RAN 5/24/11



0+40



(28 ft) ✓

0+30



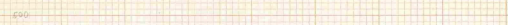
0+25



0+18



0+12



0+00



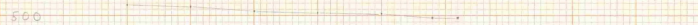
0+50



0+75



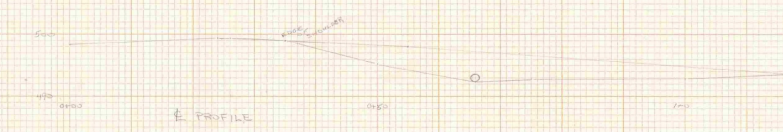
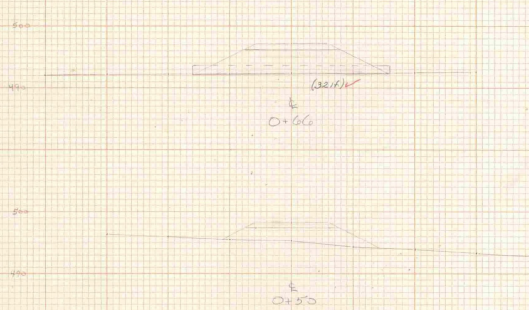
0+50



0+50

3.9
6.3
11.1
0
23.3

Handwritten notes in the bottom right corner, including a signature and date.



QUANTITIES

ITEM	QTY	UNIT	PRICE	TOTAL
1. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
2. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
3. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
4. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
5. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
6. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
7. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
8. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
9. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
10. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00

32" 18" ACCOMP
DRIVE RT. 113-A 1021-77
G-28-7
1" = 10'

QUANTITIES

ITEM	QTY	UNIT	PRICE	TOTAL
1. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
2. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
3. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
4. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
5. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
6. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
7. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
8. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
9. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00
10. 10' x 10' x 10' concrete	1.00	cu yd	1.00	1.00

32" 18" ACCOMP
DRIVE RT. 113-A 1021-77
G-28-7
1" = 10'

13 Sept 71

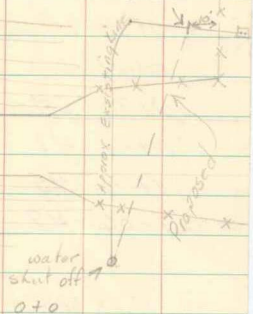
Water Line Survey
4570 +/- NB Rt

Nyc
Peabody
L. Withington

NB

2

Approx intersection of
Proposed Ex 310 Ring Rd
1 to 6



4570+-
NB Box
Brass Disk

0.06 582.90 582.84

1.1 571.51 12.50 570.40

0+0 11.1 560.4 Top Shut off

0+0 1.7 569.8

0+10 4.1 567.4 fn.

0+25 9.6 561.9

0+30 8.9 562.6 2 rd.

0+58 9.4 562.1 2 rd.

0+64 10.0 561.5

0+75 5.4 566.1 fn.

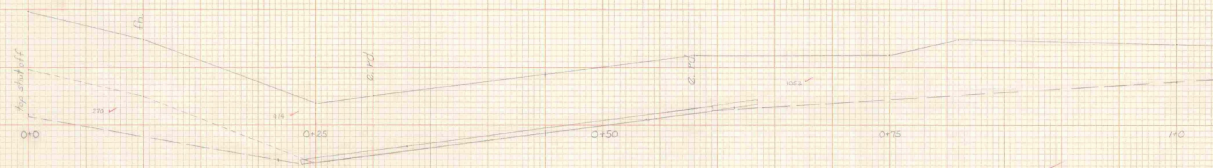
0+81 4.1 567.4

1+0 4.5 567.0

1+06 4.7 566.8 approx
location of existing
waterline

12.24 583.50 225 571.26

0.67 582.83
Brass Disk
NB Box
4570+-
582.84



In Earth (0-5') $432' \times 2.6' \times \frac{1}{2} = 47.4 \text{ CY}$
 In Earth (over 5') $68' \times 2.6' \times \frac{1}{2} = 6.5 \text{ CY}$

Item 431 Sleeves for Water Pipes (4") 36 LF
 Item 106-A Trench Excav of Earth (0-5') 47.4 CY
 Item 106-A Trench Excav of Earth (over 5') 6.5 CY
 10500
 12-5-21

Approx. location of existing waterline

No trench earth for this installation as per P.R.M.
 All this excavation
 included Item 431, 10" type 2
 for junction box as per
 instruction from A.C. Williams.

AS

Scale - 1" = 5'

4021+50

450

4021+00

450

4020+50

450

4020+00

450

4019+50

450

4019+00

450

NORWICH - THETFORD
I 91-2(4)

4024+50

460

4024+00

460

4023+50

460

4023+00

460

4022+50

460

4022+00

460

Sta.	Dist.	Area	Ave. Elev.	Vol. in C.Y.
4024+50	50	0	6.5	470
17	10	16	10.5	174
18	10	18	28.5	285
19	10	18	28.5	285
20	10	18	28.5	285
21	10	18	28.5	285
22	10	18	28.5	285
23	10	18	28.5	285
24	10	18	28.5	285
25	10	18	28.5	285
26	10	18	28.5	285
27	10	18	28.5	285
28	10	18	28.5	285
29	10	18	28.5	285
30	10	18	28.5	285
31	10	18	28.5	285
32	10	18	28.5	285
33	10	18	28.5	285
34	10	18	28.5	285
35	10	18	28.5	285
36	10	18	28.5	285
37	10	18	28.5	285
38	10	18	28.5	285
39	10	18	28.5	285
40	10	18	28.5	285
41	10	18	28.5	285
42	10	18	28.5	285
43	10	18	28.5	285
44	10	18	28.5	285
45	10	18	28.5	285
46	10	18	28.5	285
47	10	18	28.5	285
48	10	18	28.5	285
49	10	18	28.5	285
50	10	18	28.5	285

2207.3

Route 5 Total 2110 C.Y.

Grand Total 2219 C.Y. Ex. Excluded Summary 8/11/11

Original notes plotted here taken from books on North Fitzroy, 171-173.

NORWICH - THETFORD
191-2(41)

Vermont Agency of
Transportation
PHASE 1-INTERSTATE
#122302-01
INITIALS ☐
HANGER 612

NORWICH, THETFORD & FAIRLEE
I-91-2(24) & 2(41)

* 1971 BRIDGE 51 N+S

Norwich-Thetford-Fairlee

I 91-2(24) & 2(41)

1971