STATE OF VERMONT
AGENCY OF TRANSPORTATION

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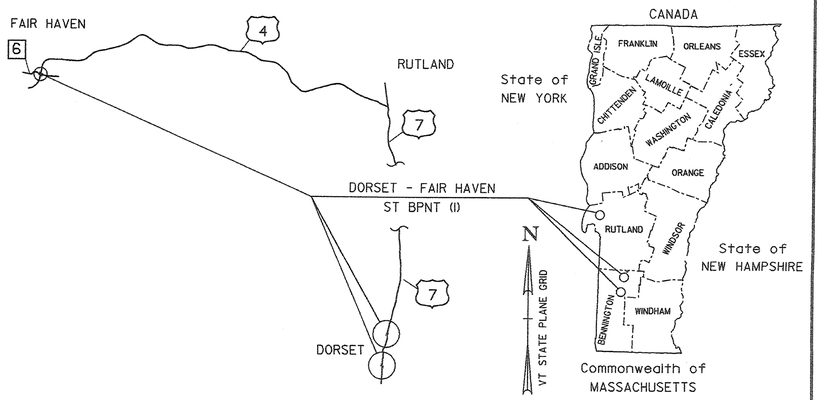


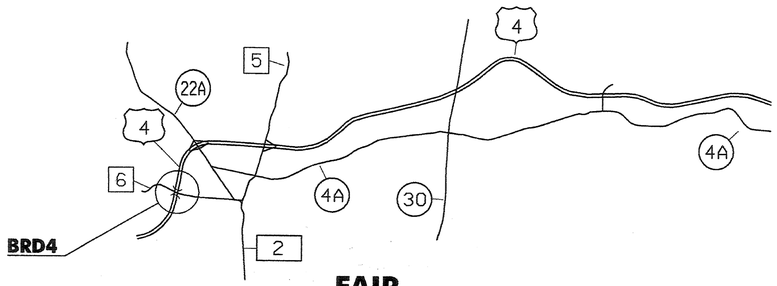
LOCATION MAP
NOT TO SCALE

PROPOSED IMPROVEMENT
BRIDGE PROJECT

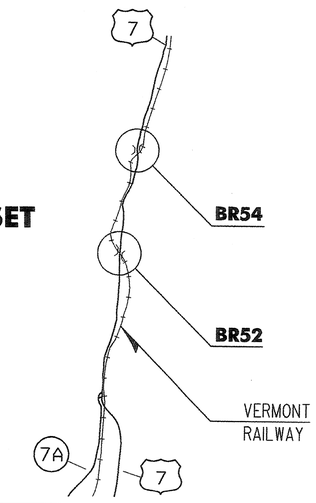
TOWNS OF DORSET & FAIR HAVEN
COUNTIES OF BENNINGTON & RUTLAND
BRIDGES NO. 52 & 54 ON U.S. ROUTE 7 (DORSET)
AND NO. D4 ON T.H. NO. 6 (FAIR HAVEN)

PROJECT LOCATIONS: BRIDGE NO. 52 IS LOCATED ON U.S. ROUTE 7, APPROXIMATELY 6.7 MILES NORTH OF THE JUNCTION OF VT ROUTE 30 AND U.S. ROUTE 7, IN THE TOWN OF DORSET.
BRIDGE NO. 54 IS LOCATED ON U.S. ROUTE 7, APPROXIMATELY 8.1 MILES NORTH OF THE JUNCTION OF VT ROUTE 30 AND U.S. ROUTE 7, IN THE TOWN OF DORSET.
BRIDGE NO. D4 IS LOCATED ON T.H. NO. 6 OVER U.S. ROUTE 4, APPROXIMATELY 0.8 MILES WEST OF EXIT 2 ON U.S. ROUTE 4, IN THE TOWN OF FAIR HAVEN.

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



FAIR HAVEN



DORSET

NOT TO SCALE

CONVENTIONAL SYMBOLS

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

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

DATUM
VERTICAL N/A
HORIZONTAL N/A

RECORD PLANS

CONTRACTOR: AMSTAR OF WESTERN NEW YORK - CHEEKTOWAGA
RESIDENT ENGINEER: TIM POCKETTE
CONSTRUCTION BEGAN: JUNE 29, 2009
CONSTRUCTION COMPLETE: AUGUST 8, 2009
RECORD PLANS BY: TIM POCKETTE

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

BY _____ RESIDENT ENGINEER
DATE 12/21/09

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

BUILT AS DESIGNED

STATE OF VERMONT
MICHAEL J. DINETTE
NO. 3048
PROFESSIONAL ENGINEER

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

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

Stantec

Stantec Consulting Services Inc.
55 Green Mountain Drive
South Burlington VT U.S.A.
05403
Tel. 802.864.0223
Fax. 802.864.0165
www.stantec.com

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED _____ DATE 6-7-10

PROJECT MANAGER : WARREN TRIPP

PROJECT NAME : **DORSET - FAIR HAVEN**
PROJECT NUMBER : ST BPNT(1)

SHEET 1 OF 14 SHEETS

QUANTITY SHEET 1

T.H. NO. 6-BRIDGE NO. D4	U.S. 7-BRIDGE NO. 52	U.S. 7-BRIDGE NO. 54	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
1			1		LS	STRUCTURAL PAINTING, FIELD APPLIED (T.H. NO. 6-BRIDGE NO. D4) (159 TONS)	513.30	
	1		1		LS	STRUCTURAL PAINTING, FIELD APPLIED (U.S. 7-BRIDGE NO. 52) (64 TONS)	513.30	
		1	1		LS	STRUCTURAL PAINTING, FIELD APPLIED (U.S. 7-BRIDGE NO. 54) (161 TONS)	513.30	
1			1		LS	CONTAINMENT & ENVIRONMENTAL PROTECTION, FIELD (T.H. NO. 6-BRIDGE NO. D4)	513.36	
	1		1		LS	CONTAINMENT & ENVIRONMENTAL PROTECTION, FIELD (U.S. 7-BRIDGE NO. 52)	513.36	
		1	1		LS	CONTAINMENT & ENVIRONMENTAL PROTECTION, FIELD (U.S. 7-BRIDGE NO. 54)	513.36	
1			1		LS	SURFACE PREPARATION, FIELD (T.H. NO. 6-BRIDGE NO. D4) (159 TONS)	513.41	
	1		1		LS	SURFACE PREPARATION, FIELD (U.S. 7-BRIDGE NO. 52) (64 TONS)	513.41	
		1	1		LS	SURFACE PREPARATION, FIELD (U.S. 7-BRIDGE NO. 54) (161 TONS)	513.41	
300			300		HR	TRUCK-MOUNTED ATTENUATOR	608.45	
200	240	640	1080		HR	FLAGGERS	630.15	
0.33	0.33	0.34	1		LS	TESTING EQUIPMENT, PROTECTIVE COATINGS	631.18	
0.41	0.17	0.42	1		LS	MOBILIZATION/DEMOBILIZATION	635.11	
1			1		LS	TRAFFIC CONTROL (T.H. NO. 6-BRIDGE NO. D4)	641.10	
	1		1		LS	TRAFFIC CONTROL (U.S. 7-BRIDGE NO. 52)	641.10	
		1	1		LS	TRAFFIC CONTROL (U.S. 7-BRIDGE NO. 54)	641.10	
1	2	2	5		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	
1			1		EACH	PORTABLE ARROW BOARD	641.16	
	120		120		HR	SPECIAL PROVISION (FLAGGERS, RAILROAD) (U.S. 7-BRIDGE NO. 52)	900.630	
		320	320		HR	SPECIAL PROVISION (FLAGGERS, RAILROAD) (U.S. 7-BRIDGE NO. 54)	900.630	

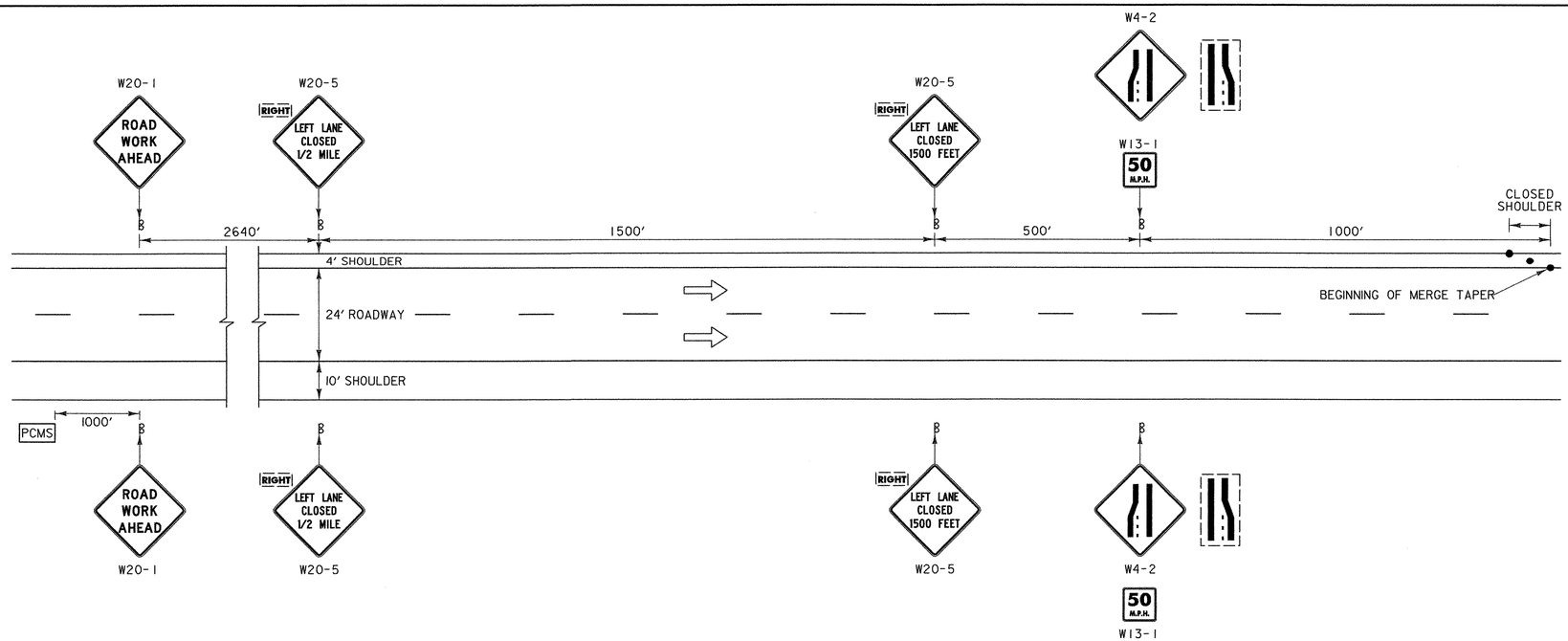
QUANTITIES	UNIT	ITEMS

Stantec

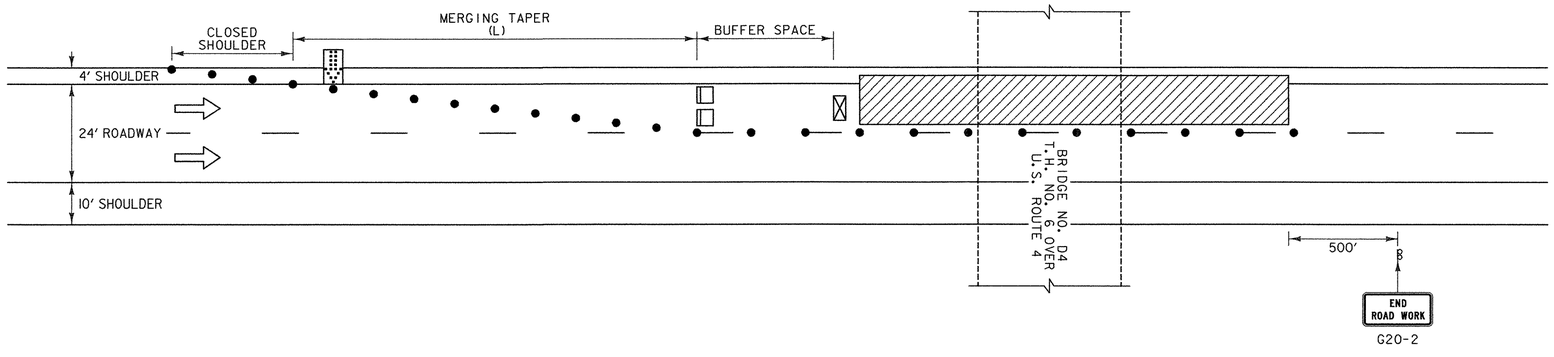
PROJECT NAME: DORSET - FAIR HAVEN
PROJECT NUMBER: ST BPNT(I)

FILE NAME: ...\drawing\Qty Sheet.dgn
PROJECT LEADER: G. BOGUE
DESIGNED BY: G. BOGUE
QUANTITY SHEET

PLOT DATE: 6/17/2008
DRAWN BY: J. SOTER
CHECKED BY: S. BURBANK
SHEET 2 OF 14



CONSTRUCTION APPROACH SIGNING ON U.S. ROUTE 4 LEFT LANE CLOSED - BRIDGE NO. D4



TRAFFIC CONTROL ON U.S. ROUTE 4 LEFT LANE CLOSED - BRIDGE NO. D4

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- WORK AREA
- TRUCK/TRAILOR MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

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

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

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

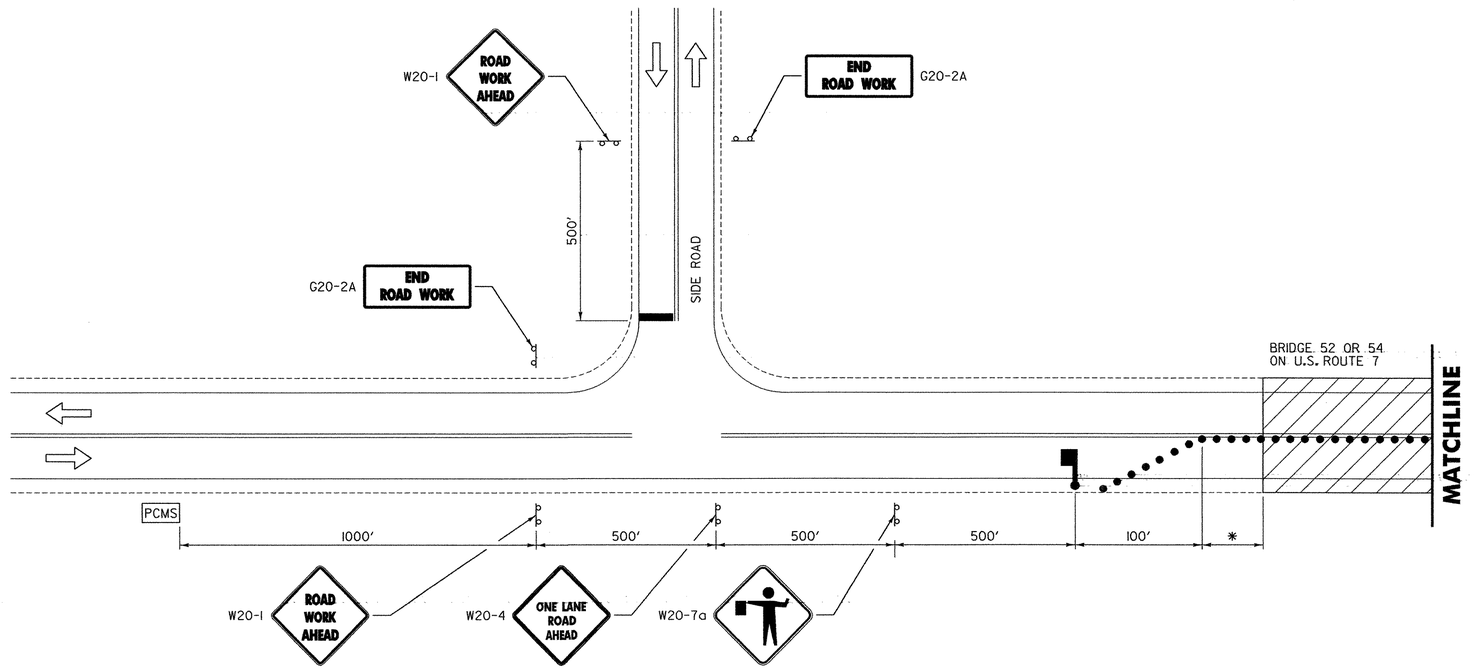
GENERAL NOTES:

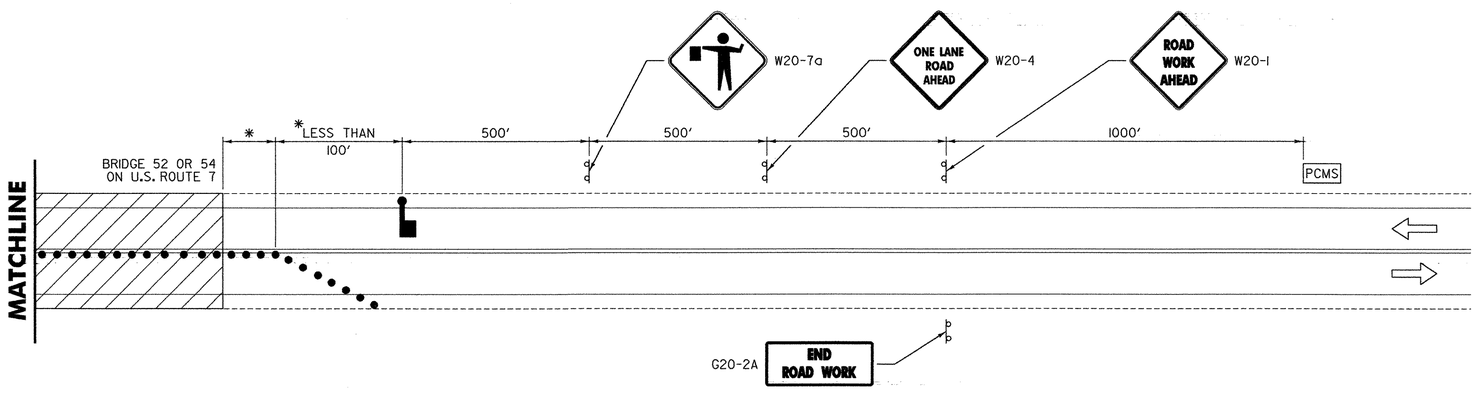
1. THE LEFT LANE CLOSURE IS SHOWN. THE RIGHT LANE CLOSURE IS SIMILAR.
2. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" BOOK (SHS) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
3. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
4. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE VI.
5. SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. THE SIGNS "ROAD WORK AHEAD" (W20-1) AND "END ROAD WORK" (G20-2) SHALL BE INSTALLED ON BOTH THE EAST-BOUND AND WESTBOUND LANES OF U.S. ROUTE 4 IN ACCORDANCE WITH THIS SHEET BEFORE ANY WORK COMMENCES ON BRIDGE D4. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
6. FIXED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE GUARDRAIL.
7. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
8. WHERE SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
9. THE CONTRACTOR SHALL HAVE SIGNS FOR CLOSURE OF RIGHT AND LEFT LANES ON PROJECT BEFORE WORK COMMENCES.
10. THE NUMBER OF CHANNELIZING DEVICES, TYPE THREE BARRICADE AND OTHER TRAFFIC CONTROL DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY, THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BASED ON INDIVIDUAL DETOUR CONDITIONS (TAPERS, SPEED LIMITS, LENGTH OF DETOUR, CURVE, ETC.). WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
11. PLACE LAST CHANNELIZING DEVICE 100 FEET BEYOND THE ANTICIPATED WORK ZONE TERMINAL POINT EACH DAY.
12. THE ARROW PANEL SHALL BE PLACED ON THE SHOULDER OF THE ROADWAY, OR IF PRACTICAL FURTHER FROM THE TRAVELED LANE AT THE END OF THE SHOULDER TAPER.
13. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER, THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.55 OF THE MUTCD. THE PCMS SHALL READ "LEFT (OR RIGHT) LANE CLOSED AHEAD, PLEASE MERGE EARLY".
14. TRAVEL LANE SHALL BE 12 FEET WIDE.
15. THE CONTRACTOR MAY REDUCE TRAFFIC TO ONE LANE DURING WORKING HOURS IN ACCORDANCE WITH THIS SHEET, AS REQUIRED. ALL EQUIPMENT SHALL BE MOVED TO A LOCATION OFF PAVED SHOULDERS DURING NON-WORK PERIODS, AND PROTECTED BY BARRELS OR CONES. NORMAL TRAFFIC LANES SHALL BE RESTORED DURING NON-WORK PERIODS AND TEMPORARY TRAFFIC SIGNS REMOVED OR COVERED, EXCEPT FOR THE SIGNS "ROAD WORK AHEAD" (W20-1) AND "END ROAD WORK" (G20-2). THESE SIGNS SHALL REMAIN UNCOVERED UNTIL THEIR REMOVAL AT THE COMPLETION OF THE WORK.
16. LANE CLOSURES ON T.H. NO. 6, IF REQUIRED, SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL SHEET 2.

Stantec

PROJECT NAME: DORSET - FAIR HAVEN
PROJECT NUMBER: ST BPNT(1)

FILE NAME: ...\structural\drawing\TS 1.dgn PLOT DATE: 6/17/2008
PROJECT LEADER: G. BOGUE DRAWN BY: J. SOTER
DESIGNED BY: G. BOGUE CHECKED BY: S. BURBANK
TRAFFIC CONTROL SHEET 1 SHEET 3 OF 14





* - ACTUAL DIMENSION TO BE DETERMINED BY INDIVIDUAL BRIDGE SITE CONDITIONS AND AND TO BE SHOWN ON TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR.

TRAFFIC CONTROL PLAN – BRIDGES NO. 52 & 54

NOT TO SCALE

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- WORK AREA
- FLAGGER
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES:

1. THE TRAFFIC CONTROL PLAN SHOWN IS A SCHEMATIC ONLY AND SHOULD BE USED AS A REFERENCE. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR EACH BRIDGE TO VTRANS FOR APPROVAL. THE CONTRACTOR SHALL ALLOW TWO WEEKS FOR APPROVAL OF THE TRAFFIC CONTROL PLAN. NO WORK SHALL COMMENCE UNTIL THE CONTRACTOR HAS AN APPROVED TRAFFIC CONTROL PLAN.
2. ANY PARKING AREAS OR DRIVES WITH AN ENTRANCE/EXIT BETWEEN THE FLAGGER AND THE WORK ZONE SHALL HAVE THAT ENTRANCE/EXIT CLOSED WITH CONES OR DRUMS, PROVIDED ADDITIONAL ENTRANCES/EXITS EXIST IN THE AREA APPROACHING THE FLAGGER.
3. ANY PUBLIC HIGHWAYS BETWEEN THE FLAGGER AND THE WORK ZONE WILL REQUIRE AN ADDITIONAL FLAGGER TO MAINTAIN TRAFFIC CONTROL FOR THE PUBLIC HIGHWAY.
4. SIGNS SHALL BE INSTALLED SO AS NOT TO OBSTRUCT EXISTING SIGNS OR CORNER SIGHT DISTANCE.
5. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" BOOK (SHS) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
6. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
7. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE VI.
8. SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
9. FIXED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE GUARDRAIL.
10. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
11. WHERE SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
12. THE NUMBER OF CHANNELIZING DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY, THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BY THE CONTRACTOR AND SHOWN ON THE TRAFFIC CONTROL PLAN SUBMITTED BY THE CONTRACTOR. WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
13. THE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER, THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.55 OF THE MUTCD. THE PCMS SHALL READ 'ONE WAY TRAFFIC AHEAD BE PREPARED TO STOP'.
14. THE CONTRACTOR MAY REDUCE TRAFFIC TO ONE LANE DURING WORKING HOURS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. ALL EQUIPMENT SHALL BE MOVED TO A LOCATION OFF PAVED SHOULDERS DURING NON-WORK PERIODS, AND PROTECTED BY BARRELS OR CONES. NORMAL TRAFFIC LANES SHALL BE RESTORED DURING NON-WORK PERIODS AND TEMPORARY TRAFFIC SIGNS REMOVED OR COVERED.

Stantec

PROJECT NAME: DORSET - FAIR HAVEN
PROJECT NUMBER: ST BPNT(1)

FILE NAME: ...\structural\drawing\TS 2.dgr PLOT DATE: 6/17/2008
PROJECT LEADER: G. BOGUE DRAWN BY: J. SOTER
DESIGNED BY: G. BOGUE CHECKED BY: S. BURBANK
TRAFFIC CONTROL SHEET 2 SHEET 4 OF 14

PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.
2. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS. UNLESS SHOWN OTHERWISE ON REFERENCE PLANS, THE RIGHT-OF-WAY LIMIT SHALL BE ASSUMED TO BE 3 RODS.
3. ALL COSTS ASSOCIATED WITH EXTENDING OR FILLING THE DRAIN TUBES SHALL BE INCIDENTAL TO ITEM 513.41.

PROTECTIVE COATINGS

4. THE SURFACE PREPARATION OF THE EXISTING STEEL SHALL INCLUDE 100% REMOVAL OF THE EXISTING PAINT SYSTEM.
5. THE COLOR OF THE FINAL COAT OF PAINT SHALL BE GREEN CONFORMING TO SUBSECTION 708.03.
6. THE ENDS OF THE GIRDERS ON BRIDGE D4 (FAIR HAVEN) SHALL BE GREASE COATED IN ACCORDANCE WITH SUBSECTION 513.06 (d)(1) OF THE SPECIFICATIONS.

TRAFFIC CONTROL

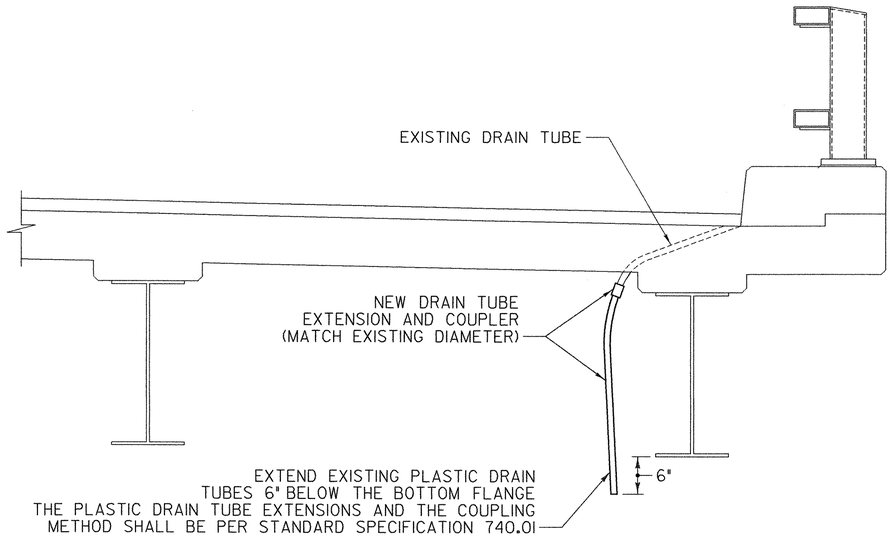
7. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS, ALL COSTS FOR TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING TRAFFIC BARRIERS, SIGNS, AND SIGN POSTS WILL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL, ITEM 641.10.

RAILROAD – DORSET U.S. ROUTE 7, BRIDGES 52 AND 54

8. THE CONTRACTOR SHALL BE REQUIRED TO HAVE RAILROAD FLAGGERS PRESENT ANYTIME THE CONTRACTOR IS ON OR OVER THE RAILROAD RIGHT-OF-WAY.
9. DURING ANTICIPATED PASSAGE OF TRAINS THE CONTRACTOR MUST MOVE ALL EQUIPMENT SUCH THAT NOTHING IS WITHIN A CLEARANCE ENVELOPE DEFINED AS VERTICALLY FROM THE RAILS TO THE EXISTING BOTTOM OF STEEL BEAMS AND HORIZONTALLY NINE FEET EACH SIDE OF CENTERLINE OF RAILS, MEASURED PERPENDICULAR TO THE TRACK.

UTILITIES

10. FIBER OPTIC CABLE IS LOCATED ON THE FASCIA BEAMS OF BRIDGES 52 AND 54 ON U.S. 7 IN DORSET. THIS CABLE WILL BE MOVED BY THE CABLE OWNER SUCH THAT THERE WILL BE A MINIMUM OF ONE FOOT CLEAR FROM THE CABLE TO ANY STRUCTURAL STEEL. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO WORK AROUND THE CABLE IN ITS TEMPORARILY LOCATED POSITION.



DRAIN TUBE EXTENSION DETAIL

NOT TO SCALE

NOTES:

1. DRAIN TUBE EXTENSIOIN DETAIL TO BE USED WHERE THE END OF EXISTING TUBES ARE LESS THAN 6" BELOW ADJACENT BEAM.
2. IF EXISTING DRAIN TUBE IS TOO SHORT TO PROVIDE AN ADEQUATE CONNECTION, THE CONTRACTOR SHALL COMPLETELY FILL THE TUBE WITH POLYURETHANE SEALANT CONFORMING TO SUBSECTION 707.05. TUBES TO BE FILLED WITH POLYURETHANE SEALANT SHALL BE APPROVED BY HE ENGINEER PRIOR TO BEING FILLED.
3. ON BRIDGE NO. D4 THE TUBES SHALL BE ANCHORED TO THE NEAREST LATERAL BRACING BY USING AN ACCEPTABLE CABLE STRAP ANCHOR.

Stantec

PROJECT NAME: DORSET - FAIR HAVEN
PROJECT NUMBER: ST BPNT(1)

FILE NAME: ...\structural\drawing\Notes.dgn PLOT DATE: 6/17/2008
PROJECT LEADER: G. BOGUE DRAWN BY: J. SOTER
DESIGNED BY: G. BOGUE CHECKED BY: S. BURBANK
PROJECT NOTES AND DETAILS SHEET 5 OF 14

30

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5. Item Details (Drainage)
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8-14. Plan and Profile
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16. B-1 Seeding Index
17. B-5 Typical Slope Grading
18. B-6 Rock Excavation
19. C-1 Curbs
20. C-2 CBR
21. C-3 Gutters
22. D-6 Flaring Basins
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24. D-7B Precast Drop Inlet
25. E-1 Barricade, Signs & Lights
26. E-2 Construction Identification Signs
27. E-3 Standard Steel Beam Guard Rail
28. E-3S Two Cable Guard Rail
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55-125. Mission Cross Sections
126-135. SB 100-BR. 11 Cross Sections S.B. Baseline
136. B-40 EMBANKMENT ON A SLOPE
137. B-41 SLOPE STABILIZATION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT

FEDERAL AID PROJECT

TOWN OF DORSET
COUNTY OF BENNINGTON
U.S. ROUTE #7
MANCHESTER – DANBY ROAD

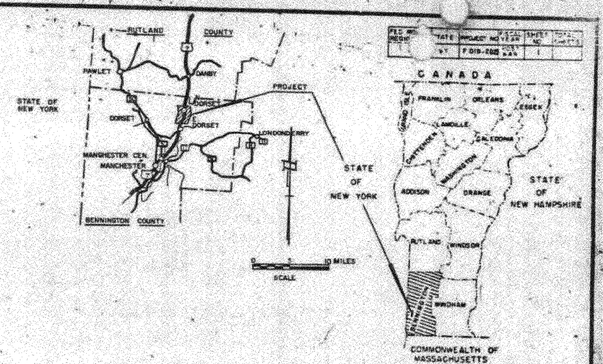
Dated MARCH 17, 1965

Rogers Bros.
Woodson Rogers
By. Partner Contractor

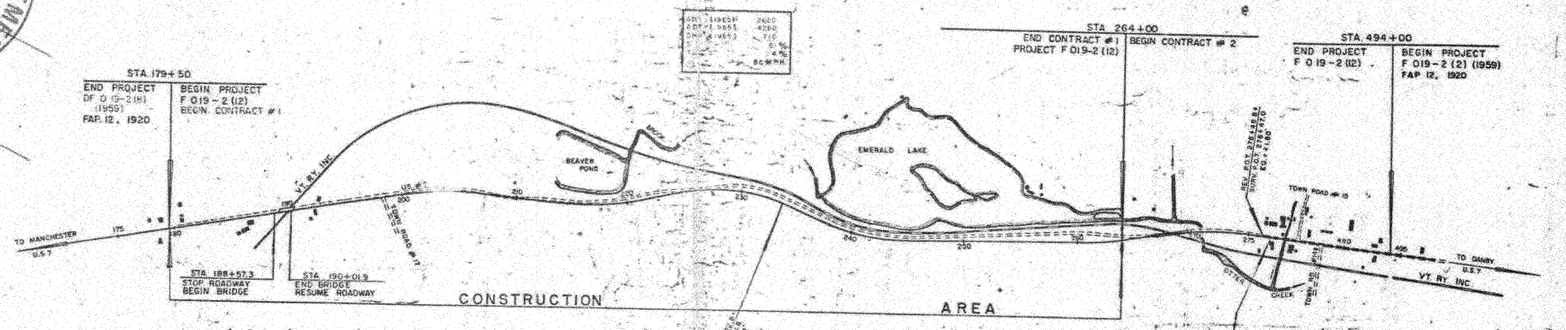
Commissioner of Highways
By Order of Commissioner of Highways

BEGINNING AT A POINT APPROXIMATELY 3.322 MILES NORTH OF THE DORSET–MANCHESTER TOWN LINE AND EXTENDING NORTHERLY 1.601 MILES.
INCLUDING BRIDGES

LENGTH OF ROADWAY	8,306.6 FEET =	1.573	MILES
LENGTH OF BRIDGES	144.6 FEET =	0.028	MILE
LENGTH OF CONTRACT	8,451.2 FEET =	1.601	MILES



THESE PLANS HAVE BEEN REDUCED PHOTOGRAPHICALLY
TO APPROXIMATELY ½ SCALE



BRIDGE 52
FOR REFERENCE ONLY

SHEET 6 OF 14

CONSTRUCTION IDENTIFICATION SIGNS ▲

CONVENTIONAL SIGNS

R.O.W. LINE
COUNTY LINE
TOWN LINE
FENCE LINE
STONE WALL
UNFENCED PROPERTY
GUARD RAIL
TRAVELLED WAY
RAILROAD
RETAINING WALL
CENTER LINE
SURVEY LINE
CULVERT
DROP INLET
TROLLEY POLE
POWER POLE
TELEPHONE POLE
TREES
HEDGE
SLOPE RIGHTS

GROUND ELEVATION
GRADE ELEVATION

CURVE DATA

DEFLECTION OF ANGLE	Δ
DEGREE OF CURVE	D
RADIUS OF CURVE	R
TANGENT DISTANCE	T
LENGTH OF CURVE	L
EXTERNAL DISTANCE	E
POINT OF INTERSECTION	PI
POINT OF CURVE	P.C.
POINT OF TANGENT	P.T.
POINT ON TANGENT	POT
POINT ON SUB-TANGENT	POST

0 500 1000
SCALE IN FEET

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 THE PLANS AND THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION OF JANUARY 1956 SUBMITTED TO THE BUREAU OF PUBLIC ROADS AS APPROVED JULY 6, 1956 INCLUDING ALL SUBSEQUENT APPROVED REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE SUBMITTED WITH THE PLANS.

APPROVED ASST CHIEF ENGINEER DATE 10/3/62
APPROVED DIVISION ENGINEER DATE
APPROVED DIVISION ENGINEER DATE
APPROVED CHIEF ENGINEER DATE 6/23/60
APPROVED CHIEF ENGINEER DATE 6/1/60
SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

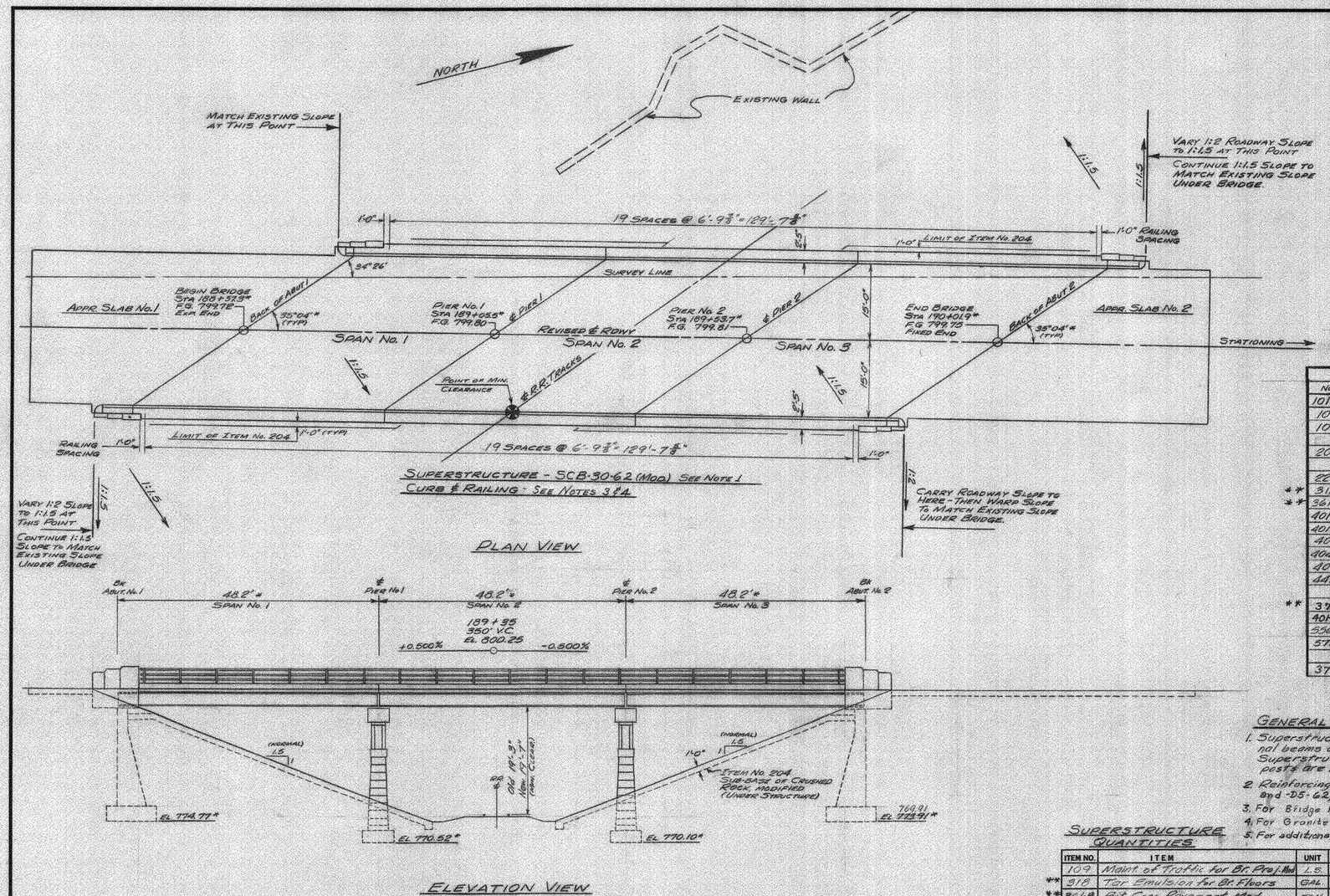
CONTRACT # 1

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER

PROJECT F NO. 019-2(12)
SHEET 1 OF 130 SHEETS

VERMONT DEPARTMENT OF HIGHWAYS
CONTRACT PLANS
JAN 25 1965
SIGNED

30



List of Bridge Sheets	
Sheet No.	TITLE
	Plan & Profile (Sta. 180+00 thru 196+00)
BR 100 of 113	Preliminary Information
BR 101	Superstructure Layout
BR 102	Superstructure Details
BR 103	Details of Approach Slabs
BR 104	Details of Abutment No. 1
BR 105	Details of Pier No. 1
BR 106	Details of Pier No. 2
BR 107	Details of Abutment No. 2
BR 108	Reinforcing Steel Schedule
BR 109-113	Base Line Cross Sections
	Reference Sheets
	Std. Sh. SCB-30-62
	Std. Sh. SCB-D1-62
	Std. Sh. SCB-D2-62
	Std. Sh. SCB-D3-62
	Std. Sh. SCB-D4-62
	Std. Sh. SCB-D5-62
	Std. Sh. SCB-D6-62
	Std. Sh. SCB-D7-62
	Std. Sh. SCB-D8-62
	Std. Sh. SCB-D9-62
	Std. Sh. SB-SG-62 Sheets 1 & 2 of 2

SUMMARY OF BRIDGE QUANTITIES

	No.	Item	Unit	Net			Final
	101-B	Solid Rock Excavation	C.Y.	~~5~~			17
	107	Structure Excavation	C.Y.	~~219~~			225
	109	Maintenance of Traffic for Bridge Project, Mod. at Sta 189+	L.S.	1/			1
	204	Sub-base of Crushed Rock, Mod., (Under Structure)	C.Y.	~~779~~			171
	222	Gravel Backfill	C.Y.	25/			25
**	318	Tar Emulsion for Bridge Floors	GAL	300			
**	361-B	Bituminous Concrete Pavement, Mod.	TON	65			
	401-B	Concrete Class B, Mod.	C.Y.	97/			97
	401-D	Concrete Class D, Mod.	C.Y.	~~188~~			187
	402	Reinforcing Steel	LB.	~~79,157~~			80068
	404-B	Steel Superstructure, Mod @ Sta 189+	L.S.	1/			1
	407	Asphaltic-Asbestos Coating	S.Y.	~~58~~			67
	442	Removal of Present Superstructure	L.S.	1/			1
**	372A	Joint Sealer, Hot Poured	L.F.	10A			
	401AA	Concrete Class AA, Mod.	C.Y.	~~186~~			194
	556-C	Granite Bridge Curb, Mod.	L.F.	~~307~~			314
	572	Bridge Railing	L.F.	~~260~~			262
	373	Rubber Joint Material	L.F.	~~144~~			162

BRIDGE 52
FOR REFERENCE ONLY
SHEET 7 OF 14

GENERAL NOTES

1. Superstructure as per Std. Sh. SCB-30-62, mod. ~~[illegible]~~ : (a) Original beams are to be reused; (b) Cover plates and haunch as per details of Superstructure Detail Sheet; (c) Non-composite construction; (d) End posts are integral with slab.
2. Reinforcing steel in slab as per Std. Sh. SCB-30-62, SCB-D2 Det. A-D4, and -D5-62, with additional reinforcement provided for end posts.
3. For Bridge Railing Item 572 see Std. Sh. SB-SG-62, sheets 1 & 2.
4. For Granite Bridge Curb Item 556 C Mod see Std. Sh. SCB-D6-62 Detail A
5. For additional General Notes see Std. Sh. SCB-D1-62

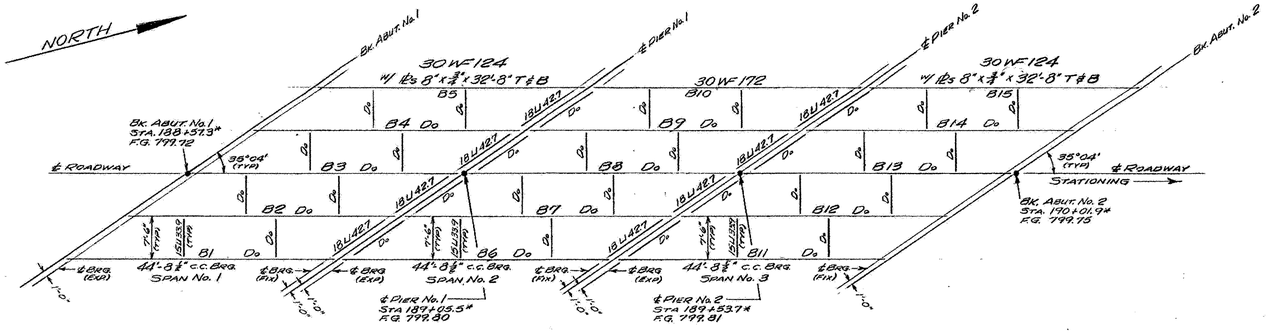
BR 101 of 113

SUPERSTRUCTURE QUANTITIES

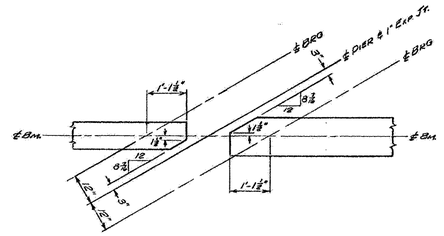
	ITEM NO.	ITEM	UNIT	NET			FINAL
	109	Maint. of Traffic for Br. Proj. Mod.	L.S.	1/			1
**	318	Tar Emulsion for Br. Floors	GAL	190			
**	361-B	Bit. Conc. Pavement, Mod.	TON	41			
	401-AA	Concrete Class AA, Mod.	C.Y.	~~186~~			194
	402	Reinforcing Steel	LBS	See Schedule			
	404-B	Steel Superstructure, Mod.	L.S.	1/			1
	442	Removal of Pres. Superstr.	L.S.	1/			1
**	372A	Joint Sealer, Hot Poured	L.F.	10A			
	556-C	Granite Bridge Curb, Mod	L.F.	~~290~~			288
	572	Bridge Railing	L.F.	~~260~~			262
	373	Rubber Joint Material	L.F.	~~144~~			162

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

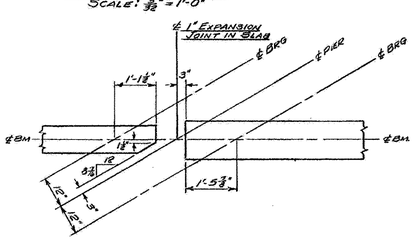
TOWN OF Dorset
ROUTE No. US 7 LOG STA. 185+81
SUPERSTRUCTURE LAYOUT
South Overpass (Sta. 189+)
SCALE 1" = 10'-0"
SURVEYED BY Delano
DRAWN BY EAB/AHS CHECKED BY AHS/AJC
PROJECT No. F 019-2(12)
SHEET 33 OF 130



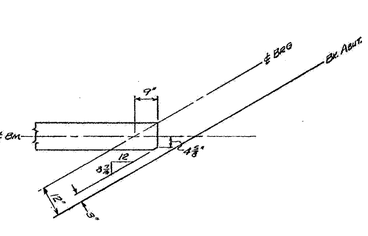
Framing Plan
Scale: 1/32" = 1'-0"



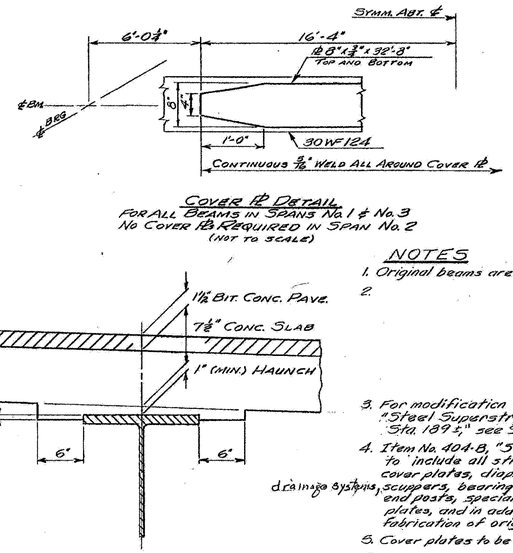
Interior WF Beam Cut-off @ Piers
(Not to Scale)



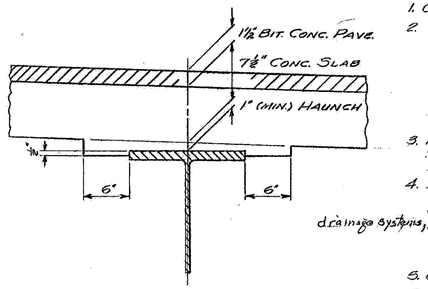
Exterior WF Beam Cut-off @ Piers
(Not to Scale)
Typical for Left Side - Right Side Similar - See Std. Sh. SCB-D5-62



WF Beam Cut-off @ Abuts.
(Not to Scale)

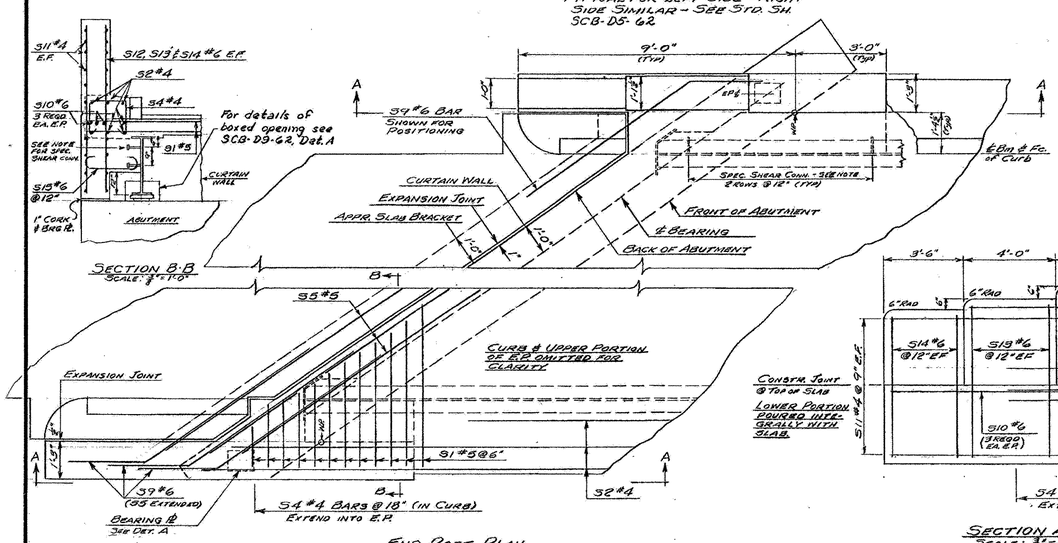


Cover Pl Detail
For All Beams in Spans No. 1 & No. 3
No Cover Pls Required in Span No. 2
(Not to Scale)

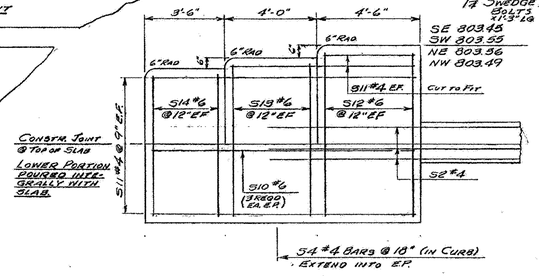


Detail of Beam Haunch
(Non-Composite)
Scale: 1 1/2" = 1'-0"

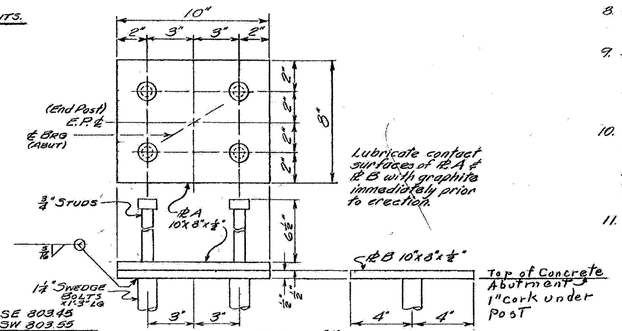
Notes
1. Original beams are to be reused.
2.
3. For modification of Item No. 404-B, "Steel Superstructure, Modified, at Sta. 189+," see Special Provisions.
4. Item No. 404-B, "Steel Superstructure, Mod." to include all structural steel such as cover plates, diaphragms and connections, scuppers, bearing devices for beams and end posts, special shear connectors, shim plates, and in addition all necessary refabrication of original beams.
5. Cover plates to be as per detail this sheet.
6. Interior diaphragms and connections to be installed as per Std. Sh. SCB-D7-62, detail D. Diaphragms and connections of piers as per Std. Sh. SCB-D7-62, "Details A & D. Pier Expansion detail as per Std Sh. SCB-D2-62, Det. A, and SCB-D3-62.
7. ——
8. Bearing device for beams as per Std. Sh. SCB-D8-62, Det. A. Bearing device for end posts as per detail "A" this sheet.
9. Special shear connectors to be welded to the beam web (in 2 vertical rows) opposite each end post. 3/16"Ø x 6 1/2" lg. welding studs shown. Alternate connectors, such as straps, may be used with the written approval of the Engineer.
10. Refabrication of original beams shall include cutting ends of beams as detailed this sheet and as shown on Std. Sh. SCB-D5-62 providing new holes in beam flanges for bearing plates and slotted holes in beam webs for reinforcing steel as per Std. Sh. SCB-D8-62, Det. A.
11. For modification of Item No. 109, "Maintenance of Traffic for Bridge Project, Modified, at Sta. 189+," see Special Provisions.



End Post Plan
Scale: 3/8" = 1'-0"



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



Detail "A"
End Post Bearing Detail
(4 Reqd)
Scale: 1/4" = 1"

BRIDGE 52
FOR REFERENCE ONLY

SHEET 8 OF 14
BR 102 OF 113

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF Dorset
ROUTE NO. US 7 LOG STA. 185+81
Superstructure Details
South Overpass (Sta 189±)
SCALE As Noted
SURVEYED BY Delano
DRAWN BY AHS CHECKED BY A.J.C.
PROJECT NO. F019-2(12)
SHEET 34 OF 130

drainage systems

INDEX OF SHEETS

SHEET NO.		
1.		Title Page
2-3.		Typical Cross Section of Improvement (3" Bit.Conc.Pav't. Item 861-8 Mod.)
4-5.		Quantity Sheets (Items)
6.		Quantity Sheet (Drainage)
7-8.		Earthworks
9-10.		Plan & Profile
11.	A-81	Drilling & Blasting
12.	B-1	Banking Tables
13.	B-5	Slope Grading
*14.	B-6	Muck Excavation
15.	B-16	Traffic Islands
16.	C-1	Curbs
17.	C-1a	Precast Concrete Curbs
18.	C-2b	Drive Entrances
19.	D-2	C.R.M.
20.	D-3	Gutters
21.	D-4	Flushing Basin
22.	D-8	Concrete D.I.s
23-24.	D-9-D-10	D.I. Tops
25.	D-11	D.I. Grates
26.	D-16	Precast Curb D.I.
27.	E-1	Barricades, Signs & Lights
28.	E-31	Identification Sign
29.	G-1	Steel Beam Guard Rail
30.	G-3	Three Cable Guard Rail
31.	G-4	Marker Posts
32.	J-1	Project Markers
33-52.	BR-201 thru BR-220 of Sta. 268	
53.	SCB-30-62	
54-62.	SCB-01,02,03,04,05,06,07,08,09.-62	
63-64.	SB-56-62 Sheets 1 and 2 of 2	
65.	SC-21	
66.	H-1a	Metal Bin
67.	H-1a	Metal Bin
68-71.	Details of Conc. Box at 485+00±	
72.	Details of Plate Pipe on "B" Line	
73-91.	Mainline Cross Sections 82-95	
92-94.	A-Line Cross Sections	
95-95B.	B-Line Cross Sections	
96-109.	BR 221-234 Cross Sections	
*14-A	B-10	EMBANKMENT ON A SLOPE
*14-B	B-11	SLOPE STABILIZATION

PROJECT NAME & NUMBER TYPE, PAVT. AREA
DORSET F 019-2(12)C-2 BIT. CONC. 11,861 S.Y.

RECORD PLANS

MATERIALS

SUB BASE OF GRAVEL, GRAVEL BACKFILL & SUBBASE OF SAND — CONNORS PIT — DORSET, VT.
SUBBASE OF CRUSHED ROCK — VERMONT MARBLE CO. — FLORENCE, VT.
CONCRETE CLASS AA, B & D, PEA STONE & GRITS — W. E. DAILEY (PLANT) — MANCHESTER, VT.
BITUMINOUS CONCRETE — W.E. DAILEY — SO. SHAFTSBURY.
ASPHALT — MOBIL OIL CO. — E. PROVIDENCE, R.I.
TAR EMULSION — TRISOL CORP. — FRAMINGHAM, MASS.
REINFORCING STEEL — REPUBLIC STEEL CO. — BUFFALO, N.Y.
STRUCTURAL STEEL — A. LEO NASH STEEL CO. — PITTSFIELD, MASS.
& VERMONT STRUCTURAL STEEL CORP. — BURLINGTON, VT.
METAL BIN-TYPE RETAINING WALL — SYRO STEEL CO. — GIRARD, OHIO.
BRIDGE RAILING — VT. STRUCTURAL STEEL CORP. — BURLINGTON, VT.
BRIDGE PAINT — W. C. LANDON, INC. — RUTLAND, VT.
RUBBER JOINT MATERIAL — A. C. HORN PRODUCTS CO. — LONG ISLAND CITY, N.Y.
TREATED TIMBER PILING — KOPPERS PRODUCTS CO. — NASHUA, N.H.
METAL CULVERT PIPES — NORTHEASTERN CULVERT CORP. — WESTMINSTER, VT.
REINF. CONC. PIPE, GUARD RAIL ITEMS, TREATED TIMBER CURB & JUTE MATTING — S.T. GRISWOLD & CO., INC. — WILLISTON, VT.

CONTRACTOR — W. H. MORSE CONSTR. CO., INC. BENNINGTON, VT.
RESIDENT ENGINEER — F. G. WIMBLE.
RECORD PLANS — A. G. SPIDLE.

CONTRACT DATED — MARCH 17, 1966.
STARTED — MARCH 22, 1966.
COMPLETED — JUNE 29, 1966.
ACCEPTED — JUNE 29, 1966.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT

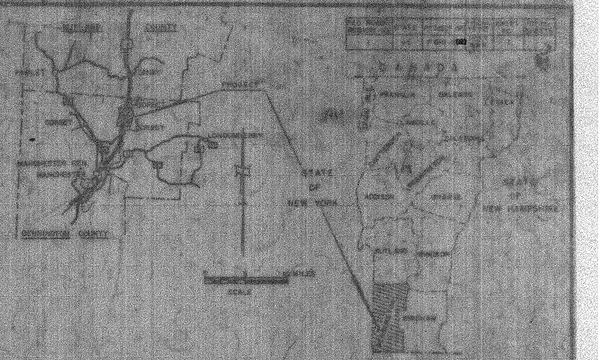
FEDERAL AID PROJECT

TOWN OF DORSET
COUNTY OF BENNINGTON
U.S. ROUTE #7
MANCHESTER — DANBY ROAD

BEGINNING AT A POINT APPROXIMATELY 4.923 MILES NORTH OF THE DORSET-MANCHESTER TOWN LINE AND EXTENDING NORTHERLY 0.447 MILES.

INCLUDING BRIDGES

LENGTH OF ROADWAY	= 130.5	FEET =	0.404 MILES
LENGTH OF BRIDGES	= 230.0	FEET =	0.043 MILE
LENGTH OF CONTRACT	= 2,360.5	FEET =	0.447 MILES



STA 264+00.0
END CONTRACT #1 | BEGIN CONTRACT #2
PROJECT F 019-2 (12)

ADT (1965	2600
ADT (1985	4280
DHV (1985	710
D	61
T	
V	50

STA 179+50
END PROJECT F 019-2 (8) FAP 12 120 | BEGIN PROJECT F 019-2 (12)

STA 266+86.0
STOP ROADWAY
BEGIN BRIDGE

STA 269+16.0
END BRIDGE
RESUME ROADWAY

STA 494+00
END PROJECT F 019-2 (12) | BEGIN PROJECT F 019-2 (13) (1959)
END CONTRACT #2 | FAP 12 120

VT RY INC.

CONSTRUCTION AREA

NO EQUATION

CONVENTIONAL SIGNS

TOWN LINE	
PUBLIC LAND	
STONE WALL	

0 500 1000
SCALE IN FEET

PROJECT DORSET
NUMBER F 019-2(12) C-2 LENGTH .447 MI.
TYPE BITUMINOUS CONCRETE PAVEMENT
CONTRACTOR W. H. MORSE CONSTRUCTION CO., INC.
BENNINGTON, VT. YEAR 1965-66
LOCATION Beginning at a point 4.923 miles north of the Dorset-Manchester Town Line and extending northerly 0.447 miles including bridges.

FOR 2440 2640

ASST. CHIEF ENGINEER
10/3/66

BRIDGE 54
FOR REFERENCE ONLY

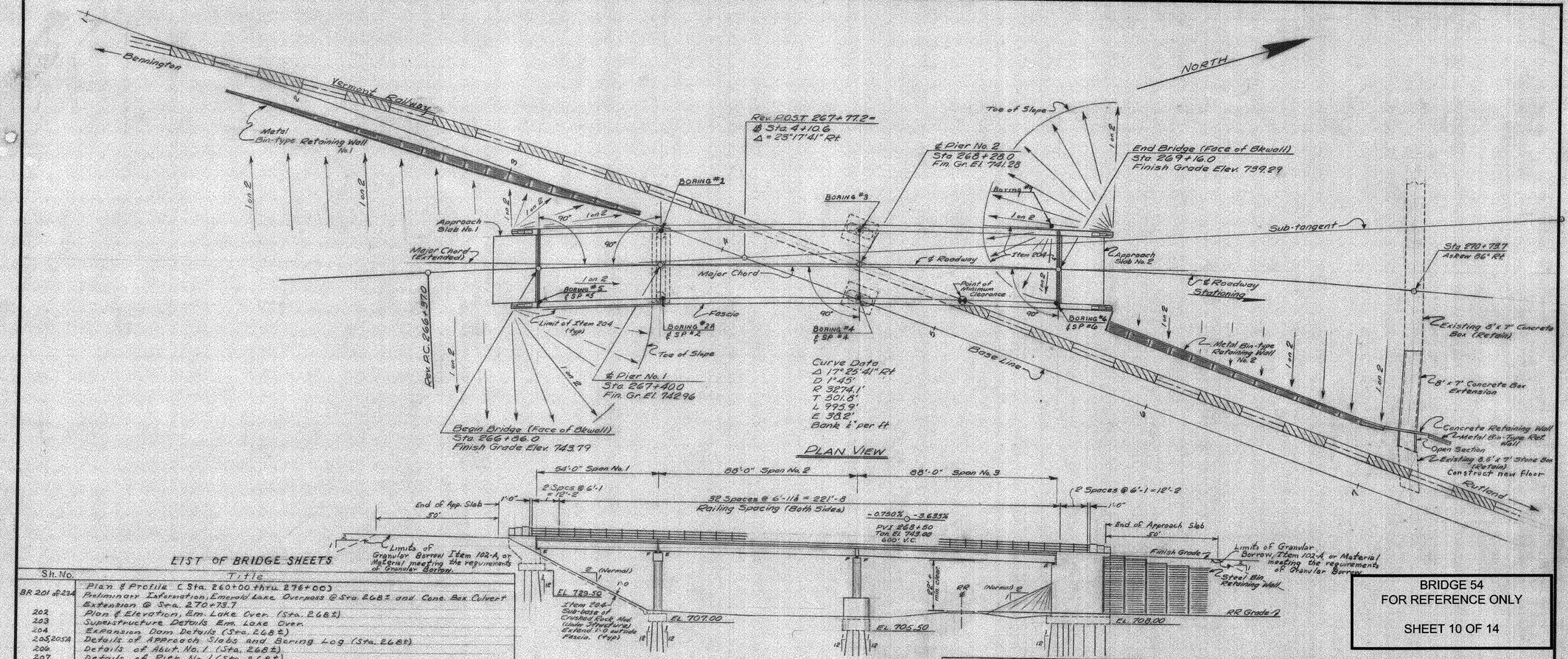
SHEET 9 OF 14

CONTRACT NO. 2

DORSET F 019-2(12) C-2
CONTRACTOR — W. H. MORSE CONST. CO. INC.
BENNINGTON, VT.
CONST. COMPLETED — JUNE 29, 1966.
RECORD PLANS — A. G. SPIDLE.

F 019-2(12)

109



PLAN VIEW

ELEVATION VIEW

LIST OF BRIDGE SHEETS

Sh. No.	Title
BR 201 of 234	Plan & Profile ℄ Sta. 260+00 thru 276+00)
	Preliminary Information, Emerald Lake Overpass @ Sta. 268± and Conc. Box Culvert Extension @ Sta. 270+73.7
202	Plan & Elevation, Em. Lake Over. (Sta. 268±)
203	Superstructure Details Em. Lake Over.
204	Expansion Dam Details (Sta. 268±)
205, 205A	Details of Approach Slabs and Boring Log (Sta. 268±)
206	Details of Abut. No. 1 (Sta. 268±)
207	Details of Pier No. 1 (Sta. 268±)
208	Details of Pier No. 2 (Sta. 268±)
209	Details of Abut No. 2 (Sta. 268±)
210	Reinforcing Details - Abut No. 2 (Sta. 268±)
211	Reinforcing Steel Schedule, Emerald Lake Overpass @ Sta. 268±
212	Metal Bin-Type Retaining Wall No. 1 (Sta. 268±)
213	Metal Bin-Type Retaining Wall No. 2 (Sta. 268±)
214	Plan and Elevation, Box Culvert Extension (Sta. 270+73.7)
215	Inlet Details, Box Culvert Extension (Sta. 270+73.7)
216	Outlet Details, Box Culvert Ext. (Sta 270+73.7)
217	Reinforcing Steel Schedule, Box Culv. Ext. (Sta. 270+73.7)
218	Det. of Existing Abut @ Sta. 266+95±
219	Details of Existing Piers @ Sta. 267+79.2± and Sta. 268+72.4±
220	Details of Ex. Abut @ Sta. 269+70±
R 221 to 234 of P 234	Base Line Sections for Emerald Lake Overpass @ Sta 268±

Reference Sheets

Std. Sh. H-1a Metal Bin-Type Retaining Wall, Item 592
Std. Sh. H-1b
Std. Sh. SCB-30-62
Std. Sh. SCB-D1-62
Std. Sh. SCB-D2-62
Std. Sh. SCB-D3-62
Std. Sh. SCB-D4-62
Std. Sh. SCB-D5-62
Std. Sh. SCB-D6-62
Std. Sh. SCB-D7-62
Std. Sh. SCB-D8-62
Std. Sh. SCB-D9-62
Std. Sh. SB-56-62 Sheets 1 and 2 of 2
Std. Sh. SC-21

GENERAL NOTES

1. Superstructure to be as per Std. Sh. SCB-30-62 and SCB-D1 through D9-62, modified as follows:
   (a) No concrete curtain wall at abutments - use Pier diaphragm scheme * instead (See Sect. C-C, Expansion Dam Detail sheet); (b) Special beam framing at Pier No. 2
2. Bridge railing as per Std. Sh. SB-56-62, sheets 1 & 2 of 2. Curb as per Std Sheet SCB-D6-62 Detail A
3. For addition General Notes see Std. Sh. SCB-D1-62
4. Bearing devices at abutments and Pier No. 1) as per Std Sh. SCB-D8-62 details. Bearing device for Pier No. 2 as per detail on Superstructure Detail sheet.
5. For modification of Item No. 109, Maintenance of Traffic for Bridge Project # Sta. 268±, see Special Provisions.

No.	Item	Unit	Bridge Net	Bridge Final	Retn. Wall, Pre-Box Extension Net	Retn. Wall, Pre-Box Extension Final
101-B	Solid Rock Excavation	C.Y.	~~157~~	159	*8	
106-C	Unclassified Channel Excavation	C.Y.	~~1035~~	1043	*562	
107	Structure Excavation	C.Y.	~~880~~	890	*1130	
109	Maint. of Traffic for Br. Proj. Mod.	L.S.	1 +	1		
204	Sub-base of Cr. Rock, Mod (Under Str.)	C.Y.	101*	101		
282	Gravel Backfill	C.Y.	492'	492	*2748	
318	Tar Emulsion for Bridge Floors	Gal.	365'	*		
361-B	Bituminous Concrete Pave. Mod.	Ton	76	*		
401-B	Concrete Class B, Mod.	C.Y.	46'	46	*129	
401-D	Concrete Class D, Mod.	C.Y.	~~363~~	597		
602	Reinforcing Steel	Lb.	~~175755~~	154,743*	*12550	
603	Spiral Reinforcement 632D#	L.S.	1 +	1		
604-A	Structural Steel	Lb.	~~325,113~~	327,207		
607	Asphaltic-Asbestos Coating	S.Y.	39'	33		
612	Removal of Present Superstr.	L.S.	1 +	1		
501	Furn. Equip. for Driving Piles	L.S.	1 +	1		
502-B	Treated Timber Piling (In Place)	L.F.	~~3516~~	3,999		
502-B	Treated Timber Piling (Cut-Offs)	L.F.	0	1,028		
506-A	Permanent Steel Sheet Piling	S.F.	~~880~~	882		
522	Stone Fill for Slope Protection	C.Y.			* 82	
556-C	Granite Bridge Curb	Ea.	~~512~~	526		
572	Bridge Railing	L.F.	495'	495		
592	Metal Bin-type Retaining Wall	S.F.			*6400	

* Roadway Items *	Final		Net
373-Rubber Joint Material	174	L.F.	~~175~~
512-A Joint Sealer, Hot Poured	L.F.		152
401-AA Concrete Class AA Mod ck 2.46			

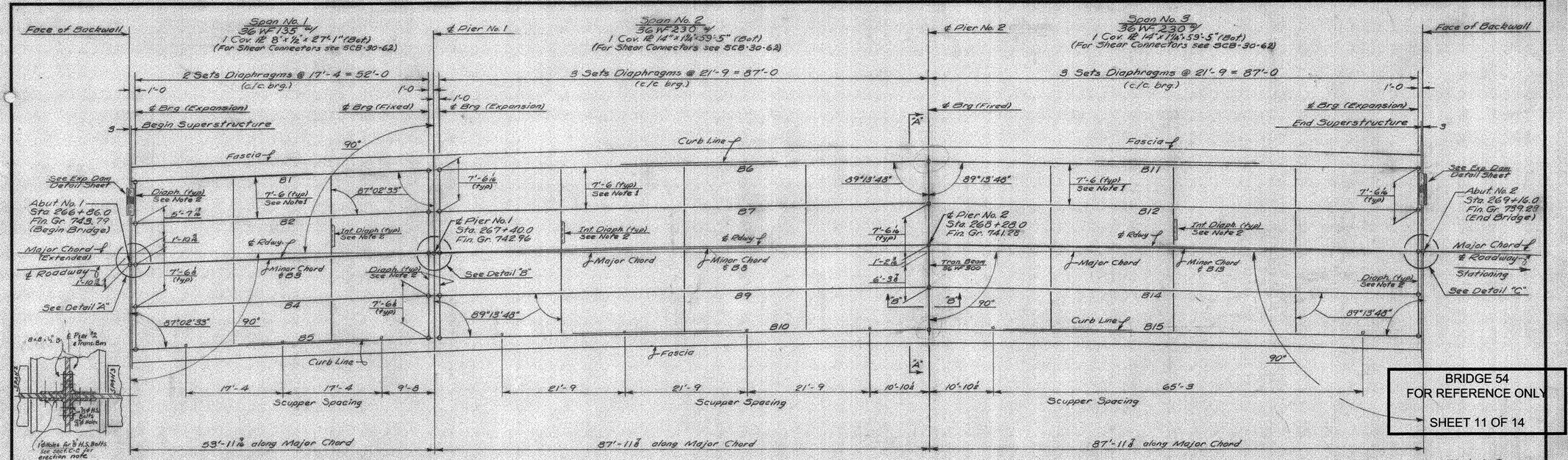
BRIDGE 54
FOR REFERENCE ONLY

SHEET 10 OF 14

CONTRACT #2
BR 302 of 234

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF DORSET
ROUTE NO. US 7 LOG STA. 264+78
PLAN & ELEVATION VIEWS
EMERALD LAKE OVERPASS (STA 268±)
SCALE 1" = 20'-0"
SURVEYED BY JEWETT
DRAWN BY AHS CHECKED BY RWK
PROJECT NO. F019-2(12)
SHEET 31 OF 129



NOTES:
1. The center beam in each span is at the major chord of that span. All beams in each span are parallel.
2. All diaphragms to be 13 LJ 42.7 and parallel to the abutments and piers. Diaphragms at abutments and Pier No. 1 as per Std. Sh. SCB-D7-62-"D". Note: no diaphragms at Pier No. 2. Interior diaphragms as per Std. Sh. SCB-D7-62, def. D & E.
3. Additional notes on "Plan & Elevation" sheet.
4. Payment for rubber water stops to be included in unit price bid for Concrete Class AA

SUPERSTRUCTURE QUANTITIES

	ITEM NO.	ITEM	UNIT	NET			FINAL
	918	Tar Emulsion for Bridge Floors	GAL.	310			
	361-B	Bituminous Concrete Pave. Med.	TON	65			*
	401-AA	Concrete Class AA, Mod.	C.Y.	~~240~~			250
	402	Reinforcing Steel	LB.	(See Schedule)			
	403	Spiral Reinforcement (6320 lbs)	L.S.	1			1
	404-A	Structural Steel	LB.	~~325,250~~			322,207
	442	Removal of Present Superstr.	L.S.	1			1
	556-C	Granite Bridge Curb Mod	L.F.	457			457
	572	Bridge Railing	L.F.	495			495
	372-A	Joint Sealer Hot Poured	L.F.	152			*
	373	Rubber Joint Material	L.F.	~~175~~			124
*		Roadway Items					

BRIDGE 54
FOR REFERENCE ONLY

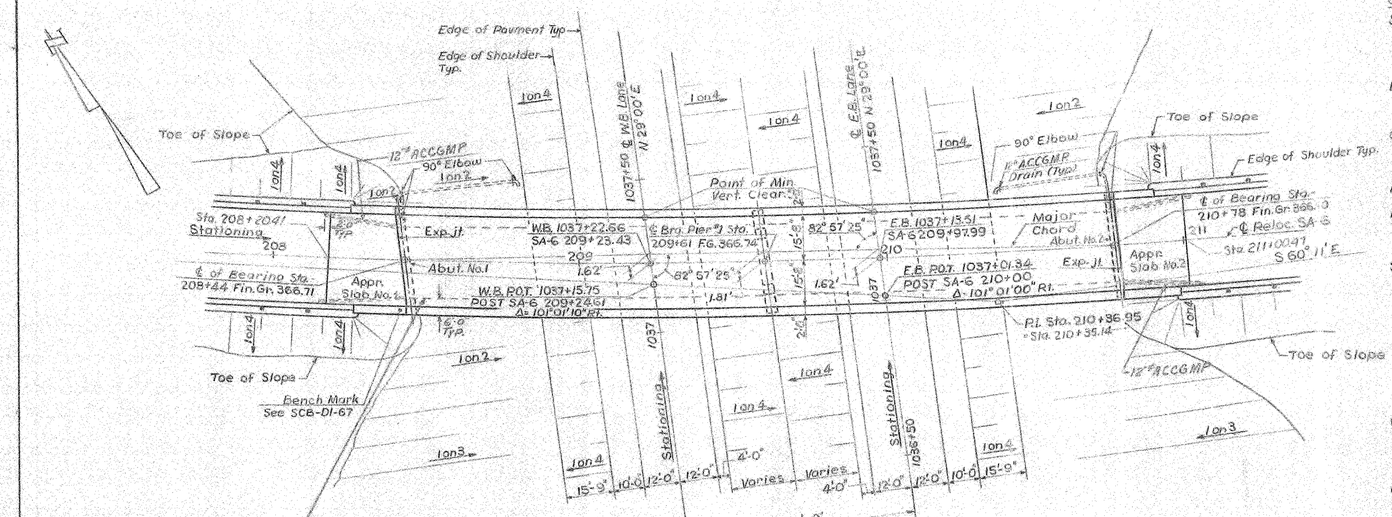
SHEET 11 OF 14

CONTRACT #2

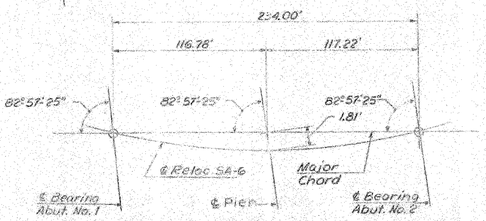
BR 203 of 234

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF Dorset
ROUTE NO. US 7 LOG STA. 264+70
SUPERSTRUCTURE DETAILS
EMERALD LAKE OVERPASS (SFN 2682)
SCALE As Shown
SURVEYED BY Jewett
DRAWN BY AHS CHECKED BY RNK
PROJECT NO. F 019-2(12)
SHEET 35 OF 109



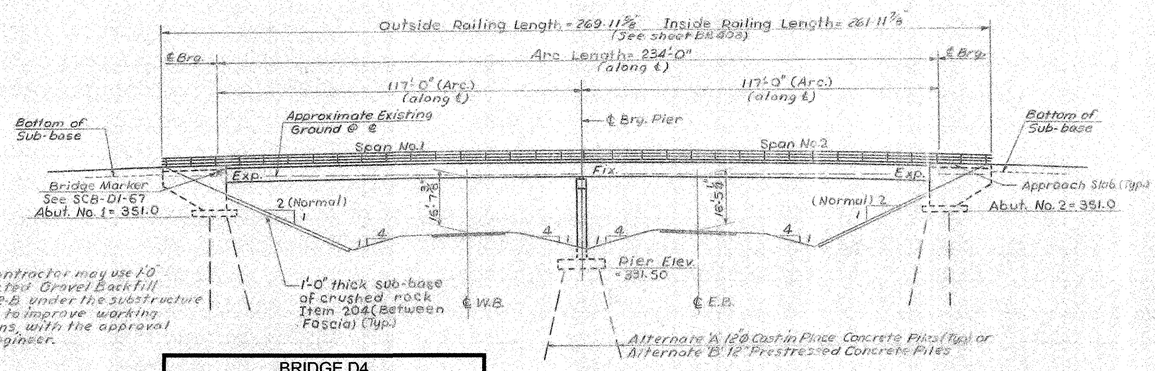
PLAN
Scale: 1" = 20'



LAYOUT FROM MAJOR CHORD
No Scale

CURVE DATA

SA-6
Δ = 10° 12' 20" Lt.
D = 1° 30'
R = 3819.72
T = 341.09
L = 680.37
E = 15.2
Bank = 5/16"/ft.



NOTE:
The Contractor may use 1'-0" of compacted Gravel Backfill Item 232-B under the substructure footings to improve working conditions, with the approval of the Engineer.

ELEVATION
Scale: 1" = 20'

BRIDGE D4
FOR REFERENCE ONLY

SHEET 12 OF 14

Revisions:
Revised to 2'-0" Brush Curb 6-13-68 RPG & RFS
Included Sleeves for Water and Sewer Pipe 7-26-68 RPG

GENERAL NOTES:

SPECIFICATIONS:
All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Highways and Bridge Construction, dated 1964 and AASHO Standard Specifications dated 1965, as modified by Current Interim Specifications.

LIVE LOAD:
Structure designed for HS 20-44 Loading modified for National System of Interstate Highways applied in accordance with the provisions of the AASHO Standard Specifications Article 1.2.8.

CONCRETE:
All exposed edges of concrete shall be chamfered 1"x1" unless otherwise noted. All construction joints to be made as Shown on SCB-DS-67, Details B & C unless otherwise noted.

REINFORCEMENT:
All 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. The Final coat of field paint shall be green.

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 piers and abutments not otherwise treated shall be covered with Water Repellent (Item 440).

FIELD BOLTING:
Field bolted connections shall be made with 7/8"ø A325 High Strength Bolts. A490 bolts are not allowed.

ABUTMENTS & PIERS:
The top surfaces of all abutments and piers shall be sloped 1/4"/ft. from the front edge of abutment, curtainwalls 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 pointing and incidental items are completed.

PILE LOADING TESTS:
Pile loading Tests, Item 505, shall be used and paid for only when directed by the Engineer.

PILES: Cast-in-Place Concrete Piling or Prestressed Concrete Piling Type will be chosen by alternate bids. Vertical design load 40 Tons / Pile
Horizontal Design load - 2 Tons / Pile

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

BITUMINOUS CONCRETE PAVEMENT:
Bituminous Concrete Pavement Item 361 Modified, Type IV shall be applied in two courses.

INDEX OF DRAWINGS

BR 401 PLAN & ELEVATION
BR 402 QUANTITY SHEET
BR 403 PRELIMINARY INFORMATION SHEET
BR 404 BORING LOG
BR 405 BORING LOG
BR 406 SUPERSTRUCTURE DETAILS
BR 407 SUPERSTRUCTURE DETAILS
BR 408 SUPERSTRUCTURE DETAILS
BR 409 JOINT DETAILS
BR 410 ABUTMENT NO. 1 DETAILS
BR 411 ABUTMENT NO. 2 DETAILS
BR 412 FOOTING DETAILS AND TYPICAL SECTIONS
BR 413 PIER DETAILS
BR 414 APPROACH SLAB NO. 1
BR 415 APPROACH SLAB NO. 2
BR 416 REINFORCING STEEL DETAILS
BR 417 REINFORCING STEEL DETAILS.
BR 418 SCB-30-67T

STANDARD DRAWINGS

SCB-DI-67 BENCH MARK DETAILS & GENERAL NOTES.
SCB-DS-67 DECK REINFORCMENT LAYOUT AT PIERS.
SCB-D6-67 CONSTRUCTION JOINT DETAILS.
SB-R2-65 STEEL RAILING DETAILS.
SB-R1-64 (SHEETS 1 & 2) ALUMINUM RAILING DETAILS.
SCB-D2-67 HAUNCH DETAILS.
SB-AS-65 CURB JOINT DETAILS AT PIER.
PRESTRESSED CONCRETE PILES - JOINT COMMITTEE AASHO COMMITTEE ON BRIDGES & STRUCTURES AND PRESTRESSED CONCRETE INSTITUTE.
SB-P1-66 CAST-IN-PLACE CONCRETE PILING.

DESIGN STRESSES

Concrete f'_c = 3,000 p.s.i.
f_c = 1,200 p.s.i.
Structural Steel = 20,000 p.s.i. (A36, other steels as per AASHO specs.)
Reinforcing Steel (Intermediate)
f_s = 20,000 p.s.i. (Tension)
f_s = 16,000 p.s.i. (Compression)

VERMONT
STATE HIGHWAY DEPARTMENT
TOWN OF FAIR HAVEN
U.S. ROUTE 4

SA-6 RELOCATED OVER U.S. ROUTE 4 RELOCATED

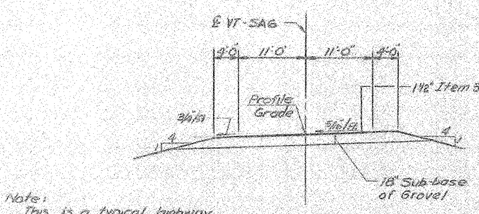
PLAN AND ELEVATION

McFARLAND-JOHNSON
CONSULTING ENGINEERS
BINGHAMTON, NEW YORK

DESIGNED ERK	CHECKED R.C.	DATE 10-20-67	
DRAWN R.D.	IN CHARGE H.G.S.	SCALE AS Shown	

PROJECT NO. F020-1(4)SH OF 332

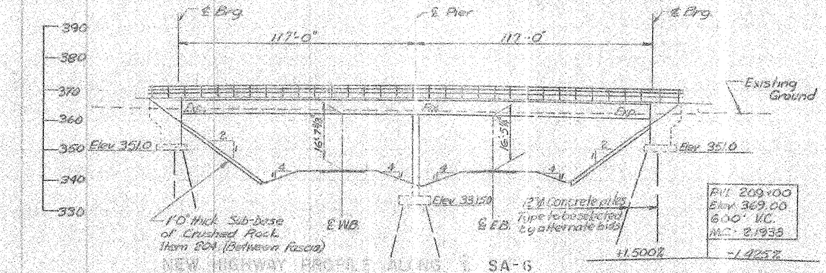
CONTRACT NO. 1 BR 401



Note:
This is a typical highway section and does not show widening for bridge.

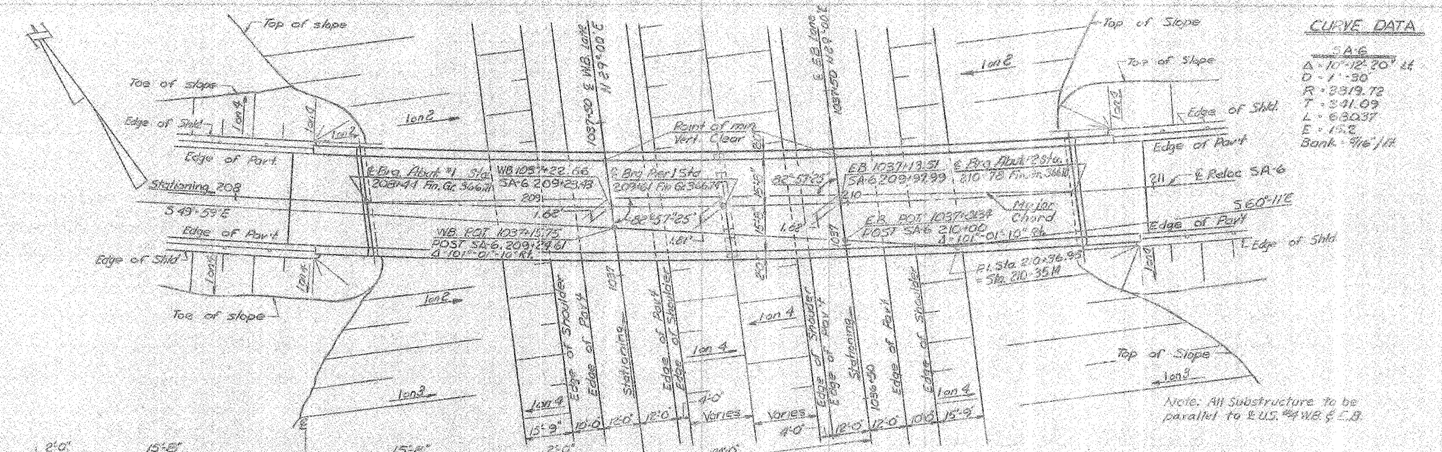
NEW HIGHWAY SECT. STA. 208+00 TO STA 211+00

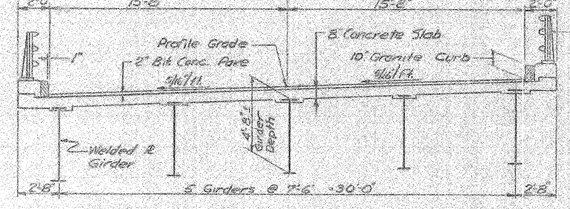
SCALE 1" = 10'



NEW HIGHWAY PROFILE ALONG ℄ SA-6

SCALE 1" = 30' HORIZ 1" = 20' VERT





TYPICAL SECTION

SCALE 1½" = 1'-0"

For Railing Details see SB-P1-64 Sheet 1 of 8 & SB-R2-65

For Curb Details see SCB-D567.

For Details of Deck Construction see BR 413

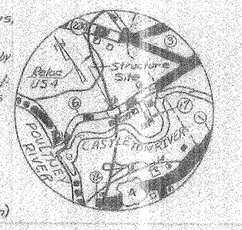
NOTES

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 AASHO Standard Specifications dated 1965, as modified by current Interim Specifications.

Structure designed for HS-20-44 loading modified for National System of Interstate Highways applied in accordance with the provisions of the AASHO Standard Specifications Article 1.2.8.

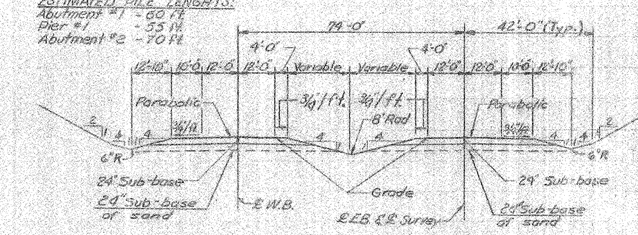
Design Stresses

Concrete - f'_c = 3000 psi - f_c = 1200 psi;
Structural Steel - f_s = 20000 psi (A36 other steels as per AASHO specifications)
Reinforcing Steel - f_s = 20,000 psi (tension)
f_s = 16,000 psi (compression)



CURVE DATA

A-6
Δ = 10°-12'-20" Lt
D = 1°-30'
R = 3819.72'
T = 341.09'
L = 680.37'
E = 15.2'
Bank = 9/16"/ft.



TYPICAL U.S. ROUTE 4 SECTION
E.B. STATION 1037+00 TO 1037+50
W.B. STATION 1037+00 TO 1037+50
SCALE 1" = 20'

EXISTING STRUCTURE

HIGHWAY NO.	U.S. 4 — NAME OF HIGHWAY: U.S. ROUTE 4
STRUCTURE NO.	4 — COUNTY: RUTLAND — TOWN: FAIR HAVEN
PROJECT NO.	F020-1(5) — LOCATION: SA-6 RELOCATION OVER U.S ROUTE 4 RELOCATION
	0.3 MILE WEST OF SA-6 FROM INTERSECTION OF SA-6 AND VT 22A
RAISED LOCATION OF EXISTING ROADWAY	
TYPE OF EXISTING SUPERSTRUCTURE	
CONDITION AND CAPACITY RATING OF EXISTING STRUCTURE	
WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE?	COST OF REMOVAL
SHOULD EXISTING STRUCTURE BE USED TO ACCOMMODATE TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE	
SHOULD NEW TEMPORARY STRUCTURE BE BUILT?	
GREATEST HIGH WATER SURFACE ELEV. AT SECTION STRUCTURE	WATERWAY TO ACCOMMODATE
LOWEST HIGH WATER OF EXISTING STRUCTURE	
SKEW OF EXISTING STRUCTURE	CLEARANCE TO EXTREME H.W.
TYPE OF EXISTING GUARD RAILING	CLEARANCE TO EXTREME H.W.
IS IT SAFE FOR HIGH DESIGN FLOOD CONDITIONS?	
DOES ALL WATER AT ALONG ELEVATION PASS THROUGH CONTROL STRUCTURE?	
IS IT SAFE AT HIGH DESIGN FLOOD?	
ADDITIONAL MATERIAL NEEDED FOR NEW STRUCTURE	

NEW STRUCTURE

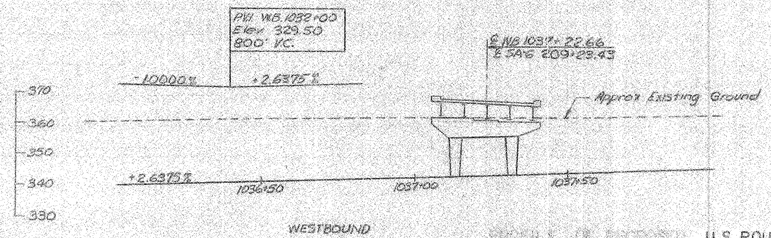
RECOMMENDED TYPE OF STRUCTURE	8 SPAN CONTINUOUS - CURVED WELDED PLATE GIRDER - COMPOSITE
RECOMMENDED CLEAR ROADWAY WIDTH	117'-0", 117'-0"
RECOMMENDED SKEW TO ℄ OF STRUCTURE	117'-0", 117'-0"
ALIGNMENT OF STRUCTURE	
ELEVATION OF TOP OF ROADWAY AT ℄ OF STRUCTURE	
ELEVATION OF TOP OF ROADWAY AT ENDS OF STRUCTURE	
IS MIN. WATER OPENING TO PASS THROUGH NEW STRUCTURE?	
DOES STREAM FLOW IN A KNOWN AND DEFINITE CHANNEL	
LOW WATER ELEVATION AT NEW STRUCTURE	
MINIMUM ELEVATION OF BOTTOM OF SUPERSTRUCTURE	
VELOCITY OF STREAM AT HIGH WATER STAGE	ESTIMATED SCOURING
AREA FILL OF END	ENDS BELOW GROUND LINE
CHARACTER OF SOIL	DEPTH
WATER AREA MADE ABOVE NATURAL OR ARTIFICIAL	
VEHICLE GUARD RAILING REQUIRED	NO
SIDEWALKS REQUIRED ON ℄ OF ROADWAY	2" BITUMINOUS CONCRETE 8" CONCRETE
CURBING REQUIRED	
PROVISION FOR PUBLIC UTILITIES	YES
TYPE OF PILE	40 TON PILE YES
	PRESTRESSED CONCRETE PILES

See Below

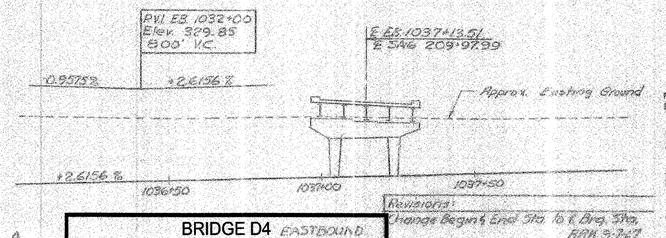
FOUNDATION INFORMATION

NEW HIGHWAY PROFILE OF PROPOSED U.S. ROUTE 4

SCALE 1" = 20'



WESTBOUND



EASTBOUND

Revisions:
Change Begin & End Sta. to ℄ Brg. Sta. BRH 9-7-67
Revised Location BRH 9-7-67
Revised Pier Type BRH 9-7-67

RECOMMENDED FOR APPROVAL

R.P. Lunt	CONSTRUCTION ENGINEER	8/10/67 DATE
[illegible]		8/10/67
E.W. Stickney		8/11/67
P.M. Conrad		8/11/67

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

U.S. ROUTE 4
FAIR HAVEN
4
WB 1037+23
EB 1037+14
SA-6 RELOC. OVER U.S. RTE. 4 RELOC.

McFARLAND-JOHNSON
CONSULTING ENGINEERS

DESIGNED	DRAWN	TRACED	CHECKED	QUANTITIES CHECKED
JJM	JJM	WDC	RCP	7-67

F020-1(4) — SHEET NO. 532

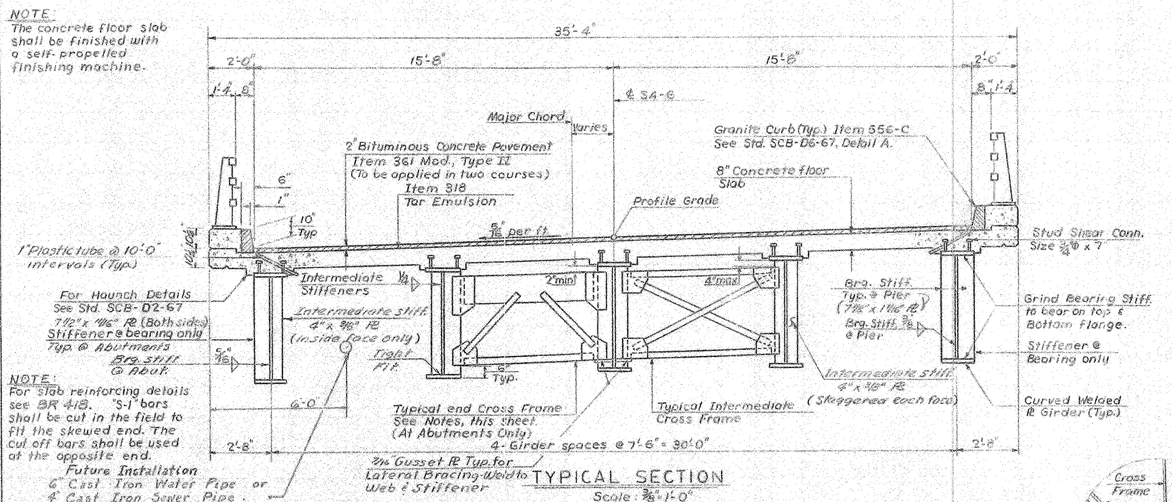
Revisions:
Pier Fig Elev. Vertical Clearance, Pavement Type SA-6 Section BRH 12-6-67

CONTRACT NO. 1 — BR 403

BRIDGE D4 EASTBOUND
FOR REFERENCE ONLY

SHEET 13 OF 14

NOTE:
The concrete floor slab shall be finished with a self-propelled finishing machine.



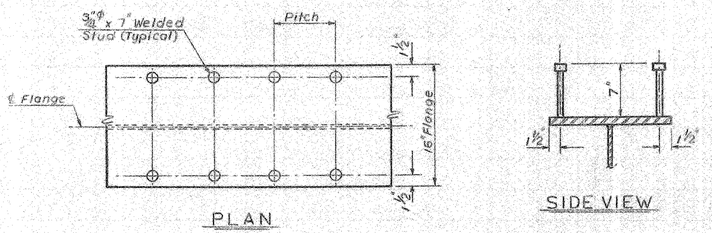
TYPICAL SECTION
Scale: 3/8" = 1'-0"

NOTE:
For slab reinforcing details see BR 418. "S-1" bars shall be cut in the field to fit the skewed end. The cut off bars shall be used at the opposite end.

Future Installation
6" Cast Iron Water Pipe or 4" Cast Iron Sewer Pipe.
For Details see BR 401

GIRDER	RADIUS	LENGTH SPAN No.1	LENGTH SPAN No.2	TOTAL LENGTH
G1	3,804.72'	117'-0 5/16"	117'-0 5/16"	234'-0 5/16"
G2	3,812.22'	117'-0 1/16"	117'-0"	234'-0 1/16"
G3	3,819.72'	117'-0"	117'-0"	234'-0"
G4	3,827.22'	116'-11 15/16"	116'-11 15/16"	233'-11 7/8"
G5	3,834.72'	116'-11 13/16"	116'-11 13/16"	233'-11 11/16"

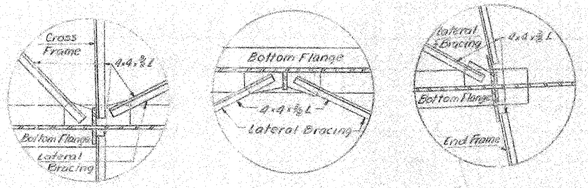
GIRDER LENGTHS-CENTER TO CENTER OF BEARING ALONG CENTERLINE OF GIRDER.



PLAN

SIDE VIEW

SHEAR CONNECTOR
No Scale

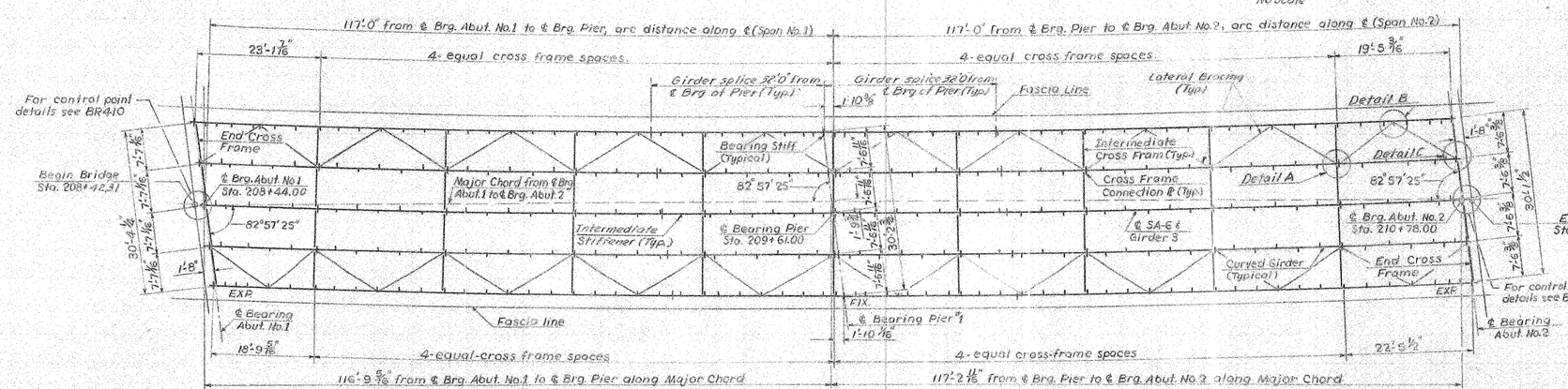


DETAIL A

DETAIL B

DETAIL C

LATERAL BRACING DETAILS
No Scale



FRAMING PLAN
Scale: 3/32" = 1'-0"

NOTE:
Cross-frames are to be radial from centerline.

NOTES
1. For General Notes, see BR 401.
2. For Joint Details, see BR 409.
3. For Beam Haunch Details, see SCB-D2-67.
4. All studs are to be 3/4Φ x 7" welded studs. If 7/8Φ studs are used, increase the spacing shown for 3/4Φ studs by 50%.
5. CROSS FRAME NOTES: All gusset connection plates shall be 7/16" plates. Gusset plates shall be welded to stiffners with a 5/16" fillet weld. All angles shall be L4x4x3/8 angle.
6. All shop connections for cross frames shall be 5/16" fillet welds. All field connections shall be 7/8Φ high strength bolts.
7. Connection plates shall be bolted to stiffeners.

BRIDGE D4
FOR REFERENCE ONLY

SHEET 14 OF 14

VERMONT
STATE HIGHWAY DEPARTMENT
TOWN OF FAIR HAVEN
U.S. ROUTE 4

SA-6 RELOCATED OVER
U.S. ROUTE 4 RELOCATED

SUPERSTRUCTURE DETAILS

McFARLAND-JOHNSON
CONSULTING ENGINEERS
BINGHAMTON, NEW YORK

DESIGNED T.F.O.	CHECKED R.C.	DATE 12-20-67	
DRAWN R.D.	IN CHARGE H.G.C.	SCALE AS NOTED	

PROJECT NO. F020-1(4) SH 767 OF 832

CONTRACT NO. 1

BR 406

Revision: Added Note No 7. R.F.G. 3-26-69