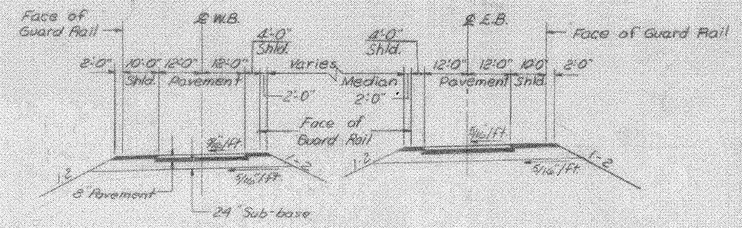
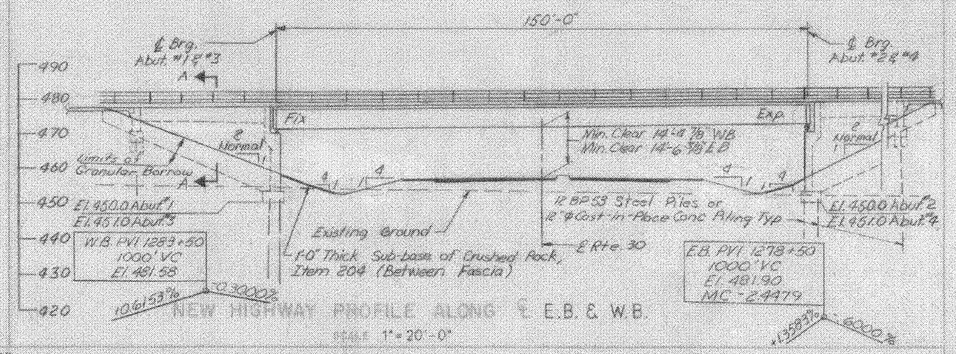


NEW HIGHWAY SECT. STA. 1274+00 TO STA. 1279+00

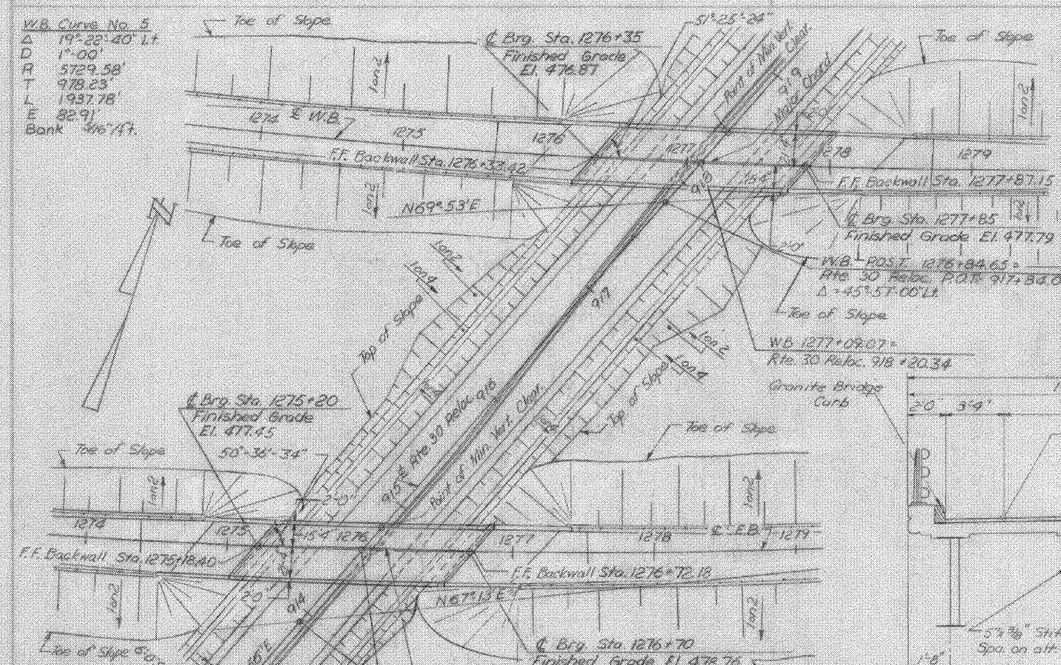
SCALE 1"=20'-0"



NEW HIGHWAY PROFILE ALONG ℄ E.B. & W.B.

SCALE 1"=20'-0"

W.B. Curve No. 5
Δ 19°-22'-40" Lt.
D 1°-00'
R 5729.58'
T 978.23'
L 1937.78'
E 82.91'
Bank 5/16"/Ft.



E.B. Curve No. 7
Δ 24°-42'-00" Lt.
D 1°-00'
R 5729.58'
T 1254.49'
L 2470.00'
E 135.73'
Bank 5/16"/Ft.

PLAN

SCALE 1"=50'-0"

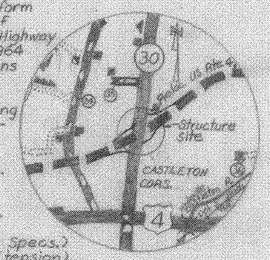
NOTES

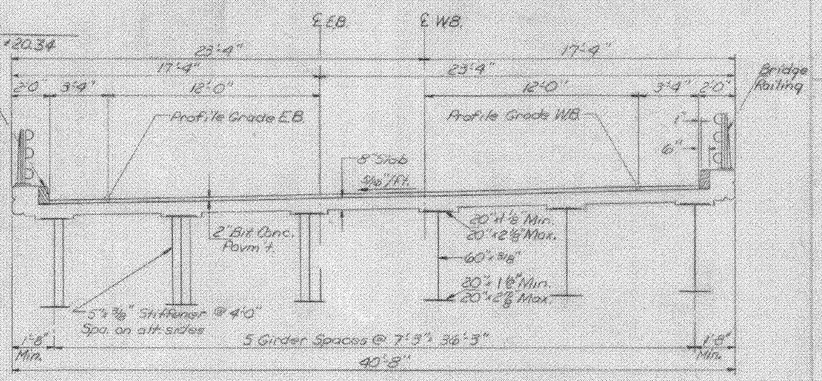
All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Highway and Bridge Construction date April 1964 and the AASHO Standard Specifications dated 1965, as modified by current Interim Specifications.

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; fc = 1200 psi.
Structural Steel - fs = 20,000 psi.
(A 36, other steels as per AASHO Specs.)
Reinforcing Steel - fs = 20,000 psi. (tension)
(Intermediate Grade) fs = 18,000 psi. (compression)

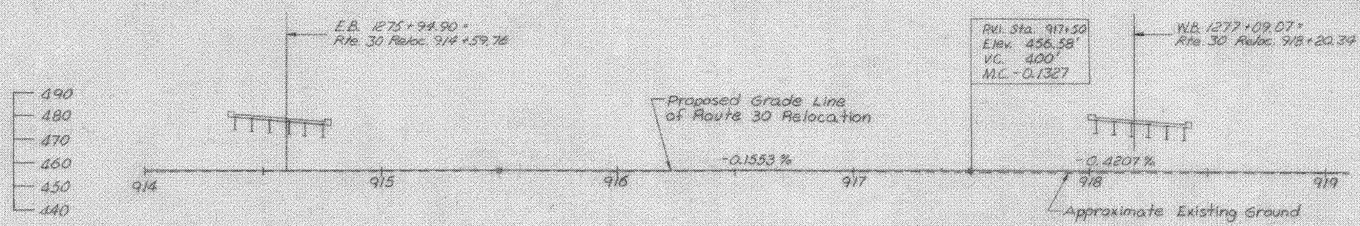




Note:
1. For Railing Details, see SB-R1-64 & SB-R2-65

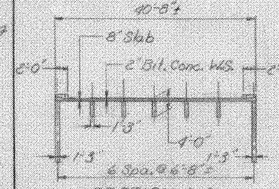
TYPICAL SECTION

SCALE 1"=4'-0"



PROFILE OF PROPOSED RTE 30 RELOCATION

SCALE 1"=30'-0"



SECTION A-A

SCALE 1"=5'-0"

RECOMMENDED FOR APPROVAL	CONSTRUCTION ENGINEER	DATE
RECOMMENDED FOR APPROVAL		5/10/68
RECOMMENDED FOR APPROVAL		5/13/68
APPROVED BY		5/13/68

HIGHWAY NO.	U.S. 4
NAME OF HIGHWAY	U.S. ROUTE 4
STRUCTURE NO.	10
COUNTY	RUTLAND
TOWN	CASTLETON
PROJECT NO.	AP-020-1(50)
LOCATION	U.S. ROUTE 4 RELOCATION OVER ROUTE 30 RELOCATION

0.6 MILE NORTH ALONG EXISTING ROUTE 30 FROM ITS INTERSECTION WITH EXISTING U.S. ROUTE 4

EXISTING STRUCTURE

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

NEW STRUCTURE

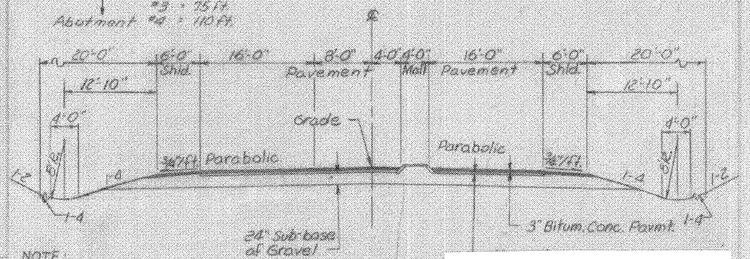
1. RECOMMENDED TYPE OF STRUCTURE 2-SINGLE SPAN BRIDGES, WELDED PLATE GIRDER - COMPOSITE
2. RECOMMENDED CLEAR SPAN OF BRIDGE W.B. 150'-0", E.B. 150'-0"
   MEASURED PARALLEL TO ℄ NEW HIGHWAY W.B. 150'-0", E.B. 150'-0"
   MEASURED AT RIGHT ANGLES TO ℄ STREAM ——
3. ARE THERE OBSTRUCTIONS TO A FREE FLOW IN THE STREAM? SHOWN PER DRAWING ——
4. ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE ——
5. EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE —— —— SOURCE OF INFORMATION ——
6. IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? ——
7. DOES STREAM REACH ITS MAXIMUM FLOW WITHIN ELEVATION REQUIRED? —— IS ORDINARY HIGH WATER ——
8. LOW WATER ELEVATION AT NEW STRUCTURE ——
9. DRAINAGE AREA IN ACRES ABOVE STRUCTURE —— —— CHARACTER OF TERRAIN ——
10. IS STREAM EVER DRY ——
11. HEIGHTS OF STREAM AT HIGH WATER STAGE —— —— ESTIMATED DISCHARGE ——
12. AREA FULL OPENING —— —— AREA BELOW ORDINARY H.W. ——
13. CHARACTER OF BOTTOM —— —— DRIFT —— —— I.E. ——
14. ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE ——
15. VERTICAL CLEARANCE ABOVE FLOOD ELEVATION ——
16. ARE SIDEWALKS REQUIRED? IF SO, ON WHAT SIDE? NO —— BOTH SIDES ——
17. RECOMMENDED TYPE OF PAVEMENT 2" BITUMINOUS CONCRETE 8" CONCRETE
18. TRAFFIC TO BE MAINTAINED UNDER THIS CONTRACT —— —— ONE OR TWO WAYS? —— PROBABLE COST ——
19. PROBABLE COST OF CLEARING AND CHANNEL STREAM CHANNEL AT STRUCTURE ——
20. SHOULD PROVISION BE MADE FOR PUBLIC UTILITIES? NO
21. ESTIMATED RAILROAD LOAD ON STRUCTURE —— —— SHOULD PILES BE DRIVEN? YES —— SEE BELOW —— SEE BELOW

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION. OTHER BORINGS MAY BE ENCOUNTERED AT ANY SIDE OF ABUTMENT LOCATION.

Estimated length of Piles:
Abutment #1 : 80 to 100 ft.
#2 : 115 to 125 ft.
#3 : 75 ft.
Abutment #4 : 110 ft.

12" ϕ Cast in Place 40 T/ Pile
12 BP53 Steel Piles 58 T/ Pile



NOTE:
For location of 4'-0" mall see Relocated Route 30 Alignment Data Sheet.

TYPICAL RELOC. RTE. 30 STATION 914+00 TO 92

SCALE 1"=10'-0"

FAIR HAVEN – RUTLAND
BHF MEMB(2)
SHEET 20 OF 45
BRIDGE 10 E & W
FOR REFERENCE ONLY

RELOCATED U.S. ROUTE 4 IN THE TOWNS OF FAIR HAVEN – CASTLETON

U.S. 4 W.B. 1277+10 E.B. 1276+95

U.S. ROUTE 4 RELOC. OVER ROUTE 30 RELOC.

McFARLAND – JOHNSON CONSULTING ENGINEERS

DESIGNED BY	W.M.H.	DRAWN BY	B.R.K.	DATE	SHEET NO.
CHECKED BY	J.T.B.	IN CHARGE	R.C.C.		12/68
APPROVED BY					201 / 255

9.77g. Grade Beam, R.E.C. 12-13-68 6. Route 30 ditch lines R.E.C. 9-16-68
7. Route 4 slope lines E.C.C. 9-16-68 1. Route 30 Ditch Lines B.R.K. 7-1-68
8. Made Joints 1 to curb R.E.C. 9-16-68 2. Pile Type B.R.K. 7-1-68

REVISIONS:
3. Ext. Conc. Girder Width B.R.K. 7-1-68
4. Steel Girder Flange Width B.R.K. 7-1-68
5. Removed Cheekwalls B.R.K. 7-1-68

F 020-1(8)

BR 1003