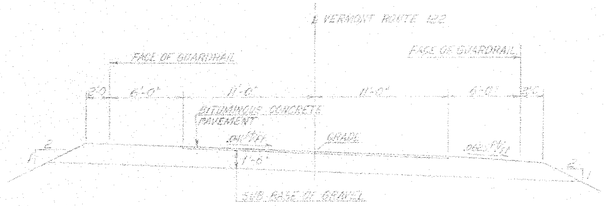
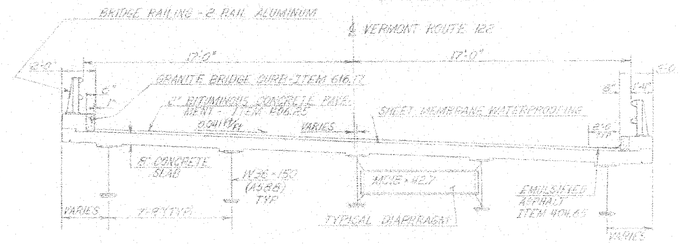
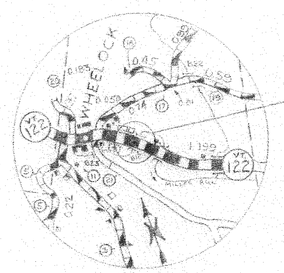


U.S. HIGHWAY SECTION — BELOW SPRINGHOUSE
SCALE: 1/8" = 1'-0"

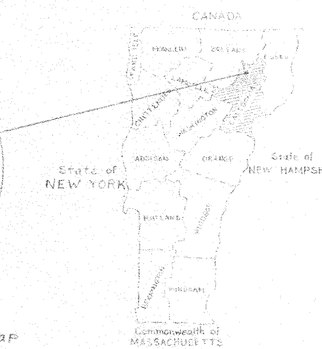


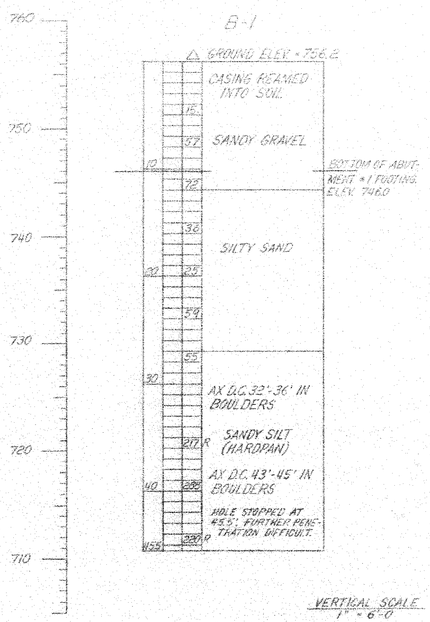
BRIDGE TYPICAL SECTION
SCALE: 1/4" = 1'-0"

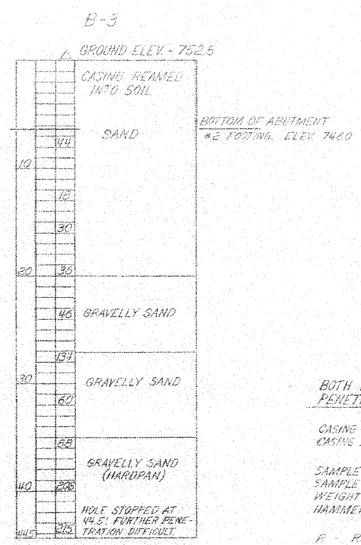
PROFILE OF VERMONT ROUTE 122
SCALE: 1" = 20'-0



LOCATION MAP
Traced from town map





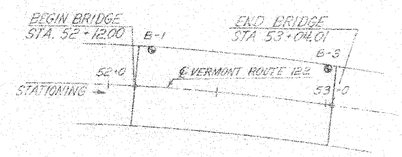


BOTH BORINGS STANDARD PENETRATION BORINGS

CASING OUTSIDE DIAMETER 3"
CASING INSIDE DIAMETER 2¼"
SAMPLE OUTSIDE DIAMETER 2"
SAMPLE INSIDE DIAMETER 1⅜"
WEIGHT OF HAMMER 140 lbs.
HAMMER FALL 30"

P - REFUSAL
△ - BLOWS ON SAMPLER

BORING LOGS



B-1 STA 52+18 17' LT
B-3 STA 52+98 17' LT

LOCATION OF BORINGS
SCALE: 1" = 30'

EXISTING STRUCTURE

BRIDGE NAME OR EXISTING STRUCTURE: CONCRETE T-BEAM REPLACED TEMPORARILY BY A BAILEY BRIDGE
TYPE OF EXISTING STRUCTURE: CONCRETE T-BEAM
UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE: 10' NUMBER OF EXISTING STRUCTURE: ONE 36' CLEAR SPAN
COST OF REPAIRS: REMOVED EST. COST OF REPAIRS: $2500.00
REQUIRE EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE: No
KNOWN OR HIGH WATER FLOODED ELEVATION AT EXISTING STRUCTURE: 751.3 MATERIAL TO DRAINAGE AREA: 300 SQ. FT.
FLOOD OF RECORD WATER SURFACE ELEVATION AT EXISTING STRUCTURE: UNKNOWN YEAR: N/A EST. DISCHARGE: N/A
TYPE OF EXISTING STRUCTURE: DIAPHRAGM 43' WF W89D WATERWAY AREA (TOTAL OPENING): +300 SQ. FT.
MAX. OF EXISTING STRUCTURE: 35' WATERWAY AREA (TOTAL OPENING): 518 SQ. FT.
TYPE OF TEMPORARY WORK: EXISTING STRUCTURE: SAND
DID THE WATER RISE ELEVATION CAUSE THROUGH EXISTING STRUCTURE: NO OTHER ELEVATION: 755+
UNUSUAL WATERWAY AREA FLOODED BY DEBRIS: UNKNOWN

NEW STRUCTURE

PROPOSED TYPE OF STRUCTURE: SIMPLE SPAN COMPOSITE ROLLED BEAM
RECOMMENDED OVERALL STRUCTURE LENGTH: 92'
CLEAR SPAN LENGTH NORMAL TO STREAM: 86'
SPAN LENGTHS: CENTER TO CENTER OF BEARINGS: 90'
DOES THERE DIRECTIONS TO A DIP IN THE STREAM: YES NO X
DOES STREAM REQUIRE HAVING HIGH WATER ELEVATION PASSABLE: NO IS DRAINAGE RISE RAPIDLY: NO
TYPES OF MATERIAL DISPLACED: GRAVEL AND SAND
A LOT BOULDERS BELOW: 4-12 FT. COMMON OR DRIFT: MODERATE USE: MODERATE TO HEAVY
DRAINAGE AREA IN ACRES: 19456 (30.4 SQ. MI.) CHARACTER OF TERRAIN: HILLY TO MOUNTAINOUS
VELOCITY OF STREAM AT DESIGN STAGE: 13 F.P.S. DESIGN DISCHARGE (CFS): 9,500 CFS.
IS ALL TRAFFIC OBTAINED TO PASS THROUGH NEW STRUCTURE: YES FREE FULL OPENING: 794 SQ. FT.
ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE: 7.12 @ 1500 CFS.
DESIGN HIGH WATER ELEVATION AT NEW STRUCTURE: 753.0 SOURCE OF INFORMATION: COMPUTED
VERTICAL CLEARANCE ABOVE DESIGN STAGE: 2.7'
IS CHECK DISCHARGE 1.1 X 2 SPRING DISCHARGE: 6600 CFS CHECK DISCHARGE WATER SURFACE ELEV.: 751.1 (Q100)
ALLOWABLE WATER SURFACE ELEVATION: 755.2 LOWEST BRIDGE SEAT: 2.0' BRIDGE SEAT
IS DESIGN STAGE AFFECTED BY DOWNSTREAM CONDITIONS: YES IF YES-REASONS: ICE OR DEBRIS JAM AT DOWNSTREAM STRUCTURE.
IS ARE SIDEWALKS REQUIRED: NO WIDTH OF WALKWAY: — CLEAR WIDTH: —
TRAFFIC TO BE MAINTAINED DURING: ITEM NO. 635.10 ONE OR TWO WAYS: ONE ESTIMATED COST: $7500.00
PROVISIONS TO BE MADE FOR PUBLIC UTILITIES: YES - SEE SPECIAL PROVISIONS
IS FOOTING ALLOWABLE LOAD FOR SPREAD FOOTING: 2 Tons/SF DRIVEN MAX. TESTING PRESSURE: 165 Tons/SF
IS PILING DESIGN LOAD: — ESTIMATED LENGTH: — TYPE: —
DESIGN SPECIFICATIONS:
DESIGN LOAD: HS20-44 ALLOWABLE STRESSES: STRUCTURAL STEEL A588 REINFORCING STEEL GRADE 40
TENSION 27,000 psi TENSION 20,000 psi 3,000 psi
COMPRESSION 27,000 psi COMPRESSION N/A 1,670 psi

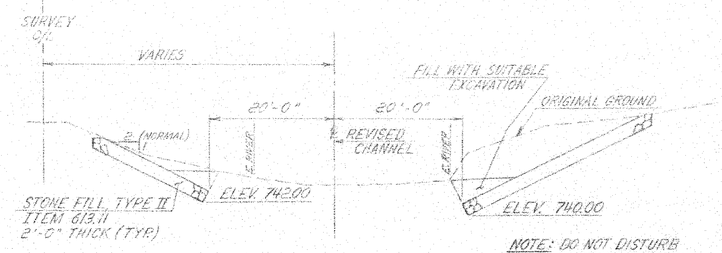
ADDITIONAL DESIGN CONSIDERATIONS

*THE SUPERSTRUCTURE OF THE EXISTING BRIDGE WAS BADLY DAMAGED BY FLOODWATER ON JUNE 21, 1973.

SUPERSTRUCTURE:

STRUCTURAL STEEL WILL BE A588, UNPAINTED.

ROLLED BEAMS WILL BE STRAIGHT. THE DECK WILL CONFORM TO THE ROADWAY ALIGNMENT.



TYPICAL CHANNEL SECTION
SCALE: 1" = 10'-0

NOTE: DO NOT DISTURB STREAM BOTTOM EXCEPT AS REQUIRED TO PLACE STONE FILL.

RECOMMENDED FOR APPROVAL: H. M. Smith 1/4/74 — PROJECT ENGINEER DATE
RECOMMENDED FOR APPROVAL: R.C. Nunn 1/7/74 — PROJECT ENGINEER DATE
SUBMITTED BY: E. B. Stickney 1/4/74 — DIST. ENGINEER DATE
REVISIONS — NO. DESCRIPTION BY & DATE

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OR CITY: WHEELOCK	BRIDGE NO. 12
HIGHWAY NO. VERMONT ROUTE 122	LOG STA. 50+66
	SUR. STA. 52+58

VERMONT ROUTE 122 OVER MILLER RUN
PRELIMINARY INFORMATION SHEET

Designed by: E. ENGLEHARDT	Drawn by: E. ENGLEHARDT
Checked by: JA Richardson	Bridge Design Supervisor
E. Betz 12/73	JA RICHARDSON 2/74
PROJECT: WHEELOCK	PROJECT NO. RS 0259 (2)
Bridge Sheet No. 100	Sheet 11 of 48

STATEWIDE – N.E. REGION
BHF MEMB(19)
SHEET 76 OF 80
BRIDGE No. 12
FOR REFERENCE ONLY