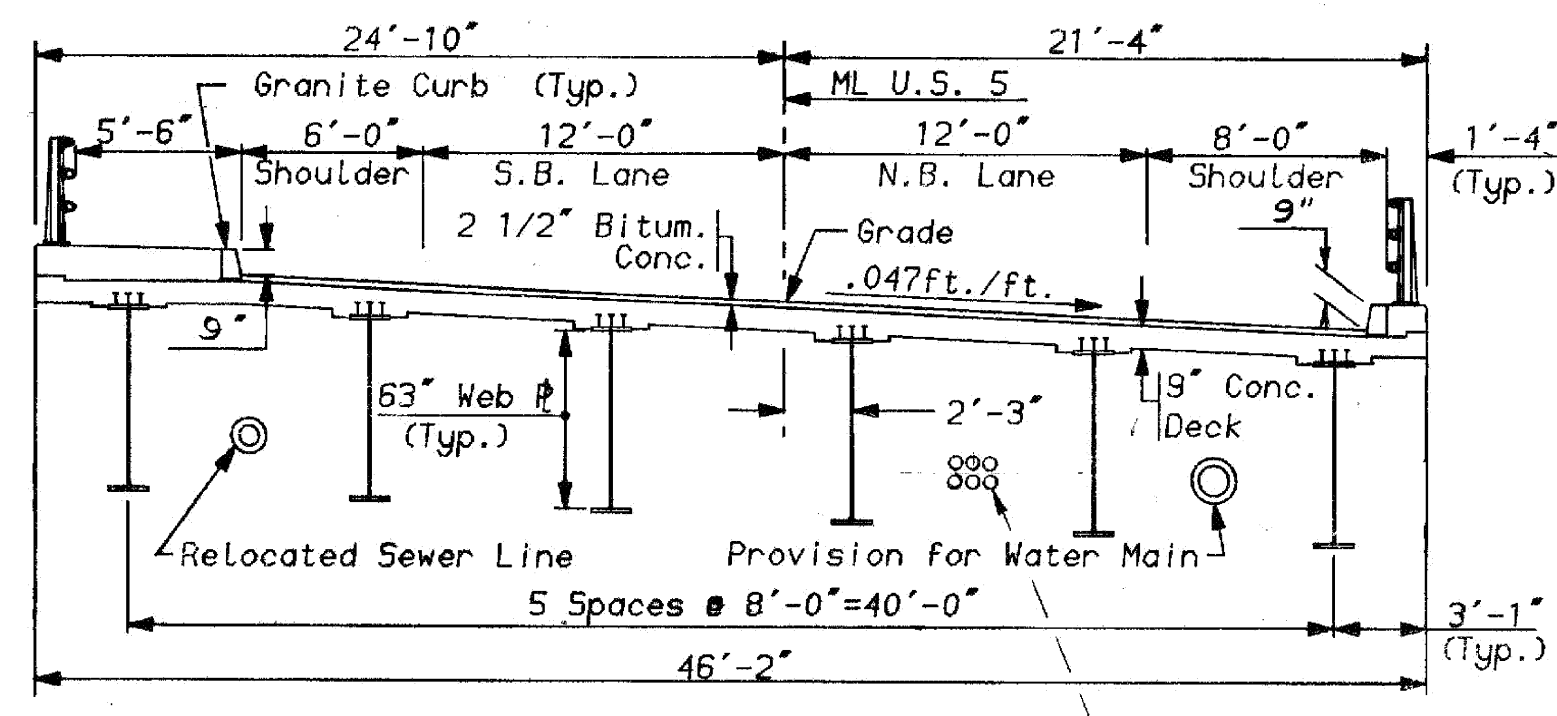
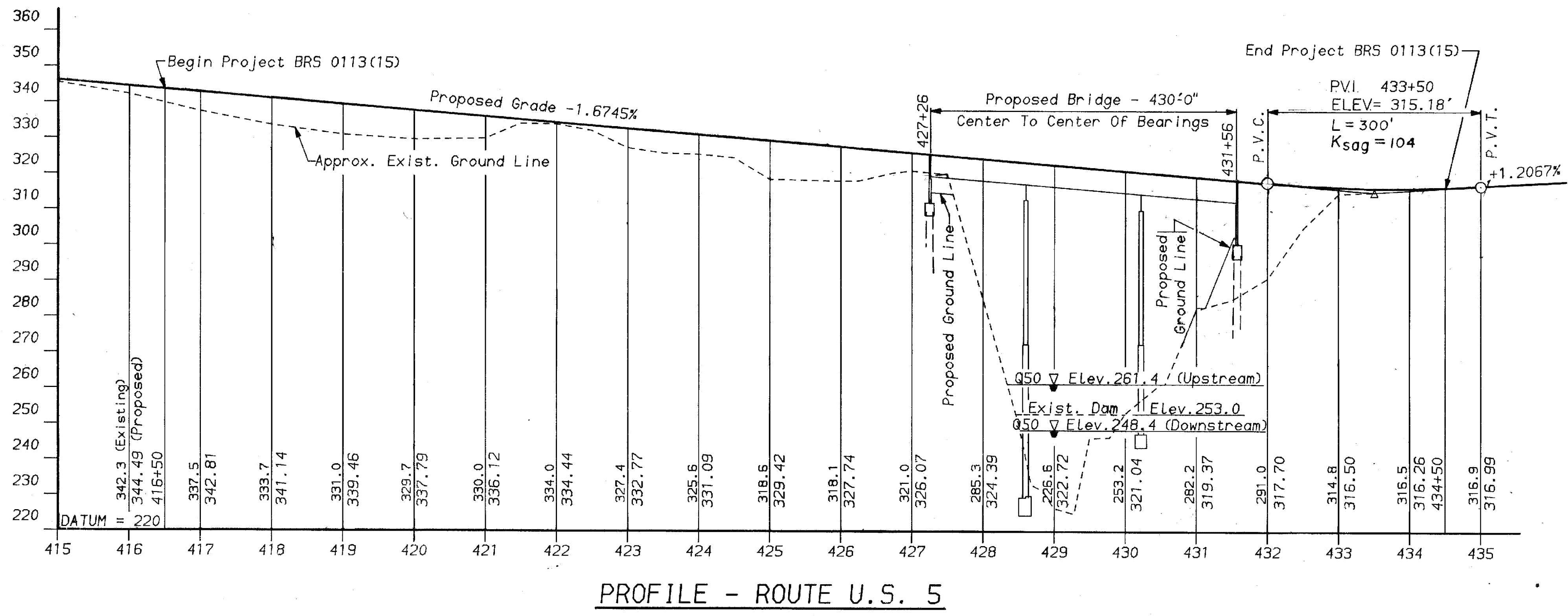


NEW HIGHWAY SECTION - BRIDGE APPROACHES
SCALE: 1" = 6'



BRIDGE TYPICAL SECTION
SCALE: 1" = 6'



PROFILE - ROUTE U.S. 5

SCALES: Vert. 1" = 20'
Horiz. 1" = 100'

EXISTING STRUCTURE

- STRUCTURE TYPE CONCRETE ARCH & T BEAM APPROACHES OVERALL LENGTH 282'-0" INVENTORY RATING
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 25.75' - 25.75' - 130' - 31.5' - 31.5' - 31.5'
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM 24' - 23.5' - 128' - 29.4' - 29' - 29'
- WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 1060 Sq. Ft. VERTICAL CLEARANCE ABOVE STREAMBED 60'±
- WATER SURFACE ELEVATION @ Q 2.33 254.9 WATER SURFACE ELEVATION @ Q 50 261.4
- WATER SURFACE ELEVATION AT FLOOD OF RECORD UNKNOWN YEAR 1936 ESTIMATED DISCHARGE
- DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? YES IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? N.A.
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF N.A.
- TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL LEDGE
- DISPOSITION OF STRUCTURE TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR

NEW STRUCTURE

STRUCTURE GEOMETRY:

- STRUCTURE TYPE CONTINUOUS COMPOSITE WELDED # GIRDER OVERALL LENGTH 430'-0
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 134' - 162' - 134' (MEASURED ALONG ML)
- VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER 90'
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM 130' - 158' - 130'
- WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 1360 Sq. Ft. TO Q100 ELEVATION (ABOVE EXISTING DAM CREST OF ELEV. 253.0)
- ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? YES

HYDRAULIC DATA:

Q 2.33	3000 c.f.s.	WATER ELEVATION	254.9'	VELOCITY	5.5 f.p.s.
Q 10	8100 c.f.s.	WATER ELEVATION	259.2'	VELOCITY	7.0 f.p.s.
Q 25	8300 c.f.s.	WATER ELEVATION	260.6'	VELOCITY	7.9 f.p.s.
Q 50	9500 c.f.s.	WATER ELEVATION	261.4' (See Note 2)	VELOCITY	8.3 f.p.s.
Q 100	11500 c.f.s.	WATER ELEVATION	262.5'	VELOCITY	8.9 f.p.s.

- DRAINAGE AREA 78.1 Sq. Mi. CHARACTER OF TERRAIN ROLLING TO MOUNTAINOUS
- ARE THERE OBJECTIONS TO A PIER IN THE STREAM? NO
- DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO IS ORDINARY RISE RAPID? NO
- NATURE OF NATURAL STREAMBED LEDGE & BOULDERS
- ESTIMATED SCOUR DEPTH 0 to 2' COMMENT ON: DRIFT MODERATE ICE MODERATE
- WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? N.A.
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF N.A.
- VERTICAL CLEARANCE ABOVE Q 100 50'
- ALLOWABLE WATER SURFACE ELEVATION 262.5' LIMITED BY EXISTING CONDITIONS
- IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO IF YES, DESCRIBE
- AVERAGE DAILY LOW FLOW 75 c.f.s. DEPTH 253.3' AVERAGE DAILY HIGH FLOW 300 c.f.s. DEPTH 253.9'
- STREAMBANK OR CHANNEL PROTECTION REQUIRED TYPE IV STONE TO ELEV. 250.0 ON SOUTH RIVER BANK BELOW EXISTING DAM
- DISTANCE TO EXISTING UPSTREAM STRUCTURE 1.45 MI. SPAN 2 @ 62' WATERWAY AREA OF FULL OPENING 0
- DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 800' SPAN 3 @ 80' WATERWAY AREA OF FULL OPENING 0

ALLOWABLE STRESSES:

- DESIGN LIVE LOAD AASHTO HS-25
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4 K.S.F. ON LEDGE 10 K.S.F.
- ALLOWABLE LOAD FOR PILING 9000 P.S.I. TYPE STEEL H-PILES ESTIMATED LENGTH 50 FT. MAXIMUM
- ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27.0 K.S.I.
- ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24.0 K.S.I. COMPRESSION 20.0 K.S.I.
- ALLOWABLE STRESS FOR CONCRETE CLASS A f_c 3,500 P.S.I. f_c 1,400 P.S.I. CLASS B f_c 3,500 P.S.I. f_c 1,400 P.S.I.

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES OR ON TEMPORARY BRIDGE N.A.
- TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WALES N.A. TRAFFIC CONTROL SIGNALS REQUIRED N.A. MINIMUM CLEAR SPAN N.A. MINIMUM CLEAR HEIGHT N.A. MINIMUM WATERWAY AREA N.A. ARE SIDEWALKS REQUIRED? N.A. IF SO, ON WHAT SIDE? N.A.

ADDITIONAL DESIGN CONSIDERATIONS

- SEE GENERAL NOTES, SHEET No. BR 2.
- DESIGN SPECIFICATIONS ARE 1977* A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES WITH SUBSEQUENT INTERIMS, AS AMENDED BY V.I.A.O.T.
- DESIGN LOADING IS V.I.A.O.T. HS25-44 WHICH EQUALS A.A.S.H.T.O. HS20-44 WITH 25% INCREASE
- HYDRAULIC DATA FOR ELEVATIONS BASED ON WHOLE, UNBREACHED DAM WITH CREST AT ELEVATION 253.0. HYDRAULIC DATA FOR VELOCITIES BASED ON DAM BEING REMOVED. EXISTING DAM IS BREACHED.
- Q50 ELEVATION UPSTREAM OF DAM IS AT ELEVATION 261.4. Q50 ELEVATION DOWNSTREAM OF DAM IS ASSUMED TO BE AT ELEVATION 248.4.

* MAJORITY OF PROJECT DESIGNED BEFORE 1983 EDITION WAS RELEASED.

LOAD RATING (TONS)

STRESS LEVELS	TRUCK					
	HS	H	3S2	6 AXLE	3A. STR.	5A. SEMI
INVENTORY 0.55 F _y = 27.5	60	42				
POSTED 0.67 F _y = 33.5	69	101		91	91	97
OPERATING 0.75 F _y = 37.5			125	137		

STEINMAN BOYNTON GRONQUIST & BIRDSALL
CONSULTING ENGINEERS
NEW YORK, N.Y.

RECOMMENDED FOR APPROVAL *Warren B. Jones* 2/13/85
STRUCTURES ENGINEER DATE
RECOMMENDED FOR APPROVAL *Arthur J. Ross* 2/12/85
CHIEF OF DESIGN DATE
APPROVED BY *Frank E. Smith* 2/13/85
DIRECTOR OF ENGINEERING & CONSTRUCTION DATE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WESTMINSTER Bridge No. B33
Log Sta. 432+00
HIGHWAY NO. U.S. 5 Surv. Sta. 430+00

REVISIONS

NO.	DESCRIPTION	BY & DATE
1	ADDED UTILITY SUPPORTS FOR TELEPHONE DUCTS.	GRS 3-21-86
2	CHANGED ALL SUPERSTRUCTURE REINFORCING STEEL FROM PLAIN TO EPOXY COATED.	GRS 4-30-86

U.S. 5 OVER SAXTONS RIVER
PRELIMINARY INFORMATION SHEET
Designed by T. FISHER Drawn by E. REIZE
Checked by P. CHASE date 9/84 Bridge Design Supervisor T. FISHER date 10/84
PROJECT WESTMINSTER - ROCKINGHAM PROJECT NO. BRS 0113 (15)
Bridge Sheet No. BR1 Sheet 78 of 262

STATEWIDE - SOUTHEAST REGION
BHF MEMB(21)
SHEET 20 OF 34
BRIDGE 33
FOR REFERENCE ONLY