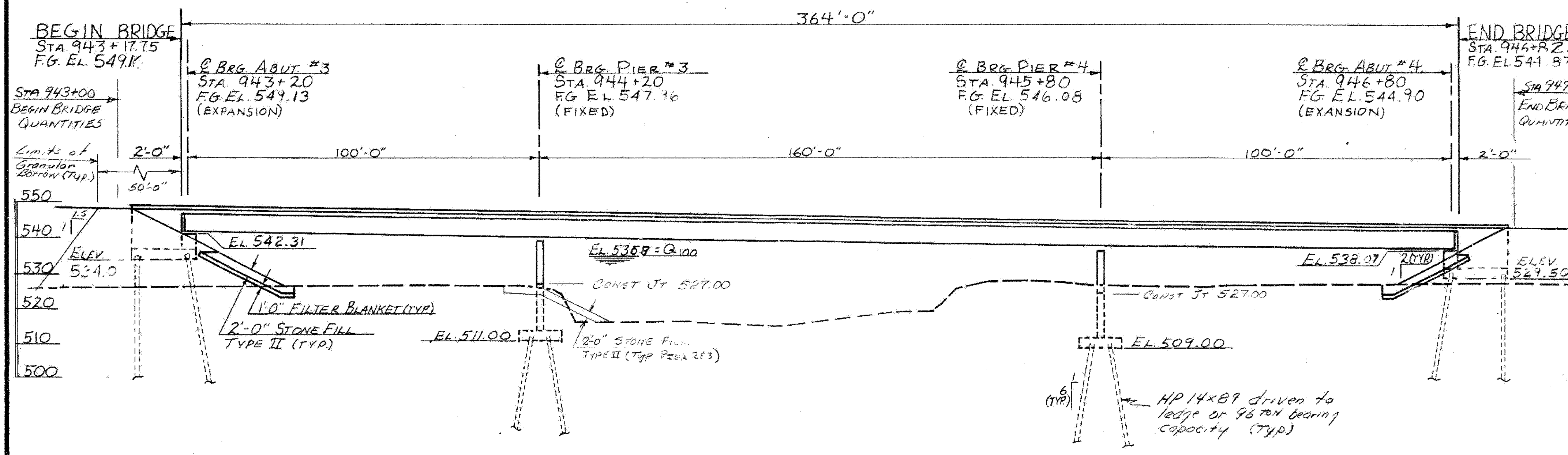


TYPICAL BRIDGE SECTION
SCALE: 1/2" = 1'-0"

STA 956+50
FG. EL. 533.50
1400' V.C.
WB -1.1754% +0.8889%
EB -1.1754% +0.8519%
N.T.S.



EASTBOUND ELEVATION ALONG RIGHT FASCIA
SCALE: 1" = 20'-0"

EXISTING STRUCTURE	
1. STRUCTURE TYPE	OVERALL LENGTH
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS	INVENTORY RATING
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM	VERTICAL CLEARANCE ABOVE STREAMBED
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM)	WATER SURFACE ELEVATION @ 0
5. WATER SURFACE ELEVATION @ 0.25	ESTIMATED DISCHARGE
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD	IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR?
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE?	ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL	DISPOSITION OF STRUCTURE

NEW STRUCTURE	
1. STRUCTURE TYPE	OVERALL LENGTH 364'-0"
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS	100'-0" ; 160'-0" ; 100'-0"
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER	
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM	98'-0" ; 158'-0" ; 98'-0"
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM)	5600 SF. (520 S.M.)
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES?	No

HYDRAULIC DATA:			
1. Q 233	6,000 cfs	WATER ELEVATION	529.1
Q 10	11,000 cfs	WATER ELEVATION	531.9
Q 25	14,500 cfs	WATER ELEVATION	533.5
Q 50	17,000 cfs	WATER ELEVATION	534.6
Q 100	22,000 cfs	WATER ELEVATION	536.8
2. DRAINAGE AREA	242 sq. mi.	CHARACTER OF TERRAIN	ROLLING TO MOUNTAINOUS
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM?	No	IS ORDINARY RISE RAPID?	No
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY?	No		
5. NATURE OF NATURAL STREAMBED	SAND AND SILT		
6. ESTIMATED SCOUR DEPTH	2'-6"	COMMENT ON: DRIFT	SLIGHT
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE?	YES	IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR?	N.A.
8. VERTICAL CLEARANCE ABOVE 0.50	14' @ ABUT #4		
9. ALLOWABLE WATER SURFACE ELEVATION	538.0	LIMITED BY LOW BEAM @ ABUT #4	
10. IS DESIGN STATE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS?	No	IF YES, DESCRIBE	
11. AVERAGE DAILY LOW FLOW	200 cfs	DEPTH	3'
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED	YES - STONE FILL TYPE II W/ GRAVEL FILTER BANK		
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE	1,000'	SPAN	2 @ 59'
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE	1,000'	SPAN	177'-80'

ALLOWABLE STRESSES:	
1. DESIGN LIVE LOAD	AASHTO HS 25
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL	NA ON LEDGE PILES TO LEDGE
3. ALLOWABLE LOAD FOR PILING	19.5 KIPS TYPE HP 14x89 ESTIMATED LENGTH SEE TABLE BELOW
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588	TENSION 27,000 P.S.I.
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60	TENSION 24,000 P.S.I. COMPRESSION 20,000 P.S.I.
6. ALLOWABLE STRESS FOR CONCRETE CLASS A	f _c 3,500 P.S.I. f _t 1,400 P.S.I.
	CLASS B f _c 3,500 P.S.I. f _t 1,400 P.S.I.

ESTIMATED PILE LENGTHS	
WEST BOUND	EAST BOUND
ABUTMENT #1 110'	ABUTMENT #3 100'
PIER #1 100'	PIER #3 90'
PIER #2 140'	PIER #4 140'
ABUTMENT #2 160'	ABUTMENT #4 160'

ADDITIONAL DESIGN CONSIDERATIONS	
INDEX OF SHEETS	
BR 600	PRELIMINARY INFORMATION
BR 601	BRIDGE QUANTITY SHEET
BR 602	PLAN
BR 603	BORING LOGS
BR 604	BORING LOGS
BR 605	BORING LOGS
BR 606	BORING LOGS
BR 607	FRAMING PLAN AND GIRDER ELEVATION
BR 608	CAMBER DIAGRAM & GENERAL NOTES
BR 609	CROSSFRAME & SCUPPER DETAILS
BR 610	GIRDER SPLICE & APPROACH SLAB DETAILS
BR 611	DECK REINFORCING, CURB & RAILING DETAILS
BR 612	EXPANSION DAM DETAILS - I
BR 613	EXPANSION DAM DETAILS - II
BR 614	BEARING
BR 615	ABUTMENT
BR 616	ABUTMENT
BR 617	WINGWALL
BR 618	PIER DECK
BR 619	REINFORCING
BR 620	REINFORCING
BR 621	CHANNEL

LOAD RATING (TONS)						
STRESS LEVELS	TRUCK			3A STR. 4A STR. 5A SEMI		
	H	HS	3S2	6 AXLE	3A STR.	4A STR.
INVENTORY	50	55				
0.55 Fy = POSTED	75	32	91	77	79	37
0.67 Fy = OPERATING			110	101		
0.75 Fy =						

RECOMMENDED FOR APPROVAL *Warren B. Dwyer* 4/25/83
STRUCTURES ENGINEER DATE
RECOMMENDED FOR APPROVAL *J.C. Egan* 4/27/83
CHIEF OF DESIGN DATE
APPROVED BY *[Signature]* 4/27/83
DIRECTOR OF ENGINEERING & CONSTRUCTION DATE

REVISIONS		
NO.	DESCRIPTION	BY & DATE

FAIR HAVEN - RUTLAND BHF MEMB(2)
SHEET 34 OF 45
BRIDGES 20 E & W
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF RUTLAND	Bridge No. 6
Highway No. U.S. 4	Log Sta. 945+00
PRELIMINARY INFORMATION	
U.S. 4 OVER OTTER CREEK	
Designed by G.V. Spilak	Drawn by S. BASCOM
Checked by R.P. Gendron date 2-25-83	Bridge Design Supervisor R.S. HAUPT date
PROJECT WEST RUTLAND-RUTLAND	PROJECT NO. FEGC 020-1(15)
Bridge Sheet No. BR600	Sheet 93 of 377