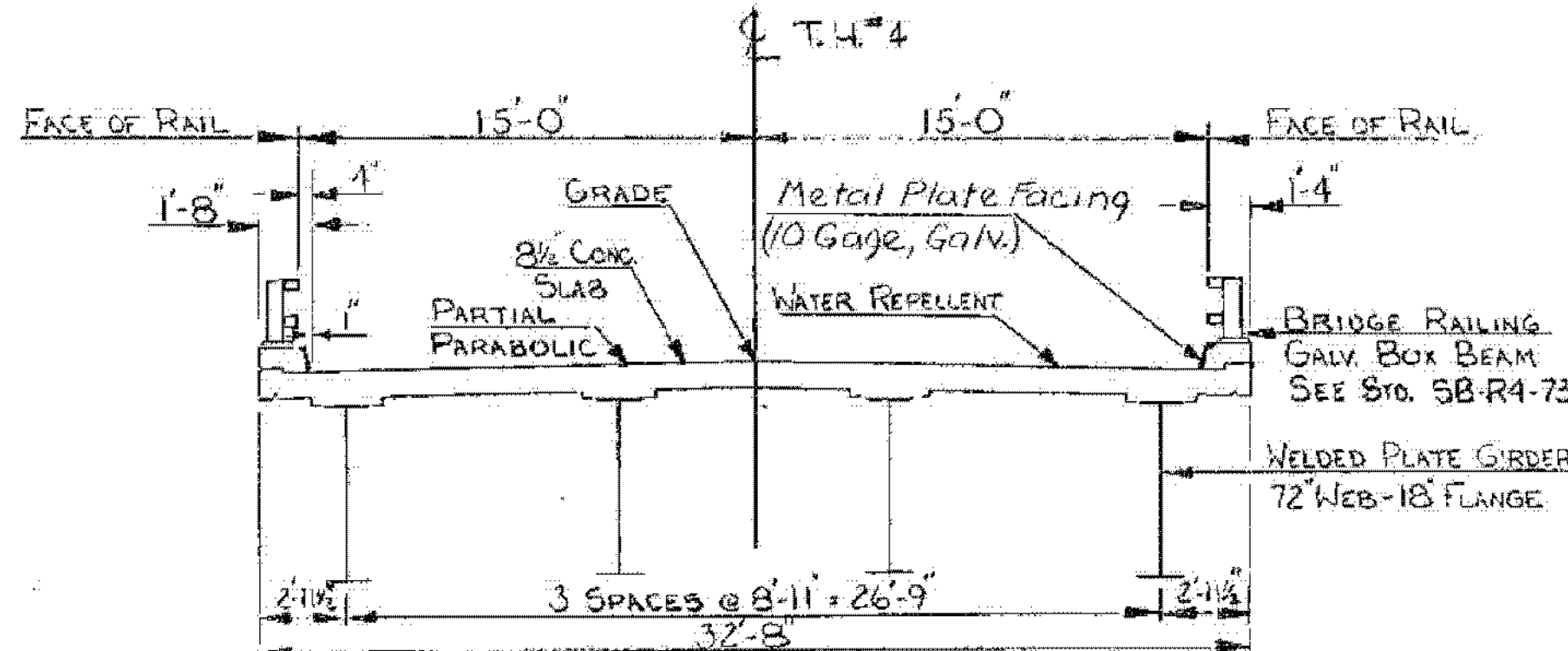
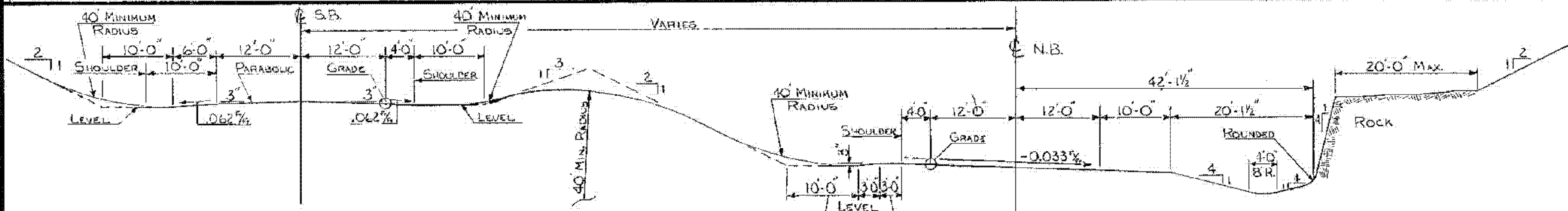


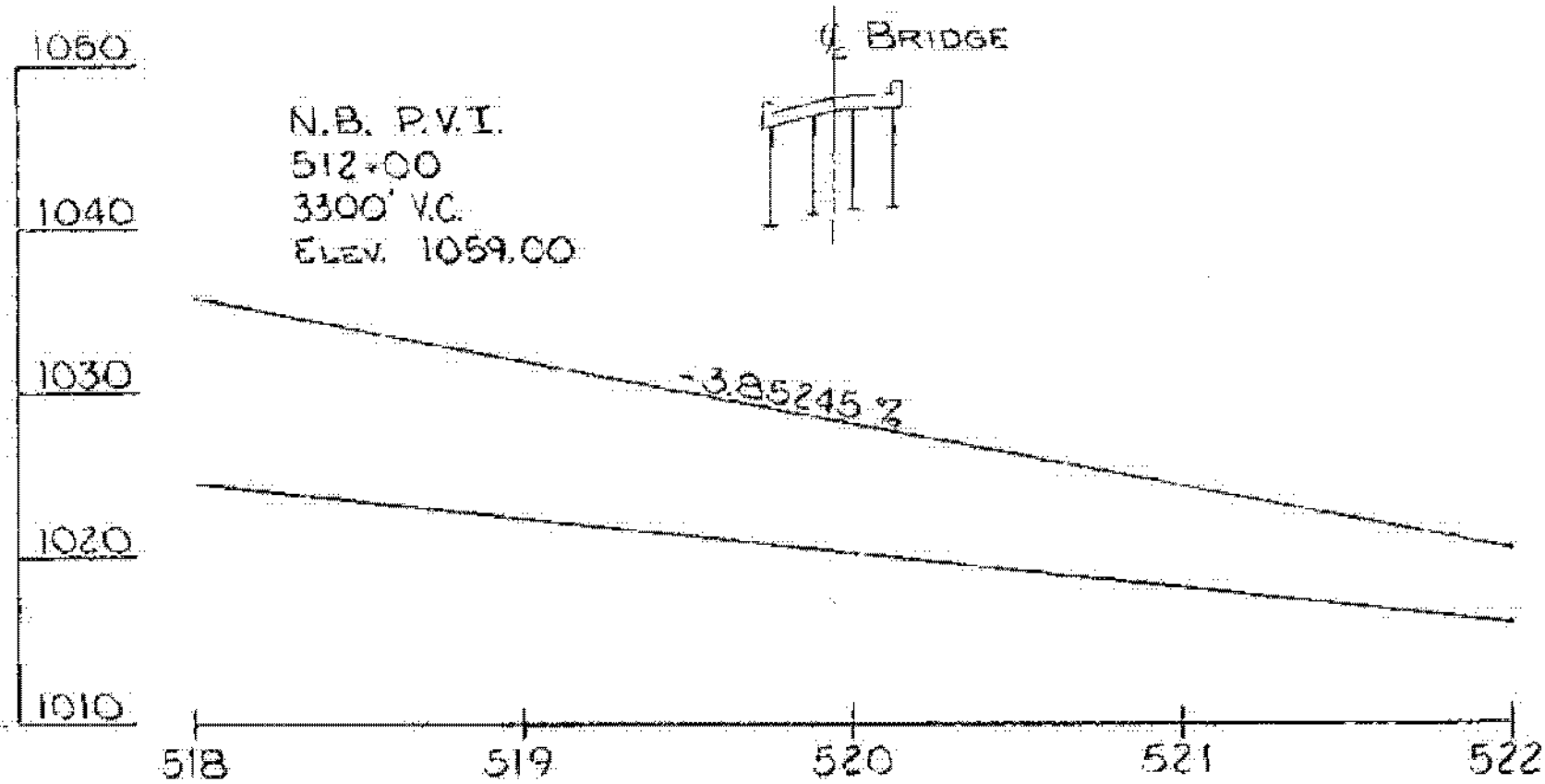
NEW HIGHWAY SECTION - BRIDGE APPROACHES  
SCALE 1"=5'



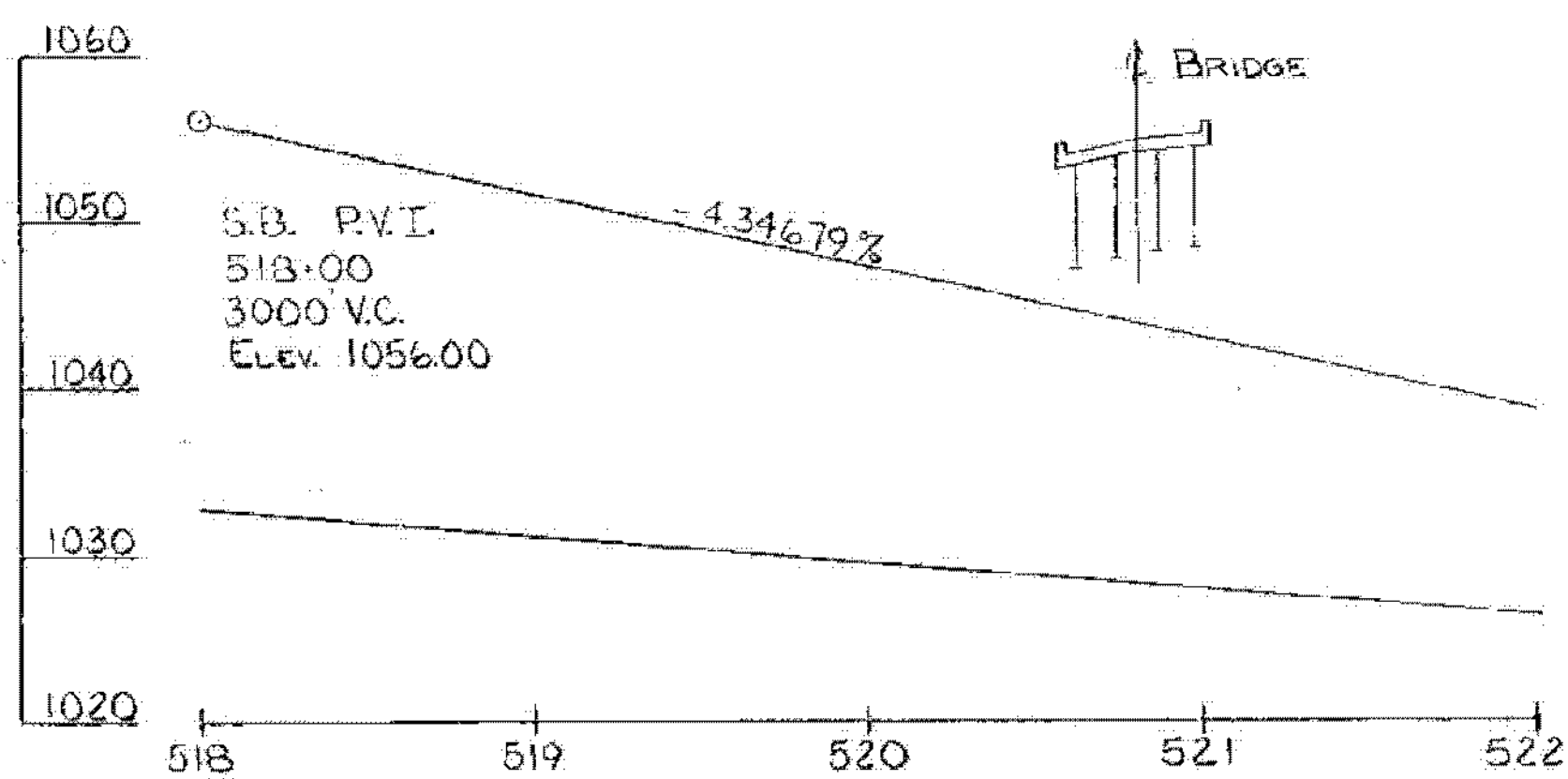
BRIDGE TYPICAL SECTION  
SCALE 1"=5'



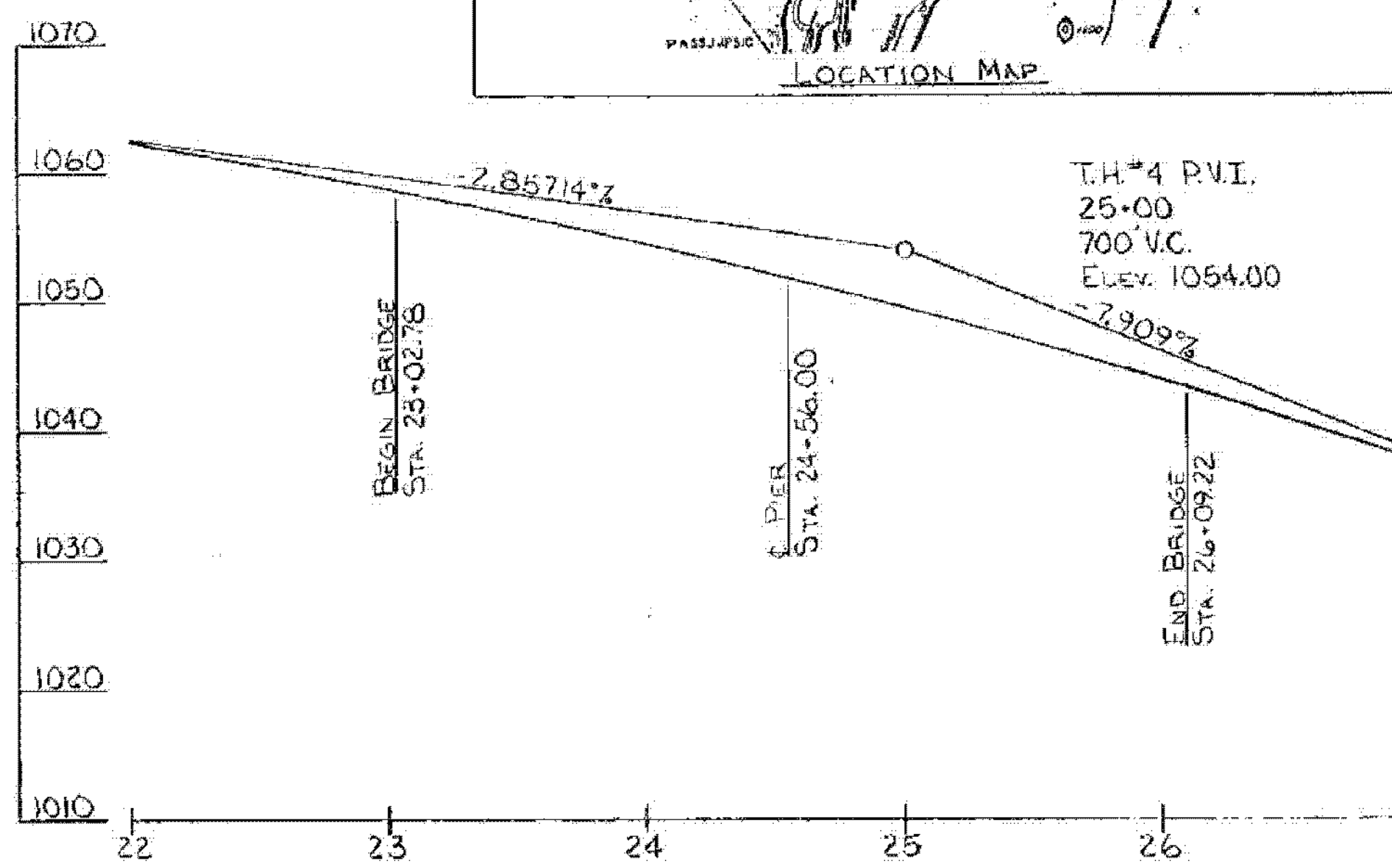
MODIFIED TYPICAL SECTION INTERSTATE 93 UNDER BRIDGE AT B STA. 520+20.1  
SCALE 1"=20'



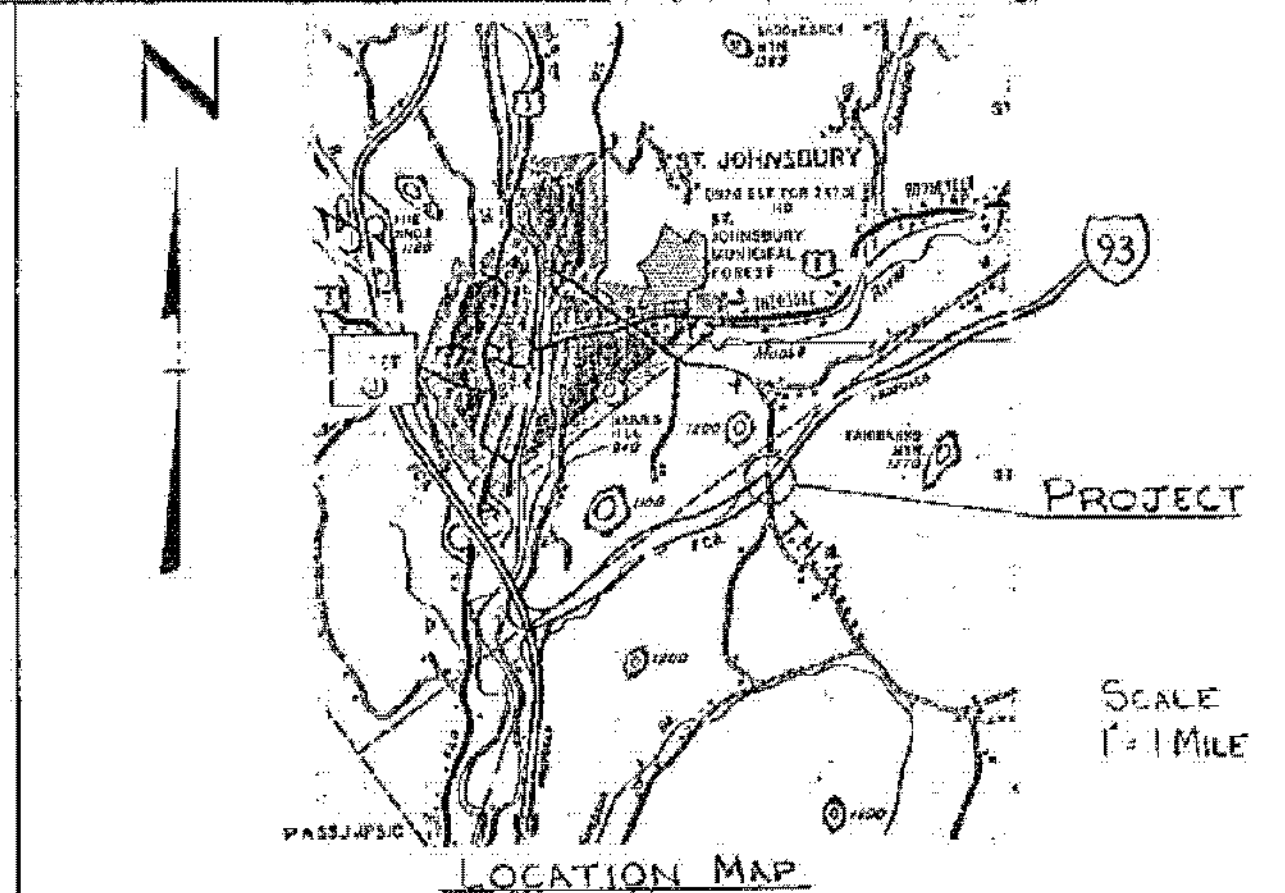
N.B. PROFILE I 93  
SCALE: 1"=50' HOR. 1"=10' VERT.



S.B. PROFILE I 93  
SCALE: 1"=50' HOR. 1"=10' VERT.



NEW HIGHWAY PROFILE ALONG & TOWN HIGHWAY #4  
SCALE: 1"=50' HOR. 1"=10' VERT.



LOCATION MAP  
SCALE 1"=1 MILE

EXISTING STRUCTURE

1. STRUCTURE TYPE	OVERALL LENGTH	INVENTORY RATING
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS		
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM		
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM)		VERTICAL CLEARANCE ABOVE STREAMBED
5. WATER SURFACE ELEVATION @ Q 2.33		WATER SURFACE ELEVATION @ Q
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD		ESTIMATED DISCHARGE
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR?		ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL		
9. DISPOSITION OF STRUCTURE		

NEW STRUCTURE

1. STRUCTURE TYPE	2 SPAN CONTINUOUS PLATE GIRDER	OVERALL LENGTH	306.44
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS	150'-0"		
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER	17.00'-5.8"	18.43'-N.B.	
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM	N.A.		
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM)	N.A.		
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES?	NO		

HYDRAULIC DATA:

1. Q 2.33	WATER ELEVATION	VELOCITY
Q 10	WATER ELEVATION	VELOCITY
Q 25	WATER ELEVATION	VELOCITY
Q 50	WATER ELEVATION	VELOCITY
Q 100	WATER ELEVATION	VELOCITY
2. DRAINAGE AREA	CHARACTER OF TERRAIN	
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM?		
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY?		IS ORDINARY RISE RAPID?
5. NATURE OF NATURAL STREAMBED		
6. ESTIMATED SCOUR DEPTH	COMMENT ON: DRIFT	ICE
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR?		
8. VERTICAL CLEARANCE ABOVE Q		
9. ALLOWABLE WATER SURFACE ELEVATION	LIMITED BY	
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS?		IF YES, DESCRIBE
11. AVERAGE DAILY LOW FLOW	AVERAGE DAILY HIGH FLOW	DEPTH
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED		
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE	SPAN	WATERWAY AREA OF FULL OPENING
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE	SPAN	WATERWAY AREA OF FULL OPENING

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD	AASHTO	HS 20-44
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL		ON LEDGE 10 KSF
3. ALLOWABLE LOAD FOR PILING	TYPE	HP 12-53 ESTIMATED LENGTH 30
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A-588	TENSION	27,000 PSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION	24,000 PSI	COMPRESSION 20,000 PSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A	3,500	1,400
	CLASS B	3,500 1,400

TRAFFIC MAINTENANCE:

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

INDEX OF BRIDGE SHEETS

BR.	DESCRIPTION	STANDARD SHEETS	DATE
BR. 1600	PRELIMINARY INFORMATION SHEET	SB-R4-75	(NOV. 21, 1979 R)
BR. 1601	BRIDGE QUANTITY SHEET		
BR. 1602	PLAN & ELEVATION (GENERAL NOTES)	SCB-01-75	GENERAL INFORMATION (APRIL 3, 1978 R)
BR. 1603	BORING LOGS		
BR. 1604	SUBSTRUCTURE DETAILS	SCB-06-75	SCUppers, JOINTS, PILING (JAN. 3, 1979 R)
BR. 1605	FRAMING PLAN & GIRDER ELEVATION		
BR. 1606	CROSS FRAME & SPLICE DETAILS		
BR. 1607	BEARING DEVICES & DETAILS	SCB-07-71	CRIP PLATE, HAUNCH, STUDS (DEC. 15, 1976 R)
BR. 1608	EXPANSION JOINT DETAILS		
BR. 1609	BRIDGE APPROACH RAIL DETAILS		
BR. 1610	ABUTMENT NO. 1 DETAILS		
BR. 1611	ABUTMENT NO. 2 DETAILS		
BR. 1612	ABUTMENT NOS. 1 & 2 DETAILS		
BR. 1613	PIER DETAILS		
BR. 1614-1615	REINFORCING STEEL SCHEDULES		

REFERENCE SHEETS

I 93	WB&SB PLAN STA. 515+00 - 531+00 (1 SHEET)
I 93	WB&SB PROFILE STA. 515+00 - 531+00 (1 SHEET)
I 93	WB&SB X-SECTIONS EL. 517+50 - 523+50 (35 SHEETS)
TH 4	PLAN STA. 5+0 - 38+00 (2 SHEETS)
TH 4	PROFILE STA. 6+00 - 37+00 (2 SHEETS)
TH 4	X-SECTIONS 21+00 - 27+00 (4 SHEETS)

LOAD RATING (TONS)

STRESS LEVELS	TRUCK					
	H	HS	3S2	5 AXLE	5A STR.	5A SEMI
INVENTORY	40	42				
0.55 F <sub>y</sub> - POSTED	60	71		62	63	68
0.67 F <sub>y</sub> - OPERATING			89	98		
0.75 F <sub>y</sub> - OPERATING						

APPROVALS:

RECOMMENDED FOR APPROVAL	W.M. Smith	1-30-80
	STRUCTURES ENGINEER	DATE
RECOMMENDED FOR APPROVAL	Robert J. ...	1-30-80
	CHIEF OF DESIGN	DATE
APPROVED BY	J. J. Geary	1/30/80
	DIRECTOR OF ENGINEERING & CONSTRUCTION	DATE

REVISIONS:

NO.	DESCRIPTION	BY & DATE

**STATE OF VERMONT**  
AGENCY OF TRANSPORTATION

TOWN OF WATERFORD  
HIGHWAY NO. I 93

Bridge No. B-16  
Log Sta. 520+48

**T.H.#4 OVER I-93**

PRELIMINARY INFORMATION

Designed by N. DANFORTH  
Checked by M. GARCIA date 1-30

Drawn by W. FLANDERS  
Bridge Design Supervisor F.W. Bolkom date 1/80

PROJECT WATERFORD  
Bridge Sheet No. BR 1600

PROJECT NO. I 93-1(13)C-3  
Sheet 139 of 330