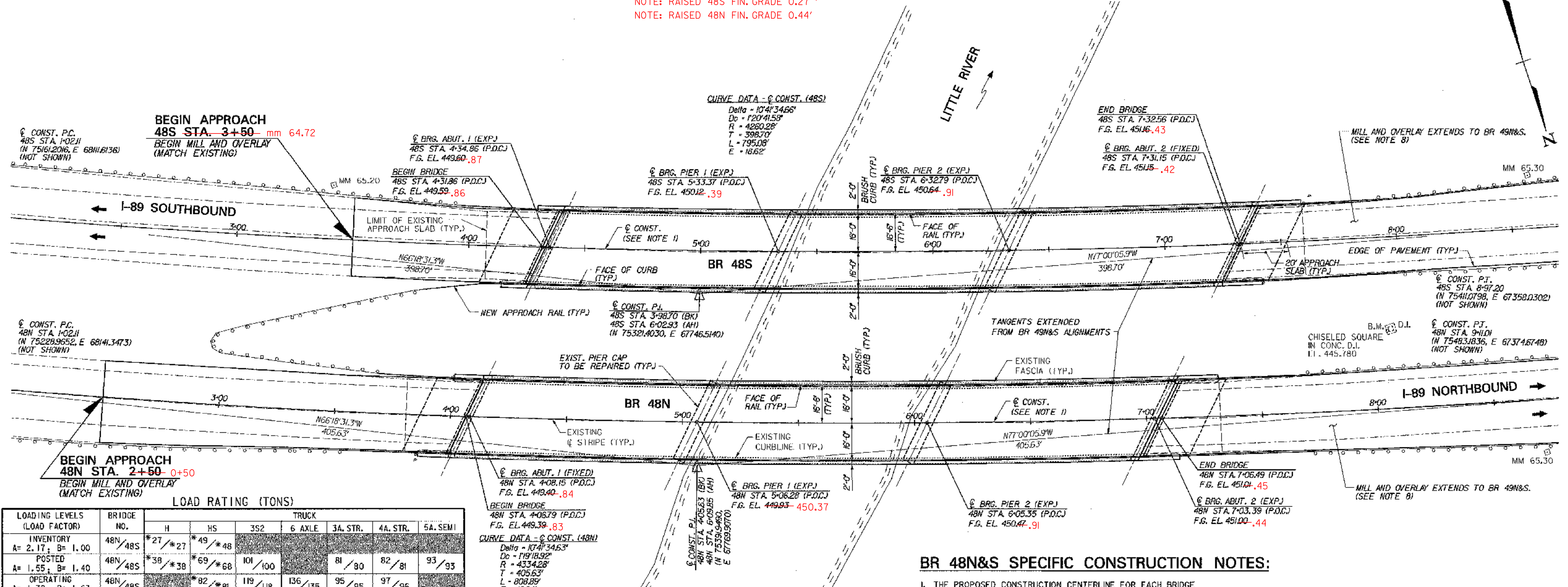


NOTE: RAISED 48S FIN. GRADE 0.27'
 NOTE: RAISED 48N FIN. GRADE 0.44'



LOAD RATING (TONS)

LOADING LEVELS (LOAD FACTOR)	BRIDGE NO.	TRUCK						
		H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY A= 2.17, B= 1.00	48N/48S	*27/*27	*49/*48					
POSTED A= 1.55, B= 1.40	48N/48S	*38/*38	*69/*68	101/100		81/80	82/81	93/93
OPERATING A= 1.30, B= 1.67	48N/48S	*82/*81		119/118	136/135	95/95	97/96	

NOTE: RATINGS ARE BASED ON A STRAIGHT-LINE GIRDER ANALYSIS, DIVIDED BY LOS TO ACCOUNT FOR THE EFFECTS OF CURVATURE.

STRENGTH RF = $\frac{\phi M_n - 1.3 M_{DL}}{A X M_{UH}}$ * SERVICEABILITY RF = $\frac{0.95 F_y S_{LL1} - M_{DL} S_{LL1} - M_{SD1} S_{SD1}}{167 M_{LL1}}$

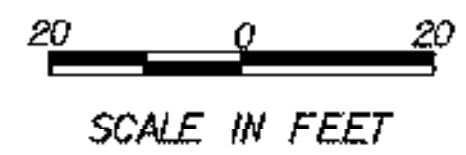
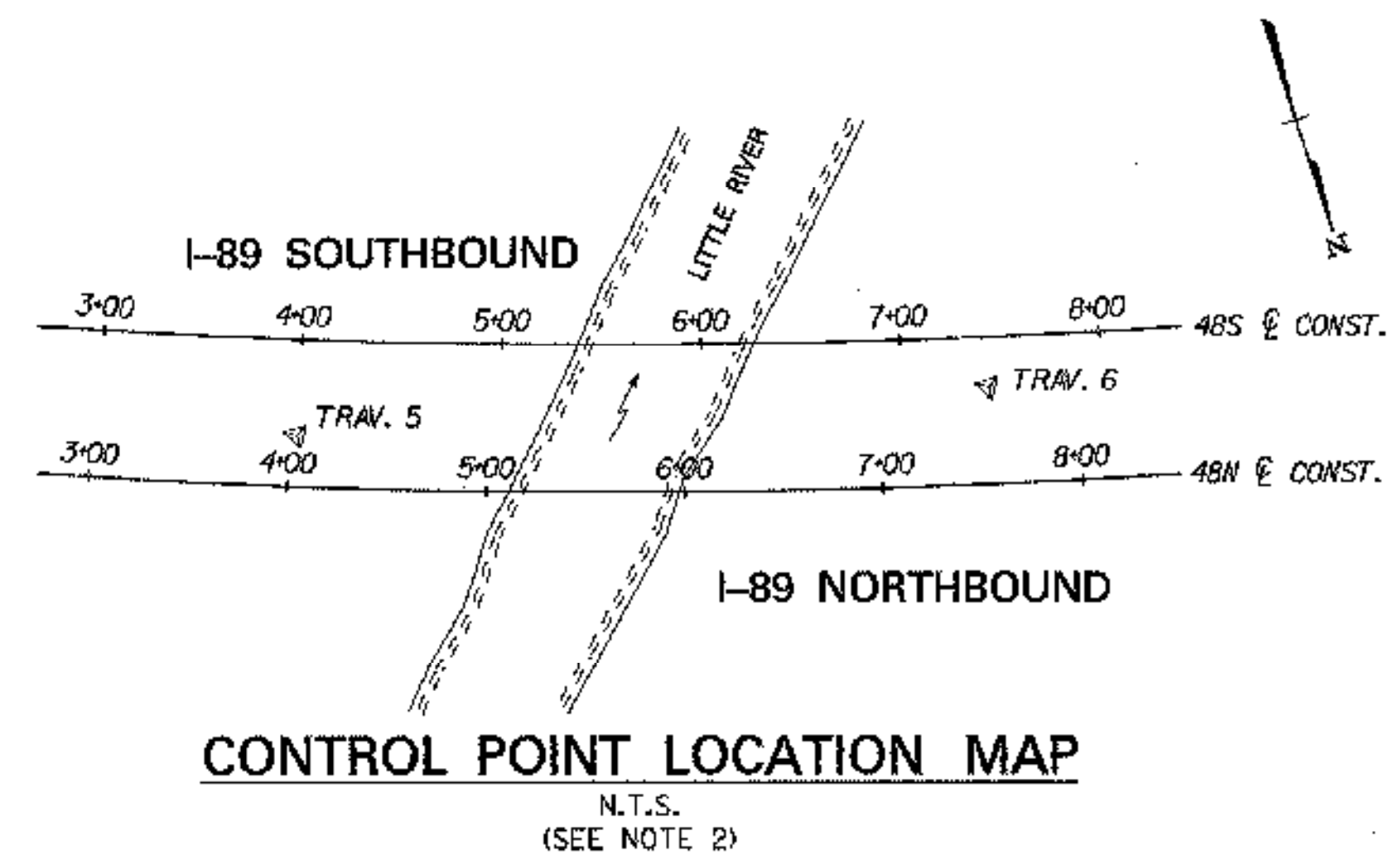
PLAN
SCALE: 1"=20'

BR 48N&S SPECIFIC CONSTRUCTION NOTES:

1. THE PROPOSED CONSTRUCTION CENTERLINE FOR EACH BRIDGE WAS ESTABLISHED BASED ON BEST FIT BETWEEN EXISTING CURB LINES. IT DOES NOT EXACTLY MATCH THE ORIGINAL CONSTRUCTION CENTERLINE.
2. FOR CONTROL POINT TIE SKETCHES, SEE CONTROL POINT TIES (48N&S AND 49N&S), BRIDGE SHEET C-11.
3. REPLACE SUPERSTRUCTURE STEEL, BEARINGS, DECK SLABS, APPROACH SLABS, BRIDGE RAIL AND APPROACH RAIL. RESET GUARD RAIL.
4. NEW SCUPPERS ARE REQUIRED ON BRIDGE 48S. FOR LOCATION OF NEW SCUPPERS, SEE FRAMING PLAN (48S), BRIDGE SHEET BR48-9.
5. CONSTRUCT NEW BACKWALLS AT EXPANSION ABUTMENTS AND NEW CURTAINWALLS AT FIXED ABUTMENTS. REBUILD ABUTMENT BRIDGE SEATS AND MODIFY WINGWALLS AS SHOWN IN THE PLANS.
6. REPAIR PIER STEM AND PIER CAP DELAMINATED AND SPALLED AREAS. REBUILD PIER SEAT TO PROPOSED ELEVATIONS.
7. REPAIR ABUTMENT DELAMINATED AND SPALLED AREAS.
8. MILL AND OVERLAY EXTENDS TO BR 49N&S. FOR END LIMITS OF MILL AND OVERLAY, SEE GENERAL PLAN (49N&S), BRIDGE SHEET BR49-L.
9. RE-STRIPE BRIDGE AND APPROACH ROADWAY.

TABLE OF BRIDGE COORDINATES

BRIDGE	CL CONST. @	STATION	NORTHING	EASTING
48N	BEGIN BRIDGE	4+06.79	75341.4836	67856.2782
	CL BRG. ABUT. 1	4+08.15	75341.9417	67856.9955
	CL BRG. PIER 1	5+06.28	75373.8843	67764.2122
	CL BRG. PIER 2	6+05.35	75403.8939	67669.8307
	CL BRG. ABUT. 2	7+03.39	75431.6592	67575.7772
END BRIDGE	7+06.49	75432.4882	67572.7971	
48S	BEGIN BRIDGE	4+31.86	75281.8840	67804.8348
	CL BRG. ABUT. 1	4+34.86	75282.8731	67802.0004
	CL BRG. PIER 1	5+33.37	75314.2178	67708.6125
	CL BRG. PIER 2	6+32.79	75343.6544	67813.6526
	CL BRG. ABUT. 2	7+31.15	75370.6887	67519.0545
END BRIDGE	7+32.56	75370.9593	67517.6927	



**STATE OF VERMONT
 AGENCY OF TRANSPORTATION**

Town Of **MIDDLESEX-BOLTON** Bridge No. **48N&S**

Highway No. **I-89** Log Sta.

I-89 OVER LITTLE RIVER

GENERAL PLAN (48N&S)

Designed By **P.W. SZUSTAK** Drawn By **R.A. BOTZENHART**

Checked By **J.P. HALSTEAD** Date **10/99** Bridge Design Supervisor **J.P. HALSTEAD** Date **10/99**

PROJECT **MIDDLESEX-BOLTON** PROJECT NO. **IM-089-2(26)**

TVGA CAD Drawing No. **48gen.pl** Date **10/99**

Bridge Sheet No. **BR48-1** Sheet **61** of **307**

TVA TVGA ENGINEERING, SURVEYING, P. C.