

CURVE DATA - @ CONST. (50S)
 Delta = 102°40'24.5"
 Dc = 0'00'25.35"
 R = 5692.65'
 T = 58.81'
 L = 1033.38'
 E = 23.53'

CURVE DATA - @ CONST. (50N)
 Delta = 102°40'24.5"
 Dc = 0'00'25.35"
 R = 5766.65'
 T = 524.84'
 L = 1046.50'
 E = 23.83'

LOAD RATING (TONS)

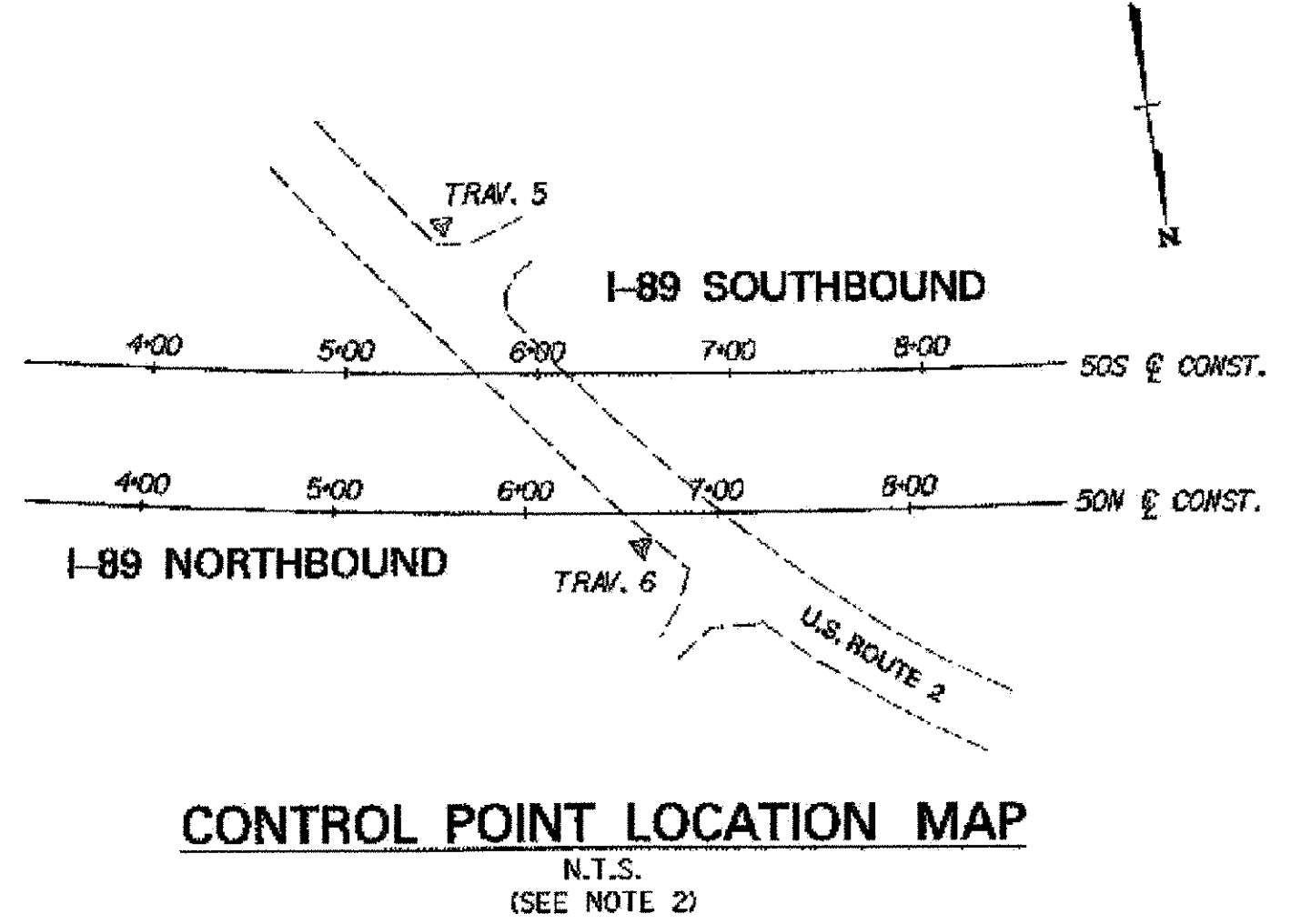
LOADING LEVELS (LOAD FACTOR)	BRIDGE NO.	TRUCK						
		H	HS	352	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY A= 2.17, B= 1.00	50N/50S	*28/*28	*51/*51					
POSTED A= 1.55, B= 1.40	50N/50S	*40/*40	*72/*72	*96/*97		*72/*71	*74/*73	*88/*87
OPERATING A= 1.30, B= 1.67	50N/50S	*85/*86	*114/*114	*129/*127	*86/*84	*88/*87		

NOTE: RATINGS ARE BASED ON A STRAIGHT-LINE GIRDER ANALYSIS, DIVIDED BY 1.05 TO ACCOUNT FOR THE EFFECTS OF CURVATURE.

STRENGTH RF = $\frac{P_n - 1.3M_n}{A \times M_{uL}}$ * SERVICEABILITY RF = $B \times \frac{0.95F_y S_{uL1} - M_{uL} S_{uL1} - M_{uL} S_{uL2}}{1.67M_{uL}}$

TABLE OF BRIDGE COORDINATES

BRIDGE	CL CONST. @	STATION	NORTHING	EASTING
50N	BEGIN BRIDGE	5+64.09	78543.3058	61183.1768
	CL BRG. ABUT. 1	5+95.86	78543.8203	61181.4100
	CL BRG. PIER 1	6+32.21	78554.8853	61116.0405
	CL BRG. PIER 2	7+28.71	78569.8906	61020.7170
	END BRIDGE	8+01.96	78560.2116	60948.2039
50S	BEGIN BRIDGE	4+79.87	78456.1358	61247.4208
	CL BRG. ABUT. 1	4+93.50	78456.8211	61243.8550
	CL BRG. PIER 1	5+48.86	78468.7960	61179.5967
	CL BRG. PIER 2	6+39.36	78484.0929	61090.4046
	END BRIDGE	7+02.86	78483.9977	61027.6820



PLAN
SCALE: 1"=20'

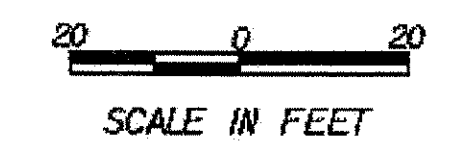
BR 50N&S SPECIFIC CONSTRUCTION NOTES:

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 (50N&S), BRIDGE SHEET 23-2.
3. REPLACE PIER CAPS, SUPERSTRUCTURE STEEL, BEARINGS, DECK SLABS, APPROACH SLABS, BRIDGE RAIL AND APPROACH RAIL. RESET GUARD RAIL.
4. NEW SCUPPERS ARE REQUIRED ON BRIDGE 50S. FOR LOCATION OF NEW SCUPPERS, SEE FRAMING PLAN (50S), BRIDGE SHEET BR50-9.
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 COLUMNS.
7. REPAIR ABUTMENT DELAMINATED AND SPALLED AREAS.
8. RE-STRIPE BRIDGE AND APPROACH ROADWAY.

MIDDLESEX - WATERBURY
 ST-IM 089-2(42)
 SHEET 23 OF 25
 BRIDGES 50 N & S
 FOR REFERENCE ONLY

**STATE OF VERMONT
 AGENCY OF TRANSPORTATION**

Town Of	MIDDLESEX-BOLTON	Bridge No.	50N&S
Highway No.	I-89	Log Sta.	
		Surv. Sta.	
I-89 OVER U.S. ROUTE 2			
GENERAL PLAN (50N&S)			
Designed By	P.W. SZUSTAK	Drawn By	R.A. BOTZENHART
Checked By	Date	Bridge Design Supervisor	
J.P. HALSTEAD	10/99	J.P. HALSTEAD	Date 10/99
PROJECT	MIDDLESEX-BOLTON	PROJECT NO.	IM-089-2(26)
TYGA CAD Drawing No.	50gen.pl	Date	10/99
Bridge Sheet No.	BR50-1	Sheet	85 of 307



TYGA TYGA ENGINEERING, SURVEYING, P.C.