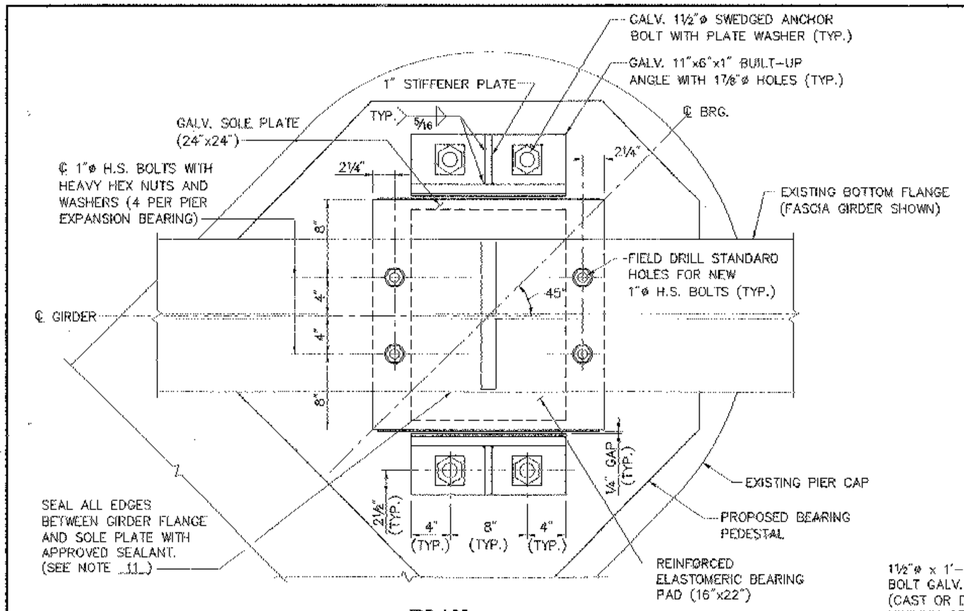
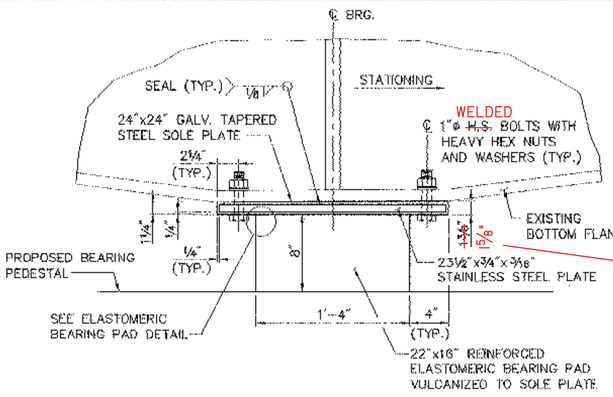


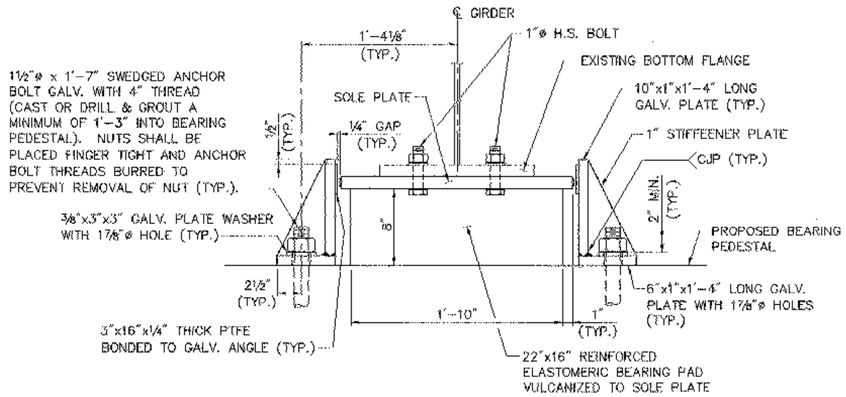
PLAN

PIER EXPANSION BEARING DESIGN CRITERIA				
LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	ROTATION (RADS.)	TOTAL LOAD (KIPS)
ABUTMENTS	122	74	0.013	196
PIERS (1,2,9,10)	265	161	0.012	426
PIERS (3,4,7,8)	310	178	0.009	488



(BUILT-UP ANGLES AND ANCHOR BOLTS NOT SHOWN)

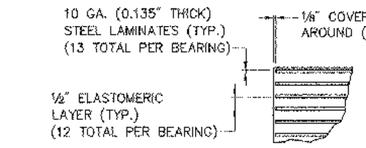
SIDE ELEVATION



END ELEVATION

PIER BEARINGS (EXPANSION)

SCALE: 1½" = 1'-0"



ELASTOMERIC BEARING PAD DETAIL

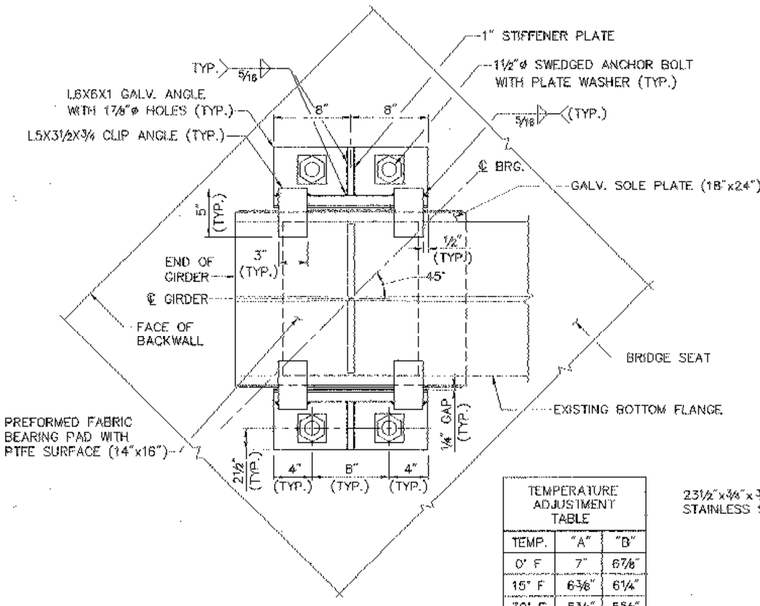
N.T.S.

EXPANSION BEARING NOTES:

1. BEARING HEIGHTS AND DIMENSIONS SHOWN ARE BEFORE APPLICATION OF LOADS.
2. FABRIC BEARING PAD ASSEMBLIES SHALL BE PAID UNDER ITEM 531.10, "BEARING DEVICE ASSEMBLY (FABRIC PTFE EXPANSION)."
3. REINFORCED ELASTOMERIC BEARING ASSEMBLIES SHALL BE PAID UNDER ITEM 531.10, "BEARING DEVICE ASSEMBLY (STEEL REINFORCED ELASTOMERIC)".
4. MASONRY SURFACES UNDER BEARINGS SHALL BE LEVEL BEFORE INSTALLING BEARING ASSEMBLIES.
5. ALL STRUCTURAL STEEL COMPONENTS FOR BEARING ASSEMBLIES SHALL BE GALVANIZED OR METALIZED UNLESS OTHERWISE NOTED.
6. STRUCTURAL STEEL FOR BEARING ASSEMBLIES SHALL BE AASHTO M270, GRADE 36.
7. ALL JACKING AND SHORING REQUIRED TO REPLACE BEARINGS WILL BE PAID UNDER ITEM 502.11, "SHORING SUPERSTRUCTURE BEARING". THE CONTRACTOR SHALL SUBMIT DETAILS AND CALCULATIONS SHORING AND JACKING AS SPECIFIED IN SECTION 502 OF THE VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
8. THE CONTRACTOR SHALL BE PAID ONLY ONCE FOR JACKING AND SHORING ANY ONE BEARING. ANY SHORING OF ADJACENT GIRDERS THAT IS REQUIRED ONLY TO REPLACE THE BEARING IN QUESTION SHALL BE SUBSIDIARY TO THE UNIT PRICE BID FOR THE SHORING OF THE BEARING BEING REPLACED.
9. THE WORK REQUIRED TO REMOVE EXISTING BEARINGS IN ORDER TO INSTALL NEW BEARINGS AS SHOWN IN THESE PLANS, SHALL BE INCLUDED IN ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE."
10. THE ESTIMATED INSTANTANEOUS COMPRESSIVE DEFLECTION OF THE BEARING PAD DUE TO THE DEAD LOAD REACTION LISTED IN THE TABLE ON THIS SHEET SHALL BE CALCULATED BY THE BEARING MANUFACTURER AND SHOWN ON THE SHOP DRAWINGS FOR ALL STEEL REINFORCED ELASTOMERIC BEARINGS.
11. SEALANT COLOR SHALL BE CLEAR OR CLOSELY MATCH THE COLOR OF THE GIRDER OR SOLE PLATE. SEALANT SHALL BE RESISTANT TO ULTRAVIOLET LIGHT AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. COST SHALL BE INCLUDED IN ITEM 531.10.
12. THE CONTRACTOR MAY FIELD WELD THE NEW SOLE PLATE TO THE GIRDER FLANGE AT THE PIER EXPANSION BEARINGS INSTEAD OF BOLTING AS SHOWN AT HIS OR HER OPTION. HOWEVER, THE SOLE PLATE THICKNESS SHALL BE MODIFIED SO THAT THE PLATE IS A MINIMUM OF 1½" THICK AT THE SMALLEST TAPERED END AND THE PEDESTAL ELEVATIONS ADJUSTED ACCORDINGLY. IF WELDING IS SELECTED, THE CONTRACTOR SHALL ENSURE THE HEAT FROM WELDING DOES NOT DAMAGE THE ELASTOMER.
13. THE TEMPERATURE OF THE STEEL GIRDERS SHALL BE BETWEEN 30° AND 65° F WHEN THE PIER EXPANSION BEARINGS ARE SET. IF BEARINGS MUST BE TEMPORARILY SET WHEN GIRDER TEMPERATURES ARE NOT BETWEEN 30° AND 65° F, THE GIRDERS SHALL BE JACKED AND BEARINGS SHALL BE RESET WHEN GIRDER TEMPERATURES ARE BETWEEN 30° AND 65° F.
14. THE "A" DISTANCE IS THE SOLE PLATE ADJUSTMENT TO BE USED BEFORE DEAD LOAD IS ADDED TO THE GIRDERS. THE "B" DISTANCE IS THE SOLE PLATE ADJUSTMENT TO BE USED AFTER THE DECK AND BARRIER CURB RAIL HAVE BEEN POURED. THE DIFFERENCE IS THE ELONGATION DUE TO DEAD LOAD DEFLECTION OF SLAB, BARRIER CURB RAIL, AND PAVEMENT.
15. ELASTOMERIC MATERIAL SHALL BE 100% VIRGIN RUBBER WITH A MINIMUM LOW TEMPERATURE GRADE OF 4. THE ELASTOMERIC COMPOUND SHALL HAVE A SHORE 'A' DUROMETER OF 50.

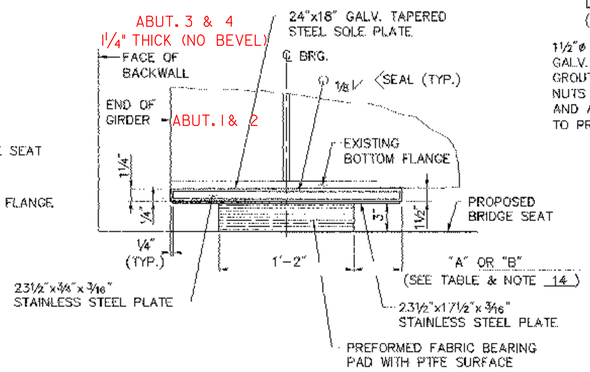
NOTE:

1. SEE SHEET 19 FOR PROPOSED BEARING PEDESTAL DETAILS.



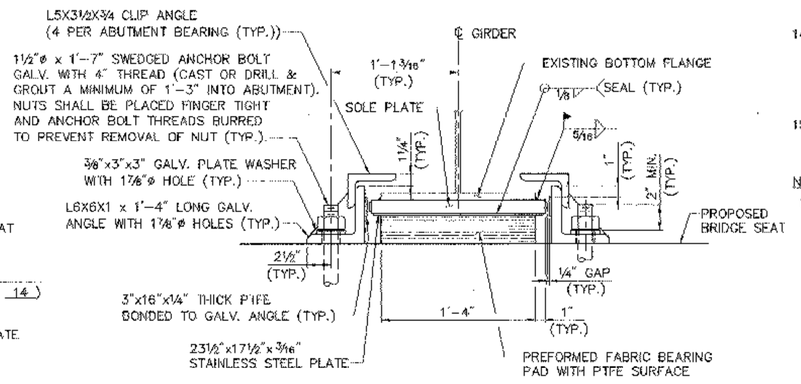
PLAN

TEMPERATURE ADJUSTMENT TABLE		
TEMP.	"A"	"B"
0° F	7"	6⅞"
15° F	6⅜"	6¼"
30° F	5¾"	5⅝"
45° F	5⅛"	5"
60° F	4½"	4⅜"
75° F	3⅞"	3¾"
90° F	3¼"	3⅛"



(L6X6X1 ANGLES NOT SHOWN)

SIDE ELEVATION



END ELEVATION

ABUTMENT BEARINGS (EXPANSION)

SCALE: 1½" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of HARTFORD	Bridge No. 11N & 11S
	Log Sta.
Highway No. I-89 NB & SB	Surv. Sta.
I-89 NB & SB OVER WHITE RIVER, VT 14 & NECR	

EXPANSION BEARING DETAILS (1 OF 2)

Designed By S.M. HODGDON	Drawn By B.J. MASSE
Checked By J.A. ROUILLARD Date 9/98	Bridge Design Supervisor C.D. BAKER Date 9/98
PROJECT HARTFORD	PROJECT NO. IR 089-1(13)
VHB Cad Filename 50699BRG	
Bridge Sheet No. 18	Sheet 18 of 101

VANASSE HANGEN BRUSTLIN, INC.

PLOTTED 10-8-98