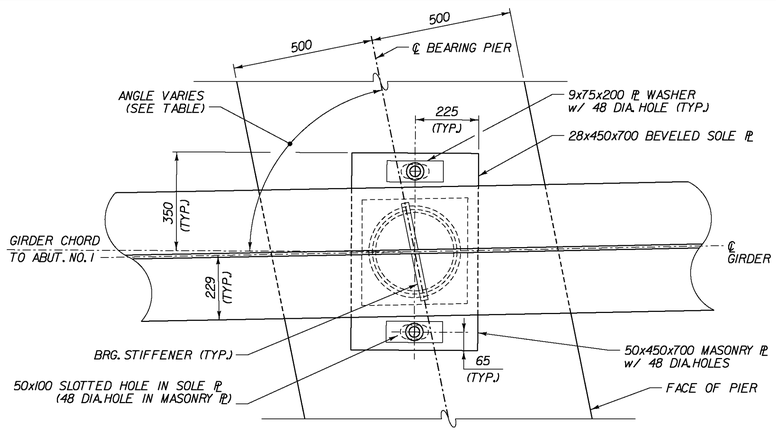
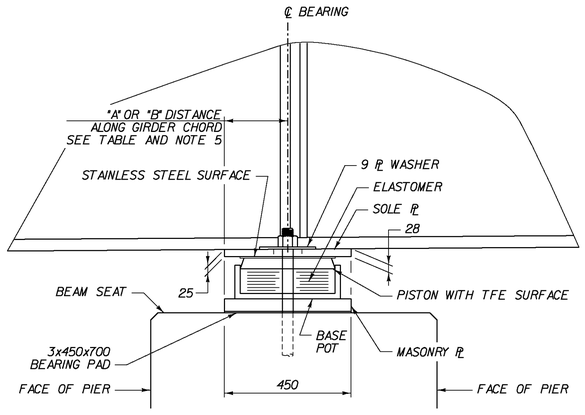


PLAN

0 0.5 1

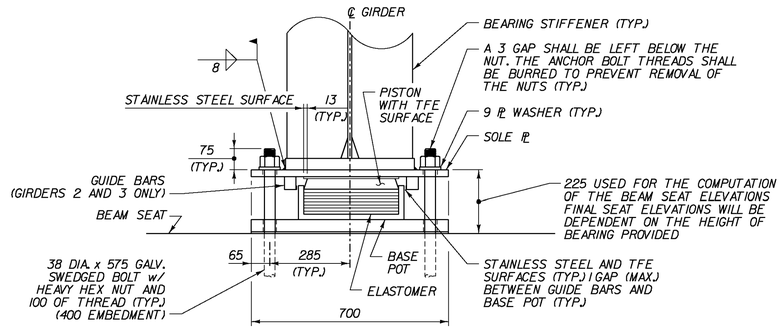
SCALE = 1:10



SIDE ELEVATION

0 0.5 1

SCALE = 1:10



FRONT VIEW

0 0.5 1

SCALE = 1:10

BEARING NOTES:

1. BEARINGS SHALL CONFORM TO APPLICABLE SUBSECTIONS OF THE STANDARD SPECIFICATION SECTIONS 531 AND 731
2. BEARINGS SHALL BE PAID FOR UNDER ITEM 531.10 FOR PREFORMED FABRIC PADS AND ITEM 531.12 FOR POT BEARINGS.
3. SHOP DRAWINGS CONFORMING TO STANDARD SPECIFICATION SUBSECTION 531.03 SHALL BE SUBMITTED TO INCLUDE WELDING AND BONDING PROCEDURES.
4. THE CONCRETE SURFACE UNDER THE BEARING DEVICE SHALL BE LEVEL.
5. THE "B" DISTANCE IS LISTED FOR SETTING THE BEARING AFTER THE STRUCTURAL STEEL IS ERECTED AND BEFORE THE CONCRETE DECK IS POURED. THE "A" DISTANCE IS THE FINAL SETTING FOR THE BEARING PAD AFTER THE CONCRETE SLAB, CURB, SIDEWALK, PAVEMENT, AND BRIDGE RAIL ARE PLACED. THE DIFFERENCE IS THE THEORETICAL ELONGATION OF THE BOTTOM FLANGE DUE TO DEAD LOAD DEFLECTION. THE FINAL "B" DISTANCE, AS SHOWN IN THE TABLE, MUST BE ATTAINED WITHIN 3.
6. DESIGN CRITERIA:
   A. BASE PLATE TO CONCRETE DESIGN PRESSURE = 6895 kPa MAXIMUM.
   B. SEE TABLES BELOW FOR DESIGN LOADS.
7. ALL STEEL IN BEARING DEVICES (EXCEPT STAINLESS STEEL) SHALL BE AASHTO M 270M/M270, ASTM A 709/A 709M GRADE 345.
8. ANCHOR BOLTS SHALL HAVE A MINIMUM OF 400 EMBEDMENT INTO THE CONCRETE AND SHALL CONFORM TO STANDARD SPECIFICATION SUBSECTION 714.08. ANCHOR BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F 568M CLASS 4.6.
9. ALL THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. ALL WASHERS SHALL BE 9 PLATE (MINIMUM). PAYMENT FOR ANCHOR BOLTS, NUTS AND WASHERS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE APPROPRIATE 531 ITEM.
10. BEARING DEVICES SHALL BE GALVANIZED OR METALLIZED AS PER STANDARD SPECIFICATION SUBSECTIONS 531.04(b). AREAS OF DAMAGED GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH SECTION 513. AREAS OF DAMAGED METALLIZING SHALL BE COATED WITH THE SAME SEALANT USED BY THE BEARING SUPPLIER. THE INSIDES OF THE POTS SHALL NOT BE GALVANIZED.

ABUTMENT NO. 1 BEARING DESIGN LOAD TABLE

LOCATION	DESCRIPTION	*VERTICAL LOAD CAPACITY kN	TRANSVERSE LOAD CAPACITY kN	LONGITUDINAL LOAD CAPACITY kN	**MOVEMENT CAPACITY (METERS)	ROTATION CAPACITY (RADIANS)
GIRDER NO. 4	FIXED BEARING	796	80	97	N/A	0.020
GIRDER NO. 3	FIXED BEARING	796	80	97	N/A	0.020
GIRDER NO. 2	FIXED BEARING	796	80	97	N/A	0.020
GIRDER NO. 1	FIXED BEARING	796	80	97	N/A	0.020

PIER BEARING DESIGN LOAD TABLE

LOCATION	DESCRIPTION	*VERTICAL LOAD CAPACITY kN	TRANSVERSE LOAD CAPACITY kN	LONGITUDINAL LOAD CAPACITY kN	**MOVEMENT CAPACITY (METERS)	ROTATION CAPACITY (RADIANS)
GIRDER NO. 4	NON-GUIDED EXP. BEARING	1850	N/A	N/A	0.038	0.016
GIRDER NO. 3	GUIDED EXP. BEARING (LONG.)	1850	370	N/A	0.038	0.016
GIRDER NO. 2	GUIDED EXP. BEARING (LONG.)	1850	370	N/A	0.038	0.016
GIRDER NO. 1	NON-GUIDED EXP. BEARING	1850	N/A	N/A	0.038	0.016

ABUTMENT NO. 2 BEARING DESIGN LOAD TABLE

LOCATION	DESCRIPTION	*VERTICAL LOAD CAPACITY kN	TRANSVERSE LOAD CAPACITY kN	LONGITUDINAL LOAD CAPACITY kN	**MOVEMENT CAPACITY (METERS)	ROTATION CAPACITY (RADIANS)
GIRDER NO. 4	NON-GUIDED EXP. BEARING	685	N/A	N/A	0.070	0.015
GIRDER NO. 3	GUIDED EXP. BEARING (LONG.)	685	137	N/A	0.070	0.015
GIRDER NO. 2	GUIDED EXP. BEARING (LONG.)	685	137	N/A	0.070	0.015
GIRDER NO. 1	NON-GUIDED EXP. BEARING	685	N/A	N/A	0.070	0.015

* DESIGN LOAD SHOWN IS THE MAXIMUM ACTUAL LOAD FOR ALL GIRDERS
** MOVEMENT IS IN THE DIRECTION OF GIRDER CHORD TO THE FIXED ABUTMENT

GIRDER CHORD ANGLE TABLE

LOCATION	ANGLE BETWEEN GIRDER CHORD AND ℄ BRG. PIER
GIRDER NO. 4	78°15'44"
GIRDER NO. 3	78°18'09"
GIRDER NO. 2	78°20'33"
GIRDER NO. 1	78°22'56"

PIER TEMPERATURE SETTING TABLE

TEMP.	"A" DIST.	"B" DIST.
-20°C	239	244
-10°C	234	239
0°C	230	235
10°C	225	230
20°C	220	225
30°C	216	221
40°C	211	216

SEE NOTE 5 THIS SHEET

VAOT Metric

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of BENNINGTON	Bridge No. BII
Highway No. TH 5	Log Sta. / Surv. Sta.
EAST ROAD OVER VT ROUTE 279	
PIER BEARING DETAILS	
Designed By G. BOGUE	Drawn By J. SOTER
Checked By T. KNIGHT Date 04/06	Bridge Design Supervisor G. BOGUE Date 03/07
PROJECT BENNINGTON	PROJECT NO. AC NH 019-1(53)
Dgn.: ...\Design\ER\ER-Brgs2.dgn	Plot Date: 5/25/2011
Bridge Sheet No. BR624	Sheet 271 of 577

Stantec

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