

**NOTES**

FOR DISC BEARINGS, SEE SPECIAL PROVISIONS.

ALL BEARING PLATES SHALL BE AASHTO M270 GRADE 50W OR GRADE 50.

AT ALL POINTS OF SUPPORT, NUTS FOR ANCHOR BOLTS SHALL BE FINGER-TIGHTENED PLUS AN ADDITIONAL 1/4 TURN. THE THREAD OF THE NUT AND BOLT SHALL THEN BE BURRED WITH A SHARP POINTED TOOL.

WHEN WELDING THE SOLE PLATE TO THE GIRDER, USE TEMPERATURE INDICATING WAX PENS, OR OTHER SUITABLE MEANS, TO ENSURE THAT THE TEMPERATURE OF THE BEARING DOES NOT EXCEED 250°F. TEMPERATURES ABOVE THIS MAY DAMAGE THE TFE OR URETHANE DISC.

AFTER BEARING ASSEMBLY IS IN PLACE AND ANCHOR BOLTS HAVE BEEN FINALLY POSITIONED, THEY SHALL BE GROUTED IN PLACE AS SHOWN.

THE CLOSURE PLATE, GROUT PIPE, AND STANDARD PIPE FOR THIS ASSEMBLY NEED NOT BE GALVANIZED.

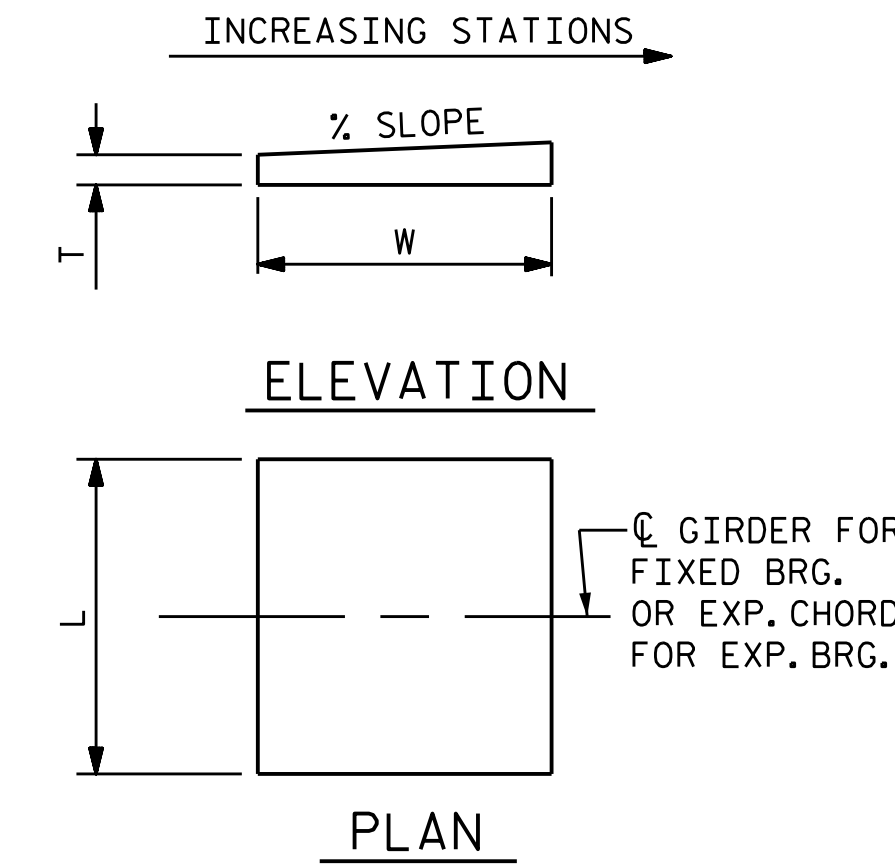
SOLE PLATES SHOULD BE WELDED TO GIRDER FLANGES AND ANCHOR BOLTS SHOULD BE GROUTED BEFORE FALSEWORK IS PLACED.

ALL SURFACES OF BEARING PLATES SHALL BE SMOOTH AND STRAIGHT.

FOR ATTACHMENT OF THE STAINLESS STEEL SHEETS TO THE STEEL SOLE PLATE AND GUIDE BARS, AS WELL AS THE TOP AND SIDE PTFE SHEETS TO THE STEEL UPPER BEARING PLATE, SEE SPECIAL PROVISIONS.

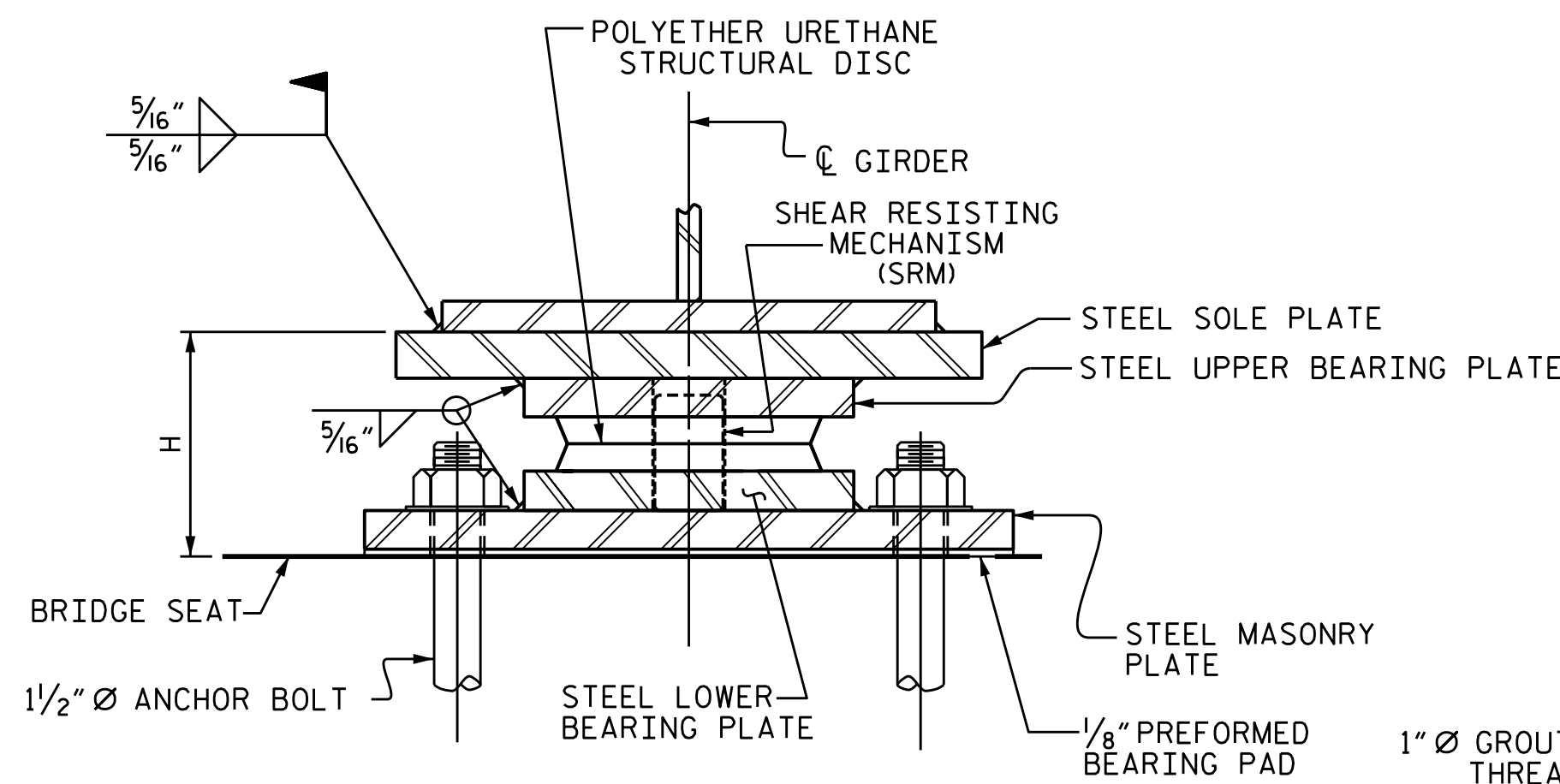
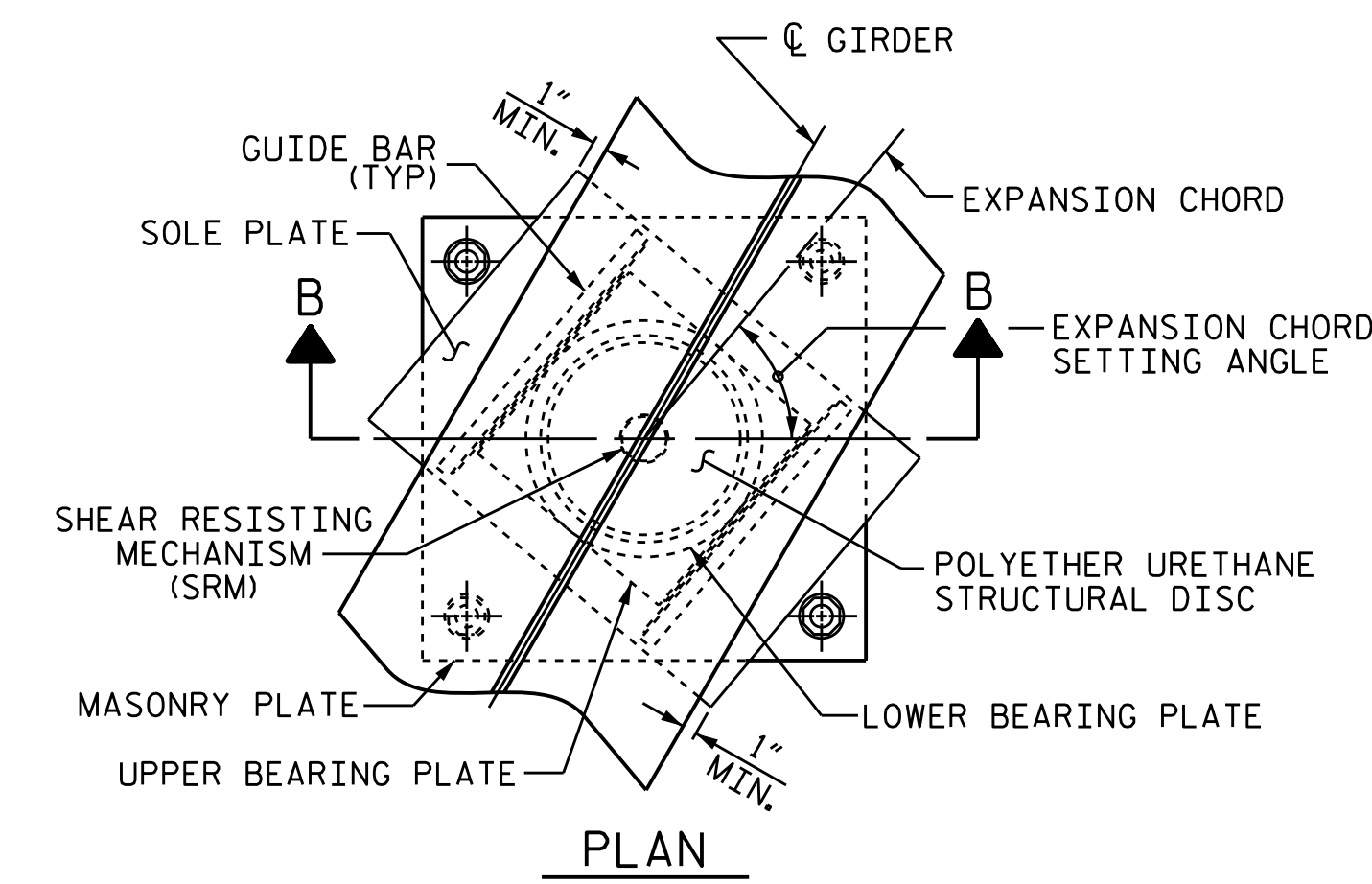
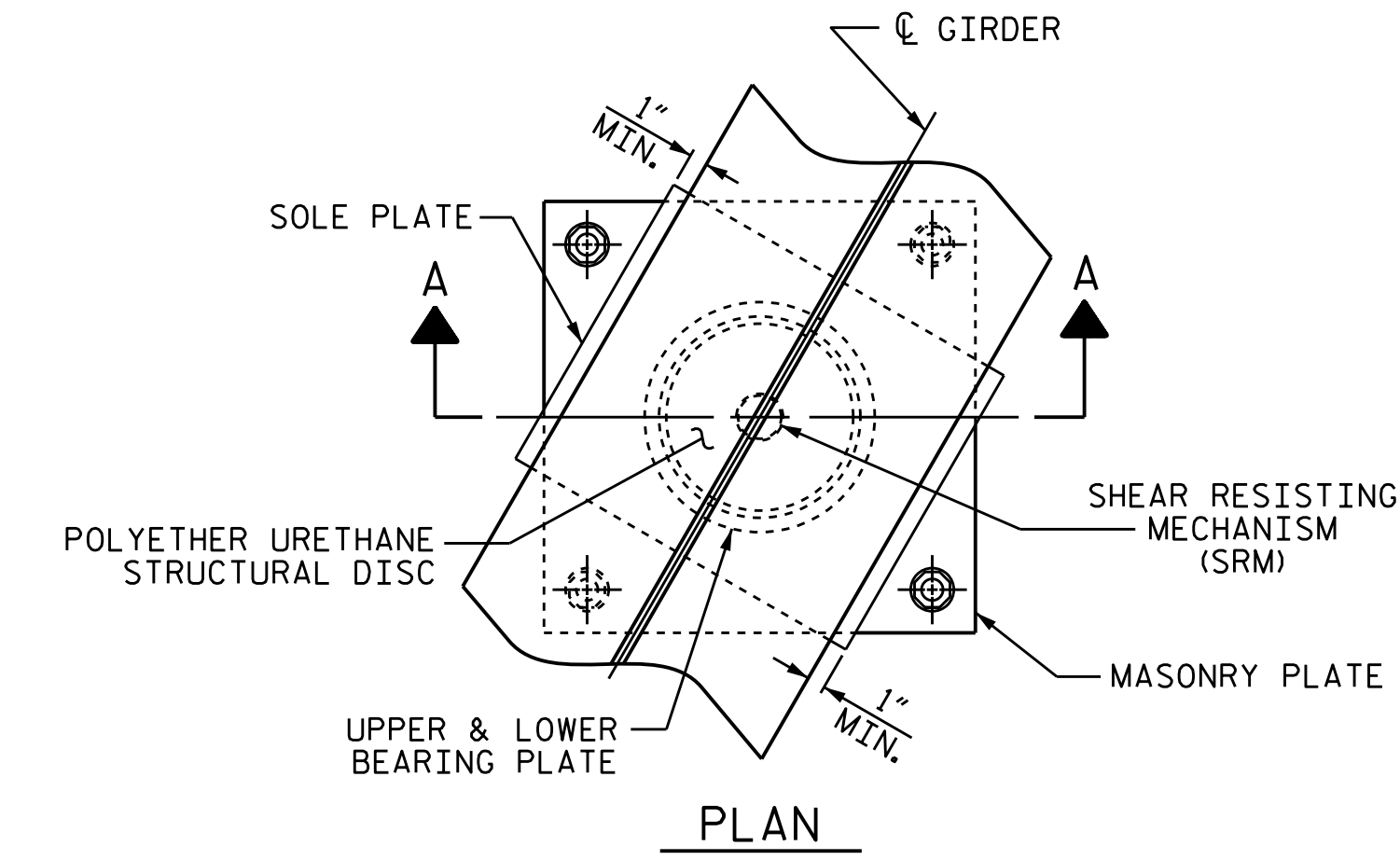
FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.

THE MINIMUM ROTATIONAL CAPACITY FOR ALL BEARINGS SHALL BE 0.02 RADIAN.

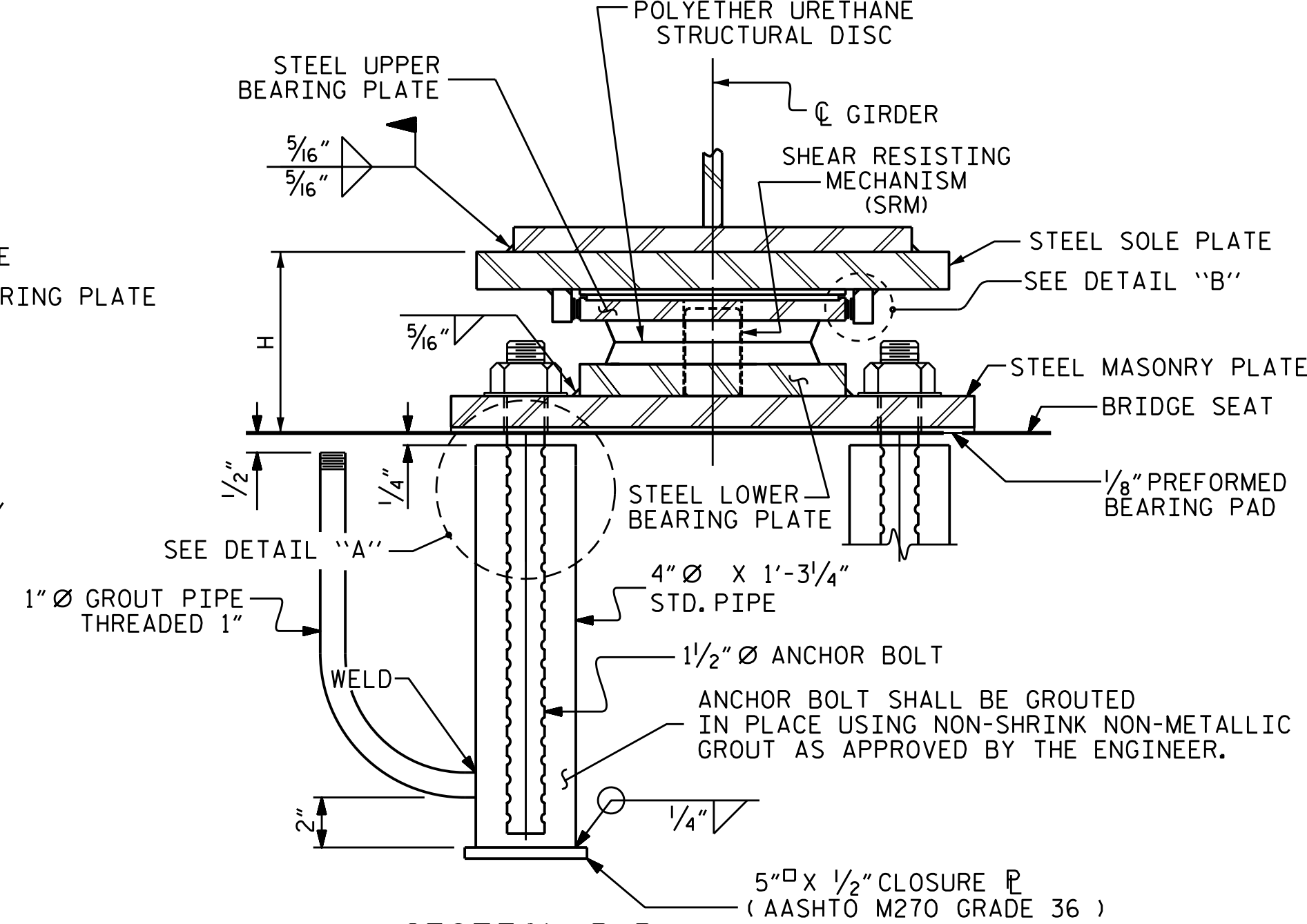


NOTE: DIMENSIONS "L", "W", AND "T" SHALL BE DETERMINED BY THE BEARING MANUFACTURER. SET DIMENSION "L" SUCH THAT THE MINIMUM EDGE DISTANCE TO THE GIRDER FLANGE IS 1".

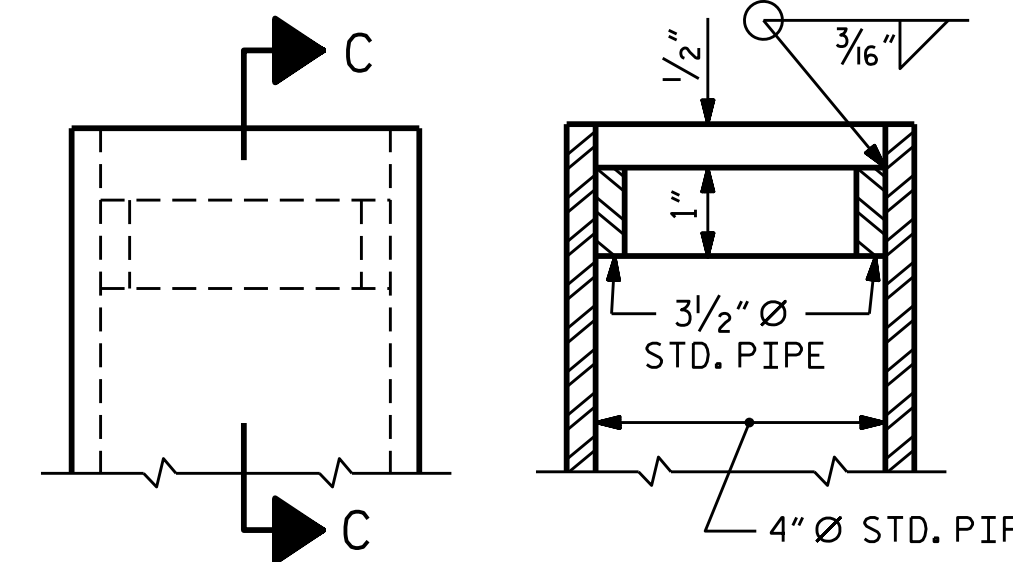
**SOLE PLATE DETAILS**



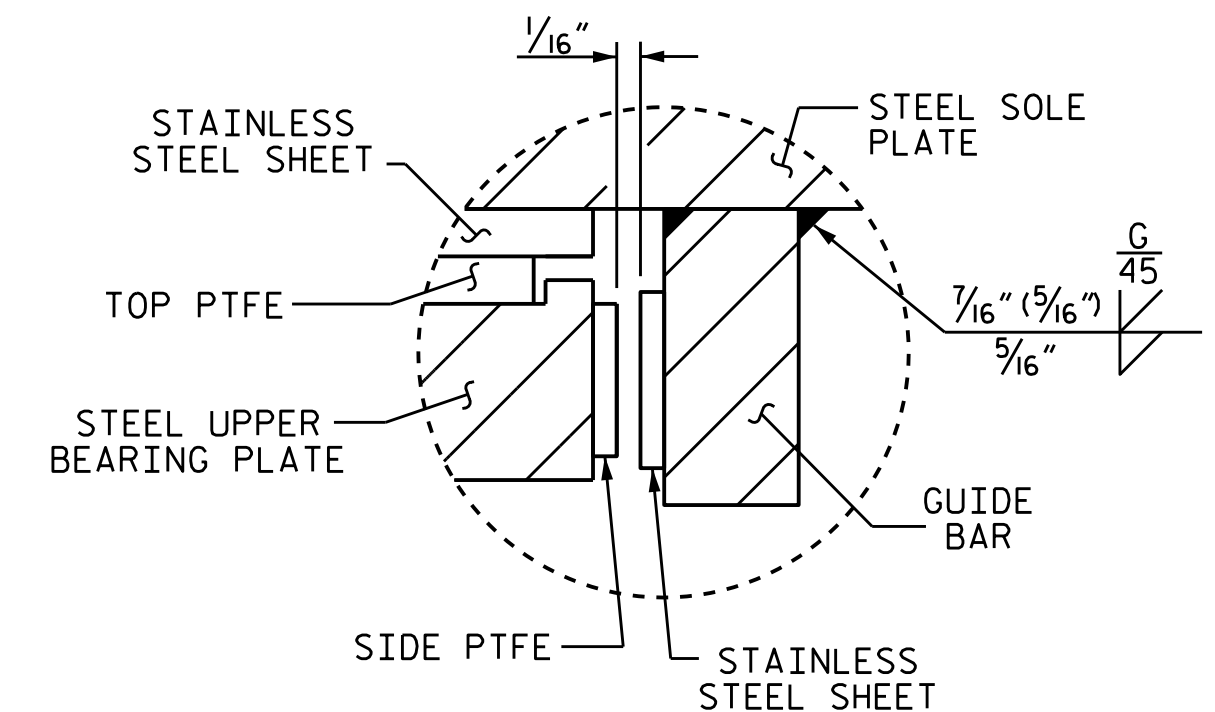
**SECTION A-A**  
DB2, FIXED



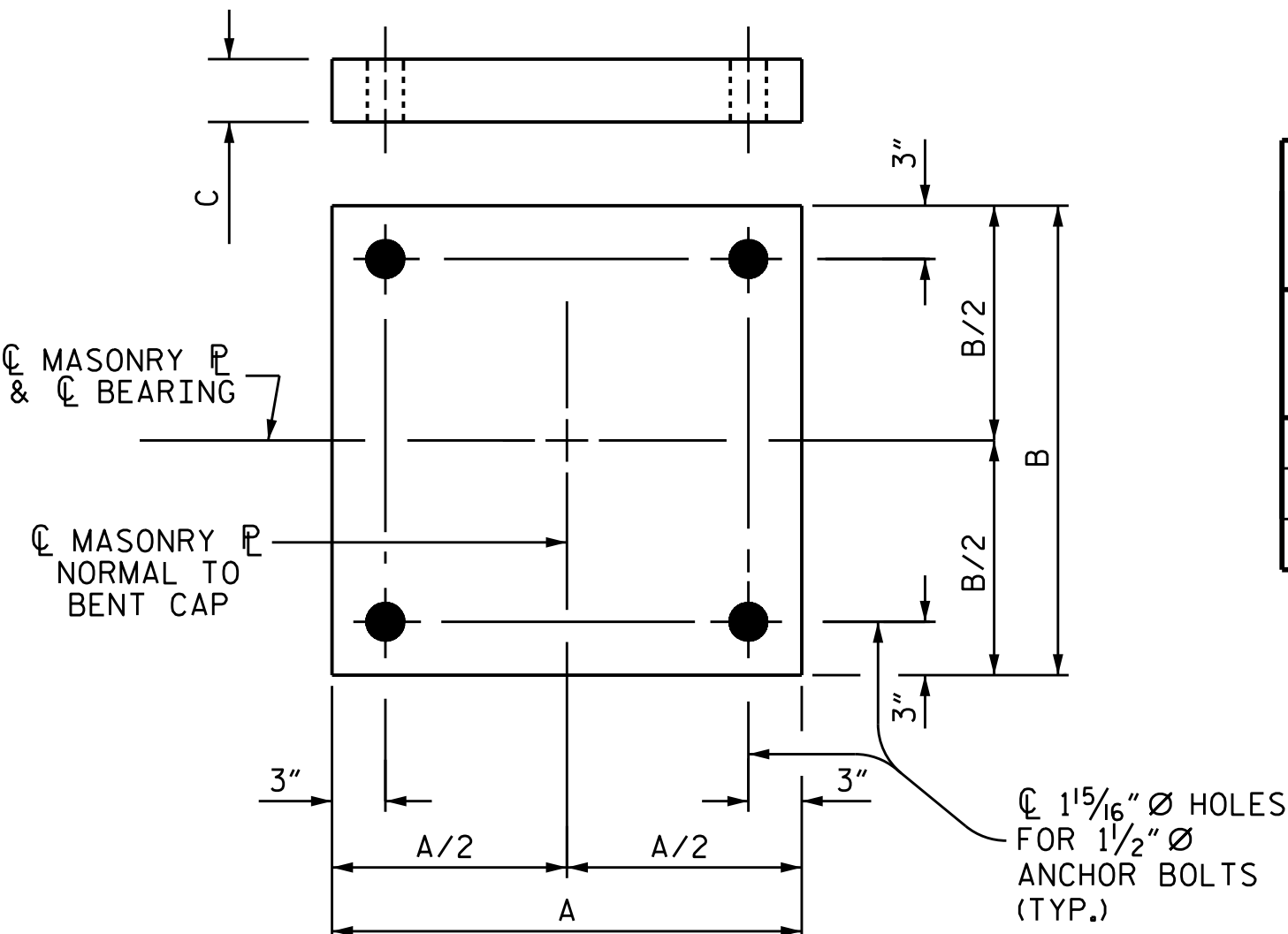
**SECTION B-B**  
DB1, DB3, DB4 EXP.



**SECTION C-C**



**DETAIL "B"**

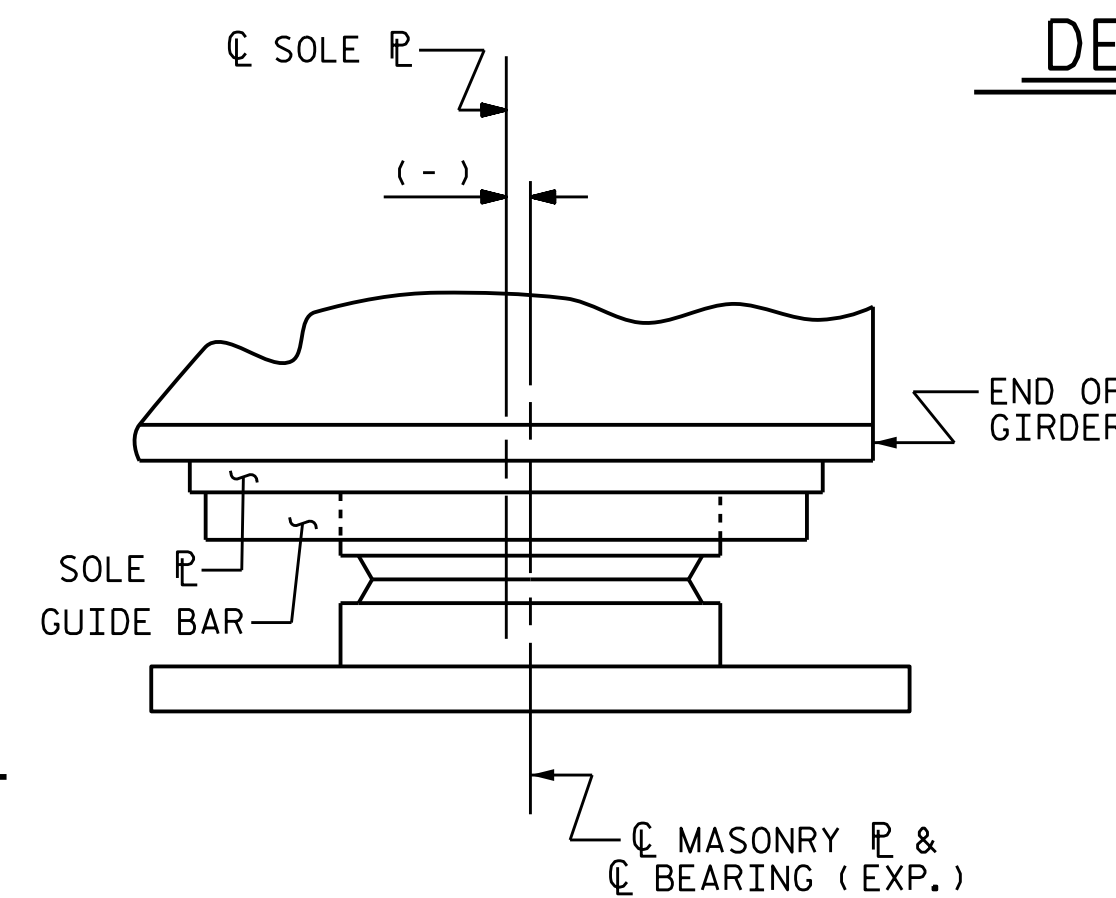


**MASONRY PLATE DETAILS**

PLATE SETTING DATA (EXPANSION DISC BEARINGS)				
LOCATION	TEMPERATURE AT TIME OF SETTING			*
	45° F	60° F	90° F	
EB 1	- 1/8"	0	+ 1/4"	- 5/16"
BENT 2	- 1/16"	0	+ 1/8"	- 3/16"
EB 2	- 3/16"	0	+ 3/8"	- 3/16"

\* CORRECTION FOR END ROTATION DUE TO WEIGHT OF SLAB AND COMPOSITE DEAD LOAD.

**TEMPERATURE SETTING DETAIL**

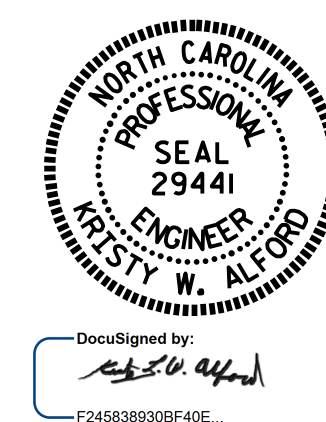


**DETAIL "A"**

EXPANSION CHORD SETTING ANGLES (EXPANSION DISC BEARINGS)			
GIRDER	LOCATION		
	END BENT 1	BENT 2	END BENT 2
1	81°-51'-36"	73°-02'-05"	78°-32'-06"
2	82°-19'-19"	73°-28'-25"	78°-49'-36"
3	82°-45'-40"	73°-53'-28"	79°-06'-14"
4	83°-10'-46"	74°-17'-18"	79°-22'-03"
5	83°-34'-40"	74°-40'-01"	79°-37'-07"
6	83°-57'-29"	75°-01'-41"	79°-51'-29"

DESIGNATIONS	LOCATION	NUMBER OF BEARINGS	DIMENSIONS				LOADS AND MOVEMENT						
			BEARING H (IN.)	MASONRY PLATE		SOLE PLATE TOP SLOPE (%)	UNFACTORED VERTICAL LOAD (KIPS)			FACTORED HORIZONTAL LOAD (KIPS)	ONE-WAY MOVEMENT (IN.)		
				A (IN.)	B (IN.)		C (IN.)	DC	DW			LIVE LL+IM	
DB1 (EXP.)	M1	EB 1	6	5 1/2"	25 1/2"	25 1/2"	3/4"	0.00	106	15	117	45	13/16"
DB2 (FIX)	M2	BENT 1	6	5 11/16"	22 1/2"	22 1/2"	3/4"	1.50	222	27	220	89	0
DB3 (EXP.)	M3	BENT 2	6	7"	28 1/2"	28 1/2"	3/4"	4.00	183	23	221	79	7/16"
DB4 (EXP.)	M1	EB 2	6	6 1/8"	25 1/2"	25 1/2"	3/4"	5.00	94	13	119	42	1/4"

ASSEMBLED BY : J.P. ADAMS DATE : 1/2016  
 CHECKED BY : T.L. AVERETTE DATE : 2/2016  
 DRAWN BY : TMG 08/13 REV. REV. REV.  
 CHECKED BY : EXP 10/13



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. B-5121/B-5317  
 WAKE COUNTY  
 STATION: 20+19.94 -FLYOVER-

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD DISC BEARING DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-73
1			3			TOTAL SHEETS 110
2			4			