

**NOTES**

FOR DISC BEARINGS, SEE SPECIAL PROVISIONS.

ALL BEARING PLATES SHALL BE AASHTO M270 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.

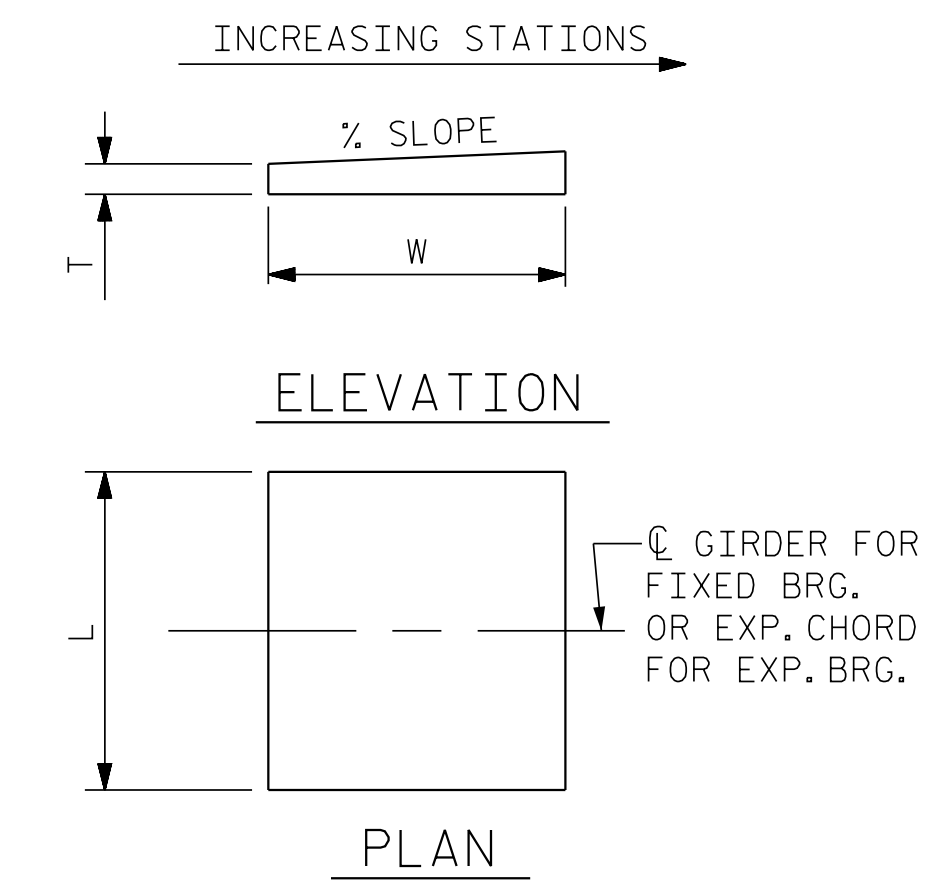
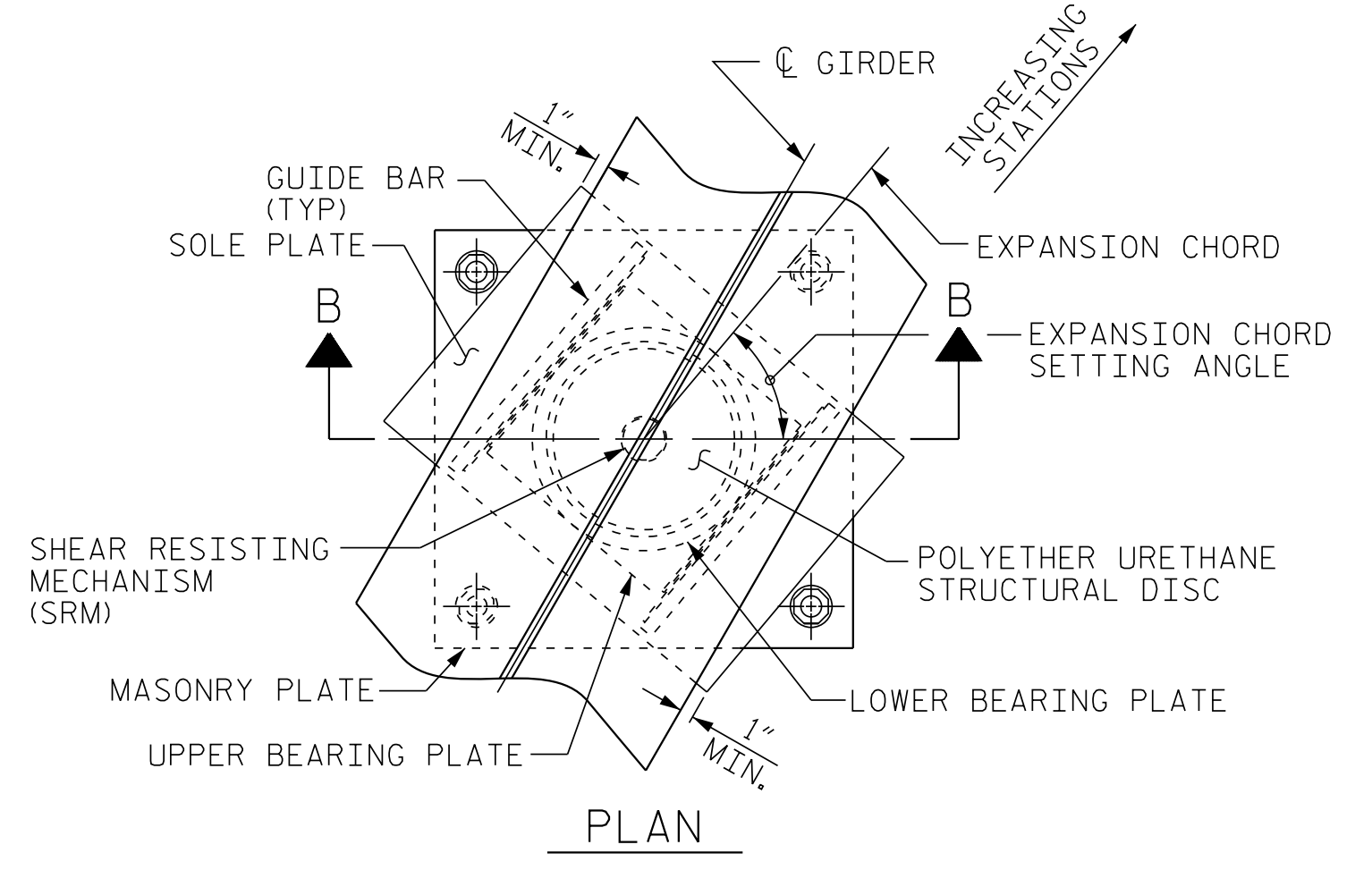
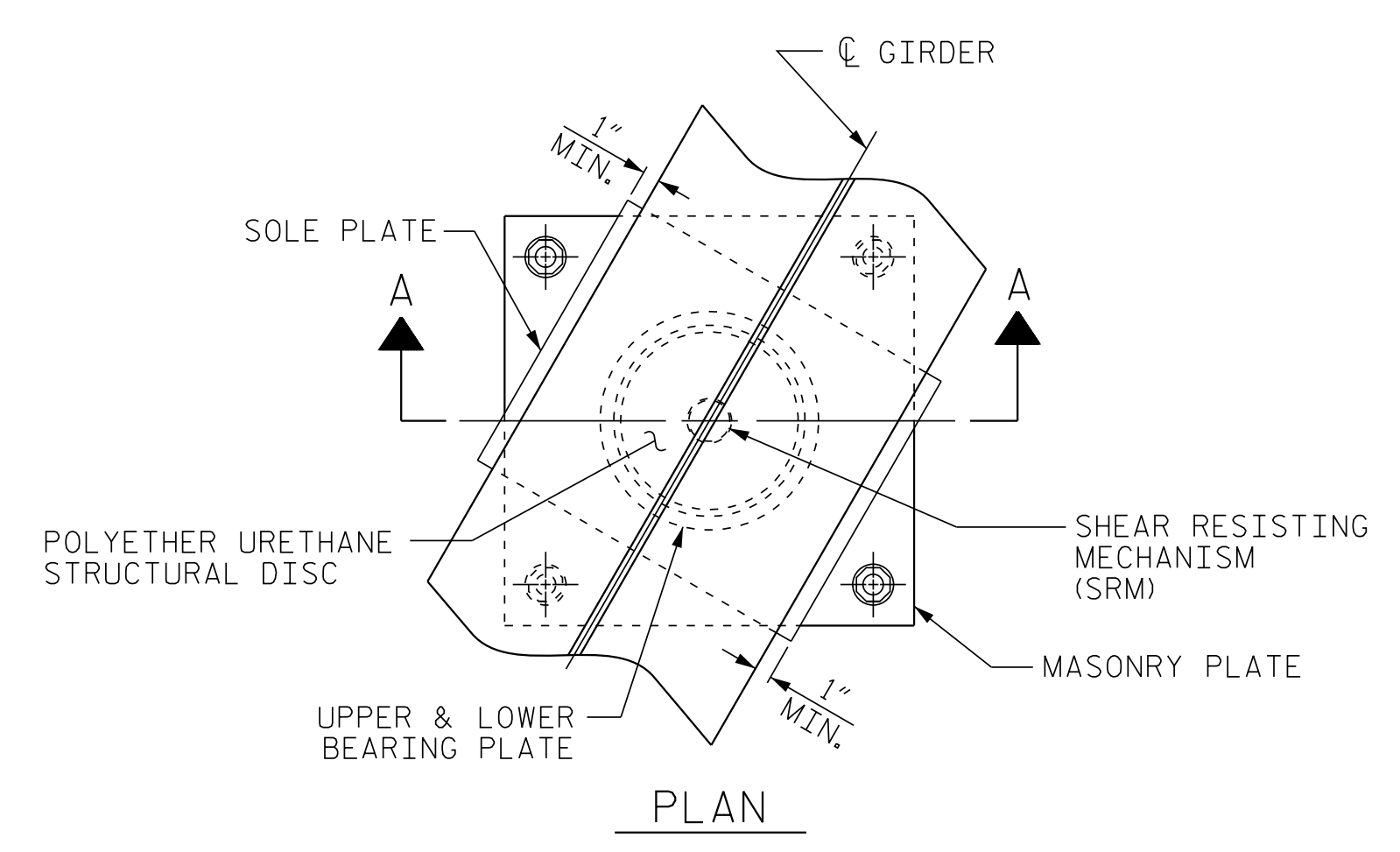
SOLE PLATES SHOULD BE WELDED TO GIRDER FLANGES AND ANCHOR BOLTS SHOULD BE GROUTED BEFORE FALSEWORK IS PLACED.

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.

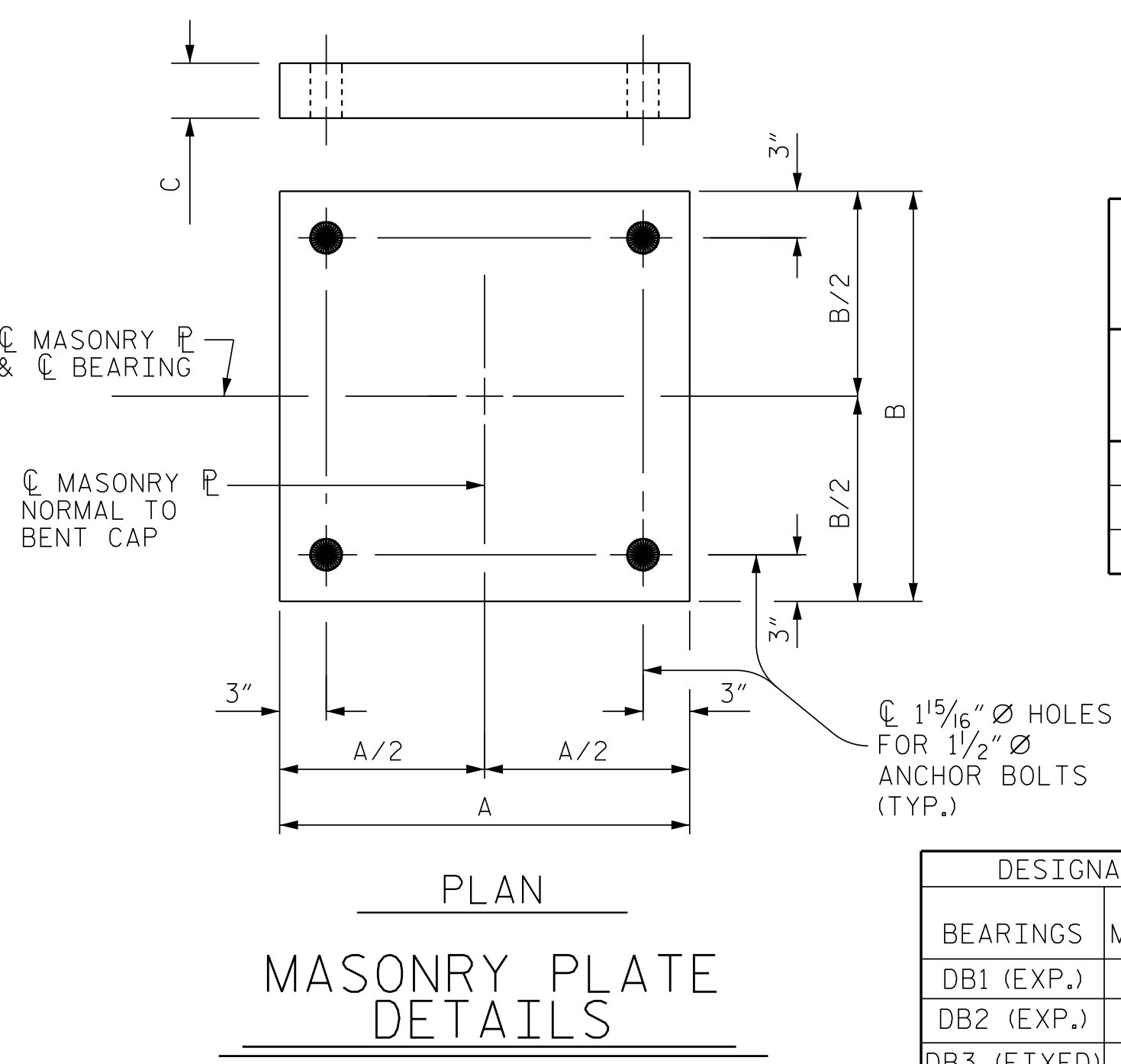
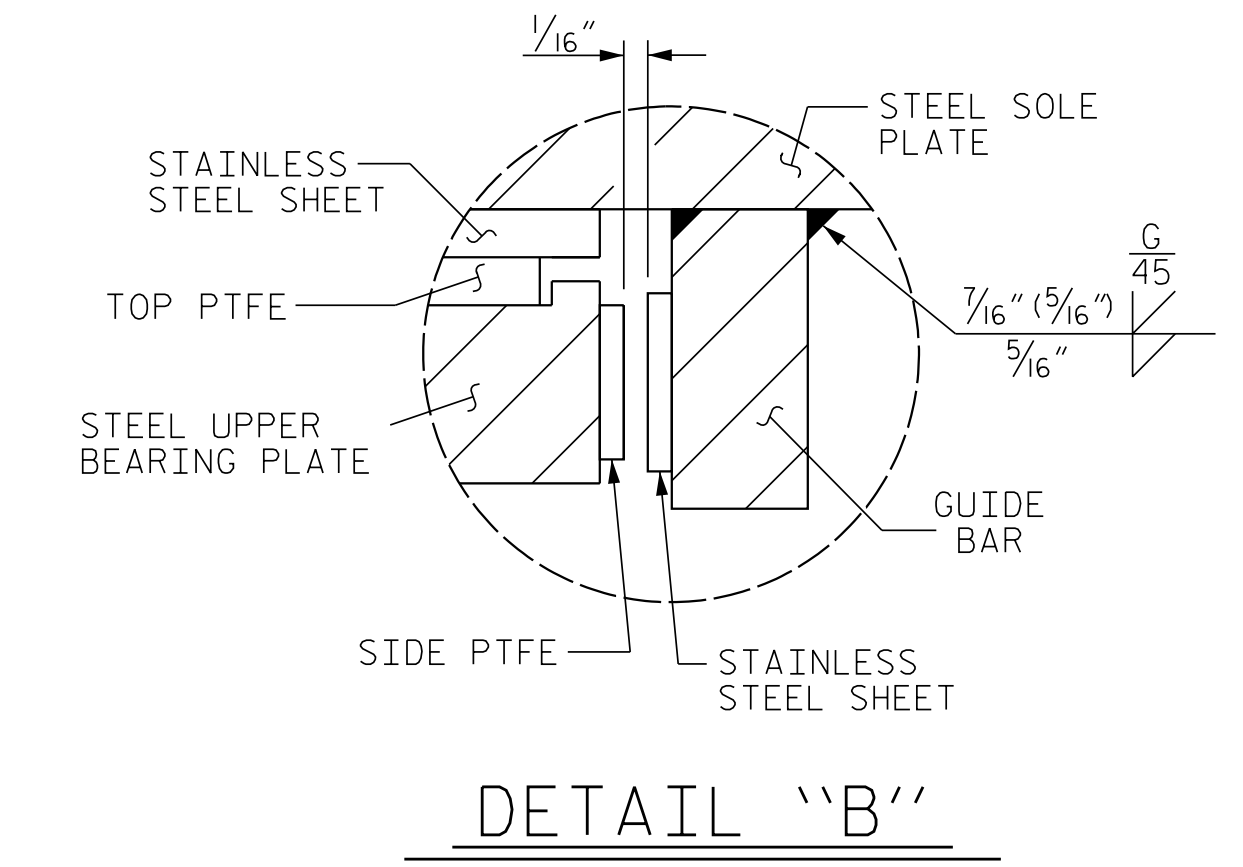
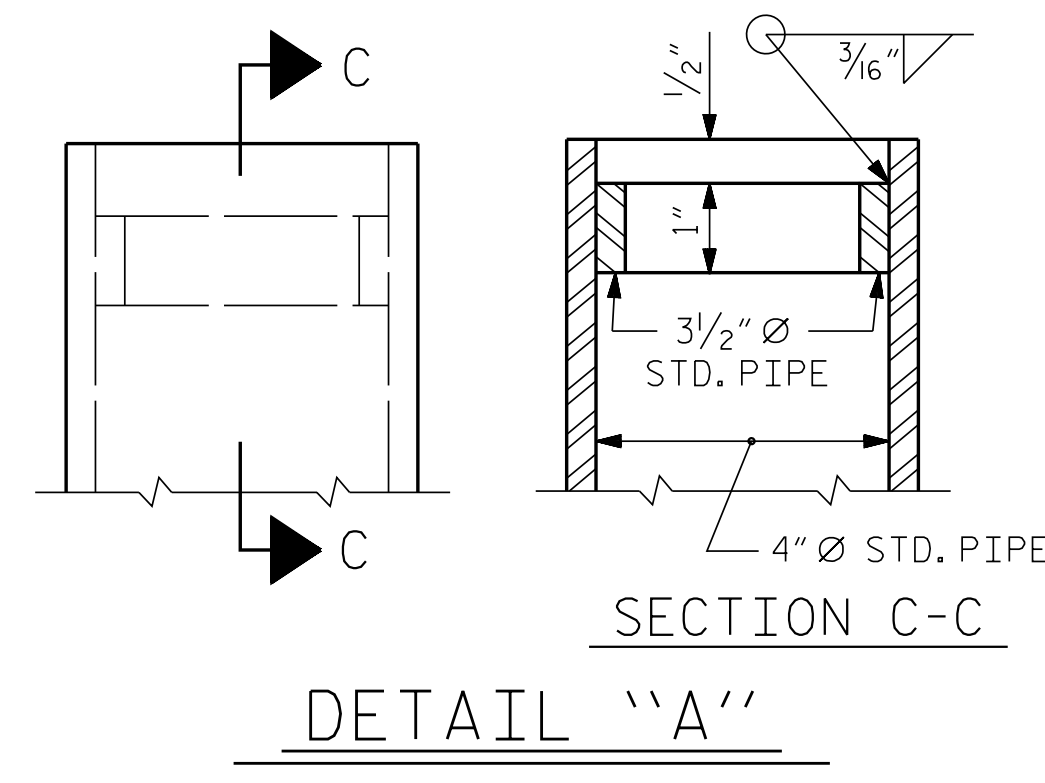
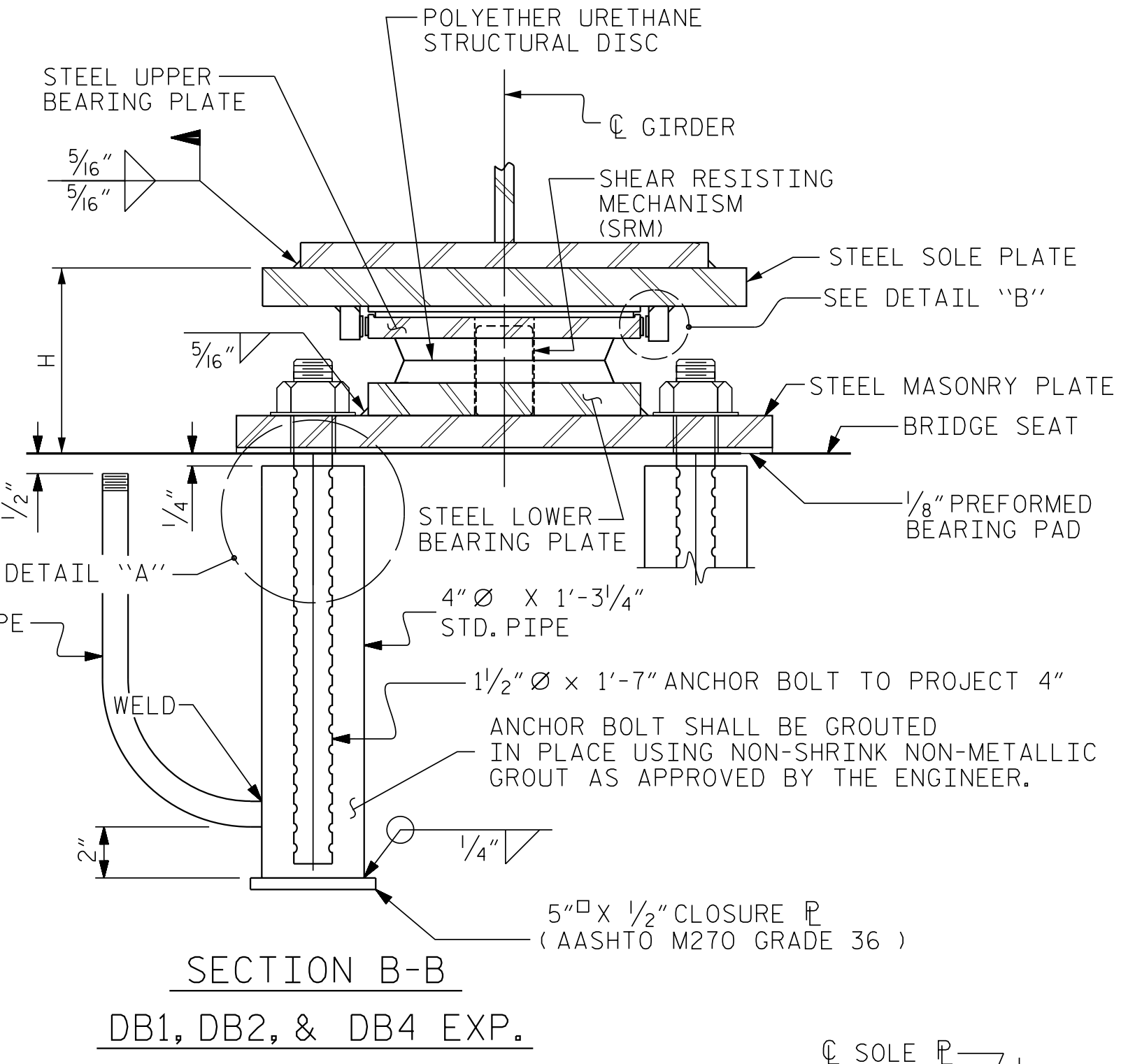
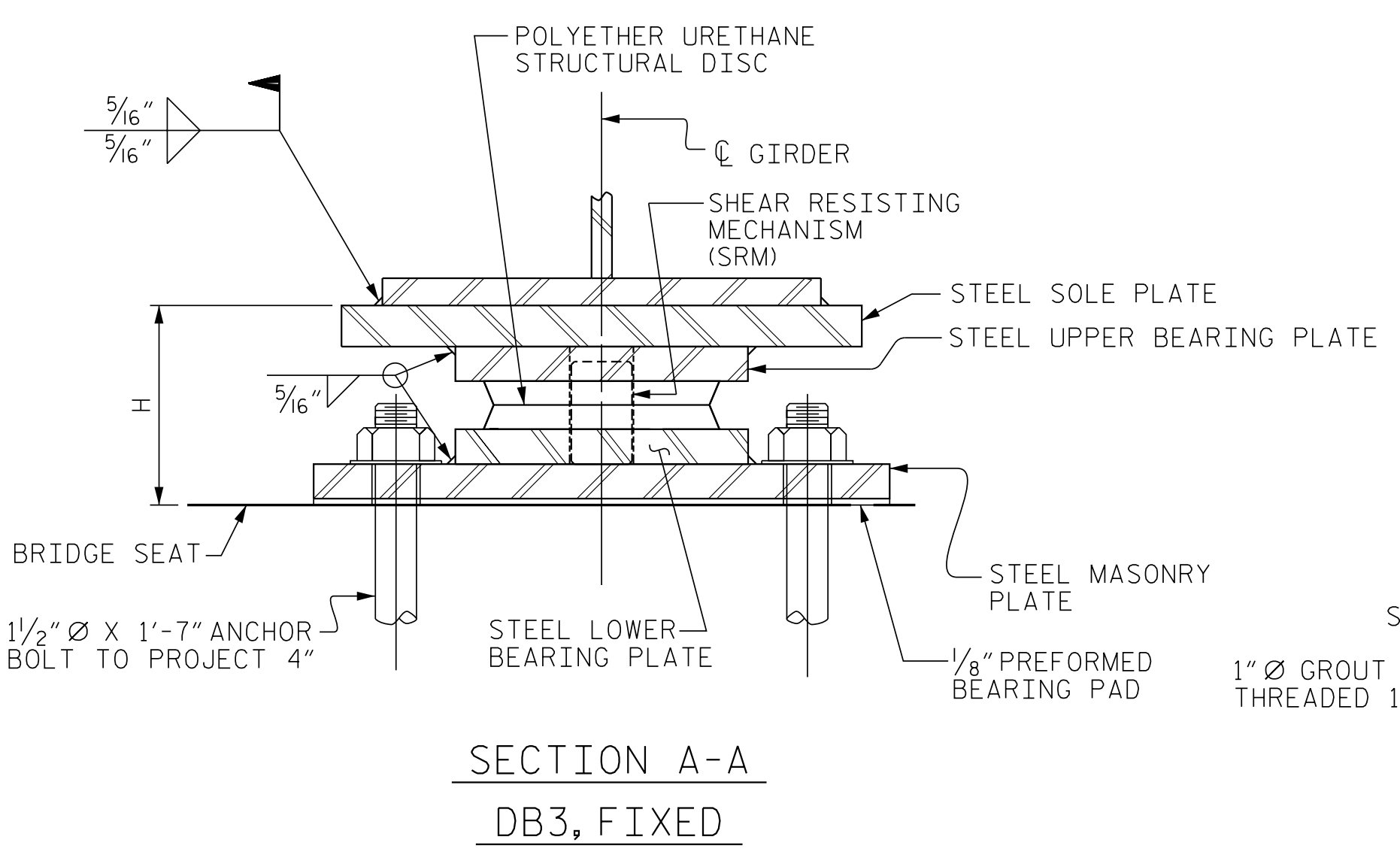
FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.

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**



**PLATE SETTING DATA**  
(EXPANSION DISC BEARINGS)

LOCATION	TEMPERATURE AT TIME OF SETTING			*
	45° F	60° F	90° F	
DB1 (EXP.)	-3/8"	0	3/4"	-1/4"
DB2 (EXP.)	-1/4"	0	7/16"	1/16"
DB4 (EXP.)	-1/16"	0	5/16"	-1/4"

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

**TEMPERATURE SETTING DETAIL**

DESIGNATIONS	LOCATION	NUMBER OF BEARINGS	DIMENSIONS				LOADS AND MOVEMENT					
			BEARING H (IN.)	MASONRY PLATE A (IN.)	SOLE PLATE B (IN.)	SOLE PLATE C (IN.)	UNFACTORED VERTICAL LOAD (KIPS) DEAD	UNFACTORED VERTICAL LOAD (KIPS) LIVE	FACTORED HORIZONTAL LOAD (KIPS)	ONE-WAY MOVEMENT (IN.)		
DB1 (EXP.)	M1 EB 1	5	5 1/2"	25 1/2"	25 1/2"	3/4"	2.853%	86	12	109	38	2 1/2"
DB2 (EXP.)	M2 BENT 1	5	7 5/8"	32 1/2"	32 1/2"	1"	1.503%	351	48	211	126	1 7/16"
DB3 (FIXED)	M3 BENT 2	5	6 3/8"	26 1/2"	26 1/2"	1"	-0.313%	351	48	211	126	-
DB4 (EXP.)	M4 EB 2	5	5 1/2"	25 1/2"	25 1/2"	3/4"	-1.662%	86	12	109	38	1 1/16"

**EXPANSION CHORD SETTING ANGLES**  
(EXPANSION DISC BEARINGS)

GIRDER	LOCATION		
	EB 1	BENT 1	EB 2
1	101°15'55"	96°21'45"	85°05'49"
2	101°15'52"	96°21'45"	85°05'52"
3	101°15'48"	96°21'45"	85°05'56"
4	101°15'45"	96°21'45"	85°05'59"
5	101°15'42"	96°21'45"	85°06'02"

PROJECT NO. R-5516  
CRAVEN COUNTY  
STATION: 32+25.84 -YEB01-  
75+13.29 -L-

**AECOM**  
AECOM TECHNICAL SERVICES, INC.  
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AECOM License No. F-0352

4/12/2017  
NORTH CAROLINA PROFESSIONAL ENGINEER  
SEAL 030474  
JOHN C. MORRISON

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

**SUPERSTRUCTURE**  
**DISC BEARING DETAILS**

REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. **S-23**  
TOTAL SHEETS 51

ASSEMBLED BY : S. G. STREDAK DATE : 08/15  
CHECKED BY : J. C. MORRISON DATE : 05/16  
DRAWN BY : TMG 08/13 REV.  
CHECKED BY : EXP 10/13 REV.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATE: 4/7/2017 TIME: 3:05:56 PM  
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