

1. ELASTOMERIC DISC

- (A) ELASTOMERIC DISCS SHALL HAVE THE MINIMUM THICKNESS PER AASHTO 14.6.4.3.
- (B) AREAS OF ELASTOMERIC DISCS SHALL BE DESIGNED FOR A MAXIMUM AVERAGE STRESS OF 3500 PSI AT THE TOTAL DEAD AND LIVE LOADS OF THE STRUCTURE PER AASHTO 14.6.4.4.
- (C) ELASTOMERIC DISC TO BE OF 50 SHORE "A" DUROMETER HARDNESS PER AASHTO 14.6.4.2..

2. POT

- (A) ALL STEEL USED IN POT BEARING TO BE AASHTO M270, GR. 345 AND SHALL BE GALVANIZED.
- (B) DEPTH OF THE POT CAVITY SHALL BE EQUAL TO OR GREATER THAN:
(POT ID/2) X DESIGN ROTATION (03 RADIAN) +.1 + THE THICKNESS OF THE ELASTOMERIC DISC. + THE PISTON FACE WIDTH.
- (C) INSIDE DIAMETERS SHALL BE THE SAME AS THE ELASTOMERIC DISC.

3. PISTON

- (A) PISTONS SHALL BE DESIGNED AS FOLLOWS FOR THICKNESS AND CLEARANCE PER AASHTO 14.6.4.7.
- (B) PISTON FOR ROUND CROSS SECTION SEALING RINGS SHALL HAVE THE LOWER OUTSIDE EDGE BEVELED TO ACCEPT AND RETAIN THE RING AND PERMIT FULL DESIGN ROTATION.

4. ELASTOMERIC SEAL RINGS

- (A) ROUND CROSS SECTION BRASS SEALING RINGS SHALL MEET THE FOLLOWING DESIGN REQUIREMENTS PER AASHTO 14.6.4.5
- (1) RINGS SHALL FIT THE POT ID SNUGLY 5/16" MIN.
(0" TO 1/64" LESS THAN POT ID).
- (2) RINGS SHALL BE ROLLED INTO A CIRCLE AND BRAZED.
(TO BE MADE FROM ONE PIECE).

5. PTFE SLIDING SURFACE

- (A) THE AREA OF THE PTFE SHALL BE DESIGNED FOR A WORKING STRESS AS PER AASHTO SECTION 14.6.2, AT THE FULL DEAD AND LIVE LOAD OF THE STRUCTURE.
- (B) UNFILLED PTFE SHALL MEET THE FOLLOWING REQUIREMENTS:
- (1) BONDED TO THE PISTON IT SHALL HAVE A MINIMUM THICKNESS OF 1/8" AND SHALL BE RECESSED ONE-HALF OF ITS THICKNESS INTO STEEL PISTON. TO CONFORM TO AASHTO SECTION 14.6.2.6.1.

6. STAINLESS STEEL SLIDING SURFACE

- (A) THE STAINLESS STEEL SLIDING SURFACE SHALL COVER THE PTFE SURFACE IN ALL OPERATING POSITIONS PLUS ONE ADDITIONAL INCH IN EVERY DIRECTION OF MOVEMENT.
- (B) STAINLESS STEEL SHALL BE 16ga. (AASHTO 14.6.2.3.2) THICKNESS AND SHALL BE CONNECTED TO THE TOP PLATE BY MEANS OF AN EPOXY BOND & SEAL WELDED AROUND THE ENTIRE PERIMETER (AS PER AASHTO SECTION 14, 2002)
- (C) WELDING PROCEDURES SHALL BE CHOSEN SUCH THAT THE STAINLESS STEEL IN SERVICE IS IN CONTACT WITH THE TOP PLATE AND THE SURFACE IS SMOOTH AND FLAT.
- (D) STAINLESS STEEL SLIDING SURFACES SHALL BE PREFERABLY FACE DOWN.

7. GUIDE BARS

- (A) GUIDE BARS AND THEIR CONNECTIONS TO THE TOP PLATE SHALL BE DESIGNED FOR THE HORIZONTAL FORCES ON THE BEARING AND NOT LESS THAN 19% OF THE TOTAL VERTICAL LOAD CAPACITY OF THE BEARING.
- (B) UNLESS THE GUIDE BAR CLEAR. IS SPECIFIED IT SHALL BE A TOTAL OF 1/8" (MAX.).
- (C) GUIDING ARRANGEMENTS SHALL BE DESIGNED SO THAT GUIDING MEMBER IS ALWAYS WITHIN THE GUIDES AT ALL POINTS OF TRANSLATION OF THE BEARING.
- (D) GUIDE BAR MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GR. 345 AND SHALL BE PAINTED. SEE NOTE 9 (I).

8. MATERIALS

- (A) STRUCTURE STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GR. 345 AND SHALL BE GALVANIZED.
- (B) ELASTOMERS SHALL CONFORM TO AASHTO SECT. 14, 2002, AND MODIFIED BY STANDARD SPEC. 2002 WITH MODIFICATIONS AS NOTED IN TABLE 716-07-1
- (C) ELASTOMER SEALS MAY ONLY BE MADE OF METAL AS FOLLOWS:
(1) ROUND CROSS SECTION BRASS RINGS, ASTM B-36 (HALF HARD), SHALL CONFORM TO FEDERAL SPECIFICATION QQB626, COMPOSITION 2.

- (D) PTFE SLIDING SURFACES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SECTION 14, 2002, AND AS MODIFIED BY STAND. SPEC. 716-07
- (E) STAINLESS STEEL SLIDING SURFACES SHALL CONFORM TO ASTM A-240 TYPE 304 WITH A SURFACE FINISH OF #8 MIRROR (AASHTO 14.6.2.2)

9. MANUFACTURING REQUIREMENTS

- (A) POTS AND PISTONS SHALL BE MACHINED FROM A SOLID PIECE OF STEEL AS PER AASHTO SECTION 18.5.1.5-1 POT BEARINGS.
- (B) ELASTOMERIC DISC TOLERANCES SHALL BE PER AASHTO TABLE 18.5.1.5-1 ELASTOMERIC DISC.
- (C) PTFE SLIDING SURFACE TOLERANCES SHALL BE PER AASHTO TABLE 18.5.1.5-1 PTFE.
- (D) STAINLESS STEEL SLIDING SURFACES SHALL BE EPOXY BONDED & SEAL WELDED, CONFORMING TO THE AMERICAN WELDING SOCIETY REQUIREMENTS FOR STAINLESS STEEL, AROUND IT'S PERIMETER USING TECHNIQUES WHICH WILL ENSURE IT REMAINS IN CONTACT WITH THE BACKING PLATE. FINISH SHALL BE #8 MIRROR. FLATNESS SHALL CONFORM TO CLASS "A" OR BETTER.
- (E) SOLE PLATE TOLERANCES SHALL CONFORM TO TABLE 18.5.1.5-1 REQUIREMENTS.
- (F) GUIDE BAR TOLERANCES SHALL CONFORM TO TABLE 18.5.1.5-1.
- (G) OVERALL HEIGHT OF BEARING SHALL NOT EXCEED THE NOMINAL HEIGHT BY MORE THAN 3/16".
- (H) THE EDGES OF ALL PARTS SHALL BE BROKEN BY GRINDING SO THAT THERE ARE NO SHARP EDGES.
- (I) EXTERNAL STEEL PLATE SURFACES TO BE HOT DIP GALVANIZED AS PER SPECIFICATIONS.

10. TOLERANCES FOR FLATNESS

- (A) FLATNESS OF BEARING SURFACES SHALL BE DETERMINED BY THE FOLLOWING METHOD:
- (1) A PRECISION STRAIGHT EDGE LONGER THAN THE NOMINAL DIMENSION TO BE MEASURED SHALL BE PLACED IN CONTACT WITH THE SURFACE TO BE MEASURED AS PARALLEL TO IT AS POSSIBLE.
- (2) SELECT A FEELER GAUGE HAVING AN ACCURACY OF $\pm .001"$ EQUAL TO THE TOLERANCE ALLOWED AND ATTEMPT TO INSERT IT UNDER THE STRAIGHT EDGE.
- (3) PLATES ARE "ACCEPTABLE" IF THE FEELER GAUGE DOES NOT PASS UNDER THE STRAIGHT EDGE.
- (B) FLATNESS TOLERANCES SHALL BE AS FOLLOWS:
- (1) CLASS "A" 0.001 X NOMINAL DIMENSION PER AASHTO TABLE 18.5.15-1.
- (C) "NOMINAL DIMENSIONS" SHALL BE INTERPRETED AS THE ACTUAL DIMENSION OF THE PLATE, IN METRIC UNITS, UNDER THE STRAIGHT EDGE WHERE THE STRAIGHT EDGE IS NOT PARALLEL TO ANY PLAN DIMENSION OF THE PLATE BEING MEASURED.
- (D) IN DETERMINING THE FLATNESS THE STRAIGHT EDGE MAY BE LOCATED IN ANY POSITION ON THE SURFACE BEING MEASURED.

11. REFERENCE

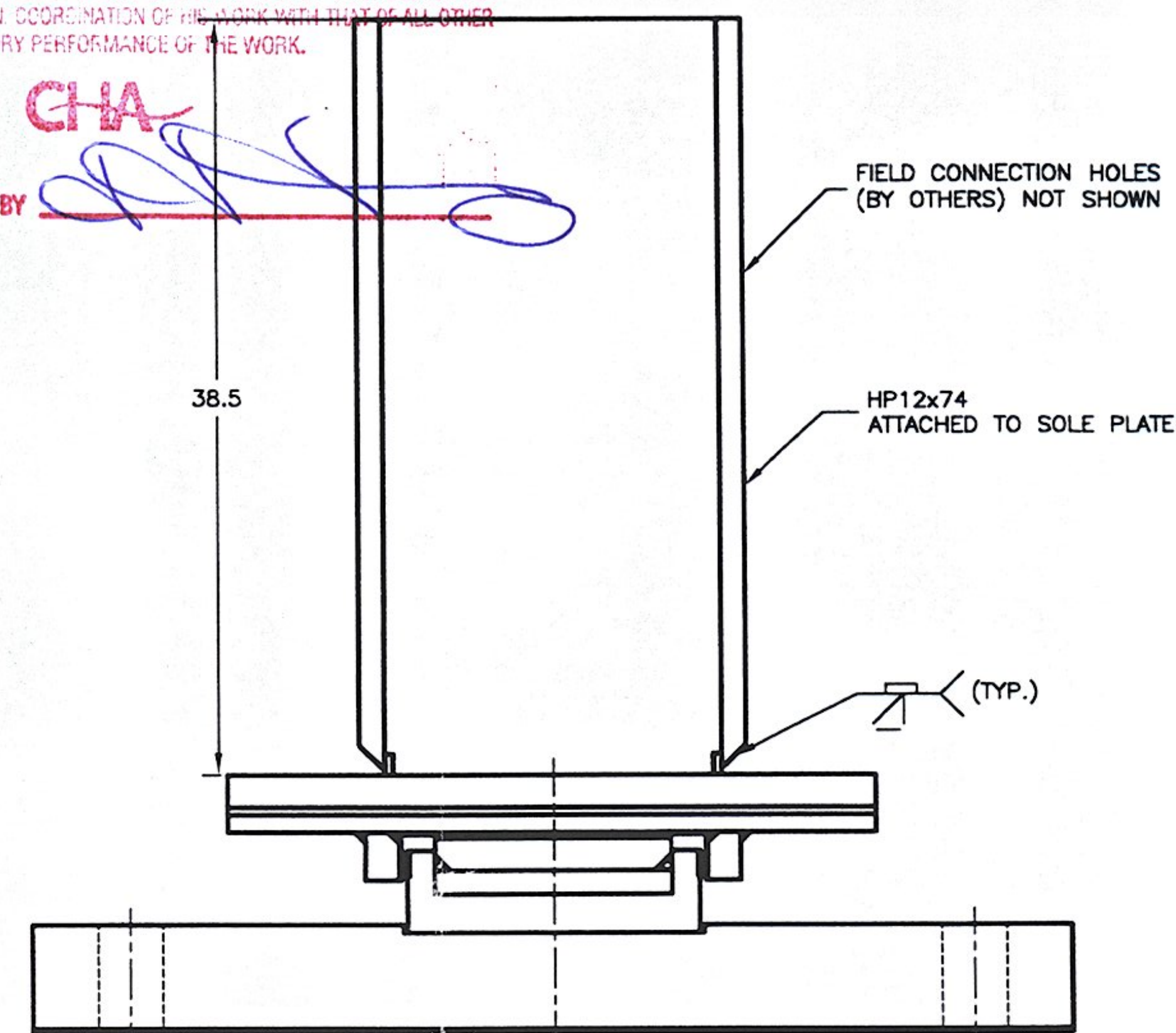
- (A) AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH. EDITION 2002 WITH CURRENT INTERIMS, AS MODIFIED BY THE NYSDOT STANDARD SPECIFICATIONS DATED JAN. 2, 2002 AND AS MODIFIED BY THE CONTRACT DOCUMENTS.

12. ADDITIONAL COMMENTS

- (A) BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.
- (B) ALL BEARINGS SHALL BE PLACED ON A 1/8" THK. BEARING PAD SAME SIZE AS MASONRY PLATE, AND CONFORM TO STAND. SPEC. 728-02 OR 728-03
- (C) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- (D) SCALE = N.T.S.
- (E) MANUFACTURING LOCATION:
AMSCOT STRUCTURAL PRODUCTS CORP. INC.
241 EAST BLACKWELL STREET
DOVER, NJ 07801
PH: (973) 989-8800
FX: (973) 989-5651
CONTACT: PETER SOMOGYI

☐ NO EXCEPTIONS TAKEN		☐ MAKE CORRECTIONS NOTED		REVISIONS	
☐ REJECTED	ZONE	REV	☒ REVISE AND RESUBMIT	DESCRIPTION	DATE
☐ SUBMIT		☐ SPECIFIED ITEM			APPROVED

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. FABRICATION PROCESSES AND TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.



SOLE PLATE CONNECTION DETAIL

VERMONT AGENCY OF TRANSPORTATION
CITY OF MONTPELIER
PROJECT NO. BHF 6400(31)

GUIDED EXPANSION POT
BEARING NOTES

AMSCOT

STRUCTURAL PRODUCTS CORP.
DOVER, NJ

JOB # 0071

SCALE	N.T.S.	CHECKED	DRAWN BY: C.A.M.
DATE	1/25/10	B.F.	REVISION: 0

FOR WINTERSET, INC.

DWG NO. 104190

SHEET NO. 2 OF 2

RECEIVED
CHK BY _____ OK'D BY _____
FEB 01 2010
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

USE 2006
TRANS
STANDARD
SPECIFICATION
FOR
CONSTRUCTION