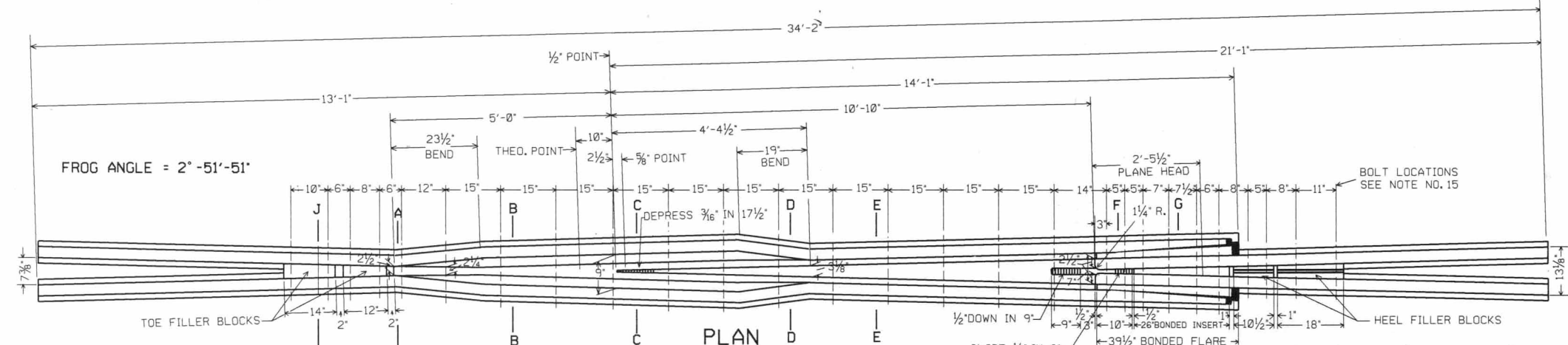
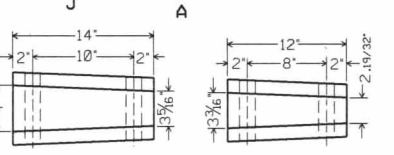
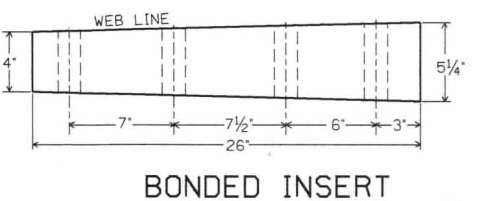


REVISIONS
 B-June, 1978
 C-Oct., 1980
 D-May, 1986
 E-May, 1987
 F-Sept., 1994
 (Redrawn)
 G-Sept., 1995

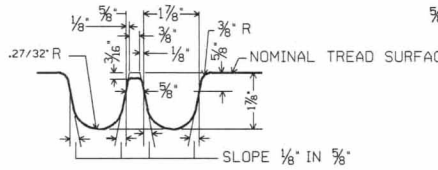


NOTES

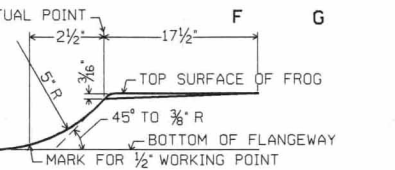
- This Plan is for use with Conrail Specification MW 180 for 136RE rail.
- The 136RE rail shall be per the current Conrail Plan 71016.
- All rails shall be fully Heat Treated or Head Hardened.
- Rail ends shall not be beveled, except where shown.
- Workmanship and materials shall be per current AREA Specifications.
- Heavy wall casting shall be per current AREA Specifications.
- Frog center casting shall be Explosion Hardened and done prior to assembly.
- Casting shall be Radiographed for internal soundness.
- Casting shall be Hi-Quality and to the internal soundness levels on the current Conrail Plan 74165.
- All bolt holes in rails shall be chamfered 1/16".
- When frog is to be used in bolted track, the first bolt hole is to be drilled in the field by Conrail.
- The bolt holes in the heel end of the casting for heel rails, wing rails and fillers shall be cored 1 7/8" diameter. All other holes cored in the casting can be round or elongated.
- Drilling of bolt holes in the toe end of the wing rails and both ends of the heel rails shall not be permitted through the stamping on a rail.
- Frog bolts shall be square head, Hi-Tensile, heat treated steel, Grade 5, 1 3/8" diameter with ASAH square nuts, headlocks, washers and AREA spring washers.
- For bolt lengths see the current Conrail Plan 71501.
- Frog bolts must be of proper length for each location throughout the frog. After torquing of the bolt, between 1/2"-1 1/4" of the bolt should extend beyond the face of the nut. Burning or cutting the bolt to size will not be permitted.
- Frog bolt nuts shall be tightened to 1650 Ft. Lbs. +/- 50 Ft. Lbs.
- For the location of Swivel Shoulder Frog Plates see the current Conrail Plan 73187.
- The weight of the frog is 6305 Lbs.
- The Item Numbers are 01-334760 for standard length and 01-334745 for maintenance length.
- Heel rail section of frog shall be glued using Allegheny Temprange Epoxy.



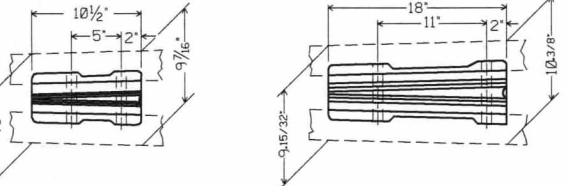
TOE FILLER BLOCKS



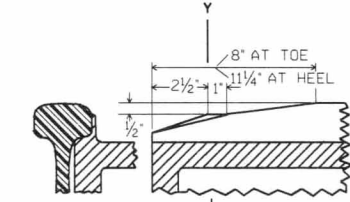
SECTION AT POINT



ELEVATION OF POINT

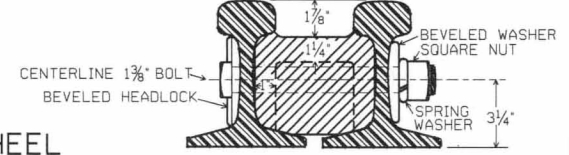


HEEL FILLER BLOCKS

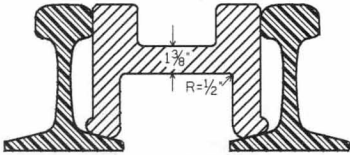


SECTION Y-Y

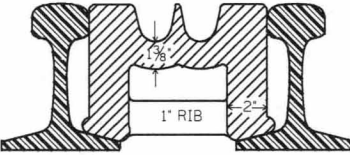
SECTION AT TOE AND HEEL END OF MANGANESE



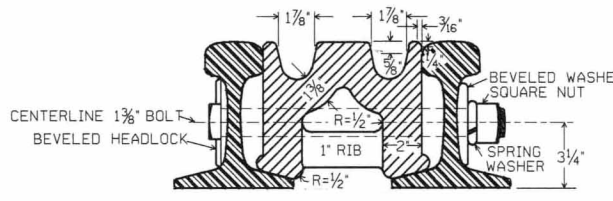
SECTION A-A



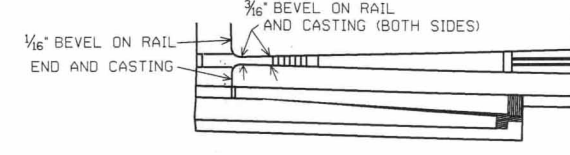
SECTION B-B



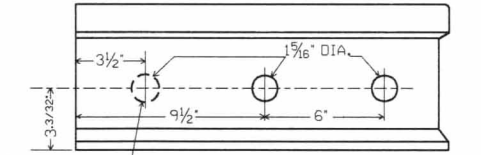
SECTION C-C



SECTION D-D

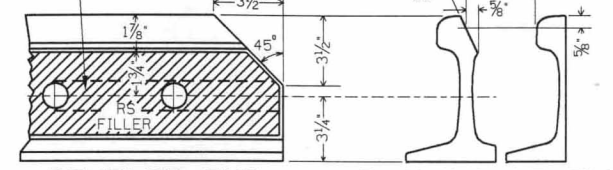


BEVEL DETAIL AT HEEL END OF CASTING

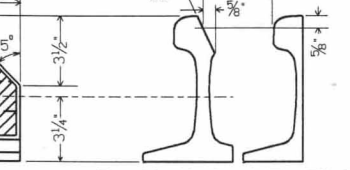


RAIL DRILLING

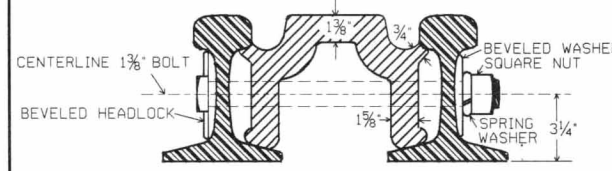
BOND WIRE GROOVE TO EXTEND FROM END OF FILLER TO CENTERLINE OF 2ND BOLT HOLE



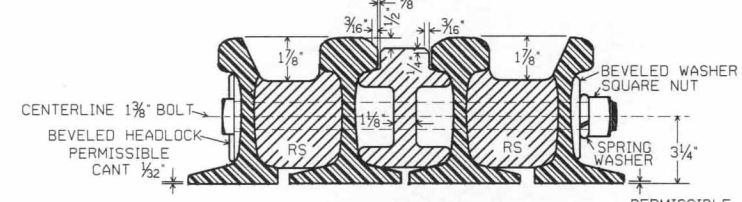
BEVELED END OF WING RAIL



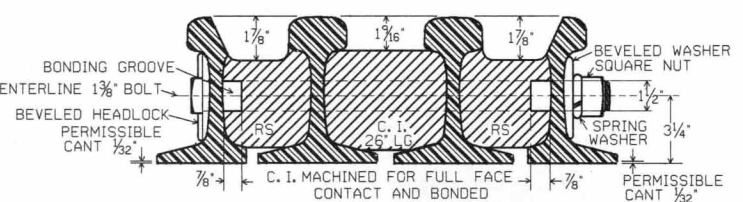
PLANING AT END OF WING RAIL



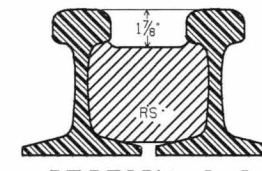
SECTION E-E



SECTION F-F



SECTION G-G



SECTION J-J

BOND WIRE GROOVE TO EXTEND FROM END OF FILLER TO CENTERLINE OF 2ND BOLT HOLE



CONRAIL 74163-G

STANDARD
**NO. 20 RAILBOUND MANGANESE
 STEEL FROG**
 136-RE

DECEMBER, 1977
 DIR. - STANDARDS & TRACK ANALYSIS
 CHIEF ENGINEER