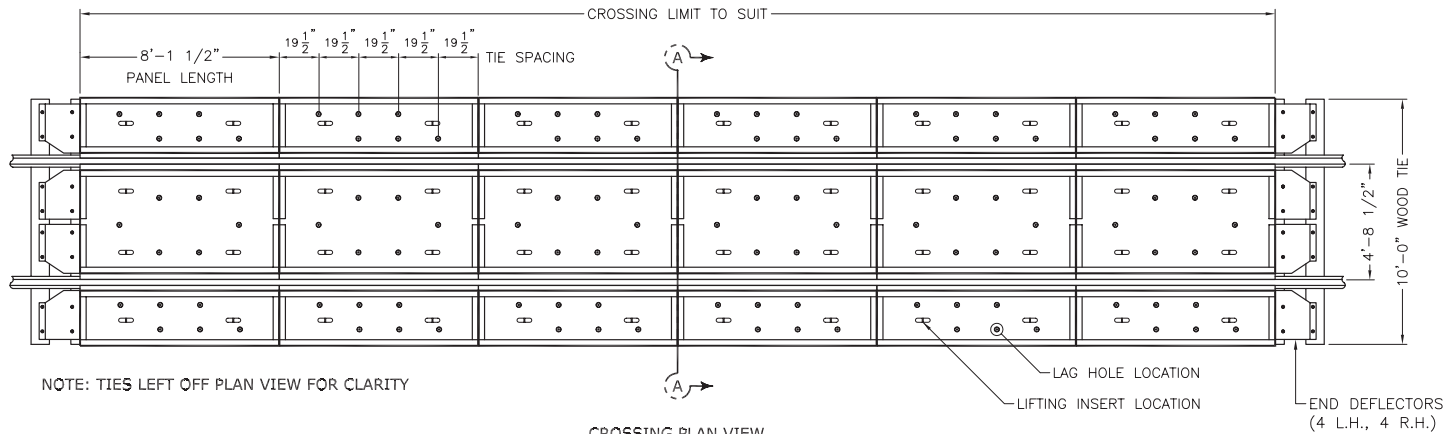


# Embedded Concrete-Rubber (ECR) Typical Layout



NOTE: TIES LEFT OFF PLAN VIEW FOR CLARITY

**MATERIAL SPECIFICATIONS:**

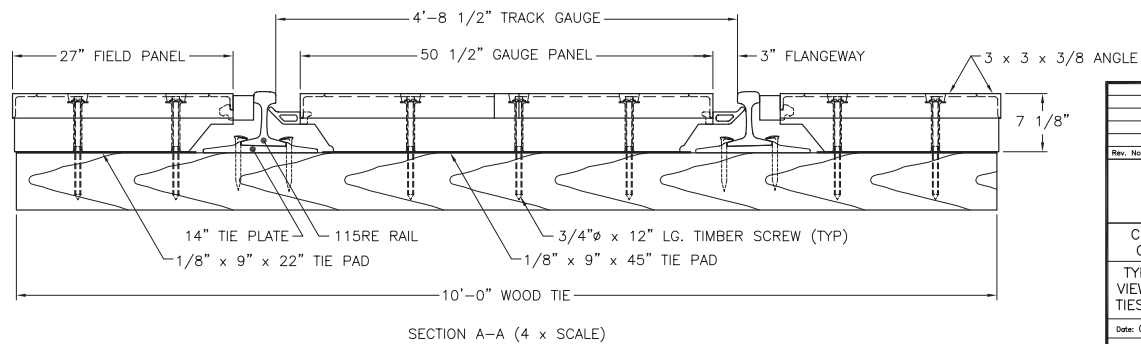
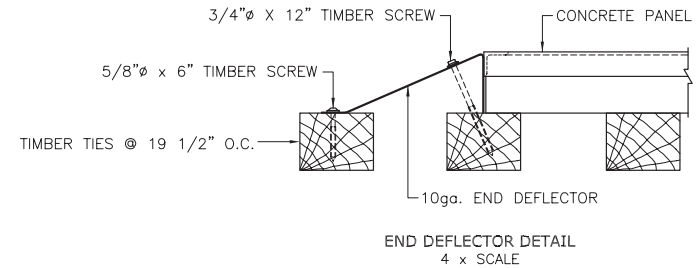
1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 SPECIFICATIONS. WELDING TO BE PER AWS CODE.
2. REINFORCING STEEL SHALL CONFORM TO CURRENT ASTM A706 SPECIFICATION, GRADE 60.
3. 3/16"Ø WEEP HOLES SHALL BE PLACED EVERY 2'-FT. MIN. ALONG THE TOP OF THE STEEL FRAME ALONG A LINE 3/4" FROM OUTSIDE EDGE.
4. CONCRETE MATERIAL MIXING, PLACING AND CURING TO BE IN ACCORDANCE WITH PCI "MANUAL FOR QUALITY CONTROL: PRECAST AND PRESTRESSED CONCRETE," MANUAL 115, EDITION 4. CEMENT SHALL HAVE NO MORE THAN 0.6% TOTAL ALKALI CONTENT. MAXIMUM WATER/CEMENT RATIO = 0.44 (BY WEIGHT). AIR ENTRAINMENT = 6%±1% IN PLASTIC CONCRETE. SLUMP 8" MAXIMUM.
5. TOP SURFACE SHALL BE NON-CRACK DESIGN AND IS TO BE SEALED TO PREVENT ION MIGRATION DUE TO SALTING.
6. CONCRETE COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS:  
 @28 DAYS = 6000psi MINIMUM  
 @REMOVAL FROM FORMS = 2500psi MINIMUM
7. PANEL REINFORCEMENT TO MEET AASHTO HS-20 LOADING SPECIFICATION WITH 30% IMPACT INCREMENT.
8. EACH PANEL TO HAVE TWO 2-TON MINIMUM LIFTING HOOKS, 1/2"Ø MIN. HOT-DIPPED GALV.
9. ALL EXPOSED SURFACES OF STEEL ANGLE FRAME TO HAVE ONE COAT RUST INHIBITIVE COATING

**TOLERANCES:**

1. OUT OF SQUARE 3/16" (MEASURED ALONG DIAGONAL)
2. LENGTH, WIDTH, AND THICKNESS: ±1/8"
3. REINFORCEMENT PLACEMENT SHALL BE ±1/2" HORIZONTAL, ±1/4" VERTICAL
4. THE BOTTOM SURFACE, WHICH WILL BE IN CONTACT WITH THE TIES, SHALL NOT UNDULATE IN ANY DIRECTION MORE THAN 3/32".
5. LAG SCREW LOCATION TOLERANCE: ±1/2" IN ANY DIRECTION.
6. LIFTING POCKET LOCATION TOLERANCE: ±1" IN ANY DIRECTION.
7. RUBBER LENGTH TOLERANCE: +0, -1/8" OF ADJACENT PANEL ENDS.

**RUBBER PROPERTIES:**

1. TENSILE STRENGTH: 2000psi MINIMUM (ASTM D412)
2. HARDNESS SHORE A: 65 ± 5 DUROMETER (ASTM D2240)
3. ELONGATION AT BREAK: 400% MINIMUM (ASTM D412)



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Rev. No.	Description	By	Date
<b>OMNI</b> PRODUCTS INC. P.O. BOX 15319 PORTLAND, OREGON 97214			
CSX STANDARD HEAVY DUTY GRADE CROSSING SYSTEM			
TYPICAL XING PLAN & SECTION VIEWS, 115RE RAIL, 10' TIMBER TIES, 8'-1 1/2" PANEL LENGTH			
Date: 05-04-06		By: MTL	Plot Scale: 1=25
Approved:		Dwg. No: 10-1284-00	