

**GENERAL NOTES:**

- ANY MODIFICATION OF THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL BE SUBMITTED TO THE ELECTRIC TRACTION DEPARTMENT FOR APPROVAL.
- OVERHEAD BRIDGES SHALL BE PROVIDED WITH 6'-6" HIGH SOLID PROTECTION BARRIERS ABOVE THE SURFACE OF THE SIDEWALK OR CURB TO PROTECT PEDESTRIANS AGAINST CONTACT WITH RAILROAD WIRES PASSING UNDER THE BRIDGE AND TO PREVENT DAMAGE TO THE WIRES. WHERE A WALKWAY EXISTS ON THE BRIDGE A CURVED FENCE SHALL BE INSTALLED ON TOP OF THE SOLID BARRIER OVER ITS ENTIRE LENGTH. WHERE NO WALKWAY EXISTS THE FENCE SHALL BE STRAIGHT, (SEE SHEET 2 OF 2).
- NORMALLY THE SIGNAL POWER TRANSMISSION WIRES AND THE TRACTION POWER FEEDER WIRES ARE LOCATED ABOVE THE BRIDGE. FOR THE ALTERNATE POSITION OF THESE WIRES UNDER THE BRIDGE, THE PROTECTIVE BARRIER SHALL EXTEND AS SPECIFIED IN NOTE NO.4.
- THE PROTECTION BARRIER SHALL EXTEND AT LEAST 16 FEET BEYOND THE POINT AT WHICH ANY CATENARY WIRE PASSES UNDER THE BRIDGE; HOWEVER, THE MINIMUM DISTANCE FROM THE END OF THE PROTECTION BARRIER MEASURED TO A POINT OUTSIDE THE BRIDGE AND NORMAL TO THE WIRE SHALL BE 16 FEET.  
THE PROTECTION BARRIER SHALL EXTEND AT LEAST TEN (10) FEET BEYOND THE POINT AT WHICH A SIGNAL POWER OR TRACTION POWER FEEDER WIRE PASSES UNDER THE BRIDGE; THE MINIMUM DISTANCE FROM THE END OF THE PROTECTION BARRIER MEASURED TO A POINT OUTSIDE THE BRIDGE AND NORMAL TO THE WIRE SHALL BE TEN (10) FEET.
- WHERE HIGH VOLTAGE WIRES PASS OVER THE BRIDGE, A CHAIN LINK FENCE OR SUITABLE ALTERNATIVE, CAPABLE OF BEING ELECTRICALLY BONDED TO THE BARRIER AND RAIL RETURN SYSTEM, SHALL EXTEND FROM THE END OF THE SOLID BARRIER TO A POINT 25 FEET BEYOND AND NORMAL TO THE CENTERLINE OF THE STRUCTURES SUPPORTING THE WIRES ON EITHER SIDE OF THE BRIDGE.
- NONMETALLIC BARRIERS SHALL BE PROVIDED WITH GROUND STRIPS, EITHER 3" X 1/4" COPPER OR 5" X 1/4" ALUMINUM. OTHER MATERIALS MAY BE USED SUBJECT TO THE APPROVAL OF THE ELECTRIC TRACTION DEPARTMENT. METALLIC BARRIERS SHALL BE BONDED AND GROUNDED BY A METHOD AND WITH MATERIALS APPROVED BY THE ELECTRIC TRACTION DEPARTMENT.
- PROTECTION BARRIERS SHALL BE GROUNDED IN ACCORDANCE WITH DRAWING ET-1120-C, TYPICAL DETAILS FOR POWER BONDING OF STRUCTURES.
- OVERHEAD BRIDGES WITH OPEN-FLOOR CONSTRUCTION REQUIRE SPECIAL PROTECTION. THE DESIGN OF THE PROPOSED PROTECTION SHALL BE SUBMITTED TO THE ELECTRIC TRACTION DEPARTMENT FOR APPROVAL.
- WHERE LOCAL CONDITIONS WARRANT, THE DIMENSIONS SHOWN ON THIS DRAWING MAY BE MODIFIED WITH THE APPROVAL OF THE ELECTRIC TRACTION DEPARTMENT.
- DESIGN DRAWINGS OF THE OVERHEAD BRIDGE SHALL SHOW MINIMUM CLEARANCE, ANGLE, AND RAILROAD ELECTRIFICATION STATIONING AS INDICATED ON THIS DRAWING.
- (a) EXISTING PROTECTION BARRIERS ON BRIDGES OVER ELECTRIFIED TRACKS IN CLASS EIGHT (8) TERRITORY (GREATER THAN 125 MPH) WHERE THERE'S A DEMONSTRATED NEED SHALL BE RETROFITTED WITH THE CURVED OR STRAIGHT FENCE OVER THEIR ENTIRE LENGTH.  
(b) A 9'-6" HIGH CHAIN LINK FENCE SHALL EXTEND FROM THE END OF THE SOLID PROTECTION BARRIER TO A POINT 16 FEET BEYOND THE CENTERLINE OF THE OUTERMOST ELECTRIFIED TRACK AS SPECIFIED IN NOTE FOUR (4) ABOVE. THE FENCE SHALL BE CURVED OR STRAIGHT PER NOTE (2).

**THIS DRAWING SUPERSEDES P.R.R. DRAWING ET-1446-D-4**

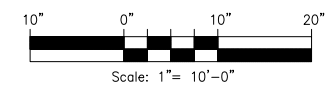
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No	Revisions	Date	By



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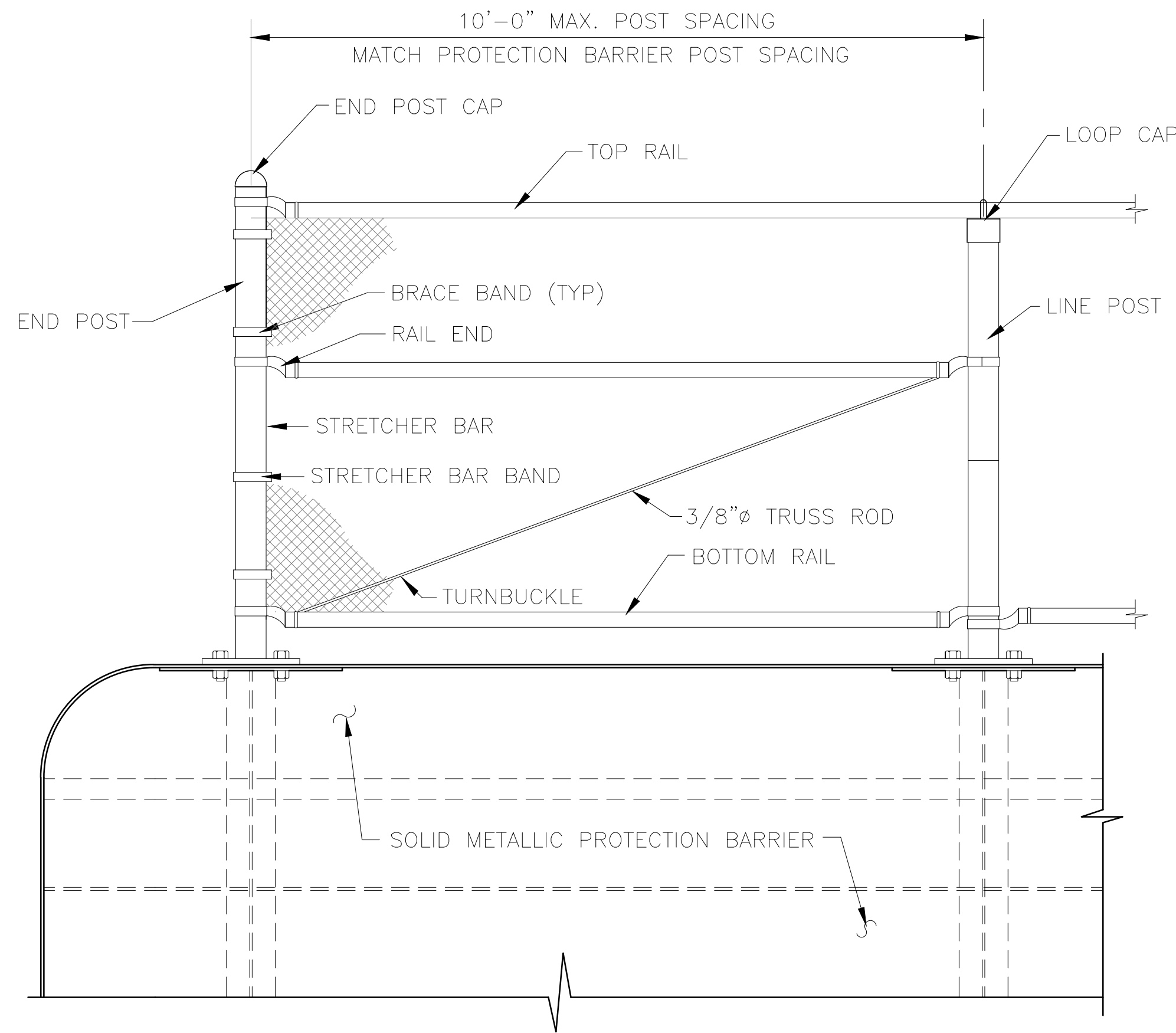
Approved  
Chief Engineer Electric Traction - R. J. Verhelle 6/7/99  
/S/  
Director Electric Traction Design - M. D. Insogna 6/7/99  
/S/



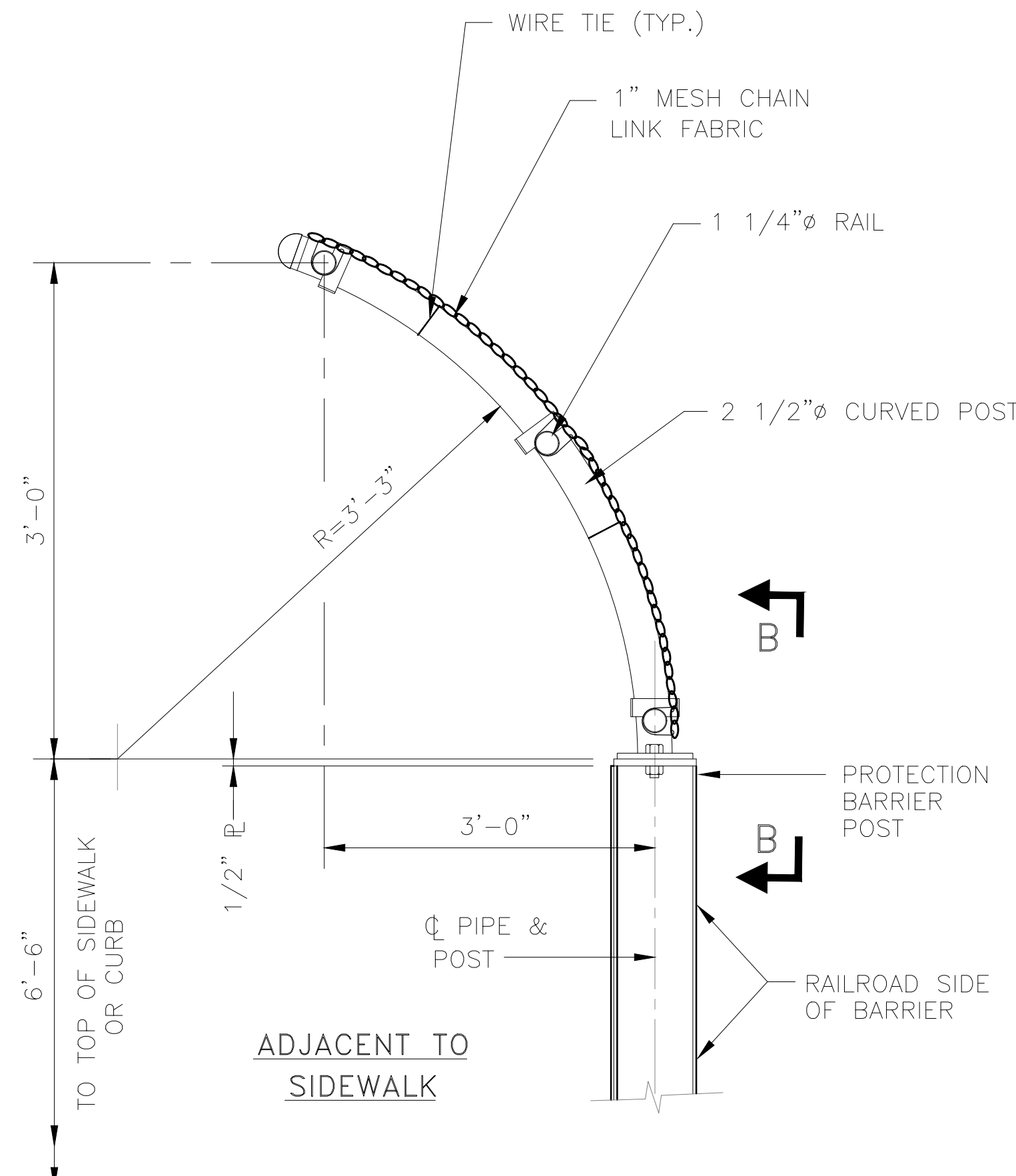
**E. T. STANDARD**  
**ELECTRIFIED TERRITORY O.H. BRIDGES**  
**TYPICAL PROTECTION BARRIER**

Designed: MDI Drawn: BJT Checked: MDI Date: 05-07-99

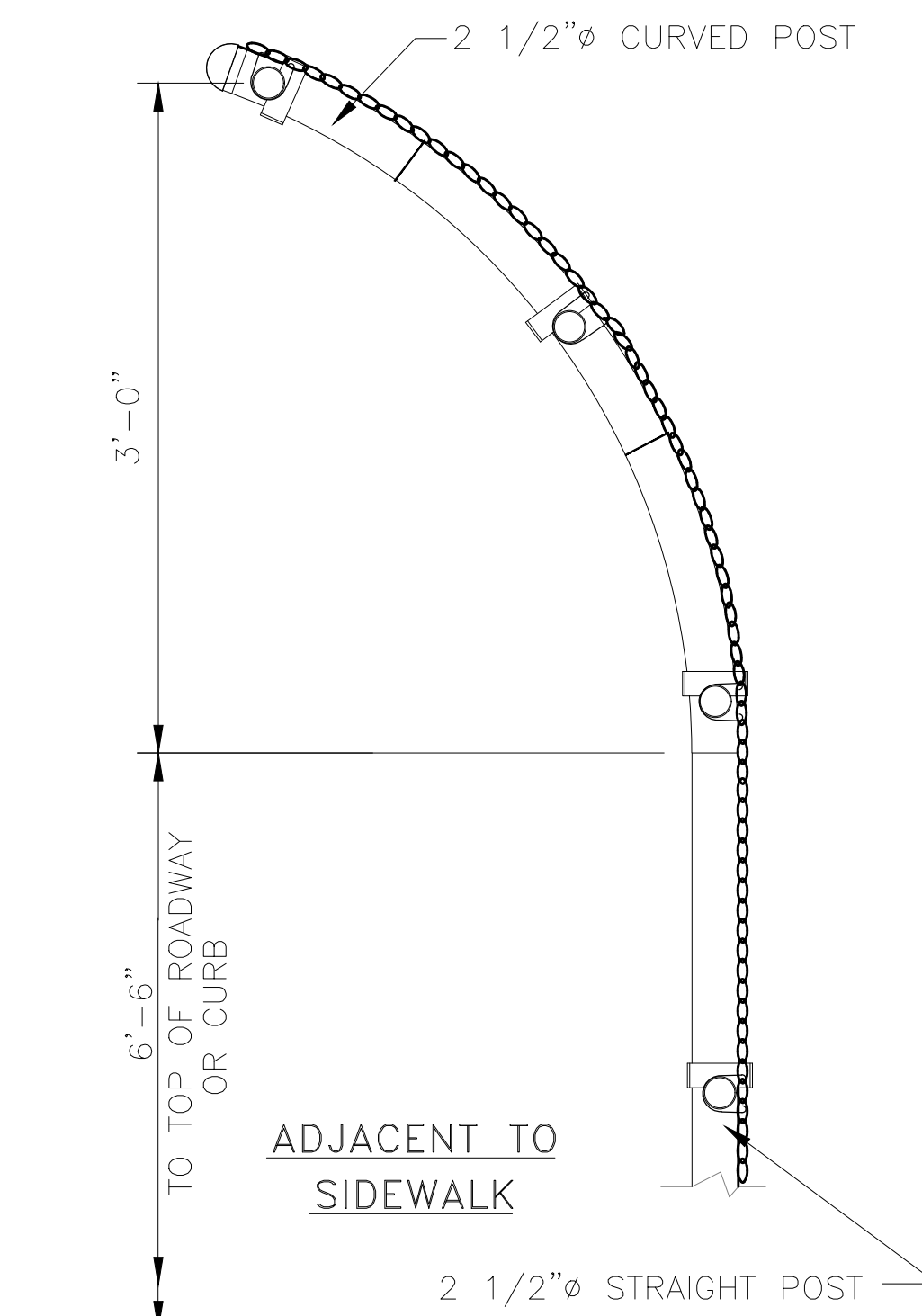
File No.: JFF3B  
Ref. No.: ET-1446-D-4  
Sheet No: 1 of 2  
ET-1446-D



ELEVATION VIEW OF CURVED FENCE ATTACHMENT  
NO SCALE



SECTION A-A  
NO SCALE

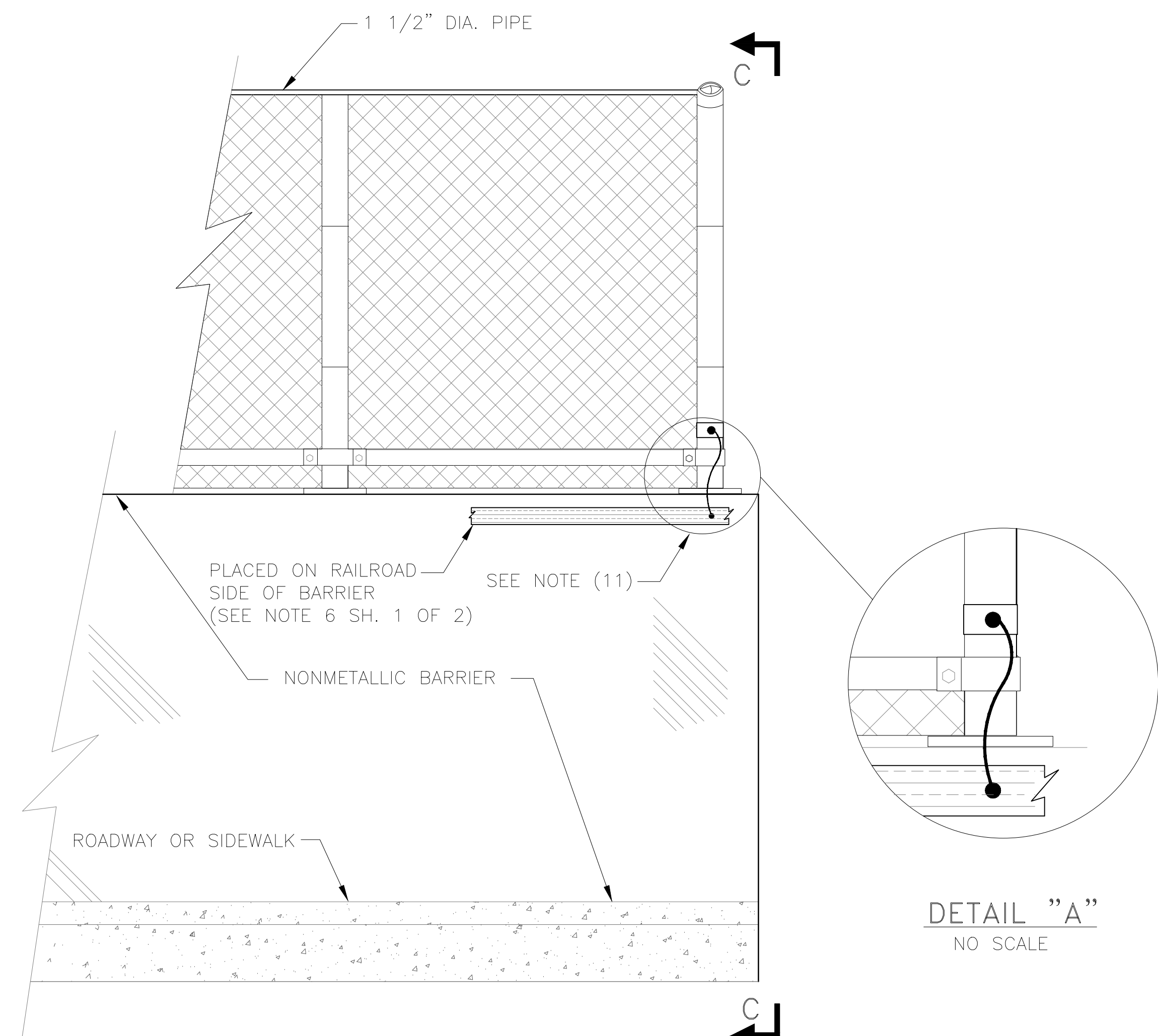


FENCING BEYOND BARRIER  
(SEE NOTE 11b SH. 1 OF 2)  
NO SCALE

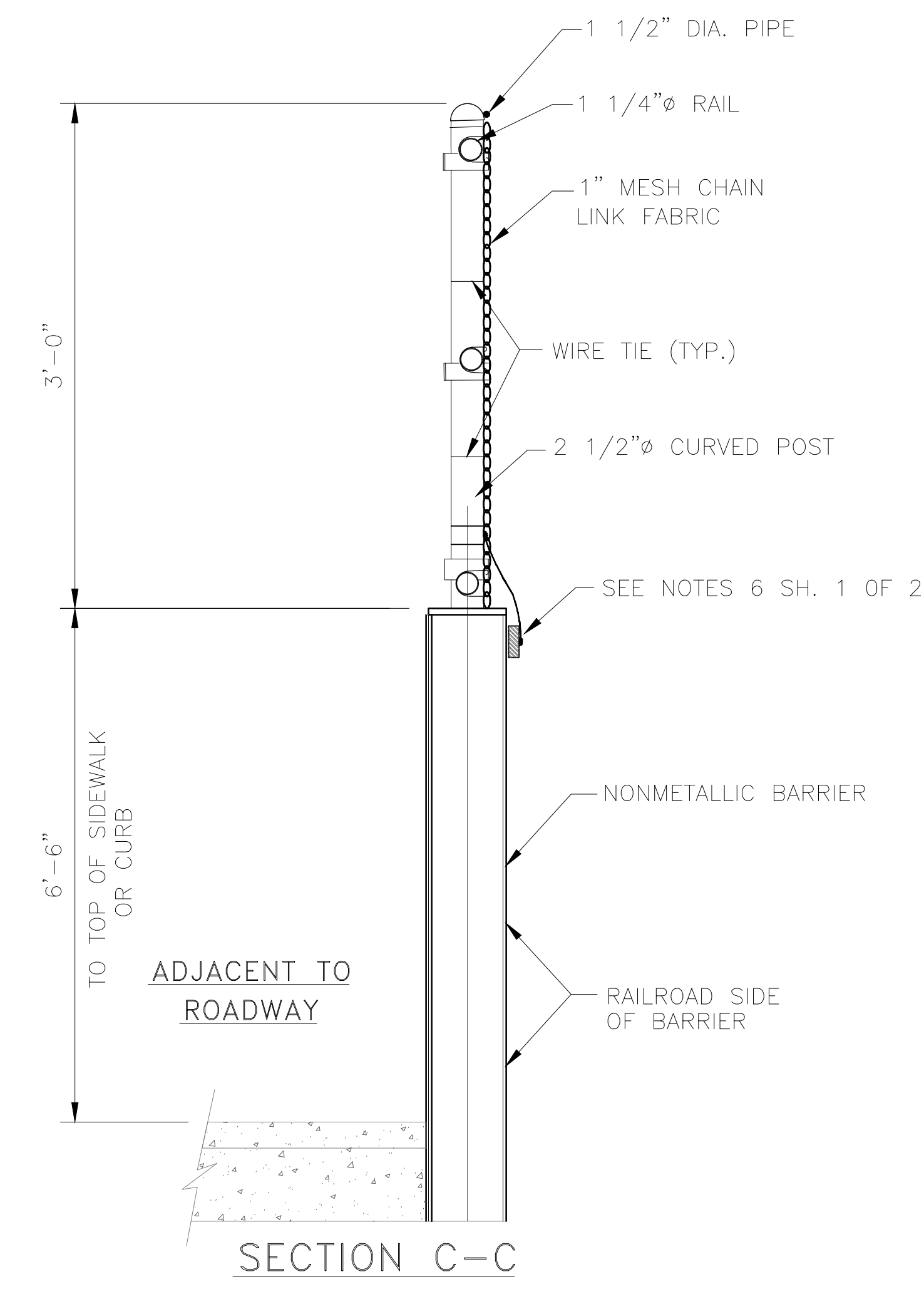
GENERAL NOTES:

1. BASE PLATE MATERIAL SHALL CONFORM TO ASTM SPECIFICATION A709, GRADE 36, LATEST ISSUE. (GALVANIZED)
2. POSTS SHALL BE 2 1/2" STANDARD WEIGHT PIPE. (GALVANIZED)
3. RAILS SHALL BE 1 1/4" STANDARD WEIGHT PIPE. (GALVANIZED)
4. CHAIN-LINK FENCE FABRIC SHALL BE NUMBER NINE (9) GAUGE ALUMINUM COATED, ONE (1) INCH MESH SIZE, DIAMOND SHAPED.
5. WIRE TIES SHALL BE STANDARD NUMBER NINE (9) GAUGE WIRE FOR RAILS AND NUMBER SIX (6) GAUGE WIRE FOR POSTS. (ALUMINUM COATED)
6. BOLTS SHALL BE 5/8" STAINLESS STEEL CONFORMING TO ASTM SPECIFICATION A325, LATEST ISSUE.
7. MATERIAL BASED ON PENN DOT BC-701.
8. ALL WELDING SHALL CONFORM TO STRUCTURAL WELDING CODE WAS D1.5, LATEST EDITION. ALL WELDS SHALL BE CONTINUOUS UNLESS OTHERWISE NOTED.
9. ALL GALVANIZING SHALL CONFORM TO ASTM SPECIFICATION A123, LATEST ISSUE.
10. THIS DRAWING CONFORMS TO STANDARD STRUCTURE PLAN SP3002. ALTERNATES SHALL BE SUBMITTED TO AMTRAK FOR APPROVAL.
11. NONMETALLIC SOLID PROTECTION BARRIERS WILL REQUIRE ADDITIONAL BONDING AND GROUNDING IN ACCORDANCE WITH AMTRAK STANDARDS. SEE DETAIL "A" BELOW. DETAILS SHALL BE FURNISHED BY THE ELECTRIFICATION CONSULTANT.
12. THE REQUIREMENTS FOR FENCING SHOWN ON THIS DRAWING, (ET-1446-D) SHEET 2 OF 2 ARE INTENDED TO DETER VANDALISM TO AMTRAK PROPERTY AND TO PREVENT INJURY TO AMTRAK EMPLOYEES AND PASSENGERS. DETAILS OTHER THAN THOSE SHOWN ON THIS DRAWING SHALL BE PROVIDED BY THE A/E.

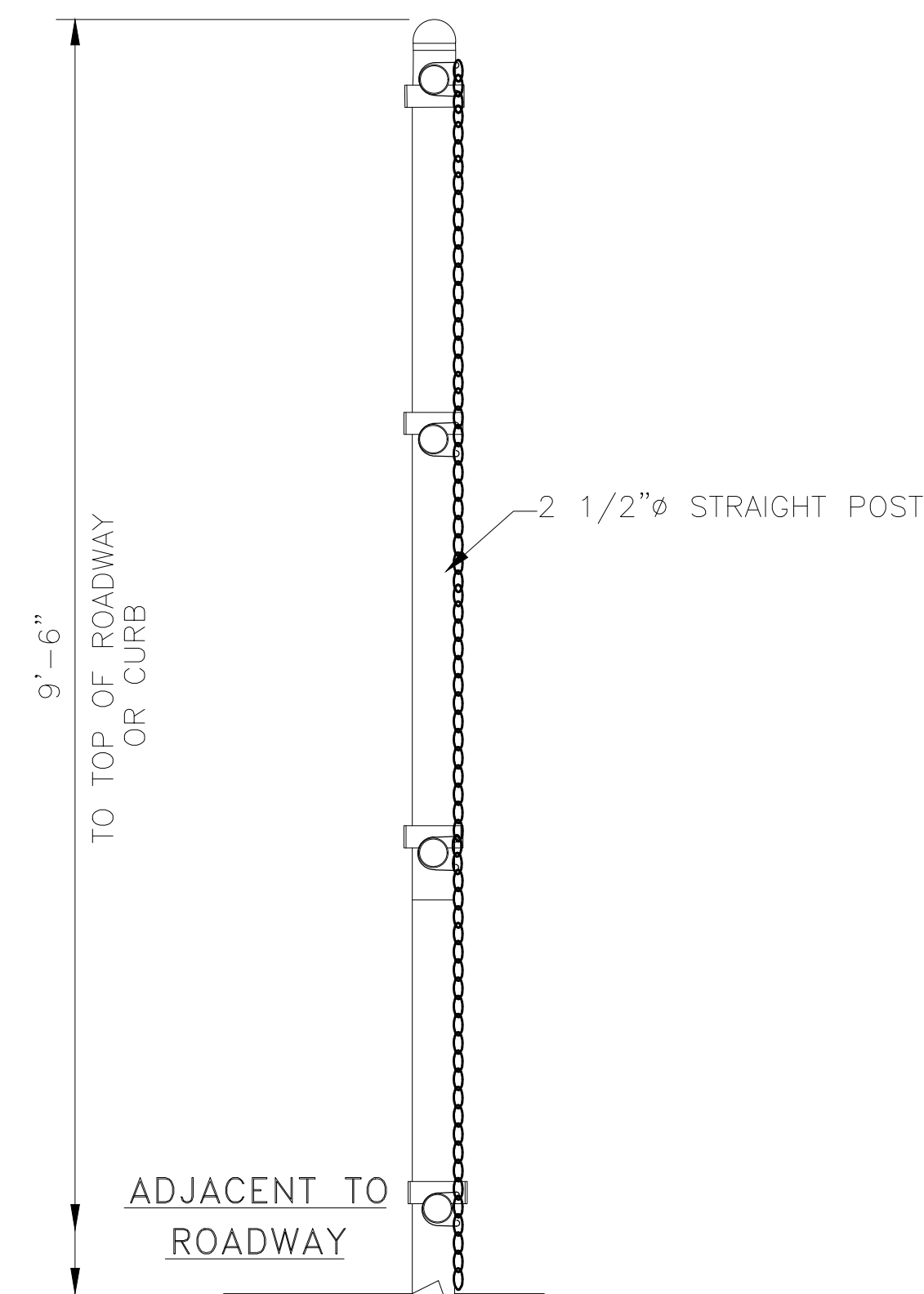
WALKWAY SIDE OF BRIDGE



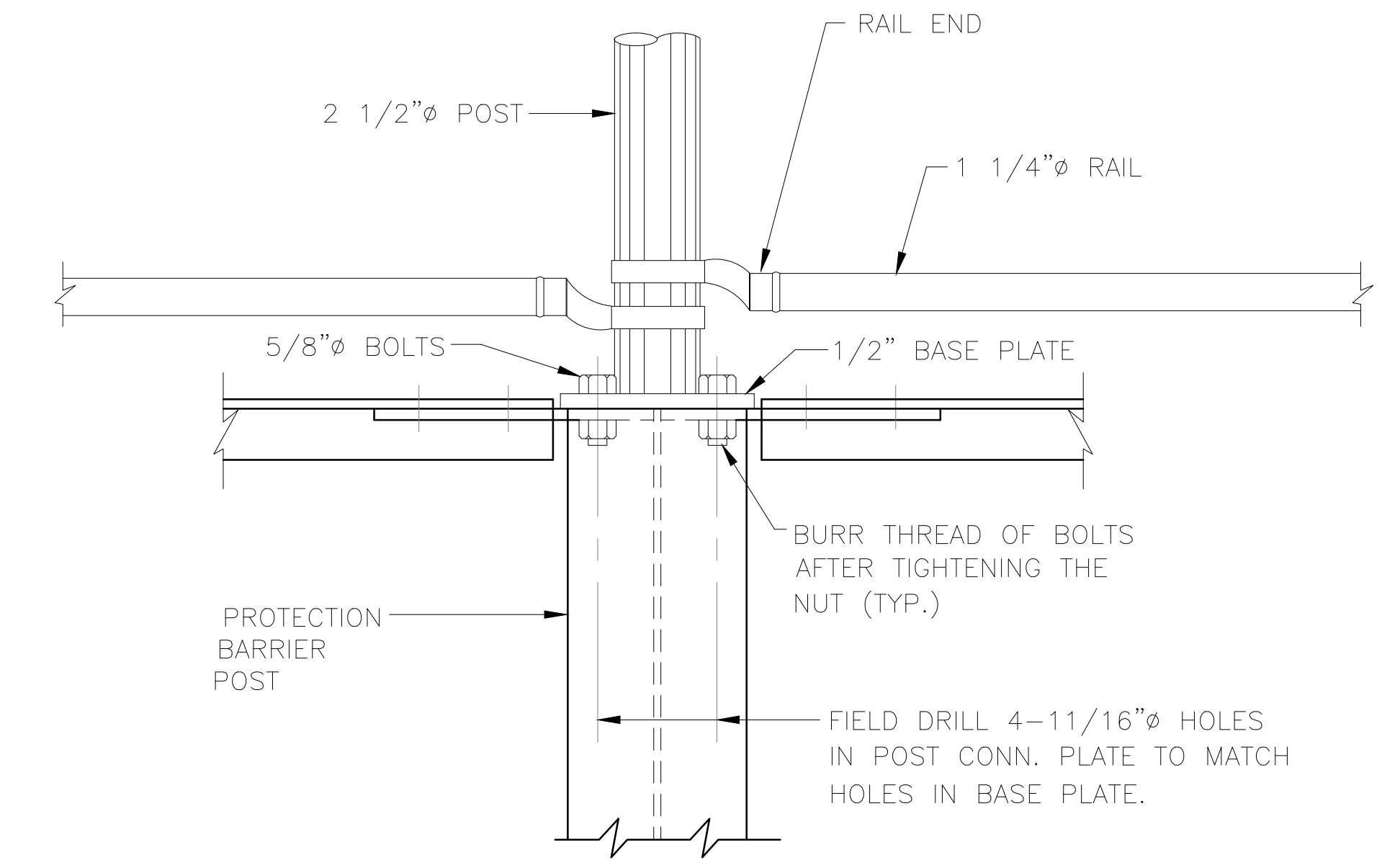
ELEVATION VIEW OF STRAIGHT FENCE ATTACHMENT  
NO SCALE



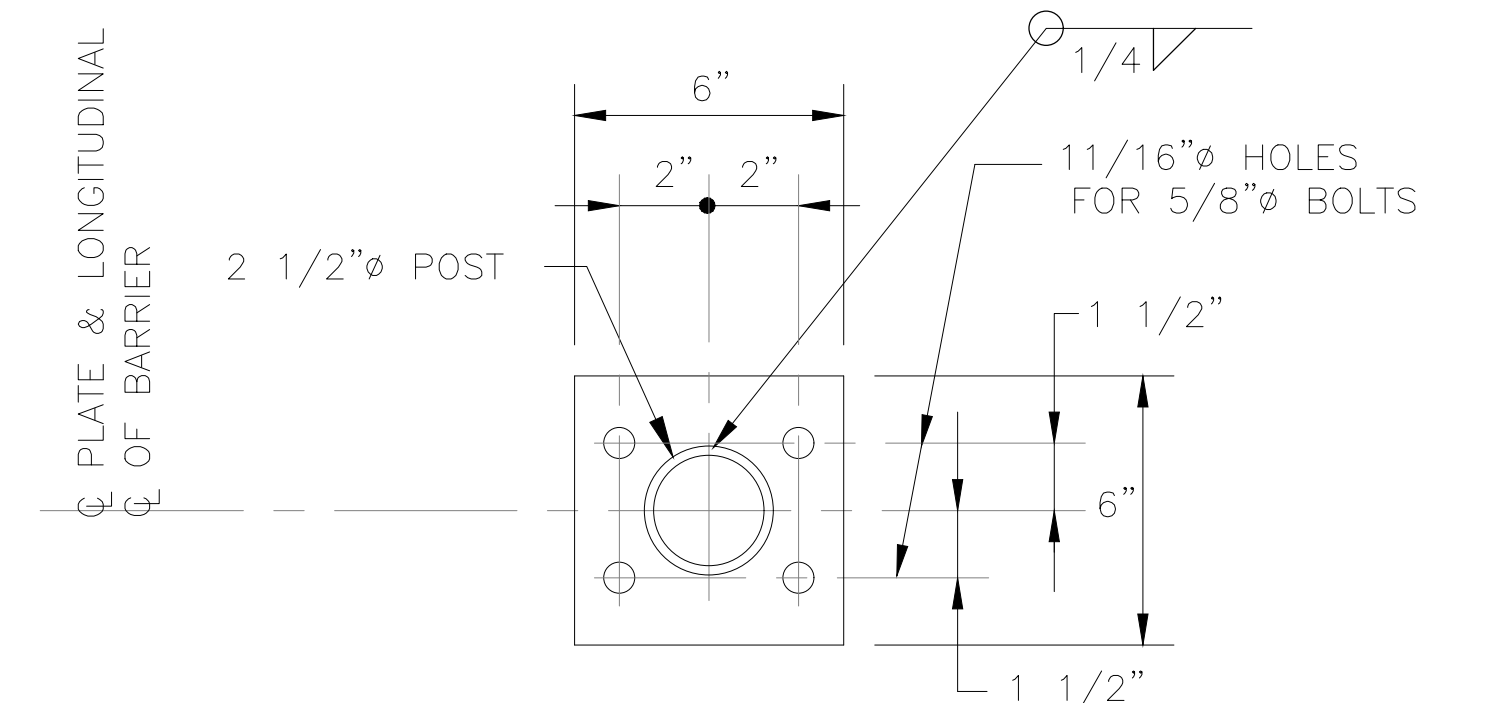
SECTION C-C  
NO SCALE



FENCING BEYOND BARRIER  
(SEE NOTE 11b SHEET 1 OF 2)  
NO SCALE



SECTION B-B  
TYPICAL FOR METALLIC BARRIERS  
NO SCALE



BASE PLATE DETAIL (TYPICAL)  
NO SCALE

ROADWAY SIDE OF BRIDGE

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Approved	Date
Chief Engineer Electric Traction - R. J. Verhelle /S/	6/7/99
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<b>E. T. STANDARD</b>				File No.: 3FF3B
ELECTRIFIED TERRITORY O.H. BRIDGES				Ref. No.: None
TYPICAL PROTECTION BARRIER				Sheet No: 2 of 2
Designed: MDI	Drawn: BJT	Checked: MDI	Date: 05-07-99	ET-1446-D