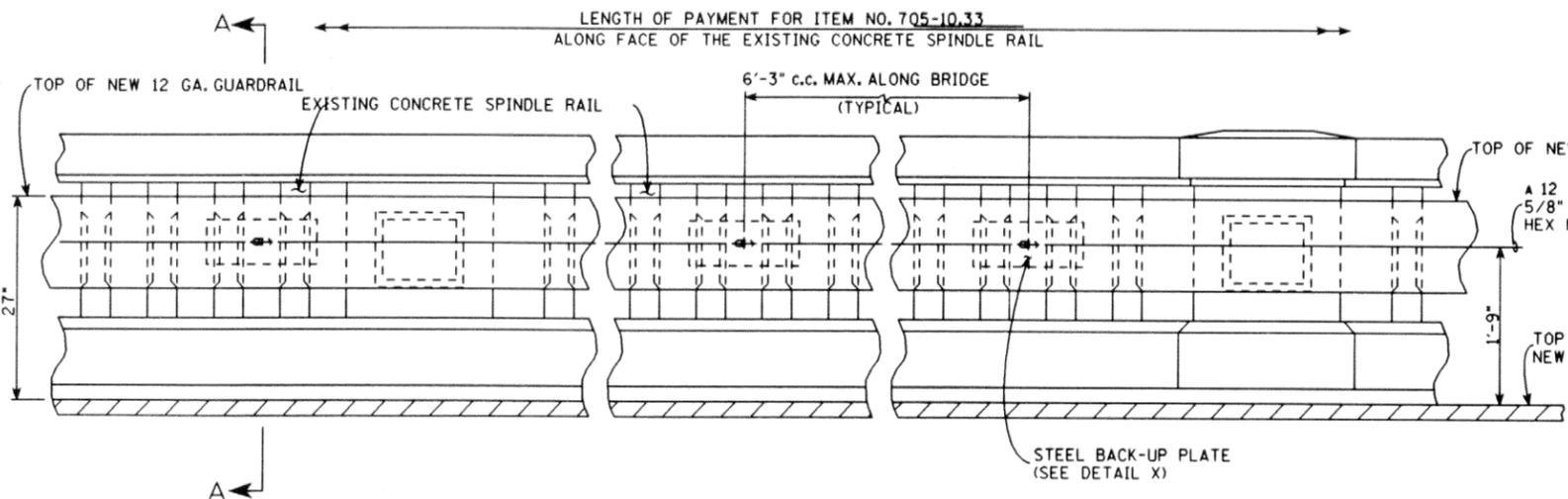


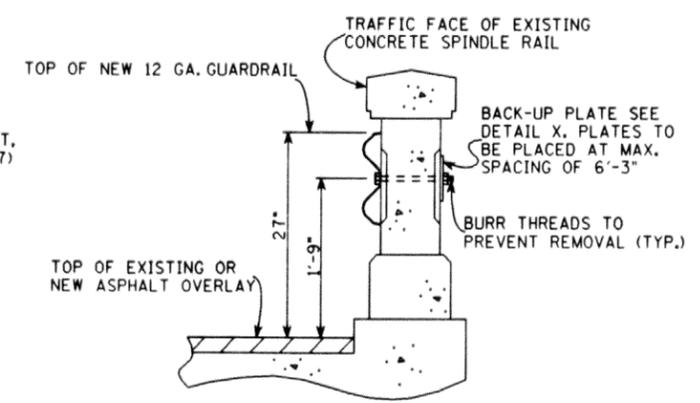
| PROJECT NO. | YEAR | SHEET NO. | |
|-------------|----------|-----------|---|
| | 1992 | | |
| REVISIONS | | | |
| NO. | DATE | BY | BRIEF DESCRIPTION |
| B/R 1 | 2-21-95 | T.O. | REMOVED SIGNATURE |
| B/R 2 | 1-4-96 | TO | REVISED BR DRAWING NO. TO SBR DRAWING NO. |
| B/R 3 | 11-05-01 | WS | REVISED NOTE |



ELEVATION - TRAFFIC FACE
(SHOWING NEW GUARDRAIL ATTACHED TO EXISTING CONCRETE SPINDLE RAIL)

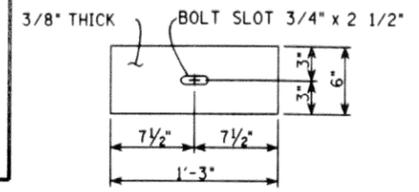
NOTE: DUE TO ALIGNMENT AND TO OBTAIN A FLUSH CONNECTION, THE CONTRACTOR MAY BE REQUESTED TO USE TREATED WOOD SHIM BLOCKS. WOOD SHIM BLOCKS MAY BE FIELD CUT TO FIT EACH LOCATION.
NOTE: BOLT SPACING MAY VARY, MAXIMUM SPACING TO BE 6'-3" ALONG THE BRIDGE.

NOTE: COST OF ALL MATERIALS AND LABOR NECESSARY TO ATTACH THE NEW GUARDRAIL ALONG THE EXISTING CONCRETE SPINDLE RAIL TO BE INCLUDED IN ITEM NO. 705-10.33, GUARDRAIL ATTACHMENT TO CONCRETE BRIDGERAIL, LIN. FT.



SECTION A - A

DETAIL GRA-33
ITEM NO. 705-10.33
LIN. FOOT



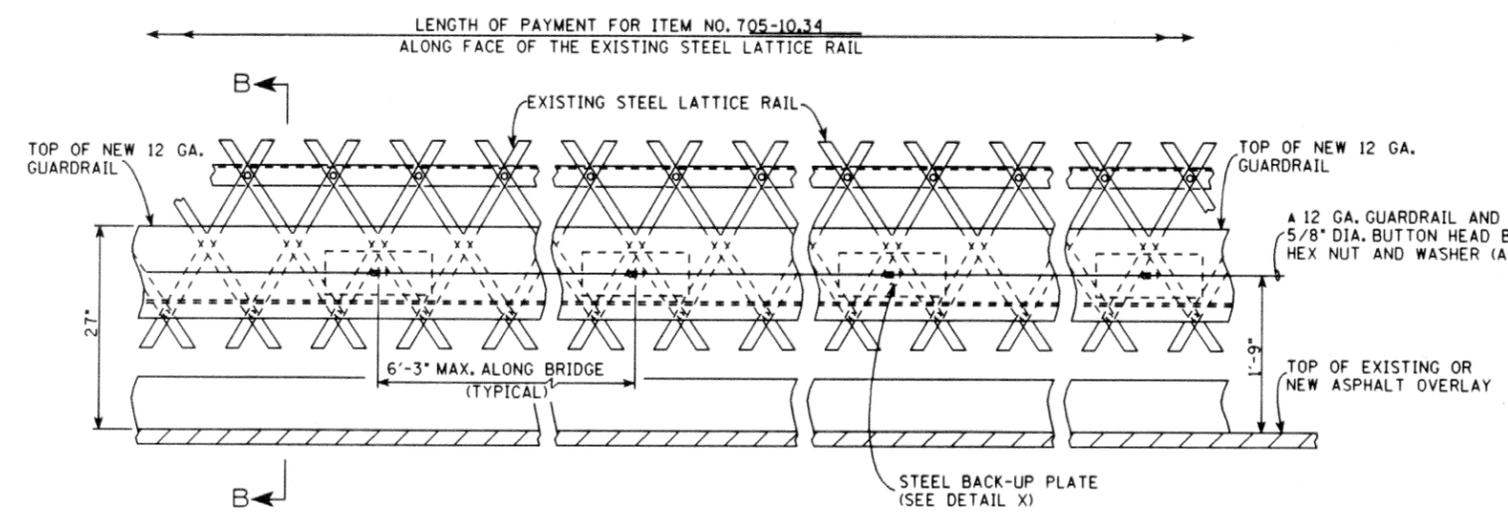
DETAIL X
STEEL BACK-UP PLATES TO BE GALVANIZED ACCORDING TO ASTM A123 AND SPECIFICATIONS AS NOTED IN STANDARD DRAWING S-GR-SERIES.

GENERAL NOTES:
SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (CURRENT EDITION).
DESIGN SPECIFICATION: AASHTO 1989 EDITION WITH ADDENDA.
NON-PAY ITEMS: ONLY ITEMS SHOWN ON THE PROPOSAL AS PAY ITEMS WILL BE PAID FOR. COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS FOR THE ENTIRE CONTRACT SHALL BE INCLUDED IN THE PRICE FOR PAY ITEMS.
NOTE: DETAILS OF GUARDRAIL SHALL CONFORM TO STANDARD DRAWING S-GR-SERIES, EXCEPT FOR DETAILS SHOWN THIS SHEET.
NOTE: THE COST OF ALL NEW GUARDRAIL, BOLTS, WOOD SHIM BLOCKS, STEEL BACK-UP PLATES, DRILLING AND ALL LABOR AND MATERIALS NECESSARY TO COMPLETE THE NEW GUARDRAIL CONNECTION AS SHOWN IN THESE DETAILS SHALL BE INCLUDED IN GUARDRAIL ITEMS BID ON.
NOTE: ALL WOOD SHIM BLOCKS SHALL BE CUT FROM PRESSURE TREATED TIMBER. SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 911 - TIMBER AND TIMBER PILES.
NOTE: PROFILE OF NEW GUARDRAIL SHALL CONFORM TO THE EXISTING ROADWAY GRADE.

B/R MINOR REVISION - FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

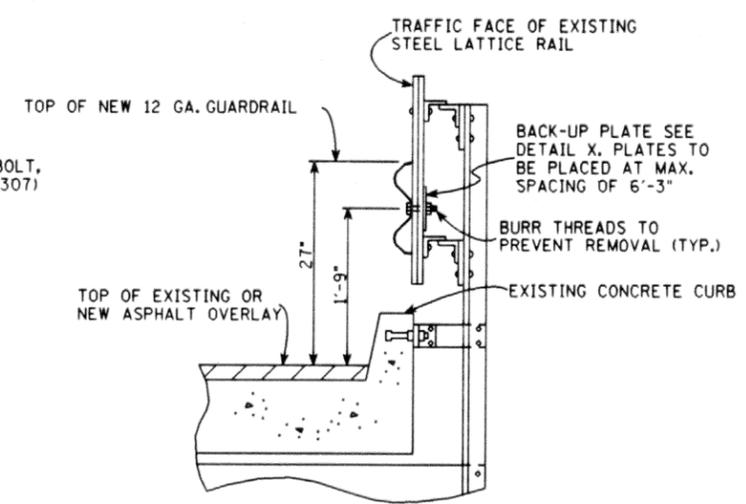
STANDARD
SHOWING DETAILS
FOR ATTACHING NEW GUARDRAIL
ALONG EXISTING BRIDGE RAILS
1992



ELEVATION - TRAFFIC FACE
(SHOWING NEW GUARDRAIL ATTACHED TO EXISTING STEEL LATTICE RAIL)

NOTE: DUE TO ALIGNMENT AND TO OBTAIN A FLUSH CONNECTION, THE CONTRACTOR MAY BE REQUESTED TO USE TREATED WOOD SHIM BLOCKS. WOOD SHIM BLOCKS MAY BE FIELD CUT TO FIT EACH LOCATION.
NOTE: BOLT SPACING MAY VARY, MAXIMUM SPACING TO BE 6'-3" ALONG THE BRIDGE.

NOTE: IN AREAS WHERE THE EXISTING STEEL LATTICE RAIL HAS BEEN DAMAGED, THE CONTRACTOR SHALL PULL THE DAMAGED AREA OF RAIL BACK TO A VERTICAL POSITION BEFORE ATTACHING THE NEW GUARDRAIL. COST OF STRAIGHTENING THE EXISTING RAIL TO BE INCLUDED IN ITEM NO. 705-10.34, ALL WORK MUST MEET WITH FULL APPROVAL OF THE ENGINEER.



SECTION B - B

DETAIL GRA-34
ITEM NO. 705-10.34
LIN. FOOT

DESIGNED BY MCINTURFF DATE 9-92
DRAWN BY KIM FRANKENFIELD DATE 9-92
SUPERVISED BY GENTRY MCINTURFF DATE 9-92
CHECKED BY MCINTURFF DATE 9-92