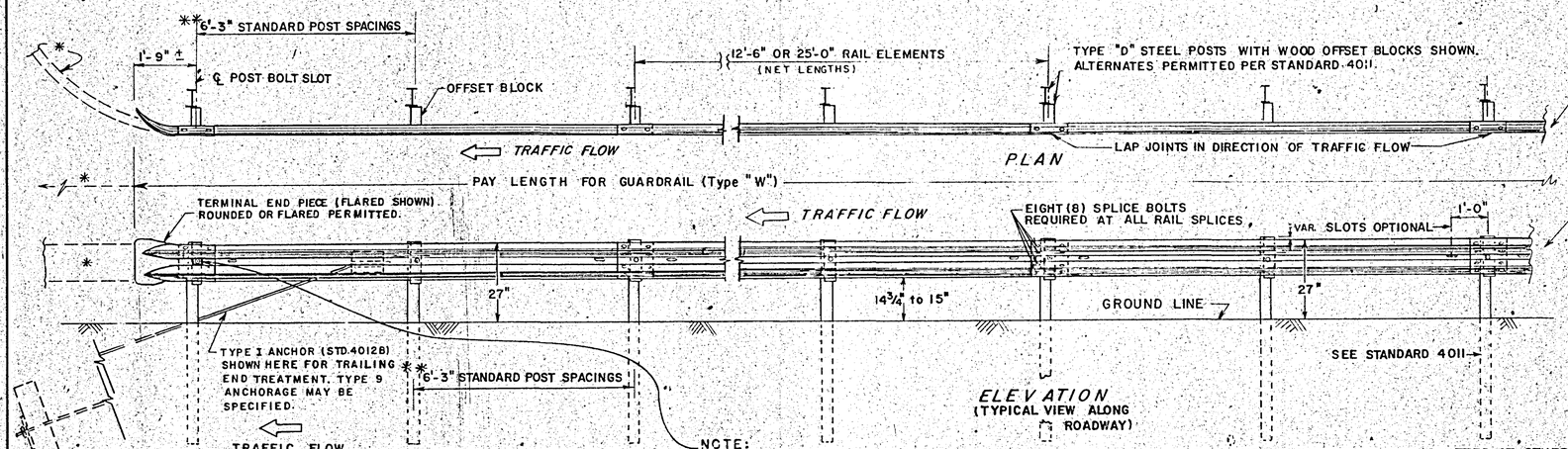
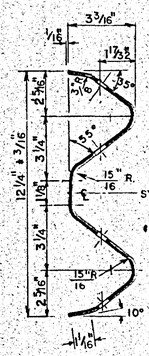
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| GA. | EDF-017-3(37) | 122 | 194 |



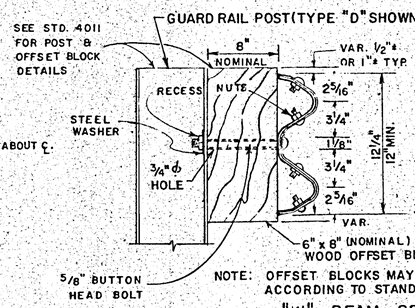

NOTE:
RECTANGULAR WASHER IS REQUIRED AT TERMINAL POST & TP. 9 ANCHOR BREAKAWAY POST, OMITTED AT OTHER POST.

NOTE:
* A PRECURVED GUARDRAIL SECTION WILL BE REQUIRED WHERE TYPE I ANCHORAGE IS PERMITTED AT GUARDRAIL TERMINAL IF TRAFFIC FLOW IS TWO-WAY. SEE APPLICABLE STANDARDS.

** REDUCED POST SPACINGS WILL BE REQUIRED AT BRIDGE END CONNECTIONS, CONNECTIONS TO CONCRETE BARRIERS, BRIDGE PIERS OR OTHER RIGID OBJECTS, SEE PLAN DETAILS OR APPLICABLE STANDARDS. PAYMENT FOR GUARDRAIL WILL INCLUDE THE ADDITIONAL POSTS REQUIRED.

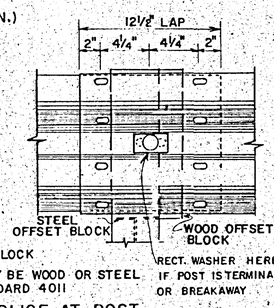


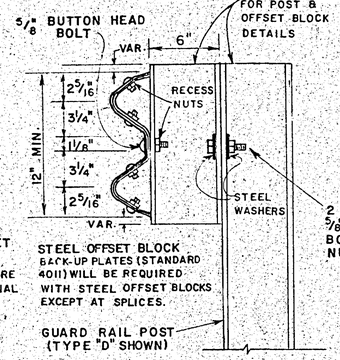

SECTION THROUGH RAIL ELEMENT

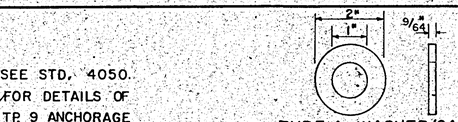



NOTE: OFFSET BLOCKS MAY BE WOOD OR STEEL ACCORDING TO STANDARD 4011

"W" BEAM SPLICE AT POST

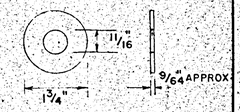



TYPE A WASHER (GALV.)

IF SLOTS IN SPECIAL END SHOE ARE 3" LONG TP. A WASHERS ARE REQ'D UNDER SPLICE BOLT HEADS & UNDER NUTS WITH 2" LONG SPLICE BOLTS. IF END SHOE SLOTS ARE 1⅛" LONG, USE NORMAL SPLICE CONNECTION.



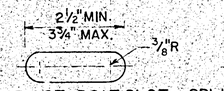

STEEL WASHER (GALV.)
(REQ'D. UNDER ⅝" HEX. BOLT HEADS, UNDER HEX. NUTS AND AS SPECIFIED)

SPECIAL NOTE:
ALL GUARDRAIL SPLICES WILL BE PROPERLY SECURED WITH EIGHT SPLICE BOLT CONNECTIONS. ALL NUTS WILL BE TIGHTENED. LOOSE NUTS, OMITTED BOLTS OR OMITTED NUTS WILL BE CAUSE FOR REJECTION.

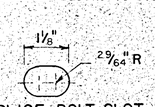
GUARDRAIL NOT ERECTED AT A 27" TOP OF RAIL HEIGHT WILL BE CAUSE FOR REJECTION.

⅝"ø HEX BOLT & HEX NUT
(TO BE USED ONLY FOR ATTACHING STEEL OFFSET BLOCKS TO STEEL POST)

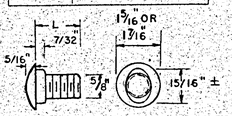
| L | THREAD LENGTH |
|---|---|
| 1¼" | FULL LENGTH |
| 2" | 1½" MIN. |
| 9½" | 1¾" MIN. |
| 18" | 2½" MIN. |
| 25" | 2" MIN. |



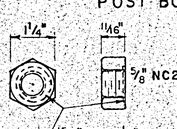

POST BOLT SLOT



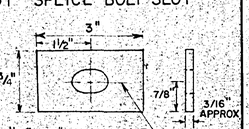

SPLICE BOLT SLOT




BUTTON HEAD (OR SPLICE) BOLT
(8 REQ'D PER SPLICE)



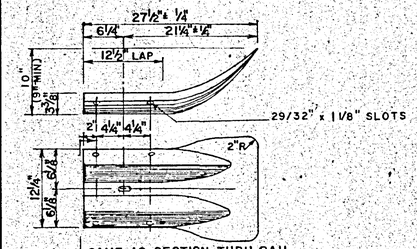

RECESS NUT




RECTANGULAR WASHER (GALV.)
(FOR USE AT TERMINAL POST AND TP. 9 ANCHOR BREAKAWAY POST)

GENERAL NOTES:

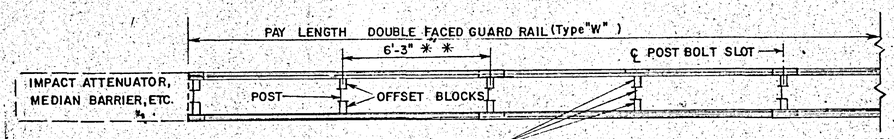
1. SPECIFICATIONS: GEORGIA STANDARD AND/OR SPECIAL PROVISIONS.
2. NUTS, BOLTS, WASHERS, RAIL, TERMINAL SECTIONS, END SHOES, BACK-UP PLATES, END SECTIONS AND OTHER GUARDRAIL HARDWARE ARE IN ACCORDANCE WITH THE CURRENT *AASHTO* TECHNICAL BULLETIN NO. 268. UNLESS SPECIFIED OTHERWISE, DIMENSIONS FOR POSTS AND OFFSET BLOCKS WILL BE ACCORDING TO GA. STANDARD 4011.
3. FOR DETAILS OF GUARD RAIL ANCHORAGES SEE GEORGIA STANDARD 4012B OR 4050.
4. FOR LOCATION OF GUARDRAIL SEE APPLICABLE LOCATION STANDARDS.
5. ALL STEEL HARDWARE COMPONENTS WILL BE GALVANIZED AFTER FABRICATION. GALVANIZING REPAIR COMPOUND (SEC. 645) WILL BE FIELD APPLIED TO ANY COATINGS DAMAGED.
6. WHEN GUARDRAIL IS REQUIRED ON CURVES WITH RADII LESS THAN 150' PRECURVED RAIL WILL BE REQUIRED.
7. PAYMENT FOR GUARDRAIL (Type "W") TO INCLUDE OFFSET BLOCKS, POST, BACK-UP PLATES WHERE REQUIRED, BOLTS, NUTS, WASHERS, TERMINAL SECTIONS, ADDITIONAL POST WHERE REQUIRED, & REMOVAL AND REPLACEMENT OF PORTIONS OF MEDIAN PAVING, SPILLWAYS OR CATCH BASINS WHERE NECESSARY.
8. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
9. STANDARD NET LENGTH OF RAIL ELEMENTS MAY BE EITHER 12'-6" OR 25'-0". THESE LENGTHS SHALL BE ARRANGED TO PROVIDE AS NEARLY AS POSSIBLE THE REQUIRED LENGTH FOR EACH INSTALLATION.




SAME AS SECTION THRU RAIL ELEMENT, EXCEPT WIDTH

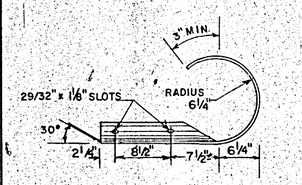
TERMINAL END PIECE (FLARED)

NOTE:
UNLESS SPECIFIED OTHERWISE, ALL REFERENCES TO GUARDRAIL ON STANDARDS AND/OR CONSTRUCTION DETAILS WILL MEAN "W" BEAM GUARDRAIL AS SHOWN ON THIS STANDARD.

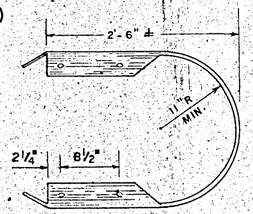



NOTE:
DETAILS FOR DOUBLE FACED GUARDRAIL NOT SHOWN ARE SIMILAR TO THAT SHOWN FOR SINGLE FACED RAIL.

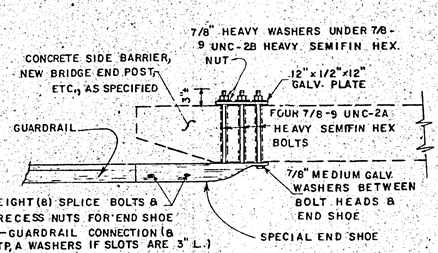
DOUBLE FACED GUARD RAIL (Type "W")



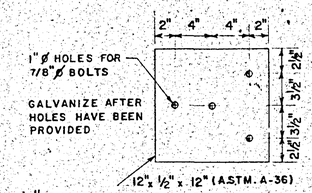

TERMINAL END PIECE (ROUNDED)



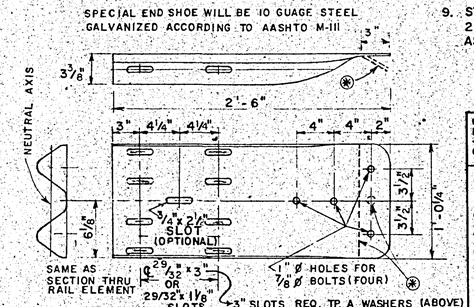

BUFFER END SECTION
(DETAILS NOT SHOWN ARE SIMILAR TO ROUNDED TERMINAL END PIECE)




TYPICAL END SHOE CONNECTION
(DETAIL SHOWN IS TYPICAL FOR CONNECTION TO CONCRETE FACE OF NEW STRUCTURE. OTHER APPLICATIONS OF SPECIAL END SHOE MAY BE MADE WHERE SPECIFIED)




½" GALVANIZED STEEL PLATE
(TO BE USED WITH SPECIAL END SHOE CONNECTION UNDER NUTS & WASHERS ON BACK OF BRIDGE END POST OR BACK OF CONCRETE SIDE BARRIER.




SPECIAL END SHOE DETAIL
(FOR USE IN CONNECTING GUARDRAIL TO BRIDGE END POST, CONCRETE BARRIERS, ETC.)

* APPLIES ONLY TO END SHOE MODIFIED FOR USE WITH TYPE 9 ANCHORAGE

| DATE | REVISIONS | BY |
|---|---|---|
| 7-1-80 | BLOCK & SPLICE BOLT D. | R.M.U. |
| 10-31-90 | ADD TYP. END SHOE CON. | R.M.U. |
| 4-3-84 | ADD TP. A WASH., REV. RECT. W. | R.M.U. |

DEPARTMENT OF TRANSPORATION
STATE OF GEORGIA

STANDARD

"W" BEAM GUARDRAIL

NO SCALE

REV. & REDR. DECEMBER, 1979

DES. JUN. '68
RETRACED GMC 12-'79
CHK. R.M.U.

SUBMITTED Floyd E. Handy
STATE ROAD & AIRPORT DESIGN ENGR.
APPROVED Thomas D. Moreland
STATE HIGHWAY ENGINEER

NUMBER 4010

FORM EF3