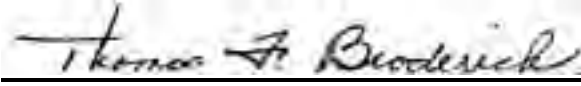


**ENGINEERING DIRECTIVE**A handwritten signature in black ink, reading "Thomas F. Broderick".**CHIEF ENGINEER****GUARDRAIL END TREATMENTS  
AND ELIMINATION OF BACK-UP PLATES****Guardrail End Treatments**

In accordance with existing FHWA and MassHighway policies, guardrail ends buried in the foreslope must be eliminated on high speed (80 kph [50 mph] or greater design or posted speed) facilities. Buried ends on high speed facilities shall be replaced in the course of any reconstruction, resurfacing, or guardrail replacement contract. Guardrail end treatments conforming to NCHRP 350 TL-3 shall be specified as the replacement end treatment.

Guardrail end treatments conforming to this requirement include:

- burying the guardrail in the back slope,
- terminating the guardrail outside the clear zone,
- non-energy absorbing flared end treatments (non-redirective attenuating terminals),
- energy absorbing flared end treatments (redirective attenuating terminals),
- energy absorbing tangent end treatments (redirective attenuating terminals).

The contractor may bid and install any end treatment that conforms to NCHRP 350 TL-3 and also meets the site conditions and the designer's requirements for the location. When using a proprietary end treatment, the contractor shall submit to the resident engineer for the permanent project file one copy of each of the following items:

- the independent testing facility report cover letter,
- the FHWA letter accepting the product for use on federal aid projects,
- the manufacturer's shop drawings and installation drawings indicating grading requirements.

**Back-up Plates**

Back-up plates are no longer required at intermediate posts on guardrail installations where wood or composite offset blocks are used. The elimination of back-up plates should be noted in the contract special provisions until such time as it is incorporated into the Construction and Traffic Standard Details. On projects that were bid prior to this directive, back-up plates, when used with wood or composite offset blocks, can be eliminated and a credit provided.

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