



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

MEMO TO: Mr. Greg Thorpe, PhD
Project Development and Environmental Analysis
Branch Manager

FROM: Jay A. Bennett, PE
State Roadway Design Engineer

DATE: August 2, 2011

SUBJECT: Usage of Weathered Steel Beam Guardrail

A research project, *Performance of Weathered Steel Guardrail in North Carolina*, has recently been completed. Based upon the findings of the project, there were no trends which showed deterioration of Weathered Steel Beam Guardrail (WSBG) thickness over time, elevation or Average Annual Daily Traffic. Furthermore, the research showed that collisions with WSBG were no more severe than those with traditional galvanized steel beam guardrail. As a result of these findings, we will allow the usage of WSBG in North Carolina effective immediately. Please note this letter supersedes the June 6, 2006 letter, *Discontinued Usage of Weathered Steel Beam Guardrail*.

Concerning the placement of WSBG, it is our recommendation that steel post with composite offset blocks be used. The portion of post above ground should be weathered steel and the portion below ground galvanized steel. In the areas where WSBG is placed, it is important that it be monitored for deterioration.

If you have any questions, please contact Roger Thomas, PE, or me.

JAB/rdt

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