GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF MATERIALS AND TESTING

STANDARD OPERATING PROCEDURE (SOP) 48

Procedure for Calculating Pay Reduction for Failing Bridge Decks and Approach Smoothness

I. GENERAL

It is the responsibility of the Concrete Branch of the Office of Materials and Testing to monitor the quality of all Concrete Materials used and placed on asphaltic concrete and concrete constructed roadways on Georgia Department of Transportation (GDOT) projects. The Department will conduct tests on all on system routes with 2 or more lanes and a vehicle count of 2,000 per day or more, or other roads designated on the plans. Bridges and approaches must meet the straightedge check of 1/8" in 10 ft made longitudinally and transversely. The average value for bridge decks must not exceed 15 in/mile for each lane. The average value for asphaltic concrete must not exceed 30 in/mi for each lane. All bumps or depressions that exceed 2/10 in from the blanking band must be corrected. In accordance with the Specifications, a pay reduction may be accepted in lieu of correction for roadways and bridge approaches that fail to achieve specified smoothness indexes. This does not negate the requirement to correct all bumps/defects that exceed the 2/10 in. blanking band, even with a passing overall result. At the discretion of the Concrete Branch, a must grind may be waived, with penalty, if it does not compromise safety and does not create a maintenance issue.

Standard Operating Procedure 48 exists to reference the procedure used by the Concrete Branch to determine a pay factor for the failing smoothness on roadway approaches and bridge decks.

II. Specified Smoothness Requirements for Bridges and Bridge Approaches

Table 1 – Smoothness Target Requirements

Construction Description	Smoothness Index (in/mi)
Bridge Decks on All On-System 2 lanes or more with 2,000 vpd, or designated on the plans	15.0
100' Asphalt Bridge Approaches and Exits	30.0

FA

A. Method of Calculating Pay Reduction for Bridge Decks

A pay reduction will be determined by calculating the square yards of the lane of the bridge based on a 12' lane width times the length of the bridge for each lane that does not pass the 15 in/mi required in the specification. If contract prices do not exist use the pay item index for the current year. Determine the price for the grinding and multiply it by the square yards and a 2.0 pay factor to determine the amount of the reduction.

A $500 pay reduction for each "must grind" will be assessed for all bumps/defects that have been waived by the Concrete Branch.
A minimum pay reduction of $1500.00 will be assessed per bridge.

B. Method of Calculating Pay Reduction for 100' Approaches and Exits

An applied pay factor will be determined by calculating the square yards of the failing approach or exit and using the contract price for 1.5" of asphalt and milling. If contract prices do not exist use the pay item index for the current year. Determine the price for the milling and the asphalt to replace it and multiply by a 2.0 pay factor.

A $500 pay reduction for each "must grind" will be assessed for all bumps/defects that have been waived by the Concrete Branch.

A minimum pay reduction of $1500.00 will be assessed per bridge.

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State Materials Engineer

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Director of Construction