

BRIDGE RATING USING IN-SERVICE DATA

by

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ABSTRACT

The focus of this thesis is to present, in detail, the development and application of a method to rate highway bridges using in-service data. This method uses a statistical analysis of strain data collected from the desired bridge to calculate the needed live load information. Both the approach and the methodology have been outlined for the method, but it is important to note that this is a preliminary procedure that still needs more research to perfect the complete process. Because in-service data is used, the values obtained from this method should be taken as more accurate than the current methods being implemented. Ultimately, the main goal for this thesis is to lay out a preliminary process that will eventually be used by state departments of transportation as a standard method to rate all highway bridges.