Project Title: C-06-04: Bridge Deck Wearing Surfaces

PIN: 

Responsible Unit: NYS Bridge Authority; Engineering Div, Office of Technical Services

Project Manager: Moreau, William; White, Harry

Project Goal:
The Department and the general industry have used the NOVA-CHIP technology on several highways over the past five years. Our experience indicates this product performed well for roadways, but has not been promoted as a bridge deck wearing surface. This study will evaluate the performance properties of NOVA-CHIP as an alternative to conventional bridge deck waterproofing wearing surface options, including "ROSPHALT" and the "ELIMINATOR" membrane system below conventional asphalt. Rosphalt is an additive introduced at the plant to give waterproofing performance to conventional asphalt. Eliminator Bridge Deck System is a sprayed on application of a methylmethacrilate membrane protected by conventional top course of asphalt.

Actions Proposed:
Investigate the performance of this wearing surface in a direct application to an interstate bridge in New York. The NYSBA has installed NOVA-CHIP on the eastbound bridge deck of I-84 over the Hudson River in September of 2005, the ROSPHALT product on the Mid-Hudson Bridge in 1993 and the ELIMINTATOR system on the Bear Mountain Bridge in 1993. The consultant will perform a literature search to identify the parameters requiring study to evaluate wearing surface performance, develop a test plan with required laboratory and field tests, complete all testing and document the results.

Anticipated Work Products and Accomplishments:
The intent is to study the factors affecting the performance of a wearing surface for bridge decks, and determine if this low cost material will out-perform the traditional more expensive options currently available. A complete report will be prepared documenting the performance over a three year period, 2005-2008.

Proposed Budget: $250,000