NYSDOT'S DECK PRESERVATION PROGRAM

DO WE HAVE A PROGRAM?

- New Construction
  - Pozzolans
  - Coated bars
    - both mats
  - Silane
- Rehabs
  - Pozzolans
- Existing
  - 75 % area concrete
    - 63M sq ft.

MAINTENANCE ACTIONS

- Washing
- Sealing
- Treatments
  - Healer/Sealer
  - Crack filling
- Overlays
  - Bituminous
  - Polymer

WASHING

SEALING

- SILANE
  - 5 year cycle
  - All decent decks

MAINTENANCE ACTIONS

- Healer/Sealer
  - No cycle
  - Map cracked decks
    - New decks if nec.

THIN POLYMER OVERLAYS

- Thin Polymer Overlays
  - Waterproofing

BITUMINOUS OVERLAYS

- Most common
  - Sheet membranes
  - Pavement preservation materials
    - Nova Chip
    - RAST

DECK TREATMENT OPTIONS

Completed: GUIDELINES FOR SELECTION OF BRIDGE DECK OVERLAYS, SEALERS & TREATMENTS (NCHRP 20-7 Task 234)

Proposed: Waterproofing Membranes for Concrete Bridge Decks (NCHRP 20-5 Topic 42-07)

Best Practice: Michigan DOT

Bridge Maintenance News

Testing Waterproofing Membranes

Inside this issue:

What's Up?

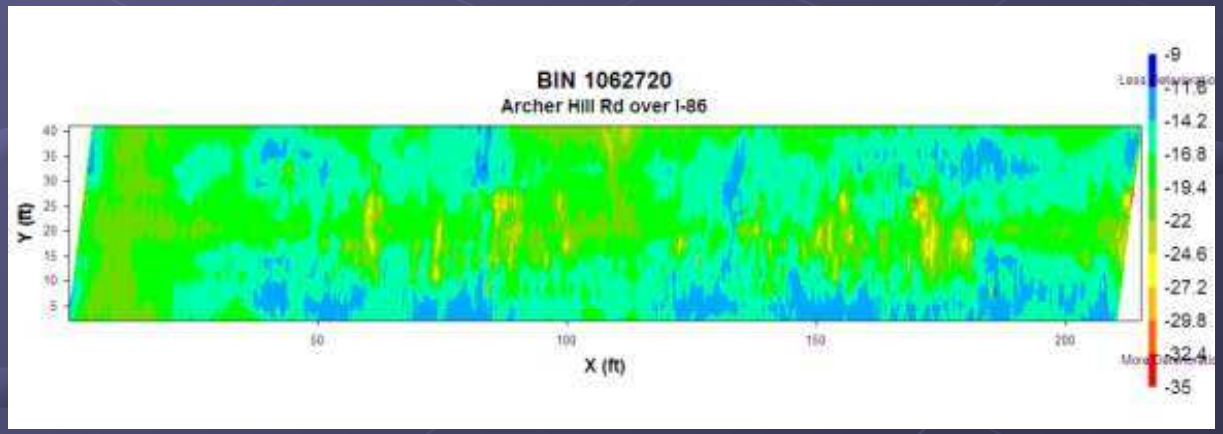
B.U.R.P. Oquaga Creek State Park, Sept 17

Northeast Bridge Preservation Partnership - Hartford, Ct. Sept 28-30

RDO/RME Meeting, Schenectady, Sept 23-24

CANDIDATE SELECTION

- Assessment
  - Visual
  - Sounding
  - ½ Cell Potentials
  - Radar
    - Rapid
    - Good accuracy



Concrete & Expansion Joint
RAPID REPAIR

NEXT GENERATION?

Features

- Low viscosity modified poly-urethane- pumped over aggregate.
- Bonds Without Primer-No priming is required for bonding to concrete, asphalt-concrete, steel or wood
  Fast Repair and Cure–Solidifies in less than 1 minute. ***Traffic Ready in 20 minutes.***
- Year Round Use–Successful repairs in freezing weather or in the heat of summer.
- Seals and Protects–Creates semi-flexible waterproof membrane that protects substrate from freeze-thaw spalling.

URETHANE

Concerns

- Part A contains an Iso-Cyanate must handle carefully at drum, testing showed tolerable exposure.
- Moisture sensitive : bubbles up if wet, has not been an issue in NY
- Shipping–is manufactured on the west coast.
- Aggregate – difficult to find 3/8” gap-graded, washed , dried, & bagged aggregate in the northeast.

RAPID REPAID POLYMER

Expansion Joint Reconstruction

•All failing and unsound pavement is removed from the repair area.

•Substrate is prepped for repair using mechanical abrasion techniques. i.e. Sandblast, Needle Scaling

•Exposed Joint opening is dammed to prevent overflow of low-viscosity polymer

•Repair area is filled to grade with clean, dry, crushed 3/8” aggregate

•Low-viscosity polymer saturates the aggregate and creates a resilient polymer concrete and is Traffic Ready in minutes.

Expansion Joint

PRODUCT DEMO 2005