TRANSPO

S.M.A.R.T. News

Safety Materials and Research Technology News from Transpo Industries, Inc.

Issue Eleven Summer 2006

BODAN® Highway/Rail Grade Crossing for Heavy Truck Traffic

In May of 2006, after repeated attempts to repair the Highway 81 grade crossing surface in Shelby, the Nebraska Department of Roads chose to do it right. After an extensive evaluation of foundation underlayments and premium crossing surfaces, they selected a polymer concrete grade crossing system made by Transpo Industries of New Rochelle, NY.

The Nebraska Department of Roads had used the BODAN® system before to solve a similar surface degradation problem in 2005. With the favorable experience and similar high traffic rate, the NE DOT felt that the BODAN® system would give long-life expectancy, (knowing that the truck rates and weights would be increasing steadily).

The polymer concrete used to manufacture the BODAN® crossing surface panels has unique performance characteristics. The polymer has a compressive strength of more than 14,000 psi (twice that of Portland cement concrete used in traditional crossing surfaces). The BODAN® system utilizes a bridge design concept that transfers the axle loads of vehicles directly to the rails of the track. Unlike other crossing systems, there are no permanent attachments of the modular panels to the cross ties. This eliminates stress on the crossing surface and allows for easy access to perform routine maintenance. The durable polymer concrete panels are also resistant to road salts and diesel fuel. The BODAN® panels are the only crossing surface panels to incorporate a lifetime skid resistant surface, an additional safety feature for wet weather conditions.

For more information on this product, please visit the company website at www.transpo.com/bodan.htm.

Break-Safe® Upgrade for the AZ DOT

Break-Safe®, Transpo's omni-directional breakaway coupling system for sign supports, will be incorporated on an Arizona Department of Transportation upgrade project. The project, Ehrenberg-Phoenix HWY involves new sign panels and structural steel supports on 60 miles of Interstate 10 eastbound from the California border.

Why was Break-Safe® chosen to replace the slip base design? One reason includes motorist safety because the sign post will break at any angle of vehicular impact. Another reason is the reduced maintenance for the DOT personnel because annual checking of bolt torque is eliminated, as all hardware in the system is tightened with the turn-of-nut method. If a Break-Safe® post is hit, the repair to the installation is minimal: simply replace the couplings and hinges, and reuse the post.

Pictured below are employees of the Arizona Department of Transportation and prime contractor ABBCO Sign Group. Arizona distributor Michael White of Interwest Safety Supply, joined Kathleen Johnson, Western Regional Sales Manager in the installation training session recently completed in Yuma.

Please visit our website
www.transpo.com

Conventions/Conferences

WASHT0	Honolulu, HI	*August 26-30,* Booth #10
APWA	Kansas City, MO	*September 10-12,* Booth #2605
ARTBA	San Diego, CA	*September 26-29*
NYS Hwy	Syracuse, NY	*October 18,* Booth #96
AASHTO	Portland, OR	*October 27-28,* Booth #307
NLC Expo	Reno, NV	*December 6-8,* Booth #341

TRANSPO®
INDUSTRIES, Inc.

20 Jones St.
New Rochelle NY 10801-6098
914-636-1000

Transpo's T-48 Overlay is Popular on the Poplar

Motorists crossing to and fro Missouri or Illinois can marvel that three different interstate highways (I-55/ I-64/I-70) share the same bridge. The Poplar Street (AKA: Bernard F. Dickman) Bridge in St. Louis is the most heavily traveled of all the Mississippi River crossings, with an estimated 130,00 vehicles a day.

What those motorists don't realize is that T-48 thin overlay is the Missouri Highway and Transportation Department's (MHTD) material of choice for protecting the 235,000 square feet of bridge deck. This specially formulated epoxy resin penetrates cracks with superior bonding characteristics. Applied as a slurry with a thickness of ¼ to ½", it eliminates the need to relocate joints, end dams or drain structures. The finishing broadcast aggregate provides a waterproof, skid and wear-resistant surface, while the relatively short cure time assures a quick return to service.

T-48 was once tested and used by Pace Construction on the Poplar Street Bridge back in 1992. After a successful run of 14 years, the MHTD decided to resurface the orthotropic steel-plate bridge with T-48 again (no substitutions allowed!). The contractor/ applicator this time is the Park-Mark Corporation.

T-48 Overlay and a sunset over St. Louis

Visi-Barrier™ Spans the Hudson River

White panels are highly visible on the bridge approach at night

One of the country's longest continuous-deck truss bridges, the Kingston-Rhinecliff Bridge underwent rehabilitation. Owned and operated by the New York State Bridge Authority, the project design called for the deck to be widened (from 26 feet to 40 feet), while reducing the overall dead load. Transpo's Visi-Barrier™, a precast polymer concrete panel shell, was used as a stay-in-place form, protecting the light-weight concrete from road salt and moisture, while maintaining the esthetics of the structure that spans the scenic Hudson River.

After the bridge rehab was completed, the NY State Bridge Authority decided to rehabilitate the bridge toll plaza in the spring of 2006. Transpo's Visi-Barrier™ was specified to be installed on grade, as a two-sided median safety barrier. Visi-Barrier™ panels were mounted back-to-back, and standard concrete used to fill the space between panels.

Visi-Barrier™panels are ideal for median barriers, tunnel panels, bridge rails and parapets. The retro-reflective safety stripe gives high visibility at night and in all weather conditions. The bright, white surface resists salts, chlorides and corrosion. Visi-Barrier™ can be custom designed to fit a wide variety of sites.

The yellow visi-stripe cautions drivers to slow near the toll plaza