Full-Depth Reclamation (FDR) Demonstrated on Westin Hotel Parking Lot in Richmond, Virginia

On a beautiful autumn day, when most people are looking at the fall colors, a group of almost 250 engineers, contractors, consultants, government officials, and other transportation professionals were thinking green. They gathered at the Westin Hotel in Richmond, Virginia to learn, explore, and watch about how Full-Depth Reclamation (FDR) with Portland Cement can fix deteriorated and under-designed pavements quickly and economically while reducing environmental impact.

The Southeast Cement Promotion Association, in partnership with the Virginia Asphalt Association and the Virginia Department of Transportation, held Virginia’s first FDR Symposium on October 24-25, 2016. City, county, and state DOTs were in attendance, along with FDR contractors, engineering consultants, equipment producers and asphalt and cement company representatives. They came from Georgia, South Carolina, North Carolina, Virginia, Maryland, West Virginia, Alabama, Florida, Oklahoma, Delaware, Michigan, Ohio, Illinois, and the District of Columbia to learn and exchange information about the FDR process that is growing in popularity by leaps and bounds.

The symposium began with presentations on the Basic Concepts of Pavement Performance and Structure, followed by Managing Your Highway Inventory. The next speakers focused on the FDR construction process, laboratory testing and mix design. This led into a session on sustainability, which was followed by FDR research. The final topic of day one was negotiating utility conflicts.

The second day covered a full array of case studies from areas in the Southeast as well as a live demonstration conducted by Slurry Pavers. The rollers and motor grader were provided by James River Equipment and the Portland Cement was provided by Lehigh Cement. Blakemore Construction placed the final asphalt surfacing with materials provided by Allan Myers. Engineering Consulting Services (ECS) performed the FDR mix design to determine the appropriate compaction and cement content and monitored the construction process to assure appropriate compaction, depth, and cement content. FDR was performed to a depth of 12 inches and was designed to achieve 400 psi unconfined compressive strength. This design will provide a very stable pavement structure for decades to come.

The Symposium was developed in cooperation with The Miller Group, Slurry Pavers, Blount Construction, Road Worx, VDOT, and the Virginia Asphalt Association as well as the entire Southeast Cement Promotion Association team. If you were not able to join us in Richmond, please contact any member of the Southeast Cement Promotion Association team and we will be glad to help you learn how the full range of paving solutions using Portland Cement, including FDR, can provide a great solution for your paving needs.

By:
Roger Faulkner, PE
Executive Director
Southeast Cement Promotion Association

Continues on back
Please scan QR code or visit www.secement.org to see a video of the live FDR demonstration conducted at this FDR Symposium.

4. Spreading cement

5. Mixing commences

6. Initial compaction with roller

7. During the second pass, water was added through the head of the machine

8. Grading and final compaction

9. The last pull on the 2.5 inch overlay