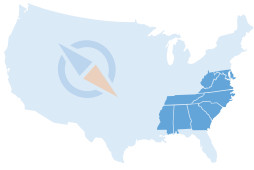




**SOUTHEAST CEMENT
PROMOTION ASSOCIATION**



www.secement.org

Reading, 'Riting, 'Rithmetic, and Reclamation

Prominent Virginia School District Chooses Full-Depth Reclamation (FDR) to Upgrade Its Facilities



1 Despite multiple overlays, the deteriorated parking lots were needing more than a mill-and-fill approach.



2 Gutters were filled with multiple layers of asphalt that had to be carefully removed to re-establish a functioning curb.



3 Portland Cement is spread on the pulverized and re-graded mixture.

In September 2015, a prominent public school district in Virginia added a fourth “R” to the basics by selecting a suitable and logical method to upgrade its aging facilities. Full-Depth Reclamation (FDR) with Portland Cement was the right choice to reconstruct their interior road systems, parking areas, and athletic facilities at 18 different schools. After careful consideration of available options, FDR was deemed to be the best based upon cost savings, proven durability, and the ability to get finished quickly. This method of rehabilitation allowed the school to continue on its daily schedule and planned events with minimal disruption or inconvenience. Slurry Pavers Inc. of Richmond, VA was chosen because of its willingness to work with the schools and its proven track record in the FDR arena. Slurry Pavers used Lehigh Cement to achieve consistently high strengths.

The site work encompassed many challenges during the construction operation. Scheduling of operations had to be coordinated and well planned. Previous multiple overlays of the parking lots had resulted in gutters and stormwater inlets partially or totally covered with layers of asphalt. This impeded the ability of the gutters to carry storm runoff, resulting in flooding of buildings and fields during heavy rains. The asphalt

had to be removed without damaging the curb and gutter sections and other drainage structures. This was accomplished by an exacting milling and removal process and was one of the first operations to take place at each location.

Once the drainage issues were resolved, the pavement in the parking lots was pulverized and regraded to restore proper grades. The excess materials, if any, were then moved to other sites for use on additional improvements. At some sites, the parking facilities were extended and at other sites the materials were used to strengthen existing weak areas before reclamation. Improvements to tennis courts and other sports facilities, such as running tracks, were included in a separate contract.

After the completion of initial pulverization, grading and drainage work, Portland Cement was added. On average this work took approximately one week per site followed by a two-day paving and pavement marking phase. When work was accomplished on an active school day, efforts were made to maintain bus traffic as well as normal school traffic. In some instances, the completed FDR was opened early to handle parking and traffic during football home games without issue or complaints.



4 Full-Depth Reclamation (FDR) in action.



5 Padfoot roller provides deep compaction.

Continues on back



6 Reclaimed area rolled and compacted.



7 After paving, the curb and gutter section is functioning once again. Yellow paint on curb shows how high the pavement used to be.



8 After the new FDR base is overlaid with a single lift of asphalt, the parking area is ready for stripping and immediate use.

Construction on these sites began in September 2015 and was completed by September 2016. With the completion of this work, the drainage issues were resolved and the 10 inches of reclaimed pavement capped with 2 inches of new asphalt upgraded the pavement structures to handle all school-related traffic for many years to come. Not only has the school district improved its 18 schools in a short timeframe, it has spent limited school funds on a real solution - recycling and reusing its failing pavements in place. Improvements using a remove-and-replace strategy would have cost twice as much as the in-place recycling (FDR with cement) method. In talking with school officials, they have expressed their total

satisfaction with this project and are looking to use the same process to improve additional sites in the coming years.

Whether you have deteriorated old roads and parking lots or are planning to procure new pavement, contact the Southeast Cement Promotion Association. We can show you how the entire range of Portland Cement-Based Paving Solutions, from soil cement to concrete pavement, can help you use your paving dollars wisely to construct economical and long-lasting solutions.

Visit www.secement.org to see other case studies like this one and learn more.



9 FDR with Portland Cement is the durable, economical, sustainable choice.

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Please scan QR code or visit www.secement.org to see a video of the live FDR project during construction.