Aerix Industries™

Advanced Engineered Foam Solutions

T E C H N I C A L B U L L E T I N

Bulletin 13-1807 PLDCC under Permeable Pavement

Using Permeable Low-Density Cellular Concrete (PLDCC) under permeable pavement enhances storm water system performance in many ways, especially on project sites with slow drainage characteristics.

Crushed rock used in the reservoir courses of active permeable pavement storm water mitigation systems creates void areas of approximately 30 to 40 percent and can retain 2.6 to 3.0 gallons of water per cubic foot.

PLDCC creates void areas in the range of 50 to 60 percent, and retain 4.0 to 4.5 gallons of water per cubic foot. Using PLDCC as the storage reservoir in active permeable pavement storm water mitigation systems reduces the amount of excavation needed for a given storage capacity or increases reservoir capacity for a given depth ... by as much as 50 percent.

Other benefits of using PLDCC in permeable pavement applications include:

- Enhanced Filtering Capabilities – Testing shows PLDCC filters hydrocarbons and heavy metals.
- Stability – PLDCC creates a solid consistent subbase, which will not shift over time and will not deteriorate or settle into the soil.
- Environmental Stewardship – PLDCC reduces the need for mining, processing, and delivering crushed stone to the project site, which trims the project's carbon footprint and extends the useful life of existing local aggregate operations, delaying or helping to eliminate the need to permit and open additional aggregate operations.

Pervious cellular lightweight concrete improves permeable pavement system performance and cost-effectively supports retention of excess runoff from adjacent roofs or pavement surfaces ... a best practice in the control of "first-flush" storm water. PLDCC can also be used effectively as the storage medium under parking lot infiltration islands and other parking lot Low Impact Design (LID) features.

For more information, please contact Aerix Industries.

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