



## Wal-Mart Superstore

Desloge, Missouri

**The Geopier GP3® system provided stabilization to the existing subgrade soils in place, prior to the placement of grade raise fill, to control settlements due to the weight of the new fill**

**Description:** A new high bay one-story Wal-Mart Super Center with maximum column loads of approximately 150 kips and wall loads of up to four kips per lineal foot. Up to 20 feet of new fill was required to achieve design grade.

**Subsurface Conditions:** The geotechnical investigation revealed a soil profile consisting of soft lean and fat clays underlain by an erratic bedrock surface varying in depth from 3 to more than 30 feet.

**Geopier Solution:** Originally, the design team considered overexcavation of a portion of the soft clay and replacement with compacted structural fill or placement of the fill and surcharging to accelerate settlement of the underlying soft clay soil. The Geopier GP3® system was selected as a value engineering alternative. Geopier Rammed Aggregate Pier® (RAP) elements stabilized the existing subgrade soils in place, prior to the placement of grade raise fill, to control settlements due to the weight of the new fill. A total of 1,493 Geopier® elements were installed in a grid pattern prior to the placement of the new fill.



### PROJECT TEAM

**Owner:**

Wal-Mart

**Geotechnical Engineer:**

Terracon

**Civil Engineer:**

Freeland, Kaufmann & Fredeen

**General Contractor:**

W. S. Bowlware Construction

**Geopier Installer:**

Foundation Service Corporation

**Geopier Designer:**

GFC Great Lakes

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