

# Tiawasse Creek

# Slowing the Flow - Trione Park Permeable Pavers

## What is the Problem?

Too much stormwater flowing way too fast into our streams...

Since the 1970s, hundreds of acres of natural landscape in the Tiawasse Creek Watershed have been converted to buildings, roads, and parking lots, resulting in increased stormwater runoff, stream bank erosion, and sedimentation. Resulting siltation has resulted in D'Olive and Tiawasse Creeks, Joe's Branch, and two unnamed tributaries being placed on Alabama's 303(d) List of Impaired (polluted) Waters.

Engineers have traditionally piped runoff downstream to stop local flooding and erosion, but this approach transfers problems elsewhere and eliminates ecosystem services that healthy streams and their banks provide. It also prevents rainwater from infiltrating to restore groundwater supplies. In the D'Olive Creek Watershed, as a more ecological approach, porous pavement, is being used for sidewalks and parking lots.

## Porous Pavement: Soak Up the Rain

### What is it?

Alternatives to traditional pavement are examples of Low Impact Development, or LID, which can help reduce runoff by promoting rainwater infiltration.



For more information on Low Impact Development scan the Quick Response Code (QR).

### Primary Types of Porous Pavements

- Porous concrete
- Porous asphalt
- Permeable pavers



### Benefits of Porous Pavements

- Filtration of stormwater pollutants
- Groundwater recharge
- Reduction of over-all stormwater runoff
- Reduction of stormwater management facility costs
- Reduction of heat island effect



### Trione Park Permeable Paver Demonstration Project

The Alabama Department of Environmental Management partially funded the paver entrance into Trione Park as a demonstration of permeable pavers. The project involved the removal and replacement of impervious asphalt with permeable pavers. The new pavers are reducing stormwater runoff and filtering pollutants.

### Site Considerations

- Site Soils – permeable soils desired
- Depth of ground water table – 2 feet or greater below pavers
- Site slope – less than 2%

### 2019 Materials and Installation

#### Cost Comparison Per Square Foot

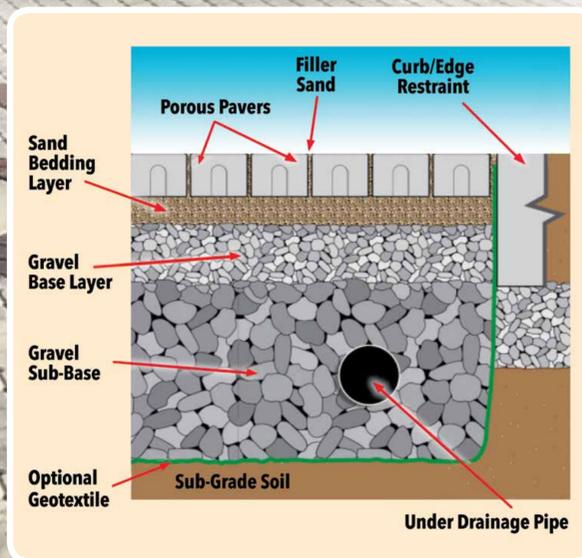
- Permeable Pavers \$9.00 - \$12.00
- Pervious Concrete \$6.00 - \$9.00
- Standard Concrete \$4.00 - \$6.00

### Routine Operation and Maintenance

- To prevent clogging by sediment, periodic vacuuming may be required
- Periodic replacement of sand or filler gravel

### Other Paver Locations in Daphne

- Centennial Park
- Gator Boardwalk
- Well Road
- May Day Park



This project is fully or partially funded by the Alabama Department of Environmental Management through the Clean Water Act Section 319(H) Non-Point Source Grant provided by the U.S. Environmental Protection Agency (EPA)-Region 4.

