MUNICIPAL PARKING LOT NOTES:

1. The 0.9-acre target area is part of a municipal parking lot for the municipal building of Moorestown and the public library. This system is designed to infiltrate the stormwater runoff of a New Jersey Water Quality Storm (2" in 2 hours).

2. The target area will generate 3,440 cubic feet for every New Jersey Water Quality Storm. The area outlined in green is a small 1-foot deep bio-retention system for the target area. If curb cuts are needed to allow for the stormwater to more easily enter the bio-retention system, new Jersey allows as much as 5% of all the curb cuts in New Jersey are allowed. Over the course of a year, the bio-retention system will infiltrate 2.861 ac-ft or 0.9 million gallons per year.

3. Over the course of a year, the target area produces 180 lbs of total suspended solids. The bio-retention system will remove 162 lbs of total suspended solids from that 180 lbs a year.

4. This bio-retention system will work very efficiently with very little maintenance. It is recommended that the bio-retention system receive zero mowing and be ignored by the property owner. The system will naturalize and have a beautiful aesthetic to the parking lot. The naturalized system will encourage a diverse group of wildlife to the area.

COMMERCIAL PARKING LOT NOTES:

1. The target area for this demonstration project is a 2.5-acre parking lot. The storm that RCE is designing the system for is New Jersey Water Quality Storm (1.25" in 2 hours).

2. Every New Jersey Water Quality Storm, the parking lot will generate 9,400 cubic feet of water. Along with that water, it will have approximately 500 lbs of total suspended solids a year.

3. New Jersey averages 42 inches of rain a year. 90% of all rain events that occur in a year are equal to or less than the New Jersey Water Quality Storm. This system will infiltrate 7.824 ac-ft of stormwater a year, while treating the stormwater in shallow basins approximately 2.3 feet deep, which are designed to fit.

4. This system is a dual BMP project. The stormwater infiltrates the stormwater by turning the islands in the parking lot into infiltration islands with vegetation or just stone as seen in the pictures below. The stone infiltration islands will not clean the stormwater runoff like vegetation can, but can be used as a walkway while still infiltrating. The precipitated stormwater flows over the islands will enter the bioretention area. The infiltration islands will only capture about 40% of the stormwater that flows through the parking lot. The rest will infiltrate through the porous pavement.

5. The majority of porous concrete pavements function well with little or no maintenance. Maintenance of porous concrete pavements consists primarily of preventing dirt and debris from entering the voids. Regular vacuuming of the surface, while not necessary to maintain porosity, will help maintain surface appearance. If the use of a power blower is necessary, it should be noted that maintenance practices for porous concrete pavements are still being developed.