

## **Appendix B**

### **Permeable Paving Protocols**

Because of the high volume of Saratoga Spa State Park visitors, a significant portion of the site needs to be able to support traffic, pedestrians and parking. The park's proximity to the Geyser Brook means that impermeable surfaces convey stormwater run-off directly to the brook very quickly. The use of permeable pavement surfaces may reduce the intensity of storm water runoff impacts in the brook. This, in turn, reduces the need to diminish trafficable surfaces. It should be noted though, that the elimination of paving is the recommended wherever possible. The majority of paved pedestrian walks, parking areas and areas adjacent to the pool complexes are prime candidates for the use of permeable pavements.

#### ***Types of Permeable Surfacing***

##### **Permeable Precast Concrete Pavers**

These are pavers that have been set on an aggregate base that allows for water to percolate between each paver. It is vital that the stone setting base for all permeable materials use a mix that has the "fine" stone particles removed, this allows water to flow into the voids of the stone base.

##### **Permeable Asphalt Pavement**

The aggregate mix used for asphalt material is altered to eliminate the "fines". By eliminating the fine particles, water can more freely move through the pavement. Again, it is vital that the aggregate base material also contain no "fines" to allow water to freely flow to the ground water.

##### **Cellular Reinforced Turf**

An HDPE grid (this can be a square snap together unit, or a continuous roll product) is placed over a prepared sub-base that is structurally stable even for emergency vehicles, but allows water to freely drain through to the ground water. A turf layer is placed over the cellular reinforcement and is then maintained as a typical seeded lawn. This product is particularly useful for areas that will only receive occasional impact through the summer and fall seasons.

##### **Screeded Limestone Chips**

In a park setting it is often desirable to have a pedestrian path that is something other than concrete or asphalt. In this situation, a compacted screeded walk offers the durability and ADA compliance of a hard surface with the permeability and a more park-like aesthetic.

##### **Wooden Boardwalk**

Wooden boardwalks are usually used in wet areas to lessen impacts to vegetation and soils. The wooden boardwalk allows water to run right over its surface and onto the saturated soils without actually impacting the surface condition and compaction of the soil at all. Likewise the use of boardwalk allows for a unique textural experience.