

## Comparison of Grasspave<sup>2</sup> vs Bomanite Grasscrete Systems

**Grasspave<sup>2</sup>** is a plastic ring/grid structural reinforcement system for natural turf, made from 100% recycled HDPE plastic, and designed to prevent compaction of the upper root zone from loads generated by pedestrian and vehicular traffic. Plastic materials will not absorb heat or moisture, and will thus not put additional stress upon the grass. At its thickest point, this paver has 92% open area for roots, air and water to pass through.

The rings act as a rigid load transfer device (through vertical ring walls) from the pavement surface to a load bearing road base below the paving structure. The depth of road base required will vary to match load requirements with subsoil load requirements, such as that needed for an asphalt wearing course. The flexible grid responds to soil movement below, maintains ring spacing and provides a certain amount of tensile strength in planar fashion, but this strength is discounted and applied as additional safety factor. When installation is complete, the Grasspave<sup>2</sup> product will support in excess of 15,940 psi with the proper base course below.

The pavers are supplied in roll form (from 1 to 2.5 meters wide by 10 to 50 meters long) for easy transport and installation. A crew of 4 relatively low skilled people can install base course, paver, and grass at a rate of 16,000 sf per 8 hour period. Emergency access is available immediately upon completion of installation. Normal access will depend upon readiness of turf rooting.

**Grasscrete** is a cast-in-place concrete system, cast into plastic form with the forms removed as the concrete is setting, leaving voids in the concrete to be filled with soils and seeded (sod not an option) with various grass species. The concrete material will absorb heat (attaining temperatures of 125 degrees and more) and wick moisture away from the root zone. Only 30% of the surface/root zone area is open for roots, air and water to pass.

Thickness of the concrete (about 4") allows the concrete to hold itself together and prevent compaction of the root zone. Heavy vehicular loads will require additional strength from base course materials below the concrete to prevent ruts or cracking of the concrete. Grasscrete is a rigid paving system subject to damage from soil movement below (expansive clays etc.). Most installations use standard site concrete with strength values of 3000 psi.

Grasscrete is installed only by contractors licensed by Bomanite, with exclusive geographical territories (meaning no competition with lower prices). Installation time is longer than with Grasspave<sup>2</sup>, and traffic access must wait until the concrete is cured (usually 14 to 28 days). Grass can only be seeded and can take a couple of months to mature.