



Pervious Concrete Pavement

... a real workhorse!

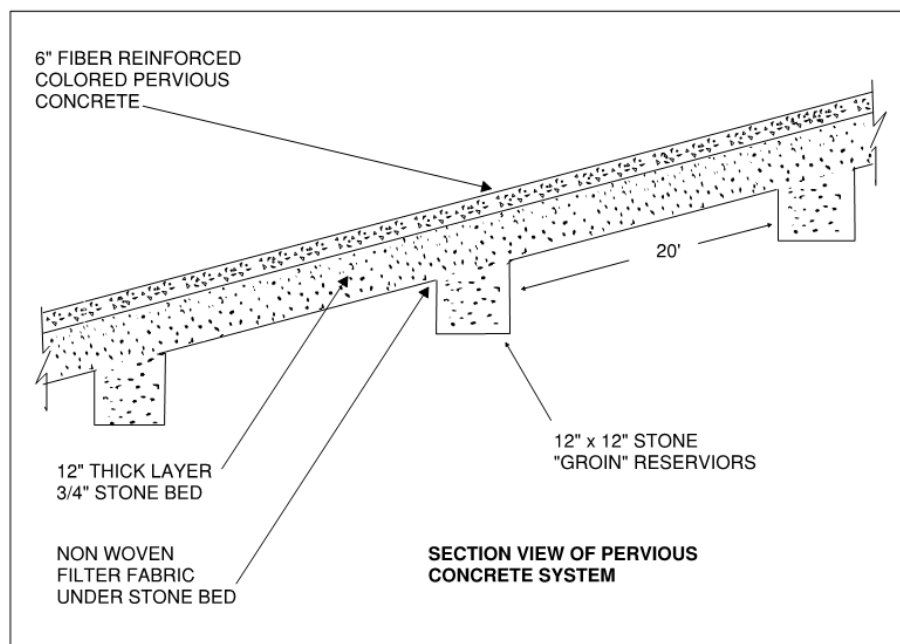


A Wellfleet homeowner approached Cape Cod Ready Mix to discuss the design challenges facing her new driveway project. The 190 foot driveway climbs at a 15 degree slope up the edge of the property line (National Seashore Land) to the horse stables above. The owner wanted “elegance and charm”, excellent traction, and most importantly, the ability to intercept, contain, filter and infiltrate storm water hitting the pavement. Pervious concrete was immediately recognized and the performance concrete of choice and CCRM’s Peter Zoni developed a placement plan, assembled a team of qualified excavation and placement contractors, and gave the green light to QC and Operations to schedule delivery for a performance pervious concrete placement.

The following information details the preparation, placement and protection for the pervious concrete installation provided by Cape Cod Ready Mix for this high demand project.

The Plan

The driveway design consist of a 6” depth of pervious concrete (fiber reinforced w color, 3,000 psi design strength) installed on a 12” thick bed of $\frac{3}{4}$ ” stone with “groin” reservoirs every 20 feet to provide additional reservoir capacity for epic storm water events. The non-woven filter fabric installed underneath the stone reservoir provides separation, drainage and additional purification.



Execution

- Site prep consists of excavation followed by non-woven filter fabric and placement of a 12" thick stone bed ($\frac{3}{4}$ " aggregate size)
- Pervious concrete arrives on site, the QC supervisor inspects and confirms plastic mix properties



Placement Techniques

- Concrete is discharged and transported to placement site
- Screeding operations commence in conjunction with tamping to densify and compact edges against the face of the form



Curing Protection and Additional Densification

- Surface is covered with 2 mil poly to keep moisture available for hydration
- 80 lb. roller is used to compact and densify drive surface



Joint Control and Additional Curing Protection

- Surface is scored with a roller wheel to control crack geometry
- Final layer of poly is applied for curing protection
- Installation is complete!



Finished Product

- Poly sheeting is removed and the decorative pervious driveway is ready for traffic and any stormwater event nature has in store



Project Summary

Pervious concrete solves a real problem for owners and builders by providing the most logical, economical and environmental solution for stormwater management. When the heavens break loose, a water deluge hitting a pervious concrete placement is intercepted, contained, filtered and delivered back to the aquifer as nature intended. As this project demonstrates, performance is achieved in conjunction with the highest levels of “elegance and charm” desired by owners.

The pervious concrete mix design delivered by Cape Cod Ready Mix represents years of product development and testing. Engineered performance attributes include:

- duty cycle measured in decades
- freeze / thaw protection
- high impact resistance for plow blade protection

