PROBLEM:

PARKING LOT STORMWATER RUNOFF TRADITIONALLY FLOWS OVER AN ASPHALT (IMPERVIOUS) SURFACE. THE RUNOFF ACCUMULATES AND TRANSPORTS CONTAMINANTS SUCH AS PARTICULATES, OILS, FLOATABLES AND TRASH BEFORE ENTERING CATCH BASINS AND WATERBODIES.

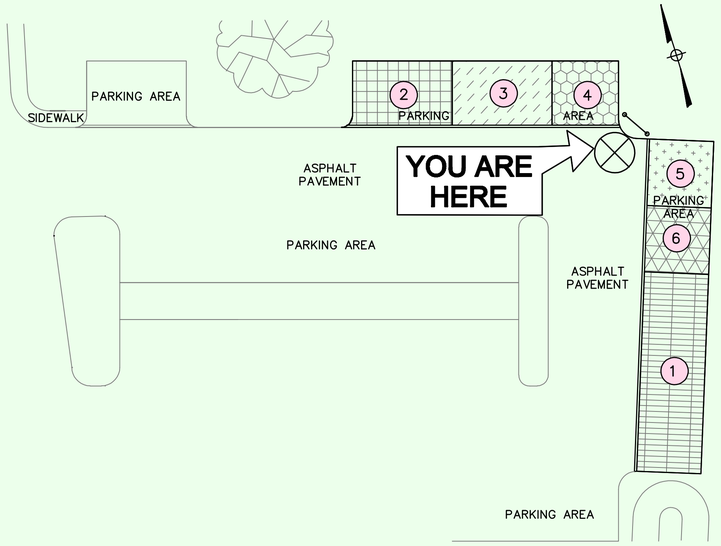
HOLE-IN-THE-WALL PARKING LOT

LONG ISLAND SOUND STORMWATER QUALITY IMPROVEMENTS

NETPAVE® 25 & 50, TURFGUARD, ADVANCED TURF®, GRASSPROTECTA™

SOLUTION:

PERVIOUS SURFACE PARKING LOTS ARE CONSTRUCTED TO FILTER, TREAT AND DECREASE STORMWATER RUNOFF THEREBY REDUCING CONTAMINANTS ENTERING CATCH BASINS AND WATERBODIES.



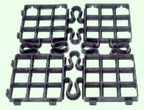
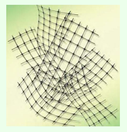
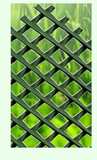
Map
(Plan)

Interesting Facts

In recent years, a wide range of permeable pavement materials have become readily available and widely used as alternatives to traditional pavement construction materials. These permeable pavement materials are appropriate not only for parking surfaces but for pedestrian walkways, driveways and residential roads. These materials have proven to be practical, cost–effective, and watershed–friendly due to their ability to reduce stormwater runoff.

Because these permeable materials allow stormwater to readily infiltrate into the ground, both stormwater runoff volume and water quality impacts are reduced. This infiltration of runoff can reduce flooding, increase recharge to groundwater supplies, filter out contaminants, and help keep source water supplies clean.

Pervious Parking Surface Components

Item	Layers	Description
1 NETPAVE® 25 WITH GRASS For parking spaces in this location		**NETPAVE® 25 & 50** are easy to use and durable paving system alternatives to traditional impervious asphalt pavement. These materials consist of grid–like paver units made from recycled polyethylene and are connected by "T–shaped" lugs and slots. Stone or soil and grass can be used to fill the openings within the units. These materials provide a pervious parking surface by reducing stormwater runoff and increasing infiltration. NETPAVE® 25 is used with only topsoil and grass and can be installed on top of existing turf. NETPAVE® 50 can be used with either topsoil and grass or stone. Netpave 50 is a more rugged and permanent installation and the grass must be grown after installation. Advantages: • 100% recycled polyethylene • Load bearing capability • Resists deformation and fracture • Easy installation with no pegging • Conforms to irregular surfaces and gradients • Provides ideal source control for Sustainable Urban Drainage Systems (SUDS) 
2 NETPAVE® 50 WITH STONE For parking spaces in this location		
3 NETPAVE® 50 WITH GRASS For parking spaces in this location		
4 TURFGUARD For parking spaces in this location		**TURFGUARD** is an extruded polyethylene mesh which is tough, flexible and long lasting and suitable for occasional access on stable ground. Seed was planted over this material and as the grass develops, the plants intertwine with the mesh to provide a completely natural appearance and permanent protection against wear. This material provides an aesthetically pleasing grassed area, vehicular access and a pervious parking surface. This material can also be used temporarily and removed. Advantages: • Tough polyethylene • Reduced grass wear • Easy installation • Suitable for new and existing areas • Helps prevent surface erosion 
5 ADVANCED TURF® For parking spaces in this location		**ADVANCED TURF®** is a specially prepared rootzone into which is blended thousands of small interlocking polypropylene mesh elements. Seed is used to establish grass cover. As the grass roots develop they penetrate through the mesh to form a deep anchored root system and a very stable rootzone. The result is a free draining natural grass surface with no visible structures but with the load bearing capabilities of a structural parking surface. Advantages: • Attractive, natural grass surface • High load bearing capabilities (used in airfields and sportsfields) • Resists rutting • Rapid surface drainage • Ideal source control for Sustainable Urban Drainage Systems (SUDS)  
6 GRASSPROTECTA™ For parking spaces in this location		**GRASSPROTECTA™** is a high–density polyethylene (HDPE) mesh which is used as grass protection. The mesh protects the grass areas prone to become muddy and rutted in wet conditions and also offers essential ground reinforcement. This material consists of heavy duty extruded, 20% recycled, HDPE and has a rougher and less slippery surface. The result is full natural drainage and Sustainable Urban Drainage System (SUDS). This material can also be used temporarily and removed. Advantages: • Adopts a natural appearance • Flexible • Permanent protection against wear • Rot resistant • Chemically inert • Long term reinforcement 

* Topsoil used here consists of a combination of these materials:
- 65% Sand
- 20% Leaf mulch
- 15% Existing topsoil

Educational Corner

Terms to study:
- Pervious parking surface
- Sustainable Urban Drainage Systems (SUDS)
- Polyethylene
- High–density Polyethylene (HDPE)
- Polypropylene

Acknowledgements

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