

# GRASS PAVERS AND TURF PAVERS INTRODUCTION

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## What Are Grass or Turf Pavers?

Turf and grass pavers are hollow pavers used for the construction of permeable pavements. They are installed using plastic grid systems, concrete grids or soil enhancement technologies as the base.

Grass /turf pavers begin with a grid-like structure, sometimes referred to as a 'honeycomb' system.



Once this grid is installed, topsoil, sand and gravel are added inside the grid.

This helps to prevent the turf or grass from settling and collapsing from underneath itself, whilst still encouraging filtration.

The next step is for the planting of the vegetation within the grid system. The end product is a grass or turf covered pavement structure. The grid system protects the grass roots and reduces storm water runoff, resulting in a very durable grass pavement.



Grass and Turf pavers are widely used for Commercial, Residential and Erosion Control Purposes.

## Commercial Uses

- ▶ Parking lots in shopping complexes, churches, sporting centers and festival grounds.
- ▶ Golf cart paths
- ▶ Racetrack pit areas
- ▶ Emergency and fire lane access.
- ▶ Erosion control
- ▶ Land stabilization: steep or sloping land
- ▶ Drainage channels
- ▶ Facility walkways
- ▶ Sewer access roads

## Residential Uses

- ▶ Driveways
- ▶ Walkways and paths
- ▶ Extensions of driveways
- ▶ Flooring for barns and horse barns
- ▶ Parking spaces



## **Erosion Control**

Turf pavers help to stabilize the soil

Used for sloping or steep land

To prevent soil erosion on river banks, ponds and streams

Grass/Turf Pavers prevent erosion by supporting the weight of traffic and loads.

They prevent the soil from rutting and compacting, which would make the surface weaken and become unstable.

The grid system promotes the growth and strength of the underlying root system, which intern increases the whole surfaces strength and durability

They are a load bearing system

## **Storm Water Management**

The great thing about Grass/Turf Pavers is that they allow the growth of grass or turf through the paving gaps. This makes them permeable, allowing rain water to soak into the ground, reducing the pressure on our storm water runoff systems. So the grass/turf is being watered and fed, while at the same time you are reducing the storm water runoff flowing into our drainage systems.

Grass/Turf Pavers are an environmentally friendly material. These types of paving systems are said to be approximately 90% pervious. They assist with the storm water pollution filtration and treatment, making them a very effective paving alternative.

## ***Environmentally Friendly***

A major benefit of grass and turf pavers is that they allow the drainage of storm water back into the underground soil. Grass and turf pavers are environmentally friendly, for the storm water runoff is recycled, rather than going into our waterways.



## **Turf and Grass Pavers Grid System**

Turf / Grass pavers are environmentally friendly in another area, which is the grid system. The grid system is made from plastic, and most companies use 100% recycled plastic material in the production of the grids. Other grass pavers are made from concrete material.

## **Easy Installation**

Another great benefit of using grass pavers and turf pavers for the consumer is that they are easy to assemble and install. The grid system requires no tools for assembly, and can simply be cut into corners. Also, if your surface is uneven or slopping, you don't have to do a thing, the grid system will go straight on top of any surface.

## **Aesthetic Advantage of Grass and Turf Pavers**

Grass / turf pavers have an aesthetic advantage as well. Lush green grass will continue onto the driveway for example, hence your front lawns can remain uniform, without being damaged. The grid system will enable you to protect your lawns, even when parking cars on it!

## **Grass / Turf Pavers Maintenance**

After installation of grass / turf pavers, maintenance is very minimal. It should be treated as if it were part of your front lawns. Therefore, you would water and mow the grass pavers system.

When plowing the grass pavers for snow removal, the blades should be lifted so as to clear the grass surface. It is also recommended to fit rollers to your plow machines and have your blades permanently lifted.

## **Maintenance Schedule**

The primary maintenance requirement is to clean the drainage voids surface. When dirt and debris fill up the drainage openings, this can reduce the water flow capacity. By carrying out this cleaning process on a regular basis, you can help to prevent the natural clogging from becoming a serious problem.

## **Here is a quick maintenance checklist:**

You should inspect your site on a monthly basis, in the first few months after installation. Then after this the inspection should be done annually.

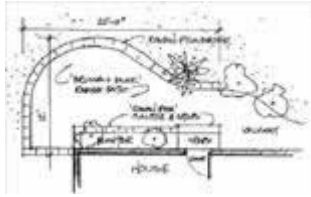
Vacuum sweeping followed by high pressure hosing should ideally be carried out four times a year.

Repair cracks and potholes promptly, or replace with new paving systems

## ***Grass / Turf Pavers Installation Part 1***

The following article will discuss the installation of a driveway using Grass/ Turf Pavers. They are a type of permeable paver and are very good for irrigation. They are so easy to install, that you can certainly attempt to do it yourself or seek the services of a trained professional.

### Plan and Layout



As with any installation, it is very important to plan out your proposed project site. It is recommended that you even draw your layout on a piece of paper and draw it to scale as well. This helps you measure out and calculate how much of each material you need to purchase, and it will also assist you in developing a budget. So if you work out that it will cost too much, you can simply alter the plan, by perhaps reducing the size to cut costs. It also makes it a lot easier to mark out the dimensions of your installation, using your plan as a guide.

### Materials Needed

Here is a list of the tools and materials that you will need for your Grass/Turf Pavers installation:

- Sod Roller
- Vibrating Plate Compactor
- Cement Sand
- Topsoil
- Power Cutter
- Handsaw
- Shovel
- Crushed Gravel or Stone
- Spirit Level
- Grass Pavers
- Sod or Seedlings
- Sharp Knife
- Drainage System



### Step One: Grading Your Site

Grading your site is a very important step in the success of your Grass/Turf installation. You must first of all observe the slope of the existing project site, if it seems like it is too flat, then you will need to incorporate grading into your installation. The reason for this is that if there is no slope then water will flood the driveway and create puddles, thereby weakening the strength and durability of your driveway. This you definitely do not want!

So the idea is to have a slight slope in the installation, in the direction going away from the house. This will enable the water to flow down towards the road and not cause water damage on your driveway now or in the future.



Working out the correct grade of your site is simply. All you need to do is place a level on a long level piece of 2 by 4. As a guide it is recommended that you have a 1% grade, or a ¼ inch of a bead drop on your level. It is important for the slope not to be too steep, but just enough for the rain to run off.

### Step Two: Drainage

Installing a simple drainage system is a wise move. You can purchase a catch basin and drain from your local hardware store. The best place for this drainage system is at the lowest spot in the driveway. Once you have determined the lowest spot, install the drainage system. The drainage system will connect to an underground pipe that will lead all the rain water to the streets.

### Grass / Turf Pavers Installation Part 2

### Step Three: Ground Preparation



To start off with, dig out a trench of about 6 inches deep, for your entire driveway coverage. Once you have done this, it is now time to implement your layer of base material. Create a ¾ of an inch layer of crushed stone or gravel. It should be spread out evenly and then with the use of a plate compactor, compact the base material. These vibrating plate compactors can be rented from your local equipment and machine hire outlet. Smooth out the base material for a second time and compact it down again.

#### Step Four: Laying Plastic Grid Pavers

Now your surface is ready for the laying of the plastic grid grass pavers. They are so easy to install for they are very lightweight and are a honeycomb like, interlocking based system. Grass Pavers are also very cost effective. They are purchased from any store that caters to irrigation needs. They are made from 100% recycled plastic, however, there is also concrete and clay ones available.



It is recommended that you lay the Grass Pavers across the width of your driveway and not by the length of the driveway. So lay the pavers across the entire driveway site, interlocking the sections as you go, and cutting the pieces where necessary, with the use of a power cutter or handsaw. Be gentle and ensure that you do not disturb the hard work you have done with the base material. Now compact the surface area again.

#### Step Five: Sand and Soil



Now that the pavers are in place, cover them with a thin layer of coarse cement sand. Followed by, a second layer, consisting of high quality topsoil. The soil helps to develop the root system of the seedlings or the sod. Seedlings can be planted into the plastic grid grass pavers; it does take a long time for them to reach the desired look. So for this particular installation we are using sod.

The richer the soil is the more fertile it will be, and this will help maintain a lush green look.

So for the sod to be a success, the plastic grids pavers should be at least half filled with the cement sand and the top quality fertile soil.

#### Step Six: Sod or Seedlings

As discussed above, the seedlings will take some time to develop, so for this installation we are applying sod. The choice is yours, if you want to wait a little longer for results, by all means plant in the seedlings or young vegetation.



If you decide to use sod and then commence rolling it out in the same direction that you laid the plastic Grass Pavers, then to reduce the amount of cuts and lines in your sod installation, butt the edges together. This will help to bind the rows and eliminate browning of the edges. The sod can be cut with a sharp knife if necessary.

#### Step Seven: Sod Rolling

Now that the sod has been rolled out, it is time to roll out the sod. This is done with the use of a sod roller, which can be hired from your local equipment hire outlet for around \$10 a day. It is quite simple, just use the roller to go over the sod, this helps to compact the sod into the soil and to reduce air pockets.



Your driveway is now ready for use. Obtain instructions from your sod manufacturer on maintenance procedures.