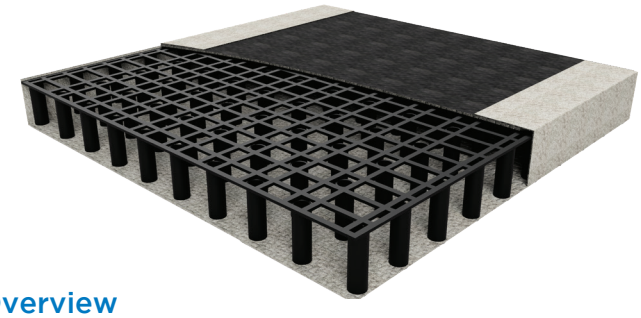

Overview

Most synthetic turf fields are installed horizontally with 12-inch Hydraway. The installation of Hydraway is done after the field has been graded to the desired slope and the subgrade is compacted. A geosynthetic fabric or HDPE liner is placed over the entire field. The liner helps stabilize the subgrade and provide a barrier between the soil and the backfill material (See Figure 1).

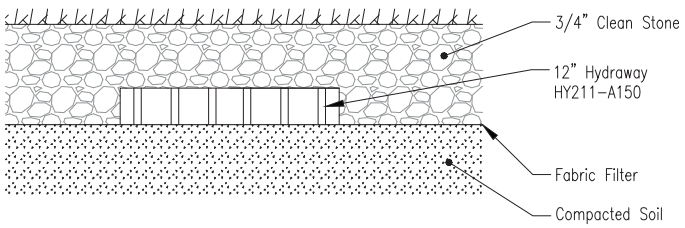

Figure 1. Hydraway installed horizontally.

The layout of a synthetic field is designed by an architect or engineer. Contact Hydraway for assistance with the design.

The 12-inch Hydraway is laid out horizontally into a herringbone pattern across the field at regular intervals for the purpose of collecting drainage water. The 12-inch Hydraway is traditionally installed 6-9 inches below the top of grade, to be determined by the designer. There is a top and bottom to Hydraway when it is installed horizontally: The top is the grid of the core and the bottom is the dimpled points of the core (See Figure 2).

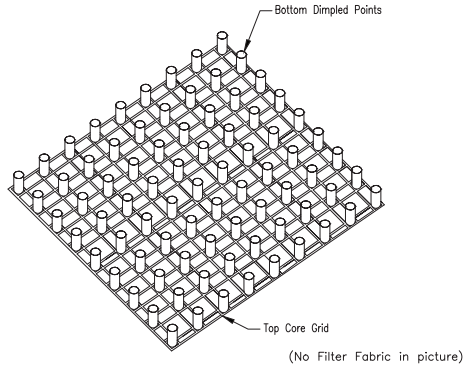

Figure 2. Top and bottom of Hydraway.

Fittings

A Splice fitting is used to connect two pieces of Hydraway and is secured with HydraTape. Hydraway is connected to the collector pipe using a "gravity" connection (See Figure 3). The use of a fabric end cap is not necessary since the system is already protected by the underlying liner. The Hydraway lines are installed over the collector pipes (See Figures 4 and 5).

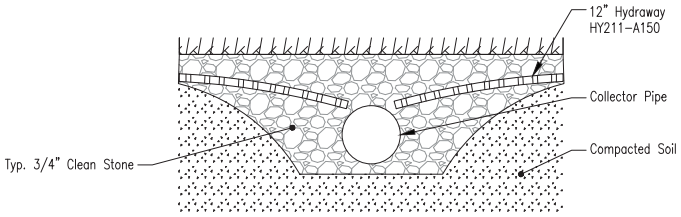

Figure 3. Gravity connection.

Figure 4. Fittings.

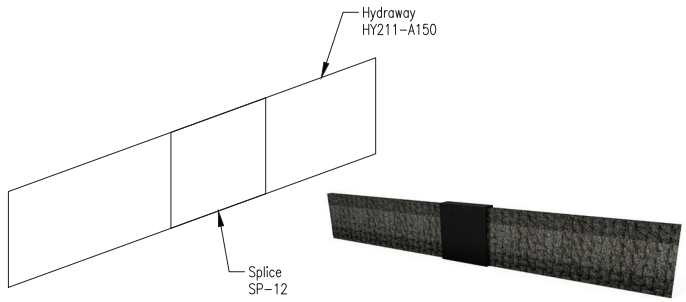

Figure 5. Hydraway installed over collector pipes.

Design Considerations

When preparing a drainage schematic for synthetic fields, the slope of the field, spacing, and drainage patterns must be taken into consideration.

Slope of Field

The greater the slope, the faster the field drains. Synthetic fields are crowned in the center and slope towards the side lines at 0.5 - 1.5% slope (See Figure 6).

Spacing

The spacing of drainage is typically 15 to 20 feet center-to-center. Contact Hydraway to assist in the design of the drainage pattern (See Figure 7).

Drainage Pattern and Placement

12-inch Hydraway is unrolled from the center of the field toward the collection pipes. For ideal results, Hydraway is placed at a 35- to 45-degree angle to the existing slope, in a herringbone pattern. This is done to guide water flowing with the slope of the field to intercept the Hydraway and then to the collector pipes (See Figure 8).

Other considerations

Wheeled Traffic

Until 6 inches of compacted backfill is placed on the field, all wheeled traffic should be kept off the drainage lines. When a minimum of 3 to 4 inches of gravel is placed, tracked equipment can drive across the Hydraway lines. After 6 to 9 inches of gravel is placed and compacted, wheeled equipment can be driven on the field.

Ease of Installation

Hydraway has no “memory” so when it is taken off the roll from the top, it is automatically in its proper position.

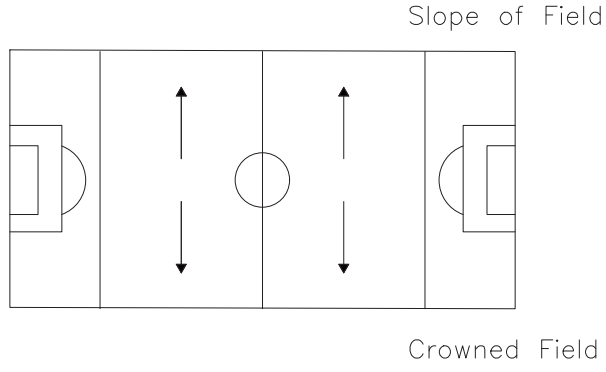

Figure 6. Slope direction of rectangular field.

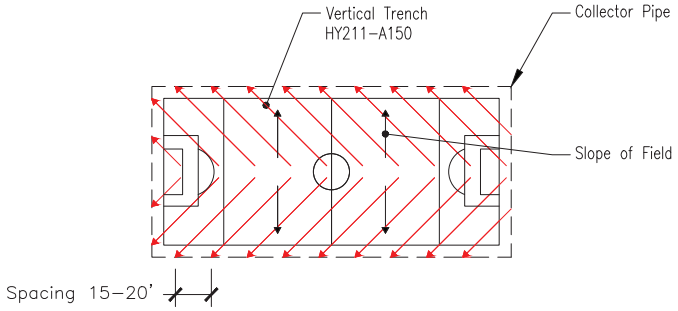

Figure 7. Spacing and pattern of typical Hydraway installation.

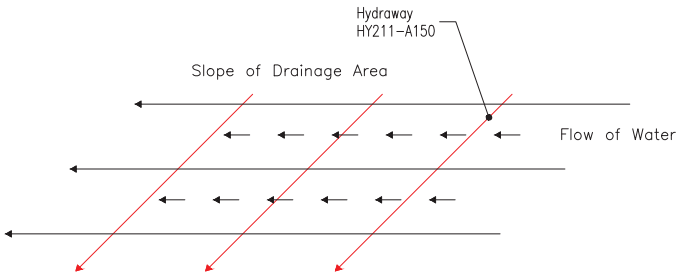

Figure 8. Drainage flow.