

### 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).

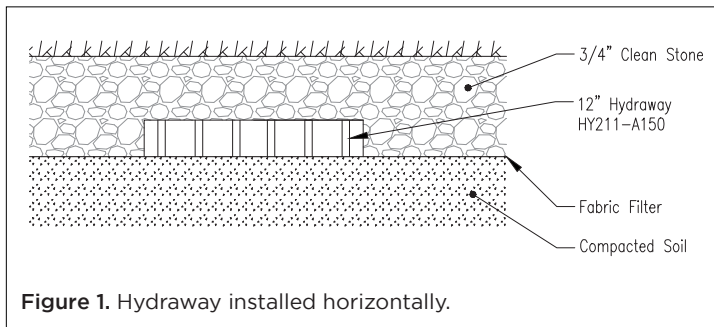


Figure 1. Hydraway installed horizontally.

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).

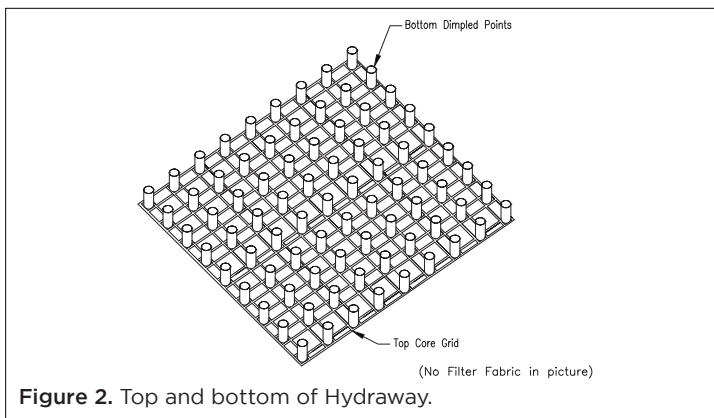


Figure 2. Top and bottom of Hydraway.

### 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).

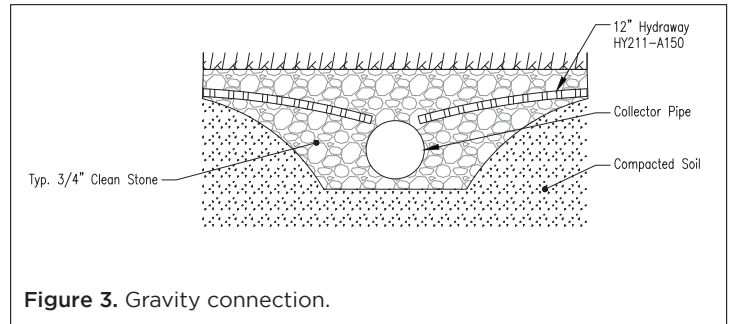


Figure 3. Gravity connection.



Figure 4. Fittings.

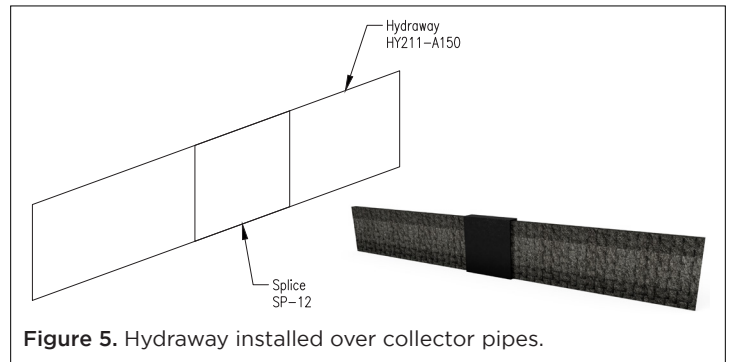


Figure 5. Hydraway installed over collector pipes.

# Synthetic Turf Installation Instructions

## 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

In horizontal installations, there is a top and bottom to Hydraway. The top is the grid of the core (black stripe of fabric), and the bottom is the dimpled points of the core. This helps to protect the drain during the initial placement and compaction of the clean rock or clean, free-flowing backfill.

A minimum of 3 to 4 inches of gravel is needed to cover Hydraway to begin driving traffic on top of the Hydraway geocomposite drainage system. At this point Hydraway is rated to withstand typical dozer traffic of D5 type dozers (approximately 10 tons).

### 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.

