

2024 PGA Championship Course Saved Thanks to Flexterra® HP-FGM®

PROJECT STAKEHOLDERS

- Valhalla Golf Club, Project Owner
- Nicklaus Design, Golf Course Design
- Destination Designs Inc., Contractor
- Site Supply, Distributor

CHALLENGE

- On a short timeline and with heavy rain in the forecast, this championship course needed to stabilize soil in a floodplain with steep slopes and a history of washouts.

RESULTS

- The prescribed solutions exceeded project manager expectations, even with the site receiving a 14-inch precipitation event three days after installation. Months later, the course was on display at the 2024 PGA Championship.

PRODUCTS USED

- Flexterra® HP-FGM®: 3,500 lb/ac (3,920 kg/ha)
- ProGanics® DUAL™ at 6,500 lb/ac (7,290 kg/ha)
- JumpStart™ at 1.25 gal/ac (12 L/ha)
- BioPrime™ at 40 lb/ac (45 kg/ha)
- Aqua-pHix™ at 10 gal/ac (94 L/ha)

In March 2023, Valhalla Golf Club knew all eyes would soon be on their course as the host for the upcoming 2024 PGA Championship. In preparation for the internationally televised event, the owners wanted to update the course to look like a natural part of the Kentucky landscape, while ensuring top playability. Faced with an accelerated schedule and an intensive renovation effort, the team had to get erosion control right the first time to prevent delays and expensive rework.

The project consisted of three main areas that all needed a targeted approach. The floodplain, where the 13th hole was located, needed quick vegetation establishment resistant to potential flooding in the wet months during construction. The steep slopes around the course needed restoration of poor soils and erosion control. And the entrance needed a facelift with new gates, stone walls and landscaping that would welcome the world to the PGA Championship.

DEVELOPING AN ENVIRONMENTALLY FRIENDLY PLAN

The team at Profile® Products jumped into action to collaborate on a solution that would stabilize seed and soil within the floodplain in the short-term and sustainable vegetation with deep root establishment to weatherproof the course. Randy Hoffacker, president of Destination Designs Inc., was already familiar with Profile's work on similar sites abroad and knew Profile would be able to deliver. With the PGA barreling down on them in less than a year, the solution needed to be immediately effective and work on the first try.

Soil tests on the site showed low organic matter at 2.2% and alkaline soils with a pH of 7.8. Based on poor soil health, challenging terrain and climatic factors, Profile prescribed a mix of soil-building and erosion control products across the course. In the floodplain, near the course's signature hole, Profile prescribed

Flexterra® High Performance-Flexible Growth Medium®, the industry's highest performing erosion control product proven to minimize soil loss and provide superior erosion control. It was ideal for this portion of the course because it begins working immediately upon application, making it especially effective during the installation's rainy forecast.

On the rest of the course, including the sloped areas and entrance road, Destination Designs, Inc. hydraulically applied ProGanics® DUAL™. DUAL improves soil health by introducing organic matter, growth stimulants, biological inoculants and soil-building components that jumpstart the nutrient cycle. At the same time, it provides erosion control protection at the level of a Bonded Fiber Matrix (BFM). BioPrime™ and JumpStart™ were added to encourage rapid germination and improved vigor of the vegetation while Aqua-pHix™ lowered the pH of the soil to improve establishment.

A PROVEN SOLUTION

Three days after the Flexterra installation, the site received 14 inches of rain in 24 hours, resulting in some of the highest flood levels in 30 years. When Hoffacker saw a 12-foot-deep river flowing over the project area, he assumed the applied product washed out with the flood. Upon closer inspection, the Flexterra, seed and soil beneath were all intact with some sediment deposition over the top of the Hydraulic Erosion Control Product (HECP). After subsequent rain events following the ProGanics DUAL application, they found it had stabilized the slopes just as effectively. Near the entrance, Profile's prescribed solution achieved sod-quality turf at a fraction of the cost. Within weeks, the areas where products were applied had dense turf coverage. One year later in May 2024, the course was tournament ready for the world's top golfers.



Total coverage of the floodplain with Flexterra® HP-FGM® (March 2023)



Flexterra® HP-FGM® cures within four hours for immediate erosion protection (March 2023)



The floodplain two months after application (May 2023)



Establishment of native vegetation resulting in an erosion resistant and natural landscape (May 2023)