Seahawks Stadium
a natural for soccer match

BY NATHAN ODGAARD

The United States' men's soccer "friendly" with Venezuela last March gave more than 17,000 spectators at Seahawks Stadium and a nationwide audience on ESPN2 a chance to see world-class soccer. But to Jay Warnick, the Seahawks' director of fields, the game's storyline was the performance of the natural grass playing surface and its improbable existence at the new stadium.

Less than 2 weeks before the exhibition soccer game, Seahawks Stadium was temporarily converted from an artificial to a natural grass field. West Coast Turf (WCT) installed 87,000 square feet of hybrid Bermuda sod over the stadium's FieldTurf. It was one of the few times that either Warnick or Greg Dunn of WCT knew of a natural grass field overlaying synthetic turf for an athletic event.

"I was very pleased," Warnick said following the game, a 2-0 USA victory. "Considering the weather, I think we did about all we could to effectively prepare and manage the field."

Frequent rain showers hampered the crew's ability to care for the newly laid turf as was planned, Warnick said. Tarps covered the field nine of the 12 days leading up to the game. As a result, Warnick noted, the field played a bit slick.

Overall, Warnick deemed the unique installation project a success in terms of safety, playability, and appearance of the field.

With the lack of "how to" information available on overlaying artificial turf with sod, Warnick turned to colleagues for input: At this year's annual meeting of the Sports Turf Managers Association, Warnick approached "anyone who would listen to me, and I asked them how they would do it and what issues would come to their mind," he said.

He also talked with Stephen Cockerham, a superintendent of agricultural operations at the University of California, Riverside, who consulted on a similar project at The Meadowlands, where sod was installed over the artificial surface for a 1994 World Cup soccer match. Warnick took the input, which he said closely matched his preconceived notions, and ran with it.

"We did everything based on hypothesis," Warnick said. "There's no textbook to tell someone how to put natural grass over an artificial field, and doing it in Seattle in March...we definitely learned as we went along."

The team foresaw numerous challenges so they conducted a litmus test in early March, installing a 3,000 square foot test plot of sod and studying the intricacies of the project. Many of Warnick's questions about the installation project were answered that day.

Among the challenges was selecting the right sod. The test plot helped determine the appropriate thickness of sod, which was laid in 42-inch wide strips. WCT installed strips of sod with three different thicknesses, 1 1/8 inch, 1 1/4 inch and 1 1/2 inch. Warnick and Dunn agreed that the 1 1/8-inch thick sod with a split 42-inch seam would be the most consistent, uniform, and stable for the game.

Based on WCT's recommendation, Tifway II Bermuda grass was chosen for its durability and rhizomes. The sod was overseeded with Chaparral ryegrass, which provides a deep green color and is highly tolerant of all weather conditions. Though a warm-season grass, the Bermuda performed well in the cool.
rainy climate.

"Bermuda grass is ideal for soccer matches," Dunn said. "Because of the tightly packed leaves near the soil surface and the incredibly dense root system, the sod provides excellent footing and a cushion-like feel." An initial post-game analysis showed that "the field played extremely tough," Warnick said.

Another challenge was protecting the FieldTurf. The test plot helped Warnick determine the best material for protecting the FieldTurf and holding the sod in place. Two layers of material were placed between the two to protect from soil and water contamination: a tarp and a geo-textile fabric. After a few crew members laced up cleats and simulated the stop-and-go action of a soccer player on the sod, they determined that the woven fabric better prevented shifting.

WCT installed the sod, which covered more than 78 x 123 yards, and finished March 20, giving the field’s crew time to take care of any maintenance issues. The crew had to strike a balance by keeping tarps over the field to keep it dry, but also by pulling the tarps off to allow the field to breathe.

Drainage was another issue. The field could handle a slight amount of rain but without a soil base, there was nowhere for it to drain. The water would soak through the sod and sit on the fabric covering.

With the sod’s saturation point only 1/2 inch, the frequent rain showers posed problems. While the field was covered most of the time, at every opportunity the maintenance crew uncovered the turf.

The maintenance crew for Safeco Field, the Mariners’ home field that sits next to Seahawks Stadium, got into the act. Just 3 days before the game, Warnick decided to keep the tarps off overnight. Realizing that heavy rain was closing in, the Mariners crew helped Warnick’s crew cover the field in the middle of the night.

While extensive rain posed a threat to the health of the sod, it also made it difficult for the stadium crew to maintain a mowing schedule and prepare the field for game day. The crew worked in between rain showers to mow and paint the parameters of the field.

So why go to the trouble of installing a natural grass field over a quality synthetic surface? Only 2 years old, Seahawks Stadium was built not only for the Seahawks, but also to serve as a world-class soccer facility. And such facilities must have natural turf to accommodate international soccer. The stadium is hosting a Manchester United-Celtic FC exhibition game July 22, though it hasn’t been determined at press time whether sod or the FieldTurf will be used.

"We learned a lot from our experiences," he said. "There’s not much you can do about the weather. Next time, I think we can make two or three small adjustments and take it to an even greater level."

Editor’s note: After the game, First & Goal, owners of the Seahawks, donated the sod to the Mukilteo School District in the Seattle area, Warnick said. It will be used to renovate a multi-purpose athletic field and to replace worn hash marks and other areas on fields throughout the district.

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