Soccer Disney Style

The soccer fields at Disney's Wide World of Sports complex were designed to promote superior athletic performance, with just a touch of magic.

by Lesa Morey

The best-known icon gracing the 200-acre Disney Wide World of Sports complex, in Lake Buena Vista, FL, may be its spectacular, nostalgic-themed ballpark. But the five multi-purpose soccer fields actually see some of the heaviest action—by players representing every level from world class athletes to amateur high schoolers.

When Disney set out to transform part of a cattle pasture into a group of soccer fields, the entertainment giant began in the typical Disney way—it used loads of professional advice, loads of money, and loads of dirt. The idea being to promote superior athletic performance.

Disney's new soccer fields didn't just have to be good. They had to elicit a "Wow!" from the soccer players. Even the Imagineers, with decades of award-winning park development experience behind them, had no in-house expertise, concedes Muenks. So, they went out and got what they needed. M.A. Mortinson, a Minnesota construction management firm that has built other big sports facilities, loaned its staff of experts, who served as an extension of the Imagineers' team of construction managers. They brought in Orlando landscape architect Herbert Halback, and Dallas architect HKS.

The Toro Co., now the "official" turf and irrigation company of the Walt Disney World Resort, provided turf consultant Dr. James Watson. Another turf consultant, Murray Cook, pitched in too.

"It was critical to get the right people on the team," recalls Rob Hale, Senior Construction Manager, who plays soccer himself and was a big proponent of the soccer fields.

Key players traveled to examine other facilities. Auxiliary buildings, they knew, could be as creative as the Imagineers wanted. The playing fields had to be top-notch and exact, of course. But the turf also had to be
The five soccer fields at Disney's Wide World of Sports complex utilize Tifway 419 bermudagrass. The same turf crowns were used not only on all of the complex's soccer and other athletic fields, but also on its non-playing surfaces. Capable of taking a beating under everyday use, for weeks at a time, and all the while look good to the all-seeing television cameras, which can broadcast every week.

The designers knew the fields had to pull this all off in the face of Central Florida's notorious afternoon downpours. The fields had to be capable of handling heavy water loads, and be ready for play in just 30 minutes, even after the occasional 8- to 10-inch cloudburst.

Fortunately, the old cow pasture proved to be an excellent site, with good soil conditions. Although much of Disney's extensive property holdings don't sit on the best-drained land, the soccer fields site straddles some deep upland soils—the remnants of ancient sand dunes and beaches that form the "ridge" running up and down the spine of peninsular Florida.

Although these granular soils are generally well-drained, they could also harbor a high water table. "We made the decision early on to address the potential drainage problem," says Hale. "Anywhere from 3-6 feet of soil had to be trucked in, to raise the playing fields high enough above the native water table."
Knowing that flat fields don't drain well, they lasered a "virtually flat" field, giving just a half-degree slope to promote drainage. Just underneath the surface they applied a 10-inch-thick, custom-mixed layer of rootzone soil. Before any truckload of mix was dumped, Disney tested every load for consistency.

The rootzone mix of sand and Dakota peat had to be just right. "It was key for the rootzone soil to promote water drainage but still hold enough water and soil nutrients," notes Hale. Coming up with just the right balance proved to be tricky. "We wanted to keep the right amount of moisture in the rootzone," he adds, "so we wouldn't have to be irrigating a lot. Water conservation is important."

On the other hand, the fields had to be in prime shape in the morning following nighttime irrigation. The entire drainage system involved the rootzone mix, several feet of sand base, plus underground drains.

Holding it all together, of course, is the turf. The consultants agreed on the sprigging of Tifway 419 bermudagrass. The same turf crowns were used not only on all the complex’s soccer and other athletic fields, but also on its non-playing surfaces.

Reliance on just the one turf variety not only ties the complex together visually, but helps with the overall turf maintenance schedule, while substantially reducing the risk of contaminating the turf with other varieties of grass, Hale points out.

The idea here is that "it looks like a sports field, no matter where you look," Muenks says. "It's quite a sight to stand on a high point and look out over a plane of green, tree-lined and manicured fields linked by walkways, with fieldhouses rising in the background."

The uniform look "creates a memory, really" says Muenks, who still marvels at the "sense of place" that's created by visitors who, upon leaving the parking lot and becoming pedestrians, are directed to a grand set of steps. Crowds scaling these steps strikes Muenks as something like "a processional." At the top of the steps, visitors catch their first glimpse of the green-capped complex. At that point there is, he says, "a sense of arrival."

For the athletes, however, the proof is in the playing. The design of the soccer fields contributes to players competing at their highest-possible level, Hale says. Their placement and orientation, the fast-draining and healthy turf, and its spectator-friendly mobile seating—which can accommodate up to 10,000 fans at a time—give every athlete the best competitive advantage.

To Hale, the successful design of Disney's soccer fields boils down to three fundamental principles—identify your target audience, find out what you don't know and hire the best people possible to make the decisions.

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