

More modules

Reliant Stadium's turf manager leaves Magic Kingdom for NFL

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BY SAM WILLIAMS

It didn't take long for Super Bowl fans to know what Joe Montana was going to say when the announcer would ask, "Hey, Joe! Where are you going tomorrow?" "I'm going to Walt Disney World," Joe would respond. And down through the years other Super Bowl MVPs have made that phrase a kind of national response when Disney World comes up in conversation. Not that Jon Strantz is a contrarian, but if you'd asked him last August what he was doing, he would've beamed and replied, "I'm leaving Walt Disney World!" Joe Montana in reverse.

Jon, who has dual associate degrees in turfgrass management and ornamental horticulture from Ohio State University and is an STMA member, started his career with Disney in 1982. "I worked my way into supervision, and then in 1996 got in on the construction phase of the new Sports Complex. After its completion I was given responsibility for all of the athletic fields there—the maintenance and fertilization. Basically it's a 200-acre multi-purpose complex with an incredibly wide range of activities. The Atlanta Braves spring-train there. The Buccaneers now hold their spring training there too. The AAU is also headquartered there so we had a lot of their events, too."

Last August, Jon got an interview with the Houston Texans, the city's new NFL franchise. "I couldn't believe it, but out of the blue 2 weeks later they hired me as their head groundskeeper. So I left Disney after almost 22 years and here I am at Reliant Park with the Texans."

Reliant Park consists of a new convention facility called Reliant Center, Reliant Stadium, home of the Houston Texans, and Reliant Arena, where the Houston Livestock Show and Rodeo will kick up some dust in early February. "The Texans' games and the Rodeo are the two main events held in the stadium, but we hope to host the Super Bowl here in 2004."

Palletized system gets the nod

"Initially three companies bid on the palletized turf system we have here," says Strantz. "Hummer Turf, StrathAyr, and ITM Green Tech, which has systems in place at the Meadowlands, Michigan State University, and I think also at Virginia Tech. StrathAyr ended up getting the bid. They're out of Australia." For this project,



A forklift moves an 8 x 8-ft. module of turf, grown at the Turfgrass America farm in Bay City, TX.

StrathAyr partnered with both-Minneapolis based Rehbein Construction and Turfgrass America, which has a farm location in nearby Bay City.

Strantz adds, "Turfgrass America is a quality organization. I particularly enjoyed working with Arthur Milberger. He's a real pro. And we obviously liked StrathAyr's pallet system. This was their first major installation in the states. They've done one small stadium in New Orleans, Tad Gormley Stadium, where they used 4-1/2 inch squares similar to the Hummer system. So this is a little bit different for them. Here they put the grass on metal trays. They're 8 x 8-foot modules with a 4-1/2 inch grass

and soil profile. The entire module is only 7-1/2 inches tall including the metal drainage base, which consists of nine honeycombed drain cell inserts. To be honest, I didn't feel like that was enough material to play NFL football on. I even tried to get them to go with at least a 6-inch profile, but they were concerned that the modules would be too heavy."

StrathAyr incorporates a patented ReFlex mesh material in the soil profile that gives their modules additional strength. Strantz continues, "I think it helps a lot. It helps with water and air management, prevents compaction and definitely increases field stability." After the trays were installed and sitting on the stadium's concrete floor, Strantz was worried that the surface was a little on the hard side. "But after the first scrimmage here the players liked it a lot. It's definitely a fast surface. I haven't heard anything but good reviews."

The warning track also consists of 8 x 8-foot modules with a rubber track surface on the top. "It turned out really nice," says Strantz. "I'd say the entire installation, including the warning track and the playing field, took about eight days. We spent a lot of extra time to get it right this first time. But for long term, 8 days isn't going to cut it. We have a basketball tournament scheduled here in November. The whole field will have to come out for that, and I must admit that I'm a little apprehensive, not so much

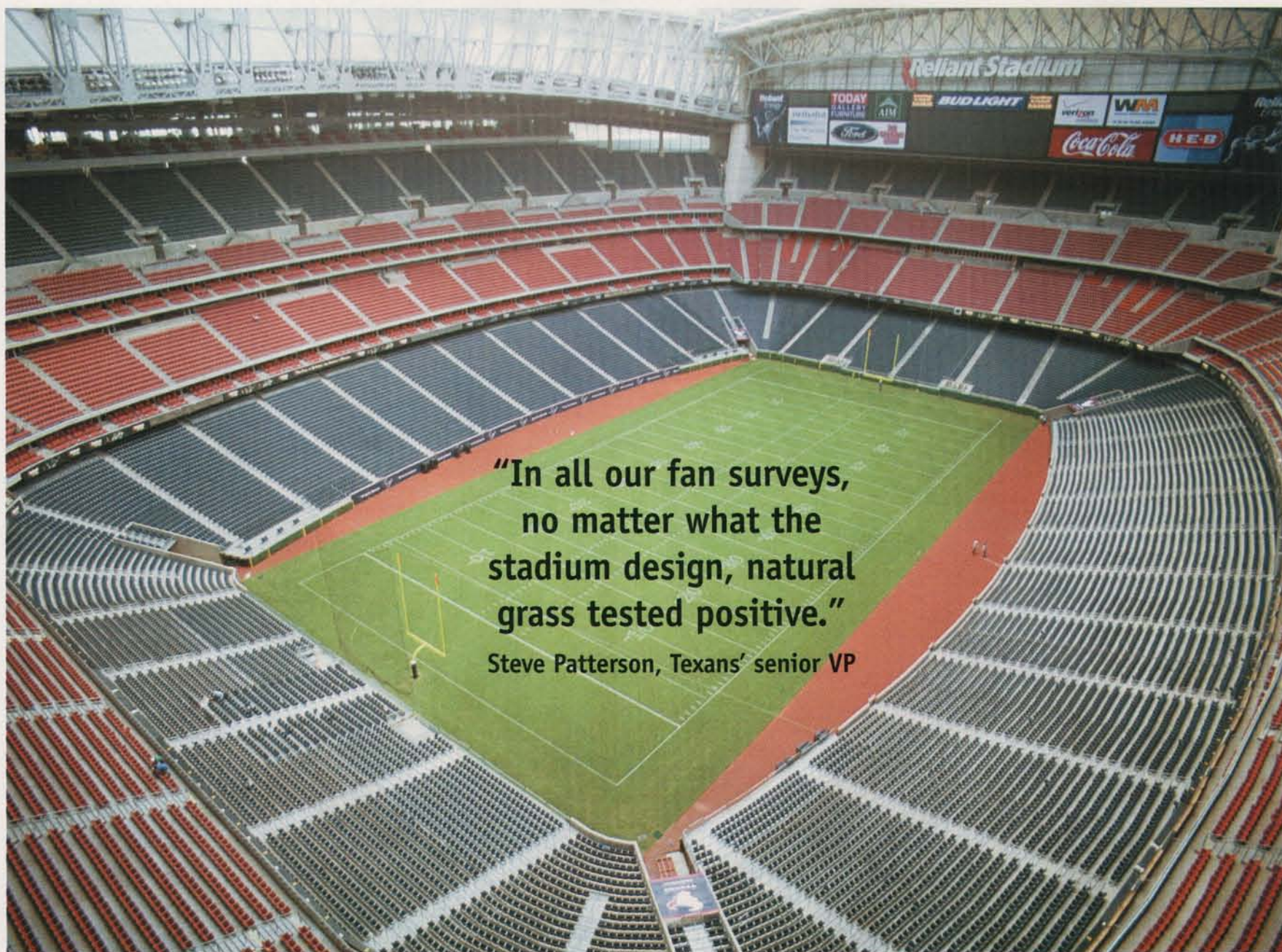


about pulling it out, but putting it back in with all the seams lined up. We're only going to have 2 days to get it back in and have a football field painted on it. We also have a Lombardi Awards Dinner scheduled for the field. My original plan was to take the field out, but now that I've seen the labor involved, the impact of pulling the field out and getting it back in, I'll probably just have Terraplas put down, and take it up immediately after the dinner. At least that's the plan at this point."

Shade a big concern

Is there going to be enough sunlight to grow grass in here? That's a big question according to Strantz, "We have serious shade issues here. They did shade studies that look good on paper, and we do have a translucent roof, but is it translucent enough? We closed the roof the other day for our scrimmage, so we could figure out how long it took to cool the building down before a game. That's when I really noticed how non-translucent our retractable roof is. It looked like the shadow from an eclipse coming across the field as the roof closed. It's a serious concern. I recently raised my mowing height to 1-inch on the stadium field.

"On top of that, at this time of year the sun is already getting lower in the sky. We don't start to see sun hit the field until about 11 a.m. By a little after noon the whole width of the field is in sunlight, but by 3:15 or so, the shadows start coming back, and by 4:15 it's in complete shade again. That's obviously a real tiny window of sunlight.



**"In all our fan surveys,
no matter what the
stadium design, natural
grass tested positive."**

Steve Patterson, Texans' senior VP

And if you have any overcast weather, it compounds the problem. For instance, last week in the Houston-Galveston area, we had some terrible weather. Flooding for 3 or 4 days. We got seven inches of rain and had overcast weather for three or four days solid, and the field declined quite a bit in just those three or four days. It's going to be a struggle to keep a nice field in here just because of lack of sunlight. We do have extra modules down in Bay City at Turfgrass America in a nursery-type situation, about 26,000 square feet of extra turf. So we have the ability to bring in new grass to combat excessive wear and the ill affects of all this shade.

"We'll keep the roof open unless we're cooling the stadium down, or for heat in the wintertime. The NFL hasn't come up with a policy yet since this is the first retractable roof stadium in the NFL," said Strantz. "At this point, and I know there can't be any unfair advantage during the game, but at this point, the plan is to close the roof to cool the building down before games, at least for the first month of the season. Then we'll open it back just before the game or at halftime. The roof itself is a bit of an attraction, and it would be nice to be able to open the roof at some point during the game for the fans' sake."

Strantz will work with the referees and officials if they have rain during a game and need to close the roof, which takes 6-7 minutes to close.

The Texans and Jon Strantz looked at a lot varieties before they made the decision to go with TifSport for the stadium. Strantz explains, "We have TifSport on our practice fields. I've always been a 419 guy, so I was new to TifSport this past year, but I've been very, very impressed with it so far on the practice fields. As far as the stadium goes, HOK, the contractor hooked up with Dr. Trey Rogers from Michigan State. He's done a lot of shade work. They even put a small bow structure together and covered it with the same material that's on the roof here.

They were looking at a couple of zoysias and did some traffic studies. They outfitted an old Jacobson GreensAir with football cleats! In the end, Trey came down and made a presentation. His feeling was that the zoysias performed the best. The paspalum fell out pretty quickly because it just couldn't handle the traffic. The Bullseye did a little bit better than the TifSport, but we liked TifSport's cold tolerance."

Although the zoysias had the best shade tolerance, Strantz felt it was important to look at the "real world" versus the "research world." "One of the grad students at the presentation was kind of bragging that they hadn't cut the zoysia in about 3 weeks. But the fact is, for what we're doing here, that's not necessarily a good thing. I want to grow some grass. I want to be able to grow-out paint, and the logo areas, and numbers and

all that. And if you have scarred up areas from cleats, not necessarily divots or torn out areas, but just basically ripped and torn leaf surfaces, you want to be able to grow some new grass to remove that scarred, dead, material. You can do that with TifSport.

"Here they were thinking that that slow growth was a good thing, and in fact, it is not a good thing for a football field. And the cold tolerance was just not there in the zoysias at all. I guess everybody north of here thinks that Houston is so mild that cold temperatures wouldn't be an issue. But ironically, on the day Trey came in to do his presentation it was 28 degrees in Houston with heavy frost.

Strantz concludes, "We basically took a vote that we wanted to go with TifSport. We were all a little bit more comfortable with it. I think Trey understood.

"We're going to overseed with rye. Especially now that I've seen what kind of the growing conditions there are here, it's less than ideal for any turf." Turfgrass America will also be overseeding the backup TifSport at their nursery site in Bay City. Strantz plans to provide the seed and his overseed rates to Turfgrass America. "I would like to think it will be a good match. But the fact is, they'll probably get better germination on the overseed at the nursery site because they have better conditions than we have at the stadium."



Jon Strantz and Arthur Milberger

Challenge of fertility management

"We're using a lot of Floratine products. I'm going to try as much as possible, to use slow release materials. We're also doing a lot of soil sampling."

Due to the water quality down in Bay City, Strantz has already had a few minor problems. "When the grass came in here the sodium levels were a little high and the pH was really high. We're slowly bringing that back down with weekly spoon feedings. You can't have materials flying through this short little 4-1/2 inch profile, so we're taking it slow and easy. This is all new to me, but like I said, we plan to maintain the stadium grass at an inch. The practice fields are at 5/8 inch right now, but we could probably go even tighter. When we got into that weather last week and I saw the decline from just 3 or 4 days of bad weather, we put kits on our mowers to get our cutting height up to an inch. We're using tri-plex, greens-type mowers to keep the weight down."

Strantz plans to topdress when necessary, but aerification, at least core-type aerification, isn't going to be possible because of the ReFlex mesh material embedded in the soil profile. "I've got a set of solid tines for my aerator, so we'll probably just put those on to loosen it up, just spike it occasionally. I'll also try to verticut this grass at least once a month.

"There's a real good root system in here. That's one advantage of having such a short profile. Everything is right there. It's like a potted plant if you think about it. If you're careful with your fertility and water and all that, you'll have a perfect 8 x 8 ft. x 4-1/2 inch environment for your root system. There's also a geo-type fabric material that acts as a barrier to keep the roots from growing out of the bottom of the trays. My next project is to try to convince the powers that be to let me install a soil air system."

There is no irrigation schedule yet. "We have a Rain Bird cannon irrigation system, but we couldn't put anything in the actual playing field itself because of the trays. So we installed five guns down each side of the field in the warning track. It's set up for two different dimensions including soccer. We also have portable guns, which run down the center of the field. They are fed off of a 2-inch fire hose. We've only irrigated one time so far. The modules seem to retain water longer than we anticipated. This may be a good. Or it may turn out to be a bad thing. In my opinion, there's just not enough sunlight and air movement in here for the surface to dry out like it normally would. We definitely got a ways to go before we figure out how much moisture we're going to need from our guns.

"I've only had a year with TifSport, so I'm not the TifSport King, but in the northern growing areas, I can't see why you'd go with anything else. I can vouch for a big improvement in density over 419. And the better footing for the players. Even our practice fields had such a tight surface they've held up real well. And we've got a miserable 100% sand-based root zone there. I think that's a real tribute to TifSport." **ST**

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Eight weeks after being planted, the TifSport pokes through the rootzone in a module.