

There isn't much of an off-season at Network Associates Coliseum in Oakland, California. At least not for Head Groundskeeper Clay Wood and his grounds crew. After maintaining a diamond for most of the year for the baseball

Athletics, Clay and his crew have to make sure the field is ready and striped for the football

Raiders. To keep both clubs running on a good surface, Clay and his crew rely on John Deere turf equipment. "I won't buy anything else,"

says Clay. "John Deere equipment has come full circle. They have great quality in terms of mowers, reels, and blades. The 1200A Field



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Field of the Year



All the fields were renovated in 2000, including constructing totally skinned infields, during an unusually rainy period (23 in. in all). Thanks to a great crew, spring events went off as scheduled.

The McInnish Complex crew leader, Jorge Hernandez, works with a crew of six (David Conrad, Paul Wood, Gregorio Escareno, Matt Ackers, Hayward Potts, Genaro Herrera); Josey Ranch crew leader, Gregg Woods, with a crew of four (Rogelio Herrera, Jorge Felan, Mark Berry, Anacleto Marquez). Babbitt and Ward give the credit for excellent field conditions to their staff. They note, "Our staff is a special group and we're lucky to be working with them. Not one of them looks at this as just a job. They're determined to have the best fields around and willing to do whatever it takes to make that happen."

The five softball fields of the McInnish Complex were originally constructed in 1980 with a native clay/loam soil profile. The outfield and the non-skinned area of the infield were established with common Bermudagrass turf. A 1 percent slope was designed to channel surface water toward the outfield and off the playing surface.

These softball fields were renovated in 2000, because they were all grass fields. Ward says, "Over the years the skinned area material around the bases had built up, actually creating humps. We had to remove not only the existing turf, but also all that excess material, to construct totally skinned infields. To complicate matters, this project was in process during an unusually rainy period, 23 inches in all. We still completed it in time to hold our spring events as scheduled."

The material used for the infields and the warning track is a combination of red clay sand of a reddish-brown color and decomposed granite sand, both blended with soil conditioner. Ward says, "Twelve pounds of infield conditioner per ton of infield mix has been the perfect mixture for our fields. In 2001, we had fewer rainout days than the other municipal fields in the Dallas area. We had no tournament rainouts, even with storms hitting the night before the event, and that's without the use of a drying agent."

The Championship "GREEN" Field is surrounded by a black vinyl covered eight-gauge chain link fence. It is 25 feet high around the backstop, 15 feet high past the dugouts, and 8 feet high around the rest of the field. The crew constructed a 12-foot wood wall in left field that attaches into the fencing along the 300-foot deep outfield fence. Behind the right-center field fence is a 'state of the art' LED scoreboard. Down the lines and around the outfield fence is a 110-foot, "three step," warning track that notifies the players of the approaching fence. The seating has capacity for 1,000 spectators. The grass areas around the field can be set with additional temporary seating or the fans can set up their own picnics during the game.

Babbitt says, "We knew the conversion to skinned infields would require extra field preparation time, but improved field quality. To help reduce both the daily and the between-game prep time, we installed separate irrigation systems for the infields of all the softball fields. There are four zones on the infield system, all using rotary heads. One head is located

approximately 5 feet behind the pitching rubber. There are two heads on the left side of the infield and two on the right side and one in each corner about where the batter up would stand. Winds are big here in the Metroplex, often 20 to 25 miles per hour, and they can come at the field from different directions. This head placement allows us to adjust for the wind and still get good coverage. After watering and dragging, the heads virtually disappear."

Ward explains the impact of this system. "Before our games, instead of carrying out a large hose, we run each station on the infield for 5 minutes to moisten the infield material before we drag it with a groomer attached to our field rake. We save approximately 30 minutes for each field, by just turning on the irrigation system rather than unrolling the hose, watering the entire skinned surface by hand, rolling up the hose and removing the hose from the field. During tournament play in hot, dry, windy conditions, we can hit most of the infield with a couple passes of the central head in between games. It's just enough water to keep the dust down and slightly soften the playing surface.

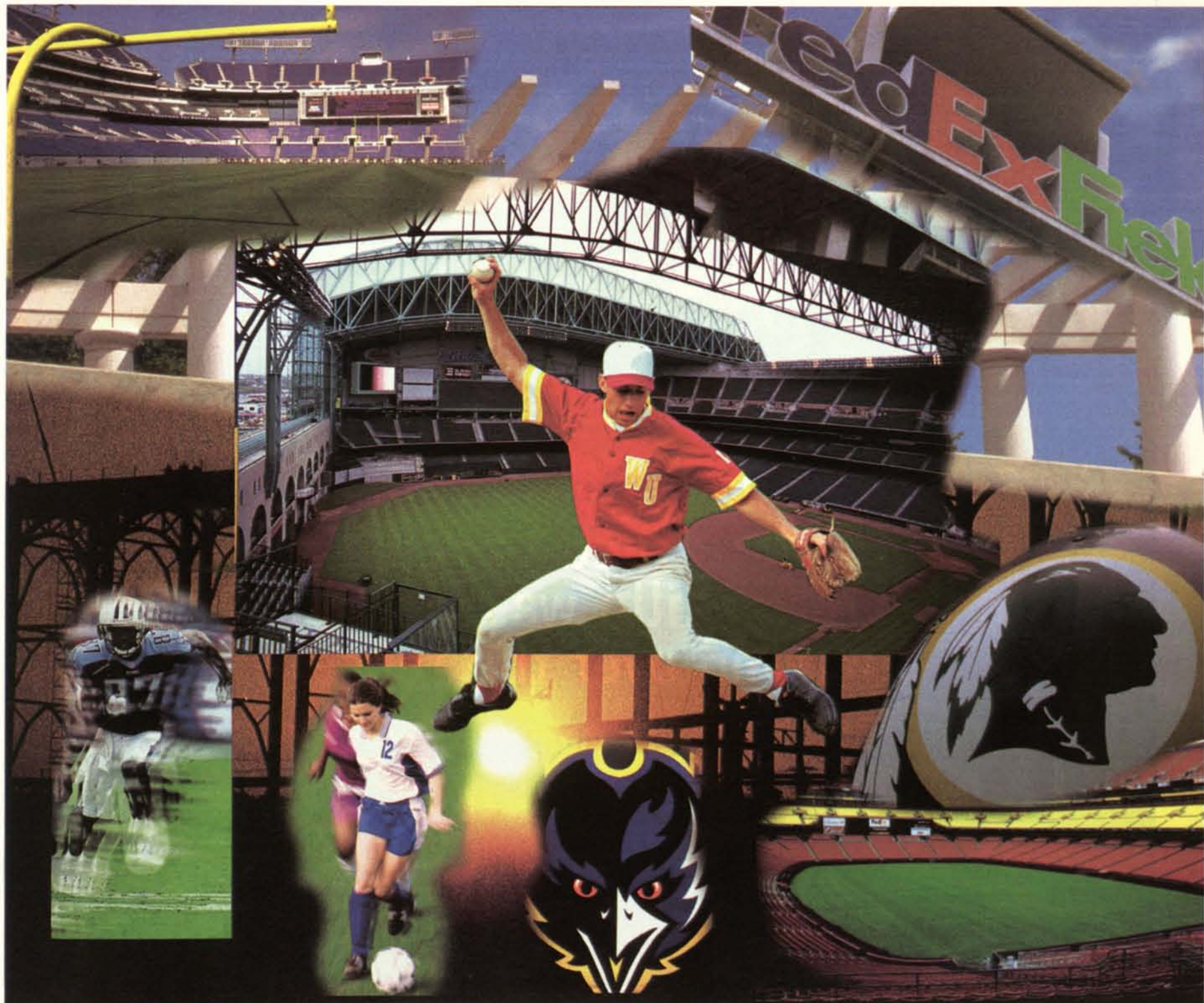
"At night, during the summer, we set the infield system to come on at 2:00 AM for 5 to 10 minutes a

session. Generally, the field will then be ready to drag when the crew arrives in the morning. During the hottest part of the season, we also may set the system to run toward the end of the day. The outfield irrigation system consists of four zones. We set this system to run overnight with the frequency and timing per zone adjusted for weather conditions."

Staffing assignments at the McInnish Complex have been fine-tuned for efficiency and top results. Two crew members tackle the daily infield preparation for all 11 fields. The pitching rubbers are established. They set the magnetic bases and the umpires pull them out and put them in storage after the last game at night. The outfield foul lines are painted once or twice a week, depending on turf growth. Chalking the lines is the last task of the day. If conditions are wet or extra attention is required, these two crewmembers can call on any or all of the other crewmembers from McInnish or Josey Ranch for assistance.

The other four crewmembers at McInnish handle the other maintenance tasks, such as mowing,





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"Turf damage prevention efforts turned to repair after an armadillo was spotted climbing over the fence."

edging, and trash pick up. The ballfields are mowed twice a week, to a one-inch height, with a five-reel ride-on mower. The complexes' non-field turf is mowed once a week. The crew leader focuses on the irrigation systems, the security and field lighting systems, and the field condition and safety inspections, including the bleachers and fencing, as well as the playing surfaces. Both crews combined work on a rotating 6-day schedule so weekend maintenance is covered. Three people cover the weekend detail, and get the following Monday off. They arrive at 4:00 or 5:00 AM and do all the tournament preparation.

The field hosts play for everything from recreational sports to company league teams to slow pitch major softball and girl's fast pitch competitive tournaments. The staff puts up the 200-foot temporary sports fence and moves the bases for fast pitch games. The majority of play uses the standard field configuration.

Babbitt and Ward both laugh as they note that staff vacations must typically be packed into the only extended period of downtime, December. Spring field preparations start in January with play in full swing by February. They've made adjustments to the overall maintenance program to compensate for the high level of field use. For example, they've opted to avoid the surface disruption of core aeration, and compensate with an aggressive slice aeration schedule.

Weather-related issues, such as a day or two of rain, mean the staff must push even harder to catch up. The nature center within the complex adds a few challenges as well. The staff is vigilant in eliminating weed and insect invasions and takes an aggressive, pro-active approach to fire ant control. Because the complex is close to a river, the City's environmental services generally apply mosquito controls once in the spring and once in the summer.

The most unusual nature center invaders have been the armadillos. Babbitt says, "During drought conditions a few years ago, the only green turf remaining was on the irrigated turf of our athletic fields. Armadillos were seeking out this green turf at night

and tearing up the fields in their search for grubs. It looked like a bunch of golfers had been chipping shots. The crew closed off everything they could and even put trash cans in front of the dugouts to stop the attacks. Then, early one morning, one of our crew members watched in amazement as a crafty armadillo climbed up one side of our chain link fence and down the other. So we shifted our focus from prevention to repair."

Ward names the lighting at the championship field as the biggest challenge. It was installed in 1980, during the original construction. He says, "Because the system is outdated, we are constantly having ballast and bulbs burn out. We've also spent considerable time redirecting the light, but have been able to keep the lights at 31 candlepower. With all the other projects in development, it will be a while longer before we can consider replacement of the system."

With so many public athletic fields to maintain, and with a limited municipal budget, field quality depends on staff commitment and dedication to providing the best possible playing surfaces. Babbitt says, "Because of the incredible job our staff does, no one could tell how much softball is played on this field just by looking at it.

"League softball starts in February and ends in November. It's scheduled six nights a week, Sunday through Friday. Beginning in March, and ending in October, we have tournaments almost every weekend. These run all day Saturday and sometimes continue into Sunday morning. This field is used 235 days a year, with a minimum of three games and as many as twelve games a day.

"There are 154 teams in our league. A typical night will put four games on the field between 6:30 and 10:30 PM. The first tournament of 2002 drew 64 teams; the second 40 teams. Each put 12 games on the field on Saturday and 8 games on Sunday. We estimate that overall, 890 games per year are played on this field. Thanks to our staff, it looks like each game is the first of the season."

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Painting a masterpiece

How to turn your football field into a work of art

BY JOHN KMITTA, SENIOR EDITOR

The surface is many times larger than a standard 18- by 24-inch artist's canvas; it is green instead of white; and it is destined to get wet, dirty, and trampled. Despite these challenges, a football field is the turf manager's blank slate. Each week, that slate is filled with the precise white lines, colorful end zones, and specialty logos that become a masterpiece of functionality.

When painting a field, several factors must come together to determine whether the end result will be a masterwork—set up steps, tools, application methods, the climate and, of course, the paint.

According to Carbit Paint Company, a Chicago-based manufacturer of natural turf marking paint, users should prepare natural turf surfaces by removing old paint with sweep brooms and high-pressure water. If the application is seasonal, no preparation is typically required.

According to Abby McNeal, CSFM, assistant turfgrass manager at Invesco Field at Mile High, you must determine the dimensions that you will be painting before setting up to paint.

"You need to first make a plan as to how you are going to paint the field," said McNeal. "It is important to take the time to think about it so that you do not track back across painted lines. Gather all of your painting strings, check all of your equipment, and finalize the method of painting with the crew."

McNeal also recommends having towels on hand in case a spill or mistake happens. A cart with paint (for refilling the machines) should also have a bucket of water and a toolbox with extra tips, nozzles, and miscellaneous tools.

Tools, paint and application

"Tools that we use to paint a football field include strings that are approximately 170 feet long and strings that are 370 feet long," said McNeal. "We use an 8-inch wide piece of cardboard to make sure we get the gap between the end of the yard line and the sideline. A Graco 3900 Line Lazer is the painting machine that we use. We have it set up so that we can use up to three 150-foot hoses. We are fortunate to use line stencils that are exactly 4 inches wide and 15 feet long, creating a stencil effect when we paint our yard lines. We also have an 8-inch wide stencil to create the goal line."

Kevin Dawkins, senior crew leader of Raymond James Stadium, said he typically mixes paint with water at a 1-to-1 ratio.

McNeal uses World Class paint diluted at a ratio of one part paint to one part water.



Precise field lines are created by running string from end zone to end zone.

- Photo courtesy of Suntec Paint, Inc.

"The amount of paint used on a particular day is determined by the event for which we are painting," said McNeal. "We stretch painting out over three days for football. So the day depends on how much paint we use. By the time the field is game day ready, we have used about 25 five-gallon buckets of paint (at the one to one ratio). We want the brightness for television, and this is how we get it."

Dawkins recommends putting down a white background before painting over it with color to provide enhanced brightness.

According to Carbit, when using a compressed air sprayer, adjust reduction with water to obtain a uniform pattern. Use a tank pressure of 100 psi and a fluid pressure of 30 psi. Reduce with water for desired consistency. For a heavy line, reduce with 1 1/2 parts water to one part paint. For remarking, reduce with 2 1/2 parts water to one part paint. When using a gas-operated piston pump sprayer, reduce seven parts water to three parts paint. When using airless spray, reduce 10 percent with water and apply at tip pressure of 2,000-2,500 psi with orifice tip size of .018 inch to .021 inch.

Time to paint

"We start on a Wednesday and finish on a Saturday, and that is two coats of everything," said Dawkins. "If there is a call for rain, we like to find out how much is being called for before it does rain. The paint is dry within an hour and fifteen minutes, so if we get a window like that, we will go ahead and paint, even if it is calling for rain. Rain doesn't damage it too much, unless you put it down right before it rains. Most of the time it leaves some of it there. That way we don't have



Paint should be applied at a recommended spread rate by spray, brush or roller.

- Photo courtesy of Suntec Paint, Inc.

to go over the whole routine again, we just brighten up what washed off."

For a Sunday NFL game, McNeal also starts on Wednesday with the framing of the field and the outside media lines. Thursdays are for end zones, logos, and the first coat of the 6-foot border. Friday is used to finish the field, yard lines, numbers, hash marks, and another coat on the border. Saturday is used to paint in case weather impacted the painting schedule earlier in the week. Saturday's can also be used to paint one more coat on the border.

"We are always looking at the weather during a game week," said McNeal. "It dictates so much, from tarping to painting, that we must always keep updated as the week progresses."

Carbit recommends applying field paint when air, product and surface temperatures are above 50 degrees Fahrenheit and at least 5 degrees Fahrenheit above the dew point. In average weather—77 degrees Fahrenheit, and 50 percent relative humidity—Carbit's paint dries to the touch in 30 minutes, and is hard in one to two hours.

Quality results

"Don't be afraid to experiment with different methods and ways of doing things," said McNeal. "Make your ultimate goal to frame the turf that you spend so much time working on look even better with a great paint job. Use the best paint that you can afford. The cheapest isn't always the best for your turf, so remember to test the paint before you go for the gusto."

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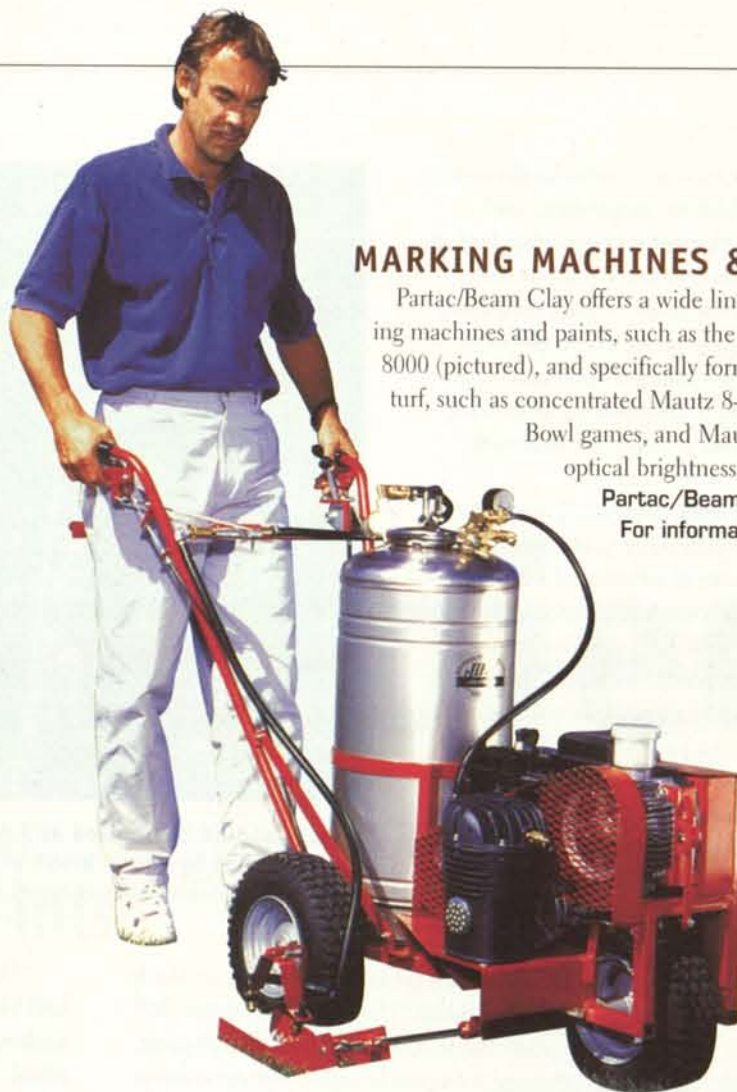
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