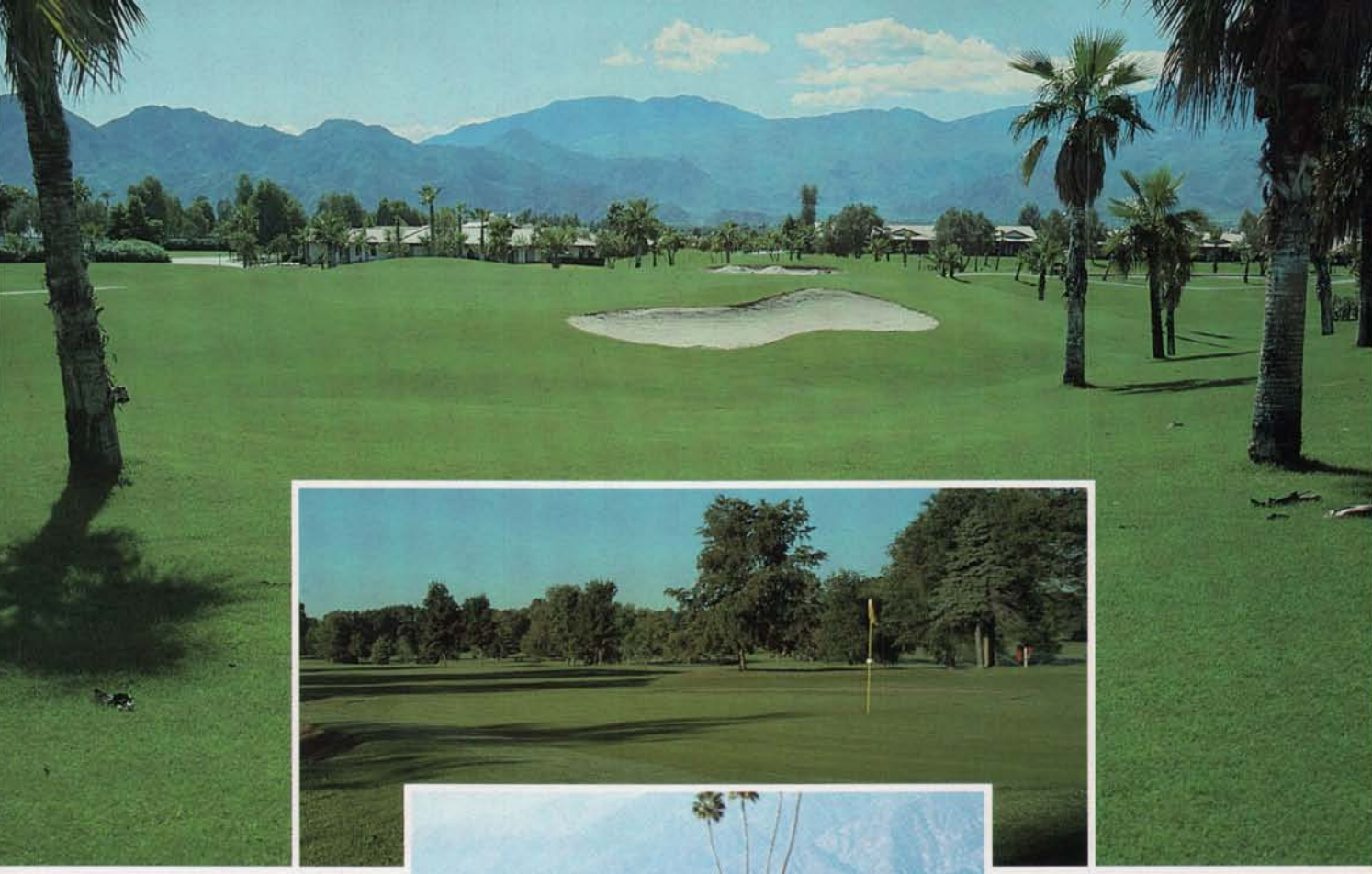

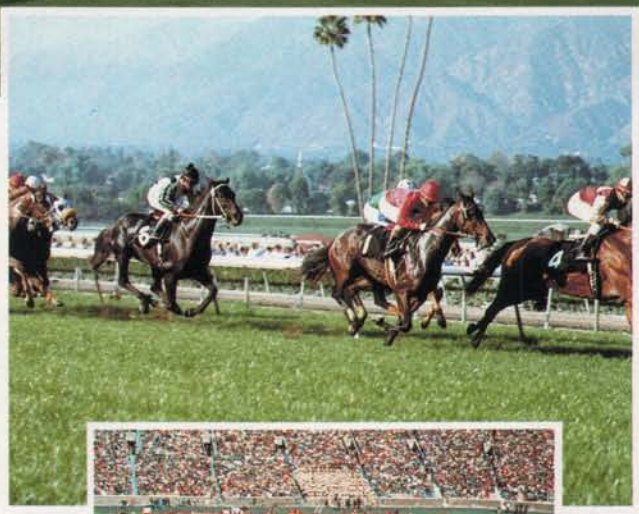

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The Rangers spring training center includes Charlotte County Stadium, five practice fields and one practice infield.

Port Charlotte:
A Star For The Texas Ro

Winter is more than just cold and dreary for many stadium grounds crewmembers across the country. It's a time that really tests their mettle.

Six years ago, Tom Burns was laid off between the football and baseball seasons at Municipal Stadium in Cleveland, OH. From January until March, he'd go crazy trying to keep busy. He had resigned his well-paid job at Ford Motor Company's engine casting plant in Cleveland to take the job at the stadium so he could work outdoors and see professional sports up close.

For three years he had worked diligently under Marshall Bossard, head groundskeeper for Stadium Corp., which leased the stadium from the city. Since he had little seniority, Burns was assigned many of the tasks the older members of the crew chose not to do. But that didn't bother him. He loved working outdoors and in a major city stadium. He absorbed everything Bossard told him.

His determination paid off. He is the winner of the 1988 Baseball Diamond of the Year Award in the professional category. At the age of 29, his recent work for the Texas Rangers at its training center in Port Charlotte, FL, beat out entries from all major and minor league organizations in the country.

Burns made quite a few stops along the road from Cleveland to Port Charlotte. As hard as he worked in Cleveland, he could not beat the seniority system. He wanted more experience and responsibility, but the system was holding him back. For two more years he returned to the stadium crew in the spring. "I figured the best way to become a head groundskeeper was to learn from one of the best and to work hard at it," Burns recalls. "I realize today that starting at the professional level is a tremendous advantage. It teaches you what the coaches and players want and how professional groundskeepers make sure they get it. And, Cleveland is one of the toughest places to do that. Right field doesn't even thaw out until April."

Burns got his first break when Mark Razum, who had worked with him on the Cleveland crew for two years, accepted the head groundskeeper position at the California Angels' training facility in Casa Grande, AZ. Razum told Sarge Andersen, camp coordinator for the Angels, about Burns. After the Browns ended their '82 season in December, Burns drove out to Arizona to spend the winter months helping Razum out at Casa Grande.

The Angels practiced at Casa Grande but moved to Palm Springs, CA, for preseason exhibition games. Andersen needed a groundskeeper in Palm Springs to get the stadium ready. Burns was both surprised and grateful when Andersen offered him the job. He accepted without hesitation and moved to the desert resort city for the last six weeks of his winter break.

He was greeted by a dormant bermudagrass stadium field and one practice infield. His experience with the quick-coupler irrigation stadium in Cleveland was put to the test right away with the automatic system in Palm Springs. He only had a few

niques so they were mechanized,"explains Burns. "Where Marshall would pull nail drags by hand, Jim would pull them with an ATC and get the same results, but faster. He worked with Marshall (who was still a consultant) on each change to get his opinion."

Andersen had told Burns that the Angels were going to build a new training center in Mesa that coming winter. Burns had considered the possibility of helping Razum out on the project or possibly returning to Palm Springs. When Andersen called that summer, he asked Burns if he would like to supervise construction of the fields at Gene Autry Park in Mesa and then stay on as head groundskeeper—twelve months a year!

"Thanks to Sarge and Mark I went from a laborer to a head groundskeeper!" Burns recalls. He discovered that you learn a lot when you immerse yourself in a construction project. Between drainage, irrigation, soil conditioning, seeding and setting fields up for the first time, you quickly learn why you do all the things you do to maintain a baseball field.

When Burns arrived in Mesa in November, he was greeted with 27 acres of bare ground that had been cleared from a huge citrus orchard. The foundation for the clubhouse and most of the irrigation was installed, but that was it. Andersen handed Burns a set of plans, introduced him to Ralph Clifford at Cubs Park in Mesa, and gave him virtually complete authority over construction of the fields. "His faith in me was amazing," says Burns today. "There was no way I was going to let him down. With that kind of responsibility, you either learn right away or it will eat you alive."

With only two months to complete the job, Burns got right to work surveying three full diamonds and one infield. By borrowing large equipment from Clifford, he graded the outfields and planted ryegrass so he could concentrate most of his effort on the infields. Burns quickly saw the advantage of automatic irrigation as the ryegrass was getting established. He watered and fertilized carefully and applied fungicides to guard against seedling diseases.

He excavated the skinned areas to a depth of six inches and started sifting the Arizona clay. Conditioning the base path soil was something Bossard had drilled into him at Cleveland. "We spent weeks on the tons of infield dirt getting it just right," he recalls. He built nail drags, float boards and rollers like those Bossard had designed and worked and watered the skinned areas to perfection. As the base paths, mounds and batter's boxes took shape, he seeded the infields with ryegrass.

With Andersen's support, he obtained a

continued on page 14

Owner Eddy Chiles wanted to consolidate his spring training and minor league facilities in Florida.

ngers

weeks to overseed the fields with ryegrass and get the skinned areas back in shape.

Burns immersed himself in the task. Using many of the techniques taught to him by Marshall Bossard, he was both laborer and groundskeeper. When the Angels arrived to play their first exhibition game, they were impressed with the quality of the infield and the pattern in the turf Burns had created by mowing. Andersen liked what he saw, but Burns was expected back in Cleveland by the end of March.

The 1983 baseball season was Marshall Bossard's last as head groundskeeper. Jim Anglea, groundskeeper of the Nashville Sounds, had been hired to take over for baseball at Cleveland Stadium. The southerner with a masters degree in education, was more familiar with bermudagrass than Kentucky bluegrass and ryegrass. Burns' brief experience in Arizona had peaked his interest in warm-season turfgrasses. Anglea and Burns developed a mutual respect for each other. "Jim adapted some of Marshall's equipment and tech-

Burns keeps the mound and batter's box covered most of the time.

Port Charlotte

continued from page 13

Jacobsen HF-5 five-gang fairway mower, and a walk-behind greensmower to start mowing a pattern into the fields. Burns asked the construction crews working on the clubhouse and parking lot to keep all heavy equipment off the fields. He lightly rolled the fields to eliminate bad hops. He still wasn't satisfied as the Angels arrived at Gene Autry Park. After camp that spring, he regraded the fields and seeded with common bermudagrass.

For three years, Burns lived at the site building a reputation among the coaches and players as a detail-oriented groundskeeper who worked as hard or harder than his crew. After the 1984 football season, Jim Anglea was hired by the Texas Rangers as groundskeeper for its stadium in Arlington, TX. For a year he struggled without an assistant. In January 1986, Anglea called Burns in Arizona and offered him the assistant's job. The attraction of being number two man at a major stadium was great for Burns since he felt he needed to keep learning and moving ahead.

Rangers Stadium had some major problems Anglea needed to fix, including a poorly-drained outfield and very heavy thatch. He needed a strong assistant so he could concentrate his efforts on the improvements. He wanted someone versed in both bermudagrass and ryegrass and who was familiar with his methods of infield preparation. Burns felt he had learned a lot from Anglea in Cleveland and could learn more.

In two years, the pair turned the baseball-only stadium into one of the best in the League. With the renovation work accomplished, the work load at the stadium became routine and very slow during the off-season. The Rangers, however, had a new assignment in mind for the pair.

Owner Eddy Chiles wanted to consolidate his spring training and minor league facilities in Florida. In addition to the Texas Rangers, he had four minor league teams playing in two locations, Plant City and Pompano. Charlotte County, about 90 miles south of Tampa, had approached Rangers President Mike Stone and General Manager Tom Grieve concerning an 82 acre site in Port Charlotte for a major training facility. It was an offer they couldn't turn down, especially since they had two skilled groundskeepers on the payroll. Jay Miller, appointed by the Rangers to be general manager of the Port Charlotte operation, started hounding Burns to come to Florida as head groundskeeper.

In December, Burns packed his bags again. Anglea would stay in Arlington and make periodic trips to the site during construction. Burns had three months to build a stadium field and five practice fields. Once again it was sink or swim. He too, needed a good assistant and found one in Al Hicks. Hicks had trained under George Toma at the Kansas City Royals spring training facility in Ft. Myers, FL.

This time Burns was working with coarse sand instead of clay. Drain tile, wrapped in filter fabric, had been installed in four-foot-deep trenches, 34 feet apart, on each field on a line from home plate to second base. The tile fed into lift stations where pumps raise the water into five irrigation reservoirs for recycling. "The system can handle more than three inches of rain an hour," says Burns. "The soil never gets saturated. When we dump the infield tarps onto the outfield, the water disappears within two minutes. The average annual rainfall is 60 inches and we might get two to three inches in one storm. Last March we had 11 inches!"

The irrigation system was also installed when Burns arrived. Toro 640 heads are in the outfields and 600 Series heads are in the infields and on the sidelines. Electromechanical Rain Bird controllers operate the field systems and the heads for the surrounding landscape. A single 40 hp pump draws water from the lakes and pressurizes the system.

Again, Burns was caught in a warm climate during the winter with fields to plant. The fields had been sprigged with bermudagrass, but by January only 65 percent coverage had been achieved. To get a handle on the best techniques for planting ryegrass in the area, he contacted golf course superintendents in the Charlotte area. "Superintendents here have been great, answering questions and loaning equipment," explains Burns. "They like baseball as much as I like golf. We have many of the same problems." Burns even joined the Sun Coast Golf Course Superintendents Association.

With a Vicon seeder Burns sowed the ryegrass. He saw within days that the sandy soil did not hold onto fertilizer very well. The initial soil test indicated that iron and manganese were deficient. He applied Scotts starter fertilizer containing zinc and manganese followed a few weeks later by a 34:3:7 with sulfur-coated urea. "I'm trying to build up a reserve of slow-release nitrogen that I can supplement with liquid nutrients," he states.

The orange clay for the skinned areas had to be trucked in from northern Florida, screened and installed five inches deep by Athletic Services Dunedin, FL. Since Burns had six infields to maintain, he bought a Gill pulverizer to recondition the base paths. Twice a year the top two inches of basepath mix are reconditioned with the pulverizer. The remainder of the year Burns uses nail drags and float boards pulled by Kawasaki

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Drain tile feed into lift stations where pumps raise the water into five irrigation reservoirs for recycling. The system can handle more than three inches of rain an hour.

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Port Charlotte
continued from page 14

ATCs. The drag mats are made of cocoa mat attached to sheets of plywood.

The orange clay and dark green ryegrass were a stark contrast to the white crushed shell used to highlight the warning tracks. He began mowing the fields with a Toro Greensmaster at 3/4-inch in the pattern that had been so impressive in the past. Each day he mows one of four directions. When the teams are out of town, the stadium is mowed on a line from home plate to center field or from third base to first base. The day before home games, he mows on a line from first to second base. On game day he mows on a line from third to second base giving the field a checked pattern. He maintains this pattern while the teams are in town. By mowing in four directions, the turf does not develop a grain and grows upright throughout the year.

The pitchers arrive at spring training first. That week Burns starts lowering the height of cut to 1/2-inch. The following week, when the remainder of the team arrives, the fields are fast and smooth.

In March 1987, the first full month the facility was used, more than 11 inches of rain fell in Port Charlotte. Burns covered the mounds and batter's boxes with individual tarps when the fields were not in use. A single-piece infield tarp was used anytime rain threatened. The crushed shell warning tracks didn't need to be covered. "The lift pumps were working almost everyday," states Burns. A supply of pregerminated seed was kept on hand to repair divots in the young ryegrass that spring.

During March all fields are used in the morning for practice. At least three fields are used each afternoon for games.

A groundskeeper worries a little when he is keeping two or three fields in shape for one team, but Burns has five teams training on five fields and one infield. Not only were the Texas Rangers practicing there, so were the Class A Charlotte Rangers, The Class A Gastonia Rangers, the double-A Tulsa Drillers and the triple-A Oklahoma City 89ers. During the month of March all fields are used in the morning for practice, and there are usually three games going on at the same time in the afternoon. In 1987, more than 120 games were played on the stadium field alone.

"You have to hustle to get all the fields ready for both practices and games every day," states Burns. The day starts early with mowing, pulling the covers, watering the base paths and setting up the batting cages and pitcher's screens for batting practice. The mounds are covered with artificial turf to protect the clay. Burns has tried covering the fungo area, between home and the mound, with geotextile to protect the turf from grounders. As practice progresses, the crew must be on alert to remove the cages and covers. At least three fields are used each afternoon for games. These fields must be prepared in a matter of minutes between practice and the games at 1:30.

Burns augments his four-man crew in the winter with Brad Richards, Anglea's assistant from Arlington, and Jim Conway, a member of the Cleveland crew who, like Burns six years before, is laid off between football and baseball seasons. "It's great experience for them and a big help to me," remarks Burns. "They free me up so I can keep everything on schedule and talk to the managers about what they need that day." By the beginning of April, the pace slows as only the Charlotte Rangers remain to play through August.

That first year Burns was anxious to get the Tifway II completely established during the spring and summer. Soil tests kept showing a loss in micronutrients. "In 1987, we

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Baseball Field Alignment

By Mike Hebrard

A baseball field is the best designed of all outdoor sports facilities. Where players stand, run, slide, dig in or push off, there is dirt that can be raked smooth again. Where the ball hits, there is a smooth, flat grass surface that permits the ball to bounce predictably and to roll quickly with minimal resistance. The majority of the field is covered with turf to prevent muddy or dusty conditions, to provide safe footing, to keep the field cool, and to give it a park-like appearance. The best all-round baseball field is one that is consistent day in and day out.

The consistency of any baseball field is based largely upon maintaining correct distances and angles. It is our job as groundskeepers to check the alignment of the foul lines, bases and mound frequently for accuracy. To do this you'll need a few tools, including four steel pipes, a transit and a pole, a nylon cord 400 feet long, nails to secure the cord, two tape measures 100

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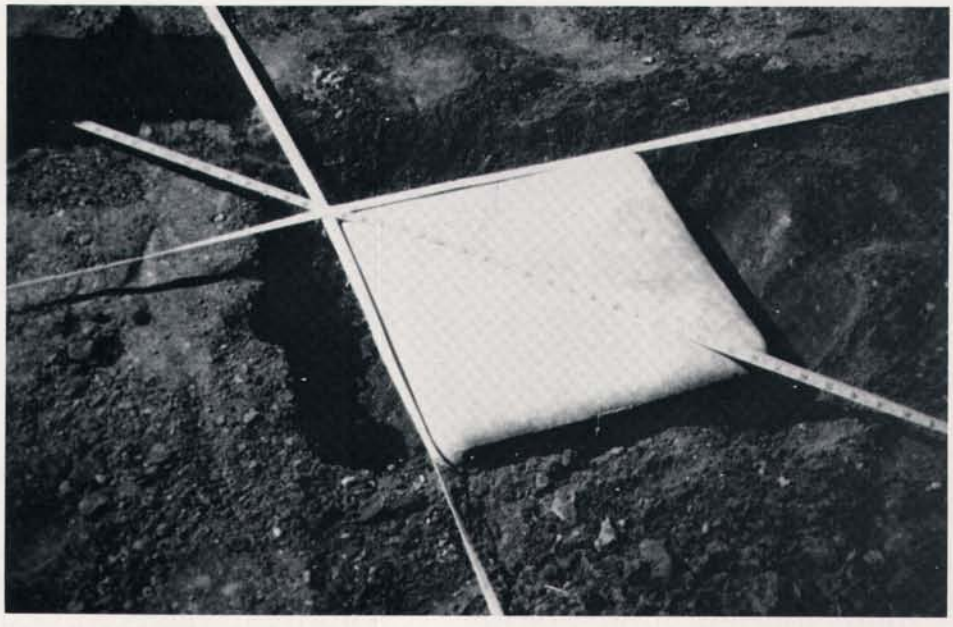

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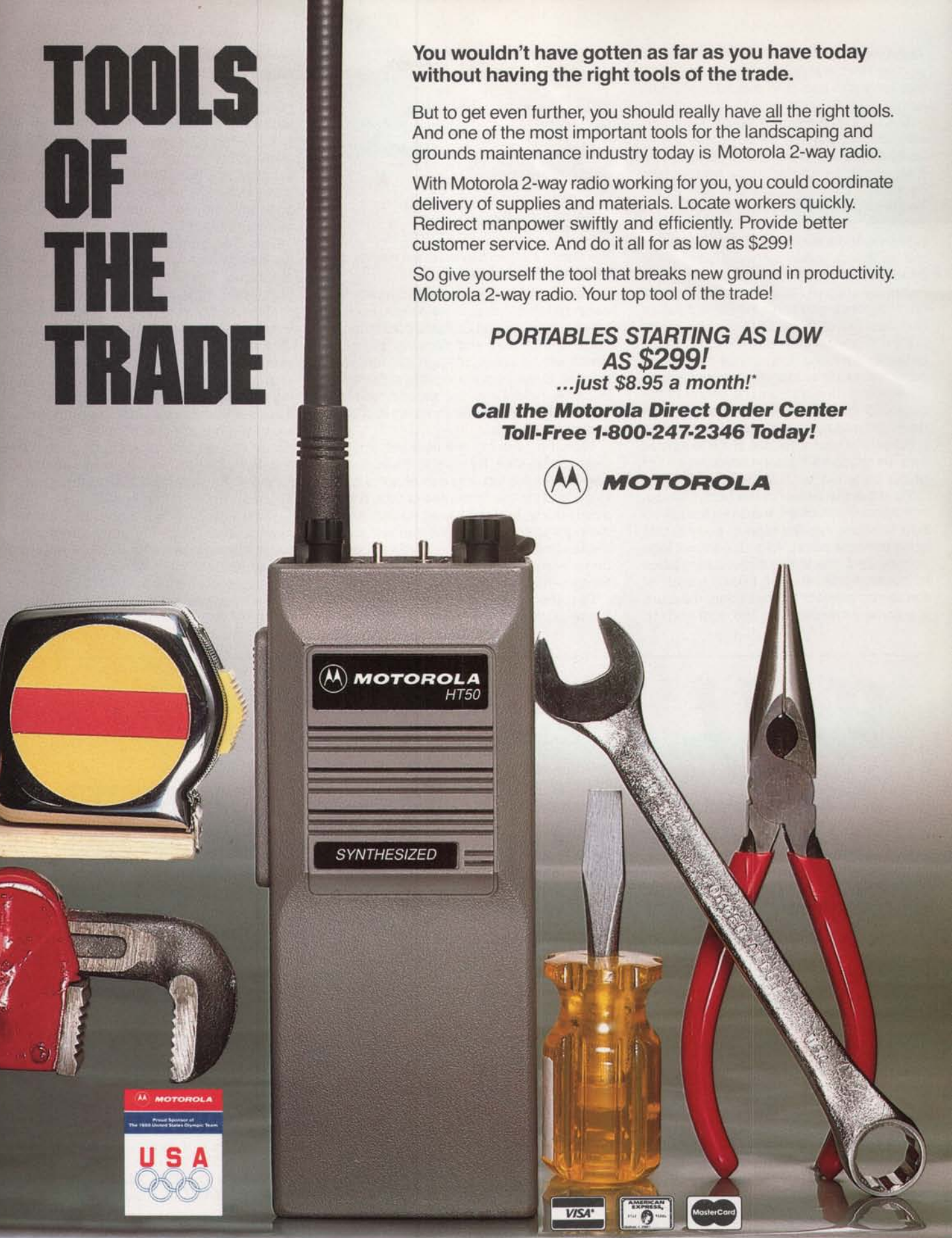

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Alignment

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feet long and one tape measure 150 feet long.

Start at the backstop. If the backstop was installed properly, the left side panel should be 90 degrees to the right side panel. Home plate should be located in the center of the backstop. To make sure that it is in the center, a procedure called triangulating is used.

Measure the width of the center panel of the backstop, divide by two and mark the exact middle (point A) of the center panel. From the ends of the center panel, measure along each side panel the same distance and mark points B and C. Run a string from point B to point C and measure the distance between the two points. Divide by two and mark the exact center of the string (point D). A string running from the center of the backstop (point A) to point D should run down the middle of home plate. If the plate is not yet installed, drive one of the four pipes into the ground where the apex (white tip) of the plate will be. This is point E.

To shoot the center of the field, triangulate again. Position the transit so the plumb bob falls just into the pipe at point E (the apex of home plate). Align the transit legs so they won't interfere with measuring tapes or cords. Again, starting from the ends of the center panel of the backstop, measure the same distance along the right and left

The transit's plumb bob must fall directly over the apex of home plate.

panels beyond points B and C out past first base and third base. Drive nails in both locations, points F and G. Run a cord between F and G, measure and mark the mid-point which will be point H. Align the transit to point H. Shoot from home plate to the fence in center field. Drive the second pipe into the ground next to the fence to mark the center of the field.

With the center of the field set, the foul lines can be shot. By turning the transit 45 degrees to the left you can shoot the left foul line out to the fence and drive in a third pipe. Finally, turn the transit 90 degrees to the right to shoot the right foul line out to the fence and install a pipe. After you are done, recheck all angles with the transit. Be sure the pipes are flush with the ground.

Run the longest cord from the pipe at home plate to the one next to the center field fence and pull it tight. Check for straightness with the transit. Measure along the cord the appropriate distance from the apex of home plate to the front edge of the pitching rubber and from the apex of home plate to the second base anchor. The cord should intersect both in the center. Make allowances (lengthen) the measurement for second base if the mound is in place. For a regulation baseball field the distance between home plate and the pitching rubber is 60 feet, 6 inches. The distance from home to second (with allowance for the mound) is 127 feet, 3⅜ inches. The mound should be ten inches high at the rubber.

Measure from the apex of the plate along the foul lines 90 feet for first and third base. The back of both bases should be exactly at that distance. A quick way to check base alignment without a transit is by measuring two sides of the diamond together. The distance from home plate to second base along the base line should be 180 feet. It should be the same distance along the base line from first to third or from second to home. If it's not, the field is not properly aligned.

Editor's Note: Michael Hebrard assists many schools, parks and colleges with baseball field maintenance for Hobbs & Hopkins, Ltd. of Portland, OR. He is the former head groundskeeper for the Amarillo Gold Sox and summer program coordinator for the Department of Parks in Amarillo, TX.