Budgeting for Sports Field Maintenance

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epending on your perspective, time and/or money is the item you always need more of. At some point, unless staffing compliments increase with workloads, all the money in the world will not help you get the work done. The following is a description of general maintenance items, the equipment to do it, staff required and materials needed. You decide, is it about time or money?!

In Oakville we have 61 diamonds and 77 soccer fields. We host 16,000 players using our fields for 47,000 hours. What does all this mean to fields? Turf wear and tear. What does all this mean to you? You'd better find ways of doing more in less time with less money. If the field is lit, it will receive at least twice the play. If it is irrigated and lit, it will be used for tournaments assuming the quality of turf will be high. During tournaments, the field could see 5 to 6 games per day for 4 consecutive days. If applying appropriate funds to appropriate amounts of play, open up the purse strings on these fields - they will cost the most. Premier fields definitely see the largest percentage of funds, unfortunately the others must settle with being kept safe.

At a past Sports Turf Association Field Day, Marc Altman said put your money where your play is. In other words, don't treat the infield the same as the outfield. If home plate sees most of the action, spend more there. Compaction will be



more of a problem on 30% of a soccer field. Keep that in mind while going through the following points.

BALL DIAMONDS

First, always first, mark your irrigation heads. Whether aerating, overseeding or rolling, mark the heads. Damage to the lines is costly and will slow any operation down.

Infield and Outfield

\$38, 1 hour

Aerating can achieve so many things in the soil – whether to assist in moving water or increasing the O_2 in the soil,

therefore increasing microbial activity or relieving surface compaction. Optimum is 12 to 16 holes per square foot, 2 to 3 passes. It should be done with any renovation. Aerating should disturb the soil in a controlled way and be done when the crowns have time to heal. Some studies have shown it increases control when done prior to weed spraying.

Infield Outfield \$40, 1/2 hour \$100, 1 hour

Overseeding

On infields, we use establishment rates of 20 pounds/1,000 square feet, on out



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fields, we use 10 pounds. We like to overseed the infields 3 times and outfields once. During play we use a perennial ryegrass blend, in fall we use a Kentucky bluegrass.

Infields Outfields \$120-\$170, 1/2 hour \$240-\$340, 1 hour

Topdressing

This is the only chance you have to change surface soil. Soil dictates the movement of water, whether through gravitational flow or capillary flow through micropores. Soil can hold nutrients or release them. It can be your biggest problem. You want water to move fast enough to keep the field playable, but slow enough to allow fertility levels to stay high as long as possible. Find the mix which best suits your existing soil. You should not attempt to radically change the soil type, this could result in a layering problem further causing drainage problems. No more than 3/8" should be applied at one

time. To stretch money, use a higher quality material on infields than outfields.

Infields \$210, 1 hour Outfields \$500, 2 hours

Grooming Infield & Warning Track

Change the point of entry each time the equipment accesses the infield. Ensure the operator carries a rake and trash bags as well as a short check list. Stress the importance of speed, too much will cause lips to form on the edge of the infield. If grooming is done slowly, less infield material will be thrown out. Our infields are groomed daily, warning tracks 2x/week.

Infield \$35, 1 hour Warning Track \$35, 1 hour

Cutting Lips (Edge of the Infield)

This is done when the season is not in play, spring or fall, and prior to tournaments for detailing. It will prevent a lip from forming. Be sure to mark the irrigation heads before cutting. Be prepared to add infield mix after hauling away debris, often existing mix cannot be leveled out adequately.

Hardball \$145, 2 hours Softball \$100, 2 hours

Brooming Lips

Five times per season will help stop a lip from developing. We use a sweepster 3' broom with plastic bristles. Be sure to broom into the infield. \$25, 1 hour

Cutting and Fertilizing

Not including fertilizer costs. Equipment to cut irrigated fields is floated and cut more often.

Irrigated \$75, 1 hour Non-irrigated \$55, 1 hour

Installing a Mound

For permanent mounds we have used 'Mound Master.' It takes approximately 50



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bags at \$5 a bag. It constructs a more permanent structure requiring less reinforcing. Be sure to have accurate measurements. Talk with the groups using the diamond first to see what they want. If reconstructing the infield, mark the mound dimensions and leave it until all other work is complete.

Installing \$350, 8 hours Maintaining \$75, 2 hours

Home Plate Construction and Installation

Purchase rubbers framed in and filled with concrete. We also use clay brick around the home plate area. This cuts down on constantly replacing material and checking for divots. Be sure to have at least 1-1/2 inches of material on top of brick so players can still 'dig in.'

With Clay \$850, 8 hours Without Clay \$85, 1 hour

Weekly Inspection

This is one of the most important things you can do. Use a form to ensure the inspection is done and nothing is missed. It is the time when holes are filled and seeded; irrigation heads are checked; and lips, fence lines, base paths and home plate are level. Recommended inspection sheets are available from the Sports Turf Association.

SOCCER

Again, always begin with marking irrigation heads before starting work on the field. \$38, 1 hour

Aerating

Soil strength is measured by its ability to hold when pressure is put on either vertically or horizontally. This is critical for traction. Moisture levels will affect soil strength. Aerating can improve moisture levels and air in soil. \$140, 2 hours

Overseeding

Choice of seed depends on time of the year. During mid season play, germination times are critical, while in fall seeding, over wintering of seed is more of a factor. Guaranteed germination rates are on the bag, ask the supplier for them if they're not. How you store the seed will also affect germination rates. When a seed is cultivated there is a goal. Wear resistance, drought resistance and disease suppression are all factors. There is a cost involved with developing new seed. They do it for a reason, find out what that reason is.

Perennial Ryegrass Blend \$400, 2 hours Kentucky Bluegrass Blend \$600, 2 hours

Topdressing

You want soil to hold nutrients in the root zone for the plant to take up. You also want the water to drain to keep the field playable. An optimum root zone will allow you to fertilize less frequently by cutting down on leaching. Be sure not to alter material too much from existing soils to avoid layering.

Sand \$900, 4 hours Soil \$700, 4 hours

Layout and Lining

Cutting down lines first with a push mower will help keep them longer, especially on irrigated surfaces. User builders block paint; mix it 1:1 with water.

Initial Lining \$130, 3 hours Weekly Lining \$65, 1 hour

Painting Goal Posts

Done once a year using latex paint. \$55, 1 hour

Cutting and Fertilizing

Irrigated fields are cut with a mower, which is floated and cut 2 times per week. Non-irrigated fields are cut every 10 days. This cost does not include fertilizer.

Irrigated \$75, 1 hour Non-irrigated \$55, 1 hour

Weekly Inspection

As with the ball diamonds, designing and distributing a checklist is very worthwhile ensuring that work completed is recorded and all points are checked. Again, inspection sheets are available from the Sports Turf Association.



COSTS BREAKDOWN

Yearly Ball Diamond Maintenance

Irrigated

 Labour
 244 hours

 Equipment
 \$8,950

 Materials
 \$3,000 to \$6,500

Non-irrigated

Labour 154 hours Equipment \$5,265 Materials \$550



Yearly Soccer Field Maintenance

Irrigated

Labour 136 hours Equipment \$5,140 Materials \$2,150

Non-Irrigated

Labour 50 hours Equipment \$925 Materials \$745

Spinning the Numbers

- One person can maintain 5 irrigated ball diamonds.
- One person can maintain 9 irrigated soccer fields.

This does not include:

- · Irrigation shut down or start up
- Light maintenance
- Drainage installation
- Infield/soil amendments application
- · Warning track amendment
- Installing fence protectors
- Sodding in fall
- · Bleacher maintenance.