

Artificial Turf versus Natural Grass Workshop - City Council City of Dover, NH

Manchester, NH

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1. Costs, Scope of Maintenance, and Products Used

Natural Grass Fields:

- Maintenance includes mowing (1–2 times per week in growing season), fertilization, irrigation, aeration, overseeding, and topdressing.
- We use granular fertilizers and herbicides for weed control.
- Equipment includes mowers, aerators, seeders, and irrigation systems.
- Cost for products used is minimal per field, only between \$200-\$500 per field.

Turf Fields:

- Initial installation is significantly higher — typically around \$1 million per field depending on site work and drainage.
- Annual maintenance is lower and includes brushing, grooming, infill replenishment, seam inspections, and occasional sanitization — budgeted at around \$5,000/year.
- Products include magnet sweepers, grooming machines, and deodorizers/sanitizers.

2. Maintenance Responsibility

- Natural grass fields are maintained by Manchester Parks and Rec maintenance staff.
- Turf fields are maintained day-to-day by Manchester Parks and Rec maintenance staff. We have a maintenance contract in place with the field manufacturer to do yearly maintenance that includes the following: Clean and redistribute infill, field brushing, field inspection, infill depth testing, written report, and GMAX testing.

3. Annual Maintenance Budget and How It's Determined

- The budget is reviewed annually and is based on historic maintenance needs, usage patterns, and equipment/labor costs.

4. Are the Grass Fields “High Performance”?

- Some of our premier grass fields are maintained to high-performance standards — laser-leveled, irrigated, and heavily overseeded.
- However, not all of our fields meet that definition due to varying usage levels and resource availability.

- The turf fields are absolutely considered “High Performance” and are widely considered to be some of the best playing surfaces in the area.

5. Restrictions and Rest Periods

- We do not schedule formal rest periods, but we do delay spring use until our maintenance staff deems the fields playable — usually after snowmelt and initial spring treatments.
- Fields may also be closed during or after heavy rain events to avoid damage.
- Turf fields have no seasonal closures and are usable as soon as the snow clears.

6. Playability Issues

- Turf fields have excellent year-round playability and recover immediately after snow or rain.
- Grass fields can struggle in early spring and late fall and are more vulnerable to overuse, drainage issues, and compaction, especially in high-traffic zones.

7. Resurfacing Turf Fields

- Yes, we have completed resurfacing on all of our turf fields.
- The manufacturer removed the existing turf and I am unaware if it was recycled or repurposed.

8. Environmental Concerns

- We have not heard any concerns from community members and advocacy groups regarding PFAS in turf systems.
- There is no question that covering an area of the earth in plastic is worse for the environment than covering it in grass.
- However, natural grass fields use more water and require emission emitting equipment for routine maintenance.

9. Data on Surface Safety for Youth Sports

- We do not currently have a formal study or comparison on the safety of turf vs grass.
- Generally speaking, studies show that a turf field is more slippery than a grass field, leading to an increase in ACL tears and similar injuries.
- However, grass fields are prone to damage such as craters and divots, which will result in an increase in injuries such as rolled ankles.