

South Orange Maplewood School District
Turf v Grass field comparison (all figures estimated) – 12/13/2023

Overview:

Initial installation costs: Initial install costs for turf are higher. The estimates below include a nominal 24 year cycle which includes a turf surface replacement within the cycle. Grass will require annual re-seeding and some re-sodding over this time period which is estimated.

Maintenance costs: Maintenance costs are higher for grass but will depend on many factors including use, weather (hot/dry periods will demand higher irrigation and maintenance efforts for grass for example). The estimates include an estimated irrigation cost and assume purchase of basic equipment over the extended cycle.

Hours of use: Turf fields can be used far more heavily including in any weather conditions and can be used day of, or after rains. Grass fields would typically require at least a day to dry after rains and have a shorter season when they can be used. The estimated install and maintenance costs are also represented as cost/estimated hour of available use. CME (site engineers) provided an estimated number of annual use hours based on their experience which has been utilized.

Estimated Initial Installation Costs:

Turf v Grass Estimate Numbers (CME)	Artificial Turf	Natural Turf
Clearing, Mobilization	\$ 316,250	\$ 316,250
Top Soil Cut	\$ 115,000	\$ 115,000
Earthwork and Subgrade Prep	\$ 402,500	\$ 402,500
Drainage	\$ 131,905	\$ 50,000
Curb (necessary only with turf)	\$ 62,388	\$ -
Fencing	\$ 132,250	\$ 132,250
Backstop and Netting	\$ 320,563	\$ 320,563
Turf Base	\$ 480,930	\$ -
Turf carpet and infill	\$ 881,705	\$ -
Natural Turf	\$ -	\$ 600,000
Athletic Accessories	\$ 355,925	\$ 355,925
Bleachers	\$ 51,750	\$ 51,750
Asphalt and Concrete	\$ 85,215	\$ 85,215
Topsoil and Seed (non field areas)	\$ 52,848	\$ 52,848
Landscaping	\$ 34,500	\$ 34,500
Electrical Service	\$ 172,500	\$ 172,500
Lighting	\$ 575,000	\$ 575,000
Estimated Initial Install Costs	\$ 4,171,228	\$ 3,264,301

Estimated Maintenance Costs:

Maintenance Est (Turf v Grass) - various sources	Artificial Turf	Natural Turf
Periodic re-sod, repair, turf refill, etc	\$ 7,500	\$ 20,000
*Annual mowing, weeding, fertilizer	\$ 3,500	\$ 25,000
**Irrigation, wetting, and other services	\$ 3,000	\$ 25,000
Line painting, other ongoing use efforts	\$ 500	\$ 2,500
<i>*assumes basic equipment; **water use estimated</i>	\$ 14,500	\$ 72,500
over 24 year life span	\$ 348,000	\$ 1,740,000
Estimate of turf replacement cycle (1x)	\$ 600,000	
Maintenance/operation total (24 yrs)	\$ 948,000	\$ 1,740,000

Est. hours of usability of fields (CME,annual)	3,000	800
Est. over 24 years	72,000	19,200
Est. maintenance cost per hour of playability	\$ 13.17	\$ 90.63

Estimated Overall Costs:

Estimated totals over extended period	Artificial Turf	Natural Turf
Initial Install	\$ 4,171,228	\$ 3,264,301
Maintenance and use	\$ 948,000	\$ 1,740,000
Est Total Cost over period	\$ 5,119,228	\$ 5,004,301
Est. hours of usability	72,000	19,200
Est. cost per hour of usability	\$ 71.10	\$ 260.64