

# 10 Year Cost Analysis



vs. Natural Grass



## Analysis of Cost: Natural Grass Versus a FieldTurf Installation

(Using a standard size field of sq. footage 80,000)

	<b>Natural Grass Field</b>			<b>FieldTurf Field</b>		
	Per year	10 years	Total	Per year	10 years	Total
Base: Excavation, preparation, engineering Estimated cost sq. ft.		Same	\$160,000.00		Same	\$160,000.00
Materials: Sod (\$2.75 sq. ft.)                      \$2.75 FieldTurf (\$4.50 sq. ft.)                \$4.50		\$220,000.00		\$360,000.00		
Maintenance: Incl.; herbicides, pesticides, re-sodding, water, mowing	$\$52,500.00 \times 10 \text{ yrs}$	\$525,000.00		$\$5,000.00 \times 10 \text{ yrs}$	\$50,000.00	
		<b><u>\$905,000.00</u></b>		<b><u>\$570,000.00</u></b>		
Scheduling possibilities:	70 hours x 26 weeks x 10 years = 18,200 hours			100 hour x 44 weeks x 10 years = 44,000 hours		
<b>Average cost per hour of use</b>		<b>\$49.72</b>		<b>\$12.95</b>		

\* Based on 70 hours/week

\*\* Based on 100 hours/week

# 10 YEAR COST ANALYSIS

(Based on Field Size of 80,000 Square Feet)

## Natural Grass



<b>Intitial Captial Cost</b>	<b>\$380,000</b>	<b>\$520,000</b>
<b>(New Sod, drainage, Irrigation)</b>		
<b>Maintenance:</b>		
<b>Year 1</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 2</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 3</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 4</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 5</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 6</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 7</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 8</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 9</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b>Year 10</b>	<b>\$52,500</b>	<b>\$5,000</b>
<b><u>Ten Year Total</u></b>	<b><u>\$905,000*</u></b>	<b><u>\$570,000**</u></b>

\*Does not include downtime for re-sodding/ seeding, or un-playable field conditions.

\*\*Increased Usage

## Annual Maintenance Costs

Natural Grass



<b>Mowing Equipment</b>	<b>\$7,068.00</b>	-
<b>Labor Cost (\$20/Hour)</b>	<b>\$6,000.00</b>	<b>\$1,000.00</b>
<b>Clipping Removal</b>	<b>\$2,861.00</b>	-
<b>Fertilization</b>	<b>\$4,856.00</b>	-
<b>Overseeding</b>	<b>\$466.00</b>	-
<b>Coring</b>	<b>\$2,848.00</b>	-
<b>Topdressing</b>	<b>\$9,565.00</b>	-
<b>Thatch Removal</b>	<b>\$185.00</b>	-
<b>Monitor Irrigation</b>	<b>\$846.00</b>	-
<b>Equipment Depreciation and Fuel</b>	<b>\$3,500.00</b>	<b>\$1,500.00</b>
<b><u>Water Cost</u></b>	<b><u>\$5,400.00</u></b>	=
<b>Sub Total</b>	<b>43,595.00</b>	<b>2,500.00</b>
<b><i>Re-Striping Field Lines:</i></b>	<b>\$5,800.00</b>	<b>\$1,000.00</b>
<b>Labor</b>	<b><u>\$3,105.00</u></b>	<b><u>\$1,500.00</u></b>
<b>Material</b>		
<b>Total</b>	<b>\$52,500.00</b>	<b>\$5,000.00</b>

### Maintenance of FieldTurf

The cost of maintaining FieldTurf is minimal. The primary maintenance item is removing leaves and other debris which may stray onto the field. Removal is accomplished by a tractor-pulled vacuum system. These tractors do not remove the fill material. FieldTurf also recommends brushing the field (every 4-6 weeks depending on use) to redistribute infill material that may have migrated.

# Positive Attributes of FIELDturf®

- No grass stains: Quantitative savings on Laundering and replacement of Uniforms.
- Savings on Insurance deductible
- No downtime regarding use of field after yearly seeding or re-sodding of grass
- Ability to host an unlimited amount of community activities, youth Football and Soccer
- Potential decrease in transportation costs for transporting students to off-site practice fields.
- The potential for revenue generation from holding play-off and championship games at your site.

## The Safest System Ever

<b>384% reduction in cost per hour of use*</b>
<b>242% more playing time**</b>
<b>66% reduction in neural injuries***</b>
<b>50% reduction in cranial/cervical injuries***</b>
<b>33% reduction in third degree injuries***</b>

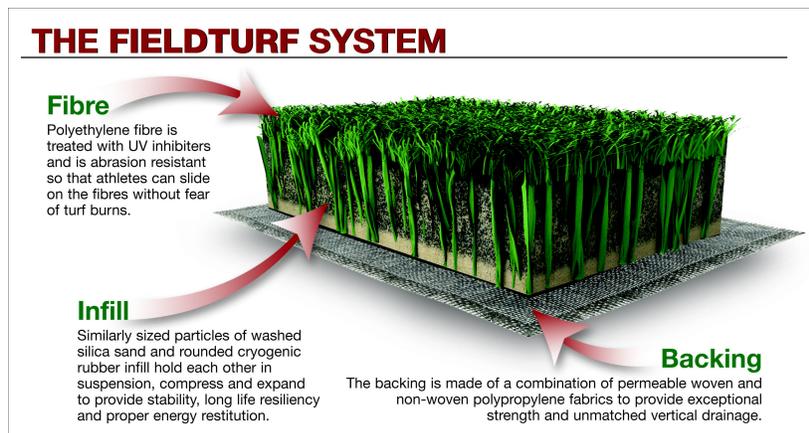
\* FieldTurf \$12.95 / Natural Grass \$49.72: average cost per hour of use.

\*\* FieldTurf: = 44, 000 hours - Natural Grass = 18, 200 hours

\*\*\* Incidence, Causes, and Severity of High School Football Injuries on FieldTurf Versus Natural Grass:  
A 5-Year Prospective Study: Michael C. Meyers PhD, FACSM, and Bill S. Barnhill, MD

## Field Utility

There are two limiting factors affecting field utility that must be addressed in comparing the different types of field surfaces. For natural grass fields, the limiting factor is the wear of the grass surface. Natural grass must be “rested” to allow the grass to repair itself. FieldTurf is vastly more durable than natural grass and therefore the limiting factor is the demand for the facility. Since children and youths are the primary players, peak use is during after school hours. The second limiting factor that must be considered in determining the overall cost is the longevity of the system. With an unsurpassed life expectancy of 8 to 15 years, depending on usage patterns, the FieldTurf sports surface can stand up to continual use from athletes whose cleats would tear away at a real grass field.



## NFL Players Choose FieldTurf Over 20 Natural Grass Fields

The National Football League Players Association released their bi-annual ranking of NFL stadium fields. A total of 1280 active NFL players from all 32 teams completed survey forms between September and November 2002.

Of the 30 NFL stadium fields rated by the players, FieldTurf's surface at Seahawks Stadium was ranked third best overall, ahead of 20 natural grass fields used by NFL teams, and far ahead of any other artificial field. Amazingly, only natural grass fields at Tampa Bay and Arizona were ranked higher than FieldTurf by NFL players.

### NFLPA HEALTH AND SAFETY SURVEY 2002: LEAGUE WIDE RANKING OF BEST PLAYING FIELDS

1. TAMPA BAY BUCCANEERS	RAYMOND JAMES STADIUM	Natural grass
2. ARIZONA CARDINALS	SUN DEVIL STADIUM	Natural grass
<b>3. SEATTLE SEAHAWKS</b>	<b>SEAHAWK STADIUM</b>	<b>FieldTurf</b>
4. CAROLINA PANTHERS	ERICSSON STADIUM	Natural grass
5. JACKSONVILLE JAGUARS	ALLTEL STADIUM	Natural grass
6. TENNESSEE TITANS	COLISEUM	Natural grass
7. HOUSTON TEXANS	RELIANT STADIUM	Natural grass
8. DENVER BRONCOS	INVESCO FIELD AT MILE HIGH	Natural grass
9. WASHINGTON REDSKINS	FEDEX FIELD	Natural grass
10. BALTIMORE RAVENS	RAVENS STADIUM	Natural grass
<b>11. DETROIT LIONS</b>	<b>FORD FIELD</b>	<b>FieldTurf</b>
12. CLEVELAND BROWNS	CLEVELAND BROWNS STADIUM	Natural grass
13. MIAMI DOLPHINS	PRO PLAYER STADIUM	Natural grass
14. NEW ENGLAND PATRIOTS	CMGI STADIUM	Natural grass
15. GREEN BAY PACKERS	LAMBEAU FIELD	Natural grass
16. KANSAS CITY CHIEFS	ARROWHEAD STADIUM	Natural grass
17. SAN FRANCISCO 49ERS	3COM PARK	Natural grass
18. PITTSBURGH STEELERS	HEINZ FIELD	Natural grass
19. SAN DIEGO CHARGERS	QUALCOMM STADIUM	Natural grass
20. CHICAGO BEARS	MEMORIAL STADIUM	AstroPlay
21. OAKLAND RAIDERS	NETWORK ASSOCIATES STADIUM	Natural grass
22. DALLAS COWBOYS	TEXAS STADIUM	RealGrass
23. CINCINNATI BENGALS**	PAUL BROWN STADIUM	Natural grass
24. SAINT LOUIS RAMS	EDWARD JONES DOME	AstroTurf
25. NEW YORK GIANTS/JETS**	GIANTS STADIUM	Natural grass
26. NEW ORLEANS SAINTS	LOUISIANA SUPERDOME	AstroTurf
27. ATLANTA FALCONS**	GEORGIA DOME	AstroTurf
27. PHILADELPHIA EAGLES	VETERANS STADIUM	NeXturf
29. BUFFALO BILLS	RALPH WILSON STADIUM	AstroTurf
29. MINNESOTA VIKINGS**	METRODOME	AstroTurf
30. INDIANAPOLIS COLTS	RCA DOME	AstroTurf

\*\* *Have since converted to FieldTurf*



Test results prove it again

## The Safest Turf on Earth

FieldTurf's engineered system is a synthetic turf system that combines the beneficial bio-mechanical properties of natural grass, with the best safety and durability attributes.



### **Patented Infill Exceeds 10 Lbs. Per Sq. Ft.**

Patented silica sand and cryogenic rubber infill is almost 3 times as heavy as any competing system.

### **Cryogenic Rubber**

Cryogenic rubber is rounded, does not attract microscopic bubbles of air which causes ambient rubber to float.

### **Superior Traction**

In tests of the dynamic traction coefficient by surface, FieldTurf produced the highest traction.

### **The Best Injury Prevention**

In tests of the effects of surface type on the moment resisting rotation, FieldTurf had the lowest resistance.

### **The Safest System Ever**

#### A 66% reduction in neural injuries

FieldTurf 2.4% / Natural Grass 7.5%

#### A 50% reduction in cranial/cervical injuries

FieldTurf 10.1% / Natural Grass 19.2%

#### A 33% reduction in third degree injuries

FieldTurf 7.9% / Natural Grass 12.8%

### **Player Reports and Ratings are Supported by Bio-Mechanical Test Results**

INJURY INCIDENCE, ETIOLOGY, AND SEVERITY OF GAME RELATED HIGH SCHOOL FOOTBALL INJURIES ON FIELDTURF VERSUS NATURAL GRASS: A FIVE-YEAR PROSPECTIVE STUDY / MARCH 2003 / BILL S BARNHILL, MD; MICHAEL MYERS, PHD FASCAM

TRACTION OF FOOTBALL SURFACES  
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