

**GLENBROOK HIGH SCHOOLS
Board Meeting – October 24, 2011
District Business Office**

**TO: Dr. Riggle
Hillary Siena**

FROM: Kimberly L. Ptak

DATE: October 24, 2011

RE: DISCUSSION/ACTION: Turf Field Proposal

BACKGROUND

Over the last five years, artificial fields have been discussed at several board meetings, facility committee meetings and finance committee meetings. In general, the consensus of the administration and the board, has been in favor of artificial fields from a usage, safety and environmental standpoint. The hesitancy has been the cost of the fields.

A presentation will be given at the October 24, 2011 meeting to cover the following information:

USAGE CONSIDERATIONS

Currently the stadium fields at GBN and GBS are used exclusively for football, soccer and lacrosse competitions – approximately 37 games per year. In the event of heavy rain, these games are moved elsewhere or rescheduled. It is estimated that only 130 students per school play on the main field every year. The stadium field at each school is used only 4% of the estimated time allowable. Due to the extremely low usage, the average cost per hour of use is approximately \$470 or \$2,200 per competition.

	<u>Current Usage w/Grass Field</u>	<u>Projected w/Artificial Field</u>
Hours Used	170	3,500+
Usage Percent	4%	100%
Cost Per Hour	\$470/hour	\$49/hour
Cost Per Competition	\$2,200	\$225
# of Students Impacted	130	All students + community ~ 3500+

Current Concerns

- ✓ The stadium fields are ONLY used for football, soccer and lacrosse competitions meaning only 130 students per school benefit from using the field. Games have been rescheduled or moved due to inclement weather causing usage to be even lower.
- ✓ The stadium fields sit unused during the summer so the grass can be properly irrigated, fertilized and have time to grow.
- ✓ All practices are held on practice fields unless weather is bad, then the practices are moved to the field house or other locations to protect the practice fields. When this happens it is a domino effect as the cheerleaders are moved from the field house, clubs are moved from gyms etc. At GBS lacrosse and field hockey are sent off campus to practice.
- ✓ Practice fields cannot be properly maintained as they are always in use and cannot be taken out of use for rest on a rotational basis.
- ✓ PE never uses the stadium field and, depending on the condition of the practice fields are sometimes not able to use the practice fields. As a result, PE spends more time indoors and needs to be extremely flexible as it is common for them not to know their scheduled location until that morning. This can impact the quality of the curriculum as the location dictates the instruction.
- ✓ The bands rarely uses the stadium fields. Instead, they practice in the parking lots which impacts traffic flow and is not an ideal condition for the band.
- ✓ The school campuses are landlocked preventing them from adding additional fields to increase usage. The only solution to allow 100% participation on a stadium field is an artificial surface.

ENVIRONMENTAL CONSIDERATIONS

From an environmental standpoint, there are benefits to an artificial field –

- ✓ Water conservation
- ✓ Elimination of fertilizer and pesticides – lessens the chance of groundwater contamination
- ✓ EPA considers synthetic turf to be non-hazardous
- ✓ Product is environmentally friendly –
 - Blades are made from recycled plastic
 - Infill is made from recycled tires (20,000 per field) or other recycled products
 - Infill is continuously reused

FINANCIAL CONSIDERATIONS

The cost of an artificial field is approximately \$1.7M per school.

<u>ARTIFICIAL TURF FIELD</u>	
Site Work/Drainage	\$440,000
Irrigation System	\$40,000
Synthetic Surface	\$475,000
Fees and Contingencies	<u>\$195,000</u>
	\$1,150,000
Two Fields	\$2,300,000
<u>ADDITIONAL INFRASTRUCTURE – part of facility master plan</u>	
Running Track – GBN	\$390,000
Running Track – GBS	\$225,000
Detention - GBN	\$120,000
Detention – GBS	\$250,000
Fees and Contingencies	<u>\$197,000</u>
	\$1,182,000
	\$3,482,000

Every 10+ years the “carpet”, which is the backing and artificial blades, need to be replaced. The infill is removed, cleaned and reused. This cost is approximately \$550,000. The annual operating cost for an artificial surface is estimated at \$3,000/year.

FUNDING RECOMMENDATION

It is important to note that the funding recommendation does not impact the district operating, long-range projections.

<u>Artificial Turf Fields</u>		
Irrigation, Site Work, Drainage, Surface	Community Fund Raiser	\$1,000,000
	Building Budgets	\$400,000
	Capital Fund Reserve	<u>\$900,000</u>
		\$2,300,000
<u>Infrastructure Items</u>		
Running Tracks and Detention	\$10M Build America Bonds	\$1,182,000
	TOTAL COST	\$3,474,000

NEXT STEPS and TIMELINE

October 24, 2011

BOE Meeting Discussion

November 14, 2011

BOE Approval of Concept and Commitment to Fundraising

IF APPROVED

December, 2011 – September, 2012

- Fundraising w/Community
- Discussions with Village of Northbrook on Shared Detention
- Complete MWRD for Glenbrook North Detention
- Turf Field Surface Material Discussions

September 1, 2012

Fund Raising Efforts Complete

September, 2012 (1st meeting)

BOE Meeting Discussion

September, 2012 (2nd meeting)

BOE Meeting Approval of Project

October – December, 2012

Bid Specifications

March, 2013

Facility Committee – Review of Bids

March, 2013

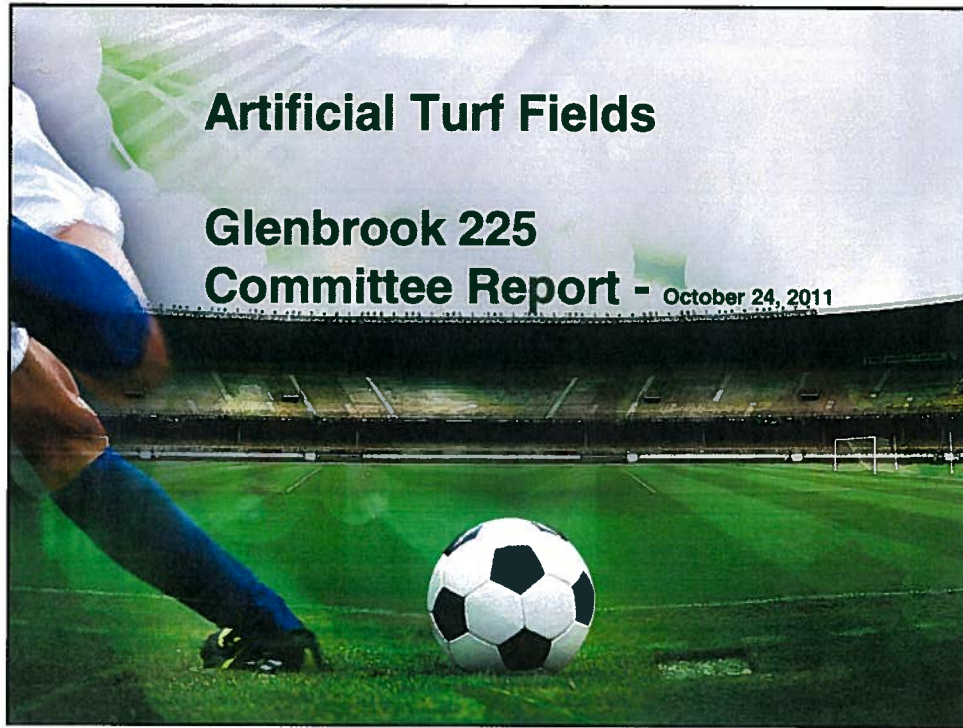
BOE Meeting – Review of Bids

April, 2013

BOE Meeting – Approval of Bids

May – August, 2013


Construction and Project Completion



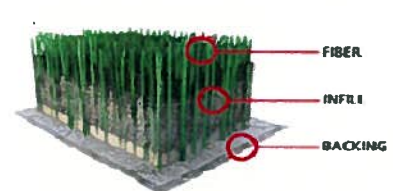
Artificial Turf Fields

Glenbrook 225 Committee Report - October 24, 2011

Synthetic Turf Systems




✓ What is synthetic turf?



1. Grass-like fibers/blades
2. Infill system composed of sand and/or rubber
3. Drainage layer backing system

✓ How does it compare to astro-turf?



“Glorified carpet over concrete”

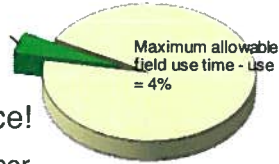
✓ What are the MAIN benefits?

- Ready for 24/7 usage and hold up for frequent use
- Little to no “down time” due to snow or rain



Stadium Field Usage - Current

- Current under-utilization of main field - used about 4% (170 hours) of allowable time
- Currently used for athletic games – no practice!
 - 20 Varsity/JV Boys-Girls Soccer
 - 5 Varsity/Sophomore Boys Football
 - 12 Varsity Boys-Girls Lacrosse
- Physical education excluded
- Band and Spirit groups limited (about 8 hours/year)



CURRENT CONCERNS



1. Main field is ONLY used for varsity/sophomore football, soccer, lacrosse – only 130 students per school benefit from use of the field.
2. Games need to be rescheduled and moved due to weather.
3. Main field is not used in summer due to irrigation, fertilization.
4. All practices occur on practice fields. When weather is bad, practices are moved to fieldhouses and gyms, where other groups are then relocated.
5. Physical Education is relegated indoors more than desired.
6. Band practices are conducted in parking lots, which is not ideal.
7. Inability to properly maintain and rotate practice fields as they are always in use.
8. Athletes not as prepared as other teams who are practicing outdoors on turf.
9. Cost per competition is \$2,200.



Stadium Field Usage – Projected w/ Turf

- Increase usage of main field to 100% of allowable time – approximately 3500 hours
- Projected use Percentages –
 - Physical education 35%
 - After school and summer athletics 40%
 - Band/spirit groups 15%
 - Community Use 10%
- Hours increase from approximately 170 to 3500
- Cost per hour decreases from \$470 to \$49

Environmental Benefits



- Water conservation
- Elimination of fertilizer and pesticides – also lessens the chance of groundwater contamination
- EPA considers synthetic turf to be non-hazardous
- Product is environmentally friendly
 - Blades recycled plastic
 - Infill recycled tires (20,000 per field) or other recycled products
 - Infill is continuously reused

Turf this past Football Season



All five GBN away football games this past fall were played on Turf:

- Lane Tech Stadium
- Evanston
- Deerfield
- Niles North
- Highland Park

4 out the 5 of GBS's away games were on Turf:

- Stevenson
- Evanston
- Niles West
- Maine South
- Waukegan - does not have a synthetic field

Synthetic Fields in Illinois



Currently there are 210 known Synthetic Fields in Illinois

- 130 High School Fields
 - 101 FieldTurf
 - 11 Mondo/Kiefer
 - 7 AstroTurf
 - 11 Sportexe
- 80 College – Park District - Private
 - 57 FieldTurf
 - 3 Mondo/Kiefer
 - 9 Astro Turf
 - 11 Sportexe

A Sampling of Turf in Illinois High Schools



• Deerfield	2011	• Evanston	2008
• Mundelein	2011	• Barrington	2008
• Hersey	2011	• OPRF	2008
• Wheeling	2011	• Stevenson	2008
• Warren	2011	• St. Patrick	2008
• Hinsdale Central (2)	2010	• Homewood-Flossmoor	2008
• Hinsdale South (2)	2010	• Nilis West	2008
• Highland Park	2010	• Palatine	2008
• Loyola Academy (3)	2010	• Conant	2008
• Addison Trail (2)	2010	• Hoffman Estates	2008
• Willowbrook (2)	2010	• Lake Forest	2007
• Glenbard North	2009	• Schaumburg	2007
• Maine South	2009	• Fremd	2007
• Naperville Central	2009	• Nilis North	2006
• Naperville North	2009	• Libertyville	2005
• York	2009	• CPS (14 schools)	various
• Grayslake North	2009	• CPD (12 fields)	various

A Sampling of Turf in Illinois Colleges



- | | |
|--------------------------------|-------------------------------|
| • Concordia University | • University of Chicago |
| • Dominican University | • Monmouth College |
| • Trinity Christian | • Illinois College |
| • Lewis University | • Northwestern University (2) |
| • Elmhurst College | • Illinois State University |
| • North Central College | • UIC |
| • Illinois Wesleyan | • University of Illinois (3) |
| • College of DuPage | • Loyola University |
| • Northern Ill. University (2) | • Saint Xavier College |
| • Southern Ill. University (2) | • North Park University (3) |
| • Knox College | • Wheaton College (2) |



Financial Considerations

COST of TURF



Artificial Turf Field

Site Work/Drainage	\$440,000
Irrigation System	\$40,000
Synthetic Surface	\$475,000
Fees and Contingencies	<u>\$195,000</u>
	\$1,150,000
 Two Fields	 \$2,300,000

COST of TURF



Additional Infrastructure (part of Master Facility Plan)

Running Track - GBN	\$390,000
Running Track – GBS	\$225,000
Detention* – GBN	\$120,000
Detention – GBS	\$250,000
Fees and Contingencies	<u>\$197,000</u>
	\$1,182,000

* In collaboration w/the Village of Northbrook

HOW WILL IT BE FUNDED?



FUNDING (*no impact on current operating financial projection*)

Artificial Turf Fields

Community Fund Raiser	\$1,000,000
Building Budgets (i.e. Small Building Projects)	\$400,000
Capital Project Budget	<u>\$900,000</u>
	\$2,300,000

Running Tracks, Detention

Build America Bonds (\$10M issuance)	\$1,182,000
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Capital Improvement Projection



	5Y LS FUNDED BY \$10M IN BONDS					
	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
BEGINNING FUND BALANCE	\$16,639,645	\$7,598,125	\$5,566,706	\$2,215,004	\$1,578,552	\$1,319,685
Revenue						
Operating Fund Transfer - Small Bldg Projects	\$359,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Operating Fund Transfer	\$0	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Other Revenue Source	\$100,000		\$100,000	\$100,000	\$100,000	\$100,000
Community Contribution - Turf Fields			\$1,000,000			
	\$359,000	\$1,000,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Expense						
Paving, Paths, Fencing	\$650,000	\$188,100	\$690,000	\$298,000	\$128,000	\$20,000
Roofing	\$1,231,320	\$973,319	\$57,902	\$863,452	\$930,867	\$881,092
Life Safety and Infrastructure	\$7,035,200	\$1,470,000	\$1,218,800			
3801 W. Lake Renovation	\$125,000		\$685,000	\$275,000		
Building Priorities - Turf Fields			\$2,300,000			
Small Building Projects <i>(part of a building allocation)</i>	\$359,000	\$400,000	\$400,000	\$200,000	\$200,000	\$400,000
	\$9,400,520	\$3,031,419	\$5,351,702	\$1,636,452	\$1,258,867	\$1,301,092
Annual Overage/(Underage)	(\$9,041,520)	(\$2,031,419)	(\$3,351,702)	(\$636,452)	(\$258,867)	(\$301,092)
Remaining Fund Balance	\$7,598,125	\$5,566,706	\$2,215,004	\$1,578,552	\$1,319,685	\$1,018,593

* \$1,182,000 is for running tracks and detention.

Next Steps and Timeline



October 24, 2011 BOE Discussion
 November 14, 2011 BOE Approve Concept/Fundraising

If approved

December, 2011 – September 1, 2012

- Fundraising Efforts
- Village of Northbrook on Shared Detention & MWRD for GBN

September 15, 2012	Fund Raising Efforts Completed
September 2012	Facility Committee Meeting
October 2012	Board of Ed Discussion
October 2012	Board of Ed Approval
November - December 2012	Bid Specs
February 2013	Approval of Bids
May – August, 2013	Construction - Completion