ED COMMITTEE #2
March 13, 2008
Worksession

MEMORANDUM

March 11, 2008

TO: Education Committee

FROM: Essie McGuire, Legislative Analyst

SUBJECT: **Worksession – Special Appropriation to the FY08 Capital Budget and Amendment to the FY07-12 Capital Improvements Program (CIP), Montgomery County Public Schools (MCPS): Current Replacements/Modernizations (No. 926575), $300,000**

Today the Education Committee will continue its review of the Board of Education's request for a special appropriation to the FY08 capital budget and amendment to the FY07-12 Capital Improvements Program (CIP), Montgomery County Public Schools (MCPS): Current Replacements/Modernizations (No. 926575), $300,000. The Council received this request on January 17 and introduced the associated resolution on January 22. The Council held a public hearing on February 12. The Committee met to discuss this proposal on February 19, and requested additional information.

The total request for this effort totals $775,000 and would be approved in two parts. The special appropriation resolution on circles 1-2 is for $300,000 in contributions from Maryland Soccer Enterprises. In addition, part of the transfer resolution discussed previously by the Committee would allocate $475,000 to the Richard Montgomery HS modernization for this purpose. This transfer and the special appropriation are tentatively scheduled for Council action on March 18. [1]

The information previously provided by MCPS regarding cost and scheduling is reproduced and attached at circles 8-13 for the Committee's reference. In addition, MCPS has provided additional information requested by the Committee regarding legality, health and safety, environmental concerns, and the experience of other jurisdictions. This information is attached beginning at circle 14.

[1] The Education Committee recommended approval of the other components of the transfer, which consists of transfers from seven projects and transfers to two projects (four schools). For more information on the other transfer components, please refer to the packet for the February 19 worksession.

Background

Superintendent Weast's memorandum to the Board of Education on circles 3-6 provides additional detail on the proposal. MCPS proposes to install an artificial turf field as part of the Richard Montgomery HS modernization. This is viewed as a pilot effort.

MCPS identifies the total cost of the artificial field as $900,000. As detailed on circle 4, this pilot installation is proposed to be cost neutral. Maryland Soccer Enterprises will contribute $300,000 to the project in return for preferred use of the field. Unexpended funds from other capital projects totaling $475,000 will be allocated to this effort as part of the multi-project transfer. The remaining $125,000 will be offset as a credit from the contractor for not installing a sprinkler system and sod on the field (this work is already included as part of the modernization).

MCPS provided an analysis of the cost effectiveness of artificial turf over time compared to natural grass (circles 8-10). This analysis shows that while turf requires a much larger upfront investment, the lower ongoing maintenance costs yields a nearly equal cost over ten years.

One significant benefit to the pilot is an increase in the amount of hours that the field can be used, for both MCPS and the community. MCPS is partnering with the Community Use of Public Facilities (CUPF) to make the Richard Montgomery field available for community use if the artificial field is installed.

Requested follow-up information

MCPS has provided explanations and cited relevant studies supporting its position on the safety of artificial turf. In Council staff's view, although there are competing points of view, the preponderance of the evidence supports the relative safety of artificial turf. **The Committee will need to decide whether it is satisfied with the evidence presented and the experience of other jurisdictions.**

Health and Safety: The Committee discussed health and safety concerns in four areas: MRSA transmission, injury, toxicity of the material, and increased heat. MCPS has addressed each of these areas (circles 15-17) and concludes that there are not significant concerns in these areas.

Environmental: MCPS addresses environmental concerns on circles 17-18. In this explanation, MCPS states that the RMHS field site is particularly suited for artificial turf and problematic for natural soil due to the underlying bedrock. MCPS also states that it is continuing to work with the City of Rockville regarding stormwater management, which will be finalized in the design process.

Other jurisdictions: MCPS presents information from other jurisdictions on circles 21-22; these include Washington, DC; Anne Arundel, Washington, and Allegheny counties in Maryland; and Arlington and Fairfax counties in Virginia. All reported positive experiences. Many are using the same vendor. Council staff notes that Park and

Planning will implement a pilot program for artificial turf at two fields, at Fairland Recreational Park and at Blair High School.

Programming: MCPS provided additional detail on the anticipated coordination with CUPF (circle 20). As CUPF Director Ginny Gong has previously indicated to the Committee, CUPF strongly supports this effort as a way to increase community access to fields. Not only would the stadium field be available, but high school use of middle and elementary fields for practice would no longer be necessary, increasing the availability of those fields as well. Ms. Gong has stated that with each cycle, CUPF receives requests for field use that cannot be filled because of the shortage of available fields.

As noted in the previous packet, MCPS currently programs only 270 hours per year for stadium fields for school athletic competitions. Council staff understands that individual high schools have unique arrangements via booster clubs or school leadership which provide for some community use. However, these practices are not universal or consistent across communities.

MCPS anticipates scheduling 1,882 hours of use per year for MCPS and community use for an artificial field. The lease arrangement with MSE, as detailed by MCPS on circles 11-12, would give MSE preferred use of the field for 837 hours per year. That would leave 1,045 hours available for school and community use, still significantly more than the 270 hours per year that are available under current policies.

Legality: The Committee requested information regarding the legal framework for the financing partnership arrangement with MSE. MCPS outlines its position on circles 14-15. In addition, Legislative Attorney Robert Drummer researched the issue and concluded that "the Board does have the legal authority to enter into a lease for use of the new field with a private commercial enterprise in return for an initial cash contribution to the construction subject to appropriation of funds by the Council" (full analysis and discussion attached on circles 23-24).

Council staff comments

Council staff recommends approval of artificial turf at RMHS as a pilot effort. Council staff believes that this will likely result in higher quality fields with lower maintenance costs over time. Importantly, artificial turf and the coordination with CUPF will significantly increase community use and availability.

Regarding the proposed financing, there appear to be no legal or financial impediments to implementing the agreement as proposed. The advantage of an upfront contribution is significant, and the amount of hours allotted in return does not negate the increase in community use.

If the Committee agrees with turf implementation for RMHS but has remaining concerns regarding the proposed funding partnership, another option would be for the County to pay the difference with general revenue or GO Bonds. MCPS and CUPF would then work out the programming aspects.

Future efforts: The RMHS field is a prime opportunity to test the policy and practice of the artificial turf since there is currently no field; the choice is which type of field to install as part of the modernization effort. MCPS has stated its interest in additional artificial fields in the future pending the outcome of this pilot. However, replacement of existing fields would raise additional cost benefit issues. In Council staff's view, further exploration regarding community involvement would be necessary to understand whether other partnerships are possible. Would it be possible for CUPF, PTAs, or booster clubs to participate in the funding? One example is the Stadium Lighting project that required a 50 percent contribution from booster clubs. In short, Council staff would view the pilot effort of RMHS in that light, and monitor the outcome to gather information about scheduling, fees, and community impact before a plan is developed for expansion of this effort to other high schools.

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Resolution: _____
Introduced: _____
Adopted: _____

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

By: County Council

SUBJECT: Special Appropriation to the FY08 Capital Budget and Amendment to the FY07-12 Capital Improvements Program Montgomery County Public Schools Current Replacements/Modernizations (No. 926575) (Richard Montgomery High School), $300,000

Background

1. Section 308 of the County Charter provides that a special appropriation is an appropriation which states that it is necessary to meet an unforeseen disaster or other emergency, or to act without delay in the public interest. Each special appropriation shall be approved by not less than six Councilmembers. The Council may approve a special appropriation at any time after public notice by news release. Each special appropriation shall specify the source of funds to finance it.

2. Section 302 of the County Charter provides that the Council may amend an approved capital improvements program at any time by an affirmative vote of six Councilmembers.

3. The Board of Education requested a special appropriation for the Montgomery County Public Schools' Current Replacements/Modernizations capital project as follows:

Project Name	Project Number	Amount	Source of Funds
Current Replacements/ Modernizations	926575	$300,000	Contributions
TOTAL		$300,000	

4. Maryland Soccer Enterprises has agreed to contribute $300,000 toward the construction of an artificial turf athletic field at Richard Montgomery High School as part of the school's modernization. In exchange, Maryland Soccer Enterprises will get preferred scheduling and

Resolution No.:_____

use of the stadium field during non-school hours for a period of five years.

5. This request, in conjunction with a $475,000 transfer approved as part of Resolution XXXX, provides the total funding needed for the artificial turf field.

6. Notice of public hearing was given and a public hearing was held on February 12, 2008.

7. The County Council declares this request is in the public interest to be acted upon without delay as provided for under special appropriation requirements described in Article 3-Section 308 of the Montgomery County Charter.

Action

The County Council for Montgomery County, Maryland approves the following action:

A special appropriation to the FY08 Capital Budget and amendment to the FY07-12 Capital Improvements Program is approved for the Montgomery County Public Schools as follows and as shown on the attached project description form.

Project Name	Project Number	Amount	Source of Funds
Current Replacements/ Modernizations	926575	$300,000	Contributions
TOTAL		$300,000	

This is a correct copy of Council action.

_____
Linda M. Lauer, Clerk of the Council

ACTION
5.2.1

Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

January 8, 2008

MEMORANDUM

To: Members of the Board of Education

From: Jerry D. Weast, Superintendent of Schools

Subject: Artificial Turf Pilot Project for Richard Montgomery High School

The Montgomery County Public Schools (MCPS) standard for high school stadium fields is a natural grass surface with an irrigation system. Stadium fields require a high level of maintenance that includes regular cycles of mowing, watering, fertilization, and aeration to maintain the fields in acceptable condition for various high school athletic events. Unfortunately, the majority of our high schools and their Booster Clubs cannot make the financial commitment that is necessary to maintain a natural grass field in excellent playing condition. Therefore, there is a large disparity in the condition of stadium fields across the county. In addition, in order to preserve the stadium fields for use by varsity athletics, outside groups are not permitted to use high school stadium fields. This is understandable given the time, money, and effort invested to maintain stadium fields.

The Department of Facilities Management and the Interscholastic Athletics Unit staff have been evaluating the use of artificial turf for MCPS high school stadium fields. Artificial turf provides a safe and durable surface for various athletic events and requires very little maintenance. The installation of artificial turf fields will eliminate the disparity in the condition of stadium fields among high schools across the county. In addition, the all-weather durability of artificial turf fields provides the opportunity for the fields to be used for a fee by community groups. The cost to install an artificial turf field is approximately $900,000 per field with approximately 10 years of life expectancy. The 10-year life-cycle cost to install artificial turf is approximately the same as the 10-year life-cycle cost to install and properly maintain a natural grass field.

The final construction phase of the Richard Montgomery High School modernization includes demolition of the existing building and reconfiguration of the athletic fields. This final phase is to be completed by August 2008, and provides MCPS with an opportunity to pilot the installation of an artificial turf field at the school. To help offset the initial cost of the artificial turf field, Richard Montgomery High School has secured a partnership with Maryland Soccer Enterprises; this organization is willing to contribute a lump sum amount of $300,000 toward the installation of the artificial turf field at the school. In return for its contribution, Maryland Soccer Enterprises requests preferred scheduling and use of the stadium field during non-school hours from February 15 to November 15 for a period of five years, with an option to renew the

agreement for an additional five years. The contribution amount is comparable to the rental cost of other artificial fields in Montgomery County.

The current construction schedule for the Richard Montgomery High School project, along with the contribution amount, provides a unique opportunity to implement the installation of artificial turf as a pilot project. Part of the cost to install the artificial turf can be borne by the contribution from Maryland Soccer Enterprises, and part can be offset by obtaining a credit from the contractor for not installing the irrigation system and sod for the natural grass field that is part of the project. The balance of the cost for the artificial turf can be obtained through a transfer of surplus funds from other Capital Improvements Program (CIP) projects. The cost breakdown for the artificial turf field at Richard Montgomery High School would be as follows:

Item	Artificial Turf
Initial Cost	
Planning, excavation, and specialized sub base	$ 380,000
Artificial turf material	480,000
Field paint, inlaid lines, logo	21,000
Maintenance equipment - specialized	19,000
Total Cost	**$ 900,000**
Funding for Initial Cost	
Credit for not installing sprinkler system	$ 25,000
Credit for not installing sod on field	100,000
Transfer from surplus on other projects*	475,000
Contribution from Maryland Soccer Enterprises*	300,000
Total Funding	**$ 900,000**

*Additional special appropriation authority required

Staff will develop for the Board's consideration a funding and implementation plan for installation of artificial turf for stadium fields at the remaining 24 high schools. The funding plan will look to offset installation costs through revenues generated by fees for community use, reducing the annual allocations to schools for field maintenance, reductions in water bills, contributions from Booster Clubs that previously have been made to maintain stadium fields, and any other appropriate sources. The goal of this initiative is to make the installation of turf fields at all of our high schools cost neutral. Funds generated by Richard Montgomery High School beyond the preferred use by Maryland Soccer Enterprises will be used to help offset costs for artificial turf fields at the other county high schools.

The following resolution to install the artificial turf stadium field at Richard Montgomery High School is recommended for approval.

Recommended Resolution

WHEREAS, The Montgomery County Public Schools standard for high school stadium turf is a natural grass field with an irrigation system; and

WHEREAS, Current technology for artificial turf provides a safe and durable playing field for a wide range of athletic activities and requires very little maintenance; and

WHEREAS, The final phase of the Richard Montgomery High School modernization project includes creating a new stadium field; and

WHEREAS, Maryland Soccer Enterprises is willing to contribute a lump sum of $300,000 toward the installation of artificial turf for the stadium field at Richard Montgomery High School; and

WHEREAS, Maryland Soccer Enterprises is requesting preferred scheduling to use the stadium field at Richard Montgomery High School during non-school hours from February 15 to November 15 for a period of five years, with an option to renew its agreement for an additional five years for an additional comparable contribution; and

WHEREAS, The contribution amount from Maryland Soccer Enterprises is comparable to other artificial field rental costs in Montgomery County; and

WHEREAS, The installation of an artificial turf stadium field at Richard Montgomery High School provides an opportunity to pilot the use of artificial turf for the remaining 24 high school stadium fields; and

WHEREAS, Capital Budget funds were not allocated for the installation of artificial turf; and

WHEREAS, The balance of funding needed to install the artificial turf at Richard Montgomery High School can be comprised of a contract credit to eliminate the irrigation system and sod from the planned natural grass stadium field and surplus funding from other CIP projects included in a Board of Education Request for Transfer of Funds dated January 8, 2008; now therefore be it

Resolved, That the Board of Education approve the installation of artificial turf at Richard Montgomery High School as a pilot project; and be it further

Resolved, That the Board of Education agree to accept the contribution from Maryland Soccer Enterprises in amount of $300,000 under Policy CNE, *Facility Improvements That Are Not Funded with Montgomery County Revenue,* for the installation of an artificial turf field at Richard Montgomery High School in exchange for preferred scheduling and use of the stadium facilities subject to Board approval of an agreement negotiated with MCPS facilities staff; and be it further

Resolved, That the Montgomery County Council be requested to accept a contribution of $300,000 from the Maryland Soccer Enterprises for the installation of an artificial turf field at Richard Montgomery High School; and be it further

Resolved, That a FY 2008 special appropriation be requested in the amount of $775,000 for the installation of the artificial turf field as part of the Current Modernization/Replacement project contingent on County Council acceptance of the $300,000 contribution from Maryland Soccer Enterprises and approval of $475,000 of the Board of Education Requested Transfer of CIP Funds dated January 8, 2008; and be it further

Resolved, That the county executive be requested to recommend approval of this request to the County Council.

JDW:LAB:JJL:jlc

Current Replacements/Modernizations -- No. 926575

Category	MCPS	Date Last Modified	May 18, 2007
Agency	Public Schools	Previous PDF Page Number	7-60 (02 App)
Planning Area	Countywide	Required Adequate Public Facility	NO
Relocation Impact			

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY06	Rem. FY06	Total 6 Years	FY07	FY08	FY09	FY10	FY11	FY12	Beyond 6 Years
Planning, Design and Supervision	32,456	9,198	2,475	20,783	6,520	7,188	5,214	1,540	321	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	39,161	6,231	4,621	28,309	3,733	12,508	8,093	3,602	373	0	0
Construction	470,051	106,135	18,773	345,143	60,363	75,076	91,309	76,273	34,463	7,659	0
Other	23,386	5,330	580	17,476	4,853	2,735	2,719	4,569	2,000	600	0
Total	~~565,054~~ 566129	126,894	26,449	~~411,711~~ 412786	75,469	~~97,507~~ 98582	107,335	85,984	37,157	8,259	0

FUNDING SCHEDULE ($000)

Current Revenue: Recordation Tax	45,293	0	0	45,293	16,489	6,253	18,544	4,007	0	0	0
PAYGO	600	600	0	0	0	0	0	0	0	0	0
Recordation Tax - PAYGO	13,000	13,000	0	0	0	0	0	0	0	0	0
Schools Impact Tax	15,700	0	0	15,700	0	78378 0	0	5,000	8,000	2,700	0
G.O. Bonds	400,496	82,950	7,829	309,717	43,809	~~77,603~~	81,445	72,144	29,157	5,559	0
Contributions	120	120	0	0	0	360 ~~0~~	0	0	0	0	0
Current Revenue: General	19,301	0	2,500	16,801	0	4,622	7,346	4,833	0	0	0
State Aid	70,544	30,224	16,120	24,200	15,171	9,029	0	0	0	0	0

ANNUAL OPERATING BUDGET IMPACT ($000)

Maintenance				2,171	297	330	386	386	386	386	0
Energy				847	103	136	152	152	152	152	0
Program-Staff				360	0	72	72	72	72	72	0
Net Impact				3,378	400	538	610	610	610	610	0
Workyears				5.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0

DESCRIPTION

This project combines all current modernization projects as prioritized by the FACT assessments that are in the planning or construction phases. Future modernizations with planning in FY 2007 or later are in PDF No. 886536. The Board of Education has an adopted Replacement/Modernization Policy and decides priority, scope, and timing of projects within the approved funding level. Due to fiscal constraints, the FY 2005-2010 CIP adopted by the County Council, shifted funds for elementary school modernizations beginning with College Gardens ES and shifted funds for the Richard Montgomery and Walter Johnson high school modernization projects. Included in the adopted FY 2005-2010 CIP-- Francis Scott Key MS was moved from the Future Replacements/Modernizations PDF to this project. An FY 2006 appropriation was approved for construction funds for Parkland MS and Richard Montgomery HS, and planning funds for Walter Johnson HS, Francis S. Key MS and College Gardens ES. During the budget process for the amendments to the FY 2005-2010 CIP, the County Council shifted the planning funds for Cashell and Galway elementary schools from FY 2006 to FY 2007, but did not change the completion dates.

An FY 2007 appropriation was approved for the balance of construction funds for Richard Montgomery HS, and Parkland MS; construction funds for Walter Johnson HS and College Gardens ES; planning funds for Paint Branch HS, Francis S. Key MS, Cashell, Galway, and Cresthaven elementary schools. The County Council, in the FY 2007-2012 CIP, approved the acceleration of the modernization of Bells Mill Elementary School. Therefore, the FY 2007 appropriation also will provide funding to begin planning for the modernization of Bells Mill Elementary School. An amendment to the FY 2007-2012 CIP was approved to provide an additional $3.5 million in construction funding for one modernization project. The approved FY 2008 appropriation will provide construction funding for five modernization projects and planning funds for two modernization projects.

FISCAL NOTE

The impact tax reflected in the expenditure schedule shown above is applied to the addition portions of some modernizations within this project.

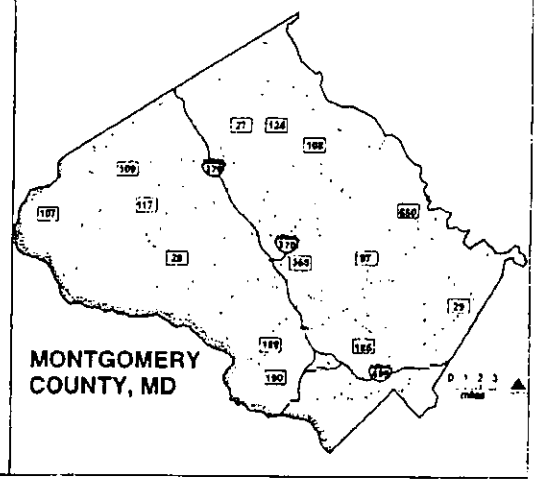
APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY01	($000)
Initial Cost Estimate		29,625
First Cost Estimate Current Scope	FY02	447,198
Last FY's Cost Estimate		562,413
Present Cost Estimate		565,054
Appropriation Request	FY08	130,017
Supplemental Appropriation Request	FY05 ~~FY07~~	1075 0
Transfer		0
Cumulative Appropriation		314,813
Expenditures/ Encumbrances		137,249
Unencumbered Balance		177,564
Partial Closeout Thru	FY05	151,924
New Partial Closeout	FY06	862
Total Partial Closeout		152,786

COORDINATION

Mandatory Referral - M-NCPPC
Department of Environmental Protection
Building Permits:
Code Review
Fire Marshal
Department of Transportation
Inspections
Sediment Control
Stormwater Management
WSSC Permits
MCPS asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

MAP



2. **Artificial Turf Field Request:**

   a. **Please provide more details regarding the 10 year lifecycle cost of artificial turf fields versus natural turf fields. In the Superintendent's letter he notes that artificial turf fields are assumed to cost $900k with very little maintenance. Regular turf is assumed to cost about the same over the same 10 year period when taking into account ongoing maintenance costs. Please describe the maintenance costs (per field, per acre, or other metric) required now and how those costs would go away if these fields are put in place at RM and countywide.**

Response:

Approximate Cost for Installation

Currently, the highest quality artificial grass infill system can be installed on an MCPS stadium field for approximately $900,000. This cost includes the design and construction of the substructure, surface layer, drainage system, school logo, grooming brush, new goal posts/installation, and permanent inlaid field markings. Each field would require a site specific plan and design and assumes no additional stormwater management mitigation will be required. It is anticipated that competition in the industry will have companies seeking to lower costs and provide volume discounts. A preferred plan would be to install artificial turf fields at six high school stadiums per year, one per quad-cluster area.

Cost-Effectiveness

The cost-effectiveness of installing artificial grass infill surfaces on MCPS stadium fields can be demonstrated from three perspectives.

- First, in terms of the increased time and opportunities that become available, a single artificial turf field would provide the functional equivalent of six natural grass fields.

- Second, over a ten-year time span, the cost of installing a high-quality artificial grass infill surface is similar to the cost of installing and properly maintaining a natural grass surface. Considering that a single artificial grass infill surface provides the equivalent level of usage and opportunity as six natural grass fields, the savings are immediate and significant over the 10 year life of the field..

- Third, beyond ten years, the field is cost-effective as the replacement cost is about half the cost of new artificial grass installation.

Cost Comparison Over A Decade

Collectively, the school system, individual high schools, and high school booster clubs spend close to $1 million on the annual upkeep of 25 MCPS stadium fields. The cost efficiency of artificial turf fields increases over time (Tables A-C).

Table A: Cost of Installing Natural Grass Versus Artificial Turf Field

	Natural Grass Field	Artificial Turf Field
Installation Costs	(dollars)	(dollars)
Design and Construction of Foundation	160,000	380,000
Surface Cost and Installation		
Sod for Field	210,000	
Artificial Turf for Field		480,000
Field Paint, Inlaid Lines, Logo	7,500	21,000
Maintenance Equipment		19,000
Sprinkler/Irrigation Installation	55,000	-
Total Installation Costs	432,500	900,000
Annual Operating Costs		
Water Bill	6,000	-
Maintenance *	40,000	6,000
Field Paint, Inlaid Lines, Logo	7,500	2,100
Total Operating Costs	53,500	8,100

* Calculation for maintenance include equipment depreciation (tractor, field liner, tractor attachments), fuel, and labor for professional services

Table A (continued): Ten-Year Cost Comparison for Natural Grass verses Artificial Turf

Ten-Year Cost Comparison	**Natural Grass Field** (dollars)	**Artificial Turf Field** (dollars)
Installation Cost	432,500	900,000
Ten-Year Operating Cost	535,000	81,000
Total Ten Years	967,500	981,000

Table B: Added Benefits per Field over Ten Year Period

	Natural Grass Stadium Field	**Artificial Turf Stadium Field**
School Team Practice Sessions	0	4,730 hours
Available Hours of Community-Use	0	28,475 hours
Conservation Concerns (Water, Fertilizer)	Significant Concern	None
Cancellations	Regular Occurrence	Seldom
Field Condition Concerns	Significant	None

Table C: A Ten-Year Comparison of Costs-Per-Hour for Available Use of an Artificial Turf Field and a Natural Grass Field

Ten-Year Cost Comparison	Installation/Maintenance Costs	Total Hours of Use *	Cost Per Hour
New Installation and Ten-Year Maintenance of a High-Quality Natural Grass Field	$967,500	2,700	$358.00
Appropriate Ten-Year Maintenance of a Current Stadium Field (Excluding Installation Costs)	$535,000	2,700	$198.00
Installation and Ten-Year Maintenance of a High-Quality Artificial Turf Field	$981,000	18,820	$52.00
* For natural grass fields there are 270 hours of use per year for MCPS athletic competitions			
* For artificial turf fields there would be available a total of 1,882 hours of use per year for MCPS athletic competitions and community use			

b. **Are there additional stormwater management requirements associated with artificial turf fields? Are these costs assumed in the cost of the field at RM? Are there any other environmental or health issues associated with the type of artificial turf field being considered?**

Response:

While the site improvements at Richard Montgomery High School already include quality and quantity measures for storm-water management, we are in process of reviewing the storm-water management requirements for the artificial turf field with the City of Rockville. The final cost impact for related storm-water management can not be determined until the city's storm-water management requirement is defined.

c. **What type of artificial turf field is MCPS proposing to install? Is there information available regarding the performance of this specific type of field and whether there are fewer or more injuries associated with these fields versus natural grass fields?**

Response:

"FieldTurf Tarkett" is the proposed system which is most widely used in the industry and has been procured through bids with other Maryland jurisdictions. Please see product brochure (Attachment #1) for information.

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d. Has MCPS concluded an agreement with Maryland Soccer Enterprises (MSE)? If so, please forward this agreement to us.

Response:

MCPS staff is in the process of working through the details of an agreement with MSE.

i. Please describe how the RM field would be scheduled throughout the year and what blocks of time would likely be reserved for MSE.

Response:

Please see the table below for field use that would be reserved for MSE:

Dates	Type	Hours	Hours per Day	Days per Week	Weeks per Year	Hours per Year
February 15 - September 1	Weekday evenings	6:30 - 9:00 pm	2.5	3	28	210
April 1 - November 15	Saturdays	2:00 - 9:00 pm	7	1	33	231
April 1 - November 15	Sundays	9:00 am - 9:00 pm	12	1	33	396
					Total	837

For all other high school stadium fields with artificial turf the Community Use of Public Facilities (CUPF) will be coordinating the schedule for the field use.

Table D is a schedule for identifying potential stadium field use for school and community groups. For high schools, the plan provides for teams that share the stadium field to remain on campus to practice. The schedule also includes approximately 2,250 annual high school games and contests that will be played on artificial surfaces.

For community groups, the schedule identifies 28,475 hours of use on lighted artificial turf fields. Comparing the total hours of high school use and community use, Table A demonstrates that 28,475 annual hours will be available for community use (60.5 percent), and 18,575 annual hours for high school use (39.5 percent). It is important to note that the schedule does not identify any field use from November through February.

Table D: Potential Stadium Field Use for High School and Community Groups

School Athletic Use (No Scheduled Use November through February)

Weekends/ Weekdays	Time of Year/Time-Span	Time of Day	Hours Per School	Total Hours 25 Schools
10 weekdays	Late June – Mid August	8:00 am - 2:00 pm	60	1,500
6 weekdays	August 15-21	8:00 am - 6:00 pm	60	1,500
45 weekdays	August 22 - Late October	3:00 pm - 9:30 pm	293	7,325
11 Saturdays	August 15 – Late October	9:00 am - 2:00 pm	55	1,375
50 weekdays	March 1 – Mid May	3:00 pm - 6:00 pm	150	3,750
20 weekdays	March 21 – Mid May	6:00 pm - 9:30 pm	70	1,750
11 Saturdays	March 1 – Mid May	9:00 am - 2:00 pm	55	1,375
			743	**18,575**

Table D (continued): Potential Stadium Field Use for High School and Community Groups

Community Athletic Use (No Scheduled Use November through February)

Weekends/ Weekdays	Time of Year/Time-Span	Time of Day	Hours Per School	Total Hours 25 Schools
10 weekdays	Late June – August 14	2:00 pm - 9:30 pm	75	1,875
30 weekdays	Late June – August 14	8:00 am - 9:30 pm	405	10,125
8 Saturdays	Late June – August 14	8:00 am - 9:30 pm	108	2,700
6 weekdays	August 15 – August 21	6:00 pm - 9:30 pm	21	525
11 Saturdays	August 15 – Late October	2:00 pm - 9:30 pm	83	2,075
11 Saturdays	March 1 – Mid May	2:00 pm - 9:30 pm	83	2,075
3 Saturdays	Mid-May – Late June	8:00 am - 9:30 pm	41	1,025
34 Sundays	March 1 – October 31	Noon - 9:30 pm	323	8,075
TOTAL			**1,139**	**28,475**

Summary MCPS Athletic and Community Use

Excluding Use November through February	Percent of Total	Hours Per School	Total Hours 25 Schools
MCPS Athletics Hours	39.5%	743	18,575
Community-user Hours	60.5%	1,139	28,475
Total Hours Available on Artificial Turf	**100.0%**	**1,882**	**47,050**

ii. **It appears that the $300,000 contribution from MSE provides it with "rent free" use of the field for five years. How was the $300,000 number arrived at as a fair cost for this field use?**

Response:

The $300,000 contribution was originally proposed by MSE. MCPS staff met with MSE and negotiated preferred scheduling of the field with an hourly rate that is discounted for long term commitment being made by MSE. Staff is estimating that the rental cost of future artificial turf fields would be approximately $75 per hour. The field rental rate for MSE equates to approximately $64 per hour for five years paid in advance. In addition, part of the $300,000 will be used to pay for stadium lights when needed.

e. **How much revenue does MCPS expect to raise annually from outside uses of the RM artificial turf field (not counting the MSE contribution)? How does this compare to revenue from natural grass fields now?**

Response:

Use of the MCPS high school stadium fields is limited to high school athletic contests only; therefore, there currently is no community use of the fields and consequently no revenue from MCPS stadium fields. The plan is to charge $75 per hour for use of the field to help cover the future replacement costs of the artificial turf field. Additional fees would be needed to cover ICB fees and stadium lights if needed. The amount of revenue collected would depend on the number of hours of community use on the field. Using the hours available from March through October, there would be approximately 1139 hours available less the hours used by MSE (837) or 302 hours. If 80 percent of the available hours were rented at $75 per hour the revenue would be approximately $18,120 of income from field use.

f. **Please provide any additional details regarding how MCPS foresees expanding the use of artificial turf fields countywide in a cost-neutral manner.**

Response:

The installation of the artificial turf at Richard Montgomery HS is a pilot project. MCPS will be considering the installations at remaining 24 high school stadium fields. As staff evaluates the performance of the pilot project, MCPS will develop an implementation plan that would minimize impact on the Capital and Operating budgets, and provide an investment plan to manage maintenance and future replacement costs.

Responses to Education Committee Questions on Artificial Turf
March 4, 2008

1. **General Issues**
   a. *Confirm what State law has to say about MCPS leasing (or reserving) school property for commercial use either directly or through the Community Use of Public Facilities (CUPF).*

Response: State law requires Montgomery County Public Schools (MCPS) to acts as a trustee to benefit a particular school or the school system in its management of school property.[1] MCPS and CUPF are authorized by State law to rent school property to community groups, including commercial organizations.[2] The proposed agreement with Maryland Soccer Enterprises (MSE) to contribute to the funding of the Richard Montgomery High School (RMHS) stadium field in exchange for designated hours of use of the field is consistent with the duty of MCPS to hold the school property in trust for the benefit of the school as required under the Education Article of the Maryland Annotated Code, § 4-114. The primary purpose for the RMHS stadium field agreement is to support the athletic programs of RMHS. The Board of Education adopted a resolution for the installation of an artificial turf field as a pilot installation because advances in artificial turf technology provide a lower maintenance field with all-weather characteristics over the standard stadium.[3] The Board and CUPF will agree to allot to MSE 837 hours of use per year for five years during non-school hours in exchange for a $300,000 up-front payment. This amount is comparable to an annual fee of $71,833 and would yield an hourly fee of approximately $86 per hour. The payment will substantially help offset the cost for the artificial turf installation. This agreement is consistent with the trustee duty of the Board because the primary purpose of the agreement is to provide an artificial turf field for the benefit of RMHS.

The Maryland Attorney General opinions cited by Mr. Hearn in his February 18, 2008, letter to Councilmember Knapp are not relevant to the proposed RMHS stadium field agreement. The first opinion cited, PUBLIC SCHOOLS-AUTHORITY OF LOCAL SCHOOL BOARD TO PERMIT CONSTRUCTION OF PRIVATELY OWNED DAY CARE CENTER ON SCHOOL LAND[4], is not relevant because this opinion addresses a case where the primary purpose of a proposed day care center to be constructed on school board property was for the exclusive use of a privately owned day care. The primary purpose of the RMHS stadium field agreement is to support and benefit the public school, specifically the RMHS athletic program. In addition, MSE is not provided exclusive use of the stadium field. The allotment of time to MSE for the use of the RMHS stadium field, during non-school hours, is ancillary and secondary to the use of the field for RMHS. Furthermore, there also are additional hours of non-school use that are not being allocated to MSE but rather are being reserved for other community use by other organizations to be administered through CUPF.

The second opinion cited, PUBLIC SCHOOLS-AUTHORITY OF LOCAL BOARD TO ENTER INTO TRANSACTION INVOLVING LONG TERM LEASE OF SCHOOL PROPERTY FOR COMMERCIAL USE[5], is likewise not relevant for the same reasons stated above. This opinion

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[1] MARYLAND ANNOTATED CODE, Education Article, § 4-114.
[2] *Id*, § 7-108.
[3] Montgomery County Board of Education, ARTIFICIAL TURF PILOT PROJECT FOR RICHARD MONTGOMERY HIGH SCHOOL RESOLUTION; January 8, 2008.
[4] 76 Opinion of the Maryland Attorney General 147 (February 1, 1991).
[5] 91 Opinion of the Maryland Attorney General 33 (January 30, 2006).

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concerned a case where a local school board considered a long-term lease of school board property for the exclusive use of a leasee. The issue in both of these opinions is whether the use of the school board property under the proposed agreements was primarily for the benefit of the public school or public school system. Under the RMHS stadium field agreement, RMHS receives real and immediate benefits in the form of an artificial turf field with its increased use and lower costs to maintain.

With regard to the RMHS stadium field agreement, the Board is acting, within its discretion, in the best interests of MCPS, RMHS, the county community users of athletic fields, and the county taxpayers because the artificial turf fields expand the number of hours the field is available for use, reduce the need for maintenance, and eliminate the consumption of water through irrigation. Another community benefit arises from the increased availability of non-school fields that will no longer be needed for high school teams as practice fields. The MSE use of the RMHS stadium field is best characterized as community use because it involves use of the field during non-school hours in excess of field needs for RMHS. The allocation of hours for MSE use is similar to and modeled after a well-established program of "Adopt-a-field" agreements that CUPF and MCPS have developed and managed for many years. These agreements have improved the quality of MCPS athletic fields in exchange for an allotment of hours for a user organization's investment while reserving an allotment of hours for other community use.

2. **Health Issues**
   a. *What is the school system's view of MRSA transmission concerns with regard to skin abrasions and turf burns from artificial turf fields?*

Response: Based on the cited studies and information stated in parentheses below, Methicillin-Resistant Staph Aureus (MRSA) transmission from artificial turf fields is not a concern. MCPS has worked very closely with the Montgomery County Department of Health and Human Services (DHHS) regarding MRSA prevention and has implemented recommendation from both DHHS and The Centers for Disease Control (CDC) on MRSA prevention (Principals' Memorandums dated October 2007 and January 2008).

The CDC state that "In the outbreaks of MRSA, the environment has not played a significant role in the transmission of MRSA. MRSA is transmitted most frequently by direct skin-to-skin contact." (www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_public.html)

A Penn State University study "Evaluation of Playing Surface Characteristics of Various In-Filled Systems" (http://www.cropsoil.psu.edu/mcnitt/infill.cfm), in which 20 in-filled synthetic fields in Pennsylvania were tested, found no traces of staph aureous bacteria. According to Andy M^c^Nitt, Associate Professor in the Department of Crop and Soil Sciences at Penn State University, "these in-fill systems are not a hospitable environment for microbial activity....the microbe population of natural turf grass far exceeds anything we've found in the in-fill systems." The Penn State College of Agriculture Study of 2006 states that "Some studies suggest a player may acquire more skin abrasions due to the abrasiveness of the surface, which creates entry points for the bacteria, but it is not coming from the field."

Thirteen football players at Mt. Lebanon High School (Allegheny County) contracted MRSA. The Allegheny County Public Health Department tested the field twice after games and found no MRSA "whatsoever". (CBS News' 60 Minutes, 11/2007)

References: Great Valley School District Proposed Artificial Turf Project Investigation into Health Concerns, January 7, 2008; Penn State College of Agriculture Study, 2006; CBS News' 60 Minutes Program, 11/2007; Article in Phillyburbs.com; Centers of Disease Control (CDC)

b. *What is the school system's view of injury data comparisons of artificial turf fields versus natural turf?*

Response: There are a growing number of studies regarding injury data on artificial turf fields vs. natural turf fields. The following studies are attached for review:

- *Risk of injury in elite football (soccer) played on artificial turf versus natural grass: a prospective two-cohort study* by J. Ekstrand, .T. Timpka, and M. Hagglund in the British Journal of Sports Medicine— September 2006
- *Comparison of the incidence, nature and cause of injuries sustained on grass and new generation artificial turf by male and female football (soccer) players* by Colin W. Fuller, Randall W. Dick, Jull Corlette, Rosemary Schmalz in the British Journal of Sports Medicine—June 2007
- *Incidence, Causes, and Severity of High School Football Injuries on FieldTurf versus Natural Grass* by Michael C. Meyers and Bill S. Barnhill in the American Journal of Sports Medicine—2004

The conclusions reached in the first two studies indicate that there is no evidence of a greater risk of injury when soccer is played on artificial turf compared with natural grass. The third study concluded that similarities in injury rates existed between FieldTurf and natural grass over a five-year period of competitive play on both surfaces, and that both surfaces exhibited unique injury pattern with the most severe injuries occurring on natural grass fields.

c. *Are there any health concerns with regard to any of the artificial turf field materials such as the in-fill material (often recycled rubber tires)?*

Response: The new generation of synthetic turf (artificial turf) uses a sub-layer of sand and rubber granules made from recycled tires. Both the sand and the crumb rubber used as infill in artificial turf fields are very stable materials. MCPS could find no evidence of health concerns related to the types of sand and crumb rubber used in the proposed artificial turf field. Some parents have indicated that the synthetic turf has reduced the dust often present with over-used natural grass fields and that this has had benefits for children with asthma.

The New Jersey Department of Environmental Protection found "no obvious toxicological concern raised that crumb rubber in its intended outdoor use on playgrounds and playing fields would cause adverse health effects in the normal population". Possible exception may be individuals with hypersensitive allergic reaction to latex, rubber, and related products." (New Jersey Environmental Assessment and Risk Analysis, June 2007)

d. *Does the "heat effect" of artificial turf create any health concerns for players using the field during hot weather?*

Response: It has been consistently shown that artificial turf fields do have higher temperatures than natural turf fields, particularly on very sunny days. The Penn State University cited earlier provides an in-depth discussion about the temperatures of artificial turf fields. Monitoring the temperature of surface of the field is important.

MCPS follows heat and air quality guidance from the Montgomery County Government Department of Environmental Protection (DEP). In hot, humid weather, coaches follow the weather/air quality index chart located in the MCPS High School Athletic Handbook, page 38. On Code Red days (unhealthy air quality), coaches may hold one morning non-school-day practice, or one-school-day practice of one hour, with mandatory water breaks every 20 minutes. Games are cancelled. On Code Purple days (very unhealthy air quality), afternoon practices are cancelled; and games are cancelled. When schools are dismissed early because of heat, no practices, meetings, or contests are allowed.

It also should be noted that the increase in surface temperatures at field level dissipate rapidly at three feet above the surface of the field. Also, the surface temperatures of infill surfaces often exceed the temperature range for growth of staph aureus microbes.

3. **Environmental Impacts**

a. *Quality control: How do water quality concerns compare with artificial turf versus natural turf fields?*

Response: The design of any artificial turf field must be tailored to respective site conditions. In the case of RMHS, the use of artificial turf is, in great part, a matter of necessity as it relates to water quality. The depth to bedrock under the playing surface is extremely shallow and, in many locations, is less than eight inches deep. Accordingly, in periods of extended rainfall, natural soils will be poorly drained and difficult to maintain. In extended dry periods, it also will be difficult to maintain a healthy stand of natural turf. Artificial turf ideally is suited for this type of site. A continuous clean stone base under the artificial turf collects stormwater permeated through the artificial turf and safely conveys it to perimeter drains for either infiltration, groundwater recharge and/or to a suitable discharge. The playing surface maintains a uniform playing quality and is available for use for longer periods during the year.

Researchers at The Penn State College of Agricultural Sciences, Center for Turf Grass Science, found that artificial turf systems "are not a hospitable environment for microbial activity. They tend to be dry and exposed to outdoor temperatures which fluctuate rapidly. Plus the media itself (ground-up tires) contains zinc and sulfur, both of which inhibit microbial growth." The Penn State researchers found that the microbe population of natural turf grass far exceeded anything they found in the artificial turf systems. In fact, a number of the systems they tested had zero living microbes in the sample at the time of testing. The researchers found that players blocking equipment, weight benches, stretching tables, and used towels were more likely sources of microbial activity.

It should be noted that another water quality advantage of the artificial turf system is that it is not necessary to apply any fertilizers or other turf enhancement applications that may otherwise find their way to nearby water sources. It is true that filtration of water through natural turf fields and adequate and suitable soils provides a higher level of treatment than filtration through an artificial turf system. However, not all sites have such soils. Artificial turf systems and appropriate water quality measures can be designed and constructed to meet virtually any site condition.

b. *Quantity control: Are there increased quantity control concerns with regard to artificial turf fields?*

Response: To date, local jurisdictions have been treating artificial turf fields the same as impervious parking lots for both quality and quantity. Accordingly, in the design of artificial turf fields, it will be necessary to do one of two things—reduce the amount of runoff from the field by increasing the time it takes for surface water to drain from the field or provide additional below-grade volume storage facilities to attenuate the increase in the runoff. It would be most prudent to do the former rather than the latter. Not all artificial turf systems reduce the runoff unless under-drain pipes are installed. In some cases, depending upon the site, it may be possible to reduce the rate of runoff to a point where little or no additional quantity storage is required.

c. *MCPS has reported that the City of Rockville is reviewing stormwater management requirements for the artificial turf field and that final costs will not be known until that process is complete. What is the timeframe for this process?*

Response: Based on preliminary discussions with the Department of Public Works for the City of Rockville, it considers artificial turf fields the same as impervious parking lots for both quality and quantity. Additionally, it was discussed that the City will favorably consider a monetary contribution (fee-in-lieu) if water quality cannot be provided otherwise on site. All of this depends upon the development of a design that provides safe conveyance of flows and minimizes the amount of those flows.

Once the design drawings are prepared and a stormwater management permit application is submitted, the Department of Public Works for the City of Rockville will review the plans and computations for compliance with City regulations. When approved, a permit will be issued and construction can proceed. The City has indicated that this process can be accomplished by May or June of this year.

4. **Artificial Turf Field Choices**

a. *What different types of artificial turf fields are available?*

Response: There are several types of artificial turf available for use. There is artificial turf that has strands similar in appearance and structure to grass—this turf is the best. There is artificial turf that has strands like wound-up ribbons to stand up and also artificial turf with strands that are twisted like carpet fibers, which is the worst.

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The system proposed for use by MCPS is FieldTurf Tarkett that has a backing structure of woven and non-woven polypropylene fabric that provides strength while allowing water to percolate through and into the ground below. Other artificial turf relies on drainage holes punched in a pattern in the backing to improve drainage. Others have no permeability and shed water like a paved parking lot, which is where the Montgomery County Department of Permitting Services considers all artificial turf at this time. MCPS is in discussions with the Department of Public Works for the City of Rockville to determine how permeable they will consider the proposed FieldTurf system to be.

The best artificial turfs use an infill mix of small pieces of cryogenic rubber and silica sand between the fibers to stand them up and provide resiliency, shock attenuation, and drainage. There are also field systems that use small rubber infill between fibers exclusively, systems that use silica sand infill only, and systems that use no infill at all that are basically indoor/outdoor carpets.

b. *What type of field did MCPS choose and why?*

Response: MCPS is recommending artificial turf by FieldTurf Tarkett at RMHS for the following reasons:

- FieldTurf is the leading manufacturer and installer for artificial turf at the professional, collegiate, and high school level in the United States, with exponentially more satisfied customers and repeat business.
- FieldTurf is the oldest of the new generation of in-filled artificial fields with some in place for over 11 years. It offers the longest product warranty in the industry at 10 years, compared to 8 for its largest competitor, Sprinturf.
- The artificial grass fiber manufactured by FieldTurf is the most realistic in terms of appearance and performance and is patented and produced by FieldTurf's own factory. No other vendor can purchase the superior grass-like material. FieldTurf's combination of grass blade configuration and mixture of silica and rubber in-fill alleviates little rubber ball in-fill migration that can be problematic with other brands.
- FieldTurf offers a subsurface drainage system thinner than other manufacturers that rely on a herringbone pattern drainage pipe system under the entire field. At RMHS, the existing bedrock is very close to the surface in the stadium area. Any additional rock removal to install subsurface piping would be an added expense.
- Similarly, it also would be costly to remove rock in order to install an underground sprinkler system for a natural turf field. Given the thin layer of topsoil on top of the rock, natural grass is going to have a difficult time surviving heavy wear with such a thin root structure.

There is a short window of opportunity to purchase the field and install it in time for school use this fall. FieldTurf has a national/statewide on-call bid in place that allows a rapid procurement process by government agencies. The artificial field will be ready to use a few weeks after installation. The sodded natural turf field will require months to knit together properly to provide as good a playing surface and then, only for a short time, until the grass starts wearing away.

5. **Programming Capability of Artificial Turf Fields versus Natural Turf Fields**
   a. *How will the stated plan to schedule community use of artificial turf fields through CUPF relate to current practices of individual schools that have arrangements with community or other groups?*

Response: CUPF works closely with MCPS to facilitate access to both indoor and outdoor use. CUPF issues permits for field use at all elementary and middle schools, as well as park-school fields owned by the Maryland-National Capital Park and Planning Commission used by the adjacent school. During FY 2007, approximately 1,850 field permits were issued to 500 groups. Use of high school stadium fields by the community is rare.

CUPF issues field use permits in accordance with Interagency Coordinating Board (ICB) guidelines. Priority is given to non-profit Montgomery County-based leagues before any permits are given to for-profit groups. At schools where there is an adopt-a-field arrangement, priority is given to the group according to the preset agreement. The remaining time is allocated in accordance with CUPF procedures. CUPF and MCPS enter into an agreement to outline the hours available for community use.

CUPF believes this pilot is in the best interest of RMHS and the county by increasing the hours of field use. In addition to making the RMHS field available for community groups, RMHS will use its own home field for practice sessions, freeing up fields at other locations since many high schools use feeder school fields for practice sessions in order to preserve the condition of stadium fields for games. Between FY 2006 and FY 2007, RMHS booked 1,443 hours at Julius West Middle School, the Rock Terrace Center Hungerford Park facility, and Ritchie Park and Beall elementary schools. Based on FY 2006 and FY 2007 field use, an average 3,730 hours are booked each year at middle and elementary schools by high schools through out the county for practices.

   b. *If the fields are to be reserved for use, in cases where the track surrounds the field, will people be allowed to informally use the track while the field is reserved?*

Response: The proposed layout for the RMHS artificial turf installation places the track outside the fenced field and would remain available for community use.

6. **Cost Structure for the Leasing of Field Time**
   a. *Should rental fees be market driven or based on cost recovery? Should commercial entities be allowed to use the fields, or should the fields be reserved for non-profit organizations? Should organizations be allowed to charge fees for people attending events at the fields?*

Response: CUPF recommends that fees be consistent with rates charged by other jurisdictions and agencies in the area. The fees would be prohibitive and have a detrimental impact on community access were CUPF to seek full cost recovery.

The fee policy of the ICB for CUPF is consistent with the County Council's Policy on User Fees established by Resolution No. 12-595, which states that user fees should be proportional to the individual benefit, as well as the estimated public benefit. Discretion is given to the

departments to interpret this policy according to the service provided as long as higher fees for non-county residents were charged.

In keeping with this policy, the ICB has set placement priorities and fees which take into consideration the type of group, facility requested, and nature of the activity. While commercial and out-of-county groups are allowed to use school space, they have the lowest placement priority and pay higher fees. Less than three percent of annual paid community use hours are permitted to commercial and out of county organizations. Groups are allowed to charge fees but are expected to pay more for the use.

When the ICB enters into an agreement with MCPS, it includes a fee structure reviewed and approved by the Board of Education and follows the established placement priorities—fee structure with lower rates for youths vs. adults, practice times versus games, weekday vs. weekend use, and non-profit vs. for-profit status of the group.

7. **Other Jurisdictions**

a. *What information does MCPS have on the experience of other jurisdictions?*

Response: Schools in ten different school systems, covering four states and Washington, D.C., were consulted. The school jurisdictions in Maryland include: Anne Arundel County, Washington County, and Allegany County. The school jurisdictions in Virginia include Arlington and Fairfax counties. The responses from the school jurisdictions were overwhelmingly positive. Schools and school systems uniformly reported that the artificial turf surfaces drastically reduced maintenance, resulted in rare cancellations, provided a consistent and safe playing surface, answered the question of how to provide adequate practice space on limited school acreage, and provided for the needs of multiple teams sharing the same facilities. Coaches and players were very pleased with the surfaces. Communities were very supportive not only because of the enhancement to the high school teams but also because the new surfaces provided many hundreds of hours of use by community-based teams and organizations.

The school jurisdiction with the oldest artificial surface fields was Allegany County (MD), which installed its surface in 1998. Two high schools share the facility for football, soccer, field hockey, and lacrosse. In addition, a semiprofessional football team and community youth leagues share the facility. After ten years of use, the artificial surface is "beginning to show signs of wear," but the high schools and community groups that share the facility have been extremely pleased.

All of the school systems report that the surface is hotter than regular grass, but the temperature does not have a significant effect on activities. The heat, of course, is most intense on afternoons in midsummer (July), a time which most groups already have curtailed activities because of heat. Later in the evening and in mornings, the surface temperature is similar to regular grass. None of the school systems indicated that heat from the artificial turf was a significant issue.

b. *Is MCPS using the same field materials or vendors as the neighboring jurisdictions?*

Response: An official from Fairfax County reported that the county made an error in installing its initial two fields and that the error resulted in a "setback" in proceeding with plans to install subsequent surfaces. Briefly, the county was too general in its specifications and the "low bidder" was selected, including subcontractors that did not have experience in installing the fields. The surfaces had many issues, including seams that were separating after relatively little use.

Fairfax County, like Arlington County, has since exclusively used the vendor FieldTurf Tarkett, and both jurisdictions have been very pleased. Other local jurisdictions, local private schools, or local universities that have installed FieldTurf Tarkett include Anne Arundel County; Washington, D.C.; Georgetown Prep; Holton Arms; St. Andrews Episcopal; The Field School; St. Mary's; Georgetown University; Catholic University; The Naval Academy; and, University of Maryland practice facilities. Eight Howard County and five Baltimore County park fields have installed FieldTurf Tarkett.

FieldTurf Tarkett has clearly emerged as the industry leader in installation of high-quality artificial turf and plans to install over 500 fields this year. Twenty professional stadiums utilize FieldTurf Tarkett. FieldTurf Tarkett is the preferred product and vendor for Montgomery County Public Schools.

c. *How have other jurisdictions, particularly Arlington, resolved health, safety, or environmental concerns?*

Response: MCPS staff has spoken with the sports program manager for Arlington County. He oversees all Arlington County athletic activities for the community and the schools. The manager states that health, safety, and environmental issues have not been a significant concern for Arlington County with respect to artificial turf. All three Arlington County high schools have artificial turf and four artificial turf fields at non-high school locations. Two more are scheduled to be installed in July. Arlington County's first turf field was installed eight years ago and is holding up fine.

Regarding health and environmental issues, the manager insists that Arlington County did not, and does not, have any significant concerns regarding artificial turf. At first, prior to installing the first field eight years ago, there were some detractors because many envisioned the infamous "astro turf," of which there were many critics. Field turf, which includes an artificial infill, is entirely different. The community is very satisfied with the fields. There is little maintenance since no fertilizer or water is needed and the nature of the product is such that it is pervious to water. In short, the FieldTurf Tarkett surfaces handle rain in a very similar fashion as natural grass. MRSA is not a concern, as studies indicate that the likelihood of exposure on an outdoor facility is remote.

The only environmental issue that Arlington County reported involves the extent to which the artificial turf fields are used. Community activities are prolific and, with a limited number of lit artificial turf facilities, groups are often scheduled until 11:00 p.m. on a regular basis—some citizens who live adjacent to the fields object to the noise and lights when the fields are used at night.

March 7, 2008

MEMORANDUM

TO: Essie McGuire, Legislative Analyst

FROM: Robert H. Drummer, Legislative Attorney

SUBJECT: Richard Montgomery High School Turf Field – Proposed Lease with MSE

I have reviewed the MCPS statement of legal authority for the proposed MSE lease as you requested. Md. Code, Education art. §7-108 generally authorizes the use of public school facilities for community use and subjects the regulation of this community use in Montgomery County to local law consistent with §7-110. Md. Code, Education art. §7-110(a) supports the legality of a lease for a commercial use in the following provision:

> (1) A reasonable charge for heating, lighting, and janitorial services for use of public school facilities under §§ 7-108 and 7-109 of this subtitle may be made.
> (2) Charges for commercial use of surplus school space may include rent and recovery of capital costs, in addition to those items in paragraph (1) of this subsection.

Section 7-108 also requires that community use of a school facility be "open to the public." This raises the question of whether admission fees charged by MSE for soccer games violate this requirement. I could not find any case law interpreting this phrase, but it is my opinion that charging admission does not violate this provision since §7-110 expressly permits a lease of school property for commercial use. MCPS may be able to point to examples where admission fees have been charged by a community group using a school facility in the past.

County Code §44-1 establishes general principles for the community use of school facilities. One of these guiding principles is that allocation and scheduling of facility space among users be done on an equitable basis. Although the proposed MSE lease will use a significant portion of the available time for community use of the new field, this section includes the following exception:

> unless precluded by lease conditions between the board of education and private tenants under joint occupancy or similar arrangements

This provision implies that the board can lease property to private tenants under some type of joint occupancy agreement. The proposed lease to MSE could be considered a joint occupancy agreement for the field.

For all of these reasons, it is my opinion that the board does have the legal authority to enter into a lease for use of the new field with a private commercial enterprise in return for an initial cash contribution to the construction subject to appropriation of funds by the Council.