A Review of Benefits and Issues Associated with Natural Grass and Artificial Turf Rectangular Stadium Fields

Prepared by a Staff Work Group from Montgomery County Public Schools, Montgomery County Department of Parks, Montgomery County Council, Montgomery County Department of Environmental Protection, and Montgomery County Department of Health and Human Services

September 15, 2011

Final Report

Appendix N

Part 2 of 4

All Comments Received on the Draft Report During the Public Comment Period (April 13, 2011 through June 7, 2011)
As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field. The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Paula Atwood, Parent
I support the recommendations of the workgroup and regarding an artificial surface field at Paint branch High School.

Steve Janoskie
To Whom It May Concern:

As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field. The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Sincerely,

Lisa Viera
Parent of a Gaithersburg High School Student
Subject: Support for Turf Field
From: Saunders, Lisa A (Lisa_A_Saunders@mcpsmd.org)
To: Turf ReportResponse@yahoo.com;
Cc: William_Beattie@mcpsmd.org;
Date: Mon, 09 May 2011 10:40:53

To whom it may concern:

I am a parent of a current junior at Paint Branch High School. I support the fact that Paint Branch needs to install Turf Fields for their new building. My daughter is a field hockey player and Lacrosse player and would have benefitted greatly from playing on those fields. When we travel to other schools to play that have turf fields, we can play in the rain. When they are on grass area, they always cancel. The fields are cheaper to maintain in the long run and would benefit the County considering all the budget cuts and money issues that we are experiencing at this time. I support installing turf fields at Paint Branch and all other remodeled schools in Montgomery County. I also have a son who will be attending Paint Branch in the 2013-14 school year and he is also involved in sports (football, Lacrosse). It would benefit the whole community as well.

Lisa Saunders
3623 Van Horn Way
Burtonsville, MD 20866
Parent of Paint Branch Student
As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field.

The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

James Warren
GHS parent

Jim Warren
President
GreenHill
20251 Century Blvd
Suite 140
Germantown, MD 20874
jim.warren@ghill.com
301-444-1901 (direct)
301-515-9092 (fax)
Subject: Paint Branch HS Turf Field
From: Colleen Perret (ckperret@verizon.net)
To: Turf ReportResponse@yahoo.com;
Date: Mon, 09 May 2011 10:47:51

I am in SUPPORT of the artificial turf field at Paint Branch H.S. being built for the new facility.

Colleen K Perret
Silver Spring, MD 20905
To Whom It may Concern:

As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field. The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Marcus Jones, Parent GHS
Subject: FW: Paint Branch HS Turf Field
From: Colleen Perret (ckperret@verizon.net)
To: Turf ReportResponse@yahoo.com;
Date: Mon, 09 May 2011 11:19:47

I am in SUPPORT of installing an artificial turf field at the newly constructed Paint Branch H.S. I am a 20+ year resident of the community and have had 3 children attend and graduate from Paint Branch H.S. Thank you for your support on this important community facility.

Sincerely,

Mrs. Colleen K. Perret

Silver Spring, MD 20905
From: Pat Madden (madpvms@yahoo.com)
To: Turf ReportResponse@yahoo.com;
Date: Mon, 09 May 2011 11:48:35

I vote for natural grass and do not vote for turf.
Subject: Yes for Artificial Playing Surface
From: Chrystie Hall (chall@ppgintl.com)
To: TurfReportResponse@yahoo.com;
Cc: William_Beattie@mcpsmd.org;
Date: Mon, 09 May 2011 11:53:42

As a parent of a PB student athlete, I support the installation and use of an artificial surface field for the Paint Branch stadium.

Thank you,

Christie Hall
To whom it may concern-

I just want to take this time to voice my vehement support for the turf field at the new Paint Branch high school's athletic facility. The best private schools in the area all chose to use turf and recent research all points to both the long-term return on the investment as well as the safety of such fields.

Thanks,

Damon Monteleone
Assistant School Administrator
Paint Branch High School
301-989-5600
Subject: Turf Fields for GHS
From: Natalie Dillon (natdillon7@verizon.net)
To: Turf ReportResponse@yahoo.com;
Date: Mon, 09 May 2011 12:19:06

MCPS:

As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field.

The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. A turf field will provide a safe playing environment for athletes and our PE classes. We will no longer have to send students off campus to practice. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Respectfully,

Natalie Dillon

Parent of GHS Students
To Whom it May Concern,
I am the Health and Physical Education Resource Teacher at Paint Branch High School. I, along with 7 members of my department, am in support of the turf field to be installed in our new stadium. We feel that it will be a tremendous asset to our instructional program in the Physical Education Department.

Respectfully Submitted,

Teresa Shatzer
Health Educator
Health and Physical Education Resource Teacher
Paint Branch High School
301-989-5633
Subject: Turf field at Paint branch HS
From: SJ Corkran (sjcorkran@verizon.net)
To: Turf ReportResponse@yahoo.com;
Cc: William_Beattie@mcpsmd.org;
Date: Mon, 09 May 2011 15:15:15

I support the artificial turf field at the new Paint Branch High School

Steve Corkran

301-922-8136
Hi Gabriele,

You may request additional paraeducator support for this population in preparation for the fall. For some students with autism, due to their behaviors, this support may be needed.

Thanks,

Gwendolyn J. Mason, Director
Department of Special Education Services
CESC, Room 225
301-279-3135

From: Beattie, William
Sent: Monday, May 09, 2011 12:31 PM
To: Mason, Gwendolyn J.; Ryan, Maureen J.
Cc: von Nordheim, Gabriele
Subject: FW: corollary sports
Dave – I am not aware of this type/level of supervision previously being supplied in interscholastic athletics. You are referring to the Unified T & F in the fall. I am referring the question to Gwen Mason, director of special education.

From: Kelley, David S  
Sent: Monday, May 09, 2011 12:08 PM  
To: Beattie, William  
Cc: von Nordheim, Gabriele  
Subject: corollary sports

Duke & Gaby,

We have some severe autistic students who are interested participating in the track & field program this fall. Some of them are prone to being physically aggressive and need specific supervision by trained MCPS staff. How have schools handled staffing for situations like this? Have para’s been provided for students who have specific support as part of their IEP’s?

David Kelley  
Winston Churchill HS  
Athletic Director  
david_s_kelley@mcpsmd.org  
(301) 469-1240
I support the recommendations of the work group and would like to see a turf field at PBHS once it opens next year. There is no second chances here. Once the school is completed it is better to have the field in place than to go back and attempt to make changes. Please make Paint Branch the state of the art school it deserves to be. As a parent I have already had enough with the driving to other schools because our currently small non turf field is not playable during bad weather days. We already know the good outweighs the bad...so lets get on with it and resolve this issue by giving us a turf field.

Thanks
Angie (9TH GRADE PARENT)
Subject: my vote: NO for artificial turf at QOHS
From: stephen_kay@comcast.net (stephen_kay@comcast.net)
To: Turf ReportResponse@yahoo.com;
Date: Tue, 10 May 2011 11:03:22
ected comments on the Turf Report
From: Laurie Halverson (laurichalverson@verizon.net)
To: Turf ReportResponse@yahoo.com; saug giedog@comcast.net; trible4@verizon.net; councilmember.berliner@montgomerycountymd.gov;
Cc: councilmember.andrews@montgomerycountymd.gov; SBurkinshaw@ecoencpas.com; donnapfeiffer@gmail.com;
Date: Tue, 10 May 2011 15:03:07

Attached are my personal comments regarding the report on turf in Montgomery County. Thank you for the opportunity to present my concerns.

Laurie Halverson
laurichalverson@verizon.net
Subject: Re: public comments on the Turf Report
From: Laurie Halverson (lauriehalverson@verizon.net)
To: TurfReportResponse@yahoo.com; 
saug giedog@comcast.net; trible4@verizon.net; councilmember.berliner@montgomerycountymd.gov;
Cc: councilmember.andrews@montgomerycountymd.gov; SBurkinshaw@ecohencpas.com; 
donnapfeiffer@gmail.com;
Date: Tue, 10 May 2011 16:20:25

I noticed an error in my math on the report I just sent in. Please disregard the first report and replace it with this one.
Thanks!

Laurie Halverson
301-983-6453
Public Comments on the Artificial Turf Report
By Laurie Halverson, Parent of two MCPS students/athletes

Thank you for the opportunity to provide public comments about the artificial turf report. I appreciate the time and effort of the committee in preparing this report.

These comments are from me personally and not from any group I represent.

Last year, I learned much from representatives for and against artificial turf when planning a forum on the topic, and have come to a personal conclusion based on the information I have gathered.

Here are my comments about the Report:

Cost Flaws

Data provided in the 20 year life cycle analysis provided in "A Review of Benefits and Issues Associated with Natural and Artificial Turf Rectangular Stadium Fields" is uncertain and unsubstantiated. Much data in the cost comparisons provided in the report are based on data provided by the county Soccerplex. MCPS and the Soccerplex do not operate in the same manner. The Soccerplex operates in a controlled environment with much supervision. They operate with the bottom line as the goal. Maintenance is critical toward keeping their fields in top shape, unlike MCPS whose goal is education. MCPS fields are subject to more damage, are not supervised as closely and are more likely to be less maintained.

Other cost comparisons found on the internet differ greatly which proves that the figures provided in the report are very uncertain in a public school environment:

San Diego Parks and Recreation Report cost comparison:

It is very difficult to get accurate estimates from websites because many estimates are given by AT field companies or Natural Turf proponents. However, a report by the San Diego Parks and Recreation Department shows much higher cost projections for AT fields. The total 20 year cycle cost given by this department for an AT field is $4,722,400 compared to the Montgomery County report of $2,461,000. Annual maintenance for an AT field was estimated at $432,000 instead of Montgomery County’s estimate of $206,000.

San Diego Cost Parks and Recreation Comparison:

In another source, it says: "But generally speaking, when the installation and maintenance costs of artificial turf are assessed for the life span of the turf, particularly
when the cost of disposal is added, the cost of installing and maintaining natural grass is far less.” This was quoted from the Delaware Riverkeeper Network (DRN.) The DRN is a nonprofit 501(c)(3) membership organization. [link]

Cost may not include disposal fees:

Only replacement fees appear to be included in the cost analysis of the report. It may cost an additional $80,000 or more to take into account the disposal costs (for the cost of two disposals in 20 years.) This cost is included, however, in the county report in Appendix K, at 50 cents per cubic feet.

The report also suggests that recycling is an option, however in a Loudon government county report, it states that it is not yet possible to recycle the material. [link]

In appendix K of the report, the SWAC team does not yet have solutions for recycling the material.

Revenue estimates may be overstated:

MCPS is assuming one field will earn $2 million over 20 years with 1,000 community hours of use per year. Currently, the fields are rented at $125 per hour and Keith Levchenko has said that the estimate is conservative based on use at Blair and Richard Montgomery HS.

However, high temperatures in the summer months prevent rentals during hot days. Plus, there will be a point, as more plastic fields are installed, that a saturation point is reached and premier sports organizations will not be able to fill the assumed 1,000 hours, and recreational groups such as MSI Soccer, will not be able to afford the $125 per hour rate. I think it is highly doubtful that $2 million can be earned on one field over 20 years as more AT fields are added to the county.

There is no comparison to current practices:

The prices shown are not using current practices, but are instead comparing the price of AT fields with properly maintained grass fields. This is not a fair comparison. There should be at least a column of current MCPS figures, using the average $22,000 cost for maintenance of natural grass fields. The lowest cost option shown is for cool season native soil at $25,000 per year for maintenance ($500,000/ 20 years.)

The report is misleading. If natural fields were being maintained at the costs indicated in this report, there may not even be a demand for AT fields. Properly maintained fields would most likely result in better quality fields than the ones our kids are currently playing on.
Maintenance costs are underrepresented for AT fields:

AT fields are not maintenance-free. The report estimates a maintenance cost of $10,000 per year. The minimum annual cost for maintenance of an AT field according to the Turfgrass Resource Center is $13,720. There are many other sources that can be found on the internet that estimate costs at more than $10,000 per year.

No assumption of vandalism or other damage, which is not covered by warranty:

It looks like the warranty would not cover vandalism and incidents have occurred throughout the country. Vandalism is likely to occur in public areas and should be included in the estimate.

Another Twenty Year Comparison-The following is an estimation of my own using conservative figures also, but it shows results that are much different.

<table>
<thead>
<tr>
<th>20 Year Cost Summary-MCPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic grass</td>
</tr>
<tr>
<td>Initial Capital Cost</td>
</tr>
<tr>
<td>20 year replacement/Rehab Cost</td>
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<tr>
<td>Disposal Cost</td>
</tr>
<tr>
<td>20 year maintenance costs, including a one time per 20 year $10,000 vandalism cost</td>
</tr>
<tr>
<td>20 year costs</td>
</tr>
<tr>
<td>20 year revenue</td>
</tr>
<tr>
<td>Net Cost to MCPS</td>
</tr>
</tbody>
</table>

This comparison more accurately reflects an AT field with disposal costs and maintenance fees estimated at the lowest end of the estimate ($13,720 per year) given
by the Turfgrass Resource Center. It compares costs to a best guess current MCPS cost (I don’t have accurate MCPS field installation costs, so I estimated it at $75,000.)

**Warranty Concerns:**

If MCPS does not maintain the fields properly, the warranty may not apply. The warranty says that a maintenance log must be completed and there are certain requirements that must be followed. FieldTurf Tarkett does provide a service (I talked with the rep last year) to maintain the fields periodically to guarantee that this requirement is met. Perhaps this should be considered.

**Health/ Safety Concerns**

The County Council approved a bag tax for a “greener” environment, yet would also approve of thousands of tons of rubber and plastic to cover Montgomery County? That makes lots of sense!

When asbestos was the popular product at one time in our country, was there so much data then to warn consumers as there is now regarding plastic grass with tire crumbs?

There is much data to warn us, yet no government entity is willing to go on the record as stating the danger of the AT product. These government entities are saying, however, that further studies are warranted (page 36 of report). The New Jersey study (on page 34 of report) encourages aggressive hand washing and advises that clothing be washed inside out. There is a CDC health warning that was not indicated in the report.

http://emergency.cdc.gov/HAN/han00275.asp

There is also evidence that the AT industry has effectively lobbied our elected officials in Congress to sway decisions on health/ safety issues, such as influencing the labeling of AT fields as a “children’s product” for purposes of lead testing:


There are still moratoriums being sought in areas of the country.

There should be **clear consistent guidelines** for the community and coaches for use during hot days. Even on an 80 degree day, the field temperature will be much higher and may induce heat strokes.

**Equity Issue**

MCPS claims that the existence of AT fields in high schools will literally level the playing field. That may be so for high school students. However, the expensive $125 hourly rate will not make these fields open to all. Only well organized, elite community sports
groups will be able to afford rentals at these rates. Use of AT fields will become further divided between the “haves” and the “have-nots.”

**Conclusion:**

Montgomery County should not succumb to pressures to install AT fields because they will not be a prudent choice for the long run. I am concerned there could be drastic financial and health/safety consequences as a result of AT field installations in our county.

The 20 year cost is significantly higher than the cost of maintaining a natural turf field, even if revenues of turf rentals are considered. In ample budget times, the increased cost might be justified, but not with today’s budget constraints. The potential health affects alone are alarming enough to postpone installation of any more AT fields, at least until better, more healthy infill products are affordable and until the county can afford such a high cost option.

There is no clear plan on how the county can afford the $500,000 carpet replacement after eight years. Someday, plastic fields may not be desirable and the cost to replace these fields with natural turf may be too expensive—something to consider if the tide turns and the popular choice later becomes a natural turf option.

Instead, I recommend that the county work toward improving the current condition of all athletic fields. Fields with proper drainage using Bermuda grass or whatever grass is proven to be the most durable is the “magic bullet” to this issue. **Churchill High School** currently maintains a natural Bermuda field and keeps it in top shape year round. MCPS should maintain the fields at a cost of at least $25,000 per year and monitor usage to ensure that the fields are in good condition. A little more maintenance may go a long way toward improving the condition of our fields in the future.
I support installing a turf field at Paint Branch High School.

My three children are all graduates of Paint Branch and all were soccer players. I have additional experience in soccer as a 4-year coach of a Montgomery County girls recreational soccer team and the manager of 2 NCSL (travel) soccer teams.

I agree that well maintained grass fields are a better playing surface, but a grass surface is impossible to maintain. Schools do not have the resources to assure an even grass surface and required consistent maintenance. The school grass fields I'm familiar with are dirt with clods of grass. This surface is difficult to run on and difficult to predict, or train how the ball will react.

Turf fields have their own feel but are consistent and not subject to the wear-and-tear of grass. Their playability is more consistent and assures the game is decided on player skill, not a lucky bounce. Turf fields are also playable after inclement weather and do not suffer the detrimental abuse of slides, skids and dug up traces of hard play.

Turf fields are harder to land on. Training provides the players with the skills to adjust to the surface. Modern turf fields have addressed this and other safety concerns. Any field, or sport, contains its own considerations for safe

I believe the balance of various considerations is strongly in favor of a turf field for high school play.

I appreciate your consideration to assure our student athletes receive resources upon which they may excel.

... Don Smith
As a citizen on Montgomery County for 14 years, I want to voice my OPPOSITION to the installation of any more artificial turf fields in Montgomery County. They are unsafe for children, contribute to global warming, and pollute our waterways.

Kathryn Hopps
10513 Greenacres Drive
Silver Spring, MD 20903
To whom it may concern:

We would like to express our opinions on the report on turf fields. It is our opinion that this should be an individual community decision. Our community, Paint Branch HS, is in support of an artificial turf field for our new school, and we really don't want to see some other part of the county telling us what is best for our athletes!

Thanks so much for your time and consideration!

Sincerely,

Patti and Larry Twigg
Silver Spring, MD
From: Bussard, MaryJo S (MaryJo_S_Bussard@mcpsmd.org)
To: Turf ReportResponse@yahoo.com;
Date: Wed, 11 May 2011 09:34:57

Artificial Turf is our best choice for reasons too numerous to mention
As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field.

The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Brooks Vault
Parent of GHS Student
I support artificial turf fields.

Mathew Derrick
Clarksburg HS Physical Education
Clarksburg HS Varsity Baseball Coach
I 100% support turf fields in Montgomery County. Not only would it make weather less of a factor in the scheduling, it would benefit county athletes tremendously. In the northern part of the county, there are very few quality fields this would not only provide these local schools and community members with good fields it would help raise money for the community.

Many school around the county don't have enough space to practice on campus, turf fields would multiply the number of teams that don't have to travel, cutting down the risk of travel.

Jeremy Spoales
US History and Sociology
Boys Soccer Coach
Clarksburg High School
As the girls Field Hockey Coach at Clarksburg High School, I am in support of artificial turf.

We play our games on the stadium field at Clarksburg, and for safety purposes, artificial turf is the way to go....it keeps the ball down, preventing it from flying into players due to poor field conditions and we wouldn't have to worry about maintaining a low enough surface so the ball is visible to play. Furthermore, I feel all stadium fields in Montgomery County Public Schools should be Turf fields.

Thank you for allowing the opportunity to voice our opinion.

Sincerely,

Sissy Natoli
Girls Field Hockey Coach
Clarksburg High School
I support artificial turf fields.

Larry A. Hurd Jr.

Alternative Teacher

Head Football Coach

Head Boys Basketball Coach

Clarksburg High School
I support artificial turf fields for the following reasons:

- Easier maintenance
- More consistent playing field surface (no bare spots, mud spots, or uneven surfaces)
- More consistent quality of play by the teams
- Reduction in injuries due to uneven playing surface

Thank you for your consideration.

Barb Saxton
Subject: artificial turf fields
From: Carpenter, Danielle M. (Danielle_M_Carpenter@mcpsmd.org)
To: Turf ReportResponse@yahoo.com;
Date: Thu, 12 May 2011 08:57:07

I support artificial turf fields.
Dear County Council Members,

My name is Haroot Hakopian and I am the head girls' varsity soccer coach at Churchill High school as well as serving as the director for girls' soccer for MCPS. I have lived, taught and coached in MCPS for 20 years and have held the sport director position for 12 years. In addition to those duties, I serve as the President of the Maryland Association of Coaches of Soccer as well as serving as the region chair for the National Soccer Coaches Associations' high school All America Committee.

In my position within the county, I represent 50 varsity and junior varsity coaches as well as over 1,100 student athletes that represent their schools on soccer fields all across the county. In my various duties, I see girls' soccer played all across the county, state and the country. I can honestly say that we field some of the most competitive teams in the state and the country. One of the biggest discrepancies I see is the competitive disadvantage our athletes are faced with due to the availability of turf fields in most other jurisdictions. I know it is easy to ignore this argument because most people believe that simply playing games on turf does not give teams an advantage. While I agree with the sentiment about games, it is the availability of turf for practices that has the biggest impact on our coaches and players. Having a consistent playing surface that can be used in almost any weather for practice has a direct impact on the preparation for all aspects of our sport.

An artificial playing surface also allows a majority of the teams to use the field for practice which greatly increases the availability of on campus practice space. Again, as the director of the sport, I know of at least eight of our varsity teams that have to practice off campus. This creates a variety of problems including the students having to drive to the practice fields, the lack of shelter in case of inclement weather and lack of restroom facilities.

I can confidently tell you that an overwhelming number of the coaches, players, and parents involved with soccer in MCPS strongly support the installation of turf fields for all MCPS high schools.

Sincerely,
Haroot Hakopian
Varsity Coach - Churchill HS
Director of Girls' Soccer - MCPS
President - MD Association of Coaches of Soccer
South Region Chair - NSCAA High School Girls' All America Committee
Subject:Turf Fields in MCPS
From: D Greene@rockvillemd.gov (D Greene@rockvillemd.gov)
To: Turf ReportResponse@yahoo.com;
Cc: William_Beattie@mcpsmd.org;
Date: Thu, 12 May 2011 11:05:18

Dear County Council Members,

My name is Dave Greene. I have been coaching Boys Soccer at Walt Whitman High School for the last 32 years. I also coached Girls Soccer at Thomas Wootton High School for 12 years. I have been the Montgomery County Boys Soccer Sports Director for the past 11 years. I am also the Maryland State 4A Regional Tournament Director and have served as a District 2 representative. I am a current member of the NSCAA and serve on the Maryland State All State selection committee. I hold a US Soccer Federation A license and have been coaching with the Bethesda Soccer Club for 22 years. I am currently one of the longest standing coaches in the county and in the State of any sport.

In my position within the county, I represent 50 varsity and jr. varsity coaches as well as over 1,000 student athletes that represent their school and community on soccer fields all across Montgomery County. In 32 years of coaching practices and watching and coaching games, I believe I have seen or played in games at every High School in Montgomery County. I have also seen well over 200 different practice fields in the county. To say the playing surface has everything to do with how the game is played, is simply an understatement of epic proportion. In Montgomery County, now, there are three artificial surfaces and at least six Bermuda grass surfaces. There is a clear and distinct advantage to playing on these surfaces. The games alone are played at a completely different level than on a poorly maintained grass field. And then there is the clear advantage to being able to practice on these surfaces. The practice is also of a higher quality. The higher the quality of practice usually transforms into higher quality performance on game day. Before Richard Montgomery High School had their turf field installed, they had not had won more than 4 games in anyone season in over 20 years. Over the past three years they have won more games than in the previous 9 years combined. Montgomery Blair has benefitted from practicing on their turf field. Preparation for the season and for games is most important in our sport. Usually the best prepared team usually plays the best. And the surface has everything to do with that preparation. In our State Tournament, the semi final and final are now exclusively played on turf. Anne Arundel County and other parts of the State that play many of their games on turf are used to that surface have a clear advantage on game day. Having a consistent playing surface for games and practices and also being able to play and practice in all weather conditions simply evens the playing field for all schools.

For almost 30 of my 32 years at Whitman, my team, has practiced off campus. That means, parents leaving work early to transport players or players driving themselves. Because of permit issues and time allotment at off campus sites, practices have to begin as early as possible to avoid conflicts with other permitted users. Because of this, players need to rush to get to practice, therefore not driving safely. And after a very difficult 2 hour practice on a poor field, having to drive home. With turf, teams can stay on campus to practice. Practices do not have to be cancelled because of rain. Most athletic directors are very protective of their grass fields, therefore cancelling practices even in mildly poor conditions. There is also the safety factor of playing on poorly maintained fields. I have been witness to several hundred injuries specifically related to the playing surface. In all of the years of playing on turf for High School and Club, I have not been witness to a single field related injury.

An overwhelming number of coaches, players and their parents are highly in favor of the artificial turf
surfaces. Most, if not all of these players, through their club teams are practicing all year round on these surfaces. As quite possibly the longest tenured coach in Montgomery County, I along with all of my coaches athletes are 100% in support of all schools having the turf fields installed in every school. Thank you for your time and efforts.

Sincerely,
Dave Greene
Varsity Boys Soccer Coach - Walt Whitman High School
Director of Boys Soccer - MCPS
4A West Regional Boys Soccer Tournament Director
Subject: FW: Turf Fields
From: Veihmeyer, MaryPat P (MaryPat_P_Veihmeyer@mcpsmd.org)
To: TurfReportResponse@yahoo.com;
Date: Thu, 12 May 2011 12:55:06

My name is Mary Pat Veihmeyer. I am currently the sports director for Montgomery County for girls lacrosse. I have served in this position since lacrosse became a varsity sport in 1997. Before that, I was the sports director for field hockey for many years. I have coached at Whitman for 31 years. I represent 50 coaches and over 1000 girls who make up the Varsity and JV lacrosse teams in Montgomery County. We overwhelmingly support the installation of turf fields at our schools. Our parent community is solidly behind this as well. There are several reasons why we support this initiative.

First, many of the lacrosse teams currently have to practice off site. For an example, at Whitman, only 1 out of the 4 lacrosse teams practices at Whitman. That means we have 3 teams of teenagers driving to another site and carting all the equipment and goals with them. We have had to order portable goals for 3 teams since we are not allowed to leave the real goal cages at our practice sites. We have to have 3 portable AED machines that we carry with us in case of emergency. We will be in trouble if there is ever an emergency, weather or otherwise. We don’t have access to the buildings where we practice, so cars are our only haven. This is happening all over the county.

These off site practice fields leads to our second reason for supporting turf fields. We are practicing on fields that are in horrible condition, and none of them are the correct size. Elementary and middle school fields are never 100 yards long and sixty yards wide. We can’t scrimmage because we don’t have room to run full field. The fields are not level and the grass is only cut every two weeks. We have no way to maintain good conditions at these fields. The amount of ankle and knee injuries is mounting every year. On turf, you have a consistent, level surface, with permanent field markings. We are at a huge disadvantage to the schools who do practice consistently on turf fields. Across the state, more and more counties are installing turf fields. We have to compete against these schools in state playoffs and we are at a disadvantage.

Weather is another huge issue. This spring has been a perfect example. We had 6 teams that could not play all of their scheduled games this year due to cancellations because of rain. The rest of the teams were playing an insane amount of games in a very short time in order to squeeze them all in. The players are exhausted and we are experiencing injuries – it has caused a huge safety issue this season. The parents and the players are having to constantly reschedule appointments, tutors, SAT classes, etc. because the games can’t be played on the scheduled days, which they have all planned around. We feel sure that this will affect our teams as we are heading into playoffs now and we will be playing against teams that didn’t have to face these issues.

Another issue is the cost of maintaining our current stadium fields throughout the year. It is really hard to keep our fields safe and with actual grass on them. In the spring, the fields are only used for lacrosse and middle school soccer, but in the fall, there is field hockey, football, girls soccer, and boys soccer all sharing this one field. The fields are destroyed by the end of the fall and they don’t have time to recoup before the spring. Our lines don’t stay on the field because the paint doesn’t stick to the dirt. When it rains, the fields quickly become unplayable because it is all mud – another safety issue.

The lacrosse community of Montgomery County overwhelmingly supports the installation of turf fields in MCPS!

Sincerely,
Mary Pat Veihmeyer

[Address]

http://us.mg.mail.yahoo.com!neo/launch 5/16/2011
Hello,

My name is Tom Serensits and I am the Manager of Penn State’s Center for Sports Surface Research. One of our main areas of research is synthetic turf. Having read your Draft for Public Comment, you are correct in identifying high surface temperature as a main concern with these fields. In regards to this issue, I would like to address a statement made on page 51 of the document stating that TPE infill is “cooler to play on”. Our research indicates that TPE produces a very similar surface temperature to standard black crumb rubber when installed into synthetic turf fibers. Please see the attached table from a soon-to-be released study that we have conducted.

Regards,

Tom

Thomas Serensits
Manager of Penn State’s Sports Surface Research Center
The Pennsylvania State University
116 Agricultural Sciences & Ind. Building
University Park, PA 16802
814-863-4236 – office
tjs204@psu.edu
http://cropsoil.psu.edu/ssrc
http://www.personal.psu.edu/tjs204/
Facebook - PSU Center for Sports Surface Research
Table 1. Surface temperatures of various fiber-infill combinations after 3 hours under heat lamp.

<table>
<thead>
<tr>
<th>Fiber Color</th>
<th>Infill</th>
<th>Surface Temperature (F)</th>
</tr>
</thead>
</table>
| Gold                         | Black Rubber    | 171.1 a  
| White                        | Black Rubber    | 170.4 ab  
| Silver                       | Black Rubber    | 169.2 ab  
| Black                        | Black Rubber    | 169.2 ab  
| Green                        | Ecofill         | 167.3 abc  
| Green (FieldTurf Revolution) | Black Rubber    | 165.6 abcd  
| Green                        | Black Rubber    | 165.5 abcd  
| Green                        | Green Rubber    | 163.8 bcde  
| Green                        | Tan Rubber      | 161.1 cde  
| Green                        | TPE             | 160.5 de  
| Green (AstroTurf AstroFlect) | Black Rubber    | 158.9 e  

All fibers were FieldTurf Duraspine Pro unless otherwise noted.

*Temperatures that do not share the same letter are significantly (statistically) different.*
Please find in the attached Word document our comments on the April 2011 MCPS Staff Report titled, "A Review of Benefits and Issues Associated with Natural and artificial Turf Rectangular Stadium Fields." The attached photos (artificial turf field adjoining our property) are referenced in, and should be considered a part of, the comments.

Thank you.

Sincerely,

Lorraine G. and William T. Fitzsimmons

8502 Victory Lane

Lomac, MD 20854
May 12, 2011

MCPS Department of Facilities Management
2095 Gaither Road
Rockville, MD 20850

RE: April 2011 MCPS Staff Report Titled “A Review of Benefits and Issues Associated with Natural and artificial Turf Rectangular Stadium Fields”

We are writing to offer our comments and concerns regarding the draft MCPS staff report identified above. We also want to share our experience as home owners living in immediate proximity to one of the St. Andrew's Episcopal School artificial turf fields mentioned in the report.

Our primary comments and concerns are these:

1. Artificial turf fields contain lead and other dangerous toxins. So, even if one can’t absolutely prove, at the moment, that they are endangering the lives of both children and adults – and perhaps doing serious damage to the environment – common sense suggests the need for an “abundance of caution” in dealing with them.

2. With this in mind, we feel that, in addition to a moratorium on the construction of new artificial turf fields, Montgomery County needs to begin aggressively monitoring all of the artificial turf fields that currently exist in the County, including those at private schools such as St. Andrew’s, for airborne and run-off contaminants.

3. The cost comparisons contained in the draft MCPS report overstate the potential economic benefits associated with artificial turf fields by inflating the number of hours in which such fields might be used reasonably, while also using an overly optimistic estimate of 8-10 years for the life span of artificial fields. Constant use will almost certainly reduce the life span of these fields. Moreover, field deterioration caused by age and constant use will further the risk of toxic substances being released by the fields. See statement below from the US Consumer Product Safety Commission in this regard:

   “Staff recognizes that some conditions such as age, weathering, exposure to sunlight, and wear and tear might change the amount of lead that could be released from the turf.”

Assumptions which suggest possible field usage of up to 3,000 hours/year would necessitate the use of field lighting. However, the economic estimates fail to factor in the cost of lighting obviously required to achieve this level of
usage AND to acknowledge the fact that most fields are located in neighborhoods like ours, which would be severely impacted by the ensuing nearly constant increases in noise and traffic, not to mention the intrusive bright lights. And what about hot summer days? The MCPS report notes the following idea, which would further reduce the possible number of hours that fields could be used reasonably, but is ignored in the economic estimate:

“Restrict use of artificial turf fields during peak high temperature periods: This approach is often done by field owners who have staff on-site to make these day to day decisions on a case by case basis. The staff work group was unable to find examples of entities utilizing specific requirements (such as an ambient temperature limit or actual field temperature for instance) above which fields are always closed.”

4. While the County might save a few dollars by using artificial turf fields, we wonder what the County’s plans are for dealing with the very real possibility that children are harmed and the County is sued by angry parents. Has the MCPS looked into the possible costs of even fighting such lawsuits?

5. As individuals who spent most of our careers with the Public Health Service, we know that there is no minimal safe exposure level to lead for children. Knowing this, the State of California sued Field Turf and other makers of artificial turf in 2008. Field Turf settled the suit in 2010 by paying a civil fine of over $200,000 and agreeing to remove lead from its products. See link: http://awalkintheparknyc.blogspot.com/2010/07/artificial-turf-suit-settled-by.html

6. The following statement by then Attorney General Brown of California is instructive:

"There is no safe exposure to lead," Attorney General Brown said in a statement. "In lengthy or high exposures, it is toxic to many organs and tissues including the heart, bones, intestines and kidneys. Since excessive exposure can interfere with development of the nervous system, it is particularly dangerous in children and can cause permanent learning and behavior disorders.”

7. The MCPS report recognizes that zinc and other toxins leach from impervious artificial turf fields into storm water, but suggests that this problem can be handled by creating a holding and filtering system underneath the fields. Quite frankly, our observation is that this doesn’t work as well as the report suggests. As indicated by the photo below, heavy rains have overwhelmed the St. Andrew’s artificial turf field immediately behind us, sending unfiltered storm water down the hill in our direction. While the School added a “rip rock” catch basin to capture the surface run-off and channel it toward County
storm drains (Chesapeake Bay watershed), after some neighbors experienced flooding problems, this water is certainly not filtered in the way discussed above. See photos.

8. The infill rubber material used to dress Field Turf and other artificial surfaces is the same old rubber tire material not deemed safe for the nation’s landfills. And, as a 2008 Eyewitness News video shows, it comes loose from the fields and gets on balls, children and pets.: http://www.youtube.com/watch?v=2PYH sbRknl&feature=youtube gdata
While you can post signs such as the one below, mentioned in the report, to protect children from this infill material, how effective is it?

“If hand-to-mouth exposure by children can be reasonably expected, post signs reminding parents to wash children’s hands after play.”

9. For those living in proximity to artificial fields, as we do, it is a much more complex issue. As the photos at the link below show, huge amounts of this stuff are put into the fields every year. And, where does a lot of it go? We can tell you. It is carried by the wind into the yards, porches and houses of the neighboring properties. See link: http://parentscoalitionmc.blogspot.com/2010/11/artificial-turf-field-at-richard.html

10. We strongly urge the County to obtain more input on the potential health and environmental dangers from medical and environmental professionals.

In summary, we urge MCPS staff to address the need for a program to routinely monitor existing artificial fields for health, safety, and environmental problems; to re-evaluate its economic assessments to reflect reasonable field use rather than extreme, maximum use; to consider the impacts (noise, lighting, traffic, etc.) on the safe and peaceful enjoyment of their homes by owners on adjoining properties as well as in the surrounding residential neighborhoods; and to make permanent the current moratorium on artificial turf fields. Thank you for your consideration of our comments.

Sincerely,

William T. Fitzsimmons
Lorraine G. Fitzsimmons
8502 Victory Lane
Potomac, MD 20854
Subject:Turf Report Response
From: Bailey Condrey (blcon350@verizon.net)
To: TurfReportResponse@yahoo.com;
Date: Thu, 12 May 2011 21:59:42

I have played soccer for 28 years. The only time I have suffered a serious injury was when playing on synthetic turf. The ankle sprain I suffered put my leg in a cast for two weeks. With the recent onslaught of installation of syn-turf fields in the DC metro region, I fear that the ability of my legs to withstand playing on this surface will severely limit my future chances of playing the beautiful game. After every soccer game on syn-turf, my knees ache. After playing on natural turf, I feel energized.

I worked for the plastics industry for eight years on environmental issues related to recovery and recycling of plastics from post-consumer packaging and durable goods. The plastic rug that is removed from an athletic field at the end of the syn-turf’s useful life is a durable good. It has multiple layers and the economics of recovering the individual plastic polymers that go into its construction will be very complicated. This will drive the cost to recycle this material to uneconomical levels. After all, for something to be recycled, the cost of recovering the useful material cannot exceed the value of the material in the marketplace. This reality results in the material being landfilled or incinerated.

I have spoken with technical representatives of the Association of Postconsumer Plastic Recyclers, www.apr.org and they informed me that they are completely unaware of any company in the United States recycling syn-turf. For the very complicated reasons that I have provided. The plastics industry spent roughly $500,000 during the ’90s on technical research to recycle the various plastics from automotive bumper systems. The technology to recycle syn-turf is no less complicated. Where are the research papers on the process and where were the technical trials conducted?

Unless they can provide the answers to all of these questions, it's a pretty safe bet that the recycling of syn-turf is a pipe dream. Which means that cities, counties and localities are going to have to pay to dispose of these massive rugs by landfilling or incineration.

Respectfully,

Bailey Condrey, Jr.
Eclipse Solutions
Corporate Communications
10205 Parkwood Drive
Kensington, MD 20895
571-213-2729 Cell

http://us.mg5.mail.yahoo.com/neo/launch?rand=2sh159dte7mh4

5/17/2011
To Whom it May concern:

I wish to support the use of artificial turf at Paint Branch HS, as a player in the early 1980's I had the opportunity to play on some of the original artificial turf fields around the country at which time the turf was made from different material and surfaces than today. As a current coach with the opportunity to play on different field surfaces I recommend the use of artificial turf fields for High Schools in Montgomery County.

The main cause for injury to today's players at this level are the non use of the proper style cleats for artificial turf, players will need the proper cleats to be used on both grass and artificial turf.

Thank you for the continued effort to make all our children safe on and off the field.

Thanks

Larry Edmonds
Paint Branch Cluster Coordinator
BBMS-PTSA NEC REP
MCPS PAC Council Chairperson
larry-edmonds@comcast.net
240-381-3984 (cell)
"Go Bobcats"
To members of the Staff Working Group; the Board of Education; the County Council:

Please see attached comments regarding the Public Draft, 'A Review of Benefits and Issues Associated with Natural and artificial Turf Rectangular Stadium Fields' April 13, 2011. I understand all comments will be available and will be addressed in the final version of this report. If you have questions please contact me.

Thank you.

Paula Bienenfeld
Education Committee Chair
Montgomery County Civic Federation
To Members of the Artificial Turf Working Group:

I am commenting on the Public Draft, ‘A Review of Benefits and Issues Associated with Natural and Artificial Turf Rectangular Stadium Fields’ on behalf of the Montgomery County Civic Federation. Here are comments:

1. Overall, the report is sloppily put together with random quotes and studies thrown in. Please state the number of labor hours per person charged to this task.
2. Mr. Joe Lavorgna, a consultant, is shown as the author in the ‘properties’ section of the report. Mr. Lavorgna is a private consultant. Please list his other clients, and state whether FieldTurf Tarkett or any other synthetic turf companies are his clients. Please provide data to show that Mr. Lavorgna does not have a conflict of interest regarding artificial turf, FieldTurf Tarkett, or any other synthetic turf manufacturer.
3. Regarding the Working Group. Please state how often the working group met, who attended each meeting, and please provide the notes and minutes from the meetings in an appendix.
4. DEP staff are referenced throughout. Please add the names of the DEP staff that were involved in this study.
5. The report does not address the main request from the Council Committee, which is, conduct a water quality study of the artificial turf runoff. Where is this study?
6. Please explain why no one from the Natural Turf sod community in the Montgomery County Agricultural Reserve was included in the working group. Instead it appears that language from FieldTurf Tarkett’s marketing messages have made their way into this document. The Maryland Soccer Foundation was also consulted. Again, no natural sod farmers in our own community were either part of the working group, or consulted. Please explain why this is so. As a result of the make-up of the Working Group, the ‘report’ appears biased.
7. Page 4, Operations Benefits for artificial turf fields.’ Please provide a comparable bulleted list for ‘Operational Benefits for natural turf fields.’ This text re-emphasizes the bias of this report for artificial turf. It appears that this working group was biased from the outset.
8. Page 5, ‘environmental impacts of building additional natural grass fields.’ What environmental impacts? Natural grass fields have a beneficial effect on the environment as opposed to artificial turf. Please state which adverse impacts are meant by this statement.
9. Page 5, ‘Public/Human Health Concerns’ Please add heavy metals, lead, and carcinogens to this bullet list. These are well known components of ground
crumb rubber turf fields. According to the journal, *Environmental Health Perspectives*, “The most common types of synthetic rubber used in tires are composed of ethylene–propylene and styrene–butadiene combined with vulcanizing agents, fillers, plasticizers, and antioxidants in different quantities, depending on the manufacturer. Tire rubber also contains polyaromatic hydrocarbons (PAHs), phthalates, and volatile organic compounds (VOCs).”

And, “According to the Rubber Manufacturers Association, only 8 states have no restrictions on placing tires in landfills. Most of these restrictions have to do with preventing pest problems and tire fires, which release toxicants such as arsenic, cadmium, lead, nickel, PAHs, and VOCs.”

And, “A recent study from the University of Medicine and Dentistry of New Jersey (UMDNJ)-School of Public Health found that, “when children or athletes ingest the tiny rubber granules in synthetic turf, it is likely that a significant portion of the lead in the granules will be absorbed by their bodies’ gastric fluids.” This study was completed on the ‘new’ generation of artificial turf, made of tire crumbs. The study was led by Dr. Junfeng Zhang, associate dean and professor of environmental and occupational health at the UMDNJ-School of Public Health. The study examined lead levels in rubber granules from four parks in NYC, and simulated digestive tract absorption in two of the samples. The findings were as follows: Even though the samples had relatively low concentrations of lead in the rubber granules, substantial amounts of lead were absorbed into synthetic gastric juices. According to health professionals, even the tiniest amount of lead in the system will affect the health and cognitive ability of children.

10. Page 6, environmental impacts; again the statement that DEP has not provided any specific recommendations. Here and throughout the document the reader is left to wonder why DEP would not comment or provide recommendations on this report. Please provide some explanation as to why DEP staff and subject matter experts apparently refused to participate in this working group, or provide expertise or guidance.

11. Page 7, regarding ‘...should continue to monitor the success or failure...’ This suggests the county has been monitoring these infills. Please provide references to this monitoring, and provide the data that has resulted from this monitoring. How long has the monitoring been underway? Please provide some dates and a timeline. In addition, please provide some metrics that will be, and have been, ‘monitored.’ How will the ‘success’ or ‘failure’ be calculated? On what scientific basis?

12. Page 8, change ‘...fields include only high school stadium fields.’ Change to ‘fields include all 25 high school stadium fields.’

13. Page 12, regarding ‘Land Preservation, Parks, and Recreation Plan, please add a reference; which plan?

14. Page 12, change ‘Safe Fields Coalition’ to Safe, Healthy Playing Fields Coalition’ ‘Safe Fields Coalition’ is not the correct name of this organization.

15. Page 13, ‘...members did not feel...’ this is not an analysis. Feelings are not analysis. Please provide some rational analysis to back up these statements.
16. Page 13, ‘Individuals...have spoken with...Kevin Mercer...’ This is a poor, sloppy approach and is hardly what one would expect from a serious study of adverse and beneficial effects of a material that consists of ground up rubber auto and truck tires. There is no introduction or basis for this discussion. There is no attempt to explain why these particular people were chosen to interview. The discussions appear random, as if someone decided to pick up the phone, make a brief call, and spend a few minutes typing up their telephone notes. It appears, as it does throughout this entire document, that there was no planning and no forethought put into this ‘Review’ document. Please provide the telephone notes for these discussions.

17. Page 13, ‘Several members within Parks staff...” Who? Which members? Again the sloppiness of this report is evident. Please provide names of people. Provide specifics.

18. Page 15, regarding ‘Practice fields are frequently very hard rock-laden...’ Please add text explaining that the reason these fields are hard and rock-laden is because they were poorly built in the first place, using debris rather than carefully built with an appropriate sub-base, soil, and the like. Please explain that the original construction of these fields was poor and the result of the poor original construction is these existing fields.

19. Pages 15-18. Again, this is a bucket list of unrelated statements. The report in these pages claims installation and use of artificial turf fields can solve everything from traffic accidents to child obesity. Claims like this in this report detracts from any viability this report has.

20. Page 18, regarding reducing fertilizer, pesticides, etc. Please add the requirements of constant chemical washing required as maintenance for artificial turf. Please add the chemical ingredients of these washes, and the costs. Please add that, according to, 
http://articles.directorym.com/Artificial_Turf_Disadvantages-a974322.html
NaturaLawn of America, “Real grass controls erosion, produces oxygen, helps eliminate dust, is an air and water filter and a noise reducer. Grass also acts as a natural "air conditioner" for the climate at ground level. Real turf is an essential part of our ecosystem. Lawns contain microbial activity, bird life, shelter for small mammals, etc. So gaining a permanently green lawn with synthetic turf will actually cut back the biodiversity of an area.

Water is another factor to consider. Having synthetic turf might conserve water during a drought, but some studies have shown that it also leads to flooding during heavy rains due to its less absorbent nature. This flooding then can cause erosion and result in polluting our waterways.”

21. Page 20, using the warranty information from the manufacturer and not looking for independent verification again shows the bias of this report. Please provide actual maximum use based on other studies.

23. Page 29, regarding the bullet list of physical health effects, please add heavy metals, lead, and carcinogens to this bullet list, all of which are in these artificial turf materials.

24. Page 30, regarding DHHS not being equipped with the necessary specialized expertise Please explain why this agency appears not to have wanted to participate in this study.

25. Regarding the synopses of these studies reviewed by the Working Group, most of these studies are inconclusive, for example, from the State of New York report, “…findings should not be considered conclusive due to the limited amount of data available.” Or, from the ‘Review of the Potential Safety Risks…’ “…additional air studies…would provide more representative data…” and the like. Will the county government provide some direction as to data collection and presentation of some real data? Again, the hodgepodge of reports and quotes does not help this review or provide any sort of direction for the County. The reader is left wondering what the purpose of this report was. Clearly it was not to provide objective data or review of objective data to the Council or to the community. It falls far short of the Council’s stated intent.

26. Page 42, regarding the analysis conducted on a carpet sample from the artificial turf field at Montgomery Blair High School, provide the study and results in an appendix in the final version of this document.

27. Page 45, regarding the heat island effect. See attached. The idea that a study of impacts from a single artificial turf field is relevant to a serious analysis of environmental effects of artificial turf is a misunderstanding of the heat island effect, which is cumulative. In addition, the Montgomery County Public Schools proposes to place artificial turf fields, all colored a dark green to mimic natural turf, at all 25 high schools. Each field, if it is the size of a football field, is approximately 1.322 acres. Even excluding the artificial turf fields that the Parks department has been and plans to install, this is over 33 acres of dark colored artificial turf. Dark material absorbs more heat than white or lighter colored material. For aesthetic purposes the material is dyed a dark color. It would relieve some of the heat absorption if the material is a light color.

28. Page 45, Recycling and/or Disposal of Artificial Turf Fields. Because of the well-known toxic material of which this material consists, the fields, which have a life of approximately 8-10 years, will need to be disposed of in a hazardous waste disposal area. That cost is considerably more than simple disposal in a land fill. Please address the cost per field.

29. Page 46, Recommendation: add the cost of the disposal of this toxic material in a hazardous materials landfill location.

30. Appendix F, reference to ‘a study of a field in France (Moretto, 2007), please add that this study was completed “in partnership with FieldTurf Tarkett.” In fact, the lack of context for this study is egregious and speaks to the bias of this entire report.
In sum this exercise was a foolish waste of taxpayer money in an attempt to pretend that this Working Group actually carried out the direction of the Council. It did not. The public is ill-served by attempts to circumvent the requests of the Council.

Sincerely,

Paula Bienenfeld
Education Committee Chair
Montgomery County Civic Federation

Attachment
Attachment: **Heat Islands Created by Artificial Turf**

Artificial turf fields are well known for their great ability to trap heat, unlike natural sod, which cools our planet; and our neighborhoods.

**Artificial turf creates ‘heat islands’ with temperatures of up to 120 degrees Fahrenheit to 160 degrees Fahrenheit.**

Dr. Stuart Gaffin, a professor at Columbia University and an Associate Research Scientist at that university’s Center for Climate Systems Research, initially began his studies researching how trees and parks cool the city. In his research he noticed an odd phenomenon; heat islands, which he initially assumed were caused by large buildings. He looked further, and realized that the ‘heat islands’ were caused by artificial turf.

![NASA Satellite Photo, August 14, 2002, New York City, shows heat islands, the red squares at left. The photo on the right shows the lower left to be a building and rooftop. The green area in the larger yellow frame to the right is an artificial turf playing field.](image-url)
Subject: Turf Field Support at GHS
From: Suzanne Walsh (suzannewalsh65@hotmail.com)
To: turfreportresponse@yahoo.com;
Cc: a.warren@ghill.com;
Date: Fri, 13 May 2011 08:09:22

As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field. The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Suzanne Walsh
Parent of current Sophomore, and two incoming Freshmen in the Fall
Please be assured that your comments, letter, and photos were received and will be included with all others received during the comment period. Thank you for your continued interest in this report.

Staff Work Group

Lorraine Fitzsimmons

From: Lorraine Fitzsimmons <fitzsimmons01@comcast.net>
To: TurfReportResponse@yahoo.com
Cc: wfitzsim@comcast.net
Sent: Friday, May 13, 2011 10:30 AM
Subject: comments on Turf Report due May 13, 2011

Attached find our comments on the subject report with accompanying photos. These comments were submitted yesterday, as were the photos, but as I did not receive a delivery receipt, I am resending using the embedded email link.

Thank you.

Lorraine Fitzsimmons

2 Victory lane
Potomac, MD  20854
Subject: Gaithersburg HS Turf Stadium Field
From: RUTH DIKE (ruthanndike@yahoo.com)
To: TurfReportResponse@yahoo.com;
Cc: Lisa.Warren@ghill.com; Jason_D_Woodward@mcpsmd.org;
Date: Fri, 13 May 2011 10:44:20

As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field. The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Ruth Dike
GHS Parent of Soccer/Lacrosse Athletes
301-509-7604
Dear Board Members -- as president of the Gaithersburg High School Instrumental Music Parents Association I would like to register our support for a turf field at Gaithersburg High School. Our Marching Band would benefit from a turf field in several ways. 1. It would allow for practice during rainy times in the season when a grass field is too wet and too fragile to practice on and 2. a turf field would be safer for all concerned since it provides for a consistently flat and level surface.

Our parents understand the need for a clean, safe and available playing field as well as the cost savings that would occur over time due to decreased maintenance costs. At a time when we should be looking for ways to save money, this would provide for real savings despite the initial cost outlay.

We enthusiastically support a turf field at the new GHS.

Thanks.

Sincerely,
Laura Quigley

--
Laura Quigley, president
GHS Instrumental Music Parents Association
(c) 301.674.5028
I am in support of artificial turf for Montgomery County public school sports fields. I am not in support of the report that was prepared by the Staff Work Group from Montgomery County Public Schools, Montgomery County Department of Parks, Montgomery County Council, Montgomery County Department of Environmental Protection, and Montgomery County Department of Health and Human Services April 13, 2011.

Thanks for your consideration.

Mary Walker
I am in favor of artificial turf fields for Montgomery County public schools. I realize that there are pros and cons for both sides of this issue, and have weighed both.

Lacy Walker, Parent of a Montgomery County Public School Athlete
Received Between Close of Business May 13, 2011 and June 3, 2011
Comments from David Lechner, MC Resident, 9404 Bethany Place, Montgomery Village MD 20886, Ph 740-3257

From: David Lechner (dave@lechnersonline.com)
To: Turf ReportResponse@yahoo.com;
Date: Fri, 13 May 2011 17:14:50

1. Executive Summary – lists benefits, but not negatives or costs, and does not discuss the increased purchase and installation costs, such that an obvious bias is indicated in the report.

2. Need for additional fields – This analysis indicated a need for additional fields, but the County has installed additional fields lately that go virtually un-used. The reference to the report that identified the need for more fields should be provided.

3. “Safer” and “Significant savings” on pages 4 and 5 – need to quantify these advantages and provide references.

4. Payability – page 5 – the 1.7 to 7.7 factor – is partly driven by availability and demand. If all of the MCPS fields were turf and available, the demand for team access and use may not go up (and on a per-field basis could actually down). Use of this factor in the analysis is suspect.

5. Life Cycle Cost – the cost per hour of use assumes a level of demand, which is suspect. The report should also identify the overall cost to the county of running 20 grass turf fields and 20 AT fields, and provide decision-makers a gauge of the operating (capitalized) cost per year. The value may be very good and worthwhile, but the value may also be considered a luxury. The revenue generation level needs thorough understanding.

6. Health Concerns – the report should also address the risks of injury of grass fields, especially those with hard-pack dirt areas and uneven surfaces risking ankles and falls.

7. The actual “required” cost for field maintenance appears to be closer to $45,000 per field. For 24 High Schools, this cost is actually $1.08 Million dollars per year, based on page 16 of the report.

8. Page 28 – the projected revenue 20-year number is very unrealistic. The actual revenue is more likely lower (school use is subtracted from available peak-time demands. Soccerplex Turf fields are used in the winter and under lights. Revenue is likely higher for AT fields, but not to the degree shown (even a factor of 2.0 would mean a differential of only $250,000 total over 10 years). Revenue will not stay at the high level if there are many AT fields available, since demand in total does not go up once they are installed – demand will stay the same. Calculations of

http://us.mg5.mail.yahoo.com/neo/launch?.rand=2sh159dte7mh4
this table should be carefully explained in the text of the report. The 20-year maintenance costs for grass fields is WAY low – ref. the comment above about $45,000 per year, times 20 = $900,000 per 20 years. Add in the $500k cost stall, and the total is more like $1.4M, comparable to the $2.4M for AT fields, but still $20M in total less, or about $1M per year more for AT fields. This is the number that should be compared to the increased usage, safety, and revenue of AT fields.

9. Comparing the above and more realistic data, for about $20M up front (or $1M per year if leveraged via debt) MCPS can have fields that are safer, provide significant more hours of availability, more equity, and local pride on all 24 high schools.

10. The Cost-per-hour-of-use metric is misleading, since the AT fields provide 2,300 hours of use compared to 300 to 600, so though a much lower cost per hour, the overall cost to the county is much higher. The question is whether the value is greater than the costs.

11. At the MCCPTA Safety Committee public forum on Oct. 7, 2009, it was stated that

12. "MCPS relies on Booster Clubs to pay for much of the cost of maintenance, whether natural or artificial turf and r's to continue to depend on Booster Clubs for maintenance funding as more high schools are modernized andicial turf fields are added. Concession stand profits managed by the booster clubs can be used to pay for maintenance of fields." Will MCPS be paying for all the maintenance of the Turf schools or will they bill the booster clubs?

13. The report should contain an appendix with all public comments provided to the email address provided by the study team and a response to all issues identified.

Apparently the sole source provider of artificial turf for MCPS has now declared their product to be defective and is suing their supplier. The report should identify this problem, review possible impacts of the defect on any of the fields already installed on MCPS fields, and whether suppliers of similar products have this or similar defects. (link to the lawsuit is here:

The identification of this product as a "standard" for use in all fields effectively creates a sole-source supply relationship. The report should identify the potential impact of competition on the price per field, why normal competition could not continue to be used with a general product specification that also requested information on and considered the impacts of life-cycle maintenance cost benefits if the fields are of the same type or the same supplier. This would effectively consider the benefits while still forcing the supplier to provide competitively priced bids, which should further lower the prices."

Note that competitive pricing should lower the prices a good 10% to 25% (normal impacts of competition with multiple vendors), and this would further "Advantage" artificial turf in a cost comparison, but other issues are noted in the cost comparison of the report as well).
Subject: Comments on the draft Review of Benefits & Issues Associated with Natural & Artificial Turf Rectangular Stadium Fields
From: Anne Ambler (anambler@gmail.com)
To: Councilmember.Berliner@montgomerycountymd.gov; Councilmember.Floreen@montgomerycountymd.gov;
councilmember.riemer@montgomerycountymd.gov;
Cc: turfreportresponse@yahoo.com; nnwbboard@yahoogroups.com; county.council@montgomerycountymd.gov;
Date: Fri, 13 May 2011 17:44:59

Dear Chairman Berliner and members of the T&E Committee:

Attached are comments from the Neighbors of the Northwest Branch on the draft Review of Benefits and Issues Associated with Natural and Artificial Turf. I am sending them to you because it was the T&E Committee that requested the report. I am also sending them to the workgroup as the group instructed.

We recognize that much effort went into this report; however, we do not feel that it has provided you with the information you need to make an informed decision as to athletic fields in Montgomery County public schools, parks, and recreation areas. Also, we do not expect that this will be our final word on the issues, since new elements of concern with artificial turf fields keep arising, while the science of maintaining natural grass athletic fields organically and effectively continues to improve.

Thank you again for requesting this study and for the opportunity for public comment.

. wishes,
Anne Ambler, Outreach Chair
Subject: Please substitute this file for the 5/13 one from NNWB
From: Anne Ambler (anambler@gmail.com)
To: turfreportresponse@yahoo.com;
Date: Tue, 07 Jun 2011 17:15:54

Please use the attached for your final report rather than the version I sent on May 13 for Neighbors of the NW Branch. There are only 2 changes: one typo fixed and one additional word. Thanks!

Best regards,

Anne Ambler
May 13, 2011

Dear Chairman Berliner and members of the Transportation, Infrastructure, Energy and Environment Committee:

Thank you for requesting a comparison of the health, environmental, and fiscal impacts of natural versus artificial turf athletic playing fields in Montgomery County. I am writing at the direction of the Board of Directors of the Neighbors of the Northwest Branch, a citizen-based nonprofit watershed protection group dedicated to restoring the health of the Northwest Branch. Because we are a citizen group, however, our interest extends beyond runoff into the Northwest Branch. We are also concerned for the health of our children who play on the athletic fields Montgomery County and for the wise use of our tax dollars. These comments have been approved by our Board of Directors.

The background section of the report in which the numbers and types of fields in the county are listed is helpful. However, the remainder of the report does not seem to us to be the fair comparison you requested. The report appears to be written from the point of view of justifying artificial turf. We strongly urge that you not rely on the recommendations of this report for your decisions about how to spend scarce county revenues on athletic fields because the report leaves too many questions unaddressed and unanswered.

The Health and Environmental Impacts sections are sadly inadequate. The absence of active participation on the part of the departments of Health and Human Services (DHHS) and Environmental Protection may have contributed to this deficiency. However, members of the public did send the work group published study reports on health and environmental impacts of the materials used in synthetic fields, none of which appear to have been considered.

Below are some of the many important questions yet unaddressed and unanswered.

\[1\] In its statement submitted for this report, DHHS indicated that a meta-analysis by an entity with proven topic expertise and track record “would be the recommended approach by DHHS to determine the level of health risk posed by each material type,” whereas this report was “limited to ... materials...easily accessible to the group” (p. 30).
On health comparison:

- **What are the impacts on the brain, nervous system, and lungs of breathing nanoparticles and nanotubes from the carbon black that constitutes from 30 to 68% of tires by weight?** None of the studies cited in this report addressed carbon black, which is linked to brain and lung damage. (See appended studies page.) The natural nanoparticles comprising carbon black are so small they can pass through to the brain. In addition, engineered nanotubes now added to strengthen tires may act in the body like the asbestos fibers they resemble. Pulverizing tires makes the nanoparticles all the more accessible, as indicated by the black that often coats players. Children, whose bodies are rapidly forming from the materials they take in, are already exposed to vehicle exhaust and tire dust. Playing on tire crumbs adds to their exposure. Further, no study has yet examined personal (as opposed to ambient) exposure to ultrafine particles on these fields.

- **What are the interactive health effects of ingesting/inhaling the soup of contaminants, which include known carcinogens, endocrine disruptors, metals, and volatile organic compounds?** The cited studies address only some of the many toxins and address them individually, not in combination. As explained by the President’s Cancer Panel, chemicals may be even more dangerous together than separately. If the safety of these combinations is not known, why would we expose our children to them?

- **Since Field Turf itself does not know what is in its fields—it is suing its manufacturer over defective plastic of unknown composition right now—how can we be sure that the fields it has installed do not contain lead or other toxins in the plastic blades?** No Material Safety Data Sheets are even included in the report, despite a request by a group of citizens. These are essential for any product to which children are exposed.

- **Is it reasonable to expect that coaches, expecting to field their team regardless of the weather—the major selling point for artificial turf—will voluntarily cancel because the field is very hot?** Experience has shown they do not. The report cites temperature as high as 200 degrees on a Brigham Young University synthetic field (p. 37); we have measured 160 degrees on the Blair field with air temperature in the 80s. Even putting guidelines into the permit (p. 40) regarding extreme heat on the fields may not protect the players from heat-related illness or death, or the county from lawsuits.

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5 Rick Doyle, President of the Synthetic Turf Council, recommends: “Just as coaches have to reschedule games due to rain when they play on grass fields, so too they need to reschedule or consider an alternative surface to play on when it’s hot and sunny.” [http://www.npr.org/templates/story/story.php?storyId=93364750](http://www.npr.org/templates/story/story.php?storyId=93364750).
On environmental comparison:

- **Where are the environmental benefits of grass on healthy soil shown?** These include oxygen production, cooling, and water infiltration. These benefits are most certainly part of the equation. On the other side of the scale are two-acre plots that have no life and *increase the heat island effect* we are trying so hard to decrease. The validity of the argument that the additional heat is relatively small (p. 45) decreases as the number of synthetic turf fields increases.

- **Why was the runoff from our existing fields not tested for zinc, present at high concentration in tires, shown to readily leach out, and widely recognized as toxic to soil organisms, plants, and aquatic life?** The cost figure of between one and four thousand dollars seems excessively high for simply testing leachate from our installed fields. A simple test such as the one designed by grade schooler Claire Dworsky (see references) could be used. Results would be applicable only to the fields tested, but that is what we need. Dilution is not the solution to pollution because wherever the zinc goes, in soil or water, it can accumulate and cause damage.

- **Why mention TMDLs?** The statement (p. 43) that artificial turf should not affect TMDLs is irrelevant since we have no TMDL for zinc at this time. Europe, however, does have standards for zinc in tire crumb used for athletic fields. (See references below.)

- **When the county is encouraging conservation landscaping on private land—replacing lawn with native ground covers, shrubs, and trees, reducing or eliminating synthetic fertilizer, herbicides, and pesticides—it is ironic that the highly successful and heavily used organically maintained athletic fields in Branford, CT, and at St. Mary's College in southern Maryland are summarily dismissed for want of hourly usage logs. We question whether looking only at “stadium” fields, which are fenced as defined in this report, is appropriate. High use unfenced fields such as in Branford and at St. Mary's College could perform even better if usage were as tightly controlled as it is here.**

On cost comparison:

- **Will Field Turf apply a third carpet to the original base, or will the base need to be renovated before a warranty will be issued?** Such renovation to the underlying rocks, which we understand is the industry standard, would raise the 20-year cost considerably (cost tables, pp. 27-28).

- **Why are only positive aspects of sand base fields listed, and only negative attributes of native soil fields?** Could this be so that the “good” grass alternative can be more easily shot down on account of price? Why was an amended soil field not considered? From consultation with organic turf grass growers, an amended native soil field aerated 5 or 6 times annually and renewed with compost is more durable and less expensive than a sand base field.
• Based on costs elsewhere and expert consultation, we believe the cost estimates for maintenance of synthetic turf are too low and those for natural turf are too high. We also question the number of billable hours for synthetic turf fields on which the cost comparison is built and request inclusion in the report of hourly documentation of use and revenue obtained from the existing artificial turf fields. With these data in hand, experts in field installation and management can effectively evaluate the assumptions.

In conclusion, we find that the draft “Review of Benefits and Issues Associated with Natural and Artificial Turf Rectangular Stadium Field,” while certainly representing quite a bit of work, does not provide the comparison information you need and requested in order to make a fully informed decision about whether to install more artificial fields or good natural grass fields.

We ask that our comments be made part of the public record and expect to submit additional comments as the process unfolds.

Sincerely,

Anne Ambler, Outreach Chair

cc: TurfReportResponse@yahoo.com

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Selected References Relevant to the Health and Environment Questions Posed by the Neighbors of the Northwest Branch

On Carbon Black, Nanoparticles, and Nanotubes:

Carbon Black (CB) is a manufactured form of soot used as filler in rubber compounds, primarily in automobile tires. Nanoparticles in tires may take the form of natural or engineered nanoparticles. The largest potential source of natural nanoparticles in tires is carbon black. Carbon black is one of the two main components of tires and tire crumb infill (30-68% by weight according to manufacturers) for artificial turf. Engineered nanoparticles vary by type, but it is known that carbon nanotubes are also being added to tires.

• Carbon Black has been listed by The American Cancer Society and three Federal agencies as a potential cause of cancer that needs further investigation. 
  http://www.reuters.com/article/idUSTRE66E5AS20100715?feedType=RSS&feedName=topNews
• Various studies reported in Environmental Health Perspectives on carbon black and nanoparticles can be found at

• Nanosafety consortium- carbon black toxicology articles
  http://www.nanosafetyconsortium.com/invivotoxbibliography.html

Carbon Black and the Brain


"While studies show that ultrafine and fine particles can be translocated from the lungs to the central nervous system, the possible neurodegenerative effect of air pollution remains largely unexplored. The authors examined the relation between black carbon, a marker for traffic particles, and cognition among 202 Boston, Massachusetts, children...In summary, this is the first study to have found a consistent relation between exposure to black carbon and reduced neurocognitive functioning across a number of domains in urban, community-dwelling school-aged children. More studies are needed to explore the potentially neurotoxic effects of particulate matter, both to determine the possible impact on cognitive development among children and cognitive decline across the life cycle and to determine the potential contribution of air pollutants to the development and exacerbation of neurodegenerative diseases (i.e., Parkinson's disease, Alzheimer's disease)."

  http://dukeandthedocto.com/2010/01/air-pollution-may-damage-brain-heart/

Carbon Black and Lungs

• Final Report: Comparison of the Carcinogenicity of Diesel Exhaust and Carbon Black in Rat Lungs, EPA Grant Number: R828112C068I
  http://cfpub.epa.gov/ncea_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/2339/report/F

EPA Summary: "The results of this carefully conducted study demonstrate that prolonged exposure to diesel engine exhaust and carbon black particles produces nearly identical carcinogenic and noncarcinogenic effects in this strain of rats. No significant differences were noted between the two exposure materials in the resulting incidence, number, or types of lung tumors. These results may be considered surprising because, compared with diesel soot, the carbon black particles were relatively free of mutagenic organic compounds. Both exposures
caused injury to lung tissue, including inflammation, cell proliferation, and fibrosis. These lesions progressed in number and size as the dose of particles increased. At both exposure concentrations, diesel soot and carbon black accumulated in the rat lungs and, after three months of exposure, normal particle clearance mechanisms were impaired.

Carbon Black, Chromosomes, and Aging


"Conclusions: Telomere attrition, linked to biological aging, is associated with long-term exposures to airborne particles, particularly those rich in carbon black and may contribute to the cardiotoxic effects."

Nanoparticles and Engineered Nanotubes


"Inhaling carbon nanotubes could be as harmful as breathing in asbestos, and its use should be regulated lest it lead to the same cancer and breathing problems that prompted a ban on the use of asbestos as insulation in buildings, according a study in Nature Nanotechnology.

During the study, led by the Queen's Medical Research Institute at the University of Edinburgh/MRC Center for Inflammation Research (CfIR) in Scotland, scientists observed that long, thin carbon nanotubes look and behave like asbestos fibers, which have been shown to cause mesothelioma, a deadly cancer of the membrane lining the body's internal organs (in particular the lungs) that can take 30 to 40 years to appear following exposure. ... The researchers reached their conclusions after they exposed lab mice to needle-thin nanotubes: The inside lining of the animals' body cavities became inflamed and formed lesions."

- Interview with Dr. Peter Gehr, the tissue effects of nanoparticles. http://www.bafu.admin.ch/dokumentation/umwelt/10649/10659/index.html?lang=en

"Summary: Synthetic nanoparticles can penetrate tissue and cells, and spread throughout the body - even to the brain. Professor Peter Gehr of the University of Bern, an internationally renowned tissue specialist, is astonished that potential health risks are barely acknowledged outside the scientific world and government agencies."

"Engineered nanomaterials (NM) are already being used in sporting goods, tires. It is possible that the release of nanotubes from an intended commercial use products such as car tires could become airborne. Nanomaterials are engineered structures with at least one dimension of 100 nanometers or less. Possible undesirable results of these capabilities are harmful interactions with biological systems and the environment, with the potential to generate toxicity."

- [http://wn.com/Nanoparticles Linked to Deaths at Chinese Factory](http://wn.com/Nanoparticles Linked to Deaths at Chinese Factory). Nanoparticles manufactured in certain paints and tires led to deaths of 7 Chinese workers when nanoparticles entered their lungs.

**On Leachate (Zinc and other toxins):**


  "Synthetic turf water samples had zinc levels of 1000s of ppb and copper levels typically above 20ppb. These samples always exceeded the Monterey Bay Basin Plan Water Quality Objective for copper (<30 ppb) and zinc (<200 ppb) and at times the EPA drinking water levels as well. Cadmium and cobalt were also higher in the artificial turf runoff than in grass runoff and levels exceed runoff targets in some samples but not all. Within 24 hours about 80% of the *Daphnia* died in synthetic turf water; within 36 hours all of the turf-exposed *Daphnia* were dead. The *Daphnia* in the grass field runoff and the spring water all lived over 36 hours."

- From the Plastics industry website under the heading: Banning of harmful chemicals will play an important role in the plastic industry. [http://www.plasemart.com/upload/Literature/Banning-harmful-chemicals-play-important.html](http://www.plasemart.com/upload/Literature/Banning-harmful-chemicals-play-important.html)

  "In 1995, zinc and zinc derivatives were included in a priority list of rubber chemicals compiled by the Swedish Environmental Protection Agency, which should be replaced or used restrictively. In 1995, zinc and zinc oxide were placed on the second European list of priority substances in the EU Risk Assessment Programme.

  In June 2002 the German Standard DIN 18035-7 "Sports Grounds, Part 7" "Artificial Turf Areas" was published. According to this standard, two leaching tests are required for post-consumer tyre rubber granulates used as infill material for artificial turf and the following limits are set in leachates:

  - 0.5 mg/l after leaching with deionized water (DIN 38414-4)
  - 3 mg/l after leaching with water saturated with CO2
Between 1998 and 2004, draft Assessments were produced and responses put forward by the zinc chemical and rubber industries. Since 29 April 2004 (see Council Directive 2004/73/EC, relating to the classification, packaging and labelling of dangerous substances) zinc oxide is officially classified as "Dangerous for the Environment" with the risk phrase "Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment", and with the safety advice "This material and its container must be disposed of as hazardous waste" and "Avoid release to the environment. Refer to special safety instructions/safety data sheets". Rubber compounds containing more than 2,5 % in total of zinc chemicals or other chemicals classified as R50/63 (such as IPPD) are classified as "Toxic to aquatic organisms, may cause long-term effects in the aquatic environment".

A Final Word


"Conclusion: The quandary that this situation poses is such that on the one hand, crumb-rubber is a means for using some of the many waste tires crowding our landfills. However, if and when synthetic fields are retired and the crumb rubber is disposed of, the synthetic fields will have served as a temporary stopover for used tires in crumb form, eventually destined for landfills. Crumb rubber is not a solution to tire waste if the outcome leads to a degraded environment."
As a Montgomery county resident and tax payer, a parent of 3 children that participate in sports, a community member who supports the local high teams - I support Turf fields.

As the report indicates, artificial surface fields appear to address many issues and safety concerns, and are potentially a great asset to Montgomery County.

Thanks.

Ron Weaver
Subject: Paint Branch High School Field Renovation
From: WILLIAM SCHELL (jbschell@verizon.net)
To: Turf ReportResponse@yahoo.com;
Cc: William_Beattie@mcpsmd.org;
Date: Fri, 13 May 2011 21:50:10

Dear Field Turf Reviewers,

As a father of four present and past Paint Branch Student Athletes and as a parent volunteer for youth sports programs I am in total favor of Paint branch being supplied with an artificial field turf field.

Over the last twenty years I have watched countless high school and college sporting events on full size fields. My children who have played college sports on state-of-the-art natural fields still prefer artificial field turf fields for their consistency of surface. The difference between the two surfaces at the at the high school and youth level is enormous. Without incredible expenditures of both money and volunteer time, both of which are becoming nonexistent, the natural fields can not be maintained for the amount of use they will be needed for future play.

The only possible negative that has not been totally discounted in your report is that of heat on the surface. I watch games up and down the east coast during the summer months. The athletes prefer to still play on the new artificial turf field versus playing on the concrete hard natural surface when these extreme conditions exist. If heat conditions are thought to be a safety issue the games should be moved to a cooler surface by the authorities in charge. These minimal times of rescheduling during summer months will be far offset by the many times games need to be rescheduled by in conditions throughout the whole year.

Thanks for all of your work.

Sincerely,

William Schell
16114 Drayton Farm Dr.
Spencerville, MD 20868
301-367-5504
Just to set the record straight...it seems that the people that speak out against artificial turf fields, even though they have some sort of title to their name, i.e. Kathleen Michaels a so called neuroscientist, seems she wants her 15 seconds of fame. Ground up tires have been used for a number of years in recreational facilities. Her ridiculous statement of, "Almost everything in tires that is good for tires is bad for children". Well, to set her straight, the kids are NOT going to be eating the pellets or anything like that. It is the most ridiculous statement anyone could say. I can't believe the Gazette even put it in the paper. It makes the woman and the Gazette look more idiotic than they already are. Artificial Turf has been used a number of years in MANY facilities. It seems that Montgomery County Maryland is acting as it's typical self and following what some are saying in California.

I could go on but I am so sick and tired of being part of Montgomery County and Maryland as a whole. Especially when people in this county open their mouths and they absolutely show how foolish they really are by "removing ALL doubt".

Get with the program and put in the artificial turf. It will save money, increase the usage and raise more money, reduce injuries and will keep up with the counties that have been using them for years. I bet the folks in Howard County are laughing their butts off right now and saying, well there goes those idiots in MOCO again, trying to make themselves look smarter than everyone else.

P.s. the way, most athletes know to wash after playing a sport, they throw their uniforms in the laundry to be cleaned, know to hydrate themselves, so what's the problem here? Unless they are soccer players or something like that, then I would wonder.
To whom it may concern:

I would like to express my concern regarding the proposed installation of artificial turf fields on Montgomery County properties.

The installation of artificial turf on MCPS fields is of particular concern to me. MCPS must consider the health risks posed by artificial turf installations. The artificial turf report cites recordation of significantly higher ambient and surface temperatures on artificial turf fields as compared to natural grass fields. Studies have reported surface conditions of nearly 90 degrees hotter on artificial turf fields on under 100 degree days. This not only poses significant health risks to athletes and coaching staff, but raises additional concerns due to the fact that most of these athletes would be children. Further, the elevated temperatures associated with artificial turf fields are thought to contribute to the heat island effect.

Additional claims associated with the potential for revenue generation from artificial turf fields appear to be based on undocumented assumptions of reservation demand. Further, many field cancellations would still result due to inclement weather or the presence of lightning. The much higher installation costs of artificial turf are not justified by the claims of greater usability.

Sincerely,
Lori Goodwin
301-260-1933
Please take in to consideration the attached and thank you for your attention to this matter.

Angela Jones
NAACP PC Executive Board
GMS and GHS

http://us.mg5.mail.yahoo.com/neo/launch?.rand=2sh159dte7mh4

5/17/2011
As a member of the Gaithersburg High School community, I am strongly in favor of a turf field for our new stadium field.

The installation of a turf stadium field at Gaithersburg High School will bring great benefits to our students, our school and our community. We will no longer have to send students off campus to practice. A turf field will provide a safe playing environment for athletes and our PE classes. And a turf field will reduce the number of weather cancellations and make-up contests. These are just a few of the benefits a turf field will bring to Gaithersburg.

Angela Jones
Parent
My name is Carol Ellis and I am the pompon team sponsor for Seneca Valley High School. I know that the pom team does not play a game on the Football/Baseball/Soccer fields but we do perform on the football field at pregame and during half-time of the home football games. In the past we have had to do last minute changes to our already practiced routines because as a coach, I felt that their safety was in jeopardy due to mud and puddles of water on the field. Leaps, kicks, turns, and line formation can not be performed on a muddy and water filled field.

Also, when we mark the field for performances, which means, that we physically go out on the field before a football game night and practice the routine and line formations, we have to be very careful not to step on the freshly painted yard lines. This means that we spend most of the practice time stepping over and around freshly painted areas and not being about to utilize the time that has been given to us to do a full run through of our routine.

One more important point is the freshly seeded football field that can not be used by any sports team during the 2-a-day practice week in August which includes the pom team.

My girls take this sport very seriously and would like to perform to their full ability but can not due to the grass field as opposed to turf.

Thank you for listening to my concerns and taking this into the consideration when deciding to give Seneca Valley and other schools the Turf Field advantage.

Carol Ellis
Pompon Sponsor
Seneca Valley High School
Ladies and Gentleman,

As a first year coach I was expecting to learn some things and go through some growing pains. However, one thing I was not expecting was spending 3+ hours removing puddles from the game field to make the field playable. For this reason and because our field is a serious “eye sore,” which I’ve heard countless community members criticize; I would like to see the field replaced by turf. A turf field would more accurately portray the message that JFK High School is a school which expects excellence, and is deserving of the respect and support of its staff, students, parents, and community members.

Michael Joshua
JV Lacrosse Coach
JFK HS
I have coached youth football for six years. We play many of our games in Howard County on artificial turf fields. The turf fields provide a wonderful playing experience, reduce cancellations, and are much safer than most of the natural grass fields (including high school fields) that we play on. Please do not delay in approving artificial turf fields for all Montgomery County High Schools.

Sincerely,

Jim Creegan

Damascus, MD
Hello Review Board & Personnel;

We need to move forward with adding artificial turf fields in the county. I have lived here all of my 48 years. I have coached my kids in various outdoor sports over the last 14 years. I have attended numerous school sporting events over the last 20+ years. I think I have a better than average perspective on the problem we have with our current grass fields.

Strictly from a safety standpoint, they are a nightmare. From fields with more rocks than blades of grass, to fields with patches of grass/weeds with surface gyrations of 1-3 inches, to outright gullies and ravines from poor/no draining, it is a huge risk. Many or our fields are the equivalent of playing on an indoor basket ball court with splintered and/or warped pieces of flooring. Yes, it is that bad.

While the concern over rug/carpet burns is warranted, it pales in comparison to falling on a 3+ inch embedded rock, or twisting a knee or ankle on a rut.

Montgomery County seems to have an endless interest and ability to accommodate countless needs of programs for special interest and "needy" sub-groups, so how about putting some of these good intentions towards a group of students and residents who continually represent the county in one of the most effective manners possible?

Please do not let this effort get buried in the typical political buffoonery. The numbers work, the need is there; Lets get it done.

If you want to see some specific examples of ridiculously poor fields, just let me know.

Regards;

Nicholas Abid
1408 Aintree Drive, Rockville, MD 20850
To whom it may concern:

I would like to express my concern regarding the proposed installation of artificial turf fields on Montgomery County properties.

The installation of artificial turf on MCPS fields is of particular concern to me. MCPS must consider the health risks posed by artificial turf installations. The artificial turf report cites recordation of significantly higher ambient and surface temperatures on artificial turf fields as compared to natural grass fields. Studies have reported surface conditions of nearly 90 degrees hotter on artificial turf fields on under 100 degree days. This not only poses significant health risks to athletes and coaching staff, but raises additional concerns due to the fact that most of these athletes would be children. Further, the elevated temperatures associated with artificial turf fields are thought to contribute to the heat island effect.

Additional claims associated with the potential for revenue generation from artificial turf fields appear to be based on undocumented assumptions of reservation demand. Further, many field cancellations would still result due to inclement weather or the presence of lightning. The much higher installation costs of artificial turf are not justified by the claims of greater usability.

Sincerely,
Lori Goodwin
301-260-1933
Subject: Artificial Turf
From: Ben Hines (ben.c.hines@gmail.com)
To: Turf ReportResponse@yahoo.com;
Date: Tue, 17 May 2011 13:14:06

To Whom it May Concern,

As someone who has both played and coached on artificial turf, I can say I would definitively support putting it at every single school in the state of Maryland. I played club lacrosse on artificial turf for four years at the University of Maryland and never gave a thought to the temperature difference on the turf. Also we were able to practice every day rain or shine which was a huge factor considering our season started in February. We had been practicing outside for several weeks by the time of our first game whereas our opponents had a few days of practice outside due to poor grass field conditions. Now as a coach at Richard Montgomery High School there isn't a day that went by during the season that I didn't appreciate our turf. I talked with other coaches throughout the county during the season who would regularly miss practice time because of poor field conditions sometimes due to rain from several days before. Coaches and players from other teams as well as referees remarked to me during the season how much they looked forward to and enjoyed playing on our field. The other main component I have enjoyed as a coach is the lack of maintenance, I never had to paint a field or cut the grass the entire season, which translates to a substantial amount of hours saved. The field never got torn up and turned in to a dust cloud, like many grass fields do as the season goes. Another factor is safety. With the turf we never had to worry about twisted ankles due to bumps and uneven grass. Especially considering that turf fields are cheaper in the long run I hope there will be one at every school in the near future.

Thank you for your time,
Ben Hines
I have 3 children who have all suffered sports injuries because of the field conditions in Montgomery county. They range in seriousness from a torn ACL to sprained ankle. Any help keeping our kids healthy would be appreciated.

JAckie McGuigan
Attached is a piece of correspondence received by the Council that raises an issue that we should address in our Final Report.

Keith Levchenko

Senior Legislative Analyst
Montgomery County Council Staff
100 Maryland Avenue, 5th Floor
Rockville, MD 20850
(work) 240-777-7944
(fax) 240-777-7888
keith.levchenko@montgomerycountymd.gov

Please consider the environment before printing this email.
-----Original Message-----
From: alaina dahlin [mailto:alainadahlin@gmail.com] On Behalf Of alaina dahlin
Sent: Friday, May 13, 2011 9:23 PM
To: Ervin's Office, Councilmember; Berliner's Office, Councilmember; Andrews's Office, Councilmember; Elrich's Office, Councilmember; Floreen's Office, Councilmember; councilmember.levanthal@montgomerycounty.gov; Navarro's Office, Councilmember; Rice's Office, Councilmember; Riener's Office, Councilmember; letters@gazette.net
Subject: UTTER OUTRAGE

Below is an email I sent out today to school superintendents. I discussed the email this afternoon directly with Adrian Talley, our local superintendent. He stated that the budget covering the astro turf is separate from the budget that covers staffing. My response to that is .... it is all county money. Who allocates that money to the separate budgets? I'm guessing you the council members have a lot to do with those decisions.

Again, it is a sad day for Montgomery County when astro turf comes before teachers and county police. How have things become so bad here?

In a dire budget situation, you the council need to prioritize your spending. You will be hearing from the public on this.

The email read:

There is a boil beginning to happen in Damascus (the forgotten part of Montgomery County) over the proposed cutting of a teacher from Damascus Elementary in the 2011-2012 school year. The public and parents are outraged about this decision.

Damascus Elementary receives pitifully few resources from MCPS. Our 75 year old facility is in severe need of many updates - if not a complete overhaul. We have the absolute minimum in our building as far as technology is concerned.

The one resource MCPS provides Damascus Elementary on a yearly basis is our teachers. These professional, well-trained, supportive teachers have given Montgomery County high MSA scores on a consistent basis, despite the fact that they teach with very little support from MCPS.

Montgomery County has sunk to a new low. Teachers are being cut from the classroom, yet, MCPS is working to install artificial turf in all the county high school fields because it would be "disappointing if we couldn't give our kids the best," (a quote from May 11, 2011 Gazette, page A5). Truly a sad state of affairs. How can this be happening in what is supposed to be one of the best places in the United States for education?

County superintendents have not heard the end of this.

Alaina Dahlin
Extremely Concerned Parent
Subject: Turf fields
From: Nori, Timothy J (Timothy_J_Nori@mcpsmd.org)
To: Turf ReportResponse@yahoo.com;
Date: Thu, 19 May 2011 21:25:02

To Whom It May Concern,

I am a coach for two different schools one has a turf field and one does not. I believe that turf fields are a great thing because of the maintenance it takes the coaches to prepare a field for a game when it is grass is very time consuming. Most colleges also play on turf which our student athletes are having to adjust their playing style late in their playing career which can be tough situation for our student athletes. This also gives a leg up to other student athletes from other areas with turf fields. Finally, I strongly encourage the turf fields because they will allow games for all sports that normally get rained out to be played. Thank You, and vote yes on turf fields.

Timothy J. Nori
General Para-Educator
Assistant Football Coach
Walter Johnson High School
Head JV Baseball Coach
Churchill High School
240-286-4269- cell
To Whom It May Concern.

After reading the reports, I support having turf fields at high schools.

~Zina Saunders
Subject: In Support of Turf Fields
From: Nesmith, Michael W (Michael_W_Nesmith@mcpsmd.org)
To: Turf ReportResponse@yahoo.com;
Date: Fri, 20 May 2011 09:03:54

To Whom It May Concern:

I am the head varsity football coach at Paint Branch H.S. in Burtonsville, MD. Currently the new building is under construction and once the new school is completed we are scheduled to get a field turf athletic field. I must say that myself, my coaching staff, and entire team are thrilled about this. Playing last year using Blair as our home stadium was difficult. It's tough to travel all ten games out of a season... but that being said, playing six games on a beautiful turf field really helped to ease the pain. The surface is so nice and really helps to alleviate so many of the problems normally associated with grass fields. The playing surface was ALWAYS optimum. I never had to inspect the entire field for lumps or dangerous divots... rocks or anything of that nature.

There has been a lot of talk about the temperature on the field being too high... but I've never had a single player complain about the heat on the turf field... not while we're @ camp @ Frostburg in late-July/early-August... not while we were scrimmaging Arundel on their field turf field... nor while we were playing any of our games this past regular season. The effects of the increased heat on the field have been dramatically overstated. The field itself may be warmer than a grass field, but the playing conditions in which the players are competing isn't.

I'm actually surprised that there is even much debate about this... The coaches @ Blair, Arundel, Walter Johnson, and Richard Montgomery all LOVE their fields!

One on the arguments presented by the opposition group was that you could make grass fields that were just as nice as the field turf fields... and that the problem was that most of the grass fields were not laid down properly. Well, that's all well and good, but... who is going to go back and redo all of these fields in the manner they were suggesting? How much money would THAT cost?! And then... who is going to MAINTAIN these fields to the standards of the field turf fields? Who? There is so much work and maintenance involved in maintaining quality grass fields and we simply don't have the personnel or expertise... or TIME to do so ourselves as coaches. With the field turf, you lay down that ideal surface and that's it! You have a great surface that gives you more space to practice... many outdoor teams can practice on the field... on rain days now sports will still be able to utilize that field without worry of ruining the field... A.D.'s aren't forced to schedule several different sports for indoor gym time, etc., etc.

I really hope that nothing is done to prevent Paint Branch H.S. from getting a turf field. It's positives far outweigh any negatives...

Michael W. Nesmith
ISI Coordinator
Head Varsity Football Coach
Paint Branch High School
W - (301) 989-5628
I am a teacher and a coach at Paint Branch High School and I am writing on behalf of our school about our hopes of getting a new turf field for our high school. I have seen other schools receive new turf fields after renovation and I am greatly disappointed that we are not getting the same treatment. Are we less than our counterparts up county? Give us the turf field that we deserve and treat us with dignity and class as equal partners in the educational and athletic forum.

Richard Smith
Paint Branch High School
Social Studies
Coach - Football & Wrestling
301-989-5636
Subject: Turf for Paint Branch Stadium
From: Sanders, Gwynethe L (Gwynethe_L_Sanders@mcpsmd.org)
To: Turf ReportResponse@yahoo.com;
Date: Fri, 20 May 2011 09:22:41

As a former coach, Physical Education teacher, long-time walker, member of the community, I want to go on record as in favor of artificial turf for the new stadium at Paint Branch. The hours county employees have been paid and the free volunteer hours parents and players have given to keep a field playable is a $$ waste. Artificial turf is a safer playing surface as rocks don't get hit instead of balls and balls don't hit obstacles and uneven surface and deflect dangerously.

PRO ARTIFICIAL TURF FOR PAINT BRANCH HS
Turf Fields are safe. They are used on every level of sports. The NFL, NCAA Divisions 1-3, High Schools. We want our turf field! It will be used by all of our outdoor sports. The benefits are many. We at Paint Branch SUPPORT TURF FIELDS!
Subject: Turf field is safer for our players!!!!
From: Hill, Patricia A. (Patricia_A_Hill@mcpsm.org)
To: Turf ReportResponse@yahoo.com;
Cc: Heather_A_Podosek@mcpsm.org;
Date: Fri, 20 May 2011 09:41:37

Patricia A. Hill, Registrar
Paint Branch High School
14121 Old Columbia Pike
Burtonsville, MD 20866
301-989-5645
301-989-6095 fax
To Whom It May Concern;

I am writing to support having turf installed at my school. I see it as a necessary investment and have heard the many benefits to players. Paint Branch H.S. continues to grow and will be a definite icon in Burtonsville. We need to show our panther pride and shine to our community as well as our kids deserving it!

Thank you,

Jenni King
Media Asst.
Paint Branch H.S.
301-989-5620
All levels of sports are playing on Turf. Economically in the long term it will save the county money. Turf is definitely the way to go.

Thank you
I support the turf

Stephanie C. Crews, Venue Coordinator

Seamon Integrated Solutions
Subject: Turf for Paint Branch
From: Newell, Beatrice R. (Beatrice_R_Newell@mcpsmd.org)
To: Turf ReportResponse@yahoo.com;
Date: Fri, 20 May 2011 10:15:42

I believe that current fears and health concerns are unfounded and that we should stick to the original plan with turf for Paint Branch HS.

Beatrice R. Newell
Relocation Coordinator
Counselor Grade 12
Paint Branch High School
14121 Old Columbia Pike
Burtonsville, MD 20866
301-989-5681 (Office)
301-989-6095 (Fax)
Dear Folks,

Please count me as IN FAVOR of having a Turf Field for Paint Branch's new stadium?

Thank you,
Faye Johnson
Teacher
The benefits of a turf field far outweigh the concerns. A new turf field at Paint Branch will maximize usability for the school and the community.
My vote is yes for turf fields at Paint Branch High School and at school across Montgomery County. I believe in the benefits of turf over grass.

Amanda Martins
Substitute Teacher
LV Softball Coach-Paint Branch HS
240-234-0443
Hi- I would like to see the new fields at Paint Branch HS use turf. From what I have seen, used, experienced at other schools with turf fields, they are more attractive, durable, versatile and modern than traditional grass fields.

Thanks,

David
I support the installation of artificial turf at Paint Branch.

Sincerely,
Debra Adkins
AP English Literature Reader
English Teacher
Paint Branch High School
Subject: Statement of Support
From: Ray King (rxking@bop.gov)
To: Daniel_Feher@mcpsmd.org; TurfReportResponse@yahoo.com;
Date: Fri, 20 May 2011 11:26:40

Dan:

Please forward this support statement to Ms. Podosek.

A statement in support of Paint Branch High School's use of a turf field:

Artificial grass and synthetic turf systems were designed to replicate natural grass and prevent injury, focusing mainly on player safety. All the materials used in a turf field have always been safe. Safe for humans and safe for the environment.

Consequently, based on a growing need to replicate real grass throughout the world of sports, the concept of a turf field emerged with an engineered product geared toward high performance and safety in soccer, lacrosse, football, baseball, rugby and field hockey. Municipalities, private facilities, and government departments joined sports teams all over the world in the turf field movement.

Moreover, artificial grass and synthetic turf systems, like most winning combinations in sport, are fundamentally different from all others. A turf field replicates a natural grass surface, but also offers the durability and cost benefits of synthetic fields. In should also be noted that turf fields do not rely on an underlying shock pad for resilience and player comfort.

Finally, The environmental and cost savings on water usage, maintenance, carbon emissions, and chemicals, has made a turf field the smart choice for all Paint Branch HS.

Ray King

Paint Branch Parent
I am in 100% full support for Paint Branch High School to get a turf field upon completion of the construction of the new school and athletic fields. This will benefit both the school and the community at large and allow the New Paint Branch High School to be a beacon of 21st century technology and the safety of our student athletes.

Thank you.

Marc Kell
Mathematics Teacher
Paint Branch High School
301-989-5622
Subject: Pro Turf Field!
From: Jensen, Casey R (Casey_R_Jensen@mcpsmd.org)
To: TurfReportResponse@yahoo.com;
Cc: Heather_A_Podosek@mcpsmd.org;
Date: Fri, 20 May 2011 11:43:33

My name is Casey Jensen, I am a Teacher and a High School Baseball Coach. I have lived in Burtonsville all of my life (33), and I am a graduate of Paint Branch High School (95). I am also a Strength and Conditioning Coach for Football/Baseball....with that said....

I feel that PB needs a turf field as do all the High Schools in this area. As far as the risks out weighing the benefits...not the case. The benefits of having a turf field are undeniable. Unless you have coached a sport that requires the cooperation of the weather, I don't think you have much to say. We would love to have a turf field, this would help with having more consistent playing opportunities and less damage or maintenance to have to worry about later. I can't believe that a few PARENTS are the one's who are complaining about their kids having to use such an unsafe field (worried about bacteria, TAKE A SHOWER AFTER YOU PLAY, I DID GROWING UP).....if it was so unsafe than why do most of the Private Schools in the area have turf fields...yet, another way to give the private schools the advantage of playing on nicer surfaces and again giving them an advantage over us.

I believe that everyone who is against this should have to go out and mow the grass of the football field for one complete season, plust PAINT the LINES too and see how they like it.

For those who are against the TURF FIELD, we will fight this to the end. REMEMBER COACHES are very COMPETITIVE, give our kids the best facilities and opportunities that we didn't have! People need to wake up, seriously.

Casey Jensen
Paint Branch High School
JV Baseball Coach
High School Football
Strength Coach
As a PE teacher, I fully support the installation of a turf field at Paint Branch's new facilities for safety, cleanliness, and durability for both Physical Education and the athletic program here at PB.

Thank you
Subject: Statement of Support
From: Ray King (rxking@bop.gov)
To: Daniel_Feher@mcpsmd.org; TurfReportResponse@yahoo.com;
Date: Fri, 20 May 2011 11:56:03

Dan:

Please forward this support statement to Ms. Podosek.

A statement in support of Paint Branch High School's use of a turf field:

Artificial grass and synthetic turf systems were designed to replicate natural grass and prevent injury, focusing mainly on player safety. All the materials used in a turf field have always been safe. Safe for humans and safe for the environment.

Consequently, based on a growing need to replicate real grass throughout the world of sports, the concept of a turf field emerged with an engineered product geared toward high performance and safety in soccer, lacrosse, football, baseball, rugby and field hockey. Municipalities, private facilities, and government departments joined sports teams all over the world in the turf field movement.

Moreover, artificial grass and synthetic turf systems, like most winning combinations in sport, are fundamentally different from all others. A turf field replicates a natural grass surface, but also offers the durability and cost benefits of synthetic fields. It should also be noted that turf fields do not rely on an underlying shock pad for resilience and player comfort.

Finally, the environmental and cost savings on water usage, maintenance, carbon emissions, and chemicals, has made a turf field the smart choice for all Paint Branch High School sports.

Ray King

Paint Branch Parent
To whom it may concern,

I am a staff member of Paint Branch High School and attend most of their sports. Being knowledgeable on the sports I do attend, I believe that an artificial turf would be beneficial to Paint Branch. As our school is being rebuilt, it only stands to reason to complete it all the way. It doesn’t make sense in doing the job half-way. Mostly I support this cause for the safety of the students who partake in these sports. Playing football in the mud can be hazardous, so why chance injuries? It is to the benefit of the county and the community to do this job right and install turf.

Respectfully,

Donna Simonds
Special Education Para Educator
Paint Branch High School
11111 Old Columbia Pike
Silver Spring, MD 20901
(301) 888-1234
Subject: Yes for Turf
From: Street, Caitlin (Caitlin_Street@mcpsmd.org)
To: TurfReportResponse@yahoo.com;
Date: Fri, 20 May 2011 12:53:40

I am in favor for turf at Paint Branch High School. It will be extremely beneficial to the athletes, especially those who plan on playing sports in college.

It usually takes around a year to adjust to turf from grass.

Thank you,

Ms. Caitlin Street
Paint Branch High School
AP Psychology & US History
301-989-5636
I am writing in support of installing an artificial turf field at Paint Branch High School. Installing a turf field is a great way for MCPS to continue reducing their carbon footprint and to prevent serious injuries for the players!

On an average-sized sports field, turf fields can save millions of gallons of water per year. Artificial turf fields are 100% lead free and 100% recyclable. What better way than for MCPS to continue their efforts in going GREEN! The Artificial turf fields are also the safest turf for our student athletics to play on, reducing injuries such as, concussions, ACL trauma, joint injuries, and muscle tears, to name a few.

If artificial turf fields are considered to be the best turfs and are currently used in stadiums and arenas for professional sporting events, then it should also be considered as the best turf for our student athletes. Installing an artificial turf field is great for our environment and great for our athletes! Please consider installing artificial turf at Paint Branch High School.

Thank you.
I support the request for artificial turf at the new Paint Branch athletic fields for various reasons. The most relevant at this moment is the cost factor over the life of the turf. It will be easier to maintain, less likely to cause delays of various seasons, and in the long run will cost considerably less in upkeep, labor, and refurbishing.

E. S. Davis
Spanish Teacher, EFR, Building Representative
Paint Branch High School
14121 Old Columbia Pike
Burtonsville, MD 20866
301-989-5614 9:15 to 10:30
I support Turf

Cynthia Fletcher, Office Manager

cfletcher@seamoncorporation.com  seamoncorporation.com

Seamon Integrated Solutions.
I am writing to support the installation of a synthetic turf field at Paint Branch High School and at all future renovation sites. These fields offer improved safety and consistent surfaces and improve the quality of performance while reducing the risk of injury. I believe it would greatly benefit the community at Paint Branch by allowing more groups to use the field outside of school teams, and there is a need in the area. The community supports it, and so do I.

Dan Feher
To Whom It May Concern:

I am in support of a Turf Field at Paint Branch High School.

Thank you,

Lori W.
To Whom It May Concern,

I would like to add to the discussion and voice my opinion on this debate. I am in total support for artificial turf at Paint Branch and MCPS. I live in Woodmoor, across from Blair High School. I have been to games there and find their field far superior to what Paint Branch had - grass turf. I was extremely happy when I understood that MCPS was installing artificial turf in all new renovations. I could not agree more.

Paint Branch's field over the years had developed ruts, become hard as a rock due to lack of rain or water, become barren of grass from overuse - in short, a lousy playing field for our athletes. They deserve better and now we have the opportunity to provide it. As a teacher at the school, a taxpayer in the county, I whole heartily support artificial turf - and hope you will also. Please feel free to call me if you have any questions at 301-593-7766.

Thank you,

Brian E. Eichenlaub
To whom it may concern;

After reading the April report composed by the various branches of the Montgomery County government, I felt I must e-mail to strongly encourage putting turf at the new fields in Paint Branch HS. It seems like a no-brainer. Let's not be 'pennywise and pound foolish' especially where the children are concerned.

Dave Koplow

Account Executive

Benjamin Office Supply & Services

direct line (240) 314-1305

http://us.mg5.mail.yahoo.com/neo/launch?rand=fr4gi9h5uf4k7
Subject: Turf Field for PB
From: Leffler, Pam S (Pam_S_Leffler@mcpsmd.org)
To: TurfReportResponse@yahoo.com;
Date: Fri, 20 May 2011 14:45:44

I am a teacher at Paint Branch and would like to advocate for a turf field on our new football stadium.

Thank you.

Pam Leffler
I believe that a turf field is a much safer and more cost effective approach to a field. It allows more games to be played with less maintenance, while keeping injuries due to slipping in the mud or grass to a minimum. It is my opinion that this is the best option at Paint Branch High School and should be installed.

Thank You
Nate Wiles
Paint Branch Special Ed. Department
Varsity Softball Coach
Subject: TURF FIELD!!!!!!!
From: Marshall, Debra (NIH/NEI) [E] (MarshallD@NEI.NIH.GOV)
To: Turf ReportResponse@yahoo.com;
Cc: Heather A_Podorek@mcpsmd.org;
Date: Fri, 20 May 2011 15:17:38

TURF FIELDS FOR MONTGOMERY COUNTY SCHOOLS!!!!

This would be a great way to save the county money. School budgets across Montgomery County are being cut in so many ways. Look at all of the money that would be saved if TURF FIELDS were used.

There would be significant savings in the maintenance of the fields. There would be less time and effort by school staff and parent volunteers in the upkeep.

There was so much rain this Spring, look how many softball games, lacrosse games etc, that had to be postponed. If there were TURF FIELDS the games could have been played (of course, not if there was thunder, lightning, etc.).

The turf fields last much longer than the natural grass ones do.

These are just a few of the reasons our schools should have TURF FIELDS!!!!
As a former teacher at Paint Branch HS for more than 25 years and as a member of the community, I hope that MCPS and the County will provide the artificial turf field that is so needed.

Sue Schwartz
12525 Eastbourne Drive
Silver Spring, MD
301-622-2099 (H)

An eye for an eye makes the whole world blind--Ghandi
Subject: Turf field
From: Lacey Walker (w.laycee@gmail.com)
To: Turf ReportResponse@yahoo.com;
Date: Fri, 20 May 2011 16:26:18

I am for turf fields
--Lacey Walker
As parents we do fully support construction of the turf field at Paint Branch.
Subject: Re: turf field for Paint Branch High School
From: Gail Wides (gailwides@gmail.com)
To: Turf ReportResponse@yahoo.com;
Date: Sat, 21 May 2011 21:20:44

To Whom it May Concern:

Please give Paint Branch a turf field. The community supports this project.

Thank you,

Gail Wides
Dear Turf Report Response:

Paint Branch High School needs artificial turf for our athletic and miscellaneous school events. See below in article from the Turf Wars.

The article also compared grass versus artificial turf costs. An initial $300,000 cost of grass turf with only 50 events per year times ten years gave a $1,100.00 cost per use.

On the other hand, an initial $975,000 cost of artificial turf with 150 events per year times ten years gave a $683 cost per use.

..."according to a number of national studies on athletic injuries there is no significant difference in the number of major injuries reported while participating on grass or artificial turf fields. A study by the NFL concluded that there were slightly fewer serious injuries on artificial turf compared to natural grass, though synthetic fields reported more minor injuries. (Serious injury is one causing a player to miss one or two games).

...primary consideration when comparing artificial vs. natural is the amount and type of usage the field/facility is proposed to have. Synthetic turf fields provide a stadium with a surface that can be used with unlimited frequency for various sports (football, baseball, soccer, lacrosse, etc.) plus miscellaneous events (band competitions, concerts, drill teams, intramurals, etc.) Even with frequent usage and inclement weather, synthetic fields remain consistent for major events.

In order to maintain natural grass surfaces in good condition, it is recommended that there use is limited to 10-15 football games per year, or one other sporting function per week. And, a game played on a natural grass surface in inclement weather, rainy weather can damage the turf for an extensive period, or require additional expense to speed up the restoration process."

Source: Turf Wars article by Dave Parker

Ronnie Jeffries
Assistant JV Football Coach 2010
PB40 1969 -1970 Football Teams
Subject: Turf
From: OMNI CREDIT MANAGEMENT, INC. (ocmi@smart.net)
To: Turf ReportResponse@yahoo.com;
Date: Sun, 22 May 2011 18:45:07

As a former football coach at PBHS, I moved to Howard County 6 years ago and coached on several artificial turfs in Howard County. I found them to be much safer and maintenance free. I definitely recommend this for the future.

Sincerely,

Bob Fetner
410-489-2414
We need the turf field at Paint branch high school. We need a new start to make our way to the top.
Sincerely,
A three-sport student-athlete
Molly Fers
All athletes at Paint Branch High School whether fall, winter, or spring sports NEED turf.....Being an athlete and personally participated in all seasons of sports....it would be nice to have something to be PROUD of and make me wanna do better on the field.'Cause that what the turf means to us athletes it's like when you play on a good field you feel better, stronger, and happy/pround to say this field is yours....rather than worrying about is that hole in the ground to dangerous to play in or why is the grass so uneven or too high or too short. Or jus placing our bets with mother nature to see if the fields to muddy to play or if it rains are we gonna SLIP and hurt ourselves...life as an athlete would be a lot easier and better with turf.

Sent from my iPod
~Dymoni Cook