

Public Comment for Alexandria Planning Commission Regular Monthly Meeting

TO: Alexandria City Officials

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Re: Installation of Lights and Artificial Turf at George Washington Middle School

I. INTRODUCTION

The Alexandria Department of Recreation, Parks & Cultural Activities (RPCA) is moving forward with permit requests for new lights on five athletic fields throughout the city of Alexandria. The RPCA is requesting permits for lights on Francis C Hammond Middle School, George Washington (GW) Middle School, Jefferson Houston Elementary School, Patrick Henry Elementary School and Recreation Center Simpson Stadium Park Athletic Field.

The new field lighting is part of the City Council’s “2022 Community Priority to Support Youth and Families”, which outlines goals of extending capacity for youth programs and providing more equitable access to facilities and services. City officials have previously said that it’s unlikely that all five fields will get lighting simultaneously and the two middle schools and Jefferson Houston are better positioned to get lighting sooner rather than later.

In addition, to the lighting of the field it appears that the Alexandria City Public School System (ACPS) is concurrently considering tearing up the current natural grass GW Middle School fields and the associated irrigation systems and replacing them with artificial turf. Public information of the turf replacement has been very limited. In fact, ACPS, has no information on the turf replacement in their website.

These two proposals (lighting and artificial turf) are seemingly being dual tracked by the City of Alexandria and ACPS, and it is unclear whether they are linked. This concurrent consideration of these projects has created confusion.

II. THE UNDERSIGNED INTEREST IN THE PROPOSAL

The as residents of Alexandria City we understand and support the City and ACPS’s desire to extending capacity for youth sports programs and providing more equitable access to

facilities and services we have concerns regarding the cost, environmental impacts and safety of the overall proposals to install lights and plastic turf around the GW athletic fields near E Glendale Ave.

The lighting proposal has the potential to drastically impact the quality of life of over 20 homes and two residential apartment buildings that abut the field on E Glendale Ave. Further, we believe that a thorough examination of these factors that is coordinated by the appropriate Alexandria City Departments and ACPS needs to be conducted prior to rushing through a decision. We believe this analysis will bear out that the proposal is not beneficial for the community and other options, namely the Lenny Harris Memorial Fields (LHMF) at Braddock Park is preferable. Below are some key points we think should be addressed and considered.

III. ENVIRONMENTAL AND HEALTH CONCERNS WITH ARTIFICIAL TURF

A. *Artificial Turf is Linked to Negative Environmental Impacts for the Surrounding Communities*

Many of the undersigned either utilized the fields themselves as athletes or have children who play on these fields, and we recognize the benefits and drawbacks of artificial turf. A simple internet search yields hundreds of results of communities at odds with the installation of turf fields. Some of these are cases are pre-construction, but many are post-construction and use. Communities across the country are recognizing the potential health impacts and are having buyer's remorse after the fact with turf fields.

To our knowledge it doesn't appear the city has done any unique analysis on the environmental or health impacts of the turf replacements. When this issue was raised with Alexandria City leadership, we were told by Mayor Justin Wilson that "*there are natural fill alternatives that we are exploring. Having had two kids play travel soccer for several years, I was never a big fan of the rubber fill that is used on most artificial turfs. We will consider alternatives when the time comes.*" The city should conduct an analysis before moving forward with turf replacements. The city should also consider the completed and on-going work of U.S. Environmental Protection Agency (EPA) as they are studying the safety of recycled tire crumbs on athletic fields.¹

The U.S EPA has also recently released a PFAS action plan which looks to regulate the chemicals that are known to be part of artificial turf fields synthetic grass blades.² This action plan includes various on-going studies on the safety of these chemicals, potential minimum exposure levels both in air and water for these chemicals as well as potentially listing these materials as a toxic substance. It seems irresponsible to move forward with these questions of health and safety remaining unanswered and would potentially open the city to liability.

In addition, to the concerns about the artificial turf itself, the undersigned also have concerns regarding potential storm water run-off associated the installation of artificial turf. Alexandria City is known for flooding issues, and it would be logical to believe that removal of

¹ See <https://www.epa.gov/chemical-research/federal-research-recycled-tire-crumbs-used-playing-fields>

² See <https://www.ewg.org/news-insights/news/new-studies-show-pfas-artificial-grass-blades-and-backing>

natural grass turf would diminish the ability for the land to absorb more water. We are concerned that artificial turf could lead to additional flooding. It is our understanding that Alexandria City hired Daniel Medina, Ph.D., P.E., last year as the Flood Action Alexandria Program Manager. We urge coordination with this individual and additional study on potential flood impacts associated with removal of the grass fields.

Concerns about the environmental and health impacts are not just an issue in the United States. In September of this year, the European Commission released its draft proposal to restrict the supply and sale of products containing intentionally added microplastics, delivering on a 2017 pledge.³ Such microplastics are part of most commercially available artificial turfs. The most commonly used type of rubber granulate in artificial turf is made from a synthetic polymer called Styrene Butadiene Rubber. As a result, the rubber fill used in artificial turf can contain small quantities of harmful chemicals and heavy metals that wash out into the environment over time. Studies show that zinc, in particular, leaches out from the granulate in sufficiently high concentrations to harm soil biota and aquatic life. Based on this, the residents of E Glendale Ave are concerned about the impacts to stormwater and drinking water. In addition, the installation of such fields seems to run counter to the Eco-City Clean Waterways initiative to manage the quality of our local streams.

Related to environmental concerns we are also worried about the increased ambient heat associated with artificial turf fields. Penn State University researchers have found that the surface temperatures of synthetic turf playing surfaces are significantly higher than natural turfgrass surfaces when exposed to sunlight. Specifically, they found that the surface temperatures of traditional synthetic turf were as much as 35-60 °C higher than natural turfgrass surface temperatures.⁴ These high temperatures also result in off-gassing of pungent heated chemicals that are part of the turf.

B. *Artificial Turf is Correlated to Increased Injury Risk for Athletes*

It has been clearly documented that the risk of injury is much higher on turf fields than grass. In fact, a study in the American Journal of Sports Medicine showed that, from 2012-18, players had a 28% higher rate of noncontact injuries on artificial turf vs. natural grass. The rate of noncontact knee injuries shot up to 32% higher on turf, while the rate of foot ankle/injuries surged to 69% — primarily “due to the synthetic turf’s lack of ability to release an athlete’s shoe.”⁵

In just the last two weeks, two star receivers in the National Football League, Cooper Kupp and DK Metcalf, and one of the longest tenured coaches in the league, Seattle’s Pete Carroll joined the growing call to prohibit turf fields due to injury concerns.⁶ Anyone who has played on artificial turf knows the risk of injury goes beyond knees and ankles, turf burn is almost to be expected playing on artificial turf. We believe the city should have a mix of field

³ See [Comitology Register \(europa.eu\)](https://comitology.europa.eu)

⁴ See <https://plantscience.psu.edu/research/centers/ssrc/research/infill/temperature-and-color>

⁵ See <https://journals.sagepub.com/doi/full/10.1177/0363546518808499>

⁶ See <https://www.cbssports.com/nfl/news/seahawks-coach-pete-carroll-nfl-needs-to-seriously-look-into-risks-of-playing-on-artificial-turf-fields/>

turf types and where possible, like the high-quality existing fields at GW, maintain the ability to play on natural grass.

IV. PROJECT COST AND CURRENT FIELD UTILIZATION

A. *The City and Alexandria Public School System Have Not Adequately Justified the Cost of Turf Replacement*

In addition to the lack of study on environmental and health impacts it appears that based on conversations with the Planning and Zoning Department and the RPCA, that more cost-efficient alternatives have not yet been studied. The city should conduct a full cost benefit assessment on the replacements including the impact on property values of the surrounding homes, the impacts on parking, increased traffic, and noise. Traffic on Glendale Avenue has already reached a point of concern particularly when school gets out. Adding multiple night activities on a street that was not designed to act as a major thoroughfare will create safety issues and further restrict already limited parking.

Further, replacing the GW field with artificial turf would require removal of the existing irrigation system underneath the turf. This seems like a poor use of taxpayer dollars. Adding turf and lights to a field that is not already irrigated would be a much more cost-effective way to add field capacity. To this end, as we discuss further below, improving lower quality fields such as LHMF would do more to achieve the City's goal of extending capacity for youth sports programs and not require tearing up an existing high-quality field and its irrigation system that is working perfectly fine.

B. *Based on Alexandria City's own Analysis Existing City Fields are currently Under Utilized.*

In addition to, the inaccuracies in the Special Use Permit (SUP) request (#2022-00043), we would like to highlight that the data in the 2021 Athletic Fields Report (AFR) does not support the need for additional synthetic fields or lights.⁷ According to Appendix C of the AFR, the city has 12 regulation size synthetic playing fields (counting Patrick Henry ES) and 8 of them have lights. Every single synthetic, lighted field was underutilized during the time period covered in the report. AFR states that the city should be able to program a synthetic field with lights for 2,100 playing hours a year. Except for the Witter Fields, no synthetic playing fields with lights reached even 1,600 hours, with average programmed hours coming in at 1,400 per field. ***Therefore, according to RPCA's own research, there are an average of 700 hours of unused playing time sitting on each of one of those fields - that's 5600 total unused hours on our existing synthetic fields with lights.***

Of the 12 over-programmed natural fields, identified in the AFR, eight are baseball diamonds. However, of the five locations for which RPCA has submitted SUPs to install lights - none are used for baseball. ***According to the AFR, all playing fields (synthetic and natural) in the city of Alexandria were used 56% of their total programmable hours.*** Also notable, ***according to RPCA, in 2022 no applications for field playing time have been***

⁷ See <https://media.alexandriava.gov/docs-archives/recreation/info/2021=rpca=athletic=field=report.pdf>

denied. This is with the fields at Minnie Howard already having been taken offline for construction.

Given the inaccuracies contained in the SUP and because the need for additional playing fields has not been demonstrated by the current body of research compiled by ACPS/the City; to move forward with this proposal would be poor management of our tax dollars. The AFR states on page 15 that “the city has enough fields to meet its needs,” but must focus on better programming the fields. We would ask that the RCPA do what it wrote in its own report - fully program those 5600 hours of playing time that are being wasted every year on our existing lighted synthetic fields, before investing additional taxpayer dollars into additional synthetic fields or lighting.

In addition, as we discuss further below, improving lower quality fields such as LHMF would do more to achieve the City’s goal of extending capacity for youth sports programs than tearing up an existing high-quality field and replacing it with artificial turf.

V. POOR COORDINATION AND CONSIDERATION OF PUBLIC INPUT

We are sure it is not intentional but the dual tracking of both the “lighting proposal” and the “turf proposal” with two differing bodies on seemingly the same time track is confusing and a bureaucratic nightmare for residents to navigate. It is tough to track which body is responsible for what and this leads to concerned citizens throwing up their hands and giving up. This was demonstrated by the dualling (but ultimately rescheduled) meetings of the planning commission and ACPS in early October. We ask that these groups better coordinate the “lighting” and “turf” proposals because to date it seems the process is meant to confuse and dissuade public input.

As detailed throughout this document, we have concerns about inaccuracies and omissions in the SUP request and lack of analysis on relevant environment and cost issues. Whether it is the assumptions made on the impacts of lighting or the lack of concern for the impacts on the surrounding neighborhood it seems like the only analysis being completed is focused on a predetermined desired outcome. We simply ask the city to take a honest look at the project and alternatives.

VI. NEGATIVE IMPACTS TO THE RESIDENTS OF SURROUNDING COMMUNITY

A. The Installation of Lights and Artificial Turf will create considerable light and Noise Pollution

The potential for light to impact the residents of E Glendale Ave is a very real and large concern for the neighboring residents. Regarding the light spillage issue the city’s own SUP request appears to acknowledge the issues of light spillage and flippantly dismiss the issue. The request states the following (penultimate paragraph of page 5):

Light spill beyond the school property up to 65 feet from the northern end of the field is possible, with the light limited to the sidewalk on the north side of E Glendale Avenue

(Graphic 1). However, there are existing street trees along the south side of E Glendale Avenue which will help to minimize the light spillage as the trees continue to mature.

We would note that the SUP text mistakenly refers to Graphic 1 instead of Graphic 2, illustrating the “Aerial Night Rendering” of the GWMS proposed lighting impacts. That said graphic 2 shows a 65 ft measurement at the north end of the field along E Glendale Ave. The surrounding neighborhood is darkened in Graphic 2, obscuring that the 65 ft marker falls within the front yard of the homes along E. Glendale Ave. Many of the residents of E Glendale have measured the distance from the field and it is approximately 50ft. This means that the light spillage will cover the front half of the over 20 rowhomes and two large residential rental buildings that abut the fields. These row homes feature a primary bedroom on the second floor overlooking the GW fields. These bedrooms look over the trees the SUP claims will block the light.

The SUP claims the existing trees will minimize the light spillage, but this is not accurate as the tree coverage is limited. We would also note the trees are not consistently placed leaving clear gaps and these trees lose their leaves and provide no protection from light in the winter. Additionally, these trees are small and have been planted under powerlines, requiring annual trimming. They will not block the light from the larger towers, even as they mature. The installed light fixtures will be 60 ft tall, meaning it will be more than a decade before the trees are remotely effective at minimizing light spillage on to E. Glendale Ave.

The SUP incorrectly claims that zero-foot candles of light would reach the properties on E Glendale Ave. On page 24 of the SUP, the rendering produced by Musco depicts light spillage at 150 feet from the edges of the field (blue line). The north side of the track receives between 10-14 foot candles of light (red line around the athletic field). The north side of E Glendale Ave will in fact receive 3-foot candles of light, (straight vertical black line) falling directly in the front yards of residents. Note that the foot candles on this rendering are taken at 30-foot increments. The red zeros are actual zero values and the black zeros are a fraction of a foot candle. **This level of light spillage is in direct violation of City Ordinance 13-1-3 which limits light trespass to .25 foot candles from any commercial or residential property onto the adjacent residential property.** According to the Illuminating Engineering Society, 3-foot candles of light is sufficient to light an outdoor parking lot or an auditorium.

Page 27 depicts total candelas of light at 150 feet from the edges of the field. Candela is used to measure glare or light shining in your face. The rendering on this page shows 845 candelas shining 150 feet over the north edge of the field. That means the houses on E. Glendale Ave should receive about 845 candelas of light (This is the only figure that is my own calculation). One candela is equal to about the light from one candle. Imagine sleeping with 845 lit candles outside your window. Put simply the SUP's assumptions on light spillage are flawed or purposely downplaying the findings to justify the project. Mayor Wilson seemed to indicate that this analysis will be updated, and we hope that it reflects the reality of the potential light pollution.

We ask that the city push pause and more closely examine the actual need for lights and plastic turf at the E Glendale location and the environmental hazards and health risks to children

of plastic turf. As member of our community, I want the children and youth to have ample safe places to play sports but feel the city is rushing important decisions that impact many constituents.

B. The Installation of Lights and Artificial Turf will Negatively Impacts Home Values

There are over 20 rowhomes and two large residential apartment buildings on E. Glendale Ave that abut the proposed location. We believe installation of the turf field and lighting would potentially adversely impact property values. We ask the city to consider the impact of property values when choosing a location for turfed and lighted fields. Specifically, the city should seek to minimize the number of private residents impacted. To this end upgrading the run-down LHMF fields at the corner of Braddock and Mt. Vernon Avenue would only impact 7 row homes and businesses which would not be negatively impacted. In fact, the businesses would like welcome increased traffic. We are aware other locations were considered but we urge you to reconsider the E. Glendale proposal in light of these valid concerns.

C. The Increased Hours of Field Utilization will Exacerbate Already Serious Traffic and Parking Issues

As you are aware, with the development of Potomac yard area, E. Glendale Ave was chosen to be the connecting road with Main Line Boulevard. This has resulted in E. Glendale Ave being used as a popular cut through to reach Mount Vernon Avenue. The traffic volume on E. Glendale Ave has increased exponentially and road is further strained during times of sports activities and when school lets out. With only one exit from GW middle school to a one-way street and no traffic signal at the connecting point with Mount Vernon Ave, residents of E Glendale often experience a significant backup of cars. In addition, E Glendale is often used as surplus parking during field use. All these issues will only be worsened with increased utilization of the fields.

We also note that the LHMF's has the existing parking and traffic infrastructure – in the form of a traffic signal emptying on a two-way street – that GW middle lacks. We ask the city to consider this when determining the fate of the lights and turf at GW middle. Even without a traffic analysis it makes far more sense of a traffic management perspective to develop the LHMF than to continue to tax the traffic and parking situation on E. Glendale Ave.

VII. THE CITY SHOULD CONSIDER THE LENNY HARRIS MEMORIAL FIELDS (LHMF) AT BRADDOCK PARK AS A REASONABLE ALTERNATIVE

A. Revitalizing the LHMF Feilds Would Increase the Number and Quality of the City Fields

We welcome a dialogue on how best to increase the availability of playing fields in Alexandria City. That said we believe redeveloping an already high-quality field at GW while continuing to underutilize LHMF runs counter to that goal. The LHMF complex provide a unique oppportunity to double the capacity of useful fields on the GW complex. It is clear that the

quality of the GW fields is far superior to the quality of the LHMF. That said it would be logical to upgrade the LHMF fields to realize the most benefit, taking a bad field and making it good as opposed to taking an already good field and making it artificial turf. As previously mentioned, selecting LHMF site over GW middle would be more cost effective as you would not be tearing up a functioning irrigation system.

B. *The LHMF Location Would Impact Far Fewer Residents and Already Has the Existing Infrastructure in Place to Handle Increased Use*

We would also ask that if the City and ACPS were to move forward with lights and turf proposal on the GW complex, you consider upgrading the run-down fields at the corner of Braddock and Mt. Vernon Avenue as an alternative. This would expand the availability of quality fields available (two new fields could fit there easily) and impact far fewer residents since that area is largely lined with businesses. Specifically, there are over 20 rowhomes and two large residential apartment buildings on E Glendale Ave that abut the proposed GW fields location whereas upgrading the LHMF at the corner of Braddock and Mt. Vernon Avenue would only impact 7 row homes and businesses which would not be impacted and more than likely welcome the added traffic.

Further the LHMF location has existing infrastructure to handle increased use that GW currently does not. Specifically, the required infrastructure like stormwater drainage, ample parking, traffic signals regulating traffic into said parking and a two-way street. We encourage a discussion on how to fully leverage the Lenny Memorial Fields at Braddock Park, which were utilized at only 26% of their available hours and contain three baseball diamonds and one football field. We have already reached out to the local business community to obtain estimates on the cost of transforming those fields into the beautiful community athletic area that they should be.

VIII. CONCLUSION

To be clear the residents of E Glendale Ave love hearing the kids playing on the fields across the street from our homes. We just want the fields to be managed in a manner that is economically and environmentally conscious and protects our home values. To that end, we encourage more study on the impacts of artificial turf and lighting at the GW fields. We also urge the City and ACPS to consider alternate locations namely the Lenny Memorial Fields at Braddock Park. We welcome a dialogue on how to fully leverage the LHMFs, which were underutilized and contain ample space for activities (three baseball diamonds and one football field). We have already reached out to the local business community to obtain estimates on the cost of transforming those fields into the beautiful community athletic area that they should be. In addition to our concerns in this document we have include some potential questions for consideration in the appendix below.

Rob and Lauren Benedict

IX. APPENDIX: ADDITIONAL QUESTIONS TO CONSIDER GW MIDDLE SCHOOL AND SIMPSON FIELD

1. What is the reason to tear up a perfectly good field fully grassed and underutilized for plastic grass at GW (including has embedded sprinkler system?)
2. What makes GW and Simpson Field better candidates for improving field conditions than the Lenny Harris Memorial park fields bordered by Braddock and Mt. Vernon - they are in deplorable condition in comparison?
3. Plastic Grass fields are hot - 50 degrees hotter based on temperature readings taken throughout the summer at Jefferson Houston school. What temperatures are safe to play on - what heat level is unacceptable for children and adults?
4. When the infill gets hot it stinks - Jefferson Houston field smelled like a tire garage during the heat - what can be done about the smell?
5. Plastic fields emit fumes - what studies have been done to assess the safety of the fumes?
6. Plastic Grass and Infill are known to contain forever PFAS chemicals - what studies have been done to assess the safety to the users and the environment? Microplastics from shredded grass blades enter the environment and get airborne from shavings from abrasion.
7. The plastic fields are 10-year life spans - what will happen to the 40,000 pounds of plastic and 400,000 pounds of infill after the lifespan? Have any plastic grass fields in Alexandria been recycled and if so, how?
8. Real grass fields soak up water into the earth and help cool the planet by supporting plant life and avoiding water runoff - how do plastic grass fields align with eco-city Alexandria charters?
9. The fields at GW and Simpson are underutilized for the large part of the year - what is the case for demonstrating demand - how many games are cancelled due to weather?
10. What cost comparison has been done with replacing worn real grass fields with real grass turf sod - local vendors quote a cost of \$40K for complete 100% replacement of sod football/soccer fields - most worn repair spots are a fraction of a complete field.
11. What analysis has been done to compare the maintenance and repair lifecycle costs of artificial turf with grass fields? Many people believe plastic grass does not require maintenance.
12. What analysis has been done on the impact of lights on the the homes along the 500 block of E. Glendale - some of our neighbors on the street see spillage lighting the homes
13. What studies have been done regarding the safety of plastic grass? The NFL players association is complaining of injuries from playing on plastic grass fields.
14. What studies have been done to compare how children and adults interact with plastic grass vs. real grass - they city has over 10 plastic grass fields already - how important is it to have a variety of playing surfaces to replicate what our youth will experience in college or pro's or other competitions?
15. What options are available to cool plastic grass fields in the summer - we have heard that there are alternatives like coconut husk and wood chips - is there a commitment that if fields go in they will use natural products to cool the field and minimize impacts?
16. The crumb rubber fields disperse black pellets and go home with players and wash into the environment easily - what studies have been done to assess the impact of the spread of these pellets into the ecosystem and local streams and the Chesapeake Bay.

15,16,17,18,19

11-12-22

CouncilComment@alexandriava.gov

From: SG Lily <sglily@live.com>
Sent: Wednesday, November 09, 2022 7:13 AM
To: CouncilComment@alexandriava.gov
Cc: Brian Collins; KEARNEY Kay 504 Glendale ave; akhanna@erols.com; Will Cameron; Chip Michael Farley Glendale Apts Neighbor; Christy Payne; Cheryl Monno; Trudi Bick; Ethan Lucarelli; Victoria Correa; susan@ibex2solutions.com; carterflemming@gmail.com; greg@tcce.biz; president@seminaryhillasn.org; news4srca@gmail.com; cotton_manning514@yahoo.com; Dino Drudi (DPI Contact); wotcaalexandria@gmail.com; neca.president@gmail.com; president@theoldtowncivicassociation.org; askandariya@aol.com
Subject: [EXTERNAL]RESIDENT CONCERN WITH ADDITIONAL TAX DOLLARS FOR ATHLETIC FIELD LIGHTING

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Members of the City Council,

Thank you for the opportunity to provide constituent comments on RCPA's proposal to utilize tax payer dollars to install lights around 5 additional athletic fields. The current body of research identifies many of the synthetic lighted fields in our current inventory are not fully utilized. ***We ask that first: RCPA fully leverage the surplus playing hours on our existing lighted fields; second focus on renovating our fields that zoned appropriately for lights; third ensure mitigations are utilized to limit impact to the community (which come free of charge from Musco Lighting).*** You will find data supporting this argument below as well as an alternative proposal for field renovation.

- The data in the 2021 Athletic Fields Report (AFR) found here <https://media.alexandriava.gov/docs-archives/recreation/info/2021=rpca=athletic=field=report.pdf> does not support the need for additional synthetic fields or lights. The AFR is published by RCPA and is the basis for its applications for funding to install additional lights.
- On page 13 the AFR states that the city should be able to program a synthetic field with lights for 2100 playing hours a year. According to appendix C, ***with the exception of the Witter Field #1, every single synthetic lighted field was under utilized. Rather than the target 2100 hours, RCPA programmed our synthetic lighted fields on average 1400 hours per field.***
- ***Therefore, according RCPA's own research, there are an average of 700 hours of unused playing time sitting on each of one of those fields - that's 5600 total unused hours on our existing synthetic fields with lights.***
-
- According to comments made by RCPA at the Planning Commission meeting, some of those under utilized fields are less desirable (no further detail provided on what less desirable means). So let's drill down on the most desirable rectangular fields.
 - Ben Brenman - synthetic, lighted, has restrooms and parking - 566 surplus hours
 - Limerick - synthetic, lighted, has restrooms - 573 surplus hours
 - Joseph Hensley - (natural turf at the time of the report, but now synthetic), lighted, has restrooms and parking - 626 surplus hours
 - Fort Ward synthetic, lighted, has parking - 758 surplus hours

- Patrick Henry - synthetic, no lights, has restrooms and parking - (no data provided in appendix C because it was under construction at the time of the report, synthetic fields without lights can be programmed 1400 hours according to page 13 of the AFR)
- Page 12 of the AFR notes that of the 12 over-programmed natural grass fields, identified in the AFR, eight are baseball diamonds. However of the five locations for which RCPA has submitted requests for additional funding to install lights - none are used for baseball.
- **Finally according to RCPA, in 2022 no applications for field playing time have been denied.** This is with the fields at Minnie Howard already having been taken offline for construction.

BOTTOM LINE: The need for increased athletic field space is not supported by the current body of research. To spend tax payer dollars on the installation of lights at additional fields would be inappropriate given the City's own research identified surplus hours on every synthetic lighted field except Witter #1. According to ACPS' budget briefing at the 05 November City Council meeting, it is projecting a worst-case scenario \$12 million dollar deficit for 2024 - why is it spending \$1 million on yet another synthetic field at GWMS?

RCPA has requested funding for 5 locations that are zoned RB/Townhouse or single family home. The City of Alexandria has never installed lights on a field that is zoned RB/Townhouse. All of our existing lighted fields are on properties zoned Public Open Space, Coordinated Development District and Industrial. Why is that?

It is because the light spilling off the fields needs space to dissipate before it reaches residential properties. Installing lights on fields in these more densely populated communities will cause light spillage onto residents' properties in violation of the City's Ordinance on Light (13-1-3) which prohibits light trespass in excess of .25 foot candles of light.

Where is the compromise?

- On page 2 and then again on page 15 of the AFR, RCPA concludes that it has enough field capacity, but must focus on better programming those fields. Therefore, **Step 1** is to push pause on additional tax dollars for lighting and synthetic fields until we can fully utilize our existing synthetic. There are 9 fields designated as 'primary use soccer' that are not regulation size - put the tots and youth on those fields, freeing up playing hours on our other fields.
- **Step 2** is to focus on upgrading our existing fields that are zoned appropriately
 - **Fort Ward** is zoned POS, has lights, has parking - **just add restrooms**— and full utilize the 758 surplus hours sitting on that field right now
 - **Lenny Memorial Fields** - zoned POS, contains 3 baseball diamonds, 1 football field, is only 26% utilized according to appendix C of the AFR, the football field is regulation size and currently has 325 surplus hours
 - At residents' request, a local landscaping company is preparing an estimate to renovate the entire Lenny Memorial Field space. In an effort to make the most affordable plan possible, the company recommended making only the football field synthetic. The company is confident in its ability to keep cost under \$1 million for installation and maintenance for 10 years. **And** the company uses organic infill.
- **Step 3** is to find compromise with the community
 - **Light Spill Mitigations** - According to the sales rep at Musco Lighting that is assigned to this project, mitigations such as painting the inside of the light covers black and installing shades on the sides of the light covers is free of charge.
 - Shut the lights off at 9:00 pm. Not even high school kids should be out until 10 pm.

Residents of our community want the kids playing on our athletic fields and parks.

We also want the decision to spend tax payer dollars on additional synthetic lighted fields to be based on data and the location of those fields to be based on past zoning precedent.

We have an opportunity to work together and do better than before- let's not repeat the community division that occurred over this issue in the past.

We ask that City Council stand with the community and local business - fully leverage our existing fields and embrace a more environmentally conscious option for our new synthetic fields.

Let's make funding decisions based on hard data. Let's work together with local business to make Alexandria an eco-city not just in name, but in our actions too.

Respectfully,

Mary Cypressi

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CouncilComment@alexandriava.gov

From: Karl Moritz
Sent: Tuesday, November 01, 2022 7:05 AM
To: SG Lily; Justin Wilson; PlanComm; CouncilComment@alexandriava.gov
Cc: Abigail Harwell; Jack Browand; Bethany Znidersic
Subject: Re: [EXTERNAL]Request to Deny SUP 2022-0043 and Remove it from 01 November Docket

Attachments: Neshaminy High School Before & After 4 Photo with Energy Data (ID 65751).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning,

Staff will be prepared to address the issues of concern that you raised at the hearing, but I thought I would address the issue of light trespass now so that you know why the items are still on the docket.

- Page 24 shows the foot candle measurement of the light on the ground from the light posts. This is exclusive of any impacts from existing lighting in the area, such as street lights (which normally measure from 3 to 4 foot candles). To clarify, the track does indicate receiving 10 to 14 foot candles, but the line just north of the track is the approximate property line for the field property on the sidewalk south of Glendale Avenue, not the north side of Glendale Avenue. Beyond this sidewalk, the light continues to drastically lessen to less than 1 foot candle (indicated by the zero) that will not significantly impact the lighting along the residential properties along Glendale Avenue more than what already exists there today. City staff can speak to the light level concerns and clarify the measurements at the public hearing. Since photometric plans are difficult to understand/visualize, the light manufacturer sent staff the attached example showing before and after photos with similar lighting fixtures, if this helps illustrate reduction in light spillage.
- Regarding the 2nd part questioning City Ordinance 13-1-3, that section refers to the side or rear yard of the adjacent property occupied for residential purposes. It is our understanding this section is intended to protect residential properties from their neighboring properties "thrown" lighting onto the side and rear yards, such as security flood lights. The lighting in this case is from lights that are not directed towards the residential properties, oriented perpendicular to the front yards of the residential properties facing the field. The lighting for the fields has been designed so there is no additional lighting of the properties from the field lights. Adjustments will be made through the final design and light readings will be taken after installation and there are adjustments that can be made.

Yours sincerely,

Karl Moritz

Karl Moritz
Director
Alexandria Department of Planning and Zoning
301 King Street, Alexandria, Virginia 22314
desk: 703-746-3804
mobile: 571-329-3052

From: SG Lily <sglily@live.com>
Sent: Tuesday, November 1, 2022 6:14 AM

To: Justin Wilson <justin.wilson@alexandriava.gov>; PlanComm <PlanComm@alexandriava.gov>; Karl Moritz <Karl.Moritz@alexandriava.gov>; CouncilComment@alexandriava.gov <CouncilComment@alexandriava.gov>
Subject: Re: [EXTERNAL]Request to Deny SUP 2022-0043 and Remove it from 01 November Docket

Mayor Wilson,

I would like to follow-up on the below request to deny SUP 2022-0043 and remove it from tonight's docket. What is the status of your team's review of the data presented below?

We have provided solid evidence that GWMS is an inappropriate location for this proposal. Due to the close proximity of the fields to GWMS' property line, if installed GWMS would be in constant violation of the city ordinance on light trespass. There is no precedence for installing lights so close to taxpayers' homes. I looked at all the other lighted fields on GIS parcel view - and none have residential properties as close by as GWMS.

RCPA's own 2021 Athletic Field report clearly demonstrates that there is plenty of field space in the City of Alexandria - it just needs to be programmed more efficiently. The current surplus 5600 hours of lighted field time will more than satisfy ASA's projected need for additional field hours through 2030.

For all of these reasons this proposal is a misuse of taxpayer dollars and we ask that it be denied.

Respectfully,

Mary Cypressi

From: Justin Wilson <justin.wilson@alexandriava.gov>
Sent: Wednesday, October 26, 2022 9:35 PM
To: SG Lily <sglily@live.com>
Subject: Re: [EXTERNAL]Request to Deny SUP 2022-0043 and Remove it from 01 November Docket

Ms. Cypressi,

Thanks for the note. Our Planning staff will check on the concerns you have raised in advance of the Planning Commission hearing.

Have a good week.

Justin M. Wilson, Mayor
Alexandria City Council
Office: 703.746.4500
Home: 703.299.1576
justin.wilson@alexandriava.gov

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To: Justin Wilson <justin.wilson@alexandriava.gov>; PlanComm <PlanComm@alexandriava.gov>; Karl Moritz <Karl.Moritz@alexandriava.gov>
Cc: willie.bailey@acps.k12.va.us <willie.bailey@acps.k12.va.us>; Michelle M. Rief <michelle.rief@acps.k12.va.us>;

Abigail Harwell <Abigail.Harwell@alexandriava.gov>; Dirk Geratz <Dirk.Geratz@alexandriava.gov>; Brian Collins <brian.c1@me.com>; hsujack@gmail.com <hsujack@gmail.com>; Trudi Bick <trudibick@verizon.net>; akhanna@erols.com <akhanna@erols.com>; Ethan Lucarelli <ethanluc@gmail.com>; Victoria Correa <vcorrea@gmail.com>; Rob Benedict <benerg03@gmail.com>; Lauren Yanusas <lauren.yanusas@gmail.com>
Subject: [EXTERNAL]Request to Deny SUP 2022-0043 and Remove it from 01 November Docket

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Mayor Wilson, Chairman Macek, Director Moritz,

The residents of E Glendale Avenue respectfully request that Special Use Permit (SUP) 2022-00043 regarding the installation of lights around the George Washington Middle School be denied and removed from the 01 November docket. We make this request because the SUP contains inaccuracies and misrepresents the adverse impact to the community. The data below is drawn from the SUP and has been confirmed through conversations and e-mails with the International Dark Sky-Association and Musco Lighting on 24 and 26 October 2022.

- Light spillage/glare: On page eight of the SUP, the graphic incorrectly depicts slight spillage/glare to be limited to 65 feet over the north edge of ACPS property. The SUP further incorrectly claims that zero foot candles of light would reach the properties on E Glendale Ave.
 - On page 24 of the SUP, the rendering produced by Musco depicts light spillage at 150 feet from the edges of the field (blue line). The north side of the track receives between 10-14 foot candles of light (red line around the athletic field). **The north side of E Glendale Ave will in fact receive 3 foot candles of light, (straight vertical black line) falling directly in the front yards of residents.** Note that the foot candles on this rendering are taken at 30 foot increments. The red zeros are actual zero values and the black zeros are a fraction of a foot candle.
 - **This level of light spillage is in direct violation of City Ordinance 13-1-3 which limits light trespass to .25 foot candles from any commercial or residential property onto the adjacent residential property.** According to the Illuminating Engineering Society, three foot candles of light is sufficient to light an outdoor parking lot or an auditorium.
- Light spillage/glare cont: Page 27 depicts total candelas of light at 150 feet from the edges of the field. Candela is used to measure glare or light shining in your face. The rendering on this page shows 845 candelas shining 150 feet over the north edge of the field. That means the houses on E. Glendale Ave should receive about 845 candelas of light. One candela is equal to about the light from one candle.
- Trees on E. Glendale Ave: The SUP incorrectly states that the trees along the south side of E. Glendale Ave will block the light spilling off the field. This is inaccurate. Those trees are located under power lines and are trimmed every year to stay at their current height. Also, the trees are deciduous.

In addition to, the inaccuracies in the SUP, we would like to highlight that the data in the 2021 Athletic Fields Report (AFR) does not support the need for additional synthetic fields or lights.

- According to Appendix C of the AFR, the city has 12 regulation size synthetic playing fields (counting Patrick Henry ES) and 8 of them have lights. ***Every single synthetic, lighted field was under utilized during the time period covered in the report.*** AFR states that the city should be able to program a synthetic field with lights for 2100 playing hours a year. With the exception of the Witter Fields, no synthetic playing fields with lights reached even 1600 hours, with average programmed hours coming in at 1400 per field. ***Therefore, according RCPA's own research, there are an average of 700 hours of unused playing time sitting on each of one of those fields - that's 5600 total unused hours on our existing synthetic fields with lights.***

- Of the 12 over-programmed natural fields, identified in the AFR, eight are baseball diamonds. However of the five locations for which RCPA has submitted SUPs to install lights - none are used for baseball.
- *According to the AFR, all playing fields (synthetic and natural) in the city of Alexandria were used 56% of their total programmable hours.*
- Also notable, *according to RCPA, in 2022 no applications for field playing time have been denied.* This is with the fields at Minnie Howard already having been taken offline for construction.

Given the inaccuracies contained in the SUP 2022-0043 and because the need for additional playing fields has not been demonstrated by the current body of research compiled by ACPS/the City; to move forward with this proposal would be poor management of our tax dollars. The AFR states on page 15 that “the city has enough fields to meet its needs,” but must focus on better programming the fields. We would ask that the RCPA do what it wrote in its own report - fully program those 5600 hours of playing time that are being wasted every year on our existing lighted synthetic fields, before investing additional tax payer dollars into additional synthetic fields or lighting.

To be clear the residents of E Glendale Ave love hearing the kids playing on the fields across the street from our homes. We just want the fields to be managed in a manner that is economically and environmentally conscious and protects our home values. To that end, we welcome a dialogue on how to fully leverage the Lenny Memorial Fields at Braddock Park, which were utilized at only 26% of their available hours and contain three baseball diamonds and one football field. We have already reached out to the local business community to obtain estimates on the cost of transforming those fields into the beautiful community athletic area that they should be.

Respectfully,

Mary Cypressi

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CouncilComment@alexandriava.gov

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To: Justin Wilson; PlanComm; Karl Moritz; CouncilComment@alexandriava.gov
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Follow Up Flag: Follow up
Flag Status: Flagged

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Neshaminy High School — Langhorne, Pennsylvania, USA

After — Musco LED Lighting



Before — HID Light Source



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