

## **Mount Greylock Regional School District School Committee**

**Location:** Zoom Remote Meeting

**Date:** December 14, 2020

**Time:** 7-8 pm

**Join Zoom Meeting**

<https://zoom.us/j/98719301601?pwd=ZGhEemU0U2M2OWpsWHVaQkloeFVOZz09>

**Meeting ID:** 987 1930 1601

**Passcode:** 705071

**One tap mobile**

**+1 646 876 9923 US (New York)**

Per Governor Baker's order suspending certain provisions of the Open Meeting Law, M.G.L. c. 30A sec. 20, the public will not be allowed to physically access this School Committee meeting.

Please see our Public Comment Policy for Guidelines regarding Public Comment at Remote Meetings:

<https://z2policy.ctspublish.com/masc/browse/mtgreylockset/mtgreylock/BEDH-R>

### **Special Open Session/Phase II Turf Forum Agenda**

- I.** Call to order
- II.** Mission: At Mount Greylock Regional School District, our mission is to create a community of learners working together in a safe and challenging learning environment that encourages restorative based processes, respect, inclusive diversity, courtesy, integrity, and responsibility through the high expectations and cooperation resulting in life-long learning and personal growth.
- III.** Presentations
- IV.** Questions from the School Committee
- V.** Motion to adjourn

*This meeting will be posted on the MGRSD YouTube page*

<https://www.youtube.com/channel/UCLR0nrLhpZHlyPFUhaMxPSg> and will be broadcast on WilliNet TV channel 1302 in Williamstown.

**First Presenter: Stephanie Boyd**

**Second Presenter: John Skavlem**

to turf  
(artificial)



or to turf  
(natural)



that might not be the question

Uncertain  
Financial future

Many new school  
co. members

The MGRS community (students, parents, tax payers) need a strategic infrastructure plan for athletic and physical education programs over the next 10 - 20 years.

- Clear, rationale approach to decision making
- Supported by well-crafted financial plan

Changing  
Demographics/  
Enrollment

Corona Virus  
Pandemic

New  
administration

The mission of the Mount Greylock Regional School District is to prepare all students to achieve their full potential as learners in an ever-changing world.

# PROS

# CONS

FINANCIAL

PERFORMANCE

HEALTH

ENVIRONMENT

COMMUNITY DESIRES/NEEDS

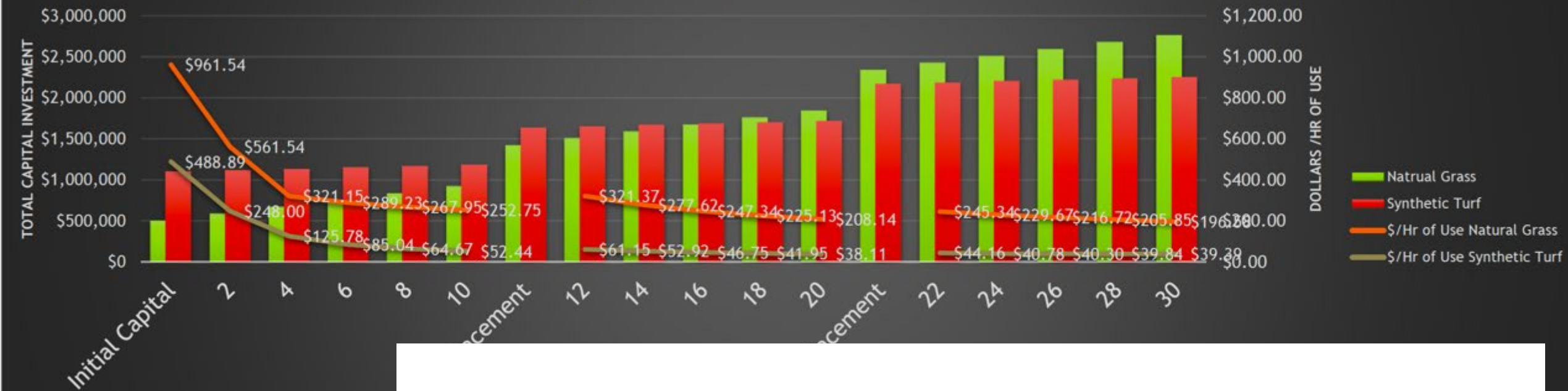




# Financial Analysis from Public Forum, Traverse, Summer 2019

Initial Capital	2	4	6	8	10	Replacement	12	14	16	18	20	Replacement	22	24	26	28	30
\$500,000	\$668,000	\$752,000	\$836,000	\$920,000	\$1,420,000	\$1,504,000	\$1,588,000	\$1,672,000	\$1,756,000	\$1,840,000	\$2,340,000	\$2,424,000	\$2,508,000	\$2,592,000	\$2,676,000	\$2,760,000	
520	40	2080	3640	5275	4680	5720	6760	7800	8840			9880	10920	11960	13000	14040	
\$961.54	\$561.54				\$321.37	\$277.62	\$247.34	\$225.13	\$208.14			\$245.34	\$229.67	\$216.72	\$205.85	\$196.58	
\$1,100,000	\$1,132,000	\$1,164,000	\$1,196,000	\$1,228,000	\$1,635,000	\$1,651,000	\$1,667,000	\$1,683,000	\$1,699,000	\$1,715,000	\$2,170,000	\$2,186,000	\$2,202,000	\$2,218,000	\$2,234,000	\$2,250,000	
2250	9000	13500	18000	22500	27000	31500	36000	40500	45000			49500	54000	55040	56080	57120	
\$488.89	\$248.00	\$125.78	\$85.04	\$64.67	\$52.44	\$61.15	\$52.92	\$46.75	\$41.95	\$38.11		\$44.16	\$40.78	\$40.30	\$39.84	\$39.39	

**Athletic Field Costs  
Synthetic Turf vs. Natural Grass**



The lower maintenance cost is offset by the high capital cost, and additional field maintenance equipment required. Over 20-25 year period the cost of an artificial turf field is comparable to a natural grass field.



# Net Present Value analysis better way to compare different spending streams.

YEARS	0	1	2	3	
Natural	\$ 500,000				
Annual Maintenance.		\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000
	\$ 500,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000
Artificial	\$ 1,300,000				
		\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000
Total	\$ 1,300,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000

Replacement both Artificial and Natural Grass fields at year 10 for cost of \$500,000.

Based on costs provided by Traverse and bid documents.

VERIFICATION required.



The cost premium for an artificial turf field is about \$400-\$500,000

	Natural Grass	Artificial Turf	Difference
Total 25 years	\$ 2,325,000	\$ 2,542,300	\$ <b>217,300</b>
NPV 1, 5%	\$ 1,399,852	\$ 1,838,217	\$ <b>438,365</b>
NPV 2, 7%	\$ 1,194,709	\$ 1,676,776	\$ <b>482,067</b>
NPV 3, 3%	\$ 1,680,254	\$ 2,054,629	\$ <b>374,375</b>

Why:

Cheaper to maintain artificial, but high capital cost for artificial turf more important.

TURI (Toxic Use Reduction Institute) demonstrated that synthetic fields costs \$65k annualized cost vs \$33k for natural soil-based field. Sport Turf Alternative Assessment: Preliminary Results COST ANALYSIS, September 2016

Artificial turf outperforms natural grass. “Playability”  
3000 hrs per year.

## Estimating Field Use

FAQ: Brushing is required **once every 100 hrs or about once per month.**

THEREFORE: Expected field use **25 hrs per week.**

All year: 52 weeks per year = 1300 hrs

School year: 36 weeks per year = 900 hrs

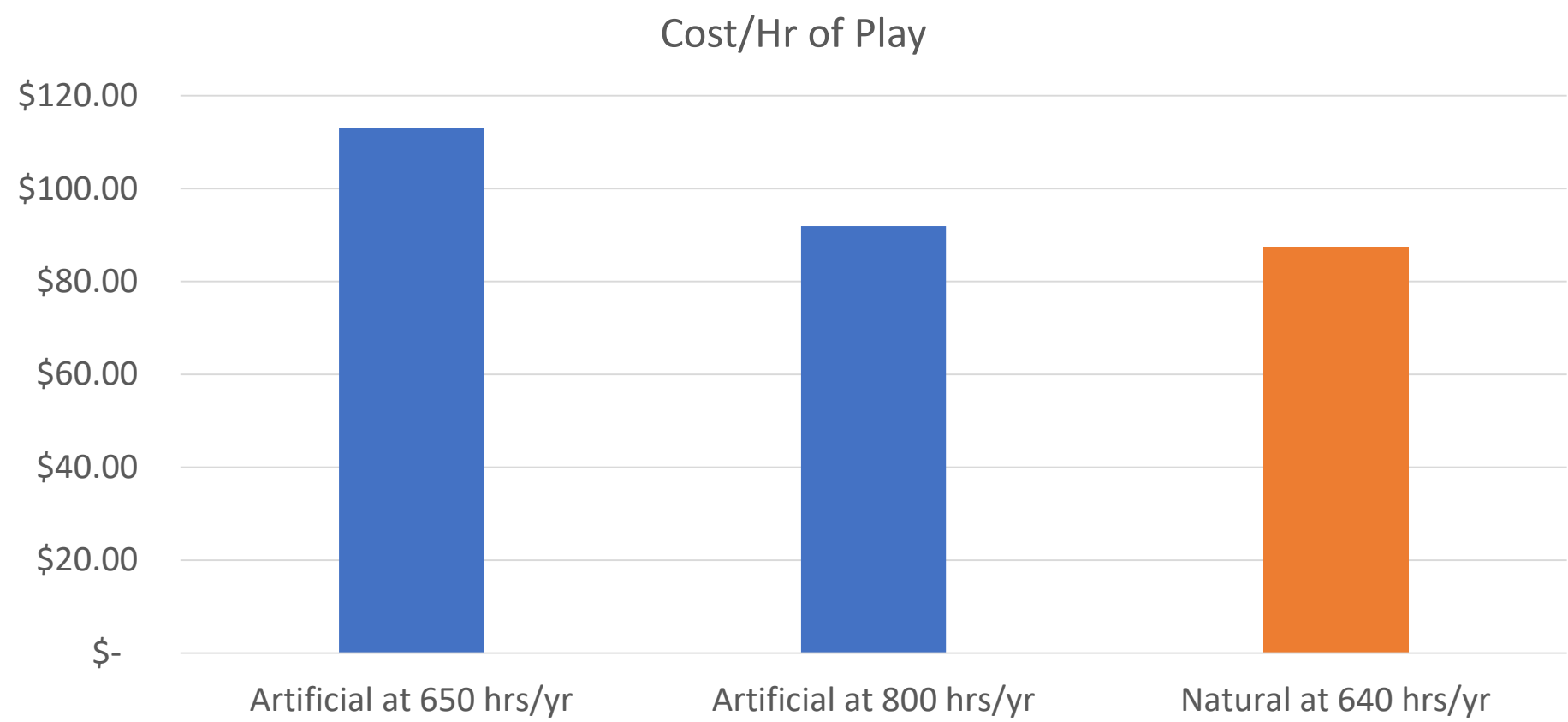
Sports year: 26 weeks per year, total available hours are **650 HOURS.**

# Estimating Field Use Alternative Approach :

		weeks per season	hrs per day	days per week	hours of use	
Fall Sports		10	3	5	150	
Spring Sports		10	3	5	150	March to mid June
TOTAL HOURS NEEDED					300	
TOTAL HOURS - LESS BAD WEATHER					240	Less 20% due to rain
Physical Education						
Fall		10	5	5	250	
Spring		10	5	5	250	
TOTAL HOURS NEEDED		20	5	5	500	Artificial Turf
TOTAL HOURS LESS BAD WEATHER					400	Natural Turf
					640	TOTAL HOURS FOR NATURAL
					800	OPTIMAL HOURS

NEEDS VERIFICATION

# Relook at Cost / Hour of Play





# Potential Environmental Impact – Artificial Turf Field



- Release of materials –
  - Infill and broken grass blades
  - Contributes to microplastic pollution



Field studies in the Netherlands found up to 70 kg (150 lbs) per year entering nearby water courses from a single pitch." ***70 kg of crumb rubber is equivalent to about 5500 plastic water bottles.***

## *How Scientists Tracked Down a Mass Killer (of Salmon)*

Something was decimating the salmon that had been restored to creeks around Puget Sound.



PFAS

**Does synthetic turf contain substances that cause cancer?**

TenCate Grass does not manufacture  
customers' safety extremely serious

**What are PFAS?**

Poly and perfluorinated alkyl substan  
many products, like rain jackets, ten  
apply durable waterproof coatings to

Scientists have recently begun to exp  
PFOA materials. The scientific comm  
that some particular types could be  
about this. TenCate's turf fibers are

**What about recent reporting in The  
PFAS?**

That reporting was highly speculative  
pointed out, there are a number of p  
testing methods and conditions and  
experts if you'd like to learn more.

**Do TenCate products contain PFAS?**

Again, we want to assure our custom  
synthetic turf do not contain any PFO

**What about the backing (or other co**

Out of an abundance of caution, and  
currently in the process of confirmin

**What standards does TenCate adhe**

TenCate Grass products fully comply  
California's Prop 65 and Europe's RE

What's more, TenCate designs turf p  
woven IRONTURF fields are 100-per

TenCate has not done testing to verify that the products are PFAS free.

They have not received any 3rd party certifications supporting this claim.

Have not verified suppliers

Make products, including fire retardants, bullet proof vests, and wicking materials typically incorporate the use of PFOAs and PFOs, which are part of the PFAS family

**Does synthetic turf contain substances that cause cancer?**

TenCate Grass does not manufacture any products using materials that are known to cause cancer. Customer safety is our top priority. The wellbeing of the communities we serve is our number one priority.

**What are PFAS?**

Poly and perfluorinated alkyl substances, or PFAS substances, are a family of man-made chemicals found in many products, like rain jackets, tennis shoes and fast food wrappers. Some manufacturers apply durable waterproof coatings to their products.

Scientists have recently begun to express some concerns about the safety of certain PFAS materials. The scientific community's understanding of PFAS is still evolving, and some particular types could be dangerous to humans. TenCate Grass does not manufacture any PFAS or PFOS materials.

**What about recent reporting in The Intercept and the Boston Globe about PFAS?**

That reporting was highly speculative. As several environmentalists and scientists have pointed out, there are a number of problems with the science those articles reported, including testing methods and conditions and an extremely small sample size. We encourage you to consult experts if you'd like to learn more.

**Do TenCate products contain PFAS?**

Again, we want to assure our customers that the fibers that TenCate Grass manufactures for synthetic turf do not contain any PFOS (the type of PFAS reported in the recent articles).

**What about the backing (or other components of carpet)?**

Out of an abundance of caution, and to provide an extra layer of reassurance, we are currently in the process of confirming that none of our suppliers' products contain PFAS.

**What standards does TenCate adhere to for consumer safety?**

TenCate Grass products fully comply with the most stringent environmental standards, including California's Prop 65 and Europe's REACH. We are happy to do so.

What's more, TenCate designs turf products that have minimal impact on the environment. Our woven IRONTURF fields are 100-percent recyclable.

# Recycling

“Our newest woven IRONTURF fields are 100-percent recyclable.”

- HAVE NOT SOLD ANY of these fields.
- There are **no recycling facilities** in USA.
- Cost premium of \$77,000 +

# Mitigation Strategies

- Use more natural infill materials Brockfill  
\$115,000
- Design a field system and operating practices that keep materials on the field.  
\$100,000 (guesstimate)
- Purchase more recyclable field:  
\$80,000

Additional Cost: +/- \$300,000

**TOTAL NET  
DIFFERENCE:  
\$700k-\$800k**





## Potential Environmental Impact: Natural Grass Field



- Mowing fuel use
  - Water requirements
  - Potential Fertilizer use
- 
- Grass fields remain. Opportunity to seek alternative fuel options for maintenance equipment.
  - Water is not as critical environmental issue in NE. Need to resolve irrigation issue for remaining fields.
  - Advocating sustainable grass management.

# Health

COMMENT: from the Mass Dept of Public Health referenced above -

"Massachusetts Department of Public Health **does not endorse any consumer products, including ATFs.** (ATF - Artificial Turf Field) The purpose of this fact sheet is to summarize currently available information and offer suggestions for w  
ATFs.

Are there tips for safer use  
Yes. MDPH **recommends** th  
chemicals in ATFs.

When playing on ATFs

- Always wear shoes.
- Do not swallow any crumb rubber. If you swallow, stop playing and seek medical attention.
- If playing indoors, ensure proper ventilation.
- Be aware of any heat-related issues.

After playing on ATFs

- Wash hands after use and before eating.
- Clean all clothing and shoes.
- Take off shoes before entering your home.
- Clean all turf burns with soap and water.

Do not use ATFs

- On extremely hot days because the crumb rubber absorbs heat and may be too hot to play on when temperatures are high.
- For passive recreation (e.g., sitting, laying)."

## MASS DPH:

- Wash hands after use and before eating
- Not for passive recreation (sitting, laying)
- Be aware of heat-related issues
- Take off clothes after use.

Uncertain  
Financial future

Many new school  
co. members

The MGRS community (students, parents, tax payers) need a strategic infrastructure plan for athletic and physical education programs over the next 10 - 20 years.

- Clear, rationale approach to decision making
- Supported by well-crafted financial plan

Corona Virus  
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## CURRENT SITUATION

- Condition of existing infrastructure
- Sports / Programs supported
- Maintenance Costs
- Current sports

## ALTERNATIVES ANALYSIS

- How to decide among competing options?
- Community Involvement in criteria development
- Prioritizing Plan

## FUTURE NEEDS

- Student Population (MGRS & District)
- Sports / programs supported
- Visioning Opportunity

## COMPREHENSIVE FINANCIAL PLAN

- Capital
- Operating Costs
- Funding Sources (fundraising, tax revenue, state, gift)





A 10th grader  
using this 'field'  
2030 is in 1<sup>st</sup> grade  
today.



# Sample Prioritized Plan

ITEM	CAPITAL	PRIORITY	FUNDING SOURCE	TIMING
ADA/TITLE IX	\$ 440,000			
FIELD	\$ 1,300,000			
TRACK	\$ 549,000			
SUBTOTAL	\$ 2,289,000			
EXISTING FIELD IMPROVEMENTS	???			
OTHER AMENITIES	???			

# Mount Greylock Regional School District

Fields Project History & Summary  
December 14, 2020

<https://sites.google.com/mgrhs.org/fields/home>



# Background



- **2016** Williams College pledged \$5M for capital needs of MGRS outside the scope of the building project
  - The college treats the fund like an endowment (growing or receding with the college's investments).
  - The college's gift helps MGRSD navigate around the MSBA project limitations in terms of state participation in areas like fields, parking, storage, regional district offices and long-term maintenance costs.
- **2017-Present** Use of funds focused on the following:
  - Athletics / Fields / Recreation (ADA, Title IX and upgrades)
  - District Offices
  - Storage (athletics, facilities, "attic stock," district records)
  - Long-term maintenance fund (that grows with the college's endowment over time)



# Further Background - 2017



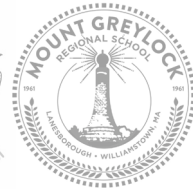
- Williams Gift Committee established
- School Committee hires Jones Whitsett Architects to conduct feasibility study and present options for remaining capital priorities (today's list)
  - Existing fields / facilities assessment conducted
  - District Office and field design concepts proposed including artificial turf field
- Mount Greylock Regionalization approved / Transition Committee established  
September 2017  
November
- School Committee/Superintendent hire new architect Perkins Eastman  
December

# Further Background - 2018



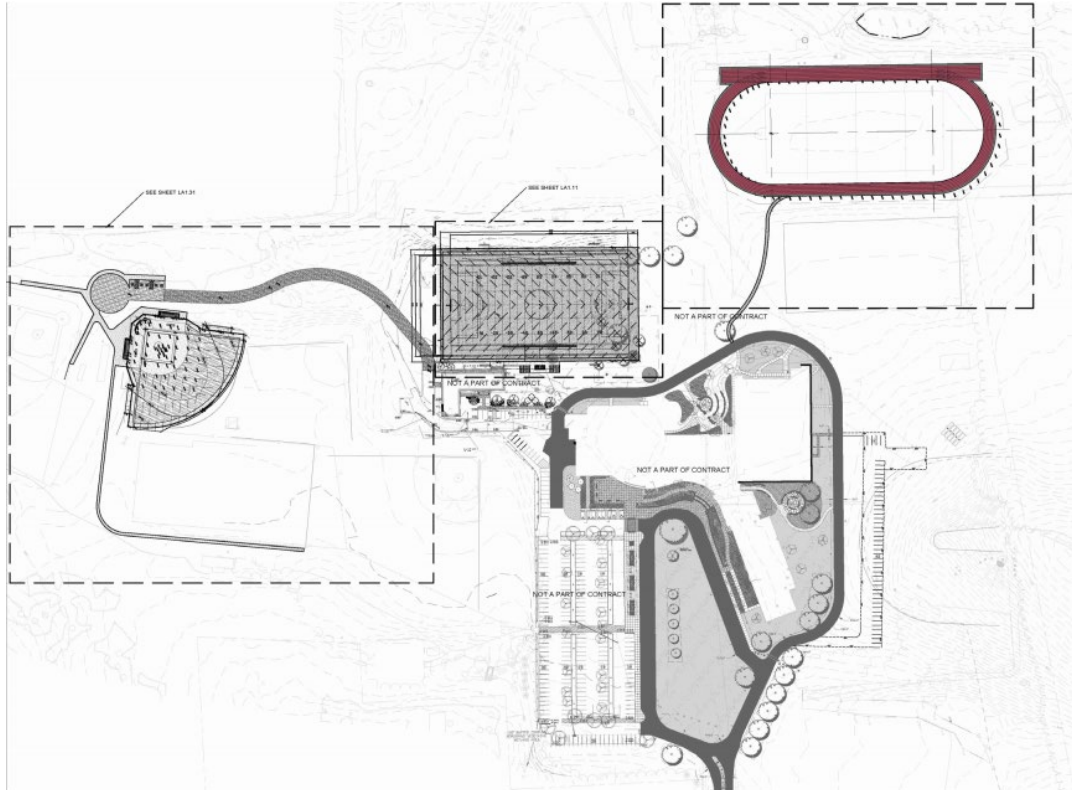
- School Transition Committee takes over capital gift responsibility
- Perkins Eastman presents design concepts to Transition Committee April
  - District Office building options include garage, storage, xc ski wax room and bathrooms
  - Fields options include ADA accessibility, Title IX, field refurbishments and new sport artificial turf game field
- Transition Committee establishes Phase I and II Subcommittees August
  - Phase I Subcommittee = Buildings
  - Phase II Subcommittee = Fields / Athletic facilities
- MGRSD School Committee organized November
  - Phase II needs provided by Administration and Athletics Department

# Further Background - 2019



- Phase II Subcommittee begins process January
  - Traverse Landscape Architects (subcontractor for Perkins Eastman) reviews 2018 design option proposals for fields (including recommended artificial turf field)
- School Committee approves Phase II Subcommittee recommendation and authorizes request for bids May
  - ADA accessibility, new softball field (Title IX), new multipurpose artificial turf field and new track
  - Decision made to hold bid request until late summer due to unfavorable bid timing
- Public Forum held by School Committee July

# Fall 2019 RFP



- Aug-Sep 2019 RFP to bid
- 3 reputable bidders
- All 1922% higher than expected

## Primary goals:

- ADA: roads, parking, and walkways
- New field (turf) in new location
- Lighting for new field
- Softball field revamp (Title IX)
- Baseball fields safety upgrades
- Portable bleacher system
- \$2.3M estimate => ~\$2.8M bid

## Add alternate:

- Track (6 lane)
- \$450K estimate => \$550K bid

# Athletic Team & PE Participation



	2020 - 2021	2019 - 2020	2018 - 2019	2017-2018	2016 - 2017	2015-2016	2014-2015	2013-2014	Five Year Average
<b>Fall</b>									
Cross Country (Boys)	33	52	54	50	44	54	53	45	50.8
Cross Country (Girls)	45	47	48	43	43	33	33	42	42.8
Football*	14	5	24	37	30	37	32	31	26.6
Golf*	11	13	12	19	18	10	11	19	14.4
Soccer (Boys)	45	40	39	42	46	37	34	37	40.8
Soccer (Girls)	30	41	48	44	37	48	50	42	43.6
Unified Basketball	15	23	14	-	-	-	-	-	18.5
Volleyball*	31	34	31	21	25	27	26	25	27.6
<b>Winter</b>									
Alpine Ski (Boys)	-	-	-	-	-	-	-	6	-
Alpine Ski (Girls)	-	-	-	-	-	-	-	3	-
Basketball (Boys)		21	20	20	18	19	22	24	19.6
Basketball (Girls)		20	18	13	13	22	20	15	17.2
Ice Hockey*		5	4	8	7	5	5	3	5.8
Nordic Ski (Boys)		48	54	50	52	53	52	37	51.4
Nordic Ski (Girls)		31	37	34	42	40	32	37	36.8
Swim (Boys)		0	0	0	0	1	1	0	0.2
Swim (Girls)		0	1	2	3	7	6	7	2.6
Wrestling*		16	10	18	20	31	31	30	19.0
<b>Spring</b>									
Baseball		38	37	44	41	37	42	42	40.2
Lacrosse (Boys)		27	37	33	36	37	38	44	36.2
Lacrosse (Girls)		45	43	35	35	44	36	33	38.6
Softball		31	24	26	30	31	28	30	27.8
Tennis (Boys)		8	8	4	9	11	13	19	9.0
Tennis (Girls)		16	15	16	17	12	11	16	14.2
Track (Boys)		64	53	50	38	38	44	32	44.6
Track (Girls)		69	68	50	47	52	43	45	52.0
<b>TOTAL</b>	224	396	699	659	651	686	663	664	671.6
<b>STUDENTS INVOLVED</b>	224	266	372	351	353	373	363	376	362.4

Update: 10/14/20, LVH

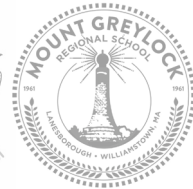
## Wellness / Physical Education

- All of grades 7, 8, 9
- ½ of grades 10, 11, 12
- ~ 375 students at any one time

Chart to the left is on our web site as  
 “MGRS Sports Participation Numbers  
 (Updated October 2020)”

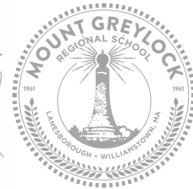


# New Field Turf: artificial vs. grass



- New field as artificial turf instead of organic grass for two primary reasons:
  - Playable hours (spring, late fall, and after rain) dictated by weather
  - Three seasons desired on a single field
- Additionally:
  - Safety
  - Dependability and consistency
  - Available for immediate use upon completion
  - Conservation–water and other regular maintenance, LEED points
  - Value- cost / playable hour, annual maintenance & refurbishment, revenue generation
- Subcommittee’s recommendation consistent and unanimous over 2018, 2019, 2020 based on the above

# Responses to Concerns



- BrockFILLinfill recommended in lieu of crumb rubber infill—December 2019
  - Eliminates perceived health and environmental concerns associated with crumb rubber infill
- Opportunities afforded:
  - Organic infill of soft sustainably sourced wood pellets
  - End of life use amends natural soil fields—no disposal required
  - Increased warranty 10 years vs 8 years
  - MGRSD can lead by example—consistent with values
- Require certification from manufacturer artificial turf grass is PFAS free
- Recyclability—presently everything except the artificial grass mat backing
  - Industry actively developing end-of-life resolutions and anticipated all materials will be fully recyclable within minimum 12-year lifespan

# Turf Costs: artificial vs. grass



- Up-front cost estimates \$500K grass and ~\$1M artificial turf
  - Foundation and drainage systems are similar
- In-season maintenance costs are higher and more variable for grass
  - To what extent higher depends upon conditions, internal vs. external labor, and product choices
  - Present grass playing fields budgeted at \$25K / field for 7.5 = \$175K / year
- Both have renewal costs
  - Replacements costs are comparable at \$500K and timeframe 4-10 years depending on performance, use and care
  - Regional School Districts typically handle renewal via: E&D (capped at 5% of budget), stabilization, or town votes—we have these sources and an endowment

# Current Fields Update



- PJC Organics conducted a study of all of our existing fields. “Poor” was the summary grade for every field.

The district’s staff have taken the following steps per recommendations:

- Modified mowing regimen
- Aeration (aerator purchased in 2019-2020)
- Overseeding
- Amendments / fertilizer (3 year intensive program, with soil biology taking over after that)
- More staff focus on the fields generally
- Current results 6 months into the process: significantly improved fields
- Note: *irrigation is important, and we have none*
- Drainage of existing fields (due to both location and design) are not good
  - Early season, late season and after any rainfall all pose significant problems (beyond being grass in New England)

# Current Fields - Fall

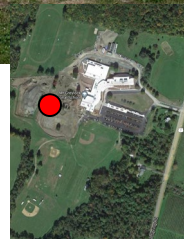
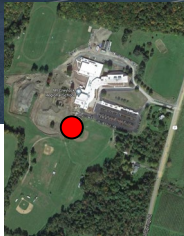




# Proposed New Field Location



- Better site for natural drainage, augments existing field options



# State of the Gift



- \$5M at inception January 2016
- + \$1.8M in growth as of June 2020
- - \$3.2M committed / spent to date
  - \$2.6M District office, storage, and public/athletic bathrooms completed this year
  - \$500K in design, planning, temporary storage/office trailer costs and MGRS repair
  - \$100K facilities garage
- \$6.8- \$3.2 = **\$3.6M** (using June 30, 2020 endowment figure)

*“Unspent principal in the Fund will grow or recede without limit along with the college’s endowmen*

# Time is Now



- Nearly fiveyear history of process
- Resources are availablewe have a giftand it has grown significantly
  - Proceed with the full scope of Phase II Subcommittee recommendation from December 2019
  - Funds remain to grow in endowment covering future replacement and other capital needs
  - Bid environment favorable but urgency needed as time passes
- BrockFILLinfill eliminating crumb rubber infill use
- Playability increases on all fields for all kids
- This is about the kids in our communitynever more important than now

*The Greylock Way: Responsibility, Perseverance, Integrity*



