Feb. 17, 2021

DRI 352-M4 MVRHS Athletic Fields
MVC staff and commissioner questions for HAI/MVRHS

Contents:

Please note that answers to questions raised during the Land Use Planning Committee pre-public hearing review (Oct. 19 – Dec. 14) were not all requested in writing. However, the applicant submitted many answers in writing, and those documents are available on the MVC website.

March 30, 2020 staff questions **LINK TO ANSWERS**

LOGISTICS

1. What role is Daedalus still playing?
2. Has the high school committed to more than phase 1?

SPECS

3. What are the Gmax ratings of the existing and proposed grass fields?
4. Please provide the MVC with samples of the BrockFILL material.
5. Please provide the MSDS for the Greenfields carpet material.
6. What are the square footages for 1) the synthetic field, 2) the renovated grass field, and 3) the JV baseball diamond?
7. Does the current grandstand have 500 or 800 seats? (We have conflicting information.)

MAINTENANCE

8. Please provide the recommended maintenance program for the synthetic field.

MATERIALS

9. What is the material for the new running track?
10. Are there fire test reports for the proposed synthetic carpet and wood infill materials that you can provide to the MVC?
11. How will the plastic fibers be prevented from entering the watersheds over time?

USE

12. Would there be user fees for the new track and field?
13. What rules would exist for users of the new track and field?
14. Could this project lead to an increase in use?

OTHER FEATURES

15. Are there any electric vehicle charging stations for the parking spots?
16. Will the buildings be all-electric?

WASTEWATER

17. Please provide plans and details for the septic tight tanks and future tie-in to sewer.

May 13, 2020 staff questions **LINK TO ANSWERS**

GENERAL

1. What aspects of Option B, phase 1 of the Master Plan are still relevant to this project?
2. Please provide a separate plan for pedestrian traffic on the site (acknowledged at5/5/20 staff-applicant meeting).
3. Is the high school likely to pursue other phases or elements of the master plan in the future?
4. How will the high school coordinate spillover parking from Sharks and MV Soccer United games, or from other events?
5. What is the expected life span of the new track? How will it be disposed of at the end of its life?

COSTS AND MAINTENANCE

6. What will phase 1 of the project cost, and how will it be paid for?
7. How will this project affect taxpayers in each Island town?
8. How much has MVRHS spent annually for maintenance of the current playing fields since 2000?
9. Is the high school currently using best maintenance practices?
10. Will the MVRHS purchase a maintenance package plan? How much would that cost?
11. How will the high school balance the additional maintenance needed for the fields with the maintenance needed inside the school itself?
12. Is there a plan for incident response if unexpected contaminants get on the field? What would that cost per year?

ENVIRONMENT

13. Has Huntress investigated the likelihood of the synthetic field shedding microplastics into the environment? Is there a way to capture particles smaller than the proposed 0.212 mm geotextile fabric, or is there a finer fabric?
14. What fiscal and economic safeguards will be in place to protect the towns should the groundwater become contaminated as a result of the synthetic field?
15. What firms will be involved in the PFAS/PFOS testing, and will the methods accountfor local environmental conditions? EPA Method 537 identifies 18 different PFAS indrinking water, but there are many thousands in existence.
16. How will fertilizers for the grass field be controlled so as not to negatively impactusers or the environment?

USAGE

17. Please provide a table or tables showing the following information (acknowledged at 5/5/20 staff-applicant meeting):
    a. Current annual use per field, and the projected annual use for phase 1 only.
    b. A list of sports offered at the high school, along with the playing seasons
    c. The number players per year, and which fields they use.

18. Does the school share the goal of not exceeding 680 hours of use on any of its grass fields, as recommended by Huntress? How close will phase 1 get to that goal?
19. Has the high school considered MV Soccer United's intentions to use an expanded field network at the Boys and Girls Club? How would that affect the high school project?
20. Will user fees for community use of the athletic facilities increase as a result ofthe project?

WASTEWATER

21. How many bathrooms already exist on-site? Only the two portable toilets?
22. Please provide information about how frequently the proposed tight tank will be pumped out, and where the effluent will be disposed of (acknowledged at 5/5/20 staff-applicant meeting).
23. Please provide a letter from the Oak Bluffs board of health stating their position on the installation of the tight tank, and a letter from the town sewer board stating that the project can be connected to the sewer system once space is available.

PLAYER SAFETY

24. What is meant by a critical fall height of 1.2 meters for the synthetic field?
25. Are there more head and knee injuries with artificial turf than natural turf?
26. Will the synthetic field get hotter than a typical grass field? Please provide details.
27. Is there any danger that the small particulates that make up the infill can be ingested, inhaled by athletes or get in their eyes?
28. What other risks are associated with synthetic fields (friction, sliding, etc.), and how have they been addressed by this plan?

Oct. 19 questions from commissioners at LUPC meeting. **LINK TO ANSWERS**

1. (Fred) Appreciate overall campus plan. Please confirm the phase one scope includes the following: 400m track (Field #1) and natural grass field (Field #2).
2. (Richard) Is there a plan to remove the old track?
3. (Linda) Plans are hard to see on screen. Reduce printed commentary, make plans larger. Can we color the cursor in future presentations? Make cursor larger. What are the reasons for moving the track? Dislikes acronyms and initials.
4. (Doug) How long can we expect the existing 400m track will last with routine maintenance? How can you extend its life? Will the new grandstand be designed so that it can be expanded? What would be involved in putting in natural grass instead?
5. (Doug) Is a synthetic turf field appropriate for the island in light of the available alternatives? We are an Island – Does salt affect the 400m track or synthetic turf field surfaces?
6. (Christine) Asked if the new field replaces the existing football field. "Where will football be played once you put a new 400m track & field in its place?"
7. (Joan) LUPC and MVC process – Could MVC staff get these questions/answers in one document? Can the answers be worked into the updated staff report before bringing it back to the LUPC?
8. (Fred) Synthetic turf at end of life – how is the end-of-life determination made? We discussed GMax and HIC testing, along with infill depth and fiber wear testing.
9. (Richard) How does salt water/air affect the synthetic turf?
10. (Doug) Synthetic field and 400m running track are designed as a single project. Would you design the track any differently if the field was natural grass. Why must Field #1 be synthetic? Are there alternatives track surfaces that are not rubber?
11. (Linda) Will there be games played here between towns? She would like to see youth sports played in their own town. "When Tisbury and Edgartown play, it should be in Tisbury or Edgartown, not Oak Bluffs."
12. (Adam) What is the synthetic turf field made of? How is it installed? How long is its life expectancy? Why are the fields in the condition they are? Would like to understand how we plan to maintain the other five natural grass fields.
13. (Adam) Need to address player safety, health & environment. He went on to say field use is one reason the fields are in poor shape, but it can't be the only reason why they're so bad. Can grass fields be better maintained and withstand the HS use.
14. (Jim) Is the proposed new pedestrian walkways and parking along Sanderson Road part of this proposal?
15. (Christina) Are the new parking & walkways along Sanderson part of phase one?
16. (Christine) Asked Alex if the OBPB has lots of good information, will there be a link to the OBPB website on the MVC DRI website?
17. (Christina) Cost is an issue. Consider how to handle that discussion at hearing.
18. (Linda) Stated that the amount of time necessary to review this amount of material is much greater than we usually take for an application. How can we structure the LUPC so that we don't randomly limit the applicant's presentation time.
19. (Adam) At the close of the LUPC meeting Adam said we would pick up at the next meeting with issues and question; then will move forward.

20. (Doug) Cautioned all parties about 2 degrees of separations and how close we all are. Asked the public to please not lobby the commissioners. He then asked commissioners if they are approached by anyone, please decline from engaging.
21. (Fred) Encouraged all the commissioners to look at the DRI website as there is so much information. Discussion continued about how to identify on the website what is old and what is current. Suggest the most recent plans could be separated out. Possibility of creating separate section for old material.

Oct. 26, 2020 additional questions during LUPC **LINK TO ANSWERS**

FUNDING/OTHER SCHOOL NEEDS

1. How does this fit in with overall school building plans?
2. How will private funding affect future MSBA requests?
3. Will replacement also be covered by donations?
4. How will future phases be funded?

USAGE

5. Provide intensity factor for field use estimate.
6. Will the field be fenced and locked? What are the hours, especially during Covid?
7. Are the size and orientation appropriate for the projected uses?

HEALTH/SAFETY

8. Provide a field disinfection plan that meets new Covid response protocols and follows manufacturer guidelines.
9. Independent confirmation that the synthetic field products do not contain fire retardants.
10. Independent confirmation of temperature data (how much higher than natural grass).
11. Provide a fire safety plan for the synthetic field.

MAINTENANCE

12. Breakdown of high school's 2019 annual budget for athletic fields maintenance.
13. What is the cost to maintain proposed field house and other non-field facilities?
14. What is the acreage of play area only? (For estimating potential cost of organic maintenance.)
15. Will proposed natural grass program succeed? (I will send additional questions as well.)
    a. Grading, irrigation, soil amendments, planting, nutrient management, etc.
    b. Does the proposed maintenance program align with current BMPs?
    c. Work with organic grass expert to develop/revise program?

NITROGEN

16. Independent confirmation that the infill will not leach nitrogen.
17. Options for additional nitrogen reduction benefits for parking areas.

RECYCLING/DISPOSAL

18. Confirm that the proposed field is made from recycled materials.
19. Conduct an alternatives analysis for end-of-life recycling, or other waste stream diversion.

TRAFFIC/PARKING

20. What is the effect on school bus parking?
21. Will there be charging stations for future electric busses?
22. Confirm total current and future parking spots at the school.

OTHER

23. What is the anticipated start date and duration of construction?
24. Will the school's current insurance policy cover this project?
25. Other phases are likely in future, and the master plan recommends more fields. How will that affect the funding, budgets, environmental impacts, etc.?

Oct. 29, 2020 questions related to grass maintenance and Natural Grass Advisory Group report

LINK TO ANSWERS TO QUESTIONS 1, 4–8

1. Please outline the processes for grading, irrigation, planting, aeration, and drainage to date.
2. What qualifications and requirements will there be for specialized contractors and equipment? Will this specify experience in natural grass field maintenance?
3. Are Huntress and MVRHS willing to work with a natural sports turf specialist to finalize/revise the construction and maintenance plans for Field 2, provide education to the school, and carry out maintenance? Questions were raised as to:
    - Field size and orientation
    - Grading
    - Resurfacing
    - Irrigation
    - Drainage
    - Soil products
    - Seed mixtures
    - Watering
    - Mowing
    - Fertilization
    - Liming
    - Pesticides
    - Aeration
    - Topdressing
    - Maintenance budget
4. Please respond to the position that it is not appropriate for a competition field to have a track when 1) seating is behind the track, 2) use of the field may impact use of the track, and 3) a bigger field may be more appropriate for the proposed uses.
5. Will the current irrigation system, including a well and booster pump, be upgraded in order to adequately irrigate all the fields?
6. Is it possible to provide a full-scale irrigation design at this stage? (To identify water source location, max pumping capacity, etc.)
7. Will the new grass field be “rain-out” proof?
8. How much existing topsoil will be stripped? (Plans say the top 12” are modified.)

Nov. 11, 2020 staff and commissioner questions **LINK TO ANSWERS**

1. Do the federal flammability standards (COD FF 1-70) apply to synthetic fields? Are there other fire safety standards that apply specifically to synthetic fields?
2. On the issue of fire safety, please address the toxicity of smoke from a potential fire.
3. Is there currently a licensing agreement between HAI and the high school, or between Daedalus and the high school? If so, please provide a copy.
4. Please provide reference for the STMA 680-820 hours-per-field estimate for grass fields.
5. If later phases of the Athletic Field Master Plan do not proceed (or only proceed after a number of years), what are the implications for the Phase 1 project, in terms of usage, costs, field overlap, usability of remaining fields, etc.?
6. Please clarify whether user fees will apply to field use by non-MVRHS students, and provide a copy of the current field use policy.
7. How much tree and other vegetation clearing is required for Phase 1 (apart from the removal of 4 trees to make room for the bus drop-off)? Would the clearing in the area proposed for the synthetic turf be different if a grass field were proposed for that area?
8. Are ongoing additional landscaping costs built into the MVRHS budget?
9. Please explain why synthetic turf requires no watering. How do you keep it saturated?
10. What intensity of storm is the storm drainage system engineered to?
11. Please detail any specific equipment for installing or maintaining synthetic turf (other than the field groomer and sweeper attachments which are included in the vendor contract) which the MVRHS would require? Are these capital costs included in the cost comparisons provided?
12. Are you recommending and costing out standard grooming or premium? If the former, does the high school have the equipment and training to do the deep cleaning to remove debris and contaminants?
13. Do the proposed improvements to the natural grass field (i.e. re-establishing the mid-field crown, improving the topsoil composition and adding infiltration trenches) include any other reconstruction or renovation? Are your recommendations consistent with TURI (or other applicable) recommendations for establishing a grass field capable of moderate to heavy usage with proper maintenance?
14. What are the risks of failure to properly maintain synthetic turf (for instance, due to lack of funding; e.g. loss of warranty protection, injuries, etc)?
15. If recycling is not an option at the end of the synthetic field's life, who will decide how, where, and when to dispose of the materials?
16. Is there a lighting shutdown time?
17. What are the implications, if any, of returning a synthetic field to grass, if that proved desirable?
18. Please describe what happens to synthetic fibers over time (from wear and tear), including at what point in their life it will occur with MVRHS projected usage. Please also provide photos of synthetic fields after a variety of years of use.
19. Synthetic Turf fibers may resist turf bind and work free at 18 lbs of force. What does that equate to?

20. Infill may not ordinarily go airborne, but what about when it is not saturated, and how often is a non-saturated condition expected to occur? What are the risks if the infill becomes airborne in a heavy windstorm? What about infill “splash”?
21. Warranties and Insurance
    a. Are there warranty-voiding conditions?
    b. Provide indications of out-of-warranty costs experienced by other users.
    c. Is there a plan for transitioning maintenance work to MVRHS staff once the product is out of the maintenance agreement AND the warranty period?
    d. Who provides indemnities to MVRHS, and what is their insurance coverage?
    e. Is liability insurance for the two options (synthetic and natural turf) the same?

Nov. 16, 2020 questions raised at 11/16/20 LUPC

LINK TO ANSWERS FOR QUESTIONS 6, 7, 10, 12, 13, 16, 19
LINK TO ANSWERS FOR QUESTIONS 1, 3, 4, 17, 18

1. Are there ways to organize additional funding, including from MVRHS alumni?
2. What is the current square-foot price for synthetic turf?
3. Detail the total amount committed by the donor, any capital costs that the donated funds will not cover, whether the donated funds are in place, and if they are subject to any contingencies.
4. Will the donors commit to longer-term funding to support the project?
5. Clarify whether maintenance costs refer to all the grass fields, or just the one in the proposal.
6. Does the agriculture program at the high school teach organic grass maintenance? Could that program be involved in maintaining the high school fields?
7. Does "no recycling for energy" mean that the products can't be burned?
8. Provide a comparison of the carbon footprint of natural vs. synthetic turf. [MVC staff is pursuing this.]
9. Provide more information about the testing of PFAS and other contaminants. [MVC staff is pursuing this.]
10. Show whether the proposed shockpad is made from recycled materials.
11. Who is being consulted to determine the location of the proposed groundwater monitoring wells, and are two wells enough?
12. We need a simple, clear plan for the monitoring wells, including the process for annual inspection, and what and who will determine if there is a problem.
13. What chemicals will be used in maintaining the natural fields (amounts and types)?
14. Talk more about the proposed infill for the synthetic field, including how it is spread out, where it sits in the system, and whether it migrates over time.
15. Explain the reduced impact associated with the shockpad under the synthetic field. Why is the range of risk reduction so large? What is the stated reduction relative to?
16. Is the woven turf backing a new technology and has it been proven in practice? What is its durability?
17. Relevant to financing, why did the prior Field Fund proposal to install natural turf not go forward? Are those issues still germane in light of the proposal?
18. How do we know future phases of the master plan will include only natural fields? The applicant needs to explain the longer-term plan.
19. The Oak Bluffs Planning Board is concerned about the Edgartown-Vineyard Haven Road corridor in general. Provide more information about the effects on traffic.

Nov. 17, 2020 questions from commissioners following 11/16/20 LUPC

LINK TO ANSWERS TO QUESTIONS 1, 2, 4, 6

1. Do PE classes include all sports and all years? (The more junior years would seem not to generate as much wear and tear.)
2. In regard to field usage, are the natural grass assumptions premised on the field reconstruction/design, irrigation, drainage and maintenance recommendations generally outlined in the document submitted by the Natural Grass Advisory Group?
3. What about the Marblehead fields? Why are their field usage rates so high and why can't the Vineyard duplicate their usage?
4. In regard to maintenance activities, Chris's latest answers don't appear to cover infill replenishment – both periodic and regular top dressing (X% every #yrs) – or twice-annual deep-tine grooming. Can we assume that those activities are covered by the 2-year plan and that those costs are included in the detail of ongoing maintenance costs?
5. What is the expected frequency of top-dressing and infill replacement?
6. Are the following activities contemplated?
    a. Spring/fall prep (Chris's answer says 2x in first year, but should it take place 2 times/year with a day each time?)
    b. De-compacting
    c. Watering

Dec. 1, 2020 questions from staff and commissioners

LINK TO ANSWERS TO QUESTIONS 1–6, 8–10
LINK TO ANSWER TO QUESTION 7

1. Clarify grass maintenance costs – replacement vs. sod only.
2. Do grass fields typically need a full reconstruction after so many years?
3. Provide details about rainwater harvesting and environmental educational opportunities for the high school, as mentioned in responses to HW.
4. Confirm whether the grass field will include underdrains, and confirm whether the proposed leaching basins are sized to accommodate predicted flows. (Refer to HW review and responses.)
5. Confirm that effluent from the synthetic field will be tested for nitrogen species. (Refer to HW review and responses.)
6. HAI has estimated the cost of recycling the synthetic turf field at $225K, which presumably includes the costs of dismantling, testing, packing, and shipping all field components. Is this cost included in the donated funds? What is the $50K in escrow funds supposed to cover?
7. Could the "community use" (youth groups and summer camps), estimated at 1,125 hours of use, be transferred to other Island fields to reduce usage on the MVRHS fields?
8. Confirm that field disinfection during the pandemic is limited to spot cleaning.
9. Confirm that the estimated grass maintenance costs are for one field or all the fields, and how many acres that entails. (Refer to HW review and responses.)
10. If recycling is not an option at the end of the synthetic field's life, what alternatives will be pursued, and what would they cost?

Summary of questions from Oct 29-Dec 1 where a written response is preferred

LINK TO ANSWERS TO QUESTIONS 1, 3, 5–7
LINK TO ANSWERS TO QUESTIONS 2, 8

1. Please outline the high school's current practices in regard to grading, irrigation, grass planting and maintenance, aeration, and drainage for the grass fields at the high school.
2. Please detail the total amount committed by the donor, any capital costs that the donated funds will not cover, whether the donated funds are in place, and if they are subject to any contingencies.
3. Please provide a simple, clear plan for the proposed monitoring wells, including the process for annual inspection, who will be in charge of sampling and analysis, and what standards will be used to determine if there is a problem with the groundwater.
4. Please comment on the Marblehead fields case study by TURI, which is included in the Horsley Witten High School Athletic Field Case Study Report. Why are the Marblehead field usage rates so high and why can't the Vineyard duplicate that usage?
5. In regard to maintenance activities, Chris Huntress's latest answers don't appear to cover infill replenishment – both periodic and regular top dressing (X% every X years) – or twice-annual deep-tine grooming. Can we assume that those activities are covered by the 2-year plan and that those costs are included in the detail of ongoing maintenance costs?
6. Please confirm whether the grass field will include underdrains, and whether the proposed leaching basins are sized to accommodate predicted flows. (Refer to HW review and responses.)
7. What is the total estimated cost of recycling the synthetic turf field, and does that include the costs of dismantling, testing, packing, and shipping all field components? Is that cost included in the donated funds? What specifically is the $50,000 in escrow funds supposed to cover?
8. Could the community uses (youth groups and summer camps), estimated at 1,125 hours of use, be transferred to other Island fields to reduce usage on the MVRHS fields?

Dec. 14 questions from staff and commissioners.

LINK TO ANSWERS
ADDITIONAL RESPONSE TO MARBLEHEAD CASE STUDY

1. What qualifications and requirements will there be for specialized contractors and equipment? Will this specify experience in natural grass field maintenance?

2. Are Huntress and MVRHS willing to work with a natural sports turf specialist to finalize/revise the construction and maintenance plans for Field 2, provide education to the school, and carryout maintenance?

3. What is the current square-foot price for synthetic turf?

4. Clarify whether maintenance costs refer to all the grass fields, or just the one in the proposal.

5. Who is being consulted to determine the location of the proposed groundwater monitoring wells, and are two wells enough?

6. Talk more about the proposed infill for the synthetic field, including how it is spread out, where it sits in the system, and whether it migrates over time.

7. Explain the reduced impact associated with the shock pad under the synthetic field. Why is the range of risk reduction so large? What is the stated reduction relative to?

8. What about the Marblehead fields? Why are their field usage rates so high and why can't the Vineyard duplicate their usage?

DATE: Dec. 17, 2020 **LINK TO ANSWERS**
TO: Chris Huntress
FROM: Alex Elvin
RE: MVC follow-up questions to HAI/MVRHS responses dated May 26, Nov. 13, Dec. 2, and Dec. 12

MAY 26 RESPONSES

(9) Is the high school currently using best maintenance practices?

Response: The standards for Best Management Practices for Athletic Field Maintenance vary widely depending on the resources used as a reference. To that end, STMA (Sports Turf Manager's Association) announced on May 15, 2020, that they are beginning to prepare a recommended "Best Management Practices Guideline for Athletic Field Maintenance." Their guidelines are expected to be released next year. We would be happy to answer any specific questions regarding the existing maintenance of the athletic fields. We have asked Mike Taus, Director of Facilities, to join one of our upcoming discussions regarding your review of the submitted DRI application.

Questions for MVRHS Facilities Director Mike Taus: What best management practices is the high school currently using for the maintenance of its natural grass fields? Assuming proper construction of the fields and adequate budgeting for maintenance, are there different management practices that would allow the fields to withstand greater usage? If so, a) what are those practices, b) how much more field use could they allow per year, and c) why does the school not use them currently? Does the high school maintenance staff have adequate training to apply the proposed BMPs?

(16) How will fertilizers for the grass field be controlled so as not to negatively impact users or the environment?

Response: The following is the fertilization program as outlined in the Turf Field Annual Maintenance Plan included in the Athletic Field Master Plan and provided to the MVC as part of the DRI submission (…)

If nitrogen is applied at the rates specified in, and otherwise in accordance with, the Island fertilizer regs, how much of that nitrogen is typically absorbed by the field, and how much goes into the groundwater? If fertilizer-grade urea cannot be applied to the synthetic turf field to melt ice, what is proposed to be applied to enable the field to be used in freezing temperatures?

(20) Will user fees for community use of the athletic facilities increase as a result of the project?

Response: MVRHS has a current policy applicable to the use of all of its facilities, including payment of a user fee. Said fees can be an essential revenue source, which can help cover the maintenance costs for its facilities. For example, user fees charged to groups using the Performing Arts Center are used to pay for that facility's maintenance costs. The MVRHS School Committee reviews these fees and policies regularly.

Question for MVRHS: Please provide the current fee schedule, and explain how the fees might increase after the project is completed.

(25) Are there more head and knee injuries with artificial turf than natural turf?

Response: Injury rates to both head and lower extremities have been studied extensively in the US and abroad. Depending on the source, I could provide you with dozens of studies that show synthetic turf or grass to be considered a safer playing surface. The following is a link to the Penn State Center for Sports Surface where you can find 51 independent studies regarding player safety. (…)

What are the concussion rates for the proposed system?

(26) Will the synthetic field get hotter than a typical grass field? Please provide details.

Response: According to Penn State Center for Sports Surfaces synthetic turf can get 35° to 55° F (20° to 30° C) hotter than natural grass. These studies were conducted on synthetic turf using SBR Crumb rubber as an infill product. As mentioned in response #13, the multi-purpose synthetic turf field proposed for MVRHS will include a natural, organic infill product called BrockFILL. One of the many advantages to using an organic infill product is the infill's natural properties hold and retain moisture, providing considerable temperature reductions when compared to traditional SBR rubber infill turf fields. In testing provided by the manufacturer, the BrockFILL field measured 33 degrees cooler than a traditional crumb rubber field. Plus, the lower thermal conductivity of BrockFILL reduced heat transmission through shoes and skin. The difference is even greater after a rain. Please refer to the attached BrockFILL brochure, including information on heat reduction, for additional information. MSDS sheets and physical samples have been sent to your office under separate cover.

Assuming a clear, hot summer day, what is the range of how much hotter the proposed synthetic turf would be, compared to natural grass turf? Please note the assumptions underlying your answer.

OCT. 26 RESPONSES

(8) Provide a field disinfection plan that meets new Covid response protocols and follows manufacturer guidelines. (Provide sign-off from manufacturer?)

Response: Our recommendation for a synthetic turf field disinfection program follows the recommendations of the CDC, and is further detailed in our September 28, 2020 response to question 3c from your peer review agent, Horsely Witten. Also, attached you will find a response form Greenfields USA regarding their review of our specific recommendations for disinfection of the proposed field.

Please specify which cleaning and disinfection chemicals/products will be used for spot-cleaning the field. Are there studies showing that rain water is enough to ward off bacteria like MRSA?

NOV. 13 RESPONSES

(3) Is there currently a licensing agreement between HAI and the high school, or between Daedalus and the high school? If so, please provide a copy.

Response: Neither my office, nor Daedalus, have a licensing agreement with the MVRHS.

Question for MVRHS: Please provide whatever written agreements are in place between the MVRHS and each of HAI and Daedalus.

(5) If later phases of the Athletic Field Master Plan do not proceed (or only proceed after a number of years), what are the implications for the Phase 1 project, in terms of usage, costs, field overlap, usability of remaining fields, etc.?

Response: There are no implications to the phase one plan costs should later phases not be constructed. The usage numbers provided on July 15, 2020 are calculated to be at the end of phase one construction. The overlap and usability of the remaining fields are shown on the overall campus circulation plan dated June 2, 2020 submitted to the MVC on June 5, 2020.

What would be the implications, in terms of usage and the quality of the synthetic field and field #2, if future phases of the master plan are not completed?

(6) Please clarify whether user fees will apply to field use by non-MVRHS students, and provide a copy of the current field use policy.

Response: According to Mr. Richard Smith, Assistance Superintendent, MVPS has never instituted fees for participation in MVRHS athletics and does not intend to do so based on the proposed construction. Community organizations using our facilities are required to complete a permit application which requires the user to abide by certain conditions, as well as the payment of a reasonable user fee, in accordance with the policies established by the MVRHS School Committee. A copy of the current MVRHS Field Use Policy will be provided under separate cover.

Question for MVRHS: Is the field use policy the same as the MVRHS Student Handbook?

(18) Please describe what happens to synthetic fibers over time (from wear and tear), including at what point in their life it will occur with MVRHS projected usage. Please also provide photos of synthetic fields after a variety of years of use.

Response: Over time synthetic turf fibers can fold and lay over. The product we are offering, Ironturf by Greenfields/Tencate is a woven turf. The fibers are woven in bundles, enabling the turf to stay upright. Included in the product are the two most durable fibers in the industry, TenCate XPS and TenCate Diamond. We are gathering photos of synthetic turf fields at a variety of years of use and will submit those shortly under separate cover.

Please provide the photos of synthetic fields at various stages in their life cycles, including ones nearing end of life (these don't have to be the same products as proposed). Please comment on the effect of UV rays on the grass blades over time.

(21) Warranties and Insurance
a. Are there warranty-voiding conditions?
Response: No.
b. Provide indications of out-of-warranty costs experienced by other users.
Response: Basic grooming and regular maintenance are required during the warranty period. Please refer to question & answer #14, above for details.
c. Is there a plan for transitioning maintenance work to MVRHS staff once the product is out of the maintenance agreement AND the warranty period?
Response: Yes, please refer to question & answer #14, above for details.
d. Who provides indemnities to MVRHS, and what is their insurance coverage?
Response: The selected turf manufacturer would provide indemnities to MVRHS. The required coverages are itemized below.
e. Is liability insurance for the two options (synthetic and natural turf) the same?
Response: Yes, and MVRHS has confirmed that the construction of facilities included in Phase One will not increase their present liability coverage expenses.
As you are aware, this project will be subject to the Massachusetts Public Bid laws found in MGL Chapter 30, Section 39M. As such, our construction specifications for public bid will outline the criteria for acceptance required of any synthetic turf vendor wishing to submit their product as equal to our written specifications. The warranty requirements are contained in several specification sections within the bid documents, including Section 01 78 36 WARRANTIES, Section 32 18 23.29 SYNTHETIC FIELD SPORTS SURFACING, and Section 32 18 23.30 SYNTHETIC FIELD UNDERLAYMENT. I have attached our letter to you, dated July 28, 2020, discussing the relevant sections of the specifications that address warranties for your review and consideration. (…)

Are there separate warranties for each element of the field? Please provide documentation. Will these be personalized warranties, and can you provide examples of personalized warranties from other HAI projects?

Please provide a copy of the current insurance policy that covers the fields. Does the policy cover replenishment and/or replacement of synthetic products following a major storm? If not, where would that funding come from?

DEC. 2 RESPONSES

(3) Will replacement also be covered by donations?

Response: Yes, replacement can be covered by donations. Such donations can accrue over time like those revenue sources of the Performing Arts Center (PAC) or budgeted as determined by the School Committee.

Question for MVRHS: Please provide documents/confirmation that the replacement of the synthetic field will be covered by donations.

(4) How will future phases be funded?

Response: The application before you does not contain future phases. We respectfully request that all questions be focused on the scope of work contained within our application. The impact of future phases regarding funding, budgets and environmental impacts would be the subject of a future DRI review process and would be required to comply with the requirements in place at that time. The new 400m track for our students is an immediate need. MVRHS school committee members are elected, in part, to develop budgets that meet the needs of students while respecting the thresholds of taxpayers. We respectfully ask for your support in allowing us to complete the task of providing upgraded athletic facilities for our current and future students.

What are future phases of master plan Option B likely to cost over 20 years?

(5) Provide intensity factor for field use estimate.

Response: MVC's independent peer review agent, Horsley Witten, in their September 12, 2020 High School Athletic Field Case Study, recommended that we apply an "intensity factor to account for differences in field stress by sport...similar to Falmouth's weighted estimate." As an example, the Falmouth study assigns an intensity factor of 1.0 to girl's soccer, while boy's football received an intensity factor of 2.0. This is intended to show that the wear from high school football on a natural grass athletic field was twice as intense as the wear from high school girl's soccer. If we were to apply all of the Falmouth "intensity factors" to this project, we would see our annual field use hours jump from 3850 to 4976, as shown below. This represents an increase of 23% and would further indicate that the current field use is beyond the capacity of the existing natural grass fields and that the MVRHS campus could benefit from the addition of one synthetic turf surface.

Please detail all of the assumptions in the field use analysis provided. In particular, please comment on each of the points raised by Richard Bennet in his email correspondence dated March, 4, 2020, specifically his point 2.

(11) Provide a fire safety plan for the synthetic field.

Response:
A. Synthetic Turf is considered non-flammable. Greenfields/Tencate's Material Data Safety Sheets reference a flashpoint in excess of 600 degrees Fahrenheit.
B. Toxicity of smoke from a potential fire: Inhalation measures are listed as Non-Applicable, with guidance for respirators during an indoor scenario. (There would be no indoor scenario in this application)
C. Greenfields/Tencate's Material Data Safety Sheets reference the following special fire fighting procedures: Use water to cool fire exposed surfaces and to protect personnel. Wear self-contained

breathing apparatus when fighting in contained area. (As this is an outdoor athletic field, this would not be considered a contained area.)
D. The proposed eight lane running track acts as a fire break. The synthetic turf field is separated from all mature trees by the proposed 400m running track. The closest distance from the turf to the existing mature trees is 41'-6". As a point of reference, the existing fire break roads in the State Forest are 20' in width.
E. Please refer to the IronTurf Ultra Green Synthetic Turf product MSDS sheet provided by Tencate/Greenfields submitted under separate cover Alex Elvin on 11/16/20 via email.

Please reference the specific organizations and provide specific documents that conclude that synthetic turf is non-flammable. The Iron Turf MSDS states "material will burn in a fire," and combustion products contain carbon dioxide, carbon monoxide, various hydrocarbons. (Standard 29 CFR 1910.1200, referenced in response to question 1 on Nov. 13, refers to hazardous chemicals, not flammability.) Please also provide the COD FF 1-70 test results for the Iron Turf product.

(12) Breakdown of high school's 2019 annual budget for athletic fields maintenance.

Response: MVRHS spent approximately $153,649 in FY19. The MVRHS has not tracked a further breakdown of the high school's 2019 athletic field expenses.
The extreme amount of hours being programmed for high school athletics is the main reason our existing fields are failing, and not the annual maintenance program. By introducing one synthetic turf field to take over 1800 annual hours of athletic use we can significantly improve the quality of our remaining natural grass surfaces. Please refer to our November 13th response to question #4 regarding the STMA's recommended annual hours of use for natural grass athletic fields.

Question for Mike Taus: How is the high school budget for athletic field maintenance spent? Has the high school spent its entire field maintenance budget on field maintenance in the last 3 years? If not, what portion was spent?

(13) What is the cost to maintain proposed field house and other non-field facilities?

Response: The proposed field house construction is no longer anticipated as part of Phase One construction. It would be premature to estimate the annual maintenance cost of the future building until such time as a wastewater connection is designed, reviewed and approved by the Oak Bluffs Board of Health.
As the balance of the Phase One scope of work includes replacing and updating existing dilapidated facilities, we do not anticipate a significant increase in maintenance costs at this time.

Confirm that the field house is no longer part of phase one. If so, those plans would need to return to the MVC for review. Please provide an estimate for the cost of non-field maintenance for phase one.

(17) Conduct an alternatives analysis for end-of-life recycling, or other waste stream diversion.

Response: As stated in our response to staff questions dated 11/13/20, question #15, we anticipate that recycling will be an option at the end of life. The current project specifications require a $50,000 cash bond and a guarantee from the turf manufacturer that the product be recycled at the end of its useful life. Further, Joe Fields, President of Tencate America provided two (2) written letters to Adam Turner dated February 4, 2020 and October 15, 2020, each with a guarantee that the field would be recycled at end of life at either their existing recycling facility in the Netherlands, or their planned facility in the United States. I expect that MVC will place a condition on their DRI approval of the project that the synthetic turf carpet be recycled at the end of life, and that the MVC be provided with the appropriate chain of custody documentation of the entire recycling process.

We still need to see an alternative plan for disposal, which accounts for the possibility that recycling will not be an option at the end of life.

DEC. 12 RESPONSES (HAI)

(3) Will the current irrigation system, including a well and booster pump, be upgraded to adequately irrigate all the fields?

Response: No, not at this time. Field #2 is presently irrigated and the water supply is sufficient for our use at this time. Irrigation requirements for future fields would be sized when those future improvements are scheduled.

Will irrigation requirements for field 2 reduce the water available for irrigating the other fields? Confirm that phase 1 before the commission will have no impact on existing fields besides field 1 and field 2, with the exception of reducing their annual usage.

(14) Do PE classes include all sports and all years? (The more junior years would seem not to generate as much wear and tear.)

Response: The hours and dates for PE classes used in the Field Use Analysis include all grades at the High School. We would offer the 9th and 10th graders are very active as well as similarly sized as upper classmen; consequently they do generate the same wear and tear on the natural grass fields as the older students.

Question for MVRHS: What specific activities for PE classes take place on the fields? Does this apply to all grades and classes?

(25) What is the total estimated cost of recycling the synthetic turf field, and does that include the costs of dismantling, testing, packing, and shipping all field components? Is that cost included in the donated funds? What specifically is the $50,000 in escrow funds supposed to cover?

Response: The $50,000 escrow funds are in place to ensure the funds are available at the end of life to remove, transport and recycle the synthetic turf carpet. The cost of removal, transport and recycling is not expected to exceed $50,000.00.

What is the $50K in escrow funds intended to cover and under what conditions would funds be able to be withdrawn from the account? What entity or entities will provide the escrow funds?

DEC. 12 RESPONSES (MVRHS)

(1) Please detail the total amount committed by the donor, any capital costs that the donated funds will not cover, whether the donated funds are in place and if they are subject to any contingencies.

We have asked that a condition for approval be placed on this project that all construction costs be paid with private donations. This condition will alleviate any burden to our taxpayers relating to the construction costs.

Question for MVRHS: Please detail any capital costs that the donated funds will (or might) not cover, whether the donated funds are already in place, and if they are subject to any contingencies. Will the donors commit to longer term funding for the project, including replacement of the synthetic field (not just once but in perpetuity), and future phases of the master plan? Does the donor's pledge include paying for the entire $7,729,928 Phase 1 estimated cost? If not, what does it cover specifically?

(5) Relevant to financing, why did the prior Field Fund proposal to install natural turf not go forward? Are those issues still germane in light of the proposal?

The proposal did not go forward because it was terminated by The Field Fund on August 29, 2017 as indicated in their email to the Superintendent: "All previous offers, proposals or understandings of The Field Fund, Inc. are hereby revoked and withdrawn." Our application to the MVC as approved by the MVRHS School Committee is for Phase One as designed by Huntress Associates. Relevant to financing (as stated in #1), we have asked that a condition for approval be placed on this project that all construction costs be paid with private donations.

Question for MVRHS: What specific issues or concerns did the high school have with the Field Fund proposal?

ADDITIONAL QUESTIONS (DEC. 17, 2020)

1. Confirm that future replacement of the synthetic field will include the same infill and products. (The MVC could apply a condition that replacement needs to come back for review.)

2. Is the maintenance budget provided for the natural grass field based on the Annual Maintenance Plan dated June 8, 2020? If not, please provide an updated maintenance budget for the grass field.

3. What is the overall campus plan for usage and play? Who will use what fields?

4. Will there be written guidance to protect athletes from high temperatures associated with the synthetic field? If so, please provide an example of what that guidance might look like.

5. Please provide a cost and energy comparison of current and proposed electrical use.

Jan. 22, 2021 questions from staff and commissioners

LINK TO ANSWER TO QUESTION 1
LINK TO ANSWERS TO QUESTIONS 2-20 (QUESTION 7 IS ANSWERED IN THE ATTACHMENT)

1. Provide details on existing sprinkler system for the playing fields.

2. Provide a diagram showing the current hourly usage of the athletic fields.

3. How does the July 2020 field use analysis account for away games? (The Dec. 28 Q&A document, question 16, addressed the analysis, but not in terms of away games.)

4. Huntress calculates that installation of a synthetic field over a 20-year period is $1,675,834. If, alternatively those funds were invested on grass field(s) instead, what would be the approximate economic benefit be to the island locally if maintenance crews and other personnel were hired, trained and retained on island?

5. How is the sub-base layer for the synthetic field different than that of the natural field, in terms of cost and design?

6. What is the high school not doing in terms of current natural grass maintenance that leads it believe it must pursue a synthetic field?

7. How does HAI reconcile the statement made in the Q&A dated Dec. 28 (Question 1), “In my opinion, the natural grass fields at MVRHS cannot withstand greater usage, with or without additional BMP activities” to the statement by the Natural Grass Advisory Group in their submission that the problem with the MVRHS natural grass fields is not overuse but inadequate maintenance, and the statement in the Horsley Witten case study report, “It is likely that MVRHS could meet its usage needs with natural grass if they would commit to a maintenance program that focused on soil testing, aeration, soil amendments, frequent mowing, and the use of organic fertilizer to promote good soils and a strong root system”?

8. In the Q&A dated Dec. 28 (Question 11), HAI’s response notes that the fibers passed the UV tests. What does that mean to have passed the test in terms of the fiber's resistance to decomposition, durability, breakage, etc.? What has to be demonstrated to get such a score (or any other)?

9. What does it mean for the products to have passed the FIFA testing? (See May. 26 Q&A.)

10. Similarly, in the Q&A dated Nov. 13 (Question 18), HAI’s response notes that with wear and tear, fibers can fold and lay over. What effect does this have on durability, breakage, etc.? Given the anticipated use of the field over time (per the high school estimates of use), after how many hours/years of usage can that be expected to begin to occur?

11. In the Q&A dated Nov. 13 (Question 19) and elsewhere, HAI indicates that the plastic carpet blades can be dislodged with 18 lbs of force. With that in mind, how much breakage or pulling out of the fibers would occur during a typical athletic event, considering all the various types of contact with the field, including kicking, falling, scooping of lacrosse sticks, scuffing of cleats, and abrupt stops/turns?

12. What can be expected in terms of the percentage of carpet fiber loss annually due to wear and tear (i.e. normal use, exposure to UV light, etc.)? It would seem that carpet loss is expected, since the field must be replaced after 8–10 years.

13. What is the useful life, and the estimated cost and disposal plan, for the field elements other than the carpet: shock pad, infill, and the silica/sand layer? This estimate should include the costs of removal, transport, and any fees payable to a recycler/landfill.

14. What if recycling is not actually an option when the time comes (for instance, if the recycling business for this type of product is no longer economic)? What are the alternate disposal plans?

15. In the Q&A dated Dec. 28 (Question 23), HAI states that the escrow money can be accessed if the manufacturer "is unable for any reason to recycle as per the specifications". What are those specifications, and if they have already been provided, where can they be found?

16. Is the high school willing to install solar panels on the field house to power the improvements?

17. Please specify the risks to athlete health and wellbeing if the synthetic turf field is not properly maintained once the 2-year maintenance program has ended.

18. Based on the Firefly Sports sample analysis for end-of-life determination, it appears the synthetic field should be regularly tested. However, the analysis does not seem to indicate is how many of the tests would need to fail in order to conclude the field must be replaced. Is there an objective standard by which the high school can determine that the field needs to be replaced (and with which the manufacturer would agree)?

19. Please provide any documentation of the risk of inhaled or ingested silica coming from the proposed sand layer of the synthetic field.

20. Have any of the relatively new hybrid turf/grass fields been considered for MVRHS by Huntress or their predecessors?

Feb. 4, 2021 questions from staff and commissioners **LINK TO ANSWERS**

1. What would be the annual cost of athletic field maintenance if the high school applied the maintenance proposal for Field #2 to all of the athletic fields, including the game field?

2. Please provide copies of any agreements the high school has with Daedalus and Huntress.

3. Please provide a list of the existing high school fields and the times of year when they are intentionally taken offline in order to support the field maintenance and quality. Please also show how that schedule aligns with the existing and proposed maintenance plans.

4. Groundwater monitoring: Climate change will bring changes to the Island economy. For example, the potential for fewer visitors due to extreme weather events and their aftermath and a decline in the coastal real estate market. Another thing that will detract from the visitor economy is tainted groundwater, which is our sole source of drinking water and also enters our coastal ponds, affecting recreation and the shellfishing industries. If the two groundwater monitoring wells reveal the presence of microplastics, chemicals, or other contaminants related to the turf field, what will be done since the field will already be in place?

5. Will there be stormwater monitoring post-construction within the drainage system for Field #1?

6. Natural versus artificial materials: Wherever possible, working with nature, rather than against it, is the preferred method of climate adaptation. Today there are grass field designs that are said to better withstand heavy use, reduce impacts to the land and absorb more carbon. Based on regenerative landscape practices, these techniques better absorb water, decrease the need for irrigation, and reduce the need for chemical fertilizers. Can the applicant please explain why these techniques have not been proposed for the athletic field renovations? And will the applicant consider proposing them?

7. Job training: Knowledge of regenerative land use practices is a valuable, climate related workforce skill. Can the applicant please consider using the field renovations and maintenance as a workforce training experience for high school students?