

Town of Scituate

Investigative Committee for the Renovation/Construction of Town Sports Fields

June 23, 2016

Executive Summary

On January 14, 2016, the Scituate Town Council established a new committee to investigate and review options for new sports fields in the Town of Scituate. The committee was called the Investigative Committee for the Renovation/Construction of Town Sports Fields (the "TSF Committee").

The specific charge given to the TSF Committee by the Town Council was to review, develop and present options for addressing the need for athletic fields for the various sports teams in the town's school system. The TSF Committee was created to serve in an advisory capacity to the Town Council and School Committee and has been asked for any recommendations. This review was undertaken in response to deteriorating conditions on existing fields attributable to overuse, primarily at Caito Field. While school administrators are in the process of preparing a near-term fix for Caito Field, the TSF Committee has been asked to present options for a long-term solution for athletic fields for the Middle/High School teams.

In accordance with the aforementioned charge, the TSF Committee has prepared summaries for four sites considered to be adequate to accommodate one, or more, regulation size athletic fields. These summaries highlight our committee's assessment of the pros and cons for each site as well as some rough cost estimates for the preparation for each location for the installation of an athletic field (see Exhibits 5a, 6a, 7a, and 8a). We have also provided some cost estimates for the installation and maintenance of natural and artificial turf fields. A table providing a compilation of our cost estimates is included in Exhibit 1.

Sites Under Consideration

We began with the following list of Town-owned properties for consideration:

Darby Rd.	Hope Park
Gorham Field	Tasca Field
Lawton Farm	Manning Field
Doctors Field	"Caito East" (land adjacent to existing Caito Field)

After some discussion, it was determined that several of these sites were already fully developed (Hope Park, Tasca Field, Manning Field) or too small (Doctors Field). Further development or an alteration to existing use will only displace and disrupt current users. Our analysis quickly began to focus on Darby Rd., Gorham Field, Lawton Farm and Caito East.

Review Process for New “Standard” Fields

Early on in the review process we decided to separate the analysis of site assessments from the analysis of field types. We felt that this was the most expeditious approach for analyzing the multiple options under consideration.

We have essentially conducted a review of each site and prepared rough cost estimates for the preparation of the site for the installation of a standard athletic field (approx. 100 yards by 50 yards). It's generally thought that a total area of roughly 4 acres is required for a standard field and adjacent space for coaches, teams and spectators. Site preparation costs are assumed to include: 1) clearing and leveling of the site, 2) clearing and preparation for parking spaces and 3) the installation of irrigation systems. In addition to site prep costs, we have assumed that a new septic system and restroom/storage facilities would be required. We also prepared an estimate for busing athletes to the off-campus sites assuming that two trips would be required each way.

Separately, we prepared an analysis of the cost of installation and maintenance for both a sod and an artificial turf field. The installation estimates assume that the field site has been prepared as discussed in the previous paragraph. The estimated cost of maintenance reflects costs to be incurred over a 30-year period, which would capture the expected replacement of field surfaces. Note that artificial field surfaces have a life expectancy of approximately 12-15 years, at which time the field normally requires re-surfacing and some related sub-surface rehabilitation. Well-maintained sod fields have a life expectancy of at least 10 years. We have also assumed that all field maintenance services are provided by outside contractors (with the exception of mowing and lining for a sod field).

Alternative A (Artificial Turf at Caito)

One of the options that should be seriously considered would be to remove the sod field at Caito and replace it with a new artificial turf field. This field could clearly be used extensively for gym classes, practices and games. This option has the obvious advantage of easy access for multiple user groups.

Alternative B (Rehab Manning and add 2nd Practice Field)

While all of the previous analyses have centered on standard field and related space requirements, we have prepared an alternative scenario. This scenario calls for: 1) the renovation of the soccer field at Manning Field in a manner similar to that which is currently in process at Caito (using sod) and 2) the construction of a second non-regulation size practice field adjacent to the current practice field at the MS/HS Complex. The availability of a second practice field would allow for: 1) the two renovated fields being used largely and “game day” fields thereby minimizing field wear from extensive use for practicing and 2) one of the two “game day” fields would be rested each spring, which would significantly enhance the quality of the playing surface over time. An illustration of the 2nd practice field can be found in Exhibit 9.

Conclusion

The table in Exhibit 1 can be used to view the potential cost of each of the options under consideration. The two alternative scenarios are also presented. The estimates prepared by the TSF Committee should not be taken as being precise. Rather they are to be directional in nature and should be used, in conjunction with the respective pros and cons of each site, to determine the next phase in the process of developing a long-term solution for athletic field needs in Scituate.

We sincerely hope that the analyses and options prepared by our committee prove to be helpful in the preparation of a long-term solution to the needs of our athletic teams.

Respectfully,

TSF Committee

Tim McCormick, Chairman and resident representative
David Campbell, Vice-Chairman and Town Council representative
David D'Agostino, Town Council representative
Brian LaPlante, School Committee representative
Joe Casali, resident representative
Casey Erven, resident representative
Richard Finnegan, resident representative

Non-voting Advisor

Lawrence Filippelli, Assistant Superintendent of the Scituate School District

List of Exhibits

- Exhibit 1 Compilation Table for Cost Estimates
- Exhibit 2 Town of Scituate Map
- Exhibit 3 Middle School/High School Complex
- Exhibit 4 Manning Field Complex
- Exhibit 5a Darby Rd. Site Summary
- Exhibit 5b Darby Rd. map with athletic field illustration
- Exhibit 6a Gorham Field Site Summary
- Exhibit 6b Gorham Field map with athletic field illustration
- Exhibit 7a Lawton Farm Site Summary
- Exhibit 7b Lawton Farm map with athletic field illustration
- Exhibit 8a Caito East Site Summary
- Exhibit 8b Caito East map with athletic field illustration
- Exhibit 9 Alternative B: map with athletic field illustration
- Exhibit 10 Installation and maintenance estimates for Artificial Turf and Sod Fields
- Exhibit 11 Estimates for cost of busing: Darby Rd. and Gorham Field
- Exhibit 12 Estimates for cost of busing: Lawton Farm

Exhibit 1

**Town of Scituate
TSF Committee**

June 23, 2016

Summary Table of Cost Estimates

<u>Site Name</u>	<u>Field Prep</u>	<u>Well and Irrigation</u>	<u>Septic and Restrooms</u>	<u>30 Years of Busing</u>	<u>Installation & Maintenance</u>		<u>Estimated Total Cost</u>	
					<u>Artificial Turf Field</u>	<u>Sod Field</u>	<u>Artificial Turf Field</u>	<u>Sod Field</u>
Darby Rd.	\$275,000	\$75,000	\$125,000	\$405,000	\$1,650,000	\$1,200,000	\$2,530,000	\$2,080,000
Gorham Field	275,000	75,000	125,000	405,000	1,650,000	1,200,000	2,530,000	2,080,000
Lawton Farm	200,000	75,000	125,000	450,000	1,650,000	1,200,000	2,500,000	2,050,000
Caito East	300,000	25,000	0	0	1,650,000	1,200,000	1,975,000	1,525,000
Alternative Scenario A (New Artificial Turf at Caito)	200,000 (A)	0	0	0	1,650,000	0	1,850,000	n/a
Alternative Scenario B (Rehab Manning, 2nd Practice Field)	325,000 (B)	100,000	0	0	0	625,000 (B)	n/a	1,050,000

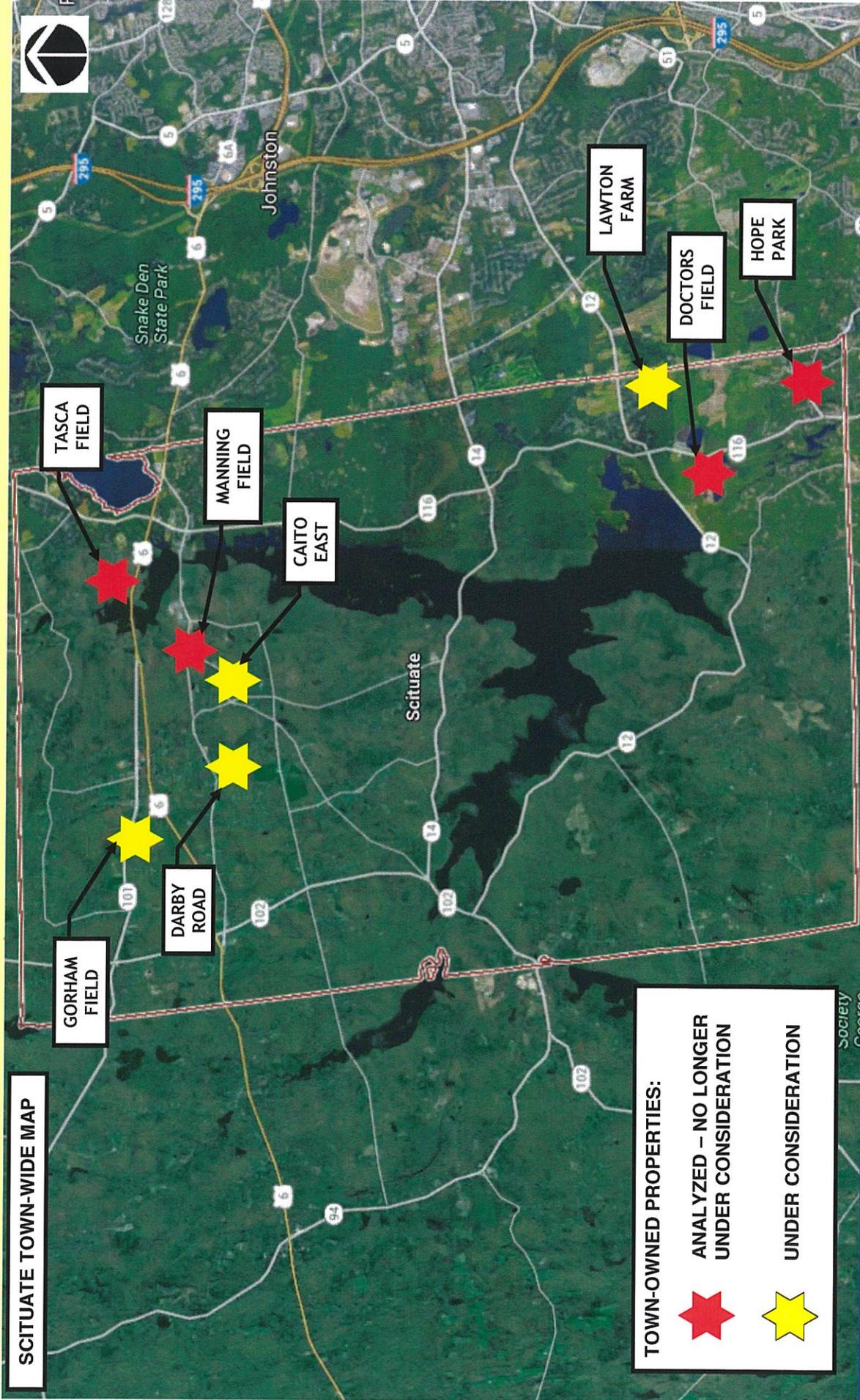
A) Notes for Alternative Scenario A: Additional field prep costs at Caito (retaining wall, fill, etc) over/above School Dept's planned temporary solution - \$200,000

B) Notes for Alternative Scenario B: The following assumptions for Alternative B have been reflected in the estimates above

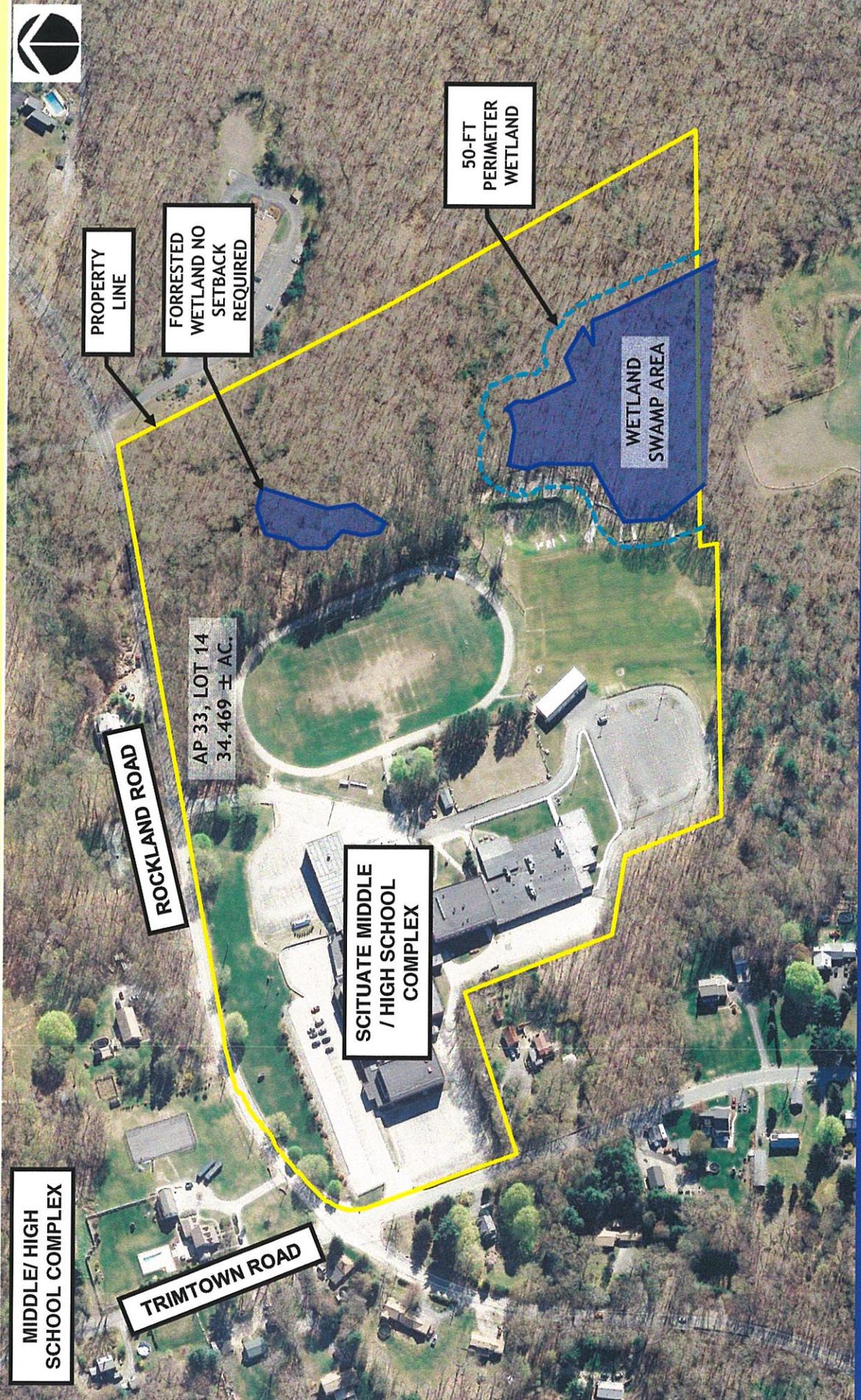
- 1) Preparation costs at Manning Field for a new sod field - \$25,000
- 2) New sod field at Manning - \$50,000
- 3) Irrigation costs (install well at Manning field) - \$25,000
- 4) Additional field prep costs at Caito (retaining wall, fill, etc) over/above School Dept's planned temporary solution - \$200,000
- 5) Preparation costs for a new sod practice field (next to Caito and the existing practice field) - \$100,000
- 6) Sod field on the new 2nd practice field - \$200,000
- 7) Irrigation costs (an extension of the new system at Caito to a new 2nd practice field) - \$75,000
- 8) Estimated annual maintenance costs of \$12,500/year over 30 years - \$375,000

Note that none of the options above include the anticipated rehabilitation of the current practice field at an estimated cost of at least \$50,000

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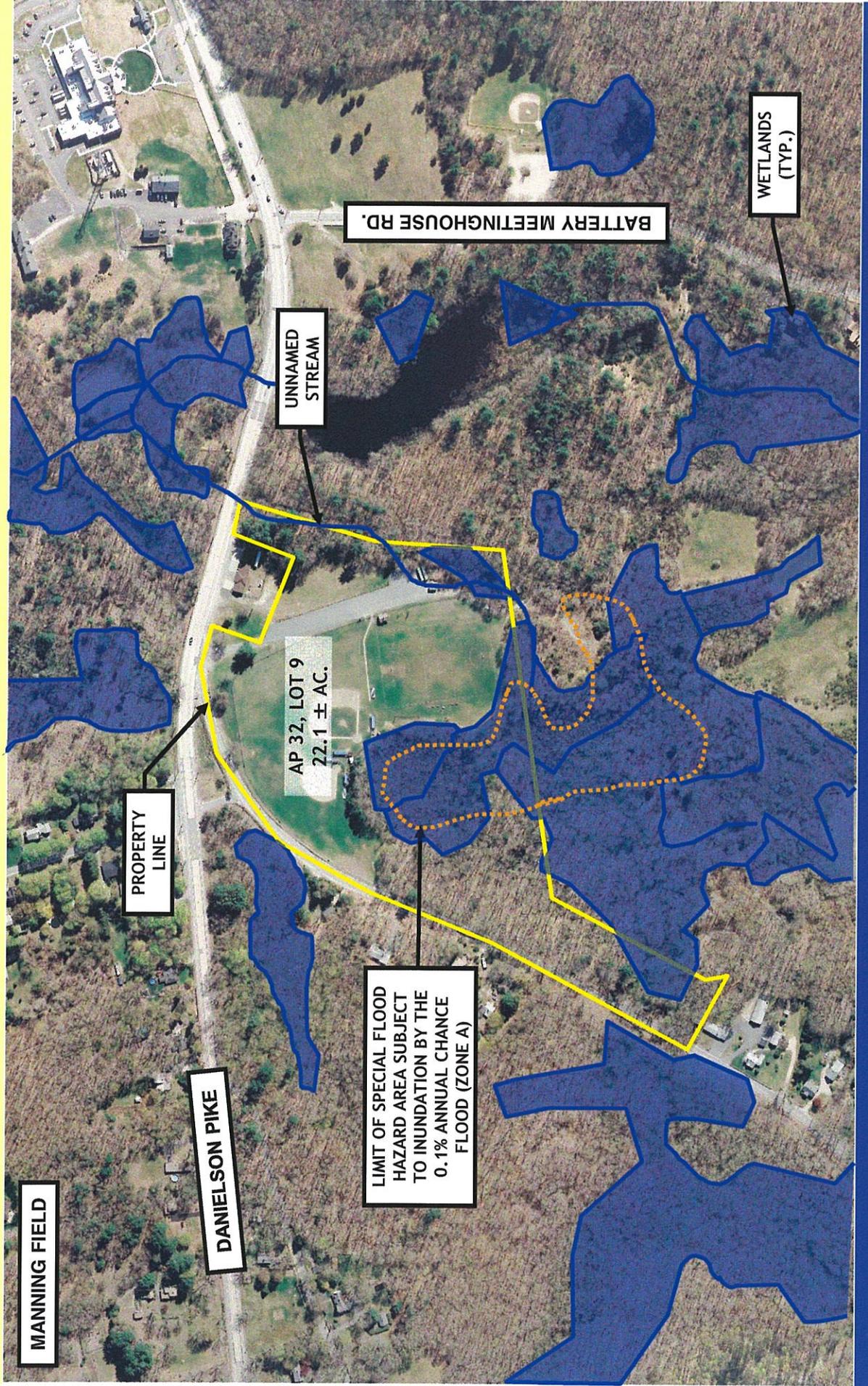


Exhibit 5a

Site Name: Darby Rd.

Description: Assessor Map #34; Lot 27

The town owns a total of 28.5 acres at the Darby Rd. site. There are 5.0 acres of usable land in the "central" portion of the property. There is another 1.5 acres of usable land at the "southwest" section of the property.

The buildable acreage is easily accessed from Darby Rd. with ~5.0 acres considered to be suitable for development. Much of the total acreage has been identified as wetlands with ~1.5 acres of additional upland acreage is largely surrounded with wetlands.

Preliminary drawings would suggest that one standard size athletic field and a few smaller fields could be placed on the site. In addition, there is ample room for parking in close proximity to the fields.

Site Prep: The site is moderately sloped with terracing and wall site prep work required.

Estimated Site Preparation Costs: ~\$275,000

Estimated Well and Irrigation Costs: ~\$75,000

Pros: Site Preparation costs are comparatively low.

Parking is accessible with up to 130 spaces identified in preliminary drawings. The parking would be well positioned between the road and the fields.

Cons: While 6.5 acres are considered to be suitable for development, the overall area does have a comparatively high water table. It's likely that considerable ground water diversion would be necessary to ensure that the fields would be usable in the wet season.

The location of the land is on a relatively quiet, narrow residential road and a traffic study would need to be completed.

While closer than some of the other sites being considered, the Darby Rd. location is off-site from the school and this would require adequate busing transportation. The annual cost of busing athletes is estimated to be \$12,000-\$15,000.

A septic system and restroom/storage facilities would need to be installed at an estimated cost of \$125,000.

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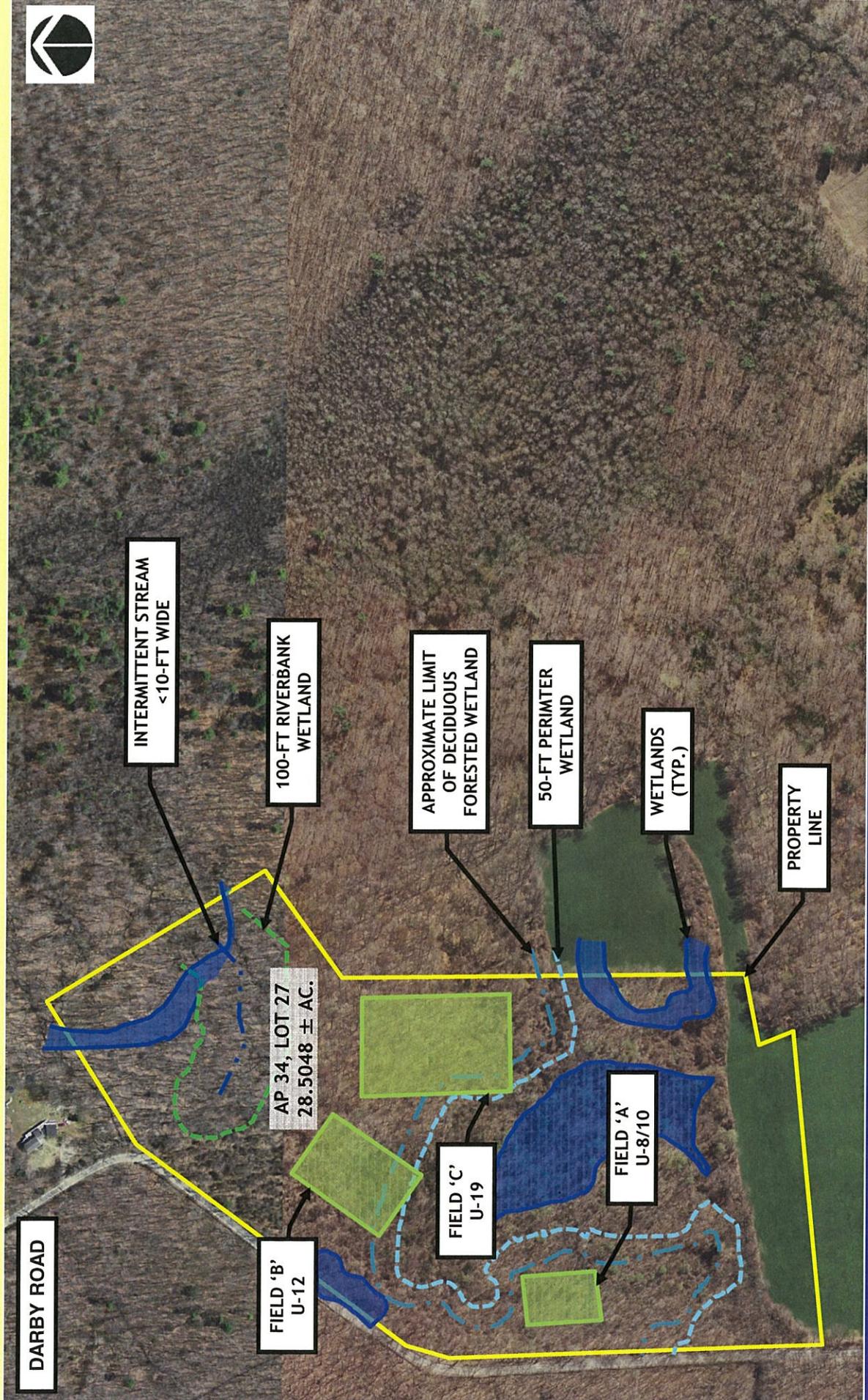


Exhibit 6a

Site Name: Gorham Field

Description: Assessor Map #29; Lot 8

The town owns 25.0 acres land at the Gorham Field site of which 8.4 acres is available and undeveloped land. The balance of the property is currently being used for little league baseball and tennis courts. The Gorham Field site is directly off of Rt. 101 and the land under consideration is located in the wooded area just beyond the tennis courts.

Preliminary drawings would suggest that two standard size athletic fields and a few smaller fields could be placed on the site. In addition, there is ample room for parking in close proximity to the fields.

Site Prep: The site slopes away from Rt. 101, towards the tennis courts and would require a terrace design with retaining walls to accommodate two fields.

While the overall area does have a comparatively high water table, the acreage under consideration is actually upland from Rush Brook. This would make potential environmental requirements more manageable.

Estimated Site Preparation Costs: ~\$275,000

Estimated Well and Irrigation Costs: ~\$75,000

Pros: Rt. 101 offers easy access to the road down to the existing tennis courts. It would appear that a traffic study would yield a comparatively positive analysis of the impact from use of this site.

Parking is currently available near the baseball fields. In addition, there are other readily accessible areas for parking including the possibility of utilizing the space currently occupied by the tennis courts.

Cons: Similar to the Darby Road site, transportation requirements would need to be assessed given that the location is off-site from the school. The annual cost of busing athletes is estimated to be \$12,000-\$15,000.

A septic system and restroom/storage facilities would need to be installed at an estimated cost of \$125,000.

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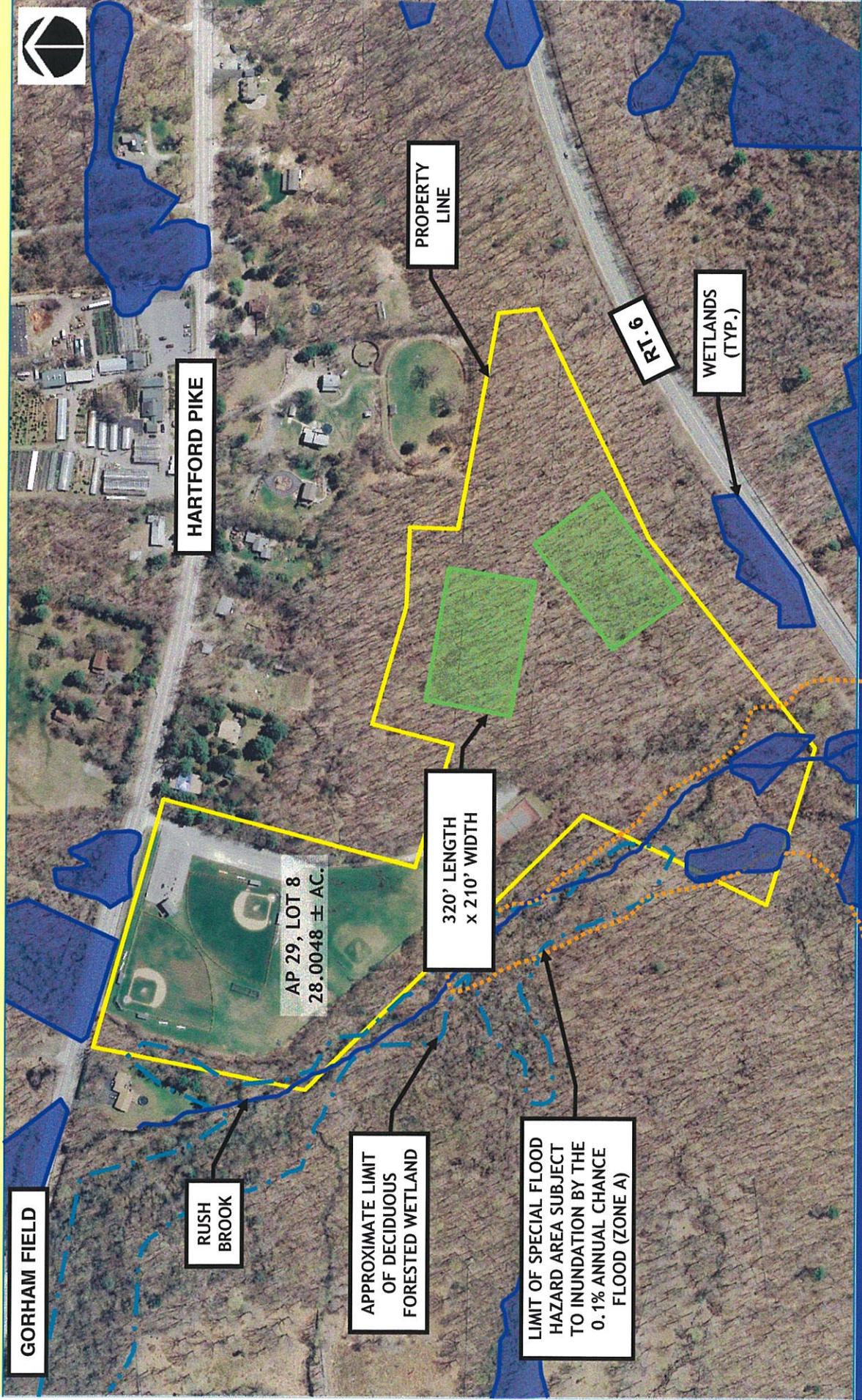


Exhibit 7a

Site Name: Lawton Farm

Description: Assessor Map #9-1; Lot 272

15 total acres of usable land

The buildable acreage is easily accessed off of Seven Mile Rd. and the land is quite level and already cleared.

Preliminary drawings would suggest that two standard size athletic fields could be placed on the site. In addition, there is ample room for parking in close proximity to the fields.

Site Prep: The site is relatively flat with minimal site prep work required

Estimated Site Preparation Costs: Considerably less than \$200,000

Estimated Well and Irrigation Costs: ~\$75,000

Pros: Site Preparation costs are low.

There are no identified wetlands on the site under consideration.

Parking is accessible with up to 150 spaces identified in preliminary drawings. The parking would be well positioned between the road and the fields.

Cons: The location of the land is on a relatively quiet, narrow residential road and a traffic study would need to be completed.

The site is also located next to highly valued conservation land owned by the Scituate Land Trust.

This site is the most remote location (relative to the school) under consideration. Busing costs would be comparatively high at Lawton Farm. The annual cost of busing athletes is estimated to be \$12,000-\$15,000.

A septic system and restroom/storage facilities would need to be installed at an estimated cost of \$125,000.

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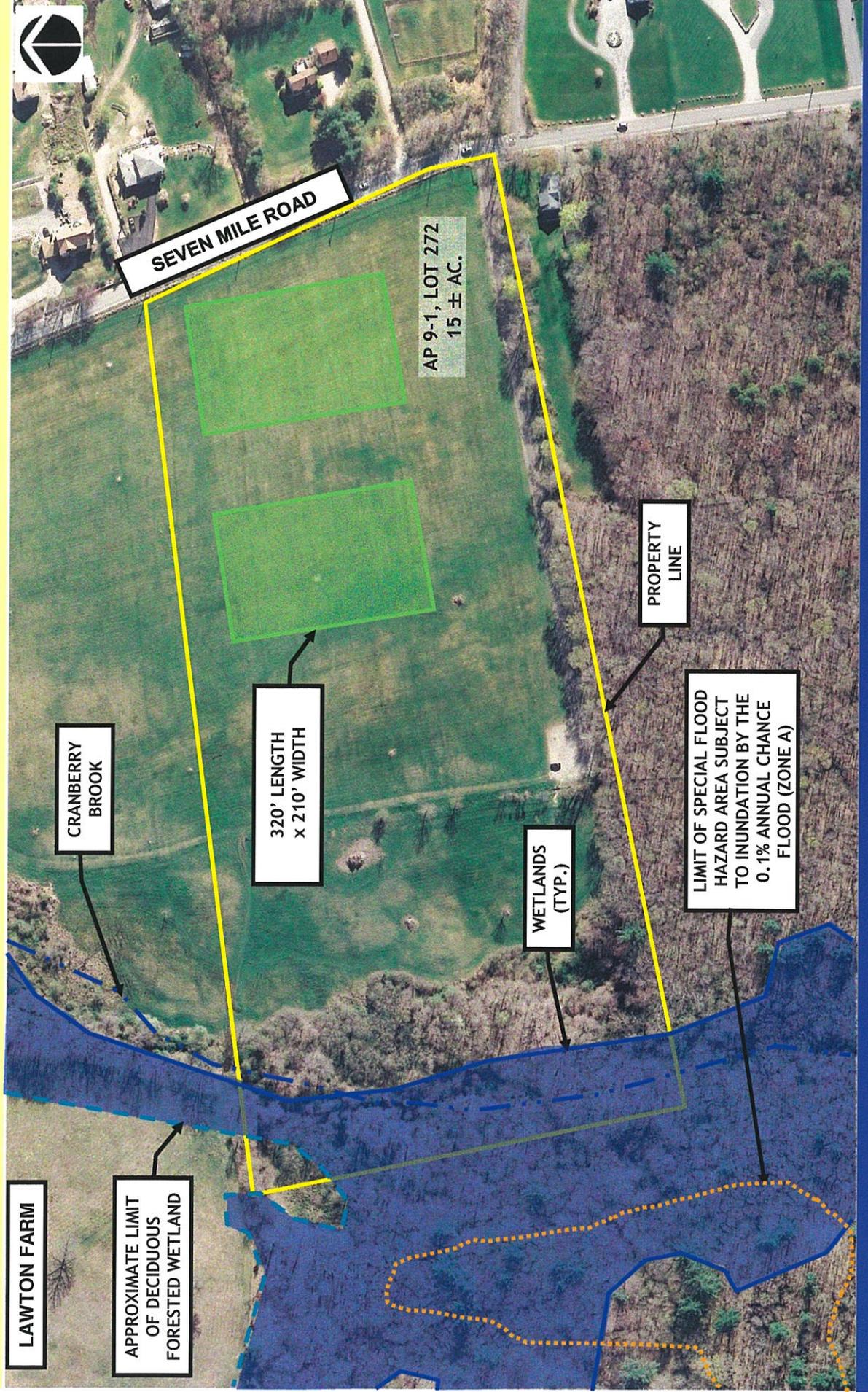


Exhibit 8a

Site Name: Caito "East"

Description: Assessor Map #33; Lot 14

This site is approximately 6.0 acres of undeveloped land lying easterly of Caito Field (football and track) at the Middle School/High School. The ~6.0 acres under consideration does not include the remaining adjacent Town-owned land directly south of the property (and east of the current practice field).

The area is wooded, with an odd shaped "forested wetland" in a central portion, comprising 0.4 acres; a short area subject to storm flowage ("a.s.s.f.") extends from the northeasterly tip of the wetland. Should development of this area be considered, it is likely that environmental approvals could be obtained to relocate, or replicate, elsewhere on the school property. The school land is 34.0 acres and possesses other, larger jurisdictional wetlands.

The horizontal shape of the area indicates a football or regulation soccer field could be accommodated.

Site Prep: The area is moderately sloped – overall at approximately 4%. However, the easterly embankment of the existing Caito Field is a steep slope. This would necessitate terracing and retaining walls/slopes for the development of a new field facility.

Estimated Site Preparation Costs (bringing the area to rough grade) would be in the \$300,000 range.

Pros: The site is at the school campus. The School Department is currently developing a well-water source – storage capacity, which would be available for irrigation.

There would be no requirement for additional busing.

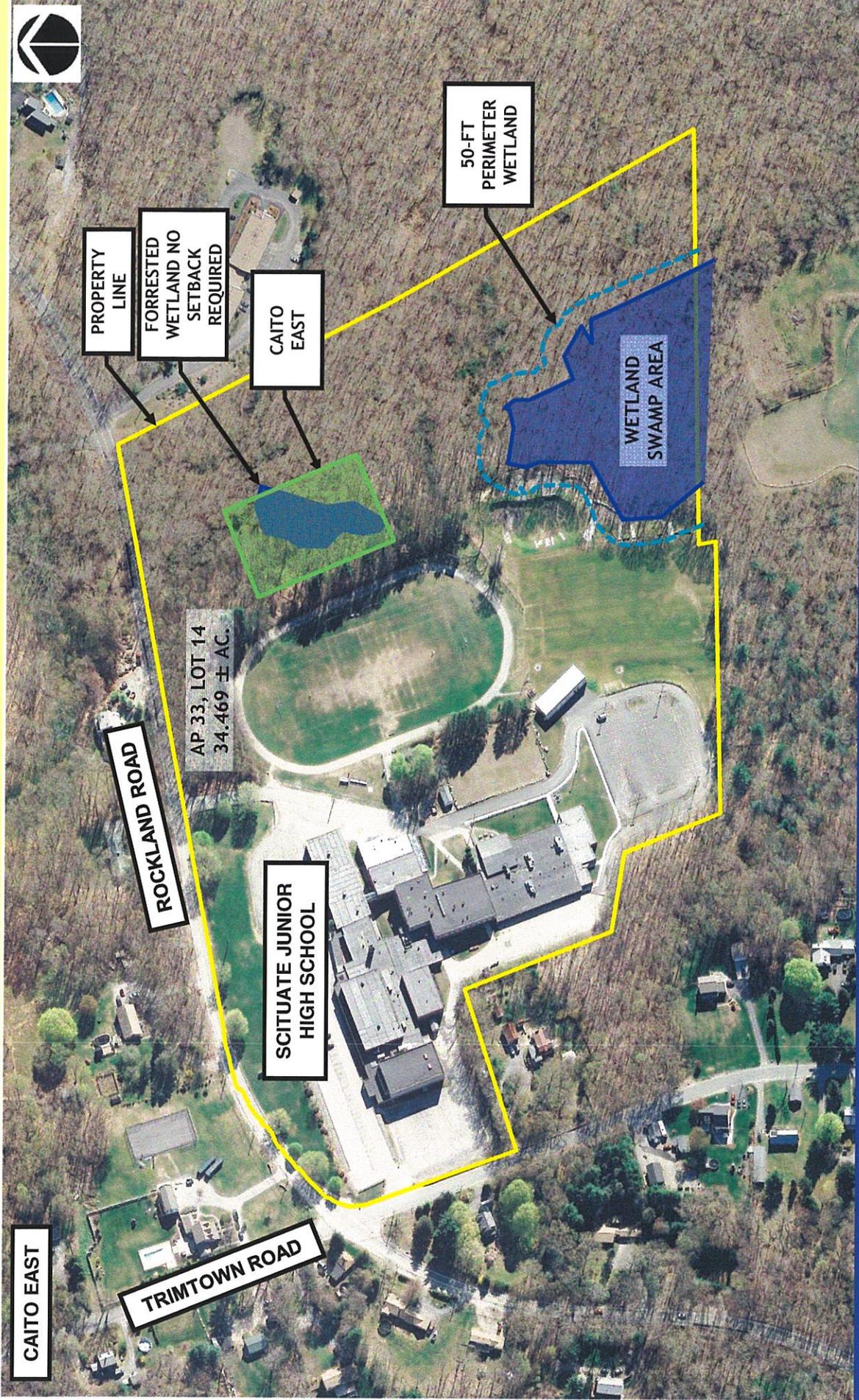
There would be no need for a septic system and restroom/storage facilities.

Adequate parking already exists at the site.

Cons: The existing 'fixed' boundaries – Caito Field (steep easterly embankment) and the easterly property (adjacent to Rockland Oaks) may add perhaps 10 – 15% to site Prep costs.

Wetland "replication" would be an added construction cost.

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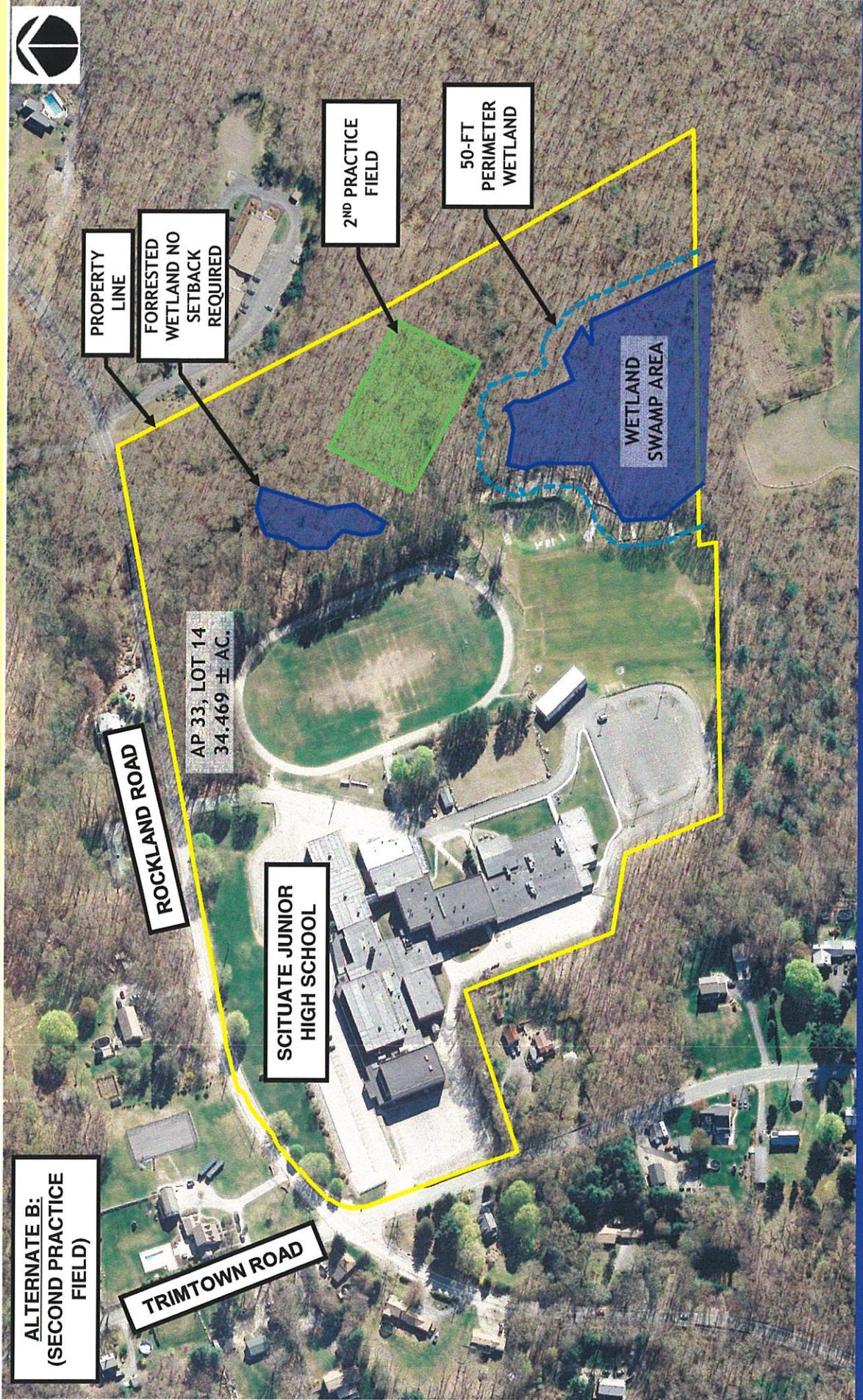


Exhibit 10

**Installation and Maintenance Estimates
(Reflects Estimated Total Costs over 30 years)**

Capital and Maintenance Description	<u>Artificial Turf Field</u>	<u>Natural Sod Field</u>
<u>Installation</u>		
New Synthetic Field (97,000 sq. ft. at \$10.00/sq. ft.)	\$1,000,000	
New Sod Field (drainage, irrigation, laser grade and root-zone material based on 97,000 sq. ft. at \$3.50/sq. ft.)		\$340,000
<u>Equipment Purchases</u>		
Groomer for periodic maintenance (includes miscellaneous related equipment)	10,000	
New grass mover		20,000
Total Installation Cost and Initial Capital Requirements	\$1,010,000	\$360,000
<u>Annual Maintenance</u>		
Yearly Service Contract (comprehensive cleaning and grooming): \$2,800/yr.	90,000	
Annual G-MAXX testing for compaction and infill depth: \$900/yr.	27,000	
Yearly Contacted Services (chemical application, aeration, new seed, 40-50 tons of top dressing sand): \$9,500/yr.		285,000
Dedicated Labor (line painting, etc.): 8 months at \$500/month	120,000	
Dedicated Labor (mowing, trimming, line painting, etc.): 8 months at \$1,500/month		360,000
Well Maintenance: \$2,400/yr.		72,000
Total Estimated Routine Maintenance (over 30 years)	\$237,000	\$717,000
<u>Field Replacement</u>		
Cost of new Artificial Turf replacement and refurbishment (using 2016 prices): assumes a 15 year surface life	400,000	
Sod Field replacement (strip, remove grade and re-sod; using 2016 prices): assumes an average life of 10 years		100,000
Estimated Total Cost over 30 years	\$1,647,000	\$1,177,000

Exhibit 11

This chart represents the estimated cost for transporting student athletes to and from Gorham field for Fall and Spring sports using one bus making one trip per day.

Fall Sport Days	56	Cost Per Mile	\$2.09	Miles to field and back	4.2	Cost per trip	\$8.78	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$87.17	Total cost for Fall Sports Season	\$4,881.41
Spring Sport Days	59	Cost Per Mile	\$2.09	Miles to field and back	4.2	Cost per trip	\$8.78	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$87.17	Total cost for Fall Sports Season	\$5,142.91

Grand Total for 1 bus, 1 trip
\$10,024.32

This chart represents the estimated cost for transporting student athletes to and from Gorham field for Fall and Spring sports using one bus making two trips per day.

Fall Sport Days	56	Cost Per Mile	\$2.09	Miles to field and back (2 trips)	8.4	Cost per trip	\$17.56	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$95.95	Total cost for Fall Sports Season	\$5,372.98
Spring Sport Days	59	Cost Per Mile	\$2.09 <td>Miles to field and back (2 trips)</td> <td>8.4</td> <td>Cost per trip</td> <td>\$17.56</td> <td>Cost Per Hour of Wait Time</td> <td>\$26.13</td> <td>Wait Hours</td> <td>3</td> <td>Cost for wait time</td> <td>\$78.39</td> <td>Total per day</td> <td>\$95.95</td> <td>Total cost for Fall Sports Season</td> <td>\$5,660.81</td>	Miles to field and back (2 trips)	8.4	Cost per trip	\$17.56	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$95.95	Total cost for Fall Sports Season	\$5,660.81

Grand Total for 1 bus, 2 trips
\$11,033.79

Exhibit 12

This chart represents the estimated cost for transporting student athletes to and from Lawton Farm field for Fall and Spring sports using one bus making one trip per day.

Fall Sport Days	56	Cost Per Mile	\$2.09	Miles to field and back	14.2	Cost per trip	\$29.68	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$108.07	Total cost for Fall Sports Season	\$6,051.81
Spring Sport Days	59	Cost Per Mile	\$2.09	Miles to field and back	14.2	Cost per trip	\$29.68	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$108.07	Total cost for Fall Sports Season	\$6,376.01

Grand Total for 1 bus, 1 trip
\$12,427.82

This chart represents the estimated cost for transporting student athletes to and from Lawton Farm field for Fall and Spring sports using one bus making two trips per day.

Fall Sport Days	56	Cost Per Mile	\$2.09	Miles to field and back (2 trips)	28.2	Cost per trip	\$58.94	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$137.33	Total cost for Fall Sports Season	\$7,690.37
Spring Sport Days	59	Cost Per Mile	\$2.09	Miles to field and back (2 trips)	28.2	Cost per trip	\$58.94	Cost Per Hour of Wait Time	\$26.13	Wait Hours	3	Cost for wait time	\$78.39	Total per day	\$137.33	Total cost for Fall Sports Season	\$8,102.35

Grand Total for 1 bus, 2 trip:
\$15,792.72