Addendum to Barrington High School Stadium Field Renovations Feasibility Study Barrington, RI

May 28, 2024

table of contents

Section 1.0 Additions to Existing Feasibility Study

Section 2.0 Conceptual Plan

enclosures

Enclosure 1 – Facility Evaluations
Enclosure 2 – 100-Year FEMA Floodplain Map
Enclosure 3 – National Heritage Area Map
Enclosure 4 – Conceptual Plan
Enclosure 5 – Conceptual Plan Cost Estimate

Gale JN 716591

Gale Associates, Inc.
300 Ledgewood Place | Suite 300 | Rockland, MA 02370
P 781.335.6465 F 781.335.6467 www.galeassociates.com

SECTION 1.0 – ADDITIONS TO EXISTING FEASIBILITY STUDY

Gale Associates, Inc. (Gale) was engaged by Barrington Public Schools (BPS) to assist with updating the Stadium Field Feasibility Study for Barrington High School (BHS). The original Feasibility Study was completed by Gale in 2015. Gale completed a site visit on April 9th, 2024, to update the facility evaluations as shown in Enclosure 1. Certain upgrades have been completed by BHS since the original Feasibility Study improvement recommendations were made including the addition of an access drive off Federal Road, and restriping of the track.

Gale confirmed the site remains entirely within the 100-year FEMA floodplain (Enclosure 2) of the Barrington River as noted in the original Feasibility Study. The Barrington River is a tidal water body, which connects directly with the Providence River and Narragansett Bay to the south. Work within a floodplain requires incremental flood storage, by law, on a one-to-one basis. This is to prevent any net displacement of flood storage within the floodplain and will require careful consideration of earthwork (cutting and filling) proposed for the improvements. Also, according to the Rhode Island Geographic Information System (RIGIS) the site also lies within a Natural Heritage Area (Enclosure 3). Due to this, approval from the Rhode Island Department of Environmental Management (RIDEM) and a Notice of Intent (NOI) may be required upon further design. No other resource areas appear to be impacted by any of the proposed improvements, however because the site is within the floodplain it is under RIDIM freshwater jurisdiction. Although it is our understanding that the field has not flooded, should it flood with salt water from the Barrington River, rinsing with freshwater should be adequate. BrockFill, the alternate infill currently proposed, absorbs water and gains weight therefore making it less prone to float and migrate. In addition, the Rhode Island Pollutant Discharge Elimination System (RIPDES) General Construction Permit may also be required for stormwater discharge associated with construction activity. This permit would include a Stormwater Management Plan, Soil Erosion and Sedimentation Control (SESC) Plan, and a Post Construction Operation and Maintenance Plan.

Barrington High School lies within the Open Space – Active Recreation District (OS-A). According to the Barrington Zoning Ordinance, the maximum height for a principal structure is 35 feet. Therefore, a variance from the Zoning Board of Review may be required for the installation of new athletic lighting which usually rises 70-80 feet in height.

SECTION 2.0 – CONCEPTUAL PLAN

Based on the site evaluation and discussion with George Finn, the Athletic Director, Gale refined the Conceptual Plan to reflect the current uses of the Stadium Field at Barrington High School (Enclosure 4). Plan revisions include the addition of a centerfield logo and tufted men's and women's lacrosse striping. Other revisions include the removal of one sandpit, one pole vault runway, and one pole vault pad. Due to the proposed expansion to widen the field and track radius from 97' to 118', it should be noted the impacts to the width of the JV Baseball field and dugout near first base. At the suggestion of the Athletic Director, Gale considered the idea of switching the location of the JV Baseball field with the

Softball field to eliminate the impacts to the JV Baseball first base dugout and proximity to the track. However, after assessing the available area due to the constraints of the property line, sidewalk along Federal Road, access drive off Federal Road, and the minimum required outfield distance, it would not be feasible to move the JV Baseball to the existing location of the Softball field. The Stadium Field has been shifted to accommodate a 20' clearance between the building and the track to account for fire safety. Any future phases of design should revisit this to confirm the exact location of the track and suitable distance from the building. The proposed field dimensions will meet the recommended National Federation of State High School Associations (NFHS) and Rhode Island Interscholastic League (RIIL) guidelines for football, soccer, men's lacrosse, and women's lacrosse. If desired, the proposed field layout could also accommodate NFHS and RIIL field hockey recommendations. To account for the loss of storage behind the grandstand bleachers due to the proposed modifications, an additional storage shed has been proposed.

The conceptual cost estimate was updated to include the additional scope and to reflect the increase in unit prices in the athletic facilities construction industry today. The estimated construction cost is approximately $4.6 million (Enclosure 5). Note that the cost estimate provided in this report is based on the updated conceptual plan and is for initial planning purposes. Conceptual cost estimates are subject to change upon completion of a detailed site investigation and final design. ENG/CPS Services capture the design efforts and are estimated at ten percent (10%) of the total construction costs. Additionally, due to the conceptual level of the cost estimate BPS should plan for a contingency fund, recommended at twenty-five percent (25%) of the total construction cost for each project due to the ongoing cost increases Gale has observed through the athletic facilities industry.

G:\716591\01 Evaluation\report\Feasibility Study Addendum.doc

ENCLOSURE 1

FACILITY EVALUATIONS

Summary Form

Overall Grade:	2.6

Barrington High School Stadium Field

Address: 220 Lincoln Ave, Barrington, RI 02806
Size: 5.3 Acres
General Description: Barrington High School Stadium Field consists of a multipurpose rectanglar (MPR) natural turf field with a 6-lane running track.
Date of Evaluation: 4/9/2024

Facility Type and Grades:

General Site Conditions	2.40
Multi-Purpose Rectangular Field	2.56
Track	2.80
Baseball/Softball Field	-
Hard Courts	-
Playground	-
Open Space	-
Community Garden	-
Average Score	2.59

Grading Legend
1 = Poor
2 = Fair
3 = Good
4 = Excellent

Site Inventory:

X	Rectangular Field		Skate Park		Dog Park (Off-Leash)
	Baseball / Softball Field		Community Garden		Dog Park (On-Leash)
	Pool		Spray Park		Dog Valet
	Basketball Court		Table and Chairs		Restrooms / Porta Potty
X	Building/Structure		Tennis Courts		Playground
	Open Space	X	Lighting	X	Designated Parking
	Bike Parking		Monument		

General Site Conditions:

Score	N/A	Poor (1)	Fair (2)	Good (3)	Excellent (4)
Safety and Security (site lighting, fencing, play surfacing/structures, etc.)				X	
Appearance (Welcoming entrance, landscaping/natural surface, special element, e.g. spray park, social gathering space, etc.)			X		
General Accessibility (condition of walkways, legibility of signage, clarity of rules, trip hazards, bike corrals)			X		
ADA Compliance (walkways, ramps at appropriate grades, ADA Parking, gates restrooms and equipment accessible)				X	
Equipment & Serviceability (furnishings, play structures, water fountain, buildings, restrooms, furnishings, trash and recycling bins, sports equipment, site drainage, athletic lighting.			X		
Average Score = **2.4**					

RECOMMENDATIONS:
1. See individual facility recommendations.

Athletic Field Evaluation Form

Barrington High School Stadium Field

Field Grade:	2.6

Date of Evaluation	4/9/2024		
Type of Field:	Multi-Purpose Rectangular (MPR)		
Number of Fields:	1		
Typical age of users:	High School		
MPR Field Dimensions:	Length:	Width	Run-Out
	360'	160'	16'

	N/A	Poor (1)	Fair (2)	Good (3)	Excellent (4)
Geometry					X
Stand of Turf			X		
Planarity (playing surface - lack of dips, heaves, holes, etc.)			X		
Striping (Completeness, visibility, condition)	X				
Fencing (Perimeter fencing, gates, etc.)				X	
Irrigation (condition, coverage, reported adequacy)	X				
Safety (Run-outs, lack of obstructions, etc.).			X		
Support Equipment (goals, players benches, etc.)				X	
Athletic Lighting (reported adequacy, lack of spill / glare, general condition, etc.)			X		
Site Lighting	X				
Spectator Seating (condition, size, accessibility, etc.)				X	
Drainage			X		

Average Score = **2.6**

Comments	
1. Barrington High School stated slight drainage issues at the northwest D area of the field.	6. Natural turf field does not fit regulation soccer and lacrosse.
2. Barrington High School stated pole vault pad sits on the natural turf effecting the longevity of the pad.	7. Natural turf in fair condition with multiple overused spots and ruts.
3. Stadium bleachers in good conditon with minor upgrades since installed in 1995.	8. Uneven natural turf field in areas of seeding and turf blanket protection.
4. MUSCO Athletic lighting in good condition however it is an old system installed in 1995.	9. Short safety run-out widths for soccer and lacrosse.
5. Scoreboard fairly new and in good condition.	10. Long/triple jump and pole vault runways in poor condition.

Athletic Field Evaluation Form

Barrington High School Running Track

Field Grade:	2.8

Date of Evaluation	4/9/2024	
Approximate Track Radius:	97'	
Type of Surfacing:	Polyurethane	
Original Construction Date:	2003	
Last Resurfacing Date:	2011	
Length of Track Straightaway:	263'	
Width of Running Lanes:	3.5'	
Number of Running Lanes:	Straigthaway	Radius
	6	6

	N/A	Poor (1)	Fair (2)	Good (3)	Excellent (4)
Geometry / Solar Orientation					X
Condition of Surfacing (wear and tear, patches etc.)			X		
Condition of Structure (cracks, depressions, etc.)				X	
Striping (Completeness, visibility, condition)				X	
Fencing				X	
Safety (Run-outs, lack of obstructions, etc.).				X	
Support Equipment (hurtles, high jump, etc.)			X		
Site Amenities (restrooms, entrance area, ticket booth, etc.)				X	
Athletic Lighting (reported adequacy, lack of spill / glare, general condition, etc.)			X		
Site Lighting	X				
Spectator Seating (condition, size, accessibility, etc.)				X	
Drainage (trench drain, slot drain, etc.)	X				
Average Score = **2.8**					

Comments

1. Track has recently been restriped.
2. Overall fair condition with multiple patches and wear along the outer edge of the track surface.

STADIUM FIELD



Photo 1: Stadium field playing surface.



Photo 2: View of overused playing surface.

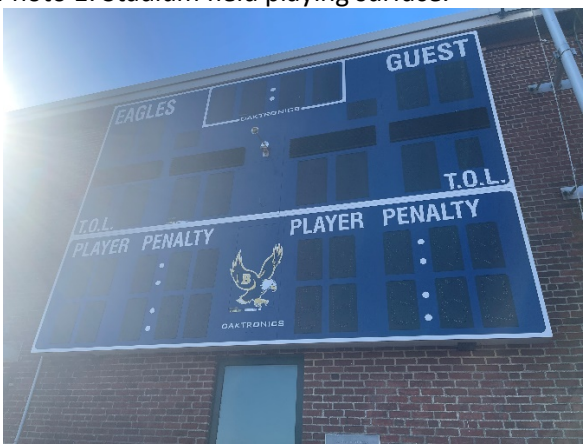


Photo 3: Scoreboard in good condition.



Photo 4: Stadium field fencing overall in good condition with some disrepair.



Photo 5: View of worn spots in the field playing surface.



Photo 6: View of spectator seating, press box, filming tower and athletic lighting in good condition.

STADIUM FIELD - RUNNING TRACK

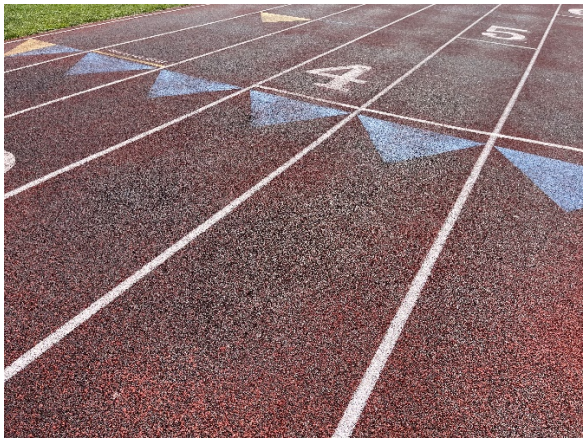


Photo 1: View of worn track surfacing.



Photo 2: View of wear and tear and patches in pole vault runway.



Photo 3: Long/Triple jump sand pit in fair condition with uneven abutting field.



Photo 4: View of the storage space under the grandstand.



Photo 5: View of close proximity of the track to the building.

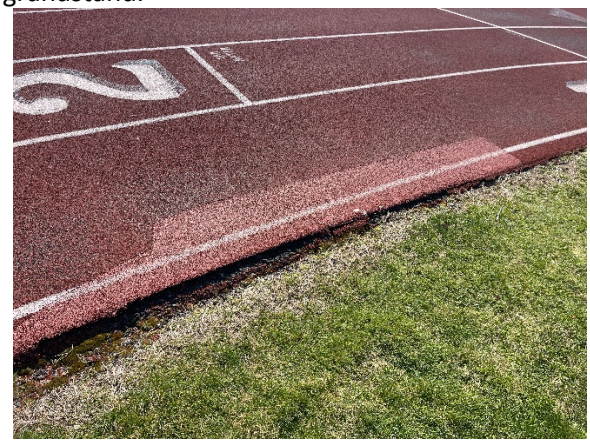


Photo 6: Running track overall in fair condition with multiple patches and uneven surface with abutting field.

ENCLOSURE 2

100-YEAR FEMA FLOODPLAIN MAP

National Flood Hazard Layer FIRMette

FEMA

71°19'34"W 41°45'2"N



71°18'57"W 41°44'35"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

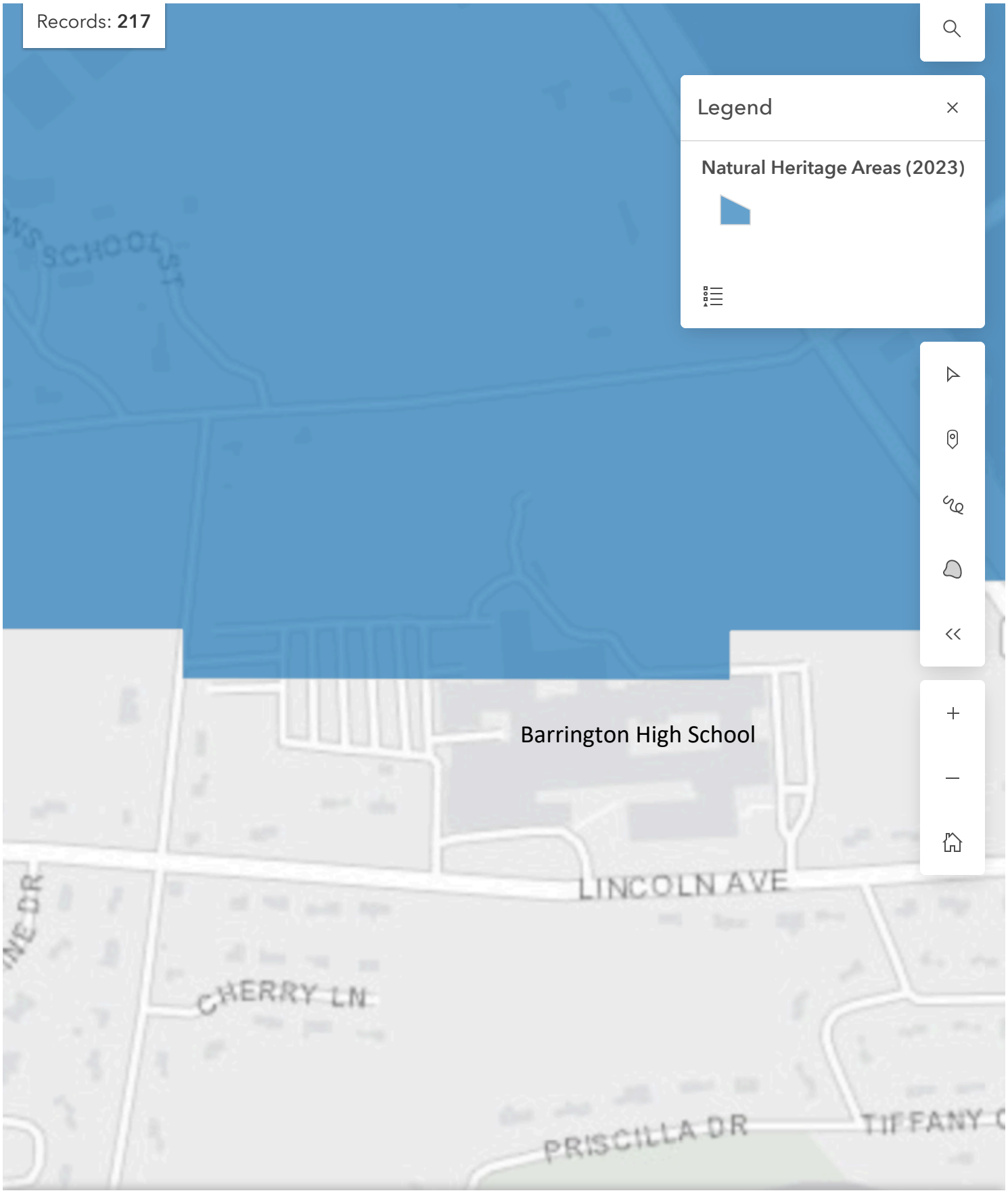
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/9/2024 at 3:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ENCLOSURE 3

NATURAL HERITAGE AREA MAP

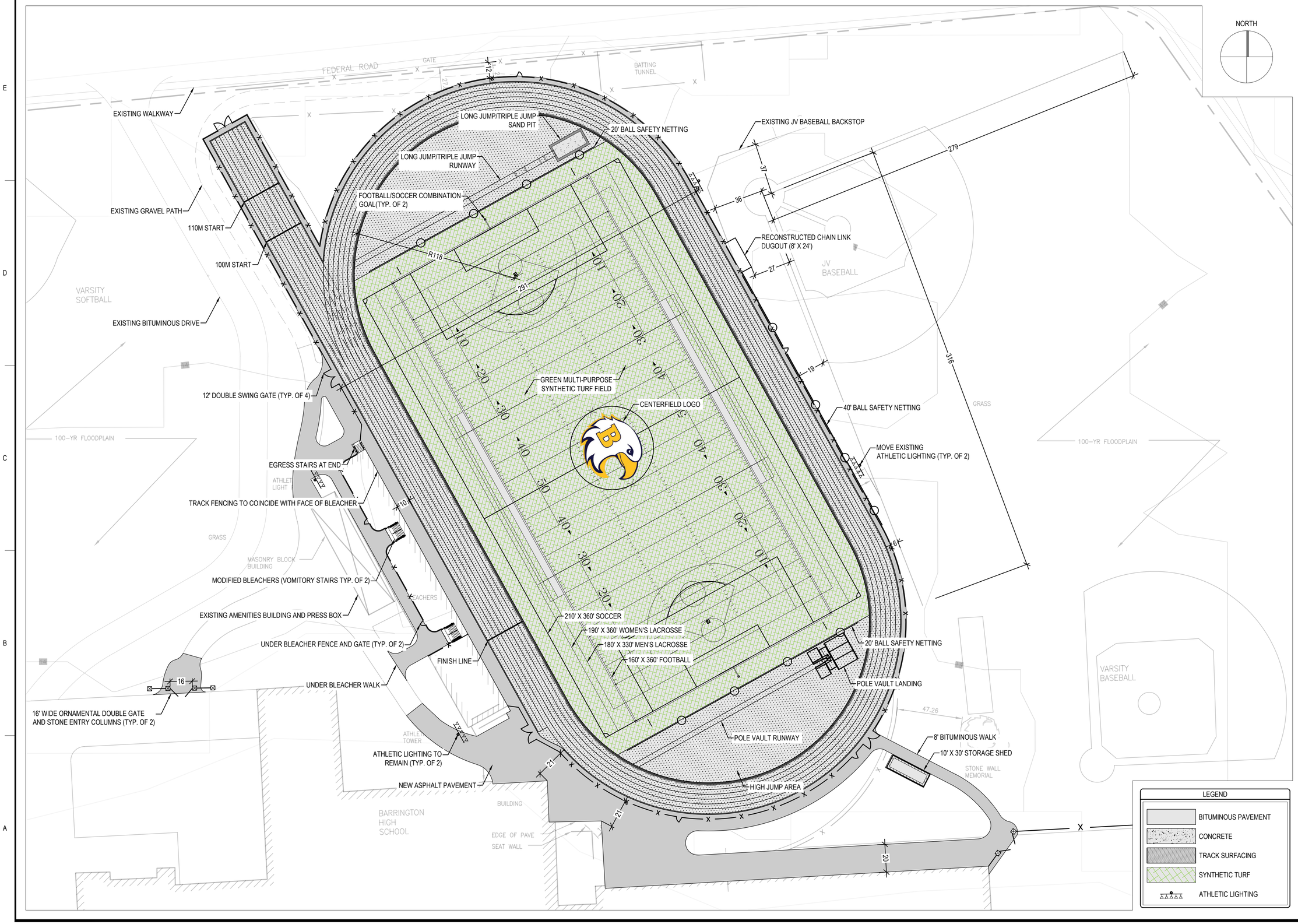
RIGIS


Records: 217
Legend
Natural Heritage Areas (2023)
Barrington High School
LINCOLN AVE
CHERRY LN
PRISCILLA DR

Menu

ENCLOSURE 4

CONCEPTUAL PLAN



Gale Associates, Inc.
Engineers and Planners

300 LEDGEWOOD PLACE | SUITE 300
ROCKLAND, MA 02370
P 781.335.6465 F 781.335.6467 www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2023

CONCEPTUAL

PROJECT
FEASIBILLITY STUDY
BARRINGTON HIGH SCHOOL
220 LINCOLN AVE
BARRINGTON, RI 02806

OWNER
BARRINGTON PUBLIC SCHOOLS
283 COUNTRY ROAD
BARRINGTON, RI 02806

NO.	DATE	DESCRIPTION	BY

PROJECT NO.	716591
CADD FILE	716591_C100
DESIGNED BY	KMR
DRAWN BY	KMR
CHECKED BY	
DATE	5/15/2025
DRAWING SCALE	1" = 30'

GRAPHIC SCALE
0 15' 30' 60'

SHEET TITLE

STADIUM FIELD
CONCEPT PLAN

DRAWING NO.
C100

1 OF 1

ENCLOSURE 5

CONCEPTUAL PLAN COST ESTIMATE

Conceptual Cost Estimate

BARRINGTON HIGH SCHOOL - Stadium Field

GALE JN: 716591 (5/16/2024)

Item	Description	Unit	Quantity	Unit Cost	Cost	Total Cost
1	**GENERAL CONDITIONS**					**$ 252,908.57**
a	Bonds and Insurance (2%)	LS	1	$ 67,636.19	$ 67,636.19	
b	General Conditions (4%)	LS	1	$ 135,272.38	$ 135,272.38	
c	Mobilization / Demobilization	LS	1	$ 50,000.00	$ 50,000.00	
	TRACK & FIELD					
2	**EROSION CONTROL / SITE PREPARATION / DEMOLITION**					**$ 164,739.33**
a	Site Protection	LS	1	$ 10,000.00	$ 10,000.00	
b	Remove Track Surfacing	LS	1	$ 15,000.00	$ 15,000.00	
b	Strip and Haul Topsoil (Assume 12")	CY	6374	$ 12.00	$ 76,492.89	
c	Rough Grading of Site Subgrade	SY	19123	$ 2.00	$ 38,246.44	
d	Remove and Dispose of Existing Fence	LS	1	$ 25,000.00	$ 25,000.00	
3	**SYNTHETIC TURF CONSTRUCTION**					**$ 1,003,416.00**
a	Prepare sub-base, shape and compact	SY	9952	$ 10.00	$ 99,520.00	
b	Geotextile Separation Layer	SY	9952	$ 2.00	$ 19,904.00	
c	Crushed Stone Base under Field	TN	4147	$ 60.00	$ 248,800.00	
d	Infilled Synthetic Turf (Brockfill)	SF	89568	$ 5.00	$ 447,840.00	
e	Shock Pad	SF	89568	$ 1.50	$ 134,352.00	
f	Turf Striping Sports (Tufted)	EA	4	$ 7,000.00	$ 28,000.00	
g	Inlaid Centerfield Logo	LS	1	$ 25,000.00	$ 25,000.00	
4	**TRACK CONSTRUCTION**					**$ 725,039.63**
a	Prepare sub-base, shape and compact (Track and D-Areas)	SY	6,130	$ 10.00	$ 61,303.33	
b	Aggregate Base Course For Track and D-Areas (8")	TN	2,043	$ 70.00	$ 143,041.11	
c	Pavement (1.5" Binder Course, 1.5" Wearing Course)	TN	996	$ 215.00	$ 214,178.52	
d	Track Surfacing / Striping (RED BSS-100 Urethane)	SY	6,130	$ 50.00	$ 306,516.67	
5	**TURF FIELD DRAINAGE**					**$ 100,000.00**
a	Drainge Allowance	LS	1	$ 100,000.00	$ 100,000.00	
6	**CONCRETE CURBING**					**$ 124,468.00**
a	Cast-In-Place Concrete Anchor Curb	LF	414	$ 42.00	$ 17,388.00	
b	Cast-In-Place Concrete w/ ACO 2000 Slot Drains	LF	452	$ 80.00	$ 36,160.00	
c	Cast-In-Place Concrete w/ ACO 4000 Trench Drains	LF	788	$ 90.00	$ 70,920.00	
8	**FENCING / SAFETY NETTING**					**$ 253,395.00**
a	4' Chain Link Fence	LF	1425	$ 75.00	$ 106,875.00	
b	4' Single Leaf Swing Gate	EA	6	$ 1,200.00	$ 7,200.00	
c	12' Swing Gate	EA	4	$ 3,500.00	$ 14,000.00	
d	16' Ornamental Swing Gate	EA	2	$ 6,000.00	$ 12,000.00	
e	20' Ball Safety Netting	LF	380	$ 160.00	$ 60,800.00	
f	40' Ball Safety Netting	LF	202	$ 260.00	$ 52,520.00	
9	**TRACK EQUIPMENT (FIXED)**					**$ 31,200.00**
a	Sand Pit Forms and Catchers	EA	1	$ 25,000.00	$ 25,000.00	
b	Pole Vault Box	EA	2	$ 2,000.00	$ 4,000.00	
c	Protective Track Crossing Mat	EA	1	$ 2,200.00	$ 2,200.00	
11	**ATHLETIC EQUIPMENT**					**$ 76,800.00**
a	Combination Football/Soccer Goal	EA	2	$ 6,000.00	$ 12,000.00	
b	Player Benches (15' Each)	EA	4	$ 1,200.00	$ 4,800.00	
c	Retrofit Bleachers	LS	1	$ 60,000.00	$ 60,000.00	
13	**ATHLETIC LIGHTING**					**$ 420,000.00**
a	Upgrade and Relocate MUSCO Athletic Field Lighting System	POLE	4	$ 100,000.00	$ 400,000.00	
b	Misc. Electrical	LS	1	$ 20,000.00	$ 20,000.00	
14	**BITUMINOUS WALKWAYS**					**$ 207,604.02**
a	Prepare sub-base, shape and compact	SY	3,041	$ 10.00	$ 30,408.89	

b	Gravel Base	TN	1,014	$ 70.00	$ 70,954.07	
c	Pavement (1.5" Binder Course, 1.5" Wearing Course)	TN	494	$ 215.00	$ 106,241.06	
15	**SITE AMENITIES**					**$ 32,000.00**
a	Loam and Seed Disturbed Areas	LS	1	$ 10,000.00	$ 10,000.00	
b	10' x 30' Storage Building	EA	1	$ 22,000.00	$ 22,000.00	
					TRACK & FIELD SUBTOTAL:	**$ 3,138,661.98**
					SUBTOTAL:	**$ 3,391,570.55**
					CONTINGENCY 25%:	**$ 847,892.64**
					***ENG/CPS SERVICES (10%):**	**$ 339,157.05**
					TOTAL:	**$ 4,578,620.24**