FIELD A - SYNTHETIC TURF OPTION

CONCEPTUAL LAYOUT
REGIONAL SCHOOL DISTRICT NO. 18

69 LYME STREET
OLD LYME, CONNECTICUT MAY 2017

MILONE & MACBROOM®

99 Realty Drive
Cheshire, Connecticut 06410
(203) 271-1773 Fax (203) 272-9733
www.miloneandmacbroom.com

0 30' 60' 90' 120' NORTH

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Engineer's Opinion of Probable Construction Costs
Conceptual Design – Field A
Synthetic Turf Field

- **Multipurpose Field –Synthetic Turf Improvements**

○ General Conditions, Bonding, Site Preparation, Site Removals, Erosion Controls	$100,000

Synthetic Turf:

○ Synthetic Turf Field (sand/rubber system (81,250 SF)) ▪ 2.25" HT. Turf, Logo, Inlaid Field Lines, Maintenance Equipment	$325,000
○ Earthwork/Field Drainage ▪ Strip and dispose of topsoil, mass earthwork, formation of subgrade ▪ Collector pipe, underdrain, geotextile membrane ▪ Turf Anchor Curb with Integral Ball Safety Net Sleeves	$400,000

Subtotal	**$825,000**
20% Budget for A/E, Routine Construction Administration and Contingency	**$165,000**
Total Suggested Project Budget	***$990,000***

Optional Improvements:

○ Replace Crumb Rubber/Sand Infill with Alternative Infill and Shock Pad	$160,000 to $300,000
○ Walkway Improvements	$25,000
○ New Bleachers ▪ Concrete Pad ▪ (2) 60 seat bleacher systems	$45,000
○ Field Lighting – Metal Halide	$350,000
○ Field Lighting – LED	$450,000

Notes:

1. *This budget is based upon conceptual level design plan only. Detailed design is required to further refine budget.*
2. *Should any "Optional Improvements" be selected, 20% contingency/design fee must be added to cost.*

FIELD B - SYNTHETIC TURF OPTION

CONCEPTUAL LAYOUT
REGIONAL SCHOOL DISTRICT NO. 18

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Engineer's Opinion of Probable Construction Costs
Conceptual Design – Field B
Synthetic Turf Field

- **Multipurpose Field –Synthetic Turf Improvements**

○ General Conditions, Bonding, Site Preparation, Site Removals, Erosion Controls	$100,000

Synthetic Turf:

○ Synthetic Turf Field (sand/rubber system (88,920 SF)) ▪ 2.25" HT. Turf, Logo, Inlaid Field Lines, Maintenance Equipment	$360,000
○ Earthwork/Field Drainage ▪ Strip and dispose of topsoil, mass earthwork, formation of subgrade ▪ Collector pipe, underdrain, geotextile membrane	$450,000
Subtotal	**$910,000**
20% Budget for A/E, Routine Construction Administration and Contingency	**$180,000**
Total Suggested Project Budget	***$1,090,000***

Optional Improvements:

○ Replace Crumb Rubber/Sand Infill with Alternative Infill and Shock Pad	$170,000 to $310,000
○ Rotating Football Uprights	$25,000
○ Walkway Additions	$20,000
○ Field Lighting – Metal Halide	$350,000
○ Field Lighting – LED	$450,000

Notes:

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Geothermal Considerations

Conceptual Design – Field C

Synthetic Turf Field

Milone & MacBroom, Inc. spoke with the installer of the geothermal well system currently located beneath Field C behind Lyme – Old Lyme High School to determine the feasibility of constructing a synthetic turf field overtop the well field. The following information was conveyed in the discussion:

1. There is an underground vault at the western edge of the field which must remain accessible.

2. The only reason you would need to uncover the well field is if a leak is discovered.

3. Finding the location of a leak can be invasive:
    a. The first step in locating the leak involves the use of x-ray equipment to narrow down the location.
    b. A 5'x5' excavation is made to uncover the piping which
    c. The piping is approximately 4' below finished grade.

4. The existing geothermal piping is warrantied for 50-years.

5. Failure of piping typically occurs within the first year or two.

6. Concerns with any type of construction above or around geothermal systems is typically associated with deeper excavations for storm drainage or fencing.

7. If construction overtop the system occurs, they strongly encourage inspection and pressure testing of the system prior to closing up the site. This inspection and testing will determine if construction activities caused any damage which will require repair while the system is still accessible.

The installer does not know of any installations where a synthetic turf athletic field has been constructed overtop. However, he felt that if constructed properly with extra care given to protecting the well system, you can construct of field over this system.

LYME - OLD LYME HIGH SCHOOL

RETAINING WALL WITH SAFETY RAIL. MAX. 6' HT.

DRIVEWAY TO BE REALIGNED TO ACCOMMODATE FIELD

NEW SCOREBOARD

EXISTING DRAINAGE ONTO FIELD WILL NEED TO BE INTERCEPTED OR REROUTED

PERMANENT OR PAINTED LINES
FOOTBALL: WHITE
SOCCER: YELLOW
BOYS LACROSSE: BLUE
GIRLS LACROSSE: RED

4-POLE ATHLETIC FIELD LIGHTING - LED OR HID LUMINAIRES

500-SEAT ELEVATED GRANDSTANDS WITH PRESS BOX

CONCRETE SIDEWALK

RECOMMEND 4' HT. CHAIN LINK PERIMETER FENCE

FIELD UNDER DRAINAGE WILL TIE INTO EXISTING STORM DRAIN SYSTEM

SYNTHETIC TURF FIELD
93,4700 S.F.

FIELD DIMENSIONS:

SOCCER 210' X 360'
FOOTBALL 160' X 360'
GIRLS LACROSSE 195' X 360'
BOYS LACROSSE 180' X 330'

Bit Sidewalk

Bit Road

Drain

SLOPE = 0.5%

0 30' 60' 90' 120'

NORTH

FIELD C - SYNTHETIC TURF OPTION

CONCEPTUAL LAYOUT
REGIONAL SCHOOL DISTRICT NO. 18

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OLD LYME, CONNECTICUT MAY 2017

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Engineer's Opinion of Probable Construction Costs
Conceptual Design – Field C
Synthetic Turf Field

- **Multipurpose Field –Synthetic Turf Improvements**

○ General Conditions, Bonding, Site Preparation, Site Removals, Erosion Controls	$100,000

Synthetic Turf:

○ Synthetic Turf Field (sand/rubber system (93,500 SF)) ▪ 2.25" HT. Turf, Logo, Inlaid Field Lines, Maintenance Equipment	$375,000
○ Earthwork/Field Drainage ▪ Strip and dispose of topsoil, mass earthwork, formation of subgrade ▪ Collector pipe, underdrain, geotextile membrane ▪ Turf anchor curb ▪ Retaining wall ▪ Relocate driveway	$600,000
Subtotal	**$1,075,000**
20% Budget for A/E, Routine Construction Administration and Contingency	**$215,000**
Total Suggested Project Budget	***$1,290,000***

Optional Improvements:

○ Replace Crumb Rubber/Sand Infill with Alternative Infill and Shock Pad	$175,000 to $325,000
○ Walkway Additions	$110,000
○ Scoreboard	$35,000
○ Ball Netting	$40,000
○ Perimeter Fencing & Gates	$55,000
○ Field Lighting – Metal Halide	$350,000
○ Field Lighting – LED	$450,000

Notes:

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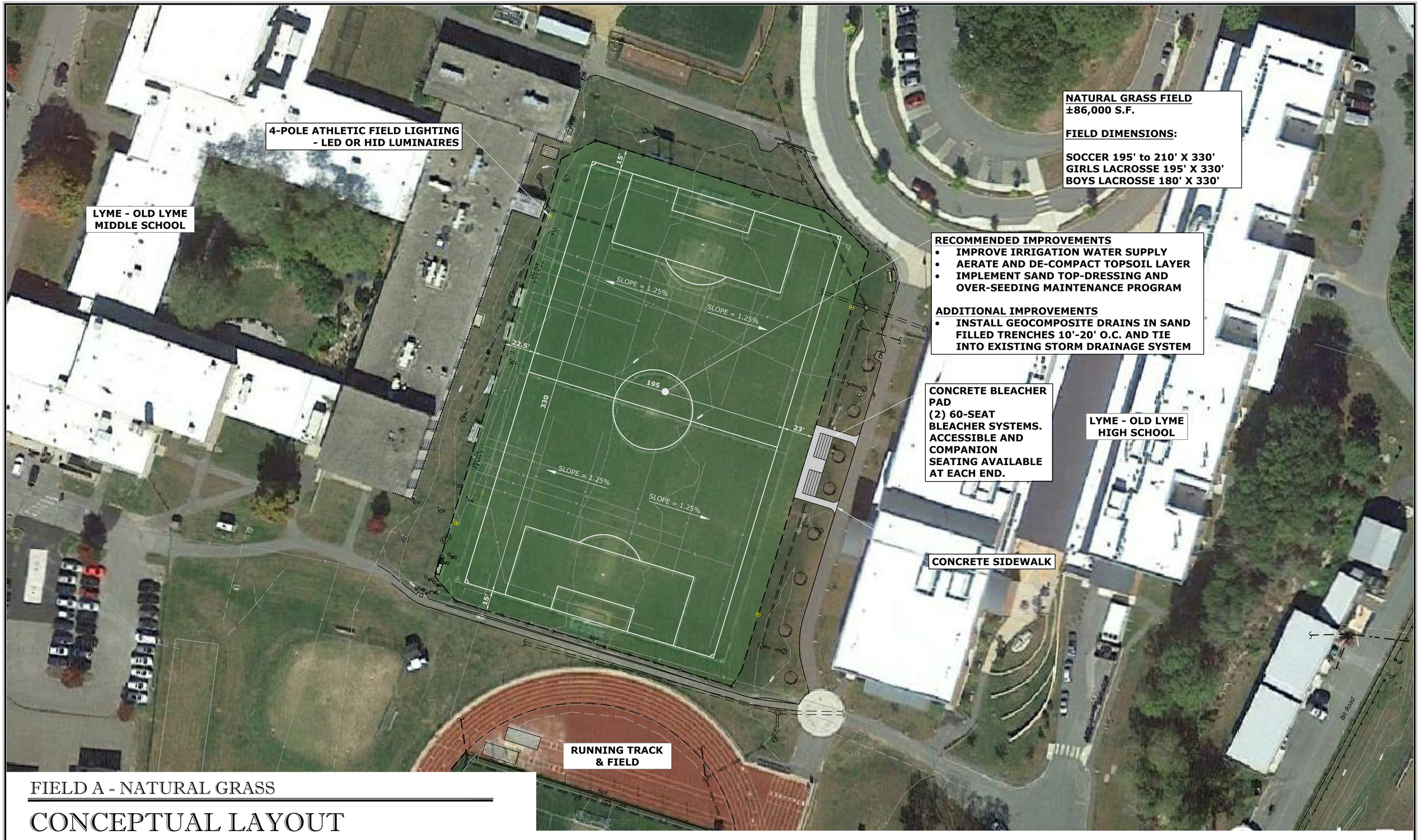
2. *Should any "Optional Improvements" be selected, 20% contingency/design fee must be added to cost.*



FIELD A - NATURAL GRASS

CONCEPTUAL LAYOUT
REGIONAL SCHOOL DISTRICT NO. 18

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OLD LYME, CONNECTICUT MAY 2017

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Engineer's Opinion of Probable Construction Costs
Conceptual Design – Field A
Natural Grass Field

- **Multipurpose Field –Natural Grass Improvements**

○ General Conditions, Bonding, Site Preparation, Erosion Controls	$25,000

Irrigation:

○ Improve Groundwater Supply	$250,000
▪ New Overburden Wells on West Side Campus	
▪ Install Centralized Storage Tank	

Turf Improvements:

○ Turf Grass Maintenance Program	$40,000
▪ Core Aerate	
▪ Sand Topdress	
▪ Overseed	

Subtotal	**$315,000**
20% Budget for A/E, Routine Construction Administration and Contingency	**$65,000**
Total Suggested Project Budget	***$380,000***

Optional Improvements:

○ Add Pond Water Supply	$70,000
○ Walkway Improvements	$25,000
○ New Bleachers	$45,000
▪ Concrete Pad	
▪ (2) 6(2) 60 seat bleacher systems	
○ Field Lighting – Metal Halide	$350,000
○ Field Lighting – LED	$450,000

Notes:

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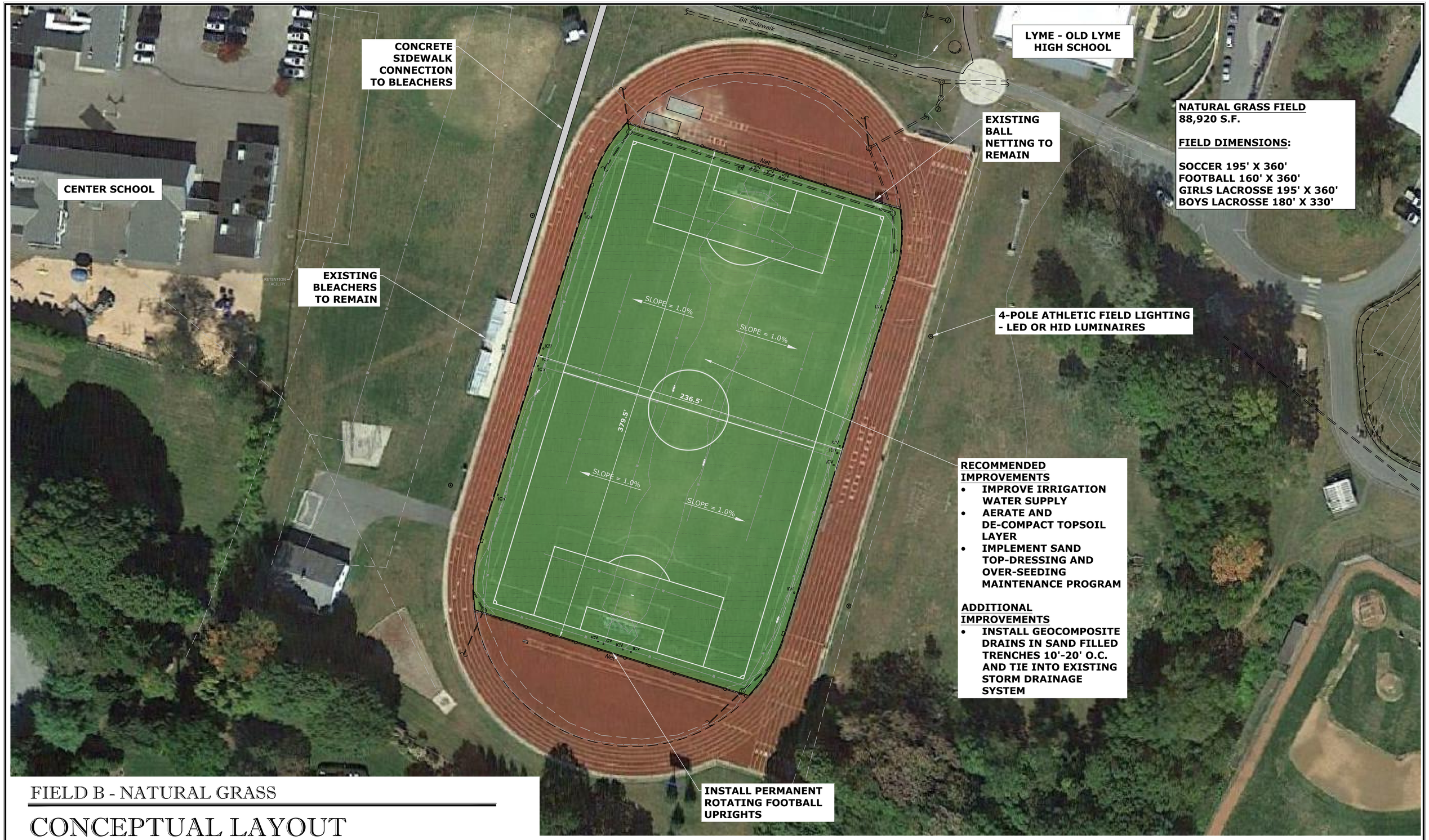
2. *Should any "Optional Improvements" be selected, 20% contingency/design fee must be added to cost.*



FIELD B - NATURAL GRASS

CONCEPTUAL LAYOUT
REGIONAL SCHOOL DISTRICT NO. 18

69 LYME STREET
OLD LYME, CONNECTICUT MAY 2017

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Engineer's Opinion of Probable Construction Costs
Conceptual Design – Field B
Natural Grass Field

- **Multipurpose Field –Natural Grass Improvements**

○ General Conditions, Bonding, Site Preparation, Erosion Controls	$25,000

Irrigation:

○ Improve Groundwater Supply	$250,000
▪ New Overburden Wells on West Side Campus	
▪ Install Centralized Storage Tank	

Turf Improvements:

○ Turf Grass Maintenance Program	$45,000
▪ Core Aerate	
▪ Sand Topdress	
▪ Overseed	

Subtotal	**$320,000**
20% Budget for A/E, Routine Construction Administration and Contingency	**$65,000**
Total Suggested Project Budget	***$385,000***

Optional Improvements:

○ Add Pond Water Supply	$70,000
○ Walkway Improvements	$20,000
○ Field Lighting – Metal Halide	$350,000
○ Field Lighting – LED	$450,000

Notes:

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2. *Should any "Optional Improvements" be selected, 20% contingency/design fee must be added to cost.*

LYME - OLD LYME HIGH SCHOOL

PROVIDE PORTABLE BLEACHERS FOR SPECTATOR SEATING

RECOMMENDED IMPROVEMENTS

- STRIP/REMOVE EXISTING GRASS
- RE-GRADE FIELD TO CREATE UNIFORM CROWN
- INSTALL IRRIGATION FROM NEW WATER SUPPLY
- SEED OR SOD WITH A BLEND OF KENTUCKY BLUE GRASS ATHLETIC FIELD TURF VARIETIES
- IMPLEMENT SAND TOP-DRESSING AND OVER-SEEDING MAINTENANCE PROGRAM

NEW SCOREBOARD

NATURAL GRASS FIELD
±130,000 S.F.

FIELD DIMENSIONS:

SOCCER 210' X 330'
GIRLS LACROSSE 195' X 330'
BOYS LACROSSE 180' X 330'

PROVIDE ACCESSIBLE ROUTE TO FIELD AND SPECTATOR AREA

PROVIDE PORTABLE BLEACHERS FOR SPECTATOR SEATING

FIELD C - NATURAL GRASS

CONCEPTUAL LAYOUT
REGIONAL SCHOOL DISTRICT NO. 18

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Engineer's Opinion of Probable Construction Costs
Conceptual Design – Field B
Natural Grass Field

- **Multipurpose Field –Natural Grass Improvements**

○ General Conditions, Bonding, Site Preparation, Erosion Controls	$35,000

Irrigation:

○ New Pond Supply	$200,000
▪ Install Lower Storage Tank	
▪ New Irrigation System	

Turf Improvements:

○ Replace Turf	$150,000
▪ Strip turf	
▪ Regrade Field	
▪ Install Sod	

Subtotal	**$385,000**
20% Budget for A/E, Routine Construction Administration and Contingency	**$80,000**
Total Suggested Project Budget	***$465,000***

Optional Improvements:

○ Add Overburden Wells on West Side Campus	$105,000
○ Upgrade to Centralized Storage Tank	$30,000
○ Walkway Improvements	$15,000
○ New Scoreboard	$35,000
○ Field Lighting – Metal Halide (4-Pole System)	$350,000
○ Field Lighting – LED (4-Pole System)	$450,000

Notes:

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2. *Should any "Optional Improvements" be selected, 20% contingency/design fee must be added to cost.*