

**June 24, 2015**

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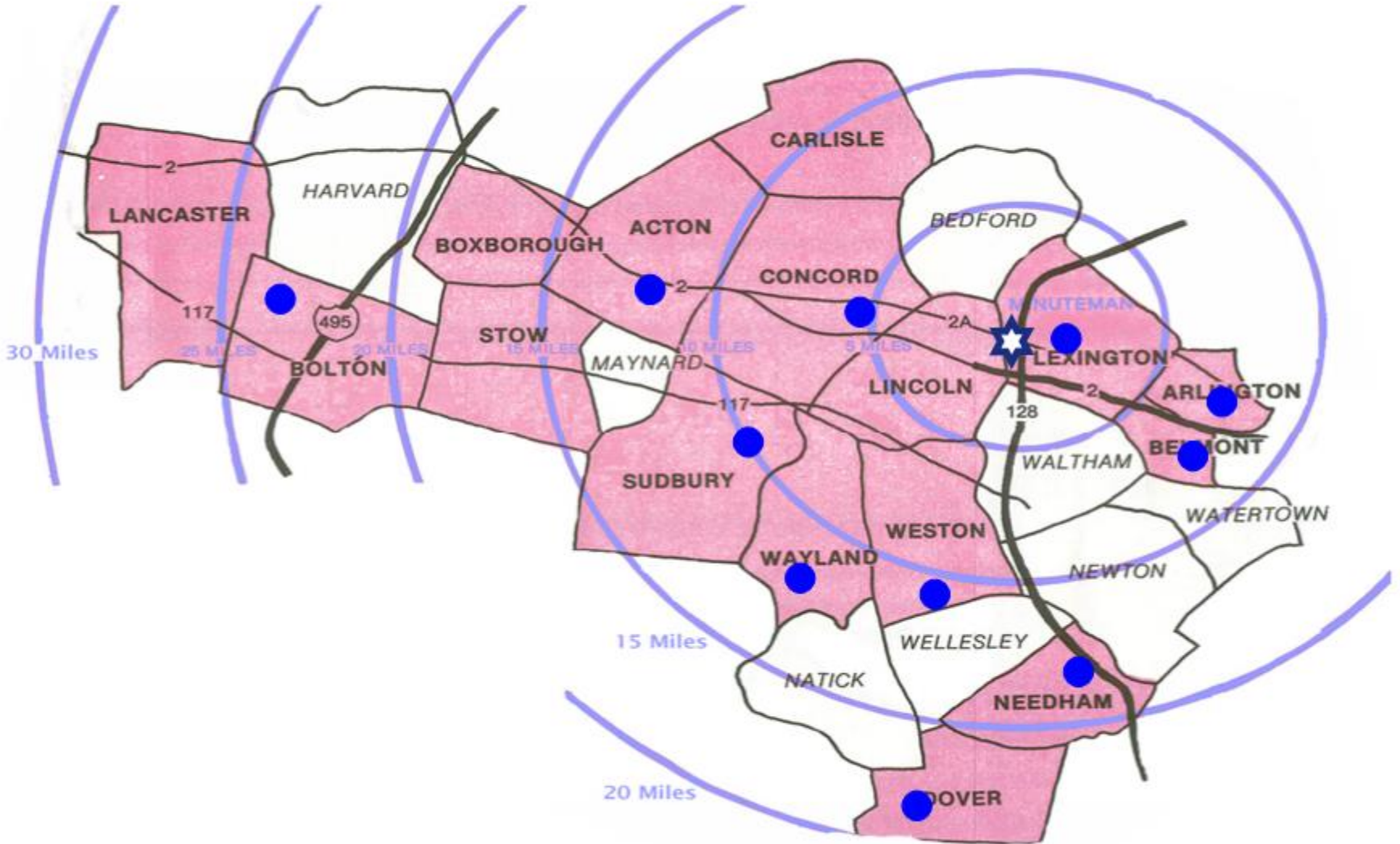
# Minuteman Regional Vocational Technical School District

## MSBA's Facilities Assessment Subcommittee Presentation

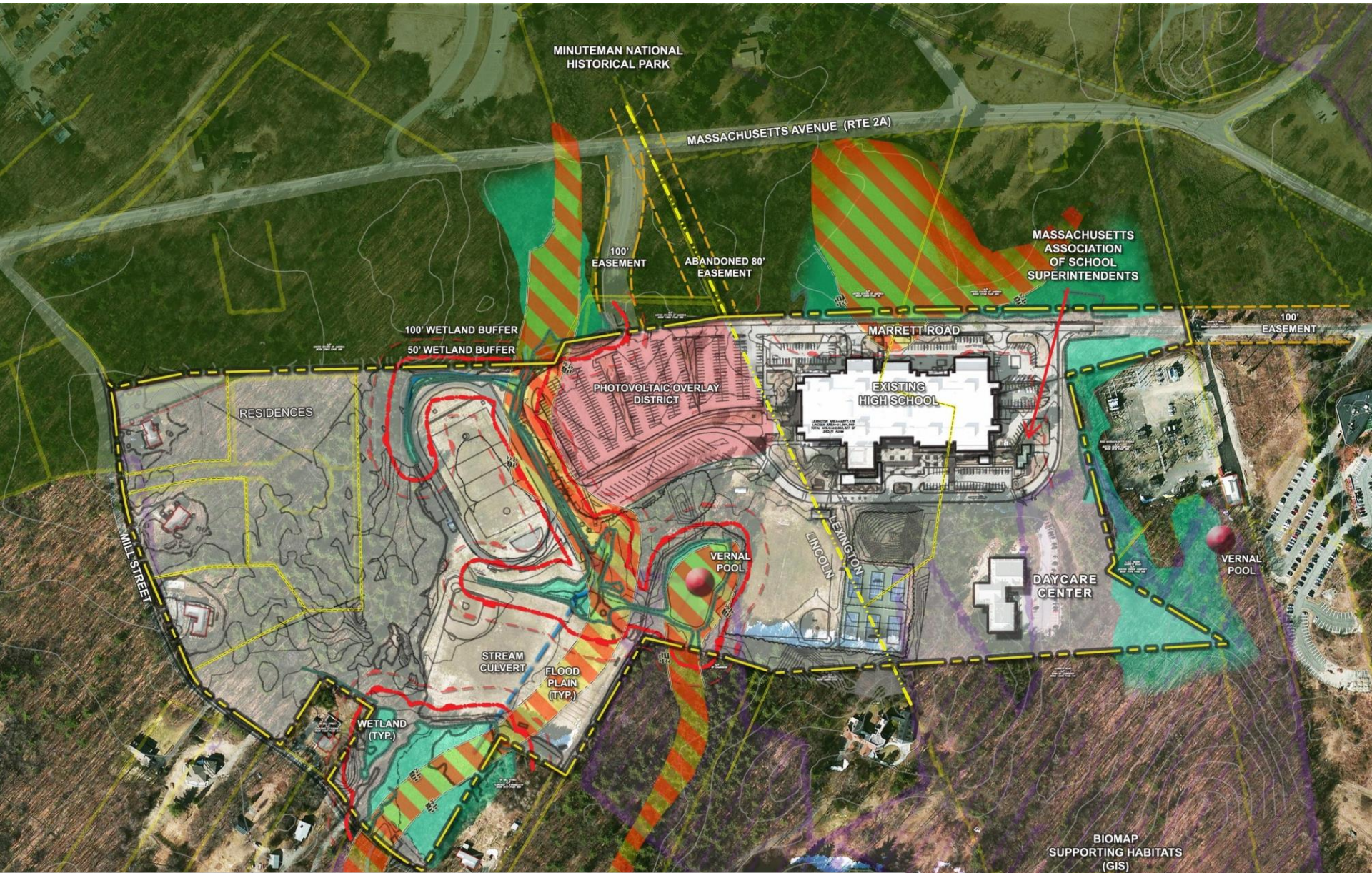
# Agenda: The Preferred Option

- Who are we?
- What factors informed this Design?
- How does this Design solve facility deficiencies?
- How is our Educational Plan realized in this Design?
- How does the Design accommodate flexibility and expansion?
- What Options did we study?
- What does it cost?
- What does the Community support?

# The Minuteman District



# MINUTEMAN REGIONAL SCHOOL DISTRICT EXISTING SITE PLAN



# District Goals Informed Design

- 1) To nurture a Professional Learning Community (PLC) through collaboration and communication.
- 2) To deeply integrate CVTE and Academic Curricula.
- 3) To provide a robust Reading Consultancy program resource for all students in every aspect of our Program of Studies.
- 4) To deliver Executive Purpose instruction to all students, in all four years of their high school experience.
- 5) To provide technology to enhance teaching and learning in each career major while mirroring the security, capacity, redundancy and flexibility of a high performing workplace.

# Educational Program Plan

- Guided by our “Six (+/-) Indicators”
  - Job Growth, Living Wage, Strategic Partnerships, Emerging Technologies, Regional Program “supply”, Student Interest.
- Educational Program Plan Sub-Committee met in the Spring of 2013 and reconvened Summer 2014.
- Consulted with workforce development professionals
  - Commonwealth Corporation, Center for Labor Market Studies & Dukakis Center (NU), Department of Labor and Workforce Development, Labor Market Works, Local WIB/REB.
- Our General Advisory Board, student focus groups and staff recommended academies, programs, career majors and effective adjacencies based upon the data and their experience

# Design Enrollment Selection Factors

## **435 student enrollment population:**

- significant reduction in the diversity of Chapter 74 programs
- overall reduction in academic electives, student activities, and sports offerings required to sustain such a small school

## **800 student enrollment population:**

- Low appetite for the cost of accommodating a student population of 800
- More out of district students would be needed

## **628 student enrollment population (preferred):**

- Regulations created a capital fee for students of non-member communities
- Communities support a school 550 to 628 students
- Communities support a smaller number of non-member students
- Regulations now prioritize member town student applications
- Inter-municipal agreements with specific non-member communities created
- Increasing demand for career and technical education being experienced regionally
- Larger member communities reported increases in K-8 enrollment

# Our Educational Program Plan

Engineering, Construction, & Trades Academy Programs	Shared Services & Programs		Life Sciences & Services Academy Programs
Advanced Manufacturing & Metal Fabrication 48.0501 / 48.0599	Nursing Services Library & Media Center Special Education		Culinary Arts & Hospitality 12.0500 / 52.0901
Automotive 47.0604	Common Planning Time		Cosmetology & Barbering 12.0404 / 12.0402
Carpentry 46.0201	Academic Programs		Early Education & Care 13.1210
Design & Visual Communications 50.0401	Chemistry, Science & Physics English Language Arts Mathematics Physical Education	Humanities Art & Music Guidance Counseling Career Development Advanced Placement	Health Occupations 51.0000
Electrical 46.0302	Common Core CVTE Competencies		Environmental Science 15.0507
Multi-Media Engineering 09.0701	Health & Safety Entrepreneurship Financial Literacy	Digital Literacy Career Guidance Work based Learning Internships & Co-Op	Biotechnology 15.0401
Plumbing & HVAC 46.0603 / 47.0201	Reading Consultancy Student Portfolios Executive Purpose Project Based Learning		Horticulture & Landscaping Tech 1.0601
Programming & Web Development 11.0201			
Robotics Engineering Automation 15.0000 / 15.0403			



# Other Design Factors

- Challenges of the Site
  - Expansion of current footprint is limited by wetlands, a surface stream, and underground organics.
- Challenges of the Facility
  - Structural constraints limit locations for high bay shop spaces.
  - Staggered tiers for floor plates are difficult to provide an accessible route.
  - Lack of acoustical isolation between spaces.
  - Most classrooms and central core spaces do not have access to natural light or views
  - Inefficient building layout, requiring substantial infrastructure improvements.

*As career vocational technical education (CVTE) evolved, our programs have responded to the needs of our regional workforce. As a result, many CVTE programs are not in spaces designed for them. The existing building does not support the size and layout of educational spaces required for the approved educational program plan to function properly*

# Existing Facility Deficiencies

- Existing building does not support the size and layout of educational spaces required for the approved educational program plan to function properly
- Structural constraints limit locations for high bay shop spaces.
- Staggered tiers for floor plates are difficult to provide an accessible route.
- Lack of acoustical isolation between spaces.
- Most classrooms and central core spaces do not have access to natural light or views
- Many CVTE programs are in spaces not designed for their current use.
- Expansion of current footprint is limited by wetlands, a surface stream, and underground organics.
- Inefficient building layout, requiring substantial infrastructure improvements.

# The Facility Does Not Serve Our Goals

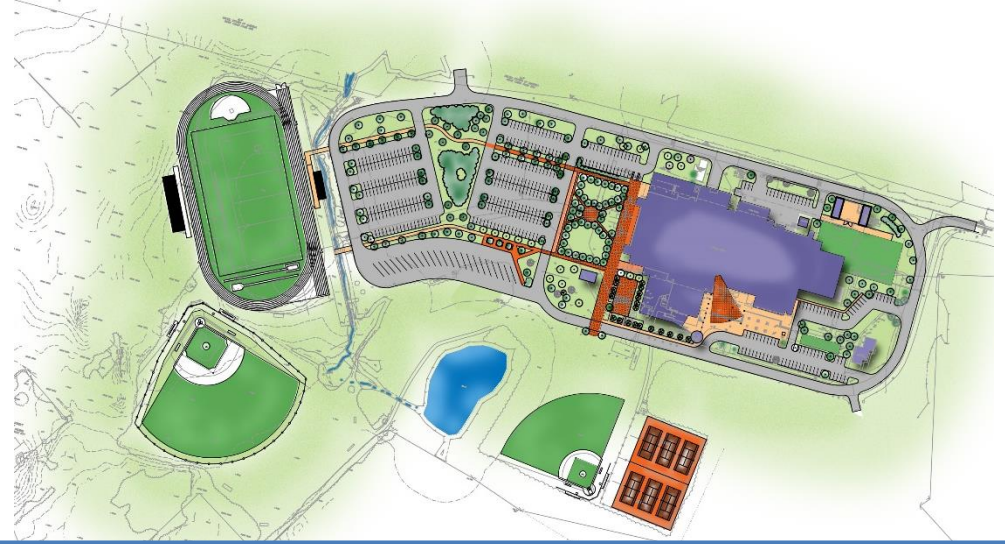
- Rigorous and diverse Educational Programming that serves the dual mission of preparing learners for the workplace and post-secondary institutions.
- Career Cluster educational model to integrate career vocational/technical (CVTE) and academic curriculum.
- Support learning as a social experience and provide spaces for informal student gathering, including small group rooms and larger common areas.
- Opportunities to display student work in a manner that constantly raises up student projects, achievements, and work samples throughout the school.
- Interdisciplinary, integrated learning spaces that foster collaborative work within and between departments and clusters.
- Flexible learning spaces that reflect high performing workplaces.
- Provide secure, safe environments with supervision.

# The Value of Option H

- Career Academy model is fully achieved in new building design.
- Career Programs and majors in spaces that enhance student gains.
- Supports integration with planned adjacencies and shared learning spaces.
- Construction on another part of the site will minimize class disruption.
- Restoration of “view sheds” of Minuteman Historic National Park.
- Lowest and most acceptable impact to residential abutters.
- Interaction with the public is accessible in a secure learning environment.
- Sunlight and views are provided in classrooms, shops and labs.
- Efficient parking, allowing less impervious area to service the facility.
- Added green space for outdoor learning areas and reduced drainage costs.
- Operationally efficient & cost effective option with a very long life span.
- Swing space not required as existing building will be utilized.
- Shortest time to fulfill the teaching and learning requirements.
- Best value for the District.

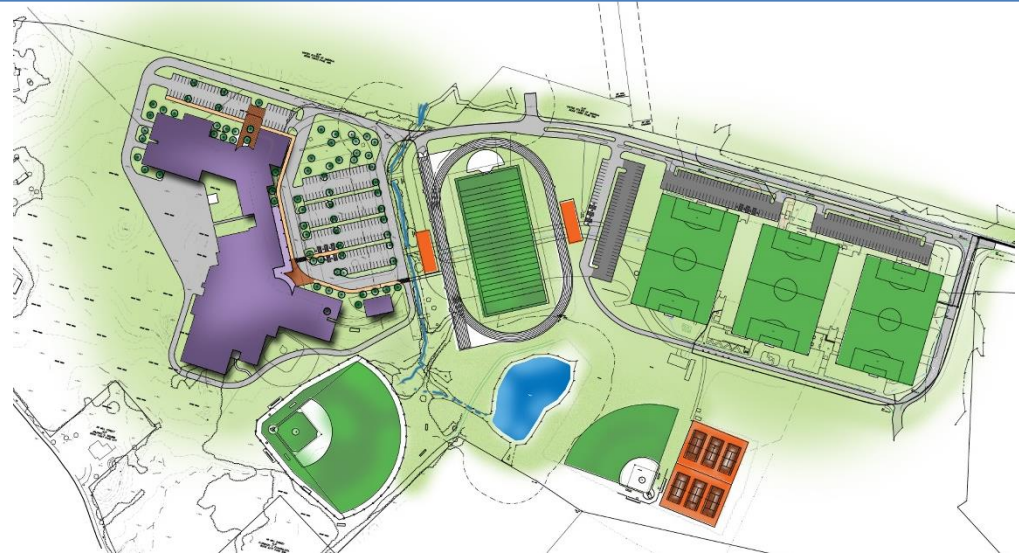
## OPTION A

*A 435 student renovation.*



## OPTION B

*A 435 student new construction.*



## OPTION C

*A 800 student renovation.*



## OPTION D

*A 800 student renovation and addition.*



## OPTION E

*A 800 student new construction.*



## OPTION F

*A 628 student renovation.*



## OPTION G

*A 628 student renovation and addition.*



## OPTION H

*A 628 student new construction.*



# Summary of Preliminary Design Pricing for Final Evaluation of Options

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sf)	Square Feet of New Construction (cost*/sf)	Site, Building Takedown, Haz Mat Cost*	Estimated Total Construction ** (cost*/sf)	Estimated Total Project Costs
Option A: Renovation 435	258,683	233,168 \$434/sf	25,515 \$480/sf	\$8,697,166	\$122,143,261 \$472/sf	\$167,336,268
Option B: New 435	224,997	0 \$0/sf	224,997 \$448/sf	\$18,150,508	\$119,556,674 \$531/sf	\$143,468,009
Option C: Renovation 800	337,184	337,184 \$398/sf	0 \$0/sf	\$9,119,478	\$143,468,001 \$425/sf	\$196,551,161
Option D: Reno/Add 800	338,288	139,900 \$365/sf	198,388 \$506/sf	\$11,492,199	\$162,871,611 \$481/sf	\$218,247,959
Option E: New 800	323,537	0 \$0/sf	323,537 \$441/sf	\$18,195,397	\$160,793,182 \$497/sf	\$192,951,818
Option F: Renovation 628	305,808	305,808 \$394/sf	0 \$0/sf	\$8,886,780	\$129,223,980 \$423/sf	\$176,547,602
Option G: Reno/Add 628	284,512	123,491 \$348/sf	161,021 \$482/sf	\$10,646,439	\$131,310,459 \$462/sf	\$175,333,834
<b>Option H: New 628***</b>	<b>242,893</b>	<b>0</b> <b>\$0/sf</b>	<b>242,893</b> <b>\$428/sf</b>	<b>\$17,507,727</b>	<b>\$121,392,277</b> <b>\$500/sf</b>	<b>\$144,922,145</b>

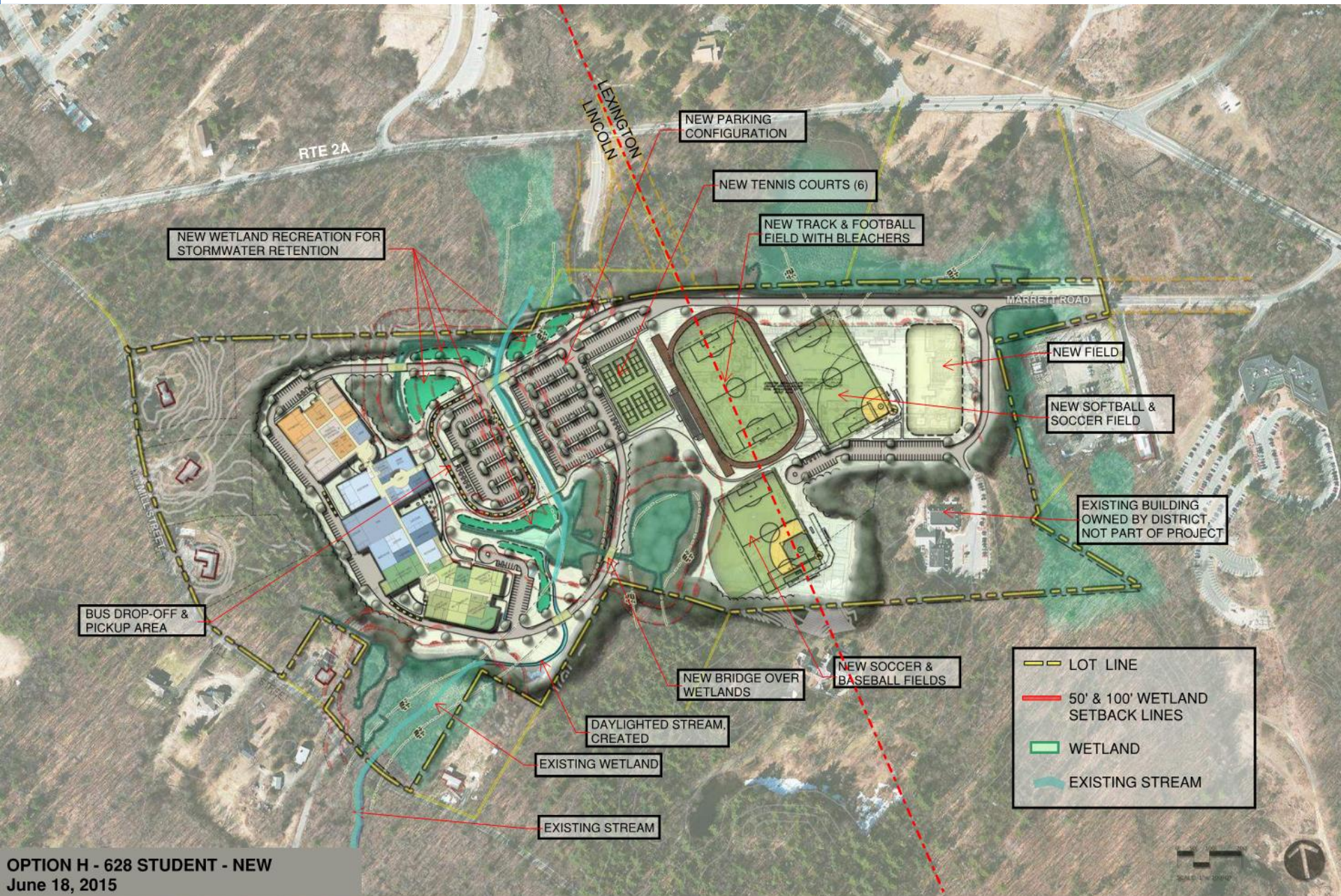
\* Marked up construction costs \*\* Does not include construction contingency \*\*\*Preferred option



# Community Outreach and Feedback

- Issued news releases prior to every presentation.
- Generated at least 39 newspaper articles on the building project in just three months.
- Made calls and sent emails to students, parents, community members, business leaders, and alumni.
- Conducted multi-media presentations to 15 district towns, plus the General Advisory Committee, with most presentations led by School Building Committee members.
- Solicited community input by written survey forms and via Survey Monkey.
- Compiled results showing 89.1% of the respondents preferred construction of a new school.
- Posted building committee agendas, minutes, and other documents on the school's website

# OPTION H – 628 STUDENT – NEW



OPTION H - 628 STUDENT - NEW  
June 18, 2015



