



Tecton
ARCHITECTS

SUMMARY PRESENTATION FOR TRUMBULL PUBLIC SCHOOLS

EDUCATIONAL SPECIFICATIONS

HILLCREST MIDDLE SCHOOL

GRANT APPLICATION

for

Trumbull Board of Education

Long Hill Administration Building

March 26, 2024

**Grant Application
due: June 30th**

Tecton & Team	Enrollment Projections (highest in 8-year period)* Space Standards Worksheet (SCG-2500) Site Analysis SCG-053 (Site impacts, FMC, Phase I*, geotechnical, CT Gen Stat § 8-24) Cost Estimate (SCG-2000, Uniformat online)
Schools & Tecton	Educational Specifications* School Safety and Security Letter SCG-9000, Approval from DEMHS Approval for Renovation Status (As appropriate) (SCG-3500)
Town of Trumbull	BOE Approval of Educational Specifications Certified Resolutions (building committee, filing of grant, SD drawings) Approval of funding (certified vote count)

*By others and/or in coordination with Owner's consultants

Draft Education Specification (Updated 3.26.24)



TRUMBULL PUBLIC SCHOOLS

HILLCREST MIDDLE SCHOOL

530 DANIELS FARM RD, TRUMBULL, CT 06611

EDUCATIONAL SPECIFICATIONS



MARCH 2024

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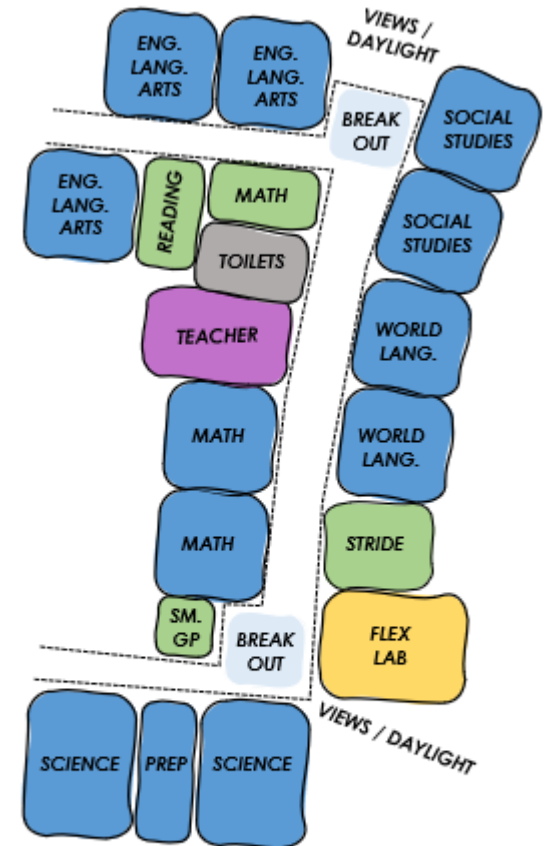
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SMALL LEARNING COMMUNITY - "L" SCHEME GRADE LEVEL NEIGHBORHOOD

MAR. | TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL
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PART 3: SPACE PROGRAM & ACTIVITY PAGES

PLANETARIUM (Tech Ed, E-Sports, Cyber, Digital Lab)

Room Area (SF)	2,000 SF
Number of Staff	4
Capacity (Seating)	40-50

OBJECTIVES
A technologically advanced, all-purpose, interdisciplinary learning environment that serves the middle school curriculum, the district and community at large. The classroom fosters hands-on learning through the sciences, arts, and technology. The space will support the growing E-Sports program, music technology, astronomy, as well as clubs, assembly, field trips and community programs. This dynamic learning environment supports authentic learning experiences for students and allows them to leverage resources in real-world settings.

USERS	ACTIVITIES/PROGRAMS
<ul style="list-style-type: none">• Students• Teachers• Parents/Adults role/Adoles• District-wide / Community	<ul style="list-style-type: none">• E-Sports• Science• Social Studies• Math & Computer Science• Art & Music• Language Arts

ENVIRONMENTAL CHARACTERISTICS	Design and Materials
• Accessibility / Location	• Closest to visitor arrival
• Proximity to Main Entry	• Acoustical requirements apply
• Proximity to Toilets	

Windows	Interior
• Operable windows	• Acoustical requirements apply
• Room-to-room windows	

Floors	Lighting
• All public carpet tile	• Advanced LED fixtures, dimmable, advanced DMX controls
• All high-performance soft surface (wall-to-wall) flooring	• LED color lighting system of choice
• All finished flooring, a variety	• Natural and artificial light (if applicable)
• Durable, low maintenance	• Digital control system (if applicable)
• All floor finishes are accessible, but not reflective	• Occupancy sensors

SPECIALTIES/SYSTEMS	Power, Data & Communications
• Advanced LED fixtures, dimmable, advanced DMX controls	• Multiple electrical outlets of walls with USB charging modules
• LED color lighting system of choice	• Power/data/video connection of ceiling
• Natural and artificial light (if applicable)	• Interconnectable address system
• Digital control system (if applicable)	• All wiring
• Occupancy sensors	• Data/power race teaching wall for mobile teacher station
• Multiple flat black finish on all exposed systems/equipment	• Sound system (wired, wireless)

FINISHINGS	Teacher Storage / Casework & Furniture
• Classroom Storage / Casework & Furniture	• Reinforced floor seating (optional)
• Reinforced floor seating (optional)	• Mobile computer workstation
• Mobile computer workstation	• Mobile storage cabinets for learning materials, project supplies
• Mobile storage cabinets for learning materials, project supplies	• Mobile
• Mobile	• Fixed upper and lower cabinets (connected with tall variable for machine storage)
• Fixed upper and lower cabinets (connected with tall variable for machine storage)	• Lounge furniture, specialty seating
• Lounge furniture, specialty seating	• Self-seating

EDUCATIONAL SPECIFICATIONS
Hillcrest Middle School | 530 Daniels Farm Rd, Trumbull, CT 06611



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PART 3: SPACE PROGRAM & ACTIVITY PAGES

3.1 BUILDING SPACE REQUIREMENTS

The following is not intended to be an exhaustive list of all building spaces. Please refer to the detailed room descriptions included in this section as well as the list of programmatic spaces for additional spaces within the building.

General Purpose Classroom/Educational Space
General purpose classrooms are planned to be newly constructed. Each classroom will be approximately 900 square feet and built to accommodate on average 18-20 students per room. The general classrooms will include a mobile teaching station, mobile file cabinets and furniture inclusive of student desks, worktables and flexible designed seating, instructional whiteboard or other vertical surfaces for writing/collaborating, interactive display/touch screens, as well as secure storage for teacher's personal/confidential items, bookshelves and student project display areas (back boards).

Flexibility and adaptable design for differentiated student learning experiences is the foundation for the design of our classrooms. Group and independent work areas are also considered in the design of each room. All classrooms will have consistent instructional equipment and uniform design. In some classrooms, an acoustic partition will divide the spaces in order to open up two general classrooms into one shared collaborative space.

The classroom will be designed to promote versatility of areas for presentations, from interactive digital displays, to taskboards, and/or white marker boards. Our instructional model expects that students and teachers move about the classroom and includes the seamless integration of wireless technology, thereby de-fortifying the classroom. Reliability and ease of use of technology will be promoted with consistent equipment and integration into each instructional space.

It is important to note, for security and lockdown purposes, all rooms will be uniform in design and locking feature and function.

Science Classrooms/Labs, Prep Rooms
Combined science classroom and lab spaces with shared prep rooms are planned to be newly constructed. Each classroom will be approximately 1,200 square feet to accommodate on average 18-20 students per room. In both a lecture and lab setting, a lecture area is desired towards the "front" of the room, and a lab area is desired towards the "back" of the room. Perimeter casework and sinks are desired. A mobile teaching station, mobile furniture inclusive of student desks, worktables and white boards, as well as secure storage for teacher's personal/confidential items, bookshelves and student project display areas (back boards) and on interactive touch screens). Shared prep rooms are planned. Each prep room will be approximately 800 square feet and shall contain a fume hood(s) with proper ventilation, refrigerator, sink, secure upper and lower cabinet storage, counter/prep areas, and open storage

EDUCATIONAL SPECIFICATIONS
Hillcrest Middle School | 530 Daniels Farm Rd, Trumbull, CT 06611



PART 1

PURPOSE & VISION

Rationale1.1

School Mission.....1.2

- *Middle School Philosophy*
- *Core Values and Beliefs*

Long Range Educational Plan.....1.3

- *Vision of a Graduate*
- *Strategic Priorities*

1.3 LONG RANGE EDUCATIONAL PLAN

Vision of a Graduate

- **Innovation:** The ability to look at something familiar and see new possibilities, which leads to curiosity about new learning and the desire to create something original or imaginative.
- **Growth Mindset:** The belief that one can improve their intelligence or skills through continued hard work and adapt when faced with challenges.
- **Emotional Intelligence:** The aptitude for identifying how and why a person is feeling the way they are and how to regulate and address those emotions.
- **Integrity:** The act of consistently doing the right thing even when it's hard or no one is looking.
- **Self-Efficacy:** The belief that you are capable of successfully performing a task or managing a situation.
- **Collaboration:** The qualities and competencies we use to collectively make progress toward common goals or outcomes.
- **Communication:** The ability to understand others and be understood for a variety of reasons and purposes.
- **Critical Thinking & Problem Solving:** The ability to use knowledge, facts, and data to effectively solve problems.

Community Engagement & Development of Options

In addition to the technical components outlined above, a series of options were developed that included possibilities for new builds, renovations and yearly capital improvements. These options were continually refined through a collaborative process with a diverse group of stakeholders. From BOE workshops to Community Conversations and surveys, the planning process garnered feedback from residents, staff, educators, board members and administrators. The presentations and community engagement materials utilized throughout this process can be found in the Supplemental Materials section of the report.

This planning process illuminated opportunities within the district and sought creative solutions to its challenges. Several considerations were critical when developing planning options and ultimately, in selecting a preferred direction. These included:

1. **District Needs** – ability to address capacity issues and prioritize programmatic needs.
2. **Logistics Considerations** – site capacity and availability of "swing space" (i.e. where students are housed during construction in order to minimize disruption).
3. **Fiscal Responsibility** – maximizing reimbursement from the State of Connecticut and creating value for the Trumbull community.

PART 2

PROCESS & OUTCOMES

Projected Student Enrollment	2.1
Proposed Project Capacity	2.2
Learning / Educational Activities	2.3
• <i>Introduction to Trumbull</i>	
• <i>School Facility Summary</i>	
Overall Instructional Design	2.4

2.2 PROPOSED PROJECT CAPACITY

Hillcrest Middle School (2029-30) Highest 10-YR Projection	
Student Enrollment Projection	
Grade Level	# of Students
Sixth Grade	267
Seventh Grade	271
Eighth Grade	288
Total Students	826

source: McKibben Demographic Research, Population and Enrollment Forecasts (January 2023)

Sustainability, Resiliency & Clean Energy

Facilities matter. And sustainable schools, or green schools, are the highest quality learning environments. They provide plenty of light and excellent air circulation and climate control. Green schools save taxpayer dollars - through economies during construction and through long-term savings on energy and utility costs. Green schools can also provide excellent opportunities for student explorations in science, ecology, engineering, and other career & technical fields. Since 2007, Connecticut law has mandated high performance efficiency buildings (CGS § 16a-38k). As required, DEEP has adopted high performance (Green) building construction regulations that incorporate design, construction, and operation practices that preserve the natural environment (RCSA 16a-38k 1-9). These state construction standards are consistent with, or in some cases, have exceeded the Leadership in Energy and Environment (LEED) silver design building rating system. Connecticut's green construction standards help achieve the state's greenhouse gas emission (GHG), energy, and cost reduction goals while driving economic growth.

Source: Connecticut Department of Energy & Environmental Protection High Performance (Green) Building Standards for State Agency Buildings and School Buildings

SPACE PROGRAM & ACTIVITY PAGES

ENG. LANG. ARTS

ENG. LANG. ARTS

ENG. LANG. ARTS

MATH

VIEWS / DAYLIGHT

BREAKOUT

SOCIAL STUDIES

SOCIAL STUDIES

WORLD LANG.

WORLD LANG.

SM. GP

READING

TEACHER

FLEX LAB

STRIDE

MATH

TOILETS

BREAKOUT SPACE

MATH

MATH

SCIENCE

PREP

SCIENCE

The diagram illustrates the layout of the Media Center, which is centrally located and connected to several other spaces:

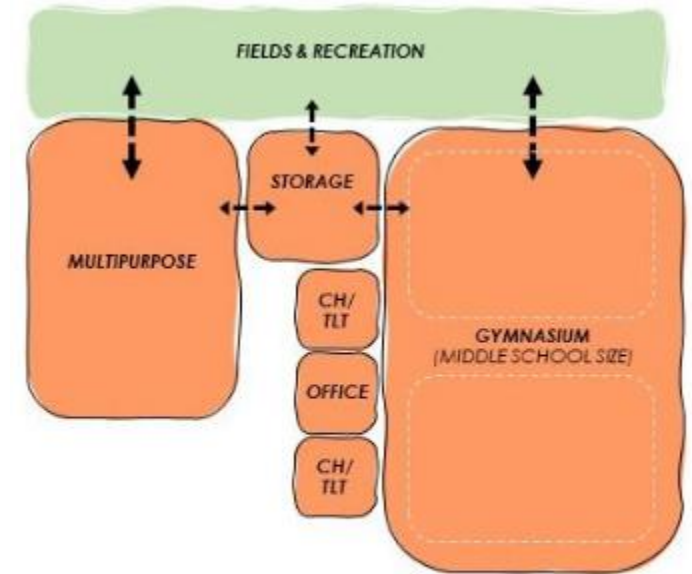
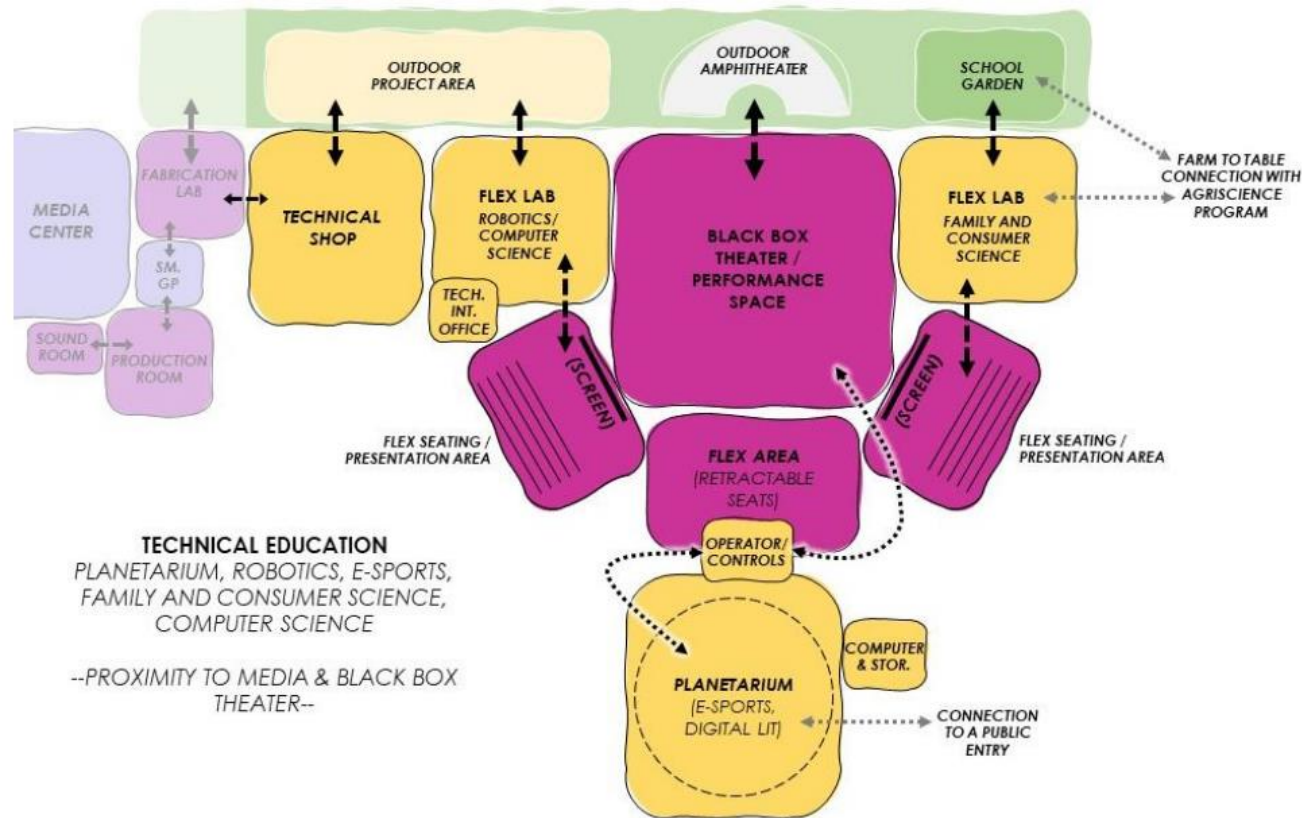
- MEDIA CENTER (STACKS & READING AREAS)**: The central hub.
- OUTDOOR LEARNING**: Located above the Media Center, connected by a double-headed arrow.
- WCRM** and **OFFICE**: Located to the left of the Media Center.
- FABRICATION LAB**: Located to the right of the Media Center, connected by a double-headed arrow.
- SM. GP.** (Student Meeting Group): Two groups are shown, one below the Media Center and one between the Fabrication Lab and the Production Room, both connected by double-headed arrows.
- SOUND ROOM**: Located below the Media Center, connected to the Production Room by a single-headed arrow pointing towards it.
- REPAIR**, **MDF/IT**, and another **SM. GP.**: Located at the bottom of the Media Center.
- PRODUCTION ROOM**: Located at the bottom right, connected to the Sound Room and the SM. GP. group above it.

**SMALL LEARNING COMMUNITY –
“L” SCHEME**
GRADE LEVEL NEIGHBORHOOD

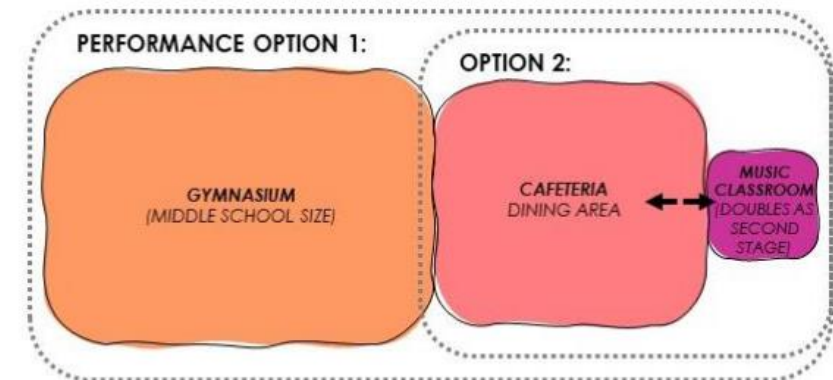
PART 3

SPACE PROGRAM & ACTIVITY PAGES

Building Space Requirements.....	3.1
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WELLNESS/PHYSICAL EDUCATION
GYMNASIUM, CHANGING ROOMS,
STORAGE/OFFICE, MULTIPURPOSE ROOM



PART 3

SPACE PROGRAM & ACTIVITY PAGES

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MAR. 2024	TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL	EDUCATIONAL SPECIFICATIONS
3.3 DETAILED DESCRIPTION		
GRADE LEVEL LEARNING COMMUNITIES		
<ul style="list-style-type: none">GRADES 6-8 GENERAL CLASSROOMS (ENGLISH LANGUAGE ARTS/READING, MATH, WORLD LANGUAGE, SOCIAL STUDIES)SCIENCE CLASSROOM/LABSCIENCE PREP ROOMFLEX CLASSROOM/LABEXTENDED LEARNING/BREAKOUT AREASMALL GROUP/SENSORY ROOMMATH/READING INTERVENTION (BREAKOUT/OFFICE)STRIDE/RESOURCETEACHER PREP/WORKROOM		
SPECIAL EDUCATION		
<ul style="list-style-type: none">SKILLS FOR SUCCESSOT/PTLIFE SKILLS-SELF-CONTAINED CLASSROOMSPEECH AND LANGUAGE THERAPY (BREAKOUT/OFFICES)WORKROOM & SUPPORT STORAGESPECIAL EDUCATION DEPARTMENT CHAIR OFFICE		
MAIN OFFICE		
<ul style="list-style-type: none">GENERAL OFFICEPRINCIPAL'S OFFICEASSISTANT PRINCIPAL'S OFFICECONFERENCE ROOMSSOCIAL WORKER OFFICESCHOOL COUNSELING OFFICEPSYCHOLOGIST OFFICESECURITY OFFICEWORKROOM, STORAGE, TOILET ROOMSTESTING/ISS ROOM		
NURSE		
<ul style="list-style-type: none">WAITING/COITSOFFICEEXAM ROOMSTORAGETOILET ROOM		
VISUAL AND PERFORMING ARTS		
<ul style="list-style-type: none">ART STUDIO W/KILN ROOMGENERAL ART ROOMORCHESTRA ROOMCHORAL ROOMBAND ROOMINSTRUMENT/MUSIC STORAGEMUSIC TECHNOLOGYBLACK BOX THEATER/AUDITORIUMSTAGE, WINGS, STORAGECONTROL ROOM/SOUND BOOTH		
MEDIA CENTER		
<ul style="list-style-type: none">MEDIA CENTER/STACKSBREAKOUT SPACES		

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PART 3: SPACE PROGRAM & ACTIVITY PAGES		
GRADES 6-8 GENERAL CLASSROOMS		
Room Area (SF)		
Number of Teachers		
Average Class Size		
OBJECTIVES		
An adaptable classroom designed for an integrated and interdisciplinary approach that promotes collaboration through arrangements and flexible configurations. The space should function as general instruction space while also promoting deep learning.		
USERS		
Activities/Programs		
ENVIRONMENTAL CHARACTERISTICS		
Adjacency / Location		
Doors and Hardware		
Windows		
Ceiling		
Floors		
Walls		
SPECIALTIES/SYSTEMS		
Lighting		
Technology/Devices		
Power, Data & Communications		
Plumbing		
HVAC / Mechanical		
FURNISHINGS		
Classroom Storage / Casework & Furniture		
Display		
Teacher Storage / Casework & Furniture		

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PART 3: SPACE PROGRAM & ACTIVITY PAGES		
WORKROOM & SUPPORT STORAGE		
Room Area (SF)		
Number of Teachers		
Average Class Size		
OBJECTIVES		
Area for planning and collaboration among special education instructors and paraprofessionals. The space should include a dining area, storage closet, copy/print area.		
USERS		
Activities/Programs		
ENVIRONMENTAL CHARACTERISTICS		
Adjacency / Location		
Doors and Hardware		
Windows		
Ceiling		
Floors		
Walls		
SPECIALTIES/SYSTEMS		
Lighting		
Technology/Devices		
Power, Data & Communications		
Plumbing		
HVAC / Mechanical		
FURNISHINGS		
Storage / Casework & Furniture		
Display		
Appliances		
Other		

MAR. 2024	TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL	EDUCATIONAL SPECIFICATIONS
PART 3: SPACE PROGRAM & ACTIVITY PAGES		
ORCHESTRA/STRINGS ROOM		
Room Area (SF)		1,200 SF
Number of Staff		1-2
Average Class Size		18-30
OBJECTIVES		
A space designed to cultivate musical talent and foster a collaborative environment for students interested in playing instruments. Its objective is to provide a dedicated space where students can practice, rehearse, and refine their musical skills under the guidance of instructors, promoting a passion for music education and ensemble performance.		
USERS		
Activities/Programs		
ENVIRONMENTAL CHARACTERISTICS		
Adjacency / Location		
Doors and Hardware		
Windows		
Ceiling		
Floors		
Walls		
SPECIALTIES/SYSTEMS		
Lighting		
Technology/Devices		
Power, Data & Communications		
Plumbing		
HVAC / Mechanical		
FURNISHINGS		
Classroom Storage / Casework & Furniture		
Display		
Teacher Storage / Casework & Furniture		

PART 4

BUILDING SYSTEMS & SITE

Building Systems.....4.1

Site Development4.2

Construction Grant Bonus Requests4.3

Building Systems & Infrastructure:

- 1. Fire Protection
- 2. Plumbing
- 3. Heating and Ventilation
- 4. Electrical Systems
- 5. Lighting
- 6. Fire Alarm
- 7. Technology, Data, AV, Clocks, Phones
- 8. Security & Access Control
- 9. Sustainability, NetZero, PV, Geothermal

PART 5

COMMUNITY USES, FURNITURE & EQUIPMENT

Community Uses.....5.1

Furniture, Fixtures & Specialized Equipment.....5.2

- **Summer enrichment programs** – both educational and community related.
- **Summer school** – limited to specific areas of the school.
- **Town meetings** – public presentations, community board meetings.
- **PTO meetings and events** – including use of media center, gymnasium, cafeteria/kitchen.
- **Voting** – anticipated within the gymnasium area.
- **Temporary warming shelter** – during catastrophic community events for those in need, planned for the gymnasium, locker rooms, kitchen and cafeteria area.
- **Community recreation** – Physical education activities and programs in the gymnasium and outdoor field areas or courts, recreational leagues, general physical exercise like walking the track.
- **Nature and play** – access to play areas, playscapes, walking paths, or gardens after hours and during the weekends.
- **Various youth club programs** – for example Boy and Girl Scout events and meetings.
- **Community arts programs** – both visual and performing arts – located within the available amenity spaces.

PART 6

LIST OF EDUCATIONAL SPACES6.1

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2024 | Educational Specifications

PART 6

PART 6: LIST OF EDUCATIONAL SPACES

6.1 LIST OF EDUCATIONAL SPACES

PROPOSED PROGRAM - NEW HILLCREST MIDDLE SCHOOL			
New Hillcrest Middle School			
Grade Configuration:	6-8		
Projected Enrollment:	826		
Area of Existing Building:	117,000		
OGA Allowable Area:	135,706		
Revision Date:	03.25.2024		
6TH GRADE ACADEMIC CLASSROOMS	QTY	UNIT SF	TOTAL SF
English Language Arts (ELA) / Reading Classroom	3	900	2,700
Math Classroom	3	900	2,700
World Language Classroom	2	900	1,800
Social Studies Classroom	2	900	1,800
Science Classroom and Lab	2	1,200	2,400
Science Prep Room	1	800	800
Flex Lab Space (Science, Math, Eng., Technol.)	1	1,200	1,200
Curriculum Storage	2	200	400
Math Intervention (Break Out/Office)	1	450	450
Reading Intervention (Break Out/Office)	1	450	450
Specialized Education - Small Group/Sensory	1	250	250
STRIDE - Self Contained Classroom / Resource	1	600	600
Teacher Prof. Dev./Work/Prep Room	1	600	600
6TH GRADE ACADEMIC CLASSROOMS	21		16,150
7TH GRADE ACADEMIC CLASSROOMS	QTY	UNIT SF	TOTAL SF
English Language Arts (ELA) / Reading Classroom	3	900	2,700
Math Classroom	3	900	2,700
World Language Classroom	2	900	1,800
Social Studies Classroom	2	900	1,800
Science Classroom and Lab	2	1,200	2,400
Science Prep Room	1	800	800
Flex Lab Space (Science, Math, Eng., Technol.)	1	1,200	1,200
Curriculum Storage	2	200	400

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PART 6

Office Workroom	1	175	175
Testing / I.S.S.	1	80	80
Storage Room	1	150	150
Social Worker Office	2	120	240
School Counselor Office	3	120	360
Psychologist Office	1	120	120
Administrative Restrooms	2	60	120
Security Office	1	100	100
Conference Room	1	300	300
Materials Storage	1	80	80
ADMINISTRATION	19		3,215
STUDENT HEALTH	QTY	UNIT SF	TOTAL SF
Nurse Office	1	225	225
Waiting/Cots/Main Room	1	400	400
Exam/Multi-Purpose Room	1	120	120
Storage Closet	1	60	60
Toilet Room	2	60	120
STUDENT HEALTH	6		925
VISUAL AND PERFORMING ARTS	QTY	UNIT SF	TOTAL SF
Art Studio	1	1,200	1,200
General Art Classroom	1	950	950
Kiln Room / Art Storage	1	125	125
Orchestra Strings Room	1	1,200	1,200
General/Choral Music	1	1,200	1,200
General/Choral Music Storage	1	200	200
Band/Instrumental/Classroom	1	1,200	1,200
Band/Instrumental/Classroom Storage	1	200	200
Black Box Theater / Auditorium	1	3,500	3,500
Stage / Wing Space / Storage	1	1,350	1,350
Auditorium Control/Sound Room	1	200	200
VISUAL AND PERFORMING ARTS	11		11,325
LEARNING COMMONS	QTY	UNIT SF	TOTAL SF
Media Specialist Office	1	150	150
Media Specialist Storage / Work Room	1	200	200

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PART 6

Office	1	100	100
Janitor's Closet (Kitchen)	1	50	50
Toilet Room (Kitchen)	2	60	120
Chair/Table Storage	1	400	400
Teacher Dining / Small Break Out Dining Area	1	625	625
CAFETERIA / FOOD SERVICE	13		9,378
BUILDING SERVICES	QTY	UNIT SF	TOTAL SF
Building Storage	1	550	550
Toilet Room (Boys/Men)	4	250	1,000
Toilet Room (Girls/Women)	4	250	1,000
All-Gender / All Inclusive - Toilet Room	10	50	500
Custodial Closet	4	80	320
Mechanical Room	1	850	850
Main Electrical Room	1	400	400
Electrical Closet	3	80	240
IDF Room	3	80	240
Deliveries / Loading	1	450	450
Custodial Office/Storage	1	175	175
Custodial Toilet Room	1	60	60
BUILDING SERVICES	34		5,785
PROGRAM AREAS	#/ROOMS		TOTAL SF
6TH GRADE ACADEMIC CLASSROOMS	21		16,150
7TH GRADE ACADEMIC CLASSROOMS	21		16,150
8TH GRADE ACADEMIC CLASSROOMS	21		16,150
SPECIAL EDUCATION (refer to Academic CR)	6		2,750
ADMINISTRATION	19		3,215
STUDENT HEALTH	6		925
VISUAL AND PERFORMING ARTS	11		11,325
LEARNING COMMONS	11		6,416
CAREER, TECH. ED. & COMPUTER SCIENCE	8		6,250
WELLNESS / PHYSICAL EDUCATION	7		10,825
CAFETERIA / FOOD SERVICE	13		9,378
BUILDING SERVICES	34		5,785
Net SF			105,319
Circulation Factor	105,319	0.385	40,548



Project NumberTBD

School NameNew Hillcrest Middle School

LEA NameTrumbull Public Schools

LEA CODE:904620

SPACE STANDARDS WORKSHEET

This worksheet should be completed and submitted with the application for any N (new), E (extension), A (alteration, or RNV (renovation) project, or combination.

State Standard Space Specifications

Grades

Projected Enrollment	Pre-K & K	1	2	3	4	5	6	7	8	9	10	11	12
				Allowable Square Footage per Pupil									
0 - 350	124	124	124	124	124	156	156	180	180	180	194	194	194
351 - 750	120	120	120	120	120	152	152	176	176	176	190	190	190
751 - 1500	116	116	116	116	116	148	148	170	170	170	184	184	184
Over 1500	112	112	112	112	112	142	142	164	164	164	178	178	178

Steps for completing Section 1:

1. In the field labeled "Projected Enrollment," enter your school's highest projected 8 year enrollment.

2. Select "Yes" for each grade served or to be served in your school.

3. Answer whether there is 1% additional space claimed for HVAC.

4. Enter the existing square footage of your school constructed before 1959 remaining in completed project.

5. Enter the square footage of the school built 1959 or later, as of the completion of construction.

6. Note that all square foot calculations are measured to inside face of exterior walls.

Section 1.

Highest Proj 8-year enrollment826

Pre-K and/or K

1

2

3

4

5

6 Yes

7 Yes

8 Yes

9

10

11

12

Pre-K and/or K

1

2

3

4

5

6 148

7 170

8 170

9

10

11

12

Section 2.

(a) Total (grades Pre-K through 12)

(b) Number of grades housed

(c) Average [(a)/(b)]

(d) Extra 1% for HVAC (CGS10-286(c)(2))?

(e) Maximum allowable square footage per space standards [(c) x (d)]

488

3

163

Yes

135,706

135,706

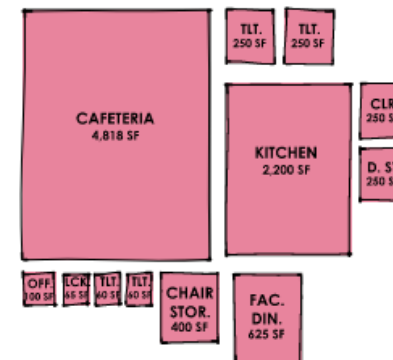
Allowable SF*

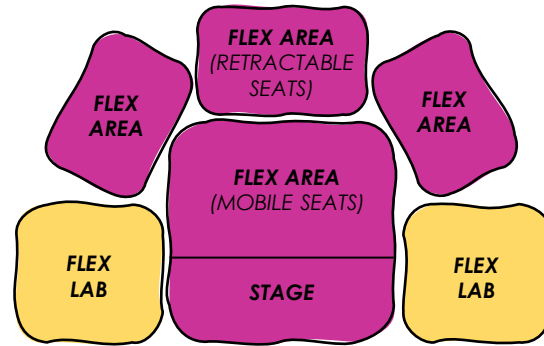
(826 Students)

(Grades 6-8)

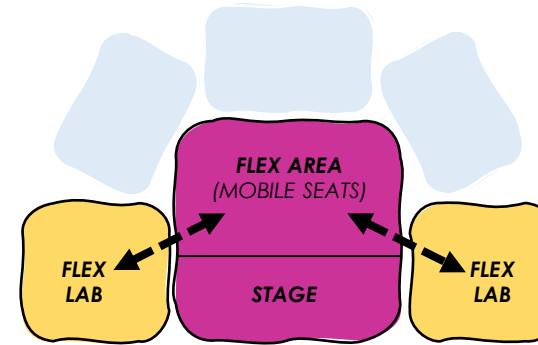
*As measured by OGA

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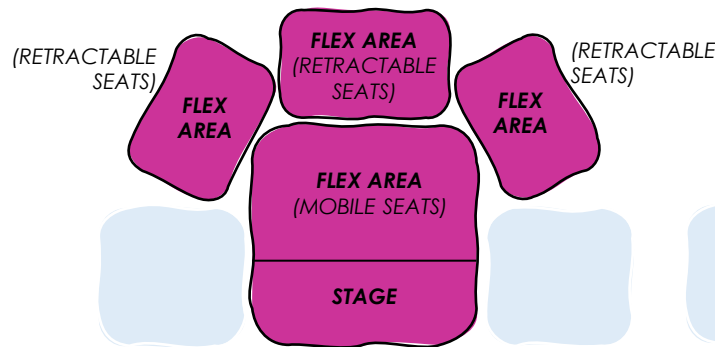




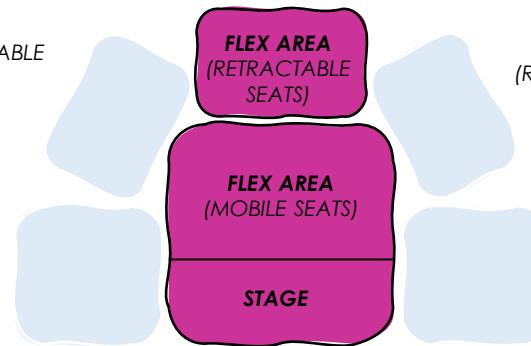
BLACK BOX DIAGRAM
OVERALL



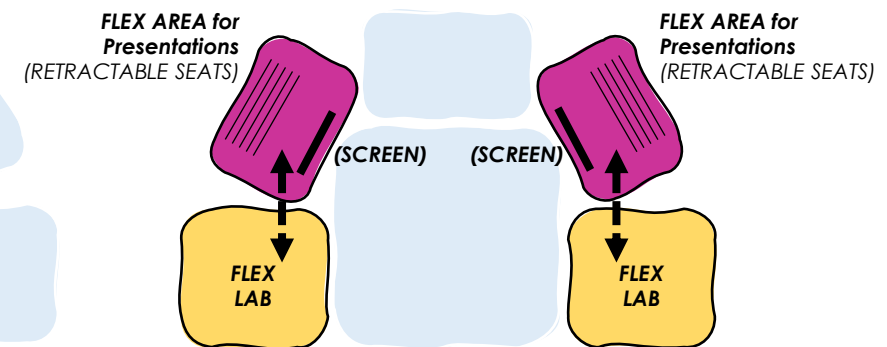
BLACK BOX DIAGRAM
PROFESSIONAL DEVELOPMENT/
FAIR/



BLACK BOX DIAGRAM
LARGE PERFORMANCE SETTING

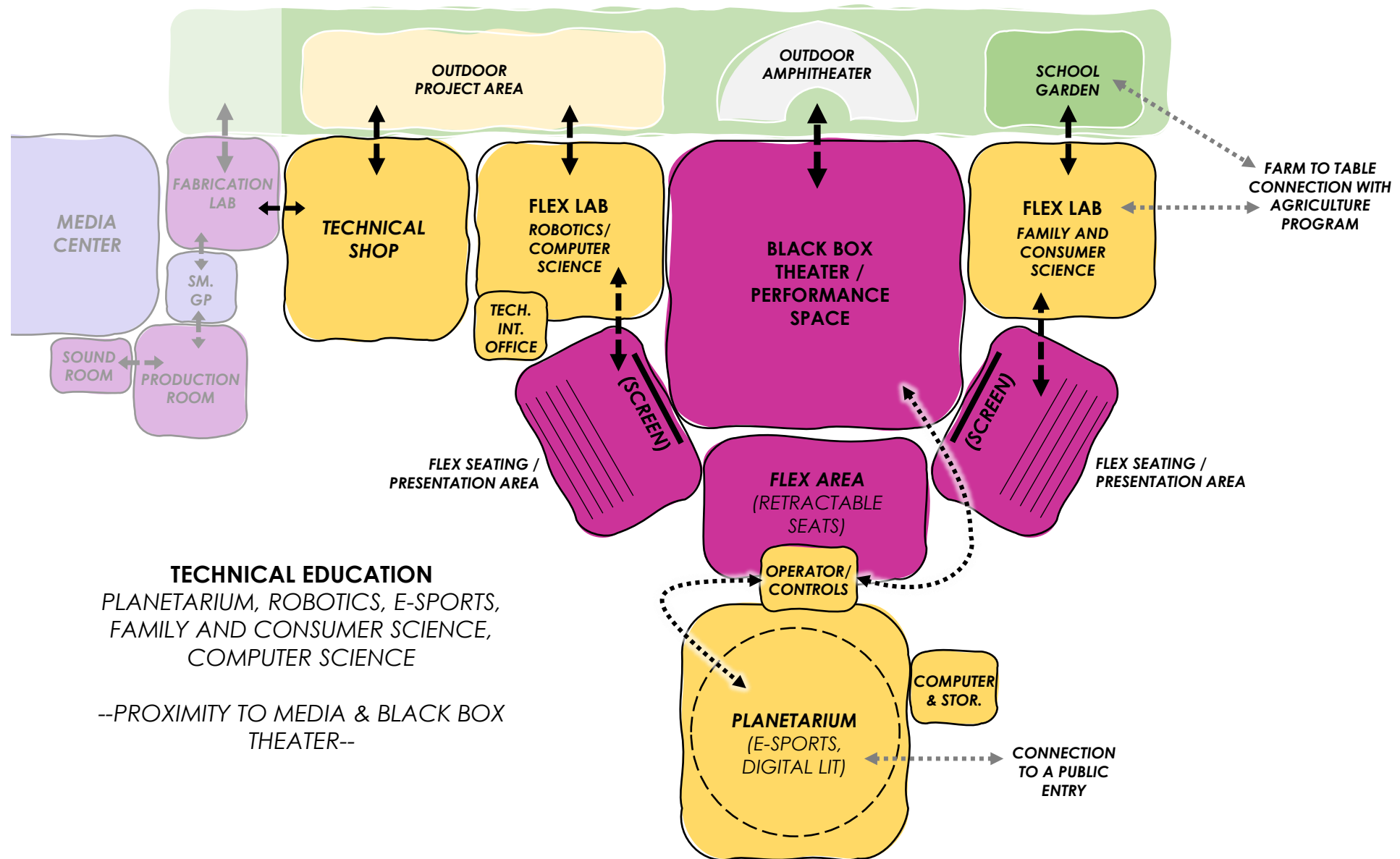


BLACK BOX DIAGRAM
SMALL PERFORMANCE/ LECTURE
SETTING



BLACK BOX DIAGRAM
FLEX TECH. LABS WITH BREAKOUT
& PRESENTATION

Program Diagrams (Black Box, Planetarium)



Costs Analysis New vs. Renovate Like New

Hillcrest Middle School

826 +/- Students



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Topic for Consideration	Value Delta	Renovate Like New With Addition	New Building
Construction Costs	\$6,704,015	\$108,793,979	\$115,497,994
Possibility of unforeseen conditions, conflicts, and cost increases	-\$2,041,799	Somewhat Likely, est. 3-5% of const. \$4,351,759	Somewhat limited, est. 1-3% of const. \$2,309,960
General Conditions Analysis (Typically range between 5-10% of construction)	-\$2,928,619	48 Months (uses 8%) \$8,703,518	24 Months (uses 5%) \$5,774,900
Temp. Facilities, Field Off., Admin. exp. (Typically between \$25,000 ~ \$35,000 per/month)	-\$720,000	48 Months \$1,440,000	24 Months \$720,000
Temporary Modulares & Swing Space	-\$1,176,000	(8 Modular Classrooms) \$24,500/mth x 48 mths.	\$0
Multiple Move Costs	-\$328,750	(6 Total phased moves) 6 @ 65,750 each	1 Move @ 65,750
Subtotal of Value Lost	-\$7,195,168	+7,195,168	Less than or equal to!
Delta in Resultant Value	(\$491,153)	\$115,989,147	115,497,994

Chapter 173, Sec. 10-285a. Percentage determination for school building project grants.

for grants approved pursuant to section 10-283 for which application is made on and after June 1, 2022, (i) each town shall be ranked in descending order from one to one hundred sixty-nine according to the adjusted equalized net grand list per capita, as defined in section 10-261, of the town two, three and four years prior to the fiscal year in which application is made, and (ii) based upon such ranking, (I) a percentage of not less than ten nor more than seventy shall be determined for new construction or replacement of a school building for each town on a continuous scale, and **(II) a percentage of not less than twenty nor more than eighty shall be determined for renovations, extensions, code violations, roof replacements and major alterations of an existing school building and the new construction or replacement of a school building when a town or regional school district can demonstrate that a new construction or replacement is less expensive than a renovation, extension or major alteration of an existing school building for each town on a continuous scale.**

If costs between New and RNV are similar....consider requesting higher reimbursement rate for New (34.29%)

Budget Summary (Updated 3.18.24)



New Hillcrest Middle School - Budget Summary				Updated: 2/28/2024
Grade Levels	Proj. Enr.		Highest 10 Yr . (Projected Enrollment)	
6-8	826		2029-30	
Max. Area Allowed	135,706		with 1% mechanical factor	
New Building GSF	145,884	7.50%	Typical gross up factor	
Existing Building	117,000			
Proposed Building (New Construction)		145,884		
Project Cost Summary				
Site Improvements	21.97	Acre	\$425,000	\$9,337,250
Paving Lot & Vehicular Circulation	200	SF	\$9,250	\$1,850,000
Building Environmental Remediation	117,000	SF	\$30	\$3,510,000
Whole Building Demolition	117,000	SF	\$20	\$2,340,000
New Construction	145,884	SF	\$575	\$83,883,271
Geothermal Bore Field & Systems Premium	145,884	SF	\$22.50	\$3,282,389
Carbon Neutral & Netzero Premium	145,884	0	\$18.50	\$2,698,853
Construction Cost Subtotal		Avg/sf	\$732.79	\$106,901,763
Soft Costs	19.50%			\$20,845,844
Phasing & Logistics Costs (Contemplates occupied Site)	1.25%			\$1,336,272
Project Cost + Construction Cost Subtotal		Avg/sf	\$884.84	\$129,083,879
Cost Escalation	9.2%	Mid 2026	4.5%/year	\$11,878,944
Total Project Cost (With Escalation)			\$966.27	\$140,962,823
Total Project Costs			\$966.27	\$140,962,823
State Reimbursement (Assumes higher %, most econ. sol. CGS 10-285a)			34.29%	(\$48,336,152)
Ineligible Allowance (Offsite, Auditorium, etc.)			2.00%	\$2,819,256
Estimated Total Cost to Trumbull				\$95,445,927

Note: The intent of the opinion of probable costs is for budgeting purposes only, each line item requires refinement and costs will be adjusted as scope is further refined.

Hillcrest Middle School

New

Total Population: 826P
Allowable Area: 135,706 SF
New Building GSF: 145,884

Site Improvements: 200 parking spaces, athletic fields, outdoor educational space, bus/parent drop off

Building: Whole building demolition and abatement, new construction and NetZero/Carbon neutral premiums

Total Project Costs: \$140,962,823
Cost to Trumbull: \$95,445,927

ENERGY GOAL (EUI)	SIZE OF PV ARRAY	ARRAY SIZE (kW)	# OF PANELS	COST
Code Minimum 40	79,945 SF	1,360	2,386	\$3.09M
30	59,958 SF	1,020	1,789	\$2.32M
Path 1 25	49,965 SF	850	1,491	\$1.93M
22	43,970 SF	748	1,312	\$1.69M
Net-Zero 20	39,972 SF	680	1,193	\$1.55M
BASED ON HMS ~145,884 GROSS SF (570W PV Panels)				



Path 1 vs Path 2

Project Eligibility Requirements*

1. Commit to a ZNE, ZNE ready or Passive House (as a path to zero) project
2. Target a goal of 25 EUI or less **
3. Building must be a minimum of 20,000 square feet (sf) of heated and cooled space
4. Must anticipate year-round occupancy
5. Engage us before 50% schematic design
6. Include ZNE or ZNE ready goal and EUI target in project documents
7. Commit to building commissioning

* Please refer to MOU document for full eligibility requirements

** If 25 EUI is not possible due to project type or hours of operation, contact your Sponsor to discuss an alternative EUI target

Table 1: EUI Targets & Incentives

Site Specific	Site EUI	Incentives				
		Payable at end of construction		Payable at end of 1 year post-occupancy		
		Construction Incentive \$/sf	Heat Pump Adder*	Post-Occupancy Incentive \$/sf	Adder for getting under Net Zero EUI target	Certification Incentive
Net Zero level	25 or less (or site-specific target)	\$2.50	Air Source Heat Pumps: \$640/ton capped at \$100,000 Variable Refrigerant Flow (VRF): \$1000/ton capped at \$150,000 Ground Source Heat Pumps: \$4,000/ton capped at \$200,000	\$ 1.50	\$0.05/ EUI point reduction/sf	\$3,000

EVERSOURCE



Possible Incentive Cap

\$4.25 per SF plus Heat Pump adder
Hillcrest MS ~ \$688K

Inflation Reduction Act (IRC Section 48)

- Currently navigating for public & private clients – Madison, Cheshire, Trumpf, Inc.
- Early phases of development
 - Electronic portal application
 - Work together & identify possibilities



Dynamic Glass – 30% Rebate
Saves \$\$ on energy, window treatments

ELIGIBILITY	FEDERAL TAX CREDIT
Property Owners/Developers	Transferable, One Time
Government Buildings Owners	Paid Directly by the IRS
Tax Exempt Building Owners	

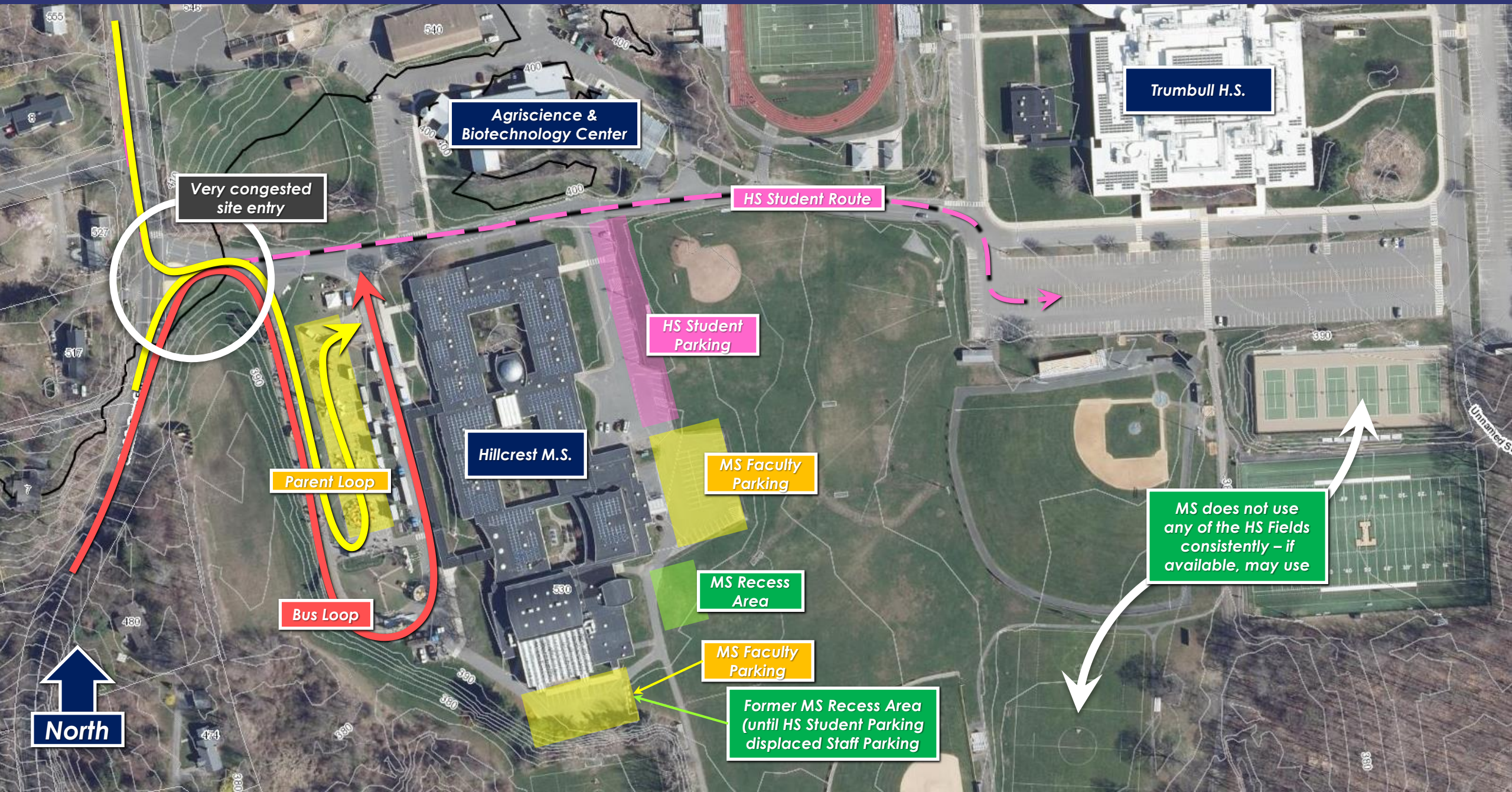
ENERGY %	QUALIFICATION
6%	Base Credit
+24%	Bonus - for projects started before 01/29/23, or meeting prevailing wage req
+10%	Domestic Content Bonus - 100% US steel/iron & 40% US manufactured products
+10%	Energy Community Bonus - located in brownfield, coal, oil, or natural gas site
+10 or 20%	Low-Income Bonus - located in low-income or tribal lands, low-income housing

Federal tax credit for:

- Solar
- Geothermal
- Combined heat & power system
- Waste Energy Recovery Properties

- Dynamic glass
- Fiber-optic Solar
- Fuel cells
- Small wind energy
- Standalone energy storage
- Qualified biogas property
- Microgrid controllers

Existing Site Conditions



Siting Options



Building Site
Option #2: Existing
JV Baseball Field

Building Site
Option #1, Parking
Dropoff Area

Building Site
Option #3: Existing
Soccer Field

OPT 1: Not Preferred

- Too close to Daniels Farm Rd., shared campus entry, and existing building (possibly used for elem. swing space)
- Would displace existing necessary parking

OPT 2: Not Preferred

- Field is used by the H.S. for JV baseball
- Close to other campus buildings, not enough separation

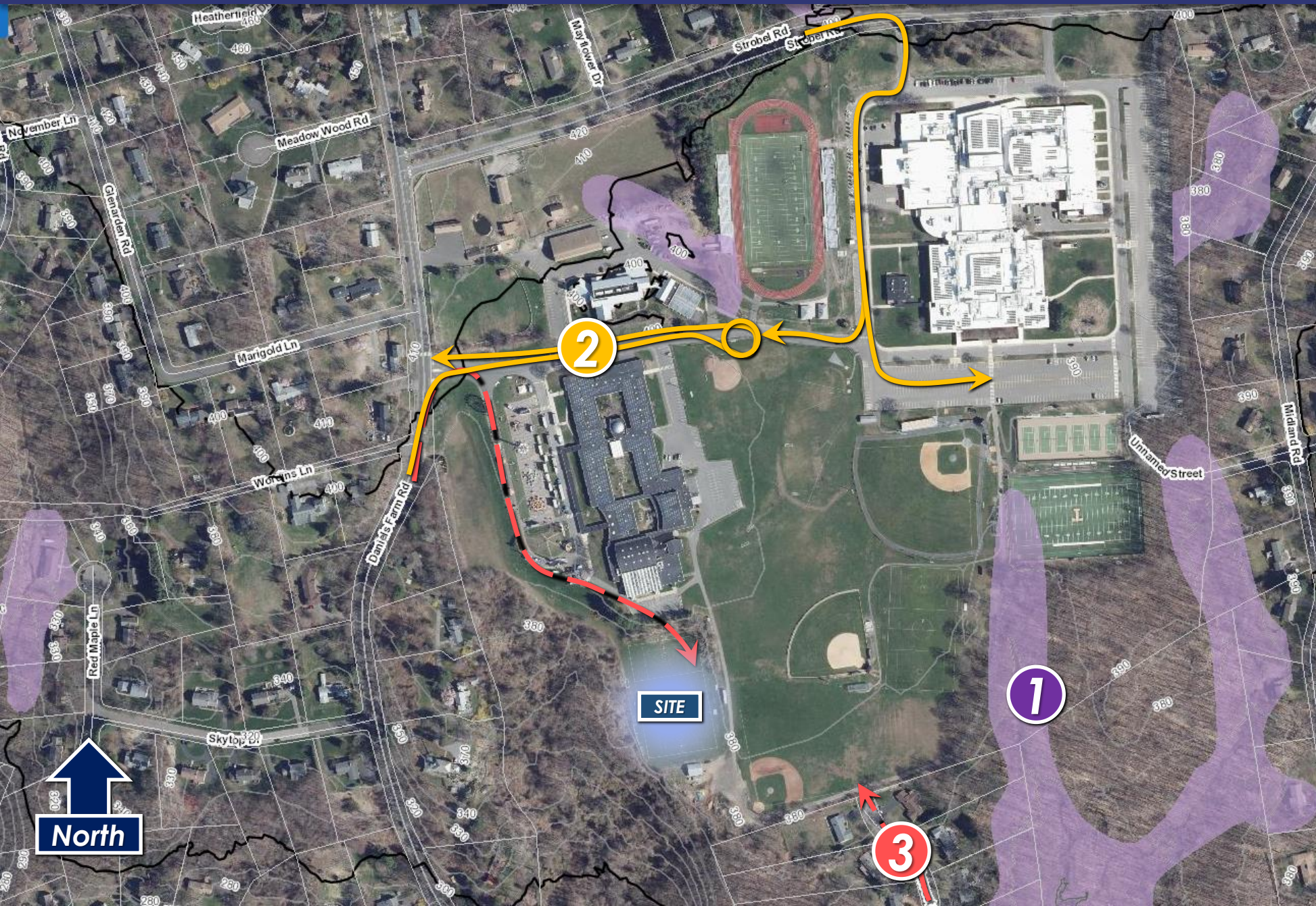
OPT 3: Preferred

- Creates distance from shared campus entry and other campus buildings
- Flat area to build (but...lower than surrounding grade, area called "the Pit")

Existing Aerial View to North



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1 GIS identified wetland soils

2 Consider alternate traffic pattern (one-way loop with roundabout)

3 Consider alternate entry points?



Existing Aerial View to North



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**Building Site
Option #1: Parking
Dropoff Area**

**Building Site
Option #2: Existing
JV Baseball Field**

**Building Site
Option #3: Existing
Soccer Field**

Existing Aerial View to North



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Existing Aerial View to North



Building Site
Option #2: Existing
JV Baseball Field

Building Site
Option #1, Parking
Dropoff Area

Building Site
Option #3: Existing
Soccer Field

View of Existing Soccer Field



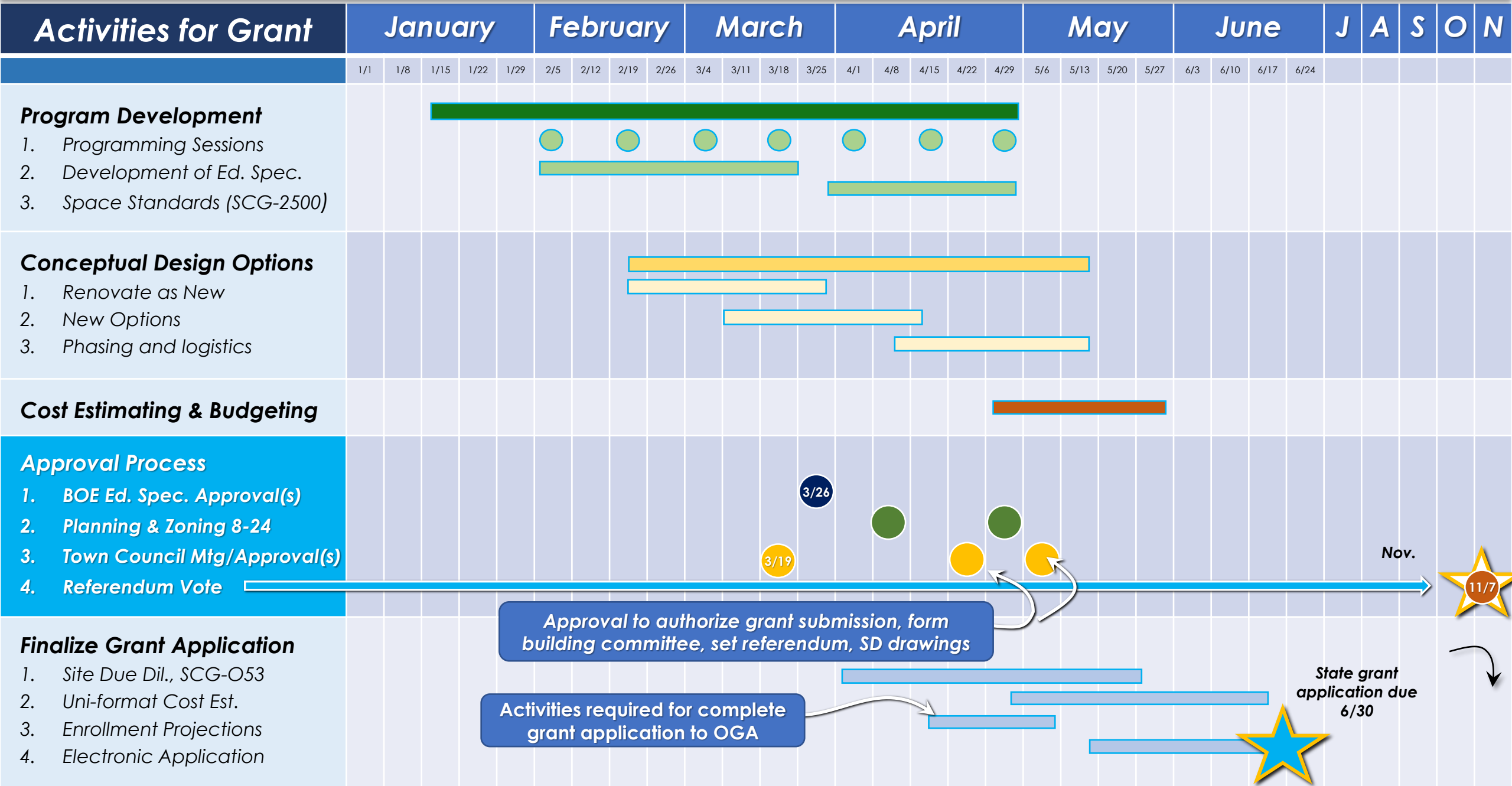
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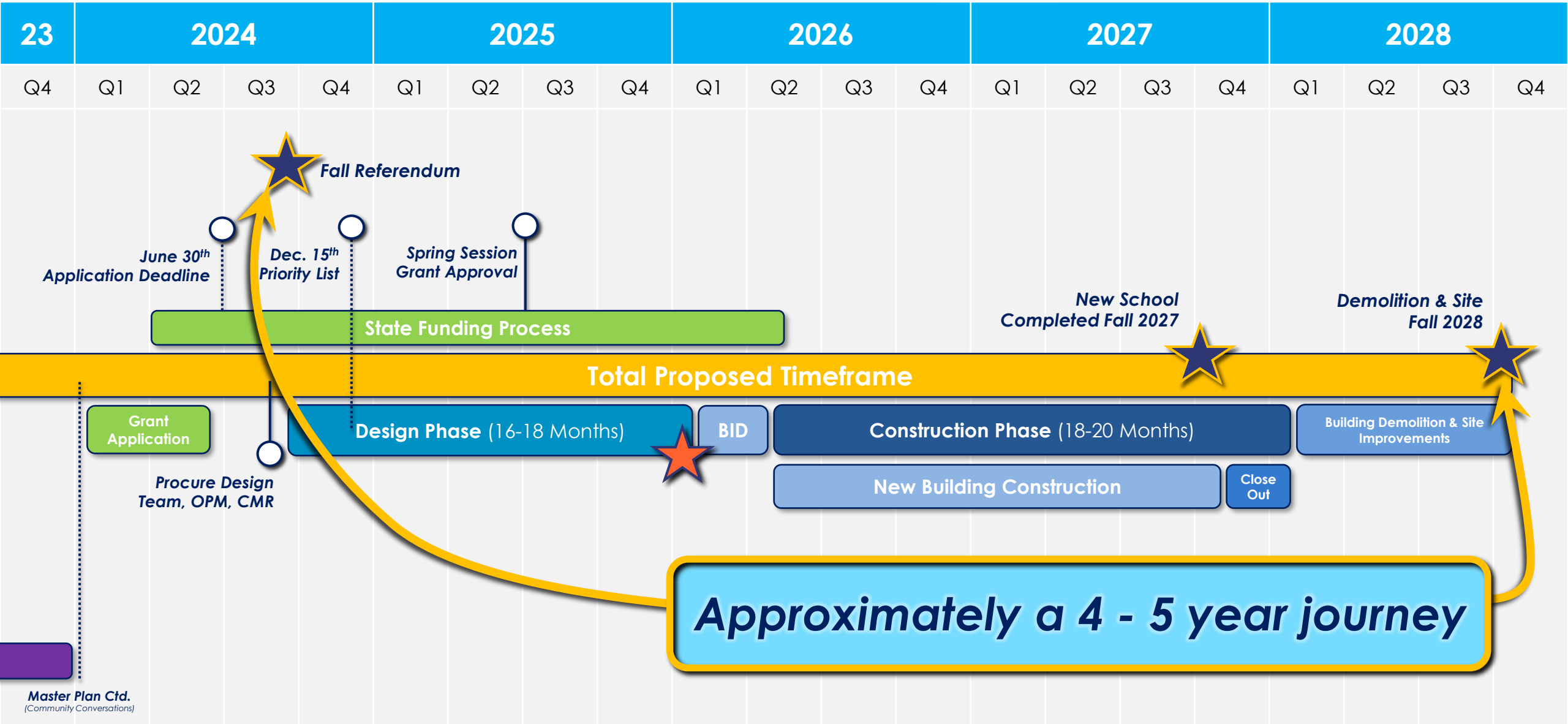
Building Site
Option #3: Existing
Soccer Field

- ~~3.19.24 - Town Council Meeting: General Summary of Master Plan + Hillcrest M.S. Update~~
- ~~3.20.24 - Final Educational Specification due to BOE~~
- **3.26.24 - Board of Education: Special Meeting – Educational Specification Approval**
- **Other Meetings**
 - 8-24 Approval, Planning and Zoning Commission
 - Town Council authorizations (SD, Referendum, Authorize to submit Grant Application to OGA)
 - Food Service, Facilities Review, Park & Recreation

PROPOSED MICRO SCHEDULE



New





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SUMMARY PRESENTATION FOR TRUMBULL PUBLIC SCHOOLS

EDUCATIONAL SPECIFICATIONS

HILLCREST MIDDLE SCHOOL

GRANT APPLICATION

for

Trumbull Board of Education

Long Hill Administration Building

March 26, 2024