

EMERY GROVER FEASIBILITY STUDY
for the School Administration Department,
Town of Needham, MA

FINAL REPORT JUNE 25, 2020



bh+a

Bargmann Hendrie+ Archetype, Inc.

PROJECT TEAM

ARCHITECT

Bargmann Hendrie + Archetype, Inc.

9 Channel Center Street
Boston, MA 02210
617 350 0450

LAND USE

Foresquare Corporation

68 Harvard Avenue
Brookline, MA 02445

COST CONSULTANT

CHA Companies

1 Faneuil Hall Marketplace
South Market Building, Suite 4195
Boston, MA 02109
617 451 2717

BH+A would like to acknowledge and thank the following people and town committees that have provided information and guidance in the preparation of this study.

Emery Grover Working Group

John Bulian	Select Board
Kate Fitzpatrick	Town Manager
Dave Davison	Assistant Town Manager - Finance
Dan Gutekanst	Superintendent, Needham Public Schools -
Anne Gulati	Assistant Superintendent- Finance, Needham Public Schools
George Kent	Permanent Public Building Committee
Barry Coffman	Finance Committee
Elizabeth Grimes	Planning Board
Lee Newman	Planning Director
Gloria Greiss	Historic Commission
Matt Spengler	School Committee
Dave Roche	Building Commissioner
Steve Popper	Director, Building Design & Construction Department
Hank Haff	Senio. Project Manager, Building Design & Construction Department
Steve Gentile	Project Manager, Building Design & Construction Department

Permanent Public Building Committee

Stuart B. Chandler, Chair
Richard Creem, Vice-Chair
Natasha Espada, AIA
George Kent
Roy Schifilliti
Irwin Silverstein
Gene Voloshin
Anne Gulati, User Group Representative
Matt Spangler, User Group Representative

Needham School Committee

Andrea Longo Carter, Chair
Connie S. Barr, Vice-Chair
Heidi Black
Michael J. Greis
Susan B. Neckes
Aidan Michelow, Student Representative Member

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The Emery Grover Building has been the focus of reuse studies for several decades, however, there is currently an ever-increasing challenge with the building meeting the needs of Needham's School Administration. This building was never designed for the needs of the School Administration as it originally was built for use as the Needham High School. Over time, usage has changed, and deterioration of the building components and deficiencies have risen to a concerning level, thus prompting this new study.

This 2020 study provides a comprehensive look at numerous options from preserving and expanding the 1897 structure to demolition and reconstruction on this downtown site. The Building is listed on the National Register of Historic Buildings and the State and Local Historic Commissions and offers an opportunity to preserve the oldest public building in Needham for an extended life of service to the community as the School Department headquarters.

The Permanent Public Building Committee (PPBC) was tasked with selecting and engaging an outside firm to study the Emery Grover along with overseeing the progress of the study to completion. Bargmann, Hendrie + Architype (BH+A) was selected along with a working group (WG). The WG comprised of a member and/or department head of the School Committee, the School Department, Planning Department, Building Maintenance Department, Building Design and Construction Department, as well as other important Town entities like the Town Historical Commission.

The Study followed a timeline and work effort plan to enable a significant amount of input, evaluation, and feedback from many stakeholders and resident/members of the Needham Community. Presentations were made to the Planning Board, School Committee, Community Preservation Committee and Select Board as well as the PPBC to solicit valuable feedback as the Options were evaluated and then refined.

The building's condition is tenuous to say the least. Aging infrastructure (roof, windows, stairs), out-of-date building systems (heating, air-conditioning, plumbing), and systems that need to be installed to meet contemporary codes (an elevator, egress stairs, fire sprinklers, insulation, accessible toilets, electrical, and technology upgrades), require a comprehensive refurbishment of the building, to make it function properly for current and future needs. Many of these repairs have been listed on the Needham Capital Improvement Plan (CIP) for over a decade but deferred as the future location for School Administration and the building's disposition was studied. These capital improvements cannot be deferred any longer without serious risk to the continuity of operations.

Bargmann, Hendrie + Architype (BH+A) completed this comprehensive feasibility report and it demonstrates the thorough review of numerous options and the rationale for recommending the preferred direction. We encourage all to read the report. The conclusion of the report is to preserve the historic building and expand it to meet the full program of space necessary to accommodate the School Department now and in the future.

Estimated costs (both hard and soft) to accomplish the adaptive reuse of the historic building are included in the report.

This is a sustainable solution that will preserve the historic envelope of the building as an important gateway into Needham's downtown. It proposes to reconstruct the interior of the building and place a new addition to the east side that will meet the department needs for many years to come. These improvements will also provide ADA accessibility to the historic building for the first time. The preservation and expansion of the historic building would be eligible for Community Preservation Act (CPA) funding for about half of the total project costs.

The PPBC wants to thank BH+A, the WG and all those who participated in this process. These WG members are listed in the appendix. This report is insightful but more importantly, a recommendation that the Town can carry forward. The Select Board and School Committee have discussed placing a non-binding referendum on the Fall Special Town Meeting Warrant to confirm the approach with Town meeting members and the public. If successful, the School Committee would be seeking a zoning by-law amendment on Floor Area Ratio (F.A.R.) and design funds in the 2021 Spring ATM and construction funds in 2022 Spring ATM in order to open the fully renovated building by Fall of 2025.

Stuart B. Chandler

Chair of the PPBC

INTRODUCTION

This feasibility study was commissioned by the Town of Needham, Permanent Public Building Committee to examine the needs of the School Administration Department currently housed within the existing Emery Grover Building. The study reviewed the program requirements of the Needham Public School Department Administration as initially provided by the town, with options for continuing operations at Emery Grover, as well as possible other sites within the town for new construction. Review of existing conditions toward repairs, restoration, new construction, or demolition of the historic building was assessed. The study reviewed the potential for interim lease options for temporary swing space at existing office space in town. Swing space options at Hillside Elementary School were reviewed for temporary department relocation during construction and examined Hillside Elementary School as a permanent relocation through renovation and upgrades.

Emery Grover was the first High School building in Needham, built in 1897. It was replaced by the Senior High School building in 1923, converting Emery Grover to a Junior High School, and in 1929, it was converted into an Elementary School. The tenuous condition of the building has been assessed and documented since 1916. The building was placed on the National Register in August of 1987 based on its architectural design. The School Administration serves the public school system in Needham and is organized by departments within the administration. Superintendent of Schools, Student Development Department, Community Education, Human Resources, Business/Finance Operations, Transportation/Food Service, Program Development all required specific functionality. These departments have individualized needs as well as inter-operational needs. The challenge was to organize the various departments in a relational plan that works laterally across each floor and vertically through the building.

This study represents a three-pronged planning approach:

1. Understanding the School Administration's spatial program requirements and investigating through test fit models how the program might be reallocated within the existing Emery Grover Building while bringing the building into code and accessibility compliance.
2. Developing a prototype new building for test fits on alternate town-owned properties, and evaluating the existing Emery Grover building and site to support the spatial program requirements.
3. Evaluation of temporary swing space to support the School Administration at Hillside Elementary School for use during renovations and/or new construction at Emery Grover.

In addition to planning, this study sought to determine the current value of the Emery Grover property and its potential reuse as a non-town-owned development if sold.

The feasibility design documents contained herein are preliminary, intended to articulate a working program, establish reasonable options for the School Administration, determine probable costs for each option, and lead to informed decisions by the Town of Needham on the best solutions consistent with the needs of the Town and the School Administration. The program and design options require further development and/or refinement in the next phase of design. This development occurs through three subsequent stages: Schematic Design, Design Development, and Construction Documents, prior to bidding and construction.

SECTION 1
EXECUTIVE SUMMARY

Emery Grover is 123 years old and has suffered several documented deficiencies since its opening. It was never intended to serve as an office building, having been designed as a three-classroom school for the growing youth population of the late 1890's. Various adaptations of the building over the years have damaged or removed much of the original architectural detail. Noted deficiencies across the life of the building that continue to be of concern range from early wiring, sagging stairs, a structurally condemned attic, to most recently, in 2002, the near collapse of the east portico. Adding to the building's deficiencies, it has remained inaccessible and non-compliant to ADA and MAAB standards, non-compliant to current life safety codes, and non-compliant to current energy, plumbing, electrical, and mechanical codes. Addressing these serious deficiencies was a primary component to studying potential reuse of Emery Grover Building. Consequently, this study was undertaken to evaluate the School Administration requirements relative to the existing building as well as the potential for relocation to other sites.

Program

Department spatial requirements received from School Administration were reviewed, adjusted, and amended to create an accurate needs list with square footage values per space. For the purpose of this study, the School Administration department determined that, at a minimum, a program area of 18,200 net square feet was needed to accommodate present and near future functions, not including vertical circulation and building mechanical, and electrical requirements. This represented the "minimal program." Optional but highly desired functions included adding a large, 1,200 square foot conference room for meetings and conferences, and bringing in-house the complete Information Technology department at 3,500 square feet, creating a total building program area of approximately 24,000 net square feet. This represented the "full program." These areas increased

to 27,400 (reduced program) and 30,000 net square feet (full program) with necessary circulation, back-of-house mechanical, electrical, water room, elevator, stairs, and front-of-house lobby and cuing spaces for people.

Emery Grover Test Fits

The Emery Grover building was test fit with four approaches to determine how the current School Administration needs might be met within the existing building. These test fits were:

- a. the existing building structure remained with new exterior ramp up and exterior elevator
- b. the existing building internal structure was removed and rebuilt, with a new exterior elevator in a new entry
- c. the existing building interior structure remained, existing masonry shafts were opened up for additional floor space, a new exterior elevator located at the rear of the building
- d. a 30' addition would be built on the rear of the building. The results of these test fits were applied to the development of preliminary six options as described in Section 8

Swing Space

Hillside Elementary was reviewed for use as a temporary swing space while Emery Grover is under construction. Alternative swing space by leasing 25,000 square feet locally was also considered.

Alternate Site Studies

Four town-owned sites were explored using a prototype two-story building with added IT and large conference room, testing each site for parking for 100 cars to determine whether new construction on one of these sites met all the criteria for housing School Administration out of Emery Grover.

The Stephen Palmer site on Pickering Street was studied for a new building, as well as a similar plan at the opposite end of the property at Greene’s Field on Great Plain Avenue.

The Hillside site was studied for demolition and construction of a new building.

Property Best Use Study: Sale and Private Development

An assessment of biggest-best use value of Emery Grover as a private development property looked at three scenarios:

- a. redevelopment within the existing building
- b. redevelopment of the existing building with a substantial addition
- c. redevelopment of the property after demolition of the existing structure.

Preliminary Six Options for School Administration

These test fit studies, alternative site evaluations included review of parking requirements, zoning requirements, and potential permitting issues, and were summarized in six options for the Permanent Public Building Committee’s consideration on March 23, 2020.

- 1. Option One: Tear down Emery Grover and construct a new building
- 2. Option Two: Brace and restore the Highland Avenue façade with flanking porticos, demolish the remainder of the building, and construct a new building
- 3. Option Three: Construct a 30-foot addition onto the rear of Emery Grover and work within the existing and new construction

- 4. Option Four: Tear down Stephen Palmer School building and construct a new building with parking at the corner of Pickering and May Streets
- 5. Option Five: Construct a new building with parking on Green’s Field at the corner of Pickering and Great Plane
- 6. Option Six: Tear down Hillside Elementary School, construct new building and parking

Construction Cost Estimates

Working with the Permanent Public Building Committee and the designated Working Group, six options were determined as viable to move forward with cost estimating. BH+A’s cost consultant Daedalus (now CHA) prepared a feasibility-level cost estimate for each option. The timeline for construction for each option has been developed by the Town and provided to BH+A to assist in the baseline and escalation costs.

Construction costs included option-specific requirements, and were supplemented with soft costs, including design fees, owner’s project manager costs, relocation costs, FF&E, and technology costs. The range of total construction costs across the six options was between approximately \$20,005,000 for Option Three and \$28,080,000 for Option Six. These costs were updated April 28, 2020 and are summarized in this report based on final options selected by the Permanent Public Building Committee.

All final options include both full IT program and the 1,200 square foot Conference Room. The final total construction cost range as calculated on page 116 of this report is between \$26,155,929 for Option One, \$25,885,157,000 for Option Two, and \$27,095,258 for Option Three. Community Preservation

Funds analysis in Section 16 determined a maximum eligible amount that could be applied towards construction costs.

Findings

Test fits applying the building program to Emery Grover determined that even with a reduced program, the existing building was insufficiently sized to accommodate the needs of the School Administration. Looking at Emery Grover as a potential for private development concluded the cost to develop outweighed a developer resale value. The six preliminary options separated into two groups of three, with Options One, Two, and Three restricted in size by the existing Emery Grover site parameters to a minimum program, while Options Four, Five, and Six were larger buildings providing the full program. Options One, Two, and Three required various zoning by-law changes, and do not meet key functionality aspects of the program. Options Four, Five, and Six had a higher cost due to the larger full program. Option Six included site environmental remediation costs at the Hillside site.

Results of the March 23, 2020 Permanent Public Building Committee narrowed the six options to two, eliminating all off-site options and directing the design team to options at the Emery Grover site. The final options were renamed sequentially as they superseded the preliminary options. These Final Options are:

- 1. Option One – Tear Down / New Construction
- 2. Option Two – Renovation and Addition (Formerly Preliminary Option Three)
- 3. Option Three - as a modification to Option Two was introduced after the presentation as Option Three – Renovation and Addition Rotated.

All three final options included the full facility program.

EXECUTIVE SUMMARY

Option One provided the most on and off-site parking with 86 spaces, constructs a new building closer to Highland Avenue, provided convenient public access and was the intermediate cost of options.

Option Two was the lowest cost, provided for restoration of the existing building exterior, provided the second most parking with on- and off-site at 72.

Option Three was the highest cost option and provided additional natural light on north, east, and south walls while maintaining daylighting on the existing building east wall but had the fewest parking spaces on- and off-site at 66.

Options Two and Three utilized much of the existing building primarily for conference, meeting rooms, mail, custodial, mechanical, as well as IT.

All three final options require a zoning by-law change for FAR greater than allowed and require zoning waivers for number

of parking spaces on-site and remote parking distance greater than specified. Options Two and Three require additional waivers including side yard setback, building height, and non-conforming driveway opening on Highland Avenue.

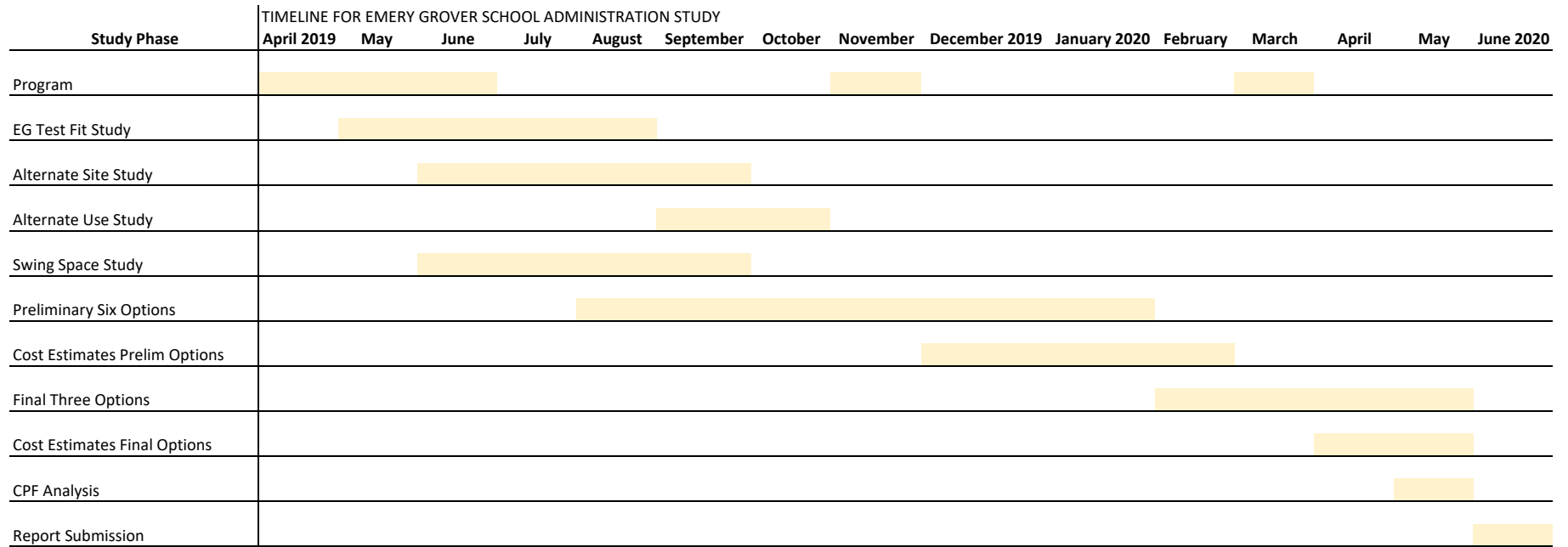
CPF Funding

Both Options Two and Three would be eligible for Community Preservation Fund (CPF) funding as a Historical Preservation Project. As noted in Chapter 16 of this report, the project would be eligible for over 50% of the hard and soft project costs totaling around \$12 million.

Next Steps

This feasibility study includes preliminary design documents intended to articulate a working program, establish reasonable long term options for the School Administration, determine probable costs for each option, and lead to informed decisions by the Town of Needham on the best solutions consistent with the needs of the Town and the School Administration. The

program and design options require further development and/or refinement in the next phase of design. This development occurs through three subsequent stages: Schematic Design, Design Development, and Construction Documents, prior to bidding and construction.



SECTION 2
BACKGROUND AND METHODOLOGY

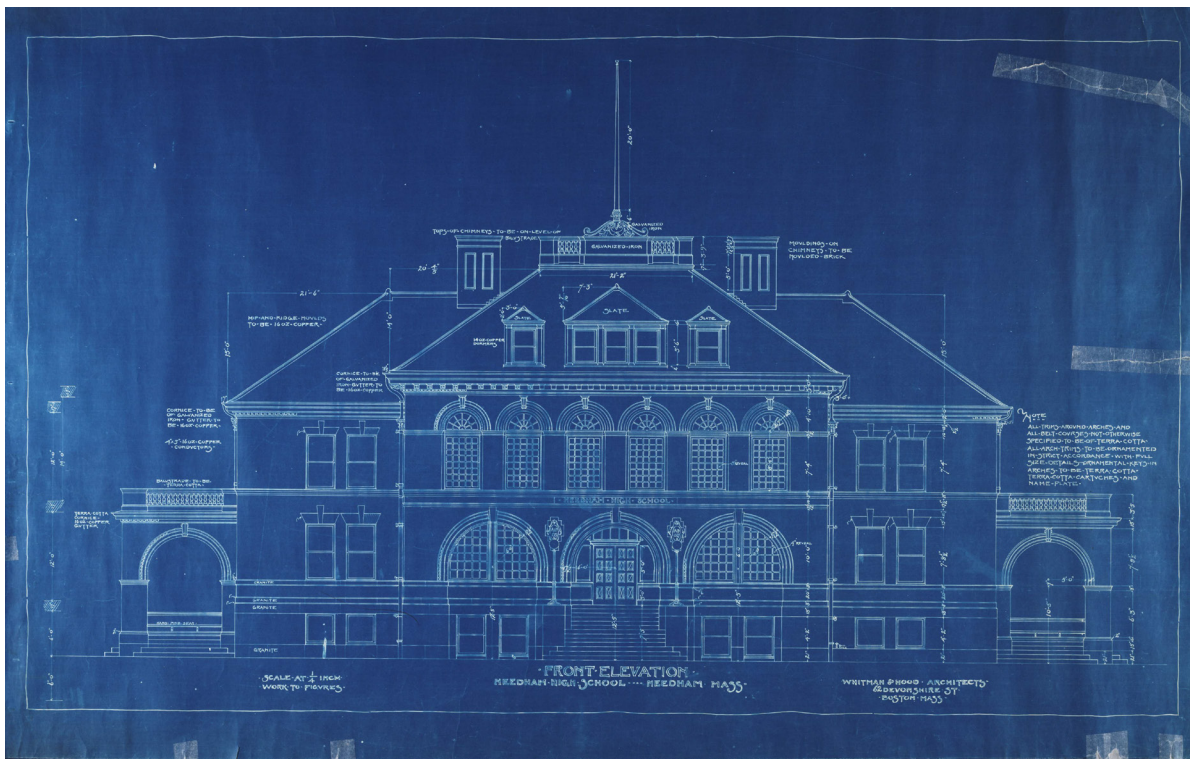
BACKGROUND AND METHODOLOGY

Background

Background

Original architectural drawings of Emery Grover from 1897 were located at the Massachusetts State Archives, where they were digitally scanned and used to confirm some details. The Needham History Center and Museum provided a summary historical narrative identifying building condition issues dating back to 1916, including structural deficiencies.

In 1935, the Emery Grover top floor, referred to as the attic, was condemned “after several years of roof leaks, electrical failures, and limited stair access. It was also deemed “unstable” according to notes provided by the Needham History Center.



The School Administration has been housed in Emery Grover since 1944, noting poor functionality as an office building in 1947.

Emery Grover School Building was accepted by the U.S. Department of the Interior for listing in the National Register of Historic Places on August 20, 1987. That report is included in the Appendix.

Building Deficiencies Overview

The Americans with Disabilities Act (ADA) became Federal Civil Rights law in 1990. Emery Grover Building remains non-compliant for accessibility as a public building. The main floor is 7 feet 8 inches above grade, with no accessible ramp or elevator access. The lower level, referred to as a basement, is accessed from outside through 5-foot high doors. Interior connecting stairs were reported sagging and are currently supported by tie-rods from the attic floor. The north portico floor collapsed and was repaired with concrete in 1987, and the south portico was condemned around 2001. The Town approved funding to repair and brace the south portico, “adding at least five years onto the life of the historic structure.” (Needham Times, November 21, 2002)

Conservation of the building was considered in two of the six options outlined in this report. Previous physical assessments combined with updated observations produced a specification for historic restoration included in the cost estimates.

The following steps were undertaken during this feasibility study.

1. **Space Program:** Undertook tours of Emery Grover Building. Met with representatives of the Town of Needham School Administration Department to assist in the development of the program of space needs. The program initiated by the School Administration was refined, adding building requirements, circulation, etc., producing stacking “diagrams” indicating vertical department interrelationships.
2. **Working Group:** Met with the Working Group (WG) established by the Permanent Public Building Committee (PPBC) to discuss program and spatial needs. The WG included members of School Administration, Finance Committee, Select Board, Building Department, Historical Commission, Parks and Recreation, Planning Department, Building Design and Construction Department, and the PPBC. Presented updates to both the Working Group and PPBC to solicit input for the overall direction and progress of the study.
3. **Program Test Fits:** Four approaches for reusing Emery Grover were diagrammed and assessed. Hillside Elementary was reviewed as a possible building for permanent relocation. Three town properties were also studied as potential new construction sites based on a two-story prototype with parking lots. The Stephen Palmer school site was reviewed as a new construction site with parking, with an option to flip the new building to the Green’s Field end. The Hillside Elementary site was tested for demolition and new construction. Emery Grover was discussed as a historic register-listed building, with strategies for restoration, including façade-only restoration.
4. **Conformance with Regulations:** Analyzed the various scenarios for compliance with zoning requirements including use, parking, open space, floor area ration (FAR), and future expansion. Analyzed each option for compliance with Americans With Disabilities Act (ADA), CMR 521 Massachusetts Architectural Access Board, and CMR 780 Ninth Edition of the MA State Building Code: Chapter 10 Means of Egress.
5. **Swing Space:** Hillside Elementary was reviewed as a possible swing space for the department, with program diagrams created to determine fit. Additionally, a review is discussed of the Town’s research into leasing 25,000 square feet locally.
6. **Pre-Schematic Design:** Prepared conceptual drawings and/or diagrams of the six options selected by the Working Group showing general interior plan layouts, proposed department relationships, building heights, and available on-site parking.
7. **Cost:** Prepared a feasibility level cost estimate for the six options proposed. The estimate includes hard construction costs as well as soft costs such as design and engineering fees, testing, legal, inspection services, technical, and FF&E. Discussion of potential Community Preservation Funding for eligible options was discussed without including offsetting costs analysis.
8. **Comparative Matrix:** Assembled a matrix with side-by-side options comparing program fit, zoning compliance, design features, and special conditions.
9. **Present Data:** Met with the PPBC and the Working Group to review test fits, site studies, design options, and cost estimates to seek consensus on the direction forward toward providing the Needham School Administration with a modern, functional facility for now and for the future.

BACKGROUND AND METHODOLOGY

Questions for Working Group Discussion on 9/19/19

BH+A was tasked with studying the Emery Grover Building for the School Administration use. As noted in the attached Description of the RFQ scope, this study involves many parts. The first step was to update the program of spaces needed to properly accommodate the School Department and allow for some future growth. Next the design team reviewed several options for the existing building including: A) renovation B) renovation/addition, C) demolition and new construction and D) sale of the property and new construction on another town owned site (identifying the value of the sale proceeds that could be reinvested in the new building). The designer was also asked to assess the use of the Hillside School building for temporary accommodation and reconstruction and/or reuse as a long-term facility. Three other sites were also investigated. The BH+A work to date was distributed to the Working Group in preparation for this first meeting.

Questions for Working Group Discussion on 9/19/19

1. The inadequacy of the space to house the School Administration at the Emery Grover Building has been documented during each of the prior Facility Master Plans dating back many years, as have the physical problems with the building. Other capital projects have always supplanted renovations to Emery Grover. Should this project be the next priority project for the Town? Or, instead, should the town only proceed with the Emery Grover short-term capital projects of a) roof replacement, b) window replacement and c) urgent repairs while other Town capital projects take precedence?
2. The ADA was passed into law in 1990. In 2020, 30 years later, the School Administration facility has remained inaccessible to those with physical disabilities. At what point in time should the Town make public school administrative spaces fully accessible?
3. Could the Working Group come to a consensus on the following issues?:
 - a. that there was a need for new school administration space based on cramped conditions
 - b. that there was a need for new space based on the current building condition
 - c. that ADA/MAAB deficiencies needed to be addressed
4. We have heard it mentioned that the \$10M to \$15M cost for a new school administration building may not be fundable in the near future. This made the option to renovate the Emery Grover building using Community Preservation Act funds attractive to some. On the other hand, other residents were adamant that renovating the building was not a good use of Town funds due to the added costs of renovation. How do we get beyond this dilemma?
5. The value of the land appeared to be greater than \$1M and less than \$3M depending on the use scenario (office or residential). Assuming the number was in the middle of this range, it did not appear that the value was significant relative to the cost of the project. The value of selling the building would be to get a developer to restore the building if the renovation of the building for continued school department use was not a desirable option for many in the Town.
6. Was the option to sell the building with a provision that allowed for its demolition viable? With the building being a National Historic Structure and its demolition not being supported by the Historic Commission, did this option create a divisive situation? Would this option pass Town Meeting?
7. What was the timeline for the option to relocate the School Administration to the Hillside School site? What were the viable interim uses of this site? Could the School Administration continue in their current condition for the time that it took to make Hillside School or other sites in town available? Were short-term renovations required to maintain the School Administration in Emery Grover until Hillside is available? (was this 5 to 10 years?)
8. Should the full School IT Department be relocated from the basement of Broadmeadow School to be housed with the rest of the School Administration or should it remain where it was currently located?
9. Who was the primary advocate for this project? Could the Working Group come to consensus on a preferred path forward?
10. What type of outreach plan should be developed by the School Committee and Working Group to their respective committees and/or constituencies?

SECTION 3
PROGRAM AND CONCEPTUAL DESIGN

PROGRAM AND CONCEPTUAL DESIGN

School Administration Program

The initial Program of required departments, functions, spaces, and adjacencies was provided by the School Administration Department and subsequently modified and amended. Space square footages provided were included in a working spreadsheet to calculate department subtotals, program totals for both minimum and “full” programs based on “unit” count, net square footage per unit, and total net square footage. Totals of both minimum and full programs were subsequently reformatted into stacking diagram spreadsheets to further define adjacencies.

Permanent employee counts were calculated based on assumed occupancy by desk, tables, and workstations. This count was compared to actual population of 66 people provided by the Administration. The count of 66 permanent employees is as follows:

- 44 permanent employees
- an additional 14 bus/van drivers have a ‘home base’ at Emery Grover
- eight kitchen managers conduct daily business in the Food Services Department

for a total daily complement of 66 people. This excludes visitors and users of the conference spaces.

PROGRAM AND CONCEPTUAL DESIGN

Required Departments, Functions, Spaces, and Adjacencies

Superintendent of Schools						3/23/2020	
Room Name	Units	NSF/Units	NSF	Comments	SubTotals	Added Program	Occupants
Superintendent's Office	1	250	250	Includes table/chairs for 4-6 ppl Confidential - Not adjacent to front door -		CONFIDENTIAL	6
Assistant to the Superintendent	1	120	120	Confidential - Includes table/chairs for 4 ppl -			4
Conference Room	1	300	300	Capacity of 10-12 ppl			12
Production Room	1	100	100	Includes worktable, fax, etc.			
Waiting Room	1	75	75	Waiting for 4-6 ppl			6
Wash Room	1	50	50				
Coat Closet	1	10	10				
Secretary/Bookkeeper Space	1	100	100	Expansion Space		100	
Subtotal NSF:			1,005		1,005		
Student Development Department							
Student Dev. Director's Office Assistant Superintendent for Student Support Services	1	140	140	Confidential - Includes table/chairs for 4 ppl (Existing Position) -			4
Student Dev. Assistant	1	100	100	Confidential			1
Waiting Room	1	75	75	Waiting for 4-6 ppl			6
Autism Specialist		400	0				
SpEd Director's Office	2	140	280	Confidential			2
SpEd Secretary	1	100	100	Existing Positions		100	
Business Center	1	100	100	Includes large copier, printer, & worktable. Confidential materials, Dedicated to Student Dev.			
Equipment Storage	1	20	20	Hearing equipment			
Coat Closet	1	10	10				
SpEd Out of District Coordinator	1	100	100	Confidential - Replaces Autism Specialist -			1
Assistant SpEd Director	1	100	100	Expansion Space		100	
SpEd Bookkeeper	1	75	75	Confidential - SpEd Secretary was split b/t Bookkeeper and Expansion Secretary.		75	1
SpEd Expansion Secretary	1	75	75	Expansion Space			
Subtotal NSF:			1,175		1,175		
Community Ed							
Single entry: Near HR							
Community Ed Director	1	140	140	Confidential - Includes table/chairs for 4 ppl -			4
Community Ed Accounting	1	100	100	Confidential			1
Marketing/Registrar	1	140	140				1
M/R Office Admin	1	100	100				1
M/R Graphic Design	1	100	100				1
Registrar Public Counter	1	125	125	Includes counter, workspace, queue			
Registrar Waiting	1	100	100	Waiting for 8-10 ppl			10
Elem/Summer Coord. Office	1	100	100				1
Secondary Adult Coord. Office		400	0				
Coat Closet	1	10	10				
Middle School Coordinator	1	100	100	Existing Positions		100	1
Adult Ed Coordinator	1	100	100	Existing Positions		100	1
Early Childcare Coordinator	1	100	100	New in FY20		100	1
Subtotal NSF:			1,215		1,215		
Finance Operations Department							
Locate on Ground Floor- Suite Style							
Human Resources							
HR Director's Office Assistant Superintendent for Human Resources	1	140	140	Confidential - Include table/chairs for 4 ppl -			4
HR Generalist Office Assistant to the Director of HR	1	100	100	Confidential			1
HR Staff Offices	2	75	150	Confidential - Shared offices for active personnel files -			2
Payroll Coordinators	2	75	150	Confidential - Shared offices Collaborative between HR & Business -			2
Interview Offices	2	40	80	Confidential - Includes 2 ppl -			2
Office/ Workspace	1	100	100	Temp Workers			1
Waiting Room	1	75	75	Waiting for 4-6 ppl			6
Student Registration Kiosk	2	25	50	Open w/in Waiting Room			
Production Room	1	100	100	Includes worktable, fax, etc.			

Open Suite (add confidential meeting space)

PROGRAM AND CONCEPTUAL DESIGN

Required Departments, Functions, Spaces, and Adjacencies

Active File Storage	1	100	100	12-13 file cabinets		
Dead File Storage*	-	-	-	*Shared Building Program		
Office Supply Closet	1	20	20			
Coat Closet	1	10	10			
Human Resources Assistant Director	1	140	140	Confidential - Existing Positions -	140	1
Secretary	1	100	100	Expansion Space/ Seasonal help space	100	1
Subtotal NSF:			1,315			
Business/Finance Operations				Suite Style, Ground Floor not required		
Finance Director's Office Assistant Superintendent for Finance and Operations	1	140	140	Confidential - Includes table/chairs for 4 ppl, in Suite -		1
Assistant Finance Director	1	100	100	Confidential		1
Finance Secretary School Business and Operations Coordinator	1	100	100	Confidential		1
Lead Accountant	1	100	100	Confidential		1
Accounting Clerks	3	66.67	200	Confidential - Shared -	50	3
Waiting Room	1	75	75	Waiting for 4-6 ppl		1
Accounting Storage/Safe	1	20	20	Shared w/in Accounting		1
Office/Workspace	1	100	100	Auditors and Temp Workers		1
Production Room	1	100	100	Includes worktable, fax, etc.		1
Active File Storage	1	300	300	30-40 file cabinets		
Office Supply Closet	1	20	20			
Coat Closet	1	10	10			
Payment Kiosk	1	25	25	Open w/in Waiting Room?		
Accounting Clerk (Total of 3 AP/AR Clerks)		400	0	Existing Positions-	0	
Transportation Bookkeeper	1	100	100	Confidential	100	1
Subtotal NSF:			1,390			
Transportation/Food Services				Locate on Ground Floor		
Transportation Director's Office	1	140	140	Confidential - Includes table/chairs for 4 ppl		4
Transportation Bookkeeper-		400	0	Confidential-		
Transportation Office-		400	0	Drivers, Charter Coordinators, Visiting Food Service-		
				Waiting for 4-6 ppl; Drivers from 9-2pm.		
Trans/Food Service Waiting Room	1	75	75	Includes Customer Service Counter		4
Food Service Director's Office	1	140	140	Confidential - Includes table/chair for 4 ppl		1
Food Service Bookkeeper	1	100	100	Confidential		1
Secretary-Counting /Receiving	1	75	75	Confidential - Loud Machines, Dedicated/Lockable/Secure		1
Nutrition Outreach Coordinator	1	75	75	Share space w/ intern		1
Food Service Storage	-	-	-	*Shared Building Program		
Food Service Supplies Closet	1	20	20	Large closet with shelving		
				Includes bulk paper storage.		
Mail Room/Production Center	1	300	300	Located on Ground Floor, near Loading Dock		1
Coat Closet	1	10	10			
Transportation Secretary	1	100	100	Confidential - Existing Position	100	1
Bus Drivers/Van Drivers/ Transportation Dispatcher	1	140	140		140	1
Visiting Food Service Workers	1	100	100		100	1
Food Service Intern	1	75	75	Expansion Space	75	1
Subtotal NSF:			1,350			
Program Development Department						
Program Dev. Director's Office Assistant Superintendent for Student Learning	1	140	140	Confidential - Includes table/chairs for 4 ppl + shelving	40	1
Program Dev. Assistant	1	100	100	Confidential		1
Curriculum Leaders' Offices	2	100	200			2
				20 bookcases, approx.		
				Exterior Access		
Curriculum Library	1	150	150			1
File/General Storage	1	150	150			
Materials Library/Storage	1	150	150	Shelving for classroom materials		
				Dedicated production space		
Business/ Production Center	1	120	120	Direct Exterior Access		
Coat Closet	1	10	10			

PROGRAM AND CONCEPTUAL DESIGN

Required Departments, Functions, Spaces, and Adjacencies

Visiting Curriculum Director	1	100	100	Expansion Space	100	1	
Subtotal NSF:				1,120			
DayCare Center							
Based on GSA Design Guidelines: 8.4sq.m + 2.2-5sq.m: Using 12sq.m = 130sq.ft/child	1		0	15 children interior space requirements only			
Subtotal NSF:				0			0
Shared Building Services							
Help Desk/Reception	1	100	100	At building entry, directs to all departments		1	
Large Conference Room	1	1200	1,200	100 ppl/ 50 ppl Projection/Sound/Technology, Subdivisible			85
Medium Conference Rooms	2	300	600	10-12 ppl, flexible			
Additional Offices		400	0	For Future Growth			
Kitchenette	1	80	80	Access to Large Conference Room			
Business Centers	2	120	240	1 per floor-copier, counter, worktable			
Restrooms, Male	2	175	350	1 per floor			
Restrooms, Female	2	175	350	1 per floor			
Break Room	1	400	400	Seating			
Janitorial Closet	2	75	150	1 per floor			
Maintenance Office	1	120	120			1	
				22 file cabs - Finance Dept. 50 T			
				cabs- Student Development 5 file			
Compact Storage	1	400	400	cabs (20 file drawers) - Food Services			
Building Storage	1	400	400				
Receiving Room	1	200	200	Adjacent to Loading Dock, Near Storage		1	
Loading Dock	-	-	-	Near building storage/Receiving Room			
Expanding Parking	-	-	-	Total Visitor/Staff Spots Required?			
District Registrar	1	120	120	Confidential - Waiting area for Customer- Existing Position	120	1	
District Production/ Mail Center	1	300	300	Confidential - Large area for production copiers/mail slots, & one office	300	1	???
Business Center (One per floor)	3	100	300	If there are three floors, there should be three spaces.	200		
Subtotal NSF:				4,990			4,990
Innovation Technology							
IT Tech Staff	2	120	240	Confidential		2	
Server Room	1	200	200				
Database Specialist	1	120	120	Confidential	120	1	
Info Systems Operational Manager	1	120	120	Confidential - New Position in FY20	120	1	
Subtotal NSF:				440			440
Optional Program							
				Not Included in School Admin NSF/GSF			
Technology Director's Office	1	140	140	Confidential - Includes table/chairs for 4 ppl			
Director's Bookkeeper	1	100	100	Confidential			
Waiting Room	1	75	75	Waiting for 4-6 ppl			
Configuration Lab	1	800	800	Network Infrastructure; Access to Exterior			
Staff Offices	5	120	600	Dedicated Office Space			
Add'l Staff	10	75	750	Confidential - ETC Staff, Shared/General Office Space **Changed staff from 15 to 10'			
Head End Room	1	100	100				
Head End Distribution	1	160	160				
IT Closets	2	100	200				
Mechanical Room	1	100	100	Dedicated to Technology			
				High security, controlled environment			
				Access to Loading Dock			
	1	400	400	Controlled environment- temp & moisture			
Optional NSF:				3,425			3,425
Subtotal without IT Department					14,000	NSF Base Program NO IT	
Subtotal with IT Department					17,425	NSF Including Optional IT	
DOES NOT INCLUDE ELEVATOR, STAIR, MECHANICAL, ELECTRICAL REQUIREMENTS ALL AREAS ARE NET SQ.FT.							
Circulation Factor @ 30%					1.30	18,200 Total Base Program NO IT	
Circulation Factor @ 30%					1.30	22,653 Total Including IT	
DOES NOT INCLUDE ELEVATOR, STAIR, MECHANICAL, ELECTRICAL REQUIREMENTS ALL AREAS ARE NET SQ.FT.							

TOTAL PEOPLE	TOTAL EMPLOYEES
130	66

2,480 Added Program Area

PROGRAM AND CONCEPTUAL DESIGN

Program Stacking Diagrams

PROGRAM AND CONCEPTUAL DESIGN: PRELIMINARY - OPTION ONE, TWO AND THREE

Implementation of the program needs into Emery Grover were illustrated in the Program Stacking Diagram, based on discussions with the school administration. For Options One, Two and Three, the requirements were similar due to the project footprint and area limitations imposed as a result.

Basement

Receiving, District Mail, Production, and Maintenance offices were located here, accessed by the elevator from grade level. All deliveries and distribution entered the main lobby, taking the elevator down to the receiving area for sorting. The building main mechanical room, electrical, elevator machine room, sprinkler room, were located here. Compact storage, typically a high-density system, as well as shared services including printing, copying, restrooms, etc. were located here.

Level One

The Community Education department, Human Resources department, and Transportation resided on Level One for community access. The public Help Desk and the District Registrar counter provide assistance and direction to visitors and were located within the main Lobby of the facility. Department shared services including printing, copy, meeting spaces, restrooms were also located at this level.

Level Two

The Superintendent's office was positioned on Level Two for a more controlled access. Business Finance and Student Development departments were on this level, as were shared business center functions, conference room, staff breakroom with kitchenette, restrooms, etc. A large department storage room was also located at this level.

Level Three

Program Development offices were on Level Three, with conference facilities, a business center, storage, restrooms, and the in-house Information Technology offices, supporting the building IT needs.

This building program accommodated the School Administration minimum needs in a building footprint that placed some offices and meeting room functions on the interior without windows and natural light. The net-to-gross square footage was not ideal as additional circulation was required to provide access and egress from interior areas of the building. The program requirements for a full program, including a large conference center, staff and town employee daycare services, and the school department data center were unable to be incorporated into these options as limited by the Emery Grover building and site.

PROGRAM AND CONCEPTUAL DESIGN

Program Stacking Diagrams

PROGRAM AND CONCEPTUAL DESIGN: PRELIMINARY - OPTION FOUR AND FIVE

Options Four and Five present the opportunity for a new and modern School Administration facility. The program requirements as illustrated in the Stephen Palmer Site Program Stacking Diagram included the full program: the large conference center, daycare, and school department information technology center.

Basement

Receiving, district mail, production, and maintenance offices were located here, accessed by the elevator from grade level. All deliveries and distribution entered the main lobby, taking the elevator down to the receiving area for sorting. The building main mechanical room, electrical, elevator machine room, sprinkler room, were located here. The need for compact storage, typically a high-density system was located here, as well as share services including printing, copying, meeting, restrooms, etc.

Level One

Providing a daycare facility for school staff and town employees supports staff retention and was located on Level One, directly accessible from parking. The Community Education department, Human Resources department, and Transportation resided on Level One for community access. The public Help Desk and the District Registrar counter provided assistance and direction to visitors and were located within the main Lobby of the facility. Department shared services including printing, copy, meeting spaces, restrooms were also located at this level.

Level Two

A large conference center for department-sponsored seminars, meetings, and presentations was located off the Level Two elevator lobby. The Superintendent's office, Business Finance, and Student Development departments are on this level, as were shared business center functions, conference room, staff breakroom with kitchenette, restrooms, etc.

Level Three

Program Development offices were on Level Three, with conference room, shared business center, storage, restrooms, and the in-house Information Technology offices, supporting the building IT needs. The school department data center is relocated from Broadmeadow School basement.

PROGRAM AND CONCEPTUAL DESIGN

Program Stacking Diagrams
Stephen Palmer: Options 4 and 5

LEGEND	
	MUST BE ON 1ST FLOOR
	VERTICAL
	not in program but req'd
	Program revision

BASEMENT		LEVEL ONE		LEVEL TWO		LEVEL THREE	
receiving	200			business finance	1,390	IT Department	3,425
district mail/production	300			student development	1,175		
restrooms	150	community ed	1,215	building storage	400	medium conference	300
		meeting	300	superintendent	1,005	business center	100
shared services	333	shared services	333	restrooms	350	IT database	440
		hr on ground floor	1,315	medium conference	300		
maintenance office	120	restrooms	350	business center	100		
compact storage	400	help desk	100	large conference	1200	program development	1,120
Main Mechanical	300	DayCare	2,000	kitchenette	80	restrooms	350
elevator machine rm	50			break room	400		
elevator	50	elevator	50	elevator	50	elevator	50
stairs x2	360	stairs x2	360	stairs x2	360	stairs x2	360
		transportation on ground flr	1,350				
Main Electrical	200	District Registrar	120				
subtotal	2,463	subtotal	7,493		6,810		6,145
Does not include Lobby							
subtotal	2,463	subtotal	7,493		6,810		6,145
30%	739	circulation	2,248	circulation	2,043	circulation	1,844
	BASEMENT		LEVEL ONE		LEVEL TWO		LEVEL THREE
totals per floor	3,201	totals per floor	9,740	totals per floor	8,853	totals per floor	7,989
							TOTAL
							29,783

PROGRAM AND CONCEPTUAL DESIGN

Program Stacking Diagrams

PROGRAM AND CONCEPTUAL DESIGN: PRELIMINARY - OPTION SIX

Option Six differed from all other options as it was proposed as a two-story building without a basement. The program requirements as outlined in the Hillside Site Program Stacking Diagram included the full program, including the large conference center, daycare, and school department data center. Specific layouts for each level have not been produced, as it was advised by the Working Group to leave Option Six as a site diagram only, designating sufficient per floor area on the site.

PROGRAM AND CONCEPTUAL DESIGN

Program Stacking Diagrams

Hillside Site: Option 6

LEGEND
MUST BE ON 1ST FLOOR
VERTICAL
not in program but req'd
Program revision

LEVEL ONE		LEVEL TWO	
		business finance	1,390
DayCare	2,000	student development	1,175
community ed	1,215	building storage	400
meeting	300	superintendent	1,005
shared services	333	restrooms	350
hr on ground floor	1,315	medium conference	300
restrooms	350	business center	100
help desk	100		
		kitchenette	80
District Registrar	120	break room	400
elevator	50	elevator	50
stairs x2	360	stairs x2	360
transportation on ground flr	4,990	IT Department	3,425
receiving	200	medium conference	300
district mail/production	300	business center	100
restrooms	150	IT database	440
large conference	1200		
shared services	333	program development	1,120
		restrooms	350
maintenance office	120		
compact storage	400	elevator	50
Main Mechanical	300	stairs x2	360
elevator machine rm	50		
elevator	50		
stairs x2	360		
Main Electrical	200		

Does not include Lobby

subtotal	subtotal	14,796	subtotal	11,755	
30%	circulation	4,439	circulation	3,527	
		LEVEL ONE		LEVEL TWO	
totals per floor		14,796		15,282	TOTAL
					30,078

PROGRAM AND CONCEPTUAL DESIGN: FINAL – OPTION ONE

Option One remained as described in the preliminary description above.

PROGRAM AND CONCEPTUAL DESIGN: FINAL – OPTION TWO

“Option Three” above is renamed Option Two as the original Option Two was eliminated on March 23, 2020 by the Permanent Public Building Committee.

Basement

Receiving, district mail, production, and maintenance offices were located here, accessed by the elevator from grade level. All deliveries and distribution entered the main lobby, taking the elevator down to the receiving area for sorting. The building main mechanical room, electrical, elevator machine room, sprinkler room, were located here. Compact storage, typically a high-density system, as well as shared services including printing, copying, meeting, restrooms, etc. were located here.

Grade Level

The new addition provided direct grade level access from the parking lot to solve the ADA accessibility issue. The Human Resources department, and Transportation resided on Level One for community access. The public Help Desk provided for assistance and direction to visitors and was located within the Main Lobby of the facility. Restrooms were located at this level.

First Level

The Information Technology Department hub was relocated from Broadmeadow to the existing first floor of Emery Grover. This was half a level up from the new entrance.

Second Level

This level aligned both existing and new second floors to create the Conference Center. The Registrar Public Counter, Community Education, and Student Development departments were located at this level.

Third Level

Both the center attic level and addition’s third floors aligned to house Superintendent of Schools, Business Finance Operations, and Program Development.

This building program accommodated the School Administration needs in a building footprint that places some offices and meeting room functions on the interior without windows and natural light.

PROGRAM AND CONCEPTUAL DESIGN: FINAL – OPTION THREE ROTATED

This option looked at taking the concepts laid out in Option Two and rotating the addition 90 degrees to afford more natural light into the new addition where the majority of offices were located. The levels were the same as Option Two, with the same distribution of administration departments.

Additionally, a variant on Option Three Rotated with Garage Under Addition was included in response to the on-site parking challenges of all schemes.

SECTION 4
TEST FITS

PROGRAM TEST FITS

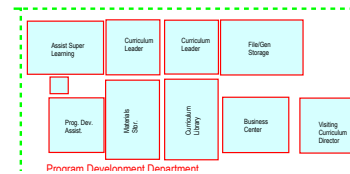
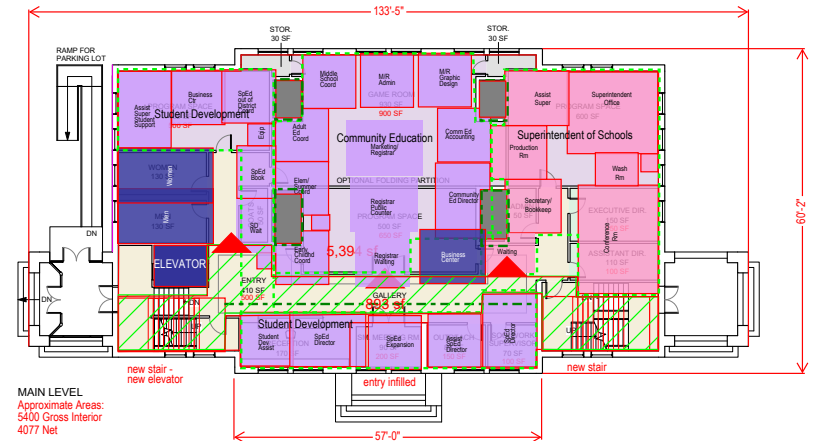
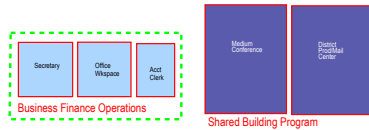
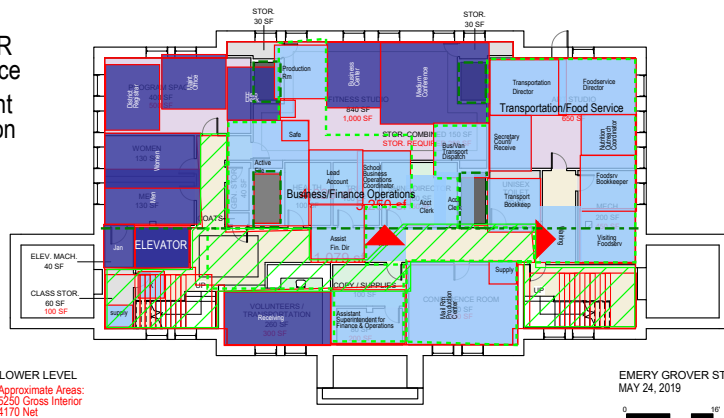
Building Program Test Fits at **EMERY GROVER**: June 24, 2019

Test Fit	Fit Program	Results	PPBC Decision	Diagrams
1	Existing interior building structure as currently understood was maintained, including bearing walls and four (4) vertical masonry shafts. Public access is by ramp up to the left Portico. Public entrance into building was through the left Portico doors to a new elevator lobby. The elevator provided access to the main level, as well as lower and upper levels. Existing two stairs were removed and replaced with code-compliant egress stairs.	Program Development Department would not fit. Business/Finance Department program was reduced (or another department in its place). Shared building program function would not fit. New elevator extends through existing roof to access attic.	REJECTED: Did not meet program spatial and functional requirements.	Page 23
2	All existing interior building structure was removed and replaced, including bearing walls, masonry shafts, and floors. The existing exterior walls were maintained. Public entrance was through a new entry vestibule constructed outside the left Portico at grade. Public access was through the elevator up to the main level as well as lower and upper levels. New egress stairs were provided	Program Development Department would not fit. Business/Finance Department program was reduced (or another department in its place). Shared building program function would not fit. New elevator extended through existing roof to access attic. Complex construction.	REJECTED: Did not meet program spatial and functional requirements.	Page 24
3	Existing interior building structure as currently understood was maintained. Existing masonry shafts were opened up on one side to add floor space. Existing stairs were infilled.	Program areas fit with some reductions of square footage. Storage and meeting spaces were reduced. New elevator extended above existing roof with removal of rear dormers for Attic access. No room for future expansion.	REJECTED: Did not meet program spatial and functional requirements.	Page 25
4	Public access was through a new entry vestibule constructed outside the building located at the rear. Public entrance was through the elevator up to the main level as well as lower and upper levels. New egress stairs were provided adjacent to the new elevator for a vertical circulation addition to the rear of the building.	All program areas fit with some area reductions. Storage and meeting spaces were reduced. New elevator extends above existing roof with removal of rear dormers for attic access. No room for future expansion.	REQUIRES DETAILED STUDY	Page 26

PROGRAM TEST FITS

Emery Grover #1

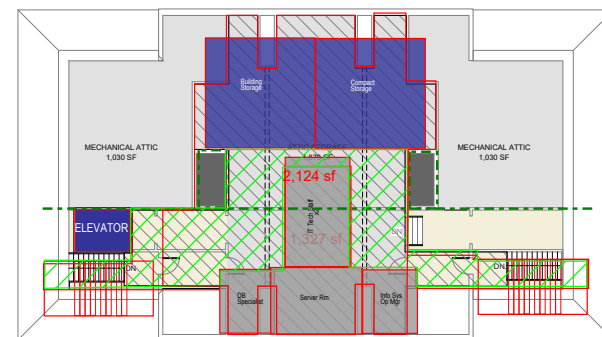
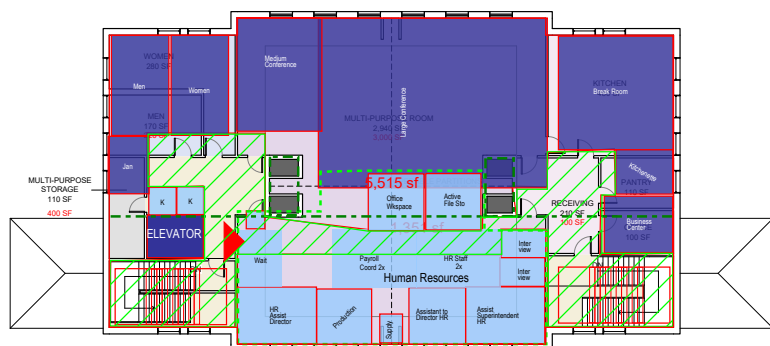
- Superintendent of Schools
- Program Development
- Shared Program
- Business/Finance/HR
Transport/Foodservice
- Student Development
Community Education
- Database/IT
- Circulation Zones



Revised Building Program
All Departments Sub Total: 14,000 SQ. FT.
Circulation @ 1.3 (30%) 4,200 SQ. FT.
TOTAL NET PROGRAM: 18,200 SQ. FT.
This Test Fit: 13,208 SQ. FT.
Delta: -4,992 SQ. FT.

- Emery Grover Program Fit - Test No. 1**
- Exterior Ramp
 - New Stair (existing locations)
 - New Elevator
 - Keep interior bearing walls (as much as possible)
 - Keep interior shafts

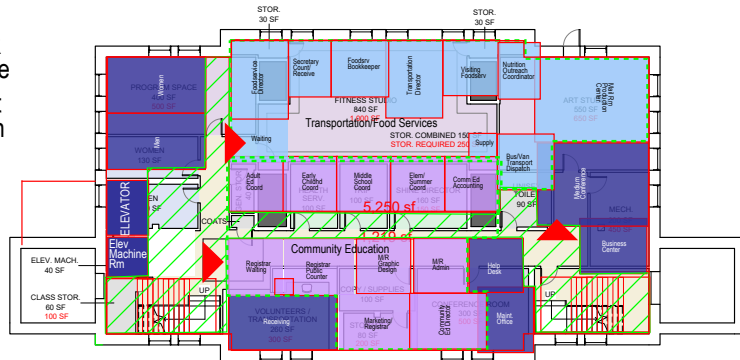
EMERY GROVER STUDY
MAY 31, 2019



PROGRAM TEST FITS

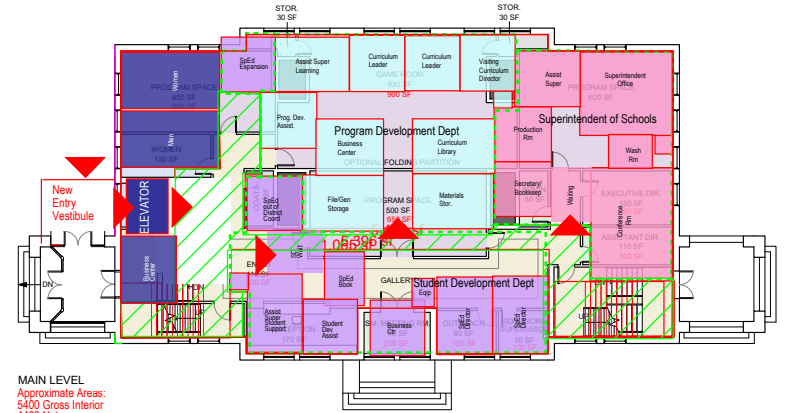
Emery Grover #2

- Superintendent of Schools
- Program Development
- Shared Program
- Business/Finance/HR
Transport/Foodservice
- Student Development
Community Education
- Database/IT
- Circulation Zones



LOWER LEVEL
Approximate Areas:
5250 Gross Interior
4031 Net

EMERY GROVER STUDY
MAY 24, 2019



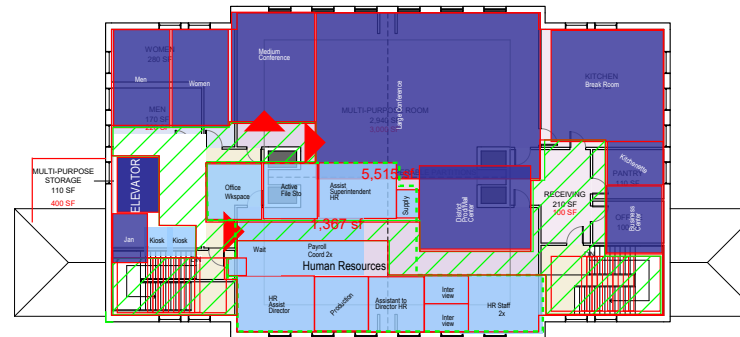
MAIN LEVEL
Approximate Areas:
5400 Gross Interior
4400 Net

Revised Building Program
All Departments Sub Total: 14,000 SQ.FT.
Circulation @ 1.3 (30%) 4,200 SQ.FT.
TOTAL NET PROGRAM: 18,200 SQ.FT.
This Test Fit: 13,072 SQ.FT.
Delta: -5,128 SQ.FT.

Emery Grover Program Fit - Test No. 2

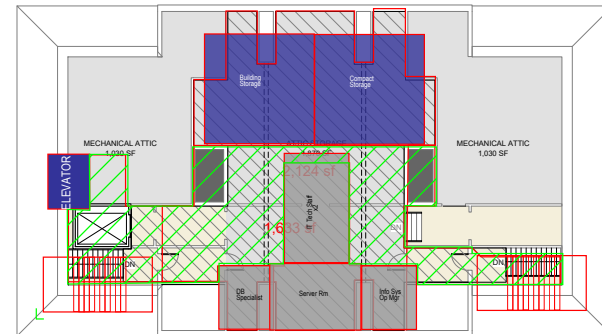
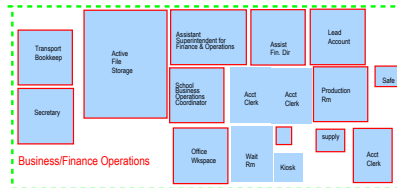
- No Ramp - New Entry Vestibule
- New Stairs
- New Elevator
- Keep building shell
- New structure: remove interior shafts and bearing walls

EMERY GROVER STUDY
MAY 31, 2019



UPPER LEVEL
Approximate Areas:
5515 Gross Interior
4150 Net

EMERY GROVER S
MAY 24, 2019

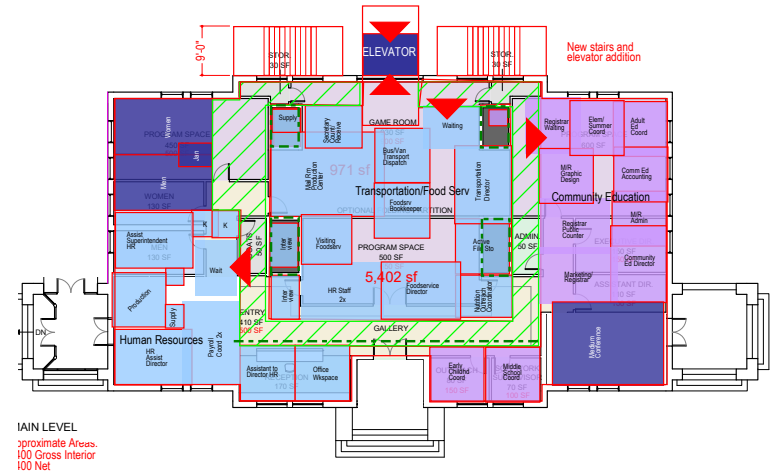
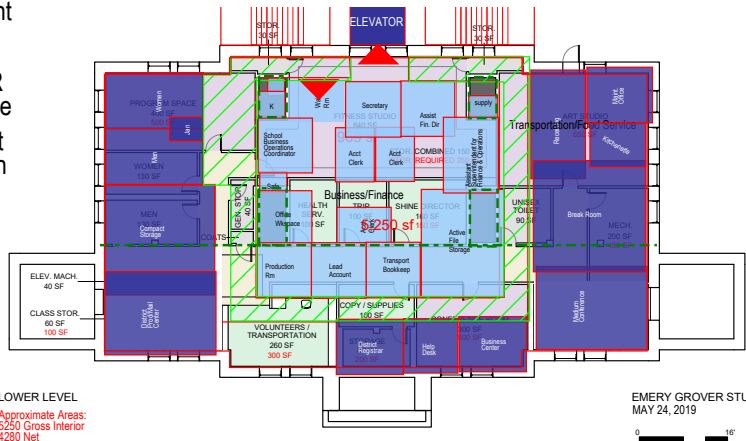


ATTIC LEVEL
Approximate Areas:
2124 Gross Interior
491 Net

EMERY GROVER STUDY
MAY 24, 2019

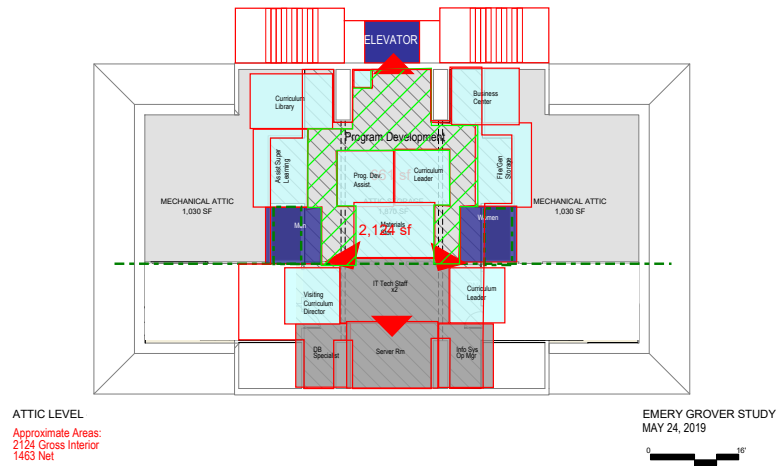
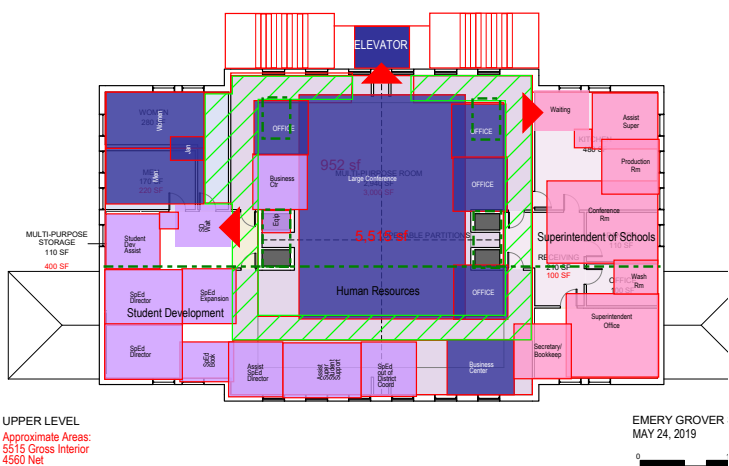


- Superintendent of Schools
- Program Development
- Shared Program
- Business/Finance/HR
Transport/Foodservice
- Student Development
Community Education
- Database/IT
- Circulation Zones



Revised Building Program
All Departments Sub Total: 14,000 SQ.FT.
Circulation @ 1.3 (30%) 4,200 SQ.FT.
TOTAL NET PROGRAM: 18,200 SQ.FT.
This Test Fit: 15,658 SQ.FT.
Delta: -2,542 SQ.FT.

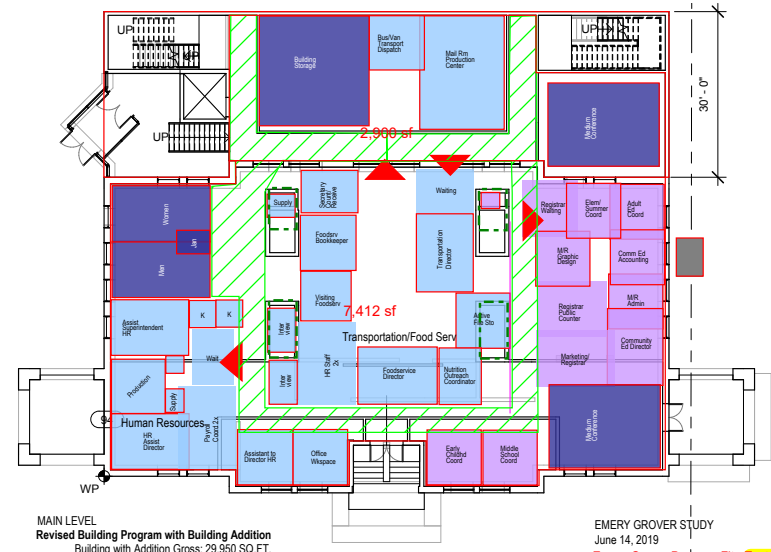
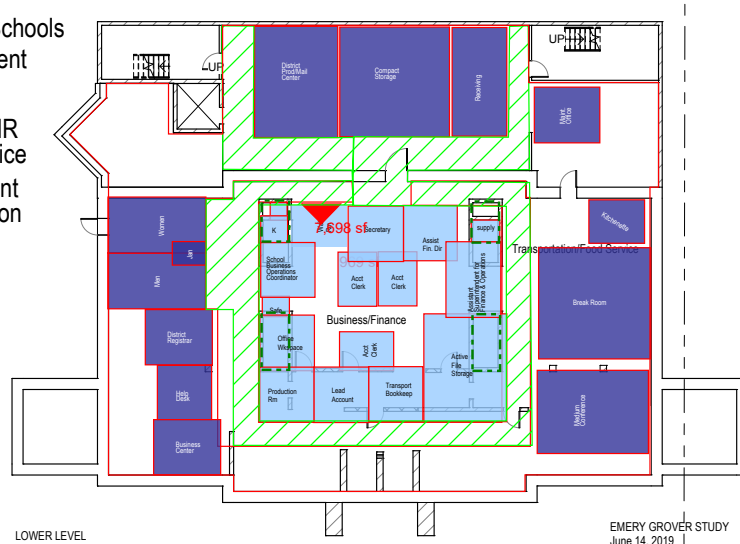
- Emery Grover Program Fit - Test No. 3**
- NO Ramps
 - New Stairs Addition
 - New Elevator and Entry Addition
 - Keep interior bearing walls (as much as possible)
 - Keep interior shafts



PROGRAM TEST FITS

Emery Grover #4

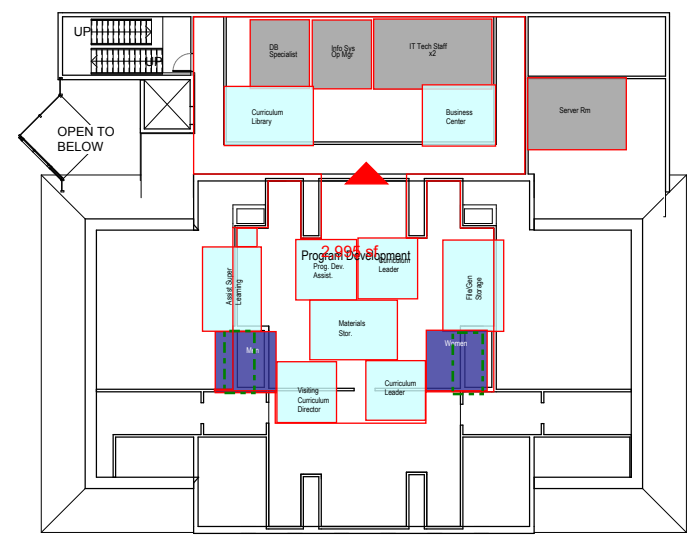
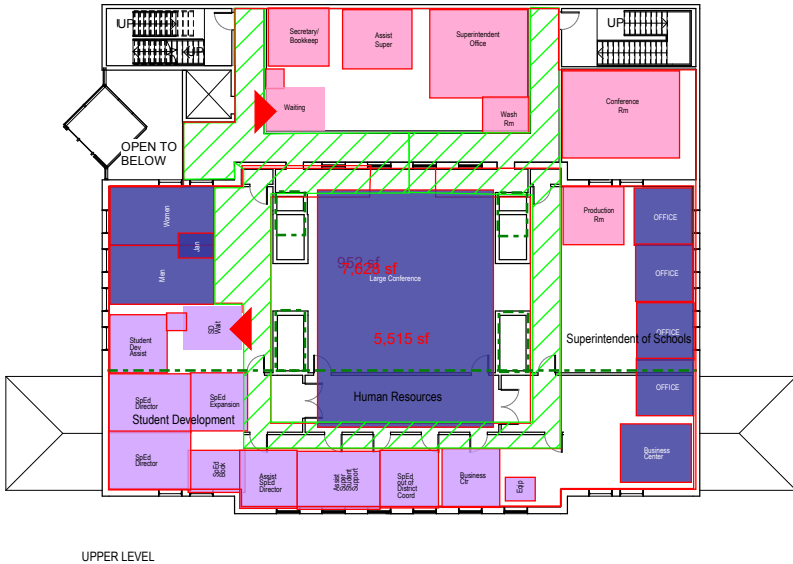
- Superintendent of Schools
- Program Development
- Shared Program
- Business/Finance/HR
Transport/Foodservice
- Student Development
Community Education
- Database/IT
- Circulation Zones



Building with Addition Net: 25,700 SQ.FT.
TOTAL NET PROGRAM: 18,200 SQ.FT.
(Expansion Room) Delta: +7,500 SQ.FT.

Emery Grover Program Fit - Test No. 4

- New 4 Level Elevator / Entry Addition (104' X 30')
- Keep interior bearing walls (as much as possible)
- Keep interior shafts

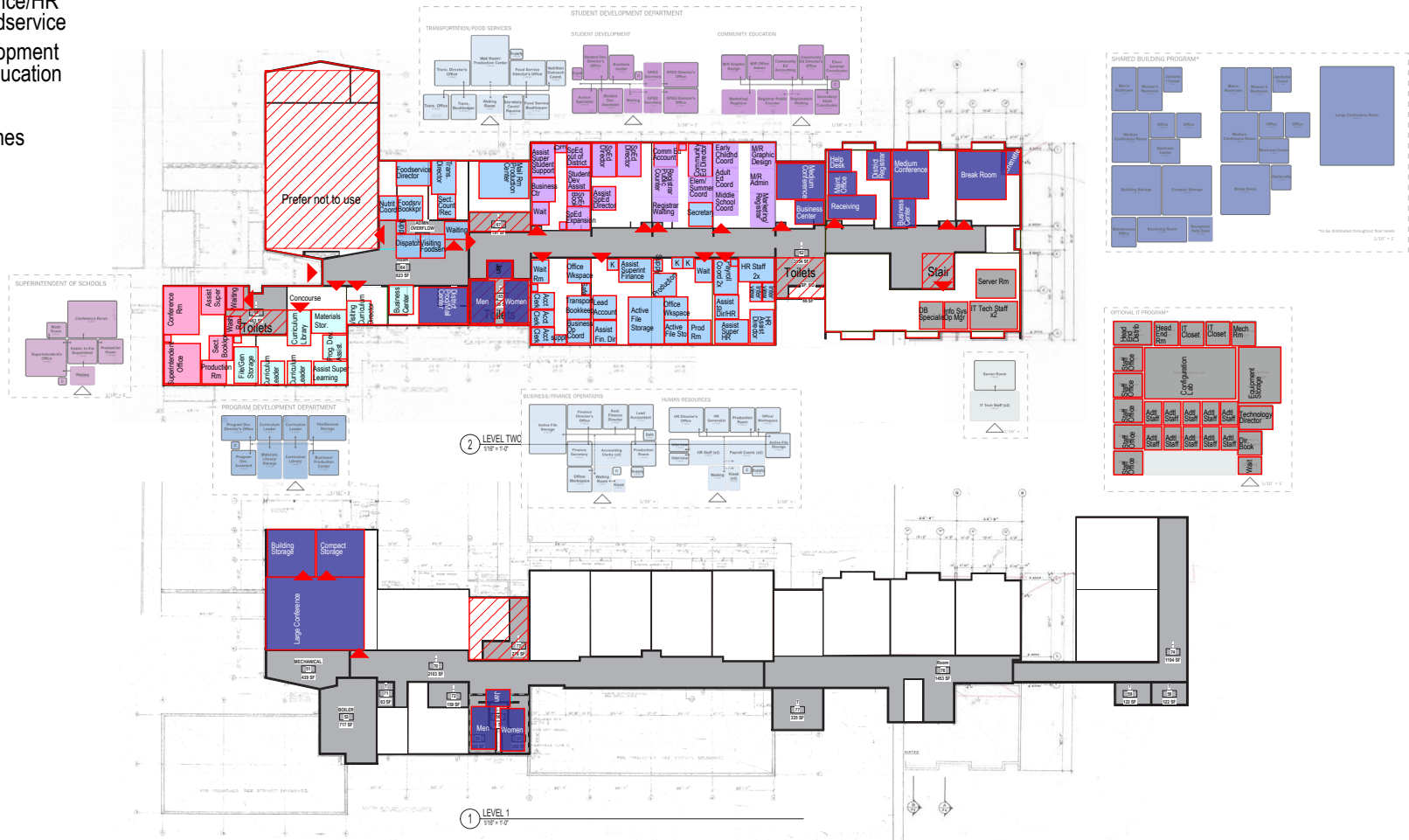


Test Fit	Fit Program	Results	PPBC Decision	Diagrams
1	<p>Includes IT</p> <ul style="list-style-type: none"> • Accommodated complete program by utilizing both levels. • Dis not require use of modular classrooms. 	<ul style="list-style-type: none"> • Temporary “swing space” solution might have been allowable without significant building upgrades, including sprinklers, elevator, building systems upgrades, etc. as a change in use from school to business. A discussion with authorities having jurisdiction would determine this. A detailed code review was required. Building Commissioner has not been contacted. • As a permanent solution, Hillside would require construction of an elevator, updated egress stairs, new roof top AC units, seismic upgrades, building sprinkler system, windows, etc. 	<p>Required a detailed discussion with authorities having jurisdiction over this project.</p> <p>FURTHER STUDY REQUIRED.</p>	<p>Page 28</p>
2	<p>Without IT</p> <ul style="list-style-type: none"> • Accommodated complete program on Main Level with the Large Conference Room in the Gymnasium. Building storage at lower level. • Did not require use of modular classrooms. 	<ul style="list-style-type: none"> • Same building upgrade issues as identified in Test Fit Number One. • Existing building walls were structural and not easily altered. • Ongoing under-slab depressurization system must be maintained. 	<p>Required a detailed discussion with authorities having jurisdiction over this project.</p> <p>FURTHER STUDY REQUIRED.</p>	<p>Page 29</p>

PROGRAM TEST FITS

Building Program Hillside #2 (No IT Relocation)

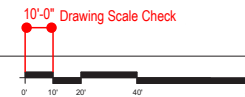
- Superintendent of Schools
- Program Development
- Shared Program
- Business/Finance/HR
Transport/Foodservice
- Student Development
Community Education
- Database/IT
- Circulation Zones



NOTE: PLANS ARE BASED ON A COMPILATION OF DRAWINGS BY THE ARCHITECTS COLLABORATIVE. POST-CONSTRUCTION ALTERATIONS MAY HAVE BEEN MADE. VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO START OF NEW WORK. SQUARE FOOT AREAS INDICATED ARE ESTIMATED, BASED ON ORIGINAL DRAWINGS.



HILLSIDE ELEMENTARY SCHOOL - TEST FIT
28 Glen Gary Road, Needham MA



SECTION 5
SWING SPACE

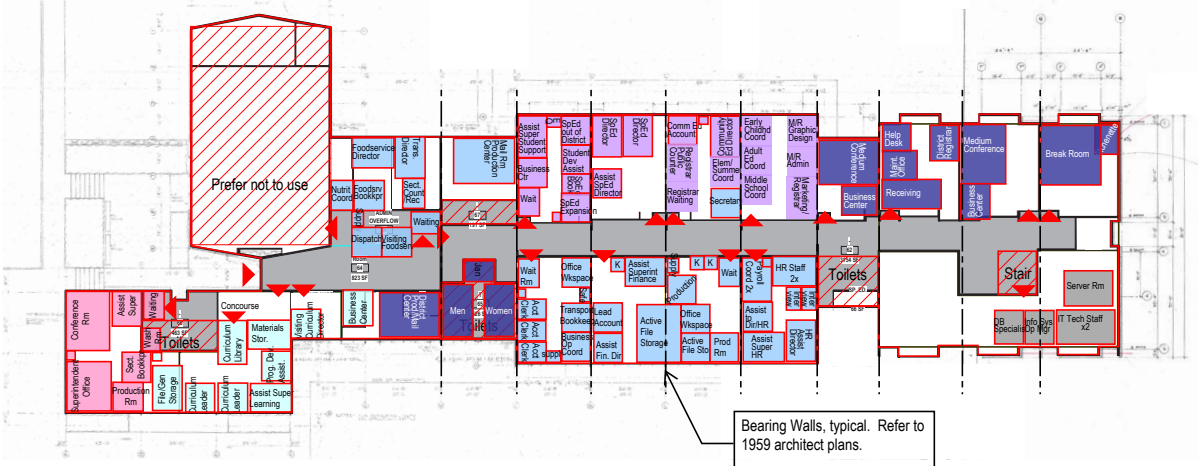
SWING SPACE

Hillside Elementary School

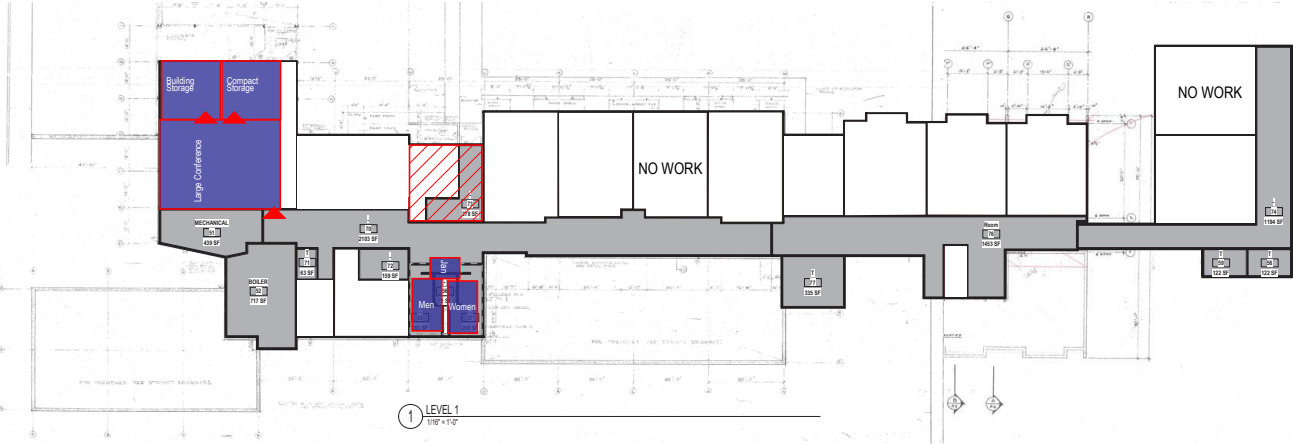
Hillside Elementary School as Swing Space

Concurrently with this study, the Permanent Public Building Committee engaged the firm Dore + Whittier to perform the Needham School Masterplan. The Hillside Elementary School use was changed from Educational to Business (a less restrictive use in the building code) for Needham Police and Fire temporary use. Changing the use back to Educational would require the facility to fully comply with current building codes for a new school building. This requirement for multiple building upgrades precluded, as identified in the Dore + Whittier report, the viability for reuse of Hillside as a school without significant cost. This may provide an opportunity to continue the business use as swing space for the School Administration.

The Masterplan document determined the “full and fair cash value” of Hillside at \$8,322,100 according to the latest assessor’s record. Full Architectural Access Board (AAB) compliance would be triggered at 30% of this value, or \$2,496,630. The cost estimates within this report suggested a modification to Hillside for swing space will cost approximately \$1,500,000.



2 LEVEL TWO



1 LEVEL ONE

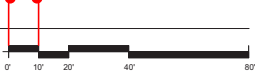
NOTE: PLANS ARE BASED ON A COMPILATION OF DRAWINGS BY THE ARCHITECTS COLLABORATIVE. POST-CONSTRUCTION ALTERATIONS MAY HAVE BEEN MADE. VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO START OF NEW WORK. SQUARE FOOT AREAS INDICATED ARE ESTIMATED, BASED ON ORIGINAL DRAWINGS.



TEMPORARY SWING SPACE DIAGRAM
HILLSIDE ELEMENTARY SCHOOL

28 Glen Gary Road, Needham MA

10'-0" Drawing Scale Check



SWING SPACE

Other Options Investigated

The town investigated the possibility of renting 25,000 square feet of swing space at a non-town-owned property.

REJECTED:

- Difficult to find contiguous space at this size locally in Needham.
- Tenant fit-up cost for offices and departments for a short term lease would be unrecoverable upon move-out.
- Cost range for lease space was dependent on type and quality: A, B, etc.



SECTION 6
ALTERNATIVE SITE TEST FITS

ALTERNATIVE SITE TEST FITS

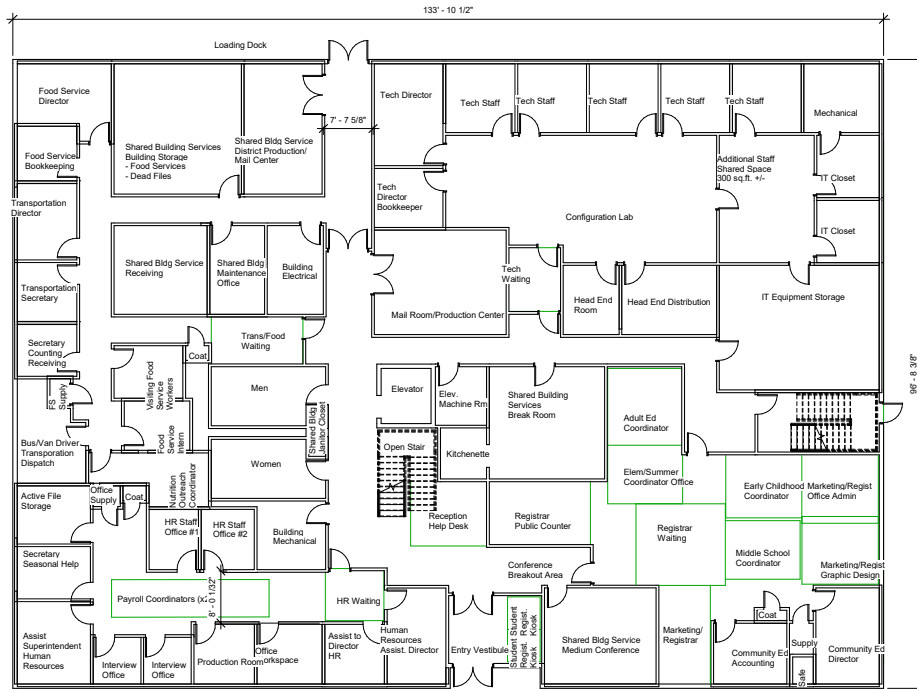
Working with the updated building program, revised May 31, 2019, a two-story prototype building footprint was created to examine how the School Administration might fit on alternate building sites, with construction of a new facility. Two versions of the footprint, one with Optional IT and one without, were developed. For the purposes of testing alternate building sites, the larger footprint was used.

The following site diagrams demonstrated the results of fitting a new building on each site, with 100 parking spaces each, based on building program and zoning requirements.

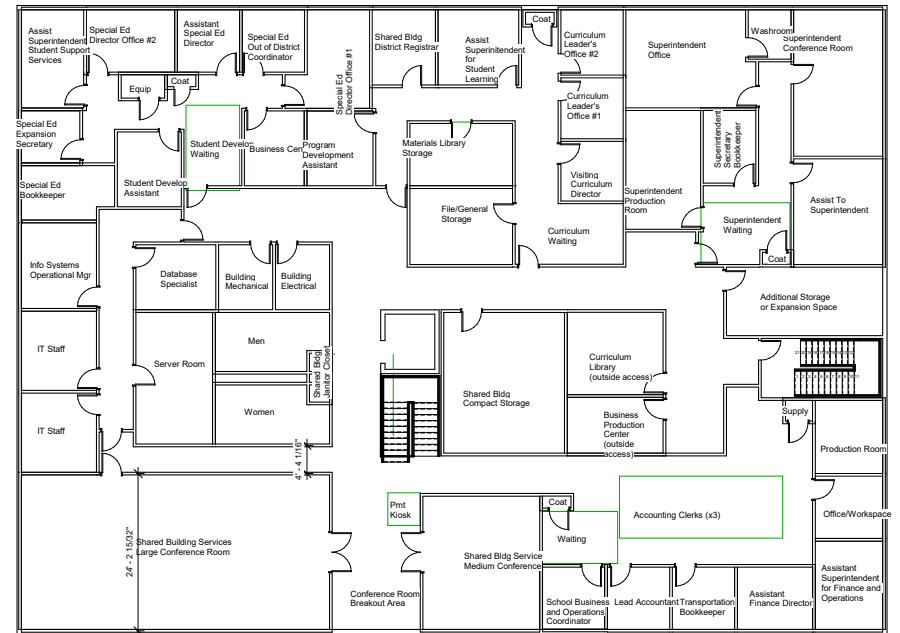
- 0 Greendale (gravel pit)
- 0 Harris Avenue
- Dwight Road
- Hillside Elementary

Two prototype building options were produced for alternative site test fits. Option One was the base program, and Option Two included optional full IT and the large conference center. As this optional program became preferred, only Option Two test fits were included in this study.

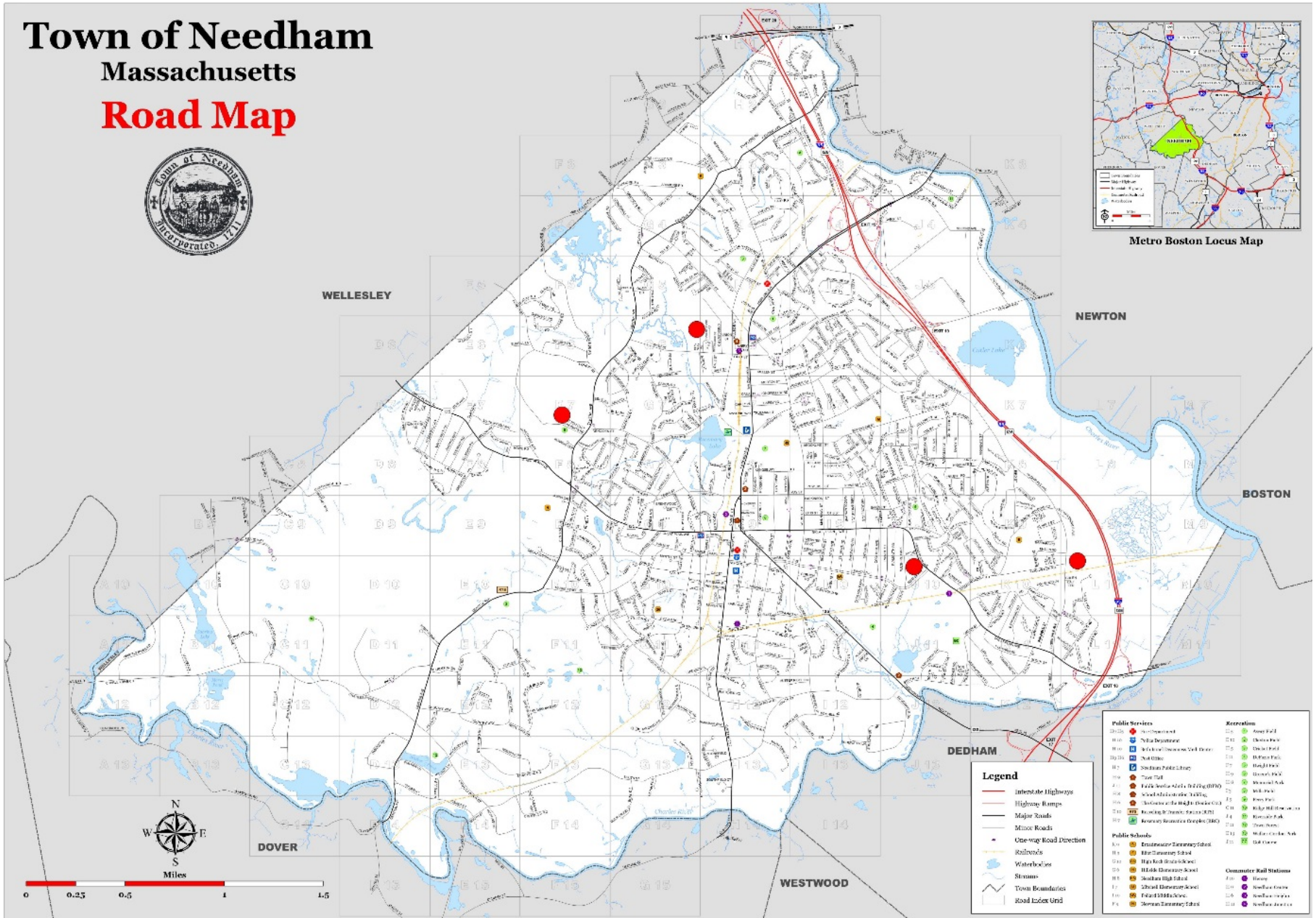
Prototype Building Option 2 - FIRST FLOOR



Prototype Building Option 2 - SECOND FLOOR



Town of Needham Massachusetts Road Map



ALTERNATIVE SITE TEST FITS

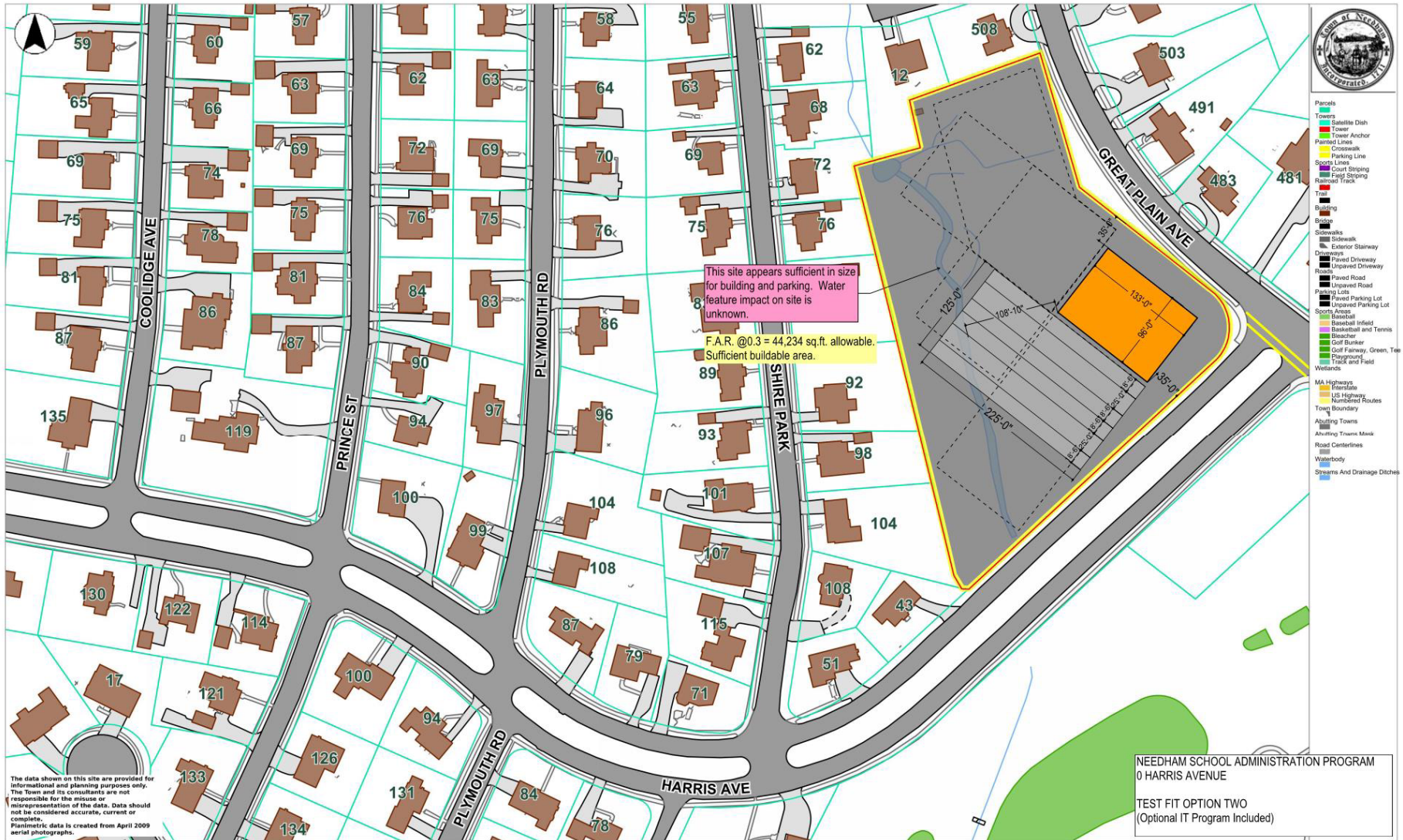
Building Program Test Fits at **Hillside Elementary School**: June 24, 2019

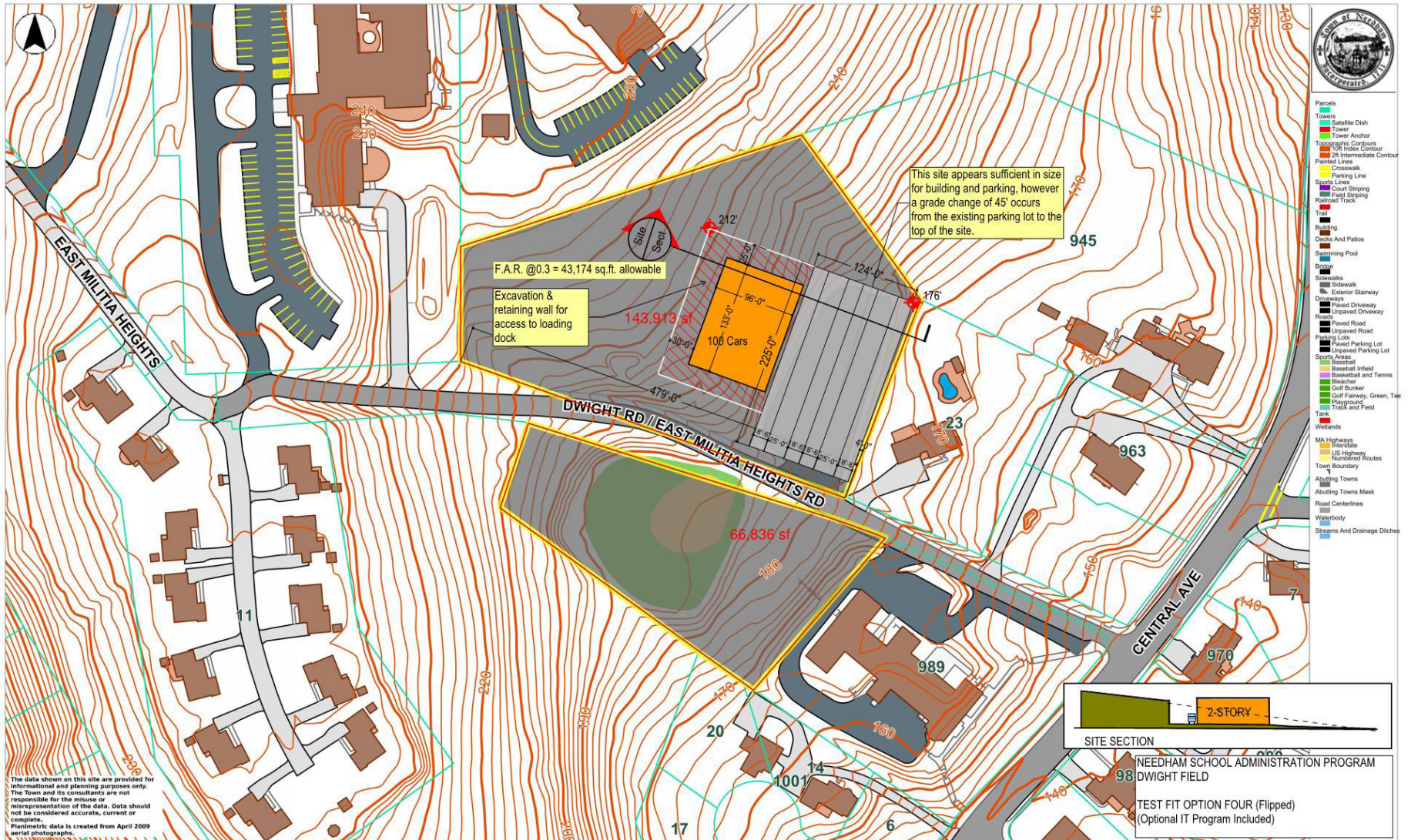
Test Fit	Fit Program	Results	PPBC Decision
O Greendale	<ul style="list-style-type: none"> • Property size was sufficient for building and parking • Site did not comply with Zoning lot frontage requirement Currently frontage is approximately 44 feet • Access to building was not ideal • Existing property demolition may be required • Existing property purchase may be required to provide adequate frontage 		REJECTED: <ul style="list-style-type: none"> • Lack of frontage • Purchase and demolition of adjacent property may be required to meet 150-foot frontage • Proximity to Route 128
O Harris Ave	<ul style="list-style-type: none"> • Property size may be sufficient for building and parking • On-site stream affects building setback 		REJECTED: <ul style="list-style-type: none"> • Proximity to wetlands. • Parking under building may be required • Fit with existing neighborhood
Dwight Rd Building located at existing parking lot	<ul style="list-style-type: none"> • Property size sufficient for building and parking • Grade change of 45 feet occurs from the existing parking lot to the top of the site • Building design needed to accommodate grade – potentially more expensive 		REJECTED: <ul style="list-style-type: none"> • Steep access drive • Significant grade change • Terraced parking
Dwight Rd Building located cut into hillside	<ul style="list-style-type: none"> • Property size sufficient for building and parking • Grade change of 45 feet occurs from the existing parking lot to the top of the site • Significant excavation required in this configuration to provide access to rear loading dock • Building design could be elevated to include IT and Conference Center underneath 		REJECTED: <ul style="list-style-type: none"> • Significant site work. • Terraced parking above and below building
Hillside Elementary	<ul style="list-style-type: none"> • Property size sufficient for building and parking • Substantial room for future building expansion • Potential for accelerating remediation of contaminated soils prior to construction • Demolition of existing school required 		REQUIRED FURTHER STUDY

ALTERNATIVE SITE TEST FITS

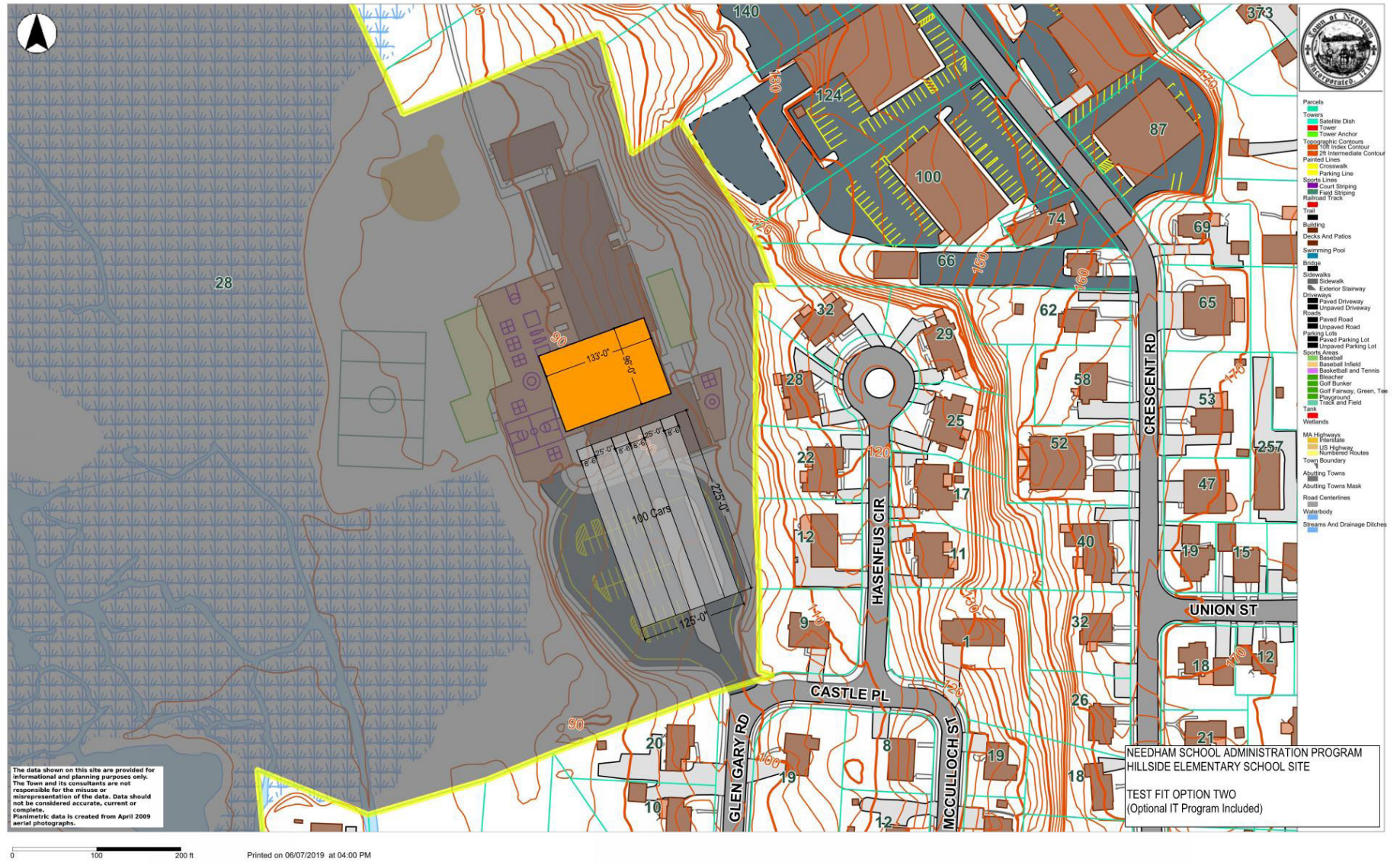


0 Greendale (Gravel Pit)





ALTERNATIVE SITE TEST FITS



Zoning Map: All three sites zoned SRA (Single Residence A) per the Needham Zoning Map:

- 0 Greendale Ave (Gravel Pit)
- 0 Harris Ave (Harris and Great Plain Ave)
- Dwight Road (across street from Ball Field)

Zoning By-law, May 2018

3.2 Schedule Of Use Regulations:

USE	SR-A: Single Residence A
Municipal Structure	Permitted

4.2.4 Public/Semi-Public/Institutional use in SR-A

- SR-A FAR less than or equal to 0.3
- 150-foot minimum frontage
- Front/Side/Rear Setbacks: 35'/25'/25'
- Maximum lot coverage 15%
- 2 ½ stories – 35-foot maximum height (see 4.2.8 below)
- **Section 1.3 Definitions:** Height: the vertical distance of the highest point of a structure or the roof of a building above the average grade of the ground adjoining the building or surrounding the structure.

4.2.8 Height Limit Exception

- 3 stories – 45 feet allowed for municipal

5.1.2 Parking

- If “offices”: 300 square feet per parking space (measured to center line of glass)

5.1.3

- (f) Space dimension 9' x 18.5'
- (e) Compact car max 50% of total spaces required; 8' x 16' (not used in this study)
- (j) Parking setback: 10'4'/4'
- Parking minimum 5' off building line
- (i) 24' to 25' drive aisle

CALCULATIONS

Proposed New Building Sites (SR-A)	Test Fit Option***	Gross Building Area 2 Story (sq.ft.)	Approximate Site Area (Scaled from GIS maps)	x F.A.R (0.3)	Frontage Minimum 150' Y/N	Maximum Site Coverage 15% Max (Building)	Total Parking Spaces Per 5.2.1 Required	Approximate Parking Lot Coverage** Sq.ft.	Area Req'd with 100 Spaces
							1 space/300 sqft.	350 sq.ft. per Space	350 sq.ft. Space
0 Greendale Avenue (Gravel Pit)	1	21,069	150,605	45,182	Y* 443' +/-	7.0%	71	24,850	35,000
	2	25,615			Y*	8.5%	86	30,100	"
0 Harris Avenue	1	21,069	147,379	44,234	Y 200' +	7.2%	71	24,850	"
	2	25,615			Y	8.7%	86	30,100	"
Dwight Road (North)	1	21,069	143,913	43,174	Y 479' +/-	7.3%	71	24,850	"
	2	25,615			Y	8.9%	86	30,100	"
Hillside Elementary Zone GR	2	25,615	1,071,576	321,472	Min 80' Y	25%	86	31,100	"

* Actual street frontage on Greendale Avenue approximately 44 feet

** Area included spaces required and drive aisles. Assumed average of 350 square feet per parking space (90-degree parking space with drive aisles). Site constraints would affect actual layout and parking lot area

*** Option One did not integrate Optional IT; Option Two did integrate Optional IT

SECTION 7
PROPERTY BEST USE STUDY

PROPERTY BEST USE STUDY

Summary of Various Development Options

VALUE OF LAND FOR VARIOUS DEVELOPMENT OPTIONS

The chart represents development scenarios that a residential developer would study to analyze the investments and value the land and/or building

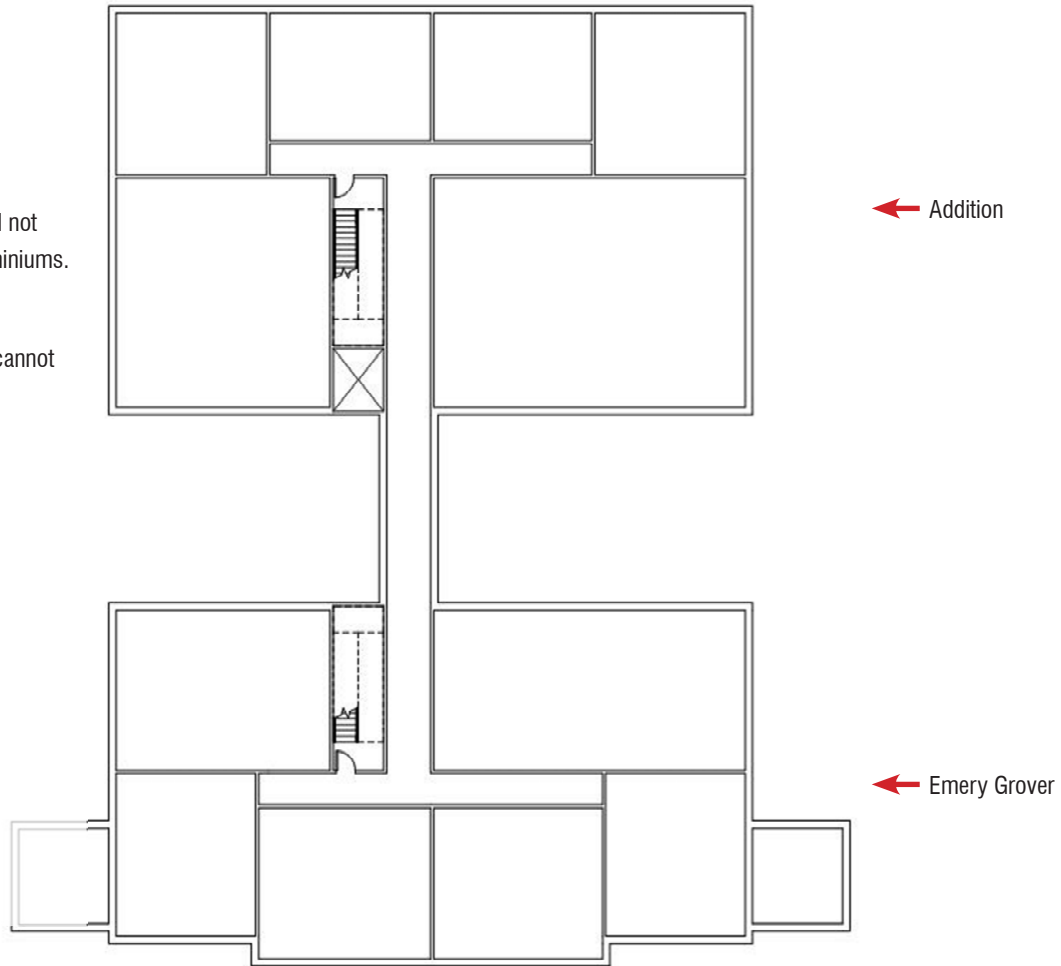
	Develop Building within Existing Volume	Develop Building with Addition	New Building after Demolition of EG
No. of Units	18	37	18
Average Unit Area	800 sf	900 sf	1,200 sf
Condominium Sales			
Derived Land Value	(\$2,250,000)	(\$2,700,000)	\$1,861,000
Apartments for Rent Retained as Investment			
Breakeven Land Value	(\$475,000)	(\$1,810,000)	\$3,000,000
Apartments for Rent sold to Investor			
Breakeven Land Value	\$261,000	(\$87,000)	\$3,615,000

An architectural analysis where more units are developed within the existing building volume might be the most profitable scenario, but will require FAR relief

Opportunity for restoration of existing exterior.

REJECTED:

- Cost to develop outweighs potential developer resale value.
- Cost per square foot high.
- Tax credits only available for structures used in business and not depreciable, i.e. apartment for rent scenario, but not condominiums.
- Negative resale value.
- Financially not viable. Rental and condo values in Needham cannot support higher costs of historic building.
- Major addition precluded use of Historic Tax Credit.
- Developers not interested.



Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

INTRODUCTION

The goal of this report is to establish the price that a private third party, most likely a residential developer, would pay for this property. In order to determine that value we have analyzed development scenarios that include three scopes of redevelopment, each with two different uses.

The scopes of development are:

- 1. Redevelopment within the volume of the existing building,
- 2. Redevelopment of the existing building with a substantial addition, and
- 3. Redevelopment of the property after demolition of the existing structure

The programs evaluated for each scope are:

- 1. Condominiums for sale, and
- 2. Apartments for rent.

TABLES AND ATTACHMENTS

TABLE 1 – Financial Analysis of Condominium Development Alternatives

TABLE 2- Financial Analysis of Rental Apartment Development Alternatives

Table 3- Deriving Land Value

Attachment 1- Needham Condominium Sales Activity for Last 12 Months (>\$400 psf, and all)

Attachment 2- Sales Information for the Modera, And Charles River Landing and The Kendrick

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

METHODOLOGY

The basic methodology is to establish value upon completion for each scenario, using current market sales and rental values as benchmarks. The development cost, including construction expense and soft costs as well as the cost of sales and the developer’s profit then reduce the value upon completion to derive a value for the property. Tables 1 and 2, analyze in detail the development expense for each development option. Table 3 illustrates the derived land value based on these analyses, and the projected sales or rental revenues.

Values upon completion are based on a survey of the current rental and condominium sales markets in Needham. Development costs are based on construction cost and professional fee information provided by the architects and other expenses based on our experience.

MARKET SURVEY

Condominium Market:

Recently completed development projects have seen a quick pace of sales. Most these projects have been designed as townhouses, many in Planned Unit Developments. The current market values for newly constructed condominiums are in the range of \$400 to \$450 per square foot. There have been a few very recent sales near the Emery Grover Building that have been in range of \$550 PSF

Condominiums in the Emery Grover location should be attractive because of the site’s proximity to Needham Center and shopping, and to Commuter Rail Stations (6-minute walk). These units will be smaller than the recently developed townhomes, will sell for a lower overall price and will be attractive to both younger and older Buyers.

Rental Market

Several large rental projects have been completed recently. Modena, located on Greendale, and fronting directly on 128, Charles River Landing on 2nd Street and the Kendrick, also located on 2nd Street, are among the most recently developed rental projects in Needham.

As these properties provide the type of modern conveniences and lifestyle that are similar to the proposed project at Emery-Grover, they have been used as a basis for rental values. Although none of these projects is directly comparable: each is located outside of the Needham Center, none are walking distance to a commuter rail station, and all are substantially larger than the project envisioned here, they do provide the best information for the market value of newly constructed rental units in Needham. Current published rental rates in these three properties range from \$2.90 to \$3.50 per square foot, per month; it is unclear to what extent initial inducements to new tenants affect these rates.

While not as large as any of these properties, the proposed development in the original building, or in the expanded version, will likely be a larger building than the more typical rental buildings in

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

Needham, and able to offer some, but not all of the resident amenities that are attractive to both Tenants and Buyers.

Consequently, we have used the apparent average of today’s rental values in the financial model. As this project will not be open for leasing in less than three years, it is reasonable to assume a 2% to 3% annual inflation rate until project completion.

AFFORDABLE HOUSING IN NEEDHAM

In towns and cities that do not meet the Commonwealth standard of 10% affordable housing, developments proposed under Chapter 40B may override various provisions of the local Zoning Code, most generally that restricting development density. The affordable housing stock in Needham is approximately 12.5% of the total stock; consequently, a 40B project that seeks to override dimensional provisions of the Zoning Code is not possible. Regardless of the applicability of Chapter 40B, projects which provide affordable housing are eligible for certain state tax credits, but for purposes of this evaluation Affordable Housing was not considered, as it generally produces less revenue than market housing, and the state tax credits are not certain for all applicants.

HISTORIC TAX CREDIT

The Emery- Grover Building is listed on both the National Register of Historic Buildings, and the Commonwealth of Massachusetts List of Historic Structures (MACRIS). As such, redevelopment of the property is subject to rehabilitation standards of both the National Park Service and the Commonwealth of Massachusetts

Under certain circumstances, redevelopment of a historic building is eligible for Federal Historic Tax Credits (HTC) and Massachusetts Rehabilitation Credits. The credits are only available for structures that will be used in business, and are depreciable. Consequently, these tax credits are only available for the “apartment for rent” scenarios, and not for condominium development.

The Federal tax Credit is 20% of Qualified Rehabilitation Expenses (QRE), and can be incorporated into the financial analysis. The State tax Credit of 10% is not certain, and is therefore not included in this model. Based on prior experience, we assume that the Federal Tax Credit will only be available for the program that renovates the existing building, and not the expanded project.

ENVIRONMENTAL CONDITIONS

This analysis assumes that under any scenario the existing building will require remediation to eliminate Hazardous Materials, which generally consist of asbestos insulation, lead painted windows and other lead painted interior woodwork. An allowance for this remediation is included in all development scenarios. The fees for Environmental Consultants are included in the overall Design Fee, as the remediation is included in total construction cost, and these fees are based on a percentage of construction cost.

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ZONING REGULATIONS

Use District A-1 Apartment All residential uses allowed

Overlay District the property is not located within a Zoning Overlay District

4.3.1 Table of Regulations Use District A-1	Required/Allowed	Renovation of Existing Building	Existing building with Addition
Minimum Lot Size	20,000 SF	40,155 SF, complies	40,155 SF, complies
DU per Acre	18	18, complies	37, required relief
FAR	0.5	21,644 SF: non - conforming structure, no relief required.	32,850, requires relief
Minimum Setbacks			
Front	25	>25, complies	>20, complies
Side	20	>20, complies	>20, complies
Rear	20	>20, complies	>20, complies
Maximum Height	3 stories, 40 FT, no more than 3 floors used for human occupancy	4 floors used for occupancy: non-conforming structure, no relief required.	4 floors used for occupancy, requires relief
5.1.2 Required Off Street Parking	1.5 spaces per unit	27 required, may be reduced by Special Permit	56 required, 40 provided, may be reduced by Special Permit

Permitting Issues

1. Redevelopment within the volume of the existing building

The existing building has a gross floor area is above the maximum allowable FAR and occupies 4 floors, but otherwise complies with the use and dimensional regulations. Consequently, it is a Non-conforming Building defined in the Needham Zoning By Law.

As a Non Conforming Building, the use may be changed to a conforming use, and the existing building may continue to be used to the same extent as it is now. See extract from Needham Zoning Code below:

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

1.4 Non-Conformance

1.4.1 Intent The intent of this section is to define the application of this By-Law to otherwise lawful buildings, structures and uses which do not conform to its provisions; to prevent the expansion or change thereof except in conformity with the provisions of this section; and to provide for the discontinuance of said uses or for their eventual conversion to a conforming status

1.4.2 Continuation Any building or structure, or use of a building, structure or land which lawfully existed at the time of the adoption of this By-Law, or any amendment thereof, may be continued to the same extent except as otherwise provided herein.

1.4.3 Change A non-conforming use shall not be changed other than to conforming use except as hereinafter set forth, and once so changed, shall not be permitted to revert to a non-conforming use.

2. Redevelopment of the existing building with a substantial addition

The expanded development anticipates compliance with the dimensional regulations of Table 4.3.1 with the exception of FAR, which it exceeds. Consequently, the expanded redevelopment program that retains the Emery Grover Building would require relief from the Zoning Regulations. A strong argument would be made to grant such relief, since it would enable the adaptive reuse of a building on the Historical Register.

3. Redevelopment of the property after demolition of the existing structure

This analysis is provided only for the purpose of completeness; it is not likely that a Town plan that orchestrates the demolition of a Historic Structure that it owns for sale to a developer would be implemented.

The development scheme proposed is based on an “as of right” design that is in full compliance with the requirement of Table 4.3.1.

Since the development would not have to absorb and reuse the existing building, there is a greater choice of design options. This analysis is based on “townhouse” type development which has several advantages over multi-level double loaded corridor designs. The largest financial advantage is that the “townhouse” design does not include any common areas for stairs, corridors, elevators and the like; consequently the rentable/saleable square footage does not reflect a discount from the gross floor area- there is more saleable or rentable area within the building volume.

DEVELOPMENT SCENARIOS

The purpose of this analysis is to determine the value of the property. Consequently, the financial models are designed to hold the other inputs level, so that the property value can be derived. The models assume that the purchase of the property takes place after all permits are issued, and from that point approximately 2 years will be required for construction and completion of sales, or full rental

1. CONDOMINIUMS FOR SALE

While different investors and different developers will vary on expectations for financial return, the important issue in this study is to identify one realistic set of financial requirements so that these can

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

be applied consistently to all scenarios. In this case, we expect that a developer of condominiums will have as a goal a net profit of 20% on total gross sales.

2. APARTMENTS FOR RENT

There are two tracks for developers of rental housing.

1. Develop and hold as an investment property.

In the case of a property held for investment we use a Capitalization rate of 7% to establish value, and derive Land Value.

2. Develop and sell upon completion to 3rd party investors.

In this case, we project that an Investor that purchases a stabilized property would do so based on a CAP RATE of approximately 5%, and that the Developer would expect a profit on sales value of around 20%.

Redevelopment of the Emery Grover Building
1330 Highland Avenue, Needham MA

CONCLUSION

Table 3 presents a detailed spreadsheet calculating the derived Land Value for each of the three development scenarios and for each of the three exit strategies. The value of the Land/Building derived in Table 3 is:

	<u>Derived Building Value</u>
1. Condominium sales	
a. Redevelop existing building within existing volume	(\$2,250,000)
b. Redevelop exiting building with substantial addition	(\$2,700,000)
c. Develop new building after demolition of Emery Grover	\$1,861,000
2. Apartments for Rent retained as Investment	
a. Redevelop existing building within existing volume	(\$475,000)
b. Redevelop exiting building with substantial addition	(\$1,810,000)
c. Develop new building after demolition of Emery Grover	\$3,000,000
3. Apartments for Rent sold to Investor	
a. Redevelop existing building within existing volume	\$261,000
b. Redevelop exiting building with substantial addition	(\$87,000)
c. Develop new building after demolition of Emery Grover	\$3,615,000

None of the development strategies that involve renovation of the existing structure indicate that there is a significant positive land value. This is because the cost of construction in the Historic structure is significantly higher than normal construction, and the basic layout of the existing building is highly inefficient, resulting in a substantially lower saleable or rentable area. Additionally, neither the rental nor condominium values in Needham can support the higher construction costs associated with this type of Historic Building. In other nearby towns, such as, Brookline, Cambridge, sales prices for new projects are in the range of \$800 to \$1000 PSF and would therefore establish a reasonable land value for redevelopment.

In all cases, only the scenarios that involve demolition of the existing building indicate a significant positive land value. In the case of a townhouse condominium project with average sales of \$550 PSF, the value of the cleared land would be on the order of \$1,800,000. In the case of Rental apartments, the value could be on the order of \$3,000,000 (based on the assumptions of this study).

Redevelopment of the Emery - Grover Building
1330 Highland Avenue, Needham MA

Table 1 - Financial Analysis of Condominium Development Alternatives

	Develop Building within Existing Volume	Develop existing Building with Addition	New Structure after demolition of existing structure
PROJECT SCOPE			
Gross Area of Construction-renovation	21,644 SF	21,644 SF	0
Gross Area of Construction- Addition	0 SF	21,186 SF	0
Gross Area of Construction New Building	0	0	21,644 SF
Total Gross Area	21,644 SF	42,830 SF	21,644 SF
Net Saleable Area- Renovation	14,350 SF	14,350 SF	0 SF
Net Saleable Area- Addition	0 SF	18,500 SF	0 SF
Net Saleable Area- new Building	0 SF	0 SF	21,644 SF
Total Net Saleable Area	14,350 SF	32,850 SF	21,644 SF
Number of Units	18 Units	37 Units	18 Units
Average Unit Area	797 SF	888 SF	1,202 SF
Structured parking area	0 SF	7,062 SF	0 SF
Duration of Construction and Sales	24 months	24 months	24 months
PROJECT SALES AND REVENUES			
Sale of Condominiums	\$ 550 PSF 7,892,500	18,067,500	11,904,200
Cost of Sales			
Broker's Commissions	5% (394,625)	(903,375)	(595,210)
Recording Fees	0.460% (36,306)	(83,111)	(54,759)
Net Revenue	7,461,570	17,081,015	11,254,231
Net Revenue PSF	\$20	\$20	\$20
SUMMARY OF COSTS			
Construction	\$ 6,643,200	\$ 13,352,100	\$ 5,661,000
Soft Costs	1,479,320	2,830,210	1,351,100
Development Expense with no Land Value	\$ 8,122,520	\$ 16,182,310	\$ 7,012,100
CONSTRUCTION COST			
Renovation Construction Cost PSF	\$ 300.00 PSF	\$ 6,493,200	\$ 0
New Construction Cost PSF	\$ 250.00 PSF	\$ 0	\$ 5,296,500
Hazardous Material Abatement	\$ 150,000	\$ 150,000	\$ 150,000
Demolish Existing Building		\$ -	\$ 100,000
Parking Garage Construction	\$ 200.00 PSF	\$ 0	\$ 1,412,400
Total Construction Cost	\$ 6,643,200	\$ 13,352,100	\$ 5,661,000
Construction Cost per Saleable SF	\$ 462.94	\$ 406.46	\$ 261.55
SOFT COSTS			
Architects and Engineers	10%	\$ 664,320	\$ 1,335,210
Interest Expense		\$ 305,000	\$ 610,000
Development Management fee		\$ 250,000	\$ 450,000
Project Contingency		\$ 100,000	\$ 200,000
Real Estate Taxes	15,000 annual	\$ 30,000	\$ 30,000
Legal		\$ 50,000	\$ 75,000
Marketing and Staging		\$ 20,000	\$ 50,000
Insurance		\$ 20,000	\$ 35,000
Geotechnical		\$ 15,000	\$ 15,000
Survey		\$ 15,000	\$ 15,000
Hazardous Material Survey		\$ -	\$ -
Condominium Documents		\$ 10,000	\$ 15,000
Total Soft Costs		\$ 1,479,320	\$ 2,830,210
Soft costs per Saleable SF		\$ 103.09	\$ 86.16

PROPERTY BEST USE STUDY

Redevelopment of the Emery - Grover Building 1330 Highland Avenue, Needham MA

Table 1 - Financial Analysis of Condominium Development Alternatives

		Develop Building within Existing Volume		Develop existing Building with Addition		New Structure after demolition of existing structure	
		Amount Borrowed	Interest	Amount Borrowed	Interest	Amount Borrowed	Interest
CONSTRUCTION LOAN INTEREST EXPENSE							
Project Costs	Period						
Construction	12 average duration in months	\$4,982,400	\$ 249,120	\$ 10,014,075	500,704	\$ 4,245,750	212,288
Soft Costs	12 average duration in months	\$ 1,109,490	\$ 55,475	\$ 2,122,658	106,133	\$ 1,013,325	50,666
Maximum Amount Borrowed		\$ 6,091,890		\$ 12,136,733		\$ 5,259,075	
Total Interest Expense			\$ 304,595		\$ 606,837		\$ 262,954
Loan to Value (LTV)	75%						
Total Development Duration	24 months						
Construction Loan Rate	5%						
Equity	25%	\$ 2,030,630		\$ 4,045,578		\$ 1,753,025	
Maximum Loan Amount	75%	\$ 6,091,890		\$ 12,136,733		\$ 5,259,075	
Total Development Cost		\$ 8,122,520		\$ 16,182,310		\$ 7,012,100	

Redevelopment of the Emery - Grover Building 1330 Highland Avenue, Needham MA

Table 2 - Financial Analysis of Rental Apartment Alternatives

		Develop Building within Existing Volume		Develop existing Building with Addition		New Structure after demolition of existing structure	
PROJECT SCOPE							
Gross Area of Construction-renovation		21,644	SF	21,644	SF	-	SF
Gross Area of Construction- Addition		0	SF	21,186	SF	0	SF
Gross Area of Construction- new building		0	SF	0	SF	21,644	SF
Total Gross Area		21,644	SF	42,830	SF	21,644	SF
Net Saleable Area- Renovation	66%	14,350	SF	14,350	SF	0	SF
Net Saleable Area- Addition	87%	0	SF	18,500	SF	0	SF
Net Saleable Area- new Building	100%	0	SF	0	SF	21,644	SF
Total Net Saleable Area		14,350	SF	32,850	SF	21,644	SF
Number of Units		18	Units	37	Units	18	Units
Average Unit Area		797	SF	888	SF	1,202	SF
Structured parking spaces		0	SF	7,062	SF	0	SF
Duration of Construction and Sales		24	months				
INCOME ASSUMPTIONS							
Average apartment rent/unit (monthly)	\$ 4.00 PSF	\$ 3,189	\$ 4.00	\$ 3,551		\$ 4,810	\$ 4.00
Total apartment rental annual basis		\$ 688,800		\$ 1,576,800		\$ 1,038,912	
Apartment operating cost (annual)		\$ (324,411)		\$ (492,962)		\$ (271,128)	
Vacancy rate	5%	\$ (34,440)		\$ (78,840)		\$ (51,946)	
Net Revenue		\$ 429,949		\$ 1,004,998		\$ 715,838	
VALUE ON COMPLETION							
Capitalized Value	7.00%	\$ 6,142,122		\$ 14,357,115		\$ 10,226,264	
Development Cost excluding land		\$ 6,617,520		\$ 16,167,310		\$ 6,997,100	
Increase in Value		\$ (475,398)		\$ (1,810,195)		\$ 3,229,164	
OPERATING EXPENSES							
Real Estate Taxes (based on cost)	1.2%	\$ 81,991		\$ 200,313		\$ 86,694	
Property Management	5%	\$ 34,440		\$ 78,840		\$ 51,946	
Payroll	7%	\$ 48,216		\$ 110,376		\$ 72,724	
Legal and Accounting		\$ 5,000		\$ 5,000		\$ 5,000	
Insurance	\$ 500.00 per unit	\$ 9,000		\$ 18,500		\$ 9,000	
Trash Removal	\$ 300.00 per unit	\$ 5,400		\$ 11,100		\$ 5,400	
Cleaning		\$ 5,000		\$ 8,000		\$ 5,000	
Water and Sewer	\$ 500.00 per unit	\$ 9,000		\$ 18,500		\$ 9,000	
Landscape Maintenance and Flowing		\$ 10,000		\$ 10,000		\$ 10,000	
Common Utilities		\$ 2,164		\$ 4,283		\$ 2,164	
Sprinkler and Alarm Monitoring	\$ 0.10 PSF	\$ 2,500	\$ 2,500	\$ 4,000		\$ 2,500	
Repairs and maintenance	\$ 150.00 per unit	\$ 2,700		\$ 5,550		\$ 2,700	
Reserve for replacement	\$ 500.00 per unit	\$ 9,000		\$ 18,500		\$ 9,000	
Total Operating Expense		\$ 224,411	33%	\$ 492,962	31%	\$ 271,128	26%
Total expense per unit		\$ 12,467		\$ 13,323		\$ 15,063	

Redevelopment of the Emery - Grover Building
1330 Highland Avenue, Needham
MA

Table 2 - Financial Analysis of Rental Apartment Alternatives

	Develop Building within Existing Volume	Develop existing Building with Addition	New Structure after demolition of existing structure
DEVELOPMENT EXPENSE			
SUMMARY OF COSTS			
Construction	6,643,200	13,352,100	5,661,000
Soft Costs	1,474,320	2,815,210	1,336,100
Historic Tax Credit on QRE*	7,500,000 20% (1,500,000)	0	0
Total Development Expense	6,617,520	16,167,310	6,997,100
* For purposes of this analysis, the Historic Tax Credit is treated as a reduction of overall expense. The QRE excludes roughly \$30,000 per unit for appliances, fixtures and other disallowed expenses. We assume that no tax credit will be available for the expanded project.			
CONSTRUCTION COST			
Renovation Construction Cost PSF	\$ 300.00 45%	\$ 6,493,200	\$ 6,493,200
New Construction Cost PSF	\$ 250.00	\$ 150,000	\$ 5,206,500
Hazardous Material Abatement	\$ -	\$ -	\$ 5,411,000
Demolish Existing Building	\$ -	\$ -	\$ 150,000
Parking Garage Construction	\$ 200.00	\$ -	\$ 100,000
Total Construction Cost	\$ 6,643,200	\$ 13,352,100	\$ 5,661,000
SOFT COSTS			
Architects and Engineers	10%	\$ 664,320	\$ 1,335,210
Interest Expense		\$ 305,000	\$ 610,000
Development Management fee		\$ 250,000	\$ 450,000
Project Contingency		\$ 100,000	\$ 200,000
Real Estate Taxes	15,000 annual	\$ 30,000	\$ 30,000
Legal		\$ 50,000	\$ 75,000
Marketing and Staging		\$ 25,000	\$ 50,000
Insurance		\$ 20,000	\$ 35,000
Geotechnical		\$ 15,000	\$ 15,000
Survey		\$ 15,000	\$ 15,000
Hazardous Material Survey		\$ -	\$ -
Total Soft Costs	\$ 1,474,320 22%	\$ 2,815,210 17%	\$ 1,336,100 19%
CONSTRUCTION LOAN INTEREST EXPENSE (EXCLUDING LAND COST)			
Project Costs	Period	Amount Borrowed	Interest
Construction	12	\$ 4,982,400	\$ 249,120
Soft Costs	12	\$ 1,165,240	\$ 55,287
Maximum Amount Borrowed		\$ 6,088,140	\$ 3,111,402.50
Total Interest Expense			\$ 12,125,483
Loan to Value Ratio (LTV)	75%	\$ 304,407	\$ 606,274
Total Development Duration	24 months		
Construction Loan Rate	5%		
Equity	25%	\$ 1,654,380	\$ 4,041,828
Maximum Loan Amount	75%	\$ 6,088,140	\$ 12,125,483
Total Development Cost		\$ 7,742,520	\$ 16,167,310

Redevelopment of the Emery - Grover Building
1330 Highland Avenue, Needham MA

Table 3 - Deriving Land Value

	Existing Building Only	Existing building with Addition	New Structure after Demolition of existing Building
Condominium Development			
Development Expense without Land cost	\$8,122,520	\$16,182,310	\$7,012,100
Gross sales upon completion	\$ 550.00 PSF \$7,892,500	\$18,067,500	\$11,904,200
Net revenue on completion	\$7,461,570	\$17,081,015	\$11,254,231
Breakeven Land value	(\$660,951)	\$898,705	\$4,242,131
Profit Target as % sales	20%	\$3,613,500	\$2,380,840
Derived Land Value	(\$2,239,451)	(\$2,714,796)	\$1,861,291
Rental Apartments retained as Investment			
Stabilized NOI after completion	\$ 4.00 PSF \$ 429,949	\$ 1,004,998	\$ 715,838
Capitalized Value based on CAP RATE	7% \$ 6,142,122	\$ 14,357,115	\$ 10,226,264
Development Expense without Land cost	\$ 6,617,520	\$ 16,167,310	\$ 6,997,100
Breakeven Land Value less interest during development	(\$475,398)	(\$1,810,195)	\$ 2,986,977
Return to Developer/Investors			
NOI			\$ 715,838
Permanent Loan Amount	75%		\$ 7,669,698.12
Term	30		
Rate	4.2%		
Permanent Mortgage Expense	\$0.0592		\$ 454,373
Net Cash Flow			\$ 261,466
Invested Equity			\$ 2,556,566
Annual cash return			10%
Rental Apartments sold to Investor			
Stabilized NOI after completion	\$ 429,949	\$ 1,004,998	\$ 715,838
Capitalized Value based on CAP RATE	5.00% \$ 8,598,971	\$ 20,099,961	\$ 14,316,770
Development Expense without Land cost	\$ 6,617,520	\$ 16,167,310	\$ 6,997,100
Breakeven Land Value less interest during development	\$ 1,981,451	\$ 3,932,651	\$ 6,770,695
Target Developer Profit on sale	20%	\$ 1,719,794	\$ 4,019,992
Derived Land Value (adjusted for interest expense during development)	\$261,656	(\$87,342)	\$ 3,614,290
Financing			
DCR	125.00%		
NOI			\$ 715,838.49
Permanent Loan Amount	0%		\$ -
Term	30		
Rate	4.2%		
Permanent Mortgage Expense	\$0.0592		\$ -
Net Cash Flow			\$ 715,838
Invested Equity			\$ 14,316,770
Annual cash return			5.00%

PROPERTY BEST USE STUDY

Property Type(s): CC

Status: **NEW, ACT, PCG, BOM, EXT, RAC, CTG, UAG, SLD, RNT, WDN, EXP, CAN, CSO** Price:

Timeframe: **TODAY - 12 MONTHS**

Towns: **Needham, MA**

Advanced Criteria: **Living Area: 800-1500; Price per SqFt: >400; Style (CC): Detached, Duplex, Garden, Half-Duplex, High-Rise, Loft, Low-Rise, Mid-Rise**

Condominium Listings



MLS #: 72560533
100 Rosemary Way U: 127
Needham, MA 02494
DOM: 16 **DTO: 2**
List \$/SqFt: \$426.36

Status: **CTG**

List Price: \$440,000
List Date: 09/06/2019
Orig Price: \$440,000
Taxes: 2019 \$4,859.36
Assessed: \$392,200
Assoc.: Yes - \$540/mo



Style: Condo - Low-Rise
Rooms: 4
Garage: 0

Beds: 2
Parking: 2

Baths: 2f 0h
Fireplaces: 0

Outdoor Space: Yes - Private
Master Bath: Yes
Year Built: 1986

Living Area: 1,032 SqFt
Pets: No

Remarks: This is a great first floor unit at the desirable Rosemary Ridge condominium. With new carpeting and fresh paint, this two bedroom/2 bathroom home has laundry in the unit, a private 25' deck overlooking quiet green space, and convenient parking near the main entrance. Enjoy the services of a concierge at the front door, an inground pool, and a clubroom complete with a kitchen and workout area.



MLS #: 72368858
100 Rosemary Way U: 235
Needham, MA 02494
DOM: 46 **DTO: 36**
List \$/SqFt: \$465.24
Sold \$/SqFt: \$449.20

Status: **SLD**

List Price: \$435,000
List Date: 07/26/2018
Orig Price: \$445,000
Taxes: 2018 \$4,021.38
Assessed: \$338,500
Assoc.: Yes - \$504/mo



Style: Condo - Low-Rise
Rooms: 4
Garage: 0

Beds: 2
Parking: 2

Baths: 2f 0h
Fireplaces: 0

Outdoor Space: Yes - Common
Master Bath: Yes
Year Built: 1986

Living Area: 935 SqFt
Pets:

Remarks: Welcome to Rosemary Ridge where everything is at your fingertips! This amazing location 2-bedroom 2-bathroom condo is close to shopping, restaurants, public transportation, and everything else that the wonderful town of Needham has to offer. There is in-unit laundry, a master bathroom with sliding shower doors, a generously sized balcony, 5 large closets, some with custom built-ins, and great amenities. The condo amenities include an in-ground pool, an exercise room, a sauna, multiple elevators, a large clubroom that can be reserved for private functions, and a concierge! The condo also comes with a storage unit on the lower level of the building as well as laundry facilities in addition to the in-unit laundry. There are two deeded parking spaces that come with the unit, as well as lots of guest parking (deeded parking spots #120 and #158). This condo is move-in ready and is waiting for you to make it your new home!



MLS #: 72464976
9 HIGHLAND COURT U: 9
Needham, MA 02492
DOM: 5 **DTO: 5**
List \$/SqFt: \$468.31
Sold \$/SqFt: \$494.65

Status: **SLD**

List Price: \$569,000
List Date: 03/13/2019
Orig Price: \$569,000
Taxes: 2019 \$6,474
Assessed: \$522,500
Assoc.: Yes - \$508/mo



Style: Condo - Mid-Rise
Rooms: 5
Garage: 0

Beds: 2
Parking: 1

Baths: 2f 2h
Fireplaces: 1

Outdoor Space: Yes - Private
Master Bath:
Year Built: 1983

Living Area: 1,215 SqFt
Pets: No

Remarks: Much Sought after Needham Condo at "The Highlands" Located in the Center of Town with easy access to all that Needham has to offer! This well designed condo features two very good size bedrooms and two full baths. The spacious living room has a wood burning fireplace and picture window which lets in an abundance of natural light. Pretty french doors lead to a very private covered porch for alfresco dining! Easy to work in kitchen with hardwood floors, plenty of cabinet space, large skylights and a very large picture window surrounding the dining area. Laundry is full size and in unit plus large designated storage area on the lower level. Unit has been freshly painted and new carpeted installed. Nothing to do here but move in and unpack! Easy walk to Fabulous Restaurants, Shops, Supermarket and Newly Built Rosemary Pool Recreation Facility. Hurry! OH Saturday 3/16 and Sunday 3/17 from 2-4 Offers will be reviewed on Monday 3/18 at noon. SORRY, NO PETS!



MLS #: 72371758
46 PARISH ROAD U: 46
Needham, MA 02494
DOM: 48 **DTO: 34**
List \$/SqFt: \$478.37
Sold \$/SqFt: \$470.05

Status: **SLD**

List Price: \$575,000
List Date: 08/01/2018
Orig Price: \$575,000
Taxes: 2018 \$4,169
Assessed: \$351,000
Assoc.: Yes - \$1,300/yr



Style: Condo - Half-Duplex, Attached
Rooms: 5
Garage: 1

Beds: 2
Parking: 4

Baths: 1f 0h
Fireplaces: 1

Outdoor Space: Yes - Private
Master Bath:
Year Built: 1949

Living Area: 1,202 SqFt
Pets: Yes

Remarks: Renovated in 2012, this sweet condo is a must see! Left side of duplex, this home has private entrance and one floor living. Generous sized rooms, central air, beautiful moldings, fresh paint, sparkling hardwood, crisp and clean. A well designed kitchen with granite and stainless steel appliances is centered with a breakfast bar. Extra room can be used for dining, office, playroom or den. Back door from kitchen exits to your own deck and into fenced backyard perfect for your pets. Large unfinished well lit

basement serves as laundry and spacious storage. Convenient to Babson and Olin Colleges. Walk to Volante Farms, Heights commuter rail, Starbucks, Trader Joe's and CVS. Good off street parking as well as 1 car garage. This is great for those interested in smaller living space. Nothing to do but move-in!



MLS #: 72519610
165 Maple St U: 165
Needham, MA 02492
DOM: 21 **DTO: 21**
List \$/SqFt: \$540.20
Sold \$/SqFt: \$509.16

Status: **SLD**

List Price: \$589,900
List Date: 06/16/2019
Orig Price: \$609,000
Taxes: 2019 \$4,465
Assessed: \$360,400
Assoc.: No



Style: Condo - Townhouse, Half-Duplex
Rooms: 6
Garage: 0

Beds: 3
Parking: 2

Baths: 1f 1h
Fireplaces: 0

Outdoor Space:
Master Bath: No
Year Built: 1965

Living Area: 1,092 SqFt
Pets:

Remarks: A Well Maintained Duplex Townhouse situated on a cul-de-sac. Hardwood floors. Walking distance to the Town Center, Shops, Commuter Rail & Beth Israel Deaconess Hospital-Needham. Open House Showings - Sunday July 7th 11:30am to 1:03pm



MLS #: 72543834
7 Highland Ct U: 7
Needham, MA 02492
DOM: 5 **DTO: 5**
List \$/SqFt: \$478.01
Sold \$/SqFt: \$529.88

Status: **SLD**

List Price: \$599,900
List Date: 08/01/2019
Orig Price: \$599,900
Taxes: 2019 \$6,885
Assessed: \$555,700
Assoc.: Yes - \$508/mo



Style: Condo - Garden
Rooms: 5
Garage: 0

Beds: 2
Parking: 1

Baths: 2f 0h
Fireplaces: 1

Outdoor Space: Yes - Common
Master Bath: Yes
Year Built: 1983

Living Area: 1,255 SqFt
Pets: No

Remarks: Opportunity knocks! Seldom offered first floor unit in the Highlands! Spacious living room with fireplace and built in bookshelves. French doors lead to the covered deck. Beautiful white shaker style kitchen with granite counters and large dining area with built in storage. Dining Room with built in storage/window seat. King size master bedroom with 2 double closets and bath. Second bedroom has double closet and is next to the hall bath. Full size washer and dryer in the unit. Large storage area in the basement. Washer, dryer and refrigerator are staying. Fantastic downtown Needham location - just steps to the commuter rail, restaurants, shops, Town Hall and the town common! Open House Saturday and Sunday 1-3.



MLS #: 72393562
89 MAY STREET U: 4
Needham, MA 02492
DOM: 18 **DTO: 18**
List \$/SqFt: \$437.68
Sold \$/SqFt: \$423.67

Status: **SLD**

List Price: \$625,000
List Date: 09/11/2018
Orig Price: \$625,000
Taxes: 2018 \$5,569
Assessed: \$468,800
Assoc.: Yes - \$230/mo



Style: Condo - Low-Rise, Other (See Remarks)
Rooms: 5
Garage: 0

Beds: 3
Parking: 2

Baths: 2f 0h
Fireplaces: 0

Outdoor Space:
Master Bath: Yes
Year Built: 1900

Living Area: 1,428 SqFt
Pets: Yes

Remarks: OPEN HOUSE CANCELED Just off Needham Center on a side street in a beautiful building of five condo units. Unit #4 is all on one floor and consists of newer hardwood floors, bright spacious oversized rooms, beautiful updated kitchens with granite counters and newer stainless steel appliances. Heating is by natural gas. There are two bedrooms plus a master suite complete with a walk in closet and master bath. Expansion or additional storage option in attic (approx. 700 sq. feet). One deeded parking spot as well as guest parking and a large storage space in the basement compliments this unit. An easy walk to Needham Center or Junction Train Station, many restaurants, markets, stores, etc.. Grab your bottle of wine and walk over to Sweet Basil for dinner anytime. Call for a showing today.



MLS #: 72364648
308 A Hunnewell St U: A
Needham, MA 02492
DOM: 78 **DTO: 59**
List \$/SqFt: \$574.43
Sold \$/SqFt: \$525.11

Status: **SLD**

List Price: \$629,000
List Date: 06/15/2018
Orig Price: \$629,000
Taxes: 2018 \$0
Assessed: \$0
Assoc.: Yes - \$225/mo



Style: Condo - Low-Rise
Rooms: 5
Garage: 1

Beds: 3
Parking: 1

Baths: 2f 0h
Fireplaces: 0

Outdoor Space:
Master Bath:
Year Built: 1869

Living Area: 1,095 SqFt
Pets: Yes w/ Restrictions

Remarks: Brand new completely renovated and ready to move in. This unit comes with deeded patio (2 units in building) 3 bedrooms or 2 w/office. Hardwood flooring throughout. Bright and Sunny with all new SS Appliances Quartz countertops in kitchen and baths. Master bedroom features it's own bath with double vanity sinks. All new Andersen windows. All new roof, siding, electrical, plumbing heating and A/C units. Brand new oversized two car garage with storage capabilities. (each unit deeded one garage bay) Excellent location with services close by. Unit is located on first floor. This is brand new worry free living with builder warranty. ATTENTION INVESTORS...great rental potential. TRY TO FIND AS CLOSE TO NEW CONSTRUCTION AT THIS PRICE IN NEEDHAM!



MLS #: 72547611
 39 Highland Court U: 39
 Needham, MA 02492
DOM: 15 **DTO: 6**
List \$/SqFt: \$534.16
Sold \$/SqFt: \$547.33

Status: SLD

List Price: \$649,000
List Date: 08/09/2019
Orig Price: \$649,000
Taxes: 2019 \$6,706.71
Assessed: \$541,300
Assoc.: Yes - \$508/mo

Sale Price: \$665,000
Sold Date: 09/19/2019
Off Mkt: 08/26/2019

Style: Condo - Low-Rise
Rooms: 5 **Beds:** 2 **Baths:** 2f 0h **Outdoor Space:** Yes - Common
Garage: 0 **Parking:** 1 **Fireplaces:** 1 **Master Bath:** Yes
Year Built: 1983 **Living Area:** 1,215 SqFt
Pets: No

Remarks: Welcome to this beautifully renovated 2 bedroom condo located at "The Highlands" in Needham Center. A rare opportunity to purchase a first floor condo at the Highlands. The condo has gleaming hardwood floors & a gorgeous granite kitchen with updated appliances & a unique back splash with marble tile. The elegant living room has a wood burning fireplace with a substantial mantle, a large picture window & access to a covered porch for al fresco dining. The master bedroom has a private bath and 2 double closets. The other bedroom is spacious w/ a big closet. The Unit includes a private storage closet on the lower level & a deeded parking spot right outside the front door. Security door, buzzer & mailbox in your foyer. There is easy access to the shops, restaurants, grocery stores, the new Rosemary Pool and the commuter rail station.



MLS #: 72419667
 100 Rosemary U: 227
 Needham, MA 02494
DOM: 53
List \$/SqFt: \$483.53

Status: EXP

List Price: \$499,000
List Date: 11/03/2018
Orig Price: \$499,000
Taxes: 2018 \$4,438.37
Assessed: \$373,600
Assoc.: Yes - \$509/mo

Off Mkt: 03/31/2019

Style: Condo - Mid-Rise
Rooms: 4 **Beds:** 2 **Baths:** 2f 0h **Outdoor Space:**
Garage: 0 **Parking:** 2 **Fireplaces:** 0 **Master Bath:**
Year Built: 1986 **Living Area:** 1,032 SqFt
Pets: No

Remarks: IF YOU DREAM ABOUT QUIT ENJOYMENT AND CLOSE PROXIMITY TO EVERYTHING ,THIS 2 BD 2 BATH CONDO WITH 2 DEEDED PARKING SPACES,BALCONY,ELEVATORS,EXTRA STORAGE IS RIGHT FOR YOU! CONCIERGE ,SUPERINTENDENT,OUTDOOR SWIMMING POOL,HOT TUB,SAUNA,FUNCTION ROOM WITH KITCHEN,LIBRARY,EXERCISE ROOM,MINUTES TO HIGHWAY,TRAIN,STORES,TOWN LIBRARY.

Condominium Listings: 10 **Avg. Liv. Area SqFt:** 1150.1 **Avg. List \$:** \$561,080 **Avg. List \$/SqFt:** \$489
Avg. DOM: 30.5 **Avg. DTO:** 20.67 **Avg. Sale \$:** \$581,500 **Avg. Sale \$/SqFt:** \$494

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Property Type(s): CC

Status: NEW, ACT, PCG, BOM, EXT, RAC, CTG, UAG, SLD, RNT, WDN, EXP, CAN, CSO Price:

Timeframe: TODAY - 12 MONTHS

Towns: Needham, MA

Advanced Criteria: Living Area: 800-1500; Style (CC): Detached, Duplex, Garden, Half-Duplex, High-Rise, Loft, Low-Rise, Mid-Rise

Condominium Listings



MLS #: 72459391
 1210 Greendale Ave U: 339
 Needham, MA 02492
DOM: 7 **DTO: 7**
List \$/SqFt: \$223.60
Sold \$/SqFt: \$258.43

Status: SLD

List Price: \$199,000
List Date: 02/28/2019
Orig Price: \$199,000
Taxes: 2018 \$2,283.34
Assessed: \$192,200
Assoc.: Yes - \$458

Sale Price: \$230,000
Sold Date: 03/29/2019
Off Mkt: 03/07/2019

Style: Condo - Garden
Rooms: 4 **Beds:** 1 **Baths:** 1f 0h **Outdoor Space:**
Garage: 0 **Parking:** 1 **Fireplaces:** 0 **Master Bath:** No
Year Built: 1968 **Living Area:** 890 SqFt
Pets: No

Remarks: Priced To Sell! Lowest Condo Fee in Building! Large One Bedroom Condo at Charles Court East, UnitClose to Commuter Rail , Route 128/95. Hardwood Parquet Floors Throughout, Large Living Room Which Opens Out To Balcony.. Galley Kitchen Style with Small Dining area..Additional Storage and Laundry in Building. Condo Fee Includes All Utilities! Deed parking With Unit In Front Of Building. Guess Parking Available



MLS #: 72387367
 1208 Greendale Ave U: 234
 Needham, MA 02492
DOM: 4 **DTO: 4**
List \$/SqFt: \$240.67
Sold \$/SqFt: \$240.67

Status: SLD

List Price: \$245,000
List Date: 09/03/2018
Orig Price: \$245,000
Taxes: 2018 \$2,612
Assessed: \$219,900
Assoc.: Yes - \$611/mo

Sale Price: \$245,000
Sold Date: 11/02/2018
Off Mkt: 09/07/2018

Style: Condo - Low-Rise
Rooms: 5 **Beds:** 1 **Baths:** 1f 0h **Outdoor Space:** Yes - Common
Garage: 0 **Parking:** 1 **Fireplaces:** 0 **Master Bath:** Yes
Year Built: 1968 **Living Area:** 1,018 SqFt
Pets: No

Remarks: Sunny top floor spacious 1,018 sq ft. one bedroom condo. Large balcony overlooks private tree setting. Improvements include updated bathroom, new slider & living room windows. One parking space. Condo fee includes all utilities, heat, electricity, water, trash removal, snow removal, landscaping, exterior maintenance, and master insurance. This building is next to the guest parking. Sought after complex is professionally managed and convenient to major highways & commuter rail.



MLS #: 72537359
 1210 Greendale Ave U: 309
 Needham, MA 02492
DOM: 65
List \$/SqFt: \$248.99

Status: ACT

List Price: \$369,000
List Date: 07/19/2019
Orig Price: \$369,000
Taxes: 2019 \$3,856
Assessed: \$311,200
Assoc.: Yes - \$717/mo

Style: Condo - Mid-Rise
Rooms: 5 **Beds:** 2 **Baths:** 2f 0h **Outdoor Space:** Yes - Common
Garage: 0 **Parking:** 1 **Fireplaces:** 0 **Master Bath:** Yes
Year Built: 1968 **Living Area:** 1,482 SqFt
Pets: No

Remarks: Spacious 2 bedroom/2 bathroom unit in Needham's sought after Charles Court East Complex. Over 1,400 sq. ft. of living space, with open concept living/dining area. Updated kitchen includes granite countertops, built-in wine rack, 2 pantry style cabinets and eating area. Renovated guest bathroom. Fabulous closet space designed by California Closets and private patio are just a few of the features you will find in this lovingly cared for unit. Neutral palette throughout. Window coverings include Hunter Douglas Lumnette Blinds. Enjoy entertaining on warm summer nights on the private patio. Assigned parking space close to building making transferring packages from car to home easy. Condo fee includes heat, hot water, electric, landscaping, snow removal, refuse removal and building maintenance. All you pay in addition to your condo fee is phone and cable. In building laundry facilities.



MLS #: 72502822
 1210 Greendale Ave U: 311
 Needham, MA 02492
DOM: 7 **DTO: 7**
List \$/SqFt: \$252.19
Sold \$/SqFt: \$252.19

Status: SLD





List Price: \$375,000
List Date: 05/17/2019
Orig Price: \$375,000
Taxes: 2019 \$3,869
Assessed: \$312,300
Assoc.: Yes - \$717





Sale Price: \$375,000
Sold Date: 06/17/2019
Off Mkt: 05/24/2019









Style: Condo - Garden
Rooms: 5 **Beds:** 2 **Baths:** 2f 0h **Outdoor Space:** Yes - Private
Garage: 0 **Parking:** 1 **Fireplaces:** 0 **Master Bath:** Yes
Year Built: 1968 **Living Area:** 1,487 SqFt
Pets:









Remarks: Spacious renovated 2 bedrooms 2 bath garden unit at desirable Charles Court Complex. Newer kitchen with stainless steel appliances, recessed lighting, updated bathrooms. Large living room with sliders out to a very large private patio. Professionally managed complex! Condo fee includes all utilities. Additional storage unit & laundry on the same floor. Walking distance to public transportation & short drive to 128/95. Terrific unit for those looking to downsize or just looking be in Needham at a great price!

PROPERTY BEST USE STUDY




	<p>MLS #: 72428637 Status: SLD List Price: \$379,000 1208 Greendale Avenue U: 206 Needham, MA: Birds Hill 02492 DOM: 71 DTO: 57 Sale Price: \$360,000 List Date: 11/30/2018 List \$/SqFt: \$257.30 Sold Date: 03/08/2019 Orig Price: \$379,000 Sold \$/SqFt: \$244.40 Off Mkt: 02/08/2019 Taxes: 2018 \$3,535.49 Assessed: \$297,600 Assoc.: Yes - \$717/mo</p>
	<p>Style: Condo - Garden Outdoor Space: Yes - Common Rooms: 5 Beds: 2 Baths: 2f 0h Master Bath: Yes Living Area: 1,473 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets:</p>
<p>Remarks: Fantastic opportunity to own a 2 bedroom unit not facing the parking lot in this sought after complex! Desirable location close to major driving routes and less than a mile to the Commuter Rail to Boston! Lower level garden unit with 2 bedrooms, 2 full bathrooms, a living room, dining room and kitchen. There is extra storage in the basement, air conditioning and a deeded parking spot right by the door. Dining room sliders go out to a very private patio. Condo Fee includes heat, hot water, electric, water, sewer, master insurance, intercom security, laundry, exterior maintenance, landscaping, air conditioning, extra storage and refuse removal. Set up an appointment today to see this gem!</p>	
	<p>MLS #: 72387438 Status: SLD List Price: \$350,000 1206 GREENDALE AVE. U: 219 Needham, MA 02492 DOM: 25 DTO: 16 Sale Price: \$300,000 List Date: 09/03/2018 List \$/SqFt: \$258.11 Sold Date: 10/29/2018 Orig Price: \$350,000 Sold \$/SqFt: \$221.24 Off Mkt: 09/28/2018 Taxes: 2018 \$3,126 Assessed: \$263,100 Assoc.: Yes - \$717</p>
	<p>Style: Condo - Mid-Rise Outdoor Space: Rooms: 5 Beds: 2 Baths: 2f 0h Master Bath: Yes Living Area: 1,356 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets:</p>
<p>Remarks: Desirable Charles Court East, Needham! Private and convenient location! Condominium, Unit #219, with total of 5 rooms, including 2 bedrooms, kitchen, living room, dining room and 2 full baths. Parquet floors, sliders off the dining room, central air, storage unit, 1 deeded parking space and a visitor/guest parking area. Condo fee includes heat, hot water, electric, water, sewer, master insurance, intercom security, laundry, exterior maintenance, road maintenance, landscaping, snow removal, central air, extra storage and refuse removal. Less than one mile away from the Needham Golf Club. Close to commuter rail, restaurants, shopping, all major routes, minutes to Legacy Place, University Station and close to BOSTON! Call for your private showing today!</p>	
	<p>MLS #: 72555963 Status: ACT List Price: \$359,999 1202 Greendale Ave U: 123 Needham, MA 02492 DOM: 25 Sale Price: List Date: List \$/SqFt: \$267.06 Assessed: \$283,100 Assoc.: Yes - \$717/mo</p>
	<p>Style: Condo - Mid-Rise Outdoor Space: Rooms: 5 Beds: 2 Baths: 2f 0h Master Bath: Living Area: 1,348 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets:</p>
<p>Remarks: Spacious and bright second floor 2 bedroom/2 bathroom unit in the sought after Charles Court East. This unit features a great floor plan with open kitchen/living/dining, generous sized bedrooms with large closets, brand new central AC (2019), and a lovely private balcony. 1 deeded parking spot just steps from the entrance. All utilities included in the condo fee (AC, electric, heat, hot water, on-site management, snow removal). This one won't last!</p>	
	<p>MLS #: 72375878 Status: SLD List Price: \$275,000 1210 Greendale Avenue U: 324 Needham, MA 02492 DOM: 100 DTO: 76 Sale Price: \$266,000 List Date: 08/08/2018 List \$/SqFt: \$269.08 Sold Date: 12/17/2018 Orig Price: \$300,000 Sold \$/SqFt: \$260.27 Off Mkt: 11/16/2018 Taxes: 2018 \$2,623 Assessed: \$220,800 Assoc.: Yes - \$611/mo</p>
	<p>Style: Condo - Garden, Mid-Rise Outdoor Space: Yes - Common Rooms: 5 Beds: 1 Baths: 1f 0h Master Bath: Living Area: 1,022 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets: No</p>
<p>Remarks: *New Price* Motivated Seller. Freshly painted, Luxury one-bedroom condo at the desirable Charles Court East located in Needham. This community offers everything you need in a private and convenient location. Close to Commuter Rail & Route 128/95 and Needham Crossing – a rare opportunity to get into Needham at this price. Well-maintained unit features parquet floors, galley kitchen with dining area, a bright and open living room which opens to a large and private balcony overlooking green space. Large master bedroom with generous closet space. Charles Court East is a stable, well established complex that is professionally managed. Condo fee includes everything – Heat/AC/Electricity/Water/Trash Removal/Snow Removal/Grounds Maintenance. Unit has one assigned parking space steps from the front entrance.</p>	

	<p>MLS #: 72484087 Status: SLD List Price: \$379,900 1206 Greendale Ave U: 227 Needham, MA 02492 DOM: 8 DTO: 1 Sale Price: \$385,000 List Date: 04/18/2019 List \$/SqFt: \$273.11 Sold Date: 05/24/2019 Orig Price: \$379,900 Sold \$/SqFt: \$276.78 Off Mkt: 04/19/2019 Taxes: 2019 \$3,619 Assessed: \$292,100 Assoc.: Yes - \$717/mo</p>
	<p>Style: Condo - Garden, Low-Rise Outdoor Space: Rooms: 5 Beds: 2 Baths: 2f 0h Master Bath: Yes Living Area: 1,391 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets: No</p>
<p>Remarks: Charles Court East, top floor, end unit with nobody above you or beside you. 1,400 sq. ft. big rooms, and large private balcony. Updates include New kitchen, wood floors Throughout, central A/C unit, recessed lighting MOLDINGS. The king size master bedroom has a large double closet and a dressing area with another closet, leading to the master bathroom. The second bedroom is also a generous size with a double closet, right across the hall to the second full bath. Abundant sunlight. Common laundry, Convenient parking space, directly across from the front door. Conveniently located near major routes and the commuter rail to Boston.</p>	
	<p>MLS #: 72451842 Status: SLD List Price: \$379,000 1210 Greendale Avenue U: 340 Needham, MA 02492 DOM: 2 DTO: 2 Sale Price: \$385,000 List Date: 02/11/2019 List \$/SqFt: \$275.24 Sold Date: 04/01/2019 Orig Price: \$379,000 Sold \$/SqFt: \$279.59 Off Mkt: 02/13/2019 Taxes: 2019 \$3,583 Assessed: \$289,200 Assoc.: Yes - \$757/mo</p>
	<p>Style: Condo - Garden Outdoor Space: Yes - Common Rooms: 5 Beds: 2 Baths: 2f 0h Master Bath: Yes Living Area: 1,377 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets: No</p>
<p>Remarks: Spacious and bright top floor two bedroom, two bath corner unit at much sought after, professionally managed Charles Court East. Minutes from I-95 and in walking distance to MBTA commuter rail. The unit features a great floor plan, RARE IN-UNIT LAUNDRY, generous closets, updated bedroom carpeting, and tile flooring, new A/C (2017) windows and 16 foot slider, and deeded storage closet. The private balcony overlooks a large green expanse with a southeast exposure for ample sunlight. ALL UTILITIES ARE INCLUDED IN THE CONDO FEE (A/C, heat, hot water, electricity, on site maintenance and snow removal). DEEDED PARKING space right at the door. Showings begin February 12th. Listing agent will host consecutive showing appointments Sunday, February 17th from 1PM to 3PM; call for appointment. THIS UNIT WILL NOT LAST!!</p>	
	<p>MLS #: 72533581 Status: SLD List Price: \$399,000 1212 Greendale Ave U: 333 Needham, MA 02492 DOM: 4 DTO: 4 Sale Price: \$410,000 List Date: 07/12/2019 List \$/SqFt: \$294.68 Sold Date: 08/22/2019 Orig Price: \$399,000 Sold \$/SqFt: \$302.81 Off Mkt: 07/16/2019 Taxes: 2019 \$3,646 Assessed: \$294,300 Assoc.: Yes - \$717/mo</p>
	<p>Style: Condo - Mid-Rise Outdoor Space: Rooms: 5 Beds: 2 Baths: 2f 0h Master Bath: Yes Living Area: 1,354 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets: No</p>
<p>Remarks: Move right in to this delightful top floor 2 bedroom / 2 bath condominium with an updated granite kitchen at Charles Court East. Perfect for those entering the Needham real estate market as well as those downsizing into a more manageable space. Very good sized unit at 1,354 square feet. Condo fee includes mostly everything (see listing details for complete list). Very good sized living room, updated kitchen, dining area, 2 nice bedrooms and 2 full baths. Unit also has central air, deeded parking, laundry in building, extra full storage locker, guest parking, short walk to commuter rail (Hersey Station) and close to major highways and all that Needham has to offer. Additional parking spot available for rent.</p>	
	<p>MLS #: 72398347 Status: SLD List Price: \$309,000 1202 Greendale Ave U: 131 Needham, MA 02492 DOM: 20 DTO: 4 Sale Price: \$341,423 List Date: 09/20/2018 List \$/SqFt: \$344.87 Sold Date: 10/31/2018 Orig Price: \$309,000 Sold \$/SqFt: \$381.05 Off Mkt: 10/17/2018 Taxes: 2018 \$2,299 Assessed: \$193,500 Assoc.: Yes - \$458/mo</p>
	<p>Style: Condo - Mid-Rise Outdoor Space: Yes - Private Rooms: 4 Beds: 1 Baths: 1f 0h Master Bath: Living Area: 896 SqFt Garage: 0 Parking: 1 Fireplaces: 0 Year Built: 1968 Pets:</p>
<p>Remarks: Beautifully 2018 renovated condo is a commuters dream located minutes from I-95 and a walk to the MBTA Commuter Rail. This updated corner unit located on the top floor features; a great layout, quartz counter-tops, stainless steel appliances including premium induction stove, hardwood floors, dim-able recessed lighting, heated tile bathroom and shower floor, rainfall showerhead, generous built-in closets, private balcony facing southeast for AMPLE sunlight, new windows, new slider, and much more. The layout features a kitchen that opens to a dining area which is adjacent to the large living room and office area. BONUS - ALL UTILITIES ARE INCLUDED (A/C, heat, hot water, electricity, exterior maintenance and snow removal). Laundry and deeded storage on the ground floor. DEEDED PARKING, right outside the door. This professionally managed home WILL NOT LAST LONG! Group Showings this Sat/Sun 9/22-9/23 @1030am and 11am. Best and Final Offers by 3pm on Tuesday 9/25</p>	

	<p>MLS #: 72471802 26 Pleasant Street U: 26 Needham, MA 02492 DOM: 18 DTO: 4 List \$/SqFt: \$350.00 Sold \$/SqFt: \$375.00</p>	<p>Status: SLD Sale Price: \$375,000 Sold Date: 05/02/2019 Off Mkt: 04/13/2019</p>	<p>List Price: \$350,000 List Date: 03/27/2019 Orig Price: \$350,000 Taxes: 2018 \$0 Assessed: \$0 Assoc.: Yes - \$200/mo</p>	
	<p>Style: Condo - Townhouse, Half-Duplex, Duplex Rooms: 4 Garage: 0</p>	<p>Beds: 1 Parking: 2</p>	<p>Baths: 1f 0h Fireplaces: 0</p>	<p>Outdoor Space: Yes - Common Master Bath: No Year Built: 1889 Living Area: 1,000 SqFt Pets:</p>
<p>Remarks: This spacious first floor condo is "officially" a 1 bedroom unit but that formal dining room that you will never use? Consider that to be your second bedroom! A perfect down town home for snow birds who want to down size or young professionals to walk to the train and nearby restaurants. It is located on the first floor of a two family home with windows all around so it has that single family home 'feel'. Other features include gas heat/cooking, central air conditioning, in-unit washer/dryer hook ups, lots of storage in the unfinished basement. The structure has been well maintained with aluminum siding, newer windows, roof, gutters, decks, walkway and driveway so expect a low HOA fee!</p>				
	<p>MLS #: 72560533 100 Rosemary Way U: 127 Needham, MA 02494 DOM: 16 DTO: 2 List \$/SqFt: \$426.36</p>	<p>Status: CTG</p>	<p>List Price: \$440,000 List Date: 09/06/2019 Orig Price: \$440,000 Taxes: 2019 \$4,859.36 Assessed: \$392,200 Assoc.: Yes - \$540/mo</p>	
	<p>Style: Condo - Low-Rise Rooms: 4 Garage: 0</p>	<p>Beds: 2 Parking: 2</p>	<p>Baths: 2f 0h Fireplaces: 0</p>	<p>Outdoor Space: Yes - Private Master Bath: Yes Year Built: 1986 Living Area: 1,032 SqFt Pets: No</p>
<p>Remarks: This is a great first floor unit at the desirable Rosemary Ridge condominium. With new carpeting and fresh paint, this two bedroom/2 bathroom home has laundry in the unit, a private 25' deck overlooking quiet green space, and convenient parking near the main entrance. Enjoy the services of a concierge at the front door, an inground pool, and a clubroom complete with a kitchen and workout area.</p>				
	<p>MLS #: 72393562 89 MAY STREET U: 4 Needham, MA 02492 DOM: 18 DTO: 18 List \$/SqFt: \$437.68 Sold \$/SqFt: \$423.67</p>	<p>Status: SLD Sale Price: \$605,000 Sold Date: 11/27/2018 Off Mkt: 09/29/2018</p>	<p>List Price: \$625,000 List Date: 09/11/2018 Orig Price: \$625,000 Taxes: 2018 \$5,569 Assessed: \$468,800 Assoc.: Yes - \$230/mo</p>	
	<p>Style: Condo - Low-Rise, Other (See Remarks) Rooms: 5 Garage: 0</p>	<p>Beds: 3 Parking: 2</p>	<p>Baths: 2f 0h Fireplaces: 0</p>	<p>Outdoor Space: Master Bath: Yes Year Built: 1900 Living Area: 1,428 SqFt Pets: Yes</p>
<p>Remarks: OPEN HOUSE CANCELED Just off Needham Center on a side street in a beautiful building of five condo units. Unit #4 is all on one floor and consists of newer hardwood floors, bright spacious oversized rooms, beautiful updated kitchens with granite counters and newer stainless steel appliances. Heating is by natural gas. There are two bedrooms plus a master suite complete with a walk in closet and master bath. Expansion or additional storage option in attic (approx. 700 sq. feet) One deeded parking spot as well as guest parking and a large storage space in the basement compliments this unit. An easy walk to Needham Center or Junction Train Station, many restaurants, markets, stores, etc.. Grab your bottle of wine and walk over to Sweet Basil for dinner anytime. Call for a showing today.</p>				
	<p>MLS #: 72368858 100 Rosemary Way U: 235 Needham, MA 02494 DOM: 46 DTO: 36 List \$/SqFt: \$465.24 Sold \$/SqFt: \$449.20</p>	<p>Status: SLD Sale Price: \$420,000 Sold Date: 10/09/2018 Off Mkt: 09/10/2018</p>	<p>List Price: \$435,000 List Date: 07/26/2018 Orig Price: \$445,000 Taxes: 2018 \$4,021.38 Assessed: \$338,500 Assoc.: Yes - \$504/mo</p>	
	<p>Style: Condo - Low-Rise Rooms: 4 Garage: 0</p>	<p>Beds: 2 Parking: 2</p>	<p>Baths: 2f 0h Fireplaces: 0</p>	<p>Outdoor Space: Yes - Common Master Bath: Yes Year Built: 1986 Living Area: 935 SqFt Pets:</p>
<p>Remarks: Welcome to Rosemary Ridge where everything is at your fingertips! This amazing location 2-bedroom 2-bathroom condo is close to shopping, restaurants, public transportation, and everything else that the wonderful town of Needham has to offer. There is in-unit laundry, a master bathroom with sliding shower doors, a generously sized balcony, 5 large closets, some with custom built-ins, and great amenities. The condo amenities include an in-ground pool, an exercise room, a sauna, multiple elevators, a large clubroom that can be reserved for private functions, and a concierge! The condo also comes with a storage unit on the lower level of the building as well as laundry facilities in addition to the in-unit laundry. There are two deeded parking spaces that come with the unit, as well as lots of guest parking (deeded parking spots #120 and #158). This condo is move-in ready and is waiting for you to make it your new home!</p>				

	<p>MLS #: 72464976 9 HIGHLAND COURT U: 9 Needham, MA 02492 DOM: 5 DTO: 5 List \$/SqFt: \$468.31 Sold \$/SqFt: \$494.65</p>	<p>Status: SLD Sale Price: \$601,000 Sold Date: 06/07/2019 Off Mkt: 03/18/2019</p>	<p>List Price: \$569,000 List Date: 03/13/2019 Orig Price: \$569,000 Taxes: 2019 \$6,474 Assessed: \$522,500 Assoc.: Yes - \$508/mo</p>	
	<p>Style: Condo - Mid-Rise Rooms: 5 Garage: 0</p>	<p>Beds: 2 Parking: 1</p>	<p>Baths: 2f 2h Fireplaces: 1</p>	<p>Outdoor Space: Yes - Private Master Bath: Year Built: 1983 Living Area: 1,215 SqFt Pets: No</p>
<p>Remarks: Much Sought after Needham Condo at "The Highlands" Located in the Center of Town with easy access to all that Needham has to offer! This well designed condo features two very good size bedrooms and two full baths. The spacious living room has a wood burning fireplace and picture window which lets in an abundance of natural light. Pretty french doors lead to a very private covered porch for alfresco dining! Easy to work in kitchen with hardwood floors, plenty of cabinet space, large skylights and a very large picture window surrounding the dining area. Laundry is full size and in unit plus large designated storage area on the lower level. Unit has been freshly painted and new carpeted installed. Nothing to do here but move in and unpack! Easy walk to Fabulous Restaurants, Shops, Supermarket and Newly Built Rosemary Pool Recreation Facility. Hurry! OH Saturday 3/16 and Sunday 3/17 from 2-4 Offers will be reviewed on Monday 3/18 at noon. SORRY, NO PETS!</p>				
	<p>MLS #: 72543834 7 Highland Ct U: 7 Needham, MA 02492 DOM: 5 DTO: 5 List \$/SqFt: \$478.01 Sold \$/SqFt: \$529.88</p>	<p>Status: SLD Sale Price: \$665,000 Sold Date: 09/13/2019 Off Mkt: 08/06/2019</p>	<p>List Price: \$599,900 List Date: 08/01/2019 Orig Price: \$599,900 Taxes: 2019 \$6,885 Assessed: \$555,700 Assoc.: Yes - \$508/mo</p>	
	<p>Style: Condo - Garden Rooms: 5 Garage: 0</p>	<p>Beds: 2 Parking: 1</p>	<p>Baths: 2f 0h Fireplaces: 1</p>	<p>Outdoor Space: Yes - Common Master Bath: Yes Year Built: 1983 Living Area: 1,255 SqFt Pets: No</p>
<p>Remarks: Opportunity knocks! Seldom offered first floor unit in the Highlands! Spacious living room with fireplace and built in bookshelves. French doors lead to the covered deck. Beautiful white shaker style kitchen with granite counters and large dining area with built in storage. Dining Room with built in storage/window seat. King size master bedroom with 2 double closets and bath. Second bedroom has double closet and is next to the hall bath. Full size washer and dryer in the unit. Large storage area in the basement. Washer, dryer and refrigerator are staying. Fantastic downtown Needham location - just steps to the commuter rail, restaurants, shops, Town Hall and the town common! Open House Saturday and Sunday 1-3.</p>				
	<p>MLS #: 72371758 46 PARISH ROAD U: 46 Needham, MA 02494 DOM: 48 DTO: 34 List \$/SqFt: \$478.37 Sold \$/SqFt: \$470.05</p>	<p>Status: SLD Sale Price: \$565,000 Sold Date: 10/29/2018 Off Mkt: 09/17/2018</p>	<p>List Price: \$575,000 List Date: 08/01/2018 Orig Price: \$575,000 Taxes: 2018 \$4,169 Assessed: \$351,000 Assoc.: Yes - \$1,300/yr</p>	
	<p>Style: Condo - Half-Duplex, Attached Rooms: 5 Garage: 1</p>	<p>Beds: 2 Parking: 4</p>	<p>Baths: 1f 0h Fireplaces: 1</p>	<p>Outdoor Space: Yes - Private Master Bath: Year Built: 1949 Living Area: 1,202 SqFt Pets: Yes</p>
<p>Remarks: Renovated in 2012, this sweet condo is a must see! Left side of duplex, this home has private entrance and one floor living. Generous sized rooms, central air, beautiful moldings, fresh paint, sparkling hardwood, crisp and clean. A well designed kitchen with granite and stainless steel appliances is centered with a breakfast bar. Extra room can be used for dining, office, playroom or den. Back door from kitchen exits to your own deck and into fenced backyard perfect for your pets. Large unfinished well lit basement serves as laundry and spacious storage. Convenient to Babson and Olin Colleges. Walk to Volante Farms, Heights commuter rail, Starbucks, Trader Joe's and CVS. Good off street parking as well as 1 car garage. This is great for those interested in smaller living space. Nothing to do but move-in!</p>				
	<p>MLS #: 72419667 100 Rosemary U: 227 Needham, MA 02494 DOM: 53 List \$/SqFt: \$483.53</p>	<p>Status: EXP Off Mkt: 03/31/2019</p>	<p>List Price: \$499,000 List Date: 11/03/2018 Orig Price: \$499,000 Taxes: 2018 \$4,438.37 Assessed: \$373,600 Assoc.: Yes - \$509/mo</p>	
	<p>Style: Condo - Mid-Rise Rooms: 4 Garage: 0</p>	<p>Beds: 2 Parking: 2</p>	<p>Baths: 2f 0h Fireplaces: 0</p>	<p>Outdoor Space: Master Bath: Year Built: 1986 Living Area: 1,032 SqFt Pets: No</p>
<p>Remarks: IF YOU DREAM ABOUT QUIT EMPLOYMENT AND CLOSE PROXIMITY TO EVERYTHING. THIS 2 BD 2 BATH CONDO WITH 2 DEEDED PARKING SPACES, BALCONY, ELEVATORS, EXTRA STORAGE IS RIGHT FOR YOU! CONCIERGE, SUPERINTENDENT OUTDOOR SWIMMING POOL, HOT TUB, SAUNA, FUNCTION ROOM WITH KITCHEN, LIBRARY, EXERCISE ROOM, MINUTES TO HIGHWAY, TRAIN, STORES, TOWN LIBRARY.</p>				

PROPERTY BEST USE STUDY

				
MLS #: 72547611 39 Highland Court U: 39 Needham, MA 02492 DOM: 15 DT0: 6 List \$/SqFt: \$534.16 Sold \$/SqFt: \$547.33	Status: SLD Sale Price: \$665,000 Sold Date: 09/19/2019 Off Mkt: 08/26/2019	List Price: \$649,000 List Date: 08/09/2019 Orig Price: \$649,000 Taxes: 2019 \$6,706.71 Assessed: \$541,300 Assoc.: Yes - \$508/mo		
Style: Condo - Low-Rise Rooms: 5 Garage: 0	Beds: 2 Parking: 1	Baths: 2f 0h Fireplaces: 1	Outdoor Space: Yes - Common Master Bath: Yes Year Built: 1983	Living Area: 1,215 SqFt Pets: No
Remarks: Welcome to this beautifully renovated 2 bedroom condo located at "The Highlands" in Needham Center. A rare opportunity to purchase a first floor condo at the Highlands. The condo has gleaming hardwood floors & a gorgeous granite kitchen with updated appliances & a unique back splash with marble tile. The elegant living room has a wood burning fireplace with a substantial mantel, a large picture window & access to a covered porch for al fresco dining. The master bedroom has a private bath and 2 double closets. The other bedroom is spacious w/ a big closet. The Unit includes a private storage closet on the lower level & a deeded parking spot right outside the front door. Security door, buzzer & mailbox in your foyer. There is easy access to the shops, restaurants, grocery stores, the new Rosemary Pool and the commuter rail station.				
				
MLS #: 72519610 165 Maple St U: 165 Needham, MA 02492 DOM: 21 DT0: 21 List \$/SqFt: \$540.20 Sold \$/SqFt: \$509.16	Status: SLD Sale Price: \$556,000 Sold Date: 08/23/2019 Off Mkt: 07/07/2019	List Price: \$589,900 List Date: 06/16/2019 Orig Price: \$609,000 Taxes: 2019 \$4,465 Assessed: \$360,400 Assoc.: No		
Style: Condo - Townhouse, Half-Duplex Rooms: 6 Garage: 0	Beds: 3 Parking: 2	Baths: 1f 1h Fireplaces: 0	Outdoor Space: Master Bath: No Year Built: 1965	Living Area: 1,092 SqFt Pets:
Remarks: A Well Maintained Duplex Townhouse situated on a cul-de-sac. Hardwood floors. Walking distance to the Town Center, Shops, Commuter Rail & Beth Israel Deaconess Hospital-Needham. Open House Showings - Sunday July 7th 11:30am to 1:03pm				
				
MLS #: 72346648 308 A Hunnewell St U: A Needham, MA 02492 DOM: 78 DT0: 59 List \$/SqFt: \$574.43 Sold \$/SqFt: \$525.11	Status: SLD Sale Price: \$575,000 Sold Date: 09/28/2018 Off Mkt: 09/01/2018	List Price: \$629,000 List Date: 06/15/2018 Orig Price: \$629,000 Taxes: 2018 \$0 Assessed: \$0 Assoc.: Yes - \$225/mo		
Style: Condo - Low-Rise Rooms: 5 Garage: 1	Beds: 3 Parking: 1	Baths: 2f 0h Fireplaces: 0	Outdoor Space: Master Bath: Year Built: 1869	Living Area: 1,095 SqFt Pets: Yes w/ Restrictions
Remarks: Brand new completely renovated and ready to move in. This unit comes with deeded patio (2 units in building) 3 bedrooms or 2 w/office. Hardwood flooring throughout. Bright and Sunny with all new SS Appliances Quartz countertops in kitchen and baths. Master bedroom features it's own bath with double vanity sinks. All new Andersen windows. All new roof,siding,electrical,plumbing heating and A/C units. Brand new oversized two car garage with storage capabilities. (each unit deeded one garage bay) Excellent location with services close by. Unit is located on first floor. This is brand new worry free living with builder warranty. ATTENTION INVESTORS...great rental potential. TRY TO FIND AS CLOSE TO NEW CONSTRUCTION AT THIS PRICE IN NEEDHAM!				
Condominium Listings: 23 Avg. Liv. Area SqFt: 1199.78 Avg. List \$: \$433,900 Avg. List \$/SqFt: \$367 Avg. DOM: 28.74 Avg. DT0: 18.4 Avg. Sale \$: \$438,128 Avg. Sale \$/SqFt: \$371				
<small>The information in this listing was gathered from third party sources including the seller and public records. MLS Property Information Network and its subscribers disclaim any and all representations or warranties as to the accuracy of this information. Content © MLS Property Information Network, Inc.</small>				

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

The following information is taken directly from the website of each building.

Each apartment listing includes the floor area and the range of monthly rentals. This enables a calculation of the monthly rent per square foot., which is used in this report to establish likely rentals for projects on the Emery Grover site.

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

MODERA

FLOOR PLANS

Each expansive one-, two- and three-bedroom townhome; and spacious one-, two- and three-bedroom apartment, offers a seemingly endless array of premium grade features, comforts and amenities – providing individuals, couples and families every comfort, recreation and pleasure they could ever want. Day and night.

- Move-in Date
- Beds
- Baths

- Any Any 1+ 2+ 3
- Any Any 1 2 2.5
- **SEARCH**

- 2 Bed 4

LAYOUT
BED / BATH
RENT *
DEPOSIT *
SQ. FT. **
SPECIALS

- **B2**



2bd / 2ba
\$3,440
\$500
1,205
ONLY ONE LEFT [View Details](#)

- **B3D**



2bd / 2ba
\$3,990
\$500
1,422
ONLY ONE LEFT [View Details](#)

FOURSQUARE CORPORATION
September 22, 2019

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

- **B3DL**



2bd / 2ba
\$4,425
\$500
1,578
AVAILABLE OCT 03, 2019 [View Details](#)

- **TH2**



2bd / 2.5ba
from \$4,300
\$500
1,756
8 AVAILABLE [View Details](#)

FOURSQUARE CORPORATION
September 22, 2019

Redevelopment of the Emery Grover Building
1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

CHARLES RIVER LANDING



- Plan F (A1CD)
 - 1 Bedroom / 1 Bathroom
 - Sq. Ft: 1122
 - Rent starting at:

\$2,995

- Date Available:

Now

- Apartment Features
 - Den/ office
 - Wooded view
 - Pool & Courtyard view
 - Washer and dryer
 - Granite countertops



- Plan D (A1F)
 - 1 Bedroom / 1 Bathroom
 - Sq. Ft: 1130
 - Rent starting at:

\$2,699

- Date Available:

Now

FOURSQUARE CORPORATION
September 22, 2019

Redevelopment of the Emery Grover Building
1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

- Apartment Features
 - Wooded view
 - Corner location
 - Washer and dryer
 - Granite countertops
 - Stainless steel appliances



- Plan Ca (A1E)
 - 1 Bedroom / 1 Bathroom
 - Sq. Ft: 1040
 - Rent starting at:

\$2,698

- Date Available:

Now

- Apartment Features
 - Courtyard view
 - Washer and dryer
 - Granite countertops
 - Stainless steel appliances
 - Pantry



- Plan Fa (A1AD)
 - 1 Bedroom / 1 Bathroom
 - Sq. Ft: 1120

FOURSQUARE CORPORATION
September 22, 2019

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

- Rent starting at:

\$2,796

- Date Available:

Now

- Apartment Features

- Den/ office
- Washer and dryer
- Granite countertops
- Stainless steel appliances
- Pantry



- Plan Fb (A1BD)

- 1 Bedroom / 1 Bathroom
- Sq. Ft: 1120
- Rent starting at:

\$2,899

- Date Available:

9/28/2019

- Apartment Features

- Den/ office
- Washer and dryer
- Granite countertops
- Stainless steel appliances
- Pantry

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

-



- Plan C (A1D)

- 1 Bedroom / 1 Bathroom
- Sq. Ft: 1024
- Rent starting at:

\$2,754

- Date Available:

10/6/2019

- Apartment Features

- Wooded view
- Pool & Courtyard view
- Corner location
- Washer and dryer
- Granite countertops



- Plan E (A1G)

- 1 Bedroom / 1 Bathroom
- Sq. Ft: 1316
- Rent starting at:

\$2,698

- Date Available:

10/6/2019

PROPERTY BEST USE STUDY

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

THE KENDRICK

Name	Bed/Bath	Sq. Ft.	Rent	Availability	
S1	Studio / 1 Bath	606 Sq. Ft.	\$2,439 - 2,489	18 Available	View
A8	1 Bed / 1 Bath	678 Sq. Ft.	\$2,626 - 2,656	1 Available	View
S3	Studio / 1 Bath	652 Sq. Ft.	\$2,635 - 2,665	3 Available	View
A3	1 Bed / 1 Bath	685 Sq. Ft.	\$2,680 - 2,730	34 Available	View
A10	1 Bed / 1 Bath	714 Sq. Ft.	\$2,759 - 2,789	1 Available	View
A1	1 Bed / 1 Bath	730 Sq. Ft.	\$2,809 - 2,899	16 Available	View
A2	1 Bed / 1 Bath	731 Sq. Ft.	\$2,833 - 2,893	4 Available	View
A4	1 Bed / 1 Bath	765 Sq. Ft.	\$2,950 - 2,980	10 Available	View
A6D	1 Bed / 1 Bath	828 Sq. Ft.	\$3,001 - 3,041	2 Available	View
A7D	1 Bed / 1 Bath	927 Sq. Ft.	\$3,356 - 3,446	4 Available	View
A5D	1 Bed / 1 Bath	952 Sq. Ft.	\$3,406 - 3,436	4 Available	View
A11D	1 Bed / 1 Bath	963 Sq. Ft.	\$3,531 - 3,561	1 Available	View
B1	2 Bed / 2 Bath	1,047 Sq. Ft.	\$3,536 - 3,676	20 Available	View
B16	2 Bed / 2 Bath	1,068 Sq. Ft.	\$3,616	1 Available	View
B4	2 Bed / 2 Bath	1,086 Sq. Ft.	\$3,666 - 3,706	4 Available	View

FOURSQUARE CORPORATION
September 22, 2019

8

Redevelopment of the Emery Grover Building

1330 Highland Avenue, Needham MA

ATTACHMENT 2 - CURRENTLY AVAILABLE RENTAL UNITS

Name	Bed/Bath	Sq. Ft.	Rent	Availability	
A9D	1 Bed / 1 Bath	1,036 Sq. Ft.	\$3,726 - 3,806	2 Available	View
B13	2 Bed / 2 Bath	1,160 Sq. Ft.	\$3,921 - 3,951	1 Available	View
B8	2 Bed / 2 Bath	1,169 Sq. Ft.	\$3,941 - 3,981	4 Available	View
B8-A	2 Bed / 2 Bath	1,173 Sq. Ft.	\$3,954 - 3,994	2 Available	View
B3	2 Bed / 2 Bath	1,215 Sq. Ft.	\$4,093 - 4,133	4 Available	View
B7	2 Bed / 2 Bath	1,252 Sq. Ft.	\$4,326 - 4,346	1 Available	View
C1	3 Bed / 2 Bath	1,351 Sq. Ft.	\$4,666 - 4,766	14 Available	View
C2	3 Bed / 2 Bath	1,484 Sq. Ft.	\$5,116 - 5,206	2 Available	View

FOURSQUARE CORPORATION
September 22, 2019

9

Property Type(s): CC
 Status: **NEW, ACT, PCG, BOM, EXT, RAC, CTG, UAG, SLD, RNT, WDN, EXP, CAN, CSO** Price:
 Timeframe: **TODAY - 12 MONTHS**

Towns: **Needham, MA**

Advanced Criteria: **Living Area: 800-1500; Price per SqFt: >400; Style (CC): Detached, Duplex, Garden, Half-Duplex, High-Rise, Loft, Low-Rise, Mid-Rise**

Condominium Listings



MLS #: 72560533 Status: **CTG** List Price: **\$440,000**
 100 Rosemary Way U: 127 Needham, MA 02494
DOM: 16 **DTO: 2** List \$/SqFt: \$426.36
Taxes: 2019 \$4,859.36
Assessed: \$392,200
Assoc.: Yes - \$540/mo

Style: Condo - Low-Rise
Rooms: 4 **Beds:** 2 **Baths:** 2f 0h **Outdoor Space:** Yes - Private
Garage: 0 **Parking:** 2 **Fireplaces:** 0 **Master Bath:** Yes
Year Built: 1986 **Living Area:** 1,032 SqFt
Pets: No

Remarks: This is a great first floor unit at the desirable Rosemary Ridge condominium. With new carpeting and fresh paint, this two bedroom/2 bathroom home has laundry in the unit, a private 25' deck overlooking quiet green space, and convenient parking near the main entrance. Enjoy the services of a concierge at the front door, an inground pool, and a clubroom complete with a kitchen and workout area.



MLS #: 72368858 Status: **SLD** List Price: **\$435,000**
 100 Rosemary Way U: 235 Needham, MA 02494
DOM: 46 **DTO: 36** List \$/SqFt: \$465.24
Sold Date: 10/09/2018 **Sale Price:** \$420,000
Off Mkt: 09/10/2018 **Taxes:** 2018 \$4,021.38
Assessed: \$338,500
Assoc.: Yes - \$504/mo

Style: Condo - Low-Rise
Rooms: 4 **Beds:** 2 **Baths:** 2f 0h **Outdoor Space:** Yes - Common
Garage: 0 **Parking:** 2 **Fireplaces:** 0 **Master Bath:** Yes
Year Built: 1986 **Living Area:** 935 SqFt
Pets: No

Remarks: Welcome to Rosemary Ridge where everything is at your fingertips! This amazing location 2-bedroom 2-bathroom condo is close to shopping, restaurants, public transportation, and everything else that the wonderful town of Needham has to offer. There is in-unit laundry, a master bathroom with sliding shower doors, a generously sized balcony, 5 large closets, some with custom built-ins, and great amenities. The condo amenities include an in-ground pool, an exercise room, a sauna, multiple elevators, a large clubroom that can be reserved for private functions, and a concierge! The condo also comes with a storage unit on the lower level of the building as well as laundry facilities in addition to the in-unit laundry. There are two deeded parking spaces that come with the unit, as well as lots of guest parking (deeded parking spots # 120 and #158). This condo is move-in ready and is waiting for you to make it your new home!



MLS #: 72464976 Status: **SLD** List Price: **\$569,000**
 9 HIGHLAND COURT U: 9 Needham, MA 02492
DOM: 5 **DTO: 5** List \$/SqFt: \$468.31
Sold Date: 06/07/2019 **Sale Price:** \$601,000
Off Mkt: 03/18/2019 **Taxes:** 2019 \$6,474
Assessed: \$522,500
Assoc.: Yes - \$508/mo

Style: Condo - Mid-Rise
Rooms: 5 **Beds:** 2 **Baths:** 2f 2h **Outdoor Space:** Yes - Private
Garage: 0 **Parking:** 1 **Fireplaces:** 1 **Master Bath:** Yes
Year Built: 1983 **Living Area:** 1,215 SqFt
Pets: No

Remarks: Much Sought after Needham Condo at "The Highlands" Located in the Center of Town with easy access to all that Needham has to offer! This well designed condo features two very good size bedrooms and two full baths. The spacious living room has a wood burning fireplace and picture window which lets in an abundance of natural light. Pretty french doors lead to a very private covered porch for alfresco dining! Easy to work in kitchen with hardwood floors, plenty of cabinet space, large skylights and a very large picture window surrounding the dining area. Laundry is full size and in unit plus large designated storage area on the lower level. Unit has been freshly painted and new carpet installed. Nothing to do here but move in and unpack! Easy walk to Fabulous Restaurants, Shops, Supermarket and Newly Built Rosemary Pool Recreation Facility. Hurry! OH Saturday 3/16 and Sunday 3/17 from 2-4 Offers will be reviewed on Monday 3/18 at noon. SORRY, NO PETS!



MLS #: 72371758 Status: **SLD** List Price: **\$575,000**
 46 PARISH ROAD U: 46 Needham, MA 02494
DOM: 48 **DTO: 34** List \$/SqFt: \$478.37
Sold Date: 10/29/2018 **Sale Price:** \$565,000
Off Mkt: 09/17/2018 **Taxes:** 2018 \$4,169
Assessed: \$351,000
Assoc.: Yes - \$1,300/yr

Style: Condo - Half-Duplex, Attached
Rooms: 5 **Beds:** 2 **Baths:** 1f 0h **Outdoor Space:** Yes - Private
Garage: 1 **Parking:** 4 **Fireplaces:** 1 **Master Bath:** Yes
Year Built: 1949 **Living Area:** 1,202 SqFt
Pets: Yes

Remarks: Renovated in 2012, this sweet condo is a must see! Left side of duplex, this home has private entrance and one floor living. Generous sized rooms, central air, beautiful moldings, fresh paint, sparkling hardwood, crisp and clean. A well designed kitchen with granite and stainless steel appliances is centered with a breakfast bar. Extra room can be used for dining, office, playroom or den. Back door from kitchen exits to your own deck and into fenced backyard perfect for your pets. Large unfinished ill

basement serves as laundry and spacious storage. Convenient to Babson and Olin Colleges. Walk to Volante Farms, Heights commuter rail, Starbucks, Trader Joe's and CVS. Good off street parking as well as 1 car garage. This is great for those interested in smaller living space. Nothing to do but move-in!



MLS #: 72519610 Status: **SLD** List Price: **\$589,900**
 165 Maple St U: 165 Needham, MA 02492
DOM: 21 **DTO: 21** List \$/SqFt: \$540.20
Sold Date: 08/23/2019 **Sale Price:** \$556,000
Off Mkt: 07/07/2019 **Taxes:** 2019 \$4,465
Assessed: \$360,400
Assoc.: No

Style: Condo - Townhouse, Half-Duplex
Rooms: 6 **Beds:** 3 **Baths:** 1f 1h **Outdoor Space:**
Garage: 0 **Parking:** 2 **Fireplaces:** 0 **Master Bath:** No
Year Built: 1965 **Living Area:** 1,092 SqFt
Pets: No

Remarks: A Well Maintained Duplex Townhouse situated on a cul-de-sac. Hardwood floors. Walking distance to the Town Center, Shops, Commuter Rail & Beth Israel Deaconess Hospital-Needham. Open House Showings - Sunday July 7th 11:30am to 1:03pm



MLS #: 72543834 Status: **SLD** List Price: **\$599,900**
 7 Highland Ct U: 7 Needham, MA 02492
DOM: 5 **DTO: 5** List \$/SqFt: \$478.01
Sold Date: 09/13/2019 **Sale Price:** \$665,000
Off Mkt: 08/06/2019 **Taxes:** 2019 \$6,885
Assessed: \$555,700
Assoc.: Yes - \$508/mo

Style: Condo - Garden
Rooms: 5 **Beds:** 2 **Baths:** 2f 0h **Outdoor Space:** Yes - Common
Garage: 0 **Parking:** 1 **Fireplaces:** 1 **Master Bath:** Yes
Year Built: 1983 **Living Area:** 1,255 SqFt
Pets: No

Remarks: Opportunity knocks! Seldom offered first floor unit in the Highlands! Spacious living room with fireplace and built in bookshelves. French doors lead to the covered deck. Beautiful white shaker style kitchen with granite counters and large dining area with built in storage. Dining Room with built in storage/window seat. King size master bedroom with 2 double closets and bath. Second bedroom has double closet and is next to the hall bath. Full size washer and dryer in the unit. Large storage area in the basement. Washer, dryer and refrigerator are staying. Fantastic downtown Needham location - just steps to the commuter rail, restaurants, shops, Town Hall and the town center! Open House Saturday and Sunday 1-3.



MLS #: 72393562 Status: **SLD** List Price: **\$625,000**
 89 MAY STREET U: 4 Needham, MA 02492
DOM: 18 **DTO: 18** List \$/SqFt: \$437.68
Sold Date: 11/27/2018 **Sale Price:** \$605,000
Off Mkt: 09/29/2018 **Taxes:** 2018 \$5,569
Assessed: \$468,800
Assoc.: Yes - \$230/mo

Style: Condo - Low-Rise, Other (See Remarks)
Rooms: 5 **Beds:** 3 **Baths:** 2f 0h **Outdoor Space:**
Garage: 0 **Parking:** 2 **Fireplaces:** 0 **Master Bath:** Yes
Year Built: 1900 **Living Area:** 1,428 SqFt
Pets: Yes

Remarks: OPEN HOUSE CANCELED Just off Needham Center on a side street in a beautiful building of five condo units. Unit #4 is all on one floor and consists of newer hardwood floors, bright spacious oversized rooms, beautiful updated kitchens with granite counters and newer stainless steel appliances. Heating is by natural gas. There are two bedrooms plus a master suite complete with a walk in closet and master bath. Expansion or additional storage option in attic (approx. 700 sq. feet). One deeded parking spot as well as guest parking and a large storage space in the basement complements this unit. An easy walk to Needham Center or Junction Train Station, many restaurants, markets, stores, etc.. Grab your bottle of wine and walk over to Sweet Basil for dinner anytime. Call for a showing today.



MLS #: 72346648 Status: **SLD** List Price: **\$629,000**
 308 A Hunnewell St U: A Needham, MA 02492
DOM: 78 **DTO: 59** List \$/SqFt: \$574.43
Sold Date: 09/28/2018 **Sale Price:** \$575,000
Off Mkt: 09/01/2018 **Taxes:** 2018 \$0
Assessed: \$0
Assoc.: Yes - \$225/mo

Style: Condo - Low-Rise
Rooms: 5 **Beds:** 3 **Baths:** 2f 0h **Outdoor Space:**
Garage: 1 **Parking:** 1 **Fireplaces:** 0 **Master Bath:** Yes
Year Built: 1869 **Living Area:** 1,095 SqFt
Pets: Yes w/ Restrictions

Remarks: Brand new completely renovated and ready to move in. This unit comes with deeded patio (2 units in building) 3 bedrooms or 2 w/office. Hardwood flooring throughout. Bright and Sunny with all new SS appliances Quartz countertops in kitchen and baths. Master bedroom features it's own bath with double vanity sinks. All new Andersen windows. All new roof, siding, electrical, plumbing heating and A/C units. Brand new oversized two car garage with storage capabilities. (each unit deeded one garage bay) Excellent location with services close by. Unit is located on first floor. This is brand new worry free living with builder warranty. ATTENTION INVESTORS...great rental potential. TRY TO FIND AS CLOSE TO NEW CONSTRUCTION AT THIS PRICE IN NEEDHAM!

SECTION 8
PRELIMINARY SIX OPTIONS

PRELIMINARY SIX OPTIONS

The conclusions made by the Working Group and as presented to the Permanent Public Building Committee were outlined as follows:

- Three possible approaches to the continued use of Emery Grover (Options One, Two, and Three)
- Two possible new building options at Stephen Palmer and Greene’s Field (Options Four and Five)
- One new building option at Hillside (Option Six)

They are described below and conceptual design drawings are on the following pages.

Option One: The opportunity to maximize on-site parking and construct a new facility for the School Administration were examined in Option One, with demolition of Emery Grover and construction of a new three-story building shifted closer to Highland Avenue. Due to site constraints and existing right-of-way easements to the apartment complex on the adjacent property, the footprint of the new building remained relatively square and less efficient as an office building. Entry to the building was from the rear (east) into a public lobby space connecting services on the first floor through to the front (west). The new building was based on the minimum program and achieves a potential 62 parking spaces, below the required minimum for this facility by zoning. This option would require a zoning by-law change for FAR.

Option Two: The desire to preserve the historic structure as seen from Highland Avenue, Option Two proposed to demolish the rear, interior structure and portions of each side of Emery Grover, while bracing and restoring the Highland Avenue façade and its flanking porticos. This option incorporated the building plan in Option One, which would “slide” behind the remaining façade, creating an atrium light well. The new building was based on the

minimum program and achieved a potential 53 parking spaces, below the required minimum for this facility. This option would require a zoning by-law change for FAR.

Option Three: Working to preserve Emery Grover was the basis of Option Three, with construction of a 30-foot, three-story addition on the rear, working within the existing constraints while achieving the minimum program with an addition. The challenges of working around existing masonry shafts, existing bearing walls, existing window locations, while bringing the entire historic structure up to current building code and accessibility were many. Resulting spaces would require working around such physical restrictions, with some offices and working spaces without windows. The existing center portion of the attic was reconstructed to support a smaller conference center of approximately 900 square feet. Entry to the building was from the rear (east) into a small public lobby where access to departments is by elevator. The new building was based on the minimum program and achieved a potential 53 parking spaces, below the required minimum for this facility. This option would require a zoning by-law change for FAR. Option Three was preliminarily identified as third choice by the PPBC at their January 27, 2020 meeting.

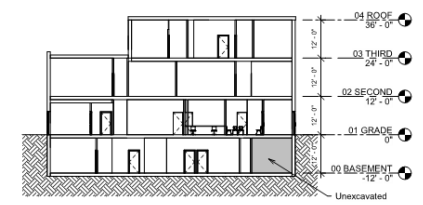
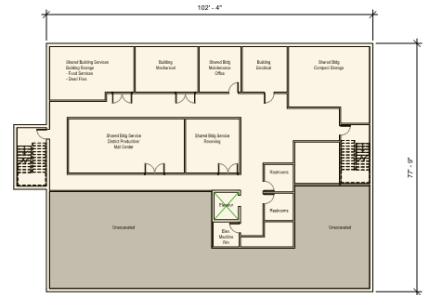
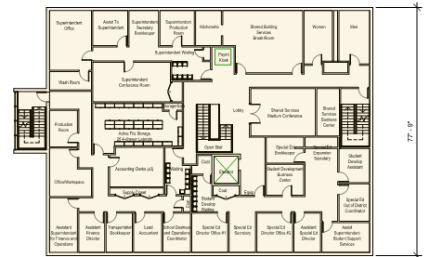
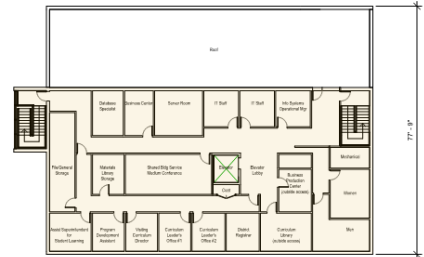
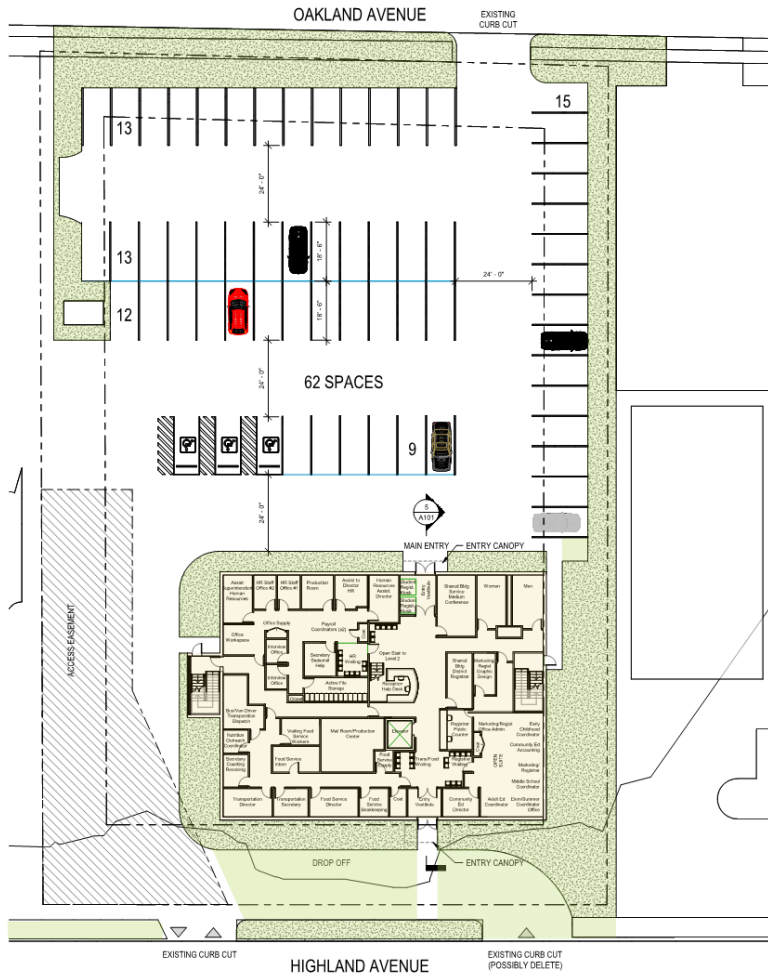
Option Four: This option looked at the Stephen Palmer school building, currently under lease through year 2027 as apartments. The Stephen Palmer School building would be demolished and a new three-story building constructed with parking at the corner of Pickering and May Streets. A town buyout of the lease would be required to move forward prior to 2027. Option Four allowed for expanding the minimum program to include daycare, department-wide Information Technology relocation, and a large conference center for programs, meetings, seminars, as the “full” program. Entry from the parking lot lead employees and visitors to a welcome lobby with access to assistance, departments, and the daycare facility. An elevator and an open communicating stair

allowed access to the second floor conference center. A drop-off at May Street provided convenient access to the building. Parking of 95-100 cars was provided without disruption to the adjacent playground.

Option Five: The same concept as Option Four was positioned at the corner of Pickering Street and Great Plain Avenue, where proposed new building contributed more directly to the urban connectivity of Needham, with its large parking lot accessible to Town Hall, one block away. Option Five required the relocation of the existing ballfield and basketball court. This location could allow for the Stephen Palmer apartments to complete their lease in 2027 but would require temporary relocation of the ballfield to another location. A town buyout of the lease would be required to move forward prior to 2027 to avoid prolonged loss of the ballfield and public amenities currently provided at Greene’s Field. Option Five was preliminarily identified as the preferred option by the PPBC at their January 27, 2020 meeting.

Option Six: Hillside Elementary has effectively outlived its functionality as a school. Constructed in 1959, the existing building would require major structural, accessibility, building code, HVAC, and fire and life safety modifications to extend its use. The Hillside site presented an opportunity to construct a new School Administration building with room for significant future expansion. The picturesque site provided for generous parking beyond minimums. Option Six demolished Hillside Elementary School and constructed a new, two-story building including the full program and parking. There was ongoing environmental monitoring at Hillside from an industrial incident years ago, which would be addressed as part of new construction. This option would not require any special zoning bylaw changes. Option Six was preliminarily identified as second choice by the PPBC at their January 27, 2020 meeting.

NEEDHAM SCHOOL
ADMINISTRATION STUDY



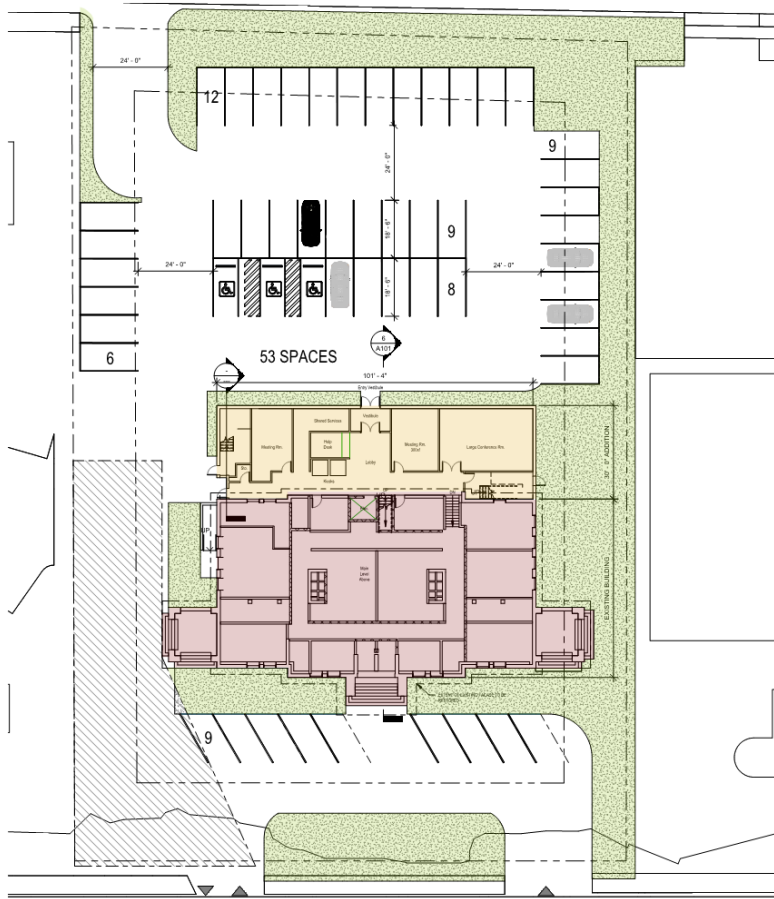
Basement:	5,370 G.S.F.
Ground Floor:	8,170 G.S.F.
Second Floor:	8,170 G.S.F.
Third Floor:	5,560 G.S.F.
TOTAL:	27,270 G.S.F.

Option One - Emery Grover Tear Down

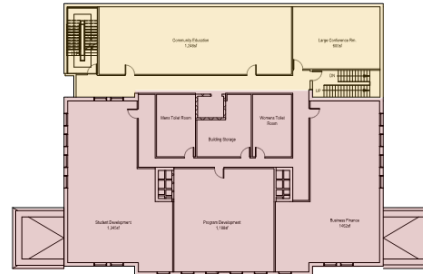


Local Revit3398 EG DEMO NEW BLDG-CENTRAL R19_RSchneider.rvt

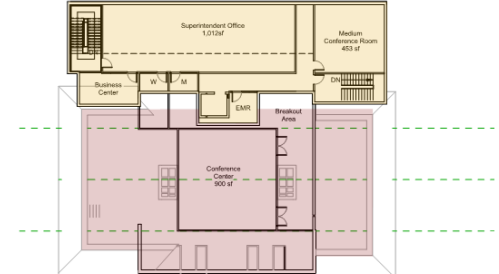
NEEDHAM SCHOOL
ADMINISTRATION STUDY



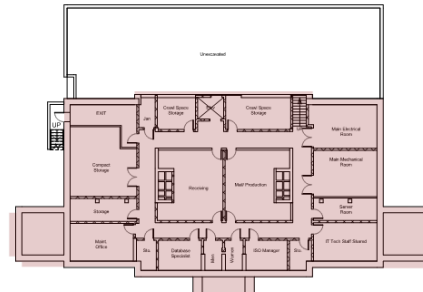
1 Option 3 New Grade Floor Plan
1/8" = 1'-0"



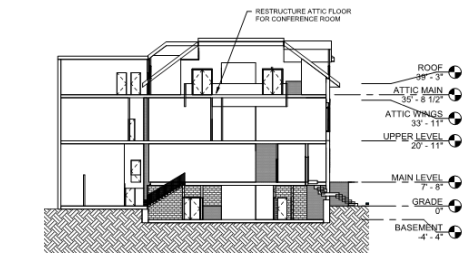
4 Option 3 Second Floor Plan
1/8" = 1'-0"



5 Option 3 Attic Floor Plan
1/8" = 1'-0"



3 Option 3 Basement Floor Plan
1/8" = 1'-0"



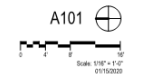
6 Longitudinal Section
1/8" = 1'-0"



2 Option 3 Main Floor Plan
1/8" = 1'-0"

New Construction	Renovation
Basement:	5,705 G.S.F.
Grade:	2,990 G.S.F.
Ground Floor:	5,705 G.S.F.
Second Floor:	2,990 G.S.F.
"Attic" Floor:	1,300 G.S.F.
TOTAL:	8,970 G.S.F.

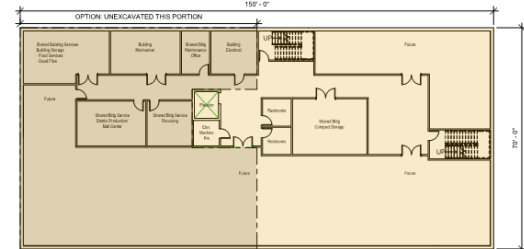
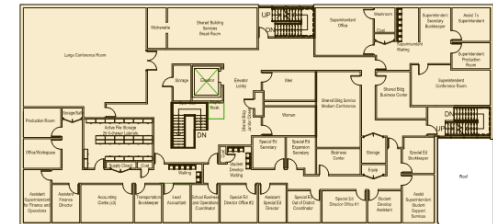
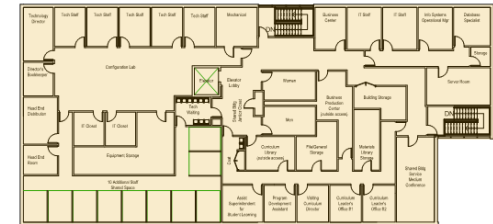
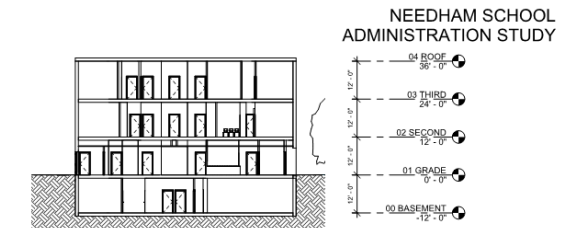
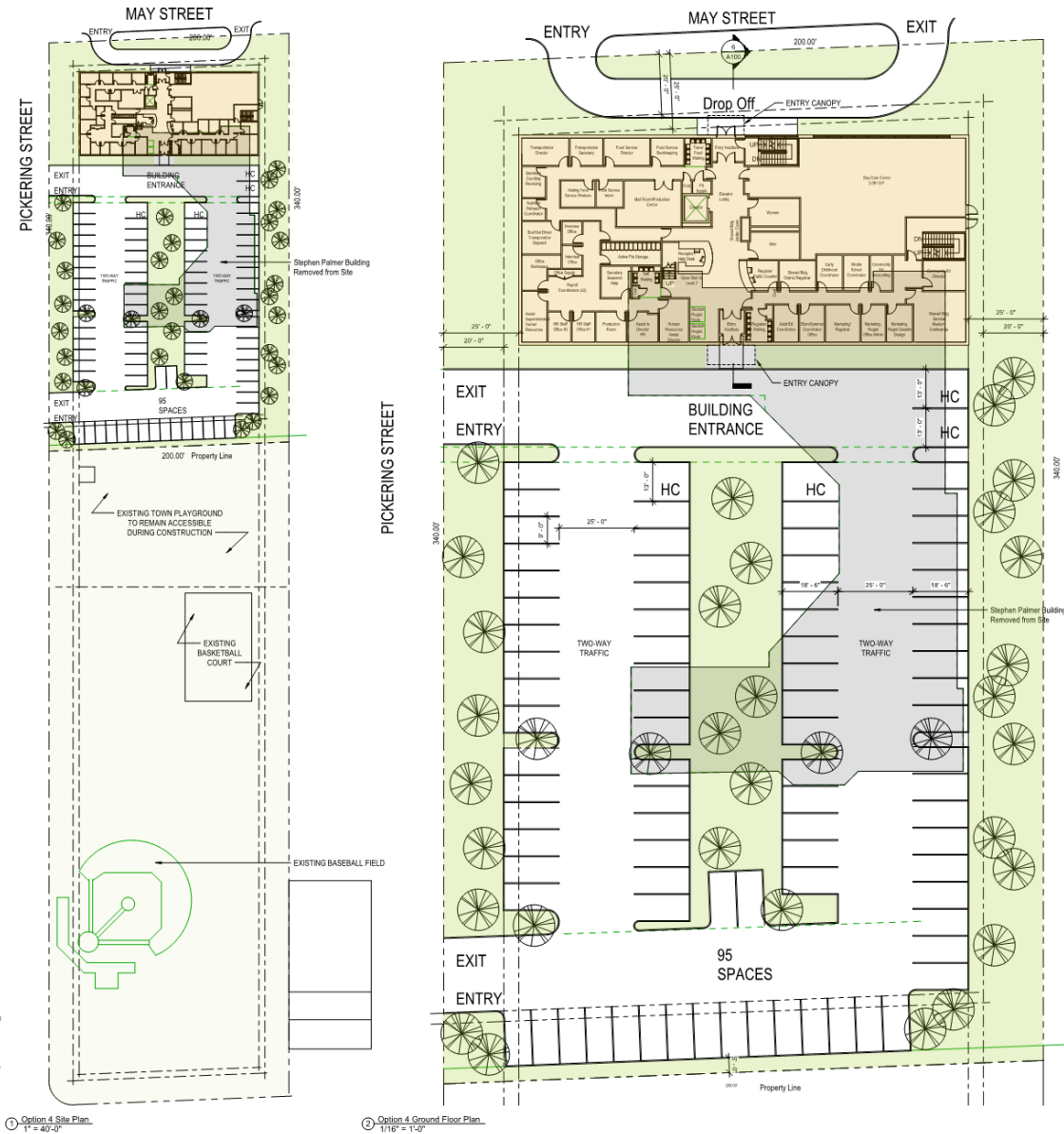
Option Three - Emery Grover Restoration & Addition



Local RevitCAD/BIM/MEP/Architectural Program, RVT, Central, B3/Schneider, NT

PRELIMINARY SIX OPTIONS

Option Four



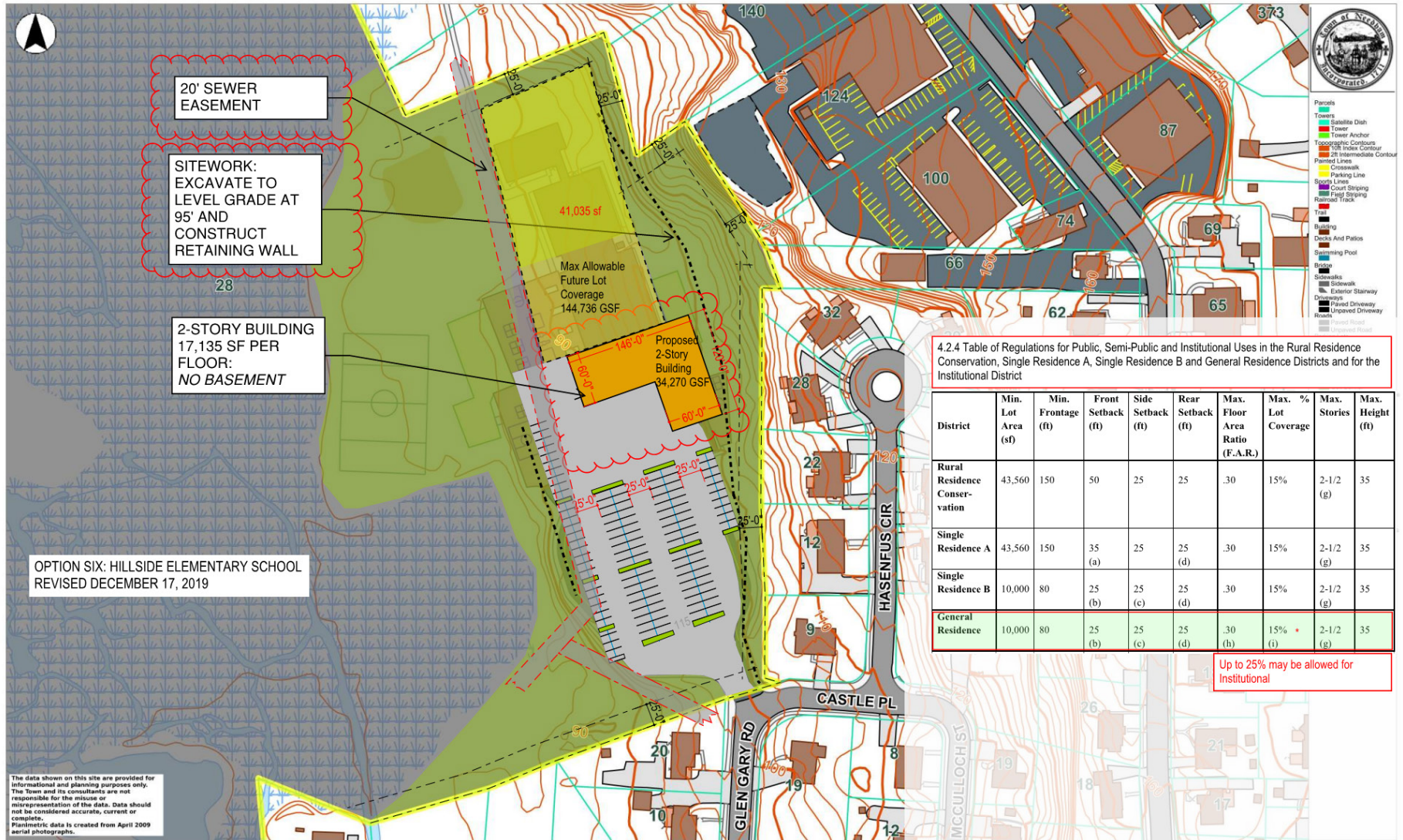
Option Four - Stephen Palmer Building Demolition For New Construction

Basement:	5,630 G.S.F.
Ground Floor:	10,500 G.S.F.
Second Floor:	10,005 G.S.F.
Third Floor:	10,005 G.S.F.
TOTAL:	36,140 G.S.F.

A100
Scale As Indicated
01/10/2020

PRELIMINARY SIX OPTIONS

Option Six





BARGMANN HENDRIE + ARCHETYPE, INC.
Architecture | Planning | Interior Design

9 Channel Center Street
Suite 300
Boston, MA 02210

617 350 0450
bha@bhplus.com
www.bhplus.com

memo

to: Delwyn Williamson, Director of Cost Estimating; CHA
from: Reese Schroeder AIA
date: December 10, 2019 Revised January 02, 2020
project name & number: 3998 Emery Grover Needham School Administration Study
subject: Six Options for Conceptual Pricing
cc: file

The existing Emery Grover building is a 3 story brick school building over a partially depressed basement with interior wood floor framing and interior bearing walls, masonry shafts, constructed in 1897. The building is currently fully occupied by the Needham School Administration. The building has been modified over the years but the original structure remains intact, including floors, stairs, attic level, four (4) vertical masonry chases, etc. Some of the original architect drawings exist and are attached for reference. The building is listed on the National Register, requiring the approval of the Needham Historical Commission for restoration, modification, or demolition of the existing building.

There are three options for the existing Emery Grover building site. Additionally, there are two options for the Stephen Palmer building site, nearby, and one option for the current Hillside Elementary School site. These options total six potential paths forward for the School Administration to permanently house their departments.

The Needham School Administration, through the Permanent Public Building Committee Working Group have determined through various studies presented to have the following six (6) options conceptually priced as part of further evaluation. As part of construction cost estimating, each option must include estimated construction duration period.

- Pricing is to be based on year 2024 with escalation to 2027.

Option One: Emery Grover Tear Down

Included with Option One for your use:

1. A100 Option One – Site Plan
 2. A101 Option One – Plans, Section
- Complete demolition of existing building and parking lot.
 - Cap all utilities and services.
 - Remove above ground oil tank at rear of building and inspect subsurface for contamination
 - Abatement

- Construction of new 3 story building with basement and parking lot, landscaping. For Option One, and similarly for the other options, following is an outline specification defining the minimum scope of work. Construction areas unique to an option are listed in that option’s scope. It is expected that estimating will include all ancillary parts for a complete project.

Outline Specification

02 Sitework:

- o Sitework: new utilities including domestic water service, fire sprinkler water service, electrical service, sewer discharge, storm water, natural gas, telephone and cable. It is assumed all service is currently available in Highland Avenue street.
- o Sidewalks and curbs. Curb cuts as indicated.
- o New trees, landscaping, grass, pavers.
- o Site lighting

03 Concrete:

- o Concrete foundation and basement walls. Further excavation of existing site to achieve full depth basement.

04 Masonry:

- o Masonry veneer with cavity insulation, Air and Water barrier, gypsum sheathing, metal stud, batt insulation, interior drywall.
- o 8” concrete masonry units for basement partitions.

05 Metals:

- o Structural steel frame with composite slab assumed 7.5” thick
- o Continuous galvanized steel lintels for ribbon windows
- o Preassembled metal egress stairs with steel plate formed metal treads complete with rails and guards.
- o Open steel lobby stair with glass railing, stainless steel standoff support system.

06 Wood and Plastic

- o FT wood blocking. PT exterior wood at roof perimeters, penetrations, curbs.
- o Interior architectural woodwork, including kitchen cabinets, closet shelving systems, window stools.
- o Wood veneer feature wall at entry level lobby.

07 Thermal and Moisture Protection

- o Damp proofing at frost walls, grade beams.
- o Under slab insulation.
- o Fireproofing spray on steel.
- o Fire stopping all penetrations through rated partitions, and perimeters of rated partitions.

PRELIMINARY SIX OPTIONS

Conceptual Outline Specifications

- Acoustical batt insulation for walls separating departments. White 60 mil PVC roof, fully adhered on Dens-deck protection board over tapered extruded polystyrene insulation, over vapor barrier on Dens-Deck on metal decking welded to sloped roof trusses for "flat" roof.

08 Doors and Windows

- Continuous aluminum thermally broken ribbon window at each floor, 5' high. High performance Low-E 1" glazing units.
- Aluminum thermally broken storefront systems. Exterior entry doors to have electric strikes and card readers.
- Exterior door frames hot dipped galvanized finish (G90)
- Interior doors 8'-0" x 3'-0" x 1 3/4" solid core birch veneer with clear finish.
- Fire rated doors at stairs

09 Finishes

- Epoxy flooring in janitor closets.
- Ceramic tile floors and cove base in toilet rooms.
- Porcelain tile floors in common areas, lobbies.
- LVT flooring in staff break room, kitchen
- 12"x24" porcelain tiles on wet walls of toilet rooms full height.
- Suspended acoustical ceilings in offices.
- Suspended drywall ceilings in common areas, lobbies
- Wall paint equal to Benjamin Moore
- Carpet tile with cushion backing 33-36 oz with attic stock for all offices, conference rooms.

10 Specialities

- Fire extinguishers 3 per floor
- Toilet partitions: phenolic Resin, floor mounted, overhead braced.
- Toilet accessories: touchless hand dryers

11 Equipment

- Kitchen appliances: Frigidaire stainless steel
 - Refrigerator/Freezer combo
 - Dishwasher
 - Microwave

12 Furnishings (By Others)

- Desks, chairs, filing cabinets, shelving units, conference tables, work tables, breakroom tables and chairs

13 Special Construction

14 Conveying Systems

- 3500 lb elevator – side opening, 150 FPM with control room
 - Interior finishes from manufacturer standards
 - 12"x24" porcelain tile floor matching lobby

15 Mechanical

Fire Protection

- Standpipe system installed per NFPA 14, located in each stairwell enclosure.
- Sprinkler system as allowed by Massachusetts State Building Code/NFPA 13
- Sprinkler piping shall be black iron (not CPVC)

Plumbing

- Central hot water boiler system
- Touch-free Toto flush valves, sink faucets, urinal valves.

HVAC

- Multiple zone VRF system
- Elevator machine room mechanically ventilated and air conditions per code.
- Toilet room exhaust ducting and roof fans.

16 Electrical

- Sized to accommodate building with main breaker, switchboard in main electric room.
- Lighting per Massachusetts energy code (LED)
- Fire alarm system code compliant with central control panel located on first floor.

Option Two: Emery Grover Façade Only Restoration

Included with Option Two for your use:

1. original architectural drawings
 2. excerpt from 2010 bh+a report on Emery Grover existing conditions
 3. A100 Option One – Site Plan
 4. A101 Option One – Plans, Section
- Existing exterior façade bracing
 - Install 3-story shoring system on the exterior sides of the building (designed by a specialty shoring contractor) including the complete Highland Avenue elevation (west) and both porticos complete (north and south)
 - Support and protect entry barrel vault wood panel structure.
 - Protect original windows for restoration.
 - Anchor the existing wall to the shoring system
 - Demo roof and framing
 - Demolition of remaining building.
 - Install a new foundation system for the addition and connect it to the existing foundation
 - Remove above ground oil tank and inspect subsurface for contamination.
 - Abatement

- Construction of new 3 story building with basement behind existing façade similar to Option One Outline Specification.
- Connect the existing braced walls to the new structure.
- Aluminum thermally broken curtain wall system between new building and existing façade with high performance insulated glazing units.
- Construction of new pitched slate roof over steel structure, matching original, attached to braced façade.
- Construction of new parking lot, landscaping.
- Restoration of existing façade:
 - o Repoint masonry
 - o Clean exterior masonry
 - o Clean exposed interior masonry of existing wall and repoint where required.
 - o Restore windows and secure in existing openings.
 - o Inspect structural repairs to right (south) portico
 - o Repair or replace copper flashings, gutters, downspouts.

Option Three: Emery Grover Restoration and Addition

Included with Option Three for your use:

1. original architectural drawings
 2. excerpt from 2010 bh+a report on Emery Grover existing conditions
 3. A100 Option Three – Site Plan
 4. A101 Option Three – Plans, Section
- Existing structure to remain.
 - Remove above ground oil tank and inspect subsurface for contamination.
 - Abatement.
 - Exterior restoration of building envelope.
 - o Masonry cleaning and repointing
 - o Window removal and replacement
 - o Gutters and downspouts
 - o Repair of existing slate roof
 - o Restoration of exterior doors
 - Construction of a new 30' addition at the rear (east) of the building with elevator similar to Option One Outline Specification..
 - Construction of new parking lot, landscaping.

Option Four: Stephen Palmer Building Demolition for New Construction

Included with Option Four for your use:

1. Stephen Palmer Plan of Land
 2. A101 Option Four – Site Plan
- Demolish existing 2 story masonry Stephen Palmer building with basement. (approx. 25,000 sf plus basement)
 - Abatement.

- Construction of new building and parking lot, landscaping similar to Option One Outline Specification..
- Site work including drop-off drive on May Street

Option Five: Stephen Palmer “Flipped”

Included with Option Five for your use:

1. Stephen Palmer Plan of Land
2. A102 Option Five – Site Plan

For Option Five the following phasing is requested by the Town of Needham:

- Construct new 3 story building with basement and parking lot at opposite end of parcel.
 - o Construction same as Option One Outline Specification. Maintain use of baseball field.
- Site work including drop-off drive on Great Palin Avenue.
- Relocate existing Little League baseball park and basketball court (desired to move after new building is built).
- New parking lot, landscaping.
- Demolish existing 2 story and basement masonry Stephen Palmer building for relocated baseball park. (approx. 25,000 sf plus basement)
- Abatement.

Option Six: Hillside Elementary School

Included with Option Six for your use:

1. 1959 architectural drawings
 2. 1968 architectural addition drawings
 3. soil contamination report
- Demolish existing Hillside Elementary School.
 - Abatement.
 - Manage contaminated soil with cap construction (see report of existing conditions).
 - Site grading to provide level pad, storm drain under playground and construction of retaining walls where indicated.
 - *Construction of new 2 story building without basement.*
 - o Construction similar to Option One Outline Specification.
 - Construction of new parking lot, landscaping.

Swing Space:

For Options One, Two, and Three, the Owner will provide costs to relocate all departments currently within Emery Grover to Hillside Elementary School building for the duration of construction. Refer to the Hillside Swing Space plan. While this is a variable with many unknowns, the Town of Needham anticipates relocating all existing personnel, furniture, equipment over to Hillside Elementary School.

Relocation costs will include:

PRELIMINARY SIX OPTIONS

Conceptual Outline Specifications

- Moving costs to pack and relocate the entire school administration department to temporary swing space, unpack and set up.
- Moving costs to pack and relocate from swing space into new facility.

Hillside Elementary School requires modifications to accommodate the school administration departments. These costs will include:

- Removal of built-ins in classrooms.
- Remove/Demolish unnecessary improvements remaining from Police and Fire occupancy (bullet proof entry)
- Sitework improvements will be cleared out by others
- New drywall partitions on non-structural metal framing with sound insulation
- Hollow metal doors and frames
- Door Hardware
- New lighting in all "office or workspaces"
- Acoustical ceiling treatment
- Paint all rooms
- Window treatment
- Protect Gym floor prior to use for office workspace
- Reception Desk with Counter and Pull Down metal security screen
- Carpet on floors in all "office space" rooms and corridors.
- Restroom floor to remain as is, steam clean prior to occupancy
- Restroom toilet partitions
- Electrical outlets, telephone and data drops at each workspace (xx total employees), conference rooms
- Light switches
- Verify capacity of electrical service for load
- WiFi throughout
- New life safety (exit signs, alarms, sensors) to service new layouts within rooms, extension of fire alarm, strobe and emergency lighting as necessary
- No Sprinklers
- New mini split heat pump system for each classroom being converted to office space. Each space to be air conditioned and heated.
- HVAC controls
- Furniture, Fixtures and Equipment

It is unknown at this time whether further infrastructure work will be required, including fire sprinklers, remedial structural work including cutting openings through bearing walls for adjoining spaces, etc. This will be determined by the Building Inspector at a future date.

Supporting Documents:

The following documents are provided to assist in determining existing conditions. Some documents are not current, and all documents should be considered "for information only": Documents are available for download from our share file site with link to be provided.

1. Administration Building 2017 AHERA report.pdf
2. 2010 Emery Grover Existing Conditions.pdf, edited
3. EmeryGrover1897dwgs_compressed.pdf
4. Stephen Palmer Plan of Land-Not Reg or Signed.pdf
5. Needham AUL survey plan.pdf
6. 1959 Hillside Elementary School plans folder
7. 1968 Hillside Elementary School Addition plans folder
8. Hillside Environmental folder:
 - a. Phase 4 Plan – Final Draft 1 23 15 MDL.pdf
 - b. PhaseIVSupplementalRIPPresentation.pdf
9. Hillside Swing Space diagram

SECTION 9
PRELIMINARY SIX OPTIONS COST

DRAFT TOTAL PROJECT COST WORKSHEET	Emery Grover			Stephen Palmer		Hillside
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
	Emery Grover Demolish and Construct New Building	Emery Grover Demolish & New Building with Façade Restoration	Emery Grover Renovation and Addition	Stephen Palmer New Building on May St.	Stephen Palmer New Building on Great Plain Avenue	New Building
HARD COST						
Construction Cost						
Construction Cost Estimate	17,143,000	20,534,000	15,847,000	20,078,000	19,648,000	20,949,000
Utility Back Charge	25,000	25,000	25,000	25,000	25,000	25,000
Furniture, Fixtures & Equipment	700,000	700,000	700,000	1,000,000	1,000,000	1,000,000
Hard Cost Subtotal	\$18,260,000	\$21,872,000	\$16,888,000	\$20,900,000	\$20,660,000	\$22,242,000
SOFT COST						
Permits & Approvals						
Conservation Commission						5,000
Planning Board Site Plan Approval (peer review)	10,000	10,000	10,000	10,000	10,000	10,000
Town Meeting Costs						
Architecture & Engineering						
Architect & Engineer (% of construction cost: New Construction) 8%	1,371,440	1,642,720	1,267,760	1,606,240	1,571,840	1,675,920
A&E Reimbursables	25,000	25,000	25,000	25,000	25,000	25,000
FF&E Specification & Purchasing 10%	70,000	70,000	70,000	100,000	100,000	100,000
Hazmat (inspection, specification, construction monitoring)	35,000	35,000	40,000	35,000	35,000	35,000
Environmental (ground water and soil vapor)						100,000
Geotechnical Engineer	15,000	20,000	15,000	15,000	15,000	15,000
Survey & Layout	10,000	10,000	10,000	15,000	15,000	20,000
Testing & Inspections						
Concrete & Steel, Soil Inspections	40,000	40,000	40,000	40,000	40,000	40,000
Commissioning	50,000	50,000	50,000	50,000	50,000	50,000
Project Management						
Owner's Project Manager 2%	342,860	410,680	316,940	401,560	392,960	418,980
Moving						
Moving Expenses including two moves for Options 1 - 2	80,000	80,000	80,000	40,000	40,000	40,000
Advertising & Bidding						
Public Bidding: Advertising & Document Website	15,000	15,000	15,000	15,000	15,000	15,000
Legal						
Contracts & legal related to Hillside Environmental						
Other						
Bonding Costs 0.30%	54,780	65,616	50,664	62,700	61,980	66,726
Soft Cost Subtotal	\$2,119,080	\$2,474,016	\$1,990,364	\$2,415,500	\$2,371,780	\$2,616,626
CONTINGENCY						
Contingency						
Owner's Contingency 15%	3,056,862	3,651,902	2,831,755	3,497,325	3,454,767	3,728,794
Project Total	\$23,435,942	\$27,997,918	\$21,710,119	\$26,812,825	\$26,486,547	\$28,587,420
OTHER CONSIDERATIONS AND NOTES						
Buy out of lease cost for Stephen Palmer Apartments				to be determined	to be determined	
Additional Cost for 6,000 sf of Day Care and IT Dept (options 4, 5 & 6)				\$4 to 5M	\$4 to 5M	\$4 to 5M
CPC Funding: Eligible Amount		3,400,000	12,000,000			
IT mainframe transfer, with complete MDF room				NIC	NIC	NIC
CPC Funding: Available Amount		to be determined	to be determined			



Needham School Administration
Emery Grover and Stephen Palmer Buildings
Hillside Elementary School Building
Needham, MA

January 27, 2020

Concept Estimate

Architect:

Bargmann Hendrie + Archetype, Inc.
9 Channel Center Street, Suite 330
Boston, MA 02210
(617) 350-0450

Cost Consultant:

CHA Consulting Inc
1 Faneuil Hall Marketplace
South Market Bldg, Suite 4195
Boston, MA 02109
(617) 451-2717



Needham School Administration
Needham, MA

INTRODUCTION

Project Description:

This construction cost estimate evaluates six options to house the Needham School Administration departments

Option One: Emery Grover Tear Down

renovate Hillside Elementary School to build-out temporary swing space
abatement, building demolition, new 3 story building with basement
site demolition, remove oil tank, subsurface contamination cap, new site infrastructure, parking lot and improvements

Option Two: Emery Grover Façade Only Restoration

renovate Hillside Elementary School to build-out temporary swing space
brace historic façade, abatement, building demolition, new 3 story building with basement, restore historic façade
selective site demolition, remove oil tank, subsurface contamination cap, new parking lot and site improvements

Option Three: Emery Grover Restoration and Addition

renovate Hillside Elementary School to build-out temporary swing space
abatement, new 30' addition at rear of building, repair and restoration façade and slate roofing
selective site demolition, remove oil tank, subsurface contamination cap, new parking lot and site improvements

Option Four: Stephen Palmer Building Demolition for New Construction

abatement, building demolition, new 3 story building with basement
selective site demolition, new site improvements

Option Five: Stephen Palmer "Flipped"

new 3 story building with basement
selective site demolition, relocate Little League baseball park and basketball court, new site improvements
abatement, building demolition

Option Six: Hillside Elementary School

abatement, building demolition, new 2 story building
site demolition, subsurface contamination cap, new site infrastructure, parking lot and improvements

Project Particulars:

Documents prepared by Bargmann Hendrie + Archetype, Inc.

- Six Options for Conceptual Pricing Memo dated December 10, 2019
- Option 1 to Option 5 Drawings dated December 11, 2019
- Revised Option 6 Drawings dated December 17, 2019
- Temporary Swing Space Diagram Hillside Elementary School
- Emery Grover Building Exterior Conditions and Recommendations dated August 6, 2010
- Conceptual Schedule Draft dated January 21, 2019
- Activity and Use Limitation Plan of Land dated July 30, 2018 prepared by Hancock Associates
- Emery Grover School Original Architectural Drawings; 1897
- Needham Elementary School As Built Drawings; 1959 and 1968
- AHERA 2018 Three-Year Re-Inspection Report for Administration Building dated February 12, 2018 prepared by Universal Environmental Consultants
- Phase IV Supplemental Remedy Implementation Plan dated February 24, 2015 prepared by Lord Associates, Inc.
- Plan of Town Owned Land Showing Stephen Palmer Elementary School dated September 1976
- Design Team clarifications and supplemental information during estimating production period
- Detailed quantity takeoffs where possible from design documents and reports



Needham School Administration
Needham, MA

INTRODUCTION

Project Particulars: cont'd

CHA Consulting, Inc. experience with similar projects of this nature.
Discussion and review with Bargmann Hendrie + Archetype, Inc. and their Consultant Design Team

Project Assumptions:

The project will be procured by GC/Filed Sub Bid as per MGL Chapter 149 bidding/pre-qualification process
The Total Estimated Construction Cost reflects the fair construction value of this project in a competitive bidding market and includes cost escalation to cover the construction duration
Our costs assume that there will be at least three subcontractors submitting unrestricted bids in each trade bid category
Direct trade unit rates include escalation to mid-point of construction duration and prevailing wage labor rates.
These unit rates continue to be updated during the design period
Operation during normal working hours
Building will be unoccupied during construction
Noise and vibration disturbances are anticipated and will be minimized or avoided during normal business hours
Temporary electrical and water site utility connections will be available. General Conditions value includes utility connections and consumption costs
Existing water pressure is adequate
Subcontractor's markups are included in each unit rate. These markups cover field and home office overhead and subcontractor's profit
Design and Pricing Contingency markup is an allowance for unforeseen design issues, design detail development and specification clarifications during the design period
General Conditions covers facilities to support project, and site office overhead that is not attributable to the direct trade costs
Project Requirements value covers scaffolding, staging and access, temporary protection, and cleaning
Options One, Two, Three; anticipated bid date Mar 2022, 38 month duration, move in May 2025
Options Four; anticipated bid date May 2023, 25 month duration, move in Jun 2025
Options Five; anticipated bid date Mar 2022, 30 month duration, move in Sept 2024
Options Six; anticipated bid date Mar 2022, 36 month duration, move in Aug 2024
Escalation allowance from now to Bid Date has been carried in the Main Summary. This allowance is adjusted, and typically reduces during the design period, to more accurately reflect the current bidding climate

Construction Cost Estimate Exclusions:

- Rock excavation and dewatering
- Work beyond the boundary of the site
- Site or existing condition surveys and investigations
- Utility company back charges during construction
- Third Party testing and commissioning
- Police details and street/sidewalk permits
- Building permit fees



Needham School Administration
Needham, MA

OPTIONS MAIN SUMMARY

ELEMENT	OPTIONS		
Emery Grover Building			
Option One: Emery Grover Tear Down	27,270 GSF	\$22,612,000	\$829.19
Option Two: Emery Grover Façade Only Restoration Reconstruct north/south side porticos, ADD	28,331 GSF	\$26,947,000 \$500,000	\$951.15
Option Three: Emery Grover Restoration and Addition	27,385 GSF	\$20,956,000	\$765.24
Stephen Palmer Building			
Option Four: Stephen Palmer Building Demolition for New Construction Conference Room, IT Office, Daycare Programs, ADD Adjust schedule from 2023 construction to 2027, ADD	36,140 GSF	\$26,080,000 \$200,000 \$1,795,000	\$721.64
Option Five: Stephen Palmer "Flipped" Conference Room, IT Office, Daycare Programs, ADD Adjust schedule from 2022 construction to 2027, ADD	36,140 GSF	\$25,792,000 \$200,000 \$2,633,000	\$713.67
Hillside Elementary School Building			
Option Six: Hillside Elementary School Conference Room, IT Office, Daycare Programs, ADD	34,270 GSF	\$27,691,000 \$200,000	\$808.02

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER BUILDING OPTIONS SUMMARY

ELEMENT		OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
Direct Trade Costs							
Renovate Hillside Elementary School As Swing Space		\$1,470,150	\$53.91	\$1,470,150	\$51.89	\$1,470,150	\$53.68
Direct Trade Costs Details		\$11,001,996	\$403.45	\$13,332,210	\$470.59	\$9,849,136	\$359.65
Design and Pricing Contingency	10.00%	\$1,248,000	\$45.76	\$1,481,000	\$52.27	\$1,132,000	\$41.34
Direct Trade Cost Total		\$13,720,146	\$503.12	\$16,283,360	\$574.75	\$12,451,286	\$454.68
Mark-Ups and Burdens							
General Conditions, Project Requirements		\$1,098,000	\$40.26	\$1,466,000	\$51.75	\$1,246,000	\$45.50
Performance and Sub-Contractor Bonds	0.85%	\$126,000	\$4.62	\$151,000	\$5.33	\$117,000	\$4.27
General Liability Insurance	1.25%	\$187,000	\$6.86	\$224,000	\$7.91	\$173,000	\$6.32
Profit	3.50%	\$530,000	\$19.44	\$635,000	\$22.41	\$490,000	\$17.89
Estimated Construction Cost Total		\$15,661,146	\$574.30	\$18,759,360	\$662.15	\$14,477,286	\$528.66
Escalation allowance from now to anticipated Bid	16.59%	\$2,598,000	\$95.27	\$3,112,000	\$109.84	\$2,402,000	\$87.71
Estimated Construction Cost Total at Bid Opening		\$18,260,000	\$669.60	\$21,872,000	\$772.02	\$16,880,000	\$616.40
Project Costs							
Soft Costs	20.00%	\$3,652,000	\$133.92	\$4,375,000	\$154.42	\$3,376,000	\$123.28
F.F.&E.		\$700,000	\$25.67	\$700,000	\$24.71	\$700,000	\$25.56
Project Costs		\$22,612,000	\$829.19	\$26,947,000	\$951.15	\$20,956,000	\$765.24



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTIONS SUMMARY

ELEMENT		OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF	
Direct Trade Costs							
Direct Trade Costs Details		\$13,939,387	\$385.71	\$14,294,387	\$395.53	\$15,240,591	\$444.72
Design and Pricing Contingency	10.00%	\$1,394,000	\$38.57	\$1,430,000	\$39.57	\$1,525,000	\$44.50
Direct Trade Cost Total		\$15,333,387	\$424.28	\$15,724,387	\$435.10	\$16,765,591	\$489.22
Mark-Ups and Burdens							
General Conditions, Project Requirements		\$1,227,000	\$33.95	\$1,258,000	\$34.81	\$1,342,000	\$39.16
Performance and Sub-Contractor Bonds	0.85%	\$141,000	\$3.90	\$145,000	\$4.01	\$154,000	\$4.49
General Liability Insurance	1.25%	\$209,000	\$5.78	\$215,000	\$5.95	\$229,000	\$6.68
Profit	3.50%	\$592,000	\$16.38	\$607,000	\$16.80	\$648,000	\$18.91
Estimated Construction Cost Total		\$17,502,387	\$484.29	\$17,949,387	\$496.66	\$19,138,591	\$558.46
Escalation allowance from now to anticipated Bid		\$3,397,000	\$94.00	\$2,710,000	\$74.99	\$3,103,000	\$90.55
Estimated Construction Cost Total at Bid Opening		\$20,900,000	\$578.31	\$20,660,000	\$571.67	\$22,242,000	\$649.02
Project Costs							
Soft Costs	20.00%	\$4,180,000	\$153.28	\$4,132,000	\$145.85	\$4,449,000	\$162.46
F.F.&E.; includes added budget for large conference room, day care, IT furniture		\$1,000,000	\$36.67	\$1,000,000	\$35.30	\$1,000,000	\$36.52
District wide IT hub relocation costs		excl.					
Tenant Relocation		TBD					
Project Costs		\$26,080,000	\$956.36	\$25,792,000	\$910.38	\$27,691,000	\$1,011.17

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST SUMMARY

ELEMENT	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
02-EXISTING CONDITIONS	\$1,913,846	\$70.18	\$2,304,869	\$81.36	\$1,867,055	\$68.18
03-CONCRETE	\$418,204	\$15.34	\$442,933	\$15.63	\$111,227	\$4.06
04-MASONRY	\$401,731	\$14.73	\$845,756	\$29.85	\$747,123	\$27.28
05-METALS	\$1,873,159	\$68.69	\$2,080,275	\$73.43	\$857,988	\$31.33
06-WOODS, PLASTICS, AND COMPOSITES	\$328,187	\$12.03	\$411,851	\$14.54	\$370,494	\$13.53
07-THERMAL AND MOISTURE PROTECTION	\$558,086	\$20.47	\$939,679	\$33.17	\$439,752	\$16.06
08-OPENINGS	\$860,394	\$31.55	\$1,617,401	\$57.09	\$990,758	\$36.18
09-FINISHES	\$1,078,217	\$39.54	\$1,069,751	\$37.76	\$1,105,487	\$40.37
10-SPECIALTIES	\$148,820	\$5.46	\$151,231	\$5.34	\$117,785	\$4.30
11-EQUIPMENT	\$20,600	\$0.76	\$20,600	\$0.73	\$27,600	\$1.01
12-FURNISHINGS	\$38,627	\$1.42	\$28,991	\$1.02	\$33,225	\$1.21
14-CONVEYING SYSTEMS	\$200,000	\$7.33	\$200,000	\$7.06	\$240,000	\$8.76
21,22,23-MECHANICAL	\$2,056,463	\$75.41	\$2,116,901	\$74.72	\$1,988,194	\$72.60
26-ELECTRICAL	\$1,319,760	\$48.40	\$1,370,688	\$48.38	\$1,325,280	\$48.39
31-EARTHWORK	\$164,762		\$164,762		\$61,305	
32-EXTERIOR IMPROVEMENTS	\$450,738		\$459,968		\$461,349	
33-UTILITIES	\$640,555		\$576,705		\$574,665	
Direct Trade Details SubTotal	\$12,472,146	\$457.36	\$14,802,360	\$522.48	\$11,319,286	\$413.34



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTIONS DIRECT TRADE COST SUMMARY

ELEMENT	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF	
02-EXISTING CONDITIONS	\$873,349	\$24.17	\$873,349	\$24.17	\$1,578,380	\$46.06
03-CONCRETE	\$507,600	\$14.05	\$507,600	\$14.05	\$467,263	\$13.63
04-MASONRY	\$453,725	\$12.55	\$453,725	\$12.55	\$436,175	\$12.73
05-METALS	\$2,390,615	\$66.15	\$2,390,615	\$66.15	\$2,190,795	\$63.93
06-WOODS, PLASTICS, AND COMPOSITES	\$367,660	\$10.17	\$367,660	\$10.17	\$318,394	\$9.29
07-THERMAL AND MOISTURE PROTECTION	\$695,687	\$19.25	\$695,687	\$19.25	\$819,477	\$23.91
08-OPENINGS	\$1,120,950	\$31.02	\$1,120,950	\$31.02	\$827,450	\$24.15
09-FINISHES	\$1,339,614	\$37.07	\$1,339,614	\$37.07	\$860,667	\$25.11
10-SPECIALTIES	\$139,040	\$3.85	\$139,040	\$3.85	\$114,470	\$3.34
11-EQUIPMENT	\$17,100	\$0.47	\$17,100	\$0.47	\$13,600	\$0.40
12-FURNISHINGS	\$49,500	\$1.37	\$49,500	\$1.37	\$39,900	\$1.16
14-CONVEYING SYSTEMS	\$240,000	\$6.64	\$240,000	\$6.64	\$160,000	\$4.67
21,22,23-MECHANICAL	\$2,619,225	\$72.47	\$2,619,225	\$72.47	\$2,449,013	\$71.46
26-ELECTRICAL	\$1,748,220	\$48.37	\$1,748,220	\$48.37	\$1,658,460	\$48.39
31-EARTHWORK	\$211,750		\$211,750		\$26,074	
32-EXTERIOR IMPROVEMENTS	\$539,098		\$904,098		\$2,161,974	
33-UTILITIES	\$626,255		\$616,255		\$1,118,500	
Direct Trade Details SubTotal	\$13,939,387	\$385.71	\$14,294,387	\$395.53	\$15,240,591	\$444.72

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
10 02-EXISTING CONDITIONS								
11								
12 <i>Renovate Hillside Elementary School to create temp swing space</i>		12,000 GSF						
13 temp protection and temp construction during demo	LS	\$10,000.00	1	\$10,000	1	\$10,000	1	\$10,000
14 demo interior partition	LF	\$50.00	180	\$9,000	180	\$9,000	180	\$9,000
15 remove bearing wall, temp shoring	LOC	\$10,000.00	2	\$20,000	2	\$20,000	2	\$20,000
16 demo classroom casework	LF	\$25.00	226	\$5,650	226	\$5,650	226	\$5,650
17 remove corridor locker and base	EA	\$250.00	80	\$20,000	80	\$20,000	80	\$20,000
18 gut demo toilet room	RMS	\$5,000.00	13	\$65,000	13	\$65,000	13	\$65,000
19 remove flooring and ceiling finishes	GSF	\$3.00	12,000	\$36,000	12,000	\$36,000	12,000	\$36,000
20 cart demo materials including MEP debris, disposal	CY	\$65.00	300	\$19,500	300	\$19,500	300	\$19,500
21 new interior partition, door	LF	\$200.00	2,000	\$400,000	2,000	\$400,000	2,000	\$400,000
22 new fit-out of gang restroom	RMS	\$10,000.00	6	\$60,000	6	\$60,000	6	\$60,000
23 new flooring, wall and ceiling finishes	GSF	\$12.50	12,000	\$150,000	12,000	\$150,000	12,000	\$150,000
24 code compliance upgrades to egress stair	FLT	\$7,500.00	2	\$15,000	2	\$15,000	2	\$15,000
25 new air distribution, lighting, power, low voltage systems	GSF	\$55.00	12,000	\$660,000	12,000	\$660,000	12,000	\$660,000
26								
27 <i>Building Abatement - quantities from UEC Report</i>								
28 light pink 12x12 vinyl floor tile	SF	\$10.00	60	\$600	60	\$600	60	\$600
29 12x12 grey w/green vinyl floor tile	SF	\$4.00	7,500	\$30,000	7,500	\$30,000	7,500	\$30,000
30 mastic for grey linoleum floor covering	SF	\$10.00	250	\$2,500	250	\$2,500	250	\$2,500
31 brown linoleum floor covering	SF	\$10.00	200	\$2,000	200	\$2,000	200	\$2,000
32 mastic for brown linoleum floor covering	SF	\$10.00	200	\$2,000	200	\$2,000	200	\$2,000
33 basement water tank pipe insulation	LF	\$50.00	3	\$150	3	\$150	3	\$150
34 misc air quantity and testing	LS	\$5,600.00	1	\$5,600	1	\$5,600	1	\$5,600
35 Shoring system to existing façade and porticos	GSF	\$40.00			9,295	\$371,808		
36								
37 <i>Site limit of disturbance</i>		58,000 GSF						
38 remove above ground oil tank	LS	\$50,000.00	1	\$50,000	1	\$50,000	1	\$50,000
39 demo existing parking lot	SF	\$1.75	36,070	\$63,123	30,690	\$53,708	30,540	\$53,445
40 selective demo site improvements	GSF	\$1.00	16,225	\$16,225	21,605	\$21,605	27,460	\$27,460
41								
42 <i>Emery Grover Building</i>		17,115 GSF						
43 raze building	CFT	\$0.65	329,920	\$214,448	329,920	\$214,448		
44 remove slab on grade and foundations	GSF	\$10.00	5,705	\$57,050	5,705	\$57,050		
45 premium for working behind existing façade to remain	LF	\$150.00			155	\$23,250		
46								



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
47 gut demo interior fit-out and systems	GSF	\$10.00					17,115	\$171,150
48 cut new elevator shaft opening	OPEN	\$4,000.00					3	\$12,000
49 demo main stair	FLT	\$5,000.00					2	\$10,000
50 modify opening on exterior façade	OPEN	\$5,000.00					6	\$30,000
51 02-EXISTING CONDITIONS TOTAL				\$1,913,846		\$2,304,869		\$1,867,055
52								
53								
54 03-CONCRETE								
55								
56 Strip perimeter footing	LF	\$50.00	330	\$16,508	350	\$17,508	161	\$8,067
57 Isolated spread footing	EA	\$2,500.00	14	\$35,000	14	\$35,000	5	\$12,500
58 Elevator pit	EA	\$7,500.00	1	\$7,500	1	\$7,500		
59 new pit in existing footprint	EA	\$10,000.00					1	\$10,000
60 Slab on grade, u/slab insul.	SF	\$10.00	8,170	\$81,700	8,170	\$81,700	3,040	\$30,399
61 Basement wall	SF	\$50.00	3,960	\$197,996	4,200	\$209,996		
62 Premium for working behind existing façade to remain	LF	\$50.00			155	\$7,750	105	\$5,250
63 Foundation wall	SF	\$35.00	225	\$7,875	225	\$7,875	645	\$22,586
64 Topping on upper floor metal deck	SF	\$3.75	19,100	\$71,625	20,161	\$75,604	5,980	\$22,425
65 03-CONCRETE TOTAL				\$418,204		\$442,933		\$111,227
66								
67								
68 04-MASONRY								
69								
70 Masonry veneer exterior wall, insul	SF	\$37.50	6,795	\$254,831	5,931	\$222,396	4,339	\$162,715
71 Restore existing façade; repoint, clean	GSF	\$50.00			9,295	\$464,760	7,680	\$384,009
72 8" CMU partitions at basement level, elevator shaft	SF	\$20.00	7,345	\$146,900	7,930	\$158,600	10,020	\$200,400
73 04-MASONRY TOTAL				\$401,731		\$845,756		\$747,123
74								
75								
76 05-METALS								
77								
78 Structural steel framing; assume 12#/gsf	TNS	\$4,000.00	327	\$1,308,960	340	\$1,359,888	108	\$430,560
79 Connect existing façade and porticos back to new structure	GSF	\$20.00			9,295	\$185,904		
80 Metal floor deck	SF	\$3.50	19,100	\$66,850	20,161	\$70,564	5,980	\$20,930
81 infill former main stair opening	OPEN	\$7,500.00					2	\$15,000
82 Restructure 3rd. Floor for conference space	GSF	\$75.00					900	\$67,500
83 Metal roof deck	SF	\$3.25	8,170	\$26,553	9,091	\$29,544	3,040	\$9,880

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
84 Lintel at ribbon window head	LF	\$150.00	1,030	\$154,506	773	\$115,964	484	\$72,599
85 Preassembled metal egress stairs, folded steel plate treads, railings	FLT	\$30,000.00	6	\$180,000	6	\$180,000	6	\$180,000
86 Open steel stair, glass railings, stainless steel standoff support system	FLT	\$75,000.00	1	\$75,000	1	\$75,000		
87 Misc metals associated with elevator; pit ladder, sill angles, hoist beam	LS	\$6,750.00	1	\$6,750	1	\$6,750	1	\$6,750
88 Misc metals associated with remainder of interior fit-out	GSF	\$2.00	27,270	\$54,540	28,331	\$56,662	27,385	\$54,770
89 05-METALS TOTAL				\$1,873,159		\$2,080,275		\$857,988
90								
91								
92 06-WOODS, PLASTICS, AND COMPOSITES								
93								
94 Rough carpentry and blocking; exterior façade and roof	SF	\$2.00	21,006	\$42,011	23,496	\$46,993	10,743	\$21,487
95 Rough carpentry and blocking; drywall partitions and ceilings	SF	\$1.00	46,250	\$46,250	45,280	\$45,280	45,794	\$45,794
96 Exterior finish carpentry	LS	\$50,000.00	1	\$50,000	1	\$50,000	1	\$50,000
97 Restore barrel vault wood panel entry	OPEN	\$75,000.00			1	\$75,000	1	\$75,000
98 Wood wall paneling	SF	\$50.00	500	\$25,000	500	\$25,000	500	\$25,000
99 Reception Help Desk	LF	\$750.00	33	\$24,750	33	\$24,750	9	\$6,750
100 Registrar Public Counter	LF	\$500.00	13	\$6,500	17	\$8,500		
101 Conference Room, Meeting Room	RMS	\$5,000.00	4	\$20,000	4	\$20,000	6	\$30,000
102 Community Education	RMS	\$7,500.00					1	\$7,500
103 Business Center	RMS	\$4,000.00	1	\$4,000	1	\$4,000	1	\$4,000
104 Kitchenette	RMS	\$6,500.00	1	\$6,500	1	\$6,500	1	\$6,500
105 Mail Center	RMS	\$7,500.00	2	\$15,000	2	\$15,000	2	\$15,000
106 Student Registration Kiosk	EA	\$2,500.00	2	\$5,000	2	\$5,000	2	\$5,000
107 Toilet room vanity	LF	\$250.00	60	\$15,000	60	\$15,000	40	\$10,000
108 Misc interior architectural woodwork associated with interior fit-out	GSF	\$2.50	27,270	\$68,175	28,331	\$70,828	27,385	\$68,463
109 06-WOODS, PLASTICS, AND COMPOSITES TOTAL				\$328,187		\$411,851		\$370,494
110								
111								
112 07-THERMAL AND MOISTURE PROTECTION								
113								
114 Waterproof elevator pit	EA	\$3,500.00	1	\$3,500	1	\$3,500	1	\$3,500
115 Waterproof basement wall	SF	\$15.00	3,960	\$59,399	4,200	\$62,999		
116 Dampproof foundation wall	SF	\$4.00	225	\$900	225	\$900	645	\$2,581
117 Insulation to basement/foundation wall	SF	\$2.50	3,960	\$9,900	4,200	\$10,500	645	\$1,613
118 Exterior wall air and vapor barrier	SF	\$6.75	6,795	\$45,869	5,931	\$40,031	4,339	\$29,289
119 Fireproofing spray on steel	GSF	\$3.00	27,270	\$81,810	29,252	\$87,755	9,020	\$27,060
120 Elevator roof exhaust	EA	\$2,500.00	1	\$2,500	1	\$2,500	1	\$2,500



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
121 White 60mil PVC roofing, fully adhered - change to 3-ply built-up roof	SF	\$33.00	8,170	\$269,610	2,335	\$77,061	3,040	\$100,317
122 Pitched slate roofing	SF	\$75.00			6,755	\$506,655		
123 Repair slate roofing	SF	\$20.00					6,755	\$135,108
124 Repair/replace copper flashings, gutters, downspouts	LS	\$75,000.00			1	\$75,000	1	\$75,000
125 Entry canopy	LOC	\$15,000.00	2	\$30,000	1	\$15,000	1	\$15,000
126 egress canopy	LOC	\$5,000.00	2	\$10,000	2	\$10,000	2	\$10,000
127 Firestopping associated with interior fit-out	GSF	\$0.50	27,270	\$13,635	28,331	\$14,166	27,385	\$13,693
128 Caulking and sealants associated with exterior façade	SF	\$1.35	12,836	\$17,328	14,406	\$19,448	7,704	\$10,400
129 Caulking and sealants associated with interior fit-out	GSF	\$0.50	27,270	\$13,635	28,331	\$14,166	27,385	\$13,693
130 07-THERMAL AND MOISTURE PROTECTION TOTAL				\$558,086		\$939,679		\$439,752
131								
132								
133 08-OPENINGS								
134								
135 Entry storefront	SF	\$110.00	240	\$26,400	250	\$27,500	85	\$9,350
136 entrance pair of doors	PR	\$10,000.00	2	\$20,000	3	\$30,000	1	\$10,000
137 Restore exterior door	OPEN	\$7,500.00					6	\$45,000
138 Egress stair curtainwall	SF	\$125.00	650	\$81,250	1,295	\$161,875	860	\$107,438
139 Ribbon window 5' high	SF	\$95.00	5,150	\$489,269	3,865	\$367,218	2,420	\$229,895
140 New curtainwall facade inbound of existing façade restoration	SF	\$175.00			3,065	\$536,333		
141 Restore existing windows, secure	OPEN	\$3,500.00			67	\$234,500		
142 Remove window, replace with new	OPEN	\$6,500.00					67	\$435,500
143 Interior door	LEAF	\$1,725.00	103	\$177,675	113	\$194,925	53	\$91,425
144 Access door	EA	\$350.00	8	\$2,800	8	\$2,800	4	\$1,400
145 Interior glazing	SF	\$75.00	840	\$63,000	830	\$62,250	810	\$60,750
146 08-OPENINGS TOTAL				\$860,394		\$1,617,401		\$990,758
147								
148								
149 09-FINISHES								
150								
151 Exterior wall metal stud, sheathing, insul, drywall	SF	\$12.50	6,795	\$84,944	5,931	\$74,132	4,339	\$54,238
152 Upgrade existing façade to remain	SF	\$12.50					7,680	\$96,002
153 Interior face of basement wall	SF	\$6.50	3,960	\$25,739	4,200	\$27,299		
154 Interior drywall partitions	SF	\$15.00	33,425	\$501,375	32,915	\$493,725	32,335	\$485,025
155 Drywall ceilings; common areas, lobby	SF	\$15.00	2,070	\$31,050	2,235	\$33,525	1,440	\$21,600
156								
157								

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
158 Ceramic tile flooring, cove wall base; toilet rooms	SF	\$22.00	1,310	\$28,820	1,160	\$25,520	1,450	\$31,900
159 12x24 porcelain wall tile at wet wall xfull height	SF	\$25.00	1,355	\$33,875	1,265	\$31,625	1,275	\$31,875
160 Porcelain tile flooring; common area, lobby	SF	\$27.50	2,070	\$56,925	2,235	\$61,463	1,440	\$39,600
161 ACT ceilings	SF	\$5.50	19,472	\$107,093	20,149	\$110,822	22,721	\$124,964
162 toilet rooms	SF	\$5.75	1,310	\$7,533	1,160	\$6,670	1,450	\$8,338
163 LVT flooring; staff break room, kitchen	SF	\$8.50	535	\$4,548	535	\$4,548	420	\$3,570
164 Carpet tile flooring, cushion backing, 33-36oz	SF	\$5.00	18,937	\$94,683	19,614	\$98,072	22,301	\$111,504
165 Paint wall surfaces	SF	\$1.00	90,940	\$90,940	90,555	\$90,555	95,454	\$95,454
166 Sealed concrete; mech, shell (future)	SF	\$2.00	3,055	\$6,110	3,370	\$6,740	405	\$810
167 Paint exposed underside of structure	SF	\$1.50	3,055	\$4,583	3,370	\$5,055	405	\$608
168 09-FINISHES TOTAL				\$1,078,217		\$1,069,751		\$1,105,487
169								
170								
171 10-SPECIALTIES								
172								
173 Visual display surfaces	LS	\$20,000.00	1	\$20,000	1	\$20,000	1	\$20,000
174 Code compliance signage and way finding	GSF	\$1.00	27,270	\$27,270	28,331	\$28,331	27,385	\$27,385
175 Specialty signage at Lobby	RMS	\$15,000.00	1	\$15,000	1	\$15,000	1	\$15,000
176 Fire extinguisher; x3 ea per floor	EA	\$450.00	9	\$4,050	12	\$5,400	12	\$5,400
177 Toilet room partitions and accessories	RMS	\$10,000.00	8	\$80,000	8	\$80,000	4	\$40,000
178 Wash room toilet accessories	RMS	\$2,500.00	1	\$2,500	1	\$2,500	4	\$10,000
179 10-SPECIALTIES TOTAL				\$148,820		\$151,231		\$117,785
180								
181								
182 11-EQUIPMENT								
183								
184 Refrigerator/freezer, dishwasher, microwave; Kitchenette	RMS	\$6,600.00	1	\$6,600	1	\$6,600	1	\$6,600
185 Projection screen	EA	\$3,500.00	4	\$14,000	4	\$14,000	6	\$21,000
186 11-EQUIPMENT TOTAL				\$20,600		\$20,600		\$27,600
187								
188								
189 12-FURNISHINGS								
190								
191 Window treatment	SF	\$7.50	5,150	\$38,627	3,865	\$28,991	4,430	\$33,225
192 12-FURNISHINGS TOTAL				\$38,627		\$28,991		\$33,225
193								
194								



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
195 14-CONVEYING SYSTEMS								
196								
197 Passenger elevator, 3500#, 150fpm, 3 stop	LS	\$175,000.00	1	\$175,000	1	\$175,000	1	\$175,000
198 add extra stop	STOP	\$40,000.00					1	\$40,000
199 side opening cab, standard finishes, 12x24 porcelain tile flooring	CAB	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
200 14-CONVEYING SYSTEMS TOTAL				\$200,000		\$200,000		\$240,000
201								
202								
203 21,22,23-MECHANICAL								
204								
205 <i>Fire Protection</i>								
206 selective demo, cut, cap	MHRS	\$145.00	80	\$11,600	80	\$11,600	80	\$11,600
207 sprinkler coverage system	GSF	\$7.00	27,270	\$190,890	28,331	\$198,317	27,385	\$191,695
208								
209 <i>Plumbing</i>								
210 selective demo, cut, cap	MHRS	\$170.00	80	\$13,600	80	\$13,600	80	\$13,600
211 front end equipment and infrastructure	GSF	\$5.00	27,270	\$136,350	28,331	\$141,655	27,385	\$136,925
212 bathroom fixtures, janitor (fixtures, piping, misc)	FIX	\$6,800.00	26	\$176,800	26	\$176,800	20	\$136,000
213 floor drain w/ associated piping	EA	\$1,800.00	15	\$27,000	15	\$27,000	15	\$27,000
214 roof drain w/ associated piping	OPEN	\$2,400.00	4	\$9,600	1	\$2,400	2	\$4,800
215 misc. plumbing requirements, drawings, testing	GSF	\$1.25	27,270	\$34,088	28,331	\$35,414	27,385	\$34,231
216								
217 <i>HVAC</i>								
218 selective demo, cut, cap	MHRS	\$180.00	80	\$14,400	80	\$14,400	80	\$14,400
219 Multiple zone VRF system	GSF	\$48.00	27,270	\$1,308,960	28,331	\$1,359,888	27,385	\$1,314,480
220 Elevator machine room mechanically ventilated and air conditioning	RMS	\$5,000.00	1	\$5,000	1	\$5,000	1	\$5,000
221 Toilet room exhaust ducting and roof fan	RMS	\$7,500.00	8	\$60,000	8	\$60,000	4	\$30,000
222 misc. HVAC requirements, lifting, drawings, testing	GSF	\$2.50	27,270	\$68,175	28,331	\$70,828	27,385	\$68,463
223 21,22,23-MECHANICAL TOTAL				\$2,056,463		\$2,116,901		\$1,988,194
224								
225								
226								
227								
228								
229								
230								
231								

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
232 26-ELECTRICAL								
233								
234 Selective demo, cut, cap, make safe	MHRS	\$135.00	80	\$10,800	80	\$10,800	80	\$10,800
235 Panels and feeders	GSF	\$6.50	27,270	\$177,255	28,331	\$184,152	27,385	\$178,003
236 Feeds and connections	GSF	\$9.00	27,270	\$245,430	28,331	\$254,979	27,385	\$246,465
237 MEP equipment wiring	GSF	\$2.75	27,270	\$74,993	28,331	\$77,910	27,385	\$75,309
238 Lighting	GSF	\$8.00	27,270	\$218,160	28,331	\$226,648	27,385	\$219,080
239 Exit and emergency lighting	GSF	\$2.50	27,270	\$68,175	28,331	\$70,828	27,385	\$68,463
240 Lighting controls	GSF	\$1.00	27,270	\$27,270	28,331	\$28,331	27,385	\$27,385
241 Branch devices and wiring	GSF	\$3.75	27,270	\$102,263	28,331	\$106,241	27,385	\$102,694
242 Fire Alarm	GSF	\$5.00	27,270	\$136,350	28,331	\$141,655	27,385	\$136,925
243 Tel/Data	GSF	\$5.50	27,270	\$149,985	28,331	\$155,821	27,385	\$150,618
244 Security	GSF	\$1.50	27,270	\$40,905	28,331	\$42,497	27,385	\$41,078
245 Access Control	GSF	\$1.00	27,270	\$27,270	28,331	\$28,331	27,385	\$27,385
246 Misc electrical	GSF	\$1.50	27,270	\$40,905	28,331	\$42,497	27,385	\$41,078
247 26-ELECTRICAL TOTAL				\$1,319,760		\$1,370,688		\$1,325,280
248								
249								
250 31-EARTHWORK								
251								
252 Bulk earthwork to basement slab on grade platform, disposal	CY	\$35.00	4,327	\$151,448	4,327	\$151,448	1,610	\$56,351
253 Gravel subbase to slab on grade	CY	\$40.00	333	\$13,314	333	\$13,314	124	\$4,954
254 31-EARTHWORK TOTAL				\$164,762		\$164,762		\$61,305
255								
256								
257 32-EXTERIOR IMPROVEMENTS								
258								
259 Parking lot and circulation	SY	\$36.00	3,643	\$131,148	3,100	\$111,588	3,085	\$111,044
260 curbing	LF	\$45.00	1,370	\$61,650	1,465	\$65,925	1,380	\$62,100
261 new curb cut	LOC	\$5,000.00	3	\$15,000	3	\$15,000	3	\$15,000
262 parking space	SPACE	\$15.00	59	\$885	50	\$750	50	\$750
263 parking space, ADA	SPACE	\$285.00	3	\$855	3	\$855	3	\$855
264 Additional parking at off site location (Stephen Palmer site)	SPACE	\$1,500.00	50	\$75,000	50	\$75,000	50	\$75,000
265 Pedestrian pavement	SF	\$20.00	1,500	\$30,000	1,500	\$30,000	1,500	\$30,000
266 Soft landscaping; shrubs, ground cover, site improvements	SF	\$10.00	10,320	\$103,200	12,785	\$127,850	13,360	\$133,600
267 tree	EA	\$1,500.00	22	\$33,000	22	\$33,000	22	\$33,000
268 32-EXTERIOR IMPROVEMENTS TOTAL				\$450,738		\$459,968		\$461,349



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 27,270 GSF		OPTION TWO 28,331 GSF		OPTION THREE 27,385 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
269 33-UTILITIES								
270								
271 Street connection at water main; Highland Ave.	LOC	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
272 new domestic water service, fire sprinkler water service	LF	\$100.00	150	\$15,000	210	\$21,000	210	\$21,000
273 Sanitary service drain	LF	\$75.00	150	\$11,250	210	\$15,750	210	\$15,750
274 street connection at sanitary main; Highland Ave.	LOC	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
275 Stormwater management system - based on parking lot area	GSF	\$15.00	32,787	\$491,805	27,897	\$418,455	27,761	\$416,415
276 Site electrical primary service	LF	\$150.00	150	\$22,500	210	\$31,500	210	\$31,500
277 parking lot lighting	EA	\$5,000.00	10	\$50,000	8	\$40,000	8	\$40,000
278 33-UTILITIES TOTAL				\$640,555		\$576,705		\$574,665
279								
280								
281								

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTION DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
10 02-EXISTING CONDITIONS								
11								
12 Building Abatement; assumed	GSF	\$10.00	37,500	\$375,000	37,500	\$375,000		
13 Building Abatement - Budget from UEC Report Cost Estimates 2011	AL	\$217,500.00					1	\$217,500
14								
15 <i>Site limit of disturbance</i>		73,350 GSF			145,400 GSF		317,000 GSF	
16 demo existing parking lot	SF	\$1.75	26,665	\$46,664	26,665	\$46,664		
17 selective demo site improvements	GSF	\$1.00	34,185	\$34,185	34,185	\$34,185		
18 site prep, demolition	GSF	\$2.00					317,000	\$634,000
19								
20 Raze building	CFT	\$0.65	450,000	\$292,500	450,000	\$292,500	577,200	\$375,180
21 remove slab on grade and foundations	GSF	\$10.00	12,500	\$125,000	12,500	\$125,000	35,170	\$351,700
22 02-EXISTING CONDITIONS TOTAL				\$873,349		\$873,349		\$1,578,380
23								
24								
25 03-CONCRETE								
26								
27 Strip perimeter footing	LF	\$50.00	380	\$19,000	380	\$19,000	532	\$26,600
28 Isolated spread footing	EA	\$2,500.00	17	\$42,500	17	\$42,500	26	\$65,000
29 Elevator pit	EA	\$7,500.00	1	\$7,500	1	\$7,500	1	\$7,500
30 Slab on grade, u/slab insul., suspended slab over crawl space	SF	\$10.00	10,500	\$105,000	10,500	\$105,000	16,000	\$160,000
31 Basement wall	SF	\$50.00	4,560	\$228,000	4,560	\$228,000		
32 Foundation wall to perimeter of crawl space	SF	\$35.00	270	\$9,450	270	\$9,450	3,990	\$139,650
33 Topping on upper floor metal deck	SF	\$3.75	25,640	\$96,150	25,640	\$96,150	18,270	\$68,513
34 03-CONCRETE TOTAL				\$507,600		\$507,600		\$467,263
35								
36								
37 04-MASONRY								
38								
39 Masonry veneer exterior wall, insul	SF	\$37.50	8,350	\$313,125	8,350	\$313,125	11,034	\$413,775
40 8" CMU partitions at basement level, elevator shaft	SF	\$20.00	7,030	\$140,600	7,030	\$140,600	1,120	\$22,400
41 04-MASONRY TOTAL				\$453,725		\$453,725		\$436,175
42								
43								
44								
45								
46								



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTION DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
05-METALS								
47								
48								
49	Structural steel framing; assume 12#/gsf	TNS \$4,000.00	434	\$1,734,720	434	\$1,734,720	411	\$1,644,960
50	Metal floor deck	SF \$3.50	25,640	\$89,740	25,640	\$89,740	18,270	\$63,945
51	Metal roof deck	SF \$3.25	10,500	\$34,125	10,500	\$34,125	16,000	\$52,000
52	Lintel at ribbon window head	LF \$150.00	1,320	\$198,000	1,320	\$198,000	1,064	\$159,600
53	Preassembled metal egress stairs, folded steel plate treads, railings	FLT \$30,000.00	6	\$180,000	6	\$180,000	4	\$120,000
54	Open steel stair, glass railings, stainless steel standoff support system	FLT \$75,000.00	1	\$75,000	1	\$75,000	1	\$75,000
55	Misc metals associated with elevator; pit ladder, sill angles, hoist beam	LS \$6,750.00	1	\$6,750	1	\$6,750	1	\$6,750
56	Misc metals associated with remainder of interior fit-out	GSF \$2.00	36,140	\$72,280	36,140	\$72,280	34,270	\$68,540
57	05-METALS TOTAL			\$2,390,615		\$2,390,615		\$2,190,795
58								
59								
06-WOODS, PLASTICS, AND COMPOSITES								
60								
61								
62	Rough carpentry and blocking; exterior façade and roof	SF \$2.00	26,340	\$52,680	26,340	\$52,680	33,024	\$66,048
63	Rough carpentry and blocking; drywall partitions and ceilings	SF \$1.00	59,880	\$59,880	59,880	\$59,880	28,404	\$28,404
64	Exterior finish carpentry	LS \$50,000.00	1	\$50,000	1	\$50,000	1	\$50,000
65	Wood wall paneling	SF \$50.00	500	\$25,000	500	\$25,000	300	\$15,017
66	Reception Help Desk	LF \$750.00	33	\$24,750	33	\$24,750	33	\$24,750
67	Registrar Public Counter	LF \$500.00	11	\$5,500	11	\$5,500	11	\$5,500
68	Conference Room, Meeting Room	RMS \$5,000.00	3	\$15,000	3	\$15,000	2	\$10,000
69	Day Care Center	RMS \$7,500.00	1	\$7,500	1	\$7,500		
70	Business Center	RMS \$4,000.00	2	\$8,000	2	\$8,000	1	\$4,000
71	Kitchenette	RMS \$6,500.00	1	\$6,500	1	\$6,500	1	\$6,500
72	Mail Center	RMS \$7,500.00	1	\$7,500	1	\$7,500	1	\$7,500
73	Student Registration Kiosk	EA \$2,500.00	2	\$5,000	2	\$5,000	2	\$5,000
74	Toilet room vanity	LF \$250.00	40	\$10,000	40	\$10,000	40	\$10,000
75	Misc interior architectural woodwork associated with interior fit-out	GSF \$2.50	36,140	\$90,350	36,140	\$90,350	34,270	\$85,675
76	06-WOODS, PLASTICS, AND COMPOSITES TOTAL			\$367,660		\$367,660		\$318,394
77								
78								
79								
80								
81								
82								
83								

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTION DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF		
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
07-THERMAL AND MOISTURE PROTECTION									
84									
85									
86	Waterproof elevator pit	EA	\$3,500.00	1	\$3,500	1	\$3,500	1	\$3,500
87	Waterproof basement wall	SF	\$15.00	4,560	\$68,400	4,560	\$68,400		
88	Dampproof foundation wall	SF	\$4.00	270	\$1,080	270	\$1,080	3,990	\$15,960
89	Insulation to basement/foundation wall	SF	\$2.50	4,560	\$11,400	4,560	\$11,400	3,990	\$9,975
90	Exterior wall air and vapor barrier	SF	\$6.75	8,350	\$56,363	8,350	\$56,363	11,034	\$74,480
91	Fireproofing spray on steel	GSF	\$3.00	36,140	\$108,420	36,140	\$108,420	34,270	\$102,810
92	Elevator roof exhaust	EA	\$2,500.00	1	\$2,500	1	\$2,500	1	\$2,500
93	White 60mil PVC roofing, fully adhered - change to 3-ply built-up roof	SF	\$33.00	10,500	\$346,500	10,500	\$346,500	16,000	\$528,000
94	Entry canopy	LOC	\$15,000.00	2	\$30,000	2	\$30,000	1	\$15,000
95	egress canopy	LOC	\$5,000.00	2	\$10,000	2	\$10,000	2	\$10,000
96	Firestopping associated with interior fit-out	GSF	\$0.50	36,140	\$18,070	36,140	\$18,070	34,270	\$17,135
97	Caulking and sealants associated with exterior façade	SF	\$1.35	15,840	\$21,384	15,840	\$21,384	17,024	\$22,982
98	Caulking and sealants associated with interior fit-out	GSF	\$0.50	36,140	\$18,070	36,140	\$18,070	34,270	\$17,135
99	07-THERMAL AND MOISTURE PROTECTION TOTAL				\$695,687		\$695,687		\$819,477
100									
101									
102	08-OPENINGS								
103									
104	Entry storefront	SF	\$110.00	240	\$26,400	240	\$26,400	240	\$26,400
105	entrance pair of doors	PR	\$10,000.00	2	\$20,000	2	\$20,000	2	\$20,000
106	Egress stair curtainwall	SF	\$125.00	650	\$81,250	650	\$81,250	430	\$53,750
107	Ribbon window 5' high	SF	\$95.00	6,600	\$627,000	6,600	\$627,000	5,320	\$505,400
108	Interior door	LEAF	\$1,725.00	162	\$279,450	162	\$279,450	110	\$189,750
109	Access door	EA	\$350.00	6	\$2,100	6	\$2,100	4	\$1,400
110	Interior glazing	SF	\$75.00	1,130	\$84,750	1,130	\$84,750	410	\$30,750
111	08-OPENINGS TOTAL				\$1,120,950		\$1,120,950		\$827,450
112									
113									
114	09-FINISHES								
115									
116	Exterior wall metal stud, sheathing, insul, drywall	SF	\$12.50	8,350	\$104,375	8,350	\$104,375	11,034	\$137,925
117	Interior face of basement wall	SF	\$6.50	4,560	\$29,640	4,560	\$29,640		
118	Interior drywall partitions	SF	\$15.00	45,165	\$677,475	45,165	\$677,475	16,170	\$242,550
119	Drywall ceilings; common areas, lobby	SF	\$15.00	1,805	\$27,075	1,805	\$27,075	1,200	\$18,000
120									



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTION DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
121 Ceramic tile flooring, cove wall base; toilet rooms	SF	\$22.00	800	\$17,600	800	\$17,600	1,450	\$31,900
122 12x24 porcelain wall tile at wet wall xfull height	SF	\$25.00	850	\$21,250	850	\$21,250	1,275	\$31,875
123 Porcelain tile flooring; common area, lobby	SF	\$27.50	1,805	\$49,638	1,805	\$49,638	1,200	\$33,000
124 ACT ceilings	SF	\$5.50	25,558	\$140,569	25,558	\$140,569	29,502	\$162,258
125 toilet rooms	SF	\$5.75	800	\$4,600	800	\$4,600	1,450	\$8,338
126 LVT flooring; staff break room, kitchen	SF	\$8.50	445	\$3,783	445	\$3,783	445	\$3,783
127 Carpet tile flooring, cushion backing, 33-36oz	SF	\$5.00	25,113	\$125,565	25,113	\$125,565	29,057	\$145,283
128 Paint wall surfaces	SF	\$1.00	116,450	\$116,450	116,450	\$116,450	44,339	\$44,339
129 Sealed concrete; mech, shell (future)	SF	\$2.00	6,170	\$12,340	6,170	\$12,340	405	\$810
130 Paint exposed underside of structure	SF	\$1.50	6,170	\$9,255	6,170	\$9,255	405	\$608
131 09-FINISHES TOTAL				\$1,339,614		\$1,339,614		\$860,667
132								
133								
134 10-SPECIALTIES								
135								
136 Visual display surfaces	LS	\$20,000.00	1	\$20,000	1	\$20,000	1	\$20,000
137 Code compliance signage and way finding	GSF	\$1.00	36,140	\$36,140	36,140	\$36,140	34,270	\$34,270
138 Specialty signage at Lobby	RMS	\$15,000.00	1	\$15,000	1	\$15,000	1	\$15,000
139 Fire extinguisher; x3 ea per floor	EA	\$450.00	12	\$5,400	12	\$5,400	6	\$2,700
140 Toilet room partitions and accessories	RMS	\$10,000.00	6	\$60,000	6	\$60,000	4	\$40,000
141 Wash room toilet accessories	RMS	\$2,500.00	1	\$2,500	1	\$2,500	1	\$2,500
142 10-SPECIALTIES TOTAL				\$139,040		\$139,040		\$114,470
143								
144								
145 11-EQUIPMENT								
146								
147 Refrigerator/freezer, dishwasher, microwave; Kitchenette	RMS	\$6,600.00	1	\$6,600	1	\$6,600	1	\$6,600
148 Projection screen	EA	\$3,500.00	3	\$10,500	3	\$10,500	2	\$7,000
149 11-EQUIPMENT TOTAL				\$17,100		\$17,100		\$13,600
150								
151								
152 12-FURNISHINGS								
153								
154 Window treatment	SF	\$7.50	6,600	\$49,500	6,600	\$49,500	5,320	\$39,900
155 12-FURNISHINGS TOTAL				\$49,500		\$49,500		\$39,900
156								
157								

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTION DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF		
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
14-CONVEYING SYSTEMS									
158									
159									
160	Passenger elevator, 3500#, 150fpm, 3 stop	LS	\$175,000.00	1	\$175,000	1	\$175,000	1	\$175,000
161	add/eliminate extra stop	STOP	\$40,000.00	1	\$40,000	1	\$40,000	(1)	(\$40,000)
162	side opening cab, standard finishes, 12x24 porcelain tile flooring	CAB	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
163	14-CONVEYING SYSTEMS TOTAL				\$240,000		\$240,000		\$160,000
164									
165									
166	21,22,23-MECHANICAL								
167									
168	<i>Fire Protection</i>								
169	selective demo, cut, cap	MHRS	\$145.00	100	\$14,500	100	\$14,500	100	\$14,500
170	sprinkler coverage system	GSF	\$7.00	36,140	\$252,980	36,140	\$252,980	34,270	\$239,890
171									
172	<i>Plumbing</i>								
173	selective demo, cut, cap	MHRS	\$170.00	100	\$17,000	100	\$17,000	100	\$17,000
174	front end equipment and infrastructure	GSF	\$5.00	36,140	\$180,700	36,140	\$180,700	34,270	\$171,350
175	bathroom fixtures, janitor (fixtures, piping, misc)	FIX	\$6,800.00	26	\$176,800	26	\$176,800	20	\$136,000
176	floor drain w/ associated piping	EA	\$1,800.00	15	\$27,000	15	\$27,000	15	\$27,000
177	roof drain w/ associated piping	OPEN	\$2,400.00	5	\$12,000	5	\$12,000	7	\$16,800
178	misc. plumbing requirements, drawings, testing	GSF	\$1.25	36,140	\$45,175	36,140	\$45,175	34,270	\$42,838
179									
180	<i>HVAC</i>								
181	selective demo, cut, cap	MHRS	\$180.00	100	\$18,000	100	\$18,000	100	\$18,000
182	multiple zone VRF system	GSF	\$48.00	36,140	\$1,734,720	36,140	\$1,734,720	34,270	\$1,644,960
183	elevator machine room mechanically ventilated and air conditioning	RMS	\$5,000.00	1	\$5,000	1	\$5,000	1	\$5,000
184	toilet room exhaust ducting and roof fan	RMS	\$7,500.00	6	\$45,000	6	\$45,000	4	\$30,000
185	misc. HVAC requirements, lifting, drawings, testing	GSF	\$2.50	36,140	\$90,350	36,140	\$90,350	34,270	\$85,675
186	21,22,23-MECHANICAL TOTAL				\$2,619,225		\$2,619,225		\$2,449,013
187									
188									
189									
190									
191									
192									
193									
194									



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTION DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
195 26-ELECTRICAL								
196								
197 Selective demo, cut, cap, make safe	MHRS	\$135.00	100	\$13,500	100	\$13,500	100	\$13,500
198 Panels and feeders	GSF	\$6.50	36,140	\$234,910	36,140	\$234,910	34,270	\$222,755
199 Feeds and connections	GSF	\$9.00	36,140	\$325,260	36,140	\$325,260	34,270	\$308,430
200 MEP equipment wiring	GSF	\$2.75	36,140	\$99,385	36,140	\$99,385	34,270	\$94,243
201 Lighting	GSF	\$8.00	36,140	\$289,120	36,140	\$289,120	34,270	\$274,160
202 Exit and emergency lighting	GSF	\$2.50	36,140	\$90,350	36,140	\$90,350	34,270	\$85,675
203 Lighting controls	GSF	\$1.00	36,140	\$36,140	36,140	\$36,140	34,270	\$34,270
204 Branch devices and wiring	GSF	\$3.75	36,140	\$135,525	36,140	\$135,525	34,270	\$128,513
205 Fire Alarm	GSF	\$5.00	36,140	\$180,700	36,140	\$180,700	34,270	\$171,350
206 Tel/Data	GSF	\$5.50	36,140	\$198,770	36,140	\$198,770	34,270	\$188,485
207 Security	GSF	\$1.50	36,140	\$54,210	36,140	\$54,210	34,270	\$51,405
208 Access Control	GSF	\$1.00	36,140	\$36,140	36,140	\$36,140	34,270	\$34,270
209 Misc electrical	GSF	\$1.50	36,140	\$54,210	36,140	\$54,210	34,270	\$51,405
210 26-ELECTRICAL TOTAL				\$1,748,220		\$1,748,220		\$1,658,460
211								
212								
213 31-EARTHWORK								
214								
215 Bulk earthwork to basement slab on grade platform, disposal	CY	\$35.00	5,561	\$194,639	5,561	\$194,639		
216 Gravel subbase to slab on grade	CY	\$40.00	428	\$17,111	428	\$17,111	652	\$26,074
217 Excavate to level grade at 95'	CY	\$20.00					-	\$0
218 31-EARTHWORK TOTAL				\$211,750		\$211,750		\$26,074
219								
220								
221 32-EXTERIOR IMPROVEMENTS								
222								
223 Parking lot and circulation	SY	\$36.00	3,657	\$131,668	3,657	\$131,668	6,656	\$239,600
224 curbing	LF	\$45.00	2,105	\$94,725	2,105	\$94,725	1,185	\$53,325
225 new curb cut	LOC	\$5,000.00	2	\$10,000	2	\$10,000	2	\$10,000
226 parking space	SPACE	\$15.00	81	\$1,215	81	\$1,215	115	\$1,725
227 parking space, ADA	SPACE	\$285.00	4	\$1,140	4	\$1,140	4	\$1,140
228 Pedestrian pavement	SF	\$20.00	500	\$10,000	500	\$10,000	1,500	\$30,000
229 Relocated ballpark on former Stephen Palmer Building	LS	\$115,000.00			1	\$115,000		
230 Rotated basketball court	LS	\$50,000.00			1	\$50,000		
231								

PRELIMINARY SIX OPTIONS COST

Total Project Cost Estimate



Stephen Palmer and Hillside Elementary
Needham, MA

SITE OPTION DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION FOUR 36,140 GSF		OPTION FIVE 36,140 GSF		OPTION SIX 34,270 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
232 Retaining wall	LF	\$500.00					890	\$445,000
233 Environmental remediation	AL	\$1,000,000					1	\$1,000,000
234 Soft landscaping; shrubs, ground cover, site improvements	SF	\$10.00	23,785	\$237,850	43,785	\$437,850	1	\$300,000
235 tree	EA	\$1,500.00	35	\$52,500	35	\$52,500	30	\$45,000
236 seeding	SF	\$0.25					144,736	\$36,184
237 32-EXTERIOR IMPROVEMENTS TOTAL				\$539,098		\$904,098		\$2,161,974
238								
239								
240 33-UTILITIES								
241								
242 Street connection at water main	LOC	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
243 new domestic water service, fire sprinkler water service	LF	\$100.00	100	\$10,000	100	\$10,000	400	\$40,000
244 Sanitary service drain	LF	\$75.00	100	\$7,500	100	\$7,500	400	\$30,000
245 street connection at sanitary main	LOC	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
246 Stormwater management system - based on parking lot area	GSF	\$15.00	32,917	\$493,755	32,917	\$493,755	59,900	\$898,500
247 Site electrical primary service	LF	\$150.00	100	\$15,000	100	\$15,000	400	\$60,000
248 parking lot lighting	EA	\$5,000.00	10	\$50,000	8	\$40,000	8	\$40,000
249 33-UTILITIES TOTAL				\$626,255		\$616,255		\$1,118,500
250								
251								
252								

SECTION 10
PRELIMINARY SIX OPTIONS CONCEPTUAL SCHEDULE

PRELIMINARY SIX OPTIONS CONCEPTUAL SCHEDULE

This conceptual schedule was prepared by the Town of Needham Building Design and Construction Department based on their expectations of funding, special conditions and requirements, and was used in the development of the conceptual cost estimates for the Six Options.

SECTION 11
PRELIMINARY SIX OPTIONS COMPARATIVE MATRIX

PRELIMINARY OPTIONS COMPARATIVE MATRIX

Comparative Matrix of School Administration Options

	Emery Grover			Stephen Palmer		Hillside	NOTES
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	
	Emery Grover	Emery Grover	Emery Grover	Stephen Palmer	Stephen Palmer	Hillside Elem.	
	Demolish & Construct New Building	Façade Restoration with New Building	Renovate Existing with Addition	New Building on May Street	New Building on Great Plain Ave.	New Building	
Occupancy	June 2025	June 2025	June 2025	June 2025	Feb 2024	August 2024	
Zoning District	A-1	A-1	A-1	SR-B	SR-B	GR	
Proposed Design Area	27,270	28,331	27,385	36,140	36,140	34,270	
Estimated Total Project Cost	\$23,500,000	\$28,000,000	\$22,000,000	\$27,000,000	\$26,500,000	\$28,500,000	
Full Program Used	reduced	reduced	reduced	full	full	full	
1,200 sf Conference Center	no	no	900 sf	yes	yes	yes	
2,400 sf Day Care Center	no	no	no	yes	yes	yes	
3,500 sf Full IT Department	no	no	no	yes	yes	yes	
Future Program Expansion	no	no	no	some	some	yes	
Parking Spaces	62	53	53	95-100	95-100	115+	
Parking Compliance with Zoning	no	no	no	yes	yes	yes	
Allowable FAR of Site	0.5	0.5	0.5	0.3	0.3	0.3	
Maximum Allowed Floor Area (FAR)	23,077	23,077	23,077	52,925*	52,925*	321,472	
FAR Compliance	no	no	no	yes*	yes*	yes	
Max Lot Coverage: Table 4.2.4	no requirement	no requirement	no requirement	15%	15%	15% up to 25% w/special permit	
Max Building Height	3 story/40'	3 story/40'	3 story/40' pre-existing non-conforming	3 story/45'	3 story/45'	3 story/45'	
Green Space Requirement	no	no	no	yes	yes	yes	
Is CPA Funding Available	no	partial	partial	no	no	no	
Zoning Variance(s)	FAR/ parking	FAR/ parking	FAR/ parking	no	no	no	
Design & Functionality							
Meets Department Needs	minimum	minimum	minimum	good	good	good	
Natural Light in Offices	good	good	poor	good	good	good	
Windows to Exterior	good	good	fair	good	good	good	
Complies with Stacking Diagram	good	good	good	good	good	good	
Welcome Lobby	good	good	minimal	good	good	good	
Circulation	good	good	fair	good	good	good	
Special Conditions	zoning by-law change required	zoning by-law change required	zoning by-law change required	lease buyout	lease buyout		
Considerations	demolition delay	Historic Commission approval required	Historic Commission approval required			environmental conditions to be resolved	

\$4 - \$4.5m: Option 4, 5, and 6 include the full program add of ~7,000 sf. In addition these options are on building sites allowing for larger interior public spaces, adding an additional ~2,000 sf, for a total add of 9,000 sf.

* Using combined site areas of Stephen Palmer and Greens Field Parcels with jurisdictional boundary.

SECTION 12
FINAL THREE OPTIONS

FINAL THREE OPTIONS

On March 23, 2020, we presented the preliminary options to the Permanent Public Building Committee. The results of that presentation narrowed the six options down to two; Option One and Option Three. The Building Committee reasoned as follows:

Option One proposed to tear down the existing building to construct a new facility closer to Highland Avenue. This option maximized available area behind the new building for parking. It also meant taking down a historic structure and town landmark. Having a new office building with the most parking available suggested further study.

Option One is to be finalized.

Option Two looked at preserving the front and partial side walls of the historic building, removing everything behind, and constructing a new building similar to Option One. This option became very expensive with bracing the old wall to a new structure, and did not result in sufficient parking.

Option Two was eliminated.

Option Three proposed to restore the exterior of Emery Grover, renovate the interior and add an addition on the rear, or east side of the building. This option warranted further study.

Option Three is to be finalized.

Options Four and Five looked to the Stephen Palmer block along Pickering, between Mays and Great Plain, with a possible new building location by tearing down Stephen Palmer, or constructing a new building at Green's Field on Great Plain Ave. With Stephen Palmer under a lease agreement through year 2027, and active town use of Green's Field, Options Four and Five were both deemed not viable.

Option Four and Five were eliminated.

Option Six studied the tear down of Hillside Elementary and constructing a new administration building. While the site offered ample room for parking and future expansion, the remoteness from town center, as well as existing environmental issues were of concern.

Option Six was eliminated.

FINAL THREE OPTIONS

The two options recommended by the Permanent Public Building Committee (One and Three) were updated, an alternate version added, and subsequently presented to the Planning Board on April 7, 2020. The options were renamed Option One, Option Two (previously Option Three), and added after the Planning Board meeting, Option Three.

Option One proposed to tear down the existing building and construct a new office building. This option would net 86 parking spaces between on-site and off-site. Among the final options presented, this option was in the middle in terms of construction cost.

Option Two (formerly Option Three) represented the restoration of the Emery Grover exterior, renovation and modernization of the interior, and an addition attached to the rear. This option netted 72 parking spaces between on-site and off-site, and presented the least construction cost among the three options.

Option Three was the same as Option Two but the addition would be rotated 90 degrees. The advantage of rotating the addition was the ability to bring in natural light from north, east, and south walls. It offered challenges with connectivity to the existing building and was the most expensive of the options. Option Three netted 66 parking spaces between on-site and off-site.

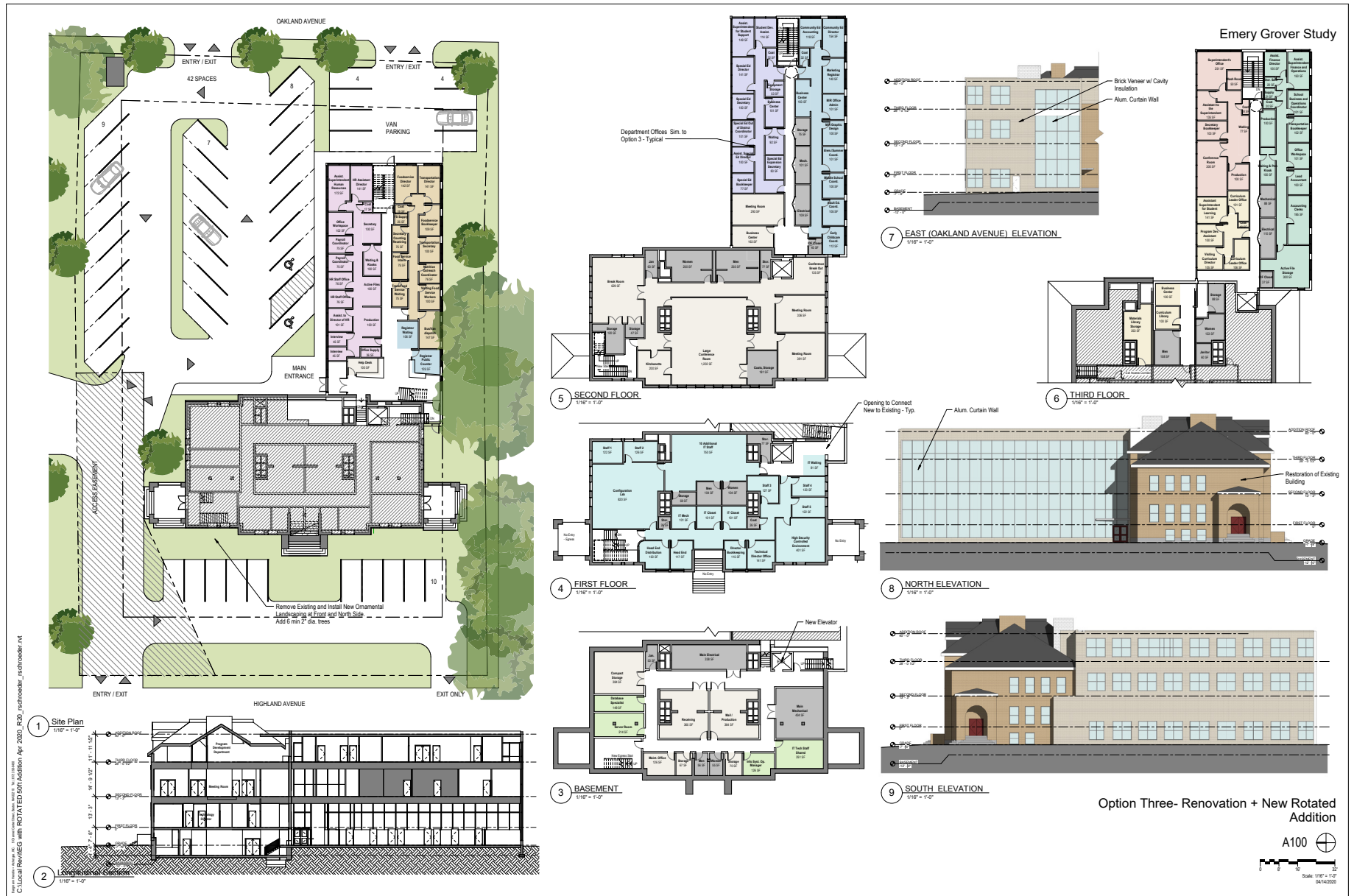
Because of the desirable opportunity for daylighting, Option Three was further explored with a parking garage to be constructed under the addition. This solution added a potential \$750,000 to the highest cost option and netted 74 parking spaces between on-site and off-site.



FINAL THREE OPTIONS

Option Two: Renovation and Addition

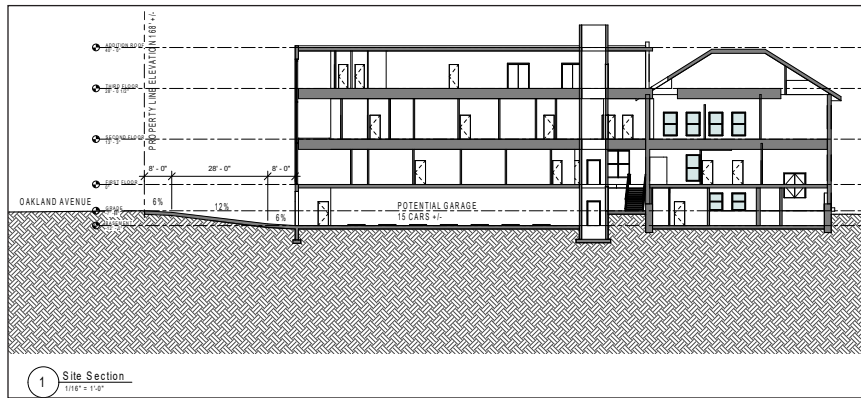




Prepared by: [unreadable] 10/10/2019
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 10/11/2020

FINAL THREE OPTIONS

Option Three: Renovation and Addition, Rotated,
with Garage Underneath




SECTION 13
FINAL THREE OPTIONS COST

FINAL THREE OPTIONS COST

Total Project Cost Estimate

TOTAL PROJECT COST WORKSHEET	Emery Grover		
	Option 1	Option 2	Option 3
HARD COST			
Construction Cost			
Construction Cost Estimate from CHA	18,777,000	18,559,000	19,513,000
IT mainframe transfer, with complete MDF room	250,000	250,000	250,000
Solar panels on roof of addition or new construction	500,000	500,000	500,000
Utility Back Charge	35,000	35,000	35,000
Furniture, Fixtures & Equipment	700,000	700,000	700,000
Hard Cost Subtotal	\$20,262,000	\$20,044,000	\$20,998,000
SOFT COST			
Permits & Approvals			
Planning Board Site Plan Approval (peer review)	10,000	10,000	10,000
Architecture & Engineering			
Architect & Engineer (% of construction cost <u>New Construction</u>) 8%	1,620,960	1,603,520	1,679,840
A&E Reimbursables	25,000	25,000	25,000
FF&E Specification & Purchasing 10%	70,000	70,000	70,000
Hazmat (inspection, specification, construction monitoring)	35,000	35,000	40,000
Environmental (ground water and soil vapor)			
Geotechnical Engineer	15,000	20,000	15,000
Survey & Layout	25,000	25,000	25,000
Testing & Inspections			
Concrete & Steel, Soil Inspections	100,000	100,000	100,000
Commissioning	50,000	50,000	50,000
Project Management			
Owner's Project Manager 2%	375,540	371,180	390,260
Moving			
Moving Expenses including two moves for Options 1 - 2	80,000	80,000	80,000
Advertising & Bidding			
Public Bidding: Advertising & Document Website	15,000	15,000	15,000
Legal			
Other			
Bonding Costs 0.30%	60,786	60,132	62,994
Soft Cost Subtotal	\$2,482,286	\$2,464,832	\$2,563,094
CONTINGENCY			
Contingency			
5% Construction & 10% Owner Contingency 15%	3,411,643	3,376,325	3,534,164
Project Total	\$26,155,929	\$25,885,157	\$27,095,258
OTHER CONSIDERATIONS AND NOTES			
Temporary School Administration Offices during construction			
CPC Funding: Eligible Amount			
CPC Funding: Available Amount		to be determined	to be determined


Needham School Administration
Emery Grover and Stephen Palmer Buildings
Hillside Elementary School Building
Needham, MA

April 28, 2020

Concept Estimate

Architect:
 Bargmann Hendrie + Archetype, Inc.
 9 Channel Center Street, Suite 330
 Boston, MA 02210
 (617) 350-0450

Cost Consultant:
 CHA Consulting Inc
 1 Faneuil Hall Marketplace
 South Market Bldg, Suite 4195
 Boston, MA 02109
 (617) 451-2717



INTRODUCTION

Project Description:

This construction cost estimate evaluates six options to house the Needham School Administration departments

Option One: Emery Grover Tear Down

renovate Hillside Elementary School to build-out temporary swing space
 abatement, building demolition, new 3 story building with basement
 site demolition, remove oil tank, subsurface contamination cap, new site infrastructure, parking lot and improvements

Option Three: Emery Grover Restoration and Addition

renovate Hillside Elementary School to build-out temporary swing space
 abatement, new 30' addition at rear of building, repair and restoration façade and slate roofing
 selective site demolition, remove oil tank, subsurface contamination cap, new parking lot and site improvements

Option Three Rotated: Emery Grover Restoration and Addition

renovate Hillside Elementary School to build-out temporary swing space
 brace historic façade, abatement, building demolition, new 3 story building with basement, restore historic façade
 selective site demolition, remove oil tank, subsurface contamination cap, new parking lot and site improvements

Project Particulars:


Documents prepared by Bargmann Hendrie + Archetype, Inc.
 Design Team clarifications and supplemental information during estimating production period
 Detailed quantity takeoffs where possible from design documents and reports
 CHA Consulting, Inc. experience with similar projects of this nature
 Discussion and review with Bargmann Hendrie + Archetype, Inc. and their Consultant Design Team

Project Assumptions:

The project will be procured by GC/Filed Sub Bid as per MGL Chapter 149 bidding/pre-qualification process
 The Total Estimated Construction Cost reflects the fair construction value of this project in a competitive bidding market and includes cost escalation to cover the construction duration
 Our costs assume that there will be at least three subcontractors submitting unrestricted bids in each trade bid category
 Direct trade unit rates include escalation to mid-point of construction duration and prevailing wage labor rates.
 These unit rates continue to be updated during the design period
 Operation during normal working hours
 Building will be unoccupied during construction
 Noise and vibration disturbances are anticipated and will be minimized or avoided during normal business hours
 Temporary electrical and water site utility connections will be available. General Conditions value includes utility connections and consumption costs
 Existing water pressure is adequate
 Subcontractor's markups are included in each unit rate. These markups cover field and home office overhead and subcontractor's profit
 Design and Pricing Contingency markup is an allowance for unforeseen design issues, design detail development and specification clarifications during the design period

FINAL THREE OPTIONS COST

Total Project Cost Estimate


 Needham School Administration
 Needham, MA

INTRODUCTION

Project Assumptions: cont'd

General Conditions covers facilities to support project, and site office overhead that is not attributable to the direct trade costs

Project Requirements value covers scaffolding, staging and access, temporary protection, and cleaning Options One, Two, Three; anticipated bid date Mar 2022, 38 month duration, move in May 2025


Escalation allowance from now to Bid Date has been carried in the Main Summary. This allowance is adjusted, and typically reduces during the design period, to more accurately reflect the current bidding climate

Construction Cost Estimate Exclusions:

- Rock excavation and dewatering
- Work beyond the boundary of the site
- Site or existing condition surveys and investigations
- Utility company back charges during construction
- Third Party testing and commissioning
- Police details and street/sidewalk permits
- Building permit fees

Needham School Admin Options Concept Apr 28
Printed 4/28/2020

Introduction
Page 3 of 14 Pages


 Needham School Administration
 Needham, MA

OPTIONS MAIN SUMMARY

ELEMENT	OPTIONS		
Emery Grover Building			
Option One: Emery Grover Tear Down	31,162 GSF	\$18,777,000	\$602.56
Option Three: Emery Grover Restoration and Addition	32,907 GSF	\$18,559,000	\$563.98
Option Three Rotated: Emery Grover Restoration and Addition	34,717 GSF	\$19,513,000	\$562.06
New below grade parking for 16 spaces	16 SPACE	\$760,000	\$47,500.00

Needham School Admin Options Concept Apr 28
Printed 4/28/2020

Option Main Summary
Page 4 of 14 Pages



Emery Grover Building
Needham, MA

EMERY GROVER BUILDING OPTIONS SUMMARY

ELEMENT		OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
Direct Trade Costs							
Renovate Hillside Elementary School As Swing Space		\$1,470,150	\$47.18	\$1,470,150	\$44.68	\$1,470,150	\$42.35
Direct Trade Costs Details		\$12,299,151	\$394.68	\$11,892,844	\$361.41	\$12,707,930	\$366.04
Design and Pricing Contingency	10.00%	\$1,377,000	\$44.19	\$1,337,000	\$40.63	\$1,418,000	\$40.84
Direct Trade Cost Total		\$15,146,301	\$486.05	\$14,699,994	\$446.71	\$15,596,080	\$449.23
Mark-Ups and Burdens							
General Conditions, Project Requirements		\$1,212,000	\$38.89	\$1,470,000	\$44.67	\$1,404,000	\$40.44
Performance and Sub-Contractor Bonds	0.85%	\$140,000	\$4.49	\$138,000	\$4.19	\$145,000	\$4.18
General Liability Insurance	1.25%	\$207,000	\$6.64	\$204,000	\$6.20	\$215,000	\$6.19
Profit	3.50%	\$585,000	\$18.77	\$578,000	\$17.56	\$608,000	\$17.51
Estimated Construction Cost Total		\$17,290,301	\$554.85	\$17,089,994	\$519.34	\$17,968,080	\$517.56
Escalation allowance from now to anticipated Bid	8.59%	\$1,486,000	\$47.69	\$1,469,000	\$44.64	\$1,544,000	\$44.47
Estimated Construction Cost Total at Bid Opening		\$18,777,000	\$602.56	\$18,559,000	\$563.98	\$19,513,000	\$562.06

FINAL THREE OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST SUMMARY

ELEMENT	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
02-EXISTING CONDITIONS	\$1,931,178	\$61.97	\$1,901,105	\$57.77	\$1,895,855	\$54.61
03-CONCRETE	\$432,755	\$13.89	\$154,705	\$4.70	\$171,615	\$4.94
04-MASONRY	\$305,182	\$9.79	\$758,812	\$23.06	\$857,641	\$24.70
05-METALS	\$1,968,876	\$63.18	\$1,457,961	\$44.31	\$1,549,336	\$44.63
06-WOODS, PLASTICS, AND COMPOSITES	\$340,927	\$10.94	\$391,557	\$11.90	\$403,711	\$11.63
07-THERMAL AND MOISTURE PROTECTION	\$556,044	\$17.84	\$518,872	\$15.77	\$544,426	\$15.68
08-OPENINGS	\$1,324,355	\$42.50	\$1,217,575	\$37.00	\$1,492,525	\$42.99
09-FINISHES	\$1,177,458	\$37.79	\$1,164,777	\$35.40	\$1,210,264	\$34.86
10-SPECIALTIES	\$152,712	\$4.90	\$123,307	\$3.75	\$125,117	\$3.60
11-EQUIPMENT	\$20,600	\$0.66	\$27,600	\$0.84	\$27,600	\$0.79
12-FURNISHINGS	\$15,750	\$0.51	\$24,975	\$0.76	\$24,975	\$0.72
14-CONVEYING SYSTEMS	\$200,000	\$6.42	\$240,000	\$7.29	\$240,000	\$6.91
21,22,23-MECHANICAL	\$2,304,578	\$73.95	\$2,340,221	\$71.12	\$2,455,609	\$70.73
26-ELECTRICAL	\$1,506,576	\$48.35	\$1,590,336	\$48.33	\$1,677,216	\$48.31
31-EARTHWORK	\$164,621		\$93,795		\$93,795	
32-EXTERIOR IMPROVEMENTS	\$555,940		\$572,745		\$623,745	
33-UTILITIES	\$811,750		\$784,650		\$784,650	
Direct Trade Details SubTotal	\$13,769,301	\$441.86	\$13,362,994	\$406.08	\$14,178,080	\$408.39



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
10 02-EXISTING CONDITIONS								
11								
12 Renovate Hillside Elementary School to create temp swing space		12,000 GSF						
13 temp protection and temp construction during demo	LS	\$10,000.00	1	\$10,000	1	\$10,000	1	\$10,000
14 demo interior partition	LF	\$50.00	180	\$9,000	180	\$9,000	180	\$9,000
15 remove bearing wall, temp shoring	LOC	\$10,000.00	2	\$20,000	2	\$20,000	2	\$20,000
16 demo classroom casework	LF	\$25.00	226	\$5,650	226	\$5,650	226	\$5,650
17 remove corridor locker and base	EA	\$250.00	80	\$20,000	80	\$20,000	80	\$20,000
18 gut demo toilet room	RMS	\$5,000.00	13	\$65,000	13	\$65,000	13	\$65,000
19 remove flooring and ceiling finishes	GSF	\$3.00	12,000	\$36,000	12,000	\$36,000	12,000	\$36,000
20 cart demo materials including MEP debris, disposal	CY	\$65.00	300	\$19,500	300	\$19,500	300	\$19,500
21 new interior partition, door	LF	\$200.00	2,000	\$400,000	2,000	\$400,000	2,000	\$400,000
22 new fit-out of gang restroom	RMS	\$10,000.00	6	\$60,000	6	\$60,000	6	\$60,000
23 new flooring, wall and ceiling finishes	GSF	\$12.50	12,000	\$150,000	12,000	\$150,000	12,000	\$150,000
24 code compliance upgrades to egress stair	FLT	\$7,500.00	2	\$15,000	2	\$15,000	2	\$15,000
25 new air distribution, lighting, power, low voltage systems	GSF	\$55.00	12,000	\$660,000	12,000	\$660,000	12,000	\$660,000
26								
27 Building Abatement - quantities from UEC Report								
28 light pink 12x12 vinyl floor tile	SF	\$10.00	60	\$600	60	\$600	60	\$600
29 12x12 grey w/green vinyl floor tile	SF	\$4.00	7,500	\$30,000	7,500	\$30,000	7,500	\$30,000
30 mastic for grey linoleum floor covering	SF	\$10.00	250	\$2,500	250	\$2,500	250	\$2,500
31 brown linoleum floor covering	SF	\$10.00	200	\$2,000	200	\$2,000	200	\$2,000
32 mastic for brown linoleum floor covering	SF	\$10.00	200	\$2,000	200	\$2,000	200	\$2,000
33 basement water tank pipe insulation	LF	\$50.00	3	\$150	3	\$150	3	\$150
34 misc air quantity and testing	LS	\$5,600.00	1	\$5,600	1	\$5,600	1	\$5,600
35								
36 Site limit of disturbance		58,000 GSF						
37 remove above ground oil tank	LS	\$50,000.00	1	\$50,000	1	\$50,000	1	\$50,000
38 demo existing parking lot	SF	\$1.75	48,620	\$85,085	45,940	\$80,395	45,940	\$80,395
39 selective demo site improvements	GSF	\$1.00	3,505	\$3,505	12,060	\$12,060	12,060	\$12,060
40								
41								
42								
43								
44								

FINAL THREE OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
45 <i>Emery Grover Building</i>			<i>17,115 GSF</i>					
46 raze building	CFT	\$0.65	339,751	\$220,838				
47 remove slab on grade and foundations	GSF	\$10.00	5,875	\$58,750				
48 premium for working behind existing façade to remain	LF	\$150.00			150	\$22,500	115	\$17,250
49 gut demo interior fit-out and systems	GSF	\$10.00			17,115	\$171,150	17,115	\$171,150
50 cut new elevator shaft opening	OPEN	\$4,000.00			3	\$12,000	3	\$12,000
51 demo main stair	FLT	\$5,000.00			2	\$10,000	2	\$10,000
52 modify opening on exterior façade	OPEN	\$5,000.00			6	\$30,000	6	\$30,000
53 02-EXISTING CONDITIONS TOTAL				\$1,931,178		\$1,901,105		\$1,895,855
54								
55								
56 03-CONCRETE								
57								
58 Strip perimeter footing	LF	\$50.00	330	\$16,508	200	\$10,017	250	\$12,500
59 Isolated spread footing	EA	\$2,500.00	14	\$35,000	8	\$20,000	9	\$22,500
60 Elevator pit	EA	\$7,500.00	1	\$7,500				
61 new pit in existing footprint	EA	\$10,000.00			1	\$10,000	1	\$10,000
62 Slab on grade, u/slab insul.	SF	\$10.00	8,163	\$81,630	4,651	\$46,510	5,078	\$50,780
63 Basement wall	SF	\$50.00	3,960	\$197,996				
64 Premium for working behind existing façade to remain	LF	\$50.00			105	\$5,250	60	\$2,975
65 Foundation wall	SF	\$35.00	225	\$7,875	801	\$28,046	1,000	\$35,000
66 Topping on upper floor metal deck	SF	\$3.75	22,999	\$86,246	9,302	\$34,883	10,096	\$37,860
67 03-CONCRETE TOTAL				\$432,755		\$154,705		\$171,615
68								
69								
70 04-MASONRY								
71								
72 Masonry veneer exterior wall, insul	SF	\$37.50	4,221	\$158,282	4,651	\$174,403	4,873	\$182,719
73 Restore existing façade; repoint, clean	GSF	\$50.00			7,680	\$384,009	9,490	\$474,522
74 8" CMU partitions at basement level, elevator shaft	SF	\$20.00	7,345	\$146,900	10,020	\$200,400	10,020	\$200,400
75 04-MASONRY TOTAL				\$305,182		\$758,812		\$857,641
76								
77								
78								
79								



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
80 05-METALS								
81								
82 Structural steel framing; assume 12#/gsf	TNS	\$4,000.00	374	\$1,495,776	167	\$669,744	182	\$728,352
83 Metal floor deck	SF	\$3.50	22,999	\$80,497	9,302	\$32,557	10,096	\$35,336
84 infill former main stair opening	OPEN	\$7,500.00			2	\$15,000	2	\$15,000
85 Restructure 3rd. Floor for conference space	GSF	\$75.00			900	\$67,500	900	\$67,500
86 Seismic bracing for existing building to remain	GSF	\$20.00			18,954	\$379,080	19,543	\$390,860
87 Metal roof deck	SF	\$3.25	8,163	\$26,530	4,651	\$15,116	5,078	\$16,504
88 Lintel at window head	LF	\$150.00	280	\$42,000	176	\$26,400	264	\$39,600
89 Preassembled metal egress stairs, folded steel plate treads, railings	FLT	\$30,000.00	6	\$180,000	6	\$180,000	6	\$180,000
90 Open steel stair, glass railings, stainless steel standoff support system	FLT	\$75,000.00	1	\$75,000				
91 Misc metals associated with elevator; pit ladder, sill angles, hoist beam	LS	\$6,750.00	1	\$6,750	1	\$6,750	1	\$6,750
92 Misc metals associated with remainder of interior fit-out	GSF	\$2.00	31,162	\$62,324	32,907	\$65,814	34,717	\$69,434
93 05-METALS TOTAL				\$1,968,876		\$1,457,961		\$1,549,336
94								
95								
96 06-WOODS, PLASTICS, AND COMPOSITES								
97								
98 Rough carpentry and blocking; exterior façade and roof	SF	\$2.00	20,999	\$41,997	14,217	\$28,434	17,016	\$34,031
99 Rough carpentry and blocking; drywall partitions and ceilings	SF	\$1.00	49,274	\$49,274	46,106	\$46,106	48,138	\$48,138
100 Exterior finish carpentry	LS	\$50,000.00	1	\$50,000	1	\$50,000	1	\$50,000
101 Restore barrel vault wood panel entry	OPEN	\$75,000.00			1	\$75,000	1	\$75,000
102 Wood wall paneling	SF	\$50.00	500	\$25,000	500	\$25,000	500	\$25,000
103 Reception Help Desk	LF	\$750.00	33	\$24,750	9	\$6,750	9	\$6,750
104 Registrar Public Counter	LF	\$500.00	13	\$6,500				
105 Conference Room, Meeting Room	RMS	\$5,000.00	4	\$20,000	6	\$30,000	6	\$30,000
106 Community Education	RMS	\$7,500.00			1	\$7,500	1	\$7,500
107 Business Center	RMS	\$4,000.00	1	\$4,000	1	\$4,000	1	\$4,000
108 Kitchenette	RMS	\$6,500.00	1	\$6,500	1	\$6,500	1	\$6,500
109 Mail Center	RMS	\$7,500.00	2	\$15,000	2	\$15,000	2	\$15,000
110 Student Registration Kiosk	EA	\$2,500.00	2	\$5,000	2	\$5,000	2	\$5,000
111 Toilet room vanity	LF	\$250.00	60	\$15,000	40	\$10,000	40	\$10,000
112 Misc interior architectural woodwork associated with interior fit-out	GSF	\$2.50	31,162	\$77,905	32,907	\$82,268	34,717	\$86,793
113 06-WOODS, PLASTICS, AND COMPOSITES TOTAL				\$340,927		\$391,557		\$403,711
114								

FINAL THREE OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF		
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
115 07-THERMAL AND MOISTURE PROTECTION									
116									
117	Waterproof elevator pit	EA	\$3,500.00	1	\$3,500	1	\$3,500	1	\$3,500
118	Waterproof basement wall	SF	\$15.00	3,960	\$59,399				
119	Dampproof foundation wall	SF	\$4.00	225	\$900	801	\$3,205	1,000	\$4,000
120	Insulation to basement/foundation wall	SF	\$2.50	3,960	\$9,900	801	\$2,003	1,000	\$2,500
121	Exterior wall air and vapor barrier	SF	\$6.75	4,221	\$28,491	4,651	\$31,393	4,873	\$32,889
122	Fireproofing spray on steel	GSF	\$3.00	31,162	\$93,486	13,953	\$41,859	15,174	\$45,522
123	Elevator roof exhaust	EA	\$2,500.00	1	\$2,500	1	\$2,500	1	\$2,500
124	White 60mil PVC roofing, fully adhered - change to 3-ply built-up roof	SF	\$33.00	8,163	\$269,379	4,651	\$153,483	5,078	\$167,574
125	Repair slate roofing	SF	\$20.00			6,755	\$135,108	6,755	\$135,108
126	Repair/replace copper flashings, gutters, downspouts	LS	\$75,000.00			1	\$75,000	1	\$75,000
127	Entry canopy	LOC	\$15,000.00	2	\$30,000	1	\$15,000	1	\$15,000
128	egress canopy	LOC	\$5,000.00	2	\$10,000	2	\$10,000	2	\$10,000
129	Firestopping associated with interior fit-out	GSF	\$0.50	31,162	\$15,581	32,907	\$16,454	34,717	\$17,359
130	Caulking and sealants associated with exterior façade	SF	\$1.35	12,836	\$17,328	9,566	\$12,914	11,938	\$16,116
131	Caulking and sealants associated with interior fit-out	GSF	\$0.50	31,162	\$15,581	32,907	\$16,454	34,717	\$17,359
132	07-THERMAL AND MOISTURE PROTECTION TOTAL				\$556,044		\$518,872		\$544,426
133									
134									
135 08-OPENINGS									
136									
137	Entry storefront	SF	\$110.00	95	\$10,450	85	\$9,350	85	\$9,350
138	entrance pair of doors	PR	\$10,000.00	2	\$20,000	1	\$10,000	1	\$10,000
139	Restore exterior door	OPEN	\$7,500.00			6	\$45,000	6	\$45,000
140	Curtainwall	SF	\$125.00	6,420	\$802,480	3,510	\$438,750	5,000	\$625,000
141	Window	SF	\$95.00	2,100	\$199,500	1,320	\$125,400	1,980	\$188,100
142	Remove window, replace with new	OPEN	\$6,500.00			67	\$435,500	71	\$461,500
143	Interior door	LEAF	\$1,725.00	125	\$215,625	53	\$91,425	53	\$91,425
144	Access door	EA	\$350.00	8	\$2,800	4	\$1,400	4	\$1,400
145	Interior glazing	SF	\$75.00	980	\$73,500	810	\$60,750	810	\$60,750
146	08-OPENINGS TOTAL				\$1,324,355		\$1,217,575		\$1,492,525
147									
148									
149									



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
150 09-FINISHES								
151								
152 Exterior wall metal stud, sheathing, insul, drywall	SF	\$12.50	4,221	\$52,761	4,651	\$58,134	4,873	\$60,906
153 Upgrade existing façade to remain	SF	\$12.50			7,680	\$96,002	9,490	\$118,631
154 Interior face of basement wall	SF	\$6.50	3,960	\$25,739				
155 Interior drywall partitions	SF	\$15.00	39,024	\$585,354	32,335	\$485,025	32,335	\$485,025
156 Drywall ceilings; common areas, lobby	SF	\$15.00	2,070	\$31,050	1,440	\$21,600	1,440	\$21,600
157 Ceramic tile flooring, cove wall base; toilet rooms	SF	\$22.00	1,310	\$28,820	1,450	\$31,900	1,450	\$31,900
158 12x24 porcelain wall tile at wet wall xfull height	SF	\$25.00	1,355	\$33,875	1,275	\$31,875	1,275	\$31,875
159 Porcelain tile flooring; common area, lobby	SF	\$27.50	2,070	\$56,925	1,440	\$39,600	1,440	\$39,600
160 ACT ceilings	SF	\$5.50	23,169	\$127,429	27,967	\$153,817	29,686	\$163,274
161 toilet rooms	SF	\$5.75	1,310	\$7,533	1,450	\$8,338	1,450	\$8,338
162 LVT flooring; staff break room, kitchen	SF	\$8.50	535	\$4,548	420	\$3,570	420	\$3,570
163 Carpet tile flooring, cushion backing, 33-36oz	SF	\$5.00	22,634	\$113,170	27,547	\$137,733	29,266	\$146,331
164 Paint wall surfaces	SF	\$1.00	99,563	\$99,563	95,766	\$95,766	97,798	\$97,798
165 Sealed concrete; mech, shell (future)	SF	\$2.00	3,055	\$6,110	405	\$810	405	\$810
166 Paint exposed underside of structure	SF	\$1.50	3,055	\$4,583	405	\$608	405	\$608
167 09-FINISHES TOTAL				\$1,177,458		\$1,164,777		\$1,210,264
168								
169								
170 10-SPECIALTIES								
171								
172 Visual display surfaces	LS	\$20,000.00	1	\$20,000	1	\$20,000	1	\$20,000
173 Code compliance signage and way finding	GSF	\$1.00	31,162	\$31,162	32,907	\$32,907	34,717	\$34,717
174 Specialty signage at Lobby	RMS	\$15,000.00	1	\$15,000	1	\$15,000	1	\$15,000
175 Fire extinguisher; x3 ea per floor	EA	\$450.00	9	\$4,050	12	\$5,400	12	\$5,400
176 Toilet room partitions and accessories	RMS	\$10,000.00	8	\$80,000	4	\$40,000	4	\$40,000
177 Wash room toilet accessories	RMS	\$2,500.00	1	\$2,500	4	\$10,000	4	\$10,000
178 10-SPECIALTIES TOTAL				\$152,712		\$123,307		\$125,117
179								
180								
181								
182								
183								
184								

FINAL THREE OPTIONS COST

Total Project Cost Estimate



EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
11-EQUIPMENT								
185								
186								
187 Refrigerator/freezer, dishwasher, microwave; Kitchenette	RMS	\$6,600.00	1	\$6,600	1	\$6,600	1	\$6,600
188 Projection screen	EA	\$3,500.00	4	\$14,000	6	\$21,000	6	\$21,000
189 11-EQUIPMENT TOTAL				\$20,600		\$27,600		\$27,600
190								
191								
12-FURNISHINGS								
192								
193								
194 Window treatment	SF	\$7.50	2,100	\$15,750	3,330	\$24,975	3,330	\$24,975
195 12-FURNISHINGS TOTAL				\$15,750		\$24,975		\$24,975
196								
197								
14-CONVEYING SYSTEMS								
198								
199								
200 Passenger elevator, 3500#, 150fpm, 3 stop	LS	\$175,000.00	1	\$175,000	1	\$175,000	1	\$175,000
201 add extra stop	STOP	\$40,000.00			1	\$40,000	1	\$40,000
202 side opening cab, standard finishes, 12x24 porcelain tile flooring	CAB	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
203 14-CONVEYING SYSTEMS TOTAL				\$200,000		\$240,000		\$240,000
204								
205								
21,22,23-MECHANICAL								
206								
207								
208 <i>Fire Protection</i>								
209 selective demo, cut, cap	MHRS	\$145.00	80	\$11,600	80	\$11,600	80	\$11,600
210 sprinkler coverage system	GSF	\$7.00	31,162	\$218,134	32,907	\$230,349	34,717	\$243,019
211								
212 <i>Plumbing</i>								
213 selective demo, cut, cap	MHRS	\$170.00	80	\$13,600	80	\$13,600	80	\$13,600
214 front end equipment and infrastructure	GSF	\$5.00	31,162	\$155,810	32,907	\$164,535	34,717	\$173,585
215 bathroom fixtures, janitor (fixtures, piping, misc)	FIX	\$6,800.00	26	\$176,800	20	\$136,000	20	\$136,000
216 floor drain w/ associated piping	EA	\$1,800.00	15	\$27,000	15	\$27,000	15	\$27,000
217 roof drain w/ associated piping	OPEN	\$2,400.00	4	\$9,600	2	\$4,800	2	\$4,800
218 misc. plumbing requirements, drawings, testing	GSF	\$1.25	31,162	\$38,953	32,907	\$41,134	34,717	\$43,396
219								



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
220 HVAC								
221 selective demo, cut, cap	MHRS	\$180.00	80	\$14,400	80	\$14,400	80	\$14,400
222 Multiple zone VRF system	GSF	\$48.00	31,162	\$1,495,776	32,907	\$1,579,536	34,717	\$1,666,416
223 Elevator machine room mechanically ventilated and air conditioning	RMS	\$5,000.00	1	\$5,000	1	\$5,000	1	\$5,000
224 Toilet room exhaust ducting and roof fan	RMS	\$7,500.00	8	\$60,000	4	\$30,000	4	\$30,000
225 misc. HVAC requirements, lifting, drawings, testing	GSF	\$2.50	31,162	\$77,905	32,907	\$82,268	34,717	\$86,793
226 21,22,23-MECHANICAL TOTAL				\$2,304,578		\$2,340,221		\$2,455,609
227								
228								
229 26-ELECTRICAL								
230								
231 Selective demo, cut, cap, make safe	MHRS	\$135.00	80	\$10,800	80	\$10,800	80	\$10,800
232 Panels and feeders	GSF	\$6.50	31,162	\$202,553	32,907	\$213,896	34,717	\$225,661
233 Feeds and connections	GSF	\$9.00	31,162	\$280,458	32,907	\$296,163	34,717	\$312,453
234 MEP equipment wiring	GSF	\$2.75	31,162	\$85,696	32,907	\$90,494	34,717	\$95,472
235 Lighting	GSF	\$8.00	31,162	\$249,296	32,907	\$263,256	34,717	\$277,736
236 Exit and emergency lighting	GSF	\$2.50	31,162	\$77,905	32,907	\$82,268	34,717	\$86,793
237 Lighting controls	GSF	\$1.00	31,162	\$31,162	32,907	\$32,907	34,717	\$34,717
238 Branch devices and wiring	GSF	\$3.75	31,162	\$116,858	32,907	\$123,401	34,717	\$130,189
239 Fire Alarm	GSF	\$5.00	31,162	\$155,810	32,907	\$164,535	34,717	\$173,585
240 Tel/Data	GSF	\$5.50	31,162	\$171,391	32,907	\$180,989	34,717	\$190,944
241 Security	GSF	\$1.50	31,162	\$46,743	32,907	\$49,361	34,717	\$52,076
242 Access Control	GSF	\$1.00	31,162	\$31,162	32,907	\$32,907	34,717	\$34,717
243 Misc electrical	GSF	\$1.50	31,162	\$46,743	32,907	\$49,361	34,717	\$52,076
244 26-ELECTRICAL TOTAL				\$1,506,576		\$1,590,336		\$1,677,216
245								
246								
247 31-EARTHWORK								
248								
249 Bulk earthwork to basement slab on grade platform, disposal	CY	\$35.00	4,323	\$151,318	2,463	\$86,216	2,463	\$86,216
250 Gravel subbase to slab on grade	CY	\$40.00	333	\$13,303	189	\$7,579	189	\$7,579
251 31-EARTHWORK TOTAL				\$164,621		\$93,795		\$93,795
252								
253								
254								

FINAL THREE OPTIONS COST

Total Project Cost Estimate



Emery Grover Building
Needham, MA

EMERY GROVER DIRECT TRADE COST DETAILS

ELEMENT	UNIT	UNIT RATE	OPTION ONE 31,162 GSF		OPTION TWO 32,907 GSF		OPTION THREE 34,717 GSF	
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
255 32-EXTERIOR IMPROVEMENTS								
256								
257 Parking lot and circulation	SY	\$36.00	4,911	\$176,800	4,640	\$167,040	4,640	\$167,040
258 curbing	LF	\$45.00	1,370	\$61,650	1,380	\$62,100	1,380	\$62,100
259 new curb cut	LOC	\$5,000.00	3	\$15,000	3	\$15,000	3	\$15,000
260 parking space	SPACE	\$15.00	59	\$885	50	\$750	50	\$750
261 parking space, ADA	SPACE	\$285.00	3	\$855	3	\$855	3	\$855
262 Additional parking at off site location (Stephen Palmer site)	SPACE	\$1,500.00	50	\$75,000	50	\$75,000	50	\$75,000
263 Pedestrian pavement	SF	\$20.00	1,500	\$30,000	1,500	\$30,000	1,500	\$30,000
264 Soft landscaping; shrubs, ground cover, site improvements	SF	\$10.00	16,275	\$162,750	18,900	\$189,000	24,000	\$240,000
265 tree	EA	\$1,500.00	22	\$33,000	22	\$33,000	22	\$33,000
266 32-EXTERIOR IMPROVEMENTS TOTAL				\$555,940		\$572,745		\$623,745
267								
268								
269 33-UTILITIES								
270								
271 Street connection at water main; Highland Ave.	LOC	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
272 new domestic water service, fire sprinkler water service	LF	\$100.00	150	\$15,000	210	\$21,000	210	\$21,000
273 Sanitary service drain	LF	\$75.00	150	\$11,250	210	\$15,750	210	\$15,750
274 street connection at sanitary main; Highland Ave.	LOC	\$25,000.00	1	\$25,000	1	\$25,000	1	\$25,000
275 Stormwater management system - based on parking lot area	GSF	\$15.00	44,200	\$663,000	41,760	\$626,400	41,760	\$626,400
276 Site electrical primary service	LF	\$150.00	150	\$22,500	210	\$31,500	210	\$31,500
277 parking lot lighting	EA	\$5,000.00	10	\$50,000	8	\$40,000	8	\$40,000
278 33-UTILITIES TOTAL				\$811,750		\$784,650		\$784,650
279								
280								
281								

SECTION 14
FINAL THREE OPTIONS CONCEPTUAL SCHEDULE

CONCEPTUAL SCHEDULE FINAL THREE OPTIONS

This conceptual schedule was prepared by the Town of Needham Building Design and Construction Department based on their expectations of funding, special conditions, and requirements, and was used in the development of the conceptual cost estimates for the Six Options.

EMERY GROVER - Feasibility Study		Assuming Accelerated Schedules with Design Start in 2021																																																																																																				
DRAFT - 4/29/2020 (R-3)		2020												2021												2022												2023												2024												2025																																								
Option	Description	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
	Feasibility Study																																																																																																					
	Funding Review																																																																																																					
	CPC Funding (if needed)																																																																																																					
	Town Meeting Approvals																																																																																																					
1	Emery Grover- Demo & New Const.																																																																																																					
	Demolition Delay																																																																																																					
	Funding																																																																																																					
	Design																																																																																																					
	Bid																																																																																																					
	Temp facilities																																																																																																					
	Construction																																																																																																					
	Move into New	Jul-24																																																																																																				
2 & 3	Emery Grover- Add & Renovation																																																																																																					
	Funding																																																																																																					
	Design																																																																																																					
	Bid																																																																																																					
	Temp facilities																																																																																																					
	Construction																																																																																																					
	Move into New	Jul-24																																																																																																				



Design Funds Construction Funds

SECTION 15
FINAL THREE OPTIONS COMPARATIVE MATRIX

FINAL THREE OPTIONS COMPARATIVE MATRIX

Comparative Matrix of School Administration Options

ZONING MATRIX

Options One, Two, and Three

- Zoning by-law amendment required for FAR to exceed 0.5
- Zoning waiver required for number of parking spaces provided on site.
- Zoning waiver required for additional future parking at Stephen Palmer site.
- Zoning waiver required for remote parking at a distance greater than 300 feet.

Options Two and Three

- Zoning waiver required for side yard setback (pre-existing non-conforming is 11 feet)
- Zoning waiver required for height of building exceeding 40 feet by aligning floors.
- Zoning waiver required for existing non-conforming driveway opening on Highland Avenue.

Emery Grover School Administration Study
May 020, 2020

COMPARATIVE MATRIX OF SCHOOL ADMINISTRATION FINAL THREE OPTIONS

	Emery Grover Site - 1330 Highland Avenue		
	Option 1	Option 2	Option 3
	Emery Grover	Emery Grover	Emery Grover
	Demolish & Construct New Building	Renovate Existing with Addition	Renovate Existing with Addition Rotated
Occupancy	June 2025	June 2025	June 2025
Zoning District	A-1	A-1	A-1
Proposed Design Area	31,162	32,907	34,717
Estimated Total Project Cost	\$26,160,000	\$25,890,000	\$27,100,000
Full Program Used	reduced	reduced	reduced
1,200 sf Conference Center	yes	yes	yes
3,500 sf Full IT Department	yes	yes	yes
Future Program Expansion	no	no	no
Parking Spaces	86	72	66
Parking Compliance with Zoning	no	no	no
Allowable FAR of Site	0.5	0.5	0.5
Maximum Allowed Floor Area (FAR)	23,077	23,077	23,077
FAR Compliance	no	no	no
Max Lot Coverage: Table 4.2.4	no requirement	no requirement	no requirement
Max Building Height	3 story/40'	3 story/40'	3 story/40' pre-existing non-conforming
Green Space Requirement	no	no	no
Is CPA Funding Available	no	partial	partial
Zoning Variance(s)	FAR/ parking	FAR/ parking	FAR/ parking
Design & Functionality			
Meets Department Needs	yes	yes	yes
Natural Light in Offices	good	good	good
Windows to Exterior	good	good	good
Complies with Stacking Diagram	good	good	good
Welcome Lobby	good	good	good
Circulation	good	good	good
Special Conditions	zoning by-law change required	zoning by-law change required	zoning by-law change required
Considerations	demolition delay	Historic Commission approval required	Historic Commission approval required

NOTES
Includes hard & soft costs, FF&E, IT Hub relocation, solar panels, contingency
Includes 24 spaces at Stephen Palmer
Refer to Zoning Matrix

A summary of the Needham zoning by-laws related to the three final options on the site included the following:

- Zoning District is A-1
- FAR not to exceed 0.50
- Site area 1.06 acres, or 46,174 square feet.
- Maximum FAR for this site 23,077 GSF
- 3 stories maximum
- 40-foot height limit.
- Parking at one space per 300 square feet of office use.

Areas of non-conformance with zoning existed for all options:

Option One – Tear Down / New Building is 31,162 GSF, which exceeded the FAR requirement of 0.5 at 0.66

Option Two – Renovation and Addition was 32,907 GSF, which exceeded the FAR requirement at 0.70

Option Three – Renovation and Addition Rotated is 34,717 GSF, which exceeded the FAR requirement at 0.75

The renovation and addition Options Two and Three were currently four stories at over 50 feet in height. Both were pre-existing non-conforming features.

The existing Emery Grover south portico did not meet the side yard setback and was pre-existing non-conforming. The new addition, however, was conforming.

The zoning by-law parking requirement per 5.1.2 was one space per 300 sq.ft office:

- 101 parking spaces were required for the new building option
- 114 parking spaces were required for the renovation and addition option

Option One - New building on-site parking provided 62 spaces including three handicap spaces.

Option Two - Renovation and addition on-site parking provided 42 spaces including two handicap spaces.

Option Three – Renovation and addition rotated on-site parking provided 48 spaces including two handicap spaces

Option Three – Renovation and addition rotated with Garage on-site parking provided 50 spaces.

Since on-site parking was insufficient for both options, the Permanent Public Building Committee was considering off-site parking at the Stephen Palmer building site on Pickering Street.

Remote parking on Pickering Street at the Stephen Palmer building would provide 24 additional spaces. The distance to this parking lot is greater than 500 feet. Remote parking must be within 300 feet of the site per zoning.

All options would require the following zoning amendments and waivers:

- Zoning by-law amendment required for FAR to exceed 0.5. This will require Town Meeting approval.
- Zoning waiver required for number of parking spaces provided on site.
- Zoning waiver required for additional future remote parking at Stephen Palmer site.
- Zoning waiver required for remote parking at a distance greater than 300 feet.
- Options Two and Three renovation and addition option further required the following zoning waivers in addition to those listed above:
 - Zoning waiver required for height of building exceeding 40 feet by aligning floors (pre-existing non-conforming).
 - Zoning waiver required for side yard setback (existing is 11 feet) (pre-existing non-conforming).
 - Zoning waiver required for existing non-conforming driveway opening on Highland Avenue.

SECTION 16
COMMUNITY PRESERVATION ACT (CPA)
FUNDING ANALYSIS

COMMUNITY PRESERVATION ACT (CPA) FUNDING ANALYSIS

In this report, the Town of Needham completed a comprehensive review of alternatives for accommodating the Needham School Department needs for the next 25 to 50 years and concluded that the renovation and addition to the existing Emery Grover Building was the preferred option. While the demolition and construction of a new building on the site has advantages, it would not preserve an important historic edifice that anchors the north end of Needham's downtown business district. The study also reviewed the potential sale of the site to a private developer for reuse as apartment or office space. The highest value for a private developer was also determined to be for the land, with demolition of the existing building. The total value of the potential sale was in the \$1 to \$3 million-dollar range but might be zero dollars if an historic easement were placed on the property. The Town may not find any buyers in the current market conditions. If the Town was interested in preserving this historic building, the Town would need to take the lead in funding the renovation and reuse of the building for future generations. CPA funding was an important part for financing the renovation project.

The Emery Grover Building was listed on the National Register of Historic Places, and was specifically noted as an important "Historic Resource" on page 18 of the Town of Needham Community Preservation Plan, prepared by the Community Preservation Committee (CPC), 2014. Without question, Emery Grover was eligible for CPA funds as a local, state, and national historic resource. The Community Preservation Fund on page 19 outlined the Historic Preservation Goals set forth by the Town: "to preserve buildings, structures, vessels, archaeological sites, or real property that are listed or eligible for listing on the Massachusetts State Register of Historic Places or have been determined by the Needham Historical Commission to be significant in the history, archaeology, architecture or culture of the Town."

Part C of the Plan's Historic Preservation section outlined factors for consideration by the Committee toward approval of funding through the Community Preservation Act.

- Preserves and protects historic and cultural properties and sites to the extent allowed under the CPA.
- Demonstrates a public benefit to preserve historic resources. Town-owned facilities may be preferred in the Committee's evaluation process.
- Incorporates the remodeling, reconstruction, renovation and making of extraordinary repairs to historic resources, such as improvements intended to make historic facilities functional for their intended use, including but not limited to, handicapped accessibility and building code requirements.

Bullet points one and two were clearly covered by specific notation in the Plan. The third bullet point was the basis for the examination and analysis of the proposed costs to proceed with Option Two and/or Option Three in this report, as both options incorporated the existing building through remodeling, reconstruction, renovation, and the making of extraordinary repairs to historic resources. Both options include historic restoration of the exterior of the building, including significant interior work to make the Emery Grover Building functional for its continued use as the Needham School Administration Building.

The exterior restoration and interior remodeling required comprehensive Americans with Disabilities Act (ADA), and 521 CMR Massachusetts Architectural Access Board (MAAB) retrofitting, including access into the building, access vertically by elevator, safe egress from the building with new egress stairs, proper lighting, signage, etc. It also included the requirement for a fully code-compliant facility in all regards, including restrooms, mechanical / electrical / plumbing (MEP), fire sprinklers, and fire alarm. Rehabilitation as defined by the CPC Plan on page 20 was the guide for this eligibility analysis.

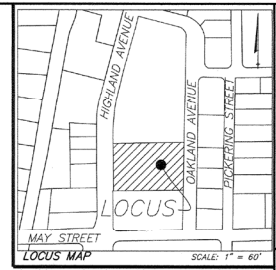
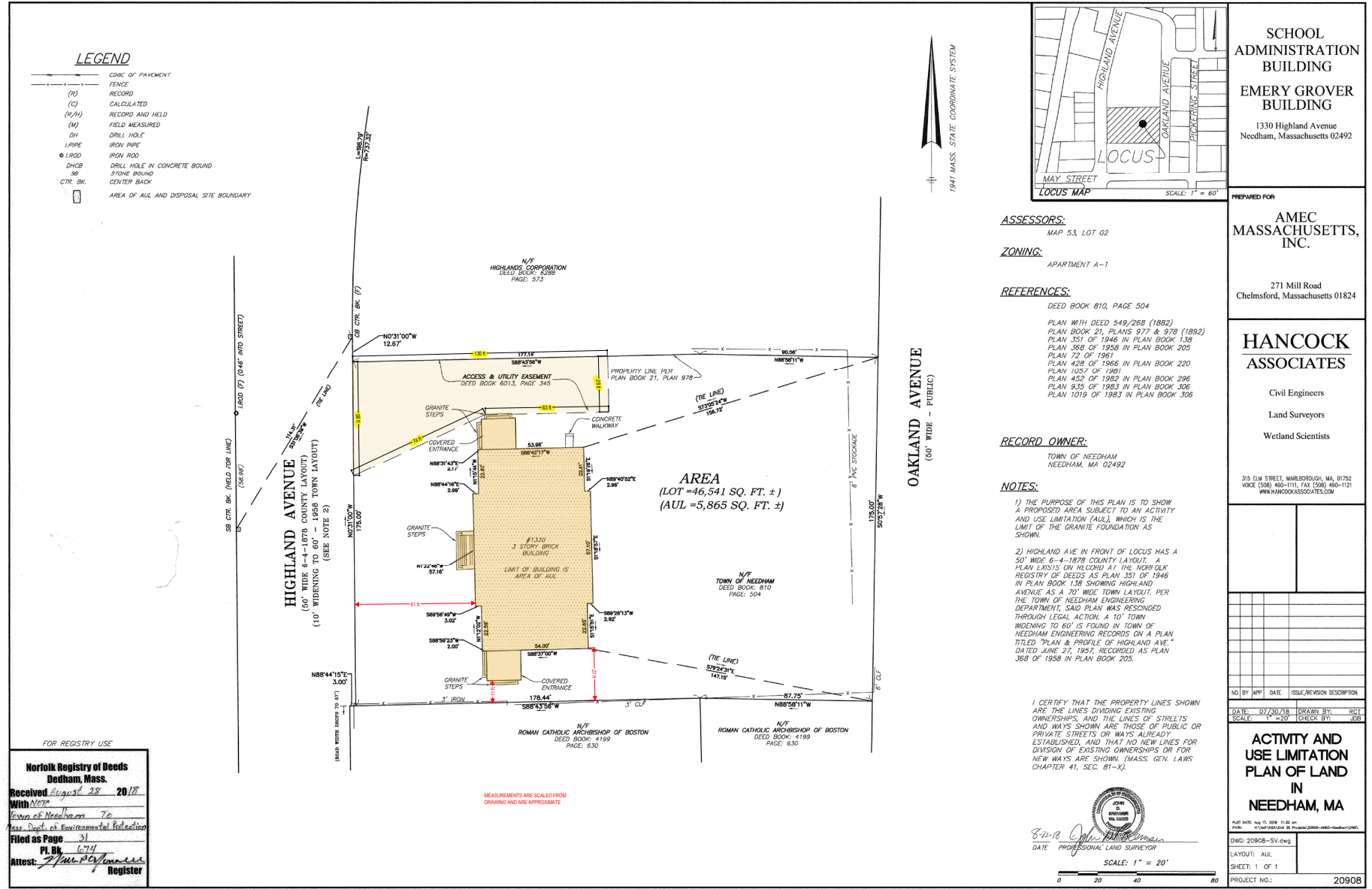
Other elements that were required to make this building functional for its intended use as the administration building were places of public interface, including help desks, and conference rooms. Providing code-compliant access to the building includes providing parking, zoning-mandated landscaping, and stormwater management. It also includes upgraded and new utilities to serve the building.

The following financial analysis reviewed each category of construction cost and set a specific value of eligible CPA funding that the Town could apply for under two of the three final options, Options Two and Three, based on the cost estimate included in this report dated April 28, 2020. Line items in the analysis were based on the percentage of the total floor plate separated between the existing building and the proposed addition.

For each option, existing and new percentages totaled 100 percent. Values are factored by the percentage of work in the existing building versus the addition. Specific determinations were made by reviewing the proposed design plans for functions that are not distributed across the complete floor, such as toilet rooms which occur within the existing building but not within the addition. Once a percentage of the construction costs was determined to be CPF eligible, that same percentage is applied to the soft costs for the project to get a total potentially eligible CPF value for each of the two options.

Using this methodology, both of these alternatives could be eligible for over 50% of the hard and soft project costs totaling about \$12 million dollars. While this should be considered a maximum eligible funding level for the Emery Grover project, the CPC must look at many factors to determine the appropriate actual funding level balancing requests for housing, open space, and other historic preservation projects. Town Meeting would eventually need to ratify the CPC-recommended funding for the project and appropriate the balance of the funding from other sources in order for the project to proceed.

COMMUNITY PRESERVATION ACT (CPA) FUNDING ANALYSIS



SCHOOL ADMINISTRATION BUILDING
EMERY GROVER BUILDING
1330 Highland Avenue
Needham, Massachusetts 02492

PREPARED FOR:
AMEC MASSACHUSETTS, INC.
271 Mill Road
Chelmsford, Massachusetts 01824

HANCOCK ASSOCIATES
Civil Engineers
Land Surveyors
Wetland Scientists

315 Elm Street, Marlborough, MA 01752
VOICE (508) 460-1111, FAX (508) 460-1121
WWW.HANCOCKASSOCIATES.COM

NO.	BY APP.	DATE	ISSUE/REVISION DESCRIPTION

DATE: 07/30/18 DRAWN BY: RCT
SCALE: 1" = 20' CHECK BY: JSB

ACTIVITY AND USE LIMITATION PLAN OF LAND IN NEEDHAM, MA
DATE: Aug 15, 2018 10:38 AM
FILE: C:\CPA\2018\2018-08-15\2018-08-15-Needham\CPA.dwg
DWG: 20908-Sv.dwg
LAYOUT: AUL
SHEET: 1 OF 1
PROJECT NO.: 20908

ASSESSORS:
MAP 53, LOT 02

ZONING:
APARTMENT A-1

REFERENCES:
DEED BOOK 810, PAGE 504
PLAN WITH DEED 549/268 (1882)
PLAN BOOK 21, PLANS 977 & 978 (1892)
PLAN 351 OF 1946 IN PLAN BOOK 138
PLAN 368 OF 1958 IN PLAN BOOK 205
PLAN 728 OF 1981
PLAN 428 OF 1966 IN PLAN BOOK 220
PLAN 1057 OF 1981
PLAN 452 OF 1982 IN PLAN BOOK 296
PLAN 935 OF 1983 IN PLAN BOOK 306
PLAN 1019 OF 1983 IN PLAN BOOK 308

RECORD OWNER:
TOWN OF NEEDHAM
NEEDHAM, MA 02492

NOTES:

- THE PURPOSE OF THIS PLAN IS TO SHOW A PROPOSED AREA SUBJECT TO AN ACTIVITY AND USE LIMITATION (AUL), WHICH IS THE LIMIT OF THE GRANITE FOUNDATION AS SHOWN.
- HIGHLAND AVE IN FRONT OF LOCUS HAS A 50' WIDE 6-4-1878 COUNTY LAYOUT. A PLAN EXISTS ON RECORD AT THE WOROLK REGISTRY OF DEEDS AS PLAN 351 OF 1946 IN PLAN BOOK 138 SHOWING HIGHLAND AVENUE AS A 70' WIDE TOWN LAYOUT. PER THE TOWN OF NEEDHAM ENGINEERING DEPARTMENT, SAID PLAN WAS RESCINDED THROUGH LEGAL ACTION. A 10' TOWN WIDENING TO 60' IS FOUND IN TOWN OF NEEDHAM ENGINEERING RECORDS ON A PLAN TITLED "PLAN & PROFILE OF HIGHLAND AVE," DATED JUNE 27, 1957, RECORDED AS PLAN 368 OF 1958 IN PLAN BOOK 205.

I CERTIFY THAT THE PROPERTY LINES SHOWN ARE THE LINES DIVIDING EXISTING OWNERSHIPS AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIPS OR FOR NEW WAYS ARE SHOWN (MASS. GEN. LAWS CHAPTER 41, SEC. 87-X).

8-21-18
DATE: PROFESSIONAL LAND SURVEYOR
SCALE: 1" = 20'

FOR REGISTRY USE

**Norfolk Registry of Deeds
Dedham, Mass.**

Received August 28 2018
With Note
Town of Needham To
Town Dept. of Environmental Protection
Filed as Page 31
Pl. Bk. 674
Attest: [Signature]
Register

674-31-2018

COMMUNITY PRESERVATION ACT (CPA) FUNDING ANALYSIS

DRAFT			Option Two Hard Costs - 32,907 GSF			Option Three Hard Costs - 34,717 GSF		
Line	Eligible Category	Comments	53.7	46.3	100.0	51.5	48.5	100.0
Item			% of Building Eligible	% of Building Not Eligible	Estimate Total	% of Building Eligible	% of Building Not Eligible	Estimate Total
HARD COSTS								
Site Limit of Disturbance								
37	Functionality	remove above ground oil tank behind building	\$50,000	\$0	\$50,000	\$50,000	\$0	\$50,000
38		demo existing parking lot	\$80,395	\$0	\$80,395	\$80,395	\$0	\$80,395
39		selective demo site improvements	\$12,060	\$0	\$12,060	\$12,060	\$0	\$12,060
Elevator								
50	ADA/MAAB Accessibility	cut new shaft opening	\$12,000	\$0	\$12,000	\$12,000	\$0	\$12,000
61		new pit in existing footprint	\$10,000	\$0	\$10,000	\$10,000	\$0	\$10,000
74		8" CMU partitions: bsmnt/elev shaft	\$200,400	\$0	\$200,400	\$200,400	\$0	\$200,400
91		metal: elev, pit ladder, hoist beam	\$6,750	\$0	\$6,750	\$6,750	\$0	\$6,750
117		waterproof elevator pit	\$3,500	\$0	\$3,500	\$3,500	\$0	\$3,500
200		3500lb passenger elevator	\$175,000	\$0	\$175,000	\$175,000	\$0	\$175,000
201		extra stop	\$40,000	\$0	\$40,000	\$40,000	\$0	\$40,000
202		cab, standard finishes	\$25,000	\$0	\$25,000	\$25,000	\$0	\$25,000
123		elevator roof exhaust	\$2,500	\$0	\$2,500	\$2,500	\$0	\$2,500
223		elevator machine room exhaust, ducting, roof fan	\$5,000	\$0	\$5,000	\$5,000	\$0	\$5,000
Egress Stairs								
89	ADA/MAAB Accessibility	Metal egress stairs (replace exist & new addition)	\$180,000	\$0	\$180,000	\$180,000	\$0	\$180,000
Exterior Restoration								
73	Historic Preservation	restore existing masonry façade	\$384,009	\$0	\$384,009	\$474,522	\$0	\$474,522
86		seismic bracing existing building	\$379,080	\$0	\$379,080	\$390,860	\$0	\$390,860
98		rough carpentry: façade and roof	\$28,434	\$0	\$28,434	\$34,031	\$0	\$34,031
100		exterior finish carpentry	\$50,000	\$0	\$50,000	\$50,000	\$0	\$50,000
101		restore barrel vault wood entry	\$75,000	\$0	\$75,000	\$75,000	\$0	\$75,000
125		repair slate roofing	\$135,108	\$0	\$135,108	\$135,108	\$0	\$135,108
126		repair/replace copper gutter & flash	\$75,000	\$0	\$75,000	\$75,000	\$0	\$75,000
130		caulking/sealant exterior façade	\$6,935	\$5,979	\$12,914	\$8,300	\$7,816	\$16,116
139		restoration of original entry door	\$45,000	\$0	\$45,000	\$45,000	\$0	\$45,000
142		remove and replace windows	\$435,500	\$0	\$435,500	\$461,500	\$0	\$461,500
153		Upgrade existing façade finishes	\$96,002	\$0	\$96,002	\$118,631	\$0	\$118,631
52		modify opening on exterior façade	\$30,000	\$0	\$30,000	\$30,000	\$0	\$30,000
Interior Renovations								
85	Functionality	restructure 3rd floor (attic)	\$67,500	\$0	\$67,500	\$67,500	\$0	\$67,500
92	code	Misc metals associated with remainder of interior fit-out	\$35,342	\$30,472	\$65,814	\$35,759	\$33,675	\$69,434
99		rough carpentry: partitions and ceilings	\$24,759	\$21,347	\$46,106	\$24,791	\$23,347	\$48,138
103		reception help desk	\$6,750	\$0	\$6,750	\$6,750	\$0	\$6,750
105		conference rooms & meeting rooms	\$30,000	\$0	\$30,000	\$15,450	\$14,550	\$30,000
Misc interior architectural woodwork associated with								
112		interior fit-out	\$44,178	\$38,090	\$82,268	\$44,698	\$42,095	\$86,793
155		interior partitions	\$260,458	\$224,567	\$485,025	\$249,788	\$235,237	\$485,025
129		Firestopping associated with interior fit-out	\$8,836	\$7,618	\$16,454	\$8,940	\$8,419	\$17,359
131		Caulking and sealants associated with interior fit-out	\$8,836	\$7,618	\$16,454	\$8,940	\$8,419	\$17,359
143		Interior door	\$49,095	\$42,330	\$91,425	\$47,084	\$44,341	\$91,425
160		ACT ceilings	\$82,600	\$71,217	\$153,817	\$84,086	\$79,188	\$163,274
163		Carpet tile flooring, cushion backing, 33-36oz	\$73,963	\$63,770	\$137,733	\$75,360	\$70,971	\$146,331
164		Paint wall surfaces	\$51,426	\$44,340	\$95,766	\$50,366	\$47,432	\$97,798

COMMUNITY PRESERVATION ACT (CPA) FUNDING ANALYSIS

DRAFT			Option Two Hard Costs - 32,907 GSF			Option Three Hard Costs - 34,717 GSF		
Line Item	Eligible Category	Comments	53.7	46.3	100.0	51.5	48.5	100.0
			% of Building Eligible	% of Building Not Eligible	Estimate Total	% of Building Eligible	% of Building Not Eligible	Estimate Total
Toilet Rooms								
111	ADA/MAAB Accessibility	vanities	\$10,000	\$0	\$10,000	\$10,000	\$0	\$10,000
176	Functionality	toilet partitions	\$40,000	\$0	\$40,000	\$40,000	\$0	\$40,000
177		toilet accessories	\$10,000	\$0	\$10,000	\$10,000	\$0	\$10,000
224		toilet room exhaust ducting, roof fan	\$30,000	\$0	\$30,000	\$30,000	\$0	\$30,000
157		Ceramic tile flooring, cove wall base; toilet rooms	\$31,900	\$0	\$31,900	\$31,900	\$0	\$31,900
158		12x24 porcelain wall tile at wet wall xfull height	\$31,875	\$0	\$31,875	\$31,875	\$0	\$31,875
161		toilet room ceilings	\$8,338	\$0	\$8,338	\$8,338	\$0	\$8,338
Specialties								
173	ADA/MAAB	code compliance signage and way finding	\$17,671	\$15,236	\$32,907	\$17,879	\$16,838	\$34,717
174	Code	Specialty signage at Lobby	\$15,000	\$0	\$15,000	\$15,000	\$0	\$15,000
Mechanical								
209	Functionality	sprinkler demo	\$11,600	\$0	\$11,600	\$11,600	\$0	\$11,600
210	Code	sprinkler coverage system	\$123,697	\$106,652	\$230,349	\$125,155	\$117,864	\$243,019
Plumbing								
213	functionality	plumbing demo	\$13,600	\$0	\$13,600	\$13,600	\$0	\$13,600
214	Code	front end equipment and infrastructure	\$88,355	\$76,180	\$164,535	\$89,396	\$84,189	\$173,585
215		plumbing fixtures	\$136,000	\$0	\$136,000	\$136,000	\$0	\$136,000
216		floor drains	\$27,000	\$0	\$27,000	\$27,000	\$0	\$27,000
218		misc. plumbing requirements, shop drawings, testing	\$41,134	\$0	\$41,134	\$43,396	\$0	\$43,396
HVAC								
221	Functionality	HVAC demo	\$14,400	\$0	\$14,400	\$14,400	\$0	\$14,400
222	Code	multizone VRF system	\$848,211	\$731,325	\$1,579,536	\$858,204	\$808,212	\$1,666,416
225		misc. HVAC requirements, lifting, shop drawings, testing	\$44,178	\$38,090	\$82,268	\$44,698	\$42,095	\$86,793
Electrical								
231	Functionality	electrical demo, make safe	\$10,800	\$0	\$10,800	\$10,800	\$0	\$10,800
232	Code	panels and feeders	\$114,862	\$99,034	\$213,896	\$116,215	\$109,446	\$225,661
233		feeds and connections	\$159,040	\$137,123	\$296,163	\$160,913	\$151,540	\$312,453
234		MEP equipment wiring	\$48,595	\$41,899	\$90,494	\$49,168	\$46,304	\$95,472
235		lighting	\$141,368	\$121,888	\$263,256	\$143,034	\$134,702	\$277,736
236		exit and emergency lighting	\$44,178	\$38,090	\$82,268	\$44,698	\$42,095	\$86,793
237		lighting controls	\$17,671	\$15,236	\$32,907	\$17,879	\$16,838	\$34,717
238		branch devices and wiring	\$66,266	\$57,135	\$123,401	\$67,047	\$63,142	\$130,189
239		fire alarm	\$88,355	\$76,180	\$164,535	\$89,396	\$84,189	\$173,585
240		tel/data	\$97,191	\$83,798	\$180,989	\$98,336	\$92,608	\$190,944
241		security	\$26,507	\$22,854	\$49,361	\$26,819	\$25,257	\$52,076
242		access control	\$17,671	\$15,236	\$32,907	\$17,879	\$16,838	\$34,717
243		misc. electrical	\$26,507	\$22,854	\$49,361	\$26,819	\$25,257	\$52,076

COMMUNITY PRESERVATION ACT (CPA) FUNDING ANALYSIS

DRAFT			Option Two Hard Costs - 32,907 GSF			Option Three Hard Costs - 34,717 GSF		
Line Item	Eligible Category	Comments	53.7 % of Building Eligible	46.3 % of Building Not Eligible	100.0 Estimate Total	51.5 % of Building Eligible	48.5 % of Building Not Eligible	100.0 Estimate Total
Exterior Improvements								
257	ADA/MAAB Accessibility	parking lot and circulation	\$89,700	\$77,340	\$167,040	\$86,026	\$81,014	\$167,040
258	Code	curbing	\$33,348	\$28,752	\$62,100	\$31,982	\$30,119	\$62,100
259	Functionality	new curb cut Highland Ave	\$8,055	\$6,945	\$15,000	\$7,725	\$7,275	\$15,000
260		parking space	\$403	\$347	\$750	\$386	\$364	\$750
261		ADA parking space	\$459	\$396	\$855	\$440	\$415	\$855
262		additional parking offsite at Stephen Palmer		\$75,000	\$75,000		\$75,000	\$75,000
263		pedestrian pavement	\$16,110	\$13,890	\$30,000	\$15,450	\$14,550	\$30,000
264		soft landscape, shrubs, ground cover, site improvements	\$101,493	\$87,507	\$189,000	\$123,600	\$116,400	\$240,000
265		tree	\$17,721	\$15,279	\$33,000	\$16,995	\$16,005	\$33,000
Utilities								
271	Code	street connection at water main Highland Ave	\$13,425	\$11,575	\$25,000	\$12,875	\$12,125	\$25,000
272	Functionality	new domestic water service, fire sprinkler water service	\$11,277	\$9,723	\$21,000	\$10,815	\$10,185	\$21,000
273		sanitary service drain	\$8,458	\$7,292	\$15,750	\$8,111	\$7,639	\$15,750
274		street connection at sanitary main Highland Ave	\$13,425	\$11,575	\$25,000	\$12,875	\$12,125	\$25,000
275		stormwater management system - parking lot	\$626,400	\$0	\$626,400	\$626,400	\$0	\$626,400
276		site electrical primary service	\$16,916	\$14,585	\$31,500	\$16,223	\$15,278	\$31,500
277		parking lot lighting	\$40,000	\$0	\$40,000	\$40,000	\$0	\$40,000
Contingency & Escalation								
		Design and Pricing Contingency (10%)	\$717,969	\$619,031	\$1,337,000	\$730,270	\$687,730	\$1,418,000
Mark-Ups and Burdens								
		General Conditions	\$789,390	\$680,610	\$1,470,000	\$723,060	\$680,940	\$1,404,000
		Bonds (0.85)	\$74,106	\$63,894	\$138,000	\$74,675	\$70,325	\$145,000
		General Liability Insurance (1.25%)	\$109,548	\$94,452	\$204,000	\$110,725	\$104,275	\$215,000
		Profit	\$310,386	\$267,614	\$578,000	\$313,120	\$294,880	\$608,000
Escalation								
		From now until anticipated Bid (8.59%)	\$788,853	\$680,147	\$1,469,000	\$795,630	\$749,283	\$1,544,913
All Other Hard Costs Not Eligible								
		Hillside and all other ineligible costs	\$0	\$4,061,061	\$4,061,061	\$0	\$4,429,275	\$4,429,275
HARD COSTS SUBTOTAL			\$9,475,828	\$9,083,172		\$9,604,899	\$9,908,101	

COMMUNITY PRESERVATION ACT (CPA) FUNDING ANALYSIS

DRAFT			Option Two Hard Costs - 32,907 GSF			Option Three Hard Costs - 34,717 GSF		
Line Item	Eligible Category	Comments	53.7	46.3	100.0	51.5	48.5	100.0
			% of Building Eligible	% of Building Not Eligible	Estimate Total	% of Building Eligible	% of Building Not Eligible	Estimate Total
			Eligible Multiplier	Total Construction Cost		Eligible Multiplier	Total Construction Cost	
	SOFT COSTS	Percentage Multiplier	51.06%	48.94%	\$18,559,000	49.22%	50.78%	\$19,513,000
		Based on Percentage of total Construction Costs p.5 CHA Estimate April 28, 2020						
	Permits and Approvals	Planning Board Site Plan Approval (per review)	\$5,106	\$4,894	\$10,000	\$5,150	\$4,850	\$10,000
	Architecture/Engineering							
		Design Fees: Architect / Engineering (8%)	\$818,723	\$784,763	\$1,603,520	\$826,869	\$853,023	\$1,679,840
		A&E Reimbursables	\$12,764	\$12,235	\$25,000	\$12,306	\$12,695	\$25,000
		FF&E Specification and Purchasing (10%)	\$35,741	\$34,258	\$70,000	\$34,456	\$35,546	\$70,000
		Hazmat (inspection, specification, construction monitoring)	\$17,870	\$17,129	\$35,000	\$17,228	\$17,773	\$35,000
		Geotechnical Engineer	\$10,212	\$9,788	\$20,000	\$7,383	\$7,617	\$15,000
		Survey and Layout	\$12,764	\$12,235	\$25,000	\$12,306	\$12,695	\$25,000
	Testing							
		concrete, steel, soil testing and inspections	\$51,058	\$48,940	\$100,000	\$49,223	\$50,780	\$100,000
		commissioning	\$25,529	\$24,470	\$50,000	\$24,612	\$25,390	\$50,000
	Project Management							
		Owner's Project Manager	\$189,517	\$181,655	\$371,180	\$192,098	\$198,174	\$390,260
	Moving							
		Moving out, moving back (2 moves)	\$40,846	\$39,152	\$80,000	\$39,378	\$40,624	\$80,000
	Advertising and Bidding							
		Public bidding, advertising, document management website	\$7,659	\$7,341	\$15,000	\$7,383	\$7,617	\$15,000
	Legal							
	Other Costs							
		Bonding Costs (0.30%)	\$30,702	\$29,429	\$60,132	\$31,008	\$31,988	\$62,994
	Owner Contingency							
		5% Construction & 10% Owner Contingency (15%)	\$1,723,879	\$1,652,373	\$3,376,325	\$1,739,624	\$1,794,648	\$3,534,164
	SOFT COSTS	SUBTOTAL	\$2,982,370	\$2,858,663	\$5,841,033	\$2,999,025	\$3,093,421	\$6,092,446
TOTAL ELIGIBLE			\$12,458,199			\$12,603,924		

COMMUNITY PRESERVATION ACT (CPA) FUNDING ANALYSIS

Notes from Community Preservation Plan 2014

C Historic Preservation Factors for Consideration

Incorporates the remodeling, reconstruction, renovation and making of extraordinary repairs to historic resources, such as improvements intended to make historic facilities functional for their intended use, including but not limited to, handicapped accessibility and building code requirements.

Appendix

Capital improvements, or the making of **extraordinary repairs, to historic resources**, open spaces, lands for recreational use and community housing for the purpose of making such historic resources, open spaces, lands for recreational use and community housing **functional for their intended uses including**, but not limited to, improvements to comply with the **Americans with Disabilities Act** and other **federal, state or local building or access codes**; provided, that with respect to historic resources, "rehabilitation" shall comply with the Standards for Rehabilitation stated in the United States Secretary of the Interior's Standards for the Treatment of Historic Properties codified in 36 C.F.R. Part 68; and provided further, that with respect to land for recreational use, "rehabilitation" shall include the replacement of playground equipment and other capital improvements to the land or the facilities thereon which make the land or the related facilities more functional for the intended recreational use.

APPENDIX

APPENDIX

National Register

RECEIVED OMB No. 1024-0018

JUL 24 1987

NATIONAL REGISTER

NPS Form 10-900 (Rev. 8-86)

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Registration Form**

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property
 historic name Emery Grover Building (preferred)
 other names/site number Needham High School

2. Location
 street & number 1330 Highland Avenue N/A not for publication
 city, town Needham N/A vicinity
 state Massachusetts code 025 county Norfolk code 021 zip code 02192

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input checked="" type="checkbox"/> building(s)	Contributing	Noncontributing
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	<u>1</u>	<u>0</u>
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<u>0</u>	<u>0</u>
<input type="checkbox"/> public-Federal	<input type="checkbox"/> structure	<u>0</u>	<u>0</u>
	<input type="checkbox"/> object	<u>0</u>	<u>0</u>
		<u>1</u>	<u>0</u>
		Total	
		<u>1</u>	

Name of related multiple property listing: N/A
 Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Valerie A. LaMare July 20, 1987
 Signature of certifying official Executive Director, State Historic Preservation Office
Massachusetts Historical Commission
 State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official _____ Date _____
 State or Federal agency and bureau _____

5. National Park Service Certification

I, hereby, certify that this property is:

entered in the National Register.
 See continuation sheet.

determined eligible for the National Register. See continuation sheet.

determined not eligible for the National Register.

removed from the National Register.

other, (explain): _____

John Byer Entered in the National Register 8/20/87
 Signature of the Keeper Date of Action

6. Function or Use Emery Grover Building, Needham, Massachusetts

Historic Functions (enter categories from instructions)	Current Functions (enter categories from instructions)
<u>Education, Secondary School</u>	<u>Educational, Administration</u>
_____	_____
_____	_____

7. Description

Architectural Classification (enter categories from instructions)	Materials (enter categories from instructions)
<u>Second Renaissance Revival</u>	foundation <u>granite</u>
_____	walls <u>brick</u>
_____	roof <u>slate</u>
_____	other _____

Describe present and historic physical appearance.

The Emery Grover Building is located at 1330 Highland Avenue in Needham, Massachusetts, on the primary thoroughfare between the town's two primary villages, Needham and Needham Heights. It was built in 1898 as the town's high school. The mixed-use neighborhood combines residential and small commercial establishments near the town hall. To the south is St. Joseph's Roman Catholic Church (1965-1966), and to the north the site of a more recent high school (1924), now occupied by Town House condominiums (1984). The building is set back about 75 feet from Highland Avenue, with a semi-circular drive.

The Emery Grover Building was built in the Second Renaissance Revival style and designed by Boston architects Whitman and Hood. It is a yellow brick, two-story building on a raised granite basement under a low hipped roof of monson granite and measures 66 by 102 feet. Cubic masonry was emphasized with strong horizontals articulated at cornice, belt courses, and foundation, with period inspired detailing at edges and openings.

The primary west facade features a projecting central pavilion three bays wide, approximately 3/5th of the full width, with the placement on the first floor level of two semi-elliptical windows on either side of a large arched entrance, and six arched windows on the second floor. The architectural surround of windows and entrance is a carefully articulated brick arch, each decorated by a large keystone. The impost blocks are a part of the belt courses at all upper levels. An additional granite belt course defines the level of the first floor. On either side of the central pavilion are two windows on each floor with brick lintels and keystones. Above the central pavilion in the hipped roof are three dormers. The center dormer has three windows and is decorated by a white painted wooden pediment with volutes on either side, all of which originally supported a large circular clock, which has been removed.

See continuation sheet

NPS Form 1080-a
(8-88)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 7 Page 1

Emery Grover Building,
Needham, Massachusetts

The east (rear) of the building echoes the pattern of the facade's projecting central pavilion with three large arched windows on the first floor. Six slender arched windows on the second floor are false windows, filled in with brick with the exception of the four top semi-elliptical sections. On each of the north and south sides of the building is an entrance protected by a porch with arched opening and granite steps.

The interior of the original high school had three classrooms and offices for the superintendent of schools, the principal, the school committee, and the teachers on the first floor. On the second floor in the center, which would be the area contained within the projecting central pavilion as seen from the outside, was a large auditorium seating 275 and a stage placed against the rear wall of the building. Also on the second floor were two classrooms, a recitation room, and a room to be used as a library. On the third floor were laboratories and darkrooms, and in the basement, heating plant, manual training facility, and restrooms. The interior on both floors has been altered with the creation of office areas formed by temporary partitions in about 1972.

Archaeology

While no archaeological sites are recorded within the property several have been reported that are in close proximity. It is likely that sites may have been present, but the intense level of development and small size of the property suggests that the likelihood of significant prehistoric survivals is low. These factors also suggest that the potential for significant historic sites is low. Most of the town's early development appears concentrated west of the town center or along the Charles River. This area was not intensively developed until the middle of the nineteenth century. This property was built in 1898 and may contain occupation related features which could add to the understanding of the students social and cultural development during the period.

8. Statement of Significance Emery Grover Building, Needham, Massachusetts

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

Architecture
Community Planning and Development
Education

Period of Significance

1898-1924

Significant Dates

1898

Cultural Affiliation

N/A

Significant Person N/A

Architect/Builder
Whitman and Hood, Boston, Massachusetts

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The Emery Grover Building, Needham, built in 1898 to serve as the town's first high school, retains integrity of location, design, materials, workmanship, and association with the development--at times fractious--of Needham in the late 19th century. The building is architecturally significant as an imposing example of the Second Renaissance Revival style. The Emery Grover Building thus fulfills Criteria A and C of the National Register of Historic Places on the local level.

Twice in its history the town of Needham has been torn apart by disagreements and arguments over the site of a public building. The first of these, the argument between the east and west ends of the town over where the meetinghouse should stand, began in the eighteenth century, lasted a hundred years, and literally tore the town apart when in 1881 the west end was incorporated as the town of Wellesley.

The second argument, which began even before the first had ended, concerned where the town's first high school building should stand. It began in 1863 when the town first officially considered the need for a separate high school building, lasted until 1898, and still simmered for years thereafter. At that time the town of Needham consisted of two competing villages: Highlandville (now Needham Heights) to the north, and Needham Plains (now the present town center) to the south, with much empty land between them.

Over the years, the two villages had developed distinctly different characteristics. Highlandville was essentially an English village, populated and controlled by the English knitters who had migrated from England to set up their knitting shops and build their homes in the north end of town, some of them arriving before the Civil War. In 1875 there were thirty-eight separate knitting shops in the town, and most were in Highlandville. They were a clannish group, and a strong, sometimes acrimonious, rivalry grew up between them and the people of "the Plains," which was still a Yankee village, populated and largely controlled by descendants of the original Yankee settlers. Highlandville was becoming an industrial community, while "the Plains" still bore the traces of its agricultural beginnings.

See continuation sheet

APPENDIX

National Register

NPS Form 10-900a
(9-85)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 1

Emery Grover Building,
Needham, Massachusetts

The rivalry between the two villages took many forms, the most visible among them being public sites and buildings. When "the Plains" established a village green (now Needham Square), Highlandville cleared a space for its own green (now Avery Square). When "the Plains" erected a bandstand on its green Highlandville demanded and got a bandstand for its green. This rivalry reached its bitter peak in 1883, when the question arose as to where the new high school should be built. Highlandville chose a site for the building within its traditional limits, and "the Plains" picked another, well within its own limits. It was only after the appointment and dissolution of one building committee, a court injunction, and the appointment of a second building committee that the problem was resolved. The resolution came only when John Moseley, a public-spirited landowner, offered to donate to the town as a site for the high school a plot of land almost equidistant between the sites favored by the two villages.

The building committee submitted its majority report in the 1898 Annual Town Report. This report listed Whitman and Hood as the architects and F. G. Colburn and Co. as the builders. However, on the same page the Treasurer says that he paid \$570.36 to one "Mr. Brigham," the architect engaged by the first building committee who had been dismissed by the second committee. It is therefore not possible to discern which architect was responsible for the design of the exterior. The majority report listed the cost of the building, \$32,923, "seventy-seven dollars less than the original appropriation." The report noted:

"It (the High School) is well adapted to the purposes for which it was designed. Its exterior appearance is attractive, although rigid economy of ornament was imposed by the limits of the appropriation for its construction. It has been visited by many persons acquainted with high-school architecture and construction and declared to be unexcelled by any other high school building erected in Massachusetts for an equal amount of money."

However, a 47-page minority report was submitted by John Titus, a member of the building committee. Mr. Titus set the theme for his report by stating that the building committee was "a body conceived in sin and delivered in iniquity." The attack includes accusations of bid-rigging, illegal collusion in the award of contracts, political cronyism in the dismissal of one architect and the hiring of another, with studied hints of malfeasance. The last fifteen pages of the minority report examine the completed structure and list the faults in its design and construction. Mr. Titus was leading citizen and lawyer in Highlandville, and Mr. Pope, chairman of the Building Committee was a wealthy landowner in the Plains. There is little doubt that the personal and public feud between Mr. Pope and Mr. Titus was a continuation of the Highlandville-Plains feud.

continued

NPS Form 10-900a
(9-85)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 2

Emery Grover Building,
Needham, Massachusetts

The building housed all high-school activities until 1924, when increased enrollment required a larger building, and the second high-school building was erected on an adjacent plot. The building was then used to house special and overflow classes. And it was at this time that it was given its present name, in honor of Judge Emery Grover, who had been a member of the school committee for twenty-four years, from 1884 to 1904. The building has held the administrative offices of the school department since about 1972.

9. Major Bibliographical References Emery Grover Building, Needham, Massachusetts

Clarke, George D., The History of Needham. Cambridge: University Press, 1912
 Needham Town Records, Needham Free Public Library.
 Needham Historical Society files.

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

See continuation sheet

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:
 MHC #54

10. Geographical Data

Acreage of property @ 1.1 acre
 Quad: Newton Scale 1:25000

UTM References

A 1 9 3 1 5 6 2 0 4 6 8 3 4 1 0
 Zone Easting Northing

B _____
 Zone Easting Northing

See continuation sheet

Verbal Boundary Description

Westerly by Highland Avenue by 187 ft. more or less; Northerly by the newly constructed Town Houses by 263 ft. more or less; Easterly by Oakland Avenue by 175 ft. more or less; Southerly by land of the Roman Catholic Church (St. Joseph's) by 263 ft. more or less. All as shown on Assessors plan No. 53, dated July 1975.

See continuation sheet

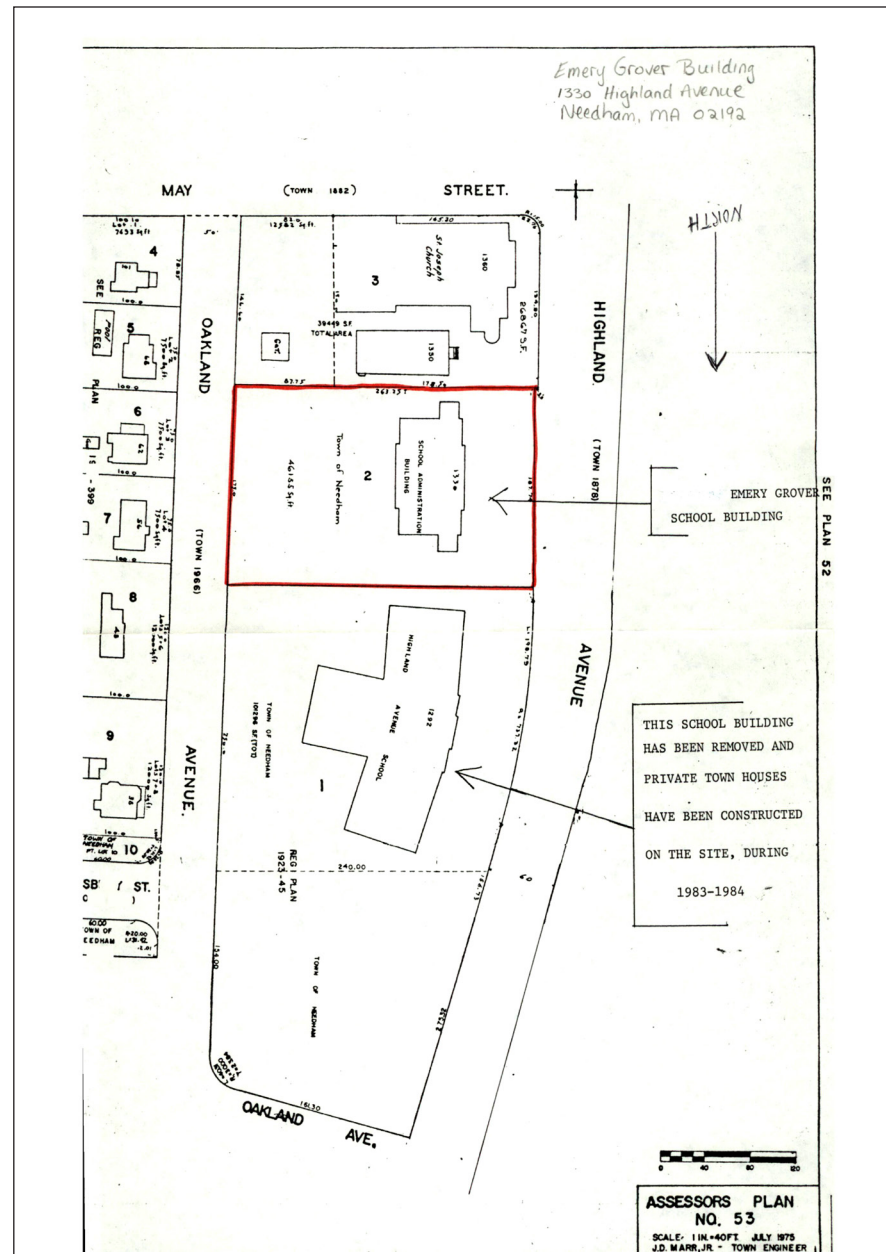
Boundary Justification

The lot described above is that historically associated with the property.

See continuation sheet

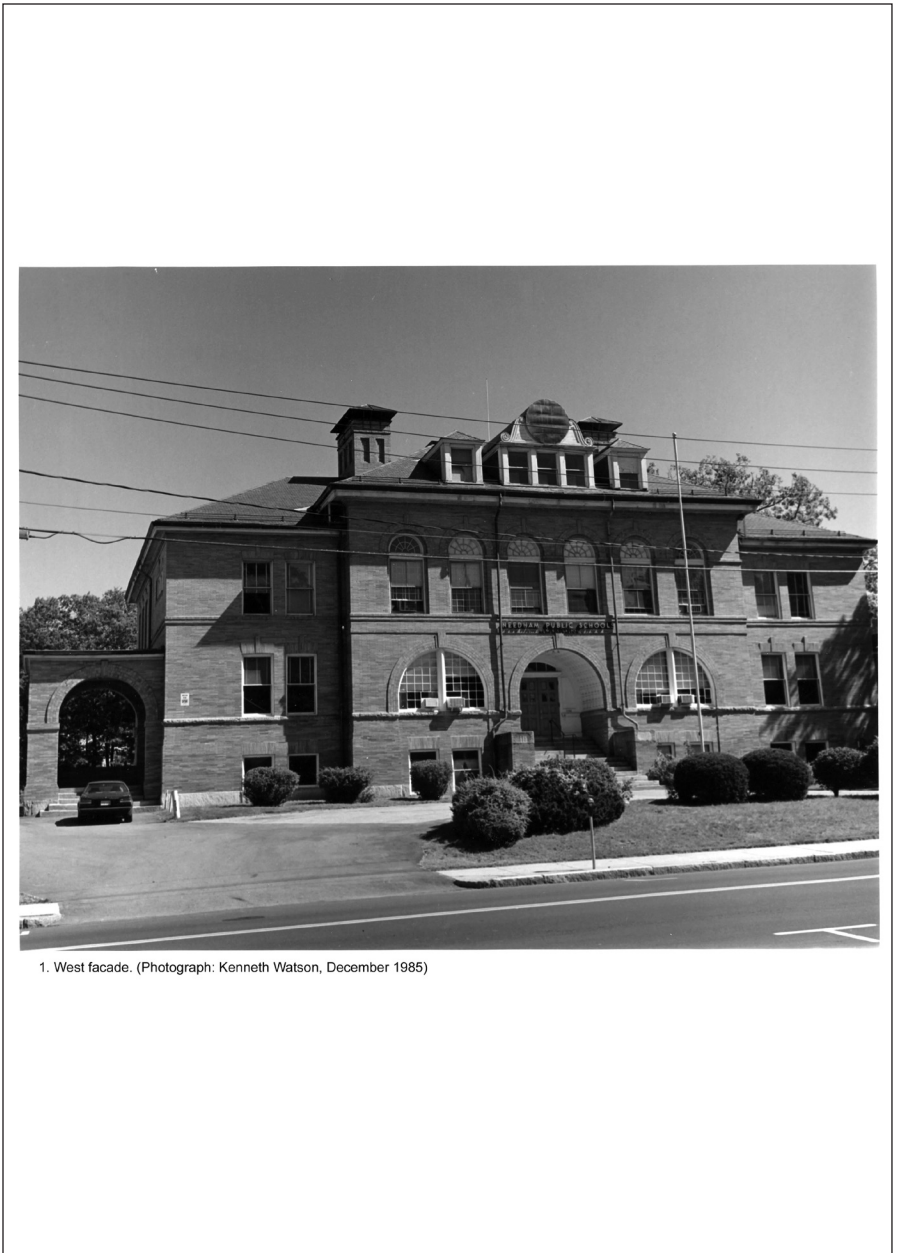
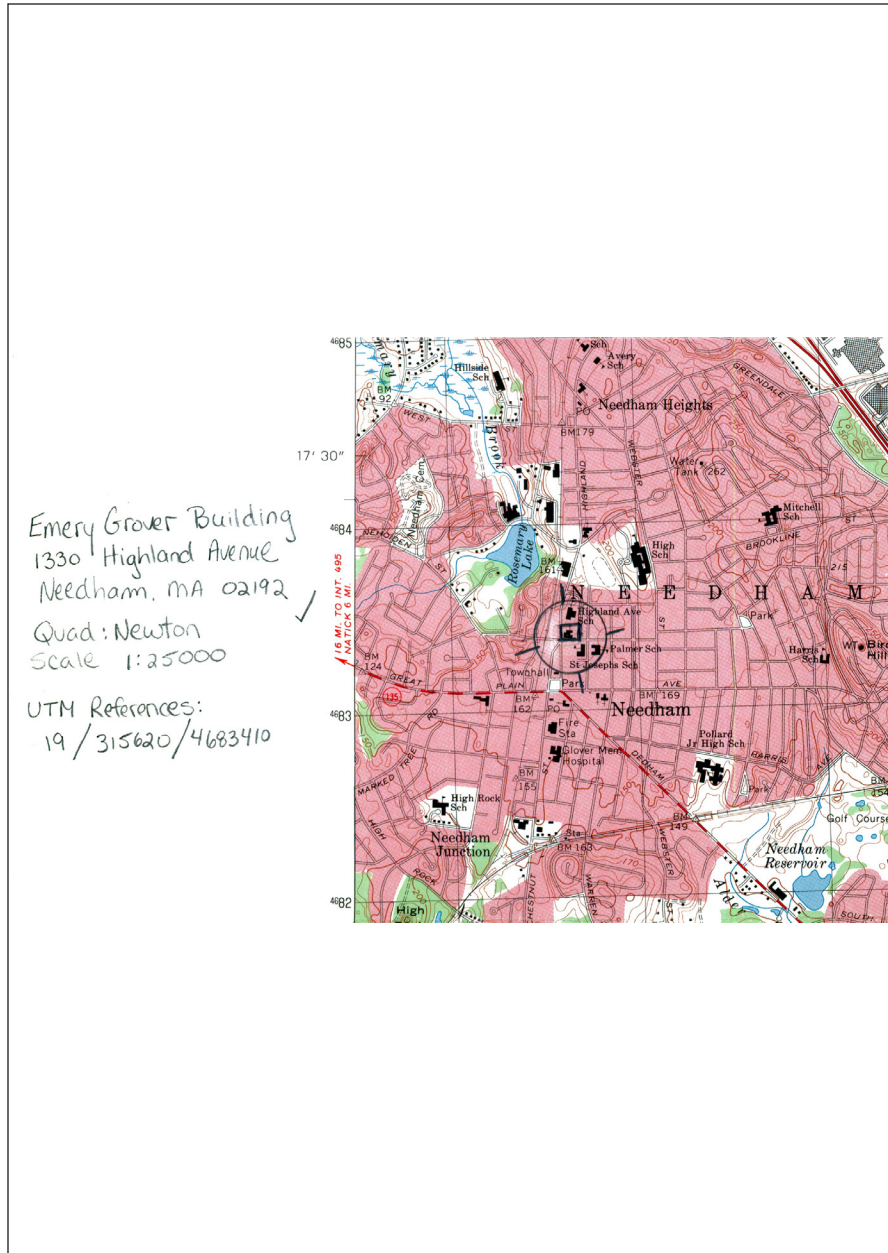
11. Form Prepared By

name/title Mrs. Warner B. Hartford, Needham Historical Commission, Chair, with Claire Dempsey
 organization Massachusetts Historical Commission date April 27 1987
 street & number 80 Boylston Street telephone (617) 727-8470
 city or town Boston state Massachusetts zip code 02116



APPENDIX

National Register





2. West facade (oblique). (Photograph: Kenneth Watson, December 1985)

APPENDIX

Needham Inventory

Massachusetts Cultural Resource Information System Scanned Record Cover Page

Inventory No: NEE.34
Historic Name: Grover, Emery Building
Common Name: Needham High School
Address: 1330 Highland Ave
City/Town: Needham
Village/Neighborhood: Needham
Local No: 53, 54
Year Constructed: 1898
Architect(s): Brigham; Colburn, F. G. and Company; Whitman and Hood
Architectural Style(s): Classical Revival
Use(s): Business Office; Other Governmental or Civic; Public School
Significance: Architecture; Community Planning; Education
Area(s):
Designation(s): Nat'l Register Individual Property (08/20/1987)
Building Materials(s): Roof: Slate
 Wall: Brick; Granite; Wood; Stone, Cut
 Foundation: Granite; Stone, Cut



The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

Users of this digital material acknowledge that they have read and understood the MACRIS Information and Disclaimer (<http://mhc-macris.net/macrisdisclaimer.htm>)

Data available via the MACRIS web interface, and associated scanned files are for information purposes only. THE ACT OF CHECKING THIS DATABASE AND ASSOCIATED SCANNED FILES DOES NOT SUBSTITUTE FOR COMPLIANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS. IF YOU ARE REPRESENTING A DEVELOPER AND/OR A PROPOSED PROJECT THAT WILL REQUIRE A PERMIT, LICENSE OR FUNDING FROM ANY STATE OR FEDERAL AGENCY YOU MUST SUBMIT A PROJECT NOTIFICATION FORM TO MHC FOR MHC'S REVIEW AND COMMENT. You can obtain a copy of a PNF through the MHC web site (www.sec.state.ma.us/mhc) under the subject heading "MHC Forms."

Commonwealth of Massachusetts
 Massachusetts Historical Commission
 220 Morrissey Boulevard, Boston, Massachusetts 02125
www.sec.state.ma.us/mhc

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FORM E - BUILDING
 MASSACHUSETTS HISTORICAL COMMISSION
 Office of the Secretary, State House, Boston

A. NEED
WWW-NEWTN
NRIND
8/20/87

NEE.34

In Area no.	Form no.
	353 54

Town Needham 34

Address 1330 Highland Avenue

Name EMERY GROVER BUILDING

Present use School Department Headquarters and offices

Present owner Town of Needham

Description:

Date 1898

Source Town Records

Style _____

Architect Whitman + Hood (Clarke History of Needham, p.355)

Exterior wall fabric Yellow Brick

Outbuildings (describe) _____

Other features 2 1/2-story building
low hipped roof with dormers; projecting central pavilion with arched central portal and a series of arched windows

Altered _____ Date above.

Moved _____ Date _____

5. Lot size: _____

One acre or less _____ Over one acre _____

Approximate frontage _____

Approximate distance of building from street _____

6. Recorded by NEEDHAM HISTORICAL COMMISSION

Organization _____

Date _____ Approved by: _____

Date: _____

DO NOT WRITE IN THIS SPACE
 USGS Quadrant _____
 MHC Photo no. _____

RECEIVED
 JAN 14 1988 (over)
 MASS. HIST. COMM.

5M-2-75-R061465 (20M-2476)

N.E.E. 34

7. Original owner (if known) _____

Original use _____

Subsequent uses (if any) and dates _____

8. Themes (check as many as applicable)

Aboriginal	_____	Conservation	_____	Recreation	_____
Agricultural	_____	Education	<input checked="" type="checkbox"/>	Religion	_____
Architectural	<input checked="" type="checkbox"/>	Exploration/ settlement	_____	Science/ Invention	_____
The Arts	_____	Industry	_____	Social/ humanitarian	_____
Commerce	_____	Military	_____	Transportation	_____
Communication	_____	Political	_____		
Community development	<input checked="" type="checkbox"/>				

9. Historical significance (include explanation of themes checked above)

EMERY GROVER BUILDING 1898

This building was dedicated on September 1, 1898, as Needham's first high-school building.

The first high-school classes were organized in 1864, with twenty-eight students, and a high school instructor was appointed. The first high-school classes were held in an upper room at the Centre School, on the Corner of Central Avenue and Nehoiden Street. The next year the classes were moved into Village Hall, later called Parker Hall, on Great Plain Avenue on the site of the present Norfolk County Trust Building, which was near the railroad, which brought students from Dover. In this same year students attending the Oakland Institute, a local private school, entered the high-school program. In 1870 the school moved to the Keith Building, also in the Square, and in 1871 high-school classes were moved to a room in the Kimball School, on School Street.

There was talk about a town high-school building as early as 1863, but it was not until 1896 that the Town Meeting appropriated the money, \$30,000, for a separate high-school building. Then followed one of the bitterest conflicts in the town's history, over the location of the new building. Highlandville (Needham Heights) wanted the school to be located near the corner of Highland Avenue and Rosemary Street; "the Plains" wanted a site near the corner of School and Lincoln Streets. The conflicts were finally resolved only when Mr. John Moseley offered to give the town the land on which the building now stands. Mr. Moseley's offer did not immediately end the conflict, but his offer was finally accepted and construction was begun.

(con't)

10. Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

History of Needham by George K. Clarke
Needham High Schools, Past, Present and Future, Article by Mrs. John F. Mills,
1887

Files of the Needham Historical Society
Town newspapers in archives at Public Library

N.E.E. 34

EMERY GROVER BUILDING 1898

Page 2

The exterior clock and the interior clock and bell system were given to the school by Mr. F. P. Grover, the exterior standard lamps were given by Mr. C. W. Pope, and the school flag was the gift of Mr. George K. Clarke, school committee-man and later town historian.

Until 1910, third- and fourth-year students from Dover attended this school. The building contained all of the high-school activities until 1924, when the town's second high-school building was erected on adjoining property, and for a number of years thereafter some high-school classes were held in this building. Overflow classes were held in this building even after the second high-school building became a junior high school. The building now houses only school department activities and offices.

APPENDIX

Needham Inventory

FORM B - BUILDING
 MASSACHUSETTS HISTORICAL COMMISSION
 Office of the Secretary, State House, Boston

NEE. 34

In Area no.	Form no.
	54

Town Needham 34

Address 1330 Highland Ave.

Name Grover School

Present use School administration building

Present owner Town of Needham

Description:

Date 1898

Source porch cornerstone

Style Colonial Revival

Architect _____

Exterior wall fabric yellow brick

Outbuildings (describe) _____

Other features 2½-story building with low hipped roof and projecting eaves. Granite foundation and belt

Altered _____ Date _____

Moved _____ Date _____

5. Lot size:

One acre or less Over one acre _____


Approximate frontage 100'

Approximate distance of building from street 30'

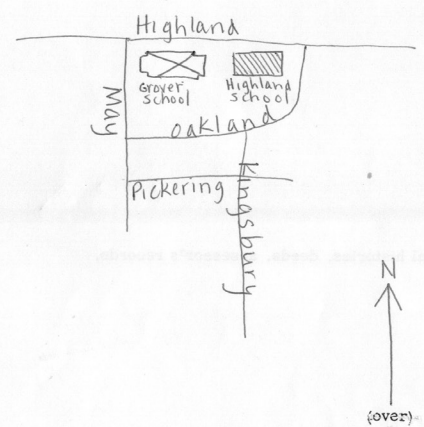
6. Recorded by Harriet White

Organization MAPC

Date 8/78



4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.



37M-7-77

7. Original owner (if known) Town of Needham

Original use school

Subsequent uses (if any) and dates see front

8. Themes (check as many as applicable)

Aboriginal	_____	Conservation	_____	Recreation	_____
Agricultural	_____	Education	<input checked="" type="checkbox"/>	Religion	_____
Architectural	_____	Exploration/	_____	Science/	_____
The Arts	_____	settlement	_____	invention	_____
Commerce	_____	Industry	_____	Social/	_____
Communication	_____	Military	_____	humanitarian	_____
Community development	_____	Political	_____	Transportation	_____

9. Historical significance (include explanation of themes checked above)

Other features: _____

10. Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

APPENDIX

Dore + Whittier Correspondence

December 13, 2019

Steven Popper, Director
Building Design & Construction Department
500 Dedham Ave.
Needham, MA 02492



Dear Steve,

While investigating options for the ongoing Needham Schools Masterplan, the question has been posed as to what would be involved in re-using the Hillside School as a temporary school "swing space" while another school is built or renovated within the Town. We have reviewed our previous existing conditions assessment from 2015, the current Police and Fire Department temporary facilities Contract Drawings, and discussed the potential of re-occupancy of the Hillside building for educational purposes with David Roche, Building Commissioner for the Town of Needham. This letter summarizes our findings.

Although the Hillside building was originally constructed as a school and granted a Certificate of Occupancy for Educational use, the building was re-classified as a Business occupancy in order to be used as a temporary facility for the Police and Fire Departments. Under the building code (International Existing Building Code - Chapter 10), a business occupancy is less restrictive (a lower hazard group) than an educational occupancy. This is important because going back to an educational occupancy in a more restrictive classification would require full compliance with the building code for a new school building with respect to various life-safety and accessibility aspects of the building. These code-required improvements include the items listed below.

- The building would change from a Risk Category II to Risk Category III in the Structural Design chapter of the building code (International Building Code - Chapter 16) and be required to comply with the current code seismic, wind, and snow loads. Additionally, structural improvements would be required where the gravity loads are increased on any element by more than 5%.
- The building would be required to have a sprinkler system installed.
- A new code compliant fire alarm system would be required.
- The electrical service would be required to be upgraded as for new construction and the number of electrical outlets required by NFPA 70 would need to be added. Additionally, all unsafe aspects of the electrical system would require correction.
- Because higher ventilation rates are required for an educational occupancy, a new mechanical system in full compliance with the International Mechanical Code would be required.
- The energy code does not require full-building compliance for alterations to existing buildings, but where envelope elements are altered, they would need to be brought into compliance. However, providing a new, modern mechanical system without addressing the thermal and air-leakage issues inherent in the existing building would result in a vastly oversized mechanical system and annual energy losses that would likely exceed the current energy use of the building.

Vermont | Massachusetts

www.doreandwhittier.com

- Any spatial reconfigurations would need to comply with accessibility regulations. Additionally, incorporating the new systems and components required by the International Existing Building Code (IEBC) described above would likely result in costs that exceed 30% of the full and fair cash value of the building.
 - The current full and fair cash value of the building is \$8,322,100 based on the latest assessor's record. The dollar threshold for full compliance with AAB regulations would be 30% of this value, or \$2,496,630.Exceeding this 30% threshold would require the entire building and site to comply with accessibility regulations. This would include the reconfiguration of all classroom entry doors, the installation of an elevator, and reconfiguration of all plumbing facilities among other required improvements.

As you can see, change of occupancy classification - particularly to a higher risk category - results in a snowball effect of code compliance requirements. This scope of work also roughly aligns with the scope of work described as Option A in our 2015 feasibility study. At that time, the estimated cost of the work was \$13.086M. Escalated to this coming summer, we would expect that cost to be closer to \$16.7M. Note that this escalated cost does include new windows, but does not include other thermal envelope upgrades to exterior walls and the roof that would be recommended to right-size the HVAC equipment. It also does not include the structural upgrades required for a change in the risk category as the original study assumed work under an existing occupancy classification as a school. A more detailed study would be required to determine these costs.

The purpose of this letter is to offer insight only into what would be required to re-occupy the Hillside school building as an educational use and is not an exhaustive evaluation of site development or consideration of other factors that would influence this decision. A more comprehensive evaluation would be incorporated as part of the overall masterplan.

As always, please let us know if you need additional input on this subject.

Sincerely,

A handwritten signature in blue ink, appearing to read 'David S. Mentzer'.

DORE + WHITTIER

David S. Mentzer, AIA, NCARB, CDT, LEED AP®, MCPPO

CC: Hank Haff, David Roche, DMW, GG, MRB, File

Meetings, presentations, and conference calls with Town and School Administration officials over the course of this study are listed below.

April 12, 2019	Permanent Building Committee: Kick-off Meeting
May 19, 2019	Henry Haff, Steven Popper, Anne Gulati, Joel Bargmann, Reese Schroeder
May 24, 2019	Meeting: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
June 24, 2019	Permanent Public Building Committee
August 19, 2019	Permanent Public Building Committee
September 6, 2019	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
September 19, 2019	Working Group (Introduction of Group)
October 10, 2019	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
October 21, 2019	Permanent Public Building Committee
October 24, 2019	Working Group
October 31, 2019	Conference Call: Henry Haff, Reese Schroeder
November 18, 2019	Permanent Public Building Committee
November 20, 2019	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
November 21, 2019	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
December 09, 2019	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
December 11, 2019	Working Group
December 16, 2019	Permanent Public Building Committee
January 08, 2020	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
January 14, 2020	Conference Call: Henry Haff, Steven Popper, Reese Schroeder
January 16, 2020	Community Preservation Committee - Informal
January 20, 2020	Permanent Public Building Committee
January 21, 2020	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
January 24, 2020	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
January 30, 2020	Working Group
January 31, 2020	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
March 16, 2020	Conference Call: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
March 23, 2020	Permanent Public Building Committee via Zoom meeting
April 07, 2020	Needham Planning Board via Zoom web meeting
April 21, 2020	Zoom Conference: Henry Haff, Steven Popper, Joel Bargmann, Reese Schroeder
April 27, 2020	Permanent Public Building Committee via Zoom web meeting
May 05, 2020	Needham School Committee via Zoom web meeting

APPENDIX

Previous Assessments of Emery Grover

Past

Excerpts of notes and newspaper articles compiled and attached with a letter to Hank Haff, 9 July 2019 from Gloria Greis, Executive Director, Needham History Center & Museum.

②

TIMELINE: The Emery Grover School

In 1896 the School Committee was in favor of a new High School building "on Lincoln Street or in that locality", to replace the Kimball School. This led to a bitter, town-wide debate over the location of the new school.

On March 9, 1897 John Moseley offered the town a lot of land east of Highland Avenue and north of St. Joseph's church for a high school building, with 175 foot frontage and extending east to the proposed "Oakland Avenue". On April 1, the town accepted Moseley's offer. The Architectural firm of Whitman and Hood prepared the plans and F.G. Colburn was the Builder. On September 1st, 1897 the completed building was named the "Emery Grover High School" after Judge Emery Grover, and dedicated.

1916 Complaints about the Emery Grover School, listed in this year's Annual Town Report, included these items: "The wiring is defective and electric lights cannot be used. The clock is out of order and warning bells are irregular or absent. The second floor toilets are out of repair and in disuse. Larger desks are needed. Typewriters are so worn that good work is not possible. Settees should be replaced with arm chairs to allow written work to be done. Also, there is inadequate window space and the rooms are too dark."

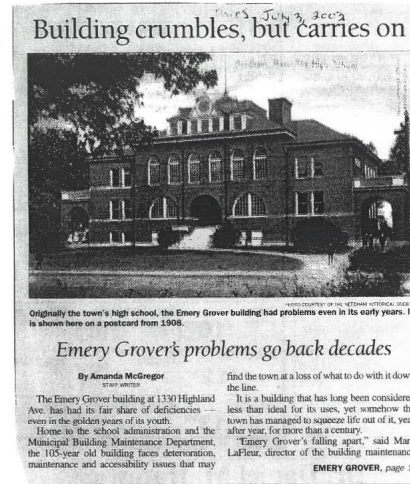
1921 The Emery Grover School was overcrowded. A new site with a new building was needed to replace it. A consultant reported: "The building and its equipment are the poorest in the Commonwealth for a school of its size. Not only does it lack practically every modern facility, but ... it would be impossible, without (prohibitive expense) to make it over into a modern structure."

1923 The new brick Senior High school was erected just northward of the Emery Grover, which now became the Junior High.

1929 The new Senior High School was built on Richwagen's Hill above Memorial Field. The brick building then became the Junior High School and the Emery Grover became an Elementary School.

Refer known as the Highland Avenue School. Name listed in the 1915, of the Groves on Oakley. built on St. Joseph's.

③



Historic Condition Issues

- 1935 top floor condemned as unsafe, rebuilt 1944.
- Wood stairs noted as sagging in 1947 report: building "may be condemned within a few years."
- 2002 Town approved \$150,000 to repair South Portico to "effectively add 5 years onto the life of the structure"

EMERY GROVER, from page 1

department. "On the horizon, they'll have to make that decision. Until then, we'll keep patching it together."

Dedicated in 1898 — when there were six students in Needham's graduating class — it was built as the town's first high school for \$30,000 and used as such until 1923. But as early as 1915, the building was cited for defective wiring, insufficient circuitry for electrical needs, toilets in disrepair on the second floor, and inadequate window space and light.

A total of 97 students were enrolled in grades 10 through 13 at the high school in 1898, when the Harvard-educated male principal's annual salary was \$1,300, and the two female teachers, situated at Wellesley and Tufts colleges, earned \$575 and \$525.

In 1921, the three-classroom school was deemed overcrowded, and

archival town documents from that year read, "The building and its equipment are the poorest in the Commonwealth for a school of its size."

Another building was constructed in the lot adjacent to Emery Grover — where the Highland Court condominiums now sit — and the high school moved there until the current Needham High School was built in 1980. In the meantime, Emery Grover was converted into a middle school, but the building's ailments persisted, according to Polly Attridge, activist for the Needham Historical Society.

In 1935, Emery Grover's third-floor was condemned after it was deemed unsafe and deteriorated. The top floor was rebuilt in 1944, at which point the town's school administration officers moved into the building, where they have resided ever since.

The building continues to face ad-

1897

1935

1923

5-46

the current high school

the first steps were repaired. Later the south end entrance became unsafe and was repaired.

1944 The top floor of the Emery Grover required rebuilding, having been condemned since 1935. The building now housed the School Department offices. It still serves that purpose today.

1947 The School Department reported that the Emery Grover was sound, but that it was functionally a poor building and its external appearance was far from being a credit to Needham.

On August 20, 1987 the Emery Grover School building, #1330 Highland Avenue, was accepted by the U.S. Department of the Interior for listing in the National Register of Historic Places. *JW17*

1935 the IGB was condemned in 1935 after several years of roof leaks, electrical failures, etc. It was also deemed unstable. The steel I-beams inserted

1997

Report prepared by Kaestle Boos Associates, Inc. Architects, 1997 as part of the Needham Townwide Comprehensive Facilities Study.



Needham Townwide Comprehensive Facilities Study
Needham, Massachusetts
KB# 97079

Municipal Facilities
Emery Grover Building

Patricia Ruane, Superintendent
1330 Highland Avenue

SITE SUMMARY

Site Description
Assessor's Plan 53 Parcel 2 0.93 AC.

The Emery Grover Building is located near the Senior Center and Greene's Field, facing Highland Avenue in front and Oakland Avenue to the rear. The building is located on a hill above Highland Avenue. The only entrance to the building is in the front, and has a few steps up to the entrance. This site is limited in terms of size, access and expansion potential.

Handicapped Accessibility

Although there is a sign marking a handicapped-accessible parking space. There are no existing, viable handicapped-accessible access routes to this building. This site needs to be brought into compliance with ADA accessibility codes.

On-Site Traffic Flow

There is a single, two-way driveway from the street to the small parking area behind the building. Traffic cannot travel around the perimeter of the building. If the school administration plans to expand its services in the future, parking and traffic flow may become a problem at this site.

Site Expansion/Development Potential

The building is located on a parcel less than one acre in area. As far as building expansion goes, this site is probably built out to its maximum potential. Also, the fact that this is a historic building may also limit any expansion possibilities. The parking area and entrances require renovations if this building shall continue to be used as a public facility.

NEEDS SUMMARY

Description

This handsome, turn-of-the-century former school is another traditional symbol of Needham's educational history. However, it is plagued by serious deficiencies and problems which render it inadequate for continued use as an administration building. Emery Grover's continued service to the community would have to begin with a thorough and expensive restoration. The finished product could be a community asset for another 100 years.

Space and Program Needs

The School Administration cannot properly function in this building. Administrative services have been decentralized and personnel are shuffled around the school system to take advantage of any available space. Central Administration space requirements and community accessibility could be more efficiently and economically served at another facility.



Needham Townwide Comprehensive Facilities Study
Needham, Massachusetts
KB# 97079

Municipal Facilities
Emery Grover Building

Facility Evaluation

Program Use	Site Area (acres)	Blg. Area (sq. ft.)	Capacity	Exist. Space Deficit	1997-98 Enrollment	Blg. Cap. Utilization	Physical	Infrastructure	Safety/Code	HC Accessibility	Technology	Community Use	Site	Physical	Flexibility
Admin	0.93	10,000	-	-	-	-	D-	D	D-	F	D-	D	2	4	4

ARCHITECTURAL SUMMARY

Introduction

The Administration Building, built in 1898, is known as the Emery Grover Building. It was elected to the National Register of Historic Places in 1987. The building was originally built as a school, and later converted to the Administration Building. The offices divide up former classrooms and lecture rooms, though many original walls remain. The stairs are constructed of wood, and remain as the only egress stairs for the building today. The building celebrates its 100th anniversary this year, and although the exterior is a handsome facade, the interior exhibits serious wear. Whether this building can be saved is an economic question that this report cannot answer, however, I do believe that the building itself is worth saving. It is clear that much of the interior building systems will have to be replaced.

Exterior - General

The architecture of the exterior is perhaps the most important aspect of this building, and no doubt the one that contributes most heavily towards the building being registered on the National Register of Historic Places. Well detailed and meticulously executed, the features of the exterior are augmented not only by the choice of the brick, but also the use of granite as waterables, foundations and stairs. The building does suffer from a general lack of maintenance for quite a few years, and there is some significant work to be done if this building is to be saved.

Exterior - Walls

The exterior is a masonry construction. The foundation wall is grey granite, and the superstructure is a buff roman course brick. This brick coursing is 1 3/4" high and 12" wide. While it presents a very handsome appearance, giving it a very nice texture, when there are four courses to seven inches as opposed to today's modular which has three courses to eight inches there is simply that many more mortar joints for something to go wrong. In fact, the building does exhibit quite a bit of stress with regard to loose and missing mortar. Window lintels are a skewed arch, and some are semi-circular arch. All are done in brick. Many are exhibiting slippage due to lost mortar, and keystone dislocation due to stresses and lost mortar. This is especially apparent in the south portico which should be repaired as an imminent safety measure. In addition to that many areas of the brick are in need of repointing due to leaching of the brick from moisture freezing and thawing over the winter cycle. No signs of exterior wall failure with regard to interior water damage were uncovered.

Exterior - Windows

The exterior windows are the original double hung wood windows. Some areas of the semi-circular arched windows have been replaced with double hung as opposed to fixed windows, which was the original design. However, as they have been replaced with the wood windows of the building itself, so it is questionable as to whether these were

Summary of Findings

- Noncompliance with ADA
- Site limitations for expansion
- Physical condition issues
- Building infrastructure issues
- Life safety/code deficiencies
- Attic stairs are condemned
- Possible hazardous materials

APPENDIX

Previous Assessments of Emery Grover

2006

Report prepared by DiNisco Design Partnership LTD, Architects, 2006 as part of the Needham Facilities Master Plan Study.

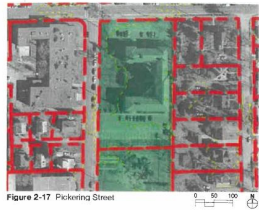


Figure 2-17 Pickering Street

Pickering Street
1.6 Acres - Stephen Palmer Building
2.5 Acres - Green's Field

The existing senior center occupies a portion of the basement (6,440 SF) in the Stephen Palmer Building. The rest of this building is used for 28 rent-controlled apartments, under a 50-year lease to a private manager (the lease expires in 2029). This building is located at the northern end of two contiguous town parcels, the balance of which is occupied by Greene's Field, a Town park including a playground, and baseball field. Parking to the north of Stephen Palmer Building is for apartment tenants and the parking to the south is for the Senior Center which is inadequate. There is no room on this site for building additions or parking areas without encroaching onto the adjacent playground.

The existing building was constructed in 1914 as a school. A major addition was completed in 1930 and the building was renovated in 1979 when it was converted to apartments. The basement space is inadequate and inappropriate for its use as a Senior Center and offices for the Council on Aging. It has limited handicapped accessibility and the building systems require modernization.



Figure 2-18 Emery Grover

Emery Grover
1.1 Acres

The Emery Grover Building is currently occupied by the School Administration and the Municipal Building Maintenance Department. This building is listed on both the Federal and State Historic Registries. Emery Grover has a strong civic presence and is located in the downtown business district near Town Hall on Highland Avenue. Parking areas surround the building on three sides.

Originally constructed in 1898 as a high school, it continued this use until 1924 when increased enrollment required a larger building at which time it was used for special classes. Subsequently, it was converted into its current use as School Administration offices.

Emery Grover suffers deficiencies similar to Town Hall for its current use:

- Inadequate space for the School Administration. Requiring some offices to be located elsewhere.
- Inefficient layout of interior spaces.
- Antiquated building systems.
- Exterior building envelope in need of major repairs.
- No handicapped accessibility.



Figure 2-19 Rosemary Lake

Rosemary Lake
37.0 Acres

Rosemary Pool Complex is located on the eastern edge of Rosemary Lake, located adjacent to the downtown business district off Rosemary Street, across from the newly renovated Needham Free Public Library. Three gravel parking areas at different elevations are connected by asphalt driveways.

The pool complex was constructed in 1972. The early portion of Rosemary Lake was contained by steel walls on three sides, forming an outdoor swimming pool. Water from Rosemary Lake is pumped, filtered and chlorinated for use in the pool. The adjacent two-level Bath House includes pool equipment, toilets and showers, private concession and a site office.

Development of this site has been previously studied (See Inventory of Previous Studies, Volume 3 - Appendix). There are significant difficulties to developing this site including topography, wetlands and Rosemary Lake. However the previous study has determined that a large building (79,000 GSF) with integrated parking structure (102,000 GSF) is feasible (See Rosemary Lake, Option 1, Volume 2 and previous study).



Figure 2-20 Daley Building

Daley Building
1.2 Acres

The Daley Building provides maintenance and storage facilities for the Municipal Buildings Maintenance Department and School Department. This site is located off of Highland Avenue behind Fire House No. 2. There is minimal street frontage for site access.

The Daley Building is a one-story brick and block structure housing supplies, storage, woodshop and mechanical/electrical plumbing shop. In addition service vehicles are also stored here.

Given its small size and constrained access, this site was not considered feasible for the various programmatic requirements under consideration.

- Inadequate space for school administration
- Inefficient layout of interior spaces
- Antiquated building systems
- Building envelope: major repairs
- Noncompliance with ADA

2014

Report prepared by HKT Architects, 2014 as part of the Needham Facilities Master Plan Study.

EXISTING SITE & BUILDING EVALUATIONS



Figure 13

HIGH ROCK SCHOOL
11.9 Acres
Jurisdiction: School Committee

High Rock School, located on Ferndale Road, first opened as an elementary school in 1952 and was most recently expanded, renovated and reopened as the 6th grade center in 2009 to address overcrowding in the Pollard Middle School. The 61,650 square foot building currently houses 449 students who come from the five elementary schools of Needham. Bus access to the school is off of Ferndale Road and car access is located off of Linden Street.

Part of the building is located adjacent to existing wetlands buffer zone.

During the recent renovation, the classrooms, cafeteria, gymnasium, media center and administrative spaces were programmed to accommodate either a 6th grade center or an elementary school. If it were converted back into a K-5 school, the art wing would need to be renovated and expanded in order to accommodate kindergarten classrooms and special education spaces.



Figure 14

EMERY GROVER
1.1 Acres
Jurisdiction: School Committee

The Emery Grover Building, located on Highland Avenue, houses Central School Administration for the district. Originally constructed in 1896 as a high school, it continued this use until 1924 when increases enrollment required a larger building at which time it was used for special classes. In the early 1970's it was converted into its current use as School Administration offices. Anecdotal evidence suggests the building may have had some renovations in the 1930's and 1940's. This building is listed on both the Federal and State Historic Registries. Designation of the building as a national historic property does not preclude the Town from demolishing this structure if need be.

The building, well located in the downtown business district, has parking on multiple sides but the 72 spaces available are not sufficient for the needs of the department. Entering the site from Highland Avenue is a challenge and the entrance off Oakland Avenue is considered the better option.

The 22,460 square foot masonry building, including the two side porchicos and the uninhabited attic space, is fully occupied by staff. The building spaces do not support the needs of a modern school administration and lacks critical office and meeting spaces.

The building is in need of general envelope repairs to the slate roof, copper flashings, brickwork and windows. In the interior little is left of the original spaces, although some components and finishes do remain. Structural systems may need additional reinforcement and / or new structure inserted to handle new loads. Building systems are antiquated. The main entry on Highland Avenue is not accessible and a new accessible entry will be required, creating a pathway from the parking areas and into the building. The entire building is inaccessible and a new elevator is required to make all floors of the building accessible.



Figure 15

DALEY BUILDING
0.92 Acres
Jurisdiction: School Committee

The Daley Building, a one story masonry structure, is located on a contiguous parcel with Fire Station #2. While the parcel has a leg that extends to Highland Avenue, it currently shares a common access drive with the Fire Station off of Webster Street. The building houses personnel for the Public Facilities Department - Operations Division, stores building and general maintenance supplies for all Town buildings and houses vehicles used by the workforce. The building also includes shops for small scale carpentry and mechanical / electrical projects.

Outside in the yard, the Department of Public Works stores materials used for underground infrastructure repair projects, which must be available 24/7. Access to this material becomes difficult in winter months.

The building is adequate for its existing use but is not a candidate for expansion due to its constrained site.

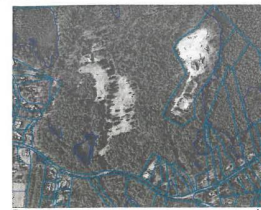


Figure 16

NIKE SITE
19.1 Acres plus 2.15 Acre Access Easement
Jurisdiction: School Committee

This site, at the intersection of Pine and Charles River Street, was used as a Nike missile battery from 1955 until 1963. A portion of the site was then used as a firing range for the Needham Police and was the repository of excavated soil from the High School Renovation project following lead abatement of areas near the firing range. The site currently is used as a Community Garden and a dog park.

Access to the site is by way of a narrow roadway located at a very difficult intersection. Improvements to this site for use by the Town or by another Public / Private development will require widening of the roadway to provide typical two way movements of all vehicles and the extension of site utilities through this easement and the site. Alternative access through the adjacent Ridge Hill site, tracing existing upper or lower access trails, is possible and may provide natural synergies between these potential recreational sites. Wetlands surround the property on the east side with significant changes of elevation at the edges of the site.

Potential use of this site for School Administration or a Community Building were explored.

Only about 9 acres of the Nike Site are able to be redeveloped. Over half of the area is wetlands or steep wooded hillside.

- Building envelope repairs needed
- Structural systems concerns
- Building systems antiquated
- Does not support needs of modern school administration
- Original interior components and finishes missing or damaged
- Lacks critical office space
- Entire building is inaccessible (ADA)



APPENDIX

Reference Documents

The following is a partial list of documents reviewed as part of existing conditions review at Emery Grover Building, Stephen Palmer site, and Hillside Elementary. GIS maps provided were the basis for alternative site building studies. Other documents, photographs, meeting minutes, online research, and Town correspondence are included by reference.

Emery Grover Building

1. Emery Grover 1897 Architect Drawings; Massachusetts State Archives
2. 2010 Emery Grover Existing Conditions, edited; BH+A
3. School Administration Building Study, August 2013; Design LAB Architects
4. Administration Building 2017 AHERA report; Universal Environmental Consultants
5. Needham IRA Completion Report; AMEC Massachusetts, Inc., January 2018
6. Needham Well Abandonment Logs; Technical Drilling Services, Inc.; October 15, 2018
7. Needham AUL, 1330 Highland Avenue, Final Filing August 28, 2018
8. Temp Location Confidential Spaces; School Administration, May 31, 2019
9. Needham History Center & Museum letter to Hank Haff, July 9, 2019
10. Figure 2 - PSS Site Plan: 1330 Highland Avenue underground utilities plan; AMEC Massachusetts, Inc., August 22, 2019
11. Needham AUL survey plan
12. Emery Grover Property Card

Stephen Palmer Site

13. Stephen Palmer Plan of Land-Not Reg or Signed.pdf
14. Needham Public Schools letter; Greene's Field, April 3, 1972
15. 2001 email from Paul S. Alpert to Jerry Wass: Stephan Palmer Ground Lease
16. Greene's Field Property Card

Hillside Elementary School

17. 1959 Hillside Elementary School plans
18. 1968 Hillside Elementary School Addition plans
19. 1997 Arthur Building Systems, Inc. Modular Classroom addition; April 23, 1997
20. Hillside Environmental
 - a. Hillside School Pre-Feasibility Study Environmental Evaluation; Dore & Whittier Architects, Inc., October 5, 2012
 - b. Focused Subsurface Investigation for Hillside Elementary School Property; Lord Associates, Inc., April 4, 2013
 - c. Phase 4 Plan – Final Draft 1 23 15 MDL; Lord Associates, Inc., January 23, 2015
 - d. Microwave Development Laboratories, Inc. Public Meeting to Present Phase IV Supplemental Remedy Plan; Lord Associates, Inc., February 24, 2015
21. Needham Public Safety Temp Facility: Police and Fire: Construction Drawings, issued November 07, 2018.
22. As-built Survey Hillside School; Waterman Associates, December 5, 2019
23. General
24. Town of Needham Community Preservation Plan, Amended March 26, 2014
25. GIS Maps – Town Sites 4.12.19, received from Town of Needham at Kick-Off Meeting
26. Town of Needham Zoning By-Law; May 2018
27. Town of Needham Zoning Map, 2015, Rev 4-6-18

The initial Program of Required Departments, Functions, Spaces, and Adjacencies was provided by the School Administration Department and subsequently modified and amended. Space square footages provided were included in a working spreadsheet to calculate department subtotals, program totals for both minimum and “full” programs based on “unit” count, net square footage per unit, and total net square footage. Totals of both minimum and full programs were subsequently reformatted into stacking diagram spreadsheets to further define adjacencies.

Permanent employee counts were calculated based on assumed occupancy by desk, tables, and workstations. This count was compared to actual population of 66 people provided by the Administration. The count of 66 permanent employees was as follows:

- 44 permanent residents.
- 4 bus/van drivers have a ‘home base’ at Emery Grover
- 8 kitchen managers conduct daily business in the Food Services Department

Total daily complement: 66 people (excluding visitors and users of the conference spaces)

This count was used to determine the minimum parking spaces required to meet the daily demand, and included the construction of a 24-car parking lot at Stephen Palmer on Pickering Street, as indicated in the diagram below.

Summary of Parking Requirements

- Food service = 4
- Business = 7
- SpEd/Student Services = 6
- Transportation = 3
- Superintendent = 2
- Community Education = 7
- HR/Payroll = 7
- Curriculum/Program Development = 4
- Production Center = 1
- Technology = 4
- District IT = 3
- Subtotal = 48
- Transitional visitor parking = 18

Total parking need on a daily basis = 66

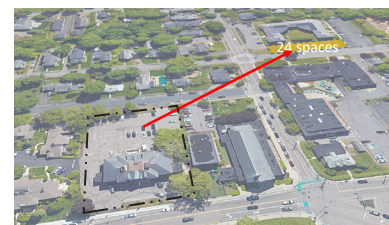
Summary of Parking Requirements

School Administration Parking Needs
 Full Time Equivalent (FTE) Employees with IT = 48
 +
 Transitional Visitor Parking (typical day) = 18
 Total Parking Need on a Daily Basis = 66

Overflow Parking during Conference Functions

- Remotely
- Oakland Avenue
- Highland Avenue

- Option One – Tear Down / New Construction
 - 62 Cars + 24 off-site = 86 Parking Spaces
- Option Two (formerly Three) – Renovation and Addition
 - 48 Cars + 24 off-site = 72 Parking Spaces
- Option Three Rotated – Renovation and Addition
 - 42 Cars + 24 off-site = 66 Parking Spaces
- Option Three Rotated – Renovation and Addition w/Garage
 - 50 Cars + 24 off-site = 74 Parking Spaces



Food Service = 4
 Business = 7
 SpEd/Student Services = 6
 Transportation = 3
 Superintendent = 2
 Community Education = 7
 HR/Payroll = 7
 Curriculum/Program Development = 4
 Production Center = 1
 Technology = 4
 District IT = 3
 Subtotal = 48

May 5, 2020



Bargmann Hendrie + Archetype, Inc.

9 Channel Center Street
Suite 300
Boston, MA 02210
+1 617.350.0450

bhplus.com